

# Horizon

BINDING

# BQ-280PUR

High Quality PUR Binding



# SPACE-SAVING AND HIGH QUALITY SINGLE CLAMP PUR PERFECT BINDER.

BQ-280PUR achieves superior binding quality and efficient operation.

## BENEFITS

### PUR PERFECT BINDING

High quality PUR binding is assured with dual application drums and separate EVA side glue application. Drum application enables book-of-one production with maximum quality control.

### VARIABLE THICKNESS PRODUCTION

The built-in thickness caliper provides an instant changeover for efficient variable thickness book production. The BQ-280PUR enables a thin and even amount of glue application for variable thickness books and provides high production efficiency in a single clamp binder.

### EXTENDED SPINE LENGTH

Maximum book size is 385 x 320 mm or 15.15" x 12.59" and the maximum book thickness is 51 mm or 2.00".

### EVA GLUE

Low temperature EVA glue (140 °C or 284 °F or below) can be used. The system can be used for both PUR and EVA with the same tank.

### MANAGE YOUR BINDERY WITH HORIZON'S BINDERY CONTROL SYSTEM

The system can be enhanced with automated workflow from upstream to post-press with iCE LiNK, which uses cloud technology, Horizon's post-press management system.

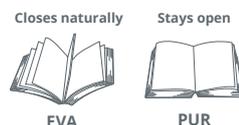
## FEATURES OF PUR GLUE BINDING



Polyurethane Reactive, also called PUR, is a popular due to its superior binding strength and ecofriendliness.

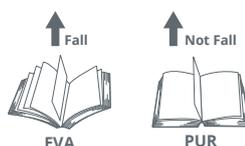
### LAY-FLAT

PUR glue is more flexible than EVA glue and provides lay-flat qualities when the book is opened. It is ideal for music books and cookbooks, which are read on the desk, and two-page spread such as photo books. This lay-flat quality makes it easy to read books and extends the book life.



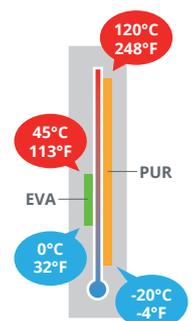
### HIGH BINDING STRENGTH AND DURABILITY

The binding strength is about three times stronger than the EVA glue. Coated paper or specialty stocks, which can be a problem with EVA, are bound securely in PUR bound books. EVA glue binding strength becomes weaker over time. However, the PUR glue retains durability and flexibility in both high and low temperatures for long lasting book quality.



### TEMPERATURE RESISTANCE / UNAFFECTED BY INK

The PUR glue is unaffected by temperature and humidity compared to the EVA glue. This allows PUR bound books to be handled in almost any climate or location. If EVA is attached to printing area, solvent ink and EVA bring about reactions, causing a binding issues. On the other hand, PUR is not affected by ink solvent and reduces potential problems.



### ENERGY SAVING / COST SAVING

The PUR glue can be applied at low temperature (120 °C or 248°F), and its high adhesiveness allows thin glue application (0.4 mm or 0.016").

### RECYCLABLE

The PUR is easy to be separated from the paper. It enables to recycle PUR bound books, saving disposal cost. PUR is environmentally friendly and recyclable, which is perfect for the ISO14001 certified companies to produce catalogs and brochures.



## 1 OPERATION CONSOLE

The changeover can be completed in less than one minute by simply inputting job information at the color touch panel. All setups including glue setup, nipping width, nipping height and scoring rollers can be adjusted automatically based on the book block information.



## 5 COVER FEEDING SECTION / SCORING SECTION

Superior cover feeding is assured with suction rotary feeding system and ultrasonic double feed detection. Cover scoring position is adjusted automatically through the touch panel. BQ-280PURFC is available with additional 2 flap cover scoring with automatic setup feature.



## 2 BOOK THICKNESS CALIPER

Book thickness caliper is provided as standard equipment. Book thickness is automatically measured by placing the book block into the digital caliper and the BQ-280PUR starts the set-up of each mechanism based on the measured thickness. The set-up for the next book block starts automatically while the previous book is still in-process which allows efficient short-run book production.



## 6 NIPPING SECTION

The automatic nipper height adjustment from the touch panel allows for complete tool-less operation. A square spine is assured with the powerful and rigid nipping mechanism.



## 3 MILLING SECTION

A powerful milling mechanism and special milling blade for maximum paper fiber and clean spine preparation for PUR binding. Uniquely designed wire brush cleans up the spine and also prevents the milling chips from getting into the glue tank.



## 7 DELIVERY SECTION

The newly designed book delivery section receives each book gently with an elevator-style delivery system to avoid damage to the spine of PUR bound books.



## 4 GLUE TANK UNIT

Open drum system enables easier setup and variable thickness production. Setups including glue amount adjustment, drum height, and wiper opening can be done through the touch panel.



