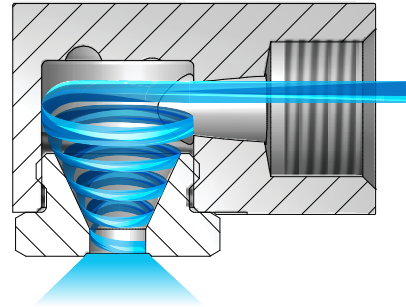


**OVERVIEW: WHIRLJET STANDARD, WIDE AND EXTRA WIDE ANGLE NOZZLES**

- Hollow cone spray pattern with a circular impact area
- Large, unobstructed flow passages minimize clogging
- Good atomization of liquids at lower pressures – ideal for fluid cooling applications
- Removable caps for easy inspection and cleaning on some models
- Slope-bottom design models reduce the drilling effect of the fluid vortex in the fluid chamber and premature wear
- AX and BX nozzles form smaller drops; ideal for use in air washers and dust suppression applications
- CX, CF, CRC and D nozzles feature higher flow rates; ideal for use in larger, evaporative cooling spray ponds
- AP, LAP and LBP nozzles are constructed of polypropylene and feature excellent corrosion resistance at temperatures up to 160°F (71°C); patented center post design provides extended wear life of the nozzle
- Standard, wide and extra wide spray angles

**WhirlJet Nozzles**

As liquid enters the nozzle, it passes into a whirlchamber and begins to spin in a circle at high speed. The rotation forces the liquid away from the center toward the edges of the whirlchamber. This causes the liquid to exit the orifice in a hollow cone pattern. Some WhirlJet nozzles have a slope bottom in the whirlchamber that helps extend wear life.



**WHIRLJET AX, BX, CX AND D NOZZLES**

- Spray angles: Standard – 43° to 91°, Wide – 112° to 120°
- Uniform spray distribution:
  - AX and BX nozzles – from .03 to 38 gpm (.19 to 145 lpm)
  - CX, CRC, CF and D nozzles – from 2.0 to 2362 gpm (7.3 to 9010 lpm)
- Operating pressures from 3.0 to 100 psi (0.2 to 7.0 bar)

Contact your local sales engineer for information about junction boxes.



**AX**  
1/8" to 3/4" female conn.  
Slope-bottom design  
Removable cap



**CX**  
1" to 2-1/2" female conn.  
Slope-bottom design  
One-piece cast-type

**WHIRLJET OPTIONS**



**BX** – 1/8" to 3/4" male conn.  
Slope-bottom design  
Removable cap



**CRC**  
1-1/4" to 4" female conn.  
Two-piece cast-type



**CF**  
4" to 6" flange conn.  
Two-piece cast-type



**D**  
1/2" to 3/4" male conn.  
One-piece cast-type

**RELATIVE DROP SIZE  
IN MICRONS**

10 to 100

100 to 500

500 to 1000

1000 to 5000

Drop size will vary based on flow rate and pressure.

**WHIRLJET AP, LAP, LBP AND E NOZZLES**

- Spray angles: Standard – 43° to 91°, Wide – 112° to 120°, Extra wide – 144° to 165°
- Uniform spray distribution:
  - AP, LAP and LBP nozzles – from .14 to 18.9 gpm (.20 to 15.9 lpm)
  - E nozzles – from .11 to 16.8 gpm (.41 to 64 lpm)
- Operating pressures from 3.0 to 100 psi (0.2 to 7.0 bar)



**AP**  
1/4" to 3/8" female conn.



**E**  
One-piece bar stock  
1/4" to 3/8" female conn.

**WHIRLJET OPTIONS**

**LAP**  
3/8" to 1/2" female conn.

**LBP**  
3/8" male conn.

**E**  
One-piece cast-type  
3/8" to 1/2" female conn.

**ORDERING INFORMATION**

**WHIRLJET AX**

Inlet Conn.	Nozzle Type	–	Material Code	Capacity Size	<b>Example</b>
					1/4 AX – SS 10

BSPT connections require the addition of a "B" prior to the inlet connection.

**WHIRLJET AP-W (9360)**

Nozzle Series No.	Inlet Conn.	Nozzle Type	–	Material Code	Capacity Size	<b>Example</b>
						9360 – 3/8 AP – PP 3-5W

BSPT connections require the addition of a "B" prior to the inlet connection.

