JET2 NEO EP
Marking and coding eggs

LEIBINGER

Fast and easy egg marking and coding

Integration partners

MOBA

SEALTRONIC
Trouble-free-startup, every time

Industrial Inkjet Printer

Clear reasons…

… for why the LEIBINGER JET2neoEP is the optimum solution for marking and coding eggs and egg cartons.

1

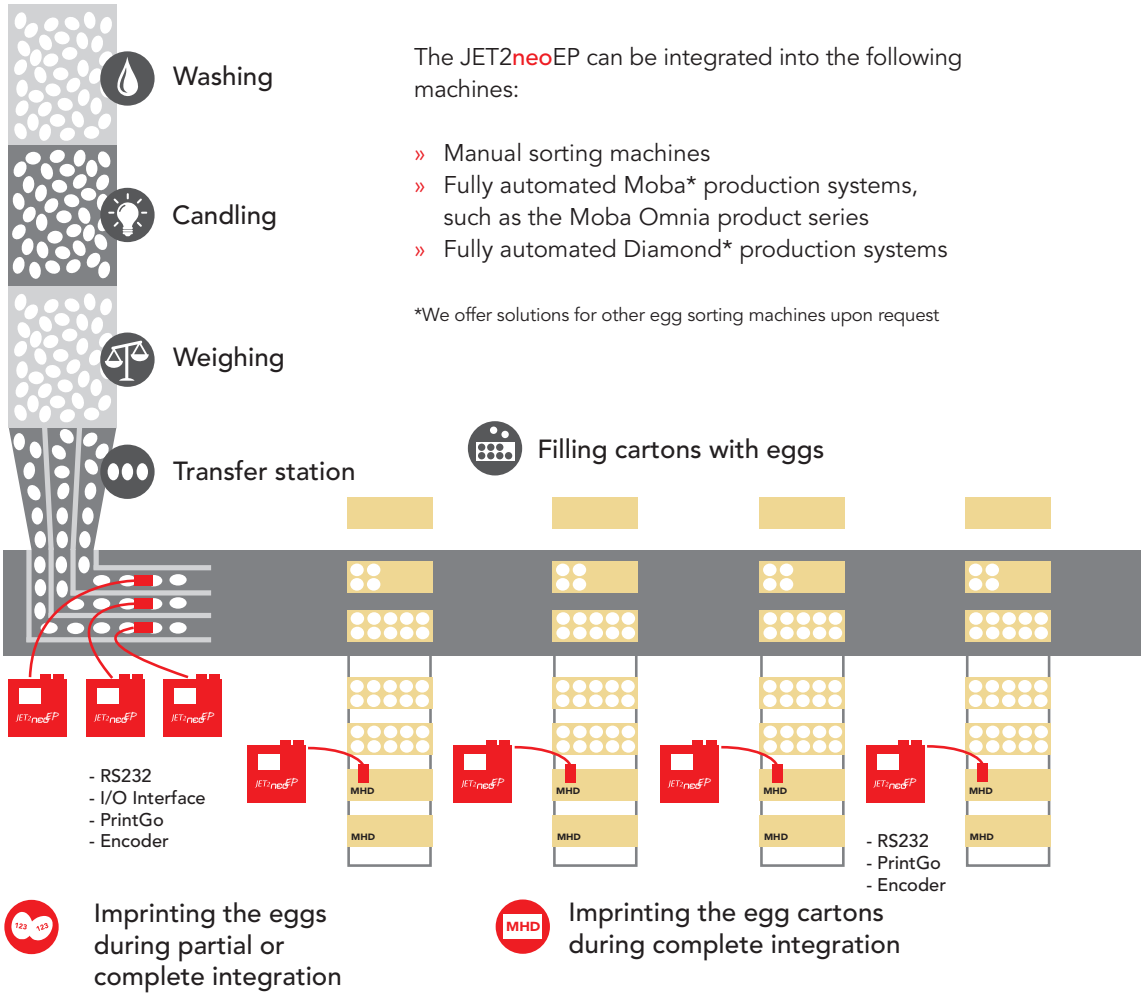
Compatible with egg sorting and packaging machines from the leading manufacturer MOBA (Moba Group)

