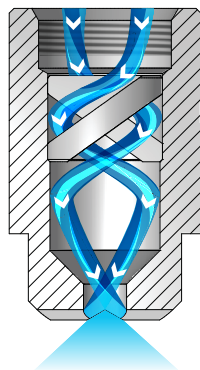


OVERVIEW: FULLJET SQUARE AND OVAL SPRAY PATTERNS AND VANELESS DESIGN

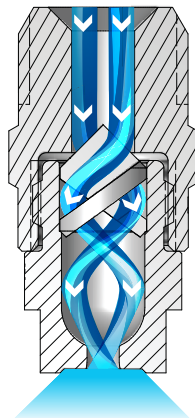
FullJet G and H Square Spray Nozzles



**Square spray**

As the liquid enters the nozzle, it flows over and through the vane. This creates the initial swirling of the liquid. The design of the nozzle ensures the liquid continues to swirl after passing through the vane. As the liquid exits the orifice, it interacts with cross cuts located on the face of the nozzle and forms a square spray pattern.

FullJet G-VL and GG-VL Nozzles



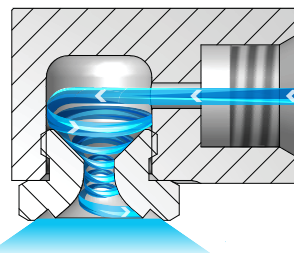
**Oval spray**

As the liquid enters the nozzle, it flows over and through the vane. This creates the initial swirling of the liquid. The design of the nozzle ensures the liquid continues to swirl after passing through the vane. The exit orifice of the nozzle has an oval shape. The liquid follows the oval shape as it exits the nozzle.

FullJet GANV and GGANV Nozzles

**Vaneless spray**

The liquid begins to swirl as it enters the swirlchamber. The swirling continues as it passes through the orifice. The breakup of the liquid occurs as it exits the nozzle orifice in a well-defined cone pattern.



FULLJET SQUARE SPRAY PATTERN

- Cone-shaped spray pattern with square-like impact area for coverage of rectangular areas or spray zones
- Unique vane design and large flow passages provide superior spray pattern control
- Uniform spray distribution from .26 to 1977 gpm (1.1 to 7371 lpm)
- Operating pressures up to 150 psi (10 bar)
- Spray angles: Standard – 43° to 94°, Wide – 112° to 120°



**G-SQ**

1/8" to 1/2" female conn.  
Removable cap and vane



**H-SQ**

1" female conn.  
One-piece body

FULLJET SQUARE SPRAY OPTIONS



**GG-SQ** – 1/8" to 1/2" male conn.  
Removable cap and vane



**H-SQ** – 1-1/4" to 6" female conn.  
Removable vane/cast body



**HH-SQ** – 1/8" to 1" male conn.  
One-piece body



**H-WSQ** – 3/4" to 1" female conn.  
One-piece body



**H-WSQ** – 1-1/4" to 3" female conn.  
Removable vane/cast body



**HH-WSQ** – 1/4" to 1" male conn.  
One-piece body

**FULLJET OVAL SPRAY PATTERN**

- Solid cone-shaped spray pattern with oval impact area; the width of the spray is approximately half its length
- Unique vane design provides superior spray pattern control
- Uniform spray distribution from .59 to 3.2 gpm (2.2 to 11.9 lpm)
- Operating pressures up to 150 psi (10 bar)
- Spray angles: Standard – 43° to 94°



**G-VL** – 3/8" female conn.  
Removable cap and vane



**GG-VL** – 3/8" female conn.  
Removable cap and vane

**FULLJET VANELESS DESIGN**

- Solid cone-shaped spray pattern with round impact area
- Uniform spray distribution from .35 to 23 gpm (1.4 to 87 lpm)
- Operating pressures up to 100 psi (7 bar)
- No vane for unrestricted flow – coarse spray is projected at 90° from axis at the inlet
- Spray angles: Standard – 43° to 94°



**GANV** – 1/4" to 1/2" female conn.  
Vaneless design  
Removable cap



**GGANV** – 1/4" to 1/2" male conn.  
Vaneless design  
Removable cap

**ORDERING INFORMATION**

**FULLJET SQUARE SPRAY PATTERN**

Inlet Conn.	Nozzle Type	–	Material Code	Capacity Size	<b>Example</b>
					1/4 G – SS 12SQ

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

**FULLJET OVAL SPRAY PATTERN**

Inlet Conn.	Nozzle Type	–	Material Code	Capacity Size	<b>Example</b>
					3/8 G – SS 4.9VL

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

**FULLJET VANELESS DESIGN**

Inlet Conn.	Nozzle Type	–	Material Code	Capacity Size	<b>Example</b>
					1/4 GANV – SS 10

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

**RELATIVE DROP SIZE IN MICRONS**

10 to 100	100 to 500	500 to 1000	1000 to 5000
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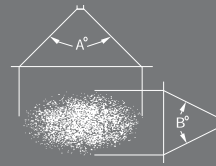
Drop size will vary based on flow rate and pressure.

