SEPURAN® NG
Membrane technology for efficient natural gas processing
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 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.

Consistently high performance

Modular structure
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 make them more competitive to amines.
Plug-in replacements for all standard 8’’ membranes make further adaption unnecessary.

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 CO₂ and H₂O can enter the fiber lumen; the permeate gas is collected in the center tube. Slow components like CH₄ 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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