
ORI®
a Composite Company

ORITRAY
PRODUCT CATALOGUE

The ORI group was founded in 1983 and has since risen to become one of Asia's leading manufacturers and fabricatiors of corrosion resistant fiberglass products. With advanced facilities at several sites in Indonesia, the ORI group remains dedicated to being at the forefront in the world of Fiber Reinforced Plastics.

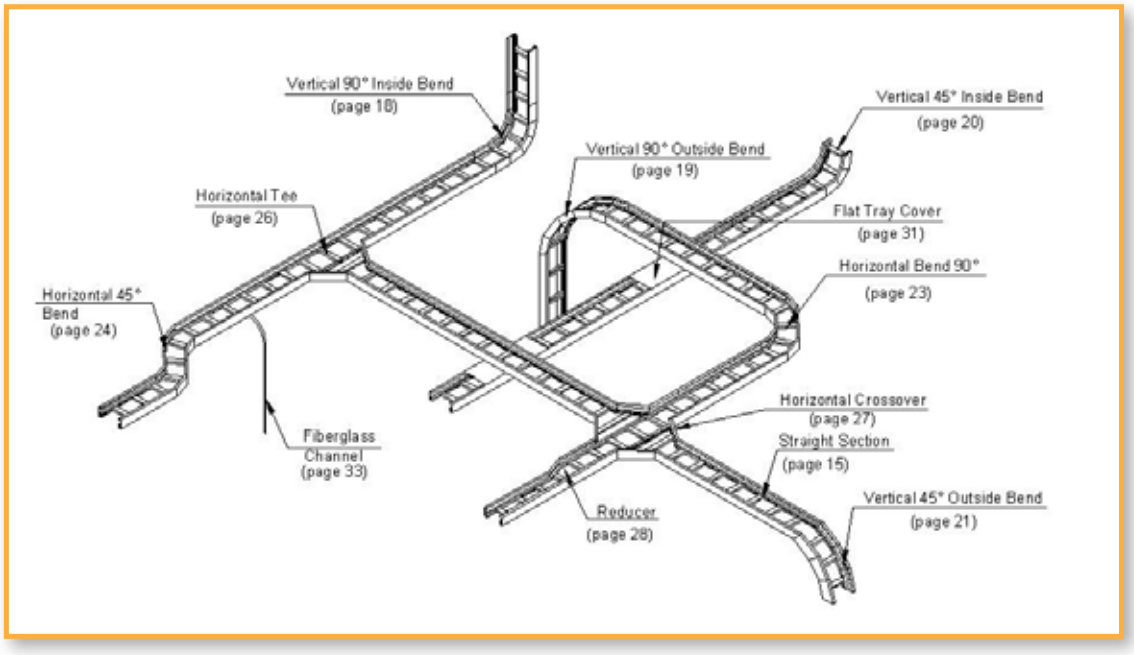
ORI Group offers an extensive range of Fiber Reinforced Plastic composite products incorporating many advantages compared to other alternative materials in terms of strength, durability, corrosion resistance, thermal insulation, weight, complexity and stringent quality control. The ability to deliver on spec, on time and on budget has positioned ORI Group as manufacturer, not only of the highest quality products, but also of top quality results.

About ORITRAY

Technical Information

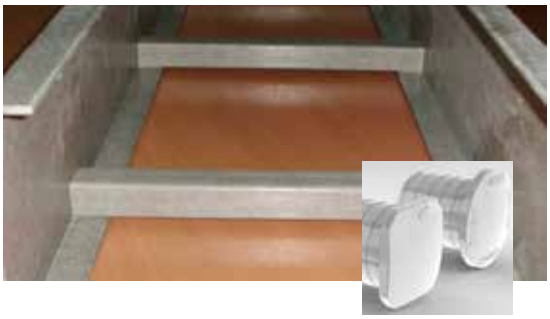
Cable Tray Design and Application

Product Information



INTRODUCTION

Ladder Type



Channel Type

Perforated Type

ORITRAY is a unique high quality fiberglass cable tray system designed and developed to satisfy a need in the Electrical and Corrosion Industries for an improvement over galvanized steel aluminum or thermoplastics/non-metallic cable tray systems.

ORITRAY cable supports systems are manufactured by PT Ori Polytec Composites who is the first manufacturer and market leader in Fiberglass Reinforced Plastics in Indonesia. The ORITRAY cable tray product line is being constanty enhanced. ORITRAY is manufactured with increasingly better quality raw materials and fabricated to stringent internal and external specifications. There is also a high degree of emphasis placed on workmanship. All of these factors signify ORITRAY to be the market leader in the cable tray industry.

ORITRAY cable support systems is accepted industry-wide because it provides the customer with a complete line of fiberglass cable tray designs. ORITRAY products are manufactured to the highest industry standards providing optimum chemical resistance, load carrying capability, fire retardance and ultraviolet protection. All the products incorporate the highest quality raw materials which ensure that the customer receives products that exceed industry standards for chemical resistance, strength, flame resistance and ultraviolet protection.

ORITRAY fiberglass cable tray systems are classified into two types: ladder type and channel type. Ladder type is a prefabricated fiberglass structure consisting of two longitudinal side rails connected by individual transverse members, while channel type is a pultruded fiberglass channel (solid bottom with integral side rails).

⚠ WARNING ⚠

NOT TO BE USED AS A WALKWAY, LADDER OR SUPPORT FOR PERSONNEL.
TO BE USED ONLY AS A MECHANICAL SUPPORT FOR CABLES AND TUBING.

This warning label appears on all straight sections and fittings.

ADVANTAGES

There are many reasons for engineers, designers, contractors, installers and end users to choose ORITRAY cable support systems for their power, signal and control distribution support requirements. Some specific advantages that ORITRAY can provide are:

Easy Installation

ORITRAY is lightweight with a density approximately 20% of steel and 60% of aluminum. It's strong and lightweight allowing this durable system to be installed quickly and easily. Because there are no sharp edges, long runs of armored cable can be installed with less chance for cable damage. Cable bundles can be laid in the tray from either side.

Corrosion Resistance

ORITRAY cable support systems are unaffected by exposure to a great variety of corrosive chemicals and environments. Life cycle costs of tray installations can be dramatically reduced by the extended life expectancy of this product.

Electrical Insulation

ORITRAY cable support systems provide structural strength and rigidity with dielectrics materials and have extremely insulating material (→7 kV/m) and no need to earth.

Part Consolidation

Many individual components of ORITRAY can be combined into one large profile. The possibility of doing assemblies and configurations on site with optimized stock make ORITRAY cable support systems easily handled and installed.

Dimension Stability

ORITRAY cable support systems are extremely resistant to stretching, warping or swelling over a wide range of temperatures and physical stresses.

Thermal Insulation

ORITRAY cable support systems have a low thermal conductivity rating 1/250 of aluminum, 1/60 of steel.

Full Ventilation

Power cables need not be derated in a ventilated cable tray system. Explosive gases cannot be trapped or transmitted as in totally enclosed wiring systems.

Conductivity

In cases where of cable trays will be installed in hazardous and high voltage areas, the subject of conductivity is particularly relevant to prevent static electric. ORITRAY can provide this special requirement through consultation with the factory.

FIBERGLASS CABLE TRAY STANDARDS

The standards commonly referenced to specify cable tray are:

- NEMA Standards Publication NO. FG 1-1993, Fiberglass Cable Tray Systems
- National Electric Code, Article 318-Cable trays
- Underwriters Laboratories Inc. Standard UL-94

ASTM and UL standards are also referenced to characterize the materials used to construct the fiberglass cable tray. ASTM standards define the physical properties test for the materials used to pultrude the cable tray. The specific ASTM test methods for mechanical, thermal and flammability properties are identified in the Construction and Physical Properties Section. UL flammability standards applied to fiberglass cable tray materials are also identified in the same section.

Loads

NEMA Standards Publications No. FG 1 Section 3 provides the performance standards and class designations for fiberglass cable tray systems. There are three working load classifications of fiberglass cable trays with various support spans:

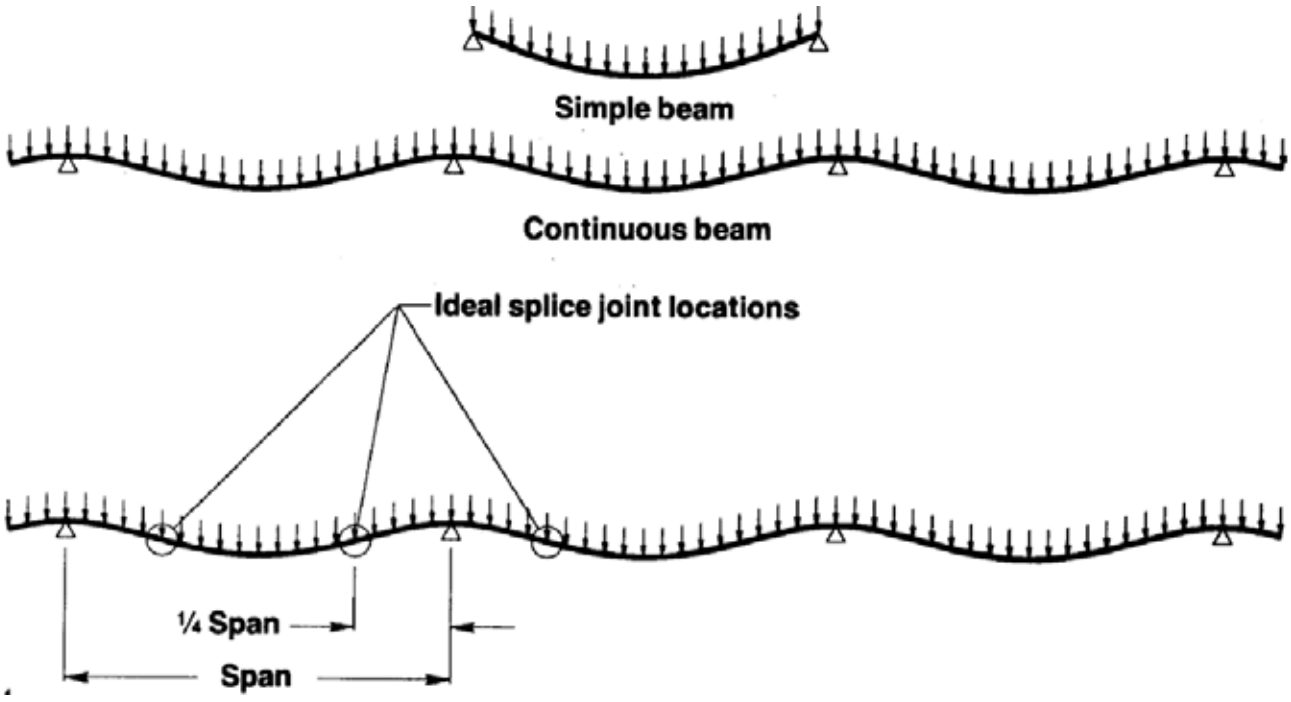
Class	Working Load	
A	50 lbs/linear ft.	74.4 kg/m
B	75 lbs/linear ft.	111.6 kg/m
C	100 lbs/linear ft.	148.8 kg/m

Considerations for Cable Tray Deflection

Cable Tray load for testing as specified by NEMA Standards Publication No. FG 1 requires the test article to be a single length of tray simply supported at each end (referred to as a "simple beam" configuration—see diagram on page 5). This requirement was established to standardize testing and because it is impractical to test large tray system assemblies to destruction. Most actual trays installations consist of multiple lengths of connected tray with multiple supports (referred to as a "continuous beam" configuration). The most significant difference between a continuous versus simple beam configuration is that with the same loading and support span, the maximum deflection is dramatically less for continuous compared to simple beam.

