Duplo®
Automated Precision

DM MINI COLLATION SYSTEM

IDEAL FOR POSTS, PRIVATE DISTRIBUTION COMPANIES, MAILING AND FULFILMENT HOUSES.

Productive, compact, versatile, reliable and accurate
Wide range of document handling
Integrated wraparound cover station
E-tandem software options
Up to 30% higher productivity
Job File Transfer software
On-line processing options
Low energy consumption
Fast and simple set-up
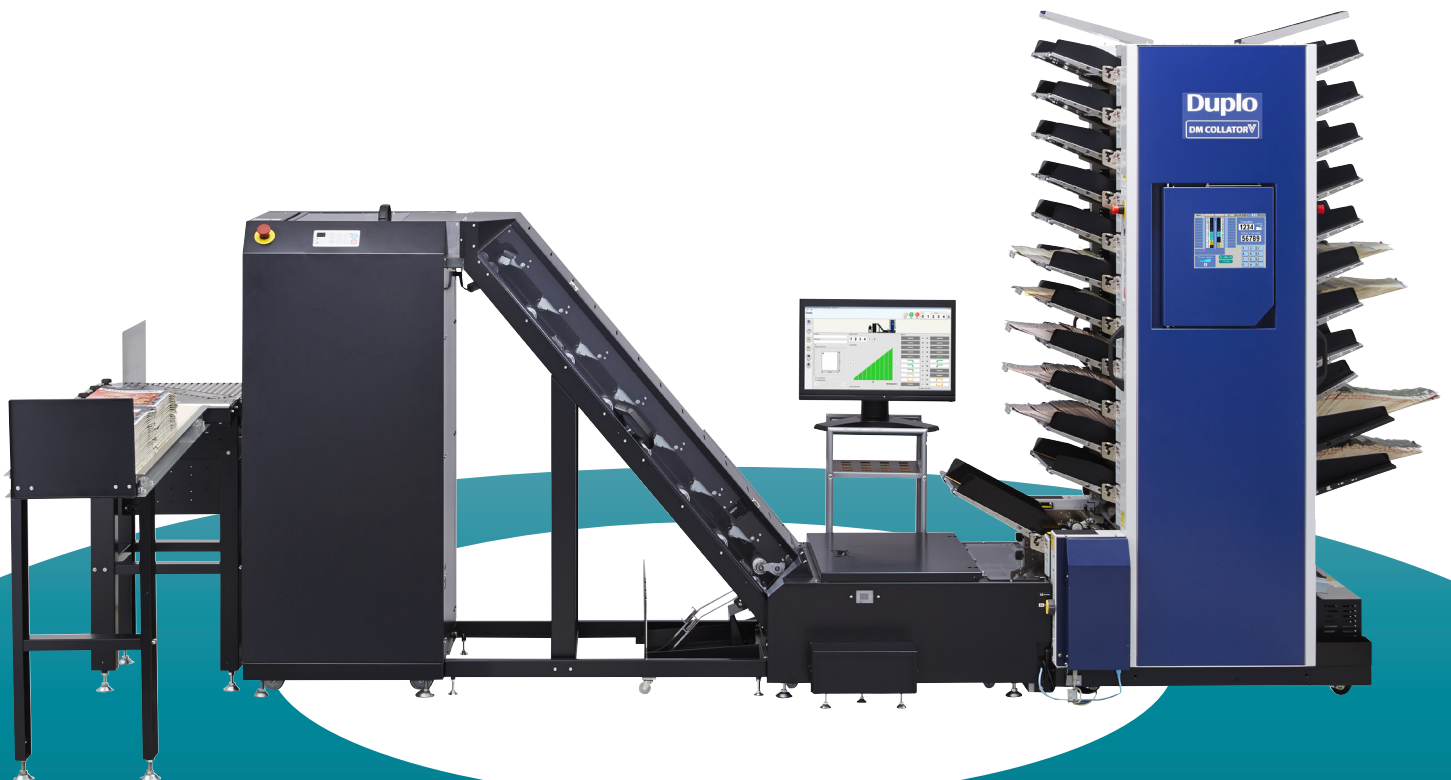**Up to 9,000 sets per hour**
23 feeding stations
Continuous stacking
Small foot-print
Open architecture
1-3 operators

Duplo's DM Mini Collation System has been specifically designed to meet the needs of today's growing unaddressed mail market. Driven by the trend towards higher volumes and a more diverse range of documents, the DM Mini Collation System extends the productivity and in-line processes of Duplo's Esper Direct Marketing Collator.

Operated from a centrally located PC, the system offers automatic in-line labeling, stacking and banding of unaddressed mail sets to deliver up to 30% higher productivity, and can be run by just one operator with minimum intervention.

The DM Mini Collation System is the ideal next step for businesses who are collating by hand today and wish to offer their customers 100% set integrity and a more professional & automated service; or for businesses who want to decentralise their production infrastructure in order to move closer to the point of delivery.

