Specifications

Dimensions: (WxLxH)	780 x 2060 x 1120 mm
Weight:	360 Kg
Power Supply:	Single phase 230V AC, 1,6 A
Input Paper Size:	210 × 210 mm Min 370 × 670 mm Max

Notes: Paper length of 999mm can be input using control panel

Input Paper Weight:	Nominally 110gsm Min Note : lighter weights possible subject to paper curl Nominally 350gsm Max Note : heavier weights possible subject to crease pressure required
Finished Paper Size:	Business card size 48mm wide x 85mm long Min (85mm is in feed direction)

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 670 mm

Cross Knife Trimmer

Number:	1 x cross knife
Maximum Programmable:	15 cuts
Lead Edge Trim:	Recommended 3mm Min
Trail Edge Trim:	Recommended 5mm Min
Accuracy:	Programmable to 0.1 mm steps
Tolerance:	+/- 0.2 mm maximum over length of 670 mm

Slitters

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

Feeder

Capacity:	100 mm
Type:	Air knife separation / Top feed / Belt suction
Speed:	Maximum 1560 sheets per hour

Side Trimmers

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

Depth: 780mm

Height: 1120mm*

*without PC

Width: 2060mm

Ref: 645i/02/13

Duplo®
from print to documents

DC-645i

WITH INTEGRATED FOLDING SYSTEM

INTELLIGENT MULTIFINISHER FOR DIGITAL PRINT

Greetings cards – Brochures – CD/DVD coversDirect mail – Menus – Flat or folded business cards

The Duplo DC-645i production multifinisher automatically cuts, slits, perforates (optional) and folds (optional) digital print to produce greetings cards, postcards, CD & DVD covers, business cards and much more - quickly, accurately and profitably. Using the new DC-645i users can go beyond basic finishing and create innovative full bleed digital print applications.

Save time, space and money
Most colour digital applications require the ability to trim to a full bleed application and/or crease, for crack free folding of digital print. The Duplo DC-645i 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. Gone are the days of purchasing multiple machines, requiring double the space, cost and man-power. Cost-effective and easy to operate, the DC-645i 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. This feature can be enabled to check and adjust the position of all sheets or used to just check and adjust the position of the first sheet and then operate in full speed mode.

It can store up to 80 jobs (unlimited with the PC based user interface) and by utilising barcode recognition technology, can identify the job automatically and be left to run 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

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
• Intuitive touchscreen PC control
• Step-by-step software wizard allowing easy programming and fine adjustment
• Job recognition through barcode job number
• Automatic set-up of virtually all components
• Jobs stored, reviewed and edited via touchscreen PC

Extra Finishing Modules
For optimal production of business cards and folded business cards, an optional Business Card Module is available, increasing the number of slitters to 10, allowing you to remove gutters when finishing full bleed business cards.

The **Perforation Module** applies up to two perforations along the sheet. Ideal for tear off coupons, return slips, payment cheques, then cross-fold to C-format ready for posting.

The **Rotary Scoring Module** applies up to two scores along the sheet (90 degrees to crease). Provides greater flexibility in producing tri-fold leaflets, booklet covers etc. in one pass.
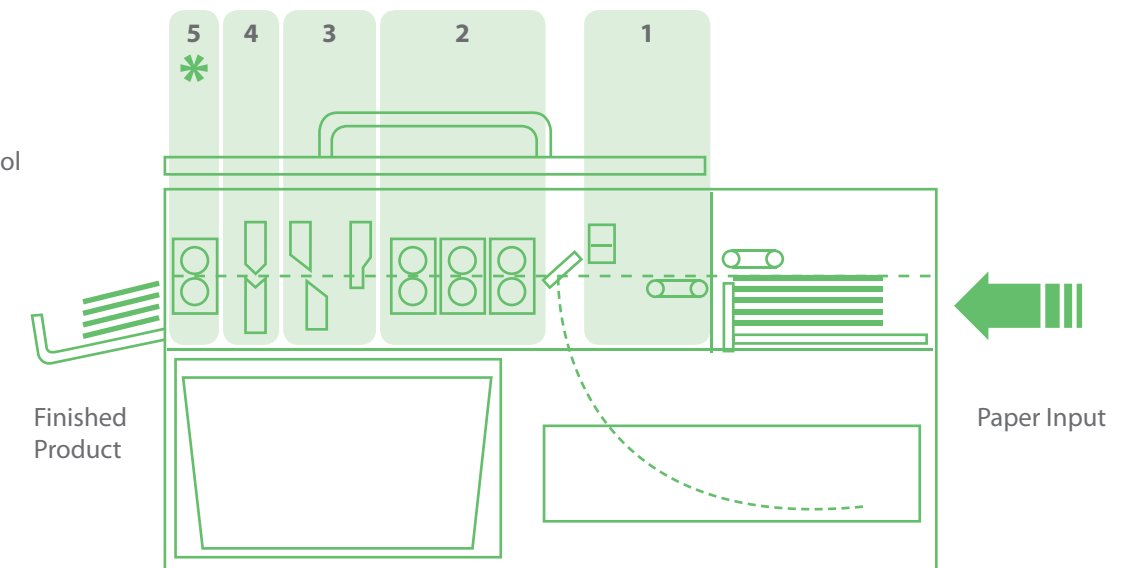
Typical applications:
• Greetings cards
• Direct mail
• Brochures and leaflets
• CD/DVD inserts

