



H240

Printing Machines
Lacquering Machines
Production Lines

H240

Printing and Lacquering Machines, Production Lines



The company HINTERKOPF develops and manufactures complete lines and machines for the high-volume production of aerosol cans, tubes, bottles or other cylindrical bodies, made of aluminum or plastics like PE or PP.

Fast, compact and ensuring a safe production – the H240 machine generation of HINTERKOPF.

With the suitable stroke and pace, production runs smoothly. Through its innovative concept the **H240 basic machine** ensures this at any time. In combination with **coating, printing and varnishing units**, drying systems and accumulators, they form the core of a fully automated production line for the decoration of cans and tubes.

Precise, fast and sustainable

The modern H240-series machines allow a continuous production **speed of up to 240 cans or tubes per minute**. In addition to the safe and gentle transfer of the products even at maximum speed, great importance has been given to highest reliability, the ease of operation, good accessibility, and to the flexibility of the machine.

Based on their high energy-efficiency and a robust design, ensuring a **very long usage life-time**, the H240 machines are sustainable in the best sense.



CONCEPT

A vertically arranged **16-station mandrel plate** forms the center of H240 machine. The simultaneous **3-fold transfer** of cans or tubes from the mandrels to the subsequent transport chain reduces the number of movements to one third. Controlled by a servo motor, the forces on the products and the machine are minimized during the transfer.

The results are **maximum reliability**, low maintenance and a very long machine life. Additional functions, e.g. a **camera-based image inspection** can easily be placed on the mandrel plate.

Safe, clean, flexible and space-saving

Particularly interesting for use in the pharmaceutical, cosmetic and food industries: Automatic safety glass doors lock the machine during production and guarantee, together with smooth surfaces inside the machine, a high level of **cleanliness** and a good view of the production process.

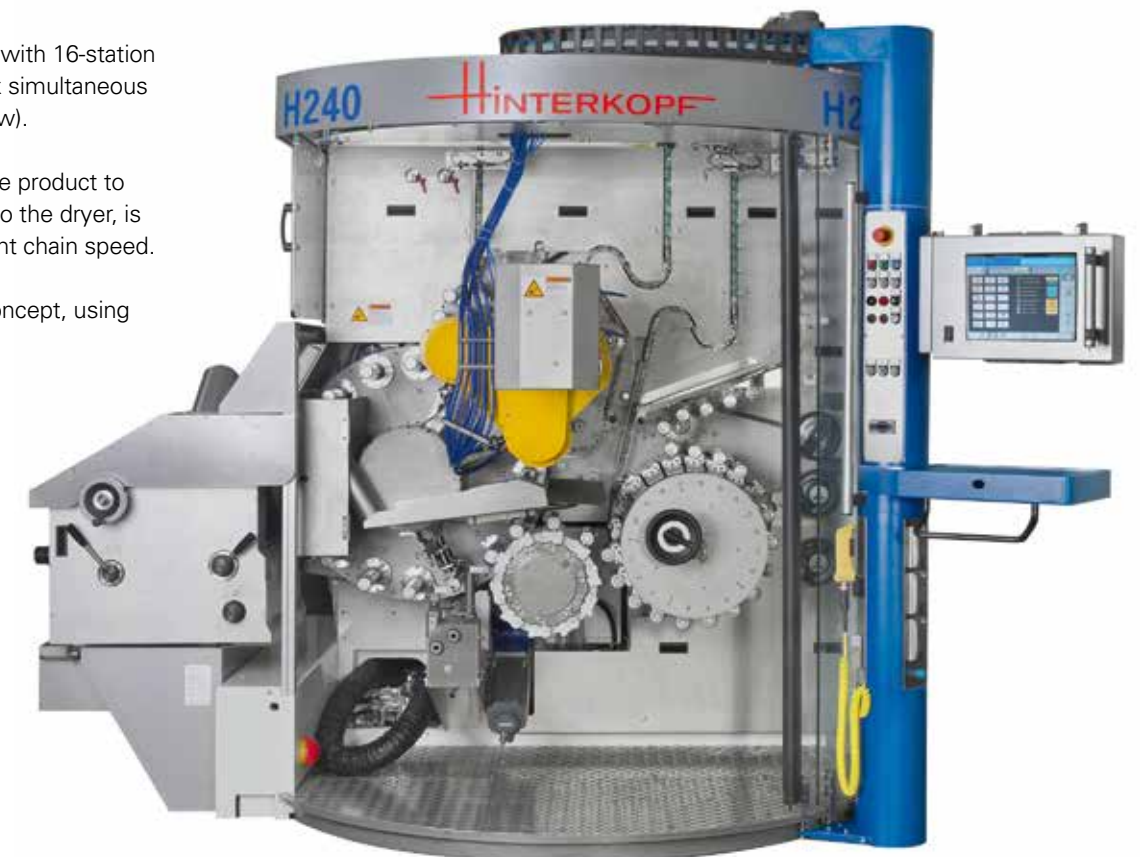
The H240 proves its flexibility also during the changeover to another product dimension. All **format-specific parts are easily accessible** from the front and are equipped with quick-change devices.

