

# BJ

Low Flow

## DESIGN FEATURES

- Three-piece construction
- Interchangeable spray tips
- Integral strainer available (refer to page 119 for more information)
- Male and female connections

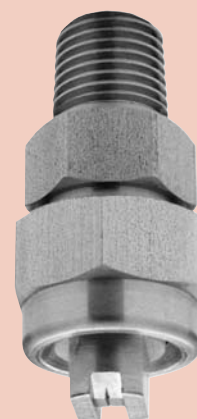
## SPRAY CHARACTERISTICS

- Relatively coarse atomization
- Uniform distribution with tapered edges for use in overlapping sprays

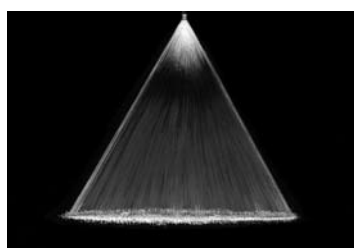
**Spray pattern:** Flat Fan

**Spray angles:** 0° to 110°

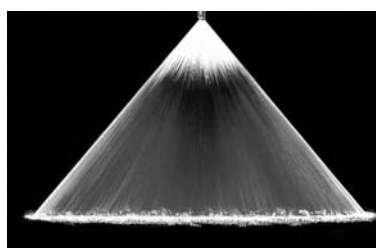
**Flow rate:** 0.084 to 101 l/min



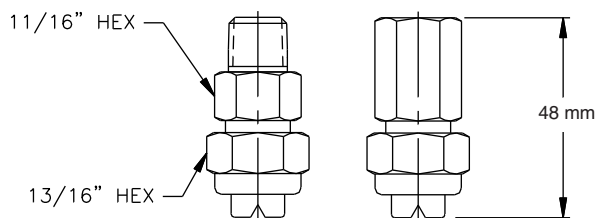
Metal



Fan 50°



Fan 80°



Dimensions are approximate. Check with BETE for critical dimension applications.

