

## KRONES Controll

The machine for wrap-around, reel-fed labelling



# All-round perfection

KRONES Controll

When it comes to decorating containers with wrap-around, reel-fed labels, the Controll has been setting the benchmark for many years now – and this all around the globe. The machine has a rotary design with a precisely-operating labelling station which cuts film or paper labels and then uses hotmelt to glue them to the containers. As far as efficiency, accuracy and speed are concerned, the Controll labeller with its permanently developed technology leads the field.

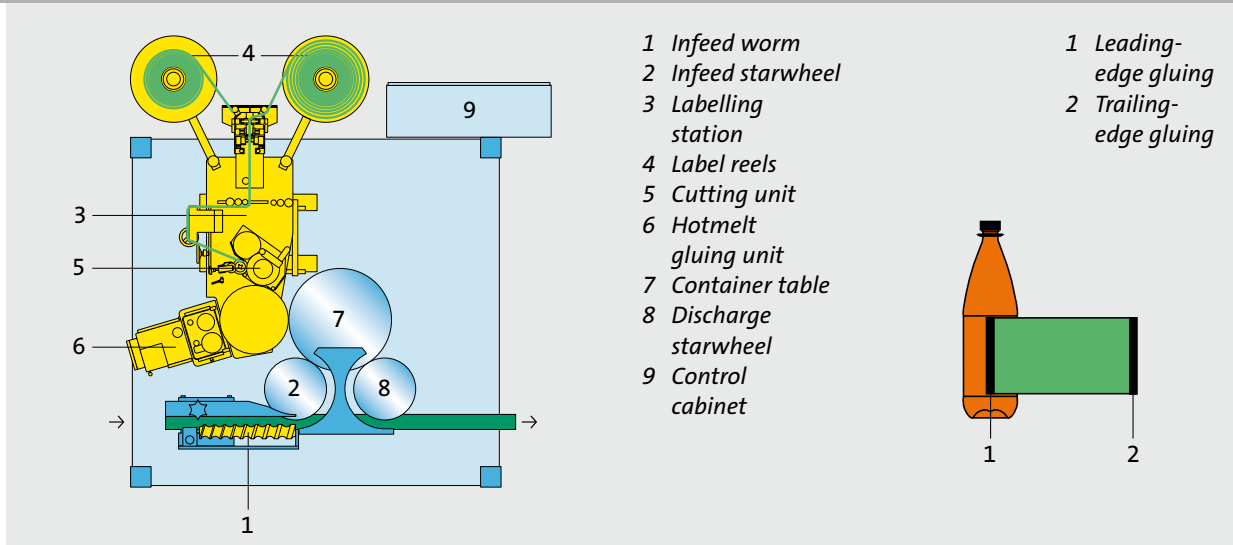


*Controll HS –  
High Speed*

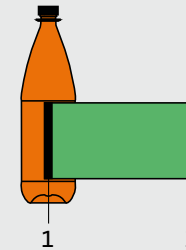
## Principle of operation

A feed roller, the speed of which is adapted to suit the label length, continually pulls the label web from the reel. The label web guider, which is installed as standard, is responsible for ensuring that the label web is pulled straight. In the cutting unit, the labels are precisely cut while a computer and servo-motor provide an exact cut-off point.

Two narrow strips of hotmelt, which are applied by a heated glue roller to the leading and trailing label edges, glue the labels together. The hotmelt strip applied to the leading label edge ensures a precise and positive transfer onto the rotating container. This glue strip ensures that the label is positioned precisely and glued correctly. As the container is rotating while the label is being applied, the label is stretched to fit smoothly. When the trailing edge is glued down, the secure bond is complete.



- 1 Leading-edge gluing
- 2 Trailing-edge gluing

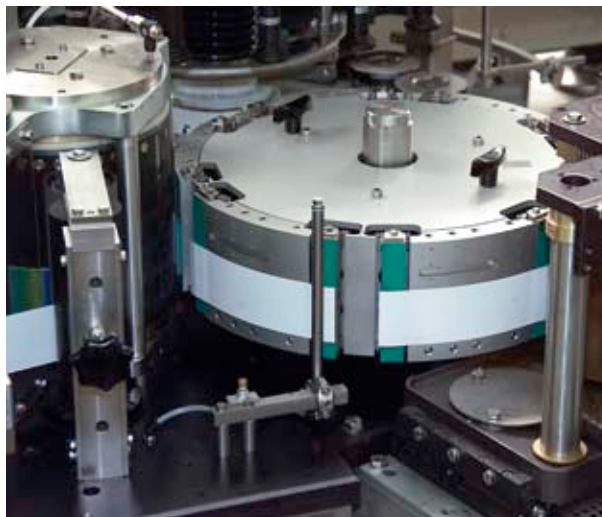


## Leading and trailing-edge gluing with hotmelt

This standard Controll gluing method minimises glue consumption as only a narrow strip of glue is applied to the leading and trailing edges. A large glue bowl ensures an ample glue supply.

