

# SC

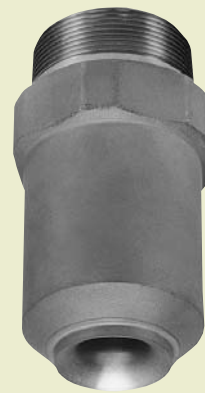
## Metal Alloy Line

### DESIGN FEATURES

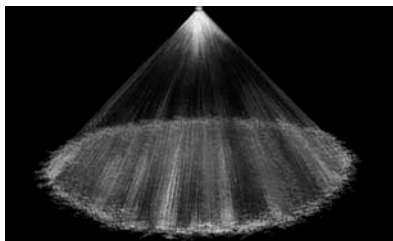
- Complete line of full cone nozzles made in cast metal alloys
- Internal removable vane
- Male and female connections
- Flanged connections available
- For plastic nozzles, see NC (pp. 30, 31), or MaxiPass (pp. 38, 39)

### SPRAY CHARACTERISTICS

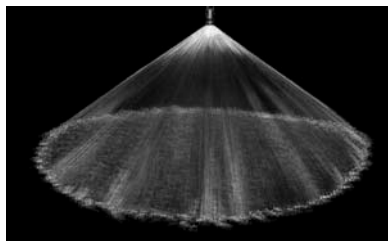
- **Spray pattern:** Full Cone with uniform distribution. For square spray patterns, please contact BETE.
- **Spray angles:** 60°, 90°, and 120°
- **Flow rates:** 6.25 to 8180 l/min



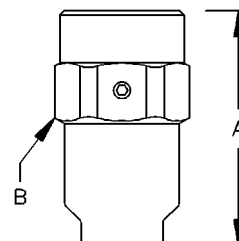
Male



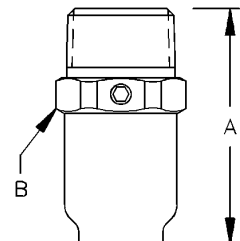
Full Cone 90°(M)



Full Cone 120° (W)



60° / 90° / 120° Female



60° / 90° / 120° Male

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

### SC Flow Rates & Dimensions

Full Cone, Narrow 60° (N), Medium 90° (M) and Wide 120° (W) Spray Angles, 3/4" to 6" Pipe Sizes, BSP or NPT

