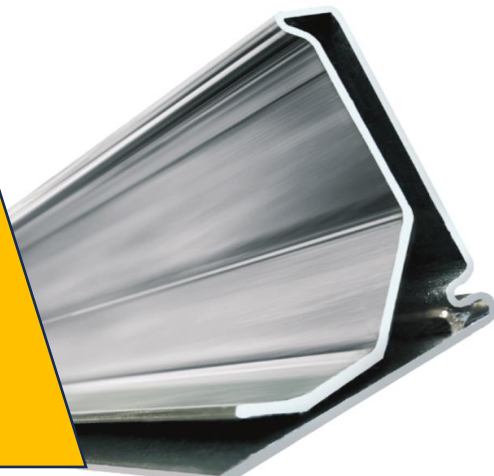
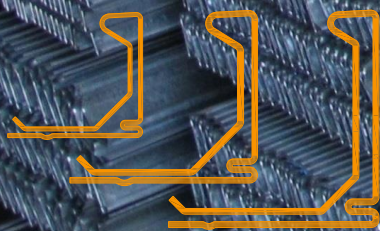


FUTURE TECHNOLOGY

DUCT FABRICATOR AND CONTRACTOR'S GUIDE

SLIDE-ON
FLANGE

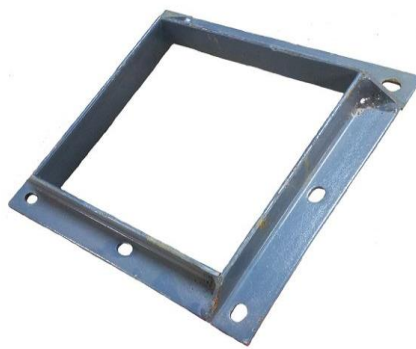
25 / 35 / 45



WHY

FTC 25/35/45

SLIDE -ON FLANGE



HVAC systems
using companion
angle

HVAC systems
using FTC
slide-on flange

Simple to install



Labor intensive
installation process



hard to cut



Requires countless
number of holes



Required overlap duct to
flange



Required attaching with
equally countless
number of nuts and
bolts.



Easy to made site duct
length adjustment



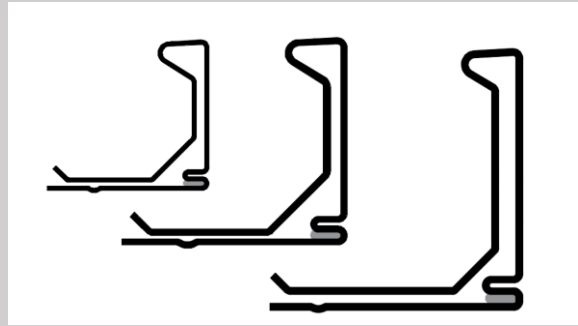
KEY SPECS FOR ENGINEERS AND INSTALLERS.

FLANGE

Roll formed quality galvanized sheets
based on : **ASTM A653/A653M-94**

Zinc coating

BS EN 10327:1004 Dx51 Z275.



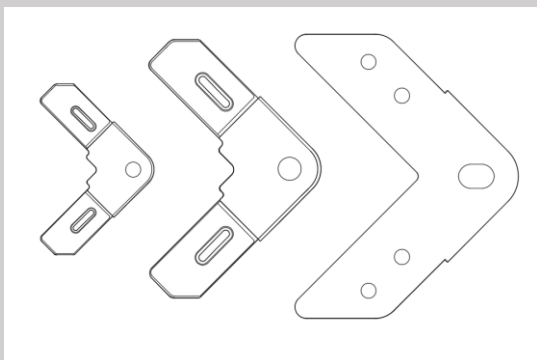
CORNERS

Steel grade EN 10111:1998-DD11

PICKED AND OILED FINISH

Zinc and Oiled Finish

Zinc and clear passivize to BS EN 12329-Fe/Zn5/A



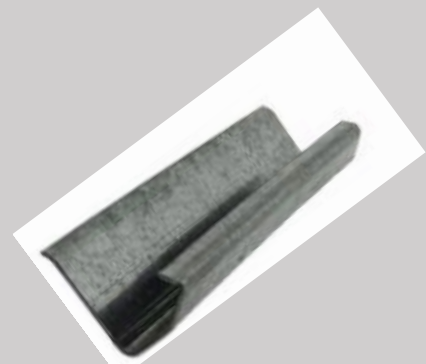
CLEATS & CLAMPS

Roll formed quality galvanized sheets

based on : **ASTM A653/A653M-94**

Zinc coating

BS EN 10327:1004 Dx51 Z275.