Tray Splice Joint Locations vs. Support Locations

In a continuous beam configuration, the bending moment in the tray side rails becomes zero at points located approximately ¼ of the span from each tray support (referred to as "quarter span points". For example, if the support span is 3 meter, the quarter point is 0.75 meter from the support. Quarter points are ideal locations for spliced tray connections because joints are subjected to minimum bending stresses (see diagram on page 5).



Chemical Resistance

In most applications, fiberglass cable tray is used because of its superior corrosion resistance; therefore, corrosion resistance data for specific environments are very important. The corrosion resistance guide in the Application Environment Section offers performance data in the most common environments. If information for a specific environment is not shown in the guide, please consult the factory.

Installation / Application

Guidance for cable tray installation, supports and support locations, and thermal expansion/contraction is provided in NEMA Standard Publication No. FG 1. The installation instructions for supports and support locations contained in the Installation Procedures Section of this catalogue are based on the Application Information Section of NEMA Standards Publication No. FG 1.

CABLE SUPPORT SPECIFICATIONS

This specification covers the requirements for ORITRAY Cable Support Systems.

General

- Cable tray is furnished as a system including all necessary fasteners, hold-down clips, splice plates, support systems, covers, hinged horizontal and vertical splice plates, elbows, reducers, tees, crossers, etc.
- Standard cable tray fittings are assembled by the manufacturer and adjustable fittings may require some field adjustment.
- Splice plates are fiberglass and/or stainless steel. Splice plate fasteners are stainless steel. Fasteners are designed to prevent encroachment of liquids or vapors on the metal threads when fully assembled and tightened.

Material

Cable tray is made of pultruded glass reinforced polyester or vinylester resin.

Composition

Glass reinforced components have a synthetic veil applied on exterior surfaces to improve weather ability and to inhibit ultraviolet degradation. An ultraviolet stabilizer is incorporated in the resin formulation to further inhibit ultraviolet degradation.

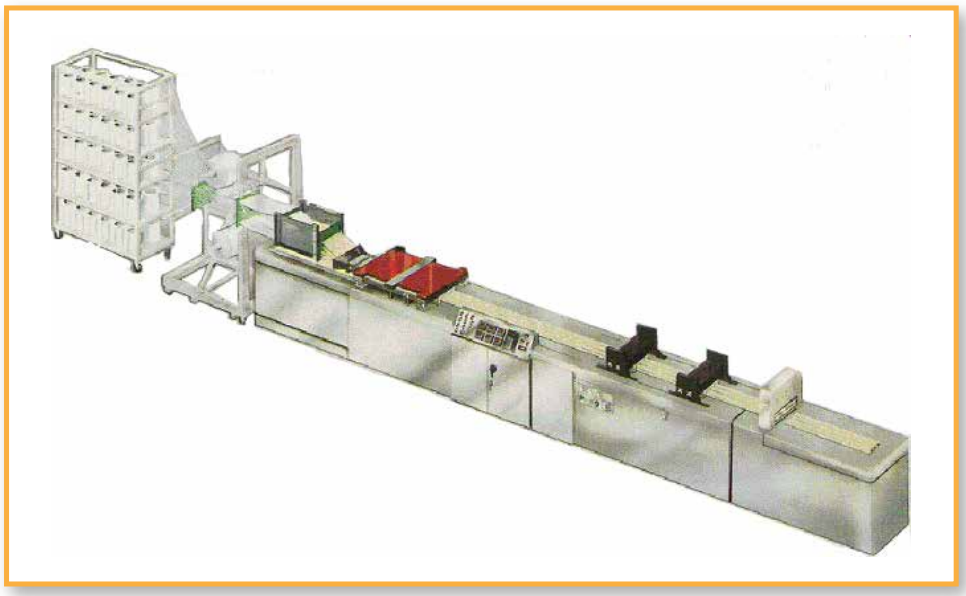
Structural Design

- Cable tray is of ladder type design having "C" shaped side rails.
- Rungs (transverse members) are of the same material as the side rail and are secured in place to prevent roll-over when cables are pulled into the tray.
- Cable tray section is 3 m or 6 m length. Each straight section and fitting is furnished with pre-punched holes to accept the splice plate fastener.
- Tray system design meets allowable working loads in accordance with the appropriate standards (NEMA Standards Publication No. FG 1).

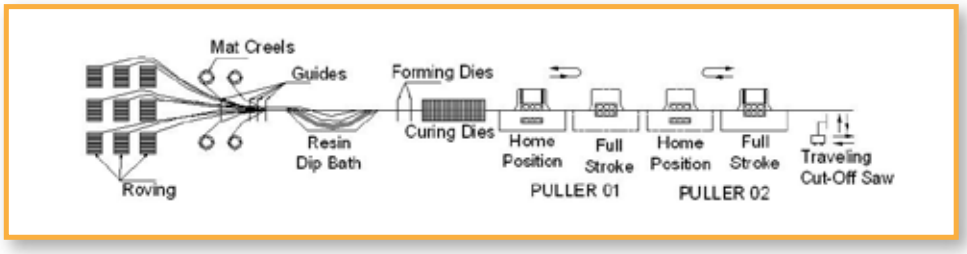
CONSTRUCTION AND PHYSICAL PROPERTIES

Pultrusion Process

The pultruded structural component is made by reinforcing a polymer resin (usually polyester or vinylester resin) with multiple strands of glass filament and altering layers of glass mat. The glass is drawn through the liquid resin, which coats and saturates the fibers. The combination of resin and glass is then continuously guided and pulled (pultruded) through a heated die that determines the shape of the component. In the die, the resin is cured to form a permanent, reinforced part which can be cut to a specific length. Since the hardened fiberglass pultrusion is reinforced with an internal arrangement of permanently bonded continuous glass fibers, it possesses great strength. In addition to strength, pultruded fiberglass components exhibit exceptional corrosion resistance. These attribute make fiberglass the material choice for many harsh industrial applications.



Typical Pultrusion Equipment



Typical Pultrusion Process

Resin Systems

Polyester and vinylester resin systems are available. The vinylester resin system is somewhat stronger and is applied in severe corrosion applications. Both resin systems are flame retardant and meet class 1 flame rating and are self extinguishing. Consult the corrosion resistance guide on page 9 to determine the correct resin system for your application.

Low Smoke Resin Systems

Increasingly stringent standards regarding flame retardancy and smoke and fume emissions have necessitated the development of alternatives to standard polyester and vinylester resin systems. Resin cable tray provides the following advantages over polyester and vinylester tray:

- Excellent flame retardancy
- Low smoke emissions
- Low levels of toxic combustion products

Contact the factory for additional information regarding specifications and availability.

Typical Physical Properties		Method
Tensile Strength	2800 kg/cm	ASTM D 638
Flexural Strength	3100 kg/cm	ASTM D 790
Flexural Modulus	1.75x10 kg/cm	ASTM D 790
Specific Gravity	1.7 - 1.9	ASTM D 2849
Glass Content	60 - 70 %	ASTM D 2584
Coeff. Of Thermal Expansion (Longitudinal)	$9x10^{-6}$ mm/mm/°C	
Flammability Classification	V - 0	UL - 94
Flammability Rating	< 25	ASTM E84

APPLICATION ENVIRONMENTS

Corrosion Resistance

In most applications cable tray is used because of its superior corrosion resistance. The following corrosion resistance guide offers performance recommendations for the most common environments. Additional data for less common environments are also available from the factory.

Corrosion Resistance Guide

The general guidelines presented in this table take into consideration the normal applications of cable tray products and accessories where exposure to harsh chemicals is limited to fumes or vapors and occasional splashes at ambient temperatures. This information is provided as a guide only since it is impossible to anticipate every conceivable application. For specific applications, which may fall outside the scope of these guidelines, it is recommended that the factory be consulted directly. Special applications may require a screening test of material samples in the chemical environment of interest.

Notes:
NR – indicates not recommended for use. However, acceptable performance may be provided it fumes are not highly concentrated.

Chemical Environment	%wt	Temp °C		Chemical Environment	%wt	Temp °C	
		ISO	VINYL			ISO	VINYL
Acetic Acid	10	24 – 66		Kerosene		24	NR
Acetic Acid	50	24	66	Lactic Acid		24 – 66	NR
Acetic Acid	Glacial	NR	NR	Lime Slurry	Sat'd	24 – 66	NR
Acetone	Sat'd		24	Lithium Chloride	Sat'd	24 – 66	NR
Aluminium Chloride	Sat'd	24 – 66		Magnesium Salt		24 – 66	
Aluminium Hydroxide	Sat'd	24	66	Mercuric Chloride		24 – 66	
Aluminium Potassium Sulphate		24	66	Mercurous Chloride		24 – 66	
Aluminium Sulphate		24	66	Mercury		24 – 66	
Ammonia, Dry Gas			24 – 66	Methyl Alcohol		24	NR
Ammonia, Liquid		NR	NR	Methyl Ethyl Ketone		NR	NR
Ammonium Chloride	Sat'd	24	66	Mineral Oils		24	66
Ammonium Hydroxide	20	NR	66	Naptha		24	66
Ammonium Nitrate	Sat'd		24 – 66	Nickel Salt		24 – 66	
Ammonium Sulphate	Sat'd	24	66	Nitric Acid	0 – 10	NR	24 – 66
Amyl Alcohol		NR	66	Nitric Acid	>10	NR	NR
Benzene		24	NR	Oleic Acid		24 – 66	

Chemical Environment	%wt	Temp °C		Chemical Environment	%wt	Temp °C	
		ISO	VINYL			ISO	VINYL
Benzene Sulfonic Acid	30	24	NR	Oxalic Acid		24 – 66	
Benzoic Acid	Sat'd	24 – 66		Perchloroethylene		24 – 66	
Butyl Alcohol		NR	24	Phenol	0 – 2	NR	24
Calcium Salts		24	66	Phenol	→ 2	NR	NR
Carbon Disulfide		NR	NR	Phosphoric Acid		24 – 66	
Carbonic Acid	Sat'd	24	NR	Potassium Carbonate	0 – 15		24 – 66
Carbon Tetrachloride		24	66	Potassium Carbonate	15 Sat'd	NR	NR
Chlorine, Dry Gas			24 – 66	Potassium Hydroxide		NR	24
Chlorine, Wet Gas			24 – 66	Potassium Permanganate		24	66
Chlorine Dioxide			24 – 66	Potassium Persulfate		NR	24
Chlorine Water		24	NR	Potassium Salts		24 – 66	
Chlorobenzene		NR	NR	Silver Nitrate		24 – 66	
Chromic Acid	5	NR	24 – 66	Sodium Bicarbonate		24	66
Citric Acid	Sat'd	24	66	Sodium Bisulfate		24	66
Copper Sulfate		24	66	Sodium Carbonate		24	66
Crude Oil, Sour		24	66	Sodium Chloride		24 – 66	
Diesel Fuel		24	66	Sodium Dichromate		24	66
Ethyl Alcohol		NR	NR	Sodium Hydroxide		NR	24 – 66
Ethylene Glycol		24	66	Sodium Hypochlorite	0 – 5	24	66
Fatty Acids		24	66	Sodium Hypochlorite	5 – 10	NR	24
Ferric Acids		24 – 66		Sodium Hypochlorite	> 10	NR	24
Ferric Salts		24 – 66		Sodium Nitrate		NR	24 – 66
Ferrous Sulfate		24 – 66		Sodium Silicate	< 6	24	66
Fluoboric Acid	Sat'd	24	66	Sodium Sulfate		24	66
Fluosilicic Acid	35	NR	24 – 66	Sodium Sulfide		NR	24 – 66
Formic Acid, Vapour		24 – 66	NR	Sodium Thiosulfate		NR	24
Fuel Oil		24 – 66		Styrene		NR	NR
Gasoline		NR	24	Sulfure Dioxide		NR	24 – 66
Glycerine		24	66	Sulfuric Acid, Vapor		24 – 66	
Hydrochloric Acid	0 – 10	24	66	Sulfurous Acid		NR	24
Hydrochloric Acid	10-36	NR	24 – 66	Tannic Acid		24 – 66	
Hydrofluoric Acid		NR	24	Tartaric Acid		24 – 66	
Hydrogen Chloride		24	66	Toluene		NR	NR
Hydrogen Peroxide		NR	24	Trisodium Phosphate		24	66
Hydrogen Sulfide		NR	24 – 66	Water, City		24 – 66	

STRUCTURAL DESIGN SUPPORT SYSTEMS

ORITRAY cable tray systems are available in "C-shaped" designs that are especially useful when space is a consideration, such as on closely spaced parallel runs or flush wall mountings. ORITRAY rail profile provides 100 mm and 150 mm of cable fill depth.

