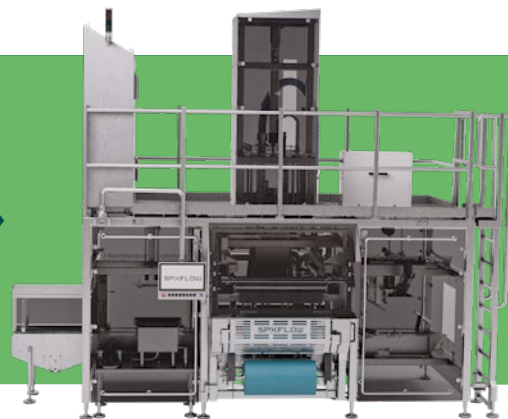


## BUTTER BULK PACKER TYPE BP5000

### BUTTER PROCESSING EQUIPMENT



Meeting the latest standards for operator safety and food hygiene, the butter bulk packer offers an efficient solution for fully automatic packaging of butter into carton sizes from 10 kg to 25 kg. Ideal for use with various butter products, the machine can also handle other types of crystallized fats, including vegetable fat and dairy blends.

#### Features

Designed for flexible production options for cartons with a weight of 10 – 25 kg, the butter packaging machine is based on a modular concept with separate carton forming and carton closing with inclusive taping before and after the filling module. To make it easy to create the optimum production layout, more than one carton filling module can be utilized as units can be configured in a 'mirrored' format.

The butter wrapping machine has been optimized for improved food safety inclusive an option for a clean air filter to maintain cleaner air around the product filling area. With focus on the latest safety standards for operation and maintenance, the filling module has a number of unique features such as change of liner (foil), easy service and maintenance access, and straight forward setup for CIP and faultfinding.

#### Standard Design & Options

The butter bulk packer completely prepares cartons for transport to downstream palletizing. The bulk packer (filling module) frame, internal transport system, filling head, folding table, fine dosing, scale etc. are constructed of stainless steel (AISI 304). To further ensure safety and ease of use, the unit has transparent, noise reducing safety doors. The machine's standard configuration includes one filling module (the bulk packer) and one carton former, which supplies bottom taped cartons to the inlet of filling module. A combined carton closer and top tape sealer is situated at the outlet of the filling module.

For added flexibility, a number of the filling modules can be placed in parallel with cartons conveyed to and from the individual modules to increase bulk packaging capacity.

A common carton former and top tape sealer can still be utilized in this configuration. A bulk packaging line with one filling module has a capacity up to 5,000 kg/h when running 25 kg bulks. Two filling modules placed in parallel produces a combined capacity of up to 10,500 kg/h when running 25 kg bulks.

#### Mode of operation

The flat cartons in the carton former magazine are unfolded automatically and taped at the bottom before leaving the carton former. The carton is then conveyed on belt conveyor(s) to the inlet of the butter wrapping machine and the internal transport system takes over.

When the carton arrives at the filling position, a sheet of plastic liner or parchment is cut and placed precisely under the filling head. Sensors indicate correct position of the liner material before it is folded around the filling head and inserted into the carton. Butter is then filled into the lined carton to a weight below the requested net weight.

The pre-filled carton is then moved to an integrated scale and topped up with butter to the requested weight. The final dosing is carried out by an injector which is inserted into the butter below the surface leaving no butter lumps on the surface. The butter packing machine has an integrated PLC system which continuously monitors the pre-filling and final weights to ensure optimum results.

The final step before the carton leaves the bulk packer is closing of the liner and tamper seal. This ensures that there is only one step in the filling process where butter is exposed to free air. The carton closer and top tape sealer is placed at outlet of bulk packer.

## Automation

As a standard, the packaging line is delivered with a Siemens S7-1500 PLC. AVEVA™ InTouch HMI ensures easy control and operator interface.

Fully automated, the control system monitors the complete process and stores data for each carton filled during the production. All production data can be viewed on the control panel (HMI) and exported to an external system in CVS file format or through SPX FLOW vertical integration to an existing control system. Through communication with the CIP system, the PLC system also controls the internal CIP process of the butter packaging machine.

