



WATER TREATMENT SYSTEMS  
**REVERSE OSMOSIS  
SYSTEMS**  
WRO AND FRO SERIES



*MAKING A POSITIVE IMPACT ON OUR ENVIRONMENT FOR TODAY AND FUTURE GENERATIONS.*



WRO-1000-0M10

This system effectively purifies wash water for reuse with a multi-stage filter process and semipermeable membrane. Ideal for wash bays, this system removes dissolved salts and contaminants from wash water.

Custom built units are available. Consult factory for more information.

### Benefits:

- Quality recycled water
- Removes 98% of dissolved salts and contaminants
- Easy operation and maintenance
- 4-stage pre-filter process
- Anti-bacterial treatment
- Handles water between 50-100°F
- Treats up to 1000-gallons of water per day

### Features:

- Powder coated steel frame
- PLC controls for automated operation
- ETL listed control panel
- Dual spiral wound membranes
- Pre-filter system that includes 20-micron, 10-micron, carbon and anti-scale filters, plus a 5-micron sediment filter
- 7.4-gallon pressure tank
- 1/2 HP transfer pump
- 250-gallon holding tank

### Certification:

- ETL Certified – US and Canada

MODEL NUMBER	GPM @ PSI	PERMEATE FLOW	TRANSFER PUMP	POWER REQUIREMENTS	FRAME DIMENSIONS (LxWxH)	HOLDING TANK DIMENSIONS (WxH)	SHIP WT.
WRO-1000-0M10	2.2 @ 200	0.7-0.8 GPM	1/2 HP	208-230V, 10, 15.0A	60x30x48in.	36x62in.	650 lb.
WRO-1000-0M30	2.2 @ 200	0.7-0.8 GPM	1/2 HP	208-230V, 30, 6.0A	60x30x48in.	36x62in.	650 lb.

230V/208V/460V 3Ø available on all models as options.

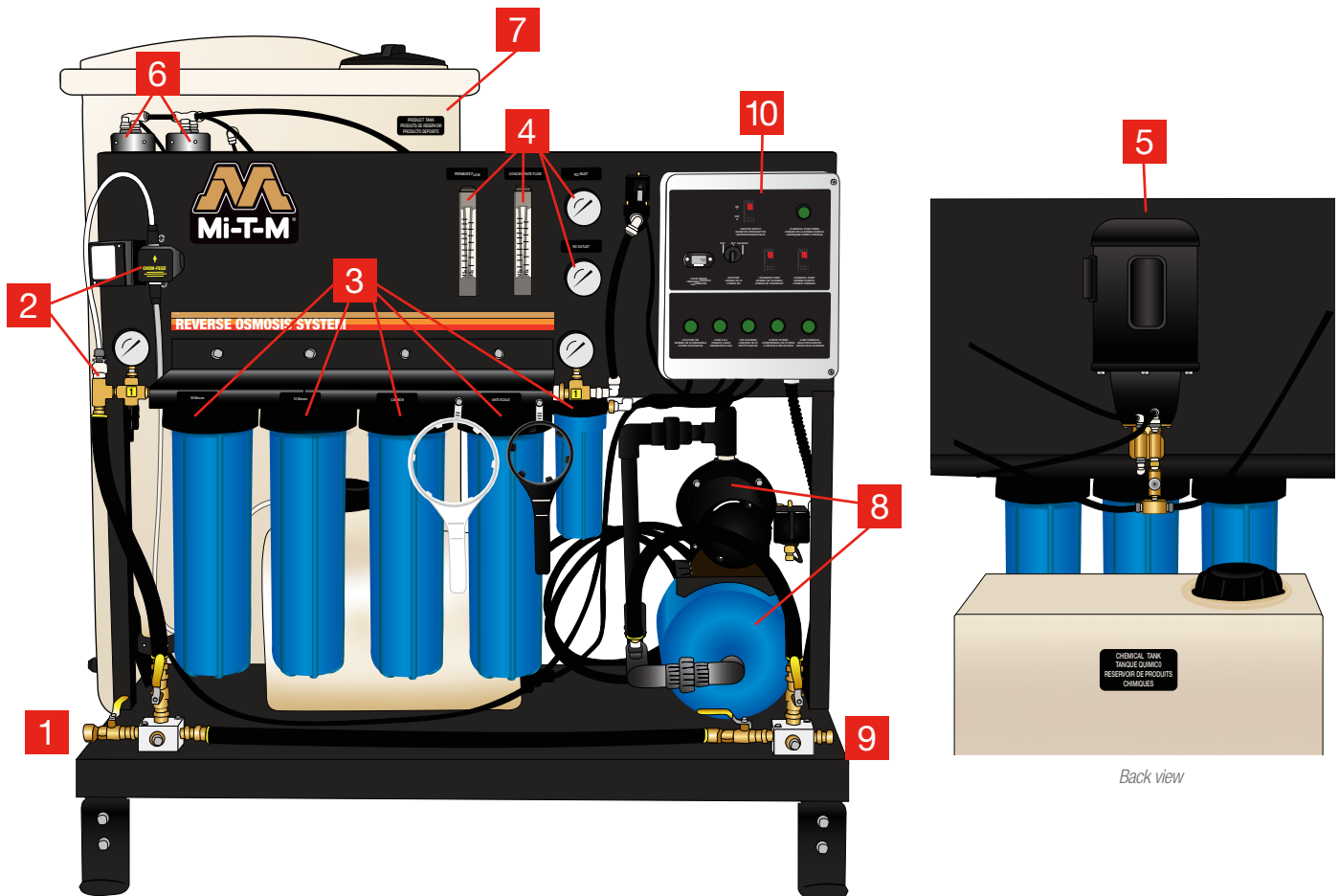
### ACCESSORIES:

