TAWREED

TAWREED TRADING & CONTRACTING · DUCT FACTORY IN QATAR SINCE 2012

TECHNICAL DATA SHEET // PI DUCT

Pre-Insulated Duct – Installation & Maintenance

الدكت المعزول مسبقا – التركيب والصيانة

CONTENTS

01 Construction guidelines

02 Take-offs & access door profiles

03 Joining options & grille installation

04 Reinforcement & hanger support

DOCUMENT

12 pages, extracted from:
Technical Submittal - WellWall Phenolic Pre-Insulated Duct, p. 101–111
Revision 01 · October 2026

CONTACT · REQUEST A QUOTE

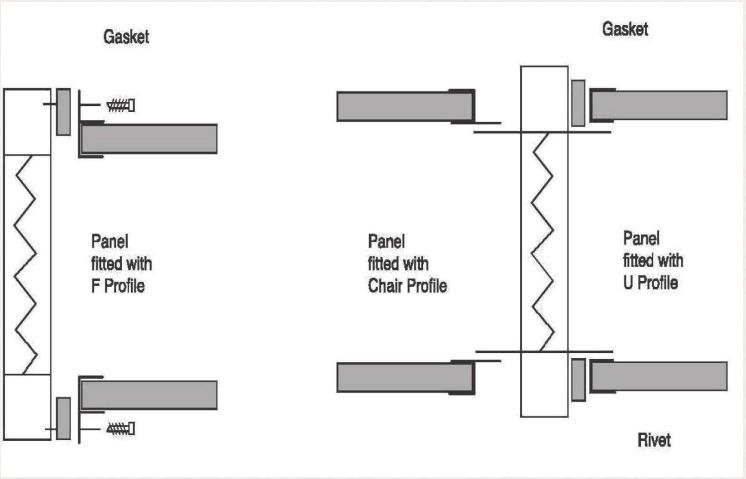
Phone / WhatsApp: +974 7097 0111 Email: hvac@tawreed.ltd
Factory: Zone 91, Street 3138, Building 66, Birkat Al Awamer, Qatar
Web: tawreed.ltd Hours: Sat–Thu, 9am–5pm

Data supplied for submittal and specification purposes. Values are nominal;
confirm project-specific requirements with Tawreed before ordering.

