



Full Coverage Irrigation™ *FCI Nozzles™ for Impact Sprinklers*

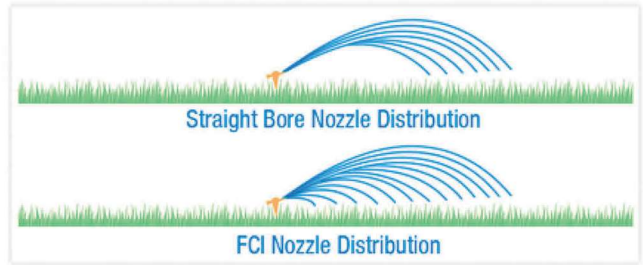
Maximizing Sprinkler Irrigation Efficiency



Our Patented Orifice: Impact rotary sprinklers have traditionally relied on high water pressure alone to achieve an acceptable level of water uniformity. The FCI nozzle uses our time proven stainless steel orifice plate to precisely strip just the right amount of water from the outside of the stream creating a “curtain” of water effect. This curtain of water optimizes the sprinkler profile at both low and high pressures, falling to the ground in a much more uniform and controlled pattern than is possible with standard straight bore nozzles (see reverse side for sprinkler performance comparisons).



Our Exclusive Vane: Brass impact sprinklers are incredibly reliable, but have always been plagued with imperfect water passageways, resulting in a turbulent flow of water. Turbulence varies from sprinkler to sprinkler causing uneven sprinkler performance and bad uniformity. The truth is, maximum uniformity can only be achieved when sprinkler turbulence is eliminated. To remove turbulence, each FCI nozzle is fitted with our exclusive straightening vane. The turbulent free flow is then mechanically altered by the FCI orifice plate, delivering the highest possible uniformity.



What are the advantages of retrofitting my sprinklers with the FCI nozzles?

- * Maximum possible water uniformity on existing spacings at both low and high pressures
- * Higher yields
- * Stainless steel orifice will outlast brass or plastic nozzles
- * Larger orifice opening than straight bore nozzles means less plugging
- * Improved crop cooling in desert regions
- * Clog resistant straightening vane



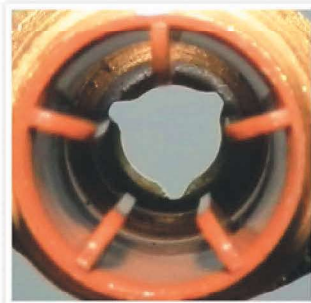
Features:

- * Retrofits Rain Bird, Weather Tec, and Other 1/2" Base Sprinklers
- * Color Coded for Easy Identification

Straight Bore Nozzle Size	5/64"	3/32" or 7/64"	7/64" or 1/8"	1/8" or 9/64"
FCI Replacement Size	3.5	5.0	6.5	7.5
PSI	GPM			
30	1.16	1.76	2.23	2.94
35	1.24	1.89	2.41	3.12
40	1.31	2.02	2.57	3.34
45	1.38	2.14	2.72	3.56
50	1.44	2.25	2.85	3.71
55	1.49	2.35	2.96	3.90
60	1.53	2.45	3.12	4.06
65	1.59	2.54	3.26	4.15



