# Pipe/Conduit Clamps & Hangers



Our beam attachments and pipe supports offered in this section are designed to provide supports without drilling or welding. A complete selection of beam clamps, pipe clamps, rollers, supports and accessories are designed for use with our channels and offer many installation advantages.

## Materials & Finishes*

Pipe clamps, pipe hangers, beam clamps, brackets, and rollers are made from low carbon steel strips, plates or rod unless noted.

| Finish Code | Finish | Specification |
|---|---|---|
| PLN | Plain | ASTM A1011 33,000 PSI min. yield |
| ZN | Electro-Plated Zinc | ASTM B633 SC3 Type III or ASTM A653 |
| GRN | DURA-GREEN™ | |
| DCU | DURA-COPPER™ | |
| HDG | Hot-Dipped Galvanized | ASTM A123 |
| YZN | Yellow Zinc Chromate | ASTM B633 SC3 Type II |
| SS4 | Stainless Steel Type 304 | ASTM A240 |
| SS6 | Stainless Steel Type 316 | ASTM A240 |
| AL | Aluminum | ASTM B209 |

*Unless otherwise noted.

## Load Data

The load data published includes a safety factor of 5.0 unless noted (safety factor = ratio of ultimate load to the design load).

## Recommended Torque For Setscrews (unless noted)

| Setscrew Size | 1/4"-20 | 3/8"-16 | 1/2"-13 |
|---|---|---|---|
| Foot/Lbs. | 4 | 5 | 11 |
| Nm | 5 | 7 | 15 |

| Setscrew Size | 5/8"-11 | 3/4"-10 |
|---|---|---|
| Foot/Lbs. | 21 | 34 |
| Nm | 28 | 46 |

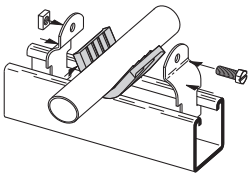
*See chart on page 72 for bolt torque.

## Metric

Metric dimensions are shown in parentheses. Unless noted, all metric dimensions are in millimeters.

## B1999
### VIBRA CUSHION™

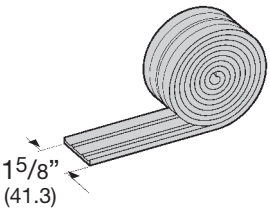
- Packaged 20 Ft. (6.09 m) per carton
- Ideal Isolation Material
- Inhibits Galvanic Corrosion
- Dampens Sound and Vibrations
- Service Temperature Range -75°F (-60°C) to +375°F (+199°C)
- Wt./Carton 3.8 Lbs. (1.7 kg)

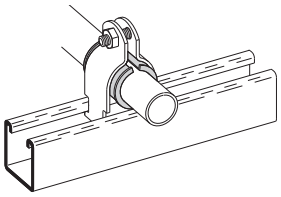


### FEATURES

Vibra Cushion™ is designed for use with refrigeration lines, HVAC, copper tubing, glass pipe and hydraulic lines. It provides an energy-absorption barrier between the lines and the mounting material and remains flexible thru its entire service range of -75°F (-60°C) to +375°F (+199°C).

This elastomer allows for expansion and contraction within the mounting system and prevents galvanic reaction between dissimilar metals.



### FOR RIGID CONDUIT OR IRON PIPE

| Nominal Size | | Length of Vibra-Cushion | | Use Clamp No. |
|---|---|---|---|---|
| 3/8" | (10) | 2 1/8" | (54.0) | B2002 |
| 1/2" | (15) | 2 5/8" | (66.7) | B2009 |
| 3/4" | (20) | 3 1/4" | (82.5) | B2031 |
| 1" | (25) | 4 1/8" | (104.8) | B2004 |
| 1 1/4" | (32) | 5 3/16" | (131.8) | B2012 |
| 1 1/2" | (40) | 5 15/16" | (150.8) | B2038 |
| 2" | (50) | 7 1/2" | (190.5) | B2042 |
| 2 1/2" | (65) | 9" | (228.6) | B2046 |
| 3" | (80) | 11" | (279.4) | B2051 |
| 3 1/2" | (90) | 12 1/2" | (317.5) | B2055 |
| 4" | (100) | 14 1/2" | (368.3) | B2059 |
| 5" | (125) | 17 7/16" | (442.9) | B2067 |
| 6" | (150) | 20 3/4" | (527.0) | B2116 |

