

# DUCTMATE 45, 35, & 25 RECTANGULAR DUCT CONSTRUCTION STANDARDS



**DUCTMATE®**  
**Green Products**

# The Duct Construction Standards Web App

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**Ductmate Construction Standards**

Please enter the information for your duct run to determine the appropriate materials. [Back to Products](#)

**Notes:**  
This program includes positive pressure construction guidelines for 1/2" to 10" w.g.  
Guidelines for static pressures 1/2" through 3" are both positive and negative.  
For negative static pressures 4" and over, consult factory at 1-800-245-3188.

**Job Information** US Standard Metric

Job Name

Duct Run Name

Static Pressure

Duct Length

Maximum Width

Maximum Height

inches  feet  inches  feet

Alloy

Reinforcement Preference

Advanced Options (Click to Expand)

Send Me Results Via E-Mail

Try our easy to use web app for all your duct construction calculations. Visit the Support section of Ductmate.com to use the app on your next job.



*Also available for mobile phones, just scan this code.*

FOR INFORMATION ON ANY OF DUCTMATE'S PRODUCTS OR SERVICES:

Call: 1-800-245-3188 Fax: 1-724-258-5494 Email: [ductmate@ductmate.com](mailto:ductmate@ductmate.com)

[www.ductmate.com](http://www.ductmate.com)

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## FORWARD

The widespread use of the “Ductmate® 25, 35, and 45 Slide-On Systems” makes these duct construction guidelines a necessity.

This manual is based on fundamental, sound engineering principles. The criteria used to establish the tables in this publication are  $\frac{1}{4}$ ” joint and  $\frac{3}{4}$ ” sheet deflection limits for ducts over 24” wide.

These duct construction standards are based on independent testing using the Ductmate Systems exclusively as manufactured by Ductmate Industries Incorporated U.S.A. No other flange system can be used in conjunction with these tables.

Any reference to SMACNA in this manual refers to the SMACNA 2005 “HVAC Duct Construction Standards, Metal and Flexible,” Third Edition.

## TABLES

When using the Rectangular Duct Construction Tables in this manual, **Reinforcement Spacing** refers to both the Ductmate joints and Intermediate Reinforcements (Center Tie Rods or External Stiffeners.)

Ductmate’s Rectangular Duct Construction Tables are based on 6’, 5’, and 4’ duct section lengths. Columns 6’, 5’, and 4’ are construction guidelines without the use of any joint or intermediate reinforcements.

The 3’, 2½’, and 2’ columns are used in conjunction with the 6’, 5’, and 4’ duct section lengths. These columns provide alternative construction guidelines such as lighter metal gauges, joint tie rods, center tie rods, or external intermediate reinforcements.

When making special fittings, if the duct length matches the 3’, 2½’, and 2’ column spacing, you do not need the CTR or external reinforcement between the joints.

See examples on pages 6-7.

## Positive/Negative Pressure

This addendum includes positive pressure guidelines for pressure classes up to 10” w.g.

Duct construction tables for  $\frac{1}{2}$ ”, 1”, 2”, and 3” w.g. can be used for both positive and negative pressures. For negative pressures greater than 3” w.g., please contact Ductmate Industries or refer to the SMACNA Rectangular Industrial Duct Construction Standards. Except for aluminum, the guidelines on pages 8-15 can be used on galvanized, galvanized, 304 and 316 stainless steel, PVC coated, aluminized, and black iron.

Duct construction guidelines for aluminum applications are on pages 17-22.

Metric duct construction guidelines for aluminum can be found on pages 38-43.

In a cell, DM25 refers to the Ductmate 25 Connector system, DM35 refers to the Ductmate 35 system, and DM45 refers to the Ductmate 45 system.

## Internal and External Reinforcements

When an intermediate reinforcement is required in a cell, 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 Ductmate joints.

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

See page 5 for CTR and JTR details.

When using conduit as a tie rod for rods up to 36" long use 1/2" conduit. For rods 37" and longer use 3/4" conduit.

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

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.

When a CTR and / or JTR is needed on both the width and height dimension of the duct, where the rods intersect, they must be clamped, tied or welded together to prevent vibrating against each other. See Figure 1 below.

If an (\*) appears next to the DM25, DM35, DM45, or intermediate reinforcement it indicates that a tie rod is needed.

If an alphabetical letter A through K appears in a cell, it refers to an external intermediate reinforcement option between the Ductmate joints. See the SMACNA profile alternatives for each rigidity class on page 4. Note: At 4" w.g. and up, ends of reinforcements must be tied together per SMACNA (See Figures 2-11 and 2-12 of the SMACNA HVAC Duct Construction Standards, Third Edition - 2005 (positive and negative pressures).

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

For aluminum duct, tie rods cannot be used due to the malleability of the metal. External reinforcements are needed.

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

Figure 1

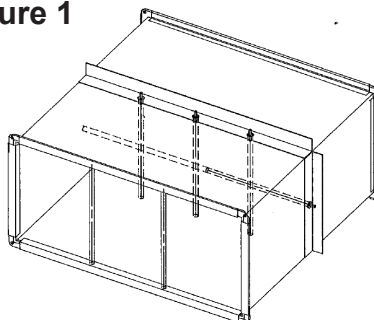


Table 2-29

INTERMEDIATE EXTERNAL REINFORCEMENTS

REINF. CLASS	ANGLE		CHANNEL OR ZEE		HAT SECTION	
	H x T (MIN)	WT/LF	H x B x T (MIN)	WT/LF	H x B x D x T (MIN)	WT/LF
A	Use C		Use B		Use F	
B	Use C		3/4 x 1/2 x 20 ga	0.24	Use F	
C	C 1 x 16 ga C 3/4 x 1/8	0.40 0.57	3/4 x 1/2 x 18 ga 1 x 3/4 x 20 ga	0.31	Use F	
D	H 3/4 x 1/8 C 1 x 1/8	0.57 0.80	1 x 3/4 x 18 ga	0.45	Use F	
E	C 1 1/4 x 12 ga H 1 x 1/8	0.90	2 x 1 1/8 x 20 ga	0.60	Use F	
F	H 1 1/4 x 1/8	1.02	1 1/2 x 3/4 x 18 ga	0.54	1 1/2 x 3/4 x 5/8 x 18 ga 1 1/2 x 1 1/2 x 3/4 x 20 ga	0.90 0.83
G	1 1/2 x 1/8	1.23	1 1/2 x 3/4 x 16 ga	0.66	1 1/2 x 3/4 x 5/8 x 18 ga	0.80
H	1 1/2 x 3/16 2 x 1/8	1.78 1.65	1 1/2 x 3/4 x 1/8	1.31	1 1/2 x 1 1/2 x 3/4 x 18 ga 2 x 1 x 3/4 x 20 ga	1.08 0.90
I	C 2 x 3/16 2 1/2 x 1/8	2.44 2.10	2 x 1 1/8 x 12 ga 3 x 1 1/8 x 16 ga	1.60 1.05	2 x 1 x 3/4 x 16 ga	1.44
J	H 2 x 3/16 C 2 x 1/4 2 1/2 x 1/8 (+)	2.44 3.20 2.10	2 x 1 1/8 x 1/8	1.85	2 x 1 x 3/4 x 12 ga 2 1/2 x 2 x 3/4 x 18 ga	2.45 1.53
K	2 1/2 x 3/16	3.10	3 x 1 1/8 x 12 ga	2.00	2 1/2 x 2 x 3/4 x 16 ga 3 x 1 1/2 x 3/4 x 16 ga	1.88 2.00
L	H 2 1/2 x 1/4	4.10	3 x 1 1/8 x 1/8	2.29	2 1/2 x 2 x 3/4 x 1/8 3 x 1 1/2 x 3/4 x 12 ga	3.70 3.40

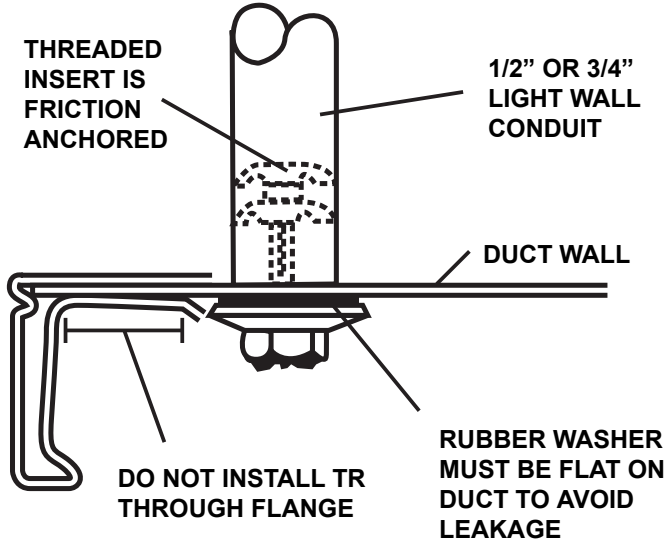
See Section 2.1.4 \*Effective EI is number listed times 10<sup>5</sup> before adjustment for bending moment capacity. C and H denote cold formed and hot rolled ratings; when neither is listed, either may be used. See tie rod options elsewhere.

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

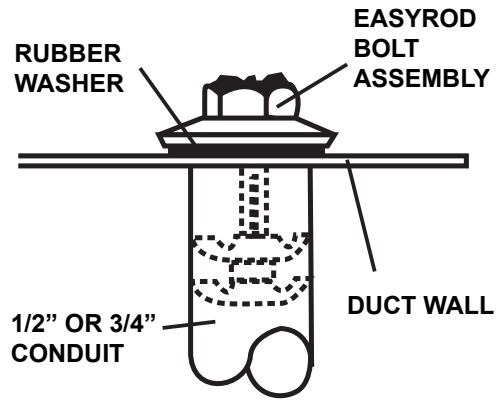
INTERNAL REINFORCEMENTS

EZ-ROD / TIE ROD CONSTRUCTION

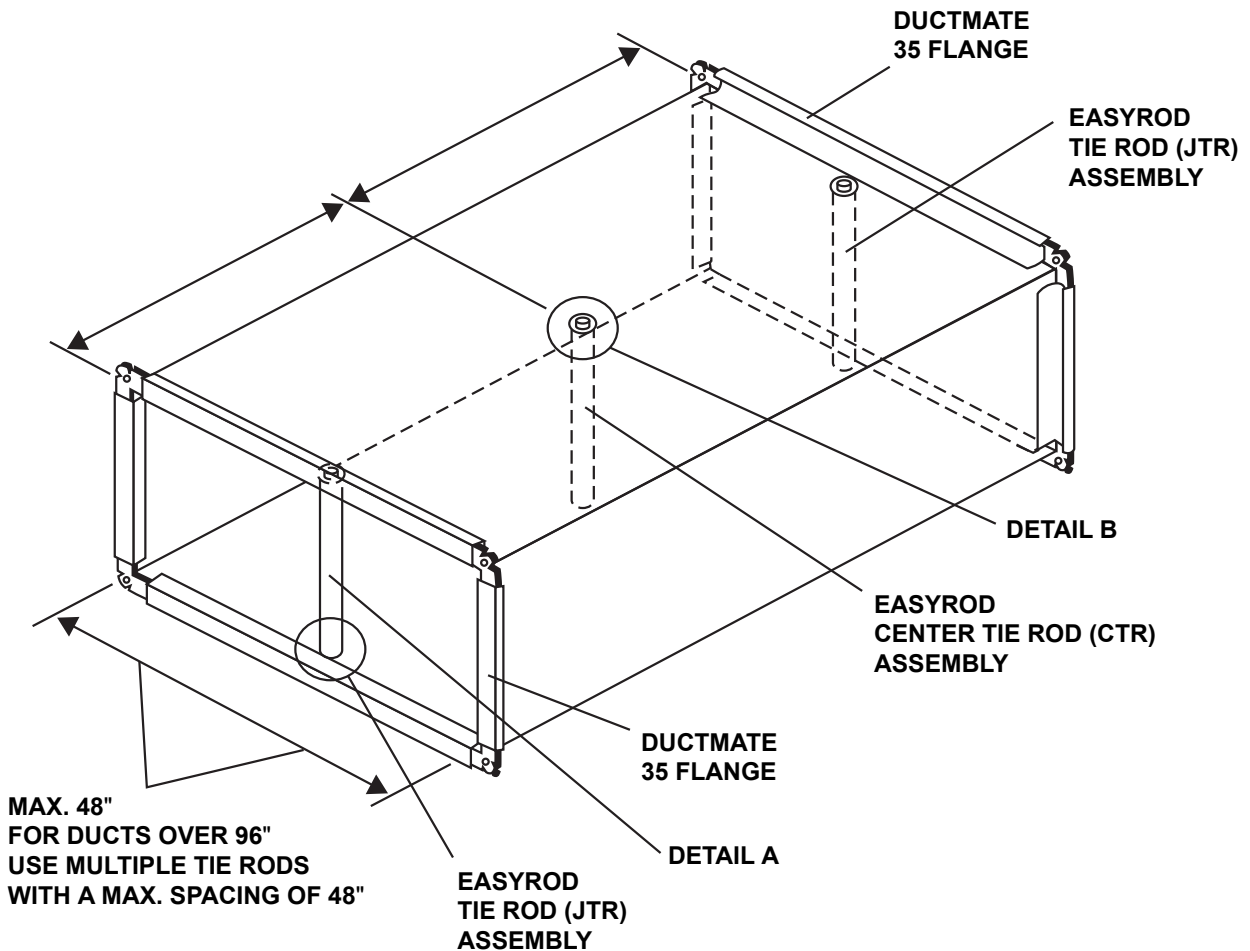
USE FOR SHOP FABRICATED OR KNOCKED DOWN DUCTWORK



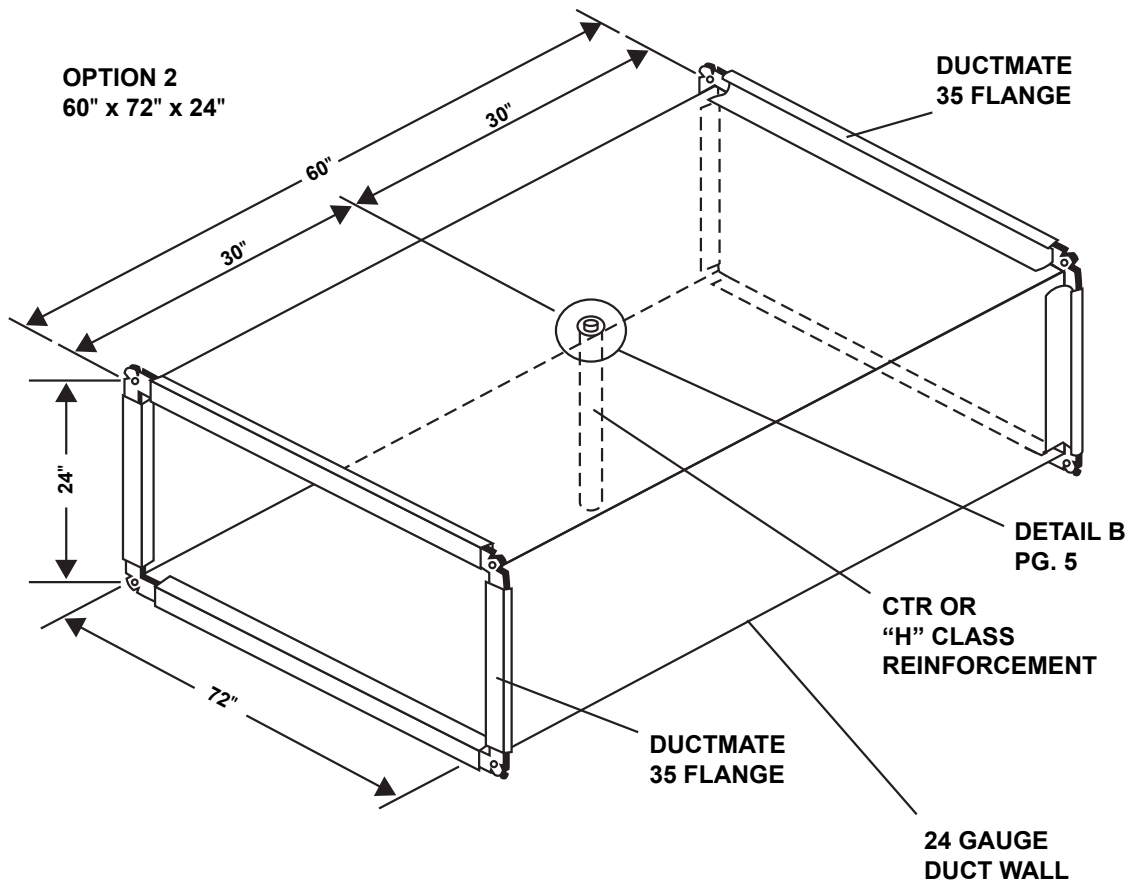
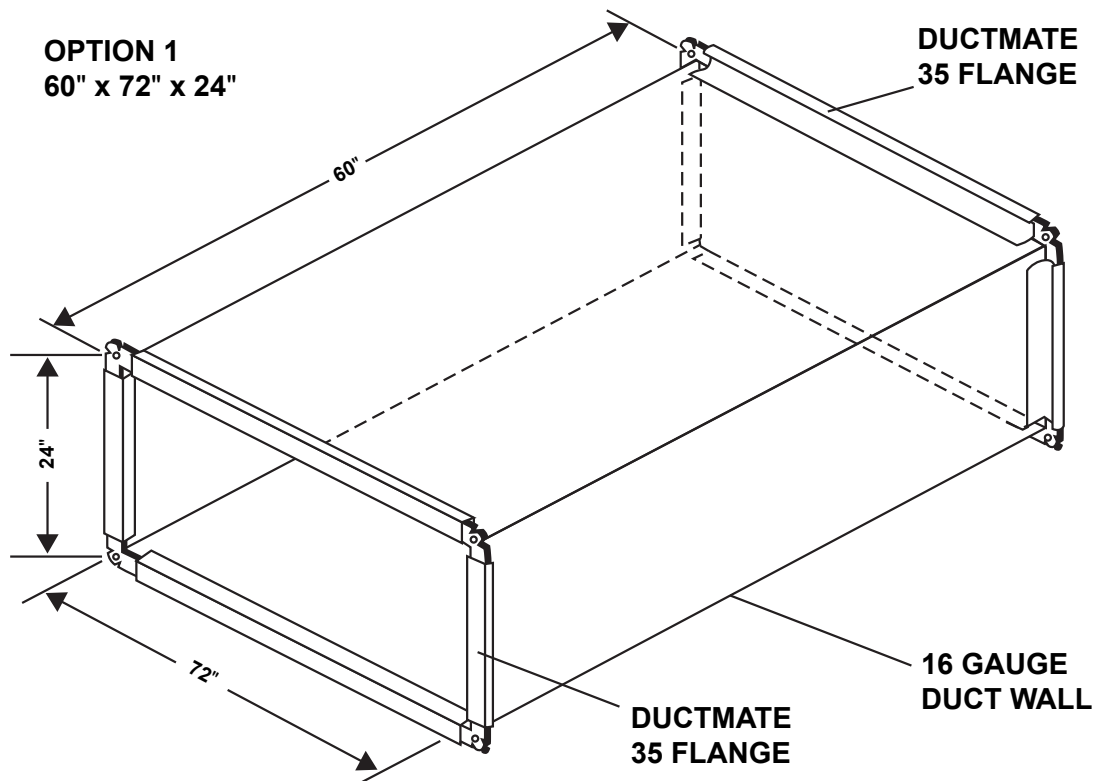
DETAIL A



