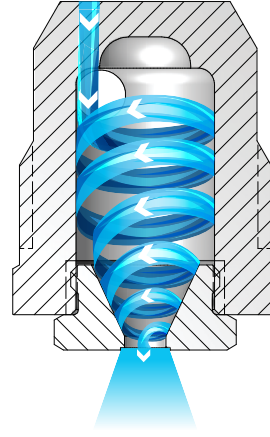


OVERVIEW: WHIRLJET IN-LINE, OFFSET AND DEFLECTED SPRAYS

- 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

S
W



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

S



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

S



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

W



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
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Drop size will vary based on flow rate and pressure.

ORDERING INFORMATION

WHIRLJET BD

Inlet
Conn.

Nozzle
Type

-

Material
Code

Capacity
Size

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

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

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

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

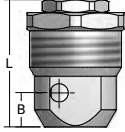
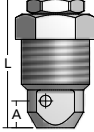
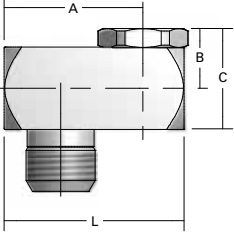
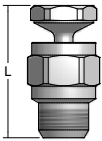


Inlet Conn. (in.)	Nozzle Type DeflectoJet® 8686	Capacity Size	Flow Rate Capacity (gallons per minute)						
			5 psi	10 psi	20 psi	40 psi	60 psi	80 psi	100 psi
1/8	●	.37	.27	.38	.53	.75	.92	1.1	1.2
	●	.5	.35	.50	.70	1.0	1.2	1.4	1.6
	●	.75	.53	.75	1.1	1.5	1.8	2.1	2.4
1/4	●	1	.71	1.0	1.4	2.0	2.5	2.8	3.2
	●	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.