Performance Standard and Class Designations

Tray Type Class	Working Load (3 meter Span)	Safety Factor
LD – Light Duty	25 – 50 lbs/ft.	1.5
MD – Medium Duty	40 – 65 lbs/ft.	1.5
HD – Heavy Duty	70 – 150 lbs/ft.	1.5

Both the LD and MD type use "I – bar " for the ladder rung type with 40 mm x 10 mm and 50mm x 10 mm respectively. The HD type uses Lip Channel 50 mm x 25 mm combine with flat bar.

The light duty is ideal for control wiring and lighter cable runs that do not require numerous circuits. All ORITRAY types have a 1.5 safety factor allowable working load according to NEMA Standards Publication No. FG 1.

Light Duty - Deflection (Mm)

SPAN	Load (kg/m)					
	25	30	35	40	45	50
1,000	0.13	0.15	0.18	0.20	0.22	0.24
1,250	0.32	0.37	0.43	0.48	0.54	0.60
1,500	0.66	0.77	0.89	1.00	1.12	1.23
1,750	1.22	1.43	1.65	1.86	2.07	2.29
2,000	2.08	2.44	2.81	3.17	3.54	3.90
2,250	3.33	3.91	4.50	5.08	5.66	6.25
2,500	5.07	5.96	6.85	7.74	8.63	9.52
2,750	7.43	8.73	10.03			
3,000	10.52					

Medium Duty - Deflection (Mm)

SPAN	Load (kg/m)					
	40	45	50	55	60	65
1,000	0.07	0.08	0.09	0.10	0.11	0.12
1,250	0.18	0.20	0.22	0.24	0.26	0.28
1,500	0.37	0.42	0.46	0.50	0.54	0.58
1,750	0.69	0.77	0.85	0.93	1.01	1.08
2,000	1.18	1.32	1.45	1.58	1.72	1.85
2,250	1.90	2.11	2.32	2.54	2.75	2.96
2,500	2.89	3.22	3.54	3.86	4.19	4.51
2,750	4.23	4.71	5.18	5.66	6.13	6.61
3,000	6.00	6.67	7.34	8.01	8.68	9.36
3,250	8.26	9.19	10.11	11.04		
3,500	11.11	12.36				

Heavy Duty - Deflection (Mm)

SPAN	Load (kg/m)					
		(Class A)		(Class B)		(Class C)
	25	30	35	40	45	50
1,000	0.13	0.13	0.18	0.0.20	0.23	0.26
1,250	0.31	0.33	0.43	0.48	0.55	0.63
1,500	0.64	0.68	0.89	0.99	1.14	1.30
1,750	1.18	1.25	1.65	1.83	2.12	2.41
2,000	2.02	2.13	2.81	3.12	3.61	4.11
2,250	3.23	3.42	4.51	5.00	5.78	6.58
2,500	4.93	5.21	6.87	7.62	8.81	
2,750	7.21	7.63	10.06			
3,000	10.21	10.81				

SELECTION GUIDE

Several criteria must be considered in selecting ORITRAY cable tray for your application. Factors include; load capacity and safety factors, support spans, deflection, cable diameter and tray fill capacity, application environment, space restrictions, fire resistance; future expansion and cost.

The following guidelines will assist you in your selection of ORITRAY cable tray:

Step 1

Determine the resin system required based on the application, location and environment (consult the corrosion resistance guide in the Application Environments section). ORITRAY cable tray is available in polyester (isopthalic) and vinylester resin systems. Vinylester provides better corrosion resistance than polyester in some environments.

Step 2

Determine tray loading depth and width. Depending on the size and number of cables needed, use the guidelines in NEMA Standards Publications No. FG-1 to determine tray loading depth and width.

Step 3

Determine rung cable load. Calculate in pounds per linear foot the load of the cables to be supported. Consider any extraneous load such as ice, snow, wind, etc. and add this value to the cable load.

Step 4

Determine the load class (working load). The cable tray system should be determined by the combination of cable load (Step 3). Consult the Structural Design section of this catalog or NEMA Standards Publication No. FG 1 to assist you in the selection of a tray system that meets your requirements.

INSTALLATION PROCEDURES

The following information shall be used as a guideline for installing ORITRAY cable tray systems.

Special Considerations

With few exceptions, the installation of fiberglass cable tray does not differ from that of metal tray. All standard installation practices and procedures apply. In general, special handling is not required.

Tools required

Fiberglass tray is easy to cut and drill. For most installations, standard tools are sufficient; however, for large jobs where many section require cutting and drilling, high speed steel tools may become dull due to the abrasiveness of glass. In such installations, the use of carbide tipped drills and abrasive (grit) saw blades is recommended.

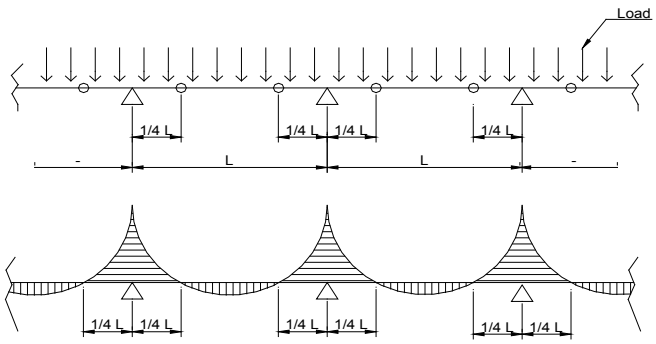
Cutting Tray in the Field

Tray may be easily cut in the field using a standard hacksaw. If some type of power saw is used, abrasive grit-blades work best. When using a power saw, dust filter masks should be worn. Gloves and long sleeve clothing are also recommended.

Location Splice Joints

When possible, splice joints should be placed at or near the quarter point of any given support span. This is the point of least mechanical stress. For example: with a section of tray resting on supports spaced 3 meter apart, the splice joint should be located 0.75 meter from supports (support span divided by 4).

Support Location for Cable Tray

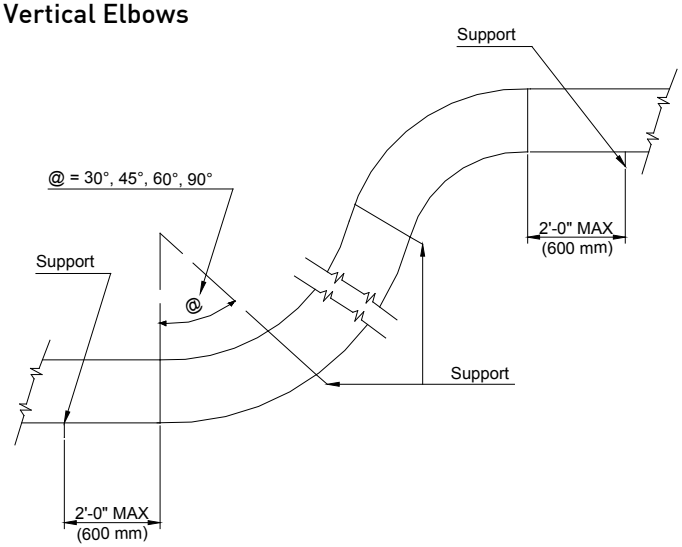


MOMENT DIAGRAM

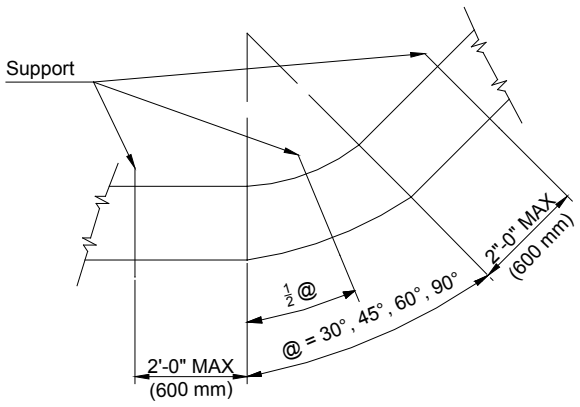
O = Joint / Splice plate position
L = Support span
△ = Support

