

# Pipe Supports, Guides, Shields & Saddles

## B3160 thru B3165 - Pipe Covering Protection Saddle

**Material:** Steel; Stainless Steel available

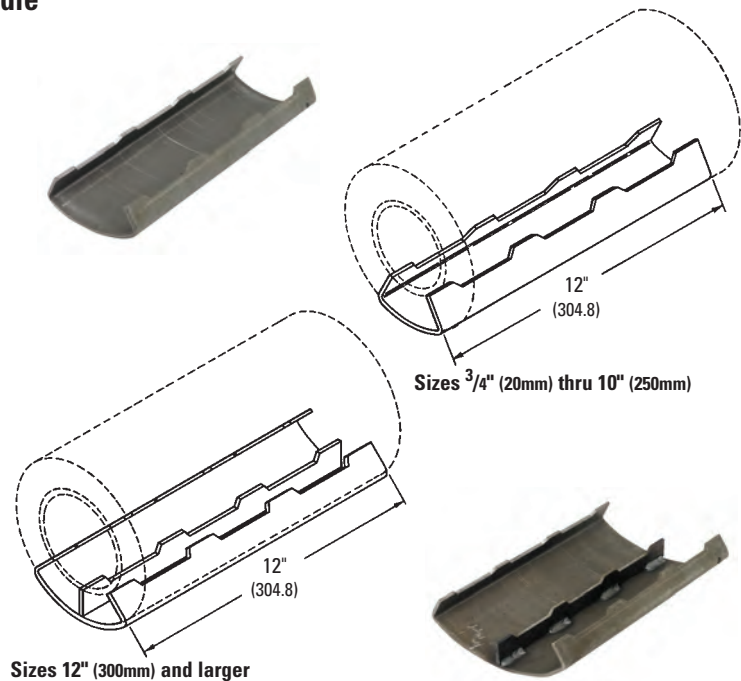
**Standard Finish:** Plain or Electro-Galvanized

**Service:** Designed to protect pipe insulation on high temperature pipe lines. Saddles are 12" (304.8mm) long. Center rib is furnished on all saddle sizes 12" (300mm) and above.

**Order By:** Part number and finish. Select part number by insulation thickness and add nominal pipe size (Ex: B3161-1 1/4 PLN).

**Approvals:** Complies with Federal Specification WW-H-171E & A-A-1192A Type 40A and Type 40B and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58 Type 39A and Type 39B.

| Insulation Thickness | Part Number  |
|----------------------|--------------|
| 1" (25.4mm)          | <b>B3160</b> |
| 1 1/2" (38.1mm)      | <b>B3161</b> |
| 2" (50.8mm)          | <b>B3162</b> |
| 2 1/2" (63.5mm)      | <b>B3163</b> |
| 3" (76.2mm)          | <b>B3164</b> |
| 4" (101.6mm)         | <b>B3165</b> |

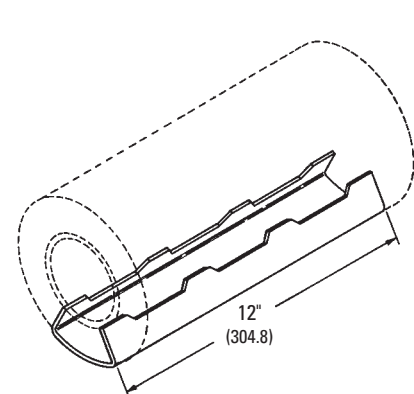


| Part No.    | Pipe Size<br>in. (mm) | Size For Roller Part Number       |                                                 |       | Design Load<br>Lbs. (kN) |  | Approx. Wt./100<br>Lbs. (kg) |  |
|-------------|-----------------------|-----------------------------------|-------------------------------------------------|-------|--------------------------|--|------------------------------|--|
|             |                       | B3114<br>B3120<br>B3122<br>B3122A | B3117SL<br>B3118SL<br>B3119SL<br>B3124<br>B3126 | B3110 |                          |  |                              |  |
| B3160-3/4   | 3/4" (20)             | 2                                 | 2-3 1/2                                         | 2 1/2 | 1200 (5.34)              |  | 122 (55.3)                   |  |
| B3161-3/4   |                       | 3                                 | 2-3 1/2                                         | 3 1/2 | 1200 (5.34)              |  | 228 (103.4)                  |  |
| B3162-3/4   |                       | 4                                 | 2-3 1/2                                         | 5     | 1200 (5.34)              |  | 297 (134.7)                  |  |
| B3160-1     | 1" (25)               | 2 1/2                             | 2-3 1/2                                         | 3     | 1200 (5.34)              |  | 156 (70.7)                   |  |
| B3161-1     |                       | 3                                 | 2-3 1/2                                         | 4     | 1200 (5.34)              |  | 228 (103.4)                  |  |
| B3162-1     |                       | 4                                 | 2-3 1/2                                         | 5     | 1200 (5.34)              |  | 297 (134.7)                  |  |
| B3160-1 1/4 | 1 1/4" (32)           | 2 1/2                             | 2-3 1/2                                         | 3     | 1200 (5.34)              |  | 156 (70.7)                   |  |
| B3161-1 1/4 |                       | 3 1/2                             | 2-3 1/2                                         | 5     | 1200 (5.34)              |  | 228 (103.4)                  |  |
| B3162-1 1/4 |                       | 4                                 | 2-3 1/2                                         | 5     | 1200 (5.34)              |  | 297 (134.7)                  |  |
| B3163-1 1/4 |                       | 5                                 | 4-6                                             | 6     | 1200 (5.34)              |  | 342 (155.1)                  |  |
| B3160-1 1/2 | 1 1/2" (40)           | 3                                 | 2-3 1/2                                         | 3 1/2 | 1200 (5.34)              |  | 172 (78.0)                   |  |
| B3161-1 1/2 |                       | 3 1/2                             | 2-3 1/2                                         | 5     | 1200 (5.34)              |  | 239 (108.4)                  |  |
| B3162-1 1/2 |                       | 5                                 | 4-6                                             | 6     | 1800 (8.00)              |  | 311 (141.0)                  |  |
| B3163-1 1/2 |                       | 6                                 | 4-6                                             | 8     | 1800 (8.00)              |  | 417 (189.1)                  |  |
| B3160-2     | 2" (50)               | 3 1/2                             | 2-3 1/2                                         | 4     | 1200 (5.34)              |  | 172 (78.0)                   |  |
| B3161-2     |                       | 4                                 | 2-3 1/2                                         | 5     | 1200 (5.34)              |  | 239 (108.4)                  |  |
| B3162-2     |                       | 5                                 | 4-6                                             | 6     | 1800 (8.00)              |  | 311 (141.0)                  |  |
| B3163-2     |                       | 6                                 | 4-6                                             | 8     | 1800 (8.00)              |  | 417 (189.1)                  |  |
| B3164-2     |                       | 8                                 | 4-6                                             | 8     | 1800 (8.00)              |  | 441 (200.0)                  |  |
| B3165-2     |                       | 10                                | 8-10                                            | 10    | 1800 (8.00)              |  | 584 (264.9)                  |  |
| B3160-2 1/2 | 2 1/2" (65)           | 3 1/2                             | 2-3 1/2                                         | 5     | 1200 (5.34)              |  | 210 (95.2)                   |  |
| B3161-2 1/2 |                       | 5                                 | 4-6                                             | 6     | 1200 (5.34)              |  | 268 (121.5)                  |  |
| B3162-2 1/2 |                       | 6                                 | 4-6                                             | 8     | 1800 (8.00)              |  | 358 (162.4)                  |  |
| B3163-2 1/2 |                       | 8                                 | 4-6                                             | 8     | 1800 (8.00)              |  | 417 (189.1)                  |  |
| B3164-2 1/2 |                       | 8                                 | 4-6                                             | 10    | 1800 (8.00)              |  | 459 (208.2)                  |  |
| B3165-2 1/2 |                       | 12                                | 8-10                                            | 12    | 1800 (8.00)              |  | 630 (285.8)                  |  |

