



FOCUSED ON COMPRESSED AIR TREATMENT

Non-Cycling Refrigerated Air Dryers | PRD & PNC Series



ENGINEERING YOUR SUCCESS.

FOCUSED ON QUALITY AIR TREATMENT

The importance of compressed air as a provider of energy for modern industrial processes is widely known. What is often overlooked however is the need to provide quality treatment for this air.

In fact, the air entering the system contains moisture which, when cooled, will turn into liquid water, causing extensive damage not only to the compressed air network, but also to the finished product.

These costly contamination problems can be avoided by installing a PRD or PNC Series non-cycling refrigerated dryer (ranging from 10 - 1200 scfm) package complete with Parker high efficiency filtration.

Parker's revolutionary 3-in-1 heat exchanger (PRD10 - PRD175) features a 3-in-1 aluminum design with integral air connections. All models include an air-to-air freecooler, while the unique "slowflow" demister ensures perfect dewpoints whatever the operating conditions.

Our 4-in-1 heat exchanger (PNC200 - PNC1200) offers minimal pressure drops and class leading performance, and significantly increases the efficiency of the whole compressed air treatment process.

Compressed air purification equipment must deliver uncompromising performance and reliability while providing the right balance of air quality with the lowest cost of operation. Many manufacturers offer products for the filtration and purification of contaminated compressed air, which are often selected only upon their initial purchase cost, with little or no regard for the air quality they provide, the cost of operation throughout their life or their environmental impact. When purchasing purification equipment, delivered air quality, the overall cost of ownership and the equipment's environmental impact must always be considered.



FOCUSED ON RELIABILITY AND EFFICIENCY

MODELS PRD10 - PRD175

- Fan pressure switch (all models)
- Fan cycling ensures stable operation
- High refrigerant temperature switch (all models)
- High refrigerant pressure switch (PRD150-175)
- All models incorporate a 3-stage dewpoint indicator
- Optimum dewpoint levels for highest system performance
- Extremely compact footprint
- Low pressure differential across dryer (1.45 psi average)
- ETL listed complete unit
- CRN registered in all provinces
- Dryers manufactured in facility certified to ISO TSI6949:2009
- Advanced helium leak tests

- High reliability, easy to use and maintain
- Environmentally friendly
- Lighted On/Off switch
- Easy access to all dryer components by removing a single canopy
- Robust timed solenoid drain equals superior reliability (PRD15 - PRD175)
- Oversized condenser to operate in ambient to 122°F (50°C)
- "Plug and Play" design for easy installation — more compact than any dryer on the market

- Unique 3-in-1 heat exchanger
- Oversized demister separator resulting in excellent liquid removal over all operating conditions
- Unique drain niche allows drain access without removing a single panel





PRD and PNC Series guarantee continuous performance and superior efficiency.

MODELS PNC200 - PNC1200

- Easy to use, highly reliable controls
- ETL listed
- CRN registered all provinces
- CAGI performance verification
- Visual indication of dewpoint performance
- High and low refrigerant pressure alarm light
- Crankcase heater prevents refrigerant migration into compressor oil which provides compressor lubrication integrity, both prior to start-up and during the "off" cycle
- Oversized condenser to operate in ambient to 115°F (45°C) with pre-filter
- Dryers manufactured in facility certified to ISO9001 and ISO14001
- High efficiency Parker pre-filter recommended on all models
- Unique design allows for easy filter and bypass install



FOCUSED ON ENERGY SAVINGS

Parker Refrigerated Non-Cycling Air Dryers are designed to reduce operational costs of a compressor by minimizing pressure loss. These innovative dryers ensure reliability, efficiency, energy savings, and compact dimension and weight – making them ideal for all industrial users. They provide clean/dry air and guarantee performance and superior efficiency in most extreme working conditions. Parker Refrigerated Non-Cycling Air Dryers are energy efficient without sacrificing the quality of the air provided.

Reduced Indirect Costs

Electricity required by the compressor to compensate for pressure drops in the air dryer accounts for around 25% of its total cost over 5 years. Parker PRD and PNC Series offer average pressure drops which are about one half those of conventional systems.

Lowest Differential Pressure

Parker refrigerated dryers have an average of 2.0 psid versus the industry average of 5.0 psid.

