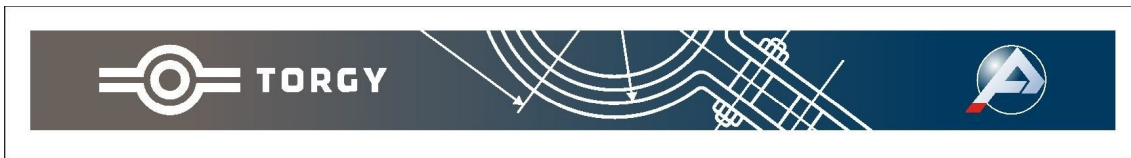


Cable Cleats

T O R G Y G R O U P





Section 6

Cable Cleats for Power Transmission Cables

Glass reinforced composite cable cleats – general information

C type – Cable cleat

U type – Cable cleat (channel mounted)

T type – Cable cleat (trefoil configuration)



GLASS REINFORCED COMPOSITE CABLE CLEATS

Manufactured from **ASEplus** high strength glass reinforced composite.

APPLICATION: To support medium and high voltage power transmission cables. Typically from 33kV to 500kV. Can be supplied with DTS cable slots.

USED ON:

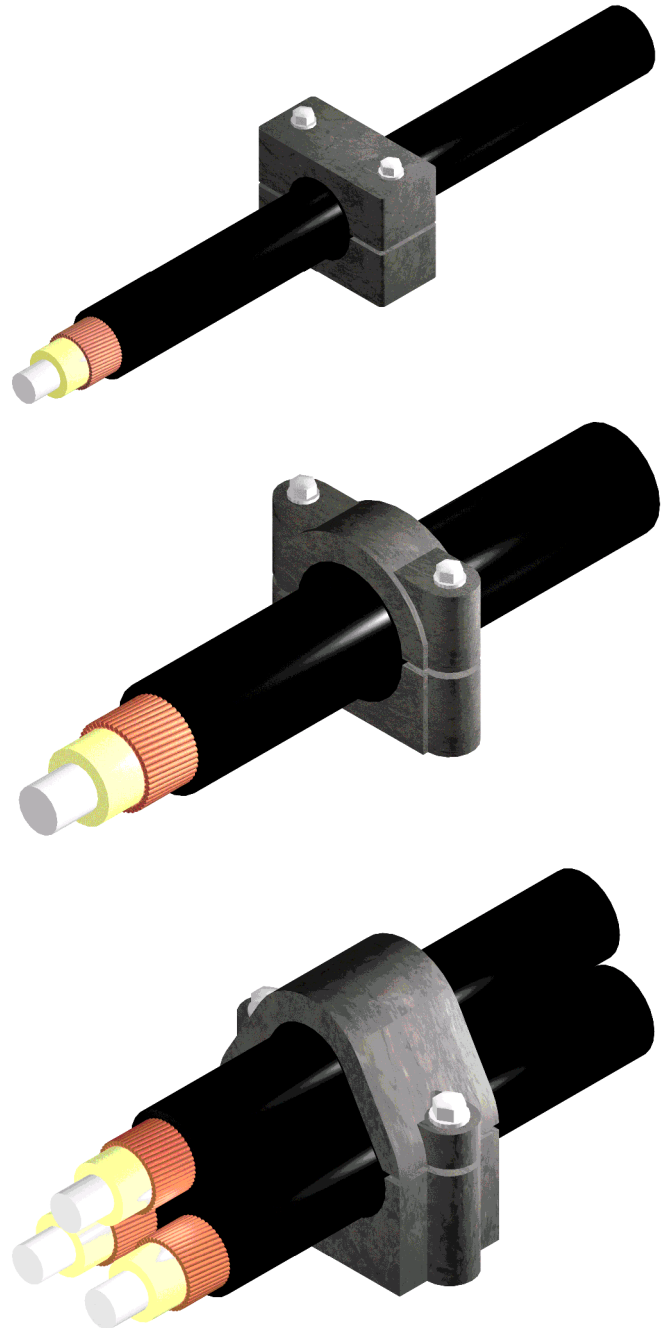
- Cable systems for tunnels, bridges and masts
- Flexible (sag) and rigid cable systems
- Vertical shafts, sharps bends and cable joint bays
- Trefoil and single cable systems
- Cables with fibre optic sensors

MATERIAL PROPERTIES:

- Excellent thermal and electrical insulator with high dielectric strength.
- Corrosion free/zero maintenance.
- Zero Halogen/non toxic.
- Fire retardant/flame resistant/not easily ignitable.
- Resistant to UV and chemical attack.
- No significant water absorption.
- Fatigue tested to 10 million cycles.
- High physical strength in all directions.

