Watkiss PowerSquare

watkiss

CREATIVITY | ACCURACY | EFFICIENCY

> **"** Its performance and finish quality are second to none. I would highly recommend this machine to anyone who is looking for a professional finish. **"**
>
> Nigel Reynolds
> University of Cambridge

Nearline PowerSquare with Book Stacker

Watkiss PowerSquare

Online PowerSquare compatible with a wide range of printers

A unique and innovative 'complete book making system'

The Watkiss PowerSquare 200 is a unique and innovative complete book making system for digital and offset print applications. In a single machine it combines the four processes of stitching, folding, spine forming and trimming to produce SquareBack books up to 200 pages thick. It features fully automatic settings for different book size and pagination, including variable stitch leg length for varying book thickness.

The maximum book thickness, of 10mm (200 pages 80gsm), is double that of alternative conventional booklet making machines, so it is ideally suited to higher paginations or to thicker stocks. This makes the Watkiss PowerSquare 200 a fast and cost effective alternative to perfect binding or tape binding. Digital print applications frequently use heavier stocks and need the flexibility to produce a wider range of finished books from a single process, with little or no operator intervention - the Watkiss PowerSquare is a perfect match.

A Single Solution

The PowerSquare is a single solution for books from 8 - 200 pages. No other book making system offers this flexibility. It requires less capital outlay since one machine will finish virtually all production. It has the added advantage that printed sheets do not need any manual handling between different finishing devices.

Offline hand-fed PowerSquare

SquareBack Books

The finished SquareBack books have the superior square-spined appearance of a perfect bound book, but with the security of a stitched spine. They lie flat and are easy to pack, stack and handle. There is no risk of loose pages and you can print on the spine.

Space-saving, Ergonomic Design

The PowerSquare has a very small floor space requirement - significantly less than alternative book finishing methods. What's more, when operating online to a printer, the finished books are delivered close to the normal operator position - not several metres 'down the line'.

Easy to Use

The PowerSquare is extremely easy to use. Simply enter the job parameters (paper size, book thickness and number of stitches) into the touch-screen and press 'start'. The PowerSquare automatically sets the stitch position, the wire draw length (the stitch leg length), the amount of spine form required and the trim dimension. To make repeat jobs easier still, you can save the settings, each with a unique name, for instant recall when required.

Consistent, Quality Stitching

The PowerSquare has a single stitch head which inserts one to six stitches in the spine of the book. The stitch head and clincher are static - the sheets move to the stitch, not vice versa. This means the stitch head and clincher never have to be moved, so alignment and stitch quality is consistently good.

Online, Nearline or Offline

The PowerSquare is available in online, nearline and offline configurations. Online versions include automatic sheet rotation to suit the book making process whilst maximising printing speed. For nearline applications, a high volume sheet feeder is connected. The offline, hand-fed model provides a flexible book making solution which is instantly ready.

8-200

A Single Solution

The PowerSquare is a single solution for books from 8 - 200 pages. No other book making system offers this flexibility.

Automatic Sheet Rotation

Sheets are automatically rotated into the correct orientation for booklet making.

SquareBack Books

SquareBack books can carry print on the spine, just like a perfect bound book. They are easy to handle, stack and pack.

Insert 1 - 6 stitches

Multiple stitching allows 2-up or 3-up production. The static stitch head ensures consistent alignment and quality.

Double Book Thickness

10mm (200 pages of 80gsm paper) is twice that of conventional machines.

Instant-On

There is no warm-up time, so the machine is always ready to run.
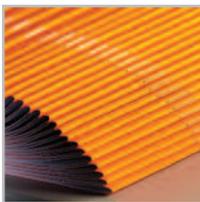
Thin Books

The SquareBack finish can be switched off for thin books, if required.

Fast and precise set-up

Job settings and memories are easily set in the colour touch screen panel.

