



Greenhouse & Nursery

More
Crop
per
Drop™

 **JAIN**[®]
www.JAINSUSA.com

ClickTIF™ Button Dripper



ClickTIF button dripper is designed for orchards vineyards, greenhouses, nurseries and landscape applications. It provides precise irrigation in soilless media and pulse irrigation. CNL models prevents drainage in low places with the ability to hold 7 feet of water. Durable construction protects against woodpeckers and other animals. Irrigation of pot-plants: one, two or four outlets.

Product Features

- Nominal compensating range: 10 to 60 psi
- Available in a Non-leak model with opening pressures of 6 psi and closing pressures of 3 psi
- Recommended for orchards and vineyards, greenhouses, nurseries and landscape applications
- Designed to minimize clogging: protected cross-shaped water inlet, flushing mechanism of regulating diaphragm, strong turbulent flow in labyrinth with continual cleaning and flushing
- Large water passages
- Color-coded for identification of discharge and model
- Chemical-resistant high-grade plastic material for precision, durability and longevity
- Silicon molded diaphragm for precision and durability

Technical Data

- Regulating pressure range: 10 to 60 psi
- Coefficient of Variation (Cv): <3%
- Check Non Leak (CNL)
 - Opening pressure: 6 psi
 - Closing pressure: 3 psi
 - Holds up to 7 feet of water

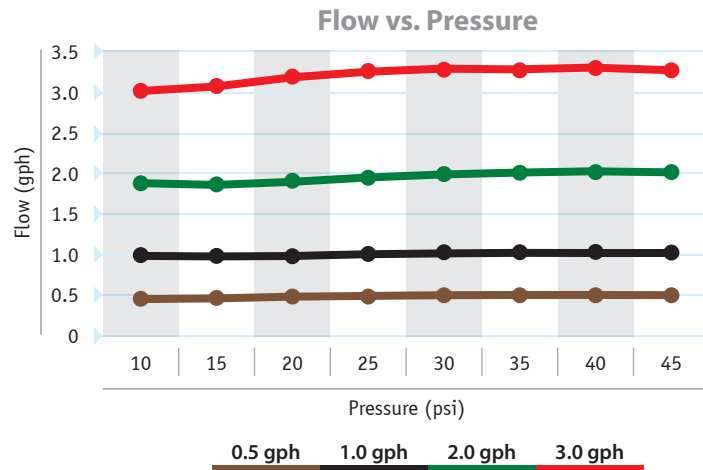


ClickTIF™ Button Dripper Flow Rate vs. Pressure

gph	Color	PC-CNL Light Brown Housing		PC Black Housing	
		Taper	Barb	Taper	Barb
0.5	Brown	CTTPC2-CNL	CTBPC2-CNL	CTTPC2	CTBPC2
1.0	Black	CTTPC4-CNL	CTBPC4-CNL	CTTPC4	CTBPC4
2.0	Green	CTTPC8-CNL		CTTPC8	
3.0	Red	CTTPC12-CNL		CTTPC12	

Emitter Flow Rate

psi	0.5 gph	1.0 gph	2.0 gph	3.0 gph
10	0.479	1.01	1.903	3.033
15	0.488	1.003	1.881	3.088
20	0.509	1.008	1.918	3.200
25	0.518	1.030	1.971	3.269
30	0.527	1.040	2.009	3.308
35	0.530	1.047	2.032	3.299
40	0.530	1.045	2.048	3.321
45	0.528	1.045	2.036	3.290

