Spraying Systems Co.®
Experts in Spray Technology



SPRAYDRY® DUALDRY™ DDSK NOZZLES

SMALLER DROPS, SUPERIOR RESULTS.

Dual-atomization technology is ideal for producing fine to ultra-fine droplets that hydraulic, high-pressure or air atomization alone cannot achieve. This can reduce the need for post-processing equipment to reach target particle sizes.

FEATURES & BENEFITS

- **Integrates high pressure, hydraulic spraying with compressed air,** achieving superior particle size control and energy efficiency.
- **Achieve up to a 75% reduction in drop size*** – depending on operating conditions, drop sizes of less than 10 microns are achievable
- **Produces smaller droplets and narrower drop distributions** than traditional air atomizing nozzles
- **Compatible with a variety of SprayDry SK orifice and core combinations** to target precise flow rates and drop sizes
- **Standard configurations include external round spray and flat spray air caps**—ideal for spraying viscous liquids and minimizing clogging. Additional options available upon request.
- **Designed for use with ½ JBC-DD-316spv, inlet connection** or a custom-ordered lance assembly
- **Max Pressure:** 2500 psi (170 bar)



DualDry with external mix flat spray cap

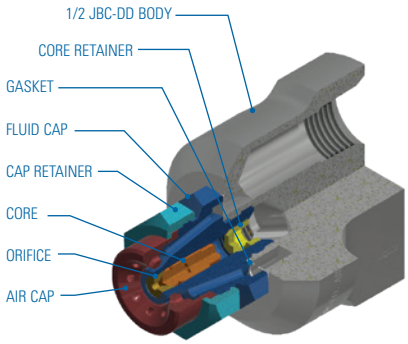
DualDry with external mix round spray cap

DualDry with external mix round spray cap and JBC-DD body

LEARN MORE

How DualDry Works

Dual atomization technology utilizes high-pressure, hydraulic spraying to create fine droplets, then compressed air further reduces and controls particle size.



* Up to 75% reduction in drop size when compared to a representative sampling of standard spraydry nozzles used across the industry. See comparative performance.









NOZZLE AND CAP COMBINATIONS TO DELIVER THE EXACT PERFORMANCE YOU NEED



DualDry with external mix round spray cap



DualDry with external mix flat spray cap

DualDry nozzles are available with external mix round or flat spray caps that permit a wide range in atomization without affecting feed flow rates. The right cap for your application will vary based on the liquids you are spraying and the size and features of the particles you are trying to achieve. This is especially true for applications using highly viscous liquids where achieving precise powder properties can be challenging.

DUALDRY COMPARATIVE PERFORMANCE DATA

Nozzle Type	Core**	Orifice**	Air Capacity at 100 psi (6.9 bar) SCFM (Nm3/hr)	Liquid Flow Rate at 1,000 psi (69 bar) GPH (LPH)	Spray Angle Degrees	Drop Size Dv0.5 Microns
 **Hydraulic, High Pressure, SK Nozzle**	SKY16-MFP	SIY78	No Air	4.8 (18)	62°	43
	SKY17-MFP	SIY60		23 (87)	69°	50
	SKY28-MFP	SIY56		60 (227)	40°	53
	SKY28-MFP	SIY51		102 (386)	50°	56
	SKY28-MFP	SIY46		115 (435)	55°	63
 **DualDry with external mix round spray cap DDSK-ER-20**	SKY16-MFP	SIY78	99 (159)	5.4 (20)	19°	6
	SKY17-MFP	SIY60		22 (83)	25°	12
	SKY28-MFP	SIY56		59 (223)	23°	17
	SKY28-MFP	SIY51		102 (386)	20°	22
	SKY28-MFP	SIY46		115 (435)	28°	24
 **DualDry with external mix flat spray cap DDSK-EF-55**	SKY16-MFP	SIY78	84 (135)	4.8 (18)	52°	5
	SKY17-MFP	SIY60		22 (83)	56°	11
	SKY28-MFP	SIY56		66 (250)	59°	17
	SKY28-MFP	SIY51		104 (394)	59°	20
	SKY28-MFP	SIY46		115 (435)	64°	22

SPECIFICATIONS

Flow rate range: 5 to 250 gph (20 to 1137 lph)
Air Consumption: 50 to 145 scfm (80 to 230 Nm3/hr)
Operating Pressure: Air pressure 50 to 150 psi (4 to 10 bar); Liquid Pressure 500 to 2,500 psi (35 to 170 bar)
Spray angle: 20° round spray; 55° flat spray
Drop Size (Dv.5): 5 to 50 micron
Material: 316 stainless steel

ORDERING INFORMATION

SPRAYDRY DUALDRY DDSK-ER-20 & DDSK-EF-55

Nozzle Type – Air Cap* – Spray Angle

Example

DDSK – ER – 20

* Specify EF for external mix flat spray or ER for external mix round spray

** SprayDry SK Slotted core and orifice are specified separately. See Bulletin 695, SprayDry Nozzles

*** Special 1/2 JBC-DD-316SS is marked with maxium pressure rating of 2500 psi (170 bar). Order JBC-DD body or request a custom lance assembly separately.

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