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
19-0306	40-inch, replacement membranes	All models
33-0653	Replacement handheld total dissolved solids (TDS) meter	All models
58-0023	Reverse osmosis storage cartridge – Fits 10-inch blue housing	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	10-inch storage cartridge – Protects membranes will being stored	All models
855-0059	Membrane assembly – Includes replacement mebranes, 19-0306 and housing	All models



### OPTION:

PART NUMBER	DESCRIPTION	FITS MODELS
WX-0143	460V, 3Ø – Upgrades 208-230V model to operate at 460V	All models



1. **Inlet Connection** – Connect a water supply from a recycling system or a fresh water supply using a 3/4-inch female hose fitting.
2. **Chemical Pretreatment System** – An adjustable diaphragm pump injects a solution of bleach into the system in order to kill bacteria that could damage the filters and membranes of the system.
3. **Pre-filter System** – A series of filters remove particles, chemicals and scale from the water that includes 30-micron, 10-micron, carbon and anti-scale filters, plus a 5-micron sediment filter.
4. **Monitoring System** – Permeate and concentrate flow meters, inlet and outlet reverse osmosis gauges monitor system performance and indicate when maintenance is required.
5. **Reverse Osmosis Pump** – Increases water pressure to 200-PSI to efficiently push the water molecules through the reverse osmosis membranes.
6. **Reverse Osmosis Membranes** – Dual spiral wound membranes remove dissolved solids from water. Contaminants pass through the concentration port into a drain or pit system.
7. **Purified Water in Holding Tank** – Purified water for rinsing and washing is stored in a 250-gallon tank with a level sensor that turns the system on as water is used.
8. **Transfer Pump System** – A 1/2 HP jet pump and 7.4-gallon tank pressurizes water at 30-PSI to 50-PSI for use through a pressure washer or hose.
9. **Outlet Connection** – Connect a pressure washer or garden hose using the 3/4-inch male hose fitting.
10. **Control Panel** – ETL listed NEMA-4 rated corrosion-proof control panel for safe and reliable operation.

# WRO Series

## Recycled Water Reverse Osmosis Systems

### 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 Mi-T-M Corporation or your local distributor to determine the pit system configuration that works best for your application.



Control panel



250-gallon holding tank



Reverse osmosis membranes

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 factory for more information.



FRO-2000-0M10

#### Benefits:

- Quality recycled water
- Removes 98% of dissolved salts and contaminants
- Easy operation and maintenance
- Multi pre-filter process with anti-scale, acid, alkaline cleaning and carbon filter options
- Anti-bacterial treatment
- Handles water between 50-100°F
- Treats up to 2000-gallons of water per day

#### Features:

- Powder coated steel frame
- PLC controls for automated operation
- Low feed pressure shutdown
- ETL listed control panel
- Multiple spiral wound membranes
- Sediment pre-filter system with customizable filter options

#### Certification:

- ETL Certified – US and Canada

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.

