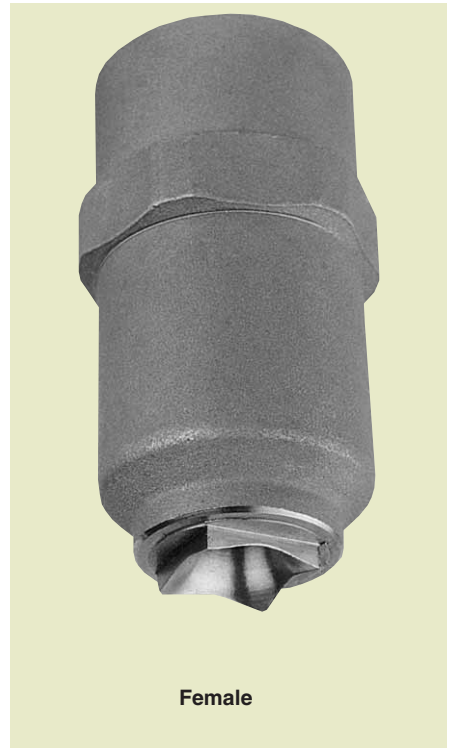


SCSQ

Metal Alloy/Square Pattern



Female

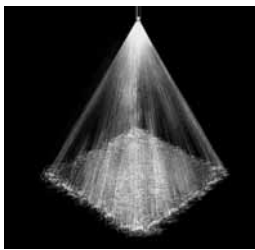
WHIRL

DESIGN FEATURES

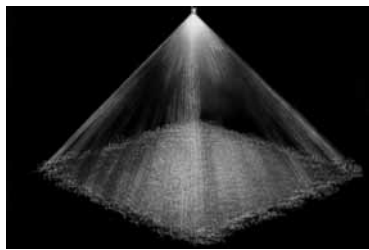
- Complete line of squared full cone nozzles made in cast metal alloys
- Internal removable vane
- Male and female connections
- Flanged connections available
- For plastic and bar stock metal alloy nozzles see NCSQ Series (pp. 36, 37)

SPRAY CHARACTERISTICS

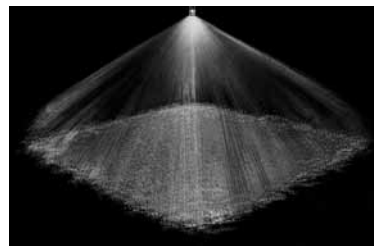
- Spray pattern:** Square Full Cone with uniform distribution
- Spray angles:** 60°, 90°, and 120° across the corners
- Flow rates:** 1.68 to 2150 gpm



Full Cone 60° (N)



Full Cone 90° (M)



Full Cone 120° (W)

