

# RADON IN WATER REMOVAL SYSTEMS

Aeration is recommended as the best available technology for reducing radon in drinking water.



RadonAway®

# RADON IN WATER REMOVAL

Aeration has long been considered the Best Available Technology for reducing radon in drinking water and is also an effective method for removing other contaminants. One of the reasons is that, unlike with GAC removal, the gas is vented safely into the air, so there is no radioactive waste left behind.

For 20+ years, the AIRaider™ series of diffused bubble water aeration systems manufactured by RadonAway® have set the standard for effective removal of radon and VOCs from drinking water. The acquisition of sole manufacturing rights to the CLEARADON® 3311 has expanded our water aeration methods and capabilities, allowing us to offer our customers the choice of three different aeration processes to suit their waterborne radon reduction needs.

## AERATION EQUIPMENT FEATURES

### ALL MODELS



#### PROVEN EFFECTIVE

All RadonAway® radon in water systems have been field-tested and lab-tested for radon reduction effectiveness.

*Result: Removes up to 99+% of radon (dependent upon system configuration).*



#### NO SWEATING

Double-wall, foam-insulated tank will not sweat.

*Result: No messy puddles. No increased dampness.*



#### WARRANTY

2-Year, hassle-free warranty on defective parts and workmanship.

*Result: An effective system and back-up you can count on.*



#### ATTRACTIVE LOOK

All mechanicals are on one side for cleaner aesthetics. Small footprints lead to unobtrusive placement.

### AIRRAIDER™ ONLY



#### REMOTE AIR INTAKE

AIRaider™ systems can draw clean, filtered air from other locations with a 1" or 1 1/4" air intake line.

*Result: Minimized backdrafting and reduced potential for contamination from airborne pollutants.*



#### EASY MAINTENANCE

Removable baffles improve easy cleaning and maintenance of the 433 and 433-S models.



#### VERSATILE ELECTRICAL CONNECTIONS

The electrical panel can be mounted on either side to allow left or right connections.



#### LID SEALING METHOD

Molded-in brass t-nuts and stainless steel machine screws provide a tight, mechanically positive seal.

# 3 AERATION PROCESSES and 8 MODELS TO CHOOSE FROM

## Diffused Bubble

For this method of aeration, the AIRraider™ tank is divided into four chambers. Water is aerated by the forced introduction of filtered air through diffusers, creating fine bubbles; this process occurs in three separate chambers before reaching the fourth chamber, where it is ready for use.

Reduces up to 99+ % of radon.

## Spray/Diffused Bubble

In this process, water is sprayed into a chamber via a spiral spray nozzle where filtered air is forced into the water column to accomplish the first stage of aeration; then the water is again aerated by a diffuser introducing additional filtered air. The water in the tank is then ready for use.

Reduces up to 95+ % of radon.

