
7. Container labeller AUTOCOL 960-16

Model description

The container labeller AUTOCOL allows application of self-adhesive labels of different label materials. The rotary-type machine which is adapted optimally to the required nominal output by 960 pitch diameter, meets all requirements for an excellent labelling result with 16 centring stations. The containers fixed in the centring stations are positioned by the plate control exactly for label transfer and guided during the brushing-on process. This machine can be chosen in different layout configurations, a machine with straight passage is shown.



System advantages

- Uninterruptible production with Autocol labelling station for self-adhesive labels by integrated automatic splicing device
- Exact self-adhesive labelling and simple change-over by Autocol TS labelling station
- Freely adjustable container rotation by servo-controlled container plates



Illustrations are only for non-binding information, the text description has precedence.

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Prices

Basic machine

- Basic machine with fixed mounted labelling stations in base handling design
- Container table in standard design

Necessary amplifications

Additional equipment

- Servo motors for individual control of the container plates
- KRONES camera orientation
- Adjustment container orientation at the table, manual
- Infeed worm synchronously opening

Further system components

- Air conditioning of the labelling station
- Autocol TS120 labelling station, stand with 4 axles
- Unit for automatic splicing of 2 label reels with detection of the absolute end of reel

Handling parts

- Equipment 01.01, 330ml Standard bottle
 - Electrical orientation according to emblem
 - Standard centring bells
 - Quick-change container plates with adapted base contour
 - Infeed worm for cylindrical and special-shaped containers
 - Guidance handling parts, straight passage
 - Brushing-on/rolling-on (self-adhesive)
- Equipment 03.01, 750ml Remedy bottle
 - Electrical orientation according to emblem
 - Quick-change container plates with adapted base contour
 - Infeed worm for cylindrical and special-shaped containers
 - Guidance handling parts, straight passage
 - Brushing-on/rolling-on (self-adhesive)
- Equipment 05.01, 60ml Syrup bottle
 - Electrical orientation according to emblem

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- Quick-change container plates with adapted base contour
- Infeed worm for cylindrical and special-shaped containers
- Guidance handling parts, straight passage
- Brushing-on/rolling-on (self-adhesive)

■ Equipment 06.01, 250ml Soda Bottle

- Electrical orientation according to emblem
- Quick-change container plates with adapted base contour
- Infeed worm for cylindrical and special-shaped containers
- Guidance handling parts, straight passage
- Brushing-on/rolling-on (self-adhesive)

Customer-related expansions

Energy and media meas. integrated in mach. with touch-screen display

- Consumption measurement electrical power
- Consumption measurement operating air

Finish/pneumatics/lubrication

- Central lubrication, make: Lincoln, model: progressive distributor
- Motor pump for central lubrication

Expansion for code/dating device

- Dating/coding device 1, Ink Jet prepared at conveyor
- Dating/coding unit 1, marking head support

Additional electrical equipment

- Electrically lockable limit switches for machine guard
- Two-hand JOG switch
- Sockets according to local standard
- Core identification depending on the function via marking with sleeves
- Wire colours, special design
- Control(s) with separate frequency converter for machine conveyor
- Motor isolator for all 3-phase motors in the conveyor area (separate isolation and display for per grouped unit)
- Data storage according to OMAC with KRONES design
- Software work for foreign line data storage system according to

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KRONES standard specifications (data is stored in blocks)

- Cooling unit for integrated control cabinet, make: according to KRONES in rust-proof stainless steel/chrome nickel steel (similar to AISI 304)
- Air conditioning basic machine

Notes

For applying self-adhesive labels, the container surface to be labelled has to meet utmost requirements. Uneven or deformed surfaces for instance may cause air inclusions or wrinkles. In addition, the quality of the label material and of the adhesive coat have proven to substantially influence the labelling result. The customer should clarify the above items with his label and container suppliers. In order to guarantee a perfect function, the containers have to be fed dry and dustless.

KRONES points out that the electrical devices used in this machine (e.g. overcurrent protective device) are installed higher than 2.2. meters. These electrical devices are installed inside of housings (e.g. control cabinets). The operation is reserved only for qualified professional for maintenance works. For the access to the devices, the operating company must provide suitable and approved climbing aids.

