

MaxiPass®

Maximum Free Passage

DESIGN FEATURES

- Ultimate clog-resistant design with largest free passage available in a full cone nozzle
- Two unique S-shaped internal vanes allow free passage of particles
- High energy efficiency
- Easily handles dirty, lumpy liquids
- Male and female connections
- Flanged connection available
- Patented design

SPRAY CHARACTERISTICS

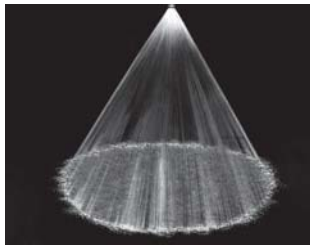
- High reliability spray performance under the most difficult conditions
- Spray pattern:** Full Cone (Square patterns to special order)
- Spray angles:** 30°, 60°, 90° and 120°
- Flow rates:** 2.60 to 3540 L/min (Flow rates up to 17,000 L/min available; call BETE Applications Engineering for details.)



Wide Angle Metal



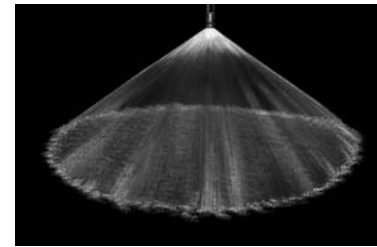
Full Cone 30° (NN)



Full Cone 60° (N)



Full Cone 90° (M)



Full Cone 120° (W)

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

MaxiPass Flow Rates and Dimensions

Full Cone, 30° (NN), 60° (N), 90° (M), and 120° (W) Spray Angles, 3/8" to 4" Pipe Sizes, BSP or NPT

| Male or Female Pipe Size | Nozzle Number | K Factor | LITERS PER MINUTE @ BAR | | | | | | | | Approx. Free Passage Dia. (mm) | Approx. Dimensions (mm) Overall Length | | | | | Wt.** (kg) Metal |
|--------------------------|---------------|----------|-------------------------|---------|---------|---------|-------|-------|-------|-------|--------------------------------|--|-------|-------|--------|------|------------------|
| | | | 0.2 bar | 0.3 bar | 0.5 bar | 0.7 bar | 1 bar | 2 bar | 3 bar | 5 bar | | 30° A | 60° A | 90° A | 120° A | B | |
| 3/8* | MP125 | 5.53 | 2.60 | 3.14 | 3.99 | 4.68 | 5.53 | 7.66 | 9.27 | 11.8 | 3.18 | - | 38.1 | 38.1 | 38.1 | 22.2 | 0.09 |
| | MP156 | 8.79 | 4.13 | 4.99 | 6.35 | 7.43 | 8.79 | 12.2 | 14.7 | 18.7 | 3.97 | - | 38.1 | 38.1 | 38.1 | 22.2 | 0.09 |
| | MP187 | 12.7 | 5.96 | 7.21 | 9.17 | 10.7 | 12.7 | 17.6 | 21.3 | 27.1 | 4.76 | - | 47.6 | 47.6 | 47.6 | 25.4 | 0.11 |
| 1/2* | MP187 | 12.7 | 5.96 | 7.21 | 9.17 | 10.7 | 12.7 | 17.6 | 21.3 | 27.1 | 4.76 | - | 47.6 | 47.6 | 47.6 | 25.4 | 0.11 |
| | MP218 | 20.2 | 9.48 | 11.5 | 14.6 | 17.1 | 20.2 | 28.0 | 33.9 | 43.0 | 5.56 | - | 47.6 | 47.6 | 47.6 | 25.4 | 0.11 |
| | MP250 | 22.7 | 10.7 | 12.9 | 16.4 | 19.2 | 22.7 | 31.4 | 38.0 | 48.4 | 6.35 | - | 47.6 | 47.6 | 47.6 | 25.4 | 0.11 |
| 3/4 | MP281 | 27.9 | 13.1 | 15.8 | 20.1 | 23.6 | 27.9 | 38.6 | 46.8 | 59.4 | 7.14 | - | 63.5 | 60.3 | 63.5 | 31.8 | 0.23 |
| | MP312 | 33.8 | 15.9 | 19.2 | 24.4 | 28.6 | 33.8 | 46.8 | 56.6 | 72.0 | 7.94 | 102 | 63.5 | 60.3 | 63.5 | 31.8 | 0.23 |
| | MP343 | 41.4 | 19.4 | 23.5 | 29.9 | 35.0 | 41.4 | 57.3 | 69.4 | 88.2 | 8.73 | 102 | 63.5 | 60.3 | 63.5 | 31.8 | 0.20 |
| | MP375 | 48.8 | 22.9 | 27.7 | 35.2 | 41.3 | 48.8 | 67.6 | 81.8 | 104 | 9.53 | 102 | 63.5 | 60.3 | 63.5 | 31.8 | 0.20 |
| 1 | MP375 | 48.8 | 22.9 | 27.7 | 35.2 | 41.3 | 48.8 | 67.6 | 81.8 | 104 | 9.53 | 111 | 74.6 | 74.6 | 74.6 | 38.1 | 0.35 |
| | MP406 | 58.5 | 27.5 | 33.2 | 42.2 | 49.2 | 58.5 | 81.0 | 98.0 | 125 | 10.3 | 111 | 74.6 | 74.6 | 74.6 | 38.1 | 0.33 |
| | MP437 | 68.4 | 32.1 | 38.8 | 49.4 | 57.8 | 68.4 | 94.7 | 115 | 146 | 11.1 | 111 | 74.6 | 74.6 | 74.6 | 38.1 | 0.33 |
| 1 1/4 | MP437 | 68.4 | 32.1 | 38.8 | 49.4 | 57.8 | 68.4 | 94.7 | 115 | 146 | 11.1 | 137 | 85.7 | 85.7 | 85.7 | 50.8 | 0.61 |
| | MP500 | 87.9 | 41.3 | 49.9 | 63.5 | 74.3 | 87.9 | 122 | 148 | 187 | 12.7 | 137 | 85.7 | 85.7 | 85.7 | 50.8 | 0.61 |
| | MP531 | 97.6 | 45.8 | 55.4 | 70.5 | 82.5 | 97.6 | 135 | 164 | 208 | 13.5 | 137 | 85.7 | 85.7 | 85.7 | 50.8 | 0.61 |
| | MP562 | 107 | 50.2 | 60.8 | 77.3 | 90.5 | 107 | 148 | 179 | 228 | 14.3 | 137 | 85.7 | 85.7 | 85.7 | 50.8 | 0.61 |
| 1 1/2 | MP562 | 107 | 50.2 | 60.8 | 77.3 | 90.5 | 107 | 148 | 179 | 228 | 13.97 | 184 | 111 | 111 | 111 | 57.2 | 0.91 |
| | MP593 | 122 | 57.3 | 69.3 | 88.1 | 103 | 122 | 169 | 205 | 260 | 15.1 | 184 | 111 | 111 | 111 | 57.2 | 0.91 |
| | MP625 | 130 | 61.0 | 73.8 | 93.9 | 110 | 130 | 180 | 218 | 277 | 15.9 | 184 | 111 | 111 | 111 | 57.2 | 0.91 |
| | MP656 | 158 | 74.2 | 89.7 | 114 | 134 | 158 | 219 | 265 | 337 | 16.7 | 184 | 111 | 111 | 111 | 57.2 | 0.91 |
| | MP687 | 166 | 77.9 | 94.3 | 120 | 140 | 166 | 230 | 278 | 354 | 17.5 | 184 | 111 | 111 | 111 | 57.2 | 0.91 |

