

SDX III

INDUSTRIAL SPRAY NOZZLES - SPRAY DRYING

SPRAY CHARACTERISTICS

- The SDX series nozzles produce a hollow cone spray pattern with uniform particle size distribution even at low operating pressures.
- Flow rates are certified to be within +5% of rated capacity at 65 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 produce uniformity, density or solubility.
- 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.
- *Reduction in fine particles is possible due to lower pressure requirements.

CONSTRUCTION AND MATERIALS

- Six part construction (see part and material list below).
- O-ring seals allow assembly and disassembly without tools.
- Body and adaptors are produced from hexagon barstock with other materials in round bar with flats.
- Nozzle bodies and adaptors are available 316 Stainless Steel. Other materials are available on special request.
- Orifice discs are easily removable and are available in Tungsten Carbide, Chrome Carbide and Ceramic.
- Swirl chambers are standard in Tungsten Carbide, Hardened Stainless Steel or Ceramic.
- End plates are available in Tungsten Carbide and Ceramic.
- Combined swirl chamber/end plate is available in Tungsten Carbide only.
- O-Rings are in Silicone or Viton.

ORDER EXAMPLE

Please indicate all component parts and materials when ordering.

Max. Design Pressure: 350 Bar.G.

Max Design Temperature: 150°



CAPACITY CHARTS

Assembly Procedure:

1. Place Nozzle Body (A) thread side up on a flat surface
2. Make sure the Orifice O-Ring (B) is pressed snugly to the Nozzle Body (A)
3. Place Orifice O-Ring (B) bevelled side down into the Nozzle Body (A)
4. Use a finger to align the orifice into recessed area in the Nozzle Body (A)
5. Place Swirl Chamber (D) on top of Orifice Disc (C) either way up the direction does not affect functionality (W0138 will go one way only)
6. If you require an End Plate (E) place it circular side down over Swirl Chamber (D) with square side of the end plate on top
7. Make sure Adaptor O-Ring (F) is on Adaptor (G)
8. Screw Adaptor (G) onto Nozzle Body (A) and hand tighten only
9. Finally ensure the complete assembly does not rattle



SDX® III Assembly Description and Part Numbers

Description	Part Number	Material	
(A) Body	W113000001	Stainless Steel	
	A484400013	17-4 PH Stainless Steel	
Steel			
(B) Orifice O-Ring	W155100164	Silicone	
	A313520163	Viton	
(C) Orifice Disc	A00703-XXX*	Tungsten Carbide	
(D) Swirl Chamber	See Swirl Chamber Charts		
(E) End Plate	A383310016	Tungsten Carbide	
(F) Adaptor O-Ring	W155100214	Silicone	
	A313510321	Viton	
(G) Adaptor	BSPT Thread	NPT Thread	
1/4 Female Adaptor	W113011339	A383290015	Stainless Steel
3/8 Female Adaptor	W113012337	A383290028	Stainless Steel
1/2 Female Adaptor	W113013335	A383290036	Stainless Steel
3/4 Female Adaptor	W113014333	A383290044	Stainless Steel
Thread Guard	A504230010	Brass	
Multi-Nozzle Adaptor	A95161-3	Stainless Steel	
	A95161-4	Stainless Steel	
	A95161-5	Stainless Steel	
Assembly Tool	W153070005	DurAl	
SDX® III Seal Kit (10 of each O-Ring)	A487250001	Silicone	
	A487250027	Viton	

SDX® III Swirl Chamber/End Plate Part Numbers

Ref	Swirl Chamber/ Tungsten Carbide	Swirl Chamber Only Tungsten Carbide	HSS
SA	W013800013	A312120015	A297940015
SB	W013800021	A312120023	A297940023
SC	W013800039	A312120031	A297940031
SD	W013800047	A312120049	A297940049
SE	W013800054	A312120056	A297940056
SF	W013800062	A312120064	A297940064
SG	W013800070	A312120072	A297940072
SH	W013800088	A312120080	A297940080
SI	W013800096	A312120098	A297940098
SJ	W013800104	A312120106	A297940106
SK	W013800120	A312120122	A297940122
SL	W013800110	A312120114	A297940114
SM	W013800138	A312120130	A297940130

