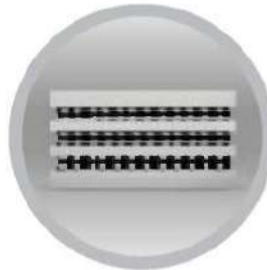




مجموعة الجنيد الصناعية
Al Junaid Indust. Group



صناعة أنظمة تكييف الهواء المركزي
AIRCONDITIONING INDUSTRIES

INTRODUCTION

- Al Junaid Industrial Group is one of the leading manufacturers for the HVAC Industry in the region. The group was established in the year 2008 with dedicated technicians using high- performance machinery Engineering service CNC Technology and to give high- quality Standards
- Al Junaid Industrial Group located in the city of Sharjah in the United Arab Emirates which gives us the advantage to be in the center of the Country for the fast distribution of our products.
- Our product offer includes Grilles & Registers, Linear bar grilles Square diffusers, Slot Diffusers, Round diffusers, Perforated diffusers, Air Louvers, Exhaust Valves, Door grilles, Nonreturn Dampers, Sand Trap Louvers, Jet diffusers, Volume control Dampers, Fire Dampers, Sound attenuators, Plenum Boxes, Access doors, G1 duct, and Pre Insulated Panel.
- Our services also includes, Installations and Maintenance work of all air conditioning units.
- Al Junaid maintains a dedicated engineering and sales support staff waiting to assist you with technical and product information and provide valuable air solutions for your project.

Mission

Guided by our vision we shall deliver high - quality, cost effective works on schedule and enhance our client's satisfaction through continuous improvement of our business practices in terms of safety, quality, services, delivery, as well as environmental protection.

vision

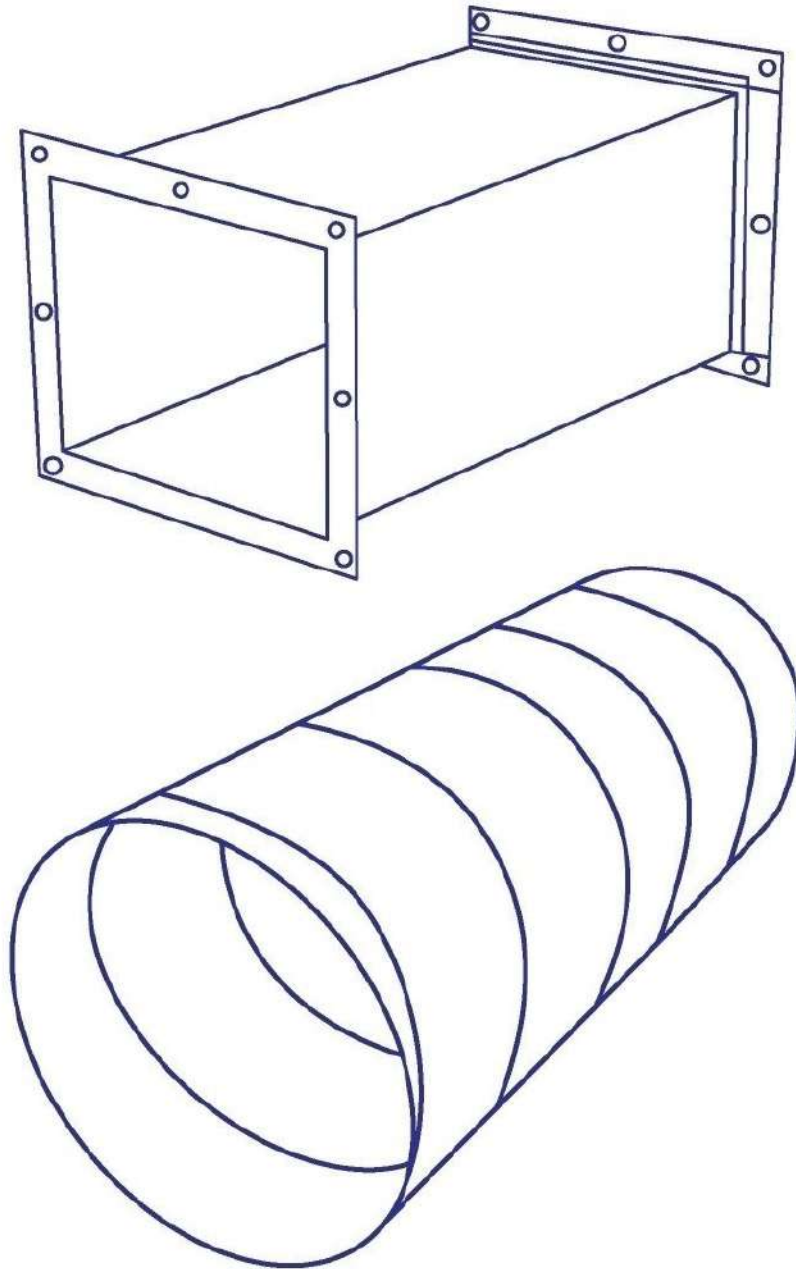
To be the Leading Manufacturing of HVAC Products and Air Conditioning Industry.

value

To provide our clients manufactured units in accordance with strict quality control standard.