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Machine data

Machine design

■ Type of labeller	Autocol
■ Container table pitch diameter	960 mm
■ Number of rotary plates	16 PCE
■ Machine pitch	188,5 mm
■ Construction type of labeller	labelling stations mounted on the table top
■ Surface design container table	painted, colour see feature colour chart for machine painting
■ Main drive *	Three-phase motor frequency-controlled
■ Direction of operation *	according to layout
■ Layout configuration	Linear arrangement
■ Design of explosion protection	is not included in KRONES scope of supply. Machine operation in potentially explosive areas or with potentially explosive material only allowed after KRONES approval
■ The enviro machine and process unit stands out by this environmentally friendly components for the operation.	especially low energy and media consumption and uses

Technical data

■ Room height available at customer facility *	4.000 mm
■ Conveyor height *	1.160 mm
■ Conveyor *	Height according to proposed value
■ Secondary machine(s) (separate item)	- Inspection unit (Checkmat) 2 - Container coding device 1 - Container dryer 1

AUTOCOL label applicator 1

■ Design	AUTOCOL-TS labelling station standard
■ Design of label applicator	Labelling station mounted on table top
■ Construction type	at machine carrousel position 1
■ Position *	AUTOCOL labelling station TS120
■ Type	For self-adhesive labels Output: 120 m/min Supply tolerance: +/- 0.5 mm With integrated electrical components/control electronics
■ Adjustment possibility	Stand with 4 axes for infinite, reproducible type-dependent adjusting of - 1. application height, - 2. container or pack diameter with linear axis - 3. conicity (e.g. in the neck area) - 4. sloping position of the entire labelling station
■ Reel holder	for two label reels - automatic splicing Device for detection of end-of-reel is included

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<ul style="list-style-type: none"> ■ Peeled label carrier film disposal unit ■ Self-adhesive tapes ■ Reel core diameter minimal * ■ Reel outer diameter maximal * ■ Construction height * 	<p>by continuous feed 12 PCE 76 mm 390 mm Passage width 150 mm, suitable for max. label carrier film height = 150 mm</p>
<p>Dating/coding unit 1</p>	
<ul style="list-style-type: none"> ■ Dating device 	<p>Machine prepared for the installation of an ink-jet dating device</p>
<ul style="list-style-type: none"> ■ Supplier (manufacturer) of dating device ■ Type designation of dating device ■ Pre-commissioning of dating device ■ Date-coding unit position ■ Mount for code/dating head ■ Basic support(s) for dating printing head ■ Dating object ■ Date/code design ■ Date/code arrangement ■ Dating position, line 1 ■ Dating position, line 2 ■ Clock pulse for dating device 	<p>Videojet Videojet 1620 UHS by supplier at KRONES at discharge conveyor Scope of supply of dating device manufacturer 1 Container shoulder two lines horizontal 10 10 Scope of supply of dating device manufacturer</p>
<p>Drying system</p>	
<ul style="list-style-type: none"> ■ KRONES container dryer 1 * 	<p>Linadry 890-S2M</p>
<p>Set-up</p>	
<ul style="list-style-type: none"> ■ Roof access with crane ■ Crane lifting beam on top ■ Container table design 	<p>is possible is provided by the crane service provider Container table with Danfoss servo motors including control electronic components</p>
<ul style="list-style-type: none"> ■ Height adjustment of machine top part ■ Container orientation with camera 	<p>motorised at the carrousel for detection of the container position, adjustable to different containers</p>
<ul style="list-style-type: none"> ■ The camera system ■ Camera system ■ Orientation according to ■ Adjustment of camera system ■ KRONES camera system in ■ Container rejection/distribution system ■ Detection of damaged or fallen-over containers at the machine infeed ■ Design container infeed 	<p>is installed completely and tested at the factory 360 degree monitoring with one camera unit emblem in manual design standard design Ecopush onto collection module for rejected containers no</p>
<ul style="list-style-type: none"> ■ Container infeed ■ Height of worm bearing ■ Design of machine guards * ■ Guard doors material * 	<p>Bottle stop starwheel synchronously opening for cylindrical containers designed for 1 infeed worm standard Integral machine guarding in lift-up door design Material: PC (macrolon)</p>

