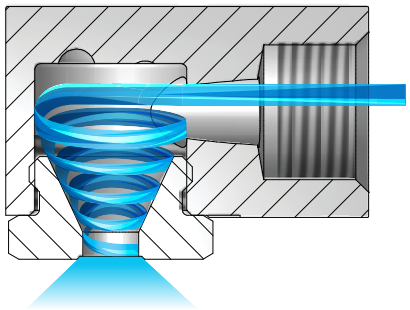
OVERVIEW: WHIRLJET STANDARD, WIDE AND EXTRA WIDE ANGLE NOZZLES

- 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.

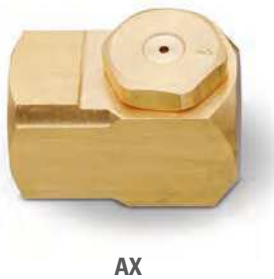


WHIRLJET AX, BX, CX AND D NOZZLES

- 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.

S W



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

S

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

WHIRLJET OPTIONS

S W

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

S

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

S

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

S

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

Example: 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

Example: 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

Example: 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

Example: 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. (mm)	Orifice Dia. Nom. (mm)	Flow Rate Capacity (liters per minute)												Spray Angle (°)		
	CX				0.2 bar	0.3 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	4 bar
1	●	7	17.5	11.5	17.1	21	24	27	32	38	47	54	66	76	93	101	64	65	66
	●	8	17.5	12.7	19.5	24	28	31	36	44	53	62	76	87	107	115	65	66	67
	●	9	17.5	14.3	22	27	31	35	41	49	60	69	85	98	120	130	66	67	69
	●	10	17.5	15.5	24	30	34	39	46	54	67	77	94	109	133	144	67	69	71
	●	12	17.5	17.1	29	36	41	46	55	65	80	92	113	131	160	173	70	73	75
	●	15	17.5	20.6	37	45	52	58	68	82	100	116	142	163	200	216	76	79	81
1-1/4	●	10	21.4	14.3	24	30	34	39	46	54	67	77	94	109	133	144	65	67	67
	●	12	21.4	16.3	29	36	41	46	55	65	80	92	113	131	160	173	68	70	71
	●	14	21.4	18.3	34	42	48	54	64	76	93	108	132	153	187	202	71	73	75
	●	16	21.4	20.2	39	48	55	62	73	87	107	123	151	174	214	231	74	75	77
	●	20	21.4	24.2	49	60	69	77	91	109	133	154	189	218	267	288	76	77	79
1-1/2	●	16	27.8	17.5	39	48	55	62	73	87	107	123	151	174	214	231	64	67	69
	●	20	27.8	21.8	49	60	69	77	91	109	133	154	189	218	267	288	69	72	74
	●	25	27.8	25.8	61	75	86	96	114	136	167	193	236	272	334	360	72	74	76
	●	30	27.8	28.6	73	90	103	116	137	163	200	231	283	327	400	432	74	76	78
2	●	30	36.5	23.8	73	90	103	116	137	163	200	231	283	327	400	432	66	67	70
	●	35	36.5	27.0	85	104	121	135	160	191	234	270	330	381	467	505	68	70	73
	●	40	36.5	30.2	97	119	138	154	182	218	267	308	378	436	534	577	70	72	75
	●	45	36.5	32.9	110	134	155	173	205	245	300	347	425	490	601	649	72	74	78
	●	50	36.5	36.1	122	149	172	193	228	272	334	385	472	545	667	721	74	77	82
	●	60	36.5	39.7	146	179	207	231	274	327	400	462	566	654	801	865	77	79	84
2-1/2	●	60	47.6	36.1	146	179	207	231	274	327	400	462	566	654	801	865	67	68	71
	●	70	47.6	40.5	171	209	241	270	319	381	467	539	661	763	934	1009	69	71	74
	●	80	47.6	44.1	195	239	276	308	365	436	534	616	755	872	1068	1153	71	73	77
	●	90	47.6	47.6	219	269	310	347	410	490	601	694	849	981	1201	1297	73	75	80
	●	100	47.6	50.8	244	298	345	385	456	545	667	771	944	1090	1335	1442	77	79	83

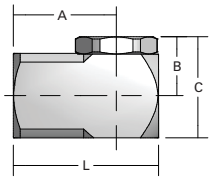
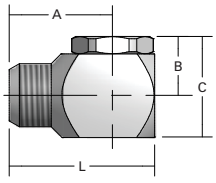
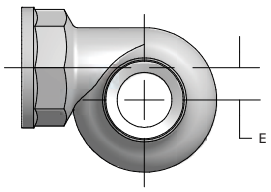
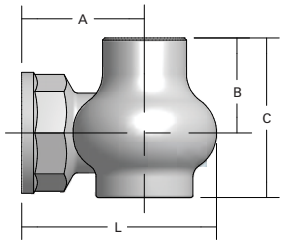
Highlighted column shows the rated pressure.

W PERFORMANCE DATA: EXTRA WIDE ANGLE SPRAY

Inlet Conn. (in.)	Nozzle Type E Styles	Capacity Size	Inlet Dia. Nom. (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
	●	53	9.5	16.3	10.8	15.3	17.1	20	24	30	34	42	48	59	64	159	152	149
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)
	**AX (F) AX-W (F)**	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
	**BX (M) BX-W (M)**	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
	**CX (F)**	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.