



Technical data sheet

JET3^{UP}

Device Variants

- JET3up
- JET3up **PI** (for high-contrast printing results with pigmented inks)
- JET3up **MI** (for ultra-fine printing results)
- JET3up **PRO** (for wet and dusty environments)
- JET3up **EP** (for marking eggs)

Device Descriptions and Functional Features

Cabinet

- Dust- and spray water-protected stainless steel cabinet (IP54 or IP65, see technical data)
- Separate cabinet area for printer control, thermally separated from the hydraulic area

Operation

- 10.4" color TFT touch display (SVGA)
- Creating and editing jobs during production
- Available menu languages: European languages, Arabic, Chinese, Vietnamese, Thai, Korean, Cyrillic, Persian, etc.
- Integrated graphic editor and font editor
- Alternative control via interface (Ethernet, serial)
- Country-specific on-screen keypad
- Illustrated operator instructions
- Can also be operated using a mouse or keypad
- User-defined buttons for direct access
- Comprehensive self-diagnosis and status display with plain text output and help function, printer status display (fill level indicator)
- Display for pending printouts
- Password function and service menu
- Windows-based interface, WYSIWYG style
- Remote control via VNC

Data management/backup

- Storage of any number of jobs and graphics
- Data buffer in case of power failure
- File manager (Explorer)
- Job management with machine parameter storage
- Data logging, production log
- Upload and download of jobs and graphics from flash drive or via network
- JobSelect (1023 jobs via PLC or scanner)

Consumables exchange

- Pressureless ink and solvent reservoir tank
- Refillable during production
- Fully automatic fill level monitoring

Hydraulic concept

- Low maintenance, diaphragm pumps with optimized on-time
- Fully automatic viscosity and pressure control
- Thermally isolated hydraulics
- Automatic interval function
- EcoSolv – solvent recovery system (optional)

Only for JET3up PRO or IP65 option:

- Automatic compressed air monitoring
- Integrated cabinet ventilation

Printhead

- Inkjet monitoring
- Flexible break-resistant umbilical
- Stainless steel cabinet
- Fully automatic **Sealtronic** nozzle sealing system
- Fully automatic drop charging and drop break off control
- Various nozzle sizes (depending on variant)
- Any installation location, even for overhead applications
- Safety switch for printhead lock
- Option: Printhead ventilation, straight or angled printhead connection (45° / 90°), air dryer

Printing functions

- Country- and industry-specific fonts, e.g. Arabic, Cyrillic, Chinese, Persian
- Special fonts
- User-programmable fonts
- Tower print
- Multiline fonts
- Fonts and graphics can be positioned and combined as required
- Proportional function for all fonts
- Adjustable font height and font width
- All major barcodes and DataMatrix codes (ECC 200), GS1 DataMatrix (EAN/ECC), QR code, PPN code
- Time, auto-adjustable date, auto-adjustable expiration date, weekdays, calendar weeks, Julian calendar, shift identification
- Replacements: all date, time and counter functions can be set using user-programmed replacements
- 32 individually programmable counters, consecutive numbering, product counter, meter marking
- 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 text, inverse, reverse and alternating prints (object-dependent)
- Dynamic backward printing, for traversing lines
- **ExternText** function (printing of external data via interface)
- Programmable batch production and interlinking of multiple jobs
- Processing of variable data from external files on flash drive or interface
- Stop function after reaching preselected amount
- Product jam detection, product position monitoring
- Autostart function
- Prompt function (quick access)
- Solvent Saving Mode

Interfaces, inputs/outputs

- Product detector input PNP/NPN 24 V, FIFO buffered
- Incremental encoder input (TTL 5 V, HTL 24 V, RS422 5 V)
- Freely selectable digital inputs/outputs, 9 inputs, 8 outputs
- Alarm, refill, print ready, print finished, external job selection, etc.
- USB port
- Serial interface RS232
- Ethernet, script protocol
- Sensor for product monitoring and speed measurement
- Optional: Special interface for connecting multiple printers

Consumables

- Various colored inks and soft pigmented inks
- Various pigmented inks (for PI only)
- Various ink colors (black, yellow, red, blue, etc.)
- Fast-drying inks (<1 sec.)
- MEK-free inks
- Alcohol-based inks
- MIPK-based inks
- Transfer-resistant inks
- Security inks
- Color-changing inks
- Adhesive inks
- Fluorescent inks
- Alcohol-resistant inks
- Sterilization-resistant inks
- Inks for food packaging
- Customer-specific special inks
- PVC inks (vinyl inks)
- Halogen-free inks
- Heat-resistant ink (up to 1000°C)
- UV-curable inks
- Inks for the aviation industry

Accessories

- LEIBINGER Connect
- V-check vision system
- JETmotion portal axis
- Product detectors
- Incremental encoder
- Printer stand
- Printhead brackets
- Alarm lamps
- Software for remote control
- Multi-printhead control
- ...

