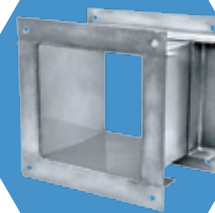


Welded Ducts



**Assure
Success
with
Customer
Together**



ABOUT US

FMC Metal Factory, founded in 2021 in the city of Jeddah, for its Excellence, Engineering, Professionalism, and Experience in the field of fabrication of HVAC duct and its Accessories. The company has been a forerunner in the Construction field with his vast experience, commitment, adoption of new technologies and challenges by emerging as one of a key player. It offers a wide range of services for Supply, Installation, Testing and Commissioning in HVAC field. The group is leading under the supreme guidance of Mr. Mohamed Abdul Rahman Farhat, who has a long life experience in the Saudi market.

Vision

Our ambition is to amplify the presence of FMC as a recognized company in the field of construction. We aspire to extent our professional services abroad in the coming years.

Mission

Form valuable long-term relationships with our clients and partners.

Manage large and complex projects.

Be a reliable company.

Compete successfully in the Construction market of the region with high efficiency, professionalism and honesty in order to maintain, our outstanding reputation.

Objective

Our aim is to enhance the lifestyle of the communities we serve through consistent, timely, efficient and added value delivery of engineered, innovative, and tailor-made technology solutions that never fails to exceed expectations

Commitment

Constantly strive to ensure that amidst all the projects exists a great deal of passion and commitment to provide quality services and to deliver clients satisfaction.

Maintain leadership in project management capability.

Provide an open and flexible approach towards the needs of our clients by listening and respecting their views and by being ahead of emerging trends.

Deliver superior value through our consistent implementation of advanced methods and state of the art solutions.

Our Team

FMC's work force is the main asset which represent and implement all projects in professional manors due to the on going training programs that we provide to our, head office employees, engineers, supervisors, technicians, drivers, labors and all of our working force whom reflect their professions on sites.

OUR PRODUCTS MAINTAINING THE HIGHEST INTERNATIONAL STANDARDS.

INTRODUCTION



Black Steel Duct (MIG Welding)

FMC Welded Black Steel Ducts made from Cold Rolled Coils, a minimum of 20 gauge metal, are designed and created to vent grease vapors from cooking equipment to outside the building safely.

Applications: Chimneys, Hoods, other high temperature duct systems, kitchen exhaust systems, ducts require painting or special coating.

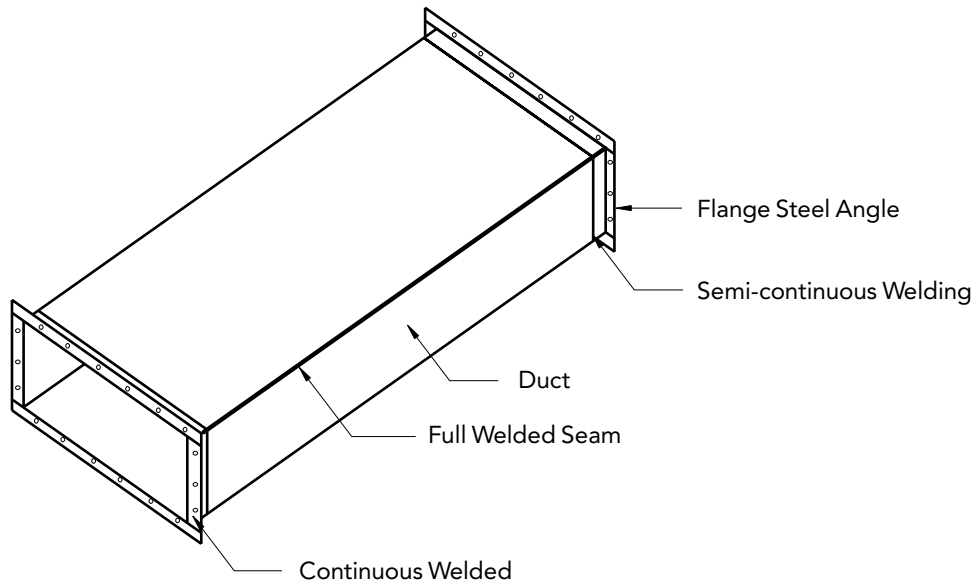
Advantages: High Strength, rigidity, durability, availability, printability, weldability, non-porous.

