## B3199R - Ceiling Flange B3199RCT - Ceiling Flange Dura-Copper Coated

Size Range: 3/8"-16 & 1/2"-13 rod

Material: Malleable Iron (Stainless Steel Type 304 available)

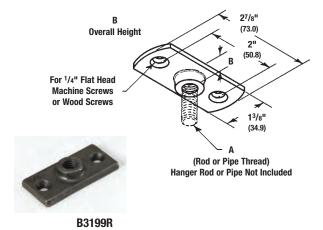
**Standard Finish:** Plain or Electro-Galvanized B3199RCT is DURA-COPPER™ coated

Function: Designed for attaching a hanger or support rod to

beams, ceilings, or walls.

Order By: Part number and finish.





(2 Holes)

| <b>B31</b> | 99 | R | CT |
|------------|----|---|----|
|            |    |   |    |

| Part No.   | Thread Size         |       | В      | Desig | n Load | Approx. | Wt./100 |
|--|---------------------|-------|--------|-------|--------|---------|---------|
|  | A                   | in.   | (mm)   | Lbs.  | (kN)   | Lbs.    | (kg)    |
| B3199R- <sup>3</sup> / <sub>8</sub> B3199RCT- <sup>3</sup> / | <sup>3</sup> /8"-16 | 7/16" | (11.1) | 180   | (.80)  | 13      | (5.9)   |
| B3199R-1/2 B3199RCT-1/                                       | <sup>1</sup> /2"-13 | 1/2"  | (12.7) | 180   | (.80)  | 17      | (7.7)   |

### Fig. 78 - All Steel Ceiling Plate

Size Range: 3/8"-16 rod

Material: Pre-Galvanized Steel

Function: Attachment to wood beams, ceilings, metal decks

or walls. Can also be welded to steel beams.

Approvals: Underwriters Laboratories Listed in the USA (UL) and Canada (cUL). Additionally, UL has listed the Fig. 78 with

fasteners as shown in the table below.

Finish: Plain. Contact B-Line for alternative finishes and

materials.

Order By: Part number, rod size and finish

US Patent #5,702,077



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|               |      | UL Listed Fastener Table  |                          |
|---------------|------|---|--------------------------|
| Pipe Size     | Qty  | Fastener Type   | Material                 |
| 1/2" - 2"     | 2    | #14 x 1 <sup>1</sup> / <sub>4</sub> " A-point hex-washer-head sheet metal screw | Wood                     |
| 21/2" - 4"    | 2    | 1/4" x 11/2" wood screws*   | Wood                     |
| 1/2" - 2"     | 2    | <sup>1</sup> /4" x 1" tek screws  | Metal (18 gauge)         |
| 1/2" - 2"     | 2    | #14 x 1 <sup>1</sup> / <sub>4</sub> " A-point hex-washer-head sheet metal screw | Wood                     |
| 1/2" - 2"     | 2    | #14 x 2" A-point-hex-washer-head sheet metal screw                              | Wood thru 5/8" gyp board |
| * No pre-dril | lina |   |                          |

| Part No.       | Pip       | e Size    | F   |        |       | 3      |                    |             | Hole D            | Dia. D | Thread Size         | Desig | n Load | Approx. | Wt./100 |
|----------------|-----------|-----------|-----|--------|-------|--------|--------------------|-------------|-------------------|--------|---------------------|-------|--------|---------|---------|
|                | in.       | (mm)      | in. | (mm)   | in.   | (mm)   | in.                | (mm)        | in.               | (mm)   | E                   | Lbs.  | (kN)   | Lbs.    | (kg)    |
| <b>78-</b> 3/8 | 1/2" - 2" | (15 - 60) | 3"  | (76.2) | 21/8" | (54.0) | 1 <sup>1</sup> /8" | (28.6)      | <sup>5</sup> /16" | (7.9)  | <sup>3</sup> /8"-16 | 150*  | (0.67) | 15      | (6.8)   |
|                |           |           |     |        |       |        | Consi              | ılt Factory | / For Data        | a —    |                     |       |        |         |         |



## **B3060L - Light Duty Angle Clip**

Size Range: 3/8"-16 rod

Material: Steel (Stainless steel available)

Function: Designed for attaching 3/8"-16 hanger rod to the

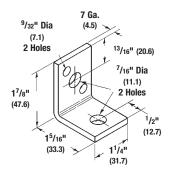
side of beams or walls.