GI DUCT

Galvanized Duct



Ductwork

Rectangular Ductwork



Rectangular ducts are manufactured to meet the most stringent HVAC/Industrial specifications and quality standards. Rectangular GI Ducts are fabricated out of hot dipped galvanized steel sheet of lock forming quality as standard duct material. All types of duct accessories including flanges, raw ends and airtight

- Duct construction as per DW144 /SMACNA / ASHRAE standards provides superior strength, low leakage rate and vibration free products.
- Duct is fully equipped to provide customized ductwork with various materials like galvanized steel, stainless steel, aluminum and carbon steel to suit specific project requirements.
- Ducts will be tailor-made in size as per the requirement of the project. No limitation on duct size. Any size of duct can be constructed (3Mtr and above ducts are constructed in multi panels).
- Fully Welded Industrial Grade Heavy Gauge Ductwork for Commercial Kitchens, Marine and Oil & Gas Applications with various anti corrosion, abrasive handling coatings are also available.
- Welded systems in Carbon Steel and Stainless Steel in various thicknesses and specifications are available to meet various

Spiral & Round Seamed Ductwork



Round ductwork where used has advantages of faster installation, lower costs, lower leakages, lower pressure drops and better operations. Spiral wound ductwork and fittings made to known industry standards are exceeding used on large scale projects for their particularly low leakages and self-sealing mechanisms. Round and spiral ductwork are manufactured in standard Lock forming quality Galvanized steel for ventilation ductwork and Aluminum and Stainless Steel ductwork are also available for

- Duct construction as per DW144 / SMACNA / ASHRAE standards provides superior strength, low leakage rate and vibration free products
- Spiral duct diameter varies from min of 125mm to max of 3000mm
- Individual pipe lengths available upon request and also available in aluminum and stainless steel
- Seamed pipes are made in standard lengths of 1220mm and Spiral pipes can be produced in up to 6000mm of lengths
- Pipes can be made in up to 12g Aluminum, 14g Galvanized Steel

Subject: Galvanized Rectangular Ductworks

RECTANGULAR DUCTWORKS CONSTRUCTION SCHEDULE

Based on SMACNA 2"WG / 500 PA Pressure Duct classification duct standard

Duct longer size mm	Thickness	Coating	Longitudinal Joint	Transverse Joint	Intermediate Reinforcement	Hole Pitch
Up to 700	0.56mm 26GA.	Z-275	Grooved corner Seam/Pittsburgh lock seam	Hemmed S Slip & Drive Cleats	None	None
701- 1000	0.70mm 24GA.	Z-275	Grooved corner Seam/Pittsburgh lock seam	GI Slip on flange 20mm with corners and cleats.	None	None
1001-1200	0.90mm 22GA.	Z-275	Grooved corner Seam/Pittsburgh lock seam	GI Slip on flange 20mm with corners and cleats.	None	None
1201-1400	0.90mm 22GA.	Z-275	Grooved corner Seam/Pittsburgh lock seam	GI Slip on flange 20mm with corners and cleats.	20mm flanges @ 600mm centers	None
1401-2000	0.90mm 22GA.	Z-275	Grooved corner Seam/Pittsburgh lock seam	GI Slip on flange 30mm with corners and cleats.	30mm flanges @ 600mm centers	None
2001-2400	1.00mm 20GA.	Z-275	Grooved corner Seam/Pittsburgh lock seam	GI Slip on flange 40mm with corners and cleats.	40mm flange @ 600mm centers	None
2401-Above	1.20mm 18GA.	Z-275	Grooved corner Seam/Pittsburgh lock seam	GI Slip on flange 40mm with corners and cleats.	40mm flanges @ 600mm centers	Size 10mm dia. @150mm spacing

GALVANIZED HOT DIPPED SHEET STEEL SHALL BE AS PER ASTM A 653 (SUPERSEDES ASTM A 525/ A 527) LOCK-FORMING

QUALITY- G90 (Z275- 275 gm/m²) ZINC COATING (0.90 oz/sqft nominal) (Jindal, India)

Notes:

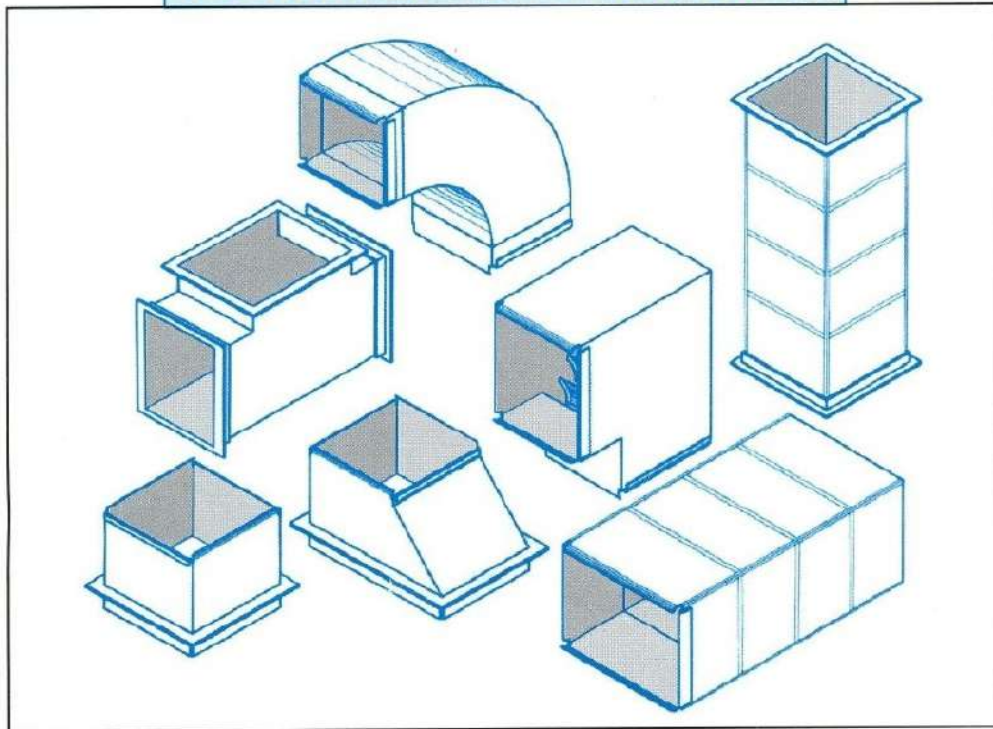
- Above material are made of galvanized steel.
- Transverse duct connectors are based on max. 1220mm spacing.
- Panel stiffening shall be done by means of Z-profile Pleatings.
- Companion angle and Duct Intermediate Reinforcement are made of galvanized steel.
- Above ductworks are supplied in Mill finished only.
- Duct size above 2501mm and above will supply in L-Shape (Knockdown) Form and assembled at site by others.

