

PUR (Polyurethane) glue provides extremely strong binds with quality results, combined with the strength and lay flat qualities that this type of gluing process can provide.



Suction Cover Feed

The AMS (Air Management System) ensures that each cover is accurately fed without marking. The cover is then presented automatically on to the nipping table. An illuminated line indicates to the operator the correct score position on each cover.



Scoring

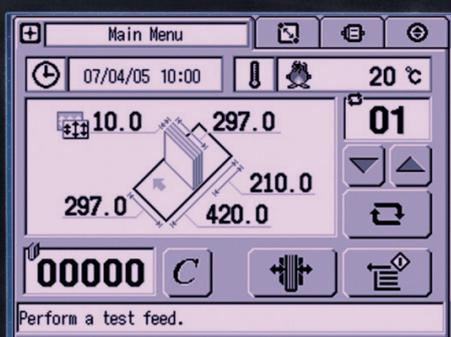
The 4 scoring tools are accurately positioned automatically from the touch screen. The optional "Wing" score tool provides for flaps to both the front and back of each cover.

Features

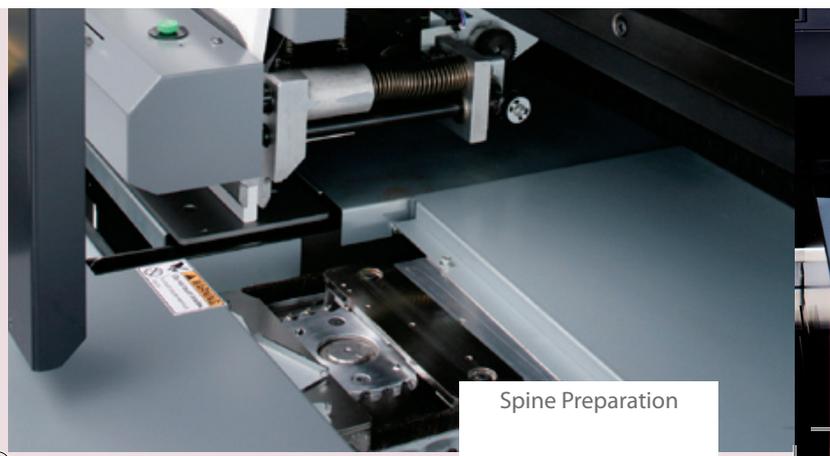
The DPB-500 PUR is a user friendly and simple to use single clamp binder which can be automatically programmed to accommodate a range of specifications including book thickness, side gluing and scoring, cover guides and press position. A simple to use touch screen allows the operator to select from one of the 20 available job memories. The systems range of in built features such as double cover detection, book thickness sensor, Incorrect book block sensor, ensures that it operates with upmost precision and accuracy at all times, which ultimately reduces wastage.

Accurate

The DPB-500PUR gluing application is performed both simply and accurately by the "Nordson" PUR gluing system. The slot nozzle gluing head provides a precise amount of PUR glue to both the spines and sides of the books. This allows the device to achieve a book bound quality without the need of a skilled operator. The systems range of inbuilt features such as automatic glue pressure control, glue spine length control, book thickness and the the 4 automatic score positions can be simply controlled from the touch screen. Fine adjustments from 0.1mm can be simply made to all book parameters. These changes are stored within the touch screen control where each job can be simply recalled and processed within 30 secs.



Touch Screen display



Spine Preparation



Milling / Notching

A heavy duty motor and high speed steel milling and notching tool ensure that an accurate and flat spine preparation is provided prior to gluing Up to 4mm can be removed from the spine when folded sections are being produced.



Delivery

A built in stacker ensures that a neat and unmarked book is perfectly presented on to the spine. A 200mm capacity allows for continuous production, and a "Stack Full" sensor indicates to the operator when the books need to be removed. The optional long conveyor model DPB-LS can be added where longer productivity runs are required.



