



EVOTECH[®]

Endoscope Cleaner and Reprocessor (ECR)

INSTALLATION REQUIREMENTS AND PRODUCT SPECIFICATIONS



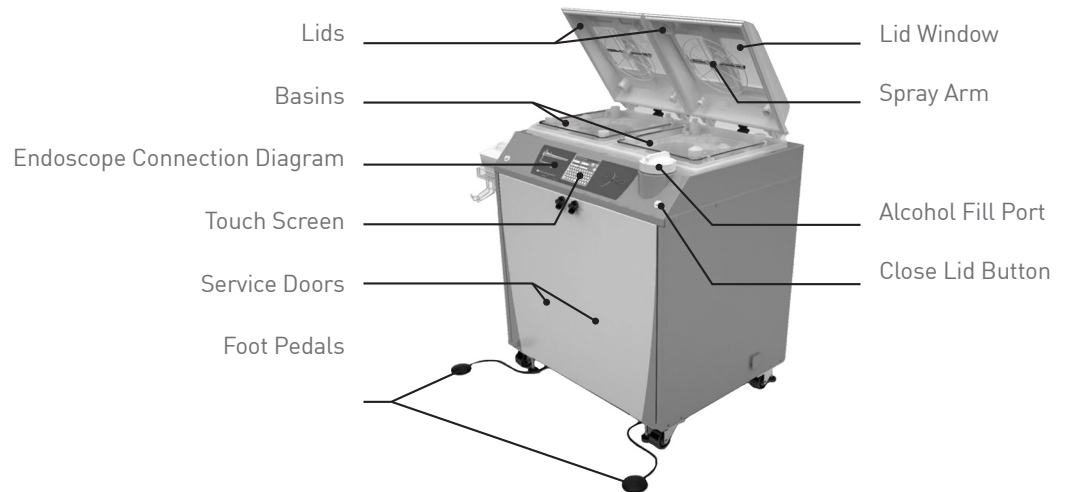
EVOTECH® ECR

Installation Requirements and Product Specifications

System Overview

The EVOTECH® Endoscope Cleaner and Reprocessor (ECR) is the first system to eliminate the labor-intensive manual cleaning of endoscopes*. With its evolved technology, the EVOTECH® ECR helps ensure compliance, consistently clean endoscopes, and safety for staff and patients. Plus, it automatically detects leaks, eliminating the inconsistencies of manual inspection. Integrated MEC monitoring also prevents staff exposure to high-level disinfectant and saves money by removing the need for test strips. All of this enhanced automation helps save time, increases productivity, and frees staff to focus on patient care.

*Does not eliminate bedside precleaning in procedure room and no manual cleaning is required when selecting a cycle that has a wash stage.



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Installation Requirements and Product Specifications

System Description	The EVOTECH® ECR is composed of two independently operated sides, each with a basin. Both processing basins are operated using the control panel. The EVOTECH® basins can operate asynchronously; one basin can be idle while the other is in use. The primary components of the system are as follows:
Processing Basins	One endoscope is loaded into each processing basin. The basin contains channel connectors for connecting the tubing sets to an endoscope.
Basin Lids	Each basin lid features a seal and a rotating spray arm. Each lid also has a window, allowing you to view the activity in the basin.
Service Doors	A door on each side of the front panel can be opened to change filters, and replenish detergent and disinfectant. The service doors can be locked so that only authorized personnel have access to the detergent, disinfectant, and bacterial retentive filters.
Alcohol Fill Port	The alcohol fill port is used to fill the alcohol reservoir with 70% isopropyl alcohol. Alcohol facilitates drying of the endoscope channels. The alcohol rinse is selectable on the control panel. The system notifies you when this solution needs to be replenished.
Barcode Reader (Optional)	The barcode scanner allows you to quickly enter information.
Connection Diagram	Information on how to connect an endoscope is shown by a generic endoscope diagram located on the front of the unit.
Touch Screen	The system is operated by means of a touch screen in the center of the top front panel.
Printer Support	The printer rests on either side of the system on the provided support. The printer can also be located on a nearby shelf.
Network Connection Port	The network connection port is on the rear of the unit.
Basins per System	2
Scopes per Basin	1
Scope Compatibility	Submersible flexible fiber optic and video endoscopes suitable for high-level disinfection
Where Marketed	United States, Canada, New Zealand, Australia, Singapore
FDA Clearance	Yes
Configuration	Floor, Stand-alone
Mobility	Moveable, 4 casters, 4 levelers
Standard of Care	High Level Disinfection
Positive Air Pressure Air Capability	Yes, to all internal channels
Self-Disinfect Cycle	Yes
Information Input/Output	<hr/>
Display	6.4-inch Color VGA
Hard Copy	Printout
Control Interface	Microprocessor
Input	Touch Screen