Client / Consultant Approval:

Signature: _____

Date: _____

RECTANGULAR DUCT AND FITTINGS

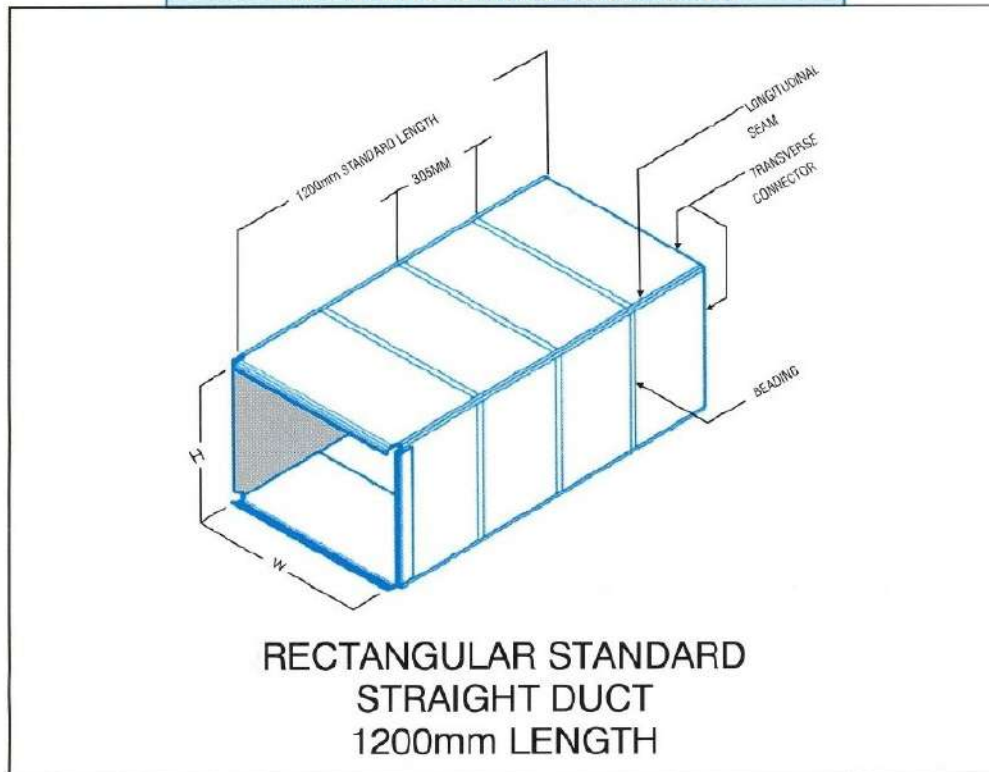


DESCRIPTION:

- DUCT WORK MANUFACTURED TO THE FOLLOWING SPECIFICATIONS:
 - SMACNA.
 - DW142/144
- GALVANIZED STEEL TO ASTM A527/653 ZINC COATING LOCK
- FORMING QUALITY GRADE OF G90/Z 27.
- OPTIONS :
 - PLAIN END OR FLANGE.
 - BLACK MILD STEEL.
 - ALUMINUM
 - STAINLESS STEEL
- THICKNESS
 - 0.4mm thik. UP TO 3mm thick
- STANDARD STRAIGHT LENGTH 1200MM

Ductwork

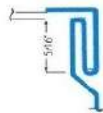
RECTANGULAR STRAIGHT



(A) SEAM

PITTSBURGH SEAMS

- SMALL PITTSBURGH FOR 26 TO 22Ga.



- LARGEST PITTSBURGH FOR 20 TO 18Ga.