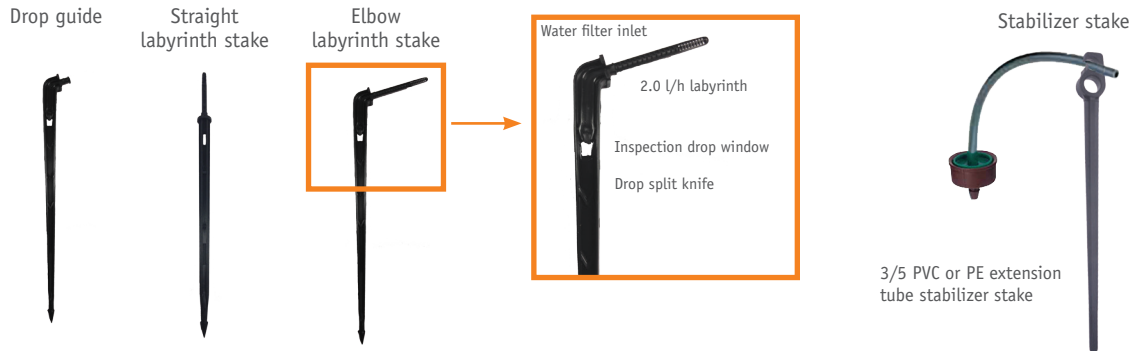


Maximum Run Length - Feet

gph	psi Inlet	0.620 ID Tubing Emitter Spacing (inches)						0.720 ID Tubing Emitter Spacing (inches)						0.830 ID Tubing Emitter Spacing (inches)					
		12	18	24	30	36	48	12	48	24	30	36	48	12	18	24	30	36	48
0.5	20	418	560	684	798	903	1095	555	738	899	1045	1180	1428	724	956	1161	1347	1520	1835
	30	539	720	881	1027	1161	1408	715	950	1156	1344	1518	1837	931	1230	1494	1733	1955	2361
	40	624	835	1021	1189	1346	1632	828	1101	1340	1558	1760	2129	1079	1426	1731	2008	2266	2737
	50	693	927	1133	1321	1494	1812	920	1222	1488	1730	1954	2364	1198	1583	1922	2230	2516	3038
1.0	20	268	358	438	510	577	700	355	472	575	668	755	913	463	611	742	861	971	1174
	30	344	461	563	656	743	900	457	607	739	859	971	1175	595	787	955	1108	1250	1510
	40	399	534	653	760	861	1043	530	704	857	996	1125	1361	690	915	1107	1284	1449	1750
	50	443	593	725	844	955	1159	588	781	951	1106	1249	1511	766	1012	1229	1426	1608	1943
2.0	20	177	237	290	338	382	463	235	312	380	442	499	604	306	405	491	570	643	777
	30	228	305	373	434	491	596	302	402	489	569	643	778	394	521	632	733	827	999
	40	264	353	432	503	570	691	351	466	567	659	745	901	457	603	733	850	959	1158
	50	293	392	480	559	632	767	389	517	630	732	827	1000	507	670	813	944	1065	1286
3.0	20	129	173	211	246	279	338	171	228	278	323	365	441	224	295	359	416	469	567
	30	166	223	272	317	359	435	221	293	357	415	469	568	288	380	461	536	604	730
	40	193	258	315	368	416	504	256	340	414	481	544	658	333	440	535	620	700	845
	50	214	286	350	408	462	560	284	378	460	534	604	730	370	489	594	689	777	939



ClickTIF™ HD Accessories



DROP GUIDE

Use as single outlet for drop guide

LABYRINTH STAKES

Can be used as an independent dripper or to stabilize flow rate at multiple outlets

When working with multiple outlets:

1. Use labyrinth stakes to improve uniformity
2. Minimum recommended working pressure: 15 psi
3. Maximum recommended flow per outlet: 0.5 gph
4. Minimum recommended flow per outlet:
 - Flat surface and uniform tube length - 0.13 gph
 - On a slope or uneven elevation - 0.26 gph

3/5 mm outlet connectors



2, 4, 8 outlets with flow control stakes

Multi-level connectors



Recommended Combinations

Number of Outlets	Dripper flow rate (gph)					
	0.35	0.5	0.8	1.0	2.0	3.0
2	•	•	•	•	-	-
3	-	•	•	•	-	-
4	-	•	•	•	•	-
5	-	-	•	•	•	-
6	-	-	•	•	•	•

- Only on flat surface and with uniform tube length
- For all conditions, including slopes and uneven elevations

Flow vs. Pressure

Pressure (psi)	Flow rate (gph)	
	Elbow labyrinth stake	Straight labyrinth
5	0.33	0.36
10	0.47	0.52
15	0.57	0.63
20	0.66	0.73
25	0.74	0.82



Green Spin



Green Spin is the next generation drip-less micro sprinkler from the popular DAN Modular which has been the product of choice as the standard micro sprinkler for greenhouse applications. Its unique bridgeless design eliminates two major problems; dripping on the plants below and dry spots. The swivel design produces a flat trajectory keeping objects dry above the nozzle level.

