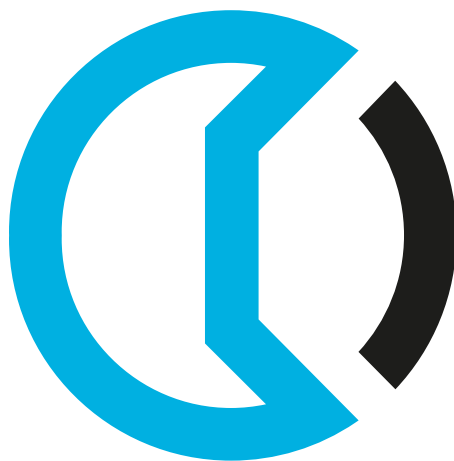




GENERAL CATALOG



CEMBRE

www.cembre.com

CEMBRE AT A GLANCE

INNOVATION IS IN OUR DNA



211

Patents and
filled applications

71

Registered
trademarks



MAIN MANUFACTURING SITE, ITALY

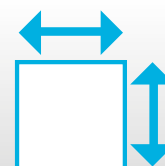


60,000

m² of space
dedicated to offices,
factories, laboratories

121,000

m² of site



OUR PRODUCT CODES



21,500

different product codes
sold each year

21,800

product codes are
available for
immediate dispatch



AUTOMATED WAREHOUSE



60,000

bins capacity

10,000

order lines
per working day



are registered trademarks of Cembre S.p.A.

 **CEMBRE**

 **C e m b r e**

Crimpstar

ZETApiù

ZETAblock

ZETAmini

SICURclips

MAXIblock

*spiral*block

MAXIbrass

Quality and Innovation: our priorities



Certified Quality
Management System



Certified Environmental
Management System



Certified Occupational
Health & Safety
Management System



"It is the aim of CEMBRE S.p.A. and all its employees to pursue the satisfaction of their customers through the fulfilling of their needs by meeting their legitimate expectations."

To achieve this goal, CEMBRE places the following principles at the very heart of its work:

- highest quality product and services
- continuously research and innovative solutions.
- safeguarding the environment and protecting the health and safety of workers and users of its products
- respect and promote the values set out in the Company's Code of Ethics
- ensure strict fulfillment of statutory, national and international laws and regulations

The Company's Management System, certified in accordance with ISO 9001 : 2015 quality standards, ISO 14001 : 2015 for environmental protection and ISO 45001 : 2018 standard for the protection of the health and safety of workers, **are the tools used to translate the principles of company policy into corporate objectives and to monitor their fulfilment.**



All Cembre products comply with Directive 2011/65/EU of the European Parliament and Council dated 8 June 2011 (and subsequent amendments)

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ELECTRICAL CONNECTORS



symbol description

electrical connectors

	Insulation sleeve in Polyvinylchloride		Aluminum connectors
	Insulation sleeve in Polycarbonate		Aldrey connectors
	Insulation sleeve in Nylon PA6.6		Zinc Plated Steel connectors
	Insulation sleeve in Polyethylene High Density		Internal surface is filled with special grease so as to avoid oxidation of the connector
	Heat shrinkable		Connector provided with central stop
	Insulation sleeve form to allow easy "introduction" of the conductor		Color coded connectors
	Manufactured from electrolytic Copper strip		Facilitated introduction of the conductor
	Manufactured from Brass strip		Inspection hole for checking the correct introduction of the conductor
	Manufactured from electrolytic Copper tube		Contained palm connectors
	Manufactured from electrolytic Copper wire		Annealed material
	Brazed seam		Electrolytically tin plated to avoid oxidation; min 3µm
	Brass connectors		Lugs angled
	Bimetallic connectors, Aluminum and Copper.		Zinc Plated Steel screws

symbol description

electrical connectors



Zinc Plated Steel nuts



Hexagonal crimp



Radial crimp



Indent crimp



Indent crimp



Oval crimp



Trapezium crimp



Circular crimp



Semicircular crimp



Indent crimp



Operating temperature range



Degree of protection



UL LISTING Marking valid in USA & CANADA



UL LISTING Marking valid in USA & CANADA



In accordance with DIN 46235

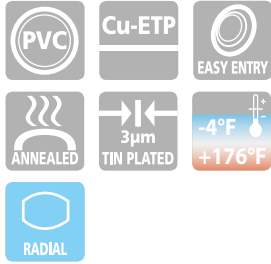


Meets the requirements for fire testing of materials and components for trains EN 45545-2:2015



Halogen free





The unique funnel shaped PVC sleeve guarantees total insertion of the conductor strands into the terminal barrel, creating a secure and reliable, electrical and mechanical connection. Electrical connectors are produced using electrolytic Copper with a purity greater than 99.9%.

The internal surface of the barrel is rifled to improve contact with conductor strands when crimped and to increase tensile strength.

The "F" range of terminals offers a wide selection of rings, forks, pins and blades, designed to meet the

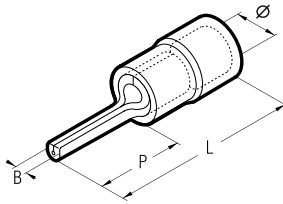
ever changing end user requirements. The PVC insulation, is a self extinguishing thermoplastic material class V0 (UL 94).

The operating temperature range is -4 to +176°F (Surge +194°F).

Recommended crimping tools are shown on pages 136 to 163, 242.

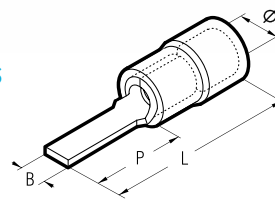


pin terminals



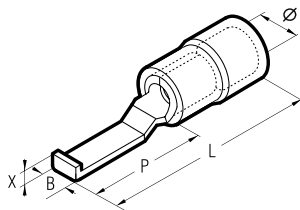
Cond. Size AWG (sqmm)	Type	Dimensions in.				Quantity Box/Bag
		Ø	B	P	L	
 22÷16 (0.25÷1.5)	RF-P8	0.16	0.06	0.31	0.70	3,000/100
	RF-P10	0.16	0.06	0.39	0.78	3,000/100
	RF-P12	0.16	0.06	0.47	0.87	3,000/100
 16÷14 (1.5÷2.5)	BF-P8	0.19	0.06	0.31	0.70	2,500/100
	BF-P10	0.19	0.06	0.39	0.78	2,500/100
	BF-P12	0.19	0.06	0.47	0.86	2,500/100
 12÷10 (4÷6)	GF-P10	0.26	0.09	0.39	0.96	1,000/100
	GF-P12	0.26	0.09	0.47	1.05	1,000/100
	GF-P14	0.26	0.09	0.55	1.13	1,000/100

blade terminals



Cond. Size AWG (sqmm)	Type	Dimensions in.				Quantity Box/Bag
		Ø	B	P	L	
 22÷16 (0.25÷1.5)	RF-PP12	0.16	0.12	0.50	0.90	3,000/100
	RF-PP12/1	0.16	0.12	0.44	0.84	3,000/100
	RF-PP12/19	0.16	0.07	0.52	0.91	3,000/100
	RF-PP12/23	0.16	0.09	0.52	0.91	2,500/100
	RF-PP14	0.16	0.12	0.58	0.98	2,500/100
	RF-PP16/23	0.16	0.09	0.68	1.07	2,500/100
 16÷14 (1.5÷2.5)	BF-PP10	0.19	0.14	0.39	0.79	2,500/100
	BF-PP12	0.19	0.14	0.50	0.90	2,500/100
	BF-PP12/25	0.19	0.10	0.52	0.92	2,000/100
	BF-PP12/29*	0.19	0.11	0.52	0.92	2,500/100
	BF-PP16/25	0.19	0.10	0.68	1.07	2,500/100
	GF-PP12	0.26	0.16	0.52	1.08	1,000/100
 12÷10 (4÷6)	GF-PP17	0.26	0.11	0.76	1.31	1,000/100

hooked blade terminals



Cond. Size AWG (sqmm)	Type	Dimensions in.					Quantity Box/Bag
		Ø	B	P	L	X	
 22÷16 (0.25÷1.5)	RF-PPL30*	0.16	0.12	0.69	1.11	0.07	2,500/100
	RF-PPL46*	0.16	0.18	0.69	1.11	0.07	2,500/100
 16÷14 (1.5÷2.5)	BF-PPL30*	0.19	0.12	0.69	1.11	0.07	2,000/100
	BF-PPL46*	0.19	0.18	0.69	1.11	0.07	2,000/100
 12÷10 (4÷6)	GF-PPL46*	0.26	0.18	0.69	1.28	0.07	1,000/100

*Not UL approved

PVC INSULATED CRIMP TERMINALS

RF BF GF

F range funnel entry - for Copper conductors



NEW

VALSTAR-N4

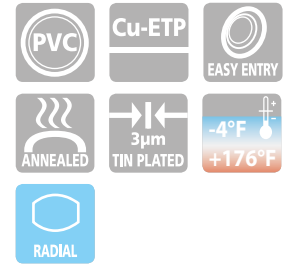


Robust plastic case with compartments, containing:

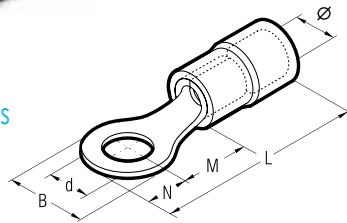
- An assortment of PVC insulated crimp terminals for conductor sizes 22÷10 AWG.
- Cable ties
- Tool Crimpstar® HP3.

Connectors included:

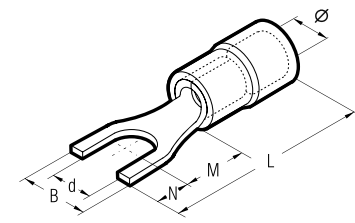
- Qty 100 terminals RF-M4
- Qty 100 terminals BF-M5
- Qty 100 terminals GF-M6
- Qty 100 terminals RF-F608P
- Qty 100 terminals BF-F608P
- Qty 100 connectors PL03-M
- Qty 100 cable ties G100X2.5



ring terminals



fork/spade terminals

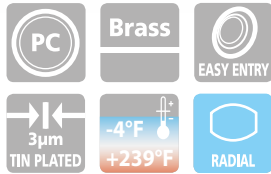


Cond. Size AWG (sqmm)	Ø Stud in.	Type	Dimensions in.						Quantity Box/Bag
			Ø	B	M	N	L	d	
 22÷16 (0.25÷1.5)	#3	RF-M2*	0.16	0.22	0.18	0.11	0.68	0.09	3,000/100
	#4	RF-M3	0.16	0.22	0.18	0.11	0.68	0.13	3,000/100
	#6	RF-M3.5	0.16	0.22	0.18	0.11	0.68	0.15	3,000/100
	#6	RF-M3.5/1	0.16	0.24	0.28	0.12	0.80	0.15	3,000/100
	#8	RF-M4	0.16	0.28	0.26	0.14	0.79	0.17	3,000/100
	#8	RF-M4/3*	0.16	0.31	0.28	0.15	0.83	0.17	3,000/100
	#10	RF-M5	0.16	0.31	0.28	0.15	0.83	0.21	2,500/100
	1/4"	RF-M6	0.16	0.37	0.32	0.19	0.9	0.25	2,500/100
	1/4"	RF-M6/1	0.16	0.47	0.41	0.24	1.04	0.25	2,000/100
	17/64"	RF-M7	0.16	0.37	0.32	0.19	0.90	0.28	2,500/100
 16÷14 (1.5÷2.5)	5/16"	RF-M8	0.16	0.47	0.41	0.24	1.04	0.33	2,000/100
	3/8"	RF-M10	0.16	0.61	0.51	0.30	1.21	0.41	1,500/100
	1/2"	RF-M12	0.16	0.71	0.61	0.35	1.36	0.51	1,500/100
	#3	BF-M2*	0.19	0.22	0.20	0.11	0.70	0.09	3,000/100
	#4	BF-M3	0.19	0.22	0.20	0.11	0.70	0.13	2,500/100
	#6	BF-M3.5	0.19	0.22	0.20	0.11	0.70	0.15	2,500/100
	#6	BF-M3.5/1	0.19	0.24	0.26	0.12	0.77	0.15	2,500/100
	#8	BF-M4	0.19	0.31	0.26	0.16	0.81	0.17	2,500/100
	#10	BF-M5	0.19	0.31	0.30	0.16	0.85	0.21	2,000/100
	1/4"	BF-M6	0.19	0.37	0.34	0.19	0.92	0.25	2,000/100
 12÷10 (4÷6)	1/4"	BF-M6/1	0.19	0.47	0.41	0.24	1.04	0.25	2,000/100
	1/4"	BF-M6/2*	0.19	0.33	0.21	0.17	0.77	0.25	2,500/100
	17/64"	BF-M7	0.19	0.39	0.31	0.20	0.90	0.28	2,000/100
	5/16"	BF-M8	0.19	0.47	0.41	0.24	1.04	0.33	1,500/100
	3/8"	BF-M10	0.19	0.61	0.51	0.30	1.21	0.41	1,500/100
	1/2"	BF-M12	0.19	0.71	0.61	0.35	1.36	0.51	1,000/100
	#4	GF-M3	0.26	0.31	0.32	0.16	1.03	0.13	1,000/100
	#6	GF-M3.5	0.26	0.31	0.32	0.16	1.03	0.15	1,000/100
	#8	GF-M4	0.26	0.35	0.32	0.18	1.05	0.17	1,000/100
	#10	GF-M5	0.26	0.35	0.32	0.18	1.05	0.21	1,000/100
 12÷10 (4÷6)	1/4"	GF-M6	0.26	0.43	0.44	0.22	1.21	0.25	1,000/100
	1/4"	GF-M6/1	0.26	0.43	0.32	0.22	1.09	0.25	1,000/100
	17/64"	GF-M7	0.26	0.43	0.44	0.22	1.21	0.28	1,000/100
	5/16"	GF-M8	0.26	0.54	0.48	0.27	1.30	0.33	800/100
	5/16"	GF-M8/1*	0.26	0.43	0.32	0.22	1.09	0.33	1,000/100
	3/8"	GF-M10	0.26	0.54	0.48	0.27	1.30	0.41	800/100
	3/8"	GF-M10/1	0.26	0.61	0.54	0.3	1.41	0.41	800/100
	1/2"	GF-M12	0.26	0.75	0.59	0.37	1.52	0.51	500/100
	9/16"	GF-M14	0.26	0.83	0.63	0.41	1.60	0.59	500/100
	5/8"	GF-M16	0.26	0.94	0.67	0.47	1.70	0.67	500/100

Cond. Size AWG (sqmm)	Ø Stud in.	Type	Dimensions in.						Quantity Box/Bag
			Ø	B	M	N	L	d	
 22÷16 (0.25÷1.5)	#4	RF-U3	0.16	0.22	0.22	0.16	0.77	0.13	3,000/100
	#6	RF-U3.5	0.16	0.24	0.26	0.15	0.80	0.15	3,000/100
	#6	RF-U3.5/1	0.16	0.28	0.26	0.15	0.80	0.15	3,000/100
	#6	RF-U3.5/2*	0.16	0.25	0.26	0.15	0.80	0.15	3,000/100
	#8	RF-U4	0.16	0.26	0.30	0.15	0.83	0.17	3,000/100
	#8	RF-U4/1	0.16	0.33	0.30	0.15	0.83	0.17	3,000/100
	#8	RF-U4/2	0.16	0.30	0.30	0.15	0.83	0.17	3,000/100
	#10	RF-U5	0.16	0.33	0.30	0.15	0.83	0.21	2,500/100
	#10	RF-U5/1**	0.16	0.37	0.30	0.15	0.83	0.21	3,000/100
	1/4"	RF-U6	0.16	0.37	0.32	0.19	0.90	0.25	2,000/100
 16÷14 (1.5÷2.5)	1/4"	RF-U6/1	0.16	0.47	0.36	0.28	1.04	0.25	2,000/100
	5/16"	RF-U8	0.16	0.55	0.39	0.25	1.04	0.33	2,000/100
	3/8"	RF-U10	0.16	0.69	0.51	0.30	1.21	0.41	1,500/100
	1/2"	RF-U12	0.16	0.79	0.61	0.35	1.36	0.51	1,500/100
	#4	BF-U3	0.19	0.22	0.22	0.16	0.77	0.13	2,500/100
	#6	BF-U3.5	0.19	0.25	0.26	0.15	0.80	0.15	2,500/100
	#6	BF-U3.5/1*	0.19	0.28	0.26	0.15	0.80	0.15	3,000/100
	#8	BF-U4	0.19	0.26	0.30	0.15	0.83	0.17	2,500/100
	#8	BF-U4/1	0.19	0.33	0.30	0.15	0.83	0.17	2,000/100
	#8	BF-U4/2	0.19	0.30	0.30	0.15	0.83	0.17	2,000/100
 12÷10 (4÷6)	#10	BF-U5	0.19	0.33	0.30	0.15	0.83	0.21	2,000/100
	#10	BF-U5/2*	0.19	0.47	0.44	0.20	1.04	0.21	1,500/100
	1/4"	BF-U6	0.19	0.37	0.32	0.19	0.90	0.25	2,000/100
	1/4"	BF-U6/1	0.19	0.47	0.36	0.28	1.04	0.25	2,000/100
	5/16"	BF-U8	0.19	0.55	0.39	0.25	1.04	0.33	1,500/100
	3/8"	BF-U10	0.19	0.69	0.51	0.30	1.21	0.41	1,000/100
	1/2"	BF-U12	0.19	0.79	0.61	0.35	1.36	0.51	1,000/100
	#6	GF-U3.5	0.26	0.30	0.33	0.15	1.04	0.15	1,000/100
	#8	GF-U4	0.26	0.30	0.31	0.17	1.04	0.17	1,000/100
	#10	GF-U5	0.26	0.37	0.31	0.17	1.04	0.21	1,000/100
 12÷10 (4÷6)	1/4"	GF-U6	0.26	0.39	0.43	0.22	1.20	0.25	1,000/100
	5/16"	GF-U8	0.26	0.53	0.47	0.31	1.34	0.33	1,000/100
	3/8"	GF-U10	0.26	0.61	0.51	0.31	1.38	0.41	1,000/100
	3/8"	GF-U10/1	0.26	0.69	0.54	0.3	1.41	0.41	1,000/100
	1/2"	GF-U12	0.26	0.83	0.59	0.37	1.52	0.51	500/100
	9/16"	GF-U14	0.26	0.91	0.63	0.41	1.60	0.59	500/100
	5/8"	GF-U16	0.26	1.02	0.67	0.45	1.68	0.67	500/100

*Not UL approved *Made to order

RF-F BF-F GF-F



* Material: Polycarbonate type
PC10500AC certified EN45545-2

FEMALE DISCONNECT TERMINALS

for Copper conductors

Recommended crimping tools are
shown on pages 136 to 163, 242.



Polycarbonate* insulated terminals
partially reinforced with Copper sleeve

Cond. Size AWG (sqmm)	Type	Tab Size in.	Quantity Box/Bag
22÷16 (0.25÷1.5)	RF-F305	0.11x0.02	3,000/100
	RF-F308*	0.11x0.03	3,000/100
	RF-F405	0.19x0.02	2,500/100
	RF-F408	0.19x0.03	2,500/100
16÷14 (1.5÷2.5)	RF-F608	0.25x0.03	2,500/100
	BF-F405	0.19x0.02	2,500/100
	BF-F408	0.19x0.03	2,500/100
	BF-F608	0.25x0.03	1,500/100
12÷10 (4÷6)	GF-F608	0.25x0.03	1,000/100

Polycarbonate* fully insulated terminals
partially reinforced with Copper sleeve

Cond. Size AWG (sqmm)	Type	Tab Size in.	Quantity Box/Bag
22÷16 (0.25÷1.5)	RF-F305P	0.11x0.02	2,000/100
	RF-F308P*	0.11x0.03	2,000/100
	RF-F405P	0.19x0.02	1,500/100
	RF-F408P	0.19x0.03	1,500/100
16÷14 (1.5÷2.5)	RF-F608P	0.25x0.03	1,000/100
	BF-F405P	0.19x0.02	1,500/100
	BF-F408P	0.19x0.03	1,500/100
	BF-F608P	0.25x0.03	1,000/100
12÷10 (4÷6)	GF-F608P	0.25x0.03	800/100

RF-M BF-M GF-M



* Material: Polycarbonate type
PC10500AC certified EN45545-2

MALE DISCONNECT TERMINALS

for Copper conductors

Recommended crimping tools are
shown on pages 136 to 163, 242.



Polycarbonate* insulated terminals
partially reinforced with Copper sleeve

Cond. Size AWG (sqmm)	Type	Tab Size in.	Quantity Box/Bag
22÷16 (0.25÷1.5)	RF-M608	0.25x0.03	3,000/100
16÷14 (1.5÷2.5)	BF-M608	0.25x0.03	2,000/100
12÷10 (4÷6)	GF-M608	0.25x0.03	1,000/100

Polycarbonate* fully insulated terminals
partially reinforced with Copper sleeve

Cond. Size AWG (sqmm)	Type	Tab Size in.	Quantity Box/Bag
22÷16 (0.25÷1.5)	RF-M608P	0.25x0.03	1,000/100
16÷14 (1.5÷2.5)	BF-M608P	0.25x0.03	800/100

RF-FM BF-FM RF-B BF-B



* Material: Polycarbonate type
PC10500AC certified EN45545-2

MALE/FEMALE

for Copper conductors

Recommended crimping tools are
shown on pages 136 to 163, 242.

Polycarbonate*
insulated terminals
partially reinforced with Copper sleeve

Cond. Size AWG (sqmm)	Type	Tab Size in.	Quantity Box/Bag
22÷16 (0.25÷1.5)	RF-FM608	0.25x0.03	1,000/100
16÷14 (1.5÷2.5)	BF-FM608	0.25x0.03	1,000/100

BULLET AND SOCKET

for Copper conductors



Polycarbonate*
insulated terminals
partially reinforced with Copper sleeve

Cond. Size AWG (sqmm)	Type	Ø in.	Quantity Box/Bag
22÷16 (0.25÷1.5)	RF-BM4*	0.16	2,500/100
	RF-BF4*	0.16	800/100
16÷14 (1.5÷2.5)	BF-BM5*	0.20	2,000/100
	BF-BF5*	0.20	800/100

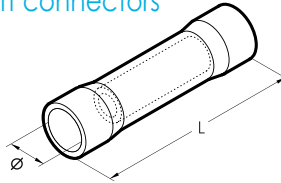
*Not UL approved

BUTT AND PARALLEL CONNECTORS

for Copper conductors



butt connectors



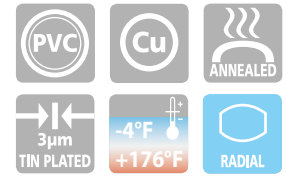
parallel connectors

Recommended crimping tools are shown on pages 136 to 163, 242.

PVC insulated

Cond. Size AWG (sqmm)	Type	Ø in.	L in.	Quantity Box/Bag
24÷20 (0.2÷0.5)	PL01-M*	0.12	0.98	3,000/100
22÷16 (0.25÷1.5)	PL03-M	0.16	0.98	1,000/100
16÷14 (1.5÷2.5)	PL06-M	0.20	0.98	1,500/100
12÷10 (4÷6)	PL1-M	0.26	1.26	500/100
22÷16 (0.25÷1.5)	PL03-P*	0.16	0.79	3,000/100
16÷14 (1.5÷2.5)	PL06-P*	0.20	0.63	2,000/100

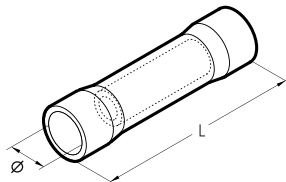
PL



BUTT CONNECTORS

for Copper conductors

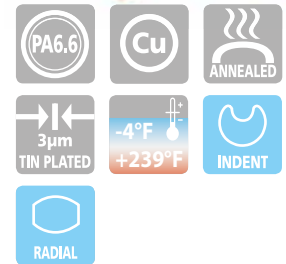
Recommended crimping tools are shown on pages 136 to 163, 242.



Polyamide PA6.6 insulated

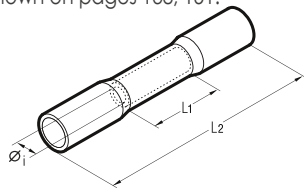
Cond. Size AWG (sqmm)	Type	Ø in.	L in.	Quantity Box/Bag
22÷16 (0.25÷1.5)	NL03-M	0.16	0.98	1,000/100
16÷14 (1.5÷2.5)	NL06-M	0.21	1.00	1,500/100
12÷10 (4÷6)	NL1-M	0.30	1.26	500/100
8÷7 (10)	NL2-M	0.31	1.69	500/100
6÷5 (16)	NL3-M	0.36	1.73	400/100

NL-M



HF
HALOGEN
FREE

Recommended crimping tools are shown on pages 138, 151.



PE HD insulated, heat shrinkable

Cond. Size AWG (sqmm)	Type	Ø in.	L 1 in.	L 2 in.	Quantity Box/Bag
20÷16 (0.5÷1.5)	WL03-M	0.07	0.59	1.42	1,500/100
16÷14 (1.5÷2.5)	WL06-M	0.09	0.59	1.42	1,000/100
12÷10 (4÷6)	WL1-M	0.14	0.59	1.61	500/100

- Max operating voltage: 600 V
- Shrink temperature: 302 °F
- Protection: IP68

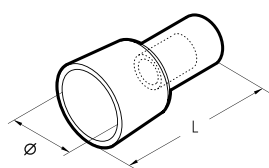
WL-M



CLOSE END CONNECTORS

for Copper conductors

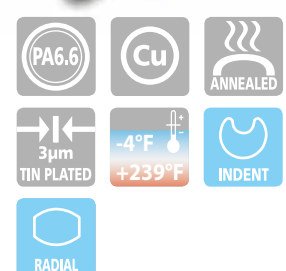
Recommended crimping tools are shown on pages 136 to 163, 242.



Polyamide PA6.6 insulated

Cond. Size AWG (sqmm)	Type	Ø in.	L in.	Quantity Box/Bag
22÷16 (0.25÷1.5)	NL03-P	0.31	0.83	1,000/100
16÷14 (1.5÷2.5)	NL06-P	0.31	0.78	1,000/100
	NL06-PB	0.26	0.54	1,500/100
12÷10 (4÷6)	NL1-P	0.41	0.85	500/100
	NL1-PG	0.35	0.70	1,000/100

NL-P

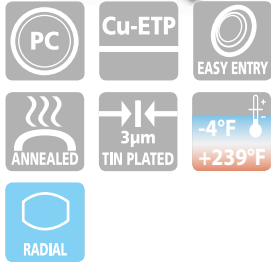


*Not UL approved

VP RP BP GP

HALOGEN FREE INSULATED TERMINALS

P range funnel entry - for Copper conductors



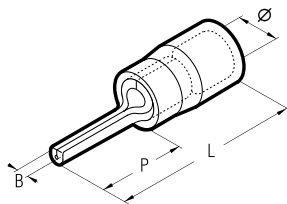
The "P" range of terminals has been designed, to meet the increasing demands for improved safety and reliability of electrical connectors. Electrical connectors are produced using electrolytic Copper with a purity greater than 99.9%. The Polycarbonate insulation type PC10500AC certified EN45545-2, is a Halogen free, self extinguishing thermoplastic material class V0 (UL 94).

The unique funnel shaped entry of the insulation sleeve, guarantees total insertion of the conductor strands into the terminal barrel, creating a secure and reliable, electrical and mechanical connection.

The operating temperature range is - 4 to + 239°F (Surge + 266°F). Recommended crimping tools are shown on pages 136 to 163, 242.

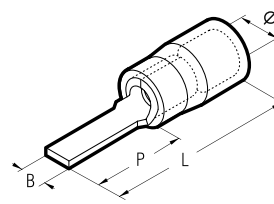


pin terminals



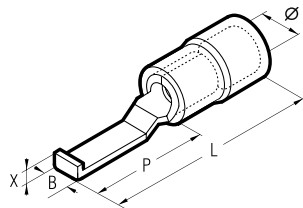
Conductor Size AWG (sqmm)	Type	Dimensions in.				Quantity Box/Bag
		Ø	B	P	L	
 24÷20 (0.2÷0.5)	VP-P10	0.12	0.04	0.39	0.79	4,000/100
 22÷16 (0.25÷1.5)	RP-P8	0.16	0.06	0.31	0.70	3,000/100
	RP-P10	0.16	0.06	0.39	0.78	3,000/100
	RP-P12	0.16	0.06	0.47	0.87	3,000/100
 16÷14 (1.5÷2.5)	BP-P8	0.19	0.06	0.31	0.70	3,000/100
	BP-P10	0.19	0.06	0.39	0.78	3,000/100
	BP-P12	0.19	0.06	0.46	0.86	2,500/100
 12÷10 (4÷6)	GP-P10	0.26	0.09	0.41	0.96	1,000/100
	GP-P12	0.26	0.09	0.50	1.05	1,000/100
	GP-P14	0.26	0.09	0.57	1.13	1,000/100

blade terminals



Conductor Size AWG (sqmm)	Type	Dimensions in.				Quantity Box/Bag
		Ø	B	P	L	
 24÷20 (0.2÷0.5)	VP-PP12/19	0.12	0.07	0.49	0.88	4,000/100
 22÷16 (0.25÷1.5)	RP-PP12	0.16	0.12	0.50	0.90	3,000/100
	RP-PP12/1	0.16	0.12	0.44	0.84	3,000/100
	RP-PP12/19	0.16	0.07	0.52	0.92	3,000/100
	RP-PP12/23	0.16	0.09	0.52	0.92	2,500/100
	RP-PP14	0.16	0.12	0.58	0.98	2,500/100
	RP-PP16/23	0.16	0.09	0.68	1.07	2,500/100
 16÷14 (1.5÷2.5)	BP-PP12	0.19	0.14	0.50	0.90	2,500/100
	BP-PP12/25	0.19	0.10	0.52	0.92	2,000/100
	BP-PP12/29	0.19	0.11	0.52	0.92	2,500/100
	BP-PP16/25	0.19	0.10	0.68	1.07	2,500/100
 12÷10 (4÷6)	GP-PP12	0.26	0.16	0.52	1.08	1,000/100
	GP-PP17	0.26	0.11	0.75	1.31	1,000/100

hooked blade terminals



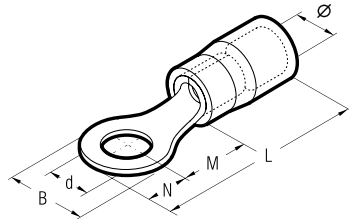
Conductor Size AWG (sqmm)	Type	Dimensions in.					Quantity Box/Bag
		Ø	B	P	L	X	
 22÷16 (0.25÷1.5)	RP-PPL30	0.15	0.12	0.69	1.11	0.07	3,000/100
	RP-PPL46	0.15	0.18	0.69	1.11	0.07	3,000/100
 16÷14 (1.5÷2.5)	BP-PPL30	0.19	0.12	0.69	1.11	0.07	2,500/100
	BP-PPL46	0.19	0.18	0.69	1.13	0.07	2,500/100
 12÷10 (4÷6)	GP-PPL46	0.26	0.18	0.69	1.28	0.07	1,000/100

HALOGEN FREE INSULATED TERMINALS

P range funnel entry - for Copper conductors

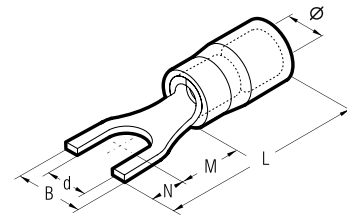
VP RP
BP GP

ring terminals



Cond. Size AWG (sqmm)	Ø Stud in.	Type	Dimensions in.						Quantity Box/Bag
			Ø	B	M	N	L	d	
 24÷20 (0.2÷0.5)		#3 VP-M2*	0.12	0.22	0.18	0.11	0.69	0.09	4,000/100
		#4 VP-M3	0.12	0.22	0.18	0.11	0.69	0.13	4,000/100
		#6 VP-M3.5	0.12	0.22	0.18	0.11	0.69	0.15	4,000/100
		#8 VP-M4	0.12	0.28	0.26	0.14	0.80	0.17	4,000/100
		#10 VP-M5	0.12	0.31	0.28	0.15	0.83	0.21	4,000/100
		1/4" VP-M6*	0.12	0.37	0.32	0.19	0.91	0.25	4,000/100
 22÷16 (0.25÷1.5)		#3 RP-M2*	0.16	0.22	0.18	0.11	0.69	0.09	3,000/100
		#4 RP-M3	0.16	0.22	0.18	0.11	0.69	0.13	3,000/100
		#6 RP-M3.5	0.16	0.22	0.18	0.11	0.69	0.15	3,000/100
		#6 RP-M3.5/1	0.16	0.24	0.28	0.12	0.80	0.15	3,000/100
		#8 RP-M4	0.16	0.28	0.26	0.14	0.79	0.17	3,000/100
		#8 RP-M4/3	0.16	0.31	0.28	0.15	0.83	0.17	3,000/100
		#10 RP-M5	0.16	0.31	0.28	0.15	0.83	0.21	2,500/100
		1/4" RP-M6	0.16	0.37	0.32	0.19	0.90	0.25	2,500/100
		1/4" RP-M6/1	0.16	0.47	0.41	0.24	1.04	0.25	2,000/100
		17/64" RP-M7	0.16	0.37	0.32	0.19	0.90	0.28	2,500/100
 16÷14 (1.5÷2.5)		5/16" RP-M8	0.16	0.47	0.41	0.24	1.04	0.33	2,500/100
		3/8" RP-M10	0.16	0.61	0.51	0.30	1.22	0.41	1,500/100
		1/2" RP-M12	0.16	0.71	0.61	0.35	1.36	0.51	1,500/100
		#3 BP-M2*	0.19	0.22	0.20	0.11	0.70	0.09	2,500/100
		#4 BP-M3	0.19	0.22	0.20	0.11	0.70	0.13	2,500/100
		#6 BP-M3.5	0.19	0.22	0.20	0.11	0.70	0.15	2,500/100
		#6 BP-M3.5/1	0.19	0.24	0.26	0.12	0.78	0.15	2,500/100
		#8 BP-M4	0.19	0.31	0.26	0.16	0.81	0.17	2,500/100
		#10 BP-M5	0.19	0.31	0.30	0.16	0.85	0.21	2,000/100
		1/4" BP-M6	0.19	0.37	0.34	0.19	0.92	0.25	2,000/100
 12÷10 (4÷6)		1/4" BP-M6/1	0.19	0.47	0.24	0.14	0.25	0.25	2,000/100
		1/4" BP-M6/2*	0.19	0.33	0.21	0.17	0.78	0.25	2,500/100
		17/64" BP-M7	0.19	0.39	0.31	0.20	0.90	0.28	2,500/100
		5/16" BP-M8	0.19	0.47	0.41	0.24	1.04	0.33	1,500/100
		3/8" BP-M10	0.19	0.61	0.51	0.30	1.22	0.41	1,500/100
		1/2" BP-M12	0.19	0.71	0.61	0.35	1.36	0.51	1,000/100
		#4 GP-M3	0.26	0.31	0.32	0.16	1.03	0.13	1,000/100
		#6 GP-M3.5	0.26	0.31	0.32	0.16	1.03	0.15	1,500/100
		#8 GP-M4	0.26	0.35	0.32	0.18	1.05	0.17	1,000/100
		#10 GP-M5	0.26	0.35	0.32	0.18	1.05	0.21	1,000/100
		1/4" GP-M6	0.26	0.43	0.44	0.22	1.21	0.25	1,000/100
		1/4" GP-M6/1	0.26	0.43	0.32	0.22	1.09	0.25	1,000/100
		17/64" GP-M7	0.26	0.43	0.44	0.22	1.21	0.28	1,000/100
		5/16" GP-M8	0.26	0.54	0.48	0.27	1.30	0.33	800/100
		5/16" GP-M8/1*	0.26	0.43	0.32	0.22	1.09	0.33	1,000/100
		3/8" GP-M10	0.26	0.54	0.48	0.27	1.30	0.41	1,000/100
		3/8" GP-M10/1	0.26	0.61	0.54	0.30	1.41	0.41	1,000/100
		1/2" GP-M12	0.26	0.75	0.59	0.37	1.52	0.51	500/100
		9/16" GP-M14	0.26	0.83	0.63	0.41	1.60	0.59	500/100
		5/8" GP-M16	0.26	0.94	0.67	0.47	1.70	0.67	500/100

fork/spade terminals



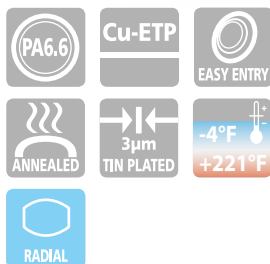
Cond. Size AWG (sqmm)	Ø Stud in.	Type	Dimensions in.						Quantity Box/Bag
			Ø	B	M	N	L	d	
 24÷20 (0.2÷0.5)		#4 VP-U3	0.12	0.22	0.22	0.16	0.74	0.13	4,000/100
		#6 VP-U3.5	0.12	0.24	0.26	0.15	0.77	0.15	4,000/100
		#8 VP-U4	0.12	0.26	0.30	0.15	0.80	0.17	4,000/100
		#10 VP-U4	0.12	0.26	0.30	0.15	0.80	0.17	4,000/100
 22÷16 (0.25÷1.5)		#4 RP-U3	0.16	0.22	0.22	0.16	0.77	0.13	3,000/100
		#6 RP-U3.5	0.16	0.24	0.26	0.15	0.80	0.15	3,000/100
		#6 RP-U3.5/2	0.16	0.25	0.26	0.15	0.80	0.15	3,000/100
		#8 RP-U4	0.16	0.26	0.30	0.15	0.84	0.17	3,000/100
		#8 RP-U4/1	0.16	0.33	0.30	0.15	0.84	0.17	3,000/100
		#8 RP-U4/2	0.16	0.30	0.30	0.15	0.84	0.17	3,500/100
		#10 RP-U5	0.16	0.33	0.30	0.15	0.84	0.21	3,000/100
		#10 RP-U5/1*	0.16	0.37	0.30	0.15	0.84	0.21	3,000/100
		1/4" RP-U6	0.16	0.37	0.32	0.19	0.90	0.25	2,000/100
		1/4" RP-U6/1	0.16	0.47	0.36	0.28	1.04	0.25	2,000/100
		5/16" RP-U8	0.16	0.55	0.39	0.25	1.04	0.33	2,000/100
		3/8" RP-U10	0.16	0.69	0.51	0.30	1.22	0.41	1,500/100
 16÷14 (1.5÷2.5)		1/2" RP-U12	0.16	0.79	0.61	0.35	1.36	0.51	1,500/100
		#4 BP-U3	0.19	0.22	0.22	0.16	0.77	0.13	2,500/100
		#6 BP-U3.5	0.19	0.25	0.26	0.25	0.80	0.15	2,500/100
		#6 BP-U3.5/1*	0.19	0.28	0.26	0.15	0.80	0.15	2,500/100
		#8 BP-U4	0.19	0.26	0.30	0.15	0.84	0.17	2,500/100
		#8 BP-U4/1	0.19	0.33	0.30	0.15	0.84	0.17	3,000/100
		#8 BP-U4/2	0.19	0.30	0.30	0.15	0.84	0.17	2,000/100
		#10 BP-U5	0.19	0.33	0.30	0.15	0.84	0.21	2,000/100
		1/4" BP-U6	0.19	0.37	0.32	0.19	0.90	0.25	2,000/100
		1/4" BP-U6/1	0.19	0.47	0.36	0.28	1.04	0.25	2,000/100
		5/16" BP-U8	0.19	0.55	0.39	0.25	1.04	0.33	1,500/100
		3/8" BP-U10	0.19	0.69	0.51	0.30	1.22	0.41	1,000/100
		1/2" BP-U12	0.19	0.79	0.61	0.35	1.36	0.51	1,500/100
		#6 GP-U3.5	0.26	0.30	0.33	0.15	1.04	0.15	1,000/100
		#8 GP-U4	0.26	0.30	0.31	0.17	1.04	0.17	1,000/100
		#10 GP-U5	0.26	0.37	0.31	0.17	1.04	0.21	1,000/100
 12÷10 (4÷6)		1/4" GP-U6	0.26	0.39	0.43	0.22	1.20	0.25	1,000/100
		5/16" GP-U8	0.26	0.53	0.47	0.31	1.34	0.33	1,000/100
		3/8" GP-U10	0.26	0.61	0.51	0.31	1.38	0.41	1,000/100
		3/8" GP-U10/1	0.26	0.69	0.54	0.30	1.41	0.41	1,000/100
		1/2" GP-U12	0.26	0.83	0.59	0.37	1.52	0.51	500/100
		9/16" GP-U14	0.26	0.91	0.63	0.41	1.60	0.59	500/100
		5/8" GP-U16	0.26	1.02	0.67	0.45	1.68	0.67	500/100

*Made to order

RKY BKY GKY

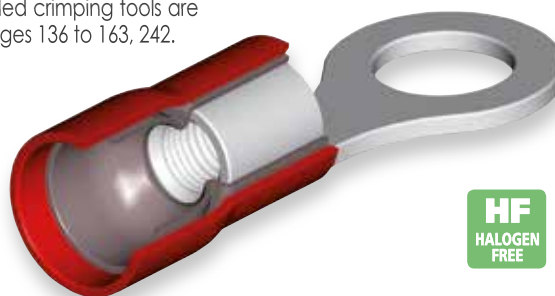
REINFORCED PA 6.6 INSULATED TERMINALS

KY range - for Copper conductors



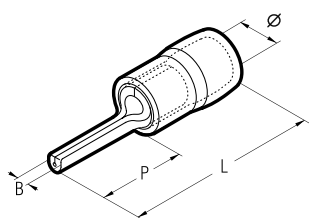
'KY' type terminals are designed to offer improved mechanical and electrical integrity under heavy-duty application. This is achieved via a Copper sleeve located between the Copper barrel and Polyamide insulation of the terminal. Then, during crimping, the insulation of the conductor is integrated into the crimp due to the Copper sleeve being deformed around it to maintain the level of 'grip' required in applications subject to continuous mechanical vibrations (e.g. mobile plant, vehicles, moving components).

Electrical connectors are produced using electrolytic Copper with a purity greater than 99.9%. The operating temperature range is -4 to +221°F (Surge +230°F). Recommended crimping tools are shown on pages 136 to 163, 242.



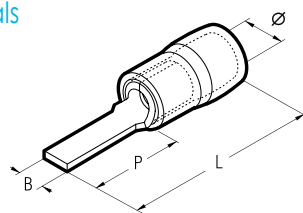
HF
HALOGEN
FREE

pin terminals



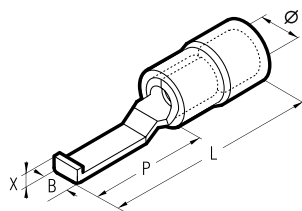
Conductor Size AWG (sqmm)	Type	Dimensions in.				Quantity Box/Bag
		Ø	B	P	L	
 22÷16 (0.25÷1.5)	RKY-P8	0.18	0.07	0.35	0.78	3,000/100
	RKY-P10	0.18	0.07	0.39	0.82	3,500/100
	RKY-P12	0.18	0.07	0.47	0.90	3,000/100
 16÷14 (1.5÷2.5)	BKY-P8	0.20	0.07	0.39	0.82	3,000/100
	BKY-P10	0.20	0.07	0.35	0.78	3,000/100
	BKY-P12	0.20	0.07	0.47	0.90	3,000/100
 12÷10 (4÷6)	GKY-P14	0.28	0.11	0.55	1.06	1,000/100

blade terminals



Conductor Size AWG (sqmm)	Type	Dimensions in.				Quantity Box/Bag
		Ø	B	P	L	
 22÷16 (0.25÷1.5)	RKY-PP12	0.18	0.12	0.51	0.94	3,000/100
	RKY-PP12/19	0.18	0.09	0.71	1.13	3,000/100
	RKY-PP16/23	0.18	0.08	0.71	1.13	2,500/100
 16÷14 (1.5÷2.5)	BKY-PP12	0.20	0.12	0.51	0.94	2,500/100
	BKY-PP12/25	0.20	0.09	0.51	0.94	2,000/100
	BKY-PP16/23	0.20	0.09	0.71	1.13	2,500/100
 12÷10 (4÷6)	GKY-PP12	0.28	0.16	0.55	1.06	1,000/100
	GKY-PP17	0.28	0.08	0.71	1.22	1,000/100

hooked blade terminals



Conductor Size AWG (sqmm)	Type	Dimensions in.					Quantity Box/Bag
		Ø	B	P	L	X	
 22÷16 (0.25÷1.5)	RKY-PPL30	0.18	0.12	0.66	1.11	0.08	3,000/100
	RKY-PPL46	0.18	0.18	0.66	1.11	0.08	3,000/100
 16÷14 (1.5÷2.5)	BKY-PPL30	0.20	0.12	0.66	1.11	0.08	2,500/100
	BKY-PPL46	0.20	0.18	0.66	1.11	0.08	2,500/100
 12÷10 (4÷6)	GKY-PPL46	0.28	0.18	0.68	1.19	0.09	1,000/100

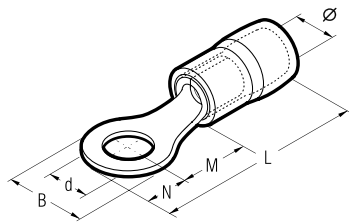
Consult Cembre for a wider range of pin and blade dimensions.

REINFORCED PA 6.6 INSULATED TERMINALS

KY range - for Copper conductors

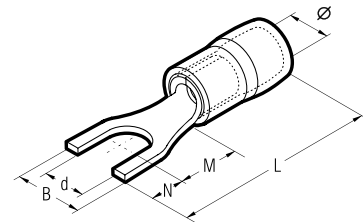
RKY BKY
GKY

ring terminals



Cond. Size AWG (sqmm)	Ø Stud in.	Type	Dimensions in.						Quantity Box/Bag
			Ø	B	M	N	L	d	
 22÷16 (0.25÷1.5)	#4	RKY-M3	0.18	0.22	0.20	0.10	0.73	0.13	3,000/100
	#6	RKY-M3.5	0.18	0.22	0.20	0.10	0.73	0.15	3,000/100
	#6	RKY-M3.5/1	0.18	0.26	0.25	0.12	0.80	0.15	3,000/100
	#8	RKY-M4	0.18	0.26	0.25	0.12	0.80	0.17	3,000/100
	#10	RKY-M5	0.18	0.31	0.28	0.15	0.86	0.21	2,500/100
	1/4"	RKY-M6/1	0.18	0.46	0.43	0.23	1.09	0.25	2,000/100
	5/16"	RKY-M8	0.18	0.46	0.43	0.23	1.09	0.33	2,500/100
	3/8"	RKY-M10	0.18	0.54	0.55	0.26	1.24	0.41	1,500/100
	1/2"	RKY-M12	0.18	0.77	0.63	0.37	1.43	0.51	1,500/100
	 16÷14 (1.5÷2.5)	#4	BKY-M3	0.20	0.26	0.19	0.12	0.74	0.13
#6		BKY-M3.5	0.20	0.26	0.19	0.12	0.74	0.15	2,500/100
#6		BKY-M3.5/1	0.20	0.26	0.25	0.12	0.80	0.15	2,500/100
#8		BKY-M4	0.20	0.33	0.31	0.16	0.90	0.17	2,500/100
#10		BKY-M5	0.20	0.33	0.31	0.16	0.90	0.21	2,500/100
1/4"		BKY-M6/1	0.20	0.47	0.43	0.23	1.09	0.25	2,000/100
5/16"		BKY-M8	0.20	0.47	0.43	0.23	1.09	0.33	1,500/100
3/8"		BKY-M10	0.20	0.54	0.55	0.26	1.24	0.41	1,500/100
1/2"		BKY-M12	0.20	0.76	0.63	0.37	1.43	0.51	1,000/100
 12÷10 (4÷6)		#6	GKY-M3.5	0.28	0.28	0.24	0.14	0.89	0.15
	#8	GKY-M4	0.28	0.37	0.36	0.18	1.05	0.17	1,000/100
	#10	GKY-M5	0.28	0.37	0.36	0.18	1.05	0.21	1,000/100
	1/4"	GKY-M6	0.28	0.47	0.41	0.24	1.16	0.25	1,000/100
	5/16"	GKY-M8	0.28	0.59	0.53	0.30	1.34	0.33	1,000/100
	3/8"	GKY-M10	0.28	0.59	0.53	0.30	1.34	0.41	1,000/100
	1/2"	GKY-M12	0.28	0.76	0.63	0.38	1.52	0.51	1,000/100
	9/16"	GKY-M14	0.28	1.26	0.99	0.63	2.13	0.59	500/100
	5/8"	GKY-M16	0.28	1.26	0.99	0.63	2.13	0.67	500/100

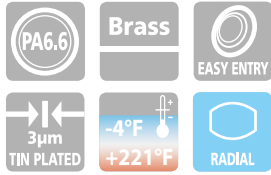
fork/spade terminals



Cond. Size AWG (sqmm)	Ø Stud in.	Type	Dimensions in.						Quantity Box/Bag
			Ø	B	M	N	L	d	
 22÷16 (0.25÷1.5)	#4	RKY-U3	0.18	0.22	0.26	0.18	0.87	0.13	2,500/100
	#6	RKY-U3.5	0.18	0.22	0.26	0.18	0.87	0.15	2,500/100
	#8	RKY-U4	0.18	0.25	0.26	0.18	0.87	0.17	3,000/100
	#10	RKY-U5	0.18	0.32	0.26	0.18	0.87	0.21	3,000/100
	1/4"	RKY-U6	0.18	0.37	0.26	0.18	0.87	0.25	2,000/100
	1/4"	RKY-U6/1	0.18	0.47	0.43	0.24	1.10	0.25	2,000/100
 16÷14 (1.5÷2.5)	#4	BKY-U3	0.20	0.22	0.26	0.18	0.87	0.13	2,500/100
	#6	BKY-U3.5	0.20	0.24	0.26	0.18	0.87	0.15	2,500/100
	#8	BKY-U4	0.20	0.25	0.26	0.18	0.87	0.17	2,500/100
	#10	BKY-U5	0.20	0.31	0.26	0.18	0.87	0.21	2,000/100
	1/4"	BKY-U6	0.20	0.37	0.26	0.18	0.87	0.25	2,000/100
	1/4"	BKY-U6/1	0.20	0.47	0.43	0.24	1.10	0.25	2,000/100
 12÷10 (4÷6)	#6	GKY-U3.5	0.28	0.28	0.30	0.15	0.96	0.15	1,000/100
	#8	GKY-U4	0.28	0.28	0.30	0.15	0.96	0.17	1,000/100
	#10	GKY-U5	0.28	0.35	0.28	0.22	1.00	0.21	1,000/100
	1/4"	GKY-U6	0.28	0.47	0.47	0.26	1.24	0.25	1,000/100
	5/16"	GKY-U8	0.28	0.55	0.41	0.28	1.20	0.33	1,000/100

Consult Cembre for a wider range of pin and blade dimensions.

RKF-F BKF-F GK-F



Recommended crimping tools are shown on pages 136 to 163, 242.

REINFORCED DISCONNECT TERMINALS

for Copper conductors

HF
HALOGEN
FREE

female connectors, fully reinforced with Copper sleeve

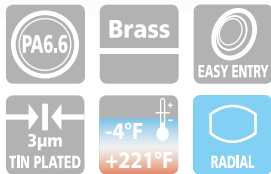
PA6.6 insulated terminals

Conductor Size AWG (sqmm)	Type	Tab Size in.	Quantity Box/Bag
22÷16 (0.25÷1.5)	RKF-F305	0.11 x 0.02	3,000/100
	RKF-F308	0.11 x 0.03	3,000/100
	RKF-F405	0.19 x 0.02	2,500/100
	RKF-F408	0.19 x 0.03	2,500/100
16÷14 (1.5÷2.5)	RKF-F608	0.25 x 0.03	2,500/100
	BKF-F405	0.19 x 0.02	2,500/100
	BKF-F408	0.19 x 0.03	2,500/100
	BKF-F608	0.25 x 0.03	2,000/100
12÷10 (4÷6)	GK-F608	0.25 x 0.03	1,500/100

PA6.6 fully insulated terminals

Conductor Size AWG (sqmm)	Type	Tab Size in.	Quantity Box/Bag
22÷16 (0.25÷1.5)	RKF-F405P	0.19 x 0.02	1,500/100
	RKF-F408P	0.19 x 0.03	2,000/100
	RKF-F608P	0.25 x 0.03	1,000/100
	BKF-F405P	0.19 x 0.02	1,500/100
16÷14 (1.5÷2.5)	BKF-F408P	0.19 x 0.03	2,000/100
	BKF-F608P	0.25 x 0.03	1,000/100
12÷10 (4÷6)	GK-F608P	0.25 x 0.03	1,000/100

RKF BKF GKF



Recommended crimping tools are shown on pages 136 to 163, 242.

REINFORCED DISCONNECT TERMINALS

for Copper conductors

HF
HALOGEN
FREE

male connectors, fully reinforced with Copper sleeve - PA6.6 insulated terminals

Conductor Size AWG (sqmm)	Type	Tab Size in.	Quantity Box/Bag
22÷16 (0.25÷1.5)	RKF-M608	0.25 x 0.03	3,000/100
16÷14 (1.5÷2.5)	BKF-M608	0.25 x 0.03	2,500/100
12÷10 (4÷6)	GKF-M608	0.25 x 0.03	1,000/100

male/female connectors, fully reinforced with Copper sleeve PA6.6 insulated terminals

Conductor Size AWG (sqmm)	Type	Tab Size in.	Quantity Box/Bag
22÷16 (0.25÷1.5)	RKF-FM608	0.25 x 0.03	1,500/100
16÷14 (1.5÷2.5)	BKF-FM608	0.25 x 0.03	1,500/100

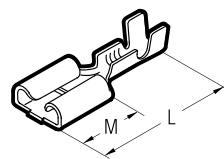
bullet and socket connectors fully reinforced with Copper sleeve PA6.6 insulated terminals

Conductor Size AWG (sqmm)	Type	Ø in.	Quantity Box/Bag
22÷16 (0.25÷1.5)	RKF-BM4	0.16	2,500/100
	RKF-BF4	0.15	1,000/100
16÷14 (1.5÷2.5)	BKF-BM4	0.16	2,000/100
	BKF-BF4	0.15	800/100

RN-FA BN-FA



Recommended crimping tools are shown on pages 136 to 163, 242.



FEMALE CONNECTORS

for Copper conductors

Conductor Size AWG (sqmm)	Type	Tab Size in.	M in.	L in.	Quantity Box/Bag
20÷17 (0.5÷1)	RN-FA305	0.11 x 0.02	0.25	0.59	6,000/100
	RN-FA405	0.19 x 0.02	0.25	0.59	5,000/100
	RN-FA608	0.26 x 0.03	0.30	0.75	3,000/100
17÷14 (1÷2.5)	BN-FA608	0.25 x 0.03	0.30	0.75	2,000/100
	BN-FAB608*	0.25 x 0.03	0.30	0.61	2,000/100
	BN-FAR608**	0.25 x 0.03	0.30	0.75	3,000/100

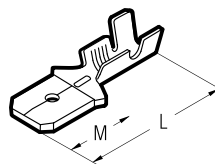
*flag type **with retainer

MALE CONNECTORS

open barrel - for Copper conductors

Conductor Size AWG (sqmm)	Type	Tab Size in.	M in.	L in.	Quantity Box/Bag
0,5÷1 (20÷17)	RN-MA305	0.11 x 0.02	0.23	0.51	6,000/100
	RN-MA405	0.19 x 0.02	0.25	0.68	5,000/100
	RN-MA608	0.25 x 0.03	0.31	0.78	4,000/100
1÷2,5 (17÷14)	BN-MA608	0.25 x 0.03	0.31	0.79	4,000/100

Recommended crimping tools are shown on page 142.



RN-MA
BN-MA

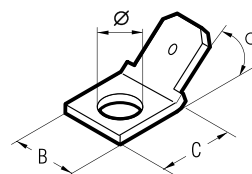


MALE TABS

for board mounting - for Copper conductors

Type	Tab Size in.	Ø Stud in.	B in.	C in.	α	Quantity Box/Bag
MP608	0.25 x 0.03	0.16	0.31	0.43	0°	5,000/100
MP608/45	0.25 x 0.03	0.16	0.31	0.33	45°	6,000/100
MP608/90	0.25 x 0.03	0.16	0.31	0.33	90°	5,000/100
MP608D*	0.25 x 0.03	0.19	0.31	0.55	0°	5,000/100

*double tab



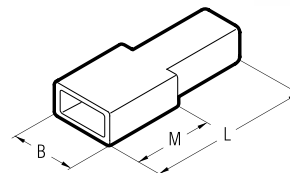
MP
MPD



CONNECTOR SLEEVES

Type	Connector	B in.	M in.	L in.	Material	Quantity Box/Bag
CFA300	Female 2,8	0.22	0.28	0.71	Polyethylene	3,000/100
CFA400*	Female 4,8	0.30	0.35	0.79	Polyethylene	2,000/100
CFA600*	Female 6,3	0.35	0.43	0.94	Polyethylene	1,000/100
CFA2-600**	Female 6,3	0.35	0.35	0.87	Polyethylene	1,000/100
CFAR600	Female 6,3 with retainer	0.35	0.47	0.98	Polyamide 6.6	500/100
CFAB600	Female 6,3 flag	0.39	-	0.71	Polyamide 6.6	500/50
CMA600*	Male 6,3	0.47	0.43	0.87	Polyethylene	500/100

CFA
CMA



*For a single cable.
Colors available:
Transparent: no suffix
Red: add suffix R
Black: add suffix N

**For twin cables.
Colors available:
Transparent: no suffix
Red: add suffix R
Black: add suffix N
Green: add suffix V
Blue: add suffix B
Yellow: add suffix G

CRP CBP CGP

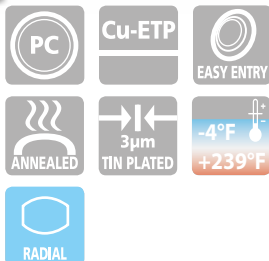
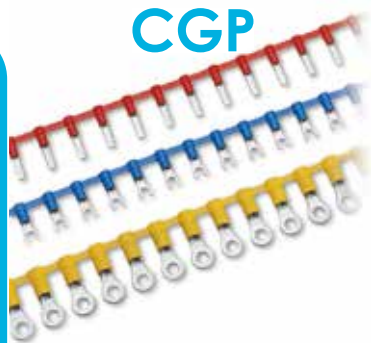
INSULATED CHAIN TERMINALS

CP range with easy entry - for Copper conductors

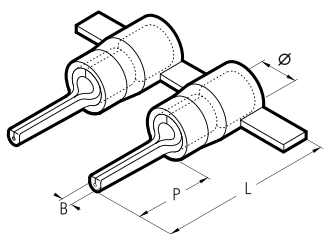
The "CP" range of terminals has been designed to meet the increasing demands for improved safety and reliability of electrical connectors. Electrical connectors are produced using electrolytic Copper with a purity greater than 99.9%.

Developed for use with production equipment, to give a quick and reliable crimped joint, the Polycarbonate insulation type PC10500AC certified EN45545-2, is a Halogen free, self extinguishing thermoplastic material class V0 (UL 94).

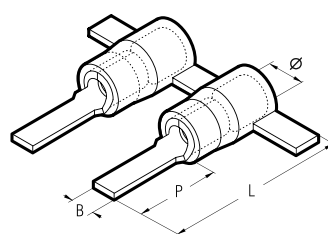
the insulation sleeve guarantees total insertion of the conductor strands into the terminal barrel, creating a secure and reliable, electrical and mechanical connection. The operating temperature range is - 4 to + 239°F (Surge + 266°F).



pin terminals



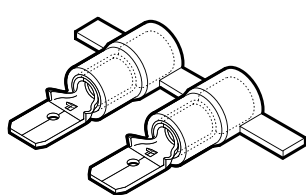
blade terminals



Conductor Size AWG (sqmm)	Type	Dimensions in.				Quantity
		Ø	B	P	L	
22÷16 (0.25÷1.5)	CRP-P8	0.16	0.06	0.31	0.70	2,000
	CRP-P10	0.16	0.06	0.39	0.78	2,000
	CRP-P12	0.16	0.06	0.47	0.87	2,000
16÷14 (1.5÷2.5)	CBP-P8	0.19	0.06	0.31	0.70	1,750
	CBP-P10	0.19	0.06	0.39	0.78	1,750
	CBP-P12	0.19	0.06	0.47	0.86	1,750
12÷10 (4÷6)	CGP-P10	0.26	0.09	0.39	0.96	1,250
	CGP-P12	0.26	0.09	0.47	1.05	1,250
	CGP-P14	0.26	0.09	0.55	1.13	1,250

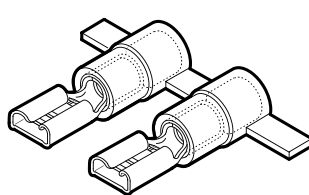
Conductor Size AWG (sqmm)	Type	Dimensions in.				Quantity
		Ø	B	P	L	
22÷16 (0.25÷1.5)	CRP-PP12	0.16	0.12	0.50	0.90	2,000
	CRP-PP12/1*	0.16	0.12	0.44	0.84	2,000
	CRP-PP12/23*	0.16	0.09	0.52	0.92	2,000
16÷14 (1.5÷2.5)	CRP-PP14	0.16	0.12	0.58	0.98	2,000
	CBP-PP12	0.19	0.14	0.50	0.90	1,750
	CBP-PP12/25*	0.19	0.10	0.52	0.92	1,750
12÷10 (4÷6)	CGP-PP12	0.26	0.16	0.52	1.08	1,250
	CGP-PP17*	0.26	0.11	0.75	1.31	1,250

male disconnect terminals



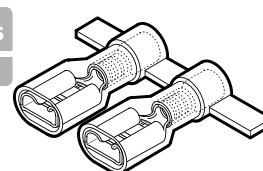
Conductor Size AWG (sqmm)	Type	Tab Size in.	Quantity
22÷16 (0.25÷1.5)	CRP-M608	0.25 x 0.03	2,000
	CBP-M608	0.25 x 0.03	1,750
12÷10 (4÷6)	CGP-M608	0.25 x 0.03	1,250

female disconnect terminals



Conductor Size AWG (sqmm)	Type	Tab Size in.	Quantity
22÷16 (0.25÷1.5)	CRP-F305	0.11 x 0.02	2,000
	CRP-F308	0.11 x 0.03	2,000
	CRP-F405	0.19 x 0.02	2,000
	CRP-F408	0.19 x 0.03	2,000
	CRP-F608	0.25 x 0.03	2,000
16÷14 (1.5÷2.5)	CBP-F405	0.19 x 0.02	1,750
	CBP-F408	0.19 x 0.03	1,750
	CBP-F608	0.25 x 0.03	1,750
12÷10 (4÷6)	CGP-F608	0.25 x 0.03	1,250

female disconnect terminals fully insulated



Conductor Size AWG (sqmm)	Type	Tab Size in.	Quantity
22÷16 (0.25÷1.5)	CRP-F405P	0.19 x 0.02	2,000
	CRP-F408P	0.19 x 0.03	2,000
	CRP-F608P	0.25 x 0.03	1,500
16÷14 (1.5÷2.5)	CBP-F408P	0.19 x 0.03	1,500
	CBP-F608P	0.25 x 0.03	1,500
12÷10 (4÷6)	CGP-F608P	0.25 x 0.03	1,250

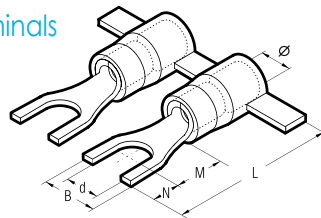
*Made to order

INSULATED CHAIN TERMINALS

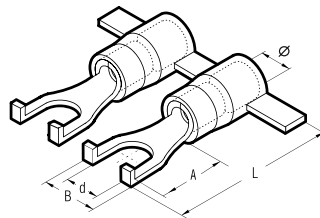
CP range with easy entry - for Copper conductors

CRP CBP
CGP

fork/spade terminals

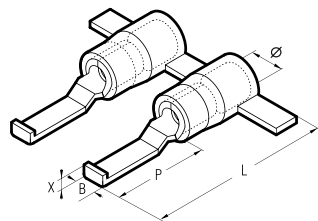


Cond. Size AWG (sqmm)	Ø Stud in.	Type	Dimensions in.						Quantity
			Ø	B	M	N	L	d	
22÷16 (0.25÷1.5)	#4	CRP-U3	0.16	0.22	0.22	0.16	0.77	0.13	2,000
	#6	CRP-U3.5	0.16	0.24	0.26	0.15	0.80	0.15	2,000
	#6	CRP-U3.5/2*	0.16	0.25	0.26	0.15	0.80	0.15	2,000
	#8	CRP-U4	0.16	0.26	0.30	0.15	0.84	0.17	2,000
	#8	CRP-U4/1*	0.16	0.33	0.30	0.15	0.84	0.17	2,000
	#8	CRP-U4/2*	0.16	0.30	0.30	0.15	0.84	0.17	2,000
	#10	CRP-U5	0.16	0.33	0.30	0.15	0.84	0.21	2,000
	1/4"	CRP-U6	0.16	0.37	0.32	0.19	0.90	0.25	2,000
	1/4"	CRP-U6/1*	0.16	0.47	0.36	0.28	1.04	0.25	2,000
	5/16"	CRP-U8*	0.16	0.55	0.39	0.25	1.04	0.33	2,000
16÷14 (1.5÷2.5)	#4	CBP-U3	0.19	0.22	0.22	0.16	0.77	0.13	1,750
	#6	CBP-U3.5	0.19	0.25	0.26	0.15	0.80	0.15	1,750
	#8	CBP-U4	0.19	0.26	0.30	0.15	0.84	0.17	1,750
	#8	CBP-U4/1*	0.19	0.33	0.30	0.15	0.84	0.17	1,750
	#8	CBP-U4/2*	0.19	0.30	0.30	0.15	0.84	0.17	1,750
	#10	CBP-U5	0.19	0.33	0.30	0.15	0.84	0.21	1,750
	1/4"	CBP-U6	0.19	0.37	0.32	0.19	0.90	0.25	1,750
12÷10 (4÷6)	#6	CGP-U3.5*	0.26	0.30	0.33	0.15	1.04	0.15	1,250
	#8	CGP-U4*	0.26	0.30	0.31	0.17	1.04	0.17	1,250
	#10	CGP-U5	0.26	0.37	0.31	0.17	1.04	0.21	1,250
	1/4"	CGP-U6	0.26	0.39	0.43	0.22	1.20	0.25	1,250



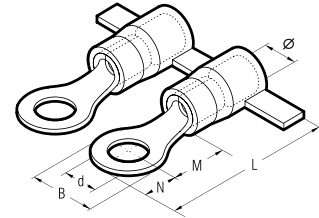
Cond. Size AWG (sqmm)	Ø Stud in.	Type	Dimensions in.					Quantity
			Ø	B	A	L	d	
16÷14 (1.5÷2.5)	#8	CBP-U 4/3L*	0.19	0.26	0.37	0.57	0.17	1,750

hooked blade terminals



Cond. Size AWG (sqmm)	Type	Dimensions in.					Quantity
		Ø	B	P	L	X	
22÷16 (0.25÷1.5)	CRP-PPL30*	0.16	0.12	0.69	1.13	0.07	2,000
16÷14 (1.5÷2.5)	CBP-PPL30*	0.19	0.12	0.69	1.13	0.07	1,750

ring terminals



Cond. Size AWG (sqmm)	Ø Stud in.	Type	Dimensions in.						Quantity
			Ø	B	M	N	L	d	
22÷16 (0.25÷1.5)	#4	CRP-M 3	0.16	0.22	0.18	0.11	0.69	0.13	2,000
	#6	CRP-M 3.5*	0.16	0.22	0.18	0.11	0.69	0.15	2,000
	#6	CRP-M 3.5/1	0.16	0.24	0.28	0.12	0.80	0.15	2,000
	#8	CRP-M 4	0.16	0.28	0.26	0.14	0.79	0.17	2,000
	#8	CRP-M 4/3*	0.16	0.31	0.28	0.15	0.83	0.17	2,000
	#10	CRP-M 5	0.16	0.31	0.28	0.15	0.83	0.21	2,000
	1/4"	CRP-M 6	0.16	0.37	0.32	0.19	0.90	0.25	2,000
	1/4"	CRP-M 6/1*	0.16	0.47	0.41	0.24	1.04	0.25	2,000
	17/64"	CRP-M 7	0.16	0.37	0.32	0.19	0.90	0.28	2,000
	5/16"	CRP-M 8	0.16	0.47	0.41	0.24	1.04	0.33	2,000
16÷14 (1.5÷2.5)	#4	CBP-M 3	0.19	0.22	0.20	0.11	0.70	0.13	1,750
	#6	CBP-M 3.5	0.19	0.22	0.20	0.11	0.70	0.15	1,750
	#6	CBP-M 3.5/1*	0.19	0.24	0.26	0.12	0.77	0.15	1,750
	#8	CBP-M 4	0.19	0.31	0.26	0.16	0.81	0.17	1,750
	#10	CBP-M 5	0.19	0.31	0.30	0.16	0.85	0.21	1,750
	1/4"	CBP-M 6	0.19	0.37	0.34	0.19	0.92	0.25	1,750
	1/4"	CBP-M 6/1*	0.19	0.47	0.41	0.24	1.04	0.25	1,750
	17/64"	CBP-M 7	0.19	0.39	0.31	0.20	0.90	0.28	1,750
	5/16"	CBP-M 8	0.19	0.47	0.41	0.24	1.04	0.33	1,750
	#4	CGP-M 3	0.26	0.31	0.32	0.16	1.03	0.13	1,250
12÷10 (4÷6)	#6	CGP-M 3.5	0.26	0.31	0.32	0.16	1.03	0.15	1,250
	#8	CGP-M 4	0.26	0.35	0.32	0.18	1.05	0.17	1,250
	#10	CGP-M 5	0.26	0.35	0.32	0.18	1.05	0.21	1,250
	1/4"	CGP-M 6	0.26	0.43	0.44	0.22	1.21	0.25	1,250
	1/4"	CGP-M 6/1*	0.26	0.43	0.32	0.22	1.09	0.25	1,250
	17/64"	CGP-M 7	0.26	0.30	0.44	0.22	1.21	0.28	1,000
	5/16"	CGP-M 8	0.26	0.54	0.48	0.27	1.30	0.33	1,250
	5/16"	CGP-M 8/1*	0.26	0.43	0.32	0.22	1.09	0.33	1,250
	3/8"	CGP-M10	0.26	0.54	0.48	0.27	1.30	0.41	1,250



Interchangeable application heads are available for crimping these terminals with the bench press ELB-3 (see page 166).

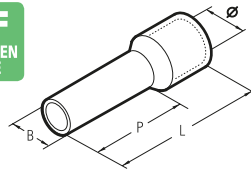
*Not UL approved

*Made to order

PKD

PA6 INSULATED END SLEEVES

for flexible Copper conductors



VALSTAR-N3 NEW

Comprising:

- a selection of end sleeves PKD conductor size 17÷10 AWG
- Cable ties type G100X2.5
- Tool type ZKE610N

VALSTAR-N2 NEW

Comprising:

- a selection of end sleeves PKE conductor size 17÷10 AWG
- Cable ties type G100X2.5
- Tool type ZKE610N

VALSTAR-N1 NEW

Comprising:

- a selection of end sleeves PKC conductor size 17÷10 AWG
- Cable ties type G100X2.5
- Tool type ZKE610N

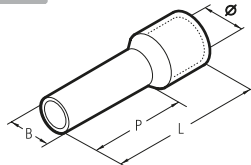
The PK.. range of end sleeves is manufactured from Tin plated electrolytic Copper with a purity greater than 99.9%. Designed and developed to reinforce fine wire strands when terminating a cable into a connector block. The PKD series of insulated end sleeves comply with specification DIN 46228/4. The operating temperature range is - 4 to + 239°F (Surge + 266°F). Recommended crimping tools are shown on pages 136 to 166, 213-214, 242-244.

Conductor Size AWG (sqmm)	Type	Dimensions in.				Insulation Color	Quantity Box/Bag
		Ø	B	P	L		
22÷20 (0.3÷0.5)	PKD506	0.10	0.06	0.24	0.47	white	10,000/500
	PKD508	0.10	0.06	0.31	0.55		10,000/500
	PKD510	0.10	0.06	0.39	0.63		10,000/500
18 (0.75)	PKD7506	0.11	0.06	0.24	0.47	grey	10,000/500
	PKD7508	0.11	0.06	0.31	0.55		10,000/500
	PKD7510	0.11	0.06	0.39	0.63		10,000/500
	PKD7512	0.11	0.06	0.47	0.71		10,000/500
17 (1)	PKD106	0.12	0.07	0.24	0.47	red	10,000/500
	PKD108	0.12	0.07	0.31	0.55		10,000/500
	PKD110	0.12	0.07	0.39	0.63		10,000/500
	PKD112	0.12	0.07	0.47	0.71		8,000/500
16 (1.5)	PKD1508	0.14	0.08	0.31	0.55	black	5,000/500
	PKD1510	0.14	0.08	0.39	0.63		5,000/500
	PKD1512	0.14	0.08	0.47	0.71		5,000/500
	PKD1518	0.14	0.08	0.71	0.94		5,000/500
14 (2.5)	PKD2508	0.17	0.1	0.31	0.55	blue	5,000/500
	PKD2512	0.17	0.1	0.47	0.71		4,000/500
	PKD2518	0.17	0.1	0.71	0.94		5,000/500
12 (4)	PKD410	0.19	0.13	0.39	0.71	grey	3,000/200
	PKD412	0.19	0.13	0.47	0.79		3,000/200
	PKD418	0.19	0.13	0.71	1.02		3,000/200
10 (6)	PKD612	0.25	0.16	0.47	0.79	yellow	1,500/100
	PKD618	0.25	0.16	0.71	1.02		1,500/100
8÷7 (10)	PKD1012	0.30	0.2	0.47	0.87	red	1,000/100
	PKD1018	0.30	0.2	0.71	1.10		1,000/100
6÷5 (16)	PKD1612	0.35	0.25	0.47	0.94	blue	800/100
	PKD1618	0.35	0.25	0.71	1.10		1,000/100
4 (25)	PKD25016	0.44	0.31	0.63	1.18	yellow	400/50
	PKD25022	0.44	0.31	0.87	1.42		400/50
2 (35)	PKD35016	0.50	0.35	0.63	1.18	red	300/50
	PKD35025	0.50	0.35	0.98	1.54		200/50
1/0 (50)	PKD50020	0.59	0.43	0.79	1.42	blue	200/50
	PKD50025	0.59	0.43	0.98	1.61		200/50

PKE

PA6 INSULATED END SLEEVES

for flexible Copper conductors



Conductor Size AWG (sqmm)	Type	Dimensions in.				Insulation Color	Quantity Box/Bag
		Ø	B	P	L		
26÷22 (0.1÷0.3)	PKE308*	0.07	0.04	0.31	0.47	yellow	20,000/500
22÷20 (0.3÷0.5)	PKE508*	0.10	0.06	0.31	0.55	white	10,000/500
18 (0.75)	PKE7508	0.11	0.06	0.31	0.55	blue	10,000/500
17 (1)	PKE108*	0.12	0.07	0.31	0.55	red	10,000/500
16 (1.5)	PKE1508*	0.14	0.08	0.31	0.55	black	5,000/500
	PKE1510*	0.14	0.08	0.39	0.63		5,000/500
	PKE1518*	0.14	0.08	0.71	0.94		5,000/500
14 (2.5)	PKE2508	0.17	0.1	0.31	0.55	grey	5,000/500
	PKE2512	0.17	0.1	0.47	0.71		4,000/500
	PKE2518	0.17	0.1	0.71	0.94		3,000/500
12 (4)	PKE410	0.19	0.13	0.39	0.71	orange	3,000/200
	PKE412	0.19	0.13	0.47	0.79		3,000/200
	PKE418	0.19	0.13	0.71	1.02		3,000/200
10 (6)	PKE612	0.25	0.16	0.47	0.79	green	1,500/100
	PKE618	0.25	0.16	0.71	1.02		1,500/100
8÷7 (10)	PKE1012	0.30	0.2	0.47	0.87	brown	1,000/100
	PKE1018	0.30	0.2	0.71	1.10		1,000/100
6÷5 (16)	PKE1612	0.35	0.24	0.47	0.91	ivory	800/100
	PKE1618	0.35	0.24	0.71	1.14		1,000/100
4 (25)	PKE25016	0.44	0.31	0.63	1.18	black	400/50
	PKE25022	0.44	0.31	0.87	1.42		400/50

*to DIN standard 46 228/4 *Not UL approved

PA6 INSULATED END SLEEVES

for flexible Copper conductors

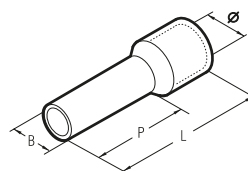
PKC

Conductor Size AWG (sqmm)	Type	Dimensions in.				Insulation Color	Quantity Box/Bag
		Ø	B	P	L		
26÷22 (0.1÷0.3)	PKC306*	0.07	0.04	0.24	0.39	● turquoise	20,000/500
	PKC308*	0.07	0.04	0.31	0.47		20,000/500
22÷20 (0.3÷0.5)	PKC508	0.10	0.06	0.31	0.55	● orange	10,000/500
	PKC510	0.10	0.06	0.39	0.63		10,000/500
18 (0.75)	PKC7508	0.11	0.06	0.31	0.55	○ white	10,000/500
	PKC7512	0.11	0.06	0.47	0.71		10,000/500
17 (1)	PKC108	0.12	0.07	0.31	0.55	● yellow	10,000/500
	PKC112	0.12	0.07	0.47	0.71		7,500/500
16 (1.5)	PKC1508	0.14	0.08	0.31	0.55		5,000/500
	PKC1510	0.14	0.08	0.39	0.63	● red	5,000/500
	PKC1518	0.14	0.08	0.71	0.94		5,000/500
14 (2.5)	PKC2508*	0.17	0.10	0.31	0.55		5,000/500
	PKC2512*	0.17	0.10	0.47	0.71	● blue	5,000/500
	PKC2518*	0.17	0.10	0.71	0.94		5,000/500
12 (4)	PKC410*	0.19	0.13	0.39	0.71		3,000/200
	PKC412*	0.19	0.13	0.47	0.79	● grey	3,000/200
	PKC418*	0.19	0.13	0.71	1.02		3,000/200
10 (6)	PKC612	0.25	0.16	0.47	0.79	● black	1,500/100
	PKC618	0.25	0.16	0.71	1.02		1,500/100
8÷7 (10)	PKC1012	0.30	0.20	0.47	0.87	○ ivory	1,000/100
	PKC1018	0.30	0.20	0.71	1.10		1,000/100
6÷5 (16)	PKC1612	0.35	0.24	0.47	0.91	● green	800/100
	PKC1618	0.35	0.24	0.71	1.14		1,000/100
4 (25)	PKC25016	0.44	0.31	0.63	1.18	● brown	400/50
	PKC25022	0.44	0.31	0.87	1.42		500/50
2 (35)	PKC35016	0.50	0.35	0.63	1.18	● beige	300/50
	PKC35025	0.50	0.35	0.98	1.54		300/50
1/0 (50)	PKC50020	0.59	0.43	0.79	1.42	● olive	200/50
	PKC50025	0.59	0.43	0.98	1.61		200/50
2/0 (70)	PKC70022*	0.63	0.56	0.87	1.50	● yellow	100/25
3/0 (95)	PKC95025*	0.71	0.62	0.98	1.73	● red	100/25
250 MCM (120)	PKC120027*	0.83	0.69	1.06	1.89	● blue	100/25

*to DIN standard 46 228/4 *Not UL approved



HF
HALOGEN
FREE



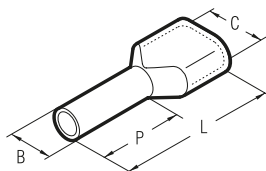
"TWIN" PA6 INSULATED END SLEEVES

for fine stranded conductors

PKT



HF
HALOGEN
FREE



Conductor Size AWG (sqmm)	Type	Dimensions in.				Insulation Color	ND1,ND2,ND3, ND4 and HNKE 50 Compression Aperture	Quantity Box/Bag
		C	B	P	L			
2 x 20 (2 x 0.5)	PKT508	0.19x0.10	0.07	0.32	0.55	○ white	1	5,000/500
	PKT510*	0.19x0.10	0.07	0.39	0.71			5,000/500
2 x 18 (2 x 0.75)	PKT7508	0.20x0.11	0.08	0.32	0.59	● grey	1,5	2,500/100
	PKT7510	0.20x0.11	0.08	0.39	0.67			2,500/100
2 x 17 (2 x 1)	PKT108	0.21x0.13	0.09	0.32	0.63	● red	2,5	2,500/100
	PKT110	0.21x0.13	0.09	0.39	0.71			2,500/100
2 x 16 (2 x 1.5)	PKT1508	0.26x0.14	0.10	0.32	0.63	● black	2,5	2,500/100
	PKT1512	0.26x0.14	0.10	0.47	0.79			2,500/100
2 x 14 (2 x 2.5)	PKT2510	0.31x0.17	0.13	0.39	0.79	● blue	4	2,000/100
	PKT2512	0.31x0.17	0.13	0.47	0.87			1,500/100
2 x 12 (2 x 4)	PKT412	0.35x0.19	0.17	0.47	0.91	● grey	6	1,000/100
2 x 10 (2 x 6)	PKT614	0.39x0.27	0.21	0.55	1.02	● yellow	10	800/100
2 x 8÷7 (2 x 10)	PKT1014*	0.52x0.30	0.24	0.47	0.94	● red	16	500/50
2 x 6÷5 (2 x 16)	PKT1614	0.73x0.38	0.35	0.55	1.20	● blue	35	300/50

*Not UL approved



Type PKT range of end sleeves is manufactured from Tin plated electrolytic Copper with a purity greater than 99.9%.

Designed to accommodate two cables terminating in the same sleeve.

The operating temperature range is -4 to +239°F (Surge +266°F).

Recommended crimping tools are shown on pages 136 to 166, 213-214, 242-244.

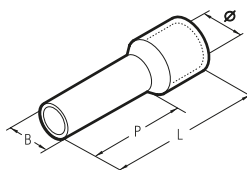
CPKD CPKC



POLYPROPYLENE INSULATED CHAIN END SLEEVES

for flexible Copper conductors

HF
HALOGEN
FREE



Conductor Size AWG (sqmm)	Type	Dimensions in.				Insulation Color	Quantity Box/Bag
		Ø	B	P	L		
22÷20 (0.3÷0.5)	CPKD508	0.10	0.05	0.31	0.55	○ white	5,000
18 (0.75)	CPKD7508	0.11	0.06	0.31	0.55	● grey	5,000
18 (0.75)	CPKC7508 NEW	0.11	0.06	0.31	0.55	○ white	5,000
17 (1)	CPKD108	0.12	0.07	0.31	0.55	● red	5,000
15 (1,5)	CPKD1508	0.14	0.08	0.31	0.55	● black	5,000
13 (2,5)	CPKD2508	0.17	0.10	0.31	0.55	● blue	3,000

Conforms to DIN standard 46228/4.

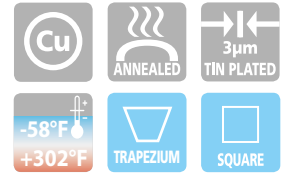
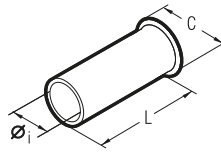


Interchangeable application heads are available for crimping these terminals with the bench press ELB-3 (see page 166).

UNINSULATED END SLEEVES

for flexible Copper conductors

KE

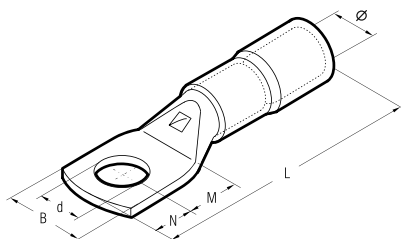


Conductor Size AWG (sqmm)	Type	Dimensions in.			Quantity Box/Bag
		ø	L	C	
22÷20 (0.5)	KE506ST*	0.04	0.24	0.07	50,000/500
	KE508ST	0.04	0.31	0.07	50,000/500
18 (0.75)	KE7506ST*	0.05	0.24	0.09	40,000/500
	KE7508ST	0.05	0.31	0.09	40,000/500
17 (1)	KE106ST*	0.06	0.24	0.09	25,000/500
	KE110ST*	0.06	0.39	0.09	25,000/500
16 (1.5)	KE1508ST	0.07	0.31	0.11	25,000/500
	KE1510ST*	0.07	0.39	0.11	25,000/500
14 (2.5)	KE2508ST	0.09	0.31	0.13	20,000/500
	KE2510ST*	0.09	0.39	0.13	15,000/500
12 (4)	KE410ST	0.11	0.39	0.16	12,500/500
	KE412ST*	0.11	0.47	0.16	10,000/500
10 (6)	KE610ST*	0.14	0.39	0.19	10,000/500
	KE612ST*	0.14	0.47	0.19	7,500/500
	KE616ST*	0.14	0.59	0.19	5,000/500
8÷7 (10)	KE1016ST*	0.18	0.59	0.23	4,000/250
6÷5 (16)	KE1616ST*	0.23	0.59	0.30	3,000/250
4 (25)	KE25015ST	0.29	0.59	0.37	1,500/100
	KE25018ST*	0.29	0.71	0.37	1,500/100
2 (35)	KE35012ST	0.33	0.47	0.41	1,500/100
	KE35015ST	0.33	0.63	0.41	1,500/100
	KE35018ST*	0.33	0.71	0.41	1,000/100

*to DIN standard 46 228/1

KE series end sleeves are manufactured from Tin plated electrolytic Copper of grade CW024A according to EN 12449, with purity greater than 99%. The compact geometry of the range allows for the termination of flexible conductors in confined spaces.

Recommended crimping tools are shown on pages 136 to 166, 213-214, 242-244.



ANE-M series lugs are manufactured from electrolytic Copper tube with a purity greater than 99.9%, annealed and Tin plated. The interior of the Nylon insulated sleeve is funnel shaped so as to ensure complete and easy introduction of the conductor strands. It also eliminates the need to insulate the terminal using either tape or heat shrinkable tubing. Furthermore the PA6.6 sleeve avoids the possibility of conductor breakage at the barrel entrance. The operating temperature range is -4 to +239°F (Surge + 266°F). In order to achieve the best electrical and mechanical performance it is suggested that they are crimped using dies and tools specifically developed for this purpose by Cembre.

Details of the appropriate crimping tools and dies are shown on pages 292 to 293.

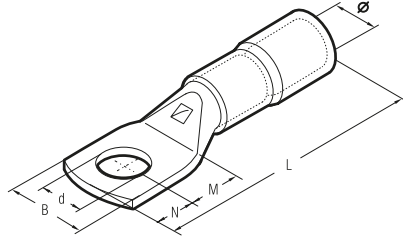
Cond. Size Flexible AWG	Ø Stud in.	Type	Dimensions in.						Quantity Box/Bag	Mechanical Tools		Hydraulic Tools	
			Ø	B	M	N	L	d					
8	#8	ANE2-M4	0.31	0.39	0.20	0.16	1.34	0.17	500/100	HNN3	HNN4	B15MA	
	#10	ANE2-M5	0.31	0.39	0.26	0.24	1.48	0.21	500/100				
	1/4"	ANE2-M6	0.31	0.43	0.28	0.24	1.50	0.25	500/100				
	5/16"	ANE2-M8	0.31	0.59	0.35	0.31	1.66	0.33	500/100				
	3/8"	ANE2-M10	0.31	0.71	0.43	0.39	1.81	0.41	500/100				
	1/2"	ANE2-M12	0.31	0.75	0.55	0.47	2.01	0.52	500/100				
6	#8	ANE3-M4	0.36	0.45	0.20	0.16	1.52	0.17	400/100	HNN4	HNN4	B15MA	
	#10	ANE3-M5	0.36	0.45	0.26	0.24	1.66	0.21	400/100				
	1/4"	ANE3-M6	0.36	0.45	0.28	0.24	1.68	0.25	400/100				
	5/16"	ANE3-M8	0.36	0.59	0.35	0.31	1.83	0.33	400/100				
	3/8"	ANE3-M10	0.36	0.71	0.43	0.39	1.99	0.41	300/100				
	1/2"	ANE3-M12	0.36	0.79	0.55	0.47	2.19	0.52	300/100				
4	#8	ANE5-M4	0.44	0.55	0.20	0.16	1.61	0.17	300/100	TNN70	TNN70	B15MA	
	#10	ANE5-M5	0.44	0.55	0.26	0.24	1.75	0.21	300/100				
	1/4"	ANE5-M6	0.44	0.55	0.28	0.24	1.77	0.25	300/100				
	5/16"	ANE5-M8	0.44	0.59	0.35	0.31	1.93	0.33	300/100				
	3/8"	ANE5-M10	0.44	0.71	0.43	0.39	2.09	0.41	200/100				
	1/2"	ANE5-M12	0.44	0.83	0.55	0.47	2.28	0.52	200/50				
2	1/4"	ANE7-M6	0.54	0.67	0.28	0.24	1.97	0.25	100/50	TNN120	TNN120	B15MA	
	5/16"	ANE7-M8	0.54	0.67	0.35	0.31	2.13	0.33	100/50				
	3/8"	ANE7-M10	0.54	0.75	0.43	0.39	2.28	0.41	100/50				
	1/2"	ANE7-M12	0.54	0.83	0.55	0.47	2.48	0.52	100/50				
2-1/0	1/4"	ANE10-M6	0.54	0.75	0.31	0.28	2.09	0.25	150/50	TNN120	TNN120	B15MA	
	5/16"	ANE10-M8	0.54	0.75	0.35	0.31	2.17	0.33	150/50				
	3/8"	ANE10-M10	0.54	0.79	0.45	0.37	2.32	0.41	150/50				
	1/2"	ANE10-M12	0.54	0.83	0.47	0.47	2.44	0.52	150/50				
1/0-2/0	1/4"	ANE14-M6	0.62	0.83	0.31	0.28	2.40	0.25	75/25	TNN120	TNN120	B15MA	
	5/16"	ANE14-M8	0.62	0.83	0.35	0.31	2.48	0.31	75/25				
	3/8"	ANE14-M10	0.62	0.83	0.43	0.39	2.64	0.41	75/25				
	1/2"	ANE14-M12	0.62	0.87	0.55	0.47	2.83	0.52	75/25				
	9/16"	ANE14-M14	0.62	0.98	0.63	0.55	2.99	0.59	100/25				
	5/16"	ANE19-M8	0.71	0.98	0.35	0.31	2.87	0.33	50/25				
2/0	3/8"	ANE19-M10	0.71	0.98	0.43	0.39	3.03	0.41	50/25	TNN120	TNN120	B15MA	
	1/2"	ANE19-M12	0.71	0.98	0.55	0.47	3.23	0.52	50/25				
	9/16"	ANE19-M14	0.71	0.98	0.63	0.55	3.39	0.59	50/25				
	5/8"	ANE19-M16	0.71	1.06	0.71	0.63	3.15	0.67	50/25				
3/0	3/8"	ANE24-M10	0.79	1.12	0.43	0.39	3.06	0.41	50/25	TNN120	TNN120	B15MA	
	1/2"	ANE24-M12	0.79	1.12	0.55	0.47	3.41	0.52	50/25				
	9/16"	ANE24-M14	0.79	1.12	0.63	0.55	3.48	0.59	50/25				
	5/8"	ANE24-M16	0.79	1.12	0.71	0.63	3.56	0.67	50/25				
250	1/2"	ANE30-M12	0.91	1.24	0.63	0.55	3.98	0.52	20/10	TNN120	TNN120	B15MA	
	9/16"	ANE30-M14	0.91	1.24	0.71	0.63	4.13	0.59	30/15				
	5/8"	ANE30-M16	0.91	1.24	0.75	0.67	4.21	0.67	30/15				
	3/4"	ANE30-M20	0.91	1.24	0.87	0.79	4.45	0.83	30/15				

NYLON INSULATED COPPER TUBE LUGS

for extra flexible Copper conductors

ANE-M

• for fine stranded •
SPECIAL
flexible conductors



Conductor Size Extra Flexible AWG	Ø Stud in.	Type	Dimensions in.						Quantity Box/Bag	Mechanical Tools	Hydraulic Tools							
			Ø	B	M	N	L	d										
2	1/4"	ANE9-M6/15*	0.54	0.59	0.31	0.28	2.13	0.25	150/50	TNN70	TNN120	HT51	B550CA	B500NDA	B500A	RH50	B1300L-CA and similar tools for U dies	FCW-H3D
	5/16"	ANE9-M8	0.54	0.67	0.35	0.31	2.20	0.33	150/50									
	3/8"	ANE9-M10	0.54	0.73	0.43	0.39	2.36	0.41	150/50									
	1/2"	ANE9-M12	0.54	0.83	0.55	0.47	2.56	0.52	150/50									
2-1/0	1/4"	ANE12-M6/15*	0.62	0.59	0.31	0.28	2.34	0.25	50/25									
	5/16"	ANE12-M8	0.62	0.78	0.35	0.31	2.42	0.33	50/25									
	3/8"	ANE12-M10	0.62	0.78	0.43	0.39	2.58	0.41	50/25									
	3/8"	ANE12-M10/19*	0.62	0.75	0.43	0.39	2.58	0.41	50/25									
1/0-2/0	1/2"	ANE12-M12	0.62	0.87	0.55	0.47	2.78	0.52	50/25									
	1/4"	ANE17-M6	0.70	0.91	0.31	0.28	2.51	0.25	100/25									
	5/16"	ANE17-M8	0.70	0.91	0.35	0.31	2.59	0.33	50/25									
	3/8"	ANE17-M10	0.70	0.91	0.43	0.39	2.75	0.41	50/25									
3/0	3/8"	ANE17-M10/19*	0.70	0.75	0.43	0.39	2.75	0.41	100/25									
	1/2"	ANE17-M12	0.70	0.91	0.55	0.47	2.94	0.52	50/25									
	9/16"	ANE17-M14	0.70	0.98	0.61	0.47	3.00	0.59	50/25									
	5/8"	ANE17-M16	0.70	1.06	0.65	0.53	3.10	0.67	50/25									
2/0	5/16"	ANE20-M8	0.79	1.06	0.35	0.31	2.78	0.33	50/25									
	3/8"	ANE20-M10	0.79	1.06	0.43	0.39	2.94	0.41	50/25									
	1/2"	ANE20-M12	0.79	1.06	0.55	0.47	3.13	0.52	50/25									
	9/16"	ANE20-M14	0.79	1.06	0.61	0.47	3.19	0.59	50/25									
3/0	5/8"	ANE20-M16	0.79	1.06	0.65	0.53	3.29	0.67	50/25									
	3/8"	ANE29-M10	0.88	1.18	0.43	0.39	3.21	0.41	30/15									
	1/2"	ANE29-M12	0.88	1.18	0.55	0.47	3.41	0.52	30/15									
	9/16"	ANE29-M14	0.88	1.18	0.61	0.47	3.48	0.59	50/25									
250	5/8"	ANE29-M16	0.88	1.18	0.65	0.53	3.56	0.67	50/25									
	3/4"	ANE29-M20	0.88	1.18	0.87	0.79	4.04	0.83	40/20									
235	1/2"	ANE35-M12	0.98	1.35	0.63	0.55	3.74	0.52	30/15									
	9/16"	ANE35-M14	0.98	1.35	0.71	0.63	3.90	0.59	30/15									
	5/8"	ANE35-M16	0.98	1.35	0.75	0.67	3.98	0.67	30/15									
	3/4"	ANE35-M20	0.98	1.35	0.87	0.79	4.21	0.83	30/15									
300																		
MCM																		



These lugs are particularly recommended for use with extra flexible conductors on for instance, welding machines.

ANE-M series lugs are manufactured from electrolytic Copper tube with a purity greater than 99.9%, annealed and Tin plated.

The interior of the Nylon insulated sleeve is funnel shaped so as to ensure complete and easy introduction of the conductor strands.

It also eliminates the need to insulate the terminal using either tape or heat shrinkable tubing.

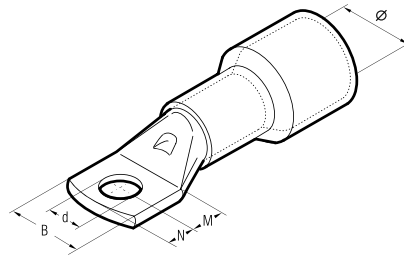
Furthermore the PA6.6 sleeve avoids the possibility of conductor breakage at the barrel entrance.

The operating temperature range is -4 to +239°F (Surge + 266°F).

In order to achieve the best electrical and mechanical performance it is suggested that they are crimped using dies and tools specifically developed for this purpose by Cembre.

Details of the appropriate crimping tools and dies are shown on pages 292 to 293.

AN-M
IN-M
EN-M



These terminals are particularly recommended for use with flexible conductors.

They are manufactured from electrolytic copper tube with a purity greater than 99.9% and with dimension so as to ensure both a good electrical connection and an adequate resistance to vibrations and traction; they are annealed and tin plated.

For the same cable section are available different types of connectors with Nylon sleeve entry of different diameters so as to accept conductors with various insulation thickness.

The insulated sleeve additionally will accept the conductor so avoiding a sudden bending of the conductor itself at the connector entry, highly increasing its resistance to the mechanical solicitations that could break the conductor strands.

- To complete the type of connectors add the screw diameter expressed in mm to the M reference.

- The M, N, and B dimensions concerning the palm are the same as the A-M connector ones.

These connectors can be used also on low stranded conductors if crimped with radial containment dies of the MN..RF-C series.

In order to achieve the best electrical and mechanical performance it is suggested that they are crimped using dies and tools specifically developed for this purpose by Cembre (see page 292 to 293).

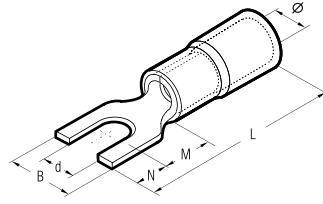
NYLON INSULATED COPPER TUBE LUGS

for Copper conductors

Conductor Size (AWG)		Type	Insulation		Mechanical Tools	Hydraulic Tools
low stranded	Flexible		Ø in.	Color		
	(14)	AN06-M.....	0.16	blue	HNN3	
		IN06-M.....	0.20	green		
		ENR06-M.....	0.23	blue		
		EN06-M.....	0.27	blue		
	(10)	AN1-M.....	0.20	yellow	HNN3	
		IN1-M.....	0.25	neutral		
		ON1-M.....	0.29	blue		
		UN1-M.....	0.34	blue		
	(8)	EN1-M.....	0.55	red	HNN3	
		AN2-M.....	0.31	red		
		IN2-M.....	0.42	blue		
		ENR2-M.....	0.49	blue		
	(6)	EN2-M.....	0.59	red	HNN4	B15MA
		AN3-M.....	0.36	blue		
		EN3-M.....	0.46	blue		
		IN3-M.....	0.66	red		
	(4)	AN5-M.....	0.44	yellow	TNN70	B500CA
		AN7-M.....	0.47	red		
		EN7-M.....	0.51	blue		
		IN7-M.....	0.73	red		
	(2)	AN10-M.....	0.54	neutral	TNN120	B500DA
		IN10-M.....	0.59	blue		
		ENR10-M.....	0.68	blue		
		EN10-M.....	0.79	red		
	(1/0)	AN14-M.....	0.62	blue	TNN120	B500A
		IN14-M.....	0.66	blue		
		IN14-M.....	0.86	red		
		AN17-M.....	0.70	yellow		
	(2/0)	AN19-M.....	0.71	blue	TNN120	HT51
		EN19-M.....	0.77	blue		
		IN19-M.....	0.95	red		
		AN24-M.....	0.79	red		
	(3/0)	IN24-M.....	0.87	blue	TNN120	B1300L-CA and similar tools for U dies
		EN24-M.....	1.06	red		
		AN30-M.....	0.90	red		
		EN30-M.....	0.96	blue		
	(250 MCM)	IN30-M.....	1.14	red	TNN120	ECW-H3D
		AN37-M.....	1.14	blue		
		IN37-M.....	1.24	red		
		EN48-M.....	1.15	red		
	(300 MCM)	IN48-M.....	1.35	red	TNN120	
		EN60-M.....	1.31	red		
		IN60-M.....	1.49	red		
		EN80-M.....	1.48	blue		
	(350 MCM)	IN80-M.....	1.61	red	TNN120	
		IN80-M.....	1.61	red		

NYLON INSULATED FORK TERMINALS

for Copper conductors



Conductor Size Flexible AWG	Ø Stud in.	Type	Dimensions in.						Quantity Box/Bag	Mechanical Tools			Hydraulic Tools				
			Ø	B	M	N	L	d									
8	#8	ANE2-U4	0.31	0.39	0.30	0.28	1.38	0.17	500/100	HNN3	HNN4	TNN70	TNN120	B15MA	HT51 RH50 B500A B500NDA B550CA	B1300L-CA and similar tools for U dies	ECW-H3D
	#10	ANE2-U5	0.31	0.45	0.30	0.28	1.38	0.21	500/100								
6	#8	ANE3-U4	0.36	0.39	0.39	0.31	1.62	0.17	400/100	HNN3	HNN4	TNN70	TNN120	B15MA	HT51 RH50 B500A B500NDA B550CA	B1300L-CA and similar tools for U dies	ECW-H3D
	#10	ANE3-U5	0.36	0.45	0.39	0.31	1.62	0.21	400/100								

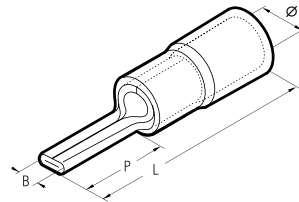


ANE-U series terminals are made from electrolytic Copper with a purity greater than 99.9%, rolled, Tin plated and brazed. The interior of the Nylon insulated sleeve is funnel shaped so as to ensure complete and easy introduction of the conductor strands. The operating temperature range is -4 to +239°F (Surge + 266°F)..

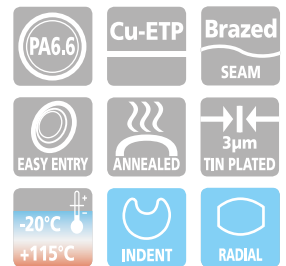
In order to achieve the best electrical and mechanical performance it is suggested that they are crimped using dies and tools specifically developed for this purpose by Cembre. Details of the appropriate crimping tools and dies are shown on pages 292 to 293.

NYLON INSULATED PIN TERMINALS

for Copper conductors



Conductor Size Flexible AWG	Type	Dimensions in.				Quantity Box/Bag	Mechanical Tools				Hydraulic Tools			
		Ø	B	P	L		HNN3	HNN4	TNN70	TNN120	B15MA	HT51 RH50 B500A B500NDA B550CA	B1300L-CA and similar tools for U dies	ECW-H3D
8	ANE2-P12	0.31	0.17	0.57	1.38	500/100	HNN3	HNN4	TNN70	TNN120	B15MA	HT51 RH50 B500A B500NDA B550CA	B1300L-CA and similar tools for U dies	ECW-H3D
6	ANE3-P14	0.36	0.22	0.71	1.62	400/100								
4	ANE5-P16	0.44	0.27	0.80	1.77	300/100								
2	ANE7-P20	0.54	0.31	0.96	2.17	150/50								



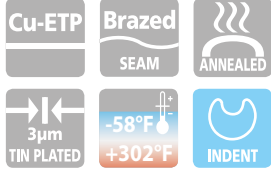
ANE-P series terminals are made from electrolytic Copper with a purity greater than 99.9%, rolled, Tin plated and brazed. The interior of the Nylon insulated sleeve is funnel shaped so as to ensure complete and easy introduction of the conductor strands. The operating temperature range is -4 to +239°F (Surge + 266°F)..

In order to achieve the best electrical and mechanical performance it is suggested that they are crimped using dies and tools specifically developed for this purpose by Cembre. Details of the appropriate crimping tools and dies are shown on pages 292 to 293.

S

UNINSULATED TERMINALS

S range - brazed seam - for Copper conductors

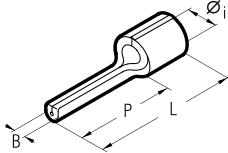


S range terminals are manufactured from electrolytic Copper strip with a purity greater than 99.9% and Tin plated.

The seam is brazed to provide uniform mechanical strength. The terminal barrel is rifled to enhance electrical contact and to

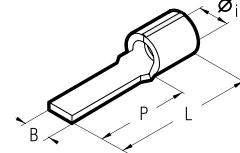
improve mechanical strength. Recommended crimping tools are shown on pages 136 to 163, 242.

pin terminals



Conductor Size AWG (sqmm)	Type	Dimensions in.				Quantity Box/Bag
		Øi	B	P	L	
22÷16 (0.25÷1.5)	S1.5-P8	0.07	0.06	0.31	0.47	8,000/100
	S1.5-P10	0.07	0.06	0.39	0.55	8,000/100
	S1.5-P12	0.07	0.06	0.47	0.64	8,000/100
16÷14 (1.5÷2.5)	S2.5-P8	0.09	0.06	0.31	0.47	7,000/100
	S2.5-P10	0.09	0.06	0.39	0.55	7,000/100
	S2.5-P12	0.09	0.06	0.47	0.63	7,000/100
12÷10 (4÷6)	S6-P10	0.14	0.09	0.39	0.66	4,000/100
	S6-P12	0.14	0.09	0.47	0.76	4,000/100
	S6-P14	0.14	0.09	0.55	0.83	3,500/100

blade terminals



Conductor Size AWG (sqmm)	Type	Dimensions in.				Quantity Box/Bag
		Øi	B	P	L	
22÷16 (0.25÷1.5)	S1.5-PP12	0.07	0.12	0.50	0.67	8,000/100
	S1.5-PP12/1*	0.07	0.12	0.44	0.61	8,000/100
	S1.5-PP12/19	0.07	0.07	0.52	0.69	8,000/100
	S1.5-PP14	0.07	0.12	0.58	0.75	8,000/100
16÷14 (1.5÷2.5)	S2.5-PP12	0.09	0.14	0.50	0.67	7,000/100
	S2.5-PP12/25	0.09	0.10	0.52	0.69	7,000/100
	S2.5-PP16/25	0.09	0.10	0.68	0.84	7,000/100
	S6-PP12	0.14	0.16	0.52	0.78	4,000/100
12÷10 (4÷6)	S6-PP17	0.14	0.11	0.75	1.00	4,000/100

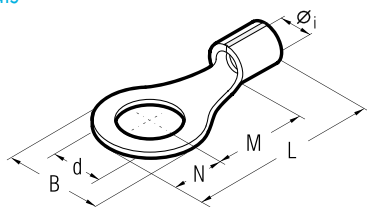
*Made to order

UNINSULATED TERMINALS

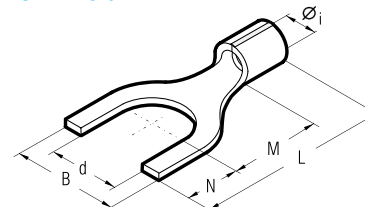
S

S range - brazed seam - for Copper conductors

ring terminals



fork/spade terminals



Conductor Size AWG (sqmm)	Ø Stud in.	Type	Dimensions in.						Quantity Box/Bag
			Øi	B	M	N	L	d	
22÷16 (0.25÷1.5)	#3	S1.5-M2*	0.07	0.22	0.18	0.11	0.45	0.09	7,000/100
	#4	S1.5-M3	0.07	0.22	0.18	0.11	0.45	0.13	7,000/100
	#6	S1.5-M3.5	0.07	0.22	0.18	0.11	0.45	0.15	7,000/100
	#6	S1.5-M3.5/1*	0.07	0.24	0.28	0.12	0.57	0.15	7,000/100
	#8	S1.5-M4	0.07	0.28	0.26	0.14	0.56	0.17	7,000/100
	#8	S1.5-M4/3*	0.07	0.31	0.28	0.15	0.60	0.17	7,000/100
	#10	S1.5-M5	0.07	0.31	0.28	0.15	0.60	0.21	7,000/100
	1/4"	S1.5-M6	0.07	0.37	0.32	0.19	0.67	0.25	6,000/100
	1/4"	S1.5-M6/1	0.07	0.47	0.41	0.24	0.81	0.25	5,000/100
	17/64"	S1.5-M7	0.07	0.37	0.32	0.19	0.67	0.28	6,000/100
	5/16"	S1.5-M8	0.07	0.47	0.41	0.24	0.81	0.33	4,000/100
	3/8"	S1.5-M10	0.07	0.61	0.51	0.30	0.98	0.41	3,000/100
16÷14 (1.5÷2.5)	1/2"	S1.5-M12	0.07	0.71	0.61	0.35	1.13	0.51	2,000/100
	#4	S2.5-M3	0.09	0.22	0.20	0.11	0.47	0.13	6,000/100
	#6	S2.5-M3.5	0.09	0.22	0.20	0.11	0.47	0.15	6,000/100
	#6	S2.5-M3.5/1*	0.09	0.24	0.26	0.12	0.54	0.15	5,000/100
	#8	S2.5-M4	0.09	0.31	0.26	0.16	0.58	0.17	5,000/100
	#10	S2.5-M5	0.09	0.31	0.30	0.16	0.62	0.21	5,000/100
	1/4"	S2.5-M6	0.09	0.37	0.34	0.19	0.69	0.25	5,000/100
	1/4"	S2.5-M6/1	0.09	0.47	0.41	0.24	0.81	0.25	5,000/100
	17/64"	S2.5-M7	0.09	0.39	0.31	0.20	0.67	0.28	5,000/100
	5/16"	S2.5-M8	0.09	0.47	0.41	0.24	0.81	0.33	4,000/100
	3/8"	S2.5-M10	0.09	0.61	0.51	0.30	0.98	0.41	2,500/100
	1/2"	S2.5-M12	0.09	0.71	0.61	0.35	1.13	0.51	2,000/100
12÷10 (4÷6)	#4	S6-M3	0.14	0.31	0.32	0.16	0.73	0.13	3,000/100
	#6	S6-M3.5	0.14	0.31	0.32	0.16	0.73	0.15	3,000/100
	#8	S6-M4	0.14	0.35	0.32	0.18	0.75	0.17	3,000/100
	#10	S6-M5	0.14	0.35	0.32	0.18	0.75	0.21	2,500/100
	1/4"	S6-M6	0.14	0.43	0.44	0.22	0.91	0.25	2,500/100
	1/4"	S6-M6/1*	0.14	0.43	0.32	0.22	0.79	0.25	2,500/100
	17/64"	S6-M7	0.14	0.43	0.44	0.22	0.91	0.28	2,500/100
	5/16"	S6-M8	0.14	0.54	0.48	0.27	1.00	0.33	2,000/100
	3/8"	S6-M8/1*	0.14	0.43	0.32	0.22	0.79	0.33	2,500/100
	3/8"	S6-M10	0.14	0.54	0.48	0.27	1.00	0.41	2,000/100
	3/8"	S6-M10/1	0.14	0.61	0.54	0.30	1.10	0.41	2,000/100
	1/2"	S6-M12	0.14	0.75	0.59	0.37	1.22	0.51	1,000/100
10 (8)	9/16"	S6-M14	0.14	0.83	0.63	0.41	1.30	0.59	1,000/100
	5/8"	S6-M16	0.14	0.94	0.67	0.47	1.40	0.67	1,000/100
	#8	S10-M4	0.19	0.45	0.35	0.23	0.94	0.17	2,000/100
	#10	S10-M5	0.19	0.45	0.35	0.23	0.94	0.21	2,000/100
	1/4"	S10-M6	0.19	0.45	0.35	0.23	0.94	0.25	2,000/100
	17/64"	S10-M7	0.19	0.45	0.35	0.23	0.94	0.28	1,500/100

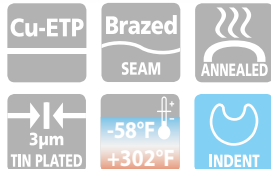
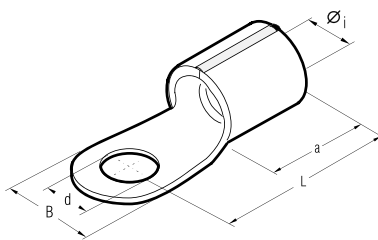
Conductor Size AWG (sqmm)	Ø Stud in.	Type	Dimensions in.						Quantity Box/Bag
			Øi	B	M	N	L	d	
22÷16 (0.25÷1.5)	#4	S1.5-U3	0.07	0.22	0.22	0.16	0.54	0.13	7,000/100
	#6	S1.5-U3.5	0.07	0.24	0.26	0.15	0.57	0.15	7,000/100
	#6	S1.5-U3.5/2*	0.07	0.25	0.26	0.15	0.57	0.15	7,000/100
	#8	S1.5-U4	0.07	0.26	0.30	0.15	0.61	0.17	7,000/100
	#8	S1.5-U4/1*	0.07	0.33	0.30	0.15	0.61	0.17	7,000/100
	#8	S1.5-U4/2	0.07	0.30	0.30	0.15	0.61	0.17	7,000/100
	#10	S1.5-U5	0.07	0.33	0.30	0.15	0.61	0.21	7,000/100
	#10	S1.5-U5/1	0.07	0.37	0.30	0.15	0.61	0.21	7,000/100
	1/4"	S1.5-U6	0.07	0.37	0.32	0.19	0.67	0.25	6,000/100
	1/4"	S1.5-U6/1*	0.07	0.47	0.36	0.28	0.81	0.25	6,000/100
	5/16"	S1.5-U8	0.07	0.55	0.39	0.25	0.81	0.33	3,000/100
	3/8"	S1.5-U10	0.07	0.69	0.51	0.30	0.98	0.41	2,500/100
16÷14 (1.5÷2.5)	1/2"	S1.5-U12	0.07	0.79	0.61	0.35	1.13	0.51	2,000/100
	#4	S2.5-U3	0.09	0.22	0.22	0.16	0.54	0.13	6,000/100
	#6	S2.5-U3.5	0.09	0.25	0.26	0.15	0.57	0.15	6,000/100
	#6	S2.5-U3.5/1*	0.09	0.28	0.26	0.15	0.57	0.15	6,000/100
	#8	S2.5-U4	0.09	0.26	0.30	0.15	0.61	0.17	5,000/100
	#8	S2.5-U4/1*	0.09	0.33	0.30	0.15	0.61	0.17	6,000/100
	#8	S2.5-U4/2*	0.09	0.30	0.30	0.15	0.61	0.17	6,000/100
	#10	S2.5-U5	0.09	0.33	0.30	0.15	0.61	0.21	6,000/100
	1/4"	S2.5-U6	0.09	0.37	0.32	0.19	0.67	0.25	5,000/100
	1/4"	S2.5-U6/1*	0.09	0.47	0.36	0.28	0.81	0.25	4,000/100
	5/16"	S2.5-U8	0.09	0.55	0.39	0.25	0.81	0.33	2,500/100
	3/8"	S2.5-U10	0.09	0.69	0.51	0.30	0.98	0.41	2,000/100
12÷10 (4÷6)	1/2"	S2.5-U12	0.09	0.79	0.61	0.35	1.13	0.51	2,000/100
	#6	S6-U3.5	0.14	0.30	0.33	0.15	0.74	0.15	3,000/100
	#8	S6-U4	0.14	0.30	0.31	0.17	0.74	0.17	3,000/100
	#10	S6-U5	0.14	0.37	0.31	0.17	0.74	0.21	2,500/100
	1/4"	S6-U6	0.14	0.39	0.43	0.22	0.90	0.25	2,500/100
	5/16"	S6-U8	0.14	0.53	0.47	0.31	1.04	0.33	2,000/100
	3/8"	S6-U10	0.14	0.61	0.51	0.31	1.08	0.41	2,000/100
	3/8"	S6-U10/1*	0.14	0.69	0.54	0.30	1.10	0.41	2,000/100
	1/2"	S6-U12	0.14	0.83	0.59	0.37	1.22	0.51	1,000/100
	9/16"	S6-U14	0.14	0.91	0.63	0.41	1.30	0.59	1,000/100
	5/8"	S6-U16*	0.14	1.02	0.67	0.45	1.38	0.67	1,000/100

*Made to order



CRIMPING CONNECTORS ACCORDING TO DIN 46234

for Copper conductors



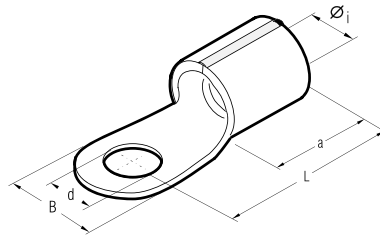
Q type connectors are manufactured from electrolytic Copper strip with a purity greater than 99.9%, annealed and surface protected by tin plating; dimensions are compliant with DIN 46234; the sleeve is brazed with a silver-Copper alloy. Details of the conductor csa and stud diameter are engraved on the palm. Details of the appropriate crimping tools and dies are shown on page 294-295.

Consult us for special requirements.

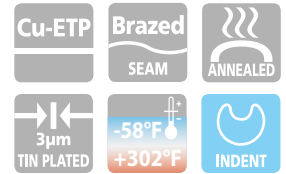
Conductor Size AWG	Ø Stud in.	Type	Dimensions in.					Quantity Box/Bag	Mechanical Tools	Hydraulic Tools			
			Øi	d	L	B	a						
10÷8	#8	Q10-4	0.18	0.17	0.63	0.39	0.31	1,500/100	HN5	HT81-U RHU81	B1300L-CA and similar tools for U dies		
	#10	Q10-5	0.18	0.21	0.63	0.39	0.31	1,500/100					
	1/4"	Q10-6	0.18	0.26	0.67	0.43	0.31	1,000/100					
	5/16"	Q10-8	0.18	0.33	0.79	0.55	0.31	1,000/100					
	3/8"	Q10-10	0.18	0.41	0.83	0.71	0.31	1,000/100					
	1/2"	Q10-12	0.18	0.51	0.87	0.87	0.31	500/100					
8÷6	#10	Q16-5	0.23	0.21	0.79	0.43	0.39	1,000/100					
	1/4"	Q16-6	0.23	0.26	0.79	0.43	0.39	1,000/100					
	5/16"	Q16-8	0.23	0.33	0.87	0.55	0.39	500/100					
	3/8"	Q16-10	0.23	0.41	0.94	0.71	0.39	500/100					
	1/2"	Q16-12	0.23	0.51	1.02	0.87	0.39	500/100					
6÷4	#10	Q25-5	0.30	0.21	0.98	0.47	0.43	500/100					
	1/4"	Q25-6	0.30	0.26	0.98	0.47	0.43	500/100					
	5/16"	Q25-8	0.30	0.33	0.98	0.63	0.43	500/100					
	3/8"	Q25-10	0.30	0.41	1.02	0.71	0.43	500/100					
	1/2"	Q25-12	0.30	0.51	1.22	0.87	0.43	500/100					
	5/8"	Q25-16	0.30	0.67	1.38	1.10	0.43	200/100					
4÷2	1/4"	Q35-6	0.35	0.26	1.02	0.59	0.47	400/100					
	5/16"	Q35-8	0.35	0.33	1.02	0.63	0.47	400/100					
	3/8"	Q35-10	0.35	0.41	1.06	0.71	0.47	300/100					
	1/2"	Q35-12	0.35	0.51	1.22	0.87	0.47	250/50					
	5/8"	Q35-16	0.35	0.67	1.42	1.10	0.47	200/50					
2÷1/0	1/4"	Q50-6	0.43	0.26	1.34	0.71	0.63	200/50					
	5/16"	Q50-8	0.43	0.33	1.34	0.71	0.63	200/50					
	3/8"	Q50-10	0.43	0.41	1.34	0.71	0.63	200/50					
	1/2"	Q50-12	0.43	0.51	1.42	0.87	0.63	200/50					
	5/8"	Q50-16	0.43	0.67	1.57	1.10	0.63	200/50					
1/0 2/0	1/4"	Q70-6	0.51	0.26	1.50	0.87	0.71	100/50					
	5/16"	Q70-8	0.51	0.33	1.50	0.87	0.71	100/50					
	3/8"	Q70-10	0.51	0.41	1.50	0.87	0.71	100/50					
	1/2"	Q70-12	0.51	0.51	1.50	0.87	0.71	100/50					
2/0 3/0	5/8"	Q70-16	0.51	0.67	1.65	1.10	0.71	100/50					
	5/16"	Q95-8	0.59	0.33	1.65	0.94	0.79	100/25					
	3/8"	Q95-10	0.59	0.41	1.65	0.94	0.79	100/25					
	1/2"	Q95-12	0.59	0.51	1.73	0.94	0.79	100/25					
	5/8"	Q95-16	0.59	0.67	2.76	1.10	0.79	100/25					

CRIMPING CONNECTORS ACCORDING TO DIN 46234

for Copper conductors



Conductor Size AWG	Ø Stud in.	Type	Dimensions in.					Quantity Box/Bag	Hydraulic Tools			
			Øi	d	L	B	a					
3/0 250	5/16"	Q120-8	0.65	0.33	1.73	0.94	0.87	100/25	B1300L-CA and similar tools for U dies	ECW-H3D		
	3/8"	Q120-10	0.65	0.41	1.73	0.94	0.87	100/25				
	1/2"	Q120-12	0.65	0.51	1.73	0.94	0.87	100/25				
	5/8"	Q120-16	0.65	0.67	1.89	1.10	0.87	50/25				
250	3/8"	Q150-10	0.75	0.41	1.97	1.18	0.94	50/25				
300	1/2"	Q150-12	0.75	0.51	1.97	1.18	0.94	50/25				
MCM	5/8"	Q150-16	0.75	0.67	1.97	1.18	0.94	50/25				
300	3/8"	Q185-10	0.83	0.41	1.97	1.42	1.10	40/20				
350	1/2"	Q185-12	0.83	0.51	1.97	1.42	1.10	40/20				
MCM	5/8"	Q185-16	0.83	0.67	1.97	1.42	1.10	30/15				
350	3/8"	Q240-10	0.93	0.41	2.20	1.50	1.26	10/10				
500	1/2"	Q240-12	0.93	0.51	2.20	1.50	1.26	10/10				
MCM	5/8"	Q240-16	0.93	0.67	2.20	1.50	1.26	10/10				



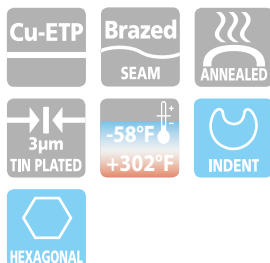
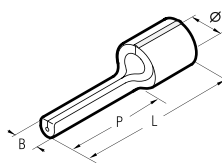
Consult us for special requirements.

Consult us for further information.

A-PR

UNINSULATED ROUND PIN CONNECTORS

for Copper conductors



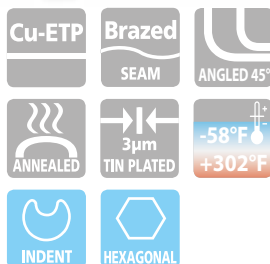
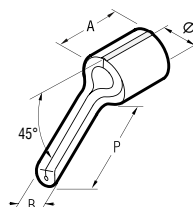
Conductor Size AWG	Type	Dimensions in.				Quantity Box/Bag	Mechanical Tools				Hydraulic Tools			
		Øi	B	P	L		HN1	HN5	HN-A25	TN70SEY	TN120SEY	B15MA	HT45-E	B450ND-BVA
6	A3-P22R	0.23	0.16	0.87	1.26	1,000/100								
4	A5-P22R	0.28	0.16	0.87	1.33	500/100								

A-PR series pin connectors are designed to terminate conductors into contact blocks. They are manufactured from Copper strip with a purity greater than 99.9%, rolled, brazed and Tin plated. Details of the appropriate crimping tools and dies are shown on pages 288 to 289.

A-PR/45

UNINSULATED ROUND PIN CONNECTORS ANGLED 45°

for Copper conductors

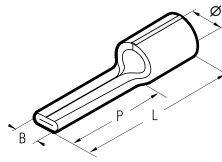


Conductor Size AWG	Type	Dimensions in.				Quantity Box/Bag	Mechanical Tools				Hydraulic Tools			
		Øi	B	P	A		HN1	HN5	HN-A25	TN70SEY	TN120SEY	B15MA	HT45-E	B450ND-BVA
6	A3-P22R/45	0.23	0.16	0.87	0.39	1,000/100								
4	A5-P22R/45	0.28	0.16	0.87	0.46	500/100								

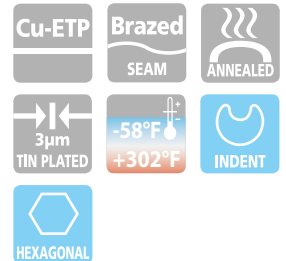
A-PR/45 series pin connectors are designed to terminate conductors into contact blocks. They are manufactured from Copper strip with a purity greater than 99.9%, rolled, brazed and Tin plated. Details of the appropriate crimping tools and dies are shown on pages 288 to 289.

UNINSULATED PIN CONNECTORS

for Copper conductors



Conductor Size AWG	Type	Dimensions in.				Quantity Box/Bag	Mechanical Tools				Hydraulic Tools					
		Øi	B	P	L											
8	A2-P12	0.19	0.17	0.57	0.93	1,500/100	HN1	HN5	HN-A25	TN70SEY	TN120SEY	B15MA	HT45-E B450ND-BVA	HT51 RH50 B500A B500NDA B550CA	B1300L-CA and similar tools for U dies	ECW-H3D
6	A3-P14	0.23	0.22	0.71	1.10	1,000/100										
4	A5-P16	0.28	0.28	0.80	1.26	500/100										
2	A7-P20	0.35	0.31	0.96	1.54	500/100										
2-1/0	A10-P25	0.39	0.37	1.02	1.77	250/50										
1/0-2/0	A14-P30	0.45	0.43	1.22	2.17	200/50										

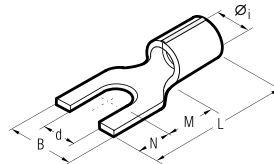


A-P series pin connectors are designed to terminate conductors into contact blocks. They are manufactured from Copper strip with a purity greater than 99.9%, rolled, brazed and Tin plated.

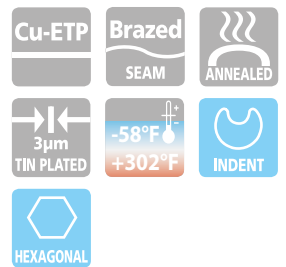
Details of the appropriate crimping tools and dies are shown on pages 288 to 289.