- Easy and complete integration with plug-and-play connection
- Approved installation kits for Moba and Diamond egg sorting machines
- Automatic creation and modification of print jobs using the egg sorting machine's control system or a manual solution at the printer
- Accurate printing for each egg
- Highly accurate printing on the egg or egg carton
- Central print data management
- Best before date and other variable data are updated automatically
- Option to mark and code the packaging before or after filling it
- Marking and coding imprint can be changed conveniently in the event of multiple customers

The JET2neoEP can be integrated into the following machines:

- Manual sorting machines
- Fully automated Moba* production systems, such as the Moba Omnia product series
- Fully automated Diamond* production systems

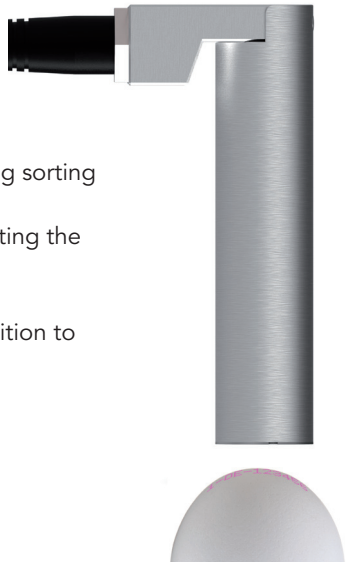
*We offer solutions for other egg sorting machines upon request



Schematic representation of an egg sorting machine

2

Imprinting the top of eggs is even possible in tight spaces



- Elbow printhead is a special development for egg sorting machines with limited space
- Enables integration of the JET2neoEP for imprinting the eggs from above (imprinting the top)
- Very short printhead length: 190 mm
- Innovative, space-saving design: 90° angle transition to the umbilical
- Equipped with the tried-and-tested, automated **Sealtronic** nozzle seal!

3

Using just one type of technology to imprint both eggs and egg cartons

- Synergy effects during operation as a result of a uniform system as well as for marking and coding the eggs and the cartons
- The red, blue and green inks are clearly legible on white and brown shells
- Marking and coding position flexibility on the egg (from pole to pole, from top / bottom or from the sides)
- Excellent legibility on all packaging materials (carton / paper, plastic, foam, shrink wrap)
- Marking and coding position flexibility on the carton

4

Decreasing costs per egg and carton

- Marking and coding up to 252 000 eggs / hour with 8 lanes and 8 printers (= 30 000 eggs / hour with a single-lane printer) at the maximum speed of the egg sorting machines
- CIJ printing is more cost-effective than labeling the cartons
- Free lifetime software updates
- Highest level of energy efficiency (A+++)
- No solvent consumption during production shutdowns thanks to **Sealtronic**
- Very low solvent consumption during marking
- Long service intervals, cost transparency
- Low maintenance costs, no replacement of expensive modules
- No external compressed air, no air filters

24-MONTH WARRANTY

5

As easy to operate as your PC at home

- Colorful 5.7" touchscreen display
- Intuitive, clear menu guidance
- Windows-based user interface with typical functions, such as drag and drop
- User-defined buttons for direct access
- Remote capability for full control via tablet or PC

6

Safe production and reliable planning thanks to the automatic Sealtronic nozzle seal

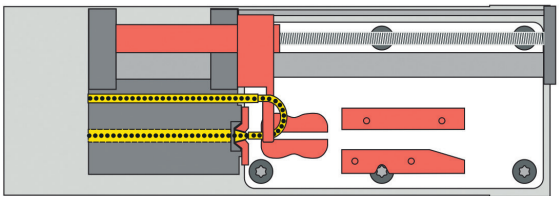
- No drying out of ink in the printhead!
- Ready to print in 1 minute – even after long production shutdowns
- Always a clean start-up and maximum availability
- No daily service work
- No rinse cycles

