



**KRONES Autocol**  
Labeller for Self-Adhesive Labels

# Self-Adhesive Labels for Best Results

Self-adhesive labels are widely used for many different container types by beverage and food producers, in the chemical, pharmaceutical and cosmetics industry. They are sturdy, water and slip-resistant, and offer virtually unlimited possibilities for design and creativity.

The Autocol series from KRONES features a large selection of rotary machines for the fully automatic application of self-adhesive labels. These machines also easily apply transparent labels with a “no-label-look”, water-proof plastic labels, and multilayer labels such as outserts.



*Attractive self-adhesive labels can be applied to containers with all kinds of different sizes and shapes.*

# Versatile Rotary Maschine

All machines of the Autocol building series are designed according to the rotary principle, which guarantees a precise guidance of containers. This provides the best prerequisites for an accurate labelling with the Autocol label applicator. This system can be adjusted to many different container sizes and shapes, and is therefore suitable for a large

variety of applications. The Autocol is distinguished by its ease of operation, and the low expenditure in maintenance makes operation very economical. Depending on the machine size, the number of label applicators can vary: one for front labelling, two for double-sided labelling, or four or more for exclusive decorations. Depending on

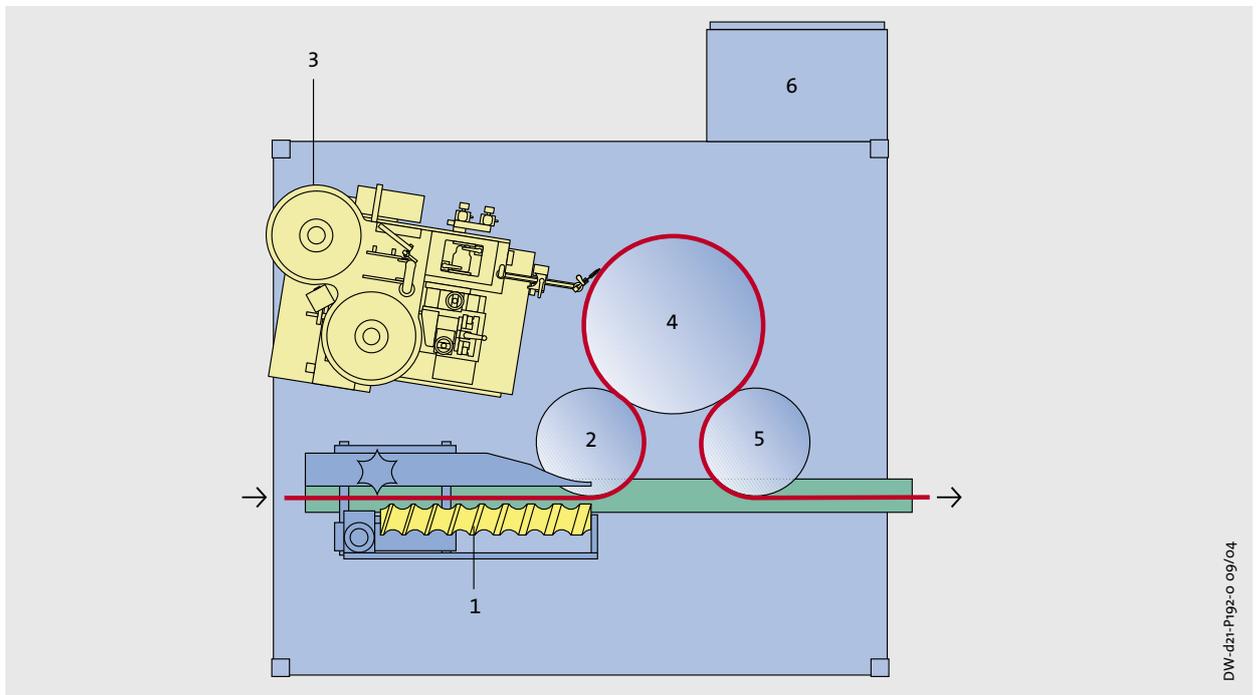
the application, between 1,000 and 48,000 containers/h can be applied with self-adhesive labels.



