



Collating Technology Solutions

Provided by **ROSBACK**



## SUCTION FEED COLLATING SYSTEMS

Paperweights from 20 to 1,000 gms  
Including folded sections

### **ROSBACK COMPANY**

125 HAWTHORNE AVE., ST. JOSEPH, MI 49085 USA

Phone: (269) 983-2582 \* Fax: (269) 983-2516

Internet: [www.rosbackcompany.com](http://www.rosbackcompany.com) \* E-mail: [sales@rosbackcompany.com](mailto:sales@rosbackcompany.com)

# Collating



## Station Guides:

All sheet size changes are easily achieved within seconds by moving magnetic side and back stops. The suction cups are quickly set in position by a thumb screw control.



## Air Blow:

Automatic air blow separation accurately directs air between the top sheets and is followed by a suction head sheet-push to dislodge any sheets which may be clinging. Col-Tec make best use of these features including the fitting of larger capacity compressors.

# Technology

## Conveyor Transport:

The open concept of the Col-Tec horizontal design gives the operator a clear overall view of all sheets throughout the collating process. By maintaining all sheets on one level, the collator can easily handle all light and heavyweight stocks. With no contact on the printed surface other than the suction cups, the Col-Tec collator is ideal for collation of work that would be marked by other designs.



## Conveyor Knock-up:

The conveyor is fitted with automatic knock-up belts that jog the set together every time a new sheet is added. This ensures better set registration which is particularly important for further in-line operations.

## Loading:

Once the sheet size and detectors are set, the operator can start immediate production. Loading and unloading stock

# Solutions

without stopping the machine is easily and safely performed. In this way the highest on the floor production rates can be achieved.

## Detectors:

There are a choice of electro-mechanical and/or electronic miss and double sheet detector systems. In both cases a single control will set all stations instantaneously.



## Stock Range:

Col-Tec suction feed collators are ideal for collating the widest range of stocks from lightweight papers to heavy board and folded sections. The potential is virtually unlimited...







## Does this remind you of your last five-piece collating job?

On many occasions the industry is faced with exceptional paperweights and sizes, which make collating on conventional equipment troublesome, or sometimes impossible.

For many years Col-Tec have been able to solve these problems by designing purpose built equipment. This, together with probably the most experienced collating engineers in the world has made Col-Tec a leader in the market of special application collating equipment.

Should equipment out of our extensive range not fulfil your exact needs Col-Tec are able to customise their collators to meet specific requirements.

In order to support the current trends towards automatic production lines Col-Tec will produce the necessary interfaces to conveyors, binding equipment, film-wrapping machines, etc. all to individual specification.

One big heavy piece.

One small piece.

One piece that will snarl the works.

One piece that twists and bends.

And one piece that slithers and slides.

Lots of handwork?

Col-Tec can help  
you to tame your  
next bunch of wild  
collating items.



# Stitch, Fold, Trim brochure and booklet finishing

This robust Stitch, Fold, Trim line is equipped with “**Quick Set Motors**” to assist quick and easy size changes and the maximum brochure thickness is around 120 pages if using 80g/m stock or 6mm. The registration of the set provided by the automatic knock-up belts on the Col-Tec collator guarantee a smooth passage from collator to booklet maker.

## Stitching:

The variable speed exit rollers from the Col-Tec collator aid the smooth transfer of stock to the infeed rollers.

Upper belt transport plus a lower vacuum belt provide accurate control of the set whilst it is fed into the stitching heads and then on again to the folder.

Up to 8 stitching heads can be fitted as and when required and are fed from wire rolls.

Head stitching can be used up to 5mm for a variety of jobs i.e. calendar stitching.

Fine adjustment of the stitch position on the fold provides the operator with the opportunity to produce the highest quality booklets. Wire stitch detectors will stop the machine if stitches are missing. Those printers and finishers already used to automatic booklet makers will recognise these as more than useful features!

Hohner stitching heads are fitted as standard.

## Folding:

The cloth folding system provides a friction free no marking action particularly important when working with

print sensitive surfaces. The book thickness is set automatically without the need for the operator to make individual adjustments from job to job.

An optional motor press unit provides additional compression of around 1.3 tonnes (1,300 kilos) and is applied by pressing the brochure against the turn round roller to produce flatter books without creasing.

A special fold knife design gives added friction to the set as it is taken into the fold rollers and thereby ensures a consistent finish.



Transfer from collator to booklet maker.





3 knife trimming.

Fibre optics ensure exact alignment of punched products with the highest degree of accuracy.

Detection systems will stop the machine in the event of any disturbance to the work. Multiple production can create up to 4 separate booklet streams as small as 5 x 4cm.