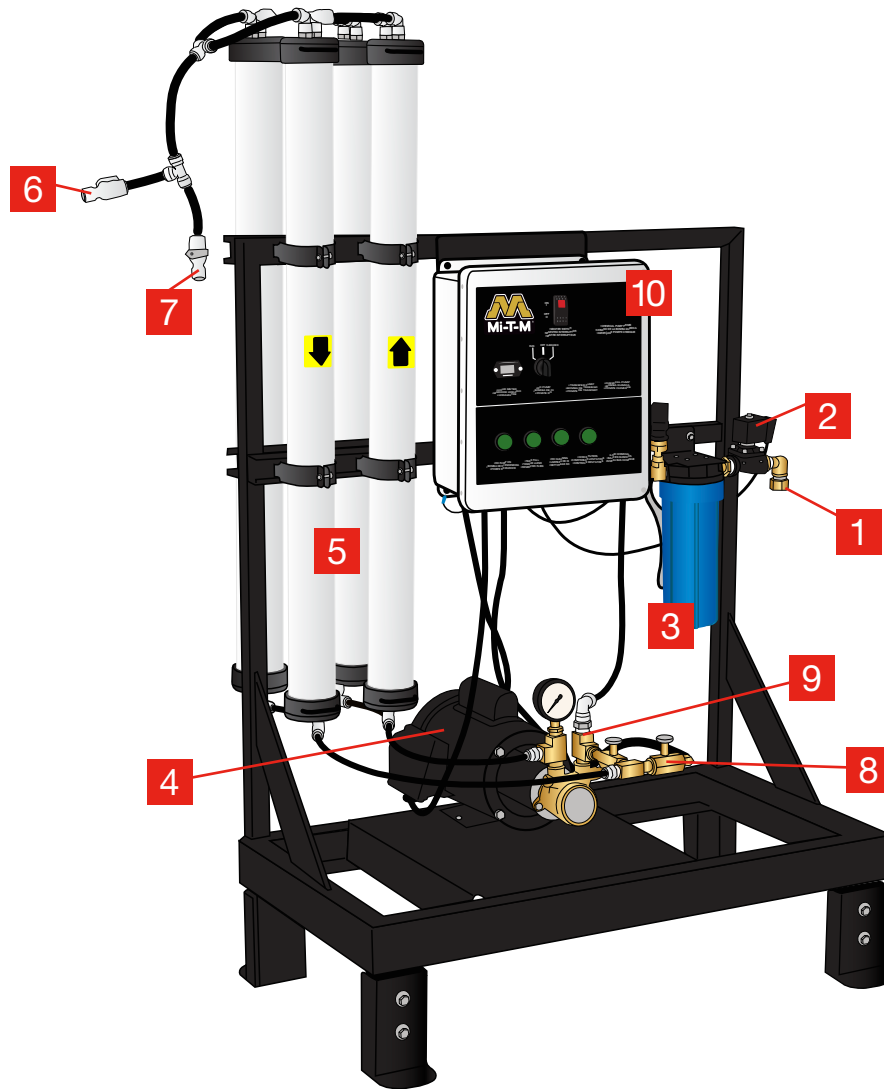
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19-0304	20-inch, replacement anti-scale filter – Protects membranes from scaling from hardwater	All models
19-0305	10-inch, replacement 5-micron cartridge filter – Removes sediment	All models
19-0306	40-inch, replacement membranes	All models
19-0311	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
58-0024	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	10-inch storage cartridge – Protects membranes will being stored	All models
RC-0009-0001	Single filter housing – Holds any 20-inch filter	All models
RC-0009-0002	Double filter housing – Holds any combination of 2 – 20-inch filters	All models
RC-0009-0003	Triple filter housing – Holds any combination of 3 – 20-inch filters	All models



30-micron pleated filter, 19-0216

Anti-scale filter, 19-0304



1. **Inlet Connection** – Connect the reverse osmosis system using the ¾" 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.

### Recommended Applications:

- Rental yards
- Golf courses
- Heavy equipment dealers
- Trucking facilities
- Military bases
- Truck rental fleets
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- Forklift washing operations
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Control panel



