Field Stands

Optimizing Sprinkler Systems

More Crop per Drop™

JAIN®

www.JAINSUSA.com

Introduction

Sprinkler Systems with Field Stands - The ultimate sprinkler irrigation system for high-quality crops in open fields, orchards, and nurseries.

Jain Irrigation develops, manufactures and markets the largest selection of comprehensive irrigation technologies, designed for economical and efficient water management. With over seventy years of experience, the company operates in over 80 countries on all continents, meeting all the requirements of efficient modern irrigation. Jain Irrigation's broad range of sprinkler and dripline technologies provides efficient, flexible and cost-effective solutions for a wide range of crops in diverse conditions, tailored to varied customer needs.

The Field Stand family incorporates impact, turbo hammer and ball-driven sprinklers, providing comprehensive solutions for irrigation of crops in open fields and nurseries. Sprinkler Systems with Field Stands are ideal for bulb, root and leaf crops. They can be adapted to individual requirements and varying field, climate and crop conditions.

Sprinkler Systems with Field Stands:

- Ensure accurate and reliable performance
- Are resistant to wear and tear, UV radiation and chemicals
- Facilitate maximum control and monitoring of continuously wetted and aerated soil, ensuring optimal growing conditions

Sprinkler Systems with Field Stands meet the highest standards of effective irrigation and enable increased profitability, based on the following principles:

- High distribution uniformity
- Low droplet impact on soil: Preserves soil structure and prevents crust formation, ensuring high distribution uniformity. Each and every droplet penetrates directly into the root zone, facilitating perfect germination and development. The fine, low droplet impact velocity prevents splashing of sand and fertilizers onto the seedlings.
- Low application rate (0.1-0.2 in/hr): Allows optimal absorption of water and nutrients into the soil and plants, with better control of the wetted and aerated depth.
- Irrigation frequency: Prevents stress from surplus or shortage of water and provides optimal growing conditions with highly accessible water and nutrients in a controlled, wetted and aerated soil profile. There is no pollutive leakage into the groundwater.

Our Field Stand Product Range

- Mini-Revolver, Opal, 501/502: for spacings up to 30 feet
- Super 10 and 5022-SD: for spacings up to 40 feet (with optional flow regulator)

Comparison of Sprinkler Irrigation Systems

	Center pivots and spray lines	Hose reels (sprinkler)	Solid-set system: Giant sprinklers (spacings up to 150 feet)	Solid-set system: 3/4" sprinklers (spacings up to 65 feet)	Solid-set system: 1/2" Field Stand sprinklers (spacing up to 40 feet)
Distribution uniformity (CU)	excellent 90%	good 85%	poor 80%	good 88%	excellent 90%

Factors influencing distribution uniform

Pressure (psi)	60-70	90-110	70-90	60-70	30-50
Wind	medium	high	high	high	medium
Water penetration uniformity	low	low	low	medium	high

Factors influencing penetration uniformity

Application rate (in/hr)	2.4 - 2.8	1.2 - 1.6	0.6	0.3 - 0.5	0.1 - 0.2
Droplet impact	medium	very high	very high	medium	low
Crust/runoff	high	very high	very high	high	low

Benefits

Saving in water and nutrients	none	none	none	none	up to 20%
Saving in energy	moderate	none	none	none	up to 30%
Pollutive leakage	yes	yes	yes	yes	none
Environment friendly	none	none	none	none	yes
Quantity/ quality yield	good	poor	poor	good	excellent

Costs

Equipment $/ac	400 - 500	400 - 500	400	800 (aluminum pipes)	400
Labor	one salary/ vehicle year round	one salary/ vehicle year round	laying out and collection 4 workers/ 30 ha/day	laying out and collection 4 workers/ 8 ha/day	laying out and collection 4 workers/ 8 ha/day

All distribution uniformity data relates to windless conditions.
For irrigation in windy conditions, reduce the sprinkler spacing.

Operational and Economic Advantages

- Closed irrigation system – all system components are protected from external dirt
- Savings in system costs
- Savings in labor costs – light, easy and convenient to transport, install, collect and store
- Savings in energy – low-pressure, high-performance irrigation
- Savings in water, nutrients and pesticides – contributes to better public health and environmental quality
- Significant increase in yields (up to 20%) - both in quality and quantity (plant uniformity and health)
- Reduced marginal field area = increased yielding area
- Higher cost-benefit ratio
- 4 sizes (FS47, FS58, FS710, FS912) of Field Stands are available to optimize friction loss and costs

Super 10

Extra-range, ball-driven sprinkler

Applications

- Field crops, greenhouses, residential and landscaping
- For extra-range spacing up to 40 feet
- Compact, sturdy, closed and protected ball engine
- Bayonet nozzle for easy service
- Optional Flow Regulator (F.R.)
- High water distribution
- Brown nozzle for road protector only

