

FULL CONE NOZZLES

BE/BG

X-VANE/ROUND SPRAY/TWO PIECES

These full cone nozzles have a two-piece design and produce a full cone round spray, with angles ranging between 70° and 120° and capacities between 4.8 and 1040 litres per minute. Higher capacities, up to 11,300 lpm can be obtained with the larger sizes shown in the following table.

The X-vane design assures a satisfactory compromise as far as even coverage of the spray and nozzle resistance to clogging are considered, and is therefore a widely popular choice. The table on this page shows female threaded nozzles up to 3" size, larger capacity nozzles both with female threads and flange connections are shown on the next page. Please note BE nozzles have a female BSP thread, BG have a male BSPT thread. Dimensions for standard and wide spray angle nozzles are shown on the table at the bottom of this page.

Materials B1 AISI 303 Stainless steel
 B31 AISI 316L Stainless steel
 T1 Brass, only sizes 1" and smaller

Standard spray angles

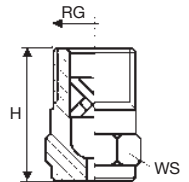
| BES | BGQ | Code | RF RG | D | D1 | Capacity at different pressure values | | | | | | | Spray angle (degrees) at pressure | | | | |
|-----|-----|---------|----------|------|------|--|------|------|------|------|------|------|--------------------------------------|-----|-----|--|--|
| | | | | | | 0.5 | 1.0 | 2.0 | 3.0 | 5.0 | 7.0 | 10 | 0.7 | 3.0 | 5.0 | | |
| | | | inch | mm | mm | | | | | | | | | | | | |
| | • | 1480 xx | 1/4 | 2.3 | 1.6 | 1.96 | 2.77 | 3.92 | 4.80 | 6.20 | 7.33 | 8.76 | 55 | 60 | 55 | | |
| | • | 1740 xx | | 2.9 | 1.6 | 3.02 | 4.27 | 6.04 | 7.40 | 9.55 | 11.3 | 13.5 | 65 | 62 | 62 | | |
| | • | 1700 xx | 3/8 | 2.6 | 2.4 | 2.86 | 4.04 | 5.72 | 7.00 | 9.04 | 10.7 | 12.8 | 66 | 60 | 55 | | |
| | • | 2111 xx | | 3.6 | 2.4 | 4.53 | 6.41 | 9.06 | 11.0 | 14.3 | 17.0 | 20.3 | 65 | 67 | 60 | | |
| | • | 2163 xx | | 4.5 | 2.8 | 6.65 | 9.41 | 13.3 | 16.3 | 21.0 | 24.9 | 29.8 | 59 | 62 | 60 | | |
| | • | 2185 xx | 1/2 | 4.6 | 3.2 | 7.55 | 10.7 | 15.1 | 18.5 | 23.9 | 28.3 | 33.8 | 64 | 65 | 60 | | |
| | • | 2300 xx | | 6.3 | 3.6 | 12.2 | 17.3 | 24.5 | 30.0 | 38.7 | 45.8 | 54.8 | 58 | 60 | 58 | | |
| | • | 2220 xx | 3/4 | 4.9 | 4.4 | 9.00 | 12.7 | 18.0 | 22.0 | 28.4 | 33.6 | 40.2 | 54 | 60 | 56 | | |
| | • | 2350 xx | | 6.4 | 4.4 | 14.3 | 20.2 | 28.6 | 35.0 | 45.2 | 53.5 | 63.9 | 56 | 63 | 60 | | |
| | • | 2610 xx | | 9.5 | 5.2 | 24.9 | 35.2 | 49.8 | 61.0 | 78.8 | 93.2 | 111 | 58 | 65 | 60 | | |
| | • | 2370 xx | 1 | 6.0 | 5.6 | 15.1 | 21.4 | 30.2 | 37.0 | 47.8 | 56.5 | 67.6 | 58 | 60 | 56 | | |
| | • | 2611 xx | | 8.3 | 5.6 | 24.9 | 35.2 | 49.8 | 61.0 | 78.8 | 93.2 | 111 | 60 | 61 | 58 | | |