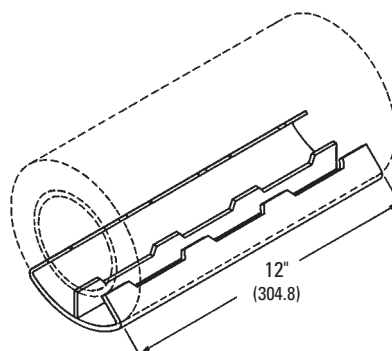
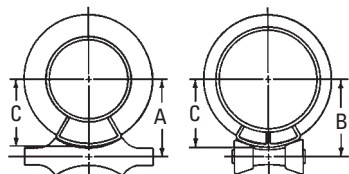
All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

# Pipe Supports, Guides, Shields & Saddles

## B3160 thru B3165 - Pipe Covering Protection Saddle cont.



Sizes  $\frac{3}{4}$ " (20mm) thru 10" (250mm)



Sizes 12" (300mm) and larger

| Insulation Thickness | Part Number  |
|----------------------|--------------|
| 1" (25.4mm)          | <b>B3160</b> |
| 1½" (38.1mm)         | <b>B3161</b> |
| 2" (50.8mm)          | <b>B3162</b> |
| 2½" (63.5mm)         | <b>B3163</b> |
| 3" (76.2mm)          | <b>B3164</b> |
| 4" (101.6mm)         | <b>B3165</b> |

| Part No.    | Pipe Size<br>In. (mm) | Centerline of Pipe to Centerline of Roll   |                                                           |                   |                                            |                                                           |                   | Centerline of<br>Pipe to Outside<br>of Saddle<br>C |                                                           | Thickness<br>of Covering<br>(Per ASTM C 585) |                                            |
|-------------|-----------------------|--------------------------------------------|-----------------------------------------------------------|-------------------|--------------------------------------------|-----------------------------------------------------------|-------------------|----------------------------------------------------|-----------------------------------------------------------|----------------------------------------------|--------------------------------------------|
|             |                       | A                                          |                                                           | B                 |                                            | A                                                         |                   |                                                    |                                                           |                                              |                                            |
|             |                       | B3114, B3120,<br>B3122, B3122A<br>In. (mm) | B3117SL, B3118SL,<br>B3119SL, B3124,<br>B3126<br>In. (mm) | B3110<br>In. (mm) | B3114, B3120,<br>B3122, B3122A<br>In. (mm) | B3117SL, B3118SL,<br>B3119SL, B3124,<br>B3126<br>In. (mm) | B3110<br>In. (mm) | B3114, B3120,<br>B3122, B3122A<br>In. (mm)         | B3117SL, B3118SL,<br>B3119SL, B3124,<br>B3126<br>In. (mm) | B3110<br>In. (mm)                            | B3114, B3120,<br>B3122, B3122A<br>In. (mm) |
| B3160-3/4   | 3/4" (20)             | 2" (50.8)                                  | 2 1/4" (57.1)                                             | 2" (50.8)         | 1 9/16" (39.7)                             | 7/8" (22.2)                                               |                   |                                                    |                                                           |                                              |                                            |
| B3161-3/4   |                       | 2 7/16" (61.9)                             | 2 7/8" (73.0)                                             | 2 3/8" (69.8)     | 2 3/16" (55.6)                             | 1 1/2" (38.1)                                             |                   |                                                    |                                                           |                                              |                                            |
| B3162-3/4   |                       | 3 5/16" (84.1)                             | 3 7/16" (87.3)                                            | 3 3/8" (85.7)     | 2 3/4" (69.8)                              | 1 15/16" (49.2)                                           |                   |                                                    |                                                           |                                              |                                            |
| B3160-1     | 1" (25)               | 2 5/16" (58.7)                             | 2 1/2" (63.5)                                             | 2 5/16" (58.7)    | 1 13/16" (46.0)                            | 1 1/16" (27.0)                                            |                   |                                                    |                                                           |                                              |                                            |
| B3161-1     |                       | 2 7/8" (73.0)                              | 3" (76.2)                                                 | 2 7/8" (73.0)     | 2 5/16" (58.7)                             | 1 9/16" (39.7)                                            |                   |                                                    |                                                           |                                              |                                            |
| B3162-1     |                       | 3 7/16" (87.3)                             | 3 5/8" (92.1)                                             | 3 1/2" (88.9)     | 2 7/8" (73.0)                              | 2 1/8" (54.0)                                             |                   |                                                    |                                                           |                                              |                                            |
| B3160-1 1/4 | 1 1/4" (32)           | 2 9/16" (65.1)                             | 2 11/16" (68.3)                                           | 2 1/2" (63.5)     | 2" (50.8)                                  | 1 5/16" (23.8)                                            |                   |                                                    |                                                           |                                              |                                            |
| B3161-1 1/4 |                       | 3 1/8" (79.4)                              | 3 1/4" (82.5)                                             | 3 1/8" (79.4)     | 2 9/16" (65.1)                             | 1 7/16" (36.5)                                            |                   |                                                    |                                                           |                                              |                                            |
| B3162-1 1/4 |                       | 3 11/16" (93.7)                            | 3 13/16" (96.8)                                           | 3 7/16" (87.3)    | 3 1/16" (77.8)                             | 2 1/8" (54.0)                                             |                   |                                                    |                                                           |                                              |                                            |
| B3163-1 1/4 | 1 1/2" (40)           | 4 1/16" (103.2)                            | 4 1/8" (104.8)                                            | 4 1/16" (103.2)   | 3 7/16" (87.3)                             | 2 7/16" (61.9)                                            |                   |                                                    |                                                           |                                              |                                            |
| B3160-1 1/2 |                       | 2 11/16" (68.3)                            | 2 7/8" (73.0)                                             | 2 7/16" (61.9)    | 2 1/8" (54.0)                              | 1 1/32" (26.2)                                            |                   |                                                    |                                                           |                                              |                                            |
| B3161-1 1/2 |                       | 3 3/16" (81.0)                             | 3 5/16" (84.1)                                            | 3 3/16" (81.0)    | 2 9/16" (65.1)                             | 1 17/32" (38.9)                                           |                   |                                                    |                                                           |                                              |                                            |
| B3162-1 1/2 | 2" (50)               | 3 9/16" (90.5)                             | 3 13/16" (96.8)                                           | 3 13/16" (96.8)   | 3 1/8" (79.4)                              | 2" (50.8)                                                 |                   |                                                    |                                                           |                                              |                                            |
| B3163-1 1/2 |                       | 4 7/16" (112.7)                            | 4 3/8" (111.1)                                            | 4 1/2" (114.3)    | 3 5/8" (92.1)                              | 2 27/32" (72.2)                                           |                   |                                                    |                                                           |                                              |                                            |
| B3160-2     |                       | 2 15/16" (74.6)                            | 3 1/8" (79.4)                                             | 2 15/16" (74.6)   | 2 3/8" (60.3)                              | 1 1/16" (27.0)                                            |                   |                                                    |                                                           |                                              |                                            |
| B3161-2     | 2 1/2" (65)           | 3 7/16" (87.3)                             | 3 5/8" (92.1)                                             | 3 1/2" (88.9)     | 2 7/8" (73.0)                              | 1 19/32" (40.5)                                           |                   |                                                    |                                                           |                                              |                                            |
| B3162-2     |                       | 4 1/8" (104.8)                             | 4 1/8" (104.8)                                            | 4 1/16" (103.2)   | 3 7/16" (87.3)                             | 2 1/8" (54.0)                                             |                   |                                                    |                                                           |                                              |                                            |
| B3163-2     |                       | 4 11/16" (119.1)                           | 4 11/16" (119.1)                                          | 4 3/4" (120.6)    | 3 15/16" (100.0)                           | 2 5/8" (66.7)                                             |                   |                                                    |                                                           |                                              |                                            |
| B3164-2     | 3" (76.2)             | 5 1/4" (133.3)                             | 5 3/16" (131.8)                                           | 5 1/4" (133.3)    | 4 1/2" (114.3)                             | 3 1/8" (79.4)                                             |                   |                                                    |                                                           |                                              |                                            |
| B3165-2     |                       | 6 3/8" (161.9)                             | 6 1/2" (165.1)                                            | 6 3/8" (161.9)    | 5 1/2" (139.7)                             | 4 3/16" (106.4)                                           |                   |                                                    |                                                           |                                              |                                            |
| B3160-2 1/2 |                       | 3 1/4" (82.5)                              | 3 3/8" (85.7)                                             | 3 1/2" (82.5)     | 2 5/8" (66.7)                              | 1 1/16" (27.0)                                            |                   |                                                    |                                                           |                                              |                                            |
| B3161-2 1/2 | 3 1/2" (90.0)         | 3 7/8" (98.4)                              | 3 15/16" (100.0)                                          | 3 7/8" (98.4)     | 3 1/4" (82.5)                              | 1 7/8" (47.6)                                             |                   |                                                    |                                                           |                                              |                                            |
| B3162-2 1/2 |                       | 4 9/16" (115.9)                            | 4 9/16" (115.9)                                           | 4 5/8" (117.5)    | 3 7/8" (98.4)                              | 2 5/16" (58.7)                                            |                   |                                                    |                                                           |                                              |                                            |
| B3163-2 1/2 |                       | 5 1/8" (130.2)                             | 5" (127.0)                                                | 5 1/8" (130.2)    | 4 1/4" (107.9)                             | 2 7/8" (73.0)                                             |                   |                                                    |                                                           |                                              |                                            |
| B3164-2 1/2 | 4" (101.6)            | 5 7/16" (138.1)                            | 5 5/16" (134.9)                                           | 5 1/2" (139.7)    | 4 9/16" (115.9)                            | 3 1/16" (77.8)                                            |                   |                                                    |                                                           |                                              |                                            |
| B3165-2 1/2 |                       | 6 15/16" (176.2)                           | 7" (177.8)                                                | 6 15/16" (176.2)  | 5 15/16" (150.8)                           | 4 7/16" (112.7)                                           |                   |                                                    |                                                           |                                              |                                            |

