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THE COMPOSITE EXPERT...

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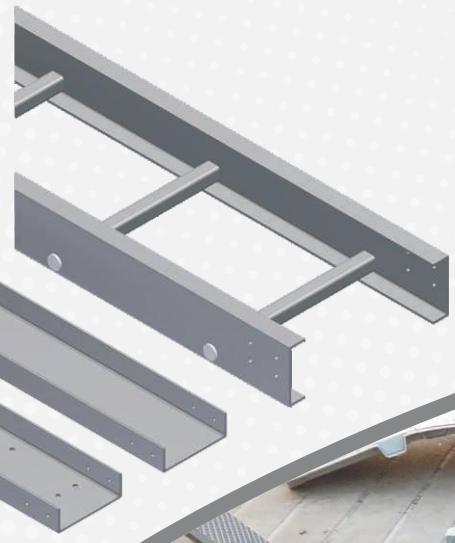


FIBERGLASS CABLE MANAGEMENT SYSTEMS

Aeron composites are gaining more popularity than the traditional materials due to their several benefits and durable performance in challenging environments. In the area of cable management, AERON can offer a versatile range of solutions, from standard product range to customer-tailored solutions.

Quality & Consistency

Aeron product performance is consistent and reliable as all the products go through comprehensive programs of quality control in a world-class testing laboratory.

Engineering & Design Assistance

All engineering and design assistance for your project will be handled by our highly qualified and experienced staff. With our wide exposure we would be able to tackle a unique design problem that you face.

Specification Assistance

The most important phase for the success of a composite cable management solution is the specification phase. Our experience of installations in a wide variety of difficult environments can help you specify the best resin system and the correct structural properties that are long lasting and low on acquisition cost.

The Fiberglass Advantages

As compared to galvanized Steel

» Corrosion resistance coating not required.
» No risk of injury.
» Resistant to salt water, sulfur, chlorine or basis environments.

As compared to aluminum

» No electrolytic corrosion due to contact of two metals in humid environment.
» Much more longer life span in basic chlorine or halogen atmosphere.

As compared to Stainless Steel

» Absence of corrosion under tension (mechanical).
» Recommended in chlorine environment.

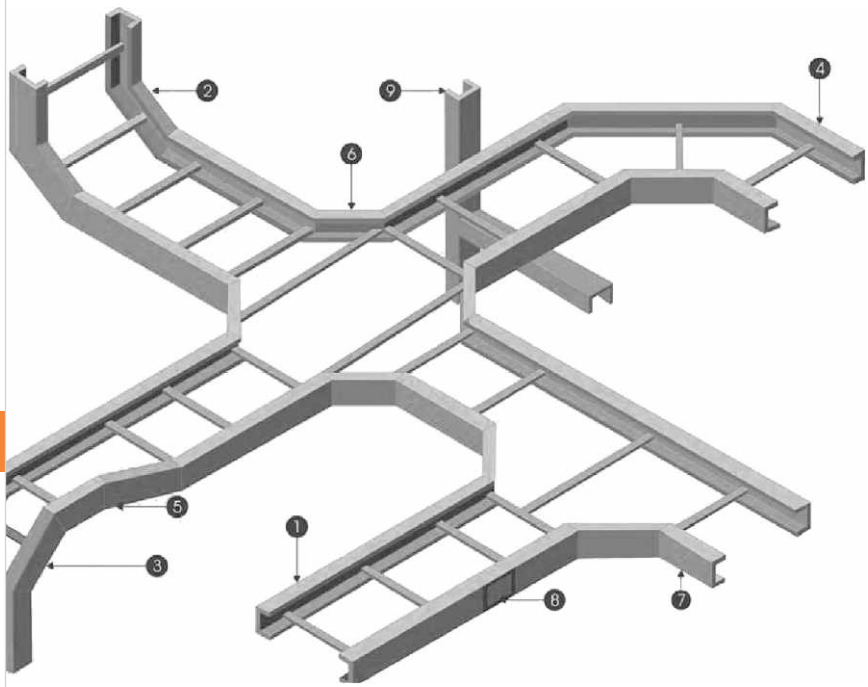
As Compared to Metals

» No earthing required.
» Resistance to corrosion contributes to reduce the life cycle costs (LCC) of installations.
» No requirement for electric continuity test.
» Will not deform under impact.
» Easy to work (Cut, drill) at site and id much easier to move and place because is it light weight.