Product Features

- Same flows as the Dan Modular allow easy replacement/upgrade
- Broad range of flow rates, 6 nozzles and 4 anti-mist devices produce 10 flow rates to choose from: 10.6 to 52.8 gph @ 29 psi
- Multiple swivels produce a wide variety of diameters
- Flat trajectory, no water above the nozzle level
- Bridgeless design – no dripping on plant below
- Field friendly, may be assembled and disassembled in the field
- Fits all Dan parts and accessories
- Overhead irrigation for greenhouse and hoop house applications
- Compatible with Leak Prevention Device (LPD)
- Multiple attachment options: Tapered (press fit) and bayonet
- Recommended filtration 120 mesh
- Made of durable plastic with high UV resistance for long term field operations
- Clog resistant due to large water passages
- Even and uniform distribution of water and fertilizers

Applications

- Irrigation and Propagation
- Greenhouse, hoop and shade houses
- Cooling of poultry and livestock



Green Spin Technical Data

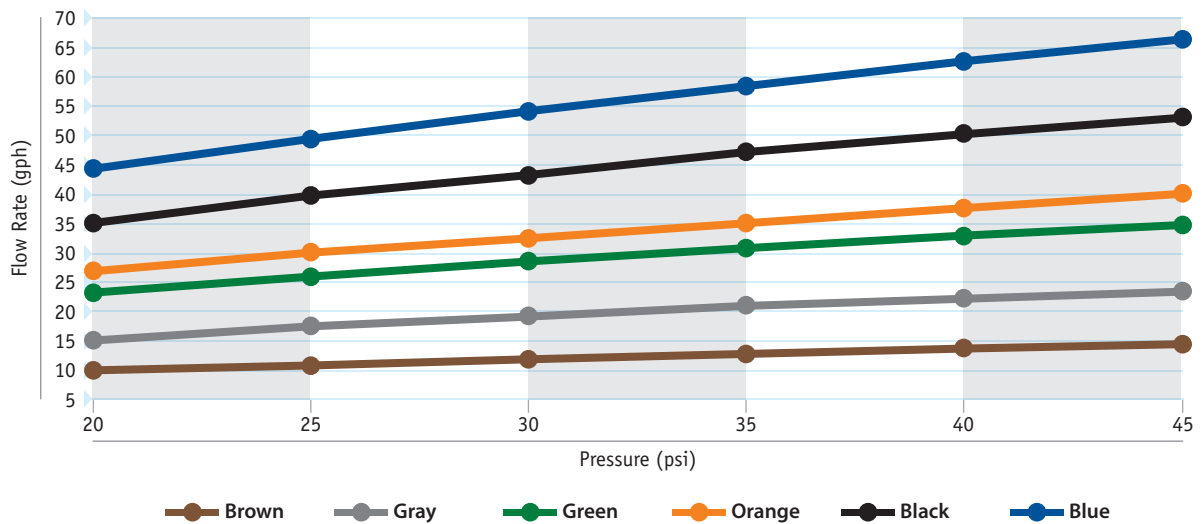


Green Spin



- Flow rates: 10.6 to 52.8 gph @ 29 psi
- Recommended working pressure: 30 to 45 psi
- Required filtration: 120 mesh
- Wetted diameter: 8 to 18 feet on single line

Flow vs. Pressure

Nozzle Color	Nominal Flow (gph)	Pressure (psi)					
		20	25	30	35	40	45
Brown	11.4	9.4	10.5	11.6	12.5	13.3	14.2
Gray	18.5	15.4	17.2	18.8	20.3	21.7	23.0
Green	27.7	23.0	25.8	28.2	30.5	32.6	34.6
Orange	31.7	26.3	29.4	32.2	34.8	37.2	39.5
Black	42.3	35.1	39.2	43.0	46.4	49.6	52.7
Blue	52.8	43.9	49.1	53.7	58.0	62.1	65.8





Green Spin without Antimist

Nozzle Color	Flow Rate (GPH)	Nozzle Ø (inches)	Wetted Diameter* (feet)	
			Gray Swivel	Black Swivel
				
Brown	11.4	0.04	24.6	–
Gray	18.5	0.05	29.5	–
Green	27.7	0.06	29.5	–
Orange	31.7	0.06	31.2	–
Black	42.3	0.07	–	29.5
Blue	52.8	0.08	–	31.2



Green Spin Performance Tables

Green Spin with Antimist

Nozzle Color	Antimist Nozzle Color	Flow Rate (GPH)	Nozzle Ø (inches)	Height (feet)	Wetted Diameter (feet)	
					Grey Swivel	Black Swivel
						
