ATLAS FILTRI®
improving water

INSTRUCTIONS FOR INSTALLATION AND MAINTENANCE OF QUICK-CHANGE REVERSE OSMOSIS (QCRO) SYSTEM

Dear Customer,
Thank you for choosing this product manufactured in Italy by ATLAS FILTRI S.r.l., assembled and marketed in the USA and Canada by ATLAS FILTRI NORTH AMERICA, LLC. The product has been designed and manufactured in Italy using over 50 years of expertise in the industry.

NSF

This system has been tested and certified by WQA in accordance with:
- NSF/ANSI Standard 58 for contaminant reduction performance
- NSF/ANSI Standard 372 for lead-free compliance

Refer to the Performance Data Sheet for detailed reduction claims.

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Headquarter and
production in Italy

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1 - Important Safety Information

WARNING

READ THIS MANUAL IN FULL BEFORE INSTALLATION. FAILURE TO FOLLOW INSTALLATION INSTRUCTIONS AND OPERATING PARAMETERS MAY RESULT IN PRODUCT FAILURE AND MAY VOID THE WARRANTY. RETAIN THIS MANUAL FOR FUTURE REFERENCE.

IF YOU ARE UNSURE ABOUT INSTALLATION, CONTACT AN AUTHORIZED REPRESENTATIVE OR CONSULT A LICENSED PLUMBING PROFESSIONAL.

Additional Safety Guidelines:

- Test the water periodically to verify satisfactory system performance.
- Discard any small components remaining after installation.
- Incorrect installation may void the warranty.
- Handle all components with care. Do not drop or invert assemblies.
- Ensure the mounting surface is clean, level, and structurally capable of supporting the system.

2 - Introduction

Thank you for selecting an advanced Atlas Filtri Reverse Osmosis (RO) water treatment system. Increased attention to drinking water quality has highlighted the potential presence of contaminants such as arsenic, chromium, pharmaceuticals, PFAS, lead, and copper in certain water supplies.

This system has been engineered and tested to provide reliable, high-quality drinking water for years to come when installed and maintained in accordance with this manual.

3 - Reverse Osmosis System Overview

Reverse Osmosis is a natural process in which water passes through a semi-permeable membrane to balance the concentration of dissolved substances on each side. The membrane allows water molecules to pass while restricting contaminants such as heavy metals and dissolved solids.

Reverse osmosis applies pressure to force water through the membrane, separating contaminants from purified water and sending the impurities to drain. As a result, RO systems produce:

- Product water (purified drinking water)
- Rinse water (concentrate discharged to drain)

This system also incorporates carbon block filtration technology, providing enhanced contaminant reduction and improved taste compared to carbon filtration alone.

4 - Four Filter-Five Stage Filtration System

Stage 1 — Sediment Filter Melt Blown (5-micron)
Recommended replacement: Every 12 months or sooner depending upon water conditions
Reduces sediment and particulate matter (dirt, silt, rust) that can affect the longevity and performance of the membrane.

Stage 2 — Pre-Carbon Block Filter (5 micron)
Recommended replacement: Every 12 months or sooner depending upon water conditions
Reduces chlorine and other taste/odor-causing compounds that can affect the longevity and performance of the membrane.

Stage 3 — RO Membrane
Recommended replacement: Every 3–5 years (typical)
Reduces total dissolved solids (TDS), sodium, and heavy metals such as arsenic, copper, PFAS, pharmaceuticals and lead from drinking and cooking water. A storage tank is included to provide water on demand.

Stage 4 — Post-Carbon (GAC) Filter with pH mineral media
Recommended replacement: Every 12 months
Final polishing stage to enhance taste after water leaves the storage tank and increase the mineral level in the water supply.

NOTICE

FILTER AND MEMBRANE SERVICE LIFE MAY VARY DEPENDING ON LOCAL WATER CONDITIONS AND USAGE PATTERNS.

