PureAir
Compressed Air Pre-filtration System

Part Number : See back page

Service Kit : Contact us for details

*Your local **gas generation** partner*

Description

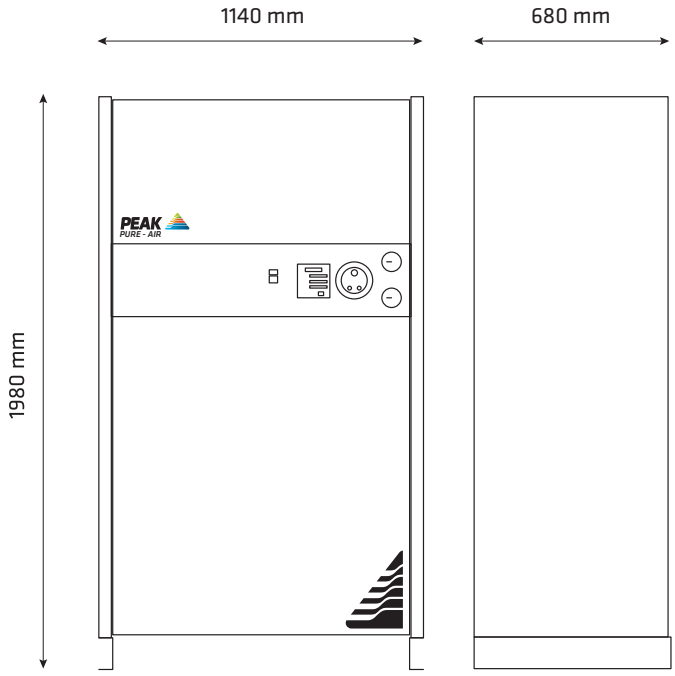
PureAir is a fully integrated and combined compressed air dryer and pre-filtration system designed to remove moisture, dust particulates and hydrocarbons. Delivering a robust, energy efficient and hassle-free compressed air purification for those critical applications where optimum quality ISO8573-1:2010 Class 1.2.1 compliant air source is required. PureAir conveniently integrates pre-filters, desiccant dryers, carbon bed purifiers and post filters into one compact and easy to install unit*. PureAir is the recommended pre-filtration solution to ensure optimum quality inlet gas and full system protection for Peak's iFlow high purity, high flow nitrogen generator system.

*Requires minimal lifetime maintenance, namely desiccant cartridge replacements.

