

SMART TECH DUCT SOLUTIONS



Asawa insulation[®]



SMART METAL DUCT



SMART
SPIRAL DUCT

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About Us

Asawa Insulation Pvt Ltd (AIPL), established in 2010, has emerged as an eminent name in manufacturing and supplying of HVAC Products & accessories. Our versatile product range includes Pre-insulated (PIR) Panels & Accessories, GI Metal Ducts, Spiral / Plain Round & Flat Oval Ducts, Cable Trays, Pre-insulated Flat Oval and Hexagon Ducts with supporting accessories like Anchor Fasteners, Threaded Rods, C Channels, Wire supporting like Gripple and GPL etc.

The Products are crafted utilizing superior quality raw material with Fully Automated Operations. Being resistant to wear & tear, our product range conforms to higher tensile strength and longer operating life. The products are designed to perform efficiently under varying temperature conditions. Supported by large and integrated manufacturing unit, we are capable to cater to bulk orders efficiently.

Our Patrons

Since inception, we always strive to meet and excel our customer's demands and specifications. Because of our commitment to novelty, we are able to manufacture and deliver high quality products on time and exceptional services to our strong client base in the market.

Our Technology

Our manufacturing unit is equipped with modern machinery and equipments backed by a dynamic, knowledgeable & experienced manpower. We have a separate R&D and Quality Control department to meet the requirements of innovative quality products.

Quality Analysis

AIPL is an ISO 9001:2008 quality certified manufacturer using superior quality raw materials from reputed vendors. Our Quality Control department inspects the quality of products at various stages of production and finally delivers the best quality product.

SMART METAL DUCT is manufactured using fully automated latest Auto



Fold Duct Line supported by Automatic Both End Corner Inserter, Pittsburg Lock Former, Plasma Arc Cutting Machine, Auto Seaming Machine etc. which enables us to handle both small and large scale jobs efficiently with consistent quality.

Our Range of Metal Ducts include Galvanized Iron (GI

Duct, Stainless Steel (SS) Duct and Aluminum Duct



We ventured into manufacturing of Spiral/Plain Round & Flat Oval Ducts under the brand name of **SMART SPIRAL DUCTS**.

We manufacture duct from diameter 100mm to 2000mm with maximum length of 4000mm (one of its kind in India) through fully Automated machines which provides better reinforcement for high performance.

SMART CABLE TRAYS are made of galvanized steel. The material for a given application is chosen based on where it will be used. Galvanized tray are made of



pre-galvanized sheet, hot-dip galvanized after fabrication. We also supply customised solution for the specific requirement of the client.



TDF FLANGE SYSTEM

TDF is a 4 bolt duct connection system which consists of a Flange profile which are roll formed on to duct at both ends. TDF flanges eliminates the need for additional internal sealing around the edges of the duct there by saving labour and material. A recessed groove on the flange and radial groove on corner pieces are provided for proper gasket fitting thus maintaining high quality assembly.

C & S

C-Cleats also called as drive cleats and S-Cleats also known as slip cleats which are designed to work on smaller size applications.

C & S type of duct are generally fabricated with gauges of 26G and 24G and are used for low pressure ducting system.

These Flanges are economical as the overall system weight is reduced.

MS ANGLE FLANGE

MS Angle Flanges are put additionally over GI duct shell to increase the rigidity of the duct.

AIPL manufactures these GI Ducts which are suited to join with MS Angle Flanges at site.

This kind of system are used in the areas which requires lowest leakage factor and maximum rigidity.

DUCT DIMENSION

PRESSURE CLASS (IN W.G.)

POSITIVE OR NEGATIVE

DUCT DIMENSION	PRESSURE CLASS (IN W.G.)						
	POSITIVE OR NEGATIVE						
	1/2"	1"	2"	3"	4"	6"	10"
8" \DN	26	26	26	24	24	24	22
9, 10"	26	26	26	24	22	20	18
11, 12"	26	26	24	22	20	18	18
13, 14"	26	24	22	20	18	18	
15, 16"	26	22	20	18	18	16	
17, 18"	26	22	20	18	16		
19, 20"	24	20	18	16			
21, 22"	22	18	16	16			
23, 24"	22	18	16	16			
25, 26"	20	18	REINFORCEMENT IS REQUIRED				
27, 28"	18	16					
29, 30"	18	16					
31-36"	16						

Production Process Flow



Fully Automated Line to maintain dimension



All types of ducts available under one roof

Faster delivery



Cost effective solutions

Consistent quality



High quality material

Low leakage



National sales support

Standard followed IS, SMACNA etc.



