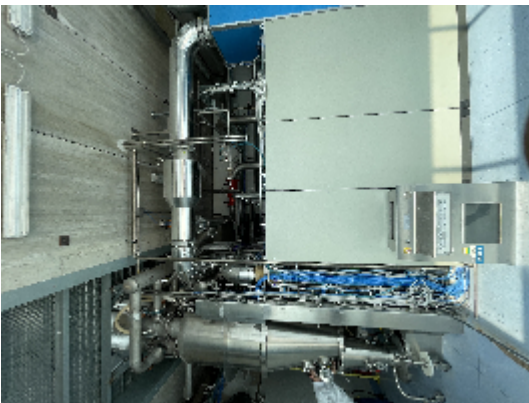




Images





Product details

Category:	Fluidbed Dryers and Dryers/Ovens
Machine:	
Machine code:	22F73
Manufacturer:	GEA
Year of construction:	n/a

Description



FLUID BED PROCESSOR

The plant is an all-round production machine and is suitable for:

- Fluid Bed Drying (all sorts of fluidized products)
- Spray Granulation (all kind of powdery products) via top spray procedure
- Coating of micro fine products as well as pellets via top spray procedure
- Coating of micro fine products as well as pellets via bottom spray procedure

The Fluid Bed Unit is designed to be integrated in a wall between production and technical areas and is executed to achieve the highest levels of GMP which requires a radical separation between production equipment and peripheral mechanical and electro-pneumatic equipment. In the proposed execution only the Fluid Bed Apparatus and the membrane operator panel are in the process area.

Through-The-Wall-Design (TTW)

Clear separation between production area and technical area
Substantial reduction in GMP space needed
No maintenance interventions needed in production area

Fluid Bed Multi-Processor

Typical working capacity (approx.) 15 to 50 litres

Typical batch size (average product density 0.5kg/l) 7.5 kg 25Kg

Max. Working volume 55 litres

Granulation liquid based on: Purified Water

Process inlet air heating range: From +20 to +80 °C

Process inlet air volume range: 750 to 110 m³/h 50°
(valid for empty machine)

Process inlet dew point: +8 to +12 °C

A. Drying in the fluid bed

A batch of fluidized wet materials is put into fluidization through an upward movement of heated air during which the whole surface of the particular product particles are in contact with the hot air. Each particle/granule is uniformly dried to low final moisture content. This is achieved as a result of an even temperature profile throughout the powder bed.

B. Agglomeration in the fluid bed

If a starting production product, consisting of fine powder or core sized particles has to be transformed/changed into a homogeneous rough sized granule it can also be done in a Fluid Bed. The appropriate liquid is sprayed onto product particles which are floating in the airflow, this produces an agglomeration of the particles. The adherence of particles can be achieved by etching the particle surface dissolved in spray liquid. The agglomerates formed are fixed by the drying process.

C. Coating in the fluid bed (predisposition for the future use)

If individual particles of a product require coating to modify the characteristics and/or provide a protective membrane, the process is similar to that of fluidised bed spray agglomeration. The coating media is dissolved/dispersed/suspended in an appropriate carrier liquid and sprayed onto the fluidized particles. The process can be with top spray with the latter generally used for processing dense and large particles.