PureAir 150-300 models

Applications

- -iFlow
- -iFlowLab



PureAir 150-300 models

Key Features

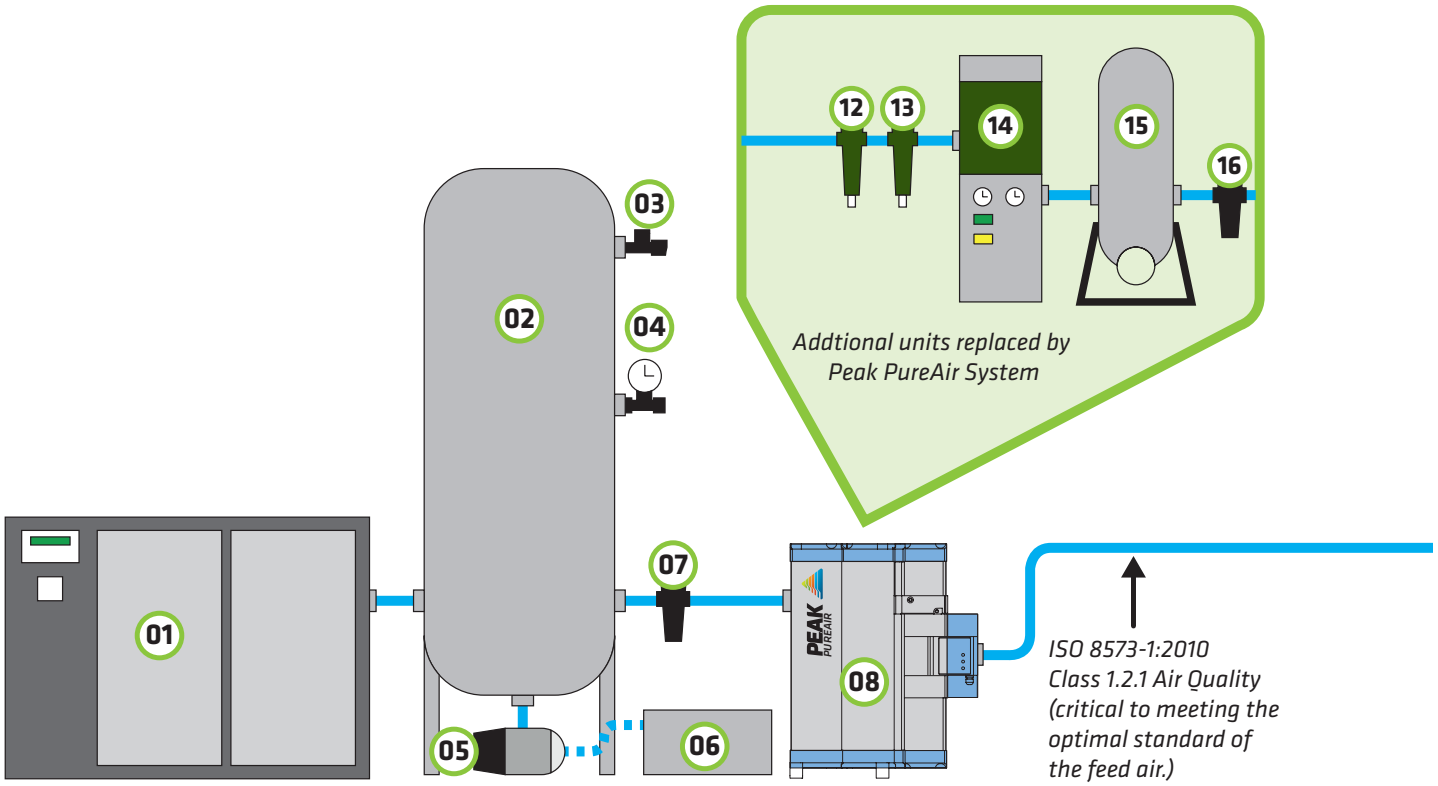
- Fully integrated pre-filtration, post-filtration, drying and carbon purifier
- Recommended air pre-filtration system for Peak i-Flow and Peak i-FlowLab nitrogen generators
- Can be used for applications requiring very high quality compressed air
- Single system for quicker installation and lower costs
- Low on-going maintenance costs - hassle free
- Compact, low footprint making most of available space
- Fully compliant with ISO8573-1:2010 Class 1.2.1 (Contaminants and purity classes)
- For use with even with oil-free compressors, PureAir removes any contaminants from its source
- Robust system protection, preventing contaminants entering vulnerable components down-stream
- Smart energy efficient system, with ultra-economy modes on the larger models (>150 m3/hr)
- Self-diagnostics, measures flow into the system and higher flow models measure dryness in the system

Why specify PureAir pre-filtration?

Many critical applications require an advanced pre-filtration system, the Peak PureAir comes with additional components, namely a triple pre-filter, desiccant dryer technology, and carbon beds for hydrocarbon removal and smart control technology. The additional pre-filters allow the PureAir to ensure the removal of impurities at higher flow rates, from 150m3/hr to 375m3/hr (with larger flows available upon request) the smart control technology measures the dryness (PDP) or the volumetric flow of the air in the system. Communicating this to the desiccant dryer, PureAir will dry the air at the most efficient rate, controlling and minimizing the purge loss, whilst also allowing parameters to be set on some units, therefore reducing the electrical demands of the upstream compressor and decreasing electrical running costs.

Peak can maintain the PureAir system, protecting the productivity of the operating facility, reducing downtime and lengthening the life of the system.

Fully integrated pre-filtration - system example



Ref	Description	Ref	Description		Ref	Description
1	Compressor	5	Auto Condensate Drain	Alternative to Peak Pure Air System	12	1 µm Coalescing Filter
2	Wet Air Receiver	6	Oil/Water Separator (Optional)		13	0.01 µmCoalescing Filter
3	Pressure Release Valve	7	Bulk Water Separator (Optional)		14	Desiccant Dryer (-40° Cpdp)
4	Pressure Gauge	8	Peak PureAir System		15	Carbon Bed
					16	Post Filter

PureAir quality

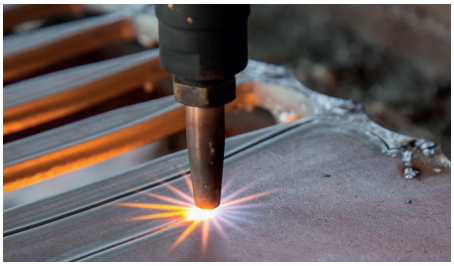
Refrigerated air dryers, are used to supply compressed air for a vast array of applications but in many cases the air produced by these systems contains high water vapor content not suitable for most applications.

