

Specifications

DBMi

Max Book 1 up Production Speed 4,500 A5 books/hr (1 subset) up to 10 pages  
Book production speed can vary depending upon the no of pages and subsets

Up to 9,000 books/hr \*

Max Book Thickness Up to 120 pages or 3mm x 80gsm paper

Flat sheet Size Max 350mm (W) x 610mm (L) Min 120mm (W) x 210mm (L)

Finished untrimmed book size Max 350mm (W) x 254mm (L) Min 120mm (W) x 105mm (L)

Finished book size 1 up production Max 350mm (W) x 250mm (L) Min 120mm (W) x 75mm (L)

Max book size over 500mm(L) 230mm (W) x 305mm (L)

Finished book size 2 up production Max 174mm (W) x 304mm (L) Min 90mm (W) x 75mm (L)

1 stitch in each book

DBMS-T Trimmer knives Max/Min front trim 2-25mm (75mm with 12 pages or less)

DKT-200 Side knives Max/Min 2mm-60mm (30mm max trim for each knife)

Max thickness of 1 sub set Up to 1.5mm x 80gsm

Folding capacity 2-10 sheets

Max scoring thickness 1.5mm

Fine adjustment From 0.1mm

Max stitching capacity 3mm

Min stitching head distance (1-up) 60 - 306mm

Stitching head distance (2-up) 60mm 55mm in fine adjustment mode

Stitching heads Standard fitting 2 x Hohner 43/6S Optional up to 4

Control panel PC control

Job memories Infinite from PC controller

Folding rollers Automatic mechanism

Scoring wheels Automatic height adjustment

Stitching capacity Up to 30 sheets x 80 gsm

Error detect sensors Stitching wire (on the saddle) ; Paper feed: Paper jams; Safety guards 6mm

DBMS-T Trimming capacity 6mm

Connecting devices - 6 x DSC10/60i towers - DKT-200 Trimmer  
- DSF2200 Sheet feeder - DCR-ST Stacker  
- 400STR Stacker

Power supply DBM-F/S/T 200-240V 50/60Hz 950 W

Net weights 1033 kgs

Dimensions DBMS-F Folder 1627mm (W) x 941mm (D) x 805mm (H)  
DBMS-S Stitcher 1845mm (W) x 935 mm (D) x 1162mm (H)  
DBMS-T Trimmer 718mm (W) x 700mm (D) x 1187mm (H)  
3453mm (W) x 3885mm (D) x 1972mm (H)

Options - DKT-200 Trimmer - 3 or 4x Hohner flat/loop heads  
- DSF2200 Sheet feeder - 6 page Cover insert kit  
- DCR-ST Stacker - 400STR/L Stacker  
- Scoring wheel sets (depending upon the type of paper stock and weight) \*\*\*

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Production rates are based on optimal operating conditions and may vary depending on stock and environmental conditions.  
As part of our continuous product improvement program, specifications are subject to change without notice.



DSC-10/60i Suction Tower Collator

Bin capacity 65mm

Paper size\*\* Min 105mm (L ) x 148mm (W) Max 356mm (L) x 508mm (W)

Paper sizes over 508mm in length Max 230mm (W) x 610mm (L)

Paper weight 50-300gsm from each bin

Max book processing speed into the DBMi Saddle System 4,500 A5 books/hr (1 subset x 10 pages)

Up to 10,000 A5 sets/hr into jogger/stacker

Max no of connectable towers Up to 6 Towers

Detection Miss, Double, Paper Jam and Empty Bin sensors

Counters Total, Batch, Set Reject

Controls (1) PC control when connected to DBMi saddle stitcher.  
(2) Built in colour touch screen depending upon the connected booklet maker.

Features - Block Mode - A4 Landscape sheet size  
- Programmable Intelligent Bin feeding - Hand marry mode

Total feed control on each bin - Ability to increase the flow of air and vacuum on each bin  
- Ability to increase the strength of air/vacuum on each bin  
- Ability to adjust the feed timing - Ability to adjust the sheet overlap  
- Twin Belt drive on conveyor - Automatic ejection of faulty sets  
- Bi - directional feeding - Stand by or waiting mode

Connectivity DBMi Saddle System  
Up to 6 x DSC-10/60i towers  
400STR Stacker  
DCR/ST Stacker  
DSF2200 Sheet feeder

Dimensions D x W x H 765mm (D) x 830mm (W) x 1972mm (H)

Power 220/240V 50/60Hz 5.3A 980W

Weight 297Kg

Options Ultrasonic double detection\*\*\*

DKT-200 Trimmer

Max untrimmed book size 350mm (W) x 254mm (L) 230mm (W) x 305mm (L) A4 Landscape

Max trimmed book size 354mm (W) x 254mm (L) 228mm (W) x 305mm (L) A4 Landscape

Min trimmed book size 1 up 120mm (W) x 75mm (L)

Max trimmed book size 2 up 174mm(W) x 253mm (L)

