Horizon

pXnet Ready

AFC-74 Series

Computerrized Cross Folder AFC-746F/746S/746D/744A/744S

Professional Folding

Professional Folding

The AFC-74 series B1-format folder is the newest in Horizon's expanding line-up of quality-engineered folders that combines simple operation, quick changeover, high production speed, and superior fold quality.

1. The folder is easy and intuitive to set-up, even without a skilled operator, thanks to the intelligent automation and user-friendly design.
2. A wide variety of fold patterns are automatically set by inputting the sheet size and selecting a fold pattern through the large color touchscreen.
3. 3 different types of feed units can be selected for various work environments:
   Flat Pile Feeder, Pallet Pile Feeder and Round Pile Feeder.
4. Fold rollers are constructed with a combination of steel and soft polyurethane for superior grip and sharp, consistent folding.
5. The folder can be enhanced with JDF workflow from upstream to the postpress using pXnet bindery control system.

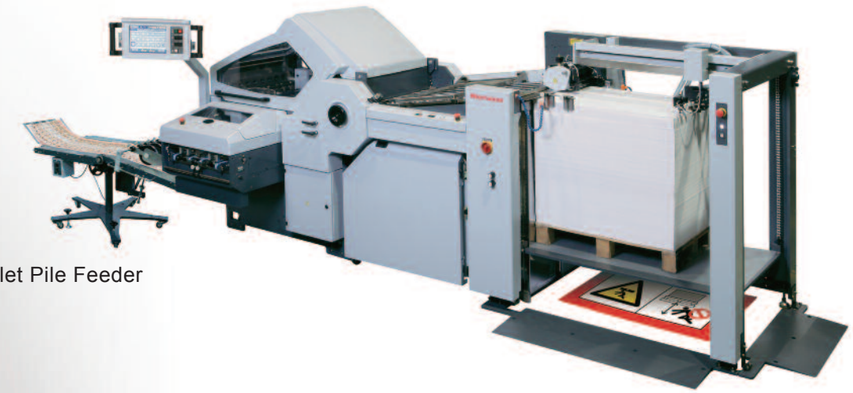
Flat Pile Feeder

The feed table automatically descends for sheet loading to maintain proper distance between the top of piled sheets and the feed rotor. Maximum pile height is 750 mm / 29.5”.

AFC-746F + Flat Pile Feeder

Pallet Pile Feeder

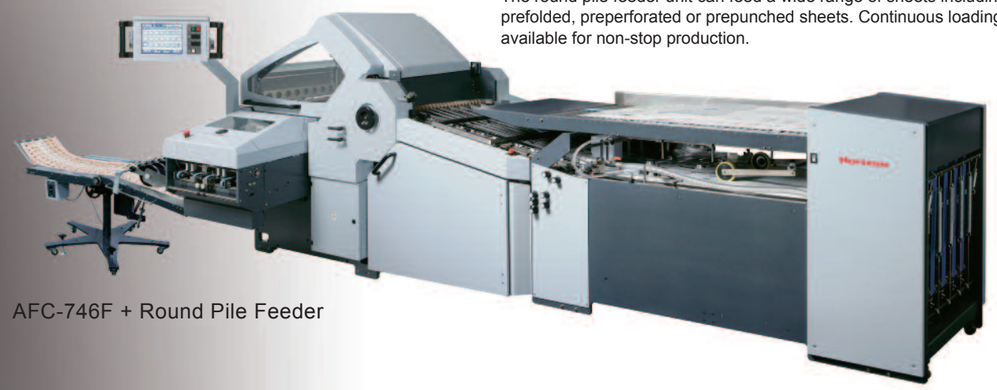
The pallet feeder unit accepts the piled sheets from the printing press to maximize operator convenience and to minimize production time. Maximum pile height is 1,200 mm / 47.2” (pallet included).



AFC-746F + Pallet Pile Feeder

Round Pile Feeder

The round pile feeder unit can feed a wide range of sheets including prefolded, preperforated or prepunched sheets. Continuous loading is available for non-stop production.



AFC-746F + Round Pile Feeder

AFC-74 series Features

User-friendliness

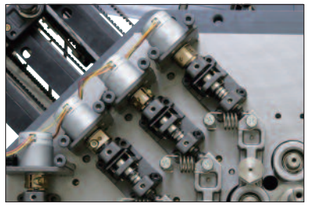
A large, color touchscreen control panel is icon-based for user-friendly operation. The graphical touchscreen guides the user through all set-up procedures with ease, and allows fast, easy navigation for all other system operations.

