

Cable tray & ladder

last revision in 2022

Alam Afroze Co.

Glass Reinforced polimeric Cable Managment System

GRP cable trays
GRP sheets
GRP cable ladders
GRP profiles



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about us

Alam Afroze co., with more than twenty years of work experience, provides all its productions in a wide range of application, according to the needs of the country and with the aim of developing scientific system as well as being privileged by the latest technical knowledge and by using the most experienced engineers and specialists as one of the leading companies in engineering and construction of cable trays, cable ladders, supporting systems and related accessories in the oil, gas, petrochemical, power plants and substations industry

Fields of activity:

Production of cable trays and ladders and all related accessories from hot-dip galvanized materials galvanized sheet & stainless steel

Electric bulk including electrical pipe, cable gland, explosion-proof distribution box

All types of trays and ladders for cables, supports and accessories made up of GRP and FRP

GRP and FRP grating



Quality Control

Alam Afroze co. products are manufactured Under strict quality system monitoring quality at each stage of production by a separate QC department . In house testing is done for stringent flammability tests and load test as per international standards. Test reports from independent reputed testing agencies are also available. Third party inspections are also being regularly conducted

Benefits of using FRP/GRP cable trays

Corrosion resistance

High strength

Long life

Fire retardant

Easy to install

Light weight

No conductivity

AlamAfroz GRP Cable Ladders for Power Cables

Code	side runner (H)	NEMA Load Class	Duty
CL-75-W	75	8A/6B	light duty
CL-100-W	100	10A/8B/6C	medium duty
CLh-150-W	150	8C/10B	heavy duty
CLh-160-W	160	10C/12B/20A	heavy duty
CLh-200-W	200	20C	extra duty

substitute «W» by width of tray while ordering

H = Hight of Cable Ladder

working allowable load (kg/m)					
support span	CL-75-W	CL-100-W	CLh-150-W	CLh-160-W	CLh-200-W
6 m	-	-	-	75	150
4 m	-	-	75	110	150
3 m	-	75	110	150	-
2.5 m	75	110	150	150	-
2 m	110	150	150	150	-

NEMA Class ==> 20 ,12 ,10 ,8 ,6 are support spans in feet.

A=50 lbs/ft (75 kg/m), B=75 lbs/ft (110 kg/m), C=100 lbs/ft (150 kg/m)

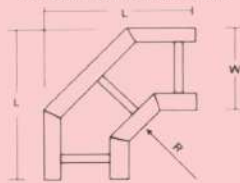
SPECIFICATIONS: meets EIL-OED-S-422-REV.4 & NEMA FG1-1993

	standard product	alternative options
material	polyester resin	vinyl ester resin, phenolic resin
fire retardancy	UL94V1, BS476 Part 7,6 class II, IS-6746, ASTM-D-635	UL94V0 - class I
length	3 m	3-6 m
width	150 - 1000 mm	sizes as required
rung construction	GRP square tubes	GRP strut channel / GRP rod
rung spacing	300 mm	500 mm or as
coupler plates	GRP/FRP with SS bolts	SS coupler plates & bolts
radius of bends	300 mm	600 mm / 900 mm
angle of bends	90 & 45 deg.	as required
electrostatic	static	antistatic



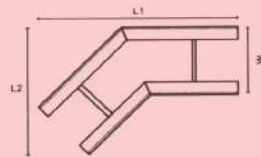
ACCESSORIES: for cable ladders 75H & 100H

90 deg. horizontal bends



Code: CL-H-W-90 deg.HB-R

45 deg. horizontal bends



Code: CL-H-W-45 deg.HB-R

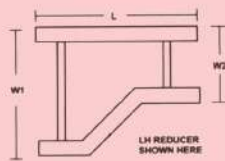
Ladder type Horizontal 90 deg. bend

size	L(300R)	L(600R)
100W	483	783
150W	533	833
200W	583	833
300W	683	983
400W	783	1083
450W	833	1133
500W	833	1183
600W	983	1283
700W	1083	1383
750W	1133	1433
800W	1183	1483
900W	1283	1583

Ladder type Horizontal 45 deg. bend

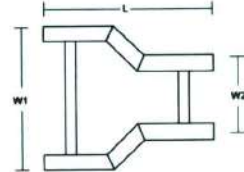
size	L(300R)		L(600R)	
	L1	L2	L1	L2
100W	418	249	629	337
150W	453	299	664	387
200W	488	349	700	437
300W	559	449	770	537
400W	630	549	841	637
450W	665	599	876	687
500W	701	649	912	737
600W	771	749	983	837
700W	842	849	1053	937
750W	877	899	1089	987
800W	913	949	1124	1037
900W	983	1049	1195	1137