GASKET

One Side Self Adhesive Polyethylene tape



SEALANT

Temperature Range : - 25 Deg C to +120 Deg. C Max

Short terms temperature : 130 Deg. C

Point DIN ISO 2176 : + 185 Deg. C Worked

Penetration acc. to 60DF DIN ISO 2137 :

265 to 295 1/10 mm

Base type : Mineral Oil .

**FTC slide-on flange
Construction Standards**

FTC RECTANGULAR DUCT Construction Standards

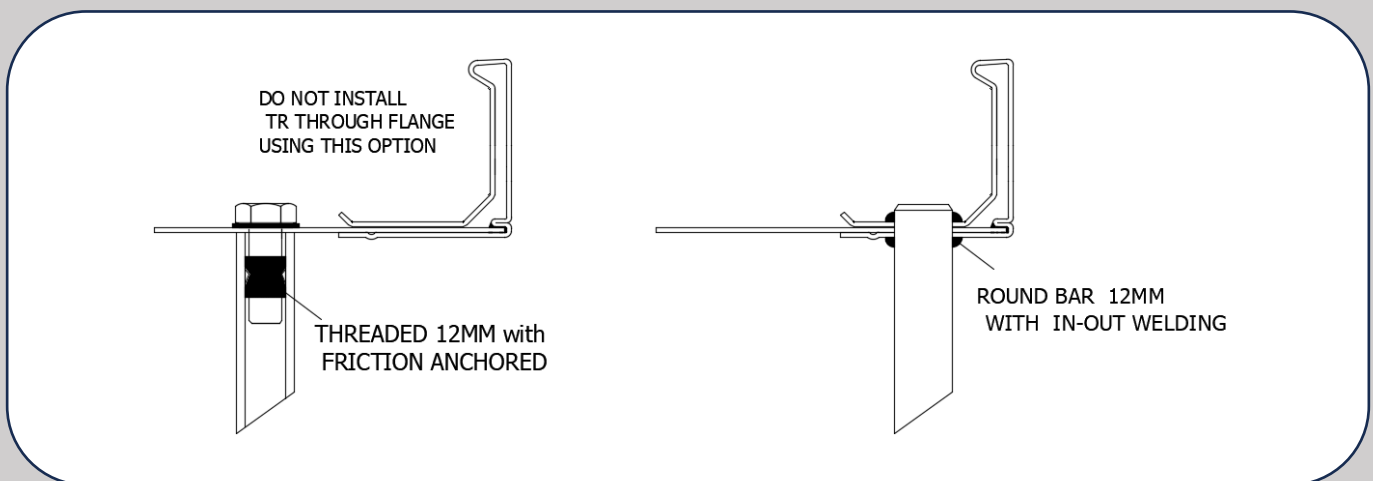
FTC 25 ,35,45 slide on flanges can use for positive and negative static pressure

The next representative construction tables based on 1800MM , 1500MM , 1200MM , 900MM , 600 Mm without use of any joint or intermediate reinforcements.

When an intermediate reinforcement is required, there will be an internal tie rod or an external alphabetical option, or both

CTR (Center Tie Rod) refers to an internal tie rod halfway between the flanges joints.

JTR (Joint Tie Rod) refers to an internal tie rod at the Flange joints.



The maximum distance from the duct wall to a tie rod is 48" on center.

letter A through K appears in a cell, it refers to an external intermediate reinforcement option between the Flange joints. See the SMACNA profile alternatives for each rigidity class .

