Variopac Pro
The fully automatic all-round packer
The freedom of packaging

The fully-automatic Variopac Pro packer easily adapts to all packaging trends. Packaging with pads, in trays, or wrap-around cartons, if with, without or exclusively in a shrink-wrapped film, the different models of the Variopac Pro cover a wide range of packaging variations. The modular machine design offers flexibility for producing many packaging variants. The Variopac Pro is prepared for any changes in the packaging concept: It can be easily converted or upgraded at any time.

At a glance

− Modular design comprising main machine, blanks magazine and feed unit, pack formation unit, film wrapping module and shrinking tunnel
− Large variety of models for producing packages with trays, shrink-wrapped packs, shrink-wrapped packs with pad, shrink-wrapped packs with tray and wrap-around packs
− Wide output range from 30 to 150 cycles per minute, depending on the model, type of pack and pack dimensions
− Additional modules for the application of plastic carrying straps, the application of bottle clips and the insertion of partitions
Method of operation

**Container spacer**
- Lane divider for separating the container of pack flow using vibrating guide plates in the container infeed
- Separation of the container formation from bottom using spacing devices
- Conveyance of the container groups by means of push bars

**Carton feed system and pack forming unit**
- Removal of the carton blank from the carton magazine positioned below the container infeed and separation of the individual blanks by means of carton-separators and carton flights
- Blank conveyance beneath the container formation, unfolding and splicing of the side flaps and folding and splicing of the cover of wrap-around cartons
- Pressing on of base and cover flaps by recirculating closing chains

**Film handling and film wrapping unit**
- Servo controlled film cutting device and air-assisted feed of the shrink film
- Continuous and reliable conveyance thanks to a rolling return device and active conveyor control
- Wrapping of the container grouping with pre-cut film
- Film shrinking in the shrinking tunnel by exactly tempered hot-air flow
Technical details

Design features
- Modular design comprising main machine, blanks magazine, blanks feed, pack formation unit, film wrapping module and shrinking tunnel
- Maintenance-free servo drive technology in all machine areas
- Easy access due to slim and high design and large sliding doors
- Separate operator and service sides
- Reduced spare parts inventory thanks to standardised components
- Automatic chain lubrication and lifetime-lubricated bearings

Additional equipment
- Individual drives with separate back-up pressure control for each infeed conveyor lane
- Register mark control for printed films
- Automatic film welding
- Motorised travel-out of the film mandrel for ergonomic change of the film reels outside the machine
- Film reel handling in automatic version
- Guided machine change-over with electronic position indicator
- Carton feed with increased capacity and stack preparation
- Fill level of the carton feed system increased to 800 mm
- Energy saving package for shrinking tunnel
- Module for shrink film perforation
- Module for processing U-pads
- Module for handling partitions up to 80 cycles per minute
- Module for stacking packs
- Integral handle applicator
## Variopac Pro series – packaging solutions

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<th>Version</th>
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<th>PFS</th>
<th>T</th>
<th>TFS</th>
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**Orientation system**

| LSL | LSL | LSL | LSL | SSL | LSL/SSL | LSL/SSL | LSL/SSL |
# Variopac Pro Series – Overview of Models

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The maximum outputs depend on the particular pack type and dimensions.

*) Output reduction for production with film: max. 60 cycles per minute

**) If shrink-only packs are produced: up to 4 lanes possible
Assemblies – container feed and carton feed

**Container feed and container spacer**
- Container separation into lanes by means of vibrating guide plates
- Gentle container conveyance due to coated guide plates
- Spacing devices acting from bottom space the containers for pack formation
- Sensor-controlled feed speed
- As an option, each individual conveyor lane is equipped with its own drive and a separate back-up pressure control system for processing soft or lightweight containers
- Change-over to new types using clamping levers with pre-set types

**Carton feed (W, WT, WTS, WT-FS models) and pack formation unit**
- Pressureless carton removal with roller separator
- Wide contact surfaces and closed guides convey the cartons safely to the erecting unit
- The guides can be swung out to provide optimum access to the conveyance area
- Drive synchronisation of the top and bottom pack forming unit allows exact adjustment of the pack forming process to suit the carton dimensions and the conveying speed
- Optional partition inserter operating at a speed of up to 80 cycles per minute
Assemblies – film processing and shrinking tunnel

