



F-luent-Master®

40 SERIES 360° ROTATION IMPACT SPRINKLERS

DESCRIPTION

The Senninger Irrigation F-luent-Master® sprinkler is designed specifically for disposing effluent by the land treatment method in accordance with EPA guidelines. It is suitable for use on solid-set systems. With minor modifications it can also be used on center pivots or other mechanical-move systems. The 40 series is designed to provide maximum efficiency at intermediate flows.

SPECIFICATIONS

Sprinkler shall be of 360 degree rotation driven by impact splasharm and spring. It shall be capable of a distribution pattern of _____ (feet/meters) in diameter at a riser height of _____ (feet/meters) with a sprinkler base operating pressure of _____ (psi / bar) and a discharge rate of _____ (gpm / L/s). Trajectory shall be _____ degrees (12 or 23 degrees). Nozzle size shall be _____ inch (nozzle # _____). Lower bearing plastic thread shall be 3/4" NPT male.

Sprinkler body shall be constructed of high-impact engineering-grade thermoplastics with stainless steel fulcrum pin and splasharm spring. Fulcrum pin shall be molded into the body for maximum support and stability. Splasharm spring and bearing shall be enclosed for trouble-free performance. Sprinkler shall be equipped with an effluent vane to minimize possible flow obstruction from water-borne solids. Sprinkler cap shall be lavender to correspond to industry standards denoting non-potable water.

Sprinkler shall carry a two-year manufacturer's warranty on materials, workmanship and performance.

FEATURES

- Flow range: 3.82 to 10.6 gpm (0.24 to 0.66 L/s)
- Sprinkler base pressure: 30 to 60 psi (2.0 to 4.0 bar)
- 23° trajectory models: **4023-1-3/4" F EFF** (includes 3/4" female NPT plastic coupling)
- 12° trajectory models: **4012-1-3/4" F EFF**
- **4023-1-1" F EFF** (includes 3/4" x 1" female NPT plastic reducer coupling)
- **4012-1-1" F EFF**
- **4023-1-3/4" M EFF** (galvanized steel connection fittings not recommended)
- **4012-1-3/4" M EFF**
- High-impact engineering-grade thermoplastic construction resists chemical degradation, scale buildup and UV effects
- Stainless steel springs and fulcrum pin enclosed to resist contamination; electrolysis eliminated by using no brass parts
- Lavender cap to correspond to industry standards denoting use of non-potable water
- Effluent vane minimizes obstruction from water-borne materials
- Nozzle sizes from 5/32" to 7/32" (#10 through #14) (4.0 to 5.6 mm)
- Two-year manufacturer's warranty on materials, workmanship and performance
- 23° model also available as a double-nozzle, flow range: 5.25 to 12.6 gpm (0.33 to 0.78 L/s)

Available through leading irrigation dealers.

Designed and manufactured by:



6416 Old Winter Garden Road
Orlando, FL 32835 U.S.A.

Phone: (407) 293-5555 • Fax: (407) 293-5740
www.senninger.com • e-mail: info@senninger.com