Example: 500 scfm dryer operating, 8760 hours per year

Cost of Power	Savings Realized
\$0.05 per KW =	\$546 per year
\$0.10 per KW =	\$1091 per year
\$0.15 per KW =	\$1638 per year



Reduced CO2 Emissions

Many countries worldwide are looking closely at their manufacturing industries in an effort to reduce the amount of harmful greenhouse gases released into the atmosphere. The use of electricity has a direct impact on the generation and release of CO2. By significantly reducing the energy consumption of its products, Parker can help you reduce your carbon footprint and protect the environment.

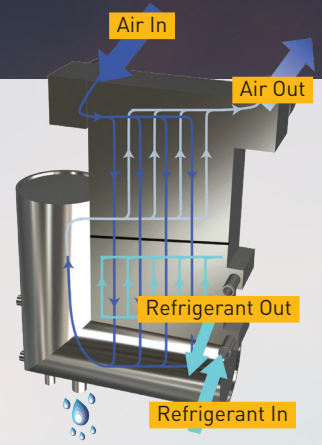
Environmentally Friendly

Montreal Protocol compliant R134a (PRD Series) & R404a (PNC Series) refrigerants allow for zero ozone depletion, low global warming potential and low refrigerant charge.

Heat Exchanger Provides Less Than 2 PSI Pressure Drop

The heat exchanger features an extremely robust, all-in-one aluminum design, with no interconnecting tubing. The flow path of the heat exchanger has been designed in order to optimize its performances. In particular, large volumes allow low air velocity through the heat exchanger section, resulting in high exchange efficiency and low pressure drops. Pressure drops are further improved thanks to the absence of interconnecting pipes through the different sections of the heat exchanger and to a straight forward path of the compressed air flow with smooth and minimum changes of flow directions.

The heat exchanger is designed for ease of filter and bypass installation. All units are designed for ease of service and serviceability.



4-in 1 Heat Exchanger
(PNC200-PNC1200)

3-in 1 Heat Exchanger
(PRD10-PRD175)





Add to Your Savings with Parker domnick hunter Filtration

Compressed air and gas lines typically contain water, oil, and particulate contamination.

The contaminants of greatest concern in precision compressed air systems are water, oil, and solids.

Water vapor is present in all compressed air and it becomes greatly concentrated by the compression process. While air dryer systems can be used effectively to remove water from compressed air, they will not remove oil, which is the second major liquid contaminant.

Most oil comes from compressor lubrication carry-over, but even the air produced by oil-free compressors has hydrocarbon contamination brought into the system through the intake.

The third contaminant is solid matter including dirt, rust, and scale. Solid particulates, combined with aerosols of water and oil, can clog and shorten the life of air system components and can foul processes.