Stainless Steel Duct (TIG Welding)

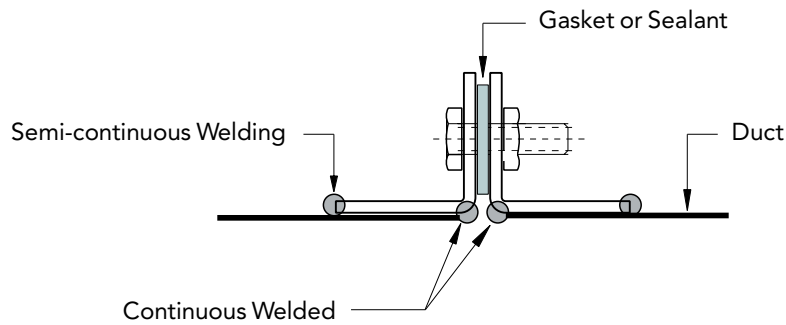
FMC Stainless Steel Duct in SS 304 & SS 316 with fully welded longitudinal and transverse joints. Use of stainless steel duct-work for any specialist application is recommended for its strength and rigidity which is similar to a galvanized iron duct. Its appearance though is much sleeker than the one in an aluminum duct it stands way out for its corrosion resistant characteristic. Stainless Steel ducts are mainly used for Kitchen exhaust in exposed to view areas and in the areas where Hygiene is the top priority and in highly corrosive environments.

WELDED RECTANGULAR DUCTS

STRAIGHT DUCTS WITH FLANGE STEEL ANGLES



Flanged Cross Joint

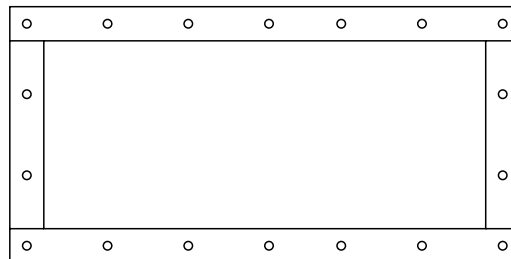


Angle Flanged Joint

Fixing Bolts	
Dimensions	Bolts Diam.
25x25x3mm	8mm
30x30x4mm	8mm
40x40x4mm	8mm
50x50x5mm	10mm
60x60x6mm	12mm

Flange Steel Angle

Fixing Bolts at Each Corner and intermediately Centered at 200mm



Materials Used for Ductworks & Connections:

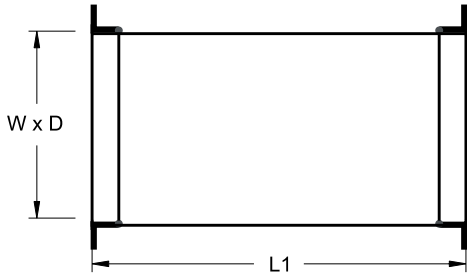
- **Black Steel** : Complying with ASTM A 366/A 366M, Cold-rolled.
- **Stainless Steel** : Complying with ASTM A240M / A480M, Grade 304, 304L, 316 & 316L.

