



## ENGINEERING CATALOGUE



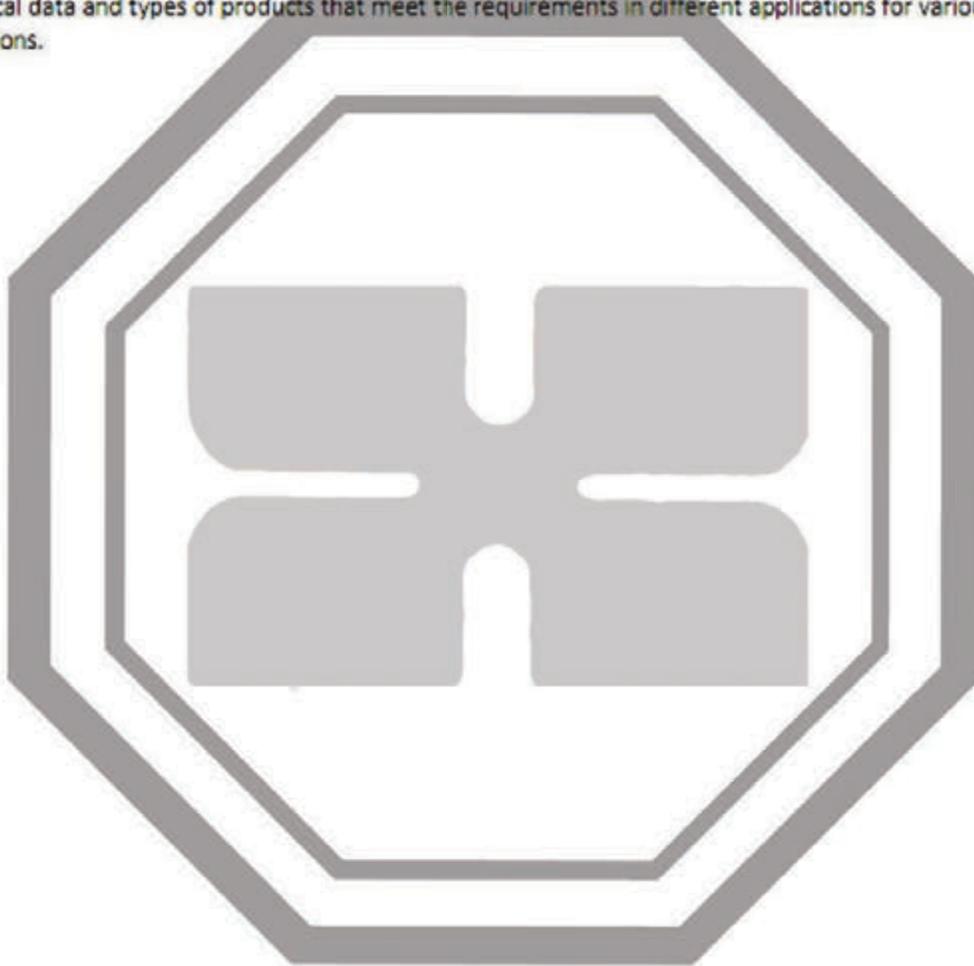
*“ Protecting Your Investment with Trusted and Reliable  
Energy Solution and Services “*

## INTRODUCTION

The Cable Support System have been applied in broad of the various application to ensure and satisfy economic and safety of the cable installation.

We, **PT. TRIAS INDRA SAPUTRA** founded in 1987, a national firm specializing in designing, manufacturing and installation of cable support and electrical switchboard/panel has supplied and satisfied the requirements of various projects in Indonesia through many reputable national and foreign contractors or industries. Supported by experienced human resources and equipments we are able to manufacture and supply cable support system with International Quality Standard such as ISO 9001 : 2008, Environmental ISO14001, Safety Management System OHSAS 18001 and NEMA provides.

This Catalog provides the complete range information (designed to meet) regarding the technical data and types of products that meet the requirements in different applications for various project conditions.



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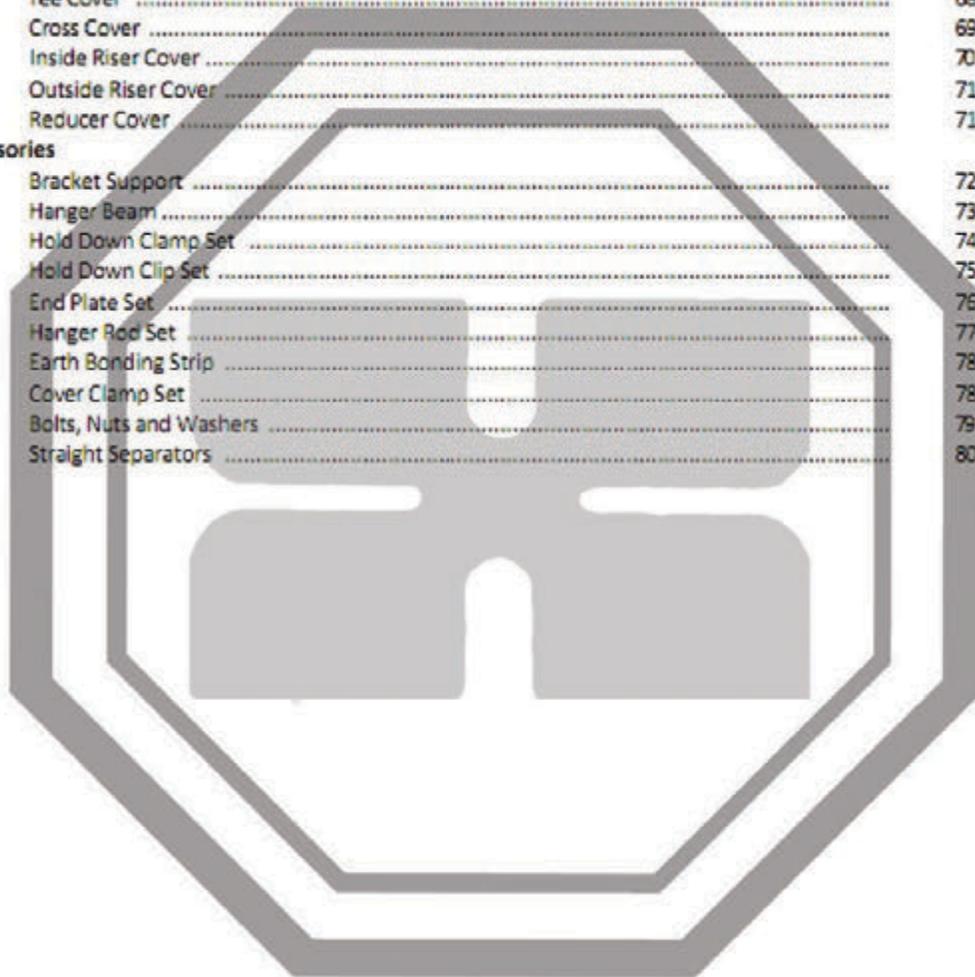
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### A. Raw Material

Standard Materials consist of:

- a. Steel
- b. Aluminium
- c. Stainless Steel
- d. Hotdip Zinc Coated Steel

#### a. Steel

The most common materials used in cable support system in the hot rolled mill steel, standard JIS/SPHC or its equivalent.

#### b. Aluminium

This material provides a long life service without excessive maintenance cost and its load carrying capacity are lower than the steel type due to greater application for the same load. The right strength to weight ratio aluminium cable trays can greatly reduce the overall cost of installation through ease of handling and field cutting. Aluminium has an excellent corrosion resistance due to its ability to forming the aluminium oxide film when scratched or cut, it will reform the original film. For out door applications aluminium has great resistance from weather conditions.

#### c. Stainless Steel

Stainless Steel could be used for several critical conditions which require low maintenance cost, high temperature and high strength as well as aesthetic resistance appearance. Stainless Steel has great resistance from weather condition.

#### d. Hotdip Zinc Coated Steel

Standard ASTM A 1046

#### a. Hotdip Galvanized

This kind of finishing process has an important advantage coating thickness. The Cable trays hotdip galvanized after fabrication have a minimum thickness of 1.50 ounces per square foot, related to coating thickness of 64.58 micron ib each side (for average of the specimen tested and steel thickness around 2 mm). This finishing process provides a dual protections against the corrosion. First protection for a overall protect the coating. If this coating is scratched or gauged, zinc's secondary defense will protect the steel with the galvanic action. Hotdip galvanized after fabrication is recommended to prolonged out usage and other aggressive industrial areas.

#### b. Electroplate Galvanized

Electroplate Galvanized is the process where a zinc coating is deposited on the steel material by electrolysis in the zinc salt liquid. When exposed to air and moisture, zinc will formed a tough, adherent, protective film. This film itself is the protective coating which slow-up subsequent corrosive attack on the zinc. This coating is frequently recommended for incoor application in relatively dry conditions.

#### c. Special Paint

Trias cable trays can be painted to fulfill the customers requirements. Trias has the paint material in several kinds and colors.

#### d. Powder Coating

The Powder Coating finishing is the final product process by using the paint which is snorted to the product surface. The preprinted product will be put into the heat oven for burning process with temperature and time adjusted.

### B. Finishing Process

Trias cable support system serves several kinds of finishing process :

- a. Hotdip Galvanized
- b. Electroplate Galvanized
- c. Special Paints
- d. Powder Coating

## STANDARD PRODUCTS

Our products are classified into :

1. Super Heavy Duty Cable Support System, for cable ladders and accessories.
2. Heavy Duty Cable Support Systems, for cable ladders, cable trays and accessories.
3. Light Duty Cable Support System, for cable ladders, cable trays and accessories.

Optional Products are :

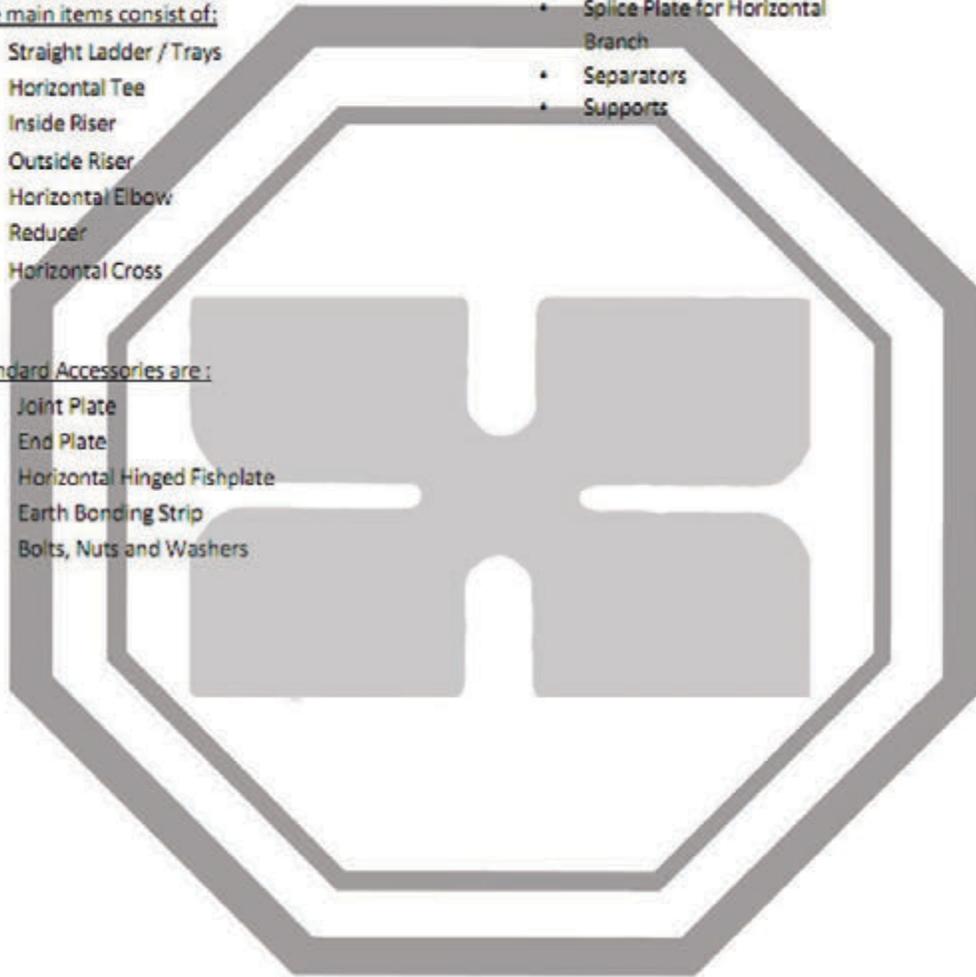
- Hanger Rod
- Hanger Beam
- Cover Clamp
- Hold Down Clip
- Hold Down Clamp
- Cover
- Splice Plate for Stand
- Splice Plate for Vertical Branch
- Splice Plate for Vertical Side Branch
- Splice Plate for Horizontal Branch
- Separators
- Supports

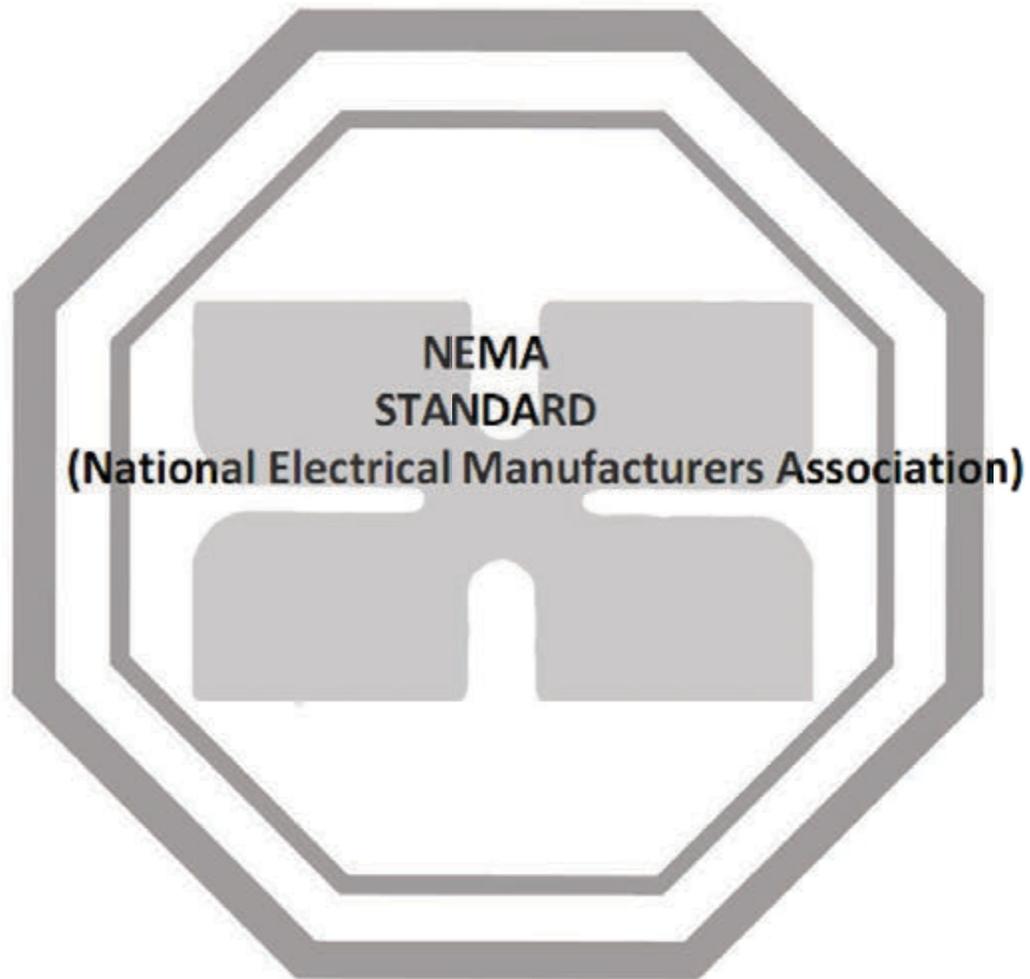
The main items consist of:

Straight Ladder / Trays  
Horizontal Tee  
Inside Riser  
Outside Riser  
Horizontal Elbow  
Reducer  
Horizontal Cross

Standard Accessories are :

Joint Plate  
End Plate  
Horizontal Hinged Fishplate  
Earth Bonding Strip  
Bolts, Nuts and Washers





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## DEFINITIONS

### 1.1. Ladder Type

A prefabricated metal structure consisting of two longitudinal side rails connected by individual transverse members.

### 1.2. Perforated Type

A prefabricated metal structure greater than 4 inches in width consisting of a ventilated bottom within integral of separate longitudinal side rails.

A cable tray bottom having openings sufficient for the passage of air and utilizing 60 percent or less of the plan area of the surface to support cables.

### 1.3. Solid Bottom Type

A prefabricated metal structure consisting a bottom without opening within integral of separate longitudinal side rails.

### 1.4. Channel

A prefabricated metal structure consisting solid bottom channel section, not exceeding 6 inches in width.

### 1.5. Cable Tray Fitting

Cable tray fittings are sections which are joined to other cable tray sections to change the size or direction of the cable tray system. The Cable Tray Fittings are :

#### Horizontal Elbow (Horizontal Bend)

A cable tray fitting which changes the directions at 90 degree intervals in the same plane.

#### Horizontal Tee

A cable tray fitting which is suitable for joining cable trays in three directions at 90 degree intervals in the same plane.

#### Horizontal Cross

A cable tray fitting which is suitable for joining cable trays in four directions at 90 degree intervals in the same plane.

#### Vertical Elbow

A cable tray fitting which changes direction to a different plane.

An *Inside* vertical elbow changes direction upward from the horizontal plane.

An *Outside* vertical elbow changes direction downward from the horizontal plane.

#### Reducer (Straight, Right Hand, Left Hand)

A cable tray fitting which is suitable for joining cable trays of different widths in the same plane.

A straight reducer has two symmetrical offset sides. A right hand reducer, when viewed from the large end, has a straight side on the right. A left hand reducer, when viewed from the large end, has a straight side on the left.

### 1.6. Cover

A device which offers protection to the cable against rain (water), dust and drop of solid also for the full strength.

### 1.7. Cable Tray Connector

A cable tray connector is a device which joins cable by straight section and/or fittings. The basic types of connectors are :

1. Rigid
2. Expansion
3. Adjustable
4. Reducer

### 1.8. Accessories

Devices which are used to supplement the function of straight sections and fittings, and include such items as dropouts, covers, conduits adapters, hold down devices and dividers.

### 1.9. Cable Tray Support

A device which provides adequate means for supporting cable tray sections and fittings, the basic types of cable tray supports are :

1. Cantilever Bracket
2. Trapeze
3. Individual rod suspension

## MANUFACTURING STANDARD

### 2.1. Material

Cable tray systems shall be made of either corrosion resistance metal or metal with a corrosion resistant finish.

### 2.2. Finishing

Steel used for cable trays shall be protected against corrosion by being :

1. Continuous rolled hotdip galvanized in accordance with ASTM. "Specification for zinc coated (galvanized) iron or steel sheet, Coils and Cut Length".
2. Hotdip galvanized after fabrication in accordance with the ASTM Publication No. A386, specification for the zinc coating (hotdip) an assembled product.

### 2.3. Dimensions

#### A. Ladder - Type Trays

1. Lengths of straight section 12 feet plus or minus  $\frac{3}{16}$  inch and 24 feet plus or minus  $\frac{5}{16}$  inch not including connectors if attached.
2. Widths 6, 12, 18, 24, 30 and 36 inches, plus or minus  $\frac{1}{4}$  inch inside dimension. Overall widths shall not exceed inside widths by more than 4 inches.
3. Depths - Inside depth shall be 3, 4, 5, and 6 inches, plus or minus  $\frac{3}{8}$  inch. Outside depths shall not exceed inside depths by more than 1-14 inches.
4. Rung spacing on straight section 6, 9, 12, or 18 inches on centers.
5. Radius 12, 24 and 36 inches.
6. Degrees on arc for elbow 30, 45, 60, and 90 degrees.

#### B. Trough (Perforated) - Trays

1. Lengths of straight section 12 feet plus or minus  $\frac{3}{16}$  inch and 24 feet plus or minus  $\frac{5}{16}$  inch not including connectors if attached.
2. Widths 6, 12, 18, 24, 30 and 36 inches, plus or minus  $\frac{1}{4}$  inch inside dimension. Overall widths shall not exceed inside widths by more than 4 inches.
3. Depths - Inside depth shall be 3, 4, 5, and 6 inches, plus or minus  $\frac{3}{8}$  inch. Outside depths shall not exceed inside depths by more than 1-14 inches.
4. Radius 12, 24, and 36 inches.
5. Degrees of arc for elbow 30, 45, 60 and 90 degrees.
6. Transverse elements - The maximum open spacing between transverse elements shall be 4 inches measured in a direction parallel to the tray side rails.

#### C. Solid Bottom Type Trays

1. Lengths of straight section 12 feet plus or minus  $\frac{3}{16}$  inch and 24 feet plus or minus  $\frac{5}{16}$  inch not including connectors if attached.
2. Widths 6, 12, 18, 24, 30 and 36 inches, plus or minus  $\frac{1}{4}$  inch inside dimension. Overall widths shall not exceed inside widths by more than 4 inches.
3. Depth - Inside depth shall be 3, 4, 5 and 6 inches, plus or minus  $\frac{3}{8}$  inch. Outside depths shall not exceed inside depths by more than  $1\frac{1}{4}$  inches.
4. Radius 12, 24, and 36 inches.
5. Degrees of arc for elbow 30, 45, 60 and 90 degrees.
6. Bottom - Bottom is solid.

#### D. Channel - Type Trays

1. Length of straight section 12 feet plus or minus  $\frac{3}{16}$  inch and 24 feet plus or minus  $\frac{5}{16}$  inch.
2. Widths 3 and 4 inches, plus or minus  $\frac{1}{4}$  inch, inside dimension.
3. Depth  $1\frac{1}{4}$  to  $1\frac{1}{2}$  inches (nominal outside dimension).
4. Radius 12, 24, and 36 inches.
5. Degrees of arc for elbow 30, 45, 60 and 90 degrees.

### 2.4. Protection of Cable Insulation

The inside of cable tray system shall present no sharp edges, burrs or projections which can damage cable insulation.

### 2.5. Fittings

The Design and Construction of fitting shall be based in the assumption they will be in accordance with the recommended given in par VE 6.6 for support location.

### 2.6. Marking of trays when used as equipment grounding conductors

When steel or aluminium cable tray system are used as equipment grounding conductors, cable tray section and fittings shall be marked to show the minimum cross.



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## PERFORMANCE STANDARDS AND LOAD

### 3.1. Working (Allowable) Load Capacity

The working ( Allowable ) Load Capacity represents the ability of a cable tray to support the static weight of dabbles. It is equivalent to the destruction load capacity, as determined by testing in accordance with 4.1 divided by a safety factors of 1.5

### 3.2. Load / Span Class Designations

There shall be three working load categories of cable tray :

1. 50 lbs/linear ft (74.4 kg/m) ( Symbol A )
2. 75 lbs/linear ft (111.6 kg/m) ( Symbol B )
3. 100 lbs/linear ft (148.8 kg/m) ( Symbol C )

and, four support span categories of:

1. 8 feet (2.44m)
2. 12 feet (3.66m)
3. 16 feet (4.87m)
4. 20 feet (6.09m)

Utilizing these, the load/span designation of table 3 - 1 shall apply.

**Table 3 -1**  
**Load / Span Class Designation**

Working Load Lbs / ft	( Kg/m )	Support Span feet	(m)	Class Designation Per 3.1
50	[74.4]	8	[2.44]	8A
75	[111.6]	8	[2.44]	8B
100	[148.8]	8	[2.44]	8C
50	[74.4]	12	[3.66]	12A
75	[111.6]	12	[3.66]	12B
100	[148.8]	12	[3.66]	12C
50	[74.8]	16	[4.87]	16A
75	[111.6]	16	[4.87]	16B
100	[148.8]	16	[4.87]	16C
50	[74.8]	20	[6.09]	20A
75	[111.6]	20	[6.09]	20B
100	[148.6]	20	[6.09]	20C

Note:

1. The above working loads are for cable only; When considering application requiring concentrated static load.
2. These designations do not apply to channel tray.

## Destruction Load Test

### 4.1.1. *Test Specimen*

For each design of cable tray, two separate tests shall be made. An unplaced straight section of the widest width shall be used in each test. For ladder type cable trays rung spacing shall be 12 inches on center. Differences in gauge height of side rail, rung or bottom to side rail connection, or the configuration any part constitute a different design.

### 4.1.2. *Type and Length of Span*

Test span shall be simple beam spans with free unrestrained ends. Trays shall not have side restrains. Span lengths shall be as specified plus or minus 1 1/2 inches.

### 4.1.3. *Orientation of Specimens*

Specimen shall be tested in a horizontal position. The total length of the test specimen shall be not more than the specified span length plus 20 percent. Any overhang be equal.

### 4.1.3. *Supports*

Each end of the specimen shall be supported by an 1 1/8 inch wide by 3/4 inch high steel bar(s) with a 120 degree 'Vee' notch cut in its bottom to a depth of 3/16 inch. The 'Vee' not shall rest on a 1 inch solid round steel bar which is welded at a maximum of 12 inches on center to a firm steel base, or the specimen shall be supported directly on a 2 1/2 inch maximum diameter round steel bar or heavy wall steel tube welded to a firm steel base.

### 4.1.4. *Loading Material*

Loading Material shall be steel strip, lead ingots, or other loading material. Steel strip shall have rounded or debarred edges, a maximum thickness of 1/8 inch, a width of 1 3/8 to 2 inches, a maximum length of 4 feet. Five lead ingots, each weighing approximately 5 pound [2.26 kg], shall be interconnected across corner into string of 5 ingots approximately 22 inches long. Individual ingots are normally hexagonal, approximately 3 inches in diameter, and 1 1/2 inches deep. Other loading material shall have a maximum weight of 10 pound [4.53 kg], a maximum width of 5 inches and a maximum length of 12 inches.

### 4.1.5. *Loading*

All specimens shall be loaded to destruction. The load shall be applied in at least 10 increments which are approximately equal. Loading shall be uniformly distributed for the length and breadth of the specimen except that the loading material shall be not closer than 1/2 inch nor further than 1 inch from the innermost element of the side rails. It shall be arranged across the tray with a minimum of 3/8 inch between stack so that the loading material does not bridge transversely. All loading material shall be placed between the supports without overhanging. For loading weight in a ladder type tray, it shall be permissible to cover the bottom of the tray between supports with a flat sheet of no. 9 gauge flattened expanded material not more than 3 feet long and with a wire hole size of 3/4 inch, or a flat sheet of no. 16 gauge sheet more than 3 feet long. The expanded metal or sheet steel shall not be fastened to the tray and shall be no closer than 1/2 inch to the side rails. The 3 foot lengths shall not overlap. The weight of the expanded metal or sheet steel shall be added to the total weight of the loading material.

### 4.1.7. *Destruction Load Capacity*

The total weight of the loading material on the cable tray at the time is destroyed shall be considered to be destruction load capacity of the cable tray.

### 4.1.8. *Interpolation and Extrapolation of Test Data*

When allowable load and deflection data are determined by load tests, values for span lengths not tested shall be determined by interpolation from a curve based on values for a minimum of three tested span lengths. Extrapolation toward shorter span lengths is permissible but shall not be used for span lengths longer than a longest span length tested.

## 4.2. *Deflection Test*

The vertical deflection of the tray shall be measured at two points along the line midway between the support and right angles to the longitudinal axis of the tray. The two points of measurements shall be at be considered to be the vertical direction of the tray. For application information on deflection see 601

## 4.3. *Electrical Continuity of Connections*

### 4.3.1. *Test Specimen*

Each specimen shall consist of two 24 inches lengths of side rail plus mechanical connecting means.

### 4.3.2. *Resistance Test Procedure*

Each specimen should be joined together, using the mechanical connector and following the instruction provided by the manufacturer. A current of 30 amperes shall be passed through the specimen and the resistance measured between two points 6 inches on each of the join. The net resistance of the joint shall be not more than 0.000333 ohm as computed from the measured voltage drop and the current passing through the specimen.