(B) BEADING

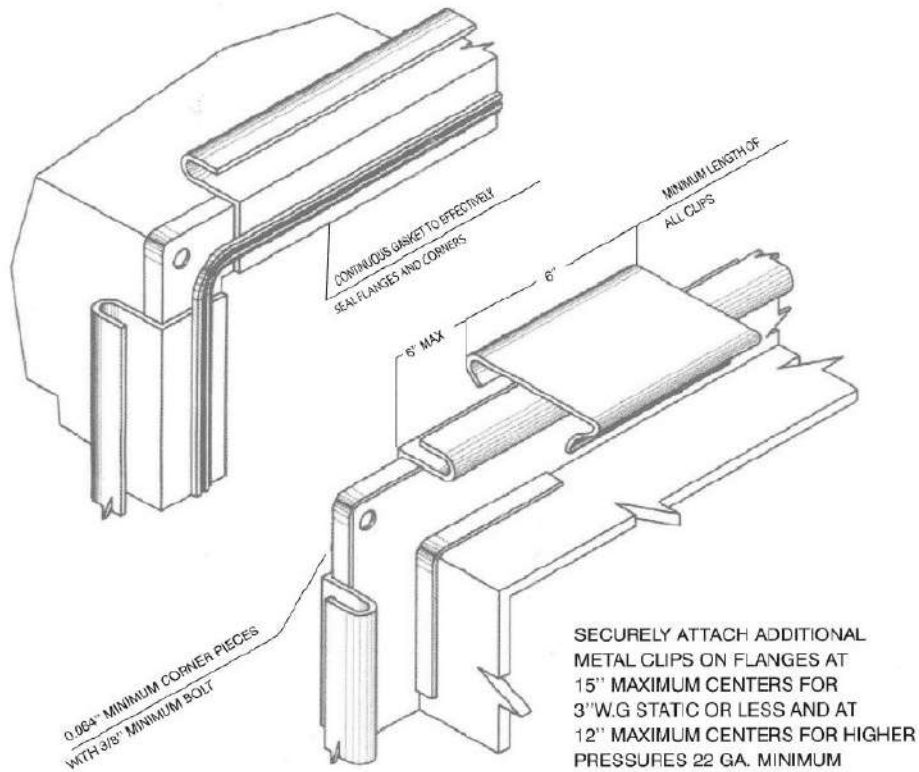
- BEADING STANDARD DISTANCE IS AT EVERY 305 mm INTERVAL UP TO 18ga. STEEL THICKNESS ONLY.
- BEADING IS ONLY FOR STANDARD STRAIGHT LENGTH OF 1200mm.

(C) CONNECTOR

- FOR CONNECTOR DETAILS REFER TO STANDARD DUCT CONSTRUCTION SCHEDULE.

Ductwork

FORMED FLANGE / TDC

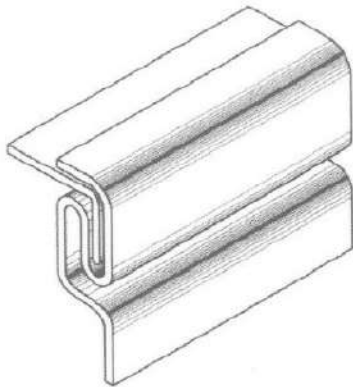


JOINT T-24, FORMED FLANGE : MATING FLANGES ARE FORMED ON THE ENDS OF THE DUCT IN DOUBLE FLANGE STYLE TO CREATE A TEE SHAPE WHEN ASSEMBLED. 0.064" MINIMUM THICKNESS STEEL CORNER PIECES WITH 3/8" MINIMUM DIAMETER BOLTS SHALL BE USED TO CLOSE CORNERS. 1/4" BY 1/2" MINIMUM SIZE GASKETS OF SUITABLE DENSITY AND RESILIENCY SHALL BE CONTINUOUS AROUND THE JOINT AND SHALL BE LOCATED TO FORM AN EFFECTIVE SEAL. MATING FLANGES SHALL BE LOCKED TOGETHER BY 6" LONG CLIPS LOCATED WITHIN 6" OF EACH CORNER AND ALSO SPACED AT CENTERS NOT EXCEEDING 15" OF 3"W.G. OR LESS STATIC PRESSURE, NOR EXCEEDING 12" FOR 4", 6" AND 10"W.G.

Ductwork



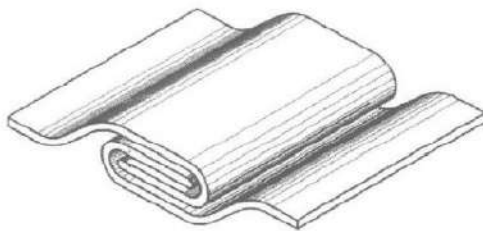
LONGITUDINAL SEAMS



ALSO SEAL THIS POCKET AT
ENDS WHEN SEALING SEAMS.

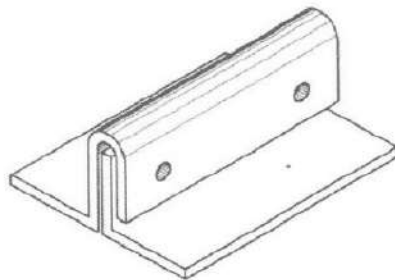
PITTSBURGH LOCK

PITTSBURGH SEAM: POCKET DEPTH VARIES
FROM 1/4" TO 5/8" DEPENDING ON
GAUGE OF METAL AND ROLL FROM EQUIPMENT.
THE MOST COMMON SIZES ARE 5/6" AND 3/8"
USED ON STRAIGHT DUCT AND FITTING.



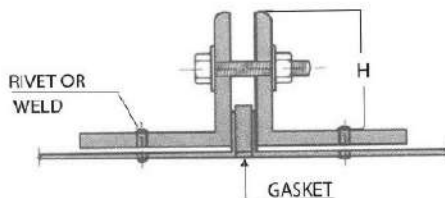
GROOVED SEAM

ALSO CALLED FLAT LOCK AND
PIPE LOCK.
GROOVED SEAM: TYPE ILLUSTRATED IS
KNOWN AS PIPE LOCK, FLAT
LOCK OR GROOVED SEAM.