Super 10 Performance Table

Precipitation rates (in/hr) and uniformity (CU) at various spacing								
Nozzle inch	Pressure psi	Flow gpm	Spacing (feet)*					
			30x30	30x36	32x32	32x36	36x36	40X40
Blue	36.3	1.59	0.17	0.14	0.15	0.13	0.12	0.10
	43.5	1.74	0.19	0.16	0.16	0.15	0.13	0.11
	50.8	1.87	0.20	0.17	0.18	0.16	0.14	0.11
	58.0	2.00	0.21	0.18	0.19	0.17	0.15	0.12
	F.R.	1.59	0.17	0.14	0.15	0.13	0.12	0.10
Yellow	36.3	1.98	0.21	0.18	0.19	0.17	0.15	0.12
	43.5	2.18	0.23	0.19	0.20	0.18	0.16	0.13
	50.8	2.33	0.25	0.21	0.22	0.20	0.17	0.14
	58.0	2.51	0.27	0.22	0.24	0.21	0.19	0.15
	F.R.	1.98	0.21	0.17	0.18	0.16	0.15	0.12
Green	36.3	2.42	0.26	0.21	0.23	0.20	0.18	0.14
	43.5	2.64	0.28	0.24	0.25	0.22	0.20	0.16
	50.8	2.86	0.31	0.26	0.27	0.24	0.21	0.17
	58.0	3.06	0.33	0.27	0.29	0.26	0.23	0.18
	F.R.	2.42	0.26	0.21	0.23	0.20	0.18	0.14
Red	36.3	2.95	0.31	0.26	0.27	0.24	0.22	0.18
	43.5	3.24	0.31	0.26	0.27	0.24	0.22	0.18
	50.8	3.48	0.37	0.31	0.32	0.29	0.26	0.21
	58.0	3.74	0.40	0.33	0.35	0.31	0.28	0.22
	F.R.	2.95	0.31	0.26	0.28	0.24	0.22	0.18

*Spacing (Sprinkler spacing x lateral Spacing) Rectangular Pattern

Uniformity (CU) - Color Code	>90%	89%-85%	84%-80%	<80%

Super 10

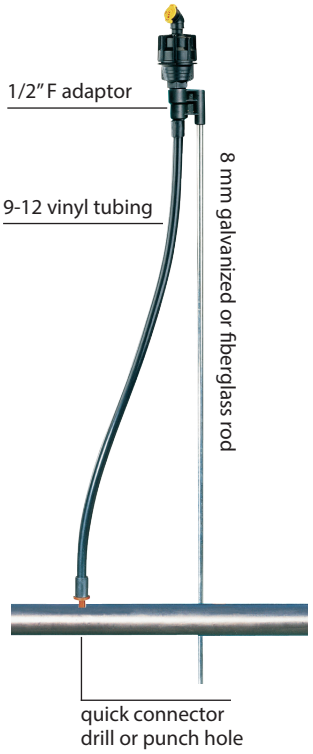
Quantities per Acre

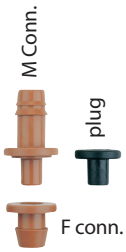
Sprinklers and Tubing per Acre		
Spacing	Super 10	
	Spk/Ac	Tube/Ac
30x30	48.4	1452
30x36	40.3	1210
32x32	42.5	1361
32x36	37.8	1210
36x36	33.6	1210
40X40	27.2	1089

Lateral Design

Sprinklers per Lateral							
	Nozzle inch	Flow gpm	Spacing feet	Supply Tubing*			
				1″	1-1/4″	1-1/2″	2″
Super 10	Blue	1.74	30	7	12	16	25
	Yellow	2.18	30	6	11	14	22
	Green	2.64	30	5	9	12	19
	Red	3.24	30	5	8	11	16

*Maximum number of heads based on given spacing and 10% Pressure Variation






LPD barb


Road protector

Super 10 Field Stand Sizing

Maximum feedtube length						
Nozzle inch	Pressure psi	Flow gpm	Field Stand Length*			
			FS47	FS58	FS710	FS912
Blue	36.3	1.59			48	48
	43.5	1.74			48	48
	50.8	1.87			42	48
	58.0	2.00			36	48
	F.R.	1.59			48	48
Yellow	36.3	1.98			36	48
	43.5	2.18			27	48
	50.8	2.33			21	48
	58.0	2.51			15	48
	F.R.	1.98			36	48
Green	36.3	2.42			18	48
	43.5	2.64			12	48
	50.8	2.86				48
	58.0	3.06				48
	F.R.	2.42				48
Red	36.3	2.95				48
	43.5	3.24				48
	50.8	3.48				48
	58.0	3.74				48
	F.R.	2.95				48

*Maximum Length based on 4 psi drop

Mini-Revolver

Low-volume, ball-driven sprinkler 1/2" male

Applications

- Vegetables, flowers, nurseries and greenhouses
- Compact, sturdy closed protected ball engine
- Uniform water distribution at low pressure and precipitation rate
- Color-coded, plastic, high-trajectory nozzles for easy operation and service
- Extra-strong plastic compounds and ceramic washers reduce wear and tear
- Insect-resistant, pop-up pop-down nozzle
- Optional Flow Regulator (F.R.)
- Optional road protector
- Operating pressure:
  30 - 60 psi w/o regulator
  45 - 70 psi w/ regulator