## System Advantages:

- Precise application even with smallest labels
- Highly flexible
- Short change-over times for different containers or labels
- Easy to operate, clean, and maintain
- Conversion and retrofitting possible even after many years

# Method of Operation



- 1 Infeed worm
- 2 Infeed starwheel
- 3 Label applicator APS 3
- 4 Container table
- 5 Discharge starwheel
- 6 Control cabinet with operator panel

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The Autocol is a continuous-motion machine that automatically adjusts to the incoming and outgoing containers. Containers arriving on the infeed conveyor are taken up by the infeed worm, spaced to pitch so that they can then be taken up by the infeed starwheel, and transferred to the container table. The container rotation begins when they are positioned between container plates and centring bells.

If only a few container or label types shall be processed, a cam-controlled container table with exchangeable cam segments is the most economic solution. To provide an optimum label application to many different container types, the machine has a container table, on which each individual container plate is driven by a computer-controlled servo-drive. The containers are rotated according to their size and shape for orientation and brushing-on. The label applicator APS 3 precisely applies the self-adhesive labels. The labelling station conveys the carrier web with labels to the container via a drive/driven roller mechanism.

A pneumatically and mechanically operating buffer system “loop buffer” at the infeed guarantees for a continuous unwinding of the carrier web from the reel. The label is removed from the application wedge, and precisely transferred to the container. The label position can be corrected using a digitally adjustable starting position. A sponge board, sponge rollers or brushes press the self-adhesive label to the container fixing it in place. Afterward the containers are transferred to the discharge starwheel.

