

SDX V SPRAY DRYING NOZZLE

DELAVAN SPRAY DRYING NOZZLES - TAKING OUR TECHNICAL LEADERSHIP ONE STEP FURTHER

FEATURES & BENEFITS

- * Wear parts are positively retained during assembly
- * Compatible with current SDX range
- * New internal design reduces pressure loss through the nozzle
- * Smaller and lighter compact design which is more durable, easy to clean and can be rapidly stripped down and reassembled
- * No wrenches or tools are required to install the nozzle
- * Minimal friction due to nozzle design permitting 10-20% lower operating pressure than conventional slotted distributor nozzle for equivalent atomization quality
- * Extended pump life due to lower operating pressure

SPRAY CHARACTERISTICS

- * The nozzle produces a hollow cone spray pattern with uniform particle size distribution even at low operating pressure
- * Reduction in fine particles is possible due to lower pressure requirements
- * Flow rates are certified to be within +/-5% of rated capacity at 69 Bar.G and within +/-5% of rated spray angle when tested with water
- * Unique, patented single inlet spiral swirl chamber offers increased nozzle life, improved product uniformity, density or solubility

CONSTRUCTION AND MATERIALS

- * 5 piece construction with 'O' ring seals
- * Nozzle body and adaptors are available in 316 Stainless Steel
- * Wear parts are in tungsten carbide
- * O-rings are in Silicone or Viton
- * O-ring seals allow assembly and disassembly without tools

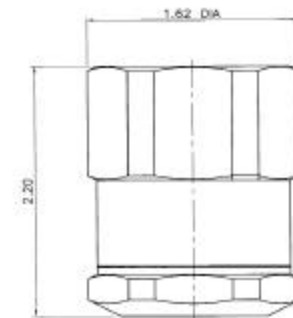
ORDER EXAMPLE

Please indicate all component parts and materials when ordering.
Please see order sheet.

SDX V PAT PENDING



THE LATEST VERSION OF THE WORLD'S LEADING SIMPLEX SPRAY-DRYING NOZZLE, USING THE ORIGINAL, FREE-VORTEX SWIRL CHAMBER FROM DELAVAN, THE COMPANY THAT INVENTED IT.



OVERALL NOZZLE DIMENSIONS

SDX V CAPACITY CHART

Swirl Chamber Letter	Orifice Number	Spray Angle	WATER CAPACITY (Gallons per Hour) at PSIG							SDX Only
			200 PSI	500 PSI	1000 PSI	2000 PSI	3000 PSI	4000 PSI	5000 PSI	7000 PSI
SBV	W19581-34	70°								
SAV	W19581-37	80°	9.5	14.5	20.0	27.5	33.2	37.8	41.9	49.0
SBV	W19581-40	75°								
SAV	W19581-49	85°	11.7	18.1	25.0	34.6	41.9	48.0	53.3	62.4
SDV	W19581-34	60°								
SCV	W19581-40	70°	13.9	21.5	30.0	41.8	50.8	58.4	65.0	76.3
SEV	W19581-34	50°								
SDV	W19581-40	65°	16.0	25.0	35.0	49.0	59.6	68.6	76.4	89.9
SDV	W19581-43	65°								
SCV	W19581-49	75°	18.3	28.6	40.0	56.0	68.2	78.4	87.3	102.8
SFV	W19581-37	50°								
SEV	W19581-40	60°	20.5	32.0	45.0	63.2	77.1	88.8	99.0	116.8
SCV	W19581-55	75°								
SFV	W19581-40	50°								
SEV	W19581-43	60°	22.5	35.5	50.0	70.5	86.1	99.3	110.9	131.0
SDV	W19581-52	70°								
SEV	W19581-49	60°								
SDV	W19581-58	70°	24.8	39.0	55.0	77.5	94.7	109.2	122.0	144.1
SCV	W19581-67	80°								
SFV	W19581-46	55°								
SEV	W19581-52	65°	26.8	42.4	60.0	84.9	104.0	120.0	134.2	158.8
SCV	W19581-70	80°								
SFV	W19581-52	55°								
SEV	W19581-58	65°	31.3	49.5	70.0	99.0	121.2	140.0	156.5	185.2
SDV	W19581-70	75°								
SGV	W19581-49	50°								
SFV	W19581-55	60°	35.8	56.6	80.0	113.1	138.6	160.0	178.9	211.7
SFV	W19581-64	70°								
SDV	W19581-76	80°								
SGV	W19581-52	50°								
SFV	W19581-61	60°	39.9	63.4	90.0	127.7	156.7	181.3	202.9	240.4
SEV	W19581-70	70°								
SGV	W19581-58	55°								
SFV	W19581-64	65°	44.4	70.5	100.0	141.9	174.2	201.4	225.4	267.2
SDV	W19581-91	80°								
SGV	W19581-61	55°								
SFV	W19581-70	65°	48.8	77.5	110.0	156.1	191.6	221.5	248.0	293.9
SEV	W19581-82	75°								
SGV	W19581-64	55°								
SFV	W19581-76	65°	53.2	84.6	120.0	170.3	209.0	241.7	270.5	320.6
SEV	W19581-88	75°								
SHV	W19581-67	50°								
SGV	W19581-76	60°								
SFV	W19581-88	70°	66.5	105.7	150.0	212.9	261.2	302.1	338.1	400.7
SEV	W19581-109	80°								
SIV	W19581-94	55°								
SGV	W19581-85	65°	79.2	126.4	180.0	256.3	315.2	365.0	409.0	485.6
SFV	W19581-103	75°								
SHV	W19581-82	55°								
SGV	W19581-97	65°	92.4	147.5	210.0	299.0	367.8	425.9	477.2	566.5
SFV	W19581-115	75°								
SIV	W19581-82	50°								
SHV	W19581-91	60°	105.6	168.5	240.0	341.8	420.3	486.7	545.4	647.5
SGV	W19581-106	70°								
SFV	W19581-127	80°								
SIV	W19581-88	50°								
SHV	W19581-100	60°								
SGV	W19581-118	70°	118.8	189.6	270.0	384.5	472.8	547.5	613.5	728.4
SFV	W19581-142	80°								
SIV	W19581-94	55°								
SHV	W19581-106	65°	132.0	210.7	300.0	427.2	525.4	608.4	681.7	809.3
SGV	W19581-127	75°								
SIV	W19581-106	55°								
SHV	W19581-121	65°	154.0	245.8	350.0	498.4	612.9	709.8	795.3	944.2
SGV	W19581-145	75°								
SJV	W19581-103	50°								
SJV	W19581-115	60°	176.0	280.9	400.0	569.5	700.5	811.2	908.9	1079.1
SHV	W19581-133	70°								
SIV	W19581-127	60°								
SHV	W19581-145	70°	198.0	316.0	450.0	640.8	788.0	912.6	1022.5	1214.0
SJV	W19581-118	55°								
SIV	W19581-136	65°	221.8	352.3	500.0	709.6	870.8	1007.0	1127.1	1335.8
SHV	W19581-157	75°								
SIV	W19581-148	65°	244.0	387.6	550.0	780.5	957.9	1107.1	1239.8	1469.4
SJV	W19581-136	60°	268.3	424.3	600.0	848.5	1039.2	1200.0	1341.6	1587.5
SIV	W19581-154	70°								
SJV	W19581-151	60°	290.7	459.6	650.0	919.2	1125.8	1300.0	1453.4	1719.8
SJV	W19581-157	65°	313.1	495.0	700.0	989.9	1212.4	1400.0	1565.2	1852.1