PRODUCT BENEFITS:

- Non metallic therefore no problems with dissimilar metals when fixing to supporting structure or heat build up from magnetic field.
- Cost effective alternative to aluminium, does not require epoxy or other protective coatings.
- Robust and durable. Design life 40 years minimum.
- Strength checked using finite element method calculations supported by extensive laboratory testing.
- Resilient liner prevents cable damage due to movement and expansion; also allows for tolerance in cable diameters.

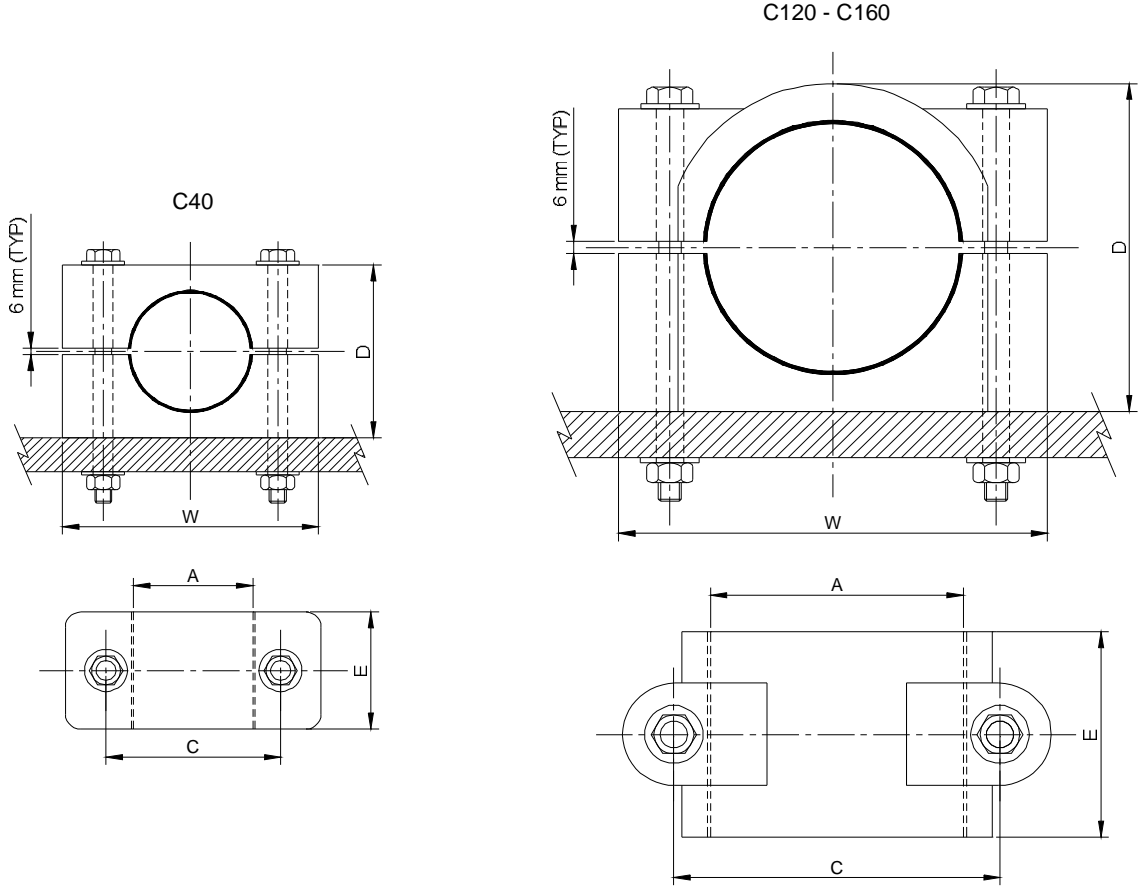




GLASS REINFORCED COMPOSITE CABLE CLEATS

Type C

To support medium and high voltage power transmission cables, typically from 33 kV to 500 kV



Part number	Cable diameter A	Bolt size	C	D	E	W	Safe working load kN	Short term load kN
C40/M8/*	20 to 40	M8x85	54	60	30	80	2	10
C120/M12/*	101 to 120	M12x200	156	160	100	205	10	50
C120/M16/*	101 to 120	M16x200	156	160	100	205	10	50
C130/M12/*	121 to 130	M12x200	164	170	100	215	10	50
C130/M16/*	121 to 130	M16x200	164	170	100	215	10	50
C140/M16/*	131 to 140	M16x200	174	180	100	225	10	50
C160/M16/*	141 to 160	M16x200	190	200	100	230	10	50

