

# DSD EDGE<sup>®</sup>

Endoscope Reprocessing System

## INSTALLATION PACKAGE

### SITE REQUIREMENTS



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# SITE REQUIREMENTS

The purpose of this section is to provide the customer with requirements that need to be met to ensure the DSD EDGE® Endoscope Reprocessor will be properly installed. *Check List provided in [Appendix C](#).*

**By signing below Customer acknowledges that:**

1. Customer reviewed these Site Requirements for the Medivators DSD EDGE Endoscope Reprocessor(s) indicated in this document.
2. The customer assumes complete responsibility for meeting each of the specifications and requirements set forth in the Site Requirements, to ensure proper installation and performance of the DSD EDGE Endoscope Reprocessor(s). Failure of the customer to comply with these Site Requirements and any deviation from the specifications set forth herein may compromise the functionality of the reprocessor(s), and/or may cause operational issues which will not be covered by the Cantel Medical warranty, and are hereby disclaimed by Cantel Medical.
3. The customer assumes complete responsibility for meeting each of the specifications and requirements set forth in the Site Requirements by the agreed upon installation date by Customer and Cantel Medical. If the Cantel Medical installation team encounters any delays due to site requirements not meeting specifications and requirements, the Customer will be charged \$265.00/hr. for stand-by fees, until site requirements are met and installation activity resumes; or, if it is determined that the delay results in rescheduling the installation to a later date, the Customer will be charged for all expenses (flights, lodging, and car rental, if applicable), and travel (\$200.00/hr.) and labor time (\$265.00/hr.) related to the return installation dispatch.
4. If installation is canceled or moved 48hrs prior to the agreed upon installation date, no fee will be charged.

CUSTOMER REPRESENTATIVE \_\_\_\_\_ TITLE \_\_\_\_\_

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_ EMAIL \_\_\_\_\_

**Applicable Documents** - All are available online through link provided below

- DSD EDGE Endoscope Reprocessing System User Manual
- DSD EDGE Endoscope Reprocessing System Service Manual
- Water pre-filtration system installation instructions (PN 50097-363). These instructions contain samples of water system installations.
  - o <http://www.medivators.com/products/endoscope-reprocessing/automated-endoscope-reprocessors/medivators-dsd-edge-dual-basin-aer>



**IMPORTANT!** It is the responsibility of the customer to meet ALL requirements to ensure proper installation of the DSD EDGE® Endoscope Reprocessor.

## Water Supply *refer to [Appendix D](#)*

The incoming water supply for the DSD EDGE Reprocessor System can be connected to either the right side or rear of the cabinet by means of a movable inlet fitting. 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.



**WARNING:** An emergency eye wash valve **WILL NOT** meet the water temperature specifications for the DSD EDGE® Endoscope Reprocessor and should not be used.

- The water supply must be connected to a thermostatic mixing valve set to provide an on-demand water temperature of  $35^{\circ}\text{C} \pm 2^{\circ}\text{C}$  ( $95^{\circ}\text{F} \pm 4^{\circ}\text{F}$ ). **One mixing valve per reprocessor is REQUIRED.**
  - o The mixing valve must be accessible and located near the pre-filter to aid in adjustment. The mixing valve must include a thermometer followed by a bypass valve to a drain.
  - o The DSD EDGE Reprocessor requires a thermostatic mixing valve with a temperature range of  $35^{\circ}\text{C} \pm 2^{\circ}\text{C}$  ( $95^{\circ}\text{F} \pm 4^{\circ}\text{F}$ ). It is the responsibility of the facility to purchase, install and maintain this device. **PRODUCT BULLETIN: SUGGESTED LIST OF THERMOSTATIC MIXING VALVES FOR DSD EDGE ENDOSCOPE REPROCESSOR ([Appendix B](#))**
  - o Facility water pressure and temperature can vary greatly. Most thermostatic mixing valves require a pressure differential of less than 10 PSI (0.70 bar) and a minimum temperature differential of  $45^{\circ}\text{F}$  ( $7^{\circ}\text{C}$ ) between the hot and cold-water supplies for optimum operation (see specifications of the chosen mixing valve). Therefore, Medivators requires the addition of pressure regulators on each of the hot and cold-water supply lines prior to entering the thermostatic mixing valve as well as temperature and pressure gauges on both the hot and cold supply lines. It is the responsibility of the facility to purchase, install and maintain these devices. Temperature and pressure gauges on the incoming water lines, provide a means of monitoring the water system of the facility should water temperature issues arise. Consult a qualified plumber to assist in determining the proper regulators and temperature and pressure gauges to use.



