Point Source Irrigation

GREENHOUSE AND NURSERY IRRIGATION

PRODUCT APPLICATION GUIDE

Highly Durable

Flexible

High-Efficiency
Multi-Purpose
Micro Irrigation and
Misting Sprinkling System

Uniform Water Distribution
Proven Reliability
Low Maintenance

PSI
Point Source Irrigation

UPSIDE DOWN SPRINKLER IRRIGATION SYSTEM

FOR BENCH CROPS

SPRINKLER SELECTION TABLE

Bench Width

		4'	5'	6'	7'	8'	8'	10'	12'	14'	14'	15'	16'	17'	18'	20'	22'	Ht.	
		Yellow Flat					Black Round				Green Kiwi								
Coefficient of Uniformity (CU)	Low Application Rate	75	94	94	92	86					93	91	88					2'	Low Application Rate
		96	96	94	90	85		93	88		95	95	94	93	94	91		4'	
							94	93	88		93	93	93	93	96	94	89	6'	
	High Application Rate	95	95	93	92		89				93	92	90					2'	High Application Rate
				96	94		91	91	89		95	95	95	95	95	93		4'	
							93	90	89	88		94	94	94	94	93	92	6'	

		4'	5'	6'	7'	8'	8'	10'	12'	14'	14'	15'	16'	17'	18'	20'	22'	Ht.	
		Yellow Flat					Black Round				Green Kiwi								
Percentage of Water in Band	Low Application Rate	68%	64%	75%	85%	92%					86%	90%	93%					2'	Low Application Rate
		55%	60%	70%	79%	86%		88%	92%		70%	75%	80%	83%	85%	91%		4'	
							63%	77%	87%		66%	70%	75%	79%	82%	90%	92%	6'	
	High Application Rate	58%	73%	85%	78%		87%				85%	89%	93%					2'	High Application Rate
				60%	68%		60%	73%	85%		67%	72%	77%	81%	85%	92%		4'	
							56%	68%	80%	90%		67%	71%	74%	79%	86%	92%	6'	

		4'	5'	6'	7'	8'	8'	10'	12'	14'	14'	15'	16'	17'	18'	20'	22'	Ht.	
		Yellow Flat					Black Round				Green Kiwi								
Precipitation Rate (In/Hr)	Low Application Rate	0.98	1.26	1.25	1.21	1.14					0.60	0.60	0.58					2'	Low Application Rate
		0.80	1.20	1.16	1.12	1.07		0.51	0.71		0.50	0.50	0.50	0.49	0.60	0.58		4'	
							0.45	0.45	0.42		0.47	0.47	0.46	0.46	0.59	0.58	0.56	6'	
	High Application Rate	1.78	1.77	1.72	1.93		1.08				0.78	0.76	0.75					2'	High Application Rate
				1.71	1.67		0.96	0.94	0.91		0.82	0.81	0.81	0.81	0.80	0.78		4'	
							0.90	0.87	0.85	0.82		0.75	0.75	0.75	0.74	0.73	0.71	6'	
		Yellow Flat					Black Round				Green Kiwi								

Green Nozzle, Green Antimist | Yellow Nozzle, Yellow Antimist | Orange Nozzle, Orange Antimist | Blue Nozzle, Blue Antimist

The minimum recommended pressure is 30 PSI
The above results are based on 30 PSI Pressure
Based on a 3' sprinkler spacing

Nozzle/Antimist	Color Flow
Green Nozzle, Green Antimist	10.9 gph
Orange Nozzle, Orange Antimist	19.0 gph
Yellow Nozzle, Yellow Antimist	24.4 gph
Blue Nozzle, Blue Antimist	32.6 gph

CHOOSING YOUR SPRINKLER

1. Find the width of the area that you want to irrigate. In most cases the width will determine the sprinkler type.

2. Determine if you want to apply water at a high or low application rate relative to each other. The same color-coded nozzle can be used to create a low precipitation rate as well as a high precipitation rate depending upon the width of the band and the height of the sprinkler.

3. Determine the height at which you want to hang the sprinklers.

4. The above three choices will determine the appropriate nozzle and antimist color.

5. In some cases, a particular factor, such as the percentage of water in the band, may determine the other variables such as application rate and sprinkler height.

The traditional or standard sprinkler layout, commonly used for irrigating large open areas, when applied to greenhouse irrigation, leaves many areas either overly wet in the center or dry around the edges.

Recent advances in specialized greenhouse irrigation products and computer modeling have contributed to creating an optimized sprinkler layout specifically designed for green-house application. By creating highly uniform irrigated bands, benches, bays, tunnels, and greenhouses of varying widths, can be irrigated by a single band or by combining a number of bands laid out side-by-side.

The Sprinkler Selection Table represents an attempt to simplify a complicated decision making process while at the same time presenting alternatives. The table has been calculated using a 3-foot sprinkler spacing. This spacing achieves optimum results by balancing cost, CU (Coefficient of Uniformity), and the percentage of water falling within the designated band. Priority has been given to the CU.

NAANDAN
Irrigation Systems

DRIPLESS MICRO-SPRINKLER

Nozzle/Antimist	Color Flow
Green Nozzle, Green Antimist	10.9 gph
Orange Nozzle, Orange Antimist	19.0 gph
Black Nozzle, Yellow Antimist	24.4 gph
Blue Nozzle, Blue Antimist	32.6 gph

- Bridgeless design - no dripping
- Flat trajectory
- High distribution uniformity
- Fits all Dan parts and accessories
- Same flows as conventional Dan sprinklers
- High UV and chemical resistance

Bridgeless Micro-Sprinkler for Continuous Roofing Applications

Performance Chart - Application Rates and Uniformity (CU%) at Various Spacings

Lateral Spacing	10 Feet					13 Feet					16 Feet					20 Feet				
Sprinkler Spacing(Feet)	3	5	6.5	8	10	3	5	6.5	8	10	3	5	6.5	8	10	3	5	6.5	8	10
Nozzle Color																				
Brown	0.56	0.37	0.28	0.23	0.19	0.42	0.28	0.21	0.17	0.14	0.34	0.23	0.17	0.14	0.11	0.28	0.19	0.14	0.11	0.09
Grey	0.91	0.61	0.46	0.37	0.30	0.69	0.46	0.34	0.27	0.23	0.55	0.37	0.27	0.22	0.18	0.46	0.30	0.23	0.18	0.15
Green	1.37	0.91	0.68	0.55	0.46	1.03	0.68	0.51	0.41	0.34	0.82	0.55	0.41	0.33	0.27	0.68	0.46	0.34	0.27	0.23
Orange	1.56	1.04	0.78	0.62	0.52	1.18	0.78	0.59	0.47	0.39	0.94	0.62	0.47	0.37	0.31	0.78	0.52	0.39	0.31	0.26
Black	2.08	1.39	1.04	0.83	0.69	1.56	1.04	0.78	0.62	0.52	1.25	0.83	0.62	0.50	0.42	1.04	0.69	0.52	0.42	0.35
Blue	2.60	1.73	1.30	1.04	0.87	1.95	1.30	0.98	0.78	0.65	1.56	1.04	0.78	0.62	0.52	1.30	0.87	0.65	0.52	0.43

CU > 93% Excellent
CU = 90 - 92% Good
CU = 85 - 89% Fair
CU < 85% Not Recommended

Bridgeless Micro-Sprinkler for Defined Widths

Performance Table	8'	10'	12'	14'	15'	16'	17'	18'	Ht.	
Coefficient of Uniformity (CU%)	94%	93%							2'	Low Application Rate
	88%	88%	94%	91%	88%				4'	
	90%	90%	90%	95%	92%	89%			6'	
			94%	94%	93%	92%	90%		2'	High Application Rate
			97%	95%	95%	94%	92%	90%	4'	
									6'	

	8'	10'	12'	14'	15'	16'	17'	18'	Ht.	
Percentage of Water in Band	84%	99%							2'	Low Application Rate
	61%	75%	73%	82%	86%				4'	
	57%	73%	87%	85%	89%	93%			6'	
			73%	81%	86%	91%	94%		2'	High Application Rate
			65%	74%	79%	83%	87%	91%	4'	
									6'	

	8'	10'	12'	14'	15'	16'	17'	18'	Ht.	
Precipitation Rate (In/Hr)	1.05	1.02							2'	Low Application Rate
	0.44	0.43	0.61	0.58	0.57				4'	
	0.41	0.42	0.42	0.60	0.59	0.58			6'	
			0.78	1.00	0.98	0.96	0.94		2'	High Application Rate
			0.70	0.68	0.90	0.89	0.87	0.86	4'	
									6'	

Green Nozzle, Green Antimist | Black Nozzle, Yellow Antimist | Orange Nozzle, Orange Antimist | Blue Nozzle, Blue Antimist

The minimum recommended pressure is 30 PSI
The above results are based on 30 PSI pressure
Based on a 3' sprinkler spacing

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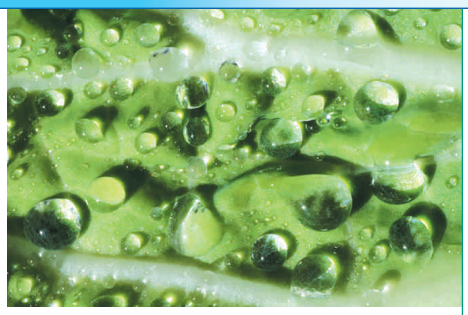
COLD FRAME IRRIGATION



The recommendations for cold frame irrigation were designed to offer the highest Coefficient of Uniformity (CU) while keeping the highest percentage of water in the interior, or off of the walls.

This is achieved by varying the sprinkler spacing as well as the sprinkler height.

	Frame Width														
Percent of Water in Cold Frame	10'	13'	14'	13'	14'	16'	16'	18'	20'	20'	21'	26'	30'	33'	39'
Distance Between Sprinklers	90%	85%	90%	83%	84%	82%	91%	86%	90%	95%	91%	98%	92%	92%	90%
Coefficient of Uniformity (CU)	20"	40"	40"	20"	20"	20"	20"	40"	20"	40"	20"	40"	40"	20"	40"
Height	92	89	88	94	95	93	95	92	93	93	95	90	93	93	92
Precipitation Rate (Incher per Hour)	4'	6'	6'	4'	4'	6'	4'	4'	6'	4'	6.8'	6'	6'	6'	6'
Number of Lines	.95	.75	.77	.67	.64	.91	.63	.75	.87	.75	.83	.79	.98	.59	.71
Spacing Between Lines	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2
	-	-	-	-	-	-	-	-	-	-	-	14.7'	15.6'	17.2'	21.3'
	Black Round			Green Kiwi Spinner								Black Round		Green Kiwi	

Green Nozzle, Green Antimist
Yellow Nozzle, Yellow Antimist
Orange Nozzle, Orange Antimist
Blue Nozzle, Blue Antimist
Yellow Nozzle, Orange Antimist

The minimum recommended pressure is 30 PSI
The above results are based on 30 PSI Pressure

DRY WALLS

Are achieved using Dan's unique high-tech solutions to traditional greenhouse irrigation problems.

EVEN WATER DISTRIBUTION

Within the tunnel itself is guaranteed with Dan Micro-sprinkler and misting systems

FLEXIBLE SYSTEMS

Provide trouble-free applications for cold frames ranging in width from 10′ to 39′.

HIGH PRECIPITATION RATES

Give you shorter showers, lower humidity and plants that stay dry longer.

CONVENIENTLY POSITIONED

Overhead supply lines allow you to make maximum use of valuable space and increase mobility within the cold frame.

Sprinkler Flow vs Pressure Table

Pressure (PSI)	Flow (GPH)			
	Green Nozzle, Green Antimist	Yellow Nozzle, Yellow Antimist	Orange Nozzle, Orange Antimist	Blue Nozzle, Blue Antimist
30	10.9	24.4	19.0	32.6
35	11.3	25.7	20.1	34.1
40	11.8	27.0	20.9	35.5

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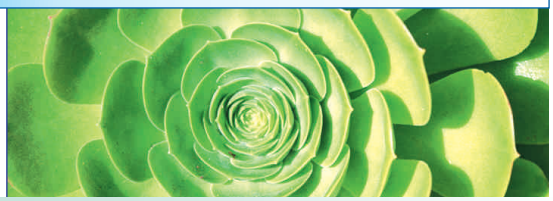
UPRIGHT SPRINKLER

IRRIGATION SYSTEMS

FOR BENCH CROPS



CHOOSING YOUR SPRINKLER

1. Find the width of the area that you want to irrigate. In most cases the width will determine the sprinkler type.

2. Determine if you want to apply water at a high or low application rate. The same color-coded nozzle can be used to create a low precipitation rate as well as a high precipitation rate depending upon the width of the band.

3. The color-coded areas represent the nozzle and antimist color as well as the flow rate.

	Yellow Flat Spreader					Black Round				Orange Oblong							
	4'	5'	6'	7'	8'	7'	8'	10'	12'	12'	14'	15'	16'	18'	20'	22'	
Coefficient of Uniformity (CU)	95	93	95	91	86	92%	91%	90%		89	90	90	91	91	88		Low Application Rate
	98	98	96	97	93		92%	89%	86%	96	95	94	93	91	91	88	High Application Rate
Percentage of Water in Strip	63%	77%	70%	79%	87%	51%	58%	69%		72%	85%	91%	78%	89%	95%		Low Application Rate
	46%	57%	67%	70%	77%		58%	70%	77%	51%	61%	66%	72%	83%	92%	97%	High Application Rate
Precipitation Rate	.91	.89	1.17	1.13	1.08	0.71	0.69	0.67		.58	.58	.58	.61	.62	.59		Low Application Rate
	1.47	1.46	1.43	1.69	1.64		0.93	0.89	1.09	.71	.73	.75	.75	.77	.77	.74	High Application Rate
	Yellow Flat Spreader					Black Round				Orange Oblong							
	4'	5'	6'	7'	8'	7'	8'	10'	12'	12'	14'	15'	16'	18'	20'	22'	

Green Nozzle, Green Antimist

Yellow Nozzle, Yellow Antimist

Orange Nozzle, Orange Antimist

Blue Nozzle, Blue Antimist

The tables are calculated on a 3 foot sprinkler spacing and 10 inch sprinkler height. The recommended operating pressure is 35 PSI.

