

HSAJET® Print & Verification

PHARMA PGH BOX PRINTING UNIT

Turnkey Print & Verification unit
for pharmaceutical folded boxes

HSA Systems Box Printing Unit

The PGH Box Printing Unit is a stand-alone pack handling system for automatic carton box marking applications. The design of a continuous top/ bottom belt conveyance system ensures a precise and steady transport of products, providing optimum circumstances for high quality printing.

The use of qualified components allows the fast integration into existing line concepts. The basic machine is prepared for 2-side installation of the HSAJET® TIJ 2.5 printhead and camera.

HSAJET® PGH System

The HSAJET® Print and Verification system is the control centre of the machine, providing design of jobs, control of print, verification, eject and machine interface. All from one single touch monitor.

Turnkey solution

The combination of the HSA Pharma PGH System and the pack handling machine results in a compact overall solution for trouble-free print and verification of folded boxes in a pharmaceutical production.



Key benefits

- Controlled by HSAJET® software and hardware
- The unit makes it possible for the pharmaceutical company to comply with present regulatory demands, such as GAMP, 21CFR11
- Print and verification in accordance with the industrial standards such as, ISO15415 and ISO15416
- Smooth and stable package handling system
- Excellent in-line print quality thanks to exact guiding (top/bottom belt)
- Carton box can be printed on the front and the back (2nd position optional)
- Continuous adjustable conveyor speed
- Integrated ejection control system
- Contained GAMP-conform design in stainless steel and transparent Macrolon
- Tool and format-free batch change
- User-friendly operating of machine, printer and vision via one central touch screen
- The most compact and maintenance friendly concept in the market
- Easy maintenance of all machine parts via large front cover and removable back cover

Technical Details

PHARMA PGH BOX PRINTING UNIT

Dimensions

Length: 664 mm
Width: 640 mm
Height: 1015 mm
Height adjust ± 50 mm

Weight

90 kg approximately
Depending on configuration

Carton box size (max)

A: 40-210 mm (front in running direction)
B: 10-75 mm (height)
C: 125 mm (printed side)

Machine direction

Left to right

Print position

Print from back
Kit for front printing available

Air pressure

8 bar main supply

Main supply soltage / frequency

230 VAC (-23% / +14%)
50 Hz (-6% / +20%)

Machine controller

HSA Systems LVDS connection unit
CB6e controller board

HMI

15" Touch monitor

Cabinet

Stainless steel with key locked space for controller

Reject system

Air pressure box blow-out for boxes up to 250g. Pneumatic push out device available for heavier products

Reject bin

Reject bin secured with key lock

Outer connections

Main power, air pressure, upstream-downstream machine control signals
Format adjustment
Tool free adjustment. Reproducible by display at the spindle.
Common mounting bracket for printhead and camera.

Emergency switch

At front panel. Hardware controlled emergency stop function

Top cover

Transparent top cover/safety guard equipped with safety switch, to stop the machine if opened during production.

Precision position control

A precise box position control, controlling top and bottom motors. Exact box position known throughout the conveyor belt. At incorrect box position, conveyor stops.

Reject control

Reject of no-good boxes with ejection verification system

Product position sensors

Print, camera, reject and accept sensors

Errors & Warning

Messages for operational disruptions or production information, such as low ink, machine stop at consecutive errors and device not ready.

Belt speed

5-60 m/min

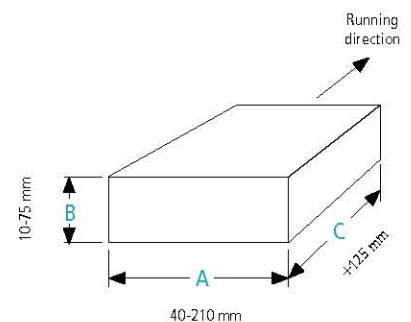
Throughput

Product and machine dimension dependent. Current machine is capable of printing and verifying up to 5 products/sec. Controller version for up to 8 products/second available.

The actual throughput are among other things dependent on the distance between products, box surface, stability and rigidity of the box.

