Duplo®
from print to documents

DC-645e

DIGITAL PRINTING MULTIFINISHER

*Greetings cards · Brochures · CD/DVD covers
Photobooks · Menus· Flat or folded business cards*

JDF NOW

The Duplo DC-645 production colour finisher automatically cuts, slits, perforates (optional) and folds digital print to produce greetings cards, postcards, CD & DVD covers, business cards and much more - quickly, accurately and profitably.

Save time, space and money
Most colour digital applications require the ability to trim to a full bleed product and/or crease, for crack free folding of digital print. The Duplo DC-645 is unique in combining slitting, trimming, creasing as well as optional perforating and folding in one product, with all possible six functions operating in a single pass. So gone are the days of purchasing multiple machines requiring double the space, cost and man power.
Cost-effective and easy to operate, it finishes up to 26 sheets per minute and accommodates paper weights from 110 to 350gsm.

Automated Precision
This vacuum-fed slit, cut, crease device sets up the tooling to a printed registration mark by using a built-in camera, compensating for the problem of image drift on digital presses. This ensures that the processed sheet is finished accurately, with the cuts and creases in precisely the right place every time.
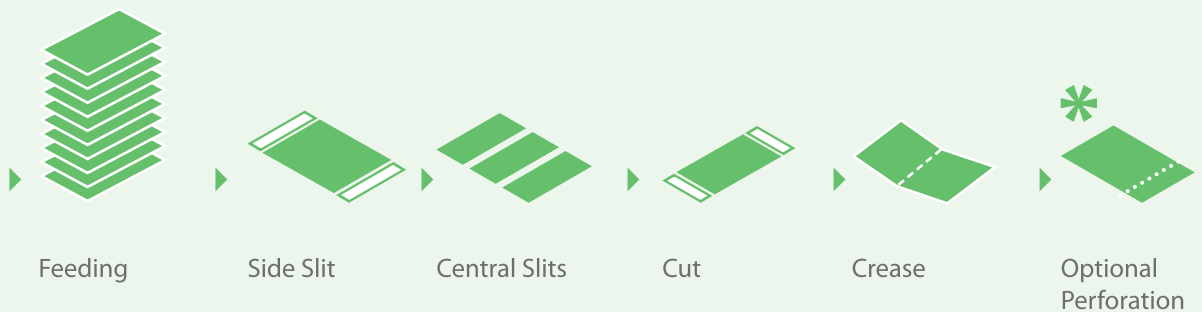It can store up to 80 jobs (more with the optional PC based user interface) and by utilising barcode recognition technology, can identify the job automatically and be left to run at up to 26 sheets/min without supervision, even when several different jobs, stocks and weights are stacked in the feeding tray.

Versatility
• Able to handle a wide range of media
• Maximum fifteen cuts and ten creases on one document
• Six slitting wheels for general print finishing

DC-645 Finishing Process

Feeding → Side Slit → Central Slits → Cut → Crease → Optional Perforation

PC set-up

optional modules

Accuracy
• High accuracy, +/- 0.2 mm of the slit / cut / crease tools
• High accuracy for business card cutter
• Automatic paper shrink compensation
• Registration mark reading for image shift compensation

Productivity
• Maximum speed 26 sheets per minute (based on A4, 4 side trim and 1 crease)
• 100mm feed capacity
• Automatic rejection of error / double feed sheets to reject tray for uninterrupted production
• Adaptable stacking tray allowing a broad range of collecting possibilities

Ease of operation
• Computer connection wizard software allowing intuitive programming and easy adjustment of the machine
• Job recognition through barcode job number
• Automatic set-up of virtually all components
• Jobs stored, reviewed and edited via PC or Mac

Extra Finishing Modules
For optimal production of business cards and folded business cards, perforation and rotary scoring.