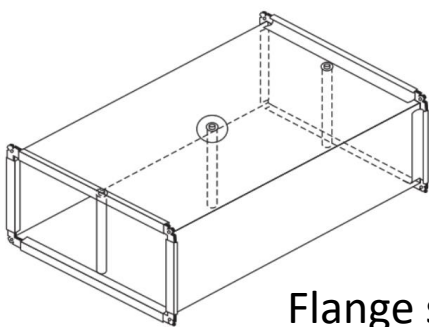
when double wall or insulated duct occurs, tie rods must pass through the outer shell

FTC RECTANGULAR DUCT Construction Standards

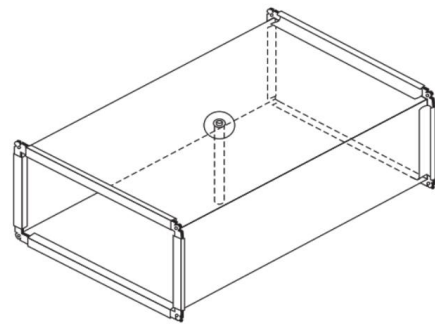
When needed on both the width and height dimension of the duct, where the rods intersect, they must be clamped, tied or welded together

When more than one tie rod is required on the same plane at a joint or reinforcement, the maximum distance between tie rods is 48" on center.

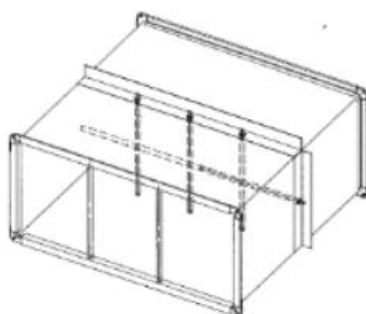
Number of Tie Rods Needed Based on Duct Size	
Up to 95"	1 Tie Rod, When Applicable
96"	1 Tie Rod
97"- 144"	2 Tie Rods
145"-192"	3 Tie Rods
193"- 240"	4 Tie Rods
241"-288"	5 Tie Rods
289"-336"	6 Tie Rods



Flange side TIE ROD
(CTR) ASSEMBLY



CENTER TIE ROD
(CTR) ASSEMBLY

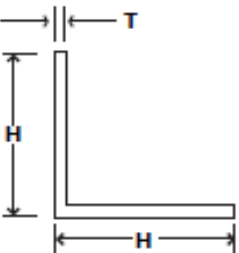
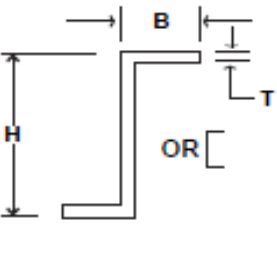
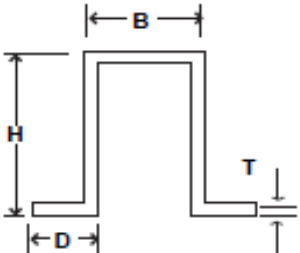


USE MULTIPLE TIE
RODS WITH A MAX.
SPACING OF 48"