SCSQ Flow Rates and Dimensions

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

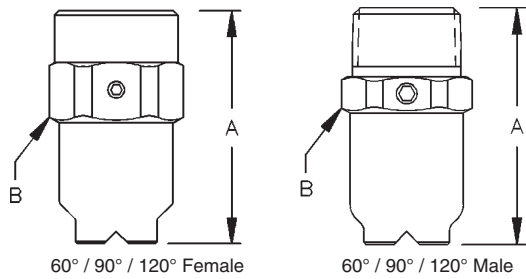
| Male or Female Pipe Size | Nozzle Number | Available Spray Angles | | | K Factor | GALLONS PER MINUTE @ PSI | | | | | | | | | | | | Approx. Orifice Dia. (in.) | Approx. Free Pass. Dia. (in.) | Dim. (in.) | | Wt. (lbs.) Metal Male |
|--------------------------|---------------|------------------------|------|------|----------|--------------------------|-------|-------|--------|-------------|--------|--------|--------|---------|------|------|------|----------------------------|-------------------------------|------------|--|-----------------------|
| | | 60° | 90° | 120° | | 3 PSI | 5 PSI | 7 PSI | 10 PSI | 20 PSI | 40 PSI | 60 PSI | 80 PSI | 100 PSI | A | B | | | | | | |
| 3/4 | SCSQ2.5 | 60° | 90° | | 1.00 | 1.68 | 2.13 | 2.50 | 2.96 | 4.09 | 5.67 | 6.86 | 7.86 | 8.72 | 0.19 | | | | | | | |
| | SCSQ3 | 60° | 90° | 120° | 1.20 | 2.01 | 2.56 | 3.00 | 3.55 | 4.91 | 6.81 | 8.23 | 9.43 | 10.5 | 0.20 | | | | | | | |
| | SCSQ4 | 60° | 90° | 120° | 1.60 | 2.69 | 3.41 | 4.00 | 4.73 | 6.55 | 9.07 | 11.0 | 12.6 | 14.0 | 0.28 | 0.19 | 2.00 | 1.22 | 0.30 | | | |
| | SCSQ6 | 90° | 120° | | 2.40 | 4.03 | 5.12 | 6.00 | 7.10 | 9.83 | 13.6 | 16.5 | 18.9 | 20.9 | 0.30 | | | | | | | |
| | SCSQ7 | 90° | 120° | | 2.81 | 4.70 | 5.98 | 7.00 | 8.28 | 11.5 | 15.9 | 19.2 | 22.0 | 24.4 | 0.35 | | | | | | | |
| 1 | SCSQ4.2 | 60° | 90° | | 1.68 | 2.82 | 3.59 | 4.20 | 4.97 | 6.88 | 9.53 | 11.5 | 13.2 | 14.7 | 0.25 | 0.25 | | | | | | |
| | SCSQ7 | 60° | 90° | 120° | 2.80 | 4.70 | 5.98 | 7.00 | 8.28 | 11.5 | 15.9 | 19.2 | 22.0 | 24.4 | 0.33 | 0.31 | | | | | | |
| | SCSQ8 | 60° | 90° | 120° | 3.21 | 5.37 | 6.83 | 8.00 | 9.46 | 13.1 | 18.1 | 22.0 | 25.1 | 27.9 | 0.35 | 0.31 | | | | | | |
| | SCSQ9 | 60° | 90° | 120° | 3.61 | 6.04 | 7.68 | 9.00 | 10.6 | 14.7 | 20.4 | 24.7 | 28.3 | 31.4 | 0.40 | 0.31 | 2.88 | 1.50 | 0.70 | | | |
| | SCSQ10 | 60° | 90° | 120° | 4.01 | 6.72 | 8.54 | 10.0 | 11.8 | 16.4 | 22.7 | 27.4 | 31.4 | 34.9 | 0.42 | 0.31 | | | | | | |
| | SCSQ11 | 60° | 90° | 120° | 4.41 | 7.39 | 9.39 | 11.0 | 13.0 | 18.0 | 25.0 | 30.2 | 34.6 | 38.4 | 0.44 | 0.31 | | | | | | |
| | SCSQ12 | 90° | 120° | | 4.81 | 8.06 | 10.2 | 12.0 | 14.2 | 19.7 | 27.2 | 32.9 | 37.7 | 41.9 | 0.46 | 0.31 | | | | | | |
| 1 1/4 | SCSQ6 | 60° | 90° | | 2.40 | 4.03 | 5.12 | 6.00 | 7.10 | 9.83 | 13.6 | 16.5 | 18.9 | 20.9 | 0.30 | 0.30 | | | | | | |
| | SCSQ10 | 60° | 90° | 120° | 4.01 | 6.72 | 8.54 | 10.0 | 11.8 | 16.4 | 22.7 | 27.4 | 31.4 | 34.9 | 0.39 | 0.38 | | | | | | |
| | SCSQ12 | 60° | 90° | 120° | 4.81 | 8.06 | 10.2 | 12.0 | 14.2 | 19.7 | 27.2 | 32.9 | 37.7 | 41.9 | 0.42 | 0.38 | | | | | | |
| | SCSQ14 | 60° | 90° | 120° | 5.61 | 9.40 | 12.0 | 14.0 | 16.6 | 22.9 | 31.8 | 38.4 | 44.0 | 48.9 | 0.46 | 0.38 | 3.50 | 1.88 | 1.30 | | | |
| | SCSQ16 | 60° | 90° | 120° | 6.41 | 10.7 | 13.7 | 16.0 | 18.9 | 26.2 | 36.3 | 43.9 | 50.3 | 55.8 | 0.48 | 0.38 | | | | | | |
| | SCSQ17 | 60° | 90° | 120° | 6.81 | 11.4 | 14.5 | 17.0 | 20.1 | 27.8 | 38.6 | 46.7 | 53.4 | 59.3 | 0.53 | 0.38 | | | | | | |
| | SCSQ20 | 90° | 120° | | 8.01 | 13.4 | 17.1 | 20.0 | 23.7 | 32.8 | 45.4 | 54.9 | 62.8 | 69.8 | 0.63 | 0.38 | | | | | | |

$$\text{Flow Rate (GPM)} = K (\text{PSI})^{0.47}$$

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

See page 21 for complete list.

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



For more information on the orientation of the “square” pattern please see the NCSQ on page 36.