**WHIRLJET CF FLANGE CONNECTION**

Inlet Conn.	Nozzle Type	–	Material Code	Capacity Size	<b>Example</b>
					6 CF – SS 550-65

BSPT connections require the addition of a "B" prior to the inlet connection.

**WHIRLJET E**

Inlet Conn.	Nozzle Type	–	Material Code	Capacity Size	<b>Example</b>
					1/4 E – SS 10

BSPT connections require the addition of a "B" prior to the inlet connection.

**S** PERFORMANCE DATA:  
**STANDARD ANGLE SPRAY**

Inlet Conn. (in.)	Nozzle Type	Capacity Size	Inlet Dia. Nom. (in.)	Orifice Dia. Nom. (in.)	Flow Rate Capacity (gallons per minute)												Spray Angle (°)		
					3 psi	4 psi	5 psi	7 psi	10 psi	15 psi	20 psi	30 psi	40 psi	60 psi	80 psi	100 psi	10 psi	20 psi	60 psi
1/2	●	3	.438	.313	2.0	2.3	2.5	3.0	3.6	4.4	5.1	6.2	7.2	8.8	10.1	11.3	62	65	67
	●	4	.438	.391	2.6	3.0	3.4	4.0	4.8	5.9	6.8	8.3	9.6	11.7	13.5	15.1	68	71	73
	●	5	.438	.469	3.3	3.8	4.2	5.0	6.0	7.3	8.5	10.4	12.0	14.6	16.9	18.9	74	77	80
	●	7	.438	.547	4.6	5.3	5.9	7.0	8.4	10.2	11.8	14.5	16.7	20	24	26	77	80	83
3/4	●	4	.563	.359	2.6	3.0	3.4	4.0	4.8	5.9	6.8	8.3	9.6	11.7	13.5	15.1	63	66	67
	●	5	.563	.422	3.3	3.8	4.2	5.0	6.0	7.3	8.5	10.4	12.0	14.6	16.9	18.9	67	69	70
	●	6	.563	.484	3.9	4.5	5.1	6.0	7.2	8.8	10.1	12.4	14.3	17.6	20	23	71	73	77
	●	7	.563	.547	4.6	5.3	5.9	7.0	8.4	10.2	11.8	14.5	16.7	20	24	26	73	75	80
	●	10	.563	.656	6.5	7.6	8.5	10.0	12.0	14.6	16.9	21	24	29	34	38	77	80	84

Highlighted column shows the rated pressure.