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CONSTRUCTION GUIDELINES

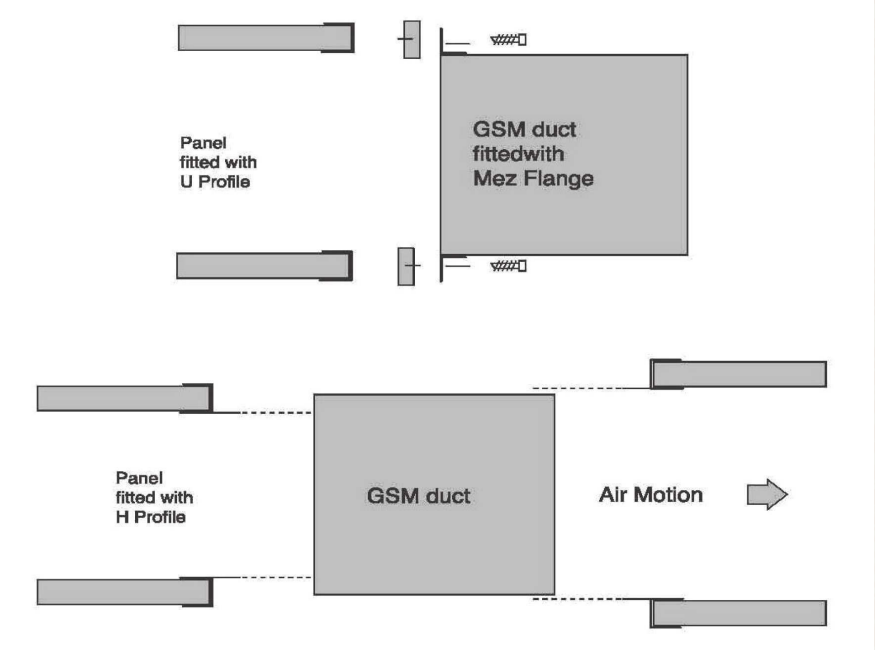
CONNECTION TO ACCESSORIES



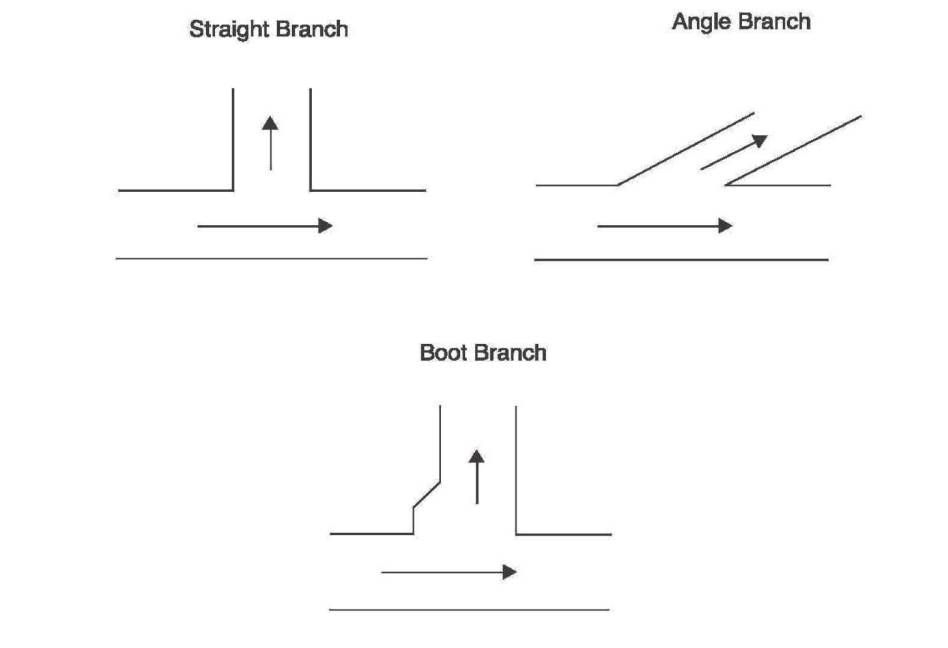
