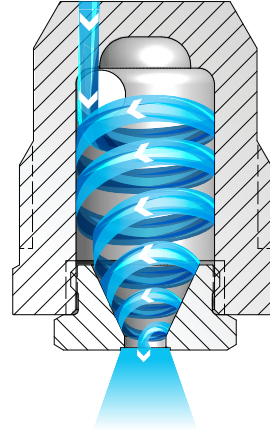


OVERVIEW: WHIRLJET IN-LINE, OFFSET AND DEFLECTED SPRAYS

- Hollow cone spray pattern
- In-line versions ideal for dust control in mining operations
 - BD versions have a lower profile projection for installation in a tee or pipe header
 - In-line BDM features recessed orifice area to protect from damage; self-locking cap to prevent loss due to vibration; fiberglass-reinforced nylon inlet body
- BA offset style ideal for installations with physical space limitations
- Spray angles: Standard – 43° to 94°, Wide – 102° to 125°
- Deflected spray versions available with 120°, 150° and 180° included angle of spray at 10 psi (0.7 bar)
- Uniform spray distribution from .11 to 38 gpm (.41 to 145 lpm)
- Operating pressures up to 500 psi (35 bar)



WhirlJet BD, BDM and BA Nozzles

Liquid passes through a hole on the inlet side of the nozzle. The liquid then enters a whirlchamber where it spins in a circle at high speed. The rotation forces the liquid away from the center toward the edges. This causes the liquid to exit the orifice in a hollow cone pattern.

WHIRLJET OPTIONS



BD
3/8" to 1-1/2" male conn.
In-line nozzle
Removable cap



BDM "Miner Nozzle"
3/8" male conn.
In-line nozzle
Removable cap/nylon body



BA
3/8" to 1/2" male conn.
Offset style nozzle
Removable cap



DeflectoJet® 8686
1/8" to 3/8" male conn.
Deflected nozzle
Removable deflector cap

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.



ORDERING INFORMATION

WHIRLJET BD

Inlet Conn.	Nozzle Type	—	Material Code	Capacity Size
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Example
3/8 BD — SS 10

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

WHIRLJET BDM

Inlet Conn.	Nozzle Type	—	Capacity Size
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Example
3/8 BDM — 5

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

WHIRLJET BA

Inlet Conn.	Nozzle Type	—	Material Code	Capacity Size
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Example
1/2 BA — SS 25

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

DEFLECTOJET 8686

Nozzle No.	Inlet Conn.	—	Material Code	Capacity Size	—	Spray Angle
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Example
8686 — 1/4 — SS 1 — 120

BSPT connections require the addition of a "B" prior to the nozzle number.

QUICK REFERENCE GUIDE

Model	Connection	Connection Size (in.)	Materials	Page Number	
				Performance Data	Dimensions and Weights
BD	M	3/8 to 1-1/2	Brass, 303 stainless steel (SS)	D29	D32
BD-W	M	3/8 to 3/4	Brass, 303 stainless steel (SS)	D30	
BDM	M	3/8	Nylon/Brass cap	D30	
BA	M	3/8 to 1/2	Brass, 303 stainless steel (SS), 309 stainless steel (309SS)	D31	
8686	M	1/8 to 3/8	Brass, 303 stainless steel (SS)	D31	

M = male thread. There is no material code for brass. Leave material code blank when ordering. Other materials available upon request.
 For more dimensions and sizes, contact your sales engineer.



