

BEMIS

Canister Drainage System

QUICK-DRAIN™



Use and Care Manual



Quick-Drain™

Use and Care Manual

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The Quick-Drain™

Introduction

The Quick-Drain Systems are designed to be used exclusively with BEMIS Quick-Fit™ liners or BEMIS Hi-Flow canisters. The systems are intended for the disposal of medical fluids collected into Quick-Fit liners or Hi-Flow canisters. They offer a safe, efficient method for the collection and disposal of liquid medical waste.

OSHA Compliance

The Quick-Drain Systems provides the “engineering control” prescribed in the OSHA Bloodborne Pathogen Regulation (29CFR, 1910.1030). The Quick-Drain in combination with the Quick-Fit liners or Hi-Flow canisters provide “engineering controls” that “isolate or remove the blood borne pathogen hazard from the workplace”.

The Quick-Drain-QF allows for the drainage of the Quick-Fit liners. The Quick-Drain-HF allows for the drainage of the Hi-Flow canisters. The patented interfaces between the Quick-Drain and the Quick-Fit liners or Hi-Flow canisters allow for a simple, efficient and clean method to empty and dispose of the fluid contents of the canister.

– WARNING –

CANISTER MAY CONTAIN RESIDUAL FLUID.
BE SURE TO FOLLOW HOSPITAL POLICY
FOR DISPOSAL OF PRODUCTS
CONTAINING MEDICAL WASTE.

QUICK-DRAIN MAY HAVE RESIDUAL FLUID IN OR ON IT.
WHEN HANDLING ANY PRODUCTS CONTAINING
MEDICAL WASTE (BLOOD OR BODY FLUIDS)
FOLLOW PRECAUTIONS IN OSHA BLOODBORNE
PATHOGEN STANDARD AND WEAR PROTECTIVE
APPAREL.

Individuals using the Quick-Drain must be properly trained to handle and dispose of medical fluid waste, defined by OSHA as infectious or potentially infectious.

US Patent Numbers: 6,626,877 7,674,248 7,585,292

Limited Warranty

Bemis Manufacturing Company (BEMIS) warrants this Quick-Drain to be free from defects in workmanship and material under normal use for a period of one (1) year from the date of purchase.

The sole remedy for a breach of warranty within the warranty period shall be the repair or replacement of the Quick-Drain. In either case, the choice of remedy shall remain with BEMIS. Repairs may be made by BEMIS or any agent authorized by BEMIS. ***Bemis has sole authority to authorize agents for warranty work.***

This warranty shall not apply to any Quick-Drain which: (i) has been repaired by anyone other than an authorized BEMIS agent or representative; (ii) has, in the sole and absolute discretion of BEMIS, been altered in any manner whatsoever; (iii) has been subjected to misuse, neglect, negligent operation; (iv) has had its serial number altered, effaced or removed; or (v) has been operated or assembled or installed otherwise than in accordance with the Quick-Drain operating instructions furnished by BEMIS. The installation, assembly and use of component parts with regard to the Quick-Drain sources other than BEMIS, without the express written consent of BEMIS, shall void the warranty.

The warranty set forth above is in lieu of the only warranty for the Quick-Drain. BEMIS disclaims, all other warranties, or representations (express or implied, oral or written) with respect to the Quick-Drain. BEMIS expressly disclaims any liability for special, indirect, incidental, consequential or exemplary damages.

For Repair Service under this Warranty:

Contact your Bemis Healthcare Sales Representative

Bemis has sole authority to authorize agents for warranty work.

Name and phone number of Bemis Healthcare Sales Representative

For Repair Service after Warranty:

Repairs after warranty are the sole responsibility of the purchaser.

To contact an authorized agent directly call -
MERA – Medical Equipment Repair Associates
1-800-513-3832

Customer Care Information

For questions regarding the installation, function, service or sale of the Quick-Drain and accessories, please call Bemis Customer Service or your local Sales Representative.

Bemis Manufacturing Company
1-800-558-7651
8:00 a.m. to 5:00 p.m. CST
Monday through Friday
HCG@BemisMfg.com

Bemis Manufacturing Company 300 Mill Street Sheboygan Falls, WI 53085 USA

Installation Requirements

Installation of the Quick-Drain-QF and Quick-Drain-HF™ Fluid Management Systems is a straightforward process.

These installation instructions are written in a general terms and require that the installer modify them appropriately in order to meet state and local plumbing codes and federal, state, and local regulations for the disposal of medical fluid waste.

WARNING:

It is the responsibility of the hospital to ensure that any necessary permits are acquired and that all state and local plumbing codes are followed. In addition, it is the responsibility of the hospital to ensure that medical fluid waste is handled and disposed of in accordance with all federal, state, and local regulations, without limitation, those pertaining to human health, safety, and the environment.

Facility Requirements

For proper performance and installation, the Quick-Drain Systems require:

- ♦ Water pressure between 40-60 psi supplied by a 1/2" pipe to operate optimally
- ♦ an area of open wall space per figure 1
- ♦ a wall area capable of bearing a 150 lb. static load
- ♦ a Watts Double Check Reduced pressure backflow preventer on the inlet water line
- ♦ a minimum 1" sanitary waste line

Tool Requirements

With the facility requirements met, the Quick-Drain can be installed using standard plumbing tools.

Material Requirements

Typical materials and fittings needed to install the Quick-Drain include:

- ♦ Trap
- ♦ Cleanout
- ♦ Ball valves
- ♦ Various piping and fittings
- ♦ Screws or bolts to support a 150 lb. static load

However, a facility may require additional materials depending on the features of the installation site.

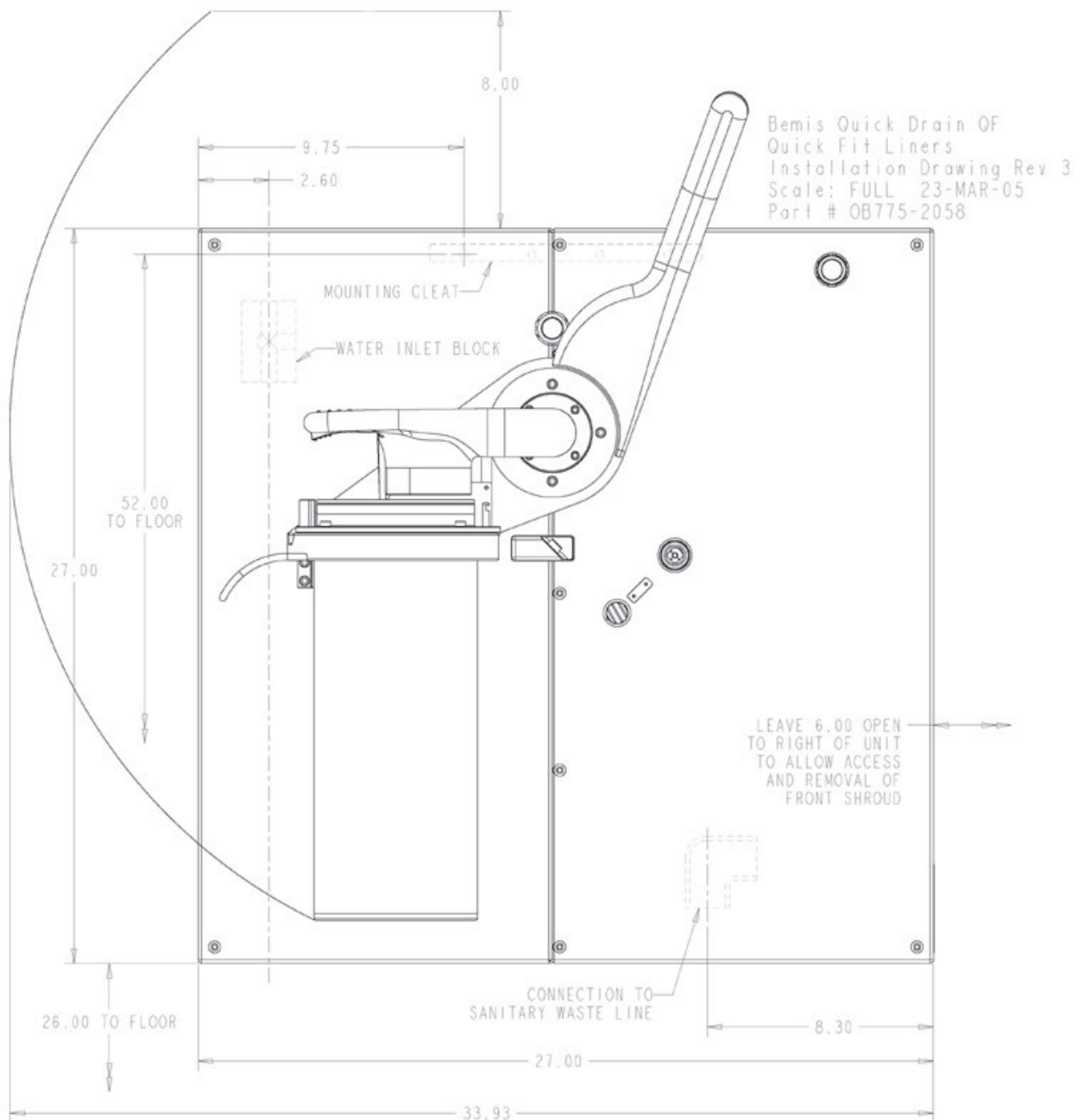


Figure 1: Quick-Drain-QF Installation Dimensions

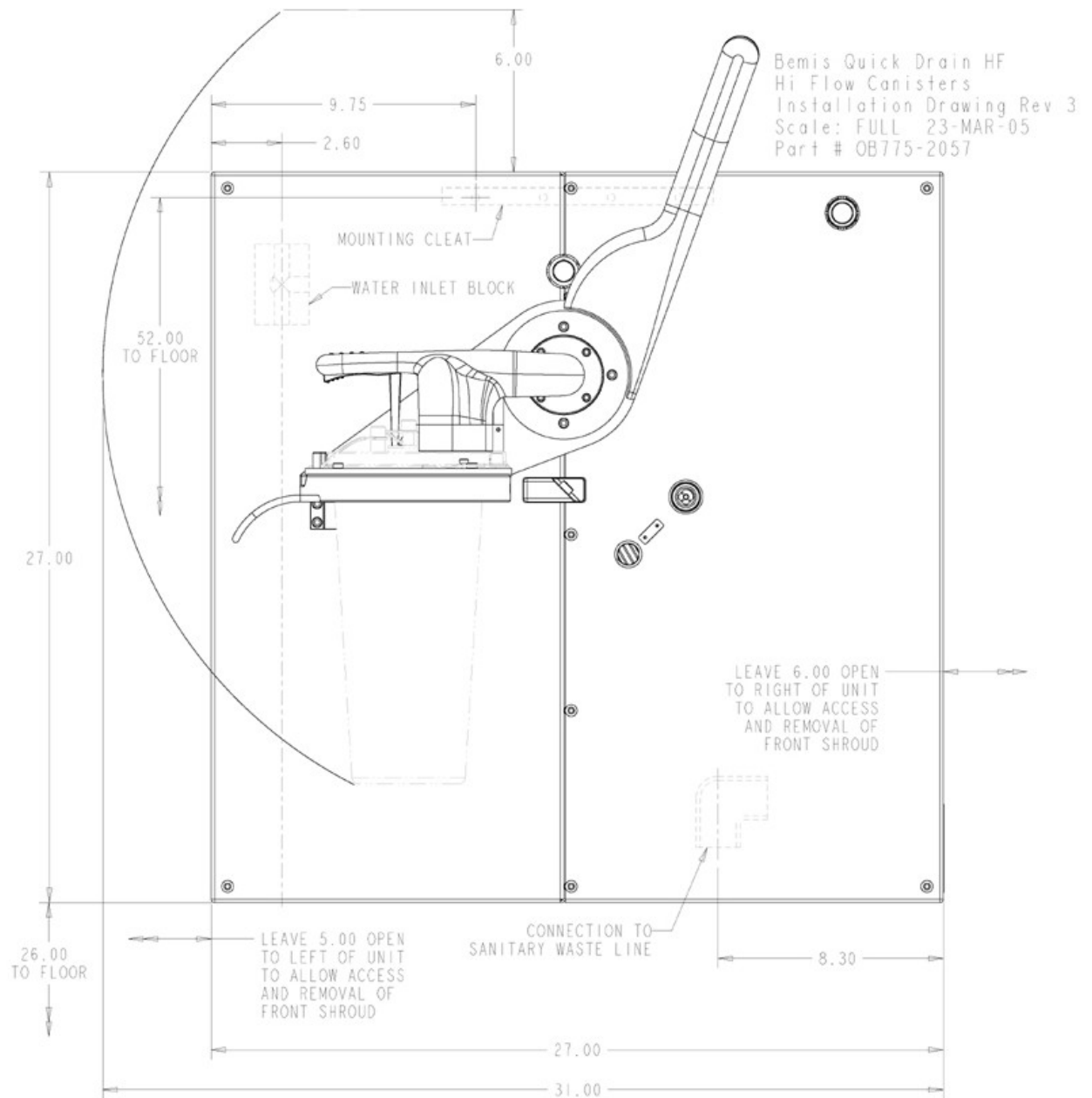


Figure 2: Quick-Drain HF Installation Dimensions

Installation Steps For Quick-Drain QF and Quick-Drain HF

CAUTION: Before beginning the installation, make sure that all affected water lines have been turned off.

1. Select a place for the Quick-Drain to be installed, preferably an area isolated from patient contact and treatment. Refer to Figure 1 or 2 (depending on model) for typical dimensions used and the required wall footprint.
2. If not already in place, a Watts double check valve reduced pressure backflow preventer must be installed on the water supply line to the Quick-Drain.
3. Open the shipping crate of the Quick-Drain. Remove all of the internal bracing and the cover from the box on the inside of the crate.
4. Take the component bag out of the box inside the crate. Remove the hanging cleat and mount as shown in Figure 1 or 2 (depending on model). Use appropriate fasteners so that the hanging cleat can support at least 150 lbs.

NOTE: In some installations, it is beneficial to first install stringers or a backboard onto which the Quick-Drain may then be mounted. Ensure the handle and top clamp have enough room to move through their full ranges of motion.

5. Hang the Quick-Drain on the hanging cleat. Use appropriate fasteners in the four corner holes of the backplate to secure the Quick-Drain to the wall.
6. Take the two-piece metal handle out of the box. Remove the fasteners that hold the two pieces together. Align the two handle parts over the swing arm as shown in Figure 3. Use the fasteners that originally held the handle pieces together to hold the handle pieces to the swing arm.

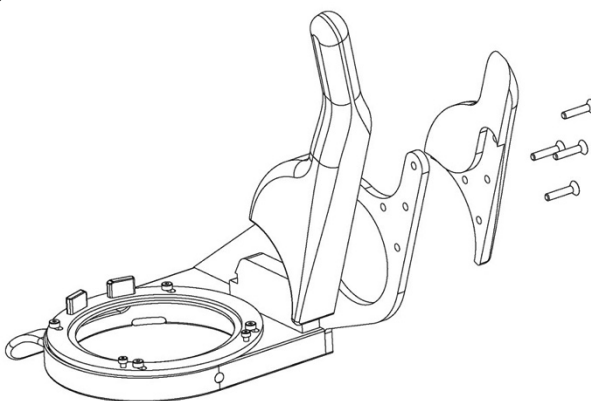


Figure 3: Handle Assembly

7. A 1/2" water line can be run to the Quick-Drain from the top or bottom of the machine. (Reference Figure 1 or 2) When running the water line to the machine, place a water valve just before the Quick-Drain so that water can be turned off to the system if needed.
8. When attaching the water line to the inlet water block, insert the provided plug in the unused water entry hole. Also move the bent stainless steel cover plate to cover the unused hole in the front shroud.
9. Connect the sanitary waste line to the 1" female PVC pipe fitting on the Quick-Drain. A cleanout trap should be installed between the Quick-Drain and sanitary waste line.