Features
• Designed for digital print
• Two folding knives
• 110 to 350gsm
• Automated set-up in seconds
• Programming from host machine
• Job Creator version2 for DC-645
• Handles multiple items per sheet
• Flat items (e.g.postcards) can pass through without folding
• Includes divert tray for clearing incomplete pieces or as an alternative receiving area for unfolded items
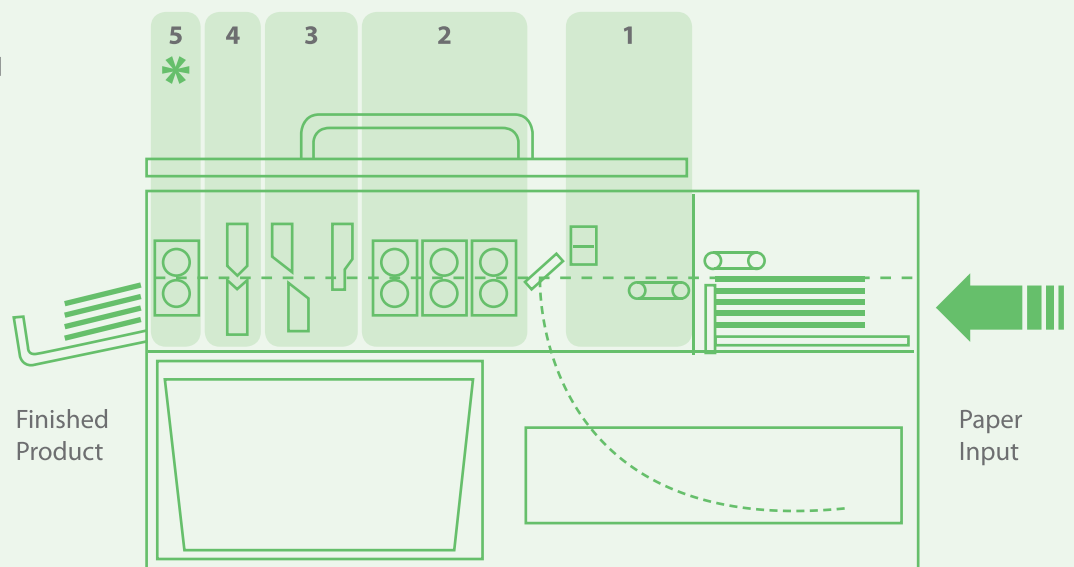
Typical applications:
•Folded and flat items cut/creased on DC-445/DC-645 • Greetings cards • Half and tri-folded letters • Brochures and leaflets • CD/DVD inserts • Menus • Direct mail •Sorting photobook pages

DC-645 Modules

1) 2 Side Slitters
2) 4 Central Slitters
3) Scissor Action Knife Tool
4) Creaser
5) Optional Modules

Finished Product

Paper Input

barcode reader

waste container

DC-645ᵉ e tandem, the remote care solution.

The DC-645e, with e tandem remote service system, continually records data relating to the machine function and usage. Through an internet connection this sophisticated technology transmits a notification report of the error messages from the machine often in advance of it being detected by the operator, directly to Duplo's support specialist team. Then it is possible, after discussion with our service team to validate the nature of the problem, to take immediate remedial action or to identify the need of onsite intervention with the optimum level of urgency. Our technicians armed with this level of information will be able to arrive on site with the right parts to get your machine up and running again as quickly as possible. This remote monitoring also allows analysis of the production levels of the machine (since the last visit) and enables automatic planning for ordering required consumables as well as the necessary preventive maintenance visits. But the remote control system does not stop at technical diagnosis, it also provides reports giving detailed analysis of production as well as to identify if extra operator training is necessary.
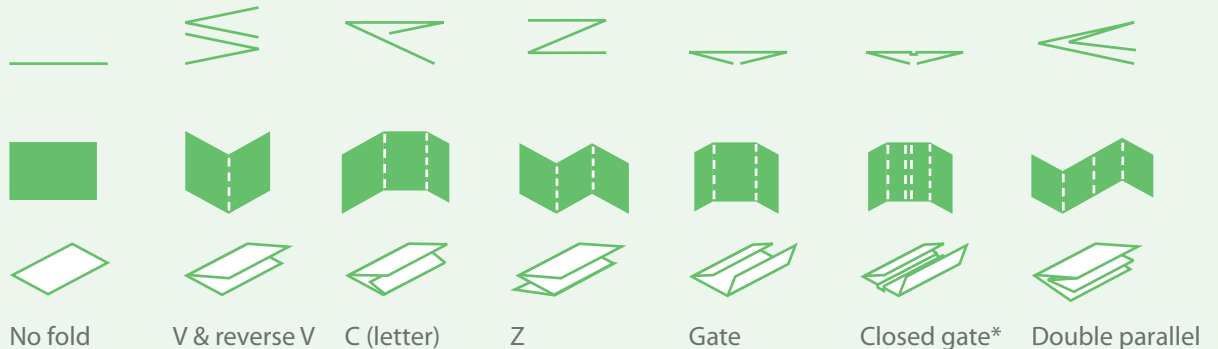
Duplo Integrated Folding System

The Integrated Folding System (IFS) is a range of 5 modules purpose built to extend the inline capabilities of the DC-645. In addition to the current available features of cutting, creasing and perforating, you can now fully finish different applications from offset or digital presses such as greeting cards, CD covers, small 'tent' cards, brochures and leaflets – IN ONE PASS.

