

Wobblers- upright & inverted

Series: mini-Wobbler, i-mini Wobbler, Wobbler SA & LA, Xcel-Wobbler HA & MA

Multi-Level Throw: 0, 10, 18 and 24 degrees

Flows: 0.42 to 8.25 gpm [97 to 1908 L/hr]

Sprinkler Base Pressures: 10 to 35 psi [0.75 to 2.5 bar]

Feature: Outstanding uniformity and large diameter of coverage



Spray Nozzles- upright & inverted

Series: T-Spray, Super Spray

Flows: 0.54 to 6.54 gpm [130 to 1548 L/hr]

Sprinkler Base Pressures: 10 to 40 psi [0.75 to 2.75 bar]

Feature: 360 degree spray pattern



Senninger Irrigation, Inc.

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Nursery Irrigation

Senninger

January 1, 2008

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mini-Wob **WOBBLERS®**



The *mini-Wobblers* can be mounted on the *Riser Adapter* for installation versatility.

mini wobbler®

Outstanding performance **for upright applications**

The Senninger mini-Wobblers® employs the same unique off-center rotary-action as the standard Wobblers®. It provides extremely uniform coverage over a large diameter at low pressures. It is constructed entirely of engineering-grade thermoplastics for excellent corrosion resistance.

- Low evaporative loss
- Multi-level throw, approximate angle: 10°
- Color-coded nozzles for easy size identification
- Flow rates: 0.42 to 2.61 gpm (97.2 to 576.0 L/hr)
- Operating pressures: 15 to 35 psi (1.0 to 2.5 bar)
- Standard inlet: 1/2" NPT male
- Two-year warranty on materials, workmanship AND performance

SPRINKLER BASE PRESSURE	U.S. - Diameter (feet)					METRIC - Diameter (meters)				
	(psi) 15	20	25	30	35	(bar) (psi)	1.0	1.5	2.0	2.5
#4 Nozzle - Light Blue (1/16")										
Flow (gpm)	0.42	0.50	0.56	0.62	0.68	(L/hr)	97.2	118.8	136.8	151.2
Diam. at 1.5' height (feet)	26.4	28.0	29.2	30.0	30.4	0.5 m (m)	8.0	8.7	9.1	9.3
Diam. at 3.0' height (feet)	30.8	32.0	32.8	33.6	34.0	1.0 m (m)	9.3	9.8	10.2	10.4
#5 Nozzle - Beige (5/64")										
Flow (gpm)	0.64	0.75	0.84	0.91	0.99	(L/hr)	144.0	176.4	205.2	230.4
Diam. at 1.5' height (feet)	30.8	33.6	34.8	35.6	36.0	0.5 m (m)	9.3	10.4	10.8	11.0
Diam. at 3.0' height (feet)	36.4	39.2	39.4	39.6	39.6	1.0 m (m)	11.0	12.0	12.1	12.1
#6 Nozzle - Gold (3/32")										
Flow (gpm)	0.95	1.10	1.25	1.36	1.47	(L/hr)	216.0	252.0	288.0	324.0
Diam. at 1.5' height (feet)	33.2	36.0	36.8	37.2	37.6	0.5 m (m)	10.0	11.1	11.3	11.5
Diam. at 3.0' height (feet)	39.4	41.8	42.0	42.2	42.2	1.0 m (m)	11.9	12.8	12.8	12.9
#7 Nozzle - Lime (7/64")										
Flow (gpm)	1.30	1.51	1.69	1.86	2.01	(L/hr)	288.0	360.0	396.0	468.0
Diam. at 1.5' height (feet)	34.8	37.6	38.4	38.8	39.2	0.5 m (m)	10.5	11.5	11.8	12.0
Diam. at 3.0' height (feet)	41.0	42.8	43.0	43.0	43.0	1.0 m (m)	12.3	13.1	13.1	13.1
#8 Nozzle - Lavender (1/8")										
Flow (gpm)	1.67	1.95	2.18	2.39	2.61	(L/hr)	360.0	468.0	540.0	576.0
Diam. at 1.5' height (feet)	35.6	38.4	39.2	39.6	40.0	0.5 m (m)	10.8	11.8	12.0	12.2
Diam. at 3.0' height (feet)	41.4	43.2	43.4	43.4	43.4	1.0 m (m)	12.5	13.2	13.2	13.2

Larger (9/64" and 10/64") diameter nozzles also available. Consult factory.
 Figures reflect data from tests performed in accordance with the American Society of Agricultural Engineers standard S398.1 and are representative of production at the time of publication. Sprinkler performance may vary with actual field conditions. Stream heights range from 1.5 - 3.0 ft (0.5 - 0.9 m) above nozzle based on pressure and nozzle size.
Minimum recommended riser height is 1.5' (0.5 m).



January 1, 2008

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WOBBLERS[®] i-mini Wob

i-mini wobbler[®]

Outstanding performance **for overhead applications**

The Senninger i-mini-Wobbler[®] employs the same unique off-center rotary-action as the standard Wobbler[®]. It provides extremely uniform coverage over a large diameter at low pressures. It is constructed entirely of engineering-grade thermoplastics for excellent corrosion resistance.

- Low evaporative loss
- Multi-level throw, approximate angle: 0°
- Color-coded nozzles for easy size identification
- Flow rates: 0.75 to 2.61 gpm (176.4 to 576.0 L/hr)
- Operating pressures: 20 to 35 psi (1.5 to 2.5 bar)
- Standard inlet: 1/2" NPT male
- Two-year warranty on materials, workmanship AND performance



The Inverted mini-Wobbler produces a broad, rain-like application.

U.S. - Diameter (feet)					METRIC - Diameter (meters)				
SPRINKLER BASE PRESSURE	(psi)	20	25	30	35	(bar) (psi)	1.5 21.75	2.0 29.00	2.5 36.25
#5 Nozzle - Dark Beige (5/64")						#5 Nozzle - Dark Beige (1.98 mm)			
Flow (gpm)		0.75	0.84	0.91	0.99	(L/hr)	176.4	205.2	230.4
Diam. at 3.0' height (feet)		30.2	30.8	31.2	31.4	1.0 m (m)	9.27	9.48	9.59
Diam. at 6.0' height (feet)		31.8	32.4	32.8	33.2	2.0 m (m)	9.76	9.97	10.2
#6 Nozzle - Dark Gold (3/32")						#6 Nozzle - Dark Gold (2.38 mm)			
Flow (gpm)		1.10	1.25	1.36	1.47	(L/hr)	252.0	288.0	324.0
Diam. at 3.0' height (feet)		30.8	31.4	31.8	32.0	1.0 m (m)	9.45	9.67	9.77
Diam. at 6.0' height (feet)		33.8	34.4	34.8	35.2	2.0 m (m)	10.4	10.6	10.8
#7 Nozzle - Dark Lime (7/64")						#7 Nozzle - Dark Lime (2.78 mm)			
Flow (gpm)		1.51	1.69	1.86	2.01	(L/hr)	360.0	396.0	468.0
Diam. at 3.0' height (feet)		31.2	31.8	32.2	32.4	1.0 m (m)	9.57	9.79	9.89
Diam. at 6.0' height (feet)		35.0	35.6	36.0	36.4	2.0 m (m)	10.7	11.0	11.1
#8 Nozzle - Dark Lavender (1/8")						#8 Nozzle - Dark Lavender (3.18 mm)			
Flow (gpm)		1.95	2.18	2.39	2.61	(L/hr)	468.0	540.0	576.0
Diam. at 3.0' height (feet)		31.6	32.2	32.6	32.8	1.0 m (m)	9.70	9.91	10.0
Diam. at 6.0' height (feet)		35.6	36.2	36.6	37.0	2.0 m (m)	10.9	11.1	11.3

Figures reflect data from tests performed in accordance with the American Society of Agricultural Engineers standard S398.1 and are representative of production at the time of publication. Sprinkler performance may vary with actual field conditions. Stream heights range from 0.5 - 1.5 ft (0.2 - 0.5 m) above nozzle based on pressure and nozzle size.



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Senninger® Introduces the

New X^{CEL} Wobbler®

New Look & Larger Diameter of Coverage!

High-Angle



Senninger's Xcel-Wobbler maximizes the area of coverage. Its unique off-center rotary-action provides extremely uniform coverage at low pressures with minimal evaporative loss.



Features:

- New balanced design produces smooth, stable performance.
- Only one moving part for longer life.
- Inlet sizes 1/2" or 3/4" NPT male.
- Flow rates: 0.78 to 6.97 gpm (180 to 1584 L/hr)
- Low wind drift and evaporative loss at low pressures.
- Built for strength and durability using high-impact engineering-grade thermoplastics, no metal parts.
- Two-year warranty on materials, workmanship AND performance.
- Color-coded nozzles for easy size identification /warranted to maintain correct orifice size for five years

Mid-Angle



OVERHEAD VIEW OF DROPLET PATTERN

Fixed
Spray

Xcel-Wob
[High
Angle]

Stream
Driven
Devices

The larger area of instantaneous application of the Xcel-Wobbler minimizes the impact on the soil structure, helping to maintain infiltration capability.

07XIWU.S.5

January 1, 2008

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U.S. Data					Metric Data		0.75	1.0	1.5	1.75	
Sprinkler Base Press. [psi]							[psi]	10.88	14.50	21.75	25.38
10	15	20	25								
#6 Nozzle - Gold [3/32"]					#6 Nozzle - Gold [2.38mm]						
Flow [gpm]	0.78	0.95	1.10	1.23	Flow [L/hr]	180	216	252	288		
HA Diam. at 1.5' ht. [ft.]	37	41	45	46	HA Diam. at 0.5m [m]	11.4	12.4	13.8	14.0		
MA Diam. at 1.5' ht. [ft.]	32	35	39	41	MA Diam. at 0.5m ht. [m]	9.9	10.6	12.0	12.6		
#7 Nozzle - Lime [7/64"]					#7 Nozzle - Lime [2.78mm]						
Flow [gpm]	1.06	1.30	1.50	1.68	Flow [L/hr]	252	288	360	396		
HA Diam. at 1.5' ht. [ft.]	40	47	47	51	HA Diam. at 0.5m ht.[m]	12.5	14.0	14.7	15.5		
MA Diam. at 1.5' ht. [ft.]	33	37	41	41	MA Diam. at 0.5m ht. [m]	10.2	11.0	12.4	12.5		
#8 Nozzle - Lavender [1 1/4"]					#8 Nozzle - Lavendar [3.18mm]						
Flow [gpm]	1.40	1.71	1.98	2.21	Flow [L/hr]	324	396	468	504		
HA Diam. at 1.5' ht. [ft.]	42	47	47	52	HA Diam. at 0.5m ht.[m]	13.0	14.0	14.8	15.8		
MA Diam. at 1.5' ht. [ft.]	34	39	41	43	MA Diam. at 0.5m ht. [m]	10.6	11.6	12.7	13.0		
#9 Nozzle - Grey [9/64"]					#9 Nozzle - Grey [3.57mm]						
Flow [gpm]	1.80	2.20	2.54	2.84	Flow [L/hr]	432	504	612	648		
HA Diam. at 1.5' ht. [ft.]	44	47	51	53	HA Diam. at 0.5m ht.[m]	13.6	14.2	15.6	16.0		
MA Diam. at 1.5' ht. [ft.]	35	41	42	43	MA Diam. at 0.5m ht. [m]	10.8	12.2	12.9	13.1		
#10 Nozzle - Turquoise [5/32"]					#10 Nozzle - Turquoise [3.97mm]						
Flow [gpm]	2.22	2.72	3.14	3.51	Flow [L/hr]	540	612	756	828		
HA Diam. at 1.5' ht. [ft.]	45	49	51	54	HA Diam. at 0.5m ht.[m]	13.8	14.8	15.7	16.4		
MA Diam. at 1.5' ht. [ft.]	36	41	43	44	MA Diam. at 0.5m ht. [m]	11.2	12.3	13.1	13.4		
#11 Nozzle - Yellow [1 1/4"]					#11 Nozzle - Yellow [4.37mm]						
Flow [gpm]	2.69	3.30	3.81	4.26	Flow [L/hr]	648	720	900	972		
HA Diam. at 1.5' ht. [ft.]	45	51	52	54	HA Diam. at 0.5m ht.[m]	13.9	15.2	16	16.5		
MA Diam. at 1.5' ht. [ft.]	36	42	43	44	MA Diam. at 0.5m ht. [m]	11.3	12.5	13.2	13.4		
#12 Nozzle - Red [3/16"]					#12 Nozzle - Red [4.76mm]						
Flow [gpm]	3.23	3.96	4.57	5.11	Flow [L/hr]	756	900	1080	1188		
HA Diam. at 1.5' ht. [ft.]	46	51	52	55	HA Diam. at 0.5m ht.[m]	14.3	15.3	16.1	16.7		
MA Diam. at 1.5' ht. [ft.]	37	42	45	45	MA Diam. at 0.5m ht. [m]	11.4	12.5	13.6	13.6		
#13 Nozzle - White [13/64"]					#13 Nozzle - White [5.16mm]						
Flow [gpm]	3.80	4.65	5.38	6.01	Flow [L/hr]	900	1044	1260	1368		
HA Diam. at 1.5' ht. [ft.]	47	51	53	56	HA Diam. at 0.5m ht.[m]	14.4	15.4	16.3	17.0		
MA Diam. at 1.5' ht. [ft.]	37	42	45	45	MA Diam. at 0.5m ht. [m]	11.4	12.5	13.6	13.7		
#14 Nozzle - Blue [7/32"]					#14 Nozzle - Blue [5.56mm]						
Flow [gpm]	4.40	5.39	6.23	6.97	Flow [L/hr]	1044	1188	1476	1584		
HA Diam. at 1.5' ht. [ft.]	47	51	53	56	HA Diam. at 0.5m ht.[m]	14.5	15.4	16.4	17.0		
MA Diam. at 1.5' ht. [ft.]	37	43	45	47	MA Diam. at 0.5m ht. [m]	11.6	12.8	13.9	14.2		



Standard-Angle Wobbler®

- Low evaporative loss
- Multi-level throw, approximate angle: 24°

See NOTE on reverse

The Senninger Wobbler® has a unique off-center rotary-action. This design provides extremely uniform coverage over a large diameter at low pressures.

- Only one moving part for longer life
- Built for strength and durability using high-impact engineering grade thermoplastics
- Standard and low-angle models
- Standard inlet: 3/4" NPT male (1/2" NPT male also available)
- Flow rates: 0.78 to 13.5 gpm (0.05 to 0.87 L/s)

▼ Standard-Angle Wobbler®

U.S. - Diameter (feet)								METRIC - Diameter (meters)					
SPRINKLER BASE PRESSURE	(psi)	10	15	20	25	30	35	(bar)	0.75	1.0	1.5	2.0	2.5
								(psi)	10.88	14.50	21.75	29.00	36.25
#6 Nozzle - Gold (3/32")								#6 Nozzle - Gold (2.38 mm)					
Flow (gpm)	0.78		0.95	1.10	1.23	1.35	1.45	(L/s)	0.05	0.06	0.07	0.08	0.09
Diam. at 1.5' ht. (ft)	34.0		39.0	41.5	43.5	44.0	45.0	0.5 m (m)	10.6	11.7	12.9	13.4	13.8
#7 Nozzle - Lime (7/64")								#7 Nozzle - Lime (2.78 mm)					
Flow (gpm)	1.06		1.30	1.50	1.68	1.84	1.99	(L/s)	0.07	0.08	0.10	0.11	0.13
Diam. at 1.5' ht. (ft)	36.5		41.5	43.5	45.0	45.5	46.5	0.5 m (m)	11.4	12.5	13.4	13.8	14.2
#8 Nozzle - Lavender (1/8")								#8 Nozzle - Lavender (3.18 mm)					
Flow (gpm)	1.40		1.71	1.98	2.21	2.42	2.62	(L/s)	0.09	0.11	0.13	0.15	0.17
Diam. at 1.5' ht. (ft)	38.5		43.5	45.0	46.5	47.0	48.0	0.5 m (m)	12.0	13.1	13.9	14.3	14.7
#9 Nozzle - Grey (9/64")								#9 Nozzle - Grey (3.57 mm)					
Flow (gpm)	1.80		2.20	2.54	2.84	3.11	3.36	(L/s)	0.12	0.14	0.17	0.19	0.22
Diam. at 1.5' ht. (ft)	40.5		45.5	46.5	47.5	48.0	49.0	0.5 m (m)	12.6	13.7	14.3	14.6	15.0
#10 Nozzle - Turquoise (5/32")								#10 Nozzle - Turquoise (3.97 mm)					
Flow (gpm)	2.22		2.72	3.14	3.51	3.85	4.16	(L/s)	0.15	0.17	0.21	0.24	0.27
Diam. at 1.5' ht. (ft)	42.0		47.0	48.0	48.5	49.0	50.0	0.5 m (m)	13.1	14.2	14.7	14.9	15.3
#11 Nozzle - Yellow (11/64")								#11 Nozzle - Yellow (4.37 mm)					
Flow (gpm)	2.69		3.30	3.81	4.26	4.67	5.05	(L/s)	0.18	0.20	0.25	0.29	0.32
Diam. at 1.5' ht. (ft)	43.0		48.0	49.0	49.5	50.0	51.0	0.5 m (m)	13.4	14.5	15.0	15.2	15.6
#12 Nozzle - Red (3/16")								#12 Nozzle - Red (4.76 mm)					
Flow (gpm)	3.23		3.96	4.57	5.11	5.60	6.05	(L/s)	0.21	0.25	0.30	0.35	0.39
Diam. at 1.5' ht. (ft)	44.0		49.0	50.0	50.5	51.0	51.5	0.5 m (m)	13.7	14.8	15.3	15.5	15.7
#13 Nozzle - White (13/64")								#13 Nozzle - White (5.16 mm)					
Flow (gpm)	3.80		4.65	5.38	6.01	6.59	7.12	(L/s)	0.25	0.29	0.35	0.41	0.46
Diam. at 1.5' ht. (ft)	44.5		49.5	50.5	51.0	51.5	52.0	0.5 m (m)	13.8	14.9	15.4	15.7	15.9
#14 Nozzle - Blue (7/32")								#14 Nozzle - Blue (5.56 mm)					
Flow (gpm)	4.40		5.39	6.23	6.97	7.64	8.25	(L/s)	0.29	0.33	0.41	0.47	0.53
Diam. at 1.5' ht. (ft)	45.0		50.0	51.0	51.5	52.0	52.5	0.5 m (m)	14.0	15.1	15.6	15.8	16.0
#15 Nozzle - Dark Brown (15/64")								#15 Nozzle - Dark Brown (5.95 mm)					
Flow (gpm)	5.04		6.18	7.14	7.98	8.75	9.45	(L/s)	0.33	0.38	0.47	0.54	0.61
Diam. at 1.5' ht. (ft)	45.5		50.5	51.5	52.0	52.5	53.0	0.5 m (m)	14.1	15.2	15.8	16.0	16.2
#16 Nozzle - Orange (1/4")								#16 Nozzle - Orange (6.35 mm)					
Flow (gpm)	5.72		7.01	8.09	9.05	9.92	10.7	(L/s)	0.38	0.43	0.53	0.61	0.69
Diam. at 1.5' ht. (ft)	46.0		51.0	52.0	52.5	53.0	53.5	0.5 m (m)	14.3	15.4	15.9	16.1	16.3
#17 Nozzle - Dark Green (17/64")								#17 Nozzle - Dark Green (6.75 mm)					
Flow (gpm)	6.45		7.89	9.12	10.2	11.2	12.1	(L/s)	0.42	0.49	0.60	0.69	0.77
Diam. at 1.5' ht. (ft)	46.5		51.5	52.5	53.0	53.5	54.0	0.5 m (m)	14.4	15.5	16.1	16.3	16.5
#18 Nozzle - Purple (9/32")								#18 Nozzle - Purple (7.14 mm)					
Flow (gpm)	7.23		8.85	10.2	11.4	12.5	13.5	(L/s)	0.48	0.55	0.67	0.78	0.87
Diam. at 1.5' ht. (ft)	47.0		52.0	53.0	53.5	54.0	54.5	0.5 m (m)	14.6	15.7	16.2	16.4	16.6

Other nozzle sizes are available; consult factory for specific performance data.
Stream heights range from 2.5 - 5.5 ft (0.8 - 1.7 m) above nozzle based on pressure and nozzle size.