Mini-Revolver Performance Table

Precipitation rates (in/hr) and uniformity (CU) at various spacing							
Nozzle inch	Pressure psi	Flow gpm	Spacing (feet)*				
			20x20	20x24	24x24	24x30	30x30
Blue	21.8	0.59	0.122	0.102	0.085	0.068	0.054
	29.0	0.66	0.144	0.12	0.1	0.08	0.064
	36.3	0.73	0.158	0.132	0.11	0.088	0.07
	43.5	0.78	0.175	0.145	0.121	0.097	0.078
	50.8	0.85	0.19	0.158	0.132	0.106	0.085
	F.R.	0.59	0.139	0.116	0.096	0.077	0.062
Yellow	21.8	0.79	0.163	0.135	0.113	0.09	0.072
	29.0	0.88	0.182	0.152	0.127	0.101	0.081
	36.3	0.97	0.214	0.178	0.148	0.119	0.095
	43.5	1.05	0.232	0.194	0.161	0.129	0.103
	50.8	1.12	0.254	0.212	0.176	0.141	0.113
	F.R.	0.79	0.19	0.159	0.132	0.106	0.085
Violet	21.8	0.99	0.205	0.171	0.142	0.114	0.091
	29.0	1.11	0.238	0.198	0.165	0.132	0.106
	36.3	1.21	0.267	0.222	0.185	0.148	0.119
	43.5	1.31	0.291	0.243	0.202	0.162	0.129
	50.8	1.41	0.315	0.262	0.218	0.175	0.14
	F.R.	0.99	0.234	0.195	0.162	0.13	0.104
Black	21.8	1.19	0.247	0.206	0.171	0.137	0.11
	29.0	1.33	0.288	0.24	0.2	0.16	0.128
	36.3	1.45	0.322	0.268	0.224	0.179	0.143
	43.5	1.57	0.35	0.291	0.243	0.194	0.155
	50.8	1.69	0.379	0.316	0.263	0.211	0.169
	F.R.	1.19	0.281	0.234	0.195	0.156	0.125

*Spacing (Sprinkler spacing x lateral Spacing) Rectangular Pattern

Uniformity (CU) - Color Code	>90%	89%-85%	84%-80%	<80%

Mini-Revolver

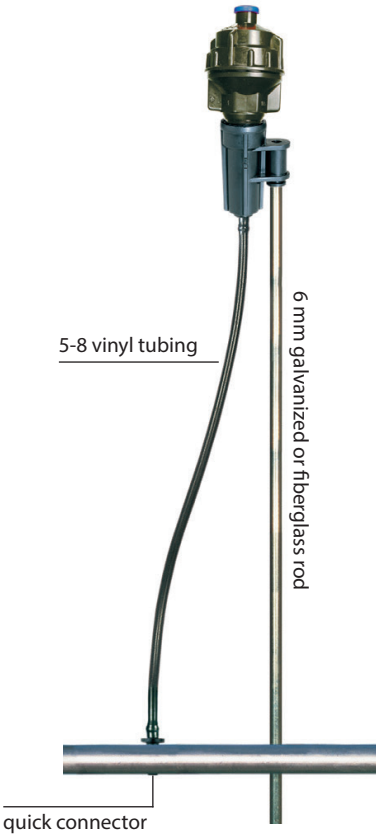
Quantities per Acre

Sprinklers and Tubing per Acre		
Spacing	Mini-Revolver	
	Spk/Ac	Tube/Ac
20x20	108.9	2178
20x24	90.8	1815
24x24	75.6	1815
24x30	60.5	1452
30x30	48.4	1452

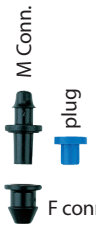
Lateral Design

Sprinklers per Lateral							
	Nozzle inch	Flow gpm	Spacing feet	Supply Tubing*			
				1″	1-1/4″	1-1/2″	2″
Mini-Revolver	Blue	0.73	20	13	21	28	44
	Yellow	0.97	20	11	18	23	36
	Violet	1.21	20	9	16	20	32
	Black	1.45	20	8	14	18	28

*Maximum number of heads based on given spacing and 10% Pressure Variation




Road protector



Mini-Revolver Field Stand Sizing

Maximum feedtube length						
Nozzle inch	Pressure psi	Flow gpm	Field Stand Length*			
			FS47	FS58	FS710	FS912
Blue	21.8	0.59	24	48	48	48
	29.0	0.66	15	48	48	48
	36.3	0.73	12	45	48	48
	43.5	0.78		36	48	48
	50.8	0.85		30	48	48
	F.R.	0.59	24	48	48	48
Yellow	21.8	0.79	24	36	48	48
	29.0	0.88		27	48	48
	36.3	0.97		21	48	48
	43.5	1.05		15	48	48
	50.8	1.12		12	48	48
	F.R.	0.79	24	36	48	48
Violet	21.8	0.99		18	48	48
	29.0	1.11		12	48	48
	36.3	1.21			48	48
	43.5	1.31			48	48
	50.8	1.41			48	48
	F.R.	0.99		18	48	48
Black	21.8	1.19			48	48
	29.0	1.33			48	48
	36.3	1.45			48	48
	43.5	1.57			48	48
	50.8	1.69			48	48
	F.R.	1.19			48	48