* +/- 5% tolerance on flow
 * Flow charts are compatible with the whole of the SDX range
 * Maximum operating pressure for SDX V = 350 Bar.G - please contact Delavan for confirmation of higher operating pressure

COMPONENT PARTS

Description	Part Number	Material
Standard Body	W19499	316 Stainless Steel
Cone Faced Body		
70°	W19600-1	316 Stainless Steel
80°	W19600-2	316 Stainless Steel
90°	W19600-3	316 Stainless Steel
1/4" NPT Standard Adaptor*	W19635-1	316 Stainless Steel
3/8" NPT Standard Adaptor*	W19635-2	316 Stainless Steel
1/2" NPT Standard Adaptor*	W19635-3	316 Stainless Steel
3/4" NPT Standard Adaptor*	W19635-4	316 Stainless Steel
SDX I Interface Adaptor	W19636	316 Stainless Steel
SDX II & III Interface Adaptor	W19637	316 Stainless Steel
Retaining Disc	W19549	316 Stainless Steel
Orifice 'O' Ring	W155100164	Silicone
Orifice 'O' Ring	A313520163	Viton
Body 'O' Ring	W155100222	Silicone
Body 'O' Ring	A313520221	Viton
Retaining Disc 'O' Ring	W155100180	Silicone
Retaining Disc 'O' Ring	A313520189	Viton
Swirl Chamber	W19472-XXX	TungstenCarbide
Orifice Disc	W19581-XXX	Tungsten Carbide
SDX V Tool	W19644	Brass

* BSPT and Butt weld available on request

SDX V ASSEMBLY PROCEDURE

- >Place the nozzle body thread side up on a flat surface
- >Insert the orifice seal
- >Place the orifice disc inside the nozzle body with the "orifice nose" ie: the smallest diameter first inserted into the body orifice.
- >Place the swirl chamber on top of the orifice, with the larger diameter flat surface (swirl end) in contact with the orifice disc.
- >Ensure that the retaining disc 'o' ring is fitted onto the retaining disc.
- >Push the retaining disc into the body until the unit is pressed against the back face of the swirl chamber. At this point the retaining disc 'o' ring will have locked into position with the corresponding groove in the nozzle body.
- >Place body seal into body seal groove positioned above the threads on the outside of the body.
- >Pick up the assembled unit and screw into the female adaptor.
- >Hand tighten the assembly.

