

## **Refrigerated Compressed Air Dryers**

HPR & HPRN SERIES





### Reliable Operation...

Customers around the world have relied on Hankison for great value in air treatment solutions. Hankison Refrigerated Dryers offer a simple solution based on a long history of industry leading technology.



Efficient Smooth Copper Heat Exchangers



### HPR5/10 – HPR50 5/10 – 50 scfm

#### BETTER BY DESIGN

- Smooth bore, copper tube-on-tube heat exchangers deliver low pressure dew point performance
- Centrifugal separator efficiently captures liquid condensate at varying inlet loads
- Static condenser design provides trouble free, quiet operation

#### **RELIABLE CONDENSATE MANAGEMENT**

- Models 5/10-15 scfm: Pneumatically operated internal float drain
- Models 25-50 scfm: Electronic drain valve

#### EASE OF MONITORING

- Models 5/10-15 scfm: Lighted On/Off switch
- Models 25-50 scfm: Lighted On/Off switch and dew point temperature indicator

#### **OPTIONS**

- Air bypass valve allows ease of service
- Wall mount bracket enables flexible installation

#### SAFETY FIRST - ENVIRONMENTALLY FRIENDLY

- CFC free R134a refrigerant
- CSA approved

### HPRN75 – HPRN1200 75 –1200 scfm

#### **GLOBALLY PROVEN PERFORMANCE**

- Stainless steel, cross flow heat exchangers optimize heat transfer and service life
  - » ISO 8573-1 Air Quality: Class 4-5 pressure dew point
  - » Smooth, non-fouling channels promote low pressure drop
- Herringbone geometry stamped into the stainless steel plates creates turbulent flow, for a self-cleaning effect
- Compact design saves floor space

#### **EFFICIENT CONDENSATE MANAGEMENT**

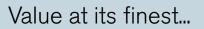
- Increased calming zone and integral demister/separator captures liquid condensate and solid particles
  - Effectively removes condensate from 0 to 100% flow conditions without moisture carry-over
- Furnished with a timed electric condensate drain
  - » Includes a Y-strainer to protect the valve from rust and scale

#### EASY TO MONITOR

- Models 75-150: Illuminated On/Off Switch; dew point temperature display indicator to monitor inlet load conditions
- Models 200-1200 scfm: Illuminated On/Off Switch; LED dew point temperature display; dry alarm contact
  - » Equipped with panel mounted drain timer control

#### SAFETY FIRST - ENVIRONMENTALLY FRIENDLY

- Models 75-125 scfm CFC free R134a
- Models 150-1200 scfm R407c refrigerant
- CSA approved





Model Shown: HPRN75



Adjustable Timed Electric Drain for HPRN Models 75 - 150 scfm

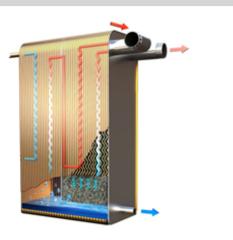


Controls: Models 75 - 150 scfm

### Performance at its best...



Model Shown: HPRN1200



Stainless Steel Demister/Separator



#### Controls: Models 200-1200 scfm

### **Product Warranty**

#### STANDARD WARRANTY

- HPR Series 5-10 and 15 scfm: standard 1-year warranty parts and labor
- HPR 25 50 scfm: standard 2-year warranty parts and labor
- HPRN 75 2000 scfm: standard 2-year warranty parts and labor

### HPRN Extended Warranty

#### **PROTECT YOUR EQUIPMENT**

As an extra measure of protection, Hankison will provide additional coverage beyond the standard 2-year warranty. Purchase a HPRN dryer with Filtration Package and the annual purchase of a maintenance kit and receive 3 years additional protection, parts and labor, a total of 5 years. All major components are covered

» Available for HPRN 75-1200



### International Air Quality Class Standards

#### ISO 8573-1: 2010 AIR QUALITY STANDARD

**ISO 8573-1: 2010**, the international standard for compressed air quality, defines the amount of contamination permissible in compressed air.

The ISO standard identifies three primary forms of contamination in compressed air systems – solid particles, water and oil. Contaminants are classified and assigned a quality class, ranging from Class 0, the highest purity level, to Class 6, the most relaxed.

### HPR and HPRN series refrigerated air dryers offer the perfect balance between technology and simplicity to dry compressed air systems to ISO 8573-1: 2010 Air Quality Class 4 to 5 – pressure dew points.



#### **OPTION PRE-FILTRATION**

NGF series – PF grade filtration – removes solid and oil contaminants from the air stream before entering the dryer.

#### **ISO Air Quality Class:**

- Solids Class 2
- Remaining Oil Class 4
- Removes solids 1.0 micron and larger
- Remaining oil content 2.0. mg/m<sup>3</sup>

#### **OPTION AFTER-FILTRATION**

NGF series – HF grade filtration – provides high efficiency oil removal protecting downstream equipment.

#### **ISO Air Quality Class:**

- Solids Class 1
- Remaining Oil Class1
- Removes 99.999+% of solids ≥ 0.01 micron
- Remaining oil content < 0.01 mg/m<sup>3</sup>

For your conveience, pre-configured filter packs, including NGF Series filtration, available for all models.