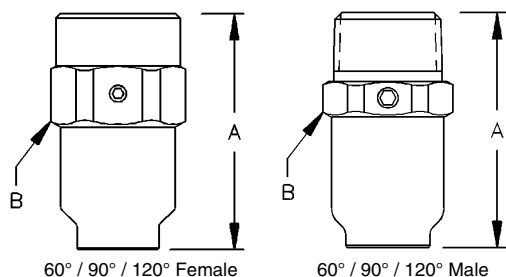
| Male or<br>Female<br>Pipe<br>Size | Nozzle<br>Number | Available<br>Spray Angles<br>60° 90° 120° | K<br>Factor | LITERS PER MINUTE @ BAR |            |            |          |          |          |          |          | Approx.<br>Orifice<br>Dia. (mm) | Approx.<br>Free<br>Pass.<br>Dia. (mm) | Dim. (mm) |      | Wt.<br>(kg)<br>Metal |
|-----------------------------------|------------------|-------------------------------------------|-------------|-------------------------|------------|------------|----------|----------|----------|----------|----------|---------------------------------|---------------------------------------|-----------|------|----------------------|
|                                   |                  |                                           |             | 0.2<br>bar              | 0.3<br>bar | 0.7<br>bar | 1<br>bar | 2<br>bar | 3<br>bar | 5<br>bar | 7<br>bar |                                 |                                       | A         | B    |                      |
| 3/4                               | SC 2.5           | 60° 90°                                   | 13.3        | 6.25                    | 7.57       | 11.3       | 13.3     | 18.5     | 22.3     | 28.4     | 33.3     | 4.76                            |                                       |           |      |                      |
|                                   | SC 3             | 60° 90° 120°                              | 16.0        | 7.50                    | 9.08       | 13.5       | 16.0     | 22.1     | 26.8     | 34.1     | 39.9     | 5.16                            |                                       |           |      |                      |
|                                   | SC 4             | 60° 90° 120°                              | 21.3        | 10.0                    | 12.1       | 18.0       | 21.3     | 29.5     | 35.7     | 45.4     | 53.2     | 7.14                            | 4.76                                  | 50.8      | 31.0 | 0.23                 |
|                                   | SC 6             | 90° 120°                                  | 32.0        | 15.0                    | 18.2       | 27.0       | 32.0     | 44.3     | 53.6     | 68.1     | 79.8     | 7.54                            |                                       |           |      |                      |
|                                   | SC 7             | 90° 120°                                  | 37.3        | 17.5                    | 21.2       | 31.6       | 37.3     | 51.7     | 62.5     | 79.5     | 93.1     | 8.89                            |                                       |           |      |                      |
| 1                                 | SC 4.2           | 60° 90°                                   | 22.4        | 10.5                    | 12.7       | 18.9       | 22.4     | 31.0     | 37.5     | 47.7     | 55.9     | 6.35                            | 6.35                                  |           |      |                      |
|                                   | SC 7             | 60° 90° 120°                              | 37.3        | 17.5                    | 21.2       | 31.6       | 37.3     | 51.7     | 62.5     | 79.5     | 93.1     | 8.33                            | 7.94                                  |           |      |                      |
|                                   | SC 8             | 60° 90° 120°                              | 42.6        | 20.0                    | 24.2       | 36.1       | 42.6     | 59.1     | 71.5     | 90.9     | 106      | 8.89                            | 7.94                                  |           |      |                      |
|                                   | SC 9             | 60° 90° 120°                              | 48.0        | 22.5                    | 27.2       | 40.6       | 48.0     | 66.4     | 80.4     | 102      | 120      | 10.2                            | 7.94                                  | 73.2      | 38.1 | 0.36                 |
|                                   | SC 10            | 60° 90° 120°                              | 53.3        | 25.0                    | 30.3       | 45.1       | 53.3     | 73.8     | 89.3     | 114      | 133      | 10.7                            | 7.94                                  |           |      |                      |
|                                   | SC 11            | 60° 90° 120°                              | 58.6        | 27.5                    | 33.3       | 49.6       | 58.6     | 81.2     | 98.3     | 125      | 146      | 11.2                            | 7.94                                  |           |      |                      |
|                                   | SC 12            | 90° 120°                                  | 64.0        | 30.0                    | 36.3       | 54.1       | 64.0     | 88.6     | 107      | 136      | 160      | 11.7                            | 7.94                                  |           |      |                      |
| 1 1/4                             | SC 6             | 60° 90°                                   | 32.0        | 15.0                    | 18.2       | 27.0       | 32.0     | 44.3     | 53.6     | 68.1     | 79.8     | 7.62                            | 7.62                                  |           |      |                      |
|                                   | SC 10            | 60° 90°                                   | 53.3        | 25.0                    | 30.3       | 45.1       | 53.3     | 73.8     | 89.3     | 114      | 133      | 9.92                            | 9.53                                  |           |      |                      |
|                                   | SC 12            | 60° 90° 120°                              | 64.0        | 30.0                    | 36.3       | 54.1       | 64.0     | 88.6     | 107      | 136      | 160      | 10.7                            | 9.53                                  |           |      |                      |
|                                   | SC 14            | 60° 90° 120°                              | 74.6        | 35.0                    | 42.4       | 63.1       | 74.6     | 103      | 125      | 159      | 186      | 11.7                            | 9.53                                  | 88.9      | 47.6 | 0.59                 |
|                                   | SC 16            | 60° 90° 120°                              | 85.3        | 40.0                    | 48.4       | 72.1       | 85.3     | 118      | 143      | 182      | 213      | 12.3                            | 9.53                                  |           |      |                      |
|                                   | SC 17            | 60° 90° 120°                              | 90.6        | 42.5                    | 51.5       | 76.6       | 90.6     | 126      | 152      | 193      | 226      | 13.5                            | 9.53                                  |           |      |                      |
|                                   | SC 20            | 90° 120°                                  | 107         | 50.0                    | 60.5       | 90.1       | 107      | 148      | 179      | 227      | 266      | 15.9                            | 9.53                                  |           |      |                      |

$$\text{Flow Rate (l/min)} = K (\text{bar})^{0.47}$$

Standard Materials: Brass, Cast Iron, Carbon Steel and 316 Stainless Steel.