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■ Safety installations at the machine guarding	not included
■ Scope of supply - pusher *	see inspection and control technology
Conveyors	
■ Drip pans at container conveyor in the machine area *	are supplied
■ Covers at container conveyor in the machine area *	are supplied
■ Chain type for machine through passage conveyor *	flat-top chain
■ Chain material for machine through passage conveyor *	material: plastic
■ Chain width for machine through passage conveyor *	82,5 mm
■ Drive for machine through passage conveyor (motor and gear)	supplied by KRONES
■ Drive motor design for machine through passage conveyor *	PM motor
■ Motor control for machine through passage conveyor	with centralised frequency inverter, supplied by KRONES (SET)
■ Conveyor design *	without conveyor chain
■ Scope of supply conveyor drive *	see conveyor technology
Finish - pneumatic components - lubrication system	
■ - Colour in wet part section -	-----
■ Machine finish colour in wet line section	RAL 9018 (papyrus white)
■ Finish colour for visible three-phase motors and their mounted gears or pumps in the wet line section	RAL 9018 (papyrus white)
■ Finish colour of machine housings in wet line section	RAL 9018 (papyrus white)
■ Manufacturer pneumatic system components *	make: Festo
■ Manufacturer pneumatic system components *	In addition, following manufacturers are appointed: Bosch-Aventics, Norgren Herion, Wika, Buschjost, Legris, SMC Pneumatic GmbH, Drumag/Specken, Volkman, Bürkert, Domnick Hunter The pneumatic manometer with red/green section view. The pneumatic hoses and pneumatic screw connections are according to KRONES standard.
■ Manufacturer pneumatic maintenance unit *	Make: Festo Customer compressed air quality according to ISO 8573-1 class 6.3.1. Oil-free compressed air supply with a particle size of max. 40µm
■ Lubrication	central lubrication
■ Manufacturer	Make: Lincoln Type: progressive distributor
■ Auxiliaries for the central lubrication system	Motor pump Make: Lincoln; type: progressive distributor
■ Lubrication lines	The lubrication lines in technically meaningful machine areas are designed in rust-proof stainless steel/chrome nickel steel (similar to AISI 304), or in plastics, coated with a reinforcement of stainless steel. The end sections

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and fastenings are made of stainless steel. Plastic lines are used below the table plate.

Monitoring system

■ Service rejection system *

no

■ Speed control system

Container stop with selector switch, operating either manually or automatically. Equipped with three limit switches at machine infeed and two at machine discharge, affecting the automatic functions of the container stop

■ Back-up detection at infeed

via Bus system

■ Back-up detection at discharge

via Bus system

■ Pressureless combiner

KRONES

■ Line control

The conveyor speed is infinitely adjustable depending on the following machines. The machines are controlled via back-up switches in the infeed and discharge or by voltage-free contacts from the conveyor controller (isolated control).

Acceptance

■ Duration of the customer acceptance test at KRONES *

0 days

■ Performance of acceptance

without film and without photo

* Features which do not affect pricing of this quotation item within KRONES standard

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Equipment

Handling parts	01.01 330ml Standard bottle	02.01 330ml Remedy bottle	03.01 750ml Remedy bottle
Electrical orientation according to emblem	1	(01.01)	1
Standard centring bells	16	(01.01)	(01.01)
Quick-change container plates with adapted base contour	16	(01.01)	16
Infeed worm for cylindrical and special-shaped containers	1	(01.01)	1
Guidance handling parts, straight passage	1	(01.01)	1
	Labels	Labels	Labels
	body label 330ml	body label 330ml	body label 750ml
Brushing-on/rolling-on (self-adhesive)	1	(01.01)	1

Handling parts	04.01 750ml Standard bottle	05.01 60ml Syrup bottle	06.01 250ml Soda Bottle
Electrical orientation according to emblem	(03.01)	1	1
Standard centring bells	(03.01)	(01.01)	(01.01)
Quick-change container plates with adapted base contour	(03.01)	16	16
Infeed worm for cylindrical and special-shaped containers	(03.01)	1	1
Guidance handling parts, straight passage	(03.01)	1	1
	Labels	Labels	Labels
	body label 750ml	body label 60ml	body label 250ml
Brushing-on/rolling-on (self-adhesive)	(03.01)	1	1

