



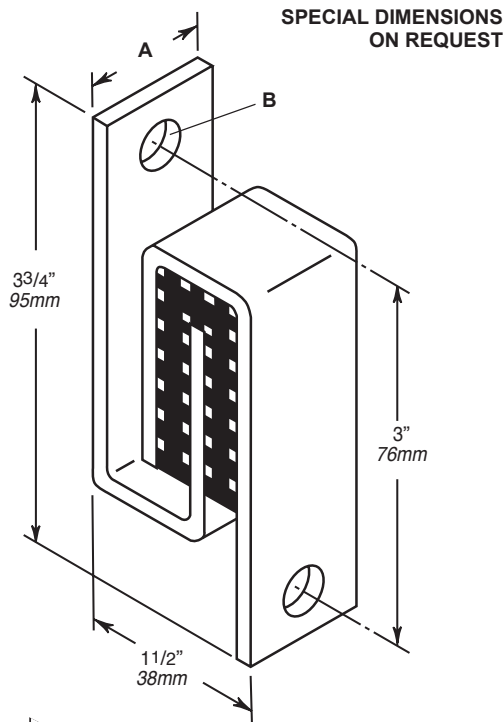
# MASON INDUSTRIES, Inc.

Manufacturers of Vibration Control Products  
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JOB NAME \_\_\_\_\_  
 CUSTOMER \_\_\_\_\_  
 CUSTOMER P.O. \_\_\_\_\_  
 MASON M.I. \_\_\_\_\_  
 DWG. NO. \_\_\_\_\_

# WIC

SWAY  
BRACE

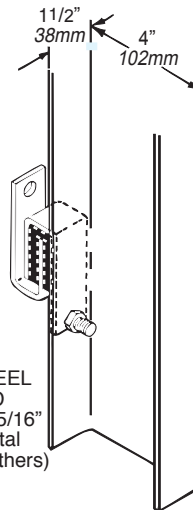


### COMMON WALL WEIGHTS

Thickness (in)(mm)	Material	(lbs/ft <sup>2</sup> ) (kg/m <sup>2</sup> )	Thickness (in)(mm)	Material	(lbs/ft <sup>2</sup> ) (kg/m <sup>2</sup> )
4 102	Brick	35 175	4 102	Steel Studding Alone	1.5 7.5
8 203		75 365	2x4 51 x 102	Wood Studding Alone	2.0 10
12 305		115 560			
4 102	Heavy	35 175	1/2 13	Gypsum Board	2.1 10
6 152	Aggregate	50 245	5/8 16		2.7 13
8 203	Hollow	58 285	3/4 19		3.2 16
12 305	Concrete Block	90 440			
4 102	Poured Concrete Masonry	48 235	1 25	Cement Plaster	10.0 50
6 152		72 350	1 25	Gypsum Plaster	5.0 25
8 203		96 470	-	Metal Lathe	0.5 2.5
12 305		144 705	-	Gypsum Lathing Board	2.0 10

### MATERIAL:

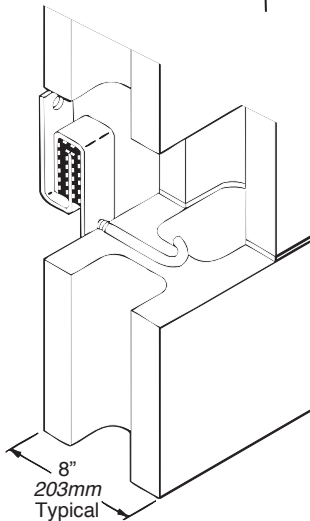
Standard 40 Durometer  
 5/16" (8mm) LDS Rubber Waffle Pad



STANDARD STEEL  
 STUDDING END  
 WIC Brace with 5/16"  
 8mm Bolt for Metal  
 Studs (Bolt by Others)

### TYPE WIC DIMENSIONS (in mm)

Type & Size	A	B Hole Diameter
WIC-1	1 25	3/8 10
WIC-2	2 51	3/8 10



STANDARD  
 CONCRETE  
 BLOCK END  
 WIC Brace with 5/16"  
 8mm Diameter Rod  
 with 2" 51mm I.D.  
 Hooked End for  
 Masonry Walls  
 (Hook by Others)

### TYPE WIC LOAD RATINGS

Type & Size	Rated Horizontal Restraint & Deflection if Stressed		Maximum Assigned Wall Weight (lb)(kg)	Minimum Assigned Weight to Establish 15Hz (lb)(kg)
	Load (lb)(kg)	Defl (in) (mm)		
WIC-1	90 41	0.05 1.3	250 113	50 23
WIC-2	260 118	0.05 1.3	500 227	100 45

- Sway braces prevent buckling or overturning of tall or long walls.
- Buckling forces are extremely small when braces are reasonably spaced both horizontally and vertically as the brace spacing maintains a very low l/r column ratio.
- Our general recommendation is spacing on four foot centers both horizontally and vertically.
- The maximum axial restraint rating is approximately 33% of the maximum assigned wall weight and extremely conservative.
- Vertical resistance information is provided for checking embedment requirements in walls and shear or pullout forces on both ends of the sway braces. Sway braces are not to be used for vertical supports.

- Response frequency is a function of the attached mass and the dynamic stiffness in the direction of vibration. The 15 Hz response is normally lower and more desirable than what is usually specified. Heavier weight assignments than the specified minimum will lower the response frequency by the square root of the ratio of the minimum weight to the assigned value multiplied by 15 Hz. Lighter loads will increase the frequency by the same proportion.

EXAMPLE: Steel stud wall with 2 layers of 3/4 inch gypsum board weighing 7.9 lbs. per sq/ft. Sway braces on 4 foot centers both ways.

Assigned Weight = 16 x 7.9 = 126 lbs.

WIC-1 Selection (Maximum 250 lbs)

Frequency = 15Hz x  $\sqrt{126/250}$  = 10.65 Hz