

FBG Series Fluid Bed Dryer & Granulator



FBG Series fluid bed dryer & granulator is used in pharmaceutical solid dosage area for mixing, granulation and drying application, or drying of the wet granules processed from high shear mixer granulator. It's the major processing equipment in solid dosage production line. The equipment is PLC automation controlled and well satisfies the current GMP and Pharmacy Code regulation.

Features:

1. INLET AHU

The inlet AHU consists of G4, F8, H13 filter and heater with accurate temperature control. The inlet air flow is variable controlled by the exhaust air fan motor VFD from the HMI.

2. MAIN BODY STRUCTURE

The main body structure consists of lower bowl, movable product bowl, fluidized chamber, expansion chamber/filter housing. The lower bowl, product container and fluidized chamber are inflatable silicon gasket sealed with compress air inspection sensor to assure the reliable sealing.

3. PRODUCT FILTER

The double structured bag filter in two pieces (in case request, stainless steel filter available) is inflatable silicon gasket sealed between the expansion chamber inner surfaces with compress air inspection sensor to assure the reliable sealing. A dust sensor is mounted on the exhaust piping and interlocked from control sys to secure the product safety during processing stage.

4. EXHAUST AHU

The exhaust dust collection filter is optionally designed for protect environment.

5. 2Bar & 10Bar POWDER EXPLOSION

The 2bar and 10 bar powder explosion proof design is selectable to ensure the operator, equipment and environment safety with reliable grounding device.

6. FLUIDIZED GRANULATION

In case of fluidized granulation is requested, the binder solution tank and spray sys with peristaltic pump would be designed and offered. The binder is sprayed from the peristaltic pump through the

spray gun into the chamber onto the product surfaces. The product coheres together by the binder which forms the binder bridge for form the core granules and grows up and formed. The binder bridge is evaporated away by the hot air and the evenly dried granules formed.

7. UNLOADING SYS

The lifting tipping with on-line dry cone mill sys or, vacuum loading mounted on lifter with on-line dry cone mill sys is designed and offered to form the dust free material unloading from fluid bed sys to assure the dry sizing and clean production requirement according to current GMP regulation.

Working Principle:

The take in air is processed from the inlet AHU unit through three filters and heated, and blow up the material from its air distributor uniformly and dried by the hot air.

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Technical Parameters

产品型号 Model	原料容器容积 Material bowl volume	批产量 Batch size	加热温度 Heating temperature	风机功率 Fan motor power	蒸汽耗量 Steam consumption	压缩空气耗量 Compress air cons.	主机外形尺寸 Main machine overall dimension	设备总重 Weight
	Model	kg / p=0.5	℃	kW	m ³ /h	m ³ /min	宽 × 高 × 直径 /m	kg
FBL1-5	1, 5	0.36~2	室温 Room Temp. ~ 90	3.0	电加热 Electric heating 6kW	0.3	1.5×2.3×0.9	600
FBL3-15	3, 15	0.36~5		3.0		0.3	1.5×2.3×0.9	600
FBL3-25	3, 25	0.8~9		4.0		0.3	1.6×2.4×1.0	950
FBG/D-25	48	3~10	室温 Room Temp. ~ 110	4.0	35	0.6/0.3	0.86×2.5×0.5	950
FBG/D-50	74/60	5~20		5.5	50	0.6/0.3	1.12×2.6×0.7	1850
FBG/D-75	108/85	10~30		7.5	80	0.6/0.3	1.12×2.6×0.7	1950
FBG/D-100	142/120	12~40		11	90	0.9/0.3	1.32×3.2×0.9	2100
FBG/D-150	213/166	20~60		11	120	0.9/0.3	1.32×3.4×1.0	2300
FBG/D-200	285/240	25~80		15	180	1.0/0.4	1.57×3.6×1.1	2400
FBG/D-300	420/330	38~120		22	240	1.0/0.4	1.69×3.9×1.2	2700
FBD-400	498	50~160		30	300	0.4	1.92×4.1×1.4	3000
FBG/D-500	670/579	65~200		37	330	1.3/0.4	1.92×4.4×1.4	3850
FBD-600	721	75~240		37	400	0.5	2.13×4.9×1.6	4500
FBG/D-800	1025/881	100~300		45	450	1.3/0.5	2.13×5.3×1.6	5000
FBD-1000	1239	125~400		45	480	0.5	2.38×6.1×1.8	6000
FBG/D-1200	1565	150~500		55	530	1.6/0.5	2.38×6.4×1.8	6400