**Approvals:** Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 35 and Manufacturers Standardization Society

ANSI/MSS SP-69 & SP-58, Type 34. Finish: Plain or Electro-Galvanized Order By: number and finish. Design Load: 300 Lbs. (1.33kN)

Weight: Approx. Wt./100 - 15 Lbs. (6.8 kg)





### B3070 - Reversible Angle Clip (TOLCO Fig. 52)

Size Range: 3/8"-16 and 1/2"-13 rod, 1/2" (15mm) thru 31/2" (90mm) pipe

Material: Steel

**Function:** Designed for attaching hanger rod to the side of beams or walls. **Approvals:** Conforms to Federal Specification WW-H-171E & A-A-1192A,

Type 35 and Manufacturers Standardization Society ANSI/MSS SP-69 &

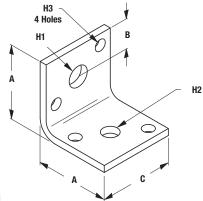
SP-58, Type 34.

**Finish:** Plain or Electro-Galvanized **Order By:** number and finish.

Design Load: 500 Lbs. (2.22 kN) when installed in either direction.

Weight: Approx. Wt./100 - 49 Lbs. (22.2 kg)





|               | Rod Size  |     | A      | E      | 3      |     | C      | Но    | le 1   | Но    | le 2   | Но                | le 3  | Max. Re | c. Load | Approx. | Wt./100 |
|---------------|---|-----|--------|--------|--------|-----|--------|-------|--------|-------|--------|-------------------|-------|---------|---------|---------|---------|
| Part No.      |   | in. | (mm)   | in.    | (mm)   | in. | (mm)   | in.   | (mm)   | in.   | (mm)   | in.               | (mm)  | Lbs.    | (kN)    | Lbs.    | (kg)    |
| B3070-3/8x1/2 | <sup>3</sup> / <sub>8</sub> "-16 x <sup>1</sup> / <sub>2</sub> "-13 | 2"  | (50.8) | 13/16" | (20.6) | 2"  | (50.8) | 9/16" | (14.3) | 7/16" | (11.1) | <sup>5</sup> /16" | (7.9) | 700     | (3.11)  | 35      | (15.9)  |
| B3070-1/2x1/2 | <sup>1</sup> /2"-13 x <sup>1</sup> /2"-13                           | 2"  | (50.8) | 3/4"   | (19.0) | 2"  | (50.8) | 9/16" | (14.3) | 9/16" | (14.3) | 5/16"             | (7.9) | 700     | (3.11)  | 34      | (15.4)  |



## **B3060 - Side Beam Angle Clip**

Size Range: 3/8"-16 and 7/8"-9 rod

Material: Steel (Stainless steel available)

Function: Designed for attaching a hanger rod to to the side of beams or

walls.

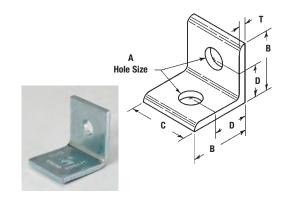
**Approvals:** Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 35 and Manufacturers Standardization Society ANSI/MSS SP-69 &

SP-58, Type 34.

Finish: Plain or Electro-Galvanized. Contact B-Line for alternative

finishes and materials.

Order By: Part number and finish.



|                                    | Hole S             | Size A |                     | В       |     | C       |                    | D      |      | T     | Desig | n Load | Appro | x. Wt./100 |
|------------------------------------|--------------------|--------|---------------------|---------|-----|---------|--------------------|--------|------|-------|-------|--------|-------|------------|
| Part No.                           | in.                | (mm)   | in.                 | (mm)    | in. | (mm)    | in.                | (mm)   | in.  | (mm)  | Lbs.  | (kN)   | Lbs.  | (kg)       |
| B3060-3/8                          | <sup>7</sup> /16"  | (11.1) | 2 <sup>3</sup> /16" | (55.6)  | 2"  | (50.8)  | 1 <sup>1</sup> /4" | (31.7) | 1/4" | (6.3) | 305   | (1.35) | 53    | (24.0)     |
| B3060-1/2                          | <sup>9</sup> /16"  | (14.3) | 2 <sup>3</sup> /16" | (55.6)  | 2"  | (50.8)  | 1 <sup>1</sup> /4" | (31.7) | 1/4" | (6.3) | 565   | (2.51) | 51    | (23.1)     |
| B3060-5/8                          | <sup>11</sup> /16" | (17.5) | 2 <sup>3</sup> /16" | (55.6)  | 2"  | (50.8)  | 1 <sup>1</sup> /4" | (31.7) | 1/4" | (6.3) | 909   | (4.02) | 48    | (21.8)     |
| B3060- <sup>3</sup> / <sub>4</sub> | 13/16"             | (20.6) | 3"                  | (76.2)  | 3"  | (76.2)  | 13/4"              | (44.4) | 3/8" | (9.5) | 1355  | (6.03) | 169   | (74.8)     |
| B3060-7/8                          | <sup>15</sup> /16" | (23.8) | 4"                  | (101.6) | 4"  | (101.6) | 21/2"              | (63.5) | 3/8" | (9.5) | 1870  | (8.32) | 312   | (141.5)    |

