



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 wraparound 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 wraparound 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 dividers
- Optional: Processing of carton clips (LitePac Top), if required, also in combination with tertiary packagings



Variopac Pro TFS with shrinking tunnel



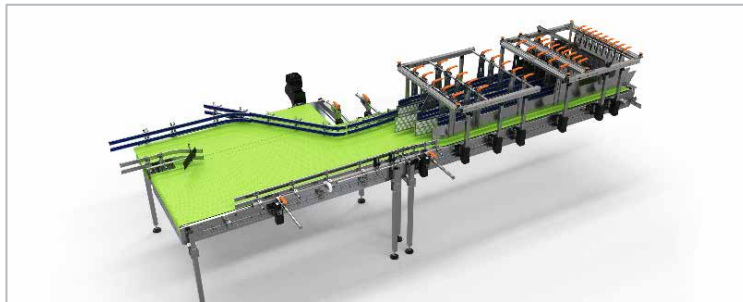
Variopac Pro W for wraparound cartons

Method of operation



Container spacer

- Division of container or pack flow onto lanes using vibrating guide plates in the container infeed
- Separation of the container formation acting from below using spacing devices
- Conveyance of the container groups by means of push bars



Carton feed 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
- Transport of the blanks underneath the container group; folding and gluing the side flaps as well as folding and gluing the lid at wrap-around cartons
- Pressing on of base and lid flaps by recirculating closing chains



Film handling system and film folder

- Air-assisted feed of the shrink film and separation of the pre-cut film
- Continuous and reliable conveyance thanks to a rolling return device and active conveyor control
- Wrapping of the container group with the 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



Technical details



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
- Increased loading level of carton feed for improved ergonomics
- Energy saving package for shrinking tunnel
- Module for shrink film perforation
- Module for handling dividers up to 80 cycles per minute
- Module for stacking and turning packs
- Integrated handle applicator



Variopac Pro series

Models and possible packaging solutions



Model	C	FS	PFS	T	TFS	W	WT	WTS	WT-FS
Wrap-around carton									
Tray									
Shrink pack									
Pad with film									
Tray with film									
LitePac Top		Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Max. clock pulses/min	Configuration dependent	150	140	120	120	100	100	100	80
Max. lanes		4	2*	1	1*	1	1	1	1
Orientation	LSL/SSL	LSL	LSL	LSL	LSL	SSL	LSL/SSL	LSL/SSL	LSL/SSL

LSL = Long-Side-Leading | **SSL** = Short-Side-Leading

The performance depends on the pack type and dimension | * Shrink-only pack up to 3 lanes possible

LitePac Top

Carton clips for cans and PET bottles



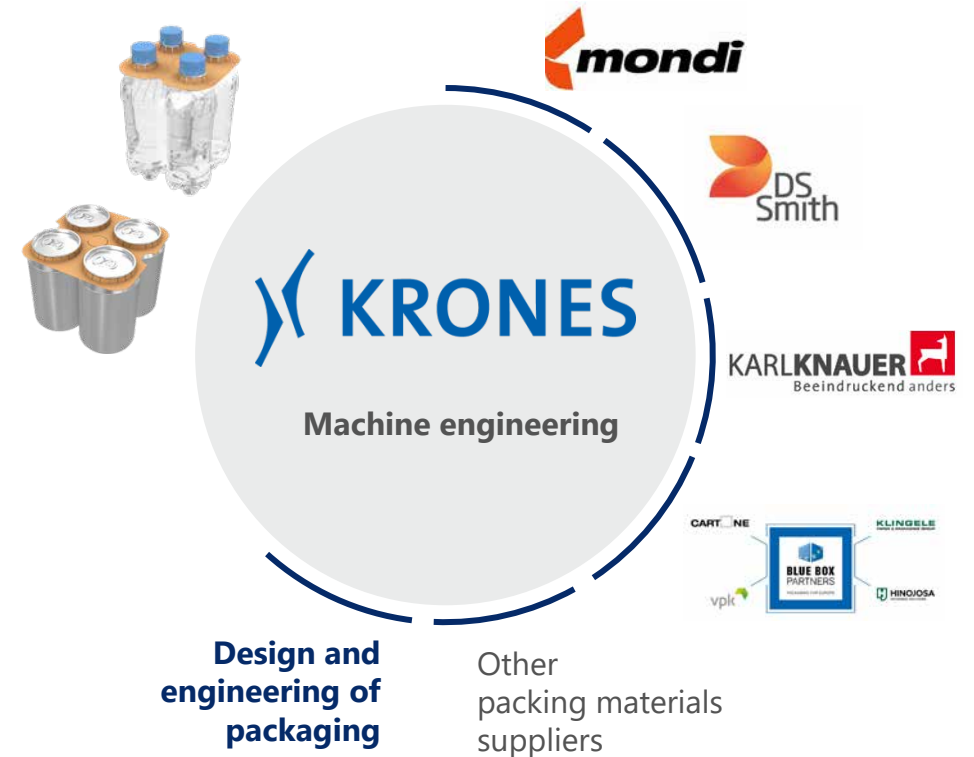
At a glance

The sustainable LitePac Top secondary packagings ...