UNINSULATED FORK TERMINALS

for Copper conductors

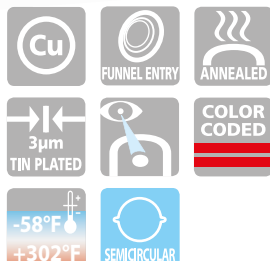
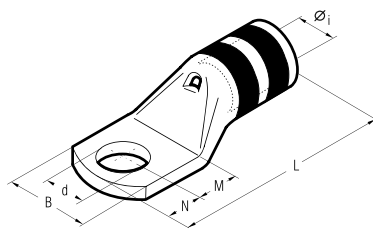


Conductor Size AWG	Ø Stud in.	Type	Dimensions in.						Quantity Box/Bag	Mechanical Tools				Hydraulic Tools				
			Øi	B	M	N	L	d										
8	#8	A2-U4	0.19	0.39	0.30	0.28	0.93	0.17	1,500/100	HN1	HN5	TN70SEY	TN120SEY	B15MA	HT45-E B450ND-BVA	HT51 RH50 B500A B500NDA B550CA	B1300L-CA and similar tools for U dies	ECW-H3D
	#10	A2-U5	0.19	0.45	0.30	0.28	0.93	0.21	1,500/100									
6	#8	A3-U4	0.23	0.39	0.39	0.31	1.10	0.17	1,000/100									
	#10	A3-U5	0.23	0.45	0.39	0.31	1.10	0.21	1,000/100									



A-U series fork terminals are designed to terminate conductors into contact blocks. Made from electrolytic Copper strip with a purity greater than 99.9%, rolled and Tin plated.

The seam is brazed to provide uniform mechanical strength. The terminal barrel is rifled to enhance electrical contact and to improve mechanical strength. Recommended crimping tools are shown on pages 288 to 289.



C series lugs are manufactured from electrolytic Copper tube with a purity greater than 99.9%.

The dimensions of the tube are designed to obtain the most efficient electrical conductivity and mechanical strength to resist vibration and pull out.

Cembre lugs are annealed to guarantee optimum ductility, an absolute necessity for connectors which will have to withstand the severe deformation arising when compressed and any bending of the palm during installation.

In applications subject to vibration, terminals have to perform a reliable connection, the annealing process plays a vital role in avoiding cracking or breaks between the barrel and palm.

The presence of an inspection hole facilitates full insertion of the conductor. The barrel length has been designed to allow easy and accurate positioning of the dies during the crimping operation.

Lugs are electrolytically Tin plated to avoid oxidation.

The tongue is clearly marked with wire size and die index for Cembre tools.

UL listed for US and Canada per UL486A up to 35 KV.

C series lugs are an important part of Cembre crimping systems for power carrying conductors.

Details of the appropriate crimping tools and dies are shown on page 286.

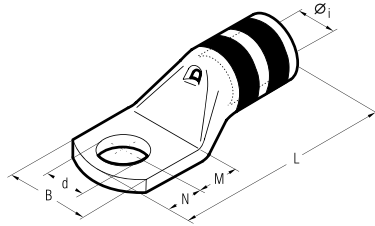
Cembre technicians are available to provide technical advice as required.

Please consult Cembre for products not listed.

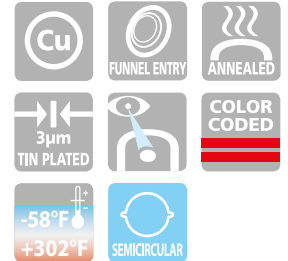
Conductor AWG	Ø Stud in.	Type	Dimensions in.						Color Code	Quantity Box/Bag	Mechanical Tools	Hydraulic Tools
			Øi	B	M	N	L	d				
8	23	# 8 C8-8	0.18	0.39	0.20	0.16	0.89	0.17	RED	600/50	TN70SEY	B15MA
		# 10 C8-10	0.18	0.39	0.26	0.24	1.02	0.21		600/50		
		1/4 C8-14	0.18	0.43	0.28	0.24	1.04	0.25		600/50		
		5/16 C8-516	0.18	0.59	0.35	0.31	1.20	0.33		400/50		
		3/8 C8-38	0.18	0.71	0.43	0.39	1.36	0.41		600/50		
		1/2 C8-12	0.18	0.75	0.55	0.47	1.56	0.52		600/50		
6	23	# 8 C6-8	0.23	0.45	0.20	0.16	1.00	0.17	BLUE	600/50		B15MA
		# 10 C6-10	0.23	0.45	0.26	0.24	1.14	0.21		600/50		
		1/4 C6-14	0.23	0.45	0.28	0.24	1.16	0.25		600/50		
		5/16 C6-516	0.23	0.59	0.35	0.31	1.32	0.33		600/50		
		3/8 C6-38	0.23	0.71	0.43	0.39	1.48	0.41		600/50		
		1/2 C6-12	0.23	0.79	0.55	0.47	1.71	0.52		400/50		
4	40	# 8 C4-8	0.24	0.49	0.20	0.16	1.10	0.17	GREY	600/50		B15MA
		# 10 C4-10	0.24	0.49	0.26	0.24	1.24	0.21		600/50		
		1/4 C4-14	0.24	0.49	0.28	0.24	1.26	0.25		600/50		
		5/16 C4-516	0.24	0.59	0.35	0.31	1.42	0.33		600/50		
		3/8 C4-38	0.24	0.71	0.43	0.39	1.57	0.41		400/50		
		1/2 C4-12	0.24	0.79	0.55	0.47	1.77	0.52		400/50		
3	50	# 8 C3-8	0.28	0.55	0.20	0.16	1.10	0.17	WHITE	600/50	TN120SEY	B15MA
		# 10 C3-10	0.28	0.55	0.26	0.24	1.24	0.21		600/50		
		1/4 C3-14	0.28	0.55	0.28	0.24	1.26	0.25		600/50		
		5/16 C3-516	0.28	0.59	0.35	0.31	1.42	0.33		600/50		
		3/8 C3-38	0.28	0.71	0.43	0.39	1.57	0.41		400/50		
		1/2 C3-12	0.28	0.83	0.55	0.47	1.77	0.52		400/50		
2	60	# 10 C2-10	0.30	0.67	0.26	0.24	1.30	0.21	BROWN	400/50		B15MA
		1/4 C2-14	0.30	0.67	0.28	0.24	1.32	0.25		400/50		
		5/16 C2-516	0.30	0.67	0.35	0.31	1.48	0.33		400/50		
		3/8 C2-38	0.30	0.75	0.43	0.39	1.63	0.41		400/50		
		1/2 C2-12	0.30	0.83	0.55	0.47	1.83	0.52		200/50		
		1/4 C1-14	0.35	0.67	0.28	0.24	1.36	0.25	GREEN	400/50		B15MA
1	75	5/16 C1-516	0.35	0.67	0.35	0.31	1.52	0.33		400/50		
		3/8 C1-38	0.35	0.75	0.43	0.39	1.67	0.41		200/50		
		1/2 C1-12	0.35	0.83	0.55	0.47	1.87	0.52		200/50		
		1/4 C1/0-14	0.39	0.75	0.31	0.28	1.59	0.25	PINK	200/25		B15MA
		5/16 C1/0-516	0.39	0.75	0.35	0.31	1.67	0.33		200/25		
1/0	100	3/8 C1/0-38	0.39	0.79	0.43	0.39	1.83	0.41		200/25		
		1/2 C1/0-12	0.39	0.83	0.55	0.47	2.03	0.52		200/25		
		9/16 C1/0-916	0.39	0.98	0.63	0.55	2.19	0.59		200/25		
		5/8 C1/0-58	0.39	1.02	0.71	0.63	2.34	0.67	BLACK	200/25		B15MA
		1/4 C2/0-14	0.44	0.83	0.31	0.28	1.73	0.25		200/25		
		5/16 C2/0-516	0.44	0.83	0.35	0.31	1.81	0.33		200/25		
2/0	125	3/8 C2/0-38	0.44	0.83	0.43	0.39	1.97	0.41		200/25		
		1/2 C2/0-12	0.44	0.87	0.55	0.47	2.17	0.52		200/25		
		9/16 C2/0-916	0.44	0.98	0.63	0.55	2.32	0.59		100/25		
		5/8 C2/0-58	0.44	1.02	0.71	0.63	2.48	0.67	ORANGE	100/25		B15MA
		3/4 C2/0-34	0.44	1.16	0.87	0.79	2.79	0.83		100/25		
		1/4 C3/0-14	0.49	0.91	0.31	0.28	1.77	0.25		200/25		
3/0	150	5/16 C3/0-516	0.49	0.91	0.35	0.31	1.85	0.33		100/25		
		3/8 C3/0-38	0.49	0.91	0.43	0.39	2.01	0.41		100/25		
		1/2 C3/0-12	0.49	0.94	0.55	0.47	2.20	0.52		100/25		
		9/16 C3/0-916	0.49	1.06	0.63	0.55	2.36	0.59		100/25		
		5/8 C3/0-58	0.49	1.10	0.71	0.63	2.52	0.67		100/25		
		3/4 C3/0-34	0.49	1.24	0.87	0.79	2.83	0.83		100/25		

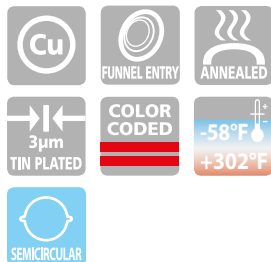
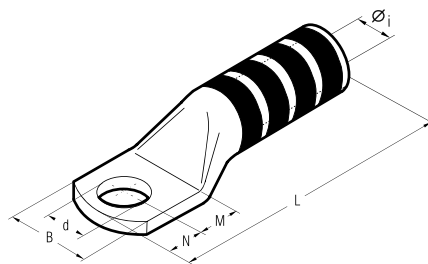
COLOR CODED COPPER CRIMPING LUGS

for Copper conductors



Sez. Cond. AWG		Ø Stud in.	Type	Dimensions in.						Color Code	Quantity Box/Bag	Mechanical Tools	Hydraulic Tools	
Size	Navy			Øi	B	M	N	L	d					
4/0	200	1/4	C4/0-14	0.53	0.98	0.31	0.28	1.99	0.25	PURPLE	100/25	TN120SEY	HT51 RH50 B500A B550CA	B1300L-CA and similar tools for U dies
		5/16	C4/0-516	0.53	0.98	0.35	0.31	2.07	0.33		100/25			
		3/8	C4/0-38	0.53	0.98	0.43	0.39	2.22	0.41		100/25			
		1/2	C4/0-12	0.53	0.98	0.55	0.47	2.42	0.52		100/25			
		9/16	C4/0-916	0.53	0.98	0.63	0.55	2.58	0.59		100/25			
		5/8	C4/0-58	0.53	1.06	0.71	0.63	2.74	0.67		50/25			
250 MCM	250	3/4	C4/0-34	0.53	1.16	0.87	0.79	3.05	0.83	YELLOW	50/25			
		1/4	C250-14	0.60	1.12	0.31	0.28	2.05	0.25		100/25			
		5/16	C250-516	0.60	1.12	0.35	0.31	2.13	0.33		100/25			
		3/8	C250-38	0.60	1.12	0.43	0.39	2.28	0.41		100/25			
		1/2	C250-12	0.60	1.12	0.55	0.47	2.48	0.52		50/25			
		9/16	C250-916	0.60	1.12	0.63	0.55	2.64	0.59		50/25			
		5/8	C250-58	0.60	1.12	0.71	0.63	2.80	0.67		50/25			
		3/4	C250-34	0.60	1.18	0.87	0.79	3.11	0.83		50/25			
300 MCM	300	7/8	C250-78	0.60	1.26	0.94	0.91	3.39	0.91	WHITE	50/25			
		5/16	C300-516	0.66	1.24	0.51	0.43	2.72	0.33		40/10			
		3/8	C300-38	0.66	1.24	0.51	0.43	2.72	0.41		40/10			
		1/2	C300-12	0.66	1.24	0.63	0.55	2.95	0.52		40/10			
		9/16	C300-916	0.66	1.24	0.71	0.63	3.11	0.59		40/10			
		5/8	C300-58	0.66	1.24	0.75	0.67	3.19	0.67		40/10			
		3/4	C300-34	0.66	1.24	0.87	0.79	3.43	0.83		40/10			
		7/8	C300-78	0.66	1.24	0.94	0.91	3.62	0.91		40/10			
350 MCM	350	3/8	C350-38	0.69	1.30	0.51	0.43	2.78	0.41	RED	40/20			
		1/2	C350-12	0.69	1.30	0.63	0.55	3.01	0.52		40/20			
		9/16	C350-916	0.69	1.30	0.71	0.63	3.17	0.59		40/20			
		5/8	C350-58	0.69	1.30	0.75	0.67	3.25	0.67		40/20			
		3/4	C350-34	0.69	1.30	0.87	0.79	3.48	0.83		40/20			
		7/8	C350-78	0.69	1.46	0.94	0.91	3.68	0.91		30/15			
400 MCM	400	3/8	C400-38	0.76	1.40	0.51	0.43	2.99	0.41	BLUE	40/20			
		1/2	C400-12	0.76	1.40	0.63	0.55	3.23	0.52		40/20			
		9/16	C400-916	0.76	1.40	0.71	0.63	3.39	0.59		40/20			
		5/8	C400-58	0.76	1.40	0.75	0.67	3.46	0.67		40/20			
		3/4	C400-34	0.76	1.40	0.87	0.79	3.70	0.83		40/20			
		7/8	C400-78	0.76	1.40	0.94	0.91	3.90	0.91		40/20			
500 MCM		3/8	C500-38	0.83	1.54	0.51	0.43	3.23	0.41	BROWN	30/15			
		1/2	C500-12	0.83	1.54	0.63	0.55	3.46	0.52		30/15			
		9/16	C500-916	0.83	1.54	0.71	0.63	3.62	0.59		30/15			
		5/8	C500-58	0.83	1.54	0.75	0.67	3.70	0.67		30/15			
		3/4	C500-34	0.83	1.54	0.87	0.79	3.94	0.83		20/10			
		7/8	C500-78	0.83	1.54	0.94	0.91	4.13	0.91		20/10			
600 MCM		1/2	C600-12	0.93	1.73	0.79	0.55	3.90	0.52	GREEN	20/10			
		9/16	C600-916	0.93	1.73	0.87	0.63	4.06	0.59		20/10			
		5/8	C600-58	0.93	1.73	0.87	0.75	4.17	0.67		20/10			
		3/4	C600-34	0.93	1.73	0.94	0.91	4.41	0.83		10/5			
		7/8	C600-78	0.93	1.73	0.94	0.91	4.41	0.91		10/5			
750 MCM		1/2	C750-12	1.02	1.89	0.87	0.75	4.45	0.52	BLACK	10/5			
		5/8	C750-58	1.02	1.89	0.87	0.75	4.45	0.67		10/5			
		3/4	C750-34	1.02	1.89	0.94	0.91	4.69	0.83		10/5			
		7/8	C750-78	1.02	1.89	0.94	0.91	4.69	0.91		10/5			





CL series lugs are manufactured from electrolytic Copper tube with a purity greater than 99.9%, for use in heavy duty applications.

The dimensions of the tube are designed to obtain the most efficient electrical conductivity and mechanical strength to resist vibration and pull out.

Cembre lugs are annealed to guarantee optimum ductility which is an absolute necessity for connectors which will have to withstand the severe deformation arising when compressed and any bending of the palm during installation. In applications subject to vibration, terminals have to perform a reliable connection, the annealing process plays a vital role in avoiding cracking or breaks between the barrel and palm.

The long barrel provides better mechanical pull-out strength.

Lugs are electrolytically Tin plated to avoid oxidation.

The tongue is clearly marked with wire size and die index for Cembre tools.

UL listed for US and Canada per UL486A up to 35 KV.

CL series lugs are an important part of Cembre crimping systems for power carrying conductors.

Details of the appropriate crimping tools and dies are shown on page 286.

Cembre technicians are available to provide technical advice as required. Please consult Cembre for products not listed.

Conductor AWG	Ø Stud in.	Type	Dimensions in.						Color Code	Quantity Box/Bag	Mechanical Tools	Hydraulic Tools
			Øi	B	M	N	L	d				
8	23	# 10 CL8-10	0.18	0.39	0.25	0.23	1.47	0.20	RED	400/50	TN70SEY	B15MA
		1/4 CL8-14	0.18	0.43	0.27	0.23	1.49	0.25		400/50		
		3/8 CL8-38	0.18	0.70	0.43	0.39	1.81	0.41		400/50		
6	20	# 10 CL6-10	0.22	0.45	0.25	0.23	1.57	0.20	BLUE	400/50	TN120SEY	B550CA
		1/4 CL6-14	0.22	0.45	0.27	0.23	1.59	0.25		400/50		
		1/2 CL6-12	0.22	0.78	0.55	0.47	2.10	0.51		400/50		
4	16	# 10 CL4-10	0.24	0.49	0.25	0.23	1.85	0.20	GREY	400/50	TN70SEY	B550CA
		1/4 CL4-14	0.24	0.49	0.27	0.23	1.87	0.25		400/50		
		3/8 CL4-38	0.24	0.70	0.43	0.39	2.18	0.41		400/50		
3	12	1/2 CL4-12	0.24	0.78	0.55	0.47	2.38	0.51	WHITE	400/50	TN120SEY	B550CA
		1/4 CL3-14	0.27	0.55	0.27	0.23	1.87	0.25		200/100		
		5/16 CL3-516	0.27	0.59	0.35	0.31	2.02	0.33		200/100		
2	10	3/8 CL3-38	0.27	0.70	0.43	0.39	2.18	0.41	BROWN	200/100	TN70SEY	B550CA
		1/2 CL3-12	0.27	0.82	0.55	0.47	2.38	0.51		200/100		
		# 10 CL2-10	0.29	0.66	0.25	0.23	1.81	0.20		200/50		
1	8	1/4 CL2-14	0.29	0.66	0.27	0.23	1.83	0.25	GREEN	200/50	TN120SEY	B550CA
		5/16 CL2-516	0.29	0.66	0.35	0.31	1.98	0.33		200/50		
		1/2 CL2-12	0.29	0.82	0.55	0.47	2.34	0.51		200/50		
1/0	6	# 10 CL1-10	0.35	0.66	0.25	0.23	1.88	0.20	PINK	200/50	TN70SEY	B550CA
		5/16 CL1-516	0.35	0.66	0.35	0.31	2.06	0.33		200/50		
		1/2 CL1-12	0.35	0.82	0.55	0.47	2.42	0.51		200/50		
2/0	4	# 10 CL1/0-10	0.39	0.74	0.31	0.27	2.10	0.20	BLACK	100/50	TN120SEY	B550CA
		5/16 CL1/0-516	0.39	0.74	0.35	0.31	2.18	0.33		100/50		
		3/8 CL1/0-38	0.39	0.78	0.43	0.39	2.34	0.41		100/50		
3/0	3	1/2 CL1/0-12	0.39	0.82	0.55	0.47	2.53	0.51	ORANGE	100/50	TN70SEY	B550CA
		3/8 CL2/0-38	0.44	0.82	0.43	0.39	2.65	0.41		100/50		
		1/2 CL2/0-12	0.44	0.86	0.55	0.47	2.85	0.51		100/50		
4/0	2	1/2 CL3/0-12	0.48	0.94	0.55	0.47	2.81	0.51	PURPLE	100/50	TN120SEY	B550CA
		3/8 CL4/0-38	0.53	0.98	0.43	0.39	2.89	0.41		60/30		
		1/2 CL4/0-12	0.53	0.98	0.55	0.47	3.09	0.51		60/30		
250 MCM	250	1/2 CL250-12	0.59	1.12	0.55	0.47	3.30	0.51	YELLOW	50/25	TN70SEY	B550CA
300 MCM	300	1/2 CL300-12	0.65	1.24	0.62	0.55	3.85	0.51	WHITE	30/15		
350 MCM	350	1/2 CL350-12	0.69	1.29	0.62	0.55	3.85	0.51	RED	30/15		
400 MCM	400	1/2 CL400-12	0.75	1.39	0.62	0.55	4.21	0.51	BLUE	20/10	TN120SEY	B550CA
500 MCM		5/8 CL400-58	0.75	1.39	0.74	0.66	4.44	0.66		20/10		
600 MCM		1/2 CL500-12	0.83	1.53	0.62	0.55	4.25	0.51		20/10		
750 MCM	750	5/8 CL500-58	0.83	1.53	0.74	0.66	4.48	0.66	BROWN	20/10	TN70SEY	B550CA
600 MCM		1/2 CL600-12	0.93	1.73	0.78	0.55	5.05	0.51		10/5		
750 MCM		5/8 CL600-58	0.93	1.73	0.86	0.74	5.33	0.66		10/5		
750 MCM	750	1/2 CL750-12	1.02	1.88	0.86	0.74	5.53	0.51	BLACK	10/5	TN120SEY	B550CA
750 MCM		5/8 CL750-58	1.02	1.88	0.86	0.74	5.53	0.66		10/5		

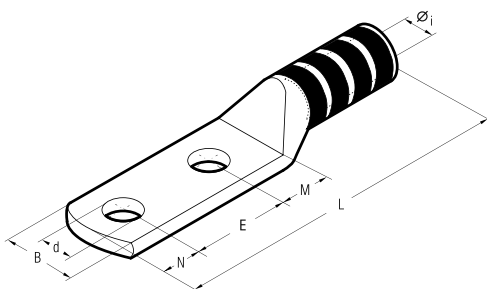
Also available with inspection hole.

In case of order, add suffix IH to the part number.

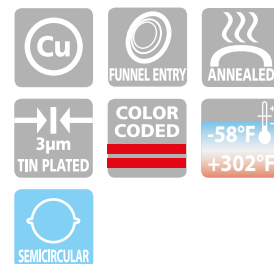
E.g.: CL250IH-12

COLOR CODED COPPER CRIMPING LUGS

double hole long barrel - for Copper conductors



Conductor AWG	Navy	Ø Stud in.	Type	Dimensions in.							Color Code	Quantity Box/Bag	Mechanical Tools	Hydraulic Tools
				Øi	B	M	E	N	L	d				
8	23	1/4	CL8-D14	0.18	0.43	0.28	5/8"	0.24	2.09	0.25	RED	400/50	B15MA	
		1/4	CL8-D141	0.18	0.43	0.28	3/4"	0.24	2.20	0.25	RED	400/50		
		3/8	CL8-D38	0.18	0.71	0.43	1"	0.39	2.78	0.41	RED	400/50		
6		1/4	CL6-D14	0.23	0.45	0.28	5/8"	0.24	2.15	0.25	BLUE	400/50		
		1/4	CL6-D141	0.23	0.45	0.28	3/4"	0.24	2.26	0.25	BLUE	400/50		
		3/8	CL6-D38	0.23	0.71	0.43	1"	0.39	2.83	0.41	BLUE	400/50		
4	40	1/2	CL6-DN	0.23	0.79	0.55	1 3/4"	0.47	3.78	0.52	BLUE	400/50		
		1/4	CL4-D14	0.24	0.49	0.28	5/8"	0.24	2.44	0.25	GREY	200/50		
		1/4	CL4-D141	0.24	0.49	0.28	3/4"	0.24	2.56	0.25	GREY	200/50		
3	50	3/8	CL4-D38	0.24	0.71	0.43	1"	0.39	3.13	0.41	GREY	200/50		
		1/2	CL4-DN	0.24	0.79	0.55	1 3/4"	0.47	4.07	0.52	GREY	200/50		
		3/8	CL3-D38	0.28	0.71	0.43	1"	0.39	3.13	0.41	WHITE	200/50		
2	60	1/2	CL3-DN	0.28	0.83	0.55	1 3/4"	0.47	4.07	0.52	WHITE	200/50		
		1/4	CL2-D14	0.30	0.67	0.28	5/8"	0.24	2.40	0.25	BROWN	200/50	TN70SEY	
		1/4	CL2-D141	0.30	0.67	0.28	3/4"	0.24	2.52	0.25	BROWN	200/50		
1	75	3/8	CL2-D38	0.30	0.75	0.43	1"	0.39	3.09	0.41	BROWN	100/50		
		3/8	CL2-DN38	0.30	0.75	0.43	1 3/4"	0.39	3.84	0.41	BROWN	100/50		
		1/2	CL2-DN	0.30	0.83	0.55	1 3/4"	0.47	4.04	0.52	BROWN	100/50		
1/0	100	1/4	CL1-D14	0.35	0.67	0.28	5/8"	0.24	2.48	0.25	GREEN	200/50	TN20SEY	
		1/4	CL1-D141	0.35	0.67	0.28	3/4"	0.24	2.60	0.25	GREEN	200/50		
		3/8	CL1-D38	0.35	0.75	0.43	1"	0.39	3.17	0.41	GREEN	100/25		
2/0	125	1/2	CL1-DN	0.35	0.83	0.55	1 3/4"	0.47	4.11	0.52	GREEN	100/25		
		1/4	CL1/0-D14	0.39	0.75	0.31	5/8"	0.28	2.68	0.25	PINK	100/25		
		1/4	CL1/0-D141	0.39	0.75	0.31	3/4"	0.28	2.80	0.25	PINK	100/25		
3/0	150	3/8	CL1/0-D38	0.39	0.79	0.43	1"	0.39	3.29	0.41	PINK	100/25		
		1/2	CL1/0-DN	0.39	0.83	0.55	1 3/4"	0.47	4.23	0.52	PINK	100/25		
		1/4	CL2/0-D14	0.44	0.83	0.31	5/8"	0.28	2.99	0.25	BLACK	60/30	HT51 RH50 B500A B500NDA B550CA BT300L-CA and similar tools for U dies ECW-H3D RHU520	
4/0	200	1/4	CL2/0-D141	0.44	0.83	0.31	3/4"	0.28	3.11	0.25	BLACK	60/30		
		3/8	CL2/0-D38	0.44	0.83	0.43	1"	0.39	3.60	0.41	BLACK	60/30		
		1/2	CL2/0-DN	0.44	0.87	0.55	1 3/4"	0.47	4.55	0.52	BLACK	60/30		
250 MCM	250	1/4	CL3/0-D141	0.49	0.91	0.31	3/4"	0.28	3.23	0.25	ORANGE	60/30		
		3/8	CL3/0-D38	0.49	0.91	0.43	1"	0.39	3.72	0.41	ORANGE	60/30		
		1/2	CL3/0-DN	0.49	0.94	0.55	1 3/4"	0.47	4.67	0.52	ORANGE	60/30		
300 MCM	300	1/4	CL4/0-D141	0.53	0.98	0.51	3/4"	0.43	3.70	0.25	PURPLE	50/25		
		3/8	CL4/0-D38	0.53	0.98	0.43	1"	0.39	3.84	0.41	PURPLE	50/25		
		3/8	CL4/0-DN38	0.53	0.98	0.43	1 3/4"	0.39	4.59	0.41	PURPLE	50/25		
350 MCM	350	1/2	CL4/0-DN	0.53	0.98	0.55	1 3/4"	0.47	4.78	0.52	PURPLE	50/25		
		3/8	CL250-D38	0.60	1.12	0.43	1"	0.39	4.06	0.41	YELLOW	40/20		
		1/2	CL250-DN	0.60	1.12	0.55	1 3/4"	0.47	5.00	0.52	YELLOW	40/20		
400 MCM	400	3/8	CL300-D38	0.66	1.24	0.51	1"	0.43	4.57	0.41	WHITE	30/15		
		1/2	CL300-DN	0.66	1.24	5/8"	1 3/4"	0.55	5.55	0.52	WHITE	30/15		
		1/4	CL350-D141	0.69	1.30	0.51	3/4"	0.43	4.31	0.25	RED	30/15		
500 MCM	500	3/8	CL350-D38	0.69	1.30	0.51	1"	0.43	4.57	0.41	RED	30/15		
		1/2	CL350-DN	0.69	1.30	5/8"	1 3/4"	0.55	5.55	0.52	RED	30/15		
		1/4	CL400-D141	0.76	1.40	0.51	3/4"	0.43	4.67	0.25	BLUE	20/10		
600 MCM	600	3/8	CL400-D38	0.76	1.40	0.51	1"	0.43	4.92	0.41	BLUE	20/10		
		1/2	CL400-DN	0.76	1.40	5/8"	1 3/4"	0.55	5.91	0.52	BLUE	20/10		
		1/4	CL500-D141	0.83	1.54	0.51	3/4"	0.43	4.70	0.25	BROWN	20/10		
750 MCM	750	3/8	CL500-D38	0.83	1.54	0.51	1"	0.43	4.96	0.41	BROWN	10/5		
		1/2	CL500-DN	0.83	1.54	5/8"	1 3/4"	0.55	5.94	0.52	BROWN	10/5		
		3/8	CL600-D38	0.93	1.73	0.79	1"	0.43	5.89	0.41	GREEN	20/5		
		1/2	CL600-DN	0.93	1.73	0.79	1 3/4"	0.55	6.75	0.52	GREEN	20/5		
		3/8	CL750-DN38	1.02	1.89	0.79	1 3/4"	0.43	6.83	0.41	BLACK	15/5		
		3/8	CL750-D38	1.02	1.89	0.79	1"	0.43	6.08	0.41	BLACK	15/5		
		1/2	CL750-DN	1.02	1.89	0.79	1 3/4"	0.55	6.95	0.52	BLACK	15/5		



CL series lugs are manufactured from electrolytic Copper tube with a purity greater than 99.9%.

The dimensions of the tube are designed to obtain the most efficient electrical conductivity and mechanical strength to resist vibration and pull out.

Cembre lugs are annealed to guarantee optimum ductility, an absolute necessity for connectors which will have to withstand the severe deformation arising when compressed and any bending of the palm during installation.

In applications subject to vibration, terminals have to perform a reliable connection, the annealing process plays a vital role in avoiding cracking or breaks between the barrel and palm.

The barrel length has been designed to allow easy and accurate positioning of the dies during the crimping operation.

Lugs are electrolytically Tin plated to avoid oxidation.

The tongue is clearly marked with wire size and die index for Cembre tools.

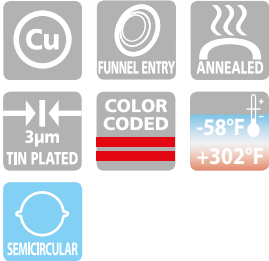
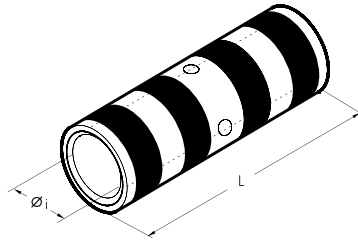
UL listed for US and Canada per UL486A up to 35 KV.

CL series lugs are an important part of Cembre crimping systems for power carrying conductors.

Details of the appropriate crimping tools and dies are shown on page 286.

Cembre technicians are available to provide technical advice as required. Please consult Cembre for products not listed.

long barrel - for Copper conductors



BSCL range of connectors are designed for jointing low voltage conductors in heavy duty applications. Made of electrolytic Copper tube with a purity greater than 99.9%, having the same dimension as C and CL series lugs, BSCL connectors are annealed and electrolytically Tin plated.

They feature an internal taper at both ends to ease the introduction of the conductor and a central stop to ensure correct positioning.

UL listed for US and Canada per UL486A up to 35 KV.

Appropriate crimping tools and dies are shown in details on page 286.

Conductor Size AWG	Type	Dimensions in.		Color Code	Quantity Box/Bag	Mechanical Tools			Hydraulic Tools		
		Øi	L			HN1	HNS	TN70SEY	B15MA	HT51	RH50
8	BSCL8	0.18	1.99	RED	600/150						
6	BSCL6	0.23	1.99	BLUE	400/100						
4	BSCL4	0.24	2.38	GREY	200/100						
3	BSCL3	0.28	2.38	WHITE	200/50						
2	BSCL2	0.30	2.38	BROWN	200/50						
1	BSCL1	0.35	2.58	GREEN	200/50						
1/0	BSCL1/0	0.39	2.87	PINK	200/50						
2/0	BSCL2/0	0.44	3.11	BLACK	100/50						
3/0	BSCL3/0	0.49	3.11	ORANGE	80/40						
4/0	BSCL4/0	0.53	3.37	PURPLE	50/25						
250 MCM	BSCL250	0.60	3.37	YELLOW	50/25						
300 MCM	BSCL300	0.66	4.11	WHITE	40/20						
350 MCM	BSCL350	0.69	4.11	RED	40/20						
400 MCM	BSCL400	0.76	4.37	BLUE	20/10						
500 MCM	BSCL500	0.83	4.61	BROWN	20/10						
600 MCM	BSCL600	0.93	5.49	GREEN	20/10						
750 MCM	BSCL750	1.02	5.87	BLACK	10/10						

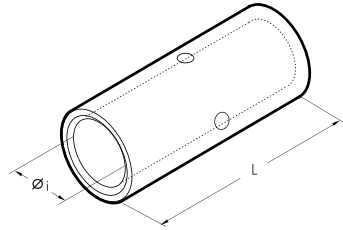
B1300L-CA and similar tools for U dies

ECW-H3D

RHU520

THROUGH CONNECTORS

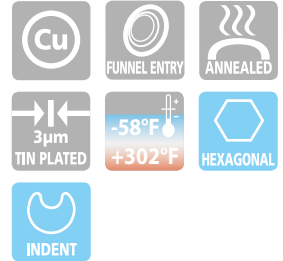
for Copper conductors



Conductor Size AWG	Type	Dimensions in.		Quantity Box/Bag	Mechanical Tools	Hydraulic Tools
		Øi	L			
22÷16	L03-M*	0.07	0.59	5,000/100	HN1	B15MA
16÷14	L06-M*	0.09	0.59	4,000/100		
12÷10	L1-M	0.14	0.87	2,000/100	HN5	B15MA
8	L2-M	0.18	0.98	1,000/100		
6	L3-M	0.23	1.06	500/100	HN-A25	B15MA
4	L5-M	0.28	1.14	500/100		
2	L7-M	0.35	1.30	400/100	TN70SEY	B15MA
2-1/0	L10-M	0.39	1.46	200/50		
1/0-2/0	L14-M	0.44	1.54	200/50	TN120 SEY	B15MA
2/0-3/0	L19-M	0.53	1.69	100/25		
3/0-250	L24-M	0.60	1.85	75/25	TN120 SEY	B15MA
250-300 MCM	L30-M	0.66	2.28	50/25		
300-350 MCM	L37-M	0.76	2.52	30/15	TN120 SEY	B15MA
350-500 MCM	L48-M	0.83	2.95	20/10		
500-600 MCM	L60-M	0.93	3.54	20/10	TN120 SEY	B15MA
800 MCM	L80-M	1.06	3.70	15/5		
1000 MCM	L100-M	1.19	3.86	12/1	TN120 SEY	B15MA
1250 MCM	L120-M*	1.31	4.13	10/1		
1500 MCM	L160-M*	1.50	4.41	6/1	TN120 SEY	B15MA
2000 MCM	L200-M*	1.73	4.72	6/1		

*Not UL approved

L-M



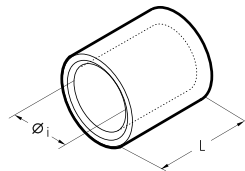
L-M range of connectors are designed for jointing low voltage conductors.

Made of electrolytic Copper tube with a purity greater than 99.9%, having the same dimension as A-M series lugs: L-M connectors are annealed and electrolytically Tin plated.

They feature an internal taper at both ends to ease the introduction of the conductor and a central stop to ensure correct positioning. Details of the appropriate crimping tools and dies are shown on pages 288 to 289.

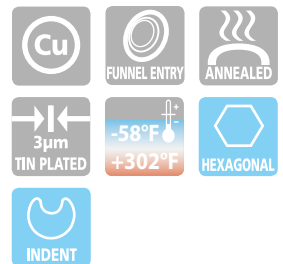
PARALLEL CONNECTORS

for Copper conductors



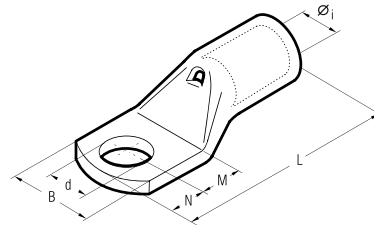
Conductor Size AWG	Type	Dimensions in.		Quantity Box/Bag	Mechanical Tools	Hydraulic Tools
		Øi	L			
22÷16	L03-P	0.07	0.24	8,000/100	HN1	B15MA
16÷14	L06-P	0.09	0.24	5,000/100		
12÷10	L1-P	0.14	0.35	3,000/100	HN5	B15MA
8	L2-P	0.18	0.41	2,000/100		
6	L3-P	0.23	0.45	1,500/100	HN-A25	B15MA
4	L5-P	0.28	0.51	1,000/100		
2	L7-P	0.35	0.55	500/100	TN70SEY	B15MA
2-1/0	L10-P	0.39	0.63	500/100		
1/0-2/0	L14-P	0.44	0.71	500/100	TN120 SEY	B15MA
2/0-3/0	L19-P	0.53	0.75	200/50		
3/0-250	L24-P	0.60	0.87	200/50	TN120 SEY	B15MA
250-300 MCM	L30-P	0.66	1.04	100/50		
300-350 MCM	L37-P	0.76	1.04	100/50	TN120 SEY	B15MA
350-500 MCM	L48-P	0.83	1.34	60/15		
500-600 MCM	L60-P	0.93	1.69	50/25	TN120 SEY	B15MA

L-P



Made of electrolytic Copper tube with a purity greater than 99.9%, having the same dimensions as A-M series lugs, L-P connectors are annealed and electrolytically Tin plated. They feature an internal taper to ease the introduction of the conductor.

Details of the appropriate crimping tools and dies are shown on pages 288 to 289.



A-M series lugs are manufactured from electrolytic Copper tube with a purity greater than 99.9%.

The dimensions of the tube are designed to obtain the most efficient electrical conductivity and mechanical strength to resist vibration and pull out.

Cembre lugs are annealed to guarantee optimum ductility which is an absolute necessity for connectors which will have to withstand the severe deformation arising when compressed and any bending of the palm during installation. In applications subject to vibration, lugs still have to provide a reliable connection and annealing plays a vital role in avoiding cracking or breaks between the barrel and palm.

The presence of an inspection hole facilitates full insertion of the conductor, whilst the barrel length has been designed to allow easy and accurate positioning of the dies during the crimping operation.

Lugs are electrolytically Tin plated to avoid oxidation. A-M series lugs form an important part of Cembre crimping systems for power carrying conductors, details of the appropriate crimping tools and dies are shown opposite and in detail on pages 288 to 289.

Our technicians are always available to provide any technical advice which may be required.

The enclosed table is only indicative of the range and many variations in stud fixing and palm lengths are also available.

Crimping lugs with two or more holes can be supplied on request.

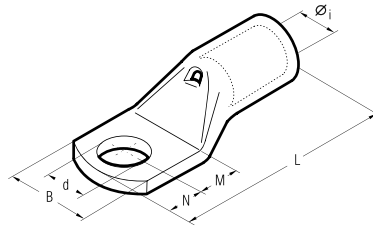
Conductor Size AWG	Ø Stud in.	Type	Dimensions in.							Quantity Box/Bag	Mechanical Tools	Hydraulic Tools
			Øi	B	M	N	L	d				
22÷16	#4	A03-M3*	0.07	0.24	0.18	0.14	0.63	0.13	5,000/100			
	#6	A03-M3.5*	0.07	0.26	0.18	0.14	0.63	0.15	5,000/100			
	#8	A03-M4*	0.07	0.26	0.20	0.16	0.67	0.17	5,000/100			
	#10	A03-M5*	0.07	0.30	0.22	0.18	0.71	0.21	5,000/100			
	1/4"	A03-M6*	0.07	0.35	0.24	0.20	0.75	0.25	5,000/100			
16÷14	#4	A06-M3*	0.09	0.24	0.18	0.14	0.67	0.13	4,000/100			
	#6	A06-M3.5*	0.09	0.26	0.18	0.14	0.67	0.15	4,000/100			
	#8	A06-M4*	0.09	0.30	0.20	0.16	0.71	0.17	4,000/100			
	#10	A06-M5*	0.09	0.33	0.22	0.18	0.75	0.21	4,000/100			
	1/4"	A06-M6*	0.09	0.35	0.24	0.20	0.79	0.25	4,000/100			
	5/16"	A06-M8*	0.09	0.47	0.35	0.31	1.02	0.33	2,500/100			
12÷10	#4	A1-M3	0.14	0.30	0.18	0.14	0.81	0.13	2,000/100			
	#6	A1-M3.5	0.14	0.30	0.18	0.14	0.81	0.15	2,000/100			
	#8	A1-M4	0.14	0.31	0.20	0.16	0.85	0.17	2,000/100			
	#10	A1-M5	0.14	0.35	0.26	0.24	0.98	0.21	2,000/100			
	1/4"	A1-M6	0.14	0.43	0.28	0.24	1.00	0.25	1,500/100			
	5/16"	A1-M8	0.14	0.55	0.35	0.31	1.16	0.33	1,500/100			
8	3/8"	A1-M10	0.14	0.65	0.43	0.39	1.34	0.41	1,000/100			
	#8	A2-M4	0.18	0.39	0.20	0.16	0.89	0.17	1,500/100			
	#10	A2-M5	0.18	0.39	0.26	0.24	1.02	0.21	1,000/100			
	1/4"	A2-M6	0.18	0.43	0.28	0.24	1.04	0.25	1,000/100			
	5/16"	A2-M8	0.18	0.59	0.35	0.31	1.20	0.33	1,000/100			
6	3/8"	A2-M10	0.18	0.71	0.43	0.39	1.36	0.41	500/100			
	1/2"	A2-M12	0.18	0.75	0.55	0.47	1.56	0.52	500/100			
	#8	A3-M4	0.23	0.45	0.20	0.16	1.00	0.17	1,000/100			
	#10	A3-M5	0.23	0.45	0.26	0.24	1.14	0.21	1,000/100			
	1/4"	A3-M6	0.23	0.45	0.28	0.24	1.16	0.25	1,000/100			
4	5/16"	A3-M8	0.23	0.59	0.35	0.31	1.32	0.33	500/100			
	3/8"	A3-M10	0.23	0.71	0.43	0.39	1.48	0.41	500/100			
	1/2"	A3-M12	0.23	0.79	0.55	0.47	1.73	0.52	500/100			
	#8	A5-M4	0.28	0.55	0.20	0.16	1.10	0.17	500/100			
	#10	A5-M5	0.28	0.55	0.26	0.24	1.24	0.21	500/100			
2	1/4"	A5-M6	0.28	0.55	0.28	0.24	1.26	0.25	500/100			
	5/16"	A5-M8	0.28	0.59	0.35	0.31	1.42	0.33	500/100			
	3/8"	A5-M10	0.28	0.71	0.43	0.39	1.57	0.41	500/100			
	1/2"	A5-M12	0.28	0.83	0.55	0.47	1.77	0.52	400/100			
	#10	A7-M5	0.35	0.67	0.26	0.24	1.34	0.21	400/100			
2-1/0	1/4"	A7-M6	0.35	0.67	0.28	0.24	1.36	0.25	400/100			
	5/16"	A7-M8	0.35	0.67	0.35	0.31	1.52	0.33	400/100			
	3/8"	A7-M10	0.35	0.75	0.43	0.39	1.67	0.41	300/100			
	1/2"	A7-M12	0.35	0.83	0.55	0.47	1.87	0.52	200/50			
	1/4"	A10-M6	0.39	0.75	0.31	0.28	1.52	0.25	200/50			
2-1/0	5/16"	A10-M8	0.39	0.75	0.35	0.31	1.59	0.33	200/50			
	3/8"	A10-M10	0.39	0.79	0.45	0.37	1.75	0.41	200/50			
	1/2"	A10-M12	0.39	0.83	0.47	0.47	1.87	0.52	200/50			
	9/16"	A10-M14	0.39	0.98	0.63	0.55	2.18	0.59	200/50			
	5/8"	A10-M16	0.39	1.02	0.71	0.63	2.34	0.67	100/50			
1/0	1/4"	A14-M6	0.44	0.83	0.31	0.28	1.73	0.25	200/50			
	5/16"	A14-M8	0.44	0.83	0.35	0.31	1.81	0.33	200/50			
	3/8"	A14-M10	0.44	0.83	0.43	0.39	1.97	0.41	200/50			
	1/2"	A14-M12	0.44	0.87	0.55	0.47	2.17	0.52	150/50			
	9/16"	A14-M14	0.44	0.98	0.63	0.55	2.32	0.59	100/50			
2/0	5/8"	A14-M16	0.44	1.02	0.71	0.63	2.48	0.67	100/50			

*Not UL approved

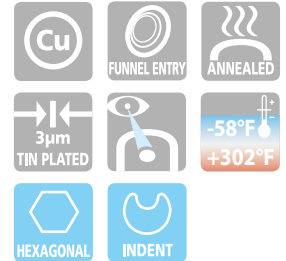
COPPER TUBE CRIMPING LUGS

for Copper conductors

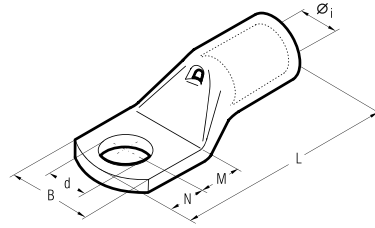
A-M



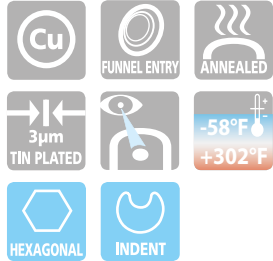
Conductor Size AWG	Ø Stud in.	Type	Dimensions in.						Quantity Box/Bag	Mechanical Tools	Hydraulic Tools									
			Øi	B	M	N	L	d			HT45-E	B450ND-BVA	HT51	B550CA	B500NDA	HT81-U	RHU81			
2/0 3/0	1/4"	A19-M6	0.53	0.98	0.31	0.28	1.99	0.25	100/25	TNI20SEY	HT45-E	B450ND-BVA	HT51	B550CA	B500NDA	HT81-U	RHU81	B1300L-CA and similar tools for U dies	ECW-H3D	RHU520
	5/16"	A19-M8	0.53	0.98	0.35	0.31	2.07	0.33	100/25											
	3/8"	A19-M10	0.53	0.98	0.43	0.39	2.22	0.41	100/25											
	1/2"	A19-M12	0.53	0.98	0.55	0.47	2.42	0.52	100/25											
	9/16"	A19-M14	0.53	0.98	0.63	0.55	2.58	0.59	100/25											
	5/8"	A19-M16	0.53	1.06	0.71	0.63	2.74	0.67	50/25											
3/0 250	3/4"	A19-M20	0.53	1.16	0.87	0.79	3.05	0.83	50/25											
	5/16"	A24-M8	0.60	1.12	0.35	0.31	2.13	0.33	75/25											
	3/8"	A24-M10	0.60	1.12	0.43	0.39	2.28	0.41	75/25											
	1/2"	A24-M12	0.60	1.12	0.55	0.47	2.48	0.52	75/25											
	9/16"	A24-M14	0.60	1.12	0.63	0.55	2.64	0.59	50/25											
	5/8"	A24-M16	0.60	1.12	0.71	0.63	2.80	0.67	50/25											
250 300 MCM	3/4"	A24-M20	0.60	1.18	0.87	0.79	3.11	0.83	50/25											
	5/16"	A30-M8	0.66	1.24	0.51	0.43	2.72	0.33	50/25											
	3/8"	A30-M10	0.66	1.24	0.51	0.43	2.72	0.41	50/25											
	1/2"	A30-M12	0.66	1.24	0.63	0.55	2.95	0.52	50/25											
	9/16"	A30-M14	0.66	1.24	0.71	0.63	3.11	0.59	50/25											
	5/8"	A30-M16	0.66	1.24	0.75	0.67	3.19	0.67	50/25											
300 350 MCM	3/4"	A30-M20	0.66	1.24	0.87	0.79	3.43	0.83	50/25											
	5/16"	A37-M8	0.76	1.40	0.51	0.43	2.99	0.33	30/15											
	3/8"	A37-M10	0.76	1.40	0.51	0.43	2.99	0.41	30/15											
	1/2"	A37-M12	0.76	1.40	0.63	0.55	3.23	0.52	30/15											
	9/16"	A37-M14	0.76	1.40	0.71	0.63	3.39	0.59	30/15											
	5/8"	A37-M16	0.76	1.40	0.75	0.67	3.46	0.67	30/15											
350 500 MCM	3/4"	A37-M20	0.76	1.40	0.87	0.79	3.70	0.83	30/15											
	5/16"	A48-M8	0.83	1.54	0.51	0.43	3.05	0.33	20/10											
	3/8"	A48-M10	0.83	1.54	0.51	0.43	3.05	0.41	20/10											
	1/2"	A48-M12	0.83	1.54	0.55	0.47	3.13	0.52	20/10											
	9/16"	A48-M14	0.83	1.54	0.71	0.63	3.62	0.59	20/10											
	5/8"	A48-M16	0.83	1.54	0.75	0.67	3.70	0.67	20/10											
500 600 MCM	3/4"	A48-M20	0.83	1.54	0.87	0.79	3.94	0.83	20/10											
	3/8"	A60-M10	0.93	1.73	0.79	0.43	3.78	0.41	20/10											
	1/2"	A60-M12	0.93	1.73	0.79	0.55	3.90	0.52	20/10											
	9/16"	A60-M14	0.93	1.73	0.87	0.63	4.06	0.59	20/10											
	5/8"	A60-M16	0.93	1.73	0.87	0.75	4.17	0.67	20/10											
	3/4"	A60-M20	0.93	1.73	0.94	0.91	4.41	0.83	20/10											
800 MCM	1/2"	A80-M12	1.06	2.01	0.87	0.75	4.45	0.52	15/5											
	9/16"	A80-M14	1.06	2.01	0.87	0.75	4.45	0.59	15/5											
	5/8"	A80-M16	1.06	2.01	0.87	0.75	4.45	0.67	15/5											
	3/4"	A80-M20	1.06	2.01	0.94	0.91	4.68	0.83	15/5											
1000 MCM	5/8"	A100-M16	1.19	2.22	0.87	0.75	4.61	0.67	10/1											
	3/4"	A100-M20	1.19	2.22	0.94	0.91	4.84	0.83	10/1											
1250 MCM	5/8"	A120-M16*	1.31	2.43	0.87	0.75	5.04	0.67	9/1											
	3/4"	A120-M20*	1.31	2.43	0.94	0.91	5.28	0.83	9/1											
1500 MCM	5/8"	A160-M16*	1.50	2.83	0.94	0.75	5.55	0.67	5/1											
	3/4"	A160-M20*	1.50	2.83	0.94	0.91	5.71	0.83	6/1											
2000 MCM	5/8"	A200-M16*	1.73	3.15	0.94	0.75	6.22	0.67	5/1											
	3/4"	A200-M20*	1.73	3.15	0.94	0.91	6.38	0.83	5/1											



*Not UL approved



• for fine stranded •
SPECIAL
flexible conductors



These lugs are particularly recommended for use with extra flexible conductors on for instance, welding machines.

A-M series lugs are designed to suit panel applications.

The dimensions of the tube are designed to obtain the most efficient electrical conductivity and mechanical strength to resist vibration and pull out.

A-M series lugs are manufactured from electrolytic Copper tube with a purity greater than 99.9%, annealed to guarantee optimum ductility and electrolytically Tin plated to avoid oxidation.

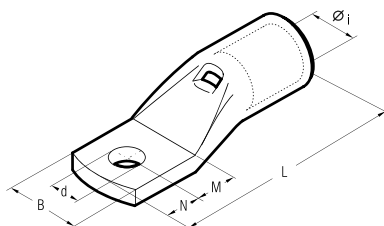
The presence of an inspection hole facilitates full insertion of the conductor.

Details of the appropriate crimping tools and dies are shown on pages 288 to 289.

Conductor Size Extra Flexible AWG	Ø Stud in.	Type	Dimensions in.						Quantity Box/Bag	Mechanical Tools	Hydraulic Tools						
			Øi	B	M	N	L	d									
2	1/4"	A9-M6/15	0.37	0.59	0.31	0.28	1.52	0.25	400/100	TN70SEY	TN120SEY	HT45-E B450ND-BVA	HT51 RH50 B500A B500NDA B550CA	HT81-U RHU81	B1300L-CA and similar tools for U dies	ECW-H3D	BULL-70
	5/16"	A9-M8	0.37	0.67	0.35	0.31	1.59	0.33	400/100								
	3/8"	A9-M10	0.37	0.73	0.43	0.39	1.75	0.41	300/100								
1/2"	A9-M12	0.37	0.83	0.55	0.47	1.95	0.52	200/50									
1/4"	A12-M6/15	0.43	0.59	0.31	0.28	1.59	0.25	200/50									
1/0	5/16"	A12-M8	0.43	0.76	0.35	0.31	1.67	0.33	200/50								
	3/8"	A12-M10	0.43	0.76	0.43	0.39	1.83	0.41	200/50								
	3/8"	A12-M10/19	0.43	0.75	0.43	0.39	1.83	0.41	200/50								
1/2"	A12-M12	0.43	0.87	0.55	0.47	2.03	0.52	200/50									
2/0	1/4"	A17-M6	0.51	0.91	0.31	0.28	1.77	0.25	200/50								
	5/16"	A17-M8	0.51	0.91	0.35	0.31	1.85	0.33	150/50								
	3/8"	A17-M10	0.51	0.91	0.43	0.39	2.01	0.41	150/50								
	3/8"	A17-M10/19	0.51	0.75	0.43	0.39	2.01	0.41	200/50								
	1/2"	A17-M12	0.51	0.91	0.55	0.47	2.20	0.52	150/50								
3/0	9/16"	A17-M14	0.51	0.98	0.61	0.47	2.26	0.59	150/25								
	5/8"	A17-M16	0.51	1.06	0.65	0.53	2.36	0.67	100/25								
	5/16"	A20-M8	0.59	1.06	0.35	0.31	1.97	0.33	100/25								
	3/8"	A20-M10	0.59	1.06	0.43	0.39	2.13	0.41	100/25								
	1/2"	A20-M12	0.59	1.06	0.55	0.47	2.32	0.52	100/25								
250 MCM	9/16"	A20-M14	0.59	1.06	0.61	0.47	2.38	0.59	100/25								
	5/8"	A20-M16	0.59	1.06	0.65	0.53	2.48	0.67	100/25								
	5/16"	A29-M8	0.65	1.18	0.35	0.31	2.11	0.33	100/25								
	3/8"	A29-M10	0.65	1.18	0.43	0.39	2.26	0.41	50/25								
	1/2"	A29-M12	0.65	1.18	0.55	0.47	2.46	0.52	50/25								
	9/16"	A29-M14	0.65	1.18	0.61	0.47	2.52	0.59	100/25								
	5/8"	A29-M16	0.65	1.18	0.65	0.53	2.62	0.67	100/25								
300 MCM	3/4"	A29-M20	0.65	1.18	0.87	0.79	3.09	0.83	75/25								
	3/8"	A35-M10	0.76	1.35	0.51	0.43	2.58	0.41	50/25								
	1/2"	A35-M12	0.76	1.35	0.63	0.55	2.81	0.52	50/25								
	9/16"	A35-M14	0.76	1.35	0.71	0.63	2.97	0.59	50/25								
	5/8"	A35-M16	0.76	1.35	0.75	0.67	3.05	0.67	30/15								
350 MCM	3/4"	A35-M20	0.76	1.35	0.87	0.79	3.29	0.83	30/15								
	3/8"	A40-M10	0.83	1.48	0.51	0.43	2.87	0.41	30/15								
	1/2"	A40-M12	0.83	1.48	0.63	0.55	3.11	0.52	30/15								
	9/16"	A40-M14	0.83	1.48	0.71	0.63	3.27	0.59	30/15								
		A40-M16	0.83	1.48	0.75	0.67	3.35	0.67	30/15								
	3/4"	A40-M20	0.83	1.48	0.87	0.79	3.58	0.83	30/15								

RING TONGUE TERMINALS WITH CONTAINED PALM

for L.V. circuit breakers - for Copper conductors



Cond. Size Flexible AWG	Ø Stud in.	Type	Dimensions in.						Quantity Box/Bag	Mechanical Tools		Hydraulic Tools												
			Øi	B	M	N	L	d																
8	#10	A2-M5/9	0.18	0.35	0.26	0.24	1.02	0.21	1,000/100	HN5	HN-A25	TN70SEY	B15MA	HT45-E	B450ND-BVA	HT51	B550CA	RH50	B500A	B500NDA	HT81-U	RHU81	B1300L-CA and similar tools for U dies	FCW-H3D
6	#10	A3-M5/9	0.23	0.35	0.26	0.24	1.20	0.21	1,000/100															
4	#10	A5-M5/9	0.28	0.35	0.26	0.24	1.24	0.21	500/100															
2	1/4"	A7B-M6/11.5*	0.35	0.45	0.31	0.28	1.44	0.25	400/100															
2-1/0	1/4"	A10B-M6/11.5*	0.39	0.45	0.31	0.28	1.59	0.25	200/50															
1/0-2/0	1/4"	A14B-M6/11.5*	0.44	0.45	0.31	0.28	1.75	0.25	200/50															
2/0-3/0	5/16"	A19B-M8/15.5*	0.53	0.61	0.35	0.31	2.07	0.33	100/25															
3/0-250	5/16"	A24B-M8/19*	0.60	0.75	0.55	0.35	2.36	0.33	75/25															
	3/8"	A24B-M10/19*	0.60	0.75	0.55	0.35	2.36	0.41	75/25															
250-300 MCM	5/16"	A30B-M8/19*	0.66	0.75	0.71	0.35	2.76	0.33	50/25															
	3/8"	A30B-M10/19*	0.66	0.75	0.71	0.35	2.76	0.41	50/25															
300-350 MCM	3/8"	A37B-M10/24.5*	0.76	0.96	0.71	0.35	3.03	0.41	30/15															
350-500 MCM	3/8"	A48-M10/31	0.83	1.22	0.51	0.35	3.15	0.41	20/10															
	1/2"	A48-M12/31	0.83	1.22	0.63	0.47	3.39	0.52	20/10															
	5/8"	A48-M16/31	0.83	1.22	0.75	0.67	3.70	0.67	20/10															
500-600 MCM	3/8"	A60B-M10/31	0.93	1.22	0.63	0.47	3.74	0.41	20/10															
	1/2"	A60B-M12/31	0.93	1.22	0.63	0.47	3.74	0.52	20/10															

*Without inspection hole



This range of terminals features contained palm width and has been specifically developed for application on L.V. circuit breakers with reduced space terminal blocks.

The contained palm width allows an immediate and easier installation.

Cembre terminals are manufactured from electrolytic Copper tube with a purity greater than 99.9%.

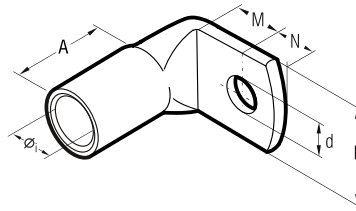
The specifically designed section of the barrel and the choice of principal dimensions are optimising the best combination of mechanical strength and electrical conductivity.

These terminals are annealed to guarantee optimum ductility and are electrolytically Tin plated to avoid oxidation.

The barrel is provided with an internal taper to ease the introduction of the conductor; furthermore, its length grants a comfortable and correct positioning between dies, during crimping operations.

Each palm is marked with the Cembre logo and part number.

Details of the appropriate crimping tools and dies are shown on pages 288 to 289.



A-L series lugs angled 90° are manufactured from electrolytic Copper tube with a purity greater than 99.9%.

The dimensions of the tube are designed to obtain the most efficient electrical conductivity and mechanical strength to resist vibration and pull out.

Cembre lugs are annealed to guarantee optimum ductility which is an absolute necessity for connectors which will have to withstand the severe deformation arising when compressed and any bending of the palm during installation.

In applications subject to vibration, terminals still have to perform a reliable connection, annealing plays a vital role in avoiding cracking or breaks between the barrel and palm.

The presence of an inspection hole facilitates full insertion of the conductor, whilst the barrel length has been designed to allow easy and accurate positioning of the dies during the crimping operation. Lugs are electrolytically Tin plated to avoid oxidation.

Details of the appropriate crimping tools and dies are shown on pages 288 to 289.

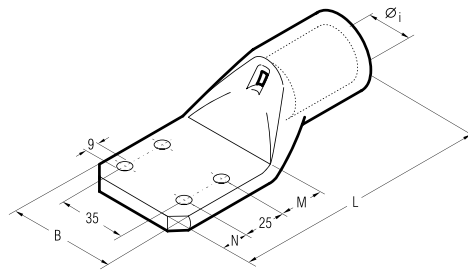
Conductor Size AWG	Ø Stud in.	Type	Dimensions in.						Quantity Box/Bag	Mechanical Tools		Hydraulic Tools														
			Øi	B	M	N	A	d																		
12÷10	1/4"	A1-L6*	0.14	0.43	0.28	0.24	0.31	0.25	2,000/100	HN1	HN5	HN-A25	TN70SEY	TN120SEY	B15MA	HT45-E	B450ND-BVA	HT51	B550CA	B500A	B500NDA	HT81-U	RHU81	B1300L -CA and similar tools for U dies	ECW-H3D	RH11570
8	#8	A2-L4	0.18	0.39	0.20	0.16	0.31	0.17	1,500/100																	
	#10	A2-L5	0.18	0.39	0.26	0.24	0.31	0.21	1,000/100																	
	1/4"	A2-L6	0.18	0.43	0.28	0.24	0.31	0.25	1,000/100																	
	5/16"	A2-L8	0.18	0.59	0.35	0.31	0.31	0.33	500/100																	
6	#10	A3-L5	0.23	0.45	0.26	0.24	0.45	0.21	1,000/100	HN5	HN-A25	TN70SEY	TN120SEY	B15MA	HT45-E	B450ND-BVA	HT51	B550CA	B500A	B500NDA	HT81-U	RHU81	B1300L -CA and similar tools for U dies	ECW-H3D	RH11570	
	1/4"	A3-L6	0.23	0.45	0.28	0.24	0.45	0.25	1,000/100																	
	5/16"	A3-L8	0.23	0.59	0.35	0.31	0.45	0.33	500/100																	
	3/8"	A3-L10	0.23	0.71	0.43	0.39	0.45	0.41	500/100																	
4	1/4"	A5-L6	0.28	0.55	0.28	0.24	0.41	0.25	500/100	HN5	HN-A25	TN70SEY	TN120SEY	B15MA	HT45-E	B450ND-BVA	HT51	B550CA	B500A	B500NDA	HT81-U	RHU81	B1300L -CA and similar tools for U dies	ECW-H3D	RH11570	
	5/16"	A5-L8	0.28	0.59	0.35	0.31	0.41	0.33	500/100																	
	3/8"	A5-L10	0.28	0.71	0.43	0.39	0.41	0.41	500/100																	
	1/4"	A7-L6	0.35	0.67	0.28	0.24	0.52	0.25	300/100																	
2	5/16"	A7-L8	0.35	0.67	0.35	0.31	0.52	0.33	300/100	HN5	HN-A25	TN70SEY	TN120SEY	B15MA	HT45-E	B450ND-BVA	HT51	B550CA	B500A	B500NDA	HT81-U	RHU81	B1300L -CA and similar tools for U dies	ECW-H3D	RH11570	
	3/8"	A7-L10	0.35	0.75	0.43	0.39	0.52	0.41	300/100																	
	1/2"	A7-L12	0.35	0.83	0.55	0.47	0.52	0.52	300/100																	
	1/4"	A10-L6	0.39	0.75	0.31	0.28	0.65	0.25	300/100																	
2-1/0	5/16"	A10-L8	0.39	0.75	0.35	0.31	0.65	0.33	200/100	HN5	HN-A25	TN70SEY	TN120SEY	B15MA	HT45-E	B450ND-BVA	HT51	B550CA	B500A	B500NDA	HT81-U	RHU81	B1300L -CA and similar tools for U dies	ECW-H3D	RH11570	
	3/8"	A10-L10	0.39	0.79	0.45	0.37	0.65	0.41	200/50																	
	1/2"	A10-L12	0.39	0.83	0.47	0.47	0.65	0.52	200/50																	
	5/16"	A14-L8	0.44	0.83	0.35	0.31	0.71	0.33	200/50																	
1/0	2/0	A14-L10	0.44	0.83	0.43	0.39	0.71	0.41	100/50	HN5	HN-A25	TN70SEY	TN120SEY	B15MA	HT45-E	B450ND-BVA	HT51	B550CA	B500A	B500NDA	HT81-U	RHU81	B1300L -CA and similar tools for U dies	ECW-H3D	RH11570	
2/0	1/2"	A14-L12	0.44	0.87	0.55	0.47	0.71	0.52	100/50																	
5/8"	A14-L16	0.44	1.02	0.71	0.63	0.71	0.67	150/50																		
2/0	5/16"	A19-L8	0.53	0.98	0.35	0.31	0.88	0.33	100/25																	
3/0	3/8"	A19-L10	0.53	0.98	0.43	0.39	0.88	0.41	100/25	HN5	HN-A25	TN70SEY	TN120SEY	B15MA	HT45-E	B450ND-BVA	HT51	B550CA	B500A	B500NDA	HT81-U	RHU81	B1300L -CA and similar tools for U dies	ECW-H3D	RH11570	
	1/2"	A19-L12	0.53	0.98	0.55	0.47	0.88	0.52	100/25																	
250	3/8"	A24-L10	0.60	1.12	0.43	0.39	0.94	0.41	50/25	HN5	HN-A25	TN70SEY	TN120SEY	B15MA	HT45-E	B450ND-BVA	HT51	B550CA	B500A	B500NDA	HT81-U	RHU81	B1300L -CA and similar tools for U dies	ECW-H3D	RH11570	
	1/2"	A24-L12	0.60	1.12	0.56	0.47	0.94	0.52	50/25																	
250-300	3/8"	A30-L10	0.66	1.24	0.51	0.43	1.04	0.41	50/25	HN5	HN-A25	TN70SEY	TN120SEY	B15MA	HT45-E	B450ND-BVA	HT51	B550CA	B500A	B500NDA	HT81-U	RHU81	B1300L -CA and similar tools for U dies	ECW-H3D	RH11570	
MCM	1/2"	A30-L12	0.66	1.24	0.63	0.55	1.04	0.52	50/25																	
300-350	3/8"	A37-L10	0.76	1.40	0.51	0.43	1.14	0.41	30/15	HN5	HN-A25	TN70SEY	TN120SEY	B15MA	HT45-E	B450ND-BVA	HT51	B550CA	B500A	B500NDA	HT81-U	RHU81	B1300L -CA and similar tools for U dies	ECW-H3D	RH11570	
MCM	1/2"	A37-L12	0.76	1.40	0.63	0.55	1.14	0.52	50/25																	
350-500	3/8"	A48-L10	0.83	1.54	0.51	0.43	1.30	0.41	30/15	HN5	HN-A25	TN70SEY	TN120SEY	B15MA	HT45-E	B450ND-BVA	HT51	B550CA	B500A	B500NDA	HT81-U	RHU81	B1300L -CA and similar tools for U dies	ECW-H3D	RH11570	
MCM	1/2"	A48-L12	0.83	1.54	0.63	0.55	1.30	0.52	20/10																	
500-600	1/2"	A60-L12	0.93	1.73	0.79	0.55	1.57	0.52	20/10	HN5	HN-A25	TN70SEY	TN120SEY	B15MA	HT45-E	B450ND-BVA	HT51	B550CA	B500A	B500NDA	HT81-U	RHU81	B1300L -CA and similar tools for U dies	ECW-H3D	RH11570	
MCM																										

*Not UL approved

COPPER TUBE LUGS 4-ESI FIXING

for Copper conductors

A-4ESI



Conductor Size MCM	Type	Dimensions in.					Quantity Box/Bag	Hydraulic Tools				
		Ø	B	M	N	L						
300-350	A37-4ESI	0.76	2.40	0.79	0.59	4.88	20/10	HT51 B550CA RH 50 B500A HT81-U RHU81 B1300L-CA and similar tools for U dies	ECW-H3D RHU520			
500	A48-4ESI	0.83	2.40	0.79	0.59	5.04	20/10					
600	A60-4ESI	1.07	2.40	0.79	0.59	5.24	15/5					
800	A80-4ESI	1.06	2.40	0.79	0.59	5.28	15/5					
1000	A100-4ESI	1.19	2.40	0.79	0.59	5.47	10/5					
1250	A120-4ESI	1.31	2.40	0.79	0.59	5.67	10/5					
1500	A160-4ESI	1.50	2.40	0.79	0.59	6.22	8/1					

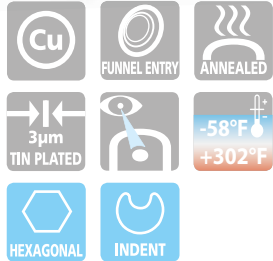
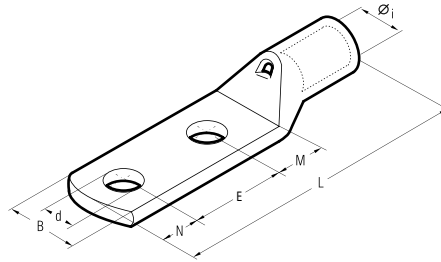


A-4ESI series lugs are made from high purity electrolytic Copper tube with a purity greater than 99.9%, annealed and Tin plated. The four hole stud fixing in accordance with E.A. specifications ensures compatibility with most transformer fixing arrangements.

Details of the appropriate crimping tools and dies are shown on pages 288 to 289.



for Copper conductors



A-2M series lugs are manufactured from electrolytic copper tube with a purity greater than 99.9%.

The dimensions of the tube are designed to obtain the most efficient electrical conductivity and mechanical strength to resist vibration and pull out.

Cembre lugs are annealed to guarantee optimum ductility, an absolute necessity for connectors which will have to withstand the severe deformation arising when compressed and any bending of the palm during installation.

In applications subject to vibration, terminals still have to perform a reliable connection, annealing plays a vital role in avoiding cracking or breaks between the barrel and palm.

The presence of an inspection hole facilitates full insertion of the conductor, whilst the barrel length has been designed to allow easy and accurate positioning of the dies during the crimping operation.

Lugs are electrolytically tinplated to avoid oxidation.

A-2M series lugs form an important part of Cembre crimping systems for power carrying conductors, details of the appropriate crimping tools and dies are shown opposite and in detail on page 288 to 289, whilst our technicians are always available to provide any technical advice which may be required.

The enclosed table is only indicative of the range and many variations in stud fixing and palm lengths are also available.

UL listed for US and Canada per UL486A up to 35 KV.

Cond. Size AWG	Ø Stud in.	Type	Dimensions in.							Quantity Box/Bag	Mechanical Tools		Hydraulic Tools							
			ØI	B	M	N	E	L	d											
8	#8	A2-2M4-12	0.18	0.39	0.2	0.16	0.47	1.44	0.17	100	HN1	HN5	HN-A25							
	5/16"	A2-2M8-20	0.18	0.59	0.43	0.43	0.79	2.26	0.33	100										
6	5/16"	A3-2M8-20	0.23	0.59	0.43	0.43	0.79	2.50	0.33	50										
	1/2"	A3-2M12-40	0.23	0.79	0.55	0.47	1.57	3.30	0.52	200/50										
4	5/16"	A5-2M8-20	0.28	0.59	0.35	0.43	0.79	2.32	0.33	400/100										
	5/16"	A5-2M8-24-24	0.28	0.59	0.94	0.43	0.94	3.07	0.33	300/100										
	3/8"	A5-2M10-24-13	0.28	0.71	0.51	0.43	0.94	2.64	0.41	300/100										
2	3/8"	A7-2M10-25	0.35	0.75	0.47	0.43	0.98	2.74	0.41	100										
	1/2"	A7-2M12-25	0.35	0.83	0.63	0.55	0.98	3.01	0.52	50										
	1/2"	A7-2M12-40	0.35	0.83	0.63	0.55	1.57	3.60	0.52	150/50										
1/0	1/4"	A10-2M6	0.39	0.75	0.31	0.43	1.75	3.50	0.25	50										
	5/16"	A10-2M8-20	0.39	0.75	0.43	0.43	0.79	2.66	0.33	100/50										
	5/16"	A10-2M8-22	0.39	0.75	0.43	0.43	0.87	2.74	0.33	150/50										
	5/16"	A10-2M8-30	0.39	0.75	0.43	0.43	1.18	3.05	0.33	150/50										
	5/16"	A10-2M8-24-24	0.39	0.75	0.94	0.43	0.94	3.33	0.33	150/50										
2/0	3/8"	A10-2M10-24-13	0.39	0.75	0.51	0.43	0.94	2.89	0.41	150/50										
	1/2"	A10-2M12	0.39	0.83	0.63	0.55	1.75	3.94	0.52	100/50										
	1/2"	A10-2M12-25	0.39	0.83	0.63	0.55	0.98	3.17	0.52	50										
	5/16"	A14-2M8-24-24	0.44	0.83	0.94	0.43	0.94	3.46	0.33	100/50										
	3/8"	A14-2M10-24	0.44	0.83	0.51	0.43	0.94	3.03	0.41	100/50										
1/0 2/0	1/2"	A14-2M12-25	0.44	0.87	0.63	0.55	0.98	3.31	0.52	50										
	1/2"	A14-2M12-30-29	0.44	0.87	1.14	0.55	1.18	4.02	0.52	100/50										
	1/2"	A14-2M12-40	0.44	0.87	0.63	0.55	1.57	3.90	0.52	100/50										
	1/4"	A19-2M6	0.53	0.98	0.39	0.43	1.75	3.98	0.25	25										
	5/16"	A19-2M8-50 S	0.53	0.98	0.59	0.59	1.97	4.55	0.33	75/25										
2/0 3/0	3/8"	A19-2M10-24-13	0.53	0.98	0.51	0.43	0.94	3.29	0.41	75/25										
	3/8"	A19-2M10-24-26	0.53	0.98	1.02	0.43	0.94	3.80	0.41	50/25										
	3/8"	A19-2M10-40	0.53	0.98	0.51	0.43	1.57	3.92	0.41	75/25										
	1/2"	A19-2M12-25	0.53	0.98	0.63	0.55	0.98	3.56	0.52	25										
	1/2"	A19-2M12-30-29	0.53	0.98	1.14	0.55	1.18	4.27	0.52	50/25										
3/0 250	9/16"	A19-2M14-25	0.53	0.98	0.71	0.63	0.98	3.72	0.59	25										
	5/16"	A24-2M8-20	0.60	1.12	0.43	0.43	0.79	3.11	0.33	25										
	5/16"	A24-2M8-24-29	0.60	1.12	1.14	0.43	0.94	3.98	0.33	50/25										
	5/16"	A24B-2M8-25/19*	0.60	0.75	0.55	0.35	0.98	3.35	0.33	50/25										
	5/16"	A24B-2M8-45/19*	0.60	0.75	0.55	0.35	1.77	4.13	0.33	50/25										
	3/8"	A24-2M10	0.60	1.12	0.51	0.43	1.75	4.15	0.41	50/25										
	3/8"	A24-2M10-22	0.60	1.12	0.51	0.43	0.87	3.27	0.41	25										
	3/8"	A24-2M10-25/24	0.60	0.94	0.51	0.43	0.98	3.39	0.41	50/25										
	3/8"	A24-2M10-33.5	0.60	1.12	0.51	0.43	1.32	3.72	0.41	50/25										
	3/8"	A24L-2M10-30AS	0.60	1.12	0.51	0.43	1.18	3.58	0.41	25										
	1/2"	A24-2M12-30-29	0.60	1.12	1.14	0.55	1.18	4.33	0.52	50/25										
	1/2"	A24-2M12-40	0.60	1.12	0.63	0.55	1.57	4.21	0.52	50/25										
	9/16"	A24-2M14	0.60	1.12	0.71	0.63	1.75	4.55	0.59	50/25										
	5/8"	A24-2M16	0.60	1.12	0.75	0.67	1.75	4.63	0.67	50/25										
	250 300 MCM	5/16"	A30-2M8-20	0.66	1.24	0.51	0.43	0.79	3.50	0.33										
3/8"		A30-2M10-24-28	0.66	1.24	1.10	0.43	0.94	4.25	0.41	50/25										
1/2"		A30-2M12-30	0.66	1.24	0.63	0.55	1.18	4.13	0.52	50/25										
1/2"		A30-2M12-30-29	0.66	1.24	1.14	0.55	1.18	4.65	0.52	30/15										
1/2"		A30-2M12-40	0.66	1.24	0.63	0.55	1.57	4.53	0.52	30/15										
300 350 MCM	9/16"	A30-2M14	0.66	1.24	0.71	0.63	1.75	4.86	0.59	50/25										
	9/16"	A30-2M14-33.5	0.66	1.24	0.71	0.63	1.32	4.43	0.59	50/25										
	3/8"	A37-2M10-25	0.76	1.40	0.51	0.43	0.98	3.98	0.41	30/15										
	1/2"	A37-2M12	0.76	1.40	0.63	0.55	1.75	4.98	0.52	30/15										
	1/2"	A37-2M12-32	0.76	1.40	0.63	0.55	1.26	4.49	0.52	30/15										
	1/2"	A37-2M12-30-31	0.76	1.40	1.22	0.55	1.18	5.00	0.52	30/15										
	9/16"	A37-2M14	0.76	1.40	0.71	0.63	1.75	5.14	0.59	30/15										
	9/16"	A37-2M14-35	0.76	1.40	0.71	0.63	1.38	4.76	0.59	15										
	5/8"	A37-2M16-40	0.76	1.40	0.75	0.67	1.57	5.04	0.67	15										

*Contained palm, without inspection hole

DOUBLE HOLE COPPER TUBE CRIMPING LUGS

A-2M

for Copper conductors



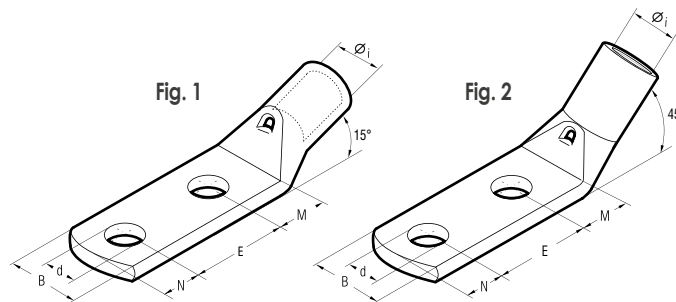
Cond. Size AWG	Ø Stud in.	Type	Dimensions in.							Quantity Box/Bag	Hydraulic Tools					
			Øi	B	M	N	E	L	d		HT51	B550CA	B500NDA	HT81-U RHU81		
300 350 MCM	3/8"	A48-2M10-20	0.83	1.54	0.51	0.43	0.79	4.02	0.41	15						
	3/8"	A48-2M10-35	0.83	1.54	0.51	0.43	1.38	4.61	0.41	15						
	1/2"	A48-2M12	0.83	1.54	0.63	0.55	1.75	5.22	0.52	30/15						
	1/2"	A48-2M12-35	0.83	1.54	0.63	0.55	1.38	4.84	0.52	30/15						
	1/2"	A48-2M12-40	0.83	1.54	0.63	0.55	1.57	5.04	0.52	30/15						
	1/2"	A48-2M12-30-31	0.83	1.54	1.22	0.55	1.18	5.24	0.52	20/10						
500 600 MCM	9/16"	A48-2M14	0.83	1.54	0.71	0.63	1.75	5.37	0.59	30/15						
	9/16"	A48-2M14-40	0.83	1.54	0.71	0.63	1.57	5.20	0.59	30/15						
	1/2"	A60-2M12	0.93	1.73	0.79	0.55	1.75	5.65	0.52	20/5						
	1/2"	A60-2M12-40	0.93	1.73	0.79	0.55	1.57	5.47	0.52	20/5						
	1/2"	A60-2M12-30-38	0.93	1.73	1.50	0.55	1.18	5.79	0.52	20/5						
	9/16"	A60-2M14	0.93	1.73	0.87	0.63	1.75	5.81	0.59	20/5						
800 MCM	5/8"	A60-2M16-40	0.93	1.73	0.87	0.67	1.57	5.67	0.67	20/5						
	5/8"	A60-2M16	0.93	1.73	0.87	0.67	1.75	5.85	0.67	20/5						
	5/8"	A60-2M16-35	0.93	1.73	0.87	0.67	1.38	5.47	0.67	20/5						
	9/16"	A80-2M14	1.06	2.01	0.87	0.63	1.75	6.08	0.59	15/5						
	9/16"	A80-2M14-40	1.06	2.01	0.87	0.63	1.57	5.91	0.59	15/5						
	5/8"	A80-2M16-40	1.06	2.01	0.87	0.75	1.57	6.02	0.67	15/5						
500 - 600 MCM	5/8"	A80B-2M16-40*	1.06	2.01	0.87	0.75	1.57	6.02	0.67	5						
	5/8"	A80-2M16-50	1.06	2.01	0.87	0.75	1.97	6.42	0.67	5						

*Without inspection hole

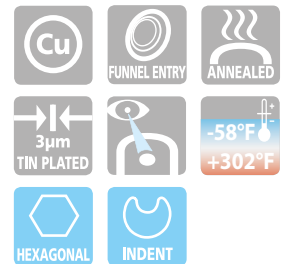
DOUBLE HOLE COPPER TUBE CRIMPING LUGS

A-2M

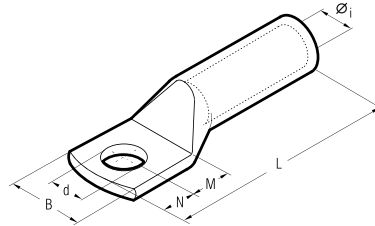
angled 315° and 345° for copper conductors



Cond. Size AWG	Ø Stud in.	Type	Fig. N.	Dimensions in.						Quantity Box/Bag	Mechanical Tools	Hydraulic Tools						
				Øi	B	M	N	E	d			HT45-E B450ND-BVA	HT51 B550CA	RH50 B500A B500NDA	HT81-U RHU81	B1300L-CA and similar tools for U dies ECW-H3D RHU1570		
4	5/16"	A5-2M8-24-24/345	1	0.28	0.59	0.94	0.43	0.94	0.33	300/100	HN-A25						TN70SEY	TN120SEY
	1/2"	A5-2M12-30-29/345	1	0.28	0.83	1.14	0.55	1.18	0.52	200/100								
2 - 1/0	5/16"	A10-2M8-24-24/345	1	0.39	0.75	0.94	0.43	0.94	0.33	150/50	TN70SEY	TN120SEY	TN120SEY	HT45-E B450ND-BVA	HT51 B550CA	RH50 B500A B500NDA	HT81-U RHU81	B1300L-CA and similar tools for U dies ECW-H3D RHU1570
	5/16"	A14-2M8-24-24/345	1	0.44	0.83	0.94	0.43	0.94	0.33	100/50								
1/0	3/8"	A14-2M10-24-26/315	2	0.44	0.83	1.02	0.43	0.94	0.41	100/50	TN70SEY	TN120SEY	TN120SEY	HT45-E B450ND-BVA	HT51 B550CA	RH50 B500A B500NDA	HT81-U RHU81	B1300L-CA and similar tools for U dies ECW-H3D RHU1570
	2/0	3/8"	A14-2M10-24-26/345	1	0.44	0.83	1.02	0.43	0.94	0.41								
	1/2"	A14-2M12-30-29/345	1	0.44	0.87	1.14	0.55	1.18	0.52	100/50	TN70SEY	TN120SEY	TN120SEY	HT45-E B450ND-BVA	HT51 B550CA	RH50 B500A B500NDA	HT81-U RHU81	B1300L-CA and similar tools for U dies ECW-H3D RHU1570
2/0	5/16"	A19-2M8-24-24/345	1	0.53	0.98	0.94	0.43	0.94	0.33	75/25								
	3/0	3/8"	A19-2M10-24-26/345	1	0.53	0.98	1.02	0.43	0.94	0.41	25							
	1/2"	A19-2M12-30-29/345	1	0.53	0.98	1.14	0.55	1.18	0.52	75/25	TN70SEY	TN120SEY	TN120SEY	HT45-E B450ND-BVA	HT51 B550CA	RH50 B500A B500NDA	HT81-U RHU81	B1300L-CA and similar tools for U dies ECW-H3D RHU1570
3/0	5/16"	A24-2M8-24-29/345	1	0.60	1.12	1.14	0.43	0.94	0.33	50/25								
	250	3/8"	A24-2M10-24-29/345	1	0.60	1.12	1.14	0.43	0.94	0.41	50/25							
	1/2"	A24-2M12-30-29/345	1	0.60	1.12	1.14	0.55	1.18	0.52	50/25	TN70SEY	TN120SEY	TN120SEY	HT45-E B450ND-BVA	HT51 B550CA	RH50 B500A B500NDA	HT81-U RHU81	B1300L-CA and similar tools for U dies ECW-H3D RHU1570
250 - 300 MCM	5/16"	A30-2M8-24-29/345	1	0.66	1.24	1.14	0.43	0.94	0.33	30/15								
	3/8"	A30-2M10-24-28/345	1	0.66	1.24	1.10	0.43	0.94	0.41	50/25								
	1/2"	A30-2M12-30-29/345	1	0.66	1.24	1.14	0.55	1.18	0.52	40/20	TN70SEY	TN120SEY	TN120SEY	HT45-E B450ND-BVA	HT51 B550CA	RH50 B500A B500NDA	HT81-U RHU81	B1300L-CA and similar tools for U dies ECW-H3D RHU1570
300 - 350 MCM	3/8"	A37-2M10-25/315	2	0.76	1.40	0.51	0.43	0.98	0.41	15								
	1/2"	A37-2M12-30-31/345	1	0.76	1.40	1.22	0.55	1.18	0.52	30/15	TN70SEY	TN120SEY	TN120SEY	HT45-E B450ND-BVA	HT51 B550CA	RH50 B500A B500NDA	HT81-U RHU81	B1300L-CA and similar tools for U dies ECW-H3D RHU1570
300 - 350 MCM	1/2"	A48-2M12/345	1	0.83	1.54	0.63	0.55	1.75	0.52	20/10								
	1/2"	A48-2M12-30/45	1	0.83	1.54	0.63	0.55	1.18	0.52	20/10	TN70SEY	TN120SEY	TN120SEY	HT45-E B450ND-BVA	HT51 B550CA	RH50 B500A B500NDA	HT81-U RHU81	B1300L-CA and similar tools for U dies ECW-H3D RHU1570
	1/2"	A48-2M12-30-31/345	1	0.83	1.54	1.22	0.55	1.18	0.52	20/10								
500 - 600 MCM	1/2"	A60-2M12-30-38/345	1	0.93	1.73	1.50	0.55	1.18	0.52	20/10	TN70SEY	TN120SEY	TN120SEY	HT45-E B450ND-BVA	HT51 B550CA	RH50 B500A B500NDA	HT81-U RHU81	B1300L-CA and similar tools for U dies ECW-H3D RHU1570



for Copper conductors



The 2A-M series cable lugs are designed for heavy duty, for grounding structures and equipment both indoors and outdoors and for medium voltage applications up to 35 kV.

2A-M series terminals are made from high purity Copper tube with a purity greater than 99.9%, and are annealed.

They feature a double length barrel for enhanced electrical and mechanical performance in heavy duty applications.

The absence of an inspection hole prevents the entry of water or moisture into the crimped joint making these terminals suitable for outdoor applications.

The terminals are electrolytically Tin plated to prevent atmospheric corrosion.

Details of the appropriate crimping tools and dies are shown on pages 288 to 289.

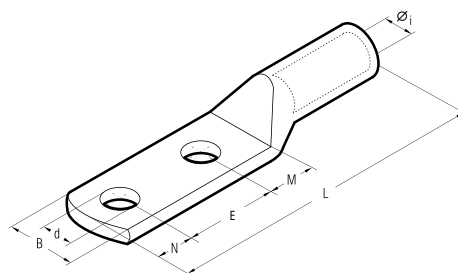
Conductor Size AWG	Ø Stud in.	Type	Dimensions in.						Quantity Box/Bag	Mechanical Tools		Hydraulic Tools	
			Øi	B	M	N	L	d					
6	5/16"	2A3-M8	0.23	0.59	0.35	0.31	1.71	0.33	600/100	HNS	HN-A25	B15MA	
	3/8"	2A3-M10	0.23	0.71	0.43	0.39	1.87	0.41	500/100				
4	5/16"	2A5-M8	0.28	0.59	0.35	0.31	2.01	0.33	400/100	HN-A25	TN70SEY		
	3/8"	2A5-M10	0.28	0.71	0.43	0.39	2.17	0.41	300/50				
	1/2"	2A5-M12	0.28	0.83	0.55	0.47	2.36	0.52	300/50				
2	5/16"	2A7-M8	0.35	0.67	0.35	0.31	2.09	0.33	200/50	TN70SEY			
	3/8"	2A7-M10	0.35	0.75	0.43	0.39	2.24	0.41	200/50				
	1/2"	2A7-M12	0.35	0.83	0.55	0.47	2.44	0.52	200/50				
2-1/0	3/8"	2A10-M10	0.39	0.79	0.43	0.39	2.48	0.41	100/50	TN70SEY			
	1/2"	2A10-M12	0.39	0.83	0.55	0.47	2.68	0.52	100/50				
	9/16"	2A10-M14	0.39	0.98	0.63	0.55	2.83	0.59	150/50				
1/0-2/0	5/8"	2A10-M16	0.39	1.02	0.71	0.63	2.99	0.67	150/50	TN120SEY			
	3/8"	2A14-M10	0.44	0.83	0.43	0.39	2.76	0.41	100/50				
	1/2"	2A14-M12	0.44	0.87	0.55	0.47	2.95	0.52	100/50				
2/0-3/0	9/16"	2A14-M14	0.44	0.98	0.63	0.55	3.11	0.59	100/50	TN120SEY			
	5/8"	2A14-M16	0.44	1.02	0.71	0.63	3.27	0.67	100/50				
	3/8"	2A19-M10	0.53	0.98	0.43	0.39	3.01	0.41	50/25				
3/0-250	1/2"	2A19-M12	0.53	0.98	0.55	0.47	3.21	0.52	50/25	TN120SEY			
	9/16"	2A19-M14	0.53	0.98	0.63	0.55	3.37	0.59	75/25				
	5/8"	2A19-M16	0.53	1.06	0.71	0.63	3.56	0.67	50/25				
250	3/4"	2A19-M20	0.53	1.16	0.87	0.79	3.84	0.83	75/25	TN120SEY			
	3/8"	2A24-M10	0.60	1.12	0.43	0.39	3.23	0.41	30/15				
	1/2"	2A24-M12	0.60	1.12	0.55	0.47	3.43	0.52	30/15				
300	9/16"	2A24-M14	0.60	1.12	0.63	0.55	3.58	0.59	30/15	TN120SEY			
	5/8"	2A24-M16	0.60	1.12	0.71	0.63	3.74	0.67	30/15				
	3/4"	2A24-M20	0.60	1.18	0.87	0.79	4.06	0.83	50/25				
350	3/8"	2A30-M10	0.66	1.24	0.51	0.43	3.62	0.41	30/15	TN120SEY			
	1/2"	2A30-M12	0.66	1.24	0.63	0.55	3.86	0.52	30/15				
	9/16"	2A30-M14	0.66	1.24	0.71	0.63	4.02	0.59	30/15				
500	5/8"	2A30-M16	0.66	1.24	0.75	0.67	4.09	0.67	30/15	TN120SEY			
	3/4"	2A30-M20	0.66	1.24	0.87	0.79	4.33	0.83	30/15				
	1/2"	2A37-M12	0.76	1.40	0.63	0.55	4.25	0.52	20/10				
600	9/16"	2A37-M14	0.76	1.40	0.71	0.63	4.41	0.59	30/15	TN120SEY			
	5/8"	2A37-M16	0.76	1.40	0.75	0.67	4.49	0.67	30/15				
	3/4"	2A37-M20	0.76	1.40	0.87	0.79	4.72	0.83	30/15				
800	1/2"	2A48-M12	0.83	1.54	0.63	0.55	4.29	0.52	20/5	TN120SEY			
	9/16"	2A48-M14	0.83	1.54	0.71	0.63	4.45	0.59	20/5				
	5/8"	2A48-M16	0.83	1.54	0.75	0.67	4.53	0.67	20/5				
1000	3/4"	2A48-M20	0.83	1.54	0.87	0.79	4.76	0.83	25/5	TN120SEY			
	1/2"	2A60-M12	0.93	1.73	0.79	0.55	5.10	0.52	15/5				
	9/16"	2A60-M14	0.93	1.73	0.87	0.63	5.26	0.59	15/5				
1250	5/8"	2A60-M16	0.93	1.73	0.87	0.75	5.37	0.67	15/5	TN120SEY			
	3/4"	2A60-M20	0.93	1.73	0.94	0.91	5.61	0.83	15/5				
	1/2"	2A80-M12	1.06	2.01	0.87	0.75	5.51	0.52	15/5				
1500	9/16"	2A80-M14	1.06	2.01	0.87	0.75	5.51	0.59	10/5	TN120SEY			
	5/8"	2A80-M16	1.06	2.01	0.87	0.75	5.51	0.67	10/5				
	3/4"	2A80-M20	1.06	2.01	0.94	0.91	5.75	0.83	15/5				
2000	5/8"	2A100-M16*	1.19	2.22	0.87	0.75	5.55	0.67	10/1	TN120SEY			
	3/4"	2A100-M20*	1.19	2.22	0.94	0.91	5.78	0.83	10/1				
	5/8"	2A120-M16*	1.31	2.42	0.87	0.75	6.26	0.67	20/1				
2000	3/4"	2A120-M20*	1.31	2.42	0.94	0.91	6.50	0.83	20/1	TN120SEY			
	3/4"	2A160-M20*	1.50	2.83	0.94	0.91	7.36	0.83	12/1				
2000	3/4"	2A200-M20*	1.73	3.23	0.94	0.91	7.95	0.83	6/1	TN120SEY			
	3/4"	2A200-M20*	1.73	3.23	0.94	0.91	7.95	0.83	6/1				

*Not UL approved

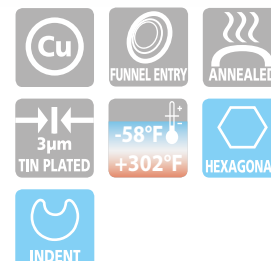
HEAVY DUTY COPPER TUBE TERMINALS

2A-2M

two hole fixing - for Copper conductors



Cond. Size AWG	Ø Stud in.	Type	Dimensions in.							Quantity Box/Bag	Mechanical Tools	Hydraulic Tools			
			Øi	B	M	N	E	L	d			TN70SEY	TN120SEY	HT45-E B450ND-BVA	HT51 B550CA
2-1/0	1/2"	2A10-2M12	0.39	0.83	0.55	0.47	1.75	4.43	0.52	75/25					
1/0-2/0	1/2"	2A14-2M12	0.45	0.87	0.63	0.55	1.75	4.86	0.52	50/25					
	9/16"	2A14-2M14	0.45	0.98	0.71	0.63	1.75	5.02	0.59	75/25					
2/0-3/0	1/2"	2A19-2M12	0.53	0.98	0.63	0.55	1.75	5.04	0.52	50/25					
	9/16"	2A19-2M14	0.53	0.98	0.71	0.63	1.75	5.20	0.59	50/25					
3/0-250	1/2"	2A24-2M12	0.60	1.12	0.63	0.55	1.75	5.34	0.52	50/25					
	9/16"	2A24-2M14	0.60	1.12	0.71	0.63	1.75	5.49	0.59	50/25					
250	5/8"	2A24-2M16	0.60	1.12	0.71	0.67	1.75	5.53	0.67	50/25					
	1/2"	2A30-2M12	0.66	1.24	0.63	0.55	1.75	5.61	0.52	30/15					
300	9/16"	2A30-2M14	0.66	1.24	0.71	0.63	1.75	5.77	0.59	30/15					
MCM	5/8"	2A30-2M16*	0.66	1.24	0.75	0.67	1.75	5.85	0.67	30/15					
300	1/2"	2A37-2M12	0.76	1.40	0.63	0.55	1.75	6.00	0.52	30/15					
350	9/16"	2A37-2M14	0.76	1.40	0.71	0.63	1.75	6.16	0.59	30/15					
MCM	5/8"	2A37-2M16	0.76	1.40	0.75	0.67	1.75	6.24	0.67	30/15					
350	1/2"	2A48-2M12	0.83	1.54	0.63	0.55	1.75	6.04	0.52	25/5					
500	9/16"	2A48-2M14	0.83	1.54	0.71	0.63	1.75	6.20	0.59	25/5					
MCM	5/8"	2A48-2M16	0.83	1.54	0.75	0.67	1.75	6.28	0.67	25/5					
500	1/2"	2A60-2M12	0.93	1.73	0.79	0.55	1.75	6.85	0.52	15/5					
600	9/16"	2A60-2M14	0.93	1.73	0.87	0.63	1.75	7.01	0.59	20/5					
MCM	5/8"	2A60-2M16	0.93	1.73	0.75	0.67	1.75	6.93	0.67	20/5					
800	1/2"	2A80-2M12	1.06	2.01	0.79	0.55	1.75	6.99	0.52	15/5					
MCM	9/16"	2A80-2M14	1.06	2.01	0.87	0.63	1.75	7.15	0.59	10/5					
	5/8"	2A80-2M16	1.06	2.01	0.87	0.75	1.75	7.26	0.67	15/5					
1000	1/2"	2A100-2M12*	1.19	2.22	0.79	0.55	1.75	7.03	0.52	10/5					
MCM	9/16"	2A100-2M14*	1.19	2.22	0.87	0.63	1.75	7.19	0.59	10/1					
	5/8"	2A100-2M16*	1.19	2.22	0.87	0.75	1.75	7.30	0.67	8/1					
1250	1/2"	2A120-2M12*	1.32	2.42	0.79	0.55	1.75	7.74	0.52	15/1					
MCM	9/16"	2A120-2M14*	1.32	2.42	0.87	0.75	1.75	7.89	0.59	15/1					
	5/8"	2A120-2M16*	1.32	2.42	0.87	0.75	1.75	8.01	0.67	15/1					
1500	1/2"	2A160-2M12*	1.50	2.84	0.79	0.55	1.75	8.60	0.52	1					
MCM	9/16"	2A160-2M14*	1.50	2.84	0.87	0.75	1.75	8.88	0.59	10/1					
	5/8"	2A160-2M16*	1.50	2.84	0.95	0.75	1.75	8.96	0.67	10/1					
2000	1/2"	2A200-2M12*	1.73	3.15	0.79	0.55	1.75	9.19	0.52	6/2					
MCM	9/16"	2A200-2M14*	1.73	3.15	0.87	0.63	1.75	9.35	0.59	1					
	5/8"	2A200-2M16*	1.73	3.15	0.87	0.75	1.75	9.47	0.67	5/1					
	3/4"	2A200-2M20*	1.73	3.15	0.95	0.91	1.75	9.71	0.83	6/2					



The 2A-2M series cable lugs are designed for heavy duty, for grounding structures and equipment both indoors and outdoors and for medium voltage applications up to 35 kV.

2A-2M series terminals are made from high purity Copper tube with a purity greater than 99.9%, and are annealed to ensure ductility and satisfactory performance when subjected to deformation and vibration.

The tube dimensions are designed to optimise electrical conductivity and mechanical strength.

Double length barrels enhance electrical and mechanical performance in heavy duty applications. Palms feature double stud holes at standard 1.75 in. centres.

Other configurations are available upon request.

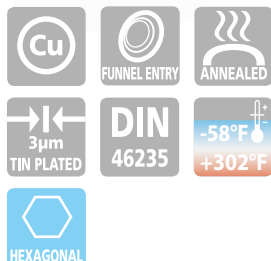
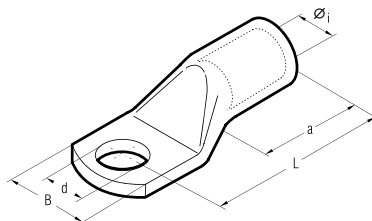
The absence of an inspection hole prevents the ingress of water or moisture into the crimped joint making these terminals suitable for outdoor applications.

Lugs are electrolytically Tin plated to avoid oxidation.

Details of the appropriate crimping tools and dies are shown on pages 288 to 289.

*Not UL approved

for Copper conductors



DR series lugs are manufactured from electrolytic Copper tube with a purity greater than 99.9% and designed to obtain high electrical conductivity combined with the mechanical strength required to resist vibration and pull out.

Cembre lugs are annealed and Tin plated for improved surface protection.

The annealing process optimises the structural features of the material allowing easier crimping and greater resistance to mechanical stresses.

Dimensions are according to DIN 46235.

The barrel entrance of the lug is chamfered to allow easy conductor insertion, while its length facilitates precise positioning in the crimping die.

Each lug is marked with:

- Cembre logo and part code.
- conductor type and csa (mm²).
- stud Ø (mm).
- crimping die code

Details of the appropriate crimping tools and dies are shown on page 294 to 295.

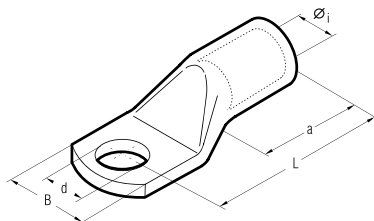
Consult us for special requirements

Conductor Size AWG	Ø Stud in.	Type	Code	Dimensions in.					Quantity Box/Bag	Mechanical Tools	Hydraulic Tools			
				Øi	d	L	B	a			HN-D25	TNE-D50	TNE-D120	HT45-E B450ND-BVA HT51 RH50 B500A B500DA B550CA HT81-U RHU81 B1300L-CA and similar tools for U dies ECW-H3D RHU520
10	#10	DR6-5	5	0.15	0.21	0.98	0.33	0.39	800/100					
	1/4"	DR6-6	5	0.15	0.25	0.98	0.33	0.39	800/100					
	5/16"	DR6-8*	5	0.15	0.33	0.33	0.49	0.39	800/100					
8	#10	DR10-5	6	0.18	0.21	0.21	0.35	0.51	800/100					
	1/4"	DR10-6	6	0.18	0.25	0.25	0.35	0.51	800/100					
	5/16"	DR10-8*	6	0.18	0.33	0.33	0.51	0.51	800/100					
6	3/8"	DR10-10*	6	0.18	0.41	0.41	0.51	0.51	800/100					
	1/4"	DR16-6	8	0.22	0.25	0.25	0.51	0.79	400/100					
	5/16"	DR16-8	8	0.22	0.33	0.33	0.51	0.79	400/100					
4	3/8"	DR16-10	8	0.22	0.41	0.41	0.67	0.79	400/100					
	1/2"	DR16-12*	8	0.22	0.51	0.51	0.75	0.79	400/100					
	1/4"	DR25-6	10	0.28	0.25	0.25	0.55	0.79	400/100					
2	5/16"	DR25-8	10	0.28	0.33	0.33	0.63	0.79	300/100					
	3/8"	DR25-10	10	0.28	0.41	0.41	0.67	0.79	200/100					
	1/2"	DR25-12	10	0.28	0.51	0.51	0.75	0.79	200/100					
1/0	1/4"	DR35-6*	12	0.32	0.25	0.25	0.67	0.79	200/100					
	5/16"	DR35-8	12	0.32	0.33	0.33	0.67	0.79	200/100					
	3/8"	DR35-10	12	0.32	0.41	0.41	0.75	0.79	200/100					
2/0	1/2"	DR35-12	12	0.32	0.51	0.51	0.83	0.79	200/100					
	5/8"	DR35-16*	12	0.32	0.67	0.67	1.02	0.79	200/100					
	1/4"	DR50-6*	14	0.39	0.25	0.25	0.79	1.10	100/25					
3/0	5/16"	DR50-8	14	0.39	0.33	0.33	0.79	1.10	100/25					
	3/8"	DR50-10	14	0.39	0.41	0.41	0.87	1.10	100/25					
	1/2"	DR50-12	14	0.39	0.51	0.51	0.94	1.10	100/25					
250 MCM	5/8"	DR50-16	14	0.39	0.67	0.67	1.1	1.10	100/25					
	5/16"	DR70-8	16	0.45	0.33	0.33	0.94	1.10	50/25					
	3/8"	DR70-10	16	0.45	0.41	0.41	0.94	1.10	50/25					
300 MCM	1/2"	DR70-12	16	0.45	0.51	0.51	0.94	1.10	50/25					
	5/8"	DR70-16	16	0.45	0.67	0.67	1.18	1.10	50/25					
	3/4"	DR70-20*	16	0.45	0.83	0.83	1.18	1.10	50/25					
350 MCM	5/16"	DR95-8*	18	0.53	0.33	0.33	1.1	1.38	50/25					
	3/8"	DR95-10	18	0.53	0.41	0.41	1.1	1.38	50/25					
	1/2"	DR95-12	18	0.53	0.51	0.51	1.1	1.38	50/25					
500 MCM	5/8"	DR95-16	18	0.53	0.67	0.67	1.26	1.38	50/25					
	3/4"	DR95-20*	18	0.53	0.83	0.83	1.26	1.38	50/25					
	5/16"	DR120-8*	20	0.61	0.33	0.33	1.18	1.38	50/25					
250 MCM	3/8"	DR120-10	20	0.61	0.41	0.41	1.26	1.38	50/25					
	1/2"	DR120-12	20	0.61	0.51	0.51	1.26	1.38	30/15					
	5/8"	DR120-16	20	0.61	0.67	0.67	1.26	1.38	50/25					
300 MCM	3/4"	DR120-20	20	0.61	0.83	0.83	1.5	1.38	50/25					
	3/8"	DR150-10	22	0.67	0.41	0.41	1.34	1.38	30/15					
	1/2"	DR150-12	22	0.67	0.51	0.51	1.34	1.38	30/15					
350 MCM	5/8"	DR150-16	22	0.67	0.67	0.67	1.34	1.38	40/20					
	3/4"	DR150-20	22	0.67	0.83	0.83	1.57	1.38	30/15					
	3/8"	DR185-10	25	0.75	0.41	0.41	1.46	1.57	25/25					
500 MCM	1/2"	DR185-12	25	0.75	0.51	0.51	1.46	1.57	25/25					
	5/8"	DR185-16	25	0.75	0.67	0.67	1.46	1.57	25/25					
	3/4"	DR185-20	25	0.75	0.83	0.83	1.57	1.57	25/25					
250 MCM	3/8"	DR240-10*	28	0.85	0.41	0.41	1.65	1.57	20/10					
	1/2"	DR240-12	28	0.85	0.51	0.51	1.65	1.57	20/10					
	5/8"	DR240-16	28	0.85	0.67	0.67	1.65	1.57	20/10					
500 MCM	3/4"	DR240-20	28	0.85	0.83	0.83	1.77	1.57	20/10					

* Dimensions of the tube according to DIN 46235; Stud hole not included within the standard.

COPPER TUBE CRIMPING LUGS ACCORDING TO DIN 46235

for Copper conductors



Conductor Size AWG	Ø Stud in.	Type	Code	Dimensions in.					Quantity Box/Bag	Hydraulic Tools		ECW-H3D RHU520
				Øi	d	L	B	a				
600 MCM	1/2"	DR300-12*	32	0.96	0.51	0.51	1.89	2.17	10/5	RH50 B500A B500NDA	B1300L-CA and similar tools for U dies	
	5/8"	DR300-16	32	0.96	0.67	0.67	1.89	2.17	10/5			
	3/4"	DR300-20	32	0.96	0.83	0.83	1.89	2.17	10/5			
800 MCM	1/2"	DR400-12**	38	1.08	0.51	0.51	2.17	2.76	5/5			
	5/8"	DR400-16*	38	1.08	0.67	0.67	2.17	2.76	5/5			
	3/4"	DR400-20*	38	1.08	0.83	0.83	2.17	2.76	5/5			
1000 MCM	1/2"	DR500-12**	42	1.22	0.51	0.51	2.36	2.76	5/5			
	5/8"	DR500-16**	42	1.22	0.67	0.67	2.36	2.76	5/5			
	3/4"	DR500-20*	42	1.22	0.83	0.83	2.36	2.76	5/5			
1250 MCM	3/4"	DR625-20*	44	1.36	0.83	0.83	2.48	3.15	5/5			
1500 MCM	3/4"	DR800-20*	52	1.57	0.83	0.83	2.95	3.94	5/5			
2000 MCM	3/4"	DR1000-20*	58	1.73	0.83	0.83	3.35	3.94	5/5			

* Dimensions of the tube according to DIN 46235; Stud hole not included within the standard.

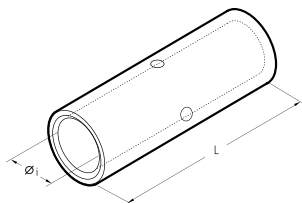
*Not UL approved



Consult us for special requirements

CRIMPING THROUGH CONNECTORS ACCORDING TO DIN 46267 T.1

for Copper conductors



Conductor Size AWG	Type	Code	Dimensions in.		Quantity Box/Bag	Mechanical Tools			Hydraulic Tools				
			Øi	L		HN-D25	TNE-D50	TNE-D120	B15MA	HT45-E B450ND-BVA	HT51 B550CA	RH50 B500A B500NDA	HT81-U RHU81
10	DSV6	5	0.15	1.18	1,200/100								
8	DSV10	6	0.17	1.18	1,200/100								
6	DSV16	8	0.22	1.97	400/100								
4	DSV25	10	0.28	1.97	200/100								
2	DSV35	12	0.32	1.97	200/100								
1/0	DSV50	14	0.39	2.20	200/50								
2/0	DSV70	16	0.45	2.20	100/50								
3/0	DSV95	18	0.53	2.76	100/50								
250 MCM	DSV120	20	0.61	2.76	50/25								
300 MCM	DSV150	22	0.67	3.15	50/25								
350 MCM	DSV185	25	0.75	3.35	25/25								
500 MCM	DSV240	28	0.85	3.54	15/15								
600 MCM	DSV300	32	0.96	3.94	10/5								
800 MCM	DSV400	38	1.08	5.91	10/5								
1000 MCM	DSV500	42	1.22	6.30	5/5								
1250 MCM	DSV625	44	1.36	6.30	5/5								
1500 MCM	DSV800	52	1.57	7.87	5/5								
2000 MCM	DSV1000	58	1.73	7.87	5/5								

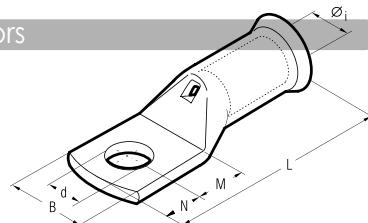
DSV



DSV series through connectors are manufactured from electrolytic Copper tube with a purity greater than 99.9%, annealed and surface protected by tin plating. Internal and external dimensions match those of DR series lugs. Chamfered ends and a central stop provide easy and correct insertion of the conductor. Details of the appropriate crimping tools and dies are shown on page 294 to 295.

Consult us for special requirements

for Copper conductors



T-M series lugs are manufactured from electrolytic Copper tube with a purity greater than 99.9%.

The dimensions of the tube are designed to obtain the most efficient electrical conductivity and mechanical strength to resist vibration and pull out.

Cembre lugs are annealed to guarantee optimum ductility which is an absolute necessity for connectors which will have to withstand the severe deformation arising when compressed and any bending of the palm during installation. In applications subject to vibration, lugs still have to provide a reliable connection and annealing plays a vital role in avoiding cracking or breaks between the barrel and palm.

The insertion of the cable is facilitated by a tulip out

The presence of an inspection hole facilitates full insertion of the conductor, whilst the barrel length has been designed to allow easy and accurate positioning of the dies during the crimping operation.

Lugs are electrolytically Tin plated to avoid oxidation.

Our technicians are always available to provide any technical advice which may be required.

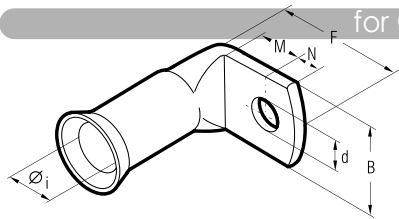
The enclosed table is only indicative of the range and many variations in stud fixing and palm lengths are also available.

Details of the appropriate crimping tools and dies are shown on pages 290 to 291.

Conductor Size AWG	Ø Stud in.	Type	Dimensions in.						Quantity Box/Bag	Mechanical Tools	Hydraulic Tools
			Øi	B	M	N	L	d			
Low Str. Flex	12	#8 T4-M4	0.11	0.35	0.28	0.24	1.08	0.17	1,200/100		
		#10 T4-M5	0.11	0.35	0.28	0.24	1.08	0.20	2,000/100		
		1/4" T4-M6	0.11	0.47	0.35	0.31	1.26	0.25	1,200/100		
12÷10		#8 T6-M4	0.13	0.39	0.26	0.24	1.18	0.17	1,200/100		
		#10 T6-M5	0.13	0.51	0.26	0.24	1.18	0.20	1,200/100		
		1/4" T6-M6	0.13	0.51	0.35	0.31	1.36	0.25	800/100		
		5/16" T6-M8	0.13	0.51	0.43	0.39	1.52	0.33	800/100		
		#10 T10-M5	0.17	0.43	0.26	0.24	1.18	0.20	800/100		
8		1/4" T10-M6	0.17	0.43	0.35	0.31	1.36	0.25	800/100		
		5/16" T10-M8	0.17	0.55	0.43	0.39	1.52	0.33	800/100		
		3/8" T10-M10	0.17	0.55	0.55	0.47	1.71	0.41	800/100		
		#10 T16-M5	0.21	0.47	0.26	0.24	1.34	0.20	800/100		
6		1/4" T16-M6	0.21	0.47	0.35	0.31	1.52	0.25	400/100		
		5/16" T16-M8	0.21	0.63	0.43	0.39	1.67	0.33	400/100		
		3/8" T16-M10	0.21	0.63	0.55	0.47	1.87	0.41	400/100		
		#10 T25-M5	0.26	0.51	0.26	0.24	1.4	0.20	400/100		
4		1/4" T25-M6	0.26	0.51	0.35	0.31	1.57	0.25	400/100		
		5/16" T25-M8	0.26	0.63	0.43	0.39	1.73	0.33	400/100		
		3/8" T25-M10	0.26	0.63	0.55	0.47	1.93	0.41	400/100		
		1/2" T25-M12	0.26	0.75	0.71	0.63	2.24	0.50	200/50		
		1/4" T35-M6	0.31	0.59	0.35	0.31	1.61	0.25	200/50		
2		5/16" T35-M8	0.31	0.67	0.43	0.39	1.77	0.33	200/50		
		3/8" T35-M10	0.31	0.67	0.55	0.47	1.97	0.41	200/50		
		1/2" T35-M12	0.31	0.67	0.71	0.63	2.28	0.50	200/50		
		1/4" T50-M6	0.36	0.71	0.35	0.31	1.83	0.25	200/25		
1/0		5/16" T50-M8	0.36	0.71	0.43	0.39	1.99	0.33	200/25		
		3/8" T50-M10	0.36	0.71	0.55	0.47	2.19	0.41	200/25		
		1/2" T50-M12	0.36	0.75	0.71	0.63	2.50	0.50	100/25		
		5/16" T70-M8	0.43	0.83	0.43	0.39	2.13	0.33	100/25		
2/0		3/8" T70-M10	0.43	0.83	0.55	0.47	2.32	0.41	100/25		
		1/2" T70-M12	0.43	0.83	0.71	0.63	2.64	0.50	100/25		
		5/16" T95-M8	0.52	0.91	0.43	0.39	2.36	0.33	80/20		
3/0		3/8" T95-M10	0.52	0.91	0.55	0.47	2.56	0.41	80/20		
		1/2" T95-M12	0.52	0.91	0.71	0.63	2.87	0.50	80/20		
		9/16" T95-M14	0.52	0.91	0.71	0.63	2.87	0.57	80/20		
		5/8" T95-M16	0.52	0.91	0.75	0.67	2.95	0.65	80/20		
		5/16" T120-M8	0.57	1.10	0.43	0.39	2.48	0.33	100/25		
250 MCM		3/8" T120-M10	0.57	1.10	0.55	0.47	2.68	0.41	50/25		
		1/2" T120-M12	0.57	1.10	0.71	0.63	2.99	0.50	50/25		
		9/16" T120-M14	0.57	1.10	0.71	0.63	2.99	0.57	50/25		
		5/8" T120-M16	0.57	1.10	0.75	0.67	3.07	0.65	50/25		
300 MCM		5/16" T150-M8	0.64	1.18	0.43	0.39	2.85	0.33	40/10		
		3/8" T150-M10	0.64	1.18	0.55	0.47	3.05	0.41	40/10		
		1/2" T150-M12	0.64	1.18	0.71	0.63	3.37	0.50	40/10		
		9/16" T150-M14	0.64	1.18	0.71	0.63	3.37	0.57	40/10		
		5/8" T150-M16	0.64	1.18	0.75	0.67	3.44	0.65	40/10		
350 MCM		3/8" T185-M10	0.71	1.30	0.55	0.47	3.29	0.41	40/10		
		1/2" T185-M12	0.71	1.30	0.71	0.63	3.60	0.50	40/10		
		9/16" T185-M14	0.71	1.30	0.71	0.63	3.60	0.57	40/10		
		5/8" T185-M16	0.71	1.30	0.75	0.67	3.68	0.65	40/10		
500 MCM		3/8" T240-M10	0.81	1.46	0.51	0.43	3.44	0.41	20/10		
		1/2" T240-M12	0.81	1.46	0.63	0.55	3.68	0.50	20/10		
		9/16" T240-M14	0.81	1.46	0.71	0.63	3.84	0.57	20/10		
		5/8" T240-M16	0.81	1.46	0.75	0.67	3.92	0.65	20/10		
		3/4" T240-M20	0.81	1.46	0.87	0.79	4.15	0.83	20/10		
600 MCM		3/8" T300-M10	0.91	1.61	0.55	0.43	3.74	0.41	20/5		
		1/2" T300-M12	0.91	1.61	0.79	0.55	4.09	0.50	20/5		
		9/16" T300-M14	0.91	1.61	0.87	0.63	4.25	0.57	20/5		
		5/8" T300-M16	0.91	1.61	0.87	0.75	4.37	0.65	20/5		
800 MCM		3/4" T300-M20	0.91	1.61	0.94	0.91	4.61	0.83	10/5		
		9/16" T400-M14	1.03	1.85	0.87	0.75	4.69	0.57	10/5		
		5/8" T400-M16	1.03	1.85	0.87	0.75	4.69	0.65	10/5		
		3/4" T400-M20	1.03	1.85	0.94	0.91	4.92	0.83	10/5		

COPPER TUBE CRIMPING LUGS ANGLED 90°

for Copper conductors



Conductor Size AWG		Ø Stud in.	Type	Dimensions in.						Quantity Box/Bag	Mechanical Tools			Hydraulic Tools			
Low Str.	Flex			Øi	B	M	N	F*	d								
12÷10		1/4"	T6-L6	0.13	0.51	0.35	0.32	0.93	0.25	800/100	HN1	HN5	HN-T25	TNE-T50	B15MA	HT45-E B450ND-BVA	HT51 RH50 B500A B500NDA HT81-U RHU81 B1300L-CA and similar tools for U dies ECW-H3D RHU520
		#10	T10-L5	0.17	0.43	0.24	0.24	0.80	0.21	800/100							
8		1/4"	T10-L6	0.17	0.43	0.32	0.32	0.98	0.25	800/100							
		5/16"	T10-L8	0.17	0.55	0.43	0.39	1.13	0.33	800/100							
		1/4"	T16-L6	0.21	0.47	0.35	0.32	1.04	0.25	400/100	HN1	HN5	HN-T25	TNE-T50	B15MA	HT45-E B450ND-BVA	HT51 RH50 B500A B500NDA HT81-U RHU81 B1300L-CA and similar tools for U dies ECW-H3D RHU520
6		5/16"	T16-L8	0.21	0.63	0.43	0.39	1.20	0.33	400/100							
		3/8"	T16-L10	0.21	0.63	0.55	0.47	1.40	0.41	400/100							
		1/4"	T25-L6	0.26	0.51	0.35	0.32	1.10	0.25	400/100							
		5/16"	T25-L8	0.26	0.63	0.43	0.39	1.26	0.33	400/100	HN1	HN5	HN-T25	TNE-T50	B15MA	HT45-E B450ND-BVA	HT51 RH50 B500A B500NDA HT81-U RHU81 B1300L-CA and similar tools for U dies ECW-H3D RHU520
4		3/8"	T25-L10	0.26	0.63	0.55	0.47	1.46	0.41	400/100							
		1/4"	T35-L6	0.31	0.59	0.35	0.32	1.16	0.25	400/50							
		5/16"	T35-L8	0.31	0.67	0.43	0.39	1.32	0.33	200/50							
		3/8"	T35-L10	0.31	0.67	0.55	0.47	1.52	0.41	200/50	HN1	HN5	HN-T25	TNE-T50	B15MA	HT45-E B450ND-BVA	HT51 RH50 B500A B500NDA HT81-U RHU81 B1300L-CA and similar tools for U dies ECW-H3D RHU520
2		1/4"	T50-L6	0.36	0.71	0.35	0.32	1.24	0.25	100/25							
		5/16"	T50-L8	0.36	0.71	0.39	0.39	1.40	0.33	200/25							
		3/8"	T50-L10	0.36	0.71	0.55	0.47	1.59	0.41	100/25							
		5/16"	T70-L8	0.43	0.83	0.43	0.39	1.52	0.33	100/25	HN1	HN5	HN-T25	TNE-T50	B15MA	HT45-E B450ND-BVA	HT51 RH50 B500A B500NDA HT81-U RHU81 B1300L-CA and similar tools for U dies ECW-H3D RHU520
2/0		3/8"	T70-L10	0.43	0.83	0.55	0.47	1.71	0.41	100/25							
		1/2"	T70-L12	0.43	0.83	0.71	0.63	2.03	0.50	100/25							
		5/16"	T95-L8	0.52	0.91	0.43	0.39	1.61	0.33	100/25							
		3/8"	T95-L10	0.52	0.91	0.55	0.47	1.81	0.41	100/25	HN1	HN5	HN-T25	TNE-T50	B15MA	HT45-E B450ND-BVA	HT51 RH50 B500A B500NDA HT81-U RHU81 B1300L-CA and similar tools for U dies ECW-H3D RHU520
3/0		1/2"	T95-L12	0.52	0.91	0.71	0.63	2.13	0.50	100/25							
		3/8"	T120-L10	0.57	1.10	0.55	0.47	1.89	0.41	50/25							
250 MCM		1/2"	T120-L12	0.57	1.10	0.71	0.63	2.21	0.50	50/25							
		3/8"	T150-L10	0.64	1.18	0.55	0.47	1.97	0.41	40/10	HN1	HN5	HN-T25	TNE-T50	B15MA	HT45-E B450ND-BVA	HT51 RH50 B500A B500NDA HT81-U RHU81 B1300L-CA and similar tools for U dies ECW-H3D RHU520
300 MCM		1/2"	T150-L12	0.64	1.18	0.71	0.63	2.28	0.50	40/10							
		3/8"	T185-L10	0.71	1.30	0.55	0.47	2.05	0.41	40/10							
350 MCM																	

T-L



T-L series lugs angled 90° are manufactured from electrolytic Copper tube with a purity greater than 99.9%.

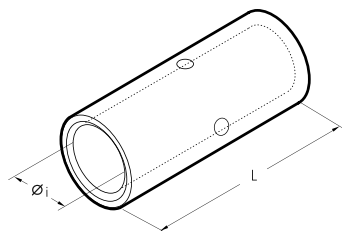
T-L series lugs having the same dimensions and characteristics as T-M series lugs.

F* = indicative dimension

Details of the appropriate crimping tools and dies are shown on pages 290 to 291.

CRIMPING THROUGH CONNECTORS

for Copper conductors



Total Conductor Size AWG		Type	Dimensions in.		Quantity Box/Bag	Mechanical Tools				Hydraulic Tools									
Low Stranded	Flexible		Øi	L		HN1	HN5	HN-A25	TNE-T50	TNE-T120	B15MA	HT45-E	B450ND-BVA	HT51	B500A	B500NDA	HT81-U	RHU81	B1300L-CA and similar tools for U dies
12	12	L4-T	0.11	0.87	2,000/100														
12÷10	12÷10	L6-T	0.13	0.98	1,500/100														
8	8	L10-T	0.17	1.06	1,000/100														
6	6	L16-T	0.21	1.22	500/100														
4	4	L25-T	0.26	1.38	500/100														
2	4	L35-T	0.31	1.46	250/50														
1/0	2	L50-T	0.36	1.77	250/50														
2/0	1/0	L70-T	0.43	1.97	200/50														
3/0	2/0	L95-T	0.52	2.2	100/25														
250 MCM	3/0	L120-T	0.57	2.36	100/25														
300 MCM	250 MCM	L150-T	0.64	2.6	50/25														
350 MCM	300 MCM	L185-T	0.71	2.95	50/25														
500 MCM	350 MCM	L240-T	0.81	3.15	30/15														
600 MCM	500 MCM	L300-T	0.91	3.54	20/10														
800 MCM	600 MCM	L400-T	1.03	3.94	20/5														

L-T

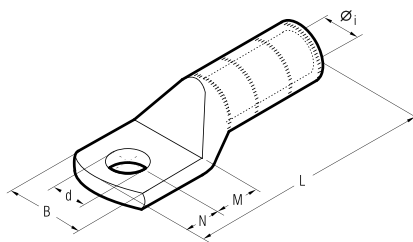


Made of electrolytic Copper tube with a purity greater than 99.9%, having the same dimensions as T-M series lugs, L-T connectors are annealed and electrolytically Tin plated. They feature an internal taper to ease the introduction of the conductor.

Details of the appropriate crimping tools and dies are shown on pages 290 to 291.

CA-M 2A-M

MEDIUM VOLTAGE COPPER TERMINALS



Series CA-M and 2A-M terminals are designed for medium voltage applications up to 35 kV. They are manufactured from high purity Copper tube with a purity greater than 99.9%, annealed and Tin plated. The extended barrel enhances both electrical and mechanical performance. The absence of an inspection hole prevents moisture entry into the crimped joint and makes these terminals suitable for outdoor applications. Details of the appropriate crimping tools and dies are shown on page 296.