S

PERFORMANCE DATA:
STANDARD ANGLE SPRAY



Inlet Conn. (in.)	Nozzle Type BA	Capacity Size	Inlet Dia. Nom. (in.)	Orifice Dia. Nom. (in.)	Flow Rate Capacity (gallons per minute)						Spray Angle (°)		
					5 psi	10 psi	20 psi	40 psi	60 psi	100 psi	7 psi	20 psi	80 psi
3/8	●	3	.094	.094	.21	.30	.42	.60	.73	.95	52	64	77
	●	5	.141	.125	.35	.50	.71	1.0	1.2	1.6	64	73	79
	●	8	.188	.156	.57	.80	1.1	1.6	2.0	2.5	62	70	74
	●	10	.203	.172	.71	1.0	1.4	2.0	2.4	3.2	64	72	75
	●	15	.250	.219	1.1	1.5	2.1	3.0	3.7	4.7	64	72	74
	●	20	.281	.250	1.4	2.0	2.8	4.0	4.9	6.3	63	70	74
	●	25	.297	.297	1.8	2.5	3.5	5.0	6.1	7.9	63	70	74
1/2	●	25	.375	.250	1.8	2.5	3.5	5.0	6.1	7.9	63	66	71
	●	30	.375	.297	2.1	3.0	4.2	6.0	7.3	9.5	67	71	75
	●	40	.375	.359	2.8	4.0	5.7	8.0	9.8	12.6	72	76	78
	●	50	.375	.438	3.5	5.0	7.1	10.0	12.2	15.8	74	79	82
	●	60	.375	.516	4.2	6.0	8.5	12.0	14.7	19.0	77	82	86

Highlighted column shows the rated pressure.

W

PERFORMANCE DATA:
WIDE ANGLE SPRAY

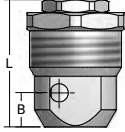
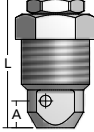
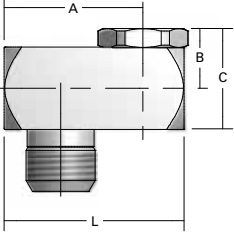
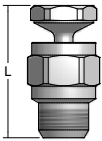


Inlet Conn. (in.)	Nozzle Type DeflectoJet® 8686	Capacity Size	Flow Rate Capacity (gallons per minute)						
			5 psi	10 psi	20 psi	40 psi	60 psi	80 psi	100 psi
1/8	●	.37	.27	.38	.53	.75	.92	1.1	1.2
	●	.5	.35	.50	.70	1.0	1.2	1.4	1.6
	●	.75	.53	.75	1.1	1.5	1.8	2.1	2.4
1/4	●	1	.71	1.0	1.4	2.0	2.5	2.8	3.2
	●	1.5	1.1	1.5	2.1	3.0	3.7	4.2	4.7
	●	2	1.4	2.0	2.8	4.0	4.9	5.6	6.3
	●	2.5	1.8	2.5	3.5	5.0	6.1	7.1	7.9
3/8	●	3	2.1	3.0	4.2	6.0	7.3	8.5	9.5
	●	3.5	2.5	3.5	5.0	7.0	8.6	9.9	11.0
	●	4	2.8	4.0	5.7	8.0	9.8	11.3	12.6
	●	4.5	3.2	4.5	6.4	9.0	11.0	12.7	14.2
	●	5	3.5	5.0	7.1	10.0	12.3	14.2	15.8

Highlighted column shows the rated pressure.



DIMENSIONS AND WEIGHTS

Nozzle	Nozzle Type	Inlet Conn. (in.)	L (in.)	Hex. (in.)	A (in.)	B (in.)	C (in.)	Net Weight (oz.)
	BD (M)	3/8	1.250	11/16	–	0.266	–	1
		1/2	1.469	7/8	–	0.311	–	2
		3/4	1.750	1-1/16	–	0.375	–	4
		1-1/2	2.625	2	–	0.311	–	21
	BD-W (M)	3/8	1.250	11/16	–	0.266	–	1
		1/2	1.469	7/8	–	0.311	–	2
		3/4	1.750	1-1/16	–	0.375	–	4
	BDM (M)	3/8	1.281	11/16	0.266	–	–	0.5
	BA (M)	3/8	1.500	–	1.046	0.578	0.953	4
		1/2	2.188	–	1.688	0.578	1.078	9.5
	8686 (M)	1/8	1.188	1/2	–	–	–	0.8
		1/4	1.313	5/8	–	–	–	1
		3/8	1.750	7/8	–	–	–	2.8

Based on the largest/heaviest version of each type.