**NOTE:** Mixing Valve should be located within **4 feet (122cm)** of the reprocessor and be easily accessible to operators for adjustments.

**NOTE:** After the mixing valve and before the pre-filter assembly, a path to a drain with a shutoff valve **MUST** be installed so the operator can run water through the mixing valve if the water temperature falls too low and needs to be brought to temperature. This may occur primarily in colder winter climates after an extended time of non-use.

- The incoming waterline must be a minimum of 1/2" ID providing a flow rate of 3.2 GPM and a **Dynamic** water pressure of 40 to 87 psi must be maintained at the first gauge of the Pre-Filtration Unit.
- The pre-filter assembly with regulator is wall mounted and has the dimensions of 16"H x 18" W x 6" D (41 cm x 46 cm x 15 cm). 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. **It is the responsibility of the customer to mount and plumb the pre-filter assembly.**
  - o The incoming water connection to the pre-filter assembly is 1/2" NPT on the right-hand side. All fittings and hoses for the output of the pre-filter assembly are included. The pre-filter assembly must be within ten feet and in the same room as the DSD EDGE Endoscope Reprocessor. The water supply hose has a maximum working length of ten feet and cannot be lengthened.

- o A shut-off valve must be installed before the pre-filtration system. It is important that the valve be mounted within reach of the operator.
- o One pre-filter system per DSD EDGE® Endoscope Reprocessor is required.
- o Pre-Filter Assembly must be accessible to allow for easy filter changes.
- Ensure water hardness is less than 12 gpg (200 ppm) for optimal performance
- Potable water is the minimum standard.
- De-ionized water (DI water), due to its corrosive nature **cannot be used** in Medivators Reprocessor
- Reverse Osmosis (RO water) can be used in Medivators Reprocessor. If RO water is utilized, the pre-filter system must still be used. Consult a qualified plumber to assist with sourcing proper mixing valves and components to be used with RO water.



**NOTE:** The Medivators Endoscope Reprocessors do not require backflow protection for the incoming water supply, nor is a backflow protection device installed in the reprocessor. If building or plumbing codes require backflow protection, then please consult your local codes, standards and/or guidelines, for applicable requirements.

## Drain

The drain connection for the reprocessor is located on the rear of the cabinet at 25" (63.5cm) from the bottom of the DSD EDGE® Reprocessor System cabinet.

- A vented drain system capable of draining 5 GPM, 18" or less from the floor and vented will ensure the proper operation of the DSD EDGE endoscope reprocessor.
- The supplied drain line must have a minimum 1" OD (2.5 cm). The opening of the facility drain must be at least 2" (5 cm) in diameter to accommodate the machine drain hose, two 1/4" air tank purge line and by-pass line.
- The installation kit provided with the reprocessor includes a 1-inch elbow and **36" (92cm)** of a 1-inch diameter drain hose to be mounted during installation. Any additional required length of drain hose will be customer supplied.

## Electrical Supply

The 120V 50/60 Hz reprocessors are supplied with a hospital grade, grounded plug that can be connected to any standard 15A outlet. The 230V 50/60 Hz reprocessors require a 10A outlet. (230 V machines not available in North America)

- The outlet should be placed within operator's reach for easy unplugging.
- Installation of a surge protector is recommended to protect the DSD EDGE Reprocessor System from power fluctuations.
- If an active vapor management system will be utilized, a duplex outlet will be necessary.

## Heat Load

- BTU output Approximately 1000 BTU's/hr

## Ventilation



**NOTE:** It is the Customer's Responsibility to ensure the room is following this requirement. This is not a requirement of the DSD EDGE® endoscope reprocessor but of the chemicals that are used for disinfection.

- It is a health and safety requirement to have a minimum of 10 air changes per hour in the room. During cycle operation, chemical vapor may be produced. The air exchange will minimize staff exposure to chemical vapors.

## Dimensions - [Appendix A](#)

The reprocessor is equipped with casters for ease in moving into position. **Self-contained** leveling pads can then be adjusted during installation to lift the unit off the casters and level the reprocessor. For optimal user-safety and reprocessor operation, it is recommended that the DSD EDGE Endoscope Reprocessor always be placed directly on the floor, and not on an elevated platform type device. Sufficient space is needed for the reprocessor and all external components such as pre-filtration, water regulator, water shut off valve and the ventilation system (if applicable).

