

FO-INTEG-PROJECT-PO0001-REV.03 Gestión de Control de Calidad / Quality Management

•	Information	Chahua	In Review
	Task/tareas o		Legend
	idoly taleas c	onandon	Overdue
		mpresa/ MPANY:	Integ Miami LLC
		( Centro e Costo )	I-HVAC-RIVERGLADESES-051619
	Project (CDC) - Customer Name		LUNACON CONSTRUCTION GROUP
	Project (CDC) - U	bicacion	7400 Parkside Drive, Parkland, Florida 33067
•	Submittal Title:	METAL D	DUCTS
	Spec Section:	Division SECTION	Description: METAL DUCTS N 15810
	Submittal Type :	Product I	Data
	Submit By:	13-09-20	Responsible Contractor: Integ Miami LLC
	Submittal Manager:	Milagros	Suarez
	Issue Date:		Final Due Date:
	Lead Time:		
	Ball in Court:	Lunacon	Construction Group
•	Attachment Attachment:		
	Linked Drawings:		
	Notes:		
•	Stamp Info		
	Other Name:		
		ow Stamp	on PDF:
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Submittal logs
 Add Submittal LOG

Revision#	Date Submittal REV	Attachement Document:	Comments:	
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Submittal Approva	l
Approval	Name/Title:
Signature	

Created today at  $1:35\,PM$  (PDT). Owned by  $\underline{Suarez, Milagros}$ .

## **Rectangular Duct and Fittings**

- ❖ All rectangular duct and fittings are fabricated using galvanized steel in accordance with the 3<sup>rd</sup> edition 2005 SMACNA Duct Construction Standards.
- ❖ Fabrication of rectangular duct and fittings using aluminum, stainless steel, or black iron is available at client's request or as necessary in accordance with project plans.

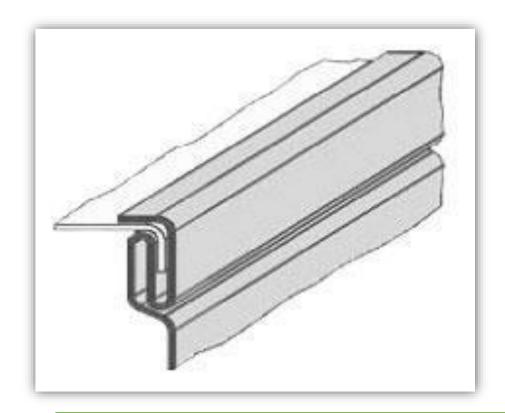
Galvanized	26-18 gauge	A-653	G90
Aluminum	0.04	ASTM B209	3003 H14
Stainless Steel	18 gauge	A-240	316L
Black Iron	16 gauge	A-569	N/A

- ❖ Fabrication using other material standards that is not mentioned above is available upon client's request otherwise specified on project plans.
- ❖ All fabricated duct and fittings using 20-26 gauge are beaded.
- Straight duct and fittings are assembled otherwise are unassembled upon request.





# **Longitudinal Seam**



- ❖ Fabrication of rectangular duct and fittings is completed using a Pittsburgh Lock Seam.
- ❖ Duct sections are secured and leak-free under pressure.





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# **TDX Connection**

All fabrication of rectangular duct and fittings that use a TDX connection is based on the <u>3rd edition 2005 SMACNA Duct</u> Construction Standards.



#### Benefits

- \* Reduces leakage.
- ❖ Can be assembled and disassembled on the ground without damage to duct or fitting.
- ❖ No additional sealing is necessary.





## **TDX Corner**

- Corners used to complete the TDX flange connection is the Cornermatic Corner which is manufactured by Ductmate Industries.
- ❖ The corner is made out of 16 Gauge galvanized steel.
- ❖ It has a hole for 3/8" carriage bolt.
- ❖ Used to install into 26-18 gauge TDX flanges.



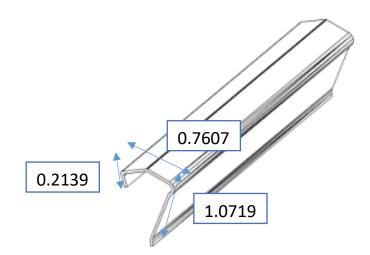


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## **Cleats**

- Cleats used in TDX flange connection is the Ductmate Versa Cleat.
- ❖ The cleat is snapped on between TDX connections when ductwork is installed.
- ❖ It is manufactured using 22 gauge galvanized steel.
- ❖ It is provided in union with the ductwork that requires a TDX connection.
- \* The cleat's opening has the following dimensions.
  - Height-1.0719"
  - Width- .7607"
  - Length-.2139"







### 4" W.G. STATIC POS. OR NEG.

(Galvanized Steel and Stainless Steel Ductwork)