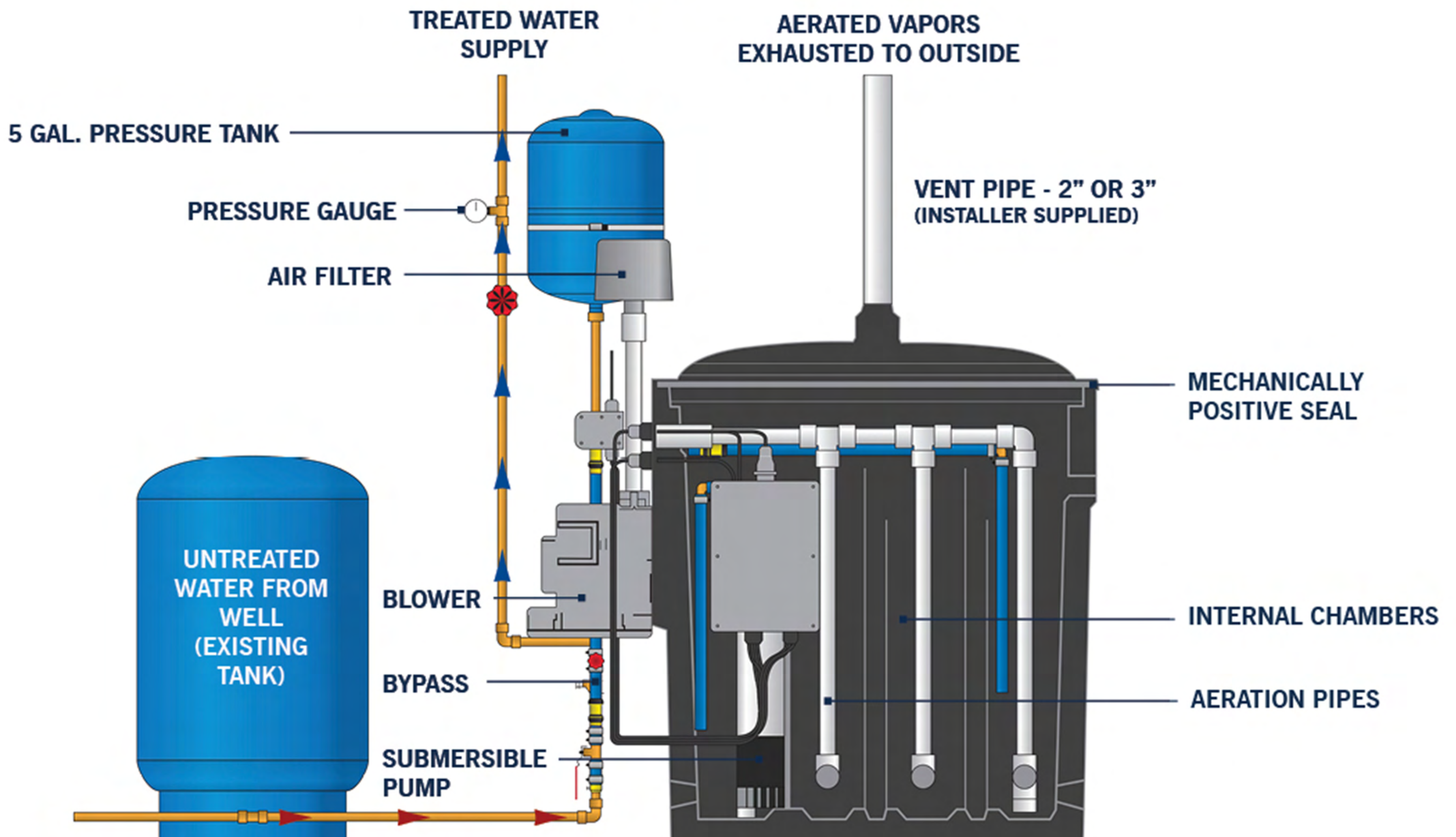
## Shallow Tray

In this method of aeration, water is sprayed into a perforated, spiraled tray chamber, while filtered air is forced from below the tray through the tray perforations, aerating the water. After thorough aeration, the water is allowed to flow into the bottom chamber of the system, where it is ready for use.

Reduces up to 99+ % of radon.

# TYPICAL AIRRAIDER SYSTEM INSTALLATION\*

433-S50 Installation Shown



\*Some system components sold separately. Check model specifications for included components.

# AIRRAIDER™ 433 SERIES



The AIRraider 433 models successfully and dependably remove radon and VOCs from well water through a patented multi-stage diffused bubble aeration method. For over 20 years, they have provided the standard by which other radon in water aeration equipment is measured.

## ✓ Up to 99+ Percent Radon Removal

Customer-confirmed; independently tested.

## ✓ Easy Maintenance

Fully accessible for easy cleaning from the top.

## ✓ Multi-Chamber Aeration

Exclusive multi-stage diffused bubble aeration process, proven effective.

## ✓ No Sweating

The double-wall, foam-insulated tank will not sweat.

## ✓ Lead Free

Meets SDWA Reduction of Lead in Drinking Water Act requirements.