DC-645i Finishing Process

Feeding → Side Slit → Central Slits → Cut → Crease → Optional Perforation
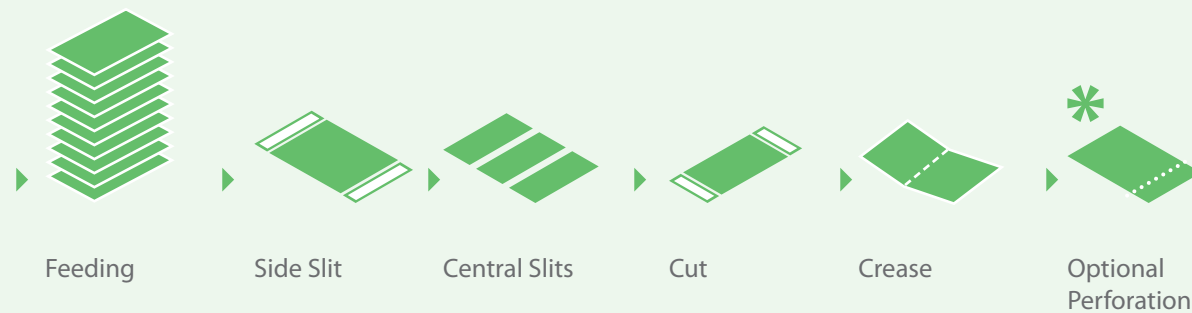
DC-645i Modules

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

5 4 3 2 1

Finished Product

Paper Input

Barcode reader

Typical applications

Touchscreen pc controller

Optional modules

INTEGRATED FOLDING SYSTEM (IFS)

Printed sheets typically need to be taken to a guillotine, then a creaser and then a folder. Not only does this require multiple machines, with the paper handled and processed over and again by man and machine, but overs need to be printed to allow set-up at each stage. The procedure is further complicated by needing to schedule work on each device, or suffer delays when work has to wait while one operator is busy on another job.
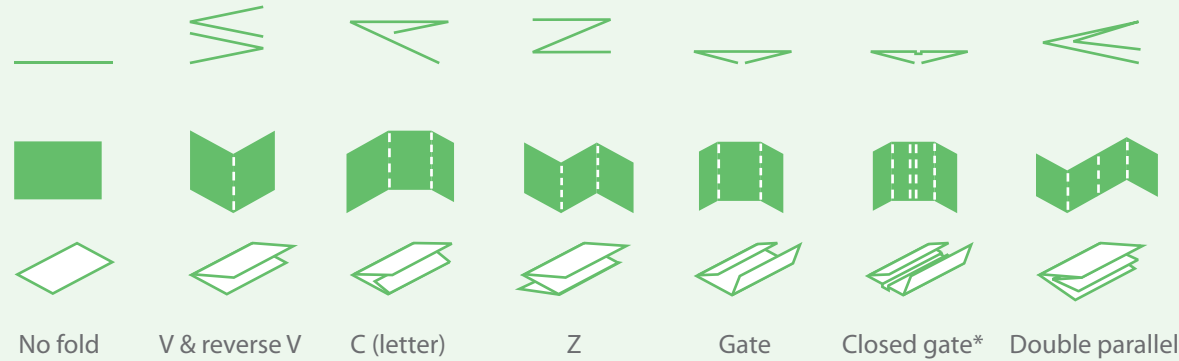
Modular design

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

Integrated setup

For many applications, the addition of folding and stacking significantly increases efficiency of the finishing process, however, there are some applications, such as business cards that do not require these functions. In this case, the IFS modules can be easily wheeled away when not required. The two-pinned docking locator ensures that the device is correctly aligned when reconnected.