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Architecture and Space

Architecture/Space

Height (w/ Lid Closed)	46" (117 cm)
Height (w/ Lid Open)	58" (147 cm)
Width (w/out Printer)	37" (94 cm)
Width (w/ Printer)	46" (116 cm)
Depth	33" (84 cm) Leave at least approximately 3 inches of space between the wall and the back of the EVOTECH® ECR to ensure adequate space for the expansion tank. See Exhibit 2
Weight (Empty)	500 lbs (226.8 kg)
Weight (Operating)	578 lbs (262 kg)
Basin Size	18.25" × 19.75" × 5.75" (46.4 cm × 50.2 cm × 14.6 cm)
Service Access Area	Minimum access space around the System when in position for service is 36" behind, in front and to either the left or right side. Note: The EVOTECH® ECR is on castors and can be moved for servicing.
Earthquake Restraint	Unit includes attachment points. See Exhibit 2.
Tilt	Up to 1 degree from vertical

Space/HVAC

Min. Room Temperature	59° F (15° C)
Max. Room Temperature	86° F (30° C)
Relative Humidity	10 - 80% non condensing
Elevation	-330 to 9,900 feet (-100 to 3,000 meters)
External Venting	If desired, the system can be configured to allow it to vent to an external venting system. 2" vent

Heat Load

Normal Cycle	1200 Watt (4000 BTU/hr)
Self Disinfection Cycle	2000 Watt (7000 BTU/hr)
Idle	300 Watt (1000 BTU/hr)

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Electrical

EVOTECH® ECR Electrical

AC Power	208 V (+5%/-10%), 3 Phase~, 60Hz, 30 A USA, Canada. Dedicated circuit. Power outlet must be ground fault protected. Do not place the GFCI under the water filtration unit. See Exhibit 5.
Draw	Nominal 23 amps +10% at peak
Power Consumption	Nominal peak power is approximately 9000W and idle power is approximately 300W. The average power per cycle will depend upon incoming water temperature but typically should be approximately 1800W.
Electrical Connection	3-phase NEMA, L 15-30 - Locking The electrical connection must be user accessible. The EVOTECH® System must be positioned to allow user accessibility of the power plug as an electrical disconnection device.
Network interface	RJ45 10-Base T
Ground Fault Circuit Interrupter	30 Amp, 3 Phase 208 VAC 3-Wire (L1, L2, L3) Auto recovery on power loss GFCI Delta circuit w/o neutral ASP recommends the use of ground fault products by North Shore Safety (model PGFS-83105 -137) or Siemens (Type ED6, or equivalent) but customers may use any GFCI vendor products that meet the above specification. Expected lead time 2-3 weeks.

Printer Electrical

Printer	Black and white printer included. The printer is a separate external device from the EVOTECH® ECR.
Printer Power Connection	100 - 240V~, 50/60 Hz, 1.5 A
Printer Support	The printer rests on either side of the system on the provided support (brackets are included). The printer can also be located on a nearby shelf. Printer brackets can fit up to a 7.7" x 7.7" (19.5 x 19.5 cm) printer. Printer brackets extend approximately 8.7" (22 cm) from the system.
Printer Connection	120 inch power cable (supplied)

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Plumbing

Drain Specifications

Number of Drains	The left and right basin each has a drain tube. There is a shared overflow detector
Peak Drain Capacity	25 liters/min
Drain Height	38" (minimum) - 42" (maximum) as measured from the floor - vented
Stand Pipe	One 3" in diameter, or Two each 2" in diameter to accommodate EVOTECH® ECR drain lines (6" minimum length)
Drain Location	To the right of AC outlet and within 44" of installation system
Floor Drain	Recommended

