

Smart Finishing Solutions

A new concept in Digital Finishing Solutions with an efficient and smooth workflow.



Focus on post press

Smart Finishing Solutions



Fold

Smart **Folding** System



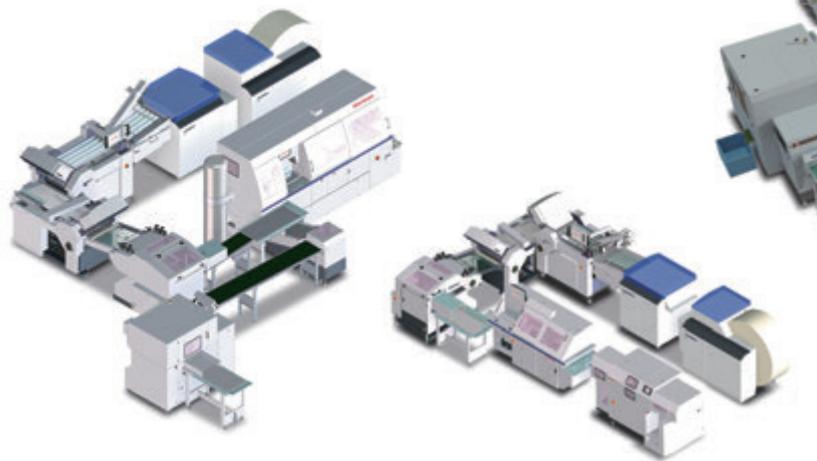
Booklet

Smart **Stitching** System



Bound Book

Smart **Binding** System

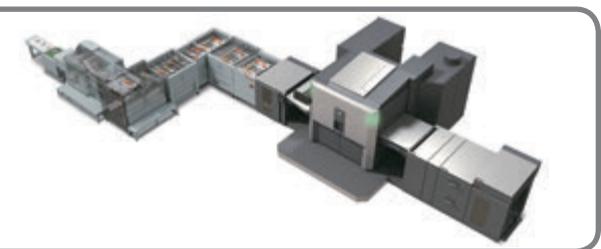
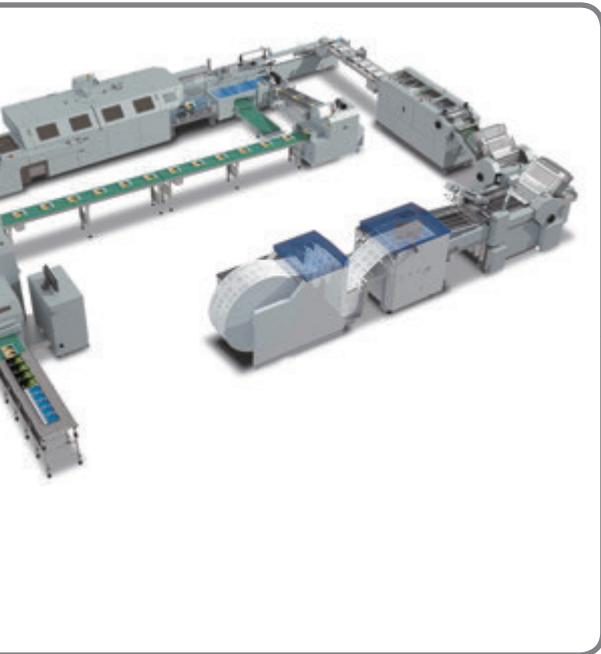


Cut Sheet

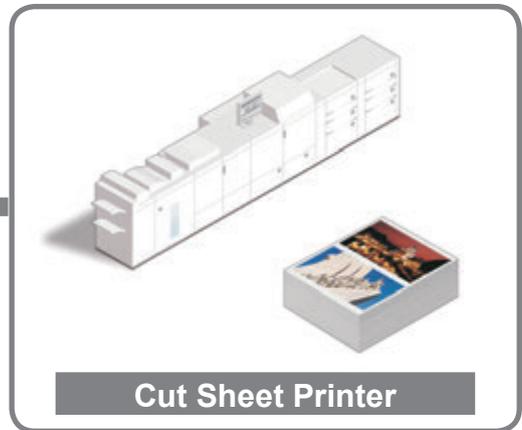
Smart **Sheet Processing** System

Digital print is becoming a major printing method for production printing. To employ digital print effectively, **post press** plays an important role and is a key to success. Focus on post press and reconsider the workflow...

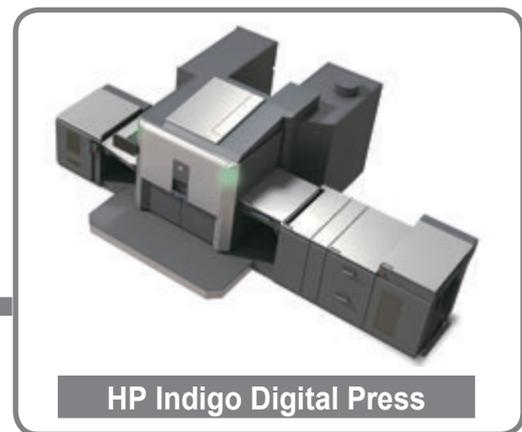
Horizon's Smart Finishing Solutions will lead to an improved production flow with greater efficiency and profitability.



Continuous Feed Printer



Cut Sheet Printer

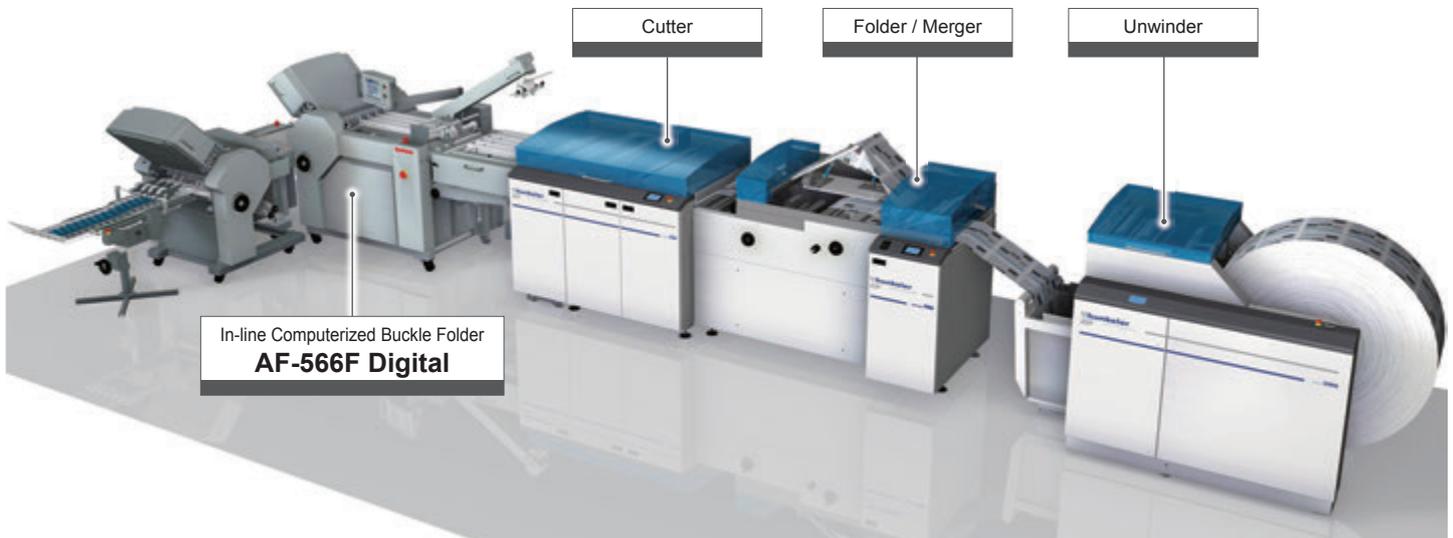


HP Indigo Digital Press

Smart **Folding** System

AF-566F Digital

In-line Computerized Buckle Folder



Features

Ease of Use

Easy operation and state of the art automation allows set up and operation without specialized skills. Single person operation lowers labor and operating costs.