**S** PERFORMANCE DATA:  
**STANDARD ANGLE SPRAY**

Nozzle Type/ Inlet Conn. (in.)					Capacity Size	Inlet Dia. Nom. (in.)	Orifice Dia. Nom. (in.)	Flow Rate Capacity (gallons per minute)										Spray Angle (°)		
AP		LAP		LBP				3 psi	5 psi	7 psi	10 psi	20 psi	30 psi	40 psi	60 psi	80 psi	100 psi	10 psi	20 psi	80 psi
1/4	3/8	3/8	1/2	3/8																
●	●				2	.078	.078	-	.14	.17	.20	.28	.35	.40	.49	.57	.63	53	70	80
●	●				2-3	.078	.094	-	.17	.20	.24	.34	.42	.48	.59	.68	.76	61	76	83
●	●				2-5	.078	.109	-	.20	.23	.28	.40	.48	.56	.69	.79	.89	63	81	90
●	●				2-8	.078	.141	-	.23	.28	.33	.47	.57	.66	.81	.93	1.0	71	87	95
●	●				2-10	.078	.172	-	.25	.30	.36	.51	.62	.72	.88	1.0	1.1	72	94	104
●	●				2-15	.078	.203	-	.28	.33	.39	.55	.68	.78	.96	1.1	1.2	77	100	111
●	●				2-20	.078	.234	-	.31	.37	.44	.62	.76	.88	1.1	1.2	1.4	81	103	113
●	●				3-2	.094	.078	-	.18	.22	.26	.37	.45	.52	.64	.74	.82	58	67	76
●	●				3	.094	.094	-	.21	.23	.30	.43	.52	.60	.73	.85	.95	55	79	80
●	●				3-5	.094	.109	-	.25	.30	.36	.51	.62	.72	.88	1.0	1.1	72	82	86
●	●				3-8	.094	.141	-	.31	.37	.44	.62	.76	.88	1.1	1.2	1.4	73	88	92
●	●				3-10	.094	.172	-	.34	.40	.48	.68	.83	.96	1.2	1.4	1.5	81	94	97
●	●				3-15	.094	.203	-	.39	.46	.55	.78	.95	1.1	1.3	1.6	1.7	83	93	100
●	●				3-20	.094	.234	-	.44	.52	.62	.88	1.1	1.2	1.5	1.8	2.0	90	100	107
●	●				5-2	.141	.078	-	-	-	.36	.51	.62	.72	.88	1.0	1.1	49	61	67
●	●				5-3	.141	.094	-	-	.34	.41	.58	.71	.82	1.0	1.2	1.3	57	68	69
●	●				5	.141	.109	-	.35	.42	.50	.70	.86	1.0	1.2	1.4	1.6	70	75	79
●	●				5-8	.141	.141	-	.42	.50	.60	.85	1.0	1.2	1.5	1.7	1.9	80	78	82
●	●				5-10	.141	.172	-	.48	.56	.67	1.0	1.2	1.4	1.7	1.9	2.1	80	87	89
●	●				5-15	.141	.203	-	.57	.67	.80	1.1	1.4	1.6	2.0	2.3	2.6	83	91	95
●	●				5-20	.141	.234	-	.61	.72	.86	1.2	1.5	1.7	2.1	2.4	2.7	88	98	102

Highlighted column shows the rated pressure.



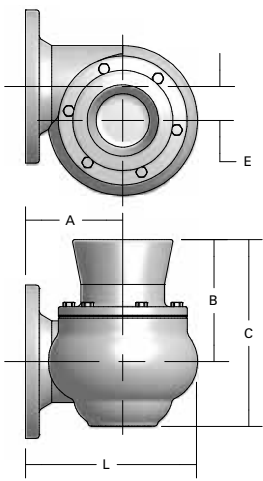
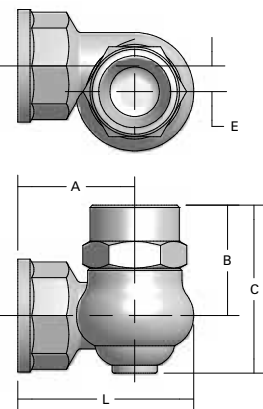
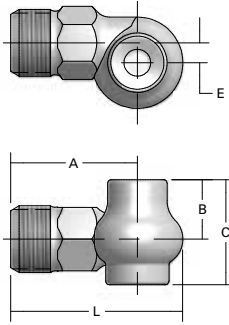
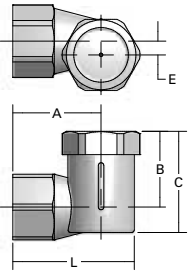
S PERFORMANCE DATA:  
STANDARD ANGLE SPRAY