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Low-Angle
Wobbler®

- Low evaporative loss
- Multi-level throw, approximate angle: 12°

NOTE: With both the Standard-Angle Wobbler and Low-Angle Wobbler, care must be taken to stabilize the riser. For installation details, see Senninger's SOLID-SET PRODUCT APPLICATION GUIDE.



The Wobbler produces droplets which resist wind drift.

▼ Low-Angle Wobbler®

SPRINKLER BASE PRESSURE	(psi)	U.S. - Diameter (feet)				METRIC - Diameter (meters)			
		10	15	20	25	30	(bar)	0.75	1.0
							(psi)	10.88	14.50
#6 Nozzle - Gold (3/32")									
Flow (gpm)	0.78		0.95	1.10	1.23	1.35	(L/s)	0.05	0.06
Diam. at 1.5' ht. (ft)	29.0		34.5	38.0	40.5	41.0	0.5 m (m)	9.1	10.4
#7 Nozzle - Lime (7/64")									
Flow (gpm)	1.06		1.30	1.50	1.68	1.84	(L/s)	0.07	0.08
Diam. at 1.5' ht. (ft)	31.5		37.0	40.0	41.5	42.0	0.5 m (m)	9.9	11.1
#8 Nozzle - Lavender (1/8")									
Flow (gpm)	1.40		1.71	1.98	2.21	2.42	(L/s)	0.09	0.11
Diam. at 1.5' ht. (ft)	34.0		39.0	41.5	42.5	43.0	0.5 m (m)	10.6	11.7
#9 Nozzle - Grey (9/64")									
Flow (gpm)	1.80		2.20	2.54	2.84	3.11	(L/s)	0.12	0.14
Diam. at 1.5' ht. (ft)	35.5		40.5	42.5	43.5	44.0	0.5 m (m)	11.1	12.2
#10 Nozzle - Turquoise (5/32")									
Flow (gpm)	2.22		2.72	3.14	3.51	3.85	(L/s)	0.15	0.17
Diam. at 1.5' ht. (ft)	36.0		41.0	43.0	44.0	44.5	0.5 m (m)	11.2	12.3
#11 Nozzle - Yellow (11/64")									
Flow (gpm)	2.69		3.30	3.81	4.26	4.67	(L/s)	0.18	0.20
Diam. at 1.5' ht. (ft)	36.5		42.0	43.5	44.5	45.0	0.5 m (m)	11.4	12.6
#12 Nozzle - Red (3/16")									
Flow (gpm)	3.23		3.96	4.57	5.11	5.60	(L/s)	0.21	0.25
Diam. at 1.5' ht. (ft)	37.0		42.5	44.0	45.0	45.5	0.5 m (m)	11.6	12.8
#13 Nozzle - White (13/64")									
Flow (gpm)	3.80		4.65	5.38	6.01	6.59	(L/s)	0.25	0.29
Diam. at 1.5' ht. (ft)	37.5		43.0	44.5	45.5	46.0	0.5 m (m)	11.7	12.9
#14 Nozzle - Blue (7/32")									
Flow (gpm)	4.40		5.39	6.23	6.97	7.64	(L/s)	0.29	0.33
Diam. at 1.5' ht. (ft)	38.0		43.5	45.0	46.0	46.5	0.5 m (m)	11.9	13.1
#15 Nozzle - Dark Brown (15/64")									
Flow (gpm)	5.04		6.18	7.14	7.98	8.75	(L/s)	0.33	0.38
Diam. at 1.5' ht. (ft)	38.5		44.0	45.5	46.5	47.0	0.5 m (m)	12.0	13.2
#16 Nozzle - Orange (1/4")									
Flow (gpm)	5.72		7.01	8.09	9.05	9.92	(L/s)	0.38	0.43
Diam. at 1.5' ht. (ft)	39.0		44.5	46.0	47.0	47.5	0.5 m (m)	12.2	13.4
#17 Nozzle - Dark Green (17/64")									
Flow (gpm)	6.45		7.89	9.12	10.2	11.2	(L/s)	0.42	0.49
Diam. at 1.5' ht. (ft)	39.5		45.0	46.5	47.5	48.0	0.5 m (m)	12.3	13.6
#18 Nozzle - Purple (9/32")									
Flow (gpm)	7.23		8.85	10.2	11.4	12.5	(L/s)	0.48	0.55
Diam. at 1.5' ht. (ft)	40.0		45.5	47.0	48.0	48.5	0.5 m (m)	12.5	13.7

Other nozzle sizes are available; consult factory for specific performance data.
Stream heights range from 1.0 - 3.5 ft (0.3 - 1.1 m) above the nozzle based on pressure and nozzle size.

02SSLAW4

Senninger

January 1, 2008



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The Senninger T-Spray can be mounted upright or inverted – now available in a new high angle model for upright installations.



The Senninger T-Spray delivers a fine spray – ideal for delicate stock.

T-SPRAY™

360° Spray Nozzle

- No moving parts for longer life
- NEW high-angle upright t-stem provides larger diameter of coverage
- Removable t-stem for easy cleaning
- Color-coded stems for easy size identification
- Flow rates: 0.98 to 2.85 gpm (0.06 to 0.19 L/s)
- Operating pressures: 15 to 40 psi (1.0 to 3.0 bar)
- Standard inlet: 1/2" NPT male (female also available)
- Constructed entirely of engineering-grade thermoplastics for strength and durability
- Two-year warranty on materials, workmanship and performance



▼ T-Spray (standard angle for upright or inverted installations)

Sprinkler Base Press. (psi)	U.S. - Diameter (feet)						METRIC - Diameter (meters)					
	15	20	25	30	35	40	(bar)	1.0	1.5	2.0	2.5	3.0
							(psi)	14.50	21.75	29.00	36.25	43.50
#6 Nozzle - Gold (3/32")												
Flow (gpm)	0.98	1.14	1.27	1.40	1.52	1.63	#6 Nozzle - Gold (2.38 mm)					
Diam. at 1.5' height (feet)	15.5	17.0	18.0	19.0	20.0	21.0	(L/s)	0.06	0.08	0.09	0.10	0.11
Diam. at 3.0' height (feet)	17.5	18.5	19.5	20.5	21.5	22.0	0.5 m (m)	4.7	5.3	5.7	6.2	6.5
							1.0 m (m)	5.3	5.7	6.2	6.6	6.8
#7 Nozzle - Lime (7/64")												
Flow (gpm)	1.34	1.56	1.73	1.90	2.05	2.20	#7 Nozzle - Lime (2.78 mm)					
Diam. at 1.5' height (feet)	17.0	18.5	19.5	20.5	21.0	21.5	(L/s)	0.08	0.10	0.12	0.13	0.15
Diam. at 3.0' height (feet)	18.5	19.5	20.5	21.5	22.5	23.0	0.5 m (m)	5.1	5.7	6.2	6.4	6.7
							1.0 m (m)	5.6	6.0	6.5	6.9	7.1
#8 Nozzle - Lavender (1/8")												
Flow (gpm)	1.73	2.01	2.23	2.45	2.65	2.85	#8 Nozzle - Lavender (3.18 mm)					
Diam. at 1.5' height (feet)	18.0	19.5	20.5	21.0	21.5	22.0	(L/s)	0.11	0.13	0.15	0.17	0.19
Diam. at 3.0' height (feet)	19.0	20.0	21.0	22.0	23.0	23.5	0.5 m (m)	5.4	6.0	6.4	6.6	6.8
							1.0 m (m)	5.7	6.2	6.6	7.0	7.3



▼ T-Spray (high angle upright installations)

Sprinkler Base Press. (psi)	U.S. - Diameter (feet)						METRIC - Diameter (meters)					
	15	20	25	30	35	40	(bar)	1.0	1.5	2.0	2.5	3.0
							(psi)	14.50	21.75	29.00	36.25	43.50
#8 Nozzle - Lavender (1/8")												
Flow (gpm)	1.73	2.01	2.23	2.45	2.65	2.85	#8 Nozzle - Lavender (3.18 mm)					
Diam. at 1.5' height (feet)	25.5	27.5	29.0	30.0	31.0	32.0	(L/s)	0.11	0.13	0.15	0.17	0.19
							1.0 m (m)	7.7	8.5	9.1	9.5	9.9

Figures reflect data from tests performed in accordance with the American Society of Agricultural Engineers standard S398.1 and are representative of production at the time of publication. Sprinkler performance may vary with actual field conditions. Other nozzle sizes are available; consult factory for specific performance data.



Designed and Manufactured by:

00-TSP1-6

January 1, 2008

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The Senninger **Riser Adapter** attaches to either 1/2" PVC or 5/16" steel rod stakes. The 1/2" sprinkler or spray nozzle attaches to the top portion of the Riser Adapter. The tubing connects to the lower portion and then to the Polyethylene laterals via a **Barbed Adapter**. Various tubing lengths are available. Senninger also carries a **Tubing Punch Tool** (also available with an ejector) and **Goof Plugs** for changing where the tubing connects to the lateral.

RiserAdapter™

Installation Versatility Ideal for Temporary Portable Systems

- Allows sprinklers and sprays with 1/2" M (NPT) connection to be mounted securely on to either 1/2" PVC or 5/16" steel rod stakes and connected to polyethylene laterals
- Rugged engineering-grade thermoplastic construction
- Available as an assembly or as individual components (*assembly includes Riser Adapter, Barbed Adapter, three feet of 0.350" x 0.270" Softube™*)
- Friction loss through the assembly is less than 5 psi at 1.5 gpm (*less than 0.345 bar at 0.095 L/s*)
- Two-year warranty materials, workmanship and performance



The Senninger **Riser Adapter** shown with the T-Spray



The Senninger **Drain-Stop** can be mounted to a threaded PVC fitting just prior to adding the spray nozzle. The Flow Arrow must point in the proper direction.

Drain-Stop™

Prevents Draining of Laterals after zone valve is shut down

- Constructed of high-impact engineering-grade thermoplastics for durability
- Easy to install
- Recommended flows: 0.4 to 4.0 gpm (*0.025 to 0.252 L/s*)
- Drain-Stop™ valve opens at 6 psi (*0.414 bar*)
- Average friction loss through the device is 6 psi (*0.414 bar*)
- Commonly used with the Senninger T-Spray™
- 1/2" male NPT inlet x 1/2" female NPT outlet
- Works with any 1/2" sprinkler up to 4.0 gpm (*0.252 L/s*)
- Two-year warranty materials, workmanship and performance



The Senninger **Drain-Stop**

Designed and Manufactured by:

Senninger

January 1, 2008

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Inverted

Senninger Mister™

U.S. Patent #7152816



The patented Senninger Mister is designed specifically for propagation or other low volume misting application. Its innovative built-in check valve design prevents damage to plant material below due to drainage immediately following each irrigation session. It also helps assure water conservation and consistent system start-up delivering an instantaneous, highly uniform distribution ideal for short-cycle applications.

Features

- Outstanding uniformity
- Bridge-less design for uninterrupted 360° pattern
- Easy to clean nozzle and check valve, quick twist tool-free disassembly
- Multiple connection options to retrofit existing systems
- Color-coded nozzles
- Engineering-grade UV-resistant thermoplastic construction
- Built-in check valve

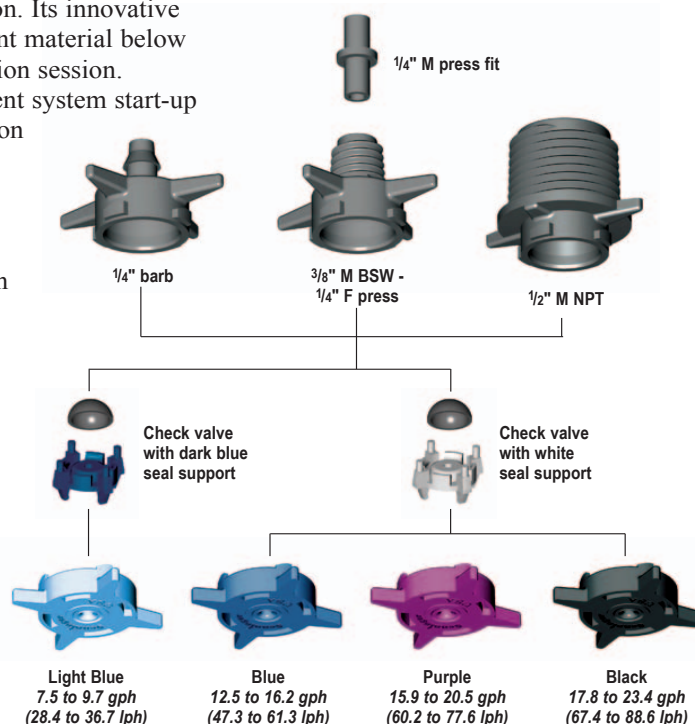
(Minimum operating pressure 30 psi or 2 bar)

Drop Assembly Also Available

Available in overall lengths of 3, 4, or 6 ft (0.92, 1.22, or 1.83 m) Components include: 1/4" barb x barb connector; 1/4" tubing; Slip-over weight; Mister



The Senninger Mister delivers a gentle, uniform mist.

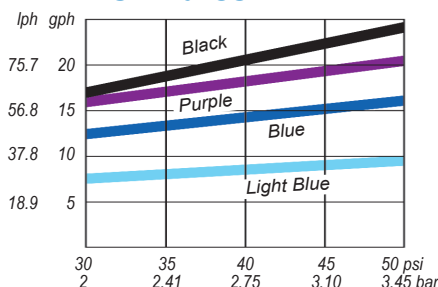


Recommended Spacing - at 24 inches above crop

Table Size	Laterals	Light Blue				Blue				Purple				Black			
		Head	x	Lateral		Head	x	Lateral		Head	x	Lateral		Head	x	Lateral	
4 ft	Single									2 - 2.5 ft 0.61 - 0.76 m				2 - 2.5 ft 0.61 - 0.76 m			
	Double	2 - 4 ft 0.61 - 1.22 m		2.5 - 3 ft 0.76 - 0.92 m		2 - 3.5 ft 0.61 - 1.07 m		2 ft 0.61 m		2 - 3 ft 0.61 - 0.92 m		2 ft 0.61 m		2 - 2.5 ft 0.61 - 0.76 m		2 - 3 ft 0.61 - 0.92 m	
5 ft	Single													2 - 2.5 ft 0.61 - 0.76 m			
	Double	2 - 4 ft 0.61 - 1.22 m		2.5 - 3 ft 0.76 - 0.92 m		2 - 3 ft 0.61 - 0.92 m		2 ft 0.61 m		2 - 3 ft 0.61 - 0.92 m		2 ft 0.61 m		2 - 2.5 ft 0.61 - 0.76 m		2 ft 0.61 m	
6 ft	Single																
	Double	2 - 3.5 ft 0.61 - 1.07 m		3 - 3.5 ft 0.92 - 1.07 m		2.5 ft 0.76 m		2.5 - 3.5 ft 0.76 - 1.07 m		2 - 2.5 ft 0.61 - 0.76 m		2.5 ft 0.76 m		2 - 2.5 ft 0.61 - 0.76 m		2 ft 0.61 m	

Other spacing options may produce higher uniformities and lower scheduling coefficients. Contact factory for details.

Flow Rates



07 MI 05

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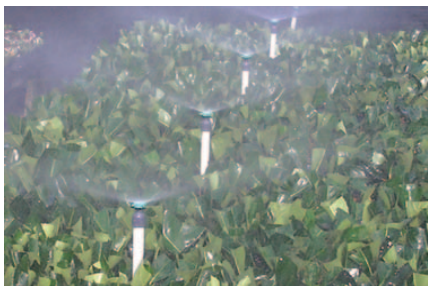
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Upright

Senninger Mister™

U.S. Patent #7152816



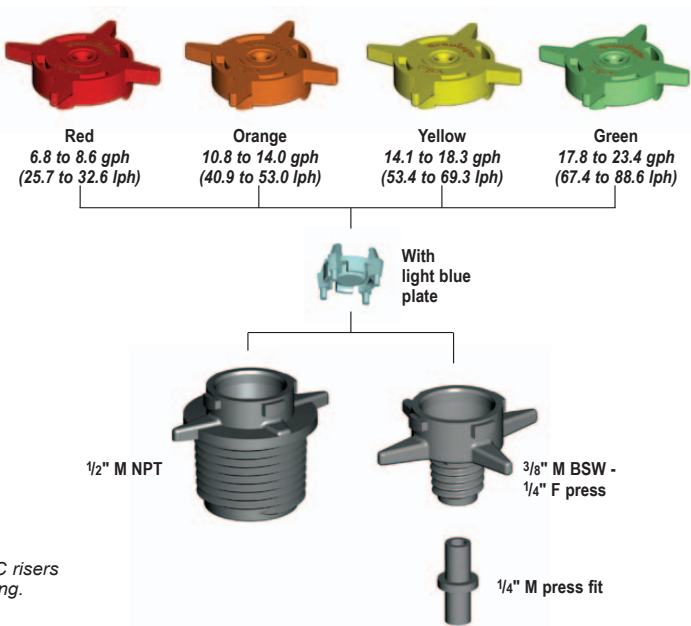
The Senninger Mister is ideal for propagation.

The patented Senninger Mister is designed specifically for propagation or other low volume misting application. Large areas can be covered with outstanding uniformity that is ideal for short-cycle applications.

Features

- Outstanding uniformity
- Bridge-less design for uninterrupted 360° pattern
- Easy to clean nozzle and optional check valve, quick twist tool-free disassembly
- Multiple connection options to retrofit existing systems
- Color-coded nozzles
- Engineering-grade UV-resistant thermoplastic construction

(Minimum operating pressure 30 psi or 2 bar)



Nursery Wire Adapter Also Available

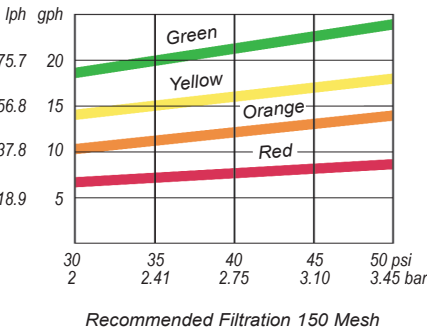
Provides easy installation for Misters to mount on 1/2" or 3/4" PVC risers and lock into the corner of wire mesh bed. Barb fits 0.345" ID tubing. Fits up to 10-gauge wire, minimum 1" mesh.

Recommended Spacing - at 12 inches above crop

Table Size	Laterals	Red		Orange		Yellow		Green	
		Head	Lateral	Head	Lateral	Head	Lateral	Head	Lateral
4 ft	Single	2 - 3 ft 0.61 - 1.07 m		2 - 3 ft 0.61 - 1.22 m		2 - 3 ft 0.61 - 1.22 m		2 - 3 ft 0.61 - 1.22 m	
	Double	2 - 4 ft 0.61 - 1.22 m	2 ft 0.61 m	2 - 4 ft 0.61 - 1.22 m	2 - 4 ft 0.61 - 1.22 m	2 - 4 ft 0.61 - 1.22 m	2 - 4 ft 0.61 - 1.22 m	2 - 4 ft 0.61 - 1.22 m	2 - 4 ft 0.61 - 1.22 m
5 ft	Single	3 ft 0.92 m		2 - 3 ft 0.61 - 1.22 m		2 - 3 ft 0.61 - 1.22 m		2 - 3 ft 0.61 - 1.22 m	
	Double	2 - 3 ft 0.61 - 1.07 m	2 - 4 ft 0.61 - 1.22 m	2 - 4 ft 0.61 - 1.22 m	2 - 4 ft 0.61 - 1.22 m	2 - 4 ft 0.61 - 1.22 m	2 - 4 ft 0.61 - 1.22 m	2 - 4 ft 0.61 - 1.22 m	2 - 4 ft 0.61 - 1.22 m
6 ft	Single	2 - 3 ft 0.61 - 1.22 m		2 - 3 ft 0.61 - 1.22 m		2 - 3 ft 0.61 - 1.22 m		2 - 3 ft 0.61 - 1.22 m	
	Double	2 - 3 ft 0.61 - 1.22 m	3 - 4 ft 0.92 - 1.22 m	2 - 4 ft 0.61 - 1.22 m	2.5 - 4 ft 0.76 - 1.22 m	2 - 4 ft 0.61 - 1.22 m	2 - 4 ft 0.61 - 1.22 m	2 - 4 ft 0.61 - 1.22 m	2 - 4 ft 0.61 - 1.22 m

Other spacing options may produce higher uniformities and lower scheduling coefficients. Check valve option available with different spacing recommendations. Contact factory for details.

