



GAS





GAS

Gas Generators	47	P-ED Stainless steel filterhousing	52
Mini Nitrogen Generator	49	Activated carbon element	53
Compact Nitrogen Generator	50	Process air prefilter element	54
Compact Oxygen Generator	51	Particle filter	55
		CO Filter	56

Icon Guide



Material(s)
For filter elements this is describing the filter media.



Certificate(s)
FDA or PED? You find any certificate here.



Flow
Recommended max. flow unless otherwise described.



Surface Roughness
The roughness of the filter housing surface. Described in μm .



Dimensions
For filter elements this describes the length.



Filtration Rate
The micron rating of the filter element.



Inlet/Outlet Connection
Refer to the table if the filterhousing has various connection sizes.



Diameter
The cartridge diameter of filter elements.



Effectivity
Describes the retention of particles equal to the micron rating.



End Cap
See guides for overview of end caps.



Pressure
Recommended max. pressure unless otherwise described.



Differential Pressure
Recommended max. diff. pressure unless otherwise described.



O-ring Material
Describes the standard o-ring. We can supply different materials.



Temperature
Recommended max. temperature unless otherwise described.



Dew Point
Describes the achievable dew points.



THE SCANDINAVIAN FILTRATION PARTNER

Ultrafilter Scandinavia offers a wide selection of filtration products for compressed air, liquids, water and gas. We have stock in Denmark and from here we distribute all of our products to Scandinavia and the Baltic countries.

Ultrafilter Scandinavia is a part of the Ultrafilter Group. Production is in Germany and we have several subsidiaries in Europe.

From all locations, you can buy our products on local websites. Information about our products as well as brochures and manuals, can be found on our website. We can adapt all of our filtration products to your needs, and we offer visits from our consultants in order to find the right solution for you.

We have a huge selection of compressed air filters, that are compatible with compressed air systems of all brands. We also offer compressed air dryers, adsorption and membrane dryers in addition to auto drain compressors, compressed air tanks and oil-water separators. Additionally, we have sterile compressed air filters for the food and beverage applications.

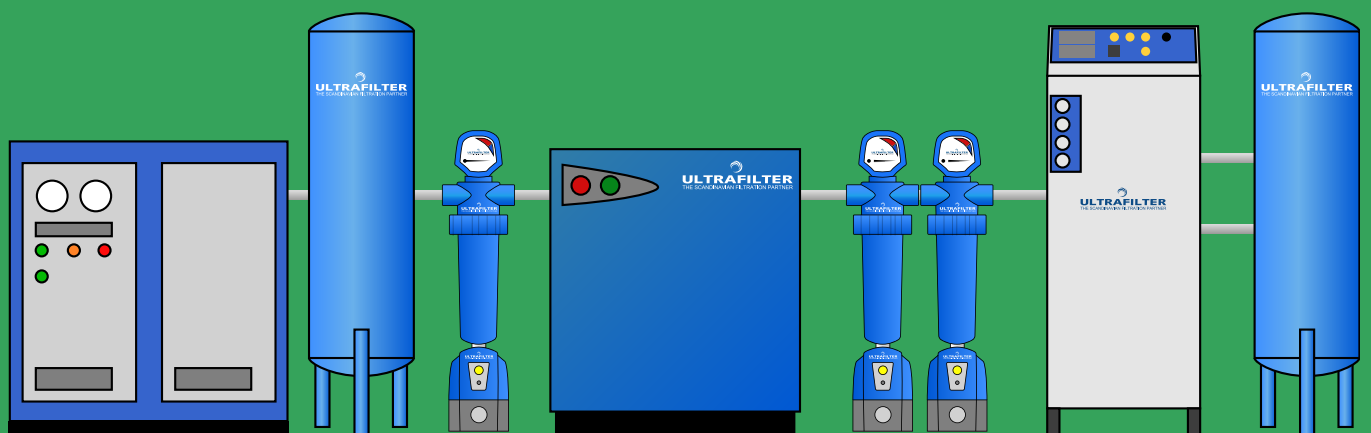
We offer all kinds of filters for liquids such as bag filters, cartridge filters and membrane filters, with industrial applications, such as coolant. We have a great deal of experience with filter solutions for the food and beverage industry, and our products are approved by EC 1935/2004 as well as FDA. We also carry a selection of filters for drinking water.