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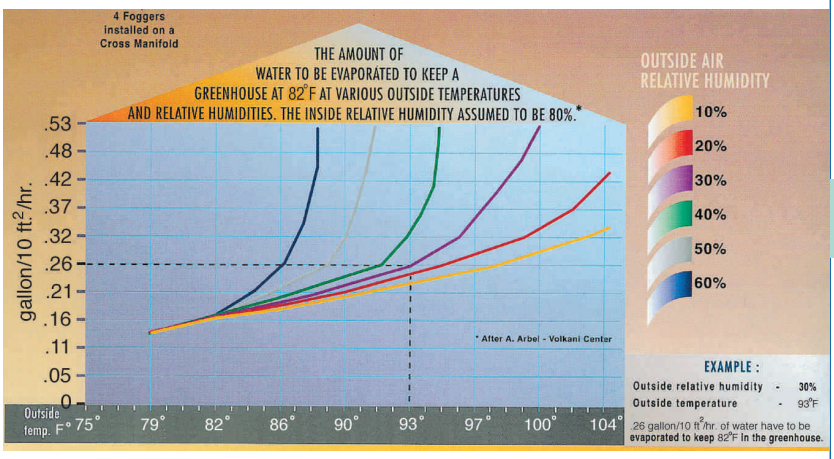
CLIMATE CONTROL OF TEMPERATURE AND HUMIDITY

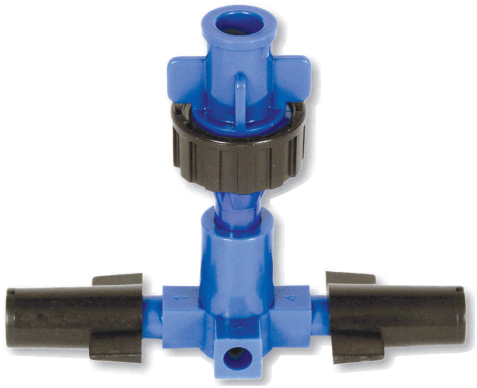
USING NAANDAN FOGGERS

Basic Installation Instructions for Cooling and Humidification

- Use T configuration with 2 foggers (4-way or cross is no longer recommended**)
- Recommended pressure is 60 PSI
- Use High Pressure LPD (Leak Prevention Device)
- Distance between lines up to 9.5 feet
- Distance between foggers on the line up to 4.5 feet
- The foggers should be mounted as high as possible above the ground
- The foggers should be installed perpendicular to the lateral
- Use anti-twist flexible PCV vinyl tube
- Avoid contact between the droplets and any part of the greenhouse structure

**use of 4-way foggers may cause high precipitation rates and prevent some of the water from being evaporated.





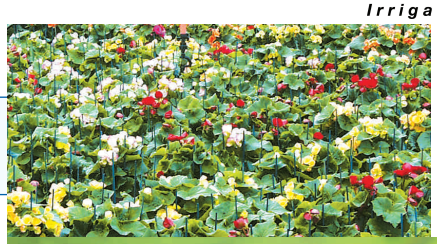
2-WAY T- FOGGER

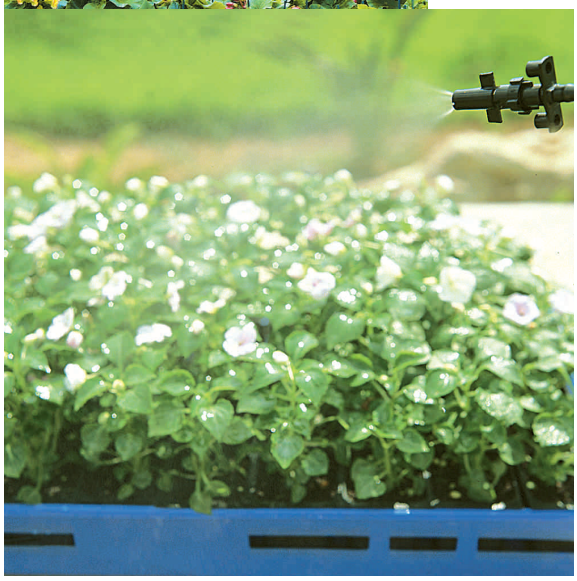
SUPER FOGGER

100 MICRON FOG

- Extremely efficient method for controlling greenhouse conditions
- Fast and easy installation
- Designed to function at standard operating pressures with normal 120 mesh filtration requirements
- Uniform distribution
- Less wear and fewer nozzle replacements
- Highly versatile to fit individual greenhouse requirements

COOLING





- One calorie is the amount of heat necessary to raise the temperature of 1 cm^2 of water by 1° C.
- The conversion of water from liquid to vapor absorbs heat from the surrounding air at a rate of 590 calories per 1 gram of evaporated water. This process lowers the air temperature.
- Efficient installation and operation can reduce the temperature in the greenhouse between 6 to 9° F, depending on two environmental factors: external temperature and external humidity.
- Efficient cooling with foggers requires an effective ventilation system that continually introduces external dry air into the greenhouse to replace the humid air.
- A precipitation rate of .118 inches/hour (3mm/hour) is suitable for cooling.
- The duration of the fogging depends upon the air velocity created by the ventilation system.

Air Velocity	Interval	Duration
0.328 ft/s	10 Seconds	1-2 Seconds
1.64 ft/s	10 Seconds	3-5 Seconds
3.28 ft/s	10 Seconds	10 Seconds

HUMIDIFICATION

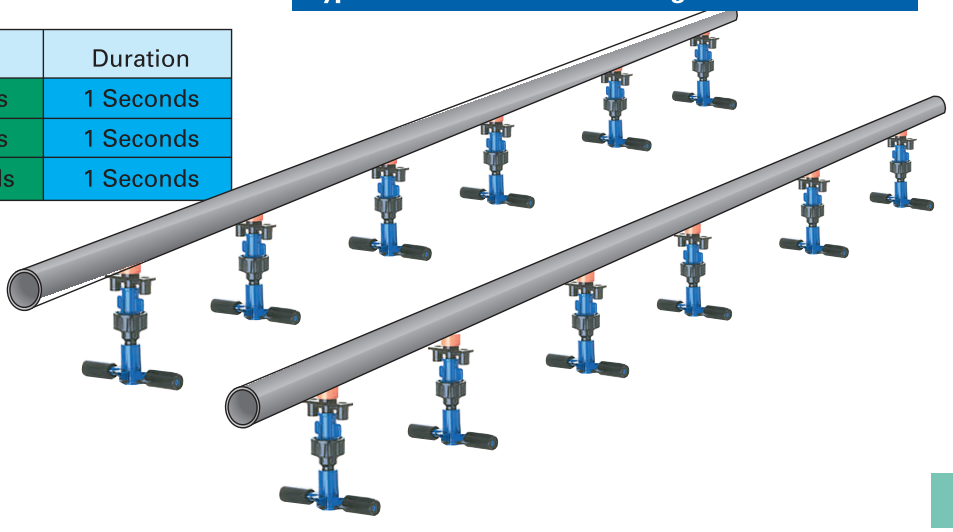
- Ventilation must be shut down in order to increase the humidity.
- The duration of fogging should be as short as possible (1 second).
- The intervals between fogging vary according to the relative humidity required.

Fogger Flow Rates	
Nozzle Color	Flow (GPH)
Blue	1.8
Orange	3.6
Red	5.4
Black	7.4

Humidity	Interval	Duration
30-40%	60 Seconds	1 Seconds
40-50%	90 Seconds	1 Seconds
50-60%	120 Seconds	1 Seconds

A controller should be installed to manage the cycling and should be connected to temperature and humidity sensors.

Typical Installation for Cooling & Humidification



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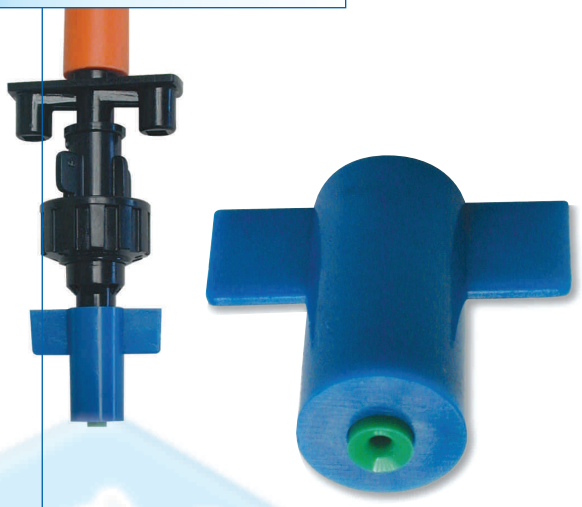
PROPAGATION

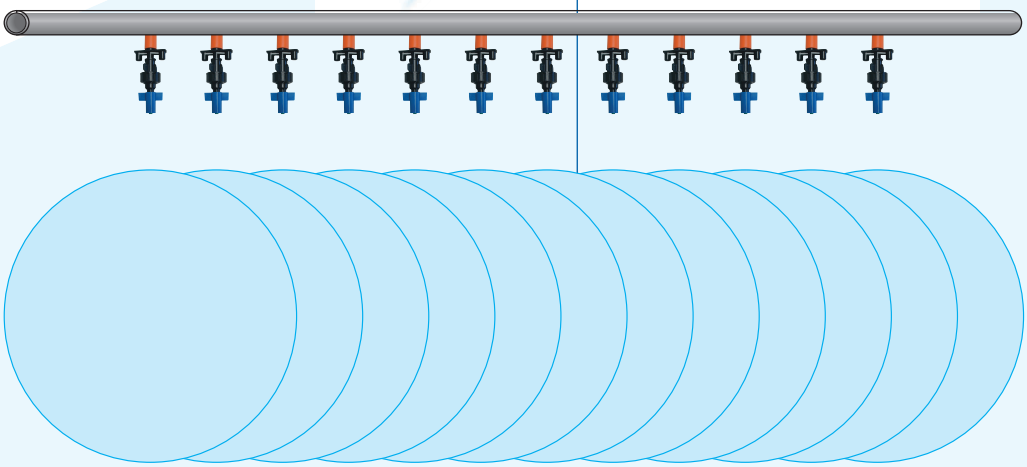
WIDE ANGLE FOGGER

Replaces the 4-way Fogger Assembly and the Violet Mister for Propagation Applications

20% Cost Savings over 4-Way Fogger Assemblies



- Small droplet size- slightly larger than fog, smaller then mist
- Minimum operating pressure 30 PSI
- Flow rate of 7.9 GPH
- Requires low pressure LPD (Leak Prevention Device)
- Height above the bench – 3 to 4 feet
- Maximum distance between units – 2.5 feet
- Maximum distance between laterals – 3.3 feet
- Maximum distance from the edge – 10 inches
- Recommended pressure is 35 to 45 PSI.



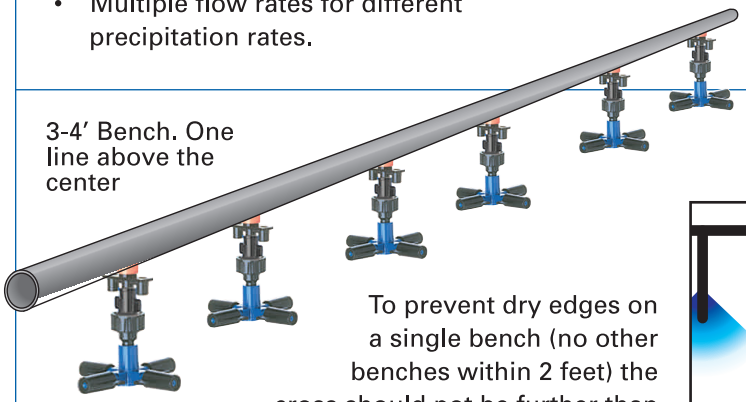
MISTING APPLICATIONS

Violet Misting Spreader		
Bench Width	Irrigation Intensity	
	Low	High
3'	Violet Nozzle	Grey Nozzle
4'	-	Grey Nozzle
5'	-	Green Nozzle

PROPAGATION

4-WAY FOGGER ASSEMBLIES

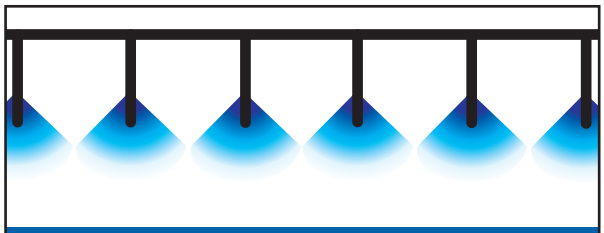
- Recommended Pressure is 35 to 45 PSI.
- One Fogger should be used for every 2.5 square feet. The cross with four foggers will cover an area up to 10 square feet (3 to 4 feet wide).
- Foggers should be installed at a height of 3 to 5 feet above the propagation material.
- The spacing between the fogger assemblies should be 3 feet.
- Multiple flow rates for different precipitation rates.



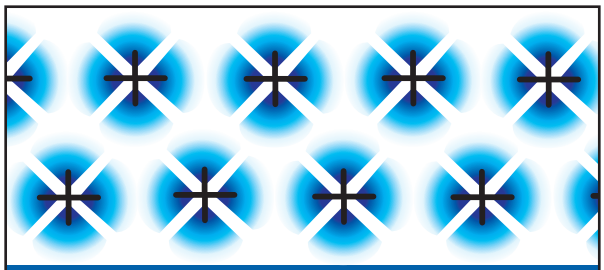
3-4′ Bench. One line above the center

To prevent dry edges on a single bench (no other benches within 2 feet) the cross should not be further than 1′ from the edge. In some instances two lines may be required on a 4′ bench.

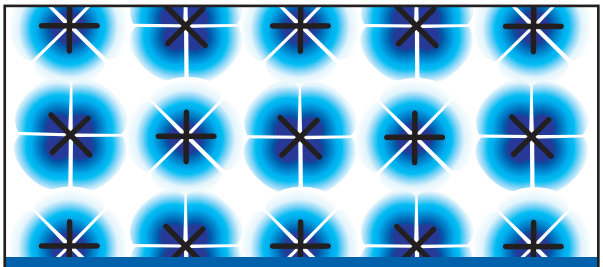
For 6′ and 7′ benches, two lines with crosses are required.



Narrow Bench - Foggers spaced 2′ apart



5′ Bench - Two lines with no more than 3′ between them



8′ Bench - Use three lines with crosses equally spaced. Outside lines should be 1′ from edge

PIPES

POLYETHYLENE PIPE SIZING TABLE

1. Find the appropriate nozzle color on the left side of the table.
2. Determine the bench length or a specific section length that you intend to irrigate.
3. The color-coded shaded area will indicate the appropriate hose size.

Feed the hose from the center if you want to reduce the required hose size or the length is longer than recommended.

Nozzle and Antimist Color	Average Sprinkler Flow		Bench Length 25'	50'	75'	100'	125'	150'
Violet Nozzle No Antimist	9.5 GPH	# Sprinklers	8	16	25	33	41	50
		GPM	1.3	2.6	4	5.3	6.6	7.9
Grey Nozzle No Antimist	19.0 GPH	# Sprinklers	8	16	25	33	41	50
		GPM	2.6	5.3	7.9	10.6	13.2	15.8
Green Nozzle Green Antimist	10.9 GPH	# Sprinklers	8	16	25	33	41	50
		GPM	1.5	3	4.5	6.1	7.6	9.1
Orange Nozzle Orange Antimist	19.0 GPH	# Sprinklers	8	16	25	33	41	50
		GPM	2.6	5.3	7.9	10.6	13.2	15.8
Yellow Nozzle Yellow Antimist	24.4 GPH	# Sprinklers	8	16	25	33	41	50
		GPM	3.4	6.8	10.2	13.6	16.9	20.3
Blue Nozzle Blue Antimist	32.6 GPH	# Sprinklers	8	16	25	33	41	50
		GPM	4.5	9.1	13.6	18.1	22.6	27.2

Hose Selection Legend
Low Density Polyethylene
16mm Hose
1/2" Hose .600/.620 ID
3/4" Hose
1" Hose
Feed From Center

The table is calculated on a maximum of +/- 5% flow variation. It is possible to achieve higher uniformities by either shortening the sprinkler lines or using the next larger size.