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

# Pipe Supports, Guides, Shields & Saddles

## B3160 thru B3165 - Pipe Covering Protection Saddle cont.

| Insulation Thickness | Part Number  |
|----------------------|--------------|
| 1" (25.4mm)          | <b>B3160</b> |
| 1 1/2" (38.1mm)      | <b>B3161</b> |
| 2" (50.8mm)          | <b>B3162</b> |

| Insulation Thickness | Part Number  |
|----------------------|--------------|
| 2 1/2" (63.5mm)      | <b>B3163</b> |
| 3" (76.2mm)          | <b>B3164</b> |
| 4" (101.6mm)         | <b>B3165</b> |

| Part No.           | Pipe Size<br>In. (mm) | Size For Roller Part Number       |                                                 |       | Design Load<br>Lbs. (kN) | Approx. Wt./100<br>Lbs. (kg) |
|--------------------|-----------------------|-----------------------------------|-------------------------------------------------|-------|--------------------------|------------------------------|
|                    |                       | B3114<br>B3120<br>B3122<br>B3122A | B3117SL<br>B3118SL<br>B3119SL<br>B3124<br>B3126 | B3110 |                          |                              |
| <b>B3160-3</b>     | 3" (80)               | 4                                 | 2-3 1/2                                         | 5     | 1800 (8.00)              | 210 (95.2)                   |
| <b>B3161-3</b>     |                       | 5                                 | 4-6                                             | 6     | 1800 (8.00)              | 268 (166.9)                  |
| <b>B3162-3</b>     |                       | 6                                 | 4-6                                             | 8     | 1800 (8.00)              | 358 (162.4)                  |
| <b>B3163-3</b>     |                       | 8                                 | 4-6                                             | 8     | 1800 (8.00)              | 417 (189.1)                  |
| <b>B3164-3</b>     |                       | 8                                 | 8-10                                            | 10    | 1800 (8.00)              | 459 (208.2)                  |
| <b>B3165-3</b>     |                       | 12                                | 8-10                                            | 12    | 1800 (8.00)              | 600 (272.2)                  |
| <b>B3160-3 1/2</b> | 3 1/2" (90)           | 5                                 | 4-6                                             | 6     | 1200 (5.34)              | 226 (102.5)                  |
| <b>B3161-3 1/2</b> |                       | 6                                 | 4-6                                             | 8     | 1800 (8.00)              | 289 (131.1)                  |
| <b>B3162-3 1/2</b> |                       | 8                                 | 4-6                                             | 8     | 1800 (8.00)              | 364 (165.1)                  |
| <b>B3163-3 1/2</b> |                       | 8                                 | 8-10                                            | 10    | 1800 (8.00)              | 422 (191.4)                  |
| <b>B3164-3 1/2</b> |                       | 10                                | 8-10                                            | 10    | 1800 (8.00)              | 488 (221.3)                  |
| <b>B3160-4</b>     | 4" (100)              | 5                                 | 4-6                                             | 6     | 1800 (8.00)              | 226 (102.5)                  |
| <b>B3161-4</b>     |                       | 6                                 | 4-6                                             | 8     | 1800 (8.00)              | 289 (131.1)                  |
| <b>B3162-4</b>     |                       | 8                                 | 8-10                                            | 8     | 1800 (8.00)              | 364 (165.1)                  |
| <b>B3163-4</b>     |                       | 8                                 | 8-10                                            | 10    | 1800 (8.00)              | 422 (191.4)                  |
| <b>B3164-4</b>     |                       | 10                                | 8-10                                            | 10    | 1800 (8.00)              | 488 (221.3)                  |
| <b>B3165-4</b>     |                       | 10                                | 8-10                                            | 12    | 1800 (8.00)              | 616 (279.4)                  |
| <b>B3160-5</b>     | 5" (125)              | 6                                 | 4-6                                             | 8     | 1800 (8.00)              | 250 (113.4)                  |
| <b>B3161-5</b>     |                       | 8                                 | 4-6                                             | 8     | 1800 (8.00)              | 289 (131.1)                  |
| <b>B3162-5</b>     |                       | 8                                 | 8-10                                            | 10    | 1800 (8.00)              | 364 (165.1)                  |
| <b>B3163-5</b>     |                       | 10                                | 8-10                                            | 10    | 1800 (8.00)              | 422 (191.4)                  |
| <b>B3164-5</b>     |                       | 10                                | 8-10                                            | 12    | 1800 (8.00)              | 488 (221.3)                  |
| <b>B3165-5</b>     |                       | 12                                | 8-10                                            | 14    | 1800 (8.00)              | 643 (291.6)                  |
| <b>B3160-6</b>     | 6" (150)              | 8                                 | 8-10                                            | 8     | 1800 (8.00)              | 387 (175.5)                  |
| <b>B3161-6</b>     |                       | 8                                 | 8-10                                            | 10    | 1800 (8.00)              | 498 (225.9)                  |
| <b>B3162-6</b>     |                       | 10                                | 8-10                                            | 10    | 1800 (8.00)              | 594 (269.4)                  |
| <b>B3163-6</b>     |                       | 10                                | 8-10                                            | 12    | 1800 (8.00)              | 694 (314.8)                  |
| <b>B3164-6</b>     |                       | 12                                | 8-10                                            | 12    | 1800 (8.00)              | 794 (360.1)                  |
| <b>B3165-6</b>     |                       | 14                                | 12-14                                           | 16    | 1800 (8.00)              | 1009 (457.7)                 |
| <b>B3160-8</b>     | 8" (200)              | 10                                | 8-10                                            | 12    | 1800 (8.00)              | 478 (216.8)                  |
| <b>B3161-8</b>     |                       | 10                                | 8-10                                            | 12    | 1800 (8.00)              | 554 (251.3)                  |
| <b>B3162-8</b>     |                       | 10                                | 8-10                                            | 12    | 1800 (8.00)              | 674 (305.7)                  |
| <b>B3163-8</b>     |                       | 12                                | 8-10                                            | 14    | 1800 (8.00)              | 782 (354.7)                  |
| <b>B3164-8</b>     |                       | 14                                | 12-14                                           | 16    | 1800 (8.00)              | 893 (405.0)                  |
| <b>B3165-8</b>     |                       | 16                                | 12-14                                           | 18    | 1800 (8.00)              | 1089 (494.0)                 |
| <b>B3160-10</b>    | 10" (250)             | 12                                | 12-14                                           | 14    | 1800 (8.00)              | 546 (247.6)                  |
| <b>B3161-10</b>    |                       | 12                                | 12-14                                           | 14    | 1800 (8.00)              | 642 (291.2)                  |
| <b>B3162-10</b>    |                       | 14                                | 16-20                                           | 16    | 1800 (8.00)              | 750 (340.2)                  |
| <b>B3163-10</b>    |                       | 14                                | 16-20                                           | 16    | 1800 (8.00)              | 850 (385.5)                  |
| <b>B3164-10</b>    |                       | 16                                | 16-20                                           | 18    | 1800 (8.00)              | 957 (434.1)                  |
| <b>B3165-10</b>    |                       | 18                                | 16-20                                           | 20    | 1800 (8.00)              | 1137 (515.7)                 |