*It is recommended that a solid connection be made between the Quick-Drain and the sanitary waste line. There should be no air gaps in the connection to the sanitary waste line and the Quick-Drain should not dump into an open floor drain.
10. Turn on the water supply and check for any water leaks. If there are any leaks found, fix that leak before moving on in the installation process.
11. Depending on your system, fill either a Quick-Fit Liner or Hi-Flow Hard Canister with water and drain according to the operating instructions. Check for water leaks on all the water connections. If a leak is found, tighten the fittings until the leak is eliminated.
12. When the swing arm is in its home position, it will rest on a nylon swing arm support. Use an Allen wrench and remove the four cap screws and the nylon swing arm support. See Figure 4.
13. Take the left shroud and slide it onto the unit from the left side. It will slide behind the swing arm and fit around the aluminum back plate. The swing arm may have to be moved to allow the shroud to fit into position.
14. Re-install the nylon swing arm support that was removed in step 12.

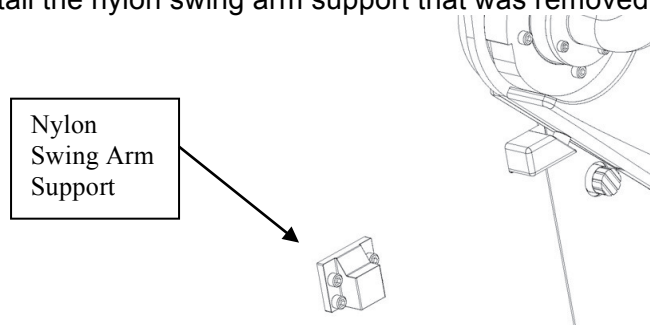


Figure 4: Nylon Swing Arm Support

15. Take two of the 1/4-20 button head socket cap screws from the component bag and fasten the left shroud to the back plate in the top left and bottom left corner. Also take two of the 8-32 x 3/8 flathead socket cap screws from the component bag and fasten the left shroud to the aluminum mounting block on the right edge of the shroud.
16. Take the right shroud and slide it onto the unit from the right side. It will overlap the edge of the left shroud. Take seven of the 1/4-20 button head socket cap screws from the component bag. Use two to fasten the shroud to the back plate in the upper and lower right corners. Use the remaining five to fasten the two shrouds together where they overlap in the middle of the unit. (See Appendix C, Figure 29 for reference on shroud assembly.)

Directions For Use of Quick-Drain QF

1. Disconnect the Bemis Quick-Fit liner from suction tubing circuits.

Remove connecting tubing from Quick-Fit Canister. THIS TUBING MAY CONTAIN RESIDUAL FLUID. FOLLOW HOSPITAL POLICY FOR DISPOSAL OF CONTAMINATED ITEMS. Transport to the Quick-Drain per hospital policy.

2. Place Bemis Quick-Fit liner in receptacle of Quick-Drain.

Align the handle on the Quick-Fit liner in between the alignment guides on the Quick-Drain. Press the liner firmly on the sealing edge of the canister.

3. Remove Two Port Caps.

Remove the Patient Port Cap as well as the large Pour Spout Cap on the Quick-Fit liner cover. IMPORTANT: Be sure the caps are firmly affixed to the Tandem Port and the Vacuum Port.

4. Engage Drainhead.

Rotate the drainhead in the down position onto the top of the Quick-Fit liner to seal the drainhead to the Patient and Pour ports. The drainhead will lock into place once it has been lowered into the correct position. Once the drainhead has locked, the swingarm is free to rotate to the drainage position.

5. Drain Liner.

Grasp the handle and rotate the swingarm until it comes in contact with the stop. The liner will automatically drain.

6. Rinse Liner.

If you would like to rinse the interior of the liner, press the rinse button at this time.

7. Return Swingarm.

After the liner has drained, grasp the handle and rotate until the swingarm is in the home position.

8. Further Rinsing.

If further rinsing is still desired, depress the main water valve and the rinse button to manually fill the liner with water. Once it is filled with water, release the buttons. Rotate the swing arm clockwise so the liner can drain again. Once drained rotate the swing arm back to the home position for liner removal.

9. Remove Liner.

Grasp the release lever on the bottom of the drainhead and lift the drainhead until it rests against its stop. Recap the ports. The liner can now be removed and disposed of according to hospital policy.

Directions For Use of Quick-Drain HF

1. Disconnect the Bemis Hi-Flow canister from its suction tubing circuits.

Remove connecting tubing from Quick-Fit Canister. THIS TUBING MAY CONTAIN RESIDUAL FLUID. FOLLOW HOSPITAL POLICY FOR DISPOSAL OF CONTAMINATED ITEMS. Transport to the Quick-Drain-HF per hospital policy.

2. Place Bemis Hi-Flow canister in receptacle of Quick-Drain.

Align the handle on the Hi-Flow Canister Cover in between the alignment guides on the Quick-Drain HF.

3. Remove Two Port Caps.

Remove the Tandem Port Cap as well as the large Pour Spout Cap on the Hi-Flow cover. IMPORTANT: Be sure the caps are firmly affixed to the Patient Port and the Vacuum Port.

4. Engage Drainhead.

Rotate the drainhead in the down position onto the top of the Quick-Fit liner to seal the drainhead to the Tandem and Pour ports. The drainhead will lock into place once it has been lowered into the correct position. Once the drainhead has locked, the swingarm is free to rotate to the drainage position.

5. Drain Canister.

Grasp the handle and rotate the swingarm until it comes in contact with the stop. The canister will automatically drain.

6. Rinse Canister.

If you would like to rinse the interior of the liner, press the rinse button at this time.

7. Return Swingarm.

After the canister has drained, grasp the handle and rotate until the swingarm is in the home position.

8. Further Rinsing.

If further rinsing is still desired, depress the main water valve and the rinse button to manually fill the canister with water. Once it is filled with water, release the buttons. Rotate the swing arm clockwise so the liner can drain again. Once drained rotate the swing arm back to the home position for canister removal.

9. Remove Canister.

Grasp the release lever on the bottom of the drainhead and lift the drainhead until it rests against its stop. Recap the ports. The canister can now be removed and disposed of according to hospital policy.

Description of Quick-Drain QF Unit and Operation

Home Position

When the unit is not in use it should be kept as shown in Figure 5. The swingarm is in the loading position and the drainhead is rotated clockwise until it rests against the swingarm handle.

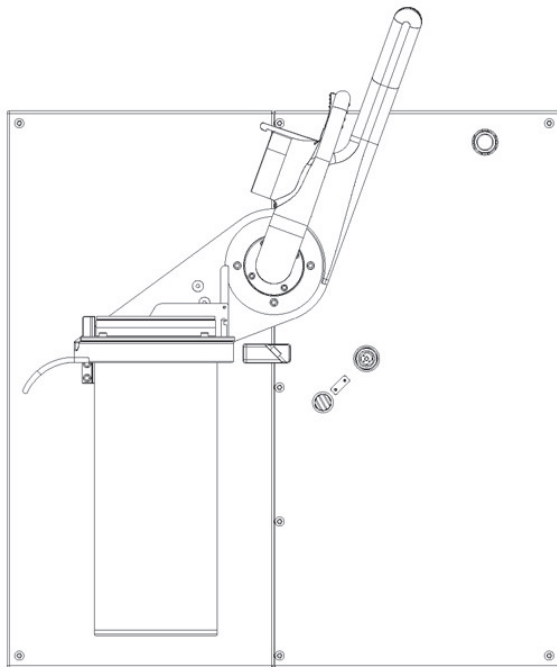


Figure 5: Quick-Drain in Home Position

When the unit is in this position the safety interlock will be activated so that the swingarm will not be able to rotate. Also any fluids in the drainhead will drain by gravity down into the unit.

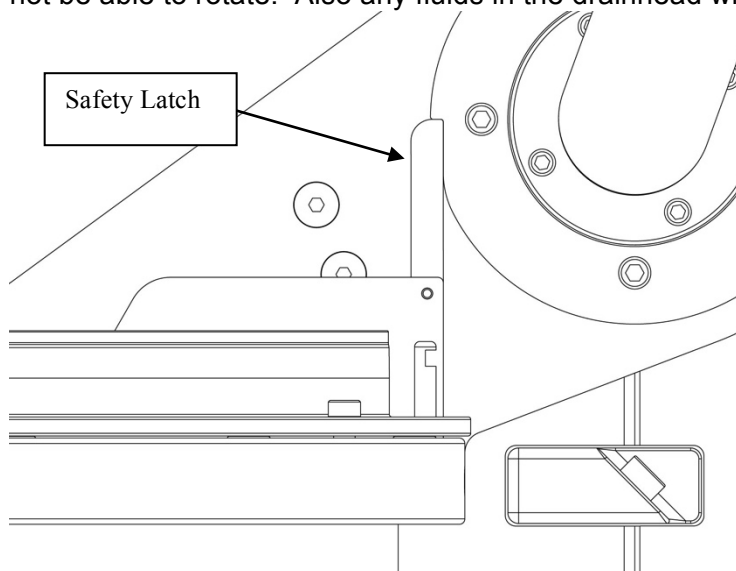


Figure 6: Safety Latch

Loading Position

Figure 7 shows the unit as the Quick-Fit liner is first loaded. The handle on the Quick-Fit liner fits in between the Cover Alignment Guides. The Quick-Fit Liner cover needs to be firmly pressed onto the Sealing Ring of the Swingarm. The port caps are removed from the Pour Spout and the Patient Port. The caps can then be wrapped around the Cap Retainers to keep them out of the way during draining.

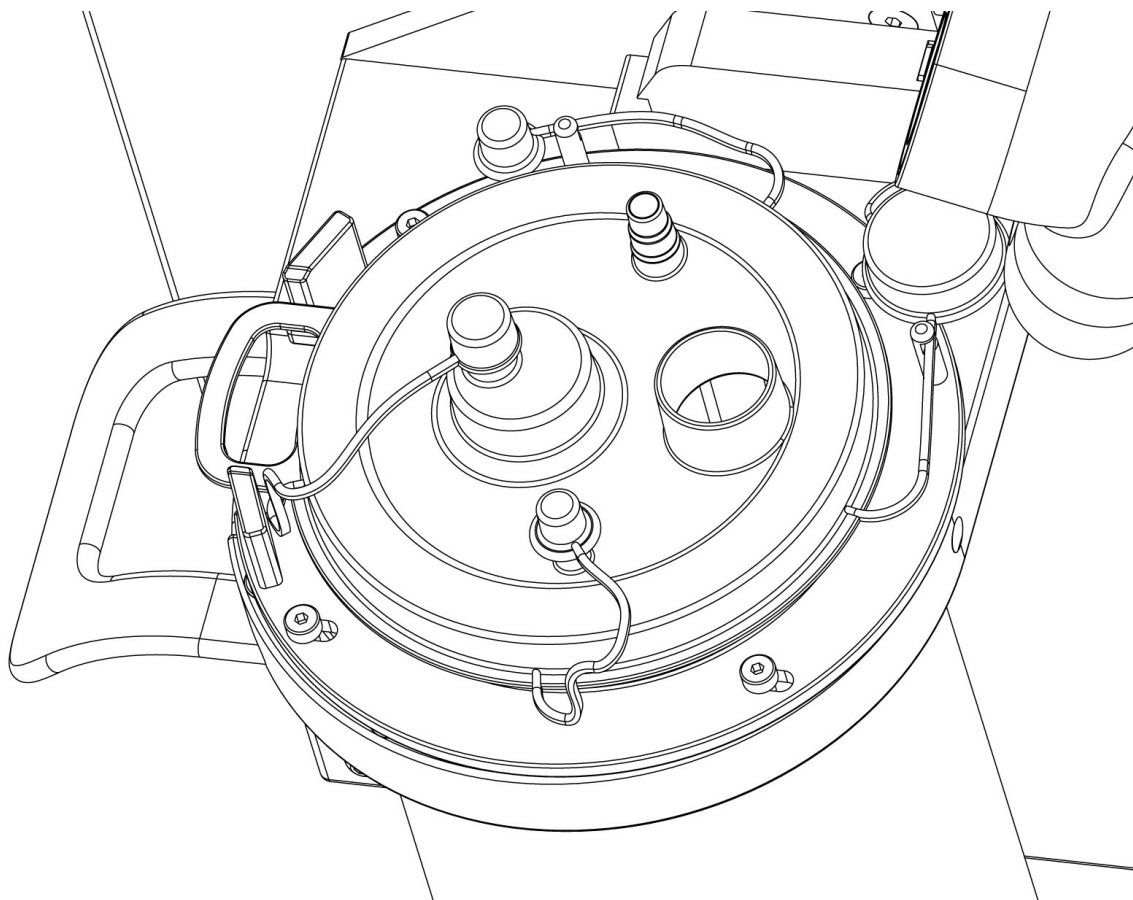


Figure 7: Quick-Fit Liner Loaded In Quick-Drain

Drainhead Engagement

Rotate the Drainhead in the counterclockwise direction. Once the Drainhead has seated itself onto the Quick-Fit Liner Cover it will latch itself to the swingarm. Once this latch has been engaged, the safety interlock will be released so that the swingarm may be rotated.

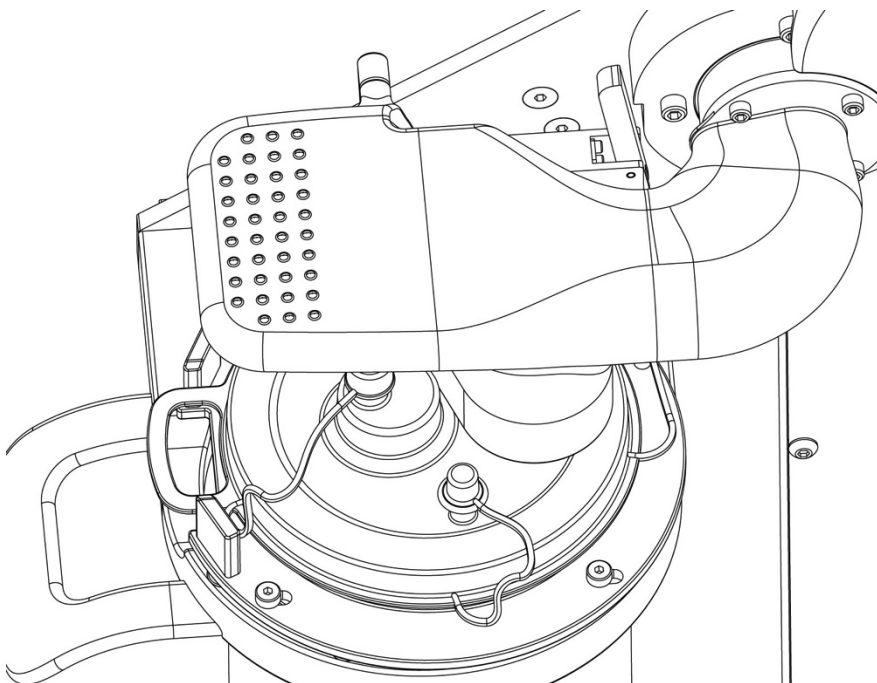


Figure 8: Drainhead Seated Onto Canister Cover

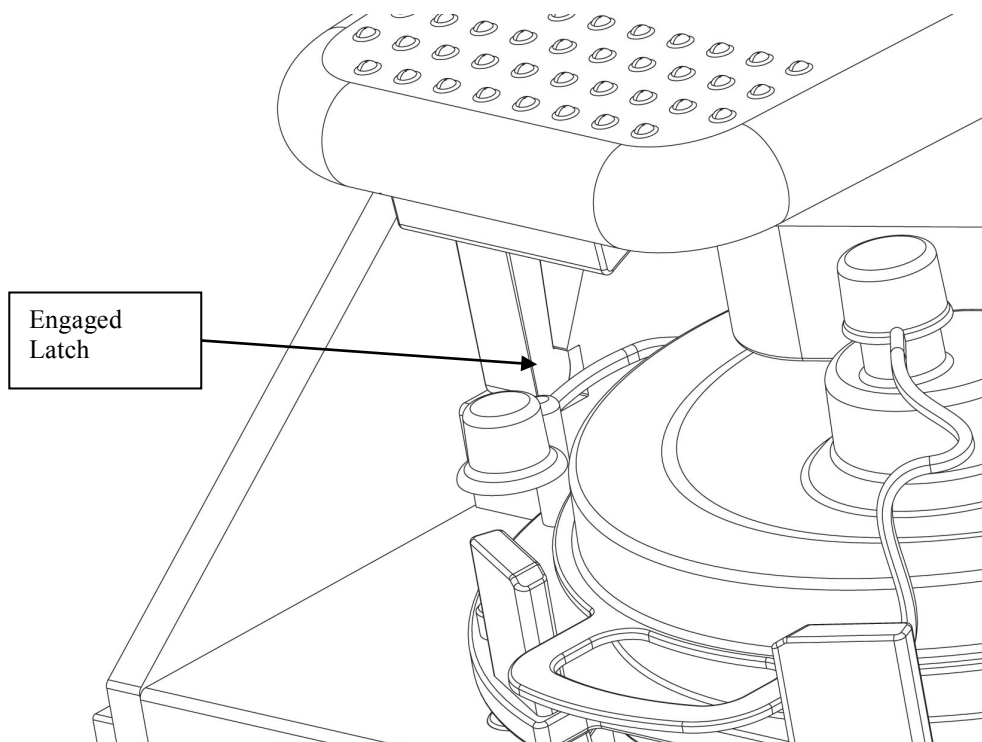


Figure 9: Drainhead Seated Onto Canister Cover

Rotation to Draining Position

Grasp either or both of the Swingarm Handles and rotate the swingarm clockwise until it reaches its stop (See Figure 10). As the swingarm rotates it will activate the main water valve. This will turn on the water flow through the venturi and begin to suction the contents out of the Quick-Fit Liner. Leave the unit in this position until the Quick-Fit Liner has drained.

