



**WARNING: DO NOT over-tighten filter housings (hand-tighten only). Over tightening will result in failure of the pre-filter components, which can lead to flooding or water leaks.**

Plumbing fittings should be hand tightened followed by one complete turn with the appropriate wrench.

### PURPOSE

These instructions cover the installation of the Water pre-filtration system P/N 78399-991. The water pre-filtration is shipped in a box separate from the machine.

The hardware included in the kit:

- Water filter unit
- Regulator and gauge
- Eight foot water flexible water hose
- Filter wrench
- Reducing bushing 1/2" x 1/4"
- Treaded nipple 3/8" x 2"
- Elbow 1/2" x 3/8"
- Miscellaneous mounting screws
- 3/8" plugs for regulator



Figure 1. Water Pre-filtration System Kit

### CUSTOMER REQUIREMENTS:

These criteria must be met to ensure proper operation of the reprocessor. It is the responsibility of the customer to provide qualified personnel to install the plumbing (pre-filter assembly, regulator, thermostatic mixing valve or equivalent and drain) prior to install. It is also the customer's responsibility to connect the DSD EDGE, DSD-201 or SSD-102 to the water supply at the time of installation.

## **WATER SUPPLY (POTABLE)**

### **FOR DSD EDGE ONLY:**

The incoming water connection to the DSD EDGE is situated on the right side of the cabinet. The adapter attached to the unit is a 3/8" female NPT fitting. Water connections on the pre-filtration system are 1/2" female NPT.

- The incoming hot and cold water lines must be a minimum of 1/2" diameter water line providing a minimum flow rate of 3.2 gallons per minute (GPM) at temperature of 95°F ± 4°F (35°C ± 2°C). *ON DEMAND* To maintain this specific temperature of the supply water, a thermostatic mixing valve will be necessary prior to the pre-filtration system. This valve requires both hot and cold water lines for proper operation. The customer is responsible for obtaining and installing the valve or any other water tempering method. Refer to the water temperature and flow specifications to find the best match of mixing valve or other tempering method for your facility. This valve should be located no more than four (4) feet from the machine and easily accessible to the operator.
- The incoming water pressure at the input of the re-filtration system must be a minimum of 40 PSI (2.75 BAR) *DYNAMIC PRESSURE* and not to exceed 90 PSI (6.2 BAR).
- A shut off valve and water mixing valve must be installed before the pre-filtration system. It is important that the shut off valve and water mixing valve be mounted within the operator's reach.
- The pre-filter assembly with regulator is wall mounted and has the dimensions of 12"H x 18"W x 6"D. The incoming water connection to the pre-filter assembly is 1/2" NPT on the left hand side. All fittings and hoses for the output of the pre-filter assembly are included.
- The mixing valve must be accessible and located as close as possible to the pre-filtration system to minimize the loss of water temperature. The thermostatic mixing valve should be no further than four (4) feet from the DSD EDGE. The mixing valve should be followed by a thermometer (with readings in Celsius), then followed by a bypass valve to a drain. Installation of a by-pass valve will assist in accelerating the stabilization of the water temperature supplied to the machine after long periods of inactivity. The valve should be located between the thermostatic mixing valve and the pre-filtration system. The output of the valve is to the drain. Opening this valve facilitates the ability to accelerate the water heat up time, and reducing the incidence of low temperature alarms on the DSD EDGE.
- The facility is responsible for the installation of the pre-filtration system, water mixing valve and the connection of the incoming water line to the DSD EDGE and pre-filtration system.
- Ensure water hardness is less than 12 gpg (200 ppm) for optimal performance.

