

Curing Batch Oven

Fluorochemical Job Profile



Requirements

The US facility of a worldwide developer and manufacturer of fluorochemical products required an additional electrically heated batch style, dual chamber curing oven due to continuous demand for their product. This dryer needed to have the capacity to process product on racks consisting of forty shelves. The product needed to be cured uniformly at various dwell times between ten and fourteen hours and the curing of the product needed to be completed while pulling a vacuum, within an airtight dryer.

Solution - Curing Dryer with advanced design updates

ITS engineered and manufactured a custom curing dryer for this customer with upgraded design features. This dryer was constructed completely of stainless steel internal and external structural and 316 polished sheets. The dryer also incorporated ITS's proprietary airflow to ensure the tight uniformity. The ductwork and return air close offs were constructed with ease of maintenance access for cleaning. The oven front access doors were designed with airtight seals to ensure no outside air infiltration when the vacuum was pulled during the curing process, as well as ease of opening upon completion of the one-hour cooling cycle.

Results

With ITS's enhanced process driven air flow design and custom door seal design we were able to supply this customer with a curing dryer which reduced cycle times as well as keeping outside contaminants out of the work chamber. The dryer operated at 470° F under vacuum meeting the tight uniformity specification and then cooled the work chamber to the customer's specification in one hour.

Summary

ITS worked with this customer to become partners in this project. We listened to their concerns and requirements and addressed the application with state-of-the-art engineering and manufacturing practices.

We look forward to partnering with you.

Contact ITS for a product proposal

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- Improved the customer's process through optimal airflow design and elimination of air infiltration from the existing front access doors.
- Delivered specified process temperature uniformity
- Built to be operator as well as maintenance friendly, allowing the entire dryer to be washed down and cleaned per specification after each use.