### 5.1 Data to Appear in Specifications

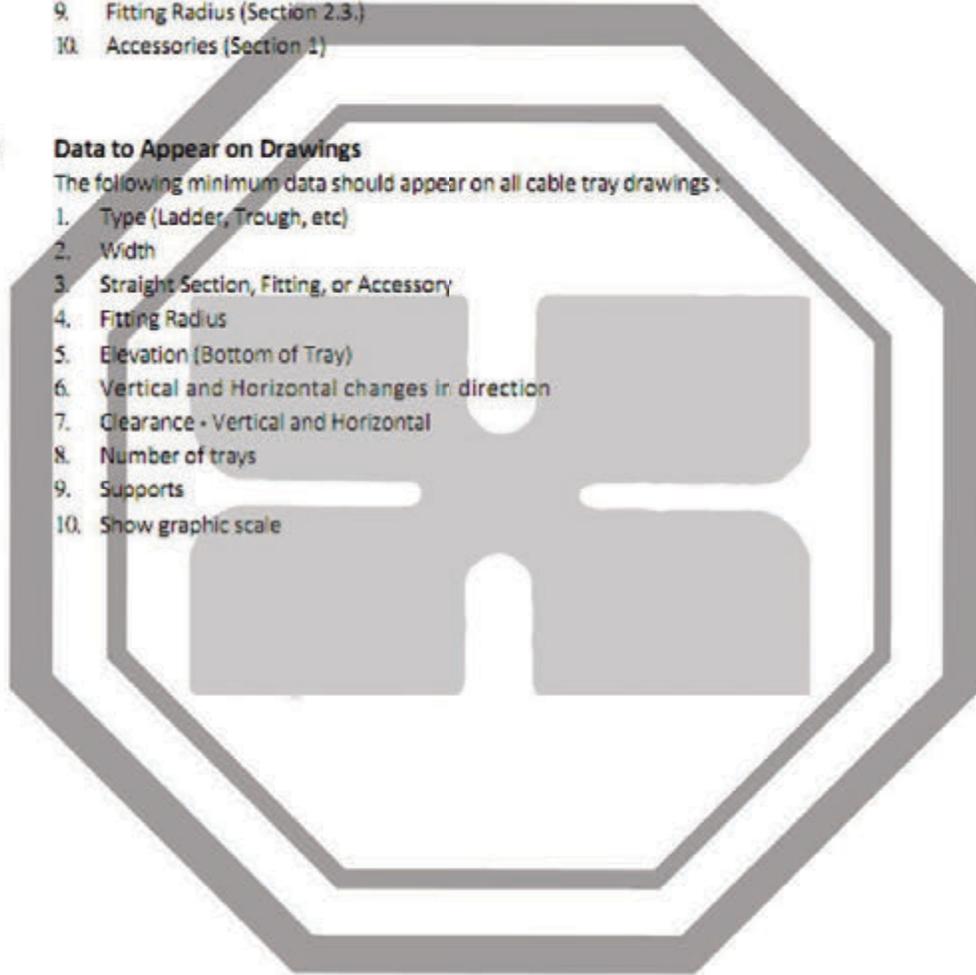
The following statements and minimum data, when applicable, should appear in all cable tray specification :

1. Cable tray shall be manufactured and installed in accordance with NEMA Standard VE 1-1991
2. Load / Span class designation (Section 3)
3. Type (Section 1.2.)
4. Material (Section 2.1.)
5. Finish (Section 2.2.)
6. Rung Spacing (Section 2.3.)
7. Inside depth (Section 2.3.)
8. Width (Section 2.3.)
9. Fitting Radius (Section 2.3.)
10. Accessories (Section 1)

### 5.2 Data to Appear on Drawings

The following minimum data should appear on all cable tray drawings :

1. Type (Ladder, Trough, etc)
2. Width
3. Straight Section, Fitting, or Accessory
4. Fitting Radius
5. Elevation (Bottom of Tray)
6. Vertical and Horizontal changes in direction
7. Clearance - Vertical and Horizontal
8. Number of trays
9. Supports
10. Show graphic scale



## APPLICATION INFORMATION

### 6.1. Deflection

Under normal applications deflection limitations should not be included in design criteria for cable trays. However, if unusual or special conditions exist, the manufacturer should be consulted. Limitations of deflection for aesthetic purpose only can result in an over designed tray system.

### 6.2. Concentrated Static Load (If Required by User)

A concentrated static load is not included in Table 3-1, Load / Span Designation. Some user applications may require that a given concentrated static load be imposed over and above the working load. Such a concentrated static load represents a static weight applied between the side rails at misspend. When so specified, the concentrated static load may be converted to an equivalent, uniform load ( $W_o$ ) in pounds per linear foot [kilograms per meter] using the formula:

$$W_o = \frac{2 \times (\text{Concentrated Static Load})}{\text{span Length, Ft. [m]}}$$

and added to the static weight of cables in the tray. This combined load may be used to select a suitable load/span designation (See Table 3-1.) If the combined load exceeds the working load shown in table 3-1, the manufacturer should be consulted.

### 6.3. Warning! Walkways

In as much as cable tray is designed as a support for power or control cables, or both, and is not intended or designed to be a walkway for personnel, the user is urged to display appropriate warnings cautioning against the use of this support as a walkway. The following language is suggested: **Warning! Not to be used to be a walkway, ladder or support for personnel. To be used only as a mechanical support for cable and tubing.**

### 6.4. Fittings

Changes in direction should be mechanically continuous and accomplished by use of fittings having dimensions in accordance with 2.3.

### 6.5. Support

Supports for cable trays should provide a strength and working load capacity sufficient to meet the load requirement of the cable tray systems.

1. Horizontal and Vertical tray supports should provide an adequate bearing surface for the tray and should have provisions for hold down clamps or fasteners.
2. In addition, vertical tray supports should provide secure means of fastening cable tray to supports.

### 6.6. Support Locations

#### 6.6.1. Horizontal Cable Tray Straight Sections

Horizontal cable tray straight sections should be supported at intervals not to exceed the support span for the appropriate NEMA Class Designation shown in Table 3-1. Unplaced straight section should be used on all simple spans and on end spans of continuous span runs. A support should be located within 2 feet of each side of an expansion connector. Straight section lengths should be equal to or greater than the span length to ensure not more than one splice between supports.

**6.6.2. Horizontal Cable Tray Fitting**

1. **Horizontal Elbow Support** (See Figure 6.1). Support for horizontal tray fittings should be placed within 2 feet of each fitting extremity, and as follows :
  - a. 90 Degree support at the 45 degree point of arc
  - b. 60 Degree support at the 30 degree point of arc
  - c. 45 Degree support at the 22 1/2 degree point of arc (except for the 12 inch radii).
  - d. 30 degree support at the 15 degree point of arc (except for the 12 inch radii).
2. **Horizontal Tee Support** (See Figure 6.2). within 2 feet of each of the three openings connected to other cable tray items for the 12 inch radius. On all other radii, at least one support should be placed under each side rail, at least one support should be placed under each side rail at the horizontal preferably as shown in figure 6.2
3. **Horizontal Cross Support** (See Figure 6.3). Within 2 feet of each of the four openings connected to other cable tray items for the 12 inch radius. On all other radii, at least one support should be placed under each side rail of the horizontal cross, preferably as shown in figure 6.3.
4. **Horizontal Wye Support** (See Figure 6.4). Within 2 feet of each of the three openings connected to other cable tray items, at 22 1/2 degree point of the arc adjacent to side branch.
5. **Reducer Support** (See Figure 6.5 and 6.6). Within 2 feet of each fittings extremity.

**6.6.3. Vertical Cable Tray Elbows (See Figure 6.7)**

Vertical cable tray elbows at the top of runs should be supported at each end. Vertical cable tray elbows at the bottom of runs should be supported at the top of the elbow, and within 2 feet of the lower extremity of the elbow.

**6.6.4. Vertical Cable Tray Tees (See Figure 6.8)**

Vertical cable tray tees should be supported within 2 feet of each fitting extremity.

**6.6.5. Vertical Straight Sections**

Vertical Straight Section should be supported indoors at appropriate intervals permitted by the building structure; outdoor support interval should be determined by wind loading. The maximum distance between vertical supports should not exceed 24 feet on centers.

**6.6.6. Sloping Tray**

Sloping trays should be supported at intervals not exceeding those for horizontal trays of the same design for the same installation.

**6.7 Protection of Cable Insulation**

The inside of cable tray systems should present no sharp edges, burrs, or projections which could damage cable insulation.

**6.8 Thermal Contraction and Expansion**

It is important that thermal contraction and expansion be considered when installing cable tray systems. If it is determined that expansion connectors are required, reference should be made to the Table 6-1 for maximum spacing. The cable tray should be securely fixed at the support nearest to its midpoint between the expansion connectors and secured by expansion guides at all other support locations. The cable tray should be permitted longitudinal movement in both directions from that fixed point toward the expansion connectors. Accurate gap setting at the time of installation is necessary for the proper operation of the expansion connectors. The following procedure should assist the installer in determine the correct gap :

- Step 1** Plot the highest expected metal temperature.
- Step 2** Draw a line between the maximum and minimum points
- Step 3** To determine the gap setting, plot the metal temperature at the time of installation.

**Table 6 -1  
Maximum Spacing Between Expansion Joints  
That Provide for One Inch (25.4) Movement**

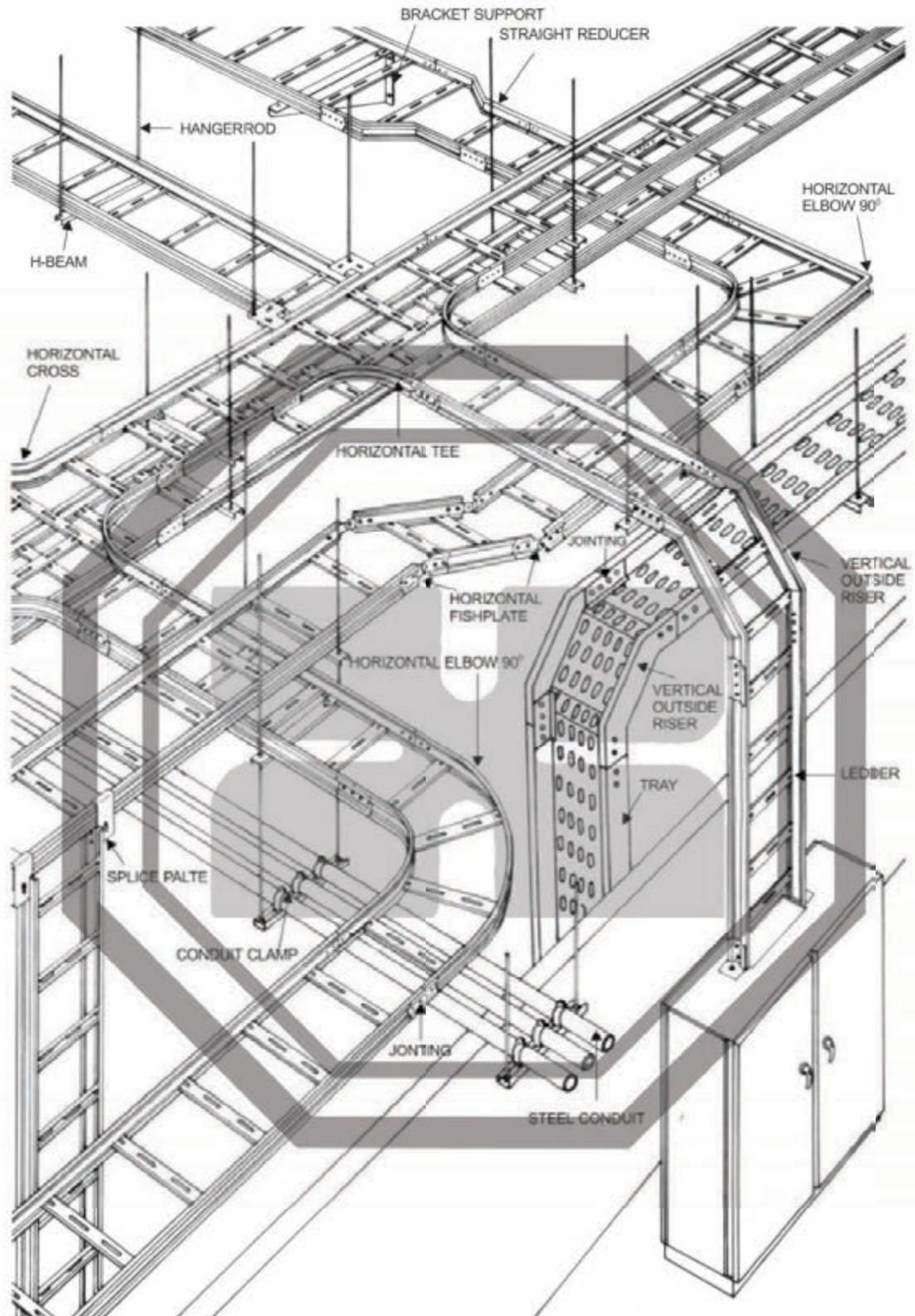
Temperature Differential		Steel		Aluminium	
F	[C]	Feet	[m]	Feet	[m]
25	[4]	512	[156]	260	[79.2]
50	[10]	256	[78.0]	130	[39.6]
75	[24]	171	[52.1]	87	[26.5]
100	[38]	128	[39.0]	65	[19.8]
125	[51]	102	[31.1]	52	[15.8]
150	[65]	85	[25.9]	43	[13.1]
175	[79]	73	[22.2]	37	[11.3]

Note : Numbers in brackets are in millimeters unless otherwise noted.

**6.9 Cable Installation**

When installing cable tray, it is important that care and planning be exercised so that the cable or the cable tray is not damaged or destroyed. The cable manufacturer should be contacted for maximum pulling tensions and minimum bending radius, and advice on prevention of 'egging' or deformation of cable jacketing or shielding.

# CABLE SUPPORT SYSTEM



# GUIDANCE MANUAL FOR THE PART NUMBER CODE

Product	Type	Description	Material	Width	Height	Radius/Diameter
L (Ladder)	U (Type "U")	ST (Straight)	F (Steel)	50 =05	25 =A	<u>For Radius :</u> 300 = 30 450 = 45 600 = 60 900 = 90
	W (Type "W")	EL (Elbow)	S (Sainless Steel)	100=10	50 =B	
	H (Heavy Duty)	TE (Tee)		150=15	60 =C	
	I (Alm Type "I")	XR (Cross)	A (Aluminium)	200 = 20	100 = D	
	E (Alm Sigma)	OR (Outside Riser)		300 = 30	127 = E	
T (Tray)	C (Type "C")	IR (Inside Riser)		400 = 40	152 = F	<u>For Diameter :</u> 3/8 = 38 1/2 = 12 3/4 = 34 1 = 10 1 1/4 = 15 1 3/4 = 15 2 = 20 2 1/4 = 25 3 = 30
	U (Type "U")	SR (Reducer), LR, RR		450 = 45	200 = G	
	D (Duct)			600 = 60	23 = H	
	T (Trunking)	<u>Cover</u>		800 = 80	41 = J	
	M (Multitray)	SC (Straight Cover)				
C (Channel)		EC (Elbow Cover)				1 = 10
		TC (Tee Cover)				1 1/4 = 15
		XC (Cross Cover)				1 3/4 = 15
		OC (Outside Cover)				2 = 20
		IC (Inside Cover)				2 1/4 = 25
		RC (Reducer Cover)				3 = 30
		<u>Channel</u>				
		AF (Angle Fitting)				
		PF (Plate Fitting)				
		CO (Conduit Clamp)				
		<u>Accessories</u>				
		JS (Jointing)				
		HF (Horizontal Fishplate)				
		VF (Vertical Fishplate)				
		HB (Hanger Beam)				
	BS (Bracket Support)					
	ES (End Stop)					
	SE (Separator)					
	FS (Splice Plate for Stand)					
	CA (Hold Down Clamp)					
	CC (Cover Down Clamp)					
	HR (Hanger Rod)					
	EB (Earth Bonding)					

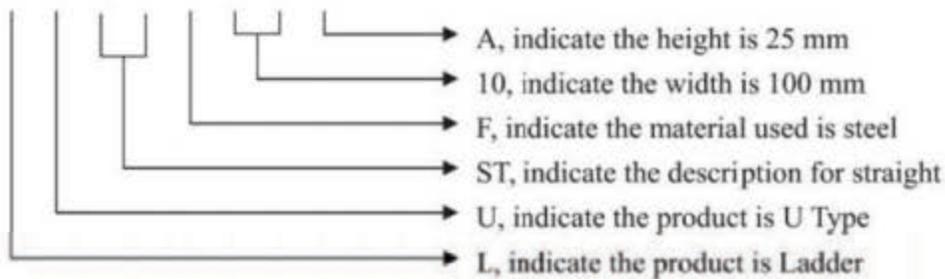


**PT. TRIAS INDRA SAPUTRA**  
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## HOW TO READ THE PART NUMBER

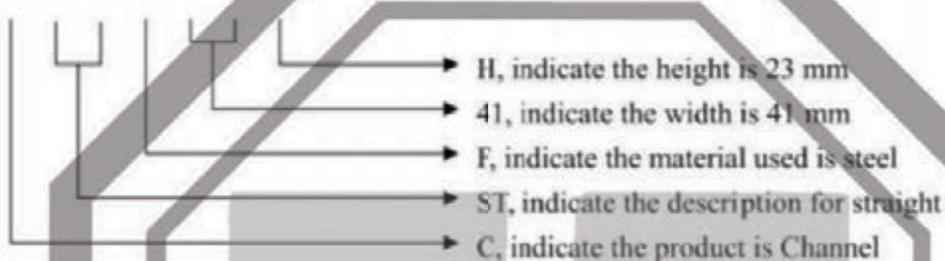
1 For cable Tray & Ladder, example : LUSTF10A

L U S T F 1 0 A



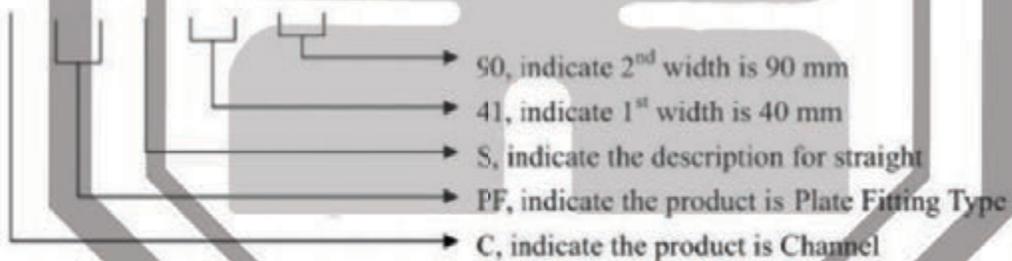
2 For Channel Type Straight, example : CSTF41H

C S T F 4 1 H



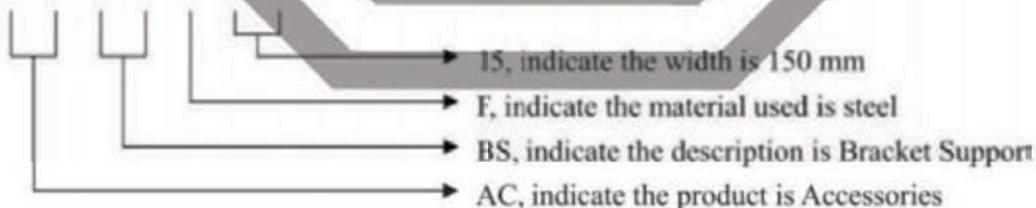
3 For Channel Type Straight, example : CPFS4090

C P F S 4 0 9 0



4 For Accessories, example : ACBSF15

A C B S F 1 5



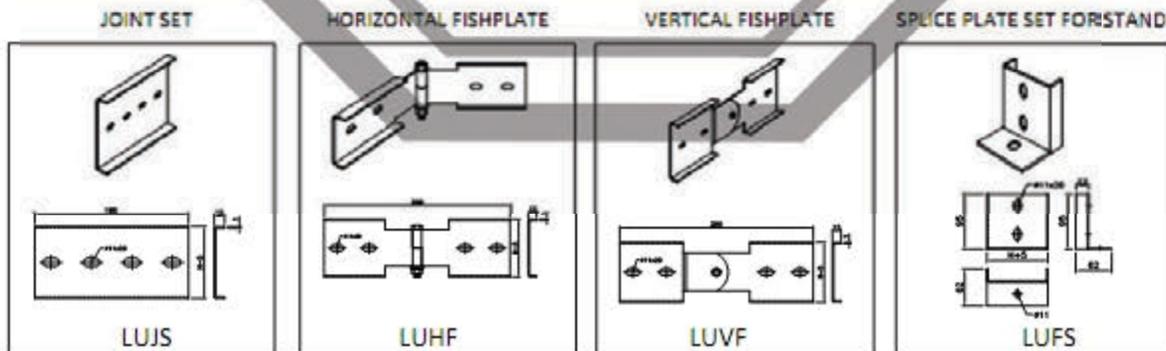
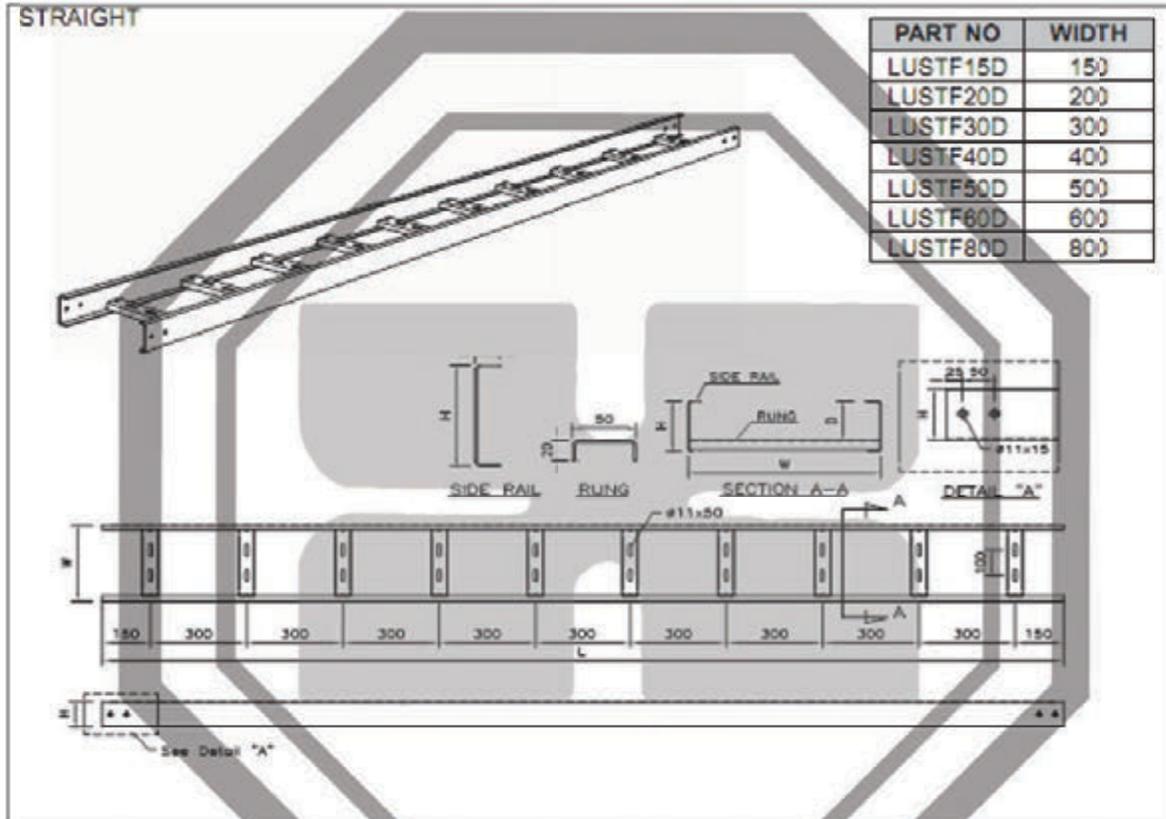
DESCRIPTION

- MATERIAL :
- Mill steel sheet
  - Stainless steel sheet
  - Aluminium sheet
  - Hotdip zinc coated steel sheet

HEIGHT : 100  
 DEPTH : 78  
 LENGTH : 3000

SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, Hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm-2.0 mm.



Other dimensions, thickness are available upon special requirements



**PT. TRIAS INDRA SAPUTRA**  
 " TRUST TRIAS TO FIND A BETTER WAY "

CABLE LADDER

HORIZONTAL ELBOW, TEE, CROSS

DESCRIPTION

- MATERIAL :
- Mill steel sheet
  - Stainless steel sheet
  - Aluminium sheet
  - Hotdip zinc coated steel sheet

SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, Hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm-2.0 mm

HEIGHT : 100  
DEPTH : 78

**HORIZONTAL ELBOW**

PART NO	WIDTH	RADIUS
LUELF15D30	150	300,450, 600
LUELF20D30	200	
LUELF30D30	300	
LUELF40D30	400	
LUELF50D30	500	
LUELF60D30	600	
LUELF80D30	800	

**HORIZONTAL TEE**

PART NO	WIDTH	RADIUS
LUTEF15D30	150	300,450, 600
LUTEF20D30	200	
LUTEF30D30	300	
LUTEF40D30	400	
LUTEF50D30	500	
LUTEF60D30	600	
LUTEF80D30	800	

**HORIZONTAL CROSS**

PART NO	WIDTH	RADIUS
LUXRF15D30	150	300,450, 600
LUXRF20D30	200	
LUXRF30D30	300	
LUXRF40D30	400	
LUXRF50D30	500	
LUXRF60D30	600	
LUXRF80D30	800	

Other dimensions, thickness are available upon special requirements

DESCRIPTION

→ MATERIAL :

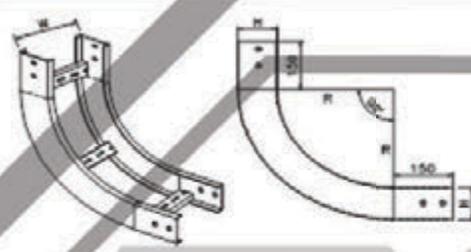
- Mill steel sheet
- Stainless steel sheet
- Aluminium sheet
- Hotdip zinc coated steel sheet

→ SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, Hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm-2.0 mm

HEIGHT : 100  
DEPTH : 78

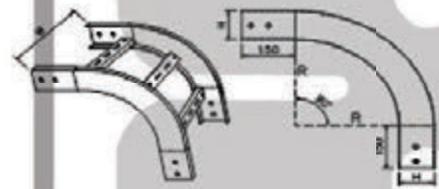
**INSIDE RISER**



PART NO	WIDTH	RADIUS
LUIRF15D30	150	300,450,600
LUIRF20D30	200	
LUIRF30D30	300	
LUIRF40D30	400	
LUIRF50D30	500	
LUIRF60D30	600	
LUIRF80D30	800	

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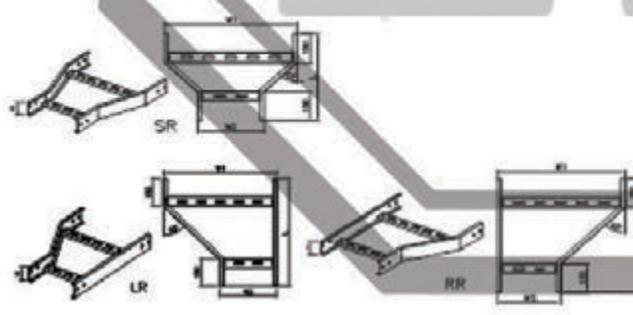
**OUTSIDE RISER**



PART NO	WIDTH	RADIUS
LUORF15D30	150	300,450,600
LUORF20D30	200	
LUORF30D30	300	
LUORF40D30	400	
LUORF50D30	500	
LUORF60D30	600	
LUORF80D30	800	

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**REDUCER**



PART NO	W1	W2	Add information
LUSRF3015D	300	150	SR, RR, LR
LUSRF4020D	400	200	
LUSRF4030D	400	300	
LUSRF6015D	600	150	
LUSRF6030D	600	300	
LUSRF6040D	600	400	
LUSRF8040D	800	400	
LUSRF8060D	800	600	

Others dimensions, thickness are available upon special requirement



**PT. TRIAS INDRA SAPUTRA**

" TRUST TRIAS TO FIND A BETTER WAY "

# CABLE LADDER

# STRAIGHT LADDER, JOIN SET, FISHPLATE

## DESCRIPTION

→ MATERIAL :