Support Location for Cable Tray Fittings

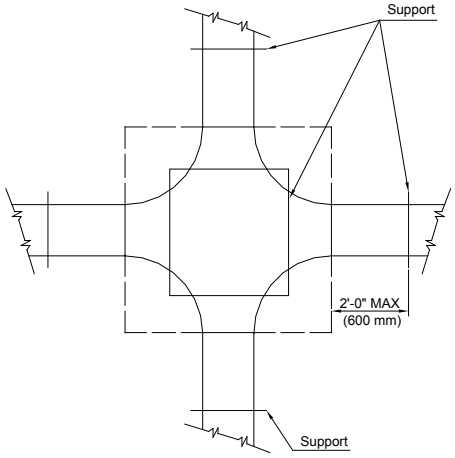
Vertical Elbows



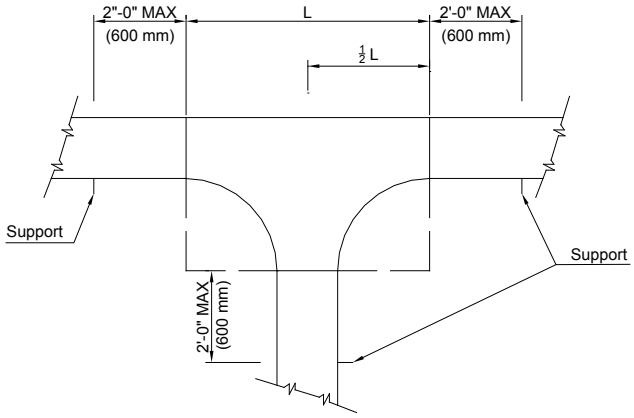
Horizontal Elbows



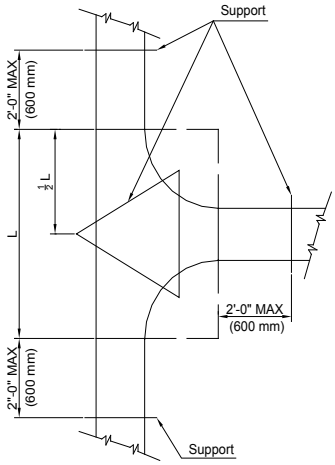
Horizontal Cross



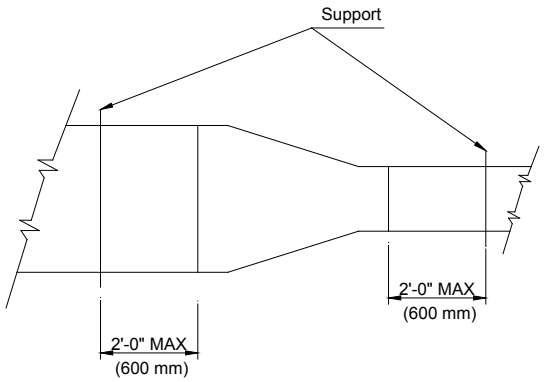
Vertical Tee



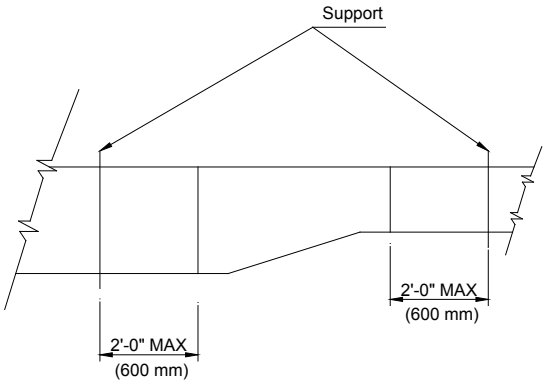
Horizontal Tee



Straight Reducer



Offset Reducer



STRAIGHT SECTION

Part Numbering System

All cable tray straight sections are available in polyester or vinylester resin. Standard tray lengths are 3 and 6 meter. Special tray lengths are available upon request. All cable tray sections are supplied pre-drilled to accept splice plate fasteners. The rung type used for LD type shall be I-bar-40, MD type shall be I-bar-50 and HD type shall be Lips Channel 50, which are designed to maintain the Working Load as specified by NEMA FG 1 Working Load Classifications.

How to order

Select tray type, width, rung spacing and length as shown below to create the part number for the desired straight section of tray.

- Add prefix "C" to the FIRST part number to specify the cover of the tray.
- Add suffix "C" to the END part number to specify the electrical conductive requirement.

Available Tray Types	:	**LD** (Light Duty), **MD** (Medium Duty), **HD** (Heavy Duty)				
Available Widths (Inside Dimensions)	:	**LD:**	200	300	400	(mm)
			(8)	(12)	(16)	(inch)
		MD:	300	400	500	(mm)
			(12)	(16)	(20)	(inch)
		HD:	500	700	900	(mm)
			(20)	(28)	(36)	(inch)
Available Rung Spacing	:	150	300	(mm)	(Standard product = 300 mm)	
		(6)	(12)	(inch)		
Available Height	:	**LD:**	100	(mm)		
			(4)	(inch)		
		MD:	150	(mm)		
			(6)	(inch)		
		HD:	150	(mm)		
			(6)	(inch)		
Available Lengths	:	3	6	(meter)		
		10	20	(ft)		
Available Resin	:	**I** (Isopthalic Polyester)				
		V (Vinylester)				
Available Conductivity	:	**C** (Electrical Conductive)				
		Non-electrical Conductive				

Combine the following numbers to create the part number:
(C)* – TRAY TYPE – RUNG SPACING – LENGTH– WIDTH – RESIN – (C)**

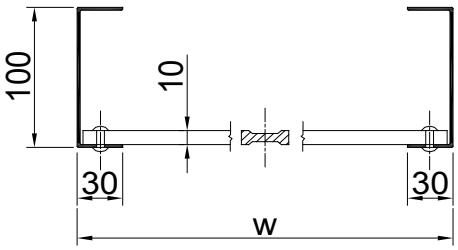
*Prefix for specifying cover of the tray
**Suffix applicable only if required.

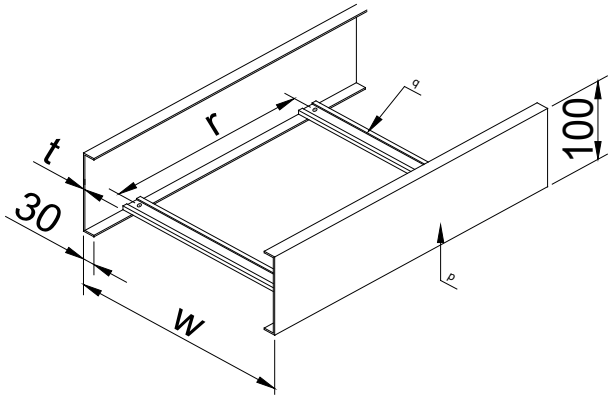
Example: **HD-300-3-500-I-C**
Load Class: Heavy Duty, 300 mm rung spacing, 3 meter length, 500 mm width, Isopthalic resin and electrical Conductive.
C-3-500-I-C
Cover for tray 3 meter length, 500 mm width, Isopthalic resin and electrical Conductive.

Light Duty Tray
Type LD Straight Section

Light Duty Straight Section Part Number

Ruang Spacing (mm)	Length (mm)	t (mm)	Width Selection (mm)					
			200	Approx. Weight (kg)	300	Approx. Weight (kg)	400	Approx. Weight (kg)
150	3	3	LD-150-3-200	10.19	LD-150-3-300	11.01	LD-150-3-400	11.80
150	6	3	LD-150-6-200	20.38	LD-150-6-300	22.01	LD-150-6-400	23.59
300	3	3	LD-300-3-200	9.37	LD-300-3-300	9.78	LD-300-3-400	10.18
300	6	3	LD-300-6-200	18.74	LD-300-6-300	19.56	LD-300-6-400	20.35

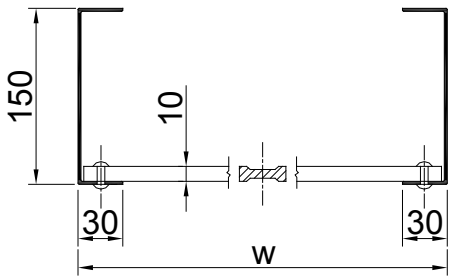


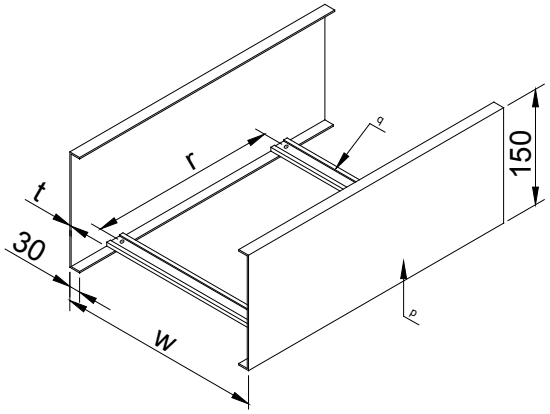


Medium Duty Tray
Type MD Straight Section

Medium Duty Straight Section Part Number

Ruang Spacing (mm)	Length (mm)	t (mm)	Width Selection (mm)					
			300	Approx. Weight (kg)	400	Approx. Weight (kg)	500	Approx. Weight (kg)
150	3	3	MD-150-3-300	11.99	MD-150-3-400	12.97	MD-150-3-500	13.94
150	6	3	MD-150-6-300	23.99	MD-150-6-400	25.94	MD-150-6-500	27.89
300	3	3	MD-300-3-300	10.53	MD-300-3-400	11.02	MD-300-3-500	11.51
300	6	3	MD-300-6-300	21.07	MD-300-6-400	22.04	MD-300-6-500	23.01

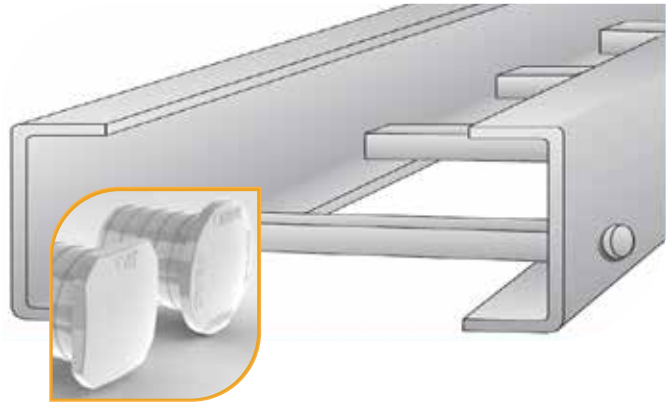


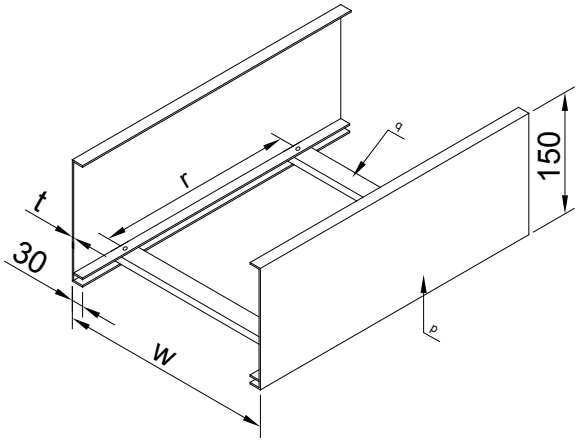


Heavy Duty Tray
Type HD Straight Section

Heavy Duty Straight Section Part Number

Ruang Spacing (mm)	Length (mm)	t (mm)	Width Selection (mm)					
			200	Approx. Weight (kg)	300	Approx. Weight (kg)	400	Approx. Weight (kg)
150	3	3	HD-150-3-500	17.84	HD-150-3-700	21.35	HD-150-3-900	24.86
150	6	3	HD-150-6-500	35.68	HD-150-6-700	42.70	HD-150-6-900	49.72
300	3	3	HD-300-3-500	13.46	HD-300-3-700	15.21	HD-300-3-900	16.96
300	6	3	HD-300-6-500	26.91	HD-300-6-700	30.42	HD-300-6-900	33.93





FITTINGS

All types and widths of tray are available as fittings with ORITRAY Cable Tray Systems. All fittings are pre-drilled at the factory to accept splice plate fasteners. Rung spacing specified in tray straight sections does not necessarily apply to fittings.

Cable Tray Fitting Part Numbering System

With each fitting drawing there is an example of how to create the correct part number for the desired assembly. Cover for fittings can be specified by adding a "C" prefix.

Vertical Inside/Outside Bends

Part Numbering System

The following information will help you order vertical bends for your application. Special fittings are available upon request. Solid bottom fittings are available through special quotation.

How to order

Select tray type, degree of bend, inside or outside bend, tray width and fitting radius as shown below for the desiring fitting.

- Add suffix "C" to the FIRST part number to specify the cover of the tray.
- Add suffix "C" to the END part number to specify the electrical conductive requirement.