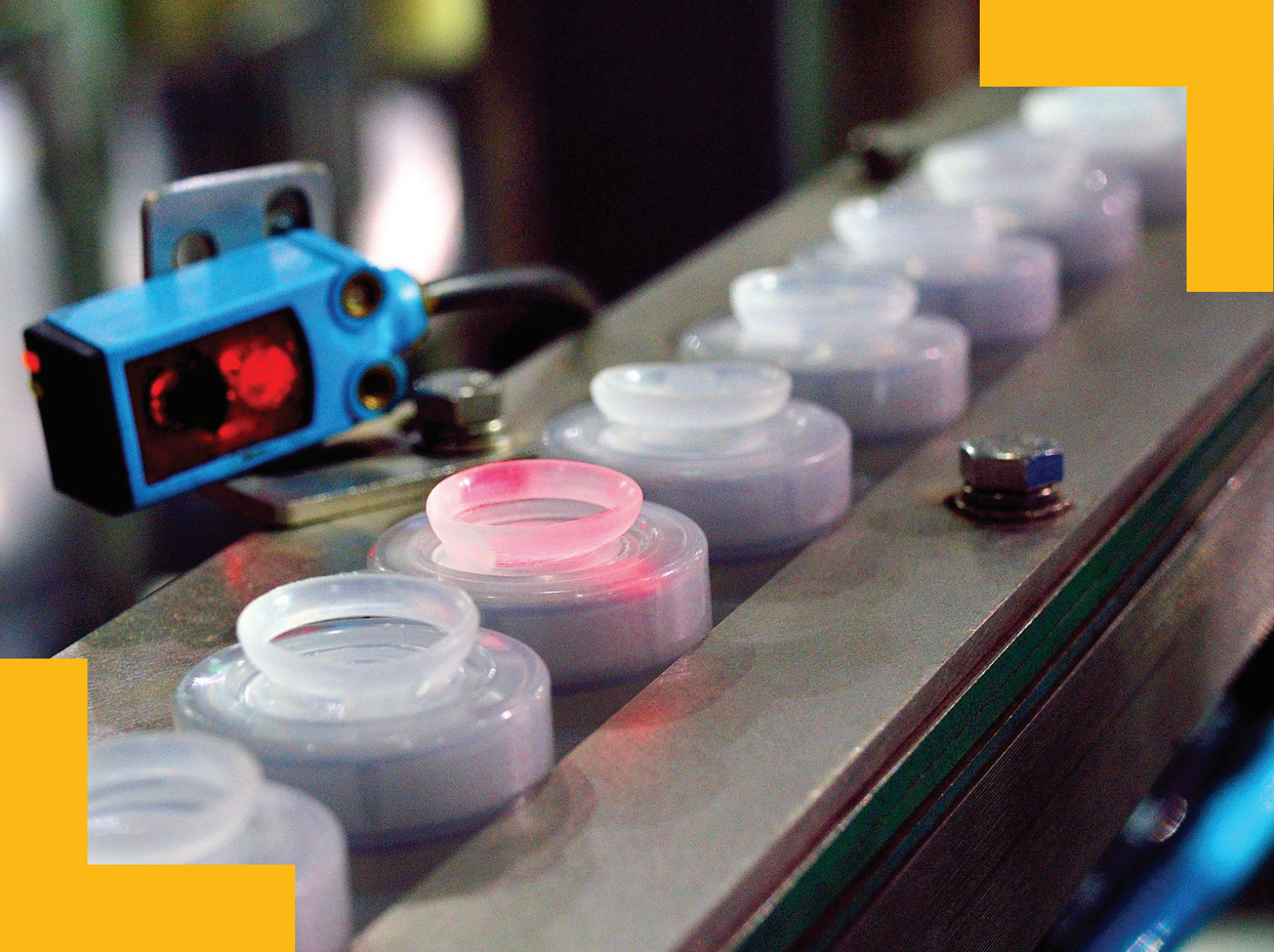
CRN all provinces (domnick hunter filters)



OIL-X

COMPRESSED AIR FILTERS

Parker domnick hunter OIL-X - a new series of compressed air filters, taking efficiency to a different level. Built on Parker's worldwide expertise in filtration, the OIL-X range has been developed to ensure consistent outstanding air quality, guaranteed for 12 months, and third party validated to meet ISO 8573-1.



MARKET LEADING LOW DIFFERENTIAL PRESSURE

Combining the unique filter element with a specially designed advanced air flow management system, the Parker domnick hunter OIL-X range is engineered to not only deliver air quality in accordance with ISO 8573-1 classifications, but it does so with an extremely low differential pressure - ensuring maximum efficiency and productivity.

> Unique filter element

Specifically constructed for reduced air flow velocity, reduced pressure loss, increased dirt holding capacity, and improved efficiency. Includes a 12-month air quality guarantee.

> Flow management system

Specially engineered 'bell mouth', with 90-degree elbow, flow distributor and conical flow diffuser, to promote a consistent, optimum air flow.

> Filter housing

Designed to allow easy maintenance and element replacement, and covered by a 10-year guarantee.

> Flexible connections

A wide range of port sizes and filter connections, for added flexibility.

> Epoxy coating

Finished with alocrom corrosion protection and a tough, dry powder epoxy coating for a high quality feel.