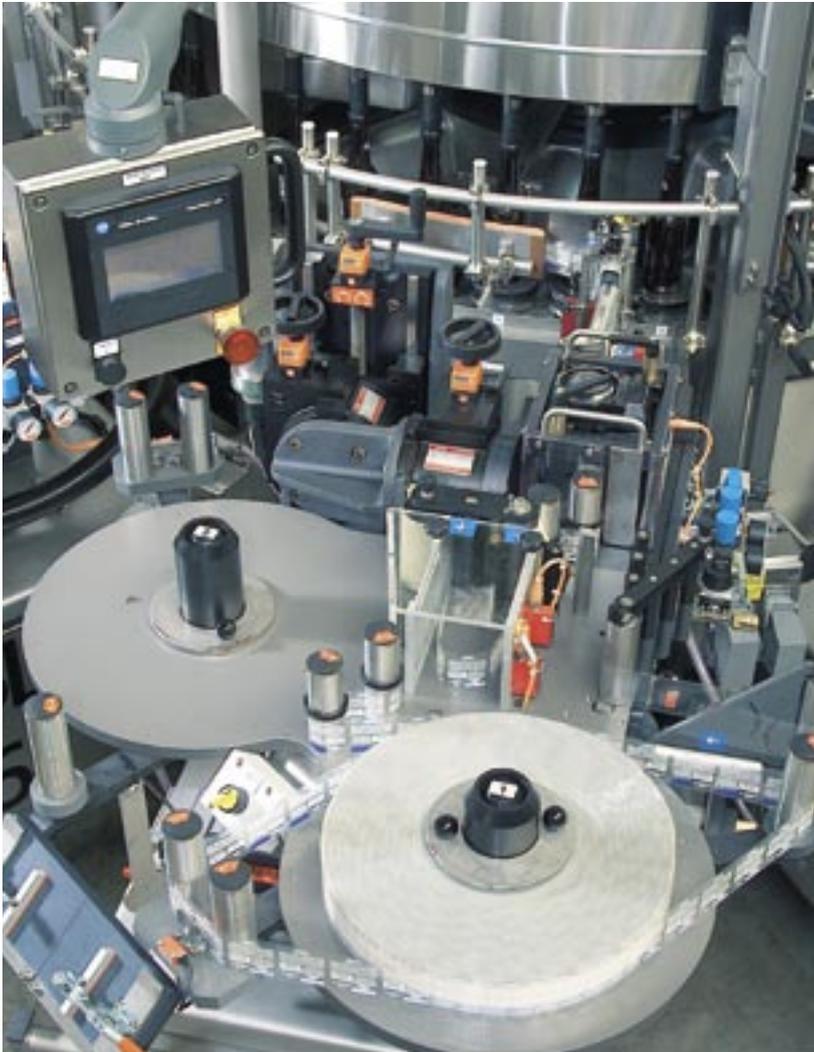
# Label Applicator APS 3

The pneumatical and mechanical buffer system (loop buffer) for the carrier web with the labels has only very few mechanical components. Therefore, it works very reliably and requires only a minimum effort in maintenance. Furthermore, only very little traction force is acting on the label web. This results in an increased performance and extremely precise labelling. Both label reels

are mounted horizontally to the labelling station – thus a deflection of the carrier web with the labels is not necessary. This ensures that the labels do not come off from the label web too prematurely.

The label applicator is equipped with a low-wear servomotor drive, whose speed is geared to that of the machine. As the entire control electronics are integrated in the

labelling station, it constitutes a self-contained unit within the machine.



## Further Advantages of the APS 3 Label Applicator:

- Scanning of labels and carrier web with ultrasound
- Tear inspection at the carrier web
- Operation via separate LC terminal
- Quick changing of production parameters
- Adjustment of the applicator via four, optionally via six axes
- Reproducible adjustments via reference display and fix position
- Infinitely adjustable pressure on the carrier web at the feed and tension roller

# Application Examples



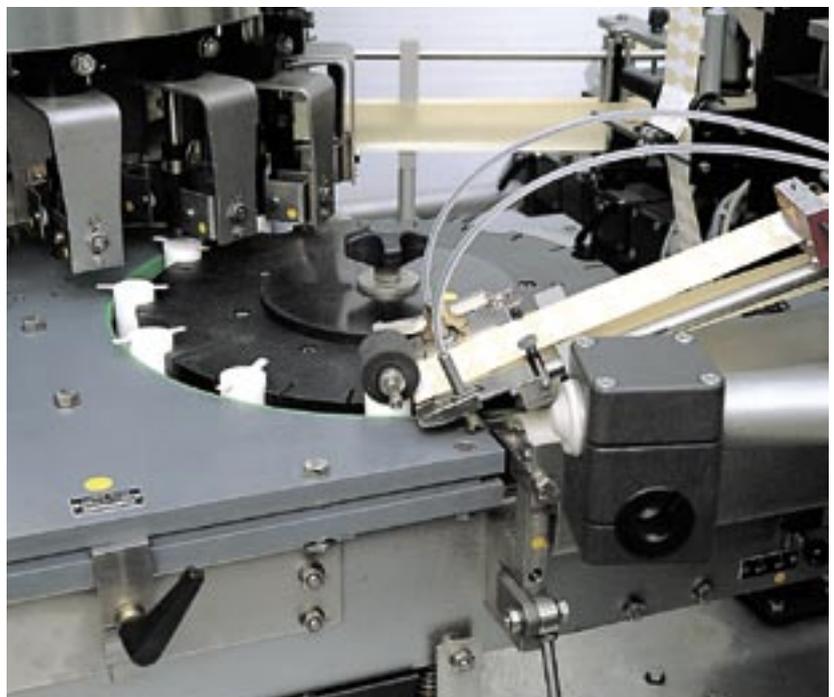
## Mechanical Container Orientation Prior to Labelling

In this Autocol version, the containers are orientated prior to filling, so labels cannot be placed on the container seam. The orientation of the containers with base spotting bars is performed at the container table. Subsequently, the front and back labels are glued to the container at an exact position. Therefore, special labels in the “no-label-look” have an immaculate appearance.