Advanced Automation

Each section is set automatically by inputting the sheet size and fold pattern through the touchscreen. Accurate stepper motors allow automated fine-adjustment in increments of 0.1 mm. Thanks to this automation, even an inexperienced operator can perform high-quality folding.

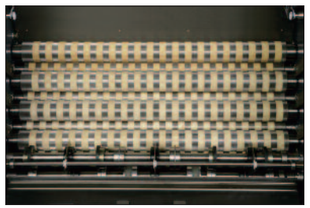
746F

Roller gap setting can be done automatically by simply inputting the single sheet into the caliper.



Superior Folding Quality

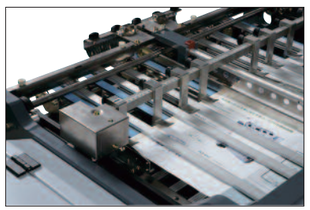
Superior and consistent fold quality is ensured with steel and soft-formed polyurethane combination rollers. The distance between the foam rubber rings is very narrow. So the overlap of the edges on the upper and lower fold rollers increases, providing exact folding quality.



746S/746D **744S**

Knife Stopper Fine-adjustment

The knife stopper can be fine-tuned in the range of +/-0.5 mm.



Automated Setup Sections

746F	47 sections (All sections listed below)
746S/746D	10 sections
744A/744S	8 sections

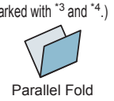
• Suction Head*1		
• Feed Table Guide	746S/746D	744A/744S
• Side Lay Guide	746S/746D	744A/744S
• Side Edge Guide		
• 1st to 4th Buckles	746S/746D	744A/744S
• 5th to 6th Buckles	746S/746D	
• 1st Knife Stopper	746S/746D	744A/744S
• 2nd Knife Stopper	746S/746D	744A/744S

- 1st Knife Stopper Side Guides (Front/Rear)
- 2nd Knife Stopper Side Guides (Left/Right)
- 1st Knife Bounce Prevention Guide
- K1 Buckle below Knife
- K2 Buckle below Knife
- Roller Gap for 1st through 7th Rollers (Parallel Fold Roller) (14 sections)
- Roller Gap for 8th Roller (Perforation Rollers) (2 sections)
- Roller Gap for 9th through 12th Rollers (below 1st Knife) (8 sections)
- Roller Gap for 13th through 14th Rollers (below 2nd Knife) (4 sections)

*1 The suction head is not equipped with the RFU-74/RFU-74F Round Pile Feeder.

Automated Setup Fold Patterns

746F	20 patterns (Except for the pattern marked with *2.)
746S/746D	20 patterns (Except for the pattern marked with *3.)
744A/744S	14 patterns (Except for the patterns marked with *3 and *4.)


Parallel Fold

Short Fold*2

Open Gate Fold

Accordion Fold

Zigzag (4 panel) Fold

Zigzag (5 panel) Fold

Zigzag (6 panel) Fold*4

Zigzag (7 panel) Fold*4

Letter Fold

Roll Fold*4

Double Parallel Fold

8-page Cross Fold

12-page Trans-formation Fold

12-page Cross Fold*4

16-page Transfor-mation Fold (1)

16-page Cross Fold

16-page Transfor-mation Fold (2)*4

24-page Cross Fold*3

32-page Trans-formation Fold

DL Fold (Letter)

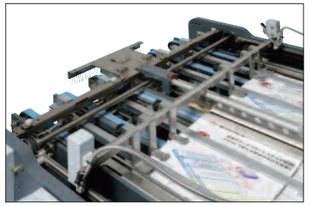
DL Fold (Accordion)*4

Nonstandard fold patterns can also be set up automatically by inputting the setup size for each fold.

A Wide Variety of Functions for AFC-746F

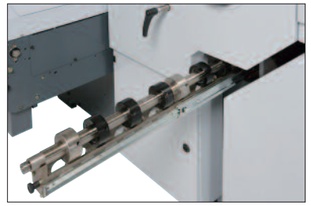
Registration Mark Input Screen

When folding 8 page or 16 page signatures, it is possible to perform all fine adjustments by simply inputting the position of the registration mark on the screen.



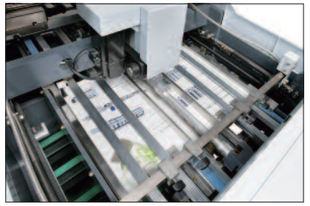
Power Stop System

Delivery belts run slower when a sheet is coming to the knife stopper to prevent knife folding skew and damage to the sheet.



Automatic Perforation Shaft Extraction

The perforation shaft can be automatically removed for easier replacement of perforation cutter/slitter.