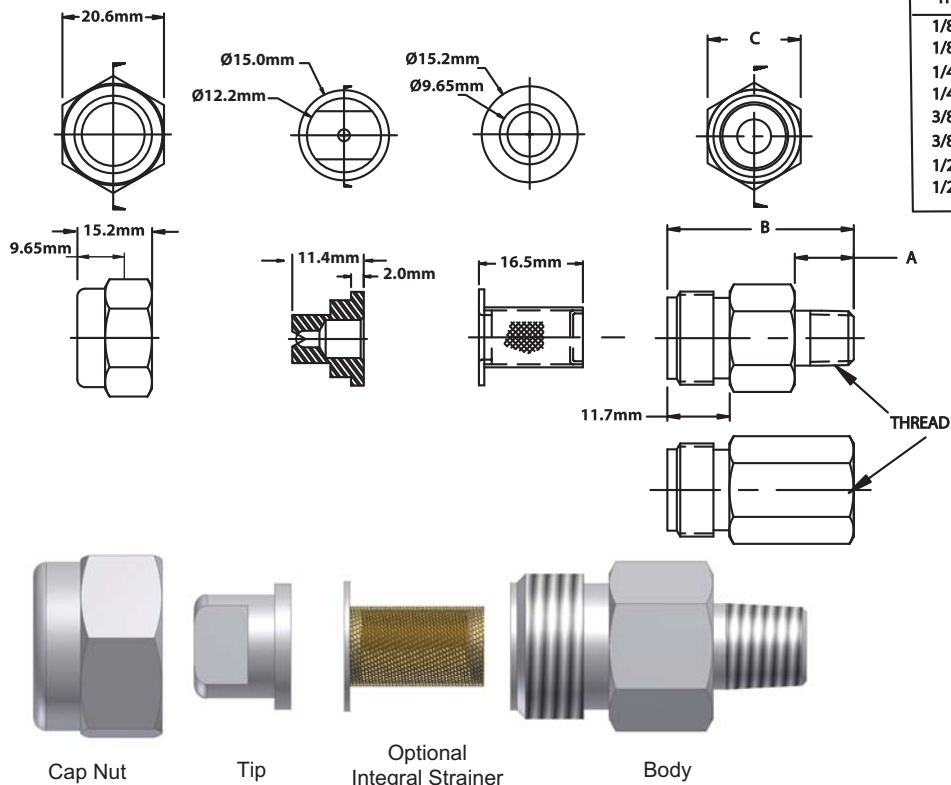
## BJ Dimensions

Fan, 0° to 110° Spray Angles, 1/8", 1/4" and 3/8" Pipe Size, Male and Female

| Pipe Size | Nozzle Number | Flow Rate @ 3 bar | Available Spray Angle |     |     |     |     |     |     |     |     |      | Optional Strainer Mesh Size | Wt. (g) |
|-----------|---------------|-------------------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|-----------------------------|---------|
|           |               |                   | 0°                    | 15° | 25° | 40° | 50° | 65° | 73° | 80° | 95° | 110° |                             |         |
| 1/8"      | BJ 0067       | 0.26              | 0°                    | 15° | 25° | 40° | 50° | 65° |     |     |     |      | 100                         | 28      |
|           | BJ 0077       | 0.3               |                       |     |     |     |     |     | 73° |     |     |      |                             |         |
|           | BJ 01         | 0.39              | 0°                    | 15° | 25° | 40° | 50° | 65° |     | 80° | 95° | 110° |                             |         |
|           | BJ 0116       | 0.46              |                       |     |     |     |     |     | 73° |     |     |      |                             |         |
| OR        | BJ 015        | 0.59              | 0°                    | 15° | 25° | 40° | 50° | 65° |     | 80° | 95° | 110° | 50                          | 28      |
|           | BJ 0154       | 0.61              |                       |     |     |     |     |     | 73° |     |     |      |                             |         |
|           | BJ 02         | 0.79              | 0°                    | 15° | 25° | 40° | 50° | 65° |     | 80° | 95° | 110° |                             |         |
|           | BJ 0231       | 0.91              |                       |     |     |     |     |     | 73° |     |     |      |                             |         |
| 1/4"      | BJ 03         | 1.81              | 0°                    | 15° | 25° | 40° | 50° | 65° |     | 80° | 95° | 110° |                             |         |
|           | BJ 0308       | 1.22              |                       |     |     |     |     |     | 73° |     |     |      |                             |         |
|           | BJ 0385       | 1.52              |                       |     |     |     |     |     | 73° |     |     |      |                             |         |
|           | BJ 04         | 1.58              | 0°                    | 15° | 25° | 40° | 50° | 65° |     | 80° | 95° | 110° |                             |         |
| OR        | BJ 0462       | 1.82              |                       |     |     |     |     |     | 73° |     |     |      |                             |         |
|           | BJ 05         | 1.97              | 0°                    | 15° | 25° | 40° | 50° | 65° |     | 80° | 95° | 110° |                             |         |
|           | BJ 06         | 2.37              | 0°                    | 15° | 25° | 40° | 50° | 65° |     | 80° | 95° | 110° |                             |         |
|           | BJ 0616       | 2.43              |                       |     |     |     |     |     | 73° |     |     |      |                             |         |
| 3/8"      | BJ 077        | 3.04              |                       |     |     |     |     |     | 73° |     |     |      |                             |         |
|           | BJ 08         | 3.16              | 0°                    | 15° | 25° | 40° | 50° | 65° |     | 80° | 95° | 110° |                             |         |
|           | BJ 0924       | 3.65              |                       |     |     |     |     |     | 73° |     |     |      |                             |         |
|           | BJ 10         | 3.95              | 0°                    | 15° | 25° | 40° | 50° | 65° |     | 80° | 95° | 110° |                             |         |
| 1/2"      | BJ 15         | 5.92              | 0°                    | 15° | 25° | 40° | 50° | 65° |     | 80° | 95° | 110° |                             |         |
|           |               |                   |                       |     |     |     |     |     |     |     |     |      |                             |         |
|           |               |                   |                       |     |     |     |     |     |     |     |     |      |                             |         |
|           |               |                   |                       |     |     |     |     |     |     |     |     |      |                             |         |
| 3/8"      | BJ 20         | 7.89              | 0°                    | 15° | 25° | 40° | 50° | 65° |     | 80° | 95° | 110° | 50                          | 28      |
|           | BJ 30         | 11.8              | 0°                    | 15° | 25° | 40° | 50° | 65° |     | 80° | 95° | 110° |                             |         |
|           | BJ 40         | 15.8              | 0°                    | 15° | 25° | 40° | 50° | 65° |     | 80° | 95° | 110° |                             |         |
|           | BJ 50         | 19.7              |                       | 15° | 25° | 40° | 50° | 65° |     | 80° | 95° | 110° |                             |         |
| OR        | BJ 60         | 23.7              |                       | 15° | 25° | 40° | 50° | 65° |     | 80° | 95° | 110° |                             |         |
|           | BJ 70         | 27.6              |                       | 15° | 25° | 40° | 50° | 65° |     | 80° | 95° | 110° |                             |         |
|           |               |                   |                       |     |     |     |     |     |     |     |     |      |                             |         |
|           |               |                   |                       |     |     |     |     |     |     |     |     |      |                             |         |

