

Inline Bag Fillers

IBF-450P / IBF-600P / IBF-800P





Inline Bag Filler

The GEA IBF (Inline Bag Filler) range is designed to pack a wide variety of products at low to medium filling rates.

The IBF range features a bottom-up filling system which maintains a constant distance between the outlet of the filler tube and the top of the powder in the bag. By doing this, the displacement of air is kept to a minimum and the resulting dust emissions are dramatically reduced over other systems.

This makes the GEA range very clean and safe in operation and the reduced product loss through better dust control means greater product yield for our customers.

PLC control with touch-panel operation allows complete control of the packing line from the filler, whilst product configurations held in the control system take care of a wide variety of packing parameters for multiple products.

All IBF fillers are constructed of stainless steel which makes them ideal for both high hygiene and corrosive products.

Options for CIP cleaning and/or change parts are available for customers wishing to pack a variety of products on the same machine.

Inline Bag Filler

Benefits

- To be integrated in fully automated bag packing lines or, alternatively to work as a stand-alone unit as part of an existing downline system
- Highest filling rate whilst ensuring best accuracy
- Reliably pack a wide range of products for both food and non-food applications
- Handle a wide range of bag sizes and types
- To have manual operation is an optional extra
- Compliance with hygiene standards
- Provide integrated and extensible control for other equipment in a bag handling plant
- Ease of operation and maintenance

Features

- Extensive use of stainless steel construction
- Single powder inlet connection
- Range of filling capacities
- High accuracy
- Bottom-up filling system
- Integrated dust control
- Extensible PLC control for additional line components
- Powder sampler (option)
- CIP (option)
- Modified Atmosphere Packing CO₂/N₂ (option)
- Available in Left-hand or Right-hand configurations

Equipment standards

- Designed in accordance with: USDA- 3A;
- EHEDG where applicable and practical; - EN 1672-2 Food Processing Machinery; - ISO 14159 Safety of Machinery; are used as the basis of our design.
- Machine safety: ISO 12100:2010 and standards derived from this.
- Hazardous Environment Compliance Method: ATEX; IEC; NFPA.

Machine construction:

- Constructed from stainless steel, or approved food grade materials.
- Material for all other parts, selected to suit optimal performance.
- All product contact parts are finished with a Ra ≤0.8 μm surface finish or better.

Bag requirements

- Length = 750-1000mm; width = 500-600mm
- Multi-wall Kraft paper bags with PE internal liner
- Bag over powder = 300 mm



IBF800

How we do it

Hover over the numbered circles to reveal the features →



1. Bag Stabilising - Ensures reliable and safe handling of difficult products.

2. Integrated Weighing - Provides feedback to main fill control to ensure consistent bag weights are maintained.

3. Integrated Controls - Touch panel operation for all filler functions and product selection controls. Real-time weight indication during filling cycle.

4. Integrated Dust Extraction - Removes dust at source to ensure safe operation when handling the dustiest products.

5. Top-up System - Provides accurate filling at higher packing rates.

6. Optional Product Sampling - Enables quality samples to be taken for testing.

Specifications	IBF-450P	IBF-600P	IBF-800P
Rate	4.5 t/h average	6 t/h average	8 t/h average
Capacity	180 bags/h	240 bags/h	320 bags/h
Accuracy	60 g @ 1 standard deviation	25 g @ 1 standard deviation	20 g @ 1 standard deviation
Heads	Bulk	Bulk + Topup	Bulk + Coarse & Fine Topup
Weighing System	Mettler Toledo		
Space Requirements	4.2 × 5.8 × 9.2 m (H x W x L) with Bag Presenter, Neck Stretcher, & Heat Sealer		
Residual Oxygen level	<3.5% at time of packing		
Dust Extraction	2200 m ³ /h @ -2 kPa		
Electrical Load	Filler 3 Ph + E + intrinsic E 22 kVA estimated average load	Filler 3 Ph + E + intrinsic E 25 kVA estimated average load	Filler 3 Ph + E + intrinsic E 27 kVA estimated average load
Sampler Type	2 position		
Vacuum	75 m ³ /h @ -90 kPa		
HMI	Siemens / Allen Bradley 12"		
Comms	Profibus / Ethernet IP		
PLC	Siemens / Allen Bradley		
Motors and Gearboxes	SEW Eurodrive		
Drives	SEW Eurodrive		
Bag Range	750-1000 × 500-600 × 140-170 mm (HxWxB)		
Bag Type	Block / pinch bottom type open bags		
Empty Bag Capacity	70 bags (2 stacks)		
Compressed Air	150 Nm ³ /h avg, 250 Nm ³ /h peak @ 7 bar		
Nitrogen (MAP)	1 Nm ³ /h avg, 50 Nm ³ /h peak @ 6 bar		
Carbon Dioxide (MAP)	40 Nm ³ /h avg, 200 Nm ³ /h peak @ 4 bar		

MAP = Modified Atmosphere Packaging
All performance data achieved under test conditions with standard packaging materials.
All specifications and dimensions subject to revision without notice.

Automated Packing Lines

GEA can provide fully automated packing lines for low, medium and high production capacities.

Starting with the IBF 450 at 4.5 tonnes per hour through to the impressive RBF 1200Li, capable of packing up to 12 tonnes per hour at extreme precision, all GEA automatic packing lines ensure the highest level of performance and reliability, whilst providing ease of operation and maintenance.

Each line option comprises an automatic bag presenting system which has been developed over many years and is now in its 3rd generation. The bag presenter features a new multiple bag stacking and presentation system which has been developed and proven on higher capacity lines.

A new generation neck-stretching system ensures reliable bag presentation to the heat sealer to complete a fully automated bag filling and closing system.

Optional Ethernet connectivity enables both local and remote monitoring and data analysis using the customer SCADA system.

By adding GEA downline equipment we can provide our customers with a complete solution for automated bag filling, conditioning and quality checking which can be matched to any manual or automated palletising system.



Automated Packing Lines



Benefits

- Provide automated bag filling and closing operation
- Provide optimum level of automation
- Ensure ultimate product quality and integrity of operation
- Handle a wide range of bag sizes and types
- Compliance with hygiene standards
- Provide integrated and extensible control for other equipment in a bag handling plant
- Ease of operation and maintenance

Features

- Fully integrated control and operation
- Stainless steel construction
- Modular link plastic belt to all conveyors
- Range of filling capacities
- Extensible PLC control for additional line components
- Optional connectivity to remote SCADA systems
- Interfacing to palletising systems
- Product quality control

Equipment Options

- GEA provides additional options:
- Powder sampling
- CIP cleaning
- Box and Drum filling
- Siemens or Allen Bradley PLC and operator interface
- Hazardous area compliance



Automated packing line

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