

DIGITAL FINISHING

Smart Finishing Solutions

Black Jack 4

A new concept in Digital Finishing Solutions.

FOCUS ON POST PRESS SMART FINISHING SOLUTIONS.



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.

Fold 111 Booklet **Bound Book** SYSTEM **Cut Sheet**

FOLDING.

Buckle Folder for Digital Printers.

Roll to Folded End Product Solution

In-line production from digital printed roll to folded products. iCE FOLDER AFV-56S series and TV-56S series perform operation fully automatically with easy and quick setups through the intuitive touchscreen. Consistent, high quality folds with high productivity without relying on operator skills. Flexible machine configurations allow for a wide range of applications such as pamphlets, pocket maps and direct mails.

SUITABLE MARKETS

- Direct mailers
- Transpromo
- Financial statements
- Personalized applications
- Leaflets



FLEXIBLE CONFIGURATIONS

- Stand-alone 6 or 4 buckle configuration for brochure or leaflet folding.
 - (Top View)



LCVV-56: Long Conveyor

 Straight 6+6 (4) buckle modular system for maximum 10 or 12-buckle operation for complex fold patterns such as Zigzag folds.



PST-44L: Press Stacker

- AFV-56S / TV-56S SERIES AFV-566SF, 566SA: 6 Buckles First Station (AFV-56S) AFV-564SF, 564SA: 4 Buckles Machine Configuration Second Station TV-566SF, 566SA: 6 Buckles (TV-56S) TV-564SF, 564SA: 4 Buckles Max. 560 x 900 mm or 22.04" x 35.43" (*1) Sheet Size Min. 128 x 148 mm or 5.12" x 5.83" (*2) First Station *1 L 1,100 mm or 43.310" with optional long table (AFV-56S) LT-56V *2 W 105 mm or 4.14" with optional small guide SSK-56V Max. 560 x 560 mm or 22.045" x 22.045" (Width x Length) Min. 50 x 105 mm or 1.970" x 4.135" Second Station *Depending on the sheet type, fold pattern, and (TV-56S) grain direction of sheet, the sheet may not be transported to the second station. Sheet Weight Uncoated Paper 40 to 250 gsm Coated Paper 50 to 232 gsm Range Belt Speed 30 to 270 meters per minute or 98 to 885 feet per minute Production Speed Suction Head 40,000 cycle per hour
- Right Angle 6 or 4 buckle system for cross folding such as double letter fold and singnature. Each folded piece is scored in the first station and folded on the second station for heavier weight stocks.



STITCHING.

Booklet Production with Saddle-Stitcher.

High Performance Booklet Production

The iCE STITCHLINER Mark V is a roll-to-booklet saddlestitcher that achieves high productivity with a maximum production speed of 6,000 booklets per hour. Sheets are individually scored and plowfolded before stitching for sharp spines and tight folds. This solution offers in-line cover feeding and non-stop production on a very wide range of paper stocks at up to 240 m per minute and up to a 200 page booklet. The high speed offline feeder allows the iCE STITCHLINER Mark V to switch from roll-feeding mode to cutsheet-feeding mode at speeds of up to 45,000 sheets/hour from 600 mm / 23.6" piles. The mark sensor enables variable sheet-count production with superior efficiency and feeding stability.

SUITABLE MARKETS

- Personalized applications
- Leaflets
- Brochures
- Direct mailers
- Transpromo
- Financial printing



CONFIGURATIONS

ICE STITCHLINER Mark V + CF-50Db + CF-50Db + CF-50Da + IFU-50D + HSF-50 + BC-HSF50



iCE STITCHLINER Mark V				
Finishing Type	Saddle Stitch, Fold and Trim			
Sheet Size	Portrait Max. 508 x 356 mm or 20.000" x 14.015" Landscape Max. 610 x 267 mm or 24.015" x 10.510" Min. 194 x 140 mm or 7.640" x 5.515"			
(Width x Length)	A3, JIS B4, A4, 9.75", 8.75" x	A3, JIS B4, A4, JIS B5, A5 / 11.25" x 17.25", 11" x 17", 10.25"x 9.75", 8.75" x 11.25", 8.5" x 11", 5.5" x 9.75"		
Finished Booklet Size (Top-bottom x Fore- edge)	Portrait Max. 352 x 252 mm or 13.855" x 9.920" (*1) Landscape Max. 263 x 303 mm or 10.350" x 11.925" Min. 120 (*2) x 85 mm or 4.725" x 3.350" *1 Max. 352 x 303 mm or 13.855" x 11.925" can be finished depending on substrate weight and condition. *2 Width when each of the center guides is installed in the trim section: Small Center Guide: 147 mm or 5.790" / Medium Center Guide: 204 mm or 8.035" / Large Center Guide: 279 mm or 10.985"			
Sheet Weight Range	Roll Paper	Normal Paper: 52.3 to 209 gsm Coated Paper: 73.3 to 209 gsm Allowable Curl: +/- 8 mm or +/-0.31"		
	Cover Sheet	Normal Paper: 52.3 to 350 gsm Coated Paper: 73.3 to 350 gsm		
Production Speed	Max. 6,000 booklets per hour (From A3 to A4 Portrait) Max. 5,300 booklets per hour (A4 Landscape)			