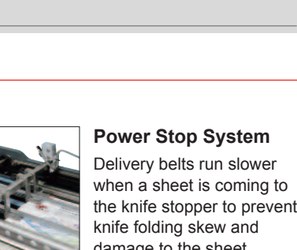
Ejecting Function

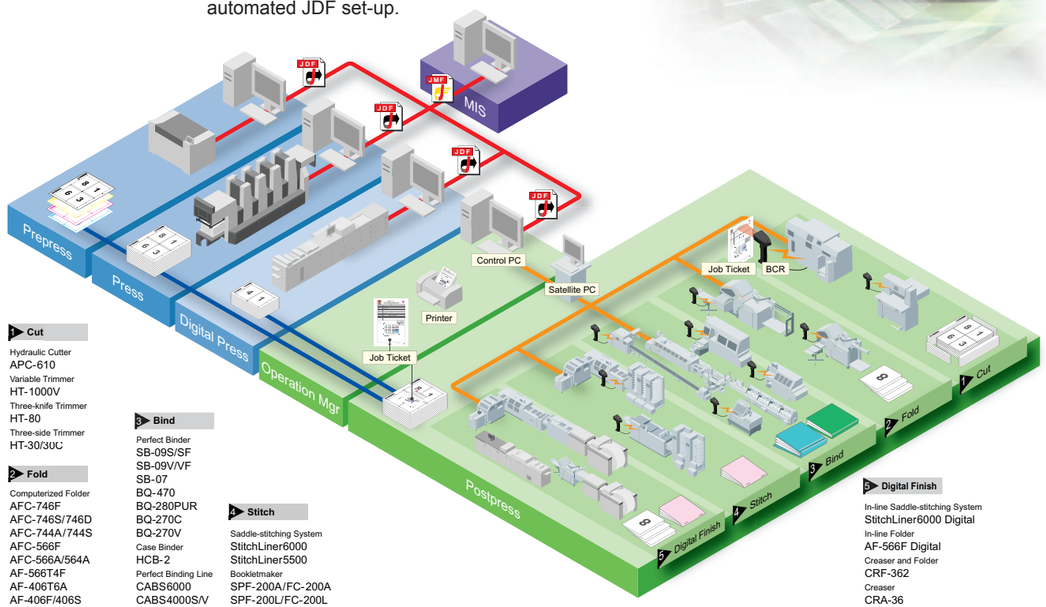
Ejecting function is placed at the 1st and 2nd knife fold stopper to allow folding quality checks during job setting and operation.

pXnet System

Manage your bindery with JDF enabled control system.

The Horizon pXnet Bindery Control System is used as a central control point to schedule work, send job data to each finisher, monitor status of finishers and collect production statistics from finishers in real-time. pXnet brings efficiency and value in high-mix/low-volume production environments where frequent job changeovers are needed.
The pXnet system can also be interfaced with an existing workflow for automated JDF set-up.





Cut
Hydraulic Cutter
APC-610
Variable Trimmer
HT-1000V
Three-knife Trimmer
HT-80
Three-side Trimmer
HT-30/30C

Fold
Computerized Folder
AFC-746F
AFC-746S/746D
AFC-744A/744S
AFC-566F
AFC-566A/564A
AF-566T4F
AF-406T6A
AF-406F/406S

Bind
Perfect Binder
SB-09S/SF
SB-09V/VF
SB-07
BQ-470
BQ-280PUR
BQ-270C
BQ-270V
Case Binder
HCB-2
Perfect Binding Line
CABS6000
CABS4000S/V

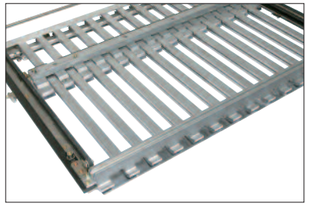
Stitch
Saddle-stitching System
StitchLiner6000
StitchLiner5500
Booketmaker
SPF-200A/FC-200A
SPF-200L/FC-200L

Digital Finish
In-line Saddle-stitching System
StitchLiner6000 Digital
In-line Folder
AF-566F Digital
Creaser and Folder
CRF-362
Creaser
CRA-36

Further Details

Buckle

Buckle stopper and deflector switching can be done automatically for efficient operation. Specially-coated buckle plates minimize paper friction to maintain fold accuracy. Pretension of the bottom lip can be adjusted to prevent waves on the tail edge of the sheet.

