

TDL

Twist & Dry® Low Flow Hollow Cone

DESIGN FEATURES

- Patented locking mechanism for quick and easy change-out and maintenance
- Lower flow rates than Twist & Dry series
- Female-threaded or butt weld pipe connections
- Orifice size: 0.018" through 0.058"
- Interchangeable swirl and orifice discs for variable patterns and flow rates

SPRAY CHARACTERISTICS

- Hollow Cone
- **Flow rates:** 2.86 to 123 gph
- **Spray angle:** 70° - 75°

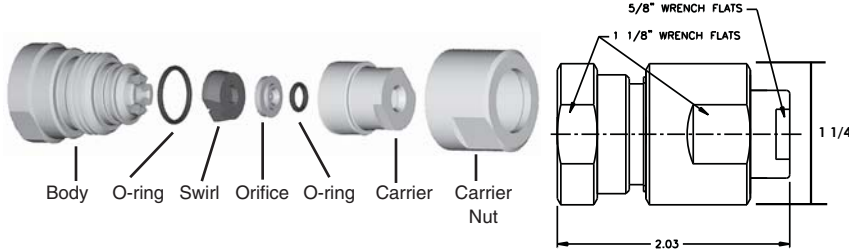
Ideal for small-scale applications and pilot tests



TDL Assembly



70° Hollow Cone



| Pipe Size | Weight (oz) |
|-----------|-------------|
| 1/4" | 4.2 |
| 3/8" | 3.8 |

