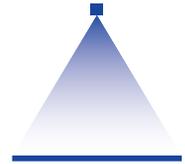


Low pressure flat fan nozzles

Series 612

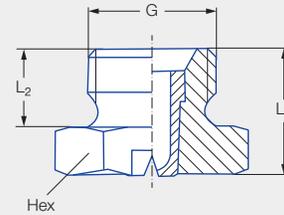


Features:

- Uniform, parabolic liquid distribution
- Stable spray angle
- Compact design for narrow installation conditions



Series 612



Applications:

- Spray cleaning
- Surface cleaning
- Strainer insert cleaning
- Coating processes
- Belt cleaning
- Lubrication processes

| G | Dimensions [in] | | | Weight [lb] Brass |
|----------|-----------------|----------------|----------|----------------------|
| | L ₁ | L ₂ | Hex (mm) | |
| 1/4 BSPP | .51 | .31 | 17 | .03 |

| Spray angle | Ordering number | | | | Equivalent bore diameter A [in] | Narrowest free cross section Ø [in] | V̇ water [gal/min] | | | | | | | | | | Spray width B [in] (at p = 75 psi) | | | | | | | | | | | | | | | | | | | |
|-------------|-----------------|---------------------|----------------------------|-------|---------------------------------|-------------------------------------|--------------------|-------|------|------|-------|-------|------|------|----|----|------------------------------------|--|----|--|--|-------------|--|----|--|--|-------------|--|----|--|--|--|--|-------------------|--|--|
| | Type | Material number | | | | | p [psi] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 16 | 17 ¹ | 30 | | | 7 | | | | | 15 | | | | | | | 30 | | | | | 45 | | | | | 75 | | | | | liters per minute | | |
| | | Stainless steel 303 | Stainless steel 316Ti/316L | Brass | | | 5 bar | | | | | 100 | | | | | 145 | | | | | H = 10 [in] | | | | | H = 20 [in] | | | | | | | | | |
| 20° | 612.301 | ● | ● | ● | 0.03 | 0.02 | 0.04* | 0.06* | 0.09 | 0.11 | 0.14 | 0.51 | 0.16 | 0.19 | 3 | 6 | | | | | | | | | | | | | | | | | | | | |
| | 612.361 | ● | ● | ● | 0.04 | 0.03 | 0.08* | 0.12* | 0.17 | 0.21 | 0.27 | 1.00 | 0.31 | 0.37 | 3 | 6 | | | | | | | | | | | | | | | | | | | | |
| | 612.441 | ● | ● | ● | 0.05 | 0.04 | 0.16* | 0.24 | 0.34 | 0.41 | 0.53 | 1.98 | 0.61 | 0.74 | 3 | 6 | | | | | | | | | | | | | | | | | | | | |
| | 612.481 | ● | ● | ● | 0.06 | 0.05 | 0.21* | 0.30 | 0.43 | 0.53 | 0.68 | 2.53 | 0.78 | 0.95 | 3 | 6 | | | | | | | | | | | | | | | | | | | | |
| 30° | 612.302 | ● | ● | ● | 0.02 | 0.02 | 0.04* | 0.06* | 0.09 | 0.11 | 0.14 | 0.51 | 0.16 | 0.19 | 5 | 9 | | | | | | | | | | | | | | | | | | | | |
| | 612.362 | ● | ● | ● | 0.04 | 0.03 | 0.08* | 0.12* | 0.17 | 0.21 | 0.27 | 1.00 | 0.31 | 0.37 | 5 | 9 | | | | | | | | | | | | | | | | | | | | |