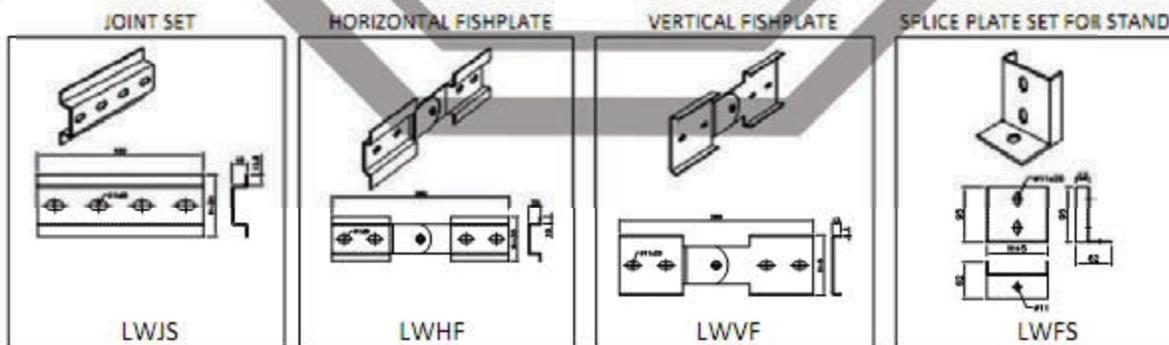
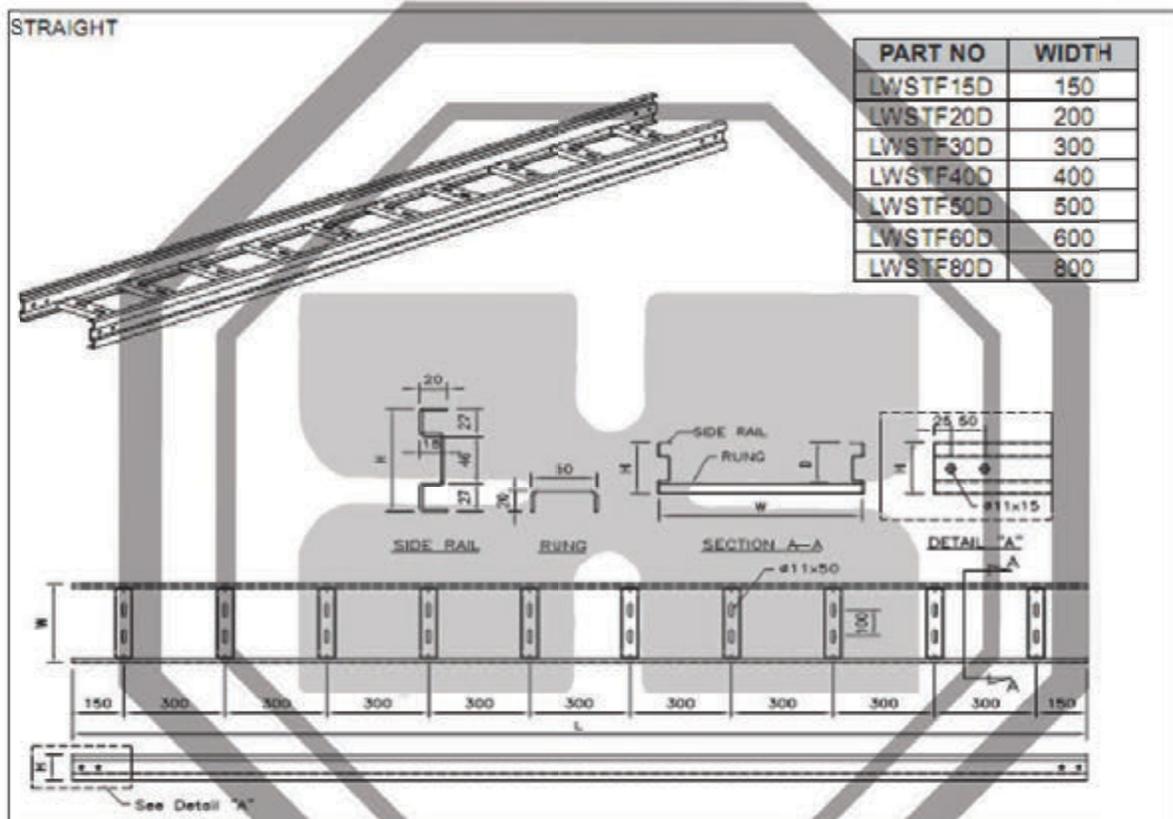
- Mill steel sheet
- Stainless steel sheet
- Aluminium sheet
- Hotdip zinc coated steel sheet

HEIGHT : 100  
 DEPTH : 78  
 LENGTH : 3000

## SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, Hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm-2.0 mm

W - TYPE



Other dimensions, thickness are available upon special requirements

**PT. TRIAS INDRA SAPUTRA**

" TRUST TRIAS TO FIND A BETTER WAY "



DESCRIPTION

→ MATERIAL :

- Mill steel sheet
- Stainless steel sheet
- Aluminium sheet
- Hotdip zinc coated steel sheet

→ SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, Hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm-2.0 mm

HEIGHT : 100  
DEPTH : 78

HORIZONTAL ELBOW

PART NO	WIDTH	RADIUS
LWELF15D30	150	300-450, 600
LWELF20D30	200	
LWELF30D30	300	
LWELF40D30	400	
LWELF50D30	500	
LWELF60D30	600	
LWELF80D30	800	

HORIZONTAL TEE

PART NO	WIDTH	RADIUS
LWTEF15D30	150	300-450, 600
LWTEF20D30	200	
LWTEF30D30	300	
LWTEF40D30	400	
LWTEF50D30	500	
LWTEF60D30	600	
LWTEF80D30	800	

HORIZONTAL CROSS

PART NO	WIDTH	RADIUS
LWXRF15D30	150	300-450, 600
LWXRF20D30	200	
LWXRF30D30	300	
LWXRF40D30	400	
LWXRF50D30	500	
LWXRF60D30	600	
LWXRF80D30	800	

Other dimensions, thickness are available upon special requirements

W - TYPE



**PT. TRIAS INDRA SAPUTRA**

" TRUST TRIAS TO FIND A BETTER WAY "

DESCRIPTION

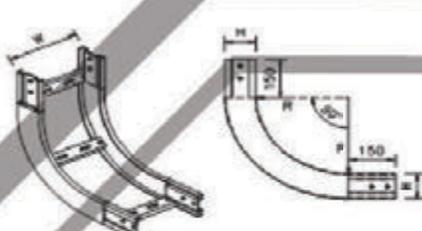
- MATERIAL :
- Mill steel sheet
  - Stainless steel sheet
  - Aluminium sheet
  - Hotdip zinc coated steel sheet

- SURFACE TREATMENT :
- Natural finishing
  - Hotdip galvanized finishing
  - Powder Coating.
  - All bolts, nuts and washers can use stainless steel, Hotdip galvanized finishing or electro galvanized finishing.
  - Standard thickness 1.6 mm-2.0 mm

HEIGHT : 100  
DEPTH : 78

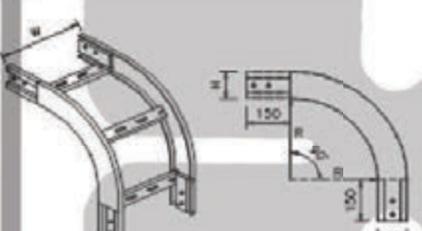
W - TYPE

**INSIDE RISER**



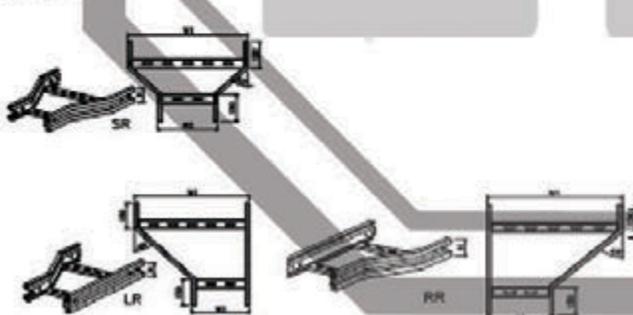
PART NO	WIDTH	RADIUS
LWIRF15D30	150	300,450,600
LWIRF20D30	200	
LWIRF30D30	300	
LWIRF40D30	400	
LWIRF50D30	500	
LWIRF60D30	600	
LWIRF80D30	800	

**OUTSIDE RISER**



PART NO	WIDTH	RADIUS
LWORF15D30	150	300,450,600
LWORF20D30	200	
LWORF30D30	300	
LWORF40D30	400	
LWORF50D30	500	
LWORF60D30	600	
LWORF80D30	800	

**REDUCER**



PART NO	W1	W2	Add information
LWSRF3015D	300	150	SR, RR, LR
LWSRF4020D	400	200	
LWSRF4030D	400	300	
LWSRF6015D	600	150	
LWSRF6030D	600	300	
LWSRF6040D	600	400	
LWSRF8040D	800	400	
LWSRF8060D	800	600	

Other dimensions, thickness are available upon special requirements.

# CABLE LADDER

# STRAIGHT LADDER, JOINT SET, FISHPLATE

## DESCRIPTION

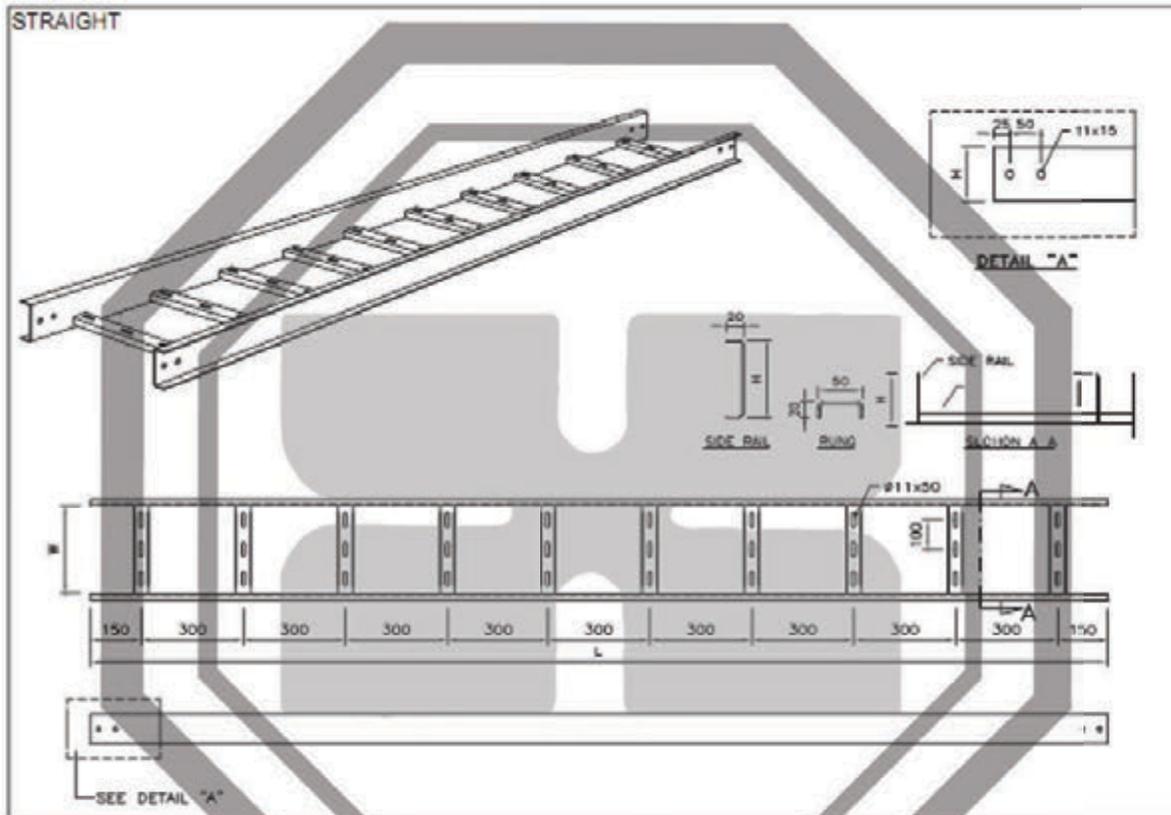
- MATERIAL :
- Mill steel sheet
  - Stainless steel sheet
  - Aluminium sheet
  - Hotdip zinc coated steel sheet

HEIGHT : 100  
 DEPTH : 75  
 LENGTH : 3000

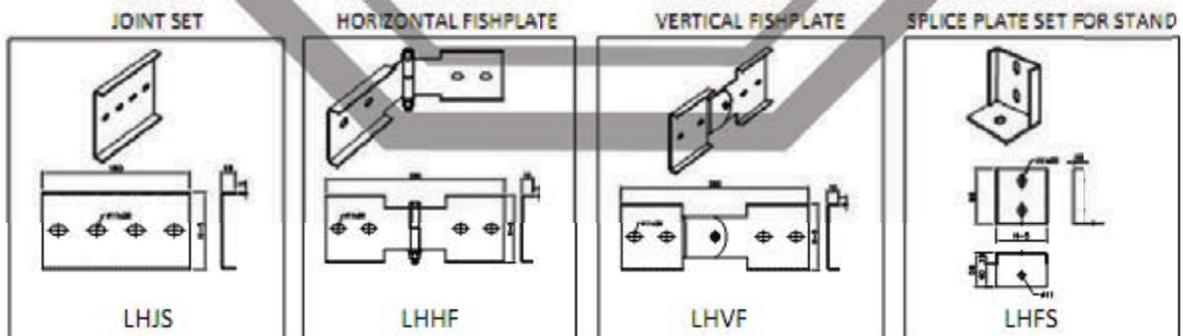
## SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm-2.0 mm.

PART NO	WIDTH
LHSTF15D	150
LHSTF20D	200
LHSTF30D	300
LHSTF40D	400
LHSTF50D	500
LHSTF60D	60
LHSTF80D	800



HD TYPE-H100



Other dimensions thickness are available upon special requirements



**PT. TRIAS INDRA SAPUTRA**

" TRUST TRIAS TO FIND A BETTER WAY "

DESCRIPTION

→ MATERIAL :

- Mill steel sheet
- Stainless steel sheet
- Aluminium sheet
- Hotdip zinc coated steel sheet

→ SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, Hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm-2.0 mm

HEIGHT : 100  
DEPTH : 75

HD TYPE-H100

HORIZONTAL ELBOW

PART NO	WIDTH	RADIUS
LHEL15D30	150	300,450, 600
LHEL20D30	200	
LHEL30D30	300	
LHEL40D30	400	
LHEL50D30	500	
LHEL60D30	600	
LHEL80D30	800	

HORIZONTAL TEE

PART NO	WIDTH	RADIUS
LHTEF15D30	150	300,450, 600
LHTEF20D30	200	
LHTEF30D30	300	
LHTEF40D30	400	
LHTEF50D30	500	
LHTEF60D30	600	
LHTEF80D30	800	

HORIZONTAL CROSS

PART NO	WIDTH	RADIUS
LHXRF15D30	150	300,450, 600
LHXRF20D30	200	
LHXRF30D30	300	
LHXRF40D30	400	
LHXRF50D30	500	
LHXRF60D30	600	
LHXRF80D30	800	

Others dimensions, thickness are available upon special requirements

DESCRIPTION

→ MATERIAL :

- Mill steel sheet
- Stainless steel sheet
- Aluminium sheet
- Hotdip zinc coated steel sheet

→ SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm-2.0 mm

HEIGHT : 100  
DEPTH : 75

**INSIDE RISER**

PART NO	WIDTH	RADIUS
LHIRF15D30	150	300,450,300
LHIRF20D30	200	
LHIRF30D30	300	
LHIRF40D30	400	
LHIRF50D30	500	
LHIRF60D30	600	
LHIRF80D30	800	

**OUTSIDE RISER**

PART NO	WIDTH	RADIUS
LHORF15D30	150	300,450,300
LHORF20D30	200	
LHORF30D30	300	
LHORF40D30	400	
LHORF50D30	500	
LHORF60D30	600	
LHORF80D30	800	

**REDUCER**

PART NO	W1	W2	Add Information
LHSRF3015D	300	150	SR, RR, LR
LHSRF4020D	400	200	
LHSRF4030D	400	300	
LHSRF6015D	600	150	
LHSRF6030D	600	300	
LHSRF6040D	600	400	
LHSRF8040D	800	400	
LHSRF8080D	800	600	

Others dimensions, thickness are available upon special requirements.

HD TYPE-H100



**PT. TRIAS INDRA SAPUTRA**

" TRUST TRIAS TO FIND A BETTER WAY "

# CABLE LADDER

# STRAIGHT LADDER, JOIN SET, FISHPLATE

## DESCRIPTION

→ MATERIAL :

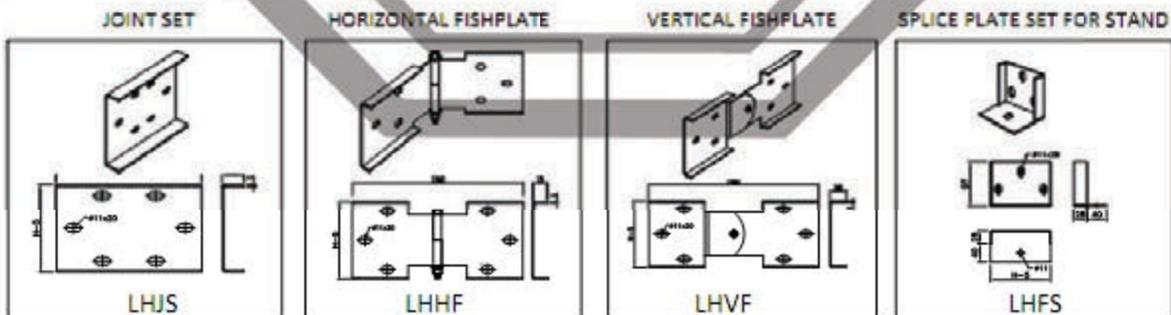
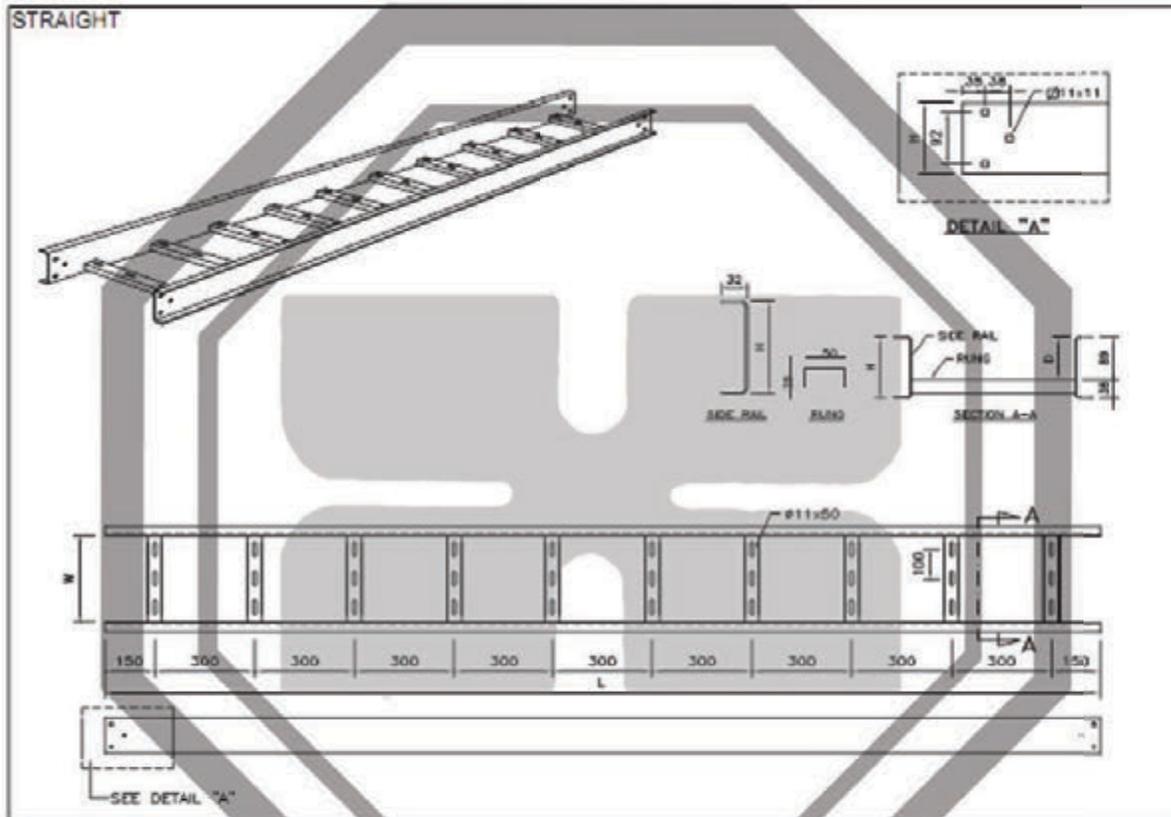
- Mill steel sheet
- Stainless steel sheet
- Aluminium sheet
- Hotdip zinc coated steel sheet

HEIGHT : 127  
 DEPTH : 89  
 LENGTH : 3000

## SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm-2.0 mm

PART NO	WIDTH
LHSTF15E	150
LHSTF20E	200
LHSTF30E	300
LHSTF40E	400
LHSTF50E	500
LHSTF60E	600
LHSTF80E	800



Other dimensions thickness are available upon special requirements

HD TYPE-H127

**PT. TRIAS INDRA SAPUTRA**

" TRUST TRIAS TO FIND A BETTER WAY "



DESCRIPTION

→ MATERIAL :

- Mill steel sheet
- Stainless steel sheet
- Aluminium sheet
- Hotdip zinc coated steel sheet

→ SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, Hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm-2.0 mm

HEIGHT : 127  
DEPTH : 89

**HORIZONTAL ELBOW**

PART NO	WIDTH	RADIUS
LHEL15E30	150	300,450, 600
LHEL20E30	200	
LHEL30E30	300	
LHEL40E30	400	
LHEL50E30	500	
LHEL60E30	600	
LHEL80E30	800	

**HORIZONTAL TEE**

PART NO	WIDTH	RADIUS
LHTEF15E30	150	300,450, 600
LHTEF20E30	200	
LHTEF30E30	300	
LHTEF40E30	400	
LHTEF50E30	500	
LHTEF60E30	600	
LHTEF80E30	800	

**HORIZONTAL CROSS**

PART NO	WIDTH	RADIUS
LHXRF15E30	150	300,450, 600
LHXRF20E30	200	
LHXRF30E30	300	
LHXRF40E30	400	
LHXRF50E30	500	
LHXRF60E30	600	
LHXRF80E30	800	

Others dimensions, thickness are available upon special requirements

HD TYPE-H127



**PT. TRIAS INDRA SAPUTRA**

" TRUST TRIAS TO FIND A BETTER WAY "

DESCRIPTION

→ MATERIAL :

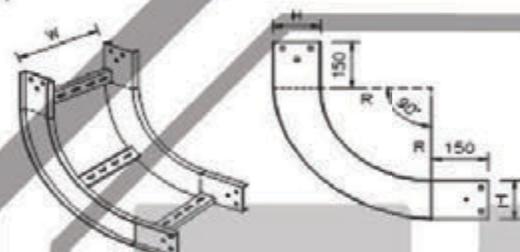
- Mill steel sheet
- Stainless steel sheet
- Aluminium sheet
- Hotdip zinc coated steel sheet

→ SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm-2.0 mm

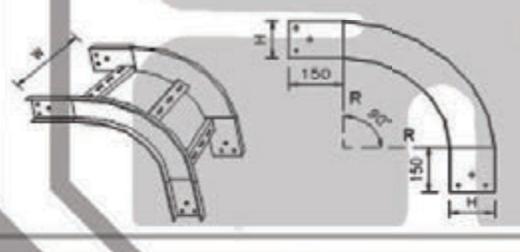
HEIGHT : 127  
DEPTH : 89

**INSIDE RISER**



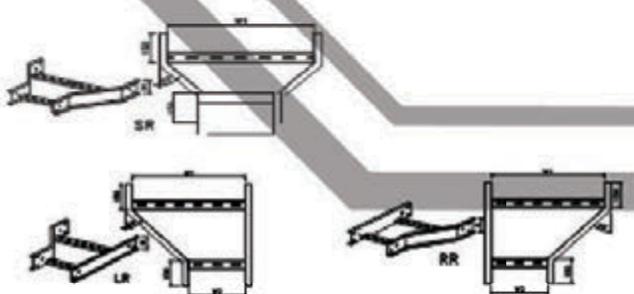
PART NO	WIDTH	RADIUS
LHIRF15E30	150	300,450,600
LHIRF20E30	200	
LHIRF30E30	300	
LHIRF40E30	400	
LHIRF50E30	500	
LHIRF60E30	600	
LHIRF80E30	800	

**OUTSIDE RISER**



PART NO	WIDTH	RADIUS
LHORF15E30	150	300,450,600
LHORF20E30	200	
LHORF30E30	300	
LHORF40E30	400	
LHORF50E30	500	
LHORF60E30	600	
LHORF80E30	800	

**REDUCER**



PART NO	W1	W2	Add Information
LHSRF3015E	300	150	SR, RR, LR
LHSRF4020E	400	200	
LHSRF4030E	400	300	
LHSRF6015E	600	150	
LHSRF6030E	600	300	
LHSRF6040E	600	400	
LHSRF8040E	800	400	
LHSRF8060E	800	600	

Others dimensions, thickness are available upon special requirements

HD TYPE-H127

DESCRIPTION

MATERIAL :

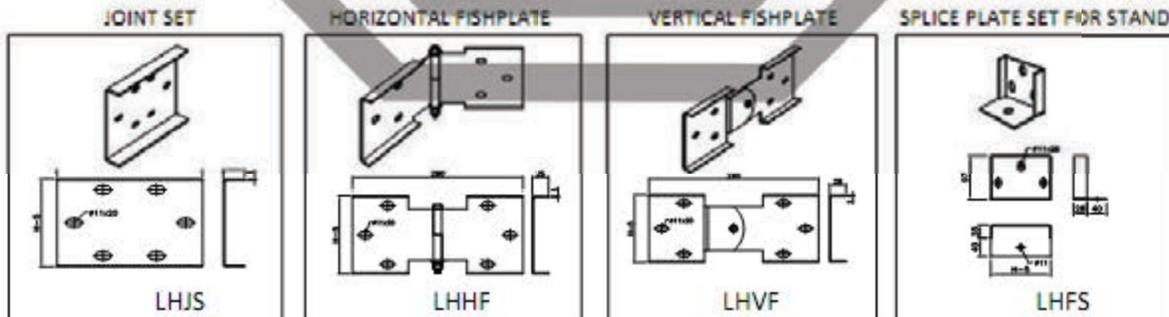
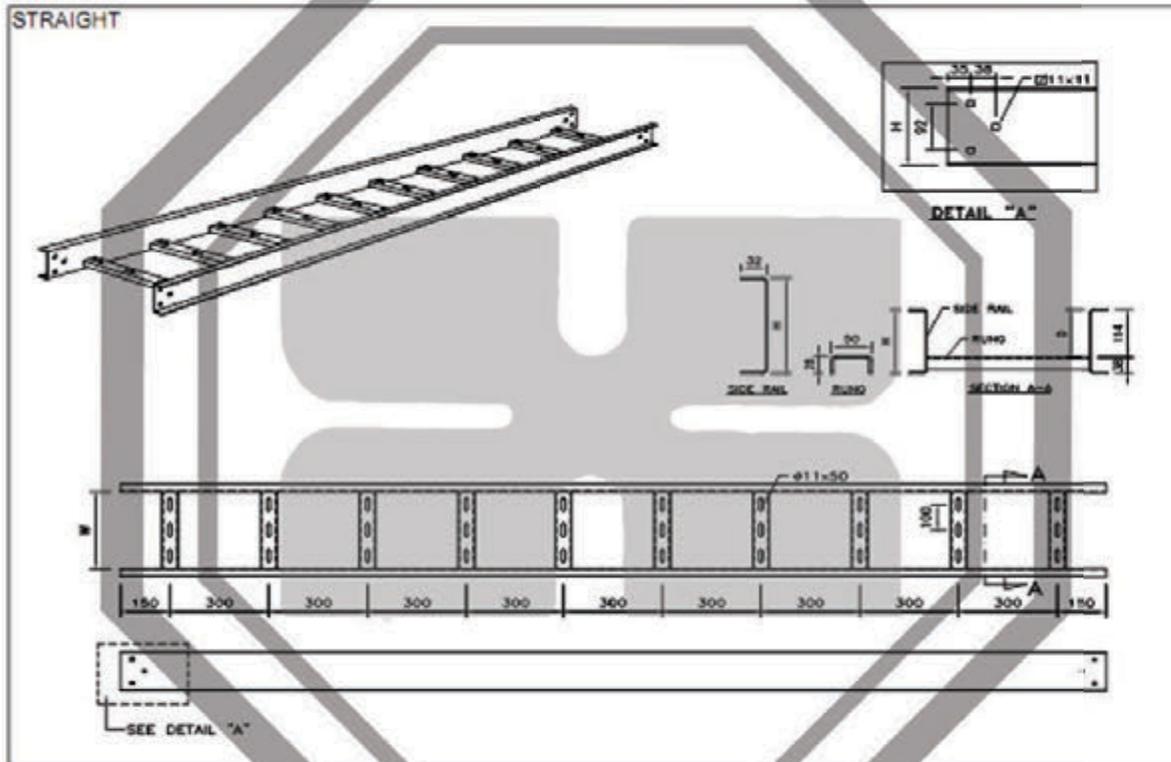
- Mill steel sheet
- Stainless steel sheet
- Aluminium sheet
- Hotdip zinc coated steel sheet

