

## Non-Cycling Refrigerated Air Dryers

HPRplus SERIES 100 to 3000 scfm (170 to 5097 nm<sup>3</sup>/h)





## Meeting the Needs of Today and Tomorrow

Since 1948, Hankison, a brand of SPX FLOW, has set the global standard for energy efficient compressed air treatment solutions.

Our product designs are driven by consumer demand for sustainable energy savings, reliable operation and ISO quality class performance.

### **REDUCE COST OF OPERATION**

To remain competitive, manufacturers are challenged to find new and more efficient methods to increase productivity. Clean, dry compressed air improves equipment performance, reduces unscheduled downtime and lowers maintenance costs.

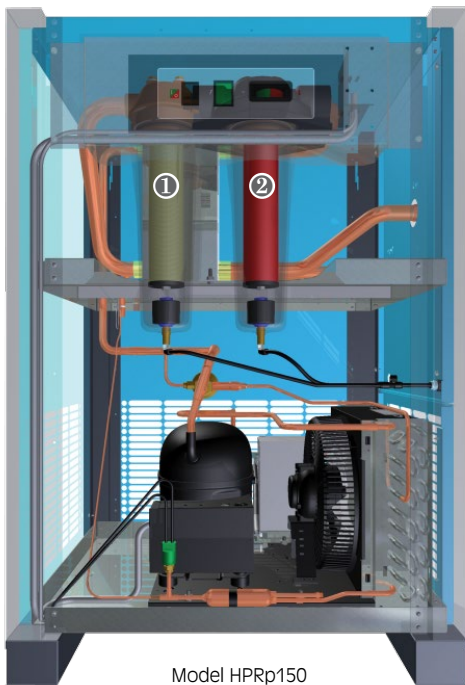
The HPRp series is third party performance certified, ensuring optimal compressed air system protection.



# ISO 8573.1 Quality Class Performance

The International Organization for Standardization (ISO), the world's most recognized developer and publisher of international standards, identified three critical forms of contamination as common in compressed air systems - Particulate, Water and Oil. ISO Standard 8573-1: 2010 categorizes each contaminant and assigns a quality class, ranging from Class 0, the highest purity level, to Class 9, the most relaxed. This enables end-users of compressed air treatment equipment to select an air quality level meeting the requirements of the application.

The HPRp Series effectively removes all three contaminants in a single air treatment system.



## THE INNOVATIVE EDGE

① As standard, all dryers are equipped with filter/separator elements, delivering:

- ISO Quality Class 3: Particulate removal
- ISO Quality Class 4-5: Pressure dew point
- ISO Quality Class 4: Remaining oil concentration

② Optional high efficiency coalescing filter elements deliver:

- ISO Quality Class 1: Particulate removal
- ISO Quality Class 4-5: Pressure dew point
- ISO Quality Class 1: Remaining oil concentration

*Liquid oil and hydrocarbon vapor removal is more effective at lower temperatures. Cooling the air to 40°F/4°C allows some of the oil vapor to condense into a liquid, improving filtration efficiency. The oil content exiting a refrigerated air dryer equipped with integral coalescing filtration is 20-25% lower than a stand-alone filter installed in the system.*

**The annual purchase of a maintenance kit provides a lifetime of ISO Quality Class Air.**

## ISO 8573-1: 2010 Quality Classes

To best define the air quality requirements for your specific application, please refer to the table below.

Air Quality Class	Solid Particles			Water		Oil	
	Maximum number of particles per m <sup>3</sup>			Vapor Pressure Dew Point		Total Oil Concentration: Aerosol, Liquid & Vapor	
	0.10 - 0.5 micron	0.5 - 1.0 micron	1.0 - 5.0 micron	°C	°F	mg / m <sup>3</sup>	ppm <sub>w/w</sub>
<b>0</b>	<b>As specified by the equipment user or supplier and more stringent than class 1</b>						
<b>1</b>	≤ 20,000	≤ 400	≤ 10	≤ -70	≤ -94	0.01	0.008
<b>2</b>	≤ 400,000	≤ 6,000	≤ 100	≤ -40	≤ -40	0.1	0.08
<b>3</b>	-	≤ 90,000	≤ 1,000	≤ -20	≤ -4	1	0.8
<b>4</b>	-	-	≤ 10,000	≤ +3	≤ +37	5	4
<b>5</b>	-	-	≤ 100,000	≤ +7	≤ +45	-	-