WELDED RECTANGULAR DUCTS

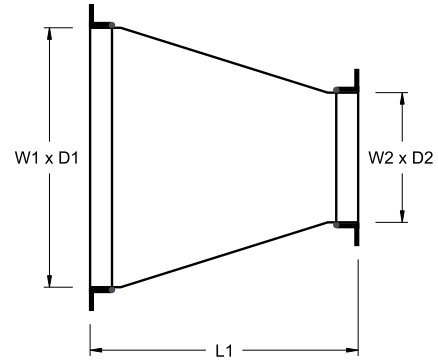
STRAIGHT & FITINGS

Straight

Standard Length 1220mm

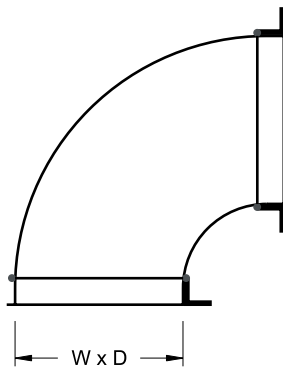


Taper

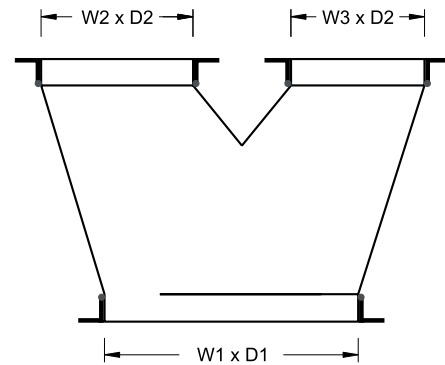


Radius Bend

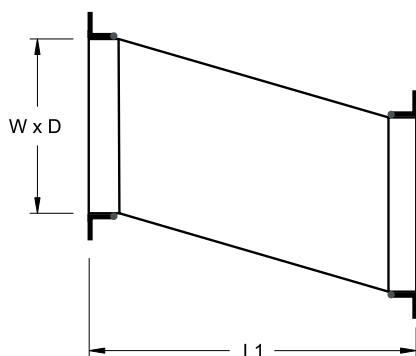
Minimum Throat
Radius = 100mm



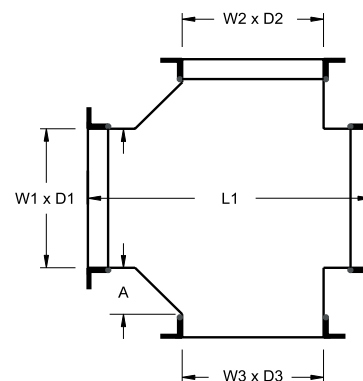
Trousers Piece



Angled Offset



Straight + 2 Branches



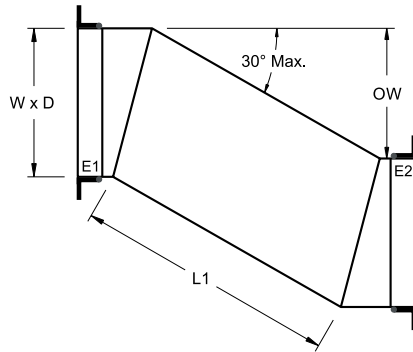
Materials
Used for
Ductworks &
Connections:

- Black Steel : Complying with ASTM A 366/A 366M, Cold-rolled.
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WELDED RECTANGULAR DUCTS