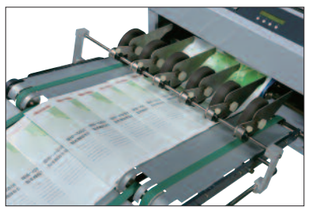


746F

Buckle opening gap can be adjusted easily according to the paper weight and folding pattern without removing the buckle.

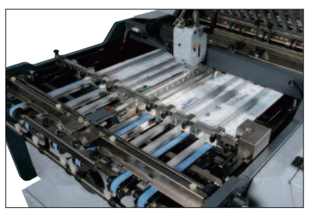
Delivery Conveyor

Alternative delivery conveyors are available depending on the application requirements. The standard high capacity conveyor is easily adjusted by a hand wheel to the proper sheet delivery height. For more efficient paper handling, the press stacker PST-40 and pile delivery PSX-56 are also available.

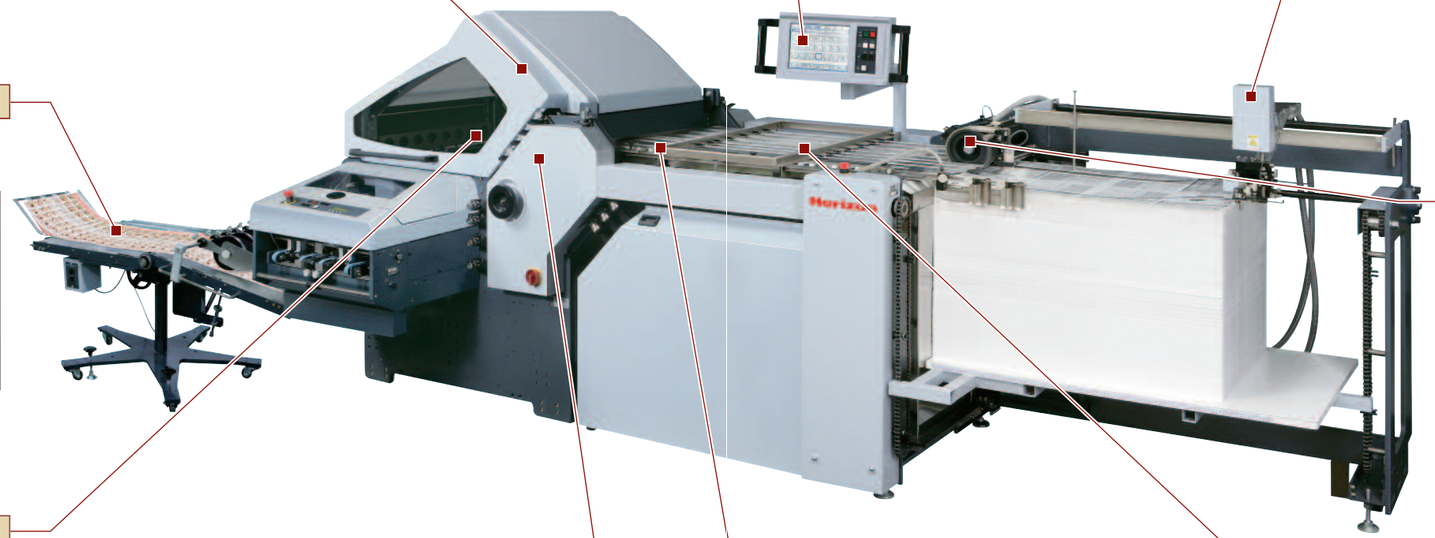


Knife Fold Section

The knife fold system enables cross folding in a small-footprint. The servo motor controlled knife allows accurate, high speed folding. Two buckles can be installed below the knife for complicated folding. (One buckle is standard.)



AFC-746S + Flat Pile Feeder



Perforation

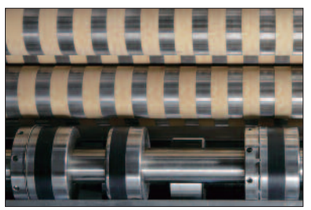
Perforation, slit perforation, scoring and slitting can be performed. The perforation shaft is quick and easy to install or detach. Optional devices are available for strip trimming of multiple-up jobs, trimming the closed side of glued 8-page signatures and punch perforation.

Color LCD Touchscreen

The 10.4 inch color touchscreen is icon-based for user-friendly operation. The graphical interface screen provides intuitive operation for folding setup, speed adjustments and all other fine-adjustments.

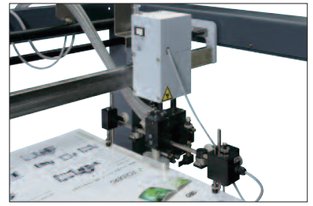
Folding Rollers

The combination soft polyurethane foam rubber and steel rollers are employed for consistent folding and simple setup. Folding rollers are driven with accurate helical gears for maximum folding precision and quiet operation.