Available Tray Types : **LD** (Light Duty), **MD** (Medium Duty), **HD** (Heavy Duty)

Available Degree Bends : 90°, 45°

Available Type Bends : **IB** (Inside Bend), **OB** (Outside Bend)

Available Radius :

300	600	900	(mm)	
(12)	(24)	(36)	(inch)	

Available Widths (Inside Dimensions):

LD:	200	300	400	(mm)
	(8)	(12)	(16)	(inch)
MD:	300	400	500	(mm)
	(12)	(16)	(20)	(inch)
HD:	500	700	900	(mm)
	(20)	(28)	(36)	(inch)

Available Resin : **I** (Isopthalic Polyester)
V (vinylester)

Available Conductivity : **C** (Electrical Conductive)
Non-electrical Conductive

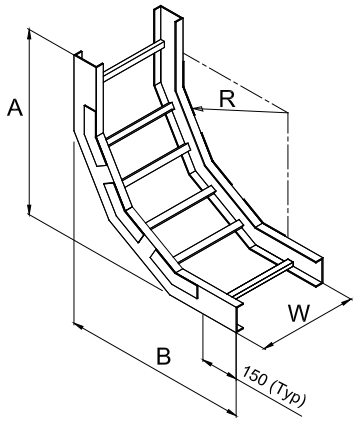
Combine the following numbers to create the part number:
(C)* – TRAY TYPE – V – TYPE BEND – DEGREE BEND – RADIUS – WIDTH – RESIN – (C)**

*Suffix for specifying cover of the tray
**Suffix applicable only if required

Example:

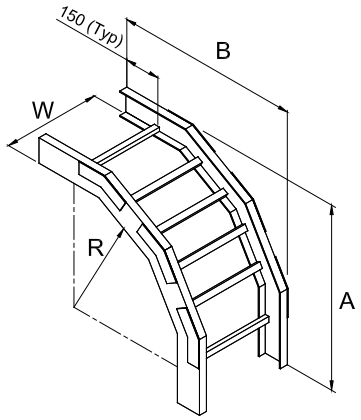
HD-VIB90-600-500-I-C
Type Heavy Duty, Vertical 90° Inside Bend, 600 mm radius, 500 mm width, isopthalic resin and electrical Conductive.

C-VOB90-600-500-I-C
Fitting cover for vertical 90° Outside Bend, 600 mm radius, 500 mm width, isopthalic resin and electrical Conductive.



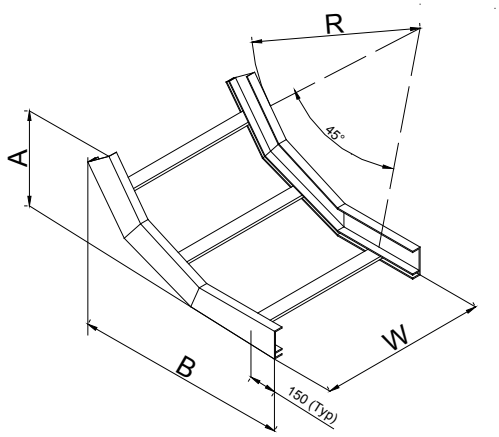
90° Vertical Inside Bends

Tray Type	A	B	Radius	Width	Numbering System	Approx. weight (kg)
Light Duty	550	550	300	200	LD-VIB90-300-200	5.04
				300	LD-VIB90-300-300	5.34
				400	LD-VIB90-300-400	5.64
	850	850	600	200	LD-VIB90-600-200	6.97
				300	LD-VIB90-600-300	7.42
				400	LD-VIB90-600-400	7.88
	1,150	1,150	900	200	LD-VIB90-900-200	8.90
				300	LD-VIB90-900-300	9.51
				400	LD-VIB90-900-400	10.12
Medium Duty	600	600	300	300	MD-VIB90-300-300	6.47
				400	MD-VIB90-300-400	6.86
				500	MD-VIB90-300-500	7.25
	900	900	600	300	MD-VIB90-600-300	8.92
				400	MD-VIB90-600-400	9.49
				500	MD-VIB90-600-500	10.06
	1,200	1,200	900	300	MD-VIB90-900-300	11.37
				400	MD-VIB90-900-400	12.12
				500	MD-VIB90-900-500	12.88
Heavy Duty	600	600	300	500	HD-VIB90-300-500	9.24
				700	HD-VIB90-300-700	10.82
				900	HD-VIB90-300-900	12.40
	900	900	600	500	HD-VIB90-600-500	13.00
				700	HD-VIB90-600-700	15.33
				900	HD-VIB90-600-900	17.65
	1,200	1,200	900	500	HD-VIB90-900-500	16.76
				700	HD-VIB90-900-700	19.83
				900	HD-VIB90-900-900	22.90



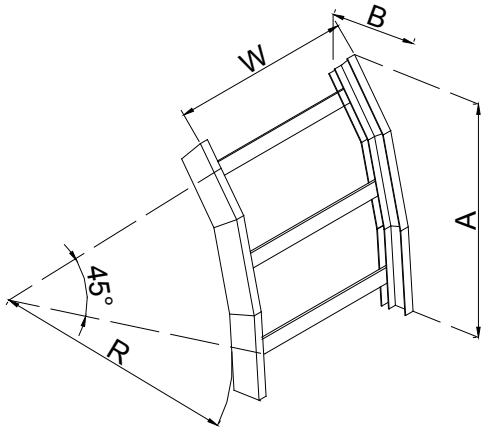
90° Vertical Outside Bends

Tray Type	A	B	Radius	Width	Numbering System	Approx. weight (kg)
Light Duty	550	550	300	200	LD-VOB90-300-200	4.98
				300	LD-VOB90-300-300	5.28
				400	LD-VOB90-300-400	5.58
	850	850	600	200	LD-VOB90-600-200	6.91
				300	LD-VOB90-600-300	7.36
				400	LD-VOB90-600-400	7.82
	1,150	1,150	900	200	LD-VOB90-900-200	8.84
				300	LD-VOB90-900-300	9.45
				400	LD-VOB90-900-400	10.06
Medium Duty	600	600	300	300	MD-VOB90-300-300	6.36
				400	MD-VOB90-300-400	6.75
				500	MD-VOB90-300-500	7.14
	900	900	600	300	MD-VOB90-600-300	8.81
				400	MD-VOB90-600-400	9.38
				500	MD-VOB90-600-500	9.96
	1,200	1,200	900	300	MD-VOB90-900-300	11.26
				400	MD-VOB90-900-400	12.02
				500	MD-VOB90-900-500	12.78
Heavy Duty	600	600	300	500	HD-VOB90-300-500	9.14
				700	HD-VOB90-300-700	10.72
				900	HD-VOB90-300-900	12.30
	900	900	600	500	HD-VOB90-600-500	12.90
				700	HD-VOB90-600-700	15.22
				900	HD-VOB90-600-900	17.54
	1,200	1,200	900	500	HD-VOB90-900-500	16.66
				700	HD-VOB90-900-700	19.72
				900	HD-VOB90-900-900	22.79



45° Vertical Inside Bends

Tray Type	A	B	Radius	Width	Numbering System	Approx. weight (kg)
Light Duty	294	539	300	200	LD-VIB45-300-200	3.33
				300	LD-VIB45-300-300	3.54
				400	LD-VIB45-300-400	3.75
	382	751	600	200	LD-VIB45-600-200	4.35
				300	LD-VIB45-600-300	4.64
				400	LD-VIB45-600-400	4.93
	470	963	900	200	LD-VIB45-900-200	5.37
				300	LD-VIB45-900-300	5.74
				400	LD-VIB45-900-400	6.10
Medium Duty	344	574	300	300	MD-VIB45-300-300	4.08
				400	MD-VIB45-300-400	4.33
				500	MD-VIB45-300-500	4.58
	432	786	600	300	MD-VIB45-600-300	5.35
				400	MD-VIB45-600-400	5.70
				500	MD-VIB45-600-500	6.04
	520	998	900	300	MD-VIB45-900-300	6.63
				400	MD-VIB45-900-400	7.07
				500	MD-VIB45-900-500	7.50
Heavy Duty	344	574	300	500	HD-VIB45-300-500	5.86
				700	HD-VIB45-300-700	6.88
				900	HD-VIB45-300-900	7.89
	432	786	600	500	HD-VIB45-600-500	7.79
				700	HD-VIB45-600-700	9.17
				900	HD-VIB45-600-900	10.56
	520	998	900	500	HD-VIB45-900-500	11.47
				700	HD-VIB45-900-700	13.22
				900	HD-VIB45-900-900	15.85



45° Vertical Outside Bends

Tray Type	A	B	Radius	Width	Numbering System	Approx. weight (kg)
Light Duty	294	539	300	200	LD-VOB45-300-200	3.29
				300	LD-VOB45-300-300	3.50
				400	LD-VOB45-300-400	3.71
	382	751	600	200	LD-VOB45-600-200	4.31
				300	LD-VOB45-600-300	4.59
				400	LD-VOB45-600-400	4.88
	470	963	900	200	LD-VOB45-900-200	5.33
				300	LD-VOB45-900-300	5.69
				400	LD-VOB45-900-400	6.05
Medium Duty	344	574	300	300	MD-VOB45-300-300	4.00
				400	MD-VOB45-300-400	4.25
				500	MD-VOB45-300-500	4.50
	432	786	600	300	MD-VOB45-600-300	5.27
				400	MD-VOB45-600-400	5.62
				500	MD-VOB45-600-500	5.96
	520	998	900	300	MD-VOB45-900-300	6.55
				400	MD-VOB45-900-400	6.99
				500	MD-VOB45-900-500	7.42
Heavy Duty	344	574	300	500	HD-VOB45-300-500	5.78
				700	HD-VOB45-300-700	6.80
				900	HD-VOB45-300-900	7.81
	432	786	600	500	HD-VOB45-600-500	7.71
				700	HD-VOB45-600-700	9.09
				900	HD-VOB45-600-900	10.48
	520	998	900	500	HD-VOB45-900-500	9.64
				700	HD-VOB45-900-700	11.39
				900	HD-VOB45-900-900	13.14

Horizontal Bends

Part Numbering System

The following information will help you order horizontal bends for your application. Special fittings are available upon request. Solid bottom fittings are available through special quotation.

How to order

Select tray type, degree of bend, tray width and fitting radius as shown below for the desired fitting.
- Add suffix "C" to the FIRST part number to specify the cover of the tray.
- Add suffix "C" to the END part number to specify the electrical conductive requirement.

Available Tray Types: **LD** (Light Duty), **MD** (Medium Duty), **HD** (Heavy Duty)

Available Degree Bends: 90°, 45°

Available Radius :

300	600	900	(mm)	
(12)	(24)	(36)	(inch)	

Available Widths (Inside Dimensions):

LD:	200	300	400	(mm)
	(8)	(12)	(16)	(inch)
MD:	300	400	500	(mm)
	(12)	(16)	(20)	(inch)
HD:	500	700	900	(mm)
	(20)	(28)	(36)	(inch)

Available Resin :
I (Isopthalic Polyester)
V (Vinylester)

Available Conductivity :
C (Electrical Conductive)
Non-electrical Conductive

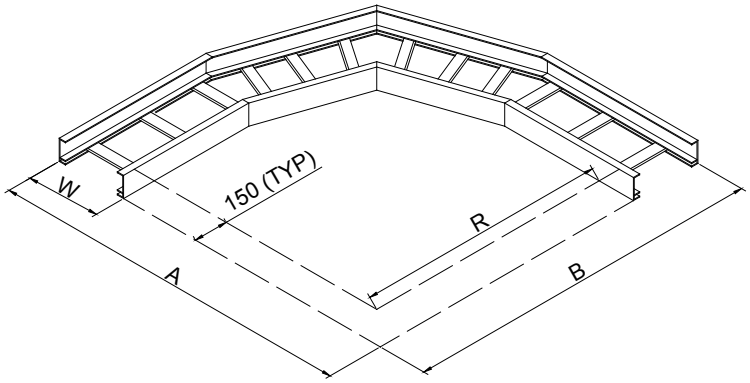
Combine the following numbers to create the part number:
(C)* – TRAY TYPE – HB – DEGREE BEND – RADIUS – WIDTH – RESIN – (C)**

*Suffix for specifying cover of the tray
**Suffix applicable only if required

Example:

HD-HB90-600-500-I-C
Type Heavy Duty, Horizontal 90° Bend, 600 mm radius, 500 mm width, isopthalic resin and electrical Conductive.