Automatic Setup

Fully automated set up for quick and accurate changeover. Even roller gap settings are fully automated.



High Productivity

Belt Speed : 240 m (787 ft) per minute. High speed folding is possible.

Superior Folding Quality

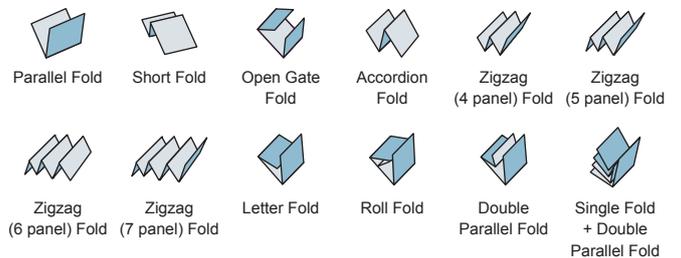
Fold rollers are constructed with a combination of steel and soft polyurethane for superior grip and sharp, consistent folding.

Complex Fold Patterns

6+4-buckle modular concept allows for simple to complex fold

patterns that maximize folding variations.

Automated Setup Fold Patterns on the 1st station



Flexibility

System can be used both in-line and off-line with simple changeover. Just slide away the DIF-56 conveyor and the system can be used with the normal pile feeder.



DIF-56

Configurations

Single Unit 6-buckle

Allows for simple folding, such as direct mailers or leaflets.



Right Angle 6+4-buckles

Allows for cross folding, such as a double-letter fold and 8-page signature.

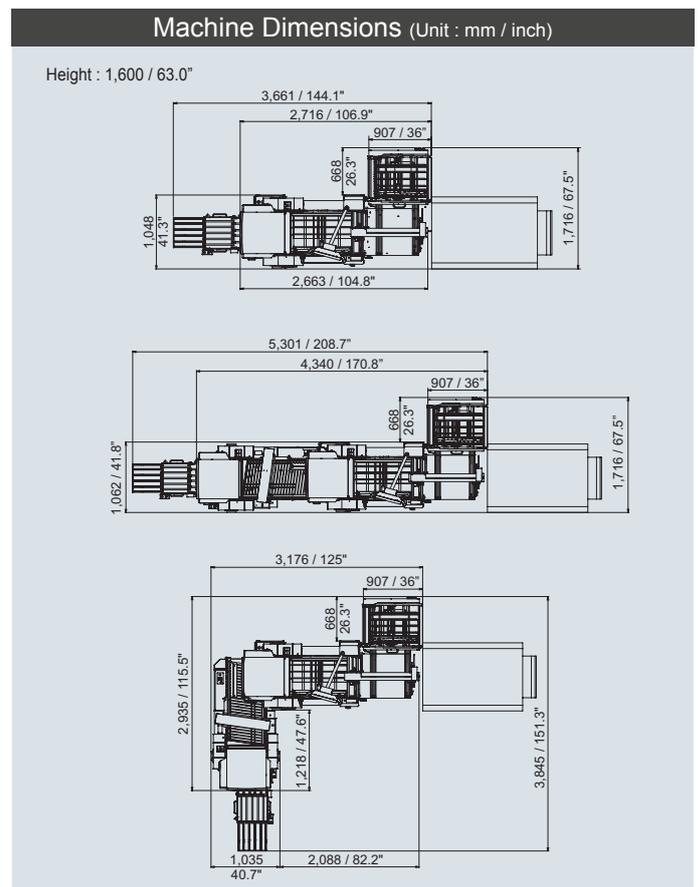


Straight 6+4-buckles

Allows for complex Zigzag folds up to 18-panels.



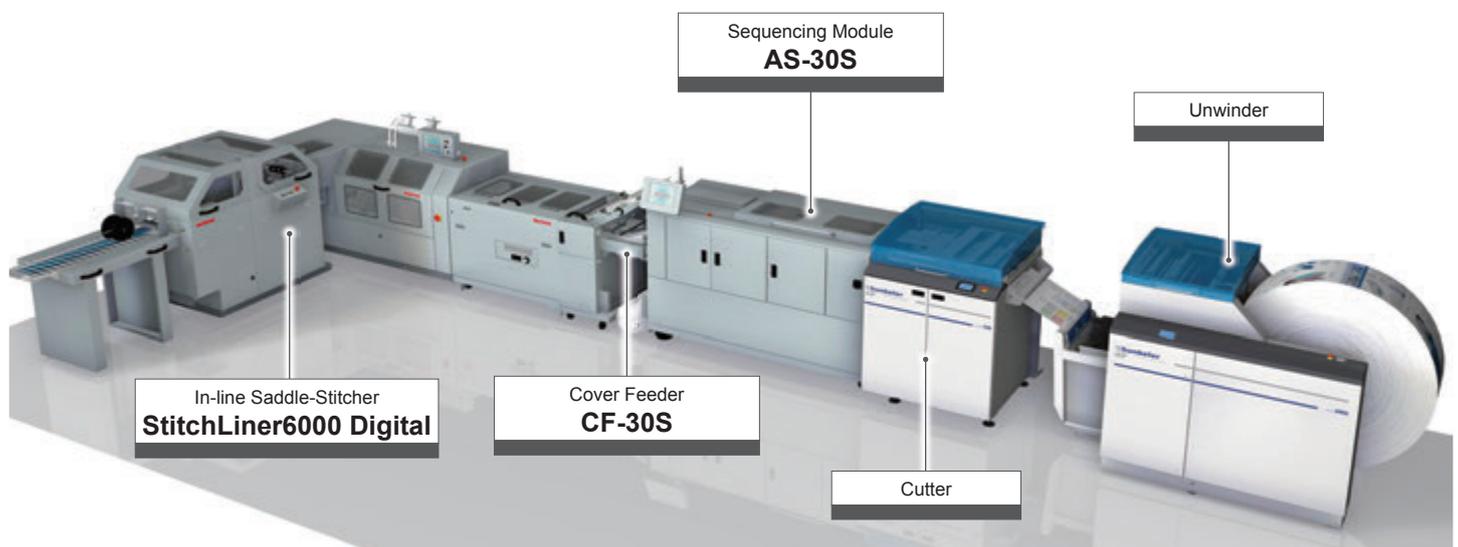
AF-566F Digital Specifications					
Machine Structure	6 Buckles and 4 Buckles Model 1st Station : AF-566F / 2nd Station : T-564F				
Sheet Size	<div style="display: flex; align-items: center;"> <div> <p>Width x Length</p> <p>Max. 1st Station : 558 x 865 mm / 21.970" x 34.000" 2nd Station : 558 x 558 mm / 21.970" x 21.970" AF-566F Digital : 520.7 x 1200 mm / 20.50" x 47.24"</p> <p>Min. 1st Station : 128 x 148 mm / 5.040" x 5.830" 2nd Station : 50 x 128 mm / 1.970" x 5.040" AF-566F Digital : 165.1 x 230 mm / 6.36" x 9.45" (Up to 140 mm / 5.52" can be fed when using the feed rotor.)</p> </div> </div>				
Sheet Weight Range	Normal Paper 35 to 209 gsm, Art / Coated Paper 50 to 232 gsm				
Buckle Fold Length	<table border="0"> <tr> <td style="vertical-align: top;">1st Station</td> <td>1st / 2nd / 3rd / 5th Buckle Chute 30 to 450 mm / 1.180" to 17.720" 4th / 6th Buckle Chute 30 to 360 mm / 1.180" to 14.170"</td> </tr> <tr> <td style="vertical-align: top;">2nd Station</td> <td>1st to 4th Buckle Chute 30 to 360 mm / 1.180" to 14.170"</td> </tr> </table>	1st Station	1st / 2nd / 3rd / 5th Buckle Chute 30 to 450 mm / 1.180" to 17.720" 4th / 6th Buckle Chute 30 to 360 mm / 1.180" to 14.170"	2nd Station	1st to 4th Buckle Chute 30 to 360 mm / 1.180" to 14.170"
1st Station	1st / 2nd / 3rd / 5th Buckle Chute 30 to 450 mm / 1.180" to 17.720" 4th / 6th Buckle Chute 30 to 360 mm / 1.180" to 14.170"				
2nd Station	1st to 4th Buckle Chute 30 to 360 mm / 1.180" to 14.170"				
Belt Speed	30 to 240 meters (98 to 787 ft) per minute				
Voltage / Frequency	3-Phase 200 V, 50 / 60 Hz 3-Phase 220 V, 50 / 60 Hz				



