

# MASON LDS RUBBER SOUND ISOLATION SYSTEM

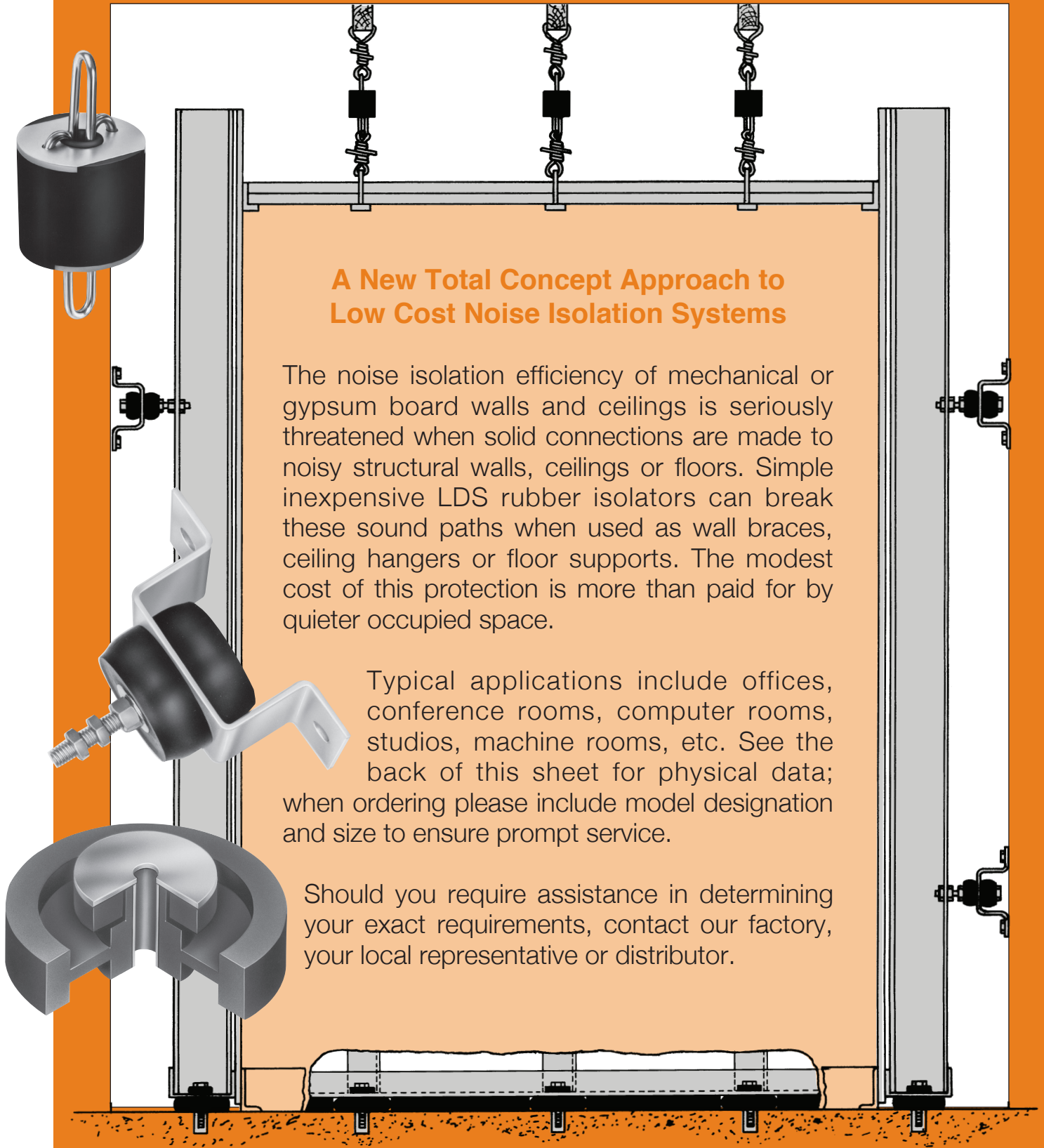
## for Ceilings & Walls

### A New Total Concept Approach to Low Cost Noise Isolation Systems

The noise isolation efficiency of mechanical or gypsum board walls and ceilings is seriously threatened when solid connections are made to noisy structural walls, ceilings or floors. Simple inexpensive LDS rubber isolators can break these sound paths when used as wall braces, ceiling hangers or floor supports. The modest cost of this protection is more than paid for by quieter occupied space.

