

## HOW FORCED-AIR OVENS WORK

**Theory:** In a Forced-Air Oven (electric convection), a fan circulates hot air rapidly through the oven's interior. This rapid, forced circulation insures temperatures throughout the oven are uniform and heat is transferred more evenly. By blowing hot air past the product, it prevents cooler air from building up near product surfaces you are trying to dry. Since products in a convection oven are always in contact with hot air, products pick up heat faster and dry faster.

**Fresh Air Intake:** The louvers/slats on the side and back of the TFO oven draw in fresh air, pass it across heaters to a fan blower – directing the air up and across the shelves. On the TFO-10 and TFO-28, the fresh air intake is on the top of the ovens. Allow adequate space for the oven to draw in fresh air.

**Horizontal Airflow Pattern:** The heated air is directed across the oven shelves in a HORIZONTAL pattern. The smaller holes on the side of the oven push hot air across and through the larger holes on the opposite side. The oven is a mix of heated, recirculated air.

**TIP: Position the shelves not to block the smaller holes.**

**Exhaust Port (Top):** The oven exhausts through the top. This exhaust port can be left open or closed. To speed drying in high-moisture requirements, considering keeping the exhaust vent 100% open to allow the oven to expel the damp hot air and replace with fresh dry hot air.

**Access Port (Rear):** This adjustable access port allows insertion of cables and feedthroughs.

