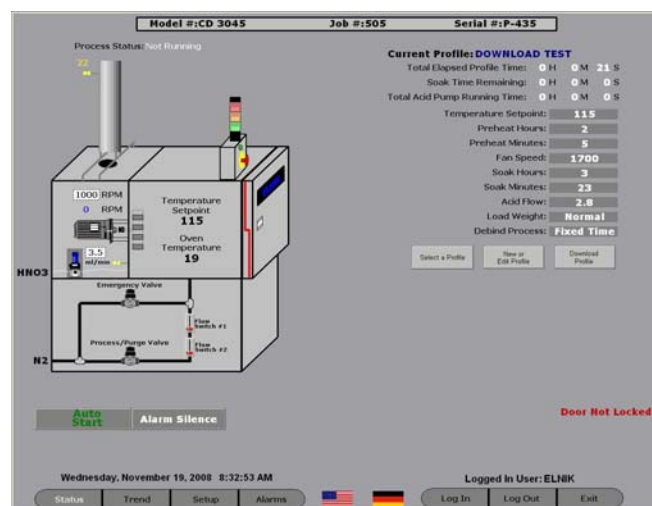


Catalytic Debinding System CD 3045 FOR METAL INJECTION MOLDED PARTS

The CD 3045 is designed exclusively for the catalytic debinding of BASF feedstock CATAMOLD. The CD 3045 has been designed to operate with the help of a computer. The racks of the CD3045 are designed so that a full load of trays fit exactly the same way as they would in an Elnik MIM 3045 sintering furnace. This allows for the parts to be staged on the Elnik MIM 3000 furnace trays and be put into the debinding furnace. After debinding, the trays are pulled out of the debinding oven and directly put into the sintering furnace. Should an Elnik customer own a MIM 3009, they would need two debind runs in the CD 3045 to fill up this 9 cubic feet furnace. No part handling or restaging is required after debinding and one debind run followed by one sinter run in case a MIM 3045 furnace allows for easy scheduling of the process.



The CD 3045 ovens are controlled by a PLC uploaded from a computer (PC). The main screen of this oven is shown below.



The above main screen shows all the combinations possible. However only relevant process steps will be seen during the actual debind run. The computer uses an Excel spreadsheet to develop the profile program which is downloaded to the PLC.

The main screen may also be used to turn on the acid pump, blower motor the nitrogen valves and the burner when a program is not running. This permits easy verification of the values entered for these items.

The use of the computer to drive the debinding oven results in many advantages. You can store and recall every program you make. The trends for every run are stored automatically and maybe recalled and printed as needed. This is a special advantage for industries such as aerospace, auto and medical device where maintaining records and traceability is a must. The CD 3045 has a sophisticated core, but it is easily operated by any operator with the help of a skilled person providing the basic inputs for running the oven when the proper programming parameters are entered.

General Specifications

Frame size:	27"W x 58"D x 102"H, (686 x 1,473 x 2,591 mm)
Computer Enclosure:	24"W x 24"D x 70"H (610 X 610 X 1,778 mm)
Internal Chamber Size:	20"W x 27"D x 27"H approx. (508 x 686 x 686 mm)
Internal Rack Size:	16 3/4"W x 25"D x 24"H approx. (425 x 635 x 610 mm)
Internal Rack:	Accepts 44 MIM 2000/3000 furnace shelves
Temperature Range:	20-150 ⁰ C (68-302 ⁰ F)
Temperature Accuracy:	+/- 2 ⁰ C (3.6 ⁰ F)
Shelf Loading Area:	8 1/8"W x 12"D (206 X 305 mm)
Shelf Spacing:	1 1/2" (38mm)
Quantity of Shelves:	44 (11 side by side, and 11 side by side behind the first set) uses the moly shelves from MIM 3045 this eliminates resetting parts
Shelf Load:	Maximum 10 lbs (4.5kg) per shelf for a total of 440 lbs. (198kg)
Total Load Area:	4,224 sqin (2.73 sqm), Volume 6,336 cuin (104 liters)