- are suitable for PET bottles and cans.
- offer a sustainable alternative to shrink-wrapped packs.
- combine minimal use of materials with great user friendliness.
- can be made of corrugated cardboard or kraft board depending on the intended use and can be recycled after use.

Free choice of the packing materials suppliers

The open packaging platform of Krones enables you to combine state-of-the-art machine technology with packaging material from the supplier of your choice.

















LitePac Top

Packaging solutions for can and PET



Which LitePac Top is suitable for which container?

	Standard cans 	Slim Cans 	Sleek cans 	PET containers (≤ 0.5 litres)  	PET containers (> 0.5 litres) 
LitePac Top					
LitePac Top Promo-Skirt					
LitePac Top Protect					
LitePac Top					
LitePac Top Strap					

Top flexibility

The carton clip can not only be applied to different container types, but has also a variable design and can be precisely adapted to the container and pack characteristics.

LitePac Top

The suitable machine technology

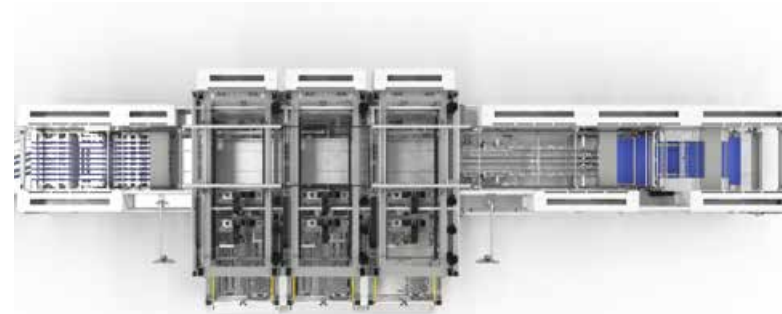


The machine concept for LitePac Top

Stand-alone variant:

The Variopac Pro C can process LitePac Top and requires only little space.

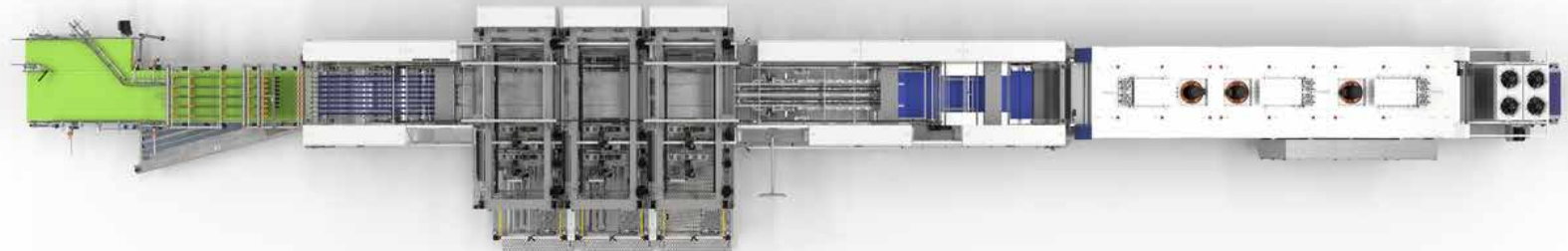
For example, existing machines for processing plastic rings can be exchanged for the Variopac Pro C.



Variopac Pro C*

Integrated variant:

Space-saving combination from packer and LitePac Top modules in a machine for a simplified line layout



Variopac Pro with LitePac Top processing*

Clip applicator modules with exchangeable grippers for different clip designs

* Symbolic image

LitePac Top

Possible packaging solutions



	Packagings	C	FS-C	PFS-C	T-C	TFS-C	W-C	WT-C	WTS-C	WT-FS-C
Shrink pack			✓	✓		✓				✓
Pad with film				✓		✓				✓
Tray with film						✓			✓	✓
Tray					✓	✓		✓	✓	✓
Wrap-around carton							✓	✓	✓	✓
LitePac Top* (without tertiary packaging)		✓	✓	✓	✓	✓	✓	✓	✓	✓

✓ Possible | * The type of the LitePac Top packs depends on the configuration.