| | 612.402 | ● | ● | ● | 0.05 | 0.035 | 0.13* | 0.19 | 0.27 | 0.33 | 0.42 | 1.58 | 0.49 | 0.59 | 5 | 9 | | | | | | | | | | | | | | | | | | | | |
| | 612.482 | ● | ● | ● | 0.06 | 0.04 | 0.21* | 0.30 | 0.43 | 0.53 | 0.68 | 2.53 | 0.78 | 0.95 | 5 | 9 | | | | | | | | | | | | | | | | | | | | |
| | 612.562 | ● | ● | ● | 0.08 | 0.06 | 0.32 | 0.47 | 0.67 | 0.82 | 1.06 | 3.95 | 1.23 | 1.48 | 5 | 9 | | | | | | | | | | | | | | | | | | | | |
| | 612.642 | ● | ● | ● | 0.10 | 0.07 | 0.52 | 0.76 | 1.08 | 1.32 | 1.70 | 6.33 | 1.96 | 2.36 | 6 | 10 | | | | | | | | | | | | | | | | | | | | |
| | 612.722 | ● | ● | ● | 0.12 | 0.09 | 0.82 | 1.20 | 1.69 | 2.07 | 2.68 | 9.96 | 3.09 | 3.72 | 6 | 10 | | | | | | | | | | | | | | | | | | | | |
| | 612.762 | ● | ● | ● | 0.14 | 0.11 | 1.04 | 1.52 | 2.15 | 2.63 | 3.40 | 12.65 | 3.92 | 4.73 | 6 | 10 | | | | | | | | | | | | | | | | | | | | |
| 612.802 | ● | ● | ● | 0.16 | 0.12 | 1.30 | 1.90 | 2.69 | 3.29 | 4.25 | 15.81 | 4.90 | 5.91 | 6 | 10 | | | | | | | | | | | | | | | | | | | | | |
| 45° | 612.303 | ● | ● | ● | 0.03 | 0.02 | 0.04* | 0.06* | 0.08 | 0.11 | 0.13 | 0.51 | 0.16 | 0.19 | 7 | 13 | | | | | | | | | | | | | | | | | | | | |
| | 612.363 | ● | ● | ● | 0.04 | 0.023 | 0.08* | 0.12* | 0.17 | 0.20 | 0.26 | 1.00 | 0.31 | 0.37 | 7 | 14 | | | | | | | | | | | | | | | | | | | | |
| | 612.403 | ● | ● | ● | 0.05 | 0.035 | 0.13* | 0.19 | 0.26 | 0.32 | 0.42 | 1.58 | 0.49 | 0.59 | 8 | 15 | | | | | | | | | | | | | | | | | | | | |
| | 612.483 | ● | ● | ● | 0.06 | 0.04 | 0.21* | 0.30 | 0.43 | 0.53 | 0.68 | 2.53 | 0.78 | 0.95 | 8 | 15 | | | | | | | | | | | | | | | | | | | | |
| | 612.563 | ● | ● | ● | 0.08 | 0.06 | 0.32 | 0.47 | 0.67 | 0.82 | 1.06 | 3.95 | 1.23 | 1.48 | 8 | 16 | | | | | | | | | | | | | | | | | | | | |
| | 612.643 | ● | ● | ● | 0.10 | 0.07 | 0.52 | 0.76 | 1.08 | 1.32 | 1.70 | 6.33 | 1.96 | 2.36 | 9 | 16 | | | | | | | | | | | | | | | | | | | | |
| | 612.723 | ● | ● | ● | 0.12 | 0.09 | 0.82 | 1.20 | 1.69 | 2.07 | 2.68 | 9.96 | 3.09 | 3.72 | 9 | 17 | | | | | | | | | | | | | | | | | | | | |
| | 612.763 | ● | ● | ● | 0.14 | 0.11 | 1.04 | 1.52 | 2.15 | 2.63 | 3.40 | 12.65 | 3.92 | 4.73 | 9 | 17 | | | | | | | | | | | | | | | | | | | | |
| 612.803 | ● | ● | ● | 0.16 | 0.12 | 1.30 | 1.90 | 2.69 | 3.24 | 4.25 | 15.81 | 4.90 | 5.91 | 9 | 17 | | | | | | | | | | | | | | | | | | | | | |