*Maximum Length based on 4 psi drop

Opal

Rotating sprinkler with silicone motion controlled, 1/2" and female Acme threaded

Applications

- For irrigation of orchards, nurseries, greenhouses and open-field vegetables

Main Features

- Optimum water distribution with 9°, 15° and 24° trajectories for a wide range of applications
- Unique swivel for protection against snails
- Low impact droplet and low application rate
- Recommended pressure: 20 - 50 psi
- Flow range: 0.3 - 2.15 gpm
- High resistance to breakage, corrosion, UV radiation and fertilizers

Opal Performance Table

Precipitation rates (in/hr) and uniformity (CU) at various spacing									
Swivel Color	Nozzle inch	Pressure psi	Flow gpm	Spacing (feet)*					
				20x20	20x24	24x24	24x30	30x30	
Purple	Grey	21.8	0.55	0.134	0.111	0.093	0.074	0.059	
		29.0	0.66	0.169	0.141	0.117	0.094	0.075	
		36.3	0.73	0.172	0.143	0.12	0.096	0.077	
		43.5	0.79	0.189	0.157	0.131	0.105	0.084	
		50.8	0.86	0.201	0.168	0.14	0.112	0.09	
Purple	White	21.8	0.68	0.161	0.134	0.112	0.09	0.072	
		29.0	0.79	0.188	0.156	0.13	0.104	0.083	
		36.3	0.88	0.188	0.156	0.13	0.104	0.083	
		43.5	0.97	0.228	0.19	0.158	0.127	0.101	
		50.8	1.03	0.248	0.207	0.172	0.138	0.11	
Purple	Blue	21.8	0.84	0.195	0.162	0.135	0.108	0.087	
		29.0	0.95	0.229	0.191	0.159	0.127	0.102	
		36.3	1.08	0.258	0.215	0.179	0.144	0.115	
		43.5	1.17	0.277	0.231	0.193	0.154	0.123	
		50.8	1.25	0.301	0.251	0.209	0.167	0.134	
Orange	Orange	21.8	1.01	0.233	0.194	0.162	0.13	0.104	
		29.0	1.17	0.271	0.226	0.189	0.151	0.121	
		36.3	1.30	0.303	0.253	0.211	0.169	0.135	
		43.5	1.43	0.34	0.283	0.236	0.189	0.151	
		50.8	1.54	0.364	0.303	0.253	0.202	0.162	
Orange	Purple	21.8	1.19	0.277	0.232	0.193	0.154	0.124	
		29.0	1.39	0.32	0.267	0.223	0.178	0.142	
		36.3	1.54	0.368	0.307	0.256	0.204	0.164	
		43.5	1.67	0.4	0.334	0.278	0.222	0.178	
		50.8	1.83	0.436	0.363	0.303	0.242	0.194	
Orange	Yellow	21.8	1.41	0.337	0.281	0.234	0.187	0.15	
		29.0	1.63	0.387	0.323	0.269	0.215	0.172	
		36.3	1.83	0.435	0.362	0.302	0.242	0.193	
		43.5	2.00	0.477	0.398	0.331	0.265	0.212	
		50.8	2.16	0.513	0.428	0.356	0.285	0.228	
Brown	Orange	21.8	1.01	0.237	0.197	0.164	0.132	0.105	
		29.0	1.17	0.271	0.226	0.188	0.151	0.121	
		36.3	1.30	0.307	0.256	0.213	0.171	0.136	
		43.5	1.43	0.335	0.28	0.233	0.187	0.149	
		50.8	1.54	0.365	0.304	0.253	0.203	0.162	
Brown	Purple	21.8	1.19	0.28	0.233	0.194	0.155	0.124	
		29.0	1.39	0.326	0.271	0.226	0.181	0.145	
		36.3	1.54	0.363	0.303	0.252	0.202	0.162	
		43.5	1.67	0.397	0.331	0.276	0.221	0.177	
		50.8	1.83	0.437	0.364	0.304	0.243	0.194	
Brown	Yellow	21.8	1.41	0.337	0.28	0.234	0.187	0.15	
		29.0	1.63	0.39	0.326	0.271	0.217	0.174	
		36.3	1.83	0.438	0.365	0.304	0.244	0.195	
		43.5	2.00	0.482	0.402	0.335	0.268	0.214	
		50.8	2.16	0.513	0.427	0.356	0.285	0.228	