### **FOR DSD-201 and SSD-102:**

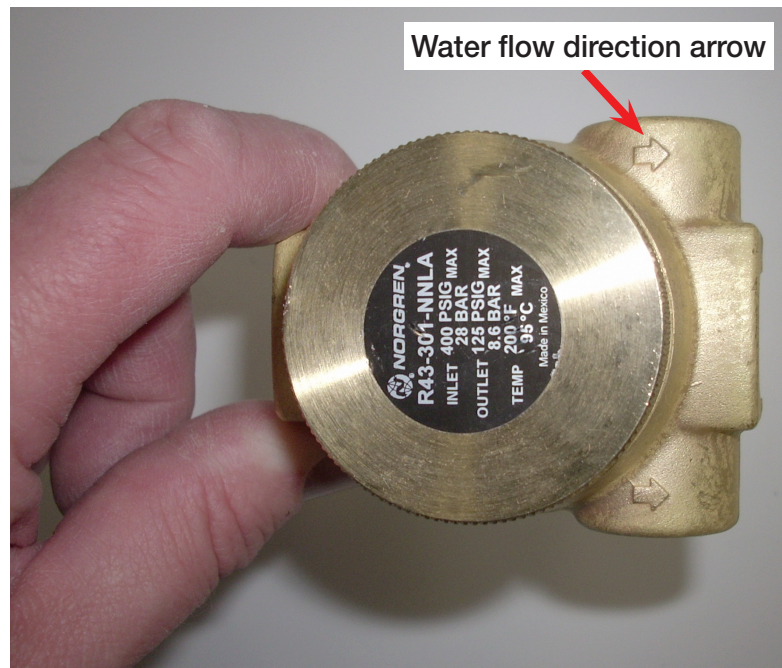
Water connection to the unit is on the right side of the cabinet. The adapter attached to the unit is a 3/8" female NPT fitting. Water connections on the Pre-filtration system are 1/2" female NPT.

- The incoming water line must be a minimum of 1/2" diameter providing a minimum flow rate of 3.2 gal/min (12 liters/min) at a maximum temperature of 110°F (43°C).
- The incoming water pressure to the pre-filter must be a minimum of 40 PSI (2.75 BAR) and should not exceed 90 PSI (6.2BAR).
- A shut off valve must be installed before the pre-filtration system. It is important that the valve be mounted within the operators' reach.
- The facility is responsible for the installation of the pre-filtration system and the connection of the incoming water line to the reprocessor and pre-filtration systems.
- Ensure water hardness is less then 12 gpg (200 ppm) for optimal performance.

### **REGULATOR INSTALLATION AND SET UP:**

- The pressure regulator requires the water to flow through in one direction for proper operation. On the bottom of the regulator is an arrow indicting water flow. Verify the proper flow direction when installing the water regulator.
- Install the regulator between the pre-filter assembly and the DSD EDGE/DSD-201/SSD-102.

NOTE: Use a minimum of 1/2" piping for all waterline plumbing.