Conductor Size sqmm	Ø Stud in.	Type	Dimensions in.						Quantity Box/Bag	Hydraulic Tools			
			Øi	B	M	N	L	d					
25 R	5/16"	CA25-M8	0.27	0.55	0.35	0.31	2.56	0.33	300/50	HT51 RH50 B500NDA B550CA	HT81-U RHU81	B1300L-CA and similar tools for U dies	ECW-H3D RHU520
	3/8"	CA25-M10	0.27	0.71	0.51	0.43	2.83	0.41	200/50				
	1/2"	CA25-M12	0.27	0.83	0.63	0.55	3.07	0.52	150/50				
30 RC/S ÷ 40 S	1/2"	CA40S-M12	0.32	0.83	0.63	0.55	3.11	0.52	100/50				
	5/8"	CA40S-M16	0.32	1.02	0.75	0.67	3.35	0.67	100/50				
50 RC	1/2"	CA50R-M12	0.34	0.81	0.63	0.55	3.11	0.52	100/50				
	1/2"	CA50S-M12	0.37	0.83	0.63	0.55	3.11	0.52	100/50				
50 S	5/8"	CA50S-M16	0.37	1.02	0.75	0.67	3.35	0.67	100/50				
	1/2"	CA70S-M12	0.43	1.10	0.63	0.55	3.20	0.52	30/15				
63 S ÷ 70 S	1/2"	CA70S-M16	0.43	1.18	0.75	0.67	3.43	0.67	50/25				
	1/2"	CA95R-M12	0.47	1.10	0.63	0.55	3.58	0.52	30/15				
80 S ÷ 95 RC	9/16"	CA95R-M14	0.47	1.10	0.71	0.63	3.74	0.59	50/25				
	1/2"	CA95S-M12	0.53	1.10	0.63	0.55	3.58	0.52	30/15				
95 S ÷ 100 S	9/16"	CA95S-M14	0.53	1.14	0.71	0.63	3.72	0.59	50/25				
	5/8"	CA95S-M16	0.53	1.18	0.79	0.67	3.82	0.67	50/25				
	1/2"	CA150R-M12	0.59	1.22	0.63	0.55	3.82	0.52	30/15				
120 RC/S ÷ 150 RC	9/16"	CA150R-M14	0.59	1.22	0.71	0.63	3.98	0.59	30/15				
	1/2"	CA150S-M12	0.65	1.26	0.63	0.55	3.82	0.52	30/15				
150 S ÷ 160 RC	9/16"	CA150S-M14	0.65	1.26	0.71	0.63	3.98	0.59	30/15				
	9/16"	CA200R-M14	0.67	1.28	0.71	0.63	3.98	0.59	30/15				
160 S ÷ 200 RC	9/16"	CA240R-M14	0.76	1.69	0.71	0.63	4.21	0.59	15/5				
200 S ÷ 240 RC	9/16"	CA315R-M14	0.84	1.69	0.71	0.63	4.13	0.59	15/5				
240 S ÷ 315 RC	9/16"	CA315S-M14	0.93	1.73	0.71	0.63	4.13	0.59	15/5				
315 S	9/16"	2A80-M14*	1.10	2.01	0.87	0.75	5.51	0.59	15/5				
	5/8"	2A80-M16*	1.10	2.01	0.87	0.75	5.51	0.67	15/5				
	3/4"	2A80-M20*	1.10	2.01	0.94	0.91	5.75	0.83	15/5				
400 R	5/8"	2A100-M16	1.20	2.22	0.87	0.75	5.79	0.67	10/1				
	3/4"	2A100-M20	1.20	2.22	0.94	0.91	6.02	0.83	10/1				
500 R	5/8"	2A120-M16	1.31	2.42	0.87	0.75	6.26	0.67	20/1				
	3/4"	2A120-M20	1.31	2.42	0.94	0.91	6.50	0.83	20/1				
600 R ÷ 630 R	5/8"	2A120-M16	1.31	2.42	0.87	0.75	6.26	0.67	20/1				
	3/4"	2A120-M20	1.31	2.42	0.94	0.91	6.50	0.83	20/1				

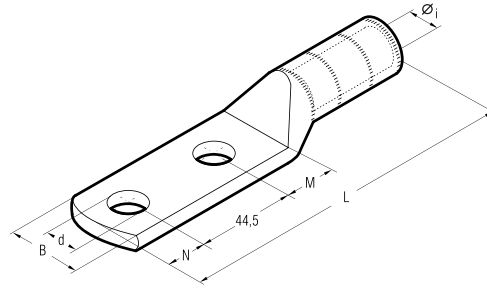
*UL marking

R = Round conductors RC = Round Compact conductors S = Sector shaped conductors

MEDIUM VOLTAGE COPPER TERMINALS

two hole fixing

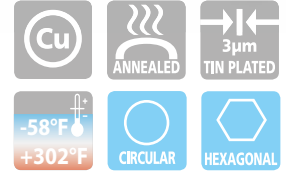
CA-2M
2A-2M



Conductor Size sqmm	Ø Stud in.	Type	Dimensions in.						Quantity Box/Bag	Hydraulic Tools				
			Øi	B	M	N	L	d						
25 R	5/16"	CA25-2M8	0.27	0.55	0.39	0.43	4.47	0.33	200/50	HT51 RH50 B500A B500NDA B550CA	HT81-U RHU81	B1300L-CA and similar tools for U dies	ECW-H3D	RHU520
	1/2"	CA25-2M12	0.27	0.83	0.63	0.55	4.82	0.52	100/50					
30 RC/S ÷ 40 S	1/2"	CA40S-2M12	0.32	0.85	0.63	0.55	4.86	0.52	100/50					
50 RC	1/2"	CA50R-2M12	0.34	0.81	0.63	0.55	4.86	0.52	100/50					
50 S	1/2"	CA50S-2M12	0.37	0.83	0.63	0.55	4.86	0.52	100/50					
63 S ÷ 70 S	1/2"	CA70S-2M12	0.43	1.02	0.63	0.55	4.94	0.52	50/25					
80 S ÷ 95 RC	9/16"	CA95R-2M14	0.47	1.10	0.71	0.63	5.49	0.59	30/15					
95 S ÷ 100 S	9/16"	CA95S-2M14	0.53	1.14	0.71	0.63	5.49	0.59	30/15					
120 RC/S ÷ 150 RC	9/16"	CA150R-2M14	0.59	1.22	0.71	0.63	5.73	0.59	30/15					
150 S ÷ 160 RC	9/16"	CA150S-2M14	0.65	1.26	0.71	0.63	5.73	0.59	30/15					
160 S ÷ 200 RC	9/16"	CA200R-2M14	0.67	1.28	0.71	0.63	5.71	0.59	30/15					
200 S ÷ 240 RC	9/16"	CA240R-2M14	0.76	1.69	0.71	0.63	5.96	0.59	15/5					
240 S ÷ 315 RC	9/16"	CA315R-2M14	0.84	1.69	0.71	0.63	5.89	0.59	20/5					
315 S	9/16"	CA315S-2M14	0.93	1.73	0.71	0.63	5.89	0.59	20/5					
400 R	1/2"	2A80-2M12*	1.10	2.01	0.79	0.55	6.99	0.52	15/5					
	9/16"	2A80-2M14*	1.10	2.01	0.87	0.63	7.15	0.59	15/5					
	5/8"	2A80-2M16*	1.10	2.01	0.87	0.75	7.26	0.67	15/5					
500 R	9/16"	2A100-2M14	1.20	2.22	0.87	0.63	7.18	0.59	10/5					
	5/8"	2A100-2M16	1.20	2.22	0.87	0.75	7.30	0.67	10/5					
600 R ÷ 630 R	9/16"	2A120-2M14	1.31	2.42	0.87	0.63	7.89	0.59	15/5					
	5/8"	2A120-2M16	1.31	2.42	0.87	0.75	7.97	0.67	15/5					

*UL marking

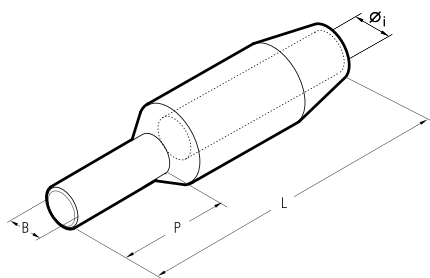
R = Round conductors RC = Round Compact conductors S = Sector shaped conductors



CA-2M and 2A-2M Copper Tube Terminal Lugs are designed for medium voltage applications up to 35 kV. Manufactured from high purity Copper tube with a purity greater than 99.9%, annealed and Tin plated. The extended barrel enhances electrical and mechanical performance.

The absence of an inspection hole prevents moisture entry into the crimped joint. Featuring an extended palm with two fixing holes at 44.5 mm centres.

Details of the appropriate crimping tools and dies are shown on page 296.



MT-C series connectors are designed for medium voltage applications up to 35 kV.

They are manufactured from high purity Copper with a purity greater than 99.9%, annealed and Tin plated.

The extended barrel enhances both electrical and mechanical performance.

The stalk or pin makes these connectors ideal for terminating conductors into contact blocks.

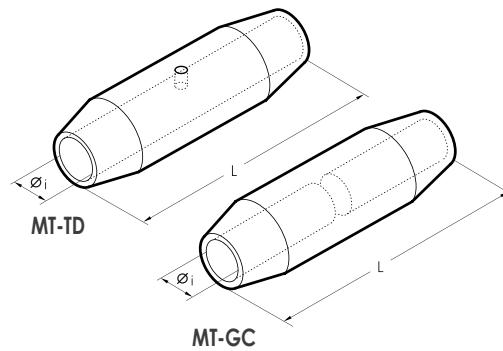
Details of the appropriate crimping tools and dies are shown on page 296.

Conductor Size sqmm	Type	Dimensions in.				Quantity Box/Bag	Hydraulic Tools				
		Øi	B	P	L						
25 R	MT25-C8	0.27	0.31	1.38	3.15	90/3	HT51 RH50 BS500A BS500NDA BS500CA	HT81-U RHU81	B1300L-CA and similar tools for U dies	ECW-H3D	RHU520
30 RC/S ÷ 40 S	MT40S-C8	0.32	0.31	1.38	3.15	90/3					
	MT40S-C10	0.32	0.39	1.38	3.15	90/3					
	MT40S-C14-80	0.32	0.55	3.15	4.84	30/3					
50 RC	MT50R-C8	0.35	0.31	1.38	3.15	90/3					
	MT50R-C10	0.35	0.39	1.38	3.15	90/3					
	MT50S-C8	0.37	0.31	1.38	3.15	90/3					
50 S	MT50S-C10	0.37	0.39	1.38	3.15	90/3					
	MT50S-C14-80	0.37	0.55	3.15	4.84	30/3					
63 S ÷ 70 S	MT70S-C10	0.44	0.39	1.38	3.54	30/3					
	MT95R-C10	0.47	0.39	1.77	4.33	60/3					
80 S ÷ 95 RC	MT95R-C12	0.47	0.47	1.77	4.33	60/3					
	MT95S-C10	0.53	0.39	1.77	4.33	60/3					
95 S ÷ 100 S	MT95S-C12	0.53	0.47	1.77	4.33	60/3					
	MT95S-C14-80	0.53	0.55	3.15	5.71	60/3					
120 RC/S ÷ 150 RC	MT150R-C12	0.59	0.47	1.77	4.33	60/3					
	MT150R-C16	0.59	0.63	1.77	4.33	30/3					
	MT150S-C12	0.65	0.47	1.77	4.33	60/3					
150 S ÷ 160 RC	MT150S-C14-80	0.65	0.55	3.15	5.71	45/3					
	MT150S-C16	0.65	0.63	1.77	4.33	30/3					
160 S ÷ 200 RC	MT200R-C10	0.67	0.39	1.77	4.33	30/3					
	MT200R-C16	0.67	0.63	1.77	4.33	30/3					
200 S ÷ 240 RC	MT240R-C12	0.77	0.47	1.97	4.53	30/3					
	MT240R-C16	0.77	0.63	1.97	4.53	30/3					
240 S ÷ 315 RC	MT315R-C16	0.85	0.63	1.97	4.53	30/3					
315 S	MT315S-C16	0.94	0.63	2.36	5.12	30/3					

R = Round conductors RC = Round Compact conductors S = Sector shaped conductors

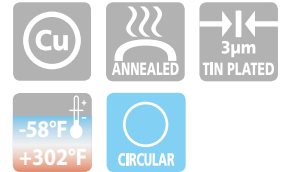
MEDIUM VOLTAGE COPPER THROUGH CONNECTORS

MT-TD MT-GC



Conductor Size sqmm	Type	Type	Dimensions in.		Quantity Box/Bag	Hydraulic Tools			
			Øi	L					
25 R	MT25-TD	MT25-GC	0.27	2.36	90/3	HT51 RH50 B500A B500NDA B550CA HT81-U RHU81	B1300L-CA and similar tools for U dies	ECW-H3D	RHU520
30 RC/S ÷ 40 S	MT40S-TD	MT40S-GC	0.32	2.36	90/3				
50 RC	MT50R-TD	MT50R-GC	0.34	2.36	90/3				
50 S	MT50S-TD	MT50S-GC	0.37	2.36	90/3				
63 S ÷ 70 S	MT70S-TD	MT70S-GC	0.43	2.76	30/3				
80 S ÷ 95 RC	MT95R-TD	MT95R-GC	0.47	3.15	30/3				
95 S ÷ 100 S	MT95S-TD	MT95S-GC	0.53	3.15	30/3				
120 RC/S ÷ 150 RC	MT150R-TD	MT150R-GC	0.59	3.15	30/3				
150 S ÷ 160 RC	MT150S-TD	MT150S-GC	0.65	3.15	30/3				
160 S ÷ 200 RC	MT200R-TD	MT200R-GC	0.67	3.94	30/3				
200 S ÷ 240 RC	MT240R-TD	MT240R-GC	0.76	3.94	21/3				
240 S ÷ 315 RC	MT315R-TD	MT315R-GC	0.85	3.94	21/3				
315 S	MT315S-TD	MT315S-GC	0.93	3.94	21/3				
400 R	MT400-TD		1.06	4.72	15/3				
500 R	MT500-TD		1.19	4.65	12/3				
600 R ÷ 630 R	MT630-TD		1.31	5.12	9/3				

R = Round conductors RC = Round Compact conductors S = Sector shaped conductors



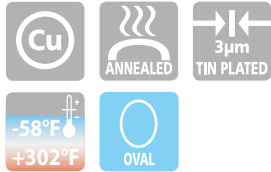
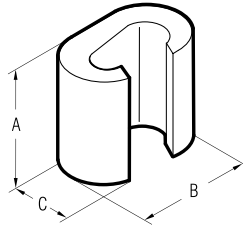
MT-TD and MT-GC series connectors are designed to join conductors in medium voltage applications up to 35 kV.

They are manufactured from high purity Copper with a purity greater than 99.9%, annealed and Tin plated.

MT-GC series feature a solid stop which forms a barrier between the two conductors being joined, this prevents the migration of oils or greases, which may be present, in one cable contaminating the other cable.

MT-TD connectors are unblocked and are suitable for joining cables of the same type.

Details of the appropriate crimping tools and dies are shown on page 296.



"C" connectors are manufactured from high purity Copper profiles with a purity greater than 99.9% and are suitable for a variety of uses either to create an earthing network or tapping off from overhead distribution lines.

Each connector is marked as follows:

- Cembre trade mark
- Reference number
- Conductor size-Run
- Conductor size-Tap
- Number of crimps
- Die reference.

Details of the appropriate crimping tools and dies are shown on page 287.

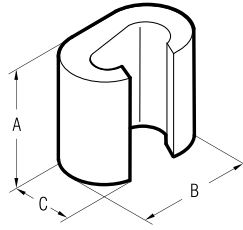
Conductor Size AWG		Type	Dimensions in.			Quantity Box/Bag	Mechanical Tools	Hydraulic Tools	
Run	Tap		A	B	C				
#9÷#13	#9÷#15	C6-C6ST	0.35	0.39	0.25	1,000/100	HP4-C10	HT45-E	B450ND-BVA
#7	#7÷#15	C10-C10ST	0.47	0.50	0.33	500/100			
#5	#5÷#15	C16-C16ST	0.67	0.76	0.47	500/100			
#3÷#5	#7÷#15	C25-C10ST	0.67	0.78	0.51	400/50	HT51	RH50	B500A
#3	#3÷#5	C25-C25ST	0.67	0.84	0.51	300/50			
#1÷#2	#5÷#15	C35-C16ST	0.83	0.97	0.61	200/25			
#1÷#2	#1÷#3	C35-C35ST	0.83	1.05	0.61	200/25	HT45-E	B450ND-BVA	
1/0	#3÷#7								
2/0	#3÷#15	C70-C25NST	0.83	1.04	0.69	200/25			HT51
1/0	#3÷#11	C50-C25ST	0.98	1.30	0.83	100/25			
1/0	1/0÷#2	C50-C50ST	1.02	1.30	0.83	100/25			
2/0÷1/0	#1	C70-C35ST	1.10	1.30	0.83	100/25	HT51	RH50	B500A
2/0÷1/0	2/0÷#11	C70-C70ST	1.10	1.34	0.83	100/25			
4/0	#1	C95-C35ST	1.14	1.60	1.02	50/25			
4/0	2/0	C95-C70ST	1.14	1.61	1.02	50/25	HT51	RH50	B500A
4/0	4/0	C95-C95ST	1.14	1.61	1.02	50/25			
250÷4/0	250÷#3	C120-C120ST	1.18	1.77	1.10	30/15			
300 MCM	250÷#3	C150-C120ST	1.22	1.77	1.10	50/25	HT45-E	B450ND-BVA	
250 MCM	250 MCM								
300 MCM	300 MCM	C150-C150ST	1.18	1.77	1.10	50/25			HT51
250 MCM	250 MCM								
350 MCM	4/0÷#5	C185-C95ST	1.22	1.77	1.10	30/15	HT45-E	B450ND-BVA	
350÷250 MCM	350÷250 MCM	C185-C185ST	0.89	2.68	1.34	30/15			
500÷300 MCM	250÷2/0	C240-C120ST	0.89	2.68	1.34	30/15			

B1300L-CA and similar tools for U dies

ECW-H3D

SLEEVE CONNECTORS

Bright surface version

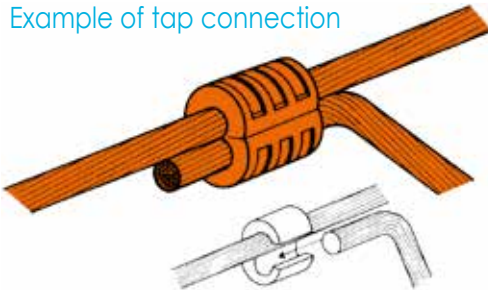


Conductor Size AWG		Type	Dimensions in.			Quantity Box/Bag	Mechanical Tools	Hydraulic Tools		
Run	Tap		A	B	C					
#9÷#13	#9÷#15	C6-C6	0.35	0.39	0.25	1,000/100	HP4-C10	HT45-E B450ND-BVA	B500CA	B500CA
#7	#7÷#15	C10-C10	0.47	0.50	0.33	500/100				
#5	#5÷#15	C16-C16	0.67	0.76	0.47	500/100				
#3÷#5	#7÷#15	C25-C10	0.67	0.78	0.51	400/50				
#3	#3÷#5	C25-C25	0.67	0.84	0.51	300/50	HT51	RH50	B500A	RHU81
#1÷#2	#5÷#15	C35-C16	0.83	0.97	0.61	200/25				
#1÷#2	#1÷#3	C35-C35	0.83	1.05	0.61	200/25				
1/0	#3÷#7	C70-C25N	0.83	1.04	0.69	200/25				
1/0	#3÷#11	C50-C25	0.98	1.30	0.83	100/25	HT51	RH50	B500A	RHU81
1/0	1/0÷#2	C50-C50	1.02	1.30	0.83	100/25				
2/0÷1/0	#1	C70-C35	1.10	1.30	0.83	100/25				
2/0÷1/0	2/0÷#11	C70-C70	1.10	1.34	0.83	100/25				
4/0	#1	C95-C35	1.14	1.60	1.02	50/25	HT51	RH50	B500A	RHU81
4/0	2/0	C95-C70	1.14	1.61	1.02	50/25				
4/0	4/0	C95-C95	1.14	1.61	1.02	50/25				
250÷4/0	250÷#3	C120-C120	1.18	1.77	1.10	30/15				
300 MCM	250÷#3	C150-C120	1.22	1.77	1.10	30/15	HT51	RH50	B500A	RHU81
250 MCM	250 MCM	C150-C150	1.18	1.77	1.10	30/15				
300 MCM	300 MCM	C150-C150	1.18	1.77	1.10	30/15				
250 MCM	250 MCM	C150-C150	1.18	1.77	1.10	30/15				
350 MCM	4/0÷#5	C185-C95	1.22	1.77	1.10	50/25	HT51	RH50	B500A	RHU81
350÷250 MCM	350÷250 MCM	C185-C185	0.89	2.68	1.34	30/15				
500÷300 MCM	250÷2/0	C240-C120	0.89	2.68	1.34	30/15				

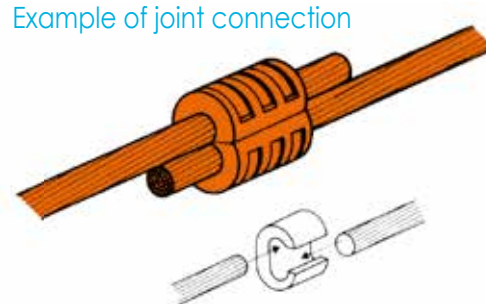


Featuring same characteristics of tin plated version, (see opposite page).

Example of tap connection

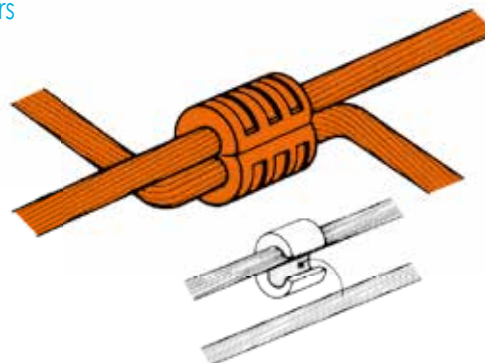


Example of joint connection



Example of joining two running conductors

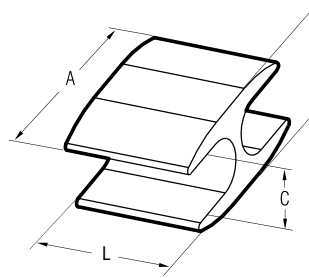
Conductor Size AWG	Type
3-3	C35-C16
2-2	C35-C35
1/0-1/0	C70-C70
2/0-2/0	C95-C70
3/0-3/0	C150-C120
250-250 MCM	C150-C150
300-300 MCM	C150-C150
250 MCM-250 MCM	C185-C95



H-H

H CLAMPS

for Copper conductors



tin plated version



Conductor Size AWG		Type	Dimensions in.				Quantity	Hydraulic Tools		
Run	Tap		A	B	C	L		B1300L-CA and similar tools for U dies	ECW-H3D	RHU520
2/0	2/0	H70-H70ST	1.34	0.67	0.43	1.10	25			
4/0	4/0	H95-H95ST	1.57	0.87	0.51	1.18	25			
250 MCM	250 MCM	H120-H120ST	1.69	0.94	0.61	0.98	15			

bright surface version



Conductor Size AWG		Type	Dimensions in.				Quantity	Hydraulic Tools		
Run	Tap		A	B	C	L		B1300L-CA and similar tools for U dies	ECW-H3D	RHU520
2/0	2/0	H70-H70	1.34	0.67	0.43	1.10	25			
4/0	4/0	H95-H95	1.57	0.87	0.51	1.18	25			
250 MCM	250 MCM	H120-H120	1.69	0.94	0.61	0.98	15			

H clamps are manufactured from Copper profiles with a purity greater than 99.9%, and are suitable for a earthing systems. Each connector is marked as follows:

- Cembre trade mark
- Reference number

features:

- H shape
- For Copper conductors DIN 48201
- Material: Cu ETP (CW004A) according to EN 13605
- Surface: bright and tin plated version
- Electrolytically tin plated to avoid oxidation; min 3μm

Details of the appropriate crimping tools and dies are shown on page 296.

TWIN CABLE TERMINAL LUGS FOR ROUND CONDUCTORS

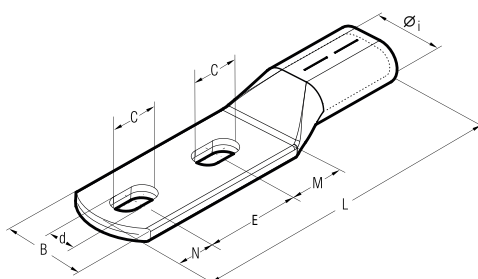
DK

for Copper conductors



with an M12 hole

Conductor Size AWG	Type	Dimensions in.							Quantity	Hydraulic Tools		
		Øi	B	M	N	L	d					
2 x 1/0	DK50-M12	0.81x0.42	1.34	0.87	0.57	3.68	0.51		10	B1300L-CA and similar tools for U dies	ECW-H3D	RHU520
2 x 2/0	DK70-M12	0.90x0.47	1.47	0.87	0.57	3.84	0.51		10			
2 x 4/0	DK95-M12	1.04x0.50	1.65	0.90	0.63	4.25	0.51		10			
2 x 250 MCM	DK120-M12	1.16x0.61	1.89	0.94	0.57	4.55	0.51		5			



with 2 elongated holes

Conductor Size AWG	Type	Dimensions in.									Quantity	Hydraulic Tools		
		Øi	B	M	N	E	L	C	d					
2 x 2/0	DK70-2M12-51AS	0.90x0.47	1.47	1.00	0.85	2.00	6.26	0.94	0.51		10	B1300L-CA and similar tools for U dies	ECW-H3D	RHU520
2 x 4/0	DK95-2M12-51AS	1.04x0.50	1.65	1.00	0.85	2.00	6.57	0.94	0.51		10			
2 x 250 MCM	DK120-2M12-51AS	1.16x0.61	1.89	1.00	0.85	2.00	6.89	0.94	0.51		10			



DK compression cable lugs are made from Copper tube with a purity greater than 99.9% and are suitable for the compression of 2 round conductors.

Cable lugs with an M12 hole or with 2 elongated holes are available (see tables). The elongated holes 2xM12 allow easy assembly with different fastening points. This enables flexible use in earthing systems.

features:

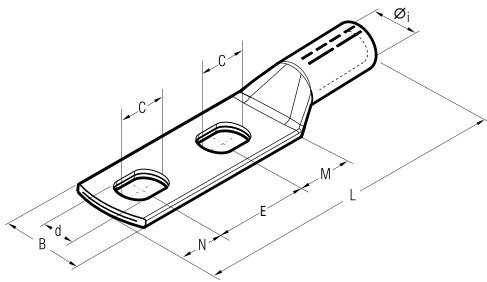
- For copper conductors DIN 48201
- Material: Cu ETP (CW004A) according to EN13605
- Electrolytically tin plated to avoid oxidation; min 3µm
- Marking: Cembre logo; Type, die type (MRD ..- C); Press positions

Details of the appropriate crimping tools and dies are shown on page 296.

DR-2M12-51AS

COPPER TUBE CRIMPING LUGS WITH 2 HOLE FIXING

for Copper conductors



DR compression cable lugs are made from Copper tube with a purity greater than 99.9%. They are available with 2 slotted holes (see tables). The slotted holes 2xM12 enable easy installation with different attachment points.

- features:**
- For copper conductors DIN 48201
 - Material: Cu ETP (CW004A) according to EN13605
 - Electrolytically tin plated to avoid oxidation; min 3µm
 - Marking: Cembre logo; Type, die type (MK..); Press positions

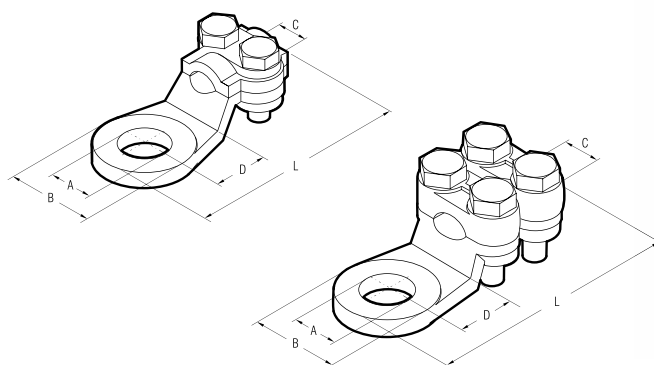
Details of the appropriate crimping tools and dies are shown on page 296.

with 2 elongated holes

Conductor Size AWG	Type	Dimensions in.								Quantity	Mechanical Tools	Hydraulic Tools				
		Øi	B	M	N	E	L	C	d			TND 10-120	HT45-E RH50 HT51	B450ND-BVA B500A B500NDA B550CA	RHU81 RHU81 B1300L-CA and similar tools for U dies	ECW-H3D RHU520
2/0	DR70-2M12-51AS	0.45	0.94	1.0	0.85	2.0	5.51	0.94	0.51	10	TND6-70					
4/0	DR95-2M12-51AS	0.53	1.10	1.0	0.85	2.0	5.90	0.94	0.51	10	TND 10-120					
250 MCM	DR120-2M12-51AS	0.61	1.26	1.0	0.85	2.0	5.94	0.94	0.51	10	TND 10-120					

MECHANICAL FIXING LUGS

21..



2 bolt fixing lugs

Conductor Size AWG	Type	Clamping Bolt		Ø A Bolt	Dimensions in.				Quantity
		Ø	Torque Ratio Nm		B	C	D	L	
6	2155	M5	3	M8	0.71	0.18	0.49	1.54	100
6	2171	M5	3	M10	0.71	0.18	0.49	1.54	100
4	2156	M5	3	M8	0.77	0.24	0.51	1.69	100
4	2172	M5	3	M10	0.77	0.24	0.51	1.69	100
2	2157	M5	3	M12	0.91	0.28	0.59	1.93	50
2	2173	M5	3	M14	0.91	0.28	0.59	1.93	50
2-1/0	2174	M6	5	M14	0.98	0.31	0.67	2.20	50



Material:
Brass CB754S EN 1982 Nickel plated.
Zinc plated Steel bolts.

4 bolt fixing lugs

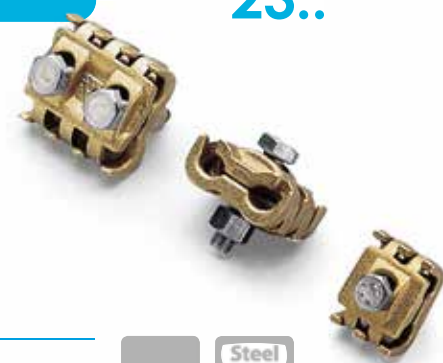
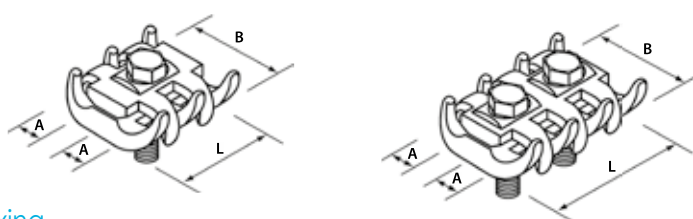
Conductor Size AWG	Type	Clamping Bolt		Ø A Bolt	Dimensions in.				Quantity
		Ø	Torque Ratio Nm		B	C	D	L	
1/0	2158	M6	5	M12	0.93	0.31	0.63	2.24	50
2/0	2160	M6	5	M12	1.10	0.39	0.79	2.56	25
2/0	2176	M6	5	M16	1.10	0.39	0.79	2.56	25
3/0	2161*	M6	5	M12	1.22	0.51	0.67	2.60	25
250 MCM	2162*	M7	10	M15	1.30	0.55	0.71	2.80	25
300 MCM	2163*	M7	10	M14	1.34	0.63	0.77	2.95	25
350 MCM	2164*	M7	10	M15	1.42	0.63	0.83	3.07	25



* Versions with U-bolts in bent steel

CABLE CLAMPS

23..



Single bolt fixing

Conductor Size AWG	Type	Clamping Bolts		A for Cable in.	Dimensions in.		Quantity
		Ø	Torque Ratio Nm		B	L	
10÷6	2323	M6	8	0.12÷0.20	0.94	0.79	50
6÷1/0	2326	M8	15	0.20÷0.31	1.26	1.12	50
2÷2/0	2329	M8	15	0.28÷0.47	1.54	1.18	25

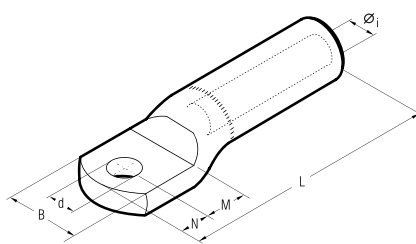


2 bolt fixing

Conductor Size AWG	Type	Clamping Bolts		A for Cable in.	Dimensions in.		Quantity
		Ø	Torque Ratio Nm		B	L	
10÷6	2333	M6	8	0.12÷0.20	0.96	1.18	50
6÷1/0	2336	M8	15	0.20÷0.31	1.26	1.57	50
2÷2/0	2339	M8	15	0.28÷0.47	1.54	1.69	25
1/0÷3/0	2342	M10	35	0.31÷0.55	1.89	1.89	10
3/0÷300	2344	M10	35	0.55÷0.63	2.01	2.09	10
300÷400-600	2346*	M12	60	0.63÷0.87	2.60	2.60	5

* Stainless Steel bolts

Material:
Brass CB754S EN 1982
White zinc plated Steel bolts.
White zinc plated Steel nuts.



AA-M series terminals are made from Aluminum of a purity equal to or greater than 99.5%.

They are designed to accept a variety of conductor forms especially low stranded compacted conductors.

Non circular conductors may require pre-rounding prior to introduction to the terminal.

Barrels are capped and filled with grease so as to avoid oxidation of the Aluminum.

Details of the appropriate crimping tools and dies are shown on page 297, 299.

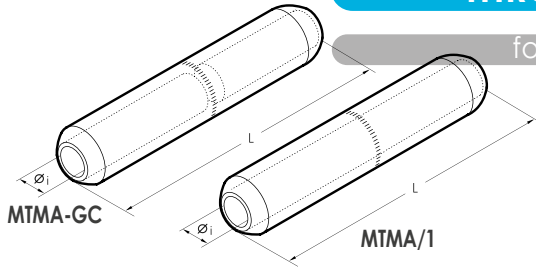
Conductor Size AWG	Ø Stud in.	Type	Dimensions in.						Quantity Box/Bag	Hydraulic Tools			
			Øi	B	M	N	L	d					
6	5/16"	AA16-M8	0.22	0.83	0.51	0.43	3.03	0.33	60/3	B1300-UCA			
4	5/16"	AA25-M8	0.26	0.83	0.51	0.43	3.03	0.33	60/3				
2	5/16"	AA35-M8	0.31	0.91	0.51	0.43	3.05	0.33	60/3				
	3/8"	AA35-M10	0.31	0.91	0.51	0.43	3.05	0.41	60/3				
1/0	1/2"	AA50-M12	0.35	1.02	0.63	0.55	3.58	0.52	60/3				
	9/16"	AA50-M14	0.35	1.02	0.71	0.63	3.74	0.59	60/3				
2/0	1/2"	AA70-M12	0.43	1.06	0.63	0.55	3.58	0.52	45/3				
	9/16"	AA70-M14	0.43	1.06	0.71	0.63	3.74	0.59	45/3				
3/0	1/2"	AA95-M12	0.49	1.06	0.63	0.55	3.58	0.52	45/3				
	9/16"	AA95-M14	0.49	1.06	0.71	0.63	3.74	0.59	45/3				
250 MCM	1/2"	AA120-M12	0.54	1.38	0.63	0.55	4.53	0.52	30/3				
	9/16"	AA120-M14	0.54	1.38	0.71	0.63	4.68	0.59	30/3				
300 MCM	1/2"	AA150-M12	0.61	1.34	0.63	0.55	4.53	0.52	30/3	HT131-UC			
	9/16"	AA150-M14	0.61	1.34	0.71	0.63	4.68	0.59	30/3				
350 MCM	1/2"	AA185-M12	0.67	1.65	0.79	0.55	4.80	0.52	18/3				
	9/16"	AA185-M14	0.67	1.65	0.87	0.63	4.96	0.59	18/3				
500 MCM	1/2"	AA240-M12	0.77	1.73	0.79	0.55	4.80	0.52	15/3				
	9/16"	AA240-M14	0.77	1.73	0.87	0.63	4.96	0.59	15/3				
600 MCM	1/2"	AA300-34M12	0.89	1.85	0.87	0.55	5.12	0.52	15/3				
	9/16"	AA300-34M14	0.89	1.85	0.87	0.63	5.20	0.59	15/3				
	5/8"	AA300-34M16	0.89	1.85	0.87	0.67	5.20	0.67	15/3				
	5/8"	AA300-M16	0.92	2.13	0.87	0.75	7.00	0.67	12/3				
800 MCM	5/8"	AA400-M16	1.02	2.20	0.75	0.67	6.77	0.67	15/3	ECW-H3D			
1000 MCM	5/8"	AA500-40M16	1.15	2.24	0.87	0.75	7.00	0.67	12/3				
1250 MCM	5/8"	AA630-M16	1.28	2.80	0.87	0.75	7.00	0.67	9/3				
											RHU 230-630		



THROUGH CONNECTORS

for Aluminum conductors

MTMA-GC MTMA/1



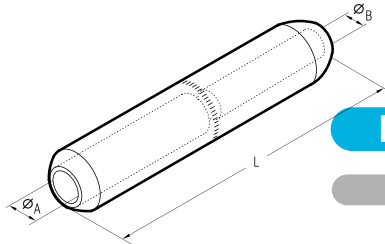
Conductor Size AWG	Type	Type	Dimensions in.			Quantity Box/Bag	Hydraulic Tools		
			Øi	L					
8	MTMA10-GC		0.17	3.56	60/3	B1300-UCA	HT120 HT131-C RHC131	ECW-H3D	RHU230-630
6	MTMA16-GC	MTMA16/1	0.22	3.56	60/3				
4	MTMA25-GC	MTMA25/1	0.26	3.56	60/3				
2	MTMA35-GC	MTMA35/1	0.31	3.56	60/3				
	MTMA35-20-GC		0.31	4.19	30/3				
1/0	MTMA50-GC	MTMA50/1	0.35	4.19	30/3				
2/0	MTMA70-GC	MTMA70/1	0.43	4.19	30/3				
3/0	MTMA95-GC		0.49	4.37	30/3				
		MTMA95/1	0.49	4.19	30/3				
250 MCM	MTMA120-GC	MTMA120/1	0.54	5.24	30/3				
300 MCM	MTMA150-GC		0.61	5.31	30/3	HT131-UC	HT120 HT131-C RHC131	ECW-H3D	RHU230-630
		MTMA150/1	0.61	5.26	30/3				
350 MCM	MTMA185-GC	MTMA185/1	0.67	5.65	15/3				
500 MCM	MTMA240-GC	MTMA240/1	0.77	5.65	15/3				
	MTMAD300-GC		0.89	5.69	15/3				
600 MCM		MTMAD300/1	0.89	5.31	15/3				
	MTMA300-GC		0.92	8.58	15/3				
800 MCM		MTMA400/1	1.02	8.58	15/3				
1000 MCM	MTMA500-GC		1.15	8.60	15/3				
		MTMA500-40/1	1.15	8.58	15/3				
1250 MCM		MTMA630/1	1.28	8.60	12/3				



MTMA-GC series through connectors are made from Aluminum of a purity equal to or greater than 99.5%.

They feature a solid stop which creates a barrier between the two sides of conductors to be joined. Barrels are capped and filled with grease so as to avoid oxidation of the connector. MTMA/1 series through connectors are unblocked and are suitable for joining cables of the same type.

Details of the appropriate crimping tools and dies are shown on pages 298-299.



REDUCER THROUGH CONNECTORS

for Aluminum or Copper conductors

MTMA-GC



Conductor Size AWG		Type	Dimensions in.			Quantity Box/Bag	Hydraulic Tools		
Side A Al	Side B Al/Cu		ØA	ØB	L				
6	8	MTMA 16-10-GC	0.22	0.17	3.56	60/3	B1300-UCA	HT120 HT131-C RHC131	ECW-H3D
4	8	MTMA 25-10-GC	0.25	0.17	3.56	60/3			
	6	MTMA 25-16-GC	0.25	0.22	3.56	60/3			
1/0	4	MTMA 50-25-GC	0.35	0.26	4.19	30/3			
	2	MTMA 50-35-GC	0.35	0.31	4.19	30/3			
2/0	2	MTMA 70-35-GC	0.43	0.31	4.19	30/3			
	1/0	MTMA 70-50-GC	0.43	0.35	4.19	30/3			
3/0	1/0	MTMA 95-50-GC	0.49	0.35	4.31	30/3			
	2/0	MTMA 95-70-GC	0.49	0.43	4.19	30/3			
250 MCM	2/0	MTMA 120-70-GC	0.54	0.43	5.24	30/3	HT131-UC	HT120 HT131-C RHC131	ECW-H3D
	3/0	MTMA 120-95-GC	0.54	0.49	5.24	30/3			
300 MCM	2/0	MTMA 150-70-GC	0.61	0.43	5.24	30/3			
	3/0	MTMA 150-95-GC	0.61	0.49	5.29	30/3			
350 MCM	250 MCM	MTMA 150-120-GC	0.61	0.54	5.24	30/3			
	300 MCM	MTMA 185-120-GC	0.67	0.54	5.65	15/3			
500 MCM	300 MCM	MTMA 185-150-GC	0.67	0.61	5.65	15/3			
	350 MCM	MTMA 240-150-GC	0.77	0.61	5.65	15/3			
600 MCM	350 MCM	MTMA 240-185-GC	0.77	0.67	5.65	15/3			
	3/0	MTMAD 300-95-GC	0.89	0.49	5.69	15/3			
800 MCM	300 MCM	MTMAD 300-150-GC	0.89	0.61	5.69	15/3	HT120 HT131-C RHC131	ECW-H3D	RHU230-630
	350 MCM	MTMAD 300-185-GC	0.89	0.67	5.69	15/3			
1000 MCM	500 MCM	MTMAD 300-240-GC	0.89	0.77	5.69	15/3			
	500 MCM	MTMA 400-240-GC	1.02	0.77	8.58	15/3			
1000 MCM	600 MCM	MTMA 400-300-GC	1.02	0.92	8.58	15/3	HT120 HT131-C RHC131	ECW-H3D	RHU230-630
	600 MCM	MTMA 500-300-GC	1.15	0.92	8.58	12/3			
1000 MCM	800 MCM	MTMA 500-400-GC	1.15	1.02	8.58	12/3			



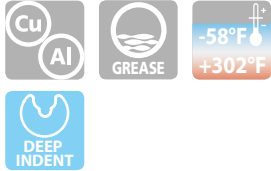
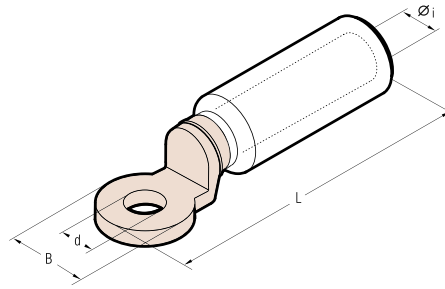
MTMA-GC series reducer through connectors are manufactured to the same specification as MTMA-GC series through connectors.

Details of the appropriate crimping tools and dies are shown on pages 298-299.

CAA-M

BIMETALLIC CONNECTORS

Copper palm fixing - Aluminum barrels



The barrels of series CAA-M connectors are made from Aluminum of a purity equal to or greater than 99.5%.

The barrel is friction welded to the palm thus achieving the best possible transition between the Copper palm and Aluminum barrel. Barrels are capped and filled with grease so as to avoid oxidation of the Aluminum.

Details of the appropriate crimping tools and dies are shown on pages 297, 299.

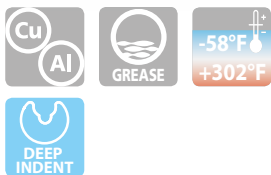
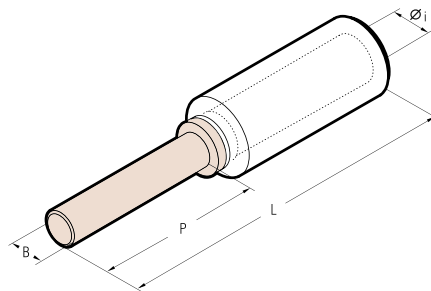
Conductor Size AWG	Ø Stud in.	Type	Dimensions in.				Quantity Box/Bag	Hydraulic Tools		
			Øi	B	L	d				
8	1/2"	CAA10-M12	0.17	0.94	3.43	0.51	90/3	B1300-UCA	HT131-UC	RHU131-C
6	1/2"	CAA16-M12	0.22	0.94	3.43	0.51	90/3			
4	1/2"	CAA25-M12	0.26	0.94	3.43	0.51	90/3			
2	1/2"	CAA35-M12	0.31	0.94	3.43	0.51	90/3			
	1/2"	CAA35-20-M12	0.31	0.94	3.43	0.51	60/3			
1/0	1/2"	CAA50-M12	0.35	0.94	3.43	0.51	30/3			
2/0	1/2"	CAA70-M12	0.43	0.94	3.43	0.51	60/3			
3/0	3/8"	CAA95-M10 NEW	0.49	0.94	3.43	0.41	30/3			
	1/2"	CAA95-M12	0.49	0.94	3.43	0.51	30/3			
250 MCM	1/2"	CAA120-M12	0.54	1.22	4.37	0.51	24/3			
300 MCM	1/2"	CAA150-M12	0.61	1.22	4.37	0.51	24/3	HT120 HT131-C RHC131	ECW-H3D	RHU230-630
350 MCM	1/2"	CAA185-M12	0.67	1.38	4.57	0.51	18/3			
500 MCM	1/2"	CAA240-M12	0.77	1.38	4.57	0.51	18/3			
600 MCM	1/2"	CAA300-34-M12	0.89	1.38	4.72	0.51	15/3			
	9/16"	CAA300-34-M14 NEW	0.89	1.38	4.72	0.60	15/3			
	5/8"	CAA300-34-M16	0.89	1.38	4.72	0.67	15/3			
	5/8"	CAA300-M16	0.92	1.38	6.00	0.65	12/3			
800 MCM	1/2"	CAA400-M12 NEW	1.02	1.38	6.00	0.51	9/3			
	5/8"	CAA400-M16	1.02	1.38	6.00	0.65	9/3			
1000 MCM	5/8"	CAA500-M16TNBD	1.15	1.38	6.00	0.65	9/3			
1250 MCM	5/16"	CAA630-4M8	1.28	2.36	7.87	4 x 0.35*	9/3			

* 4 holes with 30 mm between axes

MTA-C

BIMETALLIC CONNECTORS

Copper pin - Aluminum barrels



The barrels of series MTA-C connectors are made from Aluminum of a purity equal to or greater than 99.5%.

The barrel is friction welded to the pin thus achieving the best possible transition between the Copper pin and Aluminum barrel. Barrels are capped and filled with grease so as to avoid oxidation of the Aluminum.

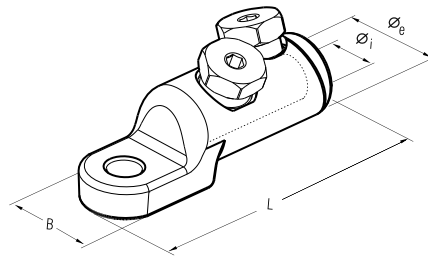
Details of the appropriate crimping tools and dies are shown on pages 297, 299.

Conductor Size AWG	Type	Dimensions in.				Quantity Box/Bag	Hydraulic Tools
		Øi	B	P	L		
6	MTA16-C	0.22	0.31	1.18	3.23	90/3	HT131-UC RHU131-C B1300-UCA
4	MTA25-C	0.26	0.31	1.18	3.23	90/3	
2	MTA35-C	0.31	0.31	1.18	3.23	90/3	
1/0	MTA50-C	0.35	0.47	1.77	3.82	60/3	
2/0	MTA70-C	0.43	0.47	1.77	3.82	60/3	
3/0	MTA95-C	0.49	0.47	1.77	3.82	60/3	
250 MCM	MTA120-C	0.54	0.55	2.17	4.92	30/3	
300 MCM	MTA150-C	0.61	0.55	2.17	4.92	30/3	
350 MCM	MTA185-C	0.67	0.55	2.17	4.92	24/3	
500 MCM	MTA240-C	0.77	0.55	2.17	4.92	24/3	

MECHANICAL LUGS

For Low and Medium voltage Al/Cu conductors

MLA-NC



Conductor Size AWG	Type	Ø Stud in.	Dimensions in.				N° of Bolts	Number of centring devices	Quantity Box/Bag
			Øe	Øi	B	L			
1/0 - 500 MCM	MLA50-240-12C	1/2"	1.30	0.81	1.30	4.19*	2	3 	1/10

* without centring devices



Cembre range-taking mechanical connectors are intended for use with Copper and Aluminum conductors, for low and medium voltage (up to 52kV) installations, in indoor, outdoor and underground applications.

Mechanical connector bodies (pic.1) are made from Aluminum EN-AW 2011 T6 with cross sectional area and barrel length designed

to optimise electrical connectivity. Internal surfaces are protected against oxidation by grease with a very high dropping point, while the Tin plating on external surfaces has a minimum thickness of 12 µm for improved surface protection.

Shear bolts (pic.2) are made from the same material and designed to ensure a reliable electrical connection simply by tightening the

bolts with a standard socket until shearing occurs inside the threaded hole without external protrusion.

To minimise voltage stresses, connectors are provided with centring devices (pic.3) to improve the alignment of the different conductor sizes.

Key features:

- Wide range of conductor cross sections
- Suitable for Copper and Aluminum conductors
- Tested according to IEC 61238
- Torque controlled to guarantee a good electrical contact
- Reduces inventory levels
- Easy installation - only requires a standard socket
- Reduced installation time

Pic.



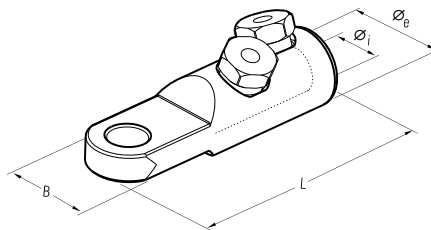
Conductor Size AWG	Centring device	
	Color	Type
1/0 - 2/0 - 3/0	Red	
250 MCM 300 MCM	Blue	
350 MCM	Yellow	
500 MCM	Not required	

Pic. 3

ML-C

MECHANICAL LUGS WITH SYMMETRICAL PALM

For Medium voltage Al/Cu conductors



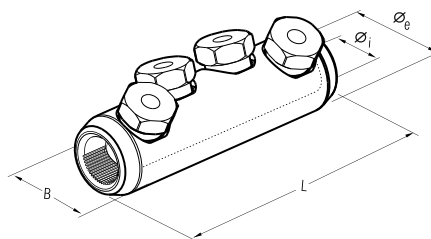
Conductor Size AWG	Type	Ø Stud in.	Dimensions in.				N° of Bolts	Number of centring devices	Quantity Box/Bag
			Øe	Øi	B	L			
3/0 - 500 MCM	ML95-240-16C	5/8"	1.38	0.81	1.38	4.9*	2	3	1/10
300 MCM 500 MCM	ML150-240-16C	5/8"	1.38	0.81	1.38	4.9*	2	2	1/10

* without centring devices

MBS-NC

MECHANICAL SPLICES

For Low and Medium voltage Al/Cu conductors



Conductor Size AWG	Type	Dimensions in.				N° of Bolts	Number of centring devices	Quantity Box/Bag
		Øe	Øi	B	L			
1/0 - 500 MCM	MBS50-240NC	1.38	0.81	1.38	4.9*	4	3	1/20

* without centring devices

TERMINAL BLOCKS, FLEXIBLE BUSBAR, BRAIDS AND DISTRIBUTION BLOCKS



symbol description

terminal blocks



Polycarbonate body



Zinc plated Steel screws



Polyamide PA6.6 body



Chrome plated Steel screws



Polypropylene body



Brass clamp



Steatite body



Operating temperature range



Polyvinylchloride insulating sheath



Italian Institute of the Quality Mark
type approval



Electrolytically Tin plated Copper interconnections



Lloyd's Register Marine
type approval



Electrolytically Tin plated to avoid oxidation



Italian Naval Register
type approval



Nominal voltage V



USR-CNR type approval
valid for USA and CANADA



Degree of Protection IP20



CE marking



Self-extinguishing class V0 UL94



UKCA marking

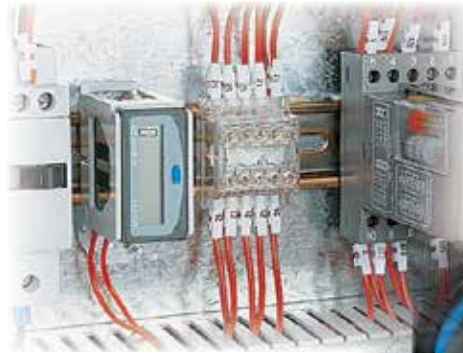
example applications

terminal blocks

type
ZETApiù®

Z35T-11 uninterrupted,
main earth loop, terminal block.
Used for equipotential bonding

UNINTERRUPTED
MAIN EARTH
LOOP



Z6-10D terminal blocks
used in a control panel.

SUITABLE
FOR DIN RAIL
MOUNTING



Z16-8D and Z6-6D
mounted on DIN rails.
Used in control panels

type
ZETAmini®

ZETAmini terminal blocks
used for domestic/commercial
applications.



type
ZETAblock®

A typical application of the
Z50-DP12-160 and Z35-DP14B-125
installed in a distribution panel



Z6

SINGLE POLE TERMINAL BLOCKS

indirect clamping - nominal section 10 AWG

type
ZETApiù®



The "Z...D" version has been designed for mounting on DIN rails



3, 5, 6 and 10 way, single pole terminal blocks for conductor section 17 to 10 AWG.

Self contained and robust, they are quick and easy to install for both industrial and domestic use. The indirect clamping of the "ZETApiù" terminal blocks guarantees a low and stable contact resistance.

Indirect clamping eliminates damage to the conductor strands.

The easy-entry receptacles also grant a fast and reliable insertion of the cable.

Connecting Capacity AWG	Type	No. of Ways	Nominal Voltage V	Maximum Operating Temperature °F	Insulation Specification	Self Extinguishing Specification	Dimensions L x W x H in.	Weight lbs.	Quantity
(3 way) 17÷10	Z6-3	3	450	185.0	IP20	V-0 (UL 94)	0.91x0.91xh1.08	0.03	30
	Z6-3D						0.91x1.57xh1.44	0.04	10
(5 way) 17÷10	Z6-5	5	450	185.0	IP20	V-0 (UL 94)	1.38x0.91xh1.08	0.05	20
	Z6-5D						1.38x1.57xh1.44	0.06	10
(6 way) 17÷10	Z6-6	6	450	185.0	IP20	V-0 (UL 94)	0.91x1.69xh1.12	0.06	15
	Z6-6D						0.91x2.09xh1.30	0.07	10
(10 way) 17÷10	Z6-10	10	450	185.0	IP20	V-0 (UL 94)	1.38x1.69xh1.12	0.09	10
	Z6-10D						1.38x2.09xh1.30	0.10	15

D= Version with clamp for DIN rail

Technical features:

- Self-extinguishing Polycarbonate body
- Tempered Steel clamps
- Electrolytically Tin plated Copper interconnections

Z16

SINGLE POLE TERMINAL BLOCKS

indirect clamping - nominal section 6 AWG

type
ZETApiù®



3, 4, 5, 8 and 12 way, single pole terminal blocks.

Ideal for use as an equipotential bonding connector for both industrial and domestic use.

Connecting Capacity AWG	Type	No. of Ways	Nominal Voltage V	Maximum Operating Temperature °F	Insulation Specification	Self Extinguishing Specification	Dimensions L x W x H in.	Weight lbs.	Quantity
6	Z16-3	3	450	185.0	IP20	V-0 (UL 94)	1.50x1.23xh1.50	0.11	20
	Z16-3D						1.50x1.97xh1.73	0.12	15
6	Z16-4	4	450	185.0	IP20	V-0 (UL 94)	1.06x2.13xh1.46	0.11	15
	Z16-4D						1.06x2.28xh1.69	0.12	10
6	Z16-5N	5	450	185.0	IP20	V-0 (UL 94)	2.40x1.24xh1.50	0.14	10
	Z16-5ND						2.40x1.97xh1.73	0.15	4
(2 way) 6 + (6 way) 10	Z16-8	8 (2÷6)	450	185.0	IP20	V-0 (UL 94)	1.40x1.97xh1.44	0.11	15
	Z16-8D						1.40x2.24xh1.65	0.12	10
(2 way) 6 + (10 way) 10	Z16-12	12 (2÷10)	450	185.0	IP20	V-0 (UL 94)	4.11x1.28xh1.44	0.25	8
	Z16-12D						4.11x1.97xh1.65	0.28	5

D= Version with clamp for DIN rail

SINGLE POLE TERMINAL BLOCKS

indirect clamping - nominal section 2 AWG

type
ZETApiù®

Z35-3



Z35-4

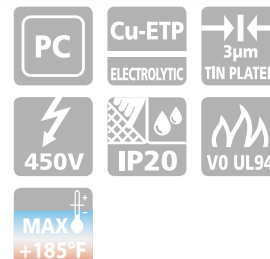


Z35-6



Connecting Capacity AWG	Type	No. of Ways	Nominal Voltage V	Maximum Operating Temperature °F	Insulation Specification	Self Extinguishing Specification	Dimensions L x W x H in.	Weight lbs.	Quantity
2	Z35-3	3	450	185.0	IP20	V-0 (UL 94)	2.09x1.91xh1.65	0.24	10
	Z35-3D						2.09x1.97xh1.89	0.25	5
2	Z35-4	4	450	185.0	IP20	V-0 (UL 94)	1.46x3.35xh1.65	0.28	5
	Z35-4D						1.46x3.35xh1.89	0.29	5
(2 way) 2 + (4 way) 6	Z35-6	6 (2÷4)	450	185.0	IP20	V-0 (UL 94)	3.27x1.61xh1.69	0.29	8
	Z35-6D						3.27x1.93xh2.05	0.31	5

D= Version with clamp for DIN rail



3, 4 and 6 way, single pole terminal blocks. Ideal for use as an equipotential bonding connector for both industrial and domestic use.

SINGLE POLE TERMINAL BLOCKS

indirect clamping - for earthing applications

type
ZETApiù®

Z50-10D



Z35T-11
Z35T-11D



Z35-26D



Connecting Capacity AWG	Type	No. of Ways	Maximum Operating Temperature °F	Self Extinguishing Specification	Dimensions L x W x H in.	Weight lbs.	Quantity
(1 way) 2 + (10 way) 10	Z35T-11	11 (1+10)	185.0	V-0 (UL 94)	2.28x1.69xh1.65	0.15	10
	Z35T-11D				2.28x2.09xh1.85	0.17	10
(2 way) 2 + (24 way) 8	Z35-26D	26 (2+24)	185.0	V-0 (UL 94)	5.94x2.05xh1.89	0.84	4
(2 way) 1/0 + (8 way) 4	Z50-10D	10 (2+8)	185.0	V-0 (UL 94)	3.05x2.17xh1.93	0.71	6

D= Version with clamp for DIN rail



10, 11 and 26 way, single pole terminal blocks. Ideal for use as an equipotential bonding connector for both industrial and domestic use.

CONNECTING CAPACITY OF TERMINAL BLOCKS

indirect clamping

type
ZETApiù®

Type	Nominal Section AWG	No. of Ways x Nominal Section AWG	Connecting Capacity of Each Way* No. of Conductors x Section AWG	Markings
Z6-3 Z6-3D	10	3 x 10		   6 mm² 450 V T 85°C  
Z6-5 Z6-5D	10	5 x 10	1 x 10 R/F 1 x 12 R/F	
Z6-6 Z6-6D	10	6 x 10	1÷2 x 14 R/F 1÷2 x 16 R/F 1÷4 x 17 R/F	
Z6-10 Z6-10D	10	10 x 10		
Z16-3 Z16-3D	6	3 x 6	1 x 6 R/F 1 x 8 R/F 1÷2 x 10 R/F 1÷3 x 12 R/F 1÷4 x 14 R/F 1÷8 x 16 R/F	   16 mm² 450 V T 85°C  
Z16-4 Z16-4D	6	4 x 6	1 x 6 F 1 x 8 F 1÷2 x 10 F 1÷3 x 12 F 1÷4 x 14 F 1÷8 x 16 F	   16 mm² 450 V T 85°C 
Z16-5N Z16-5ND	6	5 x 6	1 x 6 R/F 1 x 8 R/F 1÷2 x 10 R/F 1÷3 x 12 R/F 1÷4 x 14 R/F 1÷8 x 16 R/F	   16 mm² 450 V T 85°C 
Z16-8 Z16-8D	6 - 10	2 x 6	1 x 6 R/F 1 x 8 R/F 1÷2 x 10 R/F 1÷3 x 12 R/F 1÷4 x 14 R/F 1÷8 x 16 R/F	   16~6 mm² 450 V T 85°C 
		6 x 10	1 x 10 R/F 1 x 12 R/F 1÷2 x 14 R/F 1÷2 x 16 R/F 1÷4 x 17 R/F	
Z16-12	6 - 10	2 x 6	1 x 6 F 1 x 8 F 1÷2 x 10 F 1÷3 x 12 F 1÷4 x 14 F	   16~6 mm² 450 V T 85°C 
Z16-12D		10 x 10	1 x 10 F 1 x 12 F 1÷2 x 14 F 1÷2 x 16 F 1÷4 x 17 F	

* A mixture of conductor sizes may be connected to the terminal block provided that the sum of their sections is less than the nominal section.
R = Rigid conductor F = Flexible conductor

CONNECTING CAPACITY OF TERMINAL BLOCKS

indirect clamping

type
ZETApiù®

Type	Nominal Section AWG	No. of Ways x Nominal Section AWG	Connecting Capacity of Each Way* No. of Conductors x Section AWG	Markings
Z35-3 Z35-3D	2	3 x 2	1 x 2 R/F 1 x 4 R/F 1 ÷ 2 x 6 R/F 1 ÷ 3 x 8 R/F 1 ÷ 5 x 10 R/F	CE UKCA 35 mm² 450 V T 85°C
Z35-4 Z35-4D	2	4 x 2	1 x 2 F 1 x 4 F 1 ÷ 2 x 6 F 1 ÷ 3 x 8 F 1 ÷ 6 x 10 F	CE UKCA 35 mm² 450 V T 85°C
Z35-6 Z35-6D	2 - 6	2 x 2	1 x 2 R/F 1 x 4 R/F 1 ÷ 2 x 6 R/F 1 ÷ 3 x 8 R/F 1 ÷ 6 x 10 F	CE UKCA 35~16 mm² 450 V T 85°C
		4 x 6	1 x 6 R/F 1 x 8 R/F 1 ÷ 2 x 10 R/F 1 ÷ 3 x 12 R/F 1 ÷ 5 x 14 F	
Z35T-11 Z35T-11D	2 - 10	1 x 2	1 x 2 R/F 1 x 4 R/F 1 x 6 R/F 1 x 8 R/F	CE UKCA 35~6 mm² T 85°C
		10 x 10	1 x 10 R/F 1 x 12 R/F 1 ÷ 2 x 14 R/F 1 ÷ 2 x 16 R/F 1 ÷ 4 x 17 R/F	
Z35-26D	2 - 8	2 x 2	1 x 2 R/F 1 x 4 R/F 1 ÷ 2 x 6 R/F 1 ÷ 3 x 8 R/F 1 ÷ 6 x 10 R/F	CE UKCA 35~10 mm² T 85°C
		24 x 8	1 x 8 R/F 1 x 10 R/F 1 ÷ 2 x 12 R/F 1 ÷ 4 x 14 R/F	
Z50-10D	1/0 - 4	2 x 1/0	1 x 1/0 R/F 1 x 2 R/F 1 ÷ 2 x 4 R/F 1 ÷ 4 x 6 R/F	CE UKCA ** 50~25 mm² T 85°C
		8 x 4	1 x 4 R/F 1 ÷ 2 x 6 R/F 1 ÷ 3 x 8 R/F 1 ÷ 6 x 10 R/F 1 ÷ 9 x 12 R/F	

* A mixture of conductor sizes may be connected to the terminal block provided that the sum of their sections is less than the nominal section.
R = Rigid conductor F = Flexible conductor

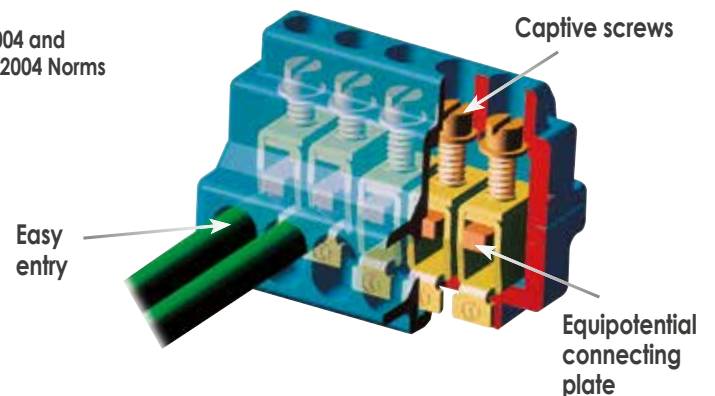
MARKINGS



Conforms to:

Directives 2014/35/UE

EN 60998-1: 2004 and
EN 60998-2-1: 2004 Norms





Z 25-DP7-100



Z 35-DP14B-125



Z 35-DP14-125



Z 50-DP12-160



100, 125 and 160A, 2-4 pole distribution blocks with 7, 14 and 12 ways per pole respectively.

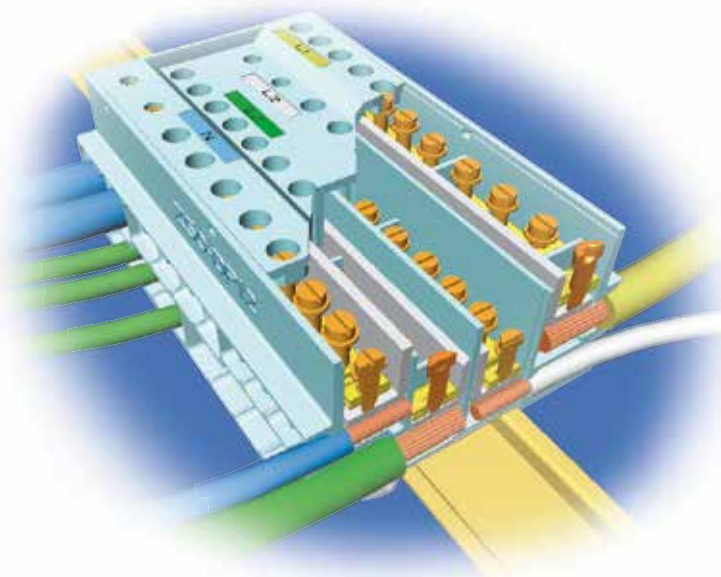
Accepting a wide cable CSA range (17 - 1/0 AWG) and of compact size, Zetablocks are ideal for control cabinets and distribution panels.

The lateral arrangement of terminals on upper and lower faces (Z35-DP14B one face only), simplifies connection and promotes tidy, homogeneous cable routing to assist subsequent wiring operations. Easy entry apertures provide quick, effective cable insertion while the indirect clamping feature eliminates damage to cable strands and assures a low, stable contact resistance.

Technical features:

- Self extinguishing antishock Polycarbonate body
- Tempered Steel captive clamping screws and plates
- Electrolytically Tin plated Copper interconnectors

Type	No. of poles	No. of Ways per pole	Nominal CSA for each pole AWG	Maximum operating voltage (Ui)	Impulse voltage (Uimp)	Maximum operating current (In)	Allowable short duration fault current (Icw)	Maximum allowed peak fault current (Ipk)	Self Extinguishing Specification	Dimensions L x W x H in.	Weight lbs.	Qty
Z25-DP7-100	4	7 (2+5)	(2 way) 4 + (5 way) 10	800 V	8 kV	100 A	3 kA	18 kA	V-0 (UL 94)	2.75x3.31xh1.77	0.13	2
Z35-DP14-125	4	14 (2+2+10)	(2 way) 2 + (2 way) 6 + (10 way) 10	800 V	8 kV	125 A	4,2 kA	18 kA	V-0 (UL 94)	5.39x3.27xh1.81	1.54	1
Z35-DP14B-125	2	14 (2+2+10)	(2 way) 2 + (2 way) 6 + (10 way) 10	800 V	8 kV	125 A	4,2 kA	18 kA	V-0 (UL 94)	5.39x1.73xh1.81	0.79	2
Z50-DP12-160	4	12 (2+4+6)	(2 way) 1/0 + (4 way) 4 + (6 way) 6	800 V	8 kV	160 A	6 kA	18 kA	V-0 (UL 94)	5.91x3.31xh1.89	1.72	1



indirect clamping

type
ZETAblock®

CONNECTING CAPACITY OF POWER DISTRIBUTION BLOCK

indirect clamping

Type	Nominal Section AWG	No. of Ways x Nominal Section AWG	Connecting Capacity of Each Way No. of Conductors x Section AWG	Markings
Z25-DP7-100	4 - 10	2 x 4	1 x 4 F 1 x 6 F 1 ÷ 2 x 8 F	   25÷6 sqmm
		5 x 10	1 x 10 F 1 x 12 F 1 ÷ 2 x 14 F 1 ÷ 2 x 16 F 1 ÷ 4 x 17 F	
Z35-DP14-125 Z35-DP14B-125	2 - 6 - 10	2 x 2	1 x 2 F 1 x 4 F 1 ÷ 2 x 6 F 1 ÷ 3 x 8 F	   35÷16÷6 sqmm
		2 x 6	1 x 6 F 1 x 8 F 1 ÷ 2 x 10 F 1 ÷ 3 x 12 F 1 ÷ 4 x 14 F	
		10 x 10	1 x 10 F 1 x 12 F 1 ÷ 2 x 14 F 1 ÷ 2 x 16 F 1 ÷ 4 x 17 F	
Z50-DP12-160	1/0 - 4 - 6	2 x 1/0	1 x 1/0 F 1 x 2 F 1 ÷ 2 x 4 F	   50÷25÷16 sqmm
		4 x 4	1 x 4 F 1 x 6 F 1 ÷ 2 x 8 F	
		6 x 6	1 x 6 F 1 x 8 F 1 ÷ 2 x 10 F	

F = Flexible conductor

MARKINGS

Italian Institute of the Quality Mark
type approval

Conforms to:

Directives 2014/35/UE

EN 60947-7-1: 2009 Norms

indirect clamping

type

ZETAmini®



Connecting Capacity AWG	Type	Nominal Voltage V	Maximum Operating Temperature °F	Insulation Specification	Self Extinguishing Specification	Dimensions L x W x H in.	Weight lbs.	Quantity
22	Z2.5-1	450	185.0	IP20	V-0 (UL 94)	0.02x0.04xh0.05	0.006	500/25
10	Z6-1	450	185.0	IP20	V-0 (UL 94)	0.03x0.06xh0.06	0.01	250/25
8	Z10-1	450	185.0	IP20	V-0 (UL 94)	0.03x0.07xh0.07	0.02	80/10
6	Z16-1	450	185.0	IP20	V-0 (UL 94)	0.04x0.07xh0.08	0.03	60/10
4	Z25-1	450	185.0	IP20	V-0 (UL 94)	0.05x0.09xh0.10	0.06	50/10
2	Z35-1	450	185.0	IP20	V-0 (UL 94)	0.06x0.10xh0.11	0.08	40/10

One way, single pole terminal blocks for conductor sections from AWG 22 to 2.

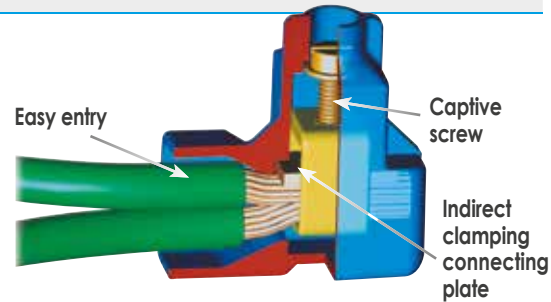
Self contained and robust, they are ideal for the fast and safe installation for industrial and domestic applications.

The indirect clamping of the "ZETAmini" terminal blocks guarantees a low and stable contact resistance.

The easy-entry receptacle also grants a fast and reliable insertion of the cable.

Technical features:

- Self-extinguishing Polycarbonate body
- Electrolytically Zinc plated, tempered Steel clamp and screw
- Electrolytically Tin plated Steel connection plate



Type	Nominal Section AWG	Connecting Capacity of Each Way* No. of Conductors x Section AWG	Markings
Z2.5-1	22	2 x 22 R/F 2 ÷ 3 x 12 R/F 2 ÷ 5 x 17 R/F 2 ÷ 6 x 18 R/F 2 ÷ 10 x 20 R/F 2 ÷ 18 x Ø 21 ÷ 19 AWG communication type wire	CE UK CA 2.5 sqmm 450 V T 85°C IP 20 APPROVED R
Z6-1	10	2 x 10 R/F 2 ÷ 3 x 12 R/F 2 ÷ 4 x 22 R/F 2 ÷ 6 x 16 R/F 2 ÷ 6 x 17 R/F 2 ÷ 10 x 18 R/F 2 ÷ 12 x 20 R/F (1 x 10 F) + (4 x 16 F) (1 x 10 F) + (2 x 22 F)	CE UK CA 6 sqmm 450 V T 85°C IP 20 APPROVED R
Z10-1	8	2 x 8 R/F 2 ÷ 3 x 10 R/F 2 ÷ 5 x 12 R/F 2 ÷ 8 x 22 R/F 2 ÷ 12 x 16 R/F 2 ÷ 20 x 17 R/F 2 ÷ 25 x 18 R/F (1 x 10 F) + (1 x 12 F) + (2 x 22 F) + (3 x 16 F)	CE UK CA 10 sqmm 450 V T 85°C IP 20 APPROVED R
Z16-1	6	2 x 6 R/F 2 ÷ 3 x 8 R/F 2 ÷ 5 x 10 R/F 2 ÷ 8 x 12 R/F 2 ÷ 12 x 22 R/F 2 ÷ 18 x 16 R/F	CE UK CA 16 sqmm 450 V T 85°C IP 20 APPROVED R
Z25-1	4	2 x 4 R/F 2 ÷ 3 x 6 R/F 2 ÷ 4 x 8 R/F 2 ÷ 8 x 10 R/F 2 ÷ 11 x 12 R/F 4 ÷ 16 x 22 R/F	CE UK CA 25 sqmm 450 V T 85°C IP 20 APPROVED R
Z35-1	2	2 x 2 R/F 2 ÷ 3 x 4 R/F 2 ÷ 4 x 6 R/F 2 ÷ 7 x 8 R/F 2 ÷ 11 x 10 R/F 4 ÷ 17 x 12 R/F 5 ÷ 28 x 22 R/F	CE UK CA 35 sqmm 450 V T 85°C IP 20 APPROVED R

*A mixture of conductor sizes may be connected to the terminal block provided that the sum of their sections is less than twice the nominal section.

R = Rigid conductor F = Flexible conductor

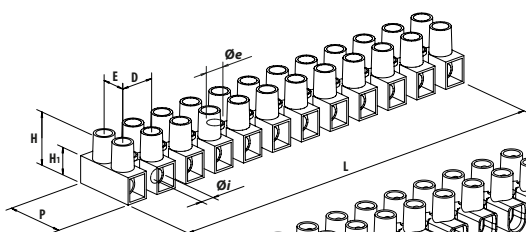
Conforms to:

Directives 2014/35/UE

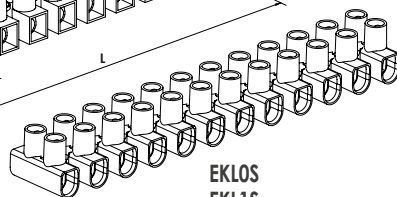
EN 60998-1: 2004 and
EN 60998-2-1: 2004 Norms

TERMINAL BLOCK TYPE EKL

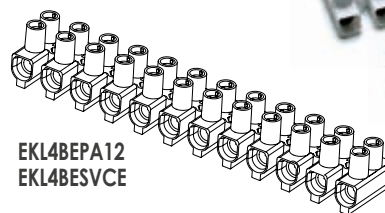
EKL



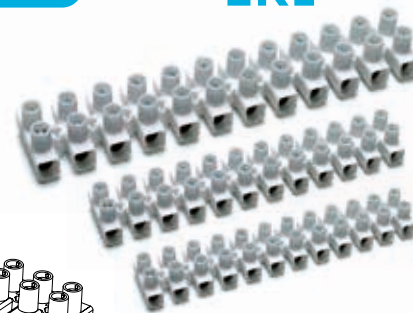
EKLOEPA12
EKL1BEPA12
EKL2EPA12
EKL3EM4PA12



EKLOS
EKL1S
EKL2S
EKL3S



EKL4BEPA12
EKL4BESVCE



Type 12 Poles of Polyamide (PA6.6)

Type	Nominal section AWG	Dimensions in.								Screw	Quantity
		Øi	Øe	L 12 poles	H	H1	P	E	D		
△ EKLOEPA12	22	0.110	0.110	3.685	0.528	0.299	0.638	0.252	0.315	M2,6	50
△ EKL1BEPA12	12	0.138	0.142	4.606	0.591	0.315	0.732	0.287	0.394	M3	30
△ EKL2EPA12	8	0.165	0.146	5.224	0.681	0.346	0.874	0.394	0.453	M3,5	15
□ EKL3EM4PA12	6	0.228	0.205	6.890	0.819	0.449	0.992	0.433	0.591	M4	25
○ EKL4BEPA12	4	0.276	0.157	7.374	1.102	0.610	1.181	0.433	0.630	M5	25



Type 12 Poles of Polypropylene (PP)

Type	Nominal section AWG	Dimensions in.								Screw	Quantity
		Øi	Øe	L 12 poles	H	H1	P	E	D		
● EKLOS	12	0.126	0.104	3.736	0.512	-	0.654	0.252	0.319	M2,6	50
● EKL1S	10	0.138	0.134	4.587	0.587	-	0.744	0.287	0.394	M3	30
● EKL2S	8	0.169	0.146	5.268	0.681	-	0.921	0.394	0.453	M3,5	15
● EKL3S	6	0.217	0.193	6.870	0.984	-	0.815	0.433	0.591	M4	25
◇ EKL4BESVCE	4	0.276	0.157	7.374	1.102	-	1.181	0.433	0.630	M5	25

△ Nominal voltage : 450 V
Ambient temperature : max 185°F

□ Nominal voltage : 450 V
Ambient temperature : max 230°F

○ Nominal voltage: 750 V
Ambient temperature: max 230°F

● Nominal voltage: 450 V
Ambient temperature: max 176°F

◇ Nominal voltage: 750 V
Ambient temperature: max 176°F

DS

2B

Material:

- Block made of chromium plated Brass
- Screw made of chromium plated Steel

Variants upon request for version en Polyamide PA6.6

N° of poles from 1 to 11:

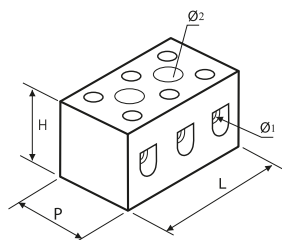
- replace reference 12 with n° of required poles
- Versions with protection plate: add reference "DS"
- Versions with shaped entry: add reference "2B"
- Versions suitable for high temperature, of Polyamide 6.6 reinforced with glass fibre, brown: add reference "FG"

EKL OE PA XX XX FG

N° poles 2B / DS reinforced version

TERMINAL BLOCK TYPE ZS

ZS



Type	Nominal section AWG		No. of poles	Dimensions in.					Quantity
	Low Str.	Flex		Ø1	Ø2	L	H	P	
ZS-U6	12/10	12	1	0.110	-	0.354	0.709	0.748	200
ZS-B6	12/10	12	2	0.110	0.157	0.866	0.709	0.748	80
ZS-T6	12/10	12	3	0.110	0.157	1.417	0.709	0.748	60
ZS-U10	8	10	1	0.169	-	0.512	0.787	0.827	200
ZS-B10	8	10	2	0.169	0.189	0.945	0.787	0.827	80
ZS-T10	8	10	3	0.169	0.189	1.417	0.787	0.827	70
ZS-U16	6	8	1	0.240	-	0.591	0.866	1.063	100
ZS-B16	6	8	2	0.240	0.197	1.220	0.866	1.063	50
ZS-T16	6	8	3	0.240	0.197	1.890	0.866	1.063	30



Material:

- insulating body in STEATITE
- screw in GALVANIZED STEEL
- BRASS clamp

Nominal voltage: 450 V

Operating temperature: 662°C

DB/1N



UNIPOLAR DISTRIBUTION BLOCKS

direct clamping

DBLOCK UNIPOLAR SERIES

- Tested in accordance with UL 1059 - File no. E523349
- 80, 125, 160, 250, 400, 500 A distribution blocks
- Versions available with 6, 7 or 11 outputs (see table)
- Wire entry facilitated by chamfered entry holes and clamping screws

- Terminals maintain excellent stability of the connection over time
- Connection can be expanded through dedicated unipolar jumpers (can be used for types DB125-7/1N and DB160-7/1N)



Type	N° inputs	Connecting Capacity in AWG	N° outputs	Connecting Capacity out AWG	IEC® 60947-7-1		UL® 1059		Allowable short duration fault current (Icw)	Maximum allowed peak fault current (Ipk)	Self Extinguishing Specification	Dimensions in.	Weight lbs	Qty
					Nominal voltage	Nominal Current	Nominal voltage	Nominal Current						
DB80-6/1N	1	16-4	6 (4+2)	(4) 16-8 (2) 16-4	1000 V	80 A	600 V	85 A	3 kA	22 kA	V-0 (UL 94)	2.6x1.0x1.8	0.15	5
DB125-7/1N	1	8-1/0	7 (6+1)	(6) 14-4 (1) 14-2	1000 V	125 A	600 V	150 A	4.2 kA	30 kA	V-0 (UL 94)	3.0x1.1x1.8	0.31	5
DB160-7/1N	1	8-3/0	7 (6+1)	(6) 14-4 (1) 14-2	1000 V	160 A	600 V	200 A	11.8 kA	30 kA	V-0 (UL 94)	3.0x1.1x1.8	0.30	5
DB250-11/1N	1	6-250 MCM	11 (2+5+4)	(2) 10-1 (5) 14-4 (4) 14-6	1000 V	250 A	600 V	255 A	24.5 kA	51 kA	V-0 (UL 94)	3.8x1.8x2.0	0.93	3
DB400-11/1N	1	3/0-400 MCM	11 (2+5+4)	(2) 10-1 (5) 14-4 (4) 14-6	1000 V	400 A	600 V	335 A	24.5 kA	51 kA	V-0 (UL 94)	3.8x1.8x2.0	0.88	3
DB500-11/1N	1	max 8x24 mm Flex. Busbar	11 (2+5+4)	(2) 10-1 (5) 14-4 (4) 14-6	1000 V	500 A	600 V	335 A	24.5 kA	51 kA	V-0 (UL 94)	3.8x1.8x2.0	0.85	3



DB/2

BIPOLAR DISTRIBUTION BLOCKS

direct clamping



DBLOCK BIPOLAR SERIES

- 40, 100, 125 A bipolar distribution blocks
- Versions available with 6, 13, 14 or 15 outputs (see table)

- Wire entry facilitated by chamfered entry holes
- Terminals maintain excellent stability of the connection over time



Type	N° inputs	Connecting Capacity in AWG	N° outputs	Connecting Capacity out AWG	Nominal voltage	Nominal Current	Allowable short duration fault current (Icw)	Maximum allowed peak fault current (Ipk)	Self Extinguishing Specification	Dimensions in.	Weight lbs	Qty
DB40-15/2	2	10÷6 12÷8	15	16÷12 / 18÷12	500 V	40 A	4.5 kA	22 kA	V-0 (UL 94)	1.97x5.12x1.97	0.48	1
DB100-6/2	1	8÷4	6 (3+3)	(3) 16÷12 / 18÷12 (3) 14÷10 / 16÷10	500 V	100 A	4.5 kA	20 kA	V-0 (UL 94)	1.97x2.52x1.97	0.24	1
DB100-13/2	2	8÷4	13 (6+7)	(6) 16÷12 / 18÷12 (7) 14÷10 / 16÷10	500 V	100 A	4.5 kA	20 kA	V-0 (UL 94)	1.97x5.12x1.97	0.46	1
DB125-6/2	1	8÷2	6 (5+1)	(5) 14÷10 / 16÷10 (1) 8÷4 / 10÷6	690 V	125 A	4.5 kA	18 kA	V-0 (UL 94)	1.97x3.7x1.97	0.35	1
DB125-14/2	1	8÷2	14 (11+3)	(11) 14÷10 / 16÷10 (3) 8÷4 / 10÷6	690 V	125 A	4.5 kA	18 kA	V-0 (UL 94)	1.97x6.4x1.97	0.59	1
DB125-14/2C	2	8÷2 8÷6	13 (11+2)	(11) 14÷10 / 16÷10 (2) 8÷4 / 10÷6	500 V	125 A	4.5 kA	20 kA	V-0 (UL 94)	1.97x5.12x1.97	0.45	1



TETRAPOLAR DISTRIBUTION BLOCKS

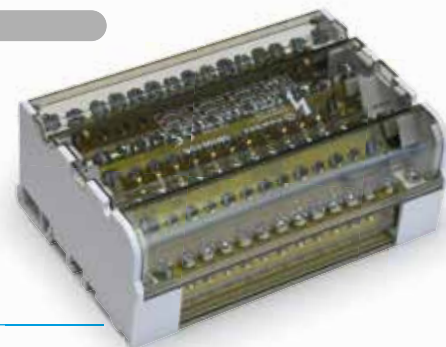
DB/4



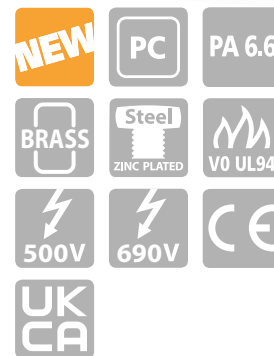
direct clamping

DBLOCK TETRAPOLAR

- 40, 100, 125, 160 A distribution blocks
- Versions available with 6, 13, 14 or 15 outputs (see table)
- Wire entry facilitated by chamfered entry holes
- Terminals maintain excellent stability of the connection over time



Type	N° inputs	Connecting Capacity in AWG	N° outputs	Connecting Capacity out AWG	Nominal voltage	Nominal Current	Allowable short duration fault current (Icw)	Maximum allowed peak fault current (Ipk)	Self Extinguishing Specification	Dimensions in.	Weight lbs	Quantity
DB40-11/4	2	10÷6 12÷8	11	16÷12 / 18÷12	500 V	40 A	4.5 kA	22 kA	V-0 (UL 94)	3.5x3.9x2.0	0.77	1
DB100-6/4	1	8÷4	6 (3+3)	(3) 16÷12 / 18÷12 (3) 14÷10 / 16÷10	500 V	100 A	4.5 kA	20 kA	V-0 (UL 94)	3.5x2.5x2.0	0.50	1
DB100-13/4	2	8÷4	13 (6+7)	(6) 16÷12 / 18÷12 (7) 14÷10 / 16÷10	500 V	100 A	4.5 kA	20 kA	V-0 (UL 94)	3.5x5.1x2.0	0.98	1
DB125-6/4	1	8÷2	6 (5+1)	(5) 14÷10 / 16÷10 (1) 8÷4 / 10÷6	690 V	125 A	4.5 kA	20 kA	V-0 (UL 94)	3.5x4.3x2.0	0.72	1
DB125-10/4	1	8÷2	10 (7+3)	(7) 14÷10 / 16÷10 (3) 8÷4 / 10÷6	690 V	125 A	4.5 kA	20 kA	V-0 (UL 94)	3.5x4.8x2.0	0.97	1
DB125-10/4C	2	8÷2 8÷6	9 (7+2)	(7) 14÷10 / 16÷10 (2) 8÷4 / 10÷6	500 V	125 A	4.5 kA	20 kA	V-0 (UL 94)	3.5x3.9x2.0	0.67	1
DB125-14/4	1	8÷2	14 (11+1+2)	(11) 14÷10 / 16÷10 (1) 8÷4 / 10÷6 (2) 8÷2 / 8÷4	690 V	125 A	4.2 kA	14.5 kA	V-0 (UL 94)	3.5x7.2x2.0	1.29	1
DB125-14/4C	2	8÷2 8÷6	13 (11+2)	(11) 14÷10 / 16÷10 (2) 8÷4 / 10÷6	500 V	125 A	4.5 kA	20 kA	V-0 (UL 94)	3.5x5.1x2.0	0.88	1
DB160-11/4	1	8÷1/0	11 (3+7+1)	(3) 8÷2 / 8÷4 (7) 14÷6 / 16÷6 (1) 14÷10 / 16÷10	690 V	160 A	8.2 kA	35 kA	V-0 (UL 94)	3.8x6.9x2.0	1.63	1



ACCESSORIES

neutral bars



Type	N° inputs	Connecting Capacity in AWG	N° outputs	Connecting Capacity out AWG	Nominal voltage	Nominal Current	Allowable short duration fault current (Icw)	Maximum allowed peak fault current (Ipk)	Type Application	Length in.	Weight lbs	Quantity
DNB125-9	4	8÷4 / 10÷6	9	14÷10 / 16÷10	-	125 A	4.5 kA	30 kA	DB125-10/4 DB125-14/4	5.6	0.38	1
DNB160-10	4	8÷2 / 8÷4	10	14÷6 / 16÷6	-	160 A	6.2 kA	35 kA	DB160-11/4	6.6	0.42	1



unipolar jumper



Type	Nominal Current	Type Application	Length in.	Weight lbs	Quantity
DJ160	125 A - 160 A	DB125-7/1N - DB160-7/1N	1.5	0.06	5



DJ160



Designation

SFI	8	x 24 (0.94)	x 1 (0.04)
Insulated flexible busbar	Number of strips	Strip width mm (in.)	Strip thickness mm (in.)

Insulated flexible busbar is a self-contained system combining convenient layout and connection with assured insulation and self-supporting construction, resulting in reduced cost installations with extreme ease of use.

The possible selections are where the red vertical line (630A) intersects the green temperature band (122°F):

SFI8X24X1
SFI6X32X1
SFI4X40X1

The final selection will depend on limitations relating to connection palm width.

Compared to plain busbar:

- Higher current capacity size for size
- Space saving as individual insulated busbars may be positioned in closer proximity
- Layout easier and quicker due to flexibility
- Insulated support not required.

Compared to cables:

- Simple and rapid installation
- Space saving due to tighter bend radius
- Insulated support not required.

Principle of selection

The following charts allow selection of the appropriate configuration based on:

- ambient temperature of 35°C
- required current carrying capacity in Amps
- maximum permitted temperature increase

Example of selection

Required current carrying capacity per phase is 630A.
 Maximum permitted temperature in the equipment enclosure is 185°F:

- ambient temperature is 95°F
- maximum permitted temperature rise is 185°F - 95°F = 122°F

Total conductor c.s.a.		Type
AWG	sqmm	
4	21,6	SFI3X9X0.8
1	43,2	SFI6X9X0.8
6	13,0	SFI2X13X0.5
-	19,5	SFI3X13X0.5
3	26	SFI4X13X0.5
-	39	SFI6X13X0.5
-	37,2	SFI3X15.5X0.8
-	49,6	SFI4X15.5X0.8
-	74,4	SFI6X15.5X0.8
250 MCM	124	SFI10X15.5X0.8
1	40	SFI2X20X1
-	60	SFI3X20X1
-	80	SFI4X20X1
-	100	SFI5X20X1
250 MCM	120	SFI6X20X1
1/0	48	SFI2X24X1
2/0	72	SFI3X24X1
3/0	96	SFI4X24X1
250 MCM	120	SFI5X24X1
-	144	SFI6X24X1
-	192	SFI8X24X1
500 MCM	240	SFI10X24X1
-	64	SFI2X32X1
3/0	96	SFI3X32X1
-	128	SFI4X32X1
-	160	SFI5X32X1
-	192	SFI6X32X1
-	256	SFI8X32X1
-	320	SFI10X32X1
-	160	SFI4X40X1
400 MCM	200	SFI5X40X1
500 MCM	240	SFI6X40X1
-	320	SFI8X40X1
800 MCM	400	SFI10X40X1
400 MCM	200	SFI4X50X1
500 MCM	250	SFI5X50X1
600 MCM	300	SFI6X50X1
800 MCM	400	SFI8X50X1
1000 MCM	500	SFI10X50X1
-	315	SFI5X63X1
-	378	SFI6X63X1
1000 MCM	504	SFI8X63X1
1250 MCM	630	SFI10X63X1
-	320	SFI4X80X1
800 MCM	400	SFI5X80X1
-	480	SFI6X80X1
-	640	SFI8X80X1
1500 MCM	800	SFI10X80X1
2000 MCM	1000	SFI10X100X1
-	1200	SFI12X100X1



Concept and design

Cembre SFI series insulated flexible busbar comprises a set of Cu strips within an insulated sleeve - for widths 0.35-2.0 in. this is extruded PVC, for widths 2.50-3.93 in. it is heat shrunk material.

The dielectric strength of the insulation is guaranteed independent of the eventual formation of the busbar and its working conditions (humidity, temperature and environmental aggressors).

Dimensions

Standard length:
 6.6 ft. (consult us for other lengths)
Strip thickness:
 0.2 - 0.04 in.
Number of strips:
 2 - 12.

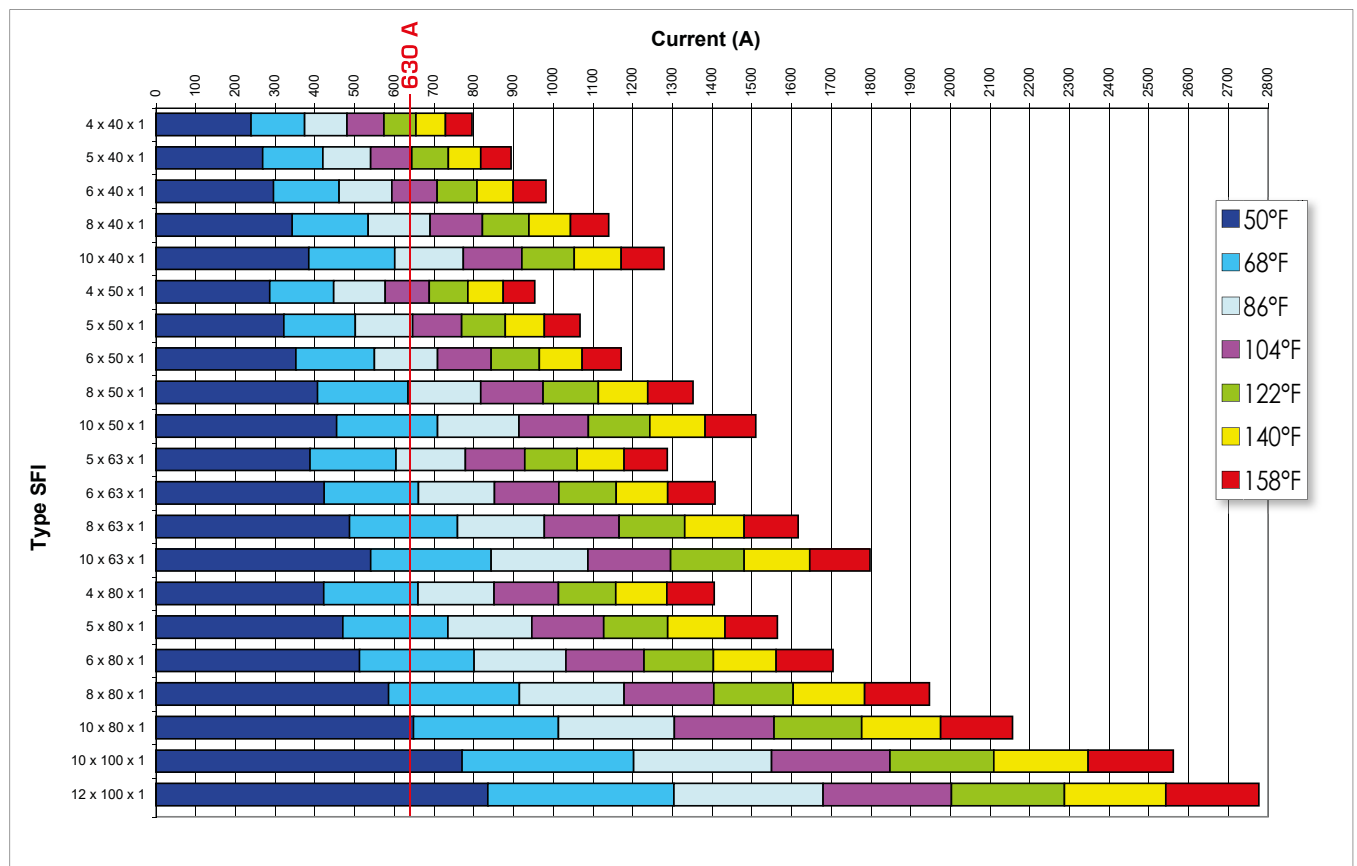
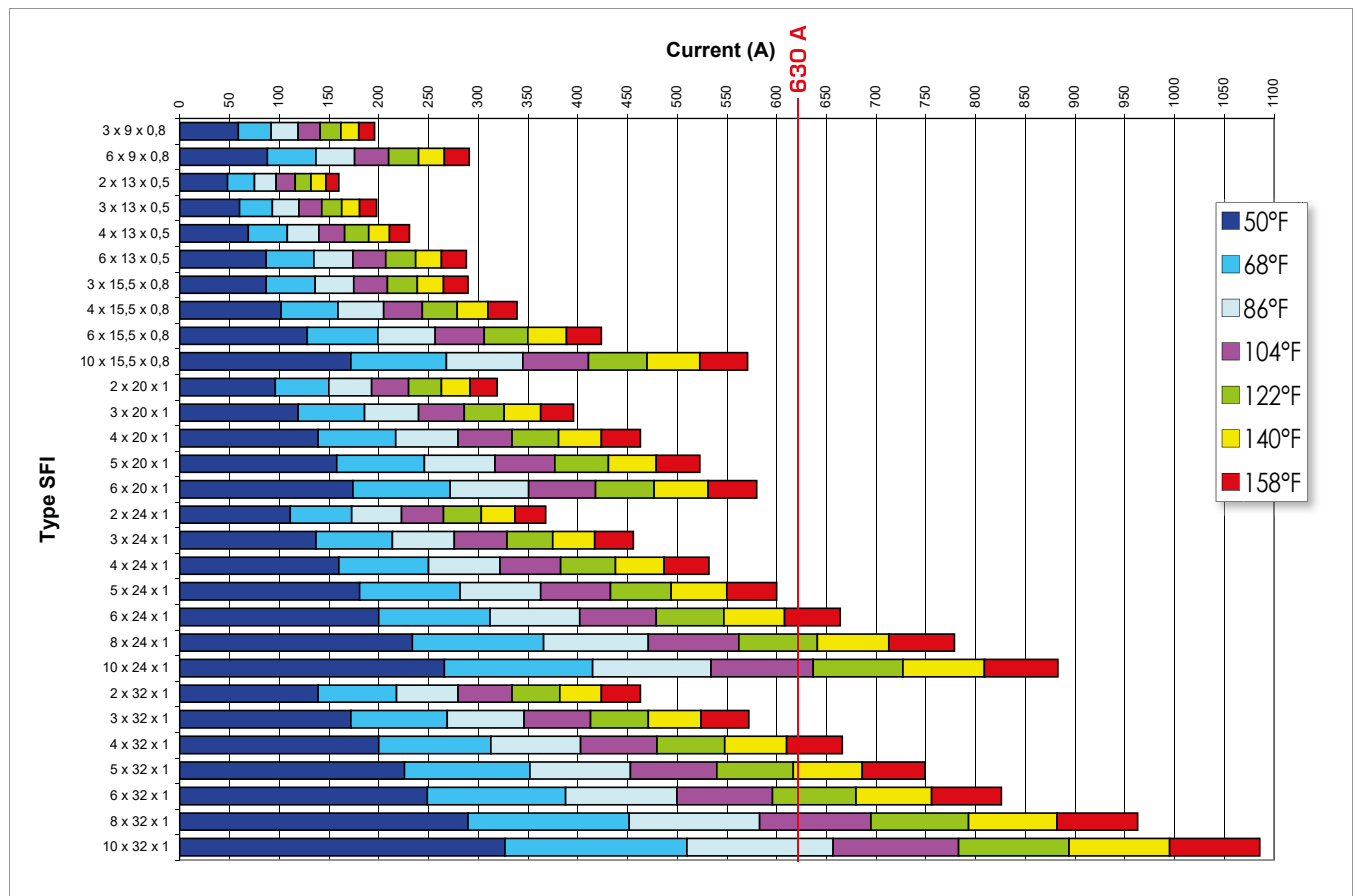
Applications

- Power distribution, substituting cable with extruded insulation and rigid busbar
- Electrical equipment (racks, circuit breakers, rectifiers)
- Transformers

Advantages

Current carrying capacity (A)

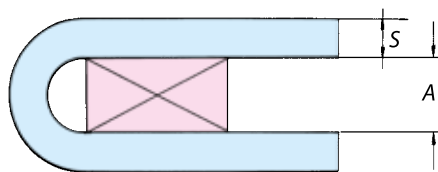
Temperature increase for each configuration based on an ambient temperature of 95°F



Mechanical bending and torsion testing

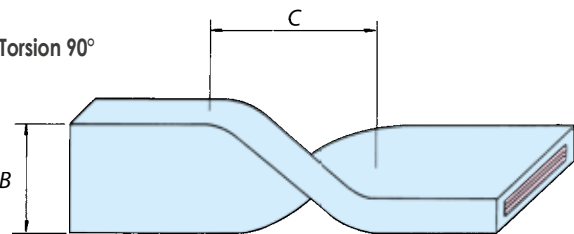
Test temperatures: -14°F and +176° F.

Bending 180°



S = Bar thickness (conductor + insulation)
A = 2 x S

Torsion 90°



B = Bar width (conductor + insulation)
C = 1,5 x B

In both cases the tests do not show damage to the insulation



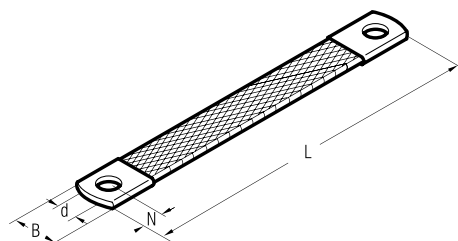
Insulated flexible busbar installation

Bending:
Small section configurations may be bent manually. When tooling is used, protect the insulated sleeve of the busbar from damage. As the Cu strips move relative to each other during bending, this operation should be completed before drilling.

Drilling:
Drilling templates type **MFB 13-40** and type **MFB 50-63** (available as optional extras) are designed to facilitate accurate location of fixing holes in the busbar of Ø 0.31, 0.39, 0.47 in. It is recommended that the insulation of the busbar is not removed before drilling is completed, as it assists the operation.

Template type	includes drilling inserts	for bar width in.
MFB 13-40	SFB13-16	for bar width 0.51÷0.61 in.
	SFB20-24	for bar width 0.79÷0.94 in.
	SFB32-40	for bar width 1.25÷1.57 in.
MFB 50-63	SFB50-63	for bar width 1.97÷2.48 in.





Size AWG	Ø Stud in.	Type	Dimensions in.				Quantity
			B	N	L	d	
8	5/16"	FL10-150	0.67	0.39	5.91	0.33	50
	5/16"	FL10-200	0.67	0.39	7.87	0.33	50
	5/16"	FL10-250	0.67	0.39	9.84	0.33	50
6	5/16"	FL16-150	0.67	0.39	5.91	0.33	50
	5/16"	FL16-200	0.67	0.39	7.87	0.33	50
	5/16"	FL16-250	0.67	0.39	9.84	0.33	50
	5/16"	FL16-320	0.67	0.39	12.60	0.33	50
	5/16"	FL16-350	0.67	0.39	13.78	0.33	50
	5/16"	FL16-420	0.67	0.39	16.54	0.33	25
	5/16"	FL16-570	0.67	0.39	22.44	0.33	25
	5/16"	FL16-660	0.67	0.39	25.98	0.33	25
4	5/16"	FL25-150	0.83	0.39	5.91	0.33	50
	5/16"	FL25-200	0.83	0.39	7.87	0.33	50
	5/16"	FL25-250	0.83	0.39	9.84	0.33	50
	5/16"	FL25-300	0.83	0.39	11.81	0.33	50



Flexible braids are manufactured from electrolytic Copper wire. Braids of different conductor sizes or lengths are available on request. Standard finish - bright Copper. Flexible braids can be supplied Tin plated, in this case add the suffix "ST" to reference.

E.g.:
- FL10-150 (Bright Copper)
- FL10-150-ST (Tin plated)



CABLE TIES

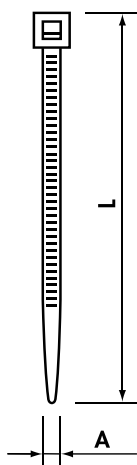
G series, PA6.6 Polyamide

PA 6.6



HF
HALOGEN
FREE

Material: PA6.6 Polyamide
Self-extinguishing V2 (UL 94)
Humidity absorption:
2.5% (at 50% relative humidity)
Operating temperature:
From -40°F to +185°F (continuous)
From -40°F to +248°F (short periods)
Resistant to:
oils, greases, oil products, chlorinat-
ed solvents.
Color: Natural or Black (Ral 2005)



Black ties have higher UV
resistance due to in-
creased carbon
black loading

Natural ties offer rapid
installation due to the
low friction coeffi-
cient of the material

Cable Ties in PA6.6

Type	L (in.)	A (in.)	Max. Bundle Ø (in.)	Min. Loop Tensile Strength (lbs)	Quantity			
G80X2.4	3.15	0.09	0.59	18	100	Minimum order: 1,000 pcs		
G80X2.4N					1,000			
G80X2.4/M								
G80X2.4N/M								
G90X2.4	3.54		0.63		100			
G90X2.4N								
G100X2.5	3.94	0.10	0.87		100			
G100X2.5N					1,000			
G100X2.5/M								
G100X2.5N/M								
G120X2.5	4.72		1.18		100			
G120X2.5N								
G140X2.5	5.51	0.10	1.30		100			
G140X2.5N					1,000			
G140X2.5/M					1,000			
G140X2.5N/M								
G160X2.5	6.3		1.57		100			
G160X2.5N					1,000			
G160X2.5/M								
G160X2.5N/M								
G200X2.5	7.87		2.09	100				
G200X2.5N				1,000				
G200X2.5/M								
G200X2.5N/M								
G250X2.8	9.84	0.11	2.56	31	100			
G250X2.8N								
G300X2.8	11.81		2.99					
G300X2.8N								
G120X3.6	4.72	0.14	1.18					
G120X3.6N								
G140X3.6					5.51		1.30	1,000
G140X3.6N								
G140X3.6/M								
G140X3.6N/M								
G150X3.6	5.91		1.38		100			
G150X3.6N								
G180X3.6	7.09		1.73					
G180X3.6N								
G200X3.6	7.87		2.09		1,000			
G200X3.6N								
G200X3.6/M								
G200X3.6N/M								
G250X3.6	9.84		2.56		100			
G250X3.6N								
G300X3.6	11.81		2.99	1,000				
G300X3.6N								
G300X3.6/M								
G300X3.6N/M								
G370X3.6	14.57		4.02	50	100			
G370X3.6N								
G120X4.8	4.72		0.94					
G120X4.8N								
G160X4.8	6.30		1.50					
G160X4.8N								
G190X4.8	7.48		1.81		1,000			
G190X4.8N								
G190X4.8/M								
G190X4.8N/M								
G200X4.8	7.87		1.97		100			
G200X4.8N								
G200X4.8/M								
G200X4.8N/M								
G250X4.8/M	9.84		2.36		1,000			
G250X4.8N/M								
G250X4.8					100			
G250X4.8N								
G280X4.8								
G280X4.8N								
G300X4.8								
G300X4.8N								
G370X4.8								
G370X4.8N								
G390X4.8								
G390X4.8N								
G430X4.8	16.93		4.33					
G430X4.8N								

Minimum order: 1,000 pcs

Minimum order: 100 pcs

Note: In Type, N = Black

Recommended tools are shown on page 156

The dimensions shown in the table must be considered as nominal. Cembre reserves the right to make changes without prior notice

CABLE TIES

G series, PA6.6 Polyamide



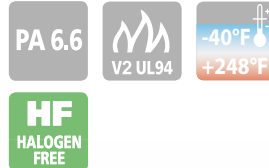
Cable Ties in PA6.6

Type	L (in.)	A (in.)	Max. Bundle Ø (in.)	Min. Loop Tensile Strength (lbs)	Quantity
G450X4.8	17.72	4,8	4.57	50	
G450X4.8N					
G530X4.8	20.87		5.51		
G530X4.8N					
G150X7.6	5.91	0.30	1.30	120	
G150X7.6N					
G200X7.6	7.87		1.97		
G200X7.6N					
G250X7.6	9.84		2.56		
G250X7.6N					
G300X7.6	11.81		2.99		
G300X7.6N					
G370X7.6	14.57		4.02		
G370X7.6N					
G430X7.6	16.93	0.35	4.92	175	
G430X7.6N					
G530X7.6	20.87		5.51		
G530X7.6N					
G430X9.0	16.93		4.33		
G430X9.0N					
G530X9.0	20.87		5.51		
G530X9.0N					
G710X9.0	27.95		7.48		
G710X9.0N					
G780X9.0	30.71	0.50	8.98	250	
G780X9.0N					
G830X9.0	32.68		9.41		
G830X9.0N					
G920X9.0	36.22		10.35		
G920X9.0N					
G1020X9.0	40.16		11.61		
G1020X9.0N					
G1220X9.0	48.03		14.37		
G1220X9.0N					
G230X12.6	9.06	0.50	1.97	250	
G230X12.6N					
G380X12.6	14.96		4.17		
G480X12.6	18.90		4.72		
G480X12.6N					
G580X12.6	22.83		5.98		
G580X12.6N					
G730X12.6	28.74		8.03		
G730X12.6N					
G880X12.6	34.65		9.76		
G880X12.6N					
G1030X12.6	40.55		11.61		
G1030X12.6N					

Note: In Type, N = Black

Recommended tools are shown on page 156

The dimensions shown in the table must be considered as nominal. Cembre reserves the right to make changes without prior notice



Angled tongue to facilitate easy introduction into the buckle



Rounded corners for increased safety



GR

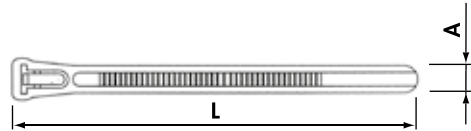
CABLE TIES

GR series, PA6.6 Polyamide

PA 6.6

HF
HALOGEN
FREE

Same features as G series.
Easy installation without tools.
Released by pressure on the tongue.
Suitable for temporary locking.



Releasable cable ties in PA6.6

Type	L (in.)	A (in.)	Max. Bundle Ø (in.)	Min. Loop Tensile Strength (lbs)	Quantity
GR100X7.6N	3.94	0.30	0.79	50	100
GR120X7.6N	4.72		1.18		
GR150X7.6N	5.91		1.38		
GR200X7.6N	7.87		1.97		
GR250X7.6N	9.84		2.60		
GR300X7.6N	11.81		3.15		
GR370X7.6N	14.57		4.02		

Recommended tools are shown on page 156

The dimensions shown in the table must be considered as nominal. Cembre reserves the right to make changes without prior notice

GFH

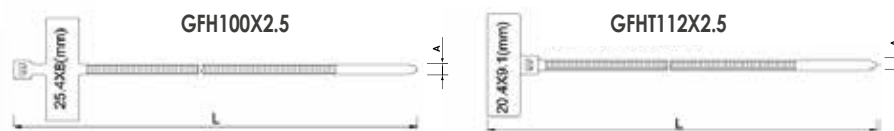
CABLE TIES

GFH series, PA6.6 Polyamide

PA 6.6

HF
HALOGEN
FREE

Same features as G series.
Quick and easy identification of bundled conductors.
Write on panel with Felt tip pen.



Markable cable ties in PA6.6

Type	L (in.)	A (in.)	Max. Bundle Ø (in.)	Min. Loop Tensile Strength (lbs)	Quantity
GFH100X2.5	3.94	0.10	0.71	17.8	100
GFHT112X2.5	4.41				

Recommended tools are shown on page 156

The dimensions shown in the table must be considered as nominal. Cembre reserves the right to make changes without prior notice

1600

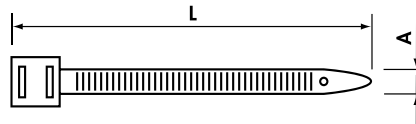
CABLE TIES

1600 series, Elastomerized Polymer on Polyamide base

PA12

HF
HALOGEN
FREE

Resistant to: UV, salt atmosphere,
oils, greases, oil products
Color: Black



Cable Ties in PA12 Polyamide

Type	Head Type	L (in.)	A (in.)	Min. Bundle Ø (in.)	Max. Bundle Ø (in.)	Min. Loop Tensile Strength (lbs)	Quantity
1618.90	single	7.10	0.35	0.59	1.77	77.2	100
1626.90	double	10.43	0.35	1.18	2.55	112.4	100
1636.90	double	14.17	0.35	1.18	3.66	112.4	100
1651.90	double	20.07	0.35	2.75	5.51	119.0	100
1676.90	double	29.92	0.35	2.75	8.66	119.0	100

Recommended tools are shown on page 156

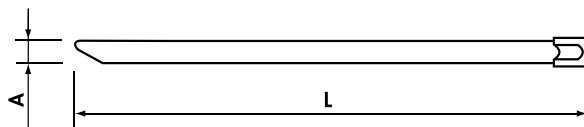
The dimensions shown in the table must be considered as nominal. Cembre reserves the right to make changes without prior notice

Material: Elastomerized
Polymer on Polyamide base
Self-extinguishing HB (UL94)
Halogen free
Operating temperature:
From -49°F to +185°F (continuous)
From -49°F to +248°F (short periods)

CABLE TIES

GX

GX series, in Stainless Steel AISI 304

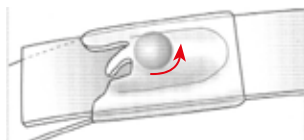


Cable Ties in Stainless Steel

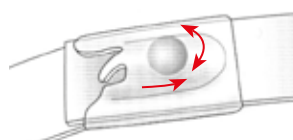
Type	L (in.)	A (in.)	Max. Bundle Ø (in.)	Min. Loop Tensile Strength (lbs)	Quantity
GX200X4.5	7.87	0.18	1.97	101	100
GX300X4.5	11.81		2.99		
GX370X4.5	14.57		4.02		
GX520X4.5	20.47		6.14		
GX370X7.9	14.57	0.31	4.02	251	
GX680X7.9	26.77				
GX1020X7.9	40.16		12.3		

Recommended tools are shown on page 156

The dimensions shown in the table must be considered as nominal. Cembre reserves the right to make changes without prior notice



Insert the tongue into the buckle. The internal locking ball rolls freely as the tie is tightened.



Once the correct tension is reached, use the specific tool to trim the tongue. The ball then wedges into the buckle locking it tightly against both the top and bottom of the tie.

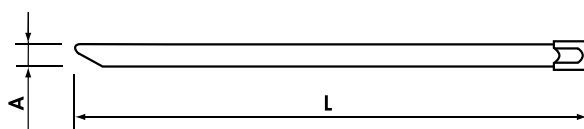


Material:
Stainless Steel AISI 304
Unique ball locking mechanism that allows simple and rapid installation and secure locking.
Operating temperature:
From -112°F to +932°F
High tensile strength.
Non-flammability.
High resistance to acetic acid, alkalies, sulphuric acid, corrosion, etc.
In general very resistant to most hostile environments.

CABLE TIES

GXAC

GXAC series, 316 Stainless Steel coated with Polyester

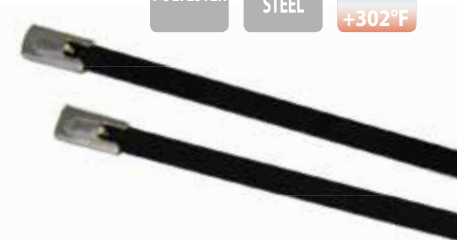


Coated Stainless Steel cable ties

Type	L (in.)	A (in.)	Max. Bundle Ø (in.)	Min. Loop Tensile Strength (lbs)	Quantity
GXAC125X4.6	4.9	0.18	1.5	101	100
GXAC150X4.6	5.9		1.8		
GXAC200X4.6	7.9		2.4		
GXAC260X4.6	10.2		3.2		
GXAC290X4.6	11.4		3.6		
GXAC360X4.6	14.2		4.4		
GXAC520X4.6	20.5		6.4		
GXAC680X4.6	26.8		8.5		
GXAC840X4.6	33.1		10.5		
GXAC200X7.9	7.9	0.31	2.4	251	
GXAC290X7.9	11.4		3.6		
GXAC360X7.9	14.2		4.4		
GXAC520X7.9	20.5		6.4		
GXAC680X7.9	26.8		8.5		
GXAC840X7.9	33.1		10.5		

Recommended tools are shown on page 156

The dimensions shown in the table must be considered as nominal. Cembre reserves the right to make changes without prior notice



Material:
316 stainless steel for the most corrosive environments coated with Polyester for insulation purpose, and a better outdoor application
Color: Black
Smooth surface and rounded edges assures cable protection and user safety.
Equipped with unique ball locking mechanism that allows simple and rapid installation and secure locking.
Operating temperature:
from -40°F to +302°F
High tensile strength
Very resistant to ultraviolet radiation and chemical corrosion
Non flammable

PA6.6 Polyamide

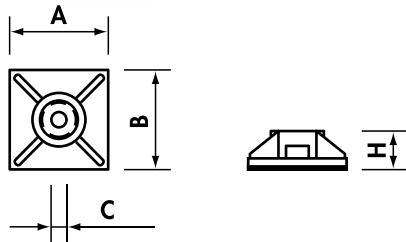
PA 6.6



Material: PA6.6 Polyamide
Self-extinguishing V2 (UL 94)
Humidity absorption:
2.5% (at 50% relative humidity)
Operating temperature:
From -40°F to +185°C (continuous)
From -40°F to +248°C (short periods)

Resistant to:
oils, bases, greases, oil products,
chlorinated solvents.
Color: Natural

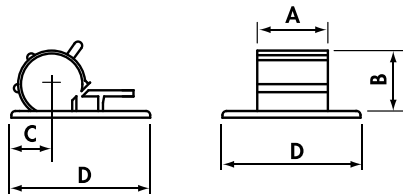
Attention:
acrylic adhesive; to obtain the best
result, wait at least 6 - 8 hours before
applying the load.



Self adhesive cable tie bases in PA6.6

Type	Max Tie (in.)	A (in.)	B (in.)	C (in.)	H (in.)	Fixing screw hole Ø (in.)	Quantity
AB13*	0.11	0.51	0.51	0.12	0.12	-	100
AB19*	0.14	0.75	0.75	0.16	0.17	0.12	100
AB28*	0.19	1.10	1.10	0.21	0.22	0.21	100

*Add to Ref: N for Black



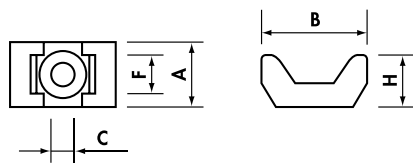
Self adhesive cable clips in PA6.6

Type	Cable Ø (in.)	A (in.)	B (in.)	C (in.)	D (in.)	Quantity
CC8.9	0.31 - 0.35	0.35	0.47	0.31	0.85	100
CC9.12	0.35 - 0.47	0.47	0.59	0.32	0.85	100



Cable tie saddle clamps in PA6.6

Type	Max Tie (in.)	A (in.)	B (in.)	C (in.)	F (in.)	H (in.)	Quantity
SS4.8-3.7	0.19	0.37	0.59	0.14	0.20	0.28	100
SS4.8-4.5	0.19	0.37	0.59	0.18	0.20	0.28	100
SS9-4.5	0.35	0.63	0.87	0.18	0.36	0.38	100
SS9-5	0.35	0.63	0.87	0.20	0.36	0.38	100
SS9-6.4	0.35	0.63	0.87	0.25	0.36	0.38	100



GH8

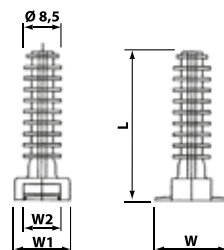
ACCESSORIES

PA6.6 Polyamide

PA 6.6



Same features as G series.
Push into Ø 0.315 in. hole.
Cable tie inserted through slot in
head.



Stud fixing for cable ties in PA6.6

Type	W (in.)	W1 (in.)	W2 (in.)	L (in.)	Fixing hole Ø (in.)	Quantity
GH8	0.79	0.59	0.39	1.59	0.31	100



INSULATED COVERS

For uninsulated connectors

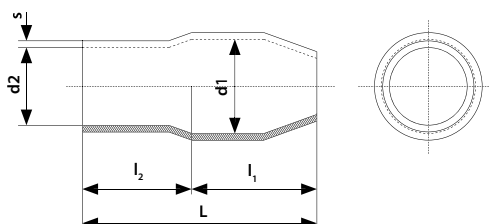
ES



PVC

V0 UL94

MAX
+185°F



Insulated covers in PVC for general use with Cembre A-M copper tube lugs characterised by environmental tolerance, flexibility, not inflammability & stable performance. Widely used for the insulation and protection of connections and electrical terminations.

General features:

- Material: PVC
- Self extinguishing (UL94): V0
- Working temperature: 185°F
- Colors: red, yellow, blue, black, grey, brown.

Type	Connectors A-M *	d1 Ø	d2 Ø	l1 ±0.04	l2 ±0.04	L ±0.08	s ±0.008	Quantity	Minimum Order Qty
ES03-..	A03	0.13	0.12	0.28	0.31	0.59	0.024	100	3,000
ES06-..	A06	0.18	0.15	0.31	0.31	0.63	0.028	100	
ES1-..	A1	0.22	0.16	0.35	0.35	0.71	0.031	100	
ES2-..	A2	0.28	0.24	0.43	0.39	0.83	0.039	100	
ES3-..	A3	0.39	0.31	0.59	0.51	1.10	0.043	100	1,000
ES5-..	A5	0.47	0.37	0.59	0.55	1.14	0.047	100	
ES10-..	A7, A9, A10	0.55	0.46	0.67	0.67	1.34	0.055	100	
ES14-..	A12, A14	0.67	0.55	0.87	0.79	1.65	0.059	100	500
ES19-..	A17, A19	0.75	0.63	0.98	0.83	1.81	0.059	50	
ES24-..	A20, A24	0.87	0.71	1.22	0.94	2.17	0.067	50	200
ES30-..	A29, A30	0.94	0.79	1.26	1.10	2.36	0.071	50	
ES37-..	A35, A37	1.02	0.87	1.34	1.22	2.56	0.071	50	
ES40-..	A40	1.27	0.94	1.50	1.22	2.72	0.079	50	100
ES48-..	A48	1.44	1.07	1.65	1.30	2.95	0.079	50	
ES80-..	A60, A80	1.44	1.18	1.65	1.30	2.95	0.079	25	

Add the suffix corresponding to the selected color to the reference:

-BU blue, -GY grey, -BR brown, -BK black, -RE red, -YE yellow,

* See A-M type copper tube lugs on pages 30-31, 42

** Depending on the diameter of the insulated cable



Heat-shrinkable Polyolefin tubing coil for general use; is environmentally neutral, flexible, not inflammable and offers fast heat shrinkage and stable performance.

Main uses include insulation and protection of electrical conductors, connectors and terminations; protection of metal tubes from corrosion; protection of antennae and various identification applications.

For general characteristics and technical specifications see page 94.

