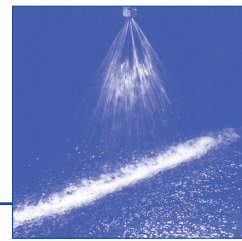




Flat fan nozzles for retaining nut

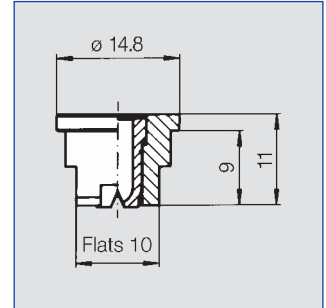
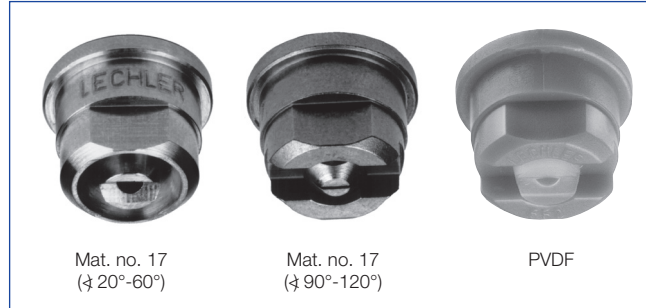
Series 652



Assembly with retaining nut. Easy nozzle changing, simple jet alignment. Parabolic distribution of liquid. Spray pipes equipped with these nozzles show an extremely uniform total liquid distribution.

Applications:

Cleaning, surface treatment, pickling, rinsing.