### FOR THINWALL (EMT) CONDUIT

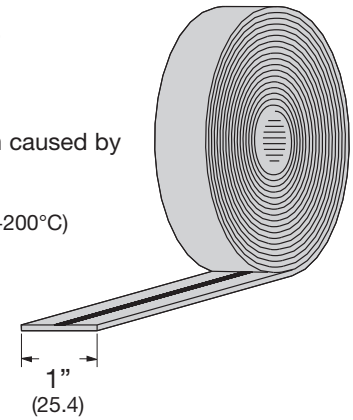
| Nominal Size | | Length of Vibra-Cushion | | Use Clamp No. |
|---|---|---|---|---|
| 3/8" | (10) | 1 13/16" | (46.0) | B2027 |
| 1/2" | (15) | 2 13/16" | (58.7) | B2002 |
| 3/4" | (20) | 2 7/8" | (73.0) | B2003 |
| 1" | (25) | 3 5/8" | (92.1) | B2032 |
| 1 1/4" | (32) | 4 3/8" | (120.6) | B2036 |
| 1 1/2" | (40) | 5 7/16" | (138.1) | B2012 |
| 2" | (50) | 6 7/8" | (174.6) | B2013 |

### FOR COPPER TUBING TYPE L & K

| Nominal Size | | Length of Vibra-Cushion | | Use Clamp No. |
|---|---|---|---|---|
| 1/4" | (6) | 1 3/16" | (30.2) | B2026 |
| 3/8" | (10) | 1 9/16" | (39.7) | B2027 |
| 1/2" | (15) | 1 7/8" | (47.6) | B2008 |
| 5/8" | (17) | 2 5/16" | (58.7) | B2029 |
| 3/4" | (20) | 2 3/4" | (69.8) | B2030 |
| 1" | (25) | 3 1/2" | (88.9) | B2032 |
| 1 1/4" | (32) | 4 5/16" | (109.5) | B2011 |
| 1 1/2" | (40) | 5 1/8" | (130.2) | B2036 |
| 2" | (50) | 6 11/16" | (169.9) | B2013 |
| 2 1/2" | (65) | 8 1/4" | (209.5) | B2014 |
| 3" | (80) | 9 13/16" | (249.2) | B2048 |
| 3 1/2" | (90) | 11 3/8" | (288.9) | B2052 |
| 4" | (100) | 12 15/16" | (328.6) | B2056 |
| 5" | (125) | 16 1/8" | (409.6) | B2064 |
| 6" | (150) | 19 1/4" | (488.9) | B2112 |
| 8" | (200) | 25 1/2" | (647.7) | B2128 |

## ISO PIPE

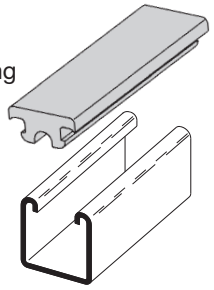
- Non-adhesive rubber tape
- Fuses to itself
- Water resistant
- Ideal Isolation Material
- Prevents galvanic reaction caused by dissimilar metal contact
- Temperature Range -140°F (-60°C) to +395°F (+200°C)




| Part No. | Thickness In. | Thickness mm | Ft./Roll Ft. | Ft./Roll m |
|---|---|---|---|---|
| ISO | .020 | (0.5) | 36 | (11) |

## BVS Type - Vibra Strip™ for 1 5/8" (41.3) wide B-Line channel

- Fits securely in 1 5/8" wide channel
- Temperature range: -20°F to 212°F
- Ideal Isolation & Vibration Dampening Qualities
- 45 durometer hardness
- Material: Neoprene



| Part No. | Max. Load Lbs. per Lineal In. Lbs. | Max. Load Lbs. per Lineal In. kg/25.4 mm | Length | | Std. Pkg. | Wt. Each Lbs. | Wt. Each kg |
|---|---|---|---|---|---|---|---|
| BVS-12 | 40 | (18.1) | 12" | (304.8) | 25 | .46 | (.21) |
| BVS-120 | 40 | (18.1) | 120" | (3048.0) | 25 | 4.60 | (2.08) |

Reference page 126 for general fitting and standard finish specifications.

## General Notes for Strut-Type Channel Raceway

UL Catagory RIUU - B-Line, Inc., Highland, IL 62249 December 11, 1998 (C) File E29637
FLUORESCENT AND INCANDESCENT LIGHTING
Suitable for not more than the number of wires of the sizes and types indicated in the following tables. Intended to enclose circuits operating at potentials not exceeding 600 volts between conductors. In all cases, the B217-20 or B217P snap-in cover is required to complete raceway closure. When using B217-24 snap-in cover, the number of wires is limited to 7 or fewer conductors no larger than #12 AWG.

B-Line's strut-type channel raceways and fittings are manufactured and tested to comply with the UL Standard for Safety for Strut-Type Channel Raceways and Fittings (UL 5B) in accordance with Article 384 of the 2002 National Electrical Code, NFPA 70.