A form punch will allow the creation of specialist shaped booklets i.e. in the form of a football or bumble bee etc.

File hole punching also available.

### Trimming:

Books can be trimmed down to as small as 4cm from the spine. Consistent trimming action is achieved with an accuracy of under 1/10mm.

Top and bottom adjustable knives are designed for continual use up to 1 million cuts. For small booklets down to just 4cm, an air pressure waste removal system is fitted. Optional heavy duty 3 knife trimming can be added to cut between 3 and 20mm at both the head and tail of the booklet. A controlled shingled pay-off conveyor provides a neat and accurate delivery of finished booklets. At the touch of a button these can be cleared down to a delivery tray.

### Die Punching:

Is a powerful addition to the stitch/fold/trim line to enable multiple production giving an output as high as 12,000 books per hour.



Former punched booklets.

### Additional Options:

- Booklets with shorter covers can be accurately finished with the addition of a special register device.
- Larger wire reels are available up to 15kg for higher volume production.
- Maximum speed can be increased from 3,100 to 4,200 cph.
- A hand feeding position can be added if the booklet maker is not interfaced with a collating machine.
- Loop stitches are also possible.
- The Col-Tec collator can be supplied with a bi-directional conveyor for positioning the booklet maker at one end and collating into a jogger at the other.



# Signature Collator for gathering folded sections

“Col-Tec have adapted their versatile design to produce a collator ideally suited to the collation of heavier and bulky items such as signatures, stitched and perfect bound books etc. Deep pile feeders are fitted with adjustable back and side guides to support the product the entire depth of its stack. Furthermore, adjustable tilted deep pile tables allow the feeders to compensate for any bulking of the stock on one side and therefore allow deeper stacks to be filled.

The height of the transport conveyor flites can be supplied anywhere between 30 to 70mm depending upon the thickness of the collated sets.

Automatic conveyor knock-up belts ensure that a well registered set is transferred to the **Exit Delivery Conveyor**.

The EDC unit will collect the collated sets up to a stack depth between 70 and 100mm. When the first stacking position is full the EDC will automatically move forward one position along the conveyor. The EDC can be supplied with 4, 6 or 8 stacking positions giving a combined depth of up to 800mm. The EDC is easily and safely unloaded without the need to stop the collator or, the machine will alert the operator by stopping when all stacking positions are full. An optional offset stacking facility to separate each collated set can be added if required.

Continuous production up to 4,000 cycles per hour can be achieved subject to the number of feed stations chosen. The standard format is 350 x 350mm with a minimum size of 148 x 210mm. Both larger and smaller



formats can be accommodated by special request.

The market for gathering sections appears to be dominated by several larger producers of this equipment all offering more expensive and more operator intensive equipment. The Col-Tec Signature collator is aimed at those companies looking to add a low cost automatic gatherer as their primary collator or, as an addition to their existing perfect binding lines that are either fully occupied with work or take too long to change for short run jobs.



## Features:

- Signature Collation.
- 4,000 Cycles Per Hour.
- Deep Pile Feeders.
- 4 to 32 page Signatures.
- From 4 to 20 stations.
- Customised Specifications.
- Exit Delivery Conveyor stacking up to 800mm.



# Optional Extras for multiple applications

## Deep Pile Feeding

Available between 500 and 800mm and easily loaded on the run. For maximum flexibility of choice and subject to final specification, Col-Tec can uniquely add deep piles at a later date.



## Computer Programming

Provides a fully automatic option for start-up and shut down of jobs. Automatic miss sheet correction and multiple feeding of more than one sheet from any of the stations is available to the operator.



## Crash Numbering

Accurate, consistent, quality numbering can be achieved whilst collating. The numbering heads include a 4 roller inking system for smooth application of the ink. Fine adjustment of the impression is achieved using compressed air as a clean and safe driver.

## Criss Cross Jogger

The variable speed Jogger is available with a criss cross action to separate each individual set. Adjustable height, tilt and vibration controls are available to the operator.

## Exit Delivery Conveyor

This is a labour saving alternative to the Jogger. With multiple stacking positions a combined depth of up to 560mm can be stacked before the machine needs unloading. The EDC can also be off-loaded whilst running



and will typically reduce the number of operators needed particularly on collators with 10 or more feeders.