- Colors: Black, Red, White, Blue, Transparent, Yellow, Green, Grey, Brown, Yellow/Green.
- Packaging: Coil on Reel

Type	Coil Length ft	before shrinking	after shrinking		Color	
		Internal Ø in.	Internal Ø in.	Thickness in.		
TCS12X200BK	656	0.043	0.020	0.013	BLACK	●
TCS16X200BK	656	0.059	0.026	0.014	BLACK	●
TCS24X200BK	656	0.098	0.039	0.018	BLACK	●
TCS32X200BK	656	0.118	0.051	0.018	BLACK	●
TCS48X100BK	328	0.185	0.079	0.018	BLACK	●
TCS64X100BK	328	0.256	0.118	0.022	BLACK	●
TCS95X100BK	328	0.374	0.177	0.022	BLACK	●
TCS127X100BK	328	0.492	0.236	0.022	BLACK	●
TCS160X100BK	328	0.65	0.315	0.028	BLACK	●
TCS190X100BK	328	0.748	0.354	0.028	BLACK	●
TCS254X50BK	164	1.024	0.492	0.035	BLACK	●
TCS320X50BK	164	1.24	0.591	0.039	BLACK	●
TCS381X50BK	164	1.437	0.689	0.039	BLACK	●
TCS508X25BK	82	1.969	0.984	0.043	BLACK	●
TCS762X25BK	82	2.756	1.417	0.051	BLACK	●
TCS1016X25BK	82	3.937	2.008	0.051	BLACK	●
TCS1260X25BK	82	4.724	2.402	0.051	BLACK	●
TCS1500X25BK	82	5.906	2.992	0.051	BLACK	●
TCS16X200RE	656	0.059	0.026	0.014	RED	●
TCS24X200RE	656	0.098	0.039	0.018	RED	●
TCS32X200RE	656	0.118	0.051	0.018	RED	●
TCS48X100RE	328	0.185	0.079	0.018	RED	●
TCS64X100RE	328	0.256	0.118	0.022	RED	●
TCS95X100RE	328	0.374	0.177	0.022	RED	●
TCS127X100RE	328	0.492	0.236	0.022	RED	●
TCS190X100RE	328	0.748	0.354	0.028	RED	●
TCS254X50RE	164	1.024	0.492	0.035	RED	●
TCS16X200WH	656	0.059	0.026	0.014	WHITE	○
TCS20X200WH	656	0.079	0.033	0.014	WHITE	○
TCS24X200WH	656	0.098	0.039	0.018	WHITE	○
TCS32X200WH	656	0.118	0.051	0.018	WHITE	○
TCS48X100WH	328	0.185	0.079	0.018	WHITE	○
TCS64X100WH	328	0.256	0.118	0.022	WHITE	○
TCS95X100WH	328	0.374	0.177	0.022	WHITE	○
TCS127X100WH	328	0.492	0.236	0.022	WHITE	○
TCS190X100WH	328	0.748	0.354	0.028	WHITE	○
TCS254X50WH	164	1.024	0.492	0.035	WHITE	○
TCS16X200BU	656	0.059	0.026	0.014	BLUE	●
TCS24X200BU	656	0.098	0.039	0.018	BLUE	●
TCS32X200BU	656	0.118	0.051	0.018	BLUE	●
TCS48X100BU	328	0.185	0.079	0.018	BLUE	●
TCS64X100BU	328	0.256	0.118	0.022	BLUE	●
TCS95X100BU	328	0.374	0.177	0.022	BLUE	●
TCS127X100BU	328	0.492	0.236	0.022	BLUE	●
TCS190X100BU	328	0.748	0.354	0.028	BLUE	●
TCS254X50BU	164	1.024	0.492	0.035	BLUE	●
TCS381X50BU	164	1.437	0.689	0.039	BLUE	●
TCS508X25BU	82	1.969	0.984	0.043	BLUE	●

NEW

TERMOCOIL HEAT-SHRINKABLE TUBING

flame-retardant Polyolefin - shrinkage ratio 2÷1

TCS



Type	Coil Length ft	before shrinking	after shrinking		Color
		Internal Ø in.	Internal Ø in.	Thickness in.	
TCS12X200TR	656	0.043	0.020	0.013	TRANSPARENT
TCS16X200TR	656	0.059	0.026	0.014	TRANSPARENT
TCS24X200TR	656	0.098	0.039	0.018	TRANSPARENT
TCS32X200TR	656	0.118	0.051	0.018	TRANSPARENT
TCS48X100TR	328	0.185	0.079	0.018	TRANSPARENT
TCS64X100TR	328	0.256	0.118	0.022	TRANSPARENT
TCS95X100TR	328	0.374	0.177	0.022	TRANSPARENT
TCS127X100TR	328	0.492	0.236	0.022	TRANSPARENT
TCS160X100TR	328	0.65	0.315	0.028	TRANSPARENT
TCS190X100TR	328	0.748	0.354	0.028	TRANSPARENT
TCS254X50TR	164	1.024	0.492	0.035	TRANSPARENT
TCS320X50TR	164	1.24	0.591	0.039	TRANSPARENT
TCS381X50TR	164	1.437	0.689	0.039	TRANSPARENT
TCS508X25TR	82	1.969	0.984	0.043	TRANSPARENT
TCS762X25TR	82	2.756	1.417	0.051	TRANSPARENT
TCS1016X25TR	82	3.937	2.008	0.051	TRANSPARENT
TCS1260X25TR	82	4.724	2.402	0.051	TRANSPARENT
TCS1500X25TR	82	5.906	2.992	0.051	TRANSPARENT
TCS16X200YE	656	0.059	0.026	0.014	YELLOW
TCS24X200YE	656	0.098	0.039	0.018	YELLOW
TCS32X200YE	656	0.118	0.051	0.018	YELLOW
TCS48X100YE	328	0.185	0.079	0.018	YELLOW
TCS64X100YE	328	0.256	0.118	0.022	YELLOW
TCS95X100YE	328	0.374	0.177	0.022	YELLOW
TCS127X100YE	328	0.492	0.236	0.022	YELLOW
TCS190X100YE	328	0.748	0.354	0.028	YELLOW
TCS254X50YE	164	1.024	0.492	0.035	YELLOW
TCS16X200GN	656	0.059	0.026	0.014	GREEN
TCS24X200GN	656	0.098	0.039	0.018	GREEN
TCS32X200GN	656	0.118	0.051	0.018	GREEN
TCS48X100GN	328	0.185	0.079	0.018	GREEN
TCS64X100GN	328	0.256	0.118	0.022	GREEN
TCS95X100GN	328	0.374	0.177	0.022	GREEN
TCS127X100GN	328	0.492	0.236	0.022	GREEN
TCS190X100GN	328	0.748	0.354	0.028	GREEN
TCS254X50GN	164	1.024	0.492	0.035	GREEN
TCS16X200GY	656	0.059	0.026	0.014	GREY
TCS24X200GY	656	0.098	0.039	0.018	GREY
TCS32X200GY	656	0.118	0.051	0.018	GREY
TCS48X100GY	328	0.185	0.079	0.018	GREY
TCS64X100GY	328	0.256	0.118	0.022	GREY
TCS95X100GY	328	0.374	0.177	0.022	GREY
TCS127X100GY	328	0.492	0.236	0.022	GREY
TCS190X100GY	328	0.748	0.354	0.028	GREY
TCS254X50GY	164	1.024	0.492	0.035	GREY
TCS381X50GY	164	1.437	0.689	0.039	GREY
TCS508X25GY	82	1.969	0.984	0.043	GREY
TCS16X200BR	656	0.059	0.026	0.014	BROWN
TCS24X200BR	656	0.098	0.039	0.018	BROWN
TCS32X200BR	656	0.118	0.051	0.018	BROWN
TCS48X100BR	328	0.185	0.079	0.018	BROWN
TCS64X100BR	328	0.256	0.118	0.022	BROWN
TCS95X100BR	328	0.374	0.177	0.022	BROWN
TCS127X100BR	328	0.492	0.236	0.022	BROWN
TCS190X100BR	328	0.748	0.354	0.028	BROWN
TCS254X50BR	164	1.024	0.492	0.035	BROWN
TCS381X50BR	164	1.437	0.689	0.039	BROWN
TCS508X25BR	82	1.969	0.984	0.043	BROWN
TCS32X200Y/G	656	0.118	0.051	0.018	YELLOW/GREEN
TCS48X100Y/G	328	0.185	0.079	0.018	YELLOW/GREEN
TCS64X100Y/G	328	0.256	0.118	0.022	YELLOW/GREEN
TCS95X100Y/G	328	0.374	0.177	0.022	YELLOW/GREEN
TCS127X100Y/G	328	0.492	0.236	0.022	YELLOW/GREEN
TCS190X100Y/G	328	0.748	0.354	0.028	YELLOW/GREEN
TCS254X50Y/G	164	1.024	0.492	0.035	YELLOW/GREEN
TCS381X50Y/G	164	1.437	0.689	0.039	YELLOW/GREEN
TCS508X25Y/G	82	1.969	0.984	0.043	YELLOW/GREEN



Heat-shrinkable Polyolefin tubing strip for general use; is environmentally neutral, flexible, not inflammable and offers fast heat shrinkage and stable performance.

Main uses include insulation and protection of electrical conductors, connectors and terminations; protection of metal tubes from corrosion; protection of antennae and various identification applications.

For general characteristics and technical specifications see page 94.

- Colors: Black, Red, White, Blue, Transparent, Yellow, Green, Grey, Brown, Yellow/Green.
- Packaging: Strips in Box

Type	Strip Length ft	before shrinking		after shrinking		Color	Quantity Strips per box
		Internal Ø in.	Internal Ø in.	Thickness in.			
TSS12BK	4	0.043	0.020	0.013	BLACK	●	30
TSS16BK	4	0.059	0.026	0.014	BLACK	●	30
TSS24BK	4	0.098	0.039	0.018	BLACK	●	30
TSS32BK	4	0.118	0.051	0.018	BLACK	●	30
TSS48BK	4	0.185	0.079	0.018	BLACK	●	30
TSS64BK	4	0.256	0.118	0.022	BLACK	●	30
TSS95BK	4	0.374	0.177	0.022	BLACK	●	20
TSS127BK	4	0.492	0.236	0.022	BLACK	●	15
TSS190BK	4	0.748	0.354	0.028	BLACK	●	10
TSS254BK	4	1.024	0.492	0.035	BLACK	●	6
TSS380BK	4	1.437	0.689	0.039	BLACK	●	4
TSS510BK	4	1.969	0.984	0.043	BLACK	●	2
TSS12RE	4	0.043	0.020	0.013	RED	●	30
TSS16RE	4	0.059	0.026	0.014	RED	●	30
TSS24RE	4	0.098	0.039	0.018	RED	●	30
TSS32RE	4	0.118	0.051	0.018	RED	●	30
TSS48RE	4	0.185	0.079	0.018	RED	●	30
TSS64RE	4	0.256	0.118	0.022	RED	●	30
TSS95RE	4	0.374	0.177	0.022	RED	●	20
TSS127RE	4	0.492	0.236	0.022	RED	●	15
TSS190RE	4	0.748	0.354	0.028	RED	●	10
TSS254RE	4	1.024	0.492	0.035	RED	●	6
TSS380RE	4	1.437	0.689	0.039	RED	●	4
TSS510RE	4	1.969	0.984	0.043	RED	●	2
TSS12WH	4	0.043	0.020	0.013	WHITE	○	30
TSS16WH	4	0.059	0.026	0.014	WHITE	○	30
TSS24WH	4	0.098	0.039	0.018	WHITE	○	30
TSS32WH	4	0.118	0.051	0.018	WHITE	○	30
TSS48WH	4	0.185	0.079	0.018	WHITE	○	30
TSS64WH	4	0.256	0.118	0.022	WHITE	○	30
TSS95WH	4	0.374	0.177	0.022	WHITE	○	20
TSS127WH	4	0.492	0.236	0.022	WHITE	○	15
TSS190WH	4	0.748	0.354	0.028	WHITE	○	10
TSS254WH	4	1.024	0.492	0.035	WHITE	○	6
TSS380WH	4	1.437	0.689	0.039	WHITE	○	4
TSS510WH	4	1.969	0.984	0.043	WHITE	○	2
TSS12BU	4	0.043	0.020	0.013	BLUE	●	30
TSS16BU	4	0.059	0.026	0.014	BLUE	●	30
TSS24BU	4	0.098	0.039	0.018	BLUE	●	30
TSS32BU	4	0.118	0.051	0.018	BLUE	●	30
TSS48BU	4	0.185	0.079	0.018	BLUE	●	30
TSS64BU	4	0.256	0.118	0.022	BLUE	●	30
TSS95BU	4	0.374	0.177	0.022	BLUE	●	20
TSS127BU	4	0.492	0.236	0.022	BLUE	●	15
TSS190BU	4	0.748	0.354	0.028	BLUE	●	10
TSS254BU	4	1.024	0.492	0.035	BLUE	●	6
TSS380BU	4	1.437	0.689	0.039	BLUE	●	4
TSS510BU	4	1.969	0.984	0.043	BLUE	●	2
TSS12TR	4	0.043	0.020	0.013	TRANSPARENT	○	30
TSS16TR	4	0.059	0.026	0.014	TRANSPARENT	○	30
TSS24TR	4	0.098	0.039	0.018	TRANSPARENT	○	30
TSS32TR	4	0.118	0.051	0.018	TRANSPARENT	○	30
TSS48TR	4	0.185	0.079	0.018	TRANSPARENT	○	30
TSS64TR	4	0.256	0.118	0.022	TRANSPARENT	○	30
TSS95TR	4	0.374	0.177	0.022	TRANSPARENT	○	20
TSS127TR	4	0.492	0.236	0.022	TRANSPARENT	○	15
TSS190TR	4	0.748	0.354	0.028	TRANSPARENT	○	10
TSS254TR	4	1.024	0.492	0.035	TRANSPARENT	○	6
TSS380TR	4	1.437	0.689	0.039	TRANSPARENT	○	4
TSS510TR	4	1.969	0.984	0.043	TRANSPARENT	○	2

TERMOSTRIP HEAT-SHRINKABLE TUBING

flame-retardant Polyolefin - shrinkage ratio 2÷1

TSS

		before shrinking	after shrinking				
Type	Strip Length ft	Internal Ø in.	Internal Ø in.	Thickness in.	Color	Quantity Strips per box	
TSS12YE	4	0.043	0.020	0.013	YELLOW	 30	
TSS16YE	4	0.059	0.026	0.014	YELLOW	 30	
TSS24YE	4	0.098	0.039	0.018	YELLOW	 30	
TSS32YE	4	0.118	0.051	0.018	YELLOW	 30	
TSS48YE	4	0.185	0.079	0.018	YELLOW	 30	
TSS64YE	4	0.256	0.118	0.022	YELLOW	 30	
TSS95YE	4	0.374	0.177	0.022	YELLOW	 20	
TSS127YE	4	0.492	0.236	0.022	YELLOW	 15	
TSS190YE	4	0.748	0.354	0.028	YELLOW	 10	
TSS254YE	4	1.024	0.492	0.035	YELLOW	 6	
TSS380YE	4	1.437	0.689	0.039	YELLOW	 4	
TSS510YE	4	1.969	0.984	0.043	YELLOW	 2	
TSS12GN	4	0.043	0.020	0.013	GREEN	 30	
TSS16GN	4	0.059	0.026	0.014	GREEN	 30	
TSS24GN	4	0.098	0.039	0.018	GREEN	 30	
TSS32GN	4	0.118	0.051	0.018	GREEN	 30	
TSS48GN	4	0.185	0.079	0.018	GREEN	 30	
TSS64GN	4	0.256	0.118	0.022	GREEN	 30	
TSS95GN	4	0.374	0.177	0.022	GREEN	 20	
TSS127GN	4	0.492	0.236	0.022	GREEN	 15	
TSS190GN	4	0.748	0.354	0.028	GREEN	 10	
TSS254GN	4	1.024	0.492	0.035	GREEN	 6	
TSS380GN	4	1.437	0.689	0.039	GREEN	 4	
TSS510GN	4	1.969	0.984	0.043	GREEN	 2	
TSS12GY	4	0.043	0.020	0.013	GREY	 30	
TSS16GY	4	0.059	0.026	0.014	GREY	 30	
TSS24GY	4	0.098	0.039	0.018	GREY	 30	
TSS32GY	4	0.118	0.051	0.018	GREY	 30	
TSS48GY	4	0.185	0.079	0.018	GREY	 30	
TSS64GY	4	0.256	0.118	0.022	GREY	 30	
TSS95GY	4	0.374	0.177	0.022	GREY	 20	
TSS127GY	4	0.492	0.236	0.022	GREY	 15	
TSS190GY	4	0.748	0.354	0.028	GREY	 10	
TSS254GY	4	1.024	0.492	0.035	GREY	 6	
TSS380GY	4	1.437	0.689	0.039	GREY	 4	
TSS510GY	4	1.969	0.984	0.043	GREY	 2	
TSS12BR	4	0.043	0.020	0.013	BROWN	 30	
TSS16BR	4	0.059	0.026	0.014	BROWN	 30	
TSS24BR	4	0.098	0.039	0.018	BROWN	 30	
TSS32BR	4	0.118	0.051	0.018	BROWN	 30	
TSS48BR	4	0.185	0.079	0.018	BROWN	 30	
TSS64BR	4	0.256	0.118	0.022	BROWN	 30	
TSS95BR	4	0.374	0.177	0.022	BROWN	 20	
TSS127BR	4	0.492	0.236	0.022	BROWN	 15	
TSS190BR	4	0.748	0.354	0.028	BROWN	 10	
TSS254BR	4	1.024	0.492	0.035	BROWN	 6	
TSS380BR	4	1.437	0.689	0.039	BROWN	 4	
TSS510BR	4	1.969	0.984	0.043	BROWN	 2	
TSS16Y/G	4	0.059	0.026	0.014	YELLOW/GREEN	30	
TSS24Y/G	4	0.098	0.039	0.018	YELLOW/GREEN	30	
TSS32Y/G	4	0.118	0.051	0.018	YELLOW/GREEN	30	
TSS48Y/G	4	0.185	0.079	0.018	YELLOW/GREEN	30	
TSS64Y/G	4	0.256	0.118	0.022	YELLOW/GREEN	30	
TSS95Y/G	4	0.374	0.177	0.022	YELLOW/GREEN	20	
TSS127Y/G	4	0.492	0.236	0.022	YELLOW/GREEN	15	
TSS190Y/G	4	0.748	0.354	0.028	YELLOW/GREEN	10	
TSS254Y/G	4	1.024	0.492	0.035	YELLOW/GREEN	6	
TSS380Y/G	4	1.437	0.689	0.039	YELLOW/GREEN	4	





Heat-shrinkable Polyolefin tubing for general use; is environmentally neutral, flexible, not inflammable and offers fast heat shrinkage and stable performance.

Main uses include insulation and protection of electrical conductors, connectors and terminations; protection of metal tubes from corrosion; protection of antennae and various identification applications.

General characteristics:

- Operating temperature: -67°F + 257°F
- Minimum shrinkage temperature: 158°F
- Temperature for complete shrinkage: 230°F
- RoHS compliant
- Colors: Black, Red, White, Blue, Grey, Brown, Yellow/Green.
- Packaging: Roll in Dispenser Box

Technical Specifications:

Property	Test Method	Performance
Traction resistance (MPa):	ASTM D2671	≥10.4
Elongation at failure (%):	ASTM D2671	≥200
Traction resistance after heat aging (MPa):	UL 224 316.4°F (158°C)×168hr	≥7.3
Elongation at failure after heat aging (%):	UL 224 316.4°F (158°C)×168hr	≥100
Heat resistance:	UL 224 482°F (250°C)×4hr	No failure
Low temperature flexibility:	UL 224 -22°F (-30°C)×4hr	No failure
Dielectric strength (kv/mm):	IEC 243	≥15
Insulation resistance:	600V UL 224	No perforation at 2500V
Volume resistance (Ω.cm):	IEC 93	≥1x10 ¹⁴
Corrosive action:	UL 224 316.4°F (158°C)×168hr	Not corrosive
Copper compatibility:	UL 224 316.4°F (158°C)×168hr	Not corrosive
Flammability:	UL 224	VW-1

		before shrinking	after shrinking		
Type	Reel Length ft	Internal Ø in.	Internal Ø in.	Thickness in.	Color
TBS16X20BK	65.6	0.059	0.026	0.014	BLACK
TBS24X20BK	65.6	0.098	0.039	0.018	BLACK
TBS32X10BK	32.8	0.118	0.051	0.018	BLACK
TBS48X10BK	32.8	0.185	0.079	0.018	BLACK
TBS64X10BK	32.8	0.256	0.118	0.022	BLACK
TBS95X10BK	32.8	0.374	0.177	0.022	BLACK
TBS127X10BK	32.8	0.492	0.236	0.022	BLACK
TBS190X5BK	16.4	0.748	0.354	0.028	BLACK
TBS254X5BK	16.4	1.024	0.492	0.035	BLACK
TBS16X20RE	65.6	0.059	0.026	0.014	RED
TBS24X20RE	65.6	0.098	0.039	0.018	RED
TBS32X10RE	32.8	0.118	0.051	0.018	RED
TBS48X10RE	32.8	0.185	0.079	0.018	RED
TBS64X10RE	32.8	0.256	0.118	0.022	RED
TBS95X10RE	32.8	0.374	0.177	0.022	RED
TBS127X10RE	32.8	0.492	0.236	0.022	RED
TBS190X5RE	16.4	0.748	0.354	0.028	RED
TBS254X5RE	16.4	1.024	0.492	0.035	RED
TBS16X20WH	65.6	0.059	0.026	0.014	WHITE
TBS24X20WH	65.6	0.098	0.039	0.018	WHITE
TBS32X10WH	32.8	0.118	0.051	0.018	WHITE
TBS48X10WH	32.8	0.185	0.079	0.018	WHITE
TBS64X10WH	32.8	0.256	0.118	0.022	WHITE
TBS95X10WH	32.8	0.374	0.177	0.022	WHITE
TBS127X10WH	32.8	0.492	0.236	0.022	WHITE
TBS190X5WH	16.4	0.748	0.354	0.028	WHITE
TBS254X5WH	16.4	1.024	0.492	0.035	WHITE
TBS16X20BU	65.6	0.059	0.026	0.014	BLUE
TBS24X20BU	65.6	0.098	0.039	0.018	BLUE
TBS32X10BU	32.8	0.118	0.051	0.018	BLUE
TBS48X10BU	32.8	0.185	0.079	0.018	BLUE
TBS64X10BU	32.8	0.256	0.118	0.022	BLUE
TBS95X10BU	32.8	0.374	0.177	0.022	BLUE
TBS127X10BU	32.8	0.492	0.236	0.022	BLUE
TBS190X5BU	16.4	0.748	0.354	0.028	BLUE
TBS254X5BU	16.4	1.024	0.492	0.035	BLUE

		before shrinking		after shrinking	
Type	Reel Length ft	Internal Ø in.	Internal Ø in.	Thickness in.	Color
TBS16X20GY	65.6	0.059	0.026	0.014	GREY
TBS24X20GY	65.6	0.098	0.039	0.018	GREY
TBS32X10GY	32.8	0.118	0.051	0.018	GREY
TBS48X10GY	32.8	0.185	0.079	0.018	GREY
TBS64X10GY	32.8	0.256	0.118	0.022	GREY
TBS95X10GY	32.8	0.374	0.177	0.022	GREY
TBS127X10GY	32.8	0.492	0.236	0.022	GREY
TBS190X5GY	16.4	0.748	0.354	0.028	GREY
TBS254X5GY	16.4	1.024	0.492	0.035	GREY
TBS16X20BR	65.6	0.059	0.026	0.014	BROWN
TBS24X20BR	65.6	0.098	0.039	0.018	BROWN
TBS32X10BR	32.8	0.118	0.051	0.018	BROWN
TBS48X10BR	32.8	0.185	0.079	0.018	BROWN
TBS64X10BR	32.8	0.256	0.118	0.022	BROWN
TBS95X10BR	32.8	0.374	0.177	0.022	BROWN
TBS127X10BR	32.8	0.492	0.236	0.022	BROWN
TBS190X5BR	16.4	0.748	0.354	0.028	BROWN
TBS254X5BR	16.4	1.024	0.492	0.035	BROWN
TBS16X20Y/G	65.6	0.059	0.026	0.014	YELLOW/GREEN
TBS24X20Y/G	65.6	0.098	0.039	0.018	YELLOW/GREEN
TBS32X10Y/G	32.8	0.118	0.051	0.018	YELLOW/GREEN
TBS48X10Y/G	32.8	0.185	0.079	0.018	YELLOW/GREEN
TBS64X10Y/G	32.8	0.256	0.118	0.022	YELLOW/GREEN
TBS95X10Y/G	32.8	0.374	0.177	0.022	YELLOW/GREEN
TBS127X10Y/G	32.8	0.492	0.236	0.022	YELLOW/GREEN
TBS190X5Y/G	16.4	0.748	0.354	0.028	YELLOW/GREEN
TBS254X5Y/G	16.4	1.024	0.492	0.035	YELLOW/GREEN

CAST RESIN JOINTS

N

cast resin, low voltage through joints

Shells

Manufactured from transparent synthetic material which allows a visual check of the connections before and after casting.

The halves of the shell are joined by snap closures which avoid further fixing or sealing.

Shells are left on after casting to provide additional protection against mechanical abrasion, chemical agents and severe weather conditions.

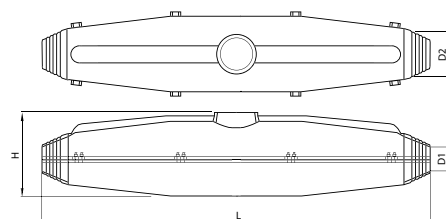


STRAIGHT JOINTS

Type	Dimensions in.				Dimensions Cable	
	L	H	D1(1)	D2(1)	Cable Diameter in.	Indicative Cable Section (2) AWG
N11	7.87	1.97	0.31	1.02	0.31 - 0.98	4C x 16 ÷ 8
N12	10.2	2.64	0.63	1.26	0.63 - 1.22	4C x 8 ÷ 4
N13	14.2	2.95	0.83	1.50	2.95 - 1.42	4C x 2 ÷ 1/0
N14	15.7	3.94	1.02	1.61	3.94 - 1.54	4C x 1/0 ÷ 2/0
N15	20.9	5.12	1.38	2.20	5.12 - 2.13	4C x 3/0 ÷ 300 MCM
N16	27.6	5.90	1.85	2.91	5.90 - 2.83	4C x 350 MCM ÷ 600 MCM

(1) Internal dimension of the shell

(2) Indicative cable sections are approximate and concern only harmonised, PVC or Rubber insulated cables at a working voltage of 0,6/1 kV

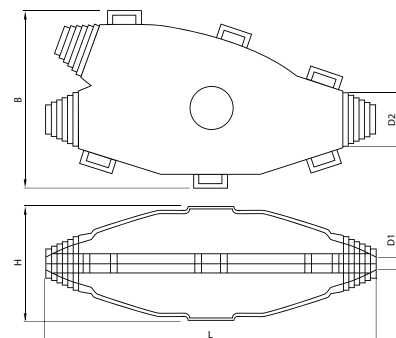


BRANCH JOINTS

Type	Dimensions in.					Dimensions Cable		
	L	H	B	D1(1)	D2(1)	Cable Diameter in.	Indicative Cable Section (2) AWG	
NY00	5.90	1.85	2.76	0.43	0.79	0.43 - 0.79	Passante 4C x 16 ÷ 14	Derivato 4C x 16
NY0	6.89	2.36	3.70	0.24	0.87	0.24 - 0.83	4C x 12 ÷ 8	4C x 12
NY1	8.86	2.95	4.33	0.35	1.02	0.35 - 0.94	4C x 10 ÷ 4	4C x 6

(1) Internal dimension of the shell

(2) Indicative cable sections are approximate and concern only harmonised, PVC or Rubber insulated cables at a working voltage of 0,6/1 kV



Cast resin technology

PUR-cast resin technology was introduced to seal and protect power, signal and telephone cable joints. This new generation of two component cast resin has been developed for the most demanding environments and circumstances.

Cembre cast resin joints meet the requirements of EN50393 and DIN VDE 57291-2 (VDE0291). Quick setting properties in humid or even cold conditions make it a fast and reliable solution.

No external measuring or mixing is required as this takes place within an Aluminium foil pouch, avoiding spillage and errors during installation. Unmixed resin components have a 48 month shelf-life even in the most difficult storage conditions.

Shells are made of durable PET resulting in good hydrophobic properties and excellent impact resistance, while good adhesion to PVC and metals assures a watertight seal.

Technical characteristic	Test result	Requirement of DIN VDE 0291
Pot life @ 41°F (5°C) 73.4°F (23°C) 95°F (35°C)	35 min 20 min 15 min	product conforms ± 30%
Reactant open cup flash point	> 392°F (200°C)	> 55
Tensile strength	≥ 8.0 Mpa	≥ 5.0
Hot aging	- 5 Shore A	- 7
Adhesive	> 1500 CP. S	-
Elongation at break	≥ 100%	≥ 50%
Gel time for 300 ml @ Pouch > 1000 ml Pouch < 1000 ml	73.4°F (23°C) 26 min 17 min	product conforms ± 10% product conforms ± 10%
Max. reaction temp.	140°F (60°C) / 333 K	product conforms ± 10%
Total vol. variability when hardening	6 %	max. 6.5 %
Cast resin component open cup flash point	> 392°F (200°C)	> 100
Density	1.07 g / cm ³	-
Impact strength	> 10 kJ / m ²	> 10 kJ / m ²
Hardness	75 Shore A	min. 20 Shore D
Expansion coefficient in temp. range 68-122°F (20-50°C)	5.9 x 10 ⁻⁴ K ⁻¹	product conforms ± 15%
Thermal conductivity	0.2W x m ⁻¹ x K ⁻¹	product conforms ± 20%
Flammability	Class II c	acc. to DIN VDE 0304, part 3
Water absorption 42 days@122°F (50°C)	360 mg	max. 400 mg
Electrolytic corrosion	A1	-
Voltage test @ 73.4°F (23°C) 176°F (80°C)	> 20 kV > 10 kV	no breakdown @ test voltage > 20 kV > 20 kV
Dielectric dissipation factor @ 73.4°F (23°C) and 50 Hz 73.4°F (23°C) and 1k Hz	0.08 0.05	max. 0.1 -
Relative permittivity @ 73.4°F (23°C) and 50 Hz @ 73.4°F (23°C) and 1k Hz	5 5.1	< 6 -
Tracking resistance	KA 3c	min KA 3c
After 28 days of immersion in 194°F (90°C) water		
Tensile strength	8.2N/mm ²	≥ 65% of initial value
Elongation at break	60%	≥ 65% of initial value
Hardness	47 Shore	≥ 80% of initial value

CABLE GLANDS AND ACCESSORIES



symbol description

cable glands and accessories

PA 6.6

Polyamide PA6.6 body



V2 UL94 self-extinguishing class

PA 6

Polyamide PA6 body



VDE marking

NEOPRENE

Neoprene material



ATEX marking

PS

Polystyrene body



USL-CNL Marking valid in USA & CANADA

BRASS

Brass body



USR-CNR Marking valid in USA & CANADA



Protected by Nikel plated to avoid oxidation



CE Marking

STAINLESS STEEL

Stainless steel body



UKCA marking

STEEL
ZINC PLATED

Galvanized Steel body



Meets the requirements for fire testing of materials and components for trains EN 45545-2:2015

NBR

Nitrile-butadiene material



Halogen Free

PVC

Polyvinylchloride material

EPDM

EPDM rubber material

ABS

ABS material



Operating temperature range



Degree of protection



range overview

cable glands and accessories

MAXIblock®



POLYAMIDE CABLE GLANDS
WITH PROTECTION IP 68

spiralblock®



POLYAMIDE CABLE GLANDS
WITH PROTECTION IP 68

MAXIbrass®



NICKEL PLATED BRASS CABLE GLANDS
WITH PROTECTION IP 68

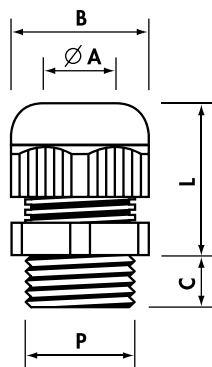
MAXIinox



STAINLESS STEEL CABLE GLANDS
WITH PROTECTION IP 68



Material: POLYAMIDE PA6.6
self-extinguishing class V2 (UL 94)
Temperature range:
-4°F to +194°F (continuous)
Sealing ring: NEOPRENE®
Protection: IP 68
Color: RAL 7035 light grey,
RAL 9005 black, RAL 7001 dark grey



standard

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 62444

Type Light Grey	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	C in.	L min-max in.	Quantity
1900.M12	M12x1.5	0.48	0.14 - 0.28	0.59	0.31	0.71 - 0.87	100
1900.M16	M16x1.5	0.64	0.20 - 0.39	0.75	0.31	0.87 - 1.06	100
1900.M20	M20x1.5	0.81	0.28 - 0.51	0.98	0.35	0.94 - 1.18	100
1900.M25	M25x1.5	1.00	0.39 - 0.67	1.18	0.39	1.10 - 1.54	50
1900.M32	M32x1.5	1.28	0.51 - 0.83	1.42	0.39	1.30 - 1.73	25
1900.M40	M40x1.5	1.59	0.75 - 1.10	1.81	0.39	1.42 - 1.77	15
1900.M50	M50x1.5	1.99	1.06 - 1.38	2.17	0.47	1.69 - 2.05	10
1900.M63	M63x1.5	2.52	1.34 - 1.77	2.60	0.47	1.77 - 2.17	5

Add to Ref: N for Black, G for Dark Grey

reduced cable entry

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 62444

Type Light Grey	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	C in.	L min-max in.	Quantity
1910.M12	M12x1.5	0.48	0.08 - 0.20	0.59	0.31	0.71 - 0.87	100
1910.M16	M16x1.5	0.64	0.12 - 0.28	0.75	0.31	0.87 - 1.06	100
1910.M20	M20x1.5	0.81	0.20 - 0.39	0.98	0.35	0.94 - 1.18	100
1910.M25	M25x1.5	1.00	0.28 - 0.51	1.18	0.39	1.10 - 1.54	50
1910.M32	M32x1.5	1.28	0.31 - 0.55	1.42	0.39	1.30 - 1.73	25
1910.M40	M40x1.5	1.59	0.59 - 0.91	1.81	0.39	1.42 - 1.77	15
1910.M50	M50x1.5	1.99	0.79 - 1.14	2.17	0.47	1.69 - 2.05	10
1910.M63	M63x1.5	2.52	1.06 - 1.54	2.60	0.47	1.77 - 2.17	5

Add to Ref: N for Black, G for Dark Grey

extended thread

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 62444

Type Light Grey	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	C in.	L min-max in.	Quantity
1901.M12	M12x1.5	0.48	0.14 - 0.28	0.59	0.59	0.71 - 0.87	100
1901.M16	M16x1.5	0.64	0.20 - 0.39	0.75	0.59	0.87 - 1.06	100
1901.M20	M20x1.5	0.81	0.28 - 0.51	0.98	0.59	0.94 - 1.18	50
1901.M25	M25x1.5	1.00	0.39 - 0.67	1.18	0.59	1.18 - 1.61	50
1901.M32	M32x1.5	1.28	0.51 - 0.83	1.42	0.59	1.30 - 1.73	25
1901.M40	M40x1.5	1.59	0.75 - 1.10	1.81	0.71	1.42 - 1.77	15
1901.M50	M50x1.5	1.99	1.06 - 1.38	2.17	0.71	1.69 - 2.05	10
1901.M63	M63x1.5	2.52	1.34 - 1.77	2.60	0.71	1.77 - 2.17	5

Add to Ref: N for Black, G for Dark Grey

MAXIBLOCK CABLE GLANDS

Polyamide PA6.6

MAXIblock®

standard

Pg thread DIN 40 430

Type Light Grey	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	C in.	L min-max in.	Quantity
1900.07	Pg 7	0.50	0.14 - 0.28	0.59	0.31	0.71 - 0.87	100
1900.09	Pg 9	0.61	0.20 - 0.31	0.75	0.31	0.87 - 1.02	100
1900.11	Pg11	0.74	0.20 - 0.39	0.87	0.31	0.91 - 1.10	100
1900.13	Pg13.5	0.81	0.28 - 0.47	0.94	0.35	0.94 - 1.14	100
1900.16	Pg16	0.89	0.39 - 0.55	1.06	0.39	1.02 - 1.22	50
1900.21	Pg21	1.12	0.51 - 0.71	1.30	0.47	1.18 - 1.38	50
1900.29	Pg29	1.46	0.71 - 0.98	1.65	0.47	1.30 - 1.54	25
1900.36	Pg36	1.86	0.79 - 1.26	2.09	0.55	1.65 - 1.93	10
1900.42	Pg42	2.13	1.10 - 1.50	2.36	0.55	1.65 - 1.97	5
1900.48	Pg48	2.36	1.46 - 1.77	2.60	0.59	1.77 - 2.17	5

Add to Ref: N for Black, G for Dark Grey

reduced cable entry

Pg thread DIN 40 430

Type Light Grey	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	C in.	L min-max in.	Quantity
1910.07	Pg 7	0.50	0.08 - 0.20	0.59	0.31	0.71 - 0.87	100
1910.09*	Pg 9	0.61	0.08 - 0.24	0.75	0.31	0.87 - 1.02	100
1910.11	Pg11	0.74	0.16 - 0.28	0.87	0.31	0.91 - 1.10	100
1910.13	Pg13.5	0.81	0.20 - 0.39	0.94	0.35	0.94 - 1.14	100
1910.16*	Pg16	0.89	0.24 - 0.47	1.06	0.39	1.02 - 1.22	50
1910.21	Pg21	1.12	0.35 - 0.59	1.30	0.47	1.18 - 1.38	50
1910.29*	Pg29	1.46	0.47 - 0.79	1.65	0.47	1.30 - 1.54	25
1910.36	Pg36	1.86	0.71 - 1.02	2.09	0.55	1.65 - 1.93	10
1910.42	Pg42	2.13	0.98 - 1.22	2.36	0.55	1.65 - 1.97	5
1910.48*	Pg48	2.36	1.06 - 1.54	2.60	0.59	1.77 - 2.17	5

Add to Ref: N for Black

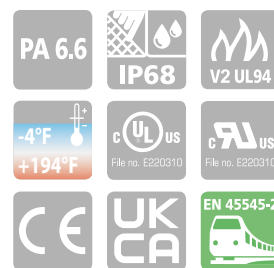
extended thread

Pg thread DIN 40 430

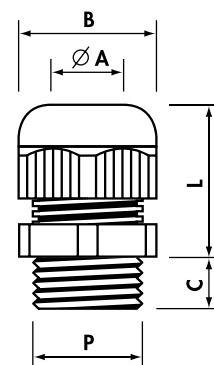
Type Light Grey	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	C in.	L min-max in.	Quantity
1901.07	Pg 7	0.50	0.14 - 0.28	0.59	0.59	0.71 - 0.87	100
1901.09	Pg 9	0.61	0.20 - 0.31	0.75	0.59	0.87 - 1.02	100
1901.11	Pg11	0.74	0.20 - 0.39	0.87	0.59	0.91 - 1.10	100
1901.13	Pg13.5	0.81	0.28 - 0.47	0.94	0.59	0.94 - 1.14	100
1901.16	Pg16	0.89	0.39 - 0.55	1.06	0.59	1.02 - 1.22	50
1901.21	Pg21	1.12	0.51 - 0.71	1.30	0.59	1.18 - 1.38	50
1901.29	Pg29	1.46	0.71 - 0.98	1.65	0.59	1.30 - 1.54	25
1901.36	Pg36	1.86	0.79 - 1.26	2.09	0.71	1.65 - 1.93	10
1901.42	Pg42	2.13	1.10 - 1.50	2.36	0.71	1.65 - 1.97	5
1901.48	Pg48	2.36	1.46 - 1.77	2.60	0.71	1.77 - 2.17	5

Add to Ref: N for Black

1900



Material: POLYAMIDE PA6.6
self-extinguishing class V2 (UL 94)
Temperature range:
-4°F to +194°F (continuous)
Sealing ring: NEOPRENE® 50 sh A
Protection: IP 68
Color: RAL 7035 light grey,
RAL 9005 black, RAL 7001 dark grey



1900/X

MAXIBLOCK CABLE GLANDS

Polyamide PA6.6

MAXIblock®



Material: POLYAMIDE PA6.6
self-extinguishing class V2 (UL 94)
Temperature range:
-4°F to +194°F (continuous)
Sealing ring: NEOPRENE®
Protection: IP 68
Color: RAL 7035 light grey

standard, factory fitted with locknuts with collar

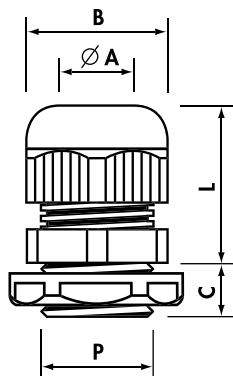
Metric thread M 1.5 pitch CEI EN 60423 CEI EN 62444

Type	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	C in.	L min-max in.	Quantity Box/Bag
1900.M12/X	M12x1.5	0.48	0.14 - 0.28	0.59	0.31	0.71 - 0.87	100/10
1900.M16/X	M16x1.5	0.64	0.20 - 0.39	0.75	0.31	0.87 - 1.06	50/10
1900.M20/X	M20x1.5	0.81	0.28 - 0.51	0.98	0.35	0.94 - 1.18	50/10
1900.M25/X	M25x1.5	1.00	0.39 - 0.67	1.18	0.39	1.10 - 1.54	30/10
1900.M32/X	M32x1.5	1.28	0.51 - 0.83	1.42	0.39	1.30 - 1.73	20/10
1900.M40/X	M40x1.5	1.59	0.75 - 1.10	1.81	0.39	1.42 - 1.77	10/5
1900.M50/X	M50x1.5	1.99	1.06 - 1.38	2.17	0.47	1.69 - 2.05	5/5
1900.M63/X	M63x1.5	2.52	1.34 - 1.77	2.60	0.47	1.77 - 2.17	5/5

standard, factory fitted with locknuts with collar

Pg thread DIN 40 430

Type	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	C in.	L min-max in.	Quantity Box/Bag
1900.07/X	Pg 7	0.50	0.14 - 0.28	0.59	0.31	0.71 - 0.87	100/10
1900.09/X	Pg 9	0.61	0.20 - 0.31	0.75	0.31	0.87 - 1.02	100/10
1900.11/X	Pg11	0.74	0.20 - 0.39	0.87	0.31	0.91 - 1.10	50/10
1900.13/X	Pg13.5	0.81	0.28 - 0.47	0.94	0.35	0.94 - 1.14	50/10
1900.16/X	Pg16	0.89	0.39 - 0.55	1.06	0.39	1.02 - 1.22	30/10
1900.21/X	Pg21	1.12	0.51 - 0.71	1.30	0.47	1.18 - 1.38	20/10
1900.29/X	Pg29	1.46	0.71 - 0.98	1.65	0.47	1.30 - 1.54	20/10
1900.36/X	Pg36	1.86	0.79 - 1.26	2.09	0.55	1.65 - 1.93	10/5
1900.42/X	Pg42	2.13	1.10 - 1.50	2.36	0.55	1.65 - 1.97	5/5
1900.48/X	Pg48	2.36	1.46 - 1.77	2.60	0.59	1.77 - 2.17	5/5



MAXIBLOCK CABLE GLANDS

Polyamide PA6.6

MAXIblock®

standard, factory fitted with Polyethylene foam dustproof discs

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 62444

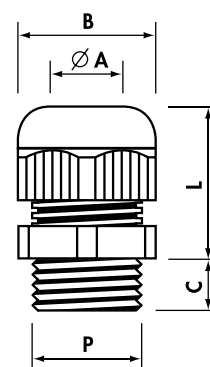
Type	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	C in.	L min-max in.	Quantity Box/Bag
1900DP.M12	M12x1.5	0.48	0.14 - 0.28	0.59	0.31	0.71 - 0.87	100
1900DP.M16	M16x1.5	0.64	0.20 - 0.39	0.75	0.31	0.87 - 1.06	100
1900DP.M20	M20x1.5	0.81	0.28 - 0.51	0.98	0.35	0.94 - 1.18	100
1900DP.M25	M25x1.5	1.00	0.39 - 0.67	1.18	0.39	1.10 - 1.54	50
1900DP.M32	M32x1.5	1.28	0.51 - 0.83	1.42	0.39	1.30 - 1.73	25
1900DP.M40	M40x1.5	1.59	0.75 - 1.10	1.81	0.39	1.42 - 1.77	15
1900DP.M50	M50x1.5	1.99	1.06 - 1.38	2.17	0.47	1.69 - 2.05	10
1900DP.M63	M63x1.5	2.52	1.34 - 1.77	2.60	0.47	1.77 - 2.17	5

Pg thread DIN 40 430

Type	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	C in.	L min-max in.	Quantity Box/Bag
1900DP.07	Pg 7	0.50	0.14 - 0.28	0.59	0.31	0.71 - 0.87	100
1900DP.09	Pg 9	0.61	0.20 - 0.31	0.75	0.31	0.87 - 1.02	100
1900DP.11	Pg11	0.74	0.20 - 0.39	0.87	0.31	0.91 - 1.10	100
1900DP.13	Pg13.5	0.81	0.28 - 0.47	0.94	0.35	0.94 - 1.14	100
1900DP.16	Pg16	0.89	0.39 - 0.55	1.06	0.39	1.02 - 1.22	50
1900DP.21	Pg21	1.12	0.51 - 0.71	1.30	0.47	1.18 - 1.38	50
1900DP.29	Pg29	1.46	0.71 - 0.98	1.65	0.47	1.30 - 1.54	25
1900DP.36	Pg36	1.86	0.79 - 1.26	2.09	0.55	1.65 - 1.93	10
1900DP.42	Pg42	2.13	1.10 - 1.50	2.36	0.55	1.65 - 1.97	5
1900DP.48	Pg48	2.36	1.46 - 1.77	2.60	0.59	1.77 - 2.17	5



Material: POLYAMIDE PA6.6
self-extinguishing class V2 (UL 94)
Temperature range:
-4°F to +194°F (continuous)
Sealing ring: NEOPRENE®
Protection: IP 68
Color: RAL 7035 light grey
Dustproof discs: 0.079 in. thick
Polyethylene foam



MAXIBLOCK CABLE GLANDS

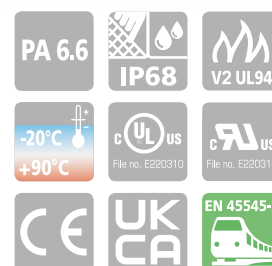
Polyamide PA6.6

BSP thread ISO 228/1

Type Light Grey	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	C in.	L min-max in.	Quantity
1900.14	G1/4"	0.53	0.12 - 0.26	0.59	0.31	0.71 - 0.87	100
1900.38	G3/8"	0.67	0.16 - 0.31	0.75	0.31	0.87 - 1.02	100
1900.12	G1/2"	0.85	0.28 - 0.47	0.94	0.39	0.94 - 1.14	100
1900.34	G3/4"	1.06	0.51 - 0.71	1.30	0.47	1.18 - 1.38	50

Add to Ref: N for Black

Material: POLYAMIDE PA6.6
self-extinguishing class V2 (UL 94)
Temperature range:
-4°F to +194°F (continuous)
Sealing ring: NEOPRENE®
Protection: IP 68
Color: RAL 7035 light grey,
RAL 9005 black



1500

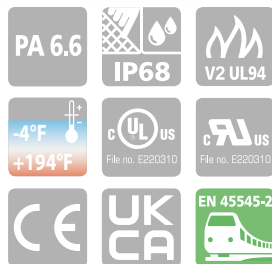
SPIRALBLOCK CABLE GLANDS

Polyamide PA6.6

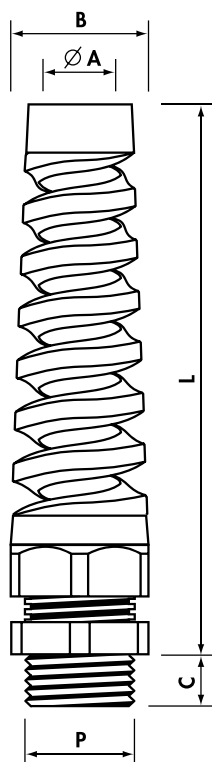
spiralblock®



Metric thread M 1.5 pitch CEI EN 60423 CEI EN 62444



Material: POLYAMIDE PA6.6
self-extinguishing class V2 (UL 94)
Temperature range:
-4°F to +194°F (continuous)
Sealing ring: NEOPRENE® 50 sh A
Protection: IP 68
Color: RAL 7035 light grey,
RAL 9005 black



Type Light Grey	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	C in.	L max in.	Quantity
1500.M12	M12x1.5	0.48	0.14 - 0.28	0.59	0.31	2.24	100
1500.M16	M16x1.5	0.64	0.20 - 0.39	0.75	0.31	3.11	50
1500.M20	M20x1.5	0.81	0.28 - 0.51	0.98	0.35	3.54	25
1500.M25	M25x1.5	1.00	0.39 - 0.67	1.18	0.39	4.72	20
1500.M32	M32x1.5	1.28	0.51 - 0.83	1.42	0.39	5.51	10

Add to Ref: N for Black

Pg thread DIN 40 430

Type Light Grey	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	C in.	L max in.	Quantity
1500.07	Pg 7	0.50	0.14 - 0.28	0.59	0.31	2.24	100
1500.09	Pg 9	0.61	0.20 - 0.31	0.75	0.31	2.68	100
1500.11	Pg11	0.74	0.20 - 0.39	0.87	0.31	3.15	50
1500.13	Pg13.5	0.81	0.28 - 0.47	0.94	0.39	3.54	50
1500.16	Pg16	0.89	0.39 - 0.55	1.06	0.39	3.94	25
1500.21	Pg21	1.12	0.51 - 0.71	1.30	0.47	4.41	20

Add to Ref: N for Black

BSP thread ISO 228/1

Type Light Grey	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	C in.	L max in.	Quantity
1500.14	G1/4"	0.53	0.12 - 0.26	0.59	0.31	2.24	100
1500.38	G3/8"	0.67	0.16 - 0.31	0.75	0.35	2.68	100
1500.12	G1/2"	0.85	0.28 - 0.47	0.94	0.39	3.54	50
1500.34	G3/4"	1.06	0.51 - 0.71	1.30	0.47	4.41	20

Add to Ref: N for Black

MAXIBLOCK ATEX and UKEX CABLE GLANDS

Polyamide PA6.6

4900

MAXIblock®

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 62444

Type Light Grey	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	C in.	L min-max in.	Quantity
4900.M12	M12x1.5	0.48	0.14 - 0.26	0.59	0.31	0.71 - 0.87	100
4900.M16	M16x1.5	0.64	0.26 - 0.39	0.75	0.31	0.87 - 1.06	100
4900.M20	M20x1.5	0.81	0.35 - 0.51	0.98	0.35	0.94 - 1.18	100
4900.M25	M25x1.5	1.00	0.43 - 0.67	1.18	0.39	1.10 - 1.54	50
4900.M32	M32x1.5	1.28	0.63 - 0.83	1.42	0.39	1.30 - 1.73	25
4900.M40	M40x1.5	1.59	0.83 - 1.10	1.81	0.39	1.42 - 1.77	15
4900.M50	M50x1.5	1.99	1.06 - 1.38	2.17	0.47	1.69 - 2.05	10
4900.M63	M63x1.5	2.52	1.38 - 1.65	2.60	0.47	1.77 - 2.17	5

extended thread

Type Light Grey	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	C in.	L min-max in.	Quantity
4901.M12	M12x1.5	0.48	0.14 - 0.26	0.59	0.59	0.71 - 0.87	100
4901.M16	M16x1.5	0.64	0.26 - 0.39	0.75	0.59	0.87 - 1.06	100
4901.M20	M20x1.5	0.81	0.35 - 0.51	0.98	0.59	0.94 - 1.18	50
4901.M25	M25x1.5	1.00	0.43 - 0.67	1.18	0.59	1.18 - 1.61	50
4901.M32	M32x1.5	1.28	0.63 - 0.83	1.42	0.59	1.30 - 1.73	25
4901.M40	M40x1.5	1.59	0.83 - 1.10	1.81	0.71	1.42 - 1.77	15
4901.M50	M50x1.5	1.99	1.06 - 1.38	2.17	0.71	1.69 - 2.05	10
4901.M63	M63x1.5	2.52	1.38 - 1.65	2.60	0.71	1.77 - 2.17	5

Pg thread DIN 40 430

Type Light Grey	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	C in.	L min-max in.	Quantity
4900.07	Pg 7	0.50	0.14 - 0.26	0.59	0.31	0.71 - 0.87	100
4900.09	Pg 9	0.61	0.26 - 0.31	0.75	0.31	0.87 - 1.02	100
4900.11	Pg11	0.74	0.31 - 0.39	0.87	0.31	0.91 - 1.10	100
4900.13	Pg13.5	0.81	0.35 - 0.47	0.94	0.35	0.94 - 1.14	100
4900.16	Pg16	0.89	0.39 - 0.55	1.06	0.39	1.02 - 1.22	50
4900.21	Pg21	1.12	0.55 - 0.71	1.30	0.47	1.18 - 1.38	50
4900.29	Pg29	1.46	0.71 - 0.87	1.65	0.47	1.30 - 1.54	25
4900.36	Pg36	1.86	0.87 - 1.26	2.09	0.55	1.65 - 1.93	10
4900.42	Pg42	2.13	1.10 - 1.50	2.36	0.55	1.65 - 1.97	5
4900.48	Pg48	2.36	1.50 - 1.77	2.60	0.59	1.77 - 2.17	5

extended thread

Type Light Grey	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	C in.	L min-max in.	Quantity
4901.07	Pg 7	0.50	0.14 - 0.26	0.59	0.59	0.71 - 0.87	100
4901.09	Pg 9	0.61	0.26 - 0.31	0.75	0.59	0.87 - 1.02	100
4901.11	Pg11	0.74	0.31 - 0.39	0.87	0.59	0.91 - 1.10	100
4901.13	Pg13.5	0.81	0.35 - 0.47	0.94	0.59	0.94 - 1.14	100
4901.16	Pg16	0.89	0.39 - 0.55	1.06	0.59	1.02 - 1.22	50
4901.21	Pg21	1.12	0.55 - 0.71	1.30	0.59	1.18 - 1.38	50
4901.29	Pg29	1.46	0.71 - 0.87	1.65	0.59	1.30 - 1.54	25
4901.36	Pg36	1.86	0.87 - 1.26	2.09	0.71	1.65 - 1.93	10
4901.42	Pg42	2.13	1.10 - 1.50	2.36	0.71	1.65 - 1.97	5
4901.48	Pg48	2.36	1.50 - 1.77	2.60	0.71	1.77 - 2.17	5

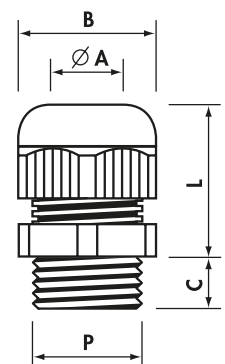


UKCA 1691 CE 0051 Ex II 2 GD

Certificate No IMQ 10 ATEX 028 X
Certificate No EMA 21 UKEX 0084 X



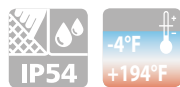
Material: POLYAMIDE PA6.6
self-extinguishing class V2 (UL 94)
Safety level:
Ex eb IIC Gb/Ex tb IIIC Db
according to:
EN 60079-0
EN 60079-7
EN 60079-7/A1
EN 60079-31
Areas of utilisation: 1 & 2, 21 & 22
Temperature range:
-4°F to +167°F (continuous)
Sealing ring: NEOPRENE®
Protection: IP 65
Color: RAL 7035 light grey



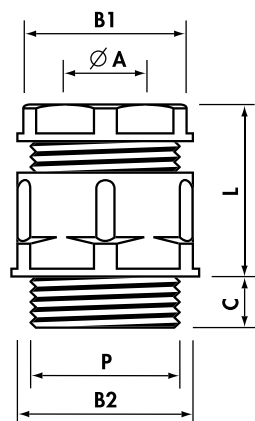
1700
1400

COMPRESSION CABLE GLANDS

Polyamide PA6



Material: POLYAMIDE PA6 / PA6.6**
self-extinguishing class V0 / V2** (UL 94)
Temperature range:
-4°F to +194°F (continuous)
Sealing ring: PVC 50 sh A
Protection: IP 54
Color: RAL 7035 light grey,
RAL 9005 black



Pg thread DIN 40 430 - Dimensions DIN 46 320

Type Light Grey	P	Fixing Hole Ø in.	Ø A min-max in.	B1 Spanner Head in.	B2 Spanner Body in.	C in.	L min-max in.	Quantity Box/Bag
1709	Pg 7	0.50	0.22 - 0.28	0.59	0.63	0.31	0.63 - 0.79	300/100
*1700	Pg 9	0.61	0.26 - 0.33	0.67	0.79	0.31	0.75 - 0.87	200/100
*1701	Pg11	0.74	0.31 - 0.39	0.75	0.87	0.31	0.83 - 0.98	100/100
*1702**	Pg13.5	0.81	0.31 - 0.43	0.83	0.94	0.35	0.87 - 1.02	100/100
1703	Pg16	0.89	0.43 - 0.55	0.91	1.06	0.39	0.94 - 1.30	50/50
1704	Pg21	1.12	0.57 - 0.71	1.18	1.30	0.43	0.98 - 1.26	50/25
1705	Pg29	1.46	0.75 - 1.02	1.57	1.65	0.43	1.06 - 1.26	20/10
1706	Pg36	1.86	1.18 - 1.34	1.97	2.09	0.55	1.30 - 1.65	10/10
1707	Pg42	2.13	1.18 - 1.50	2.17	2.36	0.51	1.46 - 1.89	5/5
1708	Pg48	2.36	1.50 - 1.73	2.36	2.56	0.57	1.46 - 1.89	5/5

*Add to Ref: N for Black

BSP thread ISO 228/1

Type Light Grey	P	Fixing Hole Ø in.	Ø A min-max in.	B1 Spanner Head in.	B2 Spanner Body in.	C in.	L min-max in.	Quantity Box/Bag
1400	G1/4"	0.53	0.22 - 0.28	0.59	0.63	0.31	0.63 - 0.79	300/100
*1401	G3/8"	0.67	0.26 - 0.33	0.67	0.79	0.31	0.75 - 0.87	200/100
*1401B	G3/8"	0.67	0.31 - 0.39	0.75	0.87	0.31	0.71 - 0.94	100/100
*1402**	G1/2"	0.85	0.31 - 0.43	0.83	0.94	0.35	0.87 - 1.02	100/100
1403	G5/8"	0.93	0.43 - 0.55	0.91	1.06	0.39	0.94 - 1.30	50/50
1404	G3/4"	1.06	0.57 - 0.71	1.18	1.30	0.43	0.98 - 1.26	50/25
1405	G1"	1.34	0.67 - 0.87	1.34	1.50	0.45	1.06 - 1.38	20/10
1407	G1"1/2	1.89	1.18 - 1.34	1.97	2.09	0.55	1.30 - 1.65	10/10
1408	G2"	2.36	1.50 - 1.73	2.36	2.56	0.57	1.46 - 1.89	5/5

*Add to Ref: N for Black

Metric thread M 1.5 pitch CEI EN 60423

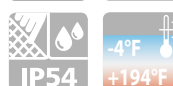
Type Light Grey	P	Fixing Hole Ø in.	Ø A min-max in.	B1 Spanner Head in.	B2 Spanner Body in.	C in.	L min-max in.	Quantity
1730M20**	M20x1.5	0.81	0.31 - 0.43	0.83	0.94	0.35	0.87 - 1.02	100

Add to Ref: N for Black

COMPRESSION CABLE GLANDS

Polyamide PA6

1700T



**

special Internal blanking disc: PVC 50 sh

Pg thread DIN 40 430 - Dimensions DIN 46 320

Type Light Grey	P	Fixing Hole Ø in.	Ø A min-max in.	B1 Spanner Head in.	B2 Spanner Body in.	C in.	L min-max in.	Quantity Box/Bag
*1700T	Pg 9	0.61	0.26 - 0.33	0.67	0.79	0.31	0.75 - 0.87	200/100
*1701T	Pg11	0.74	0.31 - 0.39	0.75	0.87	0.31	0.83 - 0.98	100/100
1702T**	Pg13.5	0.81	0.31 - 0.43	0.83	0.94	0.35	0.87 - 1.02	100/100

*Add to Ref: N for Black

reduced cable entry

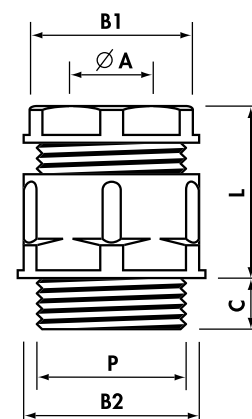
Sealing ring: CHLOROPRENE, concentric, multi-sector

Pg thread DIN 40 430 - Dimensions DIN 46 320

Type Light Grey	P	Fixing Hole Ø in.	Ø A min-max in.	B1 Spanner Head in.	B2 Spanner Body in.	C in.	L min-max in.	Quantity
1702CONC**	Pg13.5	0.81	0.22 - 0.51	0.83	0.94	0.35	0.87 - 1.02	100

Add to Ref: N for Black

Material: POLYAMIDE PA6 / PA6.6**
self-extinguishing class V0 / V2** (UL 94)
Temperature range:
-4°F to +194°F (continuous)
Protection: IP 54
Color: RAL 7035 light grey,
RAL 9005 black



POLYSTYRENE CABLE GLANDS

Polystyrene PS

1700P



Sealing ring: PVC 50 sh A - Protection: IP 54

Pg thread DIN 40 430 - Dimensions DIN 46 320

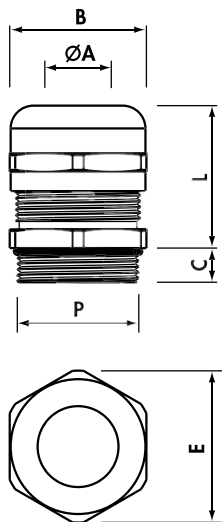
Type Light Grey	P	Fixing Hole Ø in.	Ø A min-max in.	B1 Spanner Head in.	B2 Spanner Body in.	C in.	L min-max in.	Quantity Box/Bag
1700P	Pg9	0.61	0.28 - 0.33	0.67	0.79	0.31	0.75 - 0.87	200/100
*1701P	Pg11	0.74	0.31 - 0.39	0.75	0.87	0.31	0.83 - 0.98	100/100
*1702P	Pg13.5	0.81	0.31 - 0.43	0.83	0.94	0.35	0.87 - 1.02	100/100
1703P	Pg16	0.89	0.43 - 0.55	0.91	1.06	0.39	0.94 - 1.30	50/50
1704P	Pg21	1.12	0.57 - 0.71	1.18	1.30	0.43	0.98 - 1.26	50/25

*Add to Ref: N for Black

Material: POLYSTYRENE PS
Temperature range:
-4°F to +140°F (continuous)
Color: RAL 7035 light grey,
RAL 9005 black



Material: NICKEL PLATED BRASS
(CuZn 40 Pb 3)
Sealing-ring: NEOPRENE®
Cable grip insert: POLYAMIDE PA6.6
O-Ring: NITRILE 70 sh A (factory fitted)
Protection: IP 68
Temperature range:
-13°F to +212°F (continuous)



standard

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 62444

Type Nickel Plated Brass	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	E in.	C in.	L min-max in.	Quantity
2900.M12N	M12x1.5	0.48	0.12 - 0.28	0.63	0.71	0.26	0.63 - 0.79	100
2900.M16N	M16x1.5	0.64	0.18 - 0.39	0.79	0.91	0.28	0.79 - 0.98	100
2900.M20N	M20x1.5	0.81	0.28 - 0.51	0.94	1.06	0.31	0.79 - 1.06	50
2900.M25N	M25x1.5	1.00	0.39 - 0.67	1.14	1.26	0.31	0.94 - 1.18	50
2900.M32N	M32x1.5	1.28	0.43 - 0.83	1.42	1.54	0.35	1.06 - 1.34	25
2900.M40N	M40x1.5	1.59	0.75 - 1.10	1.77	1.97	0.35	1.34 - 1.65	10
2900.M50N	M50x1.5	1.99	1.02 - 1.38	2.13	2.36	0.39	1.38 - 1.69	8
2900.M63N	M63x1.5	2.52	1.34 - 1.77	2.64	2.87	0.59	1.57 - 2.05	5

reduced cable entry

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 62444

Type Nickel Plated Brass	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	E in.	C in.	L min-max in.	Quantity
2910.M12N	M12x1.5	0.48	0.04 - 0.20	0.63	0.71	0.26	0.63 - 0.79	100
2910.M16N	M16x1.5	0.64	0.10 - 0.28	0.79	0.91	0.28	0.79 - 0.98	100
2910.M20N	M20x1.5	0.81	0.20 - 0.39	0.94	1.06	0.31	0.79 - 1.06	50
2910.M25N	M25x1.5	1.00	0.24 - 0.51	1.14	1.26	0.31	0.94 - 1.18	50
2910.M32N	M32x1.5	1.28	0.28 - 0.55	1.42	1.54	0.35	1.06 - 1.34	25
2910.M40N	M40x1.5	1.59	0.51 - 0.91	1.77	1.97	0.35	1.34 - 1.65	10
2910.M50N	M50x1.5	1.99	0.79 - 1.14	2.13	2.36	0.39	1.38 - 1.69	8
2910.M63N	M63x1.5	2.52	1.06 - 1.54	2.64	2.87	0.59	1.57 - 2.05	5

MAXIBRASS CABLE GLANDS

2900

Nickel Plated Brass

MAXIbrass®



extended thread

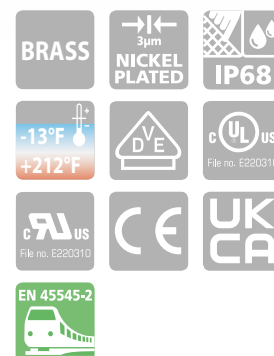
Metric thread M 1.5 pitch CEI EN 60423 CEI EN 62444

Type Nickel Plated Brass	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	E in.	C in.	L min-max in.	Quantity
2901.M12N	M12x1.5	0.48	0.12 - 0.28	0.63	0.71	0.47	0.63 - 0.79	100
2901.M16N	M16x1.5	0.64	0.18 - 0.39	0.79	0.91	0.47	0.79 - 0.98	100
2901.M20N	M20x1.5	0.81	0.28 - 0.51	0.94	1.06	0.47	0.79 - 1.06	50
2901.M25N	M25x1.5	1.00	0.39 - 0.67	1.14	1.26	0.47	0.94 - 1.18	50
2901.M32N	M32x1.5	1.28	0.43 - 0.83	1.42	1.54	0.59	1.06 - 1.34	25
2901.M40N	M40x1.5	1.59	0.75 - 1.10	1.77	1.97	0.59	1.34 - 1.65	10
2901.M50N	M50x1.5	1.99	1.02 - 1.38	2.13	2.36	0.59	1.38 - 1.69	8

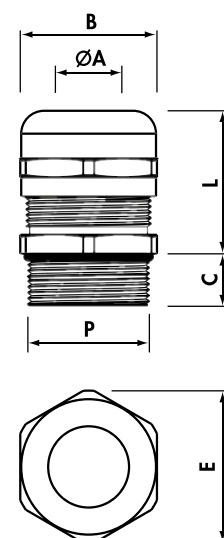
extended thread and reduced cable entry

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 62444

Type Nickel Plated Brass	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	E in.	C in.	L min-max in.	Quantity
2911.M12N	M12x1.5	0.48	0.04 - 0.20	0.63	0.71	0.47	0.63 - 0.79	100
2911.M16N	M16x1.5	0.64	0.10 - 0.28	0.79	0.91	0.47	0.79 - 0.98	100
2911.M20N	M20x1.5	0.81	0.20 - 0.39	0.94	1.06	0.47	0.79 - 1.06	50
2911.M25N	M25x1.5	1.00	0.24 - 0.51	1.14	1.26	0.47	0.94 - 1.18	50
2911.M32N	M32x1.5	1.28	0.28 - 0.55	1.42	1.54	0.59	1.06 - 1.34	25
2911.M40N	M40x1.5	1.59	0.51 - 0.91	1.77	1.97	0.59	1.34 - 1.65	10
2911.M50N	M50x1.5	1.99	0.79 - 1.14	2.13	2.36	0.59	1.38 - 1.69	8

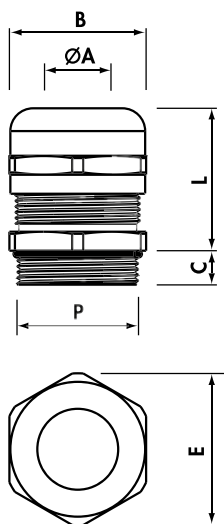


Material: NICKEL PLATED BRASS
(CuZn 40 Pb 3)
Sealing-ring: NEOPRENE®
Cable grip insert: POLYAMIDE PA6.6
O-Ring: NITRILE 70 sh A (factory fit-
ted)
Protection: IP 68
Temperature range:
-13°F to +212°F (continuous)





Material: NICKEL PLATED BRASS
(CuZn 40 Pb 3)
Sealing-ring: NEOPRENE®
Cable grip insert: POLYAMIDE PA6.6
O-Ring: NITRILE 70 sh A (factory fitted)
Protection: IP 68
Temperature range:
-13°F to +212°F (continuous)



standard

Pg thread DIN 40 430

Type Nickel Plated Brass	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	E in.	C in.	L min-max in.	Quantity
2900.07N	Pg 7	0.50	0.12 - 0.28	0.63	0.71	0.20	0.63 - 0.79	100
2900.09N	Pg 9	0.61	0.16 - 0.31	0.67	0.75	0.24	0.67 - 0.91	100
2900.11N	Pg11	0.74	0.18 - 0.39	0.79	0.91	0.24	0.79 - 0.98	100
2900.13N	Pg13.5	0.81	0.20 - 0.47	0.87	0.98	0.26	0.79 - 1.02	50
2900.16N	Pg16	0.89	0.28 - 0.51	0.94	1.06	0.26	0.79 - 1.06	50
2900.21N	Pg21	1.12	0.39 - 0.67	1.18	1.30	0.28	0.94 - 1.18	50
2900.29N	Pg29	1.46	0.67 - 0.98	1.57	1.69	0.31	1.18 - 1.46	25
2900.36N	Pg36	1.86	0.79 - 1.26	1.97	2.13	0.31	1.50 - 1.89	10
2900.42N	Pg42	2.13	1.10 - 1.50	2.24	2.48	0.39	1.54 - 1.89	5
2900.48N	Pg48	2.36	1.34 - 1.77	2.64	2.87	0.59	1.57 - 2.05	5

reduced cable entry

Pg thread DIN 40 430

Type Nickel Plated Brass	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	E in.	C in.	L min-max in.	Quantity
2910.07N	Pg 7	0.50	0.04 - 0.20	0.63	0.71	0.20	0.63 - 0.79	100
2910.09N	Pg 9	0.61	0.08 - 0.24	0.67	0.75	0.24	0.67 - 0.91	100
2910.11N	Pg11	0.74	0.10 - 0.28	0.79	0.91	0.24	0.79 - 0.98	100
2910.13N	Pg13.5	0.81	0.16 - 0.39	0.87	0.98	0.26	0.79 - 1.02	50
2910.16N	Pg16	0.89	0.20 - 0.39	0.94	1.06	0.26	0.79 - 1.06	50
2910.21N	Pg21	1.12	0.24 - 0.51	1.18	1.30	0.28	0.94 - 1.18	50
2910.29N	Pg29	1.46	0.43 - 0.79	1.57	1.69	0.31	1.18 - 1.46	25
2910.36N	Pg36	1.86	0.71 - 1.02	1.97	2.13	0.31	1.50 - 1.89	10
2910.42N	Pg42	2.13	0.94 - 1.22	2.24	2.48	0.39	1.54 - 1.89	5
2910.48N	Pg48	2.36	1.06 - 1.54	2.64	2.87	0.59	1.57 - 2.05	5

extended thread

Pg thread DIN 40 430

Type Nickel Plated Brass	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	E in.	C in.	L min-max in.	Quantity
2901.07N	Pg 7	0.50	0.12 - 0.28	0.63	0.71	0.47	0.63 - 0.79	100
2901.09N	Pg 9	0.61	0.16 - 0.31	0.67	0.75	0.47	0.67 - 0.91	100
2901.11N	Pg11	0.74	0.18 - 0.39	0.79	0.91	0.47	0.79 - 0.98	100
2901.13N	Pg13.5	0.81	0.20 - 0.47	0.87	0.98	0.47	0.79 - 1.02	50
2901.16N	Pg16	0.89	0.28 - 0.51	0.94	1.06	0.47	0.79 - 1.06	50
2901.21N	Pg21	1.12	0.39 - 0.67	1.18	1.30	0.47	0.94 - 1.18	50
2901.29N	Pg29	1.46	0.67 - 0.98	1.57	1.69	0.59	1.18 - 1.46	25
2901.36N	Pg36	1.86	0.79 - 1.26	1.97	2.13	0.59	1.50 - 1.89	10
2901.42N	Pg42	2.13	1.10 - 1.50	2.24	2.48	0.59	1.54 - 1.89	5

MAXIBRASS CABLE GLANDS

Nickel Plated Brass

MAXIbrass®

extended thread and reduced cable entry

Pg thread DIN 40 430

Type Nickel Plated Brass	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	E in.	C in.	L min-max in.	Quantity
2911.07N	Pg 7	0.50	0.04 - 0.20	0.63	0.71	0.47	0.63 - 0.79	100
2911.09N	Pg 9	0.61	0.08 - 0.24	0.67	0.75	0.47	0.67 - 0.91	100
2911.11N	Pg11	0.74	0.10 - 0.28	0.79	0.91	0.47	0.79 - 0.98	100
2911.13N	Pg13.5	0.81	0.16 - 0.39	0.87	0.98	0.47	0.79 - 1.02	50
2911.16N	Pg16	0.89	0.20 - 0.39	0.94	1.06	0.47	0.79 - 1.06	100
2911.21N	Pg21	1.12	0.24 - 0.51	1.18	1.30	0.47	0.94 - 1.18	50
2911.29N	Pg29	1.46	0.43 - 0.79	1.57	1.69	0.59	1.18 - 1.46	25
2911.36N	Pg36	1.86	0.71 - 1.02	1.97	2.13	0.59	1.50 - 1.89	10
2911.42N	Pg42	2.13	0.94 - 1.22	2.24	2.48	0.59	1.54 - 1.89	5



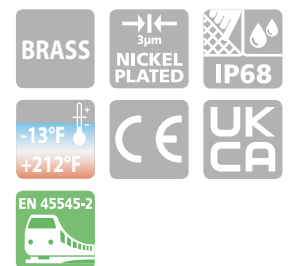
MAXIBRASS CABLE GLANDS

Nickel Plated Brass

standard, factory fitted with Polyethylene foam dustproof discs

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 62444

Type Nickel Plated Brass	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	E in.	C in.	L min-max in.	Quantity
2900DP.M12N	M12x1.5	0.48	0.12 - 0.28	0.63	0.71	0.26	0.63 - 0.79	100
2900DP.M16N	M16x1.5	0.64	0.18 - 0.39	0.79	0.91	0.28	0.79 - 0.98	100
2900DP.M20N	M20x1.5	0.81	0.28 - 0.51	0.94	1.06	0.31	0.79 - 1.06	50
2900DP.M25N	M25x1.5	1.00	0.39 - 0.67	1.14	1.26	0.31	0.94 - 1.18	50
2900DP.M32N	M32x1.5	1.28	0.43 - 0.83	1.42	1.54	0.35	1.06 - 1.34	25
2900DP.M40N	M40x1.5	1.59	0.75 - 1.10	1.77	1.97	0.35	1.34 - 1.65	10
2900DP.M50N	M50x1.5	1.99	1.02 - 1.38	2.13	2.36	0.39	1.38 - 1.69	8
2900DP.M63N	M63x1.5	2.52	1.34 - 1.77	2.64	2.87	0.59	1.57 - 2.05	5



Pg thread DIN 40 430

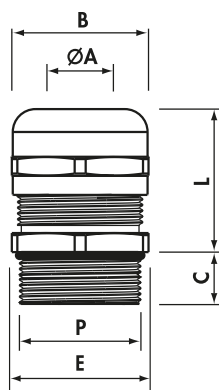
Type Nickel Plated Brass	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	E in.	C in.	L min-max in.	Quantity
2900DP.07N	Pg 7	0.50	0.12 - 0.28	0.63	0.71	0.20	0.63 - 0.79	100
2900DP.09N	Pg 9	0.61	0.16 - 0.31	0.67	0.75	0.24	0.67 - 0.91	100
2900DP.11N	Pg11	0.74	0.18 - 0.39	0.79	0.91	0.24	0.79 - 0.98	100
2900DP.13N	Pg13.5	0.81	0.20 - 0.47	0.87	0.98	0.26	0.79 - 1.02	50
2900DP.16N	Pg16	0.89	0.28 - 0.51	0.94	1.06	0.26	0.79 - 1.06	50
2900DP.21N	Pg21	1.12	0.39 - 0.67	1.18	1.30	0.28	0.94 - 1.18	50
2900DP.29N	Pg29	1.46	0.67 - 0.98	1.57	1.69	0.31	1.18 - 1.46	25
2900DP.36N	Pg36	1.86	0.79 - 1.26	1.97	2.13	0.31	1.50 - 1.89	10
2900DP.42N	Pg42	2.13	1.10 - 1.50	2.24	2.48	0.39	1.54 - 1.89	5
2900DP.48N	Pg48	2.36	1.34 - 1.77	2.64	2.87	0.59	1.57 - 2.05	5

Material: NICKEL PLATED BRASS
(CuZn 40 Pb 3)
Sealing-ring: NEOPRENE®
Cable grip insert: POLYAMIDE PA6.6
O-Ring: NITRILE 70 sh A (factory fitted)
Protection: IP 68
Dustproof discs: 0.079 in. thick
Polyethylene foam
Temperature range:
-13°F to +212°F (continuous)

5900



Material: NICKEL PLATED BRASS
Sealing-ring: NEOPRENE®
Cable grip insert: POLYAMIDE PA6.6
O-Ring: NITRILE 70 sh A (factory fitted)
Temperature range:
-13°F to +167°F (continuous)
Protection: IP 65



20M3



Material: NICKEL PLATED BRASS
(CuZn 40 Pb 3)
Sealing-ring: Chloroprene (CR)
Cable grip insert: PA6.6
O-Ring: (NBR) (factory fitted)
Protection: IP 68,5
Temperature range:
-22°F to +248°F(continuous)

MAXIBRASS ATEX and UKEX CABLE GLANDS

Nickel Plated Brass



Certificate No IMQ 10 ATEX 028 X
Certificate No EMA 21 UKEX 0084 X

Safety level: Ex eb IIC Gb/Ex tb IIIC Db
according to: EN 60079-0
EN 60079-7
EN 60079-7/A1; EN 60079-31
Areas of utilisation: 1 & 2, 21 & 22

MAXIbrass®

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 62444

Type Nickel Plated Brass	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	E in.	C in.	L min-max in.	Quantity
5900.M12N	M12x1.5	0.48	0.12 - 0.26	0.63	0.71	0.26	0.63 - 0.79	100
5900.M16N	M16x1.5	0.64	0.26 - 0.39	0.79	0.91	0.28	0.79 - 0.98	100
5900.M20N	M20x1.5	0.81	0.39 - 0.51	0.94	1.06	0.31	0.79 - 1.06	50
5900.M25N	M25x1.5	1.00	0.43 - 0.67	1.14	1.26	0.31	0.94 - 1.18	50
5900.M32N	M32x1.5	1.28	0.55 - 0.83	1.42	1.54	0.35	1.06 - 1.34	25
5900.M40N	M40x1.5	1.59	0.83 - 1.06	1.77	1.97	0.35	1.34 - 1.65	10
5900.M50N	M50x1.5	1.99	1.02 - 1.38	2.13	2.36	0.39	1.38 - 1.69	8
5900.M63N	M63x1.5	2.52	1.38 - 1.65	2.64	2.87	0.59	1.57 - 2.05	5

extended thread

Type Nickel Plated Brass	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	E in.	C in.	L min-max in.	Quantity
5901.M12N	M12x1.5	0.48	0.12 - 0.26	0.63	0.71	0.47	0.63 - 0.79	100
5901.M16N	M16x1.5	0.64	0.26 - 0.39	0.79	0.91	0.47	0.79 - 0.98	100
5901.M20N	M20x1.5	0.81	0.39 - 0.51	0.94	1.06	0.47	0.79 - 1.06	50
5901.M25N	M25x1.5	1.00	0.43 - 0.67	1.14	1.26	0.47	0.94 - 1.18	50
5901.M32N	M32x1.5	1.28	0.55 - 0.83	1.42	1.54	0.47	1.06 - 1.34	25
5901.M40N	M40x1.5	1.59	0.83 - 1.06	1.77	1.97	0.47	1.34 - 1.65	10
5901.M50N	M50x1.5	1.99	1.02 - 1.38	2.13	2.36	0.47	1.38 - 1.69	8

EMC CABLE GLANDS

Nickel Plated Brass

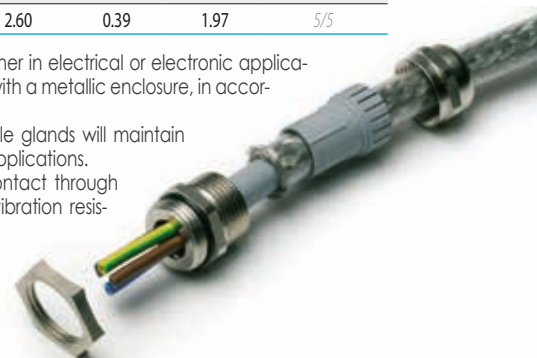
Metric thread M 1.5 pitch CEI EN 60423 CEI EN 62444

Type Nickel Plated Brass	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	C in.	L max in.	Quantity Box/Bag
20M3M1261N	M12x1.5	0.48	0.12 - 0.26	0.55	0.20	0.87	300/100
20M3M1661N	M16x1.5	0.64	0.22 - 0.39	0.67	0.22	0.96	200/100
20M3M2061N	M20x1.5	0.81	0.31 - 0.51	0.87	0.24	1.06	100/50
20M3M2561N	M25x1.5	1.00	0.43 - 0.71	1.18	0.28	1.22	50/25
20M3M3261N	M32x1.5	1.28	0.59 - 0.83	1.34	0.31	1.30	30/10
20M3M4061N	M40x1.5	1.59	0.75 - 1.06	1.73	0.31	1.57	20/10
20M3M5061N	M50x1.5	1.99	1.02 - 1.38	2.17	0.35	1.89	10/5
20M3M6361N	M63x1.5	2.52	1.54 - 1.89	2.60	0.39	1.97	5/5

EMC Cable glands and locknuts are designed to work together in electrical or electronic applications where a metallic cable shielding must be equipotential with a metallic enclosure, in accordance with the EMC directive.

Offering IP68 ingress protection at 5 bar pressure, EMC Cable glands will maintain shielding from electromagnetic disturbance in underground applications.

EMC locknuts have serrated teeth to maintain electrical contact through paint or surface coatings, a feature which also enhances vibration resistance.



COMPRESSION CABLE GLANDS

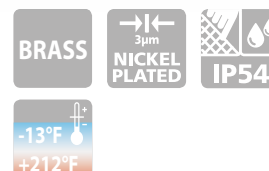
Nickel Plated Brass

2003
2002
2001

Sealing ring: RUBBER 55sh A

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 62444

Type Nickel Plated Brass	P	Fixing Hole Ø in.	Ø A min-max in.	B1 Spanner Head in.	B2 Spanner Body in.	C in.	L min-max in.	Quantity Box/Bag
2003M1221N	M12x1.5	0.48	0.16 - 0.24	0.51	0.55	0.20	0.51 - 0.63	500/100
2003M1621N	M16x1.5	0.64	0.31 - 0.39	0.59	0.71	0.20	0.55 - 0.67	200/100
2003M2021N	M20x1.5	0.81	0.39 - 0.47	0.79	0.87	0.24	0.63 - 0.75	150/50
2003M2521N	M25x1.5	1.00	0.67 - 0.75	1.10	1.18	0.28	0.75 - 0.91	50/50
2003M3221N	M32x1.5	1.28	1.02 - 1.10	1.46	1.54	0.31	0.83 - 0.98	100/50
2003M4021N	M40x1.5	1.59	1.30 - 1.38	1.85	1.97	0.31	0.94 - 1.18	20/20
2003M5021N	M50x1.5	1.99	1.54 - 1.61	2.13	2.24	0.35	1.10 - 1.34	10/5
2003M6321N	M63x1.5	2.52	1.69 - 1.77	2.36	2.60 / 2.68	0.39	1.18 - 1.42	10/5



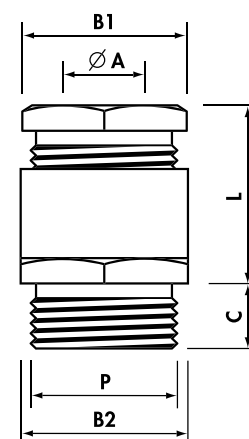
Sealing ring: RUBBER 55sh A

Pg thread DIN 40 430 - Dimensions DIN 46 320

Type Nickel Plated Brass	P	Fixing Hole Ø in.	Ø A min-max in.	B1 Spanner Head in.	B2 Spanner Body in.	C in.	L min-max in.	Quantity Box/Bag
200200721N	Pg 7	0.50	0.20 - 0.28	0.51	0.55	0.20	0.51 - 0.63	400/100
200200921N	Pg 9	0.61	0.31 - 0.39	0.59	0.67	0.24	0.55 - 0.67	300/100
200201121N	Pg11	0.74	0.31 - 0.39	0.71	0.79	0.24	0.55 - 0.71	200/50
200201321N	Pg13.5	0.81	0.39 - 0.47	0.79	0.87	0.26	0.63 - 0.75	100/50
200201621N	Pg16	0.89	0.47 - 0.55	0.87	0.94	0.26	0.67 - 0.79	50/50
200202121N	Pg21	1.12	0.67 - 0.75	1.10	1.18	0.28	0.75 - 0.91	50/50
200202921N	Pg29	1.46	1.02 - 1.10	1.46	1.57	0.31	0.83 - 0.98	15/15
200203621N*	Pg36	1.86	1.30 - 1.38	1.85	1.97	0.35	0.94 - 1.18	10/10
200204221N	Pg42	2.13	1.54 - 1.61	2.13	2.24	0.39	1.10 - 1.34	10/10
200204821N*	Pg48	2.36	1.69 - 1.77	2.36	2.52	0.39	1.42 - 1.77	10/10

* Double sealing ring

Material: NICKEL PLATED BRASS
(CuZn 40 Pb 3)
Protection: IP 54



Sealing ring: PVC 50 sh A

BSP thread ISO 228/1

Type Nickel Plated Brass	P	Fixing Hole Ø in.	Ø A min-max in.	B1 Spanner Head in.	B2 Spanner Body in.	C in.	L min-max in.	Quantity Box/Bag
200101441N	G1/4"	0.53	0.22 - 0.28	0.51	0.59	0.26	0.55 - 0.67	400/100
207101441N	G1/4"	0.53	0.22 - 0.28	0.51	0.59**	0.26	0.55 - 0.67	400/100
200103841N	G3/8"	0.67	0.26 - 0.33	0.67	0.75	0.30	0.59 - 0.75	200/100
200101241N	G1/2"	0.85	0.31 - 0.43	0.83	0.91	0.31	0.67 - 0.91	100/100
200105841N	G5/8"	0.93	0.43 - 0.55	0.91	0.98	0.33	0.79 - 0.94	100/50
200103441N	G3/4"	1.06	0.57 - 0.69	1.06	1.14	0.35	0.79 - 1.02	50/50
200110041N	G1"	1.34	0.71 - 0.87	1.34	1.42	0.39	0.91 - 1.10	25/25
200111841N	G1 1/8	1.50	0.83 - 1.02	1.50	1.57	0.41	0.91 - 1.10	25/25
200111441N	G1 1/4	1.65	1.10 - 1.26	1.65	1.77	0.45	0.98 - 1.22	20/20
200111241N	G1 1/2	1.89	1.26 - 1.42	1.89	1.97	0.45	1.10 - 1.38	10/10
200120041N	G2"	2.36	1.50 - 1.65	2.36	2.52	0.53	1.22 - 1.46	10/10
• 200121221N*	G2 1/2	2.99	1.73 - 2.24	3.15	3.15	0.79	1.26 - 1.46	5/5
• 200130021N	G3"	3.50	2.64 - 2.72	3.74	3.74	0.79	1.65 - 2.05	5/5

• Sealing ring: Chloroprene

* Concentric sealing ring

** Cylindrical body without hexagonal key

7900 7900A

MAXINOX CABLE GLANDS

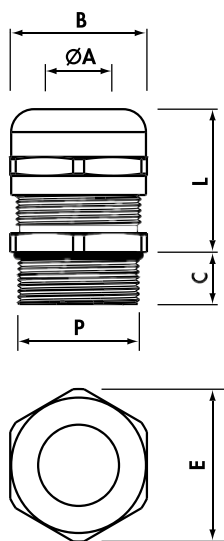
Stainless Steel AISI 303 (X8 CrNiS 18-9) - Stainless Steel AISI 316L (X2 CrNiMo 17-12-2)



MAXinox



Material:
STAINLESS STEEL AISI 303/316L
Sealing-ring: NEOPRENE®
Cable grip insert: POLYAMIDE PA6.6
O-Ring: NITRILE 70 sh A
(factory fitted)
Protection: IP 68
Temperature range:
-13°F to +212°F (continuous)



Stainless Steel AISI 303

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 62444

Stainless Steel AISI 303	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	E in.	C in.	L min-max in.	Quantity Box/Bag
7900.M12	M12x1.5	0.48	0.12 - 0.28	0.63	0.71	0.26	0.63 - 0.79	90/30
7900.M16	M16x1.5	0.64	0.18 - 0.39	0.79	0.91	0.28	0.79 - 0.98	120/30
7900.M20	M20x1.5	0.81	0.28 - 0.51	0.94	1.06	0.31	0.79 - 1.06	75/25
7900.M25	M25x1.5	1.00	0.39 - 0.67	1.14	1.26	0.31	0.94 - 1.18	40/20
7900.M32	M32x1.5	1.28	0.43 - 0.83	1.42	1.57	0.35	1.06 - 1.34	15
7900.M40	M40x1.5	1.59	0.75 - 1.10	1.77	1.97	0.35	1.34 - 1.65	15
7900.M50	M50x1.5	1.99	1.02 - 1.38	2.13	2.36	0.39	1.38 - 1.69	10
7900.M63	M63x1.5	2.52	1.34 - 1.77	2.64	2.91	0.59	1.57 - 2.05	5

Stainless Steel AISI 316L

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 62444

Stainless Steel AISI 316L	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	E in.	C in.	L min-max in.	Quantity Box/Bag
7900A.M12	M12x1.5	0.48	0.12 - 0.28	0.63	0.71	0.26	0.63 - 0.79	60/20
7900A.M16	M16x1.5	0.64	0.18 - 0.39	0.79	0.91	0.28	0.79 - 0.98	80/20
7900A.M20	M20x1.5	0.81	0.28 - 0.51	0.94	1.06	0.31	0.79 - 1.06	60/20
7900A.M25	M25x1.5	1.00	0.39 - 0.67	1.14	1.26	0.31	0.94 - 1.18	30/15
7900A.M32	M32x1.5	1.28	0.43 - 0.83	1.42	1.57	0.35	1.06 - 1.34	12
7900A.M40	M40x1.5	1.59	0.75 - 1.10	1.77	1.97	0.35	1.34 - 1.65	10
7900A.M50	M50x1.5	1.99	1.02 - 1.38	2.13	2.36	0.39	1.38 - 1.69	7
7900A.M63	M63x1.5	2.52	1.34 - 1.77	2.64	2.91	0.59	1.57 - 2.05	5

MAXIINOX CABLE GLANDS

Stainless Steel AISI 303 (X8 CrNiS 18-9) - Stainless Steel AISI 316L (X2 CrNiMo 17-12-2)

7900 7900A

MAXIinox



Stainless Steel AISI 303

Pg thread DIN 40 430

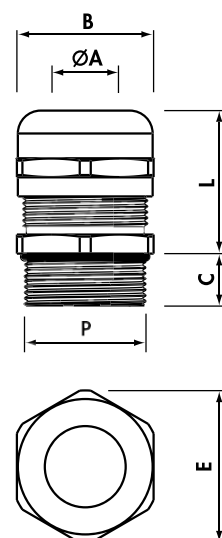
Stainless Steel AISI 303	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	E in.	C in.	L min-max in.	Quantity Box/Bag
7900.07	Pg 7	0.50	0.12 - 0.28	0.63	0.71	0.20	0.63 - 0.79	90/30
7900.09	Pg 9	0.61	0.16 - 0.31	0.67	0.75	0.24	0.67 - 0.91	90/30
7900.11	Pg11	0.74	0.18 - 0.39	0.79	0.91	0.24	0.79 - 0.98	60/30
7900.13	Pg13.5	0.81	0.20 - 0.47	0.87	0.98	0.26	0.79 - 1.02	90/30
7900.16	Pg16	0.89	0.28 - 0.51	0.94	1.06	0.26	0.79 - 1.06	60/30
7900.21	Pg21	1.12	0.39 - 0.67	1.18	1.30	0.28	0.94 - 1.18	40/20
7900.29	Pg29	1.46	0.67 - 0.98	1.57	1.77	0.31	1.18 - 1.46	30/15
7900.36	Pg36	1.86	0.79 - 1.26	1.97	2.17	0.31	1.50 - 1.89	10
7900.42	Pg42	2.13	1.10 - 1.50	2.24	2.48	0.39	1.42 - 1.81	5
7900.48	Pg48	2.36	1.34 - 1.77	2.64	2.91	0.59	1.57 - 2.05	5

Material:
STAINLESS STEEL AISI 303/316L
Sealing-ring: NEOPRENE®
Cable grip insert: POLYAMIDE PA6.6
O-Ring: NITRILE 70 sh A
(factory fitted)
Protection: IP 68
Temperature range:
-13°F to +212°F (continuous)

Stainless Steel AISI 316L

Pg thread DIN 40 430

Stainless Steel AISI 316L	P	Fixing Hole Ø in.	Ø A min-max in.	B Spanner in.	E in.	C in.	L min-max in.	Quantity Box/Bag
7900A.07	Pg 7	0.50	0.12 - 0.28	0.63	0.71	0.20	0.63 - 0.79	60/20
7900A.09	Pg 9	0.61	0.16 - 0.31	0.67	0.75	0.24	0.67 - 0.91	60/20
7900A.11	Pg11	0.74	0.18 - 0.39	0.79	0.91	0.24	0.79 - 0.98	100/20
7900A.13	Pg13.5	0.81	0.20 - 0.47	0.87	0.98	0.26	0.79 - 1.02	100/20
7900A.16	Pg16	0.89	0.28 - 0.51	0.94	1.06	0.26	0.79 - 1.06	40/20
7900A.21	Pg21	1.12	0.39 - 0.67	1.18	1.30	0.28	0.94 - 1.18	60/15
7900A.29	Pg29	1.46	0.67 - 0.98	1.57	1.77	0.31	1.18 - 1.46	20/10
7900A.36	Pg36	1.86	0.79 - 1.26	1.97	2.17	0.31	1.50 - 1.89	7
7900A.42	Pg42	2.13	1.10 - 1.50	2.24	2.48	0.39	1.42 - 1.81	5
7900A.48	Pg48	2.36	1.34 - 1.77	2.64	2.91	0.59	1.57 - 2.05	5



1143
1142
1141



LOCKNUTS WITH COLLAR

Polyamide PA6.6



Material: POLYAMIDE PA6.6
self-extinguishing class V2 (UL 94)
Temperature range:
-4°F to +194°F (continuous)
Color: RAL 7035 light grey,
RAL 9005 black,
RAL 7001 dark grey

Metric thread M 1.5 pitch CEI EN 60423

Type Light Grey	P	Ø A in.	B Spanner in.	H in.	Quantity Box/Bag
1143M12	M12x1.5	0.73	0.67	0.20	1,000/100
1143M16	M16x1.5	0.94	0.87	0.20	600/100
1143M20	M20x1.5	1.14	1.06	0.24	400/100
1143M25	M25x1.5	1.40	1.26	0.24	200/100
1143M32	M32x1.5	1.77	1.61	0.28	100/50
1143M40	M40x1.5	2.17	1.97	0.28	30
1143M50	M50x1.5	2.56	2.36	0.31	30
1143M63	M63x1.5	3.23	2.95	0.31	15

Add to Ref: N for Black, G for Dark Grey

Pg thread DIN 40 430 - Dimensions DIN 46 320

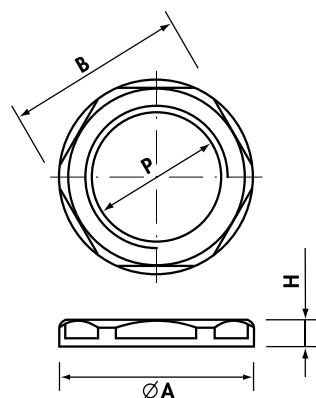
Type Light Grey	P	Ø A in.	B Spanner in.	H in.	Quantity Box/Bag
1142007	Pg 7	0.83	0.75	0.20	100
1142009	Pg 9	0.94	0.87	0.20	700/100
1142011	Pg11	1.02	0.94	0.20	500/100
1142013	Pg13.5	1.14	1.06	0.24	400/100
1142016	Pg16	1.30	1.18	0.24	300/100
1142021	Pg21	1.54	1.42	0.28	200/50
1142029	Pg29	1.97	1.81	0.28	50
1142036	Pg36	2.60	2.36	0.31	30
1142042	Pg42	2.87	2.56	0.31	25
1142048	Pg48	3.07	2.76	0.31	20

Add to Ref: N for Black, G for Dark Grey

BSP thread ISO 228/1

Type Light Grey	P	Ø A in.	B Spanner in.	H in.	Quantity Box/Bag
1141012	G1/2"	1.14	1.06	0.24	400/100
1141112	G1"1/2	2.60	2.36	0.31	30
1141200	G2"	3.07	2.76	0.31	20

Add to Ref: N for Black



LOCKNUTS WITHOUT COLLAR

Polyamide PA6.6

1112
1710
1410



Metric thread M 1.5 pitch CEI EN 60423

Type Light Grey	P	B Spanner in.	H in.	Quantity Box/Bag
1112	M12x1.5	0.67	0.20	1,000/100
1116	M16x1.5	0.87	0.20	700/100
1120	M20x1.5	1.06	0.24	400/100
1125	M25x1.5	1.26	0.24	300/100
1132	M32x1.5	1.61	0.28	50
1140	M40x1.5	1.97	0.28	30
1150	M50x1.5	2.36	0.31	30
1163	M63x1.5	2.95	0.31	15

Add to Ref: N for Black



Material: POLYAMIDE PA6.6
self-extinguishing class V2 (UL 94)
Temperature range:
-4°F to +194°F (continuous)
Color: RAL 7035 light grey,
RAL 9005 black

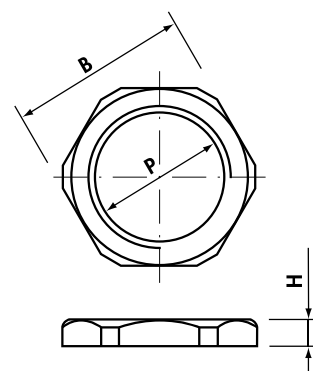
Pg thread DIN 40 430 - Dimensions DIN 46 320

Type Light Grey	P	B Spanner in.	H in.	Quantity Box/Bag
1719E17*	Pg 7	0.67	0.20	1,000/100
1719	Pg 7	0.75	0.20	100
1710	Pg 9	0.87	0.20	700/100
1711	Pg11	0.94	0.20	500/100
1712	Pg13.5	1.06	0.24	400/100
1713	Pg16	1.18	0.24	300/100
Δ1714E34*	Pg21	1.34	0.28	200/100
1714	Pg21	1.42	0.28	200/100
1715	Pg29	1.81	0.30	100/25

Add to Ref: N for Black

Δ Light Grey only

* Not DIN 46 320



BSP thread ISO 228/1

Type Light Grey	P	B Spanner in.	H in.	Quantity Box/Bag
1410	G1/4"	0.75	0.20	800/100
1411	G3/8"	0.91	0.24	600/100
1412	G1/2"	1.06	0.24	400/100
1414	G3/4"	1.34	0.28	200/100
1415	G1"	1.57	0.28	50

Add to Ref: N for Black

2033
2032
2031



LOCKNUTS

Nickel Plated Brass

Metric thread M 1.5 pitch CEI EN 60423

Type Nickel Plated Brass	P	B Spanner in.	H in.	Quantity Box/Bag
2033M12N	M12x1.5	0.63	0.11	2,000/100
2033M16N	M16x1.5	0.75	0.11	1,000/100
2033M20N	M20x1.5	0.94	0.12	600/100
2033M25N	M25x1.5	1.18	0.16	300/50
2033M32N	M32x1.5	1.42	0.16	250/25
2033M40N	M40x1.5	1.77	0.20	100/10
2033M50N	M50x1.5	2.36	0.20	80/10
2033M63N	M63x1.5	2.76	0.22	50/5

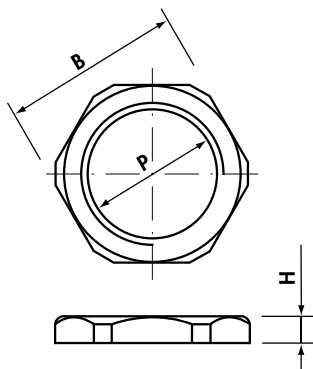
Pg thread DIN 40 430 - Dimensions DIN 46 320

Type Nickel Plated Brass	P	B Spanner in.	H in.	Quantity Box/Bag
2032007N	Pg 7	0.63*	0.11	1,500/100
2032009N	Pg 9	0.71	0.11	1,500/100
2032011N	Pg11	0.83	0.12	1,000/100
2032013N	Pg13.5	0.91	0.12	1,000/100
2032016N	Pg16	1.02	0.12	600/100
2032021N	Pg21	1.26	0.14	500/100
2032029N	Pg29	1.61	0.16	200/50
2032036N	Pg36	2.01	0.20	100/10
2032042N	Pg42	2.36	0.20	50/10
2032048N	Pg48	2.52	0.22	50/10

*Different dimension to DIN 46320

BSP thread ISO 228/1

Type Nickel Plated Brass	P	B Spanner in.	H in.	Quantity Box/Bag
2031014N	G1/4"	0.63	0.12	2,400/100
2031038N	G3/8"	0.75	0.12	1,000/100
2031012N	G1/2"	0.94	0.14	1,000/100
2031058N	G5/8"	1.02	0.16	500/50
2031034N	G3/4"	1.18	0.16	500/50
2031100N	G1"	1.46	0.16	250/25
2031118N	G1"1/8	1.61	0.18	100/25
2031114N	G1"1/4	1.77	0.18	200/20
2031112N	G1"1/2	2.05	0.22	100/20
2031200N	G2"	2.52	0.28	50/10
2031212N	G2"1/2	3.15	0.28	20/5
2031300N	G3"	3.74	0.31	20/5



EMC LOCKNUTS

Nickel Plated Brass

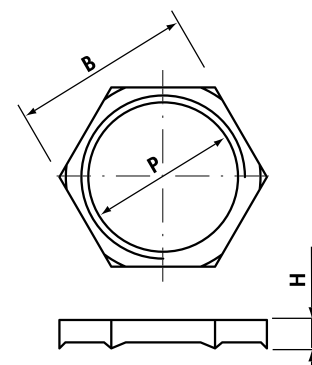
20N3



With serrated teeth to maintain electrical contact

Metric thread M 1.5 pitch CEI EN 60423

Type Nickel Plated Brass	P	B Spanner in.	H in.	Quantity Box/Bag
20N3M12N	M12x1.5	0.59	0.14	1,000/100
20N3M16N	M16x1.5	0.75	0.14	1,000/100
20N3M20N	M20x1.5	0.94	0.14	500/100
20N3M25N	M25x1.5	1.18	0.16	400/100
20N3M32N	M32x1.5	1.42	0.16	200/100
20N3M40N	M40x1.5	1.81	0.19	100/50
20N3M50N	M50x1.5	2.36	0.22	50/50
20N3M63N	M63x1.5	2.76	0.26	50/25



MAXIINOX LOCKNUTS

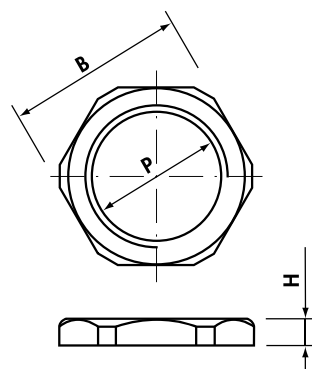
Stainless Steel AISI 303 (X8 CrNiS 18-9) - Stainless Steel AISI 316L (X2 CrNiMo 17-12-2)

7032 7033



Metric thread M 1.5 pitch CEI EN 60423

Stainless Steel AISI 303	Stainless Steel AISI 316L	P	B Spanner in.	H in.	AISI 303 Quantity Box/Bag	AISI 316L Quantity Box/Bag
7033M12	7033AM12	M12x1.5	0.63	0.11	450/30	300/20
7033M16	7033AM16	M16x1.5	0.79	0.11	450/30	300/20
7033M20	7033AM20	M20x1.5	0.94	0.14	250/25	200/20
7033M25	7033AM25	M25x1.5	1.14	0.16	160/20	120/15
7033M32	7033AM32	M32x1.5	1.42	0.16	105/15	84/12
7033M40	7033AM40	M40x1.5	1.77	0.20	60/15	40/10
7033M50	7033AM50	M50x1.5	2.24	0.20	40/10	28/7
7033M63	7033AM63	M63x1.5	2.76	0.22	32/8	20/5



Pg thread DIN 40 430

Stainless Steel AISI 303	Stainless Steel AISI 316L	P	B Spanner in.	H in.	AISI 303 Quantity Box/Bag	AISI 316L Quantity Box/Bag
7032007	7032A007	Pg 7	0.63	0.11	450/30	300/20
7032009	7032A009	Pg 9	0.79	0.11	450/30	300/20
7032011	7032A011	Pg11	0.87	0.12	300/30	200/20
7032013	7032A013	Pg13.5	0.87	0.12	300/30	200/20
7032016	7032A016	Pg16	1.06	0.12	240/30	160/20
7032021	7032A021	Pg21	1.26	0.14	160/20	150/15
7032029	7032A029	Pg29	1.61	0.16	60/15	40/10
7032036	7032A036	Pg36	1.97	0.20	40/10	28/7
7032042	7032A042	Pg42	2.36	0.20	40/10	20/5
7032048	7032A048	Pg48	2.52	0.22	32/8	20/5



PA 6.6

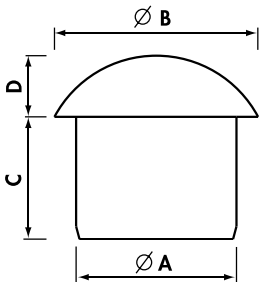
IP68

V2 UL94

-4°F
+194°F

Material: POLYAMIDE PA6.6
self-extinguishing class V2 (UL 94)
Temperature range:
-4°F to +194°F (continuous)
Color: RAL 9005 black

Application:
Blanking the cable entry of cable
glands and maintaining IP 68.



For cable glands type:

MAXIblock®

MAXIbrass®

MAXIinox

Plugs

Type	Suitable for		Ø A in.	Ø B in.	C in.	D in.	Quantity Box/Bag
	MAXIblock®	MAXIbrass® MAXIinox					
TCP5	M12R + Pg7R	M12R	0.18	0.33	0.43	0.18	3,000/100
TCP10	Pg9R	Pg9R	0.24	0.47	0.47	0.18	1,500/100
TCP12	M12 + Pg7	M12 + Pg7	0.27	0.47	0.47	0.18	1,000/100
	M16R + Pg11R	M16R + Pg11R					
TCP15	Pg9	Pg9	0.31	0.43	0.45	0.20	1,500/100
TCP18	M16 + Pg11	M16 + Pg11	0.37	0.49	0.51	0.20	800/100
	M20R	M20R					
TCP20	Pg13.5 + Pg13.5R	Pg13 + Pg13.5R	0.39	0.59	0.55	0.24	800/100
	Pg16R	Pg16R					
TCP25	M20 + Pg16	M20 + Pg16	0.49	0.67	0.59	0.31	400/100
	M25R + M32R	M25R + M32R					
TCP30	Pg21R	Pg21R	0.49	0.89	0.71	0.35	300/100
	M25 + Pg21	M25 + Pg21					
TCP35	M32	M32	0.75	0.89	0.75	0.35	150/50
TCP45	M40R + Pg29 + Pg36R	M40R + Pg29	0.87	1.18	0.79	0.39	100/50
TCP50	M40 + M50R + Pg42R	M40 + M50R	1.08	1.50	0.98	0.47	50/25
TCP55	Pg36	Pg36	1.24	1.44	0.93	0.47	50/25
TCP60	M50	M50	1.36	1.57	0.93	0.47	50/25
TCP65	M63R + Pg42 + Pg48R	M63R + Pg42	1.48	1.89	1.04	0.47	30/15
TCP70	M63 + Pg48	M63 + Pg48	1.69	1.89	1.04	0.47	30/15

R: reduced cable entry

MULTI-ENTRY SEALS FOR CABLE GLANDS

Neoprene® 70 sh A

For cable glands type:

MAXIblock®
MAXIbrass®
MAXIinox®

Material: NEOPRENE® 70 sh A
Temperature range:
-40°F to +266°F
Protection: IP 68
Color: RAL 9005 black

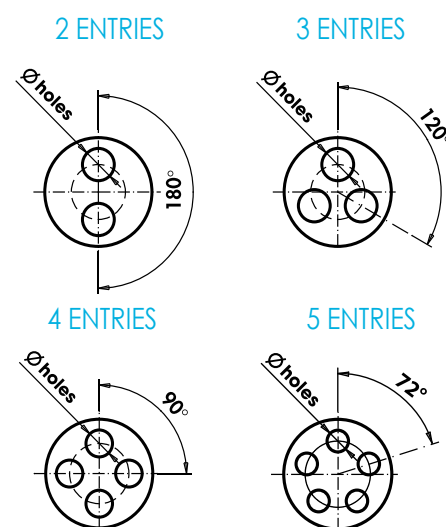
Application:
IP68 sealing of multiple cables
entering cable glands.



36A
36C

Multi-entry seals

Type	Suitable for		No. entries	Ø entries in.	Quantity Box/Bag
	MAXIblock®	MAXIbrass® MAXIinox®			
36A3M1623	M16 + Pg11	M16 + Pg11	2	0.12	500/100
36A3M1624	M16 + Pg11	M16 + Pg11	2	0.16	1,000/100
36A3M16322	M16 + Pg11	M16 + Pg11	3	0.09	1,000/100
36A3M2025	M20 + Pg13.5	M20 + Pg13.5 + Pg16	2	0.20	500/100
36A3M2026	M20 + Pg13.5	M20 + Pg13.5 + Pg16	2	0.24	500/100
36A3M2034	M20 + Pg13.5	M20 + Pg13.5 + Pg16	3	0.16	500/100
36A3M2035	M20 + Pg13.5	M20 + Pg13.5 + Pg16	3	0.20	500/100
36A3M20356	M20 + Pg13.5	M20 + Pg13.5 + Pg16	3	0.22	500/100
36A3M2526	M25	M25 + Pg21	2	0.24	300/50
36A3M2536	M25	M25 + Pg21	3	0.24	300/50
36A3M2537	M25	M25 + Pg21	3	0.28	300/50
36A3M2545	M25	M25 + Pg21	4	0.20	300/50
36A3M2546	M25	M25 + Pg21	4	0.24	300/50
36A3M2554	M25	M25 + Pg21	5	0.16	300/50
36C3M252105	M25	M25 + Pg21	2	0.20 + 0.41	300/50
36A3M3228	M32	M32	2	0.31	150/50
36A3M3239	M32	M32	3	0.35	150/50
36A3M32465	M32	M32	4	0.26	150/50
36A3M3248	M32	M32	4	0.31	150/50
36A3M4078	M40	M40	7	0.31	100/100
36A3M40106	M40	M40	10	0.24	100/100
36A3M5088	M50 + Pg 36	M50 + Pg 36	8	0.31	50/50
36C201629	Pg16	-	2	0.12 + 0.35	400/50



MULTI-ENTRY SEAL PLUGS FOR CABLE GLANDS

Polyamide PA6.6

Material: POLYAMIDE PA6.6
Temperature range:
-4°F to +194°F (continuous)
Color: RAL 7035 light grey

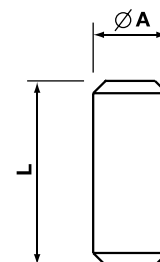
Application:
Plugging unused entries in multi-entry seals and maintaining IP68.



