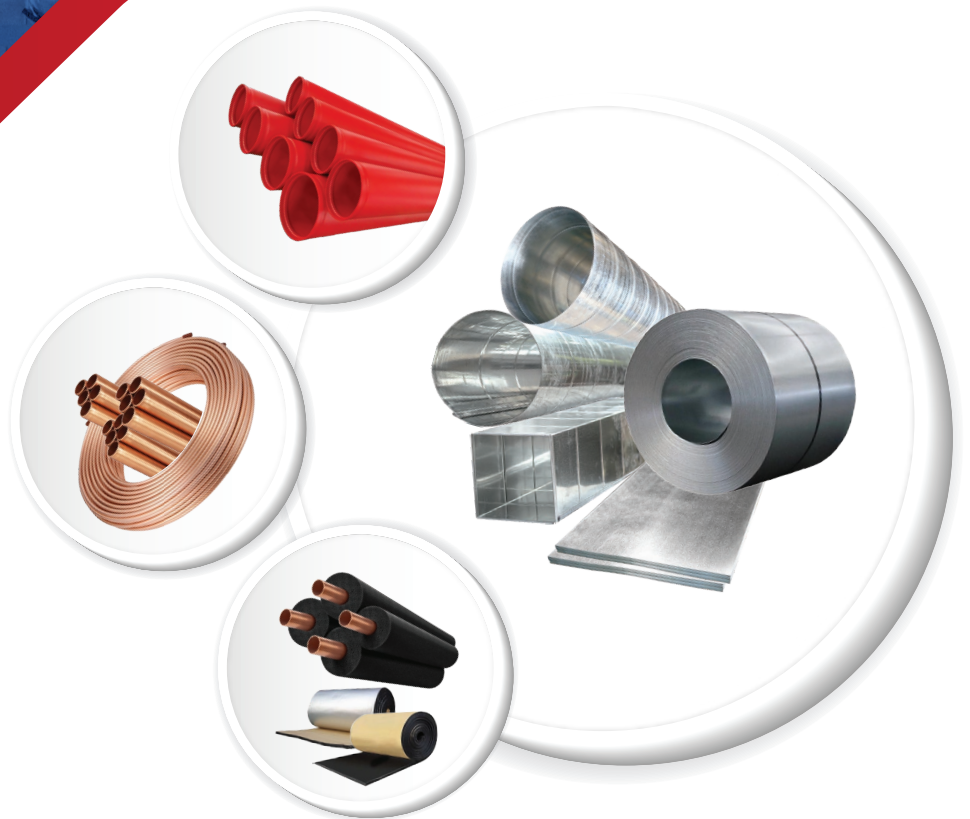




PRODUCT CATALOG

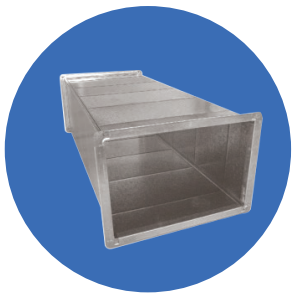


SAFETY STANDARD

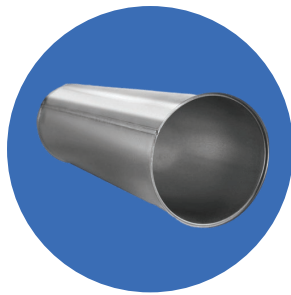




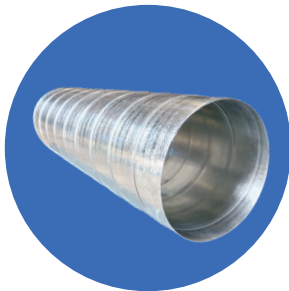
MAIN PRODUCTS



**RECTANGULAR
AIR DUCT**



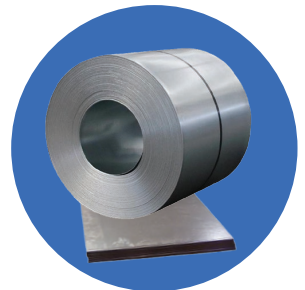
**ROUND
AIR DUCT**



**SPIRAL
AIR DUCT**



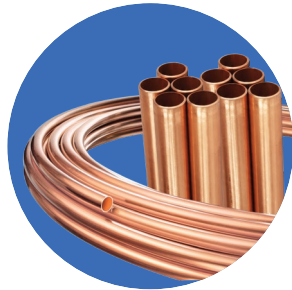
**CORNERS & DRIVE
SLIP**



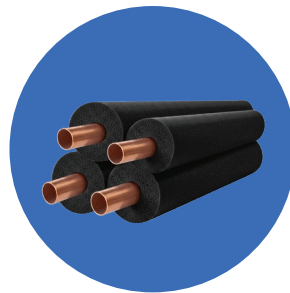
**G.I STEEL
COIL ROLL & SHEET**



**FLEXIBLE
AIR DUCT**



**COPPER
PIPE**



**INSULATION
TUBE**



**INSULATION
FOAM TAPE**



**CANVAS DUCT
CONNECTOR**

AUTOMATIC PRODUCTION LINE



CONTENTS

- DUCT INTRODUCTION
- RECTANGULAR DUCT & FITTINGS
- ROUND / SPIRAL DUCT & FITTINGS
- CORNERS & DRIVE SLIP
- G.I STEEL COIL ROLL & G.I STEEL SHEET
- THERMAL / ACOUSTIC INSULATION
- FOAM GASKET TAPE / GLUE
- FLEXIBLE AIR DUCT
- CANVAS DUCT CONNECTOR
- DUCT SEALANT / FIRE RATE SEALANT
- FIRE FIGHTING PIPE & FITTING
- COPPER PIPE MEDICAL GAS / HOT, COLD WATER / AC.

DUCT INTRODUCTION

A duct system is an assembly whose primary function is to convey air between specified points.