Flow Rate (L/min) = K (bar)^{0.47} ** Weights given are for 60°, 90°, and 120° (PTFE not available in 3/8" and 1/2" sizes. Cobalt A6 not available in 3/8".)

Standard Materials: Brass, 316 Stainless Steel, PVC, Polypropylene, and PTFE

The spray angle of wide and medium angle whirl nozzles is affected by increasing pressure. *3/8" and 1/2" sizes: 30° not available, 60° not available in plastic Contact BETE Applications Engineering when using the MaxiPass above 3 bar (40 PSI).

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



A cutaway view of the MaxiPass nozzle showing the S-shaped vanes that enable the nozzle to successfully handle large particles without clogging.

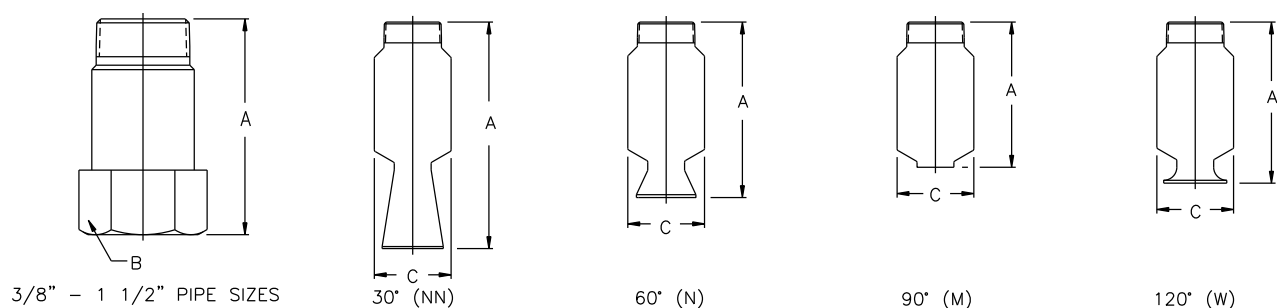


MaxiPass Free Passage



Traditional Full Cone Free Passage

A comparison of the free passage available with the BETE MaxiPass nozzle compared to the free passage of a traditional full cone nozzle. The BETE MaxiPass is designed to pass solid particles that are 2-3 times larger in diameter than particles that will pass through a traditional full cone nozzle.