Typical applications include offices, conference rooms, computer rooms, studios, machine rooms, etc. See the back of this sheet for physical data; when ordering please include model designation and size to ensure prompt service.

Should you require assistance in determining your exact requirements, contact our factory, your local representative or distributor.







# MASON INDUSTRIES, Inc.

Manufacturers of Vibration Control Products

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Hauppauge, NY 11788  
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FAX 631/348-0279

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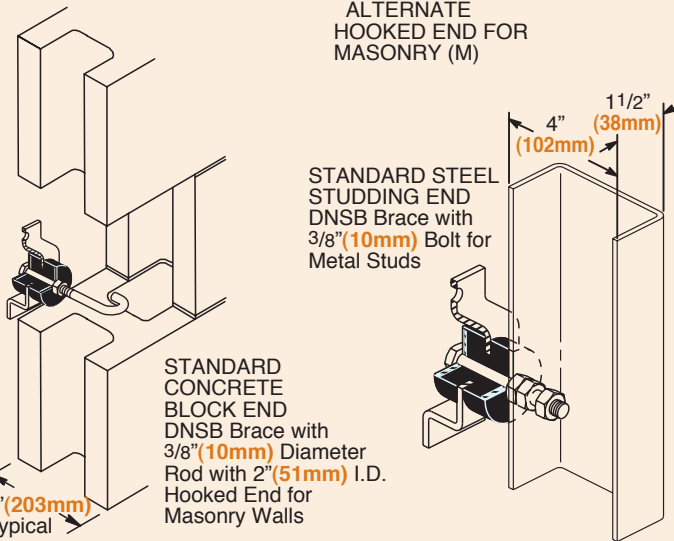
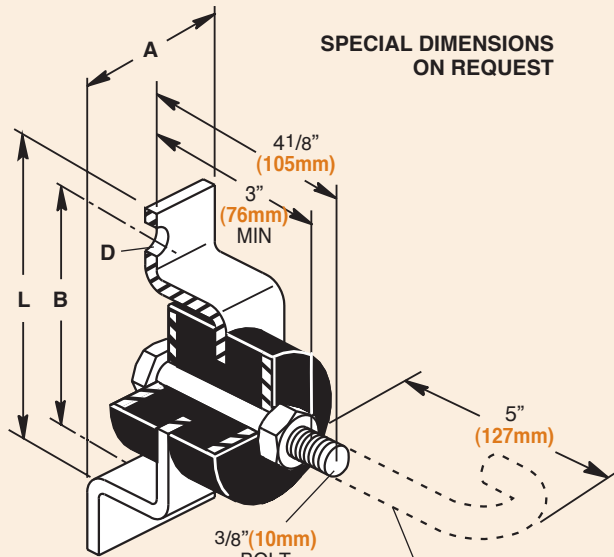
Info@Mason-Ind.com • www.Mason-Ind.com

## DOUBLE DEFLECTION SWAY BRACE FOR MASONRY OR DRY WALL CONSTRUCTION

TYPE

# DNSB

DATA SHEET DS-402-1.1 A



### 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 51x102         | Wood Studding Alone  | 2.0 10                                     |
| 12 305             |                 | 115 560                                    | 1/2 13             | Gypsum Board         | 2.1 10                                     |
| 4 102              | Heavy           | 35 175                                     | 5/8 16             |                      | 2.7 13                                     |
| 6 152              | Aggregate       | 50 245                                     | 3/4 19             |                      | 3.2 16                                     |
| 8 203              | Hollow          | 58 285                                     | 1 25               | Cement Plaster       | 10.0 50                                    |
| 12 305             | Concrete Block  | 90 440                                     | 1 25               | Gypsum Plaster       | 5.0 25                                     |
| 4 102              | Poured Concrete | 48 235                                     | -                  | Metal Lathe          | 0.5 2.5                                    |
| 6 152              |                 | 72 350                                     | -                  | Gypsum Lathing Board | 2.0 10                                     |
| 8 203              |                 | 96 470                                     |                    |                      |  |
| 12 305             | Masonry         | 144 705                                    |                    |                      |  |