We have one of the best generators for manufacturing nitrogen and oxygen and for filtering all kinds of gas like methane and bio gas.

Ultrafilter Scandinavia has a wide selection of reverse osmosis-systems. Sizes that fits all types of companies.

Ultrafilter designs and manufactures components and systems for the purification of compressed air, technical gases water and liquids.





GAS GENERATORS

Produce your own nitrogen or oxygen on site



Ultrafilter has one of the best solutions to produce nitrogen and oxygen.

Ultrafilter offers highly economical nitrogen generators and systems from small nitrogen generator units to large tonnage nitrogen plants suitable for refining, chemical processing and other applications. Low investment costs and low energy consumption are benefits of our nitrogen generators, guaranteeing them a solution for every situation.

Ultrafilter Nitrogen Generators is a modular system that can be increased as needed and with the option of built-in (O₂) oxygen meter.

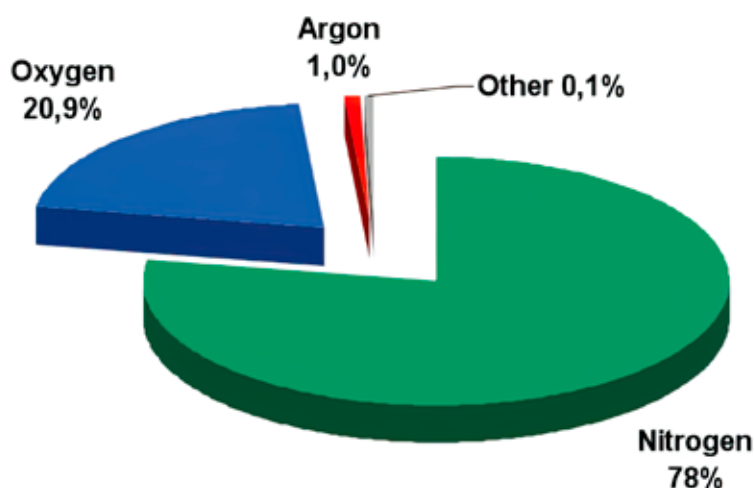
The system works by PSA principle (Pressure Swing Adsorption). High reliability, low operating costs and long service life, combined with good service, make our plants chosen by more and more customers.

PSA process utilizes CMS (carbon molecular sieve) instead of the zeolite. Because of the adsorptive properties, which are used by CMS Special treated, it is possible to produce nitrogen with 2 adsorption tower and compressed air.



Benefits:

- We offer modular PSA plant which can be expanded by increased demand for nitrogen
- The reliability of operation outstanding (low annual service charges)
- High efficiency (Air / N₂)
- PLC control (standard simens)
- Small footprint
- Your own independent supply of nitrogen on site and liberation from the ever escalating costs of nitrogen from industrial gas suppliers
- Savings of over 50% compared to the industrial gas suppliers
- Built-O₂ (oxygen) gauge, with the lives of over four years without the need for calibration
- Danish manual and specifications
- Purities from 3% to 99.999% (10 ppm oxygen)
- Remote monitoring and control
- Expected life of the facility in over 10 years







MINI NITROGEN GENERATOR

N2-MINI

Technical Data

 Ambient: 5°C - 40°C

 230V AC - 2.6 A

Features & Benefits

Duty Cycle: S1 - 100%

Noise Level: Below 60 dB(a)/1m

N2-10 includes 6 liter N² holding tank

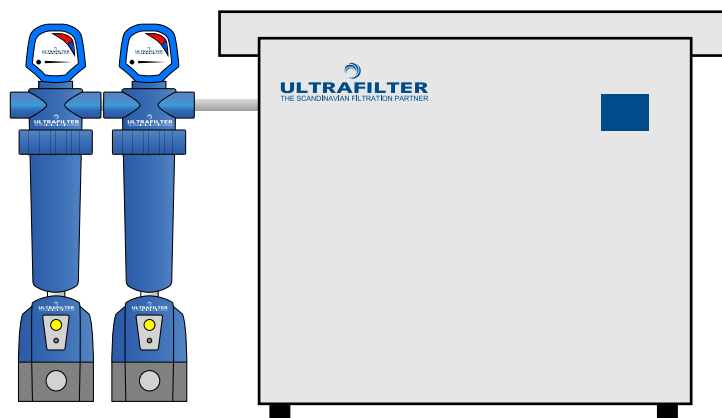
Feed Air ISO 8573 Class: 2.4.1



The N2 nitrogen generator is a high quality compact nitrogen generator for flow between 10 and 83 l/min.