The electrical cabinet is integrated at the back of the machine. This saves space by not having separate components. The production area gets better arranged.

Lacquering machine with 16-station mandrel plate and 3x simultaneous transfer unit (in yellow).

The movement of the product to the transport chain, to the dryer, is carried out at constant chain speed.

Modern operating concept, using intuitive menus.



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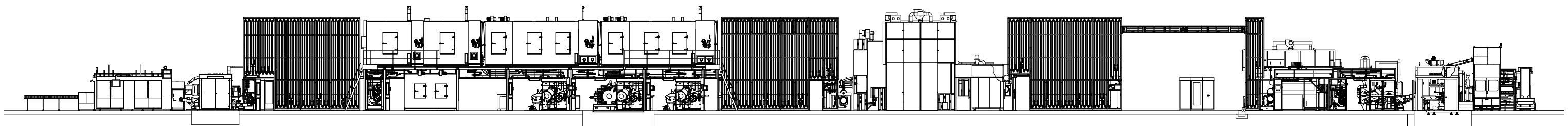
HINTERKOPF provides to its customers **complete H240 production lines** for aerosol cans, bottles, cylinders or tubes made of aluminum or plastic. Each such line is carefully projected together with our customer and is configured and adapted to his factory building and specific needs.

The decoration part of such a line includes H240 machines for printing and for the basecoat and/or overvarnish, depending on the product.

For the **offset printing process** the H240 basic machine is complemented by a **9-colour printing unit**, named DW20/9 or by a 7-color printing unit, the DW16/7 (see pages 6–9).

