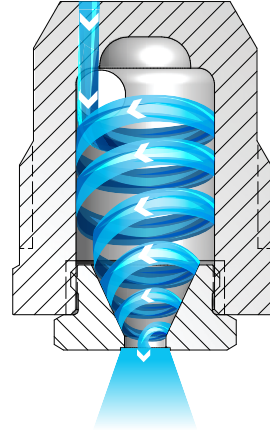


**OVERVIEW: WHIRLJET IN-LINE, OFFSET AND DEFLECTED SPRAYS**

- 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
<b>BD</b>	M	3/8 to 1-1/2	Brass, 303 stainless steel (SS)	D29	D32
<b>BD-W</b>	M	3/8 to 3/4	Brass, 303 stainless steel (SS)	D30	
<b>BDM</b>	M	3/8	Nylon/Brass cap	D30	
<b>BA</b>	M	3/8 to 1/2	Brass, 303 stainless steel (SS), 309 stainless steel (309SS)	D31	
<b>8686</b>	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. (mm)	Orifice Dia. Nom. (mm)	Flow Rate Capacity (liters per minute)						Spray Angle (°)		
					0.4 bar	0.7 bar	1.5 bar	3 bar	4 bar	7 bar	0.5 bar	1.5 bar	6 bar
3/8	●	3	2.4	2.4	.86	1.1	1.7	2.4	2.7	3.6	52	64	77
	●	5	3.6	3.2	1.4	1.9	2.8	3.9	4.6	6.0	64	73	79
	●	8	4.8	4.0	2.3	3.1	4.5	6.3	7.3	9.6	62	70	74
	●	10	5.2	4.4	2.9	3.8	5.6	7.9	9.1	12.1	64	72	75
	●	15	6.4	5.6	4.3	5.7	8.4	11.8	13.7	18.1	64	72	74
	●	20	7.1	6.4	5.8	7.6	11.2	15.8	18.2	24	63	70	74
	●	25	7.5	7.5	7.2	9.5	14.0	19.7	23	30	63	70	74
1/2	●	25	9.5	6.4	7.2	9.5	14.0	19.7	23	30	63	66	71
	●	30	9.5	7.5	8.6	11.4	16.8	24	27	36	67	71	75
	●	40	9.5	9.1	11.5	15.3	22	32	36	48	72	76	78
	●	50	9.5	11.1	14.4	19.1	28	39	46	60	74	79	82
	●	60	9.5	13.1	17.3	23	34	47	55	72	77	82	86

Highlighted column shows the rated pressure.

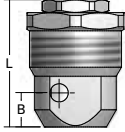
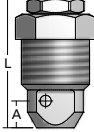
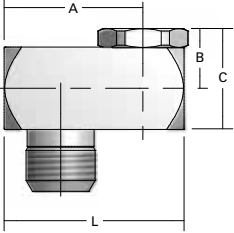
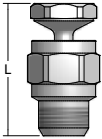
**W** PERFORMANCE DATA:  
**WIDE ANGLE SPRAY**



Inlet Conn. (in.)	Nozzle Type DeflectoJet® 8686	Capacity Size	Flow Rate Capacity (liters per minute)						
			0.4 bar	0.7 bar	1.5 bar	3 bar	4 bar	6 bar	7 bar
1/8	●	.37	1.1	1.4	2.1	3.0	3.4	4.2	4.5
	●	.5	1.4	1.9	2.8	4.0	4.6	5.6	6.0
	●	.75	2.2	2.9	4.2	5.9	6.8	8.4	9.0
1/4	●	1	2.9	3.8	5.6	7.9	9.1	11.2	12.1
	●	1.5	4.3	5.7	8.3	11.8	13.7	16.8	18.1
	●	2	5.8	7.7	11.2	15.8	18.2	22	24
	●	2.5	7.2	9.5	13.9	19.7	23	28	30
3/8	●	3	8.8	11.6	17.0	24	27	34	36
	●	3.5	10.4	13.7	20	28	32	39	42
	●	4	11.9	15.7	23	32	36	45	48
	●	4.5	12.9	17.1	25	36	41	50	54
	●	5	14.4	19.1	28	39	46	56	60

Highlighted column shows the rated pressure.

**DIMENSIONS AND WEIGHTS**

Nozzle	Nozzle Type	Inlet Conn. (in.)	L (mm)	Hex. (in.)	A (mm)	B (mm)	C (mm)	Net Weight (kg)
	<b>BD (M)</b>	3/8	31.8	11/16	–	6.7	–	0.03
		1/2	37.3	7/8	–	8.0	–	0.06
		3/4	44.5	1-1/16	–	9.5	–	0.11
		1-1/2	66.7	2	–	8.0	–	0.60
	<b>BD-W (M)</b>	3/8	31.8	11/16	–	6.7	–	0.03
		1/2	37.3	7/8	–	7.9	–	0.06
		3/4	44.4	1-1/16	–	9.5	–	0.11
	<b>BDM (M)</b>	3/8	32.5	11/16	6.7	–	–	0.01
	<b>BA (M)</b>	3/8	38.1	–	26.6	14.7	24.2	0.11
		1/2	55.6	–	42.9	14.7	27.4	0.27
	<b>8686 (M)</b>	1/8	30.2	1/2	–	–	–	0.02
		1/4	33.3	5/8	–	–	–	0.03
		3/8	44.5	7/8	–	–	–	0.08

Based on the largest/heaviest version of each type.