



Reverse Osmosis Systems

FRO Series



Making a positive impact on our environment
for today and future generations.

FRO Series

Freshwater Reverse Osmosis Systems

THE FRESHWATER REVERSE OSMOSIS SYSTEM EFFICIENTLY REMOVES CONTAMINANTS WITH A MULTI PRE-FILTER PROCESS AND SPIRAL WOUND MEMBRANES. IT IS CUSTOMIZABLE AND CAN TREAT UP TO 2000 GALLONS OF WATER PER DAY.

CUSTOM BUILT UNITS ARE AVAILABLE. CONSULT DEALER FOR MORE INFORMATION.

FEATURES

- Powder coated steel frame
- PLC controls for automated operation
- Reverse osmosis pump
- Low feed pressure shutdown
- Multiple spiral wound membranes
- Sediment pre-filter
- ETL listed NEMA-4 rated corrosion-proof control panel



FRO-2000-0M10

MODEL NUMBER	GPM @ PSI	PERMEATE FLOW	REVERSE OSMOSIS PUMP	POWER REQUIREMENTS	AMP DRAW	FRAME DIMENSIONS (LxWxH)	SHIP WT.
FRO-1000-0M10	2.0 @ 200	0.7-0.8 GPM	1/2 HP	120V, 1Ø, 15.0A	8.0A	38x24x60in.	240 lb.
FRO-2000-0M10	4.0 @ 200	1.4-1.5 GPM	3/4 HP	120V, 1Ø, 15.0A	12.0A	38x24x60in.	270 lb.

ACCESSORIES:

PART NUMBER	DESCRIPTION	FITS MODELS
19-0216	20-inch, replacement 20-micron pleated filter – Removes sediment	All models
19-0302	20-inch, replacement 10-micron filter – Removes sediment	All models
19-0303	20-inch, replacement 5-micron carbon filter – Removes sediment and chlorine	All models
19-0304	20-inch, replacement anti-scale filter – Protects membranes from scaling from hardwater	All models
19-0305	10-inch, replacement 5-micron cartridge filter – Removes sediment	All models
19-0306	40-inch, replacement membranes	All models
19-0311	10-inch, 1 micron pleated filter – Removes sediment	All models
19-0312	20-inch, 1 micron pleated filter – Removes sediment	All models
19-0313	20-inch, 5 micron pleated filter – Removes sediment	All models
19-0633	10-inch filter housing – Housing for 19-0305 filter	All models
19-0634	20-inch filter housing – Housing for any 20-inch filter	All models
58-0023	10-inch storage cartridge – Protects membranes while being stored	All models
58-0024	10-inch, membrane cleaning cartridge, acid – Cleans bacteria and scale from membranes	All models
58-0025	10-inch, membrane cleaning cartridge, alkaline – Cleans bacteria and sediment from membranes	All models
58-0026	5-oz. o-ring lubricant for membranes	All models
RC-0009-0001	Single filter housing – Filter before pressure washer, includes single filter housing, mounting bracket and filter wrench, Fits 1 – 20-micron filter, mounting bracket and wrench	All models
RC-0009-0002	Double filter housing – Filters before pressure washer, includes double filter housing, mounting bracket and filter wrench, Fits 2 – 20-micron filters, mounting bracket and wrench	All models
RC-0009-0003	Triple filter housing – Filters before pressure washer, includes triple filter housing, mounting bracket and filter wrench, Fits 3 – 20-micron filters, mounting bracket and wrench	All models