DETAIL B

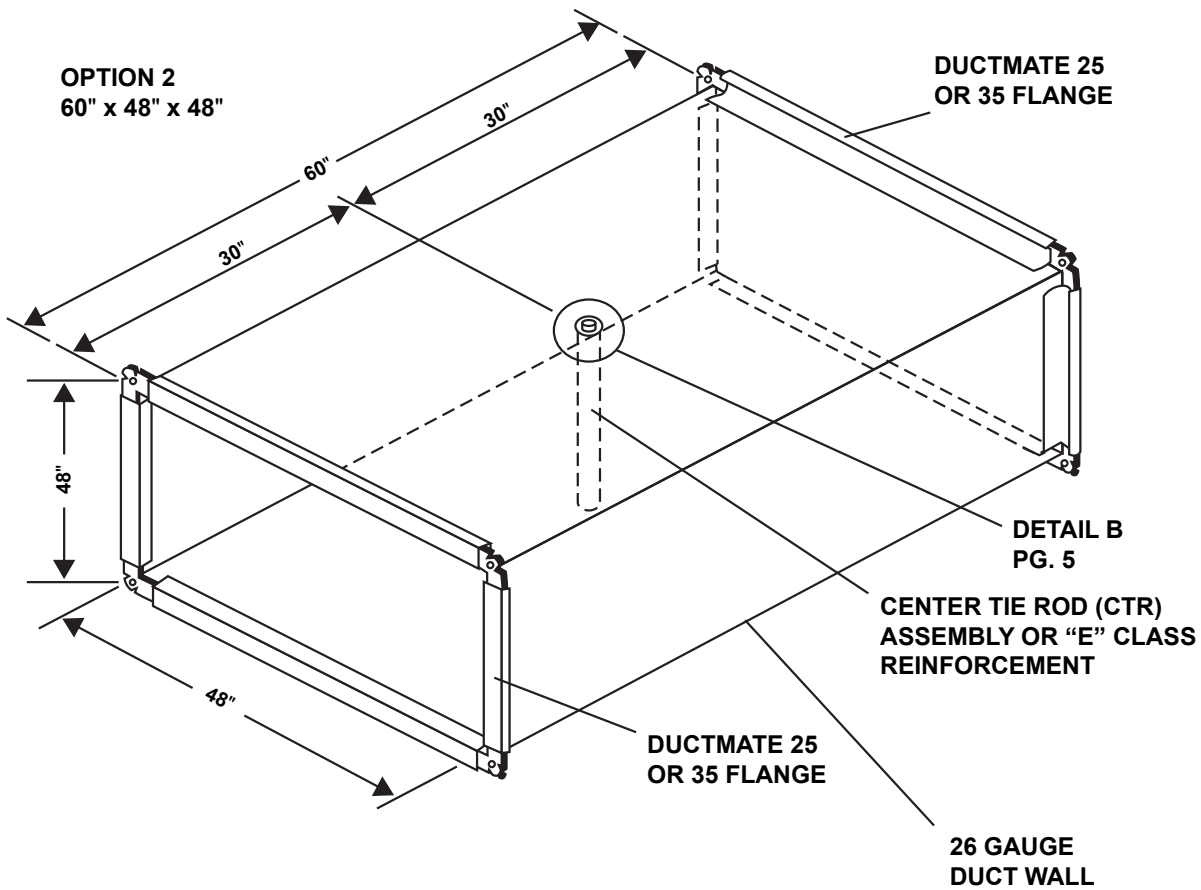
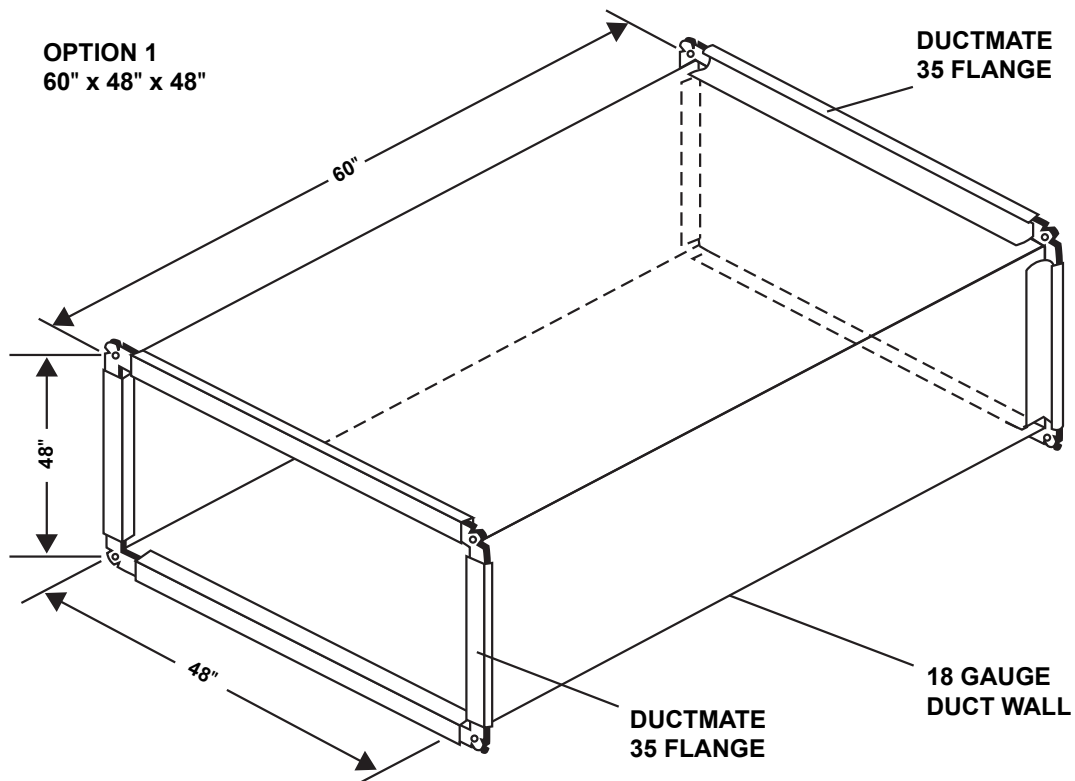


Senario A  
2" W.G.  
5' DUCT  
SECTIONS  
72" x 24"





Senario B  
3" W.G.  
5' DUCT  
SECTIONS  
48" x 48"



# DUCTMATE RECTANGULAR DUCT CONSTRUCTION STANDARDS

0.5" W.G. STATIC POS./NEG.

Table 1

0.5" W.G. STATIC POS./NEG.	REINFORCEMENT SPACING					
	6'	5'	4'	3'	2.5'	2'
Duct Size						
8" dn	26 ga-DM25					
9, 10"	26 ga-DM25					
11, 12"	26 ga-DM25					
13, 14"	26 ga-DM25					
15, 16"	26 ga-DM25					
17, 18"	26 ga-DM25					
19, 20"	26 ga-DM25					
21, 22"	26 ga-DM25					
23, 24"	26 ga-DM25					
25, 26"	26 ga-DM25					
27, 28"	26 ga-DM25					
29, 30"	26 ga-DM25					
31-36"	24 ga-DM25	26 ga-DM25				
37-42"	24 ga-DM25	26 ga-DM25				
43-48"	24 ga-DM25	26 ga-DM25				
49-54"	24 ga-DM25	26 ga-DM25				
55-60"	22 ga-DM25	24 ga-DM25	26 ga-DM25	26 ga-DM25 CTR or "F"		
61-72"	20 ga-DM25 22 ga-DM35	22 ga-DM25 24 ga-DM35		26 ga-DM35 CTR or "H"		
73-84"	20 ga-DM35	22 ga-DM35	24 ga-DM35	26 ga-DM35 CTR or "H"		
85-96"	20 ga-DM35	22 ga-DM35		24 ga-DM35 CTR or "H"		
97" up	18 ga-DM35*	20 ga-DM35*		22 ga-DM35 CTR or "H"		

Columns denote maximum unreinforced spacing.	
	Indicates is the same as last defined cell.
	No construction defined. See other options.

**Important Notes - Please Read Forward/Tables Section On Page 2**

- \* Denotes Tie Rod is needed
- For Ducts up to 36," use 1/2" conduit tie rods and for ducts 37" and greater, use 3/4" conduit tie rods.
- Note: For 14 gauge duct projects using the DM35, wide pocket (WP) DM35 must be requested. In addition on large projects with 16 gauge duct, for convenience, you can order the DM35 with a wide pocket (WP) for ease of installation.

# DUCTMATE RECTANGULAR DUCT CONSTRUCTION STANDARDS

Table 2

1" W.G. STATIC POS./NEG.	REINFORCEMENT SPACING					
	6'	5'	4'	3'	2.5'	2'
	Duct Size					
8" dn	26 ga-DM25					
9, 10"	26 ga-DM25					
11, 12"	26 ga-DM25					
13, 14"	26 ga-DM25					
15, 16"	26 ga-DM25					
17, 18"	26 ga-DM25					
19, 20"	26 ga-DM25					
21, 22"	26 ga-DM25					
23, 24"	26 ga-DM25					
25, 26"	26 ga-DM25					
27, 28"	26 ga-DM25					
29, 30"	26 ga-DM25					
31-36"	24 ga-DM25	26 ga-DM25				
37-42"	22 ga-DM25	24 ga-DM25	26 ga-DM25	26 ga-DM25 CTR or "E"		
43-48"	22 ga-DM25	24 ga-DM25	26 ga-DM25	26 ga-DM25 CTR or "E"		
49-54"	20 ga-DM25 22 ga-DM35	22 ga-DM25 24 ga-DM35	24 ga-DM25	26 ga-DM25 CTR or "F"		
55-60"	20 ga-DM25 22 ga-DM35	22 ga-DM25 24 ga-DM35	24 ga-DM25	26 ga-DM25 CTR or "G"		
61-72"	22 ga-DM35	24 ga-DM35		24 ga-DM35 CTR or "H"	26 ga-DM35 CTR or "H"	
73-84"	18 ga-DM35	20 ga-DM35		24 ga-DM35 CTR or "H"	26 ga-DM35 CTR or "H"	
85-96"	16 ga-DM35*	18 ga-DM35*		22 ga-DM35* CTR or "H**"	24 ga-DM35* CTR or "H**"	26 ga-DM35* CTR or "J"
97" up				20 ga-DM35* CTR or "H**"	22 ga-DM35* CTR or "H**"	

1" W.G. STATIC POS./NEG.

	Columns denote maximum unreinforced spacing.
	Indicates is the same as last defined cell.
	No construction defined. See other options.

**Important Notes - Please Read Forward/Tables Section On Page 2**

- \* Denotes Tie Rod is needed
- For Ducts up to 36," use 1/2" conduit tie rods and for ducts 37" and greater, use 3/4" conduit tie rods.
- Note: For 14 gauge duct projects using the DM35, wide pocket (WP) DM35 must be requested. In addition on large projects with 16 gauge duct, for convenience, you can order the DM35 with a wide pocket (WP) for ease of installation.

# DUCTMATE RECTANGULAR DUCT CONSTRUCTION STANDARDS

Table 3

2" W.G. STATIC POS./NEG.	REINFORCEMENT SPACING					
	6'	5'	4'	3'	2.5'	2'
Duct Size						
8" dn	26 ga-DM25					
9, 10"	26 ga-DM25					
11, 12"	26 ga-DM25					
13, 14"	26 ga-DM25					
15, 16"	26 ga-DM25					
17, 18"	26 ga-DM25					
19, 20"	24 ga-DM25	26 ga-DM25				
21, 22"	24 ga-DM25	26 ga-DM25				
23, 24"	24 ga-DM25	26 ga-DM25				
25, 26"	24 ga-DM25	26 ga-DM25				
27, 28"	22 ga-DM25	24 ga-DM25	26 ga-DM25	26 ga-DM25 CTR or "C"		
29, 30"	22 ga-DM25	24 ga-DM25	26 ga-DM25	26 ga-DM25 CTR or "C"		
31-36"	22 ga-DM25	24 ga-DM25		24 ga-DM25 CTR or "C"	26 ga-DM25 CTR or "C"	
37-42"	20 ga-DM25 22 ga-DM35	22 ga-DM25 24 ga-DM35	24 ga-DM25	24 ga-DM25 CTR or "D"	26 ga-DM25 CTR or "D"	
43-48"	20 ga-DM25 22 ga-DM35	20 ga-DM25 24 ga-DM35		24 ga-DM35 CTR or "E"	26 ga-DM25 CTR or "E"	
49-54"	22 ga-DM35	22 ga-DM35	20 ga-DM25 22 ga-DM35	24 ga-DM35 CTR or "F"	26 ga-DM35 CTR or "F"	
55-60"	22 ga-DM35	22 ga-DM35		24 ga-DM35 CTR or "G"	26 ga-DM35 CTR or "G"	
61-72"	16 ga-DM35		18 ga-DM35	22 ga-DM35 CTR or "I"	24 ga-DM35 CTR or "H"	26 ga-DM35 CTR or "H"
73-84"				20 ga-DM35 CTR or "H"	22 ga-DM35 CTR or "H"	24 ga-DM35 CTR or "H"
85-96"				20 ga-DM35* CTR or "H"	22 ga-DM35* CTR or "H"	
97" up				20 ga-DM35* CTR or "H"	22 ga-DM35* CTR or "H"	

Columns denote maximum unreinforced spacing.	
	Indicates is the same as last defined cell.
	No construction defined. See other options.

**Important Notes - Please Read Forward/Tables Section On Page 2**

- \* Denotes Tie Rod is needed
- For Ducts up to 36," use 1/2" conduit tie rods and for ducts 37" and greater, use 3/4" conduit tie rods.
- Note: For 14 gauge duct projects using the DM35, wide pocket (WP) DM35 must be requested. In addition on large projects with 16 gauge duct, for convenience, you can order the DM35 with a wide pocket (WP) for ease of installation.