BINDING.

Book Production with Web Fed Digital Print.

Robot Arm Book Production

Shortage of labor is common issue. The robot feeder replaces human operator and achieves consistent and continuous long hour production. Rely simple task to Robot and focus on creative work to achieve successful business.

Sheet feeder, perfect binder and three knife trimmer can be configured in-line with Robot in variety configuration. Selectable conveyors and quality control options are available.

Spine Length x Fore-edge Length Max. 320 × 320 mm or 12.590" x 12.590" Min. 148 × 148 mm or 5.830" x 5.830" **Book Block Size** In case that the sheets are fed from the HOF-400. Min. 203 × 203 mm or 8.000" x 8.000" **Book Block** Max. 40 mm or 1.575" Thickness Max. 1 mm or 0.040" 300 cycles per hour Variable Thickness: 180 cycles per hour (3 mm Cycle Speed difference of thickness) In case that the sheets are fed from the HOF-400, the productivity change according to the thickness of book block. **Robot Arm** Length 900 mm or 35.433" (TM5-900)

Up to 3 kg or 6.613 lb for a book block)

Up to 4 kg or 8.818 lb (including the hand RFS-H 1 kg or 2.2 lb,

ROBOT ARM BOOK PRODUCTION



Case Bind Book Block Production

The perfect binder BQ-500 can be connected in-line with the book block feeder, gauze feeder, end sheet feeder and trimmer for enhancing the efficiency of case binding production. The system can handle various types of book blocks including loose sheet, glued and sewn book blocks. You can hand drop book blocks at the in-feed conveyor of the ESF-1000 end sheet feeder, or connect to a wide range of upstream digital presses capable of producing book blocks for reduced handling. The switching from gauze binding to the normal soft cover binding can be done easily at the touch screen. In-line end sheet feeder can also function as delivery unit without feeding end sheets.

Three-side Trimmer HT-300

4-clamp Binder BQ-500

End Sheet Feeder ESF-1000

binding,

Book Block Feeder LBF-500

Gauze Feeder **GF-500**

CASE I	BIND BO	OK BLOCK PRODUCTION	
Machine Configuration	ESF-1000 + L	BF-500 + GF-500 + BQ-500 + HT-300	
Binding Type	Binding with milling, Binding without milling and Pad End sheet and/or gauze attaching to spine of book		
Book Block Size	e-edge Length	Spine Length x Fore-edge Length Max. 320 x 320 mm or 12.59" x 12.59"	

Min. 145 x 105 mm or 5.71" x 4.14"

Book Block Min. 1 mm or 0.04" Thickness Max. 65 mm or 2.56"

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Cycle Speed	Cover Binding (EVA glue)	Max. 1,350 cycles per hour (EVA)	
	Cover Binding (PUR glue)	Max. 1,000 cycles per hour (PUR)	
	Lining Binding	Max. 900 cycles per hour	
	Variable Binding	Max. 810 cycles per hour (when difference in thickness is 5 mm or less) (You will need the optional SI-500A Book Thickness Input Caliper for this function.)	