Orange	Orange	18.5	0.047	2	18.0	
				4	21.3	
				6	26.2	
				10	29.5	
Black	Yellow	23.8	0.057	2		16.4
				4		21.3
				6		24.6
				10		27.9
Blue	Blue	31.7	0.063	2		18.0
				4		23.0
				6		24.6
				10		29.5

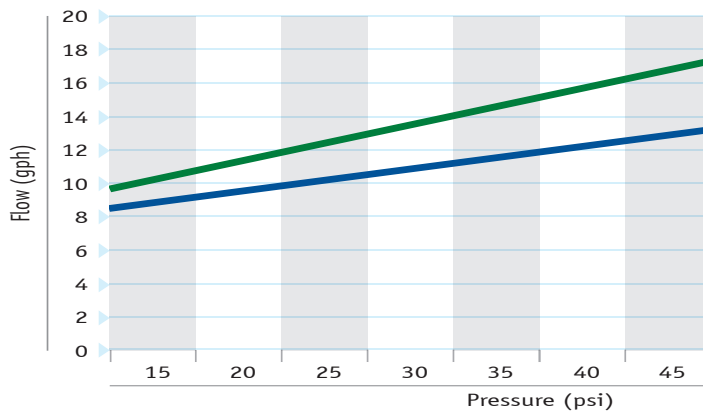


Green Spin Jr.

- Flow rates: 10.4 & 13.2 gph @ 29 psi
- Recommended working pressure: 30 psi
- Required filtration: 120 mesh
- Wetted diameter: up to 6 feet single bench width

Flow Rate vs. Pressure

Nozzle Color	Nominal Flow (gph)	Pressure (psi)						
		15.0	20.0	25.0	30.0	35.0	40.0	45.0
Blue	10.4	7.7	8.9	9.9	10.8	11.6	12.6	13.4
Green	13.2	9.7	11.1	12.3	13.6	14.6	15.7	16.7



Dan Modular



Dan Modular is the original micro sprinkler that set the standard for all micro sprinklers. The broad range of flow rates, wetted diameters and patterns from full to part circle with different sprayers, swivels, and anti-mist devices that produces small, medium, and large droplets makes it practically a universal device for agriculture, greenhouse, and landscape applications. For over two decades Dan Modular has been the product of choice as a standard micro sprinkler for greenhouse applications.

Product Features

- Dan Modular design offers comprehensive flexibility in an irrigation design
- Adapts to almost any field condition
- Broad range of flow rates, 10 nozzles and 4 anti-mist devices produce 14 flow rates from: 9.2 to 79.3 gph @ 29 psi
- 7 static spreaders and 5 swivels produce a wide variety of patterns and diameters
- Provides a range of desired droplet sizes from fog to mist to large droplets
- Field friendly, may be assembled and disassembled in the field
- Under-tree and over-tree, irrigation, frost protection and cooling (including chilling)
- Upright for field and greenhouse applications
- Inverted for greenhouse and hoop house applications
- Compatible with Leak Prevention Device (LPD)
- Recommended filtration 120 mesh
- Made of durable plastic for long term field operations – high UV resistance
- Nozzles are manufactured from wear resistant materials
- Clog resistant due to large water passages
- Even and uniform distribution of water and fertilizers



Applications

- Permanent crops (orchards), row crops (vegetables) and gardens
- Greenhouse, hoop and shade houses
- Cooling of poultry and livestock
- Organic or conventional fields
- Enhances frost protection and cooling
- Landscape: Flower beds, shrubs, gardens

Technical Data

- Flow rates: 9.2 to 79.3 gph @ 29 psi
- Recommended working pressure: 15 to 50 psi
- Required filtration: 120 mesh
- Wetted diameter: 2.6 to 36.1 feet