TGM

Multi-entry seal plugs

Type	Suitable for Seal	Ø A in.	L in.	Quantity Box/Bag
TGM38	36A3M1623	0.12	0.39	5,000/100
TGM48	36A3M1624 + 36A3M2034 + 36A3M2554	0.16	0.31	5,000/100
TGM58	36A3M2025	0.20	0.31	5,000/100
TGM513	36A3M2545	0.20	0.51	2,500/50
TGM613	36A3M2526 + 36A3M2536 + 36A3M40106	0.24	0.51	2,000/50
TGM713	36A3M2537	0.28	0.51	2,000/50
TGM817	36A3M3248 + 36A3M5088 + 36A3M4078	0.31	0.67	100



1173M 1153M

ENTRY THREAD ADAPTERS

Polyamide PA6.6

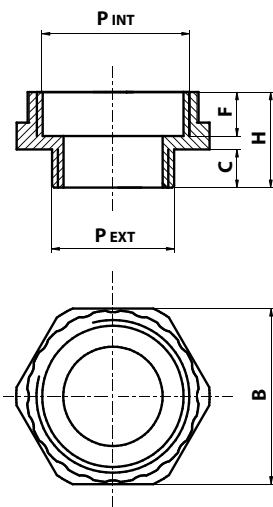


Material:
POLYAMIDE PA6.6
self-extinguishing class V2 (UL 94)
Temperature range:
-40°F to +185°F (continuous)
Color: RAL 7035 light grey,
RAL 9005 black

Entry thread enlargers

Metric thread M 1.5 pitch CEI EN 60423

Type	P EXT	P INT	B Spanner in.	F in.	C in.	H in.	Quantity Box/Bag
1173M1216	M12x1.5	M16x1.5	0.79	0.41	0.31	0.83	200/100
1173M1620	M16x1.5	M20x1.5	0.94	0.41	0.31	0.83	200/100
1173M2025	M20x1.5	M25x1.5	1.14	0.39	0.31	0.83	100/50
1173M2532	M25x1.5	M32x1.5	1.42	0.45	0.31	0.91	50/50
1173M3240	M32x1.5	M40x1.5	1.81	0.45	0.39	0.98	50/50



Entry thread reducers

Metric thread M 1.5 pitch CEI EN 60423

Type	P EXT	P INT	B Spanner in.	C in.	H in.	Quantity Box/Bag
1153M1612	M16x1.5	M12x1.5	0.87	0.31	0.47	300/100
1153M2012	M20x1.5	M12x1.5	0.94	0.31	0.47	300/100
1153M2016*	M20x1.5	M16x1.5	0.94	0.31	0.47	300/100
1153M2512	M25x1.5	M12x1.5	1.14	0.31	0.55	200/100
1153M2516	M25x1.5	M16x1.5	1.14	0.31	0.55	150/50
1153M2520*	M25x1.5	M20x1.5	1.14	0.31	0.55	150/50
1153M3216	M32x1.5	M16x1.5	1.42	0.39	0.63	100/50
1153M3220	M32x1.5	M20x1.5	1.42	0.39	0.63	100/50
1153M3225*	M32x1.5	M25x1.5	1.42	0.39	0.63	100/50
1153M4020	M40x1.5	M20x1.5	1.81	0.39	0.63	50/25
1153M4025	M40x1.5	M25x1.5	1.81	0.39	0.63	50/25
1153M4032	M40x1.5	M32x1.5	1.81	0.39	0.63	50/25
1153M5025	M50x1.5	M25x1.5	2.17	0.47	0.71	30/10
1153M5032	M50x1.5	M32x1.5	2.17	0.47	0.71	30/10
1153M5040	M50x1.5	M40x1.5	2.17	0.47	0.71	30/10
1153M6332	M63x1.5	M32x1.5	2.68	0.47	0.71	20/10
1153M6340	M63x1.5	M40x1.5	2.68	0.47	0.71	20/10
1153M6350	M63x1.5	M50x1.5	2.68	0.47	0.71	20/10

*Add to Ref: N for Black

ENTRY THREAD ADAPTERS

Nickel Plated Brass

Entry thread enlargers

Metric thread M 1.5 pitch CEI EN 60423

Type	P EXT	P INT	Ø A in.	C in.	H in.	Quantity Box/Bag
20931216N	M12x1.5	M16x1.5	0.71	0.20	0.61	500/100
20931620N	M16x1.5	M20x1.5	0.87	0.20	0.69	300/100
20932025N	M20x1.5	M25x1.5	1.06	0.24	0.79	150/50
20932532N	M25x1.5	M32x1.5	1.34	0.28	0.89	100/50
20932540N	M25x1.5	M40x1.5	1.65	0.28	0.93	50/50
20933240N	M32x1.5	M40x1.5	1.65	0.31	0.96	50/50
20933250N	M32x1.5	M50x1.5	2.05	0.31	1.08	25/25
20934050N	M40x1.5	M50x1.5	2.05	0.31	1.08	25/25
20935063N	M50x1.5	M63x1.5	2.60	0.35	1.22	20/10

Entry thread reducers

Metric thread M 1.5 pitch CEI EN 60423

Type	P EXT	P INT	Ø A in.	C in.	H in.	Quantity Box/Bag
20431612N	M16x1.5	M12x1.5	0.71	0.20	0.30	1,000/100
20432012N	M20x1.5	M12x1.5	0.87	0.24	0.35	600/100
20432016N	M20x1.5	M16x1.5	0.87	0.24	0.35	500/100
20432512N	M25x1.5	M12x1.5	1.06	0.28	0.39	300/50
20432516N	M25x1.5	M16x1.5	1.06	0.28	0.39	300/50
20432520N	M25x1.5	M20x1.5	1.06	0.28	0.39	300/100
20433220N	M32x1.5	M20x1.5	1.34	0.31	0.43	100/25
20433225N	M32x1.5	M25x1.5	1.34	0.31	0.43	150/50
20434025N	M40x1.5	M25x1.5	1.69	0.31	0.45	100/25
20434032N	M40x1.5	M32x1.5	1.69	0.31	0.45	100/25
20435032N	M50x1.5	M32x1.5	2.09	0.35	0.49	50/10
20435040N	M50x1.5	M40x1.5	2.09	0.35	0.49	50/25
20436340N	M63x1.5	M40x1.5	2.60	0.39	0.55	30/10
20436350N	M63x1.5	M50x1.5	2.60	0.39	0.55	30/10

Entry thread converters - Metric to Pg

Type	P EXT	P INT	Fig.	Ø A in.	C in.	H in.	Quantity Box/Bag
20A42011N	M20x1.5	Pg11	1	0.87	0.26	0.69	300/100
20A42016N	M20x1.5	Pg16	1	0.94	0.26	0.79	200/50
20A42513N	M25x1.5	Pg13.5	2	1.06	0.28	0.39	300/50
20A42516N	M25x1.5	Pg16	2	1.06	0.28	0.39	300/50
20A43216N	M32x1.5	Pg16	2	1.42	0.31	0.45	100/25
20A43221N	M32x1.5	Pg21	2	1.42	0.31	0.45	100/25

Entry thread converters - Pg to Metric

20A40916N	Pg 9	M16x1.5	1	0.79	0.24	0.59	400/100
20A41120N	Pg11	M20x1.5	1	0.87	0.24	0.63	300/100
20A41320N	Pg13.5	M20x1.5	1	0.94	0.26	0.65	200/50
20A41620N	Pg16	M20x1.5	2	0.94	0.26	0.37	50/50
20A42120N	Pg21	M20x1.5	2	1.18	0.28	0.39	100/100
20A42125N	Pg21	M25x1.5	2	1.18	0.28	0.39	100/100
20A42925N	Pg29	M25x1.5	2	1.54	0.31	0.45	50/50

2093
2043
20A4

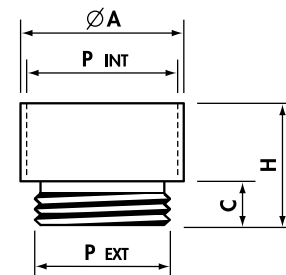


Fig. 1

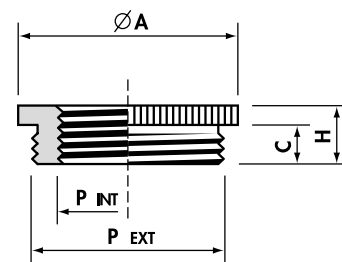


Fig. 2

1800 2042

ENTRY THREAD ADAPTERS

Nickel Plated Brass

Entry thread enlargers

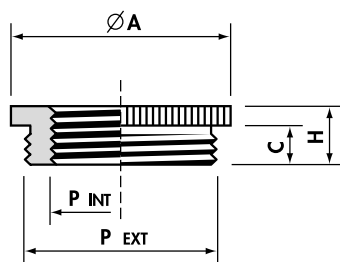
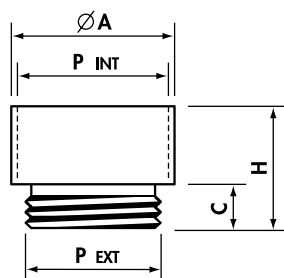
Pg thread DIN 40 430 - Dimensions DIN 46 320-K

Type	P EXT	P INT	Ø A in.	C in.	H in.	Quantity Box/Bag
180709	Pg 7	Pg 9	0.67	0.20	0.59	600/100
180911	Pg 9	Pg11	0.79	0.24	0.65	500/100
180913	Pg 9	Pg13.5	0.87	0.24	0.69	300/100
181113	Pg11	Pg13.5	0.87	0.24	0.69	300/100
181116	Pg11	Pg16	0.94	0.24	0.73	100/50
181316	Pg13.5	Pg16	0.94	0.26	0.75	200/50
181321	Pg13.5	Pg21	1.18	0.26	0.83	150/50
181621	Pg16	Pg21	1.18	0.26	0.83	100/25
182129	Pg21	Pg29	1.54	0.28	0.91	75/25
182936	Pg29	Pg36	1.97	0.31	1.08	30/10
183642	Pg36	Pg42	2.24	0.35	1.22	20/10
184248	pg42	pg48	2.52	0.39	1.30	20/10

Entry thread reducers

Pg thread DIN 40 430 - Dimensions DIN 46 320-H

Type	P EXT	P INT	Ø A in.	C in.	H in.	Quantity Box/Bag
20420907N	Pg 9	Pg 7	0.67	0.24	0.33	800/100
20421107N	Pg11	Pg 7	0.79	0.24	0.33	600/100
20421109N	Pg11	Pg 9	0.79	0.24	0.33	600/100
20421307N	Pg13.5	Pg 7	0.87	0.26	0.35	600/100
20421309N	Pg13.5	Pg 9	0.87	0.26	0.35	600/100
20421311N	Pg13.5	Pg11	0.87	0.26	0.35	600/100
20421607N	Pg16	Pg 7	0.94	0.26	0.37	300/50
20421609N	Pg16	Pg 9	0.94	0.26	0.37	400/100
20421611N	Pg16	Pg11	0.94	0.26	0.37	400/100
20421613N	Pg16	Pg13.5	0.94	0.26	0.37	400/100
20422111N	Pg21	Pg11	1.18	0.28	0.39	200/50
20422113N	Pg21	Pg13.5	1.18	0.28	0.39	200/50
20422116N	Pg21	Pg16	1.18	0.28	0.39	200/50
20422916N	Pg29	Pg16	1.54	0.31	0.45	100/25
20422921N	Pg29	Pg21	1.54	0.31	0.45	100/25
20423621N	Pg36	Pg21	1.97	0.35	0.49	50/25
20423629N	Pg36	Pg29	1.97	0.35	0.49	50/25
20424236N	Pg42	Pg36	2.24	0.39	0.55	50/25
20424836N	Pg48	Pg36	2.52	0.39	0.55	25/25
20424842N	Pg48	Pg42	2.52	0.39	0.55	50/25



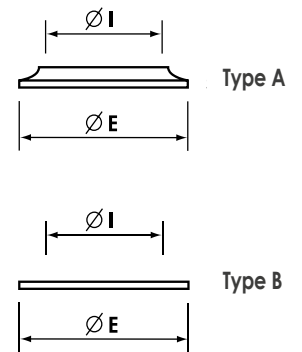


Material:
Zinc plated STEEL UNI 5961/84

Compression washers

Type	Fits thread	Ø E in.	Ø I in.	Quantity Box/Bag
6010.14	Pg7 + G1/4"	0.43	0.31	15.000/1.000
6010.38	Pg9 + G3/8"	0.57	0.39	5.000/1.000
6010.11	Pg11 + G3/8"	0.67	0.47	5.000/1.000
6010.12	Pg13.5 + G1/2"	0.71	0.55	4.000/1.000
6010.58	Pg16 + G5/8"	0.79	0.61	3.000/1.000
6010.34	G3/4"	0.94	0.73	2.500/500
6010.114	G1"1/4	1.50	1.30	1.000/500
6010.21	Pg21 + G3/4"	1.04	0.79	2.000/500
6010.01	G1"	1.18	0.96	1.500/500
6010.29	Pg29 + G1"1/8	1.38	1.04	1.000/500
6010.36	Pg36 + G1"1/2	1.77	1.50	750/250
6010.42	Pg42	2.01	1.67	500/250
6010.48	Pg48 + G2"	2.24	1.89	400/100

Subject to availability, the compression washers could be of type A or B



341
342
343
344

SEALING RINGS

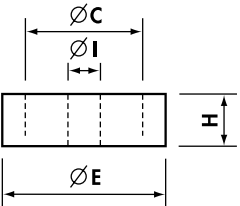
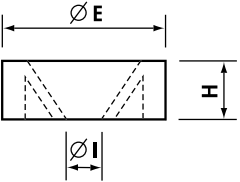
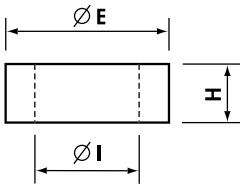
PVC 50 sh A



Cylindrical sealing rings



Material: PVC 50 sh A
Color: Red



Type	Suitable for Cable Glands IP54 (1700..., 2001..., 2002..., 2003...)	C in.	Ø E in.	Ø I in.	H in.	Quantity Box/Bag
3411014	G1/4"	–	0.43	0.26	0.24	1.500/100
3411038	G3/8" + M16	–	0.57	0.33	0.24	1.000/100
3411012	Pg13.5 + G1/2" + M20	–	0.71	0.43	0.30	500/100
3412016	Pg16 + G5/8"	–	0.79	0.55	0.30	300/100
3422016	Pg16 + G5/8"	–	0.79	0.39	0.30	300/100
3411034	G3/4"	–	0.93	0.69	0.31	300/100
3411100	G1"	–	1.14	0.87	0.39	200/100
3412011	Pg11	–	0.65	0.39	0.28	1.000/100
3412021	Pg21 + M25	–	1.02	0.71	0.33	300/100
3412029	Pg29 + G1"1/8 + M32	–	1.38	1.02	0.39	200/100

Membrane sealing rings

Type	Suitable for Cable Glands IP54 (1700..., 2001..., 2002..., 2003...)	C in.	Ø E in.	Ø I in.	H in.	Quantity Box/Bag
3431100	G1"	–	1.14	0.59	0.37	200/100

Double sealing rings

Type	Suitable for Cable Glands IP54 (2001..., 2002..., 2003...)	C in.	Ø E in.	Ø I in.	H in.	Quantity Box/Bag
3441012	G1/2" + Pg13.5 + M20	0.51	0.73	0.31	0.26	500/100
3441034	G3/4"	0.67	0.91	0.49	0.33	300/100

SEALING RINGS

Butadiene-Nitrile NBR

1880
1890



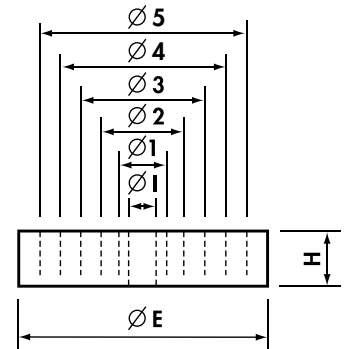
Concentric sealing rings

Type	Suitable for Cable Glands IP54 (1700..., 2001..., 2002..., 2003...)	Ø E in.	Ø 5 in.	Ø 4 in.	Ø 3 in.	Ø 2 in.	Ø 1 in.	Ø I in.	H in.	Quantity Box/Bag
1880	Pg9 + M16	0.52	–	–	–	0.39	0.30	0.20	5,5	1.500/100
1881	Pg11	0.65	–	–	–	0.49	0.39	0.30	6,0	1.000/100
1882	Pg13.5 + M20 + G1/2"	0.72	–	–	–	0.49	0.39	0.30	6,0	800/100
1883	Pg16 + G5/8"	0.80	–	–	0.59	0.49	0.39	0.30	7,0	600/100
1884	Pg21 + M25	1.02	–	–	0.75	0.63	0.51	0.39	8,0	300/100
1884A	Pg21 + M25	1.02	–	–	0.81	0.71	0.59	0.41	8,0	50/25
1885*	Pg29 + M32 + G1"1/8	1.37	–	–	1.06	0.94	0.83	0.71	9,5	150/50
1886	Pg36 + G1"1/2 + M40	1.76	–	–	1.30	1.18	1.06	0.94	12,0	100/50
1887*	Pg42 + M50	2.04	–	–	1.54	1.42	1.30	1.18	14,0	50/25
1888/5	Pg48 + G2" + M63	2.24	1.77	1.61	1.46	1.30	1.14	0.94	14,0	75/25
1888*	Pg48 + G2" + M63	2.24	–	–	1.77	1.65	1.54	1.42	14,0	50/25

*material: RUBBER NR



Material:
BUTADIENE-NITRILE NBR
with concentric perforations

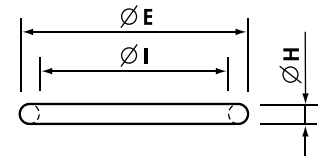


O-rings

Type	Fits thread	Ø E in.	Ø I in.	Ø H in.	Quantity Box/Bag
1889	M12	0.50	0.36	0.07	1.000/1.000
1890	Pg7 + G1/4"	0.57	0.43	0.07	5.000/1.000
1890A	M16 + Pg9 + G3/8"	0.63	0.49	0.07	5.000/1.000
1891	Pg11	0.75	0.61	0.07	5.000/1.000
1891A	M20	0.82	0.68	0.07	5.000/1.000
1892	Pg13.5 + G1/2"	0.88	0.74	0.07	5.000/1.000
1892A	Pg16 + G5/8"	0.94	0.80	0.07	5.000/1.000
1892B	M25	1.00	0.86	0.07	5.000/1.000
1893	Pg21	1.13	0.99	0.07	3.000/500
1893A	M32	1.18	1.02	0.08	500/500
1925.3	G3/4"	1.19	0.99	0.10	1.000/500
1894	G1"	1.38	1.17	0.10	1.000/500
1895	M40 + Pg29 + G1"1/8	1.57	1.36	0.10	1.000/500
1896	G1"1/4	1.69	1.49	0.10	500/500
1897	Pg36 + G1"1/2	1.94	1.74	0.10	800/100
1898	Pg42 + G1"3/4	2.19	1.99	0.10	800/100
1899	Pg48 + G2"	2.44	2.24	0.10	100
1899A	G2"1/2	3.01	2.73	0.14	100/1
1899B	G3"	3.65	3.23	0.21	100/1



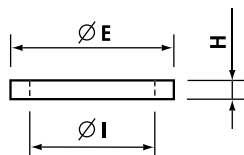
Material:
Butadiene-Nitrile 70 sh



357



Material:
BUTADIENE-STIRENE SBR 70 sh A
Temperature range: -4°F to +158°F
Color: RAL 7035 light grey



SEALING RINGS

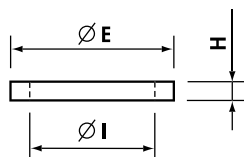
Butadiene-Stirene SBR 70shA

Type	Fits thread	Ø E in.	Ø I in.	H in.	Quantity Box/Bag
3572007	Pg7	0.65	0.45	0.04	4.000/100
3572011	Pg11	0.91	0.69	0.04	2.500/100
35720131	Pg13.5 + M20X1.5 + G1/2"	1.08	0.81	0.06	1.000/100
3572013	Pg13.5	1.18	0.81	0.09	1.000/100
3572016	Pg16	1.14	0.91	0.08	1.000/100
3572021	Pg21	1.32	1.06	0.12	500/100
3573M16	M16x1.5	0.81	0.64	0.04	3.000/100
3573M20	M20X1.5 + Pg13.5 + G1/2"	1.00	0.81	0.04	4.000/100
3573M25	M25x1.5	1.20	1.00	0.04	2.000/100
3573M32	M32x1.5	1.59	1.28	0.04	1.500/100

FD



Material:
NEOPRENE® 80 sh A
Temperature range: -13°F to +212°F
Color: RAL 9005 black



SEALING RINGS

Neoprene® 80 sh A

Type	Fits thread	Ø E in.	Ø I in.	H in.	Quantity Box/Bag
FD M12	M12	0.63	0.39	0.05	2.500/50
FD 7	Pg7 + G1/4"	0.67	0.44	0.05	3.000/50
FD 9	Pg9 + M16	0.79	0.55	0.05	2.000/50
FD M16	M16* + G3/8"	0.79	0.61	0.05	2.000/50
FD 11	Pg11	0.91	0.67	0.05	2.000/50
FD M20	M20	0.94	0.71	0.05	2.000/50
FD 13,5	Pg13.5 + G1/2"	0.98	0.75	0.05	2.500/50
FD 16	Pg16 + G5/8"	1.06	0.83	0.05	1.500/50
FD M25	M25	1.22	0.91	0.05	1.000/20
FD 21	Pg21 + G3/4"	1.36	1.06	0.06	1.000/25
FD M32	M32 + G1"	1.42	1.18	0.05	600/20
FD 29	Pg29 + G1"1/8"	1.77	1.39	0.06	500/25
FD M40	M40 + G1"1/4"	1.81	1.50	0.05	500/20
FD 36	Pg36 + G1"1/2"	2.11	1.80	0.05	250/25
FD M50	M50	2.17	1.87	0.04	10
FD 42	Pg42 + G1"3/4"	2.44	2.05	0.04	10
FD 48	Pg48 + G2"	2.68	2.28	0.04	10
FD M63	M63	2.68	2.32	0.04	500/5

*recommended with set screws

ENTRY PLUGS

Polyamide PA6

Metric thread M 1.5 pitch CEI EN 60423

Type Light Grey	P	Ø A in.	C in.	Quantity Box/Bag
1053M12	M12x1.5	0.59	0.24	100
1053M16	M16x1.5	0.79	0.24	100
1053M20	M20x1.5	0.98	0.28	100
1053M25	M25x1.5	1.18	0.28	100
1053M32	M32x1.5	1.46	0.35	50
1053M40	M40x1.5	1.85	0.35	30
1053M50	M50x1.5	2.28	0.39	20
1053M63	M63x1.5	2.83	0.47	10

Add to Ref: N for Black

Pg thread DIN 40 430 - Dimensions DIN 46 320

Type Light Grey	P	Ø A in.	C in.	Quantity Box/Bag
1052007	Pg 7	0.59	0.24	100
1052009	Pg 9	0.75	0.24	100
1052011	Pg11	0.87	0.28	100
1052013	Pg13.5	0.98	0.28	100
1052016	Pg16	1.06	0.28	100
1052021	Pg21	1.30	0.35	50
1052029	Pg29	1.73	0.35	100/25
1052036	Pg36	2.17	0.39	20
1052042	Pg42	2.44	0.39	10
1052048	Pg48	2.72	0.47	10

Add to Ref: N for Black

Polystyrene PS

Metric thread M 1.5 pitch CEI EN 60423

Type Light Grey	P	Ø A in.	C in.	Quantity Box/Bag
1253M12	M12x1.5	0.59	0.24	100
1253M16	M16x1.5	0.79	0.24	100
1253M20	M20x1.5	0.98	0.28	100
1253M25	M25x1.5	1.18	0.28	100
1253M32	M32x1.5	1.46	0.35	50
1253M40	M40x1.5	1.85	0.35	30
1253M50	M50x1.5	2.28	0.39	20
1253M63	M63x1.5	2.83	0.47	10

Add to Ref: N for Black

Pg thread DIN 40 430 - Dimensions DIN 46 320

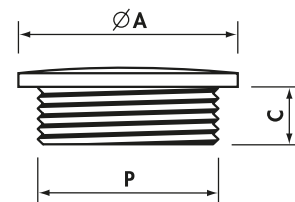
Type Light Grey	P	Ø A in.	C in.	Quantity Box/Bag
1840	Pg 7	0.59	0.24	100
1841	Pg 9	0.75	0.24	100
1842	Pg11	0.87	0.28	100
1843	Pg13.5	0.98	0.28	100
1844	Pg16	1.06	0.28	100
1845	Pg21	1.30	0.35	50
1846	Pg29	1.73	0.35	100/25
1847	Pg36	2.17	0.39	20
1848	Pg42	2.44	0.39	10
1849	Pg48	2.72	0.47	10

Add to Ref: N for Black

1053
1052



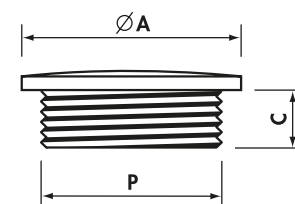
Material: POLYAMIDE PA6
reinforced with fibreglass
self-extinguishing class HB (UL 94)
Temperature range:
-4°F to +194°F (continuous)
Protection: IP 54
Color: RAL 7035 light grey,
RAL 9005 black



1253
1840

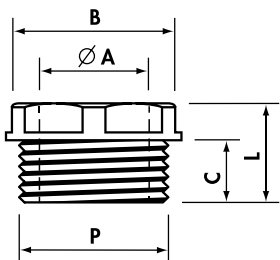


Material: POLYSTYRENE PS
Temperature range:
-4°F to +140°F (continuous)
Protection: IP 54
Color: RAL 7035 light grey,
RAL 9005 black





Material: POLIAMMIDE PA6 / PA6.6**
self-extinguishing class V0 / V2** (UL 94)
Temperature range:
-4°F to +194°F (continuous)
Color: RAL 7035 light grey,
RAL 9005 black



Entry bushes

Pg thread DIN 40 430 - Dimensions DIN 46 320

Type Light Grey	P	Ø A in.	B Spanner in.	C in.	L min-max in.	Quantity Box/Bag
*1700.2	Pg 9	0.39	0.63	0.35	0.55	600/100
*1701.2	Pg11	0.45	0.75	0.39	0.59	300/100
*1702.2**	Pg13.5	0.53	0.83	0.43	0.65	300/100
1703.2	Pg16	0.63	0.91	0.49	0.73	200/50
1704.2	Pg21	0.87	1.18	0.47	0.69	100/50
1705.2	Pg29	1.06	1.57	0.59	0.87	50/50

BSP thread ISO 228/1

Type Light Grey	P	Ø A in.	B Spanner in.	C in.	L min-max in.	Quantity Box/Bag
*1830	G1/4"	0.33	0.59	0.33	0.53	800/100
*1831	G3/8"	0.45	0.67	0.35	0.55	300/100
*1832**	G1/2"	0.51	0.83	0.43	0.65	300/100

Metric thread M 1.5 pitch CEI EN 60423

Type Light Grey	P	Ø A in.	B Spanner in.	C in.	L min-max in.	Quantity Box/Bag
1835	M16x1.5	0.45	0.67	0.35	0.55	400/100
*1836**	M20x1.5	0.53	0.83	0.43	0.65	300/100

*Add to Ref: N for Black

Blind entry bushes

Pg thread DIN 40 430 - Dimensions DIN 46 320

Type Light Grey	P	Ø A in.	B Spanner in.	C in.	L min-max in.	Quantity Box/Bag
*1702.5**	Pg13.5	-	0.83	0.43	0.67	300/100
1703.5	Pg16	-	0.91	0.49	0.73	200/100

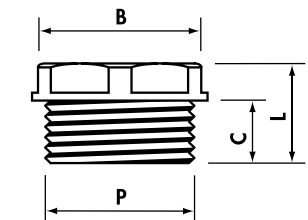
BSP thread ISO 228/1

Type Light Grey	P	Ø A in.	B Spanner in.	C in.	L min-max in.	Quantity Box/Bag
*1861	G3/8"	-	0.67	0.35	0.55	600/100
*1862**	G1/2"	-	0.83	0.43	0.65	200/100

Metric thread M 1.5 pitch CEI EN 60423

Type Light Grey	P	Ø A in.	B Spanner in.	C in.	L min-max in.	Quantity Box/Bag
*1866**	M20x1.5	-	0.83	0.43	0.67	100

*Add to Ref: N for Black



ENTRY PLUGS

Nickel Plated Brass

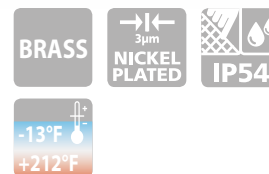
Metric thread M 1.5 pitch CEI EN 60423

Type Nickel Plated Brass	P	Ø A in.	C in.	Quantity Box/Bag
2053M12N	M12x1.5	0.55	0.20	1,500/100
2053M16N	M16x1.5	0.71	0.20	1,000/100
2053M20N	M20x1.5	0.87	0.26	400/100
2053M25N	M25x1.5	1.10	0.28	200/100
2053M32N	M32x1.5	1.38	0.31	150/25
2053M40N	M40x1.5	1.73	0.33	100/25
2053M50N	M50x1.5	2.13	0.35	50/25
2053M63N	M63x1.5	2.64	0.39	25/25

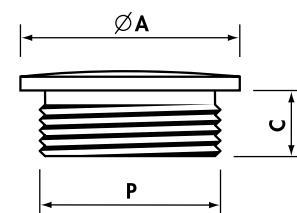
Pg thread DIN 40 430 - Dimensions DIN 46 320

Type Nickel Plated Brass	P	Ø A in.	C in.	Quantity Box/Bag
2052007N	Pg 7	0.55	0.20	1,500/100
2052009N	Pg 9	0.67	0.24	1,000/100
2052011N	Pg11	0.79	0.24	500/100
2052013N	Pg13.5	0.87	0.26	500/100
2052016N	Pg16	0.94	0.26	500/100
2052021N	Pg21	1.18	0.28	200/50
2052029N	Pg29	1.54	0.31	100/25
2052036N	Pg36	1.97	0.35	50/25
2052042N	Pg42	2.24	0.39	25/25
2052048N	Pg48	2.52	0.39	25/25

2053
2052



Material: NICKEL PLATED BRASS
(CuZn 40 Pb 3)
Protection: IP 54



ENTRY BUSHES

Brass

BSP thread ISO 228/1

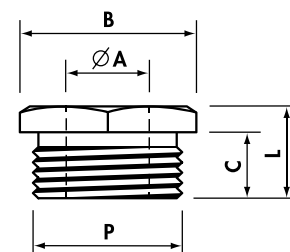
Type Brass	P	Ø A in.	B Spanner in.	C in.	L min-max in.	Quantity Box/Bag
2021014	G1/4"	0.39	0.51	0.24	0.33	1,000/100
2021038	G3/8"	0.47	0.67	0.30	0.41	800/100
2021012	G1/2"	0.63	0.83	0.37	0.51	400/100
2021058	G5/8"	0.71	0.91	0.39	0.53	250/50
2021034	G3/4"	0.83	1.06	0.39	0.55	200/50
2021100	G1"	1.04	1.34	0.43	0.61	100/50
2021118	G1*1/8	1.22	1.50	0.47	0.65	100/25
2021114	G1*1/4	1.38	1.65	0.51	0.71	50/25
2021112	G1*1/2	1.63	1.89	0.51	0.73	50/25
2021200	G2"	2.03	2.36	0.53	0.77	25/25

Add to Ref: N for NICKEL PLATED BRASS

2021



Material: PLAIN BRASS



RS

RUTASEAL GROMMETS

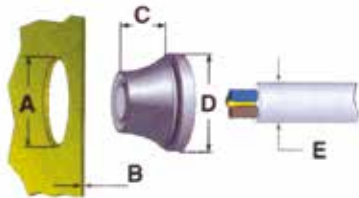
Rubber EPDM



HF
HALOGEN
FREE



Material: Rubber EPDM halogen-free and chemical resistant
Temperature range: -40°F to +230°F
Protection: IP 67
Color: RAL 7001 light grey
Application: IP67 sealing of cables and conduits in Metric and Pg threaded entries through material thickness 0,5-4 mm



Fits Metric thread

Type	Fits Threaded Entry	A in.	B in.	C in.	D in.	E in.	Quantity Box/Bag
RS0407.M12	M12	0.49	0.02 - 0.08	0.22	0.79	0.16 - 0.28	4,000/50
RS0509.M16	M16	0.65	0.04 - 0.16	0.43	0.83	0.20 - 0.35	4,000/50
RS0813.M20	M20/Pg13.5	0.81	0.04 - 0.16	0.53	1.00	0.31 - 0.51	2,000/50
RS1117.M25	M25	1.00	0.04 - 0.16	0.60	1.20	0.43 - 0.67	1,500/50
RS1520.M32	M32	1.28	0.04 - 0.16	0.73	1.52	0.59 - 0.79	750/25
RS1928.M40	M40	1.59	0.04 - 0.16	0.85	1.91	0.75 - 1.10	400/25
RS2735.M50	M50	1.99	0.04 - 0.16	0.98	2.38	1.06 - 1.38	250/10

Fits Pg thread

Type	Fits Threaded Entry	A in.	B in.	C in.	D in.	E in.	Quantity Box/Bag
RS0305.07	Pg 7	0.49	0.02 - 0.08	0.21	0.79	0.12 - 0.20	4,000/50
RS0507.09	Pg 9	0.63	0.04 - 0.16	0.41	0.83	0.20 - 0.28	4,000/50
RS0710.11	Pg11	0.75	0.04 - 0.16	0.50	0.94	0.28 - 0.39	2,000/50
RS1014.16	Pg16	0.91	0.04 - 0.16	0.58	1.10	0.39 - 0.55	1,500/50
RS1420.21	Pg21	1.14	0.04 - 0.16	0.69	1.38	0.55 - 0.79	750/25
RS2026.29	Pg29	1.50	0.04 - 0.16	0.79	1.81	0.79 - 1.02	400/25
RS2635.36	Pg36	1.89	0.04 - 0.16	0.94	2.28	1.02 - 1.38	250/10

3600

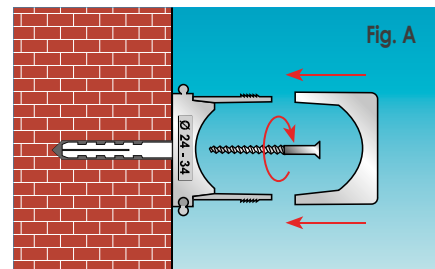
MODULAR RETAINING CLIPS

ABS

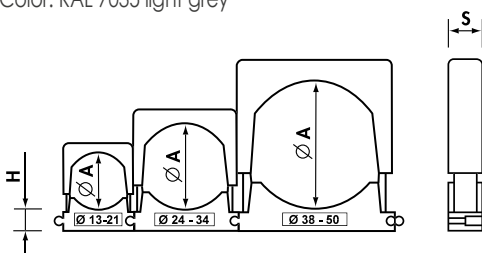


SICUR® clips

Application: Fix SICURclip base to surface using dia. 0.197 - 0.236 in. screw (Ref. Fig. A). Insert cable, tubing or flexible conduit. Fit adjustable cover and press to secure. Modular SICURclips of the same or different size may easily be joined together.



Material: ABS self-extinguishing class V0 (UL94) UV stabilised
Glow wire resistance: 1382°F (CEI EN 60695-2-1)
Temperature range: -4°F to +176°F (continuous)
Color: RAL 7035 light grey



Type	Ø A min-max in.	H in.	S in.	Quantity
3601	0.51 - 0.83	0.33	0.63	100
3602	0.94 - 1.34	0.33	0.63	50
3603	1.5 - 1.97	0.33	0.63	25



MECHANICAL AND PNEUMATIC TOOLS



symbol description

professional mechanical tools - hydraulic bench press



Can be operated with one hand



Max cutting diameter



Manual pressure release button



High hardness blades



Ergonomically designed with a sculptured body for operator comfort



Stainless steel blades



Lightweight and balanced for greater control



High tensile steel blades



Dual-compound plastic handles
Greater safety and comfort in handling, thanks to the rubber inserts



Micro-serrated blades for anti-slip purpose



Durable moulded body offering high resistance to wear and damage in all operating conditions



Special Steel frame for high resistance and a long life



Extremely quiet in operation



Protected against accidental intrusions

symbol description

professional mechanical tools - hydraulic bench press



Hexagonal crimp



Radial crimp



Indent crimp



Indent crimp



Oval crimp



Trapezium crimp



Rhomboidal crimp



Square crimp



CE marking



UKCA marking



CRIMPSTAR®

Manual tools, compact and easy to use, equipped with:

- treated steel crimp jaws with high mechanical properties.
- factory-set ratchet for crimping control (automatic handle opening upon completion of crimping operation).
- Emergency release lever which, if necessary, opens the crimp jaws before their complete closure.
- Ergonomically designed non-slip moulded plastic grips.
- Upon request: all Crimpstar tools can be supplied with a certificate of calibration

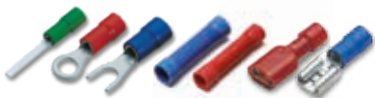
HP1

MECHANICAL TOOLS CRIMPSTAR® RANGE

for insulated terminals and connectors



The tool HP1 provide cUL® and UL® certified compression when used with CEMBRE VP.



TECHNICAL FEATURES:

Crimping Range	PVC, PC and PA6.6 insulated terminals and connectors for conductor sizes 24 to 13 AWG
Dimensions in.	
Length	9.2
Width	2.8
Height	0.7
Weight lbs.	1.13
Package Dimensions	9.4 x 3.2 x 1.0

HP5

MECHANICAL TOOLS CRIMPSTAR® RANGE

for insulated terminals and connectors



The tool HP5 provide cUL® and UL® certified compression when used with CEMBRE RF, BF, GF, RF-F/M/FM, BF-F/M/FM, GF-F/M, RP, BP, GP, PL.



TECHNICAL FEATURES:

Crimping Range	PVC, PC and PA6.6 insulated terminals and connectors for conductor sizes 20 to 10 AWG (for both right and left handed operators)
Dimensions in.	
Length	9.2
Width	2.8
Height	0.7
Weight lbs.	1.14
Package Dimensions	9.4 x 3.2 x 1.0

MECHANICAL TOOLS CRIMPSTAR® RANGE

for insulated terminals and connectors

HP3 HP3-1

Crimpstar®

HP3-1 version with positioner
for PVC, PC and PA6.6 insulated
terminals and connectors



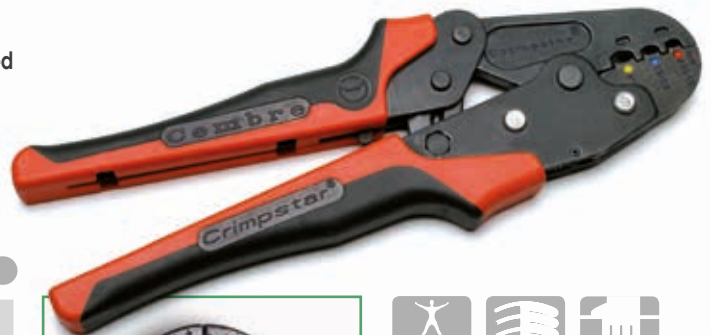
TECHNICAL FEATURES

Crimping Range HP3, HP3-1

PVC, PC and PA6.6 insulated terminals and connectors
for conductor sizes 23 to 10 AWG

Dimensions in.

Length	9.2
Width	2.8
Height	0.7
Weight lbs.	1.14
Package Dimensions	9.4 x 3.2 x 1.0



MECHANICAL TOOLS CRIMPSTAR® RANGE

for insulated terminals and connectors

HNN3

Crimpstar®



TECHNICAL FEATURES

Crimping Range

PA6.6 insulated terminals and connectors
for conductor sizes 16 to 8 AWG

Dimensions in.

Length	9.2
Width	2.8
Height	0.7
Weight lbs.	1.08
Package Dimensions	9.4 x 3.2 x 1.0



MECHANICAL TOOLS CRIMPSTAR® RANGE

for insulated terminals and connectors

HNN4

Crimpstar®



TECHNICAL FEATURES

Crimping Range

PA6.6 insulated terminals and connectors
for conductor sizes 8 to 6 AWG

Dimensions in.

Length	9.2
Width	2.8
Height	0.7
Weight lbs.	1.08
Package Dimensions	9.4 x 3.2 x 1.0



HPH1

MECHANICAL TOOLS CRIMPSTAR® RANGE

for through connectors PE HD insulated, heat shrinkable

Upon request: all Crimpstar tools can be supplied with a certificate of calibration

Crimpstar®



- Manual tool, compact and easy to use, equipped with:
- treated steel crimp jaws with high mechanical properties.
 - factory-set ratchet for crimping control (automatic handle opening upon completion of crimping operation).

- Emergency release lever which, if necessary, opens the crimp jaws before their complete closure.
- Ergonomically designed non-slip moulded plastic grips.

TECHNICAL FEATURES

Crimping Range	Through connectors PE HD insulated, heat shrinkable for conductor sizes 20 to 10 AWG and NL-M, NL-P connectors PA6.6 insulated for conductor sizes 22 to 10 AWG
Dimensions in.	
Length	9.2
Width	2.8
Height	0.7
Weight lbs.	1.13
Package Dimensions	9.4 x 3.2 x 1.0

HNKE4

MECHANICAL TOOLS CRIMPSTAR® RANGE

for end sleeves

Crimpstar®



- Manual tool, compact and easy to use, equipped with:
- treated steel crimp jaws with high mechanical properties.
 - factory-set ratchet for crimping control (automatic handle opening upon completion of crimping operation).

- Emergency release lever which, if necessary, opens the crimp jaws before their complete closure.
- Ergonomically designed non-slip moulded plastic grips.

TECHNICAL FEATURES

Crimping Range	End sleeves for conductor sizes 20 to 12 AWG
Dimensions in.	
Length	9.3
Width	2.8
Height	0.7
Weight lbs.	1.14
Package Dimensions	9.4 x 3.2 x 1.0

MECHANICAL TOOLS CRIMPSTAR® RANGE

HNKE16

for end sleeves

Crimpstar®

Upon request: all Crimpstar tools can be supplied with a certificate of calibration



TECHNICAL FEATURES

Crimping Range	End sleeves for conductor sizes 12 to 6 AWG
Dimensions in.	
Length	9.3
Width	2.8
Height	0.7
Weight lbs.	1.08
Package Dimensions	9.4 x 3.2 x 1.0



Manual tool, compact and easy to use, equipped with:

- treated steel crimp jaws with high mechanical properties.
- factory-set ratchet for crimping control (automatic handle opening upon completion of crimping operation).

- Emergency release lever which, if necessary, opens the crimp jaws before their complete closure.
- Ergonomically designed non-slip moulded plastic grips.

MECHANICAL TOOLS CRIMPSTAR® RANGE

HNKE50

for end sleeves

Crimpstar®



TECHNICAL FEATURES

Crimping Range	End sleeves for conductor sizes 3 - 2 - 1/0 AWG
Dimensions in.	
Length	9.2
Width	2.8
Height	0.7
Weight lbs.	1.30
Package Dimensions	9.4 x 3.2 x 1.0



Manual tool, compact and easy to use, equipped with:

- treated steel crimp jaws with high mechanical properties.
- factory-set ratchet for crimping control (automatic handle opening upon completion of crimping operation).

- Emergency release lever which, if necessary, opens the crimp jaws before their complete closure.
- Ergonomically designed non-slip moulded plastic grips.

HN1

MECHANICAL TOOLS CRIMPSTAR® RANGE

for uninsulated terminals and connectors

Upon request: all Crimpstar tools can be supplied with a certificate of calibration

Crimpstar®



TECHNICAL FEATURES

Crimping Range	Uninsulated terminals and connectors for conductor sizes 22 to 8 AWG
Dimensions in.	
Length	9.2
Width	2.8
Height	0.7
Weight lbs.	1.06
Package Dimensions	9.4 x 3.2 x 1.0

Manual tool, compact and easy to use, equipped with:

- treated steel crimp jaws with high mechanical properties.
- factory-set ratchet for crimping control (automatic handle opening upon completion of crimping operation).

- Emergency release lever which, if necessary, opens the crimp jaws before their complete closure.
- Ergonomically designed non-slip moulded plastic grips.

HN5

MECHANICAL TOOLS CRIMPSTAR® RANGE

for uninsulated terminals and connectors

Crimpstar®



TECHNICAL FEATURES

Crimping Range	Uninsulated terminals and connectors for conductor sizes 8 to 6 AWG
Dimensions in.	
Length	9.2
Width	2.8
Height	0.7
Weight lbs.	1.08
Package Dimensions	9.4 x 3.2 x 1.0

Manual tool, compact and easy to use, equipped with:

- treated steel crimp jaws with high mechanical properties.
- factory-set ratchet for crimping control (automatic handle opening upon completion of crimping operation).

- Emergency release lever which, if necessary, opens the crimp jaws before their complete closure.
- Ergonomically designed non-slip moulded plastic grips.

MECHANICAL TOOLS CRIMPSTAR® RANGE

HN-A25

for uninsulated terminals and connectors A-M, L-M and L-P series

Crimpstar®



HN-D25

for Cu tube lugs DR (DIN 46235) and through connectors DSV (DIN 46267)

Crimpstar®



HN-H25

for Cu tube lugs HR and through connectors HSV

Crimpstar®



NEW

HN-T25

for Cu tube lugs T-M, T-L and through connectors L-T

Crimpstar®



NEW

HN-A25 TECHNICAL FEATURES:

Crimping Range

Uninsulated terminals and connectors A-M, L-M and L-P series
for conductor sizes 8 to 4 AWG

HN-D25 TECHNICAL FEATURES:

Crimping Range

Cu tube lugs DR (DIN 46235) and through connectors DSV (DIN 46267)
for conductor sizes 8 to 4 AWG

HN-H25 TECHNICAL FEATURES:

Crimping Range

Cu tube lugs HR and through connectors HSV
for conductor sizes 8 to 4 AWG

HN-T25 TECHNICAL FEATURES:

Crimping Range

Cu tube lugs T-M, T-L and through connectors L-T
for conductor sizes 8 to 4 AWG



Dimensions in.

Length	9.0
Width	3.1
Height	0.7
Weight lbs.	1.10
Package Dimensions	9.4 x 3.2 x 1.0

HF1

MECHANICAL TOOLS CRIMPSTAR® RANGE

for open barrel brass terminals

Upon request: all Crimpstar tools can be supplied with a certificate of calibration

Crimpstar®



TECHNICAL FEATURES

Crimping Range	Open barrel brass terminals for conductors sizes 20 to 12 AWG (not BN-FAB/FAR type)
Dimensions in.	
Length	9.2
Width	2.8
Height	0.7
Weight lbs.	1.12
Package Dimensions	9.4 x 3.2 x 1.0



Manual tool, compact and easy to use, equipped with:

- treated steel crimp jaws with high mechanical properties.
- factory-set ratchet for crimping control (automatic handle opening upon completion of crimping operation).
- Emergency release lever which, if necessary, opens the crimp jaws before their complete closure.
- Ergonomically designed non-slip moulded plastic grips.

HF2

MECHANICAL TOOLS CRIMPSTAR® RANGE

for open barrel brass terminals

Crimpstar®



TECHNICAL FEATURES

Crimping Range	Open barrel brass terminals for conductors sizes 28 to 16 AWG
Dimensions in.	
Length	9.2
Width	2.8
Height	0.7
Weight lbs.	1.09
Package Dimensions	9.4 x 3.2 x 1.0



Manual tool, compact and easy to use, equipped with:

- treated steel crimp jaws with high mechanical properties.
- factory-set ratchet for crimping control (automatic handle opening upon completion of crimping operation).
- Emergency release lever which, if necessary, opens the crimp jaws before their complete closure.
- Ergonomically designed non-slip moulded plastic grips.

MECHANICAL TOOLS CRIMPSTAR® RANGE

HX1

for coaxial connectors

Crimpstar®

Upon request: all Crimpstar tools can be supplied with a certificate of calibration



TECHNICAL FEATURES

Crimping Range	Coaxial connectors type RG58, RG59, RG62 and RG 71
Dimensions in.	
Length	9.2
Width	2.8
Height	0.7
Weight lbs.	1.06
Package Dimensions	9.4 x 3.2 x 1.0



Manual tool, compact and easy to use, equipped with:

- treated steel crimp jaws with high mechanical properties.
- factory-set ratchet for crimping control (automatic handle opening upon completion of crimping operation).

- Emergency release lever which, if necessary, opens the crimp jaws before their complete closure.
- Ergonomically designed non-slip moulded plastic grips.



MLRJ1



TECHNICAL FEATURES

Crimping Range

For crimping plugs RJ 11; RJ 12; RJ 14; RJ 22; RJ 45.
With cutting and wire-stripping blades

Dimensions in.

Length	8.3
Width	2.9
Height	0.9
Weight lbs.	1.16

MLL1



TECHNICAL FEATURES

Crimping Range

For crimping insulated terminals, 22 to 10 AWG
side insertion

Dimensions in.

Length	9.9
Width	3.1
Height	0.9
Weight lbs	1.2



MLL90



TECHNICAL FEATURES

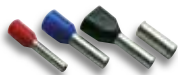
Crimping Range

Single aperture, ratchet controlled tool for crimping female connectors,
open barrel, flag type 17 to 14 AWG - side insertion

Dimensions in.

Length	9.9
Width	3.1
Height	0.9
Weight lbs	1.2



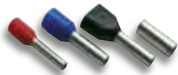


TECHNICAL FEATURES

Crimping Range	For crimping end sleeves 22 to 10 AWG
Dimensions in.	
Length	7.8
Width	3.0
Height	0.7
Weight lbs	0.8



MLS1



TECHNICAL FEATURES

Crimping Range	For crimping end sleeves 10 to 6 AWG
Dimensions in.	
Length	7.8
Width	3.0
Height	0.7
Weight lbs	0.8



MLS2



TECHNICAL FEATURES

Crimping Range	For crimping insulated and uninsulated connectors, 23 to 10 AWG
Dimensions in.	
Length	9.2
Width	2.6
Height	0.6
Weight lbs	0.5

ZP2





A generation of tools, with a unique mechanism to reduce operator effort. Small and compact, with ergonomically designed handles for ease of operation.

High quality materials combined with advanced design and manufacturing technology, produce a reliable tool with a guaranteed consistent, crimping operation.



ND1



TECHNICAL FEATURES

Crimping Range Insulated and uninsulated end sleeves for conductors sizes 22 to 15 AWG

Dimensions in.

Length	7.5
Width	2.8
Height	0.8
Weight lbs.	1.04



ND2



TECHNICAL FEATURES

Crimping Range Insulated and uninsulated end sleeves for conductors sizes 17 to 10 AWG

Dimensions in.

Length	7.5
Width	2.8
Height	0.8
Weight lbs.	1.04



ND3



TECHNICAL FEATURES

Crimping Range Insulated and uninsulated end sleeves for conductors sizes 10 to 5 AWG

Dimensions in.

Length	7.5
Width	2.8
Height	0.8
Weight lbs.	1.04



ND4



TECHNICAL FEATURES

Crimping Range Insulated and uninsulated end sleeves for conductors sizes 20 to 11 AWG

Dimensions in.

Length	7.5
Width	2.8
Height	0.8
Weight lbs.	1.04



Package Dimensions in. 7.7 x 3.0 x 0.8 in.

MECHANICAL TOOLS ZKE RANGE

ZKE

for insulated and uninsulated end sleeves



The ZKE610N and ZKE616N pliers provide cUL® and UL® certified compression when used with CEMBRE PKE, PKC, PKD and PKT end sleeves.



TECHNICAL FEATURES

Crimping Range	Single aperture, ratchet controlled tool for crimping end sleeves, 27 to 7 AWG side insertion
Dimensions in.	
Length	7.2
Width	3.1
Height	1.0
Weight lbs.	0.83



ZKE610N



TECHNICAL FEATURES

Crimping Range	Single aperture, ratchet controlled tool for crimping end sleeves, 27 to 5 AWG side insertion
Dimensions in.	
Length	7.2
Width	3.1
Height	1.2
Weight lbs.	0.84



ZKE616N



TECHNICAL FEATURES

Crimping Range	Tool for crimping end sleeves 20 to 10 AWG front insertion
Dimensions in.	
Length	7.87
Width	3.15
Height	0.79
Weight lbs.	0.82



ZKE6-F



TECHNICAL FEATURES

Crimping Range	For end sleeves 20 to 6 AWG
Dimensions in.	
Length	7.48
Width	2.4
Height	0.43
Weight lbs.	0.53



ZKE2

HP4-R

MECHANICAL TOOLS HP4 RANGE

for insulated terminals and connectors



The tool HP4-R provide cUL® and UL® certified compression when used with CEMBRE RF, RF-F/M/FM, RP, PL03-M.



TECHNICAL FEATURES



Crimping Range

PVC, PC and PA6.6 insulated terminals and connectors
for conductor sizes 23 to 15 AWG

Dimensions in.

Length	10.4
Width	3.1
Height	0.94
Weight lbs.	1.1
Package Dimensions in.	13.0 x 4.3 x 2.0

Professional manual mechanical tool with ratchet mechanism that prevents the handles from opening again before reaching the ratchet. Equipped with a positioning device to reduce the operator's effort and facilitate proper crimping of the conductor.

According to the different thicknesses of the conductor insulation, the crimping on the insulation can be carried out by adjusting the jaws through three different settings: 1) strong, 2) medium, 3) light. The tool is particularly easy to use thanks to its shape and handle coating.

At the end of the crimping the outer surface of the conductor is automatically stamped with the following crimping code: one point for red conductor sizes from 23 to 15 AWG

Construction features:

- Special treated and externally protected steel body, ratchet and handles.
- Handle coating in soft red PVC plastic.

HP4-B

MECHANICAL TOOLS HP4 RANGE

for insulated terminals and connectors



The tool HP4-B provide cUL® and UL® certified compression when used with CEMBRE BF, BF-F/M/FM, BP, PL06-M.



TECHNICAL FEATURES



Crimping Range

PVC, PC and PA6.6 insulated terminals and connectors
for conductor sizes 15 to 13 AWG

Dimensions in.

Length	10.4
Width	3.1
Height	0.94
Weight lbs.	1.1
Package Dimensions in.	13.0 x 4.3 x 2.0

Professional manual mechanical tool with ratchet mechanism that prevents the handles from opening again before reaching the ratchet. Equipped with a positioning device to reduce the operator's effort and facilitate proper crimping of the conductor.

According to the different thicknesses of the conductor insulation, the crimping on the insulation can be carried out by adjusting the jaws through three different settings: 1) strong, 2) medium, 3) light. The tool is particularly easy to use thanks to its shape and handle coating.

At the end of the crimping the outer surface of the conductor is automatically stamped with the following crimping code: two points for blue conductor sizes from 15 to 13 AWG

Construction features:

- Special treated and externally protected steel body, ratchet and handles.
- Handle coating in soft blue PVC plastic.

MECHANICAL TOOLS HP4 RANGE

for insulated terminals and connectors



The tool HP4-G provide cUL® and UL® certified compression when used with CEMBRE GF, GF-F/M/FM, GP, PL1-M.



TECHNICAL FEATURES

Crimping Range	PVC, PC and PA6.6 insulated terminals and connectors for conductor sizes 11 to 10 AWG
Dimensions in.	
Length	12.6
Width	4.1
Height	0.98
Weight lbs.	1.8
Package Dimensions in.	13.0 x 4.3 x 2.0

Professional manual mechanical tool with ratchet mechanism that prevents the handles from opening again before reaching the ratchet. Equipped with a positioning device to reduce the operator's effort and facilitate proper crimping of the conductor.

According to the different thicknesses of the conductor insulation, the crimping on the insulation can be carried out by adjusting the jaws through three different settings: 1) strong, 2) medium, 3) light. The tool is particularly easy to use thanks to its shape and handle coating.



At the end of the crimping the outer surface of the conductor is automatically stamped with the following crimping code: three points for yellow conductor from 11 to 10 AWG

Construction features:

- Special treated and externally protected steel body, ratchet and handles.
- Handle coating in soft yellow PVC plastic.

MECHANICAL TOOLS HP4 RANGE

for sleeve connectors



TECHNICAL FEATURES

Crimping Range	For sleeve connectors type C6-C6 and C10-C10
Dimensions in.	
Length	12.8
Width	4.1
Height	0.83
Weight lbs.	1.6
Package Dimensions in.	13.0 x 4.3 x 2.0



Professional manual mechanical tool with ratchet mechanism that prevents the handles from opening again before reaching the ratchet. The tool is particularly easy to use thanks to its shape and handle coating.

Construction features:

- Special treated and externally protected steel body, ratchet and handles.
- Handle coating in soft yellow PVC plastic.

with interchangeable dies



TECHNICAL FEATURES

Dimensions in.

Length	9.45
Width	3.1
Height	1.28
Weight lbs.	1.3

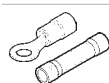
A robust and reliable tool designed to optimise the installers time and effort. A single tool body with a range of interchangeable dies allows a quick and simple transfer from one cable/connector combination to another, across a range of applications.

N.B. ∴ the tool is supplied without dies, for their choice consult the table on the side.

TECHNICAL FEATURES:

- Automatic opening of handles following completion of the crimping operation
- Dull Nickel finish
- Anti-slip handle grips

INTERCHANGEABLE DIES TO ORDER SEPARATELY



INSULATED CONNECTORS RED, BLUE AND YELLOW

RBY-WE

Size 20 ÷ 10 AWG



INSULATED AND UNINSULATED END SLEEVES

KE6-WE

Size 20 ÷ 10 AWG

KE16-WE

Size 20 ÷ 6 AWG

KE35-WE

Size 6 ÷ 2 AWG



CONNECTORS WITH HEAT SHRINKABLE INSULATION

WLM-WE

Size 20 ÷ 10 AWG



UNINSULATED CABLE LUGS

N10-WE

Size 20 ÷ 8 AWG



OPEN BARREL BRASS CONNECTORS

F050-WE

Size 28 and 20 AWG

F075-WE

Size 30 and 18 AWG

F2.5-WE

Size 20 and 14 AWG



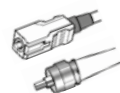
PHOTOVOLTAIC CONNECTORS (MULTI-CONTACT)

MC3-WE

Size 12 ÷ 10 AWG

MC4-WE

Size 12 ÷ 10 AWG



FIBER OPTIC CONNECTOR

ST-WE

SMA, SMB, SFR, ST, SC

SMA-WE

SMA



COAXIAL CONNECTORS

RG71-WE

RG58, RG59, RG62

RG174-WE

RG58, RG174

RG179-WE

RG174, RG179



SHIELDED WE CONNECTOR

RJ45-WE

RJ45

VALSTAR-N5 - KIT AVAILABLE ON REQUEST



VALSTAR-N5

comprising:

- HWE1N Manual mechanical tool
- KE16-WE die
- RBY-WE die
- all contained in a sturdy plastic case with extra compartments for interchangeable dies

MECHANICAL TOOL IDT

with modular interchangeable dies

IDT

Dies for photovoltaic connectors



4300-3541
Tyco Solarlok

4300-3539
MC4 Multi Contact

4300-3540
MC3 Multi Contact

See page 156 for HB11 cable stripper

TECHNICAL FEATURES

Dimensions in.

Length	9.21
Width	2.5
Height	0.9
Weight lbs.	1.0

INTERCHANGEABLE DIES TO ORDER SEPARATELY

INSULATED CONNECTORS RED, BLUE, YELLOW and GREEN

4300-3129	4300-3128
Size 20 ÷ 14 AWG (Red - Blue)	Size 12 ÷ 10 AWG (Yellow) Size 26 ÷ 21 AWG (Green)

CONNECTORS WITH HEAT SHRINKABLE INSULATION

4300-3258	4300-3262
Size 20 ÷ 14 AWG (Red - Blue)	Size 12 ÷ 10 AWG (Yellow) Size 22 ÷ 18 AWG (Green)

UNINSULATED CONNECTORS

4300-3137	4300-3241
Size 18 ÷ 14 AWG	Size 12 ÷ 8 AWG

CONTACTS FOR MULTI POLAR CONNECTORS (eg. ILME, HTS, CONTACT)

4300-3147	4300-3148
Size 26 ÷ 12 AWG	Size 10 ÷ 8 AWG

INSULATED AND UNINSULATED END SLEEVES

4300-3127	4300-3153	4300-3154
Size 22 ÷ 8 AWG	Size 6 ÷ 4 AWG	Size 2 ÷ 1/0 AWG

OPEN BARREL CONNECTORS

4300-3146
Size 20 ÷ 10 AWG

BNC/TNC CONNECTORS FOR COAXIAL CABLES

4300-3136	4300-3140
RG 58, 59, 62, 71	RG 174, 179

TV - SATELLITE RECEIVER CONNECTORS

4300-3138
RG 6, 59

PHONE CONNECTORS

4300-3144	4300-3132
RJ 45 (LARGE)	RJ 11 (SMALL)

PHOTOVOLTAIC CONNECTORS (MULTI-CONTACT)

4300-3540	4300-3539	4300-3541
MC3	MC4	Tyco Solarlok
Size 14 - 12/10 AWG	Size 14 - 12/10 AWG	Size 14 - 12/10 AWG



A robust and reliable tool designed to optimise the installers time and effort.

A single tool body with a range of interchangeable dies allows a quick and simple transfer from one cable/connector combination to another, across a wide range of applications.

Modular dies may be inserted/extracted without using any tools and are connected in pairs for speed and convenience.

To assist correct die selection, the type of connector is illustrated on each die. Each die also carries an illustration of the steps in each crimping process, to assist in achieving the best result.



VALSTAR-R3/IDT

To order separately - sturdy plastic case designed to store an IDT tool and up to 10 modular dies.

Modular die storage housings are easily combined for convenient transportation



Modular die pack



TN70SEY TN120SEY

MECHANICAL TOOLS TN RANGE

for uninsulated terminals and connectors

A-M
SERIES



Professional manual mechanical tool suitable for crimping A-M Cu lugs and non-insulated L-M and L-P connectors.

Heat treated steel crimp jaws.

Easily adjustable die positioning by knurled screw and reference vernier scale.

Handles made from anti-slip plastic with hilt.



TECHNICAL FEATURES

Crimping Range TN70SEY

Uninsulated terminals and connectors
for conductor sizes 10 to 2/0 AWG

Dimensions in.

Length	17.7
Width	5.0
Height	1.9
Weight lbs.	4.4



TECHNICAL FEATURES

Crimping Range TN120SEY

Uninsulated terminals and connectors
for conductor sizes 8 to 300 AWG

Dimensions in.

Length	27.5
Width	6.7
Height	1.9
Weight lbs.	6.6

TNN70 TNN120

MECHANICAL TOOLS TN RANGE

for insulated terminals and connectors

ANE
SERIES



Professional manual mechanical tool suitable for the crimping of wire terminals and PA 6.6 insulated connectors.

Heat treated steel crimp jaws.

Easily adjustable die positioning by knurled screw and reference vernier scale.

Handles made from anti-slip plastic with hilt.



TECHNICAL FEATURES

Crimping Range TNN70

Polyamide PA6.6 insulated terminals and connectors
for conductor sizes 8 to 2/0 AWG

Dimensions in.

Length	17.7
Width	5.0
Height	1.9
Weight lbs.	4.4



TECHNICAL FEATURES

Crimping Range TNN120

Polyamide PA6.6 insulated terminals and connectors
for conductor sizes 8 to 300 AWG

Dimensions in.

Length	27.5
Width	6.7
Height	1.9
Weight lbs.	6.6

MECHANICAL TOOLS TNE RANGE

for uninsulated terminals and connectors

A-M
SERIES



TECHNICAL FEATURES

Crimping Range	Uninsulated terminals and connectors A-M, L-M and L-P series for conductor sizes 10 to 1/0 AWG	
Dimensions in.		
Length		15.2
Width		3.7
Height		1.59
Weight lbs.		3.2



NEW

DURABLE

HEXAGONAL



Mechanical tools equipped with rotating dies with hexagonal imprint, suitable for crimping A-M Cu lugs and non-insulated L-M and L-P connectors. Particularly sturdy and easy to handle.

MECHANICAL TOOLS TNE RANGE

for uninsulated terminals and connectors

A-M
SERIES



TECHNICAL FEATURES

Crimping Range	Uninsulated terminals and connectors A-M, L-M and L-P series for conductor sizes 8 to 250 AWG	
Dimensions in.		
Length		25.6
Width		6.0
Height		2.1
Weight lbs.		8.4



NEW

DURABLE

HEXAGONAL



Mechanical tools equipped with rotating dies with hexagonal imprint, suitable for crimping A-M Cu lugs and non-insulated L-M and L-P connectors. Particularly sturdy and easy to handle.

TNE-D50

MECHANICAL TOOLS TNE RANGE

for uninsulated terminals and connectors according to DIN 46235 and DIN 46267 T.1



DR
SERIES



Mechanical tools equipped with rotating dies with hexagonal imprint compliant with DIN 480863 suitable to crimp Copper lugs according to DIN 46235 and through connectors according to DIN 46267 T.1 (refer to page 48-49), particularly sturdy and easy to handle.



TECHNICAL FEATURES

Crimping Range	Uninsulated terminals and connectors according to DIN 46235 and DIN 46267 T.1 for conductor sizes 10 to 1/0 AWG	
Dimensions in.		
Length		15.2
Width		3.7
Height		1.59
Weight lbs.		3.2



TNE-D120

MECHANICAL TOOLS TNE RANGE

for uninsulated terminals and connectors according to DIN 46235 and DIN 46267 T.1



DR
SERIES



Mechanical tools equipped with rotating dies with hexagonal imprint compliant with DIN 480863 suitable to crimp Copper lugs according to DIN 46235 and through connectors according to DIN 46267 T.1 (refer to page 48-49), particularly sturdy and easy to handle.



TECHNICAL FEATURES

Crimping Range	Uninsulated terminals and connectors according to DIN 46235 and DIN 46267 T.1 for conductor sizes 8 to 250 AWG	
Dimensions in.		
Length		25.6
Width		6.0
Height		2.1
Weight lbs.		8.4



MECHANICAL TOOLS TNE RANGE

for Cu tube lugs T-M (NFC 20-130), T-L and through connectors L-T

T-M
SERIES



TECHNICAL FEATURES

Crimping Range	for Cu tube lugs T-M (NFC 20-130), T-L and through connectors L-T for conductor sizes 10 to 1/0 AWG
Dimensions in.	
Length	15.2
Width	3.7
Height	1.59
Weight lbs.	3.2



NEW

DURABLE

HEXAGONAL



Mechanical tools equipped with rotating dies with hexagonal imprint, suitable to crimp Copper lugs T-M series according to (NFC 20-130), T-L and and through connectors L-T (refer to page 50-51), particularly sturdy and easy to handle.

MECHANICAL TOOLS TNE RANGE

for Cu tube lugs T-M (NFC 20-130), T-L and through connectors L-T

T-M
SERIES



TECHNICAL FEATURES

Crimping Range	for Cu tube lugs T-M (NFC 20-130), T-L and through connectors L-T for conductor sizes 8 to 250 AWG
Dimensions in.	
Length	25.6
Width	6.0
Height	2.1
Weight lbs.	8.4



NEW

DURABLE

HEXAGONAL



Mechanical tools equipped with rotating dies with hexagonal imprint, suitable to crimp Copper lugs T-M series according to (NFC 20-130), T-L and and through connectors L-T (refer to page 50-51), particularly sturdy and easy to handle.

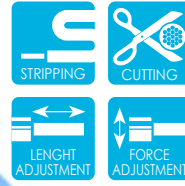
HB14

Automatic wire stripper HB14

Automatic stripping force adjustment according to the cable section; the stripping force can be manually adjusted even for very soft or tough insulation for cables from 24 to 10 AWG.

Stripping length adjustable from 0.24 to 0.71 in.

Conductor cut from 24 to 14 AWG.



TECHNICAL FEATURES

Dimensions in.

Length	7.9
Width	6.5
Height	1.1
Weight lbs	0.16

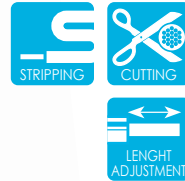
HB15

Automatic wire stripper HB15

Automatic stripping force adjustment according to the cable section.

For cables from 24 to 10 AWG. Stripping length adjustable from 0.24 to 0.59 in.

Conductor cut from 24 to 14 AWG.



TECHNICAL FEATURES

Dimensions in.

Length	6.4
Width	5.4
Height	1.1
Weight lbs	0.09

HB6



Wire strippers, including stripping die for PVC insulated cables from 34 to 8 AWG

Interchangeable stripping dies available upon request:



4320-0866, rounded blades
suitable for:
PVC from 10 to 5 AWG



4320-0864, flat blade
suitable for:
PVC from 34 to 8 AWG



4320-0865, 'V' blades
suitable for:
PTFE from 28 to 12 AWG

HB11



For photovoltaics insulated cables
14 to 10 AWG
stripping length 0.33 in.

HB5



TECHNICAL FEATURES

Application Range	Wire stripper, for PVC insulated cables 22 to 10 AWG
Dimensions in.	
Length	6.5
Width	2.2
Height	0.6
Weight lbs	0.3

HB7



TECHNICAL FEATURES

Application Range	A versatile tool for cutting, crimping, and stripping. Range: 24 to 10 AWG
Dimensions in.	
Length	8.1
Width	4.2
Height	0.8
Weight lbs	0.6

HB8



TECHNICAL FEATURES

Application Range	Wire stripper, for PVC insulated cables 24 to 10 AWG
Dimensions in.	
Length	6.9
Width	3.5
Height	0.9
Weight lbs	0.4

CABLE STRIPPING TOOLS HB RANGE

for external sleeves of Low/Medium Voltage cables



Universal cable stripping tool for external sleeves of Low/Medium Voltage cables Ø 0.5 to 2.5 in. and primary insulator in XLPE max Ø 1.5 in.



HB13UE

For vulcanised extruded semiconductor

HB12N cable stripping tool removes the semiconductor layer by being manually rotated around the cable while lateral advancement is achieved automatically. Safe and convenient, it can be used on cables with a semi-con diameter between 0.71 to 2.4 in.

The HB12N kit includes:

- HB12N cable stripping tool
- sturdy plastic case



HB12N

- Sturdy frame in anodised Aluminium alloy and Steel.
- Special Steel blade with precise cutting depth regulation.
- Stripping operation can start at any point along the conductor.
- Bearing mounted rollers provide smooth cutting action.
- With "REVERSE" function, which allows the removal of semiconductor up to 0.28 in. thick from the sheath of the cable.
- Double speed for each direction.

HB2 HB40-U



Wire stripper, for circular cables
HB2 Ø 3/16 to 1 1/8 in.
HB40-U Ø 3/4 to 1 9/16 in.

HB9

Insulated knife, with curved blade and protective cover. Suitable for insulation and screen removal, equipped with blade guide to avoid damage to strands. Handle is made of a bi-component plastic material.



Insulated knife has an interchangeable straight blade and plastic blade protector that folds into the handle. Ergonomic handle made of anti shock plastic material

HB10



HAND TOOLS FOR CABLE TIES

5527030079

With cutting device

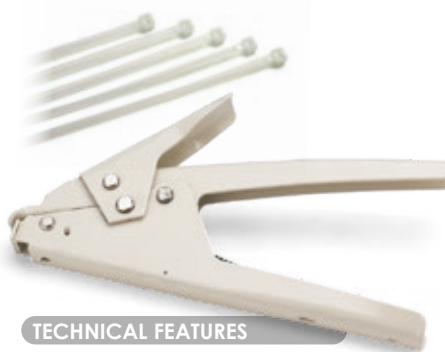


TECHNICAL FEATURES

Application Range	For stainless steel cable ties width up to 0.31 in.
Dimensions in.	
Length	7.1
Width	5.6
Height	1.2
Weight lbs	1.2

5523036090

Manual cutting



TECHNICAL FEATURES

Application Range	For plastic cable ties from 0.19 to 0.35 in.
Dimensions in.	
Length	7.6
Width	3.9
Height	1.0
Weight lbs	0.7

5313022048

Automatic cutting



TECHNICAL FEATURES

Application Range	For plastic cable ties from 0.08 to 0.19 in.
Dimensions in.	
Length	6.4
Width	5.2
Height	0.9
Weight lbs	0.46

KT

CABLE CUTTERS KT RANGE

for cutting cables Cu and Al

KT1



TECHNICAL FEATURES

Cutting Capacity	Rigid	Multi-Cond.	Flex
Section Cond. in.	Cu 6 Al 2	Cu 1/0 Al 1/0	Cu 2/0
Dimensions in.			
Length	6.7		
Width	1.8		
Weight lbs.	0.46		

KT2



TECHNICAL FEATURES

Cutting Capacity	Rigid	Multi-Cond.	Flex
Section Cond. in.	Cu 6 Al 1/0	Cu 1/0 Al 2/0	Cu 3/0
Dimensions in.			
Length	8.26		
Width	1.8		
Weight lbs.	0.65		

KT5



TECHNICAL FEATURES

Cutting Capacity	for cutting cables Cu and Al up to max section 3 AWG
Dimensions in.	
Length	6.7
Width	2.0
Weight lbs.	0.24

KT3N

TECHNICAL FEATURES

Cutting Capacity	For cutting cables Cu and Al Ø max 1.34 in. (600 MCM)
Dimensions in.	
Length	10.2
Weight lbs.	1.3



KT4N

TECHNICAL FEATURES

Cutting Capacity	For cutting cables Cu and Al Ø max 2.4 in. (1000 NCM)
Dimensions in.	
Length	11.7
Weight lbs.	1.76



5116660250

TECHNICAL FEATURES

Cutting Capacity	For cutting cables Cu and Al Ø max 0.71 in.
Dimensions in.	
Length	23.6
Width	5.5
Weight lbs.	3.31



5116660500

TECHNICAL FEATURES

Cutting Capacity	For cutting cables Cu and Al Ø max 1.0 in.
Dimensions in.	
Length	31.5
Width	6.3
Weight lbs.	6.62



HAND TOOLS

KTS1632

for cutting and sealing flexible plastic conduit



TECHNICAL FEATURES

Dimensions in.

Length	9.05
Width	2.28
Thickness	1.26
Weight lbs.	0.71

Cuts and seals flexible plastic conduit in a single operation. Lightweight and easy to operate. Suitable for flexible conduits from Ø 0.63 to Ø 1.26 in.

for cutting plastic pipe

PC1



Body: die-cast Aluminum alloy
Blade material: hardened Carbon Steel



TECHNICAL FEATURES

Dimensions in.

Length	7.68
Width	3.8
Thickness	1.06
Weight lbs.	0.7

Plastic pipe cutting tool
Cutting capacity:
from Ø 0.23 to Ø 1.65 in.

FRAME-TYPE HOLE PUNCHING TOOL

MT-FC48N

for cable trunking

Table denotes the punch/die set reference, for each hole size. Suitable for punching holes in mild steel, fibreglass or plastic material, up to 0.08 in. thick.

Hole Dimensions					Maximum thickness of mild steel (in.)	Type
Nominal		Pg	ISO	Inch		
Ø (mm)	Ø (inch)					
15.5	.610	Pg9	-	-	0.08	RD15.5SS-FC
16.2	.638	-	ISO-16	-		RD16.2SS-FC
17.5	.689	-	-	-		RD17.5SS-FC
18.8	.740	Pg11	-	-		RD18.8SS-FC
19.1	.752	-	-	-		RD19.1SS
20.5	.807	Pg 13.5	ISO-20	-		RD20.5SS
22.6	.890	Pg16	-	-		RD22.6SS
23.8	.937	-	-	5/8"		RD23.8SS
25.4	1.000	-	ISO-25	-		RD25.4SS
27.0	1.063	-	-	3/4"		RD27.0SS
28.5	1.122	Pg21	-	-		RD28.5SS
30.5	1.201	-	-	7/8"		RD30.5SS
31.8	1.252	-	-	-		RD31.8SS
32.5	1.279	-	ISO-32	-		RD32.5SS
34.6	1.362	-	-	-		RD34.6SS
37.2	1.464	Pg29	-	-		RD37.2SS
38.1	1.500	-	-	-		RD38.1SS
40.5	1.594	-	ISO-40	-		RD40.5SS-FC
41.3	1.626	-	-	-		RD41.3SS-FC
42.5	1.673	-	-	1 1/4"		RD42.5SS-FC
43.2	1.701	-	-	-		RD43.2SS-FC
44.5	1.752	-	-	-		RD44.5SS-FC
47.2	1.858	Pg36	-	-		RD47.2SS-FC



Max centre of hole to edge of trunking: 2.11 in.

TECHNICAL FEATURES

Dimensions in.

Length	9.9
Width	8.8
Thickness	2.6
Weight lbs.	7.23

Lightweight and easy to operate, designed for punching holes up to 1.858 in. diameter in the side wall of trunking without the need for pre drilling.

VAL-P30

Supplied in a robust plastic case.





NEW VALSTAR-N0 (empty)

- Robust plastic case with compartments
- **1 storage compartment** for mechanical tools, type Crimpstar® /ZKE-N/etc.
 - **8 storage compartments** for connecting material

Dimensions (LxWxH): 13.4 x 10.8 x 2.8 in.
Weight: 1.54 lbs.



NEW VALSTAR-N1

- Robust plastic case with compartments, containing:
- Tool type **ZKE610N**
 - a selection of end sleeves PKC conductor size 17÷10 AWG
 - Cable ties type G100X2.5

Material included:

Q.ty	Cond. Size AWG	Length in.	Color	Type
500	17	0.55	Yellow	PKC108
500	16	0.55	Red	PKC1508
500	14	0.55	Blue	PKC2508
200	12	0.71	Grey	PKC410
100	10	0.79	Black	PKC612
100	-	3.94 x 0.10	White	G100X2.5

NEW VALSTAR-N2

- Robust plastic case with compartments, containing:
- Tool type **ZKE610N**
 - a selection of end sleeves PKE conductor size 17÷10 AWG
 - Cable ties type G100X2.5

Material included:

Q.ty	Cond. Size AWG	Length in.	Color	Type
500	17	0.55	Red	PKE108
500	16	0.55	Black	PKE1508
500	14	0.55	Grey	PKE2508
200	12	0.71	Orange	PKE410
100	10	0.79	Green	PKE612
100	-	3.94 x 0.10	White	G100X2.5

NEW VALSTAR-N3

- Robust plastic case with compartments, containing:
- Tool type **ZKE610N**
 - a selection of end sleeves PKD conductor size 17÷10 AWG
 - Cable ties type G100X2.5

Material included:

Q.ty	Cond. Size AWG	Length in.	Color	Type
500	17	0.55	Red	PKD108
500	16	0.55	Black	PKD1508
500	14	0.55	Blue	PKD2508
200	12	0.71	Grey	PKD410
100	10	0.79	Yellow	PKD612
100	-	3.94 x 0.10	White	G100X2.5



NEW VALSTAR-N4

- Robust plastic case with compartments, containing:
- Tool type **Crimpstar® HP3**.
 - An assortment of PVC insulated crimp terminals for conductor sizes 22÷10 AWG.
 - Cable ties

Material included:

Q.ty	Cond. Size AWG	Description	Type
100	22÷16	ring terminals	RF-M4
100	16÷14	ring terminals	BF-M5
100	12÷10	ring terminals	GF-M6
100	22÷16	female disconnect terminals	RF-F608P
100	16÷14	female disconnect terminals	BF-F608P
100	22÷16	butt connectors	PL03-M
Length in.			
100	3.94 x 0.10	cable ties	G100X2.5



NEW VALSTAR-N5

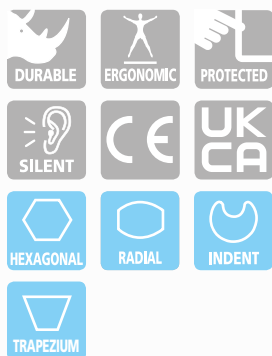
- Robust plastic case with compartments, containing:
- Tool type **HWE1N**
 - KE16-WE die
 - RBY-WE die

Dies included:

Q.ty	Cond. Size AWG	Description	Type
1	20÷6	Insulated and uninsulated end sleeves	KE16-WE
1	20÷10	Insulated connectors red, blue and yellow	RBY-WE

BENCH PRESS TOOLS





Pneumo-hydraulic, production bench press, operated by a manual control, provides a consistent and reliable crimped connection. Extensive range of interchangeable dies available for crimping a wide variety of connectors.

NOTE: for applications not listed, please contact Cembre.



PNB-1 detail of the crimping zone with PU-1 guard.

TECHNICAL FEATURES

Nominal operating pressure	100 psi
Dimensions in.	
Width	7.09
Depth	12.6
Height	27.56
Weight lbs. (without dies)	50.72

INTERCHANGEABLE DIES (to be ordered separately)

Die Set	Guard*	Connector Type	Nominal Conductor Size AWG
PV-1	PU-1	Insulated Connectors	green 24÷20
PR-1			red 22÷16
PB-1			blue 16÷14
PG-1			yellow 12÷10
PH1-1	PH-1**	Through connectors PE HD insulated	
		NL-M, NL-P connectors PA6.6 insulated	
KE0.75-1	PK-1	End Sleeves	22 - 20 - 18
KE2.5-1			17- 16 -14
KE10-1			12 - 10 - 8÷7
MTT16-50	ME-1		6÷5
MTT25-50			4
N1-1	PU-1	A 03-M.. S 1.5-.. RN-..	22 - 16
		A 06-M.. S 2.5-.. BN-..	16 - 14
		A 1-M.. S 6-.. GN-..	12 - 10
NEW MS6-50	ME-1	Uninsulated Copper Lugs	T6-M 12 - 10
NEW MS10-50			T10-M 8
NEW MS16-50			T16-M 6
NEW MS25-50			T25-M 4
NEW MS35-50			T35-M 2
NEW MS50-50			T50-M 1/0
MY2-50	ME-1	Bare color code copper lugs	C8 8
MY3-50			C6 6
MY4-50			C4 4
MY5-50			C3 3
MY6-50			C2 2
MY7-50			C1 1
MY10-50			C1/0 1/0
MN2RF-50	MN RF-1	Nylon Insulated Lugs	ANE2-M.. 8
MN3RF-50			ANE3-M.. 6
MN5RF-50			ANE5-M.. 5
MN7RF-50			ANE7-M.. 2

* Supplied as standard with the machine ** Supplied as standard with the die

BENCH PRESS TOOL

Pneumatic

TECHNICAL FEATURES

Nominal operating pressure	87÷100 psi
Dimensions in.	
Width	5.12
Depth	14.57
Height	7.68
Weight lbs.	22.71



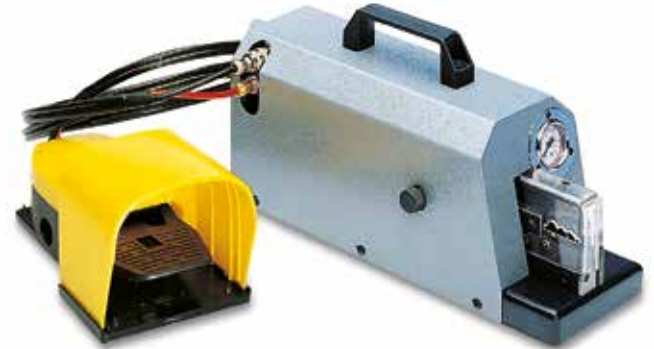
PNB-3P detail of the crimping zone.

BENCH PRESS RANGE

Type	Connector Type	Conductor Size AWG
PNB-3P*	Insulated connectors red, blue and yellow	22÷10
PNB-3PD	Insulated terminals and butt connectors - frontal insertion	22÷10
PNB-3N1	Uninsulated terminals	22÷8
PNB-3N5	Uninsulated terminals	8÷6
PNB-3NN3	Polyamide insulated terminals	16÷8
PNB-3NN4	Polyamide insulated terminals	8÷6
PNB-3F/M	Bullet connectors	20÷14

* Will also crimp Polycarbonate fully-insulated terminals if fitted with PNB3F/M positioner (Cod. 6240145), available as an optional accessory.

Pneumatic bench press operated by foot pedal for crimping terminals and connectors 23 to 5 AWG.



BENCH PRESS TOOL

Pneumatic with multi-aperture die

TECHNICAL FEATURES

Nominal operating pressure	87 psi
Dimensions in.	
Width	4.72
Depth	6.3
Height	11.81
Weight lbs.	13.23



PNB-4KE detail of the crimping zone.

MULTI DIES

Type	Connector Type	Conductor Size AWG
PNB-4KE	End Sleeves type PK.. and type KE	22÷8

Pneumatic bench press, operated by a manual control.

Supplied with a multi-aperture die suitable for crimping insulated and uninsulated end sleeves from 22 to 8 AWG.

Compact and efficient. Easy to operate, producing a secure and reliable crimped connection.





Bench press type EPB-1N, electro-pneumatically operated, is designed for stripping and crimping insulated end sleeves Cembre type PKC, PKD and PKE.

The basic configuration processes connectors of c.s.a 20/18/17 and 16 AWG with a sleeve lengths of 0.24, 0.31, 0.39 and 0.47 in.

Adapter kits are available:

KIT-2.5-EPB1N

for insulated end sleeves c.s.a 14 AWG with a sleeve length of 0.31, 0.39 and 0.47 in.

KIT-4-EPB1N

for insulated end sleeves c.s.a 12 AWG with a sleeve length of 0.39 in.

Stripping and crimping operations are carried out in quick succession. Adjustable loading speed of vibrating charger.

Quick and easy change of configuration for different connector sizes. Automatic adjustment of operating parameters to suit each configuration.

Modular structure and wear-free components guarantee excellent reliability.



Adapter Kit for insulated end sleeves c.s.a 14 AWG (KIT-2.5-EPB1N) (KIT-4-EPB1N)



TECHNICAL FEATURES

Crimping Range	20-16 AWG (basic configuration)
Dimensions in.	
Length	15.3
Width	9.4
Height	19.3
Weight lbs.	63.9
Power Supply	230 V/50 Hz (110 V/60 Hz)
Current	0.5 A
Length of crimp	0.24, 0.31, 0.39 and 0.47 in.
Geometry of crimp	Trapezoidal
Cycle time	2 s
Compressed Air supply	Min. 58 - Max 87 psi
Air consumption	1.2 l / cycle
Cycle controller	Electro-pneumatic, with microprocessor
Counter	Digital



PNEUMATIC CRIMPING TOOLS

Hand held - PNB series

PNB-6KE
PNB-7KE

PNB-6KE TECHNICAL FEATURES

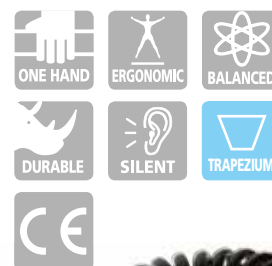
Crimping Range	24 ÷ 14 AWG
Dimensions in.	
Length	7.9
Width Ø	1.7
Length with spiral hose	78.7
Weight lbs.	0.88

PNB-7KE TECHNICAL FEATURES

Crimping Range	12 ÷ 8 AWG
Dimensions in.	
Length	7.9
Width Ø	1.7
Length with spiral hose	78.7
Weight lbs.	0.88

PNB-6KE and PNB-7KE hand tools facilitate the rapid crimping of insulated end sleeves while avoiding the operator discomfort associated with ordinary manual tools. Lightweight and easy to use, these tools are ideal for panel building applications and component assembly.

Both tools are designed to be maintenance-free and need no routine calibration. A 58 - 87 psi air supply is required for connection via the quick coupler fitted to the hose supplied with the tool.



PNEUMATIC CRIMPING TOOLS

Bench mounted tools with foot pedal - PNB series

PNB-6KE-T
PNB-7KE-T

PNB-6KE-T TECHNICAL FEATURES

Crimping Range	24 ÷ 14 AWG
Dimensions in.	
Length	7.9
Width Ø	5.5
Height	2.7
Length with spiral hose	78.7
Weight lbs.	2.2

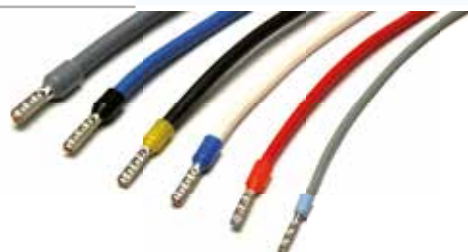
PNB-7KE-T TECHNICAL FEATURES

Crimping Range	12 ÷ 8 AWG
Dimensions in.	
Length	7.9
Width Ø	5.5
Height	2.7
Length with spiral hose	78.7
Weight lbs.	2.2

PNB-6KE-T and PNB-7KE-T have bench mounts with storage and are foot pedal operated to allow operators to have both hands free when assembling cable harnesses. Both tools are designed to be maintenance-free and need no routine calibration.

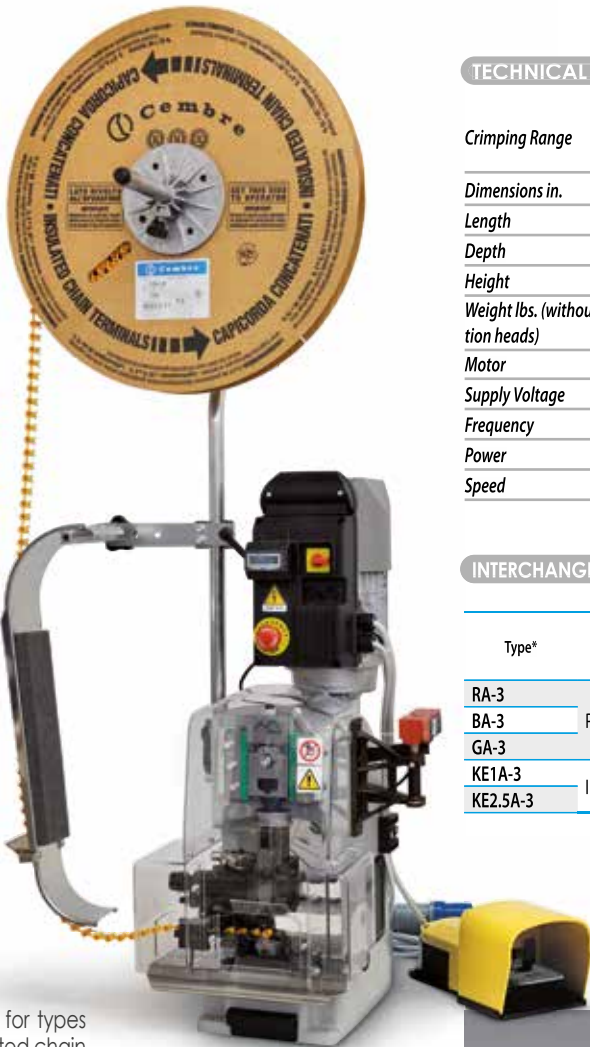


A 58 - 87 bar air supply is required for connection via the quick coupler fitted to the hose supplied with the tool.





Electro-pneumatic, production bench press, controlled by a foot operated pedal. Producing a consistent and reliable crimped connection. Interchangeable application heads available to suit the complete range of Polycarbonate insulated connectors.



See pages 16-17 and 20 for types and features of the insulated chain connectors and end sleeves.



Conforms to DIN Standard 46 228/4

TECHNICAL FEATURES

Crimping Range	Polycarbonate insulated chain terminals 22 ÷ 10 AWG and insulated chain end sleeves 22 ÷ 13 AWG
Dimensions in.	
Length	7.09
Depth	9.84
Height	24.4
Weight lbs. (without application heads)	90.4
Motor	
Supply Voltage	110 V / 60 Hz
Frequency	50 Hz
Power	0.55 kW / 0.75 HP
Speed	2,800 turns/minute

INTERCHANGEABLE APPLICATION HEADS, SIDE ENTRY WITH PNEUMATIC FEED

Type*	Connectors	Conductor Size AWG
RA-3	Polycarbonate insulated chain terminals	22÷15
BA-3		15÷13
GA-3		11÷10
KE1A-3	Insulated chain end sleeves	22÷17
KE2.5A-3		17÷13

* order as required



PROFESSIONAL EQUIPMENT



symbol description

professional equipment



Can be operated with one hand



Micro-serrated blades for anti-slip purpose



Ergonomically designed with a sculptured body for operator comfort



Special Steel frame for high resistance and a long life



Lightweight and balanced for greater control



Chrome Steel Tools



Dual-compound plastic handles
Greater safety and comfort in handling, thanks to the rubber inserts



Chrome Vanadium Steel Tools



Durable moulded body offering high resistance to wear and damage in all operating conditions



Aluminum frame



Max cutting section



ABS structure



High hardness blades



Luminous flux intensity



Stainless steel blades



Equipped with USB charging



High tensile steel blades



Equipped with wireless charging

symbol description

professional equipment



Equipped with magnetic support



Equipped with power plug



Equipped with dimmer switch



Equipped with an ON / OFF motion sensor



Can be used as an power bank



Degree of Protection



CE marking



UKCA marking



Robust-A

Professional scissors with a Special Steel frame for high resistance and long life.

Ergonomic and dual-compound plastic handles: glass fibre reinforced Polyamide and inserts of soft Rubber.

The anti-loosening pivot and bevelled profile allow the accurate and consistent alignment of the blades.

High hardness blades (58 HRC) and an anti-slip serrated edge for making precise cuts even on more difficult materials.

Shaped groove for cutting conductor up to 1/0 AWG.

Supplied with carry case and swivel belt hook.

Special Steel frame for high resistance and a long life



Micro serrated blade



Anti-loosening pivot



Dual-compound material



Case with swivel belt hook

PROFESSIONAL SCISSORS SC6X

SC6X-A

For flexible conductors Cu-Al

Only 0.19 lbs. weight, the tapered blades and streamlined handles encourage agility and speed of operation for perfect work every time.

The particular shape of the blades optimises use in limited spaces and cutting of conductors with minimum effort.

Handles have an integrated crimping system for end sleeves.

lightweight design Only 0.19 lbs

Agil-E



Micro serrated blade



Anti-loosening pivot



Dual-compound material



Case with belt fastening system

SC5X

PROFESSIONAL SCISSORS SC RANGE

For flexible conductors Cu-Al



Professional scissors with **Special Steel** frame, high hardness blades (58 HRC) and anti slide serrations. The moulded plastic handles combine a rigid structure with a softer material for finger comfort.

Cutting of flexible conductors up to 1/0 AWG

TECHNICAL FEATURES

Application Range	Cu-Al flexible conductors up to 1/0 AWG
Dimensions in.	
Length	6.4
Width	3.0
Weight lbs	0.27



Supplied with carry case and swivel belt hook.

SC6X-A

PROFESSIONAL SCISSORS SC RANGE

For flexible conductors Cu-Al



Only 0.2 lbs weight, the tapered blades and streamlined handles encourage agility and speed of operation.

Handles have an integrated crimping system for end sleeves.

Cutting of flexible conductors up to 1/0 AWG

TECHNICAL FEATURES

Application Range	Cu-Al flexible conductors up to 1/0 AWG
Dimensions in.	
Length	6.3
Width	2.8
Weight lbs	0.19



Supplied with carry case belt hook.

PROFESSIONAL SCISSORS SC RANGE

SC3X

For flexible conductors Cu-Al

TECHNICAL FEATURES

Application Range	Cu-Al flexible conductors up to 2 AWG
Dimensions in.	
Length	5.9
Width	2.9
Weight/lbs	0.19

Multi-purpose scissors with high hardness blades (56 HRC) and anti slide serrations. The moulded plastic handles combine a rigid structure with a softer material for finger comfort.

Cutting of flexible conductors up to 2 AWG



PROFESSIONAL SCISSORS SC RANGE

SC1

For flexible conductors Cu-Al

TECHNICAL FEATURES

Application Range	Cu-Al flexible conductors
Dimensions in.	
Length	5.7
Width	3.0
Weight/lbs	0.17

Electricians scissors with high tensile steel blades allowing for excellent strength and performance. Specially micro-serrated blades for anti-slip purpose. Handles are made from dual component materials.



CBL01



CBLIGHT

pocket torch

The handy CBL01 torch is the size of a pen and is equipped with a double light point to illuminate small work areas. The side light allows you to illuminate the area while leaving it in your pocket, while the front light al-

lows you to inspect less accessible areas.

The clip is equipped with a magnet allowing it to be attached to any metal surface, freeing the operator's hands.

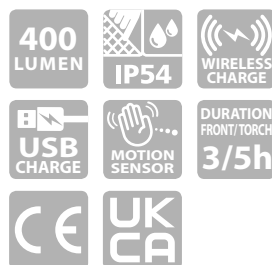
Supplied with USB charging cable.

Pocket torch CBL01

Main Features

Type	Lumen Front/Flashlight	Duration Front/Flashlight	Energy Class	Magnetic Support	Charging Method	Degree of Protection	Operating Temperature Range °F	Body Material	Lamp Material	Dimensions in.	Weight oz
CBL01	150/70	2.5/3.5 h	A++	Yes	USB	IP20	14/104	ABS	PC	6.30 x 0.6 x 0.79	1.34

CBL02-WA



CBLIGHT

head torch

Ideal for any indoor or outdoor activity requiring localised lighting and freedom of action, the CBL02-WA head torch is equipped with a

touch sensor allowing operation even whilst wearing gloves. The light intensity can be modulated via the dimmer function helping to preserve battery life.

The CBL02-WA is a versatile head torch adjustable by means of an elastic band to fit work helmets of various sizes.

Supplied with USB charging cable and charger.

Head torch CBL02-WA

Main Features

Type	Lumen Front/Flashlight	Duration Front/Flashlight	Energy Class	Magnetic Support	Charging Method	Degree of Protection	Operating Temperature Range °F	Body Material	Lamp Material	Dimensions in.	Weight oz
CBL02-WA	400/80	3/5 h	A++	No	USB/Wireless	IP54	14/104	ABS+PC	PC	3.07 x 1.54 x 1.42	3.7

CBL03-WA



CBLIGHT

multi-purpose lamp

The CBL03-WA multi-purpose lamp is a mini-lamp that can be used on a table or hung on metal surfaces thanks to the handy magnet or the suspension hook.

It is equipped with an ergonomic non-slip handle to make it easy to use.

The 2 light points with dimmer function allow you to modulate the intensity and battery life as needed. The compact design makes it ideal as a pocket lamp for storage in a jacket pocket or work trousers.

Supplied with USB charging cable and charger.

Multi-purpose lamp CBL03-WA

Main Features

Type	Lumen Front/Flashlight	Duration Front/Flashlight	Energy Class	Magnetic Support	Charging Method	Degree of Protection	Operating Temperature Range °F	Body Material	Lamp Material	Dimensions in.	Weight oz
CBL03-WA	300/100	3/6 h	A++	Yes	USB/Wireless	IP65	14/104	ABS	PC	5.24 x 2.68 x 0.98	6.70

CBLIGHT

space-saving floor lamp

The most versatile of the family is the CBL04-WA, which has a double light point, 2 dimmable light intensities, a rotatable and foldable stem and allows ideal lighting in all conditions.

The double magnetic support and the suspension hook allow the lamp to be secured anywhere with ease.

Designed to be easy to carry in a bag or trouser pocket whilst also offering excellent battery life and low weight portability.

The compact design ensures the CBL04-WA is the ideal solution for inspecting difficult to reach areas. Supplied with USB charging cable and charger.

CBL04-WA



Space-saving floor lamp CBL04-WA

Main Features

Type	Lumen Front / Flashlight	Duration Front / Flashlight	Energy Class	Magnetic Support	Charging Method	Degree of Protection	Operating Temperature Range °F	Body Material	Lamp Material	Dimensions in.	Weight oz
CBL04-WA	600 / 100	2.5 / 8 h	A++	Yes	USB / Wireless	IP54	14 / 104	ABS	PC	6.89 (12.8 max) x 1.73 x 1.5	8.68

CBLIGHT

portable lamps

An ergonomic bi-component plastic handle makes the CBL05-WA the most comfortable and robust lamp in the series, particularly suited to lengthy inspection work. Featuring two light points, dimmer function and a long battery life.

Equipped with magnetic table support with retractable suspension hook. Supplied with USB charging cable and charger.

CBL05-WA

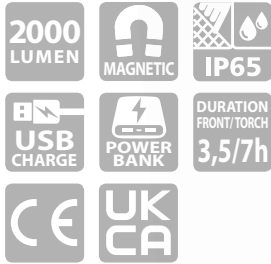


Portable lamps CBL05-WA

Main Features

Type	Lumen Front / Flashlight	Duration Front / Flashlight	Energy Class	Magnetic Support	Charging Method	Degree of Protection	Operating Temperature Range °F	Body Material	Lamp Material	Dimensions in.	Weight oz
CBL05-WA	600 / 100	2.5 / 10 h	A++	Yes	USB / Wireless	IP65	14 / 104	PC	PC	8.07 x 2.17 x 1.57	10.58

CBL06



The CBL06A portable spotlight meets the requirement of those who need to illuminate small-medium work environments.

The magnetic table mount allows the spotlight to be secured to metal surfaces. The power bank function allows small devices to be charged via the USB output, useful for emergency situations. Supplied with USB charging cable and charger.

CBLIGHT

portable spotlight for small-medium work environments

Portable spotlight for small-medium work environments CBL06A

Main Features											
Type	Lumen Front / Flashlight	Duration Front / Flashlight	Energy Class	Magnetic Support	Charging Method	Degree of Protection	Operating Temperature Range °F	Body Material	Lamp Material	Dimensions in.	Weight oz
CBL06A	2000	3.5 / 7 h	A++	Yes	USB	IP65	14 / 104	ABS	PC	7.68 x 4.92 x 1.89	28.22

CBL07A



The diffused light emitted by the CBL07A spotlight enables the illumination of large areas. Light, practical and sturdy, this spotlight is quick to install. The power bank function allows small devices to be charged via the USB output, useful for emergency situations. Supplied with charger.

CBLIGHT

portable spotlight for large work environments

Portable spotlight for large work environments CBL07A

Main Features											
Type	Lumen	Duration	Energy Class	Magnetic Support	Charging Method	Degree of Protection	Operating Temperature Range °F	Body Material	Lamp Material	Dimensions in.	Weight oz
CBL07A	3000 / 1500	3 / 6 h	A+	No	Power Plug	IP65	14 / 104	ABS	PC	10.9 x 8.39 x 3.39	49.38

CBLIGHT

wireless charging bases

BCB1-WA BCB2-WA

The BCB1-WA and BCB2-WA charging bases make it possible to keep the lamps fully charged meaning they are always ready for use.

The magnetic construction allows quick attachment to metal surfaces along with holding the lamps in place during charging.

The BCB1-WA single base is designed to recharge a single lamp. The BCB2-WA allows 2 lamps to be charged at the same time. Supplied with USB charging cable and charger.



BCB2-W



BCB1-W

Wireless charging bases

Main Features

Type	Magnetic Support	Charging Method	Degree of Protection	Operating Temperature Range °F	Body Material	Dimensions in.	Weight oz
BCB1-WA	Yes	USB / Wireless	IP20	14/104	ABS	4.13 x 4.17 x 0.71 (single)	6.70
BCB2-WA	Yes	USB / Wireless	IP20	14/104	ABS	7.95 x 4.17 x 0.71 (double)	9.52

CBLIGHT

tripod adjustable

TRCB2

The TRCB2 tripod is extendable up to a maximum of 6.5 ft., and offers maximum flexibility to position the CBLIGHT lamps at the desired height.

When mounted on the tripod the light can be tilted to provide the optimum beam angle.

Its sturdy construction makes it safe even when fully extended.



Type	Suitable per lamp type
TRCB2	CBL06 CBL07

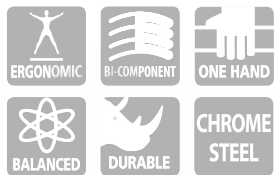


TRCB2

Main Features

Type	Body Material	Minimum height open ft.	Max height open ft.	Base diameter maximum ft.	Dimensions Closed in.	Weight lbs.
TRCB2	Steel	3,7	6,5	3,3	40,6 x 6,3	7,0

insulated



55-59
HRC



C Δ 1000V
EN/IEC - 60900

To ensure quick identification, the type and size of the head are indicated in different colors on the back of the handle.

Each individual screwdriver is tested in accordance with EN 60900

The heads are made from Chromium Molybdenum steel with a hardness of 55-59 HRC and are hardened with Phosphoric Manganese Acid to increase corrosion resistance; the size of the insulating cover allows it to be inserted into tight spaces.



Blade type identification on the back of the handle

The CEMBRE range of insulated screwdrivers have dual compound handgrips and an ergonomic design making them particularly practical and comfortable in the

following modes of use:

- Normal
- Fast
- Forced

Narrow insulating cover to allow insertion into tight spaces

Chromium Molybdenum steel head with hardness 55-59 HRC and anti-corrosion surface treatment

Soft and durable hand guard

Ergonomic and shaped hand grip

Coating in dual compound plastic material with soft rubber inserts

Shaped blade for greater resistance and stability



Head type identification codes:

- White - Flat head
- Yellow - "Phillips" cross head
- Green - "Pozidriv" cross head
- Red - "Phillips" combination head
- Blue - "Pozidriv" combination head
- Orange - "Torx" six point star head



Steel tips



Ergonomic handle



Hand guard



Attachment hole

insulated



Flat head screwdrivers



Main Features

Type	Head Dimensions in.		Blade Length in.	Total Length in.	Weight lbs.
	Width	Thickness			
SDC3X100-KV	0.12	0.019	3.9	7.3	0.07
SDC3.5X100-KV	0.14	0.02	3.9	7.3	0.08
SDC4X100-KV	0.16	0.03	3.9	8.1	0.13
SDC5.5X125-KV	0.22	0.04	4.9	9.1	0.17
SDC6.5X150-KV	0.26	0.05	5.9	10.4	0.25
SDC8X175-KV	0.31	0.05	6.9	11.7	0.40

PH Phillips cross head screwdrivers



Main Features

Type	Head Dimensions in.		Total Length in.	Weight lbs.
	Size	Blade Length		
SDC0PH-KV	PH0	2.4	5.7	0.06
SDC1PH-KV	PH1	3.1	7.4	0.14
SDC2PH-KV	PH2	3.9	8.5	0.21

PZ Pozidriv cross head screwdrivers



Main Features

Type	Head Dimensions in.		Total Length in.	Weight lbs.
	Size	Blade Length		
SDC0PZ-KV	PZ0	2.4	5.7	0.06
SDC1PZ-KV	PZ1	3.1	7.4	0.14
SDC2PZ-KV	PZ2	3.9	8.5	0.21

PHSL Phillips combination head screwdrivers



Main Features

Type	Head Dimensions in.		Total Length in.	Weight lbs.
	Size	Blade Length		
SDC1PH-SL-KV	PH1 SL	3.1	7.4	0.14
SDC2PH-SL-KV	PH2 SL	3.9	8.5	0.21

PZSL Pozidriv combination head screwdrivers



Main Features

Type	Head Dimensions in.		Total Length in.	Weight lbs.
	Size	Blade Length		
SDC1PZ-SL-KV	PZ1 SL	3.1	7.4	0.14
SDC2PZ-SL-KV	PZ2 SL	3.9	8.5	0.21

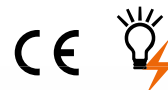
TORX six point star head screwdrivers



Main Features

Type	Head Dimensions in.		Total Length in.	Weight lbs.
	Size	Blade Length		
SDC10TX-KV	TX10	3.1	7.3	0.13
SDC15TX-KV	TX15	3.1	7.3	0.14
SDC20TX-KV	TX20	3.9	8.1	0.15
SDC25TX-KV	TX25	3.9	8.1	0.16
SDC30TX-KV	TX30	4.5	9.1	0.22
SDC40TX-KV	TX40	5.1	9.6	0.26

Flat head screwdriver with mains tester



Main Features

Type	Head Dimensions in.		Total Length in.	Weight lbs
	Head Size	Length		
SDC3X60-PD	0.12	2.6	6.0	1.2

A fully functioning flat head screwdriver with a completely transparent handle allowing visibility of the indicator from any angle, ensuring high safety.

- Transparent handle
- High quality head
- Ergonomic design
- Pocket clip with spring



Screwdriver with 45° angled flat head



Main Features

Type	Head Dimensions in.		Blade Length in.	Total Length in.	Weight lbs
	Width	Thickness			
SDC2.5X55B	0.10	0.02	2.2	5.6	0.06
SDC3.5X55B	0.14	0.02	2.2	5.6	0.06

Screwdriver with angled head, ideal for terminals, sensors and actuators.



Flat head stubby screwdriver



Main Features

Type	Head Dimensions in.		Blade Length in.	Total Length in.	Weight lbs
	Width	Thickness			
SDCS2.5X55	0.22	0.10	1.0	2.9	0.08



Phillips cross head stubby screwdriver PH



Main Features

Type	Head Dimensions in.		Total Length in.	Weight lbs
	Size	Blade Length		
SDCS1PH	PH1	1.0	2.9	0.08



Set of 7 Screwdrivers - KSDC7-KV



Main Features

Set consists of: Type	Head Dimensions in.		Total Length in.	Weight lbs
	Size	Length		
SDC3X100-KV	0.12	3.9	7.3	0.07
SDC4X100-KV	0.16	3.9	8.1	0.13
SDC5.5X125-KV	0.22	4.9	9.1	0.17
SDC6.5X150-KV	0.26	5.9	10.4	0.25
SDC0PH-KV	PH0	2.4	5.7	0.06
SDC1PH-KV	PH1	3.1	7.4	0.14
SDC2PH-KV	PH2	3.9	8.5	0.21



PROFESSIONAL HEX SOCKET SCREWDRIVERS

with reduced shank diameter

SDC



Deep point socket



Reduced shank diameter



Hex socket screwdrivers with reduced shank diameter

Main Features

Type	Head Dimensions in.	Blade Length in.	Total Length in.	Weight lbs
SDC7X125-HEX	0.27	4.9	9.6	0.21
SDC8X125-HEX	0.31	4.9	9.6	0.25
SDC9X125-HEX	0.35	4.9	9.6	0.29
SDC10X125-HEX	0.39	4.9	9.6	0.34

- Ergonomic handgrip for comfortable use without strain.
- Reduced external shank diameter allows the tool to be used in narrow spaces (relays and switches).
- Deep point socket ideal for long threads.
- Hexagonal lever point facilitates extra force without strain.
- Standards: ISO 6750 - ISO 2236



UNIVERSAL KEY UKC4

for switchboards

UKC



Universal key for switchboards UKC4

Main Features

Type	Dimensions in.			Weight lbs
	Length	Width	Height	
UKC4	2.8	2.8	0.6	0.20

Universal key for switchboards
Equipped with:
Triangular shape 0.27-0.31 in.
Double notch 0.12-0.20 in.
Square shape 0.20-0.24, 0.27-0.31 in.
Screwdriver bit and hexagonal holder

UPC-KV
TR-KV
SPC-KV
WPC-KV

PROFESSIONAL PLIERS

insulated



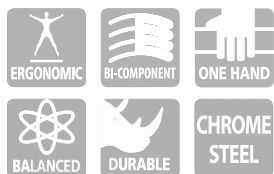
C Δ 1000V
EN/IEC - 60900

As for all CEMBRE insulated tools, each individual pair of pliers is tested in accordance with EN 60900

The design of CEMBRE insulated pliers and the use of dual-compound plastic material in the handle cover optimise the distribution of the force over the entire surface in contact with the palm of the hand.

This leads to:

- A reduction of the effort applied
- A greater transmitted force
- Safer grip
- Prevention of injury to the fingers between the handles



Special steel structure particularly resistant, cutting hard wire

Chrome finish

Soft and resistant hand guard

Particularly soft articulated joint

Soft Rubber inserts

Strong and long lasting grip zone

Extra-long cutting edge and large recess for wide cables

Shaped and ergonomic hand grip

Insulated handles covered in dual-compound plastic material

Wide and safe hand guard



Soft articulated joint

Ergonomic hand grip



Gripping and cutting edges

PROFESSIONAL PLIERS

insulated

UPC-KV
TR-KV
SPC-KV
WPC-KV



UPC Universal pliers

Main Features

Type	Total Length in.	Head Dimensions in.		Weight lbs
		Width	Thickness	
UPC180-KV	7.1	1.06	0.43	0.63
UPC200-KV	7.9	1.26	0.46	0.84

TR Nippers

Main Features

Type	Total Length in.	Head Dimensions in.		Weight lbs
		Width	Thickness	
TR160-KV	6.3	0.75	0.39	0.50

TR Heavy duty nippers

Main Features

Type	Total Length in.	Head Dimensions in.		Weight lbs
		Width	Thickness	
TR200-KV	7.9	1.20	0.51	0.67

SPC Straight nose pliers

Main Features

Type	Total Length in.	Head Dimensions in.		Weight lbs
		Width	Thickness	
SPC200-KV	7.9	0.85	0.42	0.57

SPC 45° nose pliers

Main Features

Type	Total Length in.	Head Dimensions in.		Weight lbs
		Width	Thickness	
SPC200B-KV	7.9	0.85	0.42	0.58

WPC Pipe grips

Main Features

Type	Total Length in.	Head Dimensions in.		Weight lbs
		Width	Thickness	
WPC250-KV	9.8	1.14	0.30	0.84

WSC Wire stripper

Main Features

Type	Total Length in.	Head Dimensions in.		Weight lbs
		Width	Thickness	
WSC180-KV	7.1	0.85	3.7	0.53

For insulated cables from 18 to 10 AWG



CEMBRE offers a range of tool holders designed to provide professional users with practical and neat ways to optimise their time and working conditions.

Bag CTSB1

Main Features				
Type	Dimensions in.			Weight lbs.
	Length	Width	Height	
CTSB1	16.5	9.8	13.4	6.6

Practical tool bag in robust fabric, with 2 separate compartments to neatly arrange hand tools. Additional equipment may be accommodated via handy hooks and external pockets while documents are safely stored inside. A shoulder strap and sturdy metal handle make it easy to carry.



Leave your footprint!

Logo max dimensions	
Length in.	Height in.
3.9	3.9



bag kit CTSB1-1

Main Features

Type	Dimensions in.			Kit Weight lbs
	Length	Width	Height	
KIT-CTSB1-1	16.5	9.8	13.4	12.3

CTSB1 equipped with selection of tools.



Tools contained in the kit:

Qty	Type	Description
1	SC5X	scissors SC5X
1	SDC3X60-PD	mains tester
1	SDC3X100-KV	screwdriver 0.12x3.9
1	SDC3.5X100-KV	screwdriver 0.14x3.9
1	SDC4X100-KV	screwdriver 0.16x3.9
1	SDC5.5X125-KV	screwdriver 0.22x4.9
1	SDC1PH-KV	screwdriver ph1
1	SDC2PH-KV	screwdriver ph2
1	SDC1PZ-KV	screwdriver pz1
1	SDC2PZ-KV	screwdriver pz2
1	UPC180-KV	pliers 7.1 in.
1	FLS3 (metric)	measuring tape 9.8 ft. (3m)
1	KAK9	allen keys
1	HB18	retractable cutter
1	HKS6	pocket hacksaw
1	LVL150	level 5.9 in.
1	HMR300	hammer

bag kit KIT-CTSB1-3

Main Features

Type	Dimensions in.			Kit Weight lbs
	Length	Width	Height	
KIT-CTSB1-3	16.5	9.8	13.4	15.0

CTSB1 equipped with selection of tools.



Tools contained in the kit:

Qty	Type	Description
1	SC5X	scissors SC5X
1	SDC3X60-PD	mains tester
1	SDC3X100-KV	screwdriver 0.12x3.9
1	SDC3.5X100-KV	screwdriver 0.14x3.9
1	SDC4X100-KV	screwdriver 0.16x3.9
1	SDC5.5X125-KV	screwdriver 0.22x4.9
1	SDC1PH-KV	screwdriver ph1
1	SDC2PH-KV	screwdriver ph2
1	SDC1PZ-KV	screwdriver pz1
1	SDC2PZ-KV	screwdriver pz2
1	UPC180-KV	pliers 7.1 in.
1	TR160-KV	nippers 6.3 in
1	HB14	wire stripper 24-10 AWG
1	FLS5 (metric)	measuring tape 16.4 ft. (5m)
1	KAK9	allen keys
1	KRK4	spanners with ratchet
1	UKC4	universal key
1	HB18	retractable cutter
1	HKS6	pocket hacksaw
1	LVL150	level 5.9 in.
1	HMR300	hammer



Backpack CTBP1

Main Features

Type	Dimensions in.			Weight lbs
	Length	Width	Height	
CTBP1	14.2	4.3	21.3	6.8

Practical tool backpack in sturdy fabric, with reinforced non-slip rubber bottom. Equipped with internal and external pockets to arrange the manual tools in a rational way, and a PC pocket. Thanks to the practical front opening and the different compartments, it is possible to insert documents and different equipment. The sturdy rubber handle and comfortable padded shoulder straps make it easy to carry.



Your logo here

Leave your footprint!

Logo max dimensions	
Length in.	Height in.
2.4	3.1



Backpack kit CTBP1-1

Main Features

Type	Dimensions in.			Peso Kit kg
	Length	Width	Height	
KIT-CTBP1-1	14.2	4.3	21.3	9.0

CTBP1 equipped with selection of tools.

Tools contained in the kit:

Qty	Type	Description
1	SC5X	scissors SC5X
1	SDC3X60-PD	mains tester
1	SDC3X100-KV	screwdriver 0.12x3.9
1	SDC3.5X100-KV	screwdriver 0.14x3.9
1	SDC4X100-KV	screwdriver 0.16x3.9
1	SDC5.5X125-KV	screwdriver 0.22x4.9
1	SDC1PH-KV	screwdriver ph1
1	SDC2PH-KV	screwdriver ph2
1	UPC180-KV	pliers 7.1 in.
1	HKS6	pocket hacksaw





ABS case VAL-GPTP

Main Features

Type	Dimensions in.			Weight lbs
	Length	Width	Height	
VAL-GPTP	17.8	13.1	7.5	8.8

Suitcase made of high thickness thermoformed ABS, complete with two tool panels with elastic bands for containing any tool and internal document / tablet pocket. Thermoformed bottom with adjustable dividers. Sturdy aluminum profile with 2 side locks with key. Lid equipped with a stop to limit 90 ° opening and ergonomic handle.



PROFESSIONAL TOOL HOLDERS

hard line - ABS case kit

KIT-VAL-GTP-1 KIT-VAL-GTP-2



ABS case kit VAL-GTP-1

Main Features

Type	Dimensions in.			Kit Weight lbs
	Length	Width	Height	
KIT-VAL-GTP-1	17.8	13.1	7.5	14.6

Case VAL-GTP equipped with selection of tools.

Tools contained in the kit:

Qty	Type	Description
1	SC5X	scissors SC5X
1	SDC3X60-PD	mains tester
1	SDC3X100-KV	screwdriver 0.12x3.9
1	SDC3.5X100-KV	screwdriver 0.14x3.9
1	SDC4X100-KV	screwdriver 0.16x3.9
1	SDC5.5X125-KV	screwdriver 0.22x4.9
1	SDC1PH-KV	screwdriver ph1
1	SDC2PH-KV	screwdriver ph2
1	SDC1PZ-KV	screwdriver pz1
1	SDC2PZ-KV	screwdriver pz2
1	UPC180-KV	pliers 7.1 in.
1	FLS3 (metric)	measuring tape 9.8 ft. (3m)
1	KAK9	allen keys
1	HB18	retractable cutter
1	HKS6	pocket hacksaw
1	LVL150	level 5.9 in.
1	HMR300	hammer



ABS case kit VAL-GTP-2

Main Features

Type	Dimensions in.			Kit Weight lbs
	Length	Width	Height	
KIT-VAL-GTP-2	17.8	13.1	7.5	18.1

Case VAL-GTP equipped with selection of tools.

Tools contained in the kit:

Qty	Type	Description
1	SC5X	scissors SC5X
1	SDC3X60-PD	mains tester
1	SDC3X100-KV	screwdriver 0.12x3.9
1	SDC3.5X100-KV	screwdriver 0.14x3.9
1	SDC4X100-KV	screwdriver 0.16x3.9
1	SDC5.5X125-KV	screwdriver 0.22x4.9
1	SDC1PH-KV	screwdriver ph1
1	SDC2PH-KV	screwdriver ph2
1	SDC1PZ-KV	screwdriver pz1
1	SDC2PZ-KV	screwdriver pz2
1	UPC180-KV	pliers 7.1 in.
1	TR160-KV	nippers 6.3 in
1	HB14	wire stripper 24-10 AWG
1	FLS5 (metric)	measuring tape 16.4 ft. (5m)
1	KAK9	allen keys
1	KRK4	spanners with ratchet
1	UKC4	universal key
1	HB18	retractable cutter
1	HKS6	pocket hacksaw
1	LVL150	level 5.9 in.
1	HMR300	hammer



Case VAL-GPTA-N

Main Features				
Type	Dimensions in.			Weight lbs.
	Length	Width	Height	
VAL-GPTA-N	18.5	14.2	7.3	10.6

Aluminium case containing two panels with elastic tool holders and an internal pocket for holding documents or a tablet. Thermoformed base with modular dividers. Fitted with an ergonomic carrying handle and a hinged lid with stop to limit the opening to 90°. Equipped with shoulder strap.





Case Kit VAL-GPTA-1

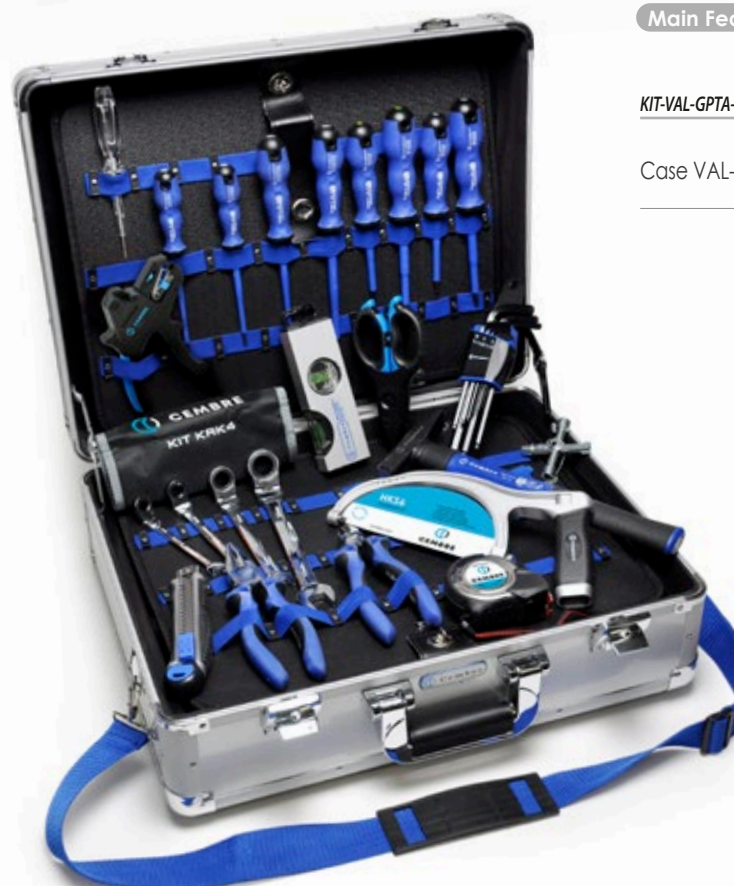
Main Features

Type	Dimensions in.			Kit Weight lbs
	Length	Width	Height	
KIT-VAL-GPTA-1	18.5	14.2	7.3	16.3

Case VAL-GPTA-N equipped with selection of tools.

Tools contained in the kit:

Qty	Type	Description
1	SC5X	scissors SC5X
1	SDC3X60-PD	mains tester
1	SDC3X100-KV	screwdriver 0.12x3.9
1	SDC3.5X100-KV	screwdriver 0.14x3.9
1	SDC4X100-KV	screwdriver 0.16x3.9
1	SDC5.5X125-KV	screwdriver 0.22x4.9
1	SDC1PH-KV	screwdriver ph1
1	SDC2PH-KV	screwdriver ph2
1	SDC1PZ-KV	screwdriver pz1
1	SDC2PZ-KV	screwdriver pz2
1	UPC180-KV	pliers 7.1 in.
1	FLS3 (metric)	measuring tape 9.8 ft. (3m)
1	KAK9	allen keys
1	HB18	retractable cutter
1	HKS6	pocket hacksaw
1	LVL150	level 5.9 in.
1	HMR300	hammer



Case Kit VAL-GPTA-2

Main Features

Type	Dimensions in.			Kit Weight lbs
	Length	Width	Height	
KIT-VAL-GPTA-2	18.5	14.2	7.3	21.2

Case VAL-GPTA-N equipped with selection of tools.

Tools contained in the kit:

Qty	Type	Description
1	SC5X	scissors SC5X
1	SDC3X60-PD	mains tester
1	SDC3X100-KV	screwdriver 0.12x3.9
1	SDC3.5X100-KV	screwdriver 0.14x3.9
1	SDC4X100-KV	screwdriver 0.16x3.9
1	SDC5.5X125-KV	screwdriver 0.22x4.9
1	SDC1PH-KV	screwdriver ph1
1	SDC2PH-KV	screwdriver ph2
1	SDC1PZ-KV	screwdriver pz1
1	SDC2PZ-KV	screwdriver pz2
1	UPC180-KV	pliers 7.1 in.
1	TR160-KV	nippers 6.3 in
1	HB14	wire stripper 24-10 AWG
1	FLS5 (metric)	measuring tape 16.4 ft. (5m)
1	KAK9	allen keys
1	KRK4	spanners with ratchet
1	UKC4	universal key
1	HB18	retractable cutter
1	HKS6	pocket hacksaw
1	LVL150	level 5.9 in.
1	HMR300	hammer



Trolley TRL02

Main Features

Type	Dimensions in.				Weight lbs
	Length	Width	Closed handle height	Open handle height	
TRL02	18.9	9.8	15.7	40.3	9.5

Practical trolley mounted tool bag made of robust fabric, with 2 separate internal compartments to neatly arrange hand tools. Easy front opening access and handy hooks, external pockets providing additional space and a document pouch on the inside of the lid.



Leave your footprint!

Logo max dimensions

Length in.	Height in.
7.9	4.7

Your logo here





Trolley Kit TRL02-1

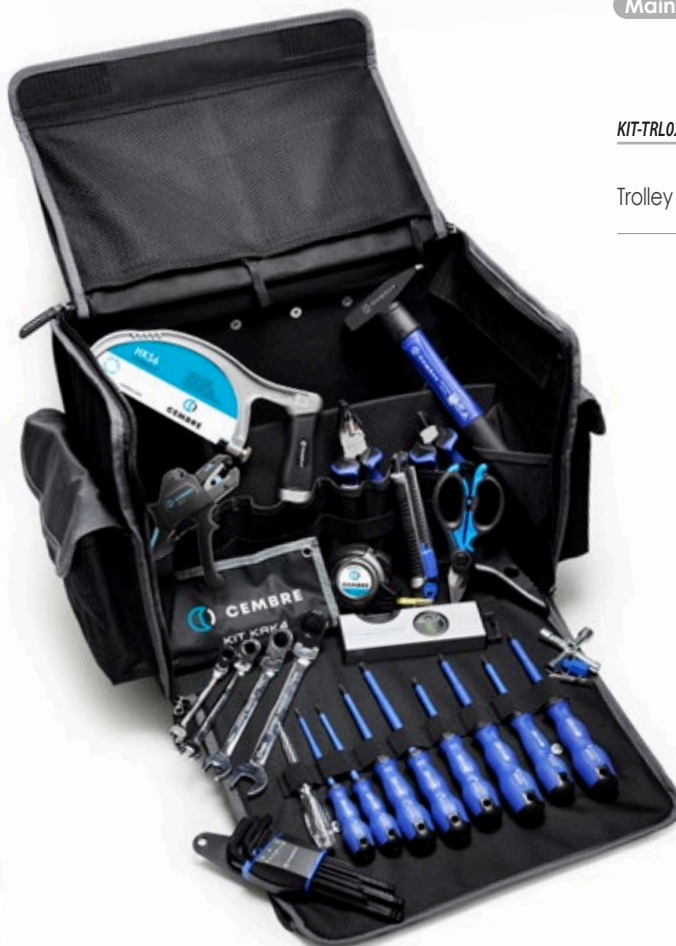
Main Features

Type	Length	Width	Dimensions in.		Weight Kit lbs
			Closed handle height	Open handle height	
KIT-TRL02-1	18.9	9.8	15.7	40.3	15.0

Trolley TRL02 equipped with selection of tools.

Tools contained in the kit:

Qty	Type	Description
1	SCSX	scissors SCSX
1	SDC3X60-PD	mains tester
1	SDC3X100-KV	screwdriver 0.12x3.9
1	SDC3.5X100-KV	screwdriver 0.14x3.9
1	SDC4X100-KV	screwdriver 0.16x3.9
1	SDC5.5X125-KV	screwdriver 0.22x4.9
1	SDC1PH-KV	screwdriver ph1
1	SDC2PH-KV	screwdriver ph2
1	SDC1PZ-KV	screwdriver pz1
1	SDC2PZ-KV	screwdriver pz2
1	UPC180-KV	pliers 7.1 in.
1	FLS3 (metric)	measuring tape 9.8 ft. (3m)
1	KAK9	allen keys
1	HB18	retractable cutter
1	HKS6	pocket hacksaw
1	LVL150	level 5.9 in.
1	HMR300	hammer



Trolley Kit TRL02-2

Main Features

Type	Length	Width	Dimensions in.		Weight Kit lbs
			Closed handle height	Open handle height	
KIT-TRL02-2	18.9	9.8	15.7	40.3	17.6

Trolley TRL02 equipped with selection of tools.

Tools contained in the kit:

Qty	Type	Description
1	SCSX	scissors SCSX
1	SDC3X60-PD	mains tester
1	SDC3X100-KV	screwdriver 0.12x3.9
1	SDC3.5X100-KV	screwdriver 0.14x3.9
1	SDC4X100-KV	screwdriver 0.16x3.9
1	SDC5.5X125-KV	screwdriver 0.22x4.9
1	SDC1PH-KV	screwdriver ph1
1	SDC2PH-KV	screwdriver ph2
1	SDC1PZ-KV	screwdriver pz1
1	SDC2PZ-KV	screwdriver pz2
1	UPC180-KV	pliers 7.1 in.
1	TR160-KV	nippers 6.3 in
1	HB14	wire stripper 24-10 AWG
1	FLS5 (metric)	measuring tape 16.4 ft. (5m)
1	KAK9	allen keys
1	KRK4	spanners with ratchet
1	UKC4	universal key
1	HB18	retractable cutter
1	HKS6	pocket hacksaw
1	LVL150	level 5.9 in.
1	HMR300	hammer

VAL-GPT KIT-VAL-GPT

PROFESSIONAL TOOL HOLDERS

hard line



Chest VAL-GPT

Main Features

Type	Dimensions in.			Weight lbs
	Length	Width	Height	
VAL-GPT	21.9	9.1	9.6	8.2

Plastic tool chest with small parts holder on the lid; Removable internal tool tray. Metal latches; Aluminium handle and padlock facility. Sufficiently robust to be used as a step when closed. Stackable with other VAL GPT tool chests.



Chest Kit VAL-GPT-1

Main Features

Type	Dimensions in.			Weight Kit lbs
	Length	Width	Height	
KIT-VAL-GPT-1	21.9	9.1	9.6	12.1

VAL GPT equipped with selection of tools

Tools contained in the kit:

Qty	Type	Description
1	SC5X	scissors SC5X
1	SDC3X60-PD	mains tester
1	SDC3.5X100-KV	screwdriver 3,5x100
1	SDC4X100-KV	screwdriver 4x100
1	SDC5.5X125-KV	screwdriver 5,5x125
1	SDC6.5X150-KV	screwdriver 6,5x150
1	SDC1PH-KV	screwdriver ph1
1	SDC2PH-KV	screwdriver ph2
1	TR160KV	nippers 160mm
1	FLS3 (metric)	measuring tape 9.8 ft. (3m)
1	HB18	retractable cutter
1	HKS6	pocket hacksaw
1	LVL150	level 150 mm
1	HMR300	hammer



PROFESSIONAL TOOL HOLDERS

pouch

CTBB1
KIT-CTBB1



Pouch CTBB1

Main Features

Type	Dimensions in.			Weight lbs
	Length	Width	Height	
CTBB1	9.1	5.9	2.0	0.19

Made from soft and strong fabric, equipped with a fast stud belt fastening. It has handy preformed compartments for holding pliers, scissors and screwdrivers.

Leave your footprint!

Logo max dimensions	
Length in.	Height in.
1.4	1.4

Your logo here

With SC5X scissor

Robust-A



Pouch Kit CTBB1-1

Main Features

Type	Dimensions in.			Weight Kit lbs
	Length	Width	Height	
KIT-CTBB1-1	9.1	5.9	2.0	1.1

CTBB1 equipped with selection of tools.

Tools contained in the kit:

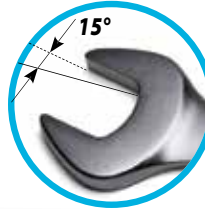
Qty	Type	Description
1	SC5X	scissors SC5X
1	SDC3X100-KV	screwdriver 0.12x3.9
1	SDC3.5X100-KV	screwdriver 0.14x3.9
1	SDC4X100-KV	screwdriver 0.16x3.9
1	SDC1PH-KV	screwdriver ph1
1	SDC2PH-KV	screwdriver ph2



CW Combination Spanners

Main Features

Type	Hex in.	Open width in.	Ring width in.	Open thickness in.	Ring thickness in.	Total Length in.	Weight lbs
CW60	0.24	0.63	0.39	0.16	0.20	4.3	0.03
CW70	0.28	0.67	0.43	0.16	0.20	4.7	0.04
CW80	0.31	0.75	0.51	0.16	0.24	5.1	0.05
CW100	0.39	0.90	0.63	0.20	0.28	5.9	0.08
CW110	0.43	1.02	0.67	0.20	0.28	6.3	0.10
CW130	0.51	1.18	0.79	0.24	0.31	7.1	0.15
CW140	0.55	1.26	0.83	0.24	0.31	7.5	0.17
CW150	0.59	1.34	0.91	0.24	0.39	7.9	0.19
CW170	0.67	1.46	1.02	0.28	0.39	7.9	0.27
CW180	0.71	1.54	1.06	0.28	0.43	9.1	0.33
CW190	0.75	1.61	1.10	0.28	0.43	9.4	0.37
CW220	0.87	1.85	1.26	0.31	0.51	10.6	0.50
CW240	0.94	2.0	1.38	0.31	0.55	11.4	0.65
CW270	1.10	2.2	1.54	0.35	0.59	12.6	0.82
CW300	1.20	2.4	1.69	0.39	0.59	13.8	1.05
CW320	1.26	2.6	1.81	0.39	0.63	14.6	1.28



- Chromium-vanadium steel tools
- Satin chrome finish.
- Ring head with 12 grip points, offset with respect to the handle to enable use in narrow spaces
- Open head tilted at 15° to reduce effort applied
- Standards: UNI ISO 3318 - ISO 7738 - DIN 3113



PROFESSIONAL SPANNERS

in Chromium-vanadium steel

KCW



ERGONOMIC



ONE HAND



BALANCED



DURABLE



CHROMIUM
VANADIUM
STEEL

KCW12



KCW12 Combination Spanner Set

Main Features

Type	Dimensions kit in.			Weight lbs
	Length	Width	Height	
KCW12	18.1	14.3	2.6	2.51

Set includes:

KCW12:

CW60 - CW70 - CW80 - CW100 - CW110
CW130 - CW140 - CW150 - CW170 - CW180
CW190 - CW220

Type	in.
CW60	0.24
CW70	0.28
CW80	0.31
CW100	0.39
CW110	0.43
CW130	0.51
CW140	0.55
CW150	0.59
CW170	0.67
CW180	0.71
CW190	0.75
CW220	0.87

KCW16 Combination Spanner Set

Main Features

Type	Dimensions kit in.			Weight lbs
	Length	Width	Height	
KCW16	28.0	18.9	3.1	7.17

Set includes:

KCW16:

CW60 - CW70 - CW80 - CW100 - CW110
CW130 - CW140 - CW150 - CW170 - CW180
CW190 - CW220 - CW240 - CW270 - CW300 - CW320

Type	in.
CW60	0.24
CW70	0.28
CW80	0.31
CW100	0.39
CW110	0.43
CW130	0.51
CW140	0.55
CW150	0.59
CW170	0.67
CW180	0.71
CW190	0.75
CW220	0.87
CW240	0.94
CW270	1.10
CW300	1.20
CW320	1.26

KCW16





Combination spanners with jointed ratchet head KRK4

Main Features

Type	Dimensions kit in.			Weight lbs
	Length	Width	Height	
KRK4	13.2	7.5	0.7	0.86

- Sizes included: 0.31-0.39-0.51-0.67 in.
- Chromium-vanadium steel
- 180° swivel head
- Ratchet mechanism with 72 teeth and recovery angle of 5°.



Socket set 1/4" drive KRS47

Main Features

Type	Dimensions kit in.			Weight lbs
	Length	Width	Height	
KRS47	11.2	5.4	1.7	3.65

- Standards: UNI ISO 3315 - DIN 3122

Metal case contains:

Qty	description
1	reversible ratchet wrench with socket retention system
2	extensions
1	articulated joint
1	T bar with sliding handle
1	screwdriver style holder
13	sockets 0.16 to 0.55 in.
4	extended sockets 0.31 to 0.51 in.
3	screwdriver sockets 0.16 to 0.26 in.
3	screwdriver sockets PH1, PH2, PH3
3	screwdriver sockets PZ1, PZ2, PZ3
6	hex socket spanners 0.12 to 0.31 in.
3	hex Allen keys 0.06 to 0.20 in.
6	torx socket keys T10 to T40



PROFESSIONAL TORQUE WRENCHES

in Chromium-vanadium steel

TWC

Cembre professional reversible torque wrench range TWC will provide optimum torque setting when the threaded fastenings are paired with the same size sockets.

Correct tightening of threaded fastenings prevents:

- thread damage in case of high loading
- unintentional loosening in case of low loading



TWC10.50-14 Torque Wrench

Main Features

Type	Dimensions in.			Weight lbs
	Length	Width	Head Width	
TWC10.50-14	12.9	1.4	1.1	1.45

- Adjustment range Nm: 10-50
- Drive size in.: 1/4



TWC20.100-38 Torque Wrench

Main Features

Type	Dimensions in.			Weight lbs
	Length	Width	Head Width	
TWC20.100-38	17.1	1.8	1.4	2.86

- Adjustment range Nm: 20-100
- Drive size in.: 3/8

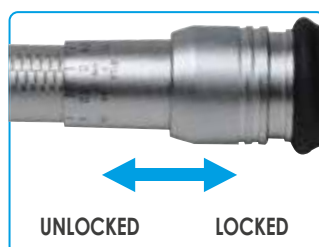


TWC40.200-12 Torque Wrench

Main Features

Type	Dimensions in.			Weight lbs
	Length	Width	Head Width	
TWC40.200-12	20.1	1.8	1.6	3.32

- Adjustment range Nm: 40-200
- Drive size in.: 1/2





Deep hexagonal sockets 1/2" drive DSC

Main Features

Type	in.	Dimensions in.			Weight lbs
		Length	Ø Ext. hexagon	Ø Ext. drive	
DSC12-170L	0.67	3.0	0.94	0.87	0.26
DSC12-190L	0.75	3.0	1.01	0.94	0.29
DSC12-240L	0.94	3.0	1.25	1.09	0.46
DSC12-300L	1.20	3.0	1.57	1.34	0.66
DSC12-320L	1.26	3.0	1.65	1.41	0.74

- Chromium-vanadium steel • Satin chrome finish
- Standards: UNI ISO 2725 - DIN 3124



Adapters KA

Main Features

Type	Length	Dimensions in.			Weight lbs
		Female	Male	Ø Female	
KA14-38	1.04	1/4	3/8	0.55	0.05
KA38-14	1.03	3/8	1/4	0.74	0.06
KA38-12	1.42	3/8	1/2	0.76	0.11
KA12-38	1.41	1/2	3/8	0.85	0.11

- Chromium-vanadium steel • Satin chrome finish
- Standards: UNI ISO 3316 - DIN 3123



1/2" Reversible ratchet wrench CRH12

Main Features

Type	Dimensions in.			Weight lbs
	Length	Height	Head Width	
CRH12	10.2	1.50	1.57	1.2

- Mechanism with 72 teeth and a recovery angle of 5°
- Reversible ratchet system • Ergonomic handle in dual-compound material
- Satin chrome finish • Chromium-vanadium steel
- Standards: UNI ISO 3315 - DIN 3122



1/2" Drive extension 9.84 in. long EBC12-250

Main Features

Type	Length in.	Weight lbs
EBC12-250	9.8	0.97

- Socket quick release system • Chromium-vanadium steel
- Satin chrome finish
- Standards: UNI ISO 3316 - DIN 3123



1/2" Drive T bar with sliding handle STBC12-300

Main Features

Type	Dimensions in.			Weight lbs
	Length	Height	Head Width	
STBC12-300	11.8	0.98	0.94	0.80

- Chromium-vanadium steel • Satin chrome finish
- Standards: UNI ISO 3315 - DIN 3122



PROFESSIONAL SPANNERS & SOCKETS

in Chromium-vanadium steel

AWC



Adjustable wrench AWC300

Main Features

Type	Dimensions in.			Weight lbs
	Max Opening	Length	Width	
AWC300	1.34	11.8	-	1.37

- Chromium-vanadium steel wrench
- Phosphate finish
- Equipped with rapid adjustment and gap size measurement scale
- Wide-opening jaws for greater adaptability

PROFESSIONAL SPANNERS & SOCKETS

in Chromium-vanadium steel

KAK



Set of 9 male Allen keys KAK9

Main Features

Type	Dimensions kit in.			Weight lbs
	Length	Width	Height	
KAK9	11.8	3.9	1.2	0.95

- Sizes included: 0.06 - 0.08 - 0.10 - 0.12 - 0.16 - 0.20 - 0.24 - 0.31 - 0.39 in.
- Chromium-vanadium steel
- Long reach type
- Spherical head for use up to 30°
- Equipped with carrying case

Tool dimensions

A/F (in.)	(in.)	(in.)
0.06	3.1	0.55
0.08	3.3	0.63
0.10	3.6	0.71
0.12	4.0	0.79
0.16	4.3	0.94
0.20	4.8	1.10
0.24	5.7	1.26
0.31	6.4	1.42
0.39	7.0	1.57

Hammer HMR300

Main Features

Type	Dimensions in.			Weight lbs
	Length	Width	Height	
HMR300	11.8	4.1	0.9	0.66

0.66 lbs bench hammer with patented anti-vibration triple compound handle.
Aluminium alloy 6082 T6 P-Al Si 1 Mg Mn head.
External surface of the handle in Polyamide A2800.
Thermoplastic rubber grip.
Complete with handle sleeve.