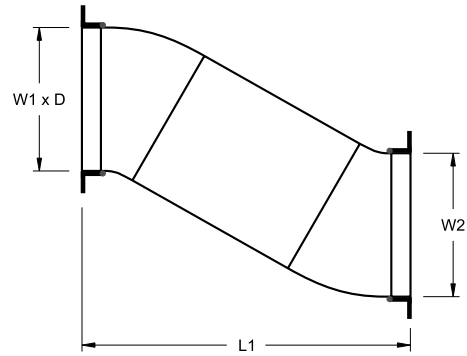
FITTINGS

Metered Offset

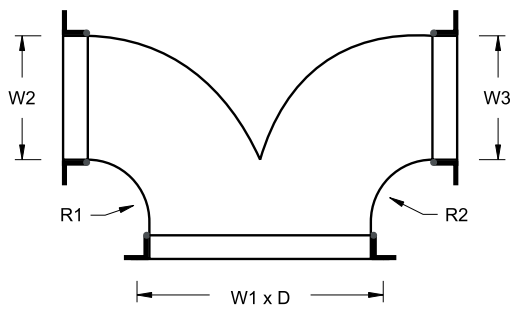


Radius Offset

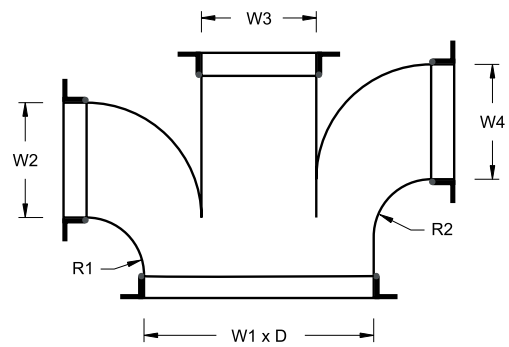
Minimum Throat Radius = 100mm



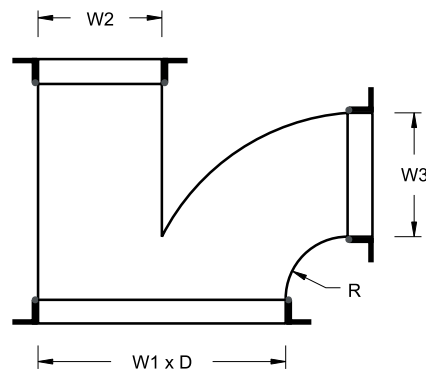
Breeches Piece



3-Way Tee



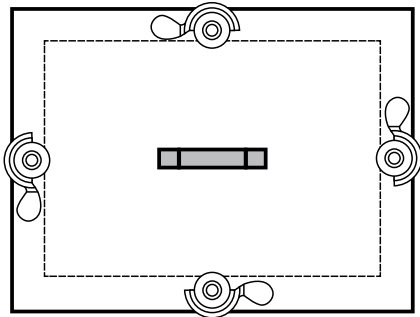
Side Branch



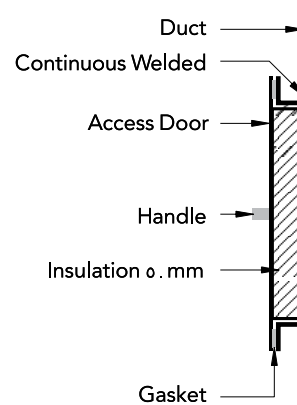
**Materials
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Ductworks &
Connections:**

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ACCESS DOOR WITH INSULATION



Underside of the Ductwork.



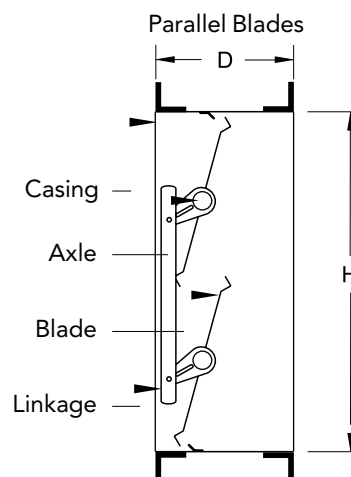
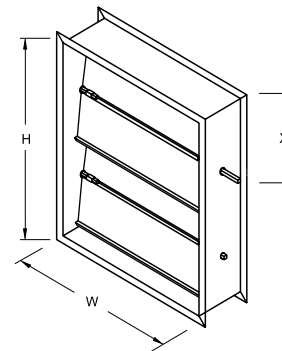
RECTANGULAR VOLUME CONTROL DAMPER

Construction:

Casing:	1.5mm Black Steel (Optional - Stainless Steel)
Blades:	Triple-Vee Profile 1.5mm Black Steel (Optional - Stainless Steel)
Axles:	Round Black Steel, 12mm (Optional - Stainless Steel)
Quadrant:	Zink Coated
Linkage:	3mm Black Steel (Optional - Stainless Steel)

Size Limitations:

- **Minimum Size :** One blade: 150 x 150mm
- **Maximum Size:** Single section: 1000 x 1000mm
Multiple sections: Unlimited



Materials Used for Ductworks & Connections:

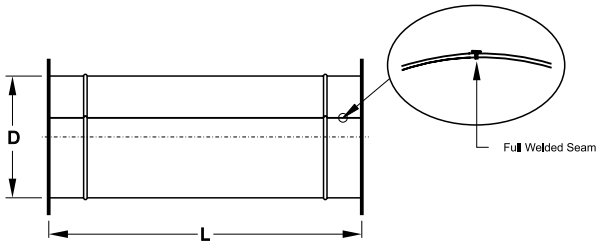
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- Access Doors for Cleaning must be provided at distance not exceeding 3 meters.
- Internal Thermal or Acoustic Lining should not be used and Turning Vanes should be avoided wherever possible.