4023-1 EFF

| SPRINKLER BASE PRESSURE | (psi) | U.S. - Diameter (feet) | | | | | | | METRIC - Diameter (meters) | | | | | |
|---------------------------------------|-------|------------------------|------|------|------|------|------|----|----------------------------|-------|-------|-------|-------|-------|
| | | 30 | 35 | 40 | 45 | 50 | 55 | 60 | (bar) | 2.0 | 2.5 | 3.0 | 3.5 | 4.0 |
| | | | | | | | | | (psi) | 29.00 | 36.25 | 43.50 | 50.75 | 58.00 |
| #10 Nozzle - Turquoise (5/32") | | | | | | | | | | | | | | |
| Flow (gpm) | 3.82 | 4.13 | 4.41 | 4.68 | 4.93 | 5.17 | 5.40 | | (L/s) | 0.24 | 0.26 | 0.29 | 0.31 | 0.33 |
| Diam. at 1.5' height (ft) | 81 | 83 | 85 | 87 | 88 | 89 | 90 | | 0.5 m (m) | 24.4 | 25.4 | 26.3 | 26.9 | 27.3 |
| Diam. at 6.0' height (ft) | 86 | 88 | 90 | 91 | 92 | 93 | 94 | | 2.0 m (m) | 26.0 | 27.0 | 27.6 | 28.1 | 28.5 |
| #11 Nozzle - Yellow (11/64") | | | | | | | | | | | | | | |
| Flow (gpm) | 4.63 | 5.00 | 5.34 | 5.67 | 5.98 | 6.27 | 6.55 | | (L/s) | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 |
| Diam. at 1.5' height (ft) | 83 | 85 | 87 | 89 | 90 | 91 | 92 | | 0.5 m (m) | 25.1 | 26.1 | 26.9 | 27.5 | 27.9 |
| Diam. at 6.0' height (ft) | 88 | 90 | 92 | 93 | 94 | 95 | 96 | | 2.0 m (m) | 26.6 | 27.6 | 28.3 | 28.7 | 29.1 |
| #12 Nozzle - Red (3/16") | | | | | | | | | | | | | | |
| Flow (gpm) | 5.52 | 5.97 | 6.37 | 6.76 | 7.13 | 7.48 | 7.81 | | (L/s) | 0.34 | 0.38 | 0.42 | 0.45 | 0.48 |
| Diam. at 1.5' height (ft) | 84 | 86 | 89 | 91 | 92 | 93 | 94 | | 0.5 m (m) | 25.4 | 26.4 | 27.6 | 28.1 | 28.5 |
| Diam. at 6.0' height (ft) | 90 | 92 | 94 | 95 | 96 | 97 | 98 | | 2.0 m (m) | 27.2 | 28.2 | 28.9 | 29.3 | 29.7 |
| #13 Nozzle - White (13/64") | | | | | | | | | | | | | | |
| Flow (gpm) | 6.50 | 7.02 | 7.49 | 7.95 | 8.38 | 8.80 | 9.19 | | (L/s) | 0.40 | 0.45 | 0.49 | 0.53 | 0.57 |
| Diam. at 1.5' height (ft) | 86 | 88 | 91 | 93 | 95 | 97 | 99 | | 0.5 m (m) | 26.0 | 27.0 | 28.2 | 29.0 | 29.9 |
| Diam. at 6.0' height (ft) | 92 | 94 | 96 | 98 | 100 | 102 | 104 | | 2.0 m (m) | 27.9 | 28.8 | 29.7 | 30.6 | 31.5 |
| #14 Nozzle - Blue (7/32") | | | | | | | | | | | | | | |
| Flow (gpm) | 7.49 | 8.09 | 8.63 | 9.17 | 9.66 | 10.1 | 10.6 | | (L/s) | 0.46 | 0.52 | 0.57 | 0.61 | 0.66 |
| Diam. at 1.5' height (ft) | 88 | 90 | 94 | 96 | 98 | 100 | 102 | | 0.5 m (m) | 26.6 | 27.7 | 29.1 | 30.0 | 30.8 |
| Diam. at 6.0' height (ft) | 94 | 96 | 98 | 100 | 102 | 104 | 106 | | 2.0 m (m) | 28.5 | 29.4 | 30.3 | 31.2 | 32.1 |

Figures reflect actual test data obtained under ideal conditions. Stream heights range from 6.5 - 10.0 ft (2.0 - 3.1 m) above nozzle based on pressure and nozzle size. Sprinkler performance tests were conducted in accordance with the American Society of Agricultural Engineers standard S398.1 and are representative of production at the time of publication. Diameters shown are for standard straight bore nozzles and effluent vanes (blue). Other nozzles and/or vane combinations are available; consult factory for specific performance data.