8. Inspection unit CHECKMAT 752 E

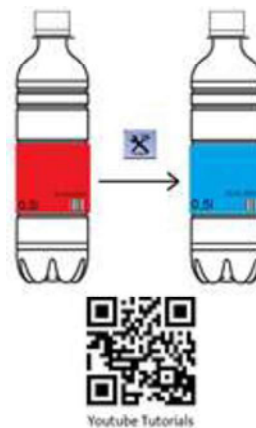
Model description

The system serves for label inspection (E) by cameras and offers a wide range of possible expansions. The basic unit of the inspection system is integrated into the lead machine. The DART technology (Distributed Architecture for Real Time) is applied for analysis. Operation is performed via the touch-screen of the lead machine. Faulty containers are rejected at the conveyor. With the newly developed setup wizard, it is possible for the operating personnel to teach autonomously additional print image variants of the labels. It is therefore sufficient for only the first print image variant per label form to be set up by KRONES during commissioning.



System advantages

- Complete integration of camera units and control cabinet components in the labeller
- Set-up wizard for simple relearning of new labels. General operation tutorials are provided in the KRONES TV Youtube channel "Checkmat".
- Display and recording of all relevant production data in the lead machine



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8. Inspection unit CHECKMAT 752 E

Prices

Basic machine

- Basic module container Checkmat 752

Further system components

Monitoring system

- Label inspection camera station 1 with package 3 (two cameras with 235 mm inspection area in height, max. 80° in circumference). The functional scope is listed in detail in the below machine data.

Rejection Systems

- Pusher for rejection of faulty containers onto a rejection assembly (rejection assembly not included)

Customer-related expansions

Auxiliaries

- Rejection monitoring by P.E. sensor

Additional electrical equipment

- Sockets according to local standard
- Wire colours, special design

Customer requirement

- execution of electrics please see under packer position

8. Inspection unit CHECKMAT 752 E

Machine data

Data of primary machine

- The Checkmat is assigned to *

the labelling machine 1 of the scope of supply.

Monitoring system

- Inspection systems
- Camera stations for label inspection
- Scope of function, camera station 1

- Station 1: Inspection for label presence *
- Station 1: Inspection for presence/position/slanted position *
- Station 1: Inspection for label correctness by sample and logo comparison (no set-up wizard possible) *
- Station 1: Inspection for correctness of bar code *
- Station 1: Inspection for correctness of 2D code *
- Station 1: Inspection for presence of dating *
- Station 1: Inspection for correctness of best-before-date (OCR-B) *
- Additional technical information *

Label inspection

1 PCE

Label inspection package 3 with one camera (235 mm inspection area in height, max. 80° in circumference) and set-up wizard for simple re-learning of new labels

body label

body label

body label

not required

not required

body label

not required

Light wells, hall lights and window fronts may generate an extraneous light and have an influence on the inspection units. Bright areas in the camera image lead to incorrect rejections. As a complete partition of the inspection units cannot be realised for technical reasons, the customer must take structural measures to eliminate extraneous light.

Not included

- System expansions

Accessories

- Machine auxiliaries

- Rejection monitoring system

- Detection of fallen over and broken bottles

Rejection

- Rejection unit

Ecopush onto a rejection conveyor segment (rejection conveyor segment not included)

Machine design

- The enviro machine and process unit stands out by this especially low energy and media consumption and uses environmentally friendly components for the operation.

- Basic electronic components
- Design of explosion protection

integrated into the primary machine

is not included in KRONES scope of supply. Machine operation in potentially explosive areas or with potentially explosive material only allowed after KRONES approval

Notes

8. Inspection unit CHECKMAT 752 E

- Number of label designs differing in print image and 6 which must be created as individual type in the Checkmat. *
- The following sample material is required for detailed quotation clarification: 3 containers of each quotation-related product type to be produced. The containers have to be filled, labelled, closed and date-coded. Without inspection of the sample material Kronos AG cannot assume any liability.
- The sample material for creating a test record is not available yet.
If we do not receive the sample material latest with receipt of order, the machine will be supplied with standard components. Resulting costs from changeover will be charged to the customer.

* Features which do not affect pricing of this quotation item within KRONES standard