# DUCTMATE RECTANGULAR DUCT CONSTRUCTION STANDARDS

Table 4

3" W.G. STATIC POS./NEG.	REINFORCEMENT SPACING					
	6'	5'	4'	3'	2.5'	2'
	Duct Size					
8" dn	26 ga-DM25					
9, 10"	26 ga-DM25					
11, 12"	26 ga-DM25					
13, 14"	24 ga-DM25	26 ga-DM25				
15, 16"	24 ga-DM25	26 ga-DM25				
17, 18"	24 ga-DM25	26 ga-DM25				
19, 20"	24 ga-DM25	26 ga-DM25				
21, 22"	24 ga-DM25	26 ga-DM25				
23, 24"	24 ga-DM25	26 ga-DM25				
25, 26"	24 ga-DM25	26 ga-DM25				
27, 28"	22 ga-DM25	24 ga-DM25	26 ga-DM25	26 ga-DM25 CTR or "D"		
29, 30"	22 ga-DM25	24 ga-DM25	26 ga-DM25	26 ga-DM25 CTR or "D"		
31-36"	20 ga-DM25 22 ga-DM35	22 ga-DM25 24 ga-DM35		26 ga-DM25 CTR or "D"		
37-42"	20 ga-DM25 22 ga-DM35	22 ga-DM25 24 ga-DM35		26 ga-DM25 CTR or "E"		
43-48"	18 ga-DM35	18 ga-DM35	20 ga-DM35	24 ga-DM35 CTR or "E"	26 ga-DM25 CTR or "E"	
49-54"	16 ga-DM35	18 ga-DM35	20 ga-DM35	24 ga-DM35 CTR or "F"		26 ga-DM35 CTR or "E"
55-60"	16 ga-DM35	18 ga-DM35	20 ga-DM35	24 ga-DM35 CTR or "G"		26 ga-DM35 CTR or "F"
61-72"				20 ga-DM35 CTR or "I"	22 ga-DM35 CTR or "I"	24 ga-DM35 CTR or "I"
73-84"				18 ga-DM35 CTR or "I"	20 ga-DM35 CTR or "I"	22 ga-DM35 CTR or "I"
85-96"				18 ga-DM35* CTR or "H**"	20 ga-DM35* CTR or "H**"	
97" up				18 ga-DM35* CTR or "H**"	20 ga-DM35* CTR or "H**"	

3" W.G. STATIC POS./NEG.













































Columns denote maximum unreinforced spacing.	
	Indicates is the same as last defined cell.
	No construction defined. See other options.

**Important Notes - Please Read Forward/Tables Section On Page 2**



- \* Denotes Tie Rod is needed
- For Ducts up to 36," use 1/2" conduit tie rods and for ducts 37" and greater, use 3/4" conduit tie rods.
- Note: For 14 gauge duct projects using the DM35, wide pocket (WP) DM35 must be requested. In addition on large projects with 16 gauge duct, for convenience, you can order the DM35 with a wide pocket (WP) for ease of installation.

# DUCTMATE RECTANGULAR DUCT CONSTRUCTION STANDARDS

Table 5

4" W.G. STATIC POS.	REINFORCEMENT SPACING					
	6'	5'	4'	3'	2.5'	2'
	Duct Size					
8" dn	24 ga-DM25	26 ga-DM25				
9, 10"	24 ga-DM25	26 ga-DM25				
11, 12"	24 ga-DM25	26 ga-DM25				
13, 14"	24 ga-DM25	26 ga-DM25				
15, 16"	24 ga-DM25	26 ga-DM25				
17, 18"	24 ga-DM25	26 ga-DM25				
19, 20"	24 ga-DM25		26 ga-DM25	26 ga-DM25 CTR or "C"		
21, 22"	24 ga-DM25		26 ga-DM25	26 ga-DM25 CTR or "C"		
23, 24"	22 ga-DM25		24 ga-DM25	26 ga-DM25 CTR or "D"		
25, 26"	22 ga-DM25		24 ga-DM25	26 ga-DM25 CTR or "D"		
27, 28"	22 ga-DM25		24 ga-DM25	24 ga-DM25 CTR or "D"	26 ga-DM25 CTR or "D"	
29, 30"	22 ga-DM25		24 ga-DM25	24 ga-DM25 CTR or "D"	26 ga-DM25 CTR or "D"	
31-36"	22 ga-DM25			24 ga-DM25 CTR or "E"	26 ga-DM25 CTR or "E"	
37-42"	22 ga-DM35			24 ga-DM35 CTR or "E"	26 ga-DM25 CTR or "E"	
43-48"				22 ga-DM35 CTR or "F"	24 ga-DM35 CTR or "F"	26 ga-DM35 CTR or "F"
49-54"				22 ga-DM35 CTR or "G"	24 ga-DM35 CTR or "G"	26 ga-DM35 CTR or "G"
55-60"				22 ga-DM35 CTR or "H"	24 ga-DM35 CTR or "H"	26 ga-DM35 CTR or "H"
61-72"				18 ga-DM35 CTR or "H"	20 ga-DM35 CTR or "H"	22 ga-DM35 CTR or "H"
73-84"				18 ga-DM35* CTR or "H*"	20 ga-DM35* CTR or "H*"	
85-96"				18 ga-DM35* CTR or "H*"	20 ga-DM35* CTR or "H*"	
97" up				18 ga-DM35* CTR or "H*"	20 ga-DM35* CTR or "H*"	

4" W.G. STATIC POSITIVE

<small>Columns denote maximum unreinforced spacing.</small>	
	<small>Indicates is the same as last defined cell.</small>
	<small>No construction defined. See other options.</small>

**Important Notes - Please Read Forward/Tables Section On Page 2**

- \* Denotes Tie Rod is needed
- For Ducts up to 36," use 1/2" conduit tie rods and for ducts 37" and greater, use 3/4" conduit tie rods.
- Note: For 14 gauge duct projects using the DM35, wide pocket (WP) DM35 must be requested. In addition on large projects with 16 gauge duct, for convenience, you can order the DM35 with a wide pocket (WP) for ease of installation.

Table 6

6" W.G. STATIC POS.	REINFORCEMENT SPACING					
	6'	5'	4'	3'	2.5'	2'
Duct Size						
8" dn	24 ga-DM25			26 ga-DM25 CTR or "C"		
9, 10"	24 ga-DM25			26 ga-DM25 CTR or "C"		
11, 12"	24 ga-DM25			26 ga-DM25 CTR or "C"		
13, 14"	24 ga-DM25			26 ga-DM25 CTR or "C"		
15, 16"	24 ga-DM25			26 ga-DM25 CTR or "C"		
17, 18"	20 ga-DM25	22 ga-DM25		24 ga-DM25 CTR or "C"	26 ga-DM25 CTR or "C"	
19, 20"	20 ga-DM25	22 ga-DM25		24 ga-DM25 CTR or "C"	26 ga-DM25 CTR or "C"	
21, 22"	20 ga-DM25	22 ga-DM25		24 ga-DM25 CTR or "C"	26 ga-DM25 CTR or "C"	
23, 24"	20 ga-DM25	22 ga-DM25		24 ga-DM25 CTR or "D"	26 ga-DM25 CTR or "D"	
25, 26"	20 ga-DM25	22 ga-DM25		24 ga-DM25 CTR or "D"	26 ga-DM25 CTR or "D"	
27, 28"	20 ga-DM25	22 ga-DM25		24 ga-DM25 CTR or "D"	26 ga-DM25 CTR or "D"	
29, 30"	20 ga-DM25	22 ga-DM25		24 ga-DM25 CTR or "D"	26 ga-DM25 CTR or "D"	
31-36"		20 ga-DM25		22 ga-DM25 CTR or "E"	24 ga-DM25 CTR or "E"	26 ga-DM25 CTR or "E"
37-42"				22 ga-DM35 CTR or "F"	24 ga-DM35 CTR or "F"	26 ga-DM35 CTR or "F"
43-48"				22 ga-DM35 CTR or "G"	24 ga-DM35 CTR or "G"	26 ga-DM35 CTR or "G"
49-54"				20 ga-DM35 CTR or "H"	22 ga-DM35 CTR or "H"	24 ga-DM35 CTR or "H"
55-60"				20 ga-DM35 CTR or "H"	22 ga-DM35 CTR or "H"	24 ga-DM35 CTR or "H"
61-72"				18 ga-DM35 CTR or "H"	20 ga-DM35 CTR or "H"	
73-84"				18 ga-DM35* CTR or "H*"	20 ga-DM35* CTR or "H*"	
85-96"				18 ga-DM35* CTR or "H*"	20 ga-DM35* CTR or "H*"	
97" up				18 ga-DM35* CTR or "H*"	20 ga-DM35* CTR or "H*"	

6" W.G. STATIC POSITIVE

	Columns denote maximum unreinforced spacing.
	Indicates is the same as last defined cell.
	No construction defined. See other options.

**Important Notes - Please Read Forward/Tables Section On Page 2**

- \* Denotes Tie Rod is needed
- For Ducts up to 36," use 1/2" conduit tie rods and for ducts 37" and greater, use 3/4" conduit tie rods.
- Note: For 14 gauge duct projects using the DM35, wide pocket (WP) DM35 must be requested. In addition on large projects with 16 gauge duct, for convenience, you can order the DM35 with a wide pocket (WP) for ease of installation.

# DUCTMATE RECTANGULAR DUCT CONSTRUCTION STANDARDS

Table 7

10" W.G. STATIC POS.	REINFORCEMENT SPACING					
	6'	5'	4'	3'	2.5'	2'
	Duct Size					
8" dn	20 ga-DM25			24 ga-DM25 "C"	26 ga-DM25 "C"	
9, 10"	20 ga-DM25			24 ga-DM25 "C"	26 ga-DM25 "C"	
11, 12"	20 ga-DM25			24 ga-DM25 "D"	26 ga-DM25 "D"	
13, 14"	20 ga-DM25			24 ga-DM25 "D"	26 ga-DM25 "D"	
15, 16"	20 ga-DM25			24 ga-DM25 "D"	26 ga-DM25 "D"	
17, 18"	20 ga-DM25			24 ga-DM25 "D"	26 ga-DM25 "D"	
19, 20"	18 ga-DM25	20 ga-DM25		24 ga-DM25 "E"	26 ga-DM25 "E"	
21, 22"	18 ga-DM25	20 ga-DM25		24 ga-DM25 "E"	26 ga-DM25 "E"	
23, 24"	18 ga-DM25	20 ga-DM25		24 ga-DM25 "E"	26 ga-DM25 "E"	
25, 26"	18 ga-DM25	20 ga-DM25		24 ga-DM25 "E"	26 ga-DM25 "E"	
27, 28"	18 ga-DM25	20 ga-DM25		24 ga-DM25 "E"	26 ga-DM25 "E"	
29, 30"	18 ga-DM25	20 ga-DM25		24 ga-DM25 "E"	26 ga-DM25 "E"	
31-36"	/ / / / / /			22 ga-DM35 "E"	24 ga-DM35 "E"	26 ga-DM35 "E"
37-42"	/ / / / / /			20 ga-DM35 "F"	22 ga-DM35 "F"	24 ga-DM35 "F"
43-48"	/ / / / / /			20 ga-DM35 "G"	22 ga-DM35 "G"	24 ga-DM35 "G"
49-54"	/ / / / / /			20 ga-DM35 "H"	22 ga-DM35 "H"	24 ga-DM35 "H"
55-60"	/ / / / / /			20 ga-DM35* "H*"	22 ga-DM35* "H*"	
61-72"	/ / / / / /			18 ga-DM35* "H*"	20 ga-DM35* "H*"	
73-84"	/ / / / / /			18 ga-DM35* "H*"	20 ga-DM35* "H*"	
85-96"	/ / / / / /			16 ga-DM35* "H*"	18 ga-DM35* "H*"	20 ga-DM35* "H*"
97" up	/ / / / / /			16 ga-DM35* "H*"	18 ga-DM35* "H*"	20 ga-DM35* "H*"

10" W.G. STATIC POSITIVE



Columns denote maximum unreinforced spacing.	
	Indicates is the same as last defined cell.
	No construction defined. See other options.

**Important Notes - Please Read Forward/Tables Section On Page 2**

- \* Denotes Tie Rod is needed
- For Ducts up to 36," use 1/2" conduit tie rods and for ducts 37" and greater, use 3/4" conduit tie rods.
- Note: For 14 gauge duct projects using the DM35, wide pocket (WP) DM35 must be requested. In addition on large projects with 16 gauge duct, for convenience, you can order the DM35 with a wide pocket (WP) for ease of installation.



0.5" - 10" W.G. STATIC POSITIVE		Table 8 – DM45					
		REINFORCEMENT SPACING					
0.5" - 3" W.G. STATIC NEGATIVE		6'	5'	4'	3'	2.5'	2'
		Duct Size					
0.5" w.g.	96-150"	18 ga-DM45	20 ga-DM45	20 ga-DM45			
	96-160"		20 ga-DM45	20 ga-DM45			
	96-175"			20 ga-DM45			
1" w.g.	96-150"				18 ga-DM45 2 x 2 x 3/8	20 ga-DM45 2 x 2 x 3/8	20 ga-DM45 2 x 2 x 3/8
	96-160"					20 ga-DM45 2 x 2 x 3/8	20 ga-DM45 2 x 2 x 3/8
	96-175"						20 ga-DM45 2 x 2 x 3/8
2" w.g.	85-120"				18 ga-DM45 2 x 2 x 3/8	20 ga-DM45 2 x 2 x 3/8	20 ga-DM45 2 x 2 x 3/8
	85-130"					20 ga-DM45 2 x 2 x 3/8	20 ga-DM45 2 x 2 x 3/8
	85-140"						20 ga-DM45 2 x 2 x 3/8
3" w.g.	85-105"				18 ga-DM45 2 x 2 x 3/8	20 ga-DM45 2 x 2 x 3/8	20 ga-DM45 2 x 2 x 3/8
	85-110"					20 ga-DM45 2 x 2 x 3/8	20 ga-DM45 2 x 2 x 3/8
	85-120"						20 ga-DM45 2 x 2 x 3/8
4" w.g.	73-96"				18 ga-DM45 2 x 2 x 3/8	20 ga-DM45 2 x 2 x 3/8	20 ga-DM45 2 x 2 x 3/8
	73-100"					20 ga-DM45 2 x 2 x 3/8	20 ga-DM45 2 x 2 x 3/8
	73-110"						20 ga-DM45 2 x 2 x 3/8
6" w.g.	73-85"				18 ga-DM45 2 x 2 x 3/8	20 ga-DM45 2 x 2 x 3/8	20 ga-DM45 2 x 2 x 3/8
	73-90"					20 ga-DM45 2 x 2 x 3/8	20 ga-DM45 2 x 2 x 3/8
	73-96"						20 ga-DM45 2 x 2 x 3/8
10" w.g.	55-72"				18 ga-DM45 2 x 2 x 3/8	20 ga-DM45 2 x 2 x 3/8	20 ga-DM45 2 x 2 x 3/8
	55-75"					20 ga-DM45 2 x 2 x 3/8	20 ga-DM45 2 x 2 x 3/8
	55-82"						20 ga-DM45 2 x 2 x 3/8

Columns denote maximum unreinforced spacing.	
	Indicates is the same as last defined cell.
	No construction defined. See other options.

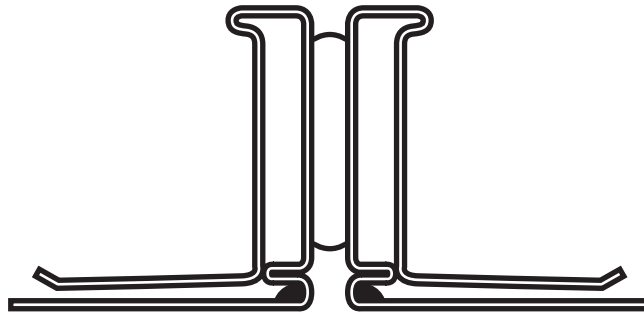
**Important Notes - Please Read Forward/Tables Section On Page 2**

- \* Denotes Tie Rod is needed
- For Ducts up to 36," use 1/2" conduit tie rods and for ducts 37" and greater, use 3/4" conduit tie rods.
- Note: For 14 gauge duct projects using the DM35, wide pocket (WP) DM35 must be requested. In addition on large projects with 16 gauge duct, for convenience, you can order the DM35 with a wide pocket (WP) for ease of installation.

0.5" - 10" W.G.  
POSITIVE

# ALUMINUM CONSTRUCTION GUIDELINES

CONSTRUCTION STANDARDS FOR ALUMINUM DUCTWORK  
HAVE BEEN INCLUDED TO AID THE CONTRACTOR WHEN  
USING DM35 ALUMINUM DUCT CONNECTORS.



