FurnXpert Batch Heat Treat Application offers the ability to design and simulate Batch Furnaces primarily used in heat treating industry, e.g., sintering, annealing, brazing etc. The parts simulated in the software are smaller in size.

Key Features:

Furnace Configurator: The furnace configurator module provides users the ability to create a virtual furnace. Both Box and Cylindrical furnaces can be handles by this software. Some of the important features include:

- ✓ Furnace Insulation – Users can create their own insulation from a list of refractories
- ✓ Heating Type - The type of heating can be either electrical, gas or oil fired
- ✓ Burner Type – Burner type can be either conventional or regenerative

Profile Module: The users can create their own profile. The profile date includes

- ✓ Initial Furnace Temperature
- ✓ Ramp up rate
- ✓ Soak Time & Temperature
- ✓ Re-circulating gas flow rate

In addition to cooling cycle user can input cooling cycle with ramp down rate and cooling time and temperature

Process Parameters: The users have the ability to vary process parameters such as temperatures, number of stages, cycle time.

Part Module: A selection of basic part shapes is provided with the software. A new part can be configured by supplying new dimensions and material properties (provided with the software). The basic parts that can be created are cylinder, bushing, blocks, sheets, flange, etc.

Place Parts: The part placement configuration must be specified. The user can run furnace simulations using different part orientations to determine the effects of part placement on furnace design and performance. Some of the inputs for part placement data include (Baskets, Trays, Peers, etc.), part arrangement inside the container, and container position inside the furnace.

Property Data: Provides the user with a tool to create new materials, refractory and fuel.

Heat Audit/Power Calculations: Calculates heat to part, refractory loss, heat to gases, and heat and energy/power consumed in different zones along with total energy used for the run. It also calculates the amount of cooling required in the cooling cycle.

Results: Results include Time Temperature profile of the furnace and parts, stage wise thermal loading, stage wise power density, stage wise fuel and air inputs in case of combustion system, and fuel/air demand during heating cycle. Stage wise cooling is also available for simulation with cooling cycles.

Reports: Results from each calculation can be displayed in a report format. The results can be directly printed, saved as a PDF format or exported to an Excel spread Sheet.

Price SINGLE USER license: **USD $690.**

FurnXpert – Annual technical support and software maintenance

The technical support package entitles the user to help-desk support via telephone or e-mail for a period of 1 year from the date of purchase. During this period the user will also be provided with free software upgrades, as they become available.

Discounts: 5 – 10 license – 10% discount, more than 10 licenses – 15% discount