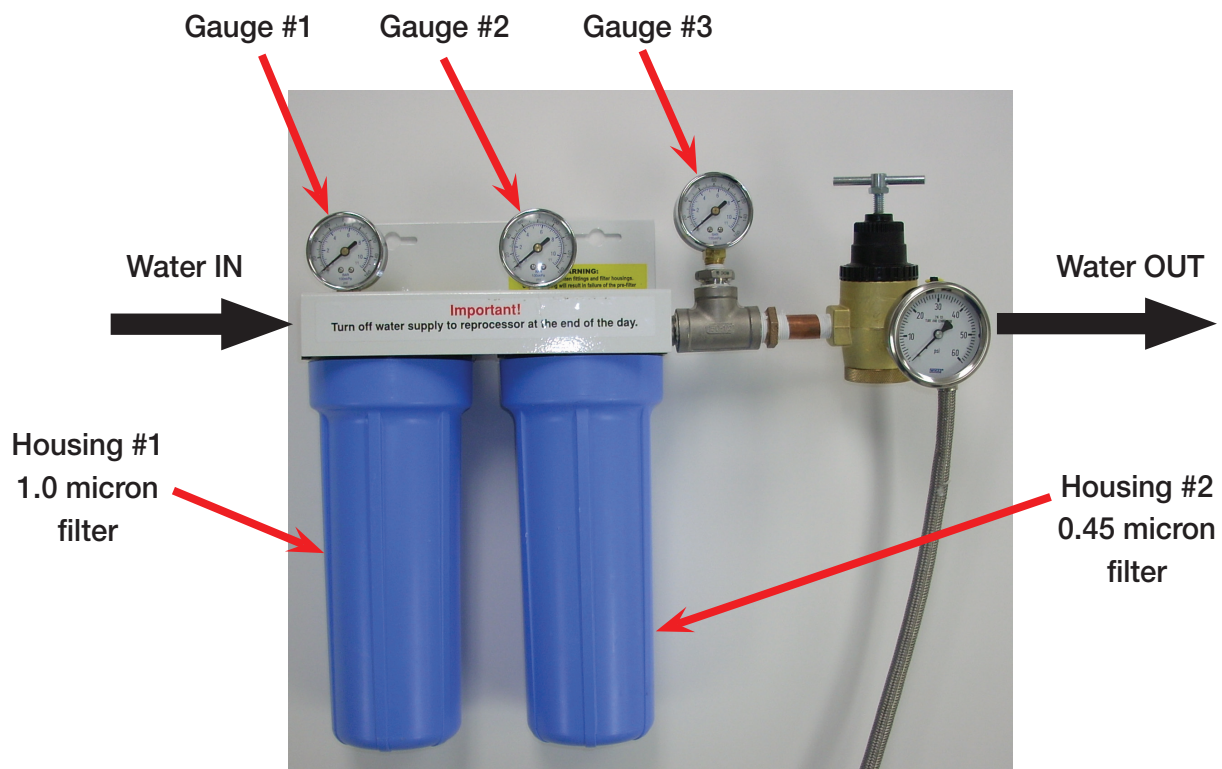
### Figure 2. Regulator

**REGULATOR ADJUSTMENT:**

The regulator pressure can only be accurately set when water is flowing (dynamic pressure) into the reprocessor. Once the machine is connected to the water supply, adjust the regulator during the initial flush cycle. Set the regulator to provide a water pressure to the reprocessor of 40 PSI (2.75 BAR).

## FILTRATION SYSTEM

The water filter housing is shipped with a 1.0 micron filter in housing #1 and a 0.45 micron filter in housing # 2.



**Figure 3. Components of Pressure filter assembly**



The accumulation of particulates in a filter can cause the water pressure to drop below the minimum required level. A pressure differential of 5 PSI or greater between gauges on each side of a filter indicates a need for replacement. For example, if the pressure on gauge #2 is 35 PSI when the pressure on gauge #1 is 40 PSI, a filter change is required.