## PERFORMANCE AND TECHNICAL INFORMATION

**Radon Reduction:** Up to 99+%

**Blower:** Regenerative Blower 3500 RPM 0.5 HP 600 watt

**Pump:** External Jet Pump (sold separately)

**Pump Controller:** Pressure Switch or Integral to Pump (both sold separately)

**Solenoid Valves:** Normally Closed Class F 120 VAC Buna-N Seal Stainless Steel Body 3/4" NPT

**Float Switches:** Two Floats: Lower Float turns system on/off and Upper Float is fail-safe

**Electrical Requirements:** 115V Dedicated Circuit (use a 20 amp breaker and, at minimum, 12/2 with ground electrical wire)

**Water Inlet/Outlet Connections:** **433:** 3/4" Quick Connect; **433-1:** 1" Quick Connect; **433-1TF:** 3/4" FNPT Inlet, 1/4" FNPT Outlet

**Vent Outlet:** 3" for use with 2" or 3" PVC Vent Pipe (supplied by installer)

**Air Inlet:** Via 5 Micron Filter (inline filter for remote intake sold separately)

**Tank:** Double-wall insulated, NSF-approved material

**Tank Operating Capacity:** Up to 44 gallons (total internal volume: 65 gallons)

MODEL	P/N	SYSTEM VOLTAGE	BLOWER	PUMP	PLUMBING CONNECTION	FLOW RATE <sup>1</sup>	PSI RANGE	RADON REDUCTION <sup>3</sup>	REPRESSURIZATION TANK	TANK DIMENSIONS
433	28426	115V UL Listed Control Panel	0.5 hp Regenerative Blower 5.0 Amp	Sold Separately	3/4" Quick Connect In/Out	Up to 15 GPM <sup>2</sup>	PSIs Vary	Up to 99%+	20 Gal. Min. Recommended	35"H x 34.25"W x 22"L
433-1	28427			Sold Separately	1" Quick Connect In/Out	Up to 20 GPM <sup>2</sup>	PSIs Vary		20 Gal. Min. Recommended	
433-1TF	28338			N/A	3/4" FNPT Inlet, 1/4" FNPT Outlet	Up to 20 GPM <sup>2</sup>	N/A		N/A	

2-year limited warranty. Inquire for details.

1 Flow rate out of system must be balanced to be less than flow rate into system.

2 GPM dependent upon repressurization selection. Higher flow rates will require proper sizing. Please call for sizing and technical assistance.

3 Site-specific characteristics and system implementation may affect performance.

# AIRRAIDER™ 433-S SERIES



The 433-S series takes the 433 to a new level. With engineering that includes an integrated internal repressurization pump, S series models offer easy installation, a smaller footprint, and quieter operation.

## ✓ Up to 99+ Percent Radon Removal

Customer-confirmed; independently tested.

## ✓ Easier Installation

No separate pump and pipes to install.

## ✓ Easy Maintenance

Fully accessible for easy cleaning from the top.

## ✓ Quieter Operation

Built-in pump reduces audible level of pump noise.

## ✓ No Sweating

The double-wall, foam-insulated tank will not sweat.

## ✓ Hands-Free Startup

When switch is on, the S50X model will start automatically as needed.

## ✓ Lead Free

Meets SDWA Reduction of Lead in Drinking Water Act requirements.

## PERFORMANCE AND TECHNICAL INFORMATION

**Radon Reduction:** Up to 99+%

**Blower:** Regenerative Blower 3500 RPM 0.5 HP 600 watt

**Pump:** Integral Stainless Steel Submersible Repressurization Pump

**Pump Controller:** **433-S50:** Pressure Regulator Valve with 40/60 Pressure Switch and (5 gallon min.) bladder tank (tank sold separately);

**433-S50X:** 40/60 Pressure Switch with (20 gallon min.) bladder tank (tank sold separately; Pressure Regulator Valve not included)

