

High Temperature Air Dryers

HRD H Series

HRD H 31 / 52 / 75 / 106 / 160 / 212

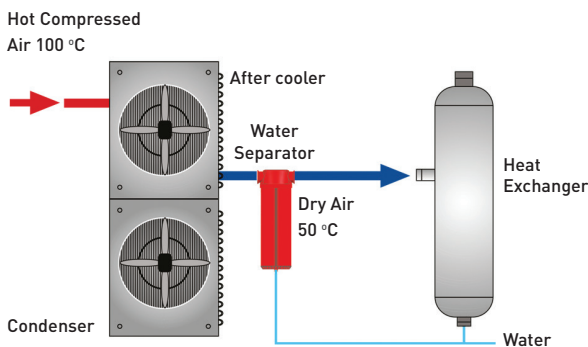
hertz[®]
KOMPRESSOREN



Many smaller compressors do not use an aftercooler in their designs. Therefore compressed air exits the compressor at about 100 °C temperature. Hertz high temperature dryers incorporate an aftercooler to reduce the inlet temperature, providing efficient dewpoint management.

HIGH TEMPERATURE DRYER—HRD H SERIES

- High operating inlet temperature
- Integrated condenser
- Independent air cooled aftercooler
- Moisture separator
- Auto drain
- Easy installation and maintenance



HERTZ AIR QUALITY FOCUS

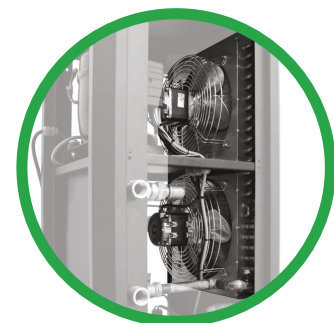
Hertz knows the importance of high quality compressed air and provides customers with the highest quality air possible. Using clean, dry air is extremely important for most air powered applications. Moisture or contamination in the air from the compressor discharge will result in many complications to production equipment. These complications will decrease productivity and may affect the production quality of final products.

THE REFRIGERANT CIRCUIT AND INSULATION

Hertz exclusively uses environmentally friendly R134a refrigerant gas in the dryers. This refrigerant is suitable for both high temperature applications. R-134a has excellent thermodynamic properties and can operate at very low pressure compared to other refrigerants. This will in turn increase the refrigerant compressor's service life. With R-134a Hertz dryers can operate at very high ambient temperatures. Hertz engineers add extra capability to the heat exchangers with a superior no loss insulation system.

Hertz HRD H Series Digital Cycling air dryers supply constant dewpoint at all flow ranges. This perfect insulation philosophy continues to the refrigeration circuit side also. Superior insulation and oversized condensers (for ultra-high ambient temperatures) enable the HRD H Series Dryers to offer continuous air quality.

AFTER
COOLER
CONDENSER
INSIDE



HRD H Series

HRD H 31 / 52 / 75 / 106 / 160 / 212

SPECIFICATIONS



Model	Capacity*		Connection Size	Voltage**	Max. Working Pressure	Max. Ambient Temp.	Max. Inlet Temp.	Refrigerant	Recommended Filter and Type	Dimensions (mm)			Weight
	m³/min	cfm			bar	°C	°C			Length	Width	Height	Kg
HRD H 31	0,52	18	G ½"	230V/1/50 Hz	16	45	104	R134a	C/F	445	445	955	62
HRD H 52	0,87	31	G ½"	230V/1/50 Hz	16	45	104	R134a	C/F	445	445	955	62
HRD H 75	1,25	44	G ½"	230V/1/50 Hz	16	45	104	R134a	C/F	445	445	955	63
HRD H 106	1,77	62	G ¾"	230V/1/50 Hz	16	45	104	R134a	C/F	445	445	955	64
HRD H 160	2,67	94	G ¾"	230V/1/50 Hz	16	45	104	R134a	C/F	625	510	910	88
HRD H 212	3,53	125	G ¾"	230V/1/50 Hz	16	45	104	R134a	C/F	625	510	910	97

- HERTZ KOMPRESSOREN reserves its rights to change the specifications without any prior notice.

* Capacity is given at atmospheric Pressure at 20 °C (ISO 1217) in accordance with norms ISO 7183-8573-1 and Pneurop 6611- Class 4-7 bar -35 °C inlet - 25 °C ambient.

** Consult sales representative for optional voltages

PRE FILTER (X)

Efficiency rating:
1 Micron particle
removal & 0.5mg/m³
oil removal

FINE FILTER (Y)

Efficiency rating:
0.01 Micron particle
removal & 0.01mg/m³
oil removal

PARTICLE FILTER (P)

Efficiency rating:
5 Micron particle
removal
(removes desiccant
particles after the dryer)

ACTIVATED CARBON FILTER (A)

Efficiency rating:
0.01 Micron particle
removal & 0.003 mg/m³
oil removal

CORRECTION FACTORS FOR HRD H AIR DRYERS

Pressure (bar)	4	5	6	7	8	8,5	10	11	12	13	14	16
F1	0,70	0,75	0,80	0,83	0,86	0,90	0,93	0,96	1	1,1	1,12	1,15
Ambient Temperature °C	24	29	35	38	40	46	49	-	-	-	-	-
F2	1,10	1,07	1,03	1,00	0,96	0,82	0,55	-	-	-	-	-
Inlet Temperature °C	32	38	65	82	93	98	104	-	-	-	-	-
F3	1,30	1,27	1,06	1,00	0,85	0,78	0,75	-	-	-	-	-

HRD H Dryer Sizing Example;

If a compressor delivers 2 m³/min at 10 bar, the dryer inlet temperature is 93°C and the ambient temperature is 35°C, please choose your dryer as follows;

$$\text{Dryer Capacity} = 2 / 0,93 / 1,03 / 0,85 = 2,46 \text{ m}^3/\text{min}$$

The correct dryer model for this application is HRD H 160.