FTC RECTANGULAR DUCT Construction Standards

Table 2-29M

INTERMEDIATE EXTERNAL REINFORCEMENT

REINF. CLASS	EI*						
		H x T (MIN) (mm)	WT LF	H x B x T (MIN) (mm)	WT LF	H x B x D x T (MIN) (mm)	WT LF
A	0.12	Use C		Use B		Use F	
B	0.29	Use C		19.1 x 12.7 x 1.00	0.36	Use F	
C	0.55	C 25 x 1.61 C 19.1 x 3.2	0.60 0.85	19.1 x 12.7 x 1.31 25 x 19.1 x 1.00	0.46	Use F	
D	0.78	H 19.1 x 3.2 C 25 x 3.2	0.85 1.19	25 x 19.1 x 1.31	0.67	Use F	
E	1.9	C 31.8 x 2.75 H 25 x 3.2	1.34	51 x 28.6 x 1.00	0.89	Use F	
F	3.7	H 31.8 x 3.2	1.52	38.1 x 19.1 x 1.31	0.80	38.1 x 19.1 x 15.9 x 1.31 38.1 x 38.1 x 19.1 x 1.00	1.34 1.24
G	4.5	38.1 x 3.2	1.83	38.1 x 19.1 x 1.61	0.98	38.1 x 19.1 x 15.9 x 1.31	1.19
H	7.6	38.1 x 4.8 51 x 3.2	2.64 2.46	38.1 x 19.1 x 3.2	1.95	38.1 x 38.1 x 19.1 x 1.31 51 x 25 x 19.1 x 1.00	1.61 1.34
I	20	C 51 x 4.8		51 x 28.6 x 2.5 76 x 28.6 x 1.61	2.38 1.56	51 x 25 x 19.1 x 1.61	2.14
J	23	H 51 x 4.8 C 51 x 6.4 63.5 x 3.2 (+)	3.63 4.76 3.13	51 x 28.6 x 3.2	2.75	51 x 25 x 19.1 x 2.5 63.5 x 51 x 19.1 x 1.31	3.65 2.28
K	30	63.5 x 4.8	4.61	76 x 28.6 x 2.5	2.98	63.5 x 51 x 19.1 x 1.61 76 x 38.1 x 19.1 x 1.61	2.80 2.98
L	60	H 63.5 x 6.4	6.10	76 x 28.6 x 3.2	3.40	63.5 x 51 x 19.1 x 3.2 76 x 38.1 x 19.1 x 2.75	5.51 5.06

See Section 2.1.4 *Effective EI is number listed times 10^5 before adjustment for bending moment capacity. C and H denote cold formed and hot rolled ratings; when neither is listed, either may be used. See tie rod options elsewhere.

- NOTES:
- (+) indicates positive pressure use only.
 - Hat Section Dimension "B" may be equal to 2 times Dimension "H" with the same reinforcement class rating.

FTC RECTANGULAR DUCT Construction Standards

125 PA STAIC POS./NEG.	TABLE 1					
	REINFORCEMENT SPACING					
	1800 MM	1500 MM	1200 MM	900 MM	750 MM	600 MM
DUCT SIZE (mm)						
200 & UNDER	0.55 GA-FTC25					
201-250	0.55 GA-FTC25					
251-300	0.55 GA-FTC25					
301-350	0.55 GA-FTC25					
351-400	26 GA-FTC25					
401-450	26 GA-FTC25					
451-500	26 GA-FTC25					
501-550	26 GA-FTC25					
551-600	26 GA-FTC25					
601-650	26 GA-FTC25					
651-700	26 GA-FTC25					
701-750	24 GA-FTC25					
751-900	24 GA-FTC25	26 GA-FTC25				
901-1000	24 GA-FTC25	26 GA-FTC25				
1001-1200	24 GA-FTC25					
1201-1300	24 GA-FTC25					
1301-1500	22 GA-FTC35	24 GA-FTC35	26 GA-FTC35	24 GA-FTC35 CTR or "F"		
1501-1800	22 GA-FTC35	24 GA-FTC35		24 GA-FTC35 CTR or "F"		
1801-2100	20 GA-FTC35	22 GA-FTC35	24 GA-FTC35	24 GA-FTC35 CTR or "F"		
2101-2400	20 GA-FTC45			24 ga-DM35 CTR or "H"		
2401-2700	18 GA-FTC45	20 GA-FTC45		22GA ga-FTC45 CTR or "H"		

Columns denote maximum non reinforced spacing.

 Indicates is the same as last defined cell.

FTC RECTANGULAR DUCT Construction Standards

250 PA STAIC POS./NEG.	TABLE 2					
	REINFORCEMENT SPACING					
	1800 MM	1500 MM	1200 MM	900 MM	750 MM	600 MM
DUCT SIZE (mm)						
200 & UNDER	26 GA-FTC25					
201-250	26 GA-FTC25					
251-300	26 GA-FTC25					
301-350	26 GA-FTC25					
351-400	26 GA-FTC25					
401-450	26 GA-FTC25					
451-500	26 GA-FTC25					
501-550	26 GA-FTC25					
551-600	26 GA-FTC25					
601-650	26 GA-FTC25					
651-700	26 GA-FTC25					
701-750	26 GA-FTC25					
751-900	24 GA-FTC25	26 GA-FTC25				
901-1000	22 GA-FTC25	24 GA-FTC25	26 GA-FTC25			
1001-1200	22 GA-FTC35	24 GA-FTC35				
1201-1300	22 GA-FTC35		24 GA-FTC35			
1301-1500	22 GA-FTC35			24 GA-FTC35 CTR or "F"		
1501-1800	22 GA-FTC35			24 GA-FTC35 CTR or "F"		
1801-2100	18 GA-FTC35	1.0 GA-FTC45		24 GA-FTC35 CTR or "H"		
2101-2400	16 GA-FTC45	18 GA-FTC45		22 GA-FTC45 CTR or "H"		
2401-2700				20 GA-FTC45 CTR or "H"		

