Autoplaten® EXPERTCUT 145 PER

Automatic platen press for converting paper and cardboard.

Standard Equipment

MACHINE

– POWER REGISTER II
– Cam-driven machine.
– Platform with safety barrier.
– Platform extension with walkway featuring automatic lifting.
– Machine equipped with Helpline Plus service.
– Machine configurable for Automatic Pallet Transfer (APT).
– Centerline system for rapid job changeover.
– Electronic sheet-passage monitoring device.
– Adjustable centering for all tools in the stripping and blank-separation stations (upper, center and lower), with position indicators.
– Air conditioning for the electrical cabinet.
– 2 CUBE3 (Control Unit Bobst Electronic) systems with color touchscreen for machine operation.

Bobst-developed microprocessor control system enabling the operator to command, display and control the various machine functions and components.

– Pump cabinet.
– Main motor with frequency inverter.
– Automatic CC and COC mobile guards.
– 1 pump cabinet (B-122.001).

FEEDER

– Smart Feeder includes:

Automatic lateral pile correction during production, up to +/- 100 mm, controlled by Power Register.
Continuous pile lifting while maintaining a constant top-of-pile height.
Suction-head position automatically follows the pile shape.
Constant pile pressure against the front stops by automatic movement of the pile carrier.

– Manual non-stop device.
– Automatic sheet synchronizer (by POWER REGISTER).
– Adjustable side blowers with Centerline references.
– Suction head with multiple settings.
– Feeder adaptable for Automatic Pallet Transfer (APT).
– Safety system for lowering the pile carrier.

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FEED TABLE

– POWER REGISTER II
  Non-contact sheet registration relative to the leading edge of the sheet at the printing image.
– Stainless-steel anti-static sheet covering.
– Double-sheet detector with automatic calibration controlled by POWER REGISTER II.
– Upper opening frame with pneumatic lifting device.
– Upper transport equipment for paperboard and corrugated board.
– Central and side air-blowing system.
– Transport belts with lateral guidance and automatic tensioning.

PLATEN

– Short-stroke moving upper platen, cam-operated.
– Upper moving platen and lower platen with vacuum.
– Gripper-bar reopening device.
– Oil conditioning unit for stable converting performance.
– Oil temperature maintenance system with temperature display; programmable preheating system.
– Automatic centering and locking of the chase and support plate.
– Micrometric centering for die-cutting plate (+/- 0.7 mm).
– Die-cutting force measured by strain gauge.
– Motorized die-cutting force adjustment.
– Synthetic support plate, 17 mm thick, adapted to the vacuum system.
– 2 sheet-presence sensors at platen exit.

STRIPPING STATION

– Central quick-lock stripping frame.
– Integrated Quick Lock System.
– Automatic quick-lock upper tooling system integrated into the machine.
– Automatic opening of gripper bars to take a sheet for quality inspection.
– Waste hopper.

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DELIVERY OF BLANKS IN SEPARATE PILES

– Automatic separator with drawer-type sheet magazine and electric sheet-presence monitoring.
– Automatic selection of separating suction cups according to sheet size.
– Constant level of pile stacking (NCT).
– Continuous pile lowering while maintaining constant top-of-pile height.
– Automatic pallet-changing device.
– Automatic non-stop device with Quick Set function.
– Non-stop bars with two positions.
– Automatic detection of stacker height.
– Safety frames for positioning the pile-lifting pallet.
– Waste discharge conveyor.
– Motorized removal brush for the residual stripping grid.
– Integrated Quick Lock System.
Automatic upper tooling device with quick locking, integrated into the machine.
– Adaptation for lower drawer-type blank-separation frame, allowing use of tools SP 142-CER.
– Dynamic locking of upper carriage movement.
– Quality-control function: operator can press a button at the CC control station to deliver a pile and remove blanks for quality inspection.

EQUIPMENT

– 1 Upper quick-lock chase: screw-mounted base (T-103.001).
– Base plate, 2 mm thick, with 1 mm synthetic protective plate.
– 1 Die-cutting plate (T-120.001), 5 mm thick.
– 1 Adapter for upper stripping tool with quick locking (T-215.001).
– Allows wooden stripping tools to be fitted to the upper integrated quick-lock system.
– 1 Adapter for stripping board to central quick-lock frame (T-225.002).
– 1 Lower stripping drawer frame (T-230.001).
– 1 Lower stripping equipment (T-235.001), including crossbars and telescopic needles.
– 1 Adapter for separation tool with quick locking (T-315.001).
– 1 Lower blank-separation drawer frame with fastening material (T-325.001).
– 1 Universal lower Angle Lock tool system (T-340.001).
– Adjustable tool including frame (T-340.002) and grid assembly material.

