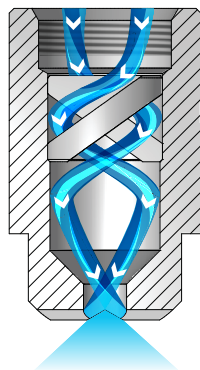


OVERVIEW: FULLJET SQUARE AND OVAL SPRAY PATTERNS AND VANELESS DESIGN

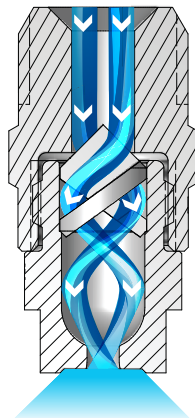
FullJet G and H Square Spray Nozzles



**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



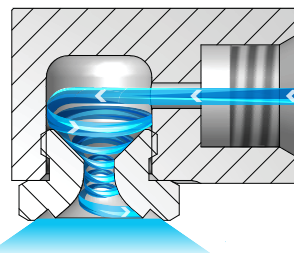
**Oval spray**

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" male 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.

**QUICK REFERENCE GUIDE**

Model	Connection/Type	Connection Size (in.)	Materials	Page Number	
				Performance Data	Dimensions and Weights
<b>G-SQ</b>	F	1/8 to 1/2	Brass, Mild steel (I), 303 stainless steel (SS), 316 stainless steel (316SS)	B32	B35
<b>GG-SQ</b>	M				
<b>H-SQ</b>	F	1	Brass, Mild steel (I), 303 stainless steel (SS)	B32	
<b>H-SQ</b>	F, Cast	1-1/4 to 6	Brass, 316 stainless steel (SS)	B33	
<b>HH-SQ</b>	M	1/8 to 1	Brass, Mild steel (I), 303 stainless steel (SS), 316 stainless steel (316SS), Polyvinyl chloride (PVC)	B32	
<b>H-WSQ</b>	F	3/4 to 1	Brass, Mild steel (I), 303 stainless steel (SS), 316 stainless steel (316SS)	B33	
<b>H-WSQ</b>	F, Cast	1-1/4 to 3	Brass, 316 stainless steel (SS)		
<b>HH-WSQ</b>	M	1/4 to 1	Brass, Mild steel (I), 303 stainless steel (SS), 316 stainless steel (316SS), Polyvinyl chloride (PVC)		
<b>G-VL</b>	F	3/8	Brass, 303 stainless steel (SS)	B34	
<b>GG-VL</b>	M				
<b>GANV</b>	F	1/4 to 1/2	Brass, 303 stainless steel (SS)		
<b>GGANV</b>	M				

F = female thread; 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**



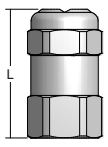
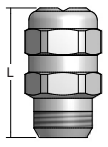
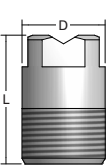
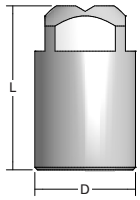
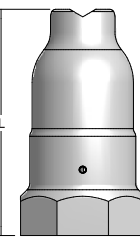
Inlet Conn. (in.)	Nozzle Type				Capacity Size	Orifice Dia. Nom. (mm)	Max. Free Passage Dia. (mm)	Flow Rate Capacity (liters per minute)										Spray Angle (°)		
	G-SQ	GG-SQ	HH-SQ	H-SQ				0.4 bar	0.5 bar	0.7 bar	1.5 bar	3 bar	6 bar	7 bar	10 bar	0.5 bar	1.5 bar	6 bar		
1/8	●	●	●		3.6SQ	1.6	1.3	1.1	1.2	1.4	1.9	2.7	3.7	4.0	4.7	40	52	47		
	●	●	●		4.8SQ	1.9	1.3	1.4	1.6	1.8	2.6	3.6	4.9	5.3	6.2	48	63	57		
	●	●	●		6SQ	2.4	1.3	1.8	2.0	2.3	3.2	4.5	6.1	6.6	7.8	60	66	60		
1/4	●	●	●		10SQ	2.8	1.6	2.9	3.3	3.8	5.4	7.4	10.2	11.0	13.0	62	67	61		
	●	●	●		12SQ	3.2	1.6	3.5	3.9	4.6	6.5	8.9	12.3	13.2	15.5	70	75	68		
			●		14.5SQ	3.9	1.6	4.3	4.7	5.5	7.8	10.8	14.8	15.9	18.8	78	82	75		
3/8	●	●	●		18SQ	4.0	2.4	5.3	5.9	6.9	9.7	13.4	18.4	19.8	23	71	75	68		
1/2	●	●	●		29SQ	5.6	3.2	8.5	9.5	11.1	15.7	22	30	32	38	71	75	68		
			●		36SQ	6.4	3.2	10.6	11.8	13.7	19.5	27	37	40	47	78	82	75		
3/4			●		50SQ	6.7	4.4	14.7	16.3	19.1	27	37	51	55	65	71	75	68		
1			●	●	106SQ	9.9	5.6	31	35	40	57	79	109	117	137	78	80	73		