PVC PIPE SIZING TABLE

1. Find the appropriate nozzle color on the left side of the table.
2. Determine the bench length or a specific section length that you intend to irrigate.
3. The color-coded shaded area will indicate the appropriate hose size.

Feed the pipe from the center if you want to reduce the required pipe size or the length is longer than recommended.

Nozzle and Antimist Color	Average Sprinkler Flow		Bench Length 25'	50'	75'	100'	125'	150'
Violet Nozzle No Antimist	9.5 GPH	# Sprinklers	8	16	25	33	41	50
		GPM	1.3	2.6	4	5.3	6.6	7.9
Grey Nozzle No Antimist	19.0 GPH	# Sprinklers	8	16	25	33	41	50
		GPM	2.6	5.3	7.9	10.6	13.2	15.8
Green Nozzle Green Antimist	10.9 GPH	# Sprinklers	8	16	25	33	41	50
		GPM	1.5	3	4.5	6.1	7.6	9.1
Orange Nozzle Orange Antimist	19.0 GPH	# Sprinklers	8	16	25	33	41	50
		GPM	2.6	5.3	7.9	10.6	13.2	15.8
Yellow Nozzle Yellow Antimist	24.4 GPH	# Sprinklers	8	16	25	33	41	50
		GPM	3.4	6.8	10.2	13.6	16.9	20.3
Blue Nozzle Blue Antimist	32.6 GPH	# Sprinklers	8	16	25	33	41	50
		GPM	4.5	9.1	13.6	18.1	22.6	27.2

Pipe Selection Legend
Schedule 80 PVC Pipe
1/2" Pipe
3/4" Pipe
1" Pipe
1 1/4" Pipe
1 1/2" Pipe

The table is calculated on a maximum of +/- 5% flow variation. It is possible to achieve higher uniformities by either shortening the sprinkler lines or using the next larger size.

THE USE OF FOGGERS FOR CHEMICAL APPLICATIONS

The spraying of pesticides in greenhouses constitutes a potential health risk for anyone entering the structure. The fogger can provide a solution to a variety of chemical applications as well as the crucial issues of climate control. This concept was developed by *NaanDan* in Israel and is becoming widely accepted by growers worldwide.

The distribution of pesticides is precise and uniform. This allows effective application to all crops regardless of their size. This method can provide significant cost savings by reducing labor and the amounts of chemicals used with better results than traditional means of application.

SYSTEM BASICS

The system is fundamentally a climate control system

- Water source capable of delivering the required volume at a pressure of 60 PSI.
- Chemical/Fertililizer injection system.
- A supply of compressed air equal in volume and pressure to the water supply is a recommended option for chemical applications.

INSTALLATION

- The system should be designed for maximum uniformity
- Use T configuration with 2 - 1.8 GPH foggers or super foggers
- The 2-way fogger uniformly covers an area of 50 to 54 square feet
- The height above the crop should not be less then 3.3 feet
- Distance between lines up to 9.5 feet
- Distance between foggers on the line up to 5.5 feet
- The foggers should be installed perpendicular to the lateral
- Use anti-twist flexible PCV vinyl tube

OPERATION

Before and after each application the system must be flushed with compressed air, or water, if compressed air is not available. Similar, appropriate care, when handling chemicals, as used with other systems is required when using foggers for chemical applications.

DETERMINING THE SIZE OF THE AIR COMPRESSOR

The volume of compressed air required to flush the system is a function of the water volume measured from the injection point to the furthest emission point. This relates to the internal diameter of the laterals, and/or submains and/or mainlines and their associated lengths. Fourteen (14) gallons of compressed air at 140 – 150 PSI are necessary for proper flushing of each gallon of water from the system. At this pressure, air is compressed to 1/10th of its volume. The capacity of the air tank should be selected as a function of the volume of water to be flushed. The following formula will help determine the capacity, in gallons, of a 10-foot length of pipe. $3.14 \times (ID/2)^2 \times (120/231)$ where ID = the inside diameter of the pipe or tube in inches.

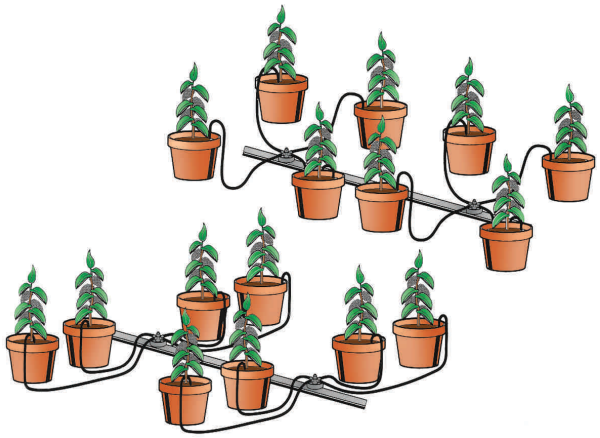
The typical application is of short duration depending upon the amount and concentration of the chemical used. The chemical may be injected into the water by means of any suitable chemical injection system. Most growers treat the crops at night so that by morning the area is safe for workers.

NAANDAN
Irrigation Systems

MULTI-OUTLET DRIPPER ASSEMBLIES

PRESSURE COMPENSATING DRIP SYSTEMS FOR POTS

BENCH POTS



- Uniform Water Distribution
- Clog Resistant
- Non-Leaking
- Economical
- Versatile
- Durable
- Low Maintenance Costs
- Fast Payback

POLY SIZING TABLE FOR 4-WAY OUTLET EMITTERS

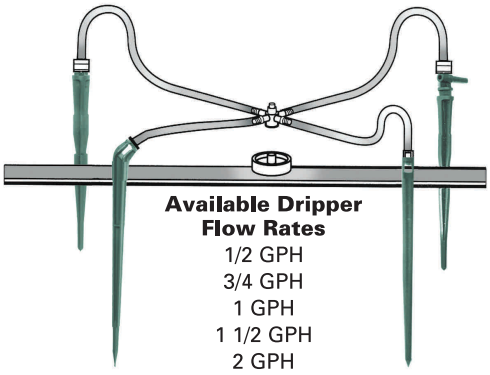
Dripper spacing	Length of Hose(feet)							
	50'	100'	150'	200'	250'	300'	350'	400'
6"	16mm	1/2"	3/4"		1"			
12"				1/2"		3/4"		1"
18"		16mm		600x700				
24"		520x620			or			3/4"
30"				16mm		600x710		
36"				520x630				

Assumes 35 PSI inlet pressure, 10 PSI at last emitter
Above table based on an emitter flow rate of 2 gph

4-WAY OUTLET

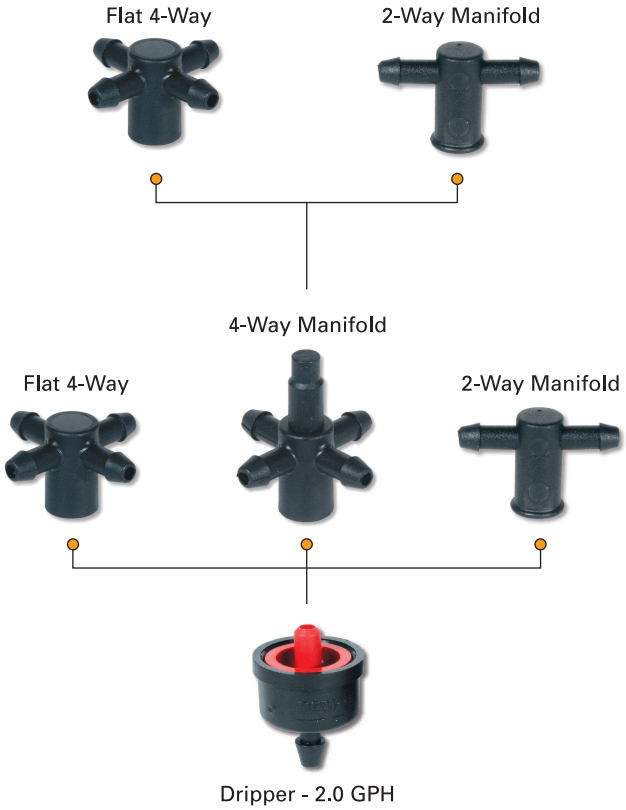
3" Straight Arrow Dripper without Shut-off

3" Straight Arrow Dripper with Shut-off



5" Angle Arrow Dripper

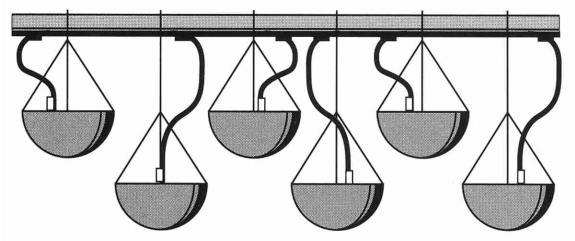
5" Straight Arrow Dripper



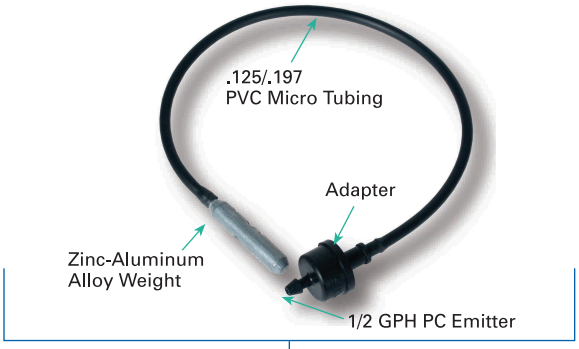
DRIPPER ASSEMBLIES

WEIGHTED ASSEMBLIES

Pressure Compensating with Anti-leak and Shut-off feature. Standard with 1/2 GPH PC emitter and flexible vinyl tubing.



- Multi-Tier Uniformity
- Built-In Check Valve
- Secure Attachment



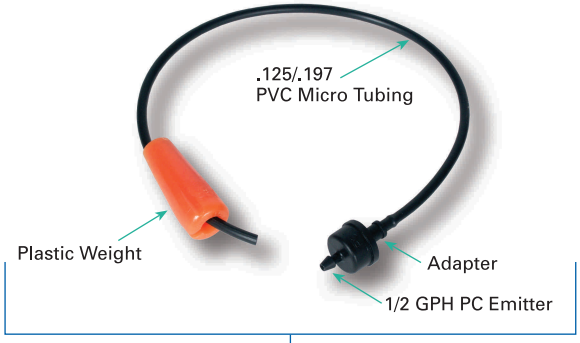
METAL WEIGHT ASSEMBLY

CAPILLARY TUBE MANIFOLD ASSEMBLIES

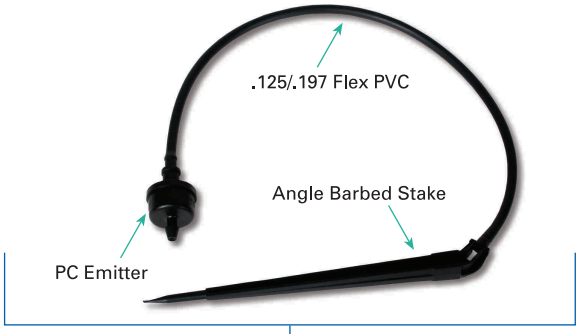
Modernize existing capillary tube assemblies by combining them with either 2-way or 4-way Pressure Compensating Manifold assemblies.

POLY SIZING TABLE FOR HANGING BASKETS

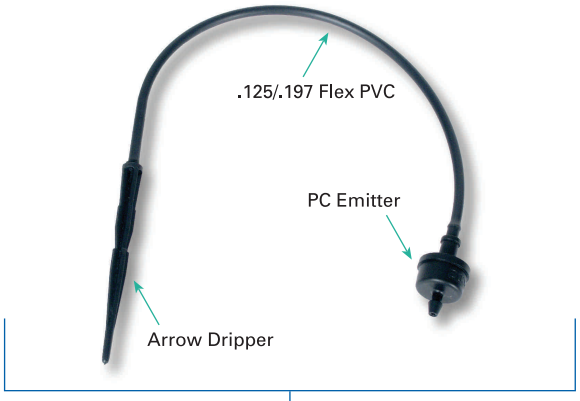
Dripper spacing	Length of Hose(feet)					
	50’	100’	150’	200’	250’	300’
6”	16mm			1/2” 600x700		
12”					or 620x710	
18”	16mm					
24”	520x620			16mm		
30”				520x630		
36”						



PLASTIC WEIGHT ASSEMBLY



PC ANGLED BARBED STAKE ASSEMBLY



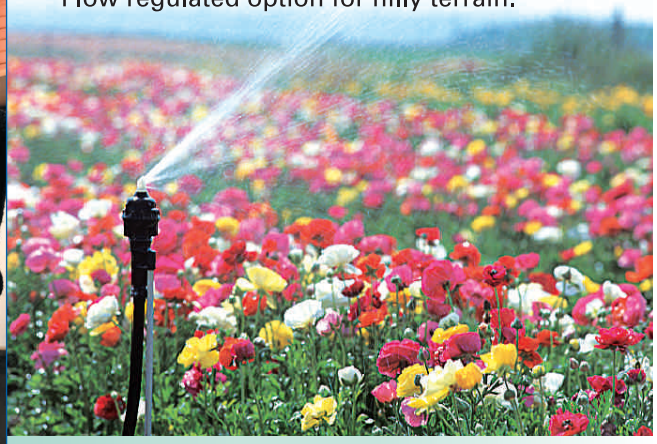
ARROW DRIPPER ASSEMBLY

NURSERIES

DESIGNED FOR CONTAINER IRRIGATION

DAN REVOLVER

Alternative to impact sprinklers.
No external moving parts.
Flow regulated option for hilly terrain.



NAAN 501 • 502 • 501-U • 502-H

Excellent water distribution uniformity; over 90% cu. Low precipitation rates with small droplet size.

NAAN 5022

1/2″ Full circle plastic sprinkler with color-coded bayonet constructed nozzles. High impact heavy-duty plastic materials and dependable sand and dust protection ensures reliable operation and long life.

NAAN 5035

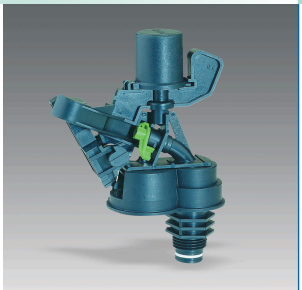
3/4″ Male plastic sprinkler with color-coded bayonet nozzles. Excellent water distribution uniformity even at low pressure operation.

NAAN 429-AG

1/2″ Full and part plastic sprinkler. Dependable all purpose sprinkler for greenhouse and nursery market. Easy fingertip adjustment.

MAESTRO - The Wind Warrior

1/2″ full circle plastic sprinkler designed to provide better uniformity under windy conditions. Spacing up to 50 x 50 feet.



NAAN 423 • 421

1/2″ Part and full circle metal sprinklers. Sturdy metal construction with dependable sand and dust protection. General nursery, greenhouse and field use.