### GLUE TANK CLEANING

The glue tank can be removed very easily for tank cleaning. The entire glue tank can be lowered with a simple operation from the touch panel. The optional S-280 glue tank stand makes tank replacement much easier and safer.



# OPTIONS.

## VS-280 FUME EXTRACTOR

- This unit is highly recommended with PUR use. The extractor continues to work for thirty minutes by the timer even after turning off the power.



## BC-BQ270 BARCODE VERIFICATION SYSTEM

- The barcode verification system is able to read the printed barcodes on the cover sheet and book block to match.



## KG-280 LINING GUIDE

- This guide positions a strip of lining which is fed manually on the nipper. Gauze strips for case binding can be positioned in the correct location.

## M-470 PUR GLUE HEATER

- The M-470 is a laboratory oven used to premelt the PUR glue of about 2 kg or 4.4 lb.

## B-470 FLUORINE RESIN COATING BEAKER

- The B-470 Fluorine-resin-coated beaker can be used to premelt the PUR glue of about 2 kg or 4.4 lb or to refill the glue tank.

## PST-280 PUR TANK SET

- Spare tank for replacing the spine glue tank.

## S-280 MELT TANK STAND

- S-280 melt tank stand makes the replacement more easier. The S-280 stand (with casters) is designed to receive and hold the spine glue tank unit after removal. (With casters)

## FLAP COVER KIT

- The fold line for flap covers can be scored in-line. Flap covers are then folded inward along the scoring line after binding.

# SPECIFICATIONS.

Machine Dimensions. (Unit : mm / inch)

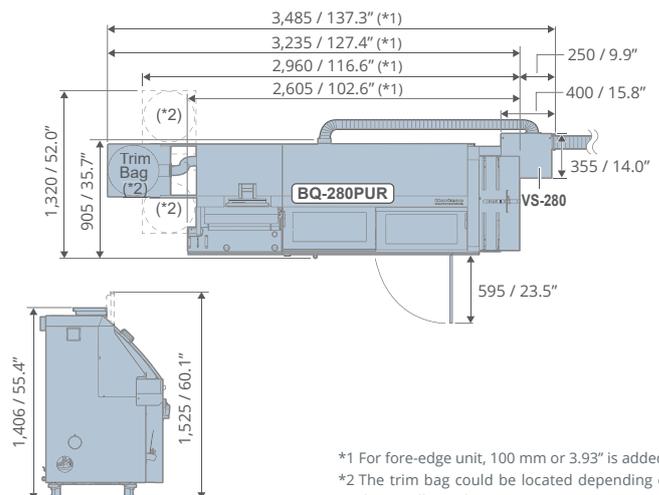
BQ-280PUR	
<b>Binding Type</b>	Binding with milling, Binding without milling, and Pad binding
<b>Glue Type</b>	PUR glue / Low temperature EVA glue
<b>Book Block Size</b>	 <b>Spine Length x Fore-edge Length</b> Max. 385 x 320 mm or 15.15" x 12.59" Min. 135 x 105 mm or 5.32" x 4.14"
<b>Book Block Thickness</b>	1 to 51 mm or 0.04" x 2.00"
<b>Cover Size</b>	 <b>Length x Width</b> Max. 385 x 660 mm or 15.15" 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 or 5.32" x 8.86" (Up to 115 mm or 4.52" forwards from the clamp face) (Up to 110 mm or 4.34" backwards from the clamp face)
<b>Cover Weight Range</b>	Normal Paper 82 to 302 gsm Coated Paper 105 to 349 gsm
<b>Cover Stack Height</b>	Max. 70 mm or 2.75"
<b>Warm up Time</b>	1 hour
<b>Glue Temperature</b>	Spine Glue Tank (PUR glue / Low temperature EVA glue) : 110°C to 140°C or 230°F to 284°F Spine Glue Tank (PUR) : 90°C to 105°C or 194°F to 221°F (When low temperature glue is selected.) Note : An optional thermostat for low temperature glue is required. Side Glue Tank (EVA glue) : 150°C to 200°C or 302°F to 392°F
<b>Milling Depth</b>	Max. 4 mm or 0.15"
<b>Cycle Speed</b>	Max. 500 cycles per hour *1
<b>Voltage / Frequency</b>	3-phase 200 to 220 V, 50 or 60 Hz 3-phase 400 V, 50 or 60 Hz (Step down to 200 V by Transformer)
<b>Machine Dimensions</b>	W2,605 x D905 x H1,525 mm or 102.6" x 35.7" x 60.1" *2

\*1 The cycle speed changes depending on the operator's working time and the book thickness.

\*2 If the machine is the flap cover model, the width becomes 100 mm or 3.94" wider.

\* The machine design and specifications are subject to change without any notice.

\* Specifications may vary depending on the job, paper quality, environmental influences, and various other factors. Please do a test run before starting production.



\*1 For fore-edge unit, 100 mm or 3.93" is added.

\*2 The trim bag could be located depending on the installation location.

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