Flow Rates



07 MU 05

Senninger

January 1, 2008

How to Design a Micro Spray Stake System

1 Select Emitter

Select the spray stake based on the container size or area of coverage required.

Table 1
Emitter Selection Based on Container Size or Area

Container Size		Radius of Coverage		Spray Stake color	Flow at		Distribution Pattern
gallons	liters	inches	meters		20 psi gph	1.379 bar lph	
10	37.84	12	0.305	black	4	15.14	90 °
15	56.76	18	0.457	brown	8	30.27	120 °
30	113.53	20	0.508	green	12	45.41	160 °



Three models available with varying trajectories ...



... provide coverage for any installation.

2 Determine Length of Lateral

Based on the selected emitter from Table 1 and the required emitter spacing for plants, use Table 2A or 2B to determine the maximum length of 3/4" or 1" Poly lateral based on 20 psi (1.379 bar) lateral pressure.

Table 2A
Maximum Length of 3/4" Poly Pipe (ft)

Plant Spacing		Black Spray Stakes	Brown Spray Stakes	Green Spray Stakes
inches	meters	# of units	# of units	# of units
24	0.610	220	140	110
36	0.914	290	190	140
48	1.219	350	220	170
72	1.829	460	290	220

Data based on 4 psi (0.276 bar) lateral friction loss.

Table 2B
Maximum Length of 1" Poly Pipe (ft)

Plant Spacing		Black Spray Stakes	Brown Spray Stakes	Green Spray Stakes
inches	meters	# of units	# of units	# of units
24	0.610	340	220	160
36	0.914	450	280	220
48	1.219	540	340	260
72	1.829	700	440	340

Data based on 4 psi (0.276 bar) lateral friction loss.

January 1, 2008

3 Determine Zone Flow

Table 3 will help determine the number of emitters based on system capacity and emitter selected in Table 1.

Table 3
Quantity of Units Based on System Flow

Flow Rate		Black Stakes 4 gph-15.14 lph # of units	Brown Stakes 8 gph-30.27 lph # of units	Green Stakes 12 gph-45.41 lph # of units
gpm	lpm			
10	37.84	150	75	50
20	75.69	300	150	100
40	151.4	600	300	200
60	227.1	900	450	300
80	302.7	1200	600	400



Ideal for pot-in-pot installations.

4 Determine Pipe Size

Table 4 will help determine the size of the mainline that feeds the Poly laterals.

Table 4
Mainline Pipe Size Guide

Mainline Flow Rate		PVC Class 160		Pipe Size I.D.	
gpm	lpm	inches	mm	inches	mm
20	75.69	1.25	31.75	1.532	38.91
30	113.5	1.50	38.10	1.754	44.55
40	151.4	2.00	50.80	2.193	55.70
60	227.1	2.50	63.50	2.655	67.44
100	378.4	3.00	76.20	3.230	82.04
200	756.9	4.00	101.6	4.153	105.5
400	1513.7	6.00	152.4	6.115	155.3

Data based on 5 feet per second (1.524 meters per second) water velocity.

Example: 4 rows of 15 gallon container trees on 48 inch (1.22 m) spacing. Pump capacity is 40 gpm (151.4 lpm).

- (Table 1) Select brown spray stake, 8 gph @ 20 psi (30.28 lph @ 1.379 bar) for a 15 gallon (56.78 liter) container.
- (Table 2B) Based on the brown spray stake, the maximum length of 1" Poly laterals is 340 ft. (103.6 m) with emitter spacing of 48 inches (1.22 m).
- (Table 3) Based on a system flow rate of 40 gpm (151.4 lpm), the system will operate 300 brown spray stakes or 4 laterals with 75 spray stakes per lateral (from step 2 above).
- (Table 4) With a total zone flow of 40 gpm (151.4 lpm), the main line should be 2.0 inches (50.8 mm) for optimum flow.

For optimal spray stake performance 120 mesh filtration recommended.

This information is based on no elevation changes and 20 psi (1.379 bar) lateral line pressure.
For additional design information, please contact Senninger Irrigation at 407-877-5655.

Pressure Regulation

Variations in system pressure can result in erratic emitter application rates. Optimum performance of the micro spray stake in a well-designed individual container irrigation system can be achieved by using pressure regulators. The Senninger Pressure-Master Regulator® maintains a constant preset outlet pressure while handling inlet pressure up to 150 psi.



Senninger pressure regulators can be installed above or below ground.

Senninger Spray Stake Advantages

- Directional indicator for easy positioning
- Easy to remove for cleaning and maintenance
- Shut-off feature for non-use
- Large flutes for increased stability in soil
- Three color-coded flow rates to match application requirements
- Deflection surface provides a good application pattern



Large flute design provides increased stability in soil.

20series[Impacts

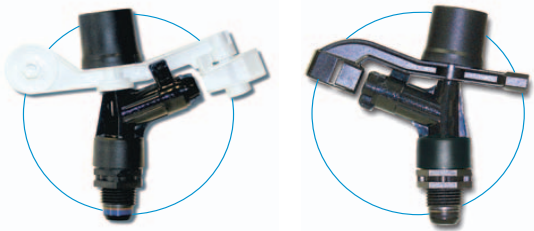


The 20 series full-circle impacts are Senninger's most economical sprinklers. Effective for various overhead and undertree applications.

- FEATURES:
- Single nozzle design for maximum throw
 - Three trajectories available:
2009 - 9°- fights wind drift and evaporation
2014 - 14°- ideal for undertree irrigation
2023 - 23°- for maximum throw on overhead systems
 - Wide range of nozzle and vane combinations for excellent distribution at all pressures
 - Built-in hex wrench for easy in-the-field maintenance
 - Standard lower bearing pipe thread:
1/2" M NPT (female also available)
 - Flow rates: 1.22 to 3.98 gpm [288 to 900 L/hr]
 - Color-coded nozzles for easy size identification /warranted to maintain correct orifice size for five years
 - Two-year warranty on materials,workmanship AND performance

Other Models:

- Wedgedrive for lower application rates.
- Aluminum Arm resists icing during freezing temperatures.



2009HD-1-1/2" M

U.S. Data						Metric Data				
Sprinkler Base Press. [psi]						[bar]				
						[psi]				
						2.0	2.5	3.0	3.5	
						29.00	36.25	43.50	50.75	
#6 Nozzle - Gold [3/32"]						#6 Nozzle-Gold [2.38mm]				
Flow [gpm]	1.34	1.45	1.55	1.64	—	Flow [L/hr]	288	324	360	—
Diam. at 1.5' ht. [ft.]	58	60	62	64	—	Diam. at 0.5m ht. [m]	17.6	18.4	19.3	—
#7 Nozzle - Lime [7/64"]						#7 Nozzle-Lime [2.78mm]				
Flow [gpm]	1.84	1.99	2.12	2.25	2.37	Flow [L/hr]	396	468	504	540
Diam. at 1.5' ht. [ft.]	60	62	64	66	67	Diam. at 0.5m ht. [m]	18.2	19.0	19.9	20.5
#8 Nozzle - Lavender [1/8"]						#8 Noz.-Lavender [3.18mm]				
Flow [gpm]	2.42	2.62	2.79	2.97	3.12	Flow [L/hr]	540	612	648	720
Diam. at 1.5' ht. ft. [ft.]	62	64	66	68	69	Diam. at 0.5m ht. [m]	18.8	19.7	20.5	21.1
#9 Nozzle - Grey [9/64"]						#9 Nozzle- Grey [3.57mm]				
Flow [gpm]	3.08	3.33	3.56	3.78	3.98	Flow [L/hr]	684	756	828	900
Diam. at 1.5' ht. [ft.]	64	66	68	70	71	Diam. at 0.5m ht. [m]	19.4	20.3	21.2	21.7

Sprinkler performance may vary with actual field conditions. Diameters shown are for standard straight bore nozzles and stream straightening vanes. Other nozzles and/or vane combinations are available; Consult factory for specific performance data. Stream heights range from 1.5-3.0 ft. (0.46-0.9m) above nozzle based on pressure and nozzle size. Minimum recommended riser height is 1.5 ft. (0.46m).

January 1, 2008



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Mounting Options:

- Vandal-resistant coupling and special wrench
- 3/4" slip with base swivel
- Quick-connect base and connector



2014HS-I-1/2" M

U.S. Data Sprinkler Base Press. [psi]	30	35	40	45	50	Metric Data	[bar] [psi]	2.0 29.00	2.5 36.25	3.0 43.50	3.5 50.75
#6 Nozzle - Gold [3/32"]						#6 Nozzle - Gold [2.38mm]					
Flow [gpm]	1.34	1.45	1.55	1.64	—	Flow [L/hr]		288	324	360	—
Diam. at 1.5' ht. [ft.]	66	68	70	72	—	Diam. at 0.5m ht. [m]		20.0	20.9	21.8	—
#7 Nozzle - Lime [7/64"]						#7 Nozzle - Lime [2.78mm]					
Flow [gpm]	1.84	1.99	2.12	2.25	2.37	Flow [L/hr]		396	468	504	540
Diam. at 1.5' ht. [ft.]	68	70	72	74	75	Diam. at 0.5m ht. [m]		20.6	21.5	22.4	22.9
#8 Nozzle - Lavender [1/8"]						#8 Nozzle - Lavender [3.18mm]					
Flow [gpm]	2.42	2.62	2.79	2.97	3.12	Flow [L/hr]		540	612	648	720
Diam. at 1.5' ht. [ft.]	70	72	74	76	77	Diam. at 0.5m ht. [m]		21.2	22.1	23.0	23.5
#9 Nozzle - Grey [9/64"]						#9 Nozzle - Grey [3.57mm]					
Flow [gpm]	3.08	3.33	3.56	3.78	3.98	Flow [L/hr]		684	756	828	900
Diam. at 1.5' ht. [ft.]	71	73	75	77	78	Diam. at 0.5m ht. [m]		21.5	22.4	23.3	23.8

Sprinkler performance may vary with actual field conditions. Stream heights range from 3.0-5.0 ft. (0.9-1.5m) above nozzle based on pressure and nozzle size. Minimum recommended riser height is 1.5 ft. (0.46m).

2023HS-I-1/2" M

U.S. Data Sprinkler Base Press. [psi]	30	35	40	45	50	Metric Data	[bar] [psi]	2.0 29.00	2.5 36.25	3.0 43.50	3.5 50.75
#6 Nozzle-Gold [3/32"]						#6 Nozzle-Gold [2.38mm]					
Flow [gpm]	1.34	1.45	1.55	1.64	—	Flow [L/hr]		288	324	360	—
Diam. at 1.5' ht. [ft.]	74	75	76	77	—	Diam. at 0.5m ht. [m]		22.5	22.9	23.4	—
#7 Nozzle-Lime [7/64"]						#7 Nozzle-Lime [2.78mm]					
Flow [gpm]	1.84	1.99	2.12	2.25	2.37	Flow [L/hr]		396	468	504	540
Diam. at 1.5' ht. [ft.]	76	77	78	79	80	Diam. at 0.5m ht. [m]		23.1	23.5	24.0	24.4
#8 Noz.-Lavender [1/8"]						#8 Noz.-Lavender [3.18mm]					
Flow [gpm]	2.42	2.62	2.79	2.97	3.12	Flow [L/hr]		540	612	648	720
Diam. at 1.5' ht. [ft.]	78	79	80	81	82	Diam. at 0.5m ht. [m]		23.7	24.2	24.6	25.0
#9 Nozzle-Grey [9/64"]						#9 Nozzle- Grey [3.57mm]					
Flow [gpm]	3.08	3.33	3.56	3.78	3.98	Flow [L/hr]		684	756	828	900
Diam. at 1.5' ht. [ft.]	79	80	81	82	83	Diam. at 0.5m ht. [m]		24.0	24.5	24.9	25.3

Sprinkler performance may vary with actual field conditions. Stream heights range from 6.5-9.5 ft. (2.0-3.0m) above nozzle based on pressure and nozzle size. Minimum recommended riser height is 1.5 ft. (0.46m).

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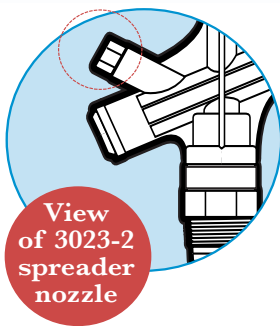
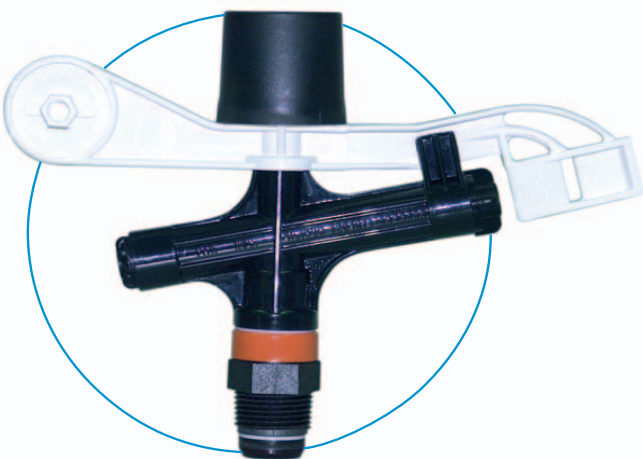
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30series[Impacts



Senninger impacts provide uniform water distribution and excellent reliability.



The 30 Series begins Senninger's line of full-circle 3/4" impact sprinklers. Designed specifically for lower flows and maximum efficiency.

- FEATURES:**
- Single and double nozzle designs available. Double nozzle only available in 23° model.
 - Two trajectories available:
3012- 12° - ideal for undertree irrigation
3023- 23° - for maximum throw on overhead systems
 - Wide range of nozzle and vane combinations for excellent distribution at all pressures
 - Built-in hex wrench for easy in-the-field maintenance
 - Standard lower bearing pipe thread: 3/4" M NPT (female also available)
 - Flow rates: 1.84 to 6.42 gpm [0.11 to 0.41 L/s]
 - Color-coded nozzles for easy size identification /warranted to maintain correct orifice size for five years
 - Two-year warranty on materials, workmanship AND performance

3012-1-3/4" M

U.S. Data						Metric Data	[bar]	2.0	2.5	3.0	3.5
Sprinkler Base Press. [psi]							[psi]	29.00	36.25	43.50	50.75
#7 Nozzle - Lime [7/64"]						#7 Nozzle - Lime [2.78mm]					
Flow [gpm]	1.84	1.99	2.12	2.25	2.37	Flow [L/s]	0.11	0.13	0.14	0.15	
Diam. at 1.5' ht. [ft.]	71	74	77	80	82	Diam. at 0.5m ht. [m]	21.4	22.8	24.1	25.1	
#8 Nozzle - Lavender [1/8"]						#8 Nozzle - Lavender [3.18mm]					
Flow [gpm]	2.42	2.62	2.79	2.97	3.12	Flow [L/s]	0.15	0.17	0.18	0.20	
Diam. at 1.5' ht. [ft.]	73	76	79	82	84	Diam. at 0.5m ht. [m]	22.0	23.4	24.7	25.7	
#9 Nozzle - Grey [9/64"]						#9 Nozzle - Grey [3.57mm]					
Flow [gpm]	3.08	3.33	3.56	3.78	3.98	Flow [L/s]	0.19	0.21	0.23	0.25	
Diam. at 1.5' ht. [ft.]	75	78	81	84	86	Diam. at 0.5m ht. [m]	22.6	24.0	25.3	26.3	
#10 Nozzle - Turquoise[9/64"]						#10 Nozzle - Turquoise [3.97mm]					
Flow [gpm]	3.82	4.13	4.41	4.68	4.93	Flow [L/s]	0.24	0.26	0.29	0.31	
Diam. at 1.5' ht. [ft.]	76	79	82	85	87	Diam. at 0.5m ht. [m]	22.9	24.3	25.6	26.6	

Impacts]30series

3023-1-3/4" M

U.S. Data						Metric	[bar]	2.0	2.5	3.0	3.5
Sprinkler Base Press. [psi]	30	35	40	45	50	Data	[psi]	29.00	36.25	43.50	50.75
#7 Nozzle - Lime [7/64"]						#7 Nozzle - Lime [2.78mm]					
Flow [gpm]	1.84	1.99	2.12	2.25	2.37	Flow [L/s]		0.11	0.13	0.14	0.15
Diam. at 1.5' ht. [ft.]	80	82	84	86	87	Diam. at 0.5m ht. [m]		24.2	25.1	26.0	26.6
Diam. at 6.0' ht. [ft.]	83	84	85	86	88	Diam. at 2.0m ht. [m]		25.2	25.7	26.1	26.6
#8 Nozzle - Lavender [1/8"]						#8 Nozzle - Lavender [3.18mm]					
Flow [gpm]	2.42	2.62	2.79	2.97	3.12	Flow [L/s]		0.15	0.17	0.18	0.20
Diam. at 1.5' ht. [ft.]	83	85	86	87	88	Diam. at 0.5m ht. [m]		25.1	26.0	26.4	27.0
Diam. at 6.0' ht. [ft.]	86	87	88	89	90	Diam. at 2.0m ht. [m]		26.1	26.6	27.0	27.5
#9 Nozzle - Grey [9/64"]						#9 Nozzle - Grey [3.57mm]					
Flow [gpm]	3.08	3.33	3.56	3.78	3.98	Flow [L/s]		0.19	0.21	0.23	0.25
Diam. at 1.5' ht. [ft.]	85	87	88	90	91	Diam. at 0.5m ht. [m]		25.8	26.6	27.2	27.8
Diam. at 6.0' ht. [ft.]	87	89	90	91	92	Diam. at 2.0m ht. [m]		26.4	27.2	27.6	28.1
#10 Nozzle - Turquoise [9/64"]						#10 Nozzle - Turquoise [3.97mm]					
Flow [gpm]	3.82	4.13	4.41	4.68	4.93	Flow [L/s]		0.24	.026	0.29	0.31
Diam. at 1.5' ht. [ft.]	87	89	90	91	92	Diam. at 0.5m ht. [m]		26.4	27.2	27.6	28.1
Diam. at 6.0' ht. [ft.]	88	90	92	93	94	Diam. at 2.0m ht. [m]		26.7	27.6	28.3	28.7

3023-2-3/4" M

U.S. Data						Metric	[bar]	2.0	2.5	3.0	3.5
Sprinkler Base Press. [psi]	30	35	40	45	50	Data	[psi]	29.00	36.25	43.50	50.75
7x4 #7 Range Nozzle - Lime [7/64"] x #4 Spreader Nozzle [1/16"]						7x4 #7 Lime [2.78mm] x #4 Nozzle [1.59mm]					
Flow [gpm]	3.01	3.25	3.48	3.69	3.89	Flow [L/s]		0.19	0.21	0.23	0.25
Diam. at 1.5' ht. [ft.]	80	82	84	86	87	Diam. at 0.5m ht. [m]		24.2	25.2	26.1	26.8
Diam. at 6.0' ht. [ft.]	83	84	85	86	88	Diam. at 2.0m ht. [m]		25.3	25.7	26.1	26.5
8x5 #8 Range Lavender [1/8"] x #6 Spreader Nozzle [5/64"]						8x5 #8 Nozzle - Lavender[3.18mm] x #5 Nozzle [1.98mm]					
Flow [gpm]	3.58	3.86	4.13	4.38	4.62	Flow [L/s]		0.22	0.25	0.27	0.29
Diam. at 1.5' ht. [ft.]	83	85	86	87	88	Diam. at 0.5m ht. [m]		25.1	26.0	26.7	27.4
Diam. at 6.0' ht. [ft.]	86	87	88	89	90	Diam. at 2.0m ht. [m]		26.0	26.6	27.1	27.5
8x6 #8 Range Lavender [1/8"] x #6 Spreader Nozzle [3/32"]						8x6 #8 Nozzle -Lavender[3.18mm] x #6 Nozzle [2.38mm]					
Flow [gpm]	3.84	4.14	4.43	4.70	4.95	Flow [L/s]		0.24	0.27	0.29	0.31
Diam. at 1.5' ht. [ft.]	83	85	86	87	88	Diam. at 0.5m ht. [m]		25.1	26.0	26.7	27.4
Diam. at 6.0' ht. [ft.]	86	87	88	89	90	Diam. at 2.0m ht. [m]		26.0	26.6	27.1	27.5
9x5 #9 Nozzle - Grey [9/64"] x #5 Spreader Nozzle [5/64"]						9x5 #9 Nozzle- Grey [3.57mm] x #5 Nozzle [1.98mm]					
Flow [gpm]	4.16	4.50	4.81	5.10	5.38	Flow [L/s]		0.26	0.29	0.32	0.34
Diam. at 1.5' ht. [ft.]	85	87	88	90	91	Diam. at 0.5m ht. [m]		25.8	26.6	27.2	27.8
Diam. at 6.0' ht. [ft.]	87	89	90	91	92	Diam. at 2.0m ht. [m]		26.4	27.1	27.6	28.1
9x6 #9 Nozzle-Grey [9/64"] x #6 Spreader Nozzle [3/32"]						9x6 #9 Nozzle-Grey [3.57mm] x #6 Nozzle [2.38mm]					
Flow [gpm]	4.41	4.77	5.10	5.41	5.70	Flow [L/s]		0.27	0.31	0.33	0.36
Diam. at 1.5' ht. [ft.]	85	87	88	90	91	Diam. at 0.5m ht. [m]		25.8	26.6	27.2	27.8
Diam. at 6.0' ht. [ft.]	87	89	90	91	92	Diam. at 2.0m ht. [m]		26.4	27.1	27.6	28.1
10x5 #10 Nozzle-Turquoise [5/32"] x #5 Spreader Nozzle [5/64"]						10x5 #10 Nozzle - Turquoise [3.97mm] x #5 Nozzle [1.98mm]					
Flow [gpm]	4.97	5.37	5.74	6.09	6.42	Flow [L/s]		0.31	0.34	0.38	0.41
Diam. at 1.5' ht. [ft.]	87	89	90	91	92	Diam. at 0.5m ht. [m]		26.4	27.1	27.6	28.1
Diam. at 6.0' ht. [ft.]	88	90	92	93	94	Diam. at 2.0m ht. [m]		26.8	27.5	28.2	28.7

Sprinkler performance may vary with actual field conditions. Stream heights range from 6.0ft.-7.5ft. (1.8-2.3m) above nozzle based on pressure and nozzle size. Minimum recommended riser height is 1.5 ft. (0.46m)

Senninger

January 1, 2008



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40series[Impacts



The 40 Series full-circle impacts are designed for maximum efficiency at intermediate flows.