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

www.BETE.com



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



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

### SC Flow Rates & Dimensions

Full Cone, Narrow 60° (N), Medium 90° (M) and Wide 120° (W) Spray Angles, 3/4" to 6" Pipe Sizes, BSP or NPT

| Male or<br>Female<br>Pipe<br>Size | Nozzle<br>Number | Available<br>Spray Angles |          | K<br>Factor | LITERS PER MINUTE @ BAR |            |            |          |          |          |          |          | Approx.                         |                            | Dim. (mm) |      | Wt.<br>(kg)<br>Metal |
|-----------------------------------|------------------|---------------------------|----------|-------------|-------------------------|------------|------------|----------|----------|----------|----------|----------|---------------------------------|----------------------------|-----------|------|----------------------|
|                                   |                  | 60°                       | 90° 120° |             | 0.2<br>bar              | 0.3<br>bar | 0.7<br>bar | 1<br>bar | 2<br>bar | 3<br>bar | 5<br>bar | 7<br>bar | Approx.<br>Orifice<br>Dia. (mm) | Free<br>Pass.<br>Dia. (mm) |           |      |                      |
| 1 1/2                             | SC 10            | 60°                       | 90°      | 53.3        | 25.0                    | 30.3       | 45.1       | 53.3     | 73.8     | 89.3     | 114      | 133      | 9.92                            | 9.53                       | 98.6      | 55.6 | 0.82                 |
|                                   | SC 16            | 60°                       | 90° 120° | 85.3        | 40.0                    | 48.4       | 72.1       | 85.3     | 118      | 143      | 182      | 213      | 13.5                            | 9.53                       |           |      |                      |
|                                   | SC 20            | 60°                       | 90° 120° | 107         | 50.0                    | 60.5       | 90.1       | 107      | 148      | 179      | 227      | 266      | 14.3                            | 10.3                       |           |      |                      |
|                                   | SC 24            | 60°                       | 90° 120° | 128         | 60.0                    | 72.6       | 108        | 128      | 177      | 214      | 273      | 319      | 15.9                            | 10.3                       |           |      |                      |
|                                   | SC 29            |                           | 90° 120° | 155         | 72.5                    | 87.8       | 131        | 155      | 214      | 259      | 329      | 386      | 17.5                            | 10.3                       |           |      |                      |
|                                   | SC 30            |                           | 90° 120° | 160         | 75.0                    | 90.8       | 135        | 160      | 221      | 268      | 341      | 399      | 19.1                            | 10.3                       |           |      |                      |
| 2                                 | SC 17            | 60°                       | 90°      | 90.6        | 42.5                    | 51.5       | 76.6       | 90.6     | 126      | 152      | 193      | 226      | 12.3                            | 12.3                       | 130       | 69.9 | 1.50                 |
|                                   | SC 30            | 60°                       | 90° 120° | 160         | 75.0                    | 90.8       | 135        | 160      | 221      | 268      | 341      | 399      | 16.3                            | 14.3                       |           |      |                      |
|                                   | SC 35            | 60°                       | 90° 120° | 187         | 87.6                    | 106        | 158        | 187      | 258      | 313      | 397      | 466      | 18.3                            | 14.3                       |           |      |                      |
|                                   | SC 40            | 60°                       | 90° 120° | 213         | 100                     | 121        | 180        | 213      | 295      | 357      | 454      | 532      | 19.8                            | 14.3                       |           |      |                      |
|                                   | SC 47            | 60°                       | 90° 120° | 251         | 118                     | 142        | 212        | 251      | 347      | 420      | 534      | 625      | 24.6                            | 14.3                       |           |      |                      |
|                                   | SC 50            | 60°                       | 90° 120° | 266         | 125                     | 151        | 225        | 266      | 369      | 447      | 568      | 665      | 27.9                            | 14.3                       |           |      |                      |
|                                   | SC 60            |                           | 90° 120° | 320         | 150                     | 182        | 270        | 320      | 443      | 536      | 681      | 798      | 29.0                            | 19.1                       |           |      |                      |
| 2 1/2                             | SC 25            | 60°                       | 90°      | 133         | 62.5                    | 75.7       | 113        | 133      | 185      | 223      | 284      | 333      | 15.5                            | 15.5                       | 160       | 82.6 | 2.95                 |
|                                   | SC 50            | 60°                       | 90°      | 266         | 125                     | 151        | 225        | 266      | 369      | 447      | 568      | 665      | 22.1                            | 19.1                       |           |      |                      |
|                                   | SC 60            | 60°                       | 90° 120° | 320         | 150                     | 182        | 270        | 320      | 443      | 536      | 681      | 798      | 24.4                            | 19.1                       |           |      |                      |
|                                   | SC 70            | 60°                       | 90° 120° | 373         | 175                     | 212        | 316        | 373      | 517      | 625      | 795      | 931      | 27.2                            | 19.1                       |           |      |                      |
|                                   | SC 80            | 60°                       | 90° 120° | 426         | 200                     | 242        | 361        | 426      | 591      | 715      | 909      | 1060     | 29.2                            | 19.1                       |           |      |                      |