STANDING SEAM

STANDING SEAM: UNLESS OTHERWISE
REQUIRED BY THE APPLICATION,
A 1" SEAM IS NORMALLY USED UP TO
42" DUCT WIDTH WITH 1 1/2" SEAMS
FOR LARGER DUCTS.
MAY BE USED ON INTERIOR OF THE
DUCT WITH DUE CONSIDERATION FOR
VELOCITY LEVEL, FASTEN TOGETHER
AT ENDS AND 8" INTERVALS.



COMPANION ANGLES (CAULK OR GASKET)

LONGITUDINAL SEAMS



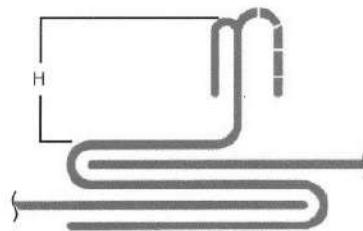
DRIVE SLIP



PLAIN "S" SLIP



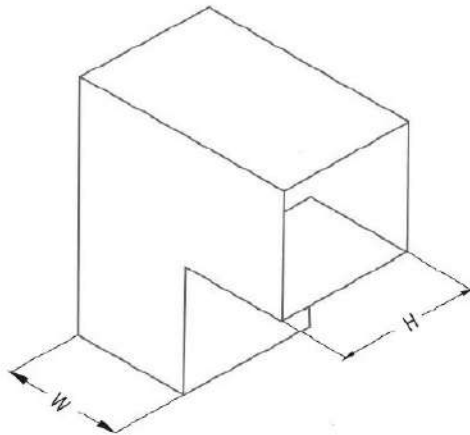
HEMMED "S" SLIP



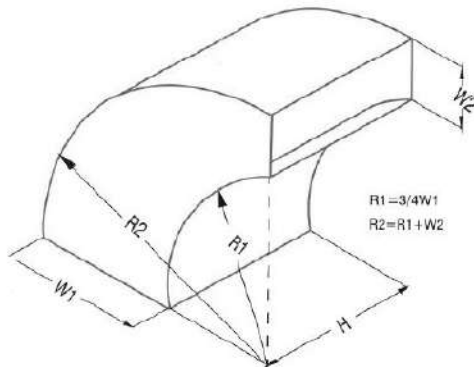
STANDING S

Ductwork

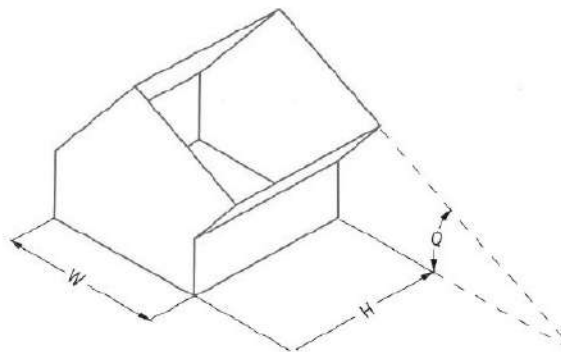
RECTANGULAR FITTINGS



SQUARE THROAT ELBOW
WITHOUT VANES



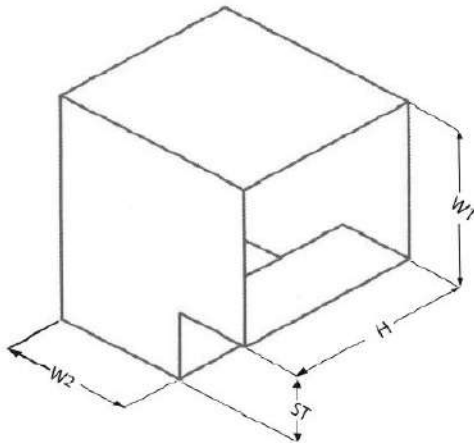
DUAL RADIUS ELBOW



MITERED ELBOW

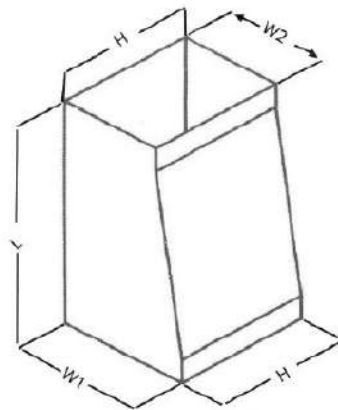
Ductwork

RECTANGULAR FITTINGS



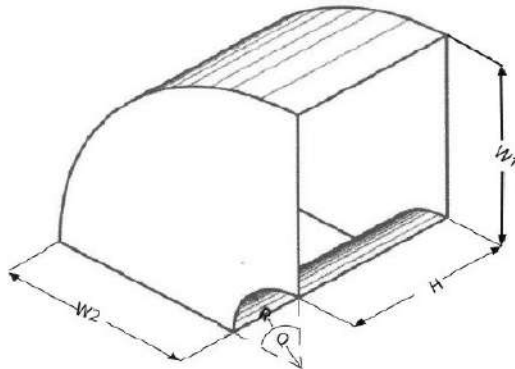
SQUARE THROAT ELBOW

W1: WIDTH ON END 1
W2: WIDTH ON END 2
H: DUCT HEIGHT
ST: SQUARE THROAT LENGTH.



STRAIGHT SIDE TRANSITION

W1: WIDTH ON END 1
W2: WIDTH ON END 2
H: DUCT HEIGHT
L: LENGTH
• IF (H) ON BOTH ENDS
ARE NOT THE SAME,
INDICATE ELEVATION.