Additional Benefits

- Small floorspace requirement
- Ergonomic design - finished books are delivered close to the normal operator position
- Fast, accurate and fully automated no-tools make-ready in under 60 seconds

- A single solution - no manual handling between different finishing devices
- Heavy duty side-loading stitch head
- Economical – low power requirements, low consumable cost, no waste

Offline PowerSquare

The offline PowerSquare is the most powerful and versatile stand-alone booklet maker that you can choose. It is instant, clean, and extremely flexible, handling a wide range of applications - from folding a single sheet through to making 200 page booklets.

Not only is it versatile, it is also extremely easy to use and produces an unbeatable, professional finish.

The offline PowerSquare has a multitude of uses, including manuals, magazines, programmes, academic journals, financial reports and education materials. It is a fast and convenient solution for short-run booklets, and a good alternative to tape and wire binding systems.

Offline hand-fed PowerSquare

Nearline PowerSquare

The nearline PowerSquare combines the PSF PowerSquare Sheet Feeder with the Watkiss PowerSquare booklet maker to make a high-speed near-line booklet making solution for digital printers.

This combination automatically converts stacks of pre-collated documents - from colour or monochrome digital presses - into high quality stitched booklets. This near-line solution gives great flexibility, especially when finishing the output of multiple printers.

The PSF feeds up to 10,800 sheets per hour and includes a separate cover feeder. It is equipped with large suction belts which are well proven to reliably feed a wide range of printed papers. Automatic sensors, which require no calibration, check for miss or double feeds to prevent faulty sets from being processed.

The number of sheets in each document can be controlled via the user interface - or the inbuilt OMR (optical mark recognition) sensors can detect the end of each set. OMR sensing means that variable sized sets can be handled and ensures job integrity. Optional barcode readers are also available.

The sheets are transported into the PowerSquare booklet maker where, when the set is complete, they are stitched, folded, formed and trimmed into SquareBack books.

For operator convenience, the PSF accepts pallets of printed paper directly from a wide range of digital printers[†] - the pallet is simply wheeled from the printer to the feeder. Alternatively sheets from unsupported printers can be manually loaded into the PSF.

Nearline PowerSquare

Xerox Nuvera Printer   Watkiss PowerSquare

Online PowerSquare

The online PowerSquare is a streamlined booklet making system for high production environments. It enables you to print and publish on demand with the industry's leading digital printers.

Full integration with the printer optimises performance and productivity. Printed sheets are delivered from the printer to the PowerSquare via a connecting bridge that automatically rotates the sheets into the correct orientation for booklet making to give a professional finish every time.

This system is designed for high reliability and ease of use, with the ability to handle long runs without any operator intervention. Its ergonomic layout means that the finished books are delivered close to the normal operator position, saving space, time and operator fatigue.

With the optional book stacker, the system will run for up to an hour unattended. The high capacity trim bin can be emptied without stopping the machine, and stitch wire refills are reduced by the use of a 15kg wire-reel that will produce approximately 130,000 books.

The online PowerSquare is the most versatile online booklet maker, handling from 8 page to 200 page booklets and it can also be hand-fed for occasional use.

Printer Compatability

• Xerox Nuvera series

• Xerox 800/1000 Color Press

• Kodak DigiMaster series

• Océ VP2000, VP4000 and VP6000 series

PowerSquare online to
Océ VarioPrint printer

PowerSquare Book Stacker

PowerSquare Book Stacker

The PowerSquare Book Stacker (PBS) delivers huge efficiency gains by allowing the Watkiss PowerSquare to run, unattended, for extended periods.

The PBS stacks the finished books vertically which is extremely space efficient; and it requires very little additional floor space. With a capacity of 930mm, it can run for up to an hour without operator intervention. The stacker accommodates different sized books without adjustment and can be unloaded on-the-run to give uninterrupted production.

The PBS complements the PowerSquare's capability for thick books and high volume production by streamlining the entire operation. The operator can set the machine running and simply walk away.