LH/RH reducer



Code: CL-H-R-W1-W2-LR/RR

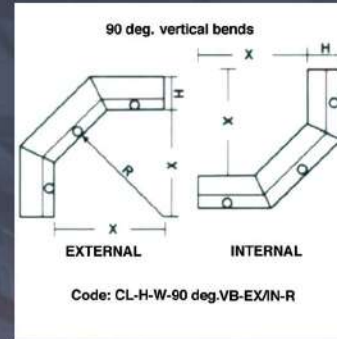
Concentric reducer



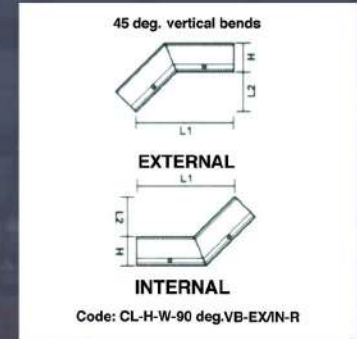
Code: CL-H-R-W1-W2-CR

W2 \ W1	900	800	750	700	600	500	450	400	300	200	150
800	800	-	-	-	-	-	-	-	-	-	-
750	550	450	-	-	-	-	-	-	-	-	-
700	600	500	450	-	-	-	-	-	-	-	-
600	700	600	550	500	-	-	-	-	-	-	-
500	800	700	650	600	500	-	-	-	-	-	-
450	850	750	700	650	550	450	-	-	-	-	-
400	900	800	750	700	600	500	450	-	-	-	-
300	1000	900	850	800	700	600	550	500	-	-	-
200	1100	1000	950	900	800	700	650	600	500	-	-
150	1150	1050	1000	950	850	750	700	650	550	450	-
100	1200	1100	1050	1000	900	800	750	700	600	500	450

W2 \ W1	900	800	750	700	600	500	450	400	300	200	150
800	450	-	-	-	-	-	-	-	-	-	-
750	470	425	-	-	-	-	-	-	-	-	-
700	500	450	425	-	-	-	-	-	-	-	-
600	550	500	475	450	-	-	-	-	-	-	-
500	600	550	525	500	450	-	-	-	-	-	-
450	625	575	550	525	475	425	-	-	-	-	-
400	650	600	575	550	500	450	425	-	-	-	-
300	700	650	625	600	550	500	475	450	-	-	-
200	750	700	675	650	600	550	525	500	450	-	-
150	775	725	700	675	625	575	550	525	475	425	-
100	800	750	725	700	650	600	575	550	500	450	425



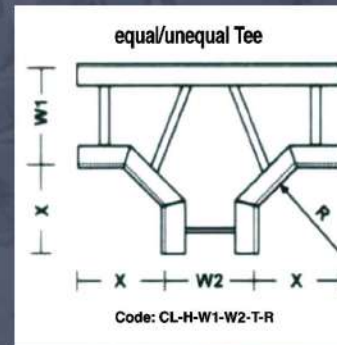
Code: CL-H-W-90 deg.VB-EX/IN-R



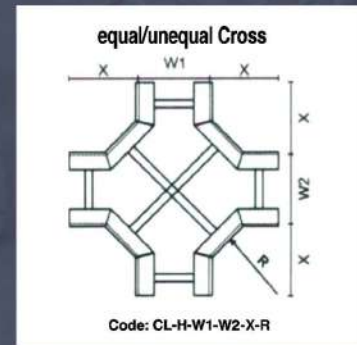
Code: CL-H-W-90 deg.VB-EX/IN-R

	300R	600R
X	375	675

	300R	600R
L1	341	553
L2	141	229



Code: CL-H-W1-W2-T-R

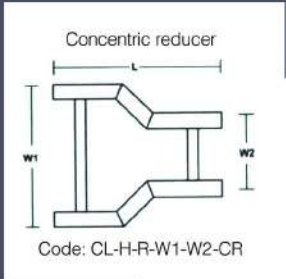
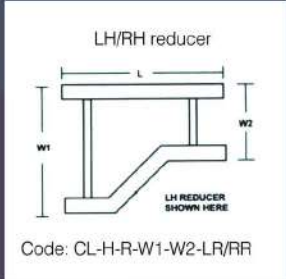
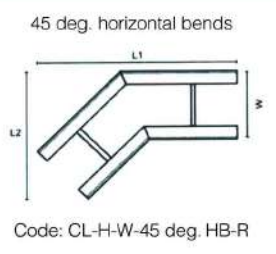
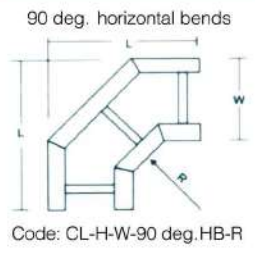