## Full-surface gluing with cold glue

Full-surface gluing with cold glue has proven most successful in practice for the application of paper labels. Labels can be applied to the containers either with or without overlap.



Label gluing with hotmelt



Label application

# Contiroll – standard version

## Figures, data, facts

KRONES Contiroll

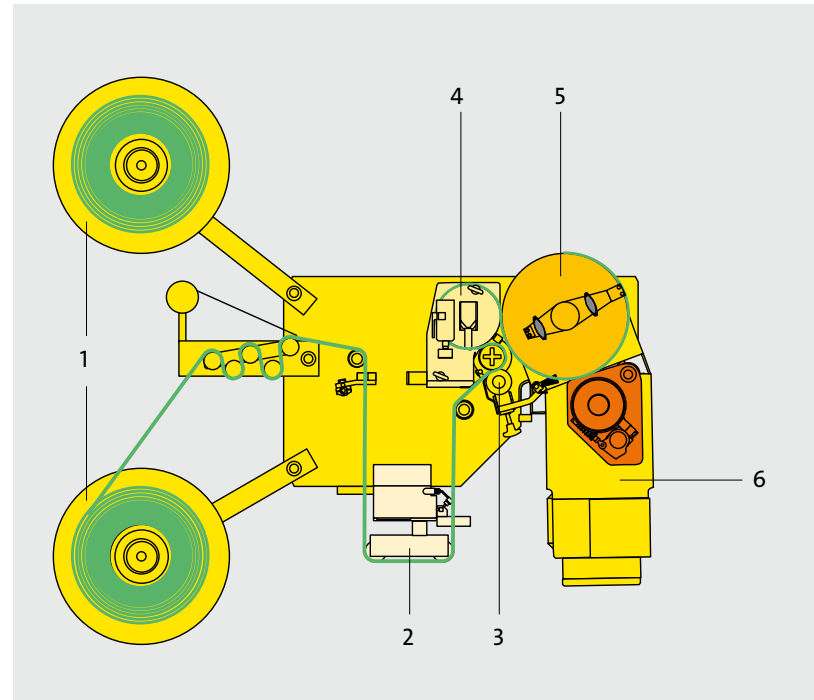


### Application

For the labelling of glass, plastic and metal containers (both empty and filled) with wrap-around labels

### Output range

Depending on the label length, the machine can label 3,000 to 36,000 containers per hour with one labelling station..



Standard Contiroll labelling station

- 1 Label reels
- 2 Label web guider
- 3 Feed roller
- 4 Cutting unit
- 5 Vacuum-grip cylinder
- 6 Hotmelt gluing unit

### Design features

- Electronic closure inspection and gap detection at machine infeed
- Single-hand fasteners for the quick change-over of the centring bells and container plates
- Feed roller driven by a computer-controlled servomotor
- Complete cutting unit can be removed for maintenance
- Labelling station easily accessible from all sides
- Central lubrication points

# Contiroll HS – High Speed Figures, data, facts



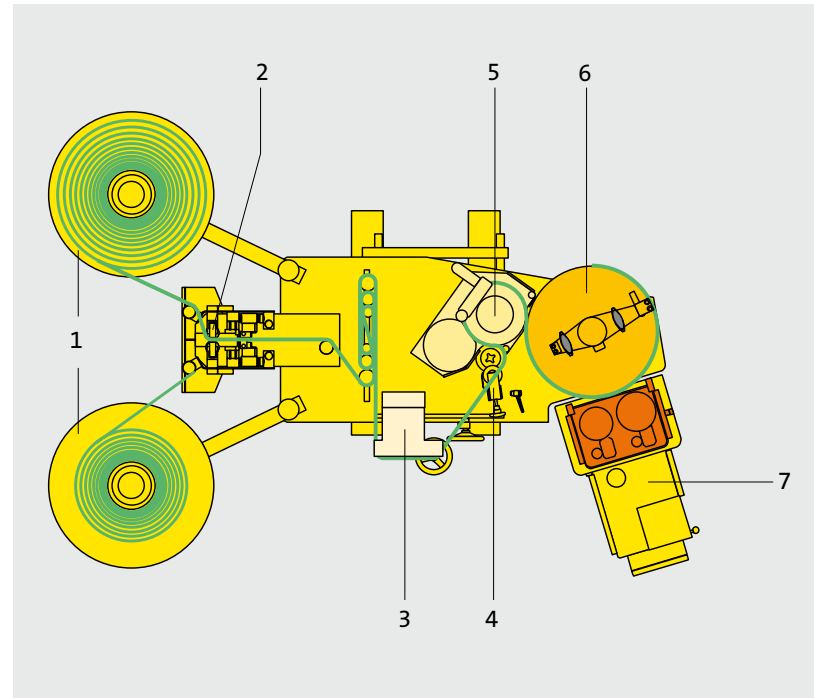
*Labelling station with replaceable hotmelt gluing unit*