* Differing spray pattern.

¹ We reserve the right to supply material 316Ti or 316L under material no. 17.

NPT version available by request





| Spray angle | Ordering number | | | | Equivalent bore diameter A [in] | Narrowest free cross section Ø [in] | V̇ water [gal/min] | | | | | | | | Spray width B [in] (at p = 75 psi) | |
|-------------|-----------------|---------------------|--|-------|---------------------------------|-------------------------------------|--------------------|--------|-------|-------|-------|----------------------------|-------|------|------------------------------------|-------------|
| | Type | Material number | | | | | p [psi] | | | | | | | | H = 10 [in] | H = 20 [in] |
| | | 16 | 17 ¹ | 30 | | | 7 | 15 | 30 | 45 | 75 | liters per minute 5 bar | 100 | 145 | | |
| | | Stainless steel 303 | Stainless steel 316Ti/ Stainless steel 316L | Brass | | | | | | | | | | | | |
| 60° | 612.304 | ● | ● | ● | 0.03 | 0.016 | 0.04* | 0.06* | 0.09 | 0.11 | 0.14 | 0.51 | 0.16 | 0.19 | 10 | 19 |
| | 612.334 | ● | ● | ● | 0.035 | 0.02 | 0.06* | 0.09* | 0.12 | 0.15 | 0.19 | 0.71 | 0.22 | 0.27 | 10 | 19 |
| | 612.364 | ● | ● | ● | 0.04 | 0.024 | 0.08* | 0.12* | 0.17 | 0.21 | 0.27 | 1.00 | 0.31 | 0.37 | 10 | 20 |
| | 612.404 | ● | ● | ● | 0.047 | 0.03 | 0.13* | 0.19 | 0.27 | 0.33 | 0.42 | 1.58 | 0.49 | 0.59 | 10 | 20 |
| | 612.444 | ● | ● | ● | 0.05 | 0.035 | 0.16* | 0.24 | 0.34 | 0.41 | 0.53 | 1.98 | 0.61 | 0.74 | 10 | 20 |
| | 612.484 | ● | ● | ● | 0.06 | 0.04 | 0.21* | 0.30 | 0.43 | 0.53 | 0.68 | 2.53 | 0.78 | 0.95 | 10 | 20 |
| | 612.514 | ● | ● | ● | 0.065 | 0.043 | 0.25* | 0.36 | 0.51 | 0.62 | 0.81 | 3.00 | 0.93 | 1.12 | 11 | 20 |
| | 612.564 | ● | ● | ● | 0.08 | 0.05 | 0.32 | 0.47 | 0.67 | 0.82 | 1.06 | 3.95 | 1.23 | 1.48 | 11 | 21 |
| | 612.604 | ● | ● | ● | 0.09 | 0.06 | 0.41 | 0.60 | 0.85 | 1.04 | 1.34 | 4.98 | 1.54 | 1.86 | 11 | 21 |
| | 612.644 | ● | ● | ● | 0.10 | 0.063 | 0.52 | 0.76 | 1.08 | 1.32 | 1.70 | 6.33 | 1.96 | 2.36 | 11 | 21 |
| | 612.674 | ● | ● | ● | 0.11 | 0.07 | 0.63 | 0.89 | 1.25 | 1.54 | 1.98 | 7.51 | 2.35 | 2.81 | 11 | 22 |
| | 612.724 | ● | ● | ● | 0.12 | 0.08 | 0.82 | 1.20 | 1.69 | 2.07 | 2.68 | 9.96 | 3.09 | 3.72 | 11 | 22 |
| | 612.764 | ● | ● | ● | 0.14 | 0.09 | 1.04 | 1.52 | 2.15 | 2.63 | 3.40 | 12.65 | 3.92 | 4.73 | 11 | 22 |
| 612.804 | ● | ● | ● | 0.16 | 0.10 | 1.30 | 1.90 | 2.69 | 3.29 | 4.25 | 15.81 | 4.90 | 5.91 | 11 | 23 | |