WELDED ROUND DUCTS

STRAIGHT & FITTINGS

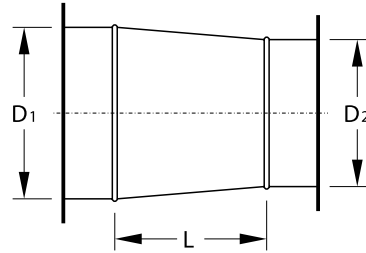
Circular Straight Duct Welded

- Standard Length: 1220mm



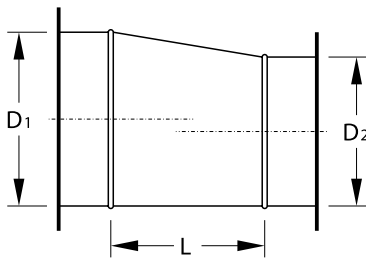
Concentric Reducer Welded

- Minimum Length 100mm, Maximum Length 400mm

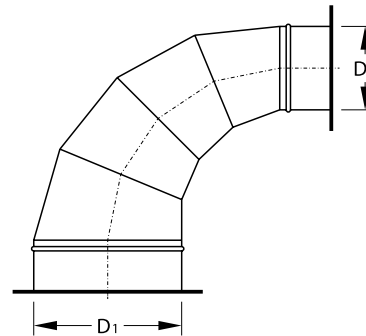


Eccentric Reducer Welded

- Minimum Length 100mm, Maximum Length 400mm

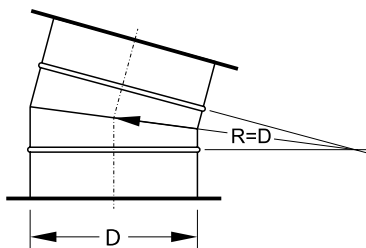


Reducing Segmented Bend Welded



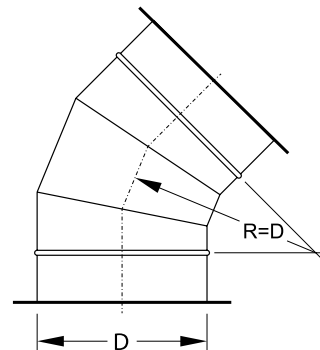
Bend 15° Welded

- Standard 2-Gore



Bend 45° Welded

- Standard 3-Gore



Materials Used for Ductworks

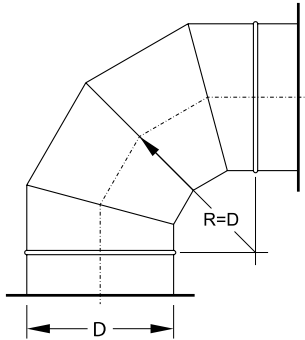
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WELDED ROUND DUCTS

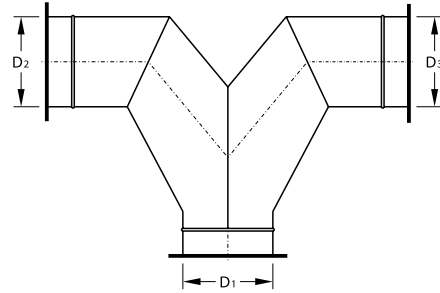
FITTINGS

Bend 90° Welded

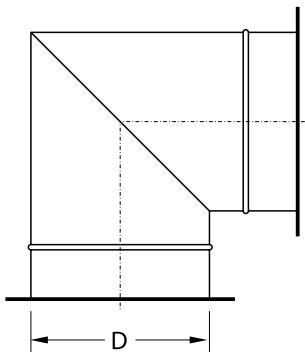
- Standard 4-Gore



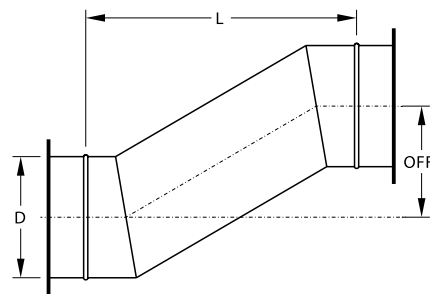
Twin Segment Bend Welded



2 Segment Bend 90° Welded

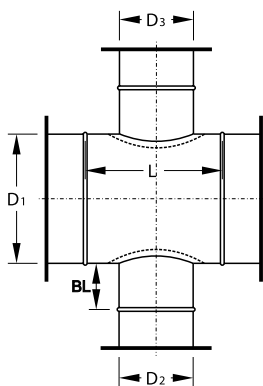


Circular Offset Welded



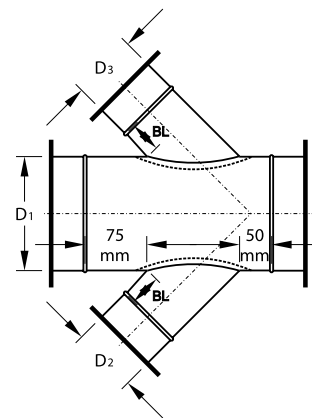
Centric Cross Tee Piece Welded

- L= the longer of D₂ or D₃ + 100mm



Centric Cross T- Piece 45°

- L= the longer of D₂ or D₃ x 1.5 + 100mm



Materials
Used for
Ductworks

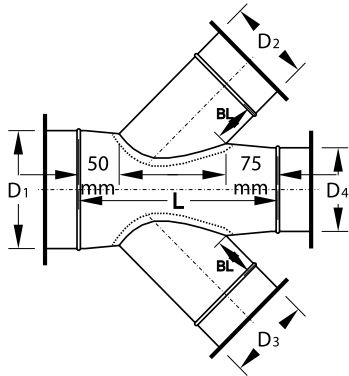
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WELDED ROUND DUCTS