RADIUS ELBOW VANES DEPENDING ON ELBOW WDTN.

W1: WIDTH ON END-1
W2: WIDTH ON END-2
H: DUCT HEIGHT
R: RADIUS CENTERLINE ROAD
$$= \frac{3W}{2} \text{ STD ROD.}$$

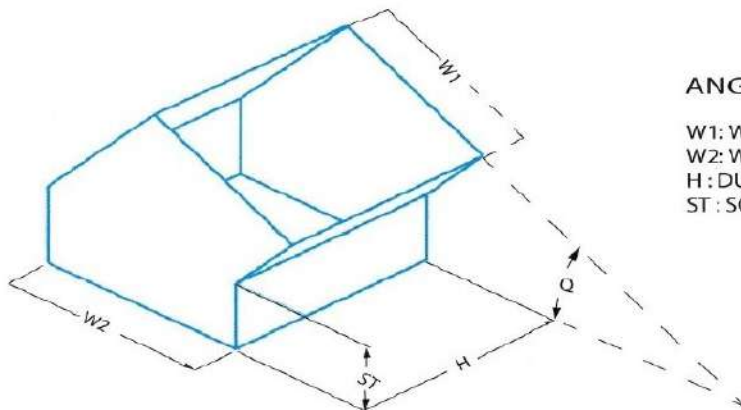
Q: DEGREE

• IF (H) ON BOTH ENDS
ARE NOT THE SAME,
INDICATE ELEVATION.