| 612.884 | ● | ● | ● | 0.20 | 0.13 | 2.08 | 3.04 | 4.30 | 5.26 | 6.80 | 25.30 | 7.85 | 9.45 | 11 | 23 | |
| 75° | 612.145 | ● | | ● | 0.008 | 0.004 | – | 0.01* | 0.014 | 0.017 | 0.021 | 0.08 | 0.025 | 0.03 | 15 | 27 |
| | 612.165 | ● | | ● | 0.008 | 0.005 | – | 0.01* | 0.017 | 0.02 | 0.027 | 0.10 | 0.03 | 0.04 | 15 | 27 |
| | 612.185 | ● | | ● | 0.008 | 0.006 | – | 0.011* | 0.02 | 0.03 | 0.035 | 0.13 | 0.04 | 0.05 | 15 | 27 |
| | 612.215 | ● | | ● | 0.016 | 0.008 | – | 0.02* | 0.03 | 0.04 | 0.05 | 0.18 | 0.06 | 0.07 | 15 | 27 |
| | 612.245 | ● | | ● | 0.02 | 0.012 | – | 0.03* | 0.04 | 0.05 | 0.07 | 0.26 | 0.08 | 0.10 | 15 | 27 |
| 612.275 | ● | | ● | 0.024 | 0.012 | 0.03* | 0.04 | 0.06 | 0.07 | 0.09 | 0.35 | 0.11 | 0.13 | 15 | 27 | |
| 90° | 612.216 | ● | | ● | 0.016 | 0.008 | – | 0.02* | 0.03 | 0.04 | 0.05 | 0.18 | 0.06 | 0.07 | 17 | 31 |
| | 612.276 | ● | | ● | 0.024 | 0.012 | 0.03* | 0.04* | 0.06 | 0.07 | 0.09 | 0.35 | 0.11 | 0.13 | 17 | 31 |
| | 612.306 | ● | ● | ● | 0.03 | 0.016 | 0.04* | 0.06* | 0.09 | 0.11 | 0.14 | 0.51 | 0.16 | 0.19 | 17 | 31 |
| | 612.336 | ● | ● | ● | 0.035 | 0.02 | 0.06* | 0.09* | 0.12 | 0.15 | 0.19 | 0.71 | 0.22 | 0.27 | 17 | 32 |
| | 612.366 | ● | ● | ● | 0.04 | 0.028 | 0.08* | 0.12* | 0.17 | 0.21 | 0.27 | 1.00 | 0.31 | 0.37 | 18 | 33 |
| | 612.406 | ● | ● | ● | 0.047 | 0.03 | 0.13* | 0.19 | 0.27 | 0.33 | 0.42 | 1.58 | 0.49 | 0.59 | 18 | 33 |
| | 612.446 | ● | ● | ● | 0.05 | 0.03 | 0.16* | 0.24 | 0.34 | 0.41 | 0.53 | 1.98 | 0.61 | 0.74 | 18 | 34 |
| | 612.486 | ● | ● | ● | 0.06 | 0.03 | 0.21* | 0.30 | 0.43 | 0.53 | 0.68 | 2.53 | 0.78 | 0.95 | 19 | 34 |
| | 612.516 | ● | ● | ● | 0.065 | 0.035 | 0.25* | 0.36 | 0.51 | 0.62 | 0.81 | 3.00 | 0.93 | 1.12 | 19 | 35 |
| | 612.566 | ● | ● | ● | 0.08 | 0.04 | 0.33 | 0.47 | 0.66 | 0.81 | 1.04 | 3.95 | 1.23 | 1.48 | 19 | 35 |
| | 612.606 | ● | ● | ● | 0.09 | 0.047 | 0.41 | 0.60 | 0.85 | 1.04 | 1.34 | 4.98 | 1.54 | 1.86 | 20 | 36 |
| | 612.646 | ● | ● | ● | 0.10 | 0.05 | 0.52 | 0.76 | 1.08 | 1.32 | 1.70 | 6.33 | 1.96 | 2.36 | 20 | 37 |
| | 612.676 | ● | ● | ● | 0.11 | 0.06 | 0.62 | 0.90 | 1.28 | 1.56 | 2.02 | 7.51 | 2.33 | 2.81 | 20 | 37 |
| | 612.726 | ● | ● | ● | 0.12 | 0.067 | 0.82 | 1.20 | 1.69 | 2.07 | 2.68 | 9.96 | 3.09 | 3.72 | 20 | 39 |
| | 612.766 | ● | ● | ● | 0.14 | 0.07 | 1.04 | 1.52 | 2.15 | 2.63 | 3.40 | 12.65 | 3.92 | 4.73 | 21 | 39 |
| 612.806 | ● | ● | ● | 0.16 | 0.09 | 1.30 | 1.90 | 2.69 | 3.29 | 4.25 | 15.81 | 4.90 | 5.91 | 21 | 41 | |