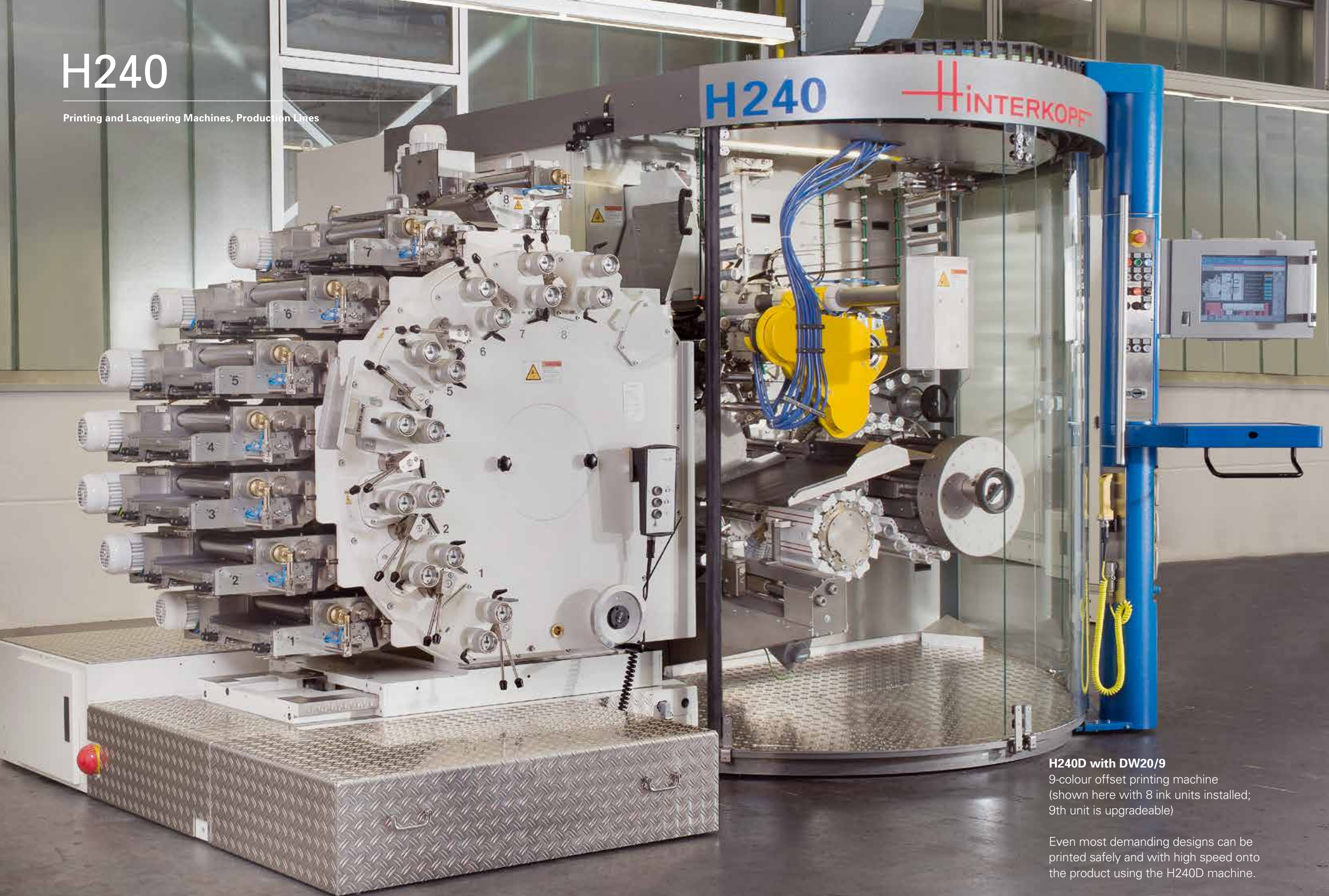
The **lacquering machine** (used for basecoat or overvarnish) is composed of the H240 basic machine and a **lacquering unit**, e.g. the model LW64. Different versions and ways of lacquering are used with the LW64, e.g. for dip-coating, anilox coating or roller-coating (see pages 10/11).