Technical PRD Product Selection

Model	Air Connections	Nominal Capacity (scfm)*	Dimensions ins (mm)			Weight		Primary Voltages	Recommended Pre-Filter	Recommended After-Filter
			Height	Width	Depth	lbs	g			
PRD10-A11516016FLU	1/2" NPT-F	10	16.9 (430)	17.7 (450)	8.3 (210)	42	19	115V/1Ph/60Hz	AOP010CNFI	AAP010CNFI
PRD15-A11516016TXU	1/2" NPT-F	15	16.9 (430)	17.7 (450)	8.3 (210)	42	19	115V/1Ph/60Hz	AOP010CNFI	AAP010CNFI
PRD25-A11516016TXU	1/2" NPT-F	25	19.9 (505)	19.7 (500)	8.3 (210)	52	24	115V/1Ph/60Hz	AOP015CNFI	AAP015CNFI
PRD35-A11516016TXU	1/2" NPT-F	35	19.9 (505)	19.7 (500)	8.3 (210)	52	24	115V/1Ph/60Hz	AOP015CNFI	AAP015CNFI
PRD50-A11516016TXU	3/4" NPT-F	50	22.2 (565)	20.5 (520)	8.9 (225)	58	27	115V/1Ph/60Hz	AOP020DNFI	AAP020DNFI
PRD75-A11516016TXU	3/4" NPT-F	75	22.2 (565)	20.5 (520)	8.9 (225)	68	31	115V/1Ph/60Hz	AOP025DNFI	AAP025DNFI
PRD100-A11516016TXU	3/4" NPT-F	100	23.4 (604)	21.9 (555)	16.7 (425)	110	50	115V/1Ph/60Hz	AOP025DNFI	AAP025DNFI
PRD125-A11516016TXU	1 1/2" NPT-F	125	23.4 (604)	21.9 (555)	16.7 (425)	115	52	115V/1Ph/60Hz	AOP030GNFI	AAP030GNFI
PRD125-A23016016TXU	1 1/2" NPT-F	125	23.4 (604)	21.9 (555)	16.7 (425)	115	52	230V/1Ph/60Hz	AOP030GNFI	AAP030GNFI
PRD150-A11516016TXU	1 1/2" NPT-F	150	23.4 (604)	21.9 (555)	16.7 (425)	128	58	115V/1Ph/60Hz	AOP030GNFI	AAP030GNFI
PRD150-A23016016TXU	1 1/2" NPT-F	150	23.4 (604)	21.9 (555)	16.7 (425)	128	58	230V/1Ph/60Hz	AOP030GNFI	AAP030GNFI
PRD175-A23016016TXU	1 1/2" NPT-F	175	23.4 (604)	21.9 (555)	16.7 (425)	132	60	230V/1Ph/60Hz	AOP030GNFI	AAP030GNFI

Flowrates at the following climatic conditions -

- Ambient Temperature: 100°F (38°C)
- Inlet Temperature: 100°F (38°C)
- Inlet Pressure: 100 psi g (7 bar g)

For reliable operation, a Parker pre-filter is recommended. Dryers not operated in accordance with ISO air quality class 3 for solids may see degradation in performance and/or permanent dryer failure.



Correction Factors for Models PRD10 - PRD175

To obtain dryer capacity at new conditions, multiply nominal capacity x C1 x C2 x C3.

CRN all provinces
(PRD dryer and filters)



Ambient Temperature [C1]	°F	60	70	80	90	100	110	120
	°C	16	21	27	32	38	43	49
	CF	1.34	1.26	1.17	1.09	1	0.91	0.82

Inlet Temperature [C2]	°F	90	100	110	120	140	149
	°C	32	38	43	49	60	65
	CF	1.24	1	0.81	0.67	0.45	0.44

Working Pressure [C3]	psi g	60	80	100	125	150	175	200	230
	bar g	4	6	7	9	10	12	14	16
	CFP	0.83	0.93	1	1.07	1.12	1.16	1.19	1.22


Notes

Standard equipment includes:

- Models PRD10 - PRD175 have electromechanical control
- 6' power cord (115V models) on Models PRD10 - PRD125 only
- On/off switch
- R134a environmentally friendly refrigerant on PRD10 - PRD175
- Power on light
- Built-in demister for high efficient removal of condensed liquid
- Removable cabinet for easy access to internal component
- Moisture dewpoint indicator
- Automatic condensate drain on Model PRD10
- Timed solenoid condensate drain on Models PRD15 - PRD175
- High efficiency Parker pre-filter recommended on all models
- ISO8573-1:2010 Class 1.6.1

Technical Data

Models	Max Ambient Temperature	Max Inlet Temperature	Min Ambient Temperature	Max Inlet Pressure	Refrigerant
PRD10 - PRD175	122°F (50°C)	149°F (65°C)	41°F (5°C)	232 psi g (16 bar g)	R134a