1/2" SPECIALTY SPRINKLERS

NAAN 501 • 502 • 501-U • 502-H

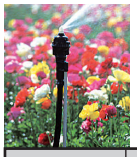
Excellent water distribution uniformity; over 90% cu.
Low precipitation rates with small droplet size.

501/502	Pressure (PSI)	Flow Rate (GPH)	Diameter (Feet)	13 x 13		13 x 20		20 x 20		20 x 26		26 x 26	
				Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%
.062" Red	25	47.0	34.0	0.27	83.5%	0.17	81.4%	0.11	76.7%	0.09	63.7%	0.067	58.3%
	30	52.0	36.0	0.30	86.5%	0.19	81.7%	0.13	84.9%	0.10	69.4%	0.07	69.4%
	35	57.0	36.0	0.32	88.1%	0.21	83.7%	0.14	87.7%	0.11	75.2%	0.08	72.3%
	40	61.0	37.5	0.35	90.0%	0.23	85.5%	0.15	88.0%	0.11	77.0%	0.09	75.0%
.072" Green	25	65.0	34.5	0.37	88.3%	0.24	83.5%	0.16	84.5%	0.12	68.8%	0.09	66.7%
	30	72.0	37.5	0.41	87.0%	0.27	84.3%	0.17	85.0%	0.13	78.4%	0.10	75.8%
	35	78.0	38.0	0.44	91.1%	0.29	85.0%	0.19	84.9%	0.14	81.9%	0.11	77.7%
	40	83.0	39.5	0.47	92.0%	0.31	88.0%	0.20	87.0%	0.15	83.0%	0.12	80.0%
.079" Blue	25	79.0	34.5	0.45	88.0%	0.29	79.3%	0.19	79.1%	0.15	69.8%	0.11	72.3%
	30	87.0	37.5	0.50	87.8%	0.32	79.4%	0.21	82.0%	0.16	77.8%	0.12	70.1%
	35	94.0	38.0	0.54	88.7%	0.35	83.3%	0.23	81.7%	0.17	83.0%	0.13	74.6%
	40	100.0	39.5	0.57	89.0%	0.37	84.5%	0.24	82.0%	0.19	85.0%	0.14	77.0%
.087" Yellow	25	89.0	36.0	0.51	88.4%	0.33	78.7%	0.21	79.1%	0.16	73.8%	0.13	70.4%
	30	98.0	42.5	0.56	84.6%	0.36	81.4%	0.24	77.6%	0.18	80.3%	0.14	67.9%
	35	106.0	46.0	0.60	90.4%	0.39	88.0%	0.26	80.9%	0.20	82.9%	0.15	75.6%
	40	112.0	47.5	0.64	92.0%	0.41	88.3%	0.27	82.0%	0.21	84.5%	0.16	80.0%

502 - H	Pressure (PSI)	Flow Rate (GPH)	Diameter (Feet)	26' x 26'		26' x 29'		29' x 29'		29' x 32'		32' x 32'	
				Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%
.098" Red	25	63.0	47	0.140	88.0%	0.130	88.1%	0.120	85.2%	0.110	80.3%	0.10	76.9%
	30	71.0	49	0.140	85.1%	0.150	87.1%	0.140	88.0%	0.120	85.7%	0.11	82.4%
	35	76.0	50	0.140	85.1%	0.160	85.6%	0.150	86.0%	0.130	87.9%	0.12	87.9%
	40	82.0	52	0.140	85.5%	0.170	860%	0.160	86.2%	0.140	88.0%	0.13	88.0%
	45	86.0	54	0.140	85.8%	0.180	85.1%	0.160	85.7%	0.150	88.2%	0.14	89.3%
	50	91.0	56	0.140	89.7%	0.190	87.6%	0.170	86.9%	0.160	88.4%	0.14	90.2%

501 - U	Pressure (PSI)	Flow Rate (GPH)	Diameter (Feet)	20' x 20'		20' x 23'		20' x 26'		23' x 23'		23' x 26'		26' x 26'		26' x 29'	
				Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%
.062" Red	25	29.0	39.3	0.11	86.3%	0.100	86.5%	0.090	78.4%	0.080	82.5%	0.070	76.7%	0.070	75.1%	0.060	71.3%
	30	32.0	39.3	0.13	86.8%	0.111	87.9%	0.100	88.0%	0.090	90.4%	0.080	87.4%	0.070	81.8%	0.070	76.9%
	35	34.0	39.3	0.14	84.4%	0.120	85.6%	0.110	85.7%	0.100	87.6%	0.080	87.7%	0.080	85.3%	0.070	78.5%
	40	37.0	39.3	0.15	86.0%	0.130	86.5%	0.110	87.5%	0.110	88.0%	0.100	89.0%	0.090	86.5%	0.080	83.0%
	45	39.0	39.3	0.16	87.9%	0.140	87.4%	0.120	89.0%	0.120	89.0%	0.110	90.4%	0.100	89.4%	0.090	85.6%
	50	41.0	40.0	0.17	89.1%	0.150	89.0%	0.120	90.8%	0.130	90.2%	0.110	91.1%	0.100	90.2%	0.090	86.5%
.072" Green	25	40.0	40.0	0.17	88.1%	0.150	87.3%	0.130	88.9%	0.130	87.8%	0.110	86.7%	0.100	85.9%	0.090	84.0%
	30	43.0	42.5	0.18	87.4%	0.160	89.6%	0.140	89.4%	0.140	89.8%	0.120	88.0%	0.110	85.3%	0.100	82.5%
	35	47.0	44.0	0.20	87.2%	0.180	87.5%	0.160	90.1%	0.150	88.8%	0.140	88.0%	0.120	87.5%	0.110	83.7%
	40	50.0	44.5	0.22	88.0%	0.190	88.5%	0.170	91.0%	0.160	89.5%	0.140	90.0%	0.130	89.0%	0.110	83.8%
	45	54.0	45.9	0.23	89.8%	0.200	90.0%	0.180	91.6%	0.170	90.6%	0.150	91.5%	0.140	91.6%	0.120	87.0%
	50	56.0	45.9	0.24	90.9%	0.210	92.0%	0.190	91.8%	0.180	90.6%	0.160	92.5%	0.140	90.8%	0.130	85.5%
.079" Blue	25	49.0	40.0	0.18	81.8%	0.160	81.6%	0.140	84.1%	0.140	82.2%	0.120	80.0%	0.110	77.0%	0.100	75.1%
	30	53.0	42.6	0.20	84.7%	0.170	83.0%	0.150	84.3%	0.150	83.6%	0.130	84.6%	0.120	81.6%	0.100	80.2%
	35	57.0	42.6	0.21	88.9%	0.180	86.4%	0.160	87.7%	0.160	85.7%	0.140	87.4%	0.120	86.4%	0.110	86.5%
	40	61.0	42.6	0.23	89.5%	0.200	87.5%	0.170	88.5%	0.170	86.5%	0.150	88.0%	0.130	86.8%	0.120	86.5%
	45	64.0	45.9	0.24	89.9%	0.210	88.4%	0.180	89.7%	0.180	87.3%	0.160	88.0%	0.140	87.3%	0.130	87.6%
	50	67.0	45.9	0.25	88.8%	0.220	87.2%	0.190	89.3%	0.190	86.2%	0.170	86.4%	0.150	86.4%	0.130	86.2%
.087" Yellow	25	54.0	44.5	0.19	80.9%	0.170	79.9%	0.150	82.8%	0.150	81.7%	0.170	81.0%	0.110	75.4%	0.100	70.8%
	30	60.0	49.0	0.20	86.4%	0.170	83.4%	0.150	82.6%	0.150	82.6%	0.130	84.4%	0.120	85.6%	0.110	82.5%
	35	64.0	49.2	0.22	93.5%	0.190	87.6%	0.170	84.7%	0.160	84.5%	0.140	84.0%	0.130	84.1%	0.110	86.4%
	40	68.0	49.5	0.23	93.8%	0.200	89.0%	0.180	86.5%	0.180	86.0%	0.160	85.0%	0.140	85.0%	0.120	87.0%
	45	73.0	50.4	0.25	94.3%	0.220	91.1%	0.190	87.5%	0.190	87.1%	0.170	86.1%	0.150	85.6%	0.130	88.1%
	50	76.0	50.4	0.26	95.8%	0.230	91.9%	0.200	90.4%	0.200	88.6%	0.180	88.9%	0.160	89.4%	0.140	91.4%

The shaded areas are not recommended for ideal irrigation



DAN REVOLVER

Alternative to impact sprinklers. No external moving parts.
Flow regulated option for hilly terrain.

Revolver	Pressure (PSI)	Flow Rate (GPM)	Diameter (Feet)	30' x 30'		30' x 36'		30' x 39'		36' x 36'		36' x 39'		39' x 39'	
				Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%
Blue 3/32"	35	1.5	60	0.17	83.0%	0.13	82.0%	0.14	82.0%	0.12	84.0%	0.12	84.0%	0.10	83.0%
	40	1.6													
	45	1.7													
	50	1.8													
Orange 7/64"	35	2.0	60	0.24	85.0%	0.20	88.0%	0.19	88.0%	0.18	89.0%	0.16	88.0%	0.14	86.0%
	40	2.1													
	45	2.3													
	50	2.4													
Red 1/8"	35	3.0	60	0.33	85.0%	0.28	85.0%	0.26	87.0%	0.23	89.0%	0.21	87.0%	0.20	86.0%
	40	3.2													
	45	3.4													
	50	3.6													

NAANDAN
Irrigation Systems

FULL AND PART CIRCLE 1/2" METAL SPRINKLER

NAAN 423 • 421

1/2" Part and full circle metal sprinklers. Sturdy metal construction with dependable sand and dust protection. General nursery, greenhouse and field use.

423 AG	Pressure (PSI)	Flow Rate (GPM)	Diameter (Feet)	30' x 30'		30' x 35'		30' x 40'		35' x 35'		35' x 40'		40' x 40'	
				Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%
1/8" Green	35	2.75	81.0	0.29	86.0%	0.25	89.3%	0.22	84.0%	0.22	91.5%	0.19	81.5%	0.17	76.5%
	40	2.92	83.0	0.31	88.5%	0.27	90.5%	0.23	86.0%	0.23	93.5%	0.20	83.0%	0.18	79.0%
	50	3.25	83.0	0.35	90.3%	0.30	91.8%	0.26	95.4%	0.26	92.7%	0.22	84.0%	0.20	78.5%
	60	3.60	85.5	0.39	93.9%	0.33	93.6%	0.29	85.7%	0.28	93.0%	0.25	84.4%	0.22	79.7%
9/64" Blue	35	3.30	85.0	0.35	84.0%	0.30	84.4%	0.26	84.7%	0.26	88.5%	0.23	82.5%	0.20	77.8%
	40	3.53	86.0	0.38	88.0%	0.32	89.0%	0.28	86.5%	0.28	92.5%	0.24	86.3%	0.21	82.0%
	50	3.65	86.5	0.39	93.8%	0.33	93.5%	0.29	87.7%	0.29	94.2%	0.25	86.7%	0.22	81.1%
	60	4.10	87.0	0.44	95.9%	0.38	94.2%	0.33	87.0%	0.32	92.7%	0.28	85.6%	0.25	81.7%
5/32" Black	35	3.79	86.0	0.41	89.5%	0.35	89.1%	0.30	87.6%	0.30	91.0%	0.26	88.5%	0.23	82.4%
	40	4.20	88.0	0.45	91.0%	0.39	90.0%	0.34	88.5%	0.33	92.0%	0.29	88.8%	0.25	83.0%
	50	4.40	89.8	0.47	94.6%	0.40	93.4%	0.35	89.8%	0.35	93.7%	0.30	90.4%	0.26	85.0%
	60	5.10	90.0	0.55	95.4%	0.47	94.8%	0.41	89.6%	0.40	95.4%	0.35	89.5%	0.31	84.5%

The shaded areas are not recommended for ideal irrigation

FULL AND PART CIRCLE 1/2" PLASTIC SPRINKLER

NAAN 429-AG

1/2" Full and part circle plastic sprinkler. Dependable all purpose sprinkler for greenhouse and nursery market. Easy fingertip adjustment.

429 AG	Pressure (PSI)	Flow Rate (GPM)	Diameter (Feet)	30' x 30'		30' x 35'		30' x 40'		35' x 35'		35' x 40'		40' x 40'	
				Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%
7/64" Orange	30	2.0	74	0.21	78.8%	0.18	83.6%	0.16	80.9%	0.16	84.3%	0.14	76.5%	0.12	73.5%
	35	2.2	75	0.23	80.7%	0.20	86.1%	0.17	83.4%	0.17	87.4%	0.15	79.9%	0.13	76.6%
	40	2.4	76	0.26	87.2%	0.22	90.4%	0.19	84.5*%	0.19	87.4%	0.17	82.2%	0.14	80.2%
	50	2.6	76	0.28	91.4%	0.24	91.1%	0.21	85.3%	0.20	86.3%	0.18	83.0%	0.16	82.0%
	60	2.8	76	0.30	95.6%	0.26	90.3%	0.22	86.8%	0.22	85.8%	0.19	84.3%	0.17	83.8%
.188" Red	30	2.3	75	0.24	82.8%	0.21	86.5%	0.18	82.5%	0.18	86.0%	0.15	80.2%	0.14	78.0%
	35	2.2	76	0.24	83.5%	0.20	87.8%	0.18	85.4%	0.17	89.4%	0.15	82.8%	0.13	80.0%
	40	2.6	77	0.27	88.7%	0.23	91.6%	0.20	86.7%	0.20	90.0%	0.18	84.7%	0.15	82.0%
	50	3.0	79	0.32	92.9%	0.27	93.2%	0.24	88.9%	0.23	90.5%	0.20	86.4%	0.18	84.3%
	60	3.2	79	0.34	94.9%	0.29	93.5%	0.26	89.5%	0.25	90.3%	0.22	87.0%	0.19	85.0%
1/8" Green	30	2.5	77	0.27	78.9%	0.23	84.2%	0.20	84.4%	0.20	89.7%	0.17	81.8%	0.15	78.1%
	35	2.8	78	0.29	83.4%	0.25	87.5%	0.22	87.1%	0.22	92.1%	0.19	84.8*%	0.17	82.0%
	40	3.0	81	0.32	87.8%	0.28	90.7%	0.24	88.0%	0.24	92.0%	0.21	86.3%	0.18	82.8%
	50	3.3	82	0.35	91.5%	0.30	92.8%	0.26	88.9%	0.26	92.7%	0.23	87.9%	0.20	84.1%
	60	3.6	83	0.39	94.2%	0.33	94.4%	0.29	90.4%	0.28	93.5%	0.25	88.9%	0.22	85.3%
9/64" Blue	30	3.0	78	0.32	77.1%	0.27	82.9%	0.24	82.7%	0.23	87.5%	0.20	81.5%	0.18	77.2%
	35	3.2	79	0.34	83.1%	0.29	87.1%	0.26	86.2%	0.25	90.9%	0.22	83.3%	0.19	81.2%
	40	3.5	81	0.37	88.2%	0.32	90.8%	0.28	89.5%	0.28	93.8%	0.24	87.9%	0.21	84.2%
	50	3.8	83	0.41	90.8%	0.35	92.6%	0.30	89.8%	0.30	94.1%	0.26	89.0%	0.23	84.2%
	60	4.1	84	0.44	93.1%	0.38	94.0%	0.33	89.8%	0.32	93.5%	0.28	89.0%	0.25	84.7%
5/32" Black	30	3.8	80	0.40	78.3%	0.34	82.2%	0.30	83.1%	0.29	86.8%	0.26	82.6%	0.23	78.7%
	35	4.1	81	0.44	82.9%	0.38	84.9%	0.33	86.1%	0.32	89.8%	0.28	87.7%	0.25	83.0%
	40	4.5	84	0.48	88.1%	0.41	89.5%	0.36	89.6%	0.35	92.7%	0.31	90.1%	0.27	85.3%
	50	4.9	86	0.52	90.5%	0.45	91.7%	0.39	90.5%	0.39	93.9%	0.34	90.2%	0.29	85.9%
	60	5.2	89	0.56	93.5%	0.48	93.8%	0.42	92.4%	0.41	95.3%	0.36	92.8%	0.31	89.2%

The shaded areas are not recommended for ideal irrigation

1/2" FULL CIRCLE SPRINKLER

MAESTRO - The Wind Warrior

1/2" full circle plastic sprinkler designed to provide better uniformity under windy conditions. Spacing up to 50 x 50 feet.