Furthermore, refrigerated air dryers also operate at a higher Pressure Dewpoint, allowing the growth of micro-organisms, additional contaminants to air which are not suitable for applications where accuracy is critical such as food & beverage, medical, pharmaceuticals, electronics and breathable air. A PDP of less than -26°C will inhibit the growth of any micro-organisms in the air distribution lines.

Pressure Dewpoint of air from the PureAir system is up to 60 times dryer than air delivered from a refrigerated air dryer (when processed through the PureAir desiccant dryer at a -40°F (-40°C) as opposed to a refrigerated dryer with a +37.4°F (+3°C) PDP).

Peak PureAir achieves a quality equal to, or better than ISO8573-1:2010 Class 1.2.1. Suitably designed and specified for the deployment site with all relevant correction factors calculated to ensure a consistent supply of highest quality, low particulate, -40°C PDP, and residual oil vapor of <0.01mg/m3 air.

Typical Applications



Clinical Applications	Food & Beverage	Manufacturing
- Dentistry air	- Food testing	- Advanced pneumatics
- Pharmaceutical products	- Food packaging	- Plastic injection molding
- Medical air	- Dairy	- Hard disk manufacturing
- Cosmetics	- Breweries	- Forging

Smart Economics

When installed with a Peak i-Flow or i-FlowLab system, the PureAir can be used to supply a wide variety of applications including modified atmosphere packaging, metallurgy, laser cutting, electronic component supply, purging and plastic injection molding.

The cost of operating conventional air dryers can be high, especially if not set-up correctly. Regeneration of expelled gas from desiccant drying alone can account for up to 80% of total operation costs. At higher flow rates this cost is exacerbated and the PureAir system has been designed to alleviate these costs, providing substantial savings on energy consumption.

By integrating and correctly maintaining a Peak PureAir with a nitrogen generation system, the efficiency and longevity of the CMS will be maintained allowing for a long and productive operational life.

In order to optimize the PureAir for its specific purpose, a Peak engineer will manage the installation conforming with ISO8573-1. The PureAir system's installation will be positioned in your facility to maximize its performance, as near as possible to the application, whilst minimizing hassle to the user.

Peak PureAir	0150	0175	0225	0300	0375
Volume flow in m3/h	150	175	225	300	375
Regeneration air losses	23.0	26.3	34.0	45.0	56.0
Volume flow out	121.7	142.7	183.2	244.7	306.1
Pressure loss initial mbar	290	170	190	240	350
Dimensions					
Width mm (inch)	1140 (44.88)				1580 (62.20)
Height mm (inch)	1980 (77.95)				2190 (86.22)
Depth mm (inch)	680 (26.77)				770 (30.31)
Ordering Information					
Part Number (110V / 60Hz)	20-8210	20-8211	20-8212	20-8213	20-8214
Part Number (240V / 50 Hz)	20-8110	20-8111	20-8112	20-8113	20-8114

(*) All performance data is based on 7 bar(g) inlet air pressure & 35 deg C ambient temperature. Flow reference conditions, 1 bar (abs), 20 deg C - correction factors required for all other input parameters. Please contact your Peak technical representative for more information.

[PEAK Protected]™

Peak Scientific gas generators define the benchmark in reliability, convenience and performance in laboratories around the world, and come backed by a 12 month warranty. Beyond this period however you can ensure that you're investment continues to be **[Protected]** by our comprehensive generator care cover.

Our world-class aftercare support packages deliver a program of scheduled preventative maintenance whilst giving you the reassurance of instant access to worldwide technical support and priority on-site response in the untimely event of a breakdown.

Peak Scientific UK
Tel: +44 (0)141 812 8100
Fax: +44 (0)141 812 8200

Peak Scientific North America
Tel: +1 866 647 1649
Fax: +1 978 608 9503

For a full list of our worldwide office locations, please visit:

Web: www.peakscientific.com
Email: marketing@peakscientific.com

Peak Scientific's Quality Management System conforms to: ISO:9001:2008

FM 515973

THE QUEEN'S AWARDS FOR ENTERPRISE: 2014

THE QUEEN'S AWARDS FOR ENTERPRISE 2011

Product Certifications

CE