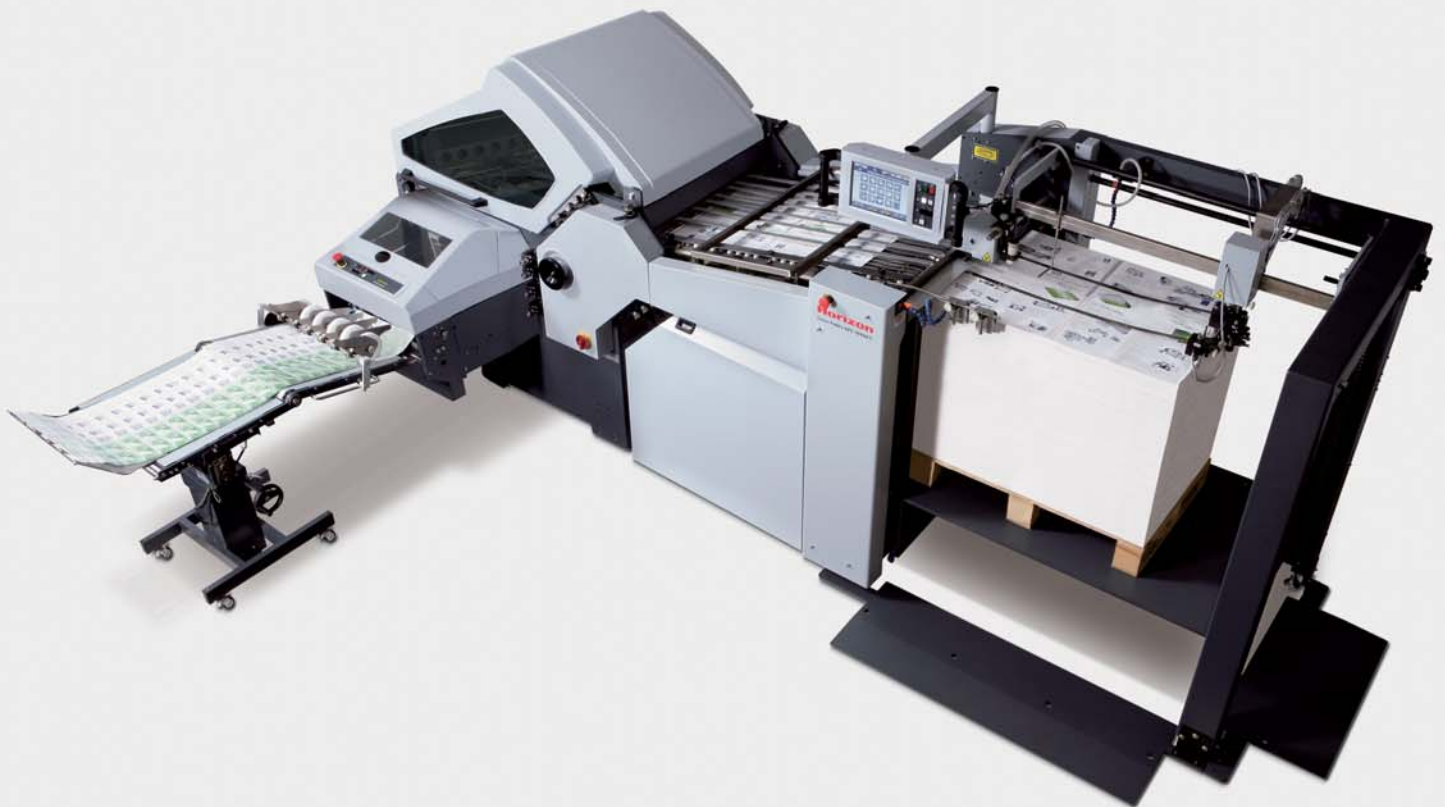


Horizon

Computerized Cross Folder AFC-744A/744S

AFC-744A/744S



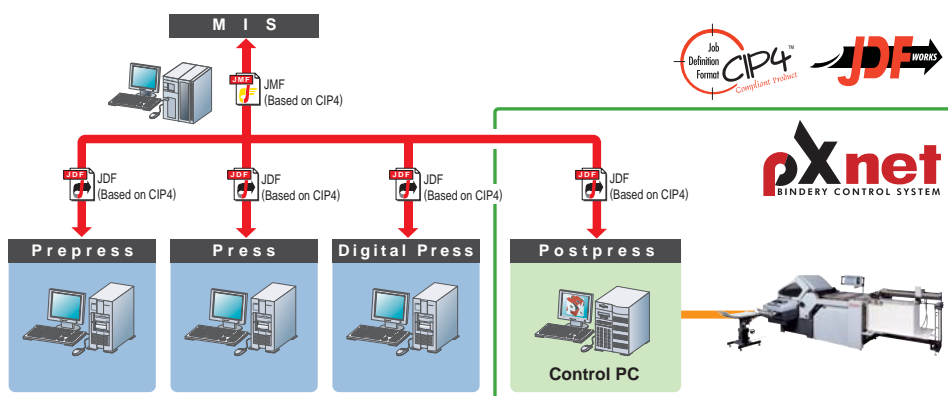
The AFC-744A/744S B1-format folder is the newest in Horizon's expanding line-up of quality-engineered folders that combines simple operation, quick changeover, high production speed, and superior fold quality.



