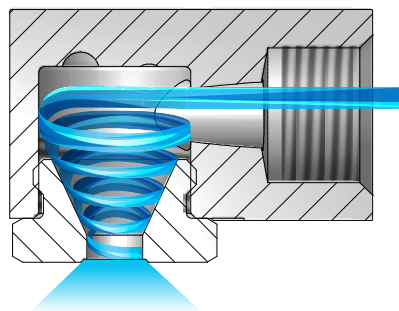


**OVERVIEW: WHIRLJET STANDARD, WIDE AND EXTRA WIDE ANGLE NOZZLES**

- 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.

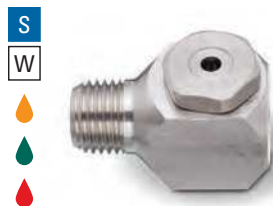


**AX**  
1/8" to 3/4" female conn.  
Slope-bottom design  
Removable cap

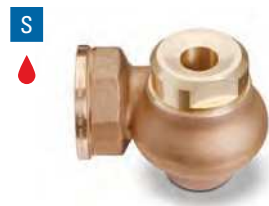


**CX**  
1" to 2-1/2" female conn.  
Slope-bottom design  
One-piece cast-type

**WHIRLJET OPTIONS**



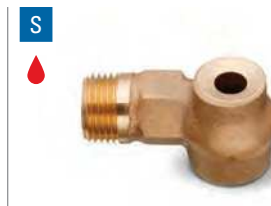
**BX** – 1/8" to 3/4" male conn.  
Slope-bottom design  
Removable cap



**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® NOZZLES**

**HOLLOW CONE**

**S** STANDARD ANGLE SPRAY | **W** WIDE ANGLE SPRAY

**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**

**S**  
**W**

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

**S**  
**W**

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

**W**

**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 <b>CX</b>	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	7 psi	20 psi	60 psi
1	●	7	.688	.453	4.6	5.3	5.9	7.0	8.4	10.2	11.8	14.5	16.7	20	24	26	64	65	66
	●	8	.688	.500	5.2	6.0	6.8	8.0	9.6	11.7	13.5	16.6	19.1	23	27	30	65	66	67
	●	9	.688	.563	5.9	6.8	7.6	9.0	10.8	13.2	15.2	18.6	22	26	30	34	66	67	69
	●	10	.688	.609	6.5	7.6	8.5	10.0	12.0	14.6	16.9	21	24	29	34	38	67	69	71
	●	12	.688	.672	7.9	9.1	10.1	12.0	14.3	17.6	20	25	29	35	41	45	70	73	75
	●	15	.688	.813	9.8	11.3	12.7	15.0	17.9	22	25	31	36	44	51	57	76	79	81
1-1/4	●	10	.844	.563	6.5	7.6	8.5	10.0	12.0	14.6	16.9	21	24	29	34	38	65	67	67
	●	12	.844	.641	7.9	9.1	10.1	12.0	14.3	17.6	20	25	29	35	41	45	68	70	71
	●	14	.844	.719	9.2	10.6	11.8	14.0	16.7	20	24	29	33	41	47	53	71	73	75
	●	16	.844	.797	10.5	12.1	13.5	16.0	19.1	23	27	33	38	47	54	60	74	75	77
	●	20	.844	.953	13.1	15.1	16.9	20	24	29	34	41	48	59	68	76	76	77	79
1-1/2	●	16	1.094	.688	10.5	12.1	13.5	16.0	19.1	23	27	33	38	47	54	60	64	67	69
	●	20	1.094	.859	13.1	15.1	16.9	20	24	29	34	41	48	59	68	76	69	72	74
	●	25	1.094	1.016	16.4	18.9	21	25	30	37	42	52	60	73	85	94	72	74	76
	●	30	1.094	1.125	19.6	23	25	30	36	44	51	62	72	88	101	113	74	76	78
2	●	30	1.438	.938	19.6	23	25	30	36	44	51	62	72	88	101	113	66	67	70
	●	35	1.438	1.063	23	26	30	35	42	51	59	72	84	102	118	132	68	70	73
	●	40	1.438	1.188	26	30	34	40	48	59	68	83	96	117	135	151	70	72	75
	●	45	1.438	1.297	29	34	38	45	54	66	76	93	108	132	152	170	72	74	78
	●	50	1.438	1.422	33	38	42	50	60	73	85	104	120	146	169	189	74	77	82
	●	60	1.438	1.563	39	45	51	60	72	88	101	124	143	176	203	227	77	79	84
2-1/2	●	60	1.875	1.422	39	45	51	60	72	88	101	124	143	176	203	227	67	68	71
	●	70	1.875	1.594	46	53	59	70	84	102	118	145	167	205	237	265	69	71	74
	●	80	1.875	1.734	52	60	68	80	96	117	135	166	191	234	270	302	71	73	77
	●	90	1.875	1.875	59	68	76	90	108	132	152	186	215	263	304	340	73	75	80
	●	100	1.875	2.000	65	76	85	100	120	146	169	207	239	293	338	378	77	79	83

Highlighted column shows the rated pressure.