HEIGHT : 152  
 DEPTH : 114  
 LENGTH : 3000

SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm-2.0 mm

PART NO	WIDTH
LHSTF15F	150
LHSTF20F	200
LHSTF30F	300
LHSTF40F	400
LHSTF50F	500
LHSTF60F	600
LHSTF80F	800



Other dimensions thickness are available upon special requirements



PT. TRIAS INDRA SAPUTRA

" TRUST TRIAS TO FIND A BETTER WAY "

DESCRIPTION

→ MATERIAL :

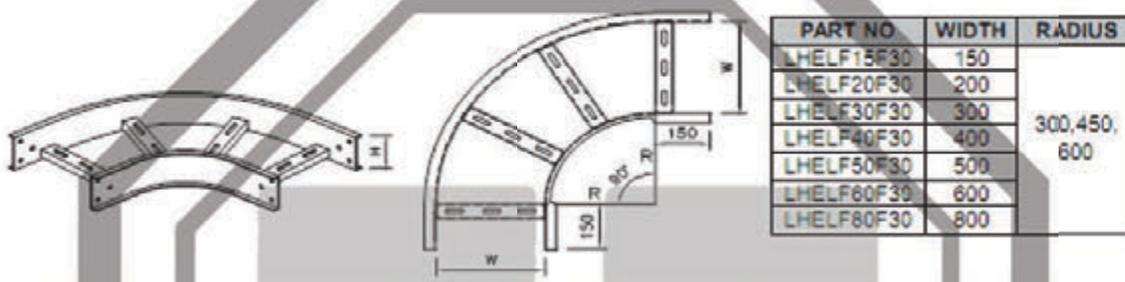
- Mill steel sheet
- Stainless steel sheet
- Aluminium sheet
- Hotdip zinc coated steel sheet

→ SURFACE TREATMENT :

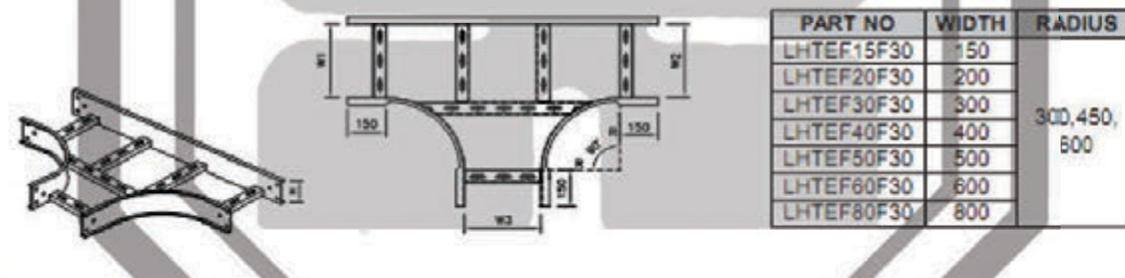
- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, Hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm-2.0 mm

HEIGHT : 152  
DEPTH : 114

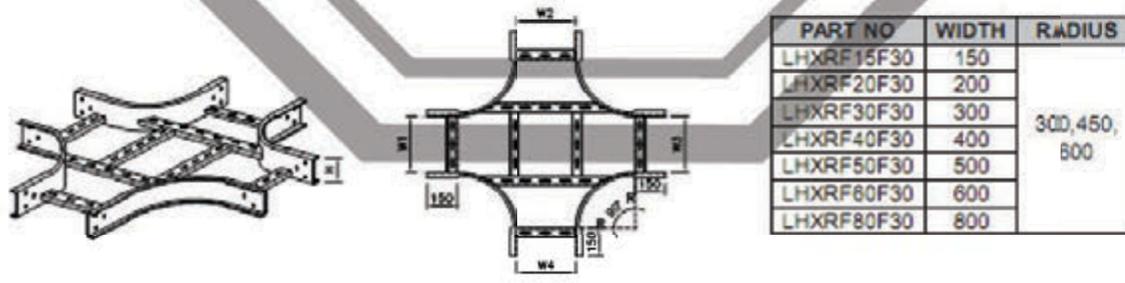
HORIZONTAL ELBOW



HORIZONTAL TEE



HORIZONTAL CROSS



Others dimensions, thickness are available upon special requirements

**DESCRIPTION**

→ **MATERIAL :**

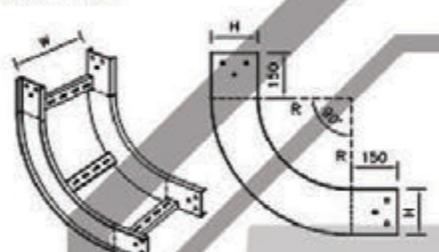
- Mill steel sheet
- Stainless steel sheet
- Aluminium sheet
- Hotdip zinc coated steel sheet

→ **SURFACE TREATMENT :**

- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm-2.0 mm

HEIGHT : 152  
DEPTH : 114

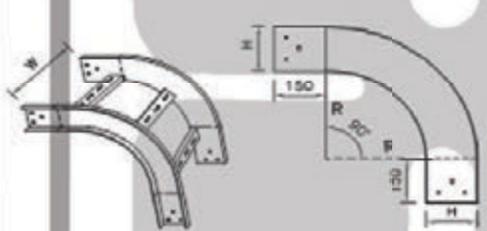
**INSIDE RISER**



PART NO	WIDTH	RADIUS
LHIRF15F30	150	300,450,600
LHIRF20F30	200	
LHIRF30F30	300	
LHIRF40F30	400	
LHIRF50F30	500	
LHIRF60F30	600	
LHIRF80F30	800	

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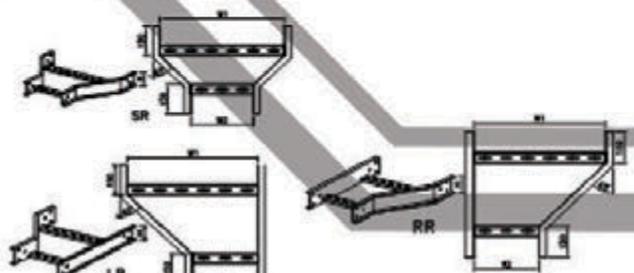
**OUTSIDE RISER**



PART NO	WIDTH	RADIUS
LHORF15F30	150	300,450,600
LHORF20F30	200	
LHORF30F30	300	
LHORF40F30	400	
LHORF50F30	500	
LHORF60F30	600	
LHORF80F30	800	

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**REDUCER**



PART NO	W1	W2	Add information
LHSRF3075F	300	150	SR, RR, LR
LHSRF4020F	400	200	
LHSRF4030F	400	300	
LHSRF6015F	600	150	
LHSRF6030F	600	300	
LHSRF6040F	600	400	
LHSRF8040F	800	400	
LHSRF8060F	800	600	

Others dimensions, thickness are available upon special requirements.



**PT. TRIAS INDRA SAPUTRA**

" TRUST TRIAS TO FIND A BETTER WAY "

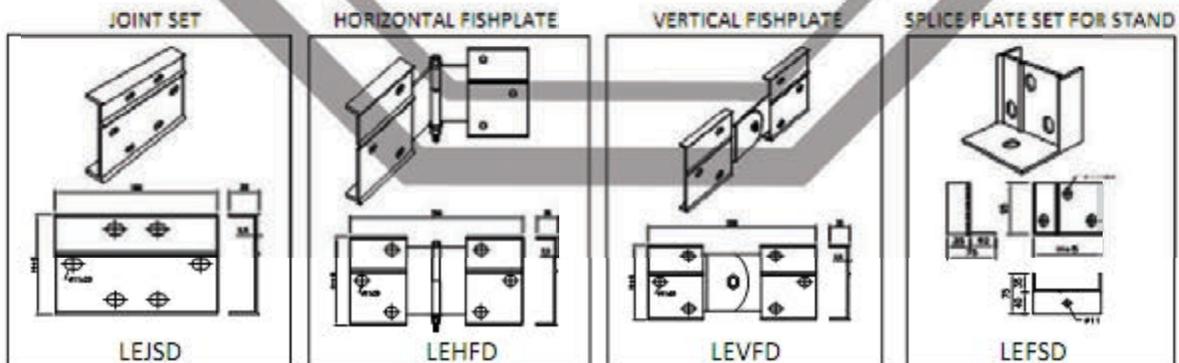
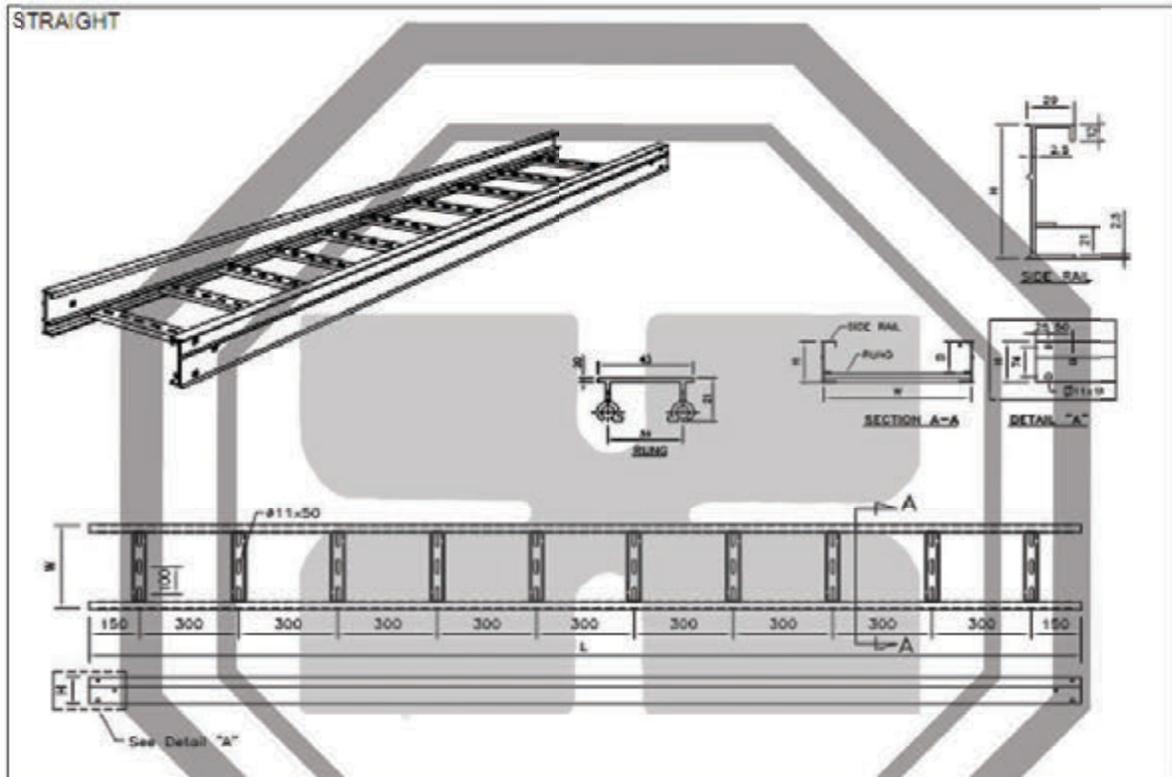
DESCRIPTION

- MATERIAL :  
Aluminium Extruded Alloy 6061/63-T6
- SURFACE TREATMENT :
  - Natural finishing
  - All bolts, nuts and washers shall be stainless steel

PART NO	WIDTH
LESTA20D	200
LESTA30D	300
LESTA40D	400
LESTA50D	500
LESTA60D	600
LESTA80D	800
LESTA90D	900
LESTA100D	1000

HEIGHT : 100  
DEPTH : 76.5  
LENGTH : 3000

AL. SIGMA TYPE-H100



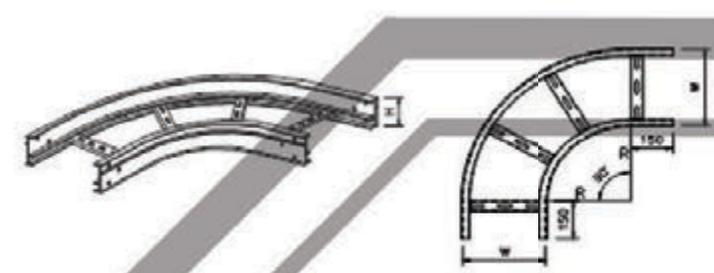
Other dimensions ( width & length ) are available upon special requirements

**DESCRIPTION**

- MATERIAL :  
Aluminium Extruded Alloy 6061/63-T6
- SURFACE TREATMENT :
  - Natural finishing
  - All bolts, nuts and washers shall be stainless steel

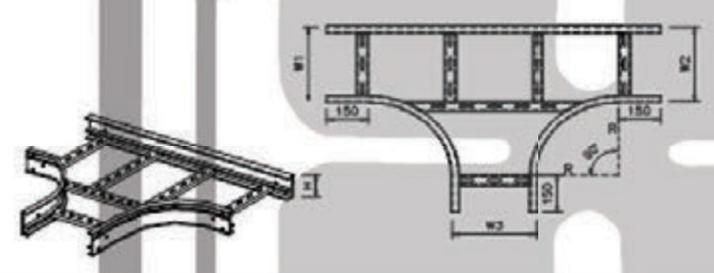
HEIGHT : 100  
DEPTH : 76.5

**HORIZONTAL ELBOW**



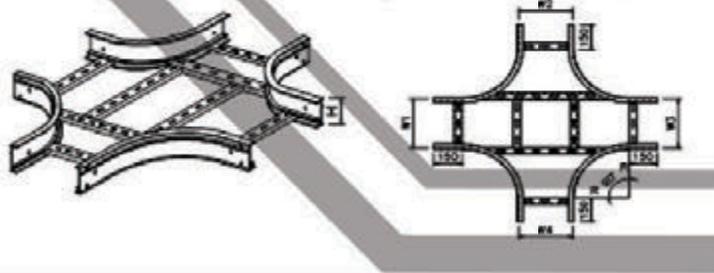
PART NO	WIDTH	RADIUS
LEELA20D30	200	300,450, 600
LEELA30D30	300	
LEELA40D30	400	
LEELA50D30	500	
LEELA60D30	600	
LEELA80D30	800	
LEELA90D30	900	
LEELA100D30	1000	

**HORIZONTAL TEE**



PART NO	WIDTH	RADIUS
LETEA20D45	200	300,450, 600
LETEA30D45	300	
LETEA40D45	400	
LETEA50D45	500	
LETEA60D45	600	
LETEA80D45	800	
LETEA90D45	900	
LETEA100D45	1000	

**HORIZONTAL CROSS**



PART NO	WIDTH	RADIUS
LEXRA20D45	200	300, 450, 600
LEXRA30D45	300	
LEXRA40D45	400	
LEXRA50D45	500	
LEXRA60D45	600	
LEXRA80D45	800	
LEXRA90D45	900	
LEXRA100D45	1000	

Other dimensions (width) are available upon special requirements

**AL SIGMA TYPE-H100**



**PT. TRIAS INDRA SAPUTRA**  
" TRUST TRIAS TO FIND A BETTER WAY "

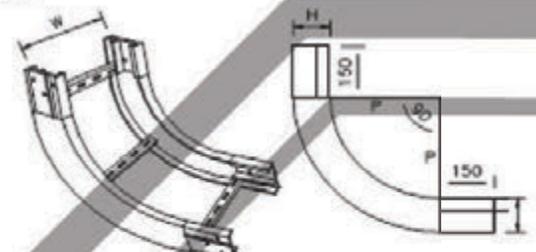
DESCRIPTION

- MATERIAL :  
Aluminium Extruded Alloy 6061/63-T6
- SURFACE TREATMENT :
  - Natural finishing
  - All bolts, nuts and washers shall be stainless steel

HEIGHT : 100  
DEPTH : 76.5

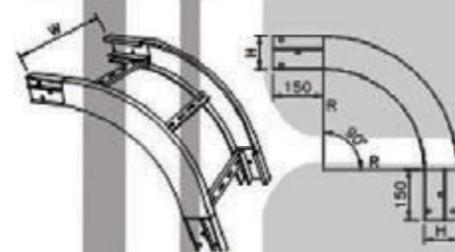
AL. SIGMA TYPE-H100

**INSIDE RISER**



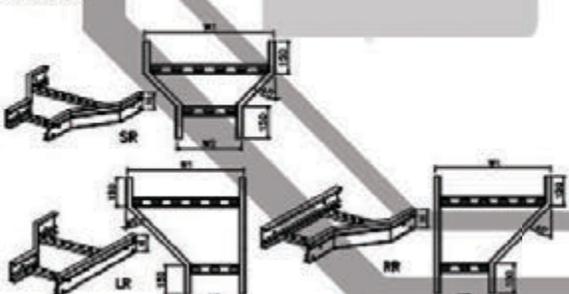
PART NO	WIDTH	RADIUS
LEIRA20D45	200	300,450,600
LEIRA30D45	300	
LEIRA40D45	400	
LEIRA50D45	500	
LEIRA60D45	600	
LEIRA80D45	800	
LEIRA90D45	900	
LEIRA100D45	1000	

**OUTSIDE RISER**



PART NO	WIDTH	RADIUS
LEORA20D45	200	300,450,600
LEORA30D45	300	
LEORA40D45	400	
LEORA50D45	500	
LEORA60D45	600	
LEORA80D45	800	
LEORA90D45	900	
LEORA100D45	1000	

**REDUCER**



PART NO	W1	W2	Add Information
LESRA4020D	400	200	SR, RR, LR
LESRA4030D	400	300	
LESRA6020D	600	200	
LESRA6030D	600	300	
LESRA6040D	600	400	
LESRA8040D	800	400	
LESRA8060D	800	600	
LESRA10060D	1000	600	

Other dimensions (width) are available upon special requirements



DESCRIPTION

- MATERIAL :  
Aluminium Extruded Alloy 6061/63-T6
- SURFACE TREATMENT :
  - Natural finishing
  - All bolts, nuts and washers shall be stainless steel

HEIGHT : 127  
DEPTH : 103

AL. SIGMA TYPE-H127

HORIZONTAL ELBOW

PART NO	WIDTH	RADIUS
LEELA20E30	200	300, 450, 600
LEELA30E30	300	
LEELA40E30	400	
LEELA50E30	500	
LEELA60E30	600	
LEELA80E30	800	
LEELA90E30	900	
LEELA100E30	1000	

HORIZONTAL TEE

PART NO	WIDTH	RADIUS
LETEA20E30	200	300, 450, 600
LETEA30E30	300	
LETEA40E30	400	
LETEA50E30	500	
LETEA60E30	600	
LETEA80E30	800	
LETEA90E30	900	
LETEA100E30	1000	

HORIZONTAL CROSS

PART NO	WIDTH	RADIUS
LEXRA20E30	200	300, 450, 600
LEXRA30E30	300	
LEXRA40E30	400	
LEXRA50E30	500	
LEXRA60E30	600	
LEXRA80E30	800	
LEXRA90E30	900	
LEXRA100E30	1000	

Other dimensions (width) are available upon special requirements

**PT. TRIAS INDRA SAPUTRA**  
" TRUST TRIAS TO FIND A BETTER WAY "

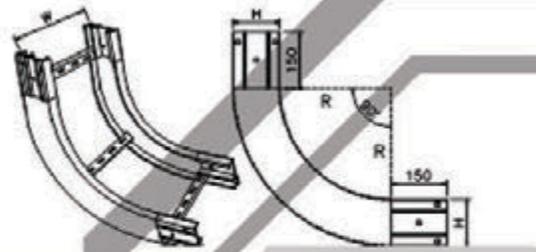


**DESCRIPTION**

- MATERIAL :  
Aluminium Extruded Alloy 6061/63-T6
- SURFACE TREATMENT :
  - Natural finishing
  - All bolts, nuts and washers shall be stainless steel

HEIGHT : 127  
DEPTH : 103

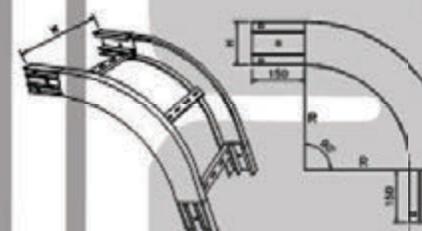
**INSIDE RISER**



PART NO	WIDTH	RADIUS
LEIRA20E30	200	300,450,600
LEIRA30E30	300	
LEIRA40E30	400	
LEIRA50E30	500	
LEIRA60E30	600	
LEIRA80E30	800	
LEIRA90E30	900	
LEIRA100E30	1000	

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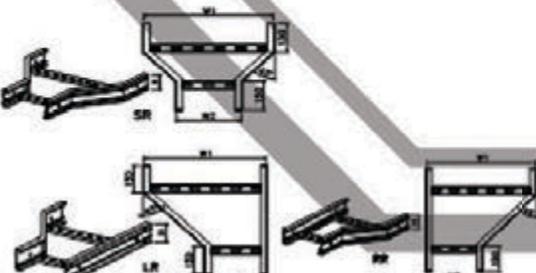
**OUTSIDE RISER**



PART NO	WIDTH	RADIUS
LEORA20E30	200	300,450,600
LEORA30E30	300	
LEORA40E30	400	
LEORA50E30	500	
LEORA60E30	600	
LEORA80E30	800	
LEORA90E30	900	
LEORA100E30	1000	

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**REDUCER**



PART NO	W1	W2	Add information
LESRA4020E	400	200	SR, RR, LR
LESRA4030E	400	300	
LESRA6030E	600	300	
LESRA6040E	600	400	
LESRA8030E	800	300	
LESRA8060E	800	600	
LESRA10080E	1000	800	

Other dimensions (width) are available upon special requirements.

**AL SIGMA TYPE-H127**



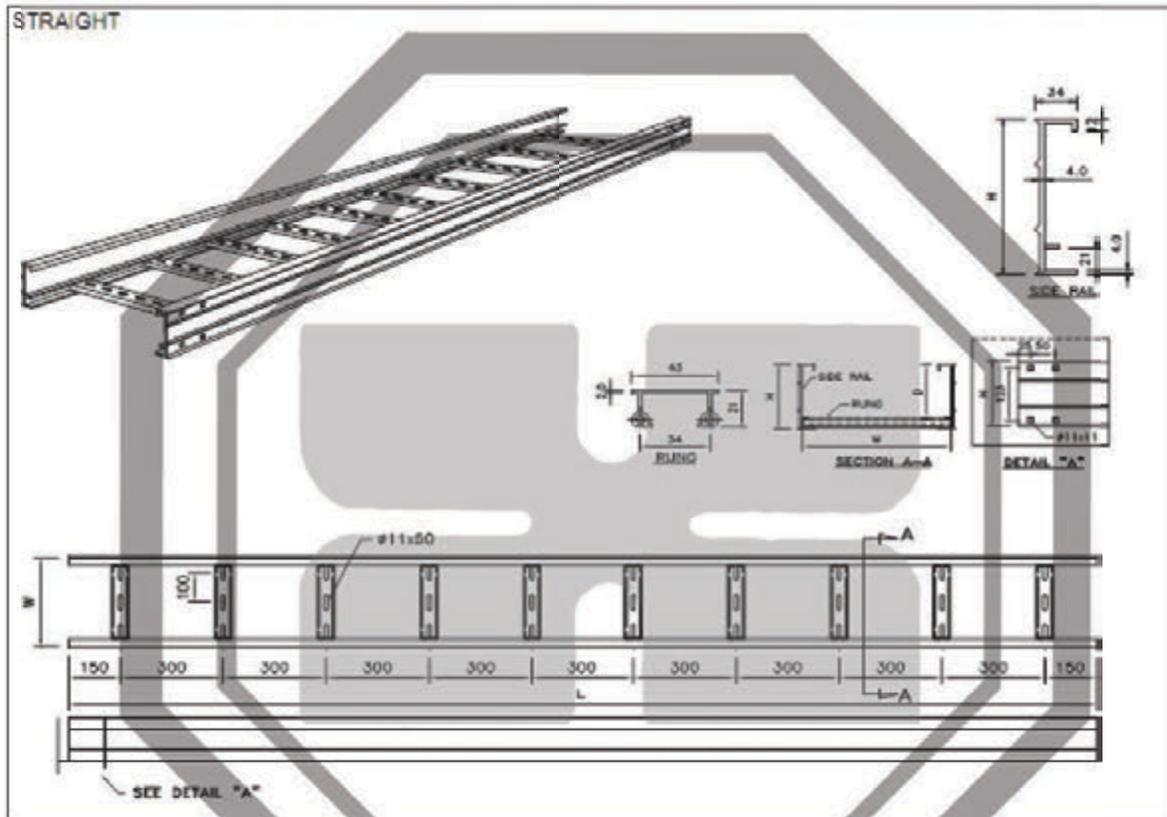
**PT. TRIAS INDRA SAPUTRA**  
" TRUST TRIAS TO FIND A BETTER WAY "

DESCRIPTION

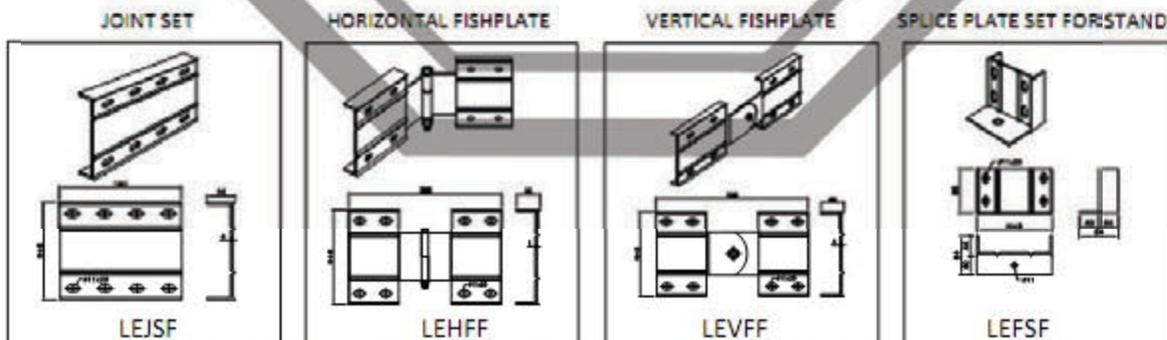
- MATERIAL :  
Aluminium Extruded Alloy 6061/63-T6
- SURFACE TREATMENT :
  - Natural finishing
  - All bolts, nuts and washers shall be stainless steel

PART NO	WIDTH
LESTA20F	200
LESTA30F	300
LESTA40F	400
LESTA50F	500
LESTA60F	600
LESTA80F	800
LESTA90F	900
LESTA100F	1000

HEIGHT : 152  
DEPTH : 128  
LENGTH : 3000



AL SIGMA TYPE-H152



Other dimensions (width & length) are available upon special requirements

**PT. TRIAS INDRA SAPUTRA**  
" TRUST TRIAS TO FIND A BETTER WAY "

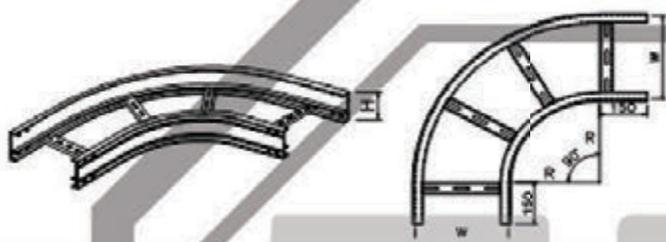


**DESCRIPTION**

- MATERIAL :  
Aluminium Extruded Alloy 6061/63-T6
- SURFACE TREATMENT :
  - Natural finishing
  - All bolts, nuts and washers shall be stainless steel

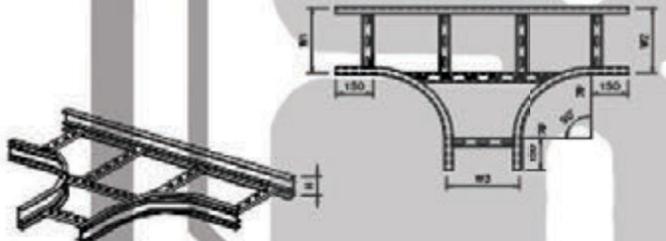
HEIGHT : 152  
DEPTH : 128

**HORIZONTAL ELBOW**



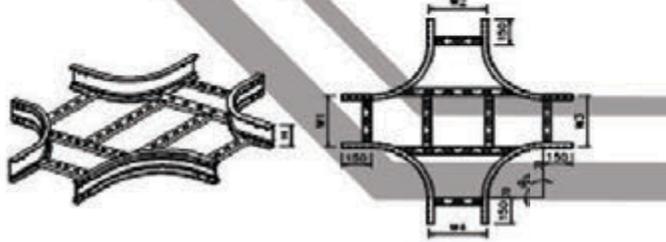
PART NO	WIDTH	RADIUS
LEELA20F30	200	300,450, 600
LEELA30F30	300	
LEELA40F30	400	
LEELA50F30	500	
LEELA60F30	600	
LEELA80F30	800	
LEELA90F30	900	
LEELA100F30	1000	

**HORIZONTAL TEE**



PART NO	WIDTH	RADIUS
LETEA20F30	200	300,450, 600
LETEA30F30	300	
LETEA40F30	400	
LETEA50F30	500	
LETEA60F30	600	
LETEA80F30	800	
LETEA90F30	900	
LETEA100F30	1000	

**HORIZONTAL CROSS**



PART NO	WIDTH	RADIUS
LEXRA20F30	200	300,450, 600
LEXRA30F30	300	
LEXRA40F30	400	
LEXRA50F30	500	
LEXRA60F30	600	
LEXRA80F30	800	
LEXRA90F30	900	
LEXRA100F30	1000	

Other dimensions (width) are available upon special requirements

AL SIGMA TYPE-H152



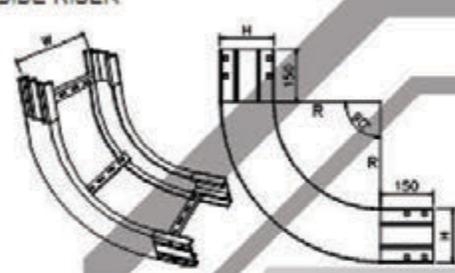
**PT. TRIAS INDRA SAPUTRA**  
" TRUST TRIAS TO FIND A BETTER WAY "

**DESCRIPTION**

- MATERIAL :  
Aluminium Extruded Alloy 6061/63-T6
- SURFACE TREATMENT :
  - Natural finishing
  - All bolts, nuts and washers shall be stainless steel

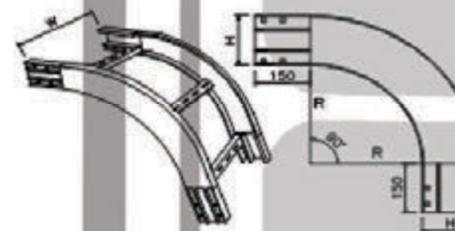
HEIGHT : 152  
DEPTH : 128

**INSIDE RISER**



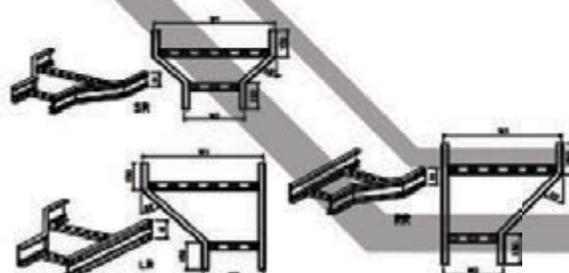
PART NO	WIDTH	RADIUS
LEIRA20F30	200	300,450,600
LEIRA30F30	300	
LEIRA40F30	400	
LEIRA50F30	500	
LEIRA60F30	600	
LEIRA80F30	800	
LEIRA90F30	900	
LEIRA100F30	1000	

**OUTSIDE RISER**



PART NO	WIDTH	RADIUS
LEORA20F30	200	300,450,600
LEORA30F30	300	
LEORA40F30	400	
LEORA50F30	500	
LEORA60F30	600	
LEORA80F30	800	
LEORA90F30	900	
LEORA100F30	1000	

**REDUCER**



PART NO	W1	W2	Add information
LESRA4020F	400	200	SR, RR, LR
LESRA4030F	400	300	
LESRA6030F	600	300	
LESRA6040F	600	400	
LESRA8030F	800	300	
LESRA8060F	800	600	
LESRA10080F	1000	800	

Other dimensions (width) are available upon special requirements.