1. **Sediment Filter**
2. **Carbon Block Filter**
3. **RO Membrane**
4. **Post Carbon Filter and Mineral Media**
5. **Storage Tank**
6. **Faucet**

5 - System Maintenance Overview

Many contaminants are not detectable by taste or odor. Substances such as lead, chromium, PFAS, Pharmaceuticals, and arsenic may be present even when water appears clean and tastes normal. Over time, failure to replace filter elements at recommended intervals may reduce performance, decrease flow rate, and allow tastes/odors to return.

To maintain optimal performance:

- Replace filters at the intervals specified in this manual.
- Follow cleaning and sanitization instructions carefully.
- Test treated water periodically to verify performance.

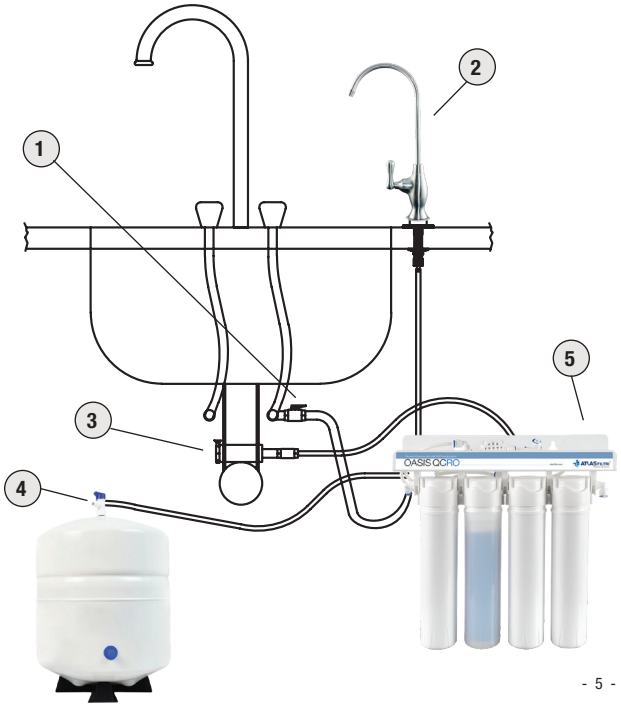
For additional assistance, contact your authorized dealer.

NOTE: Your model may differ slightly from illustrations or descriptions shown. The end user is responsible for ensuring installation complies with all applicable local codes and regulations.

6 - Installation — Operating Parameters

	Technical Specification	Unit of Measure	STD	UV
	Max dimensions Bracket model (height x width x depth)	inches	22.8x14.6x59.3	22.8x14.6x59.3
	Max dimensions Frame model (height x width x depth)	inches		
	Metal storage tank dimensions Plastic storage tank dimensions (diameter x height) Weight	inches inches lb	11x15.7 11.1x15.7 11	11x15.7 11.1x15.7 12.1
	Max daily production	GDP	50	50
	TDS reduction	%	97	97
Feed Water	Max feed water TDS	(PPM mg/L)	1,000	1,000
Feed Water	Max feed water temperature	°F	86	86
Feed Water	Min feed pressure	psi	40	40
Feed Water	Max feed pressure	psi	113	113
UV	Electric power			Single phase + Grounding
UV	Rated voltage	V		110
UV	Frequency	Hz		60
UV	Absorbed current	A		0.1 - 0.12A
UV	Power	W		6W

1. **Water supply**
2. **Processed water tap**
3. **Drain bracket**
4. **Storage tank tap**
5. **UV lamp power (optional)**



7 - Contents of Reverse Osmosis (RO) System

The system package includes:

- One (1) Storage Tank
- One (1) RO Module with Filters
- One (1) Parts Bag
- One (1) Faucet Assembly
- One (1) Installation & Maintenance Manual

If any components are missing or damaged, contact your supplier prior to installation.

8 - Recommended Tools for Installation

- 1¼" hole saw (diamond-tip recommended for porcelain)
- Adjustable wrench
- Utility knife
- Phillips screwdriver
- Flat-head screwdriver
- Needle-nose or adjustable pliers
- Variable-speed drill
- Phillips driver bit
- Drill bits: 1/8", 1/4", and 3/8" (as required for drain saddle)

9 - Using Quick-Connect Fittings

Cutting the Tubing

- Cut tubing squarely using a sharp cutting tool.
- Ensure the outside diameter is free of score marks.
- Remove burrs and sharp edges prior to insertion. Improper cuts may result in leaks.