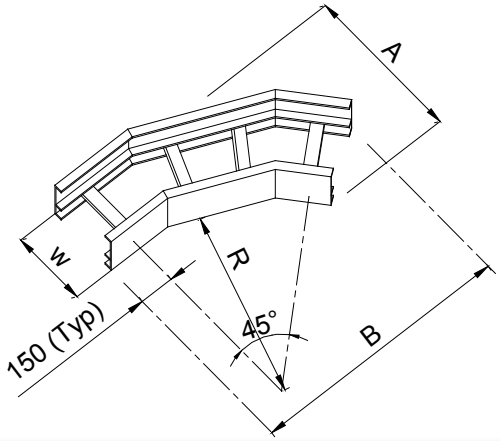
C-HB90-600-500-I-C
Fitting cover for Horizontal 90° Bend, 600 mm radius, 500 mm width, isopthalic resin and electrical Conductive.



90° Horizontal Bends

Tray Type	A	B	Radius	Width	Numbering System	Approx. weight (kg)
Light Duty	650	650	300	200	LD-HB90-300-200	3.98
	750	750	300	300	LD-HB90-300-300	4.46
	850	850	300	400	LD-HB90-300-400	4.97
	950	950	600	200	LD-HB90-600-200	5.73
	1,050	1,050	600	300	LD-HB90-600-300	6.27
	1,150	1,150	600	400	LD-HB90-600-400	6.85
	1,250	1,250	900	200	LD-HB90-900-200	7.48
	1,350	1,350	900	300	LD-HB90-900-300	8.08
	1,450	1,450	900	400	LD-HB90-900-400	8.73
Medium Duty	750	750	300	300	MD-HB90-300-300	5.12
	850	850	300	400	MD-HB90-300-400	5.73
	950	950	300	500	MD-HB90-300-500	6.39
	1,050	1,050	600	300	MD-HB90-600-300	7.25
	1,150	1,150	600	400	MD-HB90-600-400	7.93
	1,250	1,250	600	500	MD-HB90-600-500	8.67
	1,250	1,250	900	300	MD-HB90-900-300	8.66
	1,450	1,450	900	400	MD-HB90-900-400	10.14
	1,650	1,650	900	500	MD-HB90-900-500	11.72
Heavy Duty	950	950	300	500	HD-HB90-300-500	7.63
	1,150	1,150	300	700	HD-HB90-300-700	9.97
	1,350	1,350	300	900	HD-HB90-300-900	12.72
	1,250	1,250	600	500	HD-HB90-600-500	10.31
	1,450	1,450	600	700	HD-HB90-600-700	12.96
	1,650	1,650	600	900	HD-HB90-600-900	16.02
	1,550	1,550	900	500	HD-HB90-900-500	12.98
	1,750	1,750	900	700	HD-HB90-900-700	15.94
	1,950	1,950	900	900	HD-HB90-900-900	19.31

45° Horizontal Bends



Tray Type	A	B	Radius	Width	Numbering System	Approx. weight (kg)
Light Duty	394	610	300	200	LD-HB45-300-200	3.02
	494	680	300	300	LD-HB45-300-300	3.28
	594	751	300	400	LD-HB45-300-400	3.56
	482	822	600	200	LD-HB45-600-200	3.82
	582	892	600	300	LD-HB45-600-300	4.12
	682	963	600	400	LD-HB45-600-400	4.43
	570	1,034	900	200	LD-HB45-900-200	4.63
	670	1,105	900	300	LD-HB45-900-300	4.96
	770	1,175	900	400	LD-HB45-900-400	5.31
Medium Duty	494	680	300	300	MD-HB45-300-300	3.70
	594	722	300	400	MD-HB45-300-400	4.03
	694	963	300	500	MD-HB45-300-500	4.39
	582	892	600	300	MD-HB45-600-300	4.68
	682	934	600	400	MD-HB45-600-400	5.06
	782	975	600	500	MD-HB45-600-500	5.46
	670	1,105	900	300	MD-HB45-900-300	5.67
	770	1,146	900	400	MD-HB45-900-400	6.09
	870	1,187	900	500	MD-HB45-900-500	6.53
Heavy Duty	694	822	300	500	HD-HB45-300-500	5.23
	894	963	300	700	HD-HB45-300-700	6.57
	1,094	1,105	300	900	HD-HB45-300-900	8.14
	782	1,034	600	500	HD-HB45-600-500	6.51
	982	1,175	600	700	HD-HB45-600-700	8.03
	1,182	1,317	600	900	HD-HB45-600-900	9.76
	870	1,246	900	500	HD-HB45-900-500	7.80
	1,070	1,387	900	700	HD-HB45-900-700	1.52
	1,270	1,529	900	900	HD-HB45-900-900	11.39

Horizontal Tee and Horizontal Cross

Part Numbering System

The following information will help you order horizontal tees for your application. Special fittings are available upon request. Solid bottom fittings are available through special quotation.

How to order

Select tray type, tray width and fitting radius as shown below for the desired fitting.
- Add suffix "C" to the FIRST part number to specify the cover of the tray.
- Add suffix "C" to the END part number to specify the electrical conductive requirement

Available Tray Types: **LD** (Light Duty), **MD** (Medium Duty), **HD** (Heavy Duty)

Available Radii:

300	600	900	(mm)	
(12)	(24)	(36)	(inch)	

Available Widths (Inside Dimensions):

LD:	200	300	400	(mm)
	(8)	(12)	(16)	(inch)
MD:	300	400	500	(mm)
	(12)	(16)	(20)	(inch)
HD:	500	700	900	(mm)
	(20)	(28)	(36)	(inch)

Available Resin :
I (Isopthalic Polyester)
V (Vinylester)

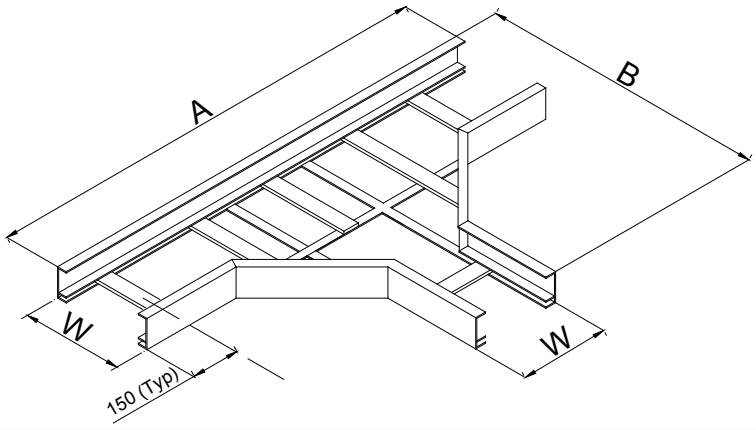
Available Conductivity :
C (Electrical Conductive)
Non-electrical Conductive

Combine the following numbers to create the part number:
(C)* – TRAY TYPE – HT – RADIUS – WIDTH – RESIN – (C)**

*Suffix for specifying cover of the tray
**Suffix applicable only if required

Example: **HD-HT-600-500-I-C**
Type Heavy Duty, Horizontal Tee, 600 mm radius, 500 mm width, isopthalic resin and electrical Conductive.

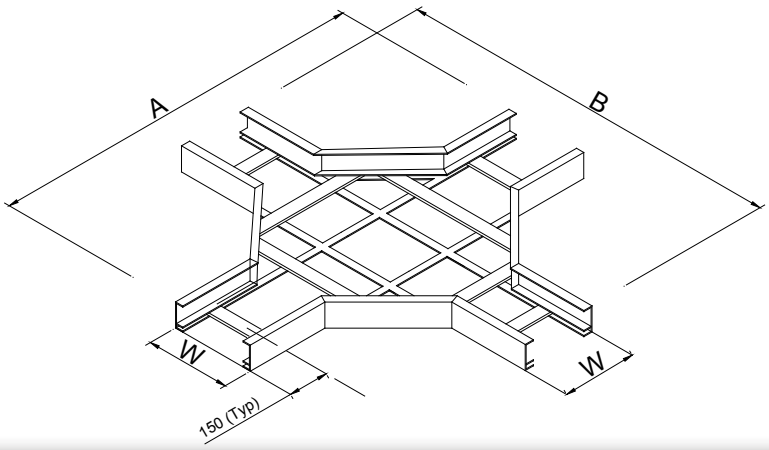
C-HT-600-500-I-C
Fitting cover for Horizontal Tee, 600 mm radius, 500 mm width, isopthalic resin and electrical Conductive.



Horizontal Tees

Tray Type	A	B	Radius	Width	Numbering System	Approx. weight (kg)
Light Duty	1500	850	300	200	LD-HT-300-200	5.84
		900	300	300	LD-HT-300-300	6.18
		950	300	400	LD-HT-300-400	6.78
	2,100	1,150	600	200	LD-HT-600-200	8.65
		1,200	600	300	LD-HT-600-300	9.11
		1,250	600	400	LD-HT-600-400	9.82
	2,700	1,450	900	200	LD-HT-900-200	11.46
		1,500	900	300	LD-HT-900-300	12.03
		1,550	900	400	LD-HT-900-400	12.87
Medium Duty	1,500	900	300	300	MD-HT-300-300	7.35
	1,500	950	300	400	MD-HT-300-400	7.84
	1,800	1,150	300	500	MD-HT-300-500	8.62
	2,100	1,200	600	300	MD-HT-600-300	12.44
	2,100	1,250	600	400	MD-HT-600-400	13.67
	2,400	1,450	600	500	MD-HT-600-500	15.23
	2,700	1,500	900	300	MD-HT-900-300	16.46
	2,700	1,550	900	400	MD-HT-900-400	17.98
	3,000	1,750	900	500	MD-HT-900-500	19.83
Heavy Duty	1,800	1,150	300	500	HD-HT-300-500	10.84
	1,800	1,250	300	700	HD-HT-300-700	13.57
	2,100	1,500	300	900	HD-HT-300-900	17.01
	2,400	1,450	600	500	HD-HT-600-500	15.44
	2,400	1,550	600	700	HD-HT-600-700	18.75
	2,700	1,800	600	900	HD-HT-600-900	22.77
	3,000	1,750	900	500	HD-HT-900-500	20.04
	3,000	1,850	900	700	HD-HT-900-700	23.92
	3,300	2,100	900	900	HD-HT-900-900	28.53

Horizontal Cross



Tray Type	A & B	Radius	Width	Numbering System	Approx. weight (kg)
Light Duty	1,500	300	200	LD-HC-300-200	7.99
		300	300	LD-HC-300-300	8.03
		300	400	LD-HC-300-400	8.55
	2,100	600	200	LD-HC-600-200	11.68
		600	300	LD-HC-600-300	11.89
		600	400	LD-HC-600-400	12.57
	2,700	900	200	LD-HC-900-200	15.37
		900	300	LD-HC-900-300	15.74
		900	400	LD-HC-900-400	16.58
Medium Duty	1,500	300	300	MD-HC-300-300	9.62
	1,500	300	400	MD-HC-300-400	9.81
	1,800	300	500	MD-HC-300-500	10.49
	2,100	600	300	MD-HC-600-300	16.45
	2,100	600	400	MD-HC-600-400	17.54
	2,400	600	500	MD-HC-600-500	19.17
	2,700	900	300	MD-HC-900-300	21.85
	2,700	900	400	MD-HC-900-400	23.32
	3,000	900	500	MD-HC-900-500	25.34
Heavy Duty	1,800	300	500	HD-HC-300-500	13.42
	1,800	300	700	HD-HC-300-700	15.89
	2,100	300	900	HD-HC-300-900	19.29
	2,400	600	500	HD-HC-600-500	19.59
	2,400	600	700	HD-HC-600-700	22.83
	2,700	600	900	HD-HC-600-900	27.00
	3,000	900	500	HD-HC-900-500	25.76
	3,000	900	700	HD-HC-900-700	29.77
	3,300	900	900	HD-HC-900-900	34.72

Reducers

Part Numbering System

The following information will help you order reducers for your application. Special fittings are available upon request. Solid bottom fittings are available through special quotation.

