

Quality Products for Quality Water

MRO-1L Reverse Osmosis Systems



Overview

The Flier's MRO-1L Reverse Osmosis System is a specialized, hybrid design that combines the simple operation and economical features of a traditional 4" style machine with higher product flow rates and industrial appearance of an 8" style machine. The use of single membrane element housings significantly reduce the skid footprint making it perfect for locations with tight available floor-space.

Operating Parameters

- Operating Pressure: 150-200 psig
- Nominal Recovery: 75%
- Nominal Salt Rejection: 98-99%
- Operating Temperature: 45-85° F
- Design Temperature: 50° F
- Minimum Inlet Pressure: 30 psig
- Control Circuit: 120 VAC, 1-phase, 60 Hz.

Materials of Construction

- Skid Frame: Powder-coated carbon steel
- Membrane Housings: FRP (300 psig rated)
- Prefilter Housing: Polypropylene
- Low pressure piping: Sch 80 PVC
- High pressure piping: Sch 10 304SS

Pump and Motor

- Pump: 304/316SS vertical multi-stage centrifugal
- Motor: TEFC, 460 VAC, 3-phase, 60 Hz.

Standard Features

- 8" x 40" Low-Energy membrane elements (TFC)
- 5-micron sediment pre-filter housing
- Automatic inlet shut-off valve
- Solid-state digital controller (NEMA-4X)
- Product water conductivity monitor
- Operating pressure gauges
- Product, concentrate, and recycle flow meters
- Concentrate and recycle flow control valves
- Low inlet pressure switch with shutdown alarm

Optional Equipment Available

- PLC / BMS communication option
- Water softeners and carbon filter pretreatment
- Pretreatment chemical injection systems
- Atmospheric storage tanks with level control and repressurization pump
- Membrane clean-in-place (CIP) systems

| MODEL NUMBER | CAPACITY | | ELEMENT QUANTITY | VESSEL QUANTITY | RO FEED | RO REJECT | SYSTEM PIPING CONNECTIONS (INCHES) | | | PUMP HP | OVERALL DIMENSIONS (INCHES) | | | SHIPPING WEIGHT |
|---------------|----------|--------|------------------|-----------------|---------|-----------|------------------------------------|----------|-----------|---------|-----------------------------|---------|----------|-----------------|
| | GPM | GPD | | | GPM | GPM | INLET FEED | PERMEATE | RO REJECT | | A LENGTH | B WIDTH | C HEIGHT | LBS. |
| MRO-22K-8H-1L | 15 | 21,600 | 3 | 3 | 20 | 5 | 1 1/2 | 1 | 3/4 | 7.5 | 72 | 38 | 75 | 2,200 |
| MRO-29K-8H-1L | 20 | 28,800 | 4 | 4 | 27 | 7 | 1 1/2 | 1 1/2 | 1 | 10 | 72 | 38 | 75 | 2,300 |
| MRO-36K-8H-1L | 25 | 36,000 | 5 | 5 | 33 | 8 | 1 1/2 | 1 1/2 | 1 | 10 | 72 | 38 | 75 | 2,400 |
| MRO-43K-8H-1L | 30 | 43,200 | 6 | 6 | 40 | 10 | 1 1/2 | 1 1/2 | 1 | 15 | 72 | 38 | 81 | 2,500 |