### PHYSICAL PROPERTIES OF BRIDGE BEARING NEOPRENE ELEMENTS

|  |           |
|--|-----------|
| Grade (Durometer A)  | 60        |
| Original Physical Properties   |           |
| Hardness ASTM-D676   | 60±5      |
| Tensile strength, minimum psi ASTM-D412  | 2500      |
| Elongation at break, minimum percentage  | 350       |
| Accelerated Tests to Determine Long-term Aging Characteristics                       |           |
| Oven Aging - 70 hrs @ 212 F, ASTM-D573   |           |
| Hardness, maximum change of points   | +15       |
| Tensile strength, maximum percentage of change                                       | ±15       |
| Elongation at break, minimum percentage  | -40       |
| Ozone (1 ppm in air by volume @ 20% strain @ 100 + 2 F, ASTM-D1149, 100 hrs          | No Cracks |
| Compression Set, ASTM-D395 - Method B, 22 hrs at 158 F, maximum percentage of change | 25        |

### TYPE DNSB DIMENSIONS (in mm)

| Type & Size        | A        | B         | D Hole Diameter | L         |
|--------------------|----------|-----------|-----------------|-----------|
| DNSB-A<br>DNSB-AM* | 2 51     | 33/4 95   | 1/2 13          | 43/4 121  |
| DNSB-B<br>DNSB-BM* | 2 1/2 64 | 4 1/4 108 | 1/2 13          | 5 1/4 133 |

### TYPE DNSB LOAD RATINGS

| Type & Size        | Rated Axial Restraint & Deflection if Stressed |               |               |               | Maximum Assigned Wall Weight (lb)(kg) | Minimum Assigned Weight to Establish 10Hz (lb)(kg) | Resistance to Vertical Motion Created by Wall Pad or Floating Floor Deflection |               |               |               |               |               |               |               |
|--------------------|--|---------------|---------------|---------------|---------------------------------------|--|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
|                    | Load (lb)(kg)                                  | Defl (in)(mm) | Load (lb)(kg) | Defl (in)(mm) |                                       |  | Load (lb)(kg)  | Defl (in)(mm) | Load (lb)(kg) | Defl (in)(mm) | Load (lb)(kg) | Defl (in)(mm) | Load (lb)(kg) | Defl (in)(mm) |
| DNSB-A<br>DNSB-AM* | 56 25  | 0.10 2.5      | 84 38         | 0.15 3.8      | 250 113                               | 50 23  | 6 3  | 0.05 1.3      | 12 50         | 0.10 2.5      | 18 8          | 0.15 3.8      | 24 11         | 0.20 5.1      |
| DNSB-B<br>DNSB-BM* | 260 118  | 0.10 2.5      | 390 177       | 0.15 3.8      | 1200 544                              | 400 181  | 39 18  | 0.05 1.3      | 78 35         | 0.10 2.5      | 117 53        | 0.15 3.8      | 156 71        | 0.20 5.1      |

\*\*"M" designates Hooked End for Masonry

- 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 10 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 10 Hz. Lighter loads will increase the frequency by the same proportion.  
EXAMPLE: 8" Concrete Block Wall weighing 55 lbs. per sq.ft. Sway braces on 4 foot centers both ways.  
Assigned Weight = 16 x 55 = 880 lbs.  
Selection DNSB-B (Maximum 1200 lbs)  
Frequency = 10Hz x √(400/880) = 6.74 Hz



