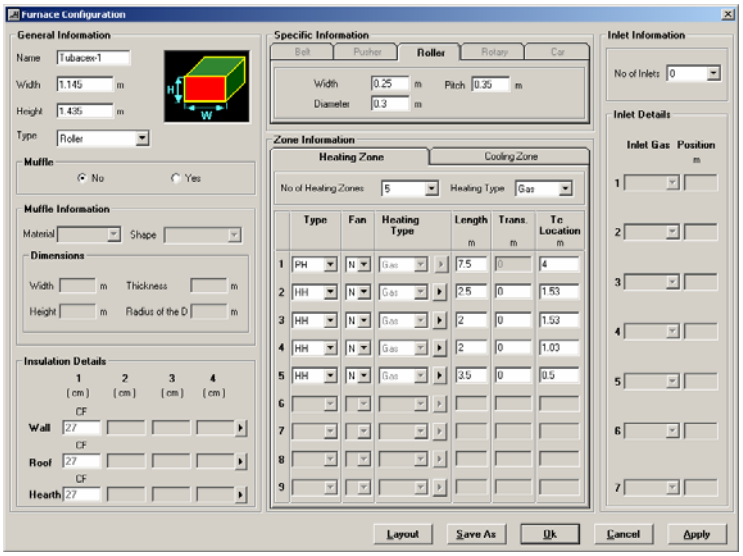
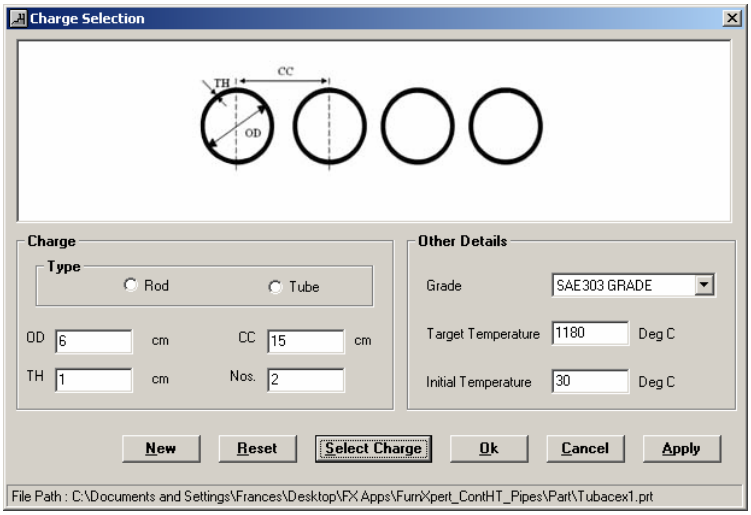
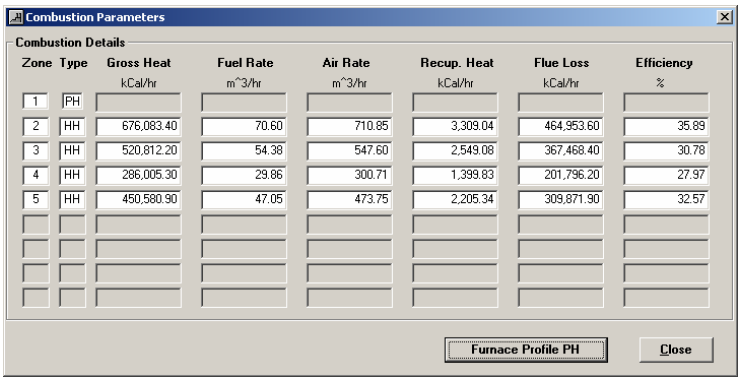
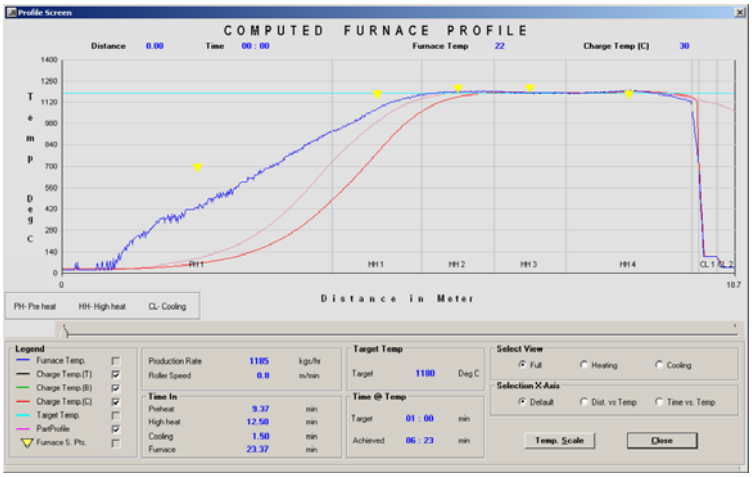
SIMULATION OF TUBE FURNACE TO SIMULATE VARIOUS STAINLESS STEEL TUBES

OBJECTIVE

In order to reduce test runs in 3 of their tube annealing furnaces, a renowned Spanish tube manufacturing company wanted to use FurnXpert software.

METHODOLOGY

Off-Line FurnXpert simulation software was customized for 3 Multi Zones Continuous Annealing Furnaces. Furnace information included furnace dimensions, zone dimensions, zone inputs, and refractory used for the insulation. Parts information including dimensions, grades, profile was entered in the database.

CONCLUSION

Instead of running test runs for every new part the company now uses FurnXpert software to determine the furnace setpoints. Simulations are run for different part dimensions, roller speed and setpoints to achieve the desired time at temperature. The simulation is also able to indicate if the zone capacities are adequate for the operating parameters.