PRODUCTION LINE



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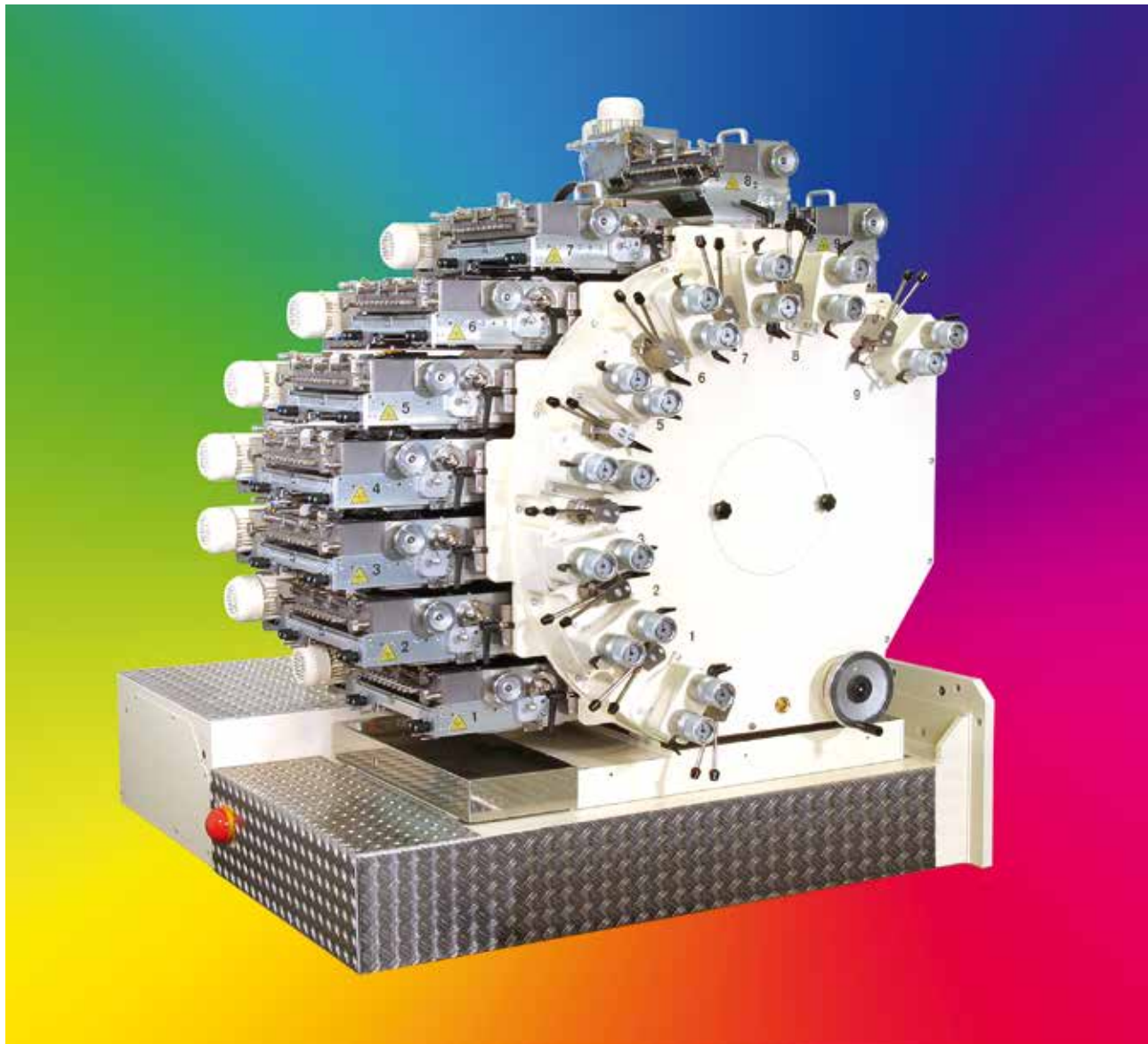
H240D with DW20/9

9-colour offset printing machine
(shown here with 8 ink units installed;
9th unit is upgradeable)

Even most demanding designs can be
printed safely and with high speed onto
the product using the H240D machine.

H240 D

Printing and Lacquering Machines, Production Lines



Technical data	DW16/6-7	DW20/7-9	
No. of Ink Units	6 or 7	7-9	¹⁾ with temperature controlled quick clamping cylinder (with pins)
Printing length (axial)	max. 260 mm	max. 250 mm ¹⁾ max. 265 mm ²⁾	²⁾ with magnetic clamping cylinder
No. of Printing segments	3 or 6	4	³⁾ with 3 print drum segments
Printing length (circumference)	275/318/370 + 20 mm ³⁾ or 270 mm ⁴⁾	370 + 20 mm	⁴⁾ with 6 print drum segments
Printing plate length (arc)	212 mm	212 mm	
Printing plate length (axial)	270 mm	270 mm	

PRINTING

HINTERKOPF's Printing Machines

...have for decades set the standards for best print quality, robustness, durability and efficiency in the decoration of cans and tubes. With **up to 9 inking units** they master even the most challenging tasks – precise, reliable and easy to use.