Connecting the Tubing

- Insert tubing fully into the fitting until it contacts the internal tube stop.
- The stainless-steel collet grips the tube; the O-ring provides a leak-tight seal.
- Gently pull on the tubing to confirm it is secure.
- Pressure-test for leaks prior to leaving the installation site and before placing the system into service.

Disconnecting the Tubing

- Depressurize the system before disconnecting.
- Press the collet squarely against the fitting face.
- While holding the collet in position, pull the tubing out. Fitting may be reused if not damaged.

10 - Installation Instructions

STEP 1: Drill a hole for the RO faucet

Note: Many sinks include a factor drilled 1½" or 1¼" opening suitable for the faucet. If the existing opening is in use, drill a new mounting hole.

NOTICE

PORCELAIN SINKS MAY CRACK OR CHIP DURING DRILLING. USE A DIAMOND HOLE BIT, LOW DRILL SPEED, AND LUBRICATION. DRILLING TWO HOLES IS COMMON IN PORCELAIN SINKS WHERE THE PORCELAIN IS DRILLED FIRST IN A LARGER CIRCUMFERENCE AND THE METAL AREA AFTERWARD IN A SMALLER CIRCUMFERENCE. THE MANUFACTURER IS NOT RESPONSIBLE FOR DAMAGE RESULTING FROM IMPROPER DRILLING OR INSTALLATION.

A. Select location

1. Identify the desired faucet location.
2. Apply masking tape over the drilling area and mark the center point.

B. Drill pilot hole

1. Using a variable speed drill at the lowest speed, drill a 1/8" pilot hole.
2. Apply lubricating oil or liquid soap to keep the bit cool.

C. Drill mounting hole

1. Using a 1 1//2" diamond-tipped hole saw, cut the opening.
2. Cut only to the metal section
3. Using a 1 1//4" diamond-tipped hole saw, cut the opening.
4. Maintain low speed and lubrication throughout cutting.

D. Finish

1. Allow the area to cool before installing the faucet.
2. Remove sharp edges and debris.

STEP 2: Top-Mount Faucet Installation

This faucet uses quick-connect fittings. Insert tubing firmly into the corresponding port until fully seated.

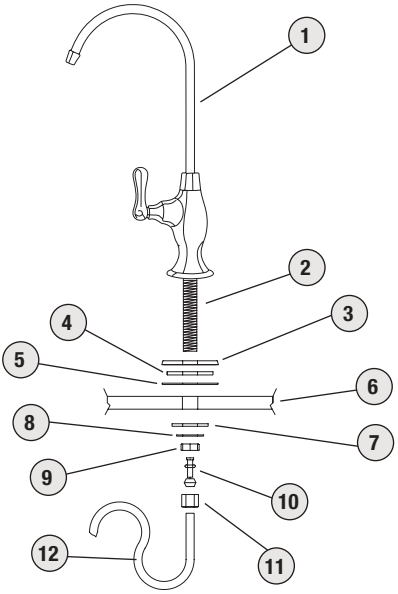
NOTE: A 1¼" mounting hole is required though the porcelain and metal layers

A. Use nut to tighten faucet to counter.

NOTICE

QUICK-CONNECT PORTS ARE COLOR-CODED. MATCH TUBING TO THE CORRECT PORT.

1. **Faucet**
2. **Threaded faucet stem**
3. **Chrome-plated base**
4. **Spacer**
5. **Gasket**
6. **Sink base**
7. **Gasket**
8. **Rubber washer**
9. **Lock nut**
10. **Plastic ring**
11. **End nut**
12. **1/4” tubing from post inline filter**



B. Prepare components

- (1) 3/8” stem × 1/4” quick-connect adapter
- (1) 1/4” red tube
- (1) 1/4” blue tube
- (1) 3/8” black tube

C. Install stem adapter Insert the stem adapter into the 3/8” fitting on the toggle bolt assembly.

NOTICE

INSERT APPROXIMATELY 3/4” OF TUBING INTO EACH FITTING TO ENSURE A SECURE SEAL.