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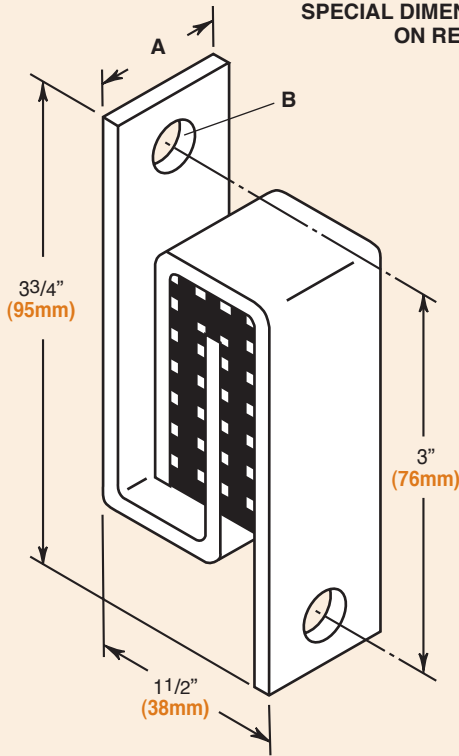
## SPACE SAVING TYPE W NEOPRENE PAD INTERLOCKING CLIP (SWAY BRACE)

TYPE

# WIC

DATA SHEET DS-402-1.1 B

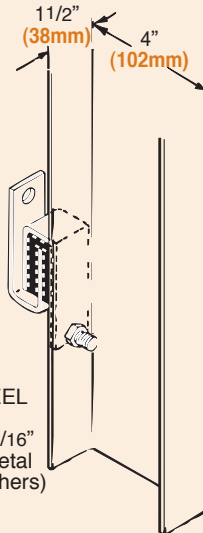
### SPECIAL DIMENSIONS ON REQUEST



### COMMON WALL WEIGHTS

| Thickness (in)(mm) | Material        | (lbs/ft <sup>2</sup> ) (kg/m <sup>2</sup> ) |
|--------------------|-----------------|---|
| 4 102              | Brick           | 35 175                                      |
| 8 203              |                 | 75 365                                      |
| 12 305             |                 | 115 560                                     |
| 4 102              | Heavy Aggregate | 35 175                                      |
| 6 152              | Hollow          | 50 245                                      |
| 8 203              | Concrete Block  | 58 285                                      |
| 12 305             |                 | 90 440                                      |
| 4 102              | Poured Concrete | 48 235                                      |
| 6 152              | Masonry         | 72 350                                      |
| 8 203              |                 | 96 470                                      |
| 12 305             |                 | 144 705                                     |

| Thickness (in)(mm) | Material             | (lbs/ft <sup>2</sup> ) (kg/m <sup>2</sup> ) |
|--------------------|----------------------|---|
| 4 102              | Steel Studding Alone | 1.5 7.5                                     |
| 2x4 51x102         | Wood Studding Alone  | 2.0 10                                      |
| 1/2 13             | Gypsum Board         | 2.1 10                                      |
| 5/8 16             |                      | 2.7 13                                      |
| 3/4 19             |                      | 3.2 16                                      |
| 1 25               | Cement Plaster       | 10.0 50                                     |
| 1 25               | Gypsum Plaster       | 5.0 25                                      |
| -                  | Metal Lathe          | 0.5 2.5                                     |
| -                  | Gypsum Lathing Board | 2.0 10                                      |



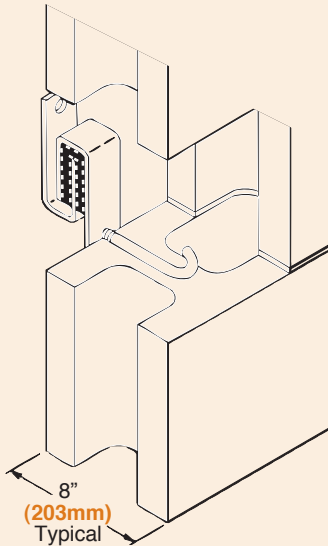
### MATERIAL:

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

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



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  |

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- 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