| | • | 2870 xx | | 11.9 | 5.6 | 35.5 | 50.2 | 71.0 | 87.0 | 112 | 133 | | 60 | 63 | 60 | | |
| | • | 3104 xx | | 11.9 | 6.4 | 42.5 | 60.0 | 84.9 | 104 | 134 | 159 | | 62 | 65 | 61 | | |
| | • | 2520 xx | 1+1/4 | 7.4 | 6.4 | 21.2 | 30.0 | 42.5 | 52.0 | 67.1 | 79.4 | | 72 | 75 | 65 | | |
| | • | 2871 xx | | 9.6 | 6.4 | 35.5 | 50.2 | 71.0 | 87.0 | 112 | 133 | | 72 | 75 | 68 | | |
| | • | 3105 xx | | 10.7 | 6.4 | 42.9 | 60.6 | 85.7 | 105 | 136 | 160 | | 72 | 75 | 70 | | |
| | • | 3122 xx | | 12.3 | 6.4 | 49.8 | 70.4 | 99.6 | 122 | 158 | 186 | | 72 | 75 | 71 | | |
| | • | 3174 xx | | 15.1 | 7.9 | 71.0 | 100 | 142 | 174 | 225 | 266 | | 74 | 75 | 71 | | |
| | • | 2872 xx | 1+1/2 | 9.5 | 8.7 | 35.5 | 50.2 | 71.0 | 87.0 | 112 | 133 | | 68 | 72 | 65 | | |
| | • | 3139 xx | | 12.7 | 8.7 | 56.7 | 80.3 | 113 | 139 | 179 | 212 | | 68 | 72 | 70 | | |
| | • | 3175 xx | | 14.3 | 8.7 | 71.4 | 101 | 143 | 175 | 226 | 267 | | 72 | 75 | 70 | | |
| | • | 3260 xx | | 18.3 | 10.3 | 106 | 150 | 212 | 260 | 336 | 397 | | 74 | 78 | 73 | | |
| | • | 3148 xx | 2 | 12.7 | 11.1 | 60.4 | 85.4 | 121 | 148 | 191 | 226 | | 68 | 70 | 68 | | |
| | • | 3261 xx | | 17.3 | 11.1 | 106 | 150 | 212 | 260 | 336 | 397 | | 70 | 73 | 68 | | |
| | • | 3305 xx | | 19.2 | 11.1 | 125 | 176 | 249 | 305 | 394 | 466 | | 72 | 75 | 70 | | |
| | • | 3350 xx | | 21.0 | 11.1 | 143 | 202 | 286 | 350 | 452 | 535 | | 72 | 75 | 70 | | |
| | • | 3435 xx | | 23.8 | 14.3 | 178 | 251 | 355 | 435 | 562 | 664 | | 71 | 75 | 72 | | |
| | • | 3520 xx | | 28.6 | 14.3 | 212 | 300 | 425 | 520 | 671 | 794 | | 74 | 77 | 72 | | |
| | • | 3215 xx | 2+1/2 | 15.1 | 14.3 | 87.8 | 124 | 176 | 215 | 278 | 328 | | 70 | 73 | 70 | | |
| | • | 3436 xx | | 22.2 | 14.3 | 178 | 251 | 355 | 435 | 562 | 664 | | 72 | 75 | 70 | | |
| | • | 3521 xx | | 24.6 | 14.3 | 212 | 300 | 425 | 520 | 671 | 794 | | 72 | 75 | 70 | | |
| | • | 3610 xx | | 28.6 | 14.3 | 249 | 352 | 498 | 610 | 788 | 932 | | 73 | 75 | 70 | | |
| | • | 3700 xx | | 28.6 | 17.5 | 286 | 404 | 572 | 700 | 904 | 1069 | | 73 | 77 | 72 | | |
| | • | 3780 xx | | 31.8 | 17.5 | 318 | 450 | 637 | 780 | 1007 | 1191 | | 75 | 78 | 75 | | |
| | • | 3365 xx | 3 | 19.1 | 17.5 | 149 | 211 | 298 | 365 | 471 | 558 | | 70 | 73 | 68 | | |
| | • | 3701 xx | | 27.8 | 17.5 | 286 | 404 | 572 | 700 | 904 | 1069 | | 70 | 73 | 70 | | |
| | • | 3781 xx | | 30.2 | 17.5 | 318 | 450 | 637 | 780 | 1007 | 1191 | | 72 | 75 | 70 | | |
| | • | 3870 xx | | 32.5 | 17.5 | 355 | 502 | 710 | 870 | 1123 | 1329 | | 72 | 75 | 70 | | |
| | • | 4104 xx | | 34.9 | 20.6 | 425 | 600 | 849 | 1040 | 1343 | 1589 | | 75 | 78 | 73 | | |



