

MICRO-SPRINKLERS

Nursery, Greenhouse, Orchards and Vegetables

AGRICULTURAL IRRIGATION

Low Pressure - High Performance



LOW PRESSURE HIGH PERFORMANCE MICRO-SPRINKLERS

Senninger's upright and inverted Micro-Sprinklers, provide outstanding performance to low volume irrigation.

Designed to make installation easier and offer better options for efficient irrigation in nurseries, greenhouses and undertree installations. They come with five different flow options to meet various crop needs. Senninger's Micro-Sprinklers provide

exceptional uniformity and distribution at low pressures. They are constructed out of engineering-grade UV-resistant thermoplastic, which translates to a longer product life.

Features

- ① Bridgeless design eliminates dry spots caused by leg shadows
- ② Deflector designed for maximized startability and smooth operation
- ③ Convenient disassembly for easy cleaning
- ④ Cost effective replacement parts
- ⑤ Upright and inverted models available



Senninger's inverted and upright Micro-sprinklers deliver gentle droplets in a consistent and uniform pattern. The Upright Micro Sprinkler is shown in conjunction with our riser adapter.

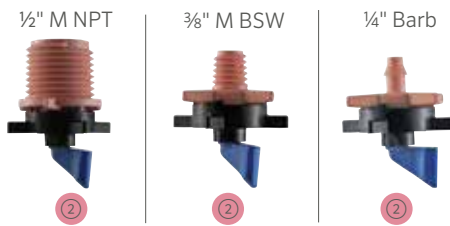


The Inverted model is ideal for overhead irrigation in greenhouses, shade houses and hoop houses.

INVERTED NOZZLE SIZES



INVERTED NOZZLE SIZES
-SHORT DIAMETER



NON-D RIP VALVES

MODEL	OPENING PRESSURE		CLOSING PRESSURE	
	psi	(bar)	psi	(bar)
MISINDVL*	14.5 +/- 1.45	1.0 +/- 0.1	5.8 +/- 1.45	0.4 +/- 0.1
MISINDVH**	21.7 +/- 2.9	1.5 +/- 0.2	10.1 +/- 1.45	0.7 +/- 0.1



Use with Inverted Micro-Sprinklers 3/8" BSW models #2, 3 or 4 nozzles (sold separately)

*24" length. (other lengths available).

Contact customer service for part numbers and pricing.

LOW PRESSURE	HIGH PRESSURE
MISIDA24NDVL* ASSEMBLY EXCLUDING APPLICATOR	MISIDA24NDVH* ASSEMBLY EXCLUDING APPLICATOR
MR250DB 1/4" Double Barb Connector	MR250DB 1/4" Double Barb Connector
TUV250* 2ft. (0.61 m) 0.25" Tubing (black)	TUV250* 2ft. (0.61 m) 0.25" Tubing (black)
MRWGT10Z PE Slip-Over Weight (1 oz)	MRWGT10Z PE Slip-Over Weight (1 oz)
FOG250NXB 1/4" Nipple x 1/4" Barb Connector	FOG250NXB 1/4" Nipple x 1/4" Barb Connector
MISINDVL Non-Drip Valve (low pressure)* 0.25" F x M Press-Fit opens at 14.5 psi (1 bar)	MISINDVH Non-Drip Valve (high pressure)** 0.25" F x M Press-Fit opens at 21.7 psi (1.5 bar)
(Sprinkler sold separately)	(with 3/8" BSW connection Sprinkler sold separately)