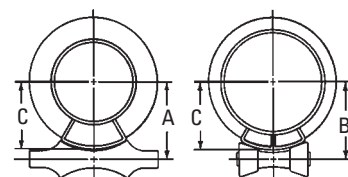
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# Pipe Supports, Guides, Shields & Saddles

## B3160 thru B3165 - Pipe Covering Protection Saddle cont.

| Insulation Thickness | Part Number  |
|----------------------|--------------|
| 1" (25.4mm)          | <b>B3160</b> |
| 1 1/2" (38.1mm)      | <b>B3161</b> |
| 2" (50.8mm)          | <b>B3162</b> |

| Insulation Thickness | Part Number  |
|----------------------|--------------|
| 2 1/2" (63.5mm)      | <b>B3163</b> |
| 3" (76.2mm)          | <b>B3164</b> |
| 4" (101.6mm)         | <b>B3165</b> |



| Part No.           | Pipe Size<br>In. (mm) | Centerline of Pipe to Centerline of Roll     |                                                    |                         | Centerline of<br>Pipe to Outside<br><br>C<br>In. (mm) | Thickness<br>of Covering<br><br>(Per ASTM C 585)<br>In. (mm) |
|--------------------|-----------------------|----------------------------------------------|----------------------------------------------------|-------------------------|-------------------------------------------------------|--------------------------------------------------------------|
|                    |                       | A<br>B3114<br>B3114, B3120,<br>B3122, B3122A | B<br>B3117ST, B3118SL,<br>B3119SL, B3124,<br>B3126 | A<br>of Saddle<br>B3110 |                                                       |                                                              |
|                    |                       | In. (mm)                                     | In. (mm)                                           | In. (mm)                |                                                       |                                                              |
| <b>B3160-3</b>     | 3" (80)               | 3 3/8" (85.7)                                | 3 1/2" (88.9)                                      | 3 5/8" (91.1)           | 3" (76.2)                                             | 1 1/32" (26.2)                                               |
| <b>B3161-3</b>     |                       | 4 1/4" (107.9)                               | 4 5/16" (109.5)                                    | 4 1/4" (107.9)          | 3 9/16" (90.5)                                        | 1 9/16" (39.7)                                               |
| <b>B3162-3</b>     |                       | 4 15/16" (125.4)                             | 4 15/16" (125.4)                                   | 4 15/16" (125.4)        | 4 3/16" (106.4)                                       | 2 1/16" (52.4)                                               |
| <b>B3163-3</b>     |                       | 5 7/16" (138.1)                              | 5 3/8" (136.5)                                     | 5 7/16" (138.1)         | 4 5/8" (117.5)                                        | 2 9/16" (65.1)                                               |
| <b>B3164-3</b>     |                       | 5 13/16" (147.6)                             | 6" (152.4)                                         | 5 7/8" (149.2)          | 4 15/16" (125.4)                                      | 3 1/16" (77.8)                                               |
| <b>B3165-3</b>     |                       | 7" (177.8)                                   | 7 1/16" (179.4)                                    | 7" (177.8)              | 6" (152.4)                                            | 4 1/8" (104.8)                                               |
| <b>B3160-3 1/2</b> | 3 1/2" (90)           | 3 13/16" (96.8)                              | 3 7/8" (98.4)                                      | 3 13/16" (96.8)         | 3 3/16" (81.0)                                        | 1 1/32" (26.2)                                               |
| <b>B3161-3 1/2</b> |                       | 4 3/8" (111.1)                               | 4 3/8" (111.1)                                     | 4 3/8" (111.1)          | 3 11/16" (93.7)                                       | 1 9/16" (39.7)                                               |
| <b>B3162-3 1/2</b> |                       | 5" (127.0)                                   | 5" (127.0)                                         | 5" (127.0)              | 4 1/4" (107.9)                                        | 2 1/16" (52.4)                                               |
| <b>B3163-3 1/2</b> |                       | 5 1/2" (139.7)                               | 5 11/16" (144.5)                                   | 5 9/16" (141.3)         | 4 5/8" (117.5)                                        | 2 25/32" (70.6)                                              |
| <b>B3164-3 1/2</b> |                       | 6 3/16" (157.2)                              | 6 5/16" (160.3)                                    | 6 3/16" (157.2)         | 5 1/4" (133.3)                                        | 3 1/16" (77.8)                                               |
| <b>B3160-4</b>     | 4" (100)              | 4 1/8" (104.8)                               | 4 1/8" (104.8)                                     | 4 1/8" (104.8)          | 3 7/16" (87.3)                                        | 1 1/16" (27.0)                                               |
| <b>B3161-4</b>     |                       | 4 11/16" (119.1)                             | 4 7/16" (112.7)                                    | 4 3/4" (120.6)          | 4" (101.6)                                            | 1 9/16" (39.7)                                               |
| <b>B3162-4</b>     |                       | 5 5/16" (134.9)                              | 5 1/4" (133.3)                                     | 5 5/16" (134.9)         | 4 1/2" (114.3)                                        | 2 1/16" (52.4)                                               |
| <b>B3163-4</b>     |                       | 5 13/16" (147.6)                             | 6" (152.4)                                         | 5 7/8" (149.2)          | 4 15/16" (125.4)                                      | 2 9/16" (65.1)                                               |
| <b>B3164-4</b>     |                       | 6 7/16" (163.5)                              | 6 9/16" (166.7)                                    | 6 7/16" (163.5)         | 5 1/2" (139.7)                                        | 3 1/8" (79.4)                                                |
| <b>B3165-4</b>     |                       | 7 9/16" (192.1)                              | 7 5/8" (193.7)                                     | 7 9/16" (192.1)         | 6 1/2" (165.1)                                        | 4 1/8" (104.8)                                               |
