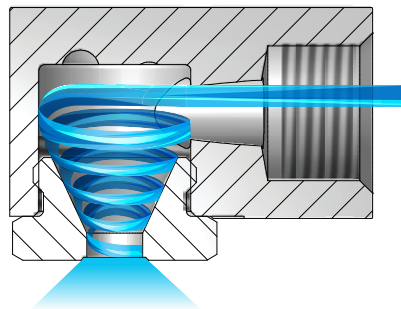


**OVERVIEW: WHIRLJET STANDARD, WIDE AND EXTRA WIDE ANGLE NOZZLES**

- 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

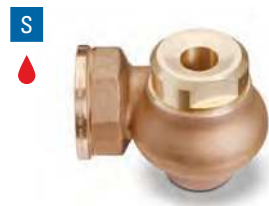


**CX**  
1" to 2-1/2" female conn.  
Slope-bottom design  
One-piece cast-type

**WHIRLJET OPTIONS**



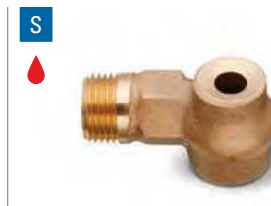
**BX** – 1/8" to 3/4" male conn.  
Slope-bottom design  
Removable cap



**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.

**HOLLOW  
CONE**

**WHIRLJET® NOZZLES**

**W** WIDE ANGLE SPRAY

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

Nozzle Type/ Inlet Conn. (in.)			Capacity Size	Inlet Dia. Nom. (mm)	Orifice Dia. Nom. (mm)	Flow Rate Capacity (liters per minute)										Spray Angle (°)		
LAP-W		LBP-W				0.2 bar	0.4 bar	0.5 bar	0.7 bar	1.5 bar	2 bar	3 bar	4 bar	6 bar	7 bar	0.5 bar	1.5 bar	6 bar
3/8	1/2	3/8																
●			20-8W	6.4	4.4	–	–	3.5	4.1	6.1	7.1	8.7	10.0	12.3	13.3	99	96	86
●			20-10W	6.4	4.8	–	3.2	4.5	5.3	7.8	9.0	11.1	12.8	15.6	16.9	101	98	88
●			20-15W	6.4	5.6	3.7	5.2	5.8	6.9	10.0	11.6	14.2	16.4	20	22	104	100	91
●			20-20W	6.4	6.4	4.1	5.8	6.4	7.6	11.2	12.9	15.8	18.2	22	24	106	101	93
●			20-25W	6.4	7.1	5.1	7.2	8.1	9.6	14.0	16.1	19.7	23	28	30	109	104	95
●			20-40W	6.4	8.7	5.9	8.3	9.3	11.0	16.2	18.7	23	26	32	35	110	107	98
●			20-50W	6.4	10.3	7.1	10.0	11.3	13.4	19.5	23	28	32	39	42	111	108	100
●			25-8W	7.1	4.4	–	–	–	4.6	6.7	7.7	9.5	10.9	13.4	14.5	–	89	78
●			25-10W	7.1	4.8	–	–	4.8	5.7	8.4	9.7	11.8	13.7	16.7	18.1	100	92	81
●			25-15W	7.1	5.6	–	4.3	6.1	7.2	10.6	12.2	15.0	17.3	21	23	102	96	85
●			25-20W	7.1	6.4	4.5	6.4	7.1	8.4	12.3	14.2	17.4	20	25	27	104	99	88
●			25-25W	7.1	7.1	5.1	7.2	8.1	9.6	14.0	16.1	19.7	23	28	30	107	102	91
●			25-40W	7.1	8.7	6.5	9.2	10.3	12.2	17.9	21	25	29	36	39	109	105	94
●			25-50W	7.1	10.3	8.0	11.3	12.6	14.9	22	25	31	36	44	47	110	108	99
●	●	●	40-10W	9.1	4.8	–	–	5.8	6.9	10.0	11.6	14.2	16.4	20	22	95	85	80
●	●	●	40-15W	9.1	5.6	4.9	6.9	7.7	9.1	13.4	15.5	18.9	22	27	29	97	88	82
●	●	●	40-20W	9.1	6.4	5.5	7.8	8.7	10.3	15.1	17.4	21	25	30	33	100	94	88
●	●	●	40-25W	9.1	7.1	6.5	9.2	10.3	12.2	17.9	21	25	29	36	39	103	97	91
●	●	●	40-40W	9.1	8.7	8.1	11.5	12.9	15.3	22	26	32	36	45	48	106	99	93
●	●	●	40-50W	9.1	10.3	10.2	14.4	16.1	19.0	28	32	39	46	56	60	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. (mm)	Orifice Dia. Nom. (mm)	Flow Rate Capacity (liters per minute)										Spray Angle (°)			
	E Styles				0.2 bar	0.4 bar	0.5 bar	0.7 bar	1 bar	1.5 bar	2 bar	3 bar	4 bar	6 bar	7 bar	0.5 bar	1.5 bar	6 bar
1/4	●	2	1.6	6.4	–	–	–	.76	.91	1.1	1.3	1.6	1.8	2.2	2.4	–	165	158
	●	5	2.4	6.4	1.0	1.4	1.6	1.9	2.3	2.8	3.2	3.9	4.6	5.6	6.0	164	154	147
	●	5.8	2.8	6.4	1.2	1.7	1.9	2.2	2.6	3.2	3.7	4.6	5.3	6.5	7.0	164	154	147
	●	8	3.2	7.9	1.6	2.3	2.6	3.1	3.6	4.5	5.2	6.3	7.3	8.9	9.6	164	160	151
	●	10	3.6	7.9	2.0	2.9	3.2	3.8	4.6	5.6	6.4	7.9	9.1	11.2	12.1	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. (mm)	Orifice Dia. Nom. (mm)	Flow Rate Capacity (liters per minute)											Spray Angle (°)		
					0.2 bar	0.4 bar	0.5 bar	0.7 bar	1 bar	1.5 bar	2 bar	3 bar	4 bar	6 bar	7 bar	0.5 bar	1.5 bar	6 bar
3/8	●	8	2.8	12.3	1.6	2.3	2.6	3.1	3.6	4.5	5.2	6.3	7.3	8.9	9.6	164	160	157
	●	10	3.2	12.3	2.0	2.9	3.2	3.8	4.6	5.6	6.4	7.9	9.1	11.2	12.1	164	160	157
	●	15	4.4	12.3	3.1	4.3	4.8	5.7	6.8	8.4	9.7	11.8	13.7	16.8	18.1	165	163	155
	●	20	5.2	12.3	4.1	5.8	6.4	7.6	9.1	11.2	12.9	15.8	18.2	22	24	162	152	147
	●	25	5.9	12.3	5.1	7.2	8.1	9.5	11.4	14.0	16.1	19.7	23	28	30	162	158	154
	●	33	6.7	16.3	6.7	9.5	10.6	12.6	15.0	18.4	21	26	30	37	40	162	154	148
1/2	●	25	5.6	16.3	5.1	7.2	8.1	9.5	11.4	14.0	16.1	19.7	23	28	30	162	158	154
	●	30	6.4	16.3	6.1	8.6	9.7	11.4	13.7	16.8	19.3	24	27	34	36	163	155	148
	●	40	7.5	16.3	8.2	11.5	12.9	15.3	18.2	22	26	32	36	45	48	160	152	144
	●	53	9.5	16.3	10.8	15.3	17.1	20	24	30	34	42	48	59	64	159	152	149