## Fig. 51 - Side Beam Bracket for NFPA Rod & Fastener Sizing

**Size Range:** 3/8"-16 thru 1/2"-13 rod, 1/2" (15mm) thru 8" pipe (200mm)

Material: Steel

**Function:** Recommended for attaching hanger rod to side of beams or walls. Designed to accommodate current rod schedule and fastener requirements per

National Fire Protection Association (NFPA) Pamphlet 13.

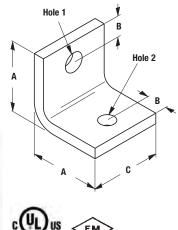
Approvals: Underwriters Laboratories Listed in the USA (UL) and

Canada (cUL), and Factory Mutual Engineering approved.

Finish: Plain. Contact B-Line for alternative finishes and materials.

Order By: Part number, rod size and finish







| Part No.               | Pipo                    | e Size      | Rod                 | 1     | A      |      | В      | (     |        | Ho                | le 1   | Hol               | e 2    | Desig | n Load | Approx. | Wt./100 |
|------------------------|-------------------------|-------------|---------------------|-------|--------|------|--------|-------|--------|-------------------|--------|-------------------|--------|-------|--------|---------|---------|
|                        | in.                     | (mm)        | Size                | in.   | (mm)   | in.  | (mm)   | in.   | (mm)   | in.               | (mm)   | in.               | (mm)   | Lbs.  | (kN)   | Lbs.    | (kg)    |
| 51- <sup>1</sup> /2-2  | <sup>1</sup> /2" - 2"   | (15 - 60)   | <sup>3</sup> /8"-16 | 2"    | (50.8) | 3/4" | (19.0) | 2"    | (50.8) | 7/16"             | (11.1) | <sup>7</sup> /16" | (11.1) | 700   | (3.11) | 35      | (15.9)  |
| 51-2 <sup>1</sup> /2-4 | 2 <sup>1</sup> /2" - 4" | (65 - 100)  | <sup>3</sup> /8"-16 | 2"    | (50.8) | 3/4" | (19.0) | 2"    | (50.8) | <sup>9</sup> /16" | (14.3) | 7/16"             | (11.1) | 700   | (3.11) | 34      | (15.4)  |
| 51-5-6                 | 5" - 6"                 | (125 - 150) | <sup>1</sup> /2"-13 | 21/2" | (63.5) | 3/4" | (19.0) | 21/2" | (63.5) | <sup>9</sup> /16" | (14.3) | <sup>9</sup> /16" | (14.3) | 1250  | (5.56) | 71      | (32.2)  |
| 51-8                   | 8"                      | (200)       | 1/2"-13             | 21/2" | (63.5) | 3/4" | (19.0) | 21/2" | (63.5) | 11/16"            | (17.5) | 9/16"             | (14.3) | 1250  | (5.56) | 70      | (31.7)  |



### Fig. 50 - Side Beam Bracket for NFPA Rod & Fastener Sizing

Size Range: 3/8"-16 thru 7/8"-9 rod

Material: Steel

Function: Recommended for attaching hanger rod to side of beams

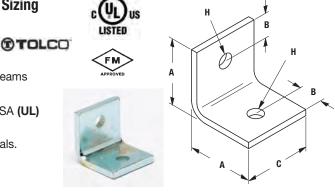
or walls.

Approvals: 3/8"-16 - Underwriters Laboratories Listed in the USA (UL)

and Canada (cUL), and Factory Mutual Engineering approved.