## Labelling of Pharmaceutical Containers

The label applicator applies self-adhesive labels to pharmaceutical containers. Sponge rollers and brushes help wrap each label around the container at three sides gluing and pressing them on. Cam-controlled rotating plates rotate the containers as required. Then a hotmelt unit applies an outsert onto the fourth container side.



**Wrap-Around Labels for Cigarette Lighters**

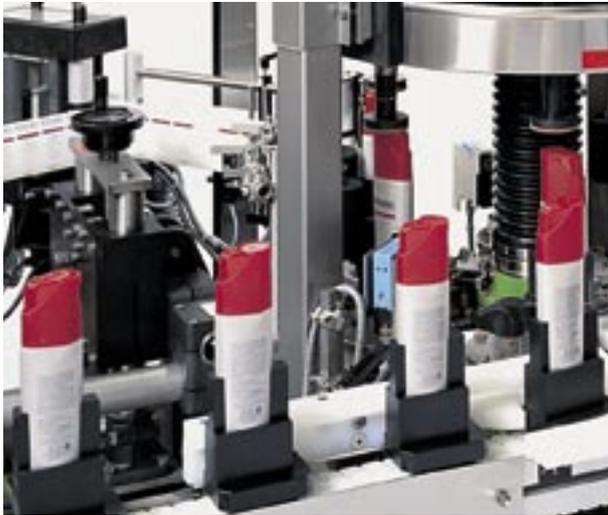
In this Autocol model, lighters enter the infeed starwheel from above. On the container table, they are orientated by cam-controlled rotating plates. The outer ring of each rotary table is then lowered to cover the lighter with a wrap-around label over its full length.

**Tamper-Evident Seal and Wrap-Around Labels for Spice Dispensers**

The first label applicator, which is positioned above the Autocol, applies the labels to the lid. The projecting tabs are pressed onto the cylindrical part of the container via special press-on units. The second applicator at the container table applies a wrap-around label to the container. Both labels can be precisely positioned, because the container is firmly clamped in place.



## Application Examples



### Labelling of Unstable Containers

In this Autocol model, unstable containers are conveyed in pockets. This makes for precise guidance and centring, so labels can be applied within an accuracy of millimetres. Two label applicators apply front and back labels to the containers.

### Exclusive Labelling for Premium Products

Because sparkling wine is best served cold, ice-resistant self-adhesive labels are an ideal solution for high-quality packaging. An Autocol with up to four applicators ensures precise labelling. Body and back label, medallion and champagne band are directly applied to the bottle. Servo-driven container plates cater for the orientation of the bottles to the champagne capsule. 64 different programmes can be called up at the operating terminal to control the rotation.