AL SIGMA TYPE-H152

# CABLE LADDER

# STRAIGHT LADDER, JOINT SET, FISHPLATE

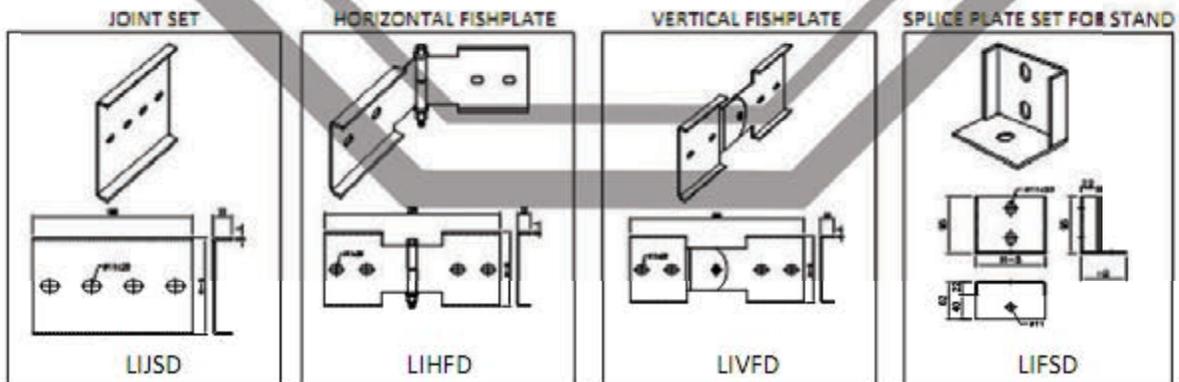
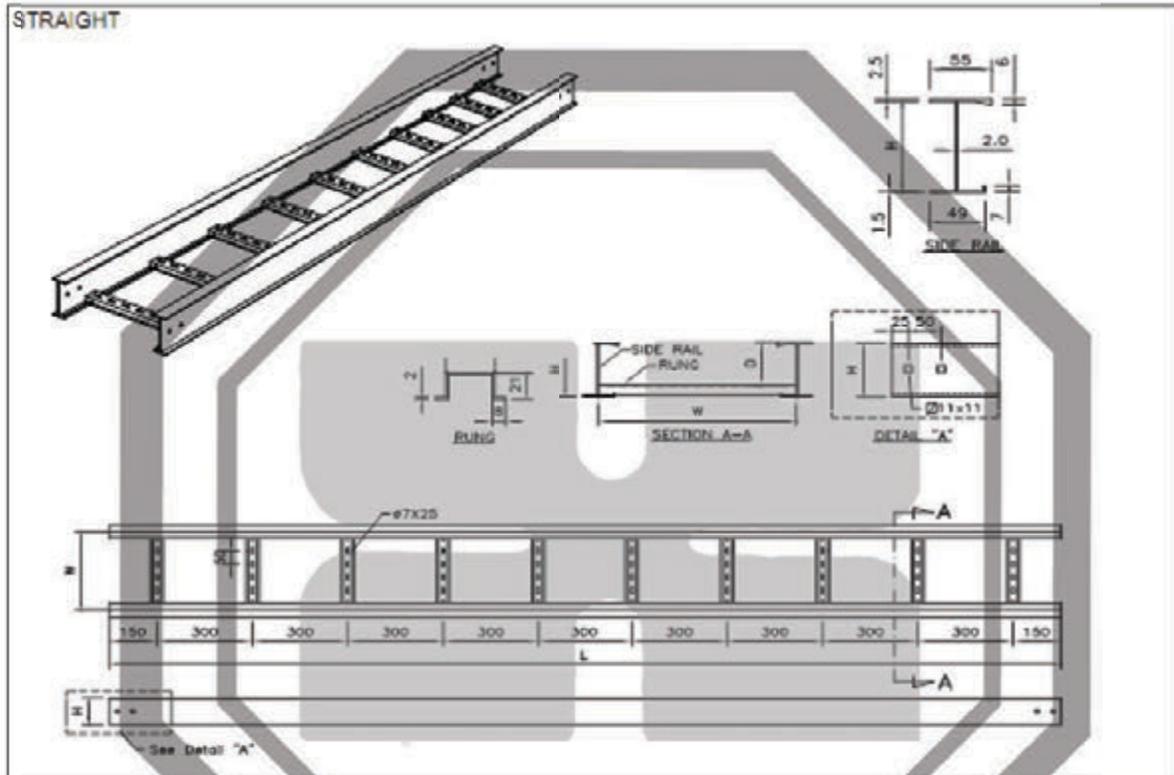
AL. I TYPE-H100

### DESCRIPTION

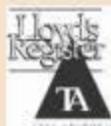
- MATERIAL :  
Aluminium Extruded Alloy 6061/63-T6
- SURFACE TREATMENT :
  - Natural finishing
  - All bolts, nuts and washers shall be stainless steel

PART NO	WIDTH
LISTA20D	200
LISTA30D	300
LISTA40D	400
LISTA50D	500
LISTA60D	600
LISTA80D	800

HEIGHT : 100  
DEPTH : 77  
LENGTH : 3000



Other dimensions, thickness are available upon special requirements.



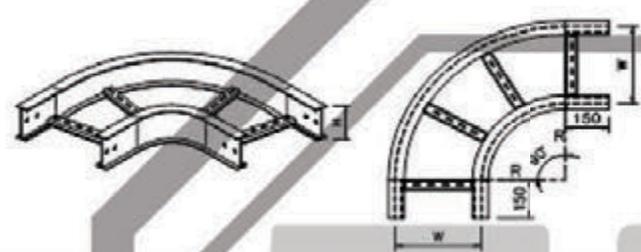
**PT. TRIAS INDRA SAPUTRA**  
" TRUST TRIAS TO FIND A BETTER WAY "

DESCRIPTION

- MATERIAL :  
Aluminium Extruded Alloy 6061/63-T6
- SURFACE TREATMENT :
  - Natural finishing
  - All bolts, nuts and washers shall be stainless steel

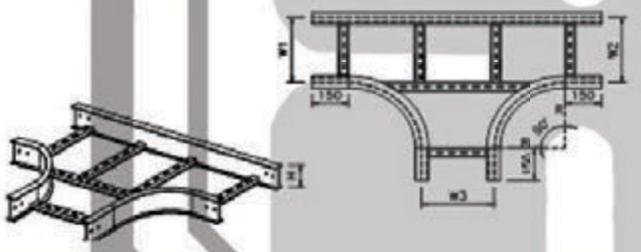
HEIGHT : 100  
DEPTH : 77

**HORIZONTAL ELBOW**



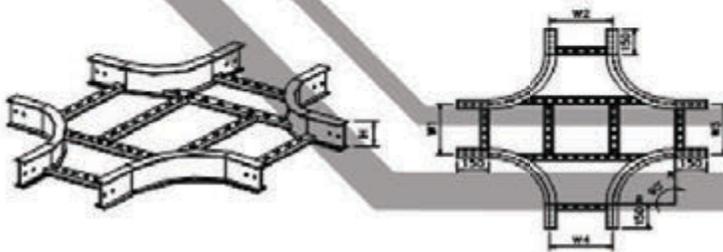
PART NO	WIDTH	RADIUS
LIELA20D30	200	300, 450, 600
LIELA30D30	300	
LIELA40D30	400	
LIELA50D30	500	
LIELA60D30	600	
LIELA80D30	800	

**HORIZONTAL TEE**



PART NO	WIDTH	RADIUS
LITEA20D30	200	300, 450, 600
LITEA30D30	300	
LITEA40D30	400	
LITEA50D30	500	
LITEA60D30	600	
LITEA80D30	800	

**HORIZONTAL CROSS**



PART NO	WIDTH	RADIUS
LIXRA20D30	200	300, 450, 600
LIXRA30D30	300	
LIXRA40D30	400	
LIXRA50D30	500	
LIXRA60D30	600	
LIXRA80D30	800	

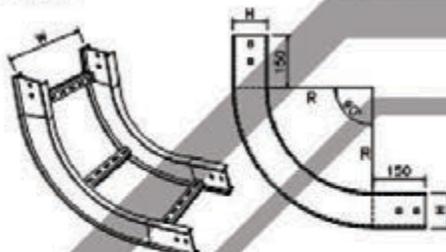
Other dimensions, thickness are available upon special requirements.

**DESCRIPTION**

- MATERIAL :  
Aluminium Extruded Alloy 6061/63-T6
- SURFACE TREATMENT :
  - Natural finishing
  - All bolts, nuts and washers shall be stainless steel

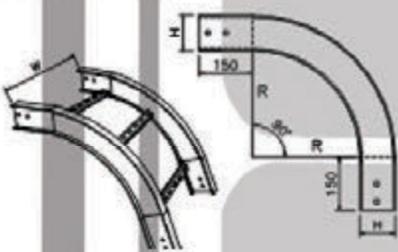
HEIGHT : 100  
DEPTH : 77

**INSIDE RISER**



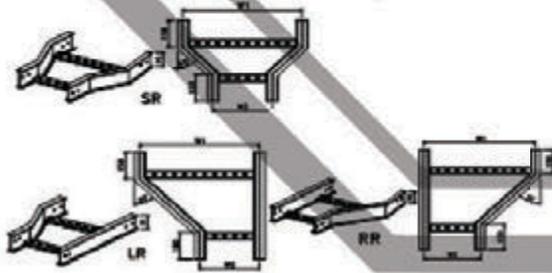
PART NO	WIDTH	RADIUS
LIIRA20D30	200	300,450,600
LIIRA30D30	300	
LIIRA40D30	400	
LIIRA50D30	500	
LIIRA60D30	600	
LIIRA80D30	800	

**OUTSIDE RISER**



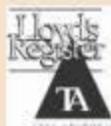
PART NO	WIDTH	RADIUS
LIORA20D30	200	300,450,600
LIORA30D30	300	
LIORA40D30	400	
LIORA50D30	500	
LIORA60D30	600	
LIORA80D30	800	

**REDUCER**



PART NO	W1	W2	Add information
LISRA4020D	400	200	SR, RR, LR
LISRA4030D	400	300	
LISRA6015D	600	150	
LISRA6030D	600	300	
LISRA6040D	600	400	
LISRA8030D	800	300	
LISRA8060D	800	800	

Other dimensions, thickness are available upon special requirements



**PT. TRIAS INDRA SAPUTRA**  
" TRUST TRIAS TO FIND A BETTER WAY "

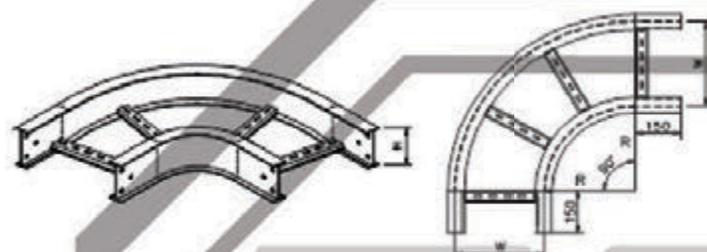


DESCRIPTION

- MATERIAL :  
Aluminium Extruded Alloy 6061/63-T6
- SURFACE TREATMENT :
  - Natural finishing
  - All bolts, nuts and washers shall be stainless steel

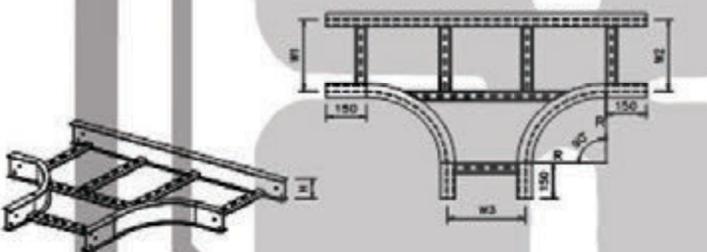
HEIGHT : 127  
DEPTH : 104

**HORIZONTAL ELBOW**



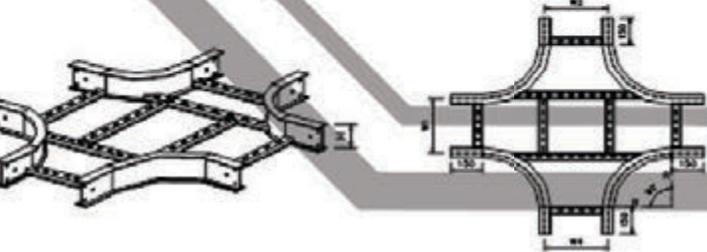
PART NO	WIDTH	RADIUS
LIELA20E30	200	300,450, 600,900
LIELA30E30	300	
LIELA40E30	400	
LIELA50E30	500	
LIELA60E30	600	
LIELA80E30	800	

**HORIZONTAL TEE**



PART NO	WIDTH	RADIUS
LITEA20E30	200	300,450, 600,900
LITEA30E30	300	
LITEA40E30	400	
LITEA50E30	500	
LITEA60E30	600	
LITEA80E30	800	

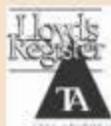
**HORIZONTAL CROSS**



PART NO	WIDTH	RADIUS
LIXRA20E30	200	300,450, 600,900
LIXRA30E30	300	
LIXRA40E30	400	
LIXRA50E30	500	
LIXRA60E30	600	
LIXRA80E30	800	

Other dimensions, thickness are available upon special requirements

AL.I TYPE-H127



**PT. TRIAS INDRA SAPUTRA**

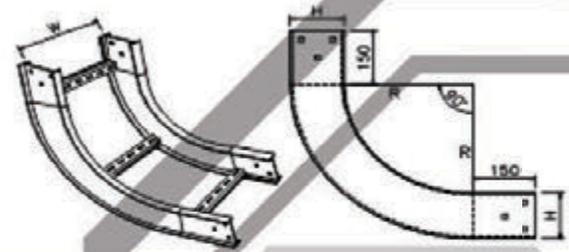
" TRUST TRIAS TO FIND A BETTER WAY "

**DESCRIPTION**

- MATERIAL :  
Aluminium Extruded Alloy 6061/63-T6
- SURFACE TREATMENT :
  - Natural finishing
  - All bolts, nuts and washers shall be stainless steel

HEIGHT : 127  
DEPTH : 104

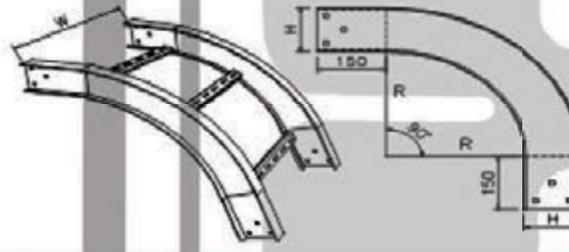
**INSIDE RISER**



PART NO	WIDTH	RADIUS
LIIRA20E30	200	300,450,600,900
LIIRA30E30	300	
LIIRA40E30	400	
LIIRA50E30	500	
LIIRA80E30	600	
LIIRA80E30	800	

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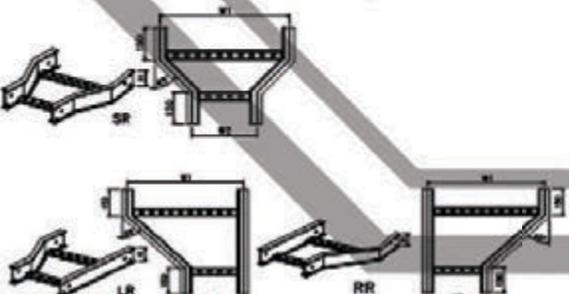
**OUTSIDE RISER**



PART NO	WIDTH	RADIUS
LIORA20E30	200	300,450,600,900
LIORA30E30	300	
LIORA40E30	400	
LIORA50E30	500	
LIORA80E30	600	
LIORA80E30	800	

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**REDUCER**



PART NO	W1	W2	Add Information
LISRA4020E	400	200	SR, RR, LR
LISRA4030E	400	300	
LISRA6015E	600	150	
LISRA6030E	600	300	
LISRA6040E	600	400	
LISRA8030E	800	300	
LISRA8060E	800	800	

Other dimensions, thickness are available upon special requirements

# CABLE LADDER

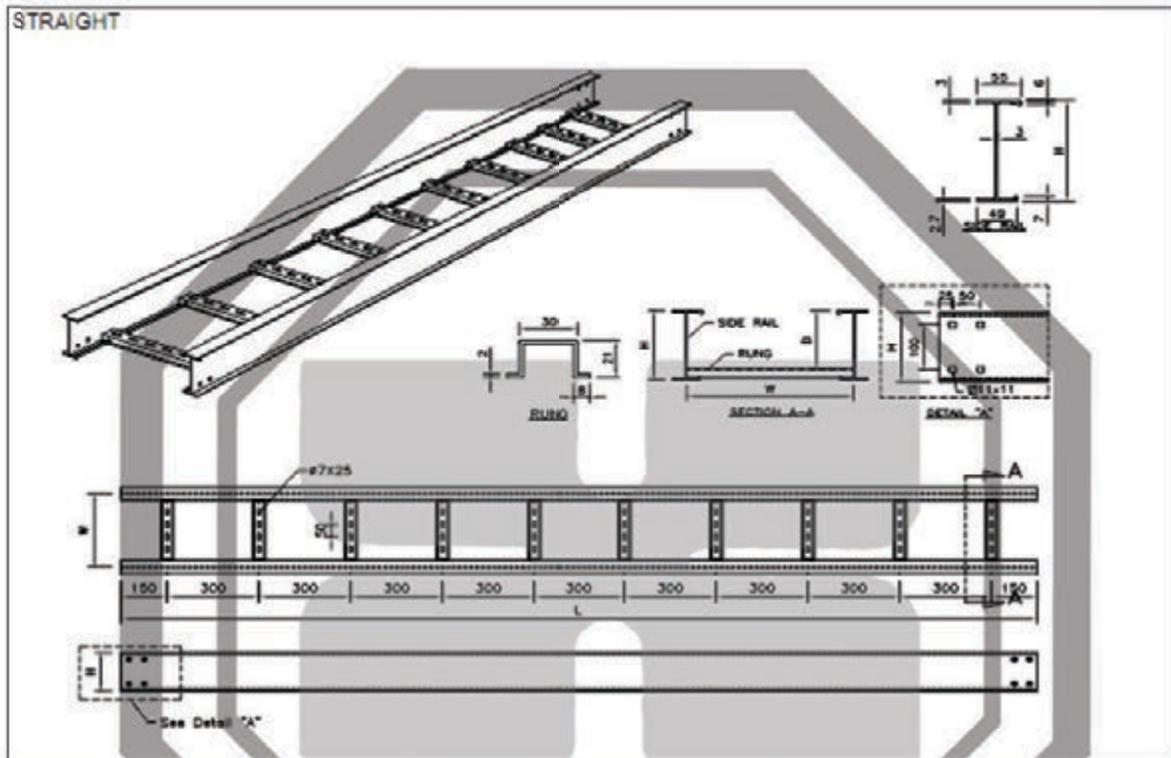
# STRAIGHT LADDER, JOINT SET, FISHPLATE

### DESCRIPTION

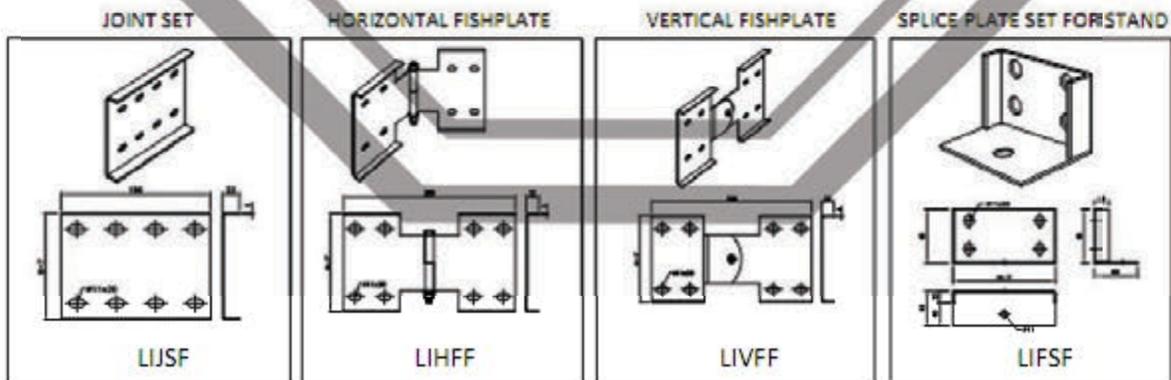
- MATERIAL :  
Aluminium Extruded Alloy 6061/63-T6
- SURFACE TREATMENT :
  - Natural finishing
  - All bolts, nuts and washers shall be stainless steel

PART NO	WIDTH
LESTA20F	200
LESTA30F	300
LESTA40F	400
LESTA50F	500
LESTA60F	600
LESTA80F	800

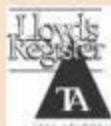
HEIGHT : 152  
DEPTH : 128  
LENGTH : 3000



AL. I TYPE-H152



Other dimensions, thickness are available upon special requirements



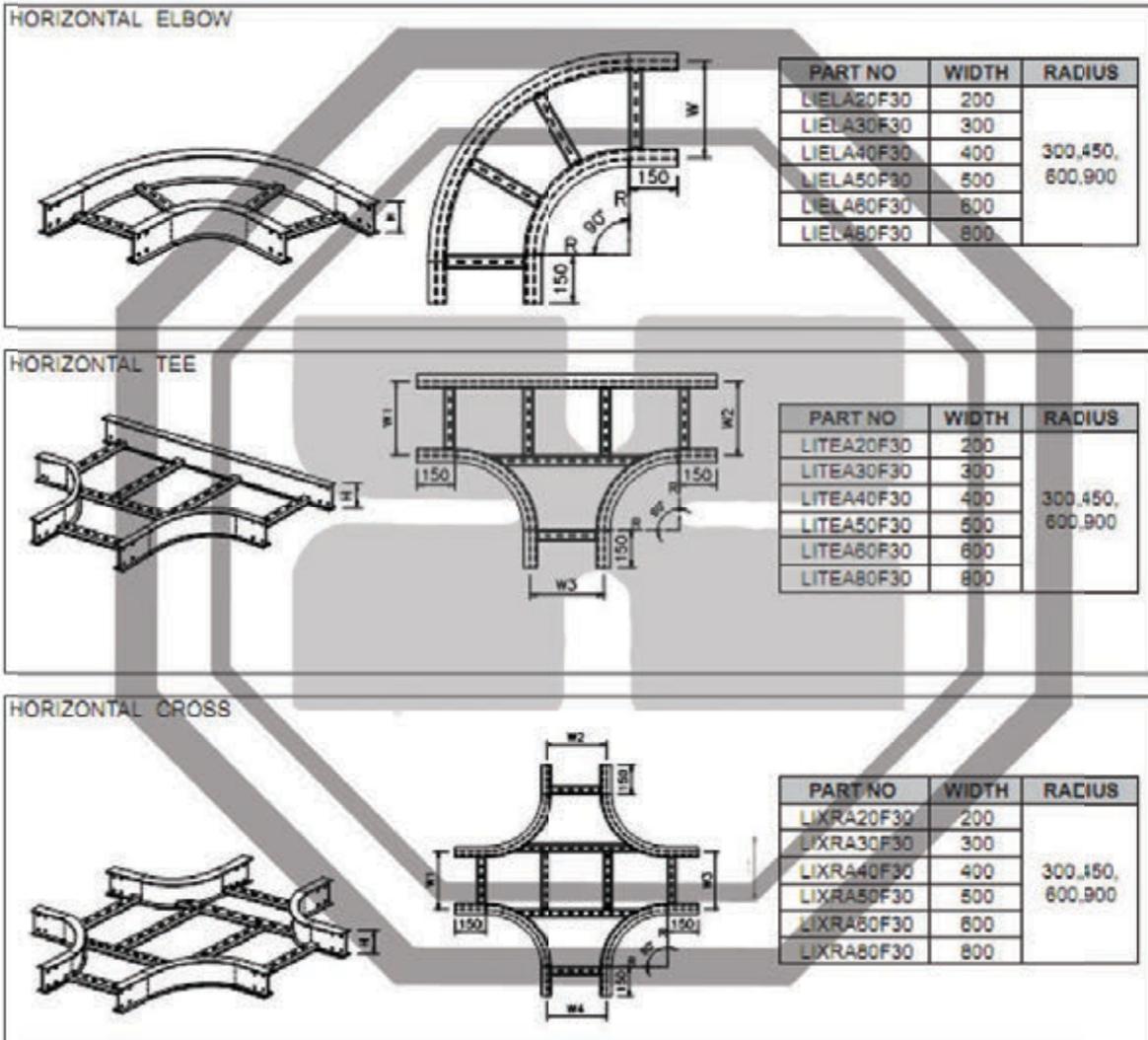
**PT. TRIAS INDRA SAPUTRA**

" TRUST TRIAS TO FIND A BETTER WAY "

DESCRIPTION

- MATERIAL :  
Aluminium Extruded Alloy 6061/63-T6
- SURFACE TREATMENT :
  - Natural finishing
  - All bolts, nuts and washers shall be stainless steel