Code: CL-H-W1-W2-X-R

	300R	600R
X	379	679

	300R	600R
X	379	679

ACCESSORIES: for cable ladders 150H,160H & 200H

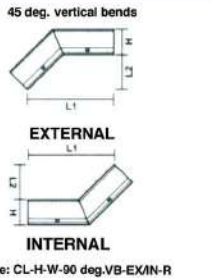
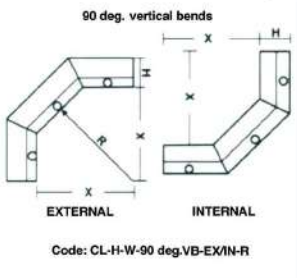
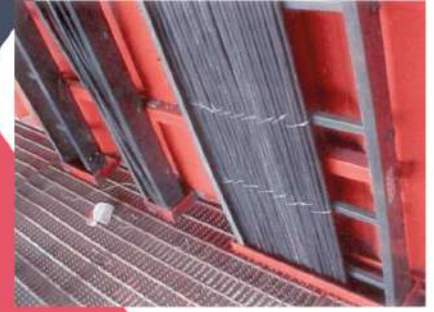


Size	300R	600R
150W	563	833
200W	613	833
300W	713	983
400W	813	1083
450W	863	1133
500W	913	1183
600W	1013	1283
700W	1113	1383
750W	1163	1433
800W	1213	1483
900W	1313	1583
1000W	1413	1683

Size	300R		600R	
	L1	L2	L1	L2
150W	504	321	664	387
200W	540	371	700	437
300W	610	471	770	537
400W	681	571	841	637
450W	716	621	876	687
500W	752	671	912	737
600W	823	771	983	837
700W	893	871	1053	937
750W	929	921	1089	987
800W	964	971	1124	1037
900W	1035	1071	1195	1137
1000W	1105	1171	1265	1237

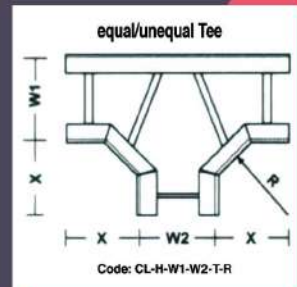
W1	1000	900	800	750	700	600	500	450	400	300	200
900	500	-	-	-	-	-	-	-	-	-	-
800	600	500	-	-	-	-	-	-	-	-	-
700	710	610	510	-	-	-	-	-	-	-	-
600	800	700	600	510	450	-	-	-	-	-	-
500	900	800	700	610	550	450	-	-	-	-	-
450	1010	910	810	700	710	610	510	-	-	-	-
400	1000	900	800	700	600	500	400	-	-	-	-
300	1100	1000	900	810	700	600	500	400	-	-	-
200	1200	1100	1000	900	800	700	600	500	400	-	-
150	1310	1210	1110	1000	910	810	700	610	510	-	-

W1	1000	900	800	750	700	600	500	450	400	300	200
900	510	-	-	-	-	-	-	-	-	-	-
800	590	510	-	-	-	-	-	-	-	-	-
700	670	590	510	-	-	-	-	-	-	-	-
600	750	670	590	510	450	-	-	-	-	-	-
500	830	750	670	590	550	450	-	-	-	-	-
450	910	830	750	670	610	510	410	-	-	-	-
400	990	910	830	750	690	590	490	390	-	-	-
300	1070	990	910	830	770	670	570	470	370	-	-
200	1150	1070	990	910	850	750	650	550	450	350	-
150	1230	1150	1070	990	930	830	730	630	530	430	330

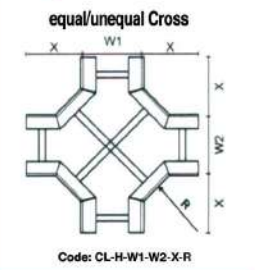


	300R	600R
X	405	675

	300R	600R
L1	393	553
L2	163	229



	300R	600R
X	409	679



	300R	600R
X	409	679

Alam Afroze GRP Instrumentation Cable Trays

Alam Afroze fiberglass channel type instrumentation tray is designed for light loads of individual wiring or pneumatic tubing. It is offered in solid or perforated construction. All straight sections and pre-assembled fittings are pre-drilled to accept splice plates. All splice plates and fasteners are separate order items