Columns denote maximum unreinforced spacing.

 Indicates is the same as last defined cell.

FTC RECTANGULAR DUCT Construction Standards

500 PA STAIC POS./NEG.	TABLE 3					
	REINFORCEMENT SPACING					
	1800 MM	1500 MM	1200 MM	900 MM	750 MM	600 MM
DUCT SIZE (mm)						
200 & UNDER	26 GA-FTC25					
201-250	26 GA-FTC25					
251-300	26 GA-FTC25					
301-350	26 GA-FTC25					
351-400	26 GA-FTC25					
401-450	24 GA-FTC25					
451-500	24 GA-FTC25	26 GA-FTC25				
501-550	24 GA-FTC25	26 GA-FTC25				
551-600	24 GA-FTC25	26 GA-FTC25				
601-650	24 GA-FTC25	26 GA-FTC25				
651-700	22 GA-FTC25	24 GA-FTC25	26 GA-FTC25	26 GA-FTC25 CTR or "C"		
701-750	22 GA-FTC25	24 GA-FTC25	26 GA-FTC25	26 GA-FTC25 CTR or "C"		
751-900	22 GA-FTC25	24 GA-FTC25		24 GA-FTC25 CTR or "C"	24 GA-FTC25 CTR or "C"	
901-1000	22 GA-FTC35	24 GA-FTC35	24 GA-FTC25	24 GA-FTC25 CTR or "D"	26 GA-FTC25 CTR or "D"	
1001-1200	22 GA-FTC35	24 GA-FTC35		24 GA-FTC35 CTR or "E"	26 GA-FTC25 CTR or "E"	
1201-1300	22 GA-FTC35			24 GA-FTC35 CTR or "F"	26 GA-FTC25 CTR or "F"	
1301-1500	22 GA-FTC35			24 GA-FTC25 CTR or "G"	0.55 GA-FTC25 CTR or "G"	
1501-1800	16 GA-FTC35		18 GA-FTC35	22 GA-FTC35 CTR or "I"	24 GA-FTC35 CTR or "H"	26 GA-FTC35 CTR or "H"
1801-2100				20 GA-FTC35 CTR or "H"	22 GA-FTC35 CTR or "H"	24 GA-FTC35 CTR or "H"
2101-2400				20 GA-FTC45 CTR or "H"	22 GA-FTC35 CTR or "H"	
2401-2700				20 GA-FTC45 CTR or "H"	22 GA-FTC35 CTR or "H"	

Columns denote maximum non reinforced spacing.

 Indicates is the same as last defined cell.