Wheel-away simplicity

For many applications, the addition of folding and stacking significantly increases efficiency of the finishing process, however, there are some applications, such as business cards that do not require these functions. In this case, the IFS modules can be easily wheeled away when not required. The two-pinned docking locator ensures that the device is correctly aligned when reconnected.

Straight Conveyor System

The Straight Conveyor synchronises the transport of paper through the system, optimising production speeds between the various elements, making the system more efficient and creating greater flexibility and options for the user.

The core module of the IFS range complements the creasing rule of the DC-645i by featuring two knives to fold the paper between rollers, avoiding crushing of the crease typically found in conventional buckle type sheet folders. This allows 7 common fold patterns and jobs that do not require folding can pass through to the high capacity stacker or into a divert tray beneath.

Cross Conveyor System

The Cross Conveyor is used for changing the direction of items between other modules. When used before the Folder, jobs that have been scored with the optional DC-645 Rotary Score Module are turned sideways and oriented correctly for folding. When 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.

Systems can be configured that do not include the Folder; for example a Cross-Conveyor and Stacker for merging items into one ordered sequence, is useful for photobook pages or direct mail, making prepress imposition easier, reducing labour to sort work and earning huge discounts from postal discounts.

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

Conveyor / Folder / Long Stacker
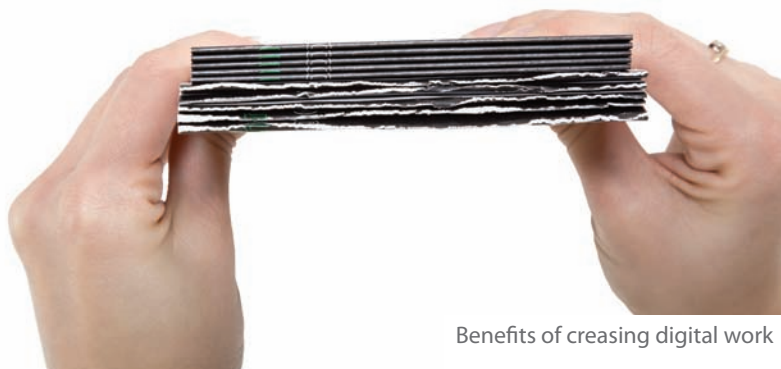

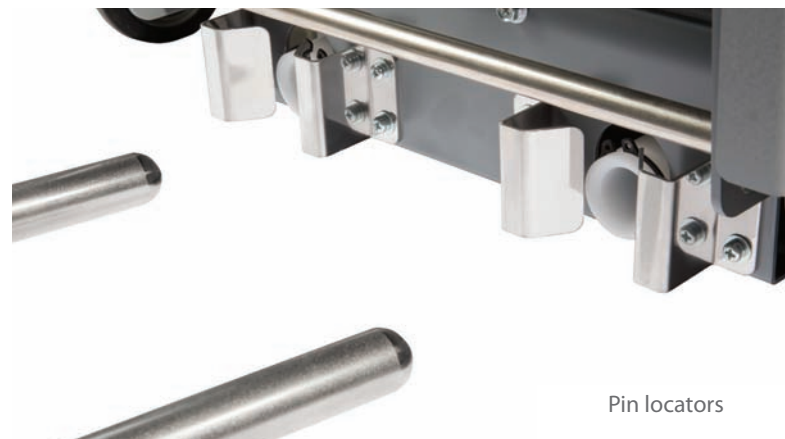**Multiple folded cards**

Cross Conveyor / Conveyor / Folder / Long Stacker
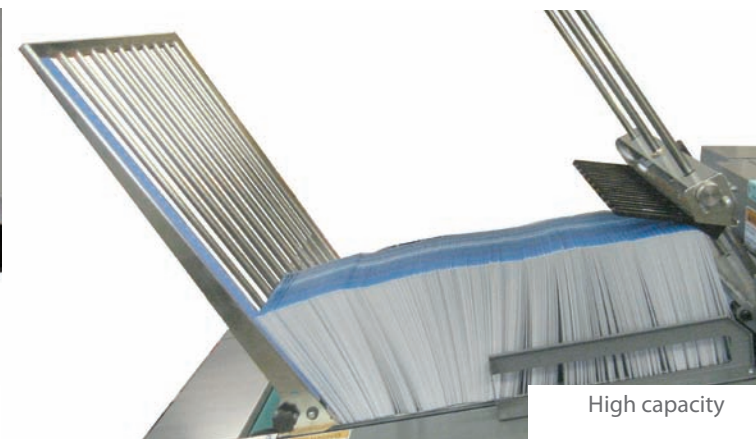

Cross folding (with perforating or scoring)

Benefits of creasing digital work

Pin locators


High capacity

Cross conveyor

Application speeds

In an age where speed, versatility, flexibility, productivity and accuracy are crucial to a commercial printer's success, the ability to calculate the finishing time of a job can significantly improve efficiency. The table below shows the number of SRA3 sheets the DC-645i is capable of producing per minute. In addition, the number of total applications has also been included. As you will see, utilising the Business Card module to finish 25up business cards, a run of 350 business cards can be achieved in just over a minute when the register mark is set to off. Similarly, A6 postcards can be produced at 96 cards per minute.