Spray angle performance varies with pressure. Contact BETE for specific data on critical applications.

TO ORDER: specify pipe size, connection type, nozzle number, spray angle, and material.



| THREAD    | A    | B    | C      |
|-----------|------|------|--------|
| 1/8" MALE | 11.2 | 35.1 | 11/16" |
| 1/8" FEM  | N/A  | 35.1 | 11/16" |
| 1/4" MALE | 14.2 | 35.1 | 11/16" |
| 1/4" FEM  | N/A  | 35.1 | 11/16" |
| 3/8" MALE | 14.2 | 35.1 | 11/16" |
| 3/8" FEM  | N/A  | 35.1 | 13/16" |
| 1/2" MALE | 15.7 | 35.1 | 7/8"   |
| 1/2" FEM  | N/A  | 35.1 | 1 1/8" |

Dimensions in mm,  
C-Hex sizes in inches



Dimensions are approximate. Check with BETE for critical dimension applications.

### BJ Flow Rates

Fan, 0°, 15°, 25°, 40°, 50°, 65°, 73°, 80°, 95°, 110° Spray Angles, 1/8", 1/4" and 3/8" Pipe Size, Male and Female

| Pipe Size | Nozzle Number | Equiv. Orifice Dia. (mm) | K Factor | LITERS PER MINUTE @ BAR |         |         |       |       |       |        |        |        |        |
|-----------|---------------|--------------------------|----------|-------------------------|---------|---------|-------|-------|-------|--------|--------|--------|--------|
|           |               |                          |          | 0.3 bar                 | 0.5 bar | 0.7 bar | 2 bar | 4 bar | 5 bar | 10 bar | 20 bar | 30 bar | 40 bar |
| 1/8"      | BJ 0067       | 0.58                     | 0.153    | 0.084                   | 0.11    | 0.13    | 0.22  | 0.31  | 0.34  | 0.48   | 0.68   | 0.84   | 0.97   |
|           | BJ 0077       | 0.58                     | 0.175    | 0.096                   | 0.12    | 0.15    | 0.25  | 0.35  | 0.39  | 0.55   | 0.78   | 0.96   | 1.11   |
|           | BJ 01         | 0.71                     | 0.228    | 0.12                    | 0.16    | 0.19    | 0.32  | 0.46  | 0.51  | 0.72   | 1.02   | 1.25   | 1.44   |
|           | OR BJ 0116    | 0.91                     | 0.264    | 0.14                    | 0.19    | 0.22    | 0.37  | 0.53  | 0.59  | 0.84   | 1.18   | 1.45   | 1.67   |
| 1/4"      | BJ 015        | 0.97                     | 0.342    | 0.19                    | 0.24    | 0.29    | 0.48  | 0.68  | 0.76  | 1.08   | 1.53   | 1.87   | 2.16   |
|           | BJ 0154       | 0.84                     | 0.351    | 0.19                    | 0.25    | 0.29    | 0.50  | 0.70  | 0.78  | 1.11   | 1.57   | 1.92   | 2.22   |
|           | BJ 02         | 0.99                     | 0.456    | 0.25                    | 0.32    | 0.38    | 0.64  | 0.91  | 1.02  | 1.44   | 2.04   | 2.50   | 2.88   |
|           | OR BJ 0231    | 1.02                     | 0.526    | 0.29                    | 0.37    | 0.44    | 0.74  | 1.05  | 1.18  | 1.66   | 2.35   | 2.88   | 3.33   |
| 3/8"      | BJ 03         | 1.19                     | 0.684    | 0.37                    | 0.48    | 0.57    | 0.97  | 1.37  | 1.53  | 2.16   | 3.06   | 3.74   | 4.32   |
|           | BJ 0308       | 1.19                     | 0.702    | 0.38                    | 0.50    | 0.59    | 0.99  | 1.40  | 1.57  | 2.22   | 3.14   | 3.84   | 4.44   |
|           | BJ 0385       | 1.30                     | 0.877    | 0.48                    | 0.62    | 0.73    | 1.24  | 1.75  | 1.96  | 2.77   | 3.92   | 4.81   | 5.55   |