How to order

Select tray type, tray width and fitting radius as shown below for the desired fitting.
- Add suffix "C" to the FIRST part number to specify the cover of the tray.
- Add suffix "C" to the END part number to specify the electrical conductive requirement.

Available Tray Types: **LD** (Light Duty), **MD** (Medium Duty), **HD** (Heavy Duty)

Reducer Type:
SR (Straight Reducer)
RR (Right Reducer)
LR (Left Reducer)

Available Widths (Inside Dimensions):

LD:	200	300	400	(mm)
	(8)	(12)	(16)	(inch)
MD:	300	400	500	(mm)
	(12)	(16)	(20)	(inch)
HD:	500	700	900	(mm)
	(20)	(28)	(36)	(inch)

Available Resin :
I (Isopthalic Polyester)
V (Vinylester)

Available Conductivity :
C (Electrical Conductive)
Non-electrical Conductive

Combine the following numbers to create the part number:
(C)* – TRAY TYPE – REDUCER TYPE – WIDTH 1 – WIDTH 2 – RESIN – (C)**

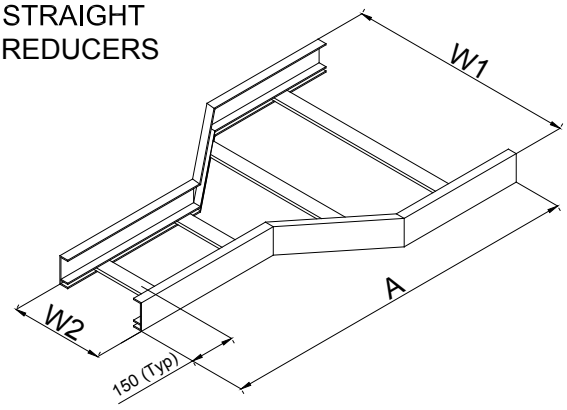
*Suffix for specifying cover of the tray
**Suffix applicable only if required

Example:

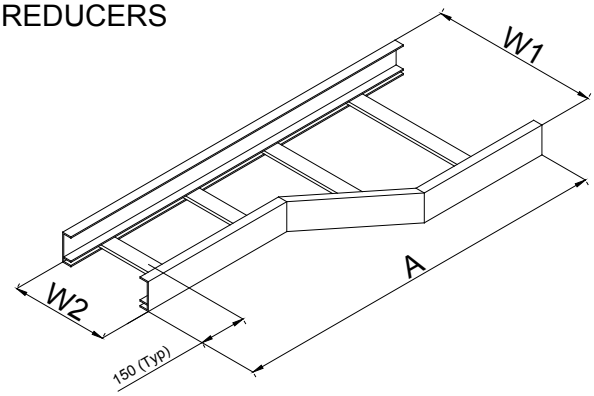
HD-SR-700-500-I-C
Type Heavy Duty, Straight Reducer, reduces from 700 mm to 500 mm, isopthalic resin and electrical Conductive.

C-SR-700-500-I-C
Fitting cover for Straight Reducer reduces from 700 mm to 500 mm, isopthalic resin and electrical Conductive.

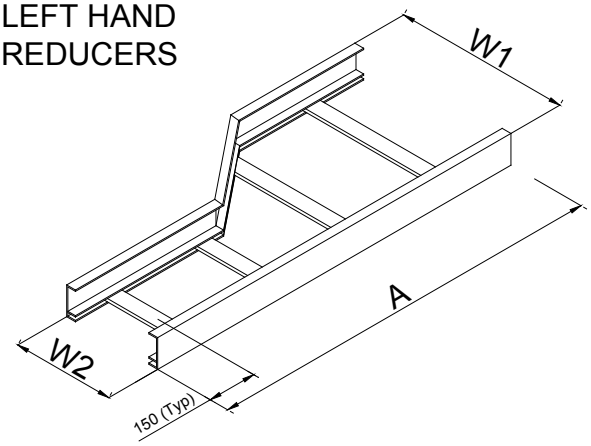
STRAIGHT REDUCERS



RIGHT HAND REDUCERS



LEFT HAND REDUCERS



Reducers

Tray Type	Width 1	Width 2	A	Numbering System					
				Straight Reducer SR	Approx. weight (kg)	Right Reducer RR	Approx. weight (kg)	Left Reducer LR	Approx. weight (kg)
Light Duty	300	200	1200	LD-SR-300-200	5.51	LD-RR-300-200	5.51	LD-RR-300-200	5.07
	400	200	1200	LD-SR-400-200	5.65	LD-RR-400-200	5.65	LD-RR-400-200	5.20
	400	300	1200	LD-SR-400-300	5.75	LD-RR-400-300	5.75	LD-RR-40-300	5.31
Medium Duty	400	300	1200	MD-SR-400-300	6.60	MD-RR-400-300	6.60	MD-RR-400-300	6.16
	500	300	1200	MD-SR-500-300	6.77	MD-RR-500-300	6.77	MD-RR-500-300	6.32
	600	300	1200	MD-SR-600-300	6.94	MD-RR-600-300	6.94	MD-R-600-300	6.48
Heavy Duty	700	500	1200	HD-SR-700-500	9.09	HD-RR-700-500	9.09	HD-SR-700-500	8.645
	900	500	1200	HD-SR-900-500	9.76	HD-RR-900-500	9.76	HD-RR-900-500	9.27
	900	700	1200	HD-SR-900-700	10.25	HD-RR-900-700	10.25	HD-RR-900-700	9.80

CONNECTORS

The ORITRAY Cable Tray System offers a full line of fiberglass accessories to suit any application. All accessories must be ordered individually to complete the system.

Splice Plates

Splice plates for system assembly come in four variations designed for specific applications: straight, expansion straight, horizontal adjustable, and vertical adjustable.
Splices plates and fasterners are sold separately and are not provided with straight sections or fittings.

Straight Splice Plates

Used for tray-to-tray or tray-to-fitting connections.

Expansion Splice Plates

Used to accommodate thermal expansion/contraction of extended straight tray runs.

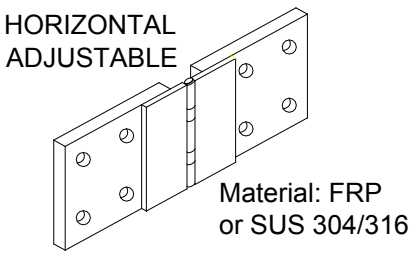
Adjustable Splice Plates

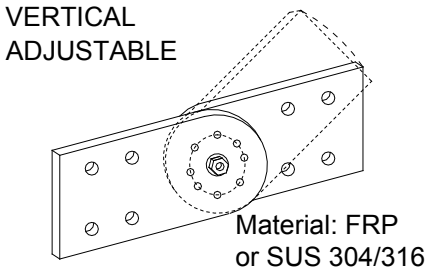
Often field situations necessitate unplanned changes in the horizontal or vertical direction of a cable tray run. Adjustable splice plates provide a means to make horizontal and vertical direction changes in the field. These splice plates may also be used to fabricate special fittings.

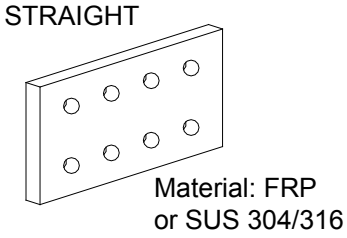
Type	Bolt set Per Plate	Part Numbers			
		Adjustable		Straight	Expansion
		Horizontal	Vertical		
Light	8	LD-SP-H	LD-SP-V	LD-SP-S	LD-SP-X
Medium	8	MD-SP-H	MD-SP-V	MD-SP-S	MD-SP-X
Heavy	8	HD-SP-H	HD-SP-V	HD-SP-S	HD-SP-X

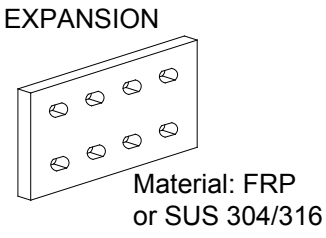
Material:

SUS 304 / 316 or FRP
One (1) set of connectors consists of two (2) connector plates with sixteen (16) sets of M6 x 25L Round Head Bolt, Nut and Washers SUS 304 included.









TRAY COVERS AND CLAMPS

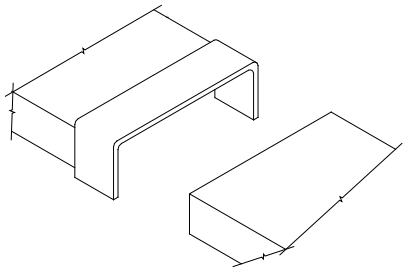
Covers are used where cable protection is necessary or desired. Flat ORITRAY cover designs are offered with a lapping system. Flat covers are available in polyester and vinylester resin and are offered in 3 meter lengths.

Cover clamps are designed for use with all types of trays and fittings. Hold Down Clamp consists of the necessary components for securing ORITRAY. Hold Down Clamp secures and prevents the lateral movement of cable tray while expansion side allows for thermal expansion and contraction of cable tray.

Material of Cover Clamp and Hold Down Clamp is SUS 304 / 316 or FRP. One (1) set of Cover Clamp consists of one (1) upper side clamp and two (2) lower side clamps with two (2) sets of M8 x 50L round head bolt SUS304, nut and washers included.