FTC RECTANGULAR DUCT Construction Standards

750 PA STAIC POS./NEG.	TABLE 4					
	REINFORCEMENT SPACING					
	1800 MM	1500 MM	1200 MM	900 MM	750 MM	600 MM
DUCT SIZE (mm)						
200 & UNDER	26 GA-FTC25					
201-250	26 GA-FTC25					
251-300	26 GA-FTC25					
301-350	24 GA-FTC25	26 GA-FTC25				
351-400	24 GA-FTC25	26 GA-FTC25				
401-450	24 GA-FTC25	26 GA-FTC25				
451-500	24 GA-FTC25	26 GA-FTC25				
501-550	24 GA-FTC25	26 GA-FTC25				
551-600	0.7 GA-FTC25	26 GA-FTC25				
601-650	0.7 GA-FTC25	26 GA-FTC25				
651-700	22 GA-FTC25	24 GA-FTC25		24 GA-FTC25 CTR or "D"		
701-750	22 GA-FTC25	24 GA-FTC25		24 GA-FTC25 CTR or "D"		
751-900	22 GA-FTC35	24 GA-FTC25		24 GA-FTC25 CTR or "D"		
901-1000	22 GA-FTC35	24 GA-FTC25		24 GA-FTC25 CTR or "E"		
1001-1200	18 GA-FTC35		20 GA-FTC35	22 GA-FTC35 CTR or "E"		
1201-1300	16 GA-FTC35		20 GA-FTC35	22 GA-FTC35 CTR or "F"		
1301-1500	16 GA-FTC35		20 GA-FTC35 CTR or "I"	22 GA-FTC35 CTR or "G"		
1501-1800			20 GA-FTC35 CTR or "I"			
1801-2100			18 GA-FTC45 CTR or "I"			
2101-2400			18 GA-FTC45 CTR or "H"			
2401-2700			18 GA-FTC45 CTR or "H"			

Columns denote maximum non reinforced spacing.

 Indicates is the same as last defined cell.

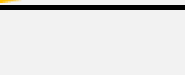
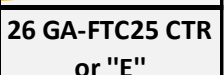
FTC RECTANGULAR DUCT Construction Standards

1000 PA STAIC POS./NEG.	TABLE 5					
	REINFORCEMENT SPACING					
	1800 MM	1500 MM	1200 MM	900 MM	750 MM	600 MM
DUCT SIZE (mm)						
200 & UNDER	24 GA-FTC25	26 GA-FTC25				
201-250	24 GA-FTC25	26 GA-FTC25				
251-300	24 GA-FTC25	26 GA-FTC25				
301-350	24 GA-FTC25	26 GA-FTC25				
351-400	24 GA-FTC25	26 GA-FTC25				
401-450	24 GA-FTC25	26 GA-FTC25				
451-500	24 GA-FTC25		26 GA-FTC25	26 GA-FTC25 CTR or "C"		
501-550	24 GA-FTC25		26 GA-FTC25	26 GA-FTC25 CTR or "C"		
551-600	22 GA-FTC25		24 GA-FTC25	26 GA-FTC25 CTR or "D"		
601-650	022 GA-FTC25		24 GA-FTC25	26 GA-FTC25 CTR or "D"		
651-700	022 GA-FTC25		24 GA-FTC25	24 GA-FTC25 CTR or "D"		
701-750	022 GA-FTC25		24 GA-FTC25	24 GA-FTC25 CTR or "D"		
751-900	022 GA-FTC25			24 GA-FTC25 CTR or "E"	26 GA-FTC25 CTR or "E"	
901-1000	022 GA-FTC25			24 GA-FTC25 CTR or "E"	26 GA-FTC25 CTR or "E"	
1001-1200				22 GA-FTC35 CTR or "F"	24 GA-FTC35 CTR or "F"	26 GA-FTC35 CTR or "F"
1201-1300				22 GA-FTC35 CTR or "G"	24 GA-FTC35 CTR or "G"	26 GA-FTC35 CTR or "G"
1301-1500				22 GA-FTC35 CTR or "H"	24 GA-FTC35 CTR or "H"	26 GA-FTC35 CTR or "H"
1501-1800				18 GA-FTC45 CTR or "H"	20 GA-FTC45 CTR or "H"	22 GA-FTC45 CTR or "H"
1801-2100				18 GA-FTC45 CTR or "H"	20 GA-FTC45 CTR or "H"	
2101-2400				18 GA-FTC45 CTR or "H"	20 GA-FTC45 CTR or "H"	
2401-2700				18 GA-FTC45 CTR or "H"	20 GA-FTC45 CTR or "H"	

Columns denote maximum non reinforced spacing.



Indicates is the same as last defined cell.