## Take A Look Inside

### Advanced Cabinet Design

- Unique cabinet construction enables 360-degree access to critical components
- Convenient panel removal provides trouble-free entry for routine maintenance
- Baked polyester, powder coated cabinets withstand harsh environments, maintains long-term visual appeal
  - » HPRp100-HPRp750: Utility connections for inlet and outlet air, incoming power and condensate drains are positioned on the right side panel
  - » HPRp1000-HPRp3000: Inlet and outlet connections are located on the top of the dryer, promoting ease of installation

### Time Proven Reliability

- Durable, hermetically sealed refrigerant compressors provide a practical and safe solution without compromising energy efficiency
- Dryers utilize environmentally friendly R134A and R404A refrigerants, recognized globally as efficient and safe HFC solutions



Model HPRp150



Model HPRp600

### Corrosion Resistant Heat Exchangers

- Compressed air is chilled to the specified pressure dew point in stainless steel brazed plate heat exchangers, offering corrosion resistance for the life of the dryer
- Stainless steel plates are press formed with chevron patterns, creating highly turbulent flow, providing a self cleaning effect
- Smooth, non-fouling stainless steel surfaces promote low resistance to flow, improving system efficiency
- Heat exchangers are fully encapsulated in non-degrading insulation to maintain thermal efficiency

# See The Difference

## Clean, Dry and Filter the Air

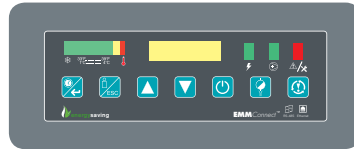
- Dryers are self-contained air treatment stations, furnished with integrated high performance filtration
- All dryers are equipped with two stage separation to remove solid particulate 3.0 micron and larger, with remaining oil content of 5.0 mg/m<sup>3</sup>
- Optional cold coalescing filters capture solid particulate 0.01 micron and larger, with a remaining oil content of < 0.01 mg/m<sup>3</sup>

## Energy Efficiency on Demand

- No-air-loss, level actuated demand drains efficiently remove condensate from the system, without loss of compressed air
  - » HPRp100- HPRp150 are equipped with a pneumatically powered float drain
  - » HPRp200 -HPRp3000 are furnished with an electronic demand drain
- Condensate drain lines terminate at discharge connections conveniently located on the side of the dryer
- Drain assembly is equipped with an isolation valve and strainer to optimize service

## EMMConnect™

- Easy to read display provides continuous operating feedback
- Service reminders for ease of regularly scheduled maintenance
- Multiple alarms and safeties protect your investment
- Energy saving control for more efficient operation
- Event log stores critical data for the operating life of the machine
- Data logging continuously stores 60 days of operating parameters
- Ethernet communication capability for web-based remote monitoring
- RS485 industrial communication protocol for remote monitoring capability
- Master scheduler automatically controls preferred timing of dryer operation
- Multiple Language capability for global application



Advanced, User Friendly Control



Model HPRp1000



## Our Commitment to You



### THIRD PARTY PERFORMANCE CERTIFICATION

Hankison is a member of the Compressed Air and Gas Institute (CAGI), a non-profit organization that develops and publishes standards serving the compressed air industry.

CAGI members may participate in an independently controlled Performance Verification Program for refrigerated air dryers in the flow range of 200 scfm to 1000 scfm. Certification through a third party laboratory provides end-users an industry accepted basis for comparison of refrigerated air dryer performance and selection.

Standardized performance data sheets are posted on the Hankison website.

Please visit the Hankison website at [www.spxflow.com/hankison](http://www.spxflow.com/hankison) to view this information.

### CUSTOMER SUPPORT SOLUTIONS

As an extra measure of protection, Hankison provides an extended warranty beyond the standard 2 year coverage. Purchase a maintenance kit on an annual basis and receive an additional 3 years of protection, parts and labor. All major components are covered. Register on-line at [www.spxflow.com/hankison](http://www.spxflow.com/hankison)



# Product Specifications

Flow (scfm)	Maximum Working Pressure psig (barg)	Minimum Working Pressure psig (barg)	Maximum Inlet Air Temperature °F (°C)	Minimum Inlet Air Temperature °F (°C)	Maximum Ambient Air Temperature °F (°C)	Minimum Ambient Air Temperature °F (°C)
100-150	250 (17)	30 (2)	130 (54)	40 (4)	110 (43)	40 (4)
200-3000	232 (16)	30 (2)	130 (54)	40 (4)	110 (43)	40 (4)

Models HPRp100-HPRp150: pneumatically powered float drain standard [dryer MOP 250 psig (17.6 barg)]; optional electric timed drain (dryer MOP 200 psig (14 barg)).  
 Models HPRp200-HPRp3000: electric demand drain standard [dryer MOP 232 psig (16 barg)]; additional electric demand drain with integral cold coalescing option.