SCSQ Flow Rates and Dimensions

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

| Male or Female Pipe Size | Nozzle Number | Available Spray Angles | | | K Factor | GALLONS PER MINUTE @ PSI | | | | | | | | | | Approx. Orifice Dia. (in.) | Approx. Free Pass. Dia. (in.) | Dim. (in.) | | Wt. (lbs.) Metal Male |
|--------------------------|---------------|------------------------|-----|------|----------|--------------------------|-------|-------|--------|--------|--------|--------|--------|---------|------|----------------------------|-------------------------------|------------|------|-----------------------|
| | | 60° | 90° | 120° | | 3 PSI | 5 PSI | 7 PSI | 10 PSI | 20 PSI | 40 PSI | 60 PSI | 80 PSI | 100 PSI | A | | | B | | |
| 1 1/2 | SCSQ10 | 60° | 90° | | 4.01 | 6.72 | 8.54 | 10.0 | 11.8 | 16.4 | 22.7 | 27.4 | 31.4 | 34.9 | 0.39 | 0.38 | 3.88 | 2.19 | 1.8 | |
| | SCSQ16 | 60° | 90° | 120° | 6.41 | 10.7 | 13.7 | 16.0 | 18.9 | 26.2 | 36.3 | 43.9 | 50.3 | 55.8 | 0.53 | 0.38 | | | | |
| | SCSQ20 | 60° | 90° | 120° | 8.01 | 13.4 | 17.1 | 20.0 | 23.7 | 32.8 | 45.4 | 54.9 | 62.8 | 69.8 | 0.56 | 0.41 | | | | |
| | SCSQ24 | 60° | 90° | 120° | 9.62 | 16.1 | 20.5 | 24.0 | 28.4 | 39.3 | 54.4 | 65.9 | 75.4 | 83.8 | 0.63 | 0.41 | | | | |
| | SCSQ29 | | 90° | 120° | 11.6 | 19.5 | 24.8 | 29.0 | 34.3 | 47.5 | 65.8 | 79.6 | 91.1 | 101 | 0.69 | 0.41 | | | | |
| | SCSQ30 | | 90° | 120° | 12.0 | 20.1 | 25.6 | 30.0 | 35.5 | 49.1 | 68.1 | 82.3 | 94.3 | 105 | 0.75 | 0.41 | | | | |
| 2 | SCSQ17 | 60° | 90° | | 6.81 | 11.4 | 14.5 | 17.0 | 20.1 | 27.8 | 38.6 | 46.7 | 53.4 | 59.3 | 0.48 | 0.48 | 5.12 | 2.75 | 3.3 | |
| | SCSQ30 | 60° | 90° | 120° | 12.0 | 20.1 | 25.6 | 30.0 | 35.5 | 49.1 | 68.1 | 82.3 | 94.3 | 105 | 0.64 | 0.56 | | | | |
| | SCSQ35 | 60° | 90° | 120° | 14.0 | 23.5 | 29.9 | 35.0 | 41.4 | 57.3 | 79.4 | 96.1 | 110 | 122 | 0.72 | 0.56 | | | | |
| | SCSQ40 | 60° | 90° | 120° | 16.0 | 26.9 | 34.1 | 40.0 | 47.3 | 65.5 | 90.7 | 110 | 126 | 140 | 0.78 | 0.56 | | | | |
| | SCSQ47 | 60° | 90° | 120° | 18.8 | 31.6 | 40.1 | 47.0 | 55.6 | 77.0 | 107 | 129 | 148 | 164 | 0.97 | 0.56 | | | | |
| | SCSQ50 | 60° | 90° | 120° | 20.0 | 33.6 | 42.7 | 50.0 | 59.1 | 81.9 | 113 | 137 | 157 | 174 | 1.10 | 0.56 | | | | |
| | SCSQ60 | | 90° | 120° | 24.0 | 40.3 | 51.2 | 60.0 | 71.0 | 98.3 | 136 | 165 | 189 | 209 | 1.14 | 0.75 | | | | |
| 2 1/2 | SCSQ25 | 60° | 90° | | 10.0 | 16.8 | 21.3 | 25.0 | 29.6 | 40.9 | 56.7 | 68.6 | 78.6 | 87.2 | 0.61 | 0.61 | 6.28 | 3.25 | 6.5 | |
| | SCSQ50 | 60° | 90° | | 20.0 | 33.6 | 42.7 | 50.0 | 59.1 | 81.9 | 113 | 137 | 157 | 174 | 0.87 | 0.75 | | | | |
| | SCSQ60 | 60° | 90° | 120° | 24.0 | 40.3 | 51.2 | 60.0 | 71.0 | 98.3 | 136 | 165 | 189 | 209 | 0.96 | 0.75 | | | | |
| | SCSQ70 | 60° | 90° | 120° | 28.0 | 47.0 | 59.8 | 70.0 | 82.8 | 115 | 159 | 192 | 220 | 244 | 1.07 | 0.75 | | | | |
