Quick Quench Drop Bottom Furnaces

For decades, the Quick Quench Drop Bottom Furnaces have set the industry standard for solution heat treating aluminum to the most rigorous specifications that exist.

In addition to processing aluminum, they are available in higher temperature ratings to heat treat ferrous metal parts for those who want the convenience and space savings offered by the quench tank located under the industrial furnace. The quench tank may roll beneath the door or from side to side and a single quench may serve two or more furnaces.

The horizontal opening door rolls easily on an inclined track. The door seal is adjustable and is as long lived as the refractory lining. Many options are available to customize the furnaces for your operation. A variety of lift and quench control designs are available to meet the speed requirements of your process.

Our superior design has found acceptance with industries from production casting houses to the aerospace industry with its rigorous requirements.

Heating Elements
We use top quality FeCrAl heating wire, coiled to form low surface watt density elements for long life and low maintenance. The coils are mounted in grooves in the Fiberspace insulating walls and fastened securely in place.

Controls
We recommend using programmable ramp-soak controllers for precise and repeatable operation. Independent over-temperature shutdown control is standard. A variety of NADCAP compliant data recording options are available. We will supply any brand of control you wish to specify as an option, ensuring consistent operations in your plant environment.

Refractory Lining
The furnace surface is insulated with 6 to 8 inches of high purity Fiberspace insulating ceramic fiber panels. This edge grain ceramic fiber construction is highly resistant to erosion, making it ideal for use with the high velocity air produced by the circulation fans. This construction gives the fastest heat up, superior uniformity, low energy storage and loss, and is the best material for these temperatures.

Special Features
- Guaranteed to meet Mil-Spec 6088, AMS 2750E, AMS2770, AMS 2771, and AMS2772 for Aluminum Solution Heat Treating
- Can be used for Aging
- Environmentally Friendly (no pit required)
- A convenient "Space Saver"
Available Options
Many options are available to customize the furnace for your particular operation. The list below is just of few of the more common choices:

- Polymer or Water Quench
- Heated Quench
- Cooled Quench
- Pneumatic Lift and Quench System
- AC Drive Lift and Quench System
- External Hoist Systems for Basket Handling
- Automatic Level Control
- Total Dissolved Solids Control

Contact Keith Company to order a heat treating furnace for your application, or to learn more about any of our products.

Category File:

AMS / NADCAP Specifications
General Application and Characteristics of Wrought Aluminum Alloys Series
The 101 of AMS Specifications for Aluminum Heat Treating