	SPEED					
JOB DESCRIPTION	SRA3 SHEETS/MIN REG READ EVERY	APPLICATIONS/ MIN	SRA3 SHEETS/MIN REG READ 1ST ONLY	APPLICATIONS/ MIN	SRA3 SHEETS/MIN REG READ OFF	APPLICATIONS/ MIN
4 X GREETINGS CARDS	6	24	12	48	13	52
25 X BUSINESS CARDS	7	175	11	275	14	350
5 X ROLLFOLD INFOCARD	6	30	10	50	11	55
1 X A3 LEAFLET	7	7	18	18	18	18
8 X A6 POSTCARDS	6	48	10	80	12	96

DC-645i SPEED CHART

- ■ SRA3 SHEETS/MIN REG READ EVERY
- ■ SRA3 SHEETS/MIN REG REG READ 1ST ONLY
- ■ SRA3 SHEETS/MIN REG READ OFF
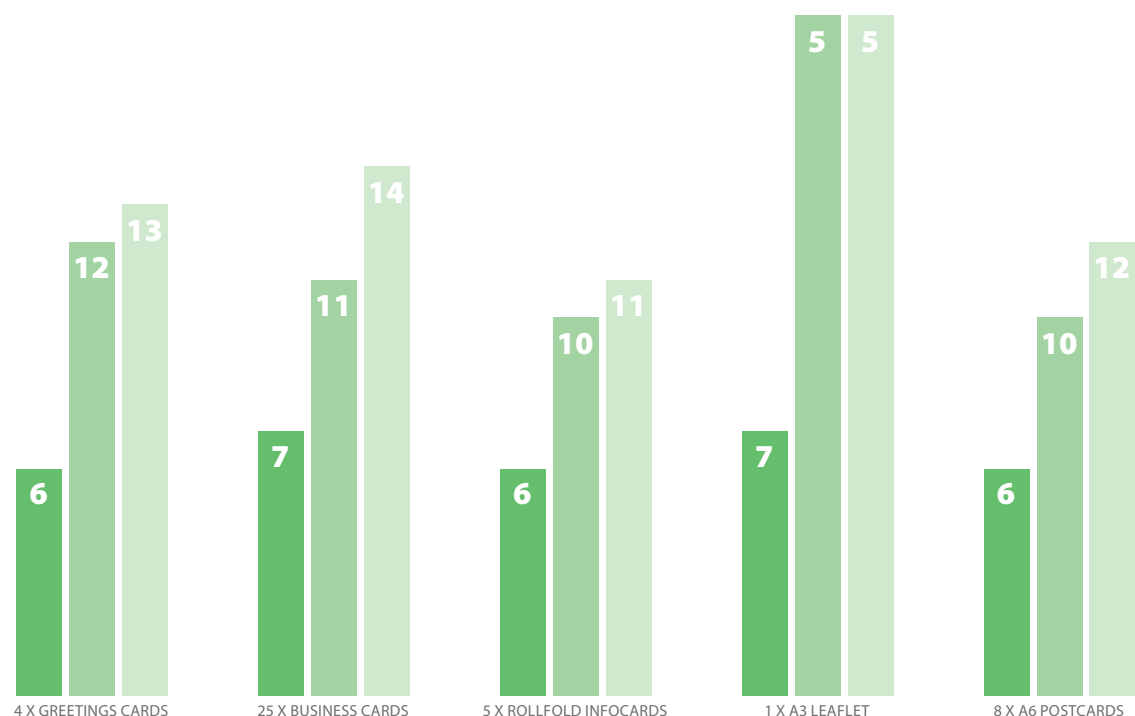
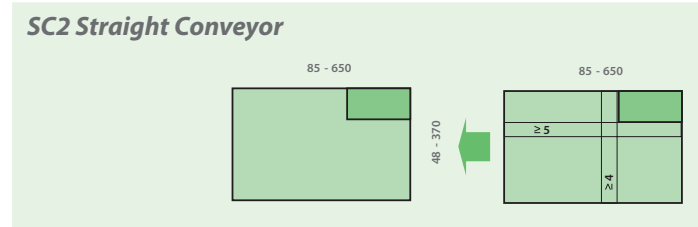*All speeds are calculated using a standalone DC-645i.*