ASHRA categorizes duct systems as either single path or dual path. Systems should be designed using accepted engineering practice and data such as that in the four ASHRAE Handbooks and the SMACNA HVAC Duct Systems Design manual. A duct system may contain ducts under positive and negative pressure. Air velocities will vary within the system. At coils and filters, the velocity may vary from below 1000 fpm (5m/s) to over 3000 fpm (15m/s). Velocity in duct mains and branches can be at constant (high or low) or varying levels. With the many available systems sizing methods (e.g., **equal friction, static regain, velocity reduction, total pressure**) and system types, performance cannot be economically optimized unless the designer selects construction details appropriate for the given pressure and velocity.

Generally speaking, duct strength, deflection, and leakage are more functions of pressure than of velocity. In conventional systems, noise, vibration, and friction loss are more related to velocity than to pressure.

Because total pressure is less downstream than upstream, a duct construction pressure classification equal to the fan outlet pressure (or to the fan total static pressure rating) cannot economically be imposed on the entire duct system. Pressure in ducts near room air terminals is nearly always below 1/2" water gage (125 Pa).

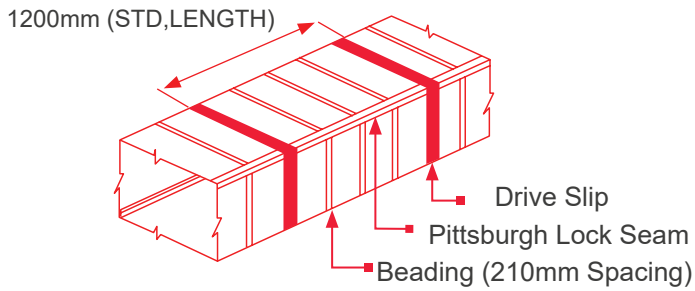
For a clear interpretation of requirements for ducts and for economical attainment of performance objectives, it is ESSENTIAL THAT CONTRACT PLANS IDENTIFY THE PORTION OF EACH DUCT SYSTEM TO BE CONSTRUCTED FOR A PARTICULAR PRESSURE CLASSIFICATION OR THAT THE ENTIRE SYSTEM BE ASSIGNED A PRESSURE CLASSIFICATION.



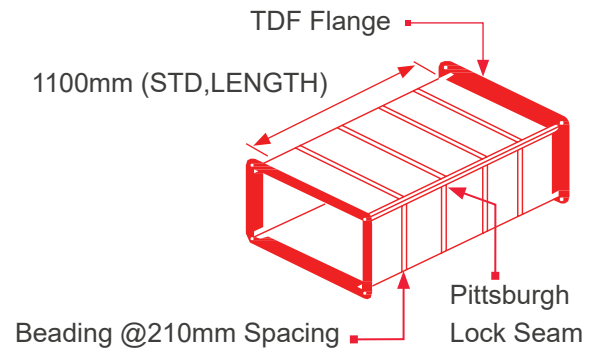
HANGER DIMENSION & RECOMMEND SHEET STEEL THICKNESS

Dimension of duct Width size	G.I Metal thickness (mm)	Steel rod (mm)	Steel Hanger (mm)	Spacing Duct (mm)
Up to 600	0.6	8	V-30x30x3	1800
600 to 800	0.8	10	V-40x40x4	1800
850 to 1000	0.8	12	V-50x50x5	1500
1050 to 1800	1	14	U-100x50x5	1500
1850 to 2400	1.2	16	U-100x50x5	1500
2400 to 3000	1.4	18	U-100x50x5	1500