Water Quality

Hardness	Less than 50 PPM (CaCO ₃ , or Equivalent). ASP requires the use of a water softening system with all EVOTECH® ECR installations. Contact Siemens Water Technologies for recommendations.
Type	Potable tap water. Reverse Osmosis (RO) and Deionized (DI) water are contraindicated for use in the EVOTECH® ECR and will cause cycle cancellations.
ASP Supplied Pre-Filter	Carbon filtration and 0.2 micron filtration (See page 6).
Water Pressure	40 PSI (275 kPa) minimum dynamic pressure during flow rate of 1.6 gallons per minute at EVOTECH® ECR inlet (6 lpm) per basin. Note: ASP recommends ¾ inch or greater water supply lines. 70 PSI (690 kPa) maximum static pressure. Check water filtration manual for maximum water filtration static pressure.
Water Temperature	59° F (15° C) to 86° F (30° C) Note: Hot water (>86° F) is contraindicated and will cause cycle cancellations.
Conductivity	>132 µS/cm (Between 41 and 132 µS/cm requires the addition of salt tablets to complete self-disinfection cycle; refer to CL-103685)
Recommended Silt Density Index (Water Sediment)	≤5 For optimum performance, ASP recommends the use of pre-filtration systems when SDI >5, contact Clear Solutions, Inc. for recommendations.

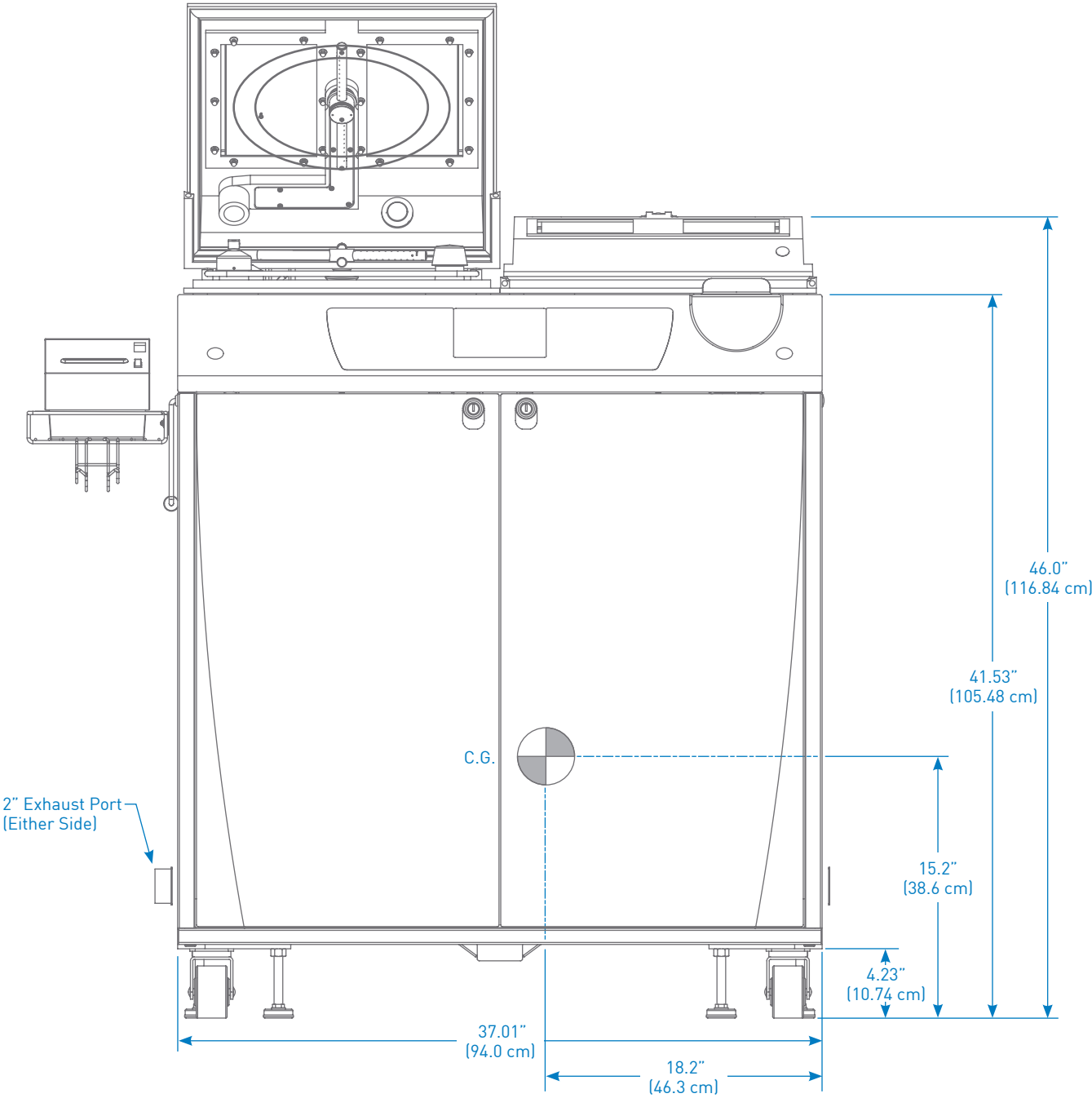
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Water Filtration System