DM35 AL

# DUCTMATE RECTANGULAR DUCT CONSTRUCTION STANDARDS

1" W.G.  
POSITIVE

Table 9

1" W.G. POS.	ALUMINUM DUCT CONSTRUCTION (AS PER SMACNA DUCT CONSTRUCTION STANDARDS)		
	Duct Size	Joint Spacing	Duct Wall Thickness
8" dn	DM35AL @ 4'	.032"	NONE
	DM35AL @ 5'	.032"	
9, 10"	DM35AL @ 4'	.032"	NONE
	DM35AL @ 5'	.032"	
11, 12"	DM35AL @ 4'	.032"	NONE
	DM35AL @ 5'	.032"	
13, 14"	DM35AL @ 4'	.032"	NONE
	DM35AL @ 5'	.032"	
15, 16"	DM35AL @ 4'	.032"	NONE
	DM35AL @ 5'	.032"	
17, 18"	DM35AL @ 4'	.032"	NONE
	DM35AL @ 5'	.032"	
19, 20"	DM35AL @ 4'	.032"	NONE
	DM35AL @ 5'	.032"	
21, 22"	DM35AL @ 4'	.032"	NONE
	DM35AL @ 5'	.032"	
23, 24"	DM35AL @ 4'	.032"	NONE
	DM35AL @ 5'	.032"	
25, 26"	DM35AL @ 4'	.032"	NONE
	DM35AL @ 5'	.032"	
27, 28"	DM35AL @ 4'	.032"	NONE
	DM35AL @ 5'	.032"	
29, 30"	DM35AL @ 4'	.032"	NONE
	DM35AL @ 5'	.032"	
31-36"	DM35AL @ 4'	.032"	NONE
	DM35AL @ 5'	.040"	
37-42"	DM35AL @ 4'	.032"	NONE
	DM35AL @ 5'	.040"	
43-48"	DM35AL @ 4'	.032"	NONE
	DM35AL @ 5'	.050"	
49-54"	DM35AL @ 4'	.040"	NONE
	DM35AL @ 5'	.050"	
55-60"	DM35AL @ 4'	.040"	NONE
	DM35AL @ 5'	.050"	
61-72"	DM35AL @ 4'	.040"	1 <sup>3</sup> / <sub>4</sub> x 1 <sup>3</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>8</sub> " @ 2 <sup>1</sup> / <sub>2</sub> '
	DM35AL @ 5'	.050"	2 x 2 x 1 <sup>1</sup> / <sub>4</sub> " @ 2'
73-84"	DM35AL @ 4'	.050"	2 <sup>1</sup> / <sub>2</sub> x 2 <sup>1</sup> / <sub>2</sub> x 1 <sup>1</sup> / <sub>8</sub> " @ 2 <sup>1</sup> / <sub>2</sub> '
	DM35AL @ 5'	.050"	2 <sup>1</sup> / <sub>2</sub> x 2 <sup>1</sup> / <sub>2</sub> x 3 <sup>1</sup> / <sub>16</sub> " @ 2'
85-96"	DM35AL + ROD @ 5'	.063"	2 <sup>1</sup> / <sub>2</sub> x 2 <sup>1</sup> / <sub>2</sub> x 3 <sup>1</sup> / <sub>16</sub> " + ROD @ 2 <sup>1</sup> / <sub>2</sub> '
97" up	DM35AL + ROD @ 4'	.064"	2 x 2 x 3 <sup>1</sup> / <sub>16</sub> " + ROD @ 2'

DM35AL IS EQUIVALENT TO A SMACNA "H" CLASS STIFFENER.

TIE ROD SPACING SHALL BE NO GREATER THAN 48" FROM DUCTWALL TO TIE ROD OR TIE ROD TO TIE ROD.

TIE RODS SHALL BE 1/2" ALUMINUM ROD.

# DUCTMATE RECTANGULAR DUCT CONSTRUCTION STANDARDS

Table 10

## ALUMINUM DUCT CONSTRUCTION (AS PER SMACNA DUCT CONSTRUCTION STANDARDS)

2" W.G. POS.	Table 10		
Duct Size	Joint Spacing	Duct Wall Thickness	Intermediate Reinforcement
8" dn	DM35AL @ 4'	.032"	NONE
	DM35AL @ 5'	.032"	
9, 10"	DM35AL @ 4'	.032"	NONE
	DM35AL @ 5'	.032"	
11, 12"	DM35AL @ 4'	.032"	NONE
	DM35AL @ 5'	.032"	
13, 14"	DM35AL @ 4'	.032"	NONE
	DM35AL @ 5'	.032"	
15, 16"	DM35AL @ 4'	.032"	NONE
	DM35AL @ 5'	.032"	
17, 18"	DM35AL @ 4'	.032"	NONE
	DM35AL @ 5'	.032"	
19, 20"	DM35AL @ 4'	.032"	NONE
	DM35AL @ 5'	.032"	
21, 22"	DM35AL @ 4'	.032"	NONE
	DM35AL @ 5'	.032"	
23, 24"	DM35AL @ 4'	.032"	NONE
	DM35AL @ 5'	.032"	
25, 26"	DM35AL @ 4'	.032"	NONE
	DM35AL @ 5'	.032"	
27, 28"	DM35AL @ 4'	.032"	NONE
	DM35AL @ 5'	.040"	
29, 30"	DM35AL @ 4'	.032"	NONE
	DM35AL @ 5'	.040"	
31-36"	DM35AL @ 4'	.040"	NONE
	DM35AL @ 5'	.050"	
37-42"	DM35AL @ 4'	.040"	NONE
	DM35AL @ 5'	.063"	
43-48"	DM35AL @ 4'	.050"	NONE
	DM35AL @ 5'	.071"	
49-54"	DM35AL @ 4'	.040"	2 x 2 x 3/16" @ 2'
	DM35AL @ 5'	.071"	NONE
55-60"	DM35AL @ 4'	.040"	2 x 2 x 1/4" @ 2'
	DM35AL + ROD @ 5'	.071"	2 x 2 x 1/4" @ 2 1/2'
61-72"	DM35AL @ 4'	.040"	2 x 2 x 3/16" + ROD @ 2'
	DM35AL + ROD @ 5'	.071"	2 1/2 x 2 1/2 x 3/16" @ 2 1/2'
73-84"	DM35AL @ 4'	.050"	2 x 2 x 3/16" + ROD @ 2'
	DM35AL + ROD @ 5'	.071"	2 1/2 x 2 1/2 x 3/8" + ROD @ 2 1/2'
85-96"	DM35AL + ROD @ 4'	.064"	2 x 2 x 3/16" + ROD @ 2'
97" up	DM35AL + ROD @ 4'	.064"	2 1/2 x 2 1/2 x 3/16" + ROD @ 2'

DM35AL IS EQUIVALENT TO A SMACNA "H" CLASS STIFFENER.

TIE ROD SPACING SHALL BE NO GREATER THAN 48" FROM DUCTWALL TO TIE ROD OR TIE ROD TO TIE ROD.

TIE RODS SHALL BE 1/2" ALUMINUM ROD.

# DUCTMATE RECTANGULAR DUCT CONSTRUCTION STANDARDS

Table 11

3" W.G. POS.	ALUMINUM DUCT CONSTRUCTION (AS PER SMACNA DUCT CONSTRUCTION STANDARDS)		
Duct Size	Joint Spacing	Duct Wall Thickness	Intermediate Reinforcement
8" dn	DM35AL @ 4'	.040"	NONE
	DM35AL @ 5'	.040"	
9, 10"	DM35AL @ 4'	.040"	NONE
	DM35AL @ 5'	.040"	
11, 12"	DM35AL @ 4'	.040"	NONE
	DM35AL @ 5'	.040"	
13, 14"	DM35AL @ 4'	.040"	NONE
	DM35AL @ 5'	.040"	
15, 16"	DM35AL @ 4'	.040"	NONE
	DM35AL @ 5'	.040"	
17, 18"	DM35AL @ 4'	.040"	NONE
	DM35AL @ 5'	.040"	
19, 20"	DM35AL @ 4'	.040"	NONE
	DM35AL @ 5'	.040"	
21, 22"	DM35AL @ 4'	.040"	NONE
	DM35AL @ 5'	.040"	
23, 24"	DM35AL @ 4'	.040"	NONE
	DM35AL @ 5'	.040"	
25, 26"	DM35AL @ 4'	.040"	NONE
	DM35AL @ 5'	.040"	
27, 28"	DM35AL @ 4'	.040"	NONE
	DM35AL @ 5'	.050"	
29, 30"	DM35AL @ 4'	.040"	NONE
	DM35AL @ 5'	.050"	
31-36"	DM35AL @ 4'	.040"	NONE
	DM35AL @ 5'	.063"	
37-42"	DM35AL @ 4'	.040"	2 x 2 x 3/16" @ 2'
	DM35AL @ 5'	.063"	2 1/2 x 2 1/2 x 1/8" @ 2 1/2'
43-48"	DM35AL @ 4'	.050"	2 x 2 x 3/16" + ROD @ 2'
	DM35AL + ROD @ 5'	.071"	2 x 2 x 1/4" + ROD @ 2 1/2'
49-54"	DM35AL @ 4'	.040"	2 x 2 x 3/16" + ROD @ 2'
	DM35AL + ROD @ 5'	.071"	2 x 2 x 1/4" + ROD @ 2 1/2'
55-60"	DM35AL @ 4'	.040"	2 x 2 x 3/16" + ROD @ 2'
	DM35AL + ROD @ 5'	.071"	2 1/2 x 2 1/2 x 3/16" + ROD @ 2 1/2'
61-72"	DM35AL @ 4'	.040"	2 x 2 x 3/16" + ROD @ 2'
	DM35AL + ROD @ 5'	.090"	2 1/2 x 2 1/2 x 3/8" + ROD @ 2 1/2'
73-84"	DM35AL @ 4'	.050"	2 x 2 x 3/16" + ROD @ 2'
	DM35AL + ROD @ 5'	.090"	2 1/2 x 2 1/2 x 3/8" + ROD @ 2 1/2'
85-96"	DM35AL + ROD @ 4'	.064"	2 x 2 x 1/4" + ROD @ 2'
97" up	DM35AL + ROD @ 4'	.064"	2 1/2 x 2 1/2 x 3/16" + ROD @ 2'

DM35AL IS EQUIVALENT TO A SMACNA "H" CLASS STIFFENER.

TIE ROD SPACING SHALL BE NO GREATER THAN 48" FROM DUCTWALL TO TIE ROD OR TIE ROD TO TIE ROD.

TIE RODS SHALL BE 1/2" ALUMINUM ROD.

3" W.G.  
POSITIVE

Table 12

4" W.G. POS.	ALUMINUM DUCT CONSTRUCTION (AS PER SMACNA DUCT CONSTRUCTION STANDARDS)		
	Duct Size	Joint Spacing	Duct Wall Thickness
8" dn	DM35AL @ 4'	.040"	NONE
9, 10"	DM35AL @ 4'	.040"	NONE
11, 12"	DM35AL @ 4'	.040"	NONE
13, 14"	DM35AL @ 4'	.040"	NONE
15, 16"	DM35AL @ 4'	.040"	NONE
17, 18"	DM35AL @ 4'	.040"	NONE
19, 20"	DM35AL @ 4'	.040"	NONE
21, 22"	DM35AL @ 4'	.040"	NONE
23, 24"	DM35AL @ 4'	.040"	NONE
25, 26"	DM35AL @ 4'	.040"	NONE
27, 28"	DM35AL @ 4'	.040"	NONE
29, 30"	DM35AL @ 4'	.040"	NONE
31-36"	DM35AL @ 4'	.040"	1 1/2 x 1/2 x 1/8" @ 2'
37-42"	DM35AL @ 4'	.040"	1 3/4 x 1 3/4 x 1/8" @ 2'
43-48"	DM35AL @ 4'	.050"	1 3/4 x 1 3/4 x 1/8" @ 2'
49-54"	DM35AL @ 4'	.040"	2 1/2 x 2 1/2 x 1/8" @ 2'
55-60"	DM35AL @ 4'	.040"	2 1/2 x 2 1/2 x 1/8" @ 2'
61-72"	DM35AL @ 4'	.050"	2 1/2 x 2 1/2 x 1/8" @ 2'
73-84"	DM35AL @ 4'	.064"	2 1/2 x 2 1/2 x 3/8" @ 2'
85-96"	DM35AL + ROD @ 4'	.064"	3 x 3 x 3/8" @ 2'
97" up	DM35AL + ROD @ 4'	.071"	2 1/2 x 2 1/2 x 3/16" + ROD @ 2'

DM35AL IS EQUIVALENT TO A SMACNA "H" CLASS STIFFENER.

TIE ROD SPACING SHALL BE NO GREATER THAN 48" FROM DUCTWALL TO TIE ROD OR TIE ROD TO TIE ROD.

TIE RODS SHALL BE 1/2" ALUMINUM ROD.

4" W.G.  
POSITIVE

6" W.G. POS.	Table 13		
	ALUMINUM DUCT CONSTRUCTION (AS PER SMACNA DUCT CONSTRUCTION STANDARDS)		
Duct Size	Joint Spacing	Duct Wall Thickness	Intermediate Reinforcement
8" dn	DM35AL @ 4'	.040"	NONE
9, 10"	DM35AL @ 4'	.040"	NONE
11, 12"	DM35AL @ 4'	.050"	NONE
13, 14"	DM35AL @ 4'	.050"	NONE
15, 16"	DM35AL @ 4'	.050"	NONE
17, 18"	DM35AL @ 4'	.050"	NONE
19, 20"	DM35AL @ 4'	.050"	NONE
21, 22"	DM35AL @ 4'	.050"	NONE
23, 24"	DM35AL @ 4'	.064"	NONE
25, 26"	DM35AL @ 4'	.064"	NONE
27, 28"	DM35AL @ 4'	.064"	NONE
29, 30"	DM35AL @ 4'	.080"	NONE
31-36"	DM35AL @ 4'	.080"	NONE
37-42"	DM35AL @ 4'	.080"	NONE
43-48"	DM35AL @ 4'	.080"	NONE
49-54"	DM35AL @ 4'	.080"	2 x 2 x 3/16" + ROD @ 2'
55-60"	DM35AL @ 4'	.080"	2 x 2 x 3/16" + ROD @ 2'
61-72"	DM35AL + ROD @ 4'	.080"	2 x 2 x 3/16" + ROD @ 2'
73-84"	DM35AL + ROD @ 4'	.080"	2 x 2 x 1/4" + ROD @ 2'
85-96"	DM35AL + ROD @ 4'	.080"	2 x 2 x 1/4" + ROD @ 2'
97" up	DM35AL + ROD @ 4'	.080"	2 1/2 x 2 1/2 x 3/16" + ROD @ 2'

DM35AL IS EQUIVALENT TO A SMACNA "H" CLASS STIFFENER.

TIE ROD SPACING SHALL BE NO GREATER THAN 48" FROM DUCTWALL TO TIE ROD OR TIE ROD TO TIE ROD.

TIE RODS SHALL BE 1/2" ALUMINUM ROD.

6" W.G.  
POSITIVE

Table 14

10" W.G. POS.	ALUMINUM DUCT CONSTRUCTION (AS PER SMACNA DUCT CONSTRUCTION STANDARDS)		
	Duct Size	Joint Spacing	Duct Wall Thickness
8" dn	DM35AL @ 4'	.040"	NONE
9, 10"	DM35AL @ 4'	.040"	NONE
11, 12"	DM35AL @ 4'	.040"	NONE
13, 14"	DM35AL @ 4'	.050"	NONE
15, 16"	DM35AL @ 4'	.050"	NONE
17, 18"	DM35AL @ 4'	.050"	NONE
19, 20"	DM35AL @ 4'	.064"	NONE
21, 22"	DM35AL @ 4'	.064"	NONE
23, 24"	DM35AL @ 4'	.064"	NONE
25, 26"	DM35AL @ 4'	.064"	NONE
27, 28"	DM35AL @ 4'	.064"	NONE
29, 30"	DM35AL @ 4'	.040"	1 <sup>3</sup> / <sub>4</sub> x 1 <sup>3</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>8</sub> " @ 2'
31-36"	DM35AL @ 4'	.040"	1 <sup>3</sup> / <sub>4</sub> x 1 <sup>3</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>8</sub> " @ 2'
37-42"	DM35AL @ 4'	.050"	2 <sup>1</sup> / <sub>2</sub> x 2 <sup>1</sup> / <sub>2</sub> x 1 <sup>1</sup> / <sub>8</sub> " @ 2'
43-48"	DM35AL @ 4'	.050"	2 <sup>1</sup> / <sub>2</sub> x 2 <sup>1</sup> / <sub>2</sub> x 1 <sup>1</sup> / <sub>8</sub> " @ 2'
49-54"	DM35AL @ 4'	.064"	2 <sup>1</sup> / <sub>2</sub> x 2 <sup>1</sup> / <sub>2</sub> x 3 <sup>1</sup> / <sub>16</sub> " @ 2'
55-60"	DM35AL + ROD @ 4'	.064"	2 <sup>1</sup> / <sub>2</sub> x 2 <sup>1</sup> / <sub>2</sub> x 1 <sup>1</sup> / <sub>8</sub> " + ROD @ 2'
61-72"	DM35AL + ROD @ 4'	.071"	2 <sup>1</sup> / <sub>2</sub> x 2 <sup>1</sup> / <sub>2</sub> x 1 <sup>1</sup> / <sub>8</sub> " + ROD @ 2'
73-84"	DM35AL + ROD @ 4'	.090"	2 <sup>1</sup> / <sub>2</sub> x 2 <sup>1</sup> / <sub>2</sub> x 3 <sup>1</sup> / <sub>16</sub> " + ROD @ 2'
85-96"	DM35AL + ROD @ 4'	.090"	2 <sup>1</sup> / <sub>2</sub> x 2 <sup>1</sup> / <sub>2</sub> x 3 <sup>1</sup> / <sub>16</sub> " + ROD @ 2'
97" up	DM35AL + ROD @ 4'	.090"	2 <sup>1</sup> / <sub>2</sub> x 2 <sup>1</sup> / <sub>2</sub> x 3 <sup>1</sup> / <sub>16</sub> " + ROD @ 2'

DM35AL IS EQUIVALENT TO A SMACNA "H" CLASS STIFFENER.