Highest strength to weight ratio



Brief About Spiral Duct

Spiral ducts are rolled spirally mainly from GI coil by Special Duct Forming machine with strong spiral seams providing reinforcement to comply with SMACNA and ASHRAE standards. It can also manufacture spiral duct of other material like Aluminium and Stainless Steel.

Sizes for Spiral Duct

AIPL manufactures spiral duct from 100 mm to 2000 mm (4 inch to 80 inch) of any diameter with material thickness from 0.4 mm to 1.8 mm for GI (28 gauge to 16 gauge) and 0.5 mm to 1.2 mm for SS (26 gauge to 18 gauge). General diameter to thickness relation is as below however we can produce as per customer requirement

DIAMETER		GI DUCT THICKNESS		GI DUCT FITTING THICKNESS	
INCH	MM	MM	GAUGE	MM	MM
Upto 10"	upto 250	0.40	28	0.50	26
11" to 14"	275 to 350	0.50	26	0.60	24
15" to 24"	350 to 600	0.60	24	0.80	22
25" to 50"	625 to 900	0.80	22	1.00	20
37" to 50"	925 to 1250	1.00	20	1.20	18
51 - Above	1275 - Above	1.20	18	1.80	16



Brief About Flat Oval Duct

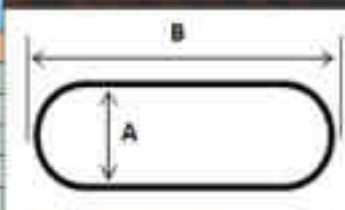
Flat Oval ducts combine the advantages of round duct and rectangular duct because it may fit in spaces where there is constraint of sufficient head room for round duct.

Sizes for Flat Oval Duct

AIPL manufactures flat duct height (A) from 150 mm to 600 mm (6 inch to 24 inch) and width (B) from 450 mm to 1700 mm (18 inch to 68 inch) of various sizes with material thickness from 0.4 mm to 1.8 mm for GI (26 gauge to 16 gauge) and 0.5 mm to 1.2 mm for SS (26 gauge to 18 gauge). Flat oval duct single piece length shall be upto 3000 mm.

Thickness of Flat Oval ducts as per SMACNA - 1985 is as per below table:

MAJOR AXIS DUCT WIDTH "B"		DUCT THICKNESS		DUCT FITTING THICKNESS	
INCH	MM	GAUGE	MM	GAUGE	MM
Upto 24"	Upto 600	24	0.63	20	1.00
25" to 36"	625 to 900	22	0.80	20	1.00
37" to 48"	925 to 1200	22	0.80	18	1.25
49" to 60"	1225 to 1500	20	1.00	18	1.25
61" to 70"	1525 - 1750	20	1.00	16	1.60
51" - Above	1275 - Above	18	1.20	16	1.60



Double Wall Pre-insulated Spiral / Oval Duct

AIPL also manufactures SMART double wall Pre-Insulated Spiral and Flat Oval ducts by using PIR foam, fibre glass or mineral wool as an insulation material between double wall as per the requirement of the customer.



Acoustic Insulated Spiral / Flat Oval Ducts

In acoustic insulated double wall Spiral / Flat Oval ducts, the fibre glass or mineral wool is used which acts as acoustic medium and results in sound transmission loss. A metal mesh liner is used inside the duct to hold acoustic material within the inner wall of duct. Acoustic perforations are standard 10 % to 13 % of open area, larger perforations are available on request.