Smart Stitching System

StitchLiner6000 Digital

In-line Saddle-Stitcher



Features

High Quality

Scoring

Accurate sheet registration, scoring and folding. In-line plow fold mechanism eliminates unnecessary folding steps.

Stitching

The folded sets are jogged from the head and foot, then centered on the saddle by the centering mechanism before the heavy-duty stitching heads produce accurately stitched booklets.

Trimming

Precision automated knife positioning and in-feed provides for accurate booklet registration and three-knife trimming.

High Speed

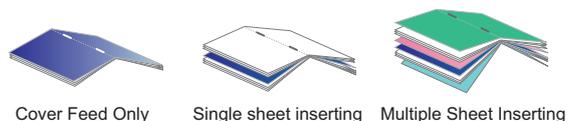
Maximum production speed is 6,000 booklets per hour (depending on application). An advanced interface maximizes the upstream system efficiencies.

Variable Data Handling

Personalized and variable page count applications can be handled. The in-line configuration insures sheet-to-sheet integrity.

Flexible Insertion

An intelligent cover feeder enables flexible insertion of up to 5 sheets plus cover anywhere in the booklet.



Easy Operation

Easy and intuitive operation is achieved with touch screen control. No specialized operator skills are needed to set up and operate the system.

Configurations

StitchLiner6000 Digital

ACF-30S : Accumulator & Folder

Sheets are scored and plow folded to form crisp, tightly folded booklets.

SPF-30S : Saddle Stitcher

Folded sheets are accumulated on the saddle, perfectly jogged, and accurately stitched.

HTS-30S : Three Knife Trimmer

Professional-quality three-knife trimming applies the final finish. A center-cut option enables two-up production.

StitchLiner6000 Digital Options

AS-30S : Advanced Sequencing Module

A four-stage buffering section synchronizes the speed of the roll cutter and the saddle stitching unit.

HSF-30S : High-Speed Off-Line Feeder

Flexible sheet feeder enables you to operate StitchLiner6000 Digital both in-line and off-line. Simple & quick change over between in-line and off-line production. 500 mm / 19.68" high pile capacity for minimized loading time. Mark reader is equipped as standard for variable sheet count production. Barcode reader can be mounted for high security production. (option)



HSF-30S

CF-30S : Cover Feeder

One or two modular cover feeding stations can be added, to insert up to 5 sheets plus cover anywhere in the booklet.



CF-30S

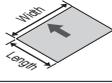
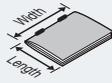
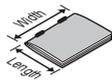
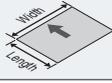
RT-30S : Rotator

Rotate slit & merged products. Stable and fast rotation by use of servo motor technology. Automatic set up by inputting the sheet size from touch screen. System can be used as by-pass conveyor when rotate function is not used.

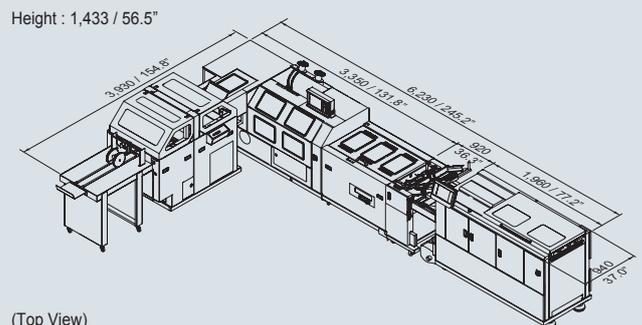


RT-30S

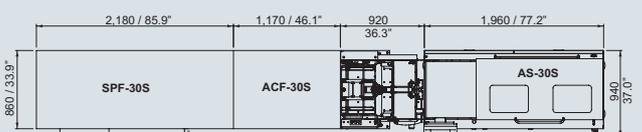
StitchLiner6000 Digital Specifications

Sheet Size		Width x Length Max. 500 x 350 mm / 19.6" x 13.7" Min. 279.4 x 210 mm / 11.0" x 8.3"
Sheet Weight Range	Normal Paper : 52 to 209 gsm Coated Paper : 73 to 209 gsm	
Web Speed	5 to 180 meters per minute	
Stitch Thickness	Max. 5 mm / 0.19" (Booklet thickness 10 mm or 0.39") For loop stitching, Max. 3 mm / 0.11" of booklet thickness. Min. Two Sheets	
Stitch Distance	Max. 150 mm / 5.9" Up to two additional stitcher heads can be added. Min. 66 mm / 2.6"	
Untrimmed Booklet Size		Width x Length Max. 350 x 250 mm / 13.7" x 9.8" Min. 210 x 139.7 mm / 8.3" x 5.5"
Trim Width	Max. 25 mm / 0.98" (When center-cut is performed, the width is limited to a half of the center-cut width.) Min. 2 mm / 0.08"	
Center-cut Width	6 mm / 0.236", 8 mm / 0.315"	
Finished Booklet Size		Width x Length Max. 340 x 230 mm / 13.3" x 9.0" Min. 160 x 114.7 mm / 6.3" x 4.6" When center-cut is performed Max. 167 x 220 mm / 6.5" x 8.6" (6 mm width center-cut) Min. 90 x 114.7 mm / 3.6" x 4.6"
Sheet Sizes for Cover Feeder		Width x Length Max. 500 x 350 mm / 19.6" x 13.7" Min. 199 x 140 mm / 7.9" x 5.6"
Sheet Weight Range for Cover Feeder	Normal Paper : 81 to 270 gsm Coated Paper : 85 to 300 gsm	
Sheet Stack Height	Max. 30 mm / 1.1" Sheets can be loaded while running.	
Production Speed	Max. 6,000 booklets / per hour (A3, one block, up to 6 sheets)	
Voltage / Frequency	3-Phase 200 to 220 V, 50 / 60 Hz 3-Phase 400 V, 50 / 60 Hz	

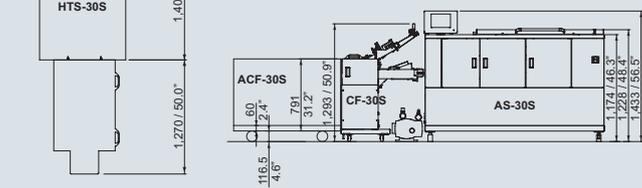
Machine Dimensions (Unit : mm / inch)



(Top View)



(Side View)



Smart Binding System

Features

- 1. Signature Book/Job Production** – Each job is processed one by one. Making it easier to schedule and control jobs.
- 2. Variable Size Finishing** – The same sized book blocks can be finished to various finished sizes by reading unique codes on each book.
- 3. Job Tracking** – Signature order and complete book block at the folder delivery, cover and book block match at the infeed section to the binder, and finished books at the trimmer exit are verified by barcode verification.
- 4. Consistent Workflow with Pre-press** – The pXnet bindery control system accepts JDF setup data and quantity from the pre-press workflow to automate and manage the binding process.
- 5. Quick Setup** – The quick, automated setup allows roll-to-book production of variable size and thickness books. This will enable the use of digital continuous feed printing to be adopted even for short-run jobs.