1. Support spans for strut-type channel raceway shall not exceed 10 foot intervals.
2. No conductor larger than that for which the raceway is listed shall be installed in strut-type channel raceways. No wires under 14AWG or over 6AWG are allowed in any of B-Line's strut-type channel raceway. See tables 1, 2 and 3 below for a listing of the approved conductors for B-Line's strut-type channel raceways.
3. The number of conductors permitted in strut-type channel raceway shall not exceed the percentage fill using Table 384-22 and the applicable outside diameter of specific types and sizes of wire given in the tables in chapter 9 of the National Electrical Code. Table 384-22 lists two different percent fill areas depending on the use of internal or external joiners. Use 40% area fill with external joiners and 25% area fill for internal joiners.
4. Items in the electrical section of the B-Line Strut Systems Catalog identified by the UL symbol provide for electrical continuity. Other items require the use of a separate grounding wire.
5. If strut-type channel raceway is connected to another wiring system, the raceway must be field-tapped adjacent to the wire entry point to accept a #10-32 or larger grounding screw. A plated or stainless steel screw may be used. A sheet metal screw is not acceptable. Drill and tap the grounding wire hole before installing wires in raceway or move installed wires out of the way to avoid damage. After drilling and tapping, remove metal chips and burrs before installing screw.

### TABLE 1: MAXIMUM NUMBER OF WIRES (Adjusted per NEC Table 384.22 for 40% fill)

Use this table to determine the type and number of conductors for use with B-Line's strut-type channel raceway using external joiners. This table applies for all installations except for the support and supply of electric discharge type lighting fixtures. See table 2 and 3 for further information.

| Insulation Type | Wire Size AWG. | B11 B11K06 | B12 B12K06 | B22 B22K06 | B24 B24K06 | B26 B26K06 | B32 B32K06 | B56 B56K06 |
|---|---|---|---|---|---|---|---|---|
| **FEP, FEPB** | 14 | 172 | 127 | 81 | 81 | 81 | 67 | 36 |
| | 12 | 126 | 92 | 59 | 59 | 59 | 49 | 26 |
| | 10 | 90 | 66 | 42 | 42 | 42 | 35 | 19 |
| | 8 | 51 | 38 | 24 | 24 | 24 | 20 | 11 |
| | 6 | 24 | 17 | 11 | 12 | 12 | 9 | 5 |
| **RH, RHH, RHW** | 14 | 52 | 38 | 24 | 26 | 27 | 20 | 12 |
| | 12 | 45 | 33 | 21 | 22 | 23 | 17 | 10 |
| | 10 | 37 | 27 | 17 | 18 | 19 | 14 | 8 |
| | 8 | 20 | 14 | 9 | 10 | 10 | 7 | 4 |
| | 6 | 14 | 10 | 6 | 7 | 7 | 5 | 3 |
| **T, TW** | 14 | 124 | 91 | 58 | 58 | 58 | 48 | 26 |
| | 12 | 95 | 70 | 45 | 45 | 45 | 37 | 20 |
| | 10 | 69 | 51 | 33 | 33 | 33 | 27 | 14 |
| | 8 | 36 | 26 | 17 | 18 | 19 | 14 | 8 |
| | 6 | 21 | 15 | 9 | 10 | 11 | 8 | 5 |
| **THHN, THWN** | 14 | 178 | 131 | 84 | 84 | 84 | 69 | 37 |
| | 12 | 130 | 95 | 61 | 61 | 61 | 50 | 27 |
| | 10 | 82 | 60 | 38 | 38 | 38 | 32 | 17 |
| | 8 | 46 | 34 | 21 | 22 | 22 | 17 | 10 |
| | 6 | 33 | 24 | 15 | 16 | 16 | 12 | 7 |
| **THW** | 14 | 82 | 61 | 39 | 39 | 39 | 32 | 17 |
| | 12 | 66 | 49 | 31 | 31 | 31 | 26 | 14 |
| | 10 | 52 | 38 | 24 | 24 | 24 | 20 | 11 |
| | 8 | 29 | 21 | 13 | 14 | 15 | 11 | 6 |
| | 6 | 21 | 15 | 10 | 10 | 11 | 8 | 5 |
| **XHHW** | 14 | 124 | 91 | 58 | 58 | 58 | 48 | 26 |
| | 12 | 95 | 70 | 45 | 45 | 45 | 37 | 20 |
| | 10 | 71 | 52 | 33 | 33 | 33 | 28 | 15 |
| | 8 | 37 | 27 | 17 | 19 | 19 | 14 | 8 |
| | 6 | 27 | 20 | 13 | 14 | 14 | 10 | 6 |