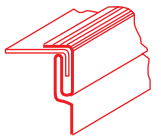
DUCT SYSTEM CONSTRUCTION



STRAIGHT DUCT SLIP DRIVE CONNECTION



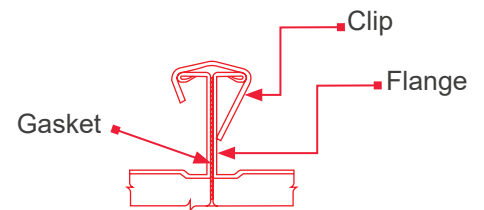
STRAIGHT DUCT FLANGE CONNECTION



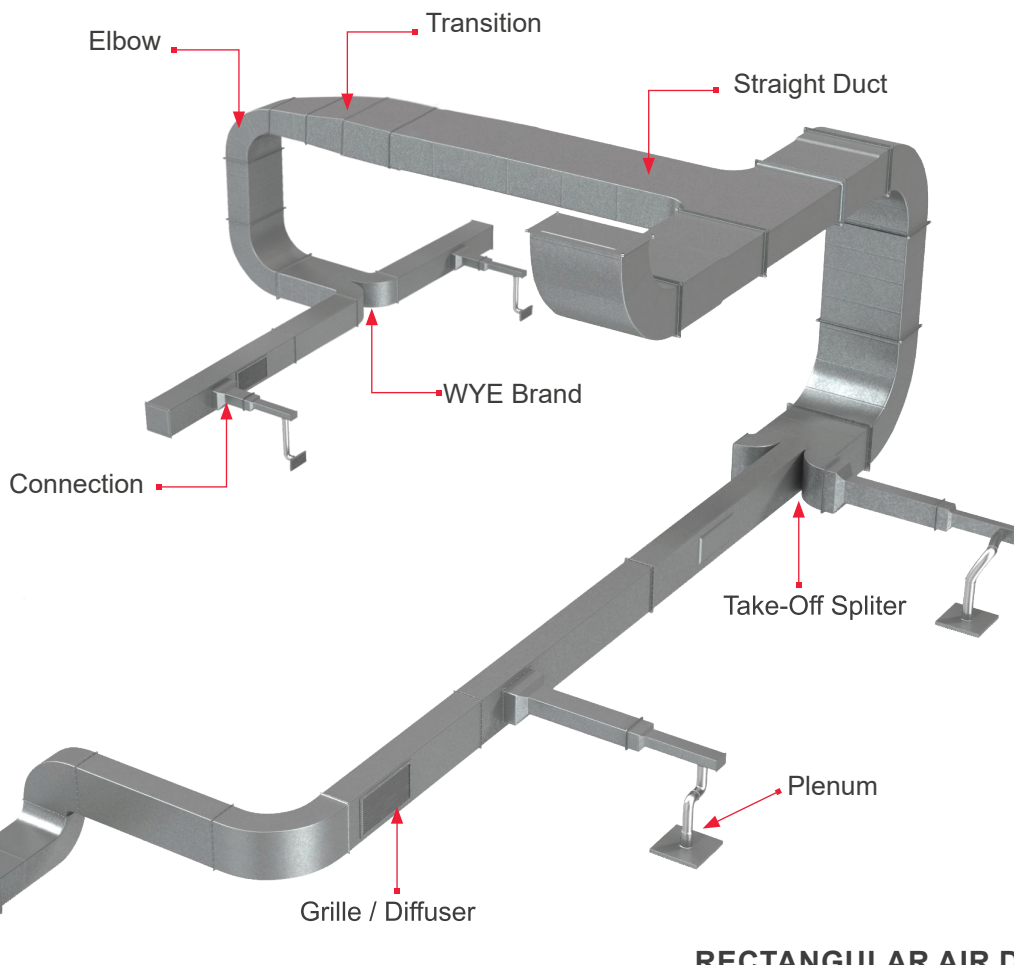
**L-1
PITTSBURGH LOCK**



DRIVE SLIP



TDF FLANGE



RECTANGULAR AIR DUCT SYSTEM

RECTANGULAR DUCT & FITTINGS

SPECIFICATION

Fabrication standard: DW 144 | ASHRAE

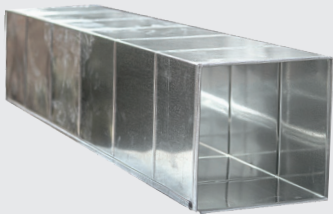
Material: G.I | Aluminium | Black Steel | Stainless Steel

Joint: Drive Slip | TDF Flange | Pittsburgh Lock Seam | Welded

Assembly: Pre-Assembly or Full Assembly

Application: HVAC | Ventilation | Kitchen Hood | Other

STRAIGHT DUCT



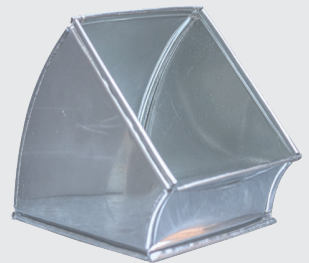
(SD)

ELBOW 90°



(RE90)

ELBOW 45°



(RE45)

•Standard :

L=1200mm For Drive Slip

(TH = 0.6 mm)

L=1100mm For TDF Flange

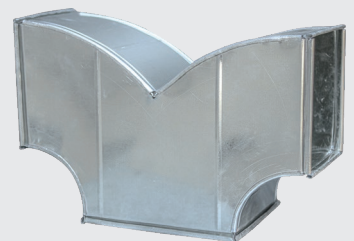
(TH = 0.8 mm | 1 mm | 1.2 mm)

BRANCH SECTION CHANGE



(BSC)

WYE BRAND



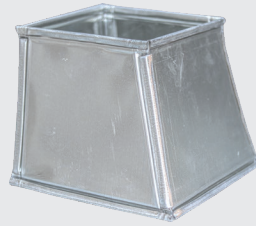
(WY)

CONCENTRIC TRANSITION



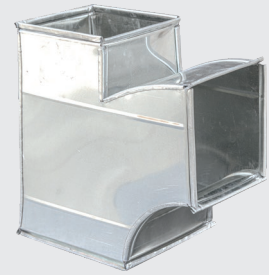
(CT)

ECCENTRIC TRANSITION



(ET)

BRANCH TAKE OFF



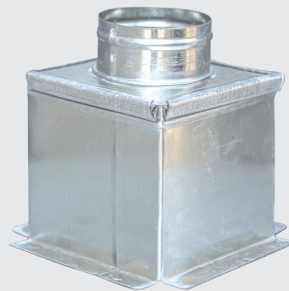
(BT)

OFFSET



(OF)

PLENUM GRILLE



(PG)

BRANCH CONNECTIONS



(BC)

PANT WYE



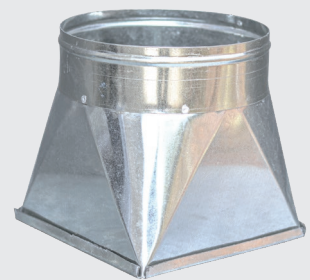
(PW)

GOOSE NECK RADIUS



(GNR)

RECTANGULAR TO ROUND



(RTR)

ROUND | SPIRAL DUCT & FITTINGS

SPECIFICATION

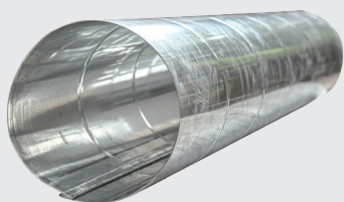
Fabrication standard: DW 144 | ASHRAE

Material: G.I | Aluminium | Black Steel | Stainless Steel

Assembly: Pre-Assembly or Full Assembly

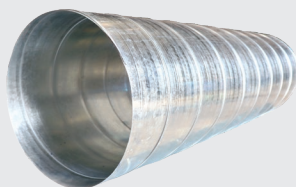
Application: HVAC | Ventilation | Kitchen Hood | Other

ROUND DUCT



(RD)

SPIRAL DUCT



(SD)

ROUND TRANSITION



(RT)

• Standard :

L=1200 mm, L=2400 mm

- Round Duct:

(TH = 0.6 mm | 0.8 mm | 1 mm |
1.2 mm)

- Spiral Duct:

(TH = 0.4 mm | 0.5 mm | 0.6 mm
| 0.8 mm | 1 mm | 1.2 mm)

ROUND COLLA



(RC)

ROUND SADDLE



(RS)

TEE



(TE)

ROUND OFFSET



(RO)

ROUND EBOW



(RE)

MITERED ELBOW 2-PIECE



(E-2-M-90)

ROUND WYE



(RW)

Y-BRANCH OR PANT WYE



(YB/PW)

REDUCING LATERAL CROSS



(RLC)

