

## IBIS Smart Binders - Since 1999

IBIS, founded in the United Kingdom in 1999, is a world-leading supplier of high-speed digital book finishing systems. The IBIS Smart Binder 'Plus HS' can produce personalized, variable page-count wire-stitched (SB-2) or cold-glued (SB-3). These systems are used around the world to produce personalized booklets for schools, health care, insurance, financial, government, and many other applications. Notable installations include RR Donnelley, O'Neil Digital Solutions, Pearson Educational, Broadridge, and Liturgical Publications.

Generally, when running the Smart Binder near-line or in-line each sheet going into the web cutter contains 4 pages. The Smart Binder however, can be fed 8-pagers with the addition of a Buckle Folder (RF-100 or F-100). Why would someone want to run 8 pagers versus 4 pagers? There are a few reasons which include; to produce smaller booklets from larger sheets, to reduce the minimum stock weight, and to increase the Smart Binder's throughput speed.

## How to Run 8-Pagers

Like stated above, to run 8-pages per sheet the Smart Binder must have either the F-100 or RF-100 Folder modules for them to be ran through. The 8-page sheets are cross folded in half by the Buckle Folder, before they enter the Smart Binder. Without the F-100 or RF-100 Folder, the Smart Binder cannot handle a web speed higher than about 130 m/min. The use of the either Folders does not increase the sheet rate processed by the Smart Binder (in fact the max sheet rate is reduced) but it can greatly increase the throughput because each sheet can contain 8 pages instead of 4 pages.

## F-100

The F-100 enables the max web speed to be increased to about 180 - 200 meters/min or, if running off-line, the maximum page throughput to be increased. The F-100 also allows the minimum paper weight to be reduced to approximately 40 GSM (at reduced web speeds).

### Common 8-page configurations:

To produce **8 1/2" x 11"** books, print oversize 17" x 22". These sheets must enter the F100 short-edge leading. The Folder then folds the sheet in half to give an oversize 11" x 17" section with the folded-edge leading. These folded sections then enter the Smart Binder and are processed normally thereafter into finished 8 1/2" x 11" books.

To produce **5 1/2" x 8 1/2"** books, print oversize 11" x 17". These sheets must enter the F-100 short-edge leading. The Folder then folds the sheet in half to give an oversize 8 1/2" x 11" section with

the folded edge leading. These folded sections then enter the Smart Binder and are processed normally thereafter into finished 5 1/2" x 8 1/2".

The folding process may be deactivated when it is required to pass 4-page sheets through the F-100 without folding.

# of Sheets	# of Pages	Web Unwind Speed (ft/min)	Output Rate (books/min)	Booklets per Hour
1	8	116	77.3	4,638
2	16	232	77.3	4,638
3	24	320	71.1	4,266
4	32	320	53.3	3,198
6	48	320	35.5	2,130
8	64	320	26.6	1,600

Throughput Table using the F-100: 5 1/2" x 8 1/2"

## RF-100

The RF-100 Rotator/Folder is used with the Smart Binder to produce smaller format books from a normal width web, in-line with a Web Printer. This allows the normal web to be used when making small format booklets, instead of having to change to a narrow paper web.

### 8-Page Configuration:

To produce **5 1/2" x 8 1/2" booklets**, print oversize 11" x 17" sheets with 8 pages on each sheet. These sheets will be delivered long-edge leading. The rotator Folder then rotates each sheet by 90 degrees to short-edge leading. Each sheet is then folded in half to give an oversize 8 1/2" x 11" section with the folded edge leading. The folded sections are then fed into the Smart Binder and processed normally. The RF-100 may be deactivated if sheets need to be passed through without folding or rotating.

# of Sheets	# of Pages	Web Unwind Speed (ft/min)	Output Rate (books/min)	Booklets per Hour
1	8	116	116	6,960
2	16	232	116	6,960
3	24	320	106.7	6,402
4	32	320	80	4,800
6	48	320	53.3	3,198
8	64	320	40	2,400

Throughput Table using the RF-100: 5 1/2" x 8 1/2"