

Vacuum Aluminum Brazing Furnaces



VACUUM ALUMINUM BRAZING FURNACES

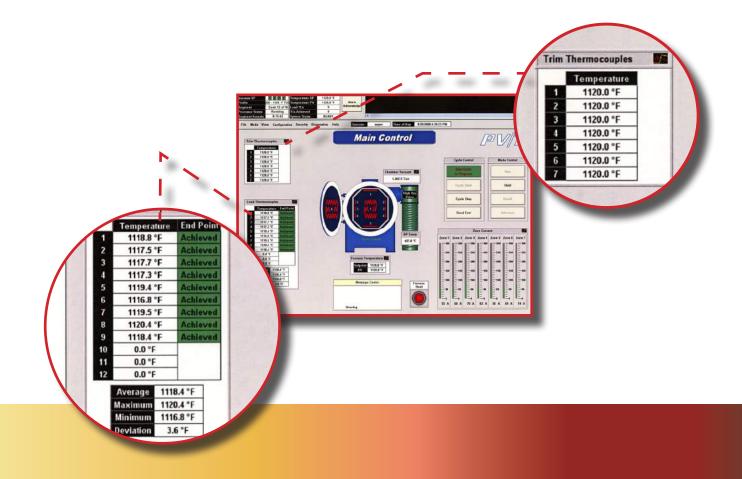
PV/T Vacuum Aluminum Brazing Furnaces are designed for a range of high vacuum fluxless brazing applications such as:

- Aerospace heat exchangers and fluid coolers
- Automotive radiators, evaporators, condensers, and oil coolers
- · Electronic cold plates
- Microwave components
- Cryogenic heat exchangers
- Petrochemical heat exchangers
- · Compressor oil coolers
- · Research and development

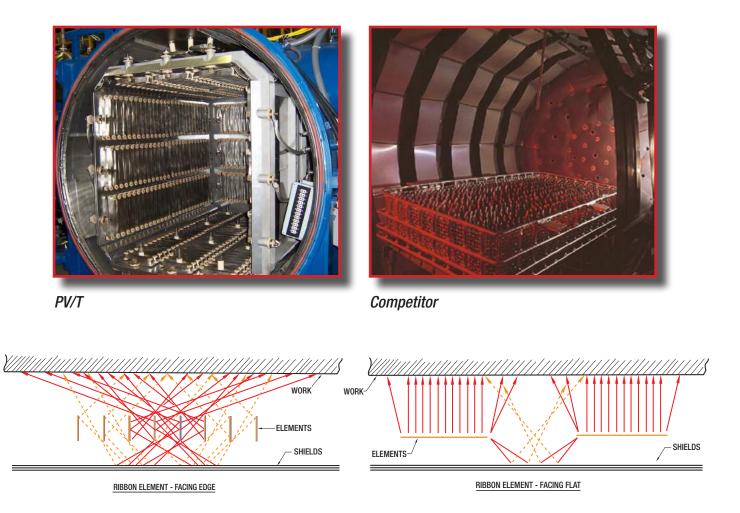


System Controls

Modern Vacuum Aluminum Brazing furnace controls systems are fully automated. The braze cycle is carried out by recipe driven schedules that are optimized to the individual component being brazed. The controls incorporate a full SCADA package (supervisory control and data acquisition) which report and record all the pertinent data required by the latest pyrometry specifications. All data is electronically archived on the systems hard disc. The HMI (human machine interface) is a graphical touch screen / mouse driven system which allows control of all systems and design of new braze cycles.







Hot Zone Design and Temperature Uniformity Control

The PV/T heating element design (winding the nickel element on edge) offers more lines of radiation to the work load - both sides of the elements radiate towards the work. As can be seen above, reflected energy from the heat shield can pass between the elements to the work with little obstruction.

The Hot Zone is designed with separate, removable, individual modular heating element racks mounted in a removable frame. The element racks are arranged and powered to produce individually "trimmable" heating zones such that the optimum temperature uniformity can be guaranteed. The PV/T vacuum aluminum brazing furnace easily meets AMS2750D and NADCAP Class 1 standards of +/- $5^{\circ}F$ ($3^{\circ}C$).

Standard Furnace Specifications

While offering a wide range of vacuum aluminum furnace designs for a variety of applications, PV/T also has the flexibility to cater for the individual needs of customers. PV/T Vacuum Aluminum Brazing furnaces have several unique advantages found in special features in the Vacuum System and Temperature Uniformity Control System.

Model No.	Standard VAB Furnace Sizes (Hot Zone Size)		
	Height	Width	Depth
VAB 22-24-22	22" (560mm)	24" (610 mm)	22" (560 mm)
VAB 34-28-36	34" (865 mm)	28" (710 mm)	36" (915 mm)
VAB 34-28-60	34" (865 mm)	28" (710 mm)	60"(1525 mm)
VAB 36-28-48	36" (915 mm)	28" (710 mm)	48"(1220 mm)
VAB 41-36-60	41"(1040 mm)	36" (915 mm)	60"(1525 mm)
VAB 48-48-120	48"(1220 mm)	48"(1220 mm)	120"(3050 mm)

Other sizes are available - please contact PV/T so that we may evaluate your specific requirements and recommend the best size for your application.

Furnace Accessories

- Load Truck Mechanical Handling Device
- Gas Cooling & Recirculation
- External Water Cooling / Recirculation System



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