FITTINGS

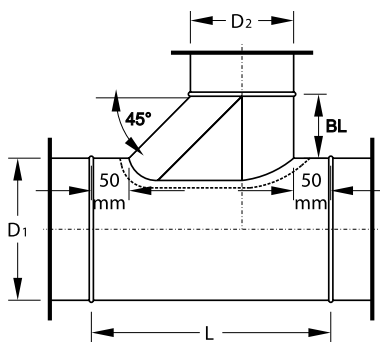
Reducing Cross Tee 45° Welded

- $L = \text{the longer of } D_2 \text{ or } D_3 \times 1.5 + 100\text{mm}$



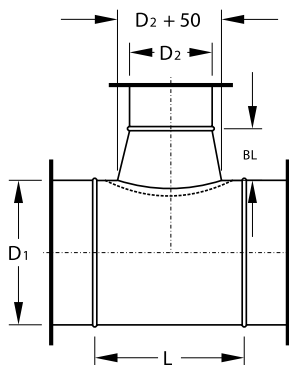
Shoe Tee - Offset Welded

- $L = D_2 + BL + 100\text{mm}$



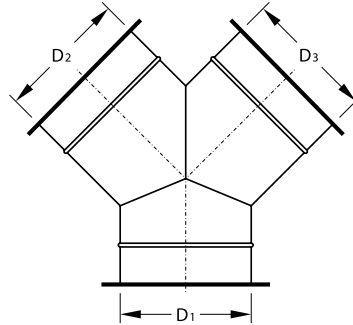
Conical Tee Welded

- $L = D_2 + 150\text{mm}$



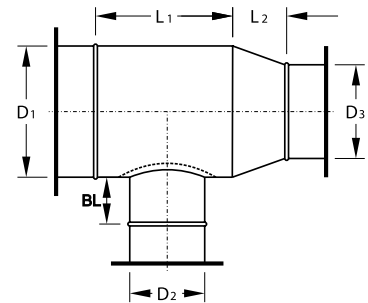
Y - Tee Welded

- 30° 45° and 60° available
- $D_1 = D_2 = D_3$



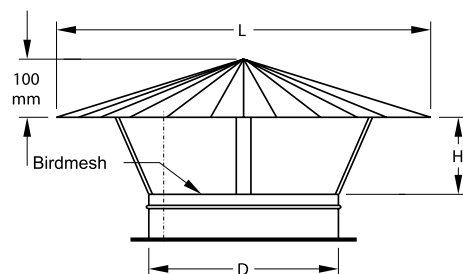
Centric Tee Piece with Reducer Welded

- $L_1 = D_2 + 150\text{mm}$
- $L_2 = D_1 - D_3$
- Minimum L_2 100mm, Maximum L_2 400mm



Conical Tee Welded

- $L = D + 200\text{mm}$
- $H = \text{as per Air Flow}$



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Ductworks

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CONNECTOR DETAILS

Circular Angle Flange Welded

Circular Angle Flange
Semi-continuous Welding
Full Welded Seam
Duct
Continuous Welding

D ₁	Bolts		b ₁ x b ₂ x t mm
	Dim.	N	
Up to 125	M6	4	25x25x2.5
150 to 250	M6	6	25x25x2.5
280 to 355	M8	8	30x30x3
400 to 500	M8	12	40x40x4
550 to 710	M10	16	50x50x5
750 to 1400	M10	24	50x50x5

Circular Flat Flange Welded

Circular Flat Flange
Full Welded Seam
Duct
Continuous Welding

D ₁	Bolts		b x t mm
	Dim.	N	
Up to 125	M6	4	25x3
150 to 250	M6	6	30x3
280 to 355	M8	8	40x4
400 to 500	M8	12	40x4
550 to 710	M10	16	40x5
750 to 1400	M10	24	50x5

**Materials
Used for
Ductworks**

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