Min trimmed book size 2up 90mm (W) x 75mm (L) 1 stitch in each book

Min trimmed book size 2 up for each book 105mm(W) x 75mm (L) 2 equal stitch positions

Max trim 60mm > 30mm for each side knife

Min trim 1mm

Speed Up to 4,500 A5 finished books Up to 9,000 2 up books

Max book thickness 6mm 30 sheets x 80gsm

Max book thickness with gutter cut knives 2.4mm

Programs From PC control unit

Connectivity DSC-10/60i  
DBMi  
DC10/60Pro  
DSF2200/DSF2000/DSF5000

Weight Kg 507Kg

Power supply 220/240v 50Hz

Power consumption 640W 4.1A

Options - 6mm Gutter cut knives - 6mm Diameter hole punch  
- Offset trim kit - Kicker unit

\* When connected with DKT-200 Trimmer

\*\* Some features of the DSC-10/60i will not apply when connected to other Duplo Bookletmakers

\*\*\* Not available at the Launch

Duplo®

from print to documents

THE DBMi SADDLE SYSTEM

INTELLIGENT, FULLY AUTOMATIC AND PRECISE SADDLE STITCHER FOR OFFSET AND DIGITAL BOOK PRODUCTION

Automatic set up of all book parameters within 60 seconds

A4 Landscape books

PC control for the quick and accurate programming of jobs

High productivity up to 9000 books/hr

Large range of book sizes and thickness

Intelligent multi-bin feeding system

3 knife trimming.



## THE DBMi SADDLE SYSTEM

### The only relevant saddle stitching system for today's market....

With over 40 years of experience in booklet making and print finishing related products Duplo International Ltd is proud to continue its strategy to bring to the printing market highly productive and precise automation to every area of the finishing department.

With the current demands of today's busy printer for highly versatile, flexible and productive methods of book production, Duplo has introduced its first Saddle Stitching System.

This innovative and precise saddle stitcher offers today's commercial and digital printer, a wealth of features that will allow them to grow and improve the profitability of their business.

The precise and user friendly DBMi Saddle System provides a large variety of book formats, including the increasing popular A4 Landscape size right down to formats as small as 90mm x 75mm. With quick "make-ready" times in approximately 60 seconds, and book thicknesses up to 120 pages the DBMi Saddle Stitcher will allow any novice to be turned into a print finishing professional.



### AUTOMATED PRECISION SADDLE STITCHER From A4 Landscape to CD books in 60 seconds

The DBMi Saddle Stitcher incorporates the latest technology allowing the totally automatic set up of all book parameters to be accurately and precisely registered in approximately 60 seconds. The design of the DBMi allows any of the print finishing staff to operate the system by simply entering into the colour PC controller all of the book sizes from A4 Landscape right down to as small as 90mm x 75mm. Up to 4 Hohner stitching heads in either flat or loop configurations are automatically positioned, whilst wire stitching sensors ensure that a correct book is produced every time.

Books thicknesses from 2 to 120 pages are automatically aligned on the saddle in complete or multiple subsets resulting in flatter publications. The fully automatic set up of the scoring and folding wheels and stitch and trim positions, ensures that a precise and accurate book is achieved every time.

### High Productivity with Faster turn-around and increased profits

The DBMi Saddle Stitcher has been engineered to provide the latest technology to allow for the built in features to maximise output. Up to 6 x DSC-10/60i suction towers can be connected allowing the feeding of multiple subsets or complete sets in various configurations. IMBF (Intelligent Multi-Bin Feeding) software allows the feeding of either pre-collated or collated sections in order to offer a fully flexible and highly productive system.

Up to 9,000 CD or A5 landscape type books an hour, combined with accurate 3 Knife trimming is achieved when connected with the optional DKT-200 trimmer and gutter cut knives.

A range of built- in sensors automatically monitor the progress of each book from the collator right through to the delivery with faulty books or sets being diverted resulting in non-stop production.



Precise scoring tool for accurate scoring of Digital and Offset papers.

Sets are accurately aligned on the saddle before stitching.



**VERSATILE SOLUTIONS**  
“The KEY to improving profits and driving down costs”.

Adding value with flexible and innovative solutions is one of the key strengths of the DBMi Saddle System. It offers a wealth of features for both the offset and digital printer. This extremely versatile system can produce books from A4 Landscape to CD size and book thickness up to 120 pages all within a 60 second make-ready time.

From either the offset or colour digital press, the highly productive DBMi Saddle System and DSC-10/60i suction towers will allow for the intelligent or pre-selective feeding of either collated or precollated sets from any bin. The book production of pre collated bar coded documents is easily performed by adding the DSF-2200 sheet feeder directly to the DBMi Saddle System.

Up to 4 stitching heads for 2 up book production, and 2 hole punching, together with 3 knife trimming the DBMi Saddle System allows today’s printer to offer their customers a range of fully flexible and versatile book solutions.



Fully automatic folding wheels provide flatter books from 2- 120 pages.