**Solenoid Valves:** Normally Closed Class F 120 VAC Buna-N Seal Stainless Steel Body 3/4" NPT

**Float Switches:** Three Floats: Middle Float turns system on/off; Upper Float is fail-safe; Lower Float protects pump from potential "run dry" condition

**Electrical Requirements:** 115V Dedicated Circuit (use a 20 amp breaker and, at minimum, 12/2 with ground electrical wire)

**Water Inlet, Outlet, and Bladder/Repressurization Tank Connections:** 3/4" Quick Connect to suit 3/4" pex or copper; 433-S50 has built-in bypass assembly

**Vent Outlet:** 3" for use with 2" or 3" PVC vent pipe (supplied by installer)

**Air Inlet:** Via 5 Micron Filter (inline filter for remote intake sold separately)

**Tank:** Double-Wall insulated, NSF-approved material

**Tank Operating Capacity:** Up to 44 gallons (total internal volume: 65 gallons)

MODEL	P/N	SYSTEM VOLTAGE	BLOWER	PUMP	PLUMBING CONNECTION	FLOW RATE <sup>1</sup>	PSI RANGE	RADON REDUCTION <sup>3</sup>	REPRESSURIZATION TANK	TANK DIMENSIONS
433-S50	28428	115V UL Listed Control Panel	0.5 hp Regenerative Blower 5.0 Amp	1/2 hp Sta-Rite Submersible 9.0 Amp Built-In	3/4" Quick Connect In/Out	Up to 16 GPM <sup>2</sup> @ 40 PSI	40-60 PSI	Up to 99%+	5 Gal. Required (pressure set to 35 PSI)	35"H x 34.25"W x 22"L
433-S50X	28429								20 Gal. Min. Recommended	

2-year limited warranty. Inquire for details.

1 Flow rate out of system must be balanced to be less than flow rate into system.

2 GPM dependent upon repressurization selection. Higher flow rates will require proper sizing. Please call for sizing and technical assistance.

3 Site-specific characteristics and system implementation may affect performance.

# AIRRAIDER™ 321 & 321-S50X



The AIRraider 321 models combine spray and diffused bubble aeration for the best quality and results at a value price. Developed for easy installation, they are ideal when the more powerful 433 is not required. The 321-S50X includes an integrated internal repressurization pump.

## ✓ Up to 95+ Percent Radon Removal

Customer-confirmed; independently tested.

## ✓ Easier Installation

No separate pump and pipes to install.

## ✓ Easy Maintenance

Fully accessible for easy cleaning from the top.

## ✓ Quieter Operation

Built-in pump reduces audible level of pump noise.

## ✓ No Sweating

The double-wall, foam-insulated tank will not sweat.

## ✓ Hands-Free Startup

When switch is on, the S50X model will start automatically as needed.

## ✓ Lead Free

Meets SDWA Reduction of Lead in Drinking Water Act requirements.

## PERFORMANCE AND TECHNICAL INFORMATION

**Radon Reduction:** Up to 95+%

**Blower:** Regenerative Blower 3500 RPM 0.11 HP 200 watt

**Pump:** External Jet Pump (sold separately) \*321-S50X has internal pump

**Pump Controller:** **321:** Pressure Switch or Integral to Pump (both sold separately); **321-S50X:** 40/60 Pressure Switch with (20 gallon min.) bladder tank (tank sold separately)

**Solenoid Valves:** Normally Closed Class F 120 VAC EPDM Seal Noryl Body 3/4" Turn & Lock

**Float Switches:** **321:** Two Floats: Lower Float turns system on/off and Upper Float is fail-safe; **321-S50X:** Three Floats: Middle Float turns system on/off; Upper Float is fail-safe; Lower Float protects pump from potential "run dry" condition

**Electrical Requirements:** 115V Dedicated Circuit (use a 20 amp breaker and, at minimum, 12/2 with ground electrical wire)