TIE ROD SPACING SHALL BE NO GREATER THAN 48" FROM DUCTWALL TO TIE ROD OR TIE ROD TO TIE ROD.

TIE RODS SHALL BE 1/2" ALUMINUM ROD.

10" W.G.  
POSITIVE



## METRIC

### FORWARD

The widespread use of the “Ductmate® 25, 35, and 45 Slide-On Systems” makes these duct construction guidelines a necessity.

This manual is based on fundamental, sound engineering principles. The criteria used to establish the tables in this publication are 6.4 mm joint and 19.1 mm sheet deflection limits for ducts over 600 mm wide.

These duct construction standards are based on independent testing using the Ductmate Systems exclusively as manufactured by Ductmate Industries Incorporated U.S.A. No other flange system can be used in conjunction with these tables.

Any reference to SMACNA in this manual refers to the SMACNA 2005 “HVAC Duct Construction Standards, Metal and Flexible,” Third Edition.

### TABLES

When using the Rectangular Duct Construction Tables in this manual, **Reinforcement Spacing** refers to both the Ductmate joints and Intermediate Reinforcements (Center Tie Rods or External Stiffeners.)

Ductmate’s Rectangular Duct Construction Tables are based on 1800 mm, 1500 mm, and 1200 mm duct section lengths. Columns 1800 mm, 1500 mm, and 1200 mm are construction guidelines without the use of any joint or intermediate reinforcements.

The 900 mm, 750 mm, and 600 mm columns are used in conjunction with the 1800 mm, 1500 mm, and 1200 mm duct section lengths. These columns provide alternative construction guidelines such as lighter metal gauges, joint tie rods, center tie rods, or external intermediate reinforcements.

When making special fittings, if the duct length matches the 900 mm, 750 mm, and 600 mm column spacing, you do not need the CTR or external reinforcement between the joints.

See examples on pages 27-28.

### Positive/Negative Pressure

This addendum includes positive pressure guidelines for pressure classes up to 2500 Pa.

Duct construction tables for 125, 250, 500, and 750 Pa. can be used for both positive and negative pressures. For negative pressures greater than 750 Pa., please contact Ductmate Industries or refer to the SMACNA Rectangular Industrial Duct Construction Standards. Except for aluminum, the guidelines on pages 8-15 can be used on galvanized, galvanized, 304 and 316 stainless steel, PVC coated, aluminized, and black iron.

Duct construction guidelines for aluminum applications are on pages 29-36.

Metric duct construction guidelines for aluminum can be found on pages 38-43.

In a cell, DM25 refers to the Ductmate 25 Connector system, DM35 refers to the Ductmate 35 system, and DM45 refers to the Ductmate 45 system.

## Internal and External Reinforcements

When an intermediate reinforcement is required in a cell, 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 Ductmate joints.

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

See page 26 for CTR and JTR details.

When using conduit as a tie rod for rods up to 900 mm long use 12.7 mm conduit. For rods 901 mm and longer use 19.1 mm conduit.

The maximum distance from the duct wall to a tie rod is 1200 mm on center.

When more than one tie rod is required on the same plane at a joint or reinforcement, the maximum distance between tie rods is 1200 mm on center.

When a CTR and / or JTR is needed on both the width and height dimension of the duct, where the rods intersect, they must be clamped, tied or welded together to prevent vibrating against each other. See Figure 1 below.

If an (\*) appears next to the DM25, DM35, DM45, or intermediate reinforcement it indicates that a tie rod is needed.

If an alphabetical letter A through K appears in a cell, it refers to an external intermediate reinforcement option between the Ductmate joints. See the SMACNA profile alternatives for each rigidity class on page 25. Note: At 4" w.g. and up, ends of reinforcements must be tied together per SMACNA (See Figures 2-11 and 2-12 of the SMACNA HVAC Duct Construction Standards, Third Edition - 2005 (positive and negative pressures).

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

For aluminum duct, tie rods cannot be used due to the malleability of the metal. External reinforcements are needed.

Number of Tie Rods Needed Based on Duct Size	
Up to 2413 mm	1 Tie Rod, When Applicable
2438 mm	1 Tie Rod
2463 - 3657 mm	2 Tie Rods
3683 -4876 mm	3 Tie Rods
4902 - 6096 mm	4 Tie Rods
6121 - 7315 mm	5 Tie Rods
7340 - 8534 mm	6 Tie Rods

Figure 1

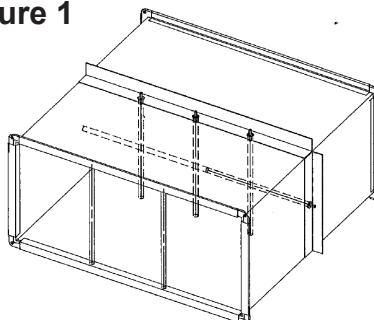


Table 2-29M

INTERMEDIATE EXTERNAL REINFORCEMENT

REINF. CLASS	ANGLE		CHANNEL OR ZEE		HAT SECTION	
	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	Use C		Use B		Use F	
B	Use C		19.1 x 12.7 x 1.00	0.36	Use F	
C	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	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	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	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	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	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	C 51 x 4.8 63.5 x 3.2	3.63 3.13	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	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	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	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

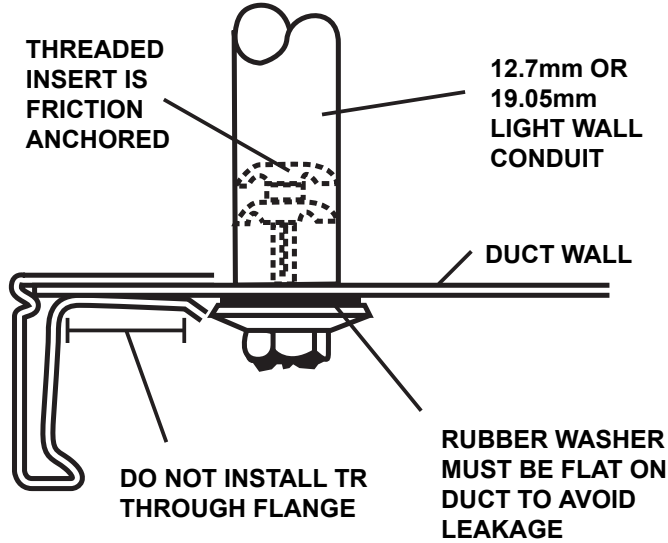
See Section 2.1.4 \*Effective EI is number listed times 10<sup>5</sup> before adjustment for bending moment capacity. C and H denote cold formed and hot rolled ratings; when neither is listed, either may be used. See tie rod options elsewhere.

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

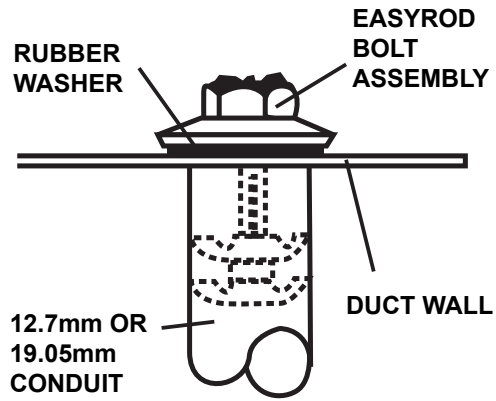
INTERNAL REINFORCEMENTS

EZ-ROD / TIE ROD CONSTRUCTION

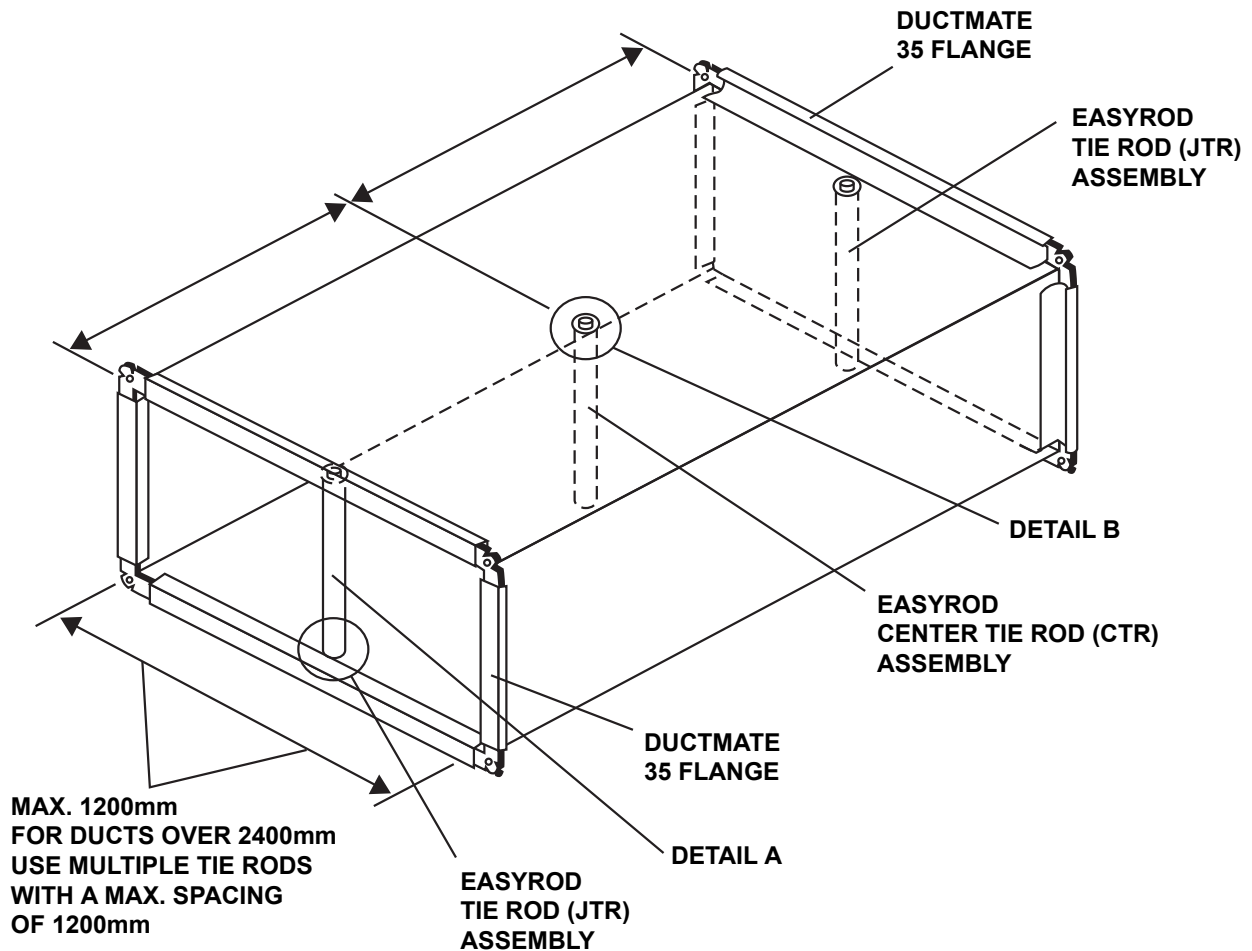
USE FOR SHOP FABRICATED OR KNOCKED DOWN DUCTWORK



DETAIL A

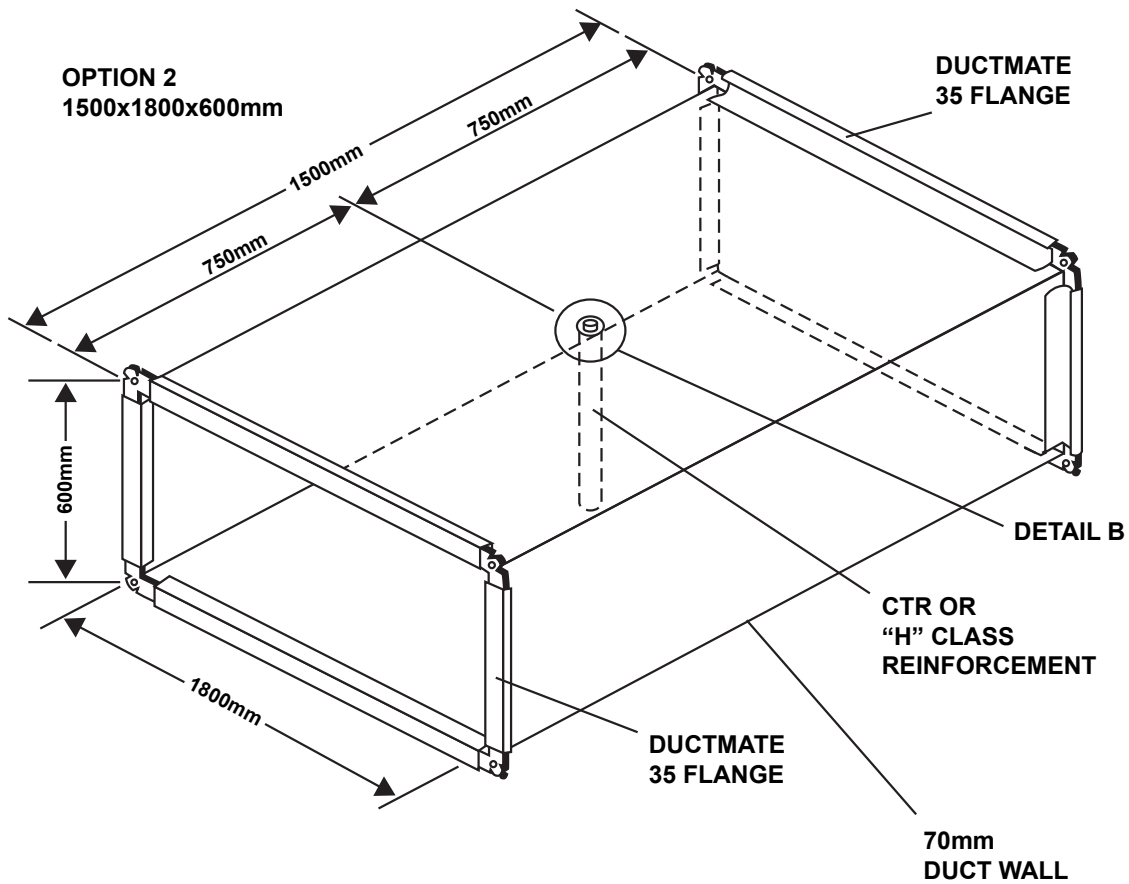
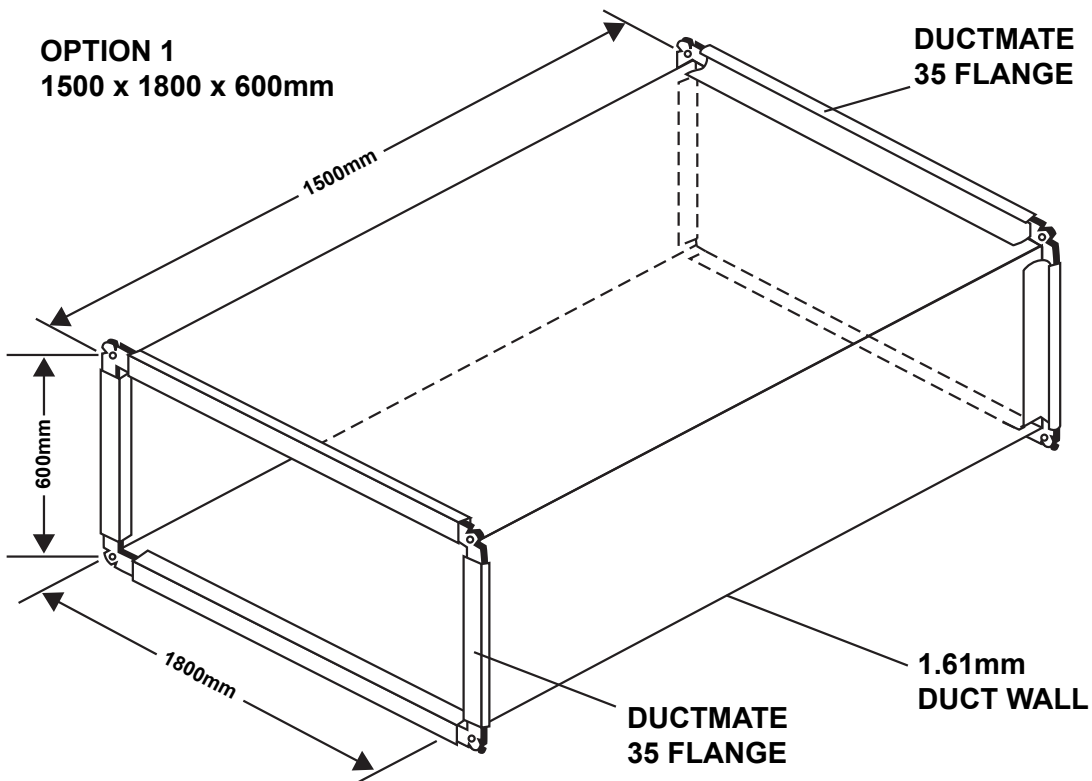