Ductwork

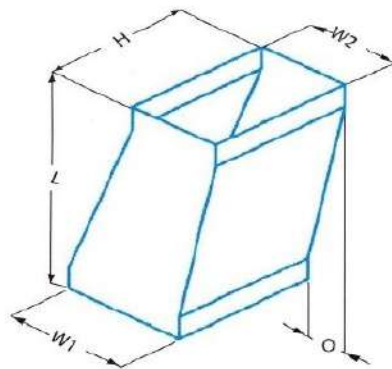


RECTANGULAR FITTINGS



ANGLED ELBOW

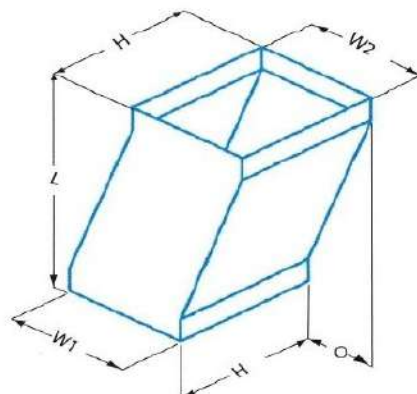
W1: WIDTH ON END 1
W2: WIDTH ON END 2
H: DUCT HEIGHT
ST: SQUARE THROAT LENGTH



DOGLEG OFFSET UNEQUAL ENDS

W1: WIDTH ON END 1
W2: WIDTH ON END 2
H: DUCT HEIGHT
L: LENGTH
O: OFFSET

- IF (H) ON BOTH ENDS ARE NOT THE SAME, INDICATE ELEVATION



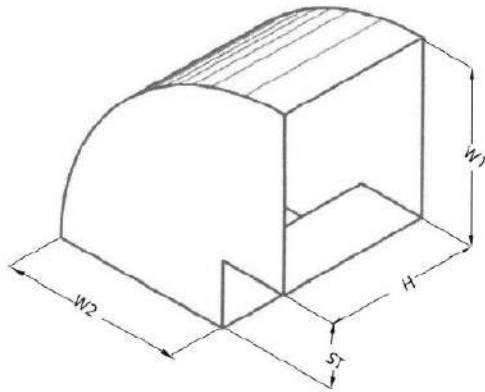
DOGLEG OFFSET EQUAL ENDS

W1: WIDTH ON END 1
W2: WIDTH ON END 2
H: DUCT HEIGHT
L: LENGTH
O: OFFSET

- IF (H) ON BOTH ENDS ARE NOT THE SAME, INDICATE ELEVATION



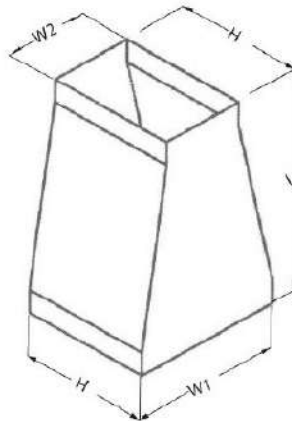
RECTANGULAR FITTINGS



SQUARE THROAT RADIUSED HEEL ELBOW

W1 : WIDTH ON END1
W2 : WIDTH ON END 2
H : DUCT HEIGHT

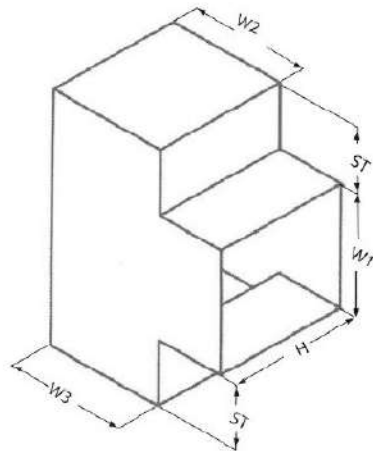
ST : SQUARE THROAT LENGTH



EQUAL SIDE TRANSITION

W1 : WIDTH ON END -1
W2 : WIDTH ON END -2
H : DUCT HEIGHT
L : LENGTH

- IF (H) ON BOTH ENDS
ARE NOT THE SAME,
INDICATE ELEVATION

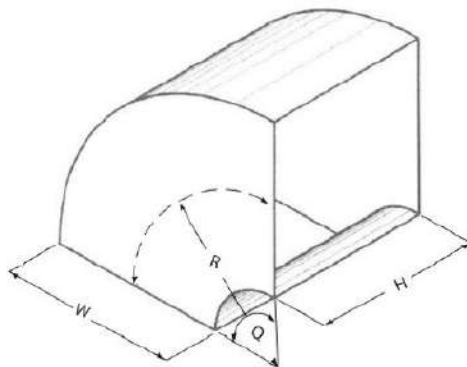


TEE

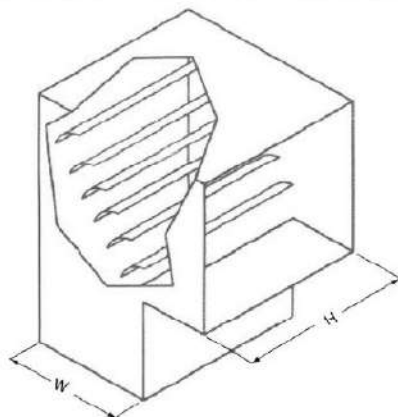
W1 : WIDTH ON END 1
W2 : WIDTH ON END 2
W3 : WIDTH ON END 3
H : DUCT HEIGHT
ST : SQUARE THROAT LENGTH



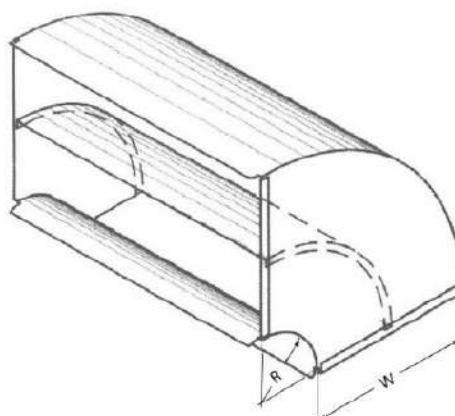
RECTAGULAR ELBOWS



RADIUS ELBOW
(CENTERLINE $R = \frac{3W}{2} = \text{STD RADIUS}$)



SQUARE THROAT ELBOW
WITH VANES.



SHORT BENDS

W=UP TO 300mm NO SPLITTER.

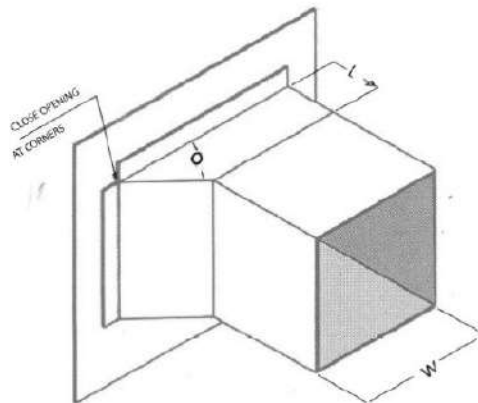
W=OVER 300mm UP TO 500mm,
1'NO. SPLITTER. ($\frac{W}{3}$).

W=OVER 500mm UP TO 1000mm,
2'NO. SPLITTER. ($\frac{W}{6}, \frac{W}{2}$).

W=OVER 1000 mm 3'NO
SPLITTER. ($\frac{W}{12}, \frac{W}{4}, \frac{W}{2}$).

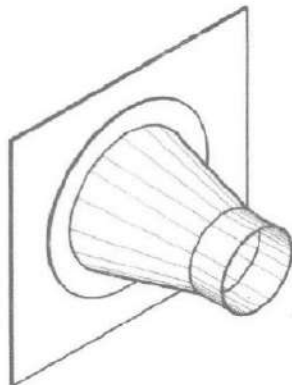
- LONG BENDS - ($R=W$), NO
SPLITTER REQUIRED.

