

PowerSquare™ 224

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# PowerSquare™ 224 and 224VF

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## PowerSquare 224™ Highly Productive... the complete book making system

### PowerSquare™ 224

The Morgana PowerSquare™ 224 is a unique and innovative complete book making system designed for high production environments. In a single machine it combines the four processes of stitching, folding, spine forming and trimming to produce SquareBack™ books up to 224 pages thick. No other book making system offers this flexibility.

The hand feed PowerSquare™ 224 has a multitude of uses, including manuals, magazines, programmes, academic journals, financial reports and education materials.

One of the unique features of the 224 is that it has up to 6 staples in one set, making it suitable for demanding handfed applications, and with the optional P2T Full Bleed Trimming module, this enables you to increase productivity and efficiency.

The proven SquareBack process produces a superior quality finish, and with the automatic set thickness sensing this ensures optimum book quality to deliver professionally finished booklets for you - and your customers.



# PowerSquare™ 224 and 224VF

“Renowned  
PowerSquare **build**  
**quality** for long  
term **reliability** and  
**performance**”



## The PowerSquare 224 at a glance

- Automatic staple-to-fold tracking gives improved quality with consistent and accurate staple position on the spine
- Integral face trimming produces a professional finish by removing the shingle-edge caused by folding multiple sheets
- Full bleed two knife trimming is available as an option.
- Makes books from 4 – 224 pages
- Produces high quality SquareBack™ Books
- Inserts 1 – 6 stitches
- Fully automated
- Ergonomic design
- Small footprint
- Instant-on, no warm up time
- Low power requirements
- Renowned PowerSquare build quality for long term reliability and performance



# PowerSquare™ 224 and 224VF

Produce **booklets**  
up to 10mm thick  
with the  
**PowerSquare™ 224**



## PowerSquare™ 224VF - NEW Feeder

The NEW PowerSquare™ 224VF with its high capacity dual bin feeder offers a flexible solution for a wide range of booklet types and sizes. The system is fed by the VF vacuum assisted feeder which has a loading capacity of up to 540mm, giving long uninterrupted production runs. Pre-collated sets can be placed into both bins for longer runs, or covers can be placed into one of the bins when they need to be merged with collated sets. The feeder can also be loaded on the run with automatic bin switching.

Optional barcode readers can be fitted to the VF for variable page count jobs or to ensure set integrity.

## SquareBack Booklets

With an ever increasing demand for high quality booklets on a wider range of media the PowerSquare™ 224 and 224VF will deliver booklets produced with the unique SquareBack™ finish to the spine. The proven SquareBack™ process produces a superior quality finish. The automatic set thickness sensing ensures optimum book quality to deliver professionally finished booklets for you and your customer.

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

The Power Square™ 224 and 224VF can produce a wide range of formats including A6, A5, and A4. Booklets of up to 224 pages of 70gsm, or up to a thickness of 10.4mm can easily be produced, replacing the need for perfect binding of many publications.

# PowerSquare™ 224 and 224VF



Produce **books as small as A6** when using the **2 knife trimmer**, complete the booklet making process by **trimming the top and bottom edge of the book**.



## PowerSquare 224VF with integrated Two Knife Trimmer (P2T)

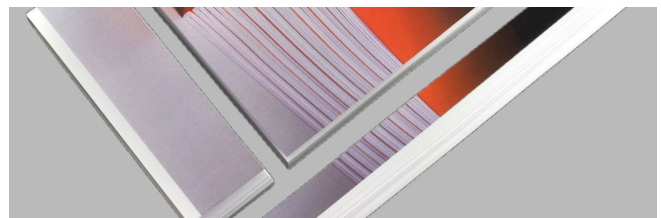
The PowerSquare 2-Knife Trimmer (P2T) completes the booklet making process by trimming the top and bottom edge of the book. It provides a professional solution for full-bleed printed work, essential for colour printed applications.

Side-trimming the finished book gives a clean, sharp and accurate result. Up to 40mm/1.57" can be trimmed from each end of a book, while the trim position can be offset to match the image position to produce a professional finish, removing the shingle-edge caused by folding multiple sheets.

Full bleed two knife trimming is available as an option.