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SERVICES

– Connect Ready

Hardware and software enabling connectivity to digital services such as Helpline Plus, Monitoring Apps and Open Interface.

– Helpline Plus

This service is free during the machine warranty period and then automatically renewed annually at the stated price. Either party may terminate the contract 60 days before the annual expiry date.

For customer responsibilities, refer to the technical characteristics of the Connect pre-installation document.

Includes complementary Monitoring Apps, allowing the production manager to view machine productivity based on technical data collected during recent operating hours, in real time and from any location.

Includes Connect Portal, Mobile Portal and Tracker applications.

Requires at least Internet Explorer 8, Chrome v28 or Firefox 18 on the computer used for analysis.

INSTALLATION

– Machine supplied without lubricants, consumables or spare parts.

COMPLIANCE WITH STANDARDS AND SAFETY

– This Autoplaten® press complies with European health and safety directives for design and manufacture, and with US UL and NFPA standards applicable to industrial equipment.

– Emergency stops.

– Personnel protection devices.

– Chain-drive coupling disengagement.

– Chain-drive locking device.

– Handling of converting equipment.

– Photoelectric safety barriers at the feeder and delivery.

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Included Equipment

– 1 B-110.001 APT interface at feeder

– 1 B-133.001 Chase changer

Allows the chase and cutting die for the next job to be changed and prepared. Includes an enlarged platform area. Requires one additional chase (T-103.001).

– 1 B-201.001 Raised machine

Machine and platform raised by 412 mm. Delivery lead time to be confirmed. Requires a concrete base under the platen.

– 1 C-112.003 Automatic non-stop grid with lateral movement for APT

Fully automatic cycle, requiring no operator intervention. Requires L-100.002 according to format (or suitable pallets at grid entry).

– 1 C-120.001 Identification of first and last sheets in the pile

Allows automatic machine stoppage for manual removal of identified sheets on the feed table. Automatic removal possible under certain conditions. Incompatible with H-130.001 in operation.

The first sheet of the incoming pile must carry a mark made with a special marker (NB 2326.0359.01). Sheet balance may require special processing.

– 1 C-210.001 Motorized longitudinal movement of suction head

– 1 C-215.001 Supplement for suction head

For paper and highly warped board: 2 external transport suction cups (CC and COC) individually height-adjustable during operation; 3 lifting suction cups with adjustable angle during operation; 1 sheet breaker.

– 1 C-215.005 Top-of-pile jogging

Automatic synchronized top-of-pile jogging system, keeping the pile against the feeder front stop. Recommended for feeder logistics systems.

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– 1 D-300.002 Supplement for underside reading

  Allows POWER REGISTER II to read printed registration marks or sheet edges from below. Requires D-300.003 if reading 1 mm marks is desired.

– 1 D-525.002 Corrugated transport equipment

  Includes two upper driven belt conveyors with adjustable contact pressure. For heavy board and corrugated board thicker than 2 mm. Incompatible with D-525.001. Recommended: C-215.005.

– 1 E-215.003 Perforated compensation plate

  Ground steel plate ensuring continuous vacuum contact between support plate, compensation plate and thin plate during operation. Thickness 4 mm.

– 1 F-100.001 Dynamic locking of upper carriage

  Automatically holds upper carriage in raised position for removal of a die-cut sheet for inspection in the stripping station, or allows an unstripped sheet to pass through the machine. Recommended with C-120.001 under certain conditions.

– 1 F-115.001 Positioning of sheet-passage sensors by external control (CC)

– 1 H-106.001 Automatic non-stop grid with variable height

  With Quick Set function. Allows materials thicker than 2 mm to run at maximum machine speed without interruption. Includes 1 x T-340.004.

– 1 H-120.001 Blank-separation monitoring system

  Includes 3 photoelectric sensors.

– 1 H-130.001 Full-sheet delivery device

  Consists of an upper drawer frame and lower equipment to be installed on the lower blank-separation drawer frame.

