



# DRY STAR HOT

## REFRIGERATED AIR DRYER

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Campbellsville, Kentucky

### GENERAL DESCRIPTION / MODEL SELECTION

The DryStar HOT High Temperature refrigerated compressed air dryers operate in the 15 - 100 scfm flow range. Maximum operating pressure is 232 psig (16 barg) for all models. Optional pressure of 250 psig (17.24 barg) is available. Units are shipped factory set for a 50°F pdp (10°C pdp) pressure dew point.

A direct expansion non-cycling type refrigeration system is used on all models.

All models 15-100 scfm utilize proprietary multiple stage heat exchangers to dry the air to the desired dew point.

Saturated hot air from the discharge of the air compressor enters the

aftercooler located internal to the dryer. The aftercooler and the refrigerant condenser are independent components on all models. The aftercooler removes heat from the incoming compressed air. This heat removal condenses moisture and conditions the air before entering the evaporator. As compressed air is cooled, moisture is condensed and coalesced in the 3-micron filter/separator. The collected moisture is discharged from the system through an automatic no air loss drain. The compressed air then continues onto the evaporator.

The cold air and condensed liquids are separated inside the evaporator. This causes the heavier liquid moisture to separate out from the lighter cold air. Once separated, the

liquid is held in the separator sump until drained by the automatic drain.

Once free of the condensed liquids, the cold dry air returns to first stage precooler/reheater where it is reheated by the incoming warm air. The air is reheated to eliminate pipe sweating downstream.

The entire dryer assembly is packaged in a modern and efficient enclosure. The enclosure is fabricated from sheet metal and is finished with a high quality, durable baked on textured paint finish. Access to the internal components is through a single easily removed side panel.

### Model Selection

Model	Flow Capacity		Maximum Operating Pressure		Pressure Drop		Input Power	Unit	Comp.	Electrical Service	Heat Rejection	Condenser Cooling	Cooling Air Flow	Refrigerant Charge R134a	
	scfm	Nm <sup>3</sup> /min	Psig*	bar	psig	barg	kW	FLA	hp	V/PH/Hz	btuh		cfm	oz.	grams
DS15-H	15	0.4	232	16	2.4	0.17	0.3	3.7	0.33	115/1/60	1,501	Air	411	4.59	130
DS25-H	25	0.7	232	16	2.1	0.14	0.39	5.6	0.39	115/1/60	2,047	Air	500	6.88	195
DS35-H	35	1	232	16	3.8	0.26	0.54	7.0	0.59	115/1/60	3,070	Air	1030	7.06	200
DS50-H	50	1.4	232	16	3.3	0.23	0.72	8.8	0.86	115/1/60	4,299	Air	1,060	8.47	240
DS75-H	75	2.1	232	16	3.4	0.23	0.99	11.0	1.14	115/1/60	6,346	Air	1,130	11.29	320
DS100-H	100	2.8	232	16	4.8	0.34	1.22	13.6	1.46	115/1/60	9,008	Air	1,248	11.29	320

Capacity ratings are based on 125 psig (8.6 barg) inlet air pressure, 180°F (82°C) inlet air temperature, 95°F (35°C) ambient air temperature and 50°F (10°C) pressure dew point with 5 psid (0.35 bar) max. pressure drop.

\*250 psig with high pressure option kit, CCN 16542409, Item No. 736-010.