Data Sheet: Optional folder F-100

The optional F-100 pre-folds sheets before they enter the Smart-binder (SB) infeed. The folder may be used either to produce small format books, increase SB page throughput, reduce the velocity of sheets entering the SB and/or reduce the minimum paper stock weight.

When using the F-100, then sheets are printed with 4 pages on each side (instead of the normal 2 pages on each side when not pre-folding). These 8-page sheets are then folded by the F-100 across the middle ('buckle'-folded) before they enter the SB and are folded again in the opposite direction by the SB plow-folder.



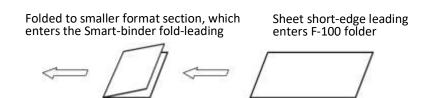
F-100 cross-folder unit used directly before SB infeed

For example: to produce **A5 (Digest – 5** $\frac{1}{2}$ " **x 8** $\frac{1}{2}$ ") **books**, print oversize A3 sheets (or oversize 11 x 17"). These sheets must enter the F100 short-edge leading. The folder then folds the sheet in half to give an oversize A4 (or oversize 8 $\frac{1}{2}$ " x 11") section with the folded edge leading. These folded sections then enter the SB, and are processed normally thereafter into finished A5 5 $\frac{1}{2}$ " x 8 $\frac{1}{2}$ ") books.

To produce A4 (or Letter - 8 $\frac{1}{2}$ x 11") books, print oversize A2 sheets (or 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 A3 (or oversize 11 x 17") section with the folded-edge leading. These folded sections then enter the SB, and are processed normally thereafter into finished A4 or 'letter' size books.

Since sheets are folded into sections before entering the SB, and books can only be made from whole sections, it is only possible to make books with pages in multiples of 8-pages when using the F100 folder.

Folded sections are more bulky than flat sheets, so this technique may also reduce the maximum number of pages in the book.

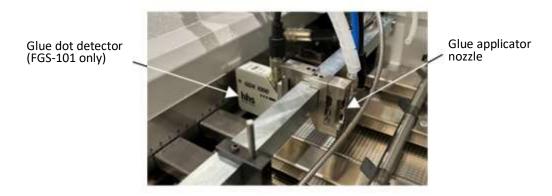


Sheet flow through the F-100 Folder

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

The F-100 folder may be fitted with optional anti-static bars to reduce the static charge on the sheets delivered to the SB.

When using ISG gluing together with pre-folded sheets, then an additional cold-glue application nozzle must also be installed in the folder. This is required to place a line of glue inside the folded sheet, without which the finished booklet would fall apart. Two gluing options are available. Option FGS-100 simply applies a line of glue dots. Option FGS-101 applies a line of glue dots and also includes a separate UV sensor to detect the dots after they have been applied and stop the machine if glue dots are missing. See FGS-101 photo below.



The F-100 enables the max web speed to be increased to about 150 metres/min or, if running from a sheet feeder the maximum page throughput can be increased. The F-100 also allows the minimum paper weight to be reduced to approximately 40 gsm (at reduced web speeds).

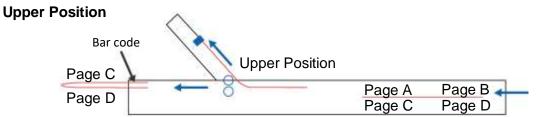
The F-100 length is 1858mm (73")

F-100 maximum and minimum infeed heights

Minimum infeed height	1000mm
Maximum infeed height	1100 mm

Fold Plates

The F-100 folder is normally supplied with one fold plate fitted in the upper position which will fold the sheet as below:



The imposition of pages printed on the web needs to be correct to suit the fold process as shown above. The bar code must printed so as to appear on the <u>upper side</u> of the sheet after folding.

If a fold plate is needed in the lower position instead of the normal upper position then this is possible by special written request, and will fold the sheet as below.

Lower Position