Description	The Water Filtration System with Chlorine Removal for use with EVOTECH® Endoscope Cleaner and Reprocessor (ECR) offers a unique combination of efficiency and capacity for particulate and chemical adsorption. This system filters contaminants such as sediment, soluble organics and chlorine found in municipal water sources. This Water Filtration System is required for use with every EVOTECH® ECR (Additional filtration may be recommended).
Where Marketed	United States, Canada, New Zealand, Australia, Singapore
Configuration	Wall-mounted
Filter Media	<hr/>
Hybrid Carbon Filter	PAC infused/Nanoalumina charged media with a Rigid Carbon Block Core
0.2 micron Filter	Polyether Sulfone Membrane or Polypropylene Polysulfone
Water Supply	<hr/>
Pressure	Maximum static pressure not to exceed 70 PSI (4.83 bar)
Maximum Pressure	<hr/>
Hybrid Carbon Filter	70 PSI (4.83 bar)
0.2 micron Filter	70 PSI (4.83 bar)
Temperature Range	39-135° F (4-57° C)
Chlorine Reduction Efficiency	2 ppm to less than 1 ppm for > 30,000 gallons (Part no. PACB4.5-20)
Silt Density Index	≤ 1.0 ±0.1
Efficiency	> 99.9% reduction of 0.2µ particulate (monodispersed latex spheres)
Dirt Holding Capacity (DHC)	925g (A2 Fine Test Dust)
Effective pH Range	5-10
Overall Size	27" (W) × 19.625" (H) × 8.25" (D)
Weight (Dry)	25 lbs
Weight (Filled w/ Water)	< 65 lbs
Water Filtration Plate (Mounting Plate)	Mounting plate is required to be installed by facility prior to Water Filtration System installation
Inlet Water Hose	58" (147.32 cm) - 3/4 inch GHT
Drain Hose	60" (Note that the drain hose cannot be stretched straight) - 3/4 inch GHT