**Water Inlet/Outlet Connections:** 3/4" Quick Connect

**Vent Outlet:** 3" for use with 2" or 3" PVC vent pipe (supplied by installer)

**Air Inlet:** Via 5 Micron Filter (inline filter for remote intake sold separately)

**Tank:** Double-Wall insulated, NSF-approved material

**Tank Operating Capacity:** Up to 44 gallons (total internal volume: 65 gallons)

MODEL	P/N	SYSTEM VOLTAGE	BLOWER	PUMP	PLUMBING CONNECTION	FLOW RATE <sup>1</sup>	PSI RANGE	RADON REDUCTION <sup>3</sup>	REPRESSURIZATION TANK	TANK DIMENSIONS
321	28424	115V UL Listed Control Panel	0.11 hp Regenerative Blower 1.2 Amp	Sold Separately	3/4" Quick Connect	Up to 10 GPM <sup>2</sup>	PSIs Vary	Up to 95%+	20 Gal. Min. Recommended	35"H x 34.25"W x 22"L
321-S50X	28425			1/2 hp Sta-Rite Submersible 9.0 Amp Built-In		Up to 10 GPM <sup>2</sup> @ 40 PSI	40-60 PSI			

2-year limited warranty. Inquire for details.

1 Flow rate out of system must be balanced to be less than flow rate into system.

2 GPM dependent upon repressurization selection. Higher flow rates will require proper sizing. Please call for sizing and technical assistance.

3 Site-specific characteristics and system implementation may affect performance.

# CLEARADON® 3311



The CLEARADON fits conveniently into your current water system (in the basement or utility room). Using shallow aeration, it is designed and manufactured for years of trouble-free operation, this powerful, yet energy efficient, system can provide up to 99+% radon reduction.

## ✓ Up to 99+ Percent Radon Removal

Customer-confirmed; independently tested.

## ✓ Easy Maintenance

Fully accessible for easy cleaning from the top.

## ✓ Shallow Tray Aeration

Thorough aeration process where filtered air is forced into a spiraled tray chamber.

## ✓ Resistant to Fouling

Large holes in the aeration tray resist plugging by iron, manganese, or hardness.

## ✓ No Sweating

The double-wall, foam-insulated tank will not sweat.

## ✓ Lead Free

Meets SDWA Reduction of Lead in Drinking Water Act requirements.

## PERFORMANCE AND TECHNICAL INFORMATION

**Radon Reduction:** Up to 99+%

**Blower:** Centrifugal Blower 3500 RPM 0.5 HP 600 Watt

**Pump:** External Jet Pump (sold separately)

**Pump Controller:** Pressure Switch or Integral to Pump (both sold separately)

**Solenoid Valves:** Normally Closed Class F 120 VAC EPDM Seal Noryl Body 3/4" Turn & Lock

**Float Switches:** Two Floats: One turns system on/off and the other is fail-safe

**Electrical Requirements:** 115V Dedicated Circuit (use a 20 amp breaker and, at minimum, 12/2 with ground electrical wire)

**Water Inlet/Outlet Connections:** 3/4" Hose Adapter in, and 1" Hose Adapter out

**Vent Outlet:** 4" for use with 4" PVC vent pipe (supplied by installer)

**Air Inlet:** Via 5 Micron Filter

**Tank:** Double-Wall insulated, NSF-approved material

**Tank Operating Capacity:** Up to 14.5 gallons (total internal volume: 61 gallons)

**Auxiliary Fan:** Needed for proper operation (recommended: RadonAway® RP145/RP145c or XP201/XP201c)

MODEL	P/N	SYSTEM VOLTAGE	BLOWER	PUMP	PLUMBING CONNECTION	FLOW RATE <sup>1</sup>	PSI RANGE	RADON REDUCTION <sup>3</sup>	REPRESSURIZATION TANK	TANK DIMENSIONS
3311	28455	115V UL Listed Control Panel	0.5 hp Centrifugal Blower 5.0 Amp	Sold Separately	3/4" Hose Adapter Inlet, 1" Hose Adapter Outlet	6 GPM up to 9 GPM <sup>2</sup>	PSIs Vary	up to 99+%	Tank size varies by pump size. Call for details.	36" H x 38" Diam.

