



**BELMONT  
MEDICAL  
TECHNOLOGIES**

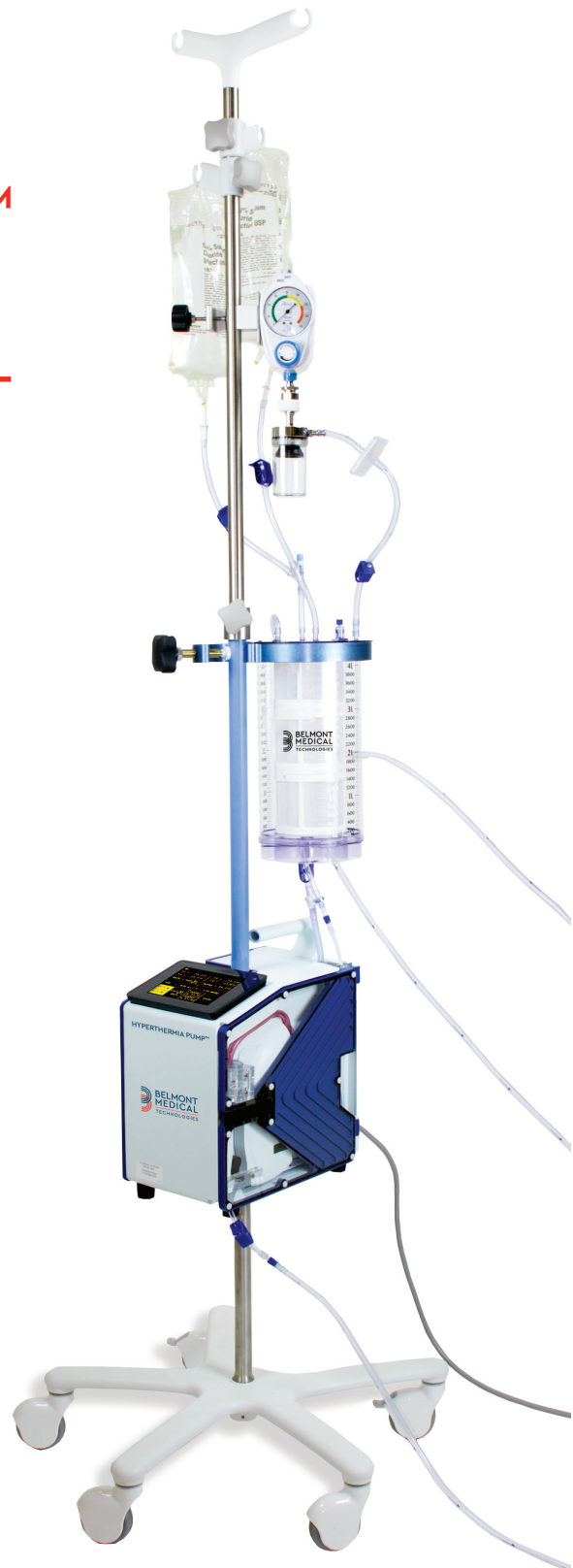
Saving Lives. Together.

## **HYPERTHERMIA PUMP™**

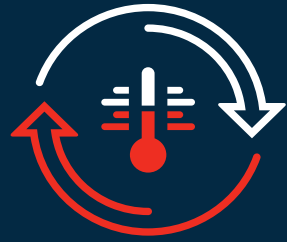
Safely Deliver Hyperthermic Therapy

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**SAVING LIVES. TOGETHER.**



## INTRAPERITONEAL & INTRATHORACIC HYPERTHERMIA



HIGHLY EFFICIENT



USER-FRIENDLY



COMPACT DESIGN

# HYPERTHERMIA PUMP™

Hyperthermia Pump™ is used in therapeutic procedures to raise the temperature of the thoracic or peritoneal cavity to the desired target temperature by continuously lavaging the cavity with warmed sterile solution. The warm solution is pumped into a body cavity, withdrawn, reheated, and recirculated back to the body. To ensure safe operation, the system monitors line pressure and air in the fluid path while two sterile temperature probes located within the sterile field and two embedded temperature probes monitor patient cavity, outflow solution, and return solution temperature.

### PRECISE TEMPERATURE CONTROL

Adjustable fluid temperature control range between 37°C and 48°C in 0.1°C increments.

### ELECTROMAGNETIC INDUCTION HEATING

Dry, single pass warming provides consistent fluid temperature and enables near instantaneous warming to target temperatures with zero warmup time.