Film handling
- Film feed via rollers with tread pattern to ensure reliable processing of printed films
- Movement profile of the wrapping bar calculated online to ensure the optimum distance to the pack
- Servo-controlled conveyor with return device for gentle pack transfer to the shrinking tunnel
- Optional functions:
  - Automatic film welding unit as additional equipment which allows a reel change-over on the fly
  - Ergonomic film reel change-over outside the machine by means of motorised travel-out of the film mandrels
  - Film reel handling in fully automatic version
Assemblies – shrinking tunnel

**Shrinking tunnel**
- Modular shrinking tunnel with optimised consumption for various heating zones
- Infinitely adjustable speed and temperature control to suit the packs
- Stream of hot air from all sides to ensure a perfect film shrinking result
- Fully-automatic change-over without operator intervention
- Pack conveyance with wire mesh belt
- Optional functions
  - Shrinking tunnel with gas heating
  - Recycling of waste heat/exhaust gas
  - Energy saving package with infeed and discharging chamber
Variopac Pro in daily operation

**Operation**
- Touch-screen
- Well-arranged visualisation of production data, operating functions, help texts, diagnostics tools, as well as graphical status and malfunction displays
- The texts are displayed in the selected language

**Change-over**
- Central selection of all production parameters for container infeed, main machine and shrinking tunnel on the touch-screen
- Change-over to other container and packaging types without tools within only a few minutes
- Infinite adjustment which can be reproduced to the millimetre for all container guides by means of cranks and registers

**Quick-change system**
- Optional digital position display with actual and set-point value information and colour LED signal
- Operator guided type change-over
- Integration on container infeed, on the packer and on the Shrinking tunnel

**Semi-automatic product change-over**
- Optional: Applicable, motorised adjustments at selected conversion points
Flexibility through modular design

Integrated handle applicator (optional)
- Application of the handles onto the film in front of the shrinking tunnel
- Output up to 60 cycles/min or 60 to 80 cycles/min for single or double lane design
- Ergonomic access by means of handle module which can be moved out

Clip applicator (optional)
- Application especially for processing larger individual containers with contents of one litre and more
- Combination of packer and clip applicator in one machine which saves space and energy and simplifies the line layout
- Applicator module with exchangeable grippers for different clip designs which is designed according to the well-proven axis system of the KRONES Robobox
Flexibility through modular design

Partition inserter (optional)
- Design of the partition inserter with one or two articulated robot modules
- Space-saving design due to the lateral arrangement of the partition magazine
- Automatic insertion of pre-fitted partitions into the container groups during them being passed
- High flexibility in the final packaging
- Speed depending on the partition design
- A partition module can be retrofitted onto the machine at a later date
Benefits to you

**Ergonomic design and fast type change-over**
The design with high machine frame, large sliding doors and separation of operator and service side provides highly comfortable operation of the Variopac Pro and substantially relieves the operator workload.

**High precision when processing different formats**
The container parameters are saved in the operating program so that they can be reliably reproduced. The quick type change-over without tool ensures high efficiency in daily operation.

**Reliable and continuous container infeed**
The sensor-controlled operation of the infeed conveyor and the signal exchange with the conveyor system enable the automatic control of the speed in the container feed.

**Great processing range**
The Variopac Pro is flexible: With various packing modules, the appropriate machine can be designed to suit your special requirements, and numerous options are available to enhance it for future changes in the packaging concept.

**Reliable and stable operation**
The equipment of each machine area with its own servo drive provides the packer with the highest possible operational reliability.
Everything from a single source

**KIC KRONES cleaning agents make your machine shine**
Only if the production environment is immaculate, can your product be brilliant. KIC KRONES provides you with the optimum cleaning agents and disinfectants for each individual production step.

**Lubricants from KIC KRONES for every production step**
Whether for gears, chains or central lubrication systems – our greases and oils are true all-round talents. They can reach every lubrication point, protect your line and ensure gentle treatment for your products thanks to their food-grade quality.
We do more.