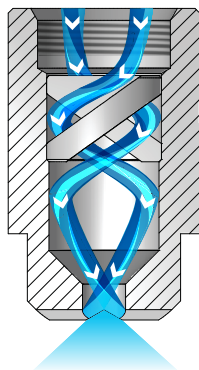


OVERVIEW: FULLJET SQUARE AND OVAL SPRAY PATTERNS AND VANELESS DESIGN

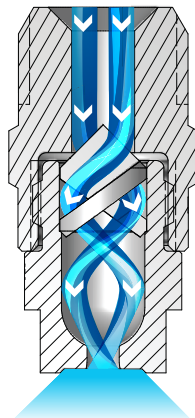
FullJet G and H Square Spray Nozzles



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



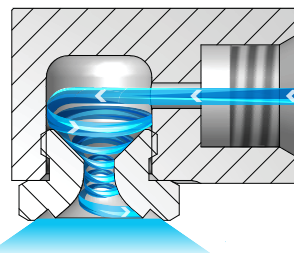
Oval spray

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°

S



G-SQ

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

S



W



H-SQ

1" female conn.
One-piece body

FULLJET SQUARE SPRAY OPTIONS

S



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

S



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

S



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

W



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

W



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

W



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
-------------	-------------	---------------	---------------

Example

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
-------------	-------------	---------------	---------------

Example

3/8	G	SS	4.9VL
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BSPT connections require the addition of a "B" prior to the inlet connection.

FULLJET VANELESS DESIGN

Inlet Conn.	Nozzle Type	Material Code	Capacity Size
-------------	-------------	---------------	---------------

Example

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

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
G-SQ	F	1/8 to 1/2	Brass, Mild steel (I), 303 stainless steel (SS), 316 stainless steel (316SS)	B32	B35
GG-SQ	M				
H-SQ	F	1	Brass, Mild steel (I), 303 stainless steel (SS)	B32	
H-SQ	F, Cast	1-1/4 to 6	Brass, 316 stainless steel (SS)	B33	
HH-SQ	M	1/8 to 1	Brass, Mild steel (I), 303 stainless steel (SS), 316 stainless steel (316SS), Polyvinyl chloride (PVC)	B32	
H-WSQ	F	3/4 to 1	Brass, Mild steel (I), 303 stainless steel (SS), 316 stainless steel (316SS)	B33	
H-WSQ	F, Cast	1-1/4 to 3	Brass, 316 stainless steel (SS)		
HH-WSQ	M	1/4 to 1	Brass, Mild steel (I), 303 stainless steel (SS), 316 stainless steel (316SS), Polyvinyl chloride (PVC)		
G-VL	F	3/8	Brass, 303 stainless steel (SS)	B34	
GG-VL	M				
GANV	F	1/4 to 1/2	Brass, 303 stainless steel (SS)		
GGANV	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. (in.)	Max. Free Passage Dia. (in.)	Flow Rate Capacity (gallons per minute)								Spray Angle (°)		
	G-SQ	GG-SQ	HH-SQ	H-SQ				5 psi	7 psi	10 psi	20 psi	40 psi	80 psi	100 psi	150 psi	7 psi	20 psi	80 psi
1/8	●	●	●		3.6SQ	.063	.050	.26	.31	.36	.50	.68	.94	1.0	1.3	40	52	47
	●	●	●		4.8SQ	.078	.050	.35	.41	.48	.66	.91	1.2	1.4	1.7	48	63	57
	●	●	●		6SQ	.094	.050	.44	.51	.60	.83	1.1	1.6	1.7	2.1	60	66	60
1/4	●	●	●		10SQ	.109	.063	.73	.85	1.0	1.4	1.9	2.6	2.9	3.5	62	67	61
	●	●	●		12SQ	.125	.063	.87	1.0	1.2	1.7	2.3	3.1	3.5	4.2	70	75	68
			●		14.5SQ	.154	.063	1.1	1.2	1.5	2.0	2.7	3.8	4.2	5.0	78	82	75
3/8	●	●	●		18SQ	.156	.094	1.3	1.5	1.8	2.5	3.4	4.7	5.2	6.3	71	75	68
1/2	●	●	●		29SQ	.219	.125	2.1	2.5	2.9	4.0	5.5	7.5	8.4	10.1	71	75	68
			●		36SQ	.250	.125	2.6	3.1	3.6	5.0	6.8	9.4	10.4	12.5	78	82	75
3/4			●		50SQ	.266	.172	3.6	4.2	5.0	6.9	9.5	13.0	14.4	17.4	71	75	68
1			●	●	106SQ	.391	.219	7.7	9.0	10.6	14.6	20	28	31	37	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.



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

S STANDARD ANGLE SPRAY | **W** WIDE ANGLE SPRAY

**FULL
CONE**

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 (°)		
	G-SQ	GG-SQ	HH-SQ	H-SQ				5 psi	7 psi	10 psi	20 psi	40 psi	80 psi	100 psi	150 psi	7 psi	20 psi	80 psi
1-1/4				●	177SQ	.500	.250	12.9	15.0	17.7	24	33	46	51	62	78	80	73
1-1/2				●	230SQ	.563	.344	16.7	19.5	23	32	44	60	66	80	73	77	70
2				●	290SQ	.609	.438	21	25	29	40	55	75	84	101	66	70	64
				●	360SQ	.687	.438	26	31	36	50	68	94	104	125	70	74	67
				●	480SQ	.828	.438	35	41	48	66	91	125	138	167	79	82	74
2-1/2				●	490SQ	.791	.563	36	42	49	67	93	128	141	170	62	67	61
				●	590SQ	.875	.563	43	50	59	81	112	154	170	205	75	78	71
				●	950SQ	1.125	.688	69	81	95	131	180	247	274	330	81	84	76
5				●	2980SQ	1.875	1.125	217	253	298	410	564	776	859	1036	89	91	83
6				●	5690SQ	3.219	1.750	414	483	569	783	1077	1481	1641	1977	102	105	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.

