

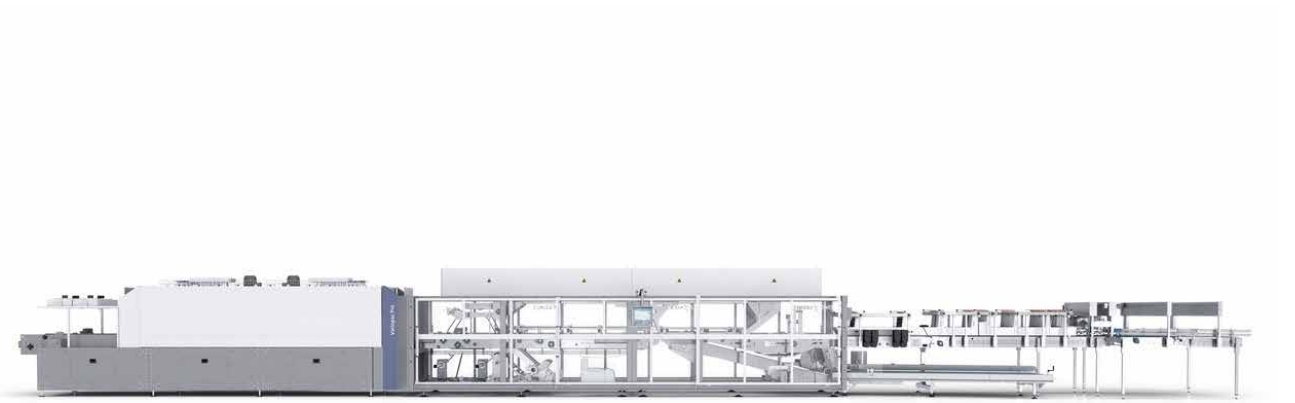
Variopac Pro

The fully automatic all-round packer



The freedom of packaging

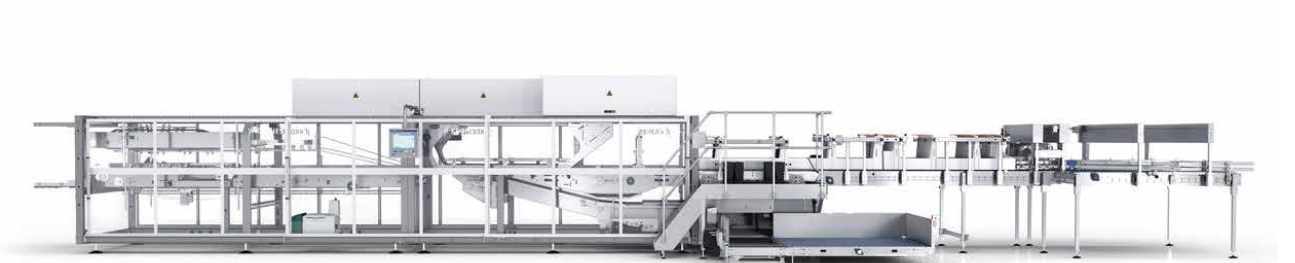
The fully-automatic Variopac Pro packer easily adapts to all packaging trends. Packaging with pads, in trays, or wrap-around cartons, if with, without or exclusively in a shrink-wrapped film, the different models of the Variopac Pro cover a wide range of packaging variations. The modular machine design 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.



Variopac Pro TFS with shrinking tunnel

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



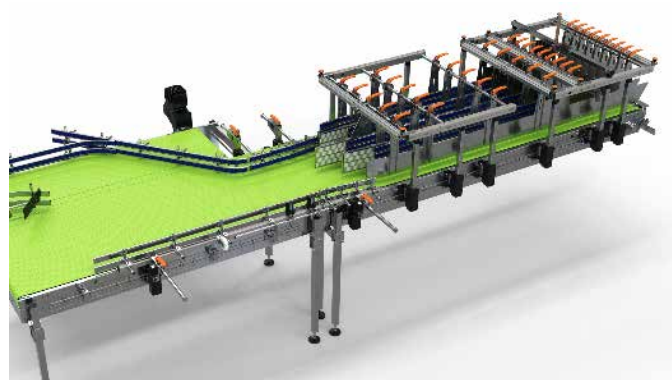
Variopac Pro W for wrap-around cartons



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

Version	FS	PFS	T	TFS	W	WT	WTS	WT-FS
Wrap-around carton								
Tray								
Shrink pack								
Pad with film								
Tray with film								
Orientation system	LSL	LSL	LSL	LSL	SSL	LSL/SSL	LSL/SSL	LSL/SSL