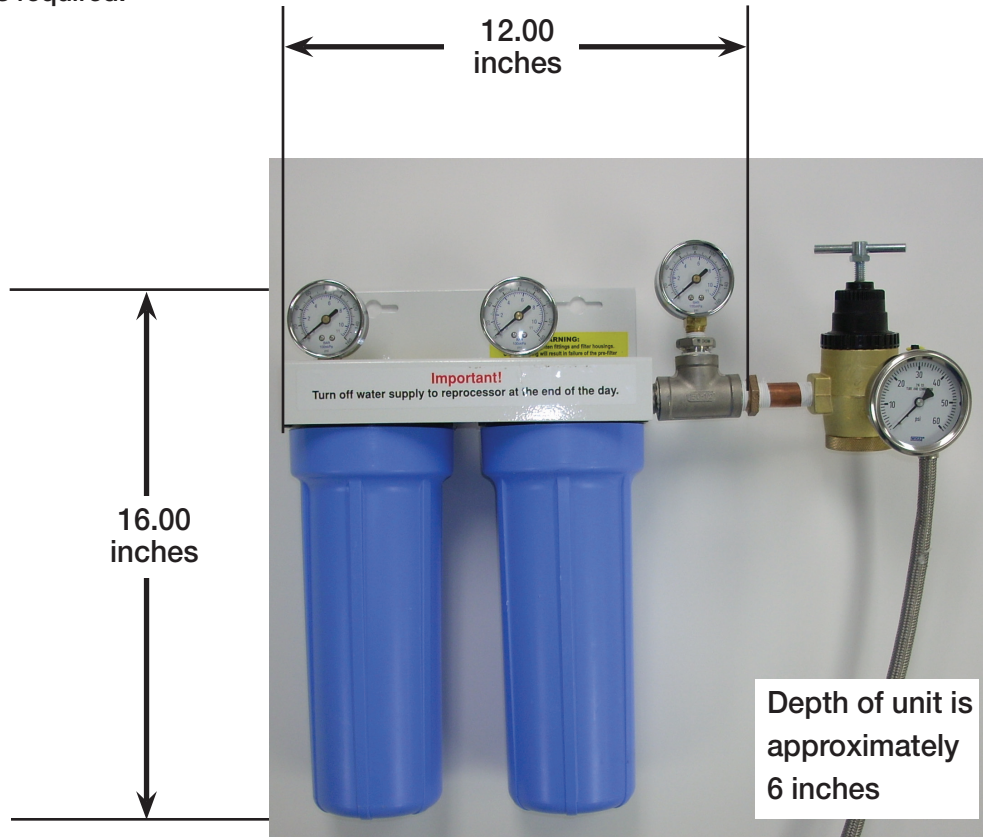


Figure 4. Dimensions of pressure filter assembly

## INSTALLATION

Dimensions of the water filter are shown in figure 4.

- *If not already installed, an incoming water shut-off valve must be installed upstream of the pre-filter system.*
- When mounting the pre-filtration system to sheet rock wall, suitable mounting hardware must be use to hold to the unit solidly to the wall.
- The shut off valve must be easily accessible to the user to shut off when not in use.
- Mount the filter assembly on the wall where the filters can be easily changed and the gauges checked.
- Connect the output of the filter assembly to the input of the regulator.
- Connect the output of the regulator to the DSD EDGE/DSD-201/SSD-102 using the stainless steel hose. The other end of the hose will be attached to the water inlet of the repressor on the right side of the machine. The installation kit ships with hardware that should fit most installations. If not, hardware may be sourced locally.

**NOTE: TURN OFF THE WATER SUPPLY AT THE END OF EACH DAY OR IF THE UNIT WILL NOT BE IN USE AND UNATTENDED FOR ANY LENGTH OF TIME.**



## WATER FILTERS CHANGES

- The filters in the Pre-filter housing should be changed every three months.
- The filter wrench is only for removing the filter housings. NEVER tighten the filter housings with a filter wrench.
- A thin film of silicone grease applied to the O-ring will aid in both sealing of the housing and ease of removal at the time of the next filter change. Silicone grease can be obtained from Medivators; the part number is 17599-463. The O-ring in the housing should be replaced at least once a year to prevent leaks. The part number for the O-ring is 43100-083.

