domnick hunter

CRD Refrigeration Dryers

0.18 - 3.75 m³/min (6 - 132 cfm) ISO 7183 60Hz

Energy efficient compressed air refrigeration dryers

Compressed Air contains water, oil and dirt

The Problem

Compressed air is an essential power source that is widely used throughout industry. This safe, powerful and reliable utility can be the most important part of your production process. However, your compressed air will contain water, dirt, wear particles, bacteria and even degraded lubricating oil which all mix together to form an unwanted abrasive sludge. This sludge, often acidic, rapidly wears tools and pneumatic machinery, blocks valves and orifices causing high maintenance and costly air leaks. It also corrodes piping systems and can bring your production process to an extremely expensive standstill! Only compressed air that is totally clean and dry will ensure maximum savings.

Corrosion

Unwanted Abrasive Sludge

Damaged Tools

The Solution

All of these costly problems can be avoided by installing a domnick hunter CRD compressed air refrigeration dryer package complete with **OIL-Xplus** filtration. The packages are suitable for use with any compressor type and provide air quality to ISO 8573.1 Class 1.4.1.

Features and Benefits

- **Clean, Dry, Compressed Air, Stops Damage & Corrosion**
- **R134a Environmentally friendly refrigerant with no planned phase out**
- **Energy Efficient, Low Running Costs**
  Air to air heat exchanger reduces overall size of the refrigeration circuit by up to 60%. Zero loss drain saves air.
  Saving Air - Saves Energy - Saves Money
- **No Condensation on Downstream Piping**
  Air to air heat exchanger raises outlet air temperature eliminating condensation that can occur on chilled piping in humid conditions.
- **Compact, Lightweight and Wall Mountable**
  Efficient heat exchanger and refrigeration circuit design reduces overall weight & dimensions, allowing the unit to be mounted on a wall or compressor.
- **On-off switch and dewpoint indicator for easy start up and monitoring**
- **Easy to remove casing provides instant access to the internal components and simplifies routine cleaning/maintenance.**
- **Suitable for High Ambient Operating Conditions up to 50°C (122°F) and inlet temperatures up to 60°C (140°F)**
- **Optional Bypass kit available**

*Flow capacities in accordance with ISO7183, air suction of FAD 20°C (68°F), 1 bar (14.5 psi) at the following operating conditions :

Ambient temperature = 25°C (77°F), Inlet temperature = 35°C (95°F), Relative humidity 60%.
Working pressure = 7 bar g (102 psi g), Dewpoint 3°C (37°F).

Model	Nominal Capacity *			Max. Pressure		Electrical Supply	Absorbed Power Air Cooled		Refrigerant	Air Connections
	m^3/min	m^3/hr	cfm	bar g	psi g	115V / 1ph / 60Hz	kW	hp		
CRD5	0.18	10.8	6	16	232	•	0.17	0.23	R134a	3/8" NPT - F
CRD10	0.37	22.2	13	16	232	•	0.17	0.23	R134a	3/8" NPT - F
CRD15	0.56	33.6	20	16	232	•	0.21	0.28	R134a	3/8" NPT - F
CRD25	0.92	55.2	32	16	232	•	0.24	0.32	R134a	1/2" NPT - F
CRD35	1.29	77.4	46	16	232	•	0.36	0.48	R134a	1/2" NPT - F
CRD50	1.94	116.4	69	16	232	•	0.53	0.71	R134a	3/4" NPT - F
CRD75	2.61	156.6	92	16	232	•	0.73	0.97	R134a	3/4" NPT - F
CRD100	3.75	225.0	132	16	232	•	0.91	1.22	R134a	3/4" NPT - F

Maximum ambient temperature 50°C (122°F)
Maximum inlet temperature 60°C (140°F)
Minimum ambient temperature 5°C (41°F)

Correction Factors

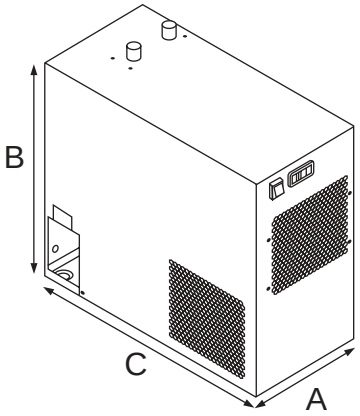
Capacity correction factors to be used when operating conditions differ from those shown above. To obtain dryer capacity at new conditions multiply nominal capacity x C1 x C2 x C3 x C4

Ambient Temperature (C1)							
°C	20	25	30	35	40	45	50
°F	68	77	86	95	104	113	122
Correction Factor	1.05	1.00	0.94	0.88	0.81	0.75	0.68

Inlet Temperature (C2)							
°C	30	35	40	45	50	55	60
°F	86	95	104	113	122	131	140
Correction Factor	1.22	1.00	0.83	0.69	0.58	0.49	0.46

Inlet Pressure (C3)														
Pressure bar g	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pressure psi g	44	58	73	87	100	116	131	145	160	174	189	203	218	232
Correction Factor	0.73	0.83	0.90	0.95	1.00	1.03	1.07	1.09	1.12	1.13	1.15	1.17	1.18	1.19

Dewpoint (C4)				
°C	3	5	7	10
°F	38	41	45	50
Correction Factor	1.00	1.12	1.24	1.46



Model	A		B		C		Weight	
	mm	Inches	mm	Inches	mm	Inches	Kg	lbs
CRD5	197	7.76	455	17.91	450	17.72	18	40
CRD10	197	7.76	455	17.91	450	17.72	19	42
CRD15	197	7.76	455	17.91	450	17.72	20	44
CRD25	282	11.10	530	20.87	600	23.62	32	71
CRD35	282	11.10	530	20.87	600	23.62	33	73
CRD50	352	13.86	605	23.82	700	27.56	46	101
CRD75	352	13.86	605	23.82	700	27.56	55	121
CRD100	352	13.86	605	23.82	700	27.56	58	128

Environmental Impact of Inefficient Compressed Air Systems

Global Warming

The greatest environmental impact of any compressed air system is the indirect contribution to global warming.

Any compressed air system which uses electricity produced by fossil fuel burning power stations contributes to carbon dioxide emissions.

Carbon dioxide is the major "greenhouse gas" contributing to global warming.

The more energy efficient the compressed air system, the less carbon dioxide produced.

domnick hunter can provide a total solution to inefficient compressed air systems

CRD REFRIGERATION DRYERS - Clean, dry compressed air to ISO 8573.1 Class 1.4.1 Energy efficient. Low running costs.

Environmentally friendly refrigerant and components.

OIL-Xplus - Highest quality compressed air.

Energy efficient filter housings and elements giving low pressure drop and running costs.

ED2000 SERIES - Electronic level sensing drains discharge only condensate and not compressed air.

Saving Air and Energy – Saves Money.

ES2000 SERIES - ES2000 Series Oil/Water Separators treat oily condensate at a fraction of the cost of other disposal methods and keep discharges within legal limits.

This can also assist in attaining ISO 14000 environmental approval.

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For the latest information visit the domnick hunter website on http://www.domnickhunter.com

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