FEATURES AND BENEFITS

High Tech - developed by HINTERKOPF
Plate cylinder and inking unit rollers are **temperature controlled** in order to ensure the identical colour appearance under varying external conditions. Automatic tracking of the form rollers provides a constant print quality even when the penetration depth of the printing plate into the blanket should have changed.

If there is no product on the mandrel, a hydraulic movement of the whole inking unit ensures that no ink is applied to the mandrel – even at maximum production speed up to 240 pieces per minute.

It's the right adjustment that decides
You will set the plate roller with utmost precision axially and radially in a very comfortable way at the front side of the printing unit. The amount of ink to be applied is controlled easily via software on the touch screen. The peak pressure is easily adjustable by a worm gear with scale.



Short set-up times for efficient working
User-friendly setup, adjustment and control features: The HINTERKOPF printing units excel by exchangeable plate cylinders and swing-out ink units that are equipped with their own drives for inking and cleaning the ink rollers. The setting values can be stored specifically per product. Owing to short set-up times our customers work very efficiently – also when decorating **small batch orders**.

Highest precision and durability
The investment in a HINTERKOPF high tech printing unit will pay off twice as it provides **superb print quality** and service life. As an example, a toothed belt ensures the vibration-free and precise drive of the solid printing drum. The plate gear wheels run in a closed oil-bath box, separated from the printing area. A proper and clean solution for virtually no wear!

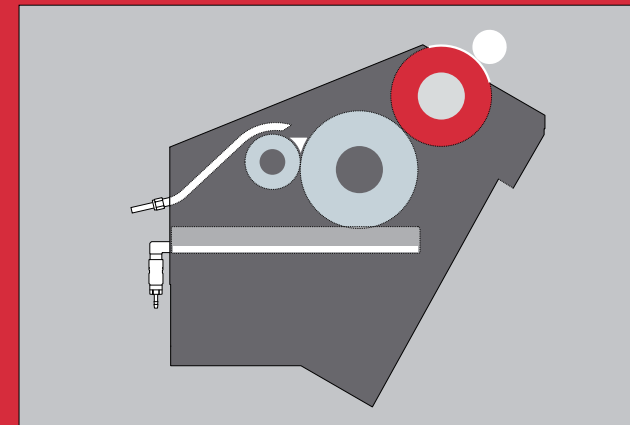
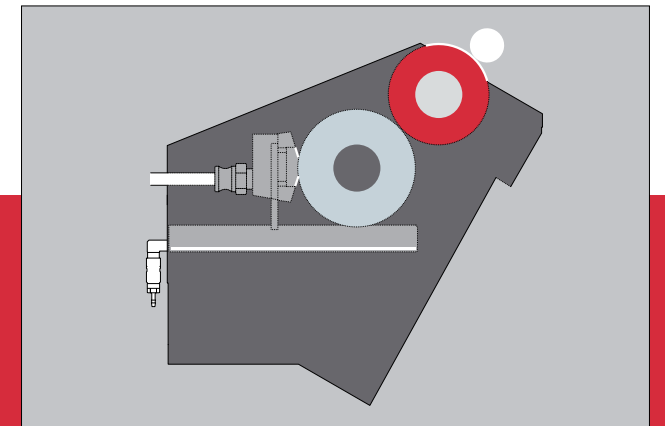
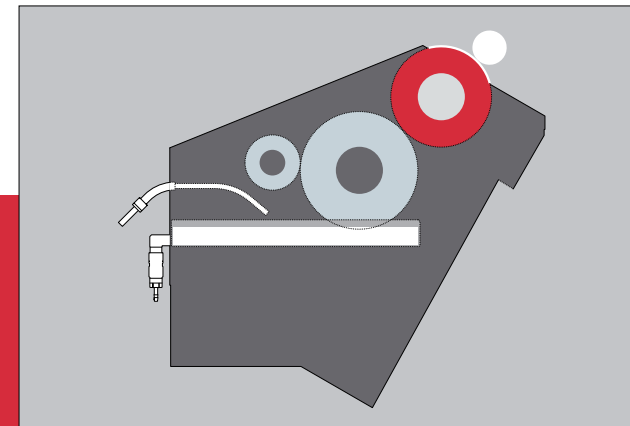


H240 L

Printing and Lacquering Machines, Production Lines



LACQUERING



(top left)

Dip-coating unit

Wide range of use for all kinds of lacquers and varnishes, including 2-component lacquers.