- Reprocessor Dimensions: 46" x 36" x 21" (H x W x D) (117cm x 91cm x 53cm). The height with lid open is 65" (163cm). If purchased with bar code scanner, dimensions are 46" x 42" X 21" (H x W x D) (117cm x 107cm x 53cm).
- 4" (10cm) of space is required to the right side of the unit.
- Units equipped with active vapor management systems require 12" (31cm) of space to the back wall.
- Units equipped with passive vapor management systems require 8" (20cm) of space to the back wall.
- Units not equipped with ventilation system require 4" (10cm) of space to the back wall

## APPENDIX A



### Dimensions

46 H x 36 W x 21 D (inches)  
117 H x 91 W x 53 D (cm)  
Height with lid open: 64 inches (162.5 cm)

### Weight

400 lbs (182 kg)

### Electrical Requirements

120VAC, 60Hz, 1440 watts

### Electrical Safety Certifications

ETL Intertek Listed #75811  
UL Standard 61010  
CSA/CSA Standard C22.2, No. 601.1

### Water Supply Requirements

Minimum Flow Rate: 3.2 GPM (12LPM) at 35-40 PSI (2.4 – 2.8 bar)  
Water Temperature: 95° ± 4°F (35°C ± 2°C)  
Water Hardness: Less than 12 gpg (200 ppm)  
Pre-Filter Wall Space: 16"H x 12"W x 6"D (41cm x 31cm x 16cm)

### Reservoir Capacities

Alcohol and Detergent: 27oz each (800 ml)

### Disinfectant Temperature Range

RAPICIDE® PA Disinfectant 30°C - 40°C (86°F - 104°F)

### DSD EDGE® Reprocessor Ordering Information – United States

Model Number	Description
DSD-3008	DSD EDGE Reprocessor prepped for VMS

### DSD EDGE® Disinfectant Ordering Information

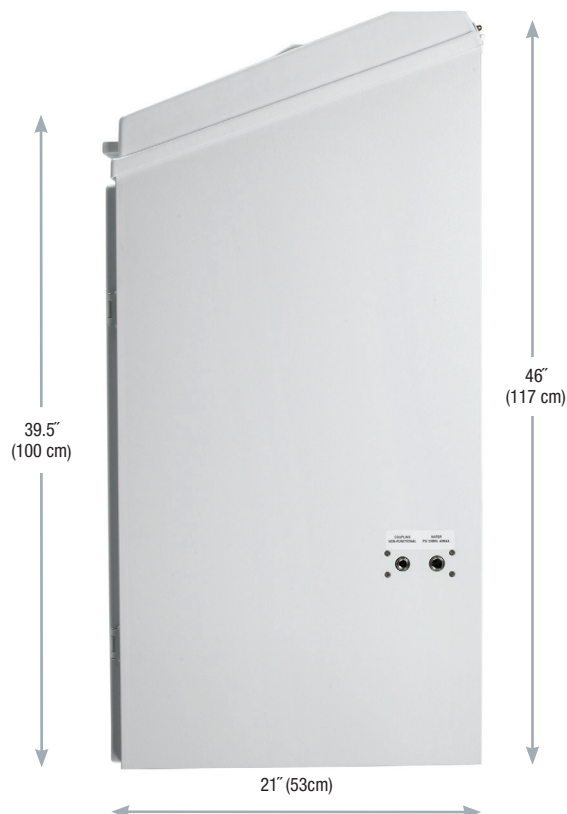
Part Number	Description
ML02-0117	RAPICIDE® PA High-level Disinfectant
ML02-0118	RAPICIDE® PA Test Strips

### DSD EDGE® Accessory Ordering Information

Part Number	Description
ML02-0106	INTERCEPT® Detergent
MK01-0053	Bridge Support Kit

### Vapor Management Options

Part Number	Description
MK01-0055	Active Vapor Management System
DSD-1070R	Passive Vapor Management System



APPENDIX B



**WARNING:** An emergency eye wash valve will not meet the water temperature specifications for the DSD EDGE® Endoscope Reprocessors and should not be used.

The DSD EDGE endoscope reprocessors require a water supply that is tempered to 35°C ± 2° (95°F±4°F) with water at this temperature being available on demand for proper reprocessor operation.