State of California ONLY
 **WARNING:** Proposition 65
 The products described herein can expose you to chemicals known to the State of California to cause cancer or reproductive harm.
 For more information: www.P65Warnings.ca.gov

parker.com/igfg



PNC0250 - A4 - D1

Technical PNC Product Selection

A = Air-Cooled
2 = (230V/1Ph/60Hz)
3 = (230V/3Ph/60Hz)
4 = (460V/3Ph/60Hz)
5 = (575V/3Ph/60Hz)
 Blank = dryer only
D1 = Dryer Plus Pre-Filter
D2 = Dryer Plus Pre and After-Filter

Model	Air In/Out	Nominal Capacity (scfm) ¹	Dimensions ins (mm)			Weight		Pre-Filter	After-Filter
			Height	Width	Depth	lbs	kg		
PNC0200-A2-*3	2" NPT	200	42 (1067)	28.125 (714.375)	42 (1067)	402	182	AOP040HNFI	AAP040HNFI
PNC0250-**	2" NPT	250	42.1 (1069)	28.4 (721)	42.4 (1077)	421	191	AOP040HNFI	AAP040HNFI
PNC0325-**	2" NPT	325	42.1 (1069)	28.4 (721)	42.4 (1077)	432	196	AOP040HNFI	AAP040HNFI
PNC0400-**	2" NPT	400	42.1 (1069)	28.4 (721)	42.4 (1077)	441	200	AOP040HNFI	AAP040HNFI
PNC0500-**	2" NPT	500	42.1 (1069)	28.4 (721)	42.4 (1077)	460	209	AOP045INFI	AAP045INFI
PNC0700-**	3" NPT	700	48.6 (1234)	36.4 (925)	56.4 (1433)	670	304	AOP055JNFI	AAP055JNFI
PNC0850-**	3" NPT	850	48.6 (1234)	36.4 (925)	56.4 (1433)	688	312	AOP055JNFI	AAP055JNFI
PNC1050-**	3" NPT	1050	48.6 (1234)	36.4 (925)	56.4 (1433)	745	338	AOP055JNFI	AAP055JNFI
PNC1200-**	3" NPT	1200	48.6 (1234)	36.4 (925)	56.4 (1433)	766	347	AOP055JNFI	AAP055JNFI

Notes

- Flowrates at the following climatic conditions -
 - Ambient Temperature: 100°F 38°C,
 - Inlet Temperature: 100°F (38°C),
 - Inlet Pressure: 100 psi g [7 bar g].
- PNC200 only available 230V/1Ph/60Hz.
- Models PNC400 - PNC1200 are not available in 239V/1Ph/60Hz.
- ISO8573-1:2010 Class 1.5.1
- Filters shipped loose

For reliable operation, a Parker pre-filter is recommended. Dryers not operated in accordance with ISO air quality class 3 for solids may see degradation in performance and/or permanent dryer failure.

Replacement Elements

Model	Pre-Filter Element	After-Filter Element
PNC0200-A2-*3	P040AO	P040AA
PNC0250-**	P040AO	P040AA
PNC0325-**	P040AO	P040AA
PNC0400-**	P040AO	P040AA
PNC0500-**	P045AO	P045AA
PNC0700-**	P055AO	P055AA
PNC0850-**	P055AO	P055AA
PNC1050-**	P055AO	P055AA
PNC1200-**	P055AO	P055AA





Correction Factors for Models PNC200-PNC1200

To obtain dryer capacity at new conditions, multiply nominal capacity x C1 x C2 x C3.

Ambient Temperature (C1)	°F	80	90	95	100	105	110	115
	°C	27	32	35	38	41	43	46
	CF	1.12	1.08	1.05	1	0.95	0.9	0.84

Inlet Temperature (C2)	°F	80	85	90	95	100	105	110	115	120	130	140
	°C	27	29	32	35	38	41	43	46	49	54	60
	CF	1.22	1.22	1.22	1.1	1	0.92	0.83	0.76	0.69	0.56	0.46

Working Pressure (C3)	psi g	50	60	75	80	90	100	110	125	130	140	150
	bar g	3.5	4.1	5.2	5.5	6.2	6.9	7.6	8.6	9	9.7	10.3
	CFP	0.8	0.84	0.9	0.92	0.96	1	1.01	1.02	1.03	1.04	1.05

Technical Data

Models	Max Ambient Temperature	Max Inlet Temperature	Min Ambient Temperature	Max Inlet Pressure	Refrigerant
PNC200 - PNC1200	122°F (50°C)	149°F (65°C)	41°F (5°C)	232 psi g (16 bar g)	R134a

Notes

Models PNC200 - PNC1200 include the following equipment as standard:

- On/off switch
- Power light
- High pressure alarm light
- Low pressure alarm light
- Removable cabinet for easy access to internal components
- R404a environmentally friendly refrigerant
- Moisture dewpoint indicator
- Automatic condensate drain
- Suction pressure gauge
- Built-in demister for high-efficient removal of condensed liquid



CRN all provinces
(PNC dryer and filters)

AFTERMARKET

Compressed air equipment users demand much more than the supply of high quality products in order to maintain a competitive edge.

