

HOT AIR OVEN TD-series



PMS HOT AIR OVEN® provides solution to economical, fast and efficient drying of a wide variety of material in powder, granule, crystalline, filter cake and fresh herb form. The design ensures consistent and perfect drying result. The oven, built to a modular design, can be supplied with tray capabilities ranging from 100 to 500 liter.

Theory of Operation

The principle of operation is that air is drawn from the operation room, through the heater and into the product area. The drying process effectively and uniformly utilizing a horizontal air flow over and under the trays. Operating on a double pass principle, the hot air is re-circulated around the product area whilst being reheated and conditioned. This ensures a uniform temperature distribution and even air movement around each tray thereby producing consistent product drying.

Manually operated damper, sited at the top of the oven, control air rejection and humidity release and to the external environment, as well as fresh air intake to the system. For ease of cleaning, the ovens are internally fabricated in stainless steel 304, fitted with continuously welded floor plate and built to a modular design. As well, trays and mobile rack are made of stainless steel 304. The oven structure is constructed with mild steel, insulated with mineral wool and clad with steel sheet.

Electrical control unit with Temperature control, Timer, Blower Control with all safety instruments are supplied as standard on all units. Our electrical control unit is not flameproof type and is not recommended when fire risks exist from the material being dried for from any other sources, which would call for certified flameproof equipments such as product with solvents.

Application:

- Pharmaceuticals
- Cosmetics
- Food and Agricultural Products
- Animal Feed Products
- Chemical

Benefit:

- cGMP Compliance
- Effective and uniform drying
- Versatile for wide product variety
- Reproducible Process
- Space Saving
- Low service and maintenance

Technical Data:

		TD-60-2	TD-100-2	TD-200-2	TD-250-2	TD-500-4
Tray Capacity*	L	30-60	60-120	100 - 200	125 - 250	250 - 500
Temperature Range	C	40-100	40-100	40-100	40 - 100	40 - 100
No. of Blower		1	1	1	1	2
Blower Driving Unit	KW	0.75	0.75	0.75	1.5	1.5
Electrical Heater	KW	13.5	12	12	13.5	
No. of Racks		2	2	2	2	4
No. of Trays		16	24	32	50	100
Overall Width	mm	1,18	1,18	1,18	1,18	1,78
Overall Length	mm	1,78	1,78	1,78	1,78	2,2
Overall Height	mm	1,95	1,95	1,95	1,95	1,95
Rack Width	mm	590	590	590	590	590
Rack Length	mm	970	970	970	970	970
Rack Height	mm	1,5	1,5	1,5	1,5	1,5
Tray Height	mm	75**	50	40	30	30

Note:

* Capacity depends on product characteristic

** Perforated Tray for bottle washing

Standard:

- All contact parts made of stainless steel 304
- External part and oven structure made of painted steel
- Blower unit
- Electrical Heating
- Electrical Control Unit with Semi-automatic Control System
- Perforated or Solid Trays
- Rack on four set of casters

Option:

- Explosion proof system, classification dependant on products and organic solvents
- Fully Programmable Control System
- Steam Heating
- Air filtration system to prevent cross contamination
- Variable Speed Drive
- Process Parameter Recorder
- Additional racks or trays
- Special rack and tray for Bottle drying
- Stud wall which completely enclose the drying area to the wall and ceiling
- Commission/Start-up
- Validation Document: Installation Qualification (IQ)/ Operational Qualification (OQ)