

PART 6

GREY SECTION

SUBSTATION

FITTINGS

Contents

SUBSTATION FITTINGS

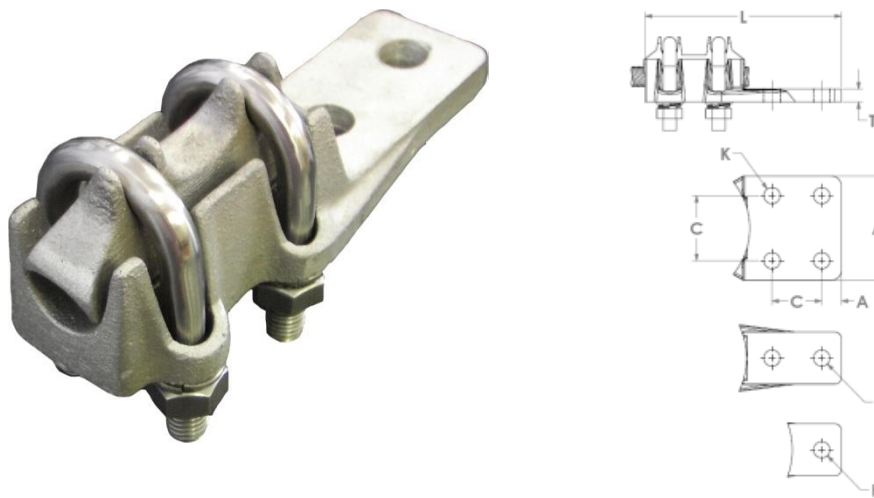
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TERMINAL LUG

COPPER CABLE TO SWITCHGEAR – TYPE CTL19 or ATL19

Terminal lugs are cast in copper or aluminium alloy. Palms are machined on lower face. Interlocking clamp design permits wide cable range. U-bolts and nuts are stainless steel.

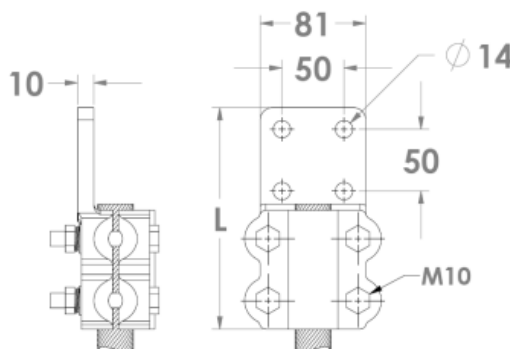


Catalogue No.	Cable Range		No. of Palm holes	Dimensions (mm)					
	mm ²	OD (mm)		A	B	C	K	T	L
CTL19-1A	25 To 215	6.75 To 19.25	2	40	15	29	10	8	150
CTL19-2C			1	40	15	0	12	8	150
CTL19-3A			2	40	15	38	12	8	150
CTL19-3C			2	40	15	50	12	8	150
CTL19-5C			4	80	15	50	12	8	150
CTL19-5X			4	100	25	50	12	14	170

TERMINAL LUG – TYPE CTL26

Cast in copper or aluminium alloy. Hardware stainless steel. Clamping element uses a four-bolt cap to suit the larger cable sizes. Supplied with either drilled or blank palm.

Catalogue No.	Cable Range		'L' Dimension (mm)	No. of Holes
	mm ²	OD (mm)		
CTL26-5C	150 to 400	15.75 to 25.65	165	4
CTL26-B				BLANK PALM



END CONNECTORS COPPER TUBE TO CABLE – TYPE CE or AE

The TYPE CE or AE End Connector makes an effective end connection between copper stems or tubular busbars and copper cable. Castings are copper or aluminium alloy, cast to match the busbar. Hardware is stainless steel.

Catalogue No.	Tube Ø (mm)	Cable Range		Dimensions (mm)		
		mm ²	OD (mm)	L	W	K
CE1919	19	25 to 215	6.75 to 19.25	150	88	M12
CE2519	25.4			150	88	M12
CE2919	28.5			150	88	M12
CE3019	30			150	88	M12
CE3219	31.7			150	88	M12
CE3519	35			150	88	M12
CE3819	38.1			150	88	M12
CE4019	40			150	88	M12
CE5019	50			150	88	M12
CE5119	51			150	88	M12



Also available in Aluminium. For this variation “C” becomes “A” in catalogue number; e.g. CE1919 becomes AE1919.

