

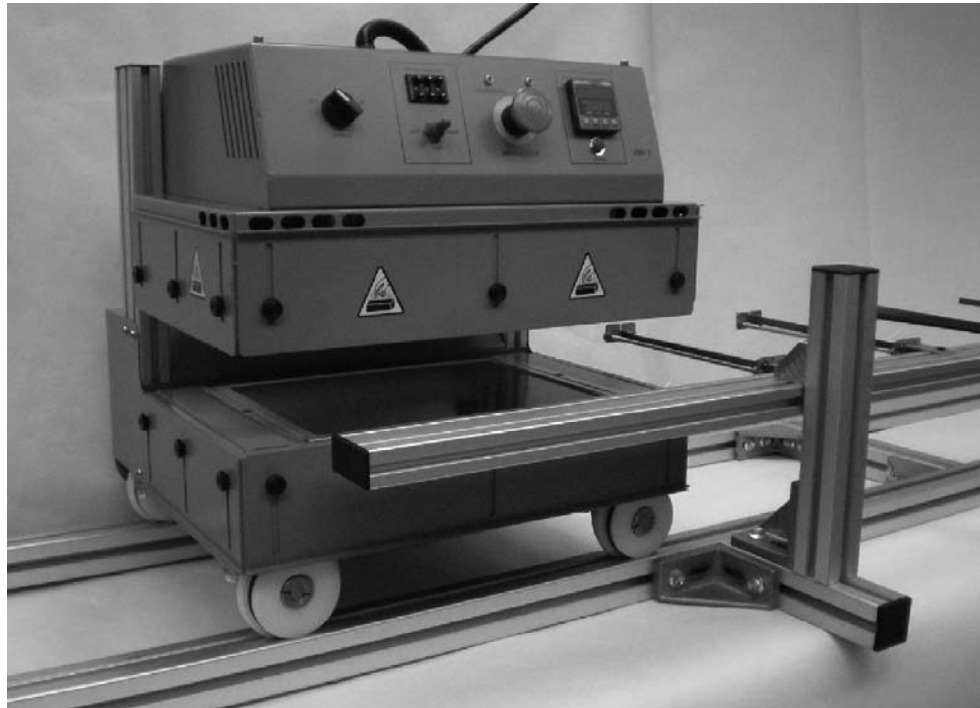
VBH-1

Versatile Bed Heater for Large Assemblies and Substrates

Product Facts

The Versatile Bed Heater (VBH-1) is the latest generation of reliable and versatile process heaters.

- Closed-loop speed and temperature control
- Controlled process
- Adaptable for a large variety long length and heat sensitive applications
- Heater operation and over-temperature alarm lights
- Heater and track are sold separately. See available track lengths on page 2-24.



Applications

The VBH-1 is an integrated modular unit consisting of an upper and lower heater chamber with a transporter base and motorized wheels that are directed through an aluminum track. The heater transporter automatically stops when it reaches the parking station at either end of the process area.

It has been designed to accommodate a large variety of difficult to process applications. With an adjustable upper heating chamber the heater separation can be adjusted from 37 mm [1.5 in] to a 150 mm [6 in] gap enabling the unit to process heat-shrinkable tubing products up to 127 mm [5 in] in diameter. The upper and lower chambers are provided with adjustable heat shields to maximize the oven heating efficiency.

Speed Control

The belt speed is selected using a 3-digit thumbwheel (on the front panel) via a closed-loop motor controller and DC gear motor.

Controlled Heating Zone

The VBH-1 processor has two stamped foil heating elements that are manufactured to a strict size and wattage specification. Consistent temperatures (ambient to 650°C) are controlled by a thermocouple embedded into the upper heating element connected to a closed loop temperature controller. An alarm light illuminates whenever the actual heating element temperature varies from the set point temperature.

Minimal Skill Requirements

The open loading area of the holding fixtures on the VBH-1 requires that the operator simply place the assembly on the holding fixtures within the effective width of the heat zone. The assemblies can be removed once the heater transporter has passed over the assemblies and has come to a complete stop in either the right or left parking stations.

Versatility

The traveling heater is designed to process a broad range of heat-shrinkable products up to 127 mm [5 in] in diameter and infinite length.

The infrared energy source is well-suited for efficient processing of either single-wall or adhesive-lined tubing. Heat output and drive speed can be controlled to accommodate a wide variety of products and substrates.

Safety Features

- Emergency Stop
- Automatic cool-down circuit to extend the life of the components
- Over-temperature switch that shuts off all power in the event of an overheat condition
- Lockout on temperature and speed controllers to prevent unauthorized changes
- Safety guards to protect operator from moving parts and hot surfaces

| Available in: | Americas | Europe | Asia Pacific |
|---------------|----------|--------|--------------|
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Specifications and Dimensions

VBH-1 (Continued)

Electrical

| | |
|-----------------------|---|
| Power Requirements | 208/240 VAC, 1Ø, 50/60 Hz, 20 A |
| Heating elements | 2 X From 600 to1600 watt infrared stamped foil with quartz face |
| Drive system | 1/12 hp DC motor with SCR Drive controller with a 3 digit speed potentiometer |
| Air flow (Cooling) | 2 X 100 CFM fans in the upper heater housing / control box and 1 in lower chamber |
| Operating temperature | Set Point (Heater Surface) - Ambient to 650°C, Through-put = 50° to 250°C |

Mechanical

| | |
|--------------------------|--|
| Moving oven speed | 12.7 cm [0.50 ft] to 254 cm [10.0 ft] / Minute |
| Heater separation | Adjustable from 37 mm [1.5 in] to 150 mm [6 in] Upper Position |
| Effective heating length | 355 mm [14 in] |
| Effective heating width | 254 mm [10 in] |

Dimensions cm [in]

| | |
|----------------------------|---|
| Control box dimensions | 407 mm [16 in] L x 305 mm [15 in] W x 125 mm [5 in] H |
| Heating Chamber dimensions | 457 mm [18 in] L x 407 mm [16 in] W x 533 mm [21 in] H – Full extension |
| Heating System weight | 30 Kg [66 lb] |

Tubing sizes

| | |
|-----------------|--|
| Tubing diameter | Up to 127 mm [5 in] |
| Tubing length | 255 mm [10 in] perpendicular to heater travel, unlimited length parallel to heater |

| Heating unit | Description | Part No. |
|------------------|------------------------|------------|
| VBH-1 Bed Heater | VBH-1-BED-HTR-220V-3WR | CJ1047-000 |

| Track | Description | Part No. |
|-----------------------|--------------------------|------------|
| 10 ft. Aluminum Track | VBH-1-BED-HTR-TRACK-10FT | CJ1494-000 |
| 15 ft. Aluminum Track | VBH-1-BED-HTR-TRACK-15FT | CM6819-000 |