### Key features:

- **Paper Size 224VF** - Min: 4.7" x 8.2". Max: 13.7" x 20.4".
- **Paper Size 224** - Min: 4.7" x 7.8". Max: 14.5" x 20.4"mm
- **Stock Range 224VF** - 16lb - 111lb bond dependent on paper
- **Stock Range 224** - 16lb - 111lb bond dependent on paper
- **Minimum set thickness** - 1 sheet 21lb bond (when folded makes an 4 page leaflet)
- **Maximum finished book thickness** - 0.4" (approx 208 pages 21lb bond, 224 pages 18lb bond)
- **Maximum set thickness** - 0.2" (approx 52 sheets 21lb bond, 56 sheets 18lb bond)
- **Stitching** - Auto-adjusting stitch pitch according to sheet size and amount of stitches, range 0.9"-12.6"
- **Stitch** - 1 - 6 stitches in each book, Stitches/spool: up to 291,500 Books\*/spool: approx 127,000



# PowerSquare™ 224VF

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**The PowerSquare**  
will run, unattended,  
for extended  
periods delivering  
**huge efficiency**  
**gains** for your  
business.



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

The PBS stacks the finished books vertically which is extremely space efficient; the compact unit requires very little additional floor space.

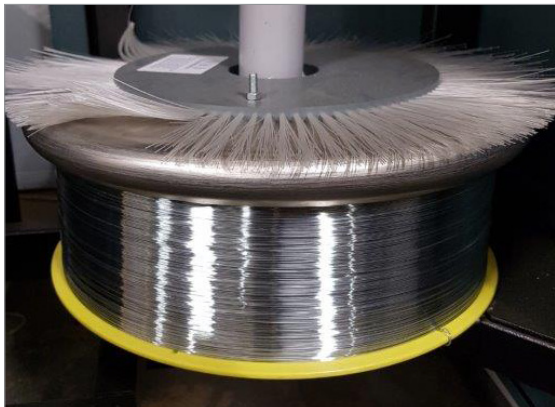
With a capacity of 36", it can run for up to an hour without operator intervention. The stacker can be unloaded on-the-run and accommodates different sized books without adjustment, giving you uninterrupted, efficient book production.



## Static Stitching head

The PowerSquare™ 224 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.

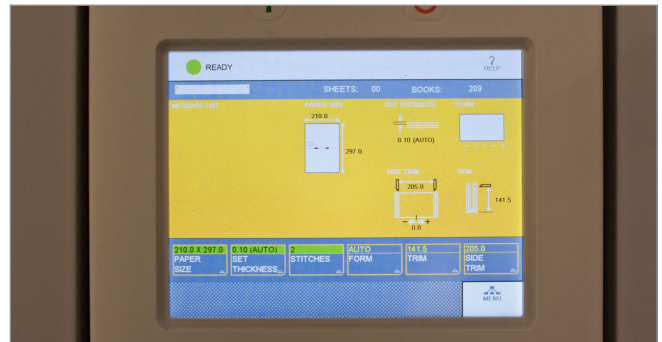
Up to 6 staples can be applied to one set for 2-up or 3-up production. It also features fully automatic settings for different book size and pagination, including variable stitch-leg length for varying book thickness.



## Static stitching head and clincher gives **consistent alignment and quality**

## User Interface

The PowerSquare™ 224VF has a state of the art control system including remote diagnostics. The intuitive GUI is easy to navigate and set up all machine functions quickly. The control systems includes a detailed service and diagnostic system which can be remotely accessed for preventative maintenance, fault analysis and system monitoring leading to greater efficiency and utilisation of the machine.



# Technical Specifications

## PowerSquare™ 224

Paper Size	Minimum 4.7" x 7.8" to maximum 14.5" x 20.4"
Stock Range	16lb bond - 148lb bond dependent on paper type and quality
Book thickness	Minimum set thickness - 1 sheet 16lb (when folded makes an 4 page leaflet)
	Maximum finished book thickness - 0.3" (approx 160 pages 21lb bond)
	Maximum set thickness - 0.15" (approx 40 sheets 21lb bond)
Stitching	2 low impact staple heads with moving clinchers. Auto-adjusting staple pitch according to sheet size, range 4" - 6".

## PowerSquare™ 224VF

Paper Size	Offline: minimum 4.5" x 8" to maximum 14.5" x 20.5"
Stock Range	16lb bond - 148lb bond dependent on paper type and quality
Book thickness	Minimum set thickness - 1 sheet 21lb bond (when folded makes an 4 page leaflet)
	Maximum finished book thickness - 0.4" (approx 208 pages 21lb bond, 224 pages 70gsm)
	Maximum set thickness - 0.2" (approx 52 sheets 21lb bond, 56 sheets 70gsm)
Stitching	Single heavy duty stitch head 1 - 6 stitches, evenly spaced on the spine of the book
Stitches/spool	up to 291,500
Books*/spool	approx 127,000
No. of bins	2

\* Standard book is made from 20 sheets of 21lb bond paper, with 2 stitches

## PowerSquare™ 224VF with 2 knife trimmer - machine footprint