Touch Screen Display

A user friendly and simple to operate touch screen panel allows the operator to program each job and store them in one of 20 job memories. Each job can then be simply recalled for future use.



Daily and weekly timer

A daily timer is provided from within the "Nordson Durapail" heater to allow the operator to simply program the start of each shift. This operation provides for a time saving of 30-40mins which in turn leads to an increase in productivity.

High productivity

The operator simply recalls one of the 20 available job memories from the touch screen and all book and cover positions are set up within 30 seconds. Sensors within the clamp automatically measure for each book thickness and set up the PUR side gluing plates and 4 scoring tools. Accurate sensors within the clamp identify that only books with the correct amount of pages are inserted ensuring upmost precision at all times. Glue pressure is automatically provided for each book thickness to ensure that only the correct PUR glue is applied to both the spines and sides of each book. This ultimately reduces wastage and increases productivity. Accurate scoring tools (4) two of which are inverted, are automatically positioned for each book thickness so that the hinge is always in the correct position on both the front and rear covers

The DPB-500 PUR can provide for both the same book thickness, or variable data books. When the variable data mode is selected each book block is automatically measured which in turn sets up the 4 scoring tools and side gluing plates for each individual cover and book block. A light beam indicator positioned on the cover table provides the operator with the correct score position which ultimately reduces wastage.



**30-40 min
warm up time**

The "Nordson Durapail" heater incorporates a daily pre- melter which allows the operator to immediately commence production at the start of each working day.



Suction cover feed



Scoring



Paper dust

All paper dust is safely and cleanly removed by an external heavy duty motor and collection bag. When full the bag can be simply removed and all waste paper emptied into a suitable container.



Options

A range of options include Wing scoring tools, Long conveyor (Model DPB-LS) and Bar code readers for both the book block and covers.



Fume extraction

The DPB-500PUR is a closed tank PUR glue application system, and therefore does not require the need to have any form of fume extraction fitted. This provides savings on both space and cost.



Glue application

The DPB-500 PUR incorporates a closed tank gluing system the model "Nordson" EP48VSB. This provides an accurate and safe application of the PUR glue to the spines and sides of the books. The operation of the head is simply controlled from the touch screen. Both the Start Up and Shut down procedure, takes only 2-3 mins and is both simple and safe to perform.

Benefits of PUR glue

	Resistant to changes in temperature	Chemical Resistance	Bond Strength	Creep Resistance
CONVENTIONAL HOT MELT	Limited	Poor	Poor	Poor
PUR HOT MELT	Excellent	High	High	High



Benefits of the DPB-500 PUR gluing system

PUR (Polyurethane) glue, provides an extremely strong bond on all coated and digital papers. PUR glue provides excellent lay flat qualities combined with high page pull strengths,ensuring that a secure and professional book is produced every time.

The PUR gluing process

The Durapail heater can be set to come on 30 mins before production commences. this provides an increase in productivity. A small amount of glue is purged into a small container (provided) to ensure that no air or moisture is present. The operator then selects from one of the existing 20 programs or simply enters the parameters of the cover and book block to start a new job. The book is presented into the clamp and is accurately measured for thickness, this then sets up all of the Guides; Scoring tools; Side gluing plates; and Cover positions within 30 secs. The first book is then bound and delivered back into the built in vertical stacker or optional long conveyor. Any further fine adjustments can be simply made from the touch screen panel. All book production is performed by a "Tool Less" operation. At the end of the shift the operator simply closes the side gluing plates from the touch screen and applies a small amount of special grease to prevent air/moisture entering the gluing head. The machine is then switched off until the next shift commences. The DPB-500 PUR can be left on throughout the day if required without losing any of the binding qualities of the glue.

Consummables Cost

Using PUR glue is very cost effective as only a small amount of PUR glue is applied to the spine and sides of the books 10-12mils = 50% less than an EVA book.

Benefits of using the Duplo DPB-500 PUR

Using PUR glue guarantees a secure and accurate book for all types of book production. Unlike EVA glue the PUR process bonds to both Digital and Litho papers. It provides excellent page pull strengths and ageing stability.