Finish: Plain. Contact B-Line for alternative finishes and materials.

Order By: Part number, rod size and finish



| Part No.       | Rod                 | Į.    | ١      |      | В      |       | C      | Hole : | Size H | Max. Re | ec. Load | Approx. | Wt./100 |
|----------------|---------------------|-------|--------|------|--------|-------|--------|--------|--------|---------|----------|---------|---------|
|                | Size                | in.   | (mm)   | in.  | (mm)   | in.   | (mm)   | in.    | (mm)   | Lbs.    | (kN)     | Lbs.    | (kg)    |
| <b>50-</b> 3/8 | <sup>3</sup> /8"-16 | 2"    | (50.8) | 3/4" | (19.0) | 2"    | (50.8) | 7/16"  | (11.1) | 700     | (3.22)   | 35      | (15.9)  |
| <b>50-</b> 1/2 | <sup>1</sup> /2"-13 | 2"    | (50.8) | 3/4" | (19.0) | 2"    | (50.8) | 9/16"  | (14.3) | 700     | (3.22)   | 35      | (15.9)  |
| <b>50-</b> 5/8 | <sup>5</sup> /8"-11 | 2"    | (50.8) | 3/4" | (19.0) | 2"    | (50.8) | 11/16" | (17.5) | 700     | (3.22)   | 32      | (14.5)  |
| <b>50-</b> 3/4 | <sup>3</sup> /4"-10 | 21/2" | (63.5) | 3/4" | (19.0) | 21/2" | (63.5) | 13/16" | (20.6) | 1250    | (5.56)   | 110     | (49.9)  |
| <b>50-</b> 7/8 | 7/8"-9              | 21/2" | (63.5) | 3/4" | (19.0) | 21/2" | (63.5) | 15/16" | (23.8) | 1250    | (5.56)   | 100     | (45.3)  |

#### B3061 - Angle Bracket (TOLCO Fig. 42)

Material: Steel

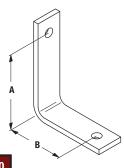
Function: — Recommended for supporting pipe at various

distances from wall or column.

Finish: Plain. Contact B-Line for alternative finishes and materials.

Order By: Part number and finish





| Part No. | Size | ı    | 4       |     | В      | Hole  | Size   | Max. R | ec. Load | Approx. | Wt./100 |
|----------|------|------|---------|-----|--------|-------|--------|--------|----------|---------|---------|
|          | in.  | (mm) | Size    | in. | (mm)   | in.   | (mm)   | Lbs.   | (kN)     | Lbs.    | (kg)    |
| B3061-1  | 1    | 3"   | (76.2)  | 2"  | (50.8) | 7/16" | (11.1) | 180    | (0.80)   | 46      | (20.8)  |
| B3061-2  | 2    | 4"   | (101.6) | 3"  | (76.1) | 7/16" | (11.1) | 180    | (0.80)   | 65      | (29.5)  |
| B3061-3  | 3    | 3"   | (76.2)  | 2"  | (50.8) | 9/16" | (14.3) | 390    | (1.73)   | 85      | (38.5)  |
| B3061-4  | 4    | 4"   | (101.6) | 3"  | (76.1) | 9/16" | (14.3) | 390    | (1.73)   | 115     | (52.1)  |

#### Fig. 56 - Tapped Side Beam Connector (Stainless Steel)

Size Range: 1/2" (15mm) thru 4" (100mm) pipe (3/8"-16 rod)

Material: Stainless Steel

Function: Recommended for attaching hanger rod to steel or wood

beams. Tapped hole allows easy adjustment of hanger rod.

**Approvals:** Underwriters Laboratories Listed in the USA **(UL)** and Canada **(cUL)**, and Factory Mutual Engineering approved for

<sup>1</sup>/2" (15mm) thru 4" (100mm) pipe.

Weight: Approx. Wt./100 - 20.0 Lbs. (9.1kg)

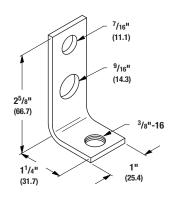
Order By: Part number

Note: Available only in Stainless Steel materials.

**Per NFPA 13:** 1/2" (15mm) thru 2" (50mm) pipe use 3/8"-16 fastener;

 $2^{1/2}$ " (65mm) thru 4" (100mm) pipe, use  $^{1/2}$ "-13 fastener.