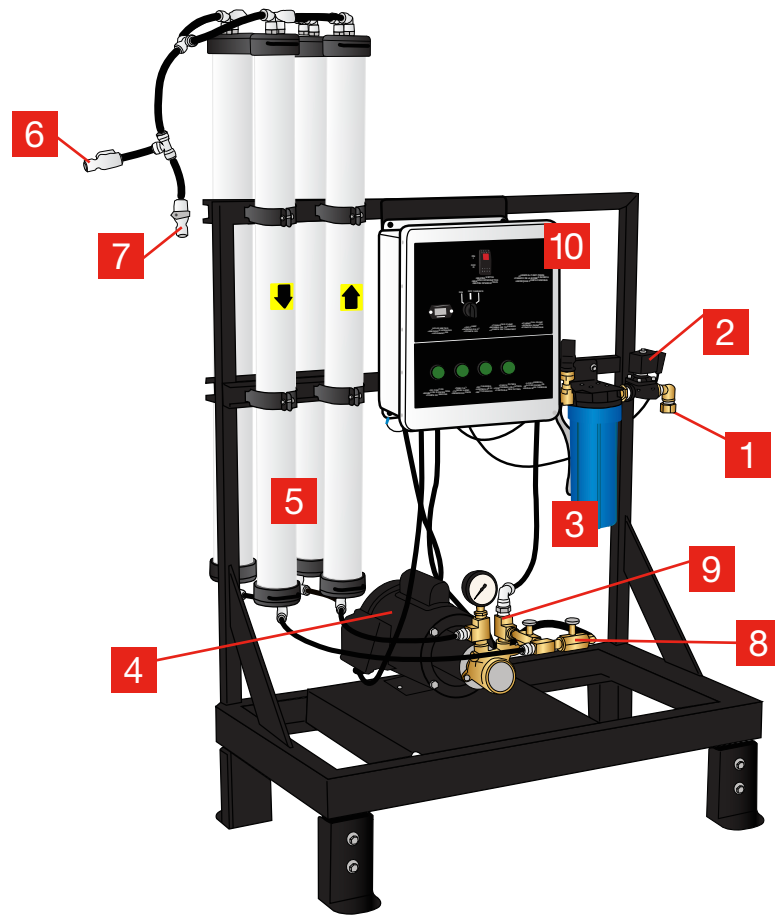
30-micron pleated filter, 19-0216



Anti-scale filter, 19-0304

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Process & Flow Description



1. **INLET CONNECTION** – Connect the reverse osmosis system using the 3/4-inch female garden hose fitting to a clean pressurized water source of at least 20-PSI.
2. **INLET SOLENOID** – The inlet solenoid opens to allow water into the system and shuts the flow of water off when the system shuts off.
3. **PRE-FILTER HOUSING** – The small housing fits 1 or 5 micron pre-filter to screen out sediment and also is used for the cleaning and storage cartridges.
4. **REVERSE OSMOSIS PUMP** – Increases water pressure to 200-PSI to efficiently push the water molecules through the reverse osmosis membranes.
5. **FRESHWATER REVERSE OSMOSIS MEMBRANES** – 2 or 4 spiral wound membranes allow purified water (permeate) through while contaminants remain in the concentrate to be passed to a drain.
6. **PERMEATE OUTLET** – The permeate comes out the top center of the membranes, it is connected to a tank to store the purified water for use.
7. **SAMPLING PORT** – Use the sampling port to test permeate quality and flow.
8. **CONCENTRATE VALVE** – Concentrate rejected from the membranes passes through the concentrate valve to the drain. The concentrate valve is also used to set pressure on the reverse osmosis pump.
9. **RECYCLE VALVE** – The recycle valve can be used to direct some of the concentrate back to the inlet of the pump to save on water usage.
10. **CONTROL PANEL** – ETL listed NEMA-4 rated corrosion-proof control panel for safe and reliable operation.

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RECOMMENDED APPLICATIONS:

- Rental Yards
- Golf Courses
- Heavy Equipment Dealers
- Trucking Facilities
- Military Bases
- Truck Rental Fleets
- Diesel Repair Facilities
- Forklift Washing Operations
- Aircraft Maintenance and Restoration
- Shipyards
- Municipalities/State DOTs
- Oil Fields
- Engine Rebuilders and Manufacturers

THE IMPORTANCE OF A PROPER PIT SYSTEM:

Once equipment is washed, the untreated wash water flows into your pit system. A proper pit system for your application is the first step in proper wash water treatment and a critical element in any wash water recycle system.

Consult your dealer to determine the pit system configuration that works best for your application.



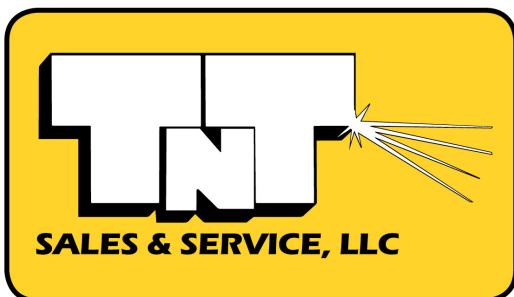
Control panel



Pre-filter housing with inlet solenoid and inlet connection



Freshwater reverse osmosis membranes with permeate outlet and sampling port



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