| <b>B3160-5</b>     | 5" (125)              | 4 11/16" (119.1)                             | 4 11/16" (119.1)                                   | 4 3/4" (120.6)          | 3 15/16" (100.0)                                      | 1 1/32" (26.2)                                               |
| <b>B3161-5</b>     |                       | 5 5/16" (134.9)                              | 5 1/4" (133.3)                                     | 5 5/16" (134.9)         | 4 9/16" (115.9)                                       | 1 17/32" (38.9)                                              |
| <b>B3162-5</b>     |                       | 5 7/8" (149.2)                               | 6 1/8" (155.6)                                     | 6" (152.4)              | 5 1/8" (130.2)                                        | 2 1/32" (51.6)                                               |
| <b>B3163-5</b>     |                       | 6 7/16" (163.5)                              | 6 9/16" (166.7)                                    | 6 7/16" (163.5)         | 5 9/16" (141.3)                                       | 2 9/16" (65.1)                                               |
| <b>B3164-5</b>     |                       | 7" (177.8)                                   | 7 3/16" (182.6)                                    | 7 1/8" (181.0)          | 6 1/8" (155.6)                                        | 3 3/32" (78.6)                                               |
| <b>B3165-5</b>     |                       | 8 3/16" (208.0)                              | 8 3/16" (208.0)                                    | 8 3/8" (212.7)          | 7 1/16" (179.4)                                       | 4 5/32" (105.5)                                              |
| <b>B3160-6</b>     | 6" (150)              | 5 1/4" (133.3)                               | 5 1/4" (133.3)                                     | 5 1/4" (133.3)          | 4 1/2" (114.3)                                        | 1" (25.4)                                                    |
| <b>B3161-6</b>     |                       | 5 7/8" (149.2)                               | 6 1/16" (154.0)                                    | 5 15/16" (150.8)        | 5" (127.0)                                            | 1 1/2" (38.1)                                                |
| <b>B3162-6</b>     |                       | 6 1/2" (165.1)                               | 6 5/8" (168.3)                                     | 6 1/2" (165.1)          | 5 9/16" (141.3)                                       | 2 1/16" (52.4)                                               |
| <b>B3163-6</b>     |                       | 7 1/16" (179.4)                              | 7 1/8" (181.0)                                     | 7 1/8" (181.0)          | 6 1/16" (154.0)                                       | 2 9/16" (65.1)                                               |
| <b>B3164-6</b>     |                       | 7 5/8" (193.7)                               | 7 11/16" (195.3)                                   | 7 5/8" (193.7)          | 6 9/16" (166.7)                                       | 3 1/16" (77.8)                                               |
| <b>B3165-6</b>     |                       | 9 1/16" (230.2)                              | 8 15/16" (227.0)                                   | 9" (228.6)              | 7 3/4" (196.8)                                        | 4 3/16" (106.4)                                              |
| <b>B3160-8</b>     | 8" (200)              | 6 1/2" (165.1)                               | 6 5/8" (168.3)                                     | 6 9/16" (166.7)         | 5 9/16" (141.3)                                       | 1 1/32" (26.2)                                               |
| <b>B3161-8</b>     |                       | 7 1/16" (179.4)                              | 7 1/8" (181.0)                                     | 7 1/16" (179.4)         | 6 1/16" (154.0)                                       | 1 9/16" (39.7)                                               |
| <b>B3162-8</b>     |                       | 7 9/16" (192.1)                              | 7 5/8" (193.7)                                     | 7 5/8" (193.7)          | 6 9/16" (166.7)                                       | 2 1/16" (52.4)                                               |
| <b>B3163-8</b>     |                       | 8 5/16" (211.1)                              | 8 5/16" (211.1)                                    | 8 1/2" (215.9)          | 7 3/16" (182.6)                                       | 2 11/16" (68.3)                                              |
| <b>B3164-8</b>     |                       | 9 1/16" (230.2)                              | 8 15/16" (227.0)                                   | 9" (228.6)              | 7 3/4" (196.8)                                        | 3 3/16" (81.0)                                               |
| <b>B3165-8</b>     |                       | 10" (254.0)                                  | 9 15/16" (252.4)                                   | 10 1/16" (255.6)        | 8 11/16" (220.7)                                      | 4 3/16" (106.4)                                              |
| <b>B3160-10</b>    | 10" (250)             | 7 11/16" (195.3)                             | 7 3/4" (196.8)                                     | 7 7/8" (200.0)          | 6 5/8" (168.3)                                        | 3 1/32" (24.6)                                               |
| <b>B3161-10</b>    |                       | 8 5/16" (211.1)                              | 8 5/16" (211.1)                                    | 8 7/16" (214.3)         | 7 3/16" (182.6)                                       | 1 5/8" (41.3)                                                |
| <b>B3162-10</b>    |                       | 9" (228.6)                                   | 8 7/8" (225.4)                                     | 8 7/8" (225.4)          | 7 11/16" (195.3)                                      | 2 1/8" (54.0)                                                |
| <b>B3163-10</b>    |                       | 9 5/8" (244.5)                               | 9 7/16" (239.7)                                    | 9 1/2" (241.3)          | 8 3/16" (208.0)                                       | 2 5/8" (66.7)                                                |
| <b>B3164-10</b>    |                       | 10 1/8" (257.2)                              | 10 3/16" (258.8)                                   | 10 3/16" (258.8)        | 8 3/4" (222.2)                                        | 3 1/8" (79.4)                                                |
| <b>B3165-10</b>    |                       | 11 1/4" (285.7)                              | 11 3/16" (284.2)                                   | 11 1/4" (285.7)         | 9 3/4" (247.6)                                        | 4 1/8" (104.8)                                               |