Modern production technology is increasingly demanding the provision of a higher purity and more reliable compressed air supply. Products and solutions that are manufactured by Parker domnick hunter are designed to provide air quality that meets and often exceeds international standards.

As well as the requirement for air purity and reliability, there are additional factors to consider when choosing the right service provider for your compressed air and gas purification system. For example, knowledge of the many regulations regarding the management of industrial waste, energy efficiency improvement programs and consideration of any environmental impact. It is anticipated that future legislations will demand further in-depth technical and knowledge-based support from service providers.

Our commitment to industry does not stop with the supply of high quality products. We are also committed to ensuring that our equipment provides high performance by providing a trouble-free service from a bespoke maintenance and verification package – all tailored to your own specific requirements.

We offer a wide range of valuable services that will impact positively on your drive towards improved production efficiency and product quality with reduced production rejections and operational costs.

From initial selection to installation, commissioning, preventative maintenance, and specialized services, Parker is redefining customer service.

Filter Elements and Consumable Parts	Maintenance, Repair and Overhaul	Customer Support	Specialized Services
Genuine Replacement Filter Elements Preventative Maintenance Kits Repair Kits Installation Kits Upgrade Kits	Installation and Commissioning Maintenance and Repair Updates and Upgrades Service Contracts Parts Service Warranty	Business Development Technical Support Group Training Technical Publications	Air Quality Testing Dewpoint Measurement Leak Detection Particle Counting Micro-biological Testing

CLASS	Dirt			Water	Oil
	Maximum number of particles per m ³			Pressure Dewpoint °F (°C)	(incl. vapor) mg/m ³
	0.1 - 0.5 micron	0.5 - 1 micron	1 - 5 micron		
1	100	1	0	-94 (-70)[-70°C]	0.01
2	100,000	1,000	10	-40 (-40)[-40°C]	0.1
3	-	10,000	500	-4 (-20)	1
4	-	-	1,000	37.4 (3)	5
5	-	-	20,000	44.6 (7)	-
6	-	-	-	50 (10)	-

Compressed Air Quality to ISO 8573.1 - The Industry Standard Method for Specifying Compressed Air Cleanliness

The ISO 8573.1 international standard for compressed air quality provides a simple system of classification for the three main contaminants present in any compressed air system - dirt, water, and oil. To specify the quality class required for a particular application, simply list the class for each contaminant.



NEXT STEPS

To find out more about Parker's expertise and solutions for non-cycling refrigerated air dryers please call 800 343 4048.

Worldwide Filtration Manufacturing Locations

North America

Compressed Air Treatment

Industrial Gas Filtration and Generation Division

Lancaster, NY
716 686 6400
www.parker.com/igfg

Haverhill, MA
978 858 0505
www.parker.com/igfg

Engine Filtration

Racor

Modesto, CA
209 521 7860
www.parker.com/racor

Holly Springs, MS
662 252 2656
www.parker.com/racor

Hydraulic Filtration

Hydraulic & Fuel Filtration

Metamora, OH
419 644 4311
www.parker.com/hydraulicfilter

Laval, QC Canada
450 629 9594
www.parkerfarr.com

Velcon
Colorado Springs, CO
719 531 5855
www.velcon.com

Process Filtration

domnick hunter Process Filtration

SciLog
Oxnard, CA
805 604 3400
www.parker.com/processfiltration

Water Purification

Village Marine, Sea Recovery, Horizon Reverse Osmosis

Carson, CA
310 637 3400
www.parker.com/watermakers

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Compressed Air Treatment

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BRO-PRD-PNC_1018



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State of California ONLY
WARNING: Proposition 65
The products described herein can expose you to chemicals known to the State of California to cause cancer or reproductive harm.
For more information: www.P65Warnings.ca.gov