BRANCH CONNECTIONS

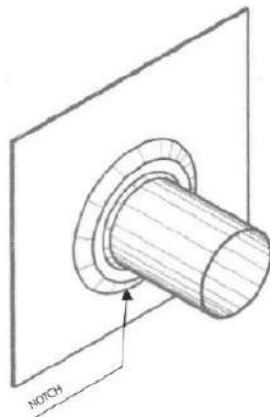


STRAIGHT TAP CONNECTION

45 DEGREE ENTRY $\alpha=45^\circ$
 $L = 1/4W, 4" \text{ MIN.}$



CONICAL TAP CONNECTION



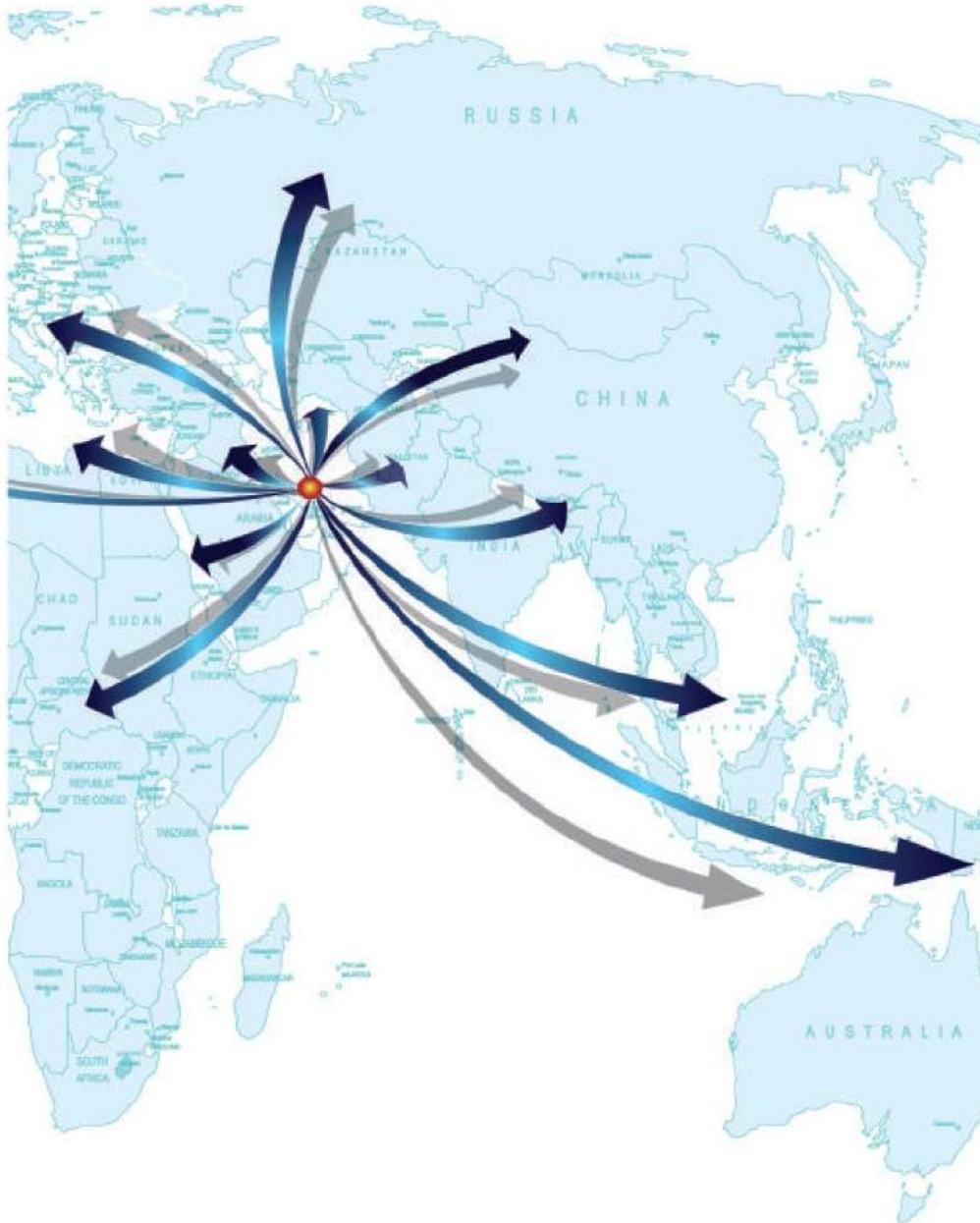
SPIN IN TAP CONNECTION

Ductwork



Al Ghurair Iron & Steel LLC

الغدير للحديد والاعستيل (ذ.م.م.)





Al Ghurair Iron & Steel LLC (AGIS) is the first & only Flat Steel Cold Rolling & Galvanising complex in the United Arab Emirates and one of the largest producers of Galvanised Steel in the Middle East & North Africa region. It is a joint venture of the Saif Al Ghurair Group, one of the largest and well diversified business houses of UAE and Nippon Steel & Sumitomo Metal Corporation (NSSMC), Japan's largest & one of the biggest steelmakers in the world. Located in the capital city of Abu Dhabi, the 400,000TPA facility caters to the requirement of the construction, steel fabrication & other non-automotive industries primarily in the MENA region.

AGIS produces 400,000 MT per annum of Hot Dip Galvanised Coils with a thickness range of 0.20 to 2.50 mm and width upto 1250mm from its two Continuous Galvanising Lines. The production lines have been engineered & designed to cater to the requirement of the end-users in the region. Sheets and slitted coils are also offered as per customer requirement. All grades of GI – CQ, LFQ, SQ & HSLA for a wide variety of applications are produced in AGIS. It also offers Skin Passed GI and Oiled GI for some special applications.

Being located close to the seaports of Abu Dhabi & Jebel Ali makes it logistically convenient to access all parts of the world – both in containers and by break bulk. AGIS also uses the road network and systematic transport facilities to cater to the GCC markets. Consumers have the ease of getting the material delivered at their doorstep straight from the Mill, on time, every time.



PRODUCT SPECIFICATIONS

Specification	Hot Rolled Pickled & Oiled (HRPO)	Hot Dip Galvanised (HDGP)
Form	Coils - Full & Slit	Coils/Strips/Sheets
Thickness (mm)	1.20 - 4.50	0.20 - 2.50
Width (mm)	800 -1300	35 -1250
Coil ID (mm)	610	508 / 610
Max. Coil Weight (MT)	25	25
Zn Coating (GSM)		90-350
Type	Stretch Leveled / Non Stretch Leveled	Tension Leveled/ Non Tension Leveled
Surface Finish		Regular / Minimized / Skin pass ed
		Regular Spangle / Minimized spangle (skin passed) /Suppressed spangle
Surface Treatment	Oiled	Cr+6/Cr+3 Passivation & Oiled/Uncoiled
Applicable Standards	ASTM/JIS/EN	ASTM/JIS/EN