Cable tray covers are recommended for those areas ,where the cable needs protection from falling object harsh weather conditions, etc

Specifications of Standard AlamAfroz Instrument Cable Trays

	standard product	alternative options
material	polyester resin	vinylester resin, phenolic resin
length	3 meters	6-2 meters
construction	perforated type	solid base
width	600-50 mm - Pultruded	as required (moulded)
angle of bends	90 deg. , 45 deg.	as required
color	gray	as desired
fire retardancy	UL 94V1, BS476 Part 7 & Class-II, IS-6746, ASTM-D635	UL94V0, Class-I
electrostatic	static	antistatic

cable tray return flange type



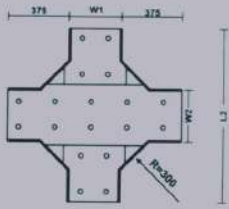
Cable Tray U Channel Type

	sizes width	Channel size W*H
CTF-5025	50	50*25
CTF-5050	50	50*50
CTF-10050	100	100*50
CTF10080	100	100*80
CTF-15050	150	150*50
CTF-20050	200	200*50
CTF-20080	200	200*80
CTF-30050	300	300*50
CTF-30080	300	300*80
CTF-40080	400	400*80
CTF-50080	500	500*80
CTF-60080	600	600*80

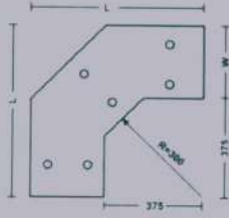
Cable Tray U Channel Type

	sizes width	Channel size W*H
CT-5025	50	50*25
CT-7527	75	75*27
CT-10030	100	100*30
CT-10040	100	100*40
CT-10050	100	100*50
CT-15030	150	150*30
CT-15040	150	150*40
CT-15050	150	150*50
CT-20050	200	200*50
CT-30050	300	300*50

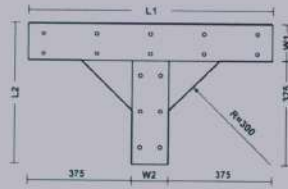
Accessories for Perforated and Solid Bottom Cable Trays



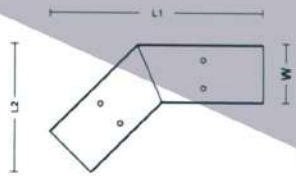
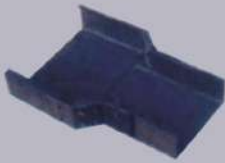
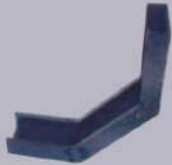
Code: CT/CTF-H-W1-W2-X-R
Equal/Unequal Cross



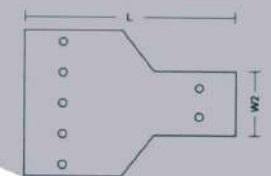
Code: CT/CTF-H-W 90 deg. HB-R
Horizontal 90 deg. bend



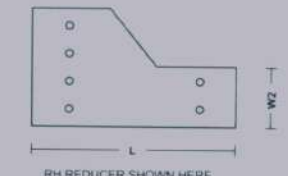
Code: CT/CTF-H-W1-W2-T-R
Equal/Unequal Tee



Code: CT/CTF-H-W45 deg. HB-R
Horizontal 45 deg bend.



Code: CT/CTF-H-W1-W2-CR
Concentric Reducer

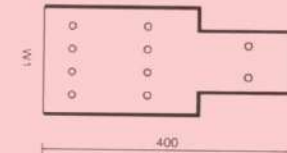


Code: CT/CTF-H-W1-W2-LR/RR
LH/RH Reducer

W2 \ W1	600	500	400	300	200	150	100
500	500	-	-	-	-	-	-
400	600	500	-	-	-	-	-
300	700	600	500	-	-	-	-
200	800	700	600	500	-	-	-
150	850	750	650	550	450	-	-
100	900	800	700	600	500	450	-
50	950	850	750	650	550	500	450

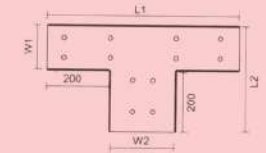
W2 \ W1	600	500	400	300	200	150	100
500	450	-	-	-	-	-	-
400	500	450	-	-	-	-	-
300	550	500	450	-	-	-	-
200	600	550	500	450	-	-	-
150	625	575	525	475	425	-	-
100	650	600	550	500	450	425	-
50	675	625	575	525	475	450	425

size	L1	L2
50W	375	191
100W	412	241
150W	447	291
200W	482	341
250W	518	391
300W	553	441
400W	624	541
500W	694	641
600W	765	741