Business cards

Greetings cards
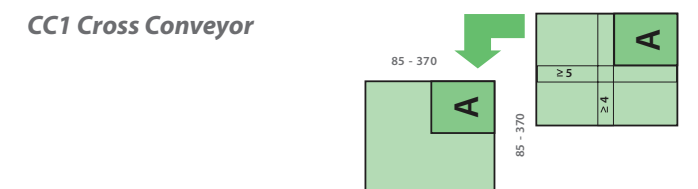
Specifications

SC2 Straight Conveyor

Paper Weight:	110 - 350 gsm
Power:	From Folder
Dimensions (LxWxD mm):	550 x 610 x 1070
Weight:	46 kg
Notes:	Optional for DC-445 Compulsory for DC-645

CC1 Cross Conveyor

Paper Weight:	110 - 350 gsm
Power:	From Stacker , 0.4 A
Dimensions (LxWxD mm):	790 x 730 x 1040 -1160
Weight:	76 kg
Notes:	

F2 Folder

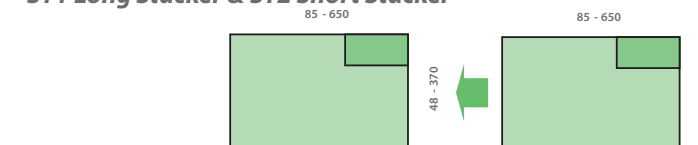|	
Paper Weight:	110 - 350 gsm
Power:	230 VAC , 0.9 A
Dimensions (LxWxD mm):	550 x 610 x 1070
Weight:	95 kg
With DC-445:	30 job memories up to 50 sheets per minute
With DC-645:	80 job memories up to 18 sheets per minute
Notes:	Minimum Fold 42.5mm Dbl. Parallel Fold max. 230gsm
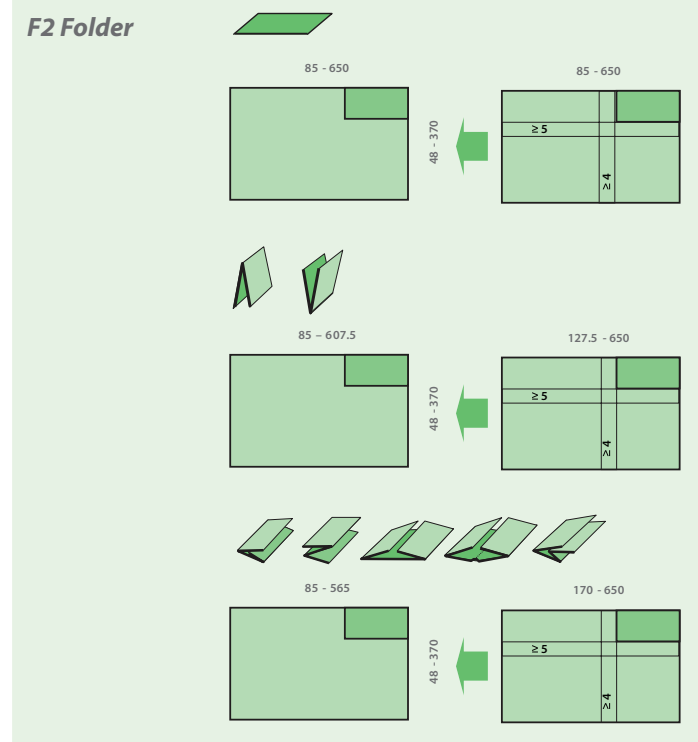
ST1 Long Stacker

Paper Weight:	110 - 350 gsm
Power:	230 VAC , 0.4 A
Dimensions (LxWxD mm):	710 x 710 x 1330 - 1450
Weight:	54 kg
Notes:	Stack Capacity 400mm

ST2 Short Stacker

Paper Weight:	110 - 350 gsm
Power:	230 VAC , 0.4 A
Dimensions (LxWxD mm):	650 x 410 x 1230 - 1350
Weight:	21 kg
Notes:	Stack Capacity 200mm

Gutter dimensions relevant for connection to DC-645i

SC2 Straight Conveyor

CC1 Cross Conveyor

F2 Folder

ST1 Long Stacker & ST2 Short Stacker

*Stacker 2 extension (STE-01) : Allows items longer than 475mm to be stacked neatly

Height: 1500mm
Width: 3000mm
Depth: 780mm

Depth: 2400mm
Height: 1500mm
Width: 2160mm