

SF₆ Recovery

GENERON[®] Membrane Technology



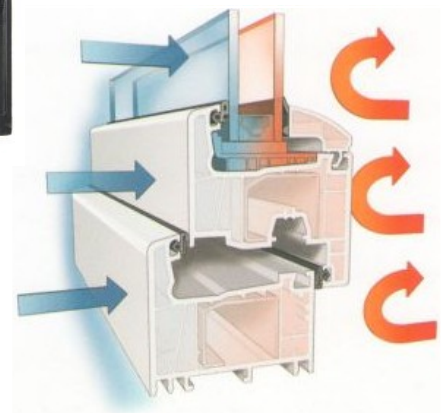
Typical Applications

- Transformer manufacturing
- Circuit breakers
- Electrical switch-gear
- Window thermal insulation
- Magnesium casting
- Sports Shoes

SF₆ is used around the world as a dielectric medium for high-voltage circuit breakers, switchgear, and other electrical equipment. Additionally it is used for the filling of insulated windows and for the casting of magnesium. The gas is expensive and is also a powerful green house gas (20000 times more potent than CO₂). Generon is offering systems that will cut SF₆ emissions by >90% while having a projected payback time of less than a year for most applications. Generon membranes allow SF₆ to be retained selectively at or near feed pressure while permeating out the unwanted air. Retaining the concentrated SF₆ at pressure allows for convenient storage or reuse of the gas.

The GENERON[®] Advantage

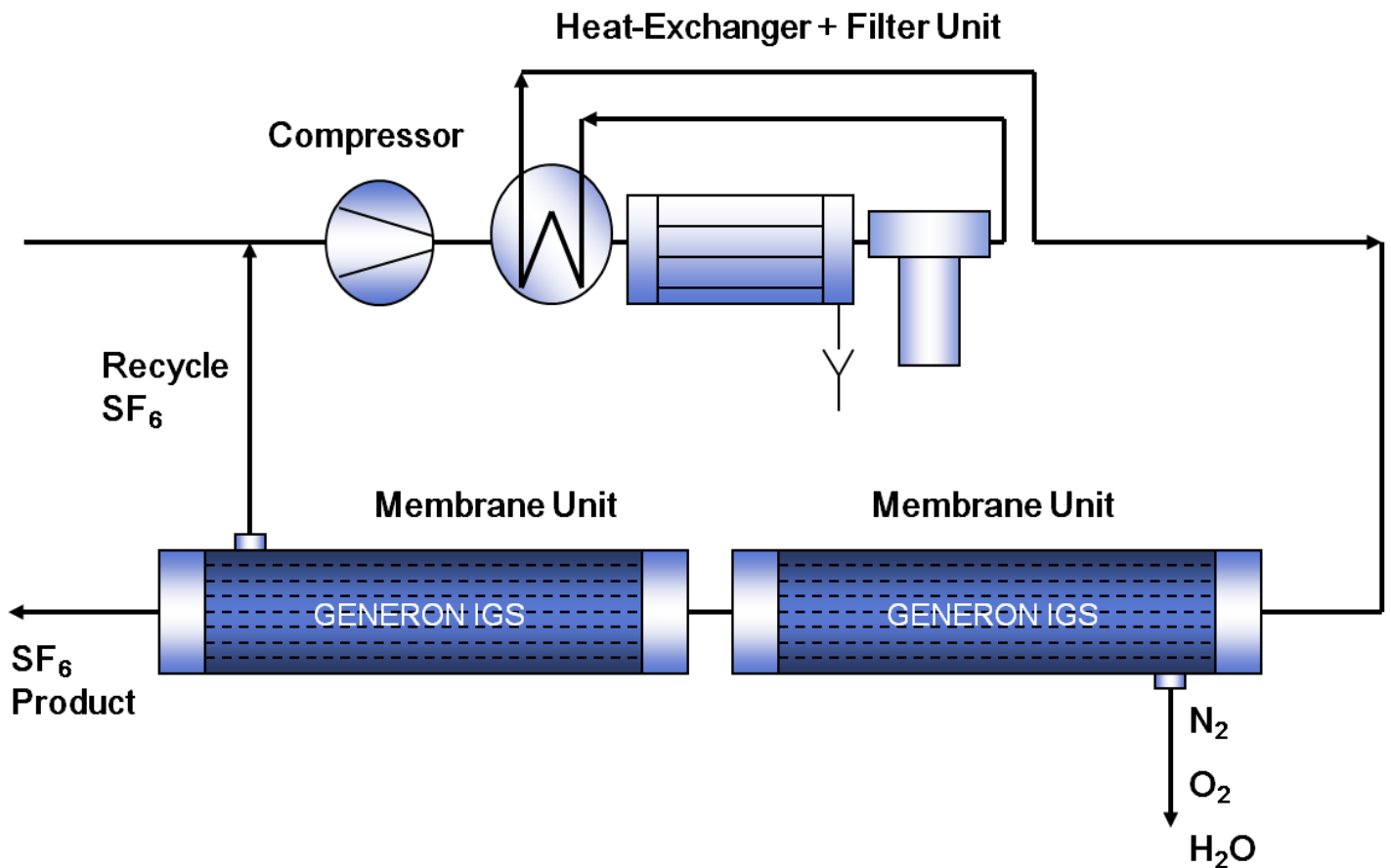
- Turn-key systems
- Built to your specifications and for your convenience
- Cabinet units are easy to connect and commission
- Engineering support from concept to completion



SF₆ Recovery

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In a typical GENERON[®] membrane system for SF₆ recovery the feed gas is compressed and filtered to remove particles and condensate. A heating step provides an optimum operation temperature for the feed gas to enter the GENERON[®] membrane modules. SF₆ gas permeates extremely “slow” through the membrane walls and remains at pressure. The “faster” permeating gases, e.g. N₂, O₂, H₂O, are removed with the permeate.



The System Performance:

- Feed gas pressures up to 203 psi (14 bar)
- > 90% SF₆ recovery
- <5 vol % SF₆ in feed
- Flow rates of 0.5 to 1,000 SCFM