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

S STANDARD ANGLE SPRAY | W WIDE ANGLE SPRAY



### **OVERVIEW: FULLJET SQUARE AND OVAL SPRAY PATTERNS AND VANELESS DESIGN**

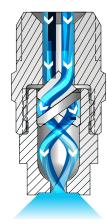
### FullJet G and H Square Spray Nozzles



### **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**



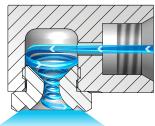
# Oval spray

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°

W

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





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

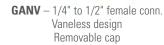


**GG-VL** — 3/8" female conn. Removable cap and vane

# **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°







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

#### ORDERING INFORMATION

### FULLJET SQUARE SPRAY PATTERN



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

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

### FULLJET OVAL SPRAY PATTERN



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

## **FULLJET VANELESS DESIGN**

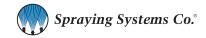


BSPT connections require the addition of a "B" prior to the inlet connection.





Drop size will vary based on flow rate and pressure.



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

S STANDARD ANGLE SPRAY

W WIDE ANGLE SPRAY

PERFORMANCE DATA: STANDARD ANGLE SPRAY

Inlet Conn. (in.)	Nozzle Type					Orifice Dia.	Dia Free	Flow Rate Capacity (gallons per minute)					Spray Angle (°)					
	G-SQ	GG-SQ	нн-ѕо	H-SQ	Size	Nom. (in.)	Passage Dia. (in.)	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
				•	290SQ	.609	.438	21	25	29	40	55	75	84	101	66	70	64
2				•	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
				•	490SQ	.791	.563	36	42	49	67	93	128	141	170	62	67	61
2-1/2				•	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

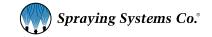
Maximum Free Passage Diameter is the maximum diameter as listed of foreign matter that can pass through the nozzle without clogging.

Highlighted column shows the rated pressure.

#### PERFORMANCE DATA: W **WIDE ANGLE SPRAY Nozzle Type** Orifice Max. Free Flow Rate Capacity (gallons per minute) Spray Angle (°) Inlet Passage Dia. Capacity Conn. 5 7 10 15 20 40 80 5 80 Size Nom. Dia. 10 H-WSQ HH-WSQ (in.) (in.) (in.) psi 1/4 14WSQ .141 .063 1.0 1.2 1.4 1.7 1.9 2.6 3.5 99 101 93 17WSQ .156 .063 1.3 1.5 1.7 2.0 2.3 3.1 4.2 99 101 93 20WSQ .094 1.5 2.4 5.0 110 172 17 2 0 27 37 104 94 3/8 24WSQ .188 .094 1.8 2.1 2.4 2.9 3.3 4.4 6.0 104 110 27WSQ .203 .109 2.0 2.3 2.7 3.2 3.7 5.0 6.7 104 110 98 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 3.5 4.2 4.7 6.4 8.7 104 3.0 110 102 1/2 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 71WSQ 5.2 9.6 17.7 3/4 .391 .172 6.1 7.1 8.5 13.1 105 110 102 130WSQ .516 .219 9.6 13.0 17.6 32 1 11.1 15.5 24 107 110 107 1-1/4 190WSQ .609 .219 14.0 16.2 19.0 23 26 35 47 108 111 109 72 1-1/2 290WSQ .719 .313 21 25 29 35 39 53 109 114 109 2 560WSQ .984 .438 76 48 56 67 103 140 110 114 109 2-1/2 830WSQ 1.250 .563 61 71 83 99 113 153 207 110 115 109 • 1070WSQ 1.375 .688 79 107 145 197 267 110 115 109

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.



S STANDARD ANGLE SPRAY | W WIDE ANGLE SPRAY

# **DIMENSIONS AND WEIGHTS**

Nozzle	Nozzle Type	Inlet Conn. (in.)	L (in.)	Hex. (in.)	D (Dia.) (in.)	Net Weight (oz.)
	G-SQ	1/8	1.124	9/16	_	0.9
	(F)	1/4	1.342	11/16	_	1.6
	GG-SQ	1/8	1.187	9/16	_	0.1
	(M)	1/4	1.436	11/16	_	0.1
		1/8	0.875	-	0.500	0.5
D	HH-SQ (M)	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

Racad on th	e largest/heaviest	vargion of	each type
Dascu on ti	e largest/ficaviest	AC121011 01	cacii type.

Nozzle	Nozzle Type	Inlet Conn. (in.)	L (in.)	Hex. (in.)	D (Dia.) (in.)	Net Weight (oz.)
	H-WSQ	3/4	1.594	-	1.250	3.6
D	(F)	1	2.078	-	1.500	6.5
		1-1/4	3.375	-	2.063	14
		1-1/2	4.000	_	2.313	24.6
L	H-WSQ (F) Cast	2	5.000	_	3.000	45.2
0		2-1/2	6.156	_	3.438	72.8
<u> </u>		3	7.344	-	4.063	106.5
<b>⊢</b> D <b>−</b> − 1	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
SS	G-VL (F)	3/8	1.500	13/16	2.250	2.3
Based on the largest/heav	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.)
A	GANV (F)	1/4	1.250	0.875	0.535	0.909	2
B C		3/8	1.406	0.969	0.629	1.066	3.3
L		1/2	1.812	1.312	0.756	1.256	6.3
A		1/4	1.250	0.875	0.535	0.910	2
BC	GGANV (M)	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.