Suction Head

Innovative new suction head design provides accurate sheet separation and pick-up. Blowing air volume and height of the suction head can be adjusted according to a sheet condition.



Feeder equipped with the side blowing air

746F

Flat Pile Feeder

Pallet Pile Feeder

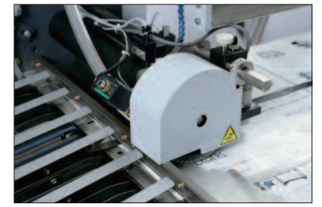
746S/746D 744A/744S

Flat Pile Feeder (The shape is different from the photo shown above.)

Pallet Pile Feeder

Feed Rotor

Horizon's advanced rotary suction feed system for fast, consistent feeding of a wide range of paper stock.



746F

Depending on the kind of the sheet, supersonic or photo electric detection can be chosen to detect double feeds.

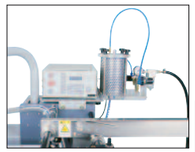
Sheet Transportation

Newly-designed rigid side lay guide ensures stable transportation and accurate registration of a wide range of paper stocks. The side lay guide is coated with a special anti-static plating, for trouble-free operation of printed sheets, even in dry climates, when static electricity can be a problem.

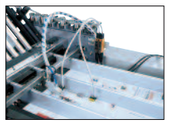
Optional Accessories

Gluing Unit CGU-50

The gluing unit can produce 8-page or 12-page glued booklets and direct mail applications.



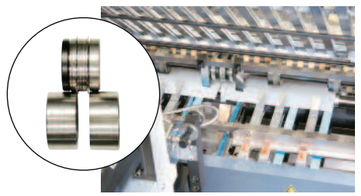
Gluing Unit Controller



Glue Gun

Strip Trim Device AF-ST6

Strip trimming after the parallel fold section can be performed using slitters for multiple-up jobs. Stripped width can be adjusted. (3 mm to 10 mm at 1 mm intervals)



Gate Fold Buckle GFB-74

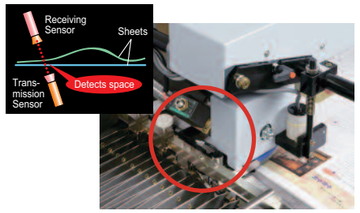
The gate fold buckle can be set up quickly, with no special skill for precise, accurate closed-gate folding.

Press Stacker PST-66

Strong press at maximum 1.2 ton is applied to produce flat signature and folded pieces. First roller removes the air and second roller compresses the signature to reduce bulk. Batch separation is available to maximize productivity.

Supersonic Detector SD-74F/SD-74R/SD-74P

Optional supersonic detector is available for double feed detection. This detects space between sheets for accurate double feed detection even with a solid black printed sheet.



Strip Trim Device below 1st Knife KT-ST6

Strip trimming in the cross fold section can be performed using slitters for multiple-up jobs. Stripped width can be adjusted. (3 mm to 10 mm at 1 mm intervals)

Blades

A wide variety of optional blades are available for various applications. (Blades in the photo are examples.)

Unit : mm (Cut x Blank)

Mobile Knife Fold Unit MKU-54T

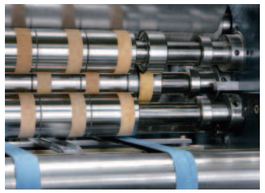
The MKU-54T is mobile knife unit equipped with the buckles below knife. It is capable of the letter fold after 8-page cross fold.

Front Perforation Unit FP-74 (FSP-74)

This unit permits perforating before folding. A hardened blade drum provides for high precision micro perforation. Skip perforation unit (FSP-74) is also available.

Edge Trim Device below 1st Knife KT-ET6

Segmented rollers below the 1st knife are provided as standard. Simply attach the KT-ET6 to trim the open/closed side of glued signatures to complete the booklet (8 page, 12 page).



Press Stacker PST-44

Strong press at maximum 4 kN is applied to produce flat signature and folded pieces. First roller removes the air and second roller compresses the signature to reduce bulk. Batch separation is available to maximize productivity.

Press Stacker with Pile Delivery PSX-56/56R

Stacked signatures or booklets are delivered to a comfortable height for easy packaging. Applications can be stacked 1-up, 2-up or 3-up for efficient production. Rigid, large diameter rollers apply 1.2 tons of pressure for crisp, tight and flat folds.