| Spray angle | Ordering no. | | | | A Ø [mm] | E Ø [mm] | V̇ [l/min] | | | | | | Spray width B | | | | |
|-------------|--------------|--------------------------|------|--------------------------------|----------|----------|------------|-------|------|------------|-------|-------|------------------|------|------------------|--|--|
| | Type | Mat. no. | | p [bar] | | | | | | at p=2 bar | | | | | | | |
| | | 17 ¹ | 5E | 0.5 | | | 1.0 | | 2.0 | | 3.0 | | 5.0 | | 10.0 | | |
| | | AISI 316Ti/ AISI 316L | PVDF | [US gal./ min] at 40 psi | | | | | | | | | H = 250 mm | | H = 500 mm | | |
| 20° | 652.441 | ○ | ○ | 1.35 | 1.10 | 0.62* | 0.88 | 1.25 | 0.39 | 1.53 | 1.98 | 2.80 | 65 | 125 | | | |
| | 652.481 | ○ | ○ | 1.50 | 1.20 | 0.80* | 1.13 | 1.60 | 0.50 | 1.96 | 2.53 | 3.58 | 65 | 125 | | | |
| 30° | 652.482 | ○ | ○ | 1.50 | 1.10 | 0.80* | 1.13 | 1.60 | 0.50 | 1.96 | 2.53 | 3.58 | 115 | 230 | | | |
| | 652.562 | ○ | ○ | 2.00 | 1.50 | 1.25 | 1.77 | 2.50 | 0.78 | 3.06 | 3.95 | 5.59 | 115 | 230 | | | |
| | 652.642 | ○ | - | 2.50 | 1.80 | 2.00 | 2.83 | 4.00 | 1.24 | 4.90 | 6.33 | 8.94 | 120 | 230 | | | |
| | 652.722 | ○ | - | 3.00 | 2.40 | 3.15 | 4.46 | 6.30 | 1.95 | 7.72 | 9.96 | 14.09 | 120 | 235 | | | |
| | 652.762 | ○ | - | 3.50 | 2.70 | 4.00 | 5.66 | 8.00 | 2.48 | 9.80 | 12.65 | 17.89 | 120 | 235 | | | |
| | 652.802 | ○ | - | 4.00 | 3.10 | 5.00 | 7.07 | 10.00 | 3.10 | 12.25 | 15.81 | 22.36 | 120 | 240 | | | |
| 45° | 652.483 | ○ | ○ | 1.50 | 1.10 | 0.80* | 1.13 | 1.60 | 0.50 | 1.96 | 2.53 | 3.58 | 185 | 340 | | | |
| | 652.563 | ○ | ○ | 2.00 | 1.40 | 1.25 | 1.77 | 2.50 | 0.78 | 3.06 | 3.95 | 5.59 | 185 | 340 | | | |
| | 652.643 | ○ | ○ | 2.50 | 1.80 | 2.00 | 2.83 | 4.00 | 1.24 | 4.90 | 6.33 | 8.94 | 185 | 345 | | | |
| | 652.723 | ○ | - | 3.00 | 2.40 | 3.15 | 4.46 | 6.30 | 1.95 | 7.72 | 9.96 | 14.09 | 190 | 355 | | | |
| | 652.763 | ○ | - | 3.50 | 2.60 | 4.00 | 5.66 | 8.00 | 2.48 | 9.80 | 12.65 | 17.89 | 190 | 355 | | | |
| | 652.803 | ○ | - | 4.00 | 3.00 | 5.00 | 7.07 | 10.00 | 3.10 | 12.25 | 15.81 | 22.36 | 195 | 360 | | | |
| 60° | 652.484 | ○ | ○ | 1.50 | 1.00 | 0.80* | 1.13 | 1.60 | 0.50 | 1.96 | 2.53 | 3.58 | 280 | 530 | | | |
| | 652.514 | ○ | ○ | 1.65 | 1.10 | 0.95* | 1.34 | 1.90 | 0.59 | 2.33 | 3.00 | 4.25 | 280 | 530 | | | |
| | 652.564 | ○ | ○ | 2.00 | 1.30 | 1.25 | 1.77 | 2.50 | 0.78 | 3.06 | 3.95 | 5.59 | 280 | 525 | | | |
| | 652.604 | ○ | ○ | 2.20 | 1.50 | 1.58 | 2.23 | 3.15 | 0.98 | 3.86 | 4.98 | 7.04 | 280 | 520 | | | |
| | 652.644 | ○ | ○ | 2.50 | 1.60 | 2.00 | 2.83 | 4.00 | 1.24 | 4.90 | 6.33 | 8.94 | 275 | 520 | | | |
| | 652.674 | ○ | ○ | 2.70 | 1.80 | 2.38 | 3.36 | 4.75 | 1.47 | 5.82 | 7.51 | 10.62 | 275 | 520 | | | |
| | 652.724 | ○ | ○ | 3.00 | 2.10 | 3.15 | 4.46 | 6.30 | 1.95 | 7.72 | 9.96 | 14.09 | 275 | 520 | | | |
| | 652.764 | ○ | - | 3.50 | 2.30 | 4.00 | 5.66 | 8.00 | 2.48 | 9.80 | 12.65 | 17.89 | 270 | 515 | | | |
| | 652.804 | ○ | ○ | 4.00 | 2.60 | 5.00 | 7.07 | 10.00 | 3.10 | 12.25 | 15.81 | 22.36 | 270 | 510 | | | |
| | 652.844 | - | ○ | 4.50 | 3.00 | 6.25 | 8.84 | 12.50 | 3.88 | 15.31 | 19.76 | 27.95 | 270 | 510 | | | |
| 90° | 652.566 | ○ | ○ | 2.00 | 1.10 | 1.25 | 1.77 | 2.50 | 0.78 | 3.06 | 3.95 | 5.59 | 450 | 805 | | | |
| | 652.606 | ○ | ○ | 2.20 | 1.20 | 1.58 | 2.23 | 3.15 | 0.98 | 3.86 | 4.98 | 7.04 | 450 | 805 | | | |
| | 652.646 | ○ | ○ | 2.50 | 1.30 | 2.00 | 2.83 | 4.00 | 1.24 | 4.90 | 6.33 | 8.94 | 450 | 805 | | | |
| | 652.676 | ○ | ○ | 2.70 | 1.40 | 2.38 | 3.36 | 4.75 | 1.47 | 5.82 | 7.51 | 10.62 | 450 | 810 | | | |
| | 652.726 | ○ | ○ | 3.00 | 1.70 | 3.15 | 4.46 | 6.30 | 1.95 | 7.72 | 9.96 | 14.09 | 450 | 810 | | | |
| | 652.766 | ○ | - | 3.50 | 1.90 | 4.00 | 5.66 | 8.00 | 2.48 | 9.80 | 12.65 | 17.89 | 450 | 815 | | | |
| | 652.806 | ○ | ○ | 4.00 | 2.40 | 5.00 | 7.07 | 10.00 | 3.10 | 12.25 | 15.81 | 22.36 | 450 | 820 | | | |
| | 652.846 | - | ○ | 4.50 | 2.40 | 6.25 | 8.84 | 12.50 | 3.88 | 15.31 | 19.76 | 27.95 | 450 | 820 | | | |
| | 652.886 | - | ○ | 5.00 | 3.10 | 8.00 | 11.31 | 16.00 | 4.96 | 19.60 | 25.30 | 35.78 | 450 | 835 | | | |
| | 120° | 652.607 | ○ | ○ | 2.20 | 1.10 | 1.58 | 2.23 | 3.15 | 0.98 | 3.86 | 4.98 | 7.04 | 675 | 1285 | | |
| 652.647 | | ○ | - | 2.50 | 1.30 | 2.00 | 2.83 | 4.00 | 1.24 | 4.90 | 6.33 | 8.94 | 680 | 1295 | | | |
| 652.677 | | ○ | - | 2.70 | 1.40 | 2.38 | 3.36 | 4.75 | 1.47 | 5.82 | 7.51 | 10.62 | 685 | 1300 | | | |
| 652.727 | | ○ | ○ | 3.00 | 1.60 | 3.15 | 4.46 | 6.30 | 1.95 | 7.72 | 9.96 | 14.09 | 695 | 1315 | | | |
| 652.767 | | ○ | - | 3.50 | 1.70 | 4.00 | 5.66 | 8.00 | 2.48 | 9.80 | 12.65 | 17.89 | 705 | 1330 | | | |
| 652.847 | | - | ○ | 4.50 | 2.30 | 6.25 | 8.84 | 12.50 | 3.88 | 15.31 | 19.76 | 27.95 | 800 | 1460 | | | |
| 652.887 | | - | ○ | 5.00 | 2.60 | 8.00 | 11.31 | 16.00 | 4.96 | 19.60 | 25.30 | 35.78 | 800 | 1460 | | | |

¹We reserve the right to deliver AISI 316Ti or AISI 316L under the material no. 17.
A = equivalent bore diameter · E = Narrowest free cross section ·
*differing spray pattern

Example of ordering: Type **652.441** + Material no. **17** = Ordering no. **652.441.17**

Conversion formula for the above series: $\dot{V}_2 = \dot{V}_1 * \sqrt{\frac{p_2}{p_1}}$