Book Block Stacker: BBS-40

The signatures are temporally bound by spot-gluing and transported to the next binding process. The optional tracking system verifies the sequence of sheets before gluing. This process insures the page order and provides a higher level of quality control.

1 Infeed Section

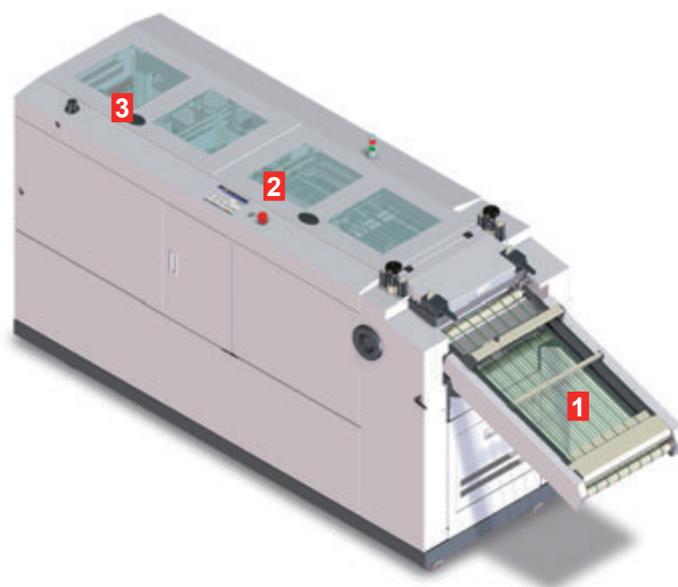
A book block separation mark is read at the infeed section to create book blocks. The sheet length measuring function detects improper folding and faulty signatures are diverted.

2 Spot-gluing Section

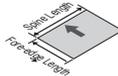
The glue is applied on the top and bottom of the signatures to secure the book block. Glue tacking is within the trim area.

3 Book Block Accumulate and Press Section

The signatures are accumulated and the book blocks are separated one by one by a separation mark. A uniquely designed mechanism enables book block delivery at a maximum of 2,000 cycles per hour.

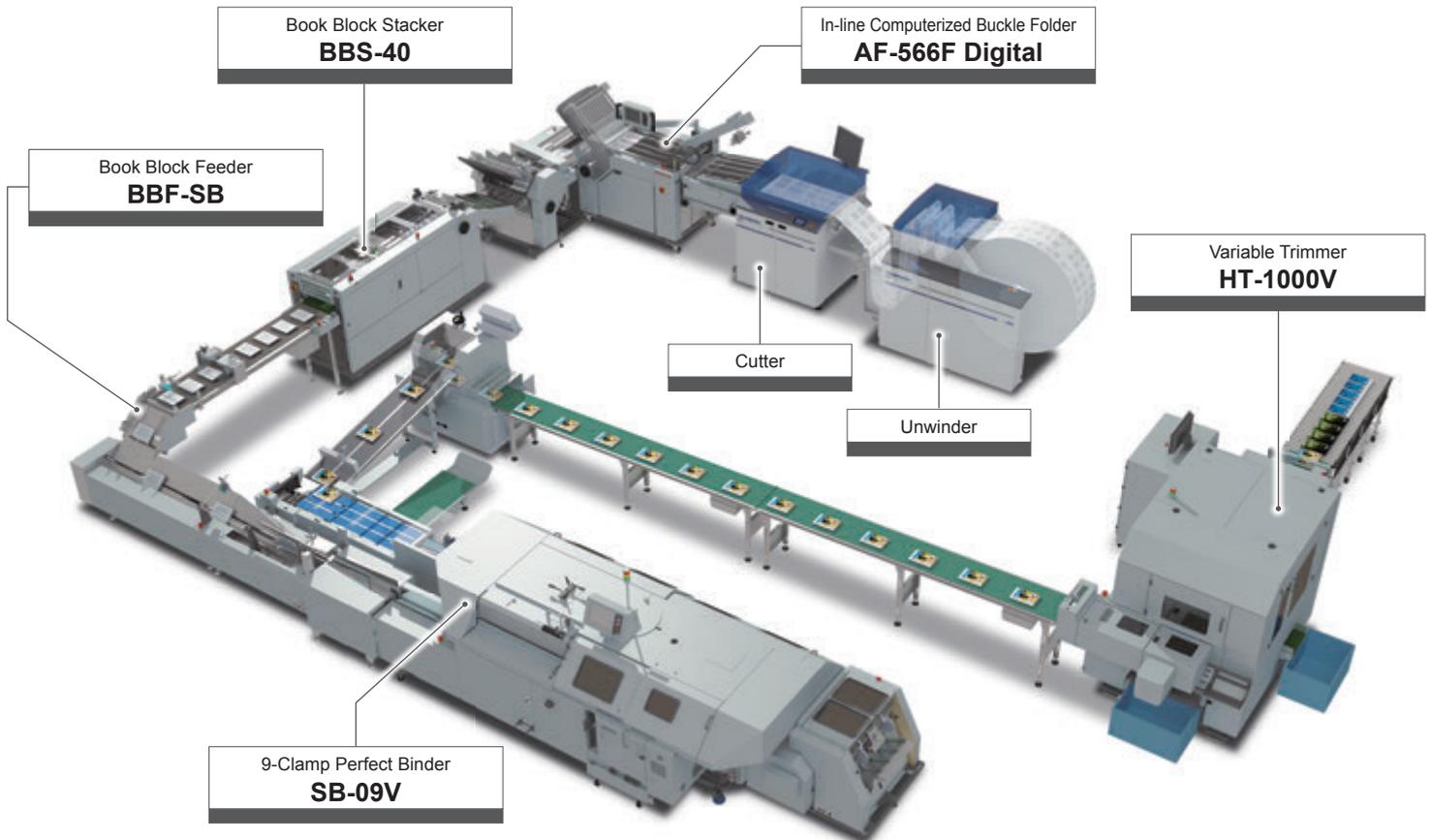


BBS-40 Specifications

Book Block Size		Spine Length x Fore-edge Length Max. 385 x 260 mm / 15.15" x 10.23" Min. 148 x 105 mm / 5.83" x 4.14"
Production Speed	Press Roller Speed : 50 to 160 meters per minute Transport Section Speed : 30 to 80 meters per minute Delivery Section Conveyor : 20 to 40 meters per minute Offset Cycle : Max. 2,000 blocks per hour	

SB-09V+ HT-1000V

Binder + Trimmer



Book Block Feeder: BBF-SB

Sewn book block or pre-glued book blocks can be fed into the binder efficiently. BBF-SB increases productivity by improving production efficiency and minimizing labor.

1 Infeed Section

Book block can be fed automatically with proper timing at production speeds up to 4,000 books per hour. This will reduce human intervention and increase productivity.

2 Operation Console

A single operator can start or stop the binder at the operation console of the BBF-SB.