*Please specify outside cable diameter, A. (e.g. part number C120/M12/110 has an outside cable diameter of 110mm)

NOTES:

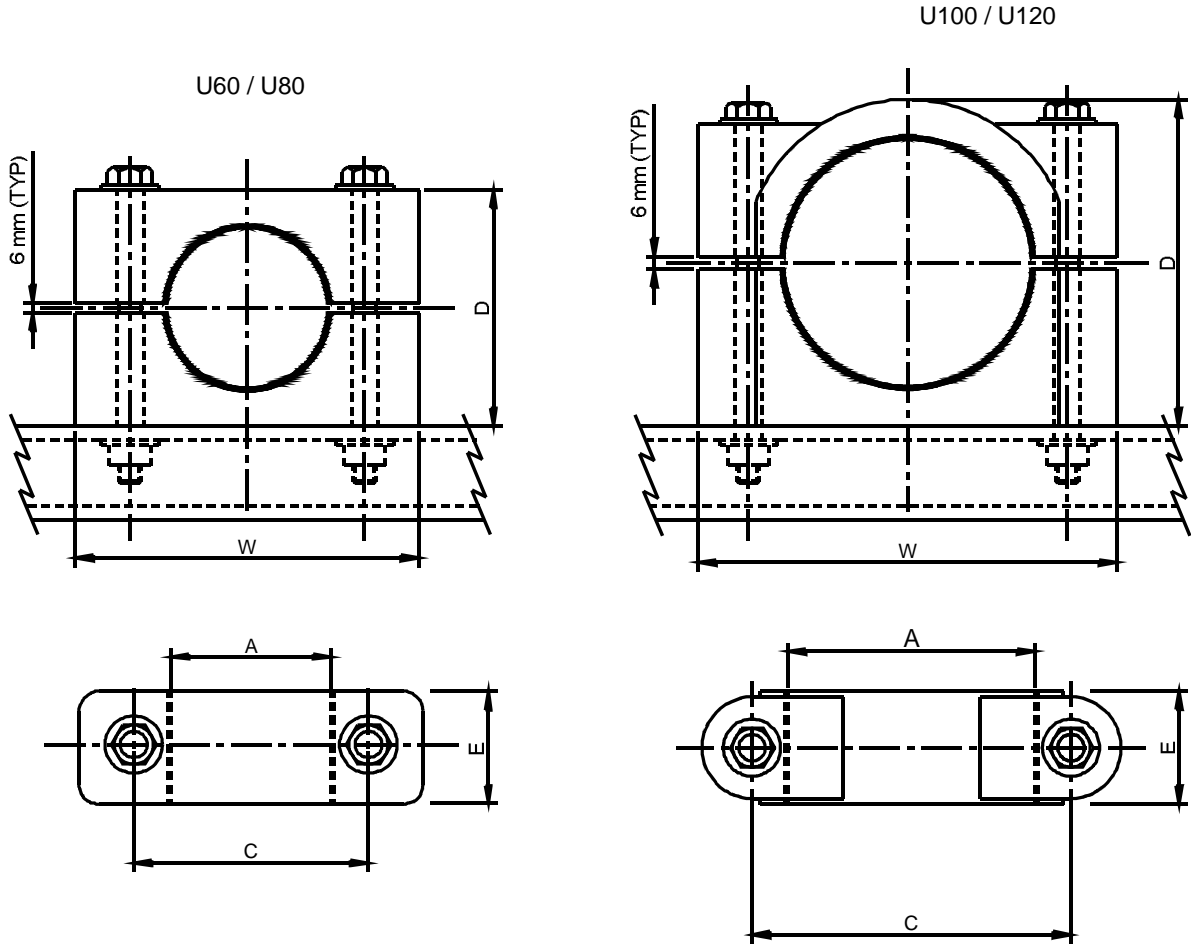
- Unless otherwise stated, all dimensions are in millimetres.
- Safe working load is applicable to a continuous load in any direction.
- Short term load is applicable to a short duration overload condition in any direction.
- The standard range loads are quoted at 25°C and should be derated linearly with temperature to 50% at +160°C.
- No reduction in strength occurs below +25°C.
- Cleats are constructed from **ASEplas** 1010 SWA glass reinforced composite material.
- Maximum initial torque for fixing bolts 20Nm.