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

TDL Flow Rates

Hollow Cone, 70° - 75° Spray Angles, 1/4" and 3/8" Pipe Sizes, NPT or BSP

| Female Pipe Size | Nozzle Number | Swirl | Orifice Dia. (in.) | K Factor | GALLONS PER HOUR @ PSI | | | | | | | | | | | |
|------------------|---------------|-------|--------------------|----------|------------------------|---------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | | | | | 200 PSI | 500 PSI | 750 PSI | 1000 PSI | 1250 PSI | 1500 PSI | 1750 PSI | 2000 PSI | 2500 PSI | 3000 PSI | 4000 PSI | 5000 PSI |
| 1/4" | TDL4-18 | SWL4 | 0.018 | 0.202 | 2.86 | 4.53 | 5.54 | 6.40 | 7.16 | 7.84 | 8.47 | 9.1 | 10.1 | 11.1 | 12.8 | 14.3 |
| | TDL4-20 | SWL4 | 0.020 | 0.215 | 3.04 | 4.81 | 5.89 | 6.80 | 7.60 | 8.33 | 9.00 | 9.62 | 10.8 | 11.8 | 13.6 | 15.2 |
| | TDL4-22 | SWL4 | 0.022 | 0.237 | 3.35 | 5.30 | 6.50 | 7.50 | 8.39 | 9.19 | 9.92 | 10.6 | 11.9 | 13.0 | 15.0 | 16.8 |
| | TDL4-24 | SWL4 | 0.024 | 0.272 | 3.85 | 6.08 | 7.45 | 8.60 | 9.62 | 10.5 | 11.4 | 12.2 | 13.6 | 14.9 | 17.2 | 19.2 |
| | TDL4-27 | SWL4 | 0.027 | 0.316 | 4.47 | 7.07 | 8.66 | 10.0 | 11.2 | 12.2 | 13.2 | 14.1 | 15.8 | 17.3 | 20.0 | 22.4 |
| | TDL1-22 | SWL1 | 0.022 | 0.348 | 4.92 | 7.78 | 9.53 | 11.0 | 12.3 | 13.5 | 14.6 | 15.6 | 17.4 | 19.1 | 22.0 | 24.6 |
| OR | TDL1-24 | SWL1 | 0.024 | 0.395 | 5.59 | 8.84 | 10.8 | 12.5 | 14.0 | 15.3 | 16.5 | 17.7 | 19.8 | 21.7 | 25.0 | 28.0 |
| | TDL1-27 | SWL1 | 0.027 | 0.459 | 6.48 | 10.3 | 12.6 | 14.5 | 16.2 | 17.8 | 19.2 | 20.5 | 22.9 | 25.1 | 29.0 | 32.4 |
| | TDL1-30 | SWL1 | 0.030 | 0.522 | 7.38 | 11.7 | 14.3 | 16.5 | 18.4 | 20.2 | 21.8 | 23.3 | 26.1 | 28.6 | 33.0 | 36.9 |
| | TDL2-30 | SWL2 | 0.030 | 0.632 | 8.94 | 14.1 | 17.3 | 20.0 | 22.4 | 24.5 | 26.5 | 28.3 | 31.6 | 34.6 | 40.0 | 44.7 |
| | TDL2-33 | SWL2 | 0.033 | 0.712 | 10.1 | 15.9 | 19.5 | 22.5 | 25.2 | 27.6 | 29.8 | 31.8 | 35.6 | 39.0 | 45.0 | 50.3 |
| | TDL2-36 | SWL2 | 0.036 | 0.791 | 11.2 | 17.7 | 21.7 | 25.0 | 28.0 | 30.6 | 33.1 | 35.4 | 39.5 | 43.3 | 50.0 | 55.9 |
| 3/8" | TDL2-38 | SWL2 | 0.038 | 0.838 | 11.9 | 18.7 | 22.9 | 26.5 | 29.6 | 32.5 | 35.1 | 37.5 | 41.9 | 45.9 | 53.0 | 59.3 |
| | TDL2-40 | SWL2 | 0.040 | 0.917 | 13.0 | 20.5 | 25.1 | 29.0 | 32.4 | 35.5 | 38.4 | 41.0 | 45.9 | 50.2 | 58.0 | 64.8 |
| | TDL2-42 | SWL2 | 0.042 | 0.949 | 13.4 | 21.2 | 26.0 | 30.0 | 33.5 | 36.7 | 39.7 | 42.4 | 47.4 | 52.0 | 60.0 | 67.1 |
| | TDL2-44 | SWL2 | 0.044 | 0.980 | 13.9 | 21.9 | 26.8 | 31.0 | 34.7 | 38.0 | 41.0 | 43.8 | 49.0 | 53.7 | 62.0 | 69.3 |
| | TDL2-46 | SWL2 | 0.046 | 1.03 | 14.5 | 23.0 | 28.1 | 32.5 | 36.3 | 39.8 | 43.0 | 46.0 | 51.4 | 56.3 | 65.0 | 72.7 |
| | TDL2-48 | SWL2 | 0.048 | 1.11 | 15.7 | 24.7 | 30.3 | 35.0 | 39.1 | 42.9 | 46.3 | 49.5 | 55.3 | 60.6 | 70.0 | 78.3 |
| | TDL2-50 | SWL2 | 0.050 | 1.15 | 16.3 | 25.8 | 31.6 | 36.5 | 40.8 | 44.7 | 48.3 | 51.6 | 57.7 | 63.2 | 73.0 | 81.6 |
| | TDL2-52 | SWL2 | 0.052 | 1.25 | 17.7 | 27.9 | 34.2 | 39.5 | 44.2 | 48.4 | 52.3 | 55.9 | 62.5 | 68.4 | 79.0 | 88.3 |
| | TDL2-54 | SWL2 | 0.054 | 1.30 | 18.3 | 29.0 | 35.5 | 41.0 | 45.8 | 50.2 | 54.2 | 58.0 | 64.8 | 71.0 | 82.0 | 91.7 |
| | TDL2-56 | SWL2 | 0.056 | 1.33 | 18.8 | 29.7 | 36.4 | 42.0 | 47.0 | 51.4 | 55.6 | 59.4 | 66.4 | 72.7 | 84.0 | 93.9 |
| 3/8" | TDL3-50 | SWL3 | 0.050 | 1.42 | 20.0 | 31.7 | 38.8 | 44.8 | 50.1 | 54.9 | 59.3 | 63.4 | 70.8 | 77.6 | 89.6 | 100 |
| | TDL3-52 | SWL3 | 0.052 | 1.51 | 21.4 | 33.8 | 41.4 | 47.8 | 53.4 | 58.5 | 63.2 | 67.6 | 75.6 | 82.8 | 95.6 | 107 |
| | TDL3-54 | SWL3 | 0.054 | 1.60 | 22.6 | 35.7 | 43.7 | 50.5 | 56.5 | 61.8 | 66.8 | 71.4 | 79.8 | 87.5 | 101 | 113 |
| | TDL3-56 | SWL3 | 0.056 | 1.69 | 23.9 | 37.8 | 46.3 | 53.5 | 59.8 | 65.5 | 70.8 | 75.7 | 84.6 | 92.7 | 107 | 120 |
| TDL3-58 | SWL3 | 0.058 | 1.74 | 24.6 | 38.9 | 47.6 | 55.0 | 61.5 | 67.4 | 72.8 | 77.8 | 87.0 | 95.3 | 110 | 123 | |

$$\text{Flow Rate (GPH)} = K \sqrt{\text{PSI}}$$

Standard Materials: Carrier: Stainless Steel; Body: Stainless Steel; Swirl/Orifice: Tungsten Carbide

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

SPECIAL PURPOSE

TO ORDER: specify pipe size, connection type, nozzle number, and material. 413-772-0846