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

# Pipe Supports, Guides, Shields & Saddles

## B3160 thru B3165 - Pipe Covering Protection Saddle cont.

| Insulation Thickness | Part Number  |
|----------------------|--------------|
| 1" (25.4mm)          | <b>B3160</b> |
| 1 1/2" (38.1mm)      | <b>B3161</b> |
| 2" (50.8mm)          | <b>B3162</b> |

| Insulation Thickness | Part Number  |
|----------------------|--------------|
| 2 1/2" (63.5mm)      | <b>B3163</b> |
| 3" (76.2mm)          | <b>B3164</b> |
| 4" (101.6mm)         | <b>B3165</b> |

| Part No. | Pipe Size<br>In. (mm) | Size For Roller Part Number              |                                               |       | Design Load<br>Lbs. (kN) |         | Approx. Wt./100<br>Lbs. (kg) |          |
|----------|-----------------------|------------------------------------------|-----------------------------------------------|-------|--------------------------|---------|------------------------------|----------|
|          |                       | B3114<br>B3114<br>B3120, B3122<br>B3122A | B3117SL<br>B3118SL<br>B3119SL<br>B3124, B3126 | B3110 |                          |         |                              |          |
| B3160-12 | 12" (300)             | 14                                       | 12-14                                         | 16    | 5000                     | (22.24) | 688                          | (312.1)  |
| B3161-12 |                       | 14                                       | 12-14                                         | 16    | 5000                     | (22.24) | 836                          | (379.2)  |
| B3162-12 |                       | 16                                       | 16-20                                         | 18    | 5000                     | (22.24) | 963                          | (436.8)  |
| B3163-12 |                       | 16                                       | 16-20                                         | 18    | 5000                     | (22.24) | 1091                         | (494.9)  |
| B3164-12 |                       | 18                                       | 16-20                                         | 20    | 5000                     | (22.24) | 1218                         | (552.5)  |
| B3165-12 |                       | 20                                       | 16-20                                         | 24    | 5000                     | (22.24) | 1462                         | (663.1)  |
| B3161-14 | 14" (350)             | 16                                       | 16-20                                         | 18    | 5000                     | (22.24) | 828                          | (375.6)  |
| B3162-14 |                       | 16                                       | 16-20                                         | 18    | 5000                     | (22.24) | 963                          | (436.8)  |
| B3163-14 |                       | 18                                       | 16-20                                         | 20    | 5000                     | (22.24) | 1099                         | (498.5)  |
| B3164-14 |                       | 18                                       | 16-20                                         | 20    | 5000                     | (22.24) | 1230                         | (557.9)  |
| B3165-14 |                       | 20                                       | 24                                            | 24    | 5000                     | (22.24) | 1486                         | (674.0)  |
| B3161-16 | 16" (400)             | 18                                       | 16-20                                         | 20    | 5000                     | (22.24) | 907                          | (411.4)  |
| B3162-16 |                       | 18                                       | 16-20                                         | 20    | 5000                     | (22.24) | 1039                         | (471.3)  |
| B3163-16 |                       | 20                                       | 16-20                                         | 24    | 7200                     | (32.02) | 1163                         | (527.5)  |
| B3164-16 |                       | 20                                       | 24                                            | 24    | 7200                     | (32.02) | 1298                         | (588.8)  |
| B3165-16 |                       | 24                                       | 24                                            | 24    | 7200                     | (32.02) | 1554                         | (704.9)  |
| B3161-18 | 18" (450)             | 20                                       | 16-20                                         | 24    | 5000                     | (22.24) | 979                          | (444.1)  |
| B3162-18 |                       | 20                                       | 24                                            | 24    | 7200                     | (32.02) | 1107                         | (502.1)  |
| B3163-18 |                       | 24                                       | 24                                            | 24    | 7200                     | (32.02) | 1230                         | (557.9)  |
| B3164-18 |                       | 24                                       | 24                                            | 24    | 7200                     | (32.02) | 1362                         | (617.8)  |
| B3165-18 |                       | 24                                       | 24                                            | -     | 7200                     | (32.02) | 1617                         | (733.5)  |
| B3161-20 | 20" (500)             | 24                                       | 24                                            | 24    | 7200                     | (32.02) | 1043                         | (473.1)  |
| B3162-20 |                       | 24                                       | 24                                            | 24    | 7200                     | (32.02) | 1171                         | (531.1)  |
| B3163-20 |                       | 24                                       | 24                                            | -     | 7200                     | (32.02) | 1294                         | (586.9)  |
| B3164-20 |                       | 24                                       | 24                                            | -     | 7200                     | (32.02) | 1430                         | (648.6)  |
| B3165-20 |                       | 30                                       | 30                                            | -     | 7200                     | (32.02) | 1689                         | (766.1)  |
| B3161-24 | 24" (600)             | 30                                       | 30                                            | -     | 7200                     | (32.02) | 1179                         | (534.8)  |
| B3162-24 |                       | 30                                       | 30                                            | -     | 7200                     | (32.02) | 1306                         | (592.4)  |
| B3163-24 |                       | 30                                       | 30                                            | -     | 7200                     | (32.02) | 1442                         | (654.1)  |
| B3164-24 |                       | 30                                       | 30                                            | -     | 7200                     | (32.02) | 1562                         | (708.5)  |
| B3165-24 |                       | 30                                       | 30                                            | -     | 7200                     | (32.02) | 1821                         | (826.0)  |
| B3161-30 | 30" (750)             | -                                        | 36-42                                         | -     | 7200                     | (32.02) | 1370                         | (621.4)  |
| B3162-30 |                       | -                                        | 36-42                                         | -     | 7200                     | (32.02) | 1502                         | (681.3)  |
| B3163-30 |                       | -                                        | 36-42                                         | -     | 7200                     | (32.02) | 1640                         | (743.9)  |
| B3164-30 |                       | -                                        | 36-42                                         | -     | 7200                     | (32.02) | 1761                         | (798.8)  |
| B3165-30 |                       | -                                        | 36-42                                         | -     | 7200                     | (32.02) | 2008                         | (910.8)  |
| B3161-36 | 36" (900)             | -                                        | 36-42                                         | -     | 7200                     | (32.02) | 1574                         | (713.9)  |
| B3162-36 |                       | -                                        | 36-42                                         | -     | 7200                     | (32.02) | 1701                         | (771.6)  |
| B3163-36 |                       | -                                        | 36-42                                         | -     | 7200                     | (32.02) | 1857                         | (842.3)  |
| B3164-36 |                       | -                                        | 36-42                                         | -     | 7200                     | (32.02) | 1961                         | (889.5)  |
| B3165-36 |                       | -                                        | 36-42                                         | -     | 7200                     | (32.02) | 2216                         | (1005.2) |

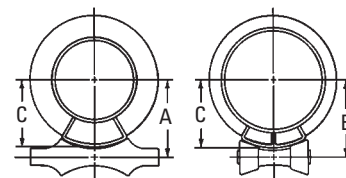
All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

# Pipe Supports, Guides, Shields & Saddles

## B3160 thru B3165 - Pipe Covering Protection Saddle cont.

| Insulation Thickness | Part Number  |
|----------------------|--------------|
| 1" (25.4mm)          | <b>B3160</b> |
| 1 1/2" (38.1mm)      | <b>B3161</b> |
| 2" (50.8mm)          | <b>B3162</b> |

| Insulation Thickness | Part Number  |
|----------------------|--------------|
| 2 1/2" (63.5mm)      | <b>B3163</b> |
| 3" (76.2mm)          | <b>B3164</b> |
| 4" (101.6mm)         | <b>B3165</b> |