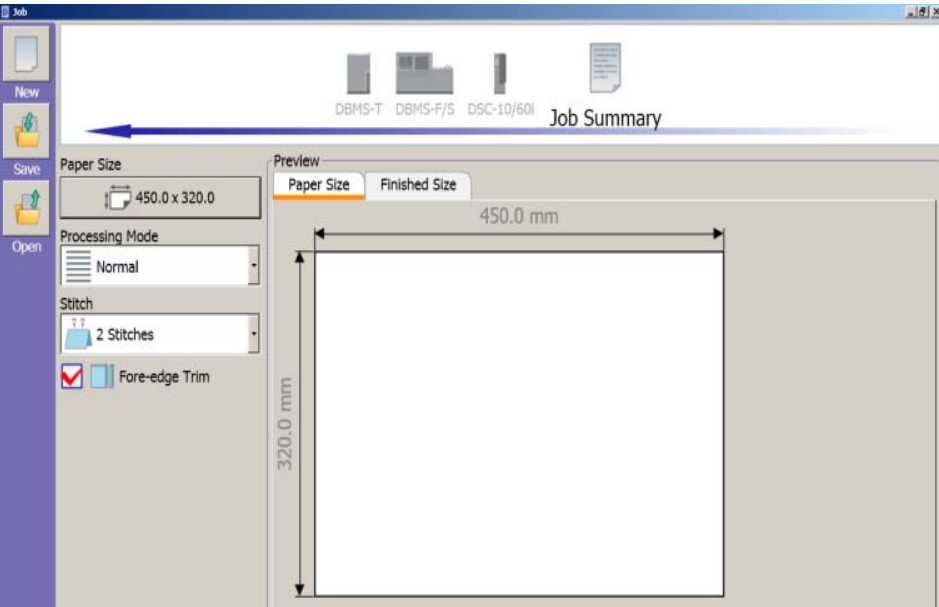
**AN EASY AND SIMPLE OPERATION**  
Allowing any novice to be turned into a finishing expert

The complete system is controlled by a GUI (Graphical User Interface) PC control unit. The simple to use software allows the operator to control and monitor the set up of all of the book parameters and paper feed settings of both the DBMi Saddle System and DSC-10/60i suction towers.

An infinite number of job programs are able to be stored and instantly recalled to allow the system to be set up in under a minute. In addition to the PC control unit, fine adjustments of 0.2mm to all belt timings, guides and stop positions can also be simply made from the 3 built in controls on the Fold, Stitch and Trimmer sections.

The “U shaped” ergonomic configuration and visible paper path, allows the operator to be in control of the complete production process, all within a manageable footprint.

The DBMi Saddle System is extremely user friendly and includes a revolutionary offering that sets it apart from its competitors, allowing it to be used by just 1 operator.



Each job is simple and quick to program and and instantly recalled for future use.

**SYSTEM WORKFLOW**  
Process

Each Duplo DSC-10/60i suction tower can deliver up to a max of 10 sheets into the Score and fold unit (DBMS-F). Each sub-set or book is accurately aligned by 2 sets of side guides, before being delivered through the scoring wheels, and then into the folding wheels to be plough folded, before being placed onto the saddle. The scored and folded book or sub-set is then accurately aligned across the spines. In the case of thicker publications multiple sub sets are accumulated in this section prior to stitching.

The completed book is then moved forward under the 2, 3, or 4 stitching heads where each book is correctly aligned before being stitched on the spine (DBMS-S).

Each book is delivered and positioned into the tucker section, where a blade or knife moves upwards into the folded section transporting the book by a series of belts into the (DBMS-T) where the fore edge of the book is trimmed to size.

Books are then delivered into the optional DKT-200 trimmer (if fitted) where the top-bottom or sides of the book are accurately trimmed.

Finished books are finally delivered onto an external long delivery. All trim waste is automatically and safely delivered into the 1 or 2 waste hoppers for recycling.





# THE DBMi SADDLE SYSTEM

INTELLIGENT, FULLY AUTOMATIC AND PRECISE SADDLE STITCHER FOR OFFSET AND DIGITAL BOOK PRODUCTION



NOT JUST A COLLATOR  
“An Intelligent feeding system”

The custom designed Duplo software transforms the DSC-10/60i suction towers into an Intelligent Multi-Bin Feeding system (IMBF). This enables the operator to not only select the bins from which to feed from, but also the feeding sequence. The IMBF fulfils a variety of applications in the digital printing environment.

- Inserting selected pre-printed material into black/white and colour merging jobs
- One-to-one marketing material based upon a pre determined database
- Combining the output of variable data publications.

Each tower of 10 stations becomes totally independent and can be used to feed single or multiple sheets from the same bin. These sheets or sets can be fed into the DBMi Saddle System, or diverted to the right into the DBM400STR high capacity stacker.

The DBMi Saddle System is extremely user friendly and includes a revolutionary offering that sets it apart from its competitors, allowing it to be used by just 1 operator.

