

## Low-Temperature Vacuum Furnace

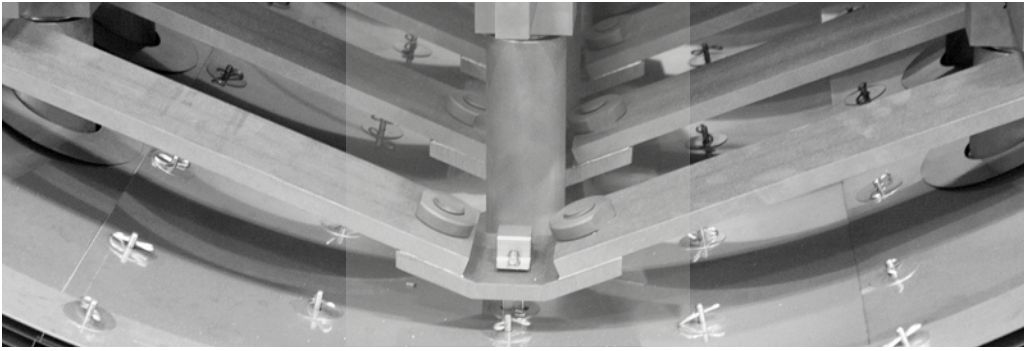
Built using the innovative TITAN<sup>®</sup> platform, the TITAN LT low-temperature vacuum furnace incorporates Ipsen's unique, flow-production process to provide a furnace that is cost effective to produce, deliver and operate. In addition, the TITAN LT combines cleanliness and efficiency through the use of both vacuum and convection heating, allowing users to repeatedly achieve bright, clean work and fast process times.

Capable of annealing, brazing, bright aging, normalizing, stress relieving and tempering, the TITAN LT is suitable for applications in the Aerospace, Commercial Heat Treating, Medical and Tool and Die industries.

### Features and Benefits:

- Ideal for processing a number of materials, including 17-4PH, 15-5PH, Inconel 718, Ti6Al4V, A-286, Tool Steel and High Speed Steel
- Maintains tight temperature uniformity of  $\pm 10$  °F ( $\pm 5$  °C) from 500 °F to 1,450 °F (260 °C to 788 °C) and under vacuum
- Provides a high-purity vacuum environment with no ceramic fiber insulation
- Delivers reduced cycle times with convection-assisted heating and forced cooling at pressures up to 2 bar
- Capable of meeting applicable AMS 2750, MedAccred and Nadcap requirements
- $10^{-6}$  Torr ultimate vacuum/diffusion pump (optional)
- 10 Torr hydrogen partial pressure (optional)
- 1,750 °F (954 °C) max. operating temperature (optional)

	Design	Temperature Range	Insulation	Heating	Cooling	Capacity	Delivery
Others	Vacuum purge	300-1,400 °F	Ceramic fiber	80-120 KVA	External/3-10 HP	1,000-2,500 lb.	20-36 weeks
Ipsen	True vacuum	300-1,450 °F	Metallic shields	240 KVA	Internal/30 HP	3,000 lb.	< 8 weeks
Advantages	Cleaner parts	Optional: 1,750 °F	High-quality vacuum	Larger loads/ faster cycles	Faster cycles	Larger loads	Why wait?



## About Ipsen

Since 1948, Ipsen has been designing and manufacturing industrial atmosphere and vacuum heat-treating systems and supervisory controls systems. This advanced equipment is designed for a variety of industries, including Aerospace, Automotive, Commercial Heat Treating, Energy, Medical and Tool and Die.

Much like our founder, Harold Ipsen, we believe that innovation drives excellence. We are committed to delivering integrated heat treatment solutions for a range of applications that enable you to improve titanium medical implants, develop more efficient cars and jet engines and transform space exploration. With nearly 70 years of thermal processing experience and thousands of systems installed worldwide, no company can provide 360° support for all of your heat-treating needs better than Ipsen.

### Vacuum Heat Treatment

Ipsen delivers proven vacuum heat-treating technology that allows you to achieve maximum flexibility and meet strict industry demands. Whether your process can benefit from increased heating and cooling control, precise case depth and uniformity or flexible quenching options, Ipsen has the heat treatment solutions for you. Ipsen's vacuum furnaces also offer a wide range of sizes and versatility of processes, including annealing, brazing, hardening, low-pressure carburizing, solution nitriding, stress relieving and tempering.

### Atmosphere Heat Treatment

With one of the largest installed bases of atmosphere heat-treating systems, Ipsen has the experience necessary to provide optimum equipment you can trust and rely on for full-scale solutions. Ipsen's ATLAS integral quench batch system continues this tradition, combining the achievements of past atmosphere furnaces with the evolutionary innovations of the future – incredibly advanced, energy-efficient controls, ease of integration and more.

### Aftermarket Support

Count on our responsive Aftermarket Support Team to help keep your equipment running at peak performance and minimize costly downtime by meeting your needs for furnace controls upgrades, replacement hot zones, parts, maintenance and service. When you need support, call Ipsen's Aftermarket Support Helpline: 1-844-Go-Ipsen.

With production locations in America, Europe and Asia, along with representation in 34 countries, choosing Ipsen means choosing a partner in success.

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