3 Buffer Function

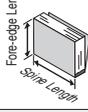
Buffer section is available to feed the book block with proper timing. The book block is stopped temporarily during the changeover and the book blocks are automatically advanced after change-over is completed. The upstream devices from the BBF-SB can operate continuously while down stream is stopped for changeover.



4 Conveyor (Option)

Various length conveyors are available depending on requirements: 1 m / 3.3 ft, 2 m / 6.6 ft or 3 m / 9.9 ft

BBF-SB Specifications

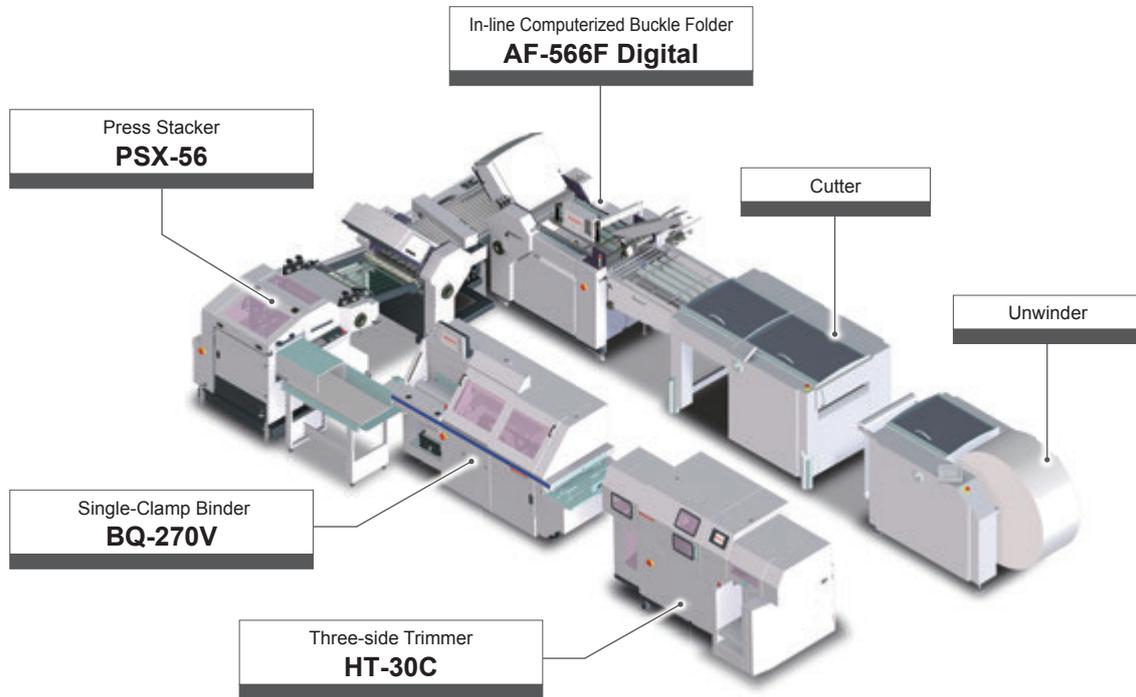
Book Block Size		Spine Length x Fore-edge Length Max. 385 x 320 mm / 15.15" x 12.59" (*) Min. 148 x 105 mm / 5.9" x 4.2"
Book Block Thickness	3 to 50 mm / 0.12" to 2.0" (*)	
Production Speed	Max. 4,000 cycles per hour	
Voltage/Frequency	3-Phase 200 V, 50 / 60 Hz	
Machine Dimensions	W1,423 x D628 x H1,110 mm / W56.1" x D24.8" x H43.8" (When using 1 m conveyor) *The width varies depending on the conveyor width.	

(* Depending on the book size of the connecting binder)

BQ-270V + HT-30C

Binder + Trimmer

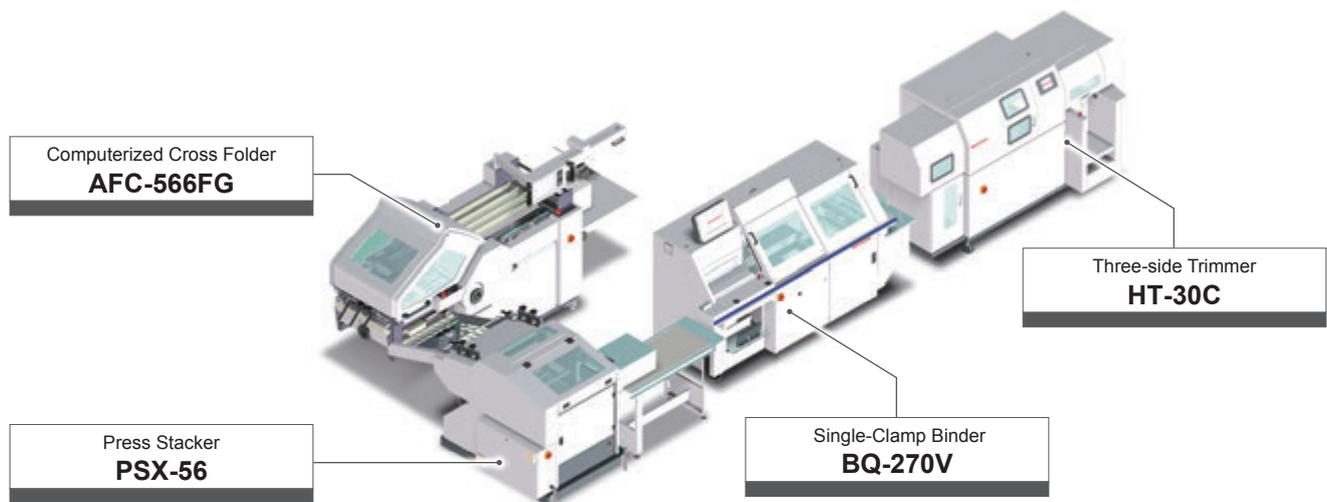
Roll to finish configuration suitable for real short run production such as book of one production. System can produce about 400 books per hour. (Production speed varies depending on application.)



