

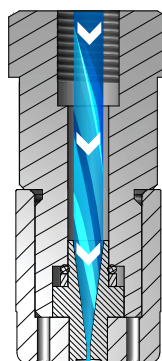
**FLAT  
SPRAY**

**ULTRA-HIGH PRESSURE NOZZLES**

**S** STANDARD ANGLE SPRAY

**OVERVIEW: ULTRA-HIGH PRESSURE FS AND VS**

- Ultra-high pressure, high impact flat spray or solid stream
- Operating pressures are up to 10 times higher than other high pressure nozzles – up to 60,000 psi (4000 bar)
- Traditional and quick-connect options;
  - Save on nozzle replacement costs – nozzle bodies can be reused – only spray tips are replaced
- Long wear life – nozzles are hardened stainless steel. Spray tips are available with extra hard sapphire inserts for maximum wear resistance
- Spray angles from 0° to 45°
- Uniform spray distribution from 0.03 to 78 gpm (0.11 to 295 lpm)
- Nozzle bodies include O-ring, gasket (58833 only) and tip retainer



**Ultra-High Pressure Nozzles**

As liquid passes through the engineered orifice, a very high impact spray pattern is produced in either zero degree (solid stream) or flat spray pattern.







**FS AND VS OPTIONS**



**VS010 Spray Tip + 58834 Body**  
Operating pressure up to 20,000 psi (1400 bar)



**VS625**  
1/4" male conn.  
Operating pressure up to 17,500 psi (1200 bar)

 <p><b>VS940</b> 1/16" male conn. Operating pressure up to 15,000 psi (1000 bar)</p>	 <p><b>58833 Body</b> 3/8" to 1/2" male or female conn.</p>
 <p><b>VS020 Spray Tip</b> Use with 58834 nozzle body Operating pressure up to 30,000 psi (2000 bar)</p>	 <p><b>VS051 Spray Tip</b> No threads* Operating pressure up to 60,000 psi (4000 bar)</p>
*Customer supplies holder	
 <p><b>FS013 Spray Tip</b> Use with 58834 nozzle body Operating pressure up to 30,000 psi (2000 bar)</p>	 <p><b>FS020 Spray Tip</b> Use with 58833 nozzle body Operating pressure up to 30,000 psi (2000 bar)</p>

**RELATIVE DROP SIZE  
IN MICRONS**

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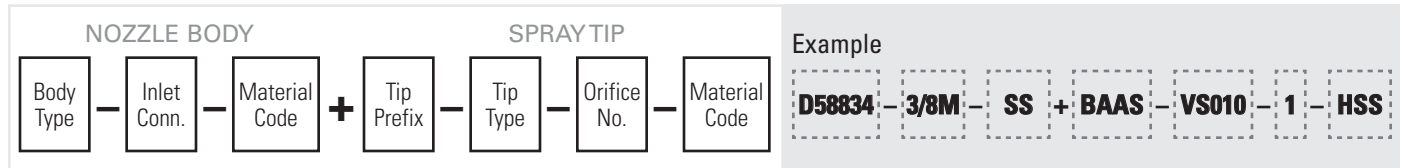
Drop size will vary based on flow rate and pressure.

**ORDERING INFORMATION**

**ULTRA-HIGH PRESSURE VS625 AND VS940**

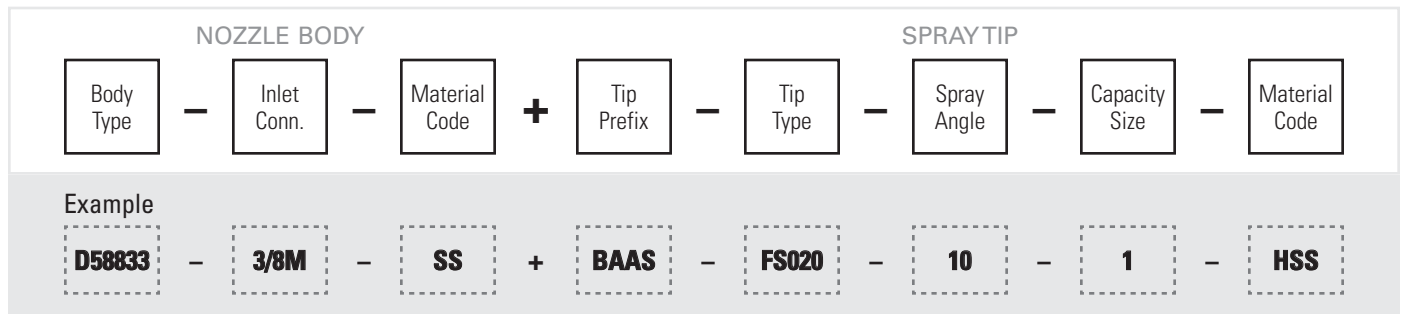


**ULTRA-HIGH PRESSURE D58834 BODY WITH FS013, VS010 OR VS020 SPRAY TIP\***



\*Note: VS051 is available as a spray tip only.

**ULTRA-HIGH PRESSURE D58833 BODY WITH FS020 SPRAY TIP**



**QUICK REFERENCE GUIDE**

Model	Connection	Connection Size (in.)	Materials	Page Number	
				Performance Data	Dimensions and Weights
<b>VS625 nozzle</b>	M	1/4	Stainless steel with sapphire insert (SSAP)	C52	C54
<b>VS940 nozzle</b>	M	1/16		C52	
<b>VS010 spray tip</b>	NA	NA	Hardened stainless steel (HSS)	C52	
<b>VS020 spray tip</b>	NA	NA	Stainless steel with sapphire insert (SSAP)	C53	
<b>VS051 spray tip</b>	NA	NA		C53	
<b>FS013 spray tip</b>	NA	NA	Hardened stainless steel (HSS)	C53	
<b>FS020 spray tip</b>	NA	NA		C53	
<b>58833 body</b>	M, F	3/8 to 1/2	Stainless steel (SS)	-	
<b>58834 body</b>	M, F	3/8 to 1/2		-	

F = female thread; M = male thread; NA = not applicable.  
For more dimensions and sizes, contact your sales engineer.

