



Trefoil Cable Clamp

Single Cable Clamp

Aluminum Strip Clamp

Aluminum Clamp



Cable Cleats



SumiP[®]

Why use cable cleats for securing cables?

Cable cleats are designed to fix, retain and support cables. In addition, where short-circuit faults are anticipated, correct heating will result in the containment of the cables during a fault and enable the circuit to be restored once the fault has been repaired. When adjacent cables carrying three phase current suffer a short circuit fault, the induced magnetic fields result in the cables experiencing significant opposing forces. A safe installation requires well designed and thoroughly tested cable cleats.

Trefoil Cable Clamp

Trefoil clamps are used for high voltage single core cables where the current rating is high and 3 core cables are not available. Sumip Trefoil clamps are used for laying single core cables in Trefoil touching formation which helps to maintain magnetic symmetry thereby avoiding electromagnetic heating and loss of current. Sumip Trefoil clamps have been moulded from glass fibre filled material.

Short Circuits and Short Circuit Testing

The forces experienced by a cleat during a short circuit are a function of short circuit current, cleat spacing and the distance between the cable centers [in the case of trefoil arrangements, this is the cable diameter].

The Sumip cable cleat has undergone extensive, rigorous short circuit testing and has been approved and certified to withstand 'Short-Time and Peak Withstand Test Current' of up to **50 KA RMS, 125KA peak at 1000 mm spacing for 1 second, tested at Electrical Research and Development Association (ERDA)**. Such results make the Sumip's cleats as one of the strongest cleats in the market.

- Sumip can also provide clamps which are tested at **50 KA RMS, 125KA peak at 1000 mm spacing for 3 seconds**.
- Sumip can also provide specialized clamps required in POWERGRID, WBETCL etc. with Non Magnetic Hardware & Neoprene Rubber Lining as per IS 11149-1987



Sr. No.	Model No.	Overall Dia. of Cable in mm	
		MIN	MAX
1	TRE 05	23.5	26.5
2	TRE 08	30.0	34.0
3	TRE 06	34.5	37.5
4	TRE 10	38.0	41.0
5	TRE 14	42.0	44.0
6	TRE 16	44.0	47.5
7	TRE 21	47.5	51.0
8	TRE 24	50.9	54.0
9	TRE 28	54.1	57.2
10	TRE 30	57.3	60.3
11	TRE 35	60.4	63.5
12	TRE 37	63.6	66.5
13	TRE 39	67.0	69.0
14	TRE 43	69.0	73.0
15	TRE 50	76.0	80.0

- Add suffix **AS** for Aluminum Stripe Clamps & **AC** for Aluminum Casted Clamps

Advantages of Sumip Clamps

1) High Mechanical Strength 2) Center distance between Trefoil Clamps can be increased for lower fault level than 50KA and hence total requirement of clamps can be reduce thereby overall reduction in cost. 3) No magnetism 4) No conduction 5) Resistant against various chemicals 6) Easy to install 7) Do not oxidize 8) No corrosion 9) Design of clamp and good flexural strengths gives good grip on cable and accommodates slight deviation in diameter of cables. Sumip provides wide range of sizes in Glass Fibre Filled Moulded Clamps and Aluminum Clamps suitable for all HT and LT cable.

SumiP[®]

Single Cable Clamp



We also supply various types of single clamps used for LT and HT single cables.

SC Series

Sizes available from 42mm to 120mm as per cable Diameter

Hardware

MS Zinc Passivated with optional Hardware available in hot dip galvanized or SS 304 / 316

Sr. No.	Model No.	MIN	MAX
1	SC 16	Ø 42mm	Ø 46mm
2	SC 26	Ø 52mm	Ø 56mm
3	SC 30	Ø 57mm	Ø 60mm
4	SC 40	Ø 64mm	Ø 70mm
5	SC 75	Ø 85mm	Ø 105mm
6	SC 90	Ø 112mm	Ø 120mm

Aluminum Strip Clamp



We can also provide and Design Aluminium Strip type trefoil clamps as per requirement of the client in various sizes.