MAESTRO	Pressure (PSI)	Flow Rate (GPM)	Diameter (Feet)	35' x 35'		35' x 40'		40' x 40'		40' x 45'		40' x 50'		45' x 45'		50' x 50'	
				Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%
.113" Red	35	2.40	74	0.19	90.8%	0.17	82.9%	0.14	88.2%	0.13	90.3%	0.12	90.3%	0.11	92.0%	0.09	90.4%
	40	2.60	76	0.20	91.6%	0.18	90.3%	0.16	89.9%	0.14	90.8%	0.13	90.4%	0.12	91.1%	0.10	90.0%
	50	2.80	78	0.22	92.0%	0.19	91.2%	0.17	91.0%	0.15	92.1%	0.13	91.3%	0.13	92.8%	0.11	90.5%
	60	3.10	78	0.24	91.4%	0.21	91.2%	0.19	91.6%	0.17	92.4%	0.15	91.5%	0.15	93.2%	0.12	89.4%
1/8" Green	35	2.70	75	0.21	91.0%	0.19	88.5%	0.16	86.7%	0.14	88.1%	0.13	89.6%	0.13	90.3%	0.10	90.6%
	40	2.90	78	0.23	93.3%	0.20	92.1%	0.17	91.2%	0.16	91.9%	0.14	91.2%	0.14	91.7%	0.11	90.9%
	50	3.20	78	0.25	92.9%	0.22	91.6%	0.19	91.1%	0.17	91.7%	0.15	91.1%	0.15	92.3%	0.12	90.5%
	60	3.50	78	0.28	92.6%	0.24	92.4%	0.21	91.5%	0.19	91.9%	0.17	91.3%	0.17	91.5%	0.13	89.9%
9/64" Blue	35	3.25	76	0.26	92.0%	0.22	89.6%	0.20	89.0%	0.17	88.6%	0.16	89.8%	0.15	89.3%	0.13	89.4%
	40	3.45	78.7	0.27	93.4%	0.24	92.2%	0.21	91.2%	0.18	92.1%	0.17	91.4%	0.16	91.6%	0.13	91.1%
	50	3.85	85	0.30	94.5%	0.26	93.6%	0.23	92.3%	0.21	93.7%	0.19	93.5%	0.18	93.7%	0.15	92.1%
	60	4.20	85	0.33	93.6%	0.29	93.2%	0.25	92.5%	0.22	93.4%	0.20	92.7%	0.20	93.4%	0.16	90.6%

The shaded areas are not recommended for ideal irrigation

(continued)

1/2" FULL CIRCLE SPRINKLER

(continued)

NAAN 5022

1/2" Full circle plastic sprinkler with color-coded bayonet constructed nozzles. High impact heavy-duty plastic materials and dependable sand and dust protection ensures reliable operation and long life.

5022 - S	Pressure (PSI)	Flow Rate (GPM)	Diameter (Feet)	30' x 30'		30' x 40'		30' x 50'		40' x 40'		40' x 50'	
				Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%
3/32" Purple	30	1.6	70	0.17	85.0%	0.13	71.5%	0.10	68.0%	0.08	71.0%	0.08	74.0%
	40	1.8	71	0.19	91.0%	0.14	77.0%	0.11	75.0%	0.09	74.5%	0.09	75.5%
	50	2.0	3	0.21	91.0%	0.16	80.0%	0.12	80.5%	0.10	77.5%	0.10	76.0%
	60	2.2	73	0.24	90.2%	0.18	81.8%	0.13	88.3%	0.11	83.1%	0.11	79.8%
7/64" Orange	30	2.0	71	0.21	87.0%	0.16	75.0%	0.13	70.0%	0.12	73.0%	0.10	77.0%
	40	2.3	74	0.25	93.0%	0.19	80.0%	0.15	81.0%	0.14	78.0%	0.11	82.0%
	50	2.6	78	0.27	92.0%	0.21	84.0%	0.16	89.0%	0.15	83.0%	0.12	83.0%
	60	2.8	79	0.32	94.0%	0.24	86.0%	0.19	92.0%	0.18	84.0%	0.14	86.0%
118" Red	30	2.3	75	0.25	86.0%	0.18	78.0%	0.15	71.0%	0.14	74.0%	0.11	80.0%
	40	2.6	78	0.28	90.0%	0.21	82.0%	0.17	78.0%	0.16	78.0%	0.13	83.0%
	50	3.0	80	0.31	95.0%	0.23	85.0%	0.19	86.0%	0.17	81.0%	0.14	85.0%
	60	3.3	82	0.34	96.5%	0.26	85.1%	0.21	88.7%	0.19	81.4%	0.15	83.8%
1/8" Green	30	2.6	75	0.28	87.0%	0.21	79.0%	0.17	73.0%	0.13	74.0%	0.13	80.0%
	40	3.0	77	0.32	90.0%	0.24	84.0%	0.19	80.0%	0.14	79.0%	0.14	84.0%
	50	3.3	81	0.35	95.0%	0.26	86.0%	0.21	85.0%	0.16	82.0%	0.16	85.0%
	60	3.6	83	0.40	96.0%	0.30	89.0%	0.24	92.0%	0.18	86.0%	0.18	89.0%
9/64" Blue	30	3.0	76	0.32	85.0%	0.24	81.0%	0.19	73.0%	0.14	75.0%	0.14	79.0%
	40	3.4	79	0.36	90.0%	0.27	84.0%	0.22	79.0%	0.16	79.0%	0.16	82.0%
	50	3.8	83	0.41	95.0%	0.30	87.0%	0.24	86.0%	0.18	83.0%	0.18	86.0%
	60	4.2	85	0.44	96.0%	0.33	90.0%	0.27	92.0%	0.20	87.0%	0.20	89.0%
5/32" Black	30	3.8	78	0.41	84.0%	0.30	83.0%	0.24	75.0%	0.18	77.0%	0.18	77.0%
	40	4.4	82	0.47	90.0%	0.35	89.0%	0.28	83.0%	0.21	83.0%	0.21	82.0%
	50	4.9	84	0.52	93.0%	0.39	90.0%	0.31	87.0%	0.24	85.0%	0.24	86.0%
	60	5.3	86	0.57	96.0%	0.43	91.0%	0.34	93.0%	0.26	89.0%	0.26	91.0%

S = Single Nozzle
The shaded areas are not recommended for ideal irrigation

5022 - D	Pressure (PSI)	Flow Rate (GPM)	Diameter (Feet)	35' x 35'		35' x 40'		40' x 40'		40' x 45'		45' x 45'		45' x 50'	
				Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%
3/32" x 3/32" Purple	30	1.6	71	0.170	85.1%	0.150	85.4%	0.130	85.6%	0.120	88.2%	0.110	85.7%	0.090	81.3%
	40	1.8	72	0.200	85.5%	0.180	87.0%	0.150	87.0%	0.140	88.5%	0.120	88.0%	0.110	83.0%
	50	2.0	73	0.220	86.0%	0.200	87.1%	0.170	88.5%	0.150	88.7%	0.140	85.4%	0.120	81.4%
	60	2.2	73	0.240	87.9%	0.210	89.4%	0.180	90.8%	0.160	87.6%	0.150	84.4%	0.130	80.5%
7/64" x 3/32" Orange	30	2.0	71	0.220	88.0%	0.190	83.1%	0.170	81.3%	0.150	83.3%	0.130	86.2%	0.120	86.1%
	40	2.3	73	0.250	90.8%	0.220	88.5%	0.190	87.7%	0.170	90.0%	0.150	92.3%	0.140	91.3%
	50	2.6	75	0.280	90.6%	0.250	88.9%	0.220	88.9%	0.190	90.7%	0.170	92.8%	0.150	90.9%
	60	2.8	76	0.300	91.9%	0.260	91.2%	0.230	90.9%	0.210	91.8%	0.180	92.6%	0.160	89.5%
.118" x 3/32" Red	30	2.3	73	0.240	85.7%	0.210	82.4%	0.180	81.9%	0.160	85.1%	0.150	85.6%	0.130	83.6%
	40	2.6	76	0.280	92.8%	0.240	90.2%	0.210	88.5%	0.190	90.5%	0.170	93.0%	0.150	92.3%
	50	3.0	79	0.310	93.0%	0.270	90.6%	0.240	89.0%	0.210	90.7%	0.190	93.0%	0.170	92.2%
	60	3.3	81	0.340	94.1%	0.300	92.6%	0.260	91.4%	0.230	92.1%	0.200	93.3%	0.180	91.2%
1/8" x 3/32" Green	30	2.6	74	0.260	89.8%	0.230	85.5%	0.200	82.9%	0.180	84.9%	0.160	87.0%	0.140	87.5%
	40	3.0	77	0.290	88.1%	0.250	90.3%	0.220	87.9%	0.200	88.7%	0.180	91.4%	0.160	91.9%
	50	3.3	81	0.340	90.0%	0.300	91.9%	0.260	89.9%	0.230	91.6%	0.200	93.6%	0.180	93.5%
	60	3.6	82	0.360	89.3%	0.320	92.2%	0.280	91.0%	0.250	92.5%	0.220	94.9%	0.200	93.6%
9/64" x 3/32" Blue	30	3.0	75	0.330	83.8%	0.290	82.8%	0.250	81.1%	0.220	82.3%	0.200	80.0%	0.180	80.8%
	40	3.4	78	0.380	88.1%	0.330	87.5%	0.290	87.1%	0.260	88.1%	0.230	87.0%	0.210	86.4%
	50	3.8	82	0.420	90.0%	0.370	90.4%	0.330	91.0%	0.290	90.0%	0.260	84.5%	0.230	85.5%
	60	4.2	83	0.470	89.3%	0.410	89.8%	0.360	90.2%	0.320	88.6%	0.290	85.9%	0.260	84.2%
5/32" x 3/32" Black	30	3.8	78	0.390	85.5%	0.340	84.7%	0.300	82.5%	0.260	82.5%	0.240	80.2%	0.210	80.5%
	40	4.4	81	0.460	92.8%	0.400	91.1%	0.350	90.4%	0.310	89.9%	0.280	88.9%	0.250	87.9%
	50	4.9	83	0.510	93.2%	0.450	93.0%	0.390	92.8%	0.350	90.5%	0.310	89.5%	0.280	88.0%
	60	5.3	85	0.550	91.8%	0.480	92.5%	0.420	92.4%	0.370	91.3%	0.330	89.2%	0.300	87.3%

D = Dual Nozzle
The shaded areas are not recommended for ideal irrigation

NAANDAN
Irrigation Systems

3/4" FULL CIRCLE PLASTIC SPRINKLER

NAAN 5035

3/4" Male plastic sprinkler with color-coded bayonet nozzles.
Excellent water distribution uniformity even at low pressure operation.

5035 - S*	Pressure (PSI)	Flow Rate (GPM)	Diameter (Feet)	40' x 40'		40' x 50'		40' x 60'		50' x 65'		60' x 60'	
				Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	8	CU%
9/64" Blue	40	3.5	81	0.210	83.8%	0.170	70.0%	0.140	62.9%	0.100	69.9%	0.090	65.4%
	50	3.9	87	0.230	84.0%	0.190	74.0%	0.160	70.0%	0.110	75.0%	0.100	70.0%
	60	4.2	89	0.250	89.8%	0.200	77.6%	0.170	74.3%	0.130	80.1%	0.110	71.6%
	70	4.6	91	0.270	89.0%	0.220	86.0%	0.180	85.0%	0.130	82.0%	0.120	75.5%
5/32" Black	30	3.9	82	0.230	77.4%	0.190	60.1%	0.160	61.5%	0.110	57.8%	0.100	48.9%
	40	4.5	90	0.270	35.8%	0.220	72.0%	0.180	69.6%	0.130	71.0%	0.120	62.2%
	50	5.0	93	0.300	86.0%	0.240	74.0%	0.200	72.0%	0.150	72.0%	0.130	63.0%
	60	5.5	95	0.330	87.0%	0.260	77.4%	0.220	76.5%	0.160	75.0%	0.150	66.1%
	70	5.9	97	0.360	87.5%	0.280	78.0%	0.240	77.0%	0.180	75.0%	0.160	67.0%
11/64" Brown	30	4.6	86	0.280	80.8%	0.220	64.2%	0.180	64.0%	0.140	62.6%	0.120	52.1%
	40	5.4	90	0.320	88.0%	0.260	75.0%	0.220	72.0%	0.160	73.0%	0.140	64.5%
	50	6.1	95	0.370	90.0%	0.290	77.0%	0.240	75.0%	0.180	74.0%	0.160	67.0%
	60	6.7	99	0.400	90.4%	0.320	80.1%	0.270	78.4%	0.200	76.4%	0.180	69.4%
	70	7.3	105	0.440	92.0%	0.350	80.0%	0.290	82.0%	0.220	80.0%	0.200	75.0%
13/64" Purple	30	5.9	87	0.350	84.3%	0.280	68.2%	0.230	65.8%	0.170	67.6%	0.160	57.3%
	40	6.8	90	0.410	90.0%	0.330	80.0%	0.270	74.0%	0.200	75.0%	0.180	69.0%
	50	7.6	103	0.460	82.0%	0.370	81.0%	0.310	78.0%	0.230	77.0%	0.200	70.0%
	60	8.4	108	0.510	95.2%	0.400	83.7%	0.340	80.5%	0.250	79.3%	0.220	74.0%
	70	9.1	111	0.550	93.0%	0.440	83.0%	0.370	82.0%	0.270	80.0%	0.240	75.0%
7/32" Orange	30	7.2	81	0.430	88.6%	0.350	72.1%	0.290	67.4%	0.210	72.9%	0.190	63.0%
	40	8.3	94	0.500	89.0%	0.400	86.0%	0.330	70.0%	0.250	75.0%	0.220	70.5%
	50	9.3	109	0.560	90.5%	0.450	88.0%	0.370	84.0%	0.270	80.0%	0.250	77.0%
	60	10.1	113	0.610	97.3%	0.490	88.4%	0.410	84.1%	0.300	82.9%	0.270	79.7%
	70	10.9	117	0.660	97.5%	0.520	88.0%	0.440	84.7%	0.320	83.0%	0.290	80.0%
15/64" Red	30	8.5	87	0.510	92.3%	0.410	76.5%	0.340	68.5%	0.250	73.7%	0.230	67.9%
	40	9.9	95	0.590	93.0%	0.480	85.0%	0.400	80.0%	0.290	82.0%	0.260	75.0%
	50	11.1	111	0.670	94.0%	0.530	86.0%	0.440	84.5%	0.330	84.0%	0.300	80.0%
	60	12.1	116	0.730	95.8%	0.580	91.4%	0.490	86.7%	0.360	85.0%	0.320	83.7%
	70	13.1	118	0.790	96.0%	0.630	92.0%	0.530	8800.0%	0.390	87.0%	0.350	85.0%