DETAIL B



# DUCTMATE RECTANGULAR DUCT CONSTRUCTION STANDARDS

Senario A  
500 PA  
1500 mm  
DUCT  
SECTIONS  
1800 x 600 mm



# DUCTMATE RECTANGULAR DUCT CONSTRUCTION STANDARDS

**Senario B**  
**750 PA**  
**1500 mm**  
**DUCT**  
**SECTIONS**  
**1200 x 1200 mm**

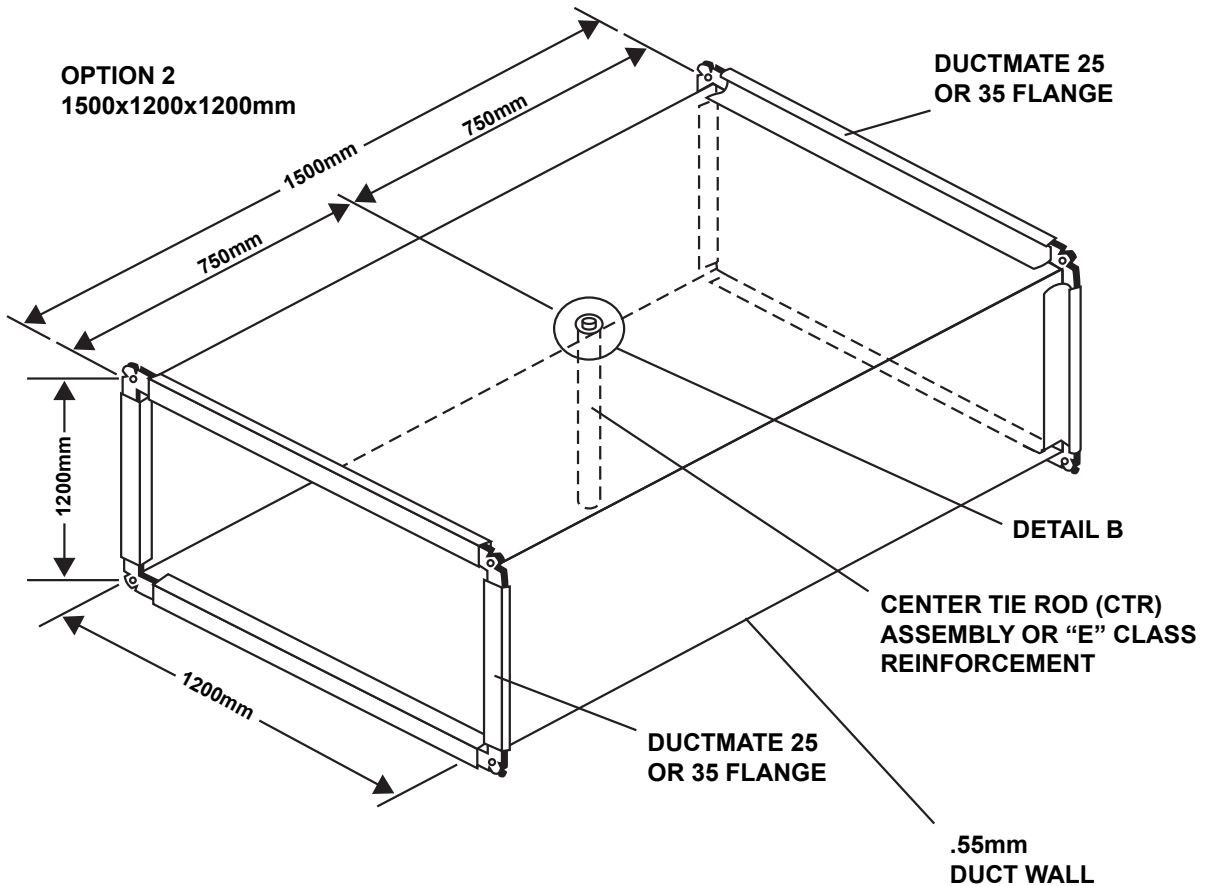
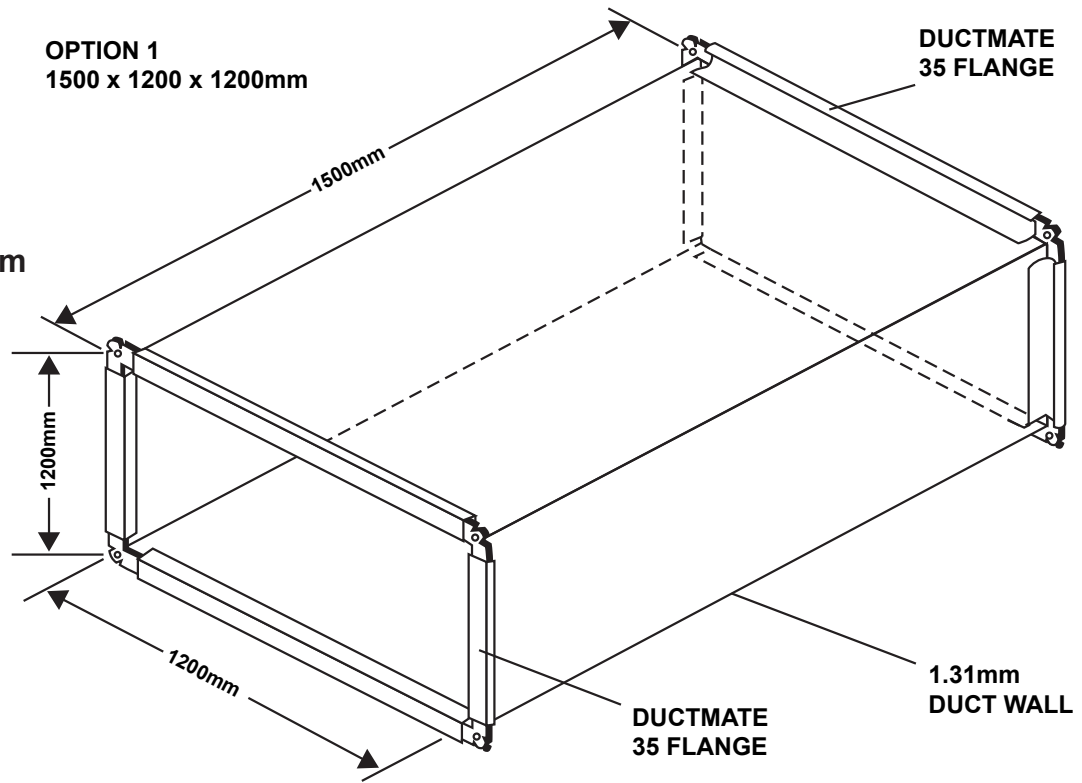




Table 15

125 PA STATIC POS./NEG.	REINFORCEMENT SPACING					
	1800 mm	1500 mm	1200 mm	900 mm	750 mm	600 mm
Duct Size (mm)						
200 & under	0.55 ga-DM25					
229–250	0.55 ga-DM25					
251–300	0.55 ga-DM25					
301–350	0.55 ga-DM25					
351–400	0.55 ga-DM25					
401–450	0.55 ga-DM25					
451–500	0.55 ga-DM25					
501–550	0.55 ga-DM25					
551–600	0.55 ga-DM25					
601–650	0.55 ga-DM25					
651–700	0.55 ga-DM25					
701–750	0.55 ga-DM25					
751–900	0.70 ga-DM25	0.55 ga-DM25				
901–1000	0.70 ga-DM25	0.55 ga-DM25				
1001–1200	0.70 ga-DM25	0.55 ga-DM25				
1201–1300	0.70 ga-DM25	0.55 ga-DM25				
1301–1500	0.85 ga-DM25	0.70 ga-DM25	0.55 ga-DM25	0.55 ga-DM25 CTR or “F”		
1501–1800	1.00 ga-DM25 0.85 ga-DM35	0.85 ga-DM25 0.70 ga-DM35		0.55 ga-DM35 CTR or “H”		
1801–2100	1.00 ga-DM35	0.85 ga-DM35	0.70 ga-DM35	0.55 ga-DM35 CTR or “H”		
2101–2400	1.00 ga-DM35	0.85 ga-DM35		0.70 ga-DM35 CTR or “H”		
2401–2700	1.31 ga-DM35*	1.00 ga-DM35*		0.85 ga-DM35 CTR or “H”		

Columns denote maximum unreinforced spacing.	
	Indicates is the same as last defined cell.
	No construction defined. See other options.

**Important Notes - Please Read Forward/Tables Section On Page 23**




- \* Denotes Tie Rod is needed
- For Ducts up to 900mm, use 12.7mm conduit tie rods and for ducts 901mm and greater, use 19.1mm conduit tie rods.
- Note: For 2.1mm gauge duct projects using the DM35, wide pocket (WP) DM35 must be requested. In addition on large projects with 1.65mm gauge duct, for convenience, you can order the DM35 with a wide pocket (WP) for ease of installation.

# DUCTMATE RECTANGULAR DUCT CONSTRUCTION STANDARDS

Table 16

250 PA STATIC POS./NEG.

250 PA STATIC POS./NEG.	REINFORCEMENT SPACING					
	1800 mm	1500 mm	1200 mm	900 mm	750 mm	600 mm
Duct Size (mm)						
200 & under	0.55 ga-DM25					
229–250	0.55 ga-DM25					
251–300	0.55 ga-DM25					
301–350	0.55 ga-DM25					
351–400	0.55 ga-DM25					
401–450	0.55 ga-DM25					
451–500	0.55 ga-DM25					
501–550	0.55 ga-DM25					
551–600	0.55 ga-DM25					
601–650	0.55 ga-DM25					
651–700	0.55 ga-DM25					
701–750	0.55 ga-DM25					
751–900	0.70 ga-DM25	0.55 ga-DM25				
901–1000	0.85 ga-DM25	0.70 ga-DM25	0.55 ga-DM25	0.55 ga-DM25 CTR or "E"		
1001–1200	0.85 ga-DM25	0.70 ga-DM25	0.55 ga-DM25	0.55 ga-DM25 CTR or "E"		
1201–1300	1.00 ga-DM25 0.85 ga-DM35	0.85 ga-DM25 0.70 ga-DM35	0.70 ga-DM25	0.55 ga-DM25 CTR or "F"		
1301–1500	1.00 ga-DM25 0.85 ga-DM35	0.85 ga-DM25 0.70 ga-DM35	0.70 ga-DM25	0.55 ga-DM25 CTR or "G"		
1501–1800	0.85 ga-DM35	0.70 ga-DM35		0.70 ga-DM35 CTR or "H"	0.55 ga-DM35 CTR or "H"	
1801–2100	1.31 ga-DM35	1.00 ga-DM35		0.70 ga-DM35 CTR or "H"	0.55 ga-DM35 CTR or "H"	
2101–2400	1.61 ga-DM35*	1.31 ga-DM35*		0.85 ga-DM35* CTR or "H"	0.70 ga-DM35* CTR or "H"	0.55 ga-DM35* CTR or "J"
2401–2700				1.00 ga-DM35* CTR or "H"	0.85 ga-DM35* CTR or "H"	

	Columns denote maximum unreinforced spacing.
	Indicates is the same as last defined cell.
	No construction defined. See other options.

**Important Notes - Please Read Forward/Tables Section On Page 23**

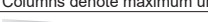


- \* Denotes Tie Rod is needed
- For Ducts up to 900mm, use 12.7mm conduit tie rods and for ducts 901mm and greater, use 19.1mm conduit tie rods.
- Note: For 2.1mm gauge duct projects using the DM35, wide pocket (WP) DM35 must be requested. In addition on large projects with 1.65mm gauge duct, for convenience, you can order the DM35 with a wide pocket (WP) for ease of installation.



Table 17

500 PA STATIC POS./NEG.	REINFORCEMENT SPACING					
	1800 mm	1500 mm	1200 mm	900 mm	750 mm	600 mm
Duct Size (mm)						
200 & under	0.55 ga-DM25					
229–250	0.55 ga-DM25					
251–300	0.55 ga-DM25					
301–350	0.55 ga-DM25					
351–400	0.55 ga-DM25					
401–450	0.55 ga-DM25					
451–500	0.70 ga-DM25	0.55 ga-DM25				
501–550	0.70 ga-DM25	0.55 ga-DM25				
551–600	0.70 ga-DM25	0.55 ga-DM25				
601–650	0.70 ga-DM25	0.55 ga-DM25				
651–700	0.85 ga-DM25	0.70 ga-DM25	0.55 ga-DM25	0.55 ga-DM25 CTR or “C”		
701–750	0.85 ga-DM25	0.70 ga-DM25	0.55 ga-DM25	0.55 ga-DM25 CTR or “C”		
751–900	0.85 ga-DM25	0.70 ga-DM25		0.70 ga-DM25 CTR or “C”	0.55 ga-DM25 CTR or “C”	
901–1000	1.00 ga-DM25 0.85 ga-DM35	0.85 ga-DM25 0.70 ga-DM35	0.70 ga-DM25	0.70 ga-DM25 CTR or “D”	0.55 ga-DM25 CTR or “D”	
1001–1200	1.00 ga-DM25 0.85 ga-DM35	1.00 ga-DM25 0.70 ga-DM35		0.70 ga-DM35 CTR or “E”	0.55 ga-DM25 CTR or “E”	
1201–1300	0.85 ga-DM35	0.85 ga-DM35	1.00 ga-DM25 0.85 ga-DM35	0.70 ga-DM35 CTR or “F”	0.55 ga-DM25 CTR or “F”	
1301–1500	0.85 ga-DM35	0.85 ga-DM35		0.70 ga-DM35 CTR or “G”	0.55 ga-DM25 CTR or “G”	
1501–1800	1.61 ga-DM35		1.31 ga-DM35	0.85 ga-DM35 CTR or “I”	0.70 ga-DM35 CTR or “H”	0.55 ga-DM35 CTR or “H”
1801–2100				1.00 ga-DM35 CTR or “H”*	0.85 ga-DM35 CTR or “H”*	0.70 ga-DM35 CTR or “H”*
2101–2400				1.00 ga-DM35* CTR or “H”*	0.85 ga-DM35* CTR or “H”*	
2401–2700				1.00 ga-DM35* CTR or “H”*	0.85 ga-DM35* CTR or “H”*	

500 PA STATIC  
POS./NEG.

	Columns denote maximum unreinforced spacing.
	Indicates is the same as last defined cell.
	No construction defined. See other options.

**Important Notes - Please Read Forward/Tables Section On Page 23**

- \* Denotes Tie Rod is needed
- For Ducts up to 900mm, use 12.7mm conduit tie rods and for ducts 901mm and greater, use 19.1mm conduit tie rods.
- Note: For 2.1mm gauge duct projects using the DM35, wide pocket (WP) DM35 must be requested. In addition on large projects with 1.65mm gauge duct, for convenience, you can order the DM35 with a wide pocket (WP) for ease of installation.

