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.

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.

Supersonic Double Feed Detect Sensor

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

Smoke Extractor

Extracts fumes of hotmelt glue for comfortable working conditions.
Automated set-ups ensure user-friendly 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)
- Spine Glue Thickness (Second Application Roller Height)
- 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

**Book Feeding Section**

**Milling Section**

**Glue Tank Unit**

**Nipping Section**

**Cover Registration Section**

**BQ-470**

1. Carriage Clamp Width at book feeding section
2. Guide Width at milling section
3. Side Gluing Roller Width at glue tank unit
4. Glue Length (Top-Bottom) at glue tank unit
5. Wiper Opening for Glue Amount (First Application Roller/Second Application Roller)
6. Spine Glue Thickness (Second Application Roller Height)
7. Nipping Width at nipping section
8. Guide Width (Fore-edge) at cover registration section
9. Cover Tail Edge Positioner at cover registration section
10. Scoring Position (4 lines) at scoring section
11. Guide Width at cover feeding section

End-to-end Automated Set-up
Scoring Section

The scoring width and position are automatically set up through the LCD touchscreen. Scoring is performed on thick covers for professional binding with sharp, square spine corners.

Cover Feeding Section

The high capacity cover feed station has a maximum pile height of 150 mm (5.9”) for continuous binding operation. The cover feeder can handle a wide range of cover stocks from 81.4 to 302.4 gsm of normal paper or 104.7 to 348.9 gsm of coated paper.

Book Delivery Section

The delivery section employs an elevation conveyor so that the bound books are gently received and transported to the stacker without damage to the book spine.
The BQ-470 incorporates the remarkable PUR binding mechanism and features an interchangeable glue tank, for both EVA and PUR adhesives. The application drums and back spinner lift and latch to provide easy access for cleaning of the tank. Install the special drain for glue run-off. The PUR tank and drums are Teflon coated so that the remaining glue can be easily peeled off after cooling.

Sliding glue tank for easy replacement. Pull out the tank and remove it with the optional special lifter.

**MU-470PUR**
Polyurethane reactive adhesive suitable for coated stock. Lay-flat binding can be performed.

**MU-470EVA**
Commonly used for all kinds of binding. The melted glue can be used repeatedly so there is no need to clean up the tank after operation.

**Polyurethane Reactive** also called PUR, is a polyurethane adhesive attracting attention in both binding strength and ecology.

As the printing industry becomes more diverse, demands for binding with color prints are growing. EVA hotmelt glue has difficulty binding coated stock firmly and does not currently meet the requirements of Lay-Flat binding. However, the PUR hotmelt glue can provide adequate binding strength on both offset and digital prints for quality Lay-Flat spread binding.

**Durable against Temperature**
The PUR hotmelt glue is durable against 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 the PUR bound book to be handled in almost any climate or location.

**Ecology**
PUR is an environmentally friendly adhesive and the PUR bound book can be recycled. At 120 degrees Celsius, the glue temperature for PUR is lower than that of EVA hotmelt glue during application and saves energy.

**PUR Tank and EVA Tank**

**Polyurethane Reactive (PUR)**
EVA

**Strong and Lay-Flat Binding**

Both printing methods require strong, dependable binding, and the PUR hotmelt glue provides strong, dependable binding, making it the perfect choice for producing high-quality documents. The PUR hotmelt glue is also known for its ability to bond to a variety of substrates, making it a versatile choice for different printing methods. Additionally, the PUR hotmelt glue is more resistant to heat and moisture than other hotmelt glues, ensuring that the final product is durable and long-lasting.
The Last Frontier

Automating the Bindery...

Mark Horizon.

Horizon's i2i system can extract finishing data from JDF written upstream at pre-press, or where these are not available, JDF can be input at the i2i (Customer Site), to create relationships to other JDF based systems. For the bindery environment this is particularly important, ensuring constant job information management by removing reliance on an unreliable, error prone, increasing staff flexibility and allowing control, job to job flexibility.
BQ-470 Options

Machine Dimensions Unit: mm (inch)

BQ-470 Major Specifications

Binding Mode

Number of Clamps

Book Block Size (Top-Bottom x Fore-edge)

Book Thickness (mm)

Cover Size (Top-Bottom x Fore-edge)

Cover Weight Range

Cover Pile Height

Warm up Time

Glue Temperature

Maximum Milling Depth

Cycle Speed

Voltage / Frequency

Rated Current

Power Consumption

Heat Output

Motors

Heaters

Machine Dimensions

Machine Weight

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

The L-470 is a hand lifter for easy and safe tank replacement. 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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