Assemblies

Container infeed and spacer



- Container distribution 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 layer 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

Assemblies

Blank feed unit and pack forming unit*



- Pressureless blank removal with belt separator
- Wide contact surfaces and closed guides convey the blanks safely to the folding 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 divider inserter operating at a speed of up to 80 cycles per minute

* Description with the example of the W-series, T-series deviating

Assemblies

Film processing



- Film feed via rollers with tread pattern to ensure reliable processing of printed films
- Optimised film feed with variable speed for customised pre-cut film provisioning
- 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
- Processing films with a thickness of 25 up to more than 100 μm
- Processing recycled films
- Film analysis for film-optimised machine configuration; analysis of:
 - Shrinking rate and force in longitudinal and cross direction
 - Film thickness, surface tension and coefficient of friction
 - Sealed seam properties (welding capability)
 - Elongation at tear, E module, tensile strength

Assemblies

Shrinking tunnel



Modular shrinking tunnel with electric heating



Modular shrinking tunnel with gas heating

- Modular shrinking tunnel with optimised consumption and 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
- Return of waste heat/exhaust gas
- Energy saving package with infeed and discharging chamber

Variopac Pro in daily operation



Operation

- 21-inch touch-screen Connected HMI
- 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

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

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

Semi-automatic product change-over

- Optional: Motorised adjustment on selectable change-over points

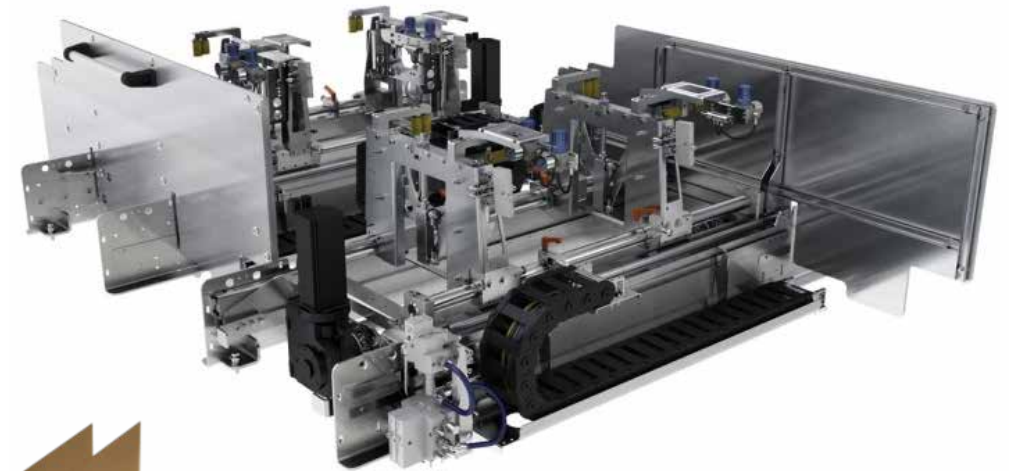


Flexibility through modular design



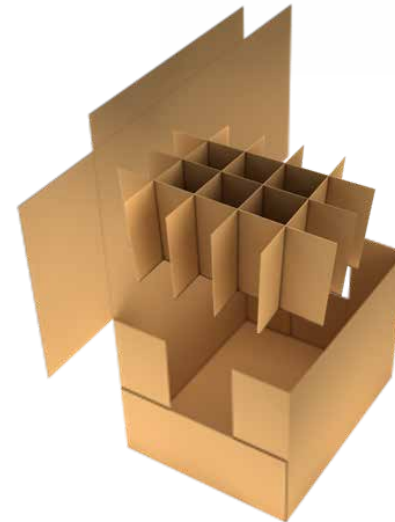
Integrated handle applicator (optional)

- Application of the handles onto the film in front of the shrinking tunnel
- Output of up to 80 cycles per minute at single or double lane version
- Ergonomic access by means of handle module which can be moved out



Divider inserter (optional)

- Design of the divider inserter with one or two articulated robot modules
- Space-saving design due to the lateral arrangement of the divider magazine
- Automatic insertion of pre-fitted dividers into the container groups during them being passed
- High flexibility in the final packaging
- Speed depending on the divider design
- A divider module can be retrofitted at a later point



Benefits to you



Ergonomic design and fast 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's workload.

Reliable and stable operation

Equipping each machine area with its own single drive provides the packer with best possible operation reliability.

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 infeed.

High precision when processing different formations

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.

Large processing range

The Variopac Pro is flexible: With various packing modules, the individually required machine can be designed - and if there are later changes in the packaging concept, it offers numerous options for enhancement.

Requesting a new machine

You can easily send a request for a non-binding quotation in our Krones.shop.



Everything from a single source



KIC Krones cleaning agents make your machine shine

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KIC Krones lubricants for each 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.



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