PE-1400 EPS Batch Pre-Expander

TECHNICAL SPECIFICATION SHEET

A PLC-controlled batch pre-expander for medium and large EPS production. The PE-1400 combines closed-loop steam regulation, electronic weighing, density recipe storage and an insulated stainless-steel barrel.

Core specifications

Model	PE-1400 (mid-range batch pre-expander)
Barrel diameter	1,400 mm
Barrel construction	Double-layer 304 stainless steel with mineral wool insulation
Batch capacity	700-900 kg/h (continuous batch cycle)
Target density range	8-30 kg/m3 (PLC-controlled batch density)
Density variance	+/- 0.5 kg/m3 batch-to-batch
Expansion ratio	40-80x (raw bead to expanded volume)
Steam pressure	0.18-0.23 MPa (closed-loop regulated)
Steam consumption	80-100 kg per batch
Cycle time	4-6 minutes per batch, depending on target density
Agitator	Bottom-driven 3-blade stainless steel agitator with 30:1 reducer
Weighing system	+/- 50 g accuracy (5 kg load cell range)
Voltage	380 V / 50 Hz; 220 V / 60 Hz on request
Installed power	30 kW total
Machine weight	6,000 kg
Dimensions (L x W x H)	2,800 x 2,400 x 4,500 mm
Control system	Siemens S7-1200 + 10.1-inch Weintek HMI

Typical applications

- Construction insulation panel production
- EPS packaging and cold-chain factories
- Fish box production at 18-22 kg/m3
- Integrated lines feeding block or shape molders

Certification / scope

CE; ISO 9001

Engineering note	*Final capacity and utilities depend on raw bead grade, target density and site conditions.*
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