TEE CONNECTOR COPPER TUBE TO CABLE – TYPE CX or AX

The TYPE CX or AX connector makes an effective 90° connection between copper tubular busbar and copper cable. Castings are copper alloy machined to match the tube diameter. Hardware is stainless steel.

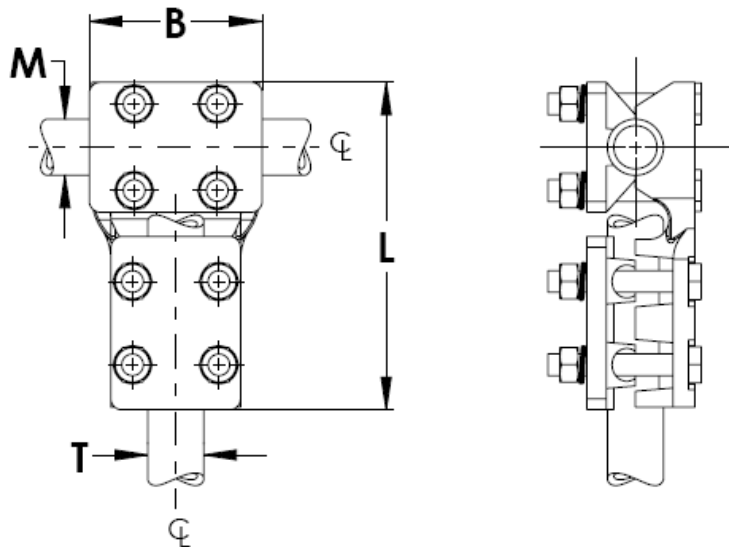
Catalogue No.	Tube Ø (mm)	Cable Range		Dimensions (mm)	
		mm ²	OD (mm)	L	W
CX1919	19	25 to 215	6.75 to 19.25	130	54
CX2519	25.4			138	54
CX3019	30			138	54
CX3219	32			138	54
CX3819	38			150	54
CX7619	76.2			205	58
CX3226	32	150 to 400	15.75 to 25.65	155	60



Also available in Aluminium. For this variation “C” becomes “A” in catalogue number; e.g. CX1919 becomes AX1919.

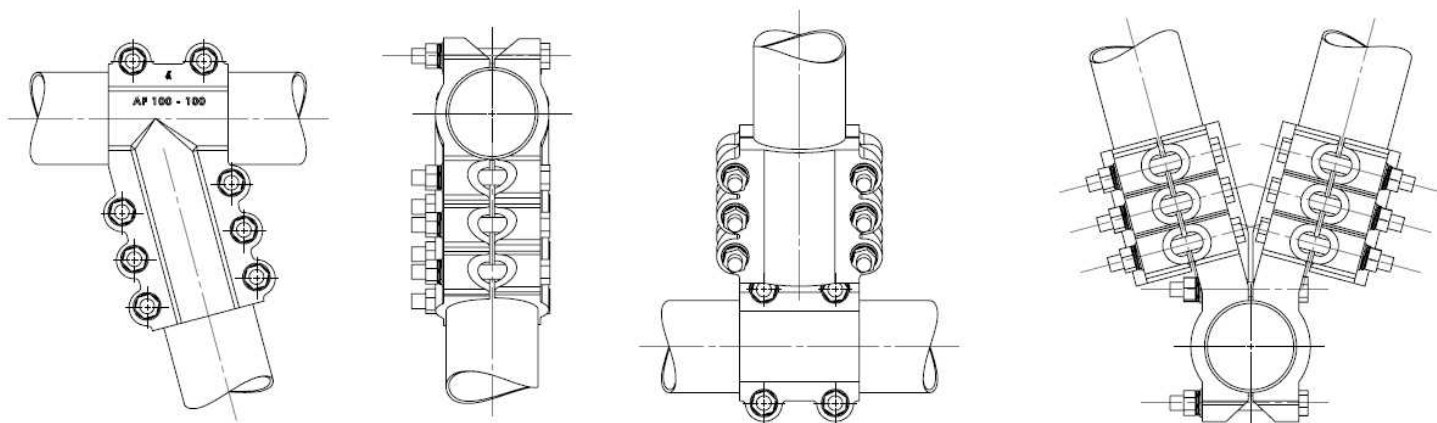
TEE CONNECTORS FOR COPPER TUBULAR BUSBARS – TYPE CTT

A three-piece copper or aluminium alloy connector. Contact surfaces in body section are machined for maximum contact. Hardware is stainless steel.