CABLE MANAGEMENT SYSTEMS

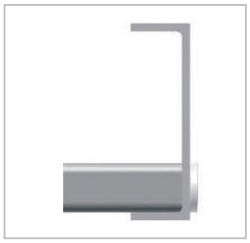
Fiberglass Cable Tray System

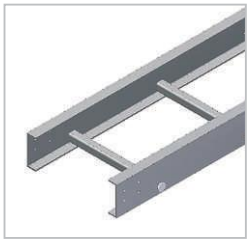
Fibreglass Reinforced plastics (FRP) are increasingly being considered as a superior material of construction in many fields. FRP has proved immensely beneficial in a wide range of industrial applications due to the following salient features

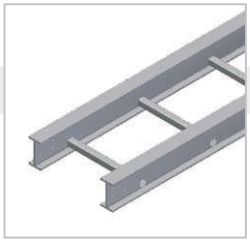


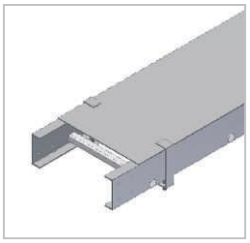
Fiberglass Cable Tray Assembly System	
1	Straight Run
2	90^0 Inside Vertical Bend
3	90^0 Outside Vertical Bend
4	90^0 Horizontal Bend
5	Left Hand Reducer
6	Horizontal Cross
7	Horizontal Tee
8	Splice Plate For Joining

LADDER TYPE CABLE TRAY









Nomenclature system includes each system with their respective side rail height, flange width, channel thickness etc. All cable trays are available in Polyester, Vinyl ester, Antistatic and halogen-free resin. Rung connections are made with a mechanical and chemical lock.

Nomenclature For Ladder Type Cable Tray

Example : ACL - P - 12 - 40 - S - 150 - Y

Cable Tray Type	Resin Type	Width	Height	Rung Type	Rung Spacing	STD Length
ACL Ladder Type	P-Polyester	06-150mm	20-50	S-Normal*	A-150mm	X-1M
	V-Vinylester	12-300mm	30-75	M-Marine	B-250mm	Y-3M*
		18-450mm	40-100		C-300mm*	
		24-600mm	60-150		D-450mm	
		30-750mm	80-200			
		36-900mm				

* Standard Size

Heavy Duty Cable Tray With I-beam Side Rail (Available In 100 & 150 mm Height)

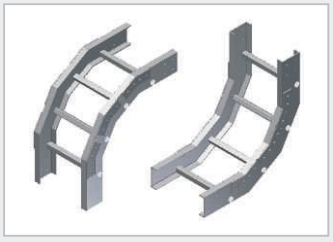
Nomenclature For Ladder Type Cable Tray Fitting

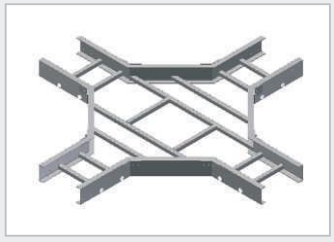
Example : ACL - 90 - VIB - W - H - R

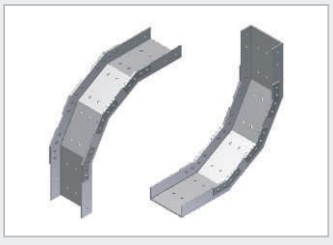
Cable Tray Type	Angle	Type		Width	Height	Radius
ACL Ladder Type	30°	HB-Horizontal Bend	VT-Vertical Tee	06-150mm	20-50	300
	45°	HT-Horizontal Tee	VTU-Vertical Tee, Up	12-300mm	30-75	450
	60°	HX-Horizontal Cross	RR-Right Reducer	18-450mm	40-100	600
	90°	VIB-Vertical Inside Bend	LR-Left Reducer	24-600mm	60-150	900
	#	VOB-Vertical Outside Bend	SR-Straight Reducer	30-750mm	80-200	Direct
				36-900mm		

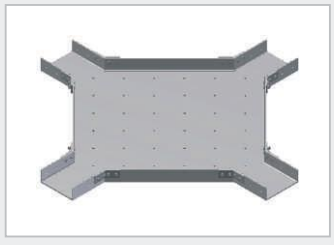
#-For Reducers | Custom Size Available On Request