Code: CT/CTF-H-W1-W2-DR
Direct Straight Reducer

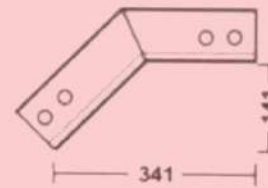
W1	W2
100	50
150	100
200	100
200	150



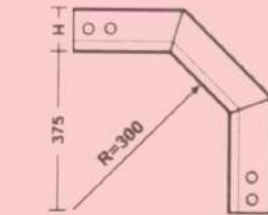
Code: CT/CTF-H-W1-W2-DT
Direct Tee 50W to 600W

$$L1=W2+400$$

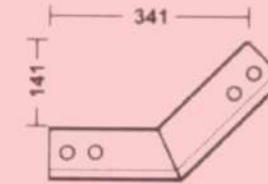
$$L2=W1+200$$



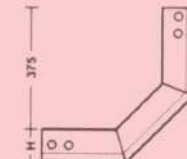
Code: CT/CTF-H-W45 deg.VB-EX
45 deg. External Bend



Code: CT/CTF-H-W90 deg.VB-EX
90 deg. External Bend



Code: CT/CTF-H-W45 deg.VB-IN
45 deg. Internal Bend



Code: CT/CTF-H-W90 deg.VB-IN
90 deg. Internal Bend

Accessories for Cable Ladders



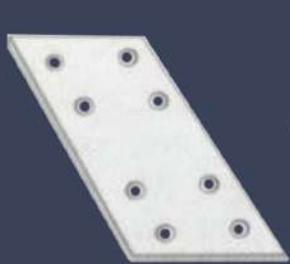
Code: CL/CLh-H-HH
Horizontal Hinge



Code: CL/CLh-H-VH
Vertical Hinge



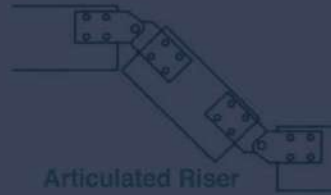
Horizontal Variable Angle



Code: CL/CLh-H-CP
GRP Coupler



Code: CL/CLh-HD
Hold Down Clamp



Articulated Riser

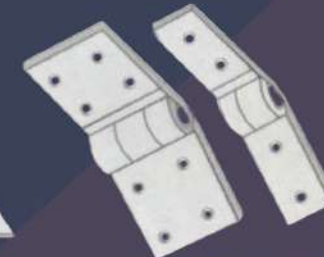


Code: CL/CLh-H-DS
Divider Strip

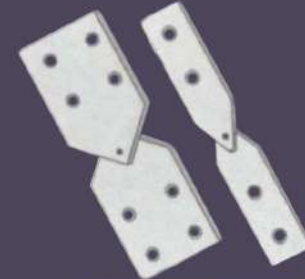
Accessories for Perforated Type Instrumentation Cable Trays



Code: CT/CTh-H-HH
GRP Horizontal Hinges

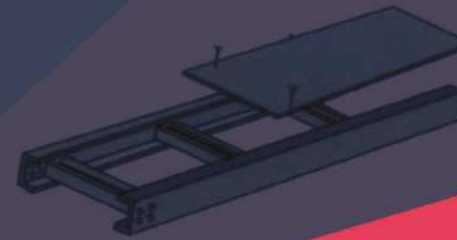


Code: CT/CTh-H-VH
GRP Vertical Hinges



Code: CT/CTh-H-CP
GRP Vertical Hinges

Cover Fixing



Code: CL/CLh/CTF-W-Cov
GRP Cover with Standard-SS
Self Tapping Screws

How To Order

[A] straight run

tray type height width length eg: CLh 160 600 3 m

Heavy Duty 160H Cable Ladder of 600 mm Width & 3 m Length

[B] bend

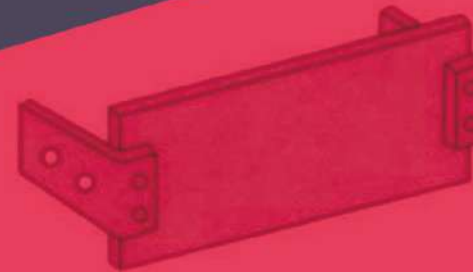
tray type height width 1 width 2 part radius eg: CTF 80 600 300 Tee 300