## Application

For the labelling of glass, plastic and metal containers (both empty and filled) with wrap-around labels

## Output range

Depending on the label length, the machine can label between 3,000 and 66,000 containers per hour with just one labelling station.



*Contiroll HS labelling station*

- 1 Label reels
- 2 Automatic splicing unit
- 3 Label web guider
- 4 Feed roller
- 5 Cutting unit
- 6 Vacuum-grip cylinder
- 7 Hotmelt gluing unit

## Design features - only for the Contiroll HS

- The reel holder, feed roller, cutting unit, vacuum-grip cylinder and hotmelt unit are driven by computer-controlled servomotors
- The labelling station pitch can be adapted to suit the label length using servodrives
- Label lengths of between 172 mm and 640 mm can be handled with one labelling station
- Easily replaceable cutter in the cutting unit
- Replaceable hotmelt gluing unit
- Automatic splicing of the label webs during reel change-over supplied as standard
- Neck-handling design available for empty containers
- Bloc arrangement possible with stretch blow moulder or rinser

## Other design features

- Electronic cap inspection and gap detection at the machine infeed
- Single-hand fasteners for the quick change-over of the centring bells and container plates
- Complete cutting unit can be removed for maintenance
- Central lubrication points



## Container table for round containers

- The container plates are driven by a toothed belt and servomotor
- Should the container diameter be changed, the container rotation can be infinitely adjusted. Change parts are not required.
- Type change-over on the touch-screen



## Mechanically controlled container table for specially shaped containers

- Container table with turnstiles and cam segments
- To change the container diameter, change the cam segment relevant for the rotation



## Servo-controlled container table for special decorations

- The container plate is driven by a computer-controlled servomotor
- Container orientation, for example in accordance with the can seam or glass seal, is possible using a camera or sensors

*Container rotation via servomotor and toothed belts (left picture)*

*Exchangeable cam segment for processing specially shaped containers (centre picture)*

*Containers rotated by container plates and servomotors (right picture)*

# Operation and change-over

KRONES Controll



## Screen

- Colour touch-screen
- Safe access to the user interface using individual transponders
- User-friendly menu set-up in the control program
- Task-oriented user concept
- Clear display of the current production data
- Malfunctions displayed in plain text and graphically
- Text displayed in the set language
- Interface to superordinated systems such as PDA (production data acquisition) or LMS (line management system)
- Remote maintenance possible



## Change-over

When changing the type, the new type is firstly selected on the touch-screen. If new containers or labels are to be processed for the first time, all of the label parameters can be programmed and stored with the aid of menu assistance. The height of the entire labelling station can be adjusted in the shortest possible time using a motor. It is horizontally adjusted with cranks. The adjustments can be exactly reproduced with the aid of counters. The Raptec handling parts are easy to change and are colour-coded. The height of the machine head can be electrically adjusted and automatically fixed in place. Centring bells and container plates are equipped with single-hand fasteners. As a result, change-over times are swiftly reduced.



## Reel change

When changing the reels on the Controll, the operator splices the end of the first label reel with the start of the second reel. This eliminates the need to thread the label web into the machine. A cutting table is mounted at the labelling station to facilitate this task.

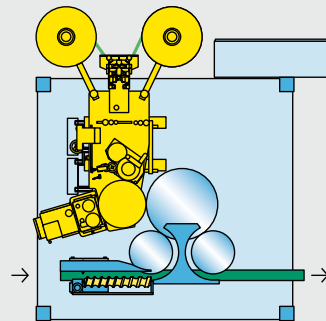
## Automatic splicing during reel change-over

If optional additional equipment is purchased, the reel can be changed over automatically. At a slightly reduced machine speed, the end of the first reel is spliced with the start of the second reel. This automatic splicing equipment is supplied as standard with the Controll HS.