Catalogue No.	Dimensions (mm)			
	Main	Tap	B	L
CTT2519	25.4	19	55	120
CTT2525	25.4	25.4	60	130
CTT3030	30	30	70	135
CTT3230	31.7	30	70	135
CTT3232	31.7	31.7	70	135
CTT3825	38.1	25.4	70	140
CTT3838	38.1	38.1	80	150

A-FRAME CONNECTORS



A range of angle tube connectors are available. These can be combined to provide A-frame assemblies. A-frame assemblies allow self-supporting busbar structures to be made from the conductors themselves resulting in a saving of supporting steelwork and insulators. All components are supplied with stainless steel bolts, nuts and spring washers.

**AIR BREAK SWITCH TERMINAL PALM CONNECTORS
TYPE CPC – FOR COPPER CABLE.**

Connectors are available for the 30mm x 30mm as well as the 50mm x 50mm four-hole drilling. Connector components are high-copper alloy. Hardware is stainless steel.

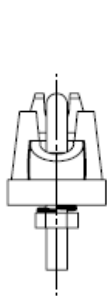


FIG 1

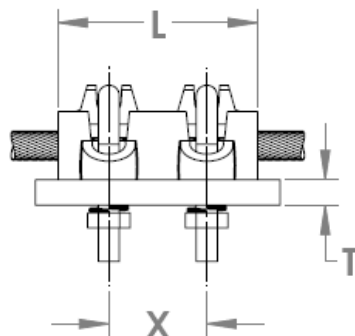
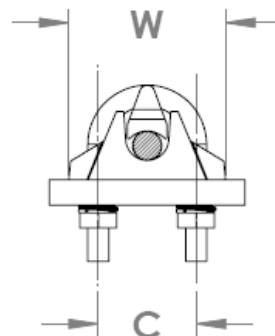


FIG 2



Catalogue No.	Figure No.	Cable Range		Dimensions (mm)				
		Area mm ²	Overall Diameter	C	L	T	W	X
CPC302	2	25 to 215	6.75 to 19.25	30	65	7	55	30
CPC-S2	1	50 to 300	8.9 to 22.68	33	38	7	34	-
CPC3	2	70 to 150	10.7 to 15.75	50	102	13	76	50
CPC4	2	150 to 240	15.75 to 20.25	50	102	13	76	50

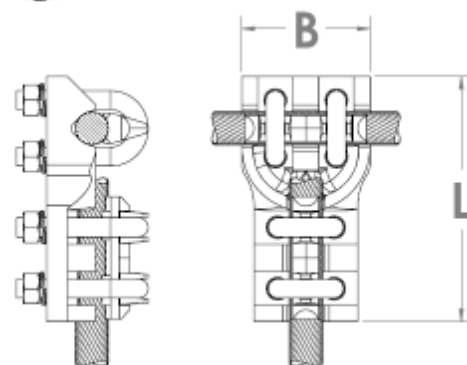
TEE CONNECTOR – TYPE CTC or ATC

A reliable U-bolt connector designed to accommodate a wide range of conductor sizes. Made of high copper content or aluminium alloy and fitted with stainless steel hardware.



Catalogue No.	Conductor Range Overall Diameter (mm)				Diameter (mm)	
	Main		Tap			
	Min	Max	Min	Max		
CTC1919	6.7	17.6	6.7	17.6	68	130
CTC2619	15.7	25.6	6.7	17.6	80	140
CTC2626	15.7	25.6	15.7	25.6	80	154

Also available in aluminium. For this variation "C" becomes "A" in catalogue number; e.g. CTC1919 becomes ATC1919.



