Monorail Mold Drying System

Investment Casting Mold Dryers

The Lanly Company has specialized in the engineering and manufacturing of recirculating convection dryers for over 68 years. The Monorail Mold Dryer was designed for drying a variety of mold shapes used in the investment casting of light metal alloy parts. The hanging trolley system, coupled with a variable speed conveyor, provides a significant amount of flexibility for products of various sizes and shapes. The monorail track includes a continuous rotation system to ensure uniform drying. Multiple full-length access doors offer easy maintenance and increased productivity.

- Corrosion resistant, aluminized steel construction
- High volume air circulation for superior temperature uniformity
- Integrated desiccant heating, dehumidifying, condensing system and latent cooling system by Kathabar, Inc.
- Duct mounted electronic steam generator for humidification
- Control includes a variable frequency drive and reversing motor
FEATURES

- Lanly insulated, interlocking panel construction. Aluminized steel with painted exterior surfaces.
- All ductwork is four-sided aluminized steel using radius inlet ports to provide a uniformly distributed blanket of air the full length of the dryer.
- Central high volume, conditioned and balanced, air distribution duct system ensures greater air-to-product contact for increased efficiency.
- Traction wheel caterpillar drive unit with variable frequency drive and reversing motor.
- Full opening, gasketed access doors provide complete access along both sides of the oven for “walk-in” inspection and cleaning.

STANDARD DESIGN SPECIFICATIONS

- Mold design criteria:
  Weight ~ 150 lbs per hanger
  Dryer opening ~ 28 inches wide, 40 inches high
  Rotational clearance ~ 28 inch diameter, or across corners
  Loading arrangement ~ Molds on 30 inch longitudinal centers
- Conveyor speed ~ Variable, 0.5 to 3 fpm
- Conveyor ~ 54 inch diameter traction wheel frame
- Approximate system dimensions (with monorail) ~ 35 ft long x 9.5 ft wide x 10.5 ft high
- HVAC design ~ 80°F at 20% RH
- Recirculation fan ~ 6,500 CFM
- Operating temperature ~ 68°F to 80°F
- Humidity variation ~ Plus or minus 3 %
- Temperature variation ~ Plus or minus 2°F at control thermocouple
- Water evaporation ~ Sized per customer requirements
- Heating medium ~ Electric or gas
- Voltage ~ 480 Volts, 3 Phase, 60 Hertz