* Differing spray pattern.

¹ We reserve the right to supply material 316Ti or 316L under material no. 17.

NPT version available by request

| Spray angle | Ordering number | | | | Equivalent bore diameter A [in] | Narrowest free cross section Ø [in] | V̇ water [gal/min] | | | | | | | | Spray width B [in] (at p = 75 psi) | |
|-------------|-----------------|---------------------|--|-------|---------------------------------|-------------------------------------|--------------------|--------|------|------|--------------|-------------|------|------|------------------------------------|-------------|
| | Type | Material number | | | | | p [psi] | | | | | | | | H = 10 [in] | H = 20 [in] |
| | | 16 | 17 ¹ | 30 | | | liters per minute | 5 bar | 100 | 145 | 100 | 145 | 100 | 145 | | |
| | | Stainless steel 303 | Stainless steel 316Ti/ Stainless steel 316L | Brass | | | | | | | | | | | | |
| 120° | 612.187 | ● | | ● | 0.014 | 0.008 | – | 0.011* | 0.02 | 0.03 | 0.035 | 0.13 | 0.04 | 0.05 | 25 | 42 |
| | 612.217 | ● | | ● | 0.016 | 0.008 | – | 0.02* | 0.03 | 0.04 | 0.05 | 0.18 | 0.06 | 0.07 | 26 | 43 |
| | 612.247 | ● | | ● | 0.02 | 0.008 | – | 0.03* | 0.04 | 0.05 | 0.07 | 0.26 | 0.08 | 0.10 | 26 | 43 |
| | 612.277 | ● | | ● | 0.024 | 0.012 | 0.03* | 0.04* | 0.06 | 0.07 | 0.09 | 0.35 | 0.11 | 0.13 | 26 | 45 |
| | 612.307 | ● | | ● | 0.03 | 0.012 | 0.04* | 0.06* | 0.09 | 0.11 | 0.14 | 0.51 | 0.16 | 0.19 | 28 | 49 |
| | 612.337 | ● | ● | ● | 0.035 | 0.016 | 0.06* | 0.09* | 0.12 | 0.15 | 0.19 | 0.71 | 0.22 | 0.27 | 29 | 53 |
| | 612.367 | ● | ● | ● | 0.04 | 0.016 | 0.08* | 0.12* | 0.17 | 0.21 | 0.27 | 1.00 | 0.31 | 0.37 | 31 | 56 |
| | 612.407 | ● | ● | ● | 0.047 | 0.02 | 0.13* | 0.19 | 0.27 | 0.33 | 0.42 | 1.58 | 0.49 | 0.59 | 33 | 58 |
| | 612.447 | ● | ● | ● | 0.05 | 0.02 | 0.16* | 0.24 | 0.34 | 0.41 | 0.53 | 1.98 | 0.61 | 0.74 | 33 | 60 |
| | 612.487 | ● | ● | ● | 0.06 | 0.02 | 0.21* | 0.30 | 0.43 | 0.53 | 0.68 | 2.53 | 0.78 | 0.95 | 33 | 61 |
| | 612.517 | ● | ● | ● | 0.065 | 0.035 | 0.25* | 0.36 | 0.51 | 0.62 | 0.81 | 3.00 | 0.93 | 1.12 | 33 | 61 |
| | 612.567 | ● | ● | ● | 0.08 | 0.035 | 0.32 | 0.47 | 0.67 | 0.82 | 1.06 | 3.95 | 1.23 | 1.48 | 34 | 63 |
| | 612.607 | ● | ● | ● | 0.09 | 0.04 | 0.41 | 0.60 | 0.85 | 1.04 | 1.34 | 4.98 | 1.54 | 1.86 | 34 | 64 |
| | 612.647 | ● | ● | ● | 0.10 | 0.05 | 0.52 | 0.76 | 1.08 | 1.32 | 1.70 | 6.33 | 1.96 | 2.36 | 35 | 65 |
| | 612.677 | ● | ● | ● | 0.11 | 0.06 | 0.62 | 0.90 | 1.28 | 1.56 | 2.02 | 7.51 | 2.33 | 2.81 | 35 | 65 |
| 612.727 | ● | ● | ● | 0.12 | 0.063 | 0.82 | 1.20 | 1.69 | 2.07 | 2.68 | 9.96 | 3.09 | 3.72 | 35 | 66 | |
| 612.767 | ● | ● | ● | 0.14 | 0.07 | 1.04 | 1.52 | 2.15 | 2.63 | 3.40 | 12.65 | 3.92 | 4.73 | 35 | 67 | |
| 612.807 | ● | | ● | 0.16 | 0.08 | 1.30 | 1.90 | 2.69 | 3.29 | 4.25 | 15.81 | 4.90 | 5.91 | 35 | 67 | |

* Differing spray pattern.

¹ We reserve the right to supply material 316Ti or 316L under material no. 17.
NPT version available by request

Conversion formula for this series: $\dot{V}_2 = \dot{V}_1 \cdot \sqrt{\frac{p_2}{p_1}}$

Ordering Type + Material no. = Ordering no.
example: 612.187 + 16 = 612.187.16



Assembly accessories can be found in Chapter 12 "Accessories".