cable tray return flange unequal tee 300 * 600 of 300 radius

[C] cover

tray type height width 1 width 2 part radius cov eg: CL 100 450 300 RR cov

cover for cable ladder 100 height right hand reducer 450 to 300

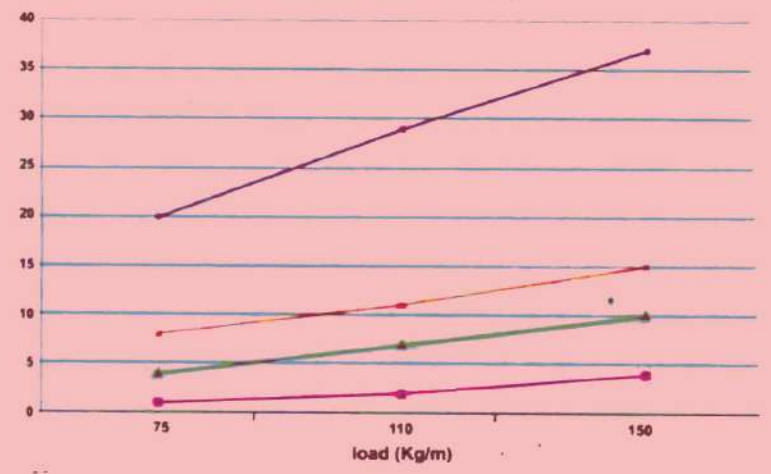
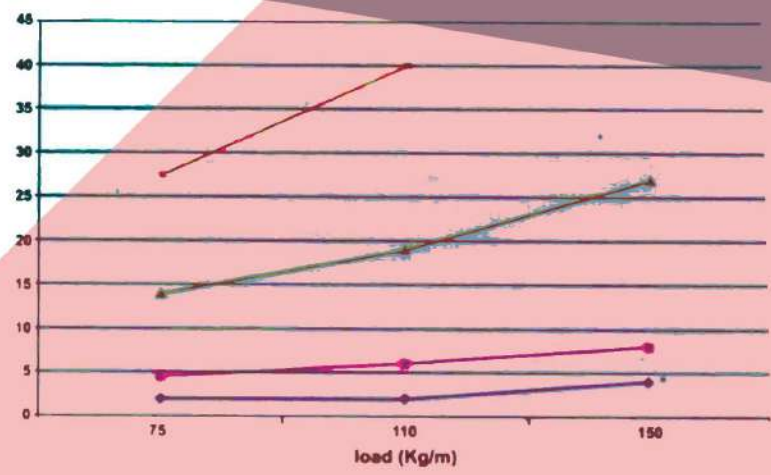
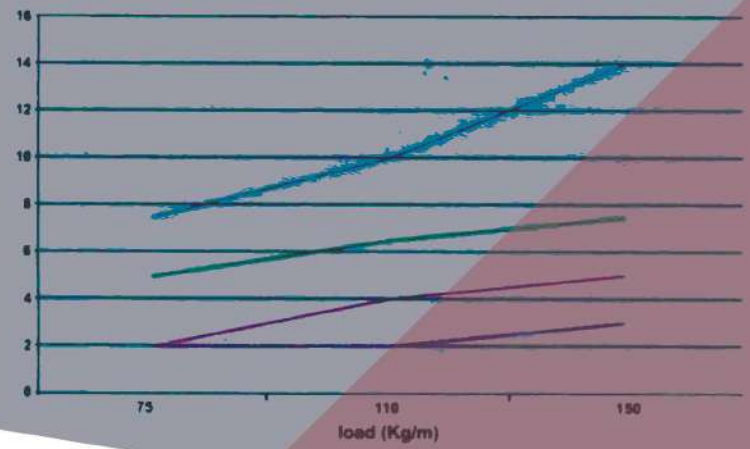
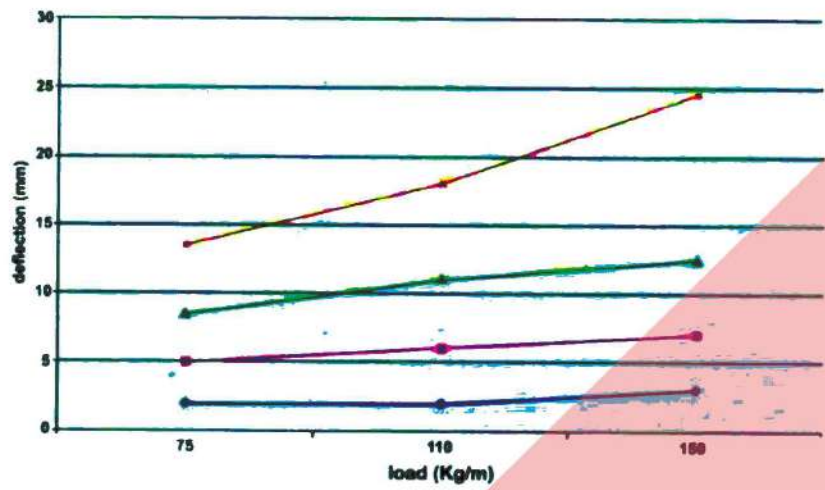
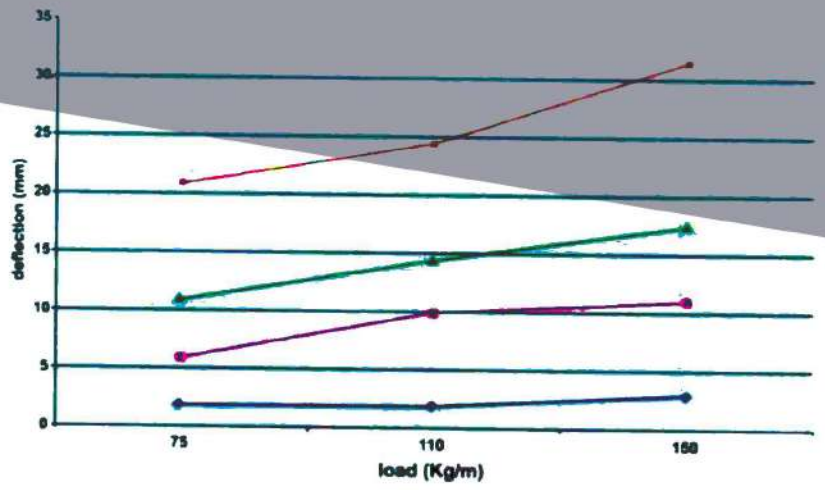