Model	Rated Flow <sup>1</sup>		Voltages V/ph/Hz	Power <sup>2</sup> kW	Inlet/Outlet Connections <sup>3</sup>	Dimensions			Weight lb
	scfm	nm <sup>3</sup> /h				H	W in	D	
HPRP100	100	170	<b>Standard:</b> 115/1/60 208-230/1/60 220-240/1/50  <b>Standard:</b> 208-230/3/60 380-420/3/50 460/3/60  <b>Optional:</b> 575/3/60  <b>Standard:</b> 380-420/3/50 460/3/60  <b>Optional:</b> 208-230/3/60 575/3/60	0.93	1" NPT	38	27	20	251
HPRP125	125	212		1.28	1" NPT	38	27	20	273
HPRP150	150	255		1.30	1" NPT	38	27	20	279
HPRP200	200	340		1.26	1-1/2" NPT	39	34	32	425
HPRP250	250	425		1.96	1-1/2" NPT	39	34	32	463
HPRP300	300	510		2.00	1-1/2" NPT	45	32	32	527
HPRP400	400	680		2.03	2" NPT	45	32	32	571
HPRP500	500	850		2.68	2-1/2" NPT	58	35	42	684
HPRP600	600	1019		3.24	2-1/2" NPT	58	35	42	691
HPRP750	750	1274		4.32	2-1/2" NPT	58	35	42	734
HPRP1000	1000	1699		6.13	3" FLG	85	49	41	1146
HPRP1250	1250	2124		7.25	4" FLG	85	49	51	1521
HPRP1500	1500	2549		9.47	4" FLG	85	49	51	1547
HPRP1750	1750	2973		11.36	6" FLG	85	55	60	1940
HPRP2000	2000	3398		11.52	6" FLG	85	55	60	1986
HPRP2500	2500	4248		15.03	6" FLG	85	55	60	2315
HPRP3000	3000	5097		19.61	6" FLG	85	55	60	2646

Dryers meet agency approvals: CSA (CAN/CSA-C22.2 No.236-05) - Heating and Cooling Equipment and UL Standard No.1995.

HFC refrigerants: Models HPRp100-HPRp750: R-134; Models HPRp1000-HPRp3000: R-404a

<sup>1</sup> Dryer flow ratings are in accordance with ISO 7183 (option A2) conditions: inlet air at 100 psig (7 barg) and 100°F (38°C) saturated, ambient air at 100°F (38°C), operating on 60 Hz power supply.

<sup>2</sup> Optional Voltages: 575/3/60 models utilize mounted transformers to step-down incoming power to 460/3/60; 230/3/60 models utilize mounted transformers to step-up to 460/3/60.

<sup>3</sup> Full flow kW value operating on 460/3/60 Hz power supply.

<sup>4</sup> DIN Flanges available.

## Correction Factors for Inlet Air Pressure and Temperature

Inlet Air Pressure		Inlet Air Temperature				
psig	barg	90°F 32°C	100°F 38°C	110°F 43°C	120°F 49°C	130°F 54°C
30	2.1	0.92	0.71	0.56	0.44	0.35
50	3.5	1.07	0.83	0.66	0.54	0.44
80	5.5	1.19	0.95	0.77	0.63	0.52
100	6.9	1.25	1.00	0.82	0.68	0.56
125	8.6	1.30	1.05	0.86	0.72	0.61
150	10.3	1.34	1.08	0.90	0.75	0.64
175	12.1	1.37	1.11	0.92	0.78	0.66
200	13.8	1.39	1.14	0.95	0.80	0.68

## Correction Factors for Ambient Temperature\*

Ambient Temperature	80°F 27°C	90°F 32°C	100°F 38°C	110°F 43°C
<b>Multiplier</b>	1.12	1.06	1.00	0.94

\* Air-cooled models only. For water-cooled use a 1.15 multiplier if cooling water is less than 95°F (35°C).



## Global locations

### SPX FLOW USA

#### HANKISON HEADQUARTERS

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### HANKISON RENTAL

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