BUSBAR SUPPORT CLAMP – TYPE CBS or ABS

Copper or Aluminium Tube to insulator cap. Cast in high-strength alloy and fitted with stainless steel bolts and washers.



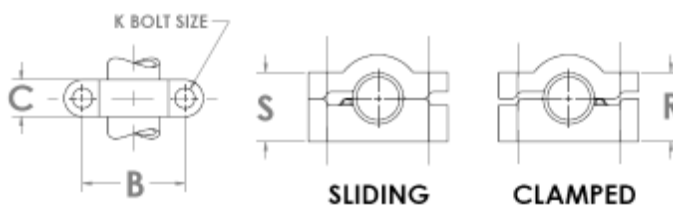
Sliding Configuration



Clamping Configuration



Adapter Plate to be used on 125mm PCD insulators

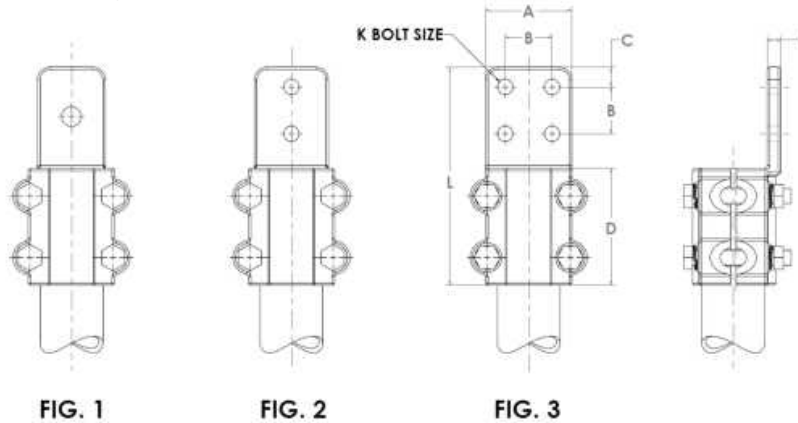


Catalogue No.	Tube Ø (mm)	Dimensions (mm)				
		B	C	K	R	S
CBS1951	19.05	50.8	33	M10 x 65	48	52
CBS1976	19.05	76.2	38	M12 x 70	47	52
CBS2551	25.4	50.8	33	M10 x 65	45	4
CBS2576	25.4	76.2	38	M12 x 70	48	52
CBS3251	31.7	50.8	33	M10 x 80	60	62
CBS3276	31.7	76.2	38	M12 x 70	50	52
CBS3851	38.1	50.8	33	M10 x 80	60	62
CBS3876	38.1	76.2	38	M12 x 70	50	52
CBS5176	50.8	76.2	38	M12 x 90	71	73
CBS80127	80	127	40	M12 x 100	71.5	74.5

Also available in aluminium. For this variation "C" becomes "A" in catalogue number; e.g. CBS5176 becomes ABS5176.

COPPER TERMINAL LUG – TYPE CBT

Designed for tube to flat connections. Castings are of high copper content alloy. Lugs are machined on underside. Lugs are supplied with stainless steel bolts and nuts.

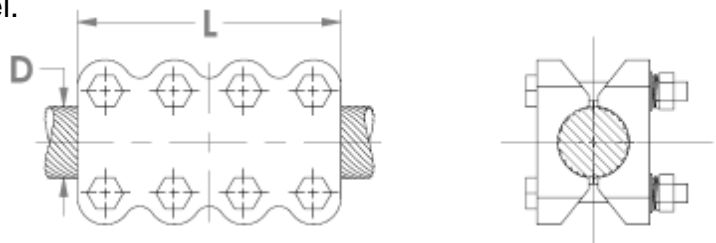


Catalogue No.	Tube Metric (mm)	Tube Imperial (inch)	Figure No.	A	B	C	D	E	L	K	T
CBT25	25	1	2	41	38	16	44	67	121	M12	10
CBT25A	25	1	1	38	-	19	51	59	108	M12	6
CBT32	32	1 ¼	2	48	38	16	51	59	127	M12	10
CBT33	33	1 5/16	3	70	38	16	51	76	130	M12	10
CBT38	38	1 ½	3	70	38	16	70	95	152	M12	11
CBT46	46	1 13/16	3	70	38	16	64	89	146	M12	11
CBT51	51	2	3	70	38	16	70	95	152	M12	11

STRAIGHT CONNECTOR COPPER/ALUMINIUM TUBE – TYPE CST or AST

Used for joining tubular copper/ aluminium busbar. Connector halves are cast in copper or aluminium alloy. Hardware is stainless steel.