Table 18

750 PA STATIC POS./NEG.	REINFORCEMENT SPACING					
	1800 mm	1500 mm	1200 mm	900 mm	750 mm	600 mm
Duct Size (mm)						
200 & under	0.55 ga-DM25					
229–250	0.55 ga-DM25					
251–300	0.55 ga-DM25					
301–350	0.70 ga-DM25	0.55 ga-DM25				
351–400	0.70 ga-DM25	0.55 ga-DM25				
401–450	0.70 ga-DM25	0.55 ga-DM25				
451–500	0.70 ga-DM25	0.55 ga-DM25				
501–550	0.70 ga-DM25	0.55 ga-DM25				
551–600	0.70 ga-DM25	0.55 ga-DM25				
601–650	0.70 ga-DM25	0.55 ga-DM25				
651–700	0.85 ga-DM25	0.70 ga-DM25	0.55 ga-DM25	0.55 ga-DM25 CTR or “D”		
701–750	0.85 ga-DM25	0.70 ga-DM25	0.55 ga-DM25	0.55 ga-DM25 CTR or “D”		
751–900	1.00 ga-DM25 0.85 ga-DM35	0.85 ga-DM25 0.70 ga-DM35		0.55 ga-DM25 CTR or “D”		
901–1000	1.00 ga-DM25 0.85 ga-DM35	0.85 ga-DM25 0.70 ga-DM35		0.55 ga-DM25 CTR or “E”		
1001–1200	1.31 ga-DM35	1.31 ga-DM35	1.00 ga-DM35	0.70 ga-DM35 CTR or “E”	0.55 ga-DM25 CTR or “E”	
1201–1300	1.61 ga-DM35	1.31 ga-DM35	1.00 ga-DM35	0.70 ga-DM35 CTR or “F”		0.55 ga-DM35 CTR or “E”
1301–1500	1.61 ga-DM35	1.31 ga-DM35	1.00 ga-DM35	0.70 ga-DM35 CTR or “G”		0.55 ga-DM35 CTR or “F”
1501–1800				1.00 ga-DM35 CTR or “I”	0.85 ga-DM35 CTR or “I”	0.70 ga-DM35 CTR or “I”
1801–2100				1.31 ga-DM35 CTR or “I”	1.00 ga-DM35 CTR or “I”	0.85 ga-DM35 CTR or “I”
2101–2400				1.31 ga-DM35* CTR or “H”	1.00 ga-DM35* CTR or “H”	
2401–2700				1.31 ga-DM35* CTR or “H”	1.00 ga-DM35* CTR or “H”	

Columns denote maximum unreinforced spacing.	
	Indicates is the same as last defined cell.
	No construction defined. See other options.

**Important Notes - Please Read Forward/Tables Section On Page 23**

- \* Denotes Tie Rod is needed
- For Ducts up to 900mm, use 12.7mm conduit tie rods and for ducts 901mm and greater, use 19.1mm conduit tie rods.
- Note: For 2.1mm gauge duct projects using the DM35, wide pocket (WP) DM35 must be requested. In addition on large projects with 1.65mm gauge duct, for convenience, you can order the DM35 with a wide pocket (WP) for ease of installation.

Table 19

1000 PA STATIC POS.	REINFORCEMENT SPACING					
	1800 mm	1500 mm	1200 mm	900 mm	750 mm	600 mm
Duct Size (mm)						
200 & under	0.70 ga-DM25	0.55 ga-DM25				
229–250	0.70 ga-DM25	0.55 ga-DM25				
251–300	0.70 ga-DM25	0.55 ga-DM25				
301–350	0.70 ga-DM25	0.55 ga-DM25				
351–400	0.70 ga-DM25	0.55 ga-DM25				
401–450	0.70 ga-DM25	0.55 ga-DM25				
451–500	0.70 ga-DM25		0.55 ga-DM25	0.55 ga-DM25 CTR or "C"		
501–550	0.70 ga-DM25		0.55 ga-DM25	0.55 ga-DM25 CTR or "C"		
551–600	0.85 ga-DM25		0.70 ga-DM25	0.55 ga-DM25 CTR or "D"		
601–650	0.85 ga-DM25		0.70 ga-DM25	0.55 ga-DM25 CTR or "D"		
651–700	0.85 ga-DM25		0.70 ga-DM25	0.70 ga-DM25 CTR or "D"	0.55 ga-DM25 CTR or "D"	
701–750	0.85 ga-DM25		0.70 ga-DM25	0.70 ga-DM25 CTR or "D"	0.55 ga-DM25 CTR or "D"	
751–900	0.85 ga-DM25			0.70 ga-DM25 CTR or "E"	0.55 ga-DM25 CTR or "E"	
901–1000	0.85 ga-DM35			0.70 ga-DM35 CTR or "E"	0.55 ga-DM25 CTR or "E"	
1001–1200				0.85 ga-DM35 CTR or "F"	0.70 ga-DM35 CTR or "F"	0.55 ga-DM35 CTR or "F"
1201–1300				0.85 ga-DM35 CTR or "G"	0.70 ga-DM35 CTR or "G"	0.55 ga-DM35 CTR or "G"
1301–1500				0.85 ga-DM35 CTR or "H"	0.70 ga-DM35 CTR or "H"	0.55 ga-DM35 CTR or "H"
1501–1800				1.31 ga-DM35 CTR or "H"	1.00 ga-DM35 CTR or "H"	0.85 ga-DM35 CTR or "H"
1801–2100				1.31 ga-DM35* CTR or "H"	1.00 ga-DM35* CTR or "H"	
2101–2400				1.31 ga-DM35* CTR or "H"	1.00 ga-DM35* CTR or "H"	
2401–2700				1.31 ga-DM35* CTR or "H"	1.00 ga-DM35* CTR or "H"	

1000 PA STATIC POSITIVE

	Columns denote maximum unreinforced spacing.
	Indicates is the same as last defined cell.
	No construction defined. See other options.

**Important Notes - Please Read Forward/Tables Section On Page 23**

- \* Denotes Tie Rod is needed
- For Ducts up to 900mm, use 12.7mm conduit tie rods and for ducts 901mm and greater, use 19.1mm conduit tie rods.
- Note: For 2.1mm gauge duct projects using the DM35, wide pocket (WP) DM35 must be requested. In addition on large projects with 1.65mm gauge duct, for convenience, you can order the DM35 with a wide pocket (WP) for ease of installation.

Table 20

1500 PA STATIC POS.	REINFORCEMENT SPACING					
	1800 mm	1500 mm	1200 mm	900 mm	750 mm	600 mm
Duct Size (mm)						
200 & under	0.70 ga-DM25			0.55 ga-DM25 CTR or "C"		
229-250	0.70 ga-DM25			0.55 ga-DM25 CTR or "C"		
251-300	0.70 ga-DM25			0.55 ga-DM25 CTR or "C"		
301-350	0.70 ga-DM25			0.55 ga-DM25 CTR or "C"		
351-400	0.70 ga-DM25			0.55 ga-DM25 CTR or "C"		
401-450	1.00 ga-DM25	0.85 ga-DM25		0.70 ga-DM25 CTR or "C"	0.55 ga-DM25 CTR or "C"	
451-500	1.00 ga-DM25	0.85 ga-DM25		0.70 ga-DM25 CTR or "C"	0.55 ga-DM25 CTR or "C"	
501-550	1.00 ga-DM25	0.85 ga-DM25		0.70 ga-DM25 CTR or "C"	0.55 ga-DM25 CTR or "C"	
551-600	1.00 ga-DM25	0.85 ga-DM25		0.70 ga-DM25 CTR or "D"	0.55 ga-DM25 CTR or "D"	
601-650	1.00 ga-DM25	0.85 ga-DM25		0.70 ga-DM25 CTR or "D"	0.55 ga-DM25 CTR or "D"	
651-700	1.00 ga-DM25	0.85 ga-DM25		0.70 ga-DM25 CTR or "D"	0.55 ga-DM25 CTR or "D"	
701-750	1.00 ga-DM25	0.85 ga-DM25		0.70 ga-DM25 CTR or "D"	0.55 ga-DM25 CTR or "D"	
751-900		1.00 ga-DM25		0.85 ga-DM25 CTR or "E"	0.70 ga-DM25 CTR or "E"	0.55 ga-DM25 CTR or "E"
901-1000				0.85 ga-DM35 CTR or "F"	0.70 ga-DM35 CTR or "F"	0.55 ga-DM35 CTR or "F"
1001-1200				0.85 ga-DM35 CTR or "G"	0.70 ga-DM35 CTR or "G"	0.55 ga-DM35 CTR or "G"
1201-1300				1.00 ga-DM35 CTR or "H"	0.85 ga-DM35 CTR or "H"	0.70 ga-DM35 CTR or "H"
1301-1500				1.00 ga-DM35 CTR or "H"	0.85 ga-DM35 CTR or "H"	0.70 ga-DM35 CTR or "H"
1501-1800				1.31 ga-DM35 CTR or "H"	1.00 ga-DM35 CTR or "H"	
1801-2100				1.31 ga-DM35* CTR or "H*"	1.00 ga-DM35* CTR or "H*"	
2101-2400				1.31 ga-DM35* CTR or "H*"	1.00 ga-DM35* CTR or "H*"	
2401-2700				1.31 ga-DM35* CTR or "H*"	1.00 ga-DM35* CTR or "H*"	

	Columns denote maximum unreinforced spacing.
	Indicates is the same as last defined cell.
	No construction defined. See other options.

**Important Notes - Please Read Forward/Tables Section On Page 23**

- \* Denotes Tie Rod is needed
- For Ducts up to 900mm, use 12.7mm conduit tie rods and for ducts 901mm and greater, use 19.1mm conduit tie rods.
- Note: For 2.1mm gauge duct projects using the DM35, wide pocket (WP) DM35 must be requested. In addition on large projects with 1.65mm gauge duct, for convenience, you can order the DM35 with a wide pocket (WP) for ease of installation.

1500 PA STATIC POSITIVE

Table 21

2500 PA STATIC POS.	REINFORCEMENT SPACING					
	1800 mm	1500 mm	1200 mm	900 mm	750 mm	600 mm
Duct Size (mm)						
200 & under	1.00 ga-DM25			0.70 ga-DM25 "C"	0.55 ga-DM25 "C"	
229-250	1.00 ga-DM25			0.70 ga-DM25 "C"	0.55 ga-DM25 "C"	
251-300	1.00 ga-DM25			0.70 ga-DM25 "D"	0.55 ga-DM25 "D"	
301-350	1.00 ga-DM25			0.70 ga-DM25 "D"	0.55 ga-DM25 "D"	
351-400	1.00 ga-DM25			0.70 ga-DM25 "D"	0.55 ga-DM25 "D"	
401-450	1.00 ga-DM25			0.70 ga-DM25 "D"	0.55 ga-DM25 "D"	
451-500	1.31 ga-DM25	1.00 ga-DM25		0.70 ga-DM25 "E"	0.55 ga-DM25 "E"	
501-550	1.31 ga-DM25	1.00 ga-DM25		0.70 ga-DM25 "E"	0.55 ga-DM25 "E"	
551-600	1.31 ga-DM25	1.00 ga-DM25		0.70 ga-DM25 "E"	0.55 ga-DM25 "E"	
601-650	1.31 ga-DM25	1.00 ga-DM25		0.70 ga-DM25 "E"	0.55 ga-DM25 "E"	
651-700	1.31 ga-DM25	1.00 ga-DM25		0.70 ga-DM25 "E"	0.55 ga-DM25 "E"	
701-750	1.31 ga-DM25	1.00 ga-DM25		0.70 ga-DM25 "E"	0.55 ga-DM25 "E"	
751-900				0.85 ga-DM35 "E"	0.70 ga-DM35 "E"	0.55 ga-DM35 "E"
901-1000				1.00 ga-DM35 "F"	0.85 ga-DM35 "F"	0.70 ga-DM35 "F"
1001-1200				1.00 ga-DM35 "G"	0.85 ga-DM35 "G"	0.70 ga-DM35 "G"
1201-1300				1.00 ga-DM35 "H"	0.85 ga-DM35 "H"	0.70 ga-DM35 "H"
1301-1500				1.00 ga-DM35* "H*"	0.85 ga-DM35* "H*"	
1501-1800				1.31 ga-DM35* "H*"	1.00 ga-DM35* "H*"	
1801-2100				1.31 ga-DM35* "H*"	1.00 ga-DM35* "H*"	
2101-2400				1.61 ga-DM35* "H*"	1.31 ga-DM35* "H*"	1.00 ga-DM35* "H*"
2401-2700				1.61 ga-DM35* "H*"	1.31 ga-DM35* "H*"	1.00 ga-DM35* "H*"

	Columns denote maximum unreinforced spacing.
	Indicates is the same as last defined cell.
	No construction defined. See other options.



Important Notes - Please Read Forward/Tables Section On Page 23

- \* Denotes Tie Rod is needed
- For Ducts up to 900mm, use 12.7mm conduit tie rods and for ducts 901mm and greater, use 19.1mm conduit tie rods.
- Note: For 2.1mm gauge duct projects using the DM35, wide pocket (WP) DM35 must be requested. In addition on large projects with 1.65mm gauge duct, for convenience, you can order the DM35 with a wide pocket (WP) for ease of installation.

2500 PA STATIC POSITIVE

# DUCTMATE RECTANGULAR DUCT CONSTRUCTION STANDARDS

125 - 1500 PA STATIC POSITIVE		Table 22 – DM45					
		REINFORCEMENT SPACING					
125 - 750 PA STATIC NEGATIVE		1800 mm	1500 mm	1200 mm	900 mm	750 mm	600 mm
Duct Size (mm)							
125 PA	2438.4-3810 mm	1.31 ga-DM45	1.00 ga-DM45	1.00 ga-DM45			
	2438.4-4064 mm		1.00 ga-DM45	1.00 ga-DM45			
	2438.4-4445 mm			1.00 ga-DM45			
250 PA	2438.4-3810 mm				1.31 ga-DM45 50.8 x 50.8 x 9.525 mm	1.00 ga-DM45 50.8 x 50.8 x 9.525 mm	1.00 ga-DM45 50.8 x 50.8 x 9.525 mm
	2438.4-4064 mm					1.00 ga-DM45 50.8 x 50.8 x 9.525 mm	1.00 ga-DM45 50.8 x 50.8 x 9.525 mm
	2438.4-4445 mm						1.00 ga-DM45 50.8 x 50.8 x 9.525 mm
500 PA	2159-3048 mm				1.31 ga-DM45 50.8 x 50.8 x 9.525 mm	1.00 ga-DM45 50.8 x 50.8 x 9.525 mm	1.00 ga-DM45 50.8 x 50.8 x 9.525 mm
	2159-3302 mm					1.00 ga-DM45 50.8 x 50.8 x 9.525 mm	1.00 ga-DM45 50.8 x 50.8 x 9.525 mm
	2159-3556 mm						1.00 ga-DM45 50.8 x 50.8 x 9.525 mm
750 PA	2159-2667 mm				1.31 ga-DM45 50.8 x 50.8 x 9.525 mm	1.00 ga-DM45 50.8 x 50.8 x 9.525 mm	1.00 ga-DM45 50.8 x 50.8 x 9.525 mm
	2159-2794 mm					1.00 ga-DM45 50.8 x 50.8 x 9.525 mm	1.00 ga-DM45 50.8 x 50.8 x 9.525 mm
	2159-3048 mm						1.00 ga-DM45 50.8 x 50.8 x 9.525 mm
1000 PA	854.2-2438.4 mm				1.31 ga-DM45 50.8 x 50.8 x 9.525 mm	1.00 ga-DM45 50.8 x 50.8 x 9.525 mm	1.00 ga-DM45 50.8 x 50.8 x 9.525 mm
	854.2-2540 mm					1.00 ga-DM45 50.8 x 50.8 x 9.525 mm	1.00 ga-DM45 50.8 x 50.8 x 9.525 mm
	854.2-2794 mm						1.00 ga-DM45 50.8 x 50.8 x 9.525 mm
1500 PA	854.2-2159 mm				1.31 ga-DM45 50.8 x 50.8 x 9.525 mm	1.00 ga-DM45 50.8 x 50.8 x 9.525 mm	1.00 ga-DM45 50.8 x 50.8 x 9.525 mm
	854.2-2286 mm					1.00 ga-DM45 50.8 x 50.8 x 9.525 mm	1.00 ga-DM45 50.8 x 50.8 x 9.525 mm
	854.2-2438.4 mm						1.00 ga-DM45 50.8 x 50.8 x 9.525 mm
2500 PA	1397-1828.8 mm				1.31 ga-DM45 50.8 x 50.8 x 9.525 mm	1.00 ga-DM45 50.8 x 50.8 x 9.525 mm	1.00 ga-DM45 50.8 x 50.8 x 9.525 mm
	1397-1905 mm					1.00 ga-DM45 50.8 x 50.8 x 9.525 mm	1.00 ga-DM45 50.8 x 50.8 x 9.525 mm
	1397-2082.8 mm						1.00 ga-DM45 50.8 x 50.8 x 9.525 mm

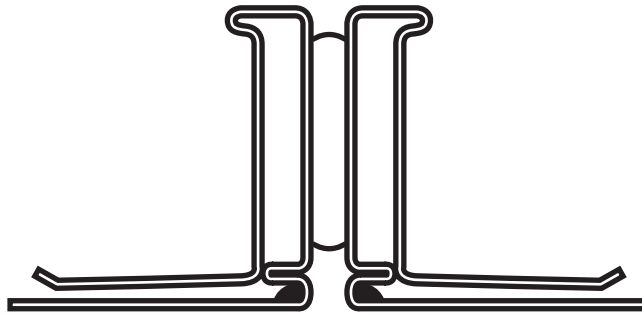
Columns denote maximum unreinforced spacing.	
	Indicates is the same as last defined cell.
	No construction defined. See other options.