AFC-566FG+BQ-270V+HT-30C

Folder + Binder + Trimmer

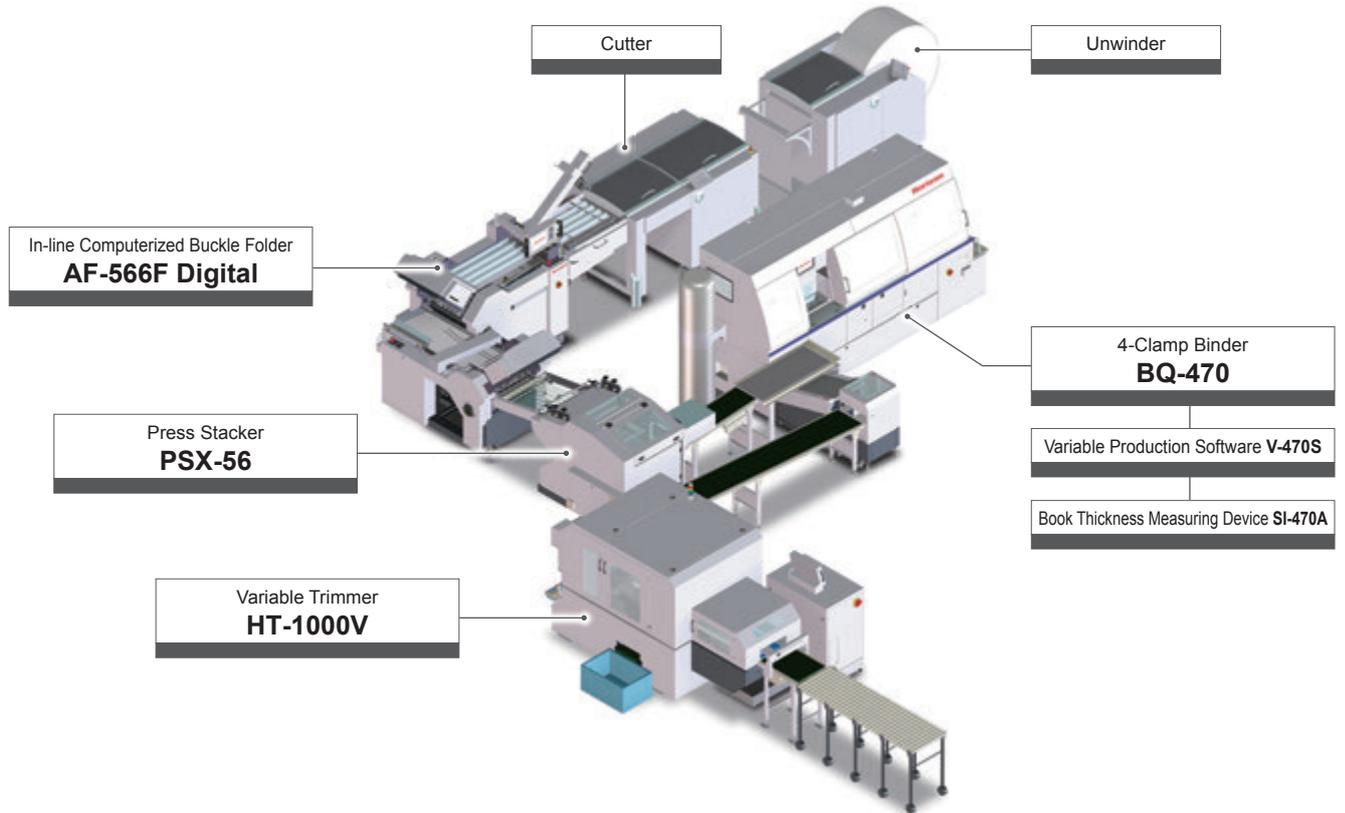
Cut sheet to finish configuration suitable for real short run production such as book of one production. System can produce about 400 books per hour. (Production speed varies depending on application.)



BQ-470 + HT-1000V

Binder + Trimmer

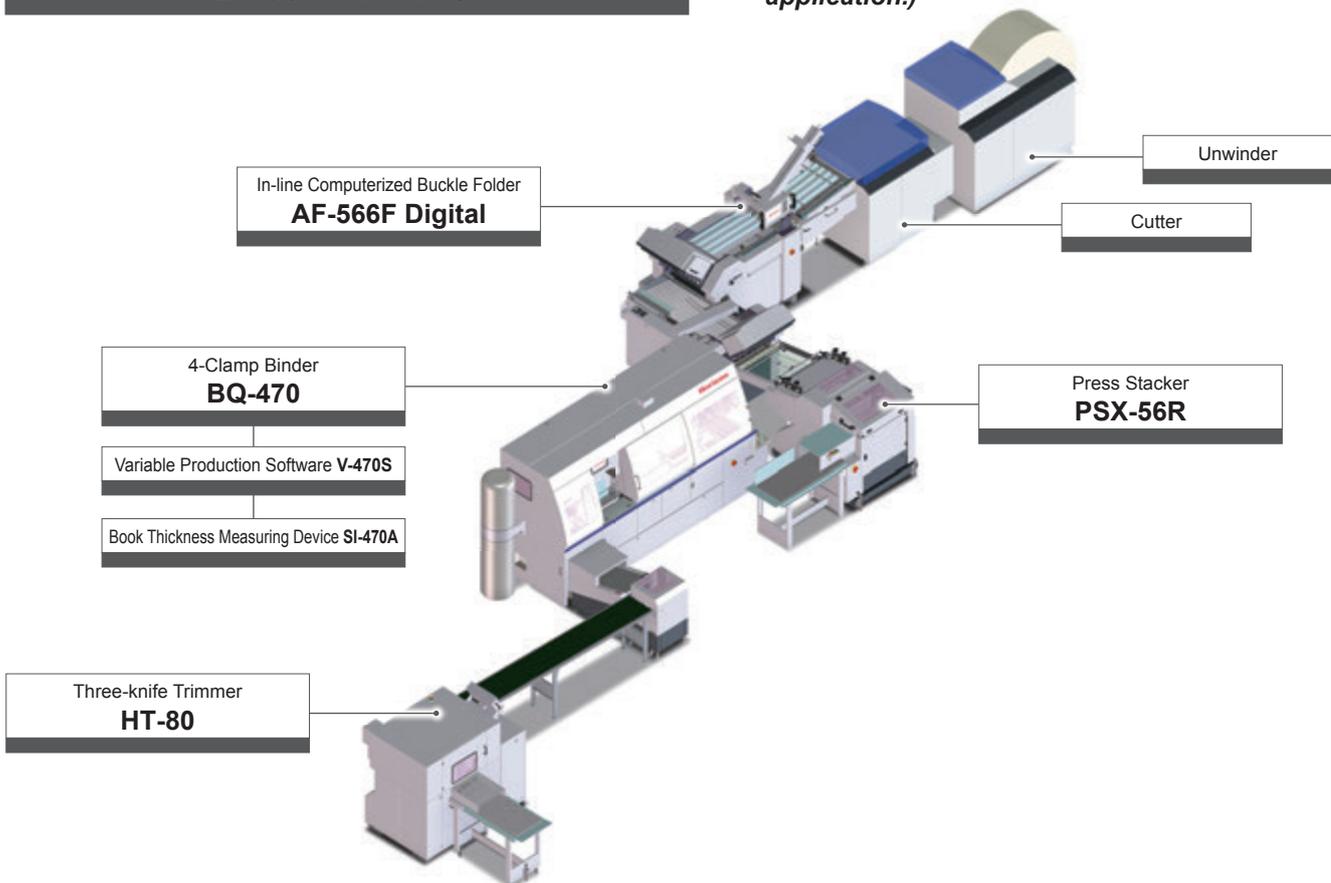
Roll to finish configuration suitable for medium to short run production. System can produce about 1,000 books per hour. (Production speed varies depending on application.)



BQ-470 + HT-80

Binder + Trimmer

Roll to finish configuration suitable for medium to short run production. System can produce about 1,000 books per hour. (Production speed varies depending on application.)