D. Connect tubing

1. Connect the blue (1/4”) tube to the stem adapter.
2. Connect the black (3/8”) tube to the faucet bottom outlet.
3. Connect the red (1/4”) tube to the faucet fitting.

E. Install faucet

Feed tubing through the sink hole and verify alignment.

F. Apply base seal

Remove backing and press firmly into place.

G. Secure faucet

Tighten the toggle bolt through the spout opening until secure.

NOTICE

DO NOT OVERTIGHTEN.

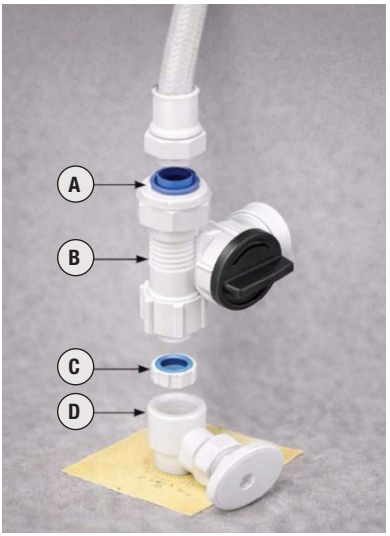
H. Install spout

Insert spout until fully seated.

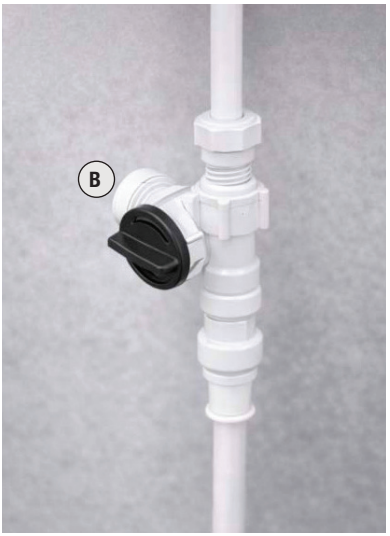
STEP 3: Add Inlet Connector Valve Install

NOTICE

CONNECT TO THE COLD-WATER SUPPLY LINE ONLY. HOT WATER WILL DAMAGE THE SYSTEM.



For 3/8" Configuration



For 1/2" Configuration

NOTICE

DO NOT USE PTFE THREAD SEAL TAPE ON THE ANGLE STOP VALVE CONNECTION.

A. Turn off cold water at the angle stop valve.

B. Open cold-water faucet to relieve pressure.

C. Install the Adapt-A-Valve per the configuration that matches your plumbing.

D. Ensure the black collet is installed in the 1/4" opening. Install the white compression washer when using the 3/8" configuration. Brass adapters require finger-tight only.

STEP 4: Drain Saddle Installation

NOTICE

IF A GARBAGE DISPOSAL IS INSTALLED, DO NOT INSTALL THE DRAIN SADDLE NEAR IT. INSTALL ABOVE THE DISPOSAL INLET OR ON THE SECOND DRAIN LINE ABOVE THE CROSS BAR (IF AVAILABLE).

A. Select drain saddle type

- **3/8”** saddle for air-gap faucets (three-tube configuration)
- **1/4”** saddle for non air-gap faucets (single-tube configuration)

B. Install location

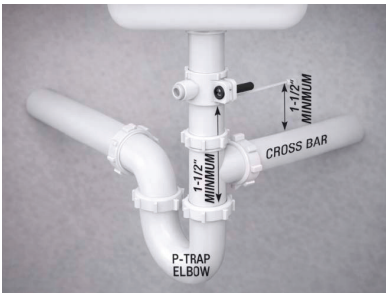
- Install at least **1½” above** the P-trap elbow nut or cross bar.