Catalogue No.	Tube ø (mm)	L
CST19	19.1	80
CST25	25.4	112
CST30	30	125
CST32	31.8	125
CST38	38.1	140
CST50	50.8	179

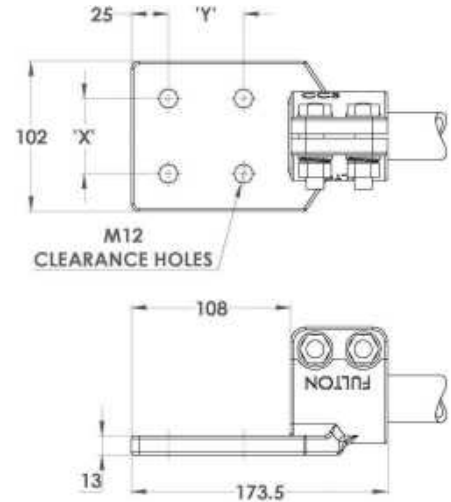


Note: Please nominate Aluminium or Copper when ordering by adding an “A” or “C” to the end of the Catalogue Number

TERMINAL LUG – TYPE CCS

Used for connecting cylindrical terminals or tubular bus bars to palm terminals of switchgear. Castings are high copper content alloy. Hardware is stainless steel.

Catalogue No.	Tube ϕ (mm)	Dimensions (mm)				
		Width	Height	Length	Palm Thickness	Hole Size
CCS19	19.1	102	87	173.5	13	M12
CCS25	25.4					
CCS30	30					
CCS32	31.8					
CCS38	38.1					
CCS40	40					



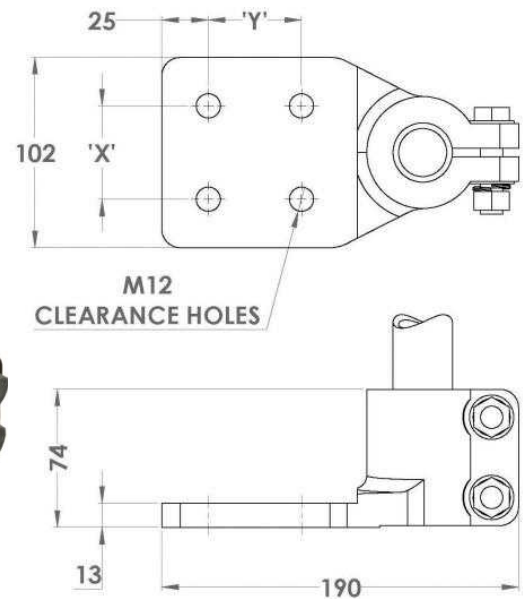
Note: TUBE diameter and Holes in the Palm can be machined to customer requirements for any size between 19-40mm Tube Diameter and M8–M16 clearance Holes for the Palm

*** All dimensions are nominal**

RIGHT ANGLE TERMINAL LUG – TYPE CLS

Used for connecting cylindrical terminals or tubular busbar at right angle to switchgear. Castings are high copper content alloy. Hardware is stainless steel

Catalogue No.	Tube ϕ (mm)	Dimensions (mm)				
		Width	Height	Length	Palm Thickness	Hole Size
CLS19	19.1	102	74	190	13	M12
CLS22	22.2					
CLS25	25.4					
CLS30	30					
CLS32	31.8					
CLS38	38.1					
CLS40	40					



Note: TUBE diameter and Holes in the Palm can be machined to customer requirements for any size between 19-40mm Tube Diameter and M8–M16 clearance Holes for the Palm

*** All dimensions are nominal**



SUBSTATION FITTINGS

TUBE TO FLAT AL TERMINAL LUGS

**ALUMINIUM TERMINAL LUG – TYPE ATL
TUBE TO FLAT PALM**

Cast in aluminium alloy and fitted with stainless steel bolts. The Palm can be drilled with 4 holes or left blank.