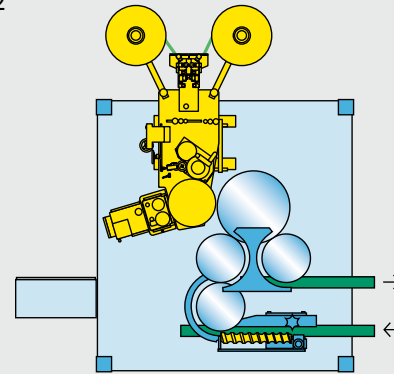
The additionally available Multireel C magazine offers space for up to eight label reels, which are spliced together automatically – without any reduction in the output.

The Controll can be arranged in different ways thus allowing it to be ideally adjusted to the respective space conditions. Possible options are the linear, parallel, and angular arrangements.

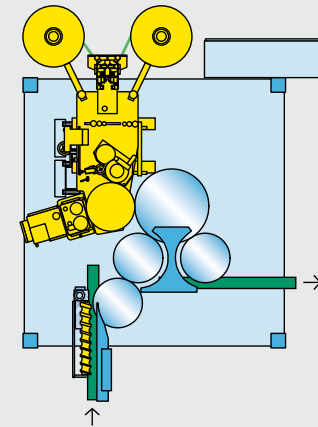
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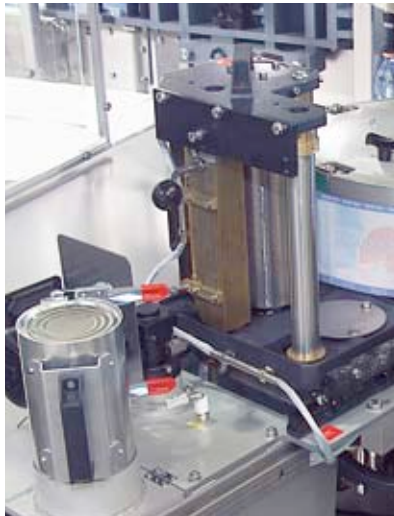
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3



- 1 *Linear arrangement*
- 2 *Parallel arrangement*
- 3 *Angular arrangement*



## KRONES ROLL2SHRINK

- For shrinking film labels onto convex or concave container contours
- The adhesive is cured quickly using radiation in a UV tunnel
- Precise film shrinking in a hot-air or steaming tunnel
- Quick labelling station change-over using an exchangeable gluing unit

## Labelling empty containers

- The empty containers are stabilised with compressed air if they are labelled before being filled
- Use of special centring bells
- Neck-handling starwheels
- Motorised, height-adjustable container table

## Multi-function clamping starwheel

- Application as infeed, discharge and distribution starwheel
- No curved guides required
- Starwheels are used for several container types that do not differ in their diameter by more than 20 mm
- Can be used as a rejection system after label inspection

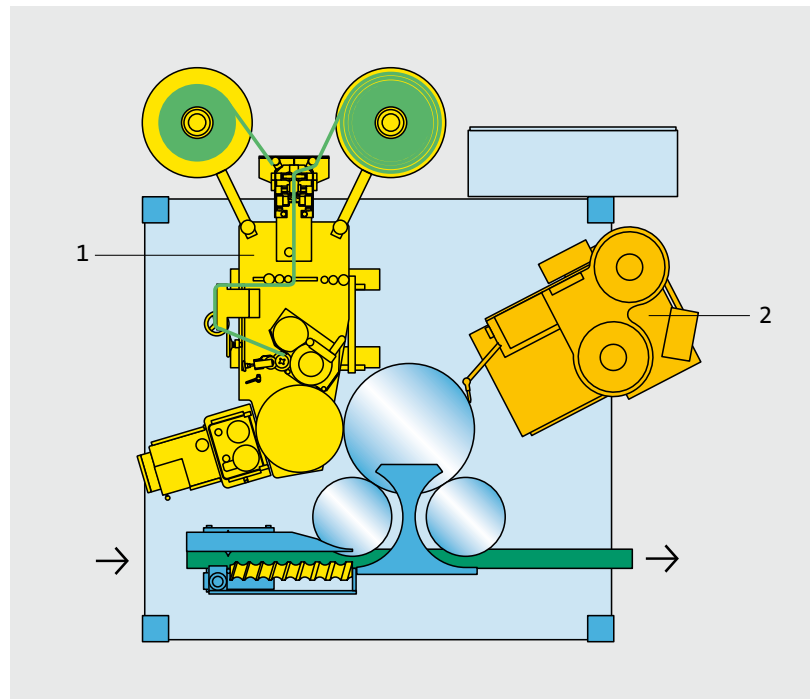
*Hotmelt gluing unit with container for UV-sensitive glue (left picture)*