- FEATURES:
- Single and double nozzle designs available. Double nozzle only available in 23° model.
 - Two trajectories available:
12° - ideal for undertree irrigation
23° - for maximum throw on overhead systems
 - Wide range of nozzle and vane combinations for excellent distribution at all pressures
 - Built-in hex wrench for easy in-the-field maintenance
 - Standard lower bearing pipe thread:
3/4" M NPT (female also available)
 - Flow rates: 3.82 to 12.6 gpm [0.24 to 0.78 L/s]
 - Color-coded nozzles for easy size identification /warranted to maintain correct orifice size for five years
 - Two-year warranty on materials, workmanship AND performance

4012-1-3/4" M

U.S. Data Sprinkler Base Press. [psi]	30	35	40	45	50	55	60	Metric Data	[bar] [psi]	2.0 29.00	2.5 36.25	3.0 43.50	3.5 50.75	4.0 58.00
#10 Nozzle - Turquoise [5/32"]								#10 Nozzle - Turquoise [3.97mm]						
Flow [gpm]	3.82	4.13	4.41	4.68	4.93	5.17	5.40	Flow [L/s]		0.24	0.26	0.29	0.31	0.33
Diam. at 1.5' ht. [ft.]	73	77	80	83	86	89	91	Diam. at 0.5m ht. [m]		22.0	23.7	25.0	26.3	27.5
#11 Nozzle - Yellow [11/64"]								#11 Nozzle - Yellow [4.37mm]						
Flow [gpm]	4.63	5.00	5.34	5.67	5.98	6.27	6.55	Flow [L/s]		0.29	0.32	0.35	0.38	0.41
Diam. at 1.5' ht. [ft.]	76	80	83	86	89	92	94	Diam. at 0.5m ht. [m]		22.9	24.6	25.9	27.3	28.4
#12 Nozzle - Red [3/16"]								#12 Nozzle - Red [4.76mm]						
Flow [gpm]	5.52	5.97	6.37	6.76	7.13	7.48	7.81	Flow [L/s]		0.34	0.38	0.42	0.45	0.48
Diam. at 1.5' ht. [ft.]	78	82	85	88	91	94	96	Diam. at 0.5m ht. [m]		23.5	25.2	26.5	27.9	29.0
#13 Nozzle - White [13/64"]								#13 Nozzle - White [5.16mm]						
Flow [gpm]	6.50	7.02	7.49	7.95	8.38	8.80	9.19	Flow [L/s]		0.40	0.45	0.49	0.53	0.57
Diam. at 1.5' ht. [ft.]	80	84	87	90	93	96	98	Diam. at 0.5m ht. [m]		24.1	25.8	27.2	28.5	29.8
#14 Nozzle - Blue [7/32"]								#14 Nozzle - Blue [5.56mm]						
Flow [gpm]	7.49	8.09	8.63	9.17	9.66	10.1	10.6	Flow [L/s]		0.46	0.52	0.57	0.61	0.66
Diam. at 1.5' ht. [ft.]	82	86	89	93	96	99	101	Diam. at 0.5m ht. [m]		24.7	26.4	28.0	29.4	30.5

Sprinkler performance may vary with actual field conditions. Diameters shown are for standard straight bore nozzles and stream straightening vanes. Other nozzles and/or vane combinations are available; Consult factory for specific performance data. Stream heights range from 6.5-10.0 ft. (2.0-3.1m) above nozzle based on pressure and nozzle size. Minimum recommended riser height is 1.5 ft. (0.46m).

January 1, 2008

Impacts]40series

4023-1-3/4" M

U.S. Data								Metric Data		2.0	2.5	3.0	3.5	4.0
Sprinkler Base Press. [psi]								[bar]		29.00	36.25	43.50	50.75	58.00
30	35	40	45	50	55	60								
#10 Nozzle - Turquoise [5/32"]								#10 Nozzle - Turquoise [3.97mm]						
Flow [gpm]	3.82	4.13	4.41	4.68	4.93	5.17	5.40	Flow [L/s]	0.24	0.26	0.29	0.31	0.33	
Diam. at 1.5' ht. [ft.]	86	89	91	93	95	96	97	Diam. at 0.5m ht. [m]	26.0	27.3	28.2	29.0	29.4	
Diam. at 6.0' ht. [ft.]	92	94	96	97	98	99	100	Diam. at 2.0m ht. [m]	27.9	28.8	29.5	29.9	30.4	
#11 Nozzle - Yellow [11/64"]								#11 Nozzle - Yellow [4.37mm]						
Flow [gpm]	4.63	5.00	5.34	5.67	5.98	6.27	6.55	Flow [L/s]	0.29	0.32	0.35	0.38	0.41	
Diam. at 1.5' ht. [ft.]	89	92	94	96	98	99	100	Diam. at 0.5m ht. [m]	26.9	28.2	29.1	29.9	30.4	
Diam. at 6.0' ht. [ft.]	94	96	98	100	102	103	104	Diam. at 2.0m ht. [m]	28.5	29.4	30.3	31.1	31.6	
#12 Nozzle - Red [3/16"]								#12 Nozzle - Red [4.76mm]						
Flow [gpm]	5.52	5.97	6.37	6.76	7.13	7.48	7.81	Flow [L/s]	0.34	0.38	0.42	0.45	0.48	
Diam. at 1.5' ht. [ft.]	92	95	97	99	101	102	103	Diam. at 0.5m ht. [m]	27.9	29.1	30.0	30.8	31.3	
Diam. at 6.0' ht. [ft.]	97	99	101	103	105	107	108	Diam. at 2.0m ht. [m]	29.4	30.3	31.2	32.1	32.8	
#13 Nozzle - White [13/64"]								#13 Nozzle - White [5.16mm]						
Flow [gpm]	6.50	7.02	7.49	7.95	8.38	8.80	9.19	Flow [L/s]	0.40	0.45	0.49	0.53	0.57	
Diam. at 1.5' ht. [ft.]	94	97	99	101	103	104	105	Diam. at 0.5m ht. [m]	28.5	29.7	30.6	31.4	31.9	
Diam. at 6.0' ht. [ft.]	100	103	106	109	112	115	117	Diam. at 2.0m ht. [m]	30.2	31.6	32.9	34.3	35.4	
#14 Nozzle - Blue [7/32"]								#14 Nozzle - Blue [5.56mm]						
Flow [gpm]	7.49	8.09	8.63	9.17	9.66	10.1	10.6	Flow [L/s]	0.46	0.52	0.57	0.61	0.66	
Diam. at 1.5' ht. [ft.]	96	99	101	103	105	106	107	Diam. at 0.5m ht. [m]	29.1	30.3	31.2	32.0	32.5	
Diam. at 6.0' ht. [ft.]	102	106	110	114	118	122	125	Diam. at 2.0m ht. [m]	30.8	32.6	34.4	36.1	37.7	

4023-2-3/4" M

U.S. Data								Metric Data		2.0	2.5	3.0	3.5	4.0
Sprinkler Base Press. [psi]								[bar]		29.00	36.25	43.50	50.75	58.00
30	35	40	45	50	55	60		[psi]						
10x6 #10 Nozzle - Turquoise [5/32"] x #6 Spreader Nozzle [3/32"]								10x6 #10 Nozzle - Turquoise [3.97mm] x #6 Nozzle [2.38mm]						
Flow [gpm]	5.25	5.67	6.07	6.43	6.78	7.11	7.43	Flow [L/s]	0.33	0.36	0.40	0.43	0.46	
Diam. at 1.5' ht. [ft.]	86	89	91	93	95	96	97	Diam. at 0.5m ht. [m]	26.0	27.3	28.2	29.0	29.4	
Diam. at 6.0' ht. [ft.]	92	94	96	97	98	99	100	Diam. at 2.0m ht. [m]	27.9	28.8	29.5	29.9	30.4	
11x6 #11 Nozzle - Yellow [1 1/64"] x #6 Spreader Nozzle [3/32"]								11x6 #11 Nozzle - Yellow [4.37mm] x #6 Nozzle [2.38mm]						
Flow [gpm]	6.10	6.59	7.05	7.47	7.88	8.26	8.63	Flow [L/s]	0.38	0.42	0.46	0.50	0.53	
Diam. at 1.5' ht. [ft.]	89	92	94	96	98	99	100	Diam. at 0.5m ht. [m]	26.9	28.2	29.1	29.9	30.4	
Diam. at 6.0' ht. [ft.]	94	96	98	100	102	103	104	Diam. at 2.0m ht. [m]	28.5	29.4	30.3	31.1	31.6	
12x6 #10 Nozzle - Red [3/16"] x #6 Spreader Nozzle [3/32"]								12x6 #12 Nozzle - Red [4.76mm] x #6 Nozzle [2.38mm]						
Flow [gpm]	6.89	7.54	8.07	8.55	9.02	9.46	9.88	Flow [L/s]	0.43	0.48	0.53	0.57	0.61	
Diam. at 1.5' ht. [ft.]	92	95	97	99	101	102	103	Diam. at 0.5m ht. [m]	27.9	29.1	30.0	30.8	31.3	
Diam. at 6.0' ht. [ft.]	97	99	101	103	105	107	108	Diam. at 2.0m ht. [m]	29.4	30.3	31.2	32.1	32.8	
13x6 #13 Nozzle - White [13/64"] x #6 Spreader Nozzle [3/32"]								13x6 #13 Nozzle - White [5.16mm] x #6 Nozzle [2.38mm]						
Flow [gpm]	7.93	8.57	9.16	9.72	10.2	10.7	11.2	Flow [L/s]	0.49	0.55	0.60	0.65	0.69	
Diam. at 1.5' ht. [ft.]	94	97	99	101	103	104	105	Diam. at 0.5m ht. [m]	28.5	29.7	30.6	31.4	31.9	
Diam. at 6.0' ht. [ft.]	100	103	106	109	112	115	117	Diam. at 2.0m ht. [m]	30.2	31.6	32.9	34.3	35.4	
14x6 #14 Nozzle - Blue [7/32"] x #6 Spreader Nozzle [3/32"]								14x6 #14 Nozzle - Blue [5.56mm] x #6 Nozzle [2.38mm]						
Flow [gpm]	8.90	9.62	10.3	10.9	11.5	12.1	12.6	Flow [L/s]	0.55	0.62	0.67	0.73	0.78	
Diam. at 1.5' ht. [ft.]	96	99	101	103	105	106	107	Diam. at 0.5m ht. [m]	29.1	30.3	31.2	32.0	32.5	
Diam. at 6.0' ht. [ft.]	102	106	110	114	118	122	125	Diam. at 2.0m ht. [m]	30.8	32.6	34.4	36.1	37.7	

Sprinkler performance may vary with actual field conditions. Diameters shown are for standard straight bore nozzles and stream straightening vanes. Other nozzles and/or vane combinations are available; Consult factory for specific performance data. Stream heights range from 6.5-10.0 ft. (2.0-3.1m) above nozzle based on pressure and nozzle size. Minimum recommended riser height is 1.5 ft. (0.46m).

Senninger

January 1, 2008



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50series[Impacts]



The 50 Series full-circle impacts handle the highest flow rates for Senninger's 3/4" sprinklers. High application rates and large diameter of coverage make these sprinklers suitable for a variety of applications.

- FEATURES:**
- Single and double nozzle designs available. Double nozzle only available in 23° model.
 - Two trajectories available:
12° - ideal for undertree irrigation
23° - for maximum throw on overhead systems
 - Wide range of nozzle and vane combinations for excellent distribution at all pressures
 - Built-in hex wrench for easy in-the-field maintenance
 - Standard lower bearing pipe thread:
3/4" M NPT (female also available)
 - Flow rates: 6.5 to 20.1 gpm [0.4 to 1.27 L/s]
 - Color-coded nozzles for easy size identification / warranted to maintain correct orifice size for five years
 - Two-year warranty on materials, workmanship AND performance

5012-1-3/4" M

U.S. Data										Metric Data						
Spklr Base Press. [psi]	30	35	40	45	50	55	60	65		[bar]	2.0	2.5	3.0	3.5	4.0	4.5
										[psi]	29.00	36.25	43.50	50.75	58.00	65.25
#13 Nozzle - White [13/64"]										#13 Nozzle - White [5.16mm]						
Flow [gpm]	6.50	7.02	7.49	7.95	8.36	8.80	9.19	9.55		Flow [L/s]	0.40	0.45	0.49	0.53	0.57	0.60
Diam. at 1.5' ht. [ft.]	77	83	89	93	97	100	103	105		Diam. at 0.5m ht. [m]	23.0	25.8	29.2	29.7	31.0	32.0
#14 Nozzle - Blue [7/32"]										#14 Nozzle - Blue [5.56mm]						
Flow [gpm]	7.49	8.09	8.63	9.17	9.66	10.1	10.6	11.0		Flow [L/s]	0.46	0.52	0.57	0.61	0.66	0.70
Diam. at 1.5' ht. [ft.]	79	85	91	95	99	102	105	107		Diam. at 0.5m ht. [m]	23.7	26.4	29.8	30.3	31.6	32.6
#15 Nozzle - Dark Brown [15/64"]										#15 Nozzle - Dark Brown [5.95mm]						
Flow [gpm]	8.51	9.19	9.81	10.4	11.0	11.5	12.0	12.5		Flow [L/s]	0.53	0.59	0.64	0.70	0.74	0.79
Diam. at 1.5' ht. [ft.]	81	87	93	97	101	104	107	109		Diam. at 0.5m ht. [m]	24.3	27.0	30.4	30.9	32.2	33.3
#16 Nozzle - Orange [1/4"]										#16 Nozzle - Orange [6.35mm]						
Flow [gpm]	9.63	10.4	11.1	11.8	12.4	13.0	13.6	14.2		Flow [L/s]	0.60	0.67	0.73	0.79	0.84	0.89
Diam. at 1.5' ht. [ft.]	83	89	95	99	103	106	109	111		Diam. at 0.5m ht. [m]	24.9	27.6	31.0	31.5	32.9	33.8
#17 Nozzle - Dark Green [17/64"]										#17 Nozzle - Dark Green [6.75mm]						
Flow [gpm]	10.7	11.6	12.3	13.1	13.8	14.5	15.1	15.7		Flow [L/s]	0.66	0.74	0.81	0.88	0.94	0.99
Diam. at 1.5' ht. [ft.]	85	91	96	100	105	108	111	113		Diam. at 0.5m ht. [m]	25.5	28.1	31.3	32.1	33.5	34.4
#18 Nozzle - Purple [9/32"]										#18 Nozzle - Purple [7.14mm]						
Flow [gpm]	11.9	12.9	13.7	14.6	15.4	16.1	16.8	17.5		Flow [L/s]	0.74	0.82	0.90	0.98	1.04	1.11
Diam. at 1.5' ht. [ft.]	87	92	97	101	107	110	113	114		Diam. at 0.5m ht. [m]	26.1	28.4	31.6	32.7	34.1	34.7

Sprinkler performance may vary with actual field conditions. Diameters shown are for standard straight bore nozzles and stream straightening vanes. Other nozzles and/or vane combinations are available; Consult factory for specific performance data. Stream heights range from 3.5-6.0 ft. (1.1-1.8m) above nozzle based on pressure and nozzle size. Minimum recommended riser height is 1.5 ft. (0.46m).