SUPERIOR FEEDING SYSTEM  
Delivering accurate and controlled sets every time

The high speed and intelligent DSC-10/60i suction towers are connectable up to 6 towers, delivering superior performance whilst maintaining complete accuracy. Each tower of 10 stations comes with A.M.S. (Air Management System) as standard. This unique vacuum belt feeding system has a 260cm square contact area for accurate and consistent feeding.

The DSC-10/60i allows Complete Total Control of the feeding process by controlling

- The air flow through the paper stack
- The volume or strength of air flow
- The amount of suction to 1 or both sides of the feed head
- The volume of suction for each individual bin
- Individual sheet feed timings for all bins.

Air Management System

The DSC-10/60i incorporates fully automatic sensors on each bin to monitor for double and miss feeding and paper jams. To further increase accuracy optional Ultrasonic detection sensors can be fitted to individual bins for the feeding of pre-collated stocks.

The DSC-10/60i provides enormous scope to feed a wide variety of paper stocks and weights. With a large bin capacity of 65mm, an A4 landscape capability and the ability to offer intelligent feeding, this fully automatic collator really is the “Heart of the System”.

The highly versatile and Unique feeding action of the DSC-10/60i provides complete control of all paper stocks and weights from the both the PC control unit and each paper tray.

Tower A			
Bin#	Link	Category	Sheets
1	<input type="checkbox"/>	Blue	37
2	<input checked="" type="checkbox"/>	Blue	0
3	<input checked="" type="checkbox"/>	Blue	0
4	<input checked="" type="checkbox"/>	Blue	0
5	<input type="checkbox"/>	Green	37
6	<input checked="" type="checkbox"/>	Green	0
7	<input checked="" type="checkbox"/>	Green	0
8	<input type="checkbox"/>	Yellow	18
9	<input checked="" type="checkbox"/>	Yellow	0
10	<input checked="" type="checkbox"/>	Yellow	0

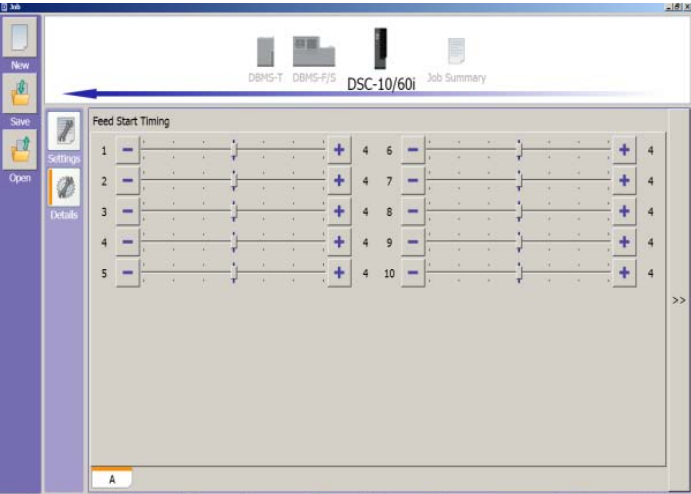
Example 1 Batch Mode  
Linking the bins creates higher capacity.  
37 sheets of Blue  
37 sheets of Green  
18 sheets of Yellow can be combined.

Tower A			
Bin#	Link	Category	Sheets
1	<input type="checkbox"/>	COVER	0
2	<input type="checkbox"/>	MONO	0
3	<input checked="" type="checkbox"/>	MONO	0
4	<input type="checkbox"/>	COLOUR1	0
5	<input checked="" type="checkbox"/>	COLOUR1	0
6	<input type="checkbox"/>	INSERT1	0
7	<input type="checkbox"/>	INSERT2	0
8	<input type="checkbox"/>	BACK COVER	0
9	<input type="checkbox"/>		0
10	<input type="checkbox"/>		0

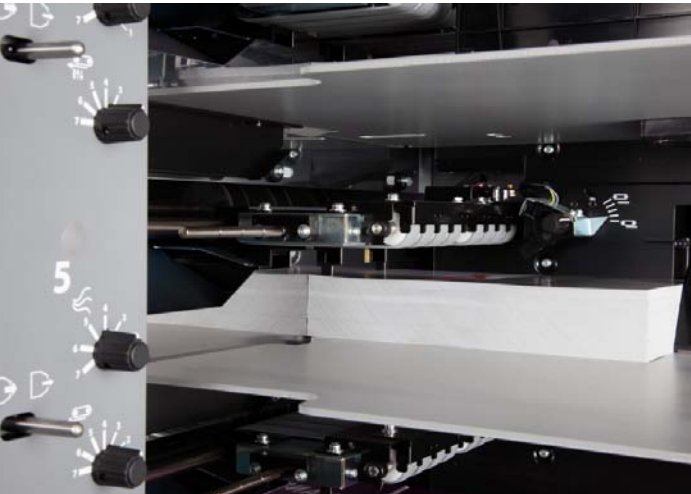
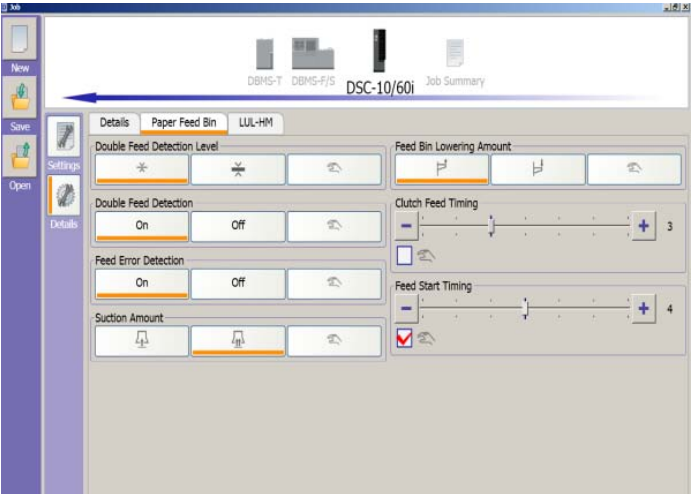
Example 2 Digital mono and colour sheets together with offset pre-printed inserts and back cover creates greater flexibility and capacity.