Duct Size	Duct Gauge	Joint Length	Wide Side Connector	Narrow Side Connector
0 - 10"	26	59''	STANDING SLIP T- 11 26 GA	FLAT DRIVE T-1 24 GA
11 - 12''	26	59"	T.D.C. T-25a	T.D.C. T-25a
13 - 22''	24	56"	T.D.C. T-25a	T.D.C. T-25a
23 - 28''	22	56''	T.D.C. T-25a	T.D.C. T-25a
29 - 42''	22	56''	T.D.C. W/ C.T.R. & J.T.R. T-25a	T.D.C. W/ C.T.R. & J.T.R. T-25a
43 - 60''	20	56''	T.D.C. W/ C.T.R. & J.T.R. T-25a	T.D.C. W/ C.T.R. & J.T.R. T-25a
61- 72"	20	56''	T.D.C. W/ 2 C.T.R & J.T.R T-25a	T.D.C. W/ 2 C.T.R & J.T.R T-25a
73 - 96 "	18	56''	T.D.C. W/ 2 C.T.R & J.T.R T-25a	T.D.C. W/ 2 C.T.R & J.T.R T-25a
97 – 120"	18	56''	T.D.C. W/ CENTER A.R & J.T.R T-25a	T.D.C. W/ CENTER A.R & J.T.R T-25a

J.T.R – Joint Tie Rod.

C.T.R – Center Tie Rod.

A.R. – Angle Reinforcement.

Tie Rods are ½" EMT.

If MPT(Mid-point Tie Rods) are used, the reinforcement spacing is based on 2-1/2".





#### 6" W.G. STATIC POS. OR NEG.

(Galvanized Steel and Stainless Steel Ductwork)

Duct Size	Duct Gauge	Joint Length	Wide Side Connector	Narrow Side Connector
0 - 8"	26	59"	STANDING SLIP T-11 26 GA	FLAT DRIVE T-1 24 GA
9 - 12"	24	56"	T.D.C. T-25a	T.D.C. T-25a
13 - 24"	22	56"	T.D.C. T-25a	T.D.C. T-25a
25 - 26"	22	56"	T.D.C. T-25a	T.D.C. T-25a
27 - 30"	22	56"	T.D.C. W/ C.T.R. T- 25a	T.D.C. W/ C.T.R. T- 25a
31 - 36"	20	56"	T.D.C. W/ C.T.R. T- 25a	T.D.C.W/ C.T.R. T- 25a
37 - 60"	20	56"	T.D.C. W/ C.T.R. & J.T.R. T-25a	T.D.C. W/ C.T.R. & J.T.R. T-25a
61 - 72"	18	56"	T.D.C. W/ C.T.R. & J.T.R. T-25a	T.D.C. W/ C.T.R & J.T.R T-25a
73 – 84"	18	56"	T.D.C. W/ 2C.T.R. & J.T.R. T-25a	T.D.C. W/ 2 C.T.R. &J.T.R. T-25a
85 – 96"	16	56"	T.D.C. W/ 2C.T.R. & J.T.R. T-25a	T.D.C. W/ 2 C.T.R. &J.T.R. T-25a

J.T.R – Joint Tie Rod.

C.T.R – Center Tie Rod.

A.R. – Angle Reinforcement.

Tie Rods are ½" EMT.

If MPT(Mid-point Tie Rods) are used, the reinforcement spacing is based on 2-1/2".





# **Slip & Drive Connection**

#### **Available Connections**









Hemmed "S"

Standing "S"

Plain "S"

Drive Slip





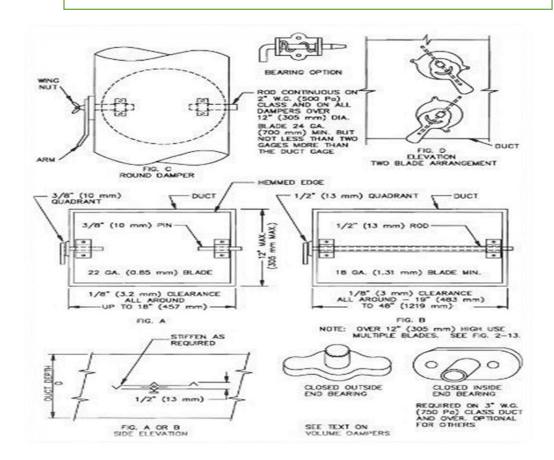
- ❖ Slip and Drives are cut in accordance with the 3rd edition 2005 SMACNA Duct Construction Standards.
- ❖ Bundles of 10 are provided in accordance with the project or as requested by client.
- \* Rigid and leak-proof connection.
- Slips and drives are commonly cut at 3', 5', and 8' lengths.
- ❖ Are cut using 26 and 24 gauge galvanized metal.





## **Volume Damper**

- ❖ All fabricated volume dampers are in accordance with the requested sizes and types specified in project's plan.
- ❖ Damper blade is made using galvanized steel.
- ❖ Damper bearings is made out of stainless steel which causes it to have low friction which reduces the torque when turning the blade.
- ❖ The blade pin is made out of 0.040 aluminum.

