Technical Information

SEPURAN® N2 – 4 inch standard

CONTENT

EVONIK Leading Beyond Chemistry

Technical Information

SEPURAN® N2 Cartridge

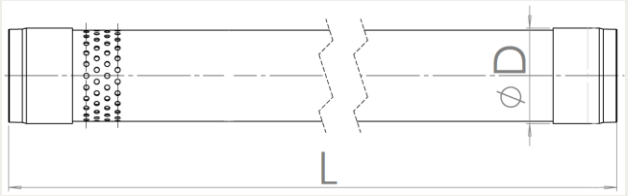
SEPURAN® – N2 Cart 100x1200 4 20

SEPURAN® N2 cartridge (sample picture)

Associated documents:
- User manual SEPURAN® N2 cartridge
- 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



Max diameter – D	108.7 mm | 4.28 inch
Total length – L	1 237 mm | 48.70 inch
Weight	8.3 kg | 18.3 lbs
Drawing number	EVK-Cart_4N-1-C-V01-A

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

SPECIFICATIONS

External material cartridge tube	SS 304 – 1.4301
Operating pressure Permeate side	≥ 0.0 barg | ≥ 0.0 psig
Transmembrane pressure	≤ 20.0 bar | ≤ 290.0 psi
Max. operating feed pressure[1]	≤ 20.0 barg | ≤ 290.0 psig
Max. actual permeate flow rate	≤ 70 Am³/h | ≤ 41.2 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

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

CHARACTERISTIC PERFORMANCE DATA

	N2 produced in Nm³/h at 7.0 barg; 25°C | in scfm at 102.0 psig; 77°F[2]	**Air / N2 ratio**
99%	8.6 | 5.4	3.7
98%	12.2 | 7.6	2.9
97%	15.5 | 9.7	2.5
96%	18.9 | 11.8	2.3
95%	22.5 | 14.1	2.1

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** cartridges is described in the associated user manual.

PRODUCT CODE	PRODUCT NAME
99097160	SEPURAN® – N2 Cart 100x1200 4 20

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

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Leading Beyond Chemistry

Technical Information

SEPURAN® N2 Cartridge

SEPURAN® – N2 Cart 100x1200 6 20

SEPURAN® N2 cartridge (sample picture)

Associated documents:
- User manual SEPURAN® N2 cartridge
- Technical drawing

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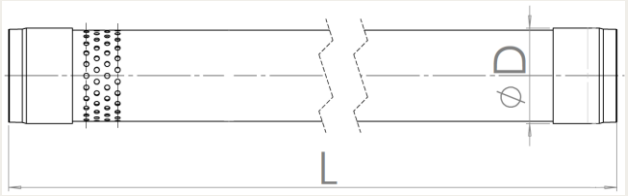

Max diameter – D	108.7 mm | 4.28 inch
Total length – L	1 237 mm | 48.70 inch
Weight	8.3 kg | 18.3 lbs
Drawing number	EVK-Cart_4N-1-C-V01-A

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

SPECIFICATIONS

External material cartridge tube	SS 316 – 1.4404
Operating pressure Permeate side	≥ 0.0 barg | ≥ 0.0 psig
Transmembrane pressure	≤ 20.0 bar | ≤ 290.0 psi
Max. operating feed pressure[1]	≤ 20.0 barg | ≤ 290.0 psig
Max. actual permeate flow rate	≤ 70 Am³/h | ≤ 41.2 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

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

CHARACTERISTIC PERFORMANCE DATA

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OPERATION

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

PRODUCT CODE	PRODUCT NAME
99102938	SEPURAN® – N2 Cart 100x1200 6 20

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

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Technical Information

SEPURAN® N2 System

SEPURAN® – N2Sys 100x1200 P1.5G 6 20AE

SEPURAN® N2 system (sample picture)

Associated documents:
- User manual SEPURAN® N2 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.

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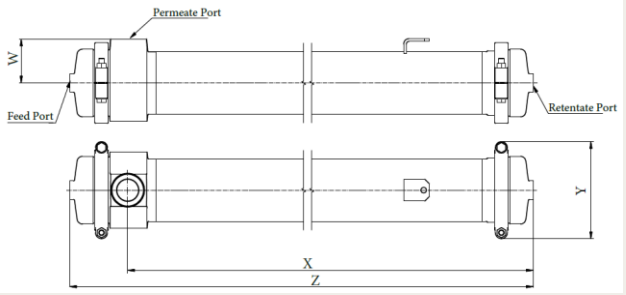

Permeate port – W	81 mm | 3.17 inch
Permeate port – X	1 185 mm | 46.65 inch
Max diameter – Y	178 mm | 7.01 inch
Total length – Z	1 292 mm | 50.87 inch
Feed / Retentate connection	BSPP–Thread ¾"
Permeate connection	BSPP–Thread 1½"
Weight	21.3 kg | 47.0 lbs
Drawing number	EVK–Hsg 4N–1 1.5–3/4G 6 20AE–C–V01–A