W PERFORMANCE DATA:
WIDE 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 (°)		
	H-WSQ	HH-WSQ				5 psi	7 psi	10 psi	15 psi	20 psi	40 psi	80 psi	5 psi	10 psi	80 psi
1/4		●	14WSQ	.141	.063	1.0	1.2	1.4	1.7	1.9	2.6	3.5	99	101	93
3/8		●	17WSQ	.156	.063	1.3	1.5	1.7	2.0	2.3	3.1	4.2	99	101	93
		●	20WSQ	.172	.094	1.5	1.7	2.0	2.4	2.7	3.7	5.0	104	110	94
		●	24WSQ	.188	.094	1.8	2.1	2.4	2.9	3.3	4.4	6.0	104	110	94
		●	27WSQ	.203	.109	2.0	2.3	2.7	3.2	3.7	5.0	6.7	104	110	98
1/2		●	30WSQ	.219	.109	2.2	2.6	3.0	3.6	4.1	5.5	7.5	104	110	102
		●	35WSQ	.234	.125	2.6	3.0	3.5	4.2	4.7	6.4	8.7	104	110	102
		●	40WSQ	.250	.125	2.9	3.4	4.0	4.8	5.4	7.4	10.0	104	110	102
		●	45WSQ	.250	.141	3.3	3.8	4.5	5.4	6.1	8.3	11.2	104	110	102
		●	50WSQ	.266	.156	3.7	4.3	5.0	6.0	6.8	9.2	12.5	104	110	102
3/4	●	●	71WSQ	.391	.172	5.2	6.1	7.1	8.5	9.6	13.1	17.7	105	110	102
1	●	●	130WSQ	.516	.219	9.6	11.1	13.0	15.5	17.6	24	32	107	110	107
1-1/4	●		190WSQ	.609	.219	14.0	16.2	19.0	23	26	35	47	108	111	109
1-1/2	●		290WSQ	.719	.313	21	25	29	35	39	53	72	109	114	109
2	●		560WSQ	.984	.438	41	48	56	67	76	103	140	110	114	109
2-1/2	●		830WSQ	1.250	.563	61	71	83	99	113	153	207	110	115	109
3	●		1070WSQ	1.375	.688	79	91	107	128	145	197	267	110	115	109

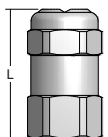
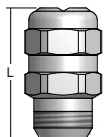
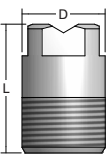
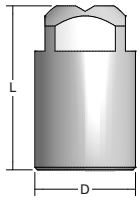
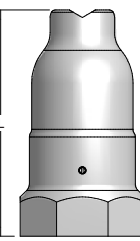
Maximum Free Passage Diameter is the maximum diameter as listed of foreign matter that can pass through the nozzle without clogging.

Highlighted column shows the rated pressure.

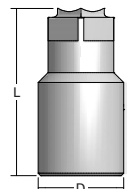
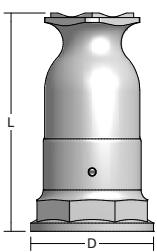
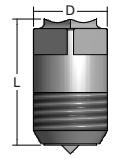
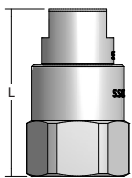
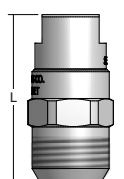


FULLJET® NOZZLES: SQUARE AND OVAL SPRAY PATTERNS AND VANELESS DESIGN
S STANDARD ANGLE SPRAY | **W** WIDE ANGLE SPRAY

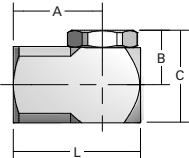
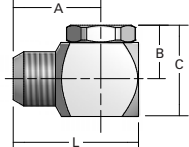
**FULL
CONE**
DIMENSIONS AND WEIGHTS

Nozzle	Nozzle Type	Inlet Conn. (in.)	L (in.)	Hex. (in.)	D (Dia.) (in.)	Net Weight (oz.)
	G-SQ (F)	1/8	1.124	9/16	—	0.9
		1/4	1.342	11/16	—	1.6
	GG-SQ (M)	1/8	1.187	9/16	—	0.1
		1/4	1.436	11/16	—	0.1
	HH-SQ (M)	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
	H-SQ (F)	1	2.688	—	1.500	13.2
	H-SQ (F) Cast	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.)
	H-WSQ (F)	3/4	1.594	—	1.250	3.6
		1	2.078	—	1.500	6.5
	H-WSQ (F) Cast	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
	HH-WSQ (M)	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
	G-VL (F)	3/8	1.500	13/16	2.250	2.3
	GG-VL (M)	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.)
	GANV (F)	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
	GGANV (M)	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.

