

## **Industrial Furnace**

#### **Standard Features:**

- Ability to handle large quantities of goods continuously.
- Maximum Operating temperature up to 1150°C.
- Specially designed to operate with hydrogen atmosphere, cracked ammonia atmosphere, nitrogen and argon atmosphere.
- We used corrugated muffles (metallic) are used to withstand thermal expansion for certain processes. Metallic muffles may be of stainless steel or high nickel and chromium based alloys.
- A variable speed drive unit with widely adjustable belt speeds allows the treatment of different thicknesses of materials and grades with varying temperature-time requirements.
- In the cooling section, material indirectly air cooled, water cooled or forced-jet cooled depending on the process requirement.
- Comes with variable speed drive, PID controllers and thyristor power controller, data logger, dew point meter and oxygen analyzer and Gas flow measurement systems are provided to ensure atmosphere stability.
- Tempsens offer specific customized design and configuration of the furnace and can be customized to meet the unique requirements of each application and ensuring precise control over the heating process and resulting material properties.

### **Application:**

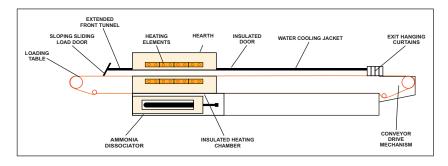
- Heat Treatment
- Annealing
- Sintering
- Drying and Curing
- Controlled Atmosphere
- Crystalline Transformations
- Colour Alteration
- Fusion

# CONVEYOR MESH BELT FURNACE FOR QUARTZ MATERIAL HEAT TREATMENT



Quartz is a versatile mineral widely used in various industries, including electronics, optics, semiconductor manufacturing, and solar cell production. Heat treatment of quartz material is a very important process that involves subjecting quartz, a crystalline mineral composed of silicon and oxygen, to controlled heating under specific conditions. This treatment can bring about various changes in the physical, chemical, and optical properties of the quartz material.

Tempsens make conveyor Mesh belt furnace specially designed to process quartz-based materials using a continuous conveyor belt system for quartz material treatment. The number of controlled Heating & Cooling zone, length of the zone, belt width, Cabinet size, Movement speed can vary based on the specific requirements of the materials and processes involved, contributing to the production of high-quality components and products in various fields.



## **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.)
- Available in standard or as per customer size requirement.
- Programmable PID Controller with RS-232/RS- 485/Ethernet & Data Logging Software

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