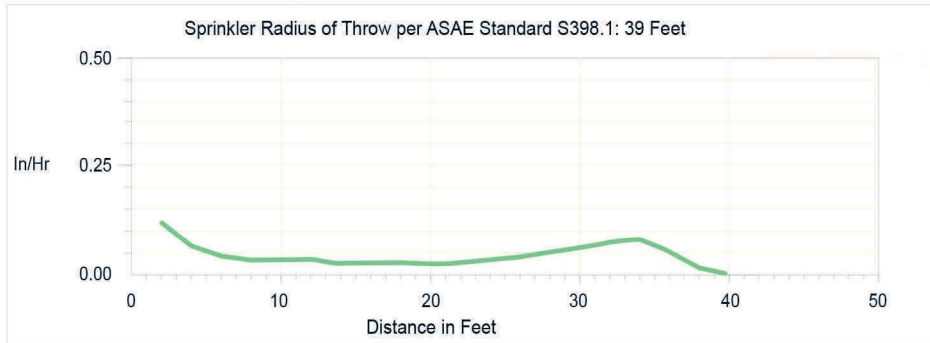
Patented Stainless-Steel Orifice



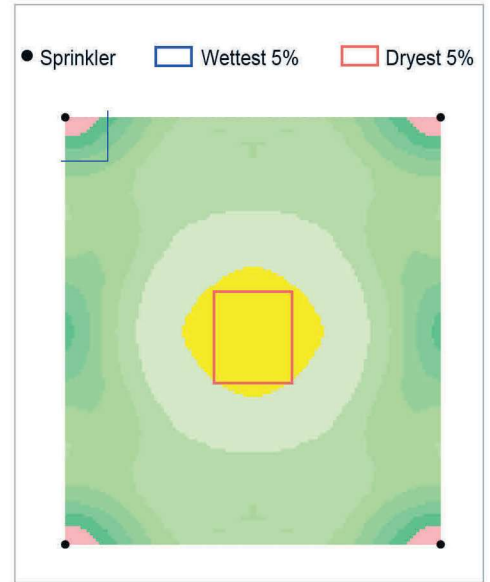
Exclusive Non-Clogging Vane

7/64" SB Nozzle @ 40 PSI; Bad Uniformity

Sprinkler Name	Weather Tec		Base Pressure (PSI)	40.0
Sprinkler Model	10-20		Riser Height (IN)	12.0
Nozzle Size	7/64		Set Screw Setting	
Flow Rate (GPM)	2.15		Degree of Arc	360
Date/Time of Test	12/18/16 0:0		Mins. Revolution	0.75
Testing Facility	User Created		Record Number	
Distr. Uniformity	68%	Min (In/Hr)	0.113	Spacing
CU (Christiansen)	79%	Mean (In/Hr)	0.211	Rectangular
Sched Coeff (5%)	1.8	Max (In/Hr)	0.402	30.0' x 33.5'

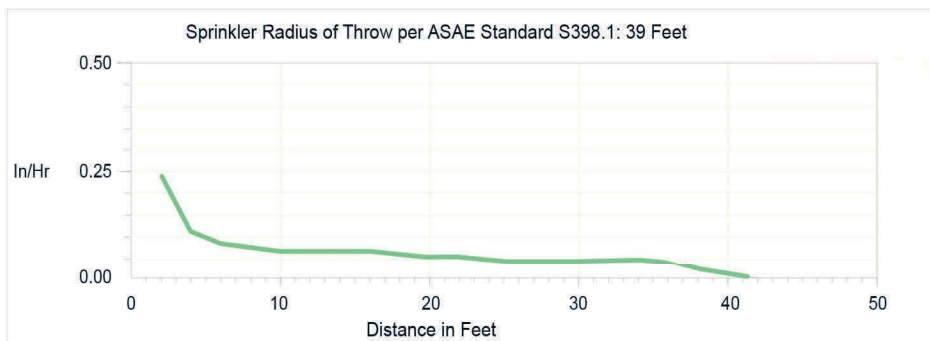


2.0' = 0.120	14.0' = 0.027	26.0' = 0.040	38.0' = 0.017
4.0' = 0.067	16.0' = 0.027	28.0' = 0.053	40.0' = 0.000
6.0' = 0.043	18.0' = 0.027	30.0' = 0.060	
8.0' = 0.033	20.0' = 0.023	32.0' = 0.073	
10.0' = 0.033	2.0' = 0.027	34.0' = 0.080	
12.0' = 0.033	24.0' = 0.033	36.0' = 0.053	