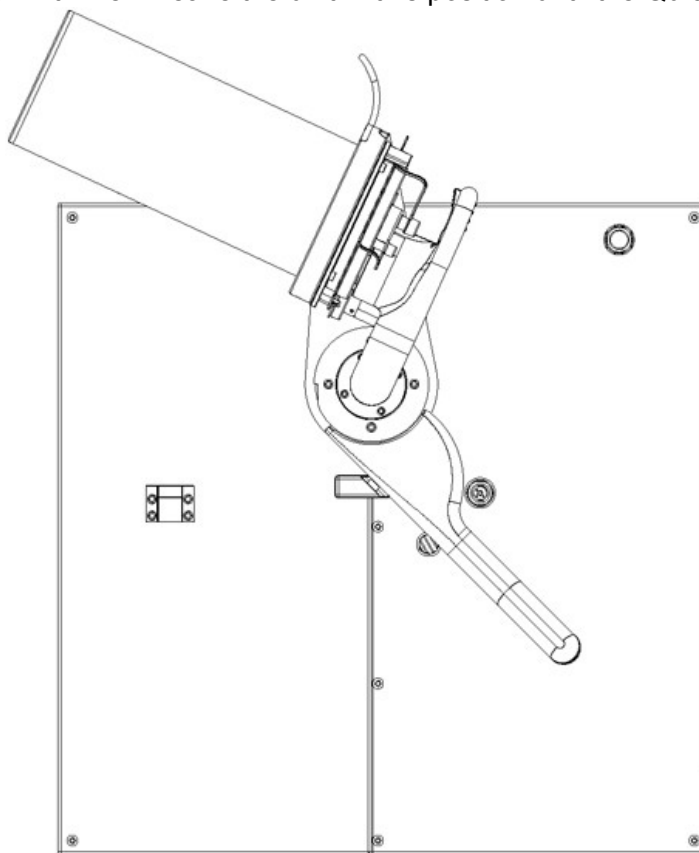


Figure 10: Draining Position

Rinsing

If it is desired to spray water into the liner to either rinse it out or dislodge material inside of it, just press the rinse button when the unit is in the Draining Position. If it is desired to fill the Quick-Fit Liner with water for draining, this can be done when the swingarm is in the lowered position. Just depress both the main water valve and rinse buttons to manually fill the liner with water for rinsing.

Rotation to Removal Position

Grasp either or both of the Swingarm Handles and rotate the swingarm until it reaches its stop (See Figure 11). As the swingarm rotates it will de-activate the main water valve.

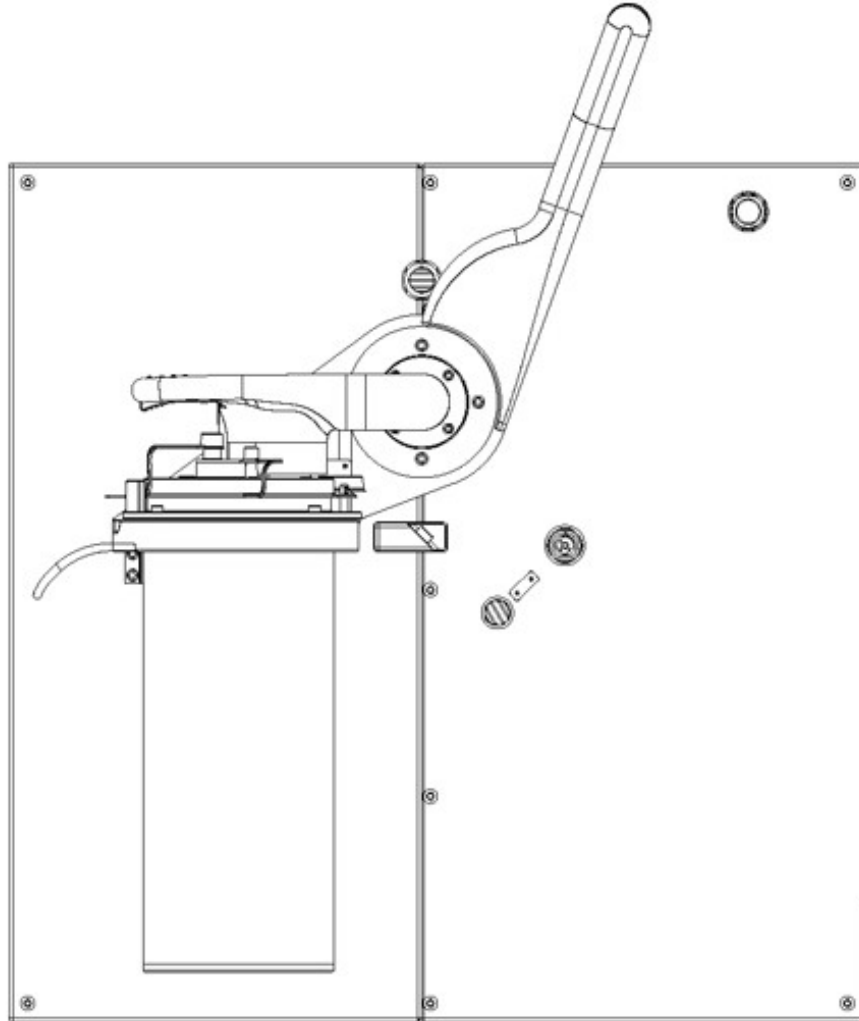


Figure 11: Swingarm In Position For Liner Removal

Drainhead Removal

To remove the Drainhead from the drained liner, compress the grip plate on the bottom of the drainhead. This will release the latching mechanism so the drainhead can be rotated clockwise to its home position.

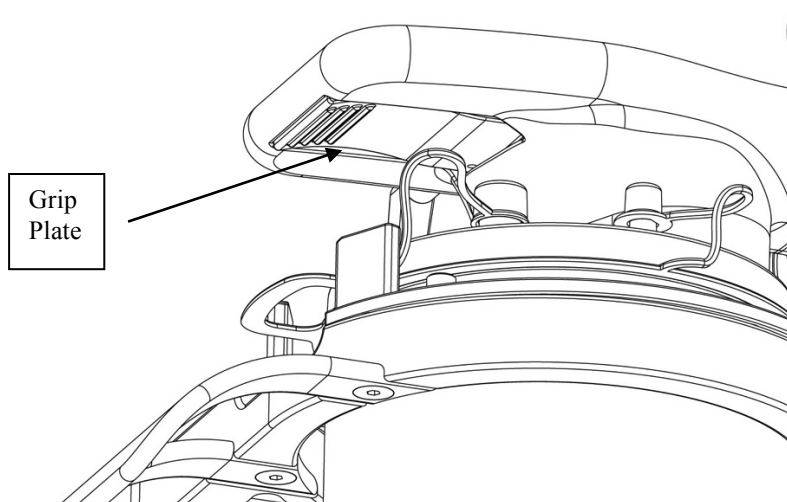


Figure 12: Grip Plate

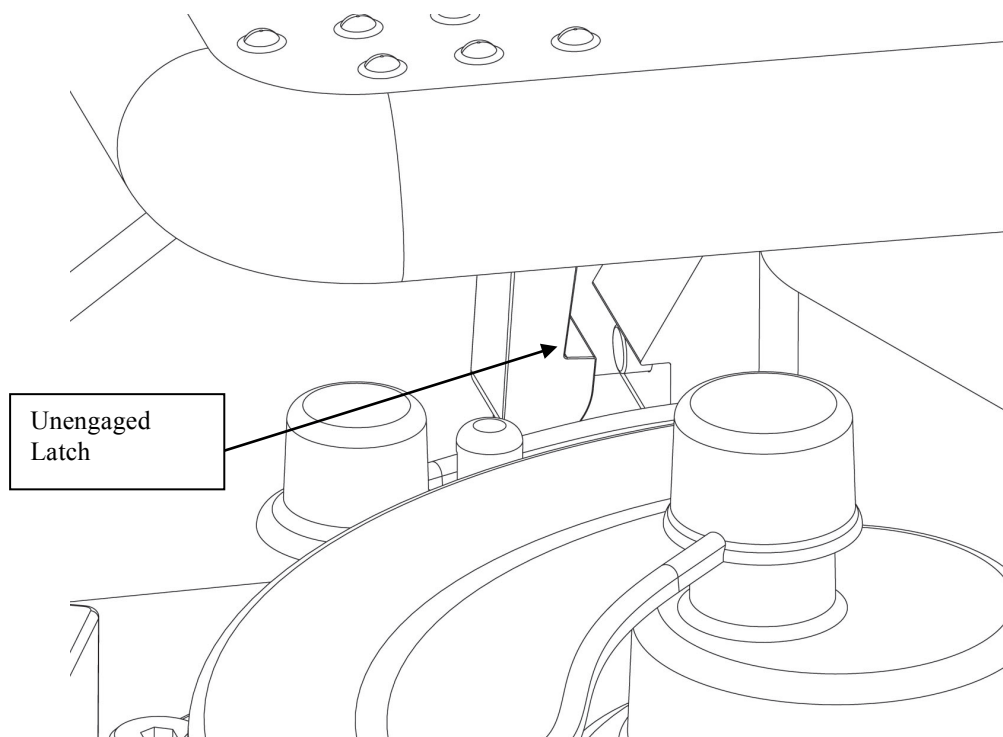


Figure 13: Unengaged Latch

Part Removal

Recap the pour spout and patient port on the Quick-Fit liner, then grasp the cover by the handle and pull upward until the liner comes out of the unit. Dispose of the liner according to hospital policy.

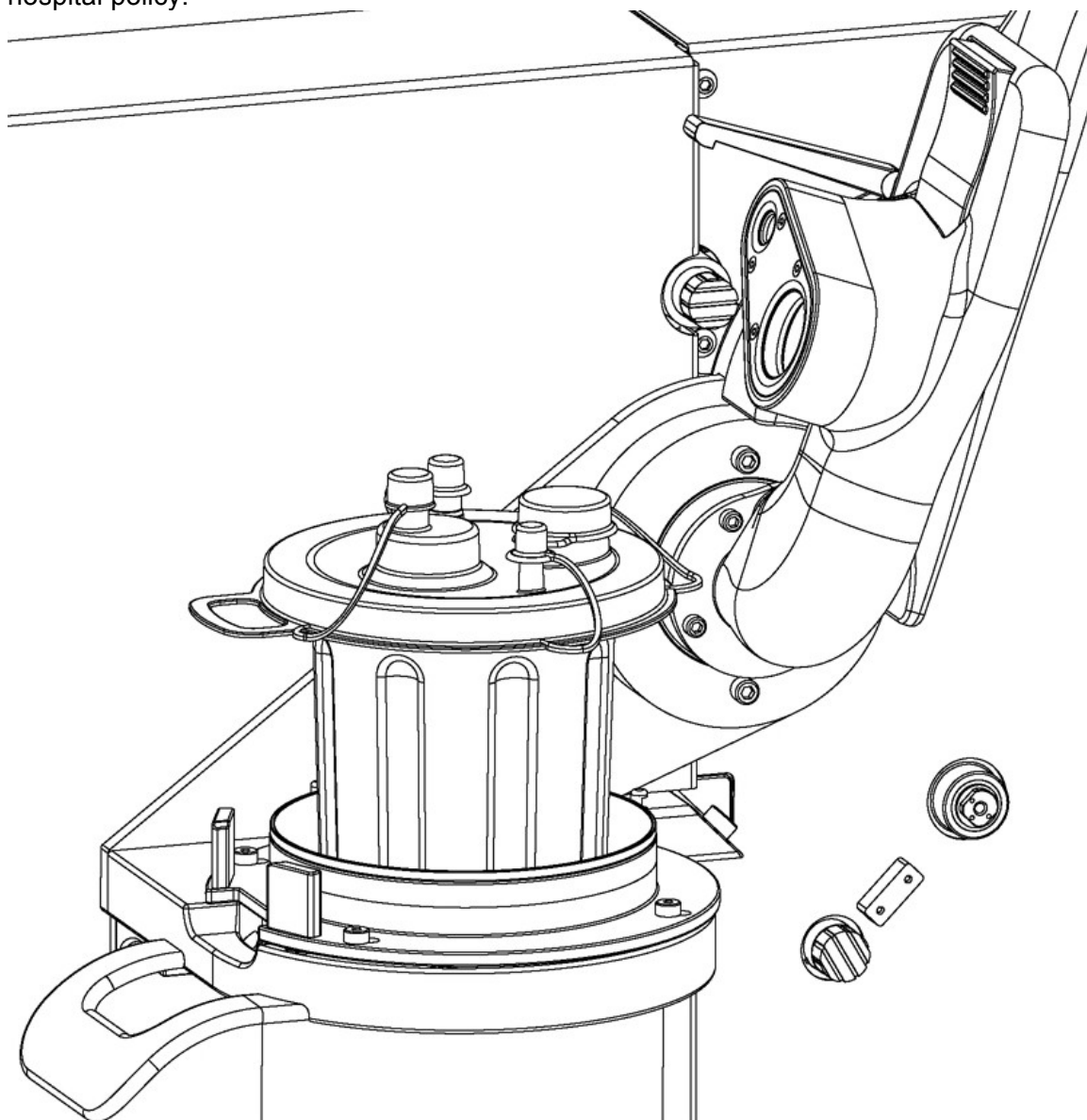


Figure 14: Removing Liner From Quick-Drain

Description of Quick-Drain HF Unit and Operation

Home Position

When the unit is not in use it should be kept as shown in Figure 15. The swingarm is in the loading position and the drainhead is rotated clockwise until it rests against the swingarm handle.