## SAMPLE INSTALLATION OF A TEMPERATURE REGULATOR FOR USE WITH DSD EDGE

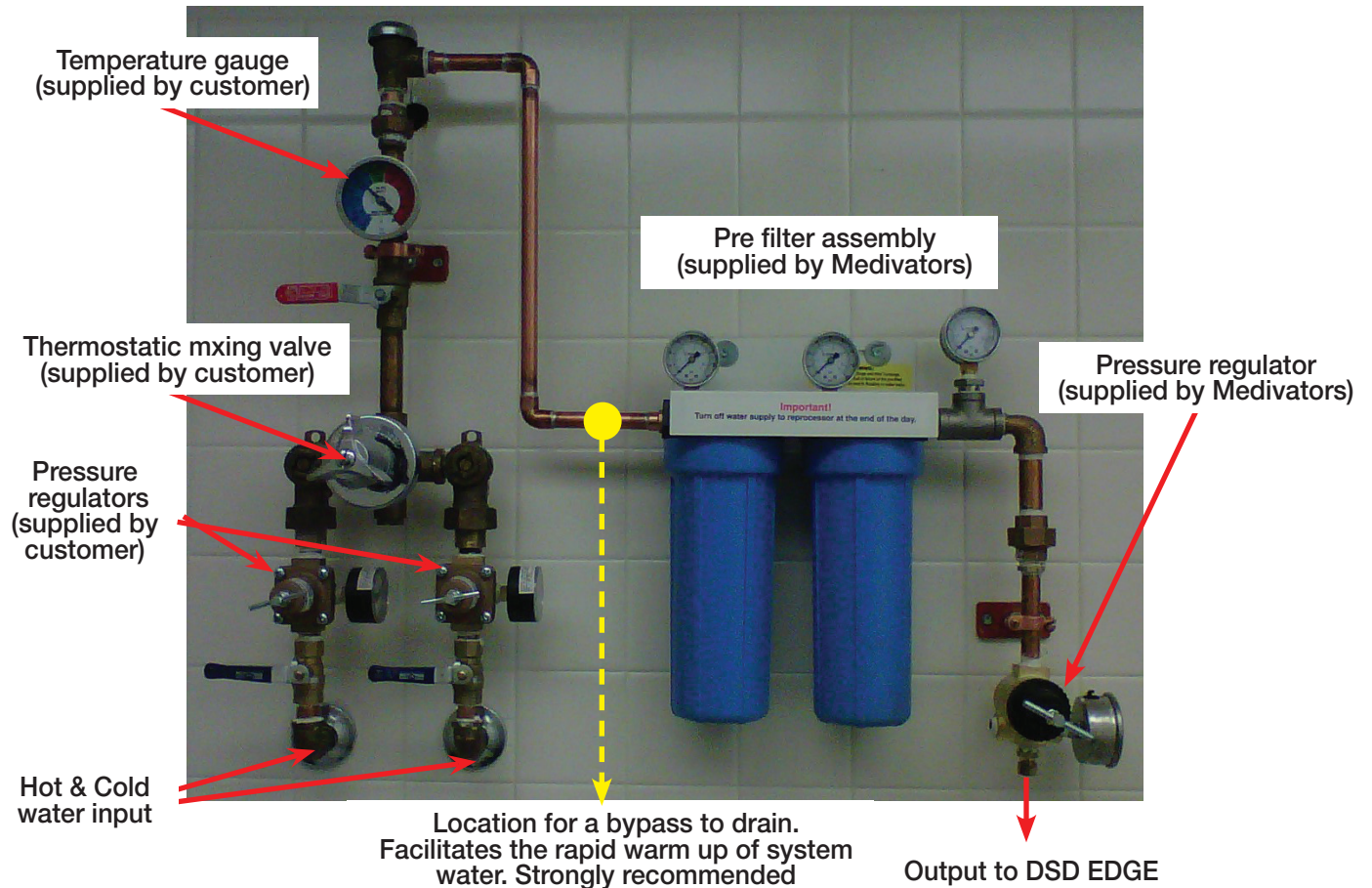


Figure 5. Example of DSD EDGE Water System  
(All within 4 feet of DSD EDGE and easily accessible)