Highlighted column shows the rated pressure.

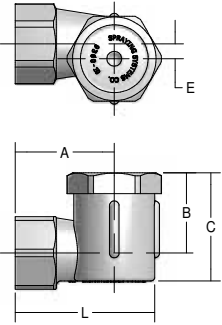
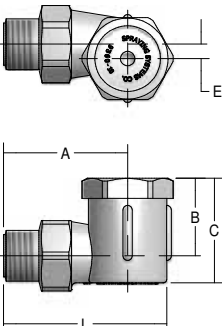
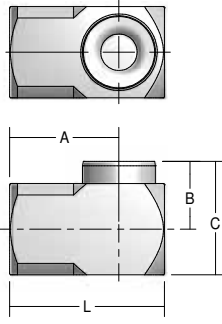
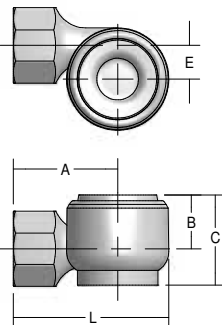
**DIMENSIONS AND WEIGHTS**

Nozzle	Nozzle Type	Inlet Conn. (in.)	L (mm)	A (mm)	B (mm)	C (mm)	E (mm)	Net Weight (kg)
	<b>AX (F) AX-W (F)</b>	1/8	25.4	17.5	11.9	19.8	—	0.04
		1/4	31.8	22.2	13.5	23.0	—	0.08
		3/8	37.3	26.2	17.5	28.6	—	0.12
		1/2	49.2	34.9	19.9	34.2	—	0.25
		3/4	55.6	34.9	22.3	39.7	—	0.31
	<b>BX (M) BX-W (M)</b>	1/8	30.2	22.2	16.6	34.9	—	0.04
		1/4	34.9	25.4	13.5	39.7	—	0.07
		3/8	39.7	28.6	17.5	39.7	—	0.11
		1/2	49.2	34.9	21.4	49.2	—	0.20
		3/4	57.2	41.3	39.7	31.8	—	0.30
	<b>CX (F)</b>	1	66.7	44.5	31.8	46.8	8.7	0.31
		1-1/4	77.8	52.4	33.3	55.6	11.1	0.57
		1-1/2	93.7	61.9	38.1	73.0	14.3	0.79
		2	115.1	93.7	53.6	93.7	18.3	1.36
		2-1/2	140.5	88.9	68.0	114.3	11.9	1.93

Based on the largest/heaviest version of each type.



DIMENSIONS AND WEIGHTS

Nozzle	Nozzle Type	Inlet Conn. (in.)	L (mm)	A (mm)	B (mm)	C (mm)	E (mm)	Net Weight (kg)
	<b>LAP (F)</b> <b>LAP-W (F)</b>	3/8	48.4	32.5	30.0	40.5	4.9	0.02
		1/2	51.6	35.7	30.0	40.5	4.9	0.02
	<b>LBP (M)</b> <b>LBP-W (M)</b>	3/8	53.2	39.7	31.4	40.5	4.9	0.02
	<b>E (F)</b>	1/4	31.8	22.2	12.7	19.1	–	0.06
		3/8	50.8	34.9	15.9	31.8	–	0.30
		1/2	60.3	41.3	19.4	41.3	–	0.49
	<b>E (F)</b> <b>Cast</b>	3/8	35.7	31.0	15.1	27.0	9.5	0.12
		1/2	55.6	36.5	17.5	31.8	12.7	0.17

Based on the largest/heaviest version of each type.