Roll to Finish Book Se

			AFV-56S / TV-56S SERIES					
				Machine	First Station AFV-566SF, 566SA: 6 Buckles (AFV-56S) AFV-564SF, 564SA: 4 Buckles		6 Buckles 4 Buckles	
Roll to Finish Book Solution Roll to finish configuration suitable for medium to short r production. The system processes the books into various sizes by quick changeover. Tracking system is also available configuration		C	Configuration	Second Station (TV-56S)	TV-566SF, 566SA: 6 TV-564SF, 564SA: 4	Buckles Buckles		
		uitable for medium to sho esses the books into varic racking system is also avai	medium to short run books into various finished stem is also available with this	Sheet Size	First Station (AFV-56S)	Max. 560 x 900 mm Min. 128 x 148 mm *1 L 1,100 mm or 43.3 LT-56V *2 W 105 mm or 4.14' SSK-56V	n or 22.04" x 35.43" (*1) or 5.12" x 5.83" (*2) 10" with optional long table with optional small guide	
				l⁴ Length →I (Width x Length)	Second Station (TV-56S)	Max. 560 x 560 mm Min. 50 x 105 mm of *Depending on the sho grain direction of she transported to the se	n or 22.045" x 22.045" or 1.970" x 4.135" eet type, fold pattern, and et, the sheet may not be cond station.	
				Sheet Weight Range	Uncoated Paper Coated Paper 50	r 40 to 250 gsm 0 to 232 gsm		
				Belt Speed	30 to 270 meter	per minute or 98 to 885 feet per minute		
				Production Speed	Suction Head 40	0,000 cycle per hour		
Hybrid Bing	ding Sys	EL-480		Buck	le Folder for D AFV-56 AFV-56 Ook Block Stac BBS-40L — 4-Clamp P	igital Printers 55 Cutter	Unwinder	
This hybrid bindi for both digital an short run produc tracking system e level of quality co	ng system is nd offset pri ction to long ensures the ontrol.	s suitable post-processi ints. The system is suita run production. The in binding accuracy to pro	Variable Trimmer HT-1000V		Book B	2-500 lock Feeder F-500 Layd	System Gatherer MG-600 Hand Feed Unit HF-600 own Conveyor D-MG600 king Conveyor	
		MiniCABS					DC-400 — Book Block Stacker BBS-40L	
Book Block Size	Fore-edge Length	Spine Length x Fore-edge Ler Max. 320 x 275 mm or 12.59" x Min. 148 x 105 mm or 5.83" x 4	ngth < 10.82" 4.14"	Unv	vinder			
Transport Thickness	Max. 50 mm /	1.96" (when pressed)				Buckle Folder	for Digital Printers FV-56S	
	Max. 800 cycl	es per hour (as system)*				~		

Max. 800 cycles per hour (as system)* Max. 2,000 cycles per hour (gatherer only) *When book thickness is 15 mm / 0.6" or greater. Production Speed

SHEET PROCESSING.

Smart Sheet Processing System.

SmartStacker

SmartStacker finishes digital printed sheet efficiently and profitably. Cutting, trimming, collating and stacking can be processed with no manual intervention. In-line or near-line, the system is capable of delivering finished products from postcards to posters, individual sheets or sets to process at next finishing process efficiently.

SMARTSTACKER			
Machine Configuration	1st Regist Unit, 1st Process Unit, 90-degree Turn Conveyor, 2nd Regist Unit, 2nd Process Unit, Merge Conveyor, Merge Stacker, B2 Stacker (TBD), Output Shift Conveyor, Exit Conveyor, Step		
Sheet Size	Merge Stacker	Max. 762 x 530 mm or 30.000" x 20.865" Min. 279.4 x 330 mm or 11.000" 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"	
Sheet Weight Range	Normal Paper: 81.4 to 370 gsm Coated Paper (for Merge Stacker): 90 to 360 gsm Paper Thickness: 4 to 15 pt or 0.1 to 0.381 mm (*1 pt=1/1,000")		
Production Speed	Up to 4,600 sheets per hour		

*See each product brochure for more detailed specifications.



FEATURES OF SMARTSTACKER

----- Cut line ----- Scoring line

Cut, Collate and Stack



Gutter Cut and Edge Trim



Blank Page Removal



Multiple Job Separation



B2 Size Stack



Scoring Lines

FINISHING WITH A DIGITAL PRESS.

Universal Interface Module.

Print to Finish Solution with Sheet Buffering Module

The SBM-100SL sheet buffering module for in-line production with cut sheet digital presses to allow fully automated production. Printed sheets are processed at an optimum cycle speed for both the digital printer and finishing devices.

The SBM-100SL is able to accumulate the sheets (up to 100 sheets or 15 mm capacity) to feed the sheets into the finishing device according to format cycle speed. Designed to connect various cut-sheet digital presses to various finishing devices.



