

# GIW's Sulfate Reduction System

## Sulf-control<sup>®</sup>

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Membrane separation is a method of sulfate reduction which is efficient, safe and environmentally sound. Our membrane technology provides a cost effective solution for:

- Vertical production wells
- Gravel packed wells
- Horizontal wells
- Floating Production Systems
- Reservoir souring control

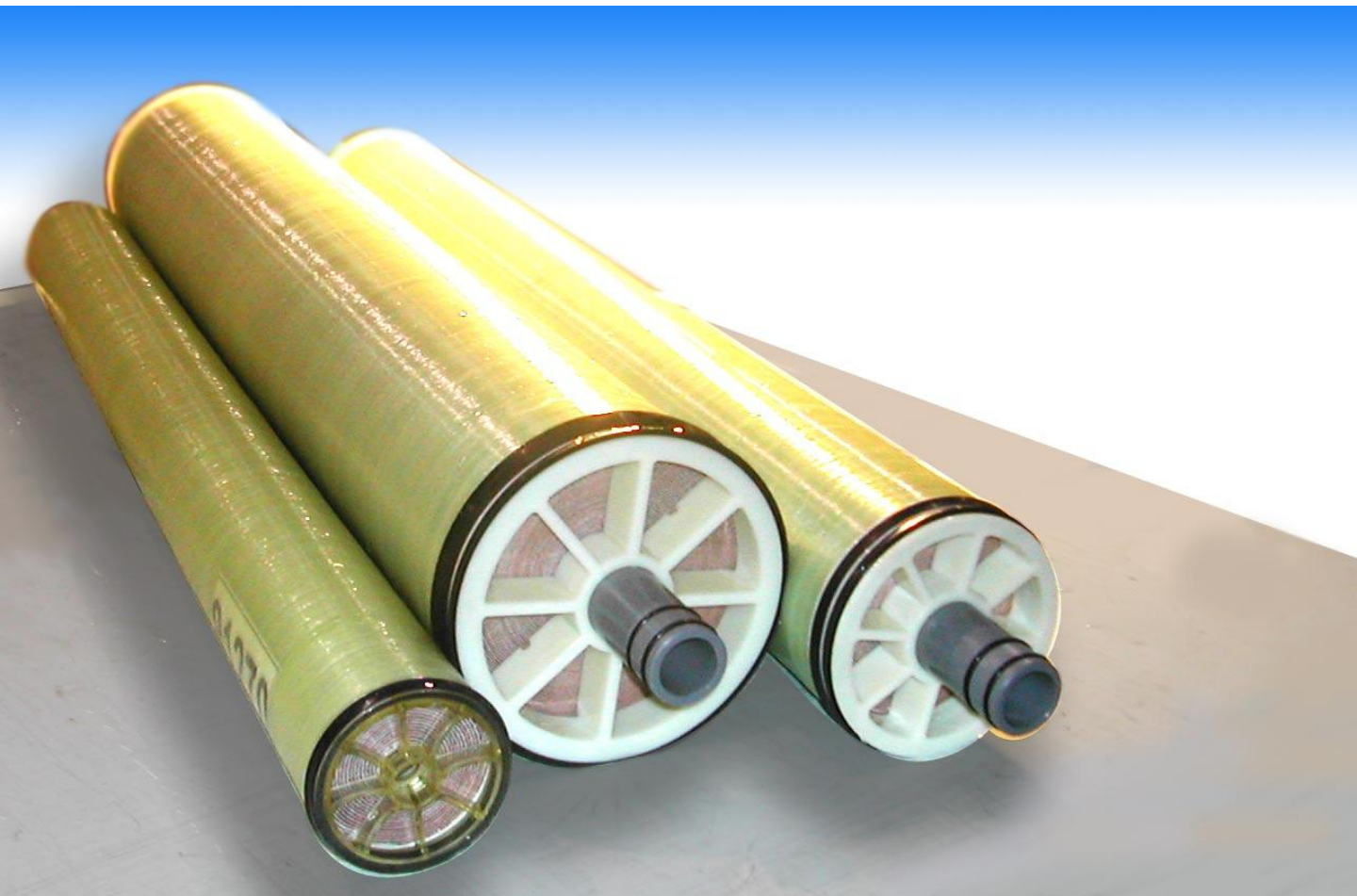
Sulfate reduction improves production by eliminating the potential for barium and strontium sulfate scaling.

The GIW Sulfur removing membrane provides high quality liquid separation with tremendous efficiency. Series 1 membranes have an approximate molecular weight cut-off of 150-300 Dalton with an average MgSO<sub>4</sub> rejection of 99.3%. Series 2 membranes have an approximate molecular weight cut-off of 300-500 Dalton with an average MgSO<sub>4</sub> rejection of 98%.

The GIW membrane operates at lower pressures than reverse osmosis membranes, offering lower energy and equipment costs for applications that do not require high salt rejection rates. Membranes greatly reduce levels of heavy metals, hardness, nitrates, sulfates, tannins, turbidity, color and TDS including moderate levels of salt from feed water streams. In addition, pH is virtually unchanged from the incoming source so the permeate is not aggressive and will not cause increased corrosion.

GIW's state of the art membrane will provide

- High quality injection water
- Reduction in biocides
- Reduction of scaling in piping/equipment
- Assistance in control of bacterial well souring
- Reduction in operating costs
- Increased productivity



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INDUSTRIAL  
WATER