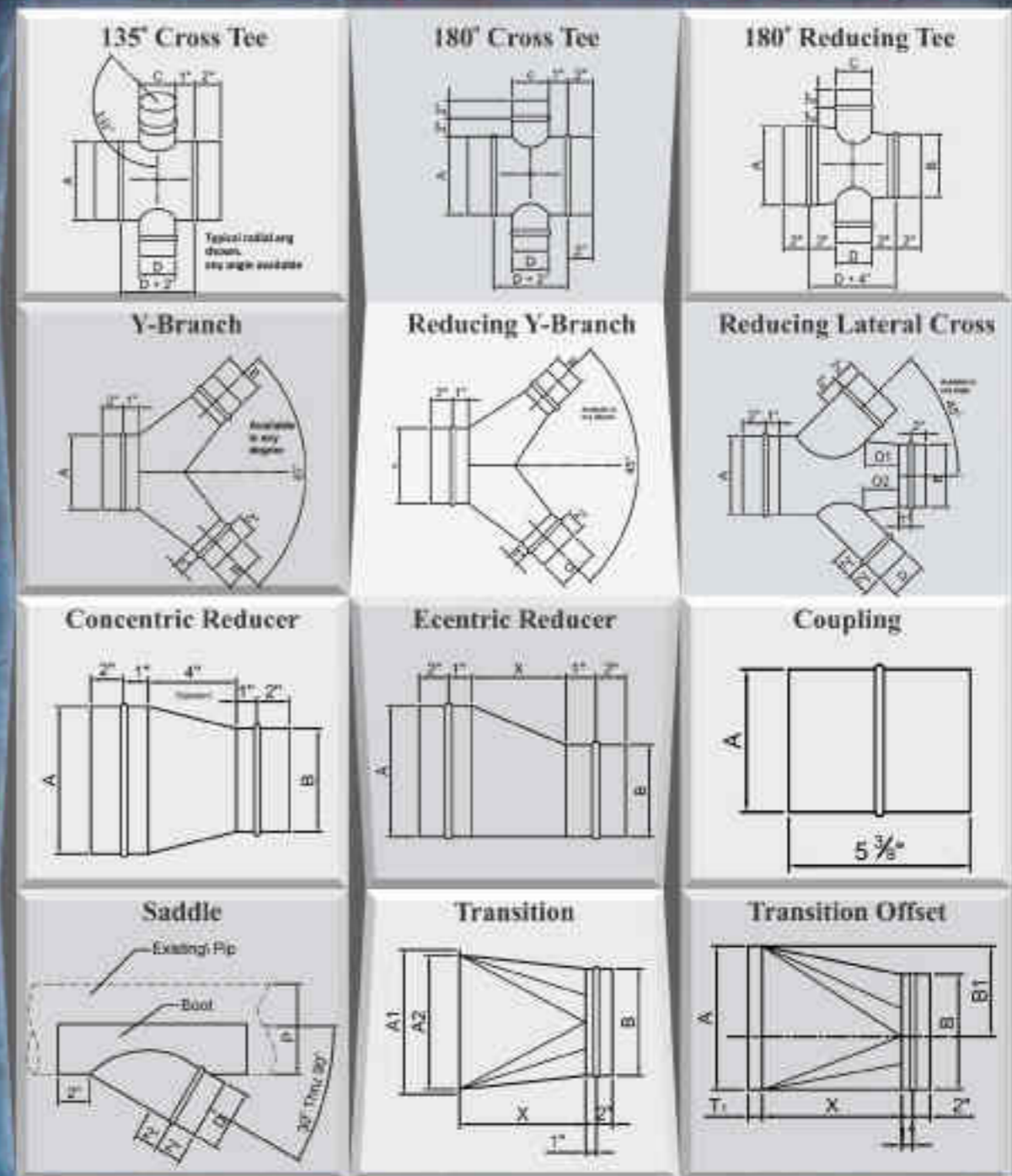