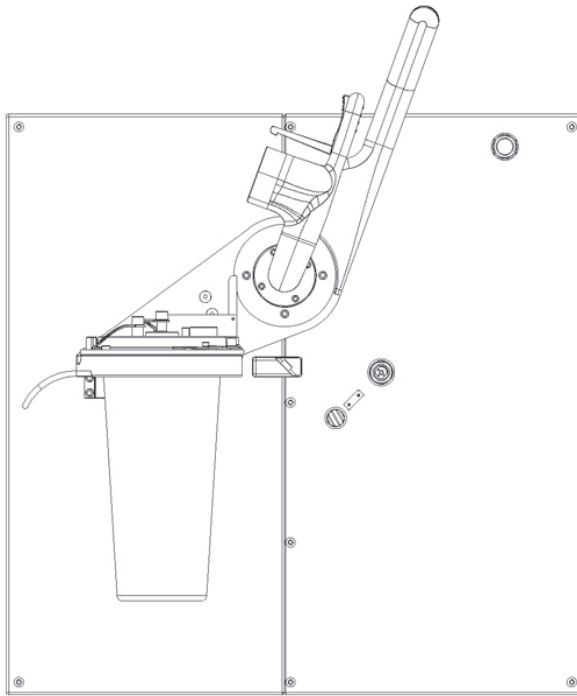


Figure 15: Quick-Drain in Home Position

When the unit is in this position the safety interlock will be activated so that the swingarm will not be able to rotate. Also any fluids in the drainhead will drain by gravity down into the unit.

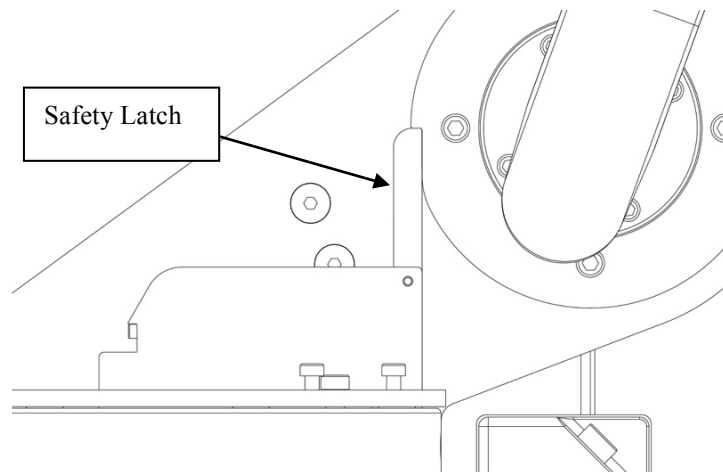


Figure 16: Safety Latch

Loading Position

Figure 17 shows the unit as the Hi-Flow canister is first loaded. The handle on the Hi-Flow liner fits in between the Cover Alignment Guides. The port caps are removed from the Pour Spout and the Patient Port. The caps can then be wrapped around the Cap Retainers to keep them out of the way during draining.

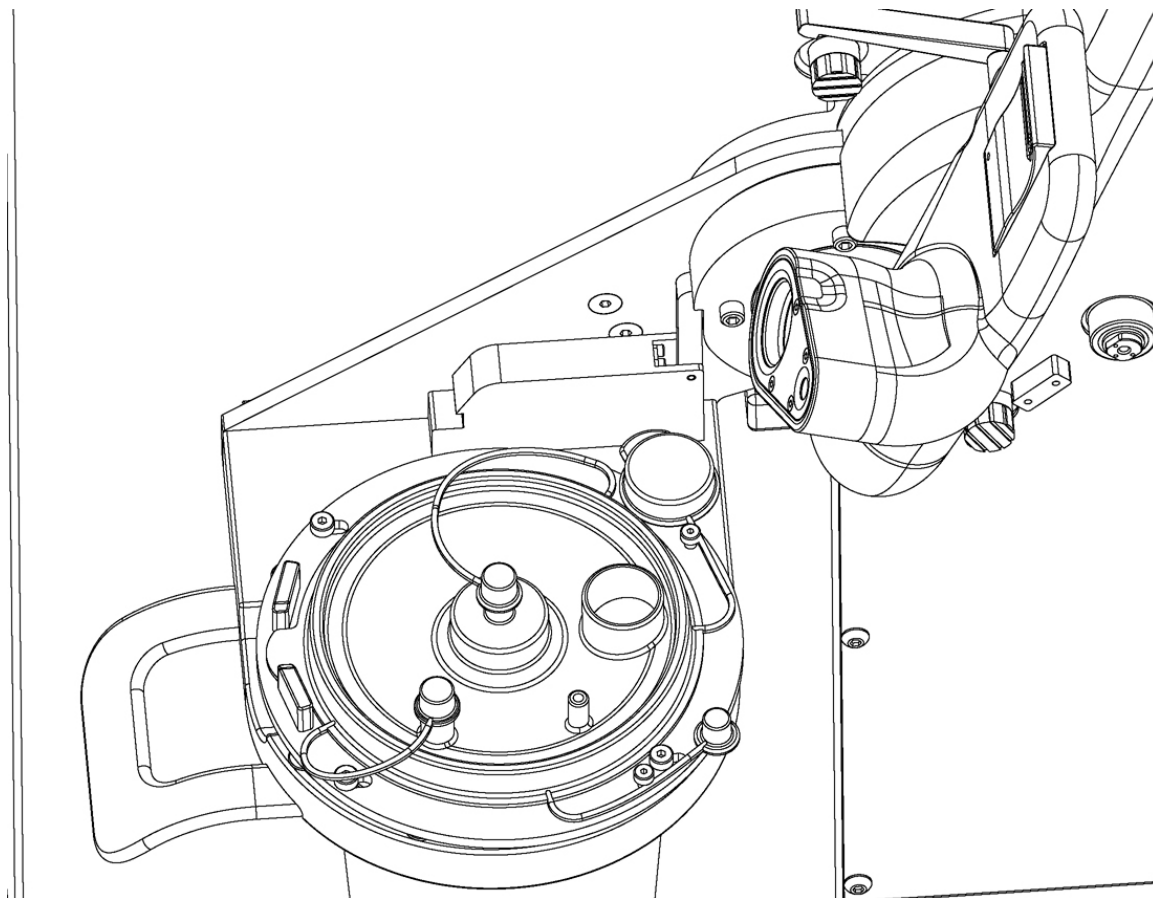


Figure 17: Hi-Flow Canister Loaded In Quick-Drain

Drainhead Engagement

Rotate the Drainhead in the counterclockwise direction onto the top of the canister cover. Once the Drainhead has seated itself onto the Hi-Flow cover it will latch itself to the swingarm. Once this latch has been engaged, the safety interlock will be released so that the swingarm may be rotated.

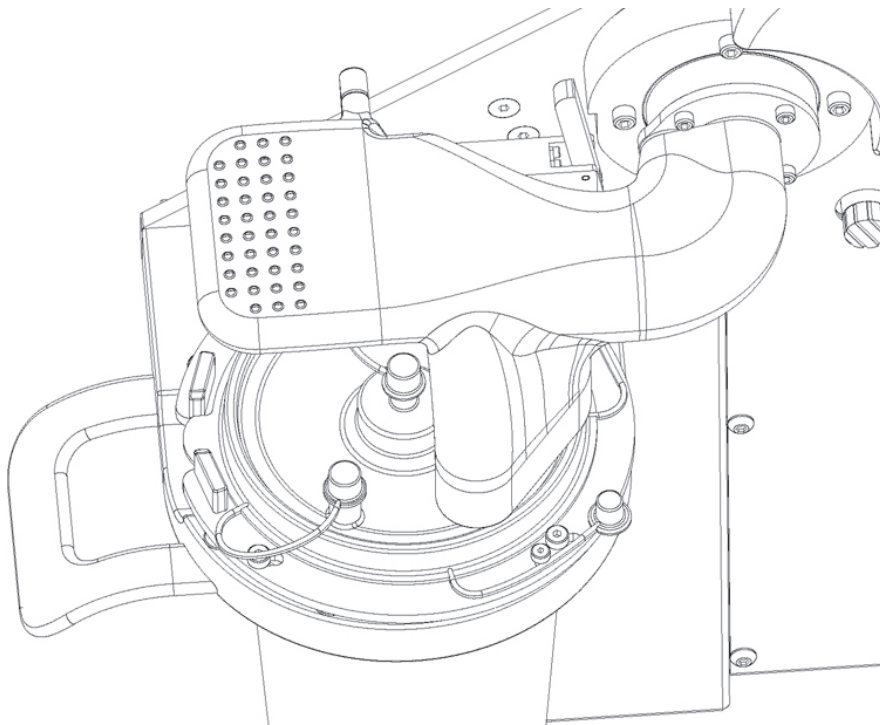


Figure 18: Drainhead Seated Onto Canister Cover

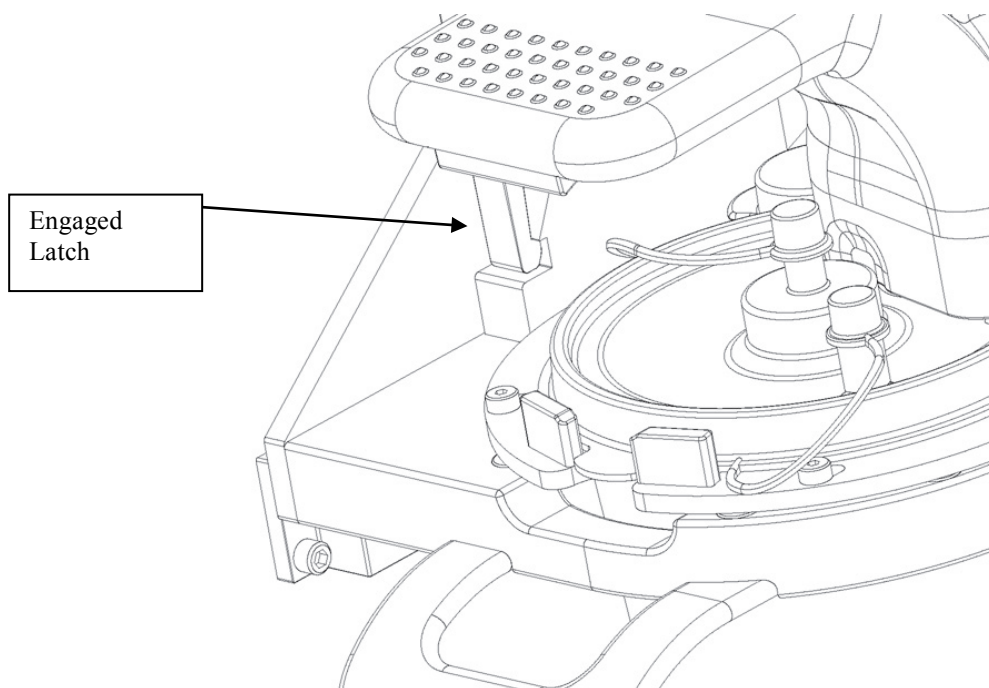


Figure 19: Drainhead Seated Onto Canister Cover

Rotation to Draining Position

Grasp either or both of the Swingarm Handles and rotate the swingarm clockwise until it reaches its stop (See Figure 20). As the swingarm rotates it will activate the main water valve. This will turn on the water flow through the venturi and begin to suction the contents out of the Hi-Flow canister. Leave the unit in this position until the canister has drained.

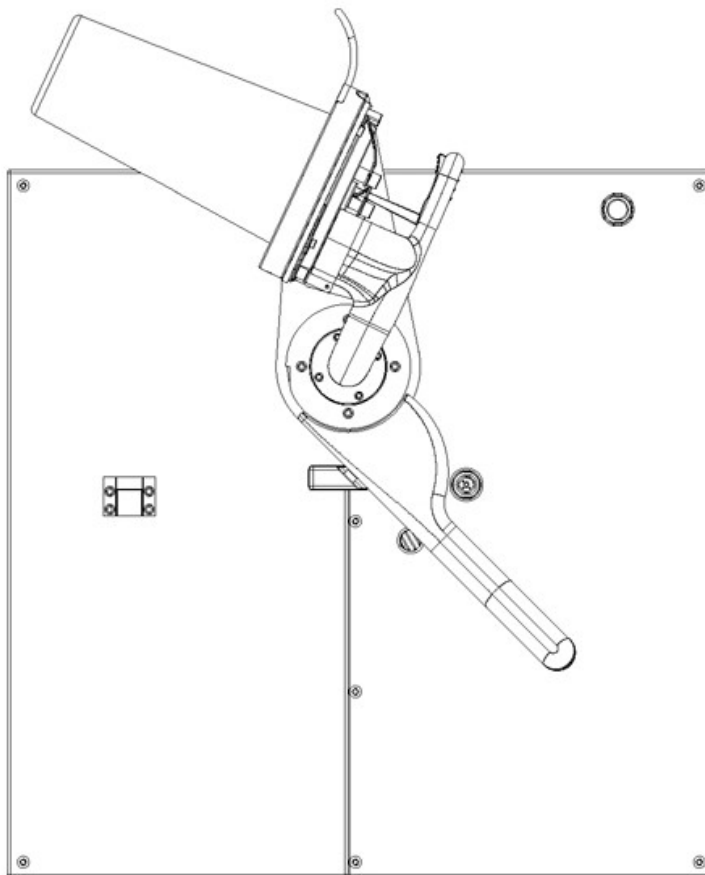


Figure 20: Draining Position

Rinsing

If it is desired to spray water into the liner to either rinse it out or dislodge material inside of it, just press the rinse button when the unit is in the Draining Position. If it is desired to fill the Hi-Flow canister with water for draining, this can be done when the swingarm is in the lowered position. Just depress both the main water valve and rinse buttons to manually fill the liner with water for rinsing.

Rotation to Removal Position

Grasp either or both of the swing arm handles and rotate the swingarm until it reaches its stop (approximately 115 degrees). As the swingarm rotates it will de-activate the main water valve.

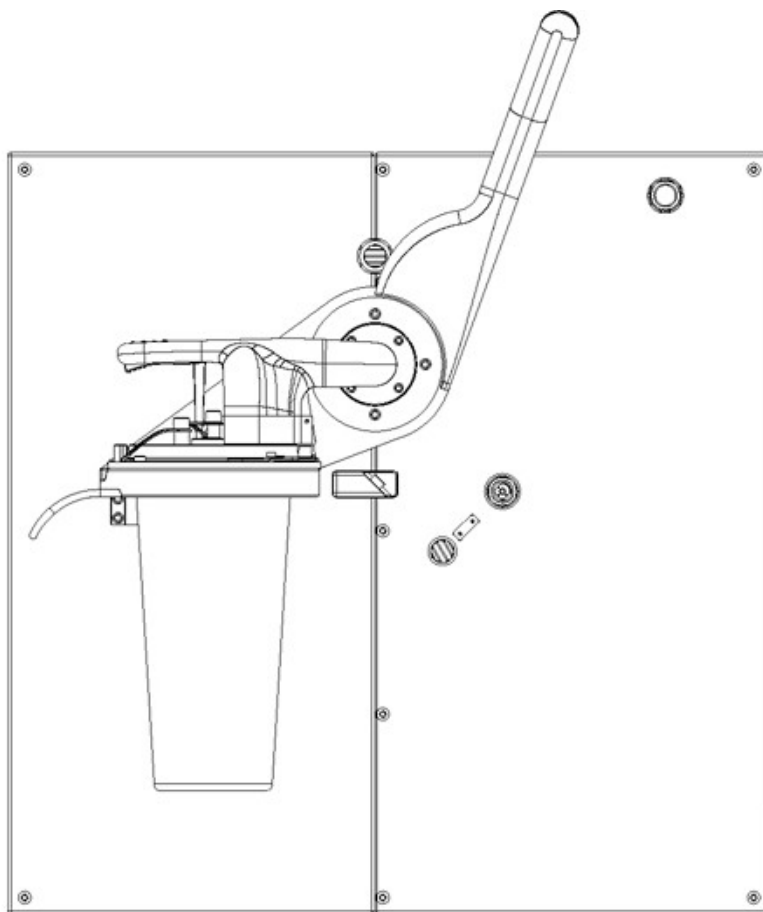


Figure 21: Swingarm In Position For Liner Removal

Drainhead Removal

To remove the Drainhead from the drained canister, compress the grip plate on the bottom of the drainhead. This will release the latching mechanism so the drainhead can be rotated clockwise to its home position.