HEIGHT : 152  
DEPTH : 128



Other dimensions, thickness are available upon special requirements

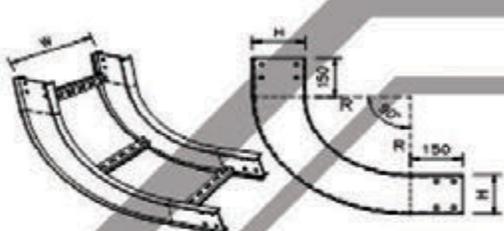
AL. I TYPE-H152

DESCRIPTION

- MATERIAL :  
Aluminium Extruded Alloy 6061/63-T6
- SURFACE TREATMENT :
  - Natural finishing
  - All bolts, nuts and washers shall be stainless steel

HEIGHT : 152  
DEPTH : 128

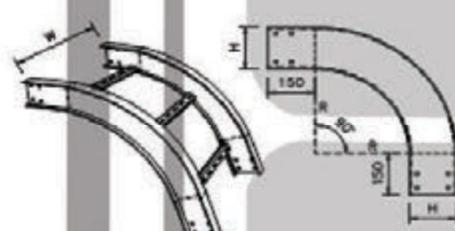
**INSIDE RISER**



PART NO	WIDTH	RADIUS
LIIRA20F30	200	300,450,600,900
LIIRA30F30	300	
LIIRA40F30	400	
LIIRA50F30	500	
LIIRA60F30	600	
LIIRA80F30	800	

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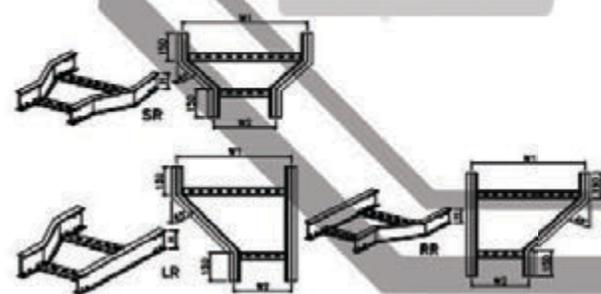
**OUTSIDE RISER**



PART NO	WIDTH	Add Information
LIORA20F30	200	300,450,600,900
LIORA30F30	300	
LIORA40F30	400	
LIORA50F30	500	
LIORA60F30	600	
LIORA80F30	800	

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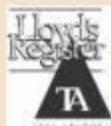
**REDUCER**



PART NO	W1	W2	Add Information
LISRA4020F	400	200	SR, RR, LR
LISRA4030F	400	300	
LISRA6015F	600	150	
LISRA6030F	600	300	
LISRA6040F	600	400	
LISRA8030F	800	300	
LISRA8060F	800	600	

Other dimensions, thickness are available upon special requirements

AL.I TYPE-H152



**PT. TRIAS INDRA SAPUTRA**  
" TRUST TRIAS TO FIND A BETTER WAY "

DESCRIPTION

→ MATERIAL :

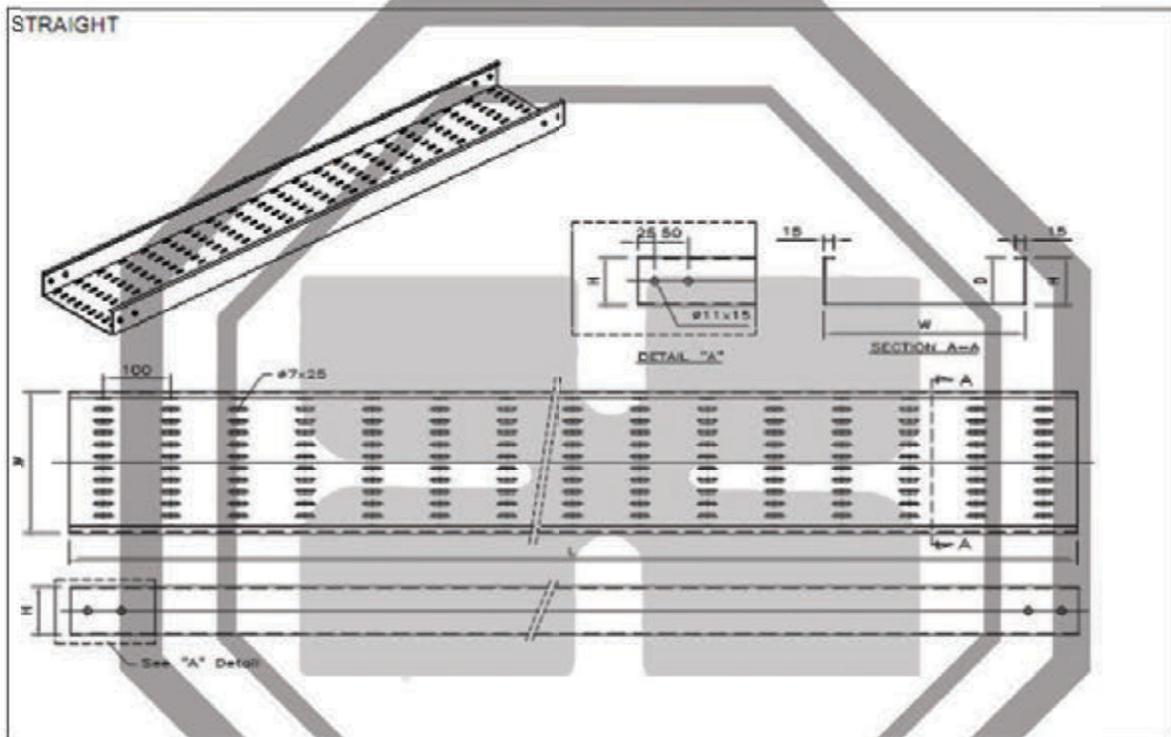
- Mill steel sheet
- Stainless steel sheet
- Aluminium sheet
- Hotdip zinc coated steel sheet

→ HEIGHT : 100  
 DEPTH : 98  
 LENGTH : 3000

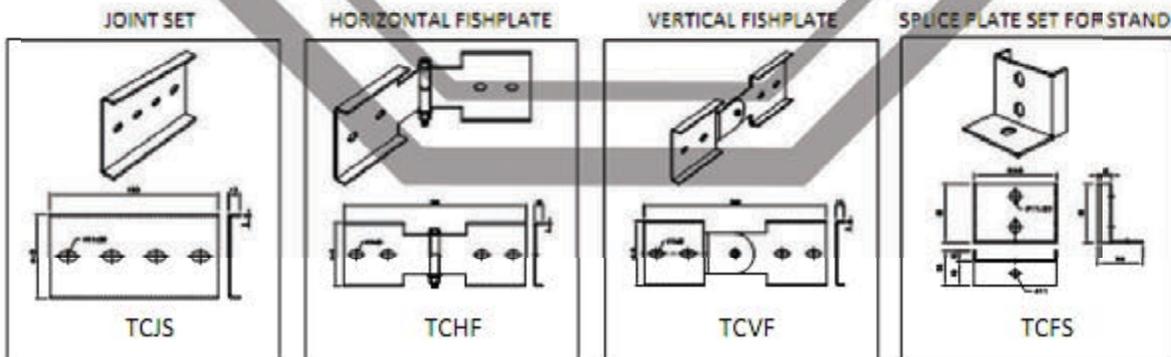
SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, Hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm - 2.0 mm

PART NO	WIDTH
TCSTF15D	150
TCSTF20D	200
TCSTF30D	300
TCSTF40D	400
TCSTF50D	500
TCSTF60D	600



C-TYPE



Other dimensions thickness are available upon special requirements

**PT. TRIAS INDRA SAPUTRA**

" TRUST TRIAS TO FIND A BETTER WAY "



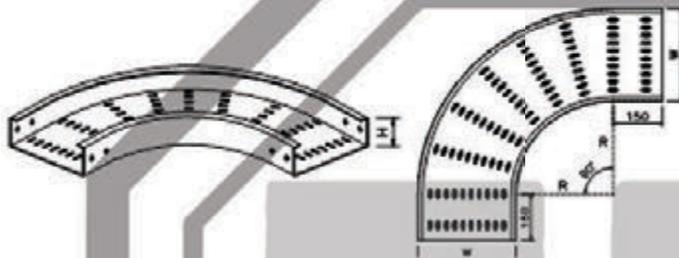
DESCRIPTION

- MATERIAL :
- Mill steel sheet
  - Stainless steel sheet
  - Aluminium sheet
  - Hotdip zinc coated steel sheet

- SURFACE TREATMENT :
- Natural finishing
  - Hotdip galvanized finishing
  - Powder Coating.
  - All bolts, nuts and washers can use stainless steel, Hotdip galvanized finishing or electro galvanized finishing.
  - Standard thickness 1.6 mm - 2.0 mm

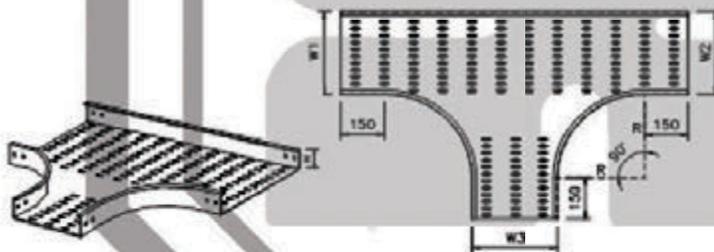
HEIGHT : 100  
DEPTH : 98

HORIZONTAL ELBOW



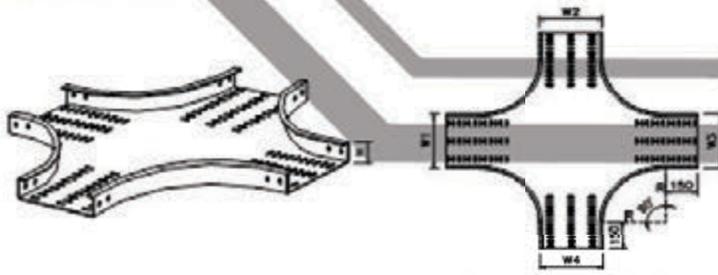
PART NO	WIDTH	RADIUS
TSELF15D30	150	300,450, 600
TSELF20D30	200	
TSELF30D30	300	
TSELF40D30	400	
TSELF50D30	500	
TSELF60D30	600	

HORIZONTAL TEE



PART NO	WIDTH	RADIUS
TCTEF15D30	150	300,450, 600
TCTEF20D30	200	
TCTEF30D30	300	
TCTEF40D30	400	
TCTEF50D30	500	
TCTEF60D30	600	

HORIZONTAL CROSS



PART NO	WIDTH	RADIUS
TCXRF15D30	150	300,450, 600
TCXRF20D30	200	
TCXRF30D30	300	
TCXRF40D30	400	
TCXRF50D30	500	
TCXRF60D30	600	

Others dimensions, thickness are available upon special requirements

C-TYPE



PT. TRIAS INDRA SAPUTRA

" TRUST TRIAS TO FIND A BETTER WAY "

DESCRIPTION

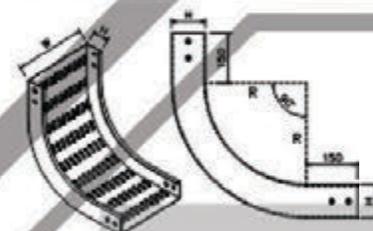
→ MATERIAL :

- Mill steel sheet
- Stainless steel sheet
- Aluminium sheet
- Hotdip zinc coated steel sheet

→ SURFACE TREATMENT :

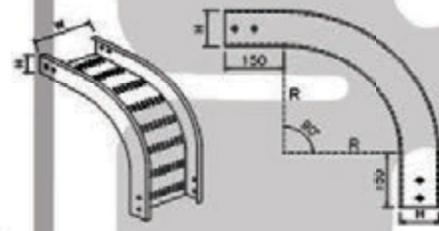
- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, Hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm - 2.0 mm

HEIGHT : 100  
DEPTH : 98



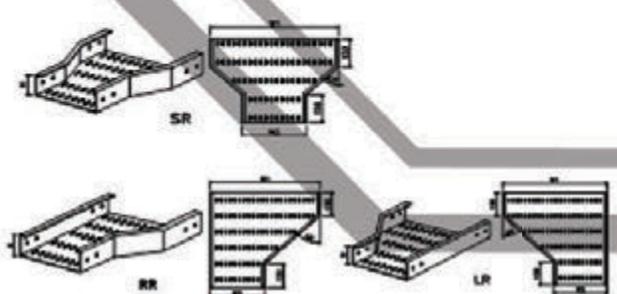
PART NO	WIDTH	RADIUS
TCIRF15D30	150	300,450,600
TCIRF20D30	200	
TCIRF30D30	300	
TCIRF40D30	400	
TCIRF50D30	500	
TCIRF60D30	600	

INSIDE RISER



PART NO	WIDTH	RADIUS
TCORF15D30	150	300,450,600
TCORF20D30	200	
TCORF30D30	300	
TCORF40D30	400	
TCORF50D30	500	
TCORF60D30	600	

OUTSIDE RISER



PART NO	W1	W2	Add Information
TCSR3015D	300	150	SR, RR, LR
TCSR4020D	400	200	
TCSR4030D	400	300	
TCSR6015D	600	150	
TCSR6030D	600	300	
TCSR6040D	600	400	

REDUCER

Others dimensions, thickness are available upon special requirements.

C-TYPE

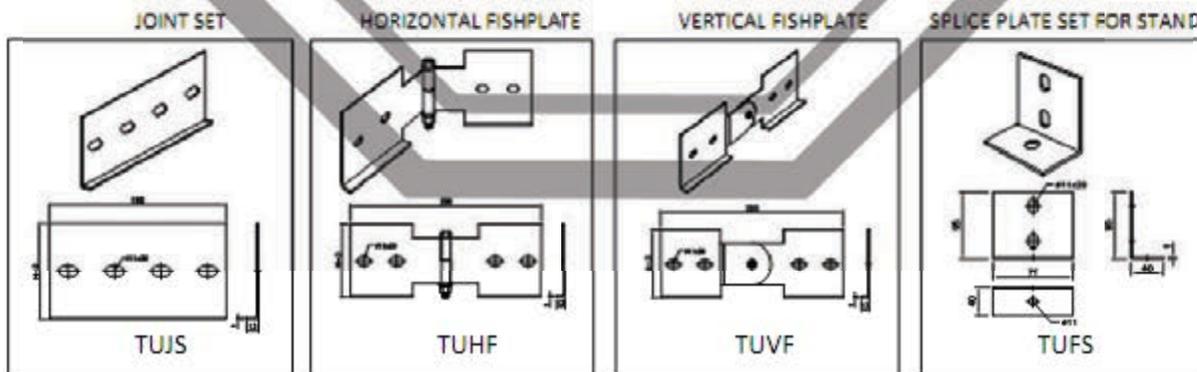
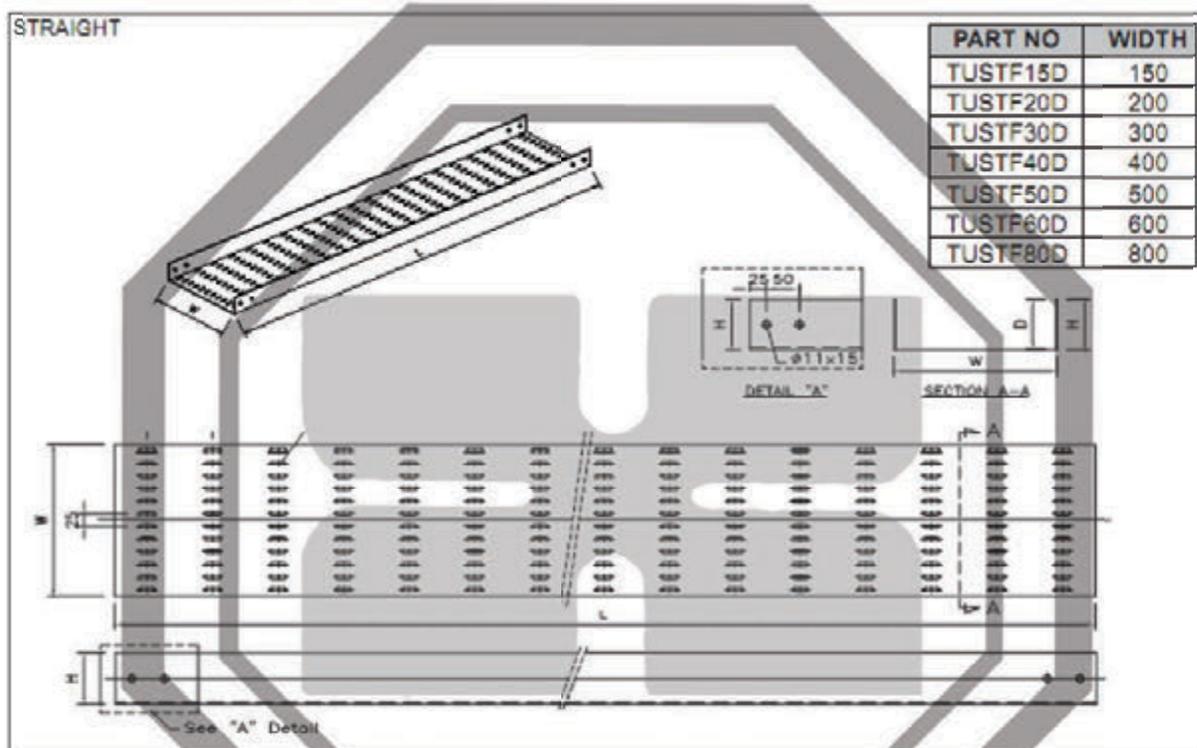
DESCRIPTION

- MATERIAL :  
 Mill steel sheet  
 Stainless steel sheet  
 Aluminium sheet  
 Hotdip zinc coated steel sheet

- HEIGHT : 100  
 DEPTH : 98  
 LENGTH : 3000

SURFACE TREATMENT :

- Natural finishing  
 Hotdip galvanized finishing  
 Powder Coating.
- All bolts, nuts and washers can use stainless steel, hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm - 2.0 mm.



Other dimensions, thickness are available upon special requirements



**PT. TRIAS INDRA SAPUTRA**

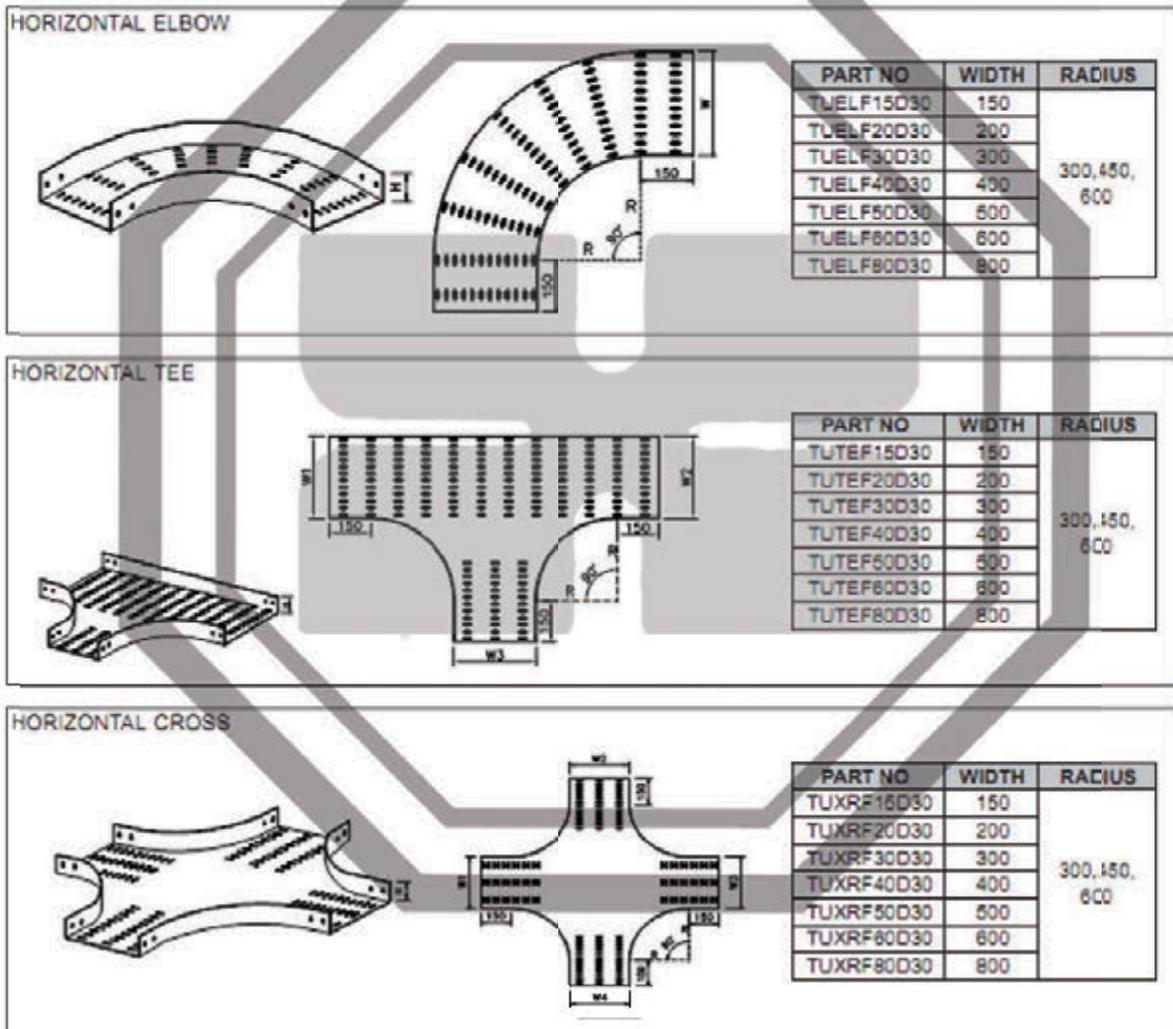
" TRUST TRIAS TO FIND A BETTER WAY "

DESCRIPTION

- MATERIAL :
- Mill steel sheet
  - Stainless steel sheet
  - Aluminium sheet
  - Hotdip zinc coated steel sheet

- SURFACE TREATMENT :
- Natural finishing
  - Hotdip galvanized finishing
  - Powder Coating.
  - All bolts, nuts and washers can use stainless steel, hotdip galvanized finishing or electro galvanized finishing.
  - Standard thickness 1.6 mm - 2.0 mm

HEIGHT : 100  
DEPTH : 98



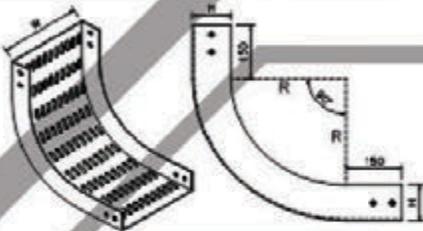
Other dimensions, thickness are available upon special requirements

DESCRIPTION

- MATERIAL :
- Mill steel sheet
  - Stainless steel sheet
  - Aluminium sheet
  - Hotdip zinc coated steel sheet

- SURFACE TREATMENT :
- Natural finishing
  - Hotdip galvanized finishing
  - Powder Coating.
  - All bolts, nuts and washers can use stainless steel, hotdip galvanized finishing or electro galvanized finishing.
  - Standard thickness 1.6 mm - 2.0 mm

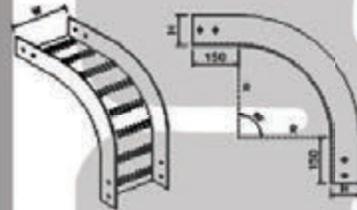
HEIGHT : 100  
DEPTH : 98



INSIDE RISER

PART NO	WIDTH	RADIUS
TUIRF15D30	150	300,450,600
TUIRF20D30	200	
TUIRF30D30	300	
TUIRF40D30	400	
TUIRF50D30	500	
TUIRF60D30	600	

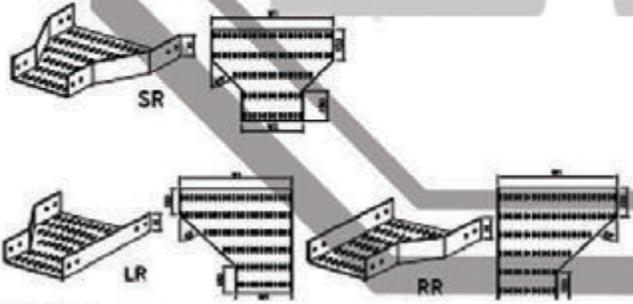
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OUTSIDE RISER

PART NO	WIDTH	RADIUS
TUORF15D30	150	300,450,600
TUORF20D30	200	
TUORF30D30	300	
TUORF40D30	400	
TUORF50D30	500	
TUORF60D30	600	

---



REDUCER

PART NO	W1	W2	Add Information
TUSRF3015D	300	150	SR, RR, LR
TUSRF4020D	400	200	
TUSRF4030D	400	300	
TUSRF6015D	600	150	
TUSRF6030D	600	300	
TUSRF6040D	600	400	

Other dimensions, thickness are available upon special requirements



**PT. TRIAS INDRA SAPUTRA**

" TRUST TRIAS TO FIND A BETTER WAY "

## PERFORATED TRAY

## STRAIGHT TRAY, JOINT SET, FISHPLATE

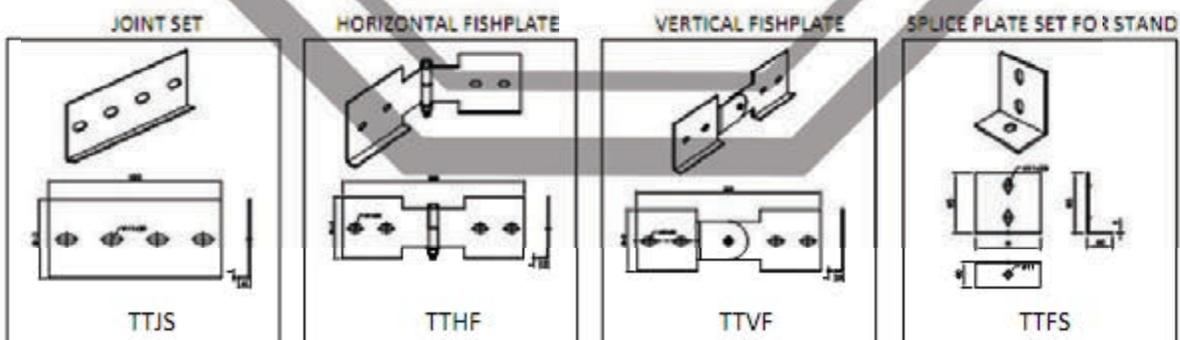
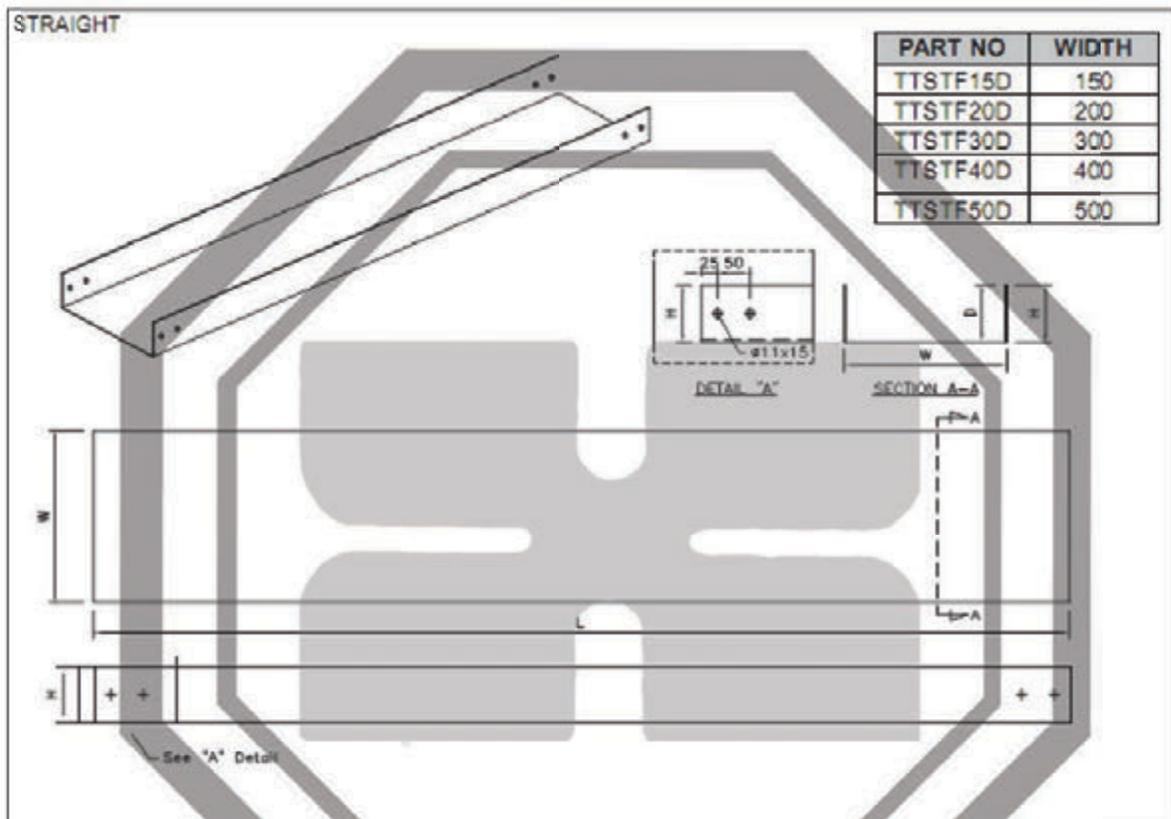
### DESCRIPTION