Trouble-free-startup, every time

LEIBINGER printhead with nozzle seal

Shut down process

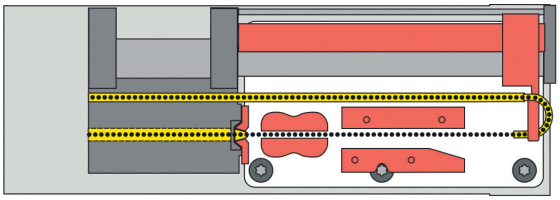
The gutter is moved to the nozzle automatically when shutting down the printer, forming a hermetically sealed, airtight circuit. **The result: 100 % secure protection from ink drying out!**



Switched-off LEIBINGER printer

Startup process

First, the ink begins to flow in the sealed circuit creating a stable ink stream. The gutter then opens automatically. This happens within a few seconds and guarantees a fast and error-free start. **The printhead remains absolutely clean in this process.**

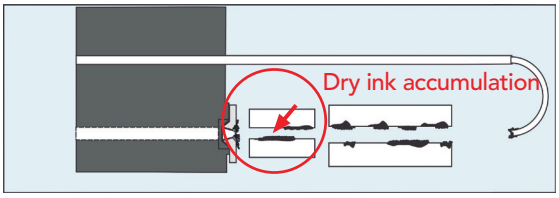


LEIBINGER printer after the startup process

Conventional printhead without nozzle seal

Shut down process

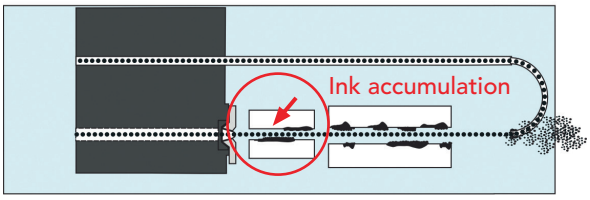
Nozzle and gutter remain open. The residual ink is exposed to the air unprotected and dries out. This causes problems the next time the printer is started.



Switched-off conventional printer

Startup process

The conventional design causes an unstable startup of the jet. The result: the printhead gets dirty regularly and thus drop charging is degraded right from the start.



Conventional printer after the startup process

7

Product quality that speaks for itself

- German brand quality – 100% developed & produced in Germany
- Robust printhead & high-quality stainless steel housing
- State-of-the-art hardware and software
- Premium industrial product
- Decades of experience & competence

MADE IN GERMANY

Millions of eggs - one optimum marking and coding solution

The LEIBINGER JET2neoEP continuous inkjet printer is the easy and reliable marking and coding solution for standard applications in the egg industry. The JET2neoEP reliably marks and codes eggs and egg cartons within the egg sorting machines.

Compatible with machines for marking/coding eggs and carton of the Moba Group

FDA and EU compliant food-grade inks with high contrast for printing on egg shells (colors: red, blue or green)

Marks and codes up to 252 000 eggs/hour in an egg sorting machine with 8 lanes and 8 printers

Continuous inkjet printers (CIJ) in the egg industry

LEIBINGER CIJ printers label every possible product, material and surface without making contact, using fixed and variable data while production is in progress.

Why use CIJ technology to mark and code egg shells and egg cartons?

The continuous inkjet printer printhead can be flexibly installed in all directions and thereby enables full flexibility for positioning the mark/code. Thanks to the non-contact printing, different sized eggs can be marked/coded without readjusting the printhead. FDA and EU compliant food-grade inks ensure there are no health hazards from marking and coding the eggshells. CIJ marking and coding also provides excellent legibility on all egg carton materials and is significantly more cost-effective than labeling, for example. The marking and coding process is greatly simplified thanks to the complete plug-and-play integration in egg sorting machines. That makes CIJ technology the only complete economical solution for marking and coding eggs and egg cartons. Additional synergy effects arise from establishing a uniform coding system for all production steps.