Wall or floor mount is possible.

The small model N2-10 comes with an integrated long life, oil-free compressor.



Model	Nitrogen Capacity l/ min	Nitrogen Pressure bar g	Nitrogen Purity @ 20°C	Feed Air Consumption l/ min	Feed Air Pressure bar g	Weight kg	Cabinet Dimensions mm
N2-10	10	6	99,8%	Built-in Compressor	7	52	650 x 550 x 275
N2-15	15	6	99,5%	45	7	45	650 x 550 x 275
N2-30*	30	6	99,5%	90	7	48	650 x 550 x 275
N2-40*	40	6	99,5%	120	7	75	650 x 800 x 275
N2-80	83	6	99,5%	240	7	115	650 x 1600 x 275

* Option to buy with compressor

COMPACT NITROGEN GENERATOR

NitroModule



Technical Data

	10 bar
	-40 °C
	0,5 m³/h - 3,8 m³/h
	99% - 99,65%
	<65 dB (A)
	+5 °C to +40 °C (protected enviroment)

The membrane air separation process of the membrane generators is based on the principle of selective gas permeation. The module in which the nitrogen and oxygen separation takes place is a cylindrical bundle of hollow fiber membranes.

Each bundle contains several million fibers, each about the size of a human hair. Pressurized air enters one end of the fibers and flows to the opposite end on the module through the fiber cores. Gas separation takes place as the pressurized air contacts the membranes. “Fast” gases such as oxygen, carbon dioxide, and water vapor quickly permeate through the fiber walls and exit as an enriched gas at the vent port on the side of the module case.

Nitrogen - a slower gas - does not permeate through the fiber as quickly under flowing conditions. It flows down the core of the fibers and exits at the product manifold at the end of the high-pressure shell.

Model	Nitrogen Production Flow (Nm³/h)						
	Oxygen Content	0,35%		0,5%		1%	
	Feed Air Pressure	7,5	10	7,5	10	7,5	10
NitroModule 1	Nitrogen Flow	0,5	0,6	0,6	0,7	0,9	1,1
	Nitrogen Pressure	6,6	8,6	6,4	8,4	6,2	8,2
	Feed air consumption	5,2	5,9	5,4	6,1	5,8	6,8
NitroModule 2	Nitrogen Flow	1,0	1,2	1,1	1,4	1,8	2,2
	Nitrogen Pressure	6,5	8,5	6,3	8,3	6,1	8,1
	Feed air consumption	10,4	11,8	10,8	12,2	11,6	13,6
NitroModule 3	Nitrogen Flow	2,0	2,7	2,1	3,0	2,7	3,8
	Nitrogen Pressure	6,4	8,4	6,2	8,2	6	8
	Feed air consumption	8,3	10	8,6	10,3	8,3	11,2

Applications







- Chemical Blanketing
- Gas assisted injection moulding (GAIM)
- Flammable liquids inerting
- Centralized heating stations
- Food & Beverage inerting
- Metals 3D printing



COMPACT OXYGEN GENERATOR

OxyModule

Technical Data

-  3,8 bar
-  <-50 °C
-  Up to 20 l/min
-  93% +/- 3%
-  58 dB (A)
-  +5 °C to +35 °C (Indoor environment)

Features & Benefits

- Plug & Play oxygen generator
- Built-in compressor



Ultrafilter OxyModul is an all-included oxygen generator based on the PSA (Pressure Swing Adsorption) technology.

Ready to be connected to power supply and functioning with ON/OFF switch on a fully automatic mode, this on-site production system is particularly easy to operate and an ideal alternative to oxygen cylinders.

It can be connected directly to an anesthesia machine & recovery ventilator through an oxygen outlet onto the front panel, or used as main oxygen supply for healthcare facilities with a small piping network.

OxyModul is also appropriate to provide medical oxygen to several patients under oxygenotherapy.