REDUCING ELBOW



(RE-5-90)

CROSS TEE



(CT)



CORNERS & DRIVE SLIP

CORNER



Thickness: 10c = 1mm

1bag = 25kg = 550pcs

DRIVE SLIP



Thickness: 6c = 0.6mm

Length: 1.2m

1bundle = 25kg = 80length

TDF DRIVE CLEAT



Thickness: 10c = 1mm

Length: 1.2m

1bundle = 25kg = 50length

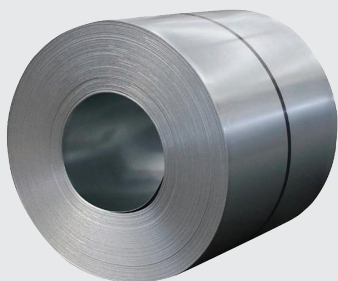
TDF DRIVE CLEAT TOOL



G.I STEEL COIL ROLL & G.I STEEL SHEET

Galvanizing, or galvanization, is a manufacturing process where a coating of zinc is applied to steel or iron to offer protection and prevent rusting. There are several galvanizing processes available, but the most commonly offered and used method is called hot-dip galvanizing.

G.I STEEL COIL ROLL



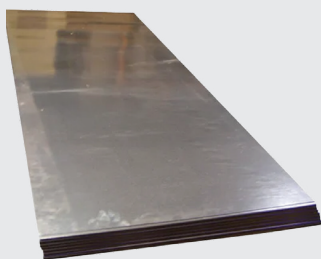
• Standard:

- G.I sheet coil, Zn 80G
- EN 10346 | Width: 1.25m
- Thickness: 0.6mm, 0.8mm, 1.0mm, 1.2mm
- Coating mass weight Z80 | Steel Grad DX51

• Order Size:

- 3000kg - 5000kg

G.I STEEL SHEET



• Standard:

- G.I sheet coil, Zn 80G
- EN 10346 | Width: 1.25m
- Thickness: 0.6mm, 0.8mm, 1.0mm, 1.2mm
- Coating mass weight Z80 | Steel Grad DX51

• Order Size:

- 1250mm x 2400mm
- Size can be special request

PRODUCT SPECIFICATIONS

Base steel thickness	0.25 mm, 3.00 mm
Width	860 mm - 1250 mm
Coating mass weight	(Z80 - Z500g/m ²)

GALVANIZING STANDARDS

Coated standard	Base steel standard
JIS 3302	SGCC, SGC340, SGC400, SGC440, SGC570
AS 1397	G250, G300, G350, G450, G550
ASTM A653/A653M	CSA, CSB, SS33, SS37, SS50, SS60, SS70, SS80
EN 10346	DX51, S220GD, S250GD, S280GD, S320GD, S350GD, S550GD

INSULATION

Insulation is required in HVAC ductwork and systems to keep air temperature and systems running as designed. It has numerous benefits for project owners such as reducing energy consumption and improving confort for occupants.

INSULATION

CF - Closed, idea | structure NBR Rubber Foam is a high quality flexible thermal insulation product, idea | for HVAC & R application. It includes pipe and sheet insulations. The main application is for refrigerant medium system in A/C machine, metal air duct system, chilled and condensed water systems and hot water piping system.



• Standard:

- Insulation Sheet, CLASS 0
- Length: 10m/rolls
- Width: 1.2m
- Thickness: 13mm, 19mm
- Density: 55kg/m³



• Standard:

- Insulation Sheet with Sticker and FSK AL FOIL, CLASS 0
- Length: 10m/rolls
- Width: 1.2m
- Thickness: 13mm, 19mm
- Density: 55kg/m³

PROPERTIES	DATA	TEST METHOD
Density	40-90 kg/m ³ 250 - 561 lbs/ft ³	ASTM D1667
Thermal conductivity	W/m.k (BTU.in/ft ² °F)	
-20°C	0.0310 (0.225)	ASTM C518
0°C	0.0340 (0.240)	
40°C	0.0380 (0.260)	
Water Vapor Permeability	1.16x10 ⁻¹³ (0.08) s.m.Pa (perm-in)	ASTM E96
Moisture Resistance	>= 7000	
Water Absorption(%)	>= 0.2 (by volume)	
Flammability and Smoke Developed	25/50	ASTM E84/ULC S102
	Class 0	BS 476 Part 6 & 7
Dimensional Stability	0 to 7%	ASTM C534
Temperature Range	-50 ~ + 105°C (-58 ~ +221°F)	

THICKNESS		WIDTH	LENGTH	COVER AREA
Inch	mm	m	m	m ²
1/4"	6	1.2	30	36.00
3/8"	9		20	24.00
1/2"	13		15	18.00
5/8"	15		12	14.40
3/4"	19		10	12.00
1"	25		8	9.60
1 1/4"	32		6	7.20
1 1/2"	40		5	6.00
2"	50		4	4.80

ACOUSTIC INSULATION

Is engineered and designed specifically for air - conditioning units, automotive, generator shell, generator room sound insulation.



• **Standard:**

- Acoustic Insulation, CLASS 0
- Length: 10m/rolls
- Width: 1.0m
- Thickness: 25mm
- Density: 55kg/m³

TECHNICAL SPECIFICATIONS					
VALUES					TEST METHODS
Density	45 kg/m ³ - 60 kg/m ³				
Service Temperature	-50°C to 105°C				
Thermal Conductivity	Mean Temp	0°C	20°C	40°C	ASTM C518 ASTM C177
	W/m-K	≤0.040	≤0.043	≤0.047	

VALUES		TEST METHODS
Environment	No Fungal Growth	ASTM G21
	Dust and Fibre Free	
	CFC Free	
Acoustic Performance Based on 1" (25mm) thickness	1/3 Octave Frequency	Sound Absorption Coefficient α
	250Hz	0.24
	630Hz	0.72
	800Hz	0.79
	1250Hz	0.57
	2500Hz	0.64
	5000Hz	0.72
	NRC	0.60
		ASTM C423

PARAMETER SHEET	
PHYSICAL PROPERTIES	DATA
Structure	Semi Open Cell Structure
Patterns	Egg, Plain
Thickness	6, 10, 15, 25, 50mm
Size	1m x 1m, 1m x 1.5m, 1m x 2.0m
Package	Plastic Bag or Paper Carton

- Other sizes available on request

INSULATION TUBE

Insulation tubes are designed to cover pipes and wiring, primarily to conserve energy, prevent heat loss or gain, stop condensation, and protect against freezing or overheating.