Overview of Technical Data

Printer and printhead

| | |
|------------------------------------|---|
| Voltage range | 100–240 V AC |
| Supply frequency | 50–60 Hz |
| Current consumption | max. 0.56 A (at 100 V AC); max. 0.25 A (at 240 V AC) |
| Power consumption during operation | typ. 20 W (at 100 V AC); typ. 20 W (at 240 V AC) |
| Display | 10.4" TFT touch display |
| Umbilical length | 3 m, 6 m (optional), 10 m (optional, not available for JET3up MI) |

| | | |
|--------------------------------|--|---|
| Umbilical bend radius | > 100 mm (fixed routing), > 150 mm (movable routing) | |
| Printhead type | JET3up: | SK4, SK6, ELBOW |
| | JET3up PI: | SK4 |
| | JET3up PRO: | SK4, SK6, ELBOW |
| | JET3up MI: | SK4 |
| | JET3up EP: | SK4, SK6, ELBOW |
| Umbilical printhead connection | SK6: | straight, designed with an extruded fitting |
| | SK4: | straight or angled, designed with an extruded fitting |
| | ELBOW: | straight, designed with an extruded fitting |
| Umbilical type | extruded | |
| Printhead nozzle size | JET3up: | 50 µm, 60 µm, 70 µm |
| | JET3up PI: | 60 µm, 70 µm |
| | JET3up PRO: | 35 µm, 40 µm, 50 µm, 60 µm, 70 µm |
| | JET3up MI: | 35 µm, 40 µm |
| | JET3up EP: | 50 µm, 60 µm, 70 µm |
| Printhead material | Chassis: aluminum, Printhead cover: V2A | |
| Printhead weight | approx. 1.5 kg (with umbilical) | |
| Printer cabinet material | V2A | |
| Printer cabinet weight | 20.5 kg (empty, without printhead and umbilical) | |
| Protection type | JET3up: | IP54, optional IP65 |
| | JET3up PI: | IP54 |
| | JET3up PRO: | IP65 |
| | JET3up MI: | IP54 |
| | JET3up EP: | IP54, optional IP65 |

Compressed air (only for JET3up PRO or IP65 option)

| | |
|----------------------------|------------|
| Required input pressure | 1.4 bar |
| Compressed air consumption | 1.66 l/min |

Ambient conditions

| | |
|-------------------|--|
| Temperature range | +5 °C–+45 °C (no sudden temperature changes) |
| Relative humidity | max. 90% (non-condensing) |

Volume of reservoir tanks

| | |
|------------------------|---------|
| Ink reservoir tank | 1300 ml |
| Solvent reservoir tank | 1300 ml |

Printing performance data

| | | |
|--|---|--------------|
| Character height ¹⁾ | JET3up: | 1.5 to 16 mm |
| | JET3up PI: | 1.5 to 16 mm |
| | JET3up PRO: | 0.8 to 16 mm |
| | JET3up MI: | 0.8 to 12 mm |
| | JET3up EP: | 1.5 to 16 mm |
| | ¹⁾ Depending on the nozzle size and printhead version. | |
| Fonts | 5x5 to 32x20 dots | |
| Max. speed | 403 m/min | |
| Max. number of lines | 5 lines | |
| Max. vertical resolution (stroke height) | 32 drops | |

Consumption

| | | |
|-----------------|-------------|---|
| Ink consumption | JET3up: | max. 160 MM characters per 950 ml bottle (matrix 5x5; nozzle 50 µm) |
| | JET3up PI: | max. 117 MM characters per 950 ml bottle (matrix 5x5; nozzle 60 µm) |
| | JET3up PRO: | max. 160 MM characters per 950 ml bottle (matrix 5x5; nozzle 50 µm) |
| | JET3up MI: | max. 331 MM characters per 950 ml bottle (matrix 5x5; nozzle 35 µm) |
| | JET3up EP: | max. 129 MM characters per 950 ml bottle (matrix 7x5; nozzle 50 µm) |

Interfaces

| | |
|----------|---|
| Ethernet | For general data exchange |
| | Version: M12D |
| Serial | For general data exchange |
| | Version: D-SUB, 9-pin, socket, up to 115,200 baud |