Option List

Feeder Section

Name	Model	Description	Factory Option	746F	746S	746D	744A	744S
Supersonic Detector	SD-74F / SD-74R / SD-74P	Detects space between sheets for accurate double feed detection even with a solid black printed sheet.	No	Standard	Yes	Yes	Yes	Yes
Image Checker	-	A camera scans the printed image to identify any blank or misloaded sheets.	No	*	*	*	*	*
Barcode Reader	-	Barcode verification and misprint detection.	No	*	*	*	*	*

Folding Section

Name	Model	Description	Factory Option	746F	746S	746D	744A	744S
Gluing Unit	CGU-K74+CGU-50	Gluing gun and controller to produce glued booklet.	No	Yes	Yes	Yes	Yes	Yes
Front Perforation Unit	FP-74	Front perforation unit. Available only as factory option.	Yes	Yes	Yes	Yes	Yes	Yes
Skip Perforation Unit	-	Skip perforation unit. only available with FP-74.	No	*	*	*	*	*
Strip Trim Device	AF-ST6	Strip trimming after the parallel fold section for multiple-up jobs.	No	Yes	Yes	Yes	Yes	Yes
Edge Trim Device	AF-ET6	Edge trimming for the parallel fold section.	No	Yes	Yes	Yes	Yes	Yes
Punch Perforation Unit	AF-PP6	Punch perforation for 8 or 12 page signature for deep glue penetration when producing perfect bound book.	No	Yes	Yes	Yes	Yes	Yes
Strip Trim Device below 1st Knife	KT-ST6	Strip trimming after the cross fold section for multiple-up jobs.	No	Yes	Yes	Yes	Yes	Yes
Edge Trim Device below 1st Knife	KT-ET6	Enables to trim the edge of cross folded signatures.	No	*	Yes	Yes	Yes	Yes
Punch Perforation Unit below 1st Knife	KT-PP6	Punch perforation for 16-page signatures with cross knife unit connection.	No	Yes	Yes	Yes	Yes	Yes
Perforation Unit below 2nd Knife	MS-2K	Slit perforation and scoring for 32-page signatures.	No	Yes	Yes	Yes	Yes	Yes
Gate Fold Buckle	GFB-74	Gate fold buckle to produce closed gate fold application.	No	Yes	Yes	Yes	Yes	Yes
Hard Urethane Roller for Parallel Fold	-	The wear-resistant hard urethane rollers. (segmented)	No	*	*	*	*	*
Deflector below Knife	KT-D74	Deflector which can be installed instead of buckle.	No	Selection	Selection	Selection	Selection	Selection
Buckle below Front Knife	KT-120	Maximum folding size is 120 mm. Manual type and automated type are available. This can be used on the front or rear side.	No	Selection	Selection	Selection	Selection	Selection
Buckle below Rear Knife	KT-250	Maximum folding size is 250 mm. Manual type and automated type are available. This can be used on the rear side only.	No	Selection	Selection	Selection	Selection	Selection

Delivery Section

Name	Model	Description	Factory Option	746F	746S	746D	744A	744S
Press Stacker	PST-66	Strong press at maximum 1.2 ton is applied to produce flat signature and folded pieces.	No	Yes	Yes	Yes	Yes	Yes
Press Stacker	PST-44	Compresses the signatures to reduced bulk and tighter folds.	No	Yes	Yes	Yes	Yes	Yes
Mobile Knife Fold Unit	MKU-54T	Mobile knife unit with buckle under the knife.	No	Yes	Yes	Yes	Yes	Yes
Mobile Knife Fold Unit	MKU-38	Mobile knife unit for additional knife fold.	No	*	*	*	*	*
Connecting Conveyor	MKU-CU	Bridge conveyor between folder and MKU-38.	No	Yes	Yes	Yes	Yes	Yes
Press Stacker with Pile Delivery	PSX-56	Tightly pressed signatures are stacked and delivered at a comfortable height.	No	Yes	Yes	Yes	Yes	Yes
Press Stacker with Pile Delivery	PSX-56R	Tightly pressed signatures are stacked and delivered at a comfortable height. The PSX-56R is for opposite delivery direction.	No	Yes	Yes	Yes	Yes	Yes

Others

Name	Model	Description	Factory Option	746F	746S	746D	744A	744S
JDF Network System	pXnet	Automated bindery control system with JDF workflow.	No	Yes	Yes	Yes	Yes	Yes