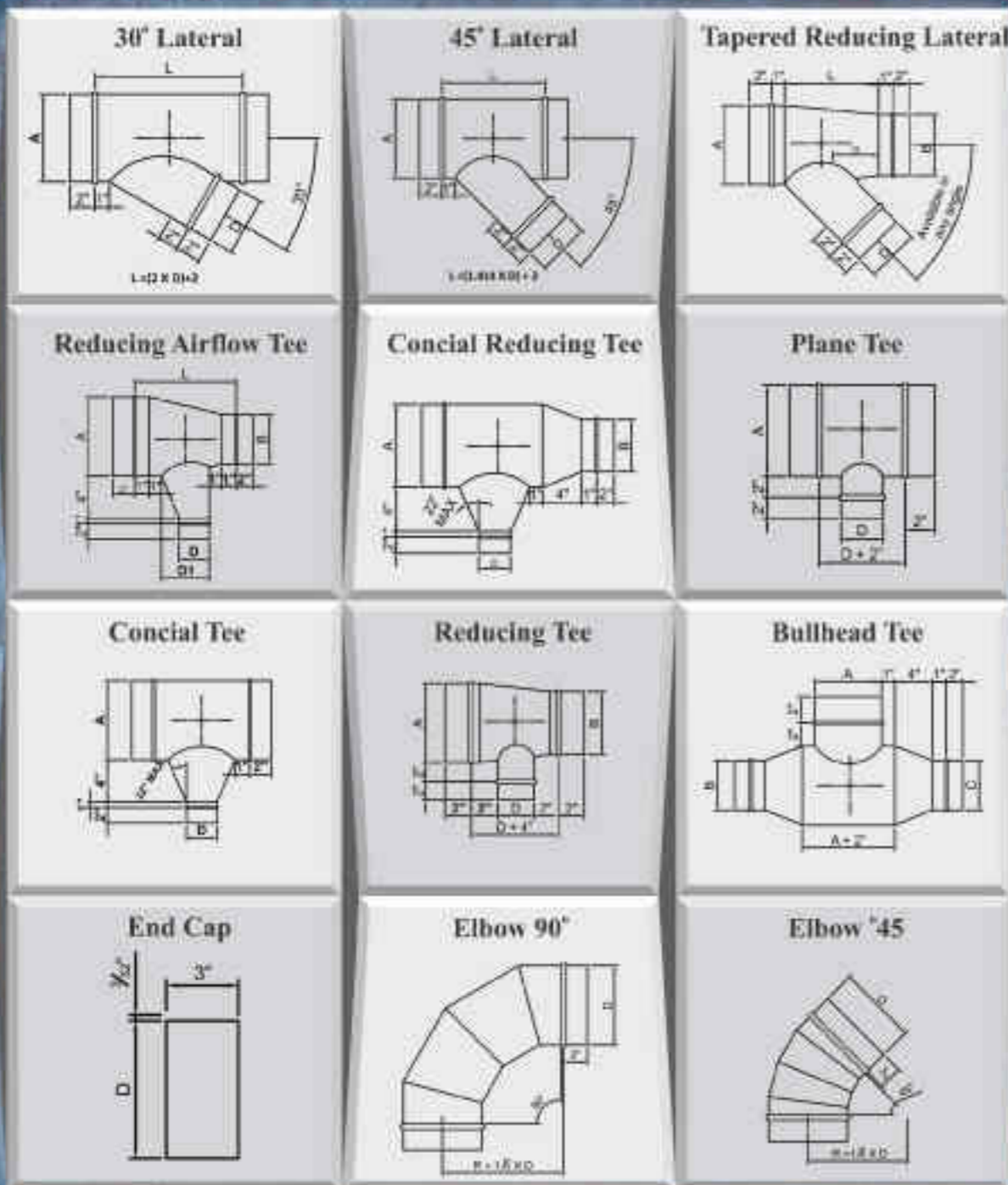
Advantages of Spiral Duct



