Stickpack Packaging System
High Speed Powder Dosing, Stick Form/Sealing & Cartoning
Stickpack System

In one compact unit, the Sigpack RAX/KG4 Stickpack System meets the demands of your packaging requirements. The System consists of:

- Accurate powder dosing module
- Pouch forming with hermetic sealing
- Pouch inspection, transport and grouping
- Cartoning of grouped pouches with inserts

This fully integrated solution provides the highest output on the smallest footprint on the market!

Packaging Applications

**Products**
Free and sluggish-flowing powders and granules from the food, pharmaceutical and chemical industries.

**Packaging Material**
*Primary packaging*: Heat-sealable composite film
For example: PAP/PE; PAP/ALU/PE; PET/ALU/PE

*Secondary packaging*: Cartons based on clients’ requirements

**Packstyles**
*Primary packaging*: Stickpack for pharmaceutical powder products as well as the food industry. An attractive and practical packstyle.

*Secondary packaging*: Shelf cartons with one or two aligned rows.

**Construction**
The Sigpack RAX/KG4 is based on a robust construction which ensures effective multi-shift operation. Modular Servo driven functions and elements enable precise and reproducible movements.

**Ergonomics and Design**
The easy access to all machine parts, the user-friendly operation height and the good visibility to the product flow allows for optimal and easy operation of the Sigpack RAX/KG4. The clear and modular structure enables good accessibility for operation, maintenance and cleaning. The Sigpack RAX/KG4 is designed with consideration of GMP guidelines.
Primary packaging
High dosing accuracy into compact Stickpacks

The primary packaging Sigpack RAX is a multi-lane, vertical Stickpack machine optimized for the packaging process of sensitive powder or granules. The various feed technologies utilized are specific to the clients’ powder or granule, ensuring high speed, accuracy and reliability.

Dosing technology
For a precise dosing of heavy flowing powder and granules, the Sigpack RAX is equipped with a patented pulsing auger filler. This technology performs up to 100 cycles per minute. Individually driven augers guarantee a high and reliable weight accuracy even with the smallest filling volumes.

For easy flowing powder and granules, the Sigpack RAX is equipped with a patented low-maintenance tipping filler. This technology performs up to 100 cycles per minute. Individually adjustable dosing cups guarantee reliable weight accuracy at high speed while providing gentle product handling.

By filling deep inside the forming pouch, the dosing technology minimizes the product loss and ensures a clean sealing seam.

Sealing technology
The extended sealing time achieved leads to reliable seal tightness. The low sealing temperature required results in low thermical impact on the packaging material and on the product itself.

The continuous operating principle provides gentle material handling and results in a consistent pouch quality with high output.

Transport and Grouping Section

The primary and the secondary packaging sections are connected via a transport unit. This unit works with a chain exactly positioning the product to prevent loss. The product chain provides the possibility of a 100% inline weight control.

This control ensures optimal weight accuracy, compensates for fluctuations in density, and enables efficient reject of faulty pouches. After gentle equalization of the filled pouch material within the pouch, the Stickpack is positioned and stacked.

Pictures

1. Powder
2. Stick forming and sealing section
3. Stickpack after forming
4. Swiveled sealing unit
5. Stickpacks
6. Auger filler
7. Tipping fillers
8. Grouping System
9. Transport and weighing
10. Packaging example
11. Carton erector
12. HMI with process monitoring
Secondary packaging
Turnkey solution with a compact footprint

Cartoning
A highly integrated horizontal cartoning machine, the KG4, leads to a compact system layout. This integrated design perfectly extends the functionality of the Sigpack RAX. The format range is adjustable and offers a wide possibility in the carton dimensions and product arrangement.

The KG4 cartoner works intermittently with an output of up to 70 cartons per minute. Within the compact layout, the KG4 cartoning solution offers the possibility to integrate leaflet insertion and a variety of coding, labeling and vision inspection solutions.

Process monitoring and operation
The HMI provides the link to your packaging process. The panel on the Sigpack RAX/KG4 is mounted on a swivel arm and is horizontally adjustable. Parameter entry buttons, error messages, production statistics, user management and messaging for corrective actions are displayed on the HMI. Furthermore, all general operations and relevant sealing parameters are controlled via the integrated full color touch screen limiting all manual set-up activities to a minimum. The control architecture fulfils the regulatory requirements of 21 CRF part 11 regarding audit trail and Electronic Record. The system is prepared for connection to higher-level networks via Ethernet TCP/IP.

Your system benefits
- Up to 1,000 sachets per minute
- Up to 70 cartons per minute
- Reliable hermetic seal
- Gentle handling without product loss
- High weight accuracy
- Integrated 100% inline weighing control
- Compact footprint
- Turnkey solution for primary and secondary packaging

... and service for the life of your systems

Options
- A variety of training platforms available
- Customized service plans offered
- Global field-service agreements
- Modernization program
- Spare parts and logistics optimization
**Specifications**

**Standard Features**
- Transparent guarding of system
- Product feeding to dosing chamber
- Swivel mounted dosing unit
- Operation through HMI touchscreen
- Integrated and conditioned control cabinet
- Servo driven foil tracking
- Automatic splice and glue detection
- Servo driven transport unit
- Servo driven sealing unit
- Servo driven stacking unit
- Integrated cartoning transport
- Carton erection and closing section

**Options**
- Management Information System
- Integration of easy opening features
- Product gas flushing
- Integrated splice table
- Automatic foil tracking
- Coding of carton and/or pouch
- Code verification
- 100 % inline weight control
- Service and training offers from Bosch Packaging Systems AG

... and much more

**Technical Data Sigpack RAX/KG4**

**Sigpack RAX**
- Capacity (according to product- and packaging material features)
- **Power Range**
  - up to 1,000 Stickpacks per minute (100 cycles per track per minute)
- **Size Range**
  - 6 tracks: Pouch width max. 45 mm, Pouch length min. 60 mm, Pouch length max. 180 mm
  - 8 tracks: Pouch width max. 36 mm, Pouch length min. 60 mm, Pouch length max. 180 mm
  - 10 tracks: Pouch width max. 28 mm, Pouch length min. 60 mm, Pouch length max. 140 mm
- *other dimensions on request

**Sigpack KG4**
- Capacity (according to product- and packaging material features)
- **Power Range**
  - up to 70 cartons per minute
- **Size Range**
  - Type B: Width W 25 mm, Length L 65 mm, Height H 50 mm
  - Type D: Width W 40 mm, Length L 85 mm, Height H 50 mm
  - *other dimensions on request

**Connections**
- Control: Siemens S7-400
- Connecting power: approx. 44 kVA
- Energy consumption: approx. 30 kW
- Air supply: ~ 6 bar

**Machine weight**: approx. 5 tons

**Dimensions in mm**

Subject to alterations PACB 112857
As a leading supplier for packaging technology, product handling and robotics, Bosch Packaging systems is engaged in the pharma and healthcare, food and non-food industry. We are proud of serving customers around the world, who trust in our machines and systems to pack their products.