Stack different sized books without adjustment

PowerSquare Two-Knife Trimmer

The PowerSquare Two-Knife Trimmer (P2T) is a compact module that completes the booklet making process by trimming the top and bottom edge of the book. It provides a professional solution for full-bleed printed work, especially important for colour printed applications.

Fully automated from the PowerSquare's user interface, up to 40mm can be trimmed from each end of the book, and the trim position can be offset to match the image position. All trimmings are transported outside the machine to a high capacity external waste box, allowing continuous operation.
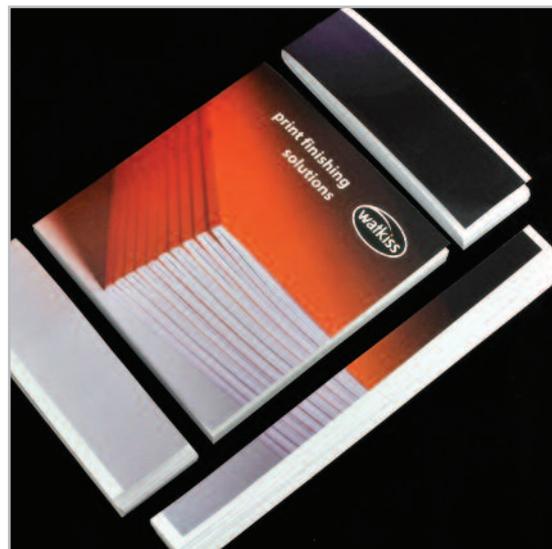
Watkiss PowerSquare

Specifications	Offline	Nearline	Online
Production	Dependant on the number of stitches and book thickness		
	Typical set time: 7.5 seconds	Cycle time: Printer/Feeder dependant Interset gap: 1.0 seconds Minimum set time: 4.75 seconds	
Stock Sizes (input size)	120 x 200mm to 370 x 520mm	200 x 203 to 340 x 500mm	200 x 200mm to 340 x 500mm
Sheet Rotation	n/a	Integrated rotator ensures maximum printer productivity. Maximum rotation sheet size: 320 x 227mm Minimum rotation sheet size: 207 x 200mm	
Stock Range	70 - 250gsm dependant on paper type and quality		
Book thickness	Minimum set thickness: 2 sheets (when folded makes an 8 page booklet) Maximum finished book thickness: 10mm (approx 200 pages 80gsm) Maximum set thickness: 5mm (approx 50 sheets 80gsm)		
Stitching	1 - 6 stitches, evenly spaced on the spine of the book Stitches/spool: up to 291,500 Books*/spool: approx 127,000		
Fore-edge Trimming	Maximum fore-edge trim: 28mm Minimum trimmed book size: 80mm		
Side Trimming (option)	Maximum side trim: 40mm each side Minimum trimmed book size: 120mm		
Stacker Capacity	Standard stacker: 35 books* Book Stacker (optional): 930mm		

* Standard book is made from 20 sheets of 80gsm bond paper, with 2 stitches

PowerSquare Sheet Feeder

Specifications	
Production	A4 (long edge feeding) up to 10,860 sheets/hr A4 (short edge feeding) up to 8,640 sheets/hr A3 up to 6,700 sheets/hr SRA3 up to 6,350 sheets/hr
Feeder Capacity	Upper feeder: 140mm Lower feeder: 500mm
† Compatible Paper Carts	Optional, available from printer supplier: XEROX : DT6180-6135 / Nuvera with DS3500 & 5000 / IGEN HP Indigo Press. KODAK / Canon DigiMaster / DigiSource XEROX DocuColor DC 6000 - 7000 - 8000 XEROX CP800 / 1000 Color Press XEROX 4112 / 4127

THE QUEEN'S AWARDS
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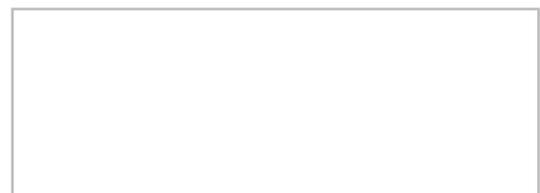
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