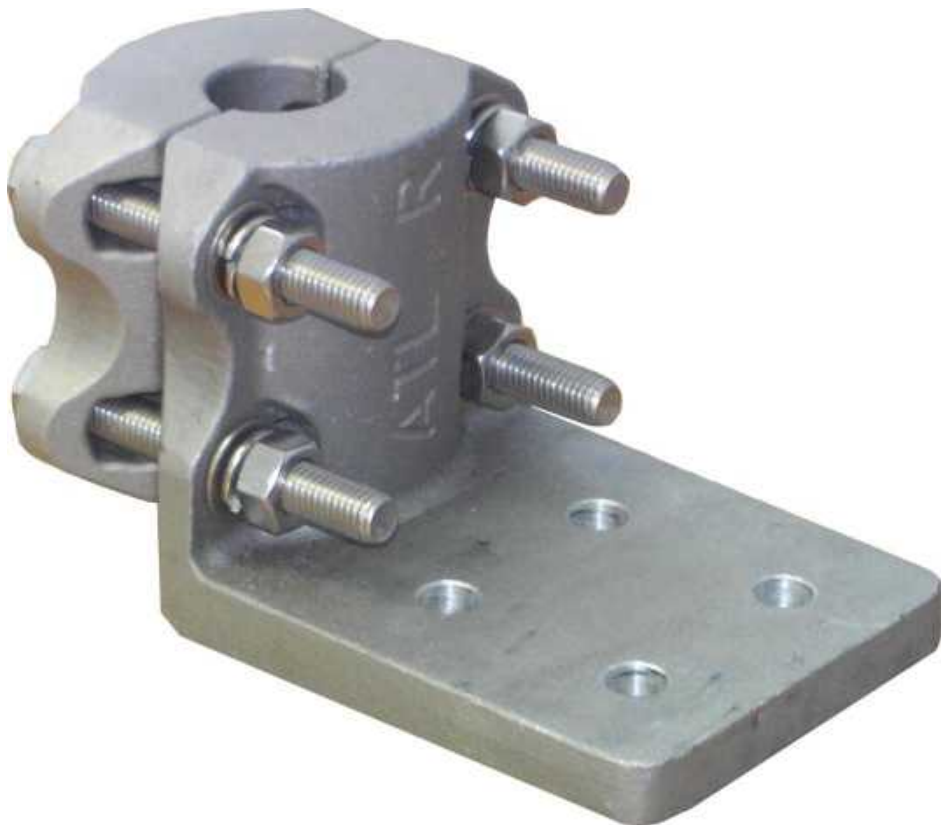


Catalogue No.	Tube \varnothing (mm)
ATL25	25.4
ATL32	31.8
ATL38	38.1
ATL50	50
ATL51	50.8
ATL54	54
ATL60	60.3
ATL61	61
ATL63	63.5

** Add 'R' to the Part No. for the Right Angle Version e.g. ATL25R

**ALUMINIUM TERMINAL LUG – TYPE ATL – R
TUBE TO FLAT PALM – RIGHT ANGLE**

Cast in aluminium alloy and fitted with stainless steel bolts. The Palm can be drilled with 4 holes or left blank.



TUBE CONNECTOR – TYPE CTF

Copper tube to flat. Type CTF tube connectors provide an economical means of terminating tubular busbar. They also combine with flexible braid connections to make expansion joint between tubes in line or at right angles. Unless ordered otherwise, CTF tube connectors will be supplied with standard length stainless steel bolts and nuts as shown in table.

