

SEPURAN® NG

Membrane technology
for efficient natural gas
processing



**Consistently
high performance**

SEPURAN® NG is an especially robust, hollow-fiber membrane, which is based on a high-performance polymer that can withstand extreme pressure and temperatures, and features a stable performance even in the presence of H₂S, water or higher hydrocarbon concentrations.

**Modular
structure**

Our membranes have been designed for conventional, membrane-based natural gas processing plants.

As plug-in replacement for all standard 8" membranes no further adaptations are required to the existing equipment.

**SEPURAN[®] NG
VALUE CHAIN**

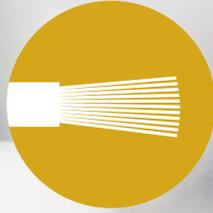


**EVONIK
BUSINESS**

Monomer



Polymer



Membrane



**Module/
Cartridge System**



**EVONIK
TECHNOLOGY
SUPPORT**



APPLICATIONS

**Offshore applications
with dedicated partners**



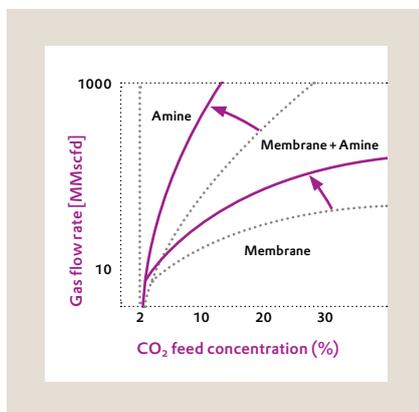
**Onshore applications
with dedicated partners**

THE SPECIAL ONE!

SEPURAN® NG is an especially selective and robust hollow-fiber membrane, which is based on a high-performance polymer that can withstand extreme pressure and temperatures.

This enables particularly selective separation of the sour gases from the natural gas, high tolerance of the higher hydrocarbons contained in the natural gas, and consistently high performance of the membrane throughout its lifetime. Overall, Evonik's innovative separation technology features significantly increased recovery of methane, which has a corresponding effect on the profitability of natural gas processing plants.

The membrane is designed for the challenging process conditions of natural gas processing with complex gas compositions and typical pressure and temperature conditions up to 70 °C. It can be used particularly effectively in natural gas sources with a high concentration of carbon dioxide because, under these conditions, the separating properties of the membrane remain intact.



Increasing performance

Performance improvements in membranes makes them more competitive to amines.

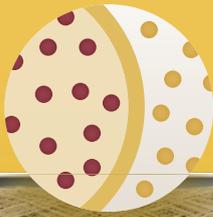
PERMEATE ←

FEED

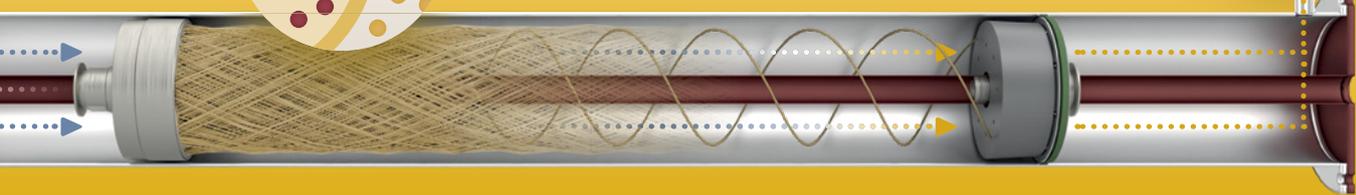


Plug-in replacements

for all standard 8" membranes make further adaption unnecessary



RETENTATE



How does it work?

Feed gas enters the cartridge through holes in the protective sleeve and is forced to flow through the structurally packed hollow fiber bundle. Fast-permeating gas components like CO_2 and H_2O can enter the

fiber lumen; the permeate gas is collected in the center tube. Slow components like CH_4 pass the bundle and leave the cartridge at the retentate end. An adjustable seal ring guarantees securely separated feed and retentate gas

zones. The retentate gas of the leading cartridge of a multiple cartridge arrangement becomes the feed gas of the next cartridge in the series. Typically 3 to 5 cartridges are connected in series in the same housing.

8" membrane system

consisting of a cartridge cast and a vessel

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