Sheet Cutter and Creaser **SMSL-100** (Horizon finishing devices)

CONNECTABLE DIGITAL PRESSES (*MAR.1, 2022)

- RICOH Pro C7210S / C7200S
- RICOH Pro C9210 / C9200
- Canon imagePRESS C810
- Canon imagePRESS C10010VP / C10000VP
- Konica Minolta AccurioPress C14000
- RISO Valezus T2100
- FUIIFILM Revoria Press PC1120S

	SBM-100SL
Finished Sheet Size	
Width Length	Max. 400 × 670 mm or 15.745" x 26.375" Min. 210 x 297 mm(A4SEF) or 297 x 210 mm(A4LEF), 8.270" x 11.695" or 11.695" x 8.270"
Width x Length	
Sheet Type	Bond Paper, Recycled Paper, Coated Paper, Cardboard
Sheet Weight Range	Bond Paper 81.4 to 400 gsm / Coated Paper 105 to 400 gsm
Receivable Speed	176.4 to 1,000 mm per second
Production Speed	Infeed Side: Maximum 162 sheets per minute(A4LEF), Maximum 100 sheets per minute(A3SEF) Delivery Side: Maximum 100 sheets per minute

*The machine design and specifications are subject to change without any notice. *Specifications may vary depending on the job, paper quality, environmental influences, and various other factors. Please do a test run before starting production.

PROCESSING FLOW



After completing the process of a job, the downstream device will automatically start the changeover for the next job.



Newly printed sheets are accumulated on top of the stack and the sheet is fed from the bottom to the next process.



The next job will be printed while the previous job is being processed at the downstream device

OPTIMIZE YOUR WORKFLOW TO IMPROVE PRODUCTION AND INCREASE EFFICIENCY.

The iCE LiNK Post-press Management System enables the centralized management of binding and postpress equipment using cloud technology.

With precise analysis results from the KPI*1 analysis function, iCE LiNK reduces costs, provides productivity visibility, and automates workflow by integration to MIS and prepress.

^{*1} KPI stands for Key Performance Indicator. A KPI is an indicator used to evaluate the degree of achievement of an organization's goals.



ICE LINK HELPS SOLVE THESE CHALLENGES.



TWO EDITIONS

iCE LiNK is a subscription service that minimizes initial costs.You can choose from **IoT Basic**, which focuses on machine dashboards and maintenance management, or **Enterprise**, which enables job management, advanced integration, and automation.

If system expansion becomes necessary after implementation, an upgrade to the Enterprise edition is available. Additionally, the Enterprise edition is also offered as an on-premises version. *Specifications are subject to change.



	FUNCTION	loT basic	Enterprise*
	Dashboard	\checkmark	\checkmark
Device	Maintenance Notification	\checkmark	\checkmark
Management	Production Printer Dashboard	-	\checkmark
	Offset Printer Dashboard	-	\checkmark
	Overall Equipment Effectiveness	-	\checkmark
KPI Analysis	Job Analysis	-	\checkmark
	Operator Analysis	-	\checkmark
Workflow	Web API with External System		,
	* Detailed job report can be posted to external device for job analysis.	-	\checkmark
	Barcode Jobs	-	\checkmark
	Support for CSV/XML input	-	\checkmark
	JDF/JMF Workflow	-	\checkmark
	Create / Edit / Delete JDF jobs	-	\checkmark
	Job scheduling	-	\checkmark

* On-premises version which does not send any data to cloud server is only available for the Enterprise edition.

Ask your local dealer for details.

COMPUTER SPECIFICATIONS.

	EDGE COMPUTER
Processor	Intel Core i3 Processor or above is recommended
Operating System	Windows 10 Pro Version 20H2 or above NET Framework Version 4.7.2 or above
RAM	at least 4 GB (8 GB is recommended.)
HDD	at least 120 GB
Monitor	1,280 x 1,024 pixel or higher
Number of devices per license	20 Horizon devices

Ferminals	Windows computers, Macs, and tablets that can use one of the following browsers
Compatible Browsers	Google Chrome: V. 83 or above Microsoft Edge: V. 44 or above
Monitor	1,920 x 1,080 pixels or higher

SERVER COMPUTER			
Processor	Intel Core i7-8550U 1.8GHz Processor		
Operating System	Windows Server 2019 Standard or above		
RAM	16.0 GB		
HDD	at least 1 TB		
Monitor	1,280 x 1,024 pixel or higher		

*For the on premises version, a server computer is required in addition to the edge computer and client terminal.

*Up to 20 devices can be connected per 1 main license.





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