Performance Table

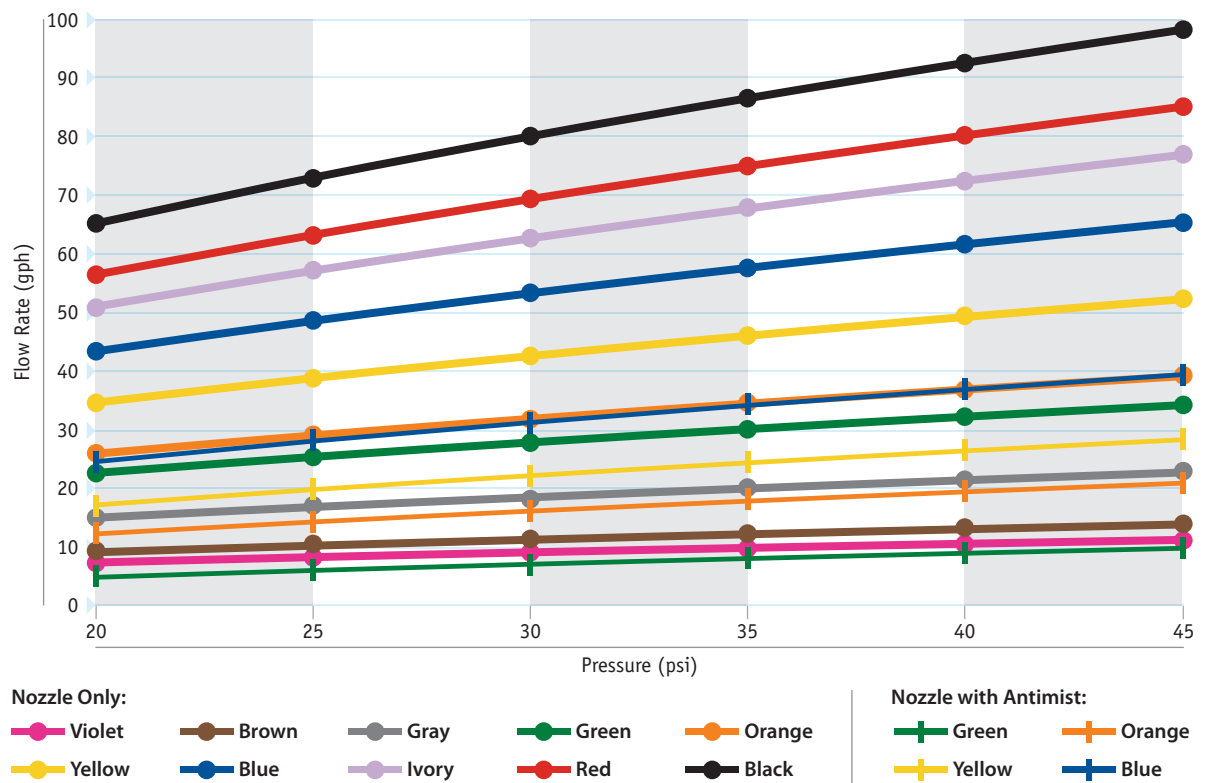
Nozzle Color	Antimist Color	Flow Rate (gph)	Nozzle Ø [inch]	Wetted Diameter (feet)															
				Static Spreaders						Swivels									
				90° (Black)	180° (Red)	Mist (Violet)	Strip (Blue)	Close-Range (Orange)	Flat (Yellow)	12 Jet (Green)	Small (Black)	Anti-Ant (Red/Black)	One-Sided (Black)	One-Sided (Blue)	Big (Orange)	Inverted* (Green)			
																Height (feet)			
																2'	4'	6'	
Violet		9.2	0.032	5.6	7.2	4.9	10.5	3.0	9.2	11.2	19.7	19.7	21.3				16.4	19.7	19.7
Brown		11.4	0.037	5.6	8.2	5.9	13.8	3.0	11.2	14.8	19.7	21.3	23.0				18.0	19.7	21.3
Grey		18.5	0.046	8.2	8.9		27.9	3.0	11.2	18.0	21.3	21.3	24.6				21.3	21.3	24.6
Green		27.7	0.056	11.5	8.9		29.5	3.0	11.2	19.7	21.3	23.0	26.2		29.5		26.2	26.2	27.9
Orange		31.7	0.059	14.8	8.9		29.5	3.0	13.1	19.7	21.3	24.6	26.2		29.5		26.2	27.9	29.5
Yellow		42.3	0.068								21.3	26.2	27.9	26.2	31.2		29.5	29.5	31.2
Blue		52.8	0.076									27.9	29.5	27.9	31.2		29.5	29.5	32.8
Ivory		62.1	0.081										31.2	29.5	32.8		29.5	31.2	34.4
Red		68.7	0.086										32.8	32.8	32.8		29.5	32.8	36.1
Black		79.3	0.092										34.4	34.4	32.8		31.2	32.8	36.1
Green	Green	10.6	0.037	6.6	3.9		9.2	2.6	11.5	8.2	13.1						14.8	16.4	19.7
Orange	Orange	18.5	0.046	7.2	7.2		16.4	2.6	11.5	14.8	16.4						19.7	23.0	24.6
Yellow	Yellow	23.8	0.055	8.2	8.2		18.0	3.0	13.1	16.4	18.0						19.7	23.0	26.2
Blue	Blue	31.7	0.059	8.2	8.9		23.0	3.3	13.1	19.7	19.7						21.3	26.2	26.2

* Flow rate and wetted diameter (feet) at 29 psi and 10" above ground level. Inverted swivel at 2', 4' and 6'.



