# VFS<sup>®</sup> Vacuum Furnaces: HEQ Series



## **Solutions that Enhance**

When you want superior results, the Horizontal External Quench (HEQ) vacuum furnace rises to the occasion. Built upon years of tradition and designed with the single purpose of enhancing the user experience, this furnace offers both optimum performance and ease of use. Offering up to 2 bar absolute pressure and designed with maintenance needs in mind, its external gas quench system consists of several components mounted in a single space-saving enclosure. These include a drive motor, high-efficiency blower and heat exchanger. With easy access to components, users can also count on simplified maintenance.

### **Benefits**

- Uniform 360° heating and cooling
- Achieve superior temperature control
- · Perform routine maintenance with ease, including replacement of the standard quench motor
- · Maximize cooling performance via external heat exchanger
- · Increase plant layout flexibility with separate heat exchanger

### **Innovations that Matter**

All VFS<sup>®</sup> 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

For more information, contact Sales@IpsenUSA.com or 1-800-727-7625



www.lpsenUSA.com/HEQ



## **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.

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