Applications

- Small healthcare facilities with a small piping network
- Facilities with no piping system
- Anaesthesia and recovery ventilators
- Oxygen cylinders filling at 150bar for capacities of 5 to 20 litres (with OxyPlus Technologies cylinder filling systems)

Medical Quality

OxyModul generators are CE marked as Medical Devices, class IIb and comply with all medical oxygen standards and regulations: ISO 10083, ISO 7396-1, Oxygen 93%* Monograph of European and United States Pharmacopoeias, HTM 02-01.







Model	Oxygen Flow	Oxygen Pressure	Dimensions (cm)			Weight
			Width	Depth	Height	
OxyModul 10	10 l/min	3,8 bar	40	42	106	60 kg
OxyModul 20	20 l/min	3,8 bar	40	60	110	130 kg

P-ED Stainless Steel Filterhousing

P-ED - 25bar



Technical Data

-  SS316L
-  Mechanical polished Ra <0,8µm
-  Op. temp. -20°C - +150°C
-  EPDM
-  25 bar
-  UF conn. (Code 7 available 226)

The P-ED Stainless Steel filter housings are made for high pressure - up to 25bar.

The series is available with sizes in 1 cartridge and 3 cartridges and from 10" to 30" cartridge heights. Cartridges socket connection is standard in UF-connection and available in Code7 (226) Bayonet.

Data			
Housing type	Single Filter housing	3-Round Filter housing	3-Round Filter housing
Size	5"-30"	3x10"-3x30"	3x10"-3x30"
Material	SS316L	SS316L	SS316L
Surface finish	Mechanical polished Ra<0,8µm	Mechanical polished Ra<0,8µm	Mechanical polished Ra<0,8µm
Sealing	EPDM	EPDM	EPDM
Cartridge Socket	Code 7	Code 7	Code 7
Inlet/Outlet	5"=DN25, 10"=DN50, 20"=DN80, 30"=DN100	Tri clamp/BSPF	DN50/DN80 Flange
Weight (kg)	8 (5"), 10 (10"), 14 (20"), 17 (30")		

Type	Connection	Flow Air V(7bar)	Pressure	Element (no)	Internal connection	Steel Type
P-ED 0027	1" / DN25	270 m3/h	25 bar	05/25	UF/C7	SS316
P-ED 0072	2" / DN50	720 m3/h	25 bar	10/30	UF/C7	SS316
P-ED 0144	3" / DN80	1440 m3/h	25 bar	20/30	UF/C7	SS316
P-ED 0192	3" / DN100	1920 m3/h	25 bar	30/30	UF/C7	SS316
P-ED 0432	DN100	4320 m3/h	25 bar	3x20/30	UF/C7	SS316
P-ED 0576	DN100	5760 m3/h	25 bar	3x30/30	UF/C7	SS316
P-ED 1152	DN150	11520 m3/h	25 bar	6x30/30	UF/C7	SS316

Correction Factors																
Operating Pressure	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Correction factor	0,25	0,36	0,5	0,6	0,75	0,9	1	1,1	1,2	1,4	1,5	1,6	1,75	1,9	2	2,1

Correction Factors				
Operating Pressure	18	20	22	25
Correction factor	2,3	2,6	2,9	3,6



PROCESS AIR PREFILTER ELEMENT

P-FF / P-MF / P-SMF (HT-CR)

Technical Data

Binderfree nanofibres, Pleated cerex

0,01 µm

99,999% - 99,99999%

-20°C to 80°C (120/180°C HT-CR)

Max. 5 bar @ 20°C

Stainless steel SS304 end caps
none for PP casing elements

Perbunan Gasket (others available)

FDA CFR article 21/EC 1935/2004
Validated and Approved

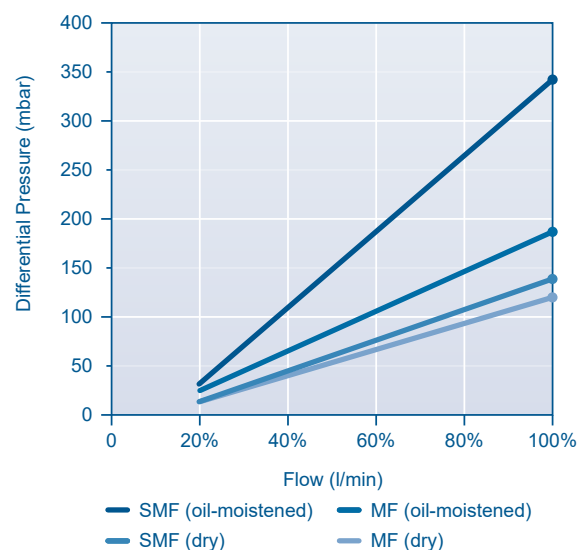


All our standard coalescing, particulate and activated carbon filters are available as pre-filters for our stainless steel filter housings for critical installations.