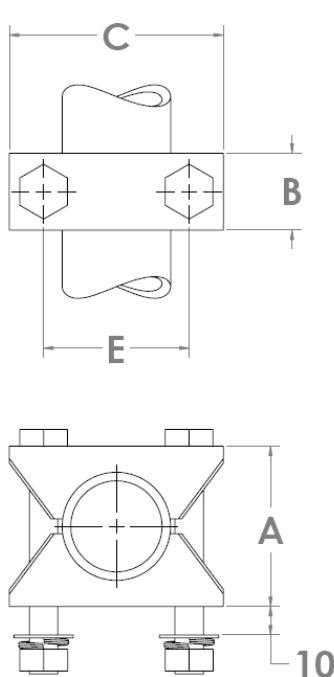


FIG 1

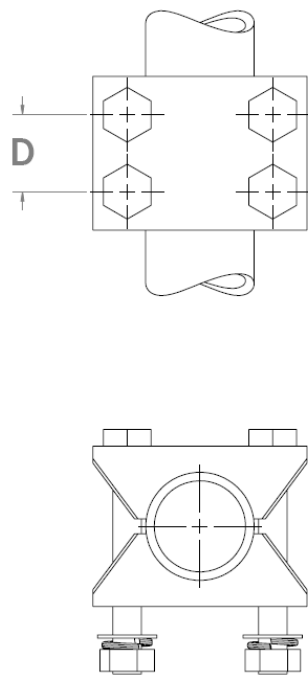


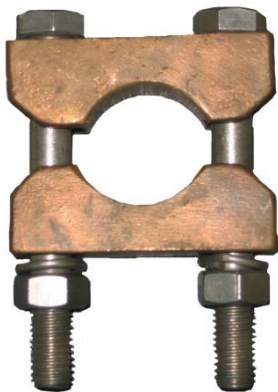
FIG 2



Catalogue No.	Figure No.	Tube Ø (mm)	Dimensions (mm)					Standard Bolt Size
			A	B	C	D	E	
CTF13 - 1	1	13	32	25	54	-	29	M10 x 50
CTF16 - 1	1	16	32	25	54	-	29	M10 x 50
CTF16	2	16	32	48	54	22	29	M10 x 55
CTF19	2	19	35	48	57	22	32	M10 x 60
CTF25 - 1	1	25	44	29	60	-	38	M10 x 65
CTF25-51	2	25	41	76	76	51	51	-
CTF25	2	25	41	54	64	29	38	M10 x 65
CTF29	2	29	44	54	64	29	38	M10 x 75
CTF30	2	30	46	54	70	29	44	M10 x 75
CTF32	2	32	46	54	70	29	44	M10 x 75
CTF38	2	38	54	54	76	29	51	M10 x 80
CTF40	2	40	56	55	76	29	51	M10 x 80
CTF48	2	48	64	57	83	29	57	M10 x 90
CTF51	2	51	67	54	89	29	64	M10 x 100
CTF61	2	76	95	54	114	29	89	M10 x120

RANGE CONTINUALLY EXPANDING

Copper Tube Connector



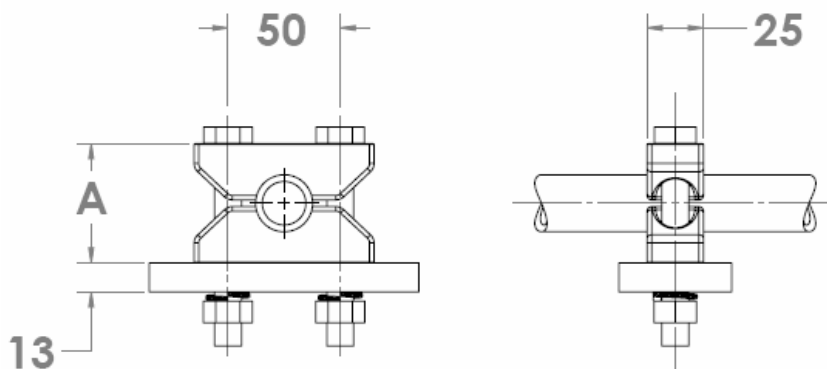
TC-38

Catalogue No.	Tube ϕ (mm)	(A)	Weight (kg)
TC25	25.4mm	53mm	
TC30	30.2mm	58mm	
TC-38	38mm	68mm	0.6
TC-38A1	38mm	68mm	0.6

Made for the connection of tubular busbar to flat busbar. Castings are made of high copper content alloy. Bolts, nuts and spring washers are stainless steel. Length of contact surface – 25mm.



TC-38A1



Tube to Flat Expansion Joint – Catalogue No. EJ-38

Used where large copper flat bus-bar are being connected to copper tube, providing an expansion joint between the two (2) bus-bars. Fitted with a TC-38A1 Copper Tube Connector for 38mm O.D. Tube

