

# Refrigeration Dryers

HDS | H SERIES

## BENEFITS AND FEATURES

- Compact design, small footprint
- Stainless steel heat-exchanger technology
- Revolutionary digital scroll energy management (option)
- Constant dew point
- Highly efficient demister technology
- Made in Germany



Technical Data	HDS 950 - 1450	HDS 1500 - 5400	HDS 6300 - 10800	H-7200 - 12000
Inlet / Outlet	Right	Top	Top right - left	Rear right
Bypass			○	
Air cooling			●	
Water cooling			○	
Heat Exchanger	Stainless steel plates (copper welded)			
IP rating	IP 44			
Dew point indication	Digital			
Potential free alarm contact			●	
Time-controlled condensate drain			●	
Electronic level-controlled drain		–		●
Digital Scroll Varying load controls		●		–

Model	HDS 950 - 1450	HDS 1500 - 5400	HDS 6300 - 10800	H-7200 - 12000
Refrigerant	R 404A (HDS 950 + 1150: R 134 a)			R 134 a

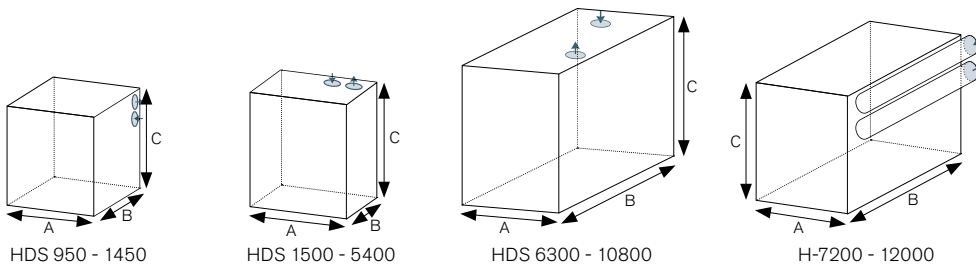
General Data	
Medium	Compressed Air
Housing	Steel
Colour - Top Panel	RAL 5015 (blue), powder-coated
Colour - Housing	Grey, powder-coated
Location	Indoors

Design Data	HDS			H		
	Min.	Nom.	Max.	Min.	Nom.	Max.
Operating pressure	3 bar (g)	7 bar (g)	16 bar (g)	3 bar (g)	7 bar (g)	16 bar (g)
Inlet temperature	+4° C	+35° C	+49° C	+4° C	+35° C	+49° C
Ambient temperature	+3° C	+25° C	+43/45° C	+4° C	+25° C	+43° C

Hankison® refrigerant compressed air dryers are best used with a Hankison® SF pre-filter and a HF after-filter.

Model	Flow Rate	Connection	Dimensions			Weight	El. connection	Power Consumption
			A	B	C			
	<b>m³/h</b>		<b>mm</b>			<b>kg</b>	<b>V/Ph/Hz</b>	<b>kW</b>
HDS 950	950	R 2 1/2"	929	1,101	1,510	328	400/3/50	1.8
HDS 1150	1,150					340	460/3/60	2.05
HDS 1450	1,450					340	460/3/60	2.8
HDS 1500	1,500	DN 80	1,232	1,033		490		2.8
HDS 1800	1,800					520		3.1
HDS 2250	2,250	DN 100	1,243	1,301	2,162	600		4.3
HDS 2700	2,700					665	400/3/50	5.9
HDS 3150	3,150					840	460/3/60	6.7
HDS 3600	3,600	DN 150	1,400	1,509		850		7.5
HDS 4500	4,500					950		9.4
HDS 5400	5,400	DN 150						11.5
HDS 6300	6,300	DN 200	1,438	2,965	2,800	1,850		13.4
HDS 7200	7,200					1,950	400/3/50	15
HDS 9000	9,000					2,080	460/3/60	18.8
HDS 10800	10,800					2,080	460/3/60	23
H-7200	7,200	DN 150	1,572	3,229	2,402	1,850		11.50
H-8400	8,400					2,000	400/3/50	13.80
H-9600	9,600	DN 200	1,590	3,244		2,200		15.30
H-12000	12,000					2,600		17.70

\* ISO 7183, based on the intake volume of the compressor at +20°C and 1 bar (a), operating pressure 7 bar (g), inlet temperature +35°C, ambient or cooling water temperature +25°C, pressure dew point +3°C | Technical data and specifications are subject to change without prior notice



The following correction factors need to be used to select the correct unit for other operating conditions.

Correction factors for inlet temperature and operating pressure (F <sub>1</sub> )													
Model: HDS 950-10800		Inlet pressure bar (g)											
Inlet temperature		3	4	5	6	7	8	9	10	11	12	13	14
°C	+25	1.42	1.50	1.57	1.63	1.67	1.72	1.76	1.81	1.84	1.87	1.90	1.93
	+30	1.00	1.08	1.13	1.18	1.22	1.25	1.29	1.33	1.36	1.38	1.41	1.44
	+35	0.79	0.87	0.92	0.96	1.00	1.03	1.07	1.10	1.13	1.16	1.18	1.21
	+40	0.63	0.72	0.77	0.81	0.84	0.87	0.91	0.93	0.96	0.98	1.00	1.02
	+45	0.51	0.60	0.65	0.68	0.71	0.74	0.78	0.80	0.82	0.84	0.86	0.88
	+50	0.43	0.52	0.56	0.60	0.63	0.65	0.67	0.70	0.73	0.75	0.77	0.80

Correction factors for different inlet temperatures in °C (F <sub>2</sub> )					
°C	+25	+30	+35	+40	+45
HDS 950-10800	1	0.97	0.93	0.9	0.87

Correction factors for different operating pressures bar(g) (F <sub>3</sub> )										
bar (g)	3	4	5	6	7	8	10	12	14	16
H-7200 - 12000	0.7	0.81	0.86	0.95	1	1.04	1.12	1.18	1.22	1.26

Correction factors for different inlet temperatures in °C (F <sub>4</sub> )				
°C	+35	+40	+45	+50
H-7200 - 12000	1	0.83	0.63	0.55

Correction factors for different ambient temperatures in °C (F <sub>5</sub> )					
°C	+25	+30	+35	+40	+45
H-7200 - 12000	1	0.94	0.89	0.83	0.78

Selection example		Calculation	
Compressor capacity (V <sub>1</sub> )	1,100 m³/h	$V_2 = \frac{V_1}{F_1 \cdot F_2} = \frac{1,100}{0.8 \cdot 0.89} = 1,545 \text{ m}^3/\text{h}$	Selection: HDS 1800
Operating pressure (F <sub>1</sub> )	10 bar (g)		
Inlet temperature (F <sub>1</sub> )	+45 °C		
Ambient temperature (F <sub>2</sub> )	+35 °C		
V <sub>2</sub>	Required dryer capacity		



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