



REHEAT WALKING BEAM AND PUSHER

FurnXpert Continuous Reheat Walking Beam & Pusher version offers the ability to design and simulate Walking Beam, and Pusher furnaces primarily used in steel and Aluminum industry

Key Features:

Furnace Configurator: The furnace configurator module provides user the ability to create furnaces with the following design parameters.

- ✓ Furnace Dimensions - Length, Width, Height of the individual zones as well as the entire furnace
- ✓ Furnace Insulation - Users can configure insulation from a list of refractory : **Individual Zone Entry of refractory factors**
- ✓ Heating Type - The type of heating can be either electrical or gas fired
- ✓ Burner Type - Burner type can be either conventional or regenerative : **Oxygen Type Burner is coming soon**

Profile Module: The user can create their own furnace temperature profile or input zone setpoints. The data that can be entered are:

- ✓ Initial Furnace Temperature
- ✓ Production Rate
- ✓ Distance/Temperature values
- ✓ Zone Setpoints

Process Parameters: The user has the ability to vary process parameters such as Zone Setpoints, push/walk rate and production rate.

Part Module: A selection of basic charge shapes are provided with the software. A new charge can be configured by entering dimensions and material properties (provided with the software). The shapes include:

- ✓ Billets
- ✓ Ingots
- ✓ Slabs
- ✓ Rounds

Part Placement: The user can use different placement configuration (**across or along the furnace**) inside the furnace.

Property Data: Comes with a entire database of Steel Grades, Fuel types, and Refractory materials. The software also, provides the user with the capability to create new Steel Grades, Refractory materials and fuel types.

Results: Results include Temperature profile (1 D & 2 D) of the charges along furnace length and at exit, 2 D skid marks for slab heating furnaces, Scaling/Decarburization depth, Zone wise thermal loading, Zone wise fuel and air inputs

Heat Audit/Power Calculations: Calculates heat to part, refractory loss, heat to gases, and heat and energy/power consumed in different zones, Heat loss through the flue, fuel consumption and furnace efficiency. The results are displayed in a Sankey diagram.

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

Price SINGLE USER license*:

Basic 1D > USD 1,150

Ext ended 1D > USD 1,450

Oxygen 1D > USD 1,750

2D Complete > USD 2,450

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

* Sold individually



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Comparison Matrix

	Basic 1D	Ext 1D	Oxy 1D	2D Complete
Builds Furnace Data with Zone/Furnace Dimensions, Furnace Insulation, Burner Type & Fuel	✓	✓	✓	✓
Allows user to input Furnace Profile data by entering array of Distance – Temperature values	✓	✓	✓	✓
Creates Furnace Profile from Zone Setpoints	x	x	x	✓
Provides ability to vary process parameters from Zone SP, Push/Walk Rate and Production Rate	x	x	x	✓
Input skid data to determine skid mark (shadowing effect due to skid)	x	x	x	✓
Creates charges from basic shapes (Ingots, Cylinders, Billets, Slabs)	✓	✓	✓	✓
Provides the ability to input Burner & Fuel for each individual zones	x	✓	✓	✓
Input/Analyze oxygen as fuel	x	x	✓	✓
Property Data – Comes with entire database of Steel Grades, Refractory materials and Fuel Types	✓	✓	✓	✓
Property Data – Provides capability to create new Steel Grades, Refractory materials and Fuel Types	✓	✓	✓	✓
Charge temperature profile during heating cycle and at exit	✓	✓	✓	✓
Calculates Scale and decarburization depth	✓	✓	✓	✓
2 Dimensional dither display with skid mark for top and bottom fired furnace	x	x	x	✓
Heat Audit: Heat to Parts, Refractory Loss, Heat to Gases, Flue Loss, Fuel Consumption and Furnace Efficiency	✓	✓	✓	✓
Zone wise thermal loading, zone wise fuel and air input, Fuel Consumption and Furnace Efficiency	✓	✓	✓	✓
Total Heat Balance with Sankey Diagram	✓	✓	✓	✓
Report Generation – Reports from each calculation can be displayed in report format, printed or converted to PDF files	✓	✓	✓	✓