Variopac Pro series – overview of models

Cycles/min	FS	PFS	T	TFS	W	WT	WTS	WT-FS
30	FS-3	PFS-3	T-3	TFS-3	W-3	WT-3	WTS-3	WT-FS-3
45	FS-4	PFS-4	T-4	TFS-4	W-4	WT-4	WTS-4	WT-FS-4
60	FS-6	PFS-6	T-6	TFS-6	W-6	WT-6	WTS-6	WT-FS-6
70	FS-7	PFS-7	T-7	TFS-7	W-7	WT-7	WTS-7	WT-FS-7*
80	FS-8	PFS-8	T-8	TFS-8	W-8	WT-8	WTS-8	WT-FS-8*
90	FS-9	PFS-9	T-9	TFS-9				
100	FS-10	PFS-10	T-10	TFS-10				
120	FS-12							
135	FS-14							
150	FS-15							
Lanes	1, 2, 3 or 4	1 or 2**	1	1**	1	1	1	1

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



Modular shrinking tunnel with electrical heating



Modular shrinking tunnel with gas heating



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

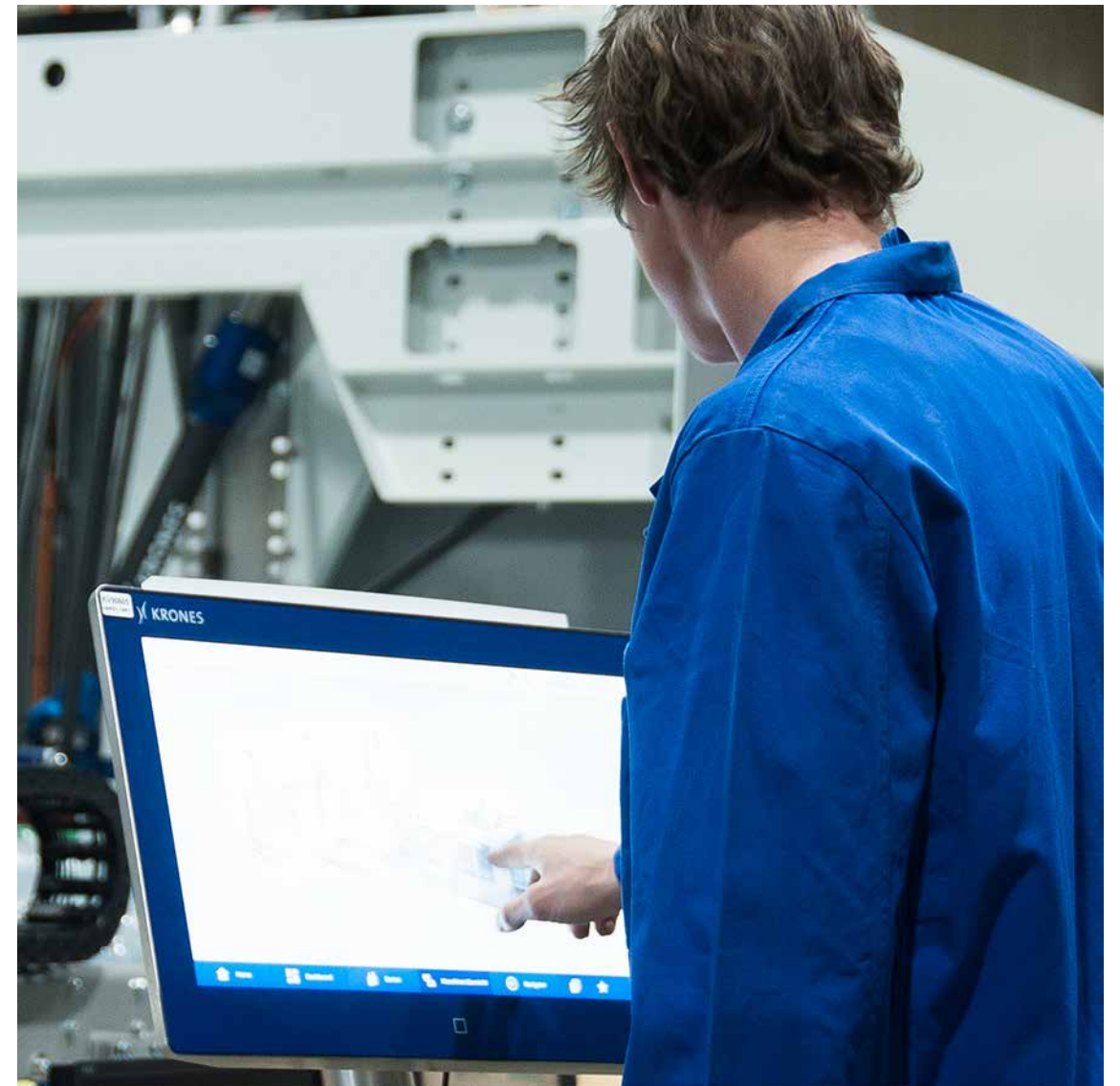
- Central selection of all production parameters for container infeed, main machine and shrinking tunnel on the touch-screen
- Change-over to other container and packaging types without tools within only a few minutes
- Infinite adjustment which can be reproduced to the millimetre for all container guides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