GLASS REINFORCED COMPOSITE CABLE CLEATS **Type U**
- CHANNEL MOUNTED

To support medium and high voltage power transmission cables, typically from 33 kV to 500 kV



Part number	Cable diameter A	Bolt size	C	D	E	W	Safe working load kN	Short term load kN
U60/M10/*	41 to 60	M10x120	98	90	55	155	5	25
U80/M12/*	61 to 80	M12x160	114	115	55	167	5	25
U100/M12/*	81 to 100	M12x170	130	140	55	180	7	35
U120/M12/*	101 to 120	M12x200	156	160	55	205	7	35

*Please specify outside cable diameter, A. (e.g. part number U120/M12/110 has an outside cable diameter of 110mm)

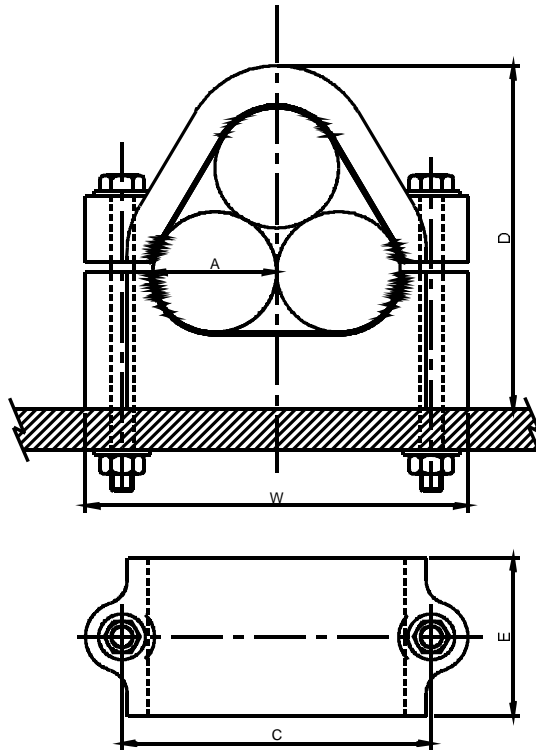
NOTES:

- Unless otherwise stated, all dimensions are in millimetres.
- Safe working load is applicable to a continuous load in any direction.
- Short term load is applicable to a short duration overload condition in any direction.
- The standard range loads are quoted at 25°C and should be derated linearly with temperature to 50% at +160°C.
- No reduction in strength occurs below +25°C.
- Cleats are constructed from **ASEplus** 1010 SWA glass reinforced composite material.
- Maximum initial torque for fixing bolts 20Nm.



GLASS REINFORCED COMPOSITE CABLE CLEATS – TREFOIL [T-TYPE]

To support medium and high voltage power transmission cables, typically from 33 kV to 500 kV



Part number	Cable diameter A	Bolt size	C	D	E	W	Safe working load kN **	Short term load kN **
T69/M12/*	66 to 69	M12x180	190	218	100	235	5	25
T76/M12/*	74 to 78	M12x180	190	218	100	235	5	25
T96/M16/*	85 to 97	M16x180	274	277	100	328	7	35
T100/M16/H*	98 to 105	M16x180	284	284	100	328	10	50
T106/M16/H*	104 to 107	M16x180	284	284	100	328	10	50
T107/M16/*	105 to 108	M16x180	274	277	100	328	7	35
T116/M16/H*	114 to 117	M16x180	284	284	100	328	10	50
T140/M16/H*	138 to 145	M16x215	365	366	100	410	10	50
T150/M16/H*	146 to 154	M16x215	365	366	100	410	10	50
T160/M16/H*	156 to 164	M16x235	385	386	100	435	10	50

*Please specify outside cable diameter, A. (e.g. part number T76/M12/76 has an outside cable diameter of 76mm)

** NB Performance specification may be enhanced to meet specific contract requirements

NOTES:

- Unless otherwise stated, all dimensions are in millimetres.
- Safe working load is applicable to a continuous load in any direction.
- Short term load is applicable to a short duration overload condition in any direction.
- The standard range loads are quoted at 25°C and should be derated linearly with temperature to 50% at +160°C.
- No reduction in strength occurs below +25°C.
- Cleats are constructed from **ASEplus** 1010 SWA glass reinforced composite material.
- Maximum initial torque for fixing bolts 20Nm.