Dan Modular Flow vs. Pressure

Nozzle Color	Nozzle + Antimist Color	Nominal Flow (gph)	Nozzle Ø (inch)	Pressure (psi)					
				20	25	30	35	40	45
Violet		9.2	0.032	7.7	8.6	9.4	10.2	10.9	11.5
Brown		11.4	0.037	9.4	10.5	11.6	12.5	13.3	14.1
Grey		18.5	0.046	15.4	17.2	18.8	20.3	21.7	23.0
Green		27.7	0.056	23.0	25.8	28.2	30.5	32.6	34.5
Orange		31.7	0.059	26.3	29.4	32.2	34.8	37.2	39.5
Yellow		42.3	0.068	35.1	39.2	43.0	46.4	49.6	52.6
Blue		52.8	0.076	43.9	49.0	53.7	58.0	62.0	65.8
Ivory		62.1	0.081	51.5	57.6	63.1	68.2	72.9	77.3
Red		68.7	0.086	57.0	63.8	69.8	75.4	80.7	85.5
Black		79.3	0.092	65.8	73.6	80.6	87.1	93.1	98.7
	Green	10.6	0.037	8.8	9.8	10.7	11.6	12.4	13.2
	Orange	18.5	0.046	15.4	17.2	18.8	20.3	21.7	23.0
	Yellow	23.8	0.055	19.7	22.1	24.2	26.1	27.9	29.6
	Blue	31.7	0.059	26.3	29.4	32.2	34.8	37.2	39.5



Super Fogger

Super Fogger x 2



Super Fogger x 4



Green cover: Medium pressure
Blue cover: High pressure

Super Fogger is an optimal and economical solution for cooling, humidifying and chemical spraying in greenhouses.

Product Features

- Two and four outlets are available
 - Super Fogger X2 (two outlets)
 - Super Fogger X4 (four outlets)
- Built-in LPD (Leakage Prevention Device)
 - High pressure (blue cover)
 - Medium pressure (green cover)
- Very small droplets for minimal foliage wetting during pulsed operation
- Excellent coverage when used for pesticide application
- Easy installation and service
- Chemical-resistant raw materials
- Connections for PE & PVC pipes
- Low cost
- Recommended working pressure:
 - High pressure: 60 psi
 - Medium pressure: 45 psi
- Recommended filtration: 130 micron (120 mesh)



Super Fogger Technical Data

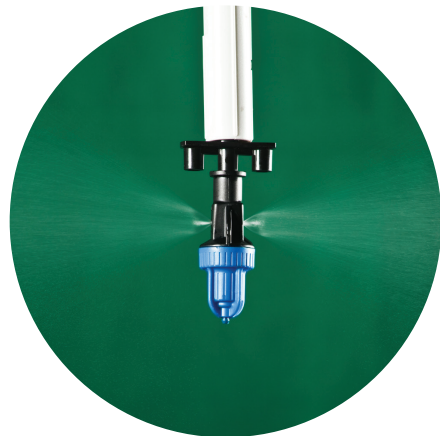
Technical Data

Model	Medium Pressure* (green cover)				High Pressure (blue cover)			
	Flow Rate (gph @ 40 psi)	Opening Pressure (psi)	Closing Pressure (psi)	Average Droplet Size (micron)	Flow Rate (gph @ 60 psi)	Opening Pressure (psi)	Closing Pressure (psi)	Average Droplet Size (micron)
Super Fogger - 2	3	40	20	69	3.5	60	35	55
Super Fogger - 4	5.5	40	20	69	6.5	60	35	55