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

## Fig. 58 - Threaded Side Beam Bracket

**Size Range:** 3/8"-16 rod, pipe sizes 1/2" (15mm) thru 4" (100mm)

Material: Pre-Galvanized Steel

Function: Practical and economical bracket used to support piping from wood, con-

crete or steel beams.

**Features:** Unique design allows rod to be easily threaded into bracket. Offset design permits unlimited rod adjustment. Center mounting hole will accept  $^3/8$ " and  $^1/2$ " fastener bolts. Per NFPA 13:  $^1/2$ " (15mm) thru 2" (50mm) pipe requires  $^3/8$ " fastener,  $^1/2$ " (65mm) thru 4" (100mm) pipe requires  $^1/2$ " fastener.\*

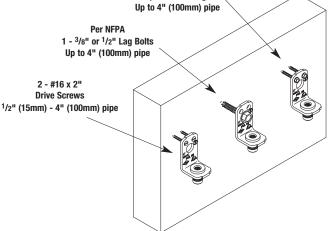
**Approvals:** Underwriters Laboratories Listed in the USA **(UL)** and Canada **(cUL)**, and Factory Mutual Engineering approved thru 4" (100mm) pipe.

Finish: Pre-Galvanized

Order By: Part number and finish

\*Note: Additionally UL has listed the Fig. 58 with fasteners as shown in table below.





2 - 1/4" x 2" Lag Bolts

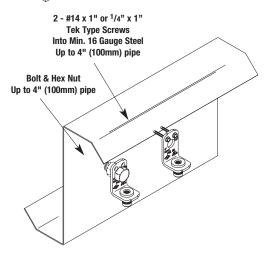
(No Pre-Drilling

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| UL Listed Fastener Table  Pipe Size   Qty   Fastener Type   Material |   |   |  |  |  |  |  |  |  |  |  |  |
|--|---|---|--|--|--|--|--|--|--|--|--|--|
| Qty  | Fastener Type                                   | Material  |  |  |  |  |  |  |  |  |  |  |
| 2  | #16 x 2" Drive screws                           | Wood  |  |  |  |  |  |  |  |  |  |  |
| 2" 1 3/8" Lag bolt Wood 21/2" - 4" 1 1/2" Lag bolt Wood              |   |   |  |  |  |  |  |  |  |  |  |  |
| 1  | <sup>1</sup> /2" Lag bolt                       | Wood  |  |  |  |  |  |  |  |  |  |  |
| 2  | <sup>1</sup> /4" x 1 <sup>1</sup> /2" Lag bolts | Wood  |  |  |  |  |  |  |  |  |  |  |
| 2  | 1/4" x 2" Lag bolts **                          | Wood  |  |  |  |  |  |  |  |  |  |  |
| 2  | #14 x 1" or 1/4" x 1" Tek type screws           | Metal (15 gauge)  |  |  |  |  |  |  |  |  |  |  |
| 2  | #14 x 1" or 1/4" x 1" Tek type screws           | Metal (16 gauge)  |  |  |  |  |  |  |  |  |  |  |
|  | 2<br>1<br>1<br>2<br>2<br>2                      | Qty         Fastener Type           2         #16 x 2" Drive screws           1         3/8" Lag bolt           1         1/2" Lag bolt           2         1/4" x 11/2" Lag bolts           2         1/4" x 2" Lag bolts **           2         #14 x 1" or 1/4" x 1" Tek type screws |  |  |  |  |  |  |  |  |  |  |



| Part No. | Pipe      | e Size     | Rod                 |       | A      |                    | В      | (                  | ;      | Max. Re | c. Load | Approx. | Wt./100 |
|----------|-----------|------------|---------------------|-------|--------|--------------------|--------|--------------------|--------|---------|---------|---------|---------|
|          | in.       | (mm)       | Size                | in.   | (mm)   | in.                | (mm)   | in.                | (mm)   | Lbs.    | (kN)    | Lbs.    | (kg)    |
| 58       | 1/2" - 4" | (15 - 100) | <sup>3</sup> /8"-16 | 23/4" | (69.8) | 1 <sup>1</sup> /2" | (38.1) | 1 <sup>1</sup> /8" | (28.6) | 300***  | (1.33)  | 14      | (6.3)   |

<sup>\*\*\*</sup> With Safety Factor of 5.