• Standard:

- Insulation tube, CLASS 0
- Length: 2m
- Thickness: 9mm, 19mm, 25mm
- Density: 60kg/m³
- ID (mm): 6, 13, 16, 19, 22, 25, 28, 32, 35, 38, 42, 48, 54

TUBES SIZE AVAILABILITY

ID TK	1/4" (PCS/CTN)	3/8" (PCS/CTN)	1/2" (PCS/CTN)	3/4" (PCS/CTN)	1" (PCS/CTN)	1-1/4" (PCS/CTN)	1-1/2" (PCS/CTN)
1/4"	290	168	103	50	33		
3/8"	200	132	82	42	30		
1/2"	160	108	72	39	26		
5/8"	130	90	60	35	24	20	
3/4"	108	78	50	32	22	18	
7/8"	90	68	48	29	22	16	
1"	76	55	42	26	19	15	
1-1/8"	66	50	38	24	18	14	
1-1/4"	56	44	36	20	16	13	
1-3/8"	48	40	30	20	16	12	
1-1/2"		35	27	18	15	11	
1-5/8"		35	24	18	14	11	
1-7/8"		32	20	14	12	10	
2"		30	20	12	12		
2-1/8"		28	20	12	12		
2-3/8"		28	17	10	10	8	
3"			17	10	8	6	5
3-1/2"			14	10	8	6	5
4-1/4"					6	6	4

- Other sizes available on request



INSULATION FOAM TAPE

• Standard:

- Insulation tape
- Length: 10m/rolls, 1Carton (60Rolls)
- Width: 50mm
- Thickness: 3mm
- Material: NBR

INSULATION FOAM TAPE

Application: Sealing and insulating between material joints.

PACKING	
Size	Rolls/Carton
3mm x 50mm x 10m	60
3mm x 25mm x 10m	120
5mm x 50mm x 10m	48
5mm x 25mm x 10m	96
Size can be customized	



ALUMINUM FOIL TAPE

• Standard:

- Aluminium foil tape
- Length: 28m/rolls, 1Carton (36Rolls)
- Width: 50mm
- Thickness: 0.03mm

ALUMINUM FOIL TAPE

Application : Sealing joining joints and seams against moisture and vapor on foil jacketing, or used in refrigeratores, heaters, etc.

PACKING	
SIZE & SPECIFICATION	
Thickness	13/18/30/50 Micron
Width	50-1200 mm
Length	20/28/50 m
Rolls/Carton	36



INSULATION GLUE

• Standard:

- Packing: 1L/Can, 1Carton (15Can)

INSULATION GLUE

The glue is specifically formulated for the best adhesion for our rubber foam. It is best used for joining sheets and tubes together.

PACKING	
litre	Can/Carton
1litre	15
3.36litre	6

FLEXIBLE AIR DUCT

Flexible Air Duct are made of laminated foil with strong helix steel wire Apply for low/medium/high pressure air ventilation and air condition systems.



• **Standard:**

- Flexible air duct without insulation
- Length: 10m/rolls
- Diameter Ø: 100mm, 150mm, 200mm, 250mm, 300mm

PROPERTIES		
ITEM	SINGLE LAYER ALUMINUM FLEXIBLE DUCT	DOUBLE LAYER ALUMINUM FLEXIBLE DUCT
CONSTRUCTION (FROM OUTSIDE TO INSIDE)	Aluminum Foil + PET	Aluminum Foil + PET + Aluminum Foil
COLOR	Silver / Black / Gold	Silver / Black / Gold
INNER DIAMETER	40mm - 650mm (1.5" - 25")	40mm - 650mm (1.5" - 25")
CARBON STEEL WIRE DIAMETER	0.9mm - 1.3mm	0.9mm - 1.3mm
LENGTH	10m (Max)	10m (Max)
THICKNESS	0.025mm - 0.028mm	0.032mm - 0.035mm
FIRE RESISTANCE	Class A2 (Max)	Class A2 (Max)
COMPRESS RATIO	10 : 0.4	10 : 0.4
TEMPERATURE RANGE	-30°C/+150°C	-30°C/+150°C
OPERATING PRESSURE	3000Pa	3000Pa
MAXIMUM AIR VELOCITY	30m/s	30m/s

FLEXIBLE AIR DUCT WITH INSULATION

is Flexible air duct with insulation insulated duct are made of standard flexible duct. Apply for low/high ventilation and air condition systems.



•Standard:

- Flexible Air Duct With Insulation
- Length: 10m/rolls
- Diameter Ø: 100mm, 150mm, 200mm, 250mm, 300mm
- Density: 24kg/m³

PROPERTIES					
ITEM			INSULATED FLEXIBLE DUCT		
			YELLOW FIBERGLASS	OWENS CORNING FIBERGLASS	POLYSTER
CONSTRUCTION (FROM OUTSIDE TO INSIDE)	SLEEVE		Aluminum Foil / Glass Fabric / Combi PVC	Aluminum Foil / Glass Fabric / Combi PVC	Aluminum Foil / Glass Fabric / Combi PVC / VMPET
	FIBERGLASS / POLYESTER	DENSITY / GRAM WEIGHT	16kg/m³ - 32kg/m³	10kg/m³ - 24kg/m³	100g/m² - 750kg/m²
		THICKNESS	25mm - 30mm	25mm - 50mm	
	INNER DUCT	MATERIAL	Single / Double Layer Aluminum Flexible Duct	Single / Double Layer Aluminum Flexible Duct	Double Layer Aluminum Flexible Duct / VMPET Flexible Duct
		DIAMETER	50mm - 650mm (2" - 25")	50mm - 650mm (2" - 25")	50mm - 650mm (2" - 25")
CARBON STEEL WIRE DIAMETER			0.9mm - 1.3mm	0.9mm - 1.3mm	0.9mm - 1.3mm
LENGTH			10m (Max)	10m (Max)	10m (Max)
THERMAL INSULATION					R 1.0 - R 3.0
FIRE RESISTANCE			Class A2 (Max)	Class A2 (Max)	Class A2 (Max)
COMPRESS RATIO			10 : 1	10 : 1	10 : 1
TEMPERATURE RANGE			-30°C / + 150°C	-30°C / + 150°C	-30°C / + 150°C
OPERATING PRESSURE			3000Pa	3000Pa	3000Pa
MAXIMUM AIR VELOCITY			30m/s	30m/s	30m/s