Hammer HMR500W

Main Features

Type	Dimensions in.			Weight lbs
	Length	Width	Height	
HMR500W	12.6	4.2	1.1	1.10

1.10 lbs bench hammer with Ash handle.
Complete with handle sleeve.



Chisel with hand protector BLC250

Main Features

Type	Dimensions in.				Weight lbs
	Total length	Blade width	Ø shaft	Ø handle	
BLC250	9.8	0.9	0.6	1.3	1.10

0.9 in. Chromium-vanadium steel blade with sturdy thermoplastic hand protector



Centre Punch CPC100-8

Main Features

Type	Dimensions in.			Weight lbs
	Length	Tip	Hexagon	
CPC100-8	3.9	0.1	0.3	0.12

Chromium-vanadium steel with Chrome finish



Crowbar CPW500

Main Features

Type	Dimensions in.		Weight lbs
	Length	Ø Hex. square	
CPW500	19.7	0.63	2.61

Hexagonal section
C40 steel





Special blade and safety lock

Retractable Cutter HB18

Main Features

Type	Dimensions in.			Weight lbs
	Length	Height	Width	
HB18	6.7	1.3	0.67	0.49

Replaceable blade, adjustable from 0.71 in. and internal autoloader with 5 blades. Steel blade, metal handle, with soft Rubber anti-slip coating. Safety lock for blade.



Hacksaw HKS12

Main Features

Type	Dimensions in.			Weight lbs
	Length	Height	Width	
HKS12	15.7	5.5	1.3	1.32

Hacksaw with 11.8 in. blade, dual-compound plastic frame, with soft anti-slip handle for a firm and secure grip. Tensioner in the handle.



Hacksaw HKS6

Main Features

Type	Dimensions in.			Weight lbs
	Length	Height	Width	
HKS6	10.6	4.5	0.8	0.47

Hacksaw with 5.9 in. blade, metal frame, with 6 adjustments of the angle of the blade. Soft Rubber anti-slip handle.



Blade BL12HKS

BL12HKS Spare blade for HKS12 (5 pieces)

Blade BL6HKS

BL6HKS Spare blade for HKS6 (10 pieces)

Files SFC200 - RFC200

Main Features

	File Section in.	File Length in.	handle Length in.	Total Length in.	Weight lbs
Second-cut square file					
SFC200	0.31	7.9	4.3	12.2	0.24
	File diam. in.	File Length in.	handle Length in.	Total Length in.	Weight lbs
Second-cut round file					
RFC200	0.33	7.9	4.3	12.2	0.25

Carbide steel
Hardness 62±2 HRC



Digital Multimeter CM02

Main Features

Type	Dimensions in.			Weight lbs
	Length	Width	Height	
CM02	7.5	3.7	1.8	0.88

For measuring:

- AC Current and Voltage, True-rms for accurate check of non-linear signals.
- AC/DC Voltage up to 750V~ and 1.000V=
- AC/DC Current up to 10A
- Resistance
- Continuity
- Capacitance
- Frequency

Special Functions

- Data Hold
- Diode Test
- Transistor hFE Test
- Continuity Buzzer
- Temperature Probe (supplied)
- Auto Power Off

Standards: EN 61326-1: 2006 & CE marking

CM02 Specification

Basic Function	Range	Best Accuracy
DC Voltage	400mV/4V/40V/400V/1000V	$\pm(0.5\%+4)$
AC Voltage	400mV/4V/40V/400V/1000V	$\pm(0.8\%+10)$
DC Current	400μA/4000μA/40mA/400mA/10A	$\pm(1\%+10)$
AC Current	400μA/4000μA/40mA/400mA/10A	$\pm(1.5\%+10)$
Resistance	400Ω/4KΩ/40KΩ/400KΩ/4MΩ/40MΩ	$\pm(0.8\%+4)$
	10nF	$\pm(5\%+20)$
Capacitance	100nF/1μF/10μF/100μF	$\pm(3.5\%+8)$
	1mf/10mF/100mF	$\pm(5\%+10)$
Frequency	100/1000/10k/100k/1M/30Mhz	$\pm(0.5\%+10)$
Temperature	(-20-33.8)°F	$\pm(1.0\%+5)$

Overvoltage category CAT IV - 600V

CAT I	CAT II	CAT III	CAT IV
			
Devices not directly connected to mains power	Household appliances and portable tools	Fixed installations and connected equipment	Electricity meters, external transformers



TRMS



Spirit Levels LVL150 – LVL200 – LVL400

Main Features

Type	Dimensions in.		No. of tubes	Weight lbs
	Length	Width		
LVL150	5.9	0.9	2	0.23
LVL200	7.9	0.9	2	0.35
LVL400	15.7	0.9	2	0.55

Made from robust Aluminium profile, with precision 0.02 to 0.04 in.
Shock resistant tubes and high absorption protective caps.



Conical stepped drill-bit SC-PG1

Main Features

Type	Hole Ø range in.	Steps		Drill size in.		
		N°	Height in.	Length	Stem Ø	Weight lbs
SC-PG1	0.24 - 1.46	12	0.08	3.9	0.39	0.65

- Point geometry according to DIN 1412 C
- No pre-drilling
- Step angle 90°

SC-PG1 - Hole sizes:

Step	Hole Ø in.	Clearance for PG thread
1	0.24	-
2	0.35	-
3	0.49	7
4	0.60	9
5	0.73	11
6	0.80	13.5
7	0.89	16
8	1.02	-
9	1.11	21
10	1.20	-
11	1.34	-
12	1.46	29



Conical stepped drill-bits - General characteristics

- Spiral shape facilitates quiet operation, precision of cut and removal of swarf
- Cutting capability unaffected by prolonged use
- Suitable for use on Ferrous metals and Thermoplastic materials up to 4 mm thickness
- Material: Cubic Boron Nitride (CBN)
- Corner point 118°
- Polished surface

Conical stepped drill-bit SC-M1

Main Features

Type	Hole Ø range in.	Steps		Drill size in.		
		N°	Height in.	Length	Stem Ø	Weight lbs
SC-M1	0.26 - 1.6	11	0.08	3.8	0.39	0.67

- Point geometry according to DIN 1412 C
- No pre-drilling
- Step angle 90°

SC-M1 - Hole sizes:

Step	Hole Ø in.	Clearance for Metric thread
1	0.26	-
2	0.33	-
3	0.41	-
4	0.49	M12
5	0.65	M16
6	0.81	M20
7	1.00	M25
8	1.14	-
9	1.28	M32
10	1.44	-
11	1.59	M40



Conical countersink SK9038

Main Features

Type	Head Dimensions in.		Total Length in.	Weight lbs
	Length	Ø		
SK9038	0.41	0.49	5.8	0.28

Conical flaring for unalloyed steels, with ergonomic handle in two component material.

- 90° head angle
- 6-edged head
- Maximum diameter of flaring 1.5 in.



Sets of 19 Spiral Drill-Bits SB19

Main Features

Ideal for STEEL

Type

SB19

High speed, high performance, steel spiral drill-bits.
Cross-wise sharpening allows for good balance, reducing strain during the operation.

Spiral angle: 25-30°

Groove profile: standard

Core: standard

Back angle: 118°

Point geometry: Shape C

Weight: 1.6 lbs

Main use: Steel N/mm² <900, Cast iron

Secondary use: Steel N/mm² <1100, Stainless steel, Alluminium, Brass, Bronze.

Type

SB19-TiN

As type SB19 with additional:

TiN coating to increase operating life by 300 - 400%

SB19-TiN



SB19

Spiral Drill-bits SB19:

Spiral Drill-bits SB19-TiN:

Ø in.	Length in.	
	Total	Useable
0.04	1.3	0.5
0.06	1.6	0.7
0.08	1.9	0.9
0.10	2.2	1.2
0.12	2.4	1.3
0.14	2.8	1.5
0.16	3.0	1.7
0.18	3.2	1.9
0.20	3.4	2.0
0.22	3.7	2.2
0.24	3.7	2.2
0.26	4.0	2.5
0.28	4.3	2.7
0.30	4.3	2.7
0.31	4.6	3.0
0.33	4.6	3.0
0.35	4.9	3.2
0.37	4.9	3.2
0.39	5.2	3.4

Set of 7 Hammer Drill-Bits SB7-SDS-PLUS

Main Features

Ideal for WALL

Type

SB7-SDS-PLUS

Drill-bits with a strengthened core, to allow optimum force transmission from start to finish.
Made from steel worked at a low temperature to achieve maximum resistance, and created with a spiral structure for efficient waste extraction during operation.
Suitable for rock, brick work, concrete, cement, granite, tiles and marble.
Fits all hammer drills with SDS-Plus and Hilti TE 10 double-groove shanks.
Corresponding to standard: ISO 5468-DIN 8039. Weight 1.5 lbs.

SB7-SDS-PLUS



Hammer Drill-bits SB7-SDS-PLUS:

Ø in.	Length in.	
	Total	Useable
0.20	4.3	1.97
0.24	4.3	1.97
0.24	6.3	3.94
0.31	4.3	1.97
0.31	6.3	3.94
0.39	6.3	3.94
0.47	6.3	3.94

HYDRAULIC TOOLS AND HEADS



SYMBOL DESCRIPTION

hydraulic crimping tools and cutters

	Crimping force tons		Provided with a maximum pressure valve that allows to check the correct execution of the compressions or the limit switch control of the blades
	Double speed action: a rapid approach speed and a slower more powerful speed for crimping or cutting		Manual pressure release button
	Openable compression head, ideal for derivations from running conductors		Ergonomically designed with a sculptured body for operator comfort
	Openable cutting head, ideal for cutting running cables		Lightweight and balanced tool for greater control
	Tool with a large 1.7 in. jaw opening, for easier introduction/removal of large size compression terminations and joints		Dual-compound plastic handles. Greater safety and comfort in handling, thanks to the rubber inserts
	Blades manufactured from high strength special Steel, heat treated to ensure a long service life		Durable moulded body offering high resistance to wear and damage in all operating conditions
	Max cutting diameter		CE marking
	Max hole punching diameter		UKCA marking
	The head can rotate to enable the operator to work in the most comfortable position		
	Can be operated with one hand		

SYMBOL DESCRIPTION

hydraulic crimping tools and cutters



Hexagonal crimp



Radial crimp



Indent crimp



Deep indent crimp



Oval crimp



Trapezium crimp



Circular crimp



Max operating pressure



Contains isolated oil



Hydraulic units provide protection against short circuit when accidentally cutting live L.V. / M.V. cables with nominal voltage up to 60 kV



HT45-E

HYDRAULIC CRIMPING TOOL

general features



MAIN APPLICATIONS - max section AWG

Section AWG	22÷16	16÷14	12÷10	8	6	4	2	1/0	2/0	3/0	250 MCM	300 MCM	350 MCM	500 MCM	600 MCM	800 MCM	1000 MCM	1250 MCM	1500 MCM	2000 MCM
L.V. lugs and splices																				
"C" sleeve Connectors																				
H.V. lugs and splices																				

These tools are supplied without dies. For die selection, please refer to chart on pages 286 to 300

TECHNICAL FEATURES

Crimping force tons	6
Dimensions in.	
Length	13.6
Width	5.1
Weight lbs.	4.4

STORAGE

Type	VAL-P1*
Dimensions in. L x W x H	17.52 x 11.42 x 3.74
Weight lbs.	2.6
Supplied with the tool	✓

*Suitable for storage of the tool and 20 sets of dies

Lightweight and compact, this tool is ideal for the compression of connectors for general applications.

Having the benefit of spring loaded handles, the dies can be advanced using only one hand; therefore leaving the other hand free to position the connector.

For ease of operation and comfort of the operator, the tool head can be fully rotated through 180 degrees.

The built-in safety valve will by-pass the oil supply when the maximum pressure is reached, and a pressure releasing system can easily be operated at any stage of the compression.



The operator can advance the dies using only one hand, leaving the other hand free to position the connector.



Openable head, ideal for derivations from running conductors

180° rotatable head, to work in the most comfortable position

Safety valve bypassing the oil supply when the maximum pressure is reached

Pressure releasing system, that can be operated at any stage

HYDRAULIC CRIMPING TOOL

HT51

general features

MAIN APPLICATIONS - max section AWG

Section AWG	22-16	16-14	12-10	8	6	4	2	1/0	2/0	3/0	250 MCM	300 MCM	350 MCM	400 MCM	500 MCM	600 MCM	800 MCM	1000 MCM	1250 MCM	1500 MCM	2000 MCM
L.V. lugs and splices																					
Insulated terminals																					
End sleeves																					
"C" sleeve Connectors																					

These tools are supplied without dies. For die selection, please refer to chart on pages 286 to 300

STORAGE

Type	VAL-P1*
Dimensions in. L x W x H	17.52 x 11.42 x 3.74
Weight lbs.	2.6
Supplied with the tool	✓

* Suitable for storage of the tool and 20 sets of dies

TECHNICAL FEATURES

Crimping force tons	6
Dimensions in.	
Length	15.0
Width	5.1
Weight lbs.	5.9



HT51-KV version also available for Power Supply Companies



Two stage hy-draulic tool, lightweight, compact and ideal for working in confined spaces.

HT51 develops a crimping force of 6 tons for installing electrical connectors on Copper cables up to 500 MCM.

Spring loaded handles allow the operator to advance the dies with one hand, leaving the other free to position the connector.

For ease of operation and comfort of the operator, the tool head rotates 180 degrees.

The built-in safety valve will by-pass the oil supply when the maximum pressure is reached, and a pressure releasing system can easily be operated at any stage of the compression.

RH50

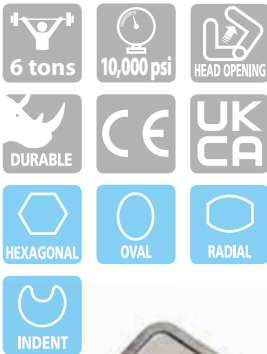
HYDRAULIC PRESSHEAD

general features

MAIN APPLICATIONS - max section AWG

Section AWG	22÷16	16÷14	12÷10	8	6	4	2	1/0	2/0	3/0	250 MCM	300 MCM	350 MCM	400 MCM	500 MCM	600 MCM	800 MCM	1000 MCM	1250 MCM	1500 MCM	2000 MCM
L.V. lugs and splices																					
Insulated terminals																					
End sleeves																					
"C" sleeve Connectors																					

These tools are supplied without dies. For die selection, please refer to chart on pages 286 to 300



Hydraulic presshead complete with a 3/8" NPT male automatic coupler to be connected to a hydraulic pump developing a maximum pressure of 10,000 psi, (see pages 272-278). The RH50 head uses the same dies as the HT51.

TECHNICAL FEATURES

Crimping force tons	6
Max operating pressure psi	10,000
Dimensions in.	
Length	7.7
Width	3.0
Weight lbs.	3.5

STORAGE

Type	VAL-P1*
Dimensions in. L x W x H	17.52 x 11.42 x 3.74
Weight lbs.	2.6
Supplied with the tool	✓

* Suitable for storage of the head and 20 sets of dies



STORAGE

Type	CVB-007
Dimensions in. L x W	13.78 x 4.13
Weight lbs.	0.3
Purchase separately	✓



HYDRAULIC PRESSHEAD

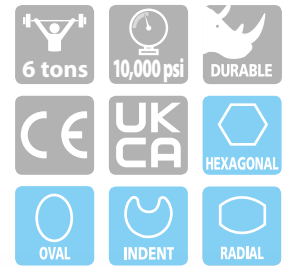
RHM50

general features

MAIN APPLICATIONS - max section AWG

Section	AWG	22÷16	16÷14	12÷10	8	6	4	2	1/0	2/0	3/0	250 MCM	300 MCM	350 MCM	400 MCM	500 MCM	600 MCM	800 MCM	1000 MCM	1250 MCM	1500 MCM	2000 MCM
L.V. lugs and splices																						
Insulated terminals																						
End sleeves																						

These tools are supplied without dies. For die selection, please refer to chart on pages 286 to 300



Particularly suitable for high volume bench crimping.

TECHNICAL FEATURES

Crimping force tons	6
Max operating pressure psi	10,000
Dimensions in.	
Length	8.3
Width	2.8
Weight lbs.	3.5

STORAGE

Type	VAL-P1*
Dimensions in. L x W x H	17.52 x 11.42 x 3.74
Weight lbs.	2.6
Supplied with the tool	✓

* Suitable for storage of the head and 20 sets of dies



STORAGE

Type	CVB-007
Dimensions in. L x W	13.78 x 4.13
Weight lbs.	0.3
Purchase separately	✓



Hydraulic presshead complete with a 3/8" NPT male automatic coupler to be connected to a hydraulic pump developing a maximum pressure of 10,000 psi, (see pages 272-278). The RHM50 head uses the same dies as the HT51.

general features

MAIN APPLICATIONS - max section AWG

Section AWG	22÷16	16÷14	12÷10	8	6	4	2	1/0	2/0	3/0	250 MCM	300 MCM	350 MCM	400 MCM	500 MCM	600 MCM	800 MCM	1000 MCM	1250 MCM	1500 MCM	2000 MCM
Copper lugs																					
Copper splices																					
"C" sleeve Connectors																					

These tools are supplied without dies. For die selection, please refer to chart on pages 286 to 300

TECHNICAL FEATURES

Crimping force tons	12
Dimensions in.	
Length	19.2
Width	5.4
Jaw opening	1.0
Weight lbs.	12.6

STORAGE

Type	VAL-P3*
Dimensions in. L x W x H	24.41 x 14.96 x 5.31
Weight lbs.	5.5
Supplied with the tool	✓

*Suitable for storage of the tool and 14 sets of dies



This lightweight and self contained tool will accept the semi-circular slotted dies, common to most 12 tons tools (U dies).

It is particularly suitable for installing crimp type electrical connectors for overhead line applications. The tool features a double speed action: a fast advancing speed for rapid approach of the dies to the connector and a slower more powerful speed for crimping. For ease of operation and comfort of the operator the tool head can be fully rotated through 180 degrees.

The built-in safety valve will by-pass the oil supply when the maximum pressure is reached, and a pressure release system can easily be operated at any stage of the compression.



Die release system, protected from accidental operation



Pressure release trigger, which can be operated at any stage of the compression.



HT 120-KV
version also available for
Power Supply Companies

HT 120 features a double speed action: a fast advancing speed for rapid approach of the dies to the connector and a slower more powerful speed for crimping.



HYDRAULIC CRIMPING TOOL

HT131-C

general features

MAIN APPLICATIONS - max section AWG

Section AWG	22-16	16-14	12-10	8	6	4	2	1/0	2/0	3/0	250 MCM	300 MCM	350 MCM	400 MCM	500 MCM	600 MCM	800 MCM	1000 MCM	1250 MCM	1500 MCM	2000 MCM
Copper lugs																					
Copper splices																					
"C" sleeve Connectors																					

These tools are supplied without dies. For die selection, please refer to chart on pages 286 to 300

STORAGE

Type	VAL-P3*
Dimensions in. L x W x H	24.41 x 14.96 x 5.31
Weight lbs.	5.5
Supplied with the tool	✓

*Suitable for storage of the tool and 14 sets of dies

TECHNICAL FEATURES

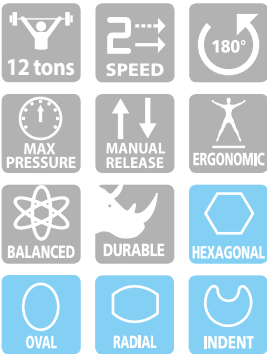
Crimping force tons	12
Dimensions in.	
Length	18.6
Width	5.7
Jaw opening	1.0
Weight lbs.	12.1

This self contained, robust and sturdy tool, will accept all semi-circular slotted dies, common to most 12 tons tools (U dies).

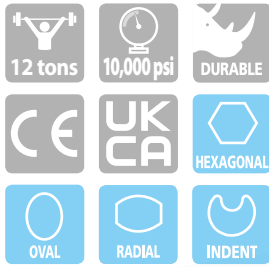
The tool features a double speed action: a fast advancing speed for rapid approach of the dies to the connector and a slower more powerful speed for crimping.

For ease of operation and comfort of the operator the tool head can be fully rotated through 180 degrees.

The built-in safety valve will by-pass the oil supply when the maximum pressure is reached, and the pressure release system can easily be operated at any stage of compression.

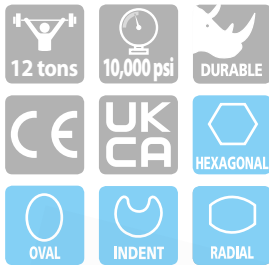


RHC131



Hydraulic presshead complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 10,000 psi max, (see pages 272-278). This new design with improved mechanical features, is suitable for installing the same range of connectors as HT131-C.

RHM132



Hydraulic presshead complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 10,000 psi max, (see pages 272-278).

HYDRAULIC PRESSHEAD

general features

MAIN APPLICATIONS - max section AWG

Section AWG	22÷16	16÷14	12÷10	8	6	4	2	1/0	2/0	3/0	250 MCM	300 MCM	350 MCM	400 MCM	500 MCM	600 MCM	800 MCM	1000 MCM	1250 MCM	1500 MCM	2000 MCM
Copper lugs																					
Copper splices																					
"C" sleeve Connectors																					

These tools are supplied without dies. For die selection, please refer to chart on pages 286 to 300

TECHNICAL FEATURES

Crimping force tons	12
Max operating pressure psi	10,000
Dimensions in.	
Length	9.13
Width	4.88
Jaw opening	1.0
Weight lbs.	8.4

STORAGE

Type	VAL-P26*
Dimensions in. L x W x H	17.52 x 11.42 x 4.53
Weight lbs.	2.6
Purchase separately	✓

*Suitable for storage of the head and 14 sets of dies



RHC131-KV version also available for electrical utilities



HYDRAULIC PRESSHEAD

general features

MAIN APPLICATIONS - max section AWG

Section AWG	22÷16	16÷14	12÷10	8	6	4	2	1/0	2/0	3/0	250 MCM	300 MCM	350 MCM	400 MCM	500 MCM	600 MCM	800 MCM	1000 MCM	1250 MCM	1500 MCM	2000 MCM
Copper lugs																					

These tools are supplied without dies. For die selection, please refer to chart on pages 286 to 300

TECHNICAL FEATURES

Crimping force tons	12
Max operating pressure psi	10,000
Dimensions in.	
Length	8.50
Width	3.15
Weight lbs.	6.8

STORAGE

Type	VAL-P26*
Dimensions in. L x W x H	17.52 x 11.42 x 4.53
Weight lbs.	2.6
Purchase separately	✓

*Suitable for storage of the head and 14 sets of dies



HYDRAULIC CRIMPING TOOL

HT131LN-C

general features

MAIN APPLICATIONS - max section AWG

Section AWG	22÷16	16÷14	12÷10	8	6	4	2	1/0	2/0	3/0	250 MCM	300 MCM	350 MCM	400 MCM	500 MCM	600 MCM	750 MCM	800 MCM	1000 MCM	1250 MCM	1500 MCM	2000 MCM	
Copper lugs and splices																							
Aluminum lugs and splices																							
"C" sleeve Connectors																							

These tools are supplied without dies. For die selection, please refer to chart on pages 286 to 300



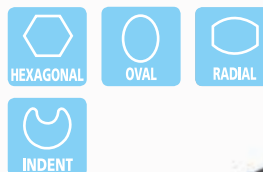
STORAGE

Type	VAL-P3*
Dimensions in. L x W x H	24.41 x 14.96 x 5.31
Weight lbs.	5.5
Supplied with the tool	✓

*Suitable for storage of the tool and 14 sets of dies

TECHNICAL FEATURES

Crimping force tons	12
Dimensions in.	
Length	21.1
Width	5.7
Jaw opening	1.7
Weight lbs.	15.4



Hydraulic "C" head tool with a large 1.65 in. jaw opening, for easier introduction/removal of large size compression terminations and joints.

The HT131LN-C will accept all semi-circular slotted dies, common to most 12 tons tools (U dies).



The tool features a double speed action: a fast advancing speed for rapid approach of the dies to the connector and a slower more powerful speed for crimping. For ease of operation and comfort of the operator the tool head can be fully rotated through 180 degrees. The built-in safety valve will by-pass the oil supply when the maximum pressure is reached, and the pressure release system can easily be operated at any stage of compression.

HYDRAULIC PRESSHEAD

general features

MAIN APPLICATIONS - max section AWG

Section AWG	22÷16	16÷14	12÷10	8	6	4	2	1/0	2/0	3/0	250MCM	300MCM	350MCM	400MCM	500MCM	600MCM	750MCM	800MCM	1000MCM	1250MCM	1500MCM	2000MCM	
Copper lugs and splices																							
Aluminum lugs and splices																							
"C" sleeve Connectors																							

These tools are supplied without dies. For die selection, please refer to chart on pages 286 to 300

STORAGE

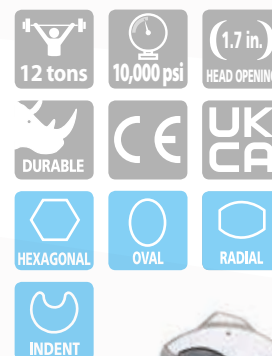
Type	VAL-P26*
Dimensions in. L x W x H	17.52 x 11.42 x 4.53
Weight lbs.	2.6
Purchase separately	✓

*Suitable for storage of the head and 14 sets of dies

TECHNICAL FEATURES

Crimping force tons	12
Max operating pressure psi	10,000
Dimensions in.	
Length	11.7
Width	4.8
Jaw opening	1.7
Weight lbs.	11.9

Hydraulic head featuring a large 1.65 in. jaw opening; complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 10,000 psi max, (see pages 272-278). Is suitable for installing the same range of connectors as HT-131LN-C.



HT131-UC

HYDRAULIC CRIMPING TOOL

general features



MAIN APPLICATIONS - max section AWG

Section	AWG	22÷16	16÷14	12÷10	8	6	4	2	1/0	2/0	3/0	250 MCM	300 MCM	350 MCM	400 MCM	500 MCM	600 MCM	800 MCM	1000 MCM	1250 MCM	1500 MCM	2000 MCM
Copper lugs and splices																						
Aluminum lugs and splices																						
"C" sleeve Connectors																						

These tools are supplied without dies. For die selection, please refer to chart on pages 286 to 300

TECHNICAL FEATURES

Crimping force tons	12
Dimensions in.	
Length	19.2
Width	5.8
Weight lbs.	11.9

STORAGE

Type	VAL-P3*
Dimensions in. L x W x H	24.41 x 14.96 x 5.31
Weight lbs.	5.5
Supplied with the tool	✓

*Suitable for storage of the tool and 14 sets of dies

STORAGE

Type	VAL-130*
Purchase separately	✓

*Suitable for the storage of accessories for crimping Aluminum connectors

This robust and self contained tool will accept the accessories for performing the "Deep Stepped Indent" system of crimping on Aluminum cables.

This tool will also accept the semi-circular slotted dies, common to most 12 tons tools (U dies). HT131-UC performance features are the same as those of HT131-C.

RHU131-C

HYDRAULIC PRESSHEAD

general features

MAIN APPLICATIONS - max section AWG

Section	AWG	22÷16	16÷14	12÷10	8	6	4	2	1/0	2/0	3/0	250 MCM	300 MCM	350 MCM	400 MCM	500 MCM	600 MCM	800 MCM	1000 MCM	1250 MCM	1500 MCM	2000 MCM
Copper lugs and splices																						
Aluminum lugs and splices																						
"C" sleeve Connectors																						

These tools are supplied without dies. For die selection, please refer to chart on pages 286 to 300

TECHNICAL FEATURES

Crimping force tons	12
Max operating pressure psi	10,000
Dimensions in.	
Length	9.6
Width	3.5
Weight lbs.	8.1

STORAGE

Type	VAL-P26*
Dimensions in. L x W x H	17.52 x 11.42 x 4.53
Weight lbs.	2.6
Purchase separately	✓

*Suitable for storage of the head and 14 sets of dies

STORAGE

Type	VAL-130*
Dimensions in. L x W x H	14.17 x 11 x 1.89
Weight lbs.	6.6
Purchase separately	✓

*Suitable for the storage of accessories for crimping Aluminum connectors

STORAGE

Type	VAL-130-U*
Dimensions in. L x W x H	17.72 x 12 x 3.15
Weight lbs.	11.0
Purchase separately	✓

*Suitable for storage of the head, semi-circular slotted dies and dies for crimping Aluminum connectors

Hydraulic presshead complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 10,000 psi max, (see pages 272-278). RHU131-C is suitable for installing the same range of connectors as HT131-UC.



VAL-130



VAL-130-U



VAL-P26

HYDRAULIC PRESSHEAD

ECW-H3D

general features

MAIN APPLICATIONS - max section AWG

Section	AWG	22÷16	16÷14	12÷10	8	6	4	2	1/0	2/0	3/0	250 MCM	300 MCM	350 MCM	400 MCM	500 MCM	600 MCM	800 MCM	1000 MCM	1250 MCM	1500 MCM	2000 MCM
L.V. lugs and splices																						
Insulated terminals																						
"C" sleeve Connectors																						
H.V. lugs and splices																						

These tools are supplied without dies. For die selection, please refer to chart on pages 286 to 300

STORAGE

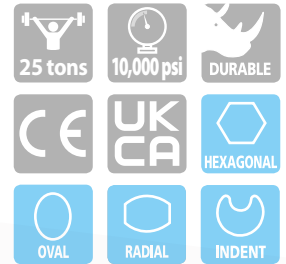
Type	VAL-ECW-H3D*
Dimensions in. L x W x H	13.6 x 12 x 3.5
Weight lbs.	9.2
Purchase separately	✓

* Suitable for storage of the head and 10 sets of dies



TECHNICAL FEATURES

Crimping force tons	25
Max operating pressure psi	10,000
Dimensions in.	
Length	12.4
Width	4.7
Weight lbs.	12.1



Hydraulic presshead complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 10,000 psi max, (see pages 272-278)
Adaptor type AU230-130D is available as an optional extra enabling the head to utilise the semi-circular slotted dies which are common to most 12 tons tools (U dies).
Also available is a series of dies for the compression of DIN electrical connectors, and a die for cutting Copper, Aluminum, Aldrey, Aluminum-Steel and Steel conductors.

ECW-H3D ACCESSORIES FOR CUTTING CONDUCTORS

Die Type	Cutting Capacity	Conductor Type
	Ø 0.79 in.	Cu, Alu, Aldrey and Alu-Steel
	Ø 0.79 in.	Extra flexible Steel with ≥ 200 strands

WT2-3D

This die is suitable to cut Steel conductors
(R ≤ 232,000 lbs./sq.in.) having the most common strandings, i.e.:
19 x 0.047 = Ø est. 0.236 in. 7 x 0.118 = Ø est. 0.354 in.
19 x 0.083 = Ø est. 0.413 in. 19 x 0.091 = Ø est. 0.453 in.

RHU450

HYDRAULIC PRESSHEAD

general features

MAIN APPLICATIONS - max section AWG

Section AWG	22÷16	16÷14	12÷10	8	6	4	2	1/0	2/0	3/0	250 MCM	300 MCM	350 MCM	400 MCM	500 MCM	600 MCM	800 MCM	1000 MCM	1250 MCM	1500 MCM	2000 MCM
Cu																					
Al																					

These tools are supplied without dies.



Hydraulic presshead complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see pages 272-278). Adaptor type AU450-130D is available as an optional extra enabling the head to utilise the semi-circular slotted dies which are common to most 12 tons tools (U dies).

TECHNICAL FEATURES

Crimping force tons	50
Max operating pressure psi	10,000
Dimensions in.	
Length	10.2
Width	4.7
Weight lbs.	22.7

STORAGE

Type	VAL-450*
Dimensions in. L x W x H	11.2 x 8.3 x 4.9
Weight lbs.	6.2
Supplied with the tool	✓

* Suitable for storage of the head



HYDRAULIC PRESSHEAD

RHU520

general features

MAIN APPLICATIONS - max section AWG

Section	AWG	22 ÷ 16	16 ÷ 14	12 ÷ 10	8	6	4	2	1/0	2/0	3/0	250 MCM	300 MCM	350 MCM	400 MCM	500 MCM	600 MCM	800 MCM	1000 MCM	1250 MCM	1500 MCM	2000 MCM
L.V. Lugs and splices																						
H.V. overhead lines																						

These tools are supplied without dies. For die selection, please refer to chart on pages 286 to 300



STORAGE

Type	VAL-520*
Dimensions in. L x W x H	15.1 x 9.1 x 5.7
Weight lbs.	7.0
Purchase separately	✓

*Suitable for storage of the head

TECHNICAL FEATURES

Crimping force tons	50
Max operating pressure psi	10,000
Dimensions in.	
Length	12.0
Width	7.9
Weight lbs.	39.6

STORAGE

Type	VAL-MAT 520*
Dimensions in. L x W x H	19.7 x 12.2 x 2.68
Weight lbs.	11.2
Purchase separately	✓

*Suitable for storage of 10 sets of dies



VAL-520

VAL-MAT 520

RHU520 DIES

Cembre Dies	Index
M10SH-520	10 SH
M14SH-520	14 SH
M16SH-520	16 SH
M30AH-520	30 AH
M38AH-520	38 AH



Hydraulic presshead complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 10,000 psi max, (see pages 272-278). Adaptor type AU520-130C is available as an optional extra enabling the head to utilise the semi-circular slotted dies which are common to most 12 tons tools (U dies).

HT-TC051

HYDRAULIC CUTTING TOOL

industrial application

MAIN APPLICATIONS

specifically designed to cut Copper, Aluminum and Telecommunications cable having Ø max 2 in.



Hand operated hydraulic tool specifically designed to cut Copper, Aluminum and telecommunications cables having a max overall diameter up to 2 inches. The tool features a double speed action. The blades are manufactured from high strength special Steel, heat treated to ensure a long service life.

TECHNICAL FEATURES

Max cutting Ø in.	up to 2
Dimensions in.	
Length	19.5
Width	5.1
Weight lbs.	9.6

STORAGE

Type	CVB-010
Dimensions in. L x W	21.4 x 6.3
Weight lbs.	0.3
Supplied with the tool	✓



Not suitable for cutting
Steel reinforced conductors



The head can be easily opened to allow the cutting of running cables. The head can rotate by 90 degrees, to enable the operator to work in the most comfortable position. HT-TC051 features an automatic safety valve to bypass oil when reaching maximum pressure; a pressure release device can also be operated at any stage of operation.

TC050

HYDRAULIC CUTTING HEAD

industrial application

MAIN APPLICATIONS

specifically designed to cut Copper, Aluminum and Telecommunications cable having Ø max 2 in.



Hydraulic cutting head complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 10,000 psi max, (see pages 272-278). TC050 features the same cutting capability as HT-TC051.

TECHNICAL FEATURES

Max cutting Ø in.	up to 2
Max operating pressure psi	10,000
Dimensions in.	
Length	12.8
Width	4.4
Weight lbs.	7.0

STORAGE

Type	CVB-011
Dimensions in. L x W	14.2 x 5.4
Weight lbs.	0.3
Supplied with the tool	✓



Not suitable for cutting
Steel reinforced conductors



HYDRAULIC CUTTING TOOL

industrial application

MAIN APPLICATIONS

specifically designed to cut Copper, Aluminum and Telecommunications cable having Ø max 2-9/16 in.

STORAGE

Type	CVB-010
Dimensions in. L x W	21.4 x 6.3
Weight lbs.	0.3
Supplied with the tool	✓

TECHNICAL FEATURES

Max cutting Ø in.	up to 2-9/16
Dimensions in.	
Length	20.6
Width	5.1
Weight lbs.	11.0



Not suitable for cutting
Steel reinforced conductors

Hand operated hydraulic tool specifically designed to cut Copper, Aluminum and telecommunications cables having a max overall diameter up to 2-9/16" inches. The tool features a double speed action.

The blades are manufactured from high strength special Steel, heat treated to ensure a long service life.

The head can be easily open-



ned to allow the cutting of running cables.

The head can rotate by 320 degrees, to enable the operator to work in the most comfortable position.

HT-TC065 features an automatic safety valve to bypass oil when reaching maximum pressure; a pressure release device can also be operated at any stage of operation.

HYDRAULIC CUTTING HEAD

industrial application

MAIN APPLICATIONS

specifically designed to cut Copper, Aluminum and Telecommunications cable having Ø 2-9/16 in.

STORAGE

Type	VAL-TC065-SC*
Dimensions in. L x W x H	18 x 9.1 x 4.8
Weight lbs.	7.9
Supplied with the tool	✓

*Suitable for storage of the head

TECHNICAL FEATURES

Max cutting Ø in.	up to 2-9/16
Max operating pressure psi	10,000
Dimensions in.	
Length	16.8
Width	7.3
Weight lbs.	13.8



Hydraulic cutting head complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 10,000 psi max, (see pages 272-278). TC065-SC features the same cutting capability as HT-TC065.



The open head and the "scissor" movement of the blades facilitate the cutting of running cables.

Not suitable for cutting
Steel reinforced conductors

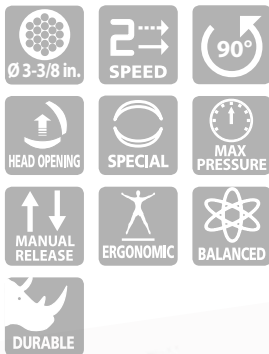
HT-TC0851

HYDRAULIC CUTTING TOOL

industrial application

MAIN APPLICATIONS

specifically designed to cut Copper, Aluminum and Telecommunications cable having Ø max 3-3/8 in.



Hand operated hydraulic tool specifically designed to cut Copper, Aluminum and telecommunications cables having a max overall diameter up to 3-3/8 in. This model is self contained, robust and sturdy. The tool features a double speed action: a fast advancing speed for rapid approach of the blades to the cable and a slower more powerful speed for cutting.

TECHNICAL FEATURES

Max cutting Ø in.	up to 3-3/8
Dimensions in.	
Length	25.7
Width	5.6
Weight lbs.	14.5

The blades are manufactured from high strength special Steel, heat treated to ensure a long service life. The head can easily be opened to allow the cutting of running cables, and can rotate by 180 degrees, to enable the operator to work in the most comfortable position.

STORAGE

Type	VAL-P7
Dimensions in. L x W x H	28.6 x 8 x 4.5
Weight lbs.	2.9
Supplied with the tool	✓

HT-TC0851 features an automatic safety valve to bypass oil when reaching maximum pressure; a pressure release device can also be operated at any stage of operation.



Not suitable for cutting
Steel reinforced conductors



TC085

HYDRAULIC CUTTING HEAD

industrial application

MAIN APPLICATIONS

specifically designed to cut Copper, Aluminum and Telecommunications cable having Ø max 3-3/8 in.



Hydraulic cutting head complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 10,000 psi max, (see pages 272-278). TC085 features the same cutting capability as HT-TC0851.

TECHNICAL FEATURES

Max cutting Ø in.	up to 3-3/8
Max operating pressure psi	10,000
Dimensions in.	
Length	16.1
Width	5.3
Weight lbs.	10.8

STORAGE

Type	VAL-TC085
Dimensions in. L x W x H	18.3 x 6.1 x 2.6
Weight lbs.	5.3
Supplied with the tool	✓



Not suitable for cutting
Steel reinforced conductors



HYDRAULIC CUTTING HEAD

TC096

industrial application

MAIN APPLICATIONS

specifically designed to cut Copper and Aluminum cable having Ø max 3-3/4 in.



STORAGE

Type	VAL-096
Dimensions in. L x W x H	17.7 x 10.4 x 5.7
Weight lbs.	15.0
Supplied with the tool	✓

TECHNICAL FEATURES

Max cutting Ø in.	up to 3-3/4
Max operating pressure psi	10,000
Dimensions in.	
Length	15.6
Width	9.8
Weight lbs.	17.4



Handle designed for ease of operation

Not suitable for cutting
Steel reinforced conductors



TC096 is a hydraulic cutting head specifically designed for cutting Copper and Aluminum cables having overall diameter up to 3-3/4".

The blades are manufactured from high strength special Steel, heat treated to ensure a long service life, and the shape of the blades provides a "clean" cutting of the cable.

This head is fitted with a male automatic coupler to be connected to a hydraulic pump developing a maximum pressure of 10,000 psi (see pages 272-278).

MAIN APPLICATIONS

specifically designed to cut Copper, Aluminum and Telecommunications cable having Ø max 4-3/4 in.



TECHNICAL FEATURES

Max cutting Ø in.	up to 4-3/4
Max operating pressure psi	10,000
Dimensions in.	
Length	21.1
Width	6.9
Weight lbs.	20.1

STORAGE

Type	VAL-TC120
Dimensions in. L x W x H	23.2 x 8.2 x 3.3
Weight lbs.	20.1
Supplied with the tool	✓



TC120 is a hydraulic cutting head specifically designed for cutting Copper, Aluminum and telephone cables having overall diameter up to 4-3/4".

The blades are manufactured from high strength special Steel, heat treated to ensure a long service life. The shape of the blades provides a "clean" cut and the head can be easily opened to allow cutting of running cables.

This head is fitted with a male automatic coupler to be connected to a hydraulic pump developing a maximum pressure of 10,000 psi (see pages 272-278).



Handle designed for ease of operation



Opening head, to allow cutting of running cables

Not suitable for cutting
Steel reinforced conductors

TC 120 cutting capacity - a few examples:

Cable Type	Section	Conductor Type
	2000 MCM	Steel armoured Ø 3.2 in.
	2000 MCM	Cu - EPR rubber insulated; Ø 3.35 in.
	2000 MCM	Cu - EPR rubber insulated + lead sheath; Ø 3.62 in.
	2000 MCM	Cu - EPR rubber insulated + lead sheath + PE sheath; Ø 3.94 in.
	350-400 MCM	EPR rubber insulated

HYDRAULIC CUTTING TOOL

overhead line application

MAIN APPLICATIONS

specifically designed to cut Copper, Aldrey, Aluminum, Aluminum-Steel cables, Steel ropes having a max overall diameter of 1", guy wire up to 7/8" and Steel ground rod up to 5/8"

STORAGE

Type	CVB-001
Dimensions in. L x W	16.9 x 6.1
Weight lbs.	0.33
Supplied with the tool	✓

TECHNICAL FEATURES

Max cutting Ø in.	up to 1
Dimensions in.	
Length	15.5
Width	5.1
Weight lbs.	7.4



CUTTING CAPACITY

	MATERIAL	TENSILE STRENGTH (lbs./sq.in.)	MAX CUTTING DIAMETER (in.)
			HT-TC026Y TC 025
ROPE & CONDUCTORS	Copper	≤ 59,450	1
	Aluminum	≤ 29,000	1
	Almelec	≤ 49,300	1
	Steel	≤ 261,000	INDICATIVE EXAMPLES: 7 x 0.118 = Ø out. 0.354 19 x 0.083 = Ø out. 0.413 19 x 0.091 = Ø out. 0.453
	MULTI STRANDS Steel (STRANDS Qty ≥ 200)	≤ 261,000	0.709
	ACSR	≤ 261,000	1 INDICATIVE EXAMPLES: 26 x 0.098 + 7 x 0.077 : Ø out. = 0.624 26 x 0.120 + 7 x 0.094 : Ø out. = 0.763 26 x 0.142 + 7 x 0.110 : Ø out. = 0.897
RODS	Steel	≤ 87,000	0.511
		≤ 60,900	0.629
	Copper	≤ 43,000	0.787
		≤ 36,250	0.905
	Aluminum	≤ 23,200	1

Hand operated hydraulic tool specifically designed to cut Copper, Aldrey, Aluminum, Aluminum-Steel cables, Steel ropes having a max overall diameter of 1", guy wire up to 7/8" and Steel ground rod up to 5/8".

The tool features a double speed action.

The blades are manufactured from high strength special Steel, heat treated to ensure a long service life.



The head can rotate by 180 degrees, to enable the operator to work in the most comfortable position, and can easily be opened to allow the cutting of running cables. HT-TC026Y features an automatic safety valve to bypass oil when reaching maximum pressure; a pressure release device can also be operated at any stage of operation.

Ideal for EHS guy wire up to 7/8" and ground rod up to 5/8"



HYDRAULIC CUTTING HEAD

overhead line application

MAIN APPLICATIONS

specifically designed to cut Copper, Aldrey, Aluminum and Aluminum-Steel cables having a max overall diameter of 1 in.

STORAGE

Type	CVB-007
Dimensions in. L x W	13.78 x 4.13
Weight lbs.	0.29
Supplied with the tool	✓

TECHNICAL FEATURES

Max cutting Ø in.	up to 1
Max operating pressure psi	10,000
Dimensions in.	
Length	8.4
Width	3.4
Weight lbs.	4.4



TC025 hydraulic cutting head is specifically designed to cut Copper, Aldrey, Aluminum and Aluminum-Steel cables having a max overall diameter of 1".

This head is fitted with a male automatic coupler to be connected to a hydraulic pump developing a maximum pressure of 10,000 psi (see pages 272-278)



HT-TC041N

HYDRAULIC CUTTING TOOL

overhead line application

MAIN APPLICATIONS

specifically designed to cut Copper, Aldrey, Aluminum, Aluminum-Steel cables and Steel ropes, Aluminum and Steel rods having Ø max 1.75 in.



This model is self contained, robust and sturdy. The tool features a double speed action.

The blades are manufactured from high strength special steel, heat treated to ensure a long service life. The head can rotate by 180 degrees, to enable the operator to work in the most comfortable position, and can easily be opened to allow cutting of running cables.

Ideal for EHS guy wire

TECHNICAL FEATURES

Max cutting Ø in.	up to 1-3/4
Dimensions in.	
Length	21.6
Width	5.6
Weight lbs.	12.8

STORAGE

Type	VAL-P7
Dimensions in. L x W x H	28.6 x 8 x 4.5
Weight lbs.	2.9
Supplied with the tool	✓

HT-TC041N features an automatic safety valve to bypass oil when reaching maximum pressure; a

pressure release device can also be operated at any stage of operation.

CUTTING CAPACITY

	MATERIAL	TENSILE STRENGTH (lbs./sq.in.)	MAX CUTTING DIAMETER (in.)
			HT-TC041N TC04N
ROPE & CONDUCTORS	Copper	≤ 59,450	1-3/4"
	Aluminum	≤ 29,000	1-3/4"
	Almelec	≤ 49,300	1-3/4"
	Steel	≤ 261,000	INDICATIVE EXAMPLES: 7 x 0.118 = Ø out. 0.354 19 x 0.083 = Ø out. 0.413 19 x 0.091 = Ø out. 0.453
	MULTI STRANDS Steel (STRANDS Qty ≥ 200)	≤ 261,000	0.709
	ACSR	≤ 261,000	1-3/4" INDICATIVE EXAMPLES: 26 x 0.098 + 7 x 0.077 : Ø out. = 0.624 26 x 0.120 + 7 x 0.094 : Ø out. = 0.763 26 x 0.142 + 7 x 0.110 : Ø out. = 0.897 54 x 0.138 + 19 x 0.082 : Ø out. = 1.240 54 x 0.172 + 19 x 0.103 : Ø out. = 1.543
RODS	Steel	≤ 87,000	0.709
		≤ 60,900	0.787
	Copper	≤ 43,000	1.181
		≤ 36,250	1.260
	Aluminum	≤ 23,200	1-3/4"

Hand operated hydraulic tool specifically designed to cut Copper, Aldrey, Aluminum, Aluminum-Steel cables and Steel ropes, Aluminum and Steel rods having a max overall diameter of 1.75 in.



TC04N

HYDRAULIC CUTTING HEAD

overhead line application

MAIN APPLICATIONS

specifically designed to cut Copper, Aldrey, Aluminum, Aluminum-Steel cables and Steel ropes, Aluminum and Steel rods having Ø max 1.75 in.



Hydraulic cutting head complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 10,000 psi max. (see pages 272-278)

TC04N has the same cutting capability as HT-TC041N.

TECHNICAL FEATURES

Max cutting Ø in.	up to 1-3/4
Max operating pressure psi	10,000
Dimensions in.	
Length	12.2
Width	3.9
Weight lbs.	8.8

STORAGE

Type	VAL-04
Dimensions in. L x W x H	13.8 x 4.9 x 2.7
Weight lbs.	4.4
Supplied with the tool	✓

Ideal for EHS guy wire



HYDRAULIC CUTTING TOOL

overhead line application

MAIN APPLICATIONS

specifically designed to cut Copper, Aluminum, Aluminum-Steel cables (ACSR) having Ø max 2 in.

STORAGE

Type	CVB-010
Dimensions in. L x W	21.4 x 6.3
Weight lbs.	0.33
Supplied with the tool	✓

TECHNICAL FEATURES

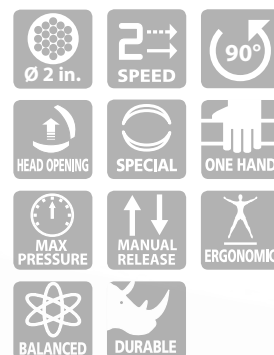
Max cutting Ø in.	up to 2
Dimensions in.	
Length	23.7
Width	5.1
Weight lbs.	10.3



For ACSR only, not suitable for cutting guy wire and ground rod.

Hand operated hydraulic tool specifically designed to cut copper, aluminum, aluminum-steel cables (ACSR) having a max overall diameter of 2".

The HT-TC051Y is provided with a two stage hydraulic system, which advances the blades quickly to the cable. This proven system saves operator time and effort.



The HT-TC051Y is provided with an automatic safety valve to bypass oil when reaching max pressure. This means safety to the operator and protection to the blades. The blades are manufactured from high strength special steel, heat treated to ensure a long service life. The shape of the blades provides a "clean" cut. The head can be opened to allow cutting of running cables and ropes. The head rotates 90 degrees allowing the operator to perform the cut in the most comfortable position. The tool is supplied complete with CVB-010 for protection and storage when not in use.

HYDRAULIC CUTTING HEAD

overhead line application

MAIN APPLICATIONS

specifically designed to cut Copper, Aluminum, Aluminum-Steel cables (ACSR) having Ø max 2 in.

STORAGE

Type	CVB-011
Dimensions in. L x W x H	14.2 x 5.4
Weight lbs.	0.3
Supplied with the tool	✓

TECHNICAL FEATURES

Max cutting Ø in.	up to 2
Max operating pressure psi	10,000
Dimensions in.	
Length	13.0
Width	4.4
Weight lbs.	7.3



For ACSR only, not suitable for cutting guy wire and ground rod.

Hydraulic cutting head complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 10,000 psi max, (see pages 272-278)



TC050Y features the same cutting capability as HT-TC051Y.



MAIN APPLICATIONS

designed for punching holes from 0.61 up to Ø 1.858 in.

TECHNICAL FEATURES

Max piercing Ø in.	1.858
Max centre of hole to edge of trunking in.	2.11
Max operating pressure psi	10,000
Dimensions in.	
Length	10.2
Width	5.8
Weight lbs.	8.16

STORAGE

Type	VAL-P30
Dimensions in. L x W x H	12.4 x 11.8 x 3.7
Weight lbs.	2.0
Supplied with the tool	✓



Hydraulic piercing head complete with automatic quick coupler, designed for punching holes from 0.61 up to 1.858 in. diameter in the side wall of trunking without the need for pre drilling.
For operation the head must be joined to a hydraulic pump developing a pressure of 10,000 psi (see pages 272-278).

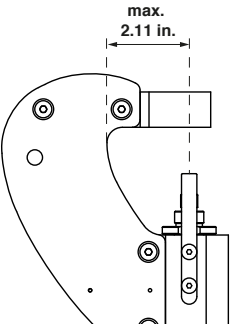


Table denotes the punch/die set reference, for each hole size.
Suitable for punching holes in mild Steel, fibreglass or plastic material, up to 0.08 in. thick.

Hole Dimensions				Maximum thickness of mild Steel (in.)	Type
Nominal	Pg	ISO	Inch		
Ø (mm)	Ø (inch)				
15,5	.610	Pg9	-	0.08	RD15.5SS-FC
16,2	.638	-	ISO-16		RD16.2SS-FC
17,5	.689	-	-		RD17.5SS-FC
18,8	.740	Pg11	-		RD18.8SS-FC
19,1	.752	-	-		RD19.1SS
20,5	.807	Pg 13,5	ISO-20		RD20.5SS
22,6	.890	Pg16	-		RD22.6SS
23,8	.937	-	5/8"		RD23.8SS
25,4	1.000	-	ISO-25		RD25.4SS
27,0	1.063	-	3/4"		RD27SS
28,5	1.122	Pg21	-		RD28.5SS
30,5	1.201	-	7/8"		RD30.5SS
31,8	1.252	-	-		RD31.8SS
32,5	1.279	-	ISO-32		RD32.5SS
34,6	1.362	-	-		RD34.6SS
37,2	1.464	Pg29	-		RD37.2SS
38,1	1.500	-	-		RD38.1SS
40,5	1.594	-	ISO-40		RD40.5SS-FC
41,3	1.626	-	-		RD41.3SS-FC
42,5	1.673	-	1"1/4"		RD42.5SS-FC
43,2	1.701	-	-		RD43.2SS-FC
44,5	1.752	-	-		RD44.5SS-FC
47,2	1.858	Pg36	-		RD47.2SS-FC



PIERCING HEADS

general features

RHT160

Max piercing Ø in.	0.83
Max hole distance from bar edge in.	1.2
Max operating pressure psi	10,000
Dimensions in.	
Length	9.4
Width	6.0
Weight lbs.	14.3

RHT160-60N

Max piercing Ø in.	0.83
Max hole distance from bar edge in.	2.3
Max operating pressure psi	10,000
Dimensions in.	
Length	9.4
Width	7.1
Weight lbs.	20.3

STORAGE

Type	VAL-160*
Dimensions in. L x W x H	11.1 x 7.09 x 3.94
Weight lbs.	5.1
Supplied with the tool	✓

*Suitable for storage of the head



Hydraulic piercing head complete with automatic quick coupler, for piercing holes of various diameters in copper, aluminum and steel bars with max. thickness of 0.39 inches (see Tab.)

This compact and handy tool is widely used for transformer room connections, control switch boards and power plants.

For operation the head must be joined to a hydraulic pump developing a pressure of 10,000 psi (see pages 272-278).

Available accessories (to be ordered separately):

Piercing Ø in.	0.25	0.33	0.35	0.41	0.43	0.51	0.53	0.55	0.59	0.67	0.75	0.83
Type (Kit Punch+Die)	RT6,5	RT8,5	RT9	RT10,5	RT11	RT13	RT13,5	RT14	RT15	RT17	RT19	RT21

Max. thickness

Hole diameter (in.)	0.25	0.33	0.35	0.41	0.43	0.51	0.53	0.55	0.59	0.67	0.75	0.83
Max thickness strip in Copper	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.31
Max thickness strip in Steel	0.39	0.39	0.39	0.39	0.39	0.35	0.35	0.35	0.31	0.27	0.24	0.16
Punch die/set	RT6,5	RT8,5	RT9	RT10,5	RT11	RT13	RT13,5	RT14	RT15	RT17	RT19	RT21

HT-FL74

PULLER-TYPE HOLE PUNCHING TOOLS

general features

MAIN APPLICATIONS

specifically designed for hole punching stainless Steel, mild Steel, fibreglass and plastic sheet materials up to 5.5 in. thickness

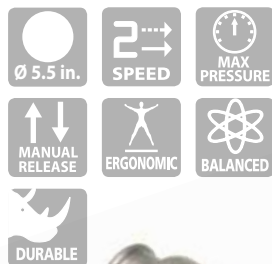
Supplied with Pullers TD-11, TD-19 and spiral bit Ø 0.45 in. For the punch-die selection chart see page 235.

TECHNICAL FEATURES

Max Punching Ø in.	5.5
Dimensions in.	
Length	15.0
Width	5.4
Weight lbs.	7.28

STORAGE

Type	VAL-P28
Dimensions in. L x W x H	24.4 x 14.2 x 5.4
Weight lbs.	5.3
Supplied with the tool	✓



Hand operated hydraulic tool specifically designed for hole punching stainless Steel, mild Steel, fibreglass and plastic sheet materials up to 0.14 in. thickness. Compact, lightweight and easy to handle.

The tool is supplied complete with plastic case VAL-P28 for protection and storage when not in use.



HT-FL75

TECHNICAL FEATURES

Max Punching Ø in.	5.5
Dimensions in.	
Length	17.8
Width	5.1
Weight lbs.	8.1

STORAGE

Type	VAL-P28
Dimensions in. L x W x H	24.4 x 14.2 x 5.4
Weight lbs.	5.3
Supplied with the tool	✓



Hand operated hydraulic tool specifically designed for hole punching stainless Steel, mild Steel, fibreglass and plastic sheet materials up to 0.14 in. thickness. Compact, lightweight and easy to handle.

The balanced punching head pivots 180deg through a full 360deg rotation for ease of use in confined spaces.

The tool is supplied complete with plastic case VAL-P28 for protection and storage when not in use.

Supplied with Pullers TD-11, TD-19 and spiral bit Ø 0.45 in.

For the punch-die selection chart see page 235.



Universal joint allows punching head to pivot 180deg over a full 360deg rotation.

PULLER-TYPE HOLE PUNCHING HEAD

RH-FL75

general features

MAIN APPLICATIONS

specifically designed for hole punching stainless Steel, mild Steel, fibreglass and plastic sheet materials up to 5.5 in. thickness

STORAGE

Type	VAL-P29
Dimensions in. L x W x H	17.6 x 11.3 x 4.1
Weight lbs.	3.1
Supplied with the tool	✓



TECHNICAL FEATURES

Max Punching Ø in.	5.5
Max operating pressure psi	10,000
Dimensions in.	
Length	6.4
Width	4.2
Weight lbs.	4.2



Hydraulic head, for hole punching stainless steel, soft steel, fibreglass and plastic sheet materials up to 0.14 in. thickness.

Compact and lightweight, easy to handle in confined spaces due to a rotating 90deg quick automatic coupler for connection to a hy-

draulic pump with a working pressure of 10,000 psi max (see pages 272-278).

Supplied with Pullers TD-11, TD-19 and spiral bit Ø 0.45 in.

For the punch-die selection chart see table below.



HT-FL74, HT-FL75 and RH-FL75 Punching accessories available

Round punch

Hole diameter				Material max thickness (in.)		Pilot hole Ø (in.)	Type
Nominal	Ø (inch)	Pg	ISO	Stainless Steel	Mild Steel		
15.5	.610	Pg9	-	-	-	0.45	RD15.5SS
16.2	.638	-	ISO-16	-	-	0.45	RD16.2SS
17.0	.669	-	-	G3/8"	-	0.45	RD17.5SS
17.5	.689	-	-	-	-	0.45	RD17.5SS
18.8	.740	Pg11	-	-	-	0.45	RD18.8SS
19.1	.752	-	-	-	-	0.45	RD19.1SS
20.5	.807	Pg 13.5	ISO-20	-	-	0.45	RD20.5SS
21.5	.846	-	-	G1/2"	-	0.45	RD21.5SS
22.6	.890	Pg16	-	-	-	0.45	RD22.6SS
23.8	.937	-	-	G5/8"	-	0.45	RD23.8SS
25.4	1.000	-	ISO-25	-	-	0.45	RD25.4SS
27.0	1.063	-	-	G3/4"	-	0.45	RD27.5SS
28.5	1.122	Pg21	-	-	-	0.45	RD28.5SS
30.5	1.201	-	-	G7/8"	-	0.45	RD30.5SS
28.5	1.122	Pg 21	-	-	-	0.79	RD28.5SS-19
30.5	1.201	-	-	G7/8"	-	0.79	RD30.5SS-19
31.8	1.252	-	-	-	-	0.79	RD31.8SS
32.5	1.279	-	ISO-32	-	-	0.79	RD32.5SS
34.0	1.338	-	-	G1"	-	0.79	RD34.5SS
34.6	1.362	-	-	-	-	0.79	RD34.6SS
37.2	1.464	Pg29	-	-	-	0.79	RD37.2SS
38.1	1.500	-	-	-	-	0.79	RD38.1SS
38.5	1.515	-	-	G1 1/8"	-	0.79	RD38.5SS
40.5	1.594	-	ISO-40	-	-	0.79	RD40.5SS
41.3	1.626	-	-	-	-	0.79	RD41.3SS
42.5	1.673	-	-	G1 1/4"	-	0.79	RD42.5SS
43.2	1.701	-	-	-	-	0.79	RD43.2SS
44.5	1.752	-	-	-	-	0.79	RD44.5SS
47.2	1.858	Pg36	-	-	-	0.79	RD47.2SS
48.5	1.909	-	-	G1 1/2"	-	0.79	RD48.5SS
50.5	1.988	-	ISO-50	-	-	0.79	RD50.5SS
51.4	2.023	-	-	-	-	0.79	RD51.4SS
52.4	2.063	-	-	-	-	0.79	RD52.4SS
54.2	2.134	Pg42	-	G1 3/4"	-	0.79	RD54.2SS
60.0	2.362	Pg48	-	G2"	-	0.79	RD60.5SS
60.5	2.381	-	-	-	-	0.79	RD60.5SS
64.0	2.520	-	ISO-63	-	-	0.79	RD64.5SS
65.0	2.559	-	-	-	-	0.79	RD65.5SS
76.0	2.992	-	-	G2 1/2"	-	0.79	RD76.5SS
76.5	3.011	-	-	-	-	0.79	RD76.5SS
80.5	3.169	-	-	-	-	0.79	RD80.5SS
89.0	3.503	-	G3"	-	-	0.79	RD89.5SS
90.0	3.543	-	-	-	-	0.79	RD90.5SS
100.0	3.937	-	-	0.08	0.12	1.14	RD100SS
102.0	4.015	-	-	0.08	0.12	1.14	RD102SS
114.0	4.488	-	-	0.08	0.10	1.14	RD114SS
120.0	4.724	-	-	0.06	0.08	1.14	RD120SS
140.0	5.512	-	-	0.06	0.08	1.14	RD140SS

* Puller included in the kit

"D" punch

Hole diameter				Material max thickness (in.)		Pilot hole Ø (in.)	Type
Nominal	(mm)	(inch)		Stainless Steel	Mild Steel		
(a)38.3 x (b)36.6	(a)1.507 x (b)1.442			0.10	0.14	0.73	RD 18D
(a)43.1 x (b)41.5	(a)1.696 x (b)1.632						RD 24D

Stainless Steel = Rm= 700 N/mm² - Mild Steel = Rm= 500 N/mm²

Square punch

Hole diameter				Material max thickness (in.)		Pilot hole Ø (in.)	Type
Nominal	(mm)	(inch)		Stainless Steel	Mild Steel		
21.0 x 21.0	.827 x .827			0.10	0.14	0.47	RD21X21
46.0 x 46.0	1.811 x 1.811			0.06	0.08	1.04	RD46X46
68.0 x 68.0	2.677 x 2.677						RD68X68
92.0 x 92.0	3.622 x 3.622						RD92X92
126.0 x 126.0	4.960 x 4.960						RD126X126
138.0 x 138.0	5.433 x 5.433			0.04	0.06		RD138X138
220.0 x 220.0	8.661 x 8.661						RD220X220
224.0 x 224.0	8.818 x 8.818						RD224X224

Rectangular punch

Hole diameter				Material max thickness (in.)		Pilot hole Ø (in.)	Type
Nominal	(mm)	(inch)		Stainless Steel	Mild Steel		
18.0 x 46.0	.709 x 1.811			0.08	0.08	0.65	RD18X46
22.0 x 30.0	.866 x 1.181						RD22X30
22.0 x 46.0	.866 x 1.811						RD22X46
29.0 x 71.0	1.141 x 2.795						RD29X71
35.0 x 65.0	1.377 x 2.559						RD35X65
35.0 x 86.0	1.377 x 3.385						RD35X86
35.0 x 112.0	1.377 x 4.409						RD35X112
36.0 x 46.0	1.417 x 1.811						RD36X46
37.0 x 54.0	1.456 x 2.125						RD37X54
37.0 x 67.0	1.456 x 2.637						RD37X67
37.0 x 88.0	1.456 x 3.464						RD37X88
37.0 x 104.0	1.456 x 4.094						RD37X104
37.0 x 115.0	1.456 x 4.527						RD37X115
46.0 x 54.0	1.811 x 2.126			0.06	0.06	1.04	RD46X54
46.0 x 72.0	1.811 x 2.835						RD46X72
46.0 x 92.0	1.811 x 3.622						RD46X92
46.0 x 107.0	1.811 x 4.212						RD46X107
50.0 x 98.0	1.968 x 3.858						RD50X98
67.0 x 126.0	2.637 x 4.960						RD67X126
72.0 x 136.0	2.834 x 5.354						RD72X136

Stainless Steel = Rm= 700 N/mm² - Mild Steel = Rm= 500 N/mm²

USE OF NON-CEMBRE PUNCHING ACCESSORIES

Type	Punch & Die	Pilot hole Ø in.
TRD-9.4C (*)	GREENLEE 3/8" - 24 UNF	Ø 0.40
TRD-M11C (*)	BM, COSMEC (M11x1.5), IMB 9602	Ø 0.45
TD-M16C	BM, COSMEC (M16x1.5)	Ø 0.65
TD-27	BM, COSMEC (Ø105=Ø140)	Ø 1.10
TD-14X14-M14	BM, COSMEC 46x46	Ø 0.74
TD-120X20-M20	BM, COSMEC 92x92	Ø 1.10
TD-20X20-M20 (with plug)	BM, COSMEC 42x95	Ø 1.10
TGD-13.5X13.5-M13	BM, COSMEC 40x40; 45x45; 46x46 (M13)	Ø 0.74
TGD-10X10-M9	BM, COSMEC 006505	Ø 0.54
TD-9	IMB 9601	Ø 0.37
TD-16	IMB 9603	Ø 0.65
TD-10X10-M10 (with plug)	IMB 9623	Ø 0.57
TD-14X14-M14/1"	IMB 9625	Ø 0.77
TD-20 (without plug)	IMB 9626	Ø 1.10
TD-20X20-M20-C (with plug)	IMB 9626	Ø 1.10

(*) The washer supplied with the KIT must be threaded onto the draw stud and positioned between the head and the die to allow the die to rest correctly



Hydraulic nut splitting head complete with automatic quick coupler. For operating the head must be joined to a hydraulic pump developing a pressure of 10,000 psi (see pages 272-278).

RHTD270

For splitting nuts in.	5/8" to 1-1/16"
Max operating pressure psi	10,000
Weight lbs.	3.9

RHTD3241

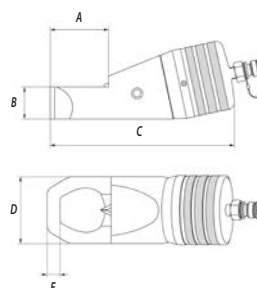
For splitting nuts in.	1-1/16" to 1-5/8"
Max operating pressure psi	10,000
Weight lbs.	10.1

RHTD410T

For splitting nuts in.	1-1/16" to 1-5/8"
Max operating pressure psi	10,000
Weight lbs.	10.8

Dimensions in.

	RHTD270	RHTD3241	RHTD410T
A	2.6	1.59	3.03
B	1.42	0.98	1.61
C	8.19	5.93	8.74
D	2.97	2.13	2.97
E	0.63	0.3	0.85



STORAGE

Type	VAL-P4
Dimensions in. L x W x H	12.4 x 11.8 x 3.74
Weight lbs.	2.05
Supplied with the tool	✓



Application range

Type	HEXAGONAL NUTS		SQUARE NUTS	
RHTD270	0.63	M 10	0.67	M 10
	0.67	M 10	0.75	M 12
	0.71	M 12	0.87	M 14
	0.75	M 12	0.94	M 16
	0.83	M 14	1.06	M 18
	0.87	M 14		
	0.94	M 16		
RHTD 3241 RHTD 410T	1.06	M 18	1.06	M 18
	1.06	M 18	1.06	M 18
	1.18	M 20	1.18	M 20
	1.26	M 22	1.26	M 22
	1.34	M 22	1.34	M 24
	1.42	M 24	1.42	M 27
	1.61	M 27		

CORDLESS HYDRAULIC TOOLS



SYMBOL DESCRIPTION

cordless hydraulic tools

	Crimping force tons		Battery condition displayed to show the residual battery power
	18.0 V Li-Ion high power batteries		Switch protected against accidental operation
	Double speed action: a rapid approach speed and a slower more powerful speed for crimping or cutting		Can be operated with one hand
	Openable compression head, ideal for derivations from running conductors		Equipped with safety valve as a additional safety element for the operator
	Openable cutting head, ideal for cutting running cables		Provided with a maximum pressure sensor that allows to check the correct execution of the compressions or the limit switch control of the blades
	Tool with a large 1.7 in. jaw opening, for easier introduction/removal of large size compression terminations and joints		Pressure release button
	blades manufactured from high strength special Steel, heat treated to ensure a long service life		Extremely quiet in operation
	Max cutting diameter		Very little vibration
	Max hole punching diameter		Ergonomically designed with a sculptured body for operator comfort
	The head can rotate to enable the operator to work in the most comfortable position		Lightweight and balanced tool for greater control
	OLED display with multi-function capacitive touch button: Crimping force being generated, Battery power availability, Tool identification, LED state, Reset, No. of operational and service crimping cycles, Tool service required		LED lighting of the working area
			Dual-compound plastic body Greater safety and comfort in handling, thanks to the rubber inserts

SYMBOL DESCRIPTION

cordless hydraulic tools



Ensures optimal use of energy available



Manual pressure release button



Durable moulded body offering high resistance to wear and damage in all operating conditions



Fitted with an integral socket, for connection to a 12 V dc external power supply



Crimping cycle data (up to 200,000 events) is automatically stored on a memory card for transfer to PC by USB interface



Contains isolated oil



Operating temperature range between -15 and +50°C



Hydraulic units provide protection against short circuit when accidentally cutting live L.V. / M.V. cables with nominal voltage up to 60 kV



Hexagonal crimp



CE marking



Radial crimp



UKCA marking



Indent crimp



"Bilinear" configuration
Cembre bilinear tools have their mechanical centre of gravity nearest to the operator's wrist to optimise the overall ergonomics of the tool and provide a wider support for the hand



Deep indent crimp



"Pistol" configuration
The new design and mass distribution favour the easy handling during use



Oval crimp



"Standard" configuration
The design allows the maximum stability and comfort in handling and ergonomics



Trapezium crimp



Smart Release Technology
Automatic retraction of the ram only occurs when the operator releases the start button, this allows visual verification of the die to ensure that they have fully met prior to releasing



Circular crimp



Electronic Pressure Sensor
The EPS guarantees the precision of the crimping operation, checking the actual value of pressure and informing the operator of possible errors



Max operating pressure



Data recording and intelligent control allow complete verification of operational parameters. SMARTOOL technology enables the user to store data from up to 200,000 cycles on the integrated memory card for transfer to a computer via a USB cable

18.0 V - 5.2 AH CORDLESS TOOL FEATURES

general features

- 1 Head rotates through 180°
- 2 Switch protected against accidental operation
- 3 Pressure release button
- 4 Slot-in battery with release button
- 5 LED lighting of the working area
- 6 Motor ventilation
- 7 Bi-component body for increased impact resistance
- 8 Multifunction OLED display with touch button
- 9 Improved balance for better handling
- 10 Anatomically shaped grip for greater comfort
- 11 18.0 V - 5.2 Ah Li-Ion high power batteries
- 12 SMARTOOL technology for viewing and downloading operational data



OPTIONAL ACCESSORIES

- 5 CINV12-110IC, 12V car power inverter.

Technical Specifications:

- Rated Power: 300 W
- Max. Power: 350 W
- Peak Power: 700 W
- Input Voltage: 11-15 VDC
- Output Voltage: 110 V
- Output Frequency: 50Hz or 60 Hz
- USB Output: 5 VDC 1 A cont.
- Converter Efficiency: > 90 %
- Protections: Short circuit, overload, over temperature, low battery voltage, over battery voltage
- Indicator: Dual color LED (Green, operation, Red, shutdown)
- Over Voltage Shutdown: DC 16 V
- Low Voltage Shutdown: DC 10 V

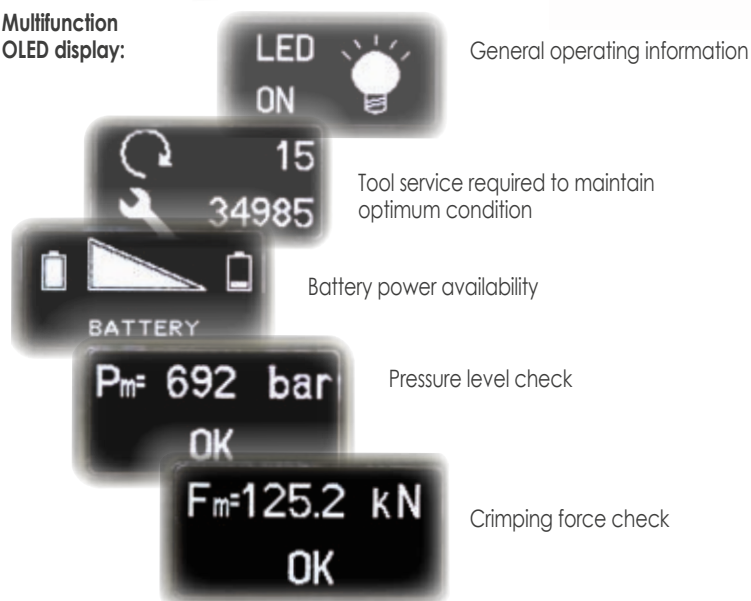


SUPPLIED WITH

- 1 CB1852L, 18.0 V - 5.2 Ah Li-Ion high power battery (2 pcs.)
- 2 ASC30-36-USA/CA, AC charger (115V)
(INPUT 220-240 V / 50-60 Hz; OUTPUT 12-42 V DC / 3.0 A max.)
- 3 USB cable
- 4 Shoulder strap
- Plastic or Metal carrying case



Multifunction OLED display:



18.0 V - 2.0 AH CORDLESS TOOL FEATURES

general features

- 1 Bilinear mechanical design
- 2 Smart Release system to automatically retract the ram at the end of the crimping cycle
- 3 OLED multifunctional display with touch button
- 4 Electronic Pressure Sensor (EPS)
- 5 SMARTOOL technology for viewing and downloading operational data
- 6 Illumination of working area via 4 x LED lights
- 7 Bi-component plastic body
- 8 Head rotates for ease of operation in confined spaces
- 9 Switch protected against accidental operation
- 10 Pressure release button
- 11 Slot-in battery with release button
- 12 Battery condition displayed to show the residual battery power
- 13 Motor ventilation
- 14 The tools are fitted with a maximum pressure valve to indicate a correct crimping operation or the full extent of the ram travel
- 15 Can be operated with one hand
- 16 Extremely quiet in operation with very little vibration
- 17 Anatomically shaped grip for greater comfort
- 18 18.0 V - 2.0 Ah Li-Ion high power batteries



OPTIONAL ACCESSORIES

- 4 CINV12-110IC, 12V car power inverter.



New Range *nd*



SUPPLIED WITH

- 1 CB1820L, 18.0 V - 2.0 Ah Li-Ion high power battery (2 pcs.)
 - 2 ASC30-36-USA/CA, AC charger (115V)
(INPUT 220-240 V / 50-60 Hz; OUTPUT 12-42 V DC / 3.0 A max.)
 - 3 USB cable (not for B15MA)
- Wrist strap
 - Plastic carrying case



general features

MAIN APPLICATIONS - max section AWG

Section AWG	22÷16	16÷14	12÷10	8	6	4	2	1/0	2/0	3/0	250 MCM	300 MCM	350 MCM	500 MCM	600 MCM	800 MCM	1000 MCM	1250 MCM	1500 MCM	2000 MCM
Copper lugs and splices																				
Insulated terminals																				
End sleeves																				

These tools are supplied without dies. For die selection, please refer to chart on pages 286 to 300



TECHNICAL FEATURES

Crimping force tons	1.7
Dimensions in.	
Length	13.2
Height	4.9
Width	3.1
Battery	18.0V 2.0Ah
Weight lbs. (with Battery)	3.8

STORAGE

Type	VAL-P22
Dimensions in. L x W x H	18.3 x 12.4 x 4.6
Weight lbs.	3.3
Supplied with the tool	✓



The tool is supplied as:

- Basic tool with battery and wrist strap
- Spare battery
- AC charger (110-115V)
- Plastic carrying case suitable for storing the tool and accessories

Many different interchangeable crimping dies available

Conductor Size AWG	Connector Type	Die Set	
22 ÷ 6	A...; L...-M; L...-P; S...; RN...; BN...; GN...	MA03/3-15	☺
16 ÷ 8	A...; L...-M; L...-P	ME03/2-15	
8 ÷ 6	A...; 2A...; L...-M; L...-P	ME2/3-15	
12 ÷ 8	T... (NF C 20130 style); L...-T	MS4/10-15	
8 ÷ 6	T... (NF C 20130 style); L...-T	MS10/16-15	⬡
8 ÷ 6	HR...; HSV...	MH10/16-15	
10 ÷ 6	DR... (DIN 46235 style); DSV... (DIN 46267 T1 style)	MKS/8-15	
8 ÷ 6	ANE...; AN...; IN...; EN...	NN4-15	☺
22 ÷ 10	R...; B...; G...; PL...; NL...	RBG-15	
22 ÷ 10	R...; B...; G... (not suffix P, RF/BF-BF)	RBV-15 with positioner	○
22 ÷ 12	PKE; PKC; PKD; PKT; KE	KE4-15	
12 ÷ 6	PKE; PKC; PKD; PKT; KE	KE16-15	⬡
6 ÷ 2	PKE; PKC; PKD; PKT; KE	KE35-15	
14 -12 -10	CS4 (for photovoltaic systems)	MCS4-15	☺

Can be operated with one hand. Balanced for greater control. Head rotates by 340° for ease of operation in confined spaces. The tool is fitted with a maximum pressure valve. Extremely quiet, minimal vibration. Durable moulded body offering high resistance to wear and damage in all operating conditions. New Li-Ion 18V 2Ah High Power battery.

The battery is equipped with led indicators that indicate the remaining battery life at any time by pressing the adjacent button. Supplied in a robust plastic case to accommodate the tool and all the accessories. Two batteries and AC charger (110-115V) included. Many different interchangeable crimping dies available. Operating temperature: +5 to +122°F



Battery condition display



Interchangeable die sets



Ergonomically designed operating switch



Automatic slot-in battery

18.0 V CORDLESS HYDRAULIC CRIMPING TOOL

B500NDA

general features

MAIN APPLICATIONS - max section AWG

Section AWG	22-16	16-14	12-10	8	6	4	2	1/0	2/0	3/0	250 MCM	300 MCM	350 MCM	400 MCM	500 MCM	600 MCM	800 MCM	1000 MCM	1250 MCM	1500 MCM	2000 MCM
Copper lugs and splices																					
Insulated terminals																					
End sleeves																					
"C" sleeve Connectors																					

These tools are supplied without dies. For die selection, please refer to chart on pages 286 to 300

TECHNICAL FEATURES

Crimping force tons	6
Dimensions in.	
Length	15.6
Height	5.3
Width	3.2
Battery	18.0V 2.0Ah
Weight lbs. (with Battery)	6.9

STORAGE

Type	VAL-P22
Dimensions in. L x W x H	18.3 x 12.4 x 4.6
Weight lbs.	3.3
Supplied with the tool	✓

The tool is supplied as:

- Basic tool with battery and wrist strap
- Spare battery
- AC charger (110-115V)
- USB cable
- Plastic carrying case suitable for storing the tool and accessories

B500NDA is the first of a new generation of hand-held cordless tools, characterised by a "Bilinear" mechanical design. Equipped with a Smart Release system which automatically retracts the ram at the end of the operating cycle.

B500NDA is suitable for crimping electrical connectors onto conductor cross sections up to 600 MCM and uses the die sets common to all Cembre 6 tons tools and heads. Equipped with Li-Ion 18V 2Ah rechargeable high capacity batteries. Fitted with a maximum pressure sensor for enhanced precision and repeatability of the maximum pressure cycle, and a pressure relief valve providing additional safety for the operator. The Electronic Pressure Sensor (EPS) guarantees the precision of the crimping operation, checking the actual value of pressure and informing the operator about possible errors.

The OLED display provides essential real time operating data, including:

- generated crimping force thus verifying accordance with best practice
- battery charge status
- general operating information
- the number of work cycles completed and remaining before recommended maintenance.

Weight and balance have been reconfigured to yield improvements in handling and convenience. The more rigid structure of the bi-component plastic body provides greater mechanical protection while its rubber inserts boost operator safety and comfort.



Quieter operation, illumination of the working area via LED lights and a minimum of vibration enhance the tool's practicality. The integrated memory card enables the user to store data from up to 200,000 compression cycles for transfer to a computer via a USB cable (SMART-TOOL technology).

Two batteries and AC charger (110-115V) included. Same charger of all our tools.

Operating temperature: +5 to +122°F



"Bilinear" mechanical design



4 LED lighting of the working area



Manual pressure release button



OLED multifunctional display with touch button



Battery connection system with release button

B500A

18.0 V CORDLESS HYDRAULIC CRIMPING TOOL

general features

MAIN APPLICATIONS - max section AWG

Section AWG	22÷16	16÷14	12÷10	8	6	4	2	1/0	2/0	3/0	250 MCM	300 MCM	350 MCM	400 MCM	500 MCM	600 MCM	800 MCM	1000 MCM	1250 MCM	1500 MCM	2000 MCM
Copper lugs and splices																					
Insulated terminals																					
End sleeves																					
"C" sleeve Connectors																					

These tools are supplied without dies. For die selection, please refer to chart on pages 286 to 300



A maximum pressure sensor and pressure relief valve assure greater precision and repeatability of the pressure cycle and double the provision for operator safety. The OLED display provides essential real time tool operating information data including:

- Crimping pressure and force being generated, for confirmation of adherence to norms and best practice
- Battery power availability
- Tool identification, LED work light state, reset, no. of operational and service crimping cycles
- Tool service required to maintain optimum condition.

Designed with improved balance, B500A is easily manageable during the crimping process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage.

Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area. Crimping cycle data (up to 200,000 events) is automatically stored on a memory card for transfer to PC by USB interface.

Operating temperature: +5 to +122°F

TECHNICAL FEATURES

Crimping force tons	6
Dimensions in.	
Length	11.8
Height	13.5
Width	3.3
Battery	18.0V 5.2Ah
Weight lbs. (with Battery)	9.2

STORAGE

Type	VAL-P38
Dimensions in. L x W x H	20.5 x 17.0 x 5.0
Weight lbs.	5.7
Supplied with the tool	✓

The tool is supplied as:

- Basic tool with battery and shoulder strap
- Spare battery
- AC charger (110-115V)
- USB cable
- Plastic carrying case suitable for storing the tool and 14 die sets



B500A-KV
version also available for
Power Supply Companies

Crimps for charge

Terminal	Conductor (AWG)	Die Set	Approx. No of crimps
Cembre Copper tube crimping lugs	3	ME5-50	614
	250 MCM	ME24-50	328
	500 MCM	ME48-50	252



LED lighting of the working area



Multifunction OLED display with touch button



Anatomically shaped grip for improved comfort



Slot-in battery with release button

18.0 V CORDLESS HYDRAULIC CRIMPING TOOL

B550CA

general features

MAIN APPLICATIONS - max section AWG

- Copper lugs and splices 500 MCM
- Aluminium lugs and splices up to 300 MCM
- H taps up to 4/0 - 4/0
"C" sleeve connectors 2/0

TECHNICAL FEATURES

Crimping force tons	6
Dimensions in.	
Length	14.1
Height	14.0
Width	3.3
Battery	18.0V 5.2Ah
Weight lbs. (with Battery)	11.7

STORAGE

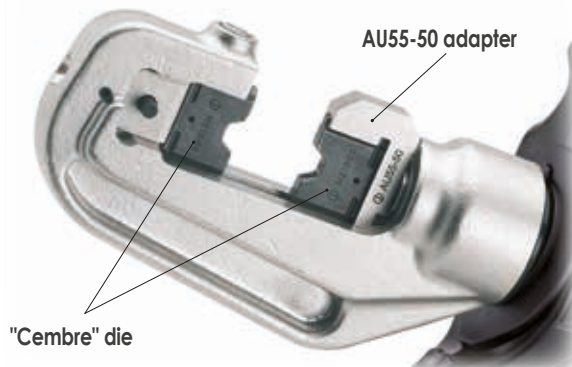
Type	VAL-P40
Dimensions in. L x W x H	20.5 x 17.0 x 5.0
Weight lbs.	5.7
Supplied with the tool	✓



The tool is supplied as:

- Basic tool with battery and shoulder strap
- Spare battery
- AC charger (110-115V)
- USB cable
- Plastic carrying case suitable for storing the tool and accessories

With adapter AU55-50 for accepting "Cembre 6 ton" dies.



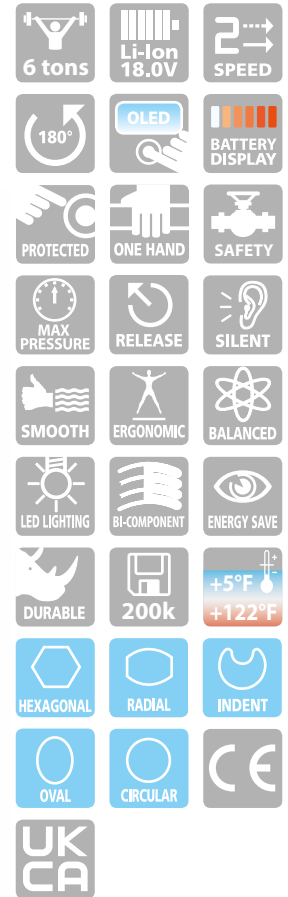
The B550CA, with adapter AU55-50, will accept "Cembre 6 ton" dies.

New Li-Ion 18V - 5.2Ah batteries offer a higher capacity, while greater crimping speed and crimping force result from a revitalised hydraulic system with double speed action: a rapid approach of the dies to the connector then a slower, more powerful speed for crimping.

A maximum pressure sensor and pressure relief valve assure greater precision and repeatability of the pressure cycle and double the provision for operator safety.



B550BA-KV version also available for Electrical Utilities



The OLED display provides essential real time tool operating information data including:

- Crimping pressure and force being generated, for confirmation of adherence to norms and best practice
- Battery power availability
- Tool identification, LED work light state, reset, no. of operational and service crimping cycles
- Tool service required to maintain optimum condition.

Designed with improved balance, B550BA is easily manageable during the crimping process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage.

Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area. Crimping cycle data (up to 200,000 events) is automatically stored on a memory card for transfer to PC by USB interface.

Operating temperature: +5 to +122°F

B1350-CA

18.0 V CORDLESS HYDRAULIC CRIMPING TOOL

general features



MAIN APPLICATIONS - max section AWG

Section	AWG	22 ÷ 16	16 ÷ 14	12 ÷ 10	8	6	4	2	1/0	2/0	3/0	250 MCM	300 MCM	350 MCM	400 MCM	500 MCM	600 MCM	800 MCM	1000 MCM	1250 MCM	1500 MCM	2000 MCM
Copper lugs																						
Copper splices																						
"C" sleeve Connectors																						

These tools are supplied without dies. For die selection, please refer to chart on pages 286 to 300



The tool is supplied as:

- Basic tool with battery and shoulder strap
- Spare battery
- AC charger (110-115V)
- USB cable
- Plastic carrying case suitable for storing the tool and 8 die sets

TECHNICAL FEATURES

Crimping force tons	12
Dimensions in.	
Length	13.3
Height	13.5
Width	3.3
Jaw Opening mm	1.0
Battery	18.0V 5.2Ah
Weight lbs. (with Battery)	14.3

STORAGE

Type	VAL-P39
Dimensions in. L x W x H	20.5 x 17.0 x 5.0
Weight lbs.	5.7
Supplied with the tool	✓



B1350-CA is suitable for a wide range of connectors up to 800 MCM using all semi-circular slotted dies common to the Cembre 12 tons tooling range.

New Li-Ion 18V - 5.2Ah batteries offer a higher capacity, while greater crimping speed and crimping force result from a revitalised hydraulic system with double speed action: a rapid approach of the dies to the connector then a slower, more powerful speed for crimping.

A maximum pressure sensor and pressure relief valve assure greater precision and repeatability of the pressure cycle and double the provision for operator safety.

The OLED display provides essential real time tool operating information data including:

- Crimping pressure and force being generated, for confirmation of adherence to norms and best practice
- Battery power availability
- Tool identification, LED work light state, reset, no. of operational and service crimping cycles
- Tool service required to maintain optimum condition.

Designed with improved balance, B1350-CA is easily manageable during the crimping process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage.

Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area.

Crimping cycle data (up to 200,000 events) is automatically stored on a memory card for transfer to PC by USB interface.

Operating temperature:
+5 to +122°F



B1350-CA-KV version
also available for Power Supply Companies



LED lighting of the working area



Multifunction OLED display with touch button



Anatomically shaped grip for improved comfort



Slot-in battery with release button

18.0 V CORDLESS HYDRAULIC CRIMPING TOOL

B1350L-CA

general features

MAIN APPLICATIONS - max section AWG

Section AWG	22÷16	16÷14	12÷10	8	6	4	2	1/0	2/0	3/0	250 MCM	300 MCM	350 MCM	400 MCM	500 MCM	600 MCM	750 MCM	800 MCM	1000 MCM	1250 MCM	1500 MCM	2000 MCM	
Copper lugs and splices																							
Aluminum lugs and splices																							
"C" sleeve Connectors																							

These tools are supplied without dies. For die selection, please refer to chart on pages 286 to 300

TECHNICAL FEATURES

Crimping force tons	12
Dimensions in.	
Length	15.5
Height	14.6
Width	3.3
Jaw Opening mm	1.7
Battery	18.0V 5.2Ah
Weight lbs. (with Battery)	17.8

STORAGE

Type	VAL-P39
Dimensions in. L x W x H	20.5 x 17.0 x 5.0
Weight lbs.	5.7
Supplied with the tool	✓



The tool is supplied as:

- Basic tool with battery and shoulder strap
- Spare battery
- AC charger (110-115V)
- USB cable
- Plastic carrying case suitable for storing the tool and 8 die sets

B1350L-C version, Featuring a large 1.7 in. jaw opening, for an easier introduction/removal of large size compression terminations and joints.

B1350L-CA is suitable for a wide range of connectors up to 800 MCM using all semi-circular slotted dies common to the Cembre 12 tons tooling range.

New Li-Ion 18V - 5.2Ah batteries offer a higher capacity, while greater crimping speed and crimping force result from a revitalised hydraulic system with double speed

Crimps for charge

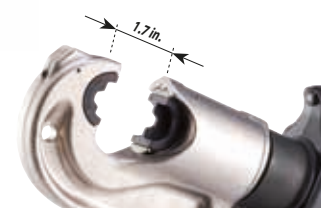
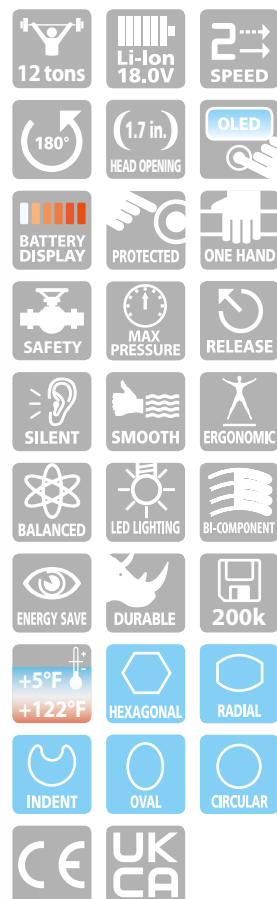
Terminal	Conductor (AWG)	Die Set	Approx. No of crimps
Cembre Copper tube crimping lugs	3	ME5-C	150
	250 MCM	ME24-C	116
	500 MCM	ME48-C	95

action: a rapid approach of the dies to the connector then a slower, more powerful speed for crimping.

A maximum pressure sensor and pressure relief valve assure greater precision and repeatability of the pressure cycle and double the provision for operator safety.

The OLED display provides essential real time tool operating information data including:

- Crimping pressure and force being generated, for confirmation of adherence to norms and best practice
- Battery power availability
- Tool identification, LED work light state, reset, no. of operational and service crimping cycles
- Tool service required to maintain optimum condition.



Designed with improved balance, B1350L-CA is easily manageable during the crimping process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage. Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area. Crimping cycle data (up to 200,000 events) is automatically stored on a memory card for transfer to PC by USB interface.

Operating temperature:
+5 to +122°F

B1350L-CA-KV version also available for Power Supply Companies

general features

MAIN APPLICATIONS - max section AWG

Section AWG	22÷16	16÷14	12÷10	8	6	4	2	1/0	2/0	3/0	250 MCM	300 MCM	350 MCM	400 MCM	500 MCM	600 MCM	800 MCM	1000 MCM	1250 MCM	1500 MCM	2000 MCM
Copper lugs																					
Copper splices																					
"C" sleeve Connectors																					

These tools are supplied without dies. For die selection, please refer to chart on pages 286 to 300



TECHNICAL FEATURES

Crimping force tons	12
Dimensions in.	
Length	16.0
Height	9.4
Width	4.0
Jaw Opening mm	1.0
Battery	18.0V 5.2Ah
Weight lbs. (with Battery)	14.3

STORAGE

Type	VAL-P44
Dimensions in. L x W x H	26.8 x 18.6 x 5.9
Weight lbs.	8.2
Supplied with the tool	✓

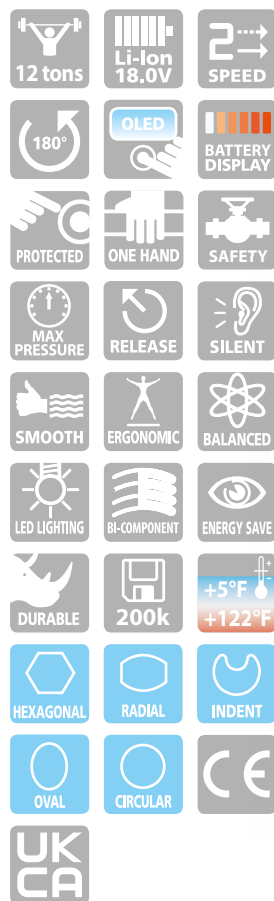
The tool is supplied as:

- Basic tool with battery and shoulder strap
- Spare battery
- AC charger (110-115V)
- USB cable
- Plastic carrying case suitable for storing the tool and 12 die sets

Operating temperature:
+5 to +122°F



B1300-CA-KV
version also available for Power Supply Companies



B1300-CA is suitable for a wide range of connectors up to 800 MCM using all semi-circular slot-dies common to the Cembre 12 tons tooling range. New Li-Ion 18V - 5.2Ah batteries offer a higher capacity, while greater crimping speed and crimping force result from a revitalised hydraulic system with double speed action: a rapid approach of the dies to the connector then a slower, more powerful speed for crimping.

Crimps for charge

Terminal	Conductor (AWG)	Die Set	Approx. No of crimps
Cembre Copper tube crimping lugs	3	ME5-C	228
	250 MCM	ME24-C	141
	500 MCM	ME48-C	116

A maximum pressure sensor and pressure relief valve assure greater precision and repeatability of the pressure cycle and double the provision for operator safety. The OLED display provides essential real time tool operating information data including:

- Crimping pressure and force being generated, for confirmation of adherence to norms and best practice
- Battery power availability
- Tool identification, LED work light state, reset, no. of operational and service crimping cycles
- Tool service required to maintain optimum condition.

Designed with improved balance, B1300-CA is easily manageable during the crimping process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage. Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area.

Crimping cycle data (up to 200,000 events) is automatically stored on a memory card for transfer to PC by USB interface.



LED lighting of the working area



Anatomically shaped grip for improved comfort



Slot-in battery with release button



Multifunction OLED display with touch button

18.0 V CORDLESS HYDRAULIC CRIMPING TOOL

B1300L-CA

general features

MAIN APPLICATIONS - max section AWG

Section AWG	22÷16	16÷14	12÷10	8	6	4	2	1/0	2/0	3/0	250 MCM	300 MCM	350 MCM	400 MCM	500 MCM	600 MCM	750 MCM	800 MCM	1000 MCM	1250 MCM	1500 MCM	2000 MCM
Copper lugs and splices																						
Aluminum lugs and splices																						
"C" sleeve Connectors																						

These tools are supplied without dies. For die selection, please refer to chart on pages 286 to 300

TECHNICAL FEATURES

Crimping force tons	12
Dimensions in.	
Length	18.5
Height	9.4
Width	4.0
Jaw Opening mm	1.7
Battery	18.0V 5.2Ah
Weight lbs. (with Battery)	17.6



STORAGE

Type	VAL-P44
Dimensions in. L x W x H	26.8 x 18.6 x 5.9
Weight lbs.	8.2
Supplied with the tool	✓



The B1300L-CA version, Featuring a large 1.7 in. jaw opening, for an easier introduction/removal of large size compression terminations and joints.

B1300L-CA is suitable for a wide range of connectors up to 800 MCM using all semi-circular slotted dies common to the Cembre 12 tons tooling range. New Li-Ion 18V - 5.2Ah batteries offer a higher capacity, while greater crimping speed and crimping force result from a revitalised hydraulic system with double speed action: a rapid approach of the dies to the connector then a slower, more powerful speed for crimping.

A maximum pressure sensor and pressure relief valve assure greater precision and repeatability of the pressure cycle and double the provision for operator safety.

The OLED display provides essential real time tool operating information data including:

- Crimping pressure and force being generated, for confirmation of adherence to norms and best practice
- Battery power availability
- Tool identification, LED work light state, reset, no. of operational and service crimping cycles
- Tool service required to maintain optimum condition.

Designed with improved balance, B1300L-CA is easily manageable during the crimping process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage.

Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area.

Crimping cycle data (up to 200,000 events) is automatically stored on a memory card for transfer to PC by USB interface. Operating temperature: +5 to +122°F



The tool is supplied as:

- Basic tool with battery and shoulder strap
- Spare battery
- AC charger (110-115V)
- USB cable
- Plastic carrying case suitable for storing the tool and 12 die sets

B1300L-CA-KV version also available for Power Supply Companies



"KV" version of B1300L-CA tool is provided with additional coatings to protect the operator and tool against accidental brush contact with energised conductors.

B1500A

18.0 V CORDLESS HYDRAULIC CRIMPING TOOL

general features

MAIN APPLICATIONS - max section AWG

- Copper #8 AWG - 1500 MCM
- Aluminium #8 AWG - 1250 MCM



TECHNICAL FEATURES

Crimping force tons	15
Dimensions in.	
Length	20.7
Height	9.9
Width	4.0
Battery	18.0V 5.2Ah
Weight lbs. (with Battery)	21.4

STORAGE

Type	VAL-B1500
Dimensions in. L x W x H	22.2 x 16.1 x 5.2
Weight lbs.	14.7
Supplied with the tool	✓

The OLED display provides essential real time tool operating information data including:

- Crimping pressure and force being generated, for confirmation of adherence to norms and best practice
- Battery power availability
- Tool identification, LED work light state, reset, no. of operational and service crimping cycles
- Tool service required to maintain optimum condition.

Designed with improved balance, B1500A is easily manageable during the crimping process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage.

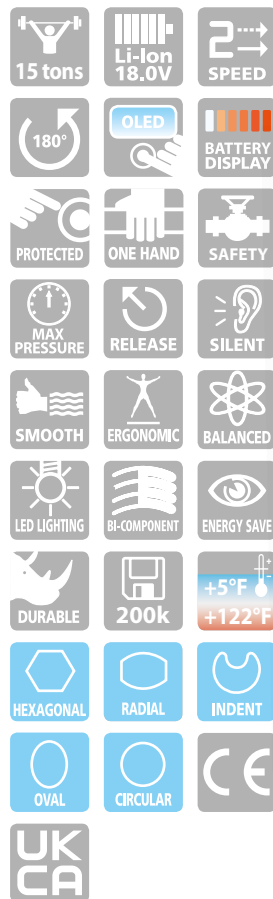
Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area. Crimping cycle data (up to 200,000 events) is automatically stored on a memory card for transfer to PC by USB interface. Operating temperature: +5 to +122°F

The tool is supplied as:

- Basic tool with battery and shoulder strap
- Spare battery
- AC charger (110-115V)
- USB cable
- Metal carrying case suitable for storing the tool and 12 die sets

DIE SELECTOR CHART

Copper Conductor (MCM)		Die Set	
low stranded	multi stranded		
1000	-	ME100-P	⬡
1250	1000	ME120-P	⬡
-	-	MUT9930-P index 301	⬡
-	-	MUT9931-P index 302	⬡



B1500A will accept directly all "P" dies commonly used in industry and, with the AU150-C adapter, all the semi-circular slotted dies, common to most 12 tons tools (U dies). B1500A is able to crimp splices and lugs to 1250 MCM aluminum and 1500 MCM copper. New Li-Ion 18V - 5.2Ah batteries offer a higher capacity, while greater crimping speed and crimping force result from a revitalised hydraulic system with double speed action: a rapid approach of the dies to the connector then a slower, more powerful speed for crimping.

A maximum pressure sensor and pressure relief valve assure greater precision and repeatability of the pressure cycle and double the provision for operator safety.



Openable head



Multifunction OLED display with touch button



Anatomically shaped grip for improved comfort



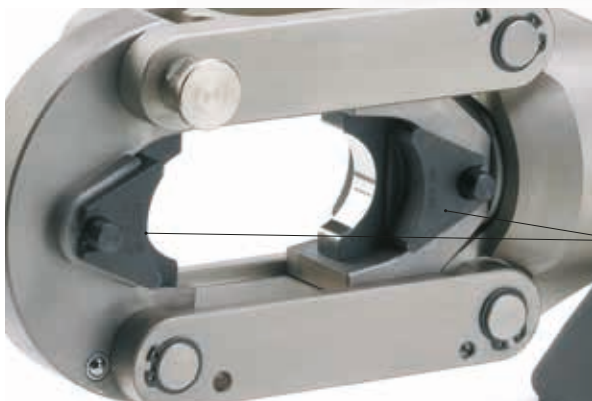
Slot-in battery with release button

18.0 V CORDLESS HYDRAULIC CRIMPING TOOL

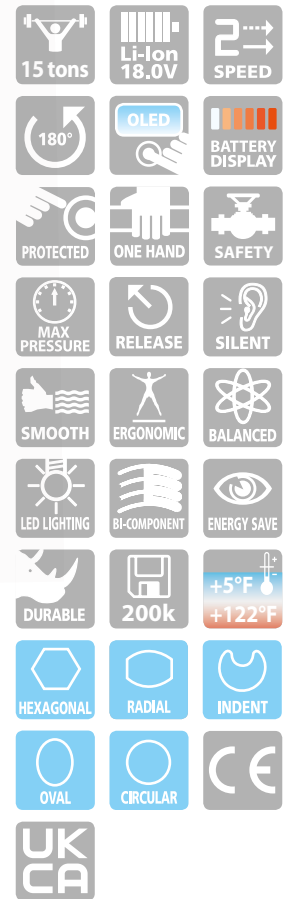
B1500A

general features

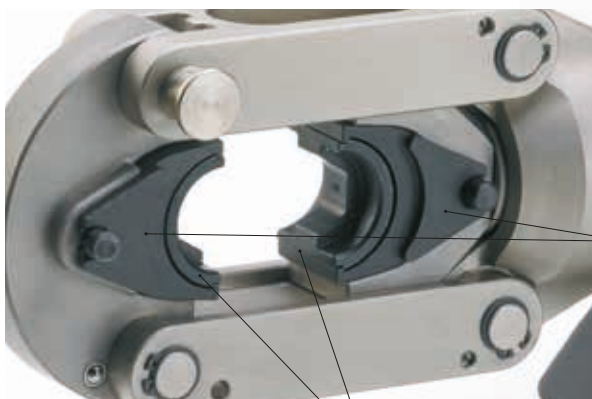
The B1500A with "P" dies.



"P" dies



The B1500A with adapter AU150-C for accepting "U" dies.



AU150-C adapter

"U" die



B-TC250YNDA

18.0 V CORDLESS HYDRAULIC CUTTING TOOL

overhead line application

MAIN APPLICATIONS

specifically designed to cut Copper, Aldrey, Aluminum, Aluminum-Steel cables, Steel ropes having a max overall diameter of 1", guy wire up to 7/8" and steel ground rod up to 5/8"

Ø 1 in.

Li-Ion 18.0V

SPEED

HEAD OPENING

SPECIAL

180°

BATTERY DISPLAY

PROTECTED

ONE HAND

SAFETY

RELEASE

SILENT

SMOOTH

ERGONOMIC

BALANCED

LED LIGHTING

BI-COMPONENT

ENERGY SAVE

DURABLE

200k

+5°F +122°F

CE

UK CA



TECHNICAL FEATURES

Max cutting Ø in.	up to 1
Dimensions in.	
Length	16.3
Height	5.4
Width	3.2
Battery	18.0V 2.0Ah
Weight lbs. (with Battery)	8.2

STORAGE

Type	VAL-P22
Dimensions in. L x W x H	18.3 x 12.4 x 4.6
Weight lbs.	3.3
Supplied with the tool	✓

The tool is supplied as:

- Basic tool with battery and wrist strap
- Spare battery
- AC charger (110-115V)
- USB cable
- Plastic carrying case suitable for storing the tool and accessories



Ideal for EHS guy wire

CUTTING CAPACITY

	MATERIAL	TENSILE STRENGTH (lbs./sq.in.)	MAX CUTTING DIAMETER (in.)
			B-TC250YNDA
ROPE & CONDUCTORS	Copper	≤ 59,450	1
	Aluminum	≤ 29,000	1
	Almelec	≤ 49,300	1
	Steel	≤ 261,000	INDICATIVE EXAMPLES: 7 x 0.118 = Ø out. 0.354 19 x 0.083 = Ø out. 0.413 19 x 0.091 = Ø out. 0.453
	MULTI STRANDS Steel (STRANDS Qty ≥ 200)	≤ 261,000	0.709
	ACSR	≤ 261,000	1 INDICATIVE EXAMPLES: 26 x 0.098 + 7 x 0.077 : Ø out. = 0.624 26 x 0.120 + 7 x 0.094 : Ø out. = 0.763 26 x 0.142 + 7 x 0.110 : Ø out. = 0.897
RODS	Steel	≤ 87,000	0.511
		≤ 60,900	0.629
	Copper	≤ 43,000	0.787
		≤ 36,250	0.905
	Aluminum	≤ 23,200	1

B-TC250YNDA is a new generation of hand-held cordless tools, characterised by a "Bilinear" mechanical design.

B-TC250YNDA is specifically designed cut Copper, Aldrey, Aluminum, Aluminum-Steel cables, Steel ropes having a max overall diameter of 1", guy wire up to 7/8" and steel ground rod up to 5/8".

The blades are manufactured from high strength special Steel, heat treated to ensure a long service life. New Li-Ion 18 V 2 Ah batteries offer a higher capacity, while greater cutting speed and cutting force result from a revitalised hydraulic system with double speed action.

The battery is equipped with led indicators that indicate the remaining battery life at any time by pressing the adjacent button.

The head can rotate through 180 degrees, to enable the operator to work in the most comfortable position, and can easily be opened to allow cutting of running cables. Fitted with a maximum hydraulic pressure valve.

Weight and balance have been reconfigured to yield improvements in handling and convenience.

The more rigid structure of the bi-component plastic body provides greater mechanical protection while its rubber inserts boost operator safety and comfort.

Quieter operation, illumination of the working area via LED lights and a minimum of vibration enhance the tool's practicality.

Two batteries and AC charger (110-115V) included. Same charger of all our tools.

Operating temperature: +5 to +122°F

18.0 V CORDLESS HYDRAULIC CUTTING TOOL

overhead line application

MAIN APPLICATIONS

specifically designed to cut Copper, aldrej, Aluminium, Aluminium-Steel cables and Steel ropes, Aluminium and Steel rods having Ø max 1.26"

STORAGE

Type	VAL-P48
Dimensions in. L x W x H	24.4 x 14.2 x 5.4
Weight lbs.	5.3
Supplied with the tool	✓

TECHNICAL FEATURES

Max cutting Ø in.	1.26
Dimensions in.	
Length	17.4
Height	5.0
Width	3.1
Battery	18.0V 2.0Ah
Weight lbs. (with Battery)	8.7



The tool is supplied as:

- Basic tool with battery and wrist strap
- Spare battery
- AC charger (110-115V)
- USB cable
- Plastic carrying case suitable for storing the tool and accessories



CUTTING CAPACITY - a few examples

Section	Ø	Stranding	Conductor Type
AWG/MCM	in².	# x in.	
200	0.524	-	RIM120
1/0	0.350	7/0.0208	Bronze
2/0	0.405	19/0.0811	Bronze
4/0	0.492	19/0.0984	Bronze
2/0	0.421	19/0.0843	Aluminium
4/0	0.492	19/0.0984	Aluminium
300	0.620	37/0.0886	Aluminium
0.500 (BUTTERFLY)	0.915	19/0.183	Aluminium
0.6244 (ARBUTUS)	1.026	37/0.1466	Aluminium
0.0542/0.0093	0.319	6/0.1063 + 1/0.1063	Aluminium-steel
0.0775/0.0124	0.378	6/0.1260 + 1/0.1260	Aluminium-steel
0.0775/0.0465	0.461	12/0.0917 + 7/0.0917	Aluminium-steel
0.1085/0.0186	0.461	26/0.0788 + 7/0.0567	Aluminium-steel
0.1473/0.0233	0.535	26/0.0846 + 7/0.0657	Aluminium-steel
0.2325/0.0388	0.673	26/0.1063 + 7/0.0827	Aluminium-steel
0.2635/0.0620	0.744	30/0.1063 + 7/0.1063	Aluminium-steel
0.2868/0.0465	0.748	26/0.1181 + 7/0.0717	Aluminium-steel
0.3565/0.0465	0.827	24/0.1378 + 7/0.0917	Aluminium-steel
0.3720/0.0620	0.862	26/0.1358 + 7/0.1055	Aluminium-steel
0.7493/0.0542	1.165	45/0.1472 + 7/0.098	Aluminium-steel
0.4371/0.0243 (OSPPEY)	0.878	18/0.1758 + 1/0.1758	Aluminium-steel
0.4371/0.0662 (DOVE)	0.927	26/0.1463 + 7/0.1138	Aluminium-steel
0.3711 (POPLAR)	0.791	37/0.113	Rope Aluminium Alloy
1/0	0.433	Class 5	Aluminium flex
4/0	0.728	-	Insulated Steel flex
300	0.630	19/0.126	Cu
2/0	0.472	2214/0.0079	Cu extra flex
5	0.232	126/0.0157	Cu flex
250	0.649	608/0.0197	Cu flex
500	0.906	1221/0.0197	Cu flex

B-TC320NDA



B-TC320NDA is a new generation of hand-held cordless tools, characterised by a "Bilinear" mechanical design. B-TC320NDA is specifically designed to cut Copper, aldrej, Aluminium, Aluminium-Steel cables and Steel ropes, Aluminium and Steel rods having a max overall diameter of 1.26".

The blades are manufactured from high strength special Steel, heat treated to ensure a long service life. New Li-Ion 18.0V - 2.0Ah batteries offer a higher capacity, while greater cutting speed and cutting force result from a revitalised hydraulic system with double speed action. The battery is equipped with led indicators that indicate the remaining battery life at any time by pressing the adjacent button.

The head can rotate through 180 degrees, to enable the operator to work in the most comfortable position, and can easily be opened to allow cutting of running cables. Fitted with a maximum hydraulic pressure valve. Weight and balance have been reconfigured to yield improvements in handling and convenience.

The more rigid structure of the bi-component plastic body provides greater mechanical protection while its rubber inserts boost operator safety and comfort. Quieter operation, illumination of the working area via LED lights and a minimum of vibration enhance the tool's practicality.

Two batteries and AC charger (110-115V) included. Same charger of all our tools. Operating temperature: +5 to +122°F

B-TC250YA

18.0 V CORDLESS HYDRAULIC CUTTING TOOL

overhead line application

MAIN APPLICATIONS

specifically designed to cut Copper, Aldrey, Aluminum, Aluminum-Steel cables, Steel ropes having a max overall diameter of 1", guy wire up to 7/8" and steel ground rod up to 5/8"



Ideal for EHS guy wire



TECHNICAL FEATURES

Max cutting Ø in.	up to 1
Dimensions in.	
Length	12.2
Height	13.5
Width	3.3
Battery	18.0V 5.2Ah
Weight lbs. (with Battery)	10.5

STORAGE

Type	VAL-P40
Dimensions in. L x W x H	20.5 x 17.0 x 5.0
Weight lbs.	5.7
Supplied with the tool	✓

The tool is supplied as:

- Basic tool with battery and shoulder strap
- Spare battery
- AC charger (110-115V)
- USB cable
- Plastic carrying case suitable for storing the tool and accessories



Next generation of 18.0 V cordless hydraulic cutting tool specifically designed cut Copper, Aldrey, Aluminum, Aluminum-Steel cables, Steel ropes having a max overall diameter of 1", guy wire up to 7/8" and steel ground rod up to 5/8". The blades are manufactured from high strength special Steel, heat treated to ensure a long service life. New Li-Ion 18V - 5.2Ah batteries offer a higher capacity, while greater cutting speed and cutting force result from a revitalised hydraulic system with double speed action. The battery is equipped with led indicators that indicate the remaining battery life at any time by pressing the adjacent button.

The head can rotate through 180 degrees, to enable the operator to work in the most comfortable position, and can easily be opened to allow cutting of running cables. Fitted with a maximum hydraulic pressure valve. Designed with improved balance, B-TC250YA is easily manageable during the cutting process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage. Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area. Two batteries and AC charger (110-115V) included. Same charger of all our tools. Operating temperature: +5 to +122°F.

CUTTING CAPACITY

	MATERIAL	TENSILE STRENGTH (lbs./sq.in.)	MAX CUTTING DIAMETER (in.)
			B-TC250YA
ROPE & CONDUCTORS	Copper	≤ 59,450	1
	Aluminum	≤ 29,000	1
	Almelec	≤ 49,300	1
	Steel	≤ 261,000	INDICATIVE EXAMPLES: 7 x 0.118 = Ø out. 0.354 19 x 0.083 = Ø out. 0.413 19 x 0.091 = Ø out. 0.453
	MULTI STRANDS Steel (STRANDS Qty ≥ 200)	≤ 261,000	0.709
	ACSR	≤ 261,000	1 INDICATIVE EXAMPLES: 26 x 0.098 + 7 x 0.077 : Ø out. = 0.624 26 x 0.120 + 7 x 0.094 : Ø out. = 0.763 26 x 0.142 + 7 x 0.110 : Ø out. = 0.897
RODS	Steel	≤ 87,000	0.511
		≤ 60,900	0.629
	Copper	≤ 43,000	0.787
		≤ 36,250	0.905
	Aluminum	≤ 23,200	1

18.0 V CORDLESS HYDRAULIC CUTTING TOOL

overhead line application

MAIN APPLICATIONS

specifically designed to cut Copper, Aldrey, Aluminium, Aluminium-Steel cables and Steel ropes, Aluminium and Steel rods having Ø max 1-3/4"

TECHNICAL FEATURES

Max cutting Ø in.	up to 1-3/4
Dimensions in.	
Length	16.0
Height	15.8
Width	3.5
Battery	18.0V 5.2Ah
Weight lbs. (with Battery)	14.7

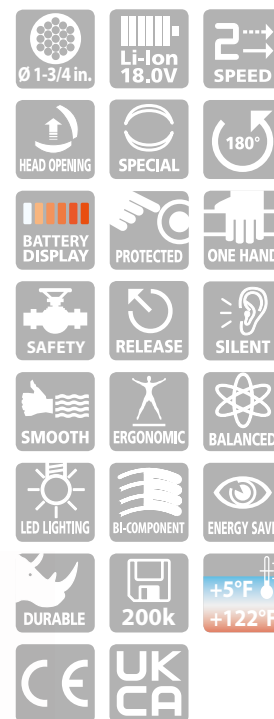
Ideal for EHS guy wire

STORAGE

Type	VAL-P40
Dimensions in. L x W x H	20.5 x 17.0 x 5.0
Weight lbs.	5.7
Supplied with the tool	✓

CUTTING CAPACITY

	MATERIAL	TENSILE STRENGTH (lbs./sq.in.)	MAX CUTTING DIAMETER (in.)
			B-TC450A
ROPE & CONDUCTORS	Copper	≤ 59,450	1-3/4"
	Aluminum	≤ 29,000	1-3/4"
	Almelec	≤ 49,300	1-3/4"
	Steel	≤ 261,000	INDICATIVE EXAMPLES: 7 x 0.118 = Ø out. 0.354 19 x 0.083 = Ø out. 0.413 19 x 0.091 = Ø out. 0.453
	MULTI STRANDS Steel (STRANDS Qty ≥ 200)	≤ 261,000	0.709
	ACSR	≤ 261,000	1-3/4" INDICATIVE EXAMPLES: 26 x 0.098 + 7 x 0.077 : Ø out. = 0.624 26 x 0.120 + 7 x 0.094 : Ø out. = 0.763 26 x 0.142 + 7 x 0.110 : Ø out. = 0.897 54 x 0.138 + 19 x 0.082 : Ø out. = 1.240 54 x 0.172 + 19 x 0.103 : Ø out. = 1.543
RODS	Steel	≤ 87,000	0.709
		≤ 60,900	0.787
	Copper	≤ 43,000	1.181
		≤ 36,250	1.260
	Aluminum	≤ 23,200	1-3/4"



The tool is supplied as:

- Basic tool with battery and shoulder strap
- Spare battery
- AC charger (110-115V)
- USB cable
- Plastic carrying case suitable for storing the tool and accessories

Next generation of 18.0 V cordless hydraulic cutting tool specifically designed to cut Copper, Aldrey, Aluminum, Aluminum-Steel cables and Steel ropes, Aluminium and Steel rods having a max overall diameter of 1-3/4".

The blades are manufactured from high strength special Steel, heat treated to ensure a long service life.

New Li-Ion 18V - 5.2Ah batteries offer a higher capacity than 14.4 V 3 Ah, while greater cutting speed and cutting force result from a revitalised hydraulic system with double speed action.

The battery is equipped with LED indicators to show the remaining battery life at any time by pressing the adjacent button.

The head can rotate through 180 degrees, to enable the operator to work in the most comfortable position, and can easily be opened to allow cutting of running cables.

Fitted with a maximum hydraulic pressure valve.

Designed with improved balance, B-TC450A is easily manageable during the cutting process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage.

Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area.

Two batteries and AC charger (110-115V) included. Same charger of all our tools.

Operating temperature: +5 to +122°F.

B-TC500YA

18.0 V CORDLESS HYDRAULIC CUTTING TOOL

overhead line application

MAIN APPLICATIONS

specifically designed to cut Copper, Aluminum, Aluminum-Steel cables (ACSR) having a max overall diameter of 2"
not suitable for cutting guy wire and ground rod

Ø 2 in.

Li-Ion 18.0V

SPEED

HEAD OPENING

SPECIAL

90°

BATTERY DISPLAY

PROTECTED

ONE HAND

SAFETY

RELEASE

SILENT

SMOOTH

ERGONOMIC

BALANCED

LED LIGHTING

BI-COMPONENT

ENERGY SAVE

DURABLE

200k

+5°F +122°F

CE

UK CA



TECHNICAL FEATURES

Max cutting Ø in.	up to 2
Dimensions in.	
Length	15.9
Height	15.6
Width	3.3
Battery	18.0V 5.2Ah
Weight lbs. (with Battery)	12.7

STORAGE

Type	VAL-P40
Dimensions in. L x W x H	20.5 x 17.0 x 5.0
Weight lbs.	5.7
Supplied with the tool	✓



Next generation of 18.0 V cordless hydraulic cutting tool specifically designed to cut copper, aluminum, aluminum-steel cables (ACSR) having a max overall diameter of 2". The blades are manufactured from high strength special Steel, heat treated to ensure a long service life. New Li-Ion 18V - 5.2Ah batteries offer a higher capacity, while greater cutting speed and cutting force result from a revitalised hydraulic system with double speed action. The battery is equipped with led indicators that indicate the re-

maining battery life at any time by pressing the adjacent button. The head can rotate through 90 degrees, to enable the operator to work in the most comfortable position, and can easily be opened to allow cutting of running cables. Fitted with a maximum hydraulic pressure valve. Designed with improved balance, B-TC500YA is easily manageable during the cutting process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage. Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area. Two batteries and AC charger (110-115V) included. Same charger of all our tools. Operating temperature: +5 to +122°F

- The tool is supplied as:
- Basic tool with battery and shoulder strap
 - Spare battery
 - AC charger (110-115V)
 - USB cable
 - Plastic carrying case suitable for storing the tool and accessories

18.0 V CORDLESS HYDRAULIC CUTTING TOOL

B-TC550A

overhead line application

MAIN APPLICATIONS

Specifically designed to cut Copper, Aluminum, Aluminum-Steel cables (ACSR) Steel ropes and rods having a max overall diameter of 2-3/16"

TECHNICAL FEATURES

Max cutting Ø in.	2-3/16
Dimensions in.	
Length	17.4
Height	16.7
Width	3.4
Battery	18.0V 5.2Ah
Weight lbs. (with Battery)	19.6



STORAGE

Type	VAL-P40
Dimensions in. L x W x H	20.5 x 17.0 x 5.0
Weight lbs.	5.7
Supplied with the tool	✓

CUTTING CAPACITY

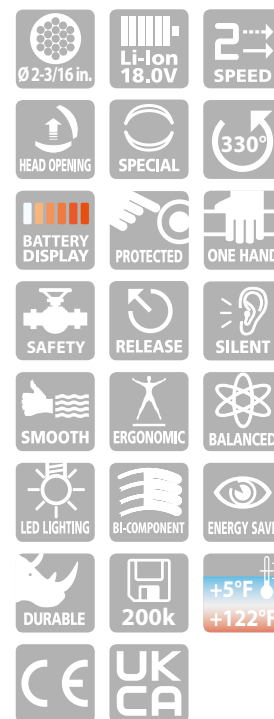
	MATERIAL	TENSILE STRENGTH (lbs./sq.in.)	MAX CUTTING DIAMETER (mm)
			B-TC550A
ROPE & CONDUCTORS	Copper	≤ 59,450	2-3/16"
	Aluminum	≤ 29,000	2-3/16"
	Almelec	≤ 49,300	2-3/16"
	Steel	≤ 261,000	INDICATIVE EXAMPLES: 7 x 0.118 = Ø out. 0.354 19 x 0.083 = Ø out. 0.413 19 x 0.091 = Ø out. 0.453
	MULTI STRANDS Steel (STRANDS Qty ≥ 200)	≤ 261,000	22
	ACSR	≤ 261,000	50 INDICATIVE EXAMPLES: 26 x 0.098 + 7 x 0.077 : Ø out. = 0.624 26 x 0.120 + 7 x 0.094 : Ø out. = 0.763 26 x 0.142 + 7 x 0.110 : Ø out. = 0.897 26 x 0.175 + 7 x 0.136 : Ø out. = 1.108 54 x 0.138 + 19 x 0.082 : Ø out. = 1.240 54 x 0.172 + 19 x 0.103 : Ø out. = 1.543 83 x 0.181 + 16 x 0.110 : Ø est. = 1.968
	GUY WIRE (GW15-9/16-188)	Extra high strenght grade	7 x 0.188 : Ø est. = 0.562 in.
RODS	Steel	≤ 87,000	0.787
		≤ 60,900	0.866
	Copper	≤ 43,000	1.338
		≤ 36,250	1.515
	Aluminum	≤ 23,200	1.968

The tool is supplied as:

- Basic tool with battery and shoulder strap
- Spare battery
- AC charger (110-115V)
- USB cable
- Plastic carrying case suitable for storing the tool and accessories

Next generation of 18.0 V cordless hydraulic cutting tool Specifically designed to cut copper, aluminum, aluminum-steel cables (ACSR) steel ropes and rods having a max overall diameter of 2-3/16". The blades are manufactured from high strength special Steel, heat treated to ensure a long service life. New Li-Ion 18V - 5.2Ah batteries offer a higher capacity, while greater cutting speed and cutting force result from a revitalised hydraulic system with double speed action.

The battery is equipped with led indicators that indicate the remaining battery life at any time by pressing the adjacent button. The head can rotate through 330 degrees, to enable the operator to work in the most comfortable position, and can easily be opened to allow cutting of running cables.



Ideal for 795 MCM ACSR Drake and EHS guy wire



Fitted with a maximum hydraulic pressure valve.

Designed with improved balance, B-TC550A is easily manageable during the cutting process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage.

Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area. Two batteries and AC charger (110-115V) included. Same charger of all our tools.

Operating temperature: +5 to +122°F



MAIN APPLICATIONS

specifically designed to cut Copper, Aluminum and Telecommunications cable having Ø max 1.26 in.



TECHNICAL FEATURES

Max cutting Ø in.	1.26
Dimensions in.	
Length	17.5
Height	5.4
Width	3.2
Battery	18.0V 2.0Ah
Weight lbs. (with Battery)	8.8

STORAGE

Type	VAL-P48
Dimensions in. L x W x H	24.4 x 14.2 x 5.4
Weight lbs.	5.3
Supplied with the tool	✓



B-TC320NDFA is a new generation of hand-held cordless tools, characterised by a "Bilinear" mechanical design.

B-TC320NDFA is specifically designed to cut Copper, Aluminum and telecommunication cable having a max overall diameter of 1.26".

The blades are manufactured from high strength special Steel, heat treated to ensure a long service life. New Li-Ion 18.0V - 2.0Ah batteries offer a higher capacity, while greater cutting speed and cutting force result from a revitalised hydraulic system with double speed action.