Technical specifications

320 mm

400 mm

190 mm

430 mm

290 mm

250 mm

295 mm

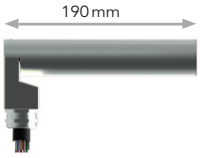
SK6

212 mm

Ø 43 mm

SK6 Elbow

190 mm



Ø 43 mm

PRINT PERFORMANCE / FUNCTIONS

- Printing height 1.2 - 12 mm, depending on nozzle size and head type
- Country and industry-specific fonts, e. g. Arabic, Cyrillic, Chinese, Persian
- Fonts: from 5x5 to 24x18 dots, special fonts, tower printing
- Multiline fonts (1 to 3 lines)
- Fonts and graphics can be free positioned and combined
- Proportional function for all fonts
- Font height and font width adjustable
- All major barcodes and DataMatrix codes (ECC200), GS1 DataMatrix (EAN/ECC)
- Time, auto-adjustable date, auto-adjustable expiration date, weekdays, calendar weeks, julian calendar, shift identification
- Replacements: all date, time and counter functions can be replaced and user-programmed
- Three individually programmable counters, consecutive numbering, production counter
- User-programmable graphics / logos can be created in the integrated editor
- Multistage contrast and bold function, print repetition, print delay, backward print, rotation/ mirroring of font, inverse, reverse and alternating prints (object-related)
- Dynamic backward printing, for traversing lines
- "External text" function (printing of external data via interface)
- Stop function after reaching predefined amount

DATA ADMINISTRATION / SECURITY

- Storage of countless jobs and graphics
- Data buffer in case of power failure
- Explorer
- Print jobs saved with printing data and machine parameters
- Data logging
- Up- and download of jobs and graphics using USB stick
- Job select (255 jobs selectable from external via digital inputs or by scanner)

OPERATION / DATA INPUT

- 5.7" color TFT touchscreen display (VGA), background illuminated
- Creating and editing of jobs during production
- Available menu languages: European languages, Arabic, Chinese, Vietnamese, Thai, Korean, Cyrillic, Persian, etc.
- Integrated graphic editor
- Alternative control using the data interface (Ethernet)
- Country-specific on-screen keypad
- Operation also by mouse or keyboard
- Status display with easy-to-understand text, help function, printer status display (level gauge)
- Password function and service menu
- Windows based interface, WYSIWYG-display
- Remote Control via VNC
  - Connection to external job editor (JETedit3)

NTERFACES, INPUTS/OUTPUTS

- Product detector PNP / NPN 24 V
- Shaft encoder input for printing speed synchronisation (TTL 5 V, HTL 24 V, RS422 5 V)
- Digital inputs / outputs user-selectable, 5 inputs, 4 outputs
- Printer alarm, low fluid, print ready, print finished, external job selection, etc.
- USB port
- Network, Ethernet (RJ45)

LEIBINGER HYDRAULIC SYSTEM

- Low maintenance, diaphragm pumps with optimized on-time
- Fully automatic viscosity and pressure control
- Thermally isolated hydraulics
- No external supply of compressed air is required
- Automatic interval function
- EcoSolv – Solvent Recycling System (optional)

PRINTHEAD

- Fully automatic nozzle and gutter seal "Sealtronic"
- Inkjet control
- Flexible umbilical, length 3 m or 6 m (optional)
- Stainless steel cabinet
- Fully automatic drop charging, drop break off
- Nozzle size: 60 µm and 70 µm
- Upside down - 360° assembly
- Safety switch for print head locking
- Option: Head ventilation

FLUID RESERVOIRS

- Capacity of the pressureless ink and solvent tanks is 1.3 liter
- Refillable while printing
- Automatic level control

INKS

- FDA and EU compliant food-grade inks for imprinting egg shells
- Colors: red, blue and green (high contrast on white and brown eggs)
- Alcohol-based inks
- Inks for marking/coding cartons
- Black ink tested and approved for food packaging (FDA)

CABINET, DIMENSIONS AND WEIGHTS

- Weight printhead: 1.5 kg
- Weight cabinet: 17 kg
- Protection class: IP 54

SUPPLIES AND ENVIRONMENTAL CONDITIONS

- 100 V-240 V, 50-60 Hz, max. 40 VA
- Temperature range +5°C to +45°C
- Relative humidity max. 90%, non-condensing
- No external air pressure necessary

ACCESSORIES

- Vision System V-check, JETmotion traverse system
- Product detector, shaft encoders, printer stand, print head bracket, alarm lamps, etc.

Quality Management DQS ISO 9001

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