FULL  
CONE

FULLJET® NOZZLES: SQUARE AND OVAL SPRAY PATTERNS AND VANELESS DESIGN

S STANDARD ANGLE SPRAY

S PERFORMANCE DATA:  
STANDARD ANGLE SPRAY



Inlet Conn. (in.)	Nozzle Type		Capacity Size	Max. Free Passage Dia. (in.)	Flow Rate Capacity (gallons per minute)							Spray Angle (°)							
					15 psi	30 psi	40 psi	60 psi	80 psi	100 psi	150 psi	15 psi		40 psi		100 psi		150 psi	
	G-VL	GG-VL			15 psi	30 psi	40 psi	60 psi	80 psi	100 psi	150 psi	A°	B°	A°	B°	A°	B°	A°	B°
3/8	●	●	4.9VL	.040	.59	.81	.93	1.1	1.3	1.4	1.7	104	66	90	60	86	52	83	47
	●	●	6.5VL	.050	.78	1.1	1.2	1.5	1.7	1.9	2.3	106	64	95	60	85	50	81	45
	●	●	8.1VL	.050	.98	1.3	1.5	1.8	2.1	2.3	2.8	102	64	100	65	84	50	80	45
	●	●	9.2VL	.050	1.1	1.5	1.7	2.1	2.4	2.7	3.2	103	65	100	65	86	51	81	46

Maximum Free Passage Diameter is the maximum diameter as listed of foreign matter that can pass through the nozzle without clogging.  
Calibration pressure = 10 psi (0.7 bar).

S PERFORMANCE DATA:  
STANDARD ANGLE SPRAY

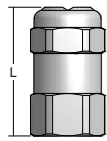
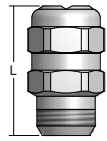
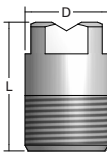
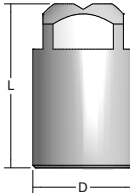
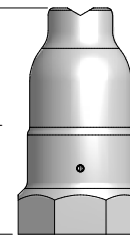


Inlet Conn. (in.)	Nozzle Type		Capacity Size	Orifice Dia. Nom. (in.)	Max. Free Passage Dia. (in.)	Flow Rate Capacity (gallons per minute)								Spray Angle (°)		
	GANV	GGANV				5 psi	7 psi	10 psi	15 psi	20 psi	40 psi	80 psi	100 psi	7 psi	20 psi	80 psi
1/4	●	●	5	.109	.078	.35	.42	.50	.61	.71	1.0	1.4	1.6	68	75	82
	●	●	7	.125	.094	.49	.59	.70	.86	.99	1.4	2.0	2.2	68	75	82
	●	●	8	.156	.109	.57	.67	.80	.98	1.1	1.6	2.3	2.5	75	80	85
	●	●	10	.156	.125	.71	.84	1.0	1.2	1.4	2.0	2.8	3.2	75	80	85
	●	●	11	.156	.141	.78	.92	1.1	1.3	1.6	2.2	3.1	3.5	75	80	85
3/8	●	●	11	.172	.125	.78	.92	1.1	1.3	1.6	2.2	3.1	3.5	75	85	83
	●	●	13	.172	.141	.92	1.1	1.3	1.6	1.8	2.6	3.7	4.1	75	85	83
	●	●	16	.172	.156	1.1	1.3	1.6	2.0	2.3	3.2	4.5	5.1	75	85	83
	●	●	20	.219	.172	1.4	1.7	2.0	2.4	2.8	4.0	5.7	6.3	75	85	83
	●	●	23	.219	.188	1.6	1.9	2.3	2.8	3.3	4.6	6.5	7.3	75	85	83
	●	●	26	.234	.203	1.8	2.2	2.6	3.2	3.7	5.2	7.4	8.2	75	85	83
	●	●	29	.234	.219	2.1	2.4	2.9	3.6	4.1	5.8	8.2	9.2	75	85	83
1/2	●	●	33	.297	.234	2.3	2.8	3.3	4.0	4.7	6.6	9.3	10.4	75	85	83
	●	●	32	.313	.203	2.3	2.7	3.2	3.9	4.5	6.4	9.1	10.1	85	90	95
	●	●	40	.313	.234	2.8	3.3	4.0	4.9	5.7	8.0	11.3	12.6	85	90	95
	●	●	48	.313	.281	3.4	4.0	4.8	5.9	6.8	9.6	13.6	15.2	85	90	95
	●	●	56	.391	.297	4.0	4.7	5.6	6.9	7.9	11.2	15.8	17.7	85	90	95
	●	●	64	.391	.328	4.5	5.4	6.4	7.8	9.1	12.8	18.1	20	85	90	95
	●	●	72	.391	.359	5.1	6.0	7.2	8.8	10.2	14.4	20	23	85	90	95