The DSC-10/60i towers incorporate intelligent feeding into the DCR-ST or 400STR range of stackers.



Simple and accurate control of all the DSC-10/60i feeding parameters.



A highly versatile and precise feeding system.



**OPERATION CENTRE**  
**Total control of the complete process Graphical User Interface (GUI)**

The PC controller allows the operator to easily set up and control the entire booklet making process on the DBMi Saddle System.

The ability to select any tower or specific paper tray and set up all of the book parameters, together with the height of the creasing wheels and folding gap. All of the DSC-10/60i feed settings are simple and easy to perform using the operator friendly screen software.

All the parameters are stored in an infinite number of job programs and can be instantly recalled for future use. Each stored job can be quickly set up with most job parameters taking 60 seconds or less in which to register.

Fine adjustments to all of the book parameters are made using the built-in controls on each of the units. The ergonomically designed “U” shaped configuration and clear pathway maximizes available space and total operator control.

**ACCURATE REGISTRATION UNIT**

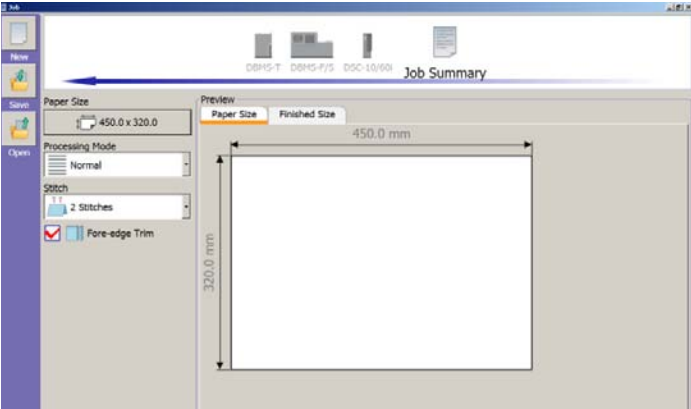
The collated set from the DSC -10/60i is delivered into 2 sets of centrally registered guides that automatically register the width and length of each sheet or set.

Each set, or subset is then accurately moved forward by twin drive belts prior to the automatic score and folding process taking place. Fine adjustments of 0.1mm can be quickly made to all book parameters from either the PC or built in control units.

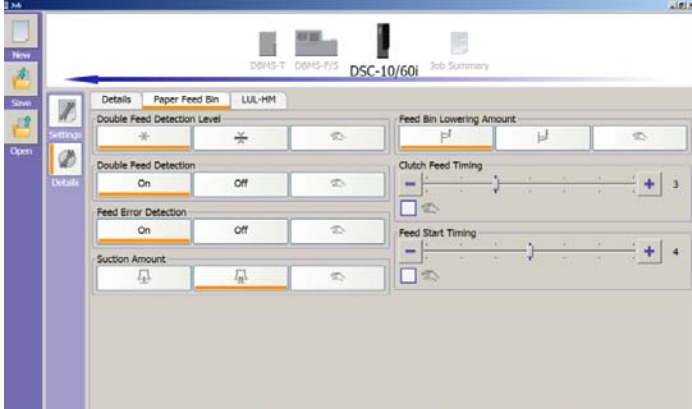
**AUTOMATIC SCORING UNIT**

Precise scoring wheels are automatically positioned to create the correct height according to the no of pages programmed. A choice of female scoring widths, are available depending upon the weight and type of paper to ensure that a flat and accurate book is produced every time.

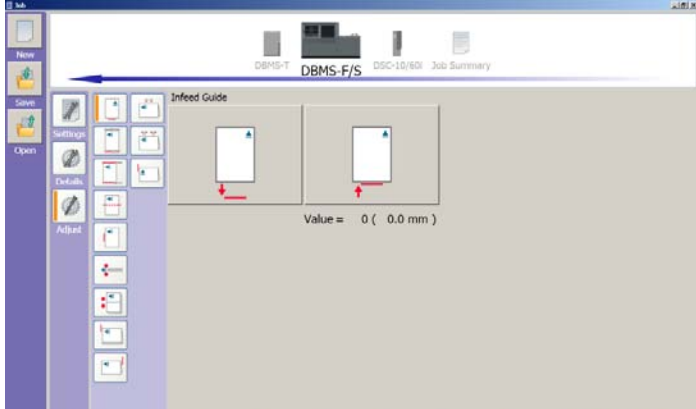
All of the settings are stored within the job program and instantly set up, providing significant labour and cost savings.