1500 PA STAIC POS	TABLE 6					
	REINFORCEMENT SPACING					
	1800 MM	1500 MM	1200 MM	900 MM	750 MM	600 MM
DUCT SIZE (mm)						
200 & UNDER	20 GA-FTC25			24 GA-FTC25 CTR or "C"	26 GA-FTC25 CTR or "C"	
201-250	20 GA-FTC25			24 GA-FTC25 CTR or "C"	26 GA-FTC25 CTR or "C"	
251-300	20 GA-FTC25			24 GA-FTC25 CTR or "D"	26 GA-FTC25 CTR or "D"	
301-350	20 GA-FTC25			24 GA-FTC25 CTR or "D"	26 GA-FTC25 CTR or "D"	
351-400	20 GA-FTC25			24 GA-FTC25 CTR or "D"	26 GA-FTC25 CTR or "D"	
401-450	20 GA-FTC25			24 GA-FTC25 CTR or "D"	26 GA-FTC25 CTR or "E"	
451-500	18 GA-FTC25	20 GA-FTC25		24 GA-FTC25 CTR or "E"	26 GA-FTC25 CTR or "E"	
501-550	18 GA-FTC25	20 GA-FTC25		24 GA-FTC25 CTR or "E"	26 GA-FTC25 CTR or "E"	
551-600	18 GA-FTC25	20 GA-FTC25		24 GA-FTC25 CTR or "E"	26 GA-FTC25 CTR or "E"	
601-650	18 GA-FTC25	20 GA-FTC25		24 GA-FTC25 CTR or "E"	26 GA-FTC25 CTR or "E"	
651-700	18 GA-FTC25	20 GA-FTC25		24 GA-FTC25 CTR or "E"	26 GA-FTC25 CTR or "E"	
701-750	18 GA-FTC25	20 GA-FTC25		24 GA-FTC25 CTR or "E"	26 GA-FTC25 CTR or "E"	
751-900				22 GA-FTC25 CTR or "E"	24 GA-FTC25 CTR or "E"	26 GA-FTC25 CTR or "E"
901-1000				20 GA-FTC35 CTR or "F"	22 GA-FTC25 CTR or "F"	24 GA-FTC25 CTR or "F"
1001-1200				20 GA-FTC35 CTR or "G"	22 GA-FTC25 CTR or "G"	24 GA-FTC25 CTR or "G"
1201-1300				20 GA-FTC35 CTR or "H"	22 GA-FTC35 CTR or "H"	24 GA-FTC25 CTR or "H"
1301-1500				20 GA-FTC35 CTR or "H"	22 GA-FTC35 CTR or "H"	
1501-1800				18 GA-FTC35 CTR or "H"	20 GA-FTC35 CTR or "H"	
1801-2100				18 GA-FTC35 CTR or "H"	20 GA-FTC35 CTR or "H"	
2101-2400				16 GA-FTC45 CTR or "H"	18 GA-FTC45 CTR or "H"	20 GA-FTC45 CTR or "H"
2401-2700				16 GA-FTC45 CTR or "H"	18 GA-FTC45 CTR or "H"	20 GA-FTC45 CTR or "H"

Columns denote maximum non reinforced spacing.



Indicates is the same as last defined cell.

FTC RECTANGULAR DUCT Construction Standards

2500 PA STAIC POS.	TABLE 7					
	REINFORCEMENT SPACING					
	1800 MM	1500 MM	1200 MM	900 MM	750 MM	600 MM
DUCT SIZE (mm)						
200 & UNDER	0.7 GA-FTC25				0.55 GA-FTC25 CTR or "C"	
201-250	0.7 GA-FTC25				0.55 GA-FTC25 CTR or "C"	
251-300	0.7 GA-FTC25				0.55 GA-FTC25 CTR or "C"	
301-350	0.7 GA-FTC25				0.55 GA-FTC25 CTR or "C"	
351-400	0.7 GA-FTC25				0.7 GA-FTC25 CTR or "C"	
401-450	0.9 GA-FTC35				0.7 GA-FTC25 CTR or "C"	
451-500	0.9 GA-FTC35			0.7 GA-FTC25 CTR or "C"		
501-550	0.9 GA-FTC35			0.7 GA-FTC25 CTR or "C"		
551-600	0.9 GA-FTC35			0.7 GA-FTC25 CTR or "D"		
601-650	0.9 GA-FTC35			0.7 GA-FTC25 CTR or "D"		
651-700	0.9 GA-FTC35			0.7 GA-FTC25 CTR or "D"		
701-750	0.9 GA-FTC35			0.7 GA-FTC25 CTR or "D"		
751-900		0.9 GA-FTC35		0.8 GA-FTC35 CTR or "E"		
901-1000		0.9 GA-FTC35		0.8 GA-FTC35 CTR or "F"		
1001-1200				0.9 GA-FTC35 CTR or "G"		
1201-1300				1.0 GA-FTC45 CTR or "G"		
1301-1500				1.0 GA-FTC45 CTR or "H"		
1501-1800				1.0 GA-FTC45 CTR or "H"		
1801-2100				1.2 GA-FTC45 CTR or "H"		
2101-2400				1.2 GA-FTC45 CTR or "H"		
2401-2700				1.2 GA-FTC45 CTR or "H"		