Aluminum Clamp



We can also provide and Design Aluminium trefoil & single clamps as per requirement of the client in various sizes.



Application of Cable Cleats

Cable cleats are suitable for various sectors like...

- 1) Power Generation
- 2) Transmission and Distribution
- 3) Offshore Oil and Gas
- 4) Shipping/Marine
- 5) Water and Sewage Treatment Work
- 6) Petrochemical Plants
- 7) Airports, Ports, Tunnels, etc.

For cable installations on cable ladder, tray and other cable management system or buried direct into the ground.



Sumip[®]

Manufactured By :

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www.sumip.com

Sumip's Other Products

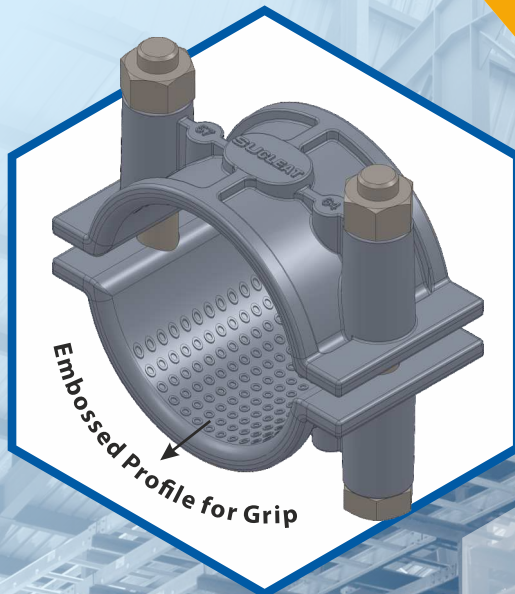
Fiberglass Cable Tray Systems

Fiberglass Poles

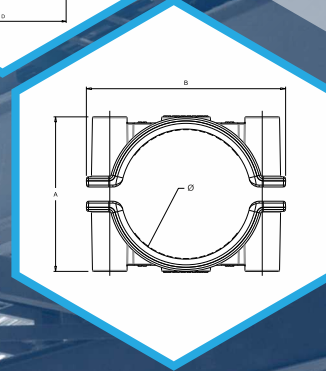
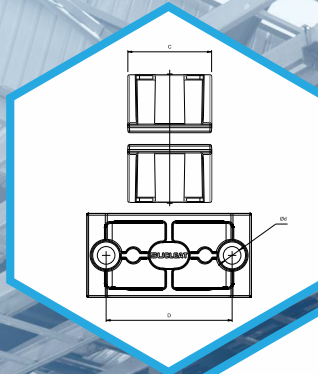
Fiberglass Luminaries

Fiberglass Ladders

SUBOX - Enclosures



Embossed Profile for Grip



SINGLE CLEATS (Aluminium)

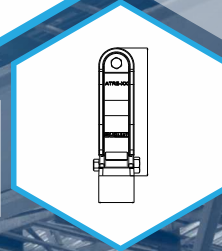
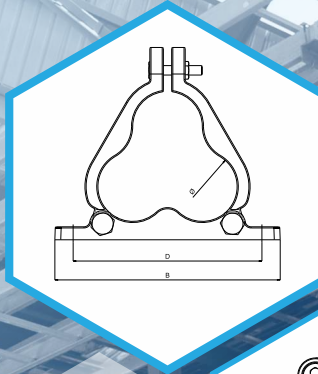
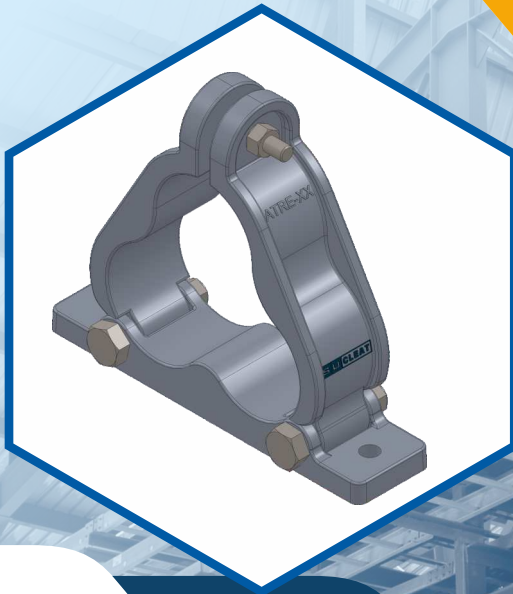
Description