2-year limited warranty. Inquire for details.

<sup>1</sup> Flow rate out of system must be balanced to be less than flow rate into system.

<sup>2</sup> GPM dependent upon repressurization selection. Higher flow rates will require proper sizing. Please call for sizing and technical assistance.

<sup>3</sup> Site-specific characteristics and system implementation may affect performance.

# PERFORMANCE AND TECHNICAL INFORMATION FOR RADON IN WATER REMOVAL SYSTEMS



AIRaider™ 321



AIRaider™ 433



AIRaider™ 433-S50



CLEARADON® 3311

MODEL	AIRaider 321	AIRaider 321-S50X	AIRaider 433	AIRaider 433-1	AIRaider 433-1TF	AIRaider 433-S50	AIRaider 433-S50X	CLEARADON 3311
P/N	28424	28425	28426	28427	28338	28428	28429	28455
SYSTEM VOLTAGE	115V	115 V	115V	115V	115V	115V		115V
BLOWER	0.11 hp Regenerative Blower 1.2 Amp	0.11 hp Regenerative Blower 1.2 Amp	0.5 hp Regenerative Blower 5.0 Amp	0.5 hp Regenerative Blower 5.0 Amp	0.5 hp Regenerative Blower 5.0 Amp	0.5 hp Regenerative Blower 5.0 Amp		0.5 hp Centrifugal Blower 5.0 Amp
REPRESSURIZATION PUMP	Sold Separately	½ hp Sta-Rite Submersible 9.0 Amp Built-In	Sold Separately	Sold Separately	N/A	½ hp Sta-Rite Submersible 9.0 Amp Built-In		Sold Separately
PLUMBING CONNECTION	¾" Quick Connect In/Out	¾" Quick Connect In/Out	¾" Quick Connect In/Out	1" Quick Connect In/Out	¾" FNPT Inlet, 1¼" FNPT Outlet	¾" Quick Connect In/Out		¾" Hose Adapter Inlet, 1" Hose Adapter Outlet
FLOW RATE <sup>1</sup>	Up to 10 GPM <sup>2</sup>	Up to 10 GPM <sup>2</sup> @ 40 PSI	Up to 15 GPM <sup>2</sup>	Up to 20 GPM <sup>2</sup>	Up to 20 GPM <sup>2</sup>	Up to 16 GPM <sup>2</sup> @ 40 PSI		6 GPM up to 9 GPM <sup>2</sup>
PSI RANGE	PSIs Vary	40-60 PSI	PSIs Vary	PSIs Vary	N/A	40-60 PSI		PSIs Vary
RADON REDUCTION <sup>3</sup>	Up to 95%+	Up to 95%+	Up to 99%+	Up to 99%+	Up to 99%+	Up to 99%+		Up to 99%+
TANK DIMENSIONS	35"H x 34.25"W x 22"L	35"H x 34.25"W x 22"L	35"H x 34.25"W x 22"L	35"H x 34.25"W x 22"L	35"H x 34.25"W x 22"L	35"H x 34.25"W x 22"L		36" H x 38" Dia.
REPRESSURIZATION TANK <i>Repressurization Tank sold separately</i>	20 Gal. Min. Recommended	20 Gal. Min. Recommended	20 Gal. Min. Recommended	20 Gal. Min. Recommended	N/A	5 Gal. Required (pressure set to 35 PSI)	20 Gal. Min. Recommended	Tank size varies by pump size. Call for details.

<sup>1</sup> Flow rate out of system must be balanced to be less than flow rate into system.

<sup>2</sup> GPM dependent upon repressurization selection. Higher flow rates will require proper sizing. Please call for sizing and technical assistance.

<sup>3</sup> Site-specific characteristics and system implementation may affect performance.

Made in the USA with U.S. and imported parts.