Reprocessor	Water pressure	Flow Rate
DSD EDGE Reprocessor	Minimum of 40 PSI	Minimum of 3.2 GPM for each hot and cold supply lines

To maintain this temperature, we recommend the installation of a thermostatic mixing valve. The valve has both hot and cold water plumbed into the unit, with an output of properly tempered water available on demand to the pre-filtration system of the reprocessor. We recommend one mixing valve be installed per machine and that the mixing valve be installed no further than 4 feet from the filtration system and accessible to the operator. A mixing valve installed at some distance away from the filtration system is likely to be ineffective at providing water at the correct temperature because of the length of plumbing through which the water must pass prior to reaching the filtration system.

Because each installation can be unique in terms of facility and plumbing code requirements, Medivators cannot recommend specific mixing valves for each installation. Experience with prior successful installations has demonstrated that the valves listed below can be expected to meet most water supply needs. This list cannot be viewed as an endorsement by Medivators as we do not manufacture, test, validate or certify thermostatic mixing valves. The customer assumes the responsibility to decide the proper fit for their individual installation needs. Due to variations in local codes, please consult your plumber before selecting a mixing valve.

Manufacturer	Valve Series	Specifications
Honeywell	AM-1 1070 Series	70-120°F ± 3°F (21-49° C ± 2°C) at 0.5-10 GPM
WATTS	LFMMV	80-120°F ± 3°F (27-49° C ± 2°C) at 0.5-20 GPM
WATTS	LFL1170	60-120°F ± 3°F (16-49° C ± 2°C) at 0.5-20 GPM
Symmons	6-102-1	70-110°F at 0.5– 5 GPM
	6-200-1	70-110°F at 0.5– 5 GPM

NOTE: Manufacturer part numbers are subject to change without notice.

If you have any additional questions, please contact Medivators Technical Support at 1-800-444-4729 or 763-553-3300.



## APPENDIX C

### SITE REQUIREMENTS CHECKLIST

The DSD EDGE® Endoscope Reprocessor Installation Checklist is utilized to ensure the installation site meets the required specifications. If all requirements are met, the site is suitable for the installation of the reprocessor.

Section	Customer Site Requirements Criteria	
3	Water supply provides a minimum flow rate of 3.2 GPM (12 liters/minute)	
3	Water supply provides minimum of 40 PSI (2.75 BAR) and not to exceed 90 PSI (62 BAR)	
3	Water supply is capable of providing a temperature of 95°F (±4°F), 35°C (±2°C) <b><u>ON DEMAND</u></b>	
3	Appropriate water pre-filtration requirements have been met, based on particulate analysis results. <b>(NOTE: this action is strongly recommended)</b>	
3	Incoming water supply fed through a minimum 1/2" (12.7 mm) lines.	
3	Water hardness not greater than 12 gpg (200 ppm)	
4	Intended drain outlet no more than 18" (46cm) from the floor	
4	Drain requirements met for the installation site (5 GPM; 18.9 liters/min)	
5	Fused outlet within 3 feet (1 meter) of the installation site	
6	Site adequately ventilated to meet ventilation requirements for HLD use (A minimum of 10 air exchanges per hour required)	
7	Proposed installation area has a level floor	
7	Installation site accommodates the unit's dimensions (H46" x W36" x D21" or 117cm x 91cm x 53cm)	
7	Adequate space for the lids to be fully opened (64"/162cm) from floor)	
7	Adequate wall or under-cabinet space for installation of the water pre-filtration system	
7	Adequate space to make plumbing connections to the unit (4"/10cm) required) on right side	

## APPENDIX D

Connection from regulator to DSD EDGE® Reprocessor will be performed by Medivators.

Water filtration unit supplied by Medivators.  
NOTE: Facility is responsible for mounting and plumbing unit

Bypass valve. Output to drain

Temp/pressure gauge for tempered water

Temp/pressure gauges for hot and cold supply

Pressure regulators

Shutoff valves




### Important! Notes Summary

- Potable water is the minimum standard
- One mixing valve per reprocessor
- Mixing valve must be within 4 feet of reprocessor and easily accessible
- Water pressure of 40 PSI DYNAMIC must be maintained at the first gauge of the water filtration unit
- Water consumption is approximately 8 gallons per standard cycle and 14 gallons per cycle if using the detergent option
- Water hardness must be less than 12gpg or 200ppm
- De-ionized water cannot be used in the DSD EDGE® Endoscope Reprocessor
- One filtration system per DSD EDGE Reprocessor
- A vented drain system capable of draining 5 GPM that is 18 inches or less from the floor is required.

For clarification and/or questions regarding site preparation please contact Medivators Technical Support at 1.800.444.4729 or 763-553-3300.





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