Code: CL/CLh/CT/CTF-H-W-EC
End Cap



Code: CL/CLh/CTF-H-W-Cov-HDC
Optional-heavy duty clamp

Load VS Deflection for Cable Ladders



LOADING ON PERFORATED CABLE TRAYS

Instrumentation cable trays are meant only for light instrument cables or pneumatic tubing loads. Recommended support span is 1.5 m.

TECHNICAL SUPPORT

AlamAfroz Composites provide full support to the client as regards to material specification, designing, installation guidance, documentation, inspection, packing, shipping and everything that's required to ensure trouble free supply of the required products to the project site. From identifying and overcoming the problems through the modifications in design and specification to delivery and installation, all of our operatives are systematically and thoroughly trained.

CHEMICAL RESISTANCE

Isophthalic Polyester Resin: for most of the general applications

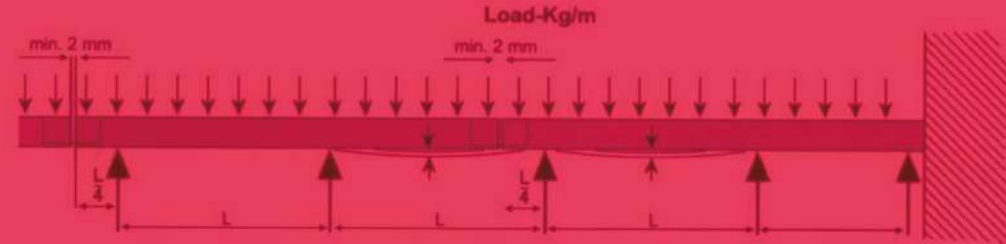
Vinyester Resin: recommended for severe corrosive atmospheres

INSTALLATION INSTRUCTIONS

REFERENCE: NEMA-FG1

Support must be located such that the coupler plates are at the quarter point of the span. For example, if the support span is 3 m, the quarter point is 750 mm from the support. In a continuous beam configuration, the bending moment in the tray side rail is minimum at points located approximately $\frac{1}{4}$ of the span from each tray support. Thus, there will be minimum stress on coupler plate if joint is located at $\frac{1}{4}$ of span. For bends and other fittings, the supports should be within 2 feet of each fitting extremity.

