Perfect Binder  BQ-470

BQ-470

EVA or PUR
The Horizon BQ-470 Fully Automated, 4-Clamp Perfect Binder features an interchangeable glue tank for both EVA and PUR adhesives.

**Features**

- Fully automated set-up through the intuitive icon based LCD touchscreen.
- Customer replaceable glue tank unit for both EVA hotmelt and PUR hotmelt adhesives to meet varying customer requirements.
- Simplified and accurate changeover to produce professionally finished books.
- Equipped with two large application rollers for strong, high-quality binds and a separate side glue tank for added flexibility.
- Space-saving design with front operation and front maintenance.
- Book-binding up to 65 mm (2.55”) thickness.
- Easily operated by anyone in the bindery. Maximum cycle speed is 1,350 books per hour (EVA hotmelt glue).
- Ergonomic sliding windows provide easy, safe access and a clear view of operations.

**Key Features**

**Color Touchscreen**

- The 10.4 inch large color touchscreen maximizes ease of operation. Trouble-shooting screen helps operator maintain smooth production.

**Milling Lever**

- Three different milling styles can be selected: Milling Off, Milling for EVA or Milling for PUR.

**Nipping Height Adjustment**

- A strong, rigid-nipping mechanism ensures high quality binding. The nipping height is simple and easy to adjust.

**Suction Cover Feed**

- The advanced rotary suction feed system insures faster production. A wide range of cover sheets can be handled without any marking.

**Supersonic Double Feed Detect Sensor**

- The supersonic double feed detect sensor comes standard. Advanced detection with supersonic sensor ensures accurate double feed detection even with a solid black printed sheet.

**Delivery Conveyor**

- The automated elevation conveyor can stack books up to 300 mm (11.8”) high. The jogging table is attached to the conveyor for efficient operation.

**Smoke Extractor**

- Extracts fumes of hotmelt glue for comfortable working conditions.
Automated set-ups ensure user-friendly operation and professional binding.

End-to-end Automated Set-up
- Carriage Clamp Width at book feeding section
- Guide Width at milling section
- Side Gluing Roller Width at glue tank unit
- Glue Length (Top-Bottom) at glue tank unit
- Wiper Opening for Glue Amount (First Application Roller/Second Application Roller) at glue tank unit
- Spine Glue Thickness (Second Application Roller Height) at glue tank unit
- Nipping Width at nipping section
- Guide Width (Fore-edge) at cover registration section
- Cover Tail Edge Positioner at cover registration section
- Scoring Position (4 lines) at scoring section
- Guide Width at cover feeding section
- Guide Width at book delivery section

1 Book Feeding Section
- Automated Point: Carriage Clamp Width

2 Milling Section
- Automated Point: Guide Width

3 Glue Tank Unit
- Automated Point: Glue Length (Top-Bottom), Wiper Opening for Glue Amount (First Application Roller/Second Application Roller), Spine Glue Thickness (Second Application Roller Height), Side Gluing Roller Width

4 Nipping Section
- Automated Point: Nipping Width

5 Cover Registration Section
- Automated Point: Guide Width (Fore-edge), Cover Tail Edge Positioner

6 Scoring Section
- Automated Point: Scoring Position (4 lines)

7 Cover Feeding Section
- Automated Point: Guide Width

8 Book Delivery Section
- Automated Point: Guide Width

Dual application rollers and side gluing rollers ensure superior glue application to the spine for quality binding.
The BQ-470 incorporates the remarkable PUR binding mechanism and features an interchangeable glue tank, for both EVA and PUR adhesives.

**PUR Tank and EVA Tank**

The application drums and back spinner lift and latch to provide easy access for cleaning the tank.

**Cleaning and Replacement of MU-470PUR**

The melted glue can be used repeatedly so there's no need to clean up the tank after operation.

**Strong, Environmentally Friendly PUR Solution**

Polyurethane Reactive, also called PUR, is a polyurethane adhesive attracting attention for binding strength and eco-friendliness.

**Strong and Lay-Flat Binding**

As the printing industry diversifies, there is growing demand for binding with color sheets. EVA hotmelt glue has difficulty binding coated stock firmly, and does not currently enable acceptable lay-flat binding. However, PUR hotmelt glue can provide adequate binding strength and lay-flat quality for both offset and digital prints.  

**Durable against Temperature**

PUR hotmelt glue retains durability and flexibility in both high and low temperatures. The temperature resistance for PUR hotmelt glue ranges from −20 to 120 degrees Celsius versus 0 to 60 degrees Celsius for EVA hotmelt glue. This allows PUR bound books to be handled in almost any climate or location.

**Ecology**

PUR adhesive is environmentally friendly, allowing PUR-bound books to be recycled. PUR also has a lower melting point (120 degrees Celsius) than EVA for operational energy savings.

**Variable Production Software V-470S Option**

Existing machines are easily upgradeable in the field by adding optional V-470S variable production software and SI-470 book thickness measuring device.

**Book Thickness Measuring Device SI-470A Option**

The SI-470A is used to measure the book block thickness and transfer the thickness information into BQ-470 Variable.