COVER WITH LAPPING SYSTEM

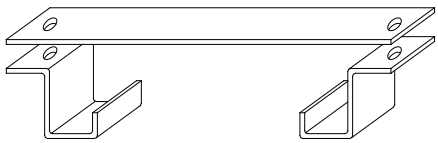
Material : FRP



Length (m)	Width (mm)	Part Numbers
3	200	C-3-200
	300	C-3-300
	400	C-3-400
	500	C-3-500
	700	C-3-700
	900	C-3-900
6	200	C-6-200
	300	C-6-300
	400	C-6-400
	500	C-6-500
	700	C-6-700
	900	C-6-900

COVER CLAMP

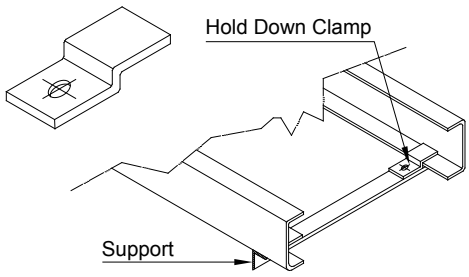
Material : SUS 304/316 or FRP



Part Numbers		Working Load
LIGHT DUTY	L-20-CC	200
	L-30-CC	300
	L-40-CC	400
MEDIUM DUTY	M-30-CC	300
	M-40-CC	400
	M-50-CC	500
HEAVY DUTY	H-50-CC	500
	H-70-CC	700
	H-90-CC	900

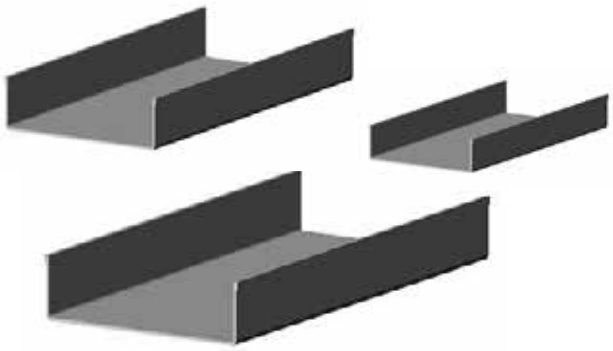
HOLD DOWN CLAMP

Material : SUS 304/316 or FRP

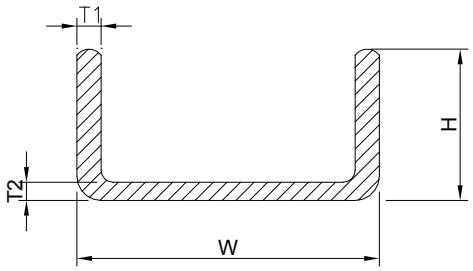


Part Numbers	
LIGHT DUTY	L-HDC
MEDIUM DUTY	M-HDC
HEAVY DUTY	H-HDC

CHANNEL SYSTEMS

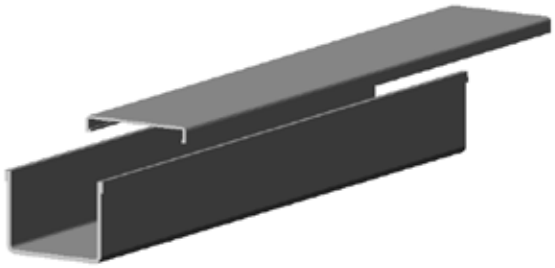


Fiberglass channel is designed to carry light wiring or tubing loads where a transition from cable tray to individual control points is required. All straight sections are offered in solid construction and are supplied in 3 and 6 meter lengths with longer lengths available upon request. ORITRAY channel is available in polyester or vinylester resin. Contact factory for vinylester channel pricing. Channel fittings are supplied completely assembled from the factory. Special channel fittings that are not standard catalog items are available upon request. Channel splice plates and fasteners are separate order items.



Cable Tray Channel

H (mm)	T1 (mm)	T2 (mm)	Length (m)	W (mm)	Part Numbers	Approx. weight (kg)
25	4	3	3	50	CH-25433--50	1.907
25	4	3	6		CH-2543-6-50	3.814
25	4	3	3	70	CH-2543-3-70	2.258
25	4	3	6		CH-2543-6-70	4.516
30	4	3	3	85	CH-3043-3-85	2.755
30	4	3	6		CH-3043-6-85	5.511
30	4	4	3	100	CH-3044-3-100	3.557
30	4	4	6		CH-3044-6-100	7.114
30	4	3	3	150	CH-3043-3-150	3.896
30	4	3	6		CH-3043-6-150	7.792



Cable Tray Channel with Quick-Clip Cover

H (mm)	T1 (mm)	T2 (mm)	Length (m)	W (mm)	Part Numbers	Approx. weight (kg)
50	4	4	3	50	CHSC-5044-3-50	3.3
50	4	4	6		CHSC-5044-6-50	6.6
75	4	4	3	100	CHSC-7544-3-100	5.6
75	4	4	6		CHSC-7544-6-100	11.3
75	4	4	3	200	CHSC-7544-3-200	8.0
75	4	4	6		CHSC-7544-6-200	16.0
75	4	4	3	300	CHSC-7544-3-300	10.4
75	4	4	6		CHSC-7544-6-300	20.7

CHANNEL FITTINGS

Solid Channel Fittings are pre assembled and do not include splice plates and hardware. Contact factory for dimensional information on 45° Channel Fitting bends.

Ordering Information

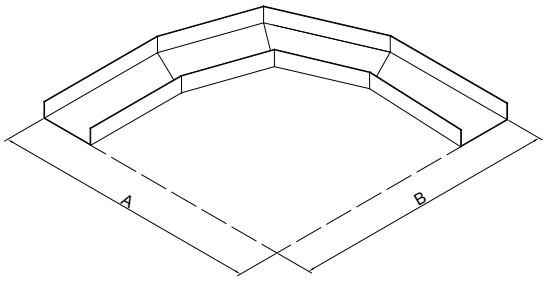
To create a part number, first insert the fitting type from key shown below. Then substitute the appropriate number for Width, Radius and the degree of bend.

Use formula below to create part number:
CH – FITTING TYPE – DEGREE – WIDTH – RADIUS

Key:
HB – Horizontal Bend
VI – Vertical Inside Bend
VO – Vertical Outside Bend
HT – Horizontal Tee
HC – Horizontal Cross

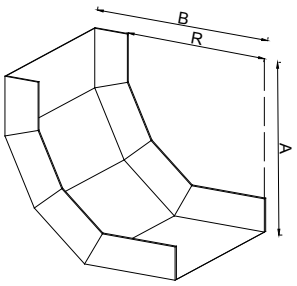
* Radius and degree designations do not apply to tees and crosses.

Example: **CH-HB90-70-300**
Horizontal Bend 90° fitting for 70 mm channel with a 300 mm radius

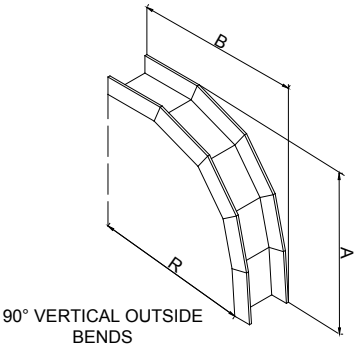


Horizontal Bend

Tray Type	Radius	A	B	Numbering System	Approx. weight (kg)
50	300	350	350	CH-HB90-50-300	0.847
50	600	650	650	CH-HB90-50-600	1.307
70	300	370	370	CH-HB90-70-300	1.040
70	600	670	670	CH-HB90-70-600	1.585
85	300	385	385	CH-HB90-85-300	1.513
85	600	685	685	CH-HB90-85-600	2.178
100	300	400	400	CH-HB90-100-300	1.869
100	600	700	700	CH-HB90-100-600	2.727
150	300	450	450	CH-HB90-150-300	2.351
150	600	750	750	CH-HB90-150-600	3.290



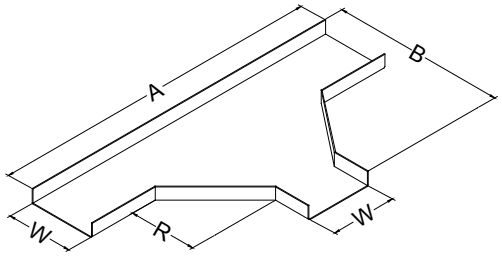
90° VERTICAL INSIDE BENDS

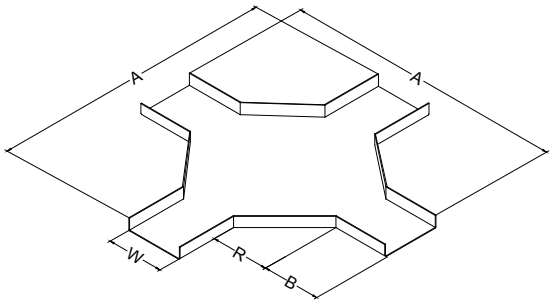


90° VERTICAL OUTSIDE BENDS

Vertical Inside and Outside

Width (mm)	Radius (mm)	A (mm)	B (mm)	Numbering systems and approximate weight (kg)			
				Vertical Inside	Approx. weight (kg)	Vertical Inside	Approx. weight (kg)
50	300	325	325	CH-VIB90-50-300	0.809	CH-VOB90-50-300	0.809
50	600	625	625	CH-VIB90-50-600	1.269	CH-VOB90-50-600	1.269
70	300	325	325	CH-VIB90-70-300	0.958	CH-VOB90-70-300	0.958
70	600	625	625	CH-VIB90-70-600	1.503	CH-VOB90-70-600	1.503
85	300	330	330	CH-VIB90-85-300	1.391	CH-VOB90-85-300	1.391
85	600	630	630	CH-VIB90-85-600	2.056	CH-VOB90-85-600	2.056
100	300	330	330	CH-VIB90-100-300	1.669	CH-VOB90-100-300	1.669
100	600	630	630	CH-VIB90-100-600	2.527	CH-VOB90-100-600	2.527
150	300	330	330	CH-VIB90-150-300	1.975	CH-VOB90-150-300	1.975
150	600	630	630	CH-VIB90-150-600	2.914	CH-VOB90-150-600	2.914





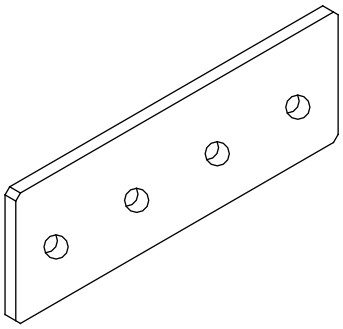
Horizontal Tee and Cross

Width (mm)	Radius (mm)	A (mm)	B (mm)	Numbering systems and approximate weight (kg)			
				Horizontal Tee	Approx. weight (kg)	Horizontal Cross	Approx. weight (kg)
50	70	340	75	CH-HT-50-70	0.744	CH-HC-50-70	0.914
70	90	460	105	CH-HT-70-90	1.199	CH-HC-70-90	1.468
85	110	561	128	CH-HT-85-110	1.770	CH-HC-85-110	2.169
100	140	680	150	CH-HT-100-140	2.410	CH-HC-100-140	2.984
150	210	1020	225	CH-HT-150-210	4.786	CH-HC-150-210	5.959

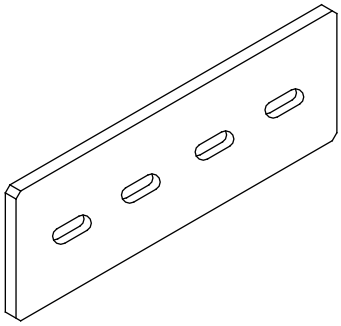
Channel Splice Plates

Channel splice plates are available upon request. Please contact the factory for details and dimensional information. We ensure all splice plates comply with requirements for site assembling.

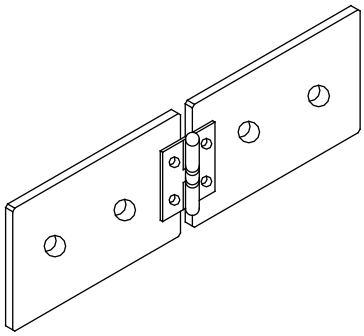
Straight Splice Plate



Horizontal Articulation Splice Plate



Horizontal Adjustable Splice Plate



Vertical Articulation Splice Plate