Flanged Damper

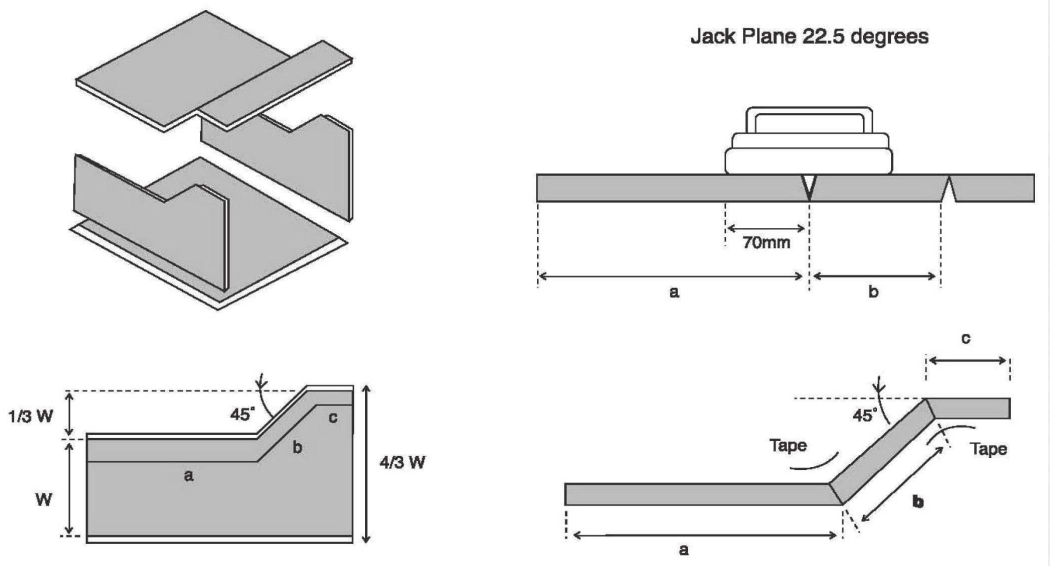
Spiggoted Damper

CONNECTION TO SHEET METAL



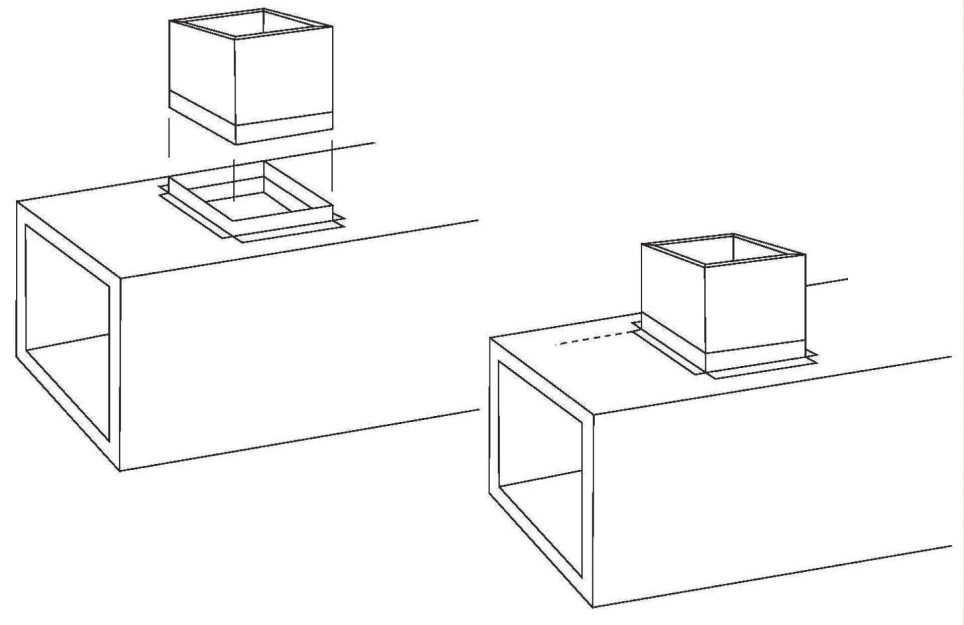
TAKE OFF

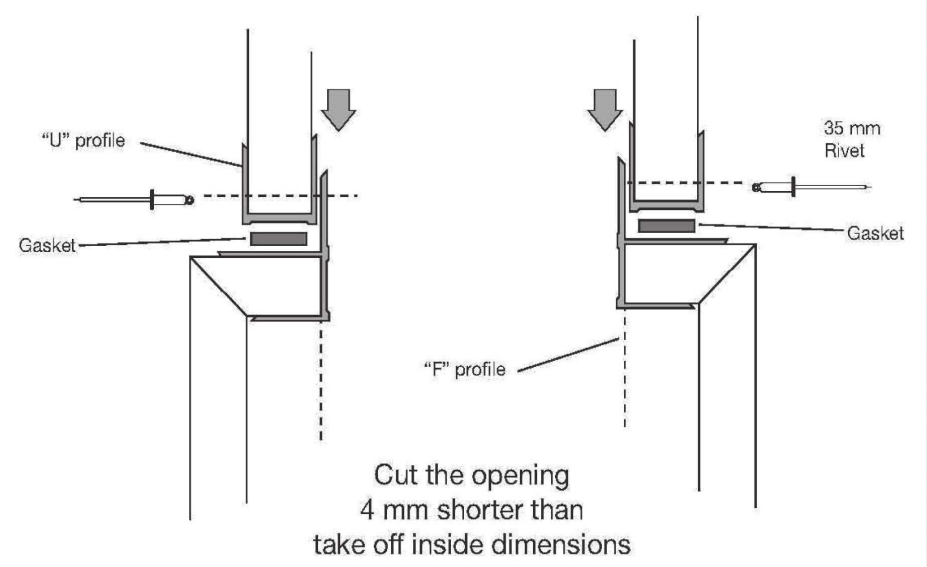

