

SDX

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 +15% of rated capacity at 69 Bar.G. and within +5° of rated spray angle when test with water.
- Unique, patented single inlet, spiral swirl chamber offers increased nozzle life, improved product 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

- Eight part construction (see part and material list below).
- Nozzle bodies, screw pins and adaptors are available in 316 Stainless Steel. Other materials available on special request.
- Orifice discs are easily removable and are available in Tungsten Carbide, Chrome Carbide and Ceramic as standard.
- Swirl chambers are standard in Tungsten Carbide, Hardened Stainless Steel or Ceramic.
- End plates are available in Tungsten Carbide, Chrome Carbide and Ceramic.
- Combined swirl chamber/end plate is available in Tungsten Carbide only
- Seals are available in Nylon, PTFE, Copper, Hard Fibre and Aluminium.

ORDER EXAMPLE

Please indicate all component parts and materials when ordering.

Max. Design Pressure: 500 Bar.G.

Max. Design Temperature: 540° (Metal Seals), 150° (Other Seals).



CAPACITY CHARTS

Assembly Procedure:

1. Place **Nozzle Body (A)** thread side up on a flat surface
2. Place **Orifice O-Ring (B)** in the **Nozzle Body (A)**
3. Place **Orifice Disc (C)** on top of the **Orifice O-Ring (B)**
4. Place **Swirl Chamber (D)** on top of **Orifice Disc (C)** either way up
5. Insert **End Plate (E)** over **Swirl Chamber (D)** bevelled side up
6. Install **Screw Pin (F)** into **Nozzle Body (A)**, wrench until snug (Torque of 47.5 Newton/Metres or 30-35 Foot Pounds)
7. Drop **Body O-Ring (G)** onto **Nozzle Body (A)**
8. Screw **Nozzle Body Assembly** onto **Adaptor (H)**, wrench snug (Torque 68 Newton/Metres or 50 Foot Pounds)
9. Finally ensure the complete assembly does not rattle



SDX® Assembly Description and Part Numbers

Description	Part Number	Material	
(A) Body	A297760074	Stainless Steel	
(B) Orifice O-Ring	A297720011	Nylon	
	A297720037	Aluminium	
	A297720060	PTFE	
	A297720078	Hard Fibre	
	A297720086	Stainless Steel	
	A297720045	Copper	
(C) Orifice Disc	A00703-XXX*	Tungsten Carbide	
(D) Swirl Chamber	See Swirl Chamber Charts		
(E) End Plate	W053660012	Tungsten Carbide	
(F) Screw Pin	A297770073	Stainless Steel	
(G) Body O-Ring	A297730010	Nylon	
	A297730036	Aluminium	
	A297730069	PTFE	
	A297730077	Hard Fibre	
	A297730044	Copper	
	A297730085	Stainless Steel	
	(H) Adaptor	BSPT Thread	NPT Thread
	1/4 Adaptor	A297750091	A297750018
3/8 Adaptor	A297750117	A297750273	Stainless Steel
1/2 Adaptor	A297750133	A297750315	Stainless Steel
3/4 Adaptor	A297750323	A297750281	Stainless Steel
SDX® Seal Kit (10 of each O-Ring)	A299630010	Nylon	
	A299630036	Aluminium	
	A299630044	Copper	
	A299630069	PTFE	
	A299630077	Hard Fibre	

SDX® Swirl Chamber/End Plate Part Numbers

Ref	Swirl Chamber/Endplate 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