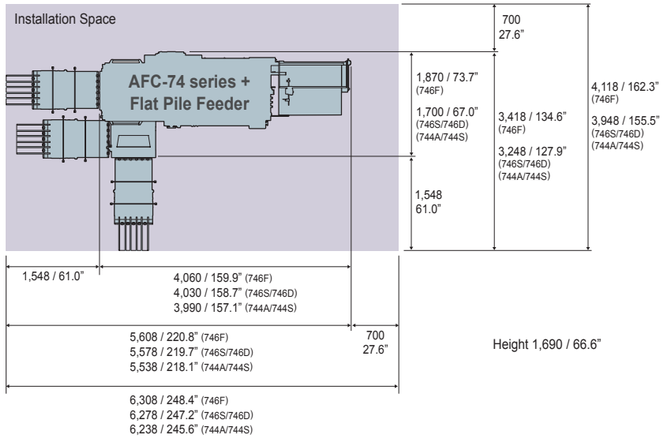
* Contact your local dealer about availability of connection.

Specifications

Machine Dimensions [Unit : mm / inch]

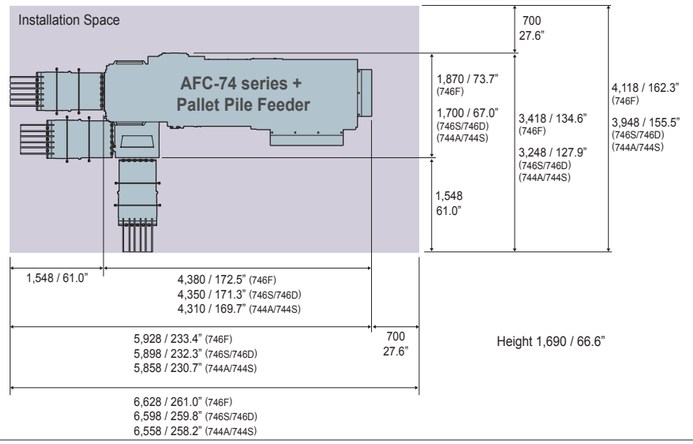
Flat Pile Feeder

The feed table automatically descends for sheet loading to maintain proper distance between the top of piled sheets and the feed rotor. Maximum pile height is 750 mm / 29.5".



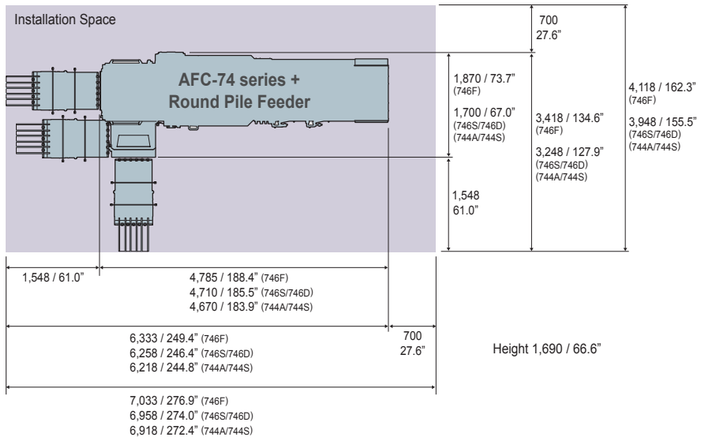
Pallet Pile Feeder

The pallet feeder unit accepts the piled sheets from the printing press to maximize operator convenience and to minimize production time. Maximum pile height is 1,200 mm / 47.2" (pallet included).



Round Pile Feeder

The round pile feeder unit can feed a wide range of sheets including prefolded, preperforated or prepunched sheets. Continuous loading is available for non-stop production.