The DM Mini Collation System can also complement existing larger automated systems, by handling a wider range of document formats & offering higher short run productivity.

Fast Job Changeover & Turnaround

The DM Mini Collation System is ideal for both short and long runs. Document loading and changeover in each bin is fast & simple, with new jobs being ready to run in just a matter of minutes.

Operating at speeds of up to 9,000 sets/hr, the DM Mini Collation System is designed for the fast production turnaround required in unaddressed mail campaigns. Productivity is further enhanced by a 'Load-on-the-Run' facility - meaning no reloading downtime. The 'Cascade Function' can be programmed to handle large volumes of a few inserts as well as thicker folded documents, so that productivity is maintained. This is achieved by the next bin feeding as soon as the previous bin empties.

Flexible Automatic Set-up & Simple Operation

The complete system is run from one central location, and the display immediately flags up any error by giving its location and the cause.

An intuitive PC Controller, with large icons and graphics, automatically sets up the Stacker Unit without the use of any tools, and has outstanding usability, so that anyone can operate and manage the system from day one.

Intelligent Detection System & Open Architecture

Continuous uninterrupted production & 100% set integrity can be achieved by automatically detecting and diverting any incorrect sets into the built-in reject tray in the line, located after the Esper DM Collator.

The system's open architecture enables easy jam clearance, and provides the operator with full control of the complete production process. Furthermore, each bin can be completely removed for ease of cleaning.

Continuous Stacking & Labeling

The Stacker Unit can be programmed to deliver batches from 5-50 sets in multiples of five, and has been specially designed to ensure that the Esper DM Collator continually feeds collated sets without any pause or gaps in production. Each completed set (with or without a wraparound cover) enters the Stacker Unit, and fine alignment rear and side jogging delivers uniformly neat stacks into the Turn Unit, which redirects the stacks (either to the left or right) onto an 80cm high roller conveyor table, ready for further processing.

ESPER DM-230V PRO Collator

Lift-Up Unit, Bridge & Reject Tray

Preprinted stack labels can be fed from a selected bin. This enables additional non-Duplo banding units to be connected on-line, so that the completed stacks of collated sets can be automatically banded and delivered back to the operator without any manual intervention, ready for distribution.

Easy set handling, instant visibility & environmentally friendly

By using the wraparound cover station, sets are loosely held together and clearly separated for ease of distribution. The wraparound can be one of the documents to be distributed; or a pre-printed sheet, which allows for extra branding recognition and/or advertising. This eliminates the need to use any form of plastic wrapping of each set, and allows all the documents in the set to be instantly seen by the recipient.

The wraparound cover station is fitted with ultrasonic double detection, so that personalised documents or invoices can be fed error-free.

Duplo E-Tandem Software

There is also the option to improve performance and workflow by adding Duplo's unique E-Tandem software packages: Job Optimisation, Job Reporting and Technical E-Diagnostics.

Job Optimisation software recalculates the order in which each job should be run, in order to minimize job changeover downtime.
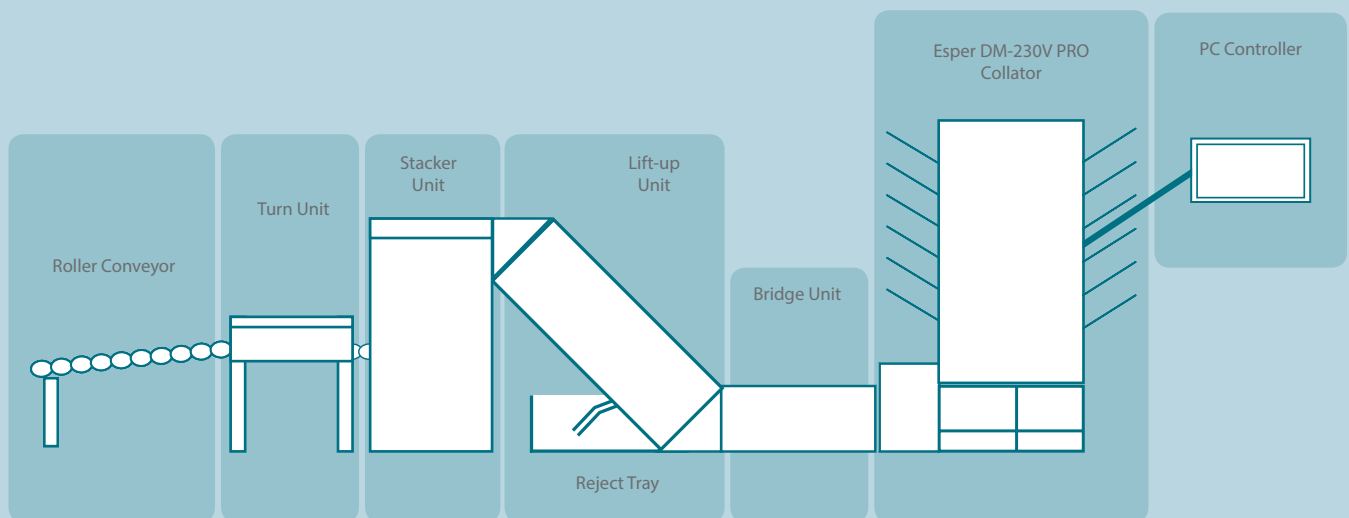
Job Reporting dashboards can be easily built, which access real time data to provide management with hourly productivity reports and downtime analysis vs targets.