Standard of Flat Oval Duct

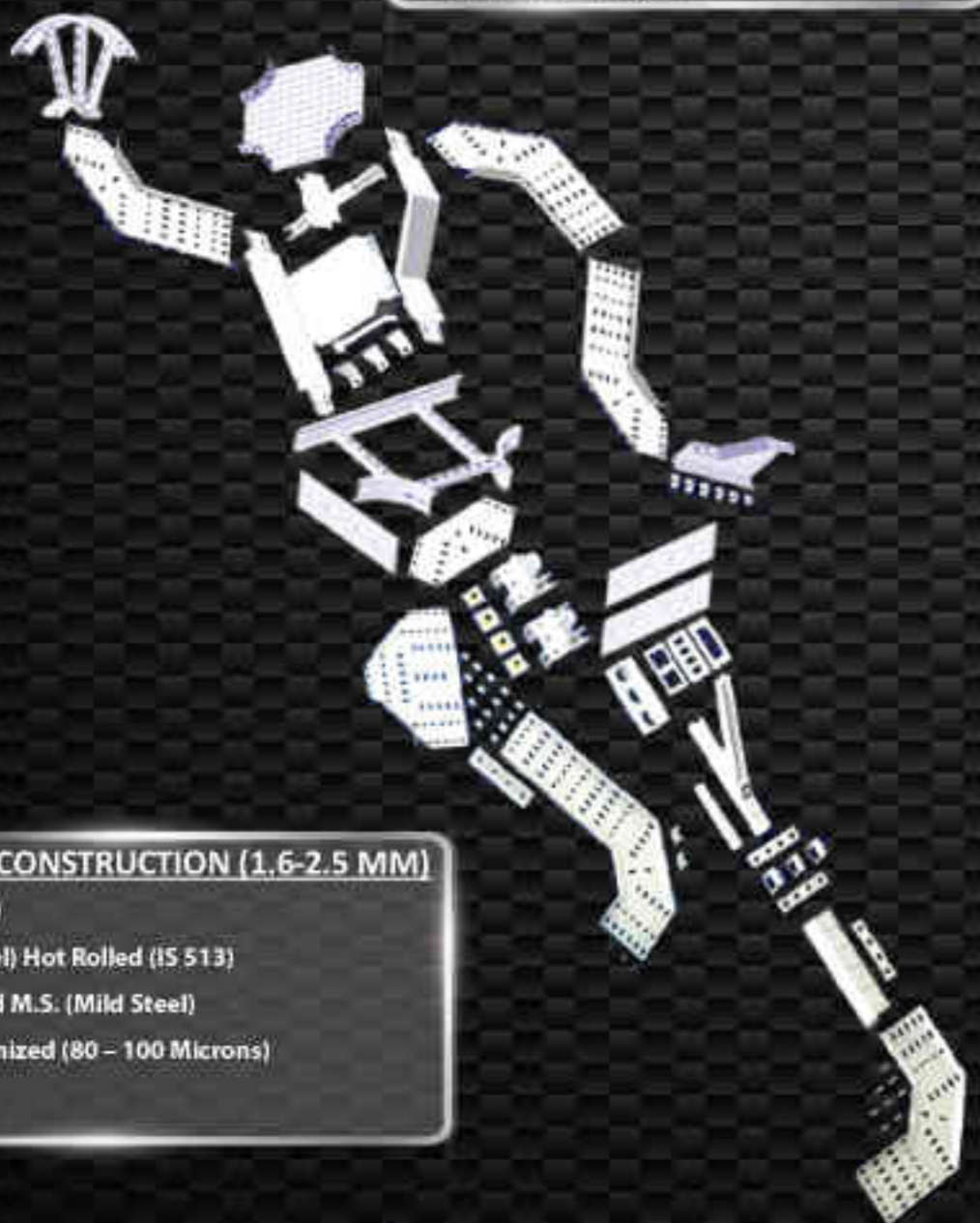
Nominal Duct Height (A)									
6" / 150	8" / 200	10" / 250	12" / 300	14" / 350	16" / 400	18" / 450	20" / 500	22" / 550	24" / 600
18" / 450									(B)
20" / 500	20" / 500								
22" / 550	22" / 550	22" / 550							
24" / 600	24" / 600	24" / 600	24" / 600						
26" / 650	26" / 650	26" / 650	26" / 650	26" / 650					
28" / 700	28" / 700	28" / 700	28" / 700	28" / 700	28" / 700				
30" / 750	30" / 750	30" / 750	30" / 750	30" / 750	30" / 750	30" / 750			
32" / 800	32" / 800	32" / 800	32" / 800	32" / 800	32" / 800	32" / 800	32" / 800		
	34" / 850	34" / 850	34" / 850	34" / 850	34" / 850	34" / 850	34" / 850	34" / 850	
	36" / 900	36" / 900	36" / 900	36" / 900	36" / 900	36" / 900	36" / 900	36" / 900	36" / 900
	38" / 950	38" / 950	38" / 950	38" / 950	38" / 950	38" / 950	38" / 950	38" / 950	38" / 950
	40" / 1000	40" / 1000	40" / 1000	40" / 1000	40" / 1000	40" / 1000	40" / 1000	40" / 1000	40" / 1000
		42" / 1050	42" / 1050	42" / 1050	42" / 1050	42" / 1050	42" / 1050	42" / 1050	42" / 1050
		44" / 1100	44" / 1100	44" / 1100	44" / 1100	44" / 1100	44" / 1100	44" / 1100	44" / 1100
		46" / 1150	46" / 1150	46" / 1150	46" / 1150	46" / 1150	46" / 1150	46" / 1150	46" / 1150
		48" / 1200	48" / 1200	48" / 1200	48" / 1200	48" / 1200	48" / 1200	48" / 1200	48" / 1200
		50" / 1250	50" / 1250	50" / 1250	50" / 1250	50" / 1250	50" / 1250	50" / 1250	50" / 1250
			52" / 1300	52" / 1300	52" / 1300	52" / 1300	52" / 1300	52" / 1300	52" / 1300
			54" / 1350	54" / 1350	54" / 1350	54" / 1350	54" / 1350	54" / 1350	54" / 1350
			56" / 1400	56" / 1400	56" / 1400	56" / 1400	56" / 1400	56" / 1400	56" / 1400
			58" / 1450	58" / 1450	58" / 1450	58" / 1450	58" / 1450	58" / 1450	58" / 1450
			60" / 1500	60" / 1500	60" / 1500	60" / 1500	60" / 1500	60" / 1500	60" / 1500
			62" / 1550	62" / 1550	62" / 1550	62" / 1550	62" / 1550	62" / 1550	62" / 1550
			64" / 1600	64" / 1600	64" / 1600	64" / 1600	64" / 1600	64" / 1600	64" / 1600
Available in Market	Available with "AIPL"		66" / 1650	66" / 1650	66" / 1650	66" / 1650	66" / 1650	66" / 1650	66" / 1650
			68" / 1700	68" / 1700	68" / 1700	68" / 1700	68" / 1700	68" / 1700	68" / 1700

Nominal Duct Width (B)
52" / 1300 mm.