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

SPECIFICATIONS

Design, manufacturing and testing acc. to	EN / ASME
External material housing	SS 316 – 1.4404
External material cartridge tube	SS 304 – 1.4301
Operating pressure Feed– / Retentate side	≤ 20.0 barg | ≤ 290.0 psig
Operating pressure Permeate side	≥ 0.0 barg | ≥ 0.0 psig
Transmembrane pressure[1]	≤ 20.0 bar | ≤ 290.0 psi
Max. actual permeate flow rate	≤ 70 Am³/h | ≤ 41.2 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

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

CHARACTERISTIC PERFORMANCE DATA

	N2 produced in Nm³/h at 7.0 barg; 25°C | in scfm at 102.0 psig; 77°F[2]	**Air / N2 ratio**
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OPERATION

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

PRODUCT CODE	PRODUCT NAME
99111283	SEPURAN® – N2Sys 100x1200 P1.5G 6 20AE

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

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Technical Information

SEPURAN® N2 System

SEPURAN® – N2Sys 100x1200 P1.5G 6 20CN

SEPURAN® N2 system (sample picture)

Associated documents:
- User manual SEPURAN® N2 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.

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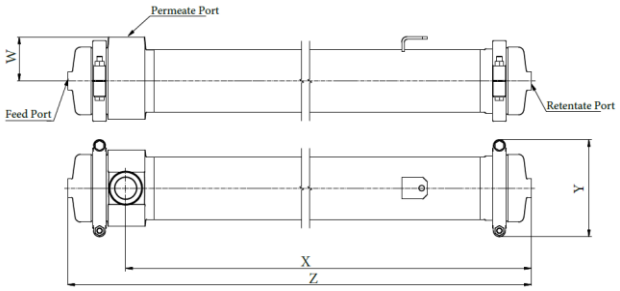

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Max diameter – Y	178 mm | 7.01 inch
Total length – Z	1 292 mm | 50.87 inch
Feed / Retentate connection	BSPP–Thread ¾"
Permeate connection	BSPP–Thread 1½"
Weight	21.3 kg | 47.0 lbs
Drawing number	EVK–Hsg 4N–1 1.5–3/4G 6 20CN–C–V01–A

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

SPECIFICATIONS

Design, manufacturing and testing acc. to	SELO
External material housing	SS 316 – 1.4404
External material cartridge tube	SS 304 – 1.4301
Operating pressure Feed– / Retentate side	≤ 20.0 barg | ≤ 290.0 psig
Operating pressure Permeate side	≥ 0.0 barg | ≥ 0.0 psig
Transmembrane pressure[1]	≤ 20.0 bar | ≤ 290.0 psi
Max. actual permeate flow rate	≤ 70 Am³/h | ≤ 41.2 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]
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OPERATION

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

PRODUCT CODE	PRODUCT NAME
99143389	SEPURAN® – N2Sys 100x1200 P1.5G 6 20CN

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

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SEPURAN® N2 System

SEPURAN® – N2Sys 100x1200 P1.5N-Ad 6 20AE

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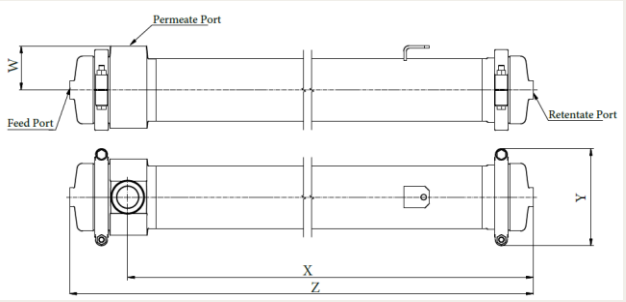

Permeate port – W	106 mm | 4.17 inch
Permeate port – X	1 205 mm | 47.44 inch
Max diameter – Y	178 mm | 7.01 inch
Total length – Z	1 331 mm | 52.40 inch
Feed / Retentate connection	NPT-Thread ¾"
Permeate connection	NPT-Thread 1½"
Weight	21.9 kg | 48.3 lbs
Drawing number	EVK-Hsg 4N-1 1.5-3/4N 6 20AE-C-V01-A

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

SPECIFICATIONS

Design, manufacturing and testing acc. to	EN / ASME
External material housing	SS 316 – 1.4404
External material cartridge tube	SS 304 – 1.4301
Operating pressure Feed– / Retentate side	≤ 20.0 barg | ≤ 290.0 psig
Operating pressure Permeate side	≥ 0.0 barg | ≥ 0.0 psig
Transmembrane pressure[1]	≤ 20.0 bar | ≤ 290.0 psi
Max. actual permeate flow rate	≤ 70 Am³/h | ≤ 41.2 acfm
To be used with	Pre–treated pressurized air
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OPERATION

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PRODUCT CODE	PRODUCT NAME
99143271	SEPURAN® – N2Sys 100x1200 P1.5N–Ad 6 20AE

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