*Stabilising empty containers with compressed air (middle picture)*

*Clamping starwheels at the infeed and discharge (right picture)*

## Labelling station for self-adhesive labels

- An Autocol label applicator for self-adhesive labels can be installed in the Controll
- Precise positioning of additional labels, e. g. tamper-evident seals, lid labels, campaign stickers



*Controll incorporating self-adhesive label applicator*

- 1 *Controll labelling station*
- 2 *Label applicator*

## More additional equipment

- Container orientation with base-spotting bars at the container table
- Handle orientation on the container table
- Camera-assisted container orientation
- Pressure-reduction unit at the machine infeed
- Precise detection of the end of the reel
- Ink-jet or laser code/dating unit for printing the label front
- Cold-glue labelling station
- Additional container and label handling parts
- Clearly arranged handling parts trolley
- Cabinet for storage of machine accessories
- Central lubrication system

# System expansions

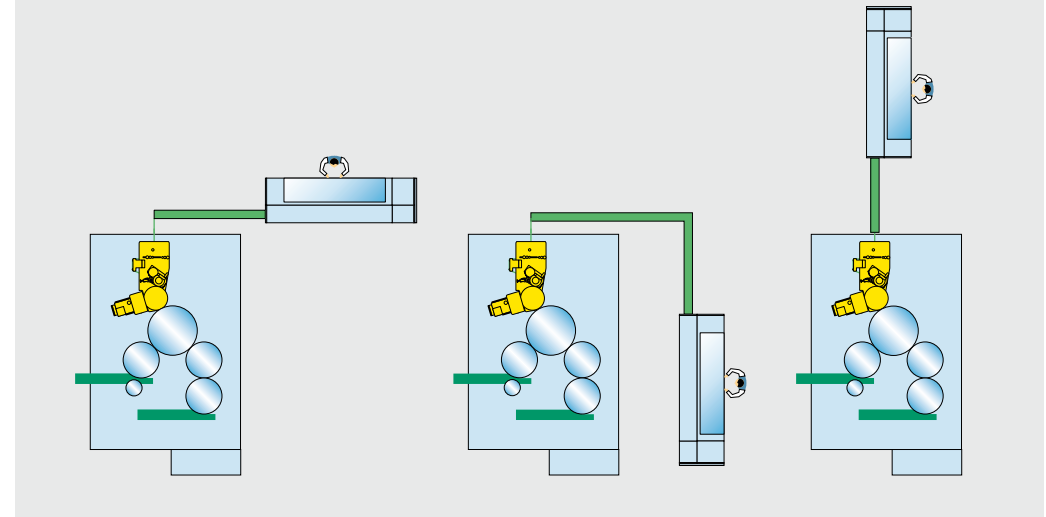
## KRONES Multireel C – the automatic reel storage magazine

KRONES Controll

- Accommodates up to eight label reels simultaneously (for a label height of 30 – 150 mm)
- Enables the Controll to work automatically for up to eight hours – without the operator having to intervene
- Splices label reels automatically – without any reduction in output
- Can be easily retrofitted onto already installed Controll labellers
- Stands out thanks to its space-saving and ergonomic design

### Output

- Up to 70,000 containers per hour



*Layout configurations*

# System expansions KRONES Checkmat – the versatile inspection unit

KRONES Controll

- Checks that the labels are not missing and have been applied correctly
- Checks the label position and angle of rotation
- Checks printed data, such as the “best before” date or product codes, has been applied and is correct
- Recognises barcodes
- Checks the fill level and container seal
- Discharges faulty containers using the retaining starwheel, clamping starwheel, or pusher



# System expansions

## KRONES Garantomat – the labelling station for tamper-evident seals

KRONES Controll

- Additional labelling station above the Controll infeed or discharge
- Applies shrink sleeves to act as tamper-evident seals
- Unwinds the sleeve tube from the reel and cuts the shrink sleeves in the labelling station



*KRONES Garantomat for the application of shrink-sleeves to act as tamper-evident seals*

# Your benefits

- **High labelling precision**

The containers are precisely positioned between the centring bell and centring plate.

- **Low glue consumption**

For labelling, only two narrow strips of hotmelt are required at the beginning and end of the label.

- **High output**

The different Contiroll designs allow for precise labelling from the the low to the highest output range.

- **User friendliness**

The Contiroll is easily accessible and comfortable to use

- **Time saving**

Container or label change-overs only require the briefest of conversion times.

- **Less work for the operators**

With the additionally available magazine Multireel C reel-storage magazine, the Contiroll can work entirely autonomously for up to eight hours.

- **Flexibility for the future**

The Contiroll can still be retrofitted or converted, even after many years of service.

KRONES Contiroll