The shaded areas are not recommended for ideal irrigation

5035 - S SINGLE NOZZLE	Pressure (PSI)	Flow Rate (GPM)	Diameter (Feet)	40' x 60'		50' x 60'		60' x 60'		60' x 65'		60' x 70'	
				Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	8	CU%
1/4" Grey	30	10.0	107	0.400	78.0%	0.320	77.0%	0.270	76.0%	0.250	75.0%	0.230	74.0%
	40	11.5	110	0.460	80.0%	0.370	77.0%	0.310	79.1%	0.280	79.0%	0.260	78.6%
	50	12.9	113	0.520	84.5%	0.410	83.0%	0.340	81.0%	0.320	82.0%	0.290	82.0%
	60	14.1	116	0.560	87.0%	0.450	85.0%	0.380	83.0%	0.350	83.0%	0.320	81.0%
	70	15.2	120	0.610	89.0%	0.490	87.0%	0.410	85.0%	0.380	88.0%	0.350	85.0%
9/32" Green	30	11.3	108	0.450	80.0%	0.360	79.0%	0.300	78.0%	0.280	75.0%	0.260	73.0%
	40	13.0	111	0.520	82.0%	0.420	81.0%	0.350	79.0%	0.320	80.0%	0.300	81.0%
	50	14.5	114	0.580	85.4%	0.460	84.0%	0.390	80.0%	0.360	84.0%	0.330	84.0%
	60	15.8	116	0.630	86.0%	0.510	85.5%	0.420	82.4%	0.390	85.0%	0.360	84.7%
	70	17.1	118	0.680	86.6%	0.550	86.0%	0.46	84.5%	0.420	85.0%	0.390	85.5%

S = Single Nozzle
The shaded areas are not recommended for ideal irrigation

(continued)

3/4" FULL CIRCLE PLASTIC SPRINKLER

(continued)

5035 - D*	Pressure (PSI)	Flow Rate (GPM)	Diameter (Feet)	40' x 50'		40' x 60'		60' x 60'		60' x 65'		60' x 70'		70' x 70'	
				Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%	Inches/hr	CU%
9/64" x 3/32" Blue	40	4.9	87	0.230	78%	0.190	81%	0.130	71%	0.120	71%	0.110	71%	0.100	69%
	50	5.4	89.9	0.260	84%	0.220	89%	0.140	81%	0.130	79%	0.120	78%	0.110	75%
	60	5.9	90.2	0.280	86%	0.240	90%	0.160	85%	0.150	82%	0.140	80%	0.120	77%
	70	6.4	95	0.310	88%	0.250	91%	0.170	85%	0.160	82%	0.150	80%	0.120	77%
5/32" x 3/32" Black	30	4.9	83.5	0.240	76%	0.200	82%	0.130	71%	0.120	69%	0.110	69%	0.100	72%
	40	5.8	89.5	0.280	84%	0.230	87%	0.160	82%	0.140	79%	0.130	77%	0.110	79%
	50	6.5	93	0.310	87%	0.260	90%	0.170	87%	0.160	83%	0.150	82%	0.130	79%
	60	7.3	95	0.350	87%	0.290	91%	0.200	87%	0.180	86%	0.170	82%	0.140	79%
	70	7.9	96.5	0.380	88%	0.310	91%	0.210	88%	0.190	86%	0.180	82%	0.150	78%
11/64" x 3/32" Brown	30	5.6	87	0.270	76%	0.220	80%	0.150	72%	0.140	70%	0.130	67%	0.110	72%
	40	6.8	91	0.330	84%	0.270	88%	0.180	83%	0.170	80%	0.160	80%	0.130	79%
	50	7.9	95.5	0.380	86%	0.320	90%	0.210	88%	0.200	84%	0.180	84%	0.160	82%
	60	8.8	98	0.420	88%	0.350	92%	0.240	89%	0.220	88%	0.200	85%	0.170	82%
	70	9.3	100	0.450	90%	0.370	93%	0.250	89%	0.230	86%	0.210	87%	0.180	81%
13/64" x 3/32" Purple	30	7.1	87.5	0.340	80%	0.280	82%	0.190	77%	0.180	75%	0.160	72%	0.140	74%
	40	8.5	91	0.410	87%	0.340	88%	0.230	88%	0.210	88%	0.190	85%	0.170	84%
	50	9.5	103	0.460	89%	0.380	92%	0.250	91%	0.230	90%	0.220	88%	0.190	85%
	60	10.2	109	0.490	94%	0.410	95%	0.270	94%	0.250	94%	0.230	89%	0.200	86%
	70	10.9	111	0.520	94%	0.440	96%	0.290	94%	0.270	94%	0.250	89%	0.210	86%
7/32" x 3/32" Orange	30	8.4	89	0.400	82%	0.340	79%	0.220	79%	0.210	78%	0.190	74%	0.160	71%
	40	9.8	94	0.470	86%	0.390	85%	0.260	85%	0.240	88%	0.220	86%	0.190	85%
	50	10.8	110	0.520	90%	0.430	89%	0.290	89%	0.270	90%	0.250	88%	0.210	86%
	60	11.8	113	0.570	95%	0.470	94%	0.320	93%	0.290	94%	0.270	93%	0.230	91%
	70	12.6	116	0.610	95%	0.510	95%	0.340	93%	0.310	94%	0.290	93%	0.250	90%
15/64" x 3/32" Red	30	9.7	90	0.470	81%	0.390	76%	0.260	79%	0.240	77%	0.220	72%	0.190	68%
	40	11.5	95.5	0.550	88%	0.460	86%	0.310	85%	0.280	88%	0.260	88%	0.230	88%
	50	12.7	112	0.610	90%	0.510	91%	0.340	89%	0.310	90%	0.290	90%	0.250	90%
	60	13.8	116	0.660	94%	0.550	93%	0.370	90%	0.340	91%	0.320	92%	0.270	93%
	70	14.6	117	0.700	95%	0.590	94%	0.390	92%	0.360	91%	0.330	92%	0.290	92%
1/4" x 3/32" Grey	30	11.1	102	0.450	85%	0.360	82%	0.330	83%	0.300	83%	0.270	83%	0.250	82%
	40	12.7	108	0.510	86%	0.410	84%	0.380	86%	0.340	85%	0.310	87%	0.290	86%
	50	14.2	115	0.570	88%	0.460	90%	0.420	87%	0.380	86%	0.350	88%	0.330	89%
	60	15.5	119	0.620	93%	0.500	92%	0.460	91%	0.410	90%	0.380	91%	0.360	92%
	70	16.7	120	0.670	94%	0.540	93%	0.490	92%	0.450	91%	0.410	91%	0.380	91%
9/32" x 3/32" Green	30	12.6	109	0.510	84%	0.400	82%	0.370	83%	0.340	81%	0.310	83%	0.290	82%
	40	14.8	110	0.590	86%	0.480	84%	0.440	85%	0.400	83%	0.370	86%	0.340	85%
	50	16.3	112	0.650	90%	0.520	90%	0.480	90%	0.440	87%	0.400	90%	0.370	90%
	60	17.7	116	0.710	92%	0.570	91%	0.520	91%	0.470	90%	0.440	92%	0.410	92%
	70	19.0	117	0.760	93%	0.610	91%	0.560	91%	0.510	92%	0.470	93%	0.440	93%
1/4" x 1/8" Grey	30	12.0	100	0.480	86%	0.390	84%	0.360	85%	0.320	84%	0.300	83%	0.280	83%
	40	14.2	105	0.570	87%	0.460	85%	0.420	87%	0.380	85%	0.350	88%	0.330	87%
	50	16.0	110	0.640	91%	0.510	87%	0.470	88%	0.430	86%	0.400	88%	0.370	88%
	60	17.2	118	0.690	94%	0.550	92%	0.510	92%	0.460	89%	0.420	89%	0.390	89%
	70	18.0	118	0.720	94%	0.580	92%	0.530	91%	0.480	89%	0.440	89%	0.410	88%
9/32" x 1/8" Green	30	13.1	106	0.530	87%	0.420	86%	0.390	85%	0.350	78%	0.320	81%	0.300	82%
	40	15.2	109	0.610	89%	0.490	87%	0.450	87%	0.410	84%	0.380	87%	0.350	88%
	50	17.0	110	0.680	91%	0.550	91%	0.500	89%	0.450	88%	0.420	89%	0.390	89%
	60	18.5	116	0.740	93%	0.590	92%	0.550	91%	0.490	89%	0.460	89%	0.420	90%
	70	19.8	117	0.790	93%	0.640	92%	0.590	91%	0.530	90%	0.490	90%	0.450	90%

D = Dual Nozzle
The shaded areas are not recommended for ideal irrigation

GREENHOUSE AND NURSERY PRICE CATALOG

DAN SPRINKLER ASSEMBLIES FOR GREENHOUSES

NAANDAN Irrigation Systems

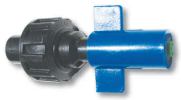
Description	Uses	Part Number
Bridge Assemblies without Antimist		
Violet Misting with Violet Nozzle	UP, UD	11251904
Violet Misting with Grey Nozzle	UP, UD	11251909
Violet Misting with Green Nozzle	UP, UD	11251902
Orange Oblong spinner with Grey Nozzle	UP	11252409

Description	Uses	Part Number
Bridge Assemblies with LPD and without Antimist		
Violet Misting with Violet Nozzle	UD	11251984
Violet Misting with Grey Nozzle	UD	11251989
Violet Misting with Green Nozzle	UD	11251982

Description	Uses	Part Number
Bridge Assemblies with Antimist		
Yellow Spreader with Green Antimist and Green Nozzle	UP, UD	11251562
Yellow Spreader with Orange Antimist and Orange Nozzle	UP, UD	11251565
Yellow Spreader with Yellow Antimist and Yellow Nozzle	UP, UD	11251566
Yellow Spreader with Blue Antimist and Blue Nozzle	UP, UD	11251563

Description	Uses	Part Number
Green Kiwi Spinner with Green Antimist and Green Nozzle	UP, UD, T	11254562
Green Kiwi Spinner with Orange Antimist and Orange Nozzle	UP, UD, T	11254565
Green Kiwi Spinner with Yellow Antimist and Yellow Nozzle	UP	11254566
Green Kiwi Spinner with Blue Antimist and Blue Nozzle	UP, UD	11254563
Black Single Wing with Orange Antimist and Orange Nozzle	UP	11254365
Black Single Wing with Blue Antimist and Blue Nozzle	UP	11254363

Description	Uses	Part Number
Orange Oblong Spinner with Green Antimist and Green Nozzle	UP	11252462
Orange Oblong Spinner with Orange Antimist and Orange Nozzle	UP	11252465
Round Black Spinner with Green Antimist and Green Nozzle	UD, T	11252362
Round Black Spinner with Orange Antimist and Orange Nozzle	UD	11252365
Round Black Spinner with Yellow Antimist and Yellow Nozzle	UD, T	11252366
Round Black Spinner with Blue Antimist and Blue Nozzle	T	11252363



Description	Uses	Part Number
Bridgeless Mister/Fogger Assembly/Wide Angle Fogger		
Green Nozzle 7.9 gph with LPD	UP, UD	11192982

Description	Uses	Part Number
Bridge Assemblies with LPD and with Antimist		
Yellow Spreader with Green Antimist and Green Nozzle	UD	11251592
Yellow Spreader with Orange Antimist and Orange Nozzle	UD	11251595
Yellow Spreader with Yellow Antimist and Yellow Nozzle	UD	11251596
Yellow Spreader with Blue Antimist and Blue Nozzle	UD	11251593

Description	Uses	Part Number
Green Kiwi Spinner with Green Antimist and Green Nozzle	UD, T	11254592
Green Kiwi Spinner with Orange Antimist and Orange Nozzle	UD, T	11254595
Green Kiwi Spinner with Yellow Antimist and Yellow Nozzle	UD	11254596
Green Kiwi Spinner with Blue Antimist and Blue Nozzle	UD	11254593

Description	Uses	Part Number
Round Black Spinner with Green Antimist and Green Nozzle	UD, T	11252392
Round Black Spinner with Orange Antimist and Orange Nozzle	UD	11252395
Round Black Spinner with Yellow Antimist and Yellow Nozzle	UD, T	11252396
Round Black Spinner with Blue Antimist and Blue Nozzle	T	11252393

UP: Upright, UD: Upside Down, T: Tunnels
Tube assemblies are available upon request with substitution of the Butterfly barb with the Barbed LPD.
See product price catalog for pricing.

NAANDAN Irrigation Systems

Description	Uses	Part Number

4-Way Cross Fogger Assembly with LPD

Blue (1.8 gph) Fogger with LPD	UD	11191073
Orange (3.6 gph) Fogger with LPD	UD	11191075
Red (5.4 gph) Fogger with LPD	UD	11191077

2-Way T- Fogger Assembly with LPD

Blue (1.8 gph) Fogger with LPD	UD	11195873
Orange (3.6 gph) Fogger with LPD	UD	11195875
Red (5.4 gph) Fogger with LPD	UD	11195877

Single Fogger with LPD

Blue (1.8 gph) Fogger with LPD	UD	11192073
Orange (3.6 gph) Fogger with LPD	UD	11192075
Red (5.4 gph) Fogger with LPD	UD	11192077

Butterfly Tube Assemblies

24" Tube Assembly with Butterfly and Barb	-	11797030
30" Tube Assembly with Butterfly and Barb	-	11797032
36" Tube Assembly with Butterfly and Barb	-	11797036
48" Tube Assembly with Butterfly and Barb	-	11797040
60" Tube Assembly with Butterfly and Barb	-	11797042

Stabilized Hanging Sprinkler Tube Assembly

12" Tube Assembly with Butterfly, Barb and Stabilizer	-	11797140
24" Tube Assembly with Butterfly, Barb and Stabilizer	-	11797143
30" Tube Assembly with Butterfly, Barb and Stabilizer	-	11797146
36" Tube Assembly with Butterfly, Barb and Stabilizer	-	11797149
48" Tube Assembly with Butterfly, Barb and Stabilizer	-	11797152
60" Tube Assembly with Butterfly, Barb and Stabilizer	-	11797155

“Dripless” (Bridgeless) with LPD and with Antimist - Flat Trajectory

Green Nozzle, Green Antimist and LPD	UD	11281192
Orange Nozzle, Orange Antimist and LPD	UD	11281195
Black Nozzle, Black Antimist and LPD	UD	11281198
Blue Nozzle, Blue Antimist and LPD	UD	11281193

“Dripless” (Bridgeless) with Antimist - Flat Trajectory

Green Nozzle and Green Antimist	UD	11281162
Orange Nozzle and Orange Antimist	UD	11281165
Black Nozzle and Black Antimist	UD	11281168
Blue Nozzle and Blue Antimist	UD	11281163

“Dripless” (Bridgeless) - Flat Trajectory

Green Nozzle	UD	11281102
Orange Nozzle	UD	11281105
Black Nozzle	UD	11281108
Blue Nozzle	UD	11281103

Super Fogger

2-Way Super Fogger - 3.3 GPH	UD	11197808

See product price catalog for pricing.