Quick make ready of all book sizes.



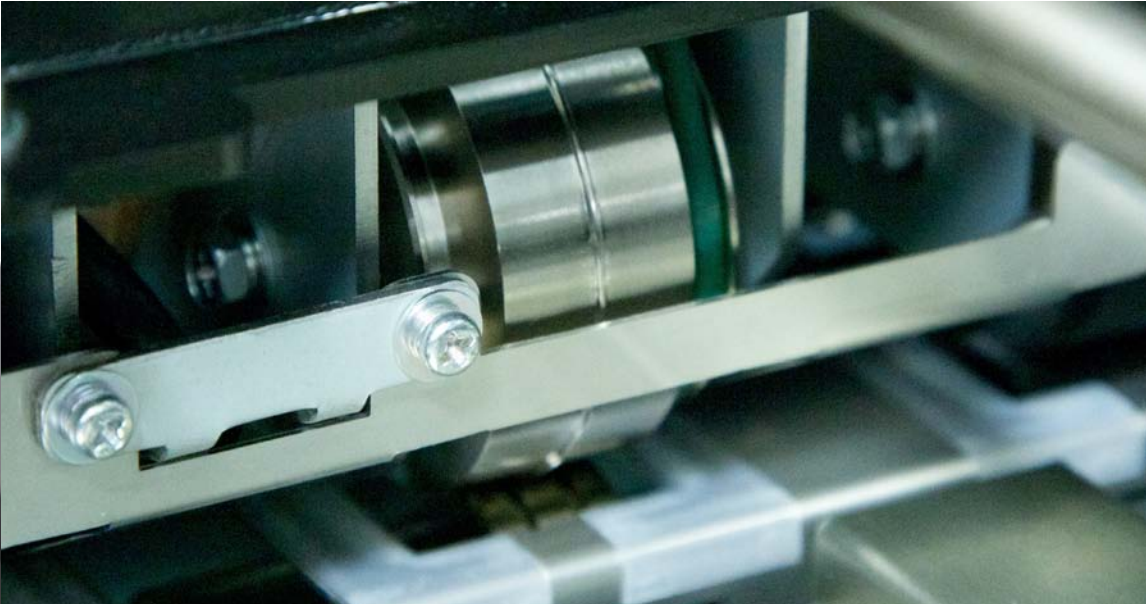
Precise fine adjustments takes only seconds to all of the book parameters.



Total control of all feed settings on the DSC-10/60i can be made from the GUI screen.



Sets are accurately aligned on the saddle before stitching.



Precise scoring tool for accurate scoring of Digital and Offset papers.



**DIGITAL BOOK PRODUCTION**  
**Creating Added Value**

The extremely versatile and intelligent DBMi Saddle System will also provide the automatic “Buffering” or collection of a number of sheets, when producing pre-collated digitally printed jobs from the DSC-10/60i or DSF2200 sheet feeder.

Each sheet or subset is delivered into the buffer section where each set or completed book is accurately aligned, before being delivered onto the saddle. Using the Intelligent software ensures that the printer can quickly switch from producing un-collated to pre-collated sheets as the job demands.

**Fully Automatic and Precise Saddle Stitching**

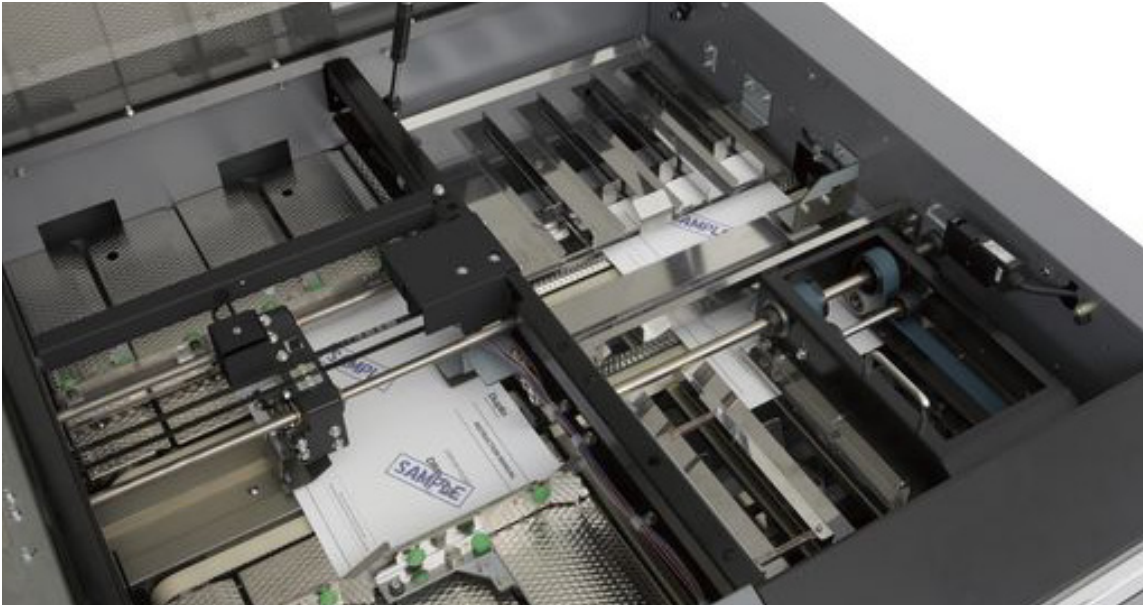
The DBMi Saddle System offers the printer a choice of 2, 3, or 4 heavy duty Hohner wire stitching heads in both flat and loop stitch configurations. Precise control of the book is maintained along the spine using motor driven stops and twin drive belts.