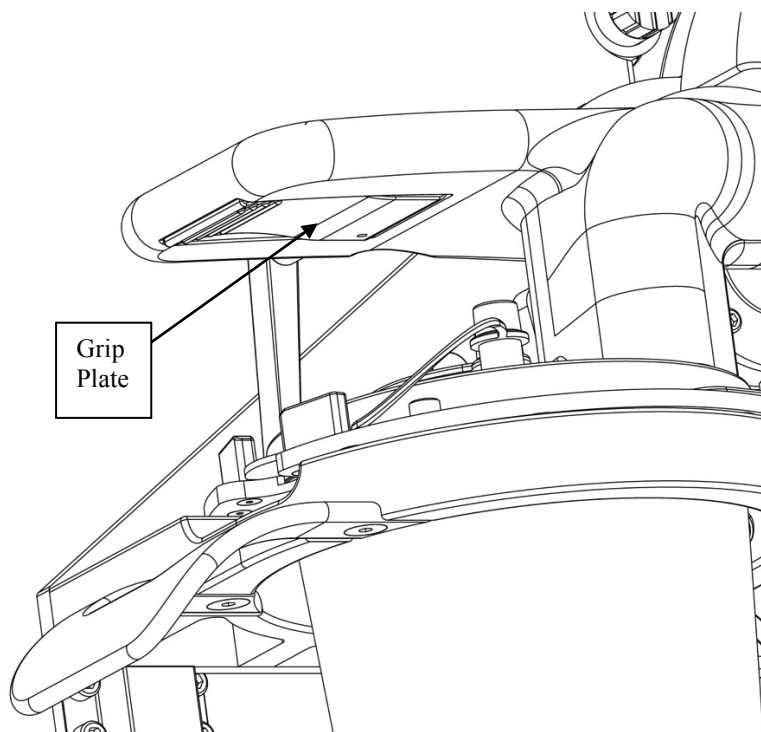


Figure 22: Grip Plate

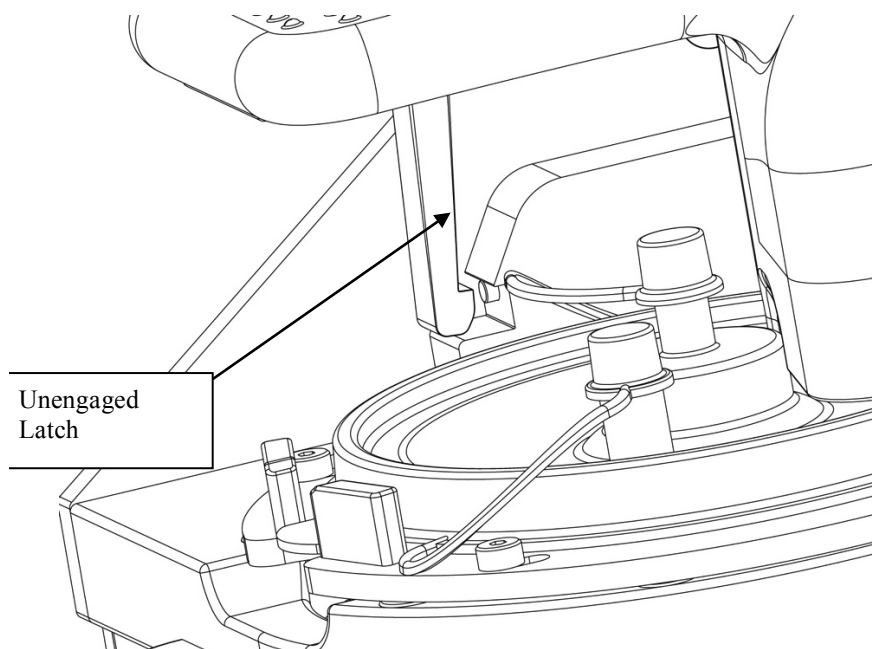


Figure 23: Unengaged Latch

Part Removal

Recap the pour spout and patient ports on the Hi-Flow canister, then put hand on the bottom of the canister and push up until you can take hold of the canister above the slide plate. Then dispose of the canister according to hospital policy.

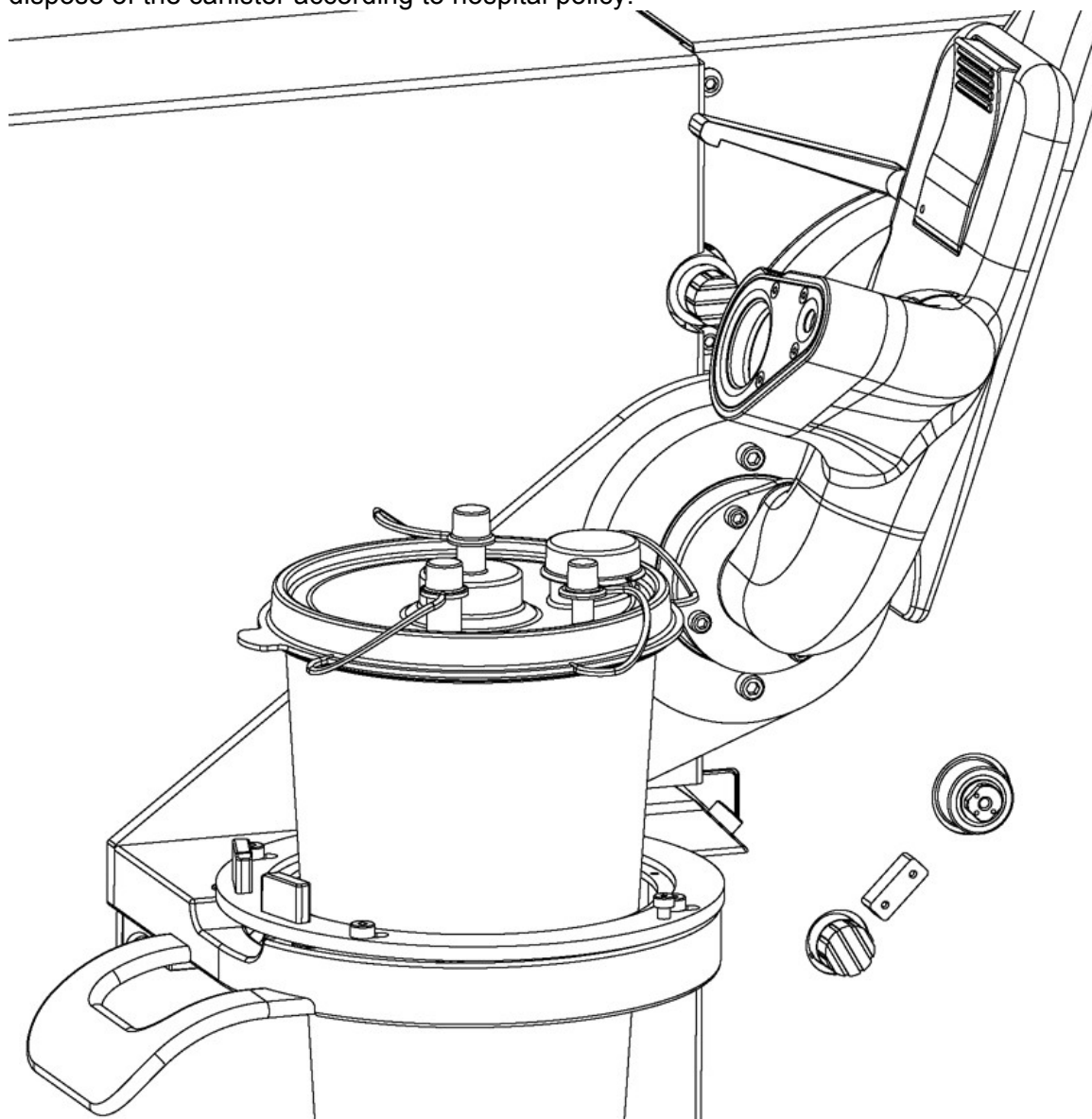


Figure 24: Part Removal

Maintenance for Quick-Drain-QF and Quick-Drain HF Drainage Systems

The Quick-Drain Drainage System was designed with ease of use as well as ease of maintenance in mind. We have broken up the following maintenance issues into things that should be checked or done daily and those that need to be addressed every 6 months.

NOTE: Anytime work is done on the Quick-Drain, proper protective apparel should be worn.

Daily Maintenance Requirements

Visual Checks

These checks should be done daily to keep the Quick-Drain in top working order:

- Wipe down surfaces of Quick-Drain to remove any blood or other fluid that may have gotten onto the unit.
- Inspect the two seals in the drainhead that seal to the liner cover. If they are worn, torn or twisted then replace them with new seals.

Daily Cleaning

- ♦ A pH neutral enzymatic cleaner should be used on the unit at least once a day.
 - ~ Mix enzymatic cleaner with warm water in a 3000cc liner or canister according to enzymatic cleaner directions.
 - ~ Drain liner or canister on Quick-Drain

Recommended pH neutral enzymatic cleaners for use with Quick-Drain™

<u>Manufacturer</u>	<u>Brand Name</u>
Ecolab	Asepti-zyme
Ruhof	Endozime, EndozimeAW, and Orthozime
Certol International	ProEZ
Henry Schein	MaxiZyme
Hu-Friedy	Enzymax
Johnson & Johnson	Enzol Enzymatic Detergent
Metrex	EmPower
Pascal Company	Citrizyme

Six-Month Maintenance Requirements

Every six months it is recommended that the o-rings, seals and tubing on the Quick-Drain be examined for wear or damage.

Drainhead Port Seals

With the drainhead in the Home Position, remove the four 4-40 x 1/4 UNC Flat SHCS that hold on the seal plate. Remove the seal plate and examine the two seals. If there is any evidence of wear or damage on the seals, they should be replaced immediately.

Drainhead Assembly O-rings

Rotate the drainhead back and forth through its range of motion. It should rotate easily and smoothly. If it is difficult to turn the drainhead, its o-rings will need to be replaced.

Replacing The Drainhead Assembly O-rings

See Appendix B for removal of the drainhead assembly. Remove the two o-rings (size 218, 231) and replace with new o-rings. Lubricate the o-rings and o-ring grooves with Dow 111 silicone lubricant. Place Drainhead Assembly back into Quick-Drain and bolt the stainless steel collar back on.

Lubrication

Bearings should be lubricated with a high quality lithium grease.

Yearly Maintenance Requirements

In addition to the 6-month maintenance, do the following.

Hose Inspection

- Remove the two front panels from the Quick-Drain.
- Inspect all hoses for any signs of leaking, cracking, bulging or hardening. If any of the hoses show any signs of damage or wear they should be replaced.

Trouble-Shooting

What do I do if I cannot lower the drainhead to lock down onto the Liner or Canister cover?

- Be sure that the cover ports that the drainhead is attaching to, are not bent or damaged.
- Be sure that the cover is positioned so that the handle on the cover is between the two alignment pins.
- Be sure that the correct ports are open and that the caps are hooked around the retaining pins next to the cover.
 - For Liners – open the patient port cap and the pour spout cap.
 - For Hi-Flow canisters – open the tandem port cap and pour spout cap.
- Be sure that the remaining caps are firmly pressed closed.
 - For Liners - tandem port cap and vacuum port cap.
 - For Hi-Flow canisters – patient port cap and vacuum port cap.
- For liners - be sure that the liner cover is fully seated on the sealing rib on the Quick-Drain.
- The metal ring that the liner or canister sits on is spring loaded to the left side of the unit. Be sure that the ring is in the position and be sure that the ring moves freely back and forth. If it does not move freely, check to make sure no dirt has built up under the ring that would impede its movement.
- Be sure that the seals in the drainhead that fit around the ports on the cover are not damaged or misaligned in anyway.
- The drainhead and swingarm should rotate parallel to the wall that the QuickDrain is mounted on. If the swingarm or the drainhead can be moved toward or away from the wall that the QuickDrain is mounted on, the appropriate bolts on the drainhead and notched collar should be tightened to take away this movement.

What do I do if I cannot rotate the swingarm once the drainhead is lowered?

- Be sure that the hook on the side of the drainhead has connected with the safety interlock. If this cannot be done see "What do I do if I cannot lower the drainhead to lock down onto the Liner or Canister cover?"
- Rotate the swingarm slightly counterclockwise to release any pressure they may be holding the safety latch in place.
- Make sure the nylon swingarm support is installed in the correct position.

What do I do if the liner is slow to drain or does not drain?

- Be sure that the drainhead is properly connected to the liner cover and that the swingarm has been rotated to the draining position.
- Be sure that water is being supplied to the Quick-Drain.
- Be sure that there is not a clog covering the drainport. Activating the rinse spray or moving the swingarm from the draining position to the home position and back could move a clog.

What do I do if the rinse spray button does not do anything?

- Be sure that the water is being supplied to the Quick-Drain.
- Be sure that the swingarm is rotated to the draining position. (The rinse spray will only work when the main water valve has been activated)

What if fluid leaks/drips from the drainhead?

- Check to make sure that the two seals in the drainhead are not damaged. If damaged, replace with new seals.
- Make sure the seal plate that holds the seals in the drainhead is not loose.
- When removing the drainhead from the canister / liner, pause just after removing the drainhead above the canister. This will allow any fluid that was wiped off the ports of the cover by the drainhead seals to fall back onto the cover. Then rotate the drainhead clockwise until it rests against the swingarm handle.

Appendix A

Replacement of Quick-Drain QF Port Seals

1. Remove the four 4-40 flathead screws and seal retainer plate.
2. Now both the large and small port seal can be taken out to be replaced.
3. Before inserting new seals, be sure to coat the seal with a thin layer of lithium grease and confirm the seal orientation as shown in Figure 25.
4. Press seals fully into pockets and reinstall the seal plate and screws.

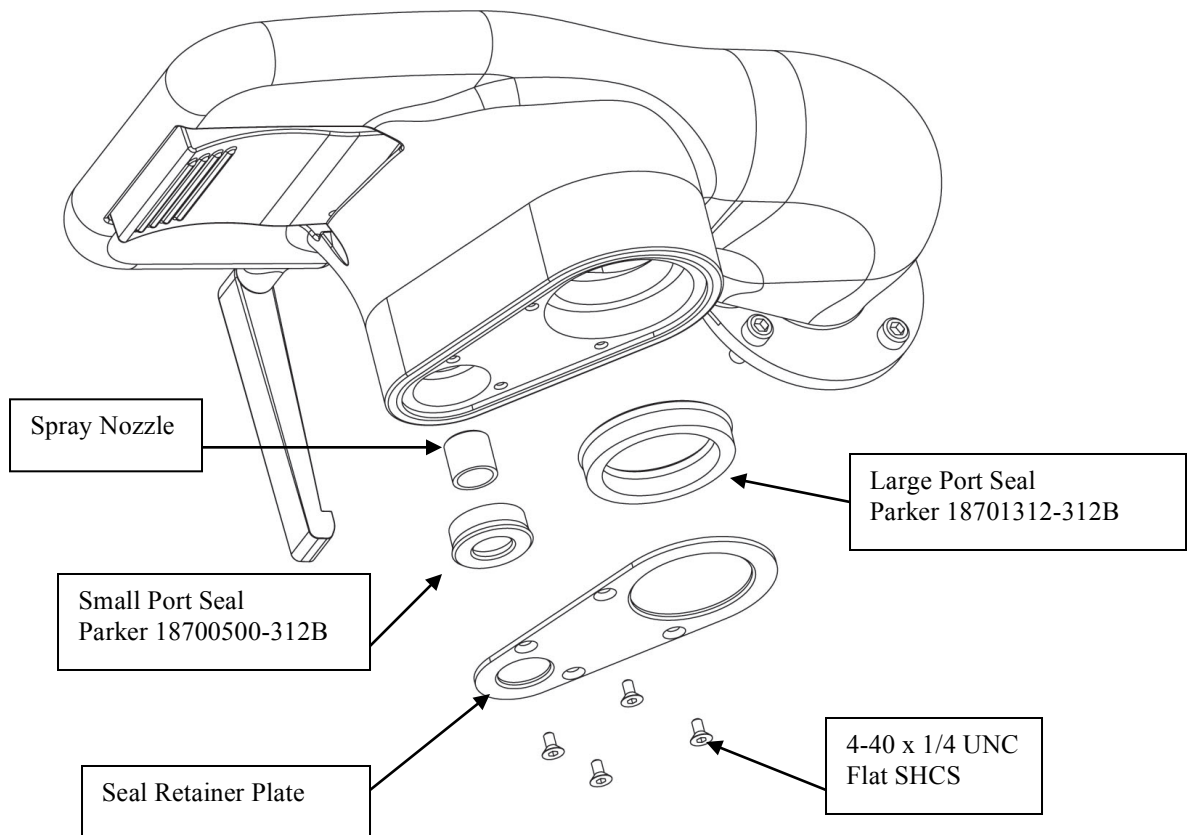


Figure 25: Exploded View Of Seals In Quick-Drain QF Drainhead

Replacement of Quick-Drain HF Port Seals

1. Remove the four 4-40 flathead screws and seal retainer plate.
2. Now both the large and small port seal can be taken out to be replaced.
3. Before inserting new seals, be sure to coat the seal with a thin layer of lithium grease and confirm the seal orientation as shown in Figure 26.
4. Press seals fully into pockets and reinstall the seal plate and screws.