**Important Notes - Please Read Forward/Tables Section On Page 23**

- \* Denotes Tie Rod is needed
- For Ducts up to 900mm, use 12.7mm conduit tie rods and for ducts 901mm and greater, use 19.1mm conduit tie rods.
- Note: For 2.1mm gauge duct projects using the DM35, wide pocket (WP) DM35 must be requested. In addition on large projects with 1.65mm gauge duct, for convenience, you can order the DM35 with a wide pocket (WP) for ease of installation.

# ALUMINUM CONSTRUCTION GUIDELINES

CONSTRUCTION STANDARDS FOR ALUMINUM DUCTWORK  
HAVE BEEN INCLUDED TO AID THE CONTRACTOR WHEN  
USING DM35 ALUMINUM DUCT CONNECTORS.



DM35 AL

250 PA  
POSITIVE

Table 23

**ALUMINUM DUCT CONSTRUCTION  
(AS PER SMACNA DUCT CONSTRUCTION STANDARDS)**

Duct Size (mm)	Joint Spacing	Duct Wall Thickness	Intermediate Reinforcement
200 & under	DM35AL @ 1200 mm	0.813 mm	NONE
229–250	DM35AL @ 1200 mm	0.813 mm	NONE
251–300	DM35AL @ 1200 mm	0.813 mm	NONE
301–350	DM35AL @ 1200 mm	0.813 mm	NONE
351–400	DM35AL @ 1200 mm	0.813 mm	NONE
401–450	DM35AL @ 1200 mm	0.813 mm	NONE
451–500	DM35AL @ 1200 mm	0.813 mm	NONE
501–550	DM35AL @ 1200 mm	0.813 mm	NONE
551–600	DM35AL @ 1200 mm	0.813 mm	NONE
601–650	DM35AL @ 1200 mm	0.813 mm	NONE
651–700	DM35AL @ 1200 mm	0.813 mm	NONE
701–750	DM35AL @ 1200 mm	0.813 mm	NONE
751–900	DM35AL @ 1200 mm	0.813 mm	NONE
901–1000	DM35AL @ 1200 mm	0.813 mm	NONE
1001–1200	DM35AL @ 1200 mm	0.813 mm	NONE
1201–1300	DM35AL @ 1200 mm	1.016 mm	NONE
1301–1500	DM35AL @ 1200 mm	1.016 mm	NONE
1501–1800	DM35AL @ 1200 mm	1.016 mm	50.8 x 50.8 x 6.35 mm @ 609.6 mm
1801–2100	DM35AL @ 1200 mm	1.27 mm	63.5 x 63.5 x 4.763 mm @ 609.6 mm
2101–2400	DM35AL + ROD @ 1200 mm	1.27 mm	50.8 x 50.8 x 4.763 mm @ 609.6 mm
2401–2700	DM35AL + ROD @ 1200 mm	1.63 mm	63.5 x 63.5 x 4.763 mm @ 609.6 mm

DM35AL IS EQUIVALENT TO A SMACNA “H” CLASS STIFFENER.

TIE ROD SPACING SHALL BE NO GREATER THAN 1200 MM FROM DUCTWALL TO TIE ROD OR TIE ROD TO TIE ROD.

TIE RODS SHALL BE 125 MM ALUMINUM ROD.



Table 24

500 PA POS.	ALUMINUM DUCT CONSTRUCTION (AS PER SMACNA DUCT CONSTRUCTION STANDARDS)		
	Duct Size (mm)	Joint Spacing	Duct Wall Thickness
200 & under	DM35AL @ 1200 mm	0.813 mm	NONE
229–250	DM35AL @ 1200 mm	0.813 mm	NONE
251–300	DM35AL @ 1200 mm	0.813 mm	NONE
301–350	DM35AL @ 1200 mm	0.813 mm	NONE
351–400	DM35AL @ 1200 mm	0.813 mm	NONE
401–450	DM35AL @ 1200 mm	0.813 mm	NONE
451–500	DM35AL @ 1200 mm	0.813 mm	NONE
501–550	DM35AL @ 1200 mm	0.813 mm	NONE
551–600	DM35AL @ 1200 mm	0.813 mm	NONE
601–650	DM35AL @ 1200 mm	0.813 mm	NONE
651–700	DM35AL @ 1200 mm	0.813 mm	NONE
701–750	DM35AL @ 1200 mm	0.813 mm	NONE
751–900	DM35AL @ 1200 mm	1.016 mm	NONE
901–1000	DM35AL @ 1200 mm	1.016 mm	NONE
1001–1200	DM35AL @ 1200 mm	1.27 mm	NONE
1201–1300	DM35AL @ 1200 mm	1.016 mm	50.8 x 50.8 x 4.763 mm @ 609.6 mm
1301–1500	DM35AL @ 1200 mm	1.016 mm	50.8 x 50.8 x 6.35 mm @ 609.6 mm
1501–1800	DM35AL @ 1200 mm	1.016 mm	50.8 x 50.8 x 4.763 mm @ 609.6 mm
1801–2100	DM35AL + ROD @ 1200 mm	1.27 mm	50.8 x 50.8 x 4.763 mm @ 609.6 mm
2101–2400	DM35AL + ROD @ 1200 mm	1.63 mm	50.8 x 50.8 x 4.763 mm @ 609.6 mm
2401–2700	DM35AL + ROD @ 1200 mm	1.63 mm	63.5 x 63.5 x 4.763 mm @ 609.6 mm

500 PA POSITIVE

DM35AL IS EQUIVALENT TO A SMACNA “H” CLASS STIFFENER.

TIE ROD SPACING SHALL BE NO GREATER THAN 1200 MM FROM DUCTWALL TO TIE ROD OR TIE ROD TO TIE ROD.

TIE RODS SHALL BE 125 MM ALUMINUM ROD.

Table 25

**ALUMINUM DUCT CONSTRUCTION  
(AS PER SMACNA DUCT CONSTRUCTION STANDARDS)**

750 PA POS.	Table 25		
	<b>ALUMINUM DUCT CONSTRUCTION (AS PER SMACNA DUCT CONSTRUCTION STANDARDS)</b>		
Duct Size (mm)	Joint Spacing	Duct Wall Thickness	Intermediate Reinforcement
200 & under	DM35AL @ 1200 mm	1.016 mm	NONE
229–250	DM35AL @ 1200 mm	1.016 mm	NONE
251–300	DM35AL @ 1200 mm	1.016 mm	NONE
301–350	DM35AL @ 1200 mm	1.016 mm	NONE
351–400	DM35AL @ 1200 mm	1.016 mm	NONE
401–450	DM35AL @ 1200 mm	1.016 mm	NONE
451–500	DM35AL @ 1200 mm	1.016 mm	NONE
501–550	DM35AL @ 1200 mm	1.016 mm	NONE
551–600	DM35AL @ 1200 mm	1.016 mm	NONE
601–650	DM35AL @ 1200 mm	1.016 mm	NONE
651–700	DM35AL @ 1200 mm	1.016 mm	NONE
701–750	DM35AL @ 1200 mm	1.016 mm	NONE
751–900	DM35AL @ 1200 mm	1.016 mm	NONE
901–1000	DM35AL @ 1200 mm	1.016 mm	50.8 x 50.8 x 4.763 mm @ 609.6 mm
1001–1200	DM35AL @ 1200 mm	1.016 mm	50.8 x 50.8 x 4.763 mm @ 609.6 mm
1201–1300	DM35AL @ 1200 mm	1.016 mm	50.8 x 50.8 x 4.763 mm @ 609.6 mm
1301–1500	DM35AL @ 1200 mm	1.016 mm	50.8 x 50.8 x 4.763 mm @ 609.6 mm
1501–1800	DM35AL + ROD @ 1200 mm	1.016 mm	50.8 x 50.8 x 4.763 mm @ 609.6 mm
1801–2100	DM35AL + ROD @ 1200 mm	1.27 mm	50.8 x 50.8 x 4.763 mm @ 609.6 mm
2101–2400	DM35AL + ROD @ 1200 mm	1.63 mm	50.8 x 50.8 x 6.35 mm @ 609.6 mm
2401–2700	DM35AL + ROD @ 1200 mm	1.63 mm	63.5 x 63.5 x 4.763 mm @ 609.6 mm

750 PA POSITIVE

DM35AL IS EQUIVALENT TO A SMACNA “H” CLASS STIFFENER.

TIE ROD SPACING SHALL BE NO GREATER THAN 1200 MM FROM DUCTWALL TO TIE ROD OR TIE ROD TO TIE ROD.

TIE RODS SHALL BE 125 MM ALUMINUM ROD.

Table 26

1000 PA POS.	ALUMINUM DUCT CONSTRUCTION (AS PER SMACNA DUCT CONSTRUCTION STANDARDS)		
	Joint Spacing	Duct Wall Thickness	Intermediate Reinforcement
Duct Size (mm)			
200 & under	DM35AL @ 1200 mm	1.016 mm	NONE
229–250	DM35AL @ 1200 mm	1.016 mm	NONE
251–300	DM35AL @ 1200 mm	1.016 mm	NONE
301–350	DM35AL @ 1200 mm	1.016 mm	NONE
351–400	DM35AL @ 1200 mm	1.016 mm	NONE
401–450	DM35AL @ 1200 mm	1.016 mm	NONE
451–500	DM35AL @ 1200 mm	1.016 mm	NONE
501–550	DM35AL @ 1200 mm	1.016 mm	NONE
551–600	DM35AL @ 1200 mm	1.016 mm	NONE
601–650	DM35AL @ 1200 mm	1.016 mm	NONE
651–700	DM35AL @ 1200 mm	1.016 mm	NONE
701–750	DM35AL @ 1200 mm	1.016 mm	NONE
751–900	DM35AL @ 1200 mm	1.016 mm	38.1 x 12.7 x 3.175 mm @ 609.6 mm
901–1000	DM35AL @ 1200 mm	1.016 mm	44.5 x 44.5 x 3.175 mm @ 609.6 mm
1001–1200	DM35AL @ 1200 mm	1.016 mm	44.5 x 44.5 x 3.175 mm @ 609.6 mm
1201–1300	DM35AL @ 1200 mm	1.016 mm	63.5 x 63.5 x 3.175 mm @ 609.6 mm
1301–1500	DM35AL @ 1200 mm	1.016 mm	63.5 x 63.5 x 3.175 mm @ 609.6 mm
1501–1800	DM35AL @ 1200 mm	1.27 mm	63.5 x 63.5 x 3.175 mm @ 609.6 mm
1801–2100	DM35AL + ROD @ 1200 mm	1.63 mm	63.5 x 63.5 x 9.525 mm @ 609.6 mm
2101–2400	DM35AL + ROD @ 1200 mm	1.63 mm	76.2 x 76.2 x 9.525 mm @ 609.6 mm
2401–2700	DM35AL + ROD @ 1200 mm	1.8034 mm	63.5 x 63.5 x 4.763 mm @ 609.6 mm

1000 PA POSITIVE

DM35AL IS EQUIVALENT TO A SMACNA “H” CLASS STIFFENER.

TIE ROD SPACING SHALL BE NO GREATER THAN 1200 MM FROM DUCTWALL TO TIE ROD OR TIE ROD TO TIE ROD.

TIE RODS SHALL BE 125 MM ALUMINUM ROD.

Table 27

**ALUMINUM DUCT CONSTRUCTION  
(AS PER SMACNA DUCT CONSTRUCTION STANDARDS)**

1500 PA POS.	ALUMINUM DUCT CONSTRUCTION (AS PER SMACNA DUCT CONSTRUCTION STANDARDS)		
	Duct Size (mm)	Joint Spacing	Duct Wall Thickness
200 & under	DM35AL @ 1200 mm	1.016 mm	NONE
229–250	DM35AL @ 1200 mm	1.016 mm	NONE
251–300	DM35AL @ 1200 mm	1.27 mm	NONE
301–350	DM35AL @ 1200 mm	1.27 mm	NONE
351–400	DM35AL @ 1200 mm	1.27 mm	NONE
401–450	DM35AL @ 1200 mm	1.27 mm	NONE
451–500	DM35AL @ 1200 mm	1.27 mm	NONE
501–550	DM35AL @ 1200 mm	1.27 mm	NONE
551–600	DM35AL @ 1200 mm	1.63 mm	NONE
601–650	DM35AL @ 1200 mm	1.63 mm	NONE
651–700	DM35AL @ 1200 mm	1.63 mm	NONE
701–750	DM35AL @ 1200 mm	2.032 mm	NONE
751–900	DM35AL @ 1200 mm	2.032 mm	NONE
901–1000	DM35AL @ 1200 mm	2.032 mm	NONE
1001–1200	DM35AL @ 1200 mm	2.032 mm	NONE
1201–1300	DM35AL @ 1200 mm	2.032 mm	50.8 x 50.8 x 4.763 mm @ 609.6 mm
1301–1500	DM35AL @ 1200 mm	2.032 mm	50.8 x 50.8 x 4.763 mm @ 609.6 mm
1501–1800	DM35AL + ROD @ 1200 mm	2.032 mm	50.8 x 50.8 x 4.763 mm @ 609.6 mm
1801–2100	DM35AL + ROD @ 1200 mm	2.032 mm	50.8 x 50.8 x 6.35 mm @ 609.6 mm
2101–2400	DM35AL + ROD @ 1200 mm	2.032 mm	50.8 x 50.8 x 6.35 mm @ 609.6 mm
2401–2700	DM35AL + ROD @ 1200 mm	2.032 mm	63.5 x 63.5 x 4.763 mm @ 609.6 mm

1500 PA POSITIVE

DM35AL IS EQUIVALENT TO A SMACNA “H” CLASS STIFFENER.

TIE ROD SPACING SHALL BE NO GREATER THAN 1200 MM FROM DUCTWALL TO TIE ROD OR TIE ROD TO TIE ROD.

TIE RODS SHALL BE 125 MM ALUMINUM ROD.

Table 28

2500 PA POS.	ALUMINUM DUCT CONSTRUCTION (AS PER SMACNA DUCT CONSTRUCTION STANDARDS)		
	Duct Size (mm)	Joint Spacing	Duct Wall Thickness
200 & under	DM35AL @ 1200 mm	1.016 mm	NONE
229–250	DM35AL @ 1200 mm	1.016 mm	NONE
251–300	DM35AL @ 1200 mm	1.016 mm	NONE
301–350	DM35AL @ 1200 mm	1.27 mm	NONE
351–400	DM35AL @ 1200 mm	1.27 mm	NONE
401–450	DM35AL @ 1200 mm	1.27 mm	NONE
451–500	DM35AL @ 1200 mm	1.63 mm	NONE
501–550	DM35AL @ 1200 mm	1.63 mm	NONE
551–600	DM35AL @ 1200 mm	1.63 mm	NONE
601–650	DM35AL @ 1200 mm	1.63 mm	NONE
651–700	DM35AL @ 1200 mm	1.63 mm	NONE
701–750	DM35AL @ 1200 mm	1.016 mm	44.5 x 44.5 x 3.175 mm @ 609.6 mm
751–900	DM35AL @ 1200 mm	1.016 mm	44.5 x 44.5 x 3.175 mm @ 609.6 mm
901–1000	DM35AL @ 1200 mm	1.27 mm	63.5 x 63.5 x 3.175 mm @ 609.6 mm
1001–1200	DM35AL @ 1200 mm	1.27 mm	63.5 x 63.5 x 3.175 mm @ 609.6 mm
1201–1300	DM35AL @ 1200 mm	1.63 mm	63.5 x 63.5 x 4.736 mm @ 609.6 mm
1301–1500	DM35AL @ 1200 mm	1.63 mm	63.5 x 12.7 x 3.175 mm @ 609.6 mm
1501–1800	DM35AL + ROD @ 1200 mm	1.8034 mm	63.5 x 63.5 x 3.175 mm @ 609.6 mm
1801–2100	DM35AL + ROD @ 1200 mm	2.286 mm	63.5 x 63.5 x 4.736 mm @ 609.6 mm
2101–2400	DM35AL + ROD @ 1200 mm	2.286 mm	63.5 x 63.5 x 4.736 mm @ 609.6 mm
2401–2700	DM35AL + ROD @ 1200 mm	2.286 mm	63.5 x 63.5 x 4.736 mm @ 609.6 mm

2500 PA POSITIVE

DM35AL IS EQUIVALENT TO A SMACNA “H” CLASS STIFFENER.

TIE ROD SPACING SHALL BE NO GREATER THAN 1200 MM FROM DUCTWALL TO TIE ROD OR TIE ROD TO TIE ROD.

TIE RODS SHALL BE 125 MM ALUMINUM ROD.

## NOTES

## NOTES



**DUCTMATE®**

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