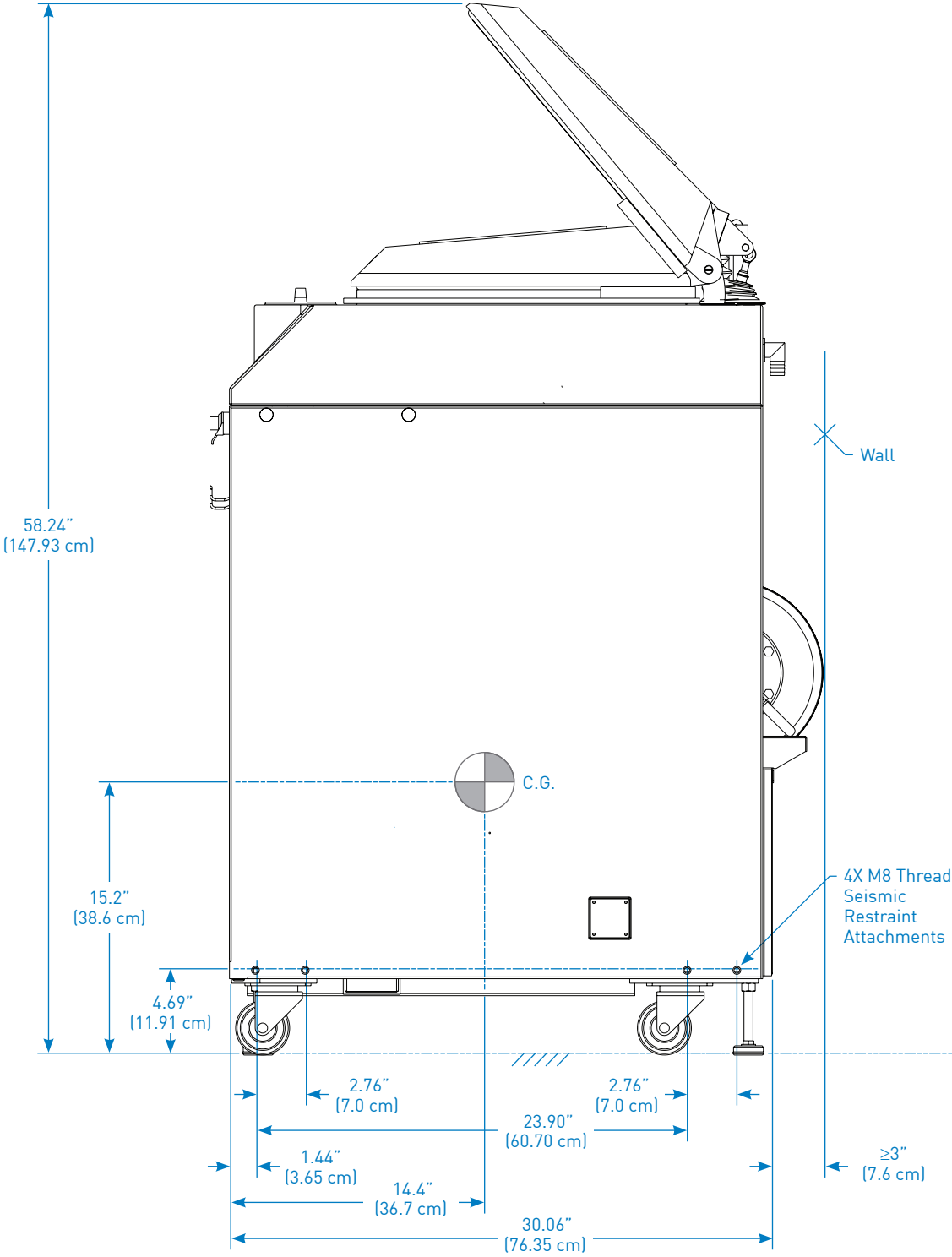
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Exhibit 1: Front View