C. Drill drain hole (one side only)

- 3/8” drill bit for 3/8” saddle
- 1/4” drill bit for 1/4” saddle

D. Apply foam gasket to inside of saddle, aligned to drilled hole.

E. Assemble and tighten evenly



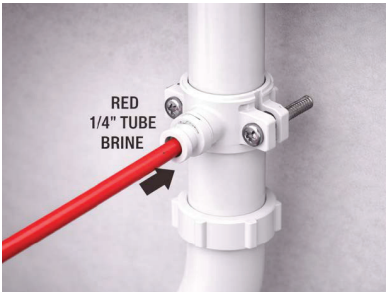
NOTICE

DO NOT OVERTIGHTEN—SADDLE MAY CRACK.

STEP 5: Drain Line Connection

Option 1: 1/4” Drain Saddle (Non–Air-Gap Faucets)

1. Connect the 1/4” red tube to the union fitting on the RO module drain line (labeled **Drain**). Insert fully to the tube stop.
2. Route tubing through the compression nut, insert into drain saddle, hand-tighten, then tighten an additional 1/4 turn with a wrench.



Option 2: 3/8” Drain Saddle (Air-Gap Faucets)

1. Connect the 1/4” red tube from the faucet to the RO module drain union fitting. Insert fully to the tube stop.
2. Measure and cut the 3/8” black tube to length with a straight cut.
3. Insert the black tube fully into the drain saddle quick connect fitting.

NOTICE

THE 3/8” BLACK DRAIN TUBE MUST BE SHORT, STRAIGHT, AND MAINTAIN A CONTINUOUS DOWNWARD SLOPE FROM FAUCET TO SADDLE. DIPS OR BENDS MAY CAUSE DRAINAGE BACKUP AND DISCHARGE FROM THE FAUCET AIR-GAP OPENING.

STEP 6: Blue 1/4” Tube Connection (Faucet)

A. Connect the open end of the 1/4” **blue** tube from the faucet to the 1/4” elbow fitting on the back of the RO module behind the post-carbon filter. Insert fully to the tube stop.

STEP 7: Black 1/4” Tube Connection (Inlet Water)

A. Insert one end of the 1/4” **black** tube into the Adapt-A-Valve (fully to the tube stop).

B. Insert the other end into the elbow behind the sediment filter next to the **IN** label.

STEP 8: Tank Valve Installation

A. Apply PTFE thread seal tape clockwise (5–7 wraps) to tank threads.

B. Thread the plastic valve onto the tank fitting.

NOTICE

DO NOT OVERTIGHTEN—VALVE MAY CRACK.

STEP 9: White 1/4" Tube Connection (Storage Tank)

A. Insert one end of the 1/4" **white** tube into the ASOV port on the RO module labeled Tank.

B. Insert the other end into the tank valve fitting.

STEP 10: RO Module Mounting

A. Select a mounting location that allows access for future cartridge replacement and service.

B. Using the supplied screws, mount the RO module to the cabinet wall approximately **10 5/8"** apart and approximately **16" above** the cabinet floor.

STEP 11: Install the Filter Cartridges

A. Identify each cartridge and match to its location using the color coding and descriptions.

B. Insert each cartridge and rotate **1/4 turn** to lock. Cartridge is installed correctly when the label faces the front of the unit.

11 - Operation — Startup Instructions

A. Turn on the water supply at the cold water valve and the Adapt-A-Valve. Inspect for leaks and tighten fittings as needed. Check periodically over the next 24 hours.

NOTE (Refrigerator/Ice Maker): Keep the ice maker OFF and close any inline valve until flushing is complete and the tank has filled completely.

B. Open the RO faucet until water begins to trickle (may take a few minutes).

C. Close the faucet and allow the tank to fill (typically **3–6 hours**, depending on temperature and pressure).

D. After the tank fills, open the faucet to flush the tank completely. Repeat flush **two additional times**. The **fourth** tank may be used for drinking.

NOTE: Three full-tank flushes are required only during initial startup and after membrane replacement.

12 - Maintenance

NOTICE

THE RO MODULE USES VALVED HEADS THAT AUTOMATICALLY SHUT OFF WATER TO EACH CARTRIDGE WHEN RELEASED; IT IS NOT NECESSARY TO SHUT OFF THE ADAPT-A-VALVE DURING ROUTINE CARTRIDGE CHANGES. THE RO FAUCET MUST BE OFF WHEN REPLACING CARTRIDGES.