# Change-Over

*Selection of new type at the LC terminal of the label applicator.*



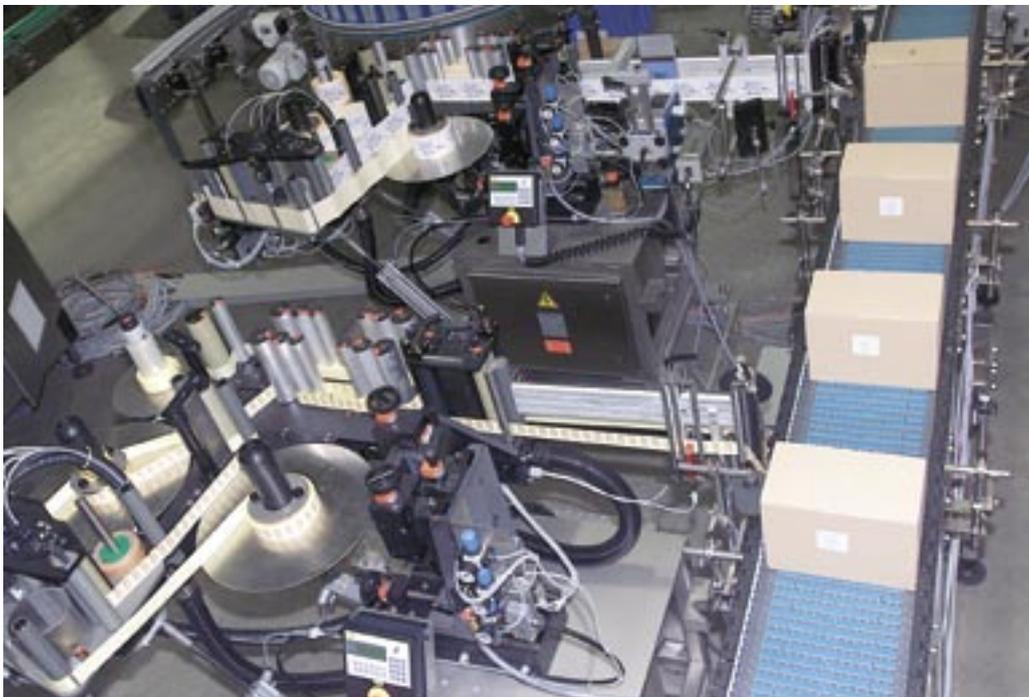
*All handling parts can be changed quickly.*



All models of the Autocol series can be quickly changed over to other container and label sizes without tools.

- Selection of the new container type on the LC terminal of the label applicator
- Adjustment of the applicator to new container shapes via four, optionally via six axes
- Reproducibility of all adjustments via reference display and fix position
- The container guidance opposing the infeed worm, is easily adjusted using a patented system with indexed stops
- Centre guides and starwheel are equipped with captive locks
- All handling parts of one set are marked with a code
- Electrically height-adjustable machine head with automatic locking system
- Quick exchange of centring bells and container plates with single-hand fasteners

# Label Applicator – Special Areas of Use



## Label Applicator at the Conveyor

- Label applicator mounted directly to the conveyor
- Suitable for simple labelling tasks
- Price-efficient – no basic machine necessary

*Carton labelling with two label applicators, which are installed directly to the conveyor*



*Application of an additional self-adhesive label with cold-glue labeller*



## Label Applicator as Additional Equipment on Labellers

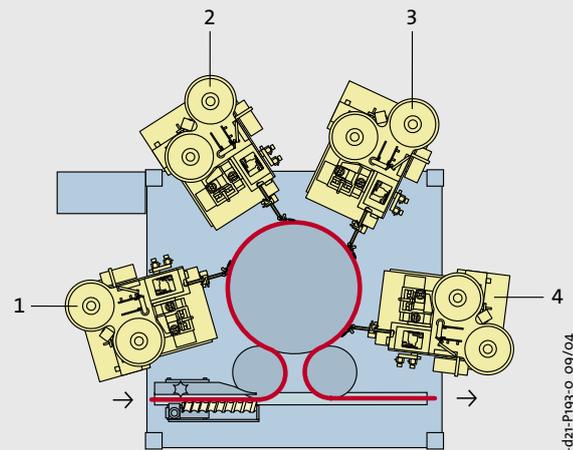
- Installation of an Autocol label applicator possible to almost any KRONES labeller
- Precise positioning of additional labels, e.g. tamper-evident seals, lid labels, campaign stickers