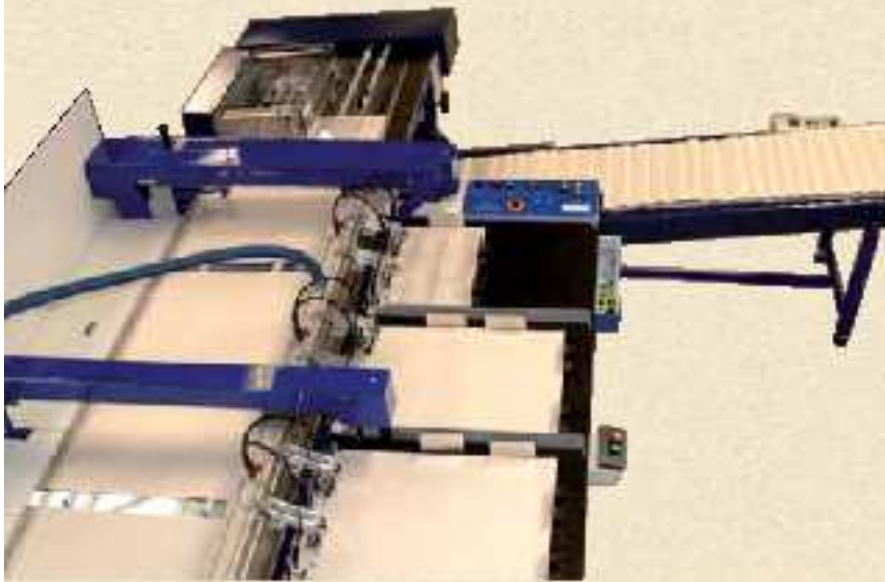
## Auto Rejection Tray

Designed to maintain continuous production by automatically ejecting any sets containing double sheet errors and without stopping the machine.

## Stitching/Taping/Cutting

The Multipik range of pad book finishing machines will apply up to 20 stitches from a single heavy duty stitching head with the option to tape the spine and cut to multiple finished book sizes in one automatic process. The equipment is extremely versatile and will handle book thicknesses from 2 to 20mm.





In-line folding

### **Additional Items include**

- Hand Feed Stations
- Head Stitching
- On-line Gluing
- Dual Direction Collators
- Interfacing to other Products
- In-line Folding and Cross Folding Units
- Static Pinning







## Collating Technology Solutions

### STANDARD SPECIFICATIONS

Collator Format	Maximum Sheet Size	Minimum Sheet Size	Maximum Cycles Per Hour	Minimum Unit Size & Length	Approx. Additional Length Per Station Added	Width
B5+	9.8 in x 9.8 in 25 cm x 25 cm	1.6 in x 1.6 in 4 cm x 4 cm	Up to 5,000	10 Stations 143.7 in 365 cm	10.6 in 27 cm	41.3 in 105 cm
B4 Portrait	9.8 in x 13.7 in 25 cm x 35 cm	3.1 in x 3.9 in 8 cm x 10 cm	Up to 4,000	6 Stations 102.4 in 260 cm	10.6 in 27 cm	53.1 in 135 cm
B3 Portrait	13.7 in x 19.6 in 35 cm x 50 cm	3.9 in x 4.7 in 10 cm x 12 cm	Up to 3,600	6 Stations 126 in 320 cm	14.6 in 37 cm	58.3 in 148 cm
B2 Portrait	19.6 in x 27.5 in 50 cm x 70 cm	5.5 in x 8.3 in 14 cm x 21 cm	Up to 2,400	4 Stations 161.4 in 410 cm	20.5 in 52 cm	72.8 in 185 cm
B1	27.6 in x 39.4 in 70 cm x 100 cm	8.3 in x 11.4 in 21 cm x 29 cm	Up to 1,800	2 Stations 95.3 in 242 cm	28.3 in 72 cm	102.4 in 260 cm
Signature Collator	13.7 in x 13.7 in 35 cm x 35 cm	3.9 in x 4.7 in 10 cm x 12 cm	Up to 4,000	6 Stations 126 in 320 cm	14.6 in 37 cm	53.1 in 135 cm
B3 Landscape	20 in x 13.7 in 50 cm x 35 cm	3.9 in x 4.7 in 10 cm x 12 cm	Up to 4,000	3 Stations 109.4 in 278 cm	20.5 in 52 cm	49.2 in 125 cm
B2 Landscape	27.6 in x 20 in 70 cm x 50 cm	5.5 in x 8.3 in 14 cm x 21 cm	Up to 3,600	3 Stations 128 in 325 cm	28.3 in 72 cm	59.1 in 150 cm
Custom	As per client instructions	As per client instructions	As per client instructions	As per client instructions	N/A	N/A

*Design Specifications Subject To Change Without Notice*

## **ROSBACK CO.**

125 HAWTHORNE AVE., ST. JOSEPH, MI 49085 USA

Phone: (269) 983-2582 \* Fax: (269) 983-2516

Internet: [www.rosbackcompany.com](http://www.rosbackcompany.com) \* E-mail: [sales@rosbackcompany.com](mailto:sales@rosbackcompany.com)