



Pharmachine
INDIA

FLUID BED DRYER



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**FLUID BED
DRYER/PROCESSOR**



Our Fluid Driers / Processors are well-known for their top class workmanship and quality standards.

Continuous innovation and implementation of the latest technology in the products they manufacture has enabled them to meet the standards imposed by the regulatory bodies in both india and abroad.

The GMP model a drier / processor use SS 316 Q for all the parts coming in contact with the actual product and SS 304 Q for all the other air contact parts. The advantages of using this multi-purpose machine are:

- Production of uniform size of granules and drying of processed mass.
- Less handling means less processing time and more hygienic output.
- Minimising transfer losses.
- Labour saving & space saving.

Air entering the machine passes through filter units. These filter units are installed on a sliding cabinet for easy cleaning and replacement. The incoming air is heated either by steam or by electricity. A damper is provided to control the inlet air flow.

Optional: Electronic speed variator for the blower, humidifier & HEPA filter.



The product container is mounted on a tilting type SS trolley with Nylon or Polyurethane made swivelling castors. A perforated SS plate and an SS sieve (Dutch weave) is fixed to the bottom of the product container with the help of Toggle type latches for easy replacement.



Inflatable food grade rubber gasket is provided on the jack chamber to seal the bottom of the product container. A sampling device for random check of product under process is fitted on the product container.



The solvent is sprayed through a nozzle on the fluidising powder. The position of the nozzle is adjustable so as to avoid spraying on the walls of the retarding chamber, the product container and to attain proper agglomeration. The solvent to be sprayed is stored in SS jacketed tank with a built-in stirrer. Peristaltic pump is provided to pump the solvent.



A fail safe earthing device is provided to neutralize the static electricity charge generated during process.

Finger bags made of PC Satin are hung by hooks welded on a ring, which can be moved up or down. The bags are designed to provide maximum surface area for faster drying of product. An automatic, pneumatically operated bag shaking device can be programmed, as per requirement to dislodge the clogging material.



Optional: Epitropic bags with built in static charge dissipation.

Magnehelic differential pressure gauges are fitted to detect the over clogging of inlet Air Filters, SS Sieve & Finger bags by measuring the differential pressure



Optional: A flow meter can be fitted to measure the velocity of air flowing through a given cross section.

The impeller of the blower is dynamically balanced to run at 2008 rpm. The blower motor is flame proof type so as to prevent fire hazards while using inflammable solvents.



Optional: The operating / control panel, viewing lamp, electrical gadgets can also be made in flame proof construction.

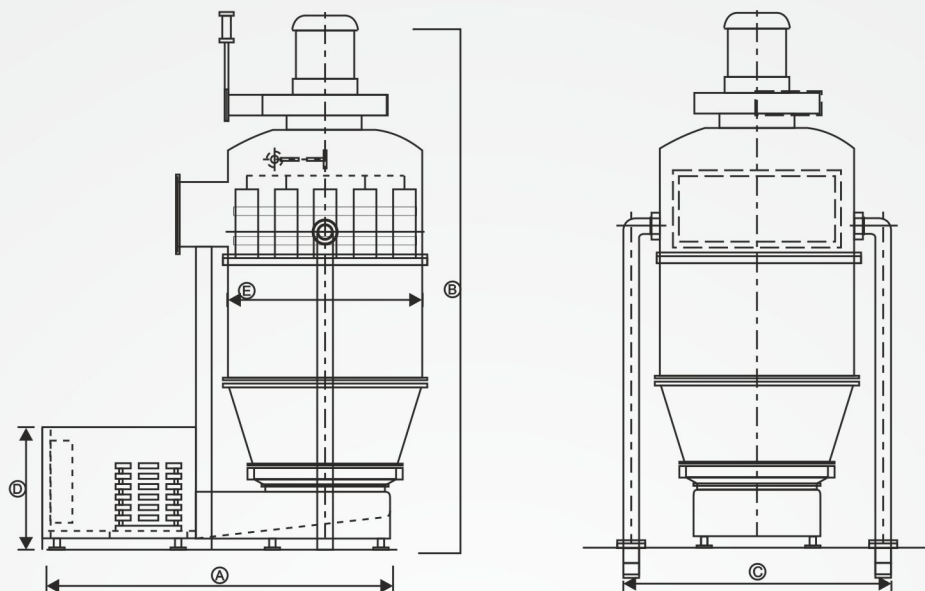
The damper provided at the blower outlet shuts off the air flow at the time of bag shaking. This is to enable dislodging of the powder particles from the bag. Safety flap is provided to make the unit explosion proof, which blows off at 1 bar pressure.



The control of the process is basically with the help of digital timers with indicators. In addition to this, there are digital temperature controllers / indicators for the inlet & outlet air.

Optional: Alternatively a PLC unit with printer output can be used to pre-programme all the process parameters. Various safety inter-locks can also be programmed in the PLC.





TECHNICAL SPECIFICATIONS

Model		FBP.I	FBP.IV.	FBP. V.	FBP. V.I.	FBP. V.II.	FBP. V.III.
Capacity (Kgs.) Depends on Bulk Density		10	60	100	150	200	300
Total Volume of Product Container (Ltrs.) Working Volume 70%		28	220	360	590	740	870
Blower Motor Ratings (KW.)		1.5	7.5	11	15	15	18.75
Heating Capacity (KW.)		15	36	54	72	80	90
Steam Consumption (Kgs./Hour)		25	80	135	180	220	270
Heating Capacity (Kcl/Hour)		3870	23220	38700	58060	77400	92000
Net Weight (Kgs.)		1050	2050	2300	2650	2900	3300
Gross Weight (Kgs.)		1750	3200	3700	4200	4550	5100
Dimension (mm)	A	980	2040	2280	2450	2500	2550
	B	2500	3270	3500	3900	3900	4225
	C	700	1350	1500	1800	1900	2000
	D	1500	730	750	750	750	750
	Ø E	500	950	1100	1350	1500	1600

*specifications subject to change without notice