Nozzle Type/ Inlet Conn. (in.)					Capacity Size	Inlet Dia. Nom. (in.)	Orifice Dia. Nom. (in.)	Flow Rate Capacity (gallons per minute)										Spray Angle (°)		
AP		LAP		LBP				3 psi	5 psi	7 psi	10 psi	20 psi	30 psi	40 psi	60 psi	80 psi	100 psi	10 psi	20 psi	80 psi
1/4	3/8	3/8	1/2	3/8																
●	●				8-5	.172	.109	–	.42	.50	.60	.85	1.0	1.2	1.5	1.7	1.9	60	68	71
●	●				8	.172	.141	.44	.57	.67	.80	1.1	1.4	1.6	2.0	2.3	2.5	65	72	74
●	●				8-10	.172	.172	.51	.66	.79	.94	1.3	1.6	1.9	2.3	2.7	3.0	73	81	81
●	●				8-15	.172	.203	.59	.76	.90	1.1	1.5	1.9	2.2	2.6	3.1	3.4	78	84	87
●	●				8-20	.172	.234	.65	.83	.99	1.2	1.7	2.0	2.4	2.9	3.3	3.7	84	89	92
●	●				10-5	.188	.109	–	–	.54	.65	.92	1.1	1.3	1.6	1.8	2.0	55	64	67
●	●				10-8	.188	.141	–	.61	.72	.86	1.2	1.5	1.7	2.1	2.4	2.7	60	64	66
●	●				10	.188	.172	.55	.72	.84	1.0	1.4	1.7	2.0	2.4	2.8	3.1	70	76	75
●	●				10-15	.188	.203	.67	.86	1.0	1.2	1.7	2.1	2.4	3.0	3.5	3.9	76	81	79
●	●				10-20	.188	.234	.75	1.0	1.2	1.4	2.0	2.4	2.8	3.5	3.9	4.4	78	85	98
●	●				15-5	.234	.109	–	–	–	.76	1.1	1.3	1.5	1.9	2.2	2.4	52	65	60
●	●				15-8	.234	.141	–	–	.85	1.0	1.4	1.8	2.0	2.5	2.9	3.2	55	68	64
●	●				15-10	.234	.172	–	.85	1.0	1.2	1.7	2.1	2.4	2.9	3.4	3.8	65	75	71
●	●				15	.234	.203	.82	1.1	1.3	1.5	2.1	2.6	3.0	3.7	4.2	4.7	70	72	75
●	●				15-20	.234	.234	.93	1.2	1.4	1.7	2.4	2.9	3.4	4.2	4.8	5.4	78	80	82
		●			20-5	.250	.125	–	–	–	.83	1.2	1.4	1.7	2.0	2.3	2.6	33	40	55
		●			20-8	.250	.172	–	–	.90	1.1	1.5	1.9	2.2	2.6	3.1	3.4	40	47	60
		●			20-10	.250	.188	–	.97	1.2	1.4	2.0	2.4	2.8	3.4	3.9	4.4	39	55	65
		●			20-15	.250	.234	.99	1.3	1.5	1.8	2.5	3.1	3.6	4.4	5.1	5.7	55	63	68
		●			20	.250	.250	1.1	1.4	1.7	2.0	2.8	3.5	4.0	4.9	5.6	6.3	59	66	70
		●			20-25	.250	.297	1.4	1.8	2.1	2.5	3.5	4.3	5.0	6.2	7.1	7.9	60	73	77
		●			20-40	.250	.359	1.6	2.0	2.4	2.9	4.0	5.0	5.7	7.0	8.1	9.0	80	82	86
		●			20-50	.250	.438	1.9	2.5	2.9	3.5	4.9	6.1	7.0	8.5	9.9	11.0	83	90	97
		●			20-60	.250	.516	2.2	2.8	3.3	4.0	5.7	6.9	8.0	9.8	11.3	12.6	86	94	99
		●			25-8	.281	.172	–	–	–	1.2	1.7	2.1	2.4	2.9	3.4	3.8	27	42	57
		●			25-10	.281	.188	.82	1.1	1.3	1.5	2.1	2.6	3.0	3.7	4.2	4.7	35	50	59
		●			25-15	.281	.234	1.0	1.3	1.6	1.9	2.7	3.3	3.8	4.6	5.3	6.0	44	57	64
		●			25-20	.281	.250	1.2	1.5	1.8	2.2	3.1	3.7	4.3	5.3	6.1	6.8	53	63	68
		●			25	.281	.297	1.4	1.8	2.1	2.5	3.5	4.3	5.0	6.2	7.1	7.9	60	70	74
		●			25-40	.281	.359	1.7	2.2	2.7	3.2	4.5	5.5	6.4	7.8	9.0	10.1	69	73	79
		●			25-50	.281	.438	2.1	2.8	3.3	3.9	5.5	6.8	7.8	9.6	11.0	12.3	76	81	85
		●			25-60	.281	.516	2.5	3.2	3.8	4.5	6.4	7.8	9.0	11.0	12.7	14.2	83	86	92
		●	●	●	40-8	.359	.172	–	–	–	1.5	2.2	2.7	3.1	3.7	4.3	4.8	30	41	48
		●	●	●	40-10	.359	.188	–	–	1.5	1.8	2.5	3.1	3.6	4.4	5.1	5.7	34	45	53
		●	●	●	40-15	.359	.234	1.3	1.7	2.0	2.4	3.4	4.2	4.9	5.9	6.9	7.7	44	48	57
		●	●	●	40-20	.359	.250	1.5	1.9	2.2	2.7	3.8	4.6	5.3	6.5	7.5	8.4	45	52	59
		●	●	●	40-25	.359	.297	1.8	2.3	2.7	3.2	4.5	5.5	6.4	7.8	9.0	10.1	48	56	61
		●	●	●	40	.359	.359	2.2	2.8	3.3	4.0	5.7	6.9	8.0	9.8	11.3	12.6	67	71	73
		●	●	●	40-50	.359	.438	2.8	3.6	4.2	5.0	7.1	8.7	10.0	12.3	14.1	15.9	68	80	84
		●	●	●	40-50.1	.359	.422	2.8	3.6	4.2	5.0	7.1	8.7	10.0	12.3	14.1	15.9	40	47	50
		●	●	●	40-60	.359	.516	3.3	4.2	5.0	6.0	8.4	10.3	11.9	14.6	16.7	18.9	80	86	90