(top right)

Anilox coating unit

Used for coating at high speeds achieving precise lacquer thicknesses.

(left)

Roller-coating unit

Used mostly for the application of matt-finished and textured lacquers and varnishes.

Dipping, rolling or wiping – these are the techniques used on the well-proven lacquering units of HINTERKOPF, installed in its lacquering machines H240L

The requirements on the basecoat and varnish lacquers are high, the lacquer must be applied evenly, with the same thickness and without any streaks. Only then will the printed image on the product achieve the perfect appearance.

Most different kinds of lacquers are used, depending on the material and the intended use of the tubes or cans: Water-or solvent-based, thermally dried or UV cured, two-component lacquers, glossy or matt, transparent or opaque.



With clever solutions and the high precision of the LW64 lacquering unit you will always achieve optimum results

- Servomotors for infinitely variable control of the lacquering unit and the coater roller
- Efficient lacquer vapour exhaust
- Lacquer temperature control and automatic lacquer feeding (optional)
- »No product – no lacquer« control through automatic pull-back of the lacquering unit
- Easy cleaning due to nonsticking and nickel-plated surfaces

- The lacquering unit can be swung out for easy exchange and cleaning of the coater rollers
- Display and easy setting of parameters on the touch-panel
- Drive elements completely separated from the lacquering area

Printing and Lacquering Machines, Production Lines

Here are a number of examples:

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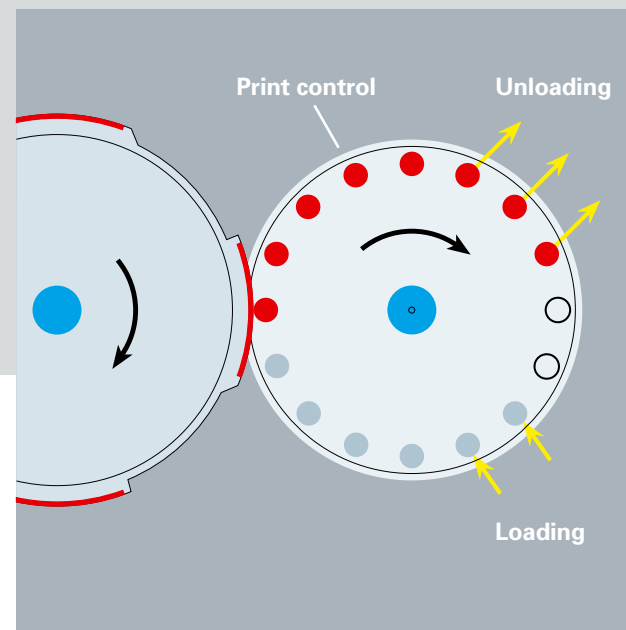
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Operating concept/Touchscreen

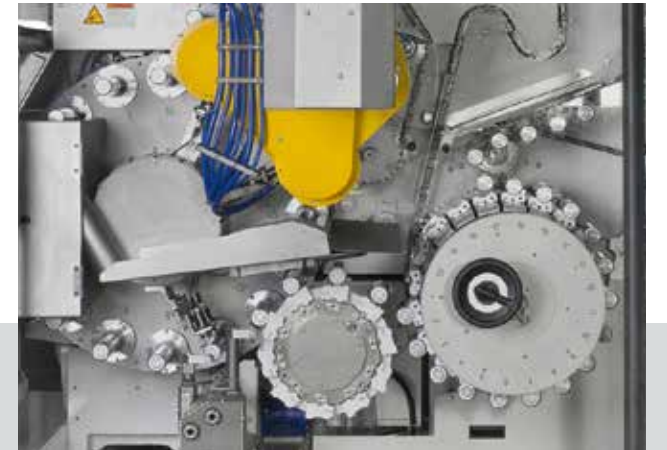
- Convenient overview and operation by movable swivel panel with large touchscreen
- Simple, intuitive menu navigation with graphics, symbols and language selection
- 4 access levels with a chip-coded key system



Product transfer

Safe operation even at 240 cycles per minute:
3-fold transfer of the products from the mandrel to the transport chain.