### **Product Specifications**

	RATED	RATED			POWER	INLET/OUTLET	DIMENSIONS (INCHES)			WEIGHT
MODEL '	FLOW SCFM <sup>2</sup>	FLOW M³/H	REFRIGERANT	VOLTAGE	KW	CONNECTIONS	н	w	D	LBS
HPR5-10	5	17	R 134a	115/1/60	0.2	3/8" OD	15	13	13	64
HPR15	15	25	R 134a	115/1/60	0.24	3/8" OD	15	13	13	69
HPR25	25	42	R 134a	115/1/60	0.41	3/4" NPT	22	16	15	88
HPR35	35	59	R 134a	115/1/60	0.46	3/4" NPT	22	16	15	92
HPR50	50	85	R 134a	115/1/60	0.57	3/4" NPT	22	20	20	101
HPRN75	75	127	R 134a	115/1/60	0.52	1" NPT	24	14	32	123
HPRN100	100	170	R 134a	115/1/60	0.65	1" NPT	24	14	32	129
HPRN125	125	212	R 134a	115/1/60	0.68	1" NPT	24	14	32	135
HPRN150-1	150	255	R 407c	115/1/60	0.91	1" NPT	24	14	35	148
HPRN200-4	200	340	R 407c	460/3/60	1.81	1" NPT	30	17	36	165
HPRN250-4	250	425	R 407c	460/3/60	1.92	2" NPT	30	17	36	205
HPRN300-4	300	510	R 407c	460/3/60	2.48	2" NPT	30	20	38	212
HPRN400-4	400	680	R 407c	460/3/60	3.09	2" NPT	30	21	38	225
HPRN500-4	500	850	R 407c	460/3/60	3.18	2" NPT	32	21	48	328
HPRN600 <sup>3</sup>	600	1,020	R 407c	460/3/60	3.8	2" NPT	32	22	50	353
HPRN800 <sup>3</sup>	800	1,360	R 407c	460/3/60	5.4	3" FLG	59	30	42	687
HPRN1000 <sup>3</sup>	1,000	1,700	R 407c	460/3/60	6.6	4" FLG	64	29	45	786
HPRN1200 <sup>3</sup>	1,200	2,040	R 407c	460/3/60	8.7	4" FLG	64	29	45	810

<sup>1</sup> 1 = For Filter Pack model, add "-FP" to standard model number. (Example: HPRN75-FP)

Dimensions, weights, and inlet/outlet connections are dryer only and do not include filtration.

Filtration package shipped loose, additional fittings may be required.

<sup>2</sup> Rated Flow Capacity – Conditions for rating dryers are in accordance with ISO 7183 (Option A2). Compressed air at dryer inlet: 100 psig (6.7 barg) and 100°F (38°C); ambient air temperature: 100°F (38°C); operating on 60 Hz power supply.

<sup>3</sup> Available in water cooled

At rated conditions, pressure drop is less than 5 psig.

### **Operating Conditions**

FLOW MODEL	INLE	AX T AIR SURE	INLE	IN T AIR SURE	INLE	AX T AIR RATURE	INLE	IN T AIR RATURE	AMBIE	AX INT AIR RATURE	AMBIE	IN NT AIR RATURE
SCFM	PSIG	BARG	PSIG	BARG	۴F	°C	۴F	°C	°F	°C	°F	°C
5-10 to 50	250	17	30	2	120	49	40	4	110	43	45	7
75 to 500	232	16	43	3	120	49	45	7	110	43	37	3
600-1200	232	16	43	3	120	49	45	7	110	43	34	1

### **Capacity Correction Factors**

To adjust the dryer capacity for non-standard conditions, use the Capacity Correction Factors (multipliers) from Tables 1 & 2.

#### SIZING EXAMPLE:

What is the capacity of an HPRN100 at 100°F inlet air temperature, 150 psig working pressure, and 110°F ambient air temperature?

#### **ANSWER:**

100 scfm (rated flow from product specification table) x 1.08 (correction factor for inlet air temperature, Table 1) x 0.94 (correction factor for ambient air temperature, Table 2) = 102 scfm

#### **Table 1 - Capacity Correction Factors**

INLET AIF	RPRESSURE	INLET AIR TEMPERATURE							
PSIG	BARG	90°F/32°C	100°F/38°C	110°F/43°C	120°F/49°C				
80	5.6	1.19	0.95	0.77	0.63				
100	6.9	1.25	1	0.82	0.68				
125	8.6	1.3	1.05	0.86	0.72				
150	10.3	1.34	1.08	0.9	0.75				
175	12.1	1.37	1.11	0.92	0.78				
200	13.8	1.39	1.14	0.95	0.8				
250	17.2	1.43	1.17	0.98	0.83				

#### **Table 2 - Ambient Air Temperature**

AMBIENT AIR	80°F/	90°F/	100°F/	110°F/
TEMPERATURE	27°C	32°C	38°C	43°C
Multiplier	1.12	1.06	1	0.94

### HPR & HPRN SERIES

5 to 1200 SCFM (17-2040 M3/H)

# SPXFLOW

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