January 1, 2008

Impacts]50series

5023-1-3/4" M

U.S. Data									Metric Data							
Spklr Base Press. [psi]	30	35	40	45	50	55	60	65	[bar]	2.0	2.5	3.0	3.5	4.0	4.5	
									[psi]	29.00	36.25	43.50	50.75	58.00	65.25	
#13 Nozzle - White [13/64"]									#13 Nozzle - White [5.16mm]							
Flow [gpm]	6.50	7.02	7.49	7.95	8.38	8.80	9.19	9.55	Flow [L/s]	0.40	0.45	0.49	0.53	0.57	0.60	
Diam. at 1.5' ht. [ft.]	92	95	98	100	102	103	104	105	Diam. at 0.5m ht. [m]	27.8	29.2	30.3	31.1	31.6	32.0	
Diam. at 6.0' ht. [ft.]	99	102	104	106	108	110	112	114	Diam. at 2.0m ht. [m]	30.0	31.2	32.1	33.0	33.9	34.8	
#14 Nozzle - Blue [7/32"]									#14 Nozzle - Blue [5.56mm]							
Flow [gpm]	7.49	8.09	8.63	9.17	9.66	10.1	10.6	11.0	Flow [L/s]	0.46	0.52	0.57	0.61	0.66	0.70	
Diam. at 1.5' ht. [ft.]	94	98	101	103	105	106	107	108	Diam. at 0.5m ht. [m]	28.4	30.1	31.2	32.1	32.5	32.9	
Diam. at 6.0' ht. [ft.]	101	104	107	110	112	114	116	118	Diam. at 2.0m ht. [m]	30.5	31.9	33.3	34.2	35.1	36.0	
#15 Nozzle - Dark Brown [15/64"]									#15 Nozzle - Dark Brown [5.95mm]							
Flow [gpm]	8.51	9.19	9.81	10.4	11.0	11.5	12.0	12.5	Flow [L/s]	0.53	0.59	0.64	0.70	0.74	0.79	
Diam. at 1.5' ht. [ft.]	96	100	103	106	107	108	109	110	Diam. at 0.5m ht. [m]	29.0	30.7	32.0	32.7	33.1	33.5	
Diam. at 6.0' ht. [ft.]	102	106	109	112	114	116	118	120	Diam. at 2.0m ht. [m]	30.8	32.5	33.9	34.8	35.7	36.6	
#16 Nozzle - Orange [1/4"]									#16 Nozzle - Orange [6.35mm]							
Flow [gpm]	9.63	10.4	11.1	11.8	12.4	13.0	13.6	14.2	Flow [L/s]	0.60	0.67	0.73	0.79	0.84	0.89	
Diam. at 1.5' ht. [ft.]	98	102	105	108	109	110	111	112	Diam. at 0.5m ht. [m]	29.5	31.3	32.6	33.3	33.7	34.2	
Diam. at 6.0' ht. [ft.]	103	107	111	114	116	118	120	122	Diam. at 2.0m ht. [m]	31.2	32.9	34.5	35.5	36.3	37.2	
#17 Nozzle - Dark Green [17/64"]									#17 Nozzle - Dark Green [6.75mm]							
Flow [gpm]	10.7	11.6	12.3	13.1	13.8	14.5	15.1	15.7	Flow [L/s]	0.66	0.74	0.81	0.88	0.94	0.99	
Diam. at 1.5' ht. [ft.]	99	104	107	110	111	112	113	114	Diam. at 0.5m ht. [m]	29.8	31.9	33.3	33.9	34.3	34.8	
Diam. at 6.0' ht. [ft.]	104	108	112	115	118	120	122	124	Diam. at 2.0m ht. [m]	31.5	33.2	34.8	36.1	36.9	37.8	
#18 Nozzle - Purple [9/32"]									#18 Nozzle - Purple [7.14mm]							
Flow [gpm]	11.9	12.9	13.7	14.6	15.4	16.1	16.8	17.5	Flow [L/s]	0.74	0.82	0.90	0.98	1.04	1.11	
Diam. at 1.5' ht. [ft.]	100	105	109	112	113	114	115	116	Diam. at 0.5m ht. [m]	30.1	32.3	33.9	34.5	34.9	35.4	
Diam. at 6.0' ht. [ft.]	105	109	113	116	119	122	124	126	Diam. at 2.0m ht. [m]	31.8	33.5	35.1	36.4	37.6	38.4	

5023-2-3/4" M

U.S. Data									Metric Data							
Spklr Base Press. [psi]	30	35	40	45	50	55	60	65	[bar]	2.0	2.5	3.0	3.5	4.0	4.5	
									[psi]	29.00	36.25	43.50	50.75	58.00	65.25	
13x8 #13 Nozzle - White 13/64" x #8 Spreader Nozzle 1/8"									13x8 #13 Nozzle - White 5.16mm x #8 Nozzle 3.18mm							
Flow [gpm]	8.23	8.88	9.50	10.1	10.6	11.1	11.6	12.1	Flow [L/s]	0.51	0.57	0.62	0.67	0.72	0.76	
Diam. at 1.5' ht. [ft.]	92	95	98	100	102	103	104	105	Diam. at 0.5m ht. [m]	27.8	29.2	30.3	31.1	31.6	32.0	
Diam. at 6.0' ht. [ft.]	99	102	104	106	108	110	112	114	Diam. at 2.0m ht. [m]	30.0	31.2	32.1	33.0	33.9	34.8	
14x8 #14 Nozzle - Blue 7/32" x #8 Spreader Nozzle 1/8"									14x8 #14 Nozzle - Blue 5.56mm x #8 Nozzle 3.18mm							
Flow [gpm]	9.35	10.1	10.8	11.5	12.1	12.7	13.2	13.8	Flow [L/s]	0.58	0.65	0.71	0.77	0.82	0.87	
Diam. at 1.5' ht. [ft.]	94	98	101	103	105	106	107	108	Diam. at 0.5m ht. [m]	28.4	30.1	31.2	32.0	32.5	32.9	
Diam. at 6.0' ht. [ft.]	101	104	107	110	112	114	116	118	Diam. at 2.0m ht. [m]	30.5	31.9	33.3	34.2	35.1	36.0	
15x8 #15 Nozzle - Dark Brown 15/64" x #8 Spreader Nozzle 1/8"									15x8 #15 Nozzle - Dark Brown 5.95mm x #8 Nozzle 3.18mm							
Flow [gpm]	10.3	11.2	11.9	12.7	13.4	14.0	14.6	15.2	Flow [L/s]	0.64	0.72	0.78	0.85	0.91	0.96	
Diam. at 1.5' ht. [ft.]	96	100	103	106	107	108	109	110	Diam. at 0.5m ht. [m]	29.0	30.7	32.0	32.7	33.1	33.5	
Diam. at 6.0' ht. [ft.]	102	106	109	112	114	116	118	120	Diam. at 2.0m ht. [m]	30.8	32.5	33.9	34.8	35.7	36.6	
16x8 #16 Nozzle - Orange 1/4" x #8 Spreader Nozzle 1/8"									16x8 #16 Nozzle - Orange 6.35mm x #8 Nozzle 3.18mm							
Flow [gpm]	11.5	12.4	13.3	14.1	14.8	15.5	16.2	16.9	Flow [L/s]	0.71	0.79	0.87	0.94	1.01	1.07	
Diam. at 1.5' ht. [ft.]	98	102	105	108	109	110	111	112	Diam. at 0.5m ht. [m]	29.5	31.3	32.6	33.3	33.7	34.2	
Diam. at 6.0' ht. [ft.]	103	107	111	114	116	118	120	122	Diam. at 2.0m ht. [m]	31.2	32.9	34.5	35.4	36.3	37.2	
17x8 #17 Nozzle - Dark Green 17/64" x #8 Spreader Nozzle 1/8"									17x8 #17 Nozzle - Dark Green 6.75mm x #8 Nozzle 3.18mm							
Flow [gpm]	12.5	13.5	14.4	15.3	16.1	16.9	17.7	18.4	Flow [L/s]	0.77	0.86	0.95	1.02	1.09	1.16	
Diam. at 1.5' ht. [ft.]	99	104	107	110	111	112	113	114	Diam. at 0.5m ht. [m]	29.8	31.9	33.3	33.9	34.3	34.8	
Diam. at 6.0' ht. [ft.]	104	108	112	115	118	120	122	124	Diam. at 2.0m ht. [m]	31.5	33.2	34.8	36.1	36.9	37.8	
18x8 #18 Nozzle - Purple 9/32" x #8 Spreader Nozzle 1/8"									18x8 #18 Nozzle - Purple 7.14mm x #8 Nozzle 3.18mm							
Flow [gpm]	13.7	14.8	15.8	16.7	17.6	18.5	19.3	20.1	Flow [L/s]	0.85	0.95	1.04	1.12	1.20	1.27	
Diam. at 1.5' ht. [ft.]	100	105	109	112	113	114	115	116	Diam. at 0.5m ht. [m]	30.1	32.3	33.9	34.5	34.9	35.4	
Diam. at 6.0' ht. [ft.]	105	109	113	116	119	122	124	126	Diam. at 2.0m ht. [m]	31.8	33.5	35.1	36.4	37.5	38.4	

Stream heights range from 7.0-11.5 ft. (2.1-3.5m) above nozzle based on pressure and nozzle size. Minimum recommended riser height is 1.5 ft. (0.46m)

Senninger

January 1, 2008



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Part-Circle[Impacts



Senninger's Part-Circle sprinklers are designed specifically for use where a directional impact sprinkler is required. Designed to deliver maximum efficiency at low to moderate flow rates for agriculture, nursery, effluent disposal, dust suppression, and industrial applications.

FEATURES:

- Distributes water in a 60° - 360° pattern at 5° increments
- 23° nozzle trajectory for maximum radius of throw
- Wide range of nozzle and vane combinations for excellent distribution at all pressures
- Standard lower bearing pipe thread 3/4" M NPT
- Flow range: 2.42 to 16.8 gpm [0.15 to 1.04 L/s]
- Color-coded nozzles for easy size identification warranted to maintain correct orifice size for five years
- Two-year warranty on materials, workmanship AND performance

Part-circle impact sprinklers can be adjusted to match the desired area of coverage.

3123-I-PC-3/4" M

U.S. Data								Metric Data						
Sprklr Base Press. [psi]								[bar] [psi]		2.0	2.5	3.0	3.5	4.0
										29.00	36.25	43.50	50.75	58.00
#8 Nozzle - Lavender [1/8"]								#8 Nozzle - Lavender [3.18mm]						
Flow [gpm]	2.42	2.62	2.79	2.97	3.12	3.28	3.42	Flow [L/s]		0.15	0.17	0.18	0.20	0.21
Radius at 1.5' ht. [ft.]	38	39	40	41	42	42	43	Radius at 0.5m ht. [m]		11.5	12.0	12.4	12.7	12.9
Radius at 3.0' ht. [ft.]	40	41	42	42	43	43	44	Radius at 2.0m ht. [m]		12.1	12.5	12.8	13.0	13.2
#9 Nozzle - Grey [9/64"]								#9 Nozzle - Grey [3.57mm]						
Flow [gpm]	3.08	3.33	3.56	3.78	3.98	4.18	4.36	Flow [L/s]		0.19	0.21	0.23	0.25	0.27
Radius at 1.5' ht. [ft.]	40	41	42	43	43	44	44	Radius at 0.5m ht. [m]		12.1	12.6	13.0	13.3	13.5
Radius at 3.0' ht. [ft.]	41	43	44	44	45	45	46	Radius at 2.0m ht. [m]		12.2	13.1	13.4	13.6	13.8
#10 Nozzle - Turquoise [5/32"]								#10 Nozzle - Turquoise [3.97mm]						
Flow [gpm]	3.82	4.13	4.41	4.68	4.93	5.17	5.40	Flow [L/s]		0.24	0.26	0.29	0.31	0.33
Radius at 1.5' ht. [ft.]	41	43	44	45	45	46	47	Radius at 0.5m ht. [m]		12.2	13.2	13.6	13.9	14.1
Radius at 3.0' ht. [ft.]	41	44	45	46	46	47	47	Radius at 2.0m ht. [m]		12.3	13.5	13.8	14.0	14.3

Sprinkler performance may vary with actual field conditions. Radius shown is for standard straight bore nozzles and stream straightening vanes. Other nozzles and/or vane combinations are available; Consult factory for specific performance data. Stream heights range from 6.0-10.0 ft. (1.8-3.1m) above nozzle based on pressure and nozzle size. Minimum recommended riser height is 1.5 ft. (0.46m).

January 1, 2008

Impacts]Part-Circle

4123-I-PC-3/4" M

U.S. Data								Metric	[bar]	2.0	2.5	3.0	3.5	4.0
Sprkdr Base Press. [psi]									[psi]	29.00	36.25	43.50	50.75	58.00
#10 Nozzle - Turquoise [5/32"]								#10 Nozzle - Turquoise [3.97mm]						
Flow [gpm]	3.82	4.13	4.41	4.68	4.93	5.17	5.40	Flow [L/s]	0.24	0.26	0.29	0.31	0.33	
Radius at 1.5' ht. [ft.]	42.0	43.0	44.0	45.0	45.0	46.0	46.5	Radius at 0.5m ht. [m]	12.7	13.2	13.6	13.9	14.1	
Radius at 3.0' ht. [ft.]	43.0	44.5	45.5	46.0	46.5	47.0	47.5	Radius at 2.0m ht. [m]	13.0	13.6	14.0	14.2	14.4	
#11 Noz.-Yellow [11/64"]								#11 Nozzle - Yellow [4.37mm]						
Flow [gpm]	4.63	5.00	5.34	5.67	5.98	6.27	6.55	Flow [L/s]	0.29	0.32	0.35	0.38	0.41	
Radius at 1.5' ht. [ft.]	43.5	45.0	46.0	47.0	47.5	48.0	48.5	Radius at 0.5m ht. [m]	13.2	13.8	14.2	14.5	14.7	
Radius at 3.0' ht. [ft.]	44.5	45.0	47.0	48.0	48.5	49.0	49.5	Radius at 2.0m ht. [m]	13.5	13.9	14.5	14.8	15.0	
#12 Nozzle- Red [3/16"]								#12 Nozzle - Red [4.76mm]						
Flow [gpm]	5.52	5.97	6.37	6.76	7.13	7.48	7.81	Flow [L/s]	0.34	0.38	0.42	0.45	0.48	
Radius at 1.5' ht. [ft.]	44.5	46.0	47.5	49.0	50.0	50.5	51.0	Radius at 0.5m ht. [m]	13.5	14.1	14.8	15.3	15.5	
Radius at 3.0' ht. [ft.]	45.5	47.0	48.5	49.5	50.5	51.0	51.5	Radius at 2.0m ht. [m]	13.8	14.4	15.0	15.4	15.6	
#13 Nozzle-White [13/64"]								#13 Nozzle - White [5.16mm]						
Flow [gpm]	6.50	7.02	7.49	7.95	8.38	8.80	9.19	Flow [L/s]	0.40	0.45	0.49	0.53	0.57	
Radius at 1.5' ht. [ft.]	45.0	46.5	48.0	49.5	50.5	51.0	51.5	Radius at 0.5m ht. [m]	13.6	14.3	15.0	15.4	15.6	
Radius at 3.0' ht. [ft.]	46.0	47.5	49.0	50.0	51.0	51.5	52.0	Radius at 2.0m ht. [m]	13.9	14.6	15.1	15.6	15.8	

5123-I-PC-3/4" M

U.S. Data								Metric Data	[bar]	2.0	2.5	3.0	3.5	4.0
Sprklr Base Press. [psi]									[psi]	29.00	36.25	43.50	50.75	58.00
#13 Nozzle - White [13/64"]								#13 Nozzle - White [5.16mm]						
Flow [gpm]	6.50	7.02	7.49	7.95	8.36	8.80	9.19	Flow [L/s]	0.40	0.45	0.49	0.53	0.57	
Radius at 1.5' ht. [ft.]	45	47	48	50	51	51	52	Radius at 0.5m ht. [m]	13.6	14.3	15.0	15.4	15.6	
Radius at 3.0' ht. [ft.]	46	48	49	50	51	52	52	Radius at 2.0m ht. [m]	13.9	14.6	15.1	15.6	15.8	
#14 Nozzle - Blue [7/32"]								#14 Nozzle - Blue [5.56mm]						
Flow [gpm]	7.49	8.09	8.63	9.17	9.66	10.1	10.6	Flow [L/s]	0.46	0.52	0.57	0.61	0.66	
Radius at 1.5' ht. [ft.]	46	47	49	50	51	52	53	Radius at 0.5m ht. [m]	13.8	14.4	15.1	15.6	15.9	
Radius at 3.0' ht. [ft.]	47	49	51	52	53	54	54	Radius at 2.0m ht. [m]	14.1	14.9	15.6	16.0	16.4	
#15 Nozzle - Dark Brown[15/64"]								#15 Nozzle - Dark Brown [5.95mm]						
Flow [gpm]	8.51	9.19	9.81	10.4	11.0	11.5	12.0	Flow [L/s]	0.53	0.59	0.64	0.70	0.74	
Radius at 1.5' ht. [ft.]	46	48	50	51	52	53	54	Radius at 0.5m ht. [m]	13.9	14.7	15.4	15.9	16.3	
Radius at 3.0' ht. [ft.]	48	50	52	53	54	56	56	Radius at 2.0m ht. [m]	14.4	15.2	16.0	16.5	17.0	
#16 Nozzle - Orange [1/4"]								#16 Nozzle - Orange [6.35mm]						
Flow [gpm]	9.63	10.4	11.1	11.8	12.4	13.0	13.6	Flow [L/s]	0.60	0.67	0.73	0.79	0.84	
Radius at 1.5' ht. [ft.]	47	50	51	53	54	55	56	Radius at 0.5m ht. [m]	14.0	15.2	16.0	16.5	16.9	
Radius at 3.0' ht. [ft.]	48	51	53	55	56	57	58	Radius at 2.0m ht. [m]	14.5	15.5	16.4	17.0	17.5	
#17 Nozzle - Dark Green [17/64"]								#17 Nozzle - Blue [6.75mm]						
Flow [gpm]	10.7	11.6	12.3	13.1	13.8	14.5	15.1	Flow [L/s]	0.66	0.74	0.81	0.88	0.94	
Radius at 1.5' ht. [ft.]	47	50	52	54	55	56	57	Radius at 0.5m ht. [m]	14.1	15.4	16.3	16.8	17.3	
Radius at 3.0' ht. [ft.]	49	51	54	56	57	58	59	Radius at 2.0m ht. [m]	14.6	15.7	16.7	17.3	17.8	
#18 Nozzle - Purple [9/32"]								#17 Nozzle - Purple [7.14mm]						
Flow [gpm]	11.9	12.9	13.7	14.6	15.4	16.1	16.8	Flow [L/s]	0.74	0.82	0.90	0.98	1.04	
Radius at 1.5' ht. [ft.]	47	50	53	55	56	57	58	Radius at 0.5m ht. [m]	14.1	15.4	16.4	17.1	17.6	
Radius at 3.0' ht. [ft.]	49	52	54	56	58	59	60	Radius at 2.0m ht. [m]	14.6	15.9	16.9	17.6	18.1	

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SMOOTH DRIVE

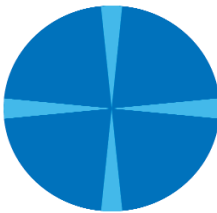
SMOOTH DRIVE™

Model: SD2214
(patent pending)

Senninger's new Smooth Drive applicator is designed for under-tree, open-field and nursery irrigation. Its unique "walking diffuser" helps deliver an extremely uniform pattern, without distortion from bracket legs.

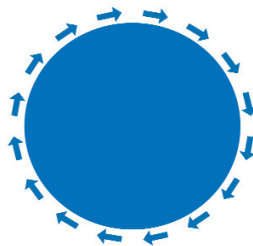


ORDINARY DEVICES



Shadow created by fixed bracket legs

SMOOTH DRIVE



Walking diffuser eliminates leg shadow

Ordinary rotating sprinklers have stationary legs that block water and create leg shadows (drier areas). The Smooth Drive's walking diffuser eliminates bracket leg shadows resulting in unobstructed uniform distribution.

- **Walking diffuser** - for outstanding uniformity, no bracket-leg shadow and gentle application
- **Precision-contoured deflector** - provides greater throw and enhanced distribution
- **Advanced braking mechanism** - for smooth, consistent rotation speed and minimal riser stress
- **Rugged design** - stands up in harsh field conditions
- **User friendly method of assembly** - no tools required for accessing nozzle
- **Vandal-resistant model available** - discourages theft
- **2-year warranty** - on materials, workmanship AND performance



Model: SD2214

Model: SD2214						U.S. - Diameter (feet)					METRIC - Diameter (meters)					
SPRINKLER		(psi)	25	30	35	40	(bar)	1.75	2.0	2.5	2.75	(psi)	25.38	29.00	36.25	39.88
BASE PRESSURE																
#6 Nozzle - Gold (3/32")						#6 Nozzle - Gold (2.38 mm)										
Flow (gpm)		1.22	1.34	1.45	1.55		(L/h)		279	299	335	352				
Diameter at 1.5' height (feet)		58.2	59.4	60.6	61.4		0.5 m (m)		17.8	18.1	18.6	18.8				
#7 Nozzle - Lime (7/64")						#7 Nozzle - Lime (2.78 mm)										
Flow (gpm)		1.68	1.84	1.99	2.12		(L/h)		384	411	459	481				
Diameter at 1.5' height (feet)		60.4	62.6	64.2	65.0		0.5 m (m)		18.5	18.9	19.7	19.9				
#8 Nozzle - Lavender (1/8")						#8 Nozzle - Lavender (3.18 mm)										
Flow (gpm)		2.21	2.42	2.62	2.79		(L/h)		506	540	605	633				
Diameter at 1.5' height (feet)		60.8	63.2	65.4	66.8		0.5 m (m)		18.6	19.1	20.1	20.4				

Consult factory for other nozzle size options.

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SMOOTH DRIVE SPECIFICATIONS:

Flow: 1.22 to 2.79 gpm (279 to 633 L/hr)
 Operating Pressure: 25 to 40 psi (1.75 to 2.75 bar)
 Nozzles: #6 - 3/32" (2.38 mm)
 #7 - 7/64" (2.78 mm)
 #8 - 1/8" (3.18 mm)
 Standard base: 1/2" M NPT
 Optional base: Combination 1/2" socket and 3/4" spigot,
 Solvent-weld base for theft resistance



The Senninger Riser Adapter has a 1/2" F NPT connection to accept applicators like Senninger's Smooth Drive.

RISER ADAPTER

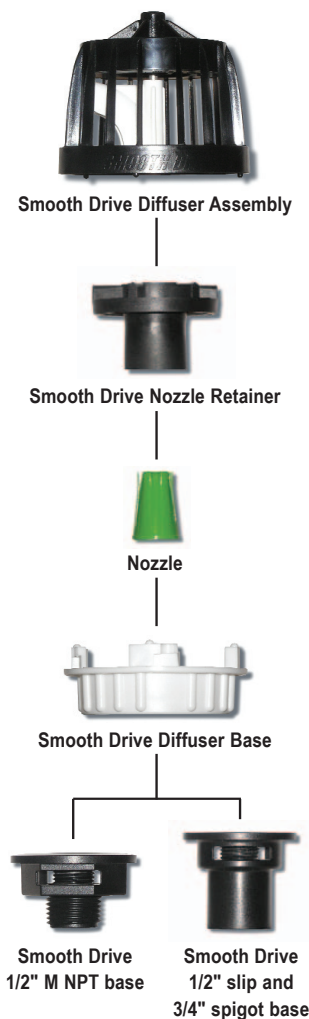
The Senninger Riser Adapter has a 1/2" F NPT sprinkler connection and can be mounted securely on a 1/2" or 3/4" PVC or 5/16" steel rod stake and connected to low pressure polyethylene laterals, making it well suited for portable applications such as vegetable production.