**Manage your bindery with JDF enabled control system.**

The Horizon pXnet Bindery Control System is used as a central control point to schedule work, send job data to each finisher, monitor status of finishers and collect production statistics from finishers in real-time. pXnet brings efficiency and value in high-mix/low-volume production environments where frequent job changeovers are needed.

- **Job Ticket**
- **Digital Finish**
- **MIS**
- **Control PC**
- **Satellite PC**
- **Digital Finisher**
- **ColorWorks Pro Plus**
- **ColorWorks**
- **Option**
- **Perfect Binder BQ-470**
- **Bind**
- **Fold**
- **Cut**
- **Hydraulic Cutter HT-80**
- **Three-knife Trimmer APC-61**
- **Perfect Binding Line**

**One to One Book Production**
Perfect Binder BQ-470

**BQ-470 Major Specifications**

- **Binding Mode**: Binding with milling, binding without milling and Padding
- **Number of Clamps**: 4
- **Book Block Size (Top-Bottom x Fore-edge)**: Max. 320 x 320 mm (12.59” x 12.59”)  
  Min. 145 x 105 mm (5.71” x 4.14”)
- **Book Thickness**: 1 to 65 mm (0.040” to 2.560”)
  (The book thickness can be limited depending on the sheet weight, book size and milling depth.)
- **Cover Size (Top-Bottom x Fore-edge)**: Max. 320 x 660 mm (12.59” x 25.98”)
  Up to 350 mm or 13.77” forwards from the clamp face.
  Up to 310 mm or 12.20” backwards from the clamp face.
  Min. 135 x 225 mm (5.32” x 8.86”)
  Up to 115 mm or 4.53” forwards from the clamp face.
  Up to 110 mm or 4.34” backwards from the clamp face.
- **Book Thickness**: 1 to 65 mm (0.040” to 2.560”)
  (The book thickness can be limited depending on the sheet weight, book size and milling depth.)
- **Cover Weight Range Normal Paper**: 81.4 to 302.4 gsm
  Coated Paper: 104.7 to 348.9 gsm
- **Cover Pile Height**: Max. 150 mm (5.9”)
- **Warm up Time**: 60 min.
- **Glue Temperature**:  
  Spine Glue Tank: EVA 150 to 210 degrees Celsius (180 degrees Celsius for HM-220)
  PUR: 110 to 140 degrees Celsius
  Side Glue Tank: EVA 150 to 210 degrees Celsius (170 degrees Celsius for HM-403)
- **Maximum Milling Depth**: 4 mm (0.157”)
- **Cycle Speed**:  
  EVA: Max. 1,350 cycles/hr.
  PUR: Max. 1,000 cycles/hr.
- **Voltage / Frequency**:  
  3-Phase 200 V 50 / 60 Hz 10.5 / 12.0 A (Max. 17.9 / 18.2 A)
  3-Phase 220 V 50 / 60 Hz 8.1 / 8.7 A (Max. 11.9 / 11.0 A)
  3-Phase 400 V 50 / 60 Hz 5.7 / 6.5 A (Max. 7.7 / 7.8 A)
- **Power Consumption**:  
  3-Phase 200 V 50 / 60 Hz 3.3 / 4.0 kW
  3-Phase 220 V 50 / 60 Hz 2.7 / 3.0 kW
  3-Phase 400 V 50 / 60 Hz 3.8 / 4.2 kW
- **Heat Output**: 13,030 kJ (3,120 kcal)
- **Motors**:  
  3.7 kW x 1, 750 W x 1, 650 W x 1, 400 W x 1, 200 W x 3, 100 W x 1, 40 W x 1, 25 W x 2
  Delivery Conveyor: 40 W x 1, 60 W x 1
- **Heaters**:  
  650 W x 1
  EVA: 2.2 kW x 1
  PUR: 900 W x 1, 80 W x 1
- **Machine Dimensions (With delivery conveyor and milling blower duct)**:  
  3,620(W) x 2,240(D) x 2,000(H) mm (142.6” x 88.2” x 78.8”)
- **Options**
  - **SI-470A Book Thickness Measuring Device**
    The SI-470A is a book thickness measuring and input device for further operation efficiency.
  - **T-470 Weekly Timer**
    The T-470 weekly timer automatically switches power on at pre-set times for quick makeready. Time and day of the week can be set.
  - **PM-470 Premelt Tank (18 litter)**
    The PM-470 is the premelt tank for EVA hotmelt glue.
  - **L-470 Manual Simple Lifter**
  - **F-470 Fork for Lifter**
    The F-470 fork is a custom-fit attachment to the lifter that holds the glue tank firmly in position for easy and safe tank replacement.
  - **S-470 Stand for Melt Tank Unit**
    The S-470 stand is designed to receive and hold the glue tank unit after replacement.
  - **M-470 Glue Melting Heater**
    The M-470 is a laboratory oven used to premelt the PUR hotmelt glue.
  - **B-470 Teflon Coated Beaker**
    The B-470 Teflon coated beaker can be used to premelt the PUR hotmelt glue to refill the glue tank.

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**Distributed by**

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