– 1 H-500.001 Production assistance

  Includes cycle interruption and pile delivery for quality inspection (command at CC station); transition to full-pile mode during end-of-job production.

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– 1 O-100.001 Inspection table
  Inclined table for optimal inspection of a die-cut sheet. Mounted on the platform barrier, with support for installing a lighting system (supplied by customer).
– 1 T-103.001 Upper quick-lock chase: screw-mounted base
  2 mm base plate and 1 mm synthetic protective plate. Requires a full-format cutting die. One unit supplied with the basic equipment.
– 1 T-230.001 Lower stripping drawer frame
  One unit supplied with basic equipment.
– 1 T-235.001 Lower stripping equipment
  Tooling for waste stripping, including crossbars and telescopic needles. Fits onto drawer frame T-230.001. One unit supplied with basic equipment.
– 1 T-340.001 Universal lower Angle Lock system tool
  Adjustable tool including frame T-340.002 and material for assembling the separation grid. Fits onto the lower drawer frame. One unit supplied with basic equipment.
– 1 Spec 501.005_33 Top counting

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BOBST

Technical Characteristics

MATERIALS PROCESSED
– Paper (depending on quality), from: 80 g/m²
– Cardboard (depending on quality), up to: 2,000 g/m²
– Corrugated board, up to: 5 mm

(*) Additional equipment (D-525.002) for corrugated board and microflute required. Permissible board warp: 4% of sheet width.

FORMATS
– Maximum sheet size: 1,450 × 1,050 mm
– Minimum sheet size: 580 × 450 mm

DIE-CUTTING FORMATS
– Maximum with front waste: 1,450 × 1,035 mm

PALLET DIMENSIONS
– Maximum width / delivery: 1,450 × 1,050 mm
– Minimum delivery height: 150 mm

CONVERTING
– Gripper bite: 9–17 mm
– Gripper-bar height: 23.8 mm
– Minimum double-cut width: 5 mm

PRODUCTION
– Maximum die-cutting force: 5.5 MN (550 t)
– Hourly speed, up to: 7,500 sheets/hour

PILE HEIGHT
– Feeder, normal mode, maximum: 2,000 mm
– Feeder, non-stop mode, maximum: 1,600 mm
– Delivery, maximum: 1,600 mm

INSTALLATION
– Maximum main motor power: 30 kW
– Maximum connected power: 100 kVA

OVERALL DIMENSIONS
– See specific layout drawing.

APPROXIMATE WEIGHT
– Net: 64,500 kg
– Gross (seaworthy packing): 73,500 kg

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FOUNDATIONS

Whether the machine is installed on an excavated floor, non-excavated floor or upper level, the natural frequency of the slab, including the machine mass, must be greater than 25 Hz.

Only a qualified civil engineer is competent to check the slab based on the values shown on the foundation drawings.

PNEUMATIC SPECIFICATIONS

Pneumatic control of the various Autoplaten press components requires a supply of quality compressed air, class 6-4-3 according to ISO 8573-1 (2001), with a minimum service pressure of 6 bar (kg/cm²).

If unavailable, provide a compressor with a load factor not exceeding 75%, supplying 10 bar (kg/cm²) with a 250 l reservoir. Maximum branch-line pressure at the machine: 6 bar; average airflow: 45 m³/h, at Normal Reference Atmosphere according to DIN 1314.

This compressor is not supplied by Bobst.

INSTALLATION PRECONDITIONS (CUSTOMER RESPONSIBILITY)

If micro-interruptions are expected on the electrical network, or if mains voltage variation exceeds 10%, or if the grounding system is IT or corner-grounded delta, or the site is in a storm-prone (lightning) area, please consult Technical Service.

PRECONDITIONS FOR CONNECT INSTALLATION

Connect is a secure Internet connection enabling digital services such as Helpline Plus and Monitoring Apps.

The customer must provide the following connection equipment:

– Permanent, reliable Internet connection with speed of at least 256 Kb/s.

– Computer network using TCP/IP communication protocol, with Ethernet-type connectivity and RJ45 connectors; network must extend to the BOBST machine.

– 110–230 VAC / 50–60 Hz / 1 A electrical outlet for BOBST IT equipment (VPN router), installed in a clean environment such as an IT room or telephone exchange.

The indicated formats and characteristics are subject to modification.

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