*Spacing (Sprinkler spacing x lateral Spacing) Rectangular Pattern

Uniformity (CU) - Color Code: >90% | 89%-85% | 84%-80% | <80%

Opal

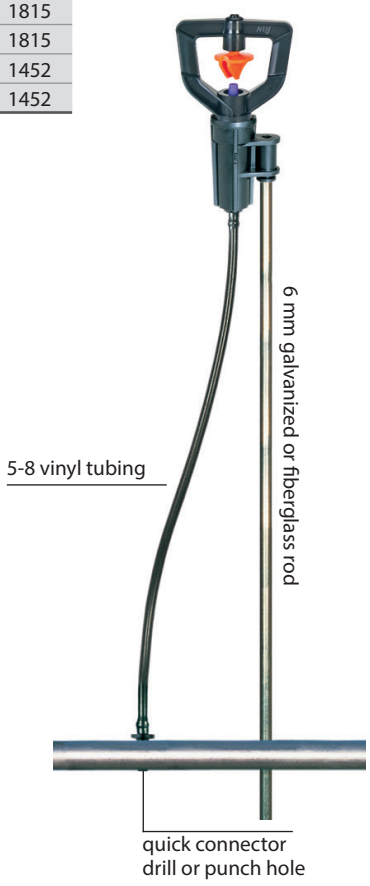
Lateral Design

Sprinklers per Lateral							
	Nozzle inch	Flow gpm	Spacing feet	Supply Tubing*			
				1″	1-1/4″	1-1/2″	2″
Opal	Grey	0.73	20	12	20	26	40
	White	0.88	20	11	18	23	36
	Blue	1.08	20	9	16	20	32
	Orange	1.30	20	8	14	18	29
	Purple	1.54	20	7	12	16	25
	Yellow	1.83	20	6	11	15	23

*Maximum number of heads based on given spacing and 10% Pressure Variation

Quantities per Acre

Sprinklers and Tubing per Acre		
Spacing	Opal	
	Spk/Ac	Tube/Ac
20x20	108.9	2178
20x24	90.8	1815
24x24	75.6	1815
24x30	60.5	1452
30x30	48.4	1452



Opal Field Stand Sizing

Maximum feedtube lengths							
Swivel Color	Nozzle inch	Pressure psi	Flow gpm	Field Stand Length*			
				FS47	FS58	FS710	FS912
Purple	Grey	21.8	0.55	27	48	48	48
		29.0	0.66	18	48	48	48
		36.3	0.73	12	45	48	48
		43.5	0.79		36	48	48
		50.8	0.86		30	48	48
Purple	White	21.8	0.68	15	48	48	48
		29.0	0.79		36	48	48
		36.3	0.88		27	48	48
		43.5	0.97		21	48	48
		50.8	1.03		18	48	48
Purple	Blue	21.8	0.84		30	48	48
		29.0	0.95		21	48	48
		36.3	1.08		15	48	48
		43.5	1.17			48	48
		50.8	1.25			48	48
Orange	Orange	21.8	1.01		18	48	48
		29.0	1.17			48	48
		36.3	1.30			48	48
		43.5	1.43			48	48
		50.8	1.54			48	48
Orange	Purple	21.8	1.19			48	48
		29.0	1.39			48	48
		36.3	1.54			48	48
		43.5	1.67			48	48
		50.8	1.83			45	48
Orange	Yellow	21.8	1.41			48	48
		29.0	1.63			48	48
		36.3	1.83			45	48
		43.5	2.00			36	48
		50.8	2.16			27	48
Brown	Orange	21.8	1.01		18	48	48
		29.0	1.17			48	48
		36.3	1.30			48	48
		43.5	1.43			48	48
		50.8	1.54			48	48
Brown	Purple	21.8	1.19			48	48
		29.0	1.39			48	48
		36.3	1.54			48	48
		43.5	1.67			48	48
		50.8	1.83			45	48
Brown	Yellow	21.8	1.41			48	48
		29.0	1.63			48	48
		36.3	1.83			45	48
		43.5	2.00			36	48
		50.8	2.16			27	48

*Maximum Length based on 4 psi drop

501/502

Turbo hammer low-volume sprinkler

Applications

- Vegetables, greenhouses, residential and landscaping
- For spacing up to 28 feet
- Excellent water distribution
- Fine water droplets for delicate irrigation of all crops

