

# **PharmaChem Cosmetics Industries**

WE MANUFACTURERS MACHINERY & EQUIPMENTS FOR PHARMACEUTICAL, BIO PHARMA, BULK DRUG, FORMULATION, API, AYURVEDIC, HERBAL, FOOD, COSMETIC, CHEMICAL & BEVERAGES INDUSTRIES.

9~B~/~14, RAM~NAGAR, PREMSAMBANDH~CHS, NEAR~ASHOK~NAGAR~ROAD,~BHANDUP~-EAST, MUMBAI~400~042

SALES: +91 836 952 4009 WEB: www.PharmaceuticalMachineMumbai.com
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### VACUUM TRAY DRYER

Air Tray Dryer Is used for the best drying results in conventional process. It consists of a double-walled cabinet with one or two doors. The gap between two walls is filled with light resin-bounded fibreglass wool insulation material to avoid heat loss. The doors are provided with gaskets to avoid air leakages from the front side of the door. Stainless steel trays are placed inside the chamber. cGMP model dryers are designed to dry specific products.

Capacity: Lab model to suit 10kg powder – 6, 12, 24, 48, 96 and 192 trays. Standard, GMP & cGMP models available with SS 304/SS, 316/MS internals and externals.

Construction: External: 2mm thick; internal: 2mm thick.

Surface Finish: External: polished to 180 grit man finish; internal: buffed to 220 grit mirror finish.

Inlet & Outlet: Pharmaceutical and industrial tray dryers have a 5-micron pre filter at the inlet and a manually adjustable damper at the exhaust.

Doors: Doors are provided at the front and/or rear side of the dryer. The door lips are lined with silicon rubber gaskets to prevent air leakages. Suitable locking arrangement is provided for the doors.

Air Circulation: This is done by specially designed re-circulation blowers inside the dryer. Blower capacity, static and design depend on the size / model of dryer.

Heating: Dryers are supplied with either steam / electric / thermic fluid / hot water heating system. Suitable heating coils / calorifiers are provided.

Temperature Control: This is done by an electronic digital temperature controller fitted to the control panel. The temperature control in the dryer is fully automatic.

Trays: These are available in SS 304/316. All trays are fully dry-pressed and have curved corners. Trays are buffed to a mirror finish. They are also available in aluminium / polypropylene / FRP / MS galvanised according to client requirements.

Trolley: A trolley is provided in the dryers to accommodate trays. Trolley tracks are used to load and unload the trays into the dryer.

Electronic Panel: An automatic control panel is fitted on the side of the dryer. It consists of starters, contactors, safety relays, circuit breakers, indicating lamps, push buttons, timers, controllers etc.



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Backed by our efficient workforce, we are capable of manufacturing, supplying and exporting Air tray Dryer. Available in various models, these products are known for their longer service life, corrosion & abrasion resistant and easy maintenance. Our Air tray Dryer can also be customized as per the specifications laid down by the customers. We also check all the products on various parameters to ensure

A hot medium reaches the shelf through the inlet header and flows through the shelves in a uniformly zig-zag pattern ensuring faster heat transfer to the surface. This in tam heats up the trays on the shelves. The hot medium flows out from the shelf through the outlet header.

	Lab Model	Pilot Model				Production Model		
MODEL	TRAY 4	TRAY 8	TRAY 12	TRAY 16	TRAY 24	TRAY 48	TRAY 96	TRAY 192
Capacity in Kilograms	5	14	42	63	84	168	336	672
Capacity in Trays	4	8	12	16	24	48	96	192
No of Trolleys	1	1	1	1	1	1	2	4
Heating Load (K.W.) @ 150°C	1.5	3	4.5	4.5	7.5	12	21	40

Loading per tray ( product bulk density 0.5 gm/cc ) = 3.5 Kgs max Tray Size for 3 & 8 Tray VTD =  $16 \times 16 \times 1''$  Tray Size for all other models =  $16 \times 32 \times 1.25''$ 

#### **OPTIONAL FEATURES:**

- Fike Explosion Flap
- Separate carriage trolley and load trolley
- Flame proof controllers
- 3 stage HEPA Filter.

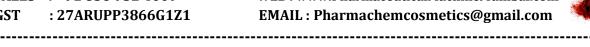


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#### **APPLICATIONS:**

- Low temperature drying.
- Drying of products containing explosive solvents vapours.
- Drying of products sensitive to oxygen.
- Drying to retain aroma/ flavour/ nutritional value of food products.

### Vacuum Tray Dryer, Vacuum Dryer Manufacture

A Vacuum Tray Dryer works under vacuum conditions on the conduction principle. Inside the dryer are several shelves having trays on which the products are placed. The top most shelf is a dummy shelf placed there to ensure proper heating and to prevent the dried powder from escaping into the solvent extraction system. The shelves are constructed hollow with baffles cum stiffeners placed in between shelves. Every shelf has an inlet and outlet nozzle and is connected to an inlet and outlet header through these nozzles.

vacuum drying system consists of drying oven with a heating system, vapor condensing system, and a vacuum pump assembly designed specifically for drying a particular product and to achieve the desired objective for which product is dried under vacuum.

**Vacuum Drying** is ideally suited for pharmaceutical industry where products cannot be exposed to very high temperatures. These may include biotechnology products or pharmaceutical intermediates.