| | SCSQ80 | 60° | 90° | 120° | 32.1 | 53.7 | 68.3 | 80.0 | 94.6 | 131 | 181 | 220 | 251 | 279 | 1.15 | 0.75 | | | | |
| | SCSQ90 | | 90° | 120° | 36.1 | 60.4 | 76.8 | 90.0 | 106 | 147 | 204 | 247 | 283 | 314 | 1.27 | 0.75 | | | | |
| 3 | SCSQ42 | 60° | 90° | | 16.8 | 28.2 | 35.9 | 42.0 | 49.7 | 68.8 | 95.3 | 115 | 132 | 147 | 0.75 | 0.75 | 7.16 | 3.75 | 9.4 | |
| | SCSQ58 | 60° | 90° | | 23.2 | 38.9 | 49.5 | 58.0 | 68.6 | 95.0 | 132 | 159 | 182 | 202 | 0.90 | 0.75 | | | | |
| | SCSQ80 | 60° | 90° | 120° | 24.0 | 53.7 | 68.3 | 80.0 | 94.6 | 131 | 181 | 220 | 251 | 279 | 1.10 | 1.00 | | | | |
| | SCSQ90 | 60° | 90° | 120° | 36.1 | 60.4 | 76.8 | 90.0 | 106 | 147 | 204 | 247 | 283 | 314 | 1.20 | 1.00 | | | | |
| | SCSQ95 | 60° | 90° | 120° | 38.1 | 63.8 | 81.1 | 95.0 | 112 | 156 | 216 | 261 | 299 | 332 | 1.13 | 1.00 | | | | |
| | SCSQ100 | 60° | 90° | 120° | 40.1 | 67.2 | 85.4 | 100 | 118 | 164 | 227 | 274 | 314 | 349 | 1.34 | 1.00 | | | | |
| | SCSQ117 | 60° | 90° | 120° | 46.9 | 78.6 | 99.9 | 117 | 138 | 192 | 265 | 321 | 368 | 408 | 1.42 | 1.00 | | | | |
| | SCSQ120 | 60° | 90° | 120° | 48.1 | 80.6 | 102 | 120 | 142 | 197 | 272 | 329 | 377 | 419 | 1.50 | 1.00 | | | | |
| | SCSQ135 | | 90° | 120° | 54.1 | 90.7 | 115 | 135 | 160 | 221 | 306 | 371 | 424 | 471 | 1.64 | 1.00 | | | | |
| 4 | SCSQ125 | 60° | 90° | | 50.1 | 83.9 | 107 | 125 | 148 | 205 | 284 | 343 | 393 | 436 | 1.35 | 1.33 | 8.64 | 4.75 | 15.8 | |
| | SCSQ130 | 60° | 90° | | 52.1 | 87.3 | 111 | 130 | 154 | 213 | 295 | 357 | 409 | 454 | 1.38 | 1.33 | | | | |
| | SCSQ160 | 60° | 90° | | 64.1 | 107 | 137 | 160 | 189 | 262 | 363 | 439 | 503 | 558 | 1.60 | 1.33 | | | | |
| | SCSQ180 | 60° | 90° | 120° | 72.1 | 121 | 154 | 180 | 213 | 295 | 408 | 494 | 566 | 628 | 1.72 | 1.33 | | | | |
| | SCSQ188 | 60° | 90° | 120° | 75.3 | 126 | 161 | 188 | 222 | 308 | 427 | 516 | 591 | 656 | 1.69 | 1.33 | | | | |
| | SCSQ200 | 60° | 90° | 120° | 80.1 | 134 | 171 | 200 | 237 | 328 | 454 | 549 | 628 | 698 | 1.88 | 1.33 | | | | |
| | SCSQ210 | 60° | 90° | 120° | 84.1 | 141 | 179 | 210 | 248 | 344 | 476 | 576 | 660 | 733 | 2.03 | 1.33 | | | | |
| | SCSQ250 | | 90° | 120° | 100 | 168 | 213 | 250 | 296 | 409 | 567 | 686 | 786 | 872 | 2.50 | 1.33 | | | | |
| 6 | SCSQ350 | 60° | 90° | 120° | 140 | 235 | 299 | 350 | 414 | 573 | 794 | 961 | 1100 | 1220 | 2.60 | 1.38 | * | * | * | |
| | SCSQ480 | | 90° | 120° | 192 | 322 | 410 | 480 | 568 | 786 | 1090 | 1320 | 1320 | 1680 | 2.80 | 1.69 | * | * | * | |
| | SCSQ615 | | 90° | 120° | 246 | 413 | 525 | 615 | 727 | 1010 | 1400 | 1690 | 1930 | 2150 | 3.00 | 1.69 | * | * | * | |

Flow Rate (GPM) = K (PSI)^{0.47} *Dimensions vary with spray angle ordered, please call for dimensions

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

See page 21 for complete list.



WHIRL

CALL 1-413-772-2166
Call for the name of your nearest BETE representative.