

3M Bair Hugger Ranger Blood/Fluid Warming System



The **3M Bair Hugger Ranger** blood and fluid warming system is designed to warm blood, blood products, and liquids and deliver these at flow rate from KVO to 500mL/min. At these flow rates, the device maintains fluid output temperatures ranging from 33°C to 41°C. It's designed to be mounted on an I.V. pole, and has a handle on top for easy transport. It's lightweight, compact, and liquid resistant.

Features

- Display that indicates heater temperature.
- Alert indicator light for over and under temperature alerts.
- Convenient top carrying handle.
- Compact and lightweight.



Specifications

Dimensions

Height: 4.5" (11 cm)
Width: 7.5" (19 cm)
Depth: 10" (25 cm)
Weight: 7 lbs 7 oz. (3.4 kg)

Temperature

Set Point Temperature: $41^{\circ} \pm 1^{\circ} \text{C}$
Over Temperature Alert: $43^{\circ} +3/-2^{\circ} \text{C}$
Under Temperature Alert: $33^{\circ} \pm 2^{\circ} \text{C}$
Over Temperature Cutoff: $44^{\circ} \pm 2^{\circ} \text{C}$ (warming units Rev N and newer) $46^{\circ} \pm 2^{\circ} \text{C}$ (warming units Rev A to M)

Ranger Blood/Fluid Warming Sets

Standard Flow Set

Flow Rate: 150 mL/min
Priming Volume: 39-44 mL
Patient Line Length: 76 cm 152 cm (76 cm patient line plus 76 cm extension)

High Flow Set

Flow Rate: 100-500 mL/min
Priming Volume: 65-150 mL
Patient Line Length: 152 cm (76 cm patient line plus 76 cm extension)

Pediatric/Neonate

Flow Rate: 100 mL/min
Priming Volume: 20 mL
Patient Line Length: 46 cm

Operating and Storage Conditions

Operating Temperature Range: 15° to 40°C (59° to 104°F)
Storage and Transport Temperature Range: -20° to 45°C (-4° to 113°F)
Operating Humidity: 10 to 85% RH, non-condensing
Atmospheric Pressure Range: 50 kPa to 106 kPa