The battery is equipped with led indicators that indicate the remaining battery life at any time by pressing the adjacent button.

The head can rotate through 180 degrees, to enable the operator to work in the most comfortable position, and can easily be opened to allow cutting of running cables.

Fitted with a maximum hydraulic pressure valve.

Weight and balance have been reconfigured to yield improvements in handling and convenience.

The more rigid structure of the bi-component plastic body provides greater mechanical protection while its rubber inserts boost operator safety and comfort. Quieter operation, illumination of the working area via LED lights and a minimum of vibration enhance the tool's practicality.

Two batteries and charger included.

Same charger of all our tools.

Operating temperature:

+5 to +122°F

The tool is supplied as:

- Basic tool with battery and wrist strap
- Spare battery
- AC charger (110-115V)
- USB cable
- Plastic carrying case suitable for storing the tool and accessories

18.0 V CORDLESS HYDRAULIC CUTTING TOOL

industrial application

B-TC500ND-SCA

MAIN APPLICATIONS

specifically designed to cut Copper, Aluminum and Telecommunications cable having Ø max 2.1 in.

TECHNICAL FEATURES

Max cutting Ø in.	2.1
Dimensions in.	
Length	20.7
Height	6.0
Width	3.2
Battery	18.0V 2.0Ah
Weight lbs (with Battery)	8.6

STORAGE

Type	VAL-P59
Dimensions in. L x W x H	24.4 x 14.2 x 5.4
Weight lbs.	5.3
Supplied with the tool	✓



The tool is supplied as:

- Basic tool with battery and wrist strap
- Spare battery
- AC charger (110-115V)
- USB cable
- Plastic carrying case suitable for storing the tool and accessories



B-TC500ND-SCA is a new generation of hand-held cordless tools, characterised by a "Bilinear" mechanical design.

B-TC500ND-SCA is specifically designed to cut Copper, Aluminum and telecommunication cable having a max overall diameter of 2.1".

The blades are manufactured from high strength special Steel, heat treated to ensure a long service life. New Li-Ion 18.0V - 2.0Ah batteries offer a higher capacity, while greater cutting speed and cutting force result from a revitalised hydraulic system with double speed action.

The battery is equipped with led indicators that indicate the remaining battery life at any time by pressing the adjacent button.

The head can rotate through 180 degrees, to enable the operator to work in the most comfortable position, and can easily be opened to allow cutting of running cables.

Fitted with a maximum hydraulic pressure valve.

Weight and balance have been reconfigured to yield improvements in handling and convenience.

The more rigid structure of the bi-component plastic body provides greater mechanical protection while its rubber inserts boost operator safety and comfort.

Quieter operation, illumination of the working area via LED lights and a minimum of vibration enhance the tool's practicality.

Two batteries and charger included.

Same charger of all our tools.

Operating temperature:

+5 to +122°F

B-TC500A

18.0 V CORDLESS HYDRAULIC CUTTING TOOL

industrial application

MAIN APPLICATIONS

specifically designed to cut Copper, Aluminum and Telecommunications cable having max overall diameter of 2"



Not suitable for cutting steel reinforced conductors

TECHNICAL FEATURES

Max cutting Ø in.	up to 2
Dimensions in.	
Length	15.9
Height	15.6
Width	3.3
Battery	18.0V 5.2Ah
Weight lbs. (with Battery)	12.7

STORAGE

Type	VAL-P40
Dimensions in. L x W x H	20.5 x 17.0 x 5.0
Weight lbs.	5.7
Supplied with the tool	✓



The tool is supplied as:

- Basic tool with battery and shoulder strap
- Spare battery
- AC charger (110-115V)
- USB cable
- Plastic carrying case suitable for storing the tool and accessories

Next generation of 18.0 V cordless hydraulic cutting tool specifically designed to cut copper, aluminum and telecommunication cables having a max overall diameter of 2".

The blades are manufactured from high strength special Steel, heat treated to ensure a long service life.

New Li-Ion 18V - 5.2Ah batteries offer a higher capacity, while greater cutting speed and cutting force result from a revitalised hydraulic system with double speed action. The battery is equipped with led indicators that indicate the remaining battery life at any time by pressing the adjacent button.

The head can rotate through 90 degrees, to enable the operator to work in the most comfortable position, and can easily be opened to allow cutting of running cables.

Fitted with a maximum hydraulic pressure valve.

Designed with improved balance, B-TC500A is easily manageable during the cutting process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage.

Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area.

Two batteries and AC charger (110-115V) included. Same charger of all our tools.

Operating temperature: +5 to +122°F

18.0 V CORDLESS HYDRAULIC CUTTING TOOL

B-TC650A

industrial application

MAIN APPLICATIONS

specifically designed to cut Copper, Aluminum and telecommunication cables having a max overall diameter of 2-9/16"

TECHNICAL FEATURES

Max cutting Ø in.	up to 2-9/16
Dimensions in.	
Length	16.9
Height	16.3
Width	3.3
Battery	18.0V 5.2Ah
Weight lbs. (with Battery)	14.1



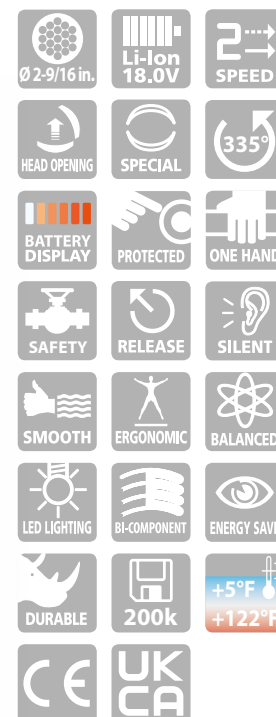
STORAGE

Type	VAL-P40
Dimensions in. L x W x H	20.5 x 17.0 x 5.0
Weight lbs.	5.7
Supplied with the tool	✓



The tool is supplied as:

- Basic tool with battery and shoulder strap
- Spare battery
- AC charger (110-115V)
- USB cable
- Plastic carrying case suitable for storing the tool and accessories



Not suitable for cutting steel reinforced conductors

Next generation of 18.0 V cordless hydraulic cutting tool. Specifically designed to cut copper, aluminum and telecommunication cables having a max overall diameter of 2-9/16".

The blades are manufactured from high strength special Steel, heat treated to ensure a long service life.

New Li-Ion 18V - 5.2Ah batteries offer a higher capacity, while greater cutting speed and cutting force result from a revitalised hydraulic system with double speed action. The battery is equipped with led indicators that indicate the remaining battery life at any time by pressing the adjacent button.

The head can rotate through 335 degrees, to enable the operator to work in the most comfortable position, and can easily be opened to allow cutting of running cables. Fitted with a maximum hydraulic pressure valve.

Designed with improved balance, B-TC650A is easily manageable during the cutting process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage. Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area.

Two batteries and AC charger (110-115V) included. Same charger of all our tools.

Operating temperature: +5 to +122°F

B-TC650-SCA

18.0 V CORDLESS HYDRAULIC CUTTING TOOL

industrial application

MAIN APPLICATIONS

specifically designed to cut Copper, Aluminum and Telecommunications cable having a max overall diameter of 2-9/16"



TECHNICAL FEATURES

Max cutting Ø in.	up to 2-9/16
Dimensions in.	
Length	19.8
Height	18.3
Width	4.1
Battery	18.0V 5.2Ah
Weight lbs. (with Battery)	16.9

STORAGE

Type	VAL-B-TC950
Dimensions in. L x W x H	22.2 x 16.1 x 5.2
Weight lbs.	14.7
Supplied with the tool	✓

Not suitable for cutting steel reinforced conductors

Next generation of 18.0 V cordless hydraulic cutting tool specifically designed to cut Copper, Aluminum and telecommunication cables having a max overall diameter of 2-9/16".

The blades are manufactured from high strength special Steel, heat treated to ensure a long service life.

The open head and the "scissor" movement of the blades facilitate the cutting of running cables.

New Li-Ion 18V - 5.2Ah batteries offer a higher capacity, while greater cutting speed and cutting force result from a revitalised hydraulic system with double speed action.

The battery is equipped with led indicators that indicate the remaining battery life at any time by pressing the adjacent button.

The head can rotate through 180 degrees, to enable the operator to work in the most comfortable position, and can easily be opened to allow cutting of running cables. Fitted with a maximum hydraulic pressure valve.

Designed with improved balance, B-TC650-SCA is easily manageable during the cutting process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage.

Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area.

Two batteries and AC charger (110-115V) included. Same charger of all our tools.

Operating temperature: +5 to +122°F



The tool is supplied as:

- Basic tool with battery and shoulder strap
- Spare battery
- AC charger (110-115V)
- USB cable
- Metal carrying case suitable for storing the tool and accessories

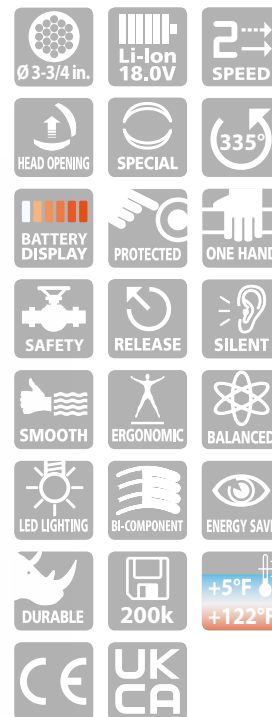
18.0 V CORDLESS HYDRAULIC CUTTING TOOL

B-TC950A

industrial application

MAIN APPLICATIONS

specifically designed to cut Copper, Aluminum and Telecommunications cable having a max overall diameter of 3-3/4"



TECHNICAL FEATURES

Max cutting Ø in.	up to 3-3/4
Dimensions in.	
Length	20.4
Height	18.4
Width	3.3
Battery	18.0V 5.2Ah
Weight lbs. (with Battery)	17.1

Next generation of 18.0 V cordless hydraulic cutting tool specifically designed to cut Copper, Aluminum and telecommunication cables having a max overall diameter of 3-3/4".

The blades are manufactured from high strength special Steel, heat treated to ensure a long service life.

New Li-Ion 18V - 5.2Ah batteries offer a higher capacity, while greater cutting speed and cutting force result from a revitalised hydraulic system with double speed action. The battery is equipped with led indicators that indicate the remaining battery life at any time by pressing the adjacent button.

The head can rotate through 335 degrees, to enable the operator to work in the most comfortable position, and can easily be opened to allow cutting of running cables.

Fitted with a maximum hydraulic pressure valve.

Designed with improved balance, B-TC950A is easily manageable during the cutting process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage.

Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area.

Two batteries and AC charger (110-115V) included. Same charger of all our tools.

Operating temperature: +5 to +122°F

Not suitable for cutting steel reinforced conductors

STORAGE

Type	VAL-B-TC950
Dimensions in. L x W x H	22.2 x 16.1 x 5.2
Weight lbs.	14.7
Supplied with the tool	✓



The tool is supplied as:

- Basic tool with battery and shoulder strap
- Spare battery
- AC charger (110-115V)
- USB cable
- Metal carrying case suitable for storing the tool and accessories

B-TC4500A

18.0 V CORDLESS HYDRAULIC CUTTING TOOL

overhead line application

MAIN APPLICATIONS

specifically designed to cut Copper, Aldrey, Aluminum, Aluminum-Steel cables and Steel ropes, Aluminum and Steel rods having Ø max 1-3/4"

TECHNICAL FEATURES

Max cutting Ø in.	1-3/4
Dimensions in.	
Length	19.1
Height	9.4
Width	4.0
Battery	18.0V 5.2Ah
Weight lbs. (with Battery)	14.1

STORAGE

Type	VAL-P54
Dimensions in. L x W x H	27.2 x 17.5 x 7.0
Weight lbs.	12.1
Supplied with the tool	✓



The tool is supplied as:

- Basic tool with battery and shoulder strap
- Spare battery
- AC charger (110-115V)
- USB cable
- Plastic carrying case suitable for storing the tool and accessories



Next generation of 18.0 V cordless hydraulic cutting tool specifically designed cut copper, aldre, aluminium, aluminium-steel cables and steel ropes, aluminium and steel rods having a max overall diameter of 1-3/4".

The blades are manufactured from high strength special Steel, heat treated to ensure a long service life.

New Li-Ion 18V - 5.2Ah batteries offer a higher capacity, while greater cutting speed and cutting force result from a revitalised hydraulic system with double speed action. The battery is equipped with led indicators that indicate the remaining battery life at any time by pressing the adjacent button.

The head can rotate through 180 degrees, to enable the operator to work in the most comfortable position, and can easily be opened to allow cutting of running cables.

Fitted with a maximum hydraulic pressure valve.

Designed with improved balance, B-TC4500A is easily manageable during the cutting process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage.

Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area.

Two batteries and AC charger (110-115V) included. Same charger of all our tools.

Operating temperature: +5 to +122°F

CUTTING CAPACITY

	MATERIAL	TENSILE STRENGTH (lbs./sq.in.)	MAX CUTTING DIAMETER (in.)
			B-TC4500A
ROPE & CONDUCTORS	Copper	≤ 59,450	1-3/4"
	Aluminum	≤ 29,000	1-3/4"
	Almelec	≤ 49,300	1-3/4"
	Steel	≤ 261,000	INDICATIVE EXAMPLES: 7 x 0.118 = Ø out. 0.354 19 x 0.083 = Ø out. 0.413 19 x 0.091 = Ø out. 0.453
	MULTI STRANDS Steel (STRANDS Qty ≥ 200)	≤ 261,000	0.709
	ACSR	≤ 261,000	1-3/4" INDICATIVE EXAMPLES: 26 x 0.098 + 7 x 0.077 : Ø out. = 0.624 26 x 0.120 + 7 x 0.094 : Ø out. = 0.763 26 x 0.142 + 7 x 0.110 : Ø out. = 0.897 54 x 0.138 + 19 x 0.082 : Ø out. = 1.240 54 x 0.172 + 19 x 0.103 : Ø out. = 1.543
RODS	Steel	≤ 87,000	0.709
		≤ 60,900	0.787
	Copper	≤ 43,000	1.181
		≤ 36,250	1.260
	Aluminum	≤ 23,200	1-3/4"

18.0 V CORDLESS HYDRAULIC FRAME-TYPE HOLE PUNCHING TOOL

B-FC470A

general features

MAIN APPLICATIONS

specifically designed to punching holes from 0.61 up to 1.858 in. diameter

TECHNICAL FEATURES

Max hole punch Ø in.	1.858
Max centre of hole to edge of trunking in.	2.11
Dimensions in.	
Length	14.9
Height	13.6
Width	3.3
Battery	18.0V 5.2Ah
Weight lbs. (with Battery)	13.6

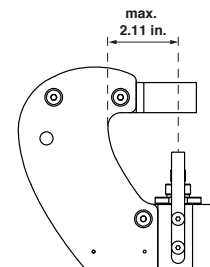
STORAGE

Type	VAL-FC470
Dimensions in. L x P	22.0 x 18.1 x 5.2
Weight lbs.	14.7
Supplied with the tool	✓



The tool is supplied as:

- Basic tool with battery and shoulder strap
- Spare battery
- AC charger (110-115V)
- USB cable
- Metal carrying case suitable for storing the tool and accessories



Max centre of hole to edge of trunking: 2.11 in.

Next generation of 18.0 V cordless hydraulic cutting tool specifically designed to punching holes from 0.61 up to 1.858 in. diameter in the side wall of trunking without the need for pre drilling.

New Li-Ion 18V - 5.2Ah batteries offer a higher capacity, while greater punch speed and punching force result from a revitalised hydraulic system with double speed action. The battery is equipped with led indicators that indicate the remaining battery life at any time by pressing the adjacent button. The head can rotate through 180 degrees, to enable the operator to work in the most comfortable position, and can easily be opened to allow cutting of running cables. Fitted with a maximum hydraulic pressure valve.

Designed with improved balance, B-FC470A is easily manageable during the punching process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage.

Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area. Two batteries and AC charger (110-115V) included. Same charger of all our tools.

Operating temperature: +5 to +122°F.

Also available in the hand operated mechanical version MT-FC48N (see page 132).

Table denoting the punch/die set reference, for each hole size. Suitable for punching holes in mild steel, fiberglass or plastic material, up to 0.08 in thick.

Hole Dimensions					Maximum thickness of mild Steel (in.)	Type
Nominal	Ø (mm)	Ø (inch)	Pg	ISO		
	15,5	.610	Pg9	-	0.08	RD15.5SS-FC
	16,2	.638	-	ISO-16		RD16.2SS-FC
	17,5	.689	-	-		RD17.5SS-FC
	18,8	.740	Pg11	-		RD18.8SS-FC
	19,1	.752	-	-		RD19.1SS
	20,5	.807	Pg 13,5	ISO-20		RD20.5SS
	22,6	.890	Pg16	-		RD22.6SS
	23,8	.937	-	-		RD23.8SS
	25,4	1.000	-	ISO-25		RD25.4SS
	27,0	1.063	-	-		RD27.5SS
	28,5	1.122	Pg21	-		RD28.5SS
	30,5	1.201	-	-		RD30.5SS
	31,8	1.252	-	-		RD31.8SS
	32,5	1.279	-	ISO-32		RD32.5SS
	34,6	1.362	-	-		RD34.6SS
	37,2	1.464	Pg29	-		RD37.2SS
	38,1	1.500	-	-		RD38.1SS
	40,5	1.594	-	ISO-40		RD40.5SS-FC
	41,3	1.626	-	-		RD41.3SS-FC
	42,5	1.673	-	-		RD42.5SS-FC
	43,2	1.701	-	-		RD43.2SS-FC
	44,5	1.752	-	-		RD44.5SS-FC
	47,2	1.858	Pg36	-		RD47.2SS-FC

B-FL750NDA

18.0 V CORDLESS HYDRAULIC PULLER-TYPE HOLE PUNCHING TOOL

general features

MAIN APPLICATIONS

specifically designed for hole punching stainless Steel, mild Steel, fibreglass and plastic sheet materials up to 0.14 in. thickness



TECHNICAL FEATURES

Max Punching Ø in.	5.5
Dimensions in.	
Length	18.7
Height	5.3
Width	3.2
Battery	18.0V 2.0Ah
Weight lbs. (with Battery)	9.0

STORAGE

Type	VAL-PS7
Dimensions in. L x W x H	24.4 x 14.2 x 5.4
Weight lbs.	5.3
Supplied with the tool	✓



B-FL750NDA is a new generation of hand-held cordless tools, characterised by a "Bilinear" mechanical design. B-FL750NDA is specifically designed for hole punching stainless Steel, mild Steel, fibreglass and plastic sheet materials up to 0.14 in. thickness.

New Li-Ion 18 V 2 Ah batteries offer a higher capacity, while greater punch speed and punching force result from a revitalised hydraulic system with double speed action. The battery is equipped with LED indicators that indicate the remaining battery life at any time by pressing the adjacent button. The balanced punching head pivots 180deg through a full 360deg rotation for ease of use in confined spaces. Fitted with a maximum hydraulic pressure valve.

Designed with improved balance, B-FL750NDA is easily manageable during the punching process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage.

Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area.

Operating temperature:
+5 to +122°F

- The tool is supplied as:
- Basic tool with battery, wrist strap and Spare battery
 - AC charger (110-115V), USB cable
 - Pullers TD-11 and TD-19
 - Spiral bit Ø 0.45 in.
 - Plastic carrying case suitable for storing the tool and accessories

18.0 V CORDLESS HYDRAULIC PULLER-TYPE HOLE PUNCHING TOOL

B-FL750A

general features

MAIN APPLICATIONS

specifically designed for hole punching stainless Steel, mild Steel, fibreglass and plastic sheet materials up to 0.14 in. thickness

TECHNICAL FEATURES

Max Punching Ø in.	5.5
Dimensions in.	
Length	14.3
Height	14.4
Width	3.3
Battery	18.0V 5.2Ah
Weight lbs. (with Battery)	11.2

STORAGE

Type	VAL-P56
Dimensions in. L x W x H	27.1 x 17.5 x 7.0
Weight lbs.	12.1
Supplied with the tool	✓

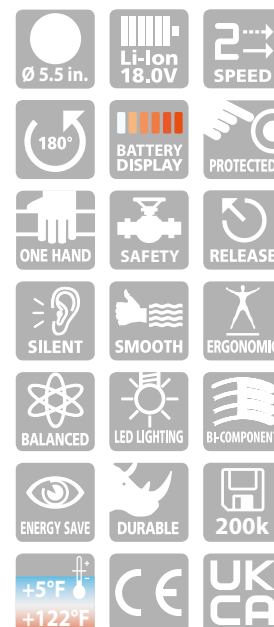


The tool is supplied as:

- Basic tool with battery and shoulder strap
- Spare battery
- AC charger (110-115V)
- USB cable
- Puller TD-11
- Puller TD-19
- Spiral bit Ø 0.45 in.
- Plastic carrying case suitable for storing the tool and accessories



Universal joint allows punching head to pivot 180deg over a full 360deg rotation.



Next generation of 18.0 V cordless hydraulic tool specifically designed for hole punching stainless Steel, mild Steel, fibreglass and plastic sheet materials up to 0.14 in. thickness.

New Li-Ion 18V - 5.2Ah batteries offer a higher capacity, while greater punch speed and punching force result from a revitalised hydraulic system with double speed action. The battery is equipped with LED indicators that indicate the remaining battery life at any time by pressing the adjacent button. The balanced punching head pivots 180deg through a full 360deg rotation for ease of use in confined spaces.

Fitted with a maximum hydraulic pressure valve.

Designed with improved balance, B-FL750A is easily manageable during the punching process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage.

Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area.

Operating temperature:

+5 to +122°F

PUNCHING ACCESSORIES AVAILABLE

for B-FL750NDA and B-FL750A

Round punch

Hole diameter					Material max thickness (in.)		Pilot hole Ø (in.)	Type	
Nominal Ø (mm)	Ø (inch)	Pg	ISO	GAS	Stainless Steel	Mild Steel		KIT (Punch + Die)	Puller
15,5	.610	Pg9	-	-	0.14 in. (3.5 mm)	Rm= 510 N/mm ²	0.45	RD15.5SS	TD-11
16,2	.638	-	ISO-16	-				RD16.2SS	
17,0	.669	-	-	G3/8"				RD17.5SS	
17,5	.689	-	-	-				RD17.5SS	
18,8	.740	Pg11	-	-				RD18.8SS	
19,1	.752	-	-	-				RD19.1SS	
20,5	.807	Pg 13,5	ISO-20	-				RD20.5SS	
21,5	.846	-	-	G1/2"				RD21.5SS	
22,6	.890	Pg16	-	-				RD22.6SS	
23,8	.937	-	-	G5/8"				RD23.8SS	
25,4	1.000	-	ISO-25	-				RD25.4SS	
27,0	1.063	-	-	G3/4"				RD27.5SS	
28,5	1.122	Pg21	-	-				RD28.5SS	
30,5	1.201	-	-	G7/8"				RD30.5SS	
28,5	1.122	Pg 21	-	-			0.79	RD28.5SS-19	TD-19
30,5	1.201	-	-	G7/8"				RD30.5SS-19	
31,8	1.252	-	-	-				RD31.8SS	
32,5	1.279	-	ISO-32	-				RD32.5SS	
34,0	1.338	-	-	G1"				RD34.5SS	
34,6	1.362	-	-	-				RD34.6SS	
37,2	1.464	Pg29	-	-				RD37.2SS	
38,1	1.500	-	-	-				RD38.1SS	
38,5	1.515	-	-	G1 1/8"				RD38.5SS	
40,5	1.594	-	ISO-40	-				RD40.5SS	
41,3	1.626	-	-	-				RD41.3SS	
42,5	1.673	-	-	G1 1/4"				RD42.5SS	
43,2	1.701	-	-	-				RD43.2SS	
44,5	1.752	-	-	-				RD44.5SS	
47,2	1.858	Pg36	-	-				RD47.2SS	
48,5	1.909	-	-	G1 1/2"				RD48.5SS	
50,5	1.988	-	ISO-50	-				RD50.5SS	
51,4	2.023	-	-	-				RD51.4SS	
52,4	2.063	-	-	-				RD52.4SS	
54,2	2.134	Pg42	-	G1 3/4"				RD54.2SS	
60,0	2.362	Pg48	-	G2"				RD60.0SS	
60,5	2.381	-	-	-				RD60.5SS	
64,0	2.520	-	ISO-63	-				RD64.5SS	
65,0	2.559	-	-	-				RD65.5SS	
76,0	2.992	-	-	G2 1/2"	0.12	0.08	1.14	RD76.5SS	TD-28.5*
76,5	3.011	-	-	-	0.14			RD76.5SS	
80,5	3.169	-	-	-	0.12			RD80.5SS	
89,0	3.503	-	-	G3"	0.14			RD89.5SS	
90,0	3.543	-	-	-	0.08			RD90.5SS	
100,0	3.937	-	-	-	0.08			RD100.5SS	
102,0	4.015	-	-	-	0.08			RD102.5SS	
114,0	4.488	-	-	-	0.08			RD114.5SS	
120,0	4.724	-	-	-	0.06			RD120.5SS	
140,0	5.512	-	-	-	0.06			RD140.5SS	

Stainless Steel = Rm= 700 N/mm² - Mild Steel = Rm= 510 N/mm²

* Puller included in the kit



Square punch

Hole dimensions		Material max thickness (in.)		Pilot hole Ø (in.)	Type
Nominal (mm)	(inch)	Stainless Steel	Mild Steel		
21,0 x 21,0	.827 x .827	0.10	0.14	0.47	RD21X21
46,0 x 46,0	1.811 x 1.811	0.06	0.08	1.04	RD46X46
68,0 x 68,0	2.677 x 2.677			1.12	RD68X68
92,0 x 92,0	3.622 x 3.622				RD92X92
126,0 x 126,0	4.960 x 4.960				RD126X126
138,0 x 138,0	5.433 x 5.433	0.04	0.06		RD138X138
220,0 x 220,0	8.661 x 8.661				RD220X220
224,0 x 224,0	8.818 x 8.818				RD224X224

Rectangular punch

Hole dimensions		Material max thickness (in.)		Pilot hole Ø (in.)	Type
Nominal (mm)	(inch)	Stainless Steel	Mild Steel		
18,0 x 46,0	.709 x 1.811	0.08	0.08	0.65	RD18X46
22,0 x 30,0	.866 x 1.181				RD22X30
22,0 x 46,0	.866 x 1.811				RD22X46
29,0 x 71,0	1.141 x 2.795				RD29X71
35,0 x 65,0	1.377 x 2.559				RD35X65
35,0 x 86,0	1.377 x 3.385				RD35X86
35,0 x 112,0	1.377 x 4.409				RD35X112
36,0 x 46,0	1.417 x 1.811				RD36X46
37,0 x 54,0	1.456 x 2.125				RD37X54
37,0 x 67,0	1.456 x 2.637				RD37X67
37,0 x 88,0	1.456 x 3.464	0.06	0.08	1.04	RD37X88
37,0 x 104,0	1.456 x 4.094				RD37X104
37,0 x 115,0	1.456 x 4.527				RD37X115
46,0 x 54,0	1.811 x 2.126				RD46X54
46,0 x 72,0	1.811 x 2.835				RD46X72
46,0 x 92,0	1.811 x 3.622				RD46X92
46,0 x 107,0	1.811 x 4.212				RD46X107
50,0 x 98,0	1.968 x 3.858				RD50X98
67,0 x 126,0	2.637 x 4.960			1.12	RD67X126
72,0 x 136,0	2.834 x 5.354				RD72X136

Stainless Steel = Rm= 700 N/mm² - Mild Steel = Rm= 510 N/mm²

"D" punch

Hole dimensions		Material max thickness (in.)		Pilot hole Ø (in.)	Type
Nominal (mm)	(inch)	Stainless Steel	Mild Steel		
(a)38,3 x (b)36,6	(a)1.507 x (b)1.442	0.10	0.14	0.73	RD 18D
(a)43,1 x (b)41,5	(a)1.696 x (b)1.632				RD 24D

Stainless Steel = Rm= 700 N/mm² - Mild Steel = Rm= 510 N/mm²

Use of non-Cembre punching accessories

Type	Punch & Die	Pilot hole Ø in.
TRD-9.4C (*)	GREENLEE 3/8" - 24 UNF	Ø 0.40
TRD-M11C (*)	BM, COSMEC (M11x1.5), IMB 9602	Ø 0.45
TD-M16C	BM, COSMEC (M16x1.5)	Ø 0.65
TD-27	BM, COSMEC (Ø105÷Ø140)	Ø 1.10
TD-14X14-M14	BM, COSMEC 46x46	Ø 0.74
TD-120X20-M20	BM, COSMEC 92x92	Ø 1.10
TD-20X20-M20 (with plug)	BM, COSMEC 42x95	Ø 1.10
TGD-13.5X13.5-M13	BM, COSMEC 40x40; 45x45; 46x46 (M13)	Ø 0.74
TGD-10X10-M9	BM, COSMEC 006505	Ø 0.54
TD-9	IMB 9601	Ø 0.37
TD-16	IMB 9603	Ø 0.65
TD-10X10-M10 (with plug)	IMB 9623	Ø 0.57
TD-14X14-M14/1"	IMB 9625	Ø 0.77
TD-20 (without plug)	IMB 9626	Ø 1.10
TD-20X20-M20-C (with plug)	IMB 9626	Ø 1.10

(*) The washer supplied with the KIT must be threaded onto the draw stud and positioned between the head and the die to allow the die to rest correctly

18.0 V CORDLESS HYDRAULIC NUT SPLITTING TOOLS

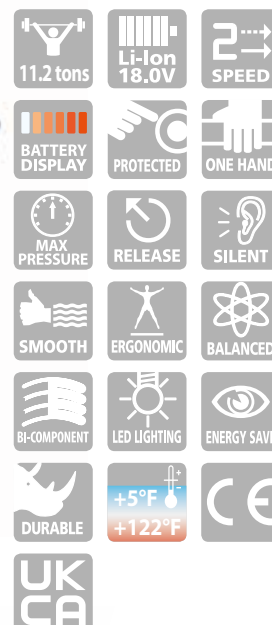
B-TD270A

general features

B-TD270

Crimping force tons	11.2
Dimensions in.	
Length (with tube and head)	50.9
Height	13.8
Depth	3.3
Battery	18.0V 5.2Ah
Weight lbs. (with battery)	12.1

18.0 V battery operated hydraulic tool suitable for splitting fastening bushes, hexagonal and square nuts as per RHTD1724.



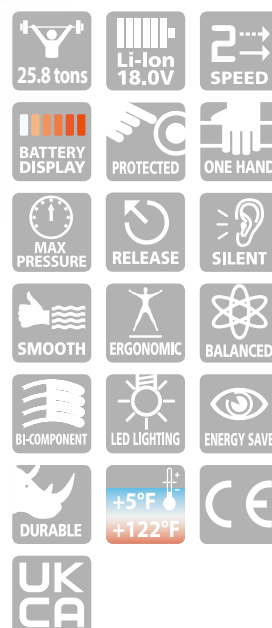
B-TD410T

Crimping force tons	25.8
Dimensions in.	
Length (with tube and head)	53.5
Height	13.8
Depth	3.3
Battery	18.0V 5.2Ah
Weight lbs. (with battery)	19.4

18.0 V battery operated hydraulic tool suitable for splitting fastening bushes, hexagonal and square nuts as per RHTD410T.



B-TD410TA



STORAGE

Type	CVB-030
Dimensions in. L x W x H	19.5 x 10.5 x 17.9
Weight lbs.	3.0
Supplied with the tool	✓



Application range

Type	HEXAGONAL NUTS		SQUARE NUTS	
	in.	Ø	in.	Ø
B-TD270A	0.63	M 10	0.67	M 10
	0.67	M 10	0.75	M 12
	0.71	M 12	0.87	M 14
	0.75	M 12	0.94	M 16
	0.83	M 14	1.06	M 18
	0.87	M 14		
	0.94	M 16		
B-TD410TA	1.06	M 18	1.06	M 18
	1.06	M 18	1.06	M 18
	1.18	M 20	1.18	M 20
	1.26	M 22	1.26	M 22
	1.34	M 22	1.34	M 24
	1.42	M 24	1.42	M 27
	1.61	M 27		

MPC1

PRESSURE TEST DEVICE

for hydraulic pumps and tools



MPC1 device

The MPC1 device, complete with test adapter set, is used to measure the maximum oil pressure on all Cembre tools.

MPC2



MPC2 device

The MPC2 device, complete with test die set, to measure the maximum force developed by Cembre tools:

HT131-C, HT131LN-C, HT120, HT120-KV, RHC131, RHC131-KV, RHC131LN, B131-CA, B131-CA-KV, B131LN-CA, B131LN-CA-KV, B135-CA, B135-CA-KV, B135LN-CA, B135LN-CA-KV.

MPC4



MPC4 device

The MPC4 device, complete with test die set, to measure the maximum force developed by Cembre tools:
ECW-H3D, RHU240-3D-850, RHU300-3D

MPC7



MPC7 device

The MPC7 device, complete with test die set, to measure the maximum force developed by Cembre tools:

HT45, HT51, HT51-KV, HT51L, HT51L-KV, RH50, HT61, RH61, B15Y (use adaptor available separately), B35-45A, B35-50A, B46, B51A, B51A-KV, B51LA, B51LA-KV, B54-Y..., B55-Y..., B55-Y...-KV, B62.

HYDRAULIC PUMPS AND UNITS



PO7000



Foot operated double speed pump, developing a maximum pressure of 10,000 psi. The pump is supplied with 10FT long high pressure flexible hose complete with female self-lock quick coupler. Pressure can be withdrawn at any time during operation by depressing the release lever. A solid shaped stand gives the pump stability during operation.

HYDRAULIC PUMP

foot operated

TECHNICAL FEATURES

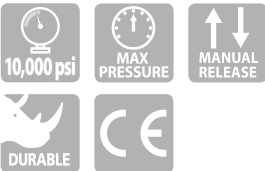
Operating pressure psi	10,000
Dimensions in.	
Length	26.8
width	7.9
Height	6.4
Weight lbs.	21.6

STORAGE

Type	VAL-P21
Dimensions in. L x W x H	32.3 x 16.9 x 11.4
Weight lbs.	14.8
Supplied with the pump	✓



CPP-0



The CPP-0 air hydraulic power unit intensifies an air supply of 87-115 psi (6÷8 bar) to a power crimping or cutting force of up to 10,000 psi (700 bar) depending upon the input pressure. The control pedal allows for advancing and pressure release at any stage of the operation. The unit is provided with a 6.5 FT high pressure flexible hose, including a 3/8" NPT female self-lock quick coupler.

HYDRAULIC PUMP

foot operated

TECHNICAL FEATURES

Operating pressure psi	10,000
Dimensions in.	
Length	12.2
width	5.9
Height	7.9
Weight lbs.	15.0



HYDRAULIC PUMP

powered by single-phase electric motor

CPE-1 CPE-1-110

TECHNICAL FEATURES

Operating pressure psi	10,000
Dimensions in.	
Length	14.6
width	8.8
Height	18.8
Weight lbs.	46.2

The pump is supplied with:

- high pressure flexible hose with male and female automatic quick coupler
- remote hand controller
- external supply connection cable

Technical details:

- Oil in the reservoir: 0.52 gallons
- Power of motor: 1,050 W
- Delivery of oil: 0.21 Gpm at no load



Electrically driven hydraulic pump, powered by a 110-115V / 50-60Hz single-phase electrical motor. The remote hand controller allows advancement and pressure release on completion of the crimping operation. The mechanically actuated emergency button located on the pump body, allows the pressure release at any time also in case of power shortage. This model is IP 55 rated.

Available as optional accessories:

- Remote foot controller RCP-B70.
- Transportation trolley CS-CPE-1
- Control handle integrated with 3 m length flex hoses ERCH-WH

ERCH-WH



RCP-B70



CS-CPE-1



B1300PLA

PORTABLE ELECTRO-HYDRAULIC PUMP

battery operated



TECHNICAL FEATURES

Operating pressure psi	10,000
Dimensions in.	
Length	13.9
width	4.0
Height	9.4
Battery	18.0V 5.2Ah
Weight lbs. (with Battery)	8.8

STORAGE

Type	VAL-P51
Dimensions in. L x W x H	27.2 x 17.5 x 7.0
Weight lbs.	12.1
Supplied with the pump	✓



New portable electro-hydraulic pump B1300PLA is battery operated for independent use. Having the inherent strengths of the Cembre 18V tool range the B1300PLA is a compact, light-weight pump suitable for a wide range of applications. New Li-Ion 18V - 5.2Ah batteries offer a high capacity, while improved operating speed results from a revitalised hydraulic system with double speed action. A security valve assures operator safety.

Designed with improved handling characteristics, B1300PLA is easily manageable during the operating process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage. Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area. Pressure can be released at any time using the appropriate button.

The B1300PL pump is supplied with:

- 35.4 in. flexible hose complete with male + female 3/8" NPT self-lock quick couplers.
- 18.0 V - 5.2 Ah Li-Ion high power battery
- AC charger (110-115V)
- Shoulder strap
- Plastic carrying case suitable for storing the tool and accessories, type VALP51

APPLICATION RANGE

Crimping	Cutting	Punching
up to 12 tons heads	up to TC050	RH-FL75 RH-FC48N

PORTABLE ELECTRO-HYDRAULIC PUMP

battery operated

TECHNICAL FEATURES

Operating pressure psi	10,000
Dimensions in.	
Length	14.1
width	7.2
Height	9.2
Battery	18.0V 5.2Ah
Weight lbs. (with Battery)	12.0

STORAGE

Type	CVB-031
Dimensions in. L x W x H	24.4 x 11.8 x 12.6
Weight lbs.	5.3
Supplied with the pump	✓



The B68M-P18A pump is supplied with:

- Remote control provides LED working lights and an OLED display
- 6.5 FT flexible hose complete with rotatable Q14-F quick coupler on the pump and female 3/8" NPT self-lock quick couplers
- 18.0 V - 5.2 Ah Li-Ion high power battery (2 pcs.)
- Canvas bag suitable for storing the tool and accessories
- AC charger (110-115V)
- Shoulder strap



APPLICATION RANGE

Crimping	Cutting	Punching
up to 25 tons heads	up to TC120	RH-FL75 RH-FC48N

Example of operating information on OLED display:



Operating mode



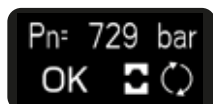
Battery level



Release mode



No. of cycles



Pressure mode



Motor temperature



SMART
TECHNOLOGY
RELEASE

EPS.

SMART
TECHNOLOGY
LIGHTS



New portable electro-hydraulic pump B68M-P18A is battery operated for independent use.

Having the inherent strengths of the Cembre 18V tool range, the B68M-P18A is a lightweight high capacity pump equipped with an innovative remote control suitable for a wide range of applications.

New Li-Ion 18V - 5.2Ah batteries offer a high capacity, while improved operating speed results from a re-vitalised hydraulic system with double speed action.

A maximum pressure sensor assures greater precision and repeatability of the pressure cycle, while a security valve doubles the provision for operator safety.

The unit has a manual pressure release button in case of emergency. Easy access to the oil reservoir is by means of an oil top-up inlet.

The innovative remote control provides LED working lights and an OLED display of essential real time tool operating information including:

- Operating mode selection
- Release mode selection: Smart release, manual release
- Minimum set pressure and momentary pressure reached expressed in bar allows verification of correct operation
- Battery charge level
- No. of cycles performed
- No. of cycles before scheduled recommended maintenance
- Motor temperature

Designed with improved handling characteristics, B68M-P18A is easily manageable during the operating process and has a fibreglass-plastic shell with high resistance to wear and damage.

The pump features a rubber pocket to store and protect the remote control.

Low noise levels aid operator comfort while additional convenience and safety are provided by LED lighting on the remote control.

Selecting the SMART release mode on the OLED display allows the operating pressure to be maintained until the operating button is released, thus allowing the operator to make a visual check of, say, the crimped connection.

Releasing the button then automatically releases the pressure. Crimping cycle data (up to 200,000 events) is automatically stored on a memory card for transfer to PC by USB interface located under the battery.

PORTABLE ELECTRO-HYDRAULIC PUMPS B70M-P36A RANGE

battery operated



Automatic battery connection system



New generation pump B70M-P36A is powered by an all new 36.0V 6.2Ah Li-Ion high capacity rechargeable battery providing independence and portability.

Fitted with a electronic pressure sensor (EPS) for enhanced precision and repeatability of the maximum pressure cycle, and a pressure relief valve providing additional safety for the operator. These units feature the Smart Release system which automatically retracts the ram at the end of the operating cycle.

The manual toggle button can be used to operate and release the pressure directly from the pump (disabled when the remote control is used for safety reasons). Oil top-up inlet for easy access to the oil reservoir. Extremely compact and suitable for a wide range of applications.

The Cembre logo acts as an indicator by changing color to provide the operator with instantaneous visual confirmation of the pumps status, such as; pump ready, pump in use, end of cycle, cycle error, anomaly, maintenance required. The new ergonomic design allows the pump to be handled easily during use.

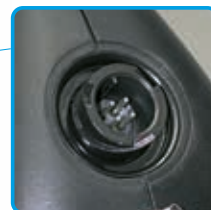
Easily accessible oil top-up inlet



Toggle button for direct operation via the pump



Remote electrical hand or foot controller connection



High pressure hose connects to automatic self-lock quick coupling with protective cap



OLED multifunctional display



Smart Logo



Manual pressure release button



Pump on (constant)

In action (pulse)

End of cycle

Cycle error

Anomaly

Maintenance

The rigid structure of the plastic body ensures adequate mechanical protection and sealing gaskets guarantees IP44M protection. The ergonomically designed handle helps to increase operator comfort when moving the pump. Quieter operation, and the absence of vibrations ensure maximum operator comfort. Equipped with a 10 ft. long high pressure hose complete with a male quick coupling on the pump and a self-locking female quick coupling. The pressure can be released at any time using the pressure release button. The unit features an OLED display to provide essential real

time tool operating information including:

- Operating mode selection (cutting, crimping or piercing)
- Release mode selection (Smart release, manual release)
- Minimum set pressure and snapshot pressure reached in bar/psi to allow verification of correct operation
- Battery charge level
- No. of cycles performed
- No. of cycles before scheduled recommended maintenance
- Motor temperature
- Operational command (hand controller or manual on the pump)

Can be used in vertical or horizontal position



PORTABLE ELECTRO-HYDRAULIC PUMP

battery operated

B70M-P36A

- 1 Portable electro-hydraulic pump, 36V dc battery for independent use, developing 10,000 psi pressure
- 2 CB3662L Battery 36 V - 6.2 Ah Li-Ion
- 3 ASC145-USA/CA External battery charger
- 4 USB cable
- 5 Shoulder strap
- 6 CVB-037 Canvas rucksack for carrying accessories
- 7 10 ft. flexible hose complete with male + female 3/8" NPT self-lock quick couplers
- 8 ERCH Remote control



TECHNICAL FEATURES

Operating pressure psi	10,000
Dimensions in.	
Length	15.9
width	6.3
Height	12.9
Battery	36V 6.2Ah
Weight lbs. (with Battery)	22.0*

*without accessories

PORTABLE ELECTRO-HYDRAULIC PUMP

battery operated

B70M-P36A-CH

- 1 Portable electro-hydraulic pump, 36V dc battery for independent use, developing 10,000 psi pressure
- 2 CB3662L Battery 36 V - 6.2 Ah Li-Ion
- 3 ASC145-USA/CA External battery charger
- 4 USB cable
- 5 Shoulder strap
- 6 CVB-037 Canvas rucksack for carrying accessories
- 9 ERCH-WH Remote hand controller integrated with 10 ft. length flexible hose complete with male + female 3/8" NPT self-lock quick couplers



TECHNICAL FEATURES

Operating pressure psi	10,000
Dimensions in.	
Length	15.9
width	6.3
Height	12.9
Battery	36V 6.2Ah
Weight lbs. (with Battery)	22.0*

*without accessories

Variously supplied with different versions:



ACCESSORIES FOR B70M-P36A

purchase separately

TRS-B70
Canvas rucksack
(for carrying the pump)



ERCH-WH
Remote hand controller integrated
with 10 ft. length flexible hose



VAL-P18
Durable transport case for pump
and accessories.



SH-B70
Hook for hanging the pump
from a ladder



RCP-B70
Portable remote foot control



HYDRAULIC UNIT

CP1131

pump PO7000 + head RHC131

MAIN APPLICATIONS - max section AWG

Section AWG	22÷16	16÷14	12÷10	8	6	4	2	1/0	2/0	3/0	250 MCM	300 MCM	350 MCM	400 MCM	500 MCM	600 MCM	800 MCM	1000 MCM	1250 MCM	1500 MCM	2000 MCM
Copper lugs																					
Copper splices																					
"C" sleeve Connectors																					

These tools are supplied without dies. For die selection, please refer to chart on pages 286 to 300

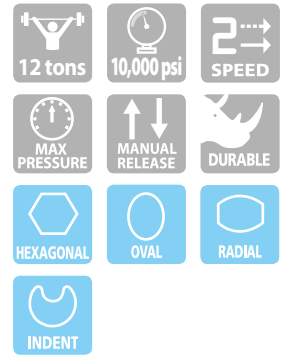
TECHNICAL FEATURES

Crimping force tons	12
Dimensions in.	
Dimensions pump L x W x H	26.8 x 7.9 x 6.4
Dimensions head L x H	9.13 x 4.88
Weight unit kg	30.0

STORAGE

Type	VAL-P21*
Dimensions in. L x W x H	32.3 x 16.9 x 11.4
Weight lbs.	14.8
Supplied with the unit	✓

*Supplied with the unit, suitable for storage of 24 semi-circular slotted dies



HYDRAULIC UNIT

CPU1131-C

pump PO7000 + head RHU131-C

MAIN APPLICATIONS - max section AWG

Section AWG	22÷16	16÷14	12÷10	8	6	4	2	1/0	2/0	3/0	250MCM	300MCM	350MCM	400MCM	500MCM	600MCM	800MCM	1000MCM	1250MCM	1500MCM	2000MCM
Copper lugs and splices																					
Aluminum lugs and splices																					
"C" sleeve Connectors																					

These tools are supplied without dies. For die selection, please refer to chart on pages 286 to 300

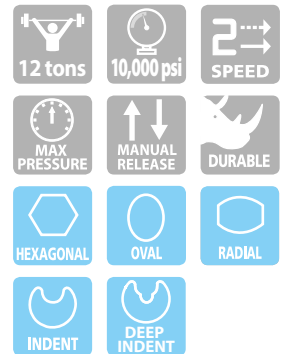
TECHNICAL FEATURES

Crimping force tons	12
Dimensions in.	
Dimensions pump L x W x H	26.8 x 7.9 x 6.4
Dimensions head L x H	9.65 x 3.5
Weight unit kg	29.7

STORAGE

Type	VAL-P21*
Dimensions in. L x W x H	32.3 x 16.9 x 11.4
Weight lbs.	14.8
Supplied with the unit	✓

*Supplied with the unit, suitable for storage of 24 semi-circular slotted dies and accessories for crimping Aluminium connectors



pump PO7000 + head ECW-H3D



25 tons



10,000 psi



SPEED



MAX PRESSURE



MANUAL RELEASE



DURABLE



HEXAGONAL



OVAL



RADIAL



INDENT

MAIN APPLICATIONS - max section AWG

Section AWG	22÷16	16÷14	12÷10	8	6	4	2	1/0	2/0	3/0	250MCM	300MCM	350MCM	400MCM	500MCM	600MCM	800MCM	1000MCM	1250MCM	1500MCM	2000MCM
L.V. lugs and splices																					
Insulated terminals																					
"C" sleeve Connectors																					
H.V. lugs and splices																					

These tools are supplied without dies. For die selection, please refer to chart on pages 286 to 300

TECHNICAL FEATURES

Crimping force tons	25
Dimensions in.	
Dimensions pump L x W x H	26.8 x 7.9 x 6.4
Dimensions head L x H	12.4 x 4.7
Weight unit kg	33.7

STORAGE

Type	VAL-P21*
Dimensions in. L x W x H	32.3 x 16.9 x 11.4
Weight lbs.	14.8
Supplied with the unit	✓

*Supplied with the unit, suitable for storage of 24 semi-circular slotted dies and adaptors and dies specific for head ECW-H3D



HYDRAULIC CUTTING UNIT

CP1096

pump PO7000 + head TC096

TECHNICAL FEATURES

Max cutting Ø in.	up to 3-3/4
Dimensions in.	
Dimensions pump L x W x H	26.8 x 7.9 x 6.4
Dimensions head L x H	15.6 x 9.8
Weight unit kg	39.0

STORAGE

Type	VAL-CP096
Dimensions in. L x W x H	30.9 x 16.9 x 6.9
Weight lbs.	22.0
Supplied with the unit	✓



HYDRAULIC CUTTING UNIT

CP1120

pump PO7000 + head TC120

TECHNICAL FEATURES

Max cutting Ø in.	up to 4-3/4
Dimensions in.	
Dimensions pump L x W x H	26.8 x 7.9 x 6.4
Dimensions head L x H	21.1 x 6.9
Weight unit kg	42.5

STORAGE

Type	VAL-22-TC120
Dimensions in. L x W x H	30.1 x 12.0 x 7.5
Weight lbs.	18.3
Supplied with the unit	✓



CB BH ASC CFC BPS

Accessories for cordless tools



battery

	Type	Description	Technology	Ah	V
STANDARD	CB1820L	CB1820L 18V-2.0Ah battery	Li-Ion	2.0	18
	CB1852L	CB1852L 18V-5.2Ah battery	Li-Ion	5.2	18
	CB1880L	CB1880L 18V-8.0Ah battery	Li-Ion	8.0	18
	CB3662L	CB3662L 36V-6.2Ah battery	Li-Ion	6.2	36
ON REQUEST	CB1430L	CB1430L 14.4V-3.0Ah battery	Li-Ion	3.0	14.4
	CB9630H	CB9630H 9.6V-3.0Ah battery	Ni-MH	3.0	9.6
	CB1430H	CB1430H 14.4V-3.0Ah battery	Ni-MH	3.0	14.4
	BH2433	BH2433 24V-3.3Ah battery	Ni-MH	3.3	24



ASC30-36-USA/CA



ASC145-USA/CA



ASC145DUO-USA/CA



ASC55-MULTI8-US

battery charger



CFC230N

Type	Description	V
ASC30-36-USA/CA	ASC30-36-USA/CA battery charger 115V	18
ASC145-USA/CA	ASC145-USA/CA battery charger 110V	10.8 - 36
ASC145DUO-USA/CA	ASC145DUO-USA/CA battery charger 115V	12 - 36
ASC55-MULTI8-US	8-position multiple charger ASC55-MULTI8-US 110V	12 - 36
CFC230N	CFC230N 230V AC battery charger	14.4



BPS230-9.6



BPS230.14

power supplies

Type	Description	V
BPS230-9.6	BPS230.96 (230V -9.6V) power supplies	9.6
BPS230.14	BPS230.14 (230V -14.4V) power supplies	14.4

others



Type	Description
6000354	Shoulder strap for battery tools
6006309	USB2.0/MINI USB B M-M 1.8 m cable black

Accessories for storage of dies

VAL



carrying case - bags

Type	Description
VALMAT	Metal carrying case suitable for the storage of semicircular dies
VALMAT-230-630	Metal carrying case suitable for the storage of accessories for crimping Aluminium connectors
VALMAT-520	Metal carrying case suitable for storage of 10 sets of hexagonal dies for the head RHU520
VAL-130	Metal carrying case suitable for the storage of accessories for crimping Aluminium connectors
VAL-75	Plastic case suitable for containing tool dies for HT81-U; RHU81; RH50; RHM50
CVB-013	Canvas bag

Transport accessories

CVB



canvas bag - trolley

Type	Description
CVB-030	Canvas bag for carrying tools and accessories
CVB-031	Canvas bag for the transport of pump and accessories
CVB-037	Canvas rucksack for transporting pump and accessories
VAL-P18	Wheeled transport case for pump and accessories

TF

Accessories for non-insulated hydraulic pumps

non-insulated flexible hoses (extensions)



Type	Length ft	Quick Coupler	Description
TF300-Q38FM	9.8	F/M	High pressure flexible hose fitted with automatic quick couplers
TF600-Q38FM	19.7	F/M	High pressure flexible hose fitted with automatic quick couplers
TF200-Q14FM	6.6	F/M	High pressure flexible hose fitted with automatic quick couplers
TF500-Q38FM	16.4	F/M	High pressure flexible hose fitted with automatic quick couplers
TF1000-Q38FM	32.8	F/M	High pressure flexible hose fitted with automatic quick couplers
ERCH-WH	9.8	F/M	Remote hand controller integrated with high pressure flexible hose complete with automatic quick couplers for B70M-P36A; CPE-1

Q-M, Q-F

Quick couplers for non-insulated flexible hoses



Q14-MS

Q14-MS

Male automatic coupler for hydraulic heads (1/4" NPT).



Q38-F

Q38-F

Female automatic coupler with safety ring for hydraulic pumps and flexible hoses (3/8" NPT).



Q38-MS

Q38-MS

Male automatic coupler for flexible hoses (3/8" NPT).

TF-I

Accessories for insulated hydraulic pumps

insulated flexible hoses (extensions)



Type	Length ft	Insulated Quick Coupler	Description
TF1000-I38FM-KVE	32.8	F/M	32.8 ft long high pressure flexible hose equipped with insulated oil with high dielectric power and with "insulated" type quick couplers with automatic locking, complete with case
TF500-I38FM-KV	16.4	F/M	16.4 ft long high pressure flexible hose equipped with insulated oil with high dielectric power and with "insulated" type quick couplers with automatic locking

RB-M RB-F

Quick couplers for insulated flexible hoses



RB38-M

RB38-M

Screw type male (Ball Type) quick coupler 3/8"



RB38-F

RB38-F

Screw type female (Ball Type) quick coupler 3/8"

DIE SELECTOR CHART



DIE SELECTOR CHART

APPLICATION	HYDRAULIC TOOLS												
	CONDUCTOR	CONNECTOR		B15MA	HT51 RH50 B500A B500NDA B550CA		B1300L-CA and similar tools for U dies		B1500A	ECW-H3D	RHU520		
		Conductor Size AWG	Navy		TERMINAL	SPLICE	DIE SET					DIE SET	
 C-..  CL-..  CL-..  BSCL	8	23	C8-..	BSCL8	ME03/2-15 ME2/3-15 MA03/3-15			MY2-50 ①		MY2-C ①			
	6		C6-..	BSCL6	ME2/3-15 MA03/3-15			MY3-50 ①		MY3-C ①			
	4	40	C4-..	BSCL4				MY4-50 ①		MY4-C ①			
	3	50	C3-..	BSCL3				MY5-50 ①		MY5-C ①			
	2	60	C2-..	BSCL2				MY6-50 ①		MY6-C ①			
	1	75	C1-..	BSCL1				MY7-50 ①		MY7-C ①			
	1/0	100	C1/0-..	BSCL1/0				MY10-50 ②		MY10-C ①			
	2/0	125	C2/0-..	BSCL2/0				MY14-50 ②		MY14-C ①			
	3/0	150	C3/0-..	BSCL3/0				MY16-50 ②		MY16-C ①			
	4/0	200	C4/0-..	BSCL4/0				MY19-50 ②		MY19-C ①			
	250 MCM	250	C250-..	BSCL250				MY24-50 ②		MY24-C ①			
	300 MCM	300	C300-..	BSCL300				MY30-50 ②		MY30-C ①			
	350 MCM	350	C350-..	BSCL350				MY36-50 ②		MY36-C ①			
	400 MCM	400	C400-..	BSCL400				MY37-50 ②		MY37-C ①			
	500 MCM		C500-..	BSCL500				MY48-50 ③		MY48-C ②			
	600 MCM		C600-..	BSCL600						MY60-C ②			
	750 MCM		C750-..	BSCL750						MY76-C ②			
Adaptador AU230-130D con matriz MY-.-C													
Adaptador AU150-C con matriz MY-.-C													
Adaptador AU520-130C con matriz MY-.-C													

N.B.: Number inside symbol indicates the number of crimps for C short barrel lugs only.

⬡ = Hexagonal crimp

⬢ = Indent crimp

○ = Circular crimp

COPPER CONDUCTORS

DIE SELECTOR CHART

APPLICATION	CONDUCTOR		CONNECTOR			HT45-E B450ND-BVA	HT51 RH50 B500A B500NDA B550CA	HT 81-U RHU 81	B1300L-CA and similar tools for U dies	B1500A	ECW-H3D	RHU520
	Conductor Size sqmm		CONNECTOR	CONNECTOR	CONNECTOR	DIE SET	DIE SET	DIE SET	DIE SET	DIE SET	DIE SET	DIE SET
	Run	Tap										
TAP-OFF ON COPPER CONDUCTOR  C.C.-ST  C.C.-C	#9 ÷ #13	#9 ÷ #15	C6-C6ST	C6-C6		MC6 ①	MC6-50 ①	MC6.25-U ①				
	#7	#7 ÷ #15	C10-C10ST	C10-C10		MC10 ①	MC10-50 ①	MC10-U ①	MC10-C ①			
	#5	#5 ÷ #15	C16-C16ST	C16-C16								
	#3 ÷ #5	#7 ÷ #15	C25-C10ST	C25-C10				MC6.25-U MC25-U	MC25-C ①			
	#3	#3 ÷ #5	C25-C25ST	C25-C25		MC25 ②	MC25-50 ②					
	#1 ÷ #2	#5 ÷ #15	C35-C16ST	C35-C16								
	#1 ÷ #2	#1 ÷ #3	C35-C35ST	C35-C35		MC35 ②	MC35-50 ②	MC35-U ①	MC35-C ①			
	1/0	#3 ÷ #7										
	2/0	#3 ÷ #15	C70-C25NST	C70-C25N								
	1/0	#3 ÷ #11	C50-C25ST	C50-C25								
	*1/0	1/0 ÷ #2	C50-C50ST	C50-C50								
	*2/0 ÷ 1/0	#1	C70-C35ST	C70-C35			*MC70-50 ③	MC70-80-U ③	MC70-C ③		MC70-3D ①	
	*2/0 ÷ 1/0	2/0 ÷ #11	C70-C70ST	C70-C70								
	4/0	#1	C95-C35ST	C95-C35								
	4/0	2/0	C95-C70ST	C95-C70								
	4/0	4/0	C95-C95ST	C95-C95				MC95-80-U ③	MC95-C ③		MC95-3D ①	
	250 ÷ 4/0	250 ÷ #3	C120-C120ST	C120-C120								
	300 MCM	250 ÷ #3										
	250 MCM	250 MCM	C150-C120ST	C150-C120								
	300 MCM	300 MCM										
	250 MCM	250 MCM	C150-C150ST	C150-C150								
	350 MCM	4/0 ÷ #5	C185-C95ST	C185-C95							MC185-3D ①	
	350 ÷ 250 MCM	350 ÷ 250 MCM	C185-C185ST	C185-C185								
	500 ÷ 300	250 ÷ 2/0	C240-C120ST	C240-C120							MC240-3D ①	

* When using die set type MC70-50, the conductors marked with a star must be annealed.

○ = oval crimp

DIE SELECTOR CHART

	APPLICATION	CONDUCTOR	CONNECTOR				HYDRAULIC TOOLS					
							B15MA	HT45-E B450ND-BVA				
COPPER CONDUCTORS	          	Conductor Size AWG	TERMINAL				SPLICE	DIE SET	NEST	INDENTOR	DIE SET	
		22 ÷ 14	A03-M.. A06-M..				L03-M / L03-P L06-M / L06-P	ME03/2-15  MA03/3-15 				
		12 ÷ 10	A1-M.. A1-L..				L1-M L1-P	ME03/2-15  MA03/3-15 	MA1 	PA 1	ME1 	
		8	A2-M.. A2-L.. A2-P12 A2-U..	A2-2M..			L2-M L2-P	ME03/2-15  ME2/3-15  MA03/3-15 	MA2.3 	PA 5	ME2 	
		6	A3-M.. A3-L.. A3-P14 A3-P22R A3-U..	A3-2M..	2A3-M..	L3-M L3-P	ME2/3-15  MA03/3-15 	ME3 				
		4	A5-M.. A5-L.. A5-P16 A5-P22R	A5-2M..	2A5-M..	L5-M L5-P		MA5 	ME5 			
		2	A7-M.. A7-L.. A7-P20	A7-2M..	2A7-M..		L7-M L7-P		MA7 	PA 10	ME7 	
		2-1/0	A10-M.. A10-L.. A10-P25	A10-2M..	2A10-M..	2A10-2M..	L10-M L10-P		MA10 		ME10 	
		1/0-2/0	A14-M.. A14-L..	A14-2M..	2A14-M..	2A14-2M..	L14-M L14-P				ME14 	
			A14-P30								ME17 	
		2/0-3/0	A19-M.. A19-L..	A19-2M..	2A19-M..	2A19-2M..	L19-M L19-P				ME19 	
		3/0-250	A24-M.. A24-L..	A24-2M..	2A24-M..	2A24-2M..	L24-M L24-P				ME24 	
		250-300 MCM	A30-M.. A30-L..	A30-2M..	2A30-M..	2A30-2M..	L30-M L30-P				ME30 	
		300-350 MCM	A37-M.. A37-L.. A37-4ESI	A37-2M..	2A37-M..	2A37-2M..	L37-M L37-P					
		350-500 MCM	A48-M.. A48-L.. A48-4ESI	A48-2M..	2A48-M..	2A48-2M..	L48-M ▲ L48-P ▲					
		500-600 MCM	A60-M.. A60-L.. A60-4ESI	A60-2M..	2A60-M..	2A60-2M..	L60-M ▲ L60-P ▲					
		800 MCM	A80-M.. A80-4ESI	A80-2M..	2A80-M..	2A80-2M..	L80-M ▲					
		1000 MCM	A100-M.. A100-4ESI	A100-2M..	2A100-M..	2A100-2M..	L100-M					
		1250 MCM	A120-M.. A120-4ESI	A120-2M..	2A120-M..	2A120-2M..	L120-M					
		1500 MCM	A160-M.. A160-4ESI	A160-2M..	2A160-M..	2A160-2M..	L160-M					
2000 MCM	A200-M..		2A200-M..	2A200-2M..	L200-M							
EXTRA FLEXIBLE COPPER CONDUCTORS		2	A9-M..					MA9 	PA10	ME9 		
		1/0	A12-M..							ME12 		
		2/0	A17-M..							ME17 		
		3/0	A20-M..							ME20 		
		250 MCM	A29-M..							ME29 		
		300 MCM	A35-M..									
		350 MCM	A40-M..									

 = Hexagonal crimp (use one size up with fine stranded conductors, E.G.: 3/0 fine stranded use A19-.. + ME 19 or A 20-.. + ME 20)

  = Indent crimp

▲ To be crimped with RHC131L, HT131L-C, B131L-CA, RHU131-C, HT131-UC and B131-UCA only

DIE SELECTOR CHART

	HYDRAULIC TOOLS																		
	HT51 RH50 B500A B500NDA B550CA			HT 81-U RHU 81		B1300L-CA and similar tools for U dies			B1500A	ECW-H3D			RHU 520						
	NEST	INDEN- TOR	DIE SET	NEST E INDENTOR	DIE SET	NEST	INDEN- TOR	DIE SET		NEST	INDENTOR	DIE SET	NEST	INDENTOR	DIE SET				
	MA1-50	PA 1-50	ME1-50																
	MA2.3-50	PA 5-50	ME2-50	MA3.5-U	ME2.19-U	MA2-C	PA 10-C	ME2-C	Adaptor AU150-C with die set ME..-C	Adaptor AU230-130D with die set MA..-C and indentor PA..-C	Adaptor AU230-130D with die set ME..-C	Adaptor AU520-130C with die set MA..-C and indentor PA..-C		Adaptor AU 520-130 C with die set ME..-C					
			ME3-50		ME3.14-U	MA3-C		ME3-C											
			MA5-50		ME5-50	ME5.7-U		MA5-C							ME5-C				
	MA7-50	PA 10-50	ME7-50	MA7.14-U	MA7-C	ME7-C													
	MA10-50		ME10-50	MA10.19-U	ME10.24-U	MA10-C	ME10-C												
	MA14-50	PA 19-50	ME14-50	MA7.14-U	ME3.14-U	MA14-C	PA 24-C	ME14-C											
			ME17-50					ME17-C											
	MA19-50		ME19-50	MA10.19-U MA19-U	ME2.19-U	MA19-C		ME19-C											
	MA24-50	PA 24-50	ME24-50	MA24-U	ME10.24-U	MA24-C		ME24-C											
			ME30-50	MA30.80-U	ME30-U	MA30-C	PA 48-C	ME30-C											
			ME37-50	MA37-U	ME37-U	MA37-C		ME37-C											
			ME48-50	MA48-U	ME48-U	MA48-C		ME48-C											
			ME60-50*			MA60-C	PA 60-C	ME60-C											
								ME80-C	Adaptor AU150-C with die set ME..-C	Adaptor AU230-130 D with die set MA..-C and indentor PA..-C	Adaptor AU230-130 D with die set ME..-C	Adaptor AU520-130C with die set MA..-C and indentor PA..-C		Adaptor AU 520-130 C with die set ME..-C					
								MA80-3D							PA100-3D	ME80-3D	MA80-520	PA120-520	ME80-520
								MA100-3D								ME100-3D	MA100-520		ME100-520
										MA120-3D	PA120-3D	ME120-3D	MA120-520		ME120-520				
													MA160-520	PA200-520	ME160-520				
													MA200-520		ME200-520				
	MA9-50	PA 10-50	ME9-50	MA9.17-U	ME9.20-U	MA9-C	PA10-C	ME9-C	Adaptor AU150-C with die set ME..-C	Adaptor AU 230-130 D with die set MA..-C and indentor PA..-C	Adaptor AU 230-130 D with die set ME..-C	Adaptor AU520-130C with die set MA..-C and indentor PA..-C		Adaptor AU 520-130 C with die set ME..-C					
	MA12-50	PA 19-50	ME12-50	MA12.20-U	ME12.17-U	MA12-C		ME12-C											
	MA17-50		ME17-50	MA9.17-U	ME12.17-U	MA17-C	PA24-C	ME17-C											
	MA20-50		ME20-50	MA12.20-U	ME9.20-U	MA20-C		ME20-C											
			ME29-50	MA29.80-U	ME29-U	MA29-C	PA48-C	ME29-C											
			ME35-50	MA35-U	ME35-U	MA35-C		ME35-C											
			ME40-50	MA40-U	ME40-U	MA40-C		ME40-C											

N.B.: Number inside symbol indicates the number of crimps on A-M barrel

* Only for B500A, B500NDA and RH50.

DIE SELECTOR CHART

COPPER CONDUCTORS

APPLICATION	CONDUCTOR	CONNECTOR		HYDRAULIC TOOLS							
				B15MD	HT45-E B450ND-BVA			HT51 RH50 B500A B500NDA			
T.-M..  L.-T.  T.-L.. 	Conductor Size AWG	TERMINAL	SPLICE	DIE SET	NEST	INDENTOR	DIE SET	NEST	INDEN- TOR	DIE SET	
	12 ÷ 10	T6-M.. T6-L..	L6-T..	MS4/10-15 	MA1 	PA1	MS6 	MA1-50 	PA1-50	MS6-50 	
	8	T10-M.. T10-L..	L10-T..	MS4/10-15 MS10/16-15 	MA2.3 	PA5	MS10 	MA2.3-50 	PA5-50	MS10-50 	
	6	T16-M.. T16-L..	L16-T..	MS10/16-15 			MS16 			MS16-50 	
	4	T25-M.. T25-L..	L25-T..		MA5 		MS25 	MA5-50 		MS25-50 	
	2	T35-M.. T35-L..	L35-T..		MA7 	PA10	MS35 	MA7-50 	PA10-50	MS35-50 	
	1/0	T50-M.. T50-L..	L50-T..		MA10 		MS50 	MA10-50 		MS50-50 	
	2/0	T70-M.. T70-L..	L70-T..				MS70 	MA14-50 	PA19-50	MS70-50 	
	3/0	T95-M.. T95-L..	L95-T..				MS95 	MA19-50 		MS95-50 	
	250 MCM	T120-M.. T120-L..	L120-T..				MS120 	MA24-50 	PA24-50	MS120-50 	
	300 MCM	T150-M.. T150-L..	L150-T..				MS150 			MS150-50 	
	350 MCM	T185-M..	L185-T..							MS185-50 	
	500 MCM	T240-M..	L240-T..							MS240-50 	
	600 MCM	T300-M..	L300-T..							MS300-50* 	
	800 MCM	T400-M..	L400-T..								

  = Indent crimp

 = Hexagonal crimp

* Only for B500A, B500NDA and RH50

DIE SELECTOR CHART

	HT81-U RHU81		B1300L-CA and similar tools for U dies			B1500A	ECW-H3D			RHU520		
	NEST	DIE SET	NEST	INDENTOR	DIE SET		NEST	INDENTOR	DIE SET	NEST	INDENTOR	DIE SET
		MS6-10-U 			MS6-C 							
	MA3.5-U 	MS6-10-U 	MA2-C 	PA10-C	MS10-C 	Adaptor AU150-C with die set MS.-C	Adaptor AU230-130D with die set MA.-C and indentor PA.-C	Adaptor AU230-130D with die set MS.-C	Adaptor AU520-130C with die set MA.-C and indentor PA.-C	Adaptor AU520-130C with die set MS.-C		
		MS16-25-U 	MA3-C 		MS16-C 							
		MS16-25-U 	MA5-C 		MS25-C 							
	MA7.14-U 	MS35-50-U 	MA7-C 	PA24-C	MS35-C 							
	MA10.19-U 	MS35-50-U 	MA10-C 		MS50-C 							
	MA9.17-U 	MS70-150-U 	MA14-C 		MS70-C 							
	MA10.19-U 	MS95-120-U 	MA19-C 	PA48-C	MS95-C 							
	MA24-U 	MS95-120-U 	MA24-C 		MS120-C 							
	MA30.80-U 	MS70-150-U 	MA30-C 		MS150-C 							
	MA35-U 	MS185-U 	MA37-C 	PA60-C	MS185-C 							
	MA48-U 	MS240-U 	MA48-C 		MS240-C 							
			MA60-C 		MS300-C 							
					MS400-C 							

DIE SELECTOR CHART

	APPLICATION	CONDUCTOR	CONNECTOR							
COPPER CONDUCTORS	ANE..-M..  ANE..-P..  ANE..-U..  AN..-M.. IN..-M.. EN..-M.. 	Conductor Size Flex AWG	TERMINAL							
		8	ANE2-M..	ANE2-P12	ANE2-U..	AN2-M..	IN2-M..	EN2-M.. ENR2-M..		
		6	ANE3-M..	ANE3-P14	ANE3-U..	AN3-M..	IN3-M..	EN3-M..		
		4	ANE5-M..	ANE5-P16		AN5-M..				
		2	ANE7-M..	ANE7-P20		AN7-M..	IN7-M..	EN7-M..		
		2-1/0	ANE10-M..			AN10-M..	IN10-M..	EN10-M.. ENR10-M..		
		1/0-2/0	ANE14-M..			AN14-M..	IN14-M..	EN14-M..		
		2/0-3/0	ANE19-M..			AN19-M..	IN19-M..	EN19-M..		
		3/0-250	ANE24-M..			AN24-M..	IN24-M..	EN24-M..		
		250-300 MCM	ANE30-M..			AN30-M..	IN30-M..	EN30-M..		
		300-350 MCM					IN37-M.. INR37-M..			
		500 MCM					IN48-M..	EN48-M..		
		600 MCM					IN60-M..	EN60-M..		
		800 MCM					IN80-M..	EN80-M..		
EXTRA FLEXIBLE COPPER CONDUCTORS	ANE..-M.. 	2	ANE9-M..							
		1/0	ANE12-M..							
		2/0	ANE17-M..							
		3/0	ANE20-M..							
		250 MCM	ANE29-M..							
		300 MCM	ANE35-M..							
COPPER CONDUCTORS	PK ...  KE ... 	Conductor Size Flex AWG	TERMINAL							
		22 ÷ 12	PKD506÷PKD418	PKE508÷PKE418	PKC508÷PKC418	KE506÷KE412				
		12 ÷ 6	PKD410÷PKD1618	PKE410÷PKE1618	PKC410÷PKC1618	KE410÷KE1616				
		5	PKD16..	PKE16..	PKC16..	KE16..				
		3	PKD25..	PKE25..	PKC25..	KE25..				
		2	PKD35..		PKC35..	KE35..				
		1/0	PKD50..		PKC50..					
		2/0			PKC70..					
		3/0			PKC95..					
		250 MCM			PKC120..					
	PKT ... 	Conductor Size Flex AWG	TERMINAL							
		2 x 20	PKT508 PKT510							
		2 x 18	PKT7508 PKT7510							
		2 x 17	PKT108 PKT110							
		2 x 16	PKT1508 PKT1512							
		2 x 14	PKT2510 PKT2512							
		2 x 12	PKT412							
		2 x 10	PKT614							
		2 x 8÷7	PKT1014							
		2 x 6÷5	PKT1614							

☺ = Indent crimp

○ = Radial crimp

▽ = Trapezium crimp

DIE SELECTOR CHART

	HYDRAULIC TOOLS										
	B15MA		HT45-E B450ND-BVA	HT51 RH50 B500A B500NDA B550CA	B1300L-CA and similar tools for U dies			B1500A	ECW-H3D		
	DIE SET			DIE SET	NEST	INDENTOR	DIE SET	DIE SET	NEST	INDENTOR	
	NN4-15 			MN2RF-50 	MN2-C 	PN7-C	MN2RF-C 	Adaptor AU150-C with die set MN..-C and indenter PN..-C or with die set MN..RF-C and die set MN..F-C		Adaptor AU230-130D with die set MN..-C and indenter PN..-C or with die set MN..RF-C and die set MN..F-C	
				MN3RF-50 	MN3-C 		MN3RF-C 				
				MN5RF-50 	MN5-C 		MN5RF-C 				
				MN7RF-50 	MN7-C 		MN7RF-C 				
				MN10RF-50 	MN10-C 	PN14-C	MN10RF-C 				
				MN14RF-50 	MN14-C 		MN14RF-C 				
				MN19RF-50 	MN19-C 	PN24-C	MN19RF-C 				
				MN24RF-50 	MN24-C 		MN24RF-C 				
						MN30-C 	PN37-C				MN30RF-C 
				MN7RF-50 	MN9-C 	PN14-C	MN7RF-C 	Adaptor AU150-C with die set MN..-C and indenter PN..-C or with die set MN..RF-C and die set MN..F-C		Adaptor AU230-130D with die set MN..-C and indenter PN..-C or with die set MN..RF-C and die set MN..F-C	
			MN12F-50 	MN12-C 	MN12F-C 						
			MN17F-50 	MN17-C 	PN24-C	MN17F-C 					
			MN20F-50 	MN20-C 		MN20F-C 					
				MN29-C 	PN37-C	MN29F-C 					
				MN35-C 		MN35F-C 					
	DIE SET			DIE SET							
	KE4-15 										
	KE16-15 										
	KE35-15 			MTT16-50 							
				MTT25-50 							
				MTT35-50 							
				MTT50-50 							
				MTT70-50 							
				MTT95-50 							
				MTT120-50 							
	DIE SET	COMP. APERTURE		DIE SET							
	KE4-15 	1									
			1,5								
			2,5								
			2,5								
	KE4-15  KE16-15	4									
	KE16-15 	6									
			10								
	KE16-15  KE35-15	16		MTT16-50 							
	KE35-15 	35		MTT35-50 							

DIE SELECTOR CHART

	APPLICATION	CONDUCTOR	CONNECTOR		HYDRAULIC TOOLS			
					B15MA	HT45-E B450ND-BVA	HT51 RH50 B500A B500NDA B550CA	
DIN 46234		Conductor Size AWG	LUGS	SPLICES	DIE SET	DIE SET	DIE SET	
		10÷8	Q10-..				MQ10-50 	
		8÷6	Q16-..				MQ16-50 	
		6÷4	Q25-..				MQ25-50 	
		4÷2	Q35-..				MQ35-50 	
		2÷1/0	Q50-..				MQ50-50 	
		1/0÷2/0	Q70-..				MQ70-50 	
		2/0÷3/0	Q95-..					
		3/0÷250	Q120-..					
		250÷300 MCM	Q150-..					
		300÷350 MCM	Q185-..					
		350÷500 MCM	Q240-..					
DIN 46235 - 46267 T.1		10	DR6-..	DSV6	MK5/8-15 	MK5 	MK5-50 	
		8	DR10-..	DSV10		MK6 	MK6-50 	
		6	DR16-..	DSV16		MK8 	MK8-50 	
		4	DR25-..	DSV25		MK10 	MK10-50 	
		2	DR35-..	DSV35		MK12 	MK12-50 	
		1/0	DR50-..	DSV50		MK14 	MK14-50 	
		2/0	DR70-..	DSV70		MK16 	MK16-50 	
		3/0	DR95-..	DSV95		MK18 	MK18-50 	
		250	DR120-..	DSV120		MK20 	MK20-50 	
		300MCM	DR150-..	DSV150		MK22L 	MK22-50 	
		350 MCM	DR185-..	DSV185			MK25-50 	
		500 MCM	DR240-..	DSV240			MK28-50 	
		600 MCM	DR300-..	DSV300			MK32-50* 	
		800 MCM	DR400-..	DSV400				
		1000 MCM	DR500-..	DSV500				
		1200 MCM	DR625-..	DSV625				
		1500 MCM	DR800-..	DSV800				
		2000 MCM	DR1000-..	DSV1000				

 = Indent crimp

 = Hexagonal crimp

* Only for B500A, B500NDA and RH50

NB: for through connectors this is the number of crimps per conductor

DIE SELECTOR CHART

	HYDRAULIC TOOLS							
	HT81-U RHU81 ⬇		B1300L-CA and similar tools for U dies		ECW-H3D		RHU520	
	DIE SET		NEST		INDENTOR	NEST	INDENTOR	
	MQ10-50		MQM10-C		MQS16-C	Adaptor AU230-130D with die set MQ...		Adaptor AU520-130C with die set MQ...
	MQ16-50		MQM16-C					
	MQ25-50		MQM25-C		MQS35-C			
	MQ35-50		MQM35-C					
	MQ50-50		MQM50-C		MQS70-C			
	MQ70-50		MQM70-C					
			MQM95-C		MQS150-C			
			MQM120-C					
			MQM150-C					
			MQM185-C		MQS240-C			
			MQM240-C					
	MK5-50		MK5-C		Adaptor AU230-130D with die set MK..-C	Adaptor AU520-130C with die set MK..-C		
	MK6-50		MK6-C					
	MK8-50		MK8-C					
	MK10-50		MK10-C					
	MK12-50		MK12-C					
	MK14-50		MK14-C		MK14-3D			
	MK16-50		MK16-C		MK16-3D			
	MK18-50		MK18-C		MK18-3D			
	MK20-50		MK20-C		MK20-3D			
	MK22-50		MK22-C		MK22-3D			
	MK25-50		MK25-C		MK25-3D			
	MK28-50		MK28-C		MK28-3D			
			MK32-C		MK32-3D			
					MK38-3D		MK38-520	
					MK42-3D		MK42-520	
					MK44-3D		MK44-520	
							MK52-520	
							MK58-520	

◊ Tools type HT 81-U and RHU 81 with adaptor type 6780232 can use the same dies of HT 51 but are equipped with spring type 6522051

DIE SELECTOR CHART

COPPER CONDUCTORS													
APPLICATION	CONDUCTOR		CONNECTOR			HYDRAULIC TOOLS							
	Run	Conductor Size AWG Tap	CONNECTOR	CONNECTOR		HT45-E B450ND-BVA	HT51 B500A	RH50 B500NDA B550CA	HT 81-U RHU 81	B1300L-CA and similar tools for U dies	ECW-H3D	RHU520	
	2/0	2/0	H70-H70	H70-H70ST						DIE SET	DIE SET	DIE SET	
	4/0	4/0	H95-H95	H95-H95ST						MRH26-C ①	Adaptor AU230-130-D with die set MRH.-C	Adaptor AU520-130-C with die set MRH.-C	
	250MCM	250 MCM	H120-H120	H120-H120ST						MRH30-C ①			
										MRH32-C ①			
	Cond. Size sqmm		CONNECTOR	CONNECTOR						DIE SET	DIE SET	DIE SET	
	2 x 1/0		DK50-M12							MRD22-C ②			
	2 x 2/0		DK70-M12	DK70-2M12-51AS						MRD24-C ②	Adaptor AU230-130-D with die set MRD.-C	Adaptor AU520-130-C with die set MRD.-C	
	2 x 4/0		DK95-M12	DK95-2M12-51AS						MRD29-C ②			
	2 x 250 MCM		DK120-M12	DK120-2M12-51AS						MRD32-C ②			
	Cond. Size sqmm		CONNECTOR	CONNECTOR		DIE SET	DIE SET	DIE SET	DIE SET	DIE SET	DIE SET	DIE SET	
	2/0		DR70-2M12-51AS			MK16 ③	MK16-50 ③	MK16-50 ③	MK16-50 ③	MK16-C ①	MK16-3D ②	Adaptor AU520-130-C with die set MK.-C	
	4/0		DR95-2M12-51AS			MK18 ④	MK18-50 ④	MK18-50 ④	MK18-50 ④	MK18-C ②	MK18-3D ②		
	250MCM		DR120-2M12-51AS			MK20 ④	MK20-50 ④	MK20-50 ④	MK20-50 ④	MK20-C ②	MK20-3D ②		

APPLICATION	CONDUCTOR		CONNECTOR				HYDRAULIC TOOLS					ECW-H3D	RHU520
	Cond. Size sqmm	SPLICE	TERMINAL		HT 81-U RHU 81	B1300L-CA and similar tools for U dies	B1500A	DIE SET					
 <													

* When using die set type MC70-50, the conductors marked with a star must be annealed.

○ = Hexagonal crimp ○ = oval crimp ○ = circular crimp

DIE SELECTOR CHART FOR DEEP STEPPED INDENTING WITH CONTAINING DIES

APPLICATION	CONDUCTOR	CONNECTOR			HYDRAULIC TOOLS		
		CONDUCTOR SIZE AWG	LUGS	CONNECTOR	DIE HOLDER	DIE	INDENTOR
 CAA-ML  MTA-C	8	CAA10-ML			AU130-150	MV35	PS130-35/E
	6	CAA16-ML		MTA16-C		MUA35	
	4	CAA25-ML		MTA25-C			
	2	CAA35-ML		MTA35-C			
	1/0	CAA50-ML		MTA50-C		MVA95	PS130-95/E
	2/0	CAA70-ML		MTA70-C			
	3/0	CAA95-ML		MTA95-C			
	250 MCM	CAA120-ML		MTA120-C	AU130-240	MVA150	PS130-150/E
	300 MCM	CAA150-ML		MTA150-C			
	350 MCM	CAA185-ML		MTA185-C		MVA240	PS130-240/E
	500 MCM	CAA240-ML		MTA240-C			
	600 MCM	CAA300-34ML				MUA300-34	
 AA-ML	Conductor Size AWG	LUGS			DIE HOLDER	DIE	INDENTOR
	6	AA16-ML			AU130-150	MUA35	PS130-35/E
	4	AA25-ML					
	2	AA35-ML					
	1/0	AA50-ML				MUA95	PS130-95/E
	2/0	AA70-ML					
	3/0	AA95-ML					
	250 MCM	AA120-ML			AU130-240	MUA150	PS130-150/E
	300 MCM	AA150-ML					
	350 MCM	AA185-ML				MUA240	PS130-240/E
	500 MCM	AA240-ML				MUA300-34	
	600 MCM	AA300-34ML					

 = Deep indent crimp

ALUMINIUM CONDUCTORS

DIE SELECTOR CHART FOR DEEP STEPPED INDENTING WITH CONTAINING DIES

ALUMINIUM CONDUCTORS	Conductor Size AWG	SPLICE	Conductor Size AWG		SPICES	HYDRAULIC TOOLS		INDENTOR	
			AI	Al/Cu		DIE HOLDER	DIE		
 MTMA...GC	8	MTMA10-GC							
	6	MTMA16-GC	6	8	MTMA16-10GC				
	4	MTMA25-GC	4	8	MTMA25-10GC		MUA35		PS130-35/E
			4	6	MTMA25-16GC				
	2	MTMA35-GC							
	1/0	MTMA50-GC	1/0	5	MTMA50-25GC				
			1/0	2	MTMA50-35GC				
	2/0	MTMA70-GC	2/0	2	MTMA70-35GC				
			2/0	1/0	MTMA70-50GC				
	3/0	MTMA95-GC	3/0	1/0	MTMA95-50GC				
			3/0	2/0	MTMA95-70GC				
	250 MCM	MTMA120-GC	250 MCM	2/0	MTMA120-70GC				
	300 MCM		250 MCM	3/0	MTMA120-95GC				
		MTMA150-GC	300 MCM	2/0	MTMA150-70GC				
	350 MCM		300 MCM	3/0	MTMA150-95GC				
			300 MCM	250 MCM	MTMA150-120GC				

 = Deep indent crimp

PRE-ROUNDERS SELECTION		DIES DESCRIPTION		DIES SEQUENCE	
ALUMINIUM CONDUCTOR SIZE sqmm	PRE-ROUNDER	DIE-SUPPORT		CONDUCTOR ROUNDING	CHIMING
3			1) AU 130...-P, DIE-HOLDER Used to house dies and pre-rounders. 2) UP 130...-P, PRE-ROUNDERS Used to round aluminium sectoral conductors in order to introduce them into circular connectors. Each pre-rounder is made of two parts: the upper part is housed in die-holder AU 130... and the lower part is locked onto AC 130-P, die support. 3) AC 130...-P, DIE-SUPPORT Houses lower part of pre-rounder UP 130.... 4) MUA...-DIES Containing dies. 5) PS 130...-E INDENTORS Such indentors are specifically engineered for deep indentation of aluminium conductors of any stranding configuration.	1	1
2		AC 130-P		2	4
1/0				3	5
2/0					
3/0					
250 MCM					
300 MCM					
350 MCM					
500 MCM					
600 MCM					

DIE SELECTOR CHART

APPLICATION	CONDUCTOR	CONNECTOR	HYDRAULIC TOOLS									
			B1300L-CA and similar tools for U dies	HT131-UC RHU131-C B1350-UCA B1300-UCA				ECW-H3D	RHU230-630			
				INDENT CRIMP					ADAPTOR	DIE	INDENTOR	
CONDUCTOR SIZE AWG	LUGS	HEXAGONAL CRIMP	DIE SET	DIE HOLDER	DIE	INDENTOR	DIE SET					
 CAA-ML	600 MCM	CAA300-34-ML	MK34L-C	AU130-240	MUA300-34	PS130-240/E	MK34-3D					
	600 MCM	CAA300-M16					MK38-3D		AU 230-630	MV230-400MC5E	PS230-400 5E	
	800 MCM	CAA400-M16										
	1000 MCM	CAA500-M16TMBD										
	1250 MCM	CAA630-4M8					MK46-3D		MV230-630MC6E	PS230-630 6E		
 AA-ML	600 MCM	AA300-34-ML	MK34L-C	AU130-240	MUA300-34	PS130-240/E	MK34-3D					
	600 MCM	AA300-M16					MK38-3D		AU 230-630	MUA230-630-400	PS230-400 5E	
	800 MCM	AA400-M16										
	1000 MCM	AA500-40-M16										
	1250 MCM	AA630-M16					MK46-3D		MUA230-630-630	PS230-630 6E		
 MTMA-ML	600 MCM	MTMAD300/1	600 MCM	Al	Conductor Size AWG	SPLICE	MUA300-34	PS130-240/E	MK34-3D			
				Al/Cu	3/0	MTMAD300-95-GC						
		300 MCM		MTMAD300-150-GC								
		350 MCM		MTMAD300-185-GC								
	600 MCM	MTMAD300-GC	500 MCM	MTMAD300-240-GC								
			600 MCM	MTMA300-GC								
	800 MCM	MTMA400/1	800 MCM	500 MCM	MTMA400-240-GC				AU 230-630	MVM230-400MU5E	PS230-400 5E	
	600 MCM	MTMA400-300-GC										
	1000 MCM	MTMA500-40/1										
	1000 MCM	MTMA500-GC	1000 MCM	600 MCM	MTMA500-300-GC							
1250 MCM	MTMA630/1		800 MCM	MTMA500-400-GC								

 = Deep indent crimp
  = Hexagonal crimp

ALUMINIUM CONDUCTORS

MUT DIES CROSS REFERENCE CHART

DIE INDEX	DIE TYPE			
	 14.6 tons tools 131 series	 6 tons tools 51 series	 6 tons tools 45 series	 6 & 6.4 tons tools 54 & 55 series
161	MUT9999-C	MUT9999-50	MUT9999	MUT9999-W
162	MUT9998-C	MUT9998-50	MUT9998	MUT9998-W
163	MUT9997-C	MUT9997-50	MUT9997	MUT9997-W
164	MUT9996-C	MUT9996-50	MUT9996	MUT9996-W
166	MUT9995-C	MUT9995-50	MUT9995	MUT9995-W
167	MUT9958-C	-	-	MUT9958-W
168	MUT9974-C	-	-	-
169	MUT9979-C	-	-	-
170	MUT9973-C	-	-	-
203	MUT9943-C	MUT9943-50	-	MUT9943-W
204	MUT9941-C	MUT9941-50	-	MUT9941-W
209	MUT9972-C	-	-	-
239	MUT9993-C	MUT9993-50	MUT9993	MUT9993-W
242	MUT9967-C	-	-	-
243	MUT9991-C	MUT9991-50	MUT9991	MUT9991-W
247	-	MUT9954-50	-	MUT9954-W
249	MUT9990-C	MUT9990-50	MUT9990	MUT9990-W
253	MUT9957-C	-	-	-
255	MUT9962-C	-	-	-
261	MUT9956-C	-	-	-
296*	 beige MUT9924-C	-	-	-
297*	 yellow olive MUT9923-C	-	-	-
298*	 white MUT9921-C	-	-	-
299*	 brown MUT9918-C	-	-	-
300*	 pink MUT9916-C	-	-	-
305	MUT9977-C	-	-	-
316	MUT9976-C	-	-	-
317	MUT9965-C	-	-	-
322	MUT9971-C	-	-	-
324*	 red MUT9920-C	-	-	-
327	MUT9961-C	-	-	-
346*	 grey MUT9928-C	-	-	-
348*	 pink MUT9926-C	-	-	-
373	MUT9989-C	MUT9989-50	-	MUT9989-W
374*	 blue MUT9929-C	-	-	-
375*	 green MUT9927-C	-	-	-
467*	 rubin MUT9922-C	-	-	-
470*	 blue MUT9919-C	-	-	-
471*	 gold MUT9925-C	-	-	-
472*	 green MUT9917-C	-	-	-
473*	 black MUT9915-C	-	-	-
490	MUT9966-C	-	-	-
642	MUT9970-C	-	-	-
654	MUT9975-C	MUT9975-50	-	-
655	MUT9968-C	-	-	-
658	MUT9988-C	MUT9988-50	-	MUT9988-W
659	MUT9987-C	MUT9987-50	MUT9987	MUT9987-W
936*	 yellow MUT9914-C	-	-	-
698	MUT9986-C	MUT9986-50	MUT9986	MUT9986-W
699	MUT9985-C	MUT9985-50	-	MUT9985-W
708	MUT9959-C	-	-	-
756	MUT9964-C	-	-	-
788	MUT9950-C	-	-	-
790	MUT9969-C	-	-	-
BG	MUT9984-C	MUT9984-50	-	MUT9984-W
C	MUT9983-C	MUT9983-50	MUT9983	MUT9983-W
D	MUT9978-C	-	-	-
D3	MUT9981-C	MUT9981-50	-	-
E	MUT9982-C	MUT9982-50	-	MUT9982-W
F	MUT9960-C	-	-	-
K840	-	-	-	MUT9942-W
N	MUT9955-C	-	-	-
O	MUT9980-C	MUT9980-50	-	MUT9980-W

*Stainless steel dies

APPENDIX



Type/Code Cross-Reference chart

Type	Code	Type	Code	Type	Code	Type	Code	Type	Code
1112	3005715	2163	3051145	7032007	3010604	1143M25G	3005232	1500.34	3002130
1116	3005720	2164	3051150	7032009	3010606	1143M25N	3005231	1500.34N	3002131
1120	3005725	2171	3051310	7032011	3010608	1143M32	3005235	1500.38	3002115
1125	3005730	2172	3051315	7032013	3010610	1143M32G	3005237	1500.38N	3002116
1132	3005735	2173	3051320	7032016	3010614	1143M32N	3005236	1500.M12	3002205
1140	3005740	2174	3051325	7032021	3010616	1143M40	3005240	1500.M12N	3002206
1150	3005745	2176	3051430	7032029	3010618	1143M40G	3005242	1500.M16	3002210
1163	3005750	2323	3052010	7032036	3010620	1143M40N	3005241	1500.M16N	3002211
1400	3003110	2326	3052020	7032042	3010622	1143M50	3005245	1500.M20	3002215
1401	3003114	2329	3052030	7032048	3010624	1143M50G	3005247	1500.M20N	3002216
1402	3003120	2333	3052110	35720131	3017446	1143M50N	3005246	1500.M25	3002220
1403	3003125	2336	3052120	5116660250	3061210	1143M63	3005250	1500.M25N	3002221
1404	3003130	2339	3052130	5116660500	3061215	1143M63G	3005252	1500.M32	3002225
1405	3003135	2342	3052140	5313022048	3061605	1143M63N	3005251	1500.M32N	3002226
1407	3003155	2344	3052150	5523036090	3061610	1150N	3005746	1618.90	3041350
1408	3003170	2346	3052160	5527030079	3061615	1153M1612	3018860	1626.90	3041360
1410	3005610	3601	3026020	1719E17	3005581	1153M2012	3018862	1636.90	3041370
1411	3005615	3602	3026030	1714E34	3005572	1153M2016	3018864	1651.90	3041380
1412	3005620	3603	3026040	1052007N	3005901	1153M2016N	3018865	1676.90	3041390
1414	3005630	180709	3017610	1052009N	3005904	1153M2512	3018866	1700.2	3004015
1415	3005635	180911	3017620	1052011N	3005907	1153M2516	3018868	1700.2N	3004016
1700	3003015	180913	3017625	1052013N	3005910	1153M2520	3018870	1700N	3003016
1701	3003020	181113	3017630	1052016N	3005913	1153M2520N	3018871	1700P	3006015
1702	3003025	181116	3017640	1052021N	3005916	1153M3216	3018874	1700T	3003515
1703	3003030	181316	3017650	1052029N	3005919	1153M3220	3018876	1700TN	3003516
1704	3003035	181321	3017655	1052036N	3005922	1153M3225	3018878	1701.2	3004020
1705	3003040	181621	3017660	1052042N	3005925	1153M3225N	3018879	1701.2N	3004021
1706	3003045	182129	3017670	1052048N	3005928	1153M4020	3018882	1701N	3003021
1707	3003050	182936	3017680	1053M12	3005958	1153M4025	3018884	1701P	3006020
1708	3003055	183642	3017690	1053M12N	3005959	1153M4032	3018886	1701PN	3006021
1709	3003010	184248	3017700	1053M16	3005961	1153M5025	3018890	1701T	3003517
1710	3005515	1052007	3005900	1053M16N	3005962	1153M5032	3018892	1701TN	3003518
1711	3005520	1052009	3005903	1053M20	3005964	1153M5040	3018894	1702.2	3004025
1712	3005525	1052011	3005906	1053M20N	3005965	1153M6332	3018898	1702.2N	3004026
1713	3005530	1052013	3005909	1053M25	3005967	1153M6340	3018900	1702.5	3004425
1714	3005535	1052016	3005912	1053M25N	3005968	1153M6350	3018902	1702.5N	3004426
1715	3005540	1052021	3005915	1053M32	3005970	1163N	3005751	1702CONC	3003523
1719	3005510	1052029	3005918	1053M32N	3005971	1173M1216	3018810	1702CONCN	3003524
1830	3004110	1052036	3005921	1053M40	3005973	1173M1620	3018812	1702N	3003026
1831	3004115	1052042	3005924	1053M40N	3005974	1173M2025	3018814	1702P	3006025
1832	3004120	1052048	3005927	1053M50	3005976	1173M2532	3018816	1702PN	3006026
1835	3004222	1141012	3005120	1053M50N	3005977	1173M3240	3018820	1702T	3003519
1836	3004225	1141112	3005155	1053M63	3005979	1253M12	3006750	1703.2	3004030
1840	3006610	1141200	3005170	1053M63N	3005980	1253M12N	3006751	1703.5	3004430
1841	3006615	1142007	3005010	1112N	3005716	1253M16	3006755	1703P	3006030
1842	3006620	1142009	3005015	1116N	3005721	1253M16N	3006756	1704.2	3004035
1843	3006625	1142011	3005020	1120N	3005726	1253M20	3006760	1704P	3006035
1844	3006630	1142013	3005025	1125N	3005731	1253M20N	3006761	1705.2	3004040
1845	3006635	1142016	3005030	1132N	3005736	1253M25	3006765	1710N	3005516
1846	3006640	1142021	3005035	1140N	3005741	1253M25N	3006766	1711N	3005521
1847	3006645	1142029	3005040	1141012N	3005121	1253M32	3006770	1712N	3005526
1848	3006650	1142036	3005045	1141112N	3005156	1253M32N	3006771	1713N	3005531
1849	3006655	1142042	3005050	1141200N	3005171	1253M40	3006775	1714N	3005536
1861	3004515	1142048	3005055	1142007G	3005012	1253M40N	3006776	1715N	3005541
1862	3004520	2021012	3014120	1142007N	3005011	1253M50	3006780	1719E17N	3005580
1866	3004615	2021014	3014110	1142009G	3005017	1253M50N	3006781	1719N	3005511
1880	3016215	2021034	3014130	1142009N	3005016	1253M63	3006785	1730M20	3003225
1881	3016220	2021038	3014115	1142011G	3005022	1253M63N	3006786	1730M20N	3003226
1882	3016225	2021058	3014125	1142011N	3005021	1401B	3003116	1830N	3004111
1883	3016230	2021100	3014135	1142013G	3005027	1401BN	3003117	1831N	3004116
1884	3016235	2021112	3014155	1142013N	3005026	1401N	3003115	1832N	3004121
1885	3016240	2021114	3014145	1142016G	3005032	1402N	3003121	1836N	3004226
1886	3016245	2021118	3014140	1142016N	3005031	1410N	3005611	1840N	3006611
1887	3016250	2021200	3014170	1142021G	3005037	1411N	3005616	1841N	3006616
1888	3016255	3411012	3016645	1142021N	3005036	1412N	3005621	1842N	3006621
1889	3016405	3411014	3016615	1142029G	3005042	1414N	3005631	1843N	3006626
1890	3016410	3411034	3016665	1142029N	3005041	1415N	3005636	1844N	3006631
1891	3016430	3411038	3016625	1142036G	3005047	1500.07	3002010	1845N	3006636
1892	3016440	3411100	3016695	1142036N	3005046	1500.07N	3002011	1846N	3006641
1893	3016460	3412011	3016635	1142042G	3005052	1500.09	3002015	1847N	3006646
1894	3016480	3412016	3016657	1142042N	3005051	1500.09N	3002016	1848N	3006651
1895	3016490	3412021	3016685	1142048G	3005057	1500.11	3002020	1849N	3006656
1896	3016500	3412029	3016705	1142048N	3005056	1500.11N	3002021	1861N	3004516
1897	3016510	3422016	3016658	1143M12	3005215	1500.12	3002120	1862N	3004521
1898	3016520	3431100	3016895	1143M12G	3005217	1500.12N	3002121	1866N	3004616
1899	3016530	3441012	3017045	1143M12N	3005216	1500.13	3002025	1884A	3016236
2155	3051010	3441034	3017065	1143M16	3005220	1500.13N	3002026	1888/5	3016256
2156	3051015	3572007	3017410	1143M16G	3005222	1500.14	3002110	1890A	3016420
2157	3051020	3572011	3017430	1143M16N	3005221	1500.14N	3002111	1891A	3016431
2158	3051125	3572013	3017445	1143M20	3005225	1500.16	3002030	1892A	3016450
2160	3051130	3572016	3017455	1143M20G	3005227	1500.16N	3002031	1892B	3016451
2161	3051135	3572021	3017480	1143M20N	3005226	1500.21	3002035	1893A	3016461
2162	3051140	6010.114	3016070	1143M25	3005230	1500.21N	3002036	1899A	3016535

Type/Code Cross-Reference chart

Type	Code	Type	Code	Type	Code	Type	Code	Type	Code
1899B	3016540	1900DP.11	3001156	1910.M16	3001710	2032048N	3015556	20A43221N	3018621
1900.07	3001010	1900DP.13	3001159	1910.M16G	3001712	2033M12N	3015751	20M3M1261N	3011410
1900.07/X	3001077	1900DP.16	3001162	1910.M16N	3001711	2033M16N	3015756	20M3M1661N	3011412
1900.07G	3001012	1900DP.21	3001165	1910.M20	3001715	2033M20N	3015761	20M3M2061N	3011414
1900.07N	3001011	1900DP.29	3001168	1910.M20G	3001717	2033M25N	3015766	20M3M2561N	3011416
1900.09	3001015	1900DP.36	3001171	1910.M20N	3001716	2033M32N	3015771	20M3M3261N	3011418
1900.09/X	3001080	1900DP.42	3001174	1910.M25	3001720	2033M40N	3015776	20M3M4061N	3011420
1900.09G	3001017	1900DP.48	3001177	1910.M25G	3001722	2033M50N	3015781	20M3M5061N	3011422
1900.09N	3001016	1900DP.M12	3013380	1910.M25N	3001721	2033M63N	3015786	20M3M6361N	3011424
1900.11	3001020	1900DP.M16	3013383	1910.M32	3001725	20420907N	3017810	20N3M12N	3015810
1900.11/X	3001083	1900DP.M20	3013386	1910.M32G	3001727	20421107N	3017820	20N3M16N	3015812
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1900.M32	3001235	1910.11N	3001527	2031038N	3015616	20932532N	3017711	2901.M25N	3012656
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Type/Code Cross-Reference chart

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2910.M50N	3012722	2A48-M20	2508190	4900.M20	3002756	7900.29	3010030	A14-2M102426/345	2241572
2910.M63N	3012724	2A5-M10	2500570	4900.M25	3002759	7900.36	3010035	A14-2M12	2241605
2911.07N	3012110	2A5-M12	2500650	4900.M32	3002762	7900.42	3010040	A14-2M12-25	2241590
2911.09N	3012113	2A5-M8	2500530	4900.M40	3002765	7900.48	3010045	A14-2M12-30-29	2241592
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2A48-2M14	2508410	4900.36	3002731	7900.09	3010005	A12-M6/15	2230210	A24-2M102429/345	2281827
2A48-2M16	2508430	4900.42	3002734	7900.11	3010010	A12-M8	2230230	A24-2M10-25/24	2281817
2A48-M12	2508030	4900.48	3002737	7900.13	3010015	A14-2M10	8008438	A24-2M10-33.5	2281825

Type/Code Cross-Reference chart

Type	Code	Type	Code	Type	Code	Type	Code	Type	Code
A24-2M12	2281930	A37-2M16-40	2320990	A60-2M12-40	2350610	ANE10-M6	2439350	ASC55-MULTI8-US	2598518
A24-2M12-30-29	2281910	A37-4ESI	2321510	A60-2M14	2350660	ANE10-M8	2439360	AU130-150	2615560
A24-2M123029/345	2281911	A37B-M10/24.5	2320120	A60-2M16	2350740	ANE12-M10	2442220	AU130-240	2615590
A24-2M12-40	2281920	A37-L10	2320510	A60-2M16/36	8008380	ANE12-M10/19	2442225	AU150-C	2619910
A24-2M14	2282210	A37-L12	2320550	A60-2M16-35	2350750	ANE12-M12	2442230	AU230-130-D	2636960
A24-2M16	2282213	A37-M10	2320110	A60-2M16-40	2350730	ANE12-M6/15	2442200	AU520-130-C	2648230
A24-2M8-20	2281780	A37-M12	2320150	A60-4ESI	2350850	ANE12-M8	2442210	AU55-50	2672515
A24-2M8-24-29	2281790	A37-M14	2320190	A60B-M10/31	2350033	ANE14-M10	2446430	AU55-B	2672510
A24-2M8-2429/345	2281791	A37-M16	2320230	A60B-M12/31	2350072	ANE14-M12	2446440	AU55-K	2672512
A24B-2M8-25/19	2281777	A37-M20	2320270	A60-L12	2351010	ANE14-M14	2446450	AWC300	3065402
A24B-2M8-45/19	2281779	A37-M8	2320070	A60-M10	2350030	ANE14-M6	2446410	B1300-CA	2599351
A24B-M10/19	2280155	A3-L10	2180659	A60-M12	2350070	ANE14-M8	2446420	B1300-CA-KV	2599389
A24B-M8/19	2280115	A3-L12	2180670	A60-M14	2350150	ANE17-M10	2447260	B1300L-CA	2599359
A24-L10	2281010	A3-L5	2180620	A60-M16	2350190	ANE17-M10/19	2447265	B1300L-CA-KV	2599381
A24-L12	2281050	A3-L6	2180630	A60-M20	2350230	ANE17-M12	2447270	B1300PLA	2598541
A24L-2M10-30AS	2281840	A3-L8	2180640	A7-2M10	8008441	ANE17-M14	2447280	B1350-CA	2599322
A24-M10	2280150	A3-M10	2180270	A7-2M10-25	2201190	ANE17-M16	2447290	B1350-CA-KV	2599341
A24-M12	2280190	A3-M12	2180310	A7-2M12	2200998	ANE17-M6	2447240	B1350L-CA	2599328
A24-M14	2280230	A3-M4	2180030	A7-2M12-25	2200990	ANE17-M8	2447250	B1350L-CA-KV	2599346
A24-M16	2280270	A3-M5	2180110	A7-2M12-40	2200995	ANE19-M10	2449520	B1500A	2599305
A24-M20	2280310	A3-M5/9	2180120	A7-2M8	8008632	ANE19-M12	2449530	B15MA	2599841
A24-M8	2280110	A3-M6	2180150	A7B-M6/11.5	2200120	ANE19-M14	2449540	B500A	2596211
A29-M10	2290270	A3-M8	2180190	A7-L10	2200790	ANE19-M16	2449550	B500A-KV	2596206
A29-M12	2290310	A3-P14	2180830	A7-L12	2200830	ANE19-M8	2449510	B500NDA	2596221
A29-M14	2290350	A3-P22R	2180840	A7-L6	2200710	ANE20-M10	2451320	B550CA	2598975
A29-M16	2290390	A3-P22R/45	2180843	A7-L8	2200750	ANE20-M12	2451330	B68M-P18A	2596164
A29-M20	2290430	A3-U4	2181990	A7-M10	2200190	ANE20-M14	2451340	B70M-P36A	2596031
A29-M8	2290230	A3-U5	2182000	A7-M12	2200230	ANE20-M16	2451350	B70M-P36A-CH	2596040
A2-L10	2170860	A40-M10	2330230	A7-M5	2200070	ANE20-M8	2451310	BA-3	2598424
A2-L12	2170870	A40-M12	2330270	A7-M6	2200110	ANE24-M10	2453530	BCB1-WA	3066006
A2-L4	2170810	A40-M14	2330310	A7-M8	2200150	ANE24-M12	2453550	BCB2-WA	3066008
A2-L5	2170820	A40-M16	2330350	A7-P20	2201750	ANE24-M14	2453570	B-FC470A	2598881
A2-L6	2170830	A40-M20	2330390	A80-2M12	2360450	ANE24-M16	2453590	B-FL750A	2598866
A2-L8	2170850	A48-2M10	2340750	A80-2M14	2360510	ANE29-M10	2456010	B-FL750NDA	2598791
A2-M10	2170270	A48-2M10-20	2340730	A80-2M14-40	2360500	ANE29-M12	2456030	BF-BF5	2053630
A2-M12	2170310	A48-2M10-35	2340740	A80-2M16	2360605	ANE29-M14	2456050	BF-BM5	2053660
A2-M4	2170070	A48-2M12	2340820	A80-2M16/41	8008382	ANE29-M16	2456070	BF-F405	2053560
A2-M5	2170150	A48-2M12/345	2340775	A80-2M16-40	2360600	ANE29-M20	2456090	BF-F405P	2053565
A2-M5/9	2170155	A48-2M12-30/45	2340765	A80-2M16-50	2360610	ANE2-M10	2408840	BF-F408	2053570
A2-M6	2170190	A48-2M12-30-31	2340770	A80-4ESI	2360850	ANE2-M12	2408845	BF-F408P	2053575
A2-M8	2170230	A48-2M123031/345	2340771	A80B-2M16-40	2360601	ANE2-M4	2408820	BF-F608	2053610
A2-P12	2170650	A48-2M12-35	2340790	A80-M12	2360030	ANE2-M5	2408825	BF-F608P	2053620
A2-U4	2170510	A48-2M12-40	2340810	A80-M14	2360070	ANE2-M6	2408830	BF-FM608	2053690
A2-U5	2170520	A48-2M14	2340860	A80-M16	2360110	ANE2-M8	2408835	BF-M10	2052390
A30-2M10	2301280	A48-2M14-40	2340850	A80-M20	2360150	ANE2-P12	2408850	BF-M12	2052430
A30-2M10-24-28	2301260	A48-2M16	2340870	A9-M10	2210270	ANE2-U4	2408860	BF-M2	2052010
A30-2M102428/345	2301262	A48-4ESI	2340950	A9-M12	2210310	ANE2-U5	2408865	BF-M3	2052030
A30-2M12	2301370	A48-L10	2341293	A9-M6/15	2210210	ANE30-M12	2458320	BF-M3.5	2052070
A30-2M12-30	2301350	A48-L12	2341295	A9-M8	2210230	ANE30-M14	2458350	BF-M3.5/1	2052110
A30-2M12-30-29	2301359	A48-M10	2340110	AA120-M12	2741510	ANE30-M16	2458370	BF-M4	2052150
A30-2M123029/345	2301360	A48-M10/31	2340120	AA120-M14	2741550	ANE30-M20	2458390	BF-M5	2052190
A30-2M12-40	2301367	A48-M12	2340150	AA150-M12	2742030	ANE35-M12	2460010	BF-M6	2052230
A30-2M14	2301650	A48-M12/31	2340158	AA150-M14	2742070	ANE35-M14	2460030	BF-M6/1	2052270
A30-2M14-33.5	2301653	A48-M14	2340190	AA16-M8	2740020	ANE35-M16	2460050	BF-M6/2	2052280
A30-2M8-20	2301250	A48-M16	2340230	AA185-M12	2742510	ANE35-M20	2460070	BF-M608	2053650
A30-2M8-2429/345	2301255	A48-M16/31	2340238	AA185-M14	2742550	ANE3-M10	2415840	BF-M608P	2053655
A30B-M10/19	2300120	A48-M20	2340310	AA240-M12	2743030	ANE3-M12	2415850	BF-M7	2052310
A30B-M8/19	2300080	A48-M8	2340070	AA240-M14	2743070	ANE3-M4	2415800	BF-M8	2052350
A30-L10	2300870	A5-2M10-24-13	2190470	AA25-M8	2740050	ANE3-M5	2415810	BF-P10	2052510
A30-L12	2300910	A5-2M12-3029/345	2190480	AA300-34-M12	2743205	ANE3-M6	2415820	BF-P12	2053290
A30-M10	2300110	A5-2M8-20	2190450	AA300-34-M14	2743210	ANE3-M8	2415830	BF-P8	2053210
A30-M12	2300150	A5-2M8-24-24	2190460	AA300-34-M16	2743215	ANE3-P14	2415860	BF-PP10	2053320
A30-M14	2300230	A5-2M8-24-24/345	2190461	AA300-M16	2743150	ANE3-U4	2415870	BF-PP12	2053330
A30-M16	2300270	A5-L10	2190750	AA35-M10	2740075	ANE3-U5	2415875	BF-PP12/25	2053370
A30-M20	2300350	A5-L12	2190760	AA35-M8	2740070	ANE5-M10	2418540	BF-PP12/29	2053380
A30-M8	2300070	A5-L4	2190620	AA400-M16	2743310	ANE5-M12	2418550	BF-PP16/25	2053410
A3-2M12-40	2181751	A5-L5	2190630	AA500-40-M16	2743330	ANE5-M4	2418500	BF-PPL30	2053460
A3-2M8-20	2181750	A5-L6	2190670	AA50-M12	2740110	ANE5-M5	2418510	BF-PPL46	2053465
A35-M10	2310265	A5-L8	2190710	AA50-M14	2740150	ANE5-M6	2418520	BF-U10	2052910
A35-M12	2310270	A5-M10	2190190	AA630-M16	2743370	ANE5-M8	2418530	BF-U12	2052950
A35-M14	2310310	A5-M12	2190230	AA70-M12	2740510	ANE5-P16	2418560	BF-U3	2052630
A35-M16	2310350	A5-M4	2190030	AA70-M14	2740550	ANE7-M10	2422320	BF-U3.5	2052670
A35-M20	2310390	A5-M5	2190070	AA95-M12	2741030	ANE7-M12	2422330	BF-U3.5/1	2052671
A37-2M10	2320902	A5-M5/9	2190075	AA95-M14	2741070	ANE7-M6	2422300	BF-U4	2052710
A37-2M10-25	2320890	A5-M6	2190110	AB13	3041530	ANE7-M8	2422310	BF-U4/1	2052720
A37-2M10-25/315	2320891	A5-M8	2190150	AB13N	3041531	ANE7-P20	2422360	BF-U4/2	2052730
A37-2M12	2320910	A5-P16	2191510	AB19	3041532	ANE9-M10	2430170	BF-U5	2052750
A37-2M12-30-31	2320919	A5-P22R	2191515	AB19N	3041533	ANE9-M12	2430180	BF-U5/2	2052765
A37-2M123031/345	2320920	A5-P22R/45	2191518	AB28	3041534	ANE9-M6/15	2430150	BF-U6	2052790
A37-2M12-32	2320915	A60-2M10	2350580	AB28N	3041535	ANE9-M8	2430160	BF-U6/1	2052830
A37-2M14	2320970	A60-2M12	2350600	AC130-P	2615531	ASC30-36-USA/CAN	2598487	BF-U8	2052870
A37-2M14-35	2320950	A60-2M12-30-38	2350620	ANE10-M10	2439370	ASC145-USA/CA	2598483	BKF-BF4	2053632
A37-2M16	8008485	A60-2M123038/345	2350621	ANE10-M12	2439380	ASC145DUO-USA/CA	2598478	BKF-BM4	2053662

Type/Code Cross-Reference chart

Type	Code	Type	Code	Type	Code	Type	Code	Type	Code
BKF-F405	2053562	BSC11	2489535	C3/0-14	2396620	C8-14	2395060	CBP-F608P	2076550
BKF-F405P	2053567	BSC11/0	2489540	C3/0-34	2396740	C8-38	2395100	CBP-M3	2076310
BKF-F408	2053572	BSC12	2489530	C3/0-38	2396660	C8-516	2395080	CBP-M3.5	2076315
BKF-F408P	2053577	BSC12/0	2489545	C3/0-516	2396640	C8-8	2395020	CBP-M3.5/1	2076320
BKF-F608	2053612	BSC1250	2489560	C3/0-58	2396720	C95-C35	2490510	CBP-M4	2076325
BKF-F608P	2053622	BSC13	2489525	C3/0-916	2396700	C95-C35ST	2492510	CBP-M5	2076335
BKF-FM608	2053692	BSC13/0	2489550	C300-12	2397360	C95-C70	2490550	CBP-M6	2076340
BKF-M608	2053652	BSC1300	2489565	C300-34	2397420	C95-C70ST	2492550	CBP-M6/1	2076345
BKF-BF4	2053632	BSC1350	2489570	C300-38	2397340	C95-C95	2490590	CBP-M608	2076560
BKF-BM4	2053662	BSC14	2489520	C300-516	2397320	C95-C95ST	2492590	CBP-M7	2076350
BKF-F405	2053562	BSC14/0	2489555	C300-58	2397400	CA150R-2M14	2533010	CBP-M8	2076355
BKF-F405P	2053567	BSC1400	2489575	C300-78	2397440	CA150R-M12	2532810	CBP-P10	2076455
BKF-F408	2053572	BSC1500	2489580	C300-916	2397380	CA150R-M14	2532850	CBP-P12	2076460
BKF-F408P	2053577	BSC16	2489515	C3-10	2395640	CA150S-2M14	2533330	CBP-P8	2076450
BKF-F608	2053612	BSC1600	2489585	C3-12	2395720	CA150S-M12	2533210	CBP-PP12	2076480
BKF-F608P	2053622	BSC1750	2489590	C3-14	2395660	CA150S-M14	2533250	CBP-PP12/25	2076490
BKF-FM608	2053692	BSC18	2489510	C3-38	2395700	CA200R-2M14	2533570	CBP-PPL30	2076498
BKF-M608	2053652	B-TC250YA	2596261	C350-12	2397540	CA200R-M14	2533530	CBP-U3	2076380
BKY-M10	2145874	B-TC250YND	2599521	C350-34	2397600	CA240R-2M14	2533850	CBP-U3.5	2076385
BKY-M12	2145878	B-TC320NDA	2596286	C350-38	2397520	CA240R-M14	2533770	CBP-U4	2076395
BKY-M3	2145842	B-TC320NDA	2596291	C350-58	2397580	CA25-2M12	2530210	CBP-U4/1	2076400
BKY-M3.5	2145845	B-TC4500A	2599417	C350-78	2397620	CA25-2M8	2530130	CBP-U4/2	2076405
BKY-M3.5/1	2145847	B-TC450A	2599406	C350-916	2397560	CA25-M10	2530050	CBP-U4/3L	2076408
BKY-M4	2145853	B-TC500A	2598828	C3-516	2395680	CA25-M12	2530090	CBP-U5	2076410
BKY-M5	2145856	B-TC500ND-SCA	2596302	C35-C16	2490230	CA25-M8	2530010	CBP-U6	2076415
BKY-M6/1	2145862	B-TC500YA	2598816	C35-C16ST	2492230	CA315R-2M14	2534430	CC8.9	3041630
BKY-M8	2145871	B-TC550A	2599421	C35-C35	2490270	CA315R-M14	2534330	CC9.12	3041632
BKY-P10	2145932	B-TC650A	2599441	C35-C35ST	2492270	CA315S-2M14	2534610	CFA2-600	3031942
BKY-P12	2145934	B-TC650-SCA	2599431	C3-8	2395620	CA315S-M14	2534530	CFA300	3031900
BKY-P8	2145930	B-TC950A	2599461	C4/0-12	2396880	CA40S-2M12	2530510	CFA400	3031914
BKY-PP12	2145940	B-TD270A	2598952	C4/0-14	2396820	CA40S-M12	2530450	CFA600	3031928
BKY-PP12/25	2145942	B-TD410TA	2598946	C4/0-34	2396940	CA40S-M16	2530490	CFAB600	3031970
BKY-PP16/23	2145944	C1/0-12	2396280	C4/0-38	2396860	CA50R-2M12	2530870	CFAR600	3031956
BKY-PPL30	2145950	C1/0-14	2396220	C4/0-516	2396840	CA50R-M12	2530790	CFC120YN	2598491
BKY-PPL46	2145952	C1/0-38	2396260	C4/0-58	2396920	CA50S-2M12	2531190	CGP-F608	2076845
BKY-U3	2145900	C1/0-516	2396240	C4/0-916	2396900	CA50S-M12	2531110	CGP-F608P	2076850
BKY-U3.5	2145903	C1/0-58	2396320	C400-12	2397740	CA50S-M16	2531150	CGP-M10	2076670
BKY-U4	2145906	C1/0-916	2396300	C400-34	2397800	CA70-M12	2531870	CGP-M3	2076610
BKY-U5	2145909	C10-C10	2490070	C400-38	2397720	CA70S-2M12	2531510	CGP-M3.5	2076615
BKY-U6	2145912	C10-C10ST	2492070	C400-58	2397780	CA70S-M12	2531430	CGP-M4	2076625
BKY-U6/1	2145914	C1-12	2396080	C400-78	2397820	CA70S-M16	2531470	CGP-M5	2076635
BL12HKS	3065040	C1-14	2396020	C400-916	2397760	CA95R-2M14	2532230	CGP-M6	2076640
BL6HKS	3065042	C120-C120	2490630	C4-10	2395440	CA95R-M12	2532150	CGP-M6/1	2076645
BLC250	3065390	C120-C120ST	2492630	C4-12	2395520	CA95R-M14	2532190	CGP-M608	2076860
BN-B5	2469720	C1-38	2396060	C4-14	2395460	CA95S-2M14	2532610	CGP-M7	2076650
BN-FA608	3031640	C150-C120	2490670	C4-38	2395500	CA95S-M12	2532450	CGP-M8	2076660
BN-FAB608	3031660	C150-C120ST	2492670	C4-516	2395480	CA95S-M14	2532490	CGP-M8/1	2076665
BN-FAR608	3031680	C150-C150	2490690	C4-8	2395420	CA95S-M16	2532500	CGP-P10	2076755
BN-MA608	3031740	C150-C150ST	2492690	C500-12	2397940	CAA10-M12	2760005	CGP-P12	2076760
BP-M10	2046345	C1-516	2396040	C500-34	2398000	CAA120-M12	2760310	CGP-P14	2076765
BP-M12	2046350	C16-C16	2490110	C500-38	2397920	CAA150-M12	2760350	CGP-PP12	2076780
BP-M2	2046305	C16-C16ST	2492110	C500-58	2397980	CAA16-M12	2760012	CGP-PP17	2076790
BP-M3	2046310	C185-C185	2490745	C500-78	2398020	CAA185-M12	2760430	CGP-U3.5	2076685
BP-M3.5	2046315	C185-C185ST	2492745	C500-916	2397960	CAA240-M12	2760590	CGP-U4	2076695
BP-M3.5/1	2046316	C185-C95	2490710	C50-C25	2490350	CAA25-M12	2760030	CGP-U5	2076710
BP-M4	2046320	C185-C95ST	2492710	C50-C25ST	2492350	CAA300-34-M12	2760680	CGP-U6	2076715
BP-M5	2046325	C2/0-12	2396480	C50-C50	2490390	CAA300-34-M14	2760690	CIN12-110IC	8500550
BP-M6	2046330	C2/0-14	2396420	C50-C50ST	2492390	CAA300-34-M16	2760715	CL1/0-10	2396385
BP-M6/1	2046331	C2/0-34	2396540	C600-12	2398120	CAA300-M16	2760710	CL1/0-12	2396397
BP-M6/2	2046332	C2/0-38	2396460	C600-34	2398180	CAA35-M12	2760070	CL1/0-38	2396394
BP-M7	2046335	C2/0-516	2396440	C600-58	2398160	CAA400-M16	2760750	CL1/0-516	2396391
BP-M8	2046340	C2/0-58	2396520	C600-78	2398200	CAA500-M16-TNBD	2760852	CL1/0-D14	2396360
BP-P10	2046415	C2/0-916	2396500	C600-916	2398140	CAA50-M12	2760110	CL1/0-D141	2396361
BP-P12	2046420	C2-10	2395820	C6-10	2395240	CAA630-4M8	2760950	CL1/0-D38	2396370
BP-P8	2046410	C2-12	2395900	C6-12	2395320	CAA70-M12	2760150	CL1/0-DN	2396375
BP-PP12	2046440	C2-14	2395840	C6-14	2395260	CAA95-M12	2760190	CL1/0IH-10	2396405
BP-PP12/25	2046445	C2-38	2395880	C6-38	2395300	CB1430H	2598502	CL1/0IH-12	2396413
BP-PP12/29	2046450	C240-C120	2490760	C6-516	2395280	CB1430L	2598494	CL1/0IH-38	2396411
BP-PP16/25	2046455	C240-C120ST	2492760	C6-8	2395220	CB1820L	2598495	CL1/0IH-516	2396409
BP-PPL30	2046470	C250-12	2397080	C6-C6	2490030	CB1852L	2598514	CL1-10	2396183
BP-PPL46	2046475	C250-14	2397020	C6-C6ST	2492030	CB3662L	2870229	CL1-12	2396191
BP-U10	2046565	C250-34	2397140	C70-C25N	2490310	CB9630H	2598504	CL1-516	2396187
BP-U12	2046570	C250-38	2397060	C70-C25N-ST	2492310	CBLO1	3066010	CL1-D14	2396160
BP-U3	2046510	C250-516	2397040	C70-C35	2490430	CBLO2-WA	3066032	CL1-D141	2396161
BP-U3.5	2046515	C250-58	2397120	C70-C35ST	2492430	CBLO3-WA	3066033	CL1-D38	2396170
BP-U3.5/1	2046516	C250-78	2397160	C70-C70	2490470	CBLO4-WA	3066034	CL1-DN	2396175
BP-U4	2046530	C250-916	2397100	C70-C70ST	2492470	CBLO5-WA	3066035	CL1IH-10	2396205
BP-U4/1	2046531	C2-516	2395860	C750-12	2398320	CBLO6A	3066036	CL1IH-12	2396217
BP-U4/2	2046540	C25-C10	2490150	C750-34	2398380	CBLO7A	3066037	CL1IH-516	2396211
BP-U5	2046545	C25-C10ST	2492150	C750-58	2398360	CBP-F405	2076535	CL2/0-12	2396594
BP-U6	2046555	C25-C25	2490190	C750-78	2398400	CBP-F408	2076540	CL2/0-38	2396591
BP-U6/1	2046556	C25-C25ST	2492190	C8-10	2395040	CBP-F408P	2076543	CL2/0-D14	2396560
BP-U8	2046560	C3/0-12	2396680	C8-12	2395120	CBP-F608	2076545	CL2/0-D141	2396561