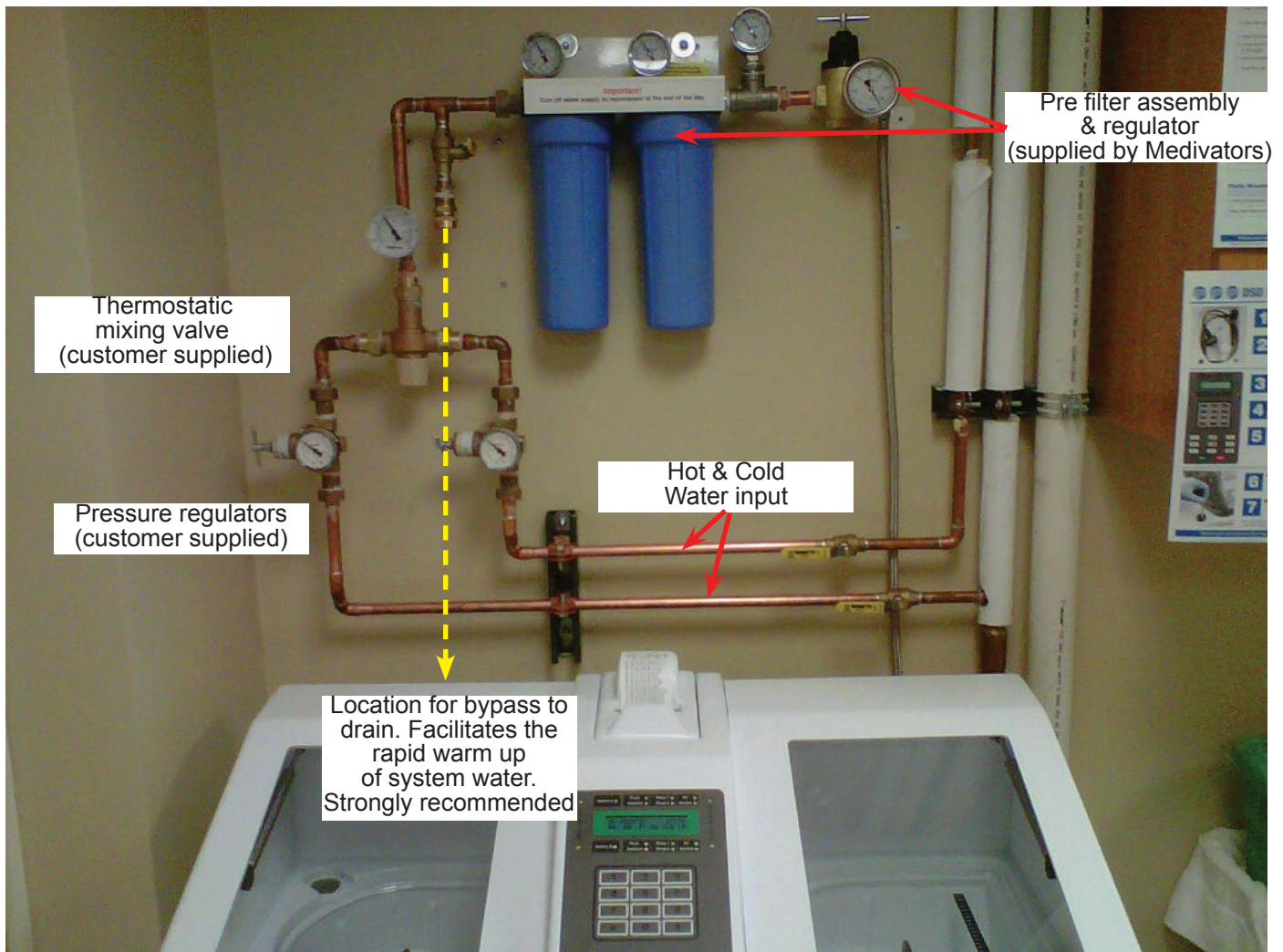


Figure 6. Sample of DSD EDGE Installation

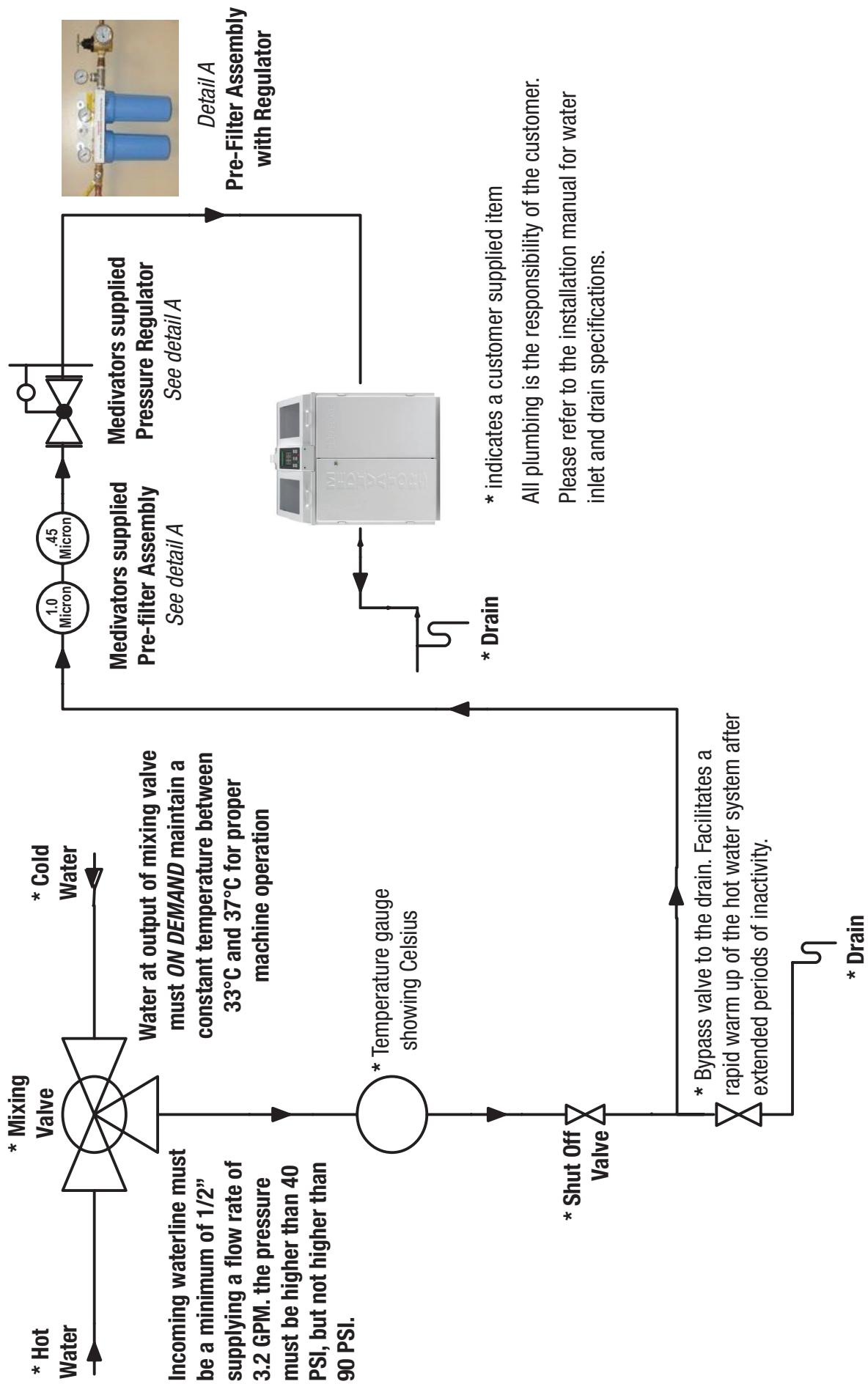


Figure 7. Water and Drain Diagram DSD EDGE





Figure 8. Sample Installation of a DSD-201/SSD-102

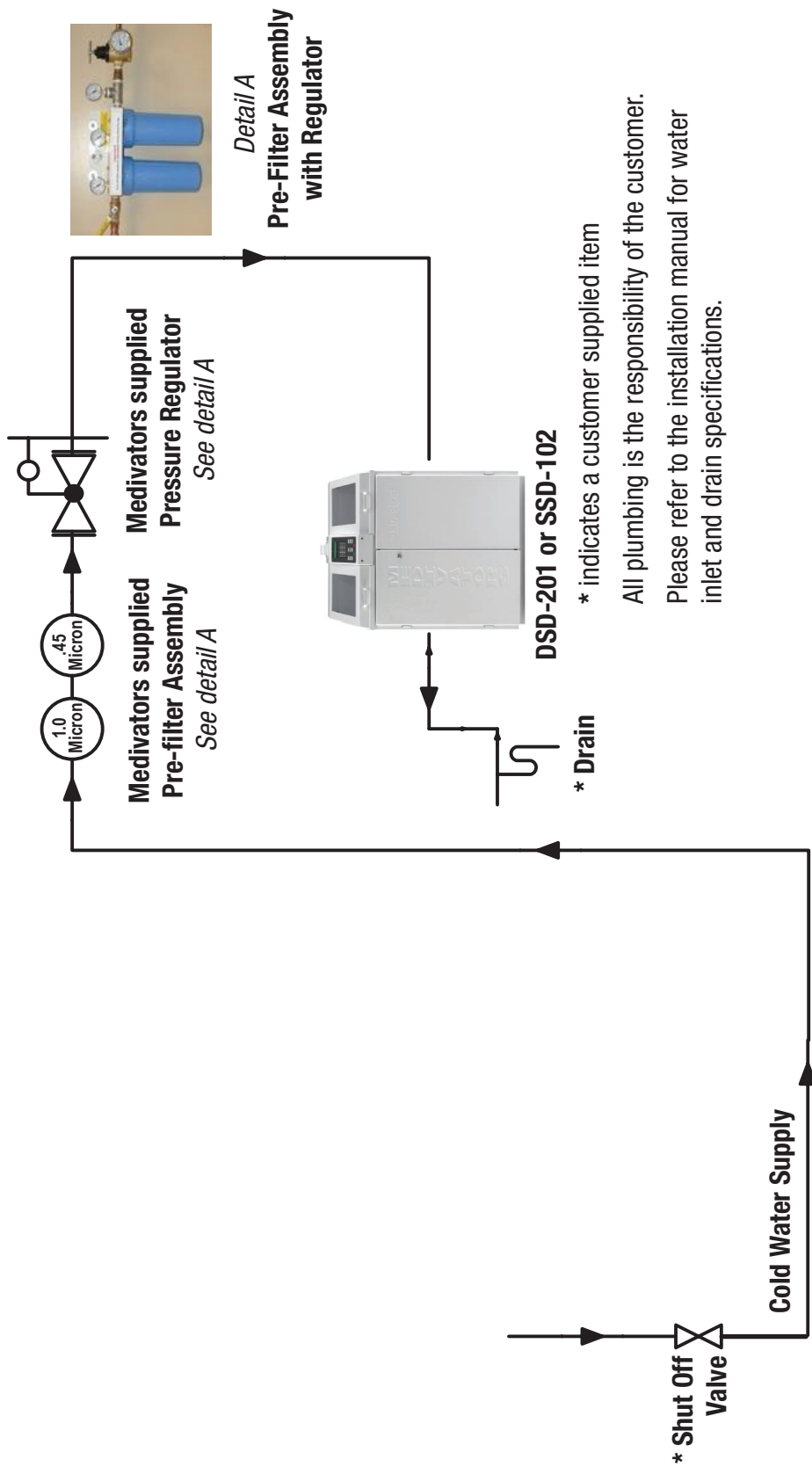


Figure 9. Water and drain diagram for DSD-201 and SSD-102



Manufactured in the USA by:

**MINNTECH®**  
A Cantel Medical Company

Minntech Corporation   
14605 28th Avenue North  
Minneapolis MN 55447 USA  
Phone: 763.553.3300  
Toll Free: 800.328.3340  
Fax: 763.553.3387  
Web: [www.minntech.com](http://www.minntech.com)

Minntech BV  
Sourethweg 11  
6422PC Heerlen  
The Netherlands  
Phone: +31 45 5 471 471  
Fax: +31 45 5 429 695  
email: [info@minntechbv.com](mailto:info@minntechbv.com)



Minntech Asia / Pacific Pte Ltd  
1A International Business Park  
#05-01 Singapore 609933  
Phone: +65 6227 9698  
Fax: +65 6225 6848

Minntech Beijing Representative Office  
Room 708, 7th Floor Kaiheng Center,  
No. 2 Chaoyangmennei Street  
Dongcheng District, Beijing China, 100010  
Phone: +8610 6567 8446  
Fax: +8610 6567 8445