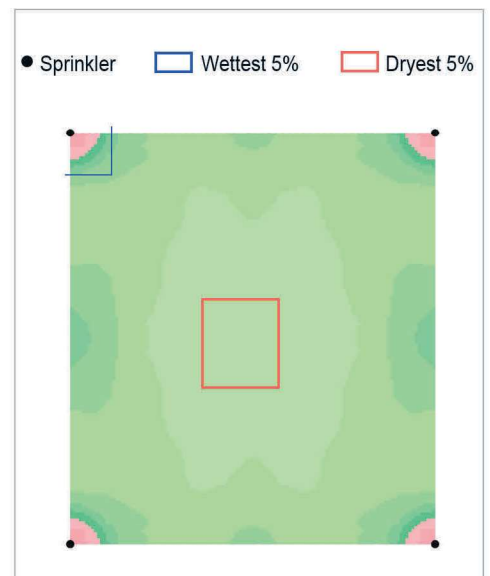


#5 FCI Nozzle @ 40 PSI; Good Uniformity

Sprinkler Name	Weather Tec		Base Pressure (PSI)	40.0
Sprinkler Model	10-20		Riser Height (IN)	12.0
Nozzle Size	FCI #5.0		Set Screw Setting	
Flow Rate (GPM)	2.02		Degree of Arc	360
Date/Time of Test	12/11/16 0:0		Mins. Revolution	1.00
Testing Facility	User Created		Record Number	
Distr. Uniformity	86%	Min (In/Hr)	0.165	Spacing
CU (Christiansen)	89%	Mean (In/Hr)	0.200	Rectangular
Sched Coeff (5%)	1.2	Max (In/Hr)	0.354	30.0' x 33.5'

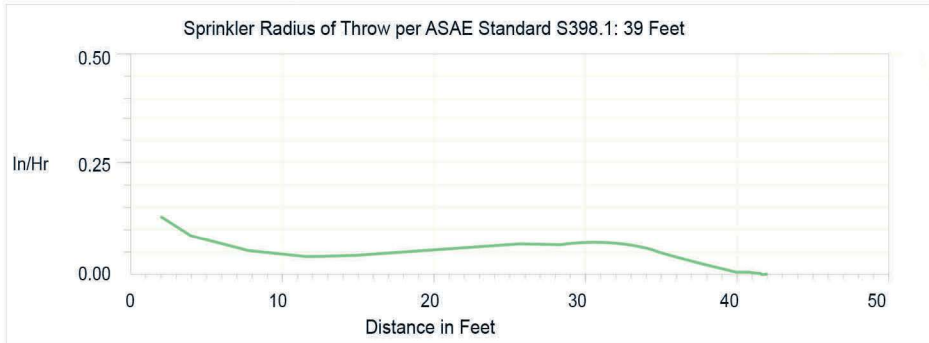


2.0' = 0.240	14.0' = 0.067	26.0' = 0.043	38.0' = 0.020
4.0' = 0.113	16.0' = 0.067	28.0' = 0.043	40.0' = 0.007
6.0' = 0.083	18.0' = 0.060	30.0' = 0.043	
8.0' = 0.073	20.0' = 0.053	32.0' = 0.045	
10.0' = 0.067	2.0' = 0.053	34.0' = 0.047	
12.0' = 0.067	24.0' = 0.047	36.0' = 0.040	