Type/Code Cross-Reference chart

Type	Code	Type	Code	Type	Code	Type	Code	Type	Code
CL2/O-D38	2396570	CL600IH-12	2398305	CS-CPE-1	2592748	DR240-16	2388730	ES06-BK	2470471
CL2/O-DN	2396575	CL600IH-58	2398311	CTBB1	3065022	DR240-20	2388740	ES06-BR	2470451
CL2/OIH-12	2396611	CL6-10	2395385	CTBP1	3064985	DR25-10	2388130	ES06-BU	2470411
CL2/OIH-38	2396609	CL6-12	2395397	CTSBI	3065020	DR25-12	2388140	ES06-GY	2470431
CL2-10	2395985	CL6-14	2395388	CVB-001	2593300	DR25-16	2388160	ES06-RE	2470511
CL2-12	2395997	CL6-D14	2395360	CVB-007	2593295	DR25-6	2388110	ES06-YE	2470551
CL2-14	2395988	CL6-D141	2395361	CVB-010	2593298	DR25-8	2388120	ES10-BK	2470476
CL250-12	2397204	CL6-D38	2395370	CVB-011	2593299	DR300-10	2388780	ES10-BR	2470456
CL250-D38	2397180	CL6-DN	2395375	CVB-013	2593294	DR300-12	2388790	ES10-BU	2470416
CL250-DN	2397185	CL6IH-10	2395405	CVB-031	2593312	DR300-16	2388810	ES10-GY	2470436
CL250IH-12	2397229	CL6IH-12	2395417	CVB-037	2593315	DR300-20	2388820	ES10-RE	2470516
CL2-516	2395991	CL6IH-14	2395408	CW100	3065416	DR35-10	2388230	ES10-YE	2470556
CL2-D14	2395960	CL750-12	2398485	CW110	3065418	DR35-12	2388240	ES14-BK	2470477
CL2-D141	2395961	CL750-58	2398488	CW130	3065420	DR35-16	2388246	ES14-BR	2470457
CL2-D38	2395970	CL750-D38	2398470	CW140	3065422	DR35-6	2388210	ES14-BU	2470417
CL2-DN	2395975	CL750-DN	2398475	CW150	3065424	DR35-8	2388220	ES14-GY	2470437
CL2-DN38	2395971	CL750-DN38	2398471	CW170	3065426	DR400-12	2388870	ES14-RE	2470517
CL2IH-10	2396005	CL750IH-12	2398505	CW180	3065428	DR400-16	2388890	ES14-YE	2470557
CL2IH-12	2396017	CL750IH-58	2398508	CW190	3065430	DR400-20	2388900	ES19-BK	2470478
CL2IH-14	2396008	CL8-10	2395183	CW220	3065432	DR500-12	2388950	ES19-BR	2470458
CL2IH-516	2396011	CL8-14	2395186	CW240	3065434	DR500-16	2388970	ES19-BU	2470418
CL3/O-12	2396794	CL8-38	2395192	CW270	3065436	DR500-20	2388980	ES19-GY	2470438
CL3/O-D141	2396761	CL8-D14	2395160	CW300	3065438	DR50-10	2388260	ES19-RE	2470518
CL3/O-D38	2396770	CL8-D141	2395161	CW320	3065440	DR50-12	2388270	ES19-YE	2470558
CL3/O-DN	2396775	CL8-D38	2395170	CW60	3065410	DR50-14	2388280	ES1-BK	2470472
CL3/OIH-12	2396811	CL8IH-10	2395203	CW70	3065412	DR50-16	2388290	ES1-BR	2470452
CL300-12	2397491	CL8IH-14	2395206	CW80	3065414	DR50-6	2388250	ES1-BU	2470412
CL300-D38	2397470	CL8IH-38	2395212	DB100-13/2	2843724	DR50-8	2388255	ES1-GY	2470432
CL300-DN	2397475	CM02	3065952	DB100-13/4	2843744	DR625-16	2389050	ES1-RE	2470512
CL300IH-12	2397509	CMA600	3031984	DB100-6/2	2843722	DR625-20	2389060	ES1-YE	2470552
CL3-12	2395797	CP1096	2597700	DB100-6/4	2843742	DR6-5	2387910	ES24-BK	2470479
CL3-14	2395788	CP1120	2597962	DB125-10/4	2843747	DR6-6	2387920	ES24-BR	2470459
CL3-38	2395794	CP1131	2610120	DB125-10/4C	2843787	DR6-8	2387930	ES24-BU	2470419
CL350-12	2397688	CPC100-8	3065328	DB125-14/2	2843726	DR70-2M12-51AS	2388995	ES24-GY	2470439
CL350-D141	2397661	CPE-1-110	2592752	DB125-14/2C	2843782	DR70-10	2388330	ES24-RE	2470519
CL350-D38	2397670	CPKC7508	2808650	DB125-14/4	2843748	DR70-12	2388340	ES24-YE	2470559
CL350-DN	2397675	CPKD108	2808582	DB125-14/4C	2843788	DR70-14	2388350	ES2-BK	2470473
CL350IH-12	2397708	CPKD1508	2808587	DB125-6/2	2843725	DR70-16	2388360	ES2-BR	2470453
CL3-516	2395791	CPKD2508	2808592	DB125-6/4	2843746	DR70-20	2388380	ES2-BU	2470413
CL3-D38	2395770	CPKD508	2808573	DB125-7/1N	2843703	DR70-8	2388320	ES2-GY	2470433
CL3-DN	2395775	CPKD7508	2808578	DB160-11/4	2843750	DR95-2M12-51AS	2388997	ES2-RE	2470513
CL3IH-12	2395817	CPP-0	2592671	DB160-7/1N	2843705	DR95-10	2388395	ES2-YE	2470553
CL3IH-14	2395808	CPU1131-C	2610150	DB250-11/1N	2843707	DR95-12	2388400	ES30-BK	2470480
CL3IH-38	2395814	CPU1230-3D	2630200	DB400-11/1N	2843709	DR95-14	2388410	ES30-BR	2470460
CL3IH-516	2395811	CPW500	3065395	DB40-11/4	2843740	DR95-16	2388420	ES30-BU	2470420
CL4/O-12	2396994	CRP-F305	2076225	DB40-15/2	2843720	DR95-20	2388430	ES30-GY	2470440
CL4/O-38	2396991	CRP-F308	2076230	DB500-11/1N	2843711	DR95-8	2388390	ES30-RE	2470520
CL4/O-D141	2396961	CRP-F405	2076235	DB80-6/1N	2843701	DSC12-100L	3065680	ES30-YE	2470560
CL4/O-D38	2396970	CRP-F405P	2076237	DC245C	8502005	DSC12-170L	3065685	ES37-BK	2470481
CL4/O-DN	2396975	CRP-F408	2076240	DJ160	2843697	DSC12-190L	3065687	ES37-BR	2470461
CL4/O-DN38	2396971	CRP-F408P	2076242	DK120-2M12-51AS	2830096	DSC12-240L	3065689	ES37-BU	2470421
CL4/OIH-12	2397011	CRP-F608	2076245	DK120-M12	2830086	DSC12-300L	3065691	ES37-GY	2470441
CL4/OIH-38	2397009	CRP-F608P	2076250	DK50-M12	2830080	DSC12-320L	3065693	ES37-RE	2470521
CL400-12	2397888	CRP-M3	2076010	DK70-2M12-51AS	2830092	DSV10	2489015	ES37-YE	2470561
CL400-58	2397894	CRP-M3.5	2076015	DK70-M12	2830082	DSV1000	2489000	ES3-BK	2470474
CL400-D141	2397861	CRP-M3.5/1	2076020	DK95-2M12-51AS	2830094	DSV120	2489050	ES3-BR	2470454
CL400-D38	2397870	CRP-M4	2076025	DK95-M12	2830084	DSV150	2489055	ES3-BU	2470414
CL400-DN	2397875	CRP-M4/3	2076030	DNB125-9	2843690	DSV16	2489020	ES3-GY	2470434
CL400IH-12	2397908	CRP-M5	2076035	DNB160-10	2843692	DSV185	2489060	ES3-RE	2470514
CL400IH-58	2397914	CRP-M6	2076040	DR10-10	2388015	DSV240	2489065	ES3-YE	2470554
CL4-10	2395585	CRP-M6/1	2076045	DR10-5	2388000	DSV25	2489025	ES40-BK	2470482
CL4-12	2395597	CRP-M608	2076260	DR10-6	2388005	DSV300	2489070	ES40-BR	2470462
CL4-14	2395588	CRP-M7	2076050	DR10-8	2388010	DSV35	2489030	ES40-BU	2470422
CL4-38	2395594	CRP-M8	2076055	DR120-2M12-51AS	2388999	DSV400	2489075	ES40-GY	2470442
CL4-D14	2395560	CRP-P10	2076155	DR120-10	2388460	DSV50	2489035	ES40-RE	2470522
CL4-D141	2395561	CRP-P12	2076160	DR120-12	2388470	DSV500	2489080	ES40-YE	2470562
CL4-D38	2395570	CRP-P8	2076150	DR120-16	2388490	DSV6	2489010	ES48-BK	2470483
CL4-DN	2395575	CRP-PP12	2076180	DR120-20	2388500	DSV625	2489085	ES48-BR	2470463
CL4IH-10	2395605	CRP-PP12/1	2076185	DR120-8	2388450	DSV70	2489040	ES48-BU	2470423
CL4IH-12	2395617	CRP-PP12/23	2076190	DR150-10	2388530	DSV800	2489090	ES48-GY	2470443
CL4IH-14	2395608	CRP-PP14	2076195	DR150-12	2388540	DSV95	2489045	ES48-RE	2470523
CL4IH-38	2395614	CRP-PPL30	2076205	DR150-16	2388560	EBC12-250	3065668	ES48-YE	2470563
CL500-12	2398088	CRP-U3	2076080	DR150-20	2388570	ECW-H3D	2630073	ES5-BK	2470475
CL500-58	2398094	CRP-U3.5	2076085	DR16-10	2388050	ELB-3Y	2598421	ES5-BR	2470455
CL500-D141	2398061	CRP-U3.5/2	2076090	DR16-12	2388060	EPB-1N	2598453	ES5-BU	2470415
CL500-D38	2398070	CRP-U4	2076095	DR16-5	2388025	ERCH	2596112	ES5-GY	2470435
CL500-DN	2398075	CRP-U4/1	2076100	DR16-6	2388030	ERCH-WH	2596114	ES5-RE	2470515
CL500IH-12	2398108	CRP-U4/2	2076105	DR16-8	2388040	ES03-BK	2470470	ES5-YE	2470555
CL500IH-58	2398114	CRP-U5	2076110	DR185-10	2388600	ES03-BR	2470450	ES80-BK	2470484
CL600-12	2398285	CRP-U6	2076115	DR185-12	2388610	ES03-BU	2470410	ES80-BR	2470464
CL600-58	2398291	CRP-U6/1	2076120	DR185-16	2388620	ES03-GY	2470430	ES80-BU	2470424
CL600-D38	2398270	CRP-U8	2076125	DR240-10	2388710	ES03-RE	2470510	ES80-GY	2470444
CL600-DN	2398275	CRH12	3065660	DR240-12	2388720	ES03-YE	2470550	ES80-RE	2470524

Type/Code Cross-Reference chart

Type	Code	Type	Code	Type	Code	Type	Code	Type	Code
ES80-YE	2470564	G160X2.5N/M	3041728	G80X2.4N/M	3041703	GP-P14	2046725	HP4-G	2590033
F050-WE	8420033	G160X4.8	3041790	G830X9.0	3041900	GP-PP12	2046740	HP4-R	2590031
F075-WE	8420032	G160X4.8N	3041791	G830X9.0N	3041901	GP-PP17	2046750	HP5	2590509
F2.5-WE	8420034	G180X3.6	3041760	G880X12.6	3041945	GP-PPL46	2046755	HPH1	2590029
FD11	3017354	G180X3.6N	3041761	G880X12.6N	3041946	GP-U10	2046865	HT120	2610420
FD13.5	3017356	G190X4.8	3041795	G90X2.4	3041705	GP-U10/1	2046866	HT120-KV	2610430
FD16	3017358	G190X4.8/M	3041797	G90X2.4N	3041706	GP-U12	2046870	HT131-C	2610416
FD21	3017360	G190X4.8N	3041796	G920X9.0	3041905	GP-U14	2046875	HT131LN-C	2610419
FD29	3017362	G190X4.8N/M	3041798	G920X9.0N	3041906	GP-U16	2046880	HT131-UC	2610436
FD36	3017364	G200X2.5	3041730	GA-3	2598429	GP-U3.5	2046825	HT45-E	2650040
FD42	3017366	G200X2.5/M	3041732	GF-F608	2055630	GP-U4	2046830	HT51	2670610
FD48	3017368	G200X2.5N	3041731	GF-F608P	2055650	GP-U5	2046845	HT51-KV	2670611
FD7	3017350	G200X2.5N/M	3041733	GF-M10	2054250	GP-U6	2046855	HT-FL74	2665028
FD9	3017352	G200X3.6	3041765	GF-M10/1	2054290	GP-U8	2046860	HT-FL75	2665030
FDM12	3017375	G200X3.6/M	3041767	GF-M12	2054330	GR100X7.6N	3042620	HT-TC026Y	2591408
FDM16	3017374	G200X3.6N	3041766	GF-M14	2054370	GR120X7.6N	3042625	HT-TC041N	2591427
FDM20	3017377	G200X3.6N/M	3041768	GF-M16	2054410	GR150X7.6N	3042630	HT-TC051Y	2591475
FDM25	3017379	G200X4.8	3041800	GF-M3	2054010	GR200X7.6N	3042635	HT-TC065	2591477
FDM32	3017381	G200X4.8/M	3041802	GF-M3.5	2054030	GR250X7.6N	3042640	HT-TC0851	2591496
FDM40	3017383	G200X4.8N	3041801	GF-M4	2054070	GR300X7.6N	3042645	HWE1N	2590910
FDM50	3017385	G200X4.8N/M	3041803	GF-M5	2054110	GR370X7.6N	3042650	HX1	2590298
FDM63	3017387	G200X7.6	3041850	GF-M6	2054150	GX1020X7.9	3042270	IDT	2590920
FL10-150	2510070	G200X7.6N	3041851	GF-M6/1	2054160	GX200X4.5	3042245	KA12-38	3065736
FL10-150-ST	2518510	G230X12.6	3041920	GF-M608	2055670	GX300X4.5	3042250	KA14-38	3065734
FL10-200	2510150	G230X12.6N	3041921	GF-M7	2054170	GX370X4.5	3042255	KA38-12	3065730
FL10-200-ST	2518550	G250X2.8	3041735	GF-M8	2054210	GX370X7.9	3042260	KA38-14	3065732
FL10-250	2510190	G250X2.8N	3041736	GF-M8/1	2054220	GX520X4.5	3042257	KAK9	3065280
FL10-250-ST	2518590	G250X3.6	3041770	GF-P10	2055310	GX680X7.9	3042265	KCW12	3065295
FL16-150	2510470	G250X3.6N	3041771	GF-P12	2055350	GXAC125X4.6	3042310	KCW16	3065297
FL16-150-ST	2518870	G250X4.8	3041805	GF-P14	2055370	GXAC150X4.6	3042312	KE0.75-1	2591050
FL16-200	2510550	G250X4.8/M	3041807	GF-PP12	2055390	GXAC200X4.6	3042314	KE10-1	2591049
FL16-200-ST	2518910	G250X4.8N	3041806	GF-PP17	2055430	GXAC200X7.9	3042350	KE1016ST	2803150
FL16-250	2510590	G250X4.8N/M	3041808	GF-PPL46	2055465	GXAC260X4.6	3042316	KE1065T	2802310
FL16-250-ST	2518950	G250X7.6	3041855	GF-U10	2054810	GXAC290X4.6	3042318	KE1105T	2802390
FL16-320	2510670	G250X7.6N	3041856	GF-U10/1	2054850	GXAC290X7.9	3042352	KE1508ST	2802510
FL16-320-ST	2518990	G280X4.8	3041810	GF-U12	2054890	GXAC360X4.6	3042320	KE1510ST	2802550
FL16-350	2510690	G280X4.8N	3041811	GF-U14	2054930	GXAC360X7.9	3042354	KE16-15	2599861
FL16-350-ST	2519030	G300X2.8	3041740	GF-U16	2054970	GXAC520X4.6	3042322	KE1616ST	2803190
FL16-420	2510710	G300X2.8N	3041741	GF-U3.5	2054610	GXAC520X7.9	3042356	KE1A-3	2598430
FL16-420-ST	2519070	G300X3.6	3041775	GF-U4	2054650	GXAC680X4.6	3042324	KE2.5-1	2591048
FL16-570	2510750	G300X3.6/M	3041777	GF-U5	2054690	GXAC680X7.9	3042358	KE2.5A-3	2598432
FL16-570-ST	2519150	G300X3.6N	3041776	GF-U6	2054730	GXAC840X4.6	3042326	KE25015ST	2803455
FL16-660	2510790	G300X3.6N/M	3041778	GF-U8	2054770	GXAC840X7.9	3042360	KE25018ST	2803460
FL16-660-ST	2519170	G300X4.8	3041815	GFH100X2.5	3042810	H120-H120	2490914	KE2508ST	2802670
FL25-150	2510950	G300X4.8N	3041816	GFHT112X2.5	3042805	H120-H120ST	2490915	KE2510ST	2802710
FL25-150-ST	2519530	G300X7.6	3041860	GH8	3041550	H70-H70	2490910	KE35015ST	2803475
FL25-200	2511070	G300X7.6N	3041861	GK-F608	2145500	H70-H70ST	2490911	KE35018ST	2803480
FL25-200-ST	2519570	G370X3.6	3041780	GK-F608P	2145502	H95-H95	2490912	KE35-15	2599862
FL25-250	2511110	G370X3.6N	3041781	GKF-M608	2055672	H95-H95ST	2490913	KE410ST	2802870
FL25-250-ST	2519610	G370X4.8	3041820	GKY-M10	2145997	HB10	2591337	KE412ST	2802910
FL25-300	2511190	G370X4.8N	3041821	GKY-M12	2146000	HB11	2591343	KE4-15	2599860
FL25-300-ST	2519690	G370X7.6	3041865	GKY-M14	2146003	HB12N	2591345	KE506ST	2802030
G100X2.5	3041710	G370X7.6N	3041866	GKY-M16	2146006	HB13UE	2591347	KE508ST	2802070
G100X2.5/M	3041712	G380X12.6	3041925	GKY-M3.5	2145982	HB14	2591212	KE610ST	2802990
G100X2.5N	3041711	G390X4.8	3041825	GKY-M4	2145985	HB15	2591214	KE612ST	2803030
G100X2.5N/M	3041713	G390X4.8N	3041826	GKY-M5	2145988	HB18	3065050	KE616ST	2803070
G1020X9.0	3041910	G430X4.8	3041830	GKY-M6	2145991	HB2	2591308	KE7506ST	2802110
G1020X9.0N	3041911	G430X4.8N	3041831	GKY-M8	2145994	HB40-U	8060035	KE7508ST	2802150
G1030X12.6	3041950	G430X7.6	3041870	GKY-P14	2146040	HB5	2591318	KE16-WE	8420015
G1030X12.6N	3041951	G430X7.6N	3041871	GKY-PP12	2146045	HB6	2591285	KE35-WE	8420031
G120X2.5	3041715	G430X9.0	3041880	GKY-PP17	2146047	HB7	2591310	KE6-WE	8420030
G120X2.5N	3041716	G430X9.0N	3041881	GKY-PPL46	2146055	HB8	2591284	KIT-CTBB1-1	3065007
G120X3.6	3041745	G450X4.8	3041835	GKY-U3.5	2146020	HB9	2591336	KIT-CTBB1-5	3065014
G120X3.6N	3041746	G450X4.8N	3041836	GKY-U4	2146023	HKS12	3065032	KIT-CTBP1-1	3064979
G120X4.8	3041785	G480X12.6	3041930	GKY-U5	2146026	HKS6	3065030	KIT-CTS81-1	3065005
G120X4.8N	3041786	G480X12.6N	3041931	GKY-U6	2146029	HMR300	3065055	KIT-CTS81-3	3065009
G1220X9.0	3041915	G530X4.8	3041840	GKY-U8	2146032	HMR500W	3065057	KIT-CTS81-L	3064998
G1220X9.0N	3041916	G530X4.8N	3041841	GP-M10	2046645	HF1	2590900	KIT-TRL02-1	3064995
G140X2.5	3041720	G530X7.6	3041875	GP-M10/1	2046646	HF2	2590905	KIT-TRL02-2	3064996
G140X2.5/M	3041722	G530X7.6N	3041876	GP-M12	2046650	HN1	2590300	KIT-VAL-GPT-1	3065003
G140X2.5N	3041721	G530X9.0	3041885	GP-M14	2046655	HN5	2590291	KIT-VAL-GPTA-1	3065001
G140X2.5N/M	3041723	G530X9.0N	3041886	GP-M16	2046660	HN-A25	2590401	KIT-VAL-GPTA-2	3065002
G140X3.6	3041750	G580X12.6	3041935	GP-M3	2046610	HN-D25	2590403	KIT-VAL-GPTA-L	3064999
G140X3.6/M	3041753	G580X12.6N	3041936	GP-M3.5	2046615	HNKE16	2590329	KIT-VAL-GPTP-1	3064978
G140X3.6N	3041751	G710X9.0	3041890	GP-M4	2046620	HNKE4	2590299	KIT-VAL-GPTP-2	3064977
G140X3.6N/M	3041752	G710X9.0N	3041891	GP-M5	2046625	HNKE50	2590342	KIT-2.5-EPB1N	2598463
G150X3.6	3041755	G730X12.6	3041940	GP-M6	2046630	HNN3	2590296	KIT-4-EPB1N	2598464
G150X3.6N	3041756	G730X12.6N	3041941	GP-M6/1	2046631	HNN4	2590292	KRK4	3065290
G150X7.6	3041845	G780X9.0	3041895	GP-M7	2046635	HP1	2590500	KRS47	3065198
G150X7.6N	3041846	G780X9.0N	3041896	GP-M8	2046640	HP3	2590531	KSDC7-KV	3065190
G160X2.5	3041725	G80X2.4	3041700	GP-M8/1	2046641	HP3-1	2590532	KT1	2591319
G160X2.5/M	3041727	G80X2.4/M	3041702	GP-P10	2046715	HP4-B	2590032	KT2	2591320
G160X2.5N	3041726	G80X2.4N	3041701	GP-P12	2046720	HP4-C10	2590040	KT3N	2591276

Type/Code Cross-Reference chart

Type	Code	Type	Code	Type	Code	Type	Code	Type	Code
KT4N	2591278	M190-C	2612330	MA9-C	2610850	ME2-C	2614201	MK25-3D	2634788
KT5	2591279	M208-C	2612420	MB2-80-U	2604350	ME3	2652050	MK25-50	2675550
KTS1632	2590700	M208-U	2603780	MB3-80-U	2604400	ME3.14-U	2604770	MK25-C	2614340
L03-M	2480020	M215-50	2675910	MB550-240NC	2777035	ME30	2652270	MK28-3D	2634790
L03-P	2485010	M215-520	2648773	MC0	2650490	ME30.23-C	2614228	MK28-50	2675560
L06-M	2480050	M215-C	2612490	MC0.2-U	2603550	ME30-50	2676140	MK28B-50	2675561
L06-P	2485040	M220-520	2648774	MC0-U	2603510	ME30-C	2614227	MK28-C	2614350
L100-M	2480930	M232-C	2612590	MC10	2650530	ME30L	2652271	MK32-3D	2634800
L10-M	2480330	M255-520	2648776	MC10-50	2675610	ME30-U	2604890	MK32-50	2675564
L10-P	2485270	M295-520	2648780	MC10-C	2611100	ME3-50	2676020	MK32-C	2614360
L10-T	2486820	M320-C	2612990	MC10-U	2600610	ME35-50	2676150	MK34-3D	2634810
L120-M	2481010	M340-520	2648784	MC185-3D	2632030	ME35-C	2614229	MK34-C	2614370
L120-T	2486890	M440-520	2648840	MC185-C	2611150	ME35-U	2604910	MK34L-C	2614371
L14-M	2480410	M540-520	2648910	MC2	2650500	ME37-50	2676160	MK38-3D	2634830
L14-P	2485350	M70	2651090	MC240-3D	2632035	ME37-C	2614231	MK42-3D	2634850
L150-T	2486900	M70.140-U	2603710	MC25	2650550	ME37-U	2604930	MK44-3D	2634870
L160-M	2481050	M70-50	2675800	MC25-50	2675620	ME3-C	2614203	MK46-3D	2634880
L16-T	2486830	M70-C	2611590	MC25-C	2611110	ME40-50	2676165	MK5	2651575
L185-T	2486910	M75	2651100	MC25-U	2600650	ME40-C	2614233	MK5/8-15	2599890
L19-M	2480490	M75.96-U	2603715	MC3-WE	8420018	ME40-U	2604950	MK5-50	2675360
L19-P	2485430	M75-50	2675805	MC35	2650570	ME48-50	2676170	MK5-C	2614249
L1-M	2480090	M75-C	2611650	MC35-50	2675630	ME48-C	2614235	MK6	2651580
L1-P	2485070	M96	2651110	MC35-C	2611120	ME48-U	2604970	MK6-50	2675370
L200-M	2481090	M96-50	2675850	MC35-U	2600690	ME5	2652070	MK6-C	2614250
L240-T	2486920	M96-C	2611800	MC4-WE	8420019	ME5.7-U	2604790	MK8	2651610
L24-M	2480570	MA03/3-15	2599870	MC6	2650510	ME5-50	2676030	MK8-50	2675390
L24-P	2485510	MA1	2650110	MC6.25-U	2600630	ME5-C	2614205	MK8-C	2614260
L25-T	2486840	MA10	2650190	MC6-50	2675605	ME55.15.3-C	2614206	ML150-240-16C	2752182
L2-M	2480130	MA10.19-U	2600290	MC70-3D	2632010	ME60-50	2676172	ML95-240-16C	2752177
L2-P	2485100	MA100-3D	2631790	MC70-50	2675640	ME60-C	2614237	MLA50-240-12NC	2752170
L300-T	2486930	MA100-520	2645690	MC70-80-U	2600720	ME7	2652090	MLL1	2590802
L30-M	2480650	MA10-50	2675666	MC70-C	2611130	ME7.12-C	2614208	MLL90	2590812
L30-P	2485590	MA10-C	2610860	MC95-3D	2632020	ME7-50	2676040	MLR1	2590815
L35-T	2486850	MA12.20-U	2600310	MC95-80-U	2600730	ME7-C	2614207	MLS1	2590805
L37-M	2480730	MA120-3D	2631810	MC95-C	2611140	ME80-3D	2634930	MLS2	2590807
L37-P	2485670	MA120-520	2645711	MCCC16-C	2617050	ME80-520	2648550	MMT200-50	2676388
L3-M	2480170	MA12-50	2675668	MCCC25-C	2617070	ME80-C	2614239	MMT200-C	2611190
L3-P	2485130	MA12-C	2610870	MCCC35-C	2617090	ME9	2652110	MMT200-U	2601170
L400-T	2486940	MA14-50	2675670	MCCC50-C	2617110	ME9.20-U	2604810	MMT25-50	2676380
L48-M	2480810	MA14-C	2610880	MCS4-15	2599868	ME9-50	2676050	MMT25-C	2611160
L48-P	2485680	MA1-50	2675658	ME03/2-15	2599875	ME9-C	2614209	MMT25-U	2601050
L4-T	2486805	MA160-520	2645731	ME1	2652010	MFB13-40	2598040	MMT315-C	2611200
L50-T	2486860	MA17-50	2675672	ME10	2652130	MFB50-63	2598045	MMT50-50	2676382
L5-M	2480210	MA17-C	2610890	ME10.14-C	2614212	MH10/16-15	2599886	MMT50-C	2611170
L5-P	2485160	MA19-50	2675674	ME10.24-U	2604830	MH150L	2654381	MMT50-U	2601090
L60-M	2480850	MA19-C	2610900	ME100-3D	2634940	MK10	2651640	MMT95-50	2676384
L60-P	2485690	MA19-U	2600320	ME100-520	2648552	MK10-50	2675410	MMT95-C	2611180
L6-T	2486810	MA2.3	2650130	ME10-50	2676060	MK10-C	2614270	MMT95-U	2601130
L70-T	2486870	MA2.3-50	2675660	ME10-C	2614211	MK12	2651670	MN10-C	2610560
L7-M	2480250	MA200-520	2645750	ME12	2652150	MK12-50	2675430	MN10RF-50	2676250
L7-P	2485190	MA20-50	2675675	ME12.17-U	2604850	MK12-C	2614280	MN10RF-C	2610768
L80-M	2480890	MA20-C	2610910	ME120-3D	2634950	MK14	2651700	MN12-C	2610570
L95-T	2486880	MA24-50	2675676	ME120-520	2648554	MK14-3D	2634781	MN12F-50	2676260
LVL150	3065310	MA24-C	2610920	ME12-50	2676070	MK14-50	2675450	MN12F-C	2610770
LVL200	3065312	MA24-U	2600330	ME12-C	2614213	MK14-C	2614290	MN14-C	2610580
LVL400	3065314	MA29-80-U	2600360	ME14	2652170	MK15-50	2675460	MN14RF-50	2676270
M108.215-U	2603723	MA29-C	2610930	ME14.16-C	2614216	MK16	2651730	MN14RF-C	2610772
M108-520	2648752	MA2-C	2610810	ME14-50	2676080	MK16-3D	2634783	MN17-C	2610591
M108-C	2611860	MA3.5-U	2600210	ME14-C	2614215	MK16-50	2675470	MN17F-50	2676280
M110-520	2648754	MA30-80-U	2600380	ME1-50	2676005	MK16B	2651740	MN17F-C	2610774
M113	2651130	MA30-C	2610940	ME160-520	2648556	MK16B-50	2675471	MN19-C	2610600
M113.173-U	2603730	MA35-C	2610950	ME17	2652190	MK16-C	2614300	MN19RF-50	2676285
M113-50	2675855	MA35-U	2600390	ME17-50	2676090	MK17-C	2614305	MN19RF-C	2610776
M113-C	2611870	MA37-C	2610960	ME17-C	2614217	MK175-C	2614307	MN20-C	2610610
M118	2651150	MA37-U	2600410	ME19	2652210	MK18	2651750	MN20F-50	2676290
M118.158-U	2603725	MA3-C	2610820	ME19-50	2676100	MK18-3D	2634785	MN20F-C	2610778
M118-50	2675860	MA40-C	2610970	ME19-C	2614219	MK18-50	2675490	MN24-C	2610620
M118-C	2611910	MA40-U	2600430	ME2	2652030	MK18B	2651760	MN24RF-50	2676295
M140	2651170	MA48-C	2610980	ME2.19-U	2604750	MK18B-50	2675491	MN24RF-C	2610780
M140.190-U	2603800	MA48-U	2600450	ME2/3-15	2599876	MK18-C	2614310	MN29-C	2610625
M140-50	2675870	MA5	2650150	ME20	2652230	MK20	2651770	MN29F-C	2610782
M140-C	2612010	MA5-50	2675662	ME200-520	2648558	MK20-3D	2634786	MN2-C	2610511
M145-520	2648770	MA5-C	2610830	ME20-50	2676110	MK20-50	2675510	MN2RF-50	2676210
M158	2651200	MA60-C	2610990	ME20-C	2614221	MK20-C	2614320	MN2RF-C	2610760
M158-50	2675880	MA7	2650170	ME24	2652250	MK21B-50	2675525	MN30-C	2610630
M158-C	2612130	MA7.14-U	2600250	ME24-50	2676120	MK21-C	2614325	MN30RF-C	2610784
M160-520	2648771	MA7-50	2675664	ME24-C	2614223	MK22-3D	2634787	MN35-C	2610635
M173	2651210	MA7-C	2610840	ME24L	2652251	MK22-50	2675530	MN35F-C	2610786
M173-50	2675890	MA80-3D	2631770	ME2-50	2676010	MK22-C	2614330	MN37-C	2610640
M173-C	2612230	MA80-520	2645671	ME29	2652260	MK22L	2651791	MN37RF-C	2610788
M173L-C	2612240	MA9	2650180	ME29-50	2676130	MK22L-50	2675534	MN3-C	2610520
M190-50	2675900	MA9.17-U	2600270	ME29-C	2614225	MK23-50	2675540	MN3RF-50	2676220
M190-520	2648772	MA9-50	2675665	ME29-U	2604870	MK23-C	2614335	MN3RF-C	2610762

Type/Code Cross-Reference chart

Type	Code	Type	Code	Type	Code	Type	Code	Type	Code
MN48-C	2610650	MT150S-GC	2541910	MTMA25-GC	2720090	MUT9970-C	2613041	MY10-C	2613380
MN48RF-C	2610790	MT150S-TD	2540630	MTMA300-GC	2720430	MUT9971-C	2613042	MY14-50	2677345
MN5-C	2610530	MT200R-C10	2545540	MTMA35/1	2720111	MUT9972-C	2613043	MY14-C	2613385
MN5RF-50	2676230	MT200R-C16	2545550	MTMA35-20-GC	2720135	MUT9973-C	2613044	MY16-50	2677350
MN5RF-C	2610764	MT200R-GC	2542030	MTMA35-GC	2720130	MUT9974-C	2613045	MY16-C	2613390
MN60-C	2610660	MT200R-TD	2540670	MTMA400/1	2720475	MUT9975-50	2676614	MY19-50	2677355
MN7-C	2610540	MT240R-C12	2545710	MTMA400-240-GC	2722245	MUT9975-C	2613046	MY19-C	2613395
MN7RF-50	2676240	MT240R-C16	2545750	MTMA400-300-GC	2722250	MUT9976-C	2613047	MY24-50	2677360
MN7RF-C	2610766	MT240R-GC	2542110	MTMA50/1	2720160	MUT9977-C	2613048	MY24-C	2613400
MN80-3D	2631450	MT240R-TD	2540710	MTMA500-300-GC	2722260	MUT9978-C	2613049	MY24L-50	2677362
MN9-C	2610551	MT25-C8	2543030	MTMA500-40/1	2720509	MUT9979-C	2613050	MY2-50	2677310
MP608	3031810	MT25-GC	2541570	MTMA500-400-GC	2722270	MUT9980-50	2676540	MY2-C	2613350
MP608/45	3031815	MT25-TD	2540150	MTMA500-GC	2720515	MUT9980-C	2613052	MY30-50	2677365
MP608/90	3031820	MT315R-C16	2545950	MTMA50-25-GC	2720650	MUT9980-W	2664326	MY30-C	2613405
MP608D	3031830	MT315R-GC	2542150	MTMA50-35-GC	2720660	MUT9981-50	2676611	MY30L-50	2677366
MPC1	2595201	MT315R-TD	2540750	MTMA50-GC	2720152	MUT9981-C	2613053	MY3-50	2677315
MPC2	2595203	MT315S-C16	2545990	MTMA630/1	2720530	MUT9982-50	2676612	MY36-50	2677370
MPC4	2595208	MT315S-GC	2542290	MTMA70/1	2720191	MUT9982-C	2613054	MY36-C	2613410
MPC7	2595221	MT315S-TD	2540790	MTMA70-35-GC	2720940	MUT9982-W	2664327	MY37-50	2677375
MQ10-50	2675010	MT400-TD	2540830	MTMA70-50-GC	2720980	MUT9983	2654483	MY37-C	2613415
MQ16-50	2675013	MT40S-C10	2543410	MTMA70-GC	2720195	MUT9983-50	2676613	MY3-C	2613355
MQ25-50	2675016	MT40S-C14-80	2546070	MTMA95/1	2720250	MUT9983-C	2613055	MY4-50	2677320
MQ35-50	2675019	MT40S-C8	2543400	MTMA95-50-GC	2721030	MUT9983-W	2664328	MY48-50	2677380
MQ50-50	2675021	MT40S-GC	2541610	MTMA95-70-GC	2721070	MUT9984-50	2675621	MY48-C	2613420
MQ70-50	2675024	MT40S-TD	2540190	MTMA95-GC	2720232	MUT9984-C	2613056	MY4-C	2613360
MQM10-C	2610661	MT500-TD	2540870	MTMAD300/1	2720460	MUT9984-W	2664330	MY5-50	2677325
MQM120-C	2610668	MT50R-C10	2543650	MTMAD300-150-GC	2722140	MUT9985-50	2676495	MY5-C	2613365
MQM150-C	2610669	MT50R-C8	2543610	MTMAD300-185-GC	2722160	MUT9985-C	2613057	MY60-C	2613425
MQM16-C	2610662	MT50R-GC	2541690	MTMAD300-240-GC	2722220	MUT9985-W	2664335	MY6-50	2677330
MQM185-C	2610670	MT50R-TD	2540270	MTMAD300-95-GC	2722121	MUT9986	2654486	MY6-C	2613370
MQM240-C	2610671	MT50S-C10	2543850	MTMAD300-GC	2720440	MUT9986-50	2676616	MY7-50	2677335
MQM25-C	2610663	MT50S-C14-80	2546110	MTT120-50	2677275	MUT9986-C	2613058	MY76-C	2613430
MQM35-C	2610664	MT50S-C8	2543810	MTT16-50	2677220	MUT9986-W	2664329	MY7-C	2613375
MQM50-C	2610665	MT50S-GC	2541650	MTT25-50	2677230	MUT9987	2654487	N10-EC	2114040
MQM70-C	2610666	MT50S-TD	2540230	MTT35-50	2677240	MUT9987-50	2676617	N10-YEC	2114043
MQM95-C	2610667	MT630-TD	2540890	MTT50-50	2677250	MUT9987-C	2613059	N10-WE	8420017
MQS150-C	2610755	MT70S-C10	2544050	MTT70-50	2677260	MUT9987-W	2664332	N11	2581310
MQS16-C	2610752	MT70S-GC	2541730	MTT95-50	2677270	MUT9988-50	2676618	N11	2591059
MQS240-C	2610756	MT70S-TD	2540350	MUA150	2616050	MUT9988-C	2613060	N12	2581312
MQS35-C	2610753	MT95R-C10	2544290	MUA240	2616070	MUT9988-W	2664331	N13	2581314
MQS70-C	2610754	MT95R-C12	2544330	MUA300-34	2616090	MUT9989-50	2676500	N14	2581316
MRD22-C	2616950	MT95R-GC	2541770	MUA35	2616010	MUT9989-W	2664333	N14-BEC	2114022
MRD24-C	2616952	MT95R-TD	2540390	MUA95	2616030	MUT9990	2654490	N14-EC	2114020
MRD29-C	2616954	MT95S-C10	2544530	MUT9914-C	2612995	MUT9990-50	2676620	N15	2581318
MRD32-C	2616956	MT95S-C12	2544570	MUT9915-C	2612996	MUT9990-C	2613062	N16	2581320
MRH22-50	2675085	MT95S-C14-80	2546230	MUT9916-C	2612997	MUT9990-W	2664334	ND1	2590080
MRH26-C	2616802	MT95S-GC	2541850	MUT9917-C	2612998	MUT9991	2654491	ND2	2590082
MRH30-C	2616804	MT95S-TD	2540470	MUT9918-C	2612999	MUT9991-50	2676590	ND3	2590084
MRH32-C	2616806	MTA120-C	2771510	MUT9919-C	2613001	MUT9991-C	2613063	ND4	2590086
MS10	2652515	MTA150-C	2771710	MUT9920-C	2613002	MUT9991-W	2664336	NN4-15	2599867
MS10/16-15	2599881	MTA16-C	2770001	MUT9921-C	2613003	MUT9993	2654493	NY0	2581324
MS10-50	2676830	MTA185-C	2772150	MUT9922-C	2613004	MUT9993-50	2676610	NY00	2581322
MS120	2652550	MTA240-C	2773010	MUT9923-C	2613005	MUT9993-C	2613065	NY1	2581326
MS120-50	2676900	MTA25-C	2770020	MUT9924-C	2613006	MUT9993-W	2664338	PA1	2650230
MS150	2652555	MTA35-C	2770030	MUT9925-C	2613007	MUT9995	2654495	PA10	2650290
MS150-50	2676910	MTA50-C	2770310	MUT9926-C	2613008	MUT9995-50	2676545	PA100-3D	2631930
MS150L	2652556	MTA70-C	2770550	MUT9927-C	2613009	MUT9995-C	2613070	PA10-50	2675686
MS150L-50	2676911	MTA95-C	2770830	MUT9928-C	2613010	MUT9995-W	2664340	PA10-C	2611010
MS16	2652520	MT-FC48N	2685903	MUT9929-C	2613011	MUT9996	2654496	PA120-3D	2631950
MS16-50	2676840	MTMA10-GC	2720025	MUT9941-50	2676485	MUT9996-50	2676546	PA120-520	2645600
MS185-50	2676920	MTMA120/1	2720280	MUT9941-C	2613015	MUT9996-C	2613080	PA1-50	2675680
MS240-50	2676925	MTMA120-70-GC	2721410	MUT9941-W	2664319	MUT9996-W	2664342	PA19-50	2675694
MS25	2652525	MTMA120-95-GC	2721450	MUT9942-W	2664320	MUT9997	2654497	PA200-520	2645610
MS25-50	2676850	MTMA120-GC	2720272	MUT9943-50	2676490	MUT9997-50	2676547	PA24-50	2675696
MS300-50	2676930	MTMA150/1	2720320	MUT9943-W	2664321	MUT9997-C	2613085	PA24-C	2611020
MS35	2652530	MTMA150-120-GC	2721630	MUT9950-C	2613020	MUT9997-W	2664344	PA48-C	2611030
MS35-50	2676860	MTMA150-70-GC	2721550	MUT9954-50	2676480	MUT9998	2654498	PA5	2650250
MS4/10-15	2599880	MTMA150-95-GC	2721590	MUT9954-W	2664322	MUT9998-50	2676548	PA5-50	2675682
MS50	2652535	MTMA150-GC	2720330	MUT9955-C	2613025	MUT9998-C	2613090	PA60-C	2611040
MS50-50	2676870	MTMA16/1	2720031	MUT9956-C	2613026	MUT9998-W	2664346	PB-1	2591046
MS6	2652510	MTMA16-10-GC	2720560	MUT9957-C	2613027	MUT9999	2654499	PC1	2590705
MS6-50	2676820	MTMA16-GC	2720035	MUT9958-C	2613028	MUT9999-50	2676550	PG-1	2591047
MS70	2652540	MTMA185/1	2720370	MUT9958-W	2664324	MUT9999-C	2613091	PH1-1	2591061
MS70-50	2676880	MTMA185-120-GC	2721900	MUT9959-C	2613029	MUT9999-W	2664348	PKC1012	2809490
MS95	2652545	MTMA185-150-GC	2721910	MUT9960-C	2613030	MV150	2616170	PKC1018	2809500
MS95-50	2676890	MTMA185-GC	2720360	MUT9961-C	2613032	MV240	2616180	PKC108	2809390
MT150R-C12	2545010	MTMA240/1	2720400	MUT9962-C	2613033	MV35	2616150	PKC112	2809400
MT150R-C16	2545090	MTMA240-150-GC	2722050	MUT9964-C	2613034	MV95	2616160	PKC120027	2809605
MT150R-GC	2541870	MTMA240-185-GC	2722090	MUT9965-C	2613036	MVM150	2616310	PKC1508	2809410
MT150R-TD	2540550	MTMA240-GC	2720410	MUT9966-C	2613037	MVM240	2616320	PKC1510	2809415
MT150S-C12	2545310	MTMA25/1	2720071	MUT9967-C	2613038	MVM35	2616290	PKC1518	2809420
MT150S-C14-80	2546270	MTMA25-10-GC	2720575	MUT9968-C	2613039	MVM95	2616300	PKC1612	2809510
MT150S-C16	2545350	MTMA25-16-GC	2720580	MUT9969-C	2613040	MY10-50	2677340	PKC1618	2809520

Type/Code Cross-Reference chart

Type	Code	Type	Code	Type	Code	Type	Code	Type	Code
PKC25016	2809530	PKT2512	2809840	Q70-6	2167390	RD52.4SS	2685613	RHTD410T	2682520
PKC25022	2809540	PKT412	2809850	Q70-8	2167395	RD54.2SS	2685612	RHU131-C	2619210
PKC2508	2809430	PKT508	2809760	Q95-10	2167475	RD60.5SS	2685615	RHU450	2640011
PKC2512	2809435	PKT510	2809765	Q95-12	2167480	RD60SS	2685614	RHU520	2640151
PKC2518	2809440	PKT614	2809860	Q95-16	2167485	RD64SS	2685616	RJ45-WE	8420029
PKC306	2809320	PKT7508	2809770	Q95-8	2167470	RD65SS	2685618	RKF-BF4	2051632
PKC308	2809330	PKT7510	2809775	RA-3	2598428	RD67X126	2685665	RKF-BM4	2051662
PKC35016	2809550	PL03-P	2051860	RB38-F	8502021	RD68X68	2685666	RKF-F305	2051562
PKC35025	2809560	PL06-P	2053860	RB38-M	8502020	RD72X136	2685667	RKF-F308	2051582
PKC410	2809452	PN14-C	2610710	RBG-15	2599850	RD76.5SS	2685619	RKF-F405	2051602
PKC412	2809455	PN24-C	2610720	RBV-15	2599852	RD76SS	2685620	RKF-F405P	2051607
PKC418	2809460	PN37-C	2610730	RBV-WE	8420016	RD80.5SS	2685622	RKF-F408	2051592
PKC50020	2809570	PN48-C	2610740	RCP-B70	2596116	RD89SS	2685621	RKF-F408P	2051597
PKC50025	2809575	PN60-C	2610750	RD100SS	2685623	RD90SS	2685625	RKF-F608	2051612
PKC508	2809350	PN7-C	2610700	RD102SS	2685636	RD92X92	2685668	RKF-F608P	2051622
PKC510	2809360	PN80-3D	2631460	RD114SS	2685626	RF-BF4	2051630	RKF-FM608	2051692
PKC612	2809470	PNB-1	2591040	RD120SS	2685624	RF-BM4	2051660	RKF-M608	2051652
PKC618	2809480	PNB-3F/M	2591088	RD126X126	2685669	RF-F305	2051560	RKY-M10	2145715
PKC70022	2809595	PNB-3N1	2591092	RD138X138	2685670	RF-F305P	2051565	RKY-M12	2145718
PKC7508	2809370	PNB-3N5	2591096	RD140SS	2685637	RF-F308	2051580	RKY-M3	2145684
PKC7512	2809380	PNB-3NN3	2591094	RD15.5SS	2685560	RF-F308P	2051585	RKY-M3.5	2145685
PKC95025	2809600	PNB-3NN4	2591095	RD15.5SS-FC	2685550	RF-F405	2051600	RKY-M3.5/1	2145687
PKD1012	2808915	PNB-3P	2591090	RD16.2SS	2685562	RF-F405P	2051605	RKY-M4	2145690
PKD1018	2808917	PNB-3PD	2591091	RD16.2SS-FC	2685552	RF-F408	2051590	RKY-M5	2145699
PKD106	2808870	PNB-4KE	2591251	RD17.5SS	2685564	RF-F408P	2051595	RKY-M6/1	2145705
PKD108	2808872	PNB-6KE	2591260	RD17.5SS-FC	2685554	RF-F608	2051610	RKY-M8	2145711
PKD110	2808874	PNB-6KE-T	2591262	RD17SS	2685563	RF-F608P	2051620	RKY-P10	2145783
PKD112	2808876	PNB-7KE	2591268	RD18.8SS	2685566	RF-FM608	2051690	RKY-P12	2145784
PKD1508	2808880	PNB-7KE-T	2591270	RD18.8SS-FC	2685556	RF-M10	2050390	RKY-P8	2145782
PKD1510	2808882	PO7000	2595904	RD18D	2685645	RF-M12	2050430	RKY-PP12	2145790
PKD1512	2808884	PR-1	2591045	RD18X46	2685654	RF-M2	2050010	RKY-PP12/19	2145792
PKD1518	2808886	PRCH	2596113	RD19.1SS	2685568	RF-M3	2050030	RKY-PP16/23	2145793
PKD1612	2808920	PS130-150/E	2616371	RD20.5SS	2685570	RF-M3.5	2050070	RKY-PPL30	2145795
PKD1618	2808922	PS130-240/E	2616381	RD21.5SS	2685571	RF-M3.5/1	2050110	RKY-PPL46	2145798
PKD25016	2808925	PS130-35/E	2616351	RD21X21	2685650	RF-M4	2050150	RKY-U3	2145730
PKD25022	2808927	PS130-95/E	2616361	RD22.6SS	2685572	RF-M4/3	2050170	RKY-U3.5	2145733
PKD2508	2808890	PV-1	2591044	RD224X224	2685678	RF-M5	2050190	RKY-U4	2145736
PKD2512	2808892	Q10-10	2167025	RD22X30	2685651	RF-M6	2050230	RKY-U5	2145739
PKD2518	2808894	Q10-12	2167030	RD22X46	2685656	RF-M6/1	2050270	RKY-U6	2145742
PKD35016	2808930	Q10-4	2167005	RD23.8SS	2685574	RF-M608	2051650	RKY-U6/1	2145743
PKD35025	2808932	Q10-5	2167010	RD24D	2685647	RF-M608P	2051655	RN-B5	2469710
PKD410	2808900	Q10-6	2167015	RD25.4SS	2685576	RF-M7	2050310	RN-FA305	3031610
PKD412	2808902	Q10-8	2167020	RD27SS	2685578	RF-M8	2050350	RN-FA405	3031615
PKD418	2808904	Q120-10	2167545	RD28.5SS	2685580	RF-P10	2051250	RN-FA608	3031620
PKD50020	2808935	Q120-12	2167550	RD28.5SS-19	2685584	RF-P12	2051290	RN-MA305	3031710
PKD50025	2808937	Q120-16	2167555	RD29X71	2685655	RF-P8	2051210	RN-MA405	3031715
PKD506	2808850	Q120-8	2167540	RD30.5SS	2685582	RF-PP12	2051330	RN-MA608	3031720
PKD508	2808852	Q14-M5	6060120	RD30.5SS-19	2685586	RF-PP12/1	2051340	RP-M10	2046045
PKD510	2808854	Q150-10	2167610	RD31.8SS	2685588	RF-PP12/19	2051370	RP-M12	2046050
PKD612	2808910	Q150-12	2167615	RD32.5SS	2685590	RF-PP12/23	2051380	RP-M2	2046005
PKD618	2808912	Q150-16	2167620	RD34.6SS	2685592	RF-PP14	2051410	RP-M3	2046010
PKD7506	2808860	Q16-10	2167095	RD34SS	2685591	RF-PP16/23	2051450	RP-M3.5	2046015
PKD7508	2808862	Q16-12	2167100	RD35X65	2685675	RF-PPL30	2051460	RP-M3.5/1	2046016
PKD7510	2808864	Q16-5	2167080	RD36X46	2685658	RF-PPL46	2051465	RP-M4	2046020
PKD7512	2808866	Q16-6	2167085	RD37.2SS	2685594	RF-U10	2050950	RF-M4/3	2046023
PKE1012	2809190	Q16-8	2167090	RD37X104	2685674	RF-U12	2050990	RF-M5	2046025
PKE1018	2809200	Q185-10	2167680	RD37X115	2685661	RF-U3	2050630	RF-M6	2046030
PKE108	2809090	Q185-12	2167685	RD37X54	2685671	RF-U3.5	2050670	RF-M6/1	2046031
PKE1508	2809110	Q185-16	2167690	RD37X67	2685672	RF-U3.5/1	2050680	RF-M7	2046035
PKE1510	2809115	Q240-10	2167750	RD37X88	2685673	RF-U3.5/2	2050681	RF-M8	2046040
PKE1518	2809120	Q240-12	2167755	RD38.1SS	2685596	RF-U4	2050710	RF-P10	2046115
PKE1612	2809210	Q240-16	2167760	RD38.5SS	2685597	RF-U4/1	2050730	RF-P12	2046120
PKE1618	2809220	Q25-10	2167165	RD40.5SS	2685598	RF-U4/2	2050750	RF-P8	2046110
PKE25016	2809230	Q25-12	2167170	RD40.5SS-FC	2685627	RF-U5	2050790	RF-PP12	2046140
PKE25022	2809240	Q25-16	2167175	RD41.3SS	2685600	RF-U5/1	2050791	RF-PP12/1	2046145
PKE2508	2809130	Q25-5	2167150	RD41.3SS-FC	2685628	RF-U6	2050830	RF-PP12/19	2046150
PKE2512	2809135	Q25-6	2167155	RD42.5SS	2685602	RF-U6/1	2050870	RF-PP12/23	2046155
PKE2518	2809140	Q25-8	2167160	RD42.5SS-FC	2685629	RF-U8	2050910	RF-PP14	2046160
PKE308	2809030	Q35-10	2167240	RD43.2SS	2685604	RFC200	3065380	RF-PP16/23	2046165
PKE410	2809152	Q35-12	2167245	RD43.2SS-FC	2685630	RG71-WE	8420036	RF-PPL30	2046180
PKE412	2809155	Q35-16	2167250	RD44.5SS	2685606	RG174-WE	8420037	RF-PPL46	2046185
PKE418	2809160	Q35-6	2167230	RD44.5SS-FC	2685632	RG179-WE	8420037	RF-U10	2046265
PKE508	2809050	Q35-8	2167235	RD46X107	2685652	RH50	2670050	RF-U12	2046270
PKE612	2809170	Q38-F	6060126	RD46X46	2685660	RHC131	2619010	RF-U3	2046210
PKE618	2809180	Q38-M5	6060124	RD46X54	2685662	RHC131LN	2619021	RF-U3.5	2046215
PKE7508	2809070	Q50-10	2167320	RD46X72	2685664	RH-FC48N	2592596	RF-U3.5/2	2046217
PKT1014	2809870	Q50-12	2167325	RD46X92	2685677	RH-FL75	2592597	RF-U4	2046230
PKT108	2809790	Q50-16	2167330	RD47.2SS	2685608	RHM132	2619410	RF-U4/1	2046231
PKT110	2809795	Q50-6	2167310	RD47.2SS-FC	2685634	RHM50	2670035	RF-U4/2	2046240
PKT1508	2809810	Q50-8	2167315	RD48.5SS	2685609	RHT160	2592422	RF-U5	2046245
PKT1512	2809820	Q70-10	2167400	RD50.5SS	2685610	RHT160-60N	2592584	RF-U5/1	2046246
PKT1614	2809880	Q70-12	2167405	RD50X98	2685663	RHTD270	2682521	RF-U6	2046255
PKT2510	2809830	Q70-16	2167410	RD51.4SS	2685611	RHTD3241	2682502	RF-U6/1	2046256

Type/Code Cross-Reference chart

Type	Code	Type	Code	Type	Code	Type	Code	Type	Code
RP-U8	2046260	S2.5-U3	2162410	SFI10X100X1	2852570	T16-M5	2380320	TBS190X5GY	2811224
RS0305.07	3008006	S2.5-U3.5	2162450	SFI10X15.5X0.8	2850970	T16-M6	2380330	TBS190X5RE	2811049
RS0407.M12	3008050	S2.5-U3.5/1	2162460	SFI10X24X1	2851370	T16-M8	2380340	TBS190X5WH	2811275
RS0507.09	3008008	S2.5-U4	2162490	SFI10X32X1	2851570	T185-L10	2381495	TBS190X5Y/G	2811174
RS0509.M16	3008052	S2.5-U4/1	2162510	SFI10X40X1	2851770	T185-M10	2381450	TBS24X20BK	2811112
RS0710.11	3008010	S2.5-U4/2	2162530	SFI10X50X1	2851970	T185-M12	2381460	TBS24X20BR	2811237
RS0813.M20	3008054	S2.5-U5	2162570	SFI10X63X1	2852170	T185-M14	2381470	TBS24X20BU	2811187
RS1014.16	3008012	S2.5-U6	2162610	SFI10X80X1	2852370	T185-M16	2381480	TBS24X20GY	2811212
RS1117.M25	3008056	S2.5-U6/1	2162650	SFI12X100X1	2852580	T240-M10	2381650	TBS24X20RE	2811037
RS1420.21	3008014	S2.5-U8	2162690	SFI2X13X0.5	2850710	T240-M12	2381660	TBS24X20WH	2811263
RS1520.M32	3008058	S6-M10	2163830	SFI2X20X1	2851110	T240-M14	2381670	TBS24X20Y/G	2811162
RS1928.M40	3008060	S6-M10/1	2163850	SFI2X24X1	2851310	T240-M16	2381680	TBS254X5BK	2811126
RS2026.29	3008016	S6-M12	2163890	SFI2X32X1	2851510	T240-M20	2381690	TBS254X5BR	2811251
RS2635.36	3008018	S6-M14	2163930	SFI3X13X0.5	2850720	T25-L10	2380470	TBS254X5BU	2811201
RS2735.M50	3008062	S6-M16	2163970	SFI3X15.5X0.8	2850920	T25-L6	2380480	TBS254X5GY	2811226
RT10.5	2592470	S6-M3	2163510	SFI3X20X1	2851120	T25-L8	2380485	TBS254X5RE	2811051
RT11	2592480	S6-M3.5	2163550	SFI3X24X1	2851320	T25-M10	2380450	TBS254X5WH	2811277
RT13	2592490	S6-M4	2163590	SFI3X32X1	2851520	T25-M12	2380460	TBS254X5Y/G	2811176
RT13.5	2592495	S6-M5	2163630	SFI3X9X0.8	2850520	T25-M5	2380425	TBS32X10BK	2811114
RT14	2592500	S6-M6	2163670	SFI4X13X0.5	2850730	T25-M6	2380430	TBS32X10BR	2811239
RT15	2592510	S6-M6/1	2163710	SFI4X15.5X0.8	2850930	T25-M8	2380440	TBS32X10BU	2811189
RT17	2592530	S6-M7	2163750	SFI4X20X1	2851130	T300-M10	2381750	TBS32X10GY	2811214
RT19	2592540	S6-M8	2163790	SFI4X24X1	2851330	T300-M12	2381760	TBS32X10RE	2811039
RT21	2592550	S6-M8/1	2163800	SFI4X32X1	2851530	T300-M14	2381770	TBS32X10WH	2811265
RT6.5	2592430	S6-P10	2164710	SFI4X40X1	2851730	T300-M16	2381780	TBS32X10Y/G	2811164
RT8.5	2592450	S6-P12	2164750	SFI4X50X1	2851930	T300-M20	2381790	TBS48X10BK	2811116
RT9	2592460	S6-P14	2164790	SFI4X80X1	2852330	T35-L10	2380590	TBS48X10BR	2811241
S1.5-M10	2160390	S6-PP12	2164830	SFI5X20X1	2851140	T35-L6	2380580	TBS48X10BU	2811191
S1.5-M12	2160430	S6-PP17	2164870	SFI5X24X1	2851340	T35-L8	2380585	TBS48X10GY	2811216
S1.5-M2	2160010	S6-U10	2164370	SFI5X32X1	2851540	T35-M10	2380550	TBS48X10RE	2811041
S1.5-M3	2160030	S6-U10/1	2164390	SFI5X40X1	2851740	T35-M12	2380560	TBS48X10WH	2811267
S1.5-M3.5	2160070	S6-U12	2164430	SFI5X50X1	2851940	T35-M6	2380530	TBS48X10Y/G	2811166
S1.5-M3.5/1	2160110	S6-U14	2164470	SFI5X63X1	2852140	T35-M8	2380540	TBS64X10BK	2811118
S1.5-M4	2160150	S6-U16	2164510	SFI5X80X1	2852340	T400-M14	2381875	TBS64X10BR	2811243
S1.5-M4/3	2160160	S6-U3.5	2164170	SFI6X13X0.5	2850750	T400-M16	2381880	TBS64X10BU	2811193
S1.5-M5	2160190	S6-U4	2164210	SFI6X15.5X0.8	2850950	T400-M20	2381890	TBS64X10GY	2811218
S1.5-M6	2160230	S6-U5	2164250	SFI6X20X1	2851150	T4-M4	2380060	TBS64X10RE	2811043
S1.5-M6/1	2160270	S6-U6	2164290	SFI6X24X1	2851350	T4-M5	2380070	TBS64X10WH	2811269
S1.5-M7	2160310	S6-U8	2164330	SFI6X32X1	2851550	T4-M6	2380080	TBS64X10Y/G	2811168
S1.5-M8	2160350	SB19	3065352	SFI6X40X1	2851750	T50-L10	2380690	TBS95X10BK	2811120
S1.5-P10	2161190	SB19-TIN	3065353	SFI6X50X1	2851950	T50-L6	2380680	TBS95X10BR	2811245
S1.5-P12	2161230	SB7-SDS-PLUS	3065350	SFI6X63X1	2852150	T50-L8	2380685	TBS95X10BU	2811195
S1.5-P8	2161150	SC1	2591261	SFI6X80X1	2852350	T50-M10	2380650	TBS95X10GY	2811220
S1.5-PP12	2161310	SC3X	2591264	SFI6X9X0.8	2850550	T50-M12	2380660	TBS95X10RE	2811045
S1.5-PP12/1	2161330	SC5X	2591266	SFI8X100X1	2852560	T50-M6	2380630	TBS95X10WH	2811271
S1.5-PP12/19	2161350	SC6X-A	2591267	SFI8X24X1	2851360	T50-M8	2380640	TBS95X10Y/G	2811170
S1.5-PP14	2161360	SC-M1	3065306	SFI8X32X1	2851560	T6-L6	2380180	TC025	2591895
S1.5-U10	2160950	SC-PG1	3065305	SFI8X40X1	2851760	T6-M4	2380110	TC04N	2591392
S1.5-U12	2160990	SDC0PH-KV	3065110	SFI8X50X1	2851960	T6-M5	2380120	TC050Y	2597056
S1.5-U3	2160630	SDC0PZ-KV	3065150	SFI8X63X1	2852160	T6-M6	2380130	TC065-SC	2591870
S1.5-U3.5	2160670	SDC10TX-KV	3065170	SFI8X80X1	2852360	T6-M8	2380140	TC085	2597150
S1.5-U3.5/2	2160682	SDC10X125-HEX	3065621	SH-B70	2596080	T70-L10	2380790	TC096	2597360
S1.5-U4	2160710	SDC15TX-KV	3065172	SMA-WE	8420038	T70-L12	2380795	TC120	2597250
S1.5-U4/1	2160730	SDC1PH-KV	3065112	SS4.8-3.7	3041670	T70-L8	2380785	TCP10	3019220
S1.5-U4/2	2160750	SDC1PH-SL-KV	3065122	SS4.8-4.5	3041672	T70-M10	2380750	TCP12	3019225
S1.5-U5	2160790	SDC1PZ-KV	3065152	SS9-4.5	3041675	T70-M12	2380760	TCP15	3019230
S1.5-U5/1	2160800	SDC1PZ-SL-KV	3065162	SS9-5	3041677	T70-M6	2380734	TCP18	3019235
S1.5-U6	2160830	SDC2.5X55B	3065061	SS9-6.4	3041679	T70-M8	2380740	TCP20	3019240
S1.5-U6/1	2160870	SDC20TX-KV	3065174	ST-WE	8420039	T95-L10	2380905	TCP25	3019250
S1.5-U8	2160910	SDC25TX-KV	3065176	T10-L6	2380280	T95-L12	2380910	TCP30	3019260
S10-M4	2165130	SDC2PH-KV	3065114	T10-L8	2380285	T95-M10	2380850	TCP35	3019270
S10-M5	2165150	SDC2PH-SL-KV	3065124	T10-M10	2380250	T95-M12	2380860	TCP40	3019280
S10-M6	2165190	SDC2PZ-KV	3065154	T10-M5	2380220	T95-M14	2380870	TCP45	3019290
S10-M7	2165230	SDC2PZ-SL-KV	3065164	T10-M6	2380230	T95-M16	2380880	TCP5	3019210
S2.5-M10	2162170	SDC3.5X100-KV	3065067	T10-M8	2380240	T95-M6	2380834	TCP50	3019300
S2.5-M12	2162210	SDC3.5X55B	3065062	T120-L10	2381105	T95-M8	2380840	TCP55	3019305
S2.5-M3	2161810	SDC30TX-KV	3065178	T120-L12	2381110	TBS127X10BK	2811122	TCP60	3019310
S2.5-M3.5	2161850	SDC3X100-KV	3065065	T120-M10	2381050	TBS127X10BR	2811247	TCP65	3019315
S2.5-M3.5/1	2161890	SDC3X60-PD	3065060	T120-M12	2381060	TBS127X10BU	2811197	TCP70	3019320
S2.5-M4	2161930	SDC40TX-KV	3065180	T120-M14	2381070	TBS127X10GY	2811222	TCS1016X25BK	2811342
S2.5-M5	2161970	SDC4X100-KV	3065069	T120-M16	2381080	TBS127X10RE	2811047	TCS1016X25TR	2811558
S2.5-M6	2162010	SDC5.5X125-KV	3065071	T120-M8	2381040	TBS127X10WH	2811273	TCS1260X25BK	2811344
S2.5-M6/1	2162050	SDC6.5X150-KV	3065073	T150-L10	2381305	TBS127X10Y/G	2811172	TCS1260X25TR	2811559
S2.5-M7	2162090	SDC7X125-HEX	3065615	T150-L12	2381310	TBS16X20BK	2811110	TCS127X100BK	2811326
S2.5-M8	2162130	SDC8X125-HEX	3065617	T150-M10	2381250	TBS16X20BR	2811235	TCS127X100BR	2811614
S2.5-P10	2163050	SDC8X175-KV	3065075	T150-M12	2381260	TBS16X20BU	2811185	TCS127X100BU	2811432
S2.5-P12	2163090	SDC9X125-HEX	3065619	T150-M14	2381270	TBS16X20GY	2811210	TCS127X100GN	2811402
S2.5-P8	2163010	SDCS1PH	3065132	T150-M16	2381280	TBS16X20RE	2811035	TCS127X100GY	2811583
S2.5-PP12	2163170	SDCS2.5X55	3065092	T150-M8	2381240	TBS16X20WH	2811261	TCS127X100RE	2811462
S2.5-PP12/25	2163210	SFC200	3065385	T16-L10	2380390	TBS16X20Y/G	2811160	TCS127X100TR	2811546
S2.5-PP16/25	2163250	SPC200B-KV	3065257	T16-L6	2380380	TBS190X5BK	2811124	TCS127X100WH	2811492
S2.5-U10	2162730	SPC200-KV	3065255	T16-L8	2380385	TBS190X5BR	2811249	TCS127X100Y/G	2811523
S2.5-U12	2162770	STBC12-300	3065662	T16-M10	2380350	TBS190X5BU	2811199	TCS127X100YE	2811364

Type/Code Cross-Reference chart

Type	Code	Type	Code	Type	Code	Type	Code	Type	Code
TCS12X200BK	2811312	TCS64X100GY	2811579	TSS16BR	2811888	TSS64RE	2811686	VP-M6	2048210
TCS12X200TR	2811549	TCS64X100RE	2811458	TSS16BU	2811738	TSS64TR	2811776	VP-P10	2049210
TCS1500X25BK	2811346	TCS64X100TR	2811542	TSS16GN	2811829	TSS64WH	2811716	VP-PP12/19	2049370
TCS1500X25TR	2811560	TCS64X100WH	2811488	TSS16GY	2811859	TSS64Y/G	2811924	VP-U3	2048630
TCS160X100BK	2811328	TCS64X100Y/G	2811519	TSS16RE	2811678	TSS64YE	2811806	VP-U3.5	2048670
TCS160X100TR	2811547	TCS64X100YE	2811360	TSS16TR	2811768	TSS95BK	2811658	VP-U4	2048710
TCS16X200BK	2811314	TCS762X25BK	2811340	TSS16WH	2811708	TSS95BR	2811898	WL03-M	2469780
TCS16X200BR	2811602	TCS762X25TR	2811557	TSS16Y/G	2811916	TSS95BU	2811748	WL06-M	2469785
TCS16X200BU	2811420	TCS95X100BK	2811324	TSS16YE	2811798	TSS95GN	2811839	WL1-M	2469790
TCS16X200GN	2811390	TCS95X100BR	2811612	TSS190BK	2811662	TSS95GY	2811869	WLM-WE	8420050
TCS16X200GY	2811571	TCS95X100BU	2811430	TSS190BR	2811902	TSS95RE	2811688	WT2-3D	2636970
TCS16X200RE	2811450	TCS95X100GN	2811400	TSS190BU	2811752	TSS95TR	2811778	WPC250-KV	3065265
TCS16X200TR	2811551	TCS95X100GY	2811581	TSS190GN	2811843	TSS95WH	2811718	WSC180-KV	3065338
TCS16X200WH	2811480	TCS95X100RE	2811460	TSS190GY	2811873	TSS95Y/G	2811926	Z10-1	2845030
TCS16X200YE	2811352	TCS95X100TR	2811544	TSS190RE	2811692	TSS95YE	2811808	Z16-1	2845040
TCS190X100BK	2811330	TCS95X100WH	2811490	TSS190TR	2811782	UKC4	3065300	Z16-12	2844156
TCS190X100BR	2811616	TCS95X100Y/G	2811521	TSS190WH	2811722	UPC180-KV	3065250	Z16-12D	2844157
TCS190X100BU	2811434	TCS95X100YE	2811362	TSS190Y/G	2811930	UPC200-KV	3065252	Z16-3	2844115
TCS190X100GN	2811404	TD-10X10-M10	2685011	TSS190YE	2811812	UP130-120	2616520	Z16-3D	2844116
TCS190X100GY	2811585	TD-11	2685005	TSS24BK	2811650	UP130-150	2616530	Z16-4	2844130
TCS190X100RE	2811464	TD-120X20-M20	2685013	TSS24BR	2811890	UP130-185	2616550	Z16-4D	2844131
TCS190X100TR	2811548	TD-14X14-M14	2685012	TSS24BU	2811740	UP130-240	2616560	Z16-5N	2844122
TCS190X100WH	2811494	TD-14X14-M14/1	2685004	TSS24GN	2811831	UP130-50	2616470	Z16-5ND	2844123
TCS190X100Y/G	2811525	TD-16	2685002	TSS24GY	2811861	UP130-70	2616490	Z16-8	2844140
TCS190X100YE	2811366	TD-19	2685008	TSS24RE	2811680	UP130-95	2616500	Z16-8D	2844141
TCS20X200WH	2811481	TD-20	2685001	TSS24TR	2811770	USB-CABLE	6006309	Z2.5-1	2845010
TCS24X200BK	2811316	TD-20X20-M20	2685014	TSS24WH	2811710	VAL-04	2593310	Z25-1	2845050
TCS24X200BR	2811604	TD-20X20-M20-C	2685019	TSS24Y/G	2811918	VAL-096	2593669	Z25-DP7-100	2845180
TCS24X200BU	2811422	TD-27	2685007	TSS24YE	2811800	VAL-1000	2593426	Z35-1	2845060
TCS24X200GN	2811392	TD-28.5	2685009	TSS254BK	2811664	VAL-130	2610450	Z35-26D	2844216
TCS24X200GY	2811573	TD-9	2685003	TSS254BR	2811904	VAL-130-U	2610451	Z35-3	2844205
TCS24X200RE	2811452	TD-M16C	2685010	TSS254BU	2811754	VAL-160	2593405	Z35-3D	2844206
TCS24X200TR	2811552	TF300-Q38F	2592862	TSS254GN	2811845	VAL-22-TC120	2593391	Z35-4	2844201
TCS24X200WH	2811482	TF300-Q38FM	2592863	TSS254GY	2811875	VAL-450	2593424	Z35-4D	2844202
TCS24X200YE	2811354	TF600-Q38FM	2592981	TSS254RE	2811694	VAL-520	2593410	Z35-6	2844210
TCS254X50BK	2811332	TGD-10X10-M9	2685018	TSS254TR	2811784	VAL-600	2593425	Z35-6D	2844211
TCS254X50BR	2811618	TGD-13.5X13.5M13	2685017	TSS254WH	2811724	VAL-75	2600110	Z35-DP14-125	2845210
TCS254X50BU	2811436	TGM38	3016155	TSS254Y/G	2811932	VAL-B-TC950	2593704	Z35-DP14B-125	2845212
TCS254X50GN	2811406	TGM48	3016157	TSS254YE	2811814	VAL-CP096	2593671	Z35T-11	2844220
TCS254X50GY	2811587	TGM513	3016165	TSS32BK	2811652	VAL-ECW-H3D	2593421	Z35T-11D	2844221
TCS254X50RE	2811466	TGM58	3016159	TSS32BR	2811892	VAL-FC470	2593710	Z50-10D	2844230
TCS254X50TR	2811553	TGM613	3016167	TSS32BU	2811742	VALMAT-520	2593411	Z50-DP12-160	2845220
TCS254X50WH	2811496	TGM713	3016169	TSS32GN	2811833	VAL-P1	2590595	Z6-1	2845020
TCS254X50Y/G	2811527	TGM817	3016171	TSS32GY	2811863	VAL-P10	2590620	Z6-10	2844106
TCS254X50YE	2811368	TN120SEY	2590282	TSS32RE	2811682	VAL-P18	2590628	Z6-10D	2844107
TCS320X50BK	2811334	TN70SEY	2590262	TSS32TR	2811772	VAL-P21	2874156	Z6-3	2844080
TCS320X50TR	2811554	TNE-A120	2590117	TSS32WH	2811712	VAL-P22	2874157	Z6-3D	2844081
TCS32X200BK	2811318	TNE-A50	2590116	TSS32Y/G	2811920	VAL-P26	2590635	Z6-5	2844100
TCS32X200BR	2811606	TNE-T120	2590119	TSS32YE	2811802	VAL-P28	2590639	Z6-5D	2844101
TCS32X200BU	2811424	TNE-T50	2590118	TSS380BK	2811666	VAL-P29	2590641	Z6-6	2844108
TCS32X200GN	2811394	TNE-D120	2590112	TSS380BR	2811906	VAL-P3	2590610	Z6-6D	2844109
TCS32X200GY	2811575	TNE-D50	2590111	TSS380BU	2811756	VAL-P30	2590642	ZKE2	2590710
TCS32X200RE	2811454	TNN120	2590290	TSS380GN	2811847	VAL-P38	2590650	ZKE610N	2590722
TCS32X200TR	2811540	TNN70	2590240	TSS380GY	2811877	VAL-P39	2590651	ZKE616N	2590724
TCS32X200WH	2811484	TR160-KV	3065330	TSS380RE	2811696	VAL-P4	2590612	ZKE6-F	2590716
TCS32X200Y/G	2811515	TR200-KV	3065332	TSS380TR	2811786	VAL-P40	2590652	ZP2	2590760
TCS32X200YE	2811356	TRCB2	3065991	TSS380WH	2811726	VAL-P44	2590654		
TCS381X50BK	2811336	TRD-9.4C	2685015	TSS380Y/G	2811934	VAL-P48	2590655		
TCS381X50BR	2811620	TRD-M11C	2685016	TSS380YE	2811816	VAL-P51	2590658		
TCS381X50BU	2811438	TWC10.50-14	3065670	TSS48BK	2811654	VAL-P54	2590661		
TCS381X50GY	2811589	TWC20.100-38	3065671	TSS48BR	2811894	VAL-P56	2590665		
TCS381X50TR	2811555	TWC40.200-12	3065672	TSS48BU	2811744	VAL-P57	2590663		
TCS381X50Y/G	2811511	TRS-B70	2593280	TSS48GN	2811835	VAL-P59	2590667		
TCS48X100BK	2811320	TSS127BK	2811660	TSS48GY	2811865	VAL-P7	2590616		
TCS48X100BR	2811608	TSS127BR	2811900	TSS48RE	2811684	VAL-GPT	3065010		
TCS48X100BU	2811426	TSS127BU	2811750	TSS48TR	2811774	VAL-GPTA-N	3065013		
TCS48X100GN	2811396	TSS127GN	2811841	TSS48WH	2811714	VAL-GPTP	3064980		
TCS48X100GY	2811577	TSS127GY	2811871	TSS48Y/G	2811922	VAL-GPTS	3065015		
TCS48X100RE	2811456	TSS127RE	2811690	TSS48YE	2811804	VALSTAR-N1	2590775		
TCS48X100TR	2811543	TSS127TR	2811780	TSS510BK	2811668	VALSTAR-N2	2590776		
TCS48X100WH	2811486	TSS127WH	2811720	TSS510BR	2811908	VALSTAR-N3	2590777		
TCS48X100Y/G	2811517	TSS127Y/G	2811928	TSS510BU	2811758	VALSTAR-N4	2590778		
TCS48X100YE	2811358	TSS127YE	2811810	TSS510GN	2811849	VALSTAR-N5	2590919		
TCS508X25BK	2811338	TSS12BK	2811646	TSS510GY	2811879	VALSTAR-R3/IDT	2590593		
TCS508X25BR	2811622	TSS12BR	2811886	TSS510RE	2811698	VALSTAR-ZETA	2844005		
TCS508X25BU	2811440	TSS12BU	2811736	TSS510TR	2811788	VAL-TC055	2593325		
TCS508X25GY	2811591	TSS12GN	2811827	TSS510WH	2811728	VAL-TC085	2593323		
TCS508X25TR	2811556	TSS12GY	2811857	TSS510YE	2811818	VAL-TC120	2593322		
TCS508X25Y/G	2811513	TSS12RE	2811676	TSS64BK	2811656	VP-M2	2048010		
TCS64X100BK	2811322	TSS12TR	2811766	TSS64BR	2811896	VP-M3	2048030		
TCS64X100BR	2811610	TSS12WH	2811706	TSS64BU	2811746	VP-M3.5	2048070		
TCS64X100BU	2811428	TSS12YE	2811796	TSS64GN	2811837	VP-M4	2048150		
TCS64X100GN	2811398	TSS16BK	2811648	TSS64GY	2811867	VP-M5	2048190		

Comparison of AWG, MCM and Metric conductor cross sections

CONDUCTORS SECTIONS

Conversion Table AWG, MCM / mm²

[AWG]	Actual conductor csa mm ²	Comparable metric csa mm ²	[MCM]	Actual conductor csa mm ²	Comparable metric csa mm ²
27	0.10		250	127	120
26	0.13	0.14	300	152	150
25	0.16	-	350	177	185
24	0.21	0.2	400	203	-
23	0.26	0.25	500	253	240
22	0.33	0.34	600	304	300
21	0.41	-	700	355	-
20	0.52	0.5	800	405	400
19	0.65	-	900	456	-
18	0.82	0.75	1000	507	500
17	1.04	1	1250	633	625
16	1.31	-	1500	760	800
15	1.65	1.5	1750	887	-
14	2.08	-	2000	1010	1000
13	2.63	2.5			
12	3.31	-			
11	4.15	4			
10	5.27	6			
9	6.62	-			
8	8.35	-			
7	10.6	10			
6	13.3	-			
5	16.8	16			
4	21.2	-			
3	26.7	25			
2	33.6	35			
1	42.4	-			
1/0	53.4	50			
2/0	67.5	70			
3/0	85.0	95			
4/0	107.2	120			

MAXIMUM DIAMETERS OF CIRCULAR COPPER CONDUCTORS: SOLID, NON COMPACTED STRANDED AND FLEXIBLE			
Cross sectional area [mm ²]	Conductors in cables for fixed installations		Flexible conductors (Classes 5 and 6) Maximum diameter [mm]
	Solid (Class 1) Maximum diameter [mm]	Stranded (Class 2) Maximum diameter [mm]	
0.5	0.9	1.1	1.1
0.75	1	1.2	1.3
1	1.2	1.4	1.5
1.5	1.5	1.7	1.8
2.5	1.9	2.2	2.4
4	2.4	2.7	3
6	2.9	3.3	3.9
10	3.7	4.2	5.1
16	4.6	5.3	6.3
25 ^a	5.7	6.6	7.8
35 ^a	6.7	7.9	9.2
50 ^a	7.8	9.1	11
70 ^a	9.4	11	13.1
95 ^a	11	12.9	15.1
120 ^a	12.4	14.5	17
150 ^a	13.8	16.2	19
185	15.4	18	21
240	17.6	20.6	24
300	19.8	23.1	27
400	22.2	26.1	31
500	-	29.2	35
630	-	33.2	39
800	-	37.6	-
1000	-	42.2	-

NOTE: The values given for flexible conductors represent both class 5 and class 6 conductors.

^a Solid copper conductor having cross-sectional areas of 25 mm² and above are for particular types of cable, e.g. mineral insulated, and not for general purposes.

MINIMUM AND MAXIMUM DIAMETERS OF STRANDED COMPACTED CIRCULAR COPPER, ALUMINIUM AND ALUMINIUM ALLOY CONDUCTORS		
Cross-sectional area [mm ²]	Stranded compacted circular conductors (Class 2)	
	Minimum diameter [mm]	Maximum diameter [mm]
10	3.6	4.0
16	4.6	5.2
25	5.6	6.5
35	6.6	7.5
50	7.7	8.6
70	9.3	10.2
95	11.0	12.0
120	12.3	13.5
150	13.7	15.0
185	15.3	16.8
240	17.6	19.2
300	19.7	21.6
400	22.3	24.6
500	25.3	27.6
630	28.7	32.5

NOTES: - The dimensional limits of Aluminium conductors with cross-sectional areas above 630 mm² are not given as the compaction technology is not generally established.

- The values are given for compacted copper conductors in the size range 1,5 mm² to 6 mm².

MINIMUM AND MAXIMUM DIAMETERS OF CIRCULAR ALUMINIUM CONDUCTORS		
Cross-sectional area [mm ²]	Solid conductors (Class 1)	
	Minimum diameter [mm]	Maximum diameter [mm]
10	3.4	3.7
16	4.1	4.6
25	5.2	5.7
35	6.1	6.7
50	7.2	7.8
70	8.7	9.4
95	10.3	11.0
120	11.6	12.4
150	12.9	13.8
185	14.5	15.4
240	16.7	17.6
300	18.8	19.8
400	21.2	22.2
500	24.0	25.1
630	27.3	28.4
800	30.9	32.1
1000	34.8	36.0
1200	37.8	39.0

IEC 60228 : 2004 - 11 conductor tables

CLASS 1:

SOLID CONDUCTORS FOR SINGLE-CORE AND MULTI-CORE CABLES

Nominal cross-sectional [mm ²]	Maximum resistance of conductor at 20 °C		
	Circular, annealed Copper conductors		Aluminium and Aluminium alloy conductors, circular or shaped c [ohm/km]
	Plain [ohm/km]	Metal [ohm/km]	
0.5	36	36.7	-
0.75	24.5	24.8	-
1	18.1	18.2	-
1.5	12.1	12.2	-
2.5	7.41	7.56	-
4	4.61	4.70	-
6	3.08	3.11	-
10	1.83	1.84	3.08 a
16	1.15	1.16	1.91 a
25	0.727 b	-	1.20 a
35	0.524 b	-	0.868 a
50	0.387 b	-	0.641
70	0.268 b	-	0.443
95	0.193 b	-	0.320 d
120	0.153 b	-	0.253 d
150	0.124 b	-	0.206 d
185	0.101 b	-	0.164 d
240	0.0775 b	-	0.125 d
300	0.0620 b	-	0.100 d
400	0.0465 b	-	0.0778
500	-	-	0.0605
630	-	-	0.0469
800	-	-	0.0367
1000	-	-	0.0291
1200	-	-	0.0247

^a Aluminium conductors 10 mm² to 35 mm² circular only

^b Solid Copper conductors having nominal cross-sectional area of 25 mm² and above are for particular types of cable, e.g. mineral insulated, and not for general purposes.

^c For solid Aluminium alloy conductors, having the same nominal cross-sectional area as an Aluminium conductor, the resistance value given in the table should be multiplied by a factor of 1,162 unless otherwise agreed between the manufacturer and the purchaser.

^d For single core cables, four sectoral shaped conductors may be assembled into a single circular conductor. The maximum resistance of the assembled conductor shall be 25% of that of the individual component conductors.

CLASS 2:

STRANDED CONDUCTORS FOR SINGLE-CORE AND MULTI-CORE CABLES

Nominal cross-sectional area [mm ²]	Minimum number of wires in the conductor						Maximum resistance of conductor at 20 °C		
	Circular		Circular compacted		Shaped		Annealed copper conductor		Aluminium or aluminium alloy conductor ^c [ohm/km]
	Cu	Al	Cu	Al	Cu	Al	Plain wires [ohm/km]	Metal-coated wires [ohm/km]	
0.5	7	-	-	-	-	-	36.0	36.7	-
0.75	7	-	-	-	-	-	24.5	24.8	-
1.0	7	-	-	-	-	-	18.1	18.2	-
1.5	7	-	6	-	-	-	12.1	12.2	-
2.5	7	-	6	-	-	-	7.41	7.56	-
4	7	-	6	-	-	-	4.61	4.70	-
6	7	-	6	-	-	-	3.08	3.11	-
10	7	7	6	6	-	-	1.83	1.84	3.08
16	7	7	6	6	-	-	1.15	1.16	1.91
25	7	7	6	6	6	6	0.727	0.734	1.20
35	7	7	6	6	6	6	0.524	0.529	0.868
50	19	19	6	6	6	6	0.387	0.391	0.641
70	19	19	12	12	12	12	0.268	0.270	0.443
95	19	19	15	15	15	15	0.193	0.195	0.320
120	37	37	18	15	18	15	0.153	0.154	0.253
150	37	37	18	15	18	15	0.124	0.126	0.206
185	37	37	30	30	30	30	0.0991	0.100	0.164
240	61	61	34	30	34	30	0.0754	0.0762	0.125
300	61	61	34	30	34	30	0.0601	0.0607	0.100
400	61	61	53	53	53	53	0.0470	0.0475	0.0778
500	61	61	53	53	53	53	0.0366	0.0369	0.0605
630	91	91	53	53	53	53	0.0283	0.0286	0.0469
800	91	91	53	53	-	-	0.0221	0.0224	0.0367
1000	91	91	53	53	-	-	0.0176	0.0177	0.0291
1200			b				0.0151	0.0151	0.0247
1400 a			b				0.0129	0.0129	0.0212
1600			b				0.0113	0.0113	0.0186
1800 a			b				0.0101	0.0101	0.0165
2000			b				0.0090	0.0090	0.0149
2500			b				0.0072	0.0072	0.0127

^a Non-preferred sizes. Other non-preferred sizes are recognized for some specialized applications but are not within the scope of this standard.

^b The minimum number of wires for these sizes is not specified. These sizes may be constructed from 4, 5 or 6 equal segments (Milliken).

^c For stranded Aluminium alloy conductors having the same nominal cross-sectional area as an Aluminium conductor the resistance value should be agreed between the manufacturer and the purchaser.

CLASS 5:			
FLEXIBLE COPPER CONDUCTORS FOR SINGLE-CORE AND MULTI-CORE CABLES			
Nominal cross-sectional [mm ²]	Maximum diameter of wires in conductor [mm]	Maximum resistance of conductor at 20 °C	
		Plain wires [ohm/km]	Metal-coated wires [ohm/km]
0.5	0.21	39	40.1
0.75	0.21	26	26.7
1	0.21	19.5	20
1.5	0.26	13.3	13.7
2.5	0.26	7.98	8.21
4	0.31	4.95	5.09
6	0.31	3.3	3.39
10	0.41	1.91	1.95
16	0.41	1.21	1.24
25	0.41	0.78	0.795
35	0.41	0.554	0.565
50	0.41	0.386	0.393
70	0.51	0.272	0.277
95	0.51	0.206	0.21
120	0.51	0.161	0.164
150	0.51	0.129	0.132
185	0.51	0.106	0.108
240	0.51	0.080	0.081
300	0.51	0.064	0.065
400	0.51	0.048	0.049
500	0.61	0.038	0.039
630	0.61	0.028	0.029

CLASS 6:			
FLEXIBLE COPPER CONDUCTORS FOR SINGLE-CORE AND MULTI-CORE CABLES			
Nominal cross-sectional [mm ²]	Maximum diameter of wires in conductor [mm]	Maximum resistance of conductor at 20 °C	
		Plain wires [ohm/km]	Metal-coated wires [ohm/km]
0.5	0.16	39	40.1
0.75	0.16	26	26.7
1	0.16	19.5	20
1.5	0.16	13.3	13.7
2.5	0.16	7.98	8.21
4	0.16	4.95	5.09
6	0.21	3.3	3.39
10	0.21	1.91	1.95
16	0.21	1.21	1.24
25	0.21	0.78	0.795
35	0.21	0.554	0.565
50	0.31	0.386	0.393
70	0.31	0.272	0.277
95	0.31	0.206	0.21
120	0.31	0.161	0.164
150	0.31	0.129	0.132
185	0.41	0.106	0.108
240	0.41	0.080	0.081
300	0.41	0.064	0.065

H Cable conforming to harmonised standards
A Recognised national type of cable
N Other type of national cable

00 Less than 100 / 100 V
01 Above 100 / 100 V and less than 300 / 300 V
03 300 / 300 V
05 300 / 500 V
07 450 / 750 V
1 0,6 / 1 kV

B Ethylenpropylene rubber for working temperature of 60° C
N Polychloroprene
N2 Polychloroprene for welding cables
Q Polyurethane
R Rubber
V Common-quality PVC
V2 PVC for working temperatures of 90° C
V3 PVC for low temperature cables
V4 Reticulate PVC
V5 Oil-resistant PVC
Z Polyolefin mixture

C Concentric Copper core
C4 Copper braid screen on multiple cores
C5 Copper braid screen on single cores
C7 Screen made of Copper straps or ribbons

Z2 Round Steel strand armour
Z3 Steel strap armour
Z4 Steel ribbon armour
Z5 Steel strand braid

H Flat divisible cable with or without sheath
H2 Flat indivisible cable
H3 Flat cable with cores separated by a slit
H6 Flat cable with three or more cores
H7 Cable with double-layered insulation
H8 Extendable cord

D Flexible core for weldings cables
E Very flexible core for welding cables
F Flexible core for moving connections
H Very flexible core for moving connections
K Flexible core for fixed laying
R Rigid round cord
U Round rigid single strand

REFERENCE TO THE STANDARDS

RATED VOLTAGE

INSULATION AND SHEATH MATERIAL

SCREENS

ARMOURS

CONSTRUCTIVE FORM OF THE CABLE

CONDUCTOR FLEXIBILITY DEGREE

UL and VDE marking of cable glands

MAXIblock® spiralblock®

Type (*)	Thread	COMPRESSION RANGE Ø (min-max)				IMPACT CATEGORY (*)	MARKING
		Nominal [mm]	UL 514B		EN 62444 [mm]		
			[mm]	[inches]			
1900.M12	M12x1,5	3,5-7	4,5	0.18	3,5-7	1	USR-CNR / VDE
1900.M16	M16x1,5	5-10	7	0.28	7-10	1	USR-CNR / VDE
1900.M20	M20x1,5	7-13	13	0.51	8-13	3	USL-CNL / VDE
1900.M25	M25x1,5	10-17	17	0.67	10-17	3	USL-CNL / VDE
1900.M32	M32x1,5	13-21	15-21	0.60-0.83	15-21	3	USL-CNL / VDE
1900.M40	M40x1,5	19-28	21-28	0.83-1.10	19-28	3	USL-CNL / VDE
1900.M50	M50x1,5	27-35	27-34	1.06-1.34	27-35	3	USL-CNL / VDE
1900.M63	M63x1,5	34-45	35	1.38	34-45	3	USL-CNL / VDE
1910.M12	M12x1,5	2-5	3-5	0.12-0.20	2-5	1	USR-CNR / VDE
1910.M16	M16x1,5	3-7	5-7	0.20-0.28	5-7	1	USR-CNR / VDE
1910.M20	M20x1,5	5-10	5-10	0.20-0.40	6-10	3	USR-CNR / VDE
1910.M25	M25x1,5	7-13	6-13	0.24-0.51	7-13	3	USR-CNR / VDE
1910.M32	M32x1,5	8-14	7-14	0.28-0.55	8-14	3	USR-CNR / VDE
1910.M40	M40x1,5	15-23	17-23	0.67-0.91	15-23	3	USL-CNL / VDE
1910.M50	M50x1,5	20-29	20-29	0.79-1.14	21-29	3	USL-CNL / VDE
1910.M63	M63x1,5	27-39	29-35	1.14-1.38	28-39	3	USL-CNL / VDE
1901.M12	M12x1,5	3,5-7	4,5	0.18	3,5-7	1	USR-CNR / VDE
1901.M16	M16x1,5	5-10	7	0.28	7-10	1	USR-CNR / VDE
1901.M20	M20x1,5	7-13	13	0.51	8-13	3	USL-CNL / VDE
1901.M25	M25x1,5	10-17	17	0.67	10-17	3	USL-CNL / VDE
1901.M32	M32x1,5	13-21	15-21	0.60-0.83	15-21	3	USL-CNL / VDE
1901.M40	M40x1,5	19-28	21-28	0.83-1.10	19-28	3	USL-CNL / VDE
1901.M50	M50x1,5	27-35	27-34	1.06-1.34	27-35	3	USL-CNL / VDE
1901.M63	M63x1,5	34-45	35	1.38	34-45	3	USL-CNL / VDE
1500.M12	M12x1,5	3,5-7	4,5	0.18	3,5-7	1	USR-CNR / VDE
1500.M16	M16x1,5	5-10	7	0.28	7-10	1	USR-CNR / VDE
1500.M20	M20x1,5	7-13	13	0.51	8-13	3	USL-CNL / VDE
1500.M25	M25x1,5	10-17	17	0.67	10-17	3	USL-CNL / VDE
1500.M32	M32x1,5	13-21	15-21	0.60-0.83	15-21	3	USL-CNL / VDE

MAXIbrass®

Type	Thread	COMPRESSION RANGE Ø (min-max)			MARKING
		Nominal [mm]	UL 514B		
			[mm]	[inches]	
2900.07N	Pg 7	3-7	3-7	0.12-0.28	USR-CNR
2900.09N	Pg 9	4-8	4-8	0.16-0.31	USR-CNR
2900.11N	Pg 11	4,5-10	6-10	0.24-0.39	USR-CNR
2900.13N	Pg 13,5	5-12	10-12	0.39-0.47	USL-CNL
2900.16N	Pg 16	7-13	10-13	0.39-0.51	USL-CNL
2900.21N	Pg 21	10-17	12-17	0.47-0.67	USL-CNL
2900.29N	Pg 29	17-25	18-25	0.71-0.98	USL-CNL
2900.36N	Pg 36	20-32	23-32	0.91-1.26	USL-CNL
2900.42N	Pg 42	28-38	28-35	1.10-1.38	USL-CNL
2900.48N	Pg 48	34-45	34-45	1.33-1.77	USL-CNL
2910.07N	Pg 7	1-5	2-5	0.08-0.20	USR-CNR
2910.09N	Pg 9	2-6	3-6	0.12-0.24	USR-CNR
2910.11N	Pg 11	2,5-7	3,5-7	0.14-0.28	USR-CNR
2910.13N	Pg13,5	4-10	5,5-10	0.22-0.39	USR-CNR
2910.16N	Pg 16	5-10	6-10	0.24-0.39	USR-CNR
2910.21N	Pg 21	6-13	7-13	0.28-0.51	USR-CNR
2910.29N	Pg 29	11-20	12-20	0.47-0.79	USR-CNR
2910.36N	Pg 36	18-26	19-26	0.75-1.02	USL-CNL
2910.42N	Pg 42	24-31	24-31	0.94-1.22	USL-CNL
2910.48N	Pg 48	27-39	31-39	1.22-1.54	USL-CNL
2901.07N	Pg 7	3-7	3-7	0.12-0.28	USR-CNR
2901.09N	Pg 9	4-8	4-8	0.16-0.31	USR-CNR
2901.11N	Pg 11	4,5-10	6-10	0.24-0.39	USR-CNR
2901.13N	Pg13,5	5-12	10-12	0.39-0.47	USL-CNL
2901.16N	Pg 16	7-13	10-13	0.39-0.51	USL-CNL
2901.21N	Pg 21	10-17	12-17	0.47-0.67	USL-CNL
2901.29N	Pg 29	17-25	18-25	0.71-0.98	USL-CNL
2901.36N	Pg 36	20-32	23-32	0.91-1.26	USL-CNL
2901.42N	Pg 42	28-38	28-35	1.10-1.38	USL-CNL
2911.07N	Pg 7	1-5	2-5	0.08-0.20	USR-CNR
2911.09N	Pg 9	2-6	3-8	0.12-0.31	USR-CNR
2911.11N	Pg 11	2,5-7	3,5-7	0.14-0.28	USR-CNR
2911.13N	Pg13,5	4-10	5,5-10	0.22-0.39	USR-CNR
2911.16N	Pg 16	5-10	6-10	0.24-0.39	USR-CNR
2911.21N	Pg 21	6-13	7-13	0.28-0.51	USR-CNR
2911.29N	Pg29	11-20	12-20	0.47-0.79	USR-CNR
2911.36N	Pg36	18-26	19-26	0.75-1.02	USL-CNL
2911.42N	Pg42	24-31	24-31	0.94-1.22	USL-CNL

VDE: Licence nos 40008472, 40008474, 40008475 and 40008476

USL-CNL: UL LISTING file no E220310; control no 485B valid in USA & Canada

USR-CNR: UL RECOGNITION file no E220310 valid in USA & Canada (with reduced tightening force)

MAXIblock® spiralblock®

Type (°)	Thread	COMPRESSION RANGE Ø (min-max)			MARKING
		Nominal [mm]	UL 514B		
			[mm]	[inches]	
1900.07	Pg 7	3,5-7	4,5-6,5	0.18-0.25	USR-CNR
1900.09	Pg 9	5-8	6-8	0.24-0.31	USR-CNR
1900.11	Pg 11	5-10	6,5-9,5	0.26-0.37	USR-CNR
1900.13	Pg 13,5	7-12	8-11,5	0.31-0.45	USL-CNL
1900.16	Pg 16	10-14	10,5-14	0.41-0.55	USL-CNL
1900.21	Pg 21	13-18	13-18	0.51-0.71	USL-CNL
1900.29	Pg 29	18-25	22-25	0.87-0.98	USL-CNL
1900.36	Pg 36	20-32	21,5-32	0.85-1.26	USR-CNR
1900.42	Pg 42	28-38	32-38	1.26-1.49	USL-CNL
1900.48	Pg 48	34-45	35	1.38	USL-CNL
1910.07	Pg 7	2-5	3-5	0.12-0.20	USR-CNR
1910.11	Pg 11	4-7	4-7	0.16-0.28	USR-CNR
1910.13	Pg 13,5	5-10	10	0.39	USR-CNR
1910.21	Pg 21	9-15	10-14	0.39-0.55	USR-CNR
1910.36	Pg 36	18-26	18-26	0.71-1.02	USR-CNR
1910.42	Pg 42	25-31	25-31	0.98-1.22	USL-CNL
1901.07	Pg 7	3,5-7	6,5	0,26	USR-CNR
1901.09	Pg 9	5-8	6-8	0.24-0.31	USR-CNR
1901.11	Pg 11	5-10	6,5-9,5	0.26-0.37	USR-CNR
1901.13	Pg 13,5	7-12	8-11,5	0.31-0.45	USL-CNL
1901.16	Pg 16	10-14	10,5-14	0.41-0.55	USL-CNL
1901.21	Pg 21	13-18	13-18	0.51-0.71	USL-CNL
1901.29	Pg 29	18-25	22-25	0.87-0.98	USL-CNL
1901.36	Pg 36	20-32	21,5-32	0.85-1.26	USR-CNR
1901.42	Pg 42	28-38	32-38	1.26-1.49	USL-CNL
1901.48	Pg 48	34-45	35	1.38	USL-CNL
1500.07	Pg 7	3,5-7	4,5-6,5	0.18-0.25	USR-CNR
1500.09	Pg 9	5-8	6-8	0.24-0.31	USR-CNR
1500.11	Pg 11	5-10	6,5-9,5	0.26-0.37	USR-CNR
1500.13	Pg 13,5	7-12	8-11,5	0.31-0.45	USL-CNL
1500.16	Pg 16	10-14	10,5-14	0.41-0.55	USL-CNL
1500.21	Pg 21	13-18	13-18	0.51-0.71	USL-CNL
1900.14	G1/4"	3-6,5	4,5-6,5	0.18-0.25	USR-CNR
1900.38	G3/8"	4-8	6-8	0.24-0.31	USR-CNR
1900.12	G1/2"	7-12	8-11,5	0.31-0.45	USL-CNL
1900.34	G3/4"	13-18	13-18	0.51-0.71	USL-CNL
1901.12	G1/2"	7-12	8-11,5	0.31-0.45	USL-CNL
1500.14	G1/4"	3-6,5	4,5-6,5	0.18-0.25	USR-CNR
1500.38	G3/8"	4-8	6-8	0.24-0.31	USR-CNR
1500.12	G1/2"	7-12	8-11,5	0.31-0.45	USL-CNL
1500.34	G3/4"	13-18	13-18	0.51-0.71	USL-CNL

MAXIbrass®

Type	Thread	COMPRESSION RANGE Ø (min-max)				IMPACT CATEGORY (*)	MARKING
		Nominal [mm]	UL 514B		EN 62444 [mm]		
			[mm]	[inches]			
2900.M12N	M12x1,5	3-7	3-7	0.12-0.28	3-7	5	USR-CNR / VDE
2900.M16N	M16x1,5	4,5-10	6-10	0.24-0.39	4,5-10	6	USR-CNR / VDE
2900.M20N	M20x1,5	7-13	8-13	0.31-0.51	7-13	6	USL-CNL / VDE
2900.M25N	M25x1,5	10-17	13-17	0.51-0.67	11-17	6	USL-CNL / VDE
2900.M32N	M32x1,5	11-21	13-21	0.51-0.83	13-21	6	USL-CNL / VDE
2900.M40N	M40x1,5	19-28	21-28	0.83-1.10	19-28	6	USL-CNL / VDE
2900.M50N	M50x1,5	26-35	27-35	1.06-1.38	26-35	6	USL-CNL / VDE
2900.M63N	M63x1,5	34-45	34-45	1.33-1.77	34-45	6	USL-CNL / VDE
2910.M12N	M12x1,5	1-5	2-5	0.08-0.20	2-5	5	USR-CNR / VDE
2910.M16N	M16x1,5	2,5-7	3,5-7	0.14-0.28	4-7	6	USR-CNR / VDE
2910.M20N	M20x1,5	5-10	5-10	0.20-0.39	5,5-10	6	USR-CNR / VDE
2910.M25N	M25x1,5	6-13	8-13	0.31-0.51	6-13	6	USR-CNR / VDE
2910.M32N	M32x1,5	7-14	7-14	0.28-0.55	9-14	6	USR-CNR / VDE
2910.M40N	M40x1,5	13-23	15-23	0.59-0.90	17-23	6	USL-CNL / VDE
2910.M50N	M50x1,5	20-29	20-29	0.79-1.14	25-29	6	USL-CNL / VDE
2910.M63N	M63x1,5	27-39	28-39	1.10-1.54	31-39	6	USL-CNL / VDE
2901.M12N	M12x1,5	3-7	3-7	0.12-0.28	3-7	5	USR-CNR / VDE
2901.M16N	M16x1,5	4,5-10	6-10	0.24-0.39	4,5-10	6	USR-CNR / VDE
2901.M20N	M20x1,5	7-13	8-13	0.31-0.51	7-13	6	USL-CNL / VDE
2901.M25N	M25x1,5	10-17	13-17	0.51-0.67	11-17	6	USL-CNL / VDE
2901.M32N	M32x1,5	11-21	13-21	0.51-0.83	13-21	6	USL-CNL / VDE
2901.M40N	M40x1,5	19-28	21-28	0.83-1.10	19-28	6	USL-CNL / VDE
2901.M50N	M50x1,5	26-35	27-35	1.06-1.38	26-35	6	USL-CNL / VDE
2911.M12N	M12x1,5	1-5	2-5	0.08-0.20	2-5	5	USR-CNR / VDE
2911.M16N	M16x1,5	2,5-7	3,5-7	0.14-0.28	4-7	6	USR-CNR / VDE
2911.M20N	M20x1,5	5-10	5-10	0.20-0.39	5,5-10	6	USR-CNR / VDE
2911.M25N	M25x1,5	6-13	8-13	0.31-0.51	6-13	6	USR-CNR / VDE
2911.M32N	M32x1,5	7-14	7-14	0.28-0.55	9-14	6	USR-CNR / VDE
2911.M40N	M40x1,5	13-23	15-23	0.59-0.90	17-23	6	USL-CNL / VDE
2911.M50N	M50x1,5	20-29	20-29	0.79-1.14	25-29	6	USL-CNL / VDE

(*) Add to Ref: N for Black, G for Dark Grey

(*) EN 62444 § 9.5

Ingress protection (IP) rating according to EN 60529 - CEI 70-1

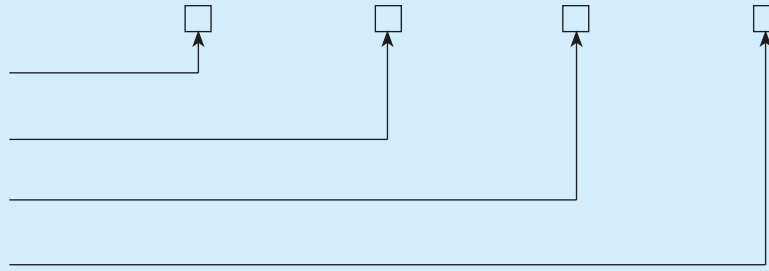
IP CODE

The first digit (0-6 or X letter):
Protection against ingress of solid matter

Second digit (0-8 or X letter):
Protection against ingress of liquids

(A, B, C, D) for future use.
Restricted entry to dangerous parts:

(H, M, S, W) for future use. Specific criteria:



1st CHARACTERISTIC NUMBER:

PROTECTION AGAINST INGRESS OF SOLID MATTER

PROTECTION	0	1	2	3	4	5	6
Protection against ingress of solid matter caused by		solid bodies measuring over 1.97 in.	solid bodies measuring over 0.49 in.	solid bodies measuring over 0.10 in.	solid bodies measuring over 0.04 in.	powder in harmful quantities	Powder (completely protected)
Test method		 Accessibility gauge $\varnothing$ 1.97 in.	 Accessibility gauge $\varnothing$ 0.49 in.	 Accessibility gauge $\varnothing$ 0.10 in.	 Accessibility gauge $\varnothing$ 0.04 in.	 talcum powder	 talcum powder

2nd CHARACTERISTIC NUMBER:

PROTECTION AGAINST INGRESS OF LIQUIDS

PROTECTION	0	1	2	3	4	5	6	7	8
Protection against ingress of liquids caused by		Drops of water falling vertically	Vertical drops of water with inclination of casing up to 15°	Rain	Sprays of water	Jets of water	Powerful jets of water	Temporary Immersion	Permanent Immersion
Test method		 Drops of water falling vertically	 Vertical drops of water with inclination of casing up to 15°	 Rain	 Sprays of water	 Jets of water	 Powerful jets of water	 Temporary Immersion	 Permanent Immersion

1st ADDITIONAL LETTER:

RESTRICTED ENTRY TO DANGEROUS PARTS

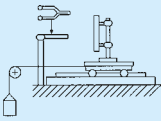
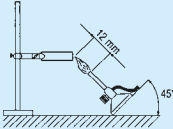
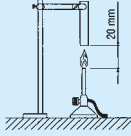
RESTRICTED ENTRY	A	B	C	D
Restricted entry to dangerous parts caused by	back of hand	finger	tool	wire
Test method	 accessibility gauge $\varnothing$ 1.97 in.	 articulated test finger	 accessibility gauge $\varnothing$ 0.10 in.	 accessibility gauge $\varnothing$ 0.04 in.

2nd ADDITIONAL LETTER:

MEANING OF THE SECOND ADDITIONAL LETTER

SPECIFIC CRITERIA	H	M	S	W
Specific criteria	High voltage equipment	Tested against negative effects of water penetration, when the moveable parts of the equipment (e.g. wheels of a revolving machine) are moving	Tested against the negative effects of water penetration, when the moveable parts of the equipment (e.g. wheels of a revolving machine) are stationary	Suitable for use in environmental conditions as specified and equipped with additional measures of protection

Flammability test for products and materials

TYPE OF TEST	TEST EQUIPMENT	COMPLIANCE WITH STANDARDS	OBJECTIVE OF TEST	TEST RESULTS	TEST CONDITIONS		
					heat source	length of test	characteristic features
CHARACTERISTIC FEATURES		IEC 695-2-1 CEI 50-11 DIN VDE 0471-2-1	Check that abnormal heating produced by overcurrent and bad contacts does not compromise the safety of the insulating material. Lighting test. The wire is pressed against the sample using force and penetrates up to 7 mm.	Any sign of flame starting must stop within 30 sec. of removing the glowing wire. TEST TEMPERATURE • 650° for materials which do not support parts under tension • 750° for materials which support parts under tension of moving sockets and plugs • 850° for materials which support parts under tension of fixed sockets and switches	Glow-wire 4 mm in diameter	Wire applied for 30 seconds	Flame extinction time
NEEDLE FLAME		IEC 695-2-1 CEI 50-11	Simulates the effect small flames have which may occur due to internal faults of products in order to judge the fire risk.	- the sample does not catch fire - the flame and incandescent particles do not spread the fire - combustion lasts less than 30 seconds	Bunsen burner flame	Flame applied for (Ta) 5, 10, 20, 30, 60, 120 sec. According to particular standards	The degree of severity: flame application time (Ta)
UL (UNDERWRITER LABORATORIES)		UL 94	Measuring of time the sample continues to burn after the direct flame has been removed.	- V0 if the sample burns for less than 5 sec. before going out. - V1 if it burns for less than 25 sec. - V2 if it burns for less than 25 sec. With incandescent drops - HB if it burns for more than 25 sec. (horizontal sample and burning speed less than 38 mm per minute) Comparable to ASTM D-635	Bunsen burner flame	Flame applied for 10 seconds twice following	Length of combustion

Recommended torque settings for cable glands

MAXIblock[®], spiralblock[®], MAXIbrass[®], MAXIinox[®] METRIC THREADS, TO OBTAIN IP68 INGRESS PROTECTION IN ACCORDANCE WITH EN 50262

Torque values apply to mounting in a threaded entry and to use with a locknut	THREAD CABLE GLAND	CABLE GLAND	
		metallic	non-metallic
		torque (Nm)	
	M12 x 1.5	6.0	2.7
	M16 x 1.5	6.0	5.0
	M20 x 1.5	8.0	7.0
	M25 x 1.5	8.0	7.5
	M32 x 1.5	18.0	8.0
	M40 x 1.5	18.0	8.0
	M50 x 1.5	18.0	15.0
	M63 x 1.5	25.0	15.0

MAXIblock[®], spiralblock[®], MAXIbrass[®], MAXIinox[®] PG THREADS, TO OBTAIN IP68 INGRESS PROTECTION IN ACCORDANCE WITH DIN VDE

Torque values apply to mounting in a threaded entry and to use with a locknut	THREAD CABLE GLAND	CABLE GLAND	
		metallic	non-metallic
		torque (Nm)	
	Pg7	6.25	2.5
	Pg9	6.25	3.75
	Pg11	6.25	3.75
	Pg13.5	7.5	5.0
	Pg16	7.5	5.0
	Pg21	10.0	7.5
	Pg29	15.0	8.0
	Pg36	25.0	10.0
	Pg42	25.0	10.0
	Pg48	25.0	15.0

MAXIblock[®], spiralblock[®] GAS THREADS, TO OBTAIN IP68 WITH REDUCED TIGHTENING FORCE

Torque values apply to mounting in a threaded entry and to use with a locknut	THREAD CABLE GLAND	NON-METALLIC CABLE GLAND	
		torque (Nm)	
	G1/4"	4.0	
	G3/8"	5.0	
	G1/2"	6.0	
	G3/4"	10.0	

Cable glands installation:

- 1) Before proceeding with the installation, inspect the cable gland; installation must be performed by qualified personnel and with suitable tools.
- 2) Cable glands must be used in their original supplied condition with no modifications.
- 3) Torque values listed in the catalogue are intended as the recommended level for reaching the correct IP protection level and achieving the required cable retention properties. As the torque depends on the type of insulation of the conductor used, it is responsibility of the user to define the ideal torque for their specific application.
- 4) Both the body and head of the cable gland must be correctly tightened; excessive or reduced tightening may compromise the protection level and the cable retention performance.
- 5) Loosening a cable gland already installed and then tightening again may result in a reduction of the IP protection level achieved and compromise the cable retention properties. In these instances, we recommend replacement of the cable gland.



Identification & Labelling

systems

the system includes:

- Thermal transfer printer for sheet media
- Thermal transfer printer for roll media
- Embosser
- Manual system
- Accessories
- Labels



ROLLY

GENERAL TERMS AND CONDITIONS OF SALE

1. GENERAL TERMS

- 1.1. For the purpose of these GENERAL TERMS AND CONDITIONS OF SALE (the "Terms and Conditions"), the following definitions shall apply:
 - «Seller»: CEMBRE Inc. (CEMBRE);
 - «Buyer»: any professional or entrepreneur purchasing the Products from the Seller;
 - «Products»: the goods manufactured and/or sold by the Seller;
 - «Order(s)»: each proposal for the purchase of the Products submitted by the Buyer to the Seller in writing;
 - «Sale(s)»: each single sale agreement entered into further to the receipt by the Buyer of the written order confirmation of the Seller.

- 1.2. These Terms and Conditions govern the sale of equipment, components, parts, and materials (the "Products") supplied by the Seller to the Buyer. Any specific supply agreement, order confirmation, quotation, these Terms and Conditions and the purchase order form the Sales Agreement ("Agreement") between the parties. In the event of a conflict between these documents, precedence shall apply in accordance with the order listed in the previous sentence.

- 1.3. CEMBRE's quotation, proposal or order confirmation is conditional on the Buyer's acceptance of these Terms and Conditions. Buyer's silence or acceptance/use of the Products or services related to any purchase order shall constitute tacit approval of these Terms and Conditions.

- 1.4. Any additional or conflicting terms included in the Buyer's request for quotation/proposal, specifications, purchase order or any other written or oral communication are not binding on CEMBRE unless separately signed by CEMBRE. CEMBRE's failure to object to Buyer's additional or conflicting terms (including the Buyer's Terms and Conditions of Purchase) does not operate as a waiver of any terms contained herein.

2. ORDERING PROCEDURES

- 2.1. Offers of the Supplier are not binding. This shall also apply if the Supplier has provided the Buyer with catalogs, technical documentation (e.g. drawings, plans, calculations, references to DIN standards), other product descriptions or documents - also in electronic form - to which the Supplier reserves property rights and copyrights pursuant to Clause 8.
- 2.2. Unless otherwise agreed, the information in offers and order confirmations shall refer to the contents of the respectively valid price lists, catalogs or other documents - also in electronic form, including technical data sheets, of the supplier.
- 2.3. All orders must be sent in writing and include all the details for a correct identification of the Products and Services requested. The minimum order amount is USD 250.
- 2.4. The order is an irrevocable proposal to buy, but it is accepted by the Seller only following order acknowledgement / confirmation or execution.
- 2.5. The Buyer may request in writing to cancel or modify the order only prior to its execution and the Seller may at its own discretion accept or reject such request. Only cancellations and modifications expressly accepted by the Seller in writing shall be valid and effective.

3. PRICING AND PAYMENT TERMS

- 3.1. Unless otherwise specified in writing, Seller's quotations have a 30-day validity, after which they will automatically expire.
- 3.2. Prices quoted in price-lists and marketing materials are not binding and cannot be considered a "public offer". Unless otherwise agreed in writing, prices are always quoted based on delivery term FCA (Incoterms latest version) net of any applicable statutory value added / goods and services tax and of any applicable taxes and duties.
- 3.3. The Seller reserves the right to update the price-list without prior notice; the new release of the price-list will apply to all the Orders placed after the date such new release is issued and sent to the Buyer. Invoices will be issued in accordance with the prices in force on the date of the order confirmation or as otherwise agreed in specific supply agreements.
- 3.4. If the Buyer does not pay within the agreed payment term, he will be in default of payment even without a reminder. In this case, the Supplier shall charge overdue interest at a rate of 9 percentage points above the prime rate - or the maximum interest rate allowed by the law, whichever is lower - and a lump sum for costs of up to USD 40.00. Any further claim for damages caused by delay shall remain unaffected.
- 3.5. In the event of payment arrears, suspension of payments and if circumstances become known which are likely to reduce the creditworthiness of the customer, the supplier shall be entitled, after having granted a period of grace, to declare all claims arising from the entire business relationship with the customer immediately due for payment. Discount agreements, rebates and the like shall be deemed forfeited in this case.
- 3.6. Failure to pay or delayed payments above 30 days also entitle the Seller to suspend the delivery of the Products and terminate every single Sale entered into. The suspension of the delivery of the Products or the termination of any Sale shall not entitle the Buyer to claim for any compensation.
- 3.7. Any complaints regarding the Products and/or their delivery shall not be grounds for suspending or delaying the payment.
- 3.8. In the event of default or risk of insolvency concerning the Buyer, the Seller will be entitled to:
 - demand payment in advance or suitable guarantees; and/or
 - suspend deliveries; and/or
 - demand immediate payment of all the invoices already issued, regardless of the payment term therein indicated; and/or
 - terminate any existing sale agreement.

4. DELIVERY

- 4.1. Except as otherwise agreed upon in writing between the parties, the Seller shall deliver the Products EX WORKS (INCOTERMS latest version). If required, the Seller shall take care of the shipment of the Products at the Buyer's costs and expenses. In this last case delivery shall be considered to have taken place when the Products are transferred to the forwarder.
- 4.2. In case of missing or damaged goods during transport, the Buyer must formulate all the necessary reservations on the delivery note of said goods of the time of delivery. Such reservations must also be confirmed in writing to the Seller within 48 hours of the date of the delivery, by registered mail with return receipt.
- 4.3. The Seller cannot be held liable for delays in deliveries in the following circumstances:
 - acts of God or other extraordinary events beyond reasonable control, resulting in interruption of the manufacturing process, including shortage of energy and/or raw materials, pandemics strikes, embargoes or trade restrictions;
 - delays due to the Buyer, particularly when the Buyer failed to provide the information required to execute the order;
 - overdue payments, pursuant to Section 3.8 of these T&C.
- 4.4. Penalties for late delivery may be charged by the Buyer only when expressly agreed in a specific supply agreement, and in any case up to a maximum amount equal to the price of the delayed delivery.
- 4.5. The Buyer shall not reject partial deliveries or late deliveries. All costs resulting from the rejection of goods will be charged to the Buyer. Excess deliveries for the purpose of rounding up to the packing quantity shall be deemed to be contractual performance and shall be paid by Buyer.
- 4.6. Goods returned at the request of the Buyer can only be accepted if the Seller has agreed in writing. The returned parts must be in their original packaging, come from the current product range and be in saleable condition. The return shipment must be carriage paid and at the risk of the Buyer. From the purchase price to be refunded, a depreciation fee will be deducted based on the actual conditions of the goods, their age and original price. Depreciation shall not apply to goods returned under section 5 and 6 hereinafter, provided that the return was authorized by the Seller. Custom-made products or articles which are not included in the current catalogue will not be taken back. Returned goods that are not accepted by the Seller will be shipped back to Buyer or scrapped at the Buyer's choice (freight paid by the Buyer).
- 4.7. In the event of modifications to the order required by the Buyer, the delivery deadline will automatically be extended for the time necessary to implement the required modification.

5. CONFORMITY

- 5.1. Complaints about apparent defects or non-conformity of the product delivered in relation to the purchase order or the packing slip must be notified to the Seller in writing within 48 hours after receipt of the products, subject to forfeiture. The Buyer loses the right to claim if the goods are not inspected immediately after delivery.
- 5.2. In the absence of a specific agreement on quality, the features contained in a specification, a product-specific technical data sheet or an equivalent description by the Supplier shall be deemed to be the relevant quality. Insignificant deviations shall not constitute a defect.

6. WARRANTY AND LIABILITY

- 6.1. Unless otherwise agreed upon in writing, the Seller warrants that the Products are free from defects in material, design and manufacturing and fit for use. No guarantee is given herein by the Seller on the conformity of any Product with the law and regulations in countries outside the US. No other warranties, express or implied, are made with respect to the Products including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose.
- 6.2. Unless otherwise agreed upon in writing, the warranty shall be valid for a period of one year from the date of delivery to the Buyer. Warranty is provided only on tools or machines with a serial number or other identification number that allows traceability. The warranty is, however, excluded if the Products have already been processed by the Buyer or incorporated in products, machinery or plants of the Buyer or of third parties.
- 6.3. Claims for defective Products shall be made in writing within eight working days from discovery.
- 6.4. The defective Products shall be returned to the Seller at the Buyer's cost upon Seller's request. The Seller's sole obligation (and Buyer's sole remedy) for any breach of warranty under the foregoing warranty shall be to repair (at location designated by Seller) or replace DAP the original point of delivery the defective goods, within a reasonable time. The Buyer will waive any claim for damage compensation once the warranty has been fulfilled and the Product has been repaired or replaced. The warranty shall not cover defects due to environmental or stress testing, misuse, failure to observe the Seller's instructions regarding the functioning, maintenance and the storage of the Products, repairs or modifications made by the Buyer or a third party without prior written authorization of the Seller, improper installation, transportation or handling.
- 6.5. Direct interventions on site are not included in the warranty; if expressly requested by the Buyer they are subject to charge, according to the Seller's tariffs.
- 6.6. Warranty repair/replacements may be suspended in the event of insolvency of the Buyer or overdue invoices.
- 6.7. Save for the case of fraud or gross negligence, the Seller shall bear no liability for damages to property or third parties other than that expressly provided by virtue of any mandatory law provisions. In any case, the Seller shall not be liable for indirect or consequential damages of whatsoever nature as, by way of example, production losses or unearned profits. In any case, Buyer's right to damages shall be limited to a maximum amount equal to the value of the Products showing defects or faults.
- 6.8. The Seller shall bear no liability for damages to property or third parties other than that expressly provided by virtue of any mandatory law provisions. The Supplier will not, under any circumstances, be liable for the cost of removal or reinstallation of goods or the cost of disassembly or reassembly or for loss of business or goodwill or profits or for cost of inspection or storage or for any incidental and consequential damages of any nature which may arise from the sale of goods to the Buyer. When liability cannot be excluded by virtue of mandatory law provisions, Buyer's right to damages shall in any case be limited to a maximum amount equal to the value of the Products showing defects or faults.
- 6.9. The Seller has taken out suitable insurance policies covering general liability in connection with the Products.

7. EXPORT CONTROL REGULATIONS

- 7.1. CEMBRE shall not be obligated to fulfil this agreement if such fulfilment is prevented by any impediments arising out of national or international foreign trade or customs requirements or any embargoes or other sanctions or restrictions.
- 7.2. If the Buyer transfers the goods to a third party, the Buyer shall comply with all applicable national and international (re-) export control regulations.
- 7.3. The Buyer shall cooperate with the Seller to provide the information concerning end users, destination and intended use of goods supplied by CEMBRE, in case this is necessary due to customs control activities or export control regulations.
- 7.4. Violations of this section 7 shall entitle the Seller to terminate any existing sale agreement at any time without notice.

8. INTELLECTUAL PROPERTY, CONFIDENTIALITY AND PRIVACY

- 8.1. The use of CEMBRE trademarks is governed by the General Terms and Conditions, published on the website <https://www.cembre.com/group/termsandconditions>, which the Buyer is obliged to comply with. It is prohibited to relabel and repackaging the Products without CEMBRE's written authorization.
- 8.2. Each party will retain ownership of its Intellectual Property developed before or outside the scope of the sale agreement. If any Intellectual Property is developed under the sale agreement, the parties shall execute a separate agreement regarding the ownership thereof.
- 8.3. Supplier expressly reserves the copyright to its catalogues, technical documentation (e.g. drawings, plans, calculations, data sheets), other product descriptions or documents - also in electronic form. The Buyer is only granted a non-exclusive right of use.
- 8.4. All drawings and technical documents relating to the Products submitted by one party to the other shall remain exclusive property of the submitting party and can only be used for the purpose for which they were provided. The receiving party is not allowed to use such documents otherwise, to procure copies thereof, to reproduce and to disclose them to a third party without consent of the submitting party. The end user of the Products shall not be deemed as a third party for the purpose of this section.
- 8.5. Any liability of the Supplier is excluded if the Buyer is responsible for the infringement of property rights, in particular because he has modified the object of performance, used it in breach of contract or taken it to a place other than the place of destination without the Supplier's consent.
- 8.6. If the Supplier manufactures goods according to drawings, samples or other information provided by the Buyer (OEM products) and if the property rights of third parties are infringed in the process, the Buyer shall indemnify the Supplier from all claims for damages resulting from this.
- 8.7. The Seller warrants that the personal data received from the Buyer will be processed in full compliance with the applicable data protection regulations.
- 8.8. Violations of this section 8 shall entitle the Seller to terminate any existing sale agreement at any time without notice.

9. APPLICABLE LAW AND JURISDICTION

- 9.1. The place of performance for the delivery together with any subsequent performance on the part of the Supplier is the Supplier's registered office.
- 9.2. Place of jurisdiction is the registered office of the Supplier. The Supplier is also entitled to take legal action at the Buyer's registered office.
- 9.3. The legal relations between the Supplier and the Buyer shall be governed by the Uniform Commercial Code as enacted and construed in accordance with the laws of the State of New Jersey.
- 9.4. The Buyer acknowledges that the CEMBRE Group has adopted a Code of Ethics and undertakes to respect its provisions, abstaining from any unlawful conducts. Failure to comply with any of the provisions of the Code of Ethics will result in a serious breach of contractual obligations and will entitle CEMBRE to terminate the contract with immediate effect, without prejudice to compensation for damages.

10. FORCE MAJEURE AND HARDSHIP

- 10.1. No failure, omission or delay of the Supplier in the performance of any obligation shall be deemed a breach of the agreement nor create any liability hereunder, if the failure, omission or delay shall arise from acts of God, laws, rules, regulations or orders of any governmental authority, floods, fires, explosions, storms, earthquakes, acts of war (declared or undeclared), rebellion, insurrections, riot, sabotage, shortages of fuel, power, energy resources, and/or raw material, invasion, epidemic, quarantine, accident, strikes, lockouts, labor disputes, or any other comparable cause beyond the reasonable control of the Supplier.
- 10.2. If, during the term of the contract, events occur which have not been contemplated by the Parties and which fundamentally alter the equilibrium of the contract, thereby placing an excessive burden on the Supplier in the performance of its contractual obligations (hardship), the Supplier shall have the power to make any revision to the contract that it finds just and equitable in the circumstances, or to terminate the contract at a date and on terms to be fixed.

THE CEMBRE GROUP

Cembre SpA - Italy



Cembre Ltd - UK



Cembre Sarl - France



Cembre España SLU - Spain



Cembre GmbH - Germany



Cembre Inc - USA



Making the right connections

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Procedures for the use of the products shown should not be inferred from this document,
but from the specific use and maintenance manuals provided with the products.

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