501/502 Performance Table

Precipitation rates (in/hr) and uniformity (CU) at various spacing							
Nozzle inch	Pressure psi	Flow gpm	Spacing (feet)*				
			20x20	20x24	24x24	24x28	28x28
Red 1/16″	21.8	0.44	0.11	0.09	0.07	0.06	0.05
	29.0	0.48	0.13	0.11	0.09	0.08	0.07
	36.3	0.57	0.14	0.12	0.10	0.08	0.07
	43.5	0.66	0.15	0.12	0.10	0.09	0.08
	50.8	0.73	0.16	0.14	0.11	0.10	0.08
Green 9/128″	21.8	0.66	0.15	0.12	0.10	0.09	0.08
	29.0	0.75	0.17	0.14	0.12	0.10	0.09
	36.3	0.84	0.19	0.16	0.13	0.11	0.10
	43.5	0.92	0.21	0.17	0.15	0.12	0.11
	50.8	1.01	0.23	0.19	0.16	0.14	0.12
Blue 5/64″	21.8	0.70	0.18	0.15	0.13	0.11	0.09
	29.0	0.79	0.21	0.17	0.14	0.12	0.11
	36.3	0.88	0.23	0.19	0.16	0.14	0.12
	43.5	0.97	0.26	0.21	0.18	0.15	0.13
	50.8	1.06	0.27	0.23	0.19	0.16	0.14
Yellow 11/128″	21.8	0.75	0.20	0.17	0.14	0.12	0.10
	29.0	0.88	0.23	0.19	0.16	0.14	0.12
	36.3	0.95	0.26	0.22	0.18	0.16	0.13
	43.5	1.03	0.29	0.24	0.20	0.17	0.15
	50.8	1.10	0.31	0.26	0.21	0.18	0.16

*Spacing (Sprinkler spacing x lateral Spacing) Rectangular Pattern

Uniformity (CU) - Color Code | >90% | 89%-85% | 84%-80% | <80%

501/502

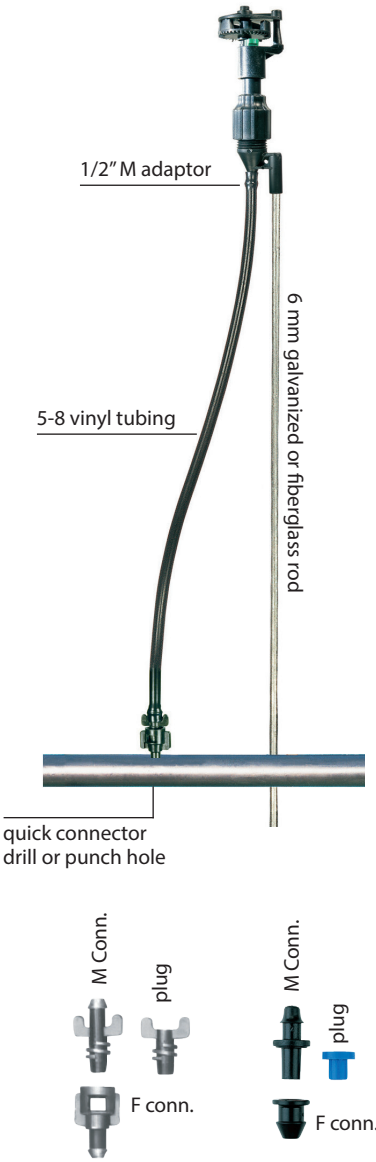
Quantities per Acre

Sprinkler and Tubing per Acre		
Spacing	501/502	
	Spk/Ac	Tube/Ac
20x20	108.9	2178
20x24	90.8	1815
24x24	75.6	1815
24x28	64.8	1556
28x28	55.6	1556

Lateral Design

Sprinklers per Lateral							
	Nozzle inch	Flow gpm	Spacing feet	Supply Tubing*			
				1″	1-1/4″	1-1/2″	2″
501/502	Red	0.57	20	14	23	30	47
	Green	0.84	20	12	19	25	39
	Blue	0.88	20	10	17	22	35
	Yellow	0.95	20	10	16	21	32

*Maximum number of heads based on given spacing and 10% Pressure Variation



501/502 Field Stand Sizing

Maximum feedtube lengths						
Nozzle inch	Pressure psi	Flow gpm	Field Stand Length*			
			FS47	FS58	FS710	FS912
Red 1/16″	21.8	0.44	48	48	48	48
	29.0	0.48	39	48	48	48
	36.3	0.57	24	48	48	48
	43.5	0.66	18	48	48	48
	50.8	0.73	12	45	48	48
Green 9/128″	21.8	0.66	18	48	48	48
	29.0	0.75	12	42	48	48
	36.3	0.84		30	48	48
	43.5	0.92		24	48	48
	50.8	1.01		18	48	48
Blue 5/64″	21.8	0.70	15	48	48	48
	29.0	0.79		36	48	48
	36.3	0.88		27	48	48
	43.5	0.97		21	48	48
	50.8	1.06		15	48	48
Yellow 11/128″	21.8	0.75	12	42	48	48
	29.0	0.88		27	48	48
	36.3	0.95		21	48	48
	43.5	1.03		18	48	48
	50.8	1.10		12	48	48

*Maximum Length based on 4 psi drop

5022 SD

Plastic impact sprinkler,
1/2" male or 3/4" female

Applications

- Irrigation and germination of vegetables, flowers and nursery crops
- Unique hammer-sprinkler SD (super-diffuser) design for extra range coverage
- SD - Designed for an optimal performance and stream shape for low pressures. A unique answer to the late diffuser screw.
- High distribution uniformity, up to 40 feet
- Higher resistance to wind
- Designed for short irrigation cycles for germination
- Color-coded bayonet nozzles for easy service
- High impact, heavy-duty plastic materials for resistance to corrosion, chemicals and radiation

