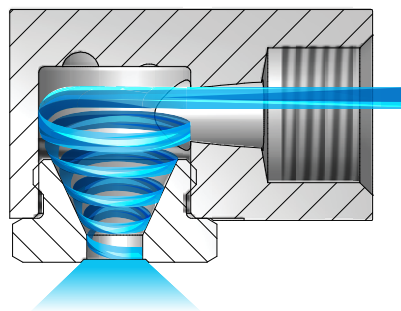


**OVERVIEW: WHIRLJET STANDARD, WIDE AND EXTRA WIDE ANGLE NOZZLES**

- 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

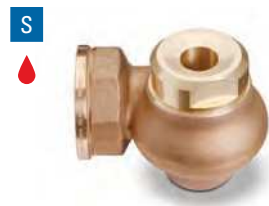


**CX**  
1" to 2-1/2" female conn.  
Slope-bottom design  
One-piece cast-type

**WHIRLJET OPTIONS**



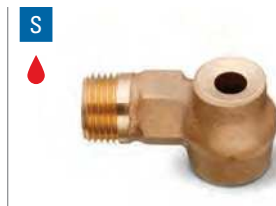
**BX** – 1/8" to 3/4" male conn.  
Slope-bottom design  
Removable cap



**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.

**W** PERFORMANCE DATA:  
**WIDE 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 (°)		
LAP-W		LBP-W				3 psi	5 psi	7 psi	10 psi	20 psi	30 psi	40 psi	60 psi	80 psi	100 psi	7 psi	20 psi	80 psi
3/8	1/2	3/8																
●			20-8W	.250	.172	–	–	.90	1.1	1.5	1.9	2.2	2.6	3.1	3.4	99	96	86
●			20-10W	.250	.188	–	.94	1.2	1.4	2.0	2.4	2.8	3.4	3.9	4.4	101	98	88
●			20-15W	.250	.219	.99	1.3	1.5	1.8	2.5	3.1	3.6	4.4	5.1	5.7	104	100	91
●			20-20W	.250	.250	1.1	1.4	1.7	2.0	2.8	3.5	4.0	4.9	5.6	6.3	106	101	93
●			20-25W	.250	.281	1.4	1.8	2.1	2.5	3.5	4.3	5.0	6.2	7.1	7.9	109	104	95
●			20-40W	.250	.344	1.6	2.0	2.4	2.9	4.0	5.0	5.7	7.0	8.1	9.0	110	107	98
●			20-50W	.250	.406	1.9	2.5	2.9	3.5	4.9	6.1	7.0	8.5	9.9	11.0	111	108	100
●			25-8W	.281	.172	–	–	–	1.2	1.7	2.1	2.4	2.9	3.4	3.8	–	89	78
●			25-10W	.281	.188	–	–	1.3	1.5	2.1	2.6	3.0	3.7	4.2	4.7	100	92	81
●			25-15W	.281	.219	–	1.3	1.6	1.9	2.7	3.3	3.8	4.6	5.3	6.0	102	96	85
●			25-20W	.281	.250	1.2	1.5	1.8	2.2	3.1	3.7	4.3	5.3	6.1	6.8	104	99	88
●			25-25W	.281	.281	1.4	1.8	2.1	2.5	3.5	4.3	5.0	6.2	7.1	7.9	107	102	91
●			25-40W	.281	.344	1.7	2.2	2.7	3.2	4.5	5.5	6.4	7.8	9.0	10.1	109	105	94
●			25-50W	.281	.406	2.1	2.8	3.3	3.9	5.5	6.8	7.8	9.6	11.0	12.3	110	108	99
●	●	●	40-10W	.359	.188	–	–	1.5	1.8	2.5	3.1	3.6	4.4	5.1	5.7	95	85	80
●	●	●	40-15W	.359	.219	1.3	1.7	2.0	2.4	3.4	4.2	4.9	5.9	6.9	7.7	97	88	82
●	●	●	40-20W	.359	.250	1.5	1.9	2.2	2.7	3.8	4.6	5.3	6.5	7.5	8.4	100	94	88
●	●	●	40-25W	.359	.281	1.8	2.3	2.7	3.2	4.5	5.5	6.4	7.8	9.0	10.1	103	97	91
●	●	●	40-40W	.359	.344	2.2	2.8	3.3	4.0	5.7	6.9	8.0	9.8	11.3	12.6	106	99	93
●	●	●	40-50W	.359	.406	2.8	3.6	4.2	5.0	7.1	8.7	10.0	12.3	14.1	15.9	109	101	96

Highlighted column shows the rated pressure.

**W** PERFORMANCE DATA:  
**EXTRA WIDE 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 (°)			
	E Styles				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
1/4	●	2	.063	.250	–	–	–	.20	.24	.28	.35	.40	.49	.57	.63	–	165	158
	●	5	.094	.250	.27	.35	.42	.50	.61	.71	.87	1.0	1.2	1.4	1.6	164	154	147
	●	5.8	.109	.250	.32	.41	.49	.58	.71	.82	1.0	1.2	1.4	1.6	1.8	164	154	147
	●	8	.125	.313	.44	.57	.67	.80	.98	1.1	1.4	1.6	2.0	2.3	2.5	164	160	151
	●	10	.141	.313	.55	.71	.84	1.0	1.2	1.4	1.7	2.0	2.4	2.8	3.2	164	154	147

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
	●	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
1/2	●	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)</b> <b>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)</b> <b>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.

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.