

Refrigeration Dryers

HHD | HHDS SERIES

BENEFITS AND FEATURES

- Lower energy consumption
- Corrosion-free air circuit, made of copper and stainless steel
- Powder-coated housing
- Unique heat-exchanger technology



Technical Data	HHD 21 – 101	HHD 140 – 1000	HHD 1100 – 1700	HHDS 1100 – 1700
Inlet / Outlet	Back	Right (inlet), rear (outlet)	Left	
Bypass	○			
Air cooling	Standard			
Water cooling	–			
Heat Exchanger	Copper piping	Stainless steel plates (copper welded)		
IP rating	IP23			
Dew point indication	Analogue gauge			Digital LED, with alarm lamp
Potential free alarm contact	–	○		
Time-controlled condensate drain	●	–		
Electronic level controlled drain	○	●		
Digital Scroll Varying load controls	–			●

	HHD 21 – HHD 160	HHD 240 – HHD 1000	HHD/ HHDS 1100 – 1300	HHD/HHDS 1700
Refrigerant	R 134a	R 407C	R 134a	R 404A

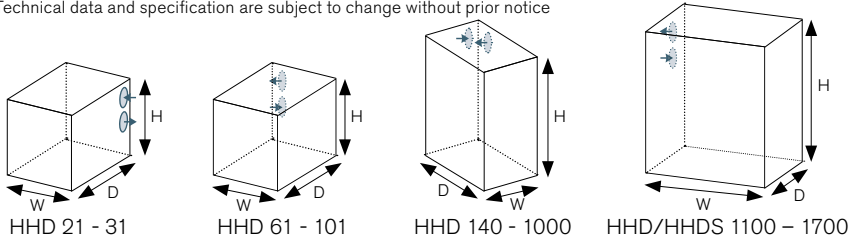
General Data	
Medium	Compressed Air
Housing	Steel
Colour - Top Panel	RAL 5015 (blue), powder-coated
Colour - Housing	Grey, powder-coated
Location	Indoors

Model	Flow Rate*	Connection	Height	Width	Depth	Weight	el. Connection	Power Consumption
	m ³ /h			mm		kg	V/Ph/Hz	kW
HHD 21	20	R 3/8"	390	344	320	15	230/1/50	0.24
HHD 31	30					19		
HHD 61	60					29		
HHD 81	80	R 3/4"	575	368	419	29	230/1/60	0.42
HHD 101	100					41		
HHD 140	140	R 1"	601	393	891	50	230/1/50	0.58
HHD 160	160					53		0.60
HHD 240	240					58		0.87
HHD 315	315	R 2"	761	483	1,011	72	230/1/50	1.10
HHD 360	360					78		1.30
HHD 470	470					86		1.48
HHD 580	580	R 2"	811	533	1,191	100	230/1/50	1.90
HHD 680	680					112		2.45
HHD 820	820					134		2.55
HHD 1000	1,000			583	1,361	155		2.70
HHD 1100	1,100	R 2 1/2"	1,510	1,129	857	314	400/3/50	2.55
HHD 1300	1,300					327		2.95
HHD 1700	1,700	R 3"		1,110		354	460/3/60	5.70
HHDS 1100	1,100	R 2 1/2"	1,510	1,129	857	266	400/3/50	1.80
HHDS 1300	1,300					285		2.05
HHDS 1700	1,700	R 3"		1,110		335	460/3/60	2.80

* Nominal dryer capacity according to DIN/ISO 7183, pressure dew point +3°C

The capacity of the dryer is based on the intake volume of the compressor at 20°C, 1 bar a.

Technical data and specification are subject to change without prior notice



Design Data*		Min.	Nom.	Max.
Operating pressure		2 bar (g)	7 bar (g)	16 bar (g)
Inlet temperature		+4° C	+35° C	+49° C
Ambient temperature	HHD 21 – 101	+4.4° C	+25° C	+43° C
	HHD 140 – 1000	+7° C		
	HHD/HHDS 1100 – 1700	+3° C		

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

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

Correction factors for different operating pressures in bar (g) (F₁)

bar (g)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
HHD 21 – 101	-	0.84	0.90	0.93	0.97	1.00	1.02	1.04	1.06	1.07	1.08	1.09	1.10	1.10	1.11
HHD 140 – 1000	-	0.79	0.87	0.92	0.96	1.00	1.03	1.07	1.10	1.13	1.16	1.18	1.21	1.22	1.24
HHD/HHDS 1100 – 1700	0.68					1.00								1.24	1.27

Correction factors for different inlet temperatures in °C (F₂)

°C	+35	+40	+45	+49
HHD 21 – 101	1.00	0.86	0.75	0.63
HHD 140 – 1000	1.00			
HHD/HHDS 1100 – 1700	1.00	0.85	0.71	0.63

Correction factors for different ambient temperatures in °C (F₃)

°C	+25	+30	+35	+40	+45
HHD 21 – 101	1.00	1.00	1.00	1.00	1.00
HHD 140 – 1000	1.00	0.92	0.85	0.80	
HHD/HHDS 1100 – 1700	1.00	0.94	0.89	0.83	0.78

Selection example	Calculation
Compressor capacity (V ₁)	550 m ³ /h
Operating pressure (F ₁)	10 bar (g)
Inlet temperature (F ₂)	+45 °C
Ambient temperature (F ₃)	+35 °C
V ₂	Required dryer capacity
$V_2 = \frac{V_1}{F_1 \cdot F_2 \cdot F_3} = \frac{550}{1.1 \cdot 0.71 \cdot 0.89} = 791 \text{ m}^3/\text{h}$	
Selection: HHD 820	



SPX Flow Technology Moers GmbH | Konrad-Zuse-Straße 25 | D-47445 Moers

Tel.: +49 (0) 28 41 / 8 19-0 | Fax: +49 (0) 28 41 / 8 19 83 | E-Mail: csc@dehydration.spx.com

www.hankison-europe.com | www.spx.com

SPX reserves the right to incorporate our latest design and material changes without notice or obligation. Design features, materials of construction and dimensional data, as described in this bulletin, are provided for your information only and should not be relied upon unless confirmed in writing. Please contact your local sales representative for product availability in your region. For more information visit www.spx.com. The green ">" is a trademark of SPX Corporation, Inc.

ISSUED 04/2012 COPYRIGHT © 2012 SPX Corporation