12.1 6-Month Maintenance

Replace: sediment and pre-carbon cartridges (11" or 13" as applicable).

12.2 Annual Maintenance

Replace: sediment, pre-carbon, and post-carbon cartridges.

Tip: This is a suitable time to check storage tank air pressure.

Cartridge Replacement Procedure

A. Place a towel under the RO module to catch minor drips.
B. To remove: rotate cartridge 1/4 turn to release.
C. To install: remove seal cap, insert cartridge with label at 9 o'clock, rotate 1/4 turn to lock.
D. After annual maintenance, flush the first full tank.

12.3 RO Membrane Replacement (Every 2–5 Years)

Replace membrane if production decreases, taste changes, or TDS reduction falls below **75%**. Replace with an identical specification membrane to maintain certified performance.

Procedure: Replace the membrane cartridge using the same steps as cartridge replacement. Check for leaks for the next 24 hours.

12.4 Annual Sanitization

NOTICE

DO NOT REPLACE THE POST-CARBON FILTER UNTIL SANITIZATION IS COMPLETE. PRE-FILTERS AND MEMBRANE MAY BE REPLACED BEFORE SANITIZATION.

A. Turn off water at the Adapt-A-Valve and open the RO faucet to drain the tank.
B. If connected to an ice maker, ensure the connection is OFF until sanitization is complete.
C. Disconnect the tube between the module and tank at both ends and drain remaining water.
D. Hold tube ends away from face. Using a dosing syringe without a needle, insert 1 teaspoon (5 mL) household bleach into the tube.
E. Reconnect tube to the tank and module.
F. Turn water on and allow the system to fill for ~10 minutes.
G. Turn water off and let stand for 1 minute.
H. Drain system completely and perform startup flushing (fill and drain two full tanks).
I. Replace post-carbon filter.

CAUTION

DANGER (EYE EXPOSURE)
IF BLEACH CONTACTS EYES: RINSE WITH WATER FOR 15–20 MINUTES AND CONTACT POISON CONTROL OR A PHYSICIAN.

12.5 Check Air Pressure in the Tank

NOTICE

CHECK AIR PRESSURE ONLY WHEN THE TANK IS EMPTY.

A. Turn off incoming water supply.
B. Open the RO faucet and drain the tank completely.
C. Measure pressure at the Schrader valve; target 5–7 psi (digital gauge recommended). Add air with a bicycle pump if needed.
D. Follow the startup procedure.

12.6 Flow Restrictor

Flow restrictor is installed on the outlet side of the RO module drain port. The port that is slightly off set of center of the housing discharge ports. Do not remove or cut the red tubing.

12.7 Extended Non-Use (More Than 2 Months)

A. Turn off water at the Adapt-A-Valve and drain the tank.

B. Remove all cartridges, place in a sealed plastic bag, and store in a refrigerator.

NOTICE

DO NOT FREEZE.

Restart After Extended Non-Use

A. Reinstall all filters (color coded).
B. Turn on water; check for leaks over the next 24 hours.
C. Open faucet until water trickles; close faucet to fill tank (3–6 hours).
D. Flush tank completely. The second tank may be used for drinking.

13 - Troubleshooting

Problem	Possible Cause	Corrective Action
Low/slow production	Low water pressure	Verify at least 40 psi
	Crimped tubing	Straighten/replace tubing
	Clogged pre-filters	Replace pre-filters
	Fouled membrane	Replace membrane
	Clogged post-carbon	Replace post-carbon filter
Milky water	Air in system	Normal after startup/service; clears within 1–2 weeks
System runs continuously	Crimped tubing / clogged filters / fouled membrane	Correct tubing; replace filters or membrane
Low water volume in tank	Tank pressure incorrect	Check and adjust to 5–7 psi (tank empty)
Leak at fitting	Damaged tubing or fitting	Cut back tubing ~1" and reseat; replace fitting if needed
Unpleasant taste/odor	Sanitization needed / filters fouled	Sanitize system; replace filters
High TDS	Fouled membrane / ASOV issue	Replace membrane; service/replace ASOV as needed