Straight Branch
Angle Branch
Boot Branch


Jack Plane 22.5 degrees
70mm
a
b
1/3 W
W
45°
c
b
a
4/3 W
c
45°
Tape
Tape
b
a

2

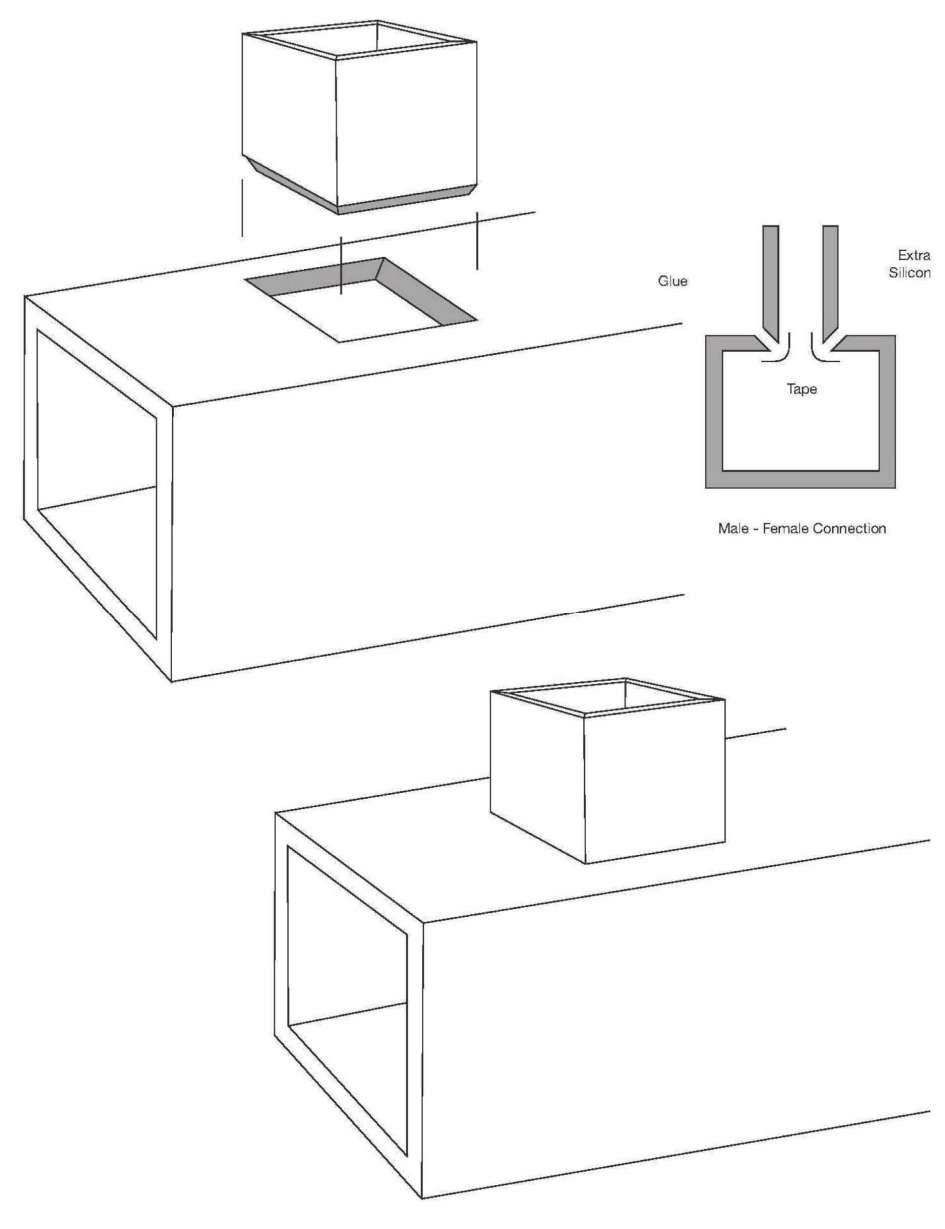
TAKE OFF (above 1000 x 1000mm)