A wide variety of books from 2-120 pages can be produced, whilst wire stitch sensors ensure that an accurate and professional bound book is produced every time.

**3 KNIFE TRIMMING**  
**From the press to the finished book in 1 pass**

The DBMi Saddle System when connected with the optional DKT-200 trimmer provides a completely automatic 3 knife trimming operation. All trimming functions are set up from the PC controller including trimmer stops and front/side knives.

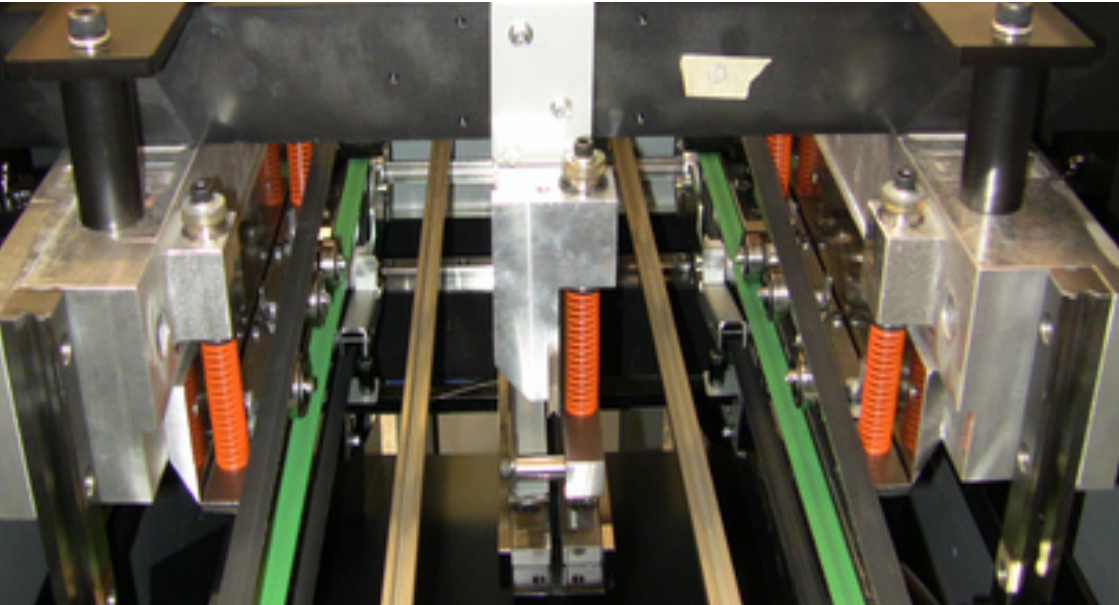
This allows the printer to simply take the printed SRA3 or B3 sheet straight from the press and complete the book in one operation, providing huge savings on pre-guillotining and labour costs. The optional centre or gutter knife when fitted provides a huge increase in overall productivity by allowing the sheet to be printed 2 up then collated and trimmed in just one operation. This allows the printer to reduce their costs and increase their productivity whilst also reducing downtime.