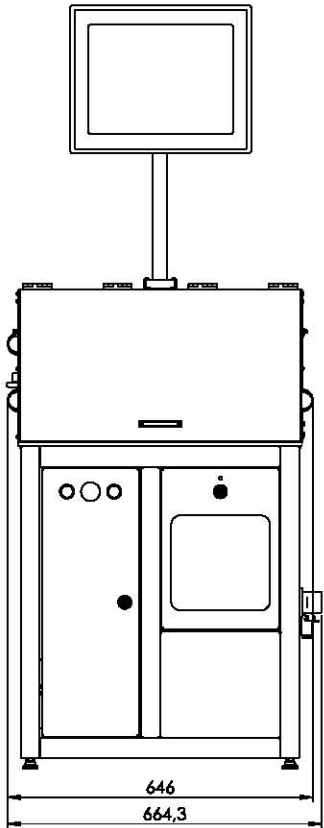
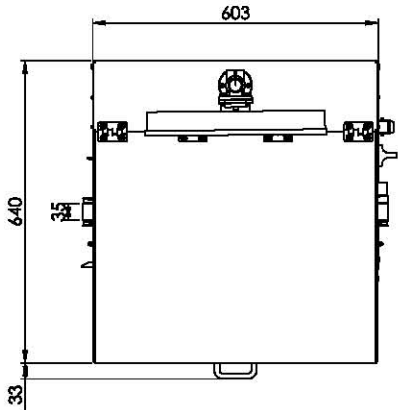
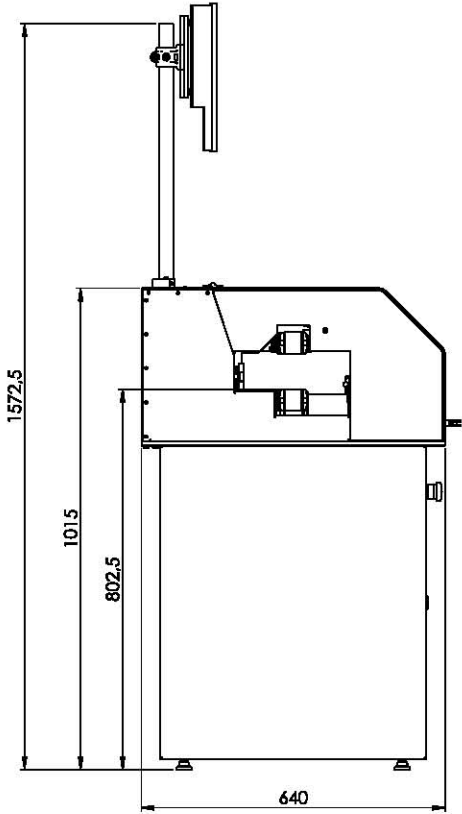
Options

UPS power supply
Beacon
Front print kit



Technical Details

PHARMA PGH BOX PRINTING UNIT DIMENSIONAL DRAWINGS



Technical Details



PHARMA PGH BOX PRINTING UNIT

Printing system

HP TUJ 2.5 technology
Print height up to 25.4 mm / 1"
Resolution up to 600 dpi
Print distance up to 1.5 mm
Water and solvent based inks

Vision system

HSA Systems Came2V print inspection camera
Integrated light
Shielding against stray light
1280 x 1024px Resolution
Inspection area 45 x 45 mm

Controller

The controller is built with a powerful Intel® Core i7 processor and a fast SSD hard drive for maximum processing power and minimum noise.

The controller is equipped with the HSA Systems PCI Express based CB6e interface card handling signals from controller to printhead(s), and receives images from the camera, as well as communicating with the machine LVDS connection unit

Software

Multi lingual

Verification & Grading capabilities

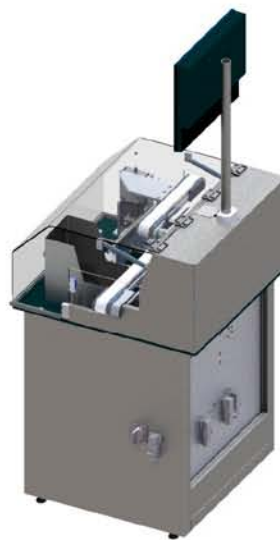
Printed 1D/2D code and text content is verified. 1D/2D code quality is determined and provided a grade between F and A (0-4). Grading of Unicode text with a font-based reference scheme. Grade levels 0-100. Primary focus is OCR-B font, other fonts possible to use.

Complies to

CE directives
Qualification of printed items in accordance with industrial standards, ISO/IEC 15415 and 15416.

Datamatrix standard according to GS1 and ISO/IEC 16022.

Code 128 (C) and GS1 128 according to ISO/IEC 15417.



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