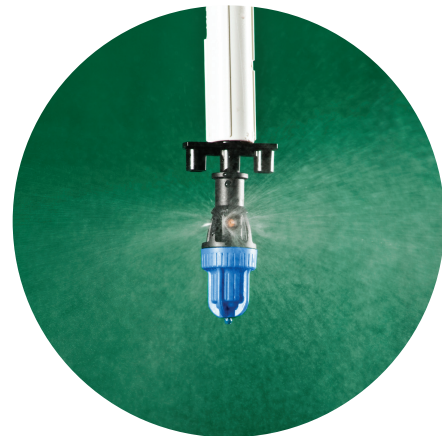
* Medium pressure model, maximum operating pressure is 50 psi

Applications and Recommended Spacing

Model	Climate Control			Pesticide Spraying		Propagation		
	Heads (feet)	Laterals (feet)	Height (feet)	Heads (feet)	Laterals (feet)	Heads (feet)	Laterals (feet)	Height (feet)
Super Fogger - 2	5	10	6.5 - 13	5	10			
Super Fogger - 4	10	10	6.5 - 13			3	3	3



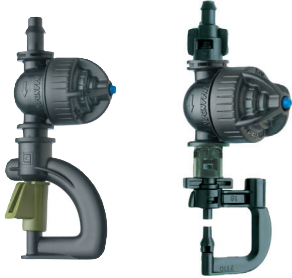
Super Fogger x 2



Super Fogger x 4



Super LPD



Super LPD is the latest Leakage Prevention Device for use for the greenhouse micro sprinklers. The Super LPD allows micro sprinklers to start-up and shut-down simultaneously. Its check valve function eliminates water damage by preventing leaks after the system shut-down. Available in High and Low pressure models. Made of three parts for simple maintenance.

Product Features

- Prevents drainage through emission devices while system is under pressure
- Maintains system pressure, enabling immediate start-up
- All units start-up and/or shut-down simultaneously
- Available for high pressure (Blue) & low pressure (Black) applications
- Modular – fits all NaanDanJain micro-sprinklers (including the competition)
- Three inlet connection types: barb 4/7 (PE), female, 3/8" thread (PVC)
- Two outlet connection types: female, bayonet (Hadar 7110, Green Spin)
- One-stage opening: Super LPD is either completely opened or closed
- Easily dismantled for cleaning and maintenance
- Recommended filtration 120 mesh
- Clog resistant due to wide water passages
- Low pressure loss due to wide water passages
- Easily retrofits existing micro-sprinkler systems
- Manufactured from durable plastic for long term operations

Applications

- Greenhouse, hoop house, barns and stalls, etc.
- Use with micro-sprinklers: Green Spin, Dan Modular, Hadar 7110, Green Mist, and Foggers (including competition)
- Organic or conventional fields
- Where uniform application of irrigation water is desired



Super LPD Technical Data

Performance Table Operating Pressure (psi)

Product	Low-Pressure LPD	High-Pressure LPD
Opening	20.0	58.0
Closing	9.0	35.0

- Available in 2 models
 Black: Low pressure for micro-sprinklers
 Blue: High pressure for foggers
- Recommended working pressure: 20 to 60 psi
- Required filtration: 120 mesh

Models

Model #	Part #	Description
LPD-LP-FM-MA	11990308	Low- pressure female (black)
LPD-LP-BB-MA	11990328	Low- pressure, 4/7" (black)
LPD-LP-38-MA	11990348	Low- pressure, 3/8" (black)
LPD-LP-BB-BY	11990228	Low- pressure, 4/7" x bayonet (black)
LPD-LP-BY-BY	11990258	Low-pressure, bayonet x bayonet (black)
LPD-HP-FM-MA	11990303	High- pressure, female (blue)
LPD-HP-BB-MA	11990323	High- pressure, 4/7" (blue)
LPD-HP-38-MA	11990343	High- pressure, 3/8" (blue)
RLPD-LP-MA-FM	11990488	Low- pressure, retrofit male x retrofit female
RLPD-LP-BB-FM	11990428	Low- pressure, 4/7" x retrofit female
RLPD-LP-38-FM	11990448	Low- pressure, 3/8" x retrofit female
RLPD-LP-MA-MA	11990388	Low-pressure, retrofit male x taper male
RLPD-LP-MA-BY	11990288	Low-pressure, retrofit male x bayonet
RLPD-HP-MA-FM	11990483	High- pressure, retrofit male x retrofit female
RLPD-HP-BB-FM	11990423	High- pressure, 4/7" x retrofit female
RLPD-HP-38-FM	11990443	High- pressure, 3/8" x retrofit female