CANVAS DUCT

- The surface is made of polyurethane layer fiber cloth, which has been tested for high temperature resistance for thousands of times.
- The accessories of this product are tightly combined, with good air tightness and oxidation resistance this product has good plasticity, can be folded into the desired.
- temperature 20°C - 60°C.



Construction

- Frame & inner: Sheet iron + PVC Flame retardant polyester cloth.

Surface Finish

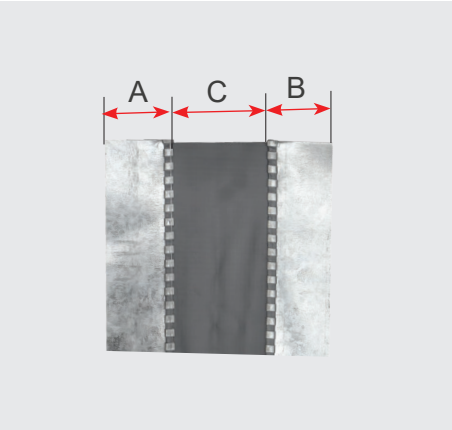
- Gavanize and antioxidant treatment .

Material thickness

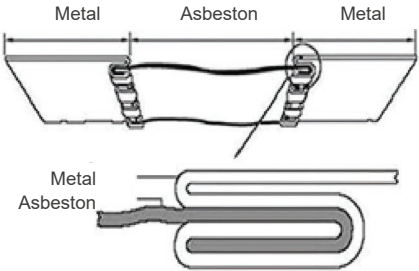
- Algam: (Metal): 0.5mm / cloth: 0.45mm (PVC gray).

• **Standard:**

- Canvas Cloth PVC Gray
- Size: 45mm x 60mm x 45mm
- Length: 25m/roll



Drawing



SPECIFICATION	45mm	60mm	45mm	L=25M
SPECIFICATION	45mm	100mm	45mm	L=25M
SPECIFICATION	45mm	75mm	45mm	L=25M
SPECIFICATION	45mm	140mm	45mm	L=25M
SPECIFICATION	75mm	140mm	75mm	L=25M

CANVAS FIRE RATED

The surface is made of polyurethane layer fiber cloth, which has been tested for high temperature resistance for thousands of times.

- The accessories of this product are tightly combined, with good air tightness and oxidation resistance this product has good plasticity, can be folded into the desired.
- temperature 250°C.



Construction

- Frame & inner: Sheet iron + PVC Flame retardant polyester cloth.

Surface Finish

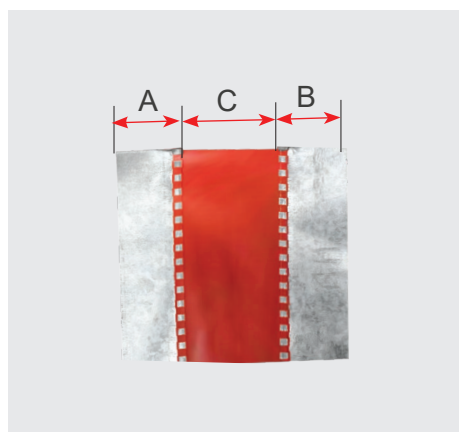
- Gavanize and antioxidant treatment.

Material thickness

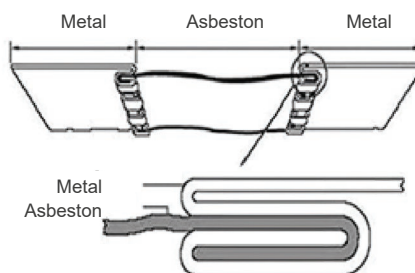
- Algam: 0.5mm / cloth: 0.45mm (Silica red).

• Standard:

- Canvas Cloth Silica (Red)
- Size: 45mm x 60mm x 45mm
- Length: 25m/rolls



Drawing



SPECIFICATION	45mm	60mm	45mm	L=25M
SPECIFICATION	45mm	100mm	45mm	L=25M
SPECIFICATION	45mm	75mm	45mm	L=25M
SPECIFICATION	45mm	140mm	45mm	L=25M
SPECIFICATION	75mm	140mm	75mm	L=25M

DUCT SEALANT

Duct Sealant is a gray water-based duct sealant used in medium and high-pressure duct system. Ta 102 is a special formulation which provides permanent flexibility, excellent water-resistance and superior sealing strength.



• Standard:

- Silicone glue white
- Packing: 1 bottle (300ml), 1 Box (24 bottles)

Special Characteristics

- Low VOC and low Odor
- Excellent workability
- Non corrosive towards metals
- Slump resistant
- High solid content
- Low shrinkage

Typical Application

- Suitable on all types of HVAC duct system including sheet metal duct, duct board and flexible ducts, sealing of seam, spigot and flange joints in metal fabrications.