What is pXnet Bindery Control System?



The Horizon pXnet system leverages the power of JDF across the bindery, allowing jobs to flow seamlessly through the entire print production process from MIS, Prepress, Press and Postpress.



pXnet Bindery Control System based on the view of CIP4

Features

- The AFC-744A/744S is equipped with a large, icon-based touch-screen for user-friendly operation, automated fold plate and sheet guide adjustments driven by stepper motors, high-speed belts (230 m/min.), and the highest level of precision engineering for top quality folding.
- The AFC-744A/744S also offers Horizon's advanced rotary vacuum feed system, for fast, smooth feeding of various stock types.
- 3 different types of feed units can be selected for various work environments: Flat Pile Feeder, Pallet Pile Feeder and Round Pile Feeder.
- Fold rollers are constructed with a combination of steel and soft polyurethane for superior grip and sharp, consistent folding.
- The knife guide can be fine-tuned in the range of +/-0.5 mm. (Only AFC-744S)



AFC-744A/744S + RFU-74 Round Pile Feeder Unit

User-friendliness and flexibility for diverse folding operations.

Auto Shows automated setup sections.

Color LCD Touchscreen 1



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.



AFC-744A+FFU-74

Suction Head 7



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

Feed Rotor 8



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

Buckle Auto 2



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.

Knife Fold Section Auto 3



The knife fold system enables cross folding in a small-footprint. The servo motor controlled knife allows accurate, high speed folding up to 24,000 sheets/hr. (A4 / 8.5" x 11" - 8-page Cross Fold) Two buckles can be installed below the knife for complicated folding (one buckle is standard).

Perforation 4



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.

Folding Rollers 5



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.

Delivery Conveyor 6



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. An optional press stacker PST-40 is available for much tighter folding.

Sheet Transportation Auto 9

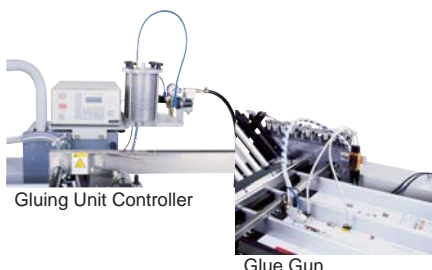


Newly-designed rigid side lay guide ensures stable transportation and accurate registration of a wide range of paper stocks. The side lay guide is coated with a special anti-static plating, for trouble-free operation of printed sheets, even in dry climates, when static electricity can be a problem.

A Wide Range of Options Option

■ Gluing Unit : CGU-50

The gluing unit can produce 8-page or 12-page glued booklets.



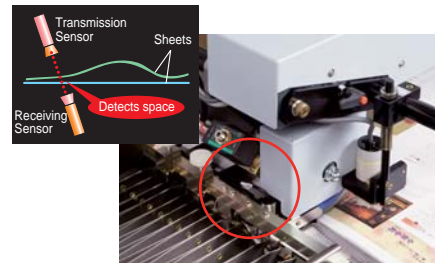
■ Gate Fold Buckle : GFB-74

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



■ Supersonic Detector : USS-74

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.



■ Front Perforation Unit : FP-74 (FSP-74)

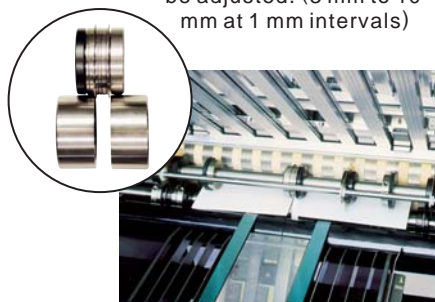
This unit permits perforating before folding. An accurate blade drum provides for high-precision micro perforation. Skip perforation unit (FSP-74) is also available.



*The front perforation unit is a factory option.

■ 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)



■ 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)



■ Edge Trim Device below 1st Knife : KT-ET6

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



■ Blades

A wide variety of optional blades are available for various applications.