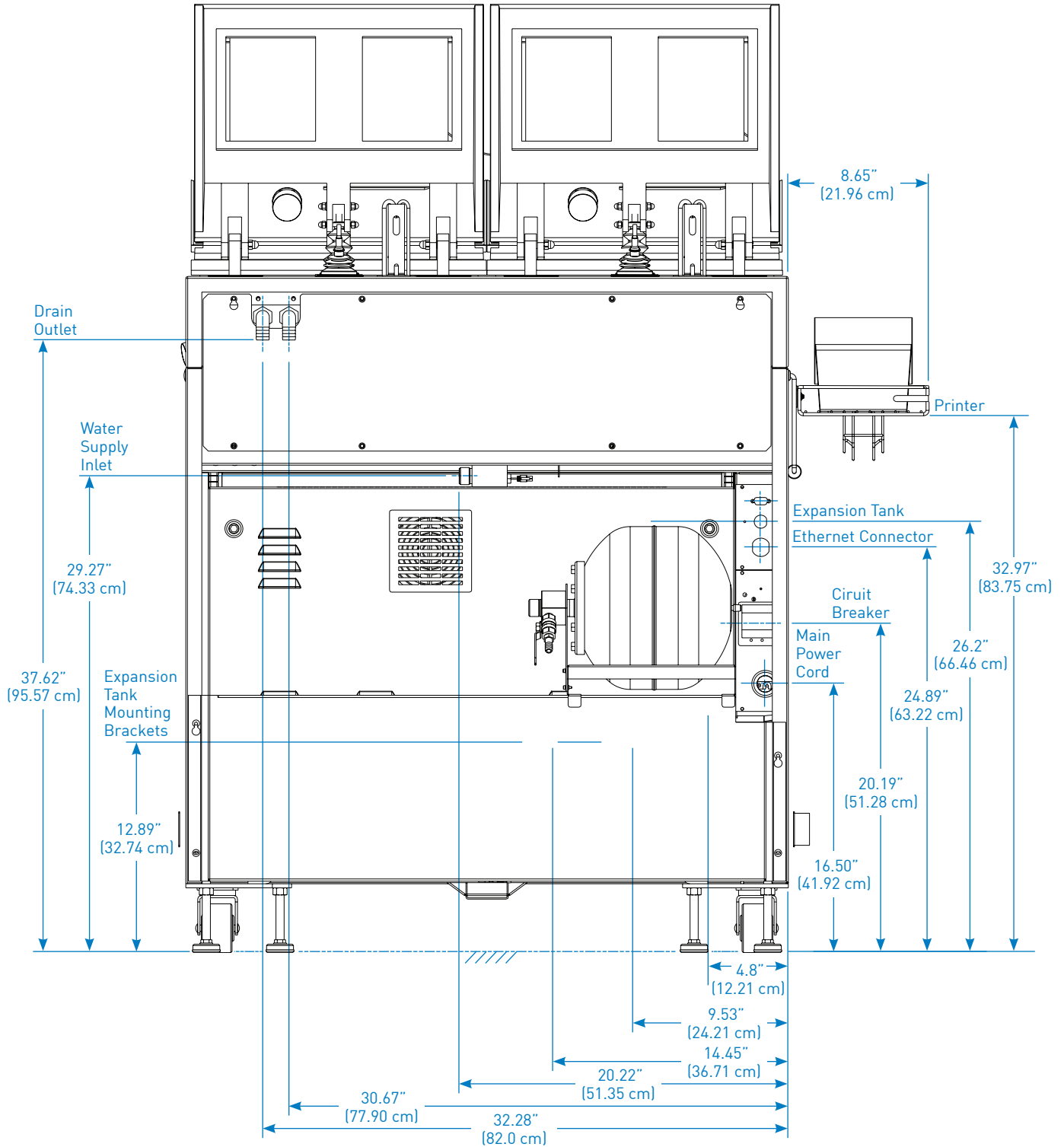
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Exhibit 2: Side View



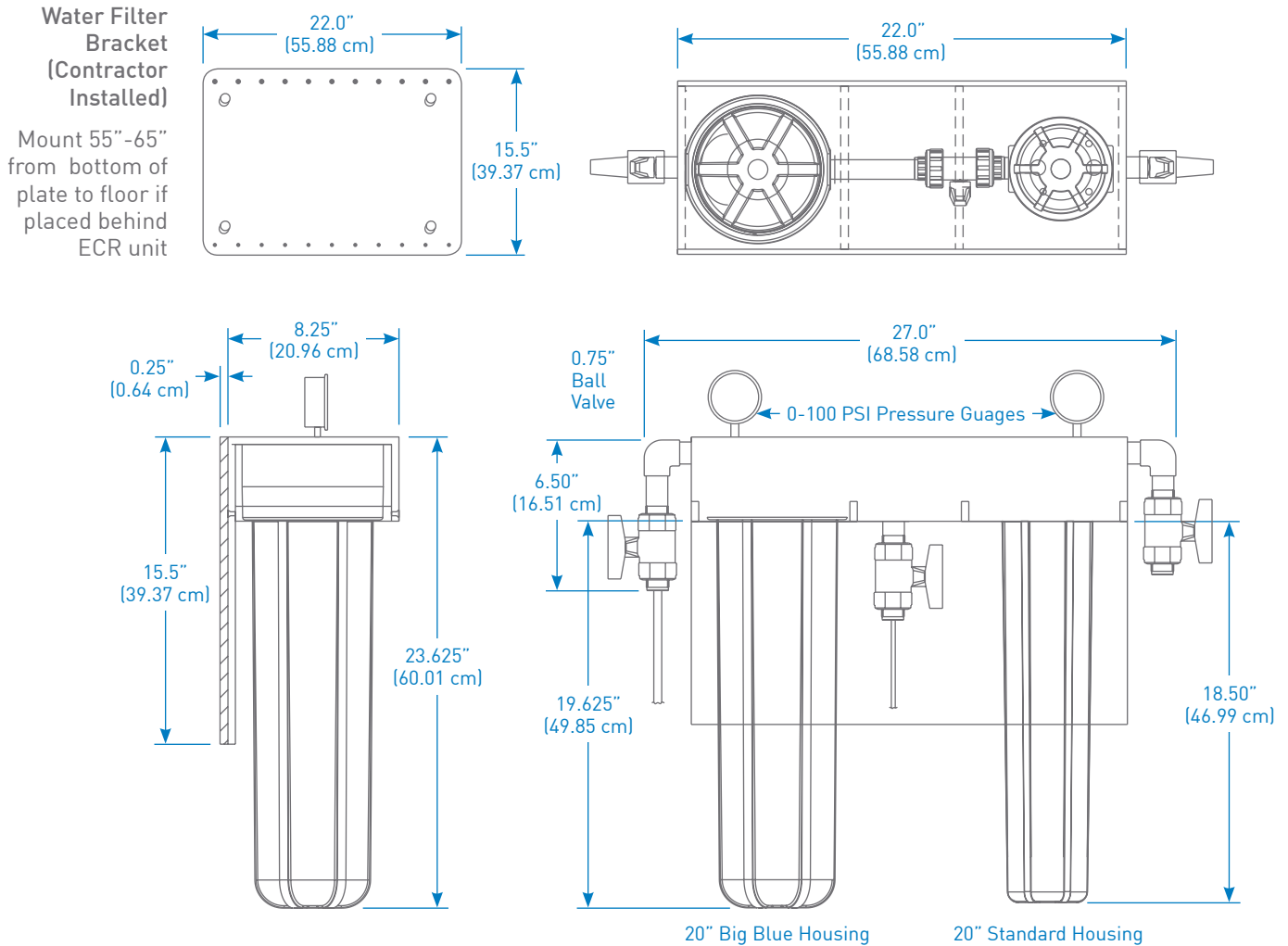
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Exhibit 3: Rear View (Expansion Tank Mounted Horizontally)