Smart Binding System Components

Binders

9-Clamp Binder: SB-09V



4-Clamp Binder: BQ-470



Single-Clamp Binder: BQ-270V



Model	SB-09V			BQ-470	BQ-270V
Binding Type	Perfect Binding			Binding with milling, Binding without milling and Pad binding	Binding with milling, Binding without milling, and Pad binding
Number of Carriage Clamps	9			4	1
Book Block Size 	Portrait	Off-line	Max. 400 x 280 mm / 15.7" x 11.0" Min. 148 x 105 mm / 5.9" x 4.2" (A6 Size)	Max. 320 x 320 mm / 12.59" x 12.59" Min. 145 x 105 mm / 5.71" x 4.14"	Max. 320 x 320 mm / 12.59" x 12.59" Min. 135 x 105 mm / 5.32" x 4.14"
		In-line	Max. 330 x 250 mm / 12.9" x 9.8" Min. 148 x 105 mm / 5.9" x 4.2" (A6 Size)		
Spine Length x Fore-edge Length	Land Scape	Off-line	Max. 330 x 320 mm / 12.9" x 12.5" Min. 135 x 185 mm / 5.4" x 7.3" (B6 Size)		
Book Block Thickness	1 to 45 mm / 0.04" to 1.77" (depending on conditions)			1 to 65 mm / 0.04" to 2.56" (The book thickness can be limited depending on the sheet weight, book size and milling depth.)	1 to 50 mm / 0.04" to 2.00"
Production Speed	Max. 4,000 books per hour			Max. 1,350 cycles per hour (EVA) Max. 1,000 cycles per hour (PUR) When using the V-470S and the SI-470A : 190 to 670 books per hour (Production speed varies depending on the thickness of series of variable sheet count book.)	Max. 500 cycles per hour

Trimmers

Three-knife Trimmer: HT-110



Variable Trimmer: HT-1000V



Three-knife Trimmer: HT-80



Three-side Trimmer: HT-30C



Model	HT-110	HT-1000V	HT-80	HT-30C
Untrimmed Book Size  Spine Length x Fore-edge Length	Max. 410 x 320 mm / 16.14" x 12.59"	Max. 350 x 320 mm / 13.780" x 12.600" Limitation : The maximum length from the center to top or bottom is 175 mm / 6.889".	Max. 330 x 330 mm / 13" x 13" Max. 350 x 330 mm / 13.78" x 13" (When Using the Optional C-80L)	Max. 320 x 235 mm / 12.600" x 9.255" Max. 320 x 305 mm / 12.600" x 12.010" at maximum by using the optional cutting module for landscape size.
	Min. 148 x 105 mm / 5.83" x 4.14"	Min. 148 x 105 mm / 5.825" x 4.130" Limitation : The minimum length from the center to top or bottom is 74 mm / 2.91".	Min. 145 x 105 mm / 5.71" x 4.135"	Min. 204 x 136 mm / 7.870" x 5.350" Min. 152 x 136 mm / 5.985" x 5.350" at minimum by using the optional cutting module.
Finished Book Size  Spine Length x Fore-edge Length	Max. 366 x 300 mm / 14.40" x 11.81"	Max. 340 x 300 mm / 13.390" x 11.815" Limitation : The maximum length from the center to top or bottom is 170 mm / 6.69".	Max. 300 x 300 mm / 11.81" x 11.81" Max. 340 x 300 mm / 13.385" x 11.81" (When Using the Optional C-80L)	Max. 305 x 230 mm / 12.010" x 9.055" Max. 305 x 300 mm / 12.010" x 11.810" at maximum by using the optional cutting module for landscape size.
	Min. 145 x 103 mm / 5.71" x 4.05"	Min. 145 x 101.6 mm / 5.705" x 4.00" Limitation : The minimum length from the center to top or bottom is 72.5 mm / 2.85".	Min. 139 x 99 mm / 5.475" x 3.9"	Min. 200 x 134 mm / 7.870" x 5.280" Min. 148 x 134 mm / 5.830" x 5.280" at minimum by using the optional cutting module.
Trim Width	Fore-edge : Max. 45 mm / 1.77" (Maximum trim width for fore-edge is 23 mm when the finishing size is A4E-Landscape.)	Fore-edge : Max. 110 mm / 4.330" Min. 1 mm / 0.04"	Fore-edge : Max. 30 mm / 1.18"	Max. 99.9 mm / 3.930" Min. 2 mm / 0.080"
	Top and Bottom : Max. 30 mm / 1.18"	Top and bottom : Max. 80 mm / 3.150" : Min. 1 mm / 0.04"	Top and bottom : Max. 30 mm / 1.18"	
Trim Thickness	2 to 100 mm / 0.079" to 3.93"	1 to 65 mm / 0.04" to 2.560"	1 to 51 mm / 0.04" to 2.0"	Max. 51 mm / 2.0"
Production Speed	400 to 1,600 cycles per hour Adjustable in 13 steps	400 to 1,000 cycles per hour	400 to 1,000 cycles per hour	-

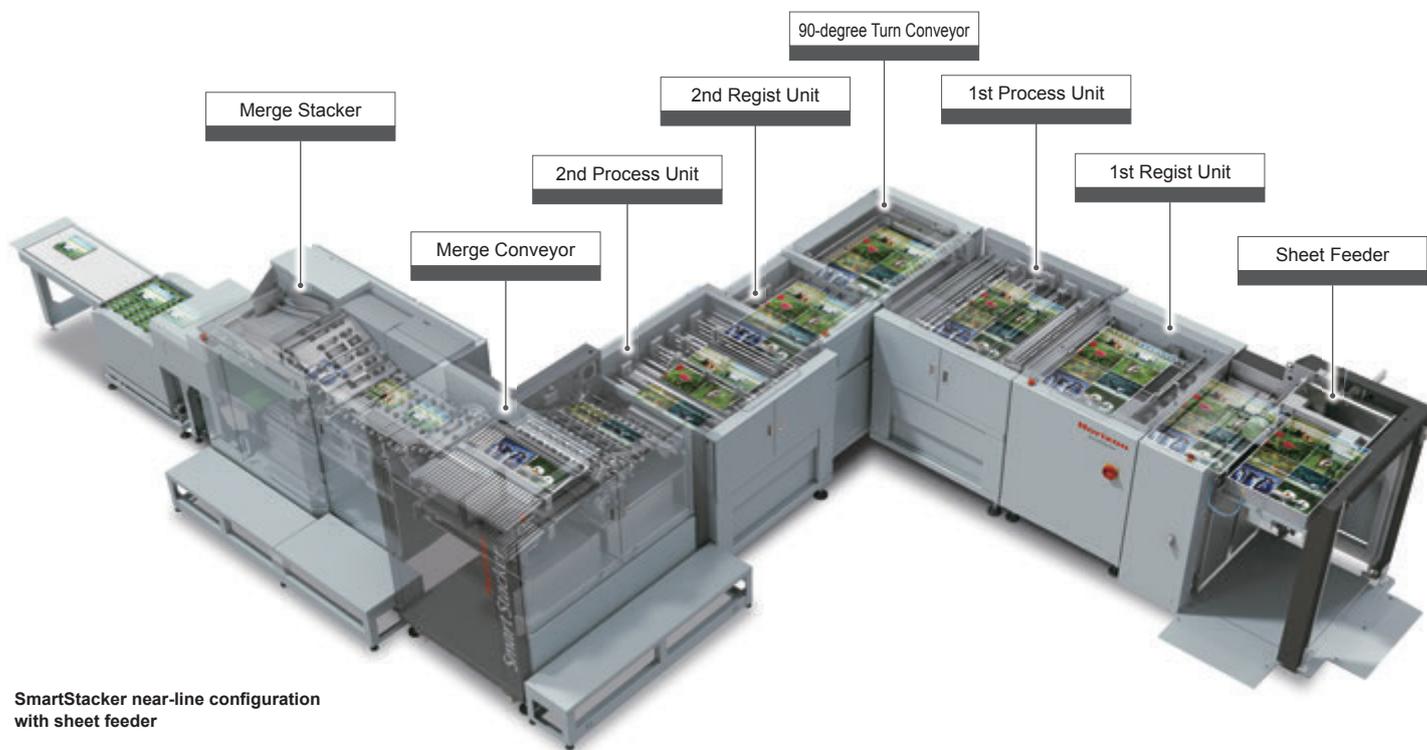
Smart Sheet Processing System

SmartStacker

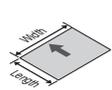
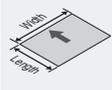
Smart Sheet Processing System

The SmartStacker can process a B2 (20" x 29") sheet to finished format size efficiently.

The SmartStacker can be connected directly to the HP Indigo 10000 Digital Press or operated as a near-line system with sheet feeder.