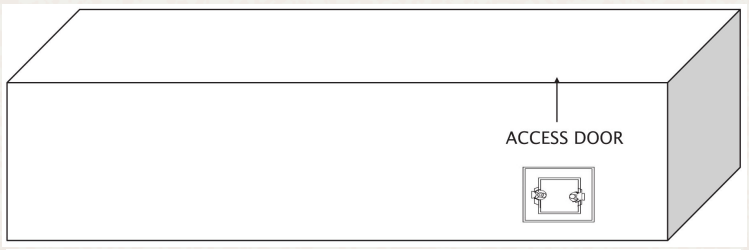
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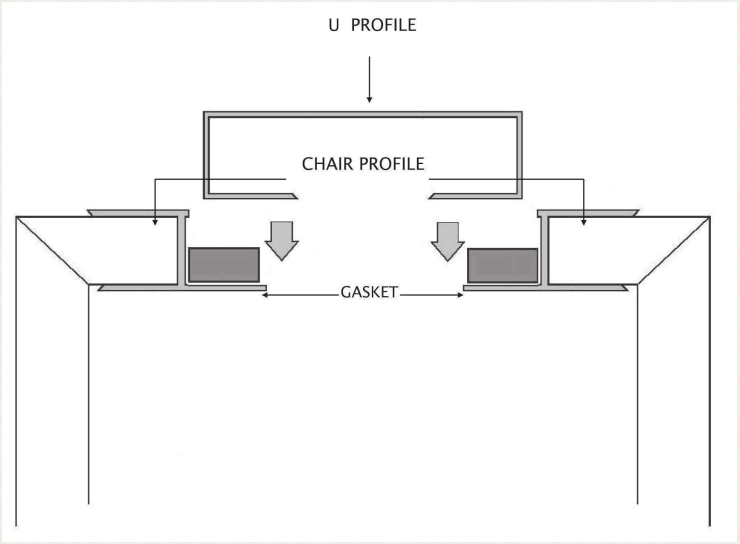
TAKE OFF (up to 1000 x 1000mm)



4

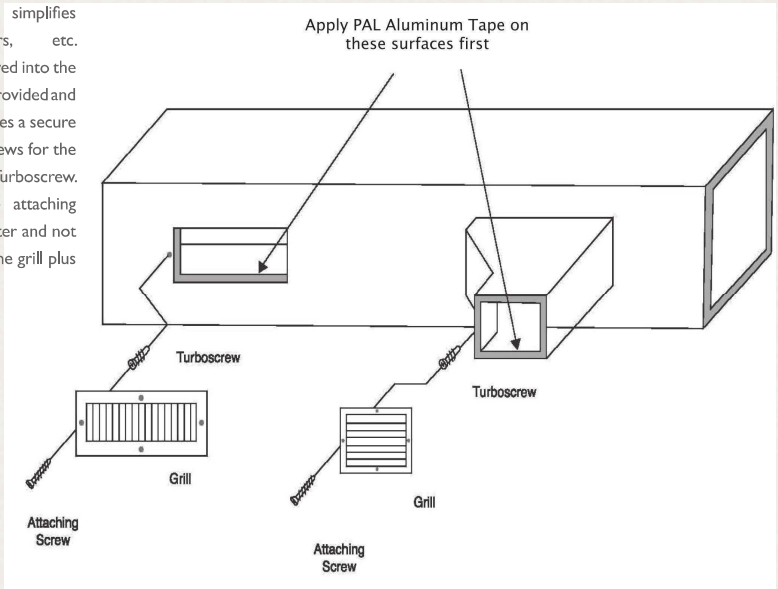
PROFILES FOR ACCESS DOORS





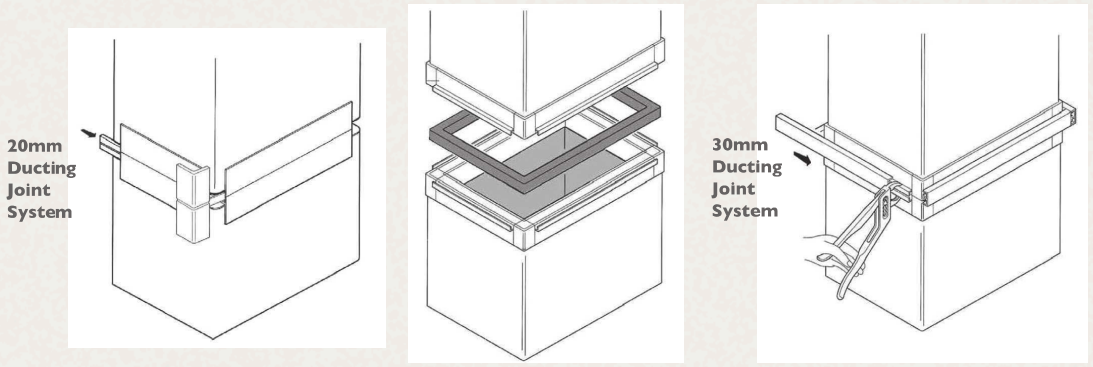
GRILL INSTALLATION (with Turboscrews)

The Turboscrew greatly simplifies the installation doors, etc. The turboscrew is easily screwed into the panel utilizing the simple tool provided and has a large thread which ensures a secure fit. The standard attaching screws for the grill are then screwed into the Turboscrew. The only constraint is the attaching screws are 4 – 5mm in diameter and not longer than the thickness of the grill plus 22mm.