The Senninger Smooth Drive creates an extremely uniform pattern great for container nursery applications.



The Smooth Drive's rugged design and superb distribution make it an excellent choice for undertree applications.



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PRLG[Regulators



AVAILABLE
IN NPT OR
HOSE THREAD
OPTIONS!



The Senninger Lawn & Garden Pressure Regulator is ideal for installations requiring lower flows [0.1 - 7.0 gpm] including low-volume and sprinkler irrigation systems connected to outdoor hose bibb faucets or other lawn and landscape applications.

FEATURES:

- Maintains a constant preset outlet pressure while handling varying inlet pressures
- Prevents wasteful misting when using small nozzles
- Tamper-proof housing
- Very low hysteresis and friction losses
- Maximum flow path resists plugging
- 100% water-tested for accuracy (no adjustments ever needed)
- Two-year warranty on materials, workmanship AND performance

CAUTION:
Always install
downstream
from all shut
off valves.



PRLG - Pressure Regulator Lawn & Garden

Model Number	Preset Operating Pressure [psi]	Preset Operating Pressure [bar]	Maximum Inlet Pressure [psi]	Maximum Inlet Pressure [bar]	Flow Range [gpm]	Flow Range [L/hr]	Inlet Sizes	Outlet Sizes
PRLG-10	10	0.69	80	5.52	0.1 - 7	22.7 - 1587.6	3/4" F hose, 3/4" F NPT	3/4" M hose, 3/4" M NPT
PRLG-15	15	1.04	90	6.21	0.1 - 7	22.7 - 1587.6	3/4" F hose, 3/4" F NPT	3/4" M hose, 3/4" M NPT
PRLG-20	20	1.38	100	6.90	0.1 - 7	22.7 - 1587.6	3/4" F hose, 3/4" F NPT	3/4" M hose, 3/4" M NPT
PRLG-25	25	1.73	120	8.28	0.1 - 7	22.7 - 1587.6	3/4" F hose, 3/4" F NPT	3/4" M hose, 3/4" M NPT
PRLG-30	30	2.07	120	8.28	0.1 - 7	22.7 - 1587.6	3/4" F hose, 3/4" F NPT	3/4" M hose, 3/4" M NPT
PRLG-35	35	2.42	120	8.28	0.1 - 7	22.7 - 1587.6	3/4" F hose, 3/4" F NPT	3/4" M hose, 3/4" M NPT
PRLG-40	40	2.76	120	8.28	0.1 - 7	22.7 - 1587.6	3/4" F hose, 3/4" F NPT	3/4" M hose, 3/4" M NPT

Regulated pressure is 1/2 psi (0.03 bar) higher with increasing inlet pressure than with decreasing inlet pressure

January 1, 2008

Regulators]PMR-LF

The low flow Pressure-Master Regulator® is ideal for installations requiring lower flows [0.1 - 8.0 gpm] including solid-set, drip or other low-volume irrigation systems as well as center pivot and other mechanical-move irrigation systems.

FEATURES:

- Maintains a constant preset outlet pressure while handling varying inlet pressures
- Very low hysteresis and friction losses
- Maximum flow path resists plugging
- 100% water-tested for accuracy (no adjustments ever needed)
- Two-year warranty on materials, workmanship AND performance
- Can be installed above or below ground.



PMR-LF CMS models are designed specifically for mining applications where pH solutions are less than or equal to 4.0
PMR-LF EFF models (lavender top) are designed specifically for wastewater applications.

CAUTION:
Always install downstream from all shut off valves.



PMR-LF - Pressure-Master Regulator® Low Flow

Model Number	Preset Operating Pressure		Maximum Inlet Pressure		Flow Range		Inlet Sizes	Outlet Sizes
	psi	[bar]	psi	[bar]	gpm	[L/hr]		
PMR-6 LF	6	0.41	100	6.90	0.5 - 5	113.4 - 1134.0	3/4" F NPT	3/4" F NPT
PMR-10 LF	10	0.69	120	8.28	0.5 - 5	113.4 - 1134.0	3/4" F NPT	3/4" F NPT
PMR-12 LF	12	0.83	135	9.31	0.1 - 8	22.7 - 1814.4	3/4" F NPT	3/4" F NPT
PMR-15 LF	15	1.04	150	10.35	0.1 - 8	22.7 - 1814.4	3/4" F NPT	3/4" F NPT
PMR-20 LF	20	1.38	150	10.35	0.1 - 8	22.7 - 1814.4	3/4" F NPT	3/4" F NPT
PMR-25 LF	25	1.73	150	10.35	0.1 - 8	22.7 - 1814.4	3/4" F NPT	3/4" F NPT
PMR-30 LF	30	2.07	150	10.35	0.1 - 8	22.7 - 1814.4	3/4" F NPT	3/4" F NPT
PMR-35 LF	35	2.42	150	10.35	0.1 - 8	22.7 - 1814.4	3/4" F NPT	3/4" F NPT
PMR-40 LF	40	2.76	150	10.35	0.1 - 8	22.7 - 1814.4	3/4" F NPT	3/4" F NPT

Regulated pressure is 1/2 psi (0.03 bar) higher with increasing inlet pressure than with decreasing inlet pressure

Senninger

January 1, 2008

PMR-MF[Regulators



The medium flow Pressure-Master Regulator® is ideal for installations requiring mid-range flows [2 - 20 gpm] including solid-set, drip or other low-volume irrigation systems as well as center pivot and other mechanical-move irrigation systems.

FEATURES:

- Maintains a constant preset outlet pressure while handling varying inlet pressures
- Very low hysteresis and friction losses
- Maximum flow path resists plugging
- 100% water-tested for accuracy (no adjustments ever needed)
- Two-year warranty on materials, workmanship AND performance
- Can be installed above or below ground.



PMR-MF CMS models are designed specifically for mining applications where pH solutions are less than or equal to 4.0 PMR-MF EFF models (lavender top) are designed specifically for wastewater applications.



PMR-MF – Pressure-Master Regulator® Medium-Flow

Model Number	Preset Oper. Press. psi	Preset Oper. Press. [bar]	Maximum Inlet Press. psi	Maximum Inlet Press. [bar]	Flow Range gpm	Flow Range [L/hr]	Inlet Sizes	Outlet Sizes
PMR-6 MF	6	0.41	100	6.90	4 - 16	907.2 - 3628.8	3/4" F NPT, 1" F NPT, 1" M NPT, 1" F BSP	3/4" F NPT, 1" F NPT, 1" F BSP
PMR-10 MF	10	0.69	120	8.28	4 - 16	907.2 - 3628.8	3/4" F NPT, 1" F NPT, 1" M NPT, 1" F BSP	3/4" F NPT, 1" F NPT, 1" F BSP
PMR-12 MF	12	0.83	135	9.31	2-20	453.6-4536.0	3/4" F NPT, 1" FNPT, 1" M NPT, 1" F BSP	3/4" F NPT, 1" F NPT, 1" F BSP
PMR-15 MF	15	1.04	150	10.35	2-20	453.6-4536.0	3/4" F NPT, 1" F NPT, 1" M NPT, 1" F BSP	3/4" F NPT, 1" F NPT, 1" F BSP
PMR-20 MF	20	1.38	150	10.35	2-20	453.6-4536.0	3/4" F NPT, 1" FNPT, 1" M NPT, 1" F BSP	3/4" F NPT, 1" F NPT, 1" F BSP
PMR-25 MF	25	1.73	150	10.35	2-20	453.6-4536.0	3/4" F NPT, 1" F NPT, 1" M NPT, 1" F BSP	3/4" F NPT, 1" F NPT, 1" F BSP
PMR-30 MF	30	2.07	150	10.35	2-20	453.6-4536.0	3/4" F NPT, 1" F NPT, 1" M NPT, 1" F BSP	3/4" F NPT, 1" F NPT, 1" F BSP
PMR-35 MF	35	2.42	150	10.35	2-20	453.6-4536.0	3/4" F NPT, 1" F NPT, 1" M NPT, 1" F BSP	3/4" F NPT, 1" F NPT, 1" F BSP
PMR-40 MF	40	2.76	150	10.35	2-20	453.6-4536.0	3/4" F NPT, 1" F NPT, 1" M NPT, 1" F BSP	3/4" F NPT, 1" F NPT, 1" F BSP
PMR-50 MF	50	3.45	150	10.35	2-20	453.6-4536.0	3/4" F NPT, 1" F NPT, 1" M NPT, 1" F BSP	3/4" F NPT, 1" F NPT, 1" F BSP
PMR-60 MF	60	4.14	150	10.35	2-20	453.6-4536.0	3/4" F NPT, 1" F NPT, 1" M NPT, 1" F BSP	3/4" F NPT, 1" F NPT, 1" F BSP

¹ Regulated pressure is 1/2 psi (0.03 bar) higher with increasing inlet pressure than with decreasing inlet pressure

January 1, 2008

Regulators]PR-HF

The high flow Pressure Regulator is ideal for installations requiring higher flows [10 - 32 gpm] including solid-set sprinkler, low-volume, manifolds and mechanical-move irrigation systems.

- FEATURES:
- Maintains a constant preset outlet pressure while handling varying inlet pressures
 - Very low hysteresis and friction losses
 - Maximum flow path resists plugging
 - 100% water-tested for accuracy (no adjustments ever needed)
 - Two-year warranty on materials, workmanship AND performance



Pressure regulators are recommended if there is a 10% pressure and/or 5% flow variation. The lower a system's design pressure, the more critical it is to accurately control its pressure.

Design Pressure	PRESSURE VARIATIONS				
	1 psi [0.069 bar]	2 psi [0.138 bar]	3 psi [0.207 bar]	4 psi [0.276 bar]	5 psi [0.345 bar]
6 psi [0.41 bar]	8.3	16.7	25.0	33.3	41.7
10 psi [0.69 bar]	5.0	10.0	15.0	20.0	25.0
15 psi [1.03 bar]	3.3	6.7	10.0	13.3	16.7
20 psi [1.38 bar]	2.5	5.0	7.5	10.0	12.5

↑ % Flow Variation ↓

All Senninger pressure regulators are constructed of durable high-impact engineering-grade thermoplastics with a high quality stainless steel compression spring and securing screws. This durable construction coupled with their outstanding design and precision parts make them suitable for a variety of different applications.

PR-HF - Pressure Regulator High-Flow

Model Number	Preset Operating Pressure		Maximum Inlet Pressure		Flow Range		Inlet Sizes	Outlet Sizes
	psi	[bar]	psi	[bar]	gpm	[m ³ /hr]		
PR-10 HF	10	0.69	60	4.14	10 - 32	22.7 - 7.26	1¼" F NPT	1" F, 1¼" F NPT
PR-15 HF	15	1.04	80	5.52	10 - 32	22.7 - 7.26	1¼" F NPT	1" F, 1¼" F NPT
PR-20 HF	20	1.38	100	6.90	10 - 32	22.7 - 7.26	1¼" F NPT	1" F, 1¼" F NPT
PR-25 HF	25	1.73	100	6.90	10 - 32	22.7 - 7.26	1¼" F NPT	1" F, 1¼" F NPT
PR-30 HF	30	2.07	100	6.90	10 - 32	22.7 - 7.26	1¼" F NPT	1" F, 1¼" F NPT
PR-40 HF	40	2.76	100	6.90	10 - 32	22.7 - 7.26	1¼" F NPT	1" F, 1¼" F NPT
PR-50 HF	50	3.45	100	6.90	10 - 32	22.7 - 7.26	1¼" F NPT	1" F, 1¼" F NPT

Regulated pressure is 1/2 psi (0.03 bar) higher with increasing inlet pressure than with decreasing inlet pressure

Senninger

January 1, 2008

PRXF[Regulators



The Extended Flow Pressure Regulator is designed to handle flows up to 100 gpm. Ideal for installation requiring accurate zone pressure regulation.

- FEATURES:**
- Maintains a constant preset outlet pressure while handling varying inlet pressures
 - Inlet / outlet configuration is 3" ID solvent weld socket x socket.
 - Very low hysteresis and friction losses
 - Maximum flow path resists plugging
 - 100% water-tested for accuracy (no adjustments ever needed)
 - Two-year warranty on materials, workmanship AND performance

INSTALLATION GUIDELINES:

- Never allow solvent or cement to drip into regulator.
- Make sure the flow arrows on the regulator match the direction of the system flow.
- Installation of a union is recommended for easy removal of PRXF.



PRXF – Pressure Regulator Extended-Flow™

Model Number	Preset Operating Pressure psi	Preset Pressure [bar]	Maximum Inlet Pressure psi	Maximum Inlet Pressure [bar]	Flow Range gpm	Flow Range [m³/hr]	Inlet Sizes	Outlet Size
PRXF-10	10	0.69	80	5.52	20 - 80	4.54 - 18.16	3" F	3" F
PRXF-15	15	1.04	85	5.87	20 - 85	4.54 - 19.30	3" F	3" F
PRXF-20	20	1.38	90	6.21	20 - 90	4.54 - 20.43	3" F	3" F
PRXF-25	25	1.73	95	6.56	20 - 95	4.54 - 21.57	3" F	3" F
PRXF-30	30	2.07	100	6.90	20 - 100	4.54 - 22.7	3" F	3" F
PRXF-35	35	2.42	110	7.59	20 - 100	4.54 - 22.7	3" F	3" F
PRXF-40	40	2.76	125	8.63	20 - 100	4.54 - 22.7	3" F	3" F
PRXF-50	50	3.45	125	8.63	20 - 100	4.54 - 22.7	3" F	3" F
PRXF-60	60	4.14	125	8.63	20 - 100	4.54 - 22.7	3" F	3" F

Regulated pressure is 1/2 psi (0.03 bar) higher with increasing inlet pressure than with decreasing inlet pressure

January 1, 2008

Regulators]PRLV

The Pressure Regulating Limit Valve™ is used in place of standard pressure regulators to limit static [no flow] water pressure when a shut-off valve is used downstream of regulation point. Limits downstream pressure and protects downstream components.

FEATURES:

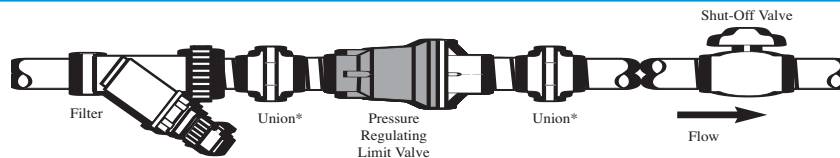
- Maintains a constant preset outlet pressure while handling varying inlet pressures
- Limits downstream pressure to no more than 15 psi above regulated pressure rating during static (no flow) conditions
- Very low hysteresis and friction losses
- Maximum flow path resists plugging
- 100% water-tested for accuracy (no adjustments ever needed)
- One-year warranty on materials, workmanship AND performance

The PRLV Goes Where Other Regulators Can't!

CAUTION:
Recommended for outdoor use only.



PRLV -
Pressure Regulating Limited Valve™
Recommended Installation



*Unions recommended for ease of maintenance

PRLV - Pressure Regulating Limited Valve™

Model Number	Preset Operating Pressure psi	Preset Operating Pressure [bar]	Maximum Inlet Pressure psi	Maximum Inlet Pressure [bar]	Flow Range gpm	Flow Range [L/hr]	Inlet Sizes	Outlet Sizes
PRLV-30	30	2.07	150	10.35	0.5 - 15	113.4 - 3402.0	3/4" F, 1" F NPT	3/4" F, 1" F NPT
PRLV-40	40	2.76	150	10.35	0.5 - 15	113.4 - 3402.0	3/4" F, 1" F NPT	3/4" F, 1" F NPT
PRLV-50	50	3.45	150	10.35	0.5 - 15	113.4 - 3402.0	3/4" F, 1" F NPT	3/4" F, 1" F NPT

Regulated pressure is 1/2 psi (0.03 bar) higher with increasing inlet pressure than with decreasing inlet pressure

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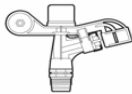
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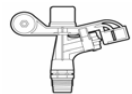


9° - Single Nozzle - 2009HD-1, 2009HW-1

1.22 - 3.98 gpm

Nozzles #6 - 9

MODEL NUMBER	DESCRIPTION	VOL CUBIC FT	QTY PER BOX	WT PER BOX	LIST PRICE	
					WITH NOZZLE	LESS NOZZLE
2009HD-1- ¹ / ₂ " M	¹ / ₂ " M (NPT) plastic swivel	1.45	100	20#	\$11.09	\$10.56
2009HD-1- ¹ / ₂ " F	¹ / ₂ " M (NPT) plastic swivel w/ ¹ / ₂ " coupling	1.45	100	24#	12.00	11.48
2009HD-1- ³ / ₄ " F	¹ / ₂ " M (NPT) plastic swivel w/ ¹ / ₂ " x ³ / ₄ " coupling	1.45	100	26#	12.17	11.64
2009HW-1- ¹ / ₂ " M	¹ / ₂ " M (NPT) Wedge Drive, plastic swivel	1.45	100	20#	12.89	12.37

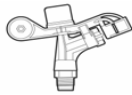


14° - Single Nozzle - 2014HS-1, 2014HWS-1

1.22 - 3.98 gpm

Nozzles #6 - 9

2014HS-1- ¹ / ₂ " M	¹ / ₂ " M (NPT) plastic swivel	1.45	100	20#	\$11.09	\$10.56
2014HS-1- ¹ / ₂ " F	¹ / ₂ " M (NPT) plastic swivel w/ ¹ / ₂ " coupling	1.45	100	24#	12.00	11.48
2014HS-1- ³ / ₄ " F	¹ / ₂ " M (NPT) plastic swivel w/ ¹ / ₂ " x ³ / ₄ " coupling	1.45	100	26#	12.17	11.64
2014HWS-1- ¹ / ₂ " M	¹ / ₂ " M (NPT) Wedge Drive, plastic swivel	1.45	100	20#	12.89	12.37
2014HS-1-QC	Quick-Connect swivel w/ gasket (Upper)	1.81	100	27#	11.68	11.15
QCPL	(¹ / ₂ " & ³ / ₄ ") or (20 & 25mm) Quick-Connect coupling (Lower)	1.45	600	20#		1.06



23° - Single Nozzle - 2023HS-1, 2023HWS-1

1.22 - 3.98 gpm

Nozzles #6 - 9

2023HS-1- ¹ / ₂ " M	¹ / ₂ " M (NPT) plastic swivel	1.45	100	20#	\$11.09	\$10.56
2023HS-1- ¹ / ₂ " F	¹ / ₂ " M (NPT) plastic swivel w/ ¹ / ₂ " coupling	1.45	100	24#	12.00	11.48
2023HS-1- ³ / ₄ " F	¹ / ₂ " M (NPT) plastic swivel w/ ¹ / ₂ " x ³ / ₄ " coupling	1.45	100	26#	12.17	11.64
2023HWS-1- ¹ / ₂ " M	¹ / ₂ " M (NPT) Wedge Drive, plastic swivel	1.45	100	20#	12.89	12.37
2023HS-1-QC	Quick-Connect swivel w/ gasket (Upper)	1.81	100	27#	11.68	11.15
QCPL	(¹ / ₂ " & ³ / ₄ ") or (20 & 25mm) Quick-Connect coupling (Lower)	1.45	600	20#		1.06

Plastic Diffuser for 20 Series sprinklers: Add \$0.48 Aluminum Splasharm for 20 Series sprinklers: Add \$2.56

January 1, 2008

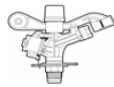


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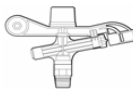
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Solid Set Nursery
Impact Sprinklers