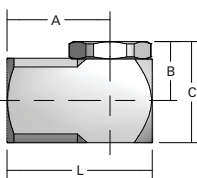
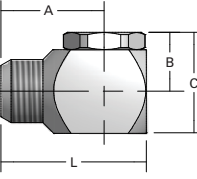
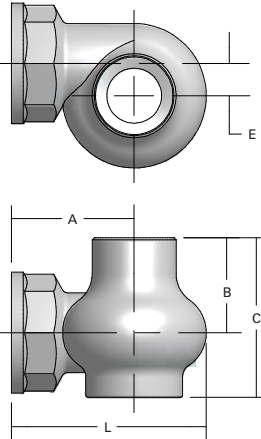


**W** PERFORMANCE DATA:  
**EXTRA WIDE ANGLE SPRAY**

Inlet Conn. (in.)	Nozzle Type E Styles	Capacity Size	Inlet Dia. Nom. (in.)	Orifice Dia. Nom. (in.)	Flow Rate Capacity (gallons per minute)											Spray Angle (°)		
					3 psi	5 psi	7 psi	10 psi	15 psi	20 psi	30 psi	40 psi	60 psi	80 psi	100 psi	7 psi	20 psi	80 psi
3/8	●	8	.109	.484	.44	.57	.67	.80	.98	1.1	1.4	1.6	2.0	2.3	2.5	164	160	157
	●	10	.125	.484	.55	.71	.84	1.0	1.2	1.4	1.7	2.0	2.4	2.8	3.2	164	160	157
	●	15	.172	.484	.82	1.1	1.3	1.5	1.8	2.1	2.6	3.0	3.7	4.2	4.7	165	163	155
	●	20	.203	.484	1.1	1.4	1.7	2.0	2.4	2.8	3.5	4.0	4.9	5.7	6.3	162	152	147
	●	25	.234	.484	1.4	1.8	2.1	2.5	3.1	3.5	4.3	5.0	6.1	7.1	7.9	162	158	154
	●	33	.266	.641	1.8	2.3	2.8	3.3	4.0	4.7	5.7	6.6	8.1	9.3	10.4	162	154	148
1/2	●	53	.375	.641	2.9	3.7	4.4	5.3	6.5	7.5	9.2	10.6	13.0	15.0	16.8	159	152	149
	●	25	.219	.641	1.4	1.8	2.1	2.5	3.1	3.5	4.3	5.0	6.1	7.1	7.9	162	158	154
	●	30	.250	.641	1.6	2.1	2.5	3.0	3.7	4.2	5.2	6.0	7.3	8.5	9.5	163	155	148
	●	40	.297	.641	2.2	2.8	3.3	4.0	4.9	5.7	6.9	8.0	9.8	11.3	12.6	160	152	144
	●	53	.375	.641	2.9	3.7	4.4	5.3	6.5	7.5	9.2	10.6	13.0	15.0	16.8	159	152	149

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>AX (F) AX-W (F)</b>	1/8	1.000	0.688	0.469	0.781	–	1.5
		1/4	1.250	0.875	0.531	0.906	–	2.8
		3/8	1.469	1.031	0.688	1.125	–	4.3
		1/2	1.938	1.375	0.785	1.348	–	8.8
		3/4	2.188	1.375	0.879	1.563	–	11
	<b>BX (M) BX-W (M)</b>	1/8	1.188	0.875	0.652	1.375	–	1.5
		1/4	1.375	1.000	0.531	1.563	–	2.5
		3/8	1.563	1.125	0.688	1.563	–	4
		1/2	1.938	1.375	0.844	1.938	–	7
		3/4	2.250	1.625	1.563	1.250	–	10.8
	<b>CX (F)</b>	1	2.625	1.750	1.250	1.844	0.348	11
		1-1/4	3.063	2.063	1.313	2.188	0.438	20
		1-1/2	3.688	2.438	1.500	2.875	0.563	28
		2	4.531	3.688	2.109	3.688	0.719	48
		2-1/2	5.531	3.500	2.688	4.500	0.469	68

Based on the largest/heaviest version of each type.