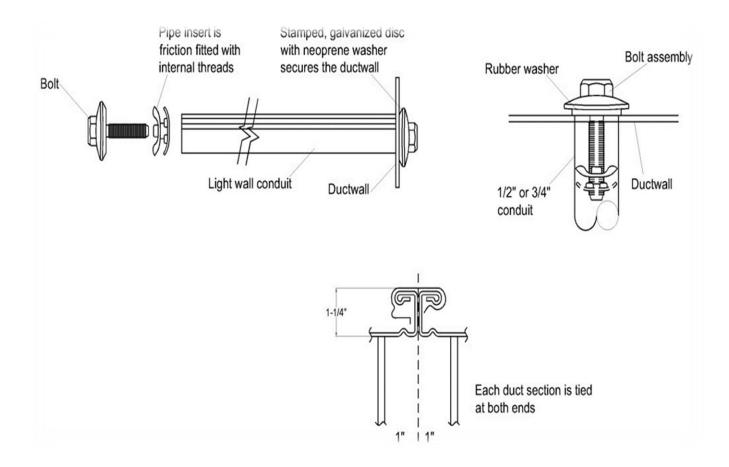






### **Tie Rod Reinforcement**

- ❖ Tie rod is cut to length in accordance to the duct dimensions.
- ❖ Tie rod reinforcements are used for both mid panel and joint reinforcement.
- ❖ Tie rod are manufactured using ¾" conduit with 5/16" threaded inserts at each end.
- ❖ All specifications regarding the implementation of the tie rod are conducted in accordance with the 3<sup>rd</sup> edition 2005 SMACNA Duct Construction Standards.



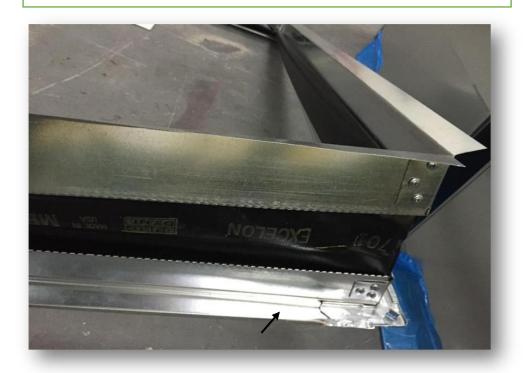


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# **Flexible Duct Connector**

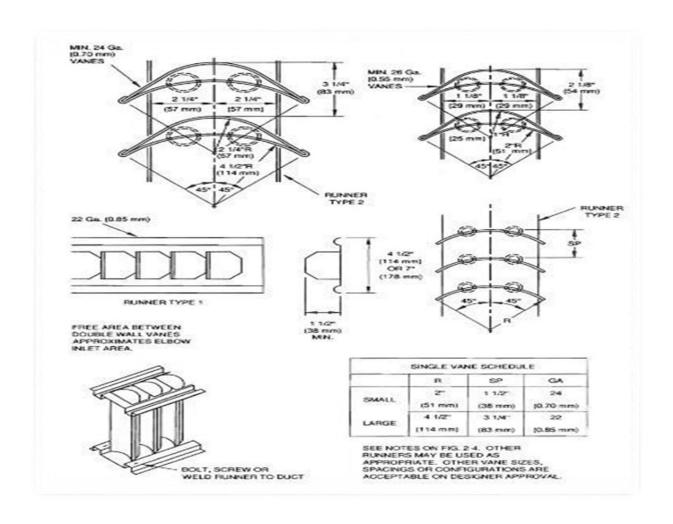
- ❖ Fabricated using G-90 galvanized steel.
- Corners are clinched to completely conform the connector.
- ❖ TDX and slip & drive connections are available in accordance with requests.
- ❖ Fabric used is Excelon and meets NFPA-90A and NFPA-90B.
- ❖ Flexible duct has a flame retardant coating and has a waterproof seal.
- ❖ Fabric has a high tear strength and high abrasion.







# **Turning Vanes**

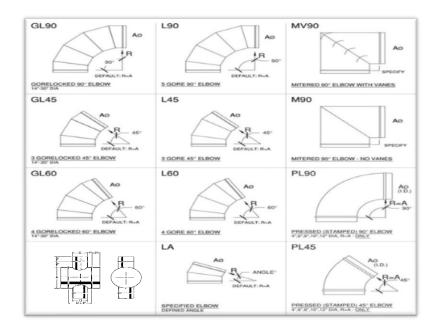






## **Spiral Duct: Single Wall**

- ❖ Pipe and fittings are fabricated using G-90 galvanized steel in accordance with 3<sup>rd</sup> edition 2005 SMACNA Duct Construction Standards.
  - o Pipe
    - Spiral lock-seam on sizes 3"-64".
  - o Fittings
    - Elbows will have a radius of 1.5 x standard diameter.
      - Available in 5-90 degrees.
    - All fittings will have a standing seam using a gore lock.







# **Up to 10" W.G. Positive Pressure**

(Single Wall)

Duct Diameter	Pipe Gauge	Fittings Gauge	Pipe Length
3-16"	26	24	10' or cut to length
17-18"	24	24	10' or cut to length
19-22"	24	22	10' or cut to length
24-26"	24	22	10' or cut to length
28-36"	22	20	10' or cut to length
38-50"	20	20	10' or cut to length
52-64"	18	18	10' or cut to length





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