23° - Part Circle - 3123PC-1, 4123PC-1, 5123PC-1
2.4 - 4.3 gpm Nozzles #8 - 10

MODEL NUMBER	DESCRIPTION	VOL CUBIC FT	QTY PER BOX	WT PER BOX	LIST PRICE	
					WITH NOZZLE	LESS NOZZLE
3123PC-1- ³ / ₄ " M	³ / ₄ " M (NPT) plastic swivel	1.45	50	21#	\$24.82	\$24.30
3123PC-1- ³ / ₄ " F	³ / ₄ " M (NPT) plastic swivel w/ ³ / ₄ " coupling	1.81	50	26#	26.01	25.48
3123PC-1-1" F	³ / ₄ " M (NPT) plastic swivel w/ 1" x ³ / ₄ " coupling	1.81	50	27#	26.26	25.74
3.8 - 7.8 gpm Nozzles #10 - 13						
4123PC-1- ³ / ₄ " M	³ / ₄ " M (NPT) plastic swivel	1.45	50	21#	\$24.82	\$24.30
4123PC-1- ³ / ₄ " F	³ / ₄ " M (NPT) plastic swivel w/ ³ / ₄ " coupling	1.81	50	26#	26.01	25.48
4123PC-1-1" F	³ / ₄ " M (NPT) plastic swivel w/ 1" x ³ / ₄ " coupling	1.81	50	27#	26.26	25.74
6.5 - 16.8 gpm Nozzles #13 - 18						
5123PC-1- ³ / ₄ " M	³ / ₄ " M (NPT) plastic swivel	1.45	50	21#	\$24.82	\$24.30
5123PC-1- ³ / ₄ " F	³ / ₄ " M (NPT) plastic swivel w/ ³ / ₄ " coupling	1.81	50	26#	26.01	25.48
5123PC-1-1" F	³ / ₄ " M (NPT) plastic swivel w/ 1" x ³ / ₄ " coupling	1.81	50	27#	26.26	25.74



12° - Single Nozzle - 3012-1, 4012-1
1.68 - 4.93 gpm Nozzles #7 - 10

3012-1- ³ / ₄ " M	³ / ₄ " M (NPT) plastic swivel	1.45	50	21#	\$14.40	\$13.87
3012-1- ³ / ₄ " F	³ / ₄ " M (NPT) plastic swivel w/ ³ / ₄ " coupling	1.81	50	26#	15.58	15.06
3012-1-1" F	³ / ₄ " M (NPT) plastic swivel w/ 1" x ³ / ₄ " coupling	1.81	50	27#	15.82	15.30
3.82 - 10.6 gpm Nozzles #10 - 14						
4012-1- ³ / ₄ " M	³ / ₄ " M (NPT) plastic swivel	1.45	50	21#	\$14.40	\$13.87
4012-1- ³ / ₄ " F	³ / ₄ " M (NPT) plastic swivel w/ ³ / ₄ " coupling	1.81	50	26#	15.58	15.06
4012-1-1" F	³ / ₄ " M (NPT) plastic swivel w/ 1" x ³ / ₄ " coupling	1.81	50	27#	15.82	15.30

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23° - Single Nozzle - 3023-1, 4023-1, 5023-1

1.68 - 4.93 gpm

Nozzles #7 - 10

MODEL NUMBER	DESCRIPTION	VOL CUBIC FT	QTY PER BOX	WT PER BOX	LIST PRICE	
					WITH NOZZLE	LESS NOZZLE
3023-1-3/4" M	3/4" M (NPT) plastic swivel	1.45	50	21#	\$14.40	\$13.87
3023-1-3/4" F	3/4" M (NPT) plastic swivel w/ 3/4" coupling	1.81	50	26#	15.58	15.06
3023-1-1" F	3/4" M (NPT) plastic swivel w/ 1" x 3/4" coupling	1.81	50	27#	15.82	15.30
3.82 - 10.6 gpm		Nozzles #10 - 14				
4023-1-3/4" M	3/4" M (NPT) plastic swivel	1.45	50	21#	\$14.40	\$13.87
4023-1-3/4" F	3/4" M (NPT) plastic swivel w/ 3/4" coupling	1.81	50	26#	15.58	15.06
4023-1-1" F	3/4" M (NPT) plastic swivel w/ 1" x 3/4" coupling	1.81	50	27#	15.82	15.30
6.5 - 17.5 gpm		Nozzles #13 - 18				
5023-1-3/4" M	3/4" M (NPT) plastic swivel	1.45	50	21#	\$14.40	\$13.87
5023-1-3/4" F	3/4" M (NPT) plastic swivel w/ 3/4" coupling	1.81	50	26#	15.58	15.06
5023-1-1" F	3/4" M (NPT) plastic swivel w/ 1" x 3/4" coupling	1.81	50	27#	15.82	15.30



23° - Double Nozzle - 3023-2, 4023-2, 5023-2

2.75 - 6.42 gpm

Range Nozzles #7 - 10

Spreader Nozzles #4 - 6

3023-2-3/4" M	3/4" M (NPT) plastic swivel	1.45	50	22#	\$15.98	\$15.46
3023-2-3/4" F	3/4" M (NPT) plastic swivel w/ 3/4" coupling	1.81	50	25#	17.17	16.64
3023-2-1" F	3/4" M (NPT) plastic swivel w/ 1" x 3/4" coupling	1.81	50	26#	17.42	16.89
5.25 - 12.6 gpm		Range Nozzles #10 - 14		Spreader Nozzle #6		
4023-2-3/4" M	3/4" M (NPT) plastic swivel	1.45	50	22#	\$15.98	\$15.46
4023-2-3/4" F	3/4" M (NPT) plastic swivel w/ 3/4" coupling	1.81	50	25#	17.17	16.64
4023-2-1" F	3/4" M (NPT) plastic swivel w/ 1" x 3/4" coupling	1.81	50	26#	17.42	16.89
8.23 - 20.1 gpm		Range Nozzles #13 - 18		Spreader Nozzle #8		
5023-2-3/4" M	3/4" M (NPT) plastic swivel	1.45	50	22#	\$15.98	\$15.46
5023-2-3/4" F	3/4" M (NPT) plastic swivel w/ 3/4" coupling	1.81	50	25#	17.17	16.64
5023-2-1" F	3/4" M (NPT) plastic swivel w/ 1" x 3/4" coupling	1.81	50	26#	17.42	16.89

All sprinklers less nozzle include nozzle holders and vanes.
23° double nozzle sprinklers are less drive nozzle insert but include spreader nozzle.

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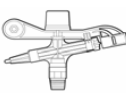
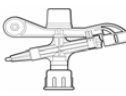


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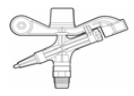
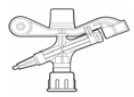
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Insect-Proof - Impact Sprinklers

12° - Single Nozzle - 3012-1 IP, 4012-1 IP, 3012-1 FF, 4012-1 FF
1.68 - 4.93 gpm Nozzles #7 - 10

	MODEL NUMBER	DESCRIPTION	VOL CUBIC FT	QTY PER BOX	WT PER BOX	LIST PRICE	
						WITH NOZZLE	LESS NOZZLE
	3012-1-3/4" M IP	3/4" M (NPT), dauber stopper	1.45	50	22#	\$16.12	\$15.59
	3012-1-3/4" F IP	3/4" M (NPT), dauber stopper w/ 3/4" coupling	1.81	50	25#	17.30	16.78
	3012-1-1" F IP	3/4" M (NPT), dauber stopper w/ 1" x 3/4" coupling	1.81	50	27#	17.56	17.03
	3012-1-1" FF IP	3/4" M (NPT), dauber stopper w/ 1" FF coupling	1.45	50	23#	16.92	16.36
	3.82 - 10.6 gpm		Nozzles #10 - 14				
	4012-1-3/4" M IP	3/4" M (NPT), dauber stopper	1.45	50	22#	\$16.12	\$15.59
	4012-1-3/4" F IP	3/4" M (NPT), dauber stopper w/ 3/4" coupling	1.81	50	25#	17.30	16.78
	4012-1-1" F IP	3/4" M (NPT), dauber stopper w/ 1" x 3/4" coupling	1.81	50	27#	17.56	17.03
	4012-1-1" FF IP	3/4" M (NPT), dauber stopper w/ 1" FF coupling	1.45	50	23#	16.92	16.36

23° - Single Nozzle - 3023-1 IP, 4023-1 IP, 5023-1 IP, 3023-1 FF, 4023-1 FF, 5023-1 FF
1.68 - 4.93 gpm Nozzles #7 - 10

	3023-1-3/4" M IP	3/4" M (NPT), dauber stopper	1.45	50	22#	\$16.12	\$15.59
	3023-1-3/4" F IP	3/4" M (NPT), dauber stopper w/ 3/4" coupling	1.81	50	25#	17.30	16.78
	3023-1-1" F IP	3/4" M (NPT), dauber stopper w/ 1" x 3/4" coupling	1.81	50	27#	17.56	17.03
	3023-1-1" FF IP	3/4" M (NPT), dauber stopper w/ 1" FF coupling	1.45	50	23#	16.92	16.36
3.82 - 10.6 gpm		Nozzles #10 - 14					
	4023-1-3/4" M IP	3/4" M (NPT), dauber stopper	1.45	50	22#	\$16.12	\$15.59
	4023-1-3/4" F IP	3/4" M (NPT), dauber stopper w/ 3/4" coupling	1.81	50	25#	17.30	16.78
	4023-1-1" F IP	3/4" M (NPT), dauber stopper w/ 1" x 3/4" coupling	1.81	50	27#	17.56	17.03
	4023-1-1" FF IP	3/4" M (NPT), dauber stopper w/ 1" FF coupling	1.45	50	23#	16.92	16.36
6.4 - 17.5 gpm		Nozzles #13-18					
	5023-1-3/4" M IP	3/4" M (NPT), dauber stopper	1.45	50	22#	\$16.12	\$15.59
	5023-1-3/4" F IP	3/4" M (NPT), dauber stopper w/ 3/4" coupling	1.81	50	25#	17.30	16.78
	5023-1-1" F IP	3/4" M (NPT), dauber stopper w/ 1" x 3/4" coupling	1.81	50	27#	17.56	17.03
	5023-1-1" FF IP	3/4" M (NPT), dauber stopper w/ 1" FF coupling	1.45	50	23#	16.92	16.36

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Solid Set Nursery
Insect-Proof - Impact Sprinklers

23° - Double Nozzle - 3023-2 IP, 4023-2 IP, 5023-2 IP

2.75 - 6.42 gpm

Range Nozzles #7 - 10

Spreader Nozzles #4 - 6

MODEL NUMBER	DESCRIPTION	VOL CUBIC FT	QTY PER BOX	WT PER BOX	LIST PRICE	
					WITH NOZZLE	LESS NOZZLE
3023-2-3/4" M IP	3/4" M (NPT), dauber stopper	1.45	50	22#	\$17.71	\$17.19
3023-2-3/4" F IP	3/4" M (NPT), dauber stopper w/ 3/4" coupling	1.81	50	25#	18.90	18.38
3023-2-1" F IP	3/4" M (NPT), dauber stopper w/ 1" x 3/4" coupling	1.81	50	27#	19.14	18.62
3023-2-1" FF IP	3/4" M (NPT), dauber stopper w/ 1" FF coupling	1.45	50	23#	18.59	18.04

5.25 - 12.6 gpm

Range Nozzles #10 - 14

Spreader Nozzle #6

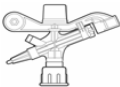
4023-2-3/4" M IP	3/4" M (NPT), dauber stopper	1.45	50	22#	\$17.71	\$17.19
4023-2-3/4" F IP	3/4" M (NPT), dauber stopper w/ 3/4" coupling	1.81	50	25#	18.90	18.38
4023-2-1" F IP	3/4" M (NPT), dauber stopper w/ 1" x 3/4" coupling	1.81	50	27#	19.14	18.62
4023-2-1" FF IP	3/4" M (NPT), dauber stopper w/ 1" FF coupling	1.45	50	23#	18.59	18.04

8.23 - 20.1 gpm

Range Nozzles #13 - 18

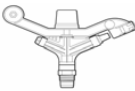
Spreader Nozzle #8

5023-2-3/4" M IP	3/4" M (NPT), dauber stopper	1.45	50	22#	\$17.71	\$17.19
5023-2-3/4" F IP	3/4" M (NPT), dauber stopper w/ 3/4" coupling	1.81	50	25#	18.90	18.38
5023-2-1" F IP	3/4" M (NPT), dauber stopper w/ 1" x 3/4" coupling	1.81	50	27#	19.14	18.62
5023-2-1" FF IP	3/4" M (NPT), dauber stopper w/ 1" FF coupling	1.45	50	23#	18.59	18.04



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Impact Sprinklers



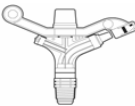
25° - Single Nozzle - 7025RD-1 Range Drive*
8.11 - 31.6 gpm Nozzles #14 - 24

MODEL NUMBER	DESCRIPTION	VOL CUBIC FT	QTY PER BOX	WT PER BOX	LIST PRICE	
					WITH NOZZLE	LESS NOZZLE
7025RD-1-1" M	1" M (NPT) plastic swivel	1.82	25	23#	\$44.45	\$42.82
7025RD-1-3/4" F	1" M (NPT) plastic swivel w/1" x 3/4" coupling	1.82	20	22#	45.90	44.28
7025RD-1-1" F	1" M (NPT) plastic swivel w/1" coupling	1.82	20	22#	46.04	44.42
7025RD-1-1 1/4" F	1" M (NPT) plastic swivel w/1" x 1 1/4" coupling	1.82	20	23#	47.05	45.42

25° - Double Nozzle - 7025RD-2 Range Drive*

10.7 - 39.1 gpm Range Nozzles #14 - 24 Spreader Nozzles #8 - 12

7025RD-2-1" M	1" M (NPT) plastic swivel	1.82	25	23#	\$45.30	\$43.14
7025RD-2-3/4" F	1" M (NPT) plastic swivel w/1" x 3/4" coupling	1.82	20	22#	46.77	44.61
7025RD-2-1" F	1" M (NPT) plastic swivel w/1" coupling	1.82	20	22#	46.90	44.74
7025RD-2-1 1/4" F	1" M (NPT) plastic swivel w/1" x 1 1/4" coupling	1.82	20	23#	47.90	45.74



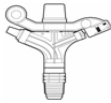
25° - Single Nozzle - 8025HR-1 Range Drive*
23.6 - 91.8 gpm Nozzles #24 - 40

8025HR-1-1 1/4" M	1 1/4" M (NPT) plastic swivel	2.35	20	29#	\$106.70	\$103.12
8025HR-1-1" F	1 1/4" M (NPT) plastic swivel w/ 1" x 1 1/4" coupling	2.35	20	33#	109.18	105.65
8025HR-1-1 1/4" F	1 1/4" M (NPT) plastic swivel w/ 1 1/4" coupling	2.35	20	34#	109.77	106.24
8025HR-1-1 1/2" M	1 1/2" M (NPT) plastic swivel	2.35	20	30#	108.33	104.80

25° - Double Nozzle - 8025HR-2 Range Drive*

28.9 - 106.8 gpm Range Nozzles #24 - 40 Spreader Nozzles #24 - 40

8025HR-2-1 1/4" M	1 1/4" M (NPT) plastic swivel	2.35	20	29#	\$107.52	\$103.47
8025HR-2-1" F	1 1/4" M (NPT) plastic swivel w/ 1" x 1 1/4" coupling	2.35	20	33#	110.00	105.95
8025HR-2-1 1/4" F	1 1/4" M (NPT) plastic swivel w/ 1 1/4" coupling	2.35	20	34#	110.59	106.53
8025HR-2-1 1/2" M	1 1/2" M (NPT) plastic swivel	2.35	20	30#	109.16	105.11



25° - Double Nozzle - 8025HS-2 Spreader Drive*

32.9 - 106.8 gpm Spreader Nozzles #14 - 18 Range Nozzles #24 - 40

8025HS-2-1 1/4" M	1 1/4" M (NPT) plastic swivel	2.35	20	30#	\$103.92	\$99.87
8025HS-2-1" F	1 1/4" M (NPT) plastic swivel w/ 1" x 1 1/4" coupling	2.35	20	29#	106.40	102.34
8025HS-2-1 1/4" F	1 1/4" M (NPT) plastic swivel w/ 1 1/4" coupling	2.35	20	30#	106.98	102.93
8025HS-2-1 1/2" M	1 1/2" M (NPT) plastic swivel	2.35	20	34#	105.55	101.49
80NEX	Range nozzle extension (booster tube) for 8025	1.45	240	42#	\$3.96	

All sprinklers less nozzle include nozzle holders and vanes.
23° double nozzle sprinklers are less drive nozzle insert but include spreader nozzle.

* Also available in BSP.

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Spray Nozzles

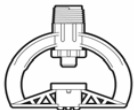


NEW Smooth Drive™

1.22 - 2.79 gpm

Nozzles #6 - 8

MODEL NUMBER	DESCRIPTION	VOL CUBIC FT	QTY PER BOX	WT PER BOX	LIST PRICE
SD2214M-2M	$\frac{1}{2}$ " M (NPT), complete w/ nozzle	0.47	100	10#	\$11.30
SD2214M-23S	$\frac{1}{2}$ " x $\frac{3}{4}$ " slip, complete w/ nozzle	0.47	100	10#	11.30



Super Spray® (for upright or overhead installation)

0.54 - 6.54 gpm

Nozzles #5 - 12

Super Spray complete	Super Spray bracket, $\frac{3}{4}$ " M (NPT) base, white vane includes nozzle (nozzles #5 - 12), pad	2.35	200	35#	\$5.34
	Super Spray bracket, $\frac{1}{2}$ " M (NPT) base, white vane includes nozzle (nozzles #5 - 12), pad	2.35	200	35#	5.34
SSBW1	Super Spray bracket, $\frac{3}{4}$ " M (NPT) base, white vane (excludes nozzle and pad)	2.35	200	30#	3.89
SSB2W1	Super Spray bracket, $\frac{1}{2}$ " M (NPT) base, white vane (excludes nozzle and pad)	2.35	200	30#	3.89
SSNZ05	Nozzle, color-coded (SSNZ05-SSNZ12; incl half sizes)	1.45	1500	27-31#	0.86
Deflector pads					
SSPFLSM	Flat (black) Smooth (nozzles #8-26)	0.84	1000	16#	0.59
SSPMFLSM	Mini Smooth (nozzles #4-7)	0.84	1000	16#	0.59
SSPCCSM	Concave (blue) Smooth (nozzles #8-26)	0.84	1000	16#	0.59
SSPMCCSM	Mini Smooth (nozzles #4-7)	0.84	1000	16#	0.59
SSPCVSM	Convex (green) Smooth (nozzles #8-26)	0.84	1000	16#	0.59
SSPMCVSM	Mini Smooth (nozzles #4-7)	0.84	1000	16#	0.59

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Spray Nozzles



T-Spray™ (for upright or overhead installation)

0.98 - 2.85 gpm

Nozzles #6 - 8

MODEL NUMBER	DESCRIPTION	VOL CUBIC FT	QTY PER BOX	WT PER BOX	LIST PRICE
T-Spray SA	$\frac{1}{2}$ " M (NPT) standard-angle T-stem	0.47	300	6#	\$2.16

High Angle T-Spray™ (for upright installation only)

1.73 - 2.85 gpm

Nozzle #8

T-Spray HA	$\frac{1}{2}$ " M (NPT) high-angle T-stem	0.47	300	6#	\$2.16
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Spray Stakes

4 gph - 12 gph

SPRST040	Spray stake - Black - 90° distribution, 4 gph	1.45	1500	16#	\$0.21
SPRST080	Spray stake - Brown - 120° distribution, 8 gph	1.45	1500	16#	0.21
SPRST120	Spray stake - Green - 160° distribution, 12 gph	1.45	1500	16#	0.21
TU05ST	0.125" Tubing (sold in box quantity of 2000 ft)	1.70	2-1000 ft rolls	17#	S.P.S.
TUPTAP3I	Tubing Punch Tool, for 0.125" insert adapter (green handle)				S.P.S.