Thanks to the unique combination of binder free, non-woven nanofiber filter media and our special pleating techniques, we can achieve a reduction of energy costs up to 70%, at a higher than regular efficiency.

The new nanofiber material from ultrafilter is oleo phobic, which means that the oil and water particles are actively rejected in order to keep a low differential pressure drop, and consequently the operating costs are reduced to a minimum compared with a conventional filter element.

All metal components on the prefilter elements are made of stainless steel.



Type	Filtration rate	Efficiency	Residual oil content	Oil retention rate acc. ISO 12500-1	Start-up differential pressure	Max. differential pressure
P-FF	0,01 µm	99,999%	0,1 mg/m ³	99,6%	0,04 bar	5 bar at 20°C
P-MF	0,01 µm	99,99998%	0,03 mg/m ³	99,7%	0,08 bar	5 bar at 20°C
P-SMF	0,01 µm	99,99999%	<0,01 mg/m ³	99,8%	0,09 bar	5 bar at 20°C
P-AK	Activated Carbon	N/A	0,003 mg/m ³		0,07 bar	2 bar at 20°C

ACTIVATED CARBON ELEMENT

P-AK



Technical Data

- Activated Carbon
- 99,999% - 99,99999%
- 20°C to 80°C
- Max. 2 bar @ 20°C
- Stainless steel SS304 end caps
- EPM (others available)
- FDA CFR article 21/EC 1935/2004
Validated and Approved

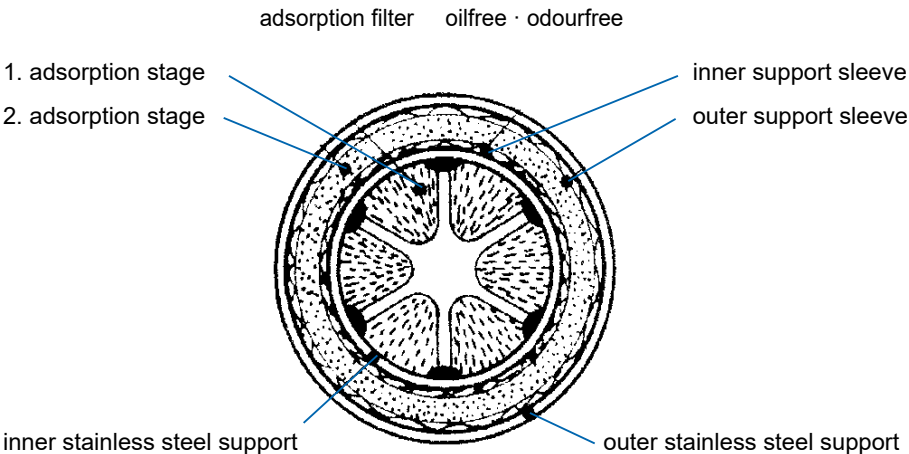
Activated carbon filters P-AK, manufactured by ultrafilter GmbH, are designed for removal of oil vapour and other hydrocarbons with absolute retention efficiency .

The P-AK filter elements consist of a twostage filtration. All particles are kept in a nanofibre depth filter media, while the activated carbon adsoorpts all oil vapours and gaseous hydrocarbons.