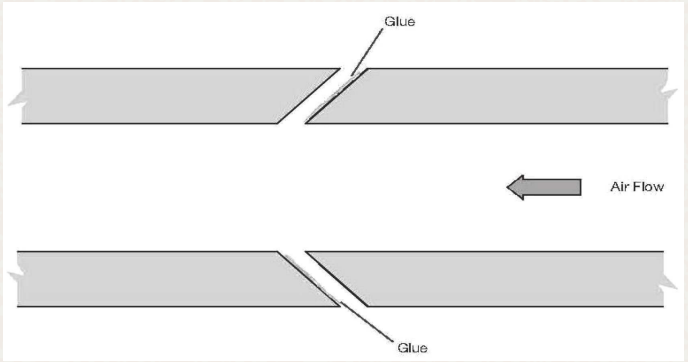
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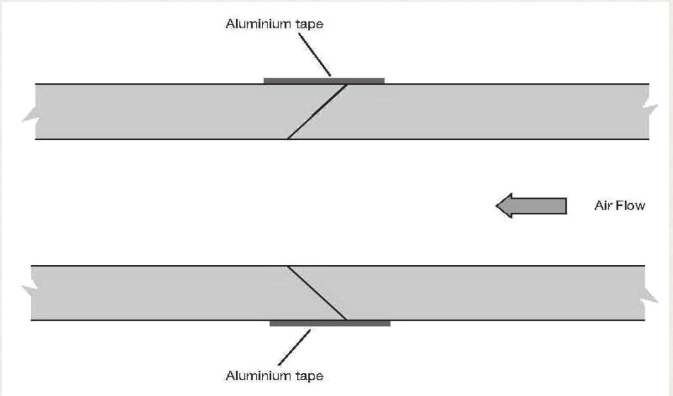
OPTION 1 – Duct Joining System



OPTION 2 – For Internal Duct (20mm thick) Less than 500 x 500mm Section

Male – Female Joining System

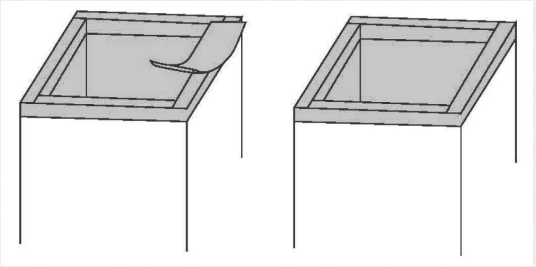




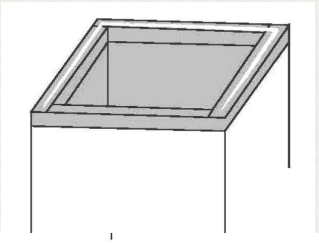
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OPTION 2 – For Internal Duct (20mm thick) Less than 500 x 500mm Section

STEP 1
Application of Aluminum Tape on both ends of the duct segments

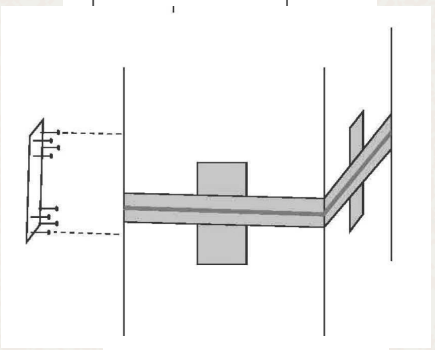


STEP 2
Silicon is placed on one side of one duct, then the two duct segments are joined together

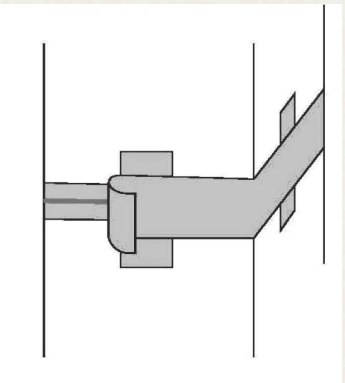


STEP 3
Tiger Connectors are placed on all four sides of the duct.
For small ducts up to 300mm, use ONE Tiger Connector on each side of the duct.