|           | OR BJ 04      | 1.40                     | 0.912    | 0.50                    | 0.64    | 0.76    | 1.29  | 1.82  | 2.04  | 2.88   | 4.08   | 4.99   | 5.77   |
| 1/2"      | BJ 0462       | 1.42                     | 1.053    | 0.58                    | 0.74    | 0.88    | 1.49  | 2.11  | 2.35  | 3.33   | 4.71   | 5.77   | 6.66   |
|           | BJ 05         | 1.55                     | 1.139    | 0.62                    | 0.81    | 0.95    | 1.61  | 2.28  | 2.55  | 3.60   | 5.10   | 6.24   | 7.21   |
|           | OR BJ 06      | 1.70                     | 1.367    | 0.75                    | 0.97    | 1.14    | 1.93  | 2.73  | 3.06  | 4.32   | 6.11   | 7.49   | 8.65   |
|           | BJ 0616       | 1.70                     | 1.404    | 0.77                    | 0.99    | 1.17    | 1.99  | 2.81  | 3.14  | 4.44   | 6.28   | 7.69   | 8.88   |
| 3/8"      | BJ 077        | 1.83                     | 1.755    | 0.96                    | 1.24    | 1.47    | 2.48  | 3.51  | 3.92  | 5.55   | 7.85   | 9.61   | 11.1   |
|           | BJ 08         | 1.88                     | 1.823    | 1.00                    | 1.29    | 1.53    | 2.58  | 3.65  | 4.08  | 5.77   | 8.15   | 9.99   | 11.5   |
|           | OR BJ 0924    | 1.98                     | 2.106    | 1.15                    | 1.49    | 1.76    | 2.98  | 4.21  | 4.71  | 6.66   | 9.42   | 11.5   | 13.3   |
|           | BJ 10         | 2.18                     | 2.279    | 1.25                    | 1.61    | 1.91    | 3.22  | 4.56  | 5.10  | 7.21   | 10.2   | 12.5   | 14.4   |
| 1/2"      | BJ 15         | 2.72                     | 3.418    | 1.87                    | 2.42    | 2.86    | 4.83  | 6.84  | 7.64  | 10.8   | 15.3   | 18.7   | 21.6   |
|           | BJ 20         | 3.18                     | 4.558    | 2.50                    | 3.22    | 3.81    | 6.45  | 9.12  | 10.2  | 14.4   | 20.4   | 25.0   | 28.8   |
|           | OR BJ 30      | 3.67                     | 6.837    | 3.74                    | 4.83    | 5.72    | 9.67  | 13.7  | 15.3  | 21.6   | 30.6   | 37.4   | 43.2   |
|           | BJ 40         | 3.97                     | 9.116    | 4.99                    | 6.45    | 7.63    | 12.9  | 18.2  | 20.4  | 28.8   | 40.8   | 49.9   | 57.7   |
| 3/8"      | BJ 50         | 4.37                     | 11.394   | 6.24                    | 8.06    | 9.53    | 16.1  | 22.8  | 25.5  | 36.0   | 51.0   | 62.4   | 72.1   |
|           | OR BJ 60      | 4.76                     | 13.673   | 7.49                    | 9.67    | 11.4    | 19.3  | 27.3  | 30.6  | 43.2   | 61.1   | 74.9   | 86.5   |
| 1/2"      | BJ 70         | 5.16                     | 15.952   | 8.74                    | 11.3    | 13.3    | 22.6  | 31.9  | 35.7  | 50.4   | 71.3   | 87.4   | 101    |

$$\text{Flow Rate (l/min)} = K \sqrt{\text{bar}}$$

Standard Materials: Brass, 303 Stainless Steel, and 316 Stainless Steel (for nozzle number BJ01 and higher).

Spray angle performance varies with pressure. Contact BETE for specific data on critical applications.



FAN

CALL 413-772-0846  
Call for the name of your nearest BETE representative.