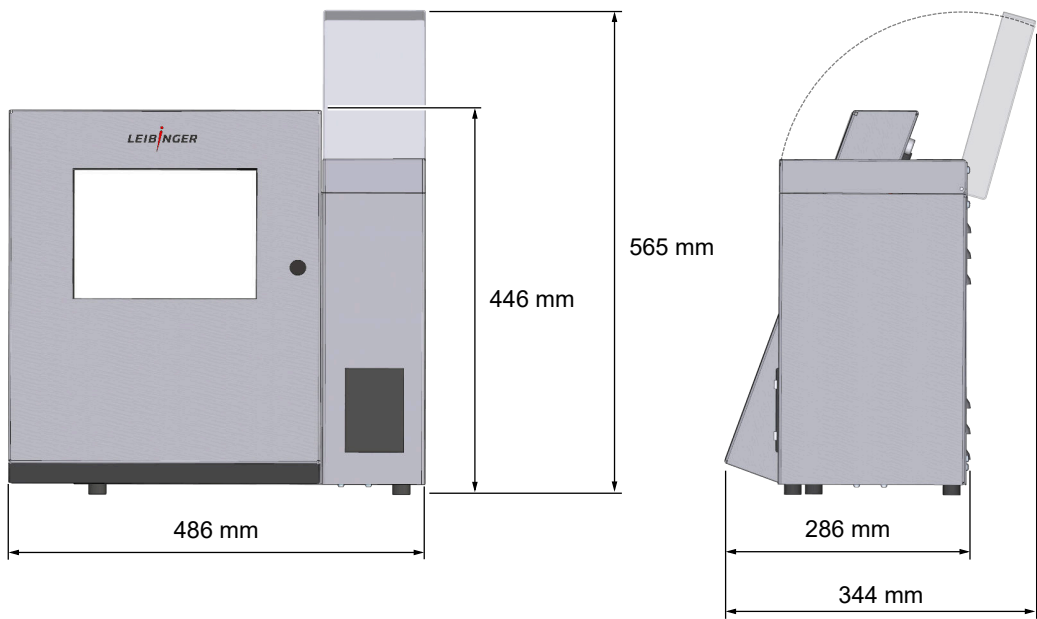
| | |
|----------------------------|--|
| USB | For general data exchange Version: Type A |
| Rotary encoder (X1) | For connecting incremental encoders Version: DIN, socket, 15-pin, TTL, HTL, RS-422 |
| Digital outputs (X3) | 8 freely configurable outputs Version: D-SUB, 15-pin, socket |
| Digital inputs (X4) | 10 inputs for job selection 6 freely configurable inputs Version: D-SUB, 25-pin, pin |
| Print start (PrintGo) (X5) | For connecting to the product detection sensor and, if needed, also the print release sensor or monitoring sensor Version: DIN, socket, 5-pin, NPN/PNP 24 V |

Tests

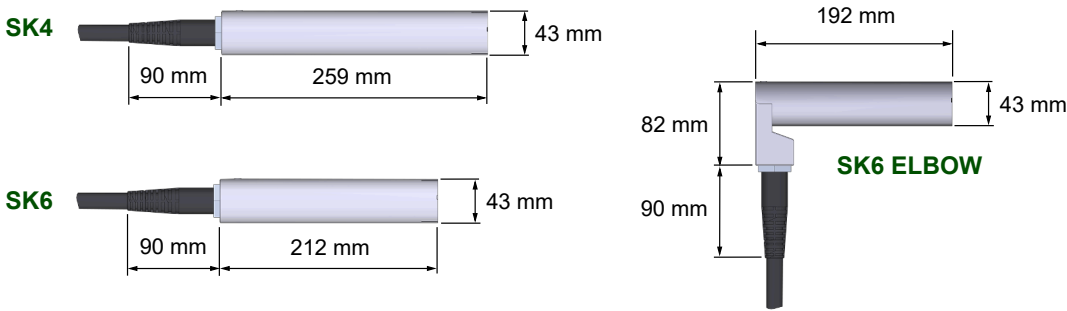
| | |
|---------------------|----------|
| Certification marks | CE, UKCA |
|---------------------|----------|

Dimensions

Printer cabinet



Printhead



Global headquarters
EMEA and APAC Competence Center
Paul Leibinger GmbH & Co. KG
Daimlerstr. 14
78532 Tuttlingen
Germany



Phone: +49 74 61 / 92 86-0
Fax: +49 74 61 / 92 86-199
Email: info@leibinger-group.com

Competence Center
North and South America
Paul Leibinger Inc.
2702 Buell Dr #2
East Troy, WI 53120
United States of America



Phone: +01 262-642-4033
Fax: +01 262-642-4030
Email: cs@leibingerusa.com

Competence Center
China
Leibinger China Ltd.
No. 10, Keji 1st Road
Zhuhai City
High-Tech Zone
China



Phone: +86 (0) 756-8866803
Email: cs-china@leibinger-group.com