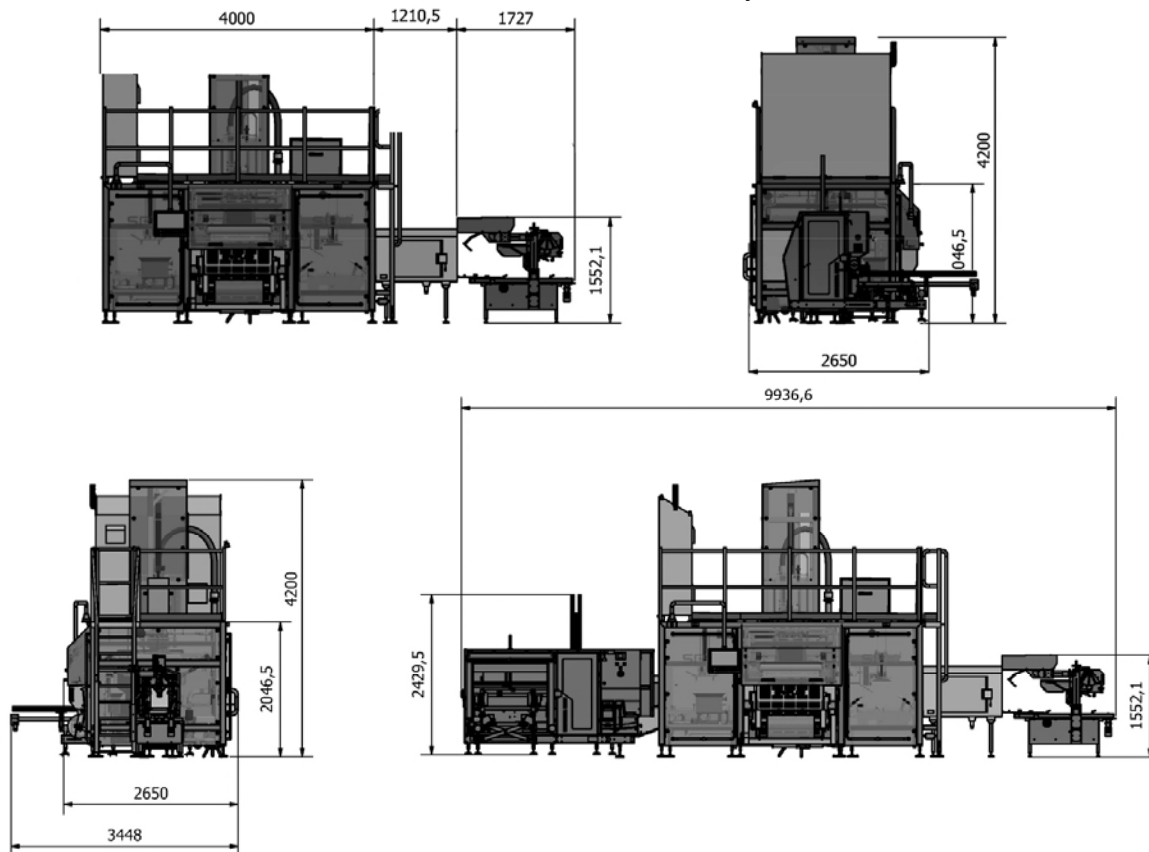
Designed to minimize machine downtime, the control system further provides an easy fault finding system that indicates where on the machine an operator or service engineer should look should a fault arise.

## Remote Monitoring Solution

To reduce any downtime and lower maintenance costs, the butter bulk packer is supplied with the SPX FLOW Remote Monitoring and Control Solution; a system developed by Secomea. This enables SPX FLOW engineers to take control of HMI/PC stations and program PLCs remotely. It is a secure facility with all connections established based on a X.509 certificate exchange, all data AES encrypted, and user access controlled by a two-step authentication.

## Options

- SPX FLOW Performance Monitoring System
- Vertical integration with site system e.g. for reporting
- Clean air filter system
- Ink-jet coding of liner (foil) or cartons leaving the machine
- Vision system (camera)



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