PUR glue is not affected by silicon or fuser oils, or when customers are operating in countries that have extremes of temperature. The Lay flat qualities ensure that books can be opened to the spines without any concern that the page will fall out. Printers can produce publications feeling confident that their customers books will be securely finished with a high degree of accuracy.



Scoring



Centre registration or pre entered measurement



Milling and Notching



Automatic sensors in the clamp measure for each book thickness and provide an accurate glue pressure, ensuring that the correct amount of glue is applied each time.



Finished Product

Specification

Book thickness:	Min 1mm Max 51mm + cover thickness
Book size (spine × fore-edge):	Max 360 mm × 320 mm Min 120 mm × 120 mm
Cover size:	Max 360 mm × 696 mm Min 120 mm × 250 mm
Cover weight:	80-302 gsm
Cover Pile height:	70 mm
Cycling speed:	525 books/hr *
Delivery:	Internal vertical stacking tray
Stacker capacity:	200 mm
PUR Glue Head:	Nordson EP48VSB slot nozzle
Glue application:	Automatically pressure controlled from the Nordson "Durapail" Heater depending upon book thickness
Glue Thickness:	Manual height adjustment of EP48VSB head
Side gluing:	Nordson EP48VSB Head with side glue plates
Book clamps:	1
Programs:	20
Score tools:	4 (2 inverted) **
Screen:	Touch screen control
Waste extraction:	External motor & dust collection bag
Counters:	Total
Warm up time:	30 - 40 mins
Glue operating temperature:	115 -120 degrees C set from Durapail unit
Milling depth:	Max 4mm Min 0.5mm 6 manual steps 0, 0.5, 1.0, 2, 3, 4mm ***
Notching tools:	2

Book accuracy:	+/- 0.1 mm on cover and nipping stations
Features include:	Automatic set up of:- <ol style="list-style-type: none"> 1 Book thickness 2 Side gluing plates 3 Nipping guides 4 Cover registration guides 5 Scoring tools (4) 6 Glue cut off (back /front of the book) <ul style="list-style-type: none"> - Double cover detector - Light beam score position - Programmable daily pre heat timer from Durapail DP -20 - Out of cover detector - Incorrect Book block sensor - Automatic Cycle - Automatic Glue Pressure control

Dimensions DuBinder PUR:	928(D) × 2790 (W) × 1343(H) mm
Dimensions Durapail heater DP-20	1180 (W) × 1268(H) × 540(D) mm
Installation Dimensions for Durapail	1740(W) × 1670(H) × 793(D) mm
Weight DuBinder PUR	715kg excluding EP48VSB head
Weight Durapail heater DP-20	340kg (empty) + 20kg glue drum
Noise emissions DuBinder PUR	90db or less
Noise emissions Durapail DP-20	72 dba
Power consumption	900W 2.5A/single phase
Power supply DuBinder PUR	3 phase 415v 50-60Hz + earth + neutral
Power supply Durapail DP-20	3 phase 380/415v 50-60Hz + earth + neutral

* Cycling speeds. The cycle speed of 525 books/hr is not a true indication of productivity. Various factors will affect productivity . Carriage speed; Nipping times; Loading/Off loading and Curing times.

** Scoring tools. The minimum book thickness with scoring is 3mm

***Milling Depth. The Milling /Notching tool cannot be lowered to below the "0" position. The motor cannot be switch off or lowered and therefore the milling wheel will always be in contact with the book block.

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Ref: I-DPB500PUR/v1

DPB-500 PUR BINDER

FULLY AUTOMATIC PUR GLUE BINDER
FOR ACCURATE AND SECURE BINDING
OF DIGITAL AND COATED PAPERS

Fully Automatic Programmable Accurate A.M.S. cover feed

*Photo Albums · Directories Instruction Manuals
Catalogues · Telephone Directories · Paperbacks*