For ducts with one side 350 to 500mm, use TWO Tiger Connectors on each side.



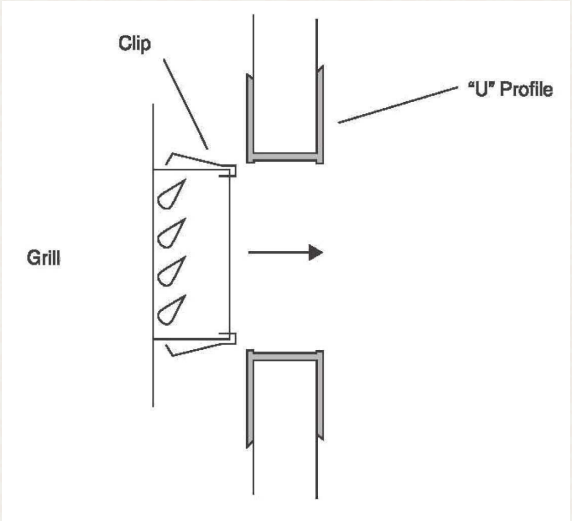
STEP 4
Aluminum Tape covers the connection of the two duct segments.



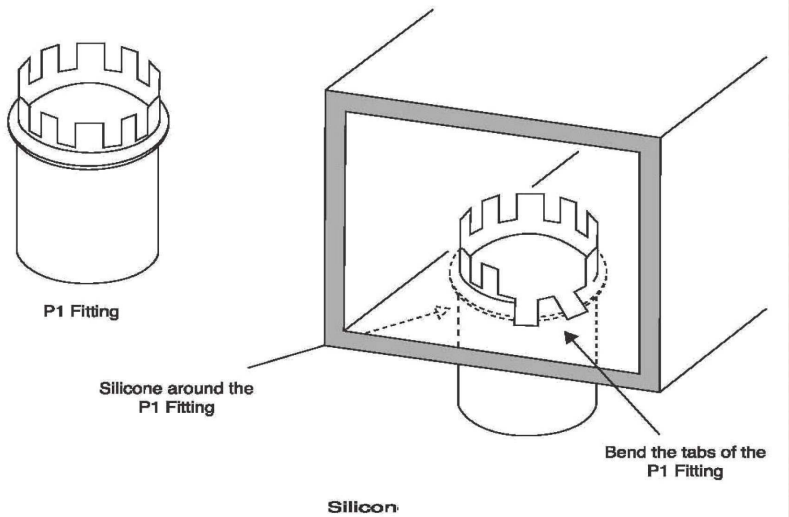
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GRILL INSTALLATION with Aluminum Profiles



"P1" FITTINGS INSTALLATION for Round Diffusers & Flexible Ducts

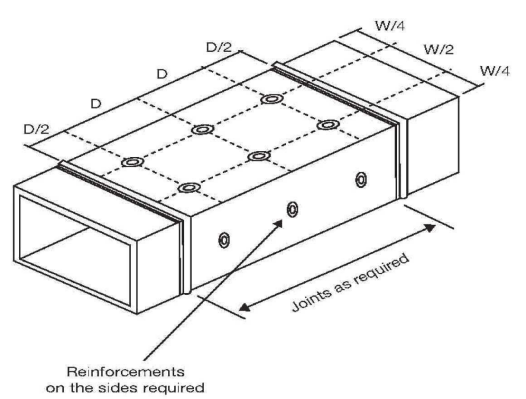


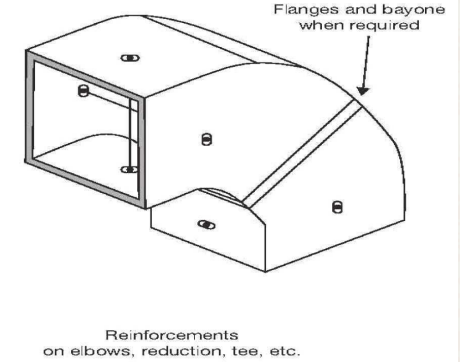
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DUCT REINFORCEMENT