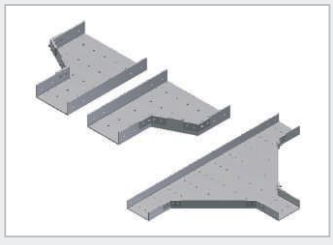
Cable Tray Fittings





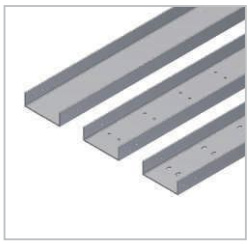




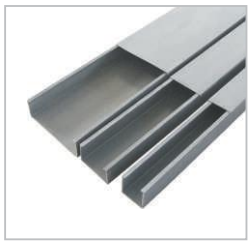


CHANNEL /PERFORATED TYPE CABLE TRAY

Channel / Duct Type Cable Tray*



Flanged Type Cable Tray



Nomenclature For Perforated Type Cable Tray

Example : ACP - P - 060 - Y

Cable Tray Type	Resin Type	Width x Height	STD Length
ACP Perforated Type	P-Polyester V-Vinylester	020-50x30mm 021-50x50mm 022-50x25mm 030-75x25mm 031-75x30mm 032-75x50mm 040-100x30mm 041-100x50mm 060-150x50mm 080-200x50mm 081-200x100mm 120-300x50mm 040RF-100x100mm 060RF-150x100mm 080RF-200x100mm 120RF-300x100mm 160RF-400x100mm 200RF-500x100mm 240RF-600x100mm	X-1M Y-3M*

Custom Size Available On Request

Fitting Selection Guide

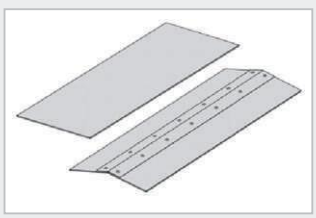
Nomenclature For Perforated Type Cable Tray Fitting

Example : ACL - 90 - VIB - C - R

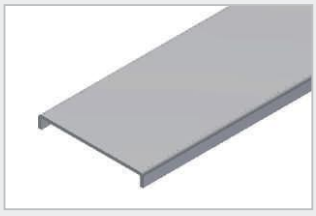
Cable Tray Type	Angle	Type	C=Width x Height		Radius
ACP Perforated Type	30° 45° 60° 90° #	HB-Horizontal Bend HT-Horizontal Tee HX-Horizontal Cross VIB-Vertical Inside Bend VOB-Vertical Outside Bend VT-Vertical Tee VTU-Vertical Tee, Up RR-Right Reducer LR-Left Reducer SR-Straight Reducer	020-50x30mm 021-50x50mm 022-50x25mm 030-75x25mm 031-75x30mm 032-75x50mm 040-100x30mm 041-100x50mm 060-150x50mm	080-200x50mm 081-200x100mm 120-300x50mm 040RF-100x100mm 060RF-150x100mm 080RF-200x100mm 120RF-300x100mm 160RF-400x100mm 200RF-500x100mm 240RF-600x100mm	300 450 600 900 Direct

#-For Reducers | Custom Size Available On Request

Cover

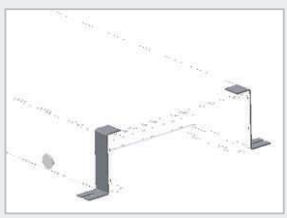


Flat Cover & Peaked Cover

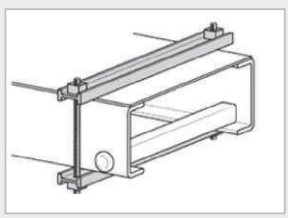


Flanged / Box Cover

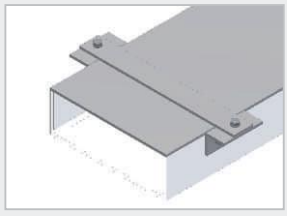
Cover Fittings



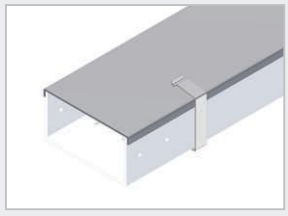
Standard Cover Clamp



Heavy Duty Cover Clamp



Cover Fitting Cable Tray



Bolt-less Cover Clip

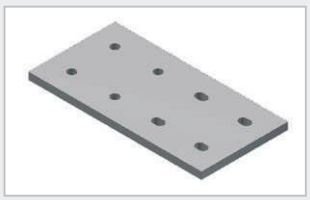
Quantity of Standard Cover Clamps Required

Straight Section 3000mm.....4 pcs.
Straight Section 6000mm.....6 pcs.
Horizontal/Vertical Bends.....4 pcs.
Tees.....6 pcs.
Crosses.....8 pcs.

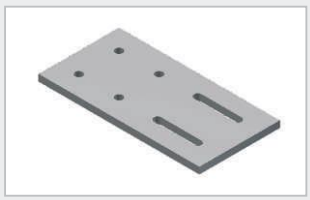
Note : When using the Heavy Duty Cover Clamp, only one-half the number of clamps stated above is required.