OPERATING CONCEPT



Overall approach, transfer and operation

The sophisticated overall approach of the H240 machine generation contains all the important aspects of a modern production environment.

The production capacity of up to 240 parts per minute, a low-wear and resource-conserving operation, maximum safety, transparency and good service accessibility in a space-saving design are the result of **German engineering**. Our customers also profit from our expertise in advanced electronics and the intuitive software interface.



(top)

Time-saving format changeover by quick change solutions for mandrels and vacuum troughs.

(center)

Free view to the production offers the rounded cover made from safety glass.

Gentle handling of the products through optimized, servomotor-controlled movements, e.g. the 3-fold transfer head (yellow).

(bottom)

Sophisticated concept:

- Compact design, easy access to all components
- The integrated control cabinet simplifies the installation and allows for short cable lengths



Technical data
Features
Operative range

Diameter range:

A: 25–45 mm

B: 35–59 mm

C: 45–66 mm

Trimmed wall length:

A: 80–160 mm

B: 100–250 mm

C: 150–300 mm

Production speed:

up to 240/min.

Transfer:

Mandrel plate with 16 mandrels

3-fold transfer to chain

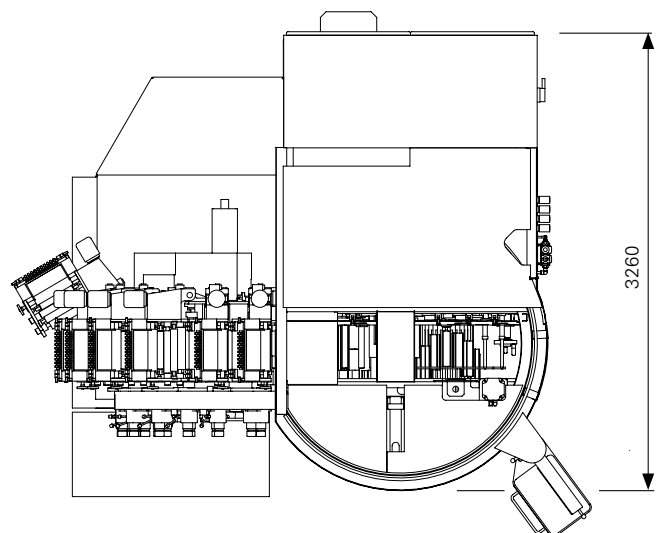
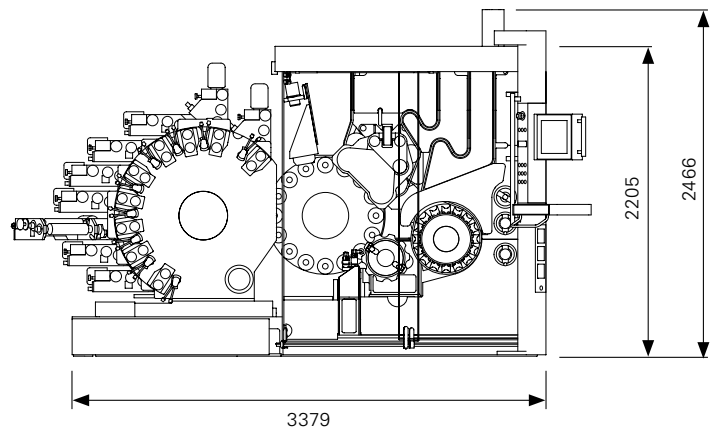
2-fold loading onto mandrel

Control and drive technology:

S7/SIMOTION

Inking units:

up to 9



Information subject to change.



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