DAN SPRINKLER COMPONENTS FOR GREENHOUSES

NAANDAN Irrigation Systems

Description	Bag Qty.	Part Number
Bridge	100	11850600

Nozzles

Violet (.032")	100	11850104
Brown (.035")	100	11850100
Grey (.044")	100	11850109
Green (.055")	100	11850102
Orange (.060")	100	11850105
Yellow (.067")	100	11850106
Blue (.075")	100	11850103

Antimist

Green (.035")	100	11850012
Orange (.047")	100	11850015
Yellow (.055")	100	11850016
Blue (.060")	100	11850013

Spinners

Black Round	100	11850218
Green Kiwi	100	11850202
Black Single Wing	100	11850208
Orange Oblong	100	11850215

Spreaders

Violet Mister	100	11850314
Yellow Flat	100	11850306

Leak Prevention Device (LPD)

Sprinkler Leak Prevention Device (Black-LP)	100	11590021
Fogger Leak Prevention Device (Blue-HP)	100	11590023

LPD with 3/8" Tapered Threads	100	11790048

LPD with 4/7 Barb LP (Low Pressure)	100	11790028
LPD with 4/7 Barb HP (High Pressure)	100	11790023

Fast-n-Fast	100	11590100

Plug for Fast-n-Fast	100	11891239

Bridgeless Mister/Fogger

Green Nozzle 7.9 gph	100	11192902

See product price catalog for pricing.

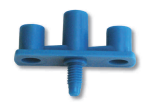
NAANDAN Irrigation Systems

Foggers

	Description	Part Number	Bag Qty.
	Blue (1.8 gph)	11192003	100
	Orange (3.6 gph)	11192005	100
	Red (5.4 gph)	11192007	100
	Black (7.2 gph)	11192008	100
	4-Way Cross for Fogger	11891014	100
	2-Way Tee for Fogger	11891020	100

	Description	Part Number	Bag Qty.
	45 Degree Fogger Angle	11891018	100
	Plug for Sprinkler and Fogger Assemblies	11850018	100
	Plastic Weight for Hanging Tube Assembly	11897052	50

Mounts

	Description	Part Number	Bag Qty.
	Butterfly Barb	11890710	100
	3/16" Blue Tapered Butterfly	11897017	100
	3/8" Tapered Butterfly	11897016	100
	3/8" Tapered Butterfly X 4/7 Barb	11897030	100
	1/2" Male Base	11897001	100
	3/8" Male Base	11897002	100
	Dramm Grommet	32-DRAMM GR	250

	Description	Part Number	Bag Qty.
	Barb Connector for 4/7 Tubing	11897035	100
	Agri-Connector	11897707	50
	Punch for 4/7 Tubing	11897785	1
	Coil of 4/7 Tubing (1.000')	46-PVC4/7-100	Coil
	4/7 Shut-Off Valve	11869018	100
	Spinner for Dripless Sprinkler - Flat Trajectory	11892405	100
	Diaphragm for Super Fogger	11880208	100

See product price catalog for pricing.

DRIPPER ASSEMBLY COMPONENTS

Pressure Compensating Drippers

With Non Leak Feature (CNL) - Opens at 5.5 psi and closes at 4 psi

Description	Part Number	Bag Qty.
1/2 GPH PC Dripper color coded Blue	51-WPC-2BI	250
3/4 GPH PC Dripper color coded Brown	51-WPC-3BI	
1 GPH PC Dripper color coded Green	51-WPC-4BI	
1 1/2 GPH PC Dripper color coded Gray	51-WPC-6BI	
2 GPH PC Dripper color coded Red	51-WPC-8BI	

Capillary Tube Manifolds

To upgrade capillary tube systems to Pressure Compensating systems. Connects to one of the above drippers.

2-Way Capillary Tube Manifold	51-MAN2IC	100
4-Way Capillary Tube Manifold	51-MAN4IC	

Multi-Outlet Dripper Assembly Components

	Description	Part Number	Bag Qty.
	Flat 4-Way Manifold	51-MAN4I	250
	Stackable 4-Way Manifold	51-MAN4CI	250
	2-Way Manifold	51-MAN2I	250
	Upright 4-Way Stackable Manifold	51-MAN4TI	250

	Description	Part Number	Bag Qty.
	Short Straight Arrow Dripper (3" Length)	51-AD3	250
	Short Straight Arrow Dripper with Shut-off (3" Length)	51-AD3S	250
	Long Angle Arrow Dripper (5" Length)	51-AAD	250
	Long Straight Arrow Dripper (5" Length)	51-AD5	250

Weighted Assembly and Dripper Stake Assembly Components

	Description	Part Number	Bag Qty.
	Adapter for .125 x .197 Flexible PVC (PVC 5/3 or PE 5/3)	51-ADAPTI	250
	Angle Barbed Stake (Threaded outlet)	51-ABS	250

	Description	Part Number	Bag Qty.
	Plastic Weight	51-WTPL	100
	Metal Weight (Zinc Aluminum Alloy)	51-WTMTL	100

Miscellaneous Components

	Description	Part Number	Bag Qty.
	1/4" x 1/8" Barbed Coupling	31-B170C125	500
	Rack of 5 Dual Sized Goof Plugs	31-AGPD	500
	Ejector Style Hole Punch for Drip Emitters	31-AP025	1

	Description	Part Number	Bag Qty.
	3.0mm (Blue Tip) Miracle Punch for 16/20mm Tubing (.100" Hole)	32-AMP3	1
	3.0mm Blue Simple Punch	32-ASP030	1

See product price catalog for pricing.

ASSEMBLIES

Multi-Outlet Dripper Assemblies

For a complete assembly, order one Multi-outlet dripper assembly and one Pressure Compensating Dripper

4-Way Manifold Assemblies

Description	Part Number	Bag Qty.
4-Way Assembly with 4 Arrow Drippers @ 18"	52-418AAD-4	200
4-Way Assembly with 4 Arrow Drippers @ 24"	52-424AAD-4	200
4-Way Assembly with 4 Arrow Drippers @ 30"	52-430AAD-4	200
4-Way Assembly with 4 Arrow Drippers, 2 @ 18" & 2 @ 30"	52-21830AAD-4	200
4-Way Assembly with 4 Arrow Drippers, 2 @ 18" & 2 @ 36"	52-21836AAD-4	200
4-Way Assembly with 4 Arrow Drippers, 2 @ 24" & 2 @ 36"	52-22436AAD-4	200
4-Way Assembly with 4 Arrow Drippers, 2 @ 24" & 2 @ 48"	52-22448AAD-4	200

The above assemblies come standard with 5" angle arrow drippers. To substitute the 5" straight arrow dripper, replace the AAD in the catalog number with AD5, with AD3 for 3" arrow dripper and with AD3S for 3" arrow dripper with shut-off.
The above assemblies come standard with a flat 4-way manifold. To substitute the stackable 4-way manifold add a C after the 4 (4C) or to substitute the upright 4-way manifold add a T (4T) after the 4.

2-Way Manifold Assemblies

2-Way Assembly with 2 Arrow Drippers @ 18"	52-418AAD-4	200
2-Way Assembly with 2 Arrow Drippers @ 24"	52-424AAD-4	200
2-Way Assembly with 2 Arrow Drippers @ 30"	52-430AAD-4	200

Pressure Compensating Dripper Selection

The flow per arrow dripper is determined by dividing the dripper flow by the number of arrow drippers on that assembly.

1/2 GPH PC Dripper color coded Blue with non-leak feature	51-WPC-2BI	250
3/4 GPH PC Dripper color coded Brown with non-leak feature	51-WPC-3BI	
1 GPH PC Dripper color coded Green with non-leak feature	51-WPC-4BI	
1 1/2 GPH PC Dripper color coded Gray with non-leak feature	51-WPC-6BI	
2 GPH PC Dripper color coded Red with non-leak feature	51-WPC-8BI	

Pressure Compensating Capillary Tube Manifold Assembly

Combines one of the above Pressure Compensating emitters with the Capillary Tube Manifold (does not include capillary tubes)
The two-way manifold comes standard with a 1 GPH emitter. The 4-way manifold comes standard with a 2 GPH emitter.

2-Way Capillary Tube Manifold Assembled on a GPH PC Dripper	51-MAN2IC-4	250
4-Way Capillary Tube Manifold Assembled on a GPH PC Dripper	51-MAN4IC-8	250

To substuitute a different dripper from the standard one, replace the last digit in the catalog number with the appropriate number 2 for 1/2 GPH, 3 for 3/4 GPH, 4 for 1 GPH, 6 for 1 1/2 GPH and 8 for 2 GPH

Weighted Assemblies

Assembled standard with 1/2 GPH PC emitters with non-leak feature

Hanging Basket Assembly with Plastic Weight @ 18"	52-218PL	200
Hanging Basket Assembly with Plastic Weight @ 24"	52-224PL	200
Hanging Basket Assembly with Plastic Weight @ 36"	52-236PL	200
Hanging Basket Assembly with Plastic Weight @ 48"	52-248PL	200
Hanging Basket Assembly with Metal Weight @ 18"	52-218MTL	200
Hanging Basket Assembly with Metal Weight @ 24"	52-224MTL	200
Hanging Basket Assembly with Metal Weight @ 36"	52-236MTL	200
Hanging Basket Assembly with Metal Weight @ 48"	52-248MTL	200

See product price catalog for pricing.

Description	Part Number	Bag Qty.

Dripper Stake Assemblies

Assembled standard with 1/2 GPH PC emitters with non-leak feature and angled barbed stake

PC Angled Barbed Stake Assembly @ 24"	52-224ABS	200
PC Angled Barbed Stake Assembly @ 30"	52-230ABS	200
PC Angled Barbed Stake Assembly @ 36"	52-236ABS	200
PC Angled Barbed Stake Assembly @ 48"	52-248ABS	200

Compensated Arrow Dripper Assemblies

Assembled standard with 1/2 GPH PC emitters with non-leak feature and angled arrow dripper

Compensating Arrow Dripper Assembly @ 18"	52-2AAD-18	200
Compensating Arrow Dripper Assembly @ 24"	52-2AAD-24	200
Compensating Arrow Dripper Assembly @ 30"	52-2AAD-30	200
Compensating Arrow Dripper Assembly @ 36"	52-2AAD-36	200
Compensating Arrow Dripper Assembly @ 48"	52-2AAD-48	200

The above assemblies come standard with 5" angle arrow drippers. To substitute the 5" straight arrow dripper, replace the AAD in the catalog number with AD5, with AD3 for 3" arrow dripper and with AD3S for 3" arrow dripper with shut-off.

Arrow Dripper Assemblies

Assembled standard with barb and angled arrow dripper

Non Compensating Arrow Dripper Assembly @ 18"	52-AAD-18	200
Non Compensating Arrow Dripper Assembly @ 24"	52-AAD-24	200
Non Compensating Arrow Dripper Assembly @ 30"	52-AAD-30	200
Non Compensating Arrow Dripper Assembly @ 36"	52-AAD-36	200
Non Compensating Arrow Dripper Assembly @ 48"	52-AAD-48	200

The above assemblies come standard with 5" angle arrow drippers. To substitute the 5" straight arrow dripper, replace the AAD in the catalog number with AD5, with AD3 for 3" arrow dripper and with AD3S for 3" arrow dripper with shut-off.

See product price catalog for pricing.

TUBING

Catalog Number	Inside Diameter	Outside Diameter	Size	Coil Length	Coil Weight
Polyethylene Tubing					
45-520X620-10	.520"	.620"	16mm	100'	3.62 lbs
45-520X620-50	.520"	.620"	16mm	500'	18.1 lbs
45-520X620-100	.520"	.620"	16mm	1,000'	36.2 lbs
45-620X710-10	.620"	.710"	5/8"	100'	3.8 lbs
45-620X710-50	.620"	.710"	5/8"	500'	19.0 lbs
45-620X710-100	.620"	.710"	5/8"	1,000'	38.0 lbs
45-820X940-10	.820"	.940"	3/4"	100'	6.7 lbs
45-820X940-50	.820"	.940"	3/4"	500'	33.5 lbs
45-106X120-10	1.06"	1.20"	1"	100'	10.0 lbs
45-106X120-50	1.06"	1.20"	1"	500'	50.0 lbs
Reflective White Layered Polyethylene Tubing					
Outside white, inside black. No penetration of light, no algae growth.					
45-W520X620-10	.520"	.620"	16mm	100'	3.62 lbs
45-W520X620-50	.520"	.620"	16mm	500'	18.1 lbs
45-W520X620-100	.520"	.620"	16mm	1,000'	36.2 lbs
45-W620X710-10	.620"	.710"	5/8"	100'	3.8 lbs
45-W620X710-50	.620"	.710"	5/8"	500'	19.0 lbs
45-W620X710-100	.620"	.710"	5/8"	1,000'	38.0 lbs
45-W820X940-10	.820"	.940"	3/4"	100'	6.7 lbs
45-W820X940-50	.820"	.940"	3/4"	500'	33.5 lbs
45-W106X120-10	1.06"	1.20"	1"	100'	10.0 lbs
45-W106X120-50	1.06"	1.20"	1"	500'	50.0 lbs

Pre-Cut Micro Tubing (.125 x .197 or 5/3)

Description	Part Number	Bundle Quantity
18" Length of Pre-Cut .125" x .197" Flexible PVC	46-125X197-18	100
24" Length of Pre-Cut .125" x .197" Flexible PVC	46-125X197-24	100
30" Length of Pre-Cut .125" x .197" Flexible PVC	46-125X197-30	100
36" Length of Pre-Cut .125" x .197" Flexible PVC	46-125X197-36	100
48" Length of Pre-Cut .125" x .197" Flexible PVC	46-125X197-48	100
60" Length of Pre-Cut .125" x .197" Flexible PVC	45-125X197-60	100

Flexible PE (Polyethylene) may be substituted at the same price as above. Replace the 46- in the catalog number with a 45-

Coiled Micro Tubing

Description	Part Number	Coil Length
1,000' Coil of 125" x .197" Flexible PVC (3/5 mm)	46-125X197-100	1,000'

Pressure Compensated Dripline

Signature 16mm, 12" Spacing, .5 GPH	41S165-12	1,000'
Signature 16mm, 18" Spacing, .5 GPH	41S165-18	1,000'
Signature 16mm, 24" Spacing, .5 GPH	41S165-24	1,000'
Signature 16mm, 30" Spacing, .5 GPH	41S165-30	1,000'
Signature 16mm, 36" Spacing, .5 GPH	41S165-36	1,000'

See product price catalog for pricing.