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Exhibit 4: Water Filtration System and Bracket



Pre-Installation of Bracket

Select the area where the filter housing assembly is to be mounted. Make sure adequate space is available below each housing to allow the filters to be removed and replaced.

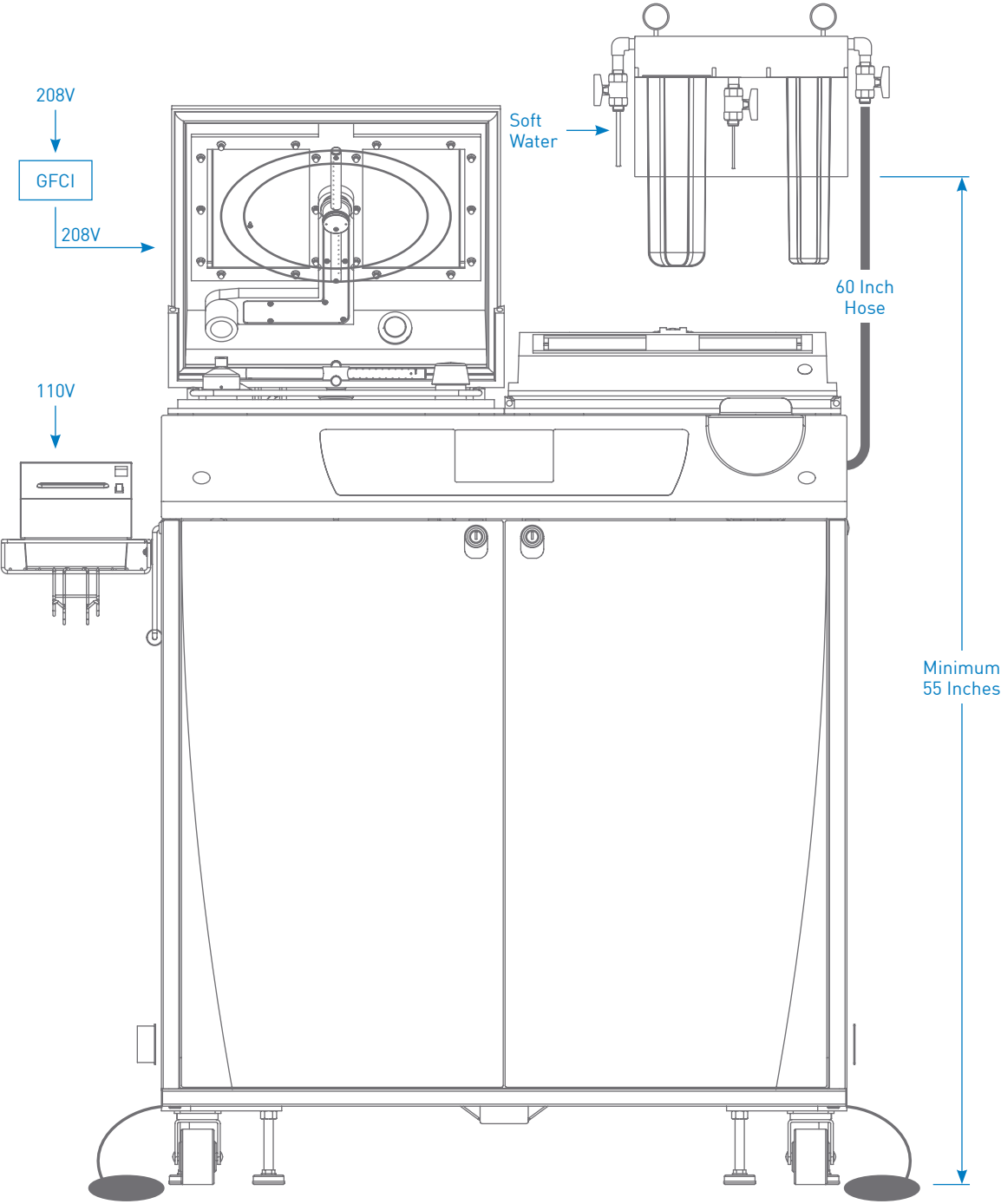
The choice of location dictates whether the wall mount plate is mounted directly to a wall stud or to wall material using lag bolts. ASP cannot mount the wall plate at your facility. Be sure to mount the plate in such a way that it can safely hold the weight of the filter unit; that there is sufficient clearance to change the filters; and make sure the Water Filtration System is close enough to the drain, water source and to the EVOTECH® ECR, to prevent kinking or damage to the hoses.