- MATERIAL :
  - Mill steel sheet
  - Stainless steel sheet
  - Aluminium sheet
  - Hotdip zinc coated steel sheet
- HEIGHT : 100
- DEPTH : 98
- LENGTH : 3000

### SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm - 2.0 mm

TRUNKING "U" TYPE  
SOLID BOTTOM



Other dimensions, thickness are available upon special requirements

**PT. TRIAS INDRA SAPUTRA**

" TRUST TRIAS TO FIND A BETTER WAY "

DESCRIPTION

- MATERIAL :
- Mill steel sheet
  - Stainless steel sheet
  - Aluminium sheet
  - Hotdip zinc coated steel sheet

- SURFACE TREATMENT :
- Natural finishing
  - Hotdip galvanized finishing
  - Powder Coating.
  - All bolts, nuts and washers can use stainless steel, hotdip galvanized finishing or electro galvanized finishing.
  - Standard thickness 1.6 mm - 2.0 mm

HEIGHT : 100  
DEPTH : 98

**HORIZONTAL ELBOW**

PART NO	WIDTH	RADIUS
TTELF15D30	150	300, 450, 600
TTELF20D30	200	
TTELF30D30	300	
TTELF40D30	400	
TTELF50D30	500	

**HORIZONTAL TEE**

PART NO	WIDTH	RADIUS
TTTEF15D30	150	300, 450, 600
TTTEF20D30	200	
TTTEF30D30	300	
TTTEF40D30	400	
TTTEF50D30	500	

**HORIZONTAL CROSS**

PART NO	WIDTH	RADIUS
TTXRF15D30	150	300, 450, 600
TTXRF20D30	200	
TTXRF30D30	300	
TTXRF40D30	400	
TTXRF50D30	500	

Other dimensions, thickness are available upon special requirements

TRUNKING "U" TYPE  
SOLID BOTTOM



**PT. TRIAS INDRA SAPUTRA**

" TRUST TRIAS TO FIND A BETTER WAY "

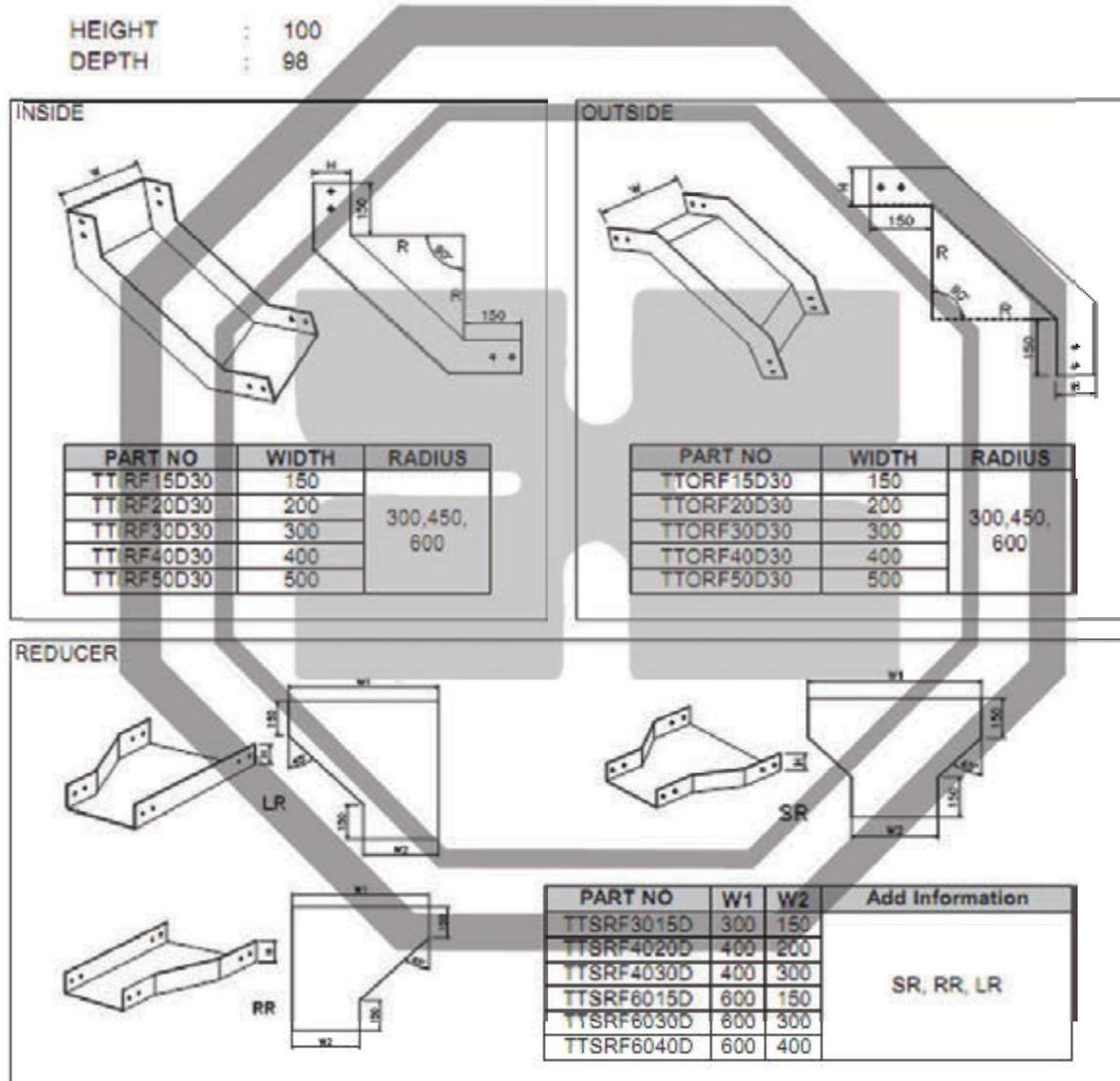
DESCRIPTION

- MATERIAL :
- Mill steel sheet
  - Stainless steel sheet
  - Aluminium sheet
  - Hotdip zinc coated steel sheet

→ SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm - 2.0 mm

TRUNKING "U" TYPE  
SOLID BOTTOM



Other dimensions, thickness are available upon special requirements.

DESCRIPTION

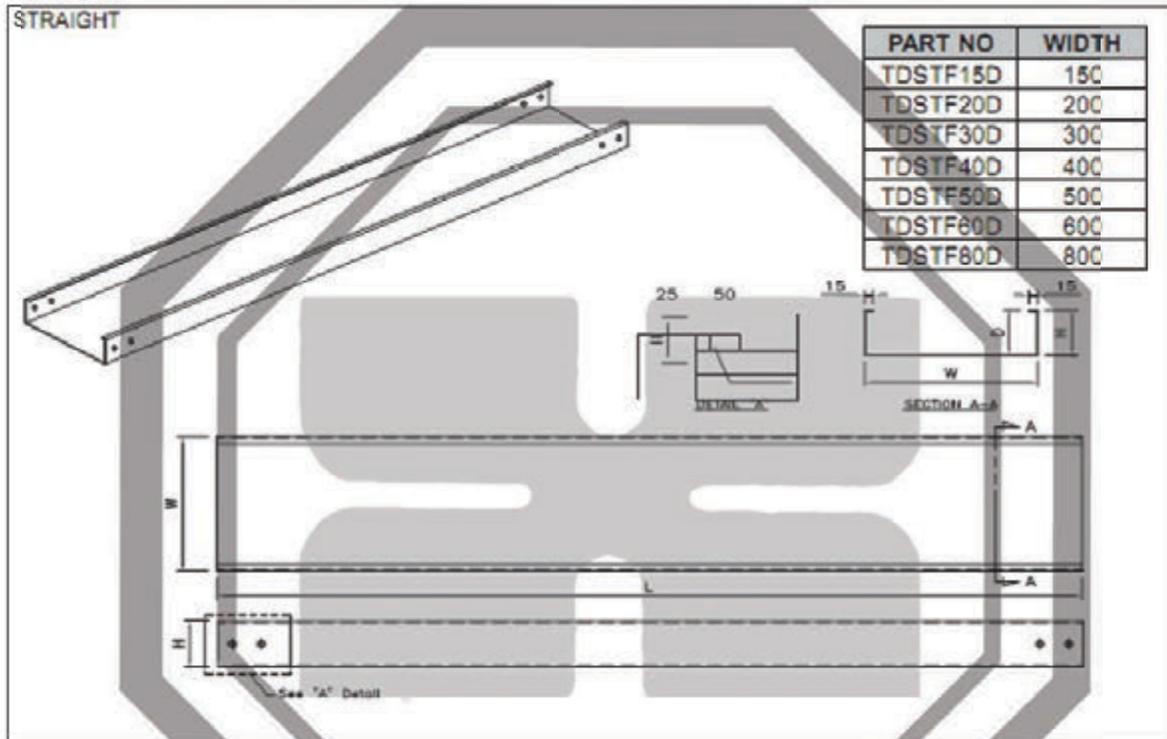
→ MATERIAL :

- Mill steel sheet
- Stainless steel sheet
- Aluminium sheet
- Hotdip zinc coated steel sheet

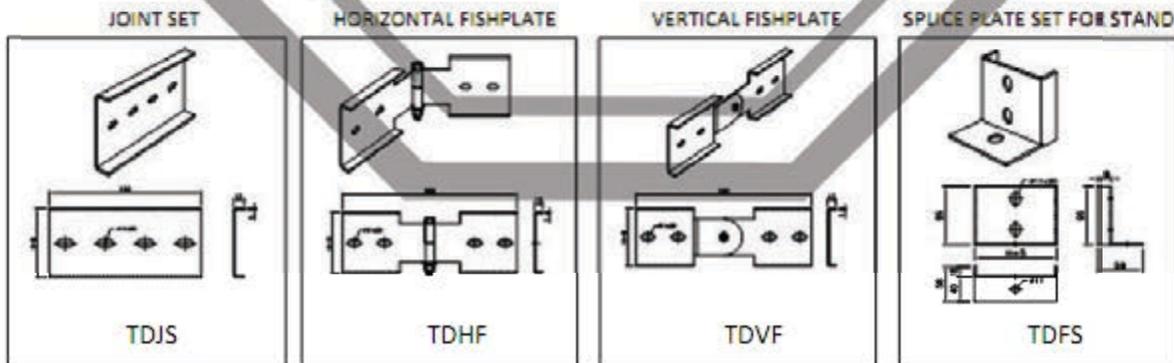
- HEIGHT : 100  
 DEPTH : 98  
 LENGTH : 3000

SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm - 2.0 mm



TRUNKING "C" TYPE  
 SOLID BOTTOM



Other dimensions are available upon special requirements



PT. TRIAS INDRA SAPUTRA

" TRUST TRIAS TO FIND A BETTER WAY "

DESCRIPTION

→ MATERIAL :

- Mill steel sheet
- Stainless steel sheet
- Aluminium sheet
- Hotdip zinc coated steel sheet

→ SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- All bolts, nuts and washers can use stainless steel, hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm - 2.0 mm

HEIGHT : 100  
DEPTH : 98

TRUNKING "C" TYPE  
SOLID BOTTOM

**HORIZONTAL ELBOW**

PART NO	WIDTH	RADIUS
TOELF15D30	150	300, 450, 600
TDEL20D30	200	
TDEL30D30	300	
TDEL40D30	400	
TDEL50D30	500	
TDEL60D30	600	
TDEL80D30	800	

**HORIZONTAL TEE**

PART NO	WIDTH	RADIUS
TTEF15D30	150	300, 450, 600
TTEF20D30	200	
TTEF30D30	300	
TTEF40D30	400	
TTEF50D30	500	
TTEF60D30	600	
TTEF80D30	800	

**HORIZONTAL CROSS**

PART NO	WIDTH	RADIUS
TDXRF15D30	150	300, 450, 600
TDXRF20D30	200	
TDXRF30D30	300	
TDXRF40D30	400	
TDXRF50D30	500	
TDXRF60D30	600	
TDXRF80D30	800	

Other dimensions are available upon special requirements

DESCRIPTION

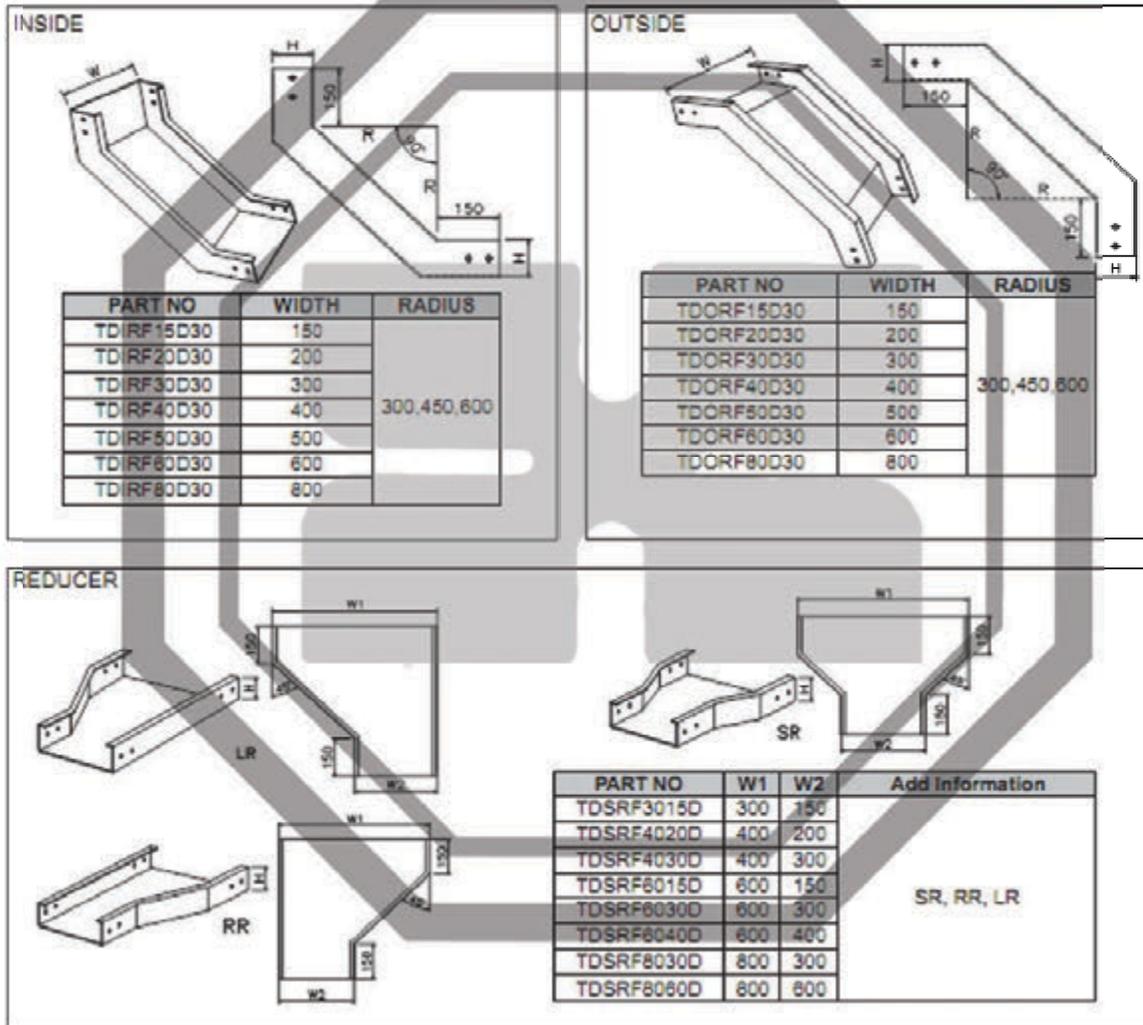
→ MATERIAL :

- Mill steel sheet
- Stainless steel sheet
- Aluminium sheet
- Hotdip zinc coated steel sheet

→ SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- All bolts, nuts and washers can use stainless steel hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm - 2.0 mm

HEIGHT : 100  
 DEPTH : 98



TRUNKING "C" TYPE  
SOLID BOTTOM

Other dimensions are available upon special requirements



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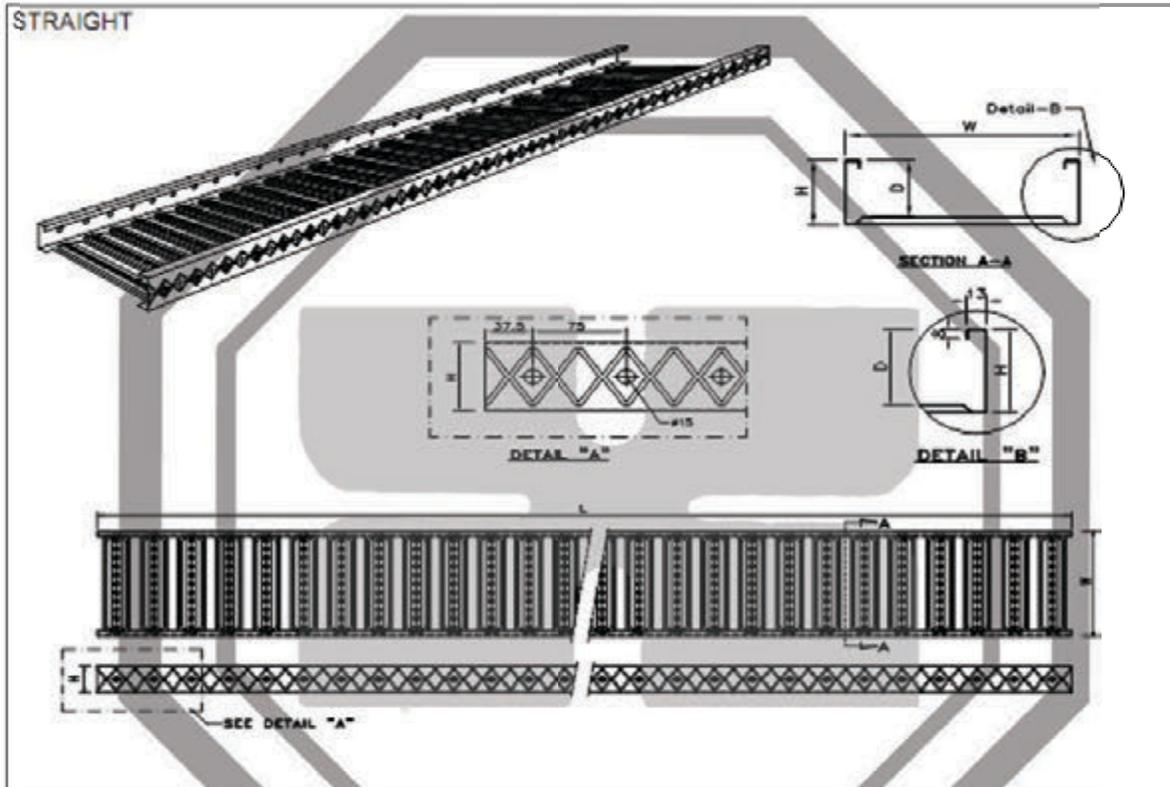
DESCRIPTION

- MATERIAL :  
Mill steel sheet  
Hotdip zinc coated steel sheet

SURFACE TREATMENT :

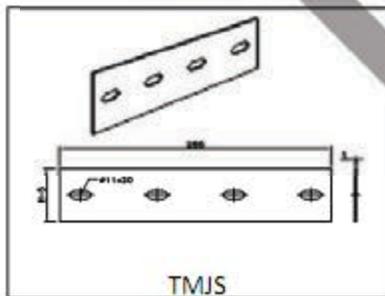
- Natural finishing  
Hotdip galvanized finishing  
Powder Coating.
- All bolts, nuts and washers can use stainless steel, Hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 0.9 mm

PART NO	HEIGHT	WIDTH	LENGTH	DEPTH
TMSTF20	75	200	3000	66
TMSTF30	75	300	3000	66



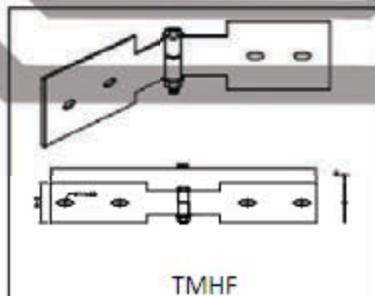
MULTITRAY SYSTEM

JOINT SET



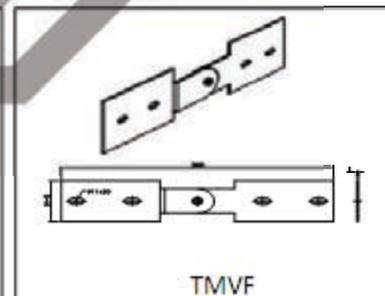
TMJS

HORIZONTAL FISHPLATE



TMHF

VERTICAL FISHPLATE



TMVF

DESCRIPTION

- MATERIAL :  
Mill steel sheet  
Hotdip zinc coated steel sheet

- SURFACE TREATMENT :
  - Natural finishing
  - Hotdip galvanized finishing
  - Powder Coating.
  - All bolts, nuts and washers can use stainless steel, Hotdip galvanized finishing or electro galvanized finishing.
  - Standard thickness 0.9 mm

### HORIZONTAL ELBOW

PART NO	HEIGHT	WIDTH	RADIUS
TMELF20	75	200	300
TMELF30	75	300	300

### HORIZONTAL TEE

PART NO	HEIGHT	WIDTH	RADIUS
TMTEF20	75	200	300
TMTEF30	75	300	300

### HORIZONTAL CROSS

PART NO	HEIGHT	WIDTH	RADIUS
TMXRF20	75	200	300
TMXRF30	75	300	300

MULTITRAY SYSTEM



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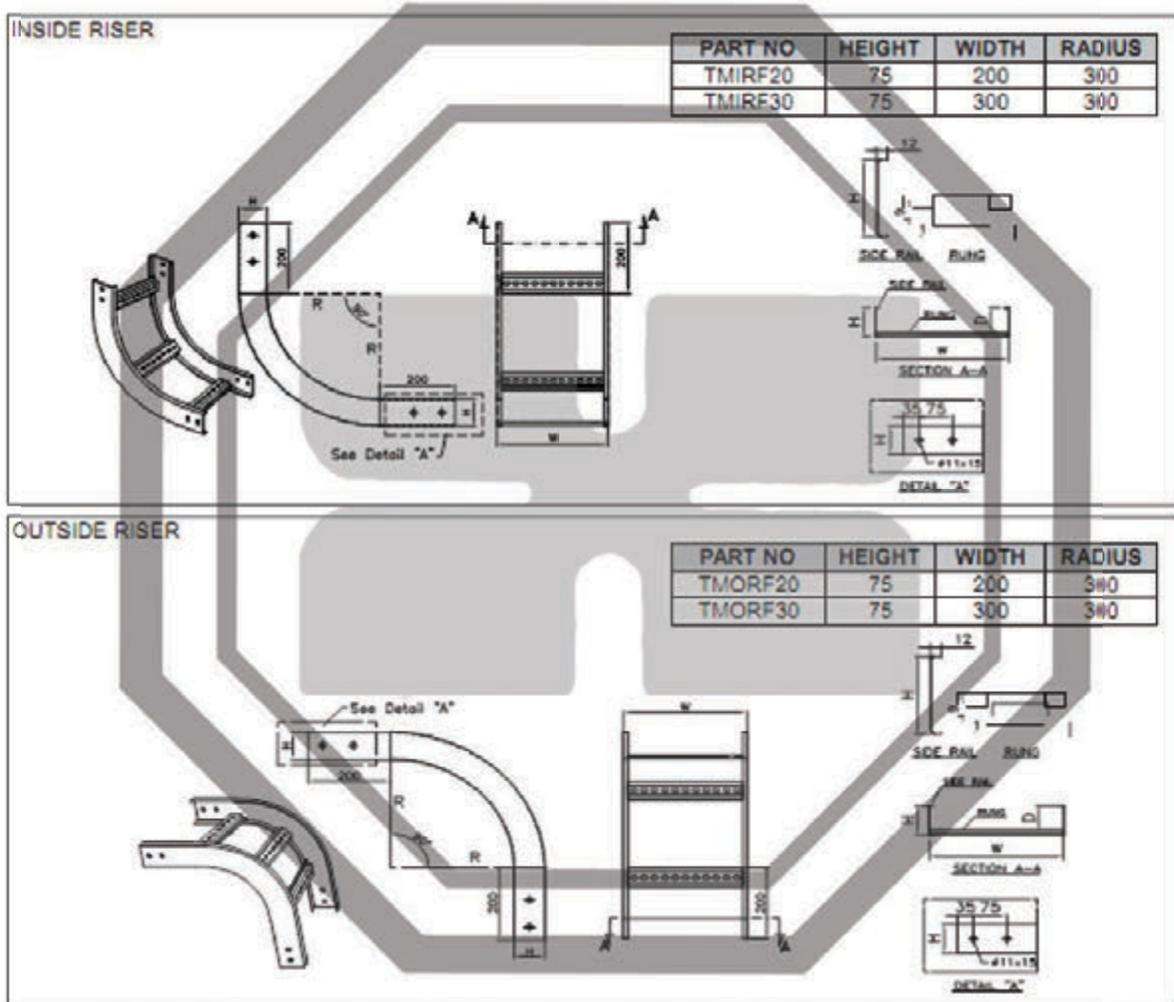
# PERFORATED TRAY

# VERTICAL INSIDE & OUTSIDE RISER, REDUCER

### DESCRIPTION

- MATERIAL :  
Mill steel sheet  
Hotdip zinc coated steel sheet

- SURFACE TREATMENT :
  - Natural finishing
  - Hotdip galvanized finishing
  - Powder Coating.
  - All bolts, nuts and washers can use stainless steel, Hotdip galvanized finishing or electro galvanized finishing.
  - Standard thickness 0.9 mm



MULTITRAY SYSTEM

**PT. TRIAS INDRA SAPUTRA**  
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## DESCRIPTION

→ MATERIAL :

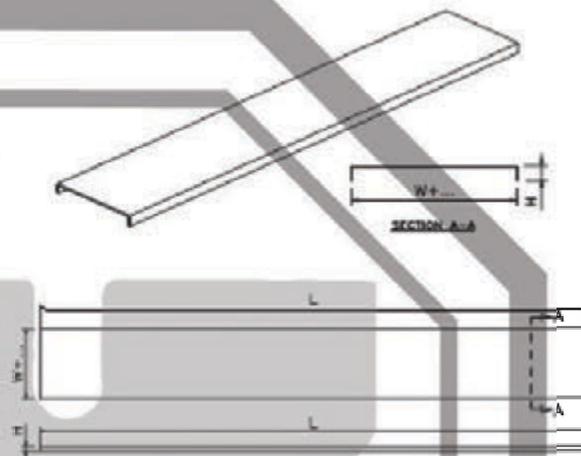
- Mill steel sheet
- Stainless steel sheet
- Aluminium sheet
- Hotdip zinc coated steel sheet

SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, Hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm - 2.0 mm

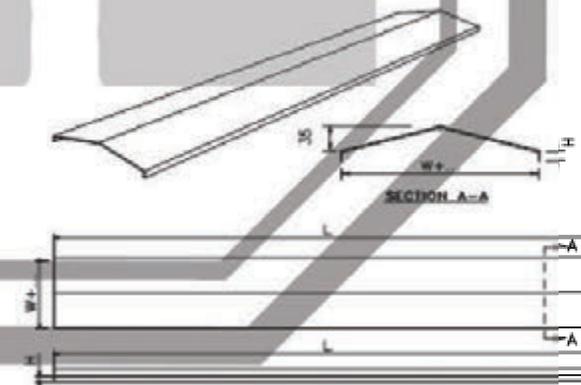
## I. Solid Flange Cover (SF)

PART NO	HEIGHT	WIDTH	LENGTH
SCSF15	15	150	3000
SCSF20	15	200	3000
SCSF30	15	300	3000
SCSF40	15	400	3000
SCSF50	15	500	3000
SCSF60	15	600	3000
SCSF80	15	800	3000



## II. Peak Flange Cover (PF)

PART NO	HEIGHT	WIDTH	LENGTH
SCPF15	15	150	3000
SCPF20	15	200	3000
SCPF30	15	300	3000
SCPF40	15	400	3000
SCPF50	15	500	3000
SCPF60	15	600	3000