INVERTED MICRO SPRINKLER BASE PRESSURE-US	psi		SPRINKLER BASE PRESSURE-METRIC	bar	
	20	30		1.38	2.07
#2 Nozzle - Pink (1/32")			#2 Nozzle - Pink (0.79 mm)		
Flow (gph)	7.2	9.0	Flow (L/hr)	27.3	34.1
Short Diameter at 3.0 ft ht	5.2	6.1	Short Diameter at 0.9 m ht	1.6	1.9
#3 Nozzle - Ice (3/64")			#3 Nozzle - Ice (1.19 mm)		
Flow (gph)	16.8	20.4	Flow (L/hr)	63.6	77.2
Diameter at 6.0 ft ht	29	32	Diameter at 1.83 m ht	9.0	9.6
#4 Nozzle - Light Blue (1/16")			#4 Nozzle - Light Blue (1.59 mm)		
Flow (gph)	30.0	36.6	Flow (L/hr)	113.6	138.5
Diameter at 6.0 ft ht	33	36	Diameter at 1.83 m ht	9.9	11.0
#5 Nozzle - Beige (5/64")			#5 Nozzle - Beige (1.98 mm)		
Flow (gph)	46.2	57.0	Flow (L/hr)	174.9	215.8
Diameter at 6.0 ft ht	38	40	Diameter at 1.83 m ht	11.7	12.1
#6 Nozzle - Gold (3/32")			#6 Nozzle - Gold (2.38 mm)		
Flow (gph)	66.6	81.6	Flow (L/hr)	252.1	308.9
Diameter at 6.0 ft ht	39	40	Diameter at 1.83 m ht	11.8	12.2

**INVERTED MICRO-SPRINKLER, SHORT DIAMETER-
PRECIPITATION & UNIFORMITIES**

Single row at 3 ft (0.91 m) height at 20 and 30 psi (1.38 and 2.07 bar)

Nozzle # & Color	Flow Rate		4 ft (1.2 m) table & 3 ft (0.91 m) Spacing		
	gph	(L/hr)	(in/hr)	1.38 bar (mm/hr)	CU
#2 - Pink @ 20 psi (1.38 bar)	7.2	27.3	0.75	19.1	83%
#2 - Pink @ 30 psi (2.07 bar)	9.0	34.1	0.89	22.6	82%

INVERTED MICRO-SPRINKLER - PRECIPITATION & UNIFORMITIES

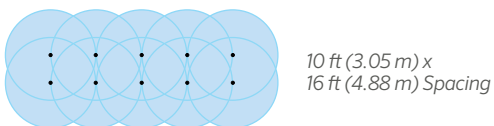
at 6ft (1.8 m) height at 30 psi (2.07 bar)

Nozzle # & Color	Flow Rate		10 x 10 ft (3 x 3 m)			10 x 16 ft (3 x 5 m)		
	gph	L/hr	30 psi (in/hr)	2.07 bar (mm/hr)	CU	30 psi (in/hr)	2.07 bar (mm/hr)	CU
#3 - Ice	20.4	77.2	0.33	8.4	95%	0.21	5.3	93%
#4 - Light Blue	36.6	138.5	0.58	14.7	94%	0.36	9.1	93%
#5 - Beige	57.0	215.8	0.91	23.1	98%	0.57	14.5	93%
#6 - Gold	81.6	308.9	1.31	33.3	95%	0.82	20.8	94%

Uniformities calculated with WinSipp Software. Other spacing options available on WinSIPP or by consulting factory.

INVERTED MICRO-SPRINKLER SPACING*

33 ft (10.06 m) Diameters



*Excluding Short Diameter Models

INVERTED MICRO-SPRINKLER INSTALLATION

- Attach to a PE or PVC mainline.
- Mount at least 18" below obstructions to prevent drippage from overhead structures.
- Ensure a filter with 80 - 140 mesh, based on nozzle size, is in place before use.
- Consider friction loss through tubing when designing for optimum performance. Consult factory for details.



The Upright model is ideal for nurseries, orchards, vineyards, vegetables and citrus crops.

UPRIGHT NOZZLE SIZES

1/2" M NPT



Pink, Ice & Light blue



3/8" M BSW



Pink, Ice & Light blue



1/4" Barb



Pink, Ice & Light blue



The Riser Stake is now available in either 26" or 14" length models to support Senninger's Riser Adapter for use with a 1/2" M NPT connection Micro-Sprinkler. It can also be used for direct mounting a barbed base Micro-Sprinkler into 0.25", 0.270", or 8 mm tubing. For best results, the Riser Stake should be installed at least 1/3 its length into the ground.