14 - Performance Data Sheet (Summary)

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Model: QCRO

General Use Conditions

1. Do not use with microbiologically unsafe or unknown-quality water without adequate disinfection before or after the system.
2. Operating temperature: 40°F–100°F (4.4°C–38°C)
3. Operating water pressure: 20–85 psi (1.41–5.98 kg/cm²)
4. Maximum flow rate: 0.50 gpm (1.89 lpm)

Recommended Replacement Parts & Intervals (may vary by feed water conditions)

- Stage 1 Sediment: 6 months
- Stage 2 Pre-Carbon: 6 months
- Stage 3 Membrane: 2–5 years
- Stage 4 Post-Carbon: 12 months

Contaminant Reduction Performance (NSF/ANSI 58)

Substance	Avg In	Avg Eff	% Reduction	PH	Pressure	Max Eff	Challenge Concentration	Max Allowable
Arsenic (Pentava-lent)	0.310 mg/L	0.001 mg/L	98.8%	7.24	50 psi	0.002	0.30 ± 10%	0.010 mg/L
Barium	9.2	0.08	98.0%	7.64	50 psi	0.12	10.0 ±10%	2.0
Cadmium	0.031	0.004	95.7%	7.49	50 psi	0.0008	0.03 ±10%	0.005
Chromium (Hexavalent)	0.030	0.002	98.8%	7.24	50 psi	0.004	0.03 ±10%	0.1
Chromium (Trivalent)	0.030	0.001	98.0%	7.64	50 psi	0.002	0.03 ±10%	1.3
Copper	3.2	0.02	98.8%	7.40	50 psi	0.04	3.0 ±10%	1.3
Fluoride	8.7	0.19	96.5%	7.24	50 psi	0.3	8.0 ±10%	1.5
Lead	0.15	0.002	95.7%	7.39	50 psi	0.3	0.15 ±10%	0.0107
Radium 226/228	25 pCi/L	5 pCi/L	98.0%	7.24	50 psi	0.005	25 pCi/L ± 10%	5 pCi/L
Selenium	94.85	<0.2	96.5%	7.24	50 psi	5 pCi/L	0.10 ± 10%	0.05
TDS	770	35	95.0%	7.28	50 psi	26.0	750 ±40 mg/L	187
Turbidity	11.3	0.1	99.1%	7.43	50 psi	0-1	11 ± 1 mg/L	0.5 NTU

Production / Recovery / Efficiency

- QCRO: DPR 14.8 GPD, Recovery 17.6%, Efficiency 11.2%

Performance varies with water chemistry, temperature, and pressure. Typical operation produces approximately **4 gallons of reject water for every 1 gallon of product water.**

15 - Arsenic Fact Sheet (Summary)

Arsenic is naturally occurring in many ground waters and has no color, taste, or odor. It must be measured by a test kit or certified laboratory test. Public water utilities provide arsenic results in consumer confidence reports; private well owners should test through certified labs.

Two forms of arsenic may be present:

- **Pentavalent arsenic (As V)**
- **Trivalent arsenic (As III)**

RO systems are very effective at removing pentavalent arsenic. This system reduces pentavalent arsenic but does not convert trivalent arsenic to pentavalent arsenic. Conversion of trivalent arsenic may be achieved using free chlorine or other oxidants; chloramine may not fully convert trivalent arsenic.

This system contains replaceable components critical to performance. To maintain certified performance, replace components with identical specifications as defined by the manufacturer.

16 - Limited Warranty

The Atlas Filtri Quick-Change Reverse Osmosis System is warranted against defects in materials and workmanship for **one (1) year from date of installation**, not to exceed t**wo (2) years from date of manufacture**. Filters and membranes are consumable components and are not covered. Warranty coverage does not apply to damage resulting from improper installation, misuse, neglect, freezing, pressure spikes, improper maintenance, modification, or installation outside applicable regions. Return authorization may be required prior to return.