PACKING		
PACKING	COLOR	QUANTITY / CARTON
600ml	White, Black, Grey etc.	20 sausages
300ml	White, Black, Grey etc.	24 cartridges
280ml	White, Black, Grey etc.	24 cartridges

TECHNICAL DATA	
Appearance	Paste
Density	1.63g/cm ³
Skin Time	7~10min
Curing Time	3.5mm/24h
Elongation at Break	250%
Application Temperature Range	5°C to 40°C
Service Temperature Range	-20°C to 75°C
Hardness Shore A	32



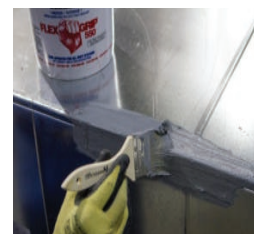
HVAC duct system



HVAC duct system



HVAC duct system



HVAC duct system

Storage

- When stored in original unopened container at or below 32°C, and above freezing, acrylic sealant has a shelf life of 18 months from manufacturing date. Containers should always be kept sealed when not in use.

Note

- Keep out of reach of children. In case of contact with eyes, please rinse eyes with plenty of water and seek medical advice as soon as possible.

FIRE RATED ACRYLIC SEALANT

TA103 Fire Rated Acrylic Sealant is a single component, non-sag, fire rated acrylic based sealant. it is a acrylic based sealing compound specifically manufactured for sealing low movement interior joints in masonry and plasterboard to provide a fire barrier for periods up to 4 hours.



• Standard:

- Silicone glue white
- Unit: 1bottle/300ml, 1Box (24bottles)

Special Characeristics

- More then 4 hours of fire resistance without using any backfilling materials in certain conditions.
- Good unprimed adhesion to most common construction substrates.
- No-slump.
- Can be painted over using water based paints.
- Easy to apply.

Typical Application

- Sealing construction/expansion joints
- Top of wall joints
- Metal bundles
- Cable bundles
- HVAC penetration

PACKING		
PACKING	COLOR	QUANTITY / CARTON
600ml	White, Black, Grey etc.	20 sausages
300ml	White, Black, Grey etc.	24 cartridges
280ml	White, Black, Grey etc.	24 cartridges

TECHNICAL DATA	
Appearance	Paste
Density	1.63g/cm ³
Skin Time	12min
Curing Time	2day
Elongation at Break	100%
Application Temperature Range	5°C to 40°C
Service Temperature Range	-20°C to 90°C
Hardness Shore A	40



Construction joints



Metal pipes



Cable bundles



HVAC penetration

Storage

- When stored in a cool dry place & in its original unopened packaging, fire rated acrylic sealant will return 18 months from date of manufacture.

Note

- Keep out of reach of children. In case of contact with eyes, please rinse eyes with plenty of water and seek medical advice as soon as possible.

FIRE FIGHTING PIPE

Fire fighting pipe is a type of steel pipe used to convey fire fighting system such as fire sprinkler, fire hose and fire suppression system.



SPECIFICATION WELDED & SEAMLESS STEEL PIPE	
Standard:	ASTM A795, ASTM A53/A106, BS1387, EN 10255, AS 1074, GB/T 3091-2015
Product Steel Pipe:	Black Steel, Epoxy Resin Powder, Painted (Anti-Rust, Primer, Epoxy), Hot-dip Galvanizing, Plastic-Lining

- **Standard:**
 - Welded Black Steel Pipe: ASTM A53
 - Length: 5.8m | Schedule: 40
 - Coating: Powder Epoxy Resin (Red)
 - DN: 20mm to 150mm

STANDARD (ASTM A53)					
Specification for Pipe, Steel, Black and Hot-Dipped, Welded and Seamless					
Schedule	Nominal Size	Outside Diameter	Wall Thickness	Mass of Black Tube	Test Pressure
	(Inch)	(mm)	(mm)	Plain End (kg/m)	Grade B (PSI)
Schedule 40	1/2"	21.3	2.77	1.27	700
	3/4"	26.7	2.87	1.69	700
	1"	33.4	3.38	2.5	700
	1 1/4"	42.2	3.56	3.39	1300
	1 1/2"	48.3	3.68	4.05	1300
	2"	60.3	3.91	5.44	2500
	2 1/2"	73	5.16	8.63	2500
	3"	88.9	5.49	11.29	2500
	4"	114.3	6.02	16.07	2210
	5"	141.3	6.55	21.77	1950
	6"	168.3	7.11	28.26	1780

Schedule 40	8"	219.1	8.18	42.55	1570
	10"	273	9.27	60.29	1730
	12"	323.8	10.31	79.7	1340
	14"	355.6	11.13	94.55	1310
	16"	406.4	12.7	123.3	1310
	18"	457	14.27	155.87	1310
	20"	508	15.09	183.42	1250
	24"	610	17.48	255.24	1200

Schedule	Nominal Size	Outside Diameter	Wall Thickness	Mass of Black Tube	Test Pressure
	(Inch)	(mm)	(mm)	Plain End (kg/m)	Grade B (PSI)
Schedule 80	1/2"	21.3	3.73	1.62	850
	3/4"	26.7	3.91	2.2	850
	1"	33.4	4.55	3.24	850
	1 1/4"	42.2	4.85	4.47	1900
	1 1/2"	48.3	5.08	5.41	1900
	2"	60.3	5.54	7.48	2500
	2 1/2"	73	7.01	11.41	2500
	3"	88.9	7.62	15.27	2500
	4"	114.3	8.08	22.32	2800
	5"	141.3	8.56	30.94	2800
	6"	168.3	10.97	42.56	2740
	8"	219.1	12.7	64.64	2430
	10"	273	15.09	95.97	2320
	12"	323.8	17.48	132.04	2270
	14"	355.6	19.05	158.1	2250
	16"	406.4	21.44	203.53	2220

STANDARD (BS 1387)

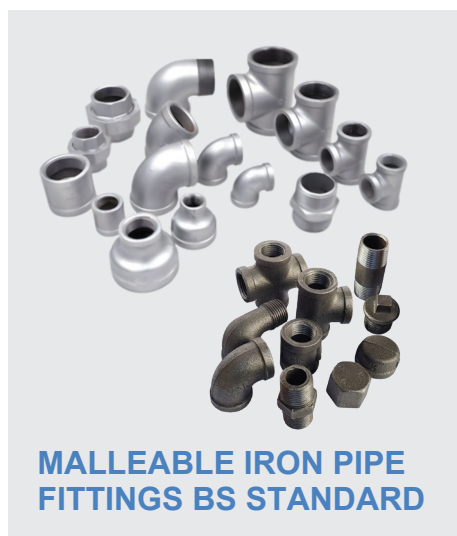
Specification for Screwed and Socketed Steel Tubes and Tubulars and for Plain End Steel Tubes Suitable for Welding