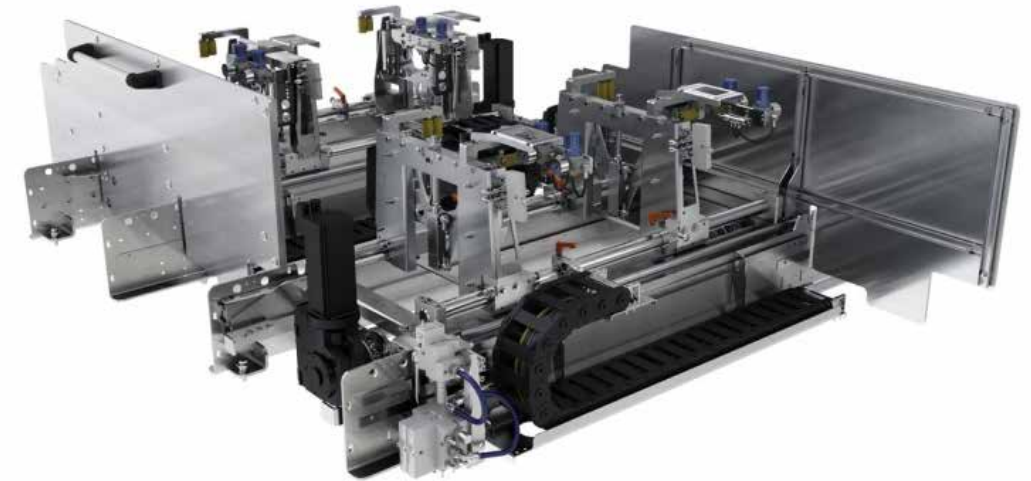




Flexibility through modular design

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

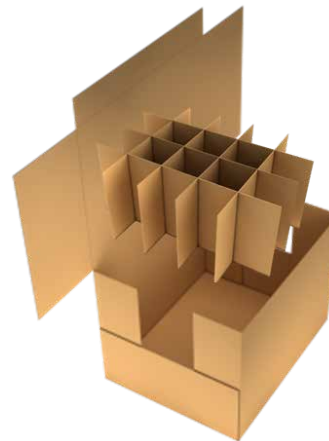




Flexibility through modular design

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.





Digitalisation



Process
technology



Bottling and
packaging equipment



Intralogistics



Lifecycle
Service

We do more.

 **KRONES**