

EPS TECHNOLOGIES



Batch Type Pre-Expander

Working principle of the batch type, to expand a fixed mass of raw material in a fixed volume which enables to reach easily desired density

Dosing Unit, to weigh the right amount of EPS for the adjusted density. Filling to the vessel is done by gravity.

Expansion chamber made of AISI 304 stainless steel, cylindrical shape.

Agitator and accessories made of AISI 304 stainless steel, speed control via drive. With the adjustable speed in different steaming phases, enables to process different materials.

Discharge door located on the floor of the vessel, to empty the chamber fast.

Fluidized bed dryer, inside floorparts made of AISI 304 stainless steel, where the expanded material goes out from the expansion chamber to dry the beads. The unit is equipped with a steam-air heat exchanger inside, which avoids the beads from thermal shock.

Material Transport unit, has a rotary valve system, to send the material to the silos.

Machine has a built-in silo control system, with the right hardware you can operate this part. Pre-expanded beads from the pre-expander conveyed to the storage silos for 1st and 2nd expansion stages

After the pre-expansion, you can select the silo from the display, where you want to send the expanded material. Operator can select several silos at the same time with a priority.

The system follows the selection after the order finishes the machine stops as well. For 2nd expansion, same selection steps are possible. From all the silos, you can make 2nd expansion process.

This conveying system named silo top distribution and all the operation controlled via pre-expander panel.

High Density processing: The air and steam adjustment can be done automatically, in quantity and temperature during all expansion stages. This unit helps to expand densities over 30 kg/m^3 till 50 kg/m^3 . To be on the safe side, densities over 30 kg/m^3 should be expanded at lower volumes. To do that the level sensors must be adjusted correctly.





Material Loading Hopper

Volume 1.25 m³ which is approximately 1.100 kg EPS capacity. Equipped with flexible hexagonal feeder.



2nd Expansion Unit

This unit is necessary to proces under 12 kg/m³ bulk density. The pre-loading silo is located on the top of the expansion chamber, with electronic scale system to control the proper filling for second expansion. The PLC calculates the necessary amount (kg) of material for second expansion, and expand in a fixed volume. The filling from the silo to the machine is done by a vacuum fan.



Machine Control Panel

Machine is controlled by SIEMENS S7 type PLC. Touch panel size 10.1" full color. With this display the operator can change process parameters, and recipes can be added, changed and saved in the PLC. Also can be transferred to any place.



Density Control Unit

For checking the pre-expanded bulk density, via a sample material taken from the dryer. After each cycle, mateial taken from the dryer and weighed in fixed volume. The unit measures, and inspects the expansion values. Different measurements can be followed on the display. Production data can be saved or printed on a paper.



Material Transport Unit

Material Transport unit, has a rotary valve system, to send the material to the silos.



Fluidized Bed Dryer

Fluidized bed dryer, inside floor parts made of AISI 304 stainless steel, where the expanded material going out from the expansion chamber to dry the beads. The unit is equipped with a steam-air heat exchanger inside, which avoid the beads from thermal shock.

Technical Specification

Batch Pre-Expander Type	ASM-B 900	ASM-B 2250	ASM-B 4500	ASM-BV 900	ASM-B 150
Capacity kg/h at 15g/l density	480-500 kg/hour	800-990 kg/hour	1260-1500 kg/hour	200-280 kg/hour	187,5 kg/hour