Pre-filter housing with inlet solenoid and inlet connection

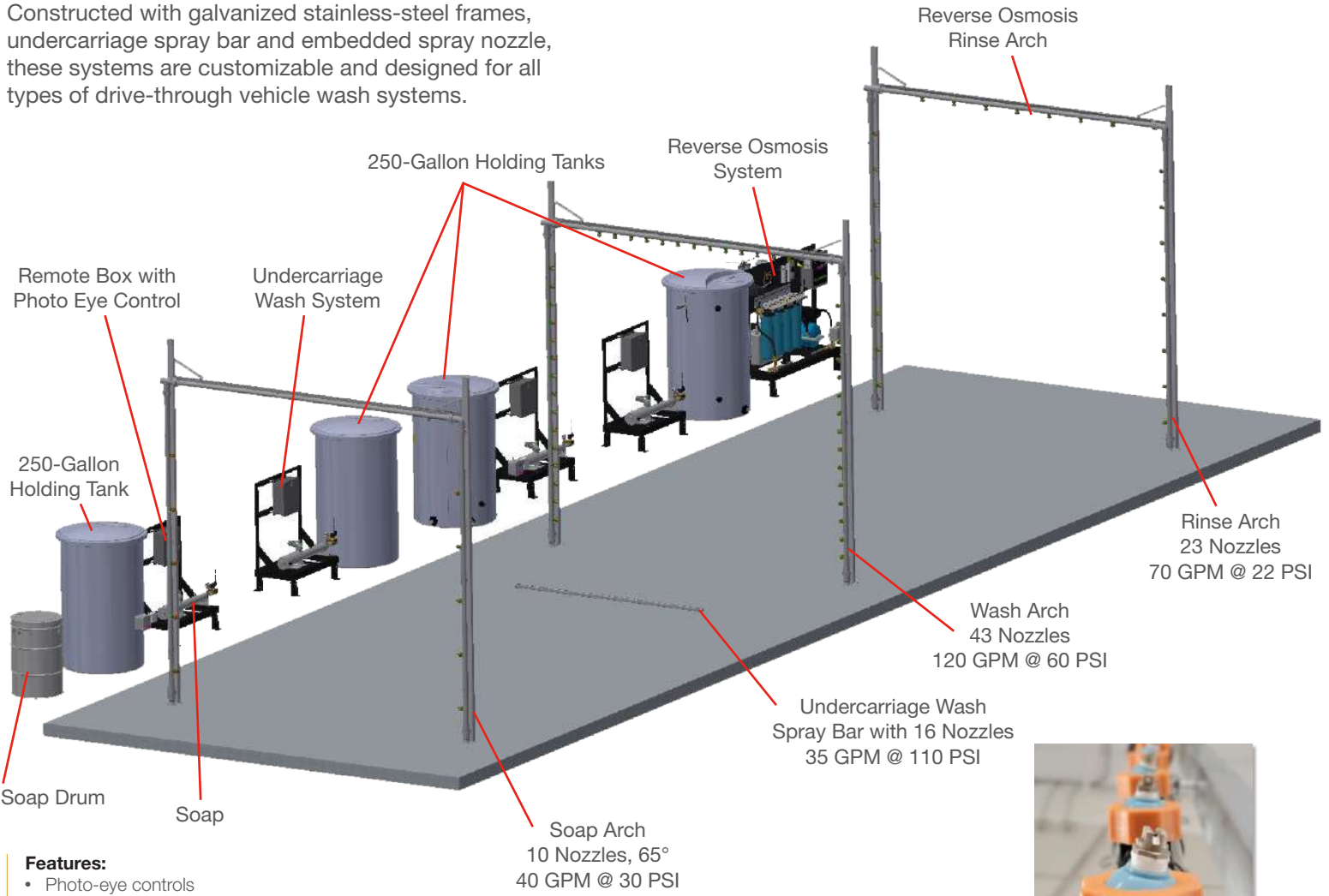


Fresh-water reverse osmosis membranes with permeate outlet and sampling port

# WSA Series

## Spray Arch System Featuring A Reverse Osmosis Rinse Arch

Constructed with galvanized stainless-steel frames, undercarriage spray bar and embedded spray nozzle, these systems are customizable and designed for all types of drive-through vehicle wash systems.



Embedded spray nozzles

**Features:**

- Photo-eye controls
- Stainless-steel frames and undercarriage spray bar
- Embedded spray nozzles
- Reverse Osmosis System for spot-free rinsing
- 250-gallon holding tanks
- Customizable builds

MODEL NUMBER	SOAP ARCH GPM @ PSI	WASH ARCH GPM @ PSI	UNDERCARRIAGE GPM @ PSI	RINSE ARCH GPM @ PSI	PUMP	POWER REQUIREMENTS	SPRAY BAR DIMENSIONS (LxWxH)	PUMP FRAME DIMENSIONS (LxWxH)	HOLDING TANK DIMENSIONS (WxH)
WSA-120-0M30	40 @ 30	120 @ 60	35 @ 110	70 @ 22	Custom	230V/460V, 3Ø	Custom	45x21x67in.	36x62in.



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