ACCESSORIES

AERON offers a full line of accessories for our electrical products including cable tray covers, divider strips, drop outs, blind ends, adapters, hold-down clips, marine rungs, strut rungs and a wide variety of stainless steel or FRP cable tray fasteners appropriate for any application.



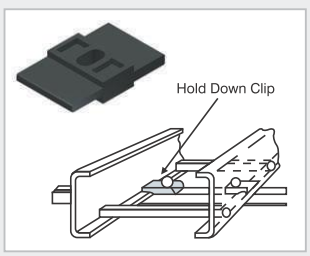
Standard Splice Plates



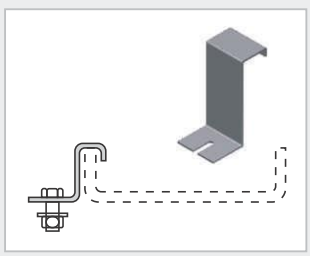
Expansion Splice Plates

Vertical Adjustable Splice Plates

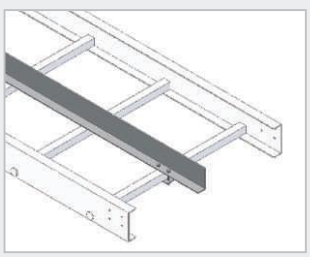
Vertical Adjustable Splice Plates



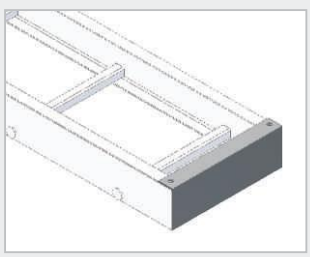
Hold Down Clip



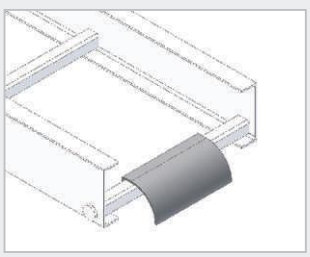
Channel Hold Down Clamp



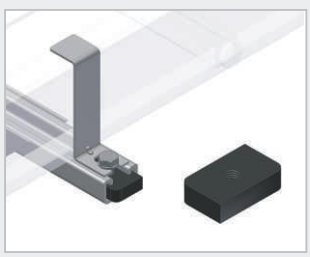
Divider Strip



Blind Plate



Ladder Drop-out



Channel Nut

Working Load Capacity

The working load capacity represents the ability of a fibreglass cable tray to support the static weight of cables. It is equivalent to destructive load capacity, with minimum safety factor of 1.5

Width of Cable Tray	Side Rail	Load Kg/Mtr. For Support span 2.0 Mtr.
150mm	75	35
300mm	75	65
450mm	100	85
600mm	100	95
750mm	100	125
900mm	150	155

Concentrated Static Load is 70 Kg. at the centre of the span.

As per NEMA Loading standards :

Load	Lb/ft.	Kgs/Mtr.
A	50	74
B	75	111
C	100	148

Side Rail	Load Class
75	8A
100	8C, 12C, 16A
150	12C,16B, 20A, 20C

Support span : 8, 10, 12 are in Feet

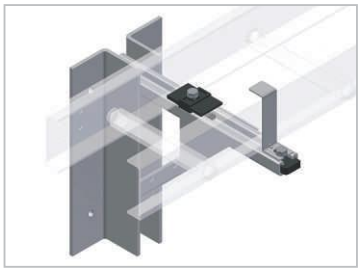
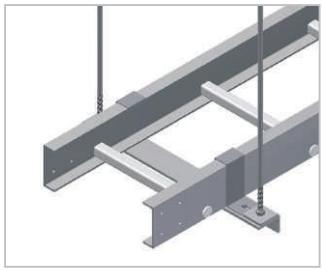
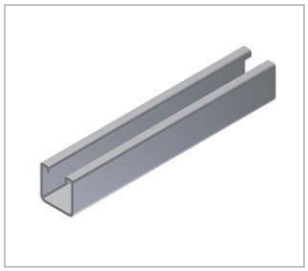
Effect Of Temperature

Strength properties of fiberglass are reduced when continuously exposed to elevated temperatures. Working loads shall be reduced based on the following:

Temp. in °F	75	100	125	150	175	200
Approx. % of Strength	100	90	78	68	60	52

Support Systems

Wall Mounted, Ceiling Hanged & Floor Mounted.