Applications

- Chemical and petrochemical industry
- Pharmaceutical industry
- Breathing air
- Prefiltration of sterile filters
- Filling machines
- Food & beverage industry
- Packing machines
- Process industry
- Steam applications

Adsorption efficiency of P-AK	
Ethane	Slight
Toluene	Very Good
Acetic acid	Very Good
Methanol	Good
Isopropyl ether	Very Good
Methyl acetat	Good
Sulphuric acid	Very Good
Hydrogen sulphuride	Poor
Chlorine	Good
Freon	Poor
Ammonia	Poor
Citrus fruits	Very Good
Perfumes	Very Good















PARTICLE FILTER

P-GS

Technical Data

-  Sintered steel SS316L
-  1 µm, 5 µm or 25 µm
-  98 (steam) / 100% (gasses)
-  -20°C to 210°C
-  Max. 5 bar
-  Stainless steel SS304 end caps
Code Y (UF), DOE or Code 7
-  EPDM (others available)
-    FDA CFR article 21/EC 1935/2004
Validated and Approved

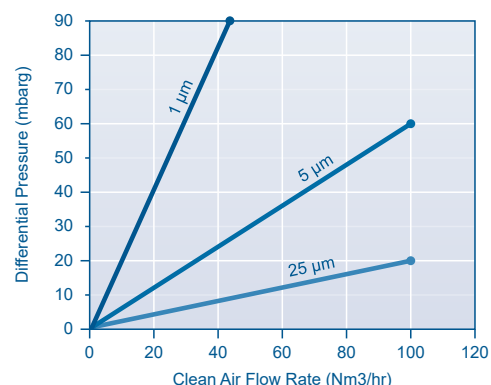


The ultrafilter P-GS filter is designed for removal of particles from gases, liquids and particularly steam.

The P-GS consists of a restorable weldless filter pipe made from sintered stainless steel. The filter is well suited for culinary steam – where contact with production machines and end product is needed.

The P-GS is suited for use in temperatures ranging from -20°C to 210°C and has a maximal differential pressure tolerance of 5 bar.

Flow rate of a 10" P-GS element - air (1bar, 20°C) / saturated steam 121°C



Applications	1 µm	5 µm	25 µm	Conversion factor for steam temperature				
Food Contact	•			Steam temperature °C	110	121	140	160
General use of steam		•		Conversion factor	0,5	1	2	3
Pre-filtration of steam			•	Filtration Surface				
				494 cm2 per 10" element (10/30) (250 mm)				

OPTIONS



Viton Seal
-15 / +200°C



PTFE Seal
-200 / +260°C



Silicone Seal
-55 / +200°C








Welded End Caps

H² FILTER ELEMENT

(Catalyst (Hopcalite) + Particulate)



Technical Data

-  Borosilicate micro fibers
-  1,5 - 45°C
-  0-16 barg
-  PA6 end caps
-  NBR

APPLICATION:

Compressed breathing air

Class 1 Solid particles rating According to ISO8573-1

New H² two stage filter elements have been specifically developed for high efficient reduction of carbon monoxide as well as some other substances⁽²⁾ from compressed breathing air⁽¹⁾.

In first stage Hopcalite catalyst reduces specified substances from the air and in second stage depth fiber filter media intercepts all Hopcalite dust particles.

It is essential that coalescing filter element is installed as pre-filter to the H² grade filter and that relative humidity is sufficiently low.

⁽¹⁾For any other technical gas please contact us.

⁽²⁾For any other substance please contact us or your local dealer.

⁽³⁾H² grade filter element can be used in variety of applications. For applications not listed please contact us or your local dealer.

Technical Specifications / Materials

Operating pressure	0 - 16 barg
Inlet humidity	-40°C (pressure dew point)
Particle retention (nominal)	99,9999% (0,1µm)
Particle retention rate ISO ⁽⁴⁾	99,98%
Flow direction	INSIDE to OUT
Filter media	Borosilicate micro fibers
Drainage media	Polyester based polyurethane
Support	Stainless Steel 1.4301
Chamber	Acryl
Bonding	Polyurethane
Endcaps	PA6
Sealing	NBR

⁽⁴⁾Tested according to ISO12500-3, 1bar(a), nominal flow, 06050 M, Most penetrating particle size MPPS 0,3mm

SHOP ONLINE

At our online shop you will find a wide selection of filtration products ready for you to order.

www.ultra-filter.com



ABOUT US

Ultrafilter Scandinavia offers a wide selection of filtration products for compressed air, liquids and gas. We have stock in Denmark and from here we distribute all of our products to Scandinavia and the Baltic countries.

Ultrafilter Scandinavia is a part of the Ultrafilter group. Our production facility is in Germany and we have several subsidiaries in Europe.

You can buy our products on local websites. Information about our products as well as brochures and manuals can be found on our website (www.ultra-filter.com).

ULTRAFILTER SKANDINAVIEN APS