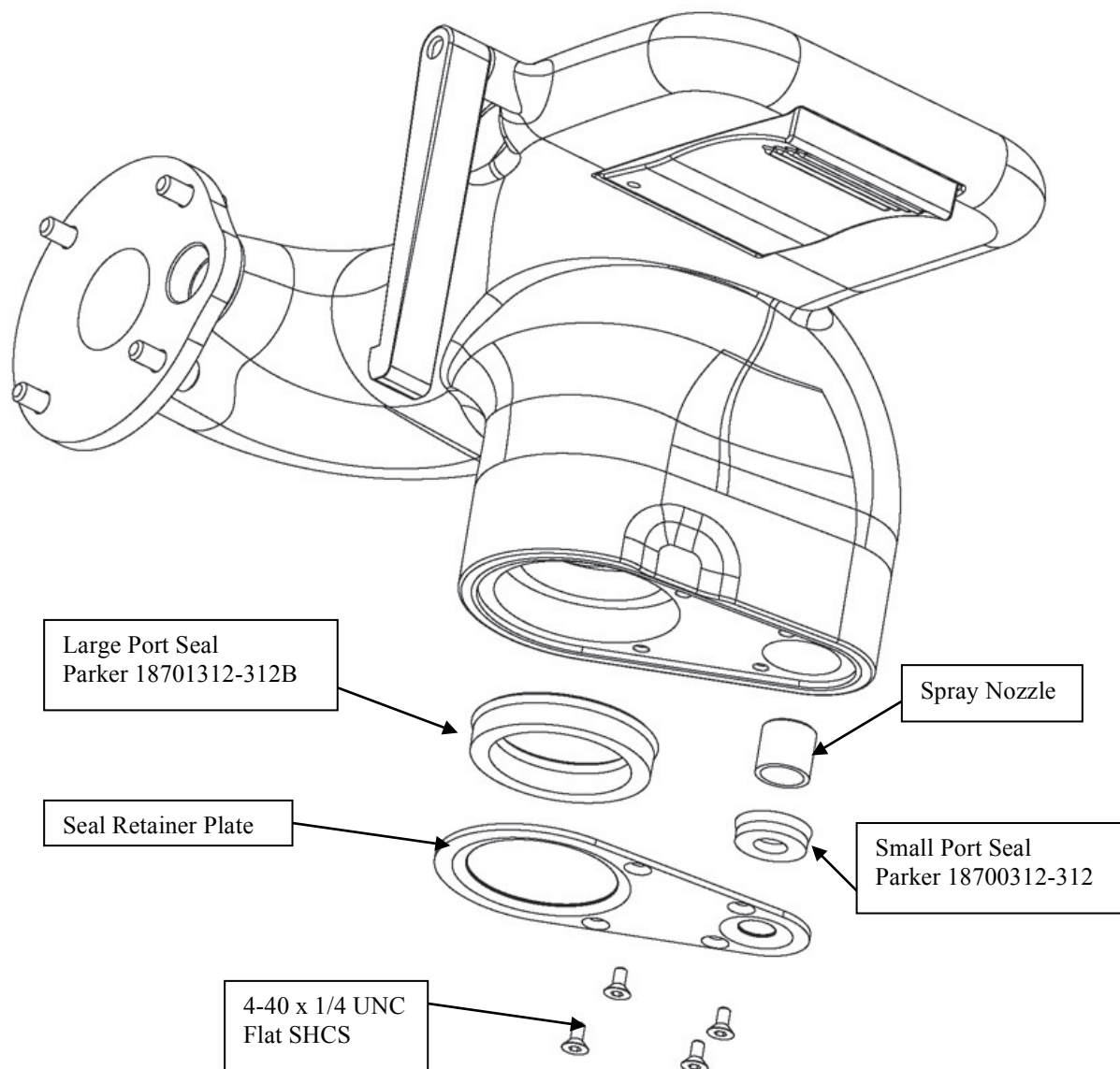


Figure 26: Exploded View of Seals In Quick-Drain HF Drainhead

Appendix B

Removal of the Drainhead Assembly

1. Turn off the water that is supplied to the Quick-Drain.
2. Remove the four 4-40 cap head screws that hold the lower stainless steel collar in place.
3. Pull entire drainhead assembly straight out of the Quick-Drain Unit

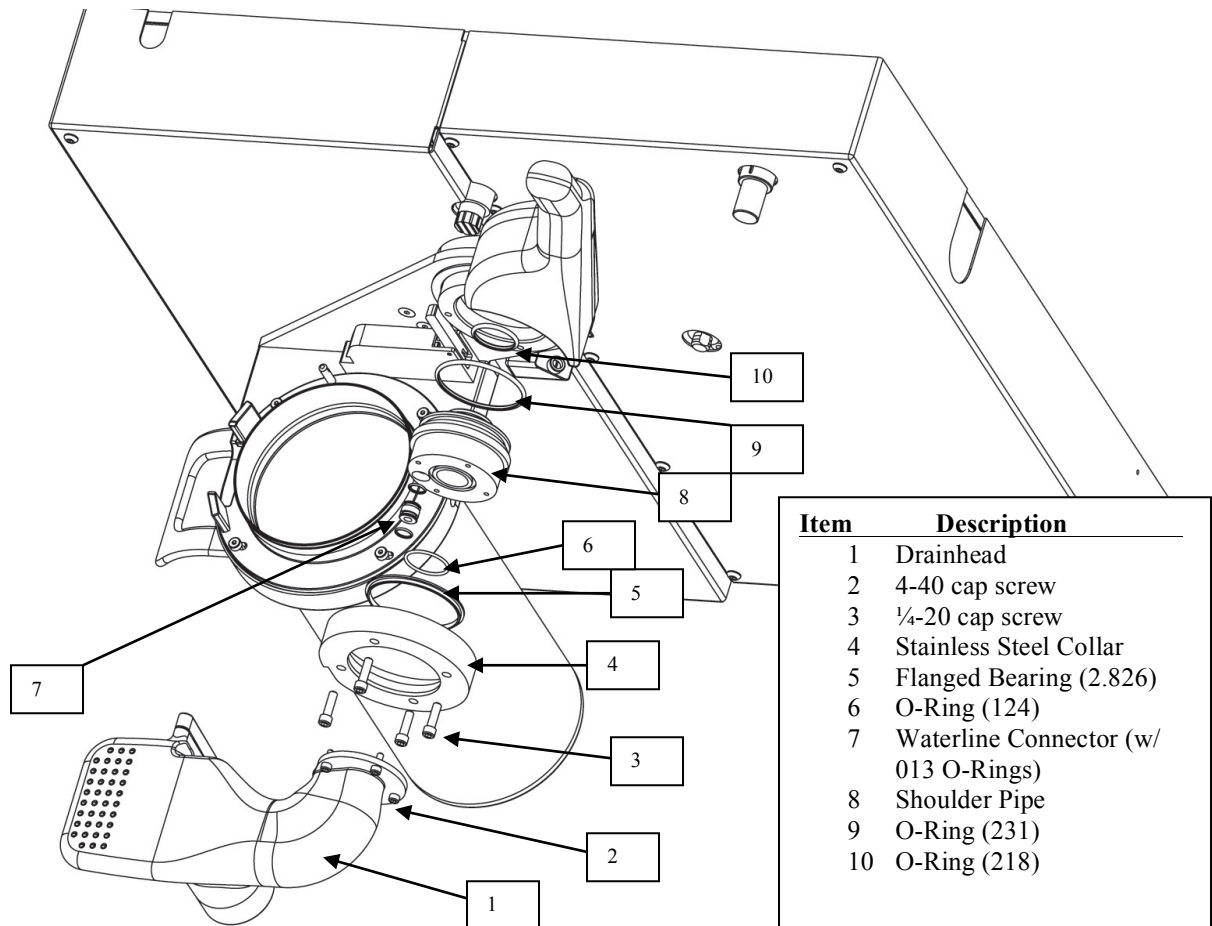


Figure 27: Drainhead Exploded View

Appendix C

Removal of the Stainless Steel Shrouds

Removing The Right Shroud

1) Remove the seven 1/4-20 buttonhead socket cap screw that are around the perimeter of the right shroud. The shroud can then be pulled off of the Quick-Drain Unit.

Removing the Left Shroud

1) Remove the four 1/4-20 socket cap screws that hold the nylon swingarm support in place. Remove the nylon stop block.

2) Remove the two 1/4-20 buttonhead socket cap screws that are on the left side of the shroud.

3) Remove the two 8-32 x 3/8 flathead socket cap screws that are on the right side of the left shroud.

4) The shroud can be pulled off to the left of the Quick-Drain Unit

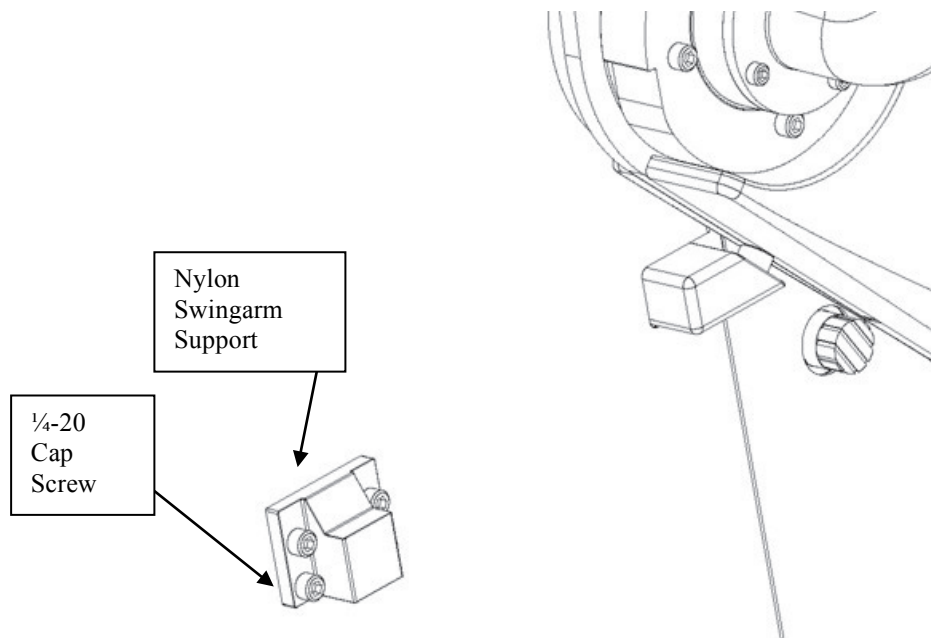


Figure 28: Nylon Swing Arm Stop

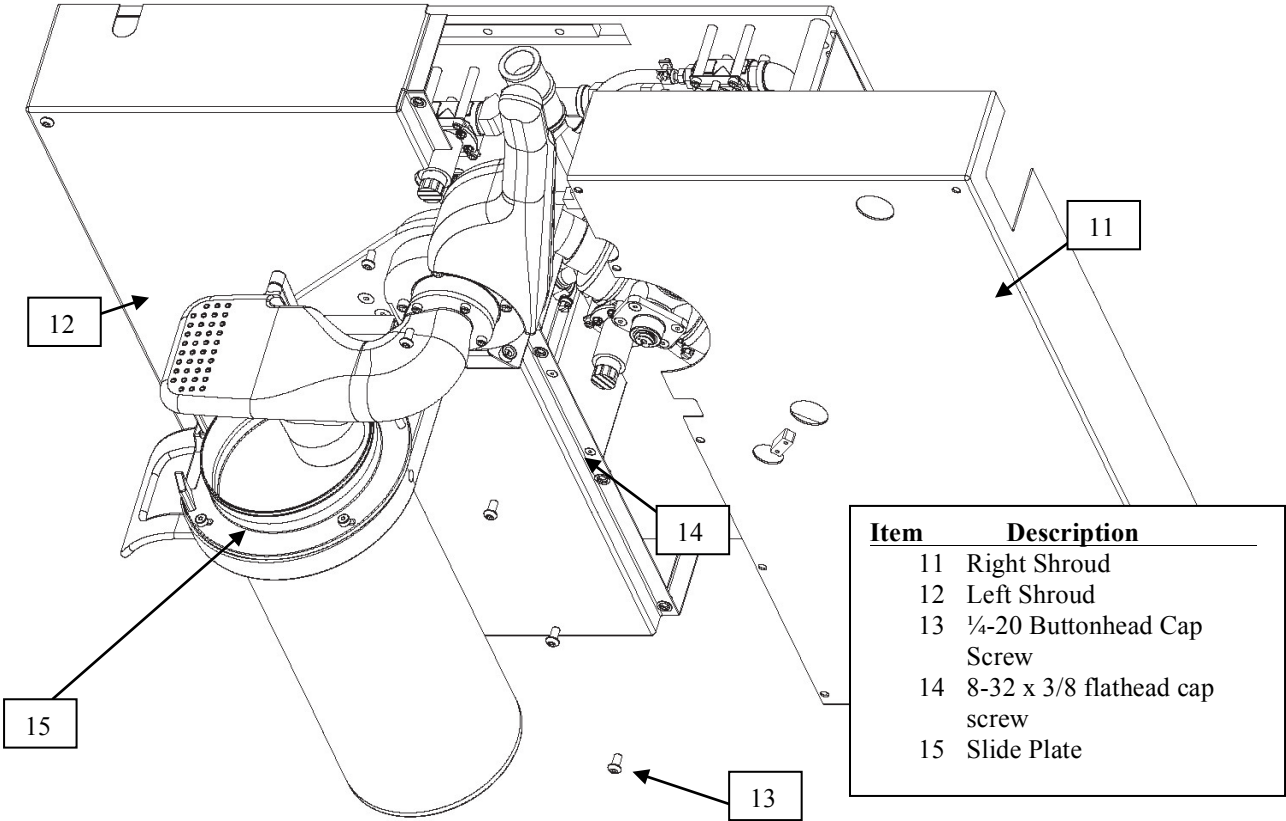


Figure 29: Removal of Right Stainless Steel Shroud

Replacement Parts/Accessories List

Bemis offers the following replacement parts for the Quick-Drain units. See current price list or call for pricing on items no longer covered under warranty.

<u>Description</u>	<u>Part Number</u>	<u>Replacement Frequency</u>
Replacement seals for QDHF	QDHFSEAL KIT	6 months
Replacement seals for QDQF	QDQFSEAL KIT	6 months
O-rings for flange sub assembly	QDORING KIT	Yearly
Bearings for flange sub assembly	QDBEARING KIT	Yearly
QF drainhead sub assembly	QDQF100 KIT	As needed
HF drainhead sub assembly	QDHF100 KIT	As needed
3-way valve assembly	QD105 KIT	As needed
Jet pump sub assembly	QD110 KIT	As needed
Rinse dema valve sub assembly	QD115 KIT	As needed
Main dema valve sub assembly	QD120 KIT	As needed
Large Volume drain dema valve assembly	QD125 KIT	As needed
Large Volume drain kit	QD130 KIT	As needed
Slide pads for slide plate on swingarm	QD135 KIT	As needed
Grip plate for HF drainhead sub assembly	QD140 KIT	As needed
Shroud Assembly	QD150 KIT	As needed
3-Way Valve Alt Stem Assembly	QD165 KIT	As needed
QF Liner Canister Assembly	QD170 KIT	As needed
QF to HF Conversion Kit	QDHFCONV KIT	As needed

Below is a list of the other potential wear items on the unit:

Water Line From Brass Block - is 1/2" Braided Polyurethane Tubing

Water Lines – is 1/2" Braided PVC Tubing

Rinse Line Tubing – is 1/4" Braided PVC Tubing

Seal Lubricant – is Dow Corning 111 Silicone

Customer Care Information

For questions regarding the installation, function, service or sale of the Quick-Drain and accessories, please call Bemis Customer Service or your local Sales Representative.