Standards

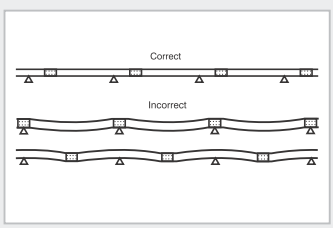
» IS 6746 -1994 Specs for Unsaturated Polyester Resin System for Low Pressure Fiber Reinforced Plastics
» NEMA FG-1 1984-1993 (Current Issue) Specification for Fiberglass Tray System - Loading Characteristics
» IS 6746 Appendix – K/UL 94 Flame Retardant (Low Flammability/v0)
» ASTM E 84 - Less than 25 mm (Under writer's Laboratory USA)

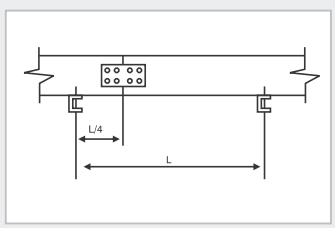
Installation Guidelines

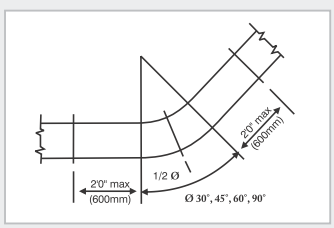
The installation of AERON Cable Tray should be made in compliance with the standards set forth by the National Electric Code and NEMA Publications FG-1 (current issue). Avoid excessive pressure when sawing, drilling, and routing, etc. Use carbide-tipped drill bits and saw blades for extended tool life.The use of lubricant during machining is not recommended. To avoid chipping of material at cut edges, secure cable tray and fittings properly during field cut operations. Follow label instructions carefully. A combination of mechanical fasteners and adhesives make the strongest most reliable connections.

SUPPORT RECOMMENDATION AS PER NEMA STANDARD

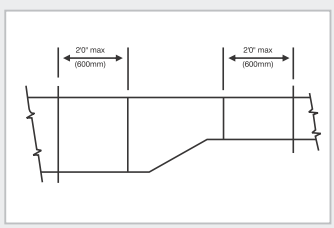
As Per Nema FG1, Splice Plate Is Recommended To Be Located At ¼ Of The Span From The Support, Where The Bending Moment Is Zero.



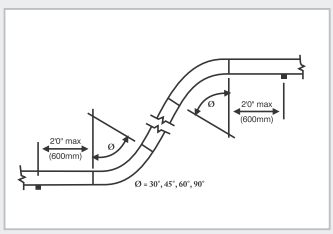




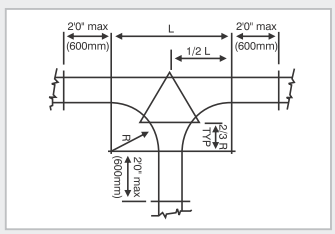
Horizontal Elbows



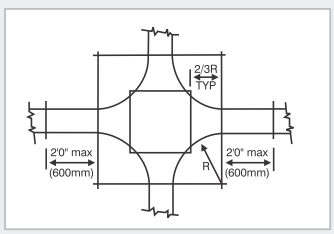
Offset Reducer



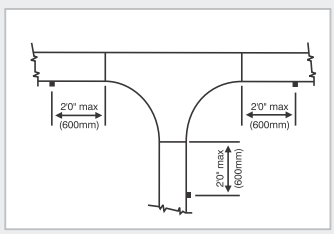
Vertical Elbows



Horizontal Tee



Horizontal Cross



Vertical Tee

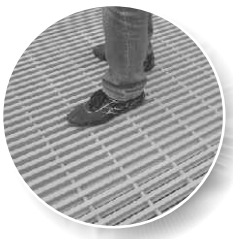
Fiberglass
Cable Tray

Fiberglass
Structural Profiles

Fiberglass
Ladder

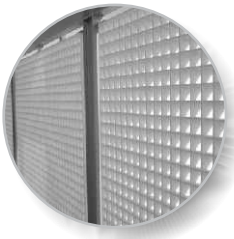
Trefoil Clamp

Fiberglass
Handrails

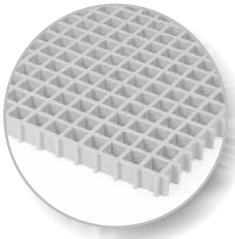


Fiberglass
Pultruded Gratings

Fiberglass
Canopy



Fiberglass
Fencing



Fiberglass
Molded Gratings

Fiberglass
Poles & Mast

Aéron©

THE COMPOSITE EXPERT...

AERON COMPOSITE PVT. LTD.

Reg. Off.: Block No. 496/P, Tajpur Road, Sarkhej Bawala Highway,
Changodar - 382213 Tal. Sanand, Ahmedabad, Gujarat - INDIA.
T : +91 79 6525 8500 | F : +91 79 26561238 | M : +91 99099 88266
E : info@aeroncomposite.com | W : www.aeroncomposite.com

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