| Part No. | Nominal<br>Pipe Size<br>In. (mm) | Centerline of Pipe to Centerline of Roll   |                                            |                                             |                                            |                                         |  | Centerline of<br>Pipe to Outside<br>of Saddle<br>C<br>In. (mm) | Thickness<br>of Covering<br>(Per<br>ASTM C 585)<br>In. (mm) |
|----------|----------------------------------|--------------------------------------------|--------------------------------------------|---------------------------------------------|--------------------------------------------|-----------------------------------------|--|----------------------------------------------------------------|-------------------------------------------------------------|
|          |                                  | A                                          |                                            | B                                           |                                            | A                                       |  |                                                                |                                                             |
|          |                                  | B3114, B3120<br>B3122, B3122A              |                                            | B3117SL, B3118SL<br>B3119SL<br>B3124, B3126 |                                            | B3110                                   |  |                                                                |                                                             |
|          |                                  | In.<br>(mm)                                | In.<br>(mm)                                | In.<br>(mm)                                 | (mm)                                       |                                         |  |                                                                |                                                             |
| B3160-12 | 12" (300)                        | 8 <sup>15</sup> / <sub>16</sub> " (227.0)  | 8 <sup>13</sup> / <sub>16</sub> " (223.8)  | 8 <sup>7</sup> / <sub>8</sub> " (225.4)     | 7 <sup>5</sup> / <sub>8</sub> " (193.7)    | 1 <sup>1</sup> / <sub>16</sub> " (27.0) |  |                                                                |                                                             |
| B3161-12 |                                  | 9 <sup>9</sup> / <sub>16</sub> " (242.9)   | 9 <sup>7</sup> / <sub>16</sub> " (239.7)   | 9 <sup>1</sup> / <sub>2</sub> " (241.3)     | 8 <sup>3</sup> / <sub>16</sub> " (208.0)   | 1 <sup>5</sup> / <sub>8</sub> " (41.3)  |  |                                                                |                                                             |
| B3162-12 |                                  | 10 <sup>1</sup> / <sub>16</sub> " (255.6)  | 10 <sup>1</sup> / <sub>8</sub> " (257.2)   | 10 <sup>1</sup> / <sub>8</sub> " (257.2)    | 8 <sup>3</sup> / <sub>4</sub> " (222.2)    | 2 <sup>1</sup> / <sub>8</sub> " (54.0)  |  |                                                                |                                                             |
| B3163-12 |                                  | 10 <sup>5</sup> / <sub>8</sub> " (269.9)   | 10 <sup>5</sup> / <sub>8</sub> " (269.9)   | 10 <sup>5</sup> / <sub>8</sub> " (269.9)    | 9 <sup>1</sup> / <sub>4</sub> " (234.9)    | 2 <sup>5</sup> / <sub>8</sub> " (66.7)  |  |                                                                |                                                             |
| B3164-12 |                                  | 11 <sup>3</sup> / <sub>16</sub> " (284.2)  | 11 <sup>3</sup> / <sub>16</sub> " (284.2)  | 11 <sup>1</sup> / <sub>4</sub> " (285.7)    | 9 <sup>11</sup> / <sub>16</sub> " (246.1)  | 3 <sup>1</sup> / <sub>8</sub> " (79.4)  |  |                                                                |                                                             |
| B3165-12 |                                  | 12 <sup>5</sup> / <sub>16</sub> " (312.7)  | 12 <sup>3</sup> / <sub>16</sub> " (309.6)  | 12 <sup>5</sup> / <sub>16</sub> " (312.7)   | 10 <sup>3</sup> / <sub>4</sub> " (273.0)   | 4 <sup>1</sup> / <sub>8</sub> " (104.8) |  |                                                                |                                                             |
| B3161-14 | 14" (350)                        | 10 <sup>1</sup> / <sub>16</sub> " (255.6)  | 9 <sup>15</sup> / <sub>16</sub> " (252.4)  | 10 <sup>1</sup> / <sub>16</sub> " (255.6)   | 8 <sup>11</sup> / <sub>16</sub> " (220.7)  | 1 <sup>1</sup> / <sub>2</sub> " (38.1)  |  |                                                                |                                                             |
| B3162-14 |                                  | 10 <sup>5</sup> / <sub>8</sub> " (269.9)   | 10 <sup>5</sup> / <sub>8</sub> " (269.9)   | 10 <sup>5</sup> / <sub>8</sub> " (269.9)    | 9 <sup>3</sup> / <sub>16</sub> " (233.4)   | 2" (50.8)                               |  |                                                                |                                                             |
| B3163-14 |                                  | 11 <sup>3</sup> / <sub>16</sub> " (284.2)  | 11 <sup>3</sup> / <sub>16</sub> " (284.2)  | 11 <sup>1</sup> / <sub>4</sub> " (285.7)    | 9 <sup>3</sup> / <sub>4</sub> " (247.6)    | 2 <sup>1</sup> / <sub>2</sub> " (63.5)  |  |                                                                |                                                             |
| B3164-14 |                                  | 11 <sup>3</sup> / <sub>4</sub> " (298.4)   | 11 <sup>11</sup> / <sub>16</sub> " (296.9) | 11 <sup>3</sup> / <sub>4</sub> " (298.4)    | 10 <sup>1</sup> / <sub>4</sub> " (260.3)   | 3" (76.2)                               |  |                                                                |                                                             |
| B3165-14 |                                  | 12 <sup>7</sup> / <sub>8</sub> " (327.0)   | 12 <sup>7</sup> / <sub>16</sub> " (315.9)  | 12 <sup>7</sup> / <sub>8</sub> " (327.0)    | 11 <sup>3</sup> / <sub>16</sub> " (284.2)  | 4" (101.6)                              |  |                                                                |                                                             |
| B3161-16 | 16" (400)                        | 11 <sup>1</sup> / <sub>8</sub> " (282.6)   | 11 <sup>1</sup> / <sub>8</sub> " (282.6)   | 11 <sup>3</sup> / <sub>16</sub> " (284.2)   | 9 <sup>11</sup> / <sub>16</sub> " (246.1)  | 1 <sup>1</sup> / <sub>2</sub> " (38.1)  |  |                                                                |                                                             |
| B3162-16 |                                  | 11 <sup>13</sup> / <sub>16</sub> " (300.0) | 11 <sup>11</sup> / <sub>16</sub> " (296.9) | 11 <sup>3</sup> / <sub>4</sub> " (298.4)    | 10 <sup>1</sup> / <sub>4</sub> " (260.3)   | 2" (50.8)                               |  |                                                                |                                                             |
| B3163-16 |                                  | 12 <sup>5</sup> / <sub>16</sub> " (312.7)  | 12 <sup>1</sup> / <sub>8</sub> " (308.0)   | 12 <sup>5</sup> / <sub>16</sub> " (312.7)   | 10 <sup>11</sup> / <sub>16</sub> " (271.5) | 2 <sup>1</sup> / <sub>2</sub> " (63.5)  |  |                                                                |                                                             |
| B3164-16 |                                  | 12 <sup>7</sup> / <sub>8</sub> " (327.0)   | 12 <sup>9</sup> / <sub>16</sub> " (319.1)  | 12 <sup>7</sup> / <sub>8</sub> " (327.0)    | 11 <sup>1</sup> / <sub>4</sub> " (285.7)   | 3" (76.2)                               |  |                                                                |                                                             |
| B3165-16 |                                  | 13 <sup>15</sup> / <sub>16</sub> " (354.0) | 13 <sup>9</sup> / <sub>16</sub> " (344.5)  | 13 <sup>15</sup> / <sub>16</sub> " (354.0)  | 12 <sup>1</sup> / <sub>4</sub> " (311.1)   | 4" (101.6)                              |  |                                                                |                                                             |
| B3161-18 | 18" (450)                        | 12 <sup>1</sup> / <sub>4</sub> " (311.1)   | 12 <sup>1</sup> / <sub>8</sub> " (308.0)   | 12 <sup>1</sup> / <sub>4</sub> " (311.1)    | 10 <sup>11</sup> / <sub>16</sub> " (271.5) | 1 <sup>1</sup> / <sub>2</sub> " (38.1)  |  |                                                                |                                                             |
| B3162-18 |                                  | 12 <sup>7</sup> / <sub>8</sub> " (327.0)   | 12 <sup>1</sup> / <sub>2</sub> " (317.5)   | 12 <sup>7</sup> / <sub>8</sub> " (327.0)    | 11 <sup>1</sup> / <sub>4</sub> " (285.7)   | 2" (50.8)                               |  |                                                                |                                                             |