5022 SD Performance Table

Precipitation rates (in/hr) and uniformity (CU) at various spacing								
Nozzle inch	Pressure psi	Flow gpm	Spacing (feet)*					
			30x30	30x36	32x32	32x36	36x36	40X40
Purple	21.8	1.94	0.20	0.17	0.18	0.16	0.14	0.12
	29.0	2.11	0.22	0.19	0.20	0.17	0.16	0.13
	36.3	2.36	0.25	0.21	0.22	0.20	0.17	0.14
	43.5	2.60	0.27	0.23	0.24	0.21	0.19	0.15
	50.8	2.80	0.30	0.25	0.26	0.23	0.21	0.17
	58.0	3.02	0.32	0.27	0.28	0.25	0.22	0.18
Orange	21.8	2.25	0.24	0.20	0.21	0.19	0.17	0.13
	29.0	2.73	0.27	0.22	0.23	0.21	0.18	0.15
	36.3	3.04	0.30	0.25	0.26	0.23	0.21	0.17
	43.5	3.35	0.32	0.27	0.28	0.25	0.22	0.18
	50.8	3.61	0.35	0.30	0.31	0.28	0.25	0.20
	58.0	3.79	0.37	0.31	0.33	0.29	0.26	0.21

*Spacing (Sprinkler spacing x lateral Spacing) Rectangular Pattern

Uniformity (CU) - Color Code	>90%	89%-85%	84%-80%	<80%

5022 SD

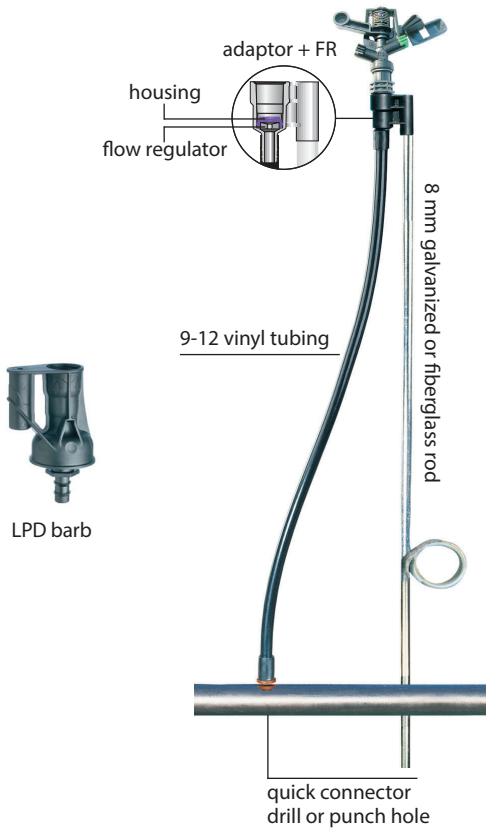
Quantities per Acre

Sprinklers and Tubing per Acre		
Spacing	5022 SD	
	Spk/Ac	Tube/Ac
30x30	48.4	1452
30x36	40.3	1210
32x32	42.5	1361
32x36	37.8	1210
36x36	33.6	1210
40X40	27.2	1089

Lateral Design

Sprinklers per Lateral							
	Nozzle inch	Flow gpm	Spacing feet	Supply Tubing*			
				1″	1-1/4″	1-1/2″	2″
5022 SD	Purple	2.60	30	5	9	12	19
	Orange	3.35	30	5	8	11	16

*Maximum number of heads based on given spacing and 10% Pressure Variation



5022 SD Field Stand Sizing

Maximum feedtube lengths						
Nozzle inch	Pressure psi	Flow gpm	Field Stand Length*			
			FS47	FS58	FS710	FS912
Purple	21.8	1.94			39	48
	29.0	2.11			30	48
	36.3	2.36			21	48
	43.5	2.60			12	48
	50.8	2.80				48
	58.0	3.02				48
Orange	21.8	2.25			24	48
	29.0	2.73				48
	36.3	3.04				48
	43.5	3.35				48
	50.8	3.61				39
	58.0	3.79				33

*Maximum Length based on 4 psi drop

Installation & Dismantle of Field Stands

Field Stand Systems components:

- Sprinklers based on the information in this catalog
- Lightweight user-friendly irrigation stands for fixed systems installed for growing seasons
- Continuous PD Tubing: 1", 1-1/4", 1-1/2" and 2" sizes
- PE tubing is offered in standard rolls or on big metal reels
- Transport systems: tractor with laying out/winding equipment, punch and push tool, PE tube welder
- Transportation and storage facilities for stands

Laying out and installation in the field

- Lay out the tubes and install the stands along rows that have been prepared, cultivated and sown
- The rows are prepared for installation of the irrigation system, according to a plan (distance between lines and between sprinklers on the line)

Laying out new tubes (without holes and start connectors)

- Mark and anchor pegs at the points where the tube will be laid out, to determine the end of the tube with mechanized laying out (the tubes are usually installed between two raised beds/furrows)
- Tie the tube end to the peg and drive the tractor slowly towards the end of the row. Cut the tube.