SmartStacker near-line configuration with sheet feeder

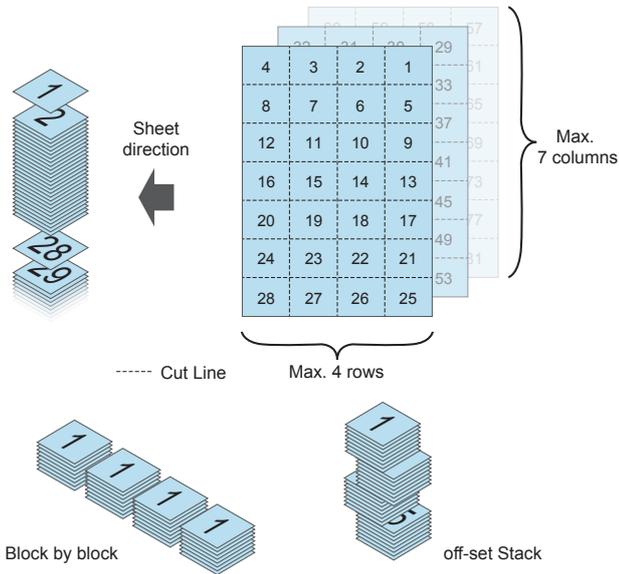
SmartStacker Specifications			
Sheet Size (Before Cut)		Merge Stacker	Width x Length Max. 762 x 530 mm / 30.00" x 20.86" Min. 279.4 x 330 mm / 11.0" x 12.99"
		B2 Stacker	Max. 762 x 530 mm / 30.000" x 20.865" Min. 380 x 330 mm / 14.965" x 12.995"
	Matrix Size	ISO A Series : A2 / A3 ISO B Series : B2 / B3 Inch Series : 18" x 24" / 17" x 22" / 13" x 19"	
Piece Size (Before Cut)		Merge Stacker	Width x Length Max. 381 x 530 mm / 15.000" x 20.865" Min. 100 x 105 mm / 3.940" x 4.135"
		B2 Stacker	Max. 762 x 530 mm / 30.000" x 20.865" Min. 380 x 210 mm / 14.965" x 8.270"

Sheet Weight Range	Normal Paper : 81.4 to 370 gsm Coated Paper (for Merge Stacker) : 90 to 360 gsm Coated Paper (for B2 Stacker) : 104.7 to 360 gsm Paper Thickness : 4 to 15 pt (0.1 to 0.381 mm) *1 pt=1/1,000" Production speed needs to be reduced depending on sheet weight range and type of sheet.
Number of Cuts	1st Process Unit : 1 to 7 columns (14 cutters) 2nd Process Unit : 1 to 4 rows (8 cutters)
Edge Trim Width	0 mm (slit) or 5 to 60 mm / 0.20" to 2.36"
Gutter Trim Width	0 mm (slit) or 6 to 15 mm / 0.24" to 0.59"
Production Speed	Up to 4,600 sheets per hour * Production speed differs depending on number of cuts in 1st Process Unit and type / condition of sheets. * HP Press may need to slow down depending on the sheet condition in case of inline configuration.
Voltage / Frequency	3-phase 200 to 220 V, 50 / 60 Hz 3-phase 380 / 400 / 415 V, 50 / 60 Hz (Step down by Transformer)

* The SmartStacker cannot be connected with the Horizon's pXnet bindery control system which integrates JDF workflow.

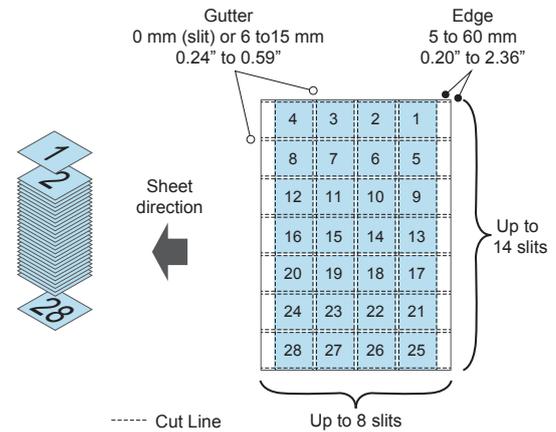
Cut, Collate and Stack

SmartStacker can cut a maximum 762 x 530 mm (30.00" x 20.88") sheet into minimum A6 (100 x 105 mm / 3.93" x 4.13"). With Max. 7 columns across sheet direction and Max. 4 rows along sheet direction, 28 properly imposed 2-sided pages per sheet (i.e. 56 A6 pages) can be processed. A high capacity stack can be delivered with off-set separation or as a straight stack. Individual package delivery is also possible



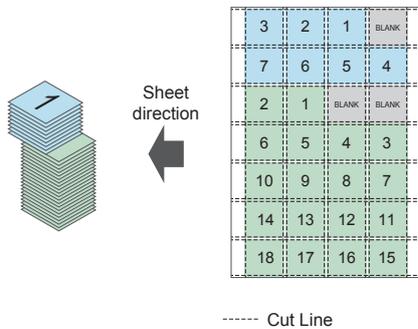
Gutter cut and Edge trim

Full image bleed and accurate margins are achieved through gutter cutting and edge trimming. The gutter cut is variable from 6 mm to 15 mm or slit only can be chosen. Edge trimming is adjustable from 5 mm to 60 mm. Gutter cut and trimm waste paper are ejected into an evacuation unit.



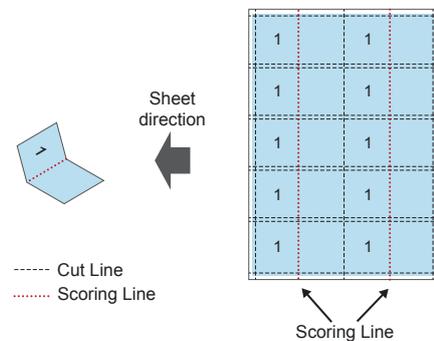
Multiple Job Separation

When multiple jobs (up to two jobs per sheet) are imposed on one sheet, each job can be offset stacked. (Requires Finishing Line Controller.)



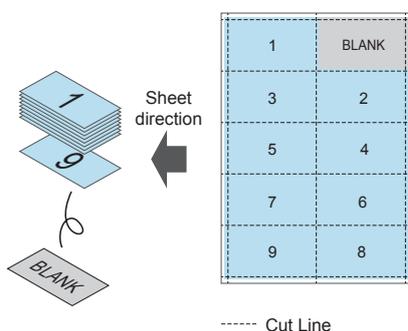
Scoring

Two lines of scoring can be performed in the second processing section for greeting card and brochure applications.



Blank page removal

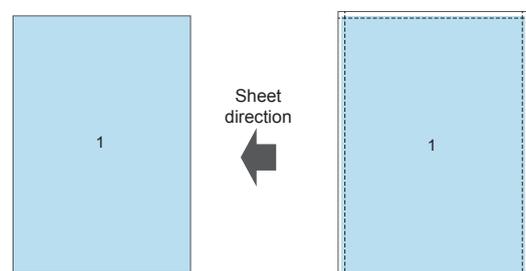
Depending on the imposition, a blank page(s) with no print may appear on the parent sheet. These blank sheets or pages are automatically rejected at the 2nd process unit. Unwanted blank pages are never stacked with the printed product. (Requires Finishing Line Controller.)



B2 Size Stack

Larger sheet applications such as maps or B2 size posters can be processed on the SmartStacker with full image bleed by means of edge trim only.

* Optional B2 Stacker (Planned) is required.



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*The machine design and specifications are subject to change without any notice.

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