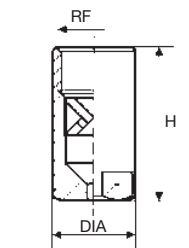
BE



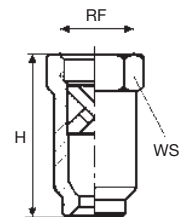
BG



BG



BE



BE

Dimensions

| BG | Size inch | 1/8 | 1/4 | 3/8 | 1/2 | 3/4 | 1 | 1+1/4 | 1+1/2 | 2 | 2+1/2 | 3 |
|-------|-----------|------|------|------|------|------|------|-------|-------|------|-------|-----|
| | H mm | 19.5 | 22.0 | 25.0 | 33.0 | 40.0 | 51.5 | | | | | |
| WS mm | 12.0 | 14.0 | 17.0 | 22.0 | | 27.0 | | | | | | |
| BE | H mm | | | | | 55.5 | 68.0 | 90.0 | 105 | 140 | 180 | 192 |
| | DIA mm | | | | | 32.0 | 38.0 | | | | | |
| | WS mm | | | | | 27.0 | 32.0 | 48.0 | 52.0 | 67.0 | 85.0 | 100 |

FULL CONE NOZZLES

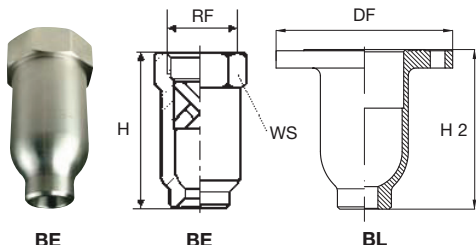
BE/BG

X-VANE/ROUND SPRAY/TWO PIECES

Wide spray angles

| BEW | BGW | Code | RF RG | D | D1 | Capacity at different pressure values | | | | | | | (lpm) (bar) | Spray angle (degrees) | | | Dimension mm | | |
|-----|-----|---------|----------|------|------|--|------|------|------|------|------|------|----------------|-----------------------|-----|-----|-----------------|-----|----|
| | | | | | | at different pressure values | | | | | | | | at pressure | | | mm | | |
| | | | | | | 0.5 | 1.0 | 2.0 | 3.0 | 5.0 | 7.0 | 10 | | 0.7 | 3.0 | 5.0 | H | DIA | WS |
| | • | 2100 xx | 1/4 | 3.3 | 1.6 | 4.08 | 5.77 | 8.16 | 10.0 | 12.9 | 15.3 | 18.3 | 115 | 120 | 106 | 23 | | 14 | |
| | • | 2122 xx | 3/8 | 3.6 | 2.4 | 4.98 | 7.04 | 9.96 | 12.2 | 15.7 | 18.6 | 22.3 | 115 | 120 | 105 | 30 | | 17 | |
| | • | 2144 xx | | 4.0 | 2.4 | 5.88 | 8.31 | 11.8 | 14.4 | 18.6 | 22.0 | 26.3 | 115 | 120 | 105 | | | | |
| | • | 2172 xx | | 5.1 | 2.4 | 7.02 | 9.93 | 14.0 | 17.2 | 22.2 | 26.3 | 31.4 | 115 | 120 | 105 | | | | |
| | • | 2194 xx | | 5.2 | 2.8 | 7.92 | 11.2 | 15.8 | 19.4 | 25.0 | 29.6 | 35.4 | 115 | 120 | 105 | | | | |