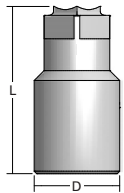
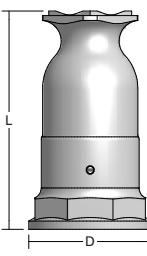
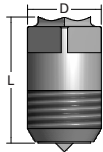
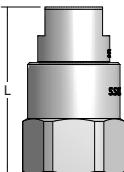
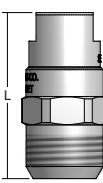
Maximum Free Passage Diameter is the maximum diameter as listed of foreign matter that can pass through the nozzle without clogging.  
Highlighted column shows the rated pressure.



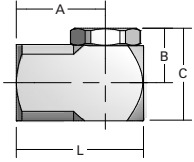
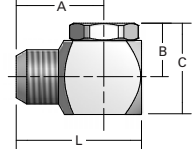
**DIMENSIONS AND WEIGHTS**

Nozzle	Nozzle Type	Inlet Conn. (in.)	L (in.)	Hex. (in.)	D (Dia.) (in.)	Net Weight (oz.)
	<b>G-SQ (F)</b>	1/8	1.124	9/16	–	0.9
		1/4	1.342	11/16	–	1.6
	<b>GG-SQ (M)</b>	1/8	1.187	9/16	–	0.1
		1/4	1.436	11/16	–	0.1
	<b>HH-SQ (M)</b>	1/8	0.875	–	0.500	0.5
		1/4	0.875	–	0.531	0.5
		3/8	0.938	–	0.656	0.8
		1/2	1.131	–	0.813	1.7
		3/4	1.531	–	1.063	3.6
		1	2.031	–	1.313	1.4
	<b>H-SQ (F)</b>	1	2.688	–	1.500	13.2
	<b>H-SQ (F) Cast</b>	1-1/4	2.688	1-7/8 oct.	–	16.9
		1-1/2	4.000	2-1/8 oct.	–	25.4
		2	5.000	2-5/8 oct.	–	41.4
		2-1/2	6.156	3-1/8 oct.	–	80.5
		5	12.250	6-3/4 oct.	–	38
		6	14.375	8 oct.	–	53

Based on the largest/heaviest version of each type.

Nozzle	Nozzle Type	Inlet Conn. (in.)	L (in.)	Hex. (in.)	D (Dia.) (in.)	Net Weight (oz.)
	<b>H-WSQ (F)</b>	3/4	1.594	–	1.250	3.6
		1	2.078	–	1.500	6.5
	<b>H-WSQ (F) Cast</b>	1-1/4	3.375	–	2.063	14
		1-1/2	4.000	–	2.313	24.6
		2	5.000	–	3.000	45.2
		2-1/2	6.156	–	3.438	72.8
		3	7.344	–	4.063	106.5
	<b>HH-WSQ (M)</b>	1/4	0.906	–	0.531	0.5
		3/8	1.188	–	0.656	1.1
		1/2	1.375	–	0.813	1.8
		3/4	1.594	–	1.063	3.5
		1	2.078	–	1.313	7.0
	<b>G-VL (F)</b>	3/8	1.500	13/16	2.250	2.3
	<b>GG-VL (M)</b>	3/8	1.500	13/16	2.250	1.9

Based on the largest/heaviest version of each type.

Nozzle	Nozzle Type	Inlet Conn. (in.)	L (in.)	A (in.)	B (in.)	C (in.)	Net Weight (oz.)
	<b>GANV (F)</b>	1/4	1.250	0.875	0.535	0.909	2
		3/8	1.406	0.969	0.629	1.066	3.3
		1/2	1.812	1.312	0.756	1.256	6.3
	<b>GGANV (M)</b>	1/4	1.250	0.875	0.535	0.910	2
		3/8	1.406	0.969	0.629	1.066	3.3
		1/2	1.875	1.375	0.756	1.256	6.3

Based on the largest/heaviest version of each type.