### COMPACT AND LIGHTWEIGHT

Designed with space in mind, the system conveniently mounts to any standard IV pole and is up to 84% lighter (28.5 vs. 175 lb) and 90% more compact (0.7 vs. 6.8 ft<sup>3</sup>) than comparable systems.

### HIGH-SPEED PERISTALTIC PUMP

Precise control of fluid delivery with flow rates ranging from 2.5 to 1000 ml/min.

### VACUUM ASSISTED OUTFLOW

Incorporates vacuum regulator to maximize flow equilibrium and enable fine tuning of fluid return rate.

### AUTOMATIC PRESSURE REGULATION

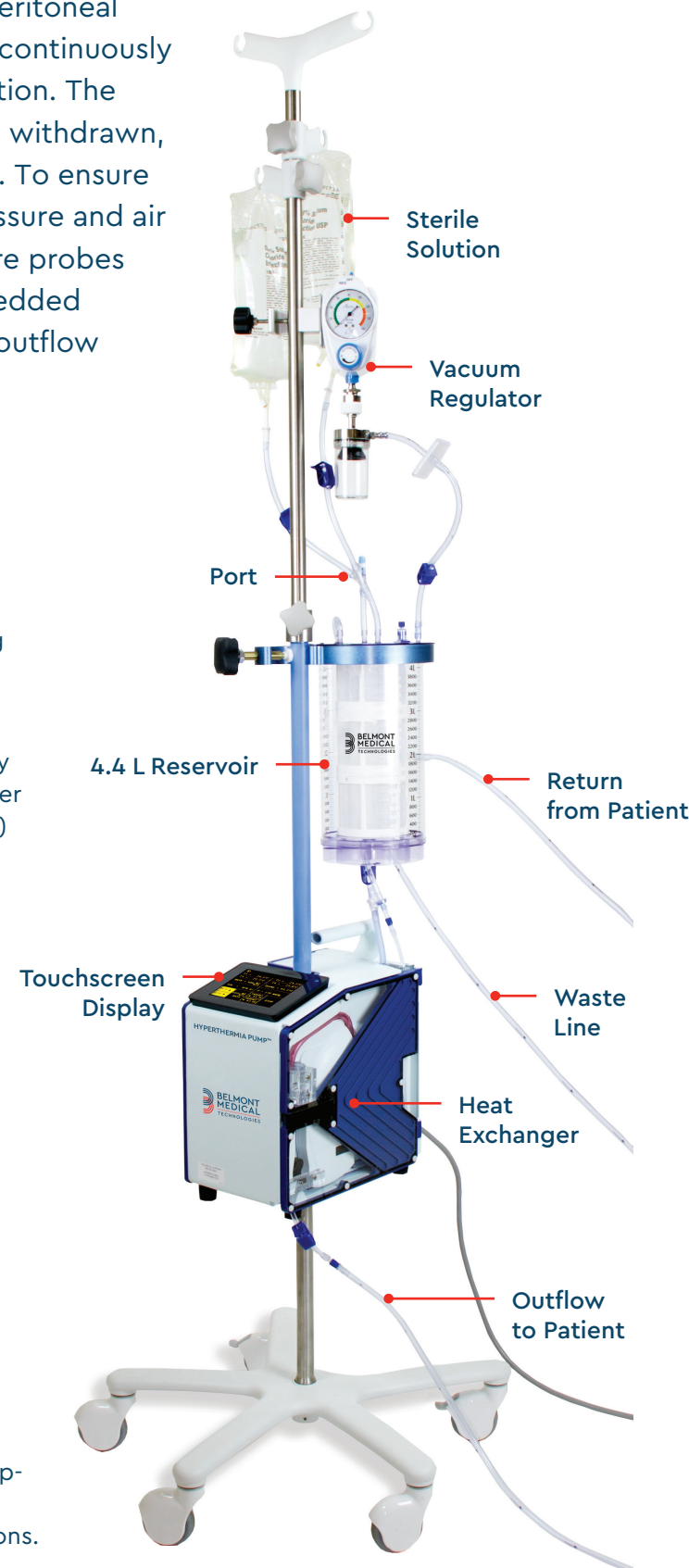
Line pressure monitoring stops pump if line becomes obstructed to prevent leaks.

### QUICK SETUP

Disposables incorporate pre-assembled cannulas with quick release connections and embedded temperature probes.

### EASY TO USE

Intuitive and clutter-free touchscreen display with step-by-step, on-screen instructions, clear descriptions of alarms and alerts, and quick access to device operations.



### INTUITIVE TOUCH-SCREEN DISPLAY

High contrast display provides easy to follow on-screen instructions, clear descriptions of alarms and alerts, and quick access to device operations.