*Lid labelling at infeed of modular labeller*

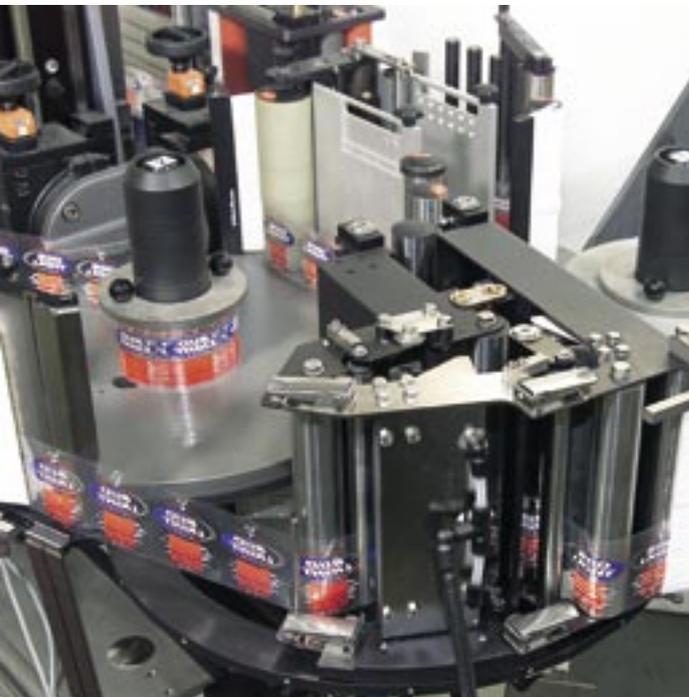
# Equipment

## Autochange mode

- 1 Label applicator 1 for label A
- 2 Label applicator 2 for label A
- 3 Label applicator 1 for label B
- 4 Label applicator 2 for label B



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## Automatic Reel Change-Over

- The end of the first reel is spliced to the beginning of a new reel
- No interruption of the production – splicing possible at high outputs as well
- Simple system for safe production
- Relief for the operators
- Retrofitting possible at any time

## Autochange Mode

- Two label applicators installed per label
- The first labelling station is disengaged, when the end of the label reel is reached or if the label web tears
- Precise recognition of the end of reel via sensor
- The second labelling station takes over the labelling process during the production
- Subsequent reel change-over at the first labelling station easy to perform

Automatic splicing at reel change-over



## KRONES Checkmat

- Monitoring of the correct label position
- Identification of labels
- Checking of printed data (plain writing recognition via OCR/OCV)
- Barcode recognition
- Fill level and container cap inspection
- Discharge of faulty containers by means of retaining starwheel, clamping starwheel, or pusher

Checkmat label inspection with camera



## Service

Thanks to a worldwide network of sales offices and services in conjunction with the KRONES teleservice, we are able to provide optimum support even after your equipment has been installed. We guarantee that we can supply you with original spare parts for decades. Our modern storage system allows us to supply spare parts immediately if required. Even the maintenance and servicing of the equipment is dealt with quickly and efficiently by our qualified specialists.

## Optional Equipment:

- Installation of one or more additional label applicators
- Mechanical container orientation in the infeed starwheel or on the container table
- Pockets for conveying and centring unstable containers
- Inspection for defective labels on the carrier web
- Dating/coding device for the label front: Ink jet, laser, or hot-date stamping, perforation or heat transfer printing
- Electronic container counter
- Pressure-reduction unit at the machine infeed
- Additional labelling station KRONES Garantomat for the application of shrink sleeves as tamper-evident seals.
- Clamping starwheels as infeed and discharge starwheels for handling different containers with diameter deviations of up to 20 mm.
- Additional container handling parts
- Central lubrication system

## Design Features:

- Self-contained label applicator APS 3 with drive/driven roller mechanism
- Infeed worm equipped with safety clutch
- Centre guides with easy to change plastic profiles
- Cam-controlled cam followers for lifting and lowering of the centring bells
- Oil-circulating lubrication system for container table
- Integral control cabinet, ready for connection
- Operator terminal with well-arranged keyboard, operating hours meter, speedometer and mimic diagram
- Guards consisting of see-through panels that open upward, optionally hinged doors
- Central lubrication points
- Long service life due to the application of selected quality materials

## Special Designs:

- Parallel or angular arrangement
- Container feed from above
- Programmable logic control
- Operation via touch-screen
- Servo-driven container plates