The core module of the range is a folder that includes two folding knives, allowing 7 common fold patterns for heavyweight sheets without toner cracking, typical problems for conventional buckle type sheet folders.

Other modules in the DIFS range include two high capacity stackers and a cross-conveyor module that allows sequentially printed applications to be sorted to the correct sequence.

Common fold patterns

| No fold | V & reverse V | C (letter) | Z | Gate | Closed gate* | Double parallel |

*1 (crease and manual fold for jobs with >2 folds)

DC-645 IFS with straight conveyor
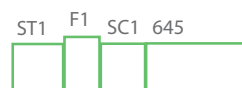
folded stacked cards

Duplo integrated folding system: typical configurations

Available modules include:
DC-F1 Folder
DC-SC1 Straight Conveyor
DC-CC1 Cross Conveyor
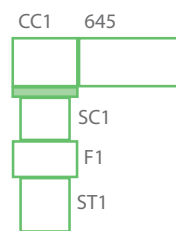DC-ST1 Stacker (long)
DC-ST2 Stacker (short)

Typical configurations of the DIFS include:

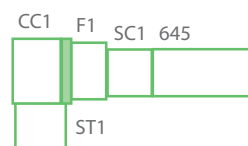### DC-645 Multifinisher+DC-SC1 Conveyor+DC-F1 Folder+Stacker

Typically this configuration is used for transporting and synchronising items between other modules. This making the system more efficient and creating greater flexibility.

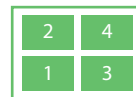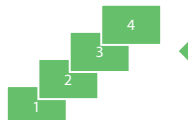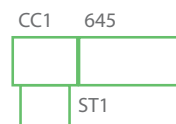### DC-645 Multifinisher+DC-CC1 Cross Conveyor +DCF1 Folder+Stacker

When the Cross Conveyor is used before the folder, jobs that have been scored with the optional DC-645 Rotary Score Module are turned sideways and orientated correctly for the Folder.

DC-645 Multifinisher+DC-SC1 Conveyor+DC-F1 Folder+DC-CC1 Cross Conveyor+Stacker

When the Cross Conveyor is used after the folder, jobs that have been creased with the standard Creaser Module are turned sideways and collected in one stack in ordered sequence.

DC-645 Multifinisher+DC-CC1 Cross Conveyor+Stacker

Systems can be configured that do not include the Folder, for example a Cross-Conveyor and Stacker for merging items into one ordered sequence, useful for photobook pages or direct mail.

DC-645 Multifinisher+Stacker

The last two modules are stackers and are located at the end of the system. They enable a job such as postcards or business cards to be cut and stacked without needing the system to stop for unloading, increasing efficiency.

Specification

Input paper size min:	210 mm wide × 210 mm long
Input paper size max:	370 mm wide × 650 mm long
Input paper weight min:	Nominally 110gsm Note : lighter weights possible subject to paper curl
Input paper weight max:	Nominally 350gsm Note : heavier weights possible subject to crease pressure required

Finished paper size min:	Business card size 48mm wide × 85mm long (85mm is in feed direction)
Power supply voltage:	Single phase 230V AC
Power supply current:	1.6 A
Dimensions (W × D × H):	750mm × 2240mm × 1115mm
Weight:	360 Kg

Side Trimmers

Number:	2 x rotary slitting knives
Side Trim Accuracy:	Programmable 0.1mm steps, minimum 3mm
Tolerance:	+/- 0.2 mm maximum over width of 370 mm

Slitters

Number:	4 x rotary slitting knives
Slitter Accuracy:	Programmable 0.1mm steps
Tolerance:	+/- 0.2 mm maximum over width of 370 mm

Cross Knife Trimmer

Number:	1 x cross knife
Maximum programmable:	15 cuts
Lead edge trim:	Recommended min 3mm
Trail edge trim:	Recommended min 5mm
Accuracy:	Programmable to 0.1 mm steps
Tolerance:	+/- 0.2 mm maximum over length of 650 mm

Creaser

Number:	1 x creasing rule across (width) paper direction
Maximum Programmable:	10 creases, minimum distance to first crease 85mm
Accuracy:	Programmable to 0.1 mm steps
Tolerance:	+/- 0.2 mm maximum over length of 650 mm

Integrated Folding System

Maximum size:	370 x 480mm Finished Folded Size
Minimum size:	48 x 85mm Finished Folded Size
Speed:	45 sheets/min

Paper Weight:	110-350gsm
Folds	Programmable to 0.1 mm steps
Fold Patterns:	+/- 0.2 mm maximum over length of 650 mm

e tandem

An internet connection or local bluetooth connection is required for the e-tandem system.

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Ref: E-DC645eIFS/v1