Bemis Manufacturing Company
1-800-558-7651
8:00 a.m. to 5:00 p.m. CST
Monday through Friday
HCG@BemisMfg.com

Fax all orders to 1-800-499-8160.

Ordering Information

<u>Description</u>	<u>Catalog No.</u>	<u>Pkg.</u>
Quick-Drain for Quick-Fit Liners	QDQF3000	1/case
Quick-Drain for Hi-Flow Rigid Canisters	QDHF3000	1/case

Installation Steps For The Large Volume Drainage Versions of The Quick-Drain QF and Quick-Drain HF

NOTE: See page 3 for Installation Requirements

CAUTION: Before beginning the installation, make sure that all affected water lines have been turned off.

1. Select a place for the Quick-Drain to be installed, preferably an area isolated from patient contact and treatment. Refer to Figure 1 or 2 (depending on model) for typical dimensions used and the required wall footprint.
2. If not already in place, a Watts double check valve reduced pressure backflow preventer must be installed on the water supply line to the Quick-Drain.
3. Open the shipping crate of the Quick-Drain. Remove all of the internal bracing and the cover from the box on the inside of the crate.
4. Take the component bag out of the box inside the crate. Remove the hanging cleat and mount as shown in Figure 1 or 2 (depending on model). Use appropriate fasteners so that the hanging cleat can support at least 150 lbs.

NOTE: In some installations, it is beneficial to first install stringers or a backboard onto which the Quick-Drain may then be mounted. Ensure the handle and top clamp have enough room to move through their full ranges of motion.

5. Hang the Quick-Drain on the hanging cleat. Use appropriate fasteners in the four corner holes of the backplate to secure the Quick-Drain to the wall.
6. Take the two-piece metal handle out of the box. Remove the fasteners that hold the two pieces together. Align the two handle parts over the swing arm as shown in Figure 3. Use the fasteners that originally held the handle pieces together to hold the handle pieces to the swing arm.

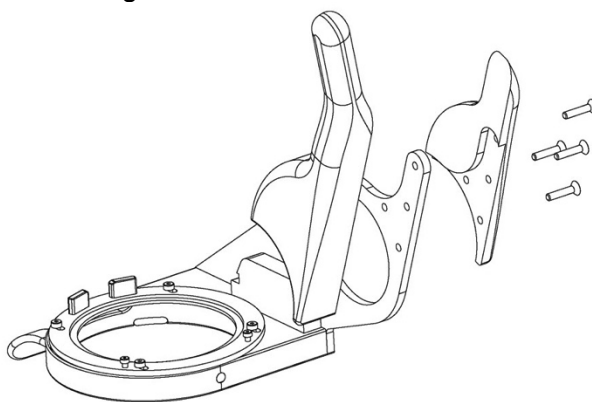


Figure 3: Handle Assembly

7. A 1/2" water line can be run to the Quick-Drain from the top or bottom of the machine. (Reference Figure 1 or 2) When running the water line to the machine, place a water valve just before the Quick-Drain so that water can be turned off to the system if needed.
8. When attaching the water line to the inlet water block, insert the provided plug in the unused water entry hole. Also move the bent stainless steel cover plate to cover the unused hole in the front shroud.
9. Connect the sanitary waste line to the 1" female PVC pipe fitting on the Quick-Drain. A cleanout trap should be installed between the Quick-Drain and sanitary waste line. *It is recommended that a solid connection be made between the Quick-Drain and the sanitary waste line. There should be no air gaps in the connection to the sanitary waste line and the Quick-Drain should not dump into an open floor drain.
10. Turn on the water supply and check for any water leaks. If there are any leaks found, fix that leak before moving on in the installation process.
11. Depending on your system, fill either a Quick-Fit Liner or Hi-Flow Hard Canister with water and drain according to the operating instructions. Check for water leaks on all the water connections. If a leak is found, tighten the fittings until the leak is eliminated.
12. When the swing arm is in its home position, it will rest on a nylon swing arm support. Use an Allen wrench and remove the four cap screws and the nylon swing arm support. See Figure 4.
13. Take the left shroud and slide it onto the unit from the left side. It will slide behind the swing arm and fit around the aluminum back plate. The swing arm may have to be moved to allow the shroud to fit into position.
14. Re-install the nylon swing arm support that was removed in step 12.

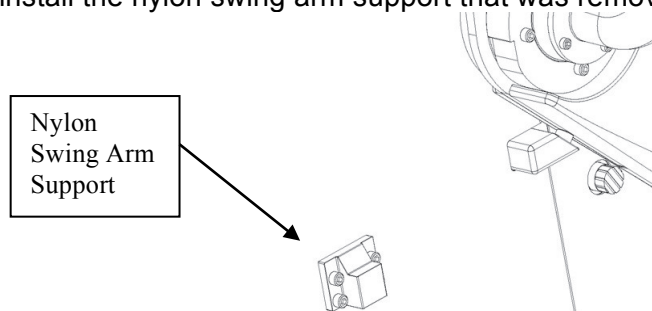
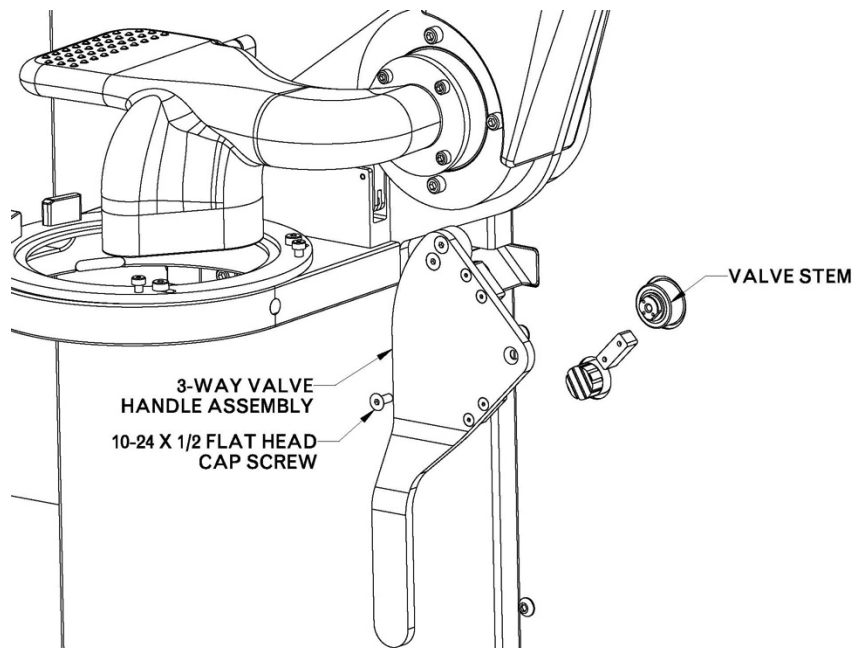


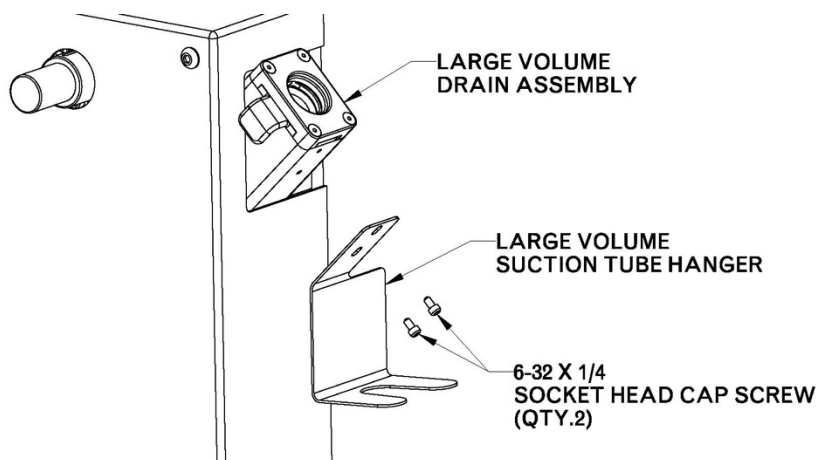
Figure 4: Nylon Swing arm Support

15. Take two of the 1/4-20 button head socket cap screws from the component bag and fasten the left shroud to the back plate in the top left and bottom left corner. Also take two of the 8-32 x 3/8 flathead socket cap screws from the component bag and fasten the left shroud to the aluminum mounting block on the right edge of the shroud.

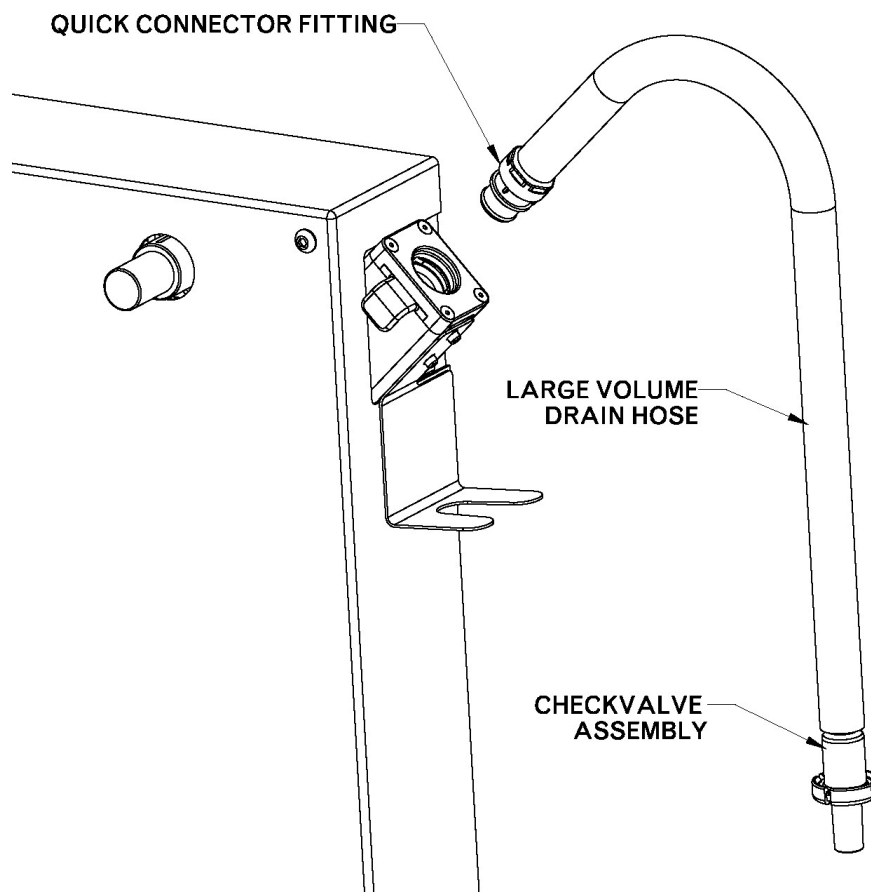
16. Take the right shroud and slide it onto the unit from the right side. It will overlap the edge of the left shroud. Take seven of the 1/4-20 button head socket cap screws from the component bag. Use two to fasten the shroud to the back plate in the upper and lower right corners. Use the remaining five to fasten the two shrouds together where they overlap in the middle of the unit. (See Appendix C, Figure 29 for reference on shroud assembly.)
17. Take the 3-Way Valve Handle and place it onto the valve stem that is sticking out through the right shroud. The valve stem will key into the handle, so be sure the handle is in the proper orientation with the valve stem. Take a 10-24 x 1/2 flat head cap screw and fasten the drain handle to the valve stem.



18. Take the Large Volume Suction Tube Hanger and fasten it to the bottom of the Large Volume Drain Assembly with two 6-32 x 1/4 socket head cap screws.



19. Take the Large Volume Drain Hose that was provided with the unit. It will have a Quick-connect Fitting on one end of the hose. Take this and push it into the Large Volume Drain Assembly, until it locks into place.