Description	Part Number	Coil Length

Non-Pressure Compensated Dripline

Traditional 16mm, 12" Spacing, .5 GPH	41T165-12	1,000'
Traditional 16mm, 18" Spacing, .5 GPH	41T165-18	1,000'
Traditional 16mm, 24" Spacing, .5 GPH	41T165-24	1,000'
Traditional 16mm, 30" Spacing, .5 GPH	41T165-30	1,000'
Traditional 16mm, 36" Spacing, .5 GPH	41T165-36	1,000'

Description	Part Number	Dripper Spacing	Coil Length

Pointline Thinwall Dripperline (Tape)

5/8" Diameter (16mm)			
Pointline 5/8", 8 mil, .25 gph, 8" spacing	40-PL50825-8	8"	6,500'
Pointline 5/8", 8 mil, .25 gph, 12" spacing	40-PL50825-12	12"	6,500'
Pointline 5/8", 8 mil, .25 gph, 16" spacing	40-PL50825-16	16"	6,500'
Pointline 5/8", 8 mil, .25 gph, 18" spacing	40-PL50825-18	18"	6560'
Pointline 5/8", 8 mil, .25 gph, 24" spacing	40-PL50825-24	24"	6560'
Pointline 5/8", 8 mil, .40 gph, 12" spacing	40-PL50840-12	12"	6,500'
Pointline 5/8", 8 mil, .40 gph, 16" spacing	40-PL50840-16	16"	6,500'
Pointline 5/8", 10 mil, .25 gph, 12" spacing	40-PL51025-12	12"	4,920'

FITTINGS

Insert Fittings

	Description	Part Number	Bag Qty.	List Price
	16mm Insert Coupling	31-BC16	100	
	16mm Insert Tee	31-BT16	100	
	16mm Insert Elbow	31-BE16	100	

	Description	Part Number	Bag Qty.
	16mm Insert X 1/2" Male Adaptor	31-B16TH50	100
	16mm Insert X 3/4" Male Adaptor	31-B16TH75	100
	16mm Insert X Series 420 Barb with Grommet	31-B16TOG	500

Compression Fittings

Series 600 Compression fits 16mm dripline and .520 x .620 Poly

	Series 600 Compression Coupling	34-CC600	25
	Series 710 Compression Coupling	34-CC710	25
	Series 600 3-Way Compression Tee	34-CT600	20
	Series 710 3-Way Compression Tee	34-CT710	20

Series 710 Compression fits 18mm dripline and .620 x.710 Poly

	Series 600 Compression Adapter x 3/4" Male Pipe Thread	34-CMPT600	25
	Series 710 Compression Adapter x 3/4" Male Pipe Thread	34-CMPT710	25
	Series 600 Compression x 3/4" Male Hose Thread	34-CMHT600	25
	Series 710 Compression x 3/4" Male Hose Thread	34-CMHT710	25

See product price catalog for pricing.

(continued)

Compression Fittings (continued)

Series 600 Compression fits 16mm dripline and .520 x .620 Poly

Description	Part Number	Bag Qty.	List Price
Series 600 Compression Elbow	34-CE600	25	0.70
Series 710 Compression Elbow	34-CE710	25	0.70

Series 710 Compression fits 18mm dripline and .620 x.710 Poly

Description	Part Number	Bag Qty.
Series 600 Compression Adapter x 3/4" Female Swivel w/ Washer	34-CHS600	25
Series 710 Compression Tee x Female Hose Swivel w/ Washer	34-CST710	20

Perma-Loc Hose Fittings (Twist-Loc Type)

Series 500 fits 16mm and 17mm Dripline and .520 x .620 Poly Tubing
Series 600 fits 18mm Dripline and .600 x .700 and .620 x .710 Poly Tubing
Series 800 fits all 3/4" Low Density Poly Tubing
Series 1000 fits all 1" Low Density Poly Tubing

Description	Part Number	Bag Qty.
Hose Couplings		
Series 500 Coupling	31-HC500	50
Series 600 Coupling	31-HC600	50
Series 800 Coupling	31-HC800	50
Series 1000 Coupling	31-HC1000	25

Tee		
Series 500 Tee	31-HT555	50
Series 600 Tee	31-HT666	50
Series 800 Tee	31-HT888	25
Series 1000 Tee	31-HT111	25

Elbow		
Series 500 Elbow	31-HE55	100
Series 600 Elbow	31-HE66	50
Series 800 Elbow	31-HE88	50
Series 1000 Elbow	31-HE11	50

1/2" Male Adaptor (Easy-Loc X 1/2" Male Pipe Thread)		
Series 500 by 1/2" Male Adaptor (MPT)	31-H5TH50	100
Series 600 by 1/2" Male Adaptor (MPT)	31-H6TH50	100

3/4" Male Adaptor (Easy Loc X 3/4" Male Pipe Thread)		
Series 500 by 3/4" Male Adaptor (MPT)	31-H5TH75	150
Series 600 by 3/4" Male Adaptor (MPT)	31-H6TH75	100
Series 800 by 3/4" Male Adaptor (MPT)	31-H8TH75	100

1" Male Adaptor (Easy Loc X 1" Male Pipe Thread)		
Series 1000 by 1" Male Hose Adaptor	31-H1TH10	100

3/4" Male Hose Adaptor (Easy-Loc X Male Hose Thread)		
Series 500 by 3/4" Male Hose Adaptor	31-H5HT	100
Series 600 by 3/4" Male Hose Adaptor	31-H6HT	100
Series 800 by 3/4" Male Hose Adaptor	31-H8HT	50
Series 1000 by 3/4" Male Hose Adaptor	31-H1HT	50

Swivel Adaptor (Easy-Loc X 3/4" Female Hose Swivel)		
Series 500 Swivel Adaptor	31-H5S	100
Series 600 Swivel Adaptor	31-H6S	100
Series 800 Swivel Adaptor	31-H8S	50
Series 1000 Swivel Adaptor	31-H1S	50

See product price catalog for pricing.

Perma-Loc Tape Fittings

	Description	Part Number	Bag Qty.
	5/8" Tape Coupling	31-TC500	100
	5/8" Tape Tee	31-TT555	50
	5/8" Tape Elbow	31-TE55	50
	5/8" Tape x 1/2" MPT	31-T5TH50	100
	5/8" Tape x 3/4" MPT	31-T5TH75	100

	Description	Part Number	Bag Qty.
	5/8" Tape X Layflat	31-T5LF	50
	5/8" Tape X 250 Series Barb	31-T5B250	100
	5/8" Tape X 400 Series Barb	31-T5B400	100
	5/8" Tape X 3/4" Female Hose Swivel with Washer	31-T5SWW	50
	5/8" Tape X 1/2" Socket/3/4" Spigot	31-T5P1/2	50

For additional fittings, not shown here, please refer to the Point Source Product Price Catalog

MISCELLANEOUS COMPONENTS

	Description	Part Number	Bag Qty.
	Specialty Valves		
	**3/4" Mini Ball Valves**		
	3/4" Female Hose Thread x 3/4" Male Hose Thread	31-VHT75	100
	3/4" FIPT x 3/4" MIPT	31-VNPT75	100
	**Barbed Compact Cylinder Valves**		
	16mm Inline Shut-off Valve (Fits .520 x .620 Poly and 16mm Dripline)	31-VB16	50
	1/2" MIPT x 16mm Barbed Shut-off Valve	31-VB16TH50	50
	3/4" MIPT x 16mm Barbed Shut-off Valve	31-VB16TH75	50
	**Hose Coupling Valves**		
	Series 500 Perma-Loc Coupling Shut-off Valve	31-HV55	50
	Series 600 Perma-Loc Coupling Shut-off Valve	31-HV66	50
	Series 800 Coupling Shut-off Valve	31-HV88	50
	**MIPT x Perma-Loc Hose Adaptor Valve**		
	1/2" MIPT x Series 500 Perma-Loc Shut-off Valve	31-HV5TH50	50
	1/2" MIPT x Series 600 Perma-Loc Shut-off Valve	31-HV6TH50	50
	3/4" MIPT x Series 500 Perma-Loc Shut-off Valve	31-HV5TH75	50
	3/4" MIPT x Series 800 Shut-off Valve	31-HV8TH75	50
	3/4" MIPT x Series 600 Perma-Loc Shut-off Valve	31-HV6TH75	50
	Tape Compact Cylinder Valves		
	5/8" Tape x 5/8" Tape Shut-off Valve	31-TV55	50
	5/8" Tape x 1/2" MIPT Shut-off Valve	31-TV5TH50	50
	5/8" Tape x 3/4" MIPT Shut-off Valve	31-TV5TH75	50
	5/8" Tape x 250 Series Barb Shut-off Valve	31-TV5B250	50
	5/8" Tape x 400 Series Barb Shut-off Valve	31-TV5B400	50

See product price catalog for pricing.

Accessories

Description	Part Number	Bag Qty.
End Closure		
Figure 8 End Closure for .600 Nominal OD Tubing (16mm)	31-A168	200
Figure 8 End Closure for .700 Nominal OD Tubing (18mm)	31-A188	200
Figure 8 End Closure for .900 Nominal OD Tubing (3/4")	31-A758	100
Figure 8 End Closure for .1000 Nominal OD Tubing (1")	31-A108	100
Dripline Support Hooks		
16mm Dripline Support Hook	31-A16H	500
18mm Dripline Support Hook	31-A18H	300
3/4" Hose Support Hook	31-A25H	200
1" Hose Support Hook	31-A32H	100
Automatic Flush Valves		
3/4" Female Hose Thread Automatic Flush Valve - Low Flow	31-FVFHT-L	100
3/4" Female Hose Thread Automatic Flush Valve - High Flow	31-FVFHT-H	100

AIR VENTS

1" Kinetic Air Vent and Vacuum Relief Valve	32-ARV-1-K	14
2" Kinetic Air Vent and Vacuum Relief Valve	32-ARV-2-K	8
1" Continuous Automatic Air Vent & Vacuum Relief Valve	32-ARV-1-A	20
2" Kinetic & Continuous Automatic Air Vent & Vacuum Relief Valve	32-ARV-2-KA	8

FILTRATION

irritec® IRRIGATION SYSTEMS

Screen Filters

Description	Part Number	Mesh	Flow Rate (GPM)
3/4" Plastic Filter with 120 Mesh Short Stainless Steel Filter Element and Flush Valve	33-75S120B	120	5 to 17
1" Plastic Filter with 120 Mesh Short Stainless Steel Filter Element and Flush Valve	33-100S120B	120	5 to 17
3/4" Plastic Filter with 120 Mesh Long Stainless Steel Filter Element	33-75S120L	120	10 to 30
1" Plastic Filter with 120 Mesh Long Stainless Steel Filter Element	33-100S120L	120	10 to 30
1 1/2" Plastic Filter with 120 Mesh Stainless Steel Element	33-150S120	120	25 to 132
2" Short Plastic Filter with 120 Mesh Polyester Screen on Stainless Steel Cartridge	33-200P120S	120	65 to 264
2" Long Plastic Filter with 120 Mesh Polyester Screen on Stainless Steel Cartridge	33-200P120L	120	65 to 264
3" Long Plastic Filter with 120 Mesh Polyester Screen on Stainless Steel Cartridge	33-300P120L	120	65 to 264

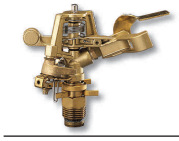
Disc Filters

3/4" Plastic Filter with 120 Mesh Disc	33-75D120L	120	-
1" Plastic Filter with 120 Mesh Disc	33-100D120L	120	-
1 1/2" Plastic Filter with 120 Mesh Disc	33-150D120	120	-
2" Short Plastic Filter with 120 Mesh Disc	33-200D120S	120	-
2" Long Plastic Filter with 120 Mesh Disc	33-200D120L	120	-
3" Long Plastic Filter with 120 Mesh Disc	33-300D120L	120	-

See product price catalog for pricing.

NAANDAN Irrigation Systems

Description	Part Number	Angle of Throw	Box Qty.
429 AG -1/2" Male Base, Full and Part Circle - Plastic			
7/64" Orange Nozzle	21147623	26	100
1/8" Green Nozzle	21147643		
9/64" Blue Nozzle	21147653		
5/32" Black Nozzle	21147663		



423 AG -1/2" Male Base, Full and Part Circle - Metal			
1/8" Nozzle	21143432	25	50
9/64" Nozzle	21143435		
5/32" Nozzle	21143440		

428 -1/2" Male Base, Full Circle - Plastic			
7/64" Orange Nozzle	21148323	26	100
1/8" Green Nozzle	21148343		

421 AG -1/2" Male Base, Full Circle - Metal			
9/64" Nozzle	21141735	25	50
5/32" Nozzle	21141740		

501 - 1/2" Female Base, Full Circle Turbo Hammer, Low Volume, Low Angle, Short Range			
.071" Green Nozzle	21151218	8	100
.078" Blue Nozzle	21151220		
501-U - 1/2" Female Base, Full Circle Turbo Hammer, Low Volume, Extra Range			
.071" Green Nozzle	21151618	20	100
.078" Blue Nozzle	21151620		

502-LA - 1/2" Female Base, Full Circle Turbo Hammer, Low Angle, Medium Volume, Medium Range			
.098" Orange Nozzle	21152405	8	100
.110" Brown Nozzle	21152408		
502-H - 1/2" Male Base, Full Circle Turbo Hammer, High Angle, Medium Volume, Extra Range			
.098" Red Nozzle	21152105	14	100

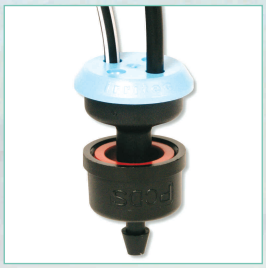
5022 - 1/2" Male Base, Full Circle, Single and Dual Bayonet Constructed Nozzle Rear nozzle is a 3/32" nozzle			
3/32" Purple Nozzle	21152701	21152711	25
7/64" Orange Nozzle	21152702	21152712	
1/8" Green Nozzle	21152704	21152714	
9/64" Blue Nozzle	21152705	21152715	
5/32" Black Nozzle	21152706	21152716	

5035 - 3/4" Male Base, Full Circle, Single and Dual Bayonet Constructed Nozzle			
5/32" Black Nozzle	21153503	21153513	25
11/64" Brown Nozzle	21153504	21153514	
.197" Purple Nozzle	21153505	21153515	
7/32" Orange Nozzle	21153506	21153516	
15/64" Red Nozzle	21153507	21153517	
1/4" Grey Nozzle	21153508	21153518	

Maestro - Windfighting Sprinkler -1/2" Male Base, Full Circle			
.118" Red Nozzle	21162030	Variable	100
1/8" Green Nozzle	21162032		
9/64" Blue Nozzle	21162035		

Revolver - Super 10			
Blue -1.5 GPH	11335443	25	100
Yellow - 2 GPH	11335446		
Green - 2.5 GPH	11335442		

See product price catalog for pricing.



Point Source Irrigation

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January 2006