#### REAL-TIME DISPLAY OF:

- Flow Rate
- Line Pressure
- Target Fluid Temperature
- Total Volume
- Fluid Inflow Temperature
- Fluid Outflow Temperature
- Two Additional Temperature Sensors

T1 = 42.0°C	T2 = 42.2°C	
T3 = 42.5°C	T4 = 42.6°C	
RATE = 1000 $\frac{\text{ml}}{\text{min}}$	T <sub>pump</sub> = 42.7°C	
VOL = 2173 ml	P = 172 mmHg	
RATE ▲ 1000 $\frac{\text{ml}}{\text{min}}$	TARGET ▲ 42.5C	STOP
RATE ▼ RATE	TARGET ▼ 42.5C	

### DISPOSABLE CONFIGURATIONS



STRAIGHT LINE SET



BIFURCATED LINE SET



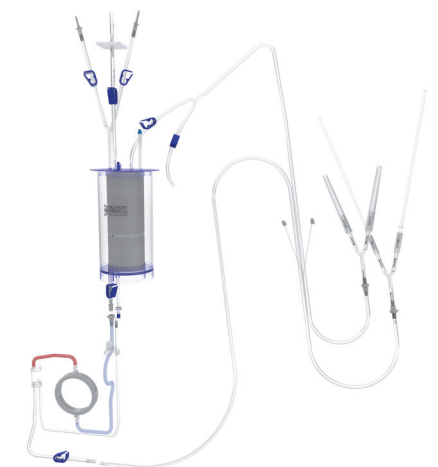
CANNULA CONNECTOR

### PROCEDURE PACK

The Procedure Pack is designed to save time and money by simplifying complicated tubing setups into a single, comprehensive and easy to install kit.

#### NO CUTTING, NO CLAMPS - JUST CLICK AND CONNECT.

- Quick-connect luer connections allow for easy setup. There is no need to cut and reconnect tubing.
- Outflow tubing temperature probe reads the outflow temperature before bifurcations.
- Return tubing temperature probe automatically averages the temperature of all returned fluids.
- 72" temperature probes allow for connection outside of the sterile fluid field.



## ORDERING INFORMATION

### HYPERTHERMIA PUMP

- US: Part #902-00001 (120V)
- International: Part #902-00001A (230V)

### CANNULA CONNECTOR

Part #902-00036 (12/box)

### STRAIGHT LINE SET

Part #902-00037 (1 kit)

### BIFURCATED LINE SET

Part #902-00038 (1 kit)

### PROCEDURE KIT

Part #902-00045

(1) 4.4 Liter Reservoir (902-00034P)

(1) Heat Exchanger (902-00006P)

(1) Procedure Pack (902-00048P) contains:

Double lumen patient line with (2) temperature probes\*

- (2) Extra temperature probes
- (2) Sumps
- (2) Via-Guard® Poole Converter Sleeves

\*Each temperature probe is 72 inches (1.83 meters) in length, allowing connection outside the sterile field.

## HARDWARE SPECIFICATIONS

### DIMENSIONS

13.5 in. x 7.5 in. x 12 in. (34.29 cm. x 19.05 cm. x 30.48 cm.)

### WEIGHT

28.5 lb. (12.9 kg.)

### PORTABILITY

Quick-on IV pole mount/handle at top of unit

### POWER

115-120 volt or 220/240 volt AC input

### BATTERY

Internal, rechargeable for transport

Operates all functions without heating

### FLUID PUMP

Roller type peristaltic pump

Flow rate 2.5-1000 ml/min

### HEATER

Dry, electromagnetic induction (water-free)

Adjustable between 37-48°C in 0.1°C increments

Maximum applied power: 1440 watts

### SENSORS

Up to 4 temperature sensors (2 patient cavity, 1 outflow,

1 return), 2 ultrasonic air detectors, pressure transducer,

2 infrared temperature sensors, pump infusion rate

sensor, open door detector, and valve activation sensors

### CONTROL COMPUTER

Built-in, controls all functions

Redundant hardware override protection in case

of computer failure

### DISPLAY

LCD type with waterproof touch pad

#### • External Dimensions

5.85 in. x 4.12 in.

148.1 mm x 104.7 mm

#### • Active Area

4.53 in. x 3.40 in.

115.1 mm x 86.3 mm

For more information about the products we offer,  
contact us at [sales@belmontmedtech.com](mailto:sales@belmontmedtech.com).



PATIENT  
WARMING



PATIENT  
COOLING



FLUID  
MANAGEMENT



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Hyperthermia Pump™ has been evaluated with respect to electrical shock, fire and mechanical hazards in accordance with applicable standards.

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File Number: A18173

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