Highlighted column shows the rated pressure.



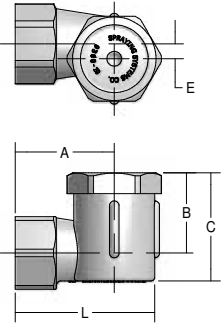
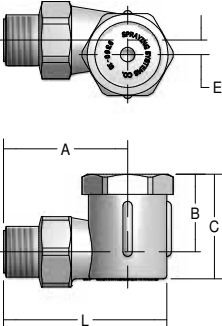
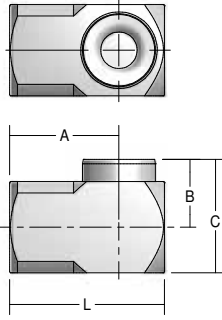
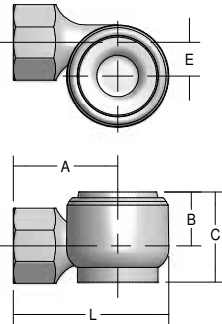
**DIMENSIONS AND WEIGHTS**

Nozzle	Nozzle Type	Inlet Conn. (in.)	L (in.)	A (in.)	B (in.)	C (in.)	E (in.)	Net Weight (oz.)
	<b>CF (Flange)</b>	4	8.250	4.406	9.250	12.375	1.563	114
		6	12.250	6.875	8.688	13.313	2.438	126
	<b>CRC (F)</b>	1-1/4	3.406	2.125	2.094	3.063	0.406	36
		2	4.844	3.188	3.063	4.656	0.719	80
		3	6.938	4.438	5.938	8.406	1.125	19
		4	9.000	5.563	9.125	12.250	1.563	40
	<b>D (M)</b>	1/2	2.313	1.750	0.719	1.313	0.250	5
		3/4	2.719	2.000	0.938	1.656	0.313	7.5
	<b>AP (F) AP-W (F)</b>	1/4	1.438	1.000	0.866	1.157	0.156	0.4
		3/8	1.469	1.094	0.866	1.157	0.156	0.4

Based on the largest/heaviest version of each type.



**DIMENSIONS AND WEIGHTS**

Nozzle	Nozzle Type	Inlet Conn. (in.)	L (in.)	A (in.)	B (in.)	C (in.)	E (in.)	Net Weight (oz.)
	<b>LAP (F)</b> <b>LAP-W (F)</b>	3/8	1.906	1.281	1.182	1.596	0.192	0.6
		1/2	2.031	1.406	1.182	1.596	0.192	0.8
	<b>LBP (M)</b> <b>LBP-W (M)</b>	3/8	2.094	1.563	1.236	1.596	0.192	0.6
	<b>E (F)</b>	1/4	1.250	0.875	0.500	0.750	–	2.3
		3/8	2.000	1.375	0.625	1.250	–	10.7
		1/2	2.375	1.625	0.766	1.625	–	17.3
	<b>E (F)</b> <b>Cast</b>	3/8	1.406	1.219	0.594	1.063	0.375	4.3
		1/2	2.188	1.438	0.688	1.250	0.500	6

Based on the largest/heaviest version of each type.