|                                   | SC 90            |                           | 90° 120° | 480         | 225                     | 272        | 406        | 480      | 664      | 804      | 1020     | 1200     | 32.3                            | 19.1                       |           |      |                      |
| 3                                 | SC 42            | 60°                       | 90°      | 224         | 105                     | 127        | 189        | 224      | 310      | 375      | 477      | 559      | 19.1                            | 19.1                       | 182       | 95.3 | 4.26                 |
|                                   | SC 58            | 60°                       | 90°      | 309         | 145                     | 176        | 261        | 309      | 428      | 518      | 659      | 772      | 22.9                            | 22.9                       |           |      |                      |
|                                   | SC 80            | 60°                       | 90° 120° | 426         | 200                     | 242        | 361        | 426      | 591      | 715      | 909      | 1060     | 27.9                            | 25.4                       |           |      |                      |
|                                   | SC 90            | 60°                       | 90° 120° | 480         | 225                     | 272        | 406        | 480      | 664      | 804      | 1020     | 1200     | 30.6                            | 25.4                       |           |      |                      |
|                                   | SC 95            | 60°                       | 90° 120° | 506         | 238                     | 288        | 428        | 506      | 701      | 849      | 1080     | 1260     | 28.6                            | 25.4                       |           |      |                      |
|                                   | SC 100           | 60°                       | 90° 120° | 533         | 250                     | 303        | 451        | 533      | 738      | 893      | 1140     | 1330     | 34.1                            | 25.4                       |           |      |                      |
|                                   | SC 117           | 60°                       | 90° 120° | 624         | 293                     | 354        | 527        | 624      | 864      | 1050     | 1330     | 1560     | 36.1                            | 25.4                       |           |      |                      |
|                                   | SC 120           | 60°                       | 90° 120° | 640         | 300                     | 363        | 541        | 640      | 886      | 1070     | 1360     | 1600     | 38.1                            | 25.4                       |           |      |                      |
|                                   | SC 135           |                           | 90° 120° | 720         | 338                     | 409        | 608        | 720      | 997      | 1210     | 1530     | 1800     | 41.7                            | 25.4                       |           |      |                      |
| 4                                 | SC 125           | 60°                       | 90°      | 666         | 313                     | 378        | 563        | 666      | 923      | 1120     | 1420     | 1660     | 34.3                            |                            | 219       | 121  | 7.17                 |
|                                   | SC 130           | 60°                       | 90°      | 693         | 325                     | 393        | 586        | 693      | 960      | 1160     | 1480     | 1730     | 35.1                            |                            |           |      |                      |
|                                   | SC 160           | 60°                       | 90°      | 853         | 400                     | 484        | 721        | 853      | 1180     | 1430     | 1820     | 2130     | 40.6                            |                            |           |      |                      |
|                                   | SC 180           | 60°                       | 90° 120° | 959         | 450                     | 545        | 811        | 959      | 1330     | 1610     | 2040     | 2390     | 43.7                            | 33.7                       |           |      |                      |
|                                   | SC 188           | 60°                       | 90° 120° | 1000        | 470                     | 569        | 847        | 1000     | 1390     | 1680     | 2140     | 2500     | 42.9                            |                            |           |      |                      |
|                                   | SC 200           | 60°                       | 90° 120° | 1070        | 500                     | 605        | 901        | 1070     | 1480     | 1790     | 2270     | 2660     | 47.6                            |                            |           |      |                      |
|                                   | SC 210           | 60°                       | 90° 120° | 1120        | 525                     | 636        | 947        | 1120     | 1550     | 1880     | 2390     | 2790     | 51.6                            |                            |           |      |                      |
|                                   | SC 250           |                           | 90° 120° | 1330        | 625                     | 757        | 1130       | 1330     | 1850     | 2230     | 2840     | 3330     | 63.5                            |                            |           |      |                      |
| 6                                 | SC 350           | 60°                       | 90° 120° | 1860        | 876                     | 1060       | 1580       | 1860     | 2580     | 3130     | 3980     | 4660     | 66.0                            | 35.1                       | *         | *    | *                    |
|                                   | SC 480           |                           | 90° 120° | 2560        | 1200                    | 1450       | 2160       | 2560     | 3540     | 4290     | 5450     | 6390     | 71.1                            | 42.9                       | *         | *    | *                    |
|                                   | SC 615           |                           | 90° 120° | 3280        | 1540                    | 1860       | 2770       | 3280     | 4540     | 5490     | 6980     | 8180     | 76.2                            | 42.9                       | *         | *    | *                    |

Flow Rate ( $l/min$ ) =  $K (bar)^{0.47}$

\* Dimensions vary with spray angle ordered, please call for dimensions and weights

Standard Materials: Brass, Cast Iron, Carbon Steel and 316 Stainless Steel.

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