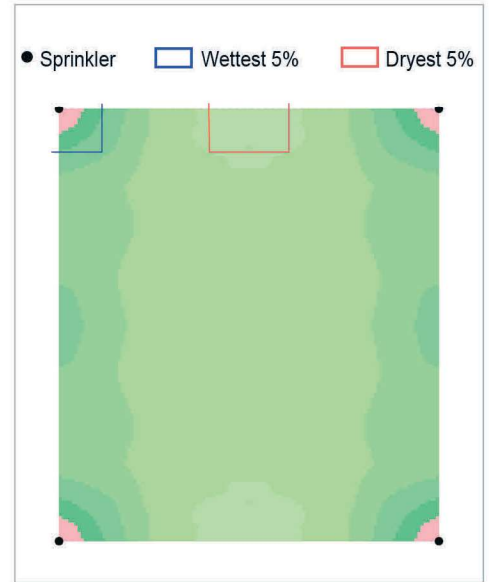


7/64" SB Nozzle @ 60 PSI; Good Uniformity

Sprinkler Name	Weather Tec		Base Pressure (PSI)	60.0
Sprinkler Model	10-20		Riser Height (IN)	12.0
Nozzle Size	7/64		Set Screw Setting	
Flow Rate (GPM)	2.65		Degree of Arc	360
Date/Time of Test	12/18/16 0:0		Mins. Revolution	0.75
Testing Facility	User Created		Record Number	
Distr. Uniformity	88%	Min (In/Hr)	0.206	Spacing
CU (Christiansen)	89%	Mean (In/Hr)	0.249	Rectangular
Sched Coeff (5%)	1.2	Max (In/Hr)	0.381	30.0' x 33.5'

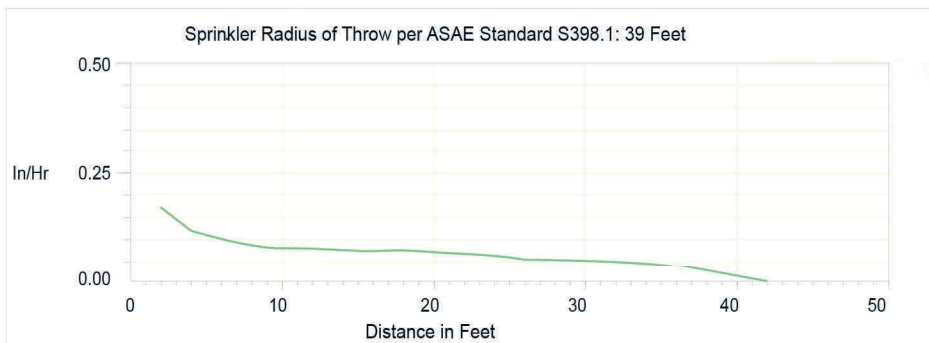


2.0' = 0.129	14.0' = 0.040	26.0' = 0.067	38.0' = 0.018
4.0' = 0.087	16.0' = 0.044	28.0' = 0.067	40.0' = 0.004
6.0' = 0.067	18.0' = 0.049	30.0' = 0.071	
8.0' = 0.049	20.0' = 0.053	32.0' = 0.067	
10.0' = 0.044	22.0' = 0.058	34.0' = 0.058	
12.0' = 0.040	24.0' = 0.062	36.0' = 0.040	



#5 FCI Nozzle @ 60 PSI; Excellent Uniformity

Sprinkler Name	Weather Tec		Base Pressure (PSI)	60.0
Sprinkler Model	10-20		Riser Height (IN)	12.0
Nozzle Size	FCI #5.0		Set Screw Setting	
Flow Rate (GPM)	2.45		Degree of Arc	360
Date/Time of Test	12/10/16 0:0		Mins. Revolution	1.00
Testing Facility	User Created		Record Number	
Distr. Uniformity	92%	Min (In/Hr)	0.207	Spacing
CU (Christiansen)	94%	Mean (In/Hr)	0.237	Rectangular
Sched Coeff (5%)	1.1	Max (In/Hr)	0.313	30.0' x 33.5'



2.0' = 0.172	14.0' = 0.076	26.0' = 0.056	38.0' = 0.024
4.0' = 0.120	16.0' = 0.074	28.0' = 0.054	40.0' = 0.011
6.0' = 0.100	18.0' = 0.076	30.0' = 0.052	
8.0' = 0.086	20.0' = 0.072	32.0' = 0.048	
10.0' = 0.080	22.0' = 0.068	34.0' = 0.044	
12.0' = 0.080	24.0' = 0.064	36.0' = 0.038	

