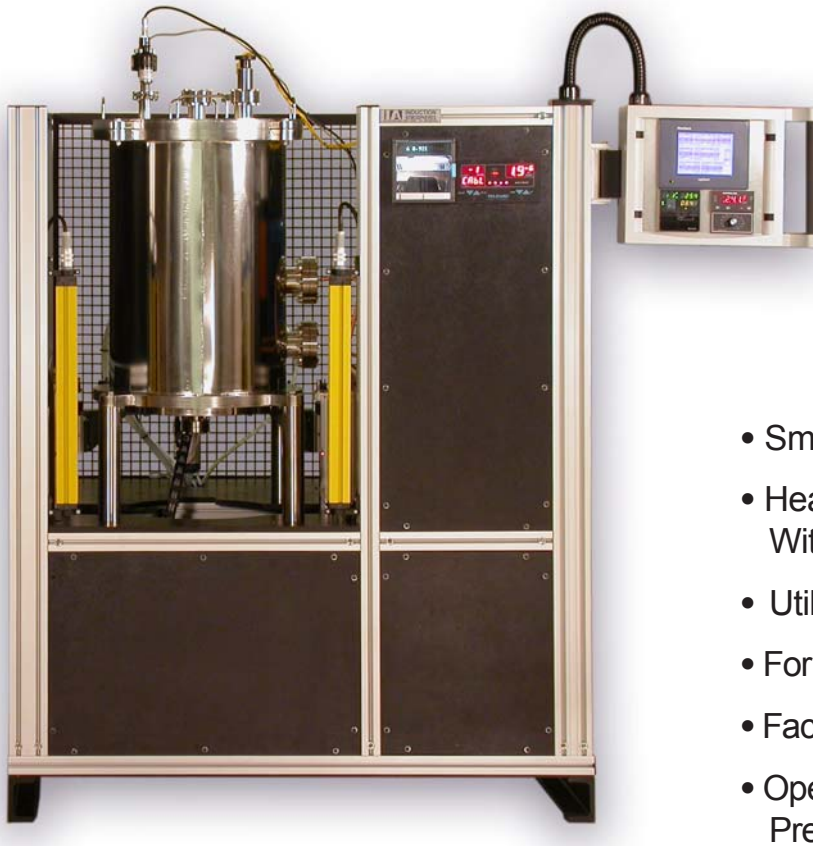


Vacuum Furnace Model VF-10



- Small 4' x 6' Footprint Fits Your Mfg. Cell
- Heats To 1900°F In Less Than 8 Minutes With Rapid Cool Down
- Utilizes Quick, Clean Induction Heat
- For Brazing & General Purpose Heating
- Facilitates Continuous Flow Manufacturing
- Operates At High Vacuum or Partial Pressure Of Inert Gas

Our VF-10 Vacuum Furnace is designed to heat parts of virtually any shape in a high temperature, high vacuum environment. Although the compact 4' x 6' footprint fits easily into your manufacturing cell, our furnace can reach temperatures as high as 2300°F at up to 10⁻⁶ Torr.

With the Model VF-10's quick, clean induction heating system, 1900°F can be reached in less than eight minutes. Cool down to 400°F from maximum temperature can be achieved in less than 20 minutes.

The most common applications for vacuum furnaces include heating small lot sizes, brazing parts of unusual shapes, repairing "orphans" from other heating

processes, and other applications which benefit from whole part heating. It's easy to set up a continuous manufacturing flow, run various processes throughout the day and realize up to 90% improvement in overall cycle time.

To permit easy loading, the furnace's part handling mechanism opens at the base of the system, then automatically raises the parts up into the vacuum chamber and heating coil, and finally lowers the parts back down to base level for unloading.

The standard hot zone of the VF-10 Vacuum Furnace has an 9" ID, 8" height and is customizable according to individual process requirements. The chamber is mounted on a heavy duty

stainless steel frame that houses all the required equipment for vacuum, atmospheric and system control, as well as the induction heating station.

Real time monitoring and SPC are a snap with the optional optical pyrometer and digital chart recorder; process data for each individual part can be recorded, stored and sent directly to your desktop.

To maximize operator safety, the heating system has been fully isolated. Safety interlocks protect access to the vacuum chamber and manual controls. Other operator safety features include a light curtain, emergency stop and other warning systems built into the software and hardware.

VF-10 VACUUM FURNACE



Front Control Panel

Operator Safety Features

- Light curtain
- E-stop
- Fully isolated heating system
- Chamber access interlocks

Options & Accessories

- Viewport
- Residual Gas Analyzer
- Tilt and Pour
- Quench System
- Optical Pyrometer (for individual part temperature measurement with closed loop control)
- Digital Data Recorder (sends real time process data to your network)

HOT ZONE

Work Zone Size: 9" ID x 8" Height (customizable)
Temperature Range: 100° F to 2300° F +/- 10° F
Time-to-Temperature: Less than 8 minutes to 1900° F
Heating Elements: Graphite
Power Supply: 10-40 kW induction heating system

CHAMBER

Design: Heavy duty, double-walled stainless steel, water cooled vessel
Door: Pneumatically operated, bottom load (horizontal load available)
Ports: All required ports; includes spare 4.5" port

VACUUM PUMPING SYSTEM

Mechanical Pump: Edwards RV12
Turbo Pump: Leybold 350 L

CONTROLS

PLC: Xycom PLC System with touch screen interface
Temperature: Honeywell 300 Temperature Controller
Thermocouple: Type K
Recorder: Honeywell DPR 250
Vacuum Gauge: Televac MC-300 Digital Controller with convection & cold cathode sensors

UTILITY REQUIREMENTS

Electrical: 480 VAC, 3-Phase, 40 Amp service
Water: 4 GPM @ 40 PSI, heat load of 25 kW
Air: 80 psi
Inert Gas: 30 psi, 30 CFH (backfilling only)

PHYSICAL

Dimensions: 4' W x 3'D x 6' H
Shipping Weight: 1600 lbs.

OPTIONAL QUENCH SYSTEM

Gas Blowers: 100 cfm, rated to recirculate a partial pressure nitrogen gas
Heat Exchanger: plate



Model VF-10
Rear View

Convenient
Utility
Connections



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All information subject to change without notice.