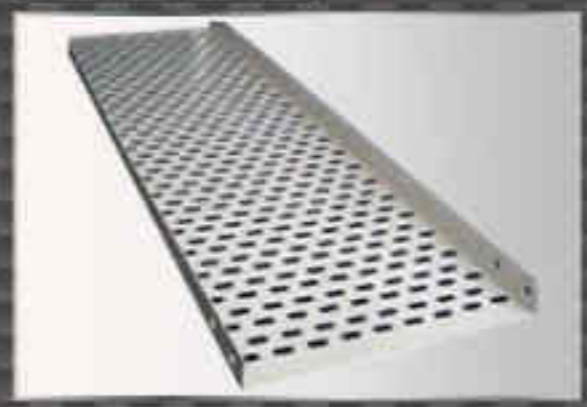


- RANGE OF PRODUCTS :**
- Perforated Cable Trays
 - Ladder Type Cable Trays
 - Cable Tray Accessories
 - Cable Tray Supports



- MATERIAL OF CONSTRUCTION (1.6-2.5 MM)**
- CRCA (IS 1079)
 - M.S. (Mild Steel) Hot Rolled (IS 513)
 - Pre-galvanized M.S. (Mild Steel)
 - Hot Dip Galvanized (80 – 100 Microns)
 - Aluminium

PERFORATED CABLE TRAYS



DESCRIPTION	LIGHT DUTY	MEDIUM DUTY
Tray Width (mm)	75, 100, 150, 300, 450 & 600	75, 100, 150, 300, 450 & 600
Length (mm)	2,500	2,500
Thickness (mm)	1.2/1.5/1.6	2.0/2.5
Slot Size (mm)	20 x 10	20 x 10
Tray Height (mm)	25/50	50/75

DESCRIPTION	LIGHT DUTY/ HEAVY DUTY
Tray Width (mm)	150, 300, 450, 600, 750, 900
Length (mm)	2,500
Slot Size (mm)	20 x 10
Tray Height (mm)	150/120/90/75/50

LADDER TYPE CABLE TRAYS



COUPLERS & RACEWAY/CABLE TRUNKING



CABLE TRAYS COVERS & C-CHANNELS



Asawa Insulation Pvt. Ltd. is always committed to provide its customers with superior products ensuring best quality. We also supply customized products to suit the specific needs of our clients.

Threaded Rods
available in
Thickness of
6mm, 8mm,
10mm.



C Channels of
Thickness
0.5mm - 1.2mm

Wire supporting
System
"Gripple"



Wire supporting
System
"GPL"

C Clamp for
Round &
Flat - Oval Duct



Anchor
Fasteners

GI Corners



Nut, Bolt and
Washers



Google

SAHARA STAR
Multi-Media Group

SERUM INSTITUTE OF INDIA
Genetic Polymorphic Studies

cloudnine

FDC
FDC Limited

Schindler

HYATT

BUD LIGHT

Thomas Cook

HONDA

Suma Shilp Ltd.

GIGAPLEX
BANGALORE

coWork

Fortis

K RAHEJA CORP

Chhatrapati Shivaji
International Airport

Sify

Lilly

Cummins

redhat

Piramal

Emirates

D-Mart

TAJ
Hotels, Resorts and Palaces

BOSCH

Cipla
Caring for life

UNIQUE

Mercedes-Benz

APER HOSPITALS

Castrol

Colofcon

Raymond

TATA

BIG BAZAAR

saama

LODHA
BUILDING & BETTER LIFE

ZEETV

LOTUS

HONDA

TIFFAN

Reliance

Jio

ORION
HALL OF BRIDGE GROUP

ugam

ACG

INS

COURTYARD
Marriott

BMW

Volkswagen

wework

Reliance

Jio

ORION

ACG

Melody

adon

HCL

IGATE

GSCL

Reliance

Jio

ORION

ACG

Melody

adon

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