Important

When the metal reels runs out of tube before reaching the end of the row, it is recommended to connect the end of the tube with the tube from the new drum and to continue laying out the tube. Proper connection ensures tube strength, smoothness, continuity and quality.

After laying out the tubes in the field, wait one or two days until the tube straightens out from the coiled position before the next stage: punching and inserting the start connector in a straight line on the upper part of the tube.

Once the tubes settle, remove the anchor pegs and connect the tube to the irrigation lateral (on the valve line). Leave the end lines open until the system has been flushed.

Marking punch and push position for start connectors

Use a measuring tool (usually a piece of string) of a suitable length to mark the position of the sprinklers on the tube and for proper punch and push operation.

Mark the position of the first sprinkler, punch a hole and insert the first start connector. Use the measuring tool to continue punching and inserting the connectors until reaching the position of the last sprinkler on the tube. Two workers are required for this operation.

Important

It is important that the position of the first sprinkler on the tube in each row is uniform, to maintain the structure of sprinklers in the field.

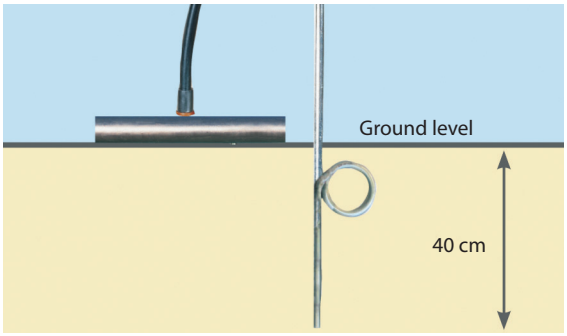
Use a standard punch only.

Proper use of the punch ensures a clean and round hole of a suitable diameter, to prevent leakage and release from the start connectors.

Distribution and assembly of sprinkler stands in the field

- Distribute the sprinkler stands in the field, along the tube and next to the start connectors.
- Install the sprinkler stand near the start connector outlet in the tube (usually between the raised beds).
- Stand adaptor: It is recommended to assemble the stand adaptor at the top of the stand (according to attached instructions page) to allow insertion of the rod into the soil and for proper long term operation of the sprinkler.

Installation & Dismantle of Field Stands



The sprinkler stand should always be stable and upright in the ground

- Insert the stand 18 inches into the ground (in hard ground, repeat the operation after initial wetting).
- Insert the rod with the stabilizer ring up to the upper point of the ring. It is important to install this rod correctly and to insert it up to a fixed mark, to ensure stability (no rotation) and an upright position.
- Make sure that the sprinkler stand is always stable and upright in the ground. This is essential for optimal operation and irrigation performance.
- Connect the stand tube (male barb) to the female quick connector in the tube by pressing firmly (up to 1/32 inch from the female barb) to prevent disconnection when irrigation starts.

Flushing to clean the system

At this stage, the entire irrigation system is connected to the water source and is ready for removal of sediments and suspensions (plastic remnants, sand and stones) It is essential for flushing to be thorough, for complete cleaning of the irrigation system.

To produce the required flushing pressure, open the valves gradually, so that there will be a flow of clean water at the line ends in each sub-plot, before closing the lines (with an end line or by bending the tube).

It is important to leave 6 feet of tube from the last irrigation stand, to collect dirt. This will prevent clogging in the last sprinklers.


The stand positioned close to the start connector

Checking system operation

Test the operation of the system after completing installation.

Test the operation of the control system (if relevant), valves, tube connections, operating pressures, and sprinkler operation. Check for leaks and release of start connectors.

Collection of sprinkler stands after the growing season

- Disconnect the sprinkler stands from the tubes and collect them in the storage containers.
- Wind the tubes onto the empty metal reels or free-standing coils. Connect the tube ends until the metal reel is full.
- Collect irrigation laterals, valves, and accessories.
- Store all system components.
- Carry out maintenance, preparation, and completion of the equipment for the next growing season.
- Stands with adaptors: It is recommended to disconnect the rod (with the stand adaptor) from the sprinkler system, for transportation and storage of the rods and components separately, to preserve the equipment for many years of use.

LPD For Field Stand

Leakage Prevention Device

Applications

- Prevents drainage from the irrigation system on start up and shut down
- Maintains a full irrigation system and ensures uniform irrigation in each area at a given time
- Contributes to efficient irrigation, high-quality peak yields and significant savings of water and fertilizers
- Prevents destruction of crop rows (raised beds) and damage to bulb and root crops caused by exposure to light

Structures and features

- High flow design at minimum head losses
- Durable plastic, resistant to breakage, radiation and fertilizers
- Used with the 9-12 tubing and FS912
- Recommended working pressure: 30 - 60 psi

Technical data

Discharge (psi)	Opening pressure (psi)	Closing pressure (psi)	Head loss (psi)
up to 3.3 gpm	15.0	8.0	1.0
3.3 - 6.6	20.0	11.0	3.5

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