LOCATION OF SUPPORTS



TYPE OF SUPPORTS



BR-1-W (for w=50 to 300)
light duty support
bracket strut



BR-2-W (for w=50 to 300)
light duty support
groutable strut



BR-3-W (for w=50 to 600)
medium duty
strut support



HR-1-W (for w=50 to 1000)
GRP strut and strut hanger
support



BR-4-W (for w=300 to 1000)
heavy duty strut
bracket support



DBR-5-W (for w=300 to 1000)
heavy duty
double strut support

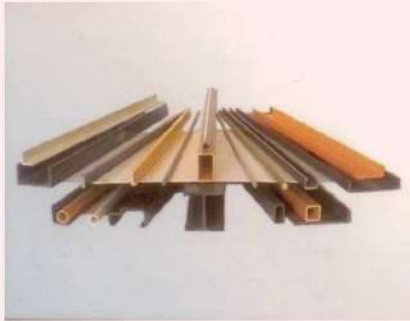
OTHER PRODUCTS



walkway platforms



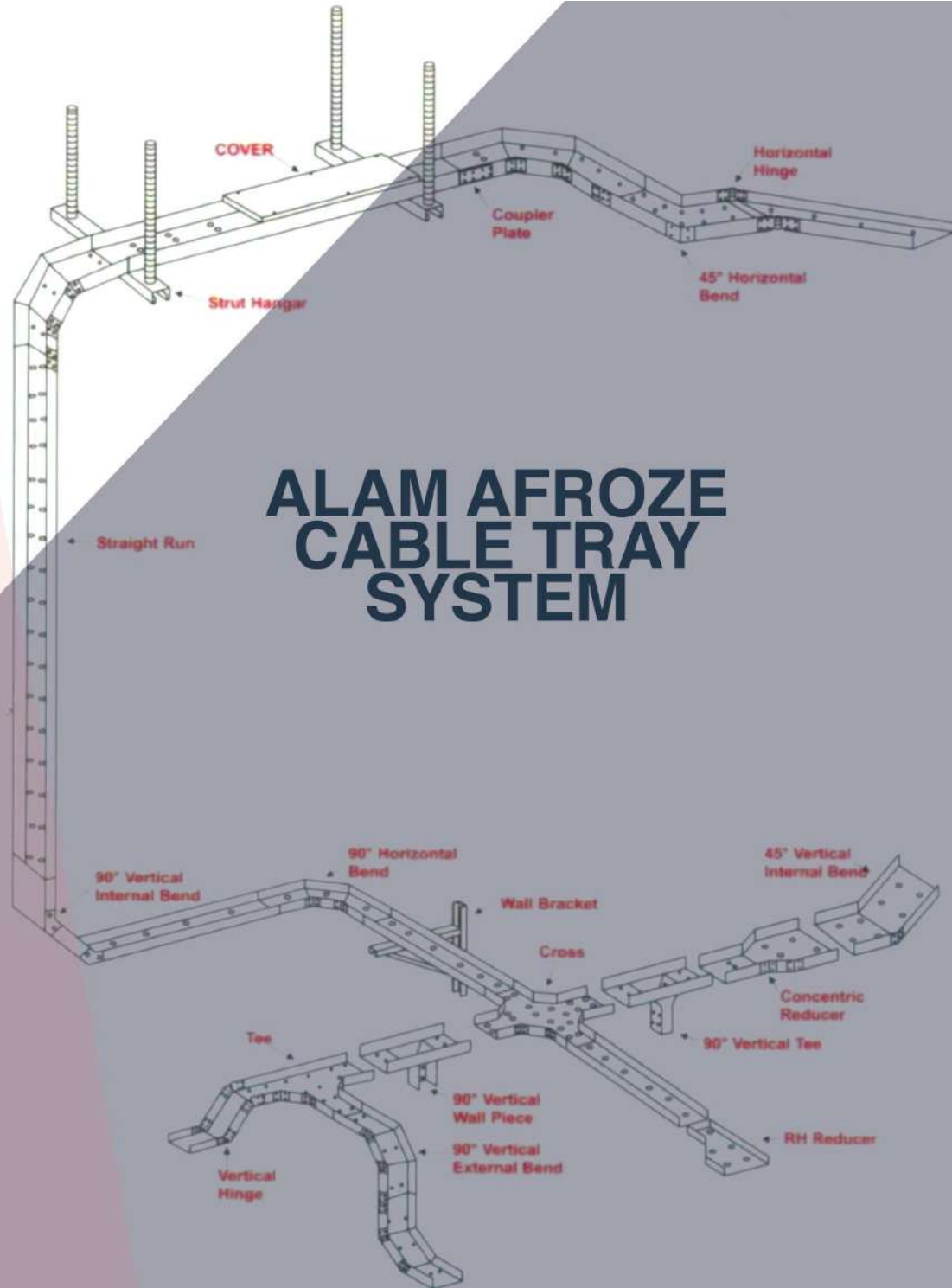
fiber glass ladders



GRP structural profiles



cross arms & operating poles



Glass Reinforced polimeric Cable Managment System



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