

VIBRATING FLUIDIZED BED



PRINCIPLE

Fluidization confers to a divided solid the properties of a fluid. Products with a wide particle size distribution or including large particles, cannot be processed in a static fluidization equipment. It is the same for products discharged from centrifuges which are sticky or include lumps and which will not permit treatment by direct fluidization. Comessa developed the vibrating fluidized bed to solve most of these delicate drying problems. In such case, vibration insures a better fluidization and allows transport of largest particles or lumps.

ADVANTAGES OF THIS TECHNOLOGY

- ◇ Handling of sticky products (from centrifuges or filters)
- ◇ Breaking soft lumps eventually formed during process
- ◇ Adapted to a wide particle size distribution
- ◇ Uniform product temperature, moisture and treatment
- ◇ Low attrition of particles
- ◇ High evaporation rate
- ◇ Reduced footprint and simplified layout
- ◇ Easy adjustment (residence time, temperature, airflows)
- ◇ Multiple processing in one single equipment
- ◇ Adjustable fines removal ratio



MAIN APPLICATIONS

All kind of powders, crystals, beads, granules for all industries (chemical, food, mineral, etc.)

MAIN PROCESSES

Drying, cooling, calcining, reaction, roasting, dehydration, solvent removal, etc.

PILOT TEST LABORATORY

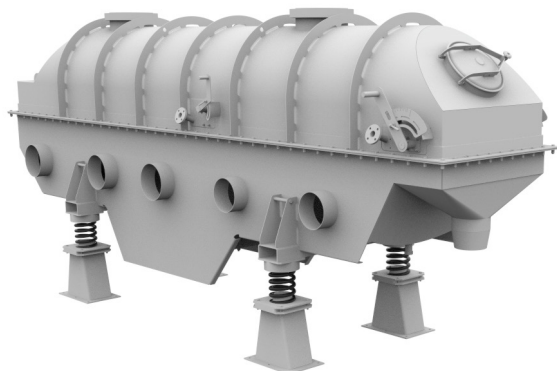
For determination of vibrating fluid bed parameters and possibility to perform semi industrial tests or rental of a complete pilot unit.



comessa can propose different types of vibrating fluidized beds

VIBRATIONS GENERATED BY UNBALANCED MOTORS

Fluidized bed is supported by helical springs.

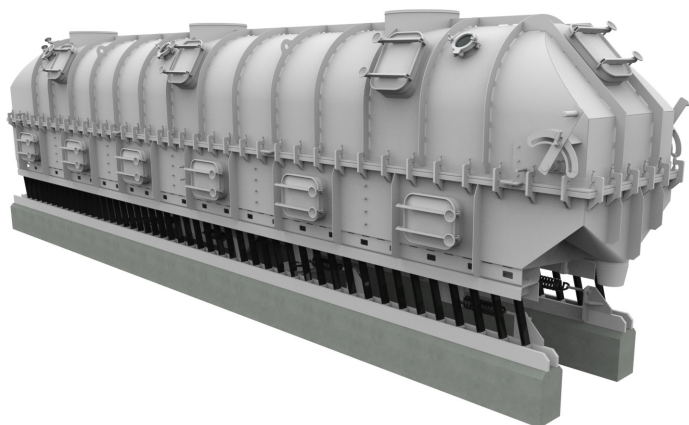


Type	Width (mm)	Length (mm)	Height (mm)
VFB 0,3	1 000	1 800	1 500
VFB 0,6	1 200	2 000	1 500
VFB 1,2	1 400	2 500	1 500
VFB 1,8	1 400	3 500	1 800
VFB 2,4	1 600	3 500	2 000
VFB 3,2	1 800	4 500	2 400
VFB 4	1 600	4 600	2 600
VFB 5	1 600	5 600	2 600
VFB 6	1 800	5 600	3 000
VFB 7	1 800	6 600	3 000
VFB 8,4	2 000	6 600	3 200
VFB 10	2 100	7 300	3 300
VFB 11	2 200	7 500	3 300
VFB 12	2 200	8 200	3 400

(Overall dimensions)

VIBRATIONS GENERATED BY AN EXCITER

Fluidized bed is supported by leaf springs.

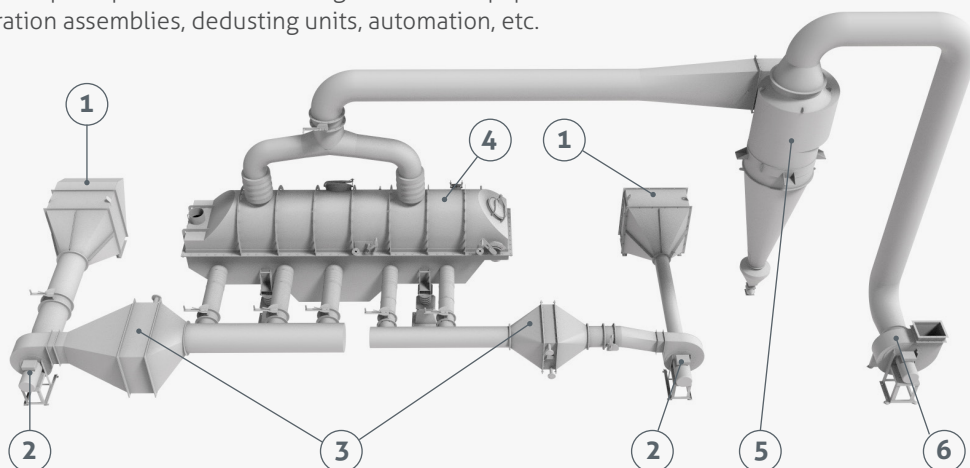


Type	Width (mm)	Length (mm)	Height (mm)
VFB 14	1 650	11 000	3 500
VFB 15,4	1 650	12 000	3 500
VFB 18	1 900	12 000	3 600
VFB 20	2 100	12 000	3 700
VFB 22	2 250	12 000	3 800
VFB 24	2 250	14 000	3 800
VFB 28	2 250	15 000	3 800
VFB 32	2 450	15 500	3 800

(Overall dimensions)

COMPLETE PROCESS UNITS

Depending on customer's requirements and applications, COMESSA can provide a complete process unit including ancillaries equipment such as : air preparation assemblies, dedusting units, automation, etc.



- 1 - Air filter(s)
- 2 - Blower(s)
- 3 - Heat exchanger(s)
- 4 - Fluidized bed
- 5 - Dedusting unit
- 6 - Exhauster