For plastic dimensions, please call BETE Customer Service.

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

MaxiPass Flow Rates and Dimensions

Full Cone, 30°(NN), 60° (N), 90°(M), and 120°(W) Spray Angles, 3/8" to 4" Pipe Sizes, BSP or NPT

| Male or Female Pipe Size | Nozzle Number | K Factor | LITERS PER MINUTE @ BAR | | | | | | | | Approx. Free Passage Dia. (mm) | Approx. Dimensions (mm) Overall Length | | | | | Wt.** (kg) Metal |
|--------------------------|---------------|----------|-------------------------|---------|---------|---------|-------|-------|-------|-------|--------------------------------|--|-------|-------|--------|------|------------------|
| | | | 0.2 bar | 0.3 bar | 0.5 bar | 0.7 bar | 1 bar | 2 bar | 3 bar | 5 bar | | 30° A | 60° A | 90° A | 120° A | C* | |
| 2 | MP750 | 202 | 94.8 | 115 | 146 | 171 | 202 | 280 | 339 | 430 | 19.1 | | | | | | 1.59 |
| | MP812 | 221 | 104 | 126 | 160 | 187 | 221 | 306 | 370 | 471 | 20.6 | 210 | 183 | 146 | 159 | 66.8 | |
| | MP875 | 273 | 129 | 155 | 197 | 231 | 273 | 378 | 458 | 582 | 22.2 | | | | | | |
| | MP937 | 306 | 144 | 174 | 221 | 259 | 306 | 424 | 513 | 652 | 23.8 | 229 | 194 | 152 | 165 | 82.6 | |
| | MP1000 | 358 | 168 | 203 | 259 | 303 | 358 | 496 | 600 | 763 | 25.4 | 262 | 194 | 152 | 171 | 82.6 | |
| 2 1/2 | MP1125 | 439 | 206 | 249 | 317 | 371 | 439 | 608 | 736 | 935 | 28.6 | | | | | | 1.70 |
| | MP1000 | 358 | 168 | 203 | 259 | 303 | 358 | 496 | 600 | 763 | 25.4 | 262 | 194 | 152 | 168 | 82.6 | |
| | MP1125 | 439 | 206 | 249 | 317 | 371 | 439 | 608 | 736 | 935 | 28.6 | 267 | 213 | 165 | 178 | 82.6 | |
| | MP1250 | 527 | 247 | 299 | 381 | 446 | 527 | 730 | 883 | 1120 | 31.5 | 305 | 244 | 165 | 181 | 82.6 | |
| | MP1375 | 632 | 297 | 359 | 456 | 535 | 632 | 875 | 1060 | 1350 | 34.9 | 305 | 244 | 213 | 229 | 102 | |
| 3 | MP1500 | 774 | 363 | 440 | 559 | 655 | 774 | 1070 | 1230 | 1650 | 38.1 | 330 | 267 | 213 | 229 | 102 | 2.84 |
| | MP1500 | 774 | 363 | 440 | 559 | 655 | 774 | 1070 | 1230 | 1650 | 37.1 | 343 | 279 | 229 | 248 | 121 | 3.29 |
| | MP1625 | 911 | 428 | 517 | 658 | 770 | 911 | 1260 | 1530 | 1940 | 41.3 | 343 | 279 | 229 | 251 | 121 | 3.29 |
| 4 | MP1750 | 1040 | 488 | 591 | 751 | 880 | 1040 | 1440 | 1740 | 2220 | 44.5 | 343 | 279 | 229 | 251 | 121 | 3.29 |
| | MP1750 | 1040 | 488 | 591 | 751 | 880 | 1040 | 1440 | 1740 | 2220 | 44.5 | 406 | 356 | 225 | 248 | 121 | 3.63 |
| | MP1875 | 1170 | 549 | 664 | 845 | 989 | 1170 | 1620 | 1960 | 2490 | 47.6 | 406 | 356 | 225 | 248 | 121 | 3.63 |
| | MP2000 | 1370 | 643 | 778 | 989 | 1160 | 1370 | 1900 | 2300 | 2920 | 49.8 | 406 | 356 | 286 | 311 | 152 | 7.26 |
| | MP2125 | 1530 | 718 | 869 | 1100 | 1290 | 1530 | 2120 | 2560 | 3260 | 54.0 | 406 | 356 | 286 | 311 | 152 | 7.26 |
| MP2250 | 1660 | 779 | 943 | 1200 | 1400 | 1660 | 2300 | 2780 | 3540 | 57.2 | 406 | 356 | 286 | 311 | 152 | 7.26 | |

Flow Rate (L/min) = K (bar)^{0.47} *C dimension for 30° (NN) is larger **Weights given are for 60°, 90°, and 120°

Standard Materials: Brass, 316 Stainless Steel, PVC, Polypropylene, and PTFE.

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