UPRIGHT MICRO SPRINKLER BASE PRESSURE-US	psi		SPRINKLER BASE PRESSURE-METRIC	bar	
	20	30		1.38	2.07
#2 Nozzle - Pink (1/32")			#2 Nozzle - Pink (0.79 mm)		
Flow (gph)	7.2	9.0	Flow (L/hr)	27.3	34.1
Diameter at 1.5 ft ht	18	22	Diameter at 0.46 m ht	5.5	6.7
Diameter at 3.0 ft ht	21	26	Diameter at 0.91 m ht	6.4	7.8
#3 Nozzle - Ice (3/64")			#3 Nozzle - Ice (1.19 mm)		
Flow (gph)	16.8	20.4	Flow (L/hr)	63.6	77.2
Diameter at 1.5 ft ht	24	24	Diameter at 0.46 m ht	7.3	7.3
Diameter at 3.0 ft ht	26	29	Diameter at 0.91 m ht	8.0	8.7
#4 Nozzle - Light Blue (1/16")			#4 Nozzle - Light Blue (1.59 mm)		
Flow (gph)	30.0	36.6	Flow (L/hr)	113.6	138.5
Diameter at 1.5 ft ht	27	30	Diameter at 0.46 m ht	8.1	9.1
Diameter at 3.0 ft ht	27	33	Diameter at 0.91 m ht	8.2	10.1

Consider friction loss through tubing when designing for optimum performance.

UPRIGHT MICRO-SPRINKLER - PRECIPITATION & UNIFORMITIES

at 1.5 ft (0.46 m) and 3.0 ft (0.91 m) height at 30 psi (2.07 bar)

Nozzle Number & Color	Flow Rate		10 x 10 ft (3 x 3 m)				10 x 16 ft (3 x 5 m)			
	gph	L/hr	CU%							
			30 psi (in/hr)	2.07 bar (mm/hr)	@ 1.5 ft (0.46 m)	@ 3.0 ft (0.91 m)	30 psi (in/hr)	2.07 bar (mm/hr)	@ 1.5 ft (0.46 m)	@ 3.0 ft (0.91 m)
#3 - Ice	20.4	77.2	0.33	8.4	88%	85%	0.67	17.0	98%	98%
#4 - Light Blue	36.6	138.5	0.59	15.0	88%	85%	1.20	30.5	99%	99%

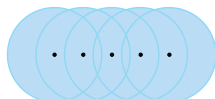
Uniformities calculated with WinSipp Software. Other spacing options available on WinSIPP or by consulting factory.

UPRIGHT MICRO-SPRINKLER INSTALLATION

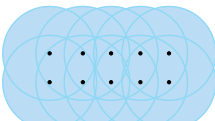
- Ensure a filter with 80 to 140 mesh, based on nozzle size, is in place before use.
- Consider friction loss through tubing when designing for optimum performance. *Consult factory for details.*
- Upright model stream heights range from 6 to 48" (152 to 1219 mm) above the nozzle based on pressure and nozzle size.

UPRIGHT MICRO-SPRINKLER SPACING

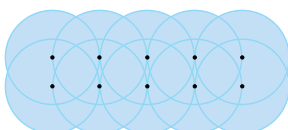
32 ft (9.75 m) Diameters



10 ft (3.05 m) Spacing



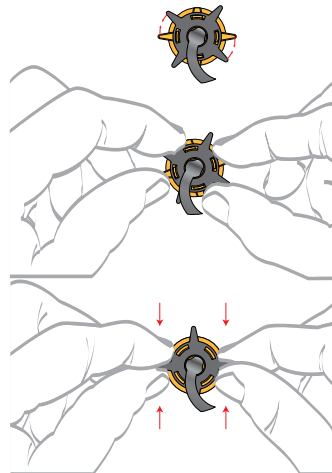
10 ft (3.05 m) x
10 ft (3.05 m) Spacing



10 ft (3.05 m) x
16 ft (4.88 m) Spacing

MICRO-SPRINKLER CLEANING

Using your thumb and forefinger pinch together nozzle ears on each side of retainer and nozzle until the nozzle retainer releases.





Senninger's commitment to world-class products, local support and technical expertise ensure we provide the most efficient and reliable agricultural irrigation solutions available in the world today.

A handwritten signature in white ink, reading "S. D. Abernethy".

Steve Abernethy, President of Senninger Irrigation