

B R O N W A Y



UC-3000[®] Universal Collator
Specification Document

UC-3000[©] Universal Collator

The Bronway UC-3000 Universal Collator has been designed to facilitate high-speed, low cost automatic assembly of all the various component parts found in a software package. Any typical components – from large manuals, through jewel cases and leaflets, to individual license agreements and registration cards – are all easily handled by the UC-3000. This highly innovative machine substantially reduces labour costs, improves product integrity and will transform your fulfilment process.



PRINCIPLE OF OPERATION

A series of vertical continuous feed input hoppers lift the stacks of varying components to a waiting point where they are picked by a reciprocating vacuum arm and placed onto an indexing conveyor. This simple pick-and-place principle applies to rigid components such as jewel cases, floppy discs, CD sleeves, single sheets etc. Non-rigid components, for example open books, and other components that distort, i.e. open, are simply lifted and placed on a slide, which transports them to the indexing conveyor. This technology allows the machine to handle all typical components found in a software package or assembled in the fulfilment industry.

FEATURES

8 Input Conveyors (expandable to 16 and beyond)

Up to 8 components per set can be configured through a simple menu selection. It is possible to link two machines to give a 16-station capability if required. It is also possible to integrate sheet feeders to the output conveyor to increase capacity.

Integration of Sheet Feeders

Sheet feeders can be integrated into the system so that the number of components in a set can be extended as required.

High Speed Operation

Full set of up to 8 components assembled in approx. 3 seconds, i.e. 20 sets/min. This equates to a throughput of approximately 1200 collated sets per hour.

Double Indexing Capability

The machine can be easily set-up to double index, meaning it can function as though it were two separate 4 station collators. This **DOUBLES** the output speed on sets of 4 parts or less, yielding approximately 40 sets per minute. This equates to a throughput of approximately 2400 collated sets per hour. Using sheet feeders, the set size can be increased as required, thus allowing larger set sizes at the double index speed.

Full Product Integrity

The UC-3000 has been designed to guarantee full integrity in the finished collated sets. An advanced air-blow system (together with innovative mechanical features) prevents the double selection of lightweight product, such as single sheets of paper. Sensors on the machine will prevent any non-selection of product from going undetected. These features combine to give a truly efficient process. Gone are the hazards of manual collation – sending out two license agreements or no registration card etc.

Continuous Operation

The input feeders can be loaded while the unit is running. With the new input feeders, re-load time is practically eliminated.

Ease of Operation

The UC-3000 allows for set-up and operation by non-technical personnel. Settings are controlled via the keypad/display on the front panel and simple mechanical adjustments allow for fast product changeover. The GUI is intuitive and simple.

Flighted Output Conveyor

The output components are placed onto a flighted conveyor belt ensuring both the correct separation and the coherence of the assembled sets. This facilitates easy handling as the sets are presented to the end operator or are interfaced with existing packaging equipment.

BENEFITS

- **High speed automatic collation of full software kit** – >25,000 sets per day (capacity is twice this if using double indexing feature)
- **Substantial labour cost savings** – the payback period on the UC-3000 is typically in the region of 3 to 12 months depending on volumes.
- **Higher integrity in the finished product** – the UC-3000 validation process ensures that all assembled kits contain the required components.

SIZE SPECIFICATIONS:

- Length - 7.12 metres
- Width - 1.633 metres
- Height - 2.6 metres
- Weight - 1100 Kg.

UTILITY SPECIFICATIONS:

- Voltage - 220 VAC
- Frequency - 50 Hz
- Power - 16A (Approximately)
- Other Utility Requirements - Air, 10 cfm

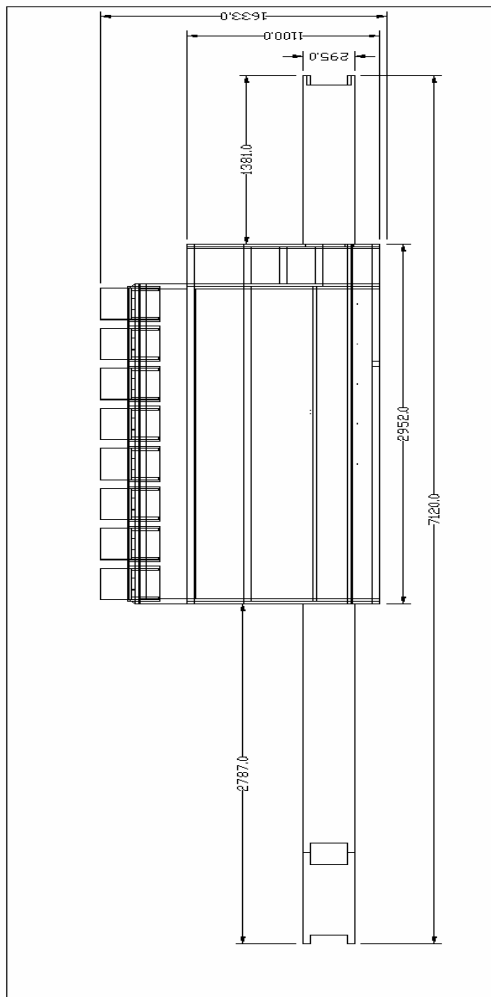


Figure 1: Footprint of the Universal Collator 3000

PRODUCT SPECIFICATIONS:**Up-loader Stations:**

The up-loaders can handle sizes of 230mm in length by 210mm wide decreasing to a minimum product size of 90mm by 50mm.

The maximum product weight is 1.3Kg

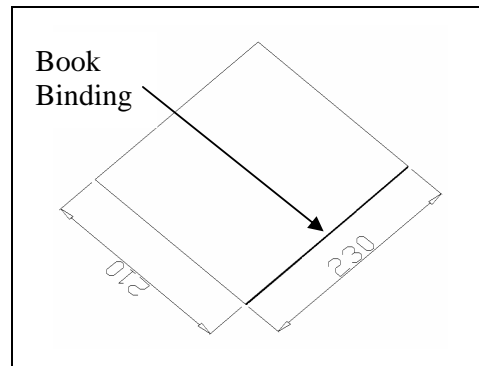


Figure 2: Product Footprint

Books

Minimum Size:	50mm x 90mm along binding
Maximum Size:	210mm x 230mm along binding
Thickness:	Up to 30mm

Note: Consult Bronway Technical Department for books with very thin covers

Paper / Card

Minimum Size:	90mm x 50mm
Maximum Size:	210mm x 230mm
Single and inward folded sheets (i.e. not concertina folded)	

Jewel Cases

Single or double

Floppy Disks

Single or in envelopes

CD Sleeves

All standard types

Note: Consult Bronway Technical Department for some types of plastic sleeves, which have high sticking characteristics.

Others

All components which can normally be lifted by vacuum and maintain a reasonable degree of flatness when stacked on top of each other can be handled without difficulty by the UC-3000 Universal Collator.

Manual Feeding:

A4 Product and any product up to 260mm by 310mm not suitable for up-loader feeding can be fed manually onto the in-feed conveyor section of the collator. Similar product can be manually fed on top of the collated set at the out-feed conveyor section of the collator.

Sheet Feeder:

The sheet feeder can handle sheets, cards, and booklets up to a few pages. Product must be flexible for feeding through rollers.

Minimum Size:	90mm x 90mm
Maximum Size:	250mm x 250mm

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