- Made of Aluminium alloy for lower weight and sufficient performance
- Available in 17 Different sizes
- Can be used for cable diameters ranging from 51mm to 159mm
- Temperature Range: -60°C to 120°C
- Embossed profile for better grip

Application

- The cleats are designed for the short circuit condition for peak currents ranging up to 125kA According to IEC 61914:2009 standard
- The cleats are to be fixed on an appropriate rigid support with two Bolts with specified size
- Maximum spacing between the cleats should be 1m

Sr. No.	Product No.	Cable Diameter (Ø)(mm)		Dimensions (mm)				Bolt Size (d)
		Min	Max	A	B	C	D	
1	ASC 1 - 27	51	57	70	98	50	75	M10
2	ASC 1 - 34	57	64	76	98	50	75	M10
3	ASC 1 - 40	64	70	82	135	65	115	M10
4	ASC 1 - 46	70	76	88	135	65	115	M10
5	ASC 1 - 53	76	83	96	140	65	115	M12
6	ASC 1 - 59	83	89	101	140	65	115	M12
7	ASC 1 - 65	89	95	108	152	75	125	M12
8	ASC 1 - 71	95	101	114	152	75	125	M12
9	ASC 1 - 78	101	108	120	165	75	140	M12
10	ASC 1 - 84	108	114	126	165	75	140	M12
11	ASC 1 - 91	115	121	133	175	100	150	M12
12	ASC 1 - 97	121	127	139	175	125	150	M12
13	ASC 1 - 103	127	133	145	200	125	175	M12
14	ASC 1 - 110	133	140	152	200	125	175	M12
15	ASC 1 - 116	140	146	158	200	125	175	M12
16	ASC 1 - 122	146	152	164	210	125	185	M12
17	ASC 1 - 129	152	159	172	215	150	190	M12



TREFOIL CLEATS (Aluminium)

Description

- Made of Aluminium alloy for lower weight and sufficient performance
- Available in 15 Different sizes
- Can be used for cable diameters ranging from 27mm to 79mm
- Available for both Single and double fixing
- Temperature Range: -60° C to 120° C

Application

- The cleats are designed for the short circuit condition for peak currents ranging up to 125kA According to IEC 61914:2009 standard
- The cleats are to be fixed on an appropriate rigid support with two M10 Bolts or one M10 bolt in case of single Fixing
- Maximum spacing between the cleats should be 1m

NOTE: The figure is for two fixing. One fixing has only one hole in the center instead of two.

Sr. No.	Product No.	Cable Diameter (Ø) (mm)		Dimensions (mm)			
		Min	Max	A	B	C	D
1	ATRE 1-0.08	27	28	91	40	137	110
2	ATRE 1-02	30	32	97	40	137	110
3	ATRE 1-05	34	35	104	40	137	110
4	ATRE 1 - 10	38	40	113	40	154	128
5	ATRE 1 - 13	41	43	120	40	154	128
6	ATRE 1 - 16	44	46	127	40	154	128
7	ATRE 1 - 21	49	51	140	40	191	160
8	ATRE 1 - 24	53	54	150	40	191	160
9	ATRE 1 - 27	55	57	156	45	191	160
10	ATRE 1 - 30	59	60	163	45	191	160
11	ATRE 1 - 34	62	64	167	45	217	185
12	ATRE 1 - 37	65	67	174	45	217	185
13	ATRE 1 - 40	68	70	183	45	217	185
14	ATRE 1 - 43	71	73	188	45	217	185
15	ATRE 1 - 46	74	76	195	45	217	185