Verify that the water static pressure does not exceed 70 psi (4.83 bar).

Note: When filled with water, the system weighs approximately 65 lbs (29.5 kg).

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Exhibit 5: System Overview



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Pre-Installation Specification Checklist

<input type="checkbox"/>	Space Requirement: Installation Space	See Page 3 Height (w/ Lid Open) 58" (147 cm) Width (w/ Printer) 46" (116 cm) Depth 33" (84 cm)
<input type="checkbox"/>	Service Space	36" Minimum access space around the System
<input type="checkbox"/>	Room Environment	Room Temperature 64° F (18° C) to 86° F (30° C) Room Humidity 10% to 80% relative Humidity
<input type="checkbox"/>	Power Requirements: EVOTECH® System	See Page 4 3 phase 208VAC, 60Hz, 30amp GFI Protected Dedicated circuit Electrical Connection (3-phase NEMA, L 15-30)
<input type="checkbox"/>	EVOTECH® Printer	100 - 240V~, 50/60 Hz, 1.5 A *All power shall be located on the Left Side Facing the area being prepared for the Evotech system.
<input type="checkbox"/>	Water Requirements: Supply:	See Page 5 Water Flow: 12 liters/min (3.2 gallons/minute) Water Pressure: 40-70 psi dynamic pressure
<input type="checkbox"/>	Water Temperature:	15-30°C
<input type="checkbox"/>	Soft Water Available:	Water softeners are required for all Evotech installations Maintain constant <50 ppm at all time
<input type="checkbox"/>	Drain Requirement:	Drain stack: 1ea of 3 inches diameter or 2ea of 2 inches in diameter. Vented Drain Height: 38 to 42 inches high from the floor Drain Capacity: 24 liters/min (6.4 gallons/minute) per drain *All Drain(s) shall be located on the Right Side Facing the area being prepared for the Evotech system.
<input type="checkbox"/>	Conductivity:	>132 µS/cm (Between 41 and 132 µS/cm requires the addition of salt tablets to complete self-disinfection cycle; refer to CL-103685)
<input type="checkbox"/>	Recommended SDI:	≤5

ADVANCED STERILIZATION PRODUCTS

Division of Ethicon, Inc.

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