## DESCRIPTION

→ MATERIAL :

- Mill steel sheet
- Stainless steel sheet
- Aluminium sheet
- Hotdip zinc coated steel sheet

SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, Hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm - 2.0 mm

## I. Solid Flange Cover (SF)

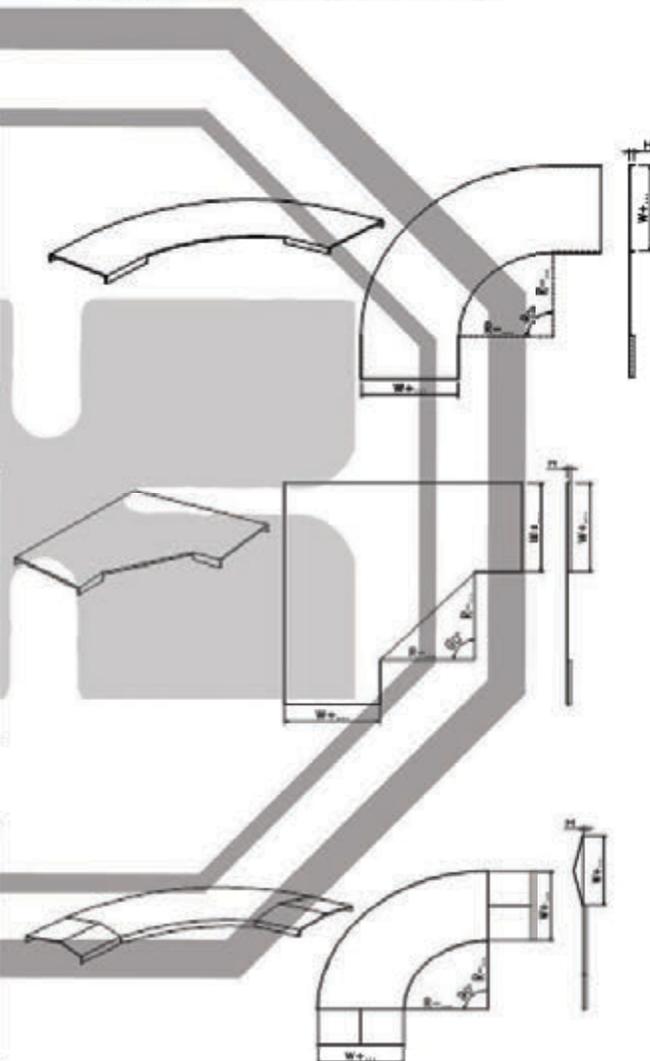
PART NO	HEIGHT	WIDTH	RADIUS
ECSF1530	15	150	300,450,600
ECSF2030	15	200	
ECSF3030	15	300	
ECSF4030	15	400	
ECSF5030	15	500	
ECSF8030	15	600	
ECSF8030	15	800	

## II. Solid Flange Cover (SF) Diagona

PART NO	HEIGHT	WIDTH	RADIUS
ECSF1530	15	150	300,450,600
ECSF2030	15	200	
ECSF3030	15	300	
ECSF4030	15	400	
ECSF5030	15	500	
ECSF8030	15	600	
ECSF8030	15	800	

## III. Peak Flange Cover (PF)

PART NO	HEIGHT	WIDTH	RADIUS
ECPF1530	15	150	300,450,600
ECPF2030	15	200	
ECPF3030	15	300	
ECPF4030	15	400	
ECPF5030	15	500	
ECPF8030	15	600	
ECPF8030	15	800	



DESCRIPTION

→ MATERIAL :

- Mill steel sheet
- Stainless steel sheet
- Aluminium sheet
- Hotdip zinc coated steel sheet

SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, Hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm - 2.0 mm

I. Solid Flange Cover (SF)

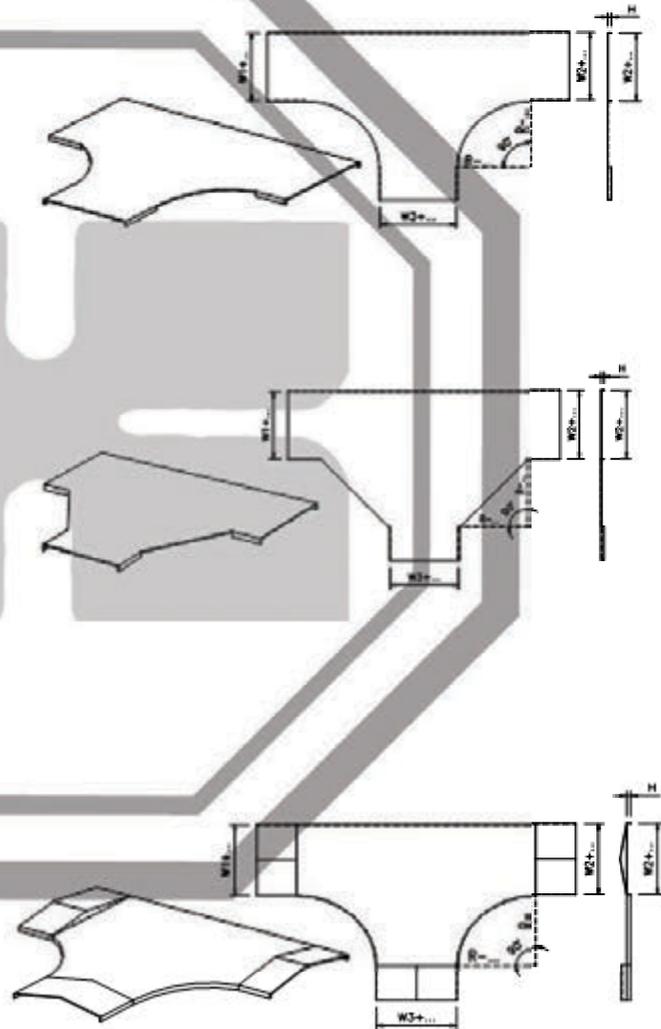
PART NO	HEIGHT	WIDTH	RADIUS
TCSF1530	15	150	300,450,600
TCSF2030	15	200	
TCSF3030	15	300	
TCSF4030	15	400	
TCSF5030	15	500	
TCSF6030	15	600	
TCSF8030	15	800	

II. Solid Flange Cover (SF) Diagona

PART NO	HEIGHT	WIDTH	RADIUS
TCSF1530	15	150	300,450,600
TCSF2030	15	200	
TCSF3030	15	300	
TCSF4030	15	400	
TCSF5030	15	500	
TCSF6030	15	600	
TCSF8030	15	800	

III. Peak Flange Cover (PF)

PART NO	HEIGHT	WIDTH	RADIUS
TCPF1530	15	150	300,450,600
TCPF2030	15	200	
TCPF3030	15	300	
TCPF4030	15	400	
TCPF5030	15	500	
TCPF6030	15	600	



## DESCRIPTION

→ MATERIAL :

- Mill steel sheet
- Stainless steel sheet
- Aluminium sheet
- Hotdip zinc coated steel sheet

SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, Hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm - 2.0 mm

## I. Solid Flange Cover (SF)

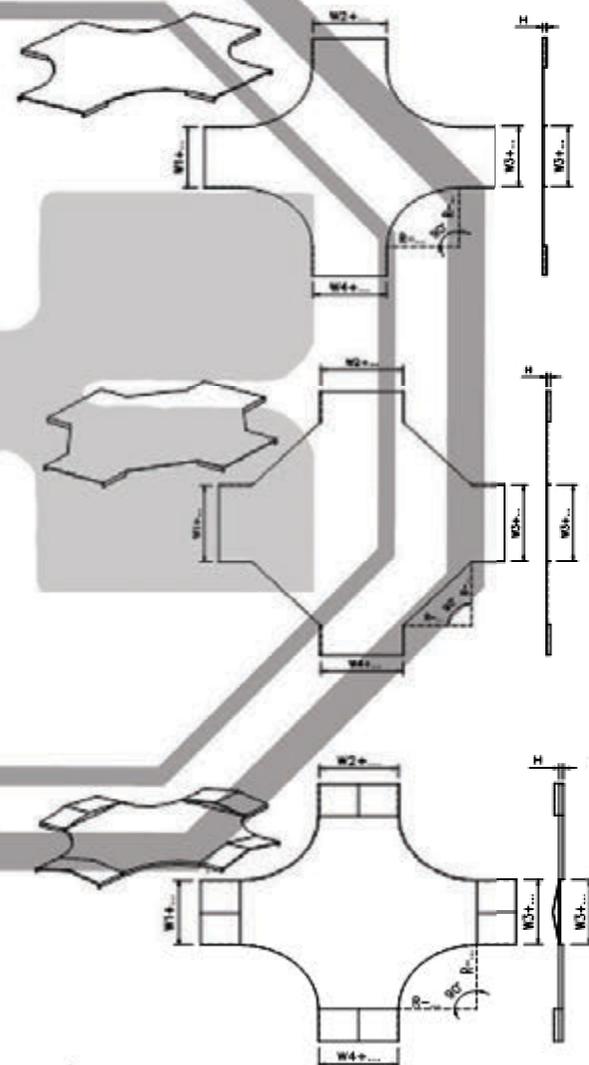
PART NO	HEIGHT	WIDTH	RADIUS
XCSF1530	15	150	300,450,600
XCSF2030	15	200	
XCSF3030	15	300	
XCSF4030	15	400	
XCSF5030	15	500	
XCSF6030	15	600	
XCSF8030	15	800	

## II. Solid Flange Cover (SF) Diagonal

PART NO	HEIGHT	WIDTH	RADIUS
XCSF1530	15	150	300,450,600
XCSF2030	15	200	
XCSF3030	15	300	
XCSF4030	15	400	
XCSF5030	15	500	
XCSF6030	15	600	
XCSF8030	15	800	

## III. Peak Flange Cover (PF)

PART NO	HEIGHT	WIDTH	RADIUS
XCPF1530	15	150	300,450,600
XCPF2030	15	200	
XCPF3030	15	300	
XCPF4030	15	400	
XCPF5030	15	500	
XCPF6030	15	600	



DESCRIPTION DESCRIPTION

→ MATERIAL :

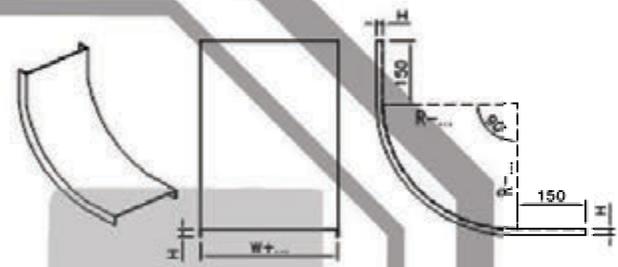
- Mill steel sheet
- Stainless steel sheet
- Aluminium sheet
- Hotdip zinc coated steel sheet

SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, Hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm - 2.0 mm

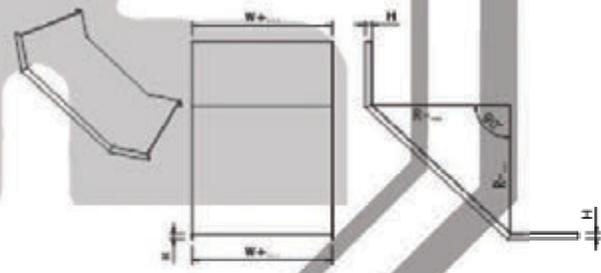
I. Solid Flange Cover (SF)

PART NO	HEIGHT	WIDTH	RADIUS
ICSF1530	15	150	300,450,600
ICSF2030	15	200	
ICSF3030	15	300	
ICSF4030	15	400	
ICSF5030	15	500	
ICSF6030	15	600	
ICSF8030	15	800	



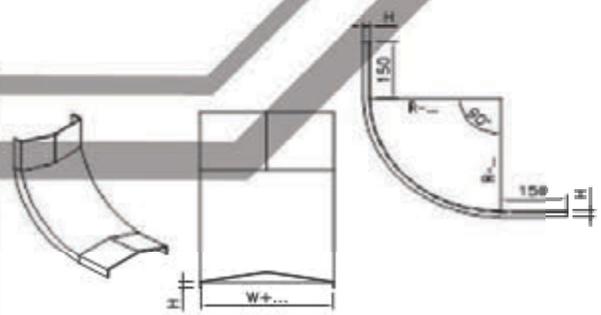
II. Solid Flange Cover (SF) Diagonal

PART NO	HEIGHT	WIDTH	RADIUS
ICSF1530	15	150	300,450,600
ICSF2030	15	200	
ICSF3030	15	300	
ICSF4030	15	400	
ICSF5030	15	500	
ICSF6030	15	600	
ICSF8030	15	800	



III. Peak Flange Cover (PF)

PART NO	HEIGHT	WIDTH	RADIUS
ICPF1530	15	150	300,450,600
ICPF2030	15	200	
ICPF3030	15	300	
ICPF4030	15	400	
ICPF5030	15	500	
ICPF6030	15	600	



## DESCRIPTION DESCRIPTION

→ MATERIAL :

- Mill steel sheet
- Stainless steel sheet
- Aluminium sheet
- Hotdip zinc coated steel sheet

SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, Hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm - 2.0 mm

## I. Solid Flange Cover (SF)

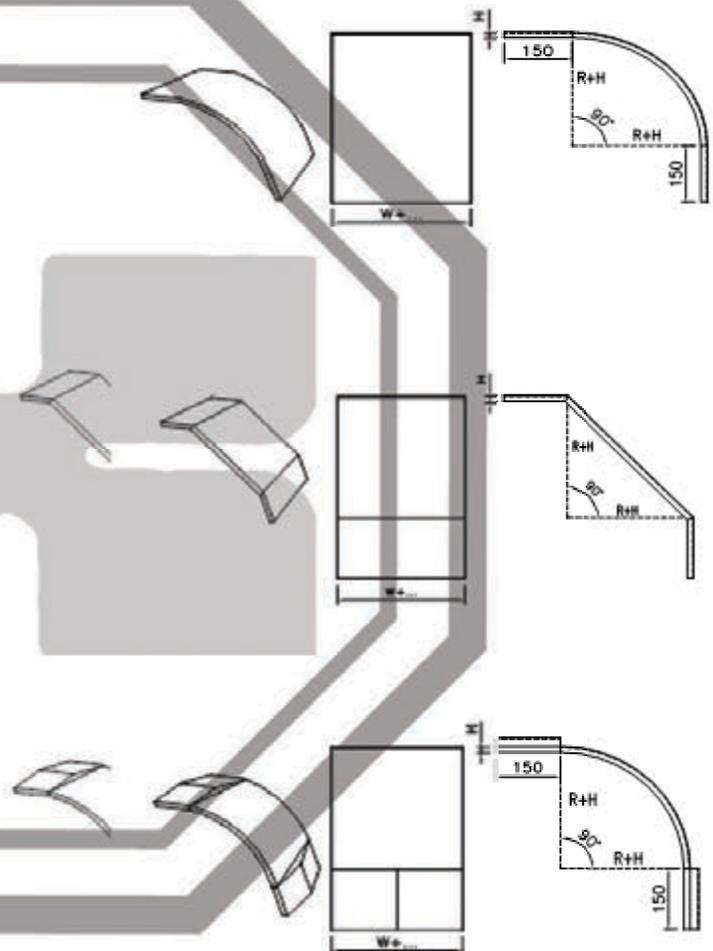
PART NO	HEIGHT	WIDTH	RADIUS
OCSF1530	15	150	300,450,600
OCSF2030	15	200	
OCSF3030	15	300	
OCSF4030	15	400	
OCSF5030	15	500	
OCSF6030	15	600	
OCSF8030	15	800	

## II. Solid Flange Cover (SF) Diagonal

PART NO	HEIGHT	WIDTH	RADIUS
OCSF1530	15	150	300,450,600
OCSF2030	15	200	
OCSF3030	15	300	
OCSF4030	15	400	
OCSF5030	15	500	
OCSF6030	15	600	
OCSF8030	15	800	

## III. Peak Flange Cover (PF)

PART NO	HEIGHT	WIDTH	RADIUS
OCPF1530	15	150	300,450,600
OCPF2030	15	200	
OCPF3030	15	300	
OCPF4030	15	400	
OCPF5030	15	500	
OCPF6030	15	600	



## DESCRIPTION DESCRIPTION

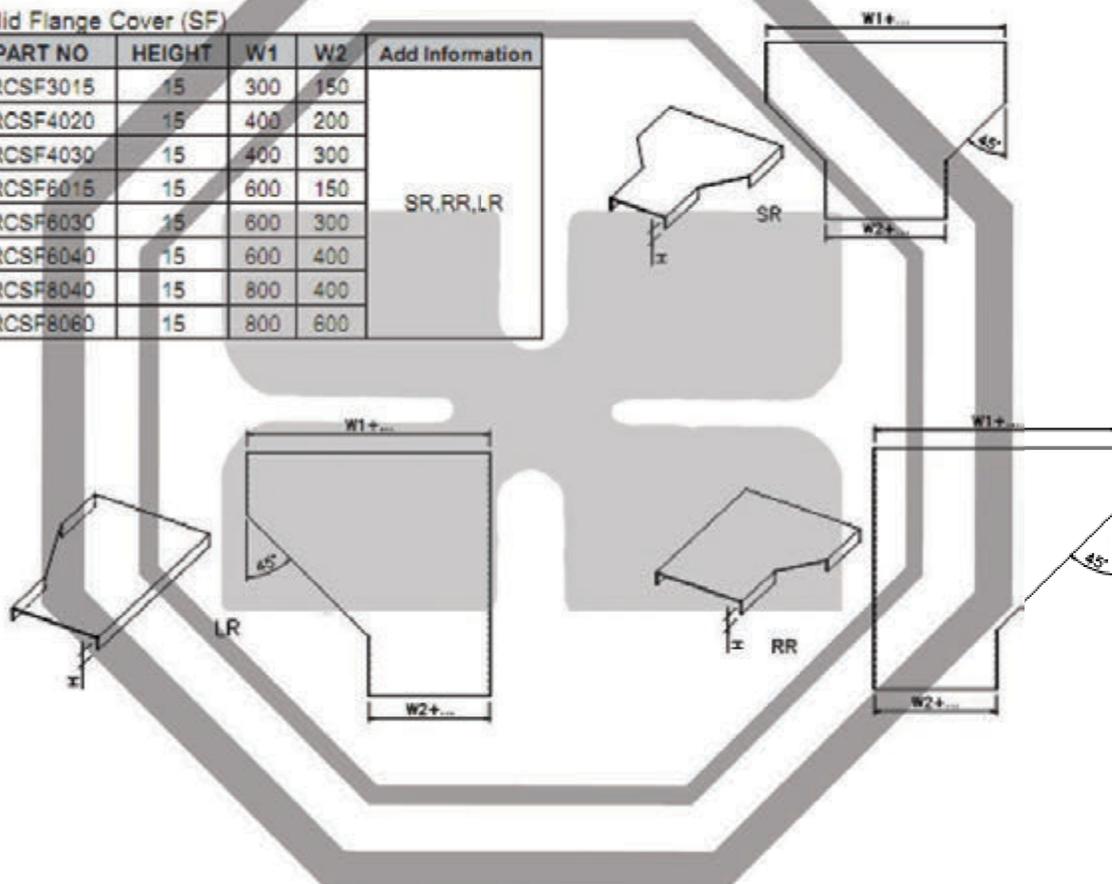
- MATERIAL :
- Mill steel sheet
  - Stainless steel sheet
  - Aluminium sheet
  - Hotdip zinc coated steel sheet

## SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, Hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm - 2.0 mm

## I. Solid Flange Cover (SF)

PART NO	HEIGHT	W1	W2	Add Information
RCSF3015	15	300	150	SR,RR,LR
RCSF4020	15	400	200	
RCSF4030	15	400	300	
RCSF6015	15	600	150	
RCSF6030	15	600	300	
RCSF6040	15	600	400	
RCSF8040	15	800	400	
RCSF8060	15	800	600	



DESCRIPTION

→

MATERIAL :

- Mill steel sheet
- Stainless steel sheet
- Aluminium sheet
- Hotdip zinc coated steel sheet

SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, Hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm - 2.0 mm

PART NO	HEIGHT	WIDTH
ACCAF30B	50	30
ACCAF30D	100	30
ACCAF30E	127	30
ACCAF30F	152	30

Type	L
SLU,SLW	25
HD	37
AL "I" Type	50

PART NO	LENGTH	WIDTH
ACCIF4030	40	30

Other dimensions are available upon special requirements



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DESCRIPTION

- MATERIAL :
- Mill steel sheet
  - Stainless steel sheet
  - Aluminium sheet
  - Hotdip zinc coated steel sheet

SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, Hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm - 2.0 mm

BRACKET SUPPORT  
HOLD BODY CLIP

PART NO	HEIGHT	WIDTH
ACBSF15	15	15
ACBSF20	15	20
ACBSF30	15	30
ACBSF40	20	40
ACBSF50	20	50
ACBSF60	20	60
ACBSF80	25	80

END PLATE SET

PART NO	HEIGHT	WIDTH
ACESF15D	100	150
ACESF20D	100	200
ACESF30D	100	300
ACESF40D	100	400
ACESF50D	100	500
ACESF60D	100	600
ACESF80D	100	800

Other dimensions are available upon special requirements

DESCRIPTION

- SURFACE TREATMENT :
  - Electro plating galvanized finishing

PART NO	DIAMETE	LENGTH
ACHR38	3/8 "	Available in 1, 1.5, 2 m and in full or part threaded
ACHR12	1/2 "	
ACHR34	3/4 "	

**HANGER ROD SET**

DESCRIPTION

- SURFACE TREATMENT :
  - All bolts, nuts and washers shall be hotdip galvanized finishing or electro galvanized finishing

PART NO	M	L
ACSNB38	3/8 "	3/4 "
ACSNB38	3/8 "	1"

M	L
6	20
8	20
10	30
12	40
16	50
20	50

FLAT WASHER  
SPRING WASHER  
NUT

HEXAGONAL HEAD  
LONG NUT

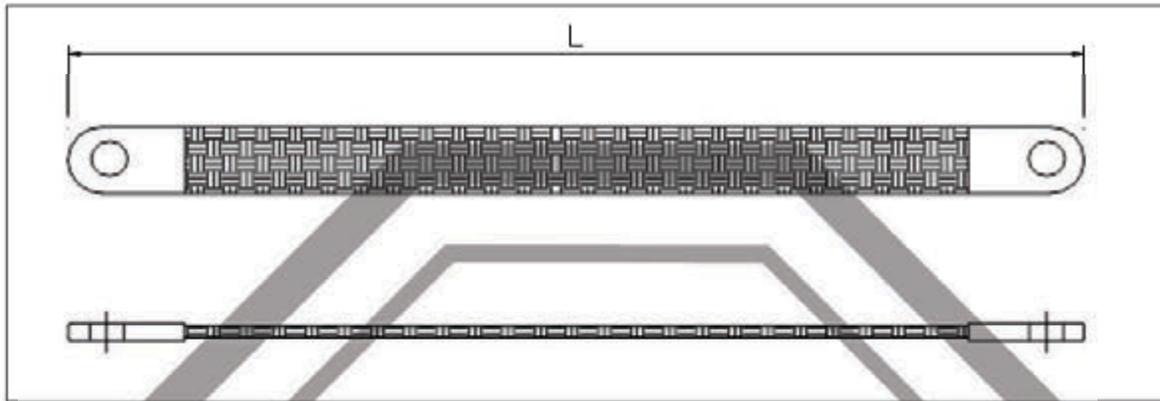
DESCRIPTION

→ MATERIAL :

- Braided Tinned Copper

→ SURFACE TREATMENT :

- Natural finishing  
(Other surface treatment are available upon special requirement)



DESCRIPTION

→ MATERIAL :

- Mill steel sheet
- Stainless steel sheet
- Aluminium sheet
- Hotdip zinc coated steel sheet

	WIDTH
ACCCGEN15	150
ACCCGEN20	200
ACCCGEN30	300
ACCCGEN40	400
ACCCGEN50	500
ACCCGEN60	600
ACCCGEN80	800

PART NO	WIDTH
ACCCLH15	150
ACCCLH20	200
ACCCLH30	300
ACCCLH40	400
ACCCLH50	500
ACCCLH60	600
ACCCLH80	800

DESCRIPTION

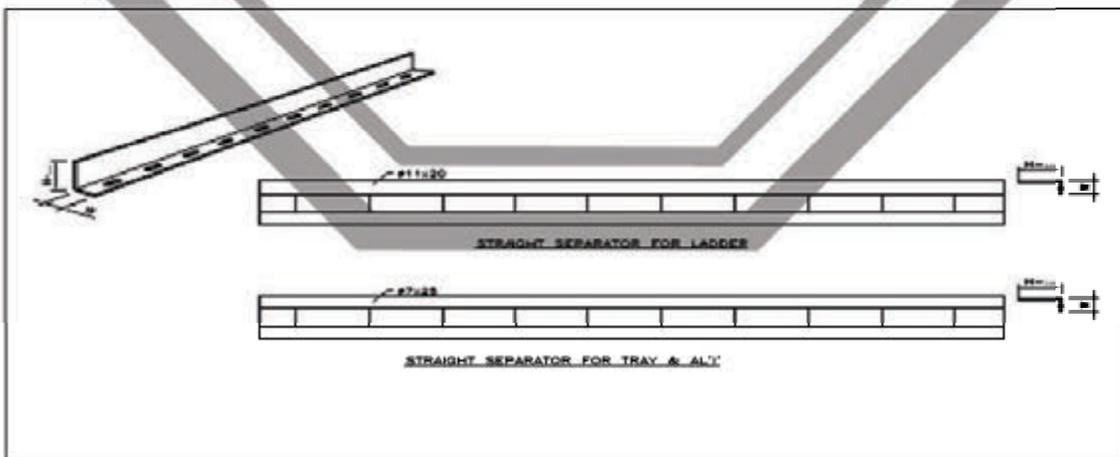
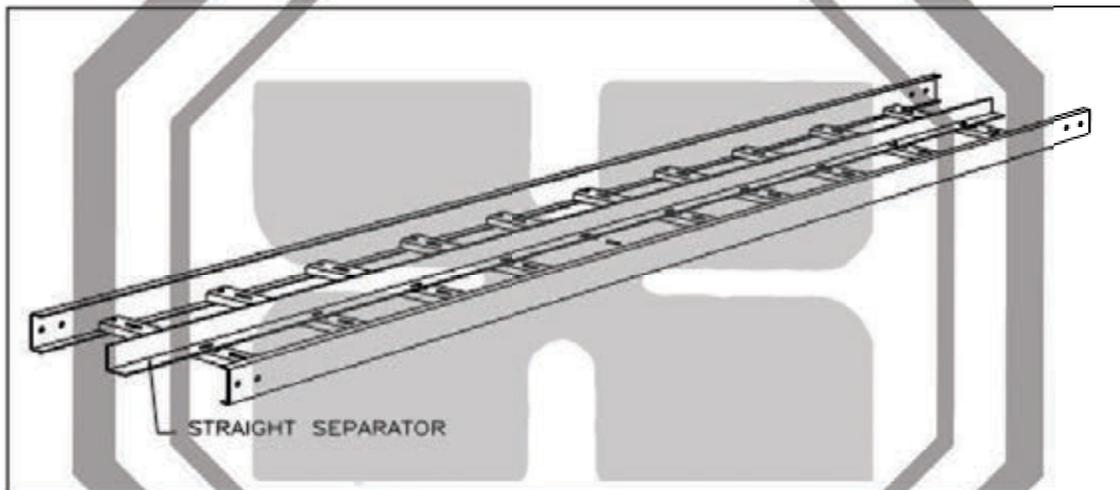
- MATERIAL :  
 Mill steel sheet  
 Aluminium sheet  
 Stainless steel sheet  
 → Hotdip zinc coated steel sheet

PART NO	HEIGHT	WIDTH	BOLT, NUT AND WASHER
ACSEF30B	DEPTH	30	ROUND HEAD WITH SQUARE NECK
ACSEF30D	DEPTH	30	
ACSEF30E	DEPTH	30	
ACSEF30F	DEPTH	30	

SURFACE TREATMENT :

- Natural finishing
- Hotdip galvanized finishing
- Powder Coating.
- All bolts, nuts and washers can use stainless steel, Hotdip galvanized finishing or electro galvanized finishing.
- Standard thickness 1.6 mm - 2.0 mm

LENGTH : 3000  
 THICKNESS : 2.0



**PT. TRIAS INDRA SAPUTRA**  
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## **PT. TRIAS INDRA SAPUTRA**

Manufacturer of Cable Management System and Electrical Switchgear

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Email : [Info@TriasIndraSaputra.com](mailto:Info@TriasIndraSaputra.com), Website : [www.TriasIndraSaputra.com](http://www.TriasIndraSaputra.com)



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