20. Take the other end of the reusable drain hose and hang it on the metal suction tube bracket.

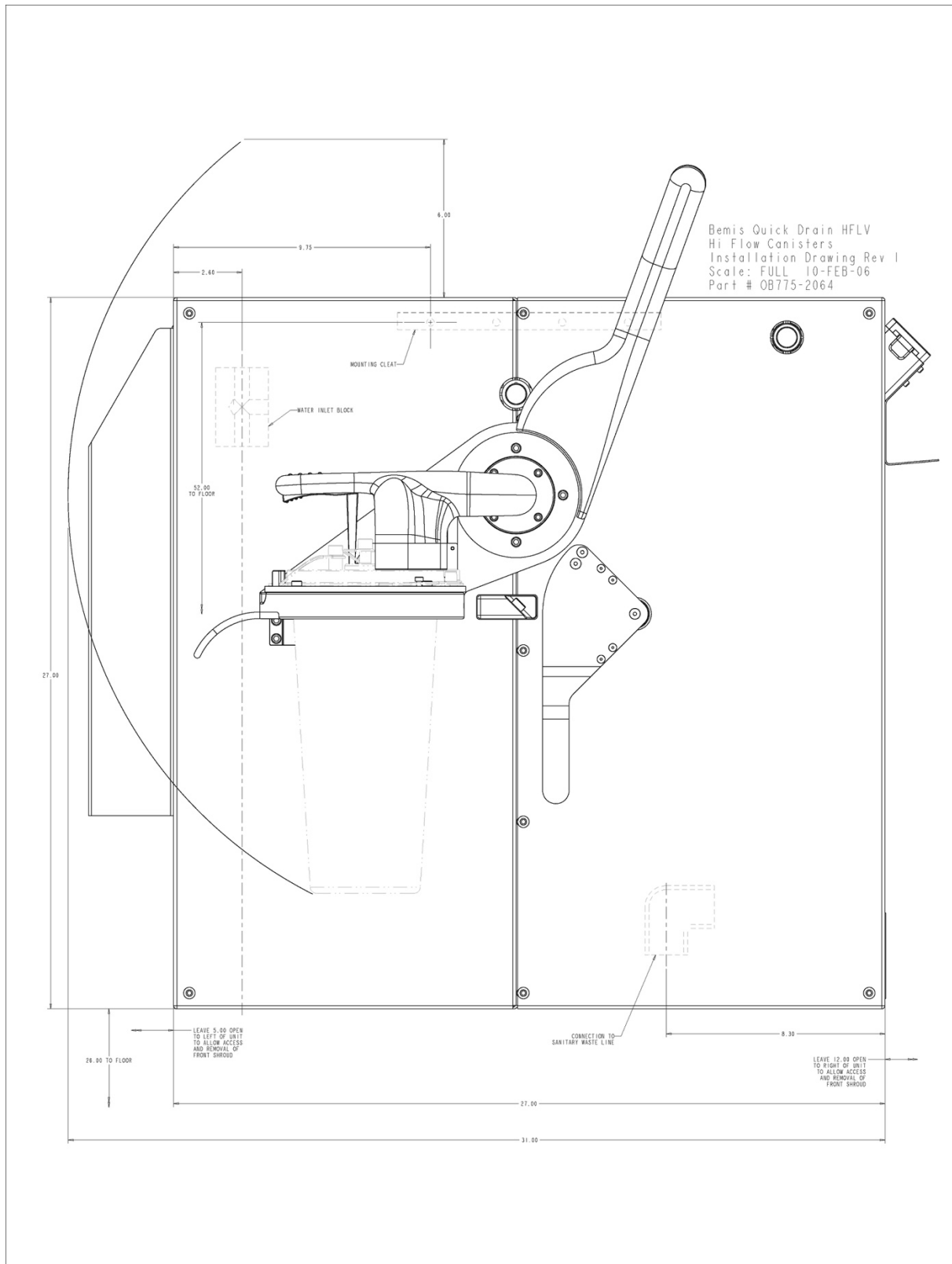


Figure 1: Quick-Drain HFLV Installation Dimensions

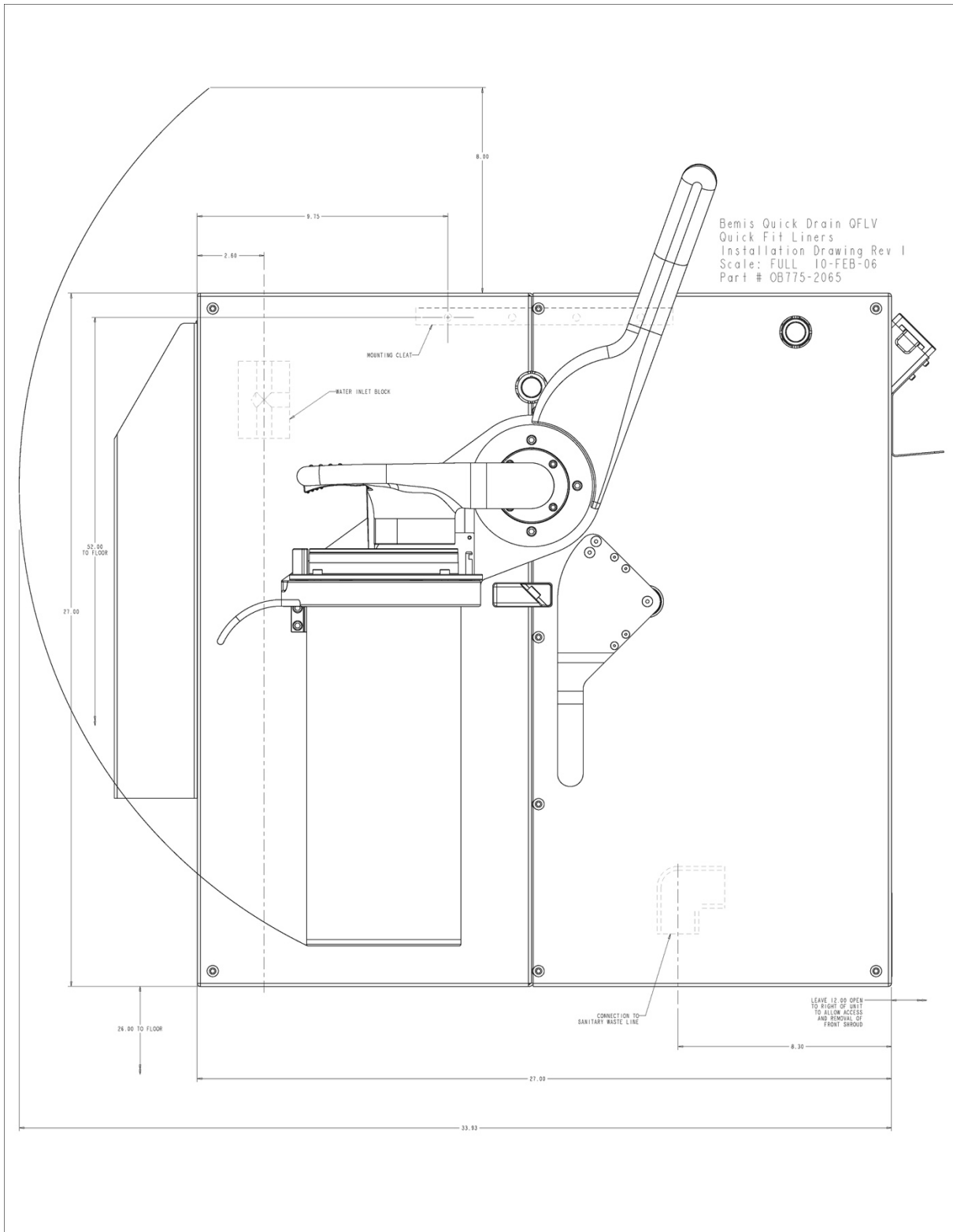


Figure 2: Quick-Drain QFLV Installation Dimensions

Directions for Use of Large Volume Drainage Attachment on Quick-Drain

1. *Prepare the Large Volume Container to be drained.*

Set the large volume container to be drained on the floor below the Quick-Drain unit. Open the large pour spout in the cover of the container.

2. *Attach disposable drain tube for drainage.*

Take one of the white disposable drain tubes and push it over the tapered fitting on the end of the reusable drain hose.

3. *Insert drain tube into Large Volume Container.*

Place the disposable drain tubes into the open port on the top of the large volume container, so the end of the disposable drain tube reaches the bottom of the container.

4. *Turn on Large Volume Drainage Option on Quick-Drain*

Rotate the large volume drain handle counter clockwise by 90 degrees. The handle should now be in a horizontal position and the contents of the large volume container should have started to be suctioned out of the container.

5. *Final draining.*

As the large volume container empties, it may be necessary to move the drain hose around inside the container to remove the maximum amount of fluid.

6. *Turn off Large Volume Drainage Option on Quick-Drain*

Once the large volume container is fully drained, rotate the large volume drain handle clockwise by 90 degrees. The hand should now be pointing in a vertical direction.

7. *Removing the disposable drain tube.*

Without fully removing the drain tube from the drained large volume container, remove the disposable drain tube from the reusable hose and push the disposable tube fully into the drained large volume container. Cap the open port of the drained large volume container and dispose of according to hospital policy.

8. *Storage of reusable drain hose.*

Hang the free end of the reusable drain hose back on the bracket provided on the side of the Quick Drain.

Description of Large Volume Drainage Option and Operation

Disposable Drain Tubes

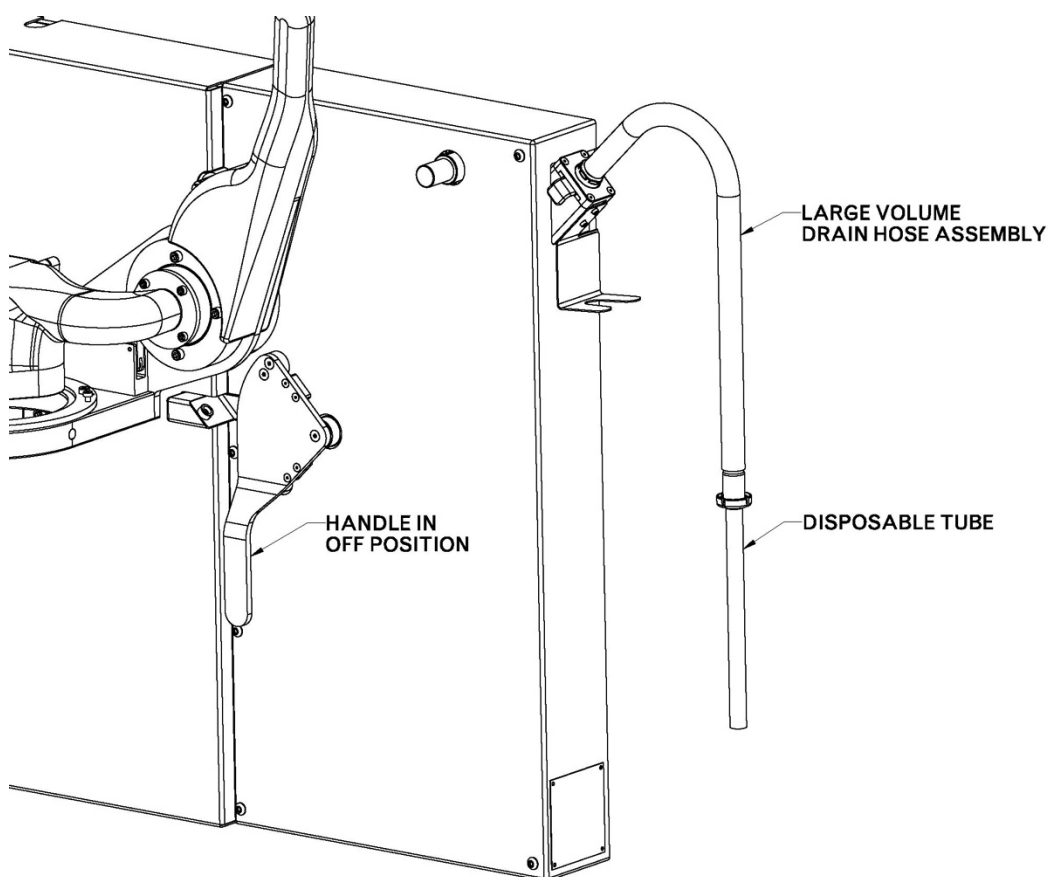
The disposable drain tubes are stored in a bracket on the left side of the unit. These are put on the end of the Large Volume Drain Hose for each container and then disposed of with each container that is drained.

Reusable Drain Hose

The Large Volume Drain Hose is left attached to the Quick-Drain unit it needs to be replaced. This may depend on hospital usage, but would generally be once a month depending on usage. The Large Volume Drain Hose has a Quick Connector Fitting on one end that plugs into the Quick-Drain Large Volume Drain Assembly. On the other end of the hose is the Check Valve Assembly. The Disposable Drain Tube is placed on the tapered end of the Check Valve Assembly for the draining of the containers.

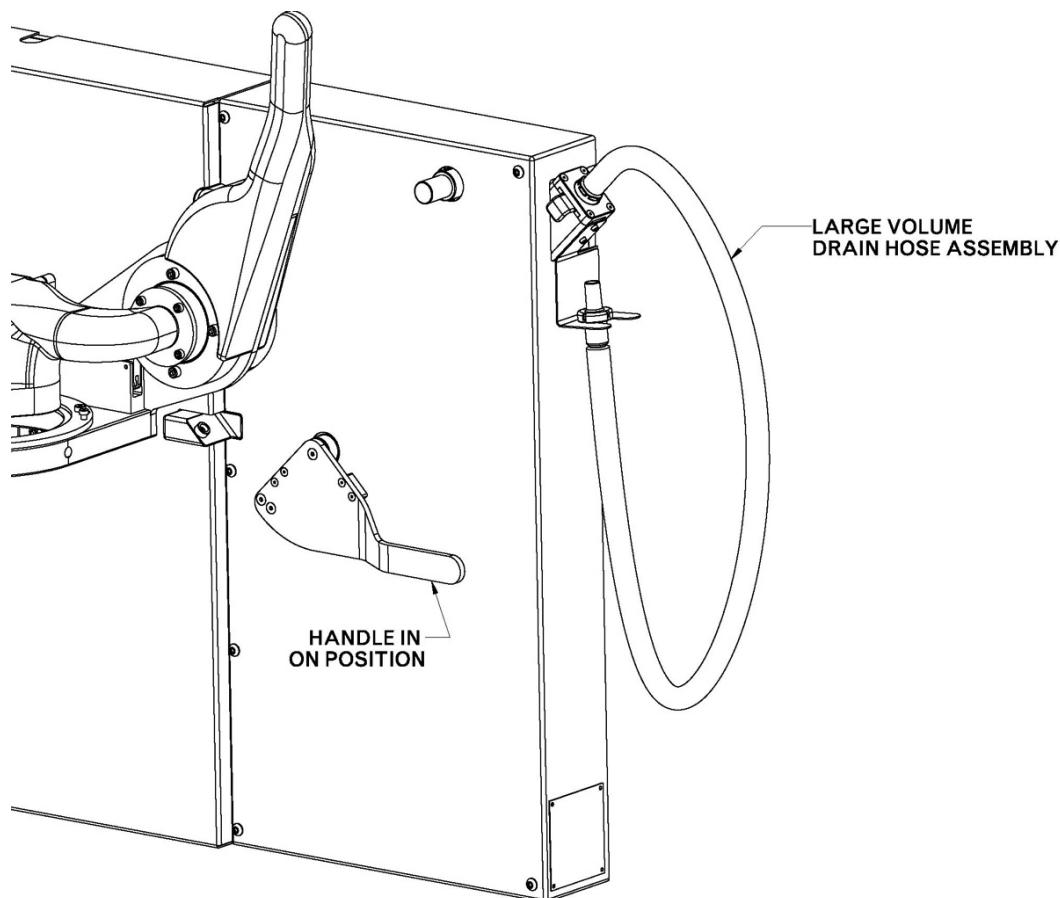
Connecting the Disposable Drain Tube To The Reusable Drain Hose

Take the disposable drain tube and push it onto the tapered connector on the end of the reusable drain hose.



Draining The Large Volume Container

Place the Disposable Tube into an open port of the container to be drained and rotate the Large Volume Handle to the on position. This will start the suction and begin draining the container.

**Completion Of Drainage**

Once the container is drained, remove the disposable tube and leave it in the drained container to be disposed of according to hospital policy. Then hang the Check Valve Assembly back on the Large Volume Suction Hanger and turn the handle to the off position.

Maintenance for Large Volume Drainage Versions of the Quick-Drain-QF and Quick-Drain HF Drainage Systems

The maintenance listed here is to be done in addition to the normal maintenance for the Quick-Drain-HF and Quick-Drain-QF units. The maintenance listed here only deals with the large volume drainage portion of the unit.

NOTE: Anytime work is done on the Quick-Drain, proper protective apparel should be worn.

Daily Maintenance Requirements

Visual Checks

These checks should be done daily to keep the Quick-Drain in top working order:

- Wipe down surfaces of Large Volume Drain Hose and Large Volume Drain to remove any blood or other fluid that may have gotten onto the unit.

Daily Cleaning

- ♦ A pH neutral enzymatic cleaner should be used on the unit at least once a day.
 - ~ Mix enzymatic cleaner with warm water in a 3000cc liner or canister according to enzymatic cleaner directions.
 - ~ Drain liner or canister as though you were draining a large volume container

Monthly Maintenance Requirements

Large Volume Drain Hose

Approximately once a month, depending on usage, you will need to replace the Large Volume Drain Hose. If the hose begins to smell or drip fluid from the end, you should replace it immediately.

Recommended pH neutral enzymatic cleaners for use with Quick-Drain™

<u>Manufacturer</u>	<u>Brand Name</u>
Ecolab	Asepti-zyme
Ruhof	Endozime, EndozimeAW, and Orthozime
Certol International	ProEZ
Henry Schein	MaxiZyme
Hu-Friedy	Enzymax
Johnson & Johnson	Enzol Enzymatic Detergent
Metrex	EmPower
Pascal Company	Citrizyme

Replacement Parts/Accessories List

Bemis offers the following replacement parts for the Quick-Drain Large Volume Units. See current price list or call for pricing.

<u>Description</u>	<u>Part Number</u>	<u>Replacement Frequency</u>
<u>Disposable Dip Tubes</u>		
15" Long (Used with Omni Jugs and Cardinal LVC)	QDLVDT15	Per use
19.5" Long (Used with H2OR Jumbo Jug)	QDLVDT19	Per use
Reusable Large Volume Drain Hose	QDLVRH	Monthly
Drain Tube Holder	QD145 KIT	As needed
On-Off Handle for QDLV Units	QD155 KIT	As needed
QDLV Drain Block Kit	QD160 KIT	As needed

See page 32 for other standard Quick-Drain Replacement Parts.

Customer Care Information

For questions regarding the installation, function, service or sale of the Quick-Drain and accessories, please call Bemis Customer Service or your local Sales Representative.

Bemis Manufacturing Company
 1-800-558-7651
 8:00 a.m. to 5:00 p.m. CST
 Monday through Friday
 HCG@BemisMfg.com

Fax all orders to 1-800-499-8160.

Ordering Information

<u>Description</u>	<u>Catalog No.</u>	<u>Pkg.</u>
Quick-Drain Large Volume for Quick-Fit Liners	QDQFLV3500	1/case
Quick-Drain Large Volume for Hi-Flow Rigid Canisters	QDHFLV3500	1/case