**FLAT  
SPRAY**

**ULTRA-HIGH PRESSURE NOZZLES**

**S** STANDARD ANGLE SPRAY

**S** PERFORMANCE DATA:  
**STANDARD ANGLE SPRAY**

Nozzle Type	Inlet Conn. (in.)	Spray Angle	Orifice No.	Equiv. Orifice Dia. (in.)	Flow Rate Capacity (gallons per minute)			
					1500 psi	7500 psi	10000 psi	17500 psi
<b>VS625</b>	1/4	0°	0.25	0.010	0.09	0.20	0.23	0.31
•			0.5	0.020	0.36	0.79	0.93	1.2
•			0.75	0.030	0.81	1.8	2.1	2.7
•			1	0.039	1.4	3.2	3.7	4.9
•			1.5	0.059	3.2	7.1	8.4	11.0
•			2	0.079	5.8	12.7	15.0	19.6
•			2.5	0.098	9.0	19.7	23	31

**S** PERFORMANCE DATA:  
**STANDARD ANGLE SPRAY**

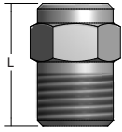
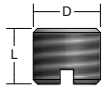
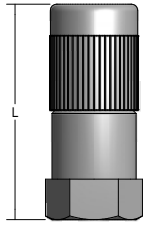
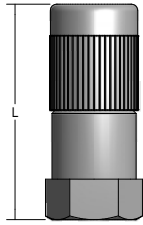
Nozzle Type	Inlet Conn. (in.)	Spray Angle	Orifice No.	Equiv. Orifice Dia. (in.)	Flow Rate Capacity (gallons per minute)		
					7500 psi	10000 psi	15000 psi
<b>VS940</b>	1/16	0°	0.5	0.020	0.8	0.9	1.1
•			0.75	0.030	1.8	2.1	2.6
•			1	0.039	3.2	3.7	4.5
•			1.5	0.059	7.3	8.3	10.2
•			2	0.079	12.9	14.8	18.2
•			2.5	0.098	20	23	28

**S** PERFORMANCE DATA:  
**STANDARD ANGLE SPRAY**

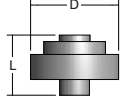
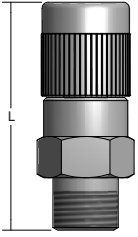
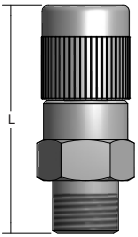
Tip Type	Spray Angle	Orifice No.	Equiv. Orifice Dia. (in.)	Flow Rate Capacity (gallons per minute)						
				1500 psi	3500 psi	7500 psi	10000 psi	15000 psi	17500 psi	20000 psi
<b>VS010</b>	0°	1	0.039	1.7	2.6	3.9	4.4	5.4	5.8	6.2
•		1.5	0.059	4.0	5.9	8.9	10.2	12.4	13.4	14.3
•		2	0.079	6.8	10.1	15.2	17.5	21	23	25
•		2.5	0.098	11.0	16.3	25	28	34	37	40
•		3	0.118	16.6	25	37	43	52	56	60
•		3.5	0.138	21	33	48	52	68	73	78



**DIMENSIONS AND WEIGHTS**

Nozzle	Nozzle Type	Inlet Conn. (in.)	L (in.)	Hex. (in.)	D (Dia.) (in.)	Net Weight (oz.)
	<b>VS625</b>	1/4 (M)	0.87	9/16	–	0.7
	<b>VS940</b>	1/16 (M)	0.26	–	0.31	0.06
	<b>58834 (M) + FS013</b>	3/8	2.75	1-1/16	–	9.7
	<b>58834 (F) + FS013</b>	3/8	2.75	1-1/16	–	9.7
	<b>58834 (M) + FS013</b>	1/2	2.75	1-1/16	–	9.7
	<b>58834 (F) + FS013</b>	1/2	2.75	1-1/16	–	9.7
	<b>58833 (M) + FS020</b>	3/8	2.75	1-1/16	–	9.8
	<b>58833 (F) + FS020</b>	3/8	2.75	1-1/16	–	9.8
	<b>58833 (M) + FS020</b>	1/2	2.75	1-1/16	–	9.8
	<b>58833 (F) + FS020</b>	1/2	2.75	1-1/16	–	9.8

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>VS051 spray tip</b>	–	0.23	–	0.37	0.06
	<b>58834 (M) + VS010</b>	3/8	2.87	1-1/16	–	9.7
	<b>58834 (F) + VS010</b>	3/8	2.87	1-1/16	–	9.7
	<b>58834 (M) + VS010</b>	1/2	2.87	1-1/16	–	9.7
	<b>58834 (F) + VS010</b>	1/2	2.87	1-1/16	–	9.7
	<b>58834 (M) + VS020</b>	3/8	2.87	1-1/16	–	9.7
	<b>58834 (F) + VS020</b>	3/8	2.87	1-1/16	–	9.7
	<b>58834 (M) + VS020</b>	1/2	2.87	1-1/16	–	9.7
	<b>58834 (F) + VS020</b>	1/2	2.87	1-1/16	–	9.7

Based on the largest/heaviest version of each type.