E-Diagnostics software provides feedback on the system's technical performance, highlighting issues which can be resolved before they become critical.
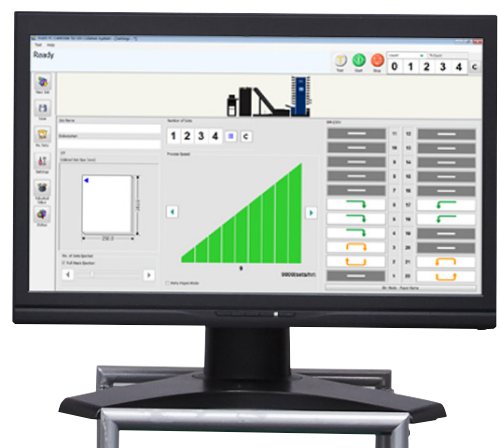
Quick Job Recall

Using Duplo's Job File Transfer software, job data can be automatically downloaded, stored and recalled from memory.

Stacker, Turn Unit & Roller Conveyor

PC Controller

Technical Specification

Esper DM-230V PRO Collator

Dimensions (D×W×H)	1183 × 1383 × 1983 mm
Weight	483 Kg
Power Supply	220-240 V 50 Hz
Power Consumption	4.2 A, 880 W
Noise Emission	76.6 dB
Processing Speed	9,000 sets / hr
Number of Feed Bins	23 (includes 4 Recollation Bins)
Paper Size	Postcard (100 x 150 mm) to A3 (297 x 420mm). Cover bin: B5 (182 x 257 mm) to B3 (364 x 515mm).
Paper Type	**Standard bins:** single sheets; folded sheets; booklets **Cover bin:** single sheets; folded sheets
Bin Capacity	Standard Trays: 60mm approx* 470mm Extension Trays: 100mm approx*

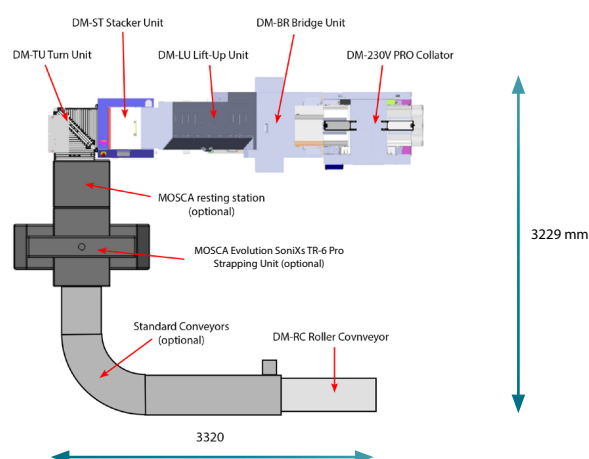|	
Features	Paper feed timing function; Test feeding function; Fold timing function; Paper feed bin sequence and single function; Paper receiving mode; Bin by bin processing quantity; Bin problem display; Paper eject function; Low speed forward and reverse; Folding plate open / close, remove and insert function.
Detection	**Paper Feed Unit:** No paper; Misfeed; Jam; Missing document; Near-empty; Ultrasonic double sheet (on cover station only); **Paper Feed Shaft:** Remove and insert; Paper feed unit slide detection. **Conveyance Section:** Vertical jam; Ejected paper jam. **Folding guide:** Front; Centre; Back; Bottom guide open. **Other:** Overloading; Inverter problem; Communication error.

*Extended by 'Cascade' and 'Load-on-the Run' features.

Lift-up, Stacker & Turn Unit

Stack Capacity	150mm
Set Size	Min 250 x 200mm Max 360 x 260mm
Set Type	Collated only, collated with wraparound cover

Power Supply	220-240V 50/60 Hz, 1.5A, 0.45A & 1.2A
Power Consumption	250W, 80W & 180-225W
Weight	320Kg
Noise Level	77dB

Non-Duplo On-line Banding Example

DM-ST Stacker Unit
DM-BR Bridge Unit
DM-TU Turn Unit
DM-LU Lift-Up Unit
DM-230V PRO Collator
MOSCA resting station (optional)
MOSCA Evolution SoniXs TR-6 Pro Strapping Unit (optional)
Standard Conveyors (optional)
DM-RC Roller Covnveyor
3229 mm
3320

Dimensions

3918 mm
1956 mm
1983 mm