

Technical Information

SEPURAN® N₂ Selective System

SEPURAN® – N2 S-1-Sys 6L-1 2.5-1.5N A6 O25AE



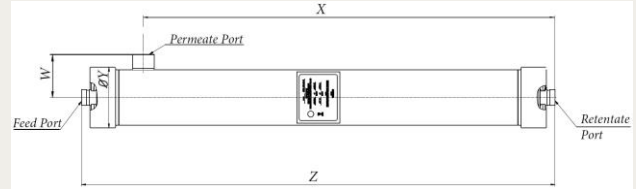
SEPURAN® N₂ Selective system (sample picture)

Associated documents:

- User manual SEPURAN® N₂ Selective system
- Technical drawing

SEPURAN® N₂ is a hollow fiber membrane gas separator that is used to remove oxygen from compressed air, resulting in N₂ purities between 95–99.5%. The polymer is specially tailored for nitrogen generation. Unlike other gas separation membranes, SEPURAN® N₂ membranes are characterized by a very high flow capacity with a very good air factor, resulting in the optimization of compression and operating cost.

DIMENSIONS



Permeate port – W	131 mm 5.16 inch
Permeate port – X	1 809 mm 71.22 inch
Max diameter – Y	184 mm 7.24 inch
Total length – Z	1 998 mm 78.66 inch
Feed / Retentate connection	NPT-Thread 1½" and Victaulic 2"
Permeate connection	NPT-Thread 2½"
Weight	48.2 kg 106.3 lbs
Drawing number	EVK-Hsg 6L-1 2.5-1.5N 6 25AE-C-V01-A

For more specific dimensions of the system, please use the corresponding technical drawing.

SPECIFICATIONS

Design, manufacturing and testing acc. to	PED / ASME / CRN
External material housing	SS 316 – 1.4404
External material cartridge tube	EN AW 6060
Operating pressure Feed- / Retentate side	≤ 25.0 barg ≤ 362.6 psig
Operating pressure Permeate side	≥ 0.0 barg ≥ 0.0 psig
Transmembrane pressure¹	≤ 25.0 bar ≤ 362.6 psi
Max. actual permeate flow rate	≤ 200 Am ³ /h ≤ 117.8 acfm
To be used with	Pre-treated pressurized air
Other Gases	Contact the supplier
Permitted temperature range	1 – 70°C 34 – 158°F
Inlet air requirements	Particles, aerosols: ISO 8573-1:2010 class [1:-:1] Condensation of water must be avoided

¹The specified transmembrane pressure (TMP) must not be exceeded under any circumstances.

CHARACTERISTIC PERFORMANCE DATA

	N2 produced in Nm ³ /h at 9.0 barg; 25°C in scfm at 131.0 psig; 77°F ²	Air / N2 ratio
99%	9.3 5.8	2.9
98%	12.9 8.0	2.4
97%	16.2 10.1	2.1
96%	19.7 12.3	2.0
95%	23.2 14.4	1.8

The composition of the product was determined by measurement of the residual oxygen content. The “N2 produced” value is the inert gas content. The pressure is the retentate pressure, namely N2 produced stream discharge pressure. The inlet air divided by “N2 produced” gives the air factor or air/N2 ratio. The lower the air factor, the lower the investment and operating costs.

CAUTION

Nitrogen gas is colorless, odorless and nonflammable. It is non-toxic but may cause asphyxiation by displacement of oxygen. Ensure proper ventilation. Oxygen is a colorless, odorless and oxidizing gas. It is non-toxic, but at high concentrations in the atmosphere it accelerates combustion and increases the risk of fire and explosion of combustible or flammable materials.

OPERATION

The proper operation of **SEPURAN® N2 Selective** systems is described in the associated user manual.

PRODUCT CODE	PRODUCT NAME
99131451	SEPURAN® – N2 S-1-Sys 6L-1 2.5-1.5N A6 O2SAE

² Norm = 0°C, 1 atm | 32°F, 1 atm;
Standard = 15.5°C, 1 atm | 60°F, 1 atm

PRODUCT KEY TRANSLATION

	Trademark	Product Group	Product Name	Product Generation	Product Design	Dimension	Housing Generation	Permeate Port	Feed- / Retentate Port	Connection Type	Material Cartridge	Material Housing	Transmembrane Pressure	max. Pressure Housing	Certification Housing
PRODUCT NAME	SEPURAN®	N2	S	- 1	- Sys	6L	- 1	2.5	- 1.5	N	A	6	O	25	EC
					System	6 inch long		Permeate Port 2½"	Feed and Retentate Port 1½"	NPT-Thread	EN AW 6060	SS 316 - 1.4404	≤ 25.0 bar ≤ 362.6 psi	≤ 25.0 barg ≤ 362.6 psig	PED / ASME / CRN

Disclaimer

This information and any recommendations, technical or otherwise, are presented in good faith and believed to be correct as of the date prepared. Recipients of this information and recommendations must make their own determination as to its suitability for their purposes. In no event shall Evonik assume liability for damages or losses of any kind or nature that result from the use of or reliance upon this information and recommendations. EVONIK EXPRESSLY DISCLAIMS ANY REPRESENTATIONS AND WARRANTIES OF ANY KIND, WHETHER EXPRESS OR IMPLIED, AS TO THE ACCURACY, COMPLETENESS, NON-INFRINGEMENT, MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE (EVEN IF EVONIK IS AWARE OF SUCH PURPOSE) WITH RESPECT TO ANY INFORMATION AND RECOMMENDATIONS PROVIDED. Reference to any trade names used by other companies is neither a recommendation nor an endorsement of the corresponding product, and does not imply that similar products could not be used. Evonik reserves the right to make any changes to the information and/or recommendations at any time, without prior or subsequent notice.

Evonik Fibres GmbH
Gewerbepark 4
4861 Schörfling/Austria

Phone +43 7662 6006-0
sepuran@evonik.com
www.evonik.com/sepuran
www.membrane-separation.com