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



#### **B3058 - Side Beam Connector**

Size Range: 3/8"-16 & 1/2"13 rods

Material: Malleable Iron

Function: Designed for attaching hanger rod to the side of

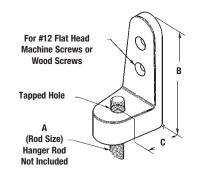
beams or walls.

**Approvals:** Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 35 and Manufacturers Standardization

Society ANSI/MSS SP-69 & SP-58, Type 34.

**Finish:** Plain or Electro-Galvanized **Order By:** Part number and finish.





|                        | Rod Size            |       | В      |                   | C      | Desig | gn Load | Appro | x. Wt./100 |
|------------------------|---------------------|-------|--------|-------------------|--------|-------|---------|-------|------------|
| Part No.               | A                   | in.   | (mm)   | in.               | (mm)   | Lbs.  | (kN)    | Lbs.  | (kg)       |
| B3058- <sup>3</sup> /8 | <sup>3</sup> /8"-16 | 23/8" | (60.3) | <sup>9</sup> /16" | (14.3) | 250   | (1.11)  | 13    | (5.9)      |
| B3058-1/2              | <sup>1</sup> /2"-13 | 23/4" | (69.8) | 3/4"              | (19.0) | 480   | (2.13)  | 25    | (11.3)     |

#### **B3062 - Side Beam Bracket**

Size Range: 3/8"-16 thru 5/8"11 rods

Material: Malleable Iron

Function: Designed for attaching hanger rod to the side

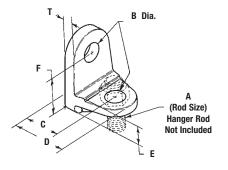
of beams or walls.

**Approvals:** Conforms to Federal Specification WW-H-171E & A-A-1192A, Type 35 and Manufacturers Standardization Society ANSI/MSS SP-69 & SP-58,

Type 34.

**Finish:** Plain or Electro-Galvanized **Order By:** Part number and finish.





|                        | Rod Size            |             | ominal<br>Sizes | Design Load<br>With Lag Screw With Bolt To Steel |        |      |        |      | Approx. Wt./100 |  |  |
|------------------------|---------------------|-------------|-----------------|--|--------|------|--------|------|-----------------|--|--|
| Part No.               | A                   | in.         | (mm)            | Lbs.   | (kN)   | Lbs. | (kN)   | Lbs. | (kg)            |  |  |
| B3062- <sup>3</sup> /8 | <sup>3</sup> /8"-16 | 3/4"-2"     | (20-50)         | 390  | (1.73) | 730  | (3.25) | 21   | (9.5)           |  |  |
| B3062-1/2              | <sup>1</sup> /2"-13 | 21/2"-31/2" | (65-95)         | 640  | (2.84) | 1350 | (6.00) | 44   | (19.9)          |  |  |
| B3062-5/8              | <sup>5</sup> /8"-11 | 4"-5"       | (100-125)       | 760  | (3.38) | 2160 | (9.71) | 81   | (36.7)          |  |  |

| Part No.  | В                 |        | C                   |        | D                    |        | E    |        | F                   |        | T                 |        |
|-----------|-------------------|--------|---------------------|--------|----------------------|--------|------|--------|---------------------|--------|-------------------|--------|
|           | in.               | (mm)   | in.                 | (mm)   | in.                  | (mm)   | in.  | (mm)   | in.                 | (mm)   | in.               | (mm)   |
| B3062-3/8 | <sup>7</sup> /16" | (11.1) | 7/8"                | (22.2) | 1 <sup>3</sup> /8"   | (34.9) | 5/8" | (15.9) | 1 <sup>7</sup> /16" | (36.5) | 1/4"              | (6.3)  |
| B3062-1/2 | 9/16"             | (14.3) | <b>1</b> 3/16"      | (30.2) | 1 <sup>13</sup> /16" | (46.0) | 3/4" | (19.0) | 1 <sup>7</sup> /8"  | (47.6) | 11/32"            | (8.7)  |
| B3062-5/8 | 3/4"              | (19.0) | 1 <sup>7</sup> /16" | (36.5) | 2 <sup>3</sup> /16"  | (55.6) | 7/8" | (22.2) | 21/4"               | (54.0) | <sup>7</sup> /16" | (11.1) |

