

Pit type sealed retort furnaces are of a cylindrical design vertically erected with a positive sealing mechanism on top in order to contain and preserve heat and atmosphere during a process cycle. The job or charge is loaded into a retort which functions as the chamber of the furnace and the retort is heated externally electrically. In process industries these furnaces can also be used in high pressure applications with temperatures from 800°C to 1200°C. These Furnaces can also be used in high Vacuum system for alloys annealing. These are often laid in a pit to make most of the space available and charges can be loaded and unloaded easily. These are manufactured considering working controlled atmospheres with inlets for diffusion and distribution of cracked ammonia, hydrogen etc

### Standard Application

- ✓ Annealing / Annealing under protective atmosphere
- ✓ Carbonitriding
- ✓ Carburizing
- ✓ Decarb annealing
- ✓ Gas Nitriding
- ✓ Hardening
- ✓ Stress Relieving
- ✓ Wire annealing
- ✓ Ferritic Nitro Carburizing
- ✓ Normalizing
- ✓ Case Hardening

### Optional Features

- ✓ Provision for gas/vacuum purging application (Ar, N<sub>2</sub>, O<sub>2</sub>, H<sub>2</sub>, CO<sub>2</sub> etc.)
- ✓ Programmable PID Controller with RS-232/RS-485/Ethernet & Data Logging Software
- ✓ Available in standard or as per customer size requirement



### Standard features

- Maximum temperature : 1100°C
- Heating Element : Kanthal AI/APM
- Insulation: Ceramic Wool/Refractory Bricks
- Control panel: Separate control panel with ammeter, voltmeter, energy meter
- Door arrangement: Separate door lid
- Provision of Vacuum and Gas Purging Inside PIT
- Water cooling on door to protect the gasket
- Power control through thyristor or SSR unit.

## Tempsens Instruments (I) Pvt. Ltd.

A-190 Road No.-5, M.I.A., Madri, Udaipur - 313 003 (Raj) INDIA

Ph.: +91-294-3052900, Fax.: +91-294-3052950,

E-mail: [info@tempsens.com](mailto:info@tempsens.com)

[www.tempsens.com](http://www.tempsens.com)