| | • | 2220 xx | 1/2 | 5.0 | 3.0 | 8.98 | 12.7 | 18.0 | 22.0 | 28.4 | 33.6 | 40.2 | 115 | 120 | 105 | 39 | | 22 | |
| | • | 2250 xx | | 5.4 | 3.0 | 10.2 | 14.4 | 20.4 | 25.0 | 32.3 | 38.2 | 45.6 | 115 | 120 | 105 | | | | |
| | • | 2290 xx | | 6.4 | 3.0 | 11.8 | 16.7 | 23.7 | 29.0 | 37.4 | 44.3 | 52.9 | 115 | 120 | 105 | | | | |
| | • | 2320 xx | | 6.9 | 3.0 | 13.1 | 18.5 | 26.1 | 32.0 | 41.3 | 48.9 | 58.4 | 115 | 120 | 105 | | | | |
| | • | 2360 xx | | 7.6 | 3.0 | 14.7 | 20.8 | 29.4 | 36.0 | 46.5 | 55.0 | 65.7 | 115 | 120 | 110 | | | | |
| • | • | 2500 xx | 3/4 | 8.7 | 4.5 | 20.4 | 28.9 | 40.8 | 50.0 | 64.5 | 76.4 | 91.3 | 105 | 110 | 105 | 40 | | 27 | |
| • | • | 2920 xx | 1 | 11.5 | 5.6 | 37.6 | 53.1 | 75.1 | 92.0 | 119. | 141 | | 105 | 110 | 105 | 54 | | 34 | |
| • | • | 3134 xx | 1+1/4 | 14.0 | 6.0 | 54.7 | 77.4 | 109 | 134 | 173 | 205 | | 110 | 115 | 110 | 88 | | 48 | |
| • | • | 3200 xx | 1+1/2 | 16.5 | 9.0 | 81.6 | 115 | 163 | 200 | 258 | 306 | | 110 | 115 | 110 | 102 | | 52 | |
| • | • | 3395 xx | 2 | 24.0 | 11.1 | 161 | 228 | 323 | 395 | 510 | 603 | | 110 | 115 | 110 | 138 | | 67 | |
| • | • | 3590 xx | 2+1/2 | 26.0 | 14.3 | 241 | 341 | 482 | 590 | 762 | 901 | | 110 | 115 | 110 | 162 | | 85 | |
| • | • | 3800 xx | 3 | 32.0 | 17.5 | 327 | 462 | 653 | 800 | 1033 | 1222 | | 110 | 115 | 110 | 187 | | 100 | |

BE/BL



X-VANE/LARGE CAPACITIES

The large capacity nozzles feature a full cone spray pattern with uniform distribution over a round impact area, for applications where a very large capacity is required (values up to 11.300 litres per minute). They are manufactured with large spray angles, while still assuring high water density per square meter. The bodies are machined from a casting, and can be finished either with a female thread connection (BE type) or with an integral ANSI flange (BL type).