Specifications

Model		AFC-746F	AFC-746S/746D	AFC-744A/744S
Machine Structure		6KTTL (6 Buckles + 1st Fold Knife + 2 Buckles below Knife*1 + 2nd Fold Knife)		4KTTL (4 Buckles + 1st Fold Knife + 2 Buckles below Knife*1 + 2nd Fold Knife)
Sheet Size Width x Length	Flat Pile Feeder	Max. 738 x 1,100 mm / 29.055" x 43.310"		
		Min. 210 x 210 mm / 8.270" x 8.270"	Min. 210 x 210 mm / 8.270" x 8.270" [Register guide minimum set position : W82 mm / 3.3"]	
	Pallet Pile Feeder	Max. 738 x 1,100 mm / 29.055" x 43.310"		
		Min. 210 x 297 mm / 8.270" x 11.695"	Min. 210 x 297 mm / 8.270" x 11.695" [Register guide minimum set position : W82 mm / 3.3"]	
	Round Pile Feeder	Max. 738 x 1,300 mm / 29.055" x 51.181"		
		Min. 210 x 148 mm / 8.270" x 5.827"	Min. 210 x 148 mm / 8.270" x 5.830" [Register guide minimum set position : W82 mm / 3.3"]	
Sheet Weight Range		Normal Paper 35 to 209 gsm Art/Coated Paper 50 to 232 gsm	35 to 220 gsm	
Buckle Fold Length	1st Buckle	55 to 560 mm / 2.2" to 22.0" (Auto)	55 to 560 mm / 2.2" to 22.0" (Auto)	55 to 560 mm / 2.2" to 22.0" (Auto)
	2nd Buckle	30 to 515 mm / 1.2" to 20.2" (Auto)	30 to 515 mm / 1.2" to 20.2" (Auto)	30 to 515 mm / 1.2" to 20.2" (Auto)
	3rd Buckle	30 to 480 mm / 1.2" to 18.8" (Auto)	30 to 480 mm / 1.2" to 18.8" (Auto)	30 to 480 mm / 1.2" to 18.8" (Auto)
	4th Buckle	30 to 480 mm / 1.2" to 18.8" (Auto)	30 to 480 mm / 1.2" to 18.8" (Auto)	30 to 330 mm / 1.2" to 12.9" (Auto)
	5th Buckle	30 to 480 mm / 1.2" to 18.8" (Auto)	30 to 480 mm / 1.2" to 18.8" (Auto)	-
	6th Buckle	30 to 330 mm / 1.2" to 12.9" (Auto)	30 to 330 mm / 1.2" to 12.9" (Auto)	-
	K1 Buckle (Below Knife [Front])	KT-120M: 55 to 120 mm / 2.2" to 4.7" (Manual)	Deflector (Replaceable with K2 buckle)	Deflector (Replaceable with K2 buckle)
		KT-120A: 30 to 120 mm / 1.2" to 4.7" (Auto)		
	K2 Buckle (Below Knife [Rear])	KT-120M: 55 to 120 mm / 2.2" to 4.7" (Manual)	30 to 250 mm / 1.2" to 9.8" (Automatic Setup)	55 to 250 mm / 2.2" to 9.8" (Manual Setup)
		KT-250M: 55 to 250 mm / 2.2" to 9.8" (Manual)		
		KT-120A: 30 to 120 mm / 1.2" to 4.7" (Auto)		
		KT-250A: 30 to 250 mm / 1.2" to 9.8" (Auto)		
Belt Speed		30 to 240 meters (99 to 787 feet) per minute Knife Fold 240 meters (787 feet) per minute	30 to 230 meters (99 to 754 feet) per minute Knife Fold 180 meters (590 feet) per minute	
Voltage / Frequency		Flat Pile Feeder / Pallet Pile Feeder / Round Pile Feeder: 3-Phase 200 / 220 / 400 V, 50 / 60 Hz AFC-746F: 3-phase 200V, 50 / 60 Hz	Flat Pile Feeder: 3-Phase 200 / 220 V, 50 / 60 Hz, 3-Phase 208 / 240 V, 60 Hz, 3-Phase 400 V, 50 Hz Pallet Pile Feeder: 3-Phase 200 / 220 / 400 V, 50 / 60 Hz, 3-Phase 208 / 240 V, 60 Hz Round Pile Feeder: 3-Phase 200 V, 50 / 60 Hz, 3-Phase 220 V, 60 Hz, 3-Phase 400 V, 50 Hz	
Machine Dimensions	Flat Pile Feeder	W4,060 x D1,870 x H1,690 mm / W159.9" x D73.7" x H66.6"	W4,030 x D1,700 x H1,690 mm / W158.7" x D67.0" x H66.6"	W3,990 x D1,700 x H1,690 mm / W157.1" x D67.0" x H66.6"
	Pallet Pile Feeder	W4,380 x D1,870 x H1,690 mm / W172.5" x D73.7" x H66.6"	W4,350 x D1,700 x H1,690 mm / W171.3" x D67.0" x H66.6"	W4,310 x D1,700 x H1,690 mm / W169.7" x D67.0" x H66.6"
	Round Pile Feeder	W4,785 x D1,870 x H1,690 mm / W188.4" x D73.7" x H66.6"	W4,710 x D1,700 x H1,690 mm / W185.5" x D67.0" x H66.6"	W4,670 x D1,700 x H1,690 mm / W183.9" x D67.0" x H66.6"
	Conveyor (LCV-76L)	W1,548 x D848 x H930 mm / W61.0" x D33.4" x H36.7"		

*1 1 buckle is standard.

Change the focus

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

Horizon

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