Table for the Calculation of Stiffening

PRESSURE / DUCT SIDE mm	PA 0-150	PA 160-300	PA 310-450	PA 460-600	PA 610-750	PA 760-950	PA 960-1000	PA 1010-1250	PA 1260-1500	PA 1510-1750	PA 1760-2000
510-600									1	1	2
610-700								1	1	1	2
710-800							1	1	2	2	2
810-900					1	1	1	2	2	2	2
910-1000	1	1	1	1	1	1	2	2	2	2	2
1010-1100	1	1	1	1	2	2	2	2	2	2	2
1110-1200	1	1	1	2	2	2	2	2	2	2	2
1210-1300	1	1	1	2	2	2	2	2	2	2	2
1310-1400	1	1	1	2	2	2	2	2	2	2	2
1410-1500	2	2	2	2	2	2	2	2	2	2	2
1510-1600	2	2	2	2	2	2	2	2	2	2	2
1610-1700	2	2	2	2	2	2	2	2	2	2	2
1710-1800	2	2	2	2	2	2	2	2	2	2	2
1810-1900	2	2	2	2	2	2	2	2	2	2	2
1910-2000	2	2	2	2	2	2	2	2	2	2	2

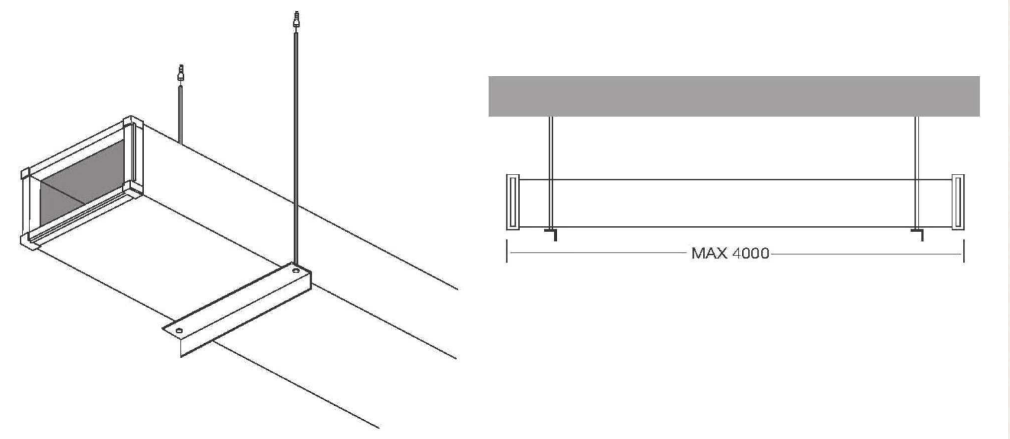




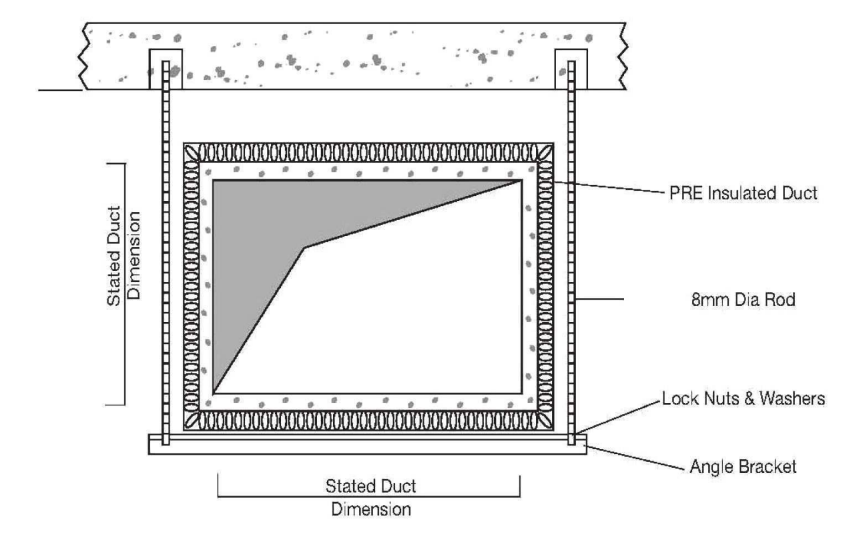
D = Recommended Step Interval (see schedule of Duct Reinforcement)
W = Width of Duct

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HANGER SYSTEM



DUCTWORK SUPPORT DETAIL



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