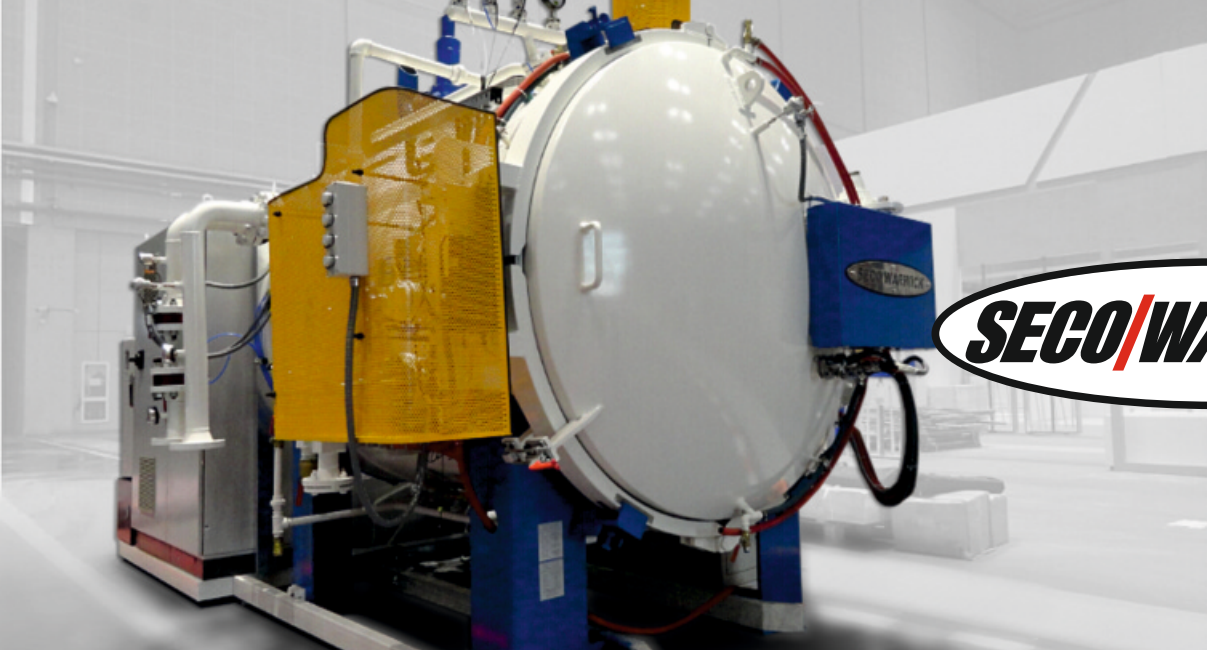




Compact

Vacuum Furnace

About Compact Vacuum Furnace

The Compact™ vacuum furnace is a very efficient, value-priced piece of equipment. SECO/WARWICK designs and manufactures Compact™ single chamber, horizontal vacuum furnace with a rectangular graphite hot zone and integrated, directional gas cooling, equipped with 2 or 15 bar cooling gas pressure for brazing, annealing, hardening, solution heat treating, sintering, and tempering. The furnace meets requirements for the heat treatment of tools & dies and can be used for a wide variety of materials: tool steels, HSLA, alloyed steels, stainless steels, alloys and super alloys, titanium and titanium alloy.

Why Compact?

- Pump down time to operational vacuum less than 15 min
- Temperature uniformity better than $\pm 6^{\circ}\text{C}$ | $\pm 10^{\circ}\text{F}$
- Meets requirements of AMS 2750E class 2
- Efficient convection heating in lower temperatures
- Designed for hardening of tool and other steels in gas under pressure of 15 bar
- Perfect for hardening of vertically-oriented parts
- Hardening and tempering in one cycle
- Process control with load thermocouples
- Meets requirements of NADCA, FORD and GM heat treatment specifications for tool steels
- Controlled cooling, isothermal quench, interrupted quench, marquenching and austempering
- Soft-start quench blower protects circuit breaker from spikes

Processes:

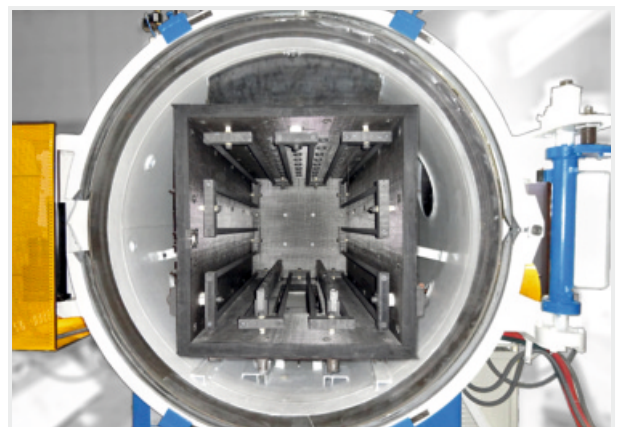
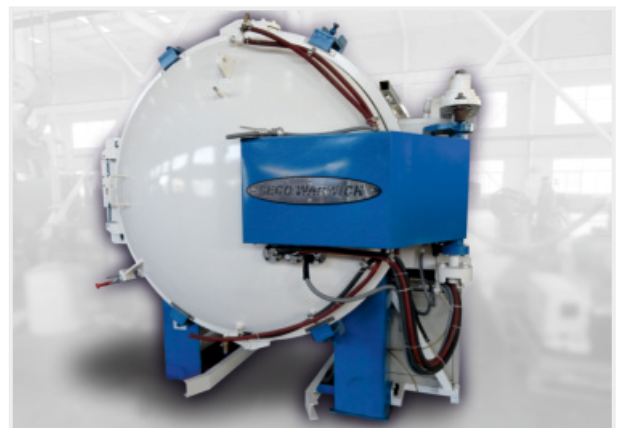
- Brazing
- Annealing
- Hardening
- Solution heat treating
- Sintering
- Tempering

Materials:

- Tool steels
- HSLA
- Alloyed steels
- Stainless steels
- Alloys and super alloys
- Titanium and titanium alloy

Industries:

- Aerospace (NADCAP)
- Automotive
- Machine
- Tool
- Medical
- Nuclear
- Energy
- Electronic
- Metallurgy
- Commercial heat treatment centers
- Special



Compact

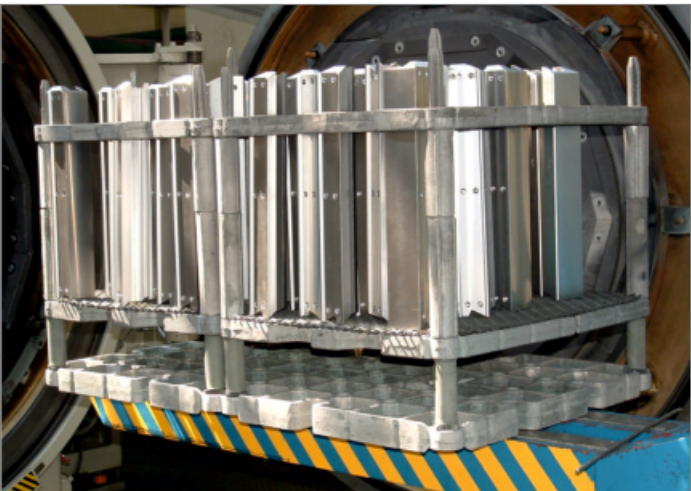
Vacuum Furnace

Available auxiliary equipment

- Manual loader
- Electrical loader
- Casted metal tray
- Carbon composite tray
- Closed loop water cooling system
- Gas buffer tank
- Temperature uniformity frame

Options

- 15 bar gas cooling
- Partial pressure control
- Convection heating
- High vacuum
- Pumping system noise protection
- Inlet for gas dew point measuring system
- Spare parts



Technical data

CVP Furnace Type	Uniform zone WxHxL	Max load	Operating temperature	Convection heating	Temp. uniformity	Heating power	Max. cooling pressure	Operating vacuum
Model #	mm inches	kg lb.	°C °F	°C °F	°C °F	kW	Bar (abs.)	mbar Torr
CVP-4022/24	400x400x600 16"x16"x24"	300 660	150 – 1350 300 – 2460	up to 750 up to 1380	+/-6 +/-10	55	2 or 15	range 10 ⁻² (option 10 ⁻⁴)
CVP-4035/36	600x600x900 24"x24"x36"	800 1760				110		
CVP-4050/48	900x900x1200 36"x36"x48"	1500 3300				220		