Classification	Nominal Size	Outside Diameter		Wall Thickness	Mass of Black Tube	
	(mm)	Min.(mm)	Max.(mm)	(mm)	Plain End (kg/m)	Screw & Socket (Kg/m)
MEDIUM	15	21.1	21.7	2.6	1.21	1.22
	20	26.6	27.2	2.6	1.56	1.57
	25	33.4	34.2	3.2	2.41	2.43
	32	42.1	42.9	3.2	3.1	3.13
	40	48.0	48.8	3.2	3.57	3.61
	50	59.8	60.8	3.6	5.03	5.1
	65	75.4	76.6	3.6	6.43	6.55
	80	88.1	89.5	4	8.37	8.54
	100	113.3	114.9	4.5	12.2	12.5
	125	138.7	140.6	5	16.6	17.1
	150	164.1	166.1	5	19.7	20.3

Classification	Nominal Size	Outside Diameter		Wall Thickness	Mass of Black Tube	
	(mm)	Min.(mm)	Max.(mm)	(mm)	Plain End (kg/m)	Screw & Socket (Kg/m)
HEAVY	15	21.1	21.7	3.2	1.44	1.45
	20	26.6	27.2	3.2	1.87	1.88
	25	33.4	34.2	4	2.94	2.96
	32	42.1	42.9	4	3.8	3.83
	40	48.0	48.8	4	4.38	4.42
	50	59.8	60.8	4.5	6.19	6.26
	65	75.4	76.6	4.5	7.93	8.05
	80	88.1	89.8	5	10.3	10.5
	100	113.3	114.9	5.4	14.5	14.8
	125	138.7	140.6	5.4	17.9	18.4
	150	164.1	166.1	5.4	21.3	21.9

FIRE FIGHTING FITTING

Fire fighting fitting is a component used to connect or control fire fighting pipes in a fire protection system.



Product Detail	
BS Bend 90°, M/F	BS Bend 90°, M/F
BS Short Bend 90°, M/F	BS Short Bend 90°, Female
BS Short Bend 90°, M/F	BS Bend 90°, Male
BS Bend 90°, Female	BS Bend 45°, M/F
BS Bend 45°, Female	ELBOW 45°
BS Tree	BS Reducing Tee



Product Detail	
Heavy-duty Flexible Coupling	Standard Reducing Flexible Coupling
Ductile Iron Grooved Fittings and Couplings	Standard Rigid Coupling
Light-duty Flexible Coupling	Light-duty Rigid Coupling
Slim Type Flexible Coupling	Angle Pad Coupling
Standard Wrench Coupling	HDPE Transition Coupling
HDPE Coupling	90° Hydrant Elbow

COPPER PIPE MEDICAL GAS X COLD & HOT WATER

Copper pipe for cold and hot water is a copper tube used for cold-water and hot-water supply systems, commonly used in building plumbing installations.



• **Standard:**

- Copper Tube
- Diameter: Ø10mm to 35mm
- Length: 5.8m/length
- Standard: EN13348

Product Detail					
Nominal Diameter(mm)	Nominal Thickness(mm)	Mass / Length (kg / 5.8m)	Tube Temper#	SafeWorking Pressure*(kPa)	Nominal Diameter(mm)
8	0.8	0.94	HD	10200	100
10	0.8	1.20	HD	8100	100
12	0.8	1.46	HD	5230	100
15	0.7	1.63	HD	4500	100
22	0.9	3.09	HD	3900	50
28	0.9	3.98	HD	3100	50
35	1.2	6.61	HD	3300	50
42	1.2	7.98	HD	2700	50
54	1.2	10.33	HD	2100	30
67	1.2	12.81	HD	1700	25
76	1.5	18.24	HD	1800	25
108	1.5	26.04	HD	1300	10
133	1.5	32.15	HD	1000	10
159	2.0	51.18	HD	1200	5



• **Standard:**

- Copper Tube
- Diameter: Ø22mm to 44mm
- Length: 5.8m/length
- Standard: JIS H3300
- Copper Coil
- Diameter: Ø6.35mm to 19.05mm
- Length: 5.8m/length
- Standard: ASTM B280

Product Detail				
DAIMETER / WALL THICKNESS TOLERANCE COMPLY TO				
Soft annealed copper coil				
Outer Diameter		Diameter Tolerance	Wall Thickness	Wall Thickness Tolerance
mm	inch	+/-mm	mm	+/-mm
6.35	1/4"	0.051	0.76	0.08
9.52	3/8"	0.051	0.81	0.08
12.70	1/2"	0.051	0.81	0.08
15.88	5/8"	0.051	0.89	0.11
19.05	3/4"	0.064	0.89	0.11

DAIMETER / WALL THICKNESS TOLERANCE COMPLY				
Straight Tube				
Outer Diameter		Diameter Tolerance	Wall Thickness	Wall Thickness Tolerance
mm	inch	+/-mm	mm	+/-mm
Ø22	7/8"	0.09	1.0	0.13
Ø25	1"	0.09	1.0	0.13
Ø28	1 1/8"	0.12	1.0	0.15
Ø31	1 1/4"	0.12	1.2	0.15
Ø38	1 3/8"	0.12	1.4	0.15
Ø34	1 1/2"	0.12	1.2	0.15
Ø41	1 5/8"	0.12	1.4	0.15
Ø44	1 3/4"	0.12	1.4	0.15
Ø50	2"	0.12	1.5	0.18



FAST

FAST PRODUCT & SUPPLY CO.,LTD

- ☑ **G.I Air Ducts & Insulation**
- ☑ **Firefighting Pipes & Fitting**
- ☑ **Copper Pipe & Insulation**

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