Retrofit Super LPD Connections

Connection		Outlet					
		Female		Bayonet		Male	
		LP	HP	LP	HP	LP	HP
Inlet	Male	X	X	X		X	
	Barb	X	X				
	3/8" taper	X	X				

Super LPD Connections

Connection		Outlet			
		Male		Bayonet	
		LP	HP	LP	HP
Inlet	Female	X	X		
	Barb	X	X	X	
	3/8" taper	X	X		
	Bayonet			X	



Spray Sticks



Aqua Spray Sticks are engineered to provide an irrigation system that delivers both high performance and dependability. Ease-of-use, performance, and low-cost have makes Aqua Spray Sticks an ideal product line for greenhouses, nurseries, and orchards. Simplicity in design and easy installation mean lower labor and material costs.

Product Features

- Stake designed in a “H” pattern and taller for better stability in most soil medias.
- Dual shut off capabilities:
 - a. Shut off tip on side instead of base of spray stick to eliminate contaminating tubing with soil
 - b. Second shut off capability on stake as an oval with use of our anti kink nursery tubing
- Multiple flow rates and patterns — there’s an Aqua Spray Stick that’s right for your operation.
- Made with UV-resistant resins, designed to last and reduce the possibility of tip damage.
- Spray direction indicator
- Built-in shut-off tip
- Designed to work effortlessly for years.
- Simple design allows to unclog Aqua Spray Sticks by simply pulling off the Spray Stick, cleaning the channel, and reinserting the same emitter back on the tubing
- Uses 187x125 polyethylene tubing
- Down spray and horizontal spray patterns

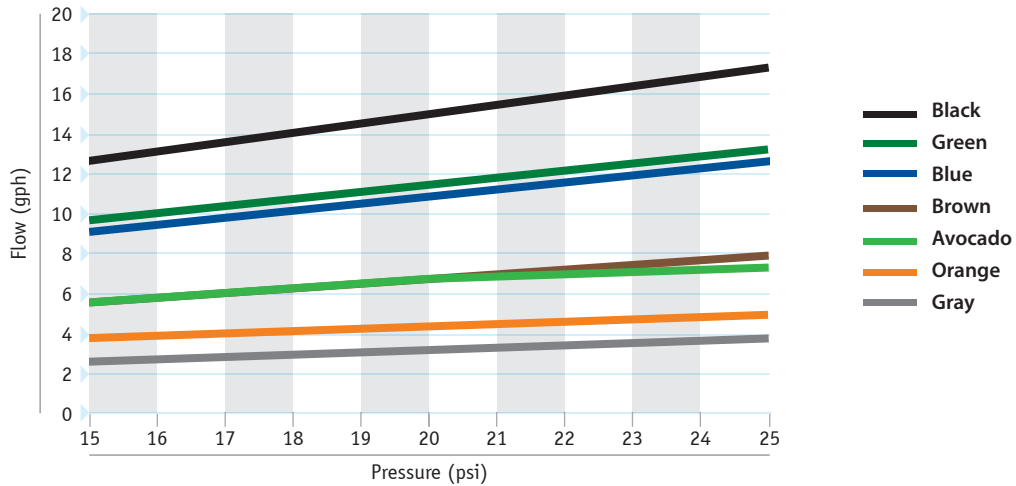
Aqua Spray Sticks Models

Model #	Color	Volume	Pattern	Size	Flow (20psi)
ASBLK-6	Black	High Flow	Down 160°	6"	15.0
ASGRN-6	Green	Medium Flow	Down 160°	6"	11.4
ASAVCDO-6	Avocado	Low Flow	Down 160°	6"	6.6
ASTERCTA-6	Terra Cotta	Mini Flow	Down 160°	6"	4.2
ASBRN-6	Brown	Low Flow	Flat 90°	6"	6.6
ASGRY-6	Gray	Mini Flow	Flat 90°	6"	3.0
ASBLU-6	Blue	Medium Flow	Flat 360°	6"	10.8



Spray Sticks Technical Data

Flow Rate vs. Pressure



Flow vs. Pressure

Pressure	Orange	Avocado	Green	Black	Grey	Brown	Blue
psi	gph	gph	gph	gph	gph	gph	gph
15	3.6	5.4	9.6	12.6	2.4	5.4	9.0
20	4.2	6.6	11.4	15	3.0	6.6	10.8
25	4.8	7.2	13.2	17.4	3.6	7.8	12.6



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