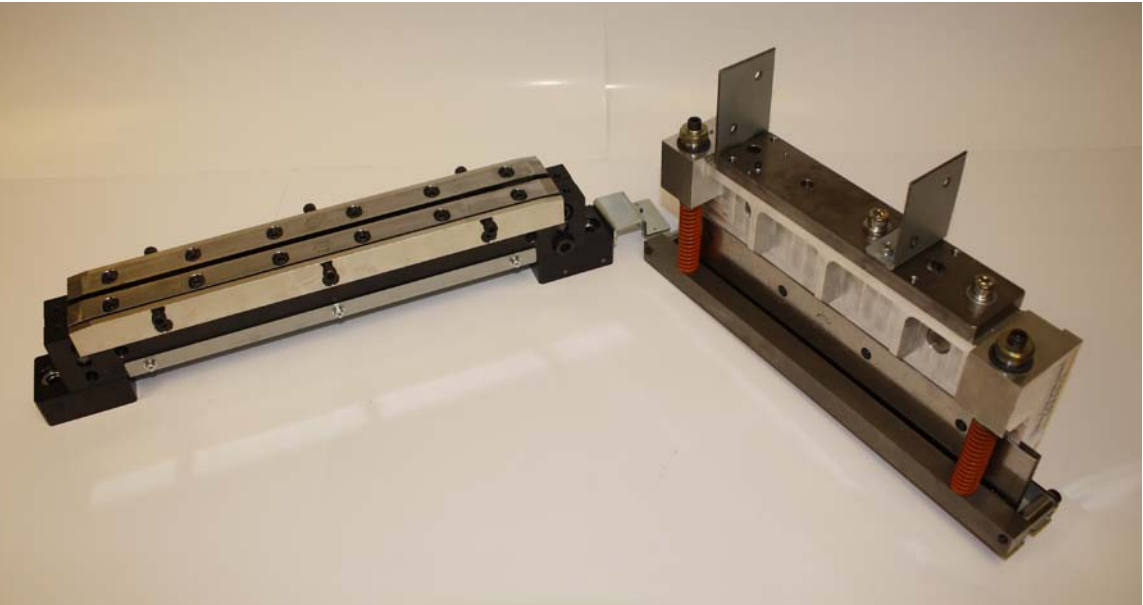
The DBMS-F unit allows for sheet by sheet or set by set book production.



Up to 4 stitching heads are automatically positioned along the spine for each book size.



The heavy duty construction and optional 6mm centre knife for continuous book production up to 9,000 books/hr.



Heavy duty and precise gutter knives for production up to 9,000 books/hr.



**SET COLLECTION AND SUBSET BUILDING ON THE SADDLE**

Each set or subset is accurately aligned on the saddle prior to stitching.

Automatic setting and precise book control is ensured using motor driven stops and joggers to the complete spine length of the book.

**FINE ADJUSTMENT**

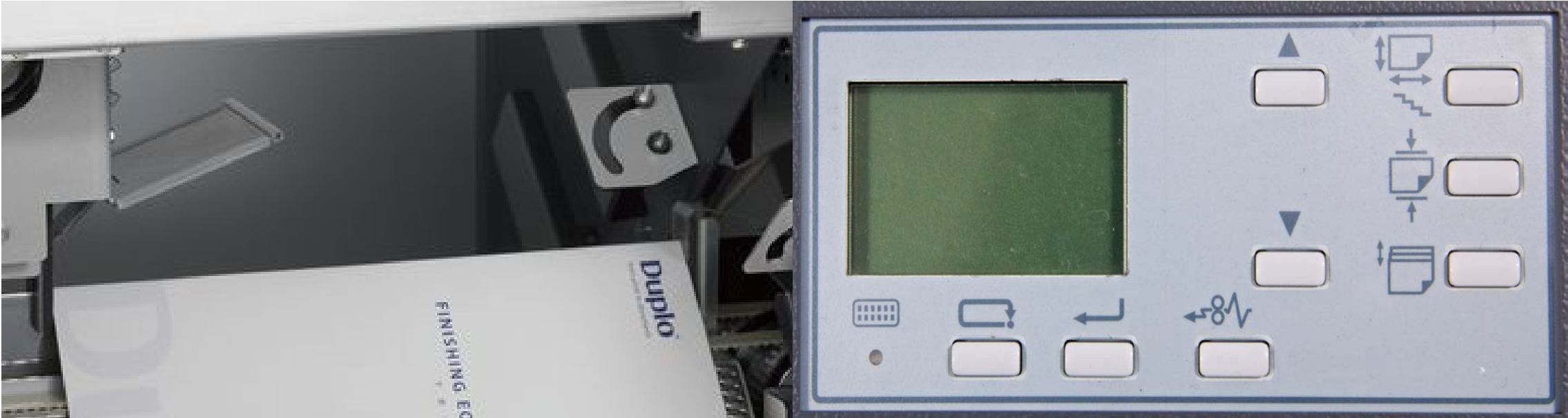
The DBMi Saddle System provides two built-in simple to control screens allowing the operator to adjust all guides and stop positions in steps from 0.1mm. All the changes are then stored in the job program and instantly recalled for future use.

**SECURE CAPITAL INVESTMENT**  
**Innovative design solutions for the current Saddle Stitching Market**

Duplo has applied some critical thinking in the design of the DBMi Saddle System, and has been engineered to meet your every demand. This revolutionary machine is the easiest, fastest, most economical and precise method available for turning printed material into quality printed documents.

As with all Duplo products, their modular design and range of available options allow your machine to grow with you as your business also grows.

The DBMi Saddle System is a highly versatile, flexible and productive system, that will open up a world of increased opportunities for both yourself and your customers in which to reap the benefits and rewards.



Sub sets of up to 10 pages are aligned on the saddle, allowing the maximum book thickness of 120 pages or 30 flat sheets to be precisely registered.

Simple and easy to use controls provide a precise adjustment to all of the book parameters.

