

SDX V

INDUSTRIAL SPRAY NOZZLES - SPRAY DRYING

SDX V Spray Drying Nozzle

Delavan Spray Drying Nozzles - Taking Our Technical Leadership One Step Further

FEATURES AND BENEFITS

- *Wear benefits 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 rats 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 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.

SDX V Assembly Procedure



CAPACITY CHARTS

Assembly Procedure:

1. Place Nozzle Body (A) thread side up on a flat surface
2. Insert the Orifice O-Ring (B) into the Nozzle Body (A)
3. Insert the Orifice Disc (C) in to the Nozzle Body (A) with the 'orifice nose' (the small diameter section of the orifice) inserted first so that the tapered inlet section can be seen
4. Place Swirl Chamber (D) on top of the Orifice Disc (C) with the 'swirl profile' located against the back face of the Orifice Disc (C)
5. Ensure that the Retainer O-Ring (E) is fitted onto the Retaining Disc (F)
6. Push the Retaining Disc (F) into the Nozzle Body (A) until unit is pressed flat against the back face of the Swirl Chamber (D) and Nozzle Body (A)
7. Place the Body O-Ring (G) into the body o-ring groove positioned above the threads on the outside of the Nozzle Body (A)
8. Pick up assembled unit and screw into Female Adaptor (H), hand tighten

SDX® V Nozzle Assembly

SDX® V Assembly Description and Part Numbers			
Description	Part Number	Material	
(A) Body	W194990013	Stainless Steel	
	W194990708	17-4 PH Stainless	
(B) Orifice O-Ring	W155100164	Silicone	
	A313520163	Viton	
(C) Orifice Disc	W19581-XXX*	Tungsten Carbide	
(D) Swirl Chamber	See Swirl Chamber Chart		
(E) Retainer O-Ring	W155100180	Silicone	
	A313520189	Viton	
(F) Standard Retainer	W195490013	Stainless Steel	
	W198300003	Stainless Steel	
	See Swirl Chamber Chart		
End Plate	W053660012	Tungsten Carbide	
(G) Body O-Ring	W155100222	Silicone	
	A313520221	Viton	
(H) Adaptor	BSPT Thread	NPT Thread	
1/4 Adaptor	W195000010	W196350018	Stainless Steel
3/8 Adaptor	W195000028	W196350026	Stainless Steel
1/2 Adaptor	W195000036	W196350034	Stainless Steel
3/4 Adaptor	W195000044	W196350042	Stainless Steel
Removal Tool	W196440025	DurAl	
SDX® Adaptor	W19636	Stainless Steel	
SDX® II/III Adaptor	W19637	Stainless Steel	
SDX® V Seal Kit	(10 of each O-Ring)		
	W197690016	Viton	
	W197690024	Silicone	

SDX® V Swirl Chamber Part Numbers				
Ref	Standard*	Flat Back*	Open*	Crown Retainer*
SA	W194720014	W198290014	W209710018	W211240012
SB	W194720022	W198290022	W209710026	W211240020
SC	W194720030	W198290030	W209710034	W211240038
SD	W194720048	W198290048	W209710042	W211240046
SE	W194720055	W198290055	W209710059	W211240053
SF	W194720063	W198290063	W209710067	W211240061
SG	W194720071	W198290071	W209710075	W211240079
SH	W194720089	W198290089	W209710083	W211240087
SI	W194720097	W198290097	W209710091	W211240095
SJ	W194720105	W198290105	W209710109	W211240103

*Standard Swirl Chamber uses Standard Retainer W195490013 or Crown Retainer W209700001
 *Flat Back Swirl Chamber uses Cross Milled Retainer W198300003 or Crown Retainer W209700001
 *Open Swirl Chamber uses Crown Retainer (Various Sizes)
 *Crown Retainer Part Numbers to be used with Open Swirl Chamber