Materials B31 AISI 316L Stainless steel
G1 Cast iron

Large capacity

| 90° | BEU | BLU | Code | RF DF | D | D1 | Capacity at different pressure values | | | | | | | (lpm) (bar) | Dimension mm | | | | | |
|-----|-----|-----|---------|----------|-----|----|--|------|------|-------|-------|-------|-------|----------------|-----------------|-----|----|----|--|--|
| | | | | | | | at different pressure values | | | | | | | | at pressure | | | mm | | |
| | | | | | | | 0.7 | 1.0 | 2.0 | 3.0 | 5.0 | 7.0 | 10 | | H | H2 | WS | | | |
| | • | • | 4139 xx | 4 | 43 | 19 | 671 | 803 | 1135 | 1390 | 1794 | 2123 | 2538 | 251 | 207 | 130 | | | | |
| | • | • | 4157 xx | | 47 | 22 | 758 | 906 | 1282 | 1570 | 2027 | 2398 | 2866 | | | | | | | |
| | • | • | 4174 xx | | 51 | 25 | 840 | 1005 | 1421 | 1740 | 2246 | 2658 | 3177 | | | | | | | |
| | • | • | 4183 xx | | 54 | 25 | 884 | 1057 | 1494 | 1830 | 2363 | 2795 | 3341 | | | | | | | |
| | • | • | 4218 xx | 5 | 48 | 29 | 1053 | 1259 | 1780 | 2180 | 2814 | 3330 | 3980 | 311 | 269 | 170 | | | | |
| | • | • | 4244 xx | | 53 | 29 | 1179 | 1409 | 1992 | 2440 | 3150 | 3727 | 4455 | | | | | | | |
| | • | • | 4279 xx | | 68 | 35 | 1348 | 1611 | 2278 | 2790 | 3602 | 4262 | 5094 | | | | | | | |
| | • | • | 4287 xx | | 73 | 35 | 1386 | 1657 | 2343 | 2870 | 3705 | 4384 | 5240 | | | | | | | |
| | • | • | 4305 xx | 6 | 61 | 41 | 1473 | 1761 | 2490 | 3050 | 3938 | 4659 | 5569 | 366 | 321 | 200 | | | | |
| | • | • | 4348 xx | | 70 | 41 | 1681 | 2009 | 2841 | 3480 | 4493 | 5316 | 6354 | | | | | | | |
| | • | • | 4392 xx | | 77 | 44 | 1894 | 2263 | 3201 | 3920 | 5061 | 5988 | 7157 | | | | | | | |
| | • | • | 4418 xx | | 82 | 44 | 2019 | 2413 | 3413 | 4180 | 5396 | 6385 | 7632 | | | | | | | |
| | • | • | 4435 xx | 8 | 70 | 48 | 2101 | 2511 | 3552 | 4350 | 5616 | 6645 | 7942 | 470 | 423 | 240 | | | | |
| | • | • | 4520 xx | | 80 | 47 | 2512 | 3002 | 4246 | 5200 | 6713 | 7943 | 9494 | | | | | | | |
| | • | • | 4610 xx | | 91 | 47 | 2947 | 3522 | 4981 | 6100 | 7875 | 9318 | 11137 | | | | | | | |
| | • | • | 4694 xx | | 102 | 57 | 3352 | 4007 | 5666 | 6940 | 8960 | 10601 | 12671 | | | | | | | |
| | • | • | 4785 xx | | 124 | 57 | 3792 | 4532 | 6409 | 7850 | 10134 | 11991 | 14332 | | | | | | | |
| | • | • | 4695 xx | 10 | 102 | 57 | 3357 | 4013 | 5675 | 6950 | 8972 | 10616 | 12689 | | 527 | | | | | |
| | • | • | 4870 xx | | 102 | 64 | 4202 | 5023 | 7104 | 8700 | 11232 | 13289 | 15884 | | | | | | | |
| | • | • | 5104 xx | | 122 | 67 | 5024 | 6004 | 8492 | 10400 | 13426 | 15886 | 18988 | | | | | | | |
| | • | • | 5113 xx | | 135 | 67 | 5458 | 6524 | 9226 | 11300 | 14588 | 17261 | 20631 | | | | | | | |

| 120° | BEW | Code | RF DF | D | D1 | Capacity (lpm) | | | | | | | Dimension mm | | |
|------|-----|---------|----------|----|----|-------------------|-----|------|------|------|------|------|--------------|-----|-----|
| | | | | | | at pressure (bar) | | | | | | | mm | | |
| | | | | | | 0.7 | 1.0 | 2.0 | 3.0 | 5.0 | 7.0 | 10 | H | H2 | WS |
| | • | 4158 xx | 4 | 47 | 22 | 758 | 906 | 1282 | 1570 | 2027 | 2398 | 2538 | 251 | 207 | 130 |