| B3163-18 |                                  | 13 <sup>3</sup> / <sub>8</sub> " (339.7)   | 13" (330.2)                                | 13 <sup>3</sup> / <sub>8</sub> " (339.7)    | 11 <sup>11</sup> / <sub>16</sub> " (296.9) | 2 <sup>1</sup> / <sub>2</sub> " (63.5)  |  |                                                                |                                                             |
| B3164-18 |                                  | 13 <sup>15</sup> / <sub>16</sub> " (354.0) | 13 <sup>9</sup> / <sub>16</sub> " (344.5)  | 13 <sup>15</sup> / <sub>16</sub> " (354.0)  | 12 <sup>1</sup> / <sub>4</sub> " (311.1)   | 3" (76.2)                               |  |                                                                |                                                             |
| B3165-18 |                                  | 15" (381.0)                                | 14 <sup>9</sup> / <sub>16</sub> " (369.9)  | -- --                                       | 13 <sup>1</sup> / <sub>4</sub> " (336.5)   | 4" (101.6)                              |  |                                                                |                                                             |
| B3161-20 | 20" (500)                        | 13 <sup>3</sup> / <sub>8</sub> " (339.7)   | 13" (330.2)                                | 13 <sup>3</sup> / <sub>8</sub> " (339.7)    | 11 <sup>11</sup> / <sub>16</sub> " (296.9) | 1 <sup>1</sup> / <sub>2</sub> " (38.1)  |  |                                                                |                                                             |
| B3162-20 |                                  | 13 <sup>15</sup> / <sub>16</sub> " (354.0) | 13 <sup>1</sup> / <sub>2</sub> " (342.9)   | 13 <sup>15</sup> / <sub>16</sub> " (354.0)  | 12 <sup>3</sup> / <sub>16</sub> " (309.6)  | 2" (50.8)                               |  |                                                                |                                                             |
| B3163-20 |                                  | 14 <sup>7</sup> / <sub>16</sub> " (366.7)  | 14" (355.6)                                | -- --                                       | 12 <sup>11</sup> / <sub>16</sub> " (322.3) | 2 <sup>1</sup> / <sub>2</sub> " (63.5)  |  |                                                                |                                                             |
| B3164-20 |                                  | 14 <sup>15</sup> / <sub>16</sub> " (379.4) | 14 <sup>9</sup> / <sub>16</sub> " (369.9)  | -- --                                       | 13 <sup>3</sup> / <sub>16</sub> " (350.8)  | 3" (76.2)                               |  |                                                                |                                                             |
| B3165-20 |                                  | 16 <sup>1</sup> / <sub>4</sub> " (412.7)   | 15 <sup>7</sup> / <sub>8</sub> " (403.2)   | -- --                                       | 14 <sup>1</sup> / <sub>4</sub> " (361.9)   | 4" (101.6)                              |  |                                                                |                                                             |
| B3161-24 | 24" (600)                        | 15 <sup>11</sup> / <sub>16</sub> " (398.5) | 15 <sup>5</sup> / <sub>16</sub> " (388.9)  | -- --                                       | 13 <sup>11</sup> / <sub>16</sub> " (347.7) | 1 <sup>1</sup> / <sub>2</sub> " (38.1)  |  |                                                                |                                                             |
| B3162-24 |                                  | 16 <sup>1</sup> / <sub>4</sub> " (412.8)   | 15 <sup>7</sup> / <sub>8</sub> " (403.2)   | -- --                                       | 14 <sup>3</sup> / <sub>16</sub> " (360.4)  | 2" (50.8)                               |  |                                                                |                                                             |
| B3163-24 |                                  | 16 <sup>3</sup> / <sub>4</sub> " (425.4)   | 16 <sup>5</sup> / <sub>16</sub> " (414.3)  | -- --                                       | 14 <sup>5</sup> / <sub>8</sub> " (377.8)   | 2 <sup>1</sup> / <sub>2</sub> " (63.5)  |  |                                                                |                                                             |
| B3164-24 |                                  | 17 <sup>3</sup> / <sub>8</sub> " (441.3)   | 16 <sup>7</sup> / <sub>8</sub> " (428.6)   | -- --                                       | 15 <sup>1</sup> / <sub>4</sub> " (387.3)   | 3" (76.2)                               |  |                                                                |                                                             |
| B3165-24 |                                  | 18 <sup>7</sup> / <sub>16</sub> " (468.3)  | 17 <sup>15</sup> / <sub>16</sub> " (455.6) | -- --                                       | 16 <sup>1</sup> / <sub>4</sub> " (412.7)   | 4" (101.6)                              |  |                                                                |                                                             |
| B3161-30 | 30" (750)                        | -- --                                      | 18 <sup>7</sup> / <sub>8</sub> " (479.4)   | -- --                                       | 16 <sup>11</sup> / <sub>16</sub> " (423.9) | 1 <sup>1</sup> / <sub>2</sub> " (38.1)  |  |                                                                |                                                             |
| B3162-30 |                                  | -- --                                      | 19 <sup>3</sup> / <sub>8</sub> " (492.1)   | -- --                                       | 17 <sup>3</sup> / <sub>16</sub> " (436.6)  | 2" (50.8)                               |  |                                                                |                                                             |
| B3163-30 |                                  | -- --                                      | 19 <sup>15</sup> / <sub>16</sub> " (506.4) | -- --                                       | 17 <sup>11</sup> / <sub>16</sub> " (449.3) | 2 <sup>1</sup> / <sub>2</sub> " (63.5)  |  |                                                                |                                                             |
| B3164-30 |                                  | -- --                                      | 20 <sup>1</sup> / <sub>2</sub> " (520.7)   | -- --                                       | 18 <sup>3</sup> / <sub>16</sub> " (462.0)  | 3" (76.2)                               |  |                                                                |                                                             |
| B3165-30 |                                  | -- --                                      | 21 <sup>1</sup> / <sub>2</sub> " (546.1)   | -- --                                       | 19 <sup>3</sup> / <sub>16</sub> " (487.4)  | 4" (101.6)                              |  |                                                                |                                                             |
| B3161-36 | 36" (900)                        | -- --                                      | 22 <sup>1</sup> / <sub>8</sub> " (562.0)   | -- --                                       | 19 <sup>11</sup> / <sub>16</sub> " (500.1) | 1 <sup>1</sup> / <sub>2</sub> " (38.1)  |  |                                                                |                                                             |
| B3162-36 |                                  | -- --                                      | 22 <sup>5</sup> / <sub>8</sub> " (574.7)   | -- --                                       | 20 <sup>3</sup> / <sub>16</sub> " (512.8)  | 2" (50.8)                               |  |                                                                |                                                             |
| B3163-36 |                                  | -- --                                      | 23 <sup>3</sup> / <sub>16</sub> " (589.0)  | -- --                                       | 20 <sup>11</sup> / <sub>16</sub> " (525.5) | 2 <sup>1</sup> / <sub>2</sub> " (63.5)  |  |                                                                |                                                             |
| B3164-36 |                                  | -- --                                      | 23 <sup>11</sup> / <sub>16</sub> " (601.7) | -- --                                       | 21 <sup>3</sup> / <sub>16</sub> " (538.2)  | 3" (76.2)                               |  |                                                                |                                                             |
| B3165-36 |                                  | -- --                                      | 24 <sup>11</sup> / <sub>16</sub> " (627.1) | -- --                                       | 22 <sup>3</sup> / <sub>16</sub> " (563.6)  | 4" (101.6)                              |  |                                                                |                                                             |

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.