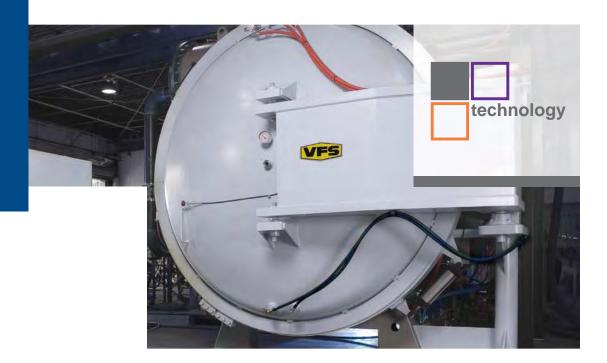
# VFS® Vacuum Furnaces: HIQ Series





# Solutions that Deliver

A tradition of excellence forms the backbone of the Horizontal Internal Quench (HIQ) vacuum furnace. Engineered to deliver greater efficiency and faster quenching capabilities, the unsurpassed internal quench system provides the least restrictive gas flow path through the hot zone and heat exchanger. All components are also readily accessible for easy maintenance and repair. For unwavering performance and dynamic results, look no further.

### **Benefits**

- · Save valuable floor space with an internal quench design that provides a compact furnace layout
- Achieve uniform quenching with up to 12 bar absolute pressure
- Minimize distortion with 360° cooling
- Gain easy access to the heat exchanger, quench motor and blower wheel without the removal of any internal components

### Innovations that Matter

All VFS® vacuum furnaces come fully assembled with all interconnecting wiring, cabling, conduit and plumbing. They are also designed with no moving parts in the hot zone to minimize maintenance and downtime. Additional innovative features include:

- Modular ring assembly improves longevity due to fabrication from stainless steel (not carbon steel)
- TruLock autoclave-type door allows for easier operation than traditional bolted or clamped doors, and also improves O-ring seal life
- GraForm curved graphite heating elements provide more responsive heating and cooling as they are considerably thinner than conventional straight segment graphite elements (option for heavy-duty, wide-band molybdenum elements)
- Double-walled, water-cooled vacuum chamber features a field-tested water jacket design that provides minimal pressure loss





# **Our Story**

Backed by nearly 70 years of experience, it is our mission to strengthen heat treatment through expert-driven solutions. We are committed to delivering proven technology for a range of applications that enable you to transform space exploration, improve titanium medical implants and develop more efficient cars and jet engines.

### **Innovation**

Harold Ipsen founded Ipsen in 1948 with a vision of creating products and technologies that continuously push the boundaries of innovation to create a future of thermal processing excellence. His commitment to advancing technology is the inspiration behind our vision for the future; a future where we continue to strengthen and accelerate innovations in almost every industry. Whether it is our versatile heat treatment systems or advanced process technology, we aspire to provide cutting-edge solutions that continuously improve and refine your operations.

## **Technology**

At the core of our solutions are atmosphere and vacuum heat-treating systems and supervisory controls systems, which are used in many mission-critical applications. This advanced equipment is developed for Aerospace, Automotive, Energy, Medical, Tool & Die and various industries across the globe. Leading our industry with more than 10,000 systems installed worldwide, we have the experience necessary to provide optimum technology that allows you to achieve maximum flexibility and meet strict industry demands. We offer global modular platforms, as well as custom designs for specialized processes and requirements.

#### **Services**

We also provide comprehensive service and support every step of the way, including assistance with developing your process, factory layout planning and integration with current production processes and factory operating systems. You can also count on our responsive Ipsen Customer Service (ICS) Team to help keep your equipment running at peak performance and minimize costly downtime through upgrades, retrofits, parts, maintenance, service and training.

With an extensive network of global locations and partnerships in America, Europe and Asia, along with representation in 34 countries, we continue to provide expert-driven solutions that strengthen heat treatment throughout the world.

Ipsen
984 Ipsen Rd.
Cherry Valley, IL 61016
Toll Free: 1-800-727-7625
Int'l: +1 815-332-4941
Sales@IpsenUSA.com
www.IpsenUSA.com/HIQ