Triad™

0.94 - 1.82 gpm

Nozzle #4

Triad complete	$\frac{3}{4}$ " F-slip, adjustable 3-stream directional sprinkler	0.77	250	12#	\$3.13
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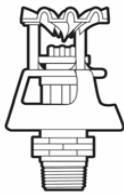
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Solid Set Nursery
Wobblers



Xcel-Wobbler®

0.78 - 7.64 gpm

Nozzles #6 - 14

MODEL NUMBER	DESCRIPTION	VOL CUBIC FT	QTY PER BOX	WT PER BOX	LIST PRICE with nozzle
XCEL HA LD- ³ / ₄ " M	³ / ₄ " M (NPT), high-angle, black deflector	0.84	50	9#	\$8.51
		1.81	100	17#	
XCEL HA LD- ¹ / ₂ " M	¹ / ₂ " M (NPT), high-angle, black deflector	0.84	50	9#	8.51
		1.81	100	17#	
XCEL MA- ³ / ₄ " M	³ / ₄ " M (NPT), mid-angle, white deflector	0.84	50	9#	8.51
		1.81	100	17#	
XCEL MA- ¹ / ₂ " M	¹ / ₂ " M (NPT), mid-angle, white deflector	0.84	50	9#	8.51
		1.81	100	17#	



Wobbler®

0.78 - 13.5 gpm

Nozzles #6 - 21

WOB SA- ³ / ₄ " M	³ / ₄ " M (NPT), standard-angle, black deflector	0.68	100	13#	\$7.56
		0.32	50	7#	
WOB SA- ¹ / ₂ " M	¹ / ₂ " M (NPT), standard-angle, black deflector	0.68	100	13#	7.56
		0.32	50	7#	
WOB LA- ³ / ₄ " M	³ / ₄ " M (NPT), low-angle, white deflector	0.68	100	13#	7.56
		0.32	50	7#	
WOB LA- ¹ / ₂ " M	¹ / ₂ " M (NPT), low-angle, white deflector	0.68	100	13#	7.56
		0.32	50	7#	



mini-Wobbler® (for upright installation)

0.42 - 4.08 gpm

Nozzles #4 - 10

mini-Wobbler	¹ / ₂ " M (NPT), white deflector, complete	0.47	200	6#	\$4.18
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i-mini-Wobbler® (for overhead installation)

0.75 - 2.61 gpm

Nozzles #5 - 8

i-mini-Wobbler	¹ / ₂ " M (NPT), blue deflector, complete	0.47	200	6#	\$4.18
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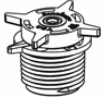
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**Solid Set Nursery
Misters - Upright**





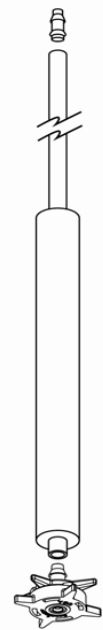
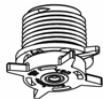

MODEL NUMBER	DESCRIPTION	QTY PER BOX	WT PER BOX	LIST PRICE
MR500NPT08B	Upright: 1/2" M NPT 08 (red)	100	2#	\$1.24
MR500NPT12B	Upright: 1/2" M NPT 12 (orange)	100	2#	1.24
MR500NPT16B	Upright: 1/2" M NPT 16 (yellow)	100	2#	1.24
MR500NPT20B	Upright: 1/2" M NPT 20 (green)	100	2#	1.24
MR375BSW08B	Upright: 3/8" M BSW 08 (red)	100	2#	1.24
MR375BSW12B	Upright: 3/8" M BSW 12 (orange)	100	2#	1.24
MR375BSW16B	Upright: 3/8" M BSW 16 (yellow)	100	2#	1.24
MR375BSW20B	Upright: 3/8" M BSW 20 (green)	100	2#	1.24
MR250DN	1/4" M Double Nipple Press Fit	100	2#	0.25
WMSAA	Wire-Mesh Sprinkler Adapter Assembly, 0.345" PE x 0.5" SW	100	10#	2.60

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Solid Set Nursery
Misters - Inverted

NEW Inverted Mister™ & Components



MODEL NUMBER	DESCRIPTION	QTY PER BOX	WT PER BOX	LIST PRICE
MR1500NPT08DB	Inverted: 1/2" M NPT, 08 (light blue), with check valve	100	2#	\$1.85
MR1500NPT12W	Inverted: 1/2" M NPT, 12 (blue), with check valve	100	2#	1.85
MR1500NPT16W	Inverted: 1/2" M NPT, 16 (purple), with check valve	100	2#	1.85
MR1500NPT20W	Inverted: 1/2" M NPT, 20 (black), with check valve	100	2#	1.85
MR1375BSW08DB	Inverted: 3/8" M BSW, 08 (light blue), with check valve	100	2#	1.85
MR1375BSW12W	Inverted: 3/8" M BSW, 12 (blue), with check valve	100	2#	1.85
MR1375BSW16W	Inverted: 3/8" M BSW, 16 (purple), with check valve	100	2#	1.85
MR1375BSW20W	Inverted: 3/8" M BSW, 20 (black), with check valve	100	2#	1.85
MR1250BRB08DB	Inverted: 1/4" M Barb, 08 (light blue), with check valve	100	2#	1.85
MR1250BRB12W	Inverted: 1/4" M Barb, 12 (blue), with check valve	100	2#	1.85
MR1250BRB16W	Inverted: 1/4" M Barb, 16 (purple), with check valve	100	2#	1.85
MR1250BRB20W	Inverted: 1/4" M Barb, 20 (black), with check valve	100	2#	1.85
MR250DN	Inverted: 1/4" M Double Nipple Press Fit	100	2#	0.25
MRIDA250BRB08DB36	Inv Drop Asbly: 1/4" Barb, tubing, weight, Mister 08 (light blue), 3 ft overall	100	2#	4.18
MRIDA250BRB08DB48	Inv Drop Asbly: 1/4" Barb, tubing, weight, Mister 08 (light blue), 4 ft overall	100	2#	4.36
MRIDA250BRB08DB72	Inv Drop Asbly: 1/4" Barb, tubing, weight, Mister 08 (light blue), 6 ft overall	100	2#	4.73
MRIDA250BRB12W36	Inv Drop Asbly: 1/4" Barb, tubing, weight, Mister 12 (blue), 3 ft overall	100	2#	4.18
MRIDA250BRB12W48	Inv Drop Asbly: 1/4" Barb, tubing, weight, Mister 12 (blue), 4 ft overall	100	2#	4.36
MRIDA250BRB12W72	Inv Drop Asbly: 1/4" Barb, tubing, weight, Mister 12 (blue), 6 ft overall	100	2#	4.73
MRIDA250BRB16W36	Inv Drop Asbly: 1/4" Barb, tubing, weight, Mister 16 (purple), 3 ft overall	100	2#	4.18
MRIDA250BRB16W48	Inv Drop Asbly: 1/4" Barb, tubing, weight, Mister 16 (purple), 4 ft overall	100	2#	4.36
MRIDA250BRB16W72	Inv Drop Asbly: 1/4" Barb, tubing, weight, Mister 16 (purple), 6 ft overall	100	2#	4.73
MRIDA250BRB20W36	Inv Drop Asbly: 1/4" Barb, tubing, weight, Mister 20 (black), 3 ft overall	100	10#	4.18
MRIDA250BRB20W48	Inv Drop Asbly: 1/4" Barb, tubing, weight, Mister 20 (black), 4 ft overall	100	12#	4.36
MRIDA250BRB20W72	Inv Drop Asbly: 1/4" Barb, tubing, weight, Mister 20 (black), 6 ft overall	100	15#	4.73

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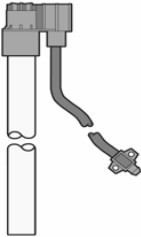
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Solid Set Nursery
Drain-Stop Plus & Riser Adapter



NEW Drain-Stop Plus™

MODEL NUMBER	DESCRIPTION	VOL CUBIC FT	QTY PER BOX	WT PER BOX	LIST PRICE
DSP2M2F	Drain-Stop Plus, 1/2" M (NPT) x 1/2" F (NPT) outlet	0.92	200	21#	\$4.77
DSP3B2F	Drain-Stop Plus, 3/4" Barb x 1/2" F (NPT) outlet	0.92	200	21#	4.77



Riser Adapter

FTA1B1B	Insert Adapter, 0.270" Super Barb x Hose Barb	0.77	2500	18#	\$0.32
FTA15B15B	Insert Adapter, 0.345" Super Barb x Hose Barb	1.45	2500	24#	0.50
RSAD270	Riser Adapter (for 0.270" I.D. Tubing) 1/2" F slip x 0.270" Compression, Pipe or Rod	1.45	350	28#	S.P.S.
RSAD345	Riser Adapter (for 0.345" I.D. Tubing), 1/2" F slip x 0.345" Compression, Pipe or Rod	1.45	300	28#	S.P.S.
RSASM23C3 w/ barb	Riser Adapter Assembly (for 0.270" I.D. Tubing) 1/2" F (NPT) x 0.350" Compression incl. riser adapter, barb adapter, 3 ft of tubing	1.71	100	16#	S.P.S.
RSASM24C3 w/ barb	Riser Adapter Assembly (for 0.345" I.D. Tubing) 1/2" F (NPT) x 0.455" Compression incl. riser adapter, barb adapter, 3 ft of tubing	2.30	100	20#	S.P.S.
RSRP36	Riser: 1/2" PVC (36" piece)	1.71	100	32#	S.P.S.
RSRS26	Riser: 5/16" Steel Rod (36" piece)	1.20	50	40#	S.P.S.

Tubing (black polyethylene)

MODEL NUMBER	DESCRIPTION	LIST PRICE
TU1ST	0.270" I.D. / 0.350" O.D., available in bulk 1000 ft roll	S.P.S.
TU15ST	0.345" I.D. / 0.455" O.D., available in bulk 1000 ft roll <i>Senninger does not pay for freight on tubing</i>	S.P.S.
TUPTAP4I	Tubing Punch Tool, for 0.270" insert adapter (green handle)	S.P.S.
TUPTAP5I	Tubing Punch Tool, for 0.345" insert adapter (black handle)	S.P.S.
FTPGP1	Goof Plug, 0.270"	S.P.S.
FTPGP15	Goof Plug, 0.345"	S.P.S.

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Solid Set Nursery Drop Adapter



Drop Adapter Components

MODEL NUMBER	DESCRIPTION	VOL CUBIC FT	QTY PER BOX	WT PER BOX	LIST PRICE
FTA1B1B	Insert Adapter, 0.270" Super Barb x Hose Barb	0.77	2500	18#	\$0.32
FTA15B15B	Insert Adapter, 0.345" Super Barb x Hose Barb	1.45	2500	24#	0.50
FTA1B23S	0.270" Super Barb x $\frac{1}{2}$ " F- $\frac{3}{4}$ " M Slip Connector	1.45	900	22#	0.69
FTA15B23S	0.345" Super Barb x $\frac{1}{2}$ " F- $\frac{3}{4}$ " M Slip Connector	1.45	900	22#	0.89
FTA15B2M	0.345" Super Barb x $\frac{1}{2}$ " M NPT Connector				0.96

Drop Adapter Assemblies

MODEL NUMBER	DESCRIPTION	LIST PRICE
DRUA1B23S12	0.270" Super Barb, Tubing (12"), 0.270" Super Barb x Slip Connector	S.P.S.
DRUA15B23S12	0.345" Super Barb, Tubing (12"), 0.345" Super Barb x Slip Connector	S.P.S.
DRASM1/23S23S12	0.270" Super Barb x Slip Connector, Tubing (12"), 0.270" Super Barb x Slip Connector	S.P.S.
DRASM15/23S23S12	0.345" Super Barb x Slip Connector, Tubing (12"), 0.345" Super Barb x Slip Connector	S.P.S.
DRASM15/2M23S12	0.345" Super Barb x $\frac{1}{2}$ " M NPT Connector, Tubing (12"), 0.345" Super Barb x Slip Connector	S.P.S.
DRLA1B2F12	0.270" Super Barb x Slip Connector, $\frac{1}{2}$ " PVC (12"), $\frac{1}{2}$ " Slip x Slip Adapter	S.P.S.
DRLA15B2F12	0.345" Super Barb x Slip Connector, $\frac{1}{2}$ " PVC (12"), $\frac{1}{2}$ " Slip x Slip Adapter	S.P.S.
DRADASM1B2F24	0.270" Super Barb, Tubing (12"), 0.270" Super Barb x Slip Connector $\frac{1}{2}$ " PVC (12"), $\frac{1}{2}$ " Slip x Slip Adapter	S.P.S.
DRADASM15B2F24	0.345" Super Barb, Tubing (12"), 0.345" Super Barb x Slip Connector $\frac{1}{2}$ " PVC (12"), $\frac{1}{2}$ " Slip x Slip Adapter	S.P.S.
DRADASM1/23S2F24	0.270" Super Barb x Slip Connector, Tubing (12"), 0.270" Super Barb x Slip Connector, $\frac{1}{2}$ " PVC (12"), $\frac{1}{2}$ " Slip x Slip Adapter	S.P.S.
DRADASM15/23S2F24	0.345" Super Barb x Slip Connector, Tubing (12"), 0.345" Super Barb x Slip Connector, $\frac{1}{2}$ " PVC (12"), $\frac{1}{2}$ " Slip x Slip Adapter	S.P.S.
DRADASM15/2M2F24	0.345" Super Barb x $\frac{1}{2}$ " M NPT Connector, Tubing (12"), 0.345" Super Barb x Slip Connector, $\frac{1}{2}$ " PVC (12") Slip x Slip Adapter	S.P.S.

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Solid Set Nursery
Other Components

Nozzles

MODEL NUMBER	DESCRIPTION	LIST PRICE
NZIN07 - NZIN18	Insert, color-coded, sizes #6-18 ($\frac{3}{32}$ " - $\frac{9}{32}$ "), for 20, 30, 31, 40, 41 & 50 Impact Sprinklers, Xcel Wobbler	\$0.53
NZV06 - NZV10	Nozzle-vane combo, sizes #6-10 ($\frac{3}{32}$ " - $\frac{5}{32}$ "), for 21, 30, 31 & 41 Impact Sprinklers	0.99
NZV06Q - NZV09Q	Square-orifice nozzle-vane combo, sizes #6-9 ($\frac{3}{32}$ " - $\frac{9}{64}$ "), for 20 & 30 Impact Sprinklers	0.99
NZIN07 - NZIN18	Spreader nozzle insert, color-coded, sizes #7-18 ($\frac{7}{64}$ " - $\frac{9}{32}$ "), for 70 & 80 Impact Sprinklers	0.53
70NZ14 - 70NZ24	Range nozzle, sizes #14-24 ($\frac{7}{32}$ " - $\frac{3}{8}$ "), for 70 Impact Sprinklers	1.60
80NZ24 - 80NZ40	Range nozzle, sizes #24-40 ($\frac{3}{8}$ " - $\frac{5}{8}$ "), for 80 Impact Sprinklers	3.53
SSNZ04 - SSNZ26	Nozzle, color-coded, sizes #4-26 ($\frac{1}{16}$ " - $\frac{13}{32}$ "), for Super Sprays	0.86
NZIN06 - NZIN21	Insert, color-coded, sizes #6-21 ($\frac{3}{32}$ " - $\frac{21}{64}$ "), for Wobblers	0.53
WOBN22 - WOBN24	Nozzle-holder combo, color-coded, sizes #22-24 ($\frac{1}{32}$ " - $\frac{3}{8}$ "), for Wobblers	0.59
MWZN04 - MWZN10	Nozzles #4-10 ($\frac{1}{16}$ " - $\frac{5}{32}$ "), for mini-Wobblers	0.50

Half-size nozzles also available. Consult factory for correct nozzle selection.

Vanes & Cylinders

MODEL NUMBER	DESCRIPTION	VOL CUBIC FT	QTY PER BOX	WT PER BOX	LIST PRICE
VNW	Regular vane (white)	1.45	6500	24#	\$0.44
VNR	Spiral vane (red)	1.45	6500	25#	0.44
VNB	Barrel vane (blue)	1.45	6500	23#	0.44
VN72S	Range nozzle spiral barrel vane (dark red), for 7012 sprinklers	1.45	3800	23#	1.28
VN72	Range nozzle barrel vane (blue-green short), for 7012 sprinklers	1.45	3800	23#	1.28
VN75	Range nozzle barrel vane (yellow), for 7025 sprinklers	1.45	2500	25#	1.28
VN75E	Range nozzle effluent vane (pink), for 7025 sprinklers	1.45	2500	25#	1.28
VN85	Range nozzle barrel vane (black), for 8025 sprinklers	1.45	1250	22#	3.02
80NEX	Range nozzle extension (booster tube), for 8025SD-2 sprinklers	1.45	240	42#	3.97

Pressure Gauges

GA03-2P	2.5" Pressure Gauge, high quality, glycerine filled, 0-30 psi	0.77	50	28#	S.P.S.
GA06-2P	2.5" Pressure Gauge, high quality, glycerine filled, 0-60 psi	0.77	50	28#	S.P.S.
GA10-2P	2.5" Pressure Gauge, high quality, glycerine filled, 0-100 psi	0.77	50	28#	S.P.S.
GA10-2PK	2.5" Pressure Gauge, high quality, glycerine filled, 0-700 kpa (metric)	0.77	50	28#	S.P.S.
GA20-2PK	2.5" Pressure Gauge, high quality, glycerine filled, 0-1400 kpa (metric)	0.77	50	28#	S.P.S.
GA03	3.5" Pressure Gauge, high quality, glycerine filled, 0-30 psi	1.82	50	30#	S.P.S.
GA06	3.5" Pressure Gauge, high quality, glycerine filled, 0-60 psi	1.82	50	30#	S.P.S.
GA10	3.5" Pressure Gauge, high quality, glycerine filled, 0-100 psi	1.82	50	30#	S.P.S.

Consult factory for gauges available in other pressure ranges.

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Solid Set Nursery
Other Components &
Irri-Maker Design Software

Threaded Pipe Fittings (engineering-grade thermoplastics)

MODEL NUMBER	DESCRIPTION	VOL CUBIC FT	QTY PER BOX	WT PER BOX	LIST PRICE
	CPL22 1/2" (NPT) x 1/2" (NPT) threaded pipe coupling	1.45	800	28#	\$0.96
	CPL33 3/4" (NPT) x 3/4" (NPT) threaded pipe coupling	1.45	595	42#	1.20
	CPL44 1" (NPT) x 1" (NPT) threaded pipe coupling	1.45	290	35#	1.58
	CPL55 1 1/4" (NPT) x 1 1/4" (NPT) threaded pipe coupling	1.45	150	42#	3.19
	CPL32 3/4" (NPT) x 1/2" (NPT) threaded reducing coupling	1.45	600	39#	1.13
	CPL43 1" (NPT) x 3/4" (NPT) threaded reducing coupling	1.45	395	34#	1.46
	CPL53 1 1/4" (NPT) x 3/4" (NPT) threaded reducing coupling	1.45	230	38#	2.48
	CPL54 1 1/4" (NPT) x 1" (NPT) threaded reducing coupling	1.45	180	37#	2.59
	CPL22S 1/2" (NPT) x 1/2" slip, threaded x slip coupling	1.45	800	26#	0.75
	CPL23S 1/2" (NPT) x 3/4" slip, threaded x slip coupling	1.45	550	28#	0.92
	CPL33S 3/4" (NPT) x 3/4" slip, threaded x slip coupling	1.45	520	36#	0.98
	CPL23SV 1/2" (NPT) x 1/2" slip, threaded x slip vandal-resistant coupling	1.45	300	30#	1.11
	WRNH1116 Wrench: vandal-resistant 1 1/16"				2.54
	QCPL2 1/2" (NPT) x quick-connect coupling - UPPER w/ gasket	1.45	400	22#	2.78
	QCPL23S 1/2" & 3/4" slip x quick-connect coupling - LOWER (black)	1.45	600	20#	1.08
	QCPL20X25MM 20 & 25 mm slip x quick-connect coupling - LOWER (white)	1.45	600	20#	1.08
	FTN32 3/4" (NPT) x 1/2" (NPT) nipple	1.45	1000	27#	0.58
	FTN33D 3/4" (NPT) x 3/4" (NPT) nipple	1.45	900	31#	0.58
	FTN33H 3/4" (NPT) x 3/4" hose threaded nipple	1.45	1000	28#	0.58
	FTP3 3/4" (NPT) threaded plug	1.45	1400	37#	0.66
	FTP4 1" (NPT) threaded plug	1.45	650	37#	1.41
	FTB43 1" (NPT) x 3/4" (NPT) threaded reducing bushing	1.45	650	29#	1.52

Threaded Pipe Fittings (galvanized)

GVN3015	Galvanized 3/4" (NPT) x 1 1/2" (NPT) threaded pipe nipple	0.25	100	10	S.P.S.
GVN3020	Galvanized 3/4" (NPT) x 2" (NPT) threaded pipe nipple	0.32	100	15	S.P.S.

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