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

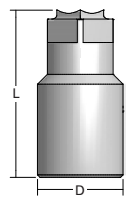
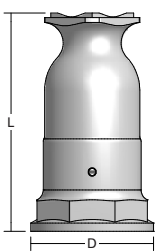
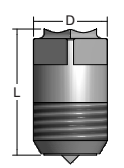
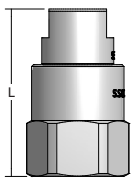
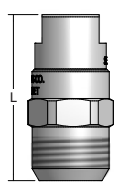
Highlighted column shows the rated pressure.



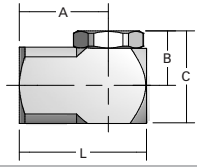
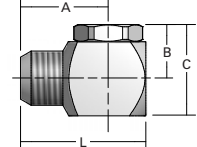
**DIMENSIONS AND WEIGHTS**

Nozzle	Nozzle Type	Inlet Conn. (in.)	L (mm)	Hex. (in.)	D (Dia.) (mm)	Net Weight (kg)
	<b>G-SQ (F)</b>	1/8	28.5	9/16	—	0.03
		1/4	34.1	11/16	—	0.04
	<b>GG-SQ (M)</b>	1/8	30.1	9/16	—	0.01
		1/4	36.5	11/16	—	0.01
	<b>HH-SQ (M)</b>	1/8	22.2	—	12.7	0.01
		1/4	22.2	—	13.5	0.02
		3/8	23.8	—	16.7	0.05
		1/2	28.7	—	20.6	0.10
		3/4	38.9	—	27.0	0.04
		1	51.6	—	33.3	0.37
	<b>H-SQ (F)</b>	1	68.3	—	38.1	0.37
	<b>H-SQ (F) Cast</b>	1-1/4	68.3	1-7/8 oct.	—	0.48
		1-1/2	101.6	2-1/8 oct.	—	0.72
		2	127.0	2-5/8 oct.	—	1.17
		2-1/2	156.4	3-1/8 oct.	—	2.28
		5	311.2	6-3/4 oct.	—	1.08
		6	365.1	8 oct.	—	1.50

Based on the largest/heaviest version of each type.

Nozzle	Nozzle Type	Inlet Conn. (in.)	L (mm)	Hex. (in.)	D (Dia.) (mm)	Net Weight (kg)
	<b>H-WSQ (F)</b>	3/4	40.5	—	31.7	0.10
		1	52.8	—	38.0	0.18
	<b>H-WSQ (F) Cast</b>	1-1/4	85.7	—	52.4	0.40
		1-1/2	101.6	—	58.7	0.70
		2	127.0	—	76.2	1.28
		2-1/2	156.4	—	87.3	2.06
		3	186.5	—	103.2	3.02
	<b>HH-WSQ (M)</b>	1/4	23.0	—	13.5	0.01
		3/8	30.2	—	16.7	0.03
		1/2	34.9	—	20.6	0.05
		3/4	40.5	—	27.0	0.10
		1	52.8	—	33.3	0.20
	<b>G-VL (F)</b>	3/8	38.1	13/16	57.1	0.06
	<b>GG-VL (M)</b>	3/8	38.1	13/16	57.1	0.05

Based on the largest/heaviest version of each type.

Nozzle	Nozzle Type	Inlet Conn. (in.)	L (mm)	A (mm)	B (mm)	C (mm)	Net Weight (kg)
	<b>GANV (F)</b>	1/4	31.8	22.2	13.6	23.1	0.06
		3/8	35.7	24.6	16.0	27.1	0.09
		1/2	46.0	33.3	19.2	31.9	0.18
	<b>GGANV (M)</b>	1/4	31.8	22.2	13.6	23.1	0.06
		3/8	35.7	24.6	16.0	27.1	0.09
		1/2	47.6	34.9	19.2	31.9	0.18

Based on the largest/heaviest version of each type.