4012-1 EFF

| SPRINKLER BASE PRESSURE | (psi) | U.S. - Diameter (feet) | | | | | | | METRIC - Diameter (meters) | | | | | |
|---------------------------------------|-------|------------------------|------|------|------|------|------|----|----------------------------|-------|-------|-------|-------|-------|
| | | 30 | 35 | 40 | 45 | 50 | 55 | 60 | (bar) | 2.0 | 2.5 | 3.0 | 3.5 | 4.0 |
| | | | | | | | | | (psi) | 29.00 | 36.25 | 43.50 | 50.75 | 58.00 |
| #10 Nozzle - Turquoise (5/32") | | | | | | | | | | | | | | |
| Flow (gpm) | 3.82 | 4.13 | 4.41 | 4.68 | 4.93 | 5.17 | 5.40 | | (L/s) | 0.24 | 0.26 | 0.29 | 0.31 | 0.33 |
| Diam. at 1.5' height (ft) | 72 | 76 | 79 | 81 | 83 | 85 | 86 | | 0.5 m (m) | 21.6 | 23.4 | 24.5 | 25.4 | 26.1 |
| Diam. at 6.0' height (ft) | 77 | 80 | 83 | 85 | 87 | 88 | 89 | | 2.0 m (m) | 23.2 | 24.6 | 25.7 | 26.6 | 27.0 |
| #11 Nozzle - Yellow (11/64") | | | | | | | | | | | | | | |
| Flow (gpm) | 4.63 | 5.00 | 5.34 | 5.67 | 5.98 | 6.27 | 6.55 | | (L/s) | 0.29 | 0.32 | 0.35 | 0.38 | 0.41 |
| Diam. at 1.5' height (ft) | 74 | 77 | 80 | 82 | 84 | 86 | 87 | | 0.5 m (m) | 22.2 | 23.7 | 24.8 | 25.7 | 26.4 |
| Diam. at 6.0' height (ft) | 78 | 81 | 84 | 86 | 88 | 89 | 90 | | 2.0 m (m) | 23.5 | 24.9 | 26.0 | 26.9 | 27.3 |
| #12 Nozzle - Red (3/16") | | | | | | | | | | | | | | |
| Flow (gpm) | 5.52 | 5.97 | 6.37 | 6.76 | 7.13 | 7.48 | 7.81 | | (L/s) | 0.34 | 0.38 | 0.42 | 0.45 | 0.48 |
| Diam. at 1.5' height (ft) | 75 | 78 | 81 | 83 | 85 | 87 | 89 | | 0.5 m (m) | 22.6 | 24.0 | 25.1 | 26.0 | 26.9 |
| Diam. at 6.0' height (ft) | 79 | 82 | 85 | 87 | 89 | 90 | 91 | | 2.0 m (m) | 23.8 | 25.2 | 26.3 | 27.2 | 27.6 |
| #13 Nozzle - White (13/64") | | | | | | | | | | | | | | |
| Flow (gpm) | 6.50 | 7.02 | 7.49 | 7.95 | 8.38 | 8.80 | 9.19 | | (L/s) | 0.40 | 0.45 | 0.49 | 0.53 | 0.57 |
| Diam. at 1.5' height (ft) | 76 | 79 | 82 | 84 | 86 | 88 | 90 | | 0.5 m (m) | 22.9 | 24.3 | 25.4 | 26.3 | 27.2 |
| Diam. at 6.0' height (ft) | 80 | 83 | 86 | 88 | 90 | 91 | 92 | | 2.0 m (m) | 24.1 | 25.5 | 26.6 | 27.5 | 27.9 |
| #14 Nozzle - Blue (7/32") | | | | | | | | | | | | | | |
| Flow (gpm) | 7.49 | 8.09 | 8.63 | 9.17 | 9.66 | 10.1 | 10.6 | | (L/s) | 0.46 | 0.52 | 0.57 | 0.61 | 0.66 |
| Diam. at 1.5' height (ft) | 77 | 80 | 83 | 85 | 87 | 89 | 91 | | 0.5 m (m) | 23.2 | 24.6 | 25.7 | 26.6 | 27.5 |
| Diam. at 6.0' height (ft) | 81 | 84 | 87 | 89 | 91 | 92 | 93 | | 2.0 m (m) | 24.4 | 25.8 | 26.9 | 27.8 | 28.2 |

Figures reflect actual test data obtained under ideal conditions. Stream heights range from 3.5 - 5.0 ft (1.1 - 1.5 m) above nozzle based on pressure and nozzle size. Sprinkler performance tests were conducted in accordance with the American Society of Agricultural Engineers standard S398.1 and are representative of production at the time of publication. Diameters shown are for standard straight bore nozzles and effluent vanes (blue). Other nozzles and/or vane combinations are available; consult factory for specific performance data.