Columns denote maximum non reinforced spacing.



Indicates is the same as last defined cell.



**Make your decision
With confidence**

FTC- 45

FTC RECTANGULAR DUCT Construction Standards

PA STATIC PRESSURE	DUCT SIZE (mm)	TABLE 8 -FTC45			
		REINFORCEMENT SPACING			
		1200 MM	900 MM	750 MM	600 MM
125 PA	2400.- 3800 mm	1.2 GA-FTC45			
	2400- 4000 mm	1.2 GA-FTC45			
	2400- 4200 mm	1.2 GA-FTC45			
250 PA	2400.- 3800 mm		1.2 GA-FTC45 60X 60 X 6 MM	1.2 GA-FTC45 60X 60 X 6 MM	1.2 GA-FTC45 60X 60 X 6 MM
	2400- 4000 mm			1.2 GA-FTC45 60X 60 X 6 MM	1.2 GA-FTC45 60X 60 X 6 MM
	2400- 4200 mm				1.2 GA-FTC45 60X 60 X 6 MM
500 PA	2159-3048 mm		1.2 GA-FTC45 60X 60 X 6 MM	1.2 GA-FTC45 60X 60 X 6 MM	1.2 GA-FTC45 60X 60 X 6 MM
	2159- 4046 mm			1.2 GA-FTC45 60X 60 X 6 MM	1.2 GA-FTC45 60X 60 X 6 MM
	21000- 3500 mm				1.2 GA-FTC45 60X 60 X 6 MM
750 PA	2100-2500 mm		1.2 GA-FTC45 60X 60 X 6 MM	1.2 GA-FTC45 60X 60 X 6 MM	1.2 GA-FTC45 60X 60 X 6 MM
	2100-2700 mm			1.2 GA-FTC45 60X 60 X 6 MM	1.2 GA-FTC45 60X 60 X 6 MM
	2100-3000 mm				1.2 GA-FTC45 60X 60 X 6 MM
1000 PA	850-2400 mm		1.2 GA-FTC45 60X 60 X 6 MM	1.2 GA-FTC45 60X 60 X 6 MM	1.2 GA-FTC45 60X 60 X 6 MM
	800-2500 mm			1.2 GA-FTC45 60X 60 X 6 MM	1.2 GA-FTC45 60X 60 X 6 MM
	800-2700 mm				1.2 GA-FTC45 60X 60 X 6 MM
1500 PA	850-2100 mm		1.2 GA-FTC45 60X 60 X 6 MM	1.2 GA-FTC45 60X 60 X 6 MM	1.2 GA-FTC45 60X 60 X 6 MM
	850-2250 mm			1.2 GA-FTC45 60X 60 X 6 MM	1.2 GA-FTC45 60X 60 X 6 MM
	850-2400 mm				1.2 GA-FTC45 60X 60 X 6 MM
2500 PA	1300-1800 mm		1.2 GA-FTC45 60X 60 X 6 MM	1.2 GA-FTC45 60X 60 X 6 MM	1.2 GA-FTC45 60X 60 X 6 MM
	1300-1900 mm			1.2 GA-FTC45 60X 60 X 6 MM	1.2 GA-FTC45 60X 60 X 6 MM
	1300-2000 mm				1.2 GA-FTC45 60X 60 X 6 MM

Columns denote maximum non reinforced spacing.



Indicates is the same as last defined cell.

NOTES

[illegible]



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