(Unit : mm) (Cut x Blank)

■ Mobile Knife Fold Unit : MKU-54

- The MKU-54 is available as the third knife unit for 32-page folds.
- The knife unit can pivot 180 degrees to allow fold-up or fold-down flexibility.



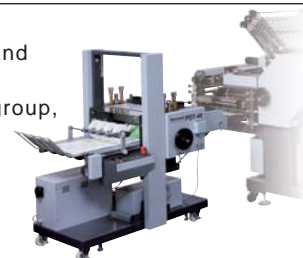
■ Mobile Knife Fold Unit : MKU-54T

- The MKU-54T is available as the third knife unit for 32-page folds.
- Two buckles can be attached below the knife (one buckle is standard).



■ Press Stacker : PST-40

- The first rollers remove the air and the second rollers powerfully compress the signatures for reduced bulk and tighter folds.
- Signatures can be offset separated individually or by group, depending on job requirements.



■ Press Stacker with Pile Delivery : PSX-56

- 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.



3 Types of Feed Units Selection

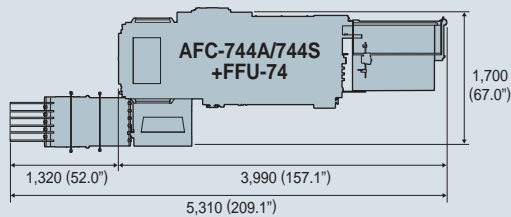
Flat Pile Feeder

AFC-744A/744S+FFU-74

- 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").

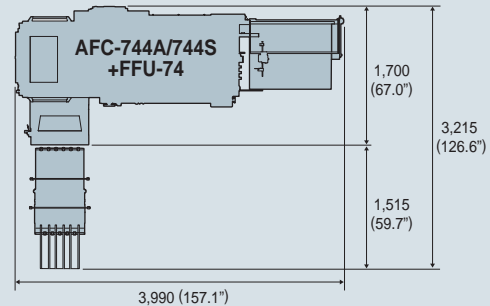
AFC-744A/744S+FFU-74 16-page Cross Fold

Machine Dimensions and
Installation Space [Unit : mm (inch)]



AFC-744A/744S+FFU-74 8-page Cross Fold

Machine Dimensions and
Installation Space [Unit : mm (inch)]



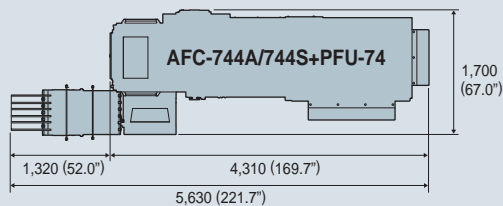
Pallet Pile Feeder

AFC-744A/744S+PFU-74

- 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).

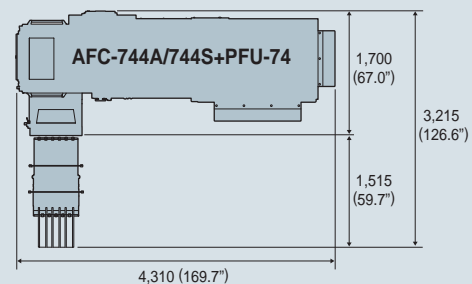
AFC-744A/744S+PFU-74 16-page Cross Fold

Machine Dimensions and
Installation Space [Unit : mm (inch)]



AFC-744A/744S+PFU-74 8-page Cross Fold

Machine Dimensions and
Installation Space [Unit : mm (inch)]



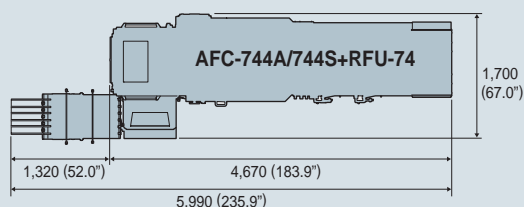
Round Pile Feeder

AFC-744A/744S+RFU-74

- 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.

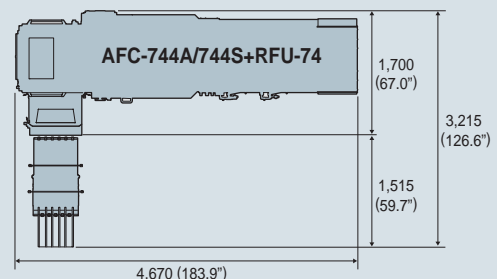
AFC-744A/744S+RFU-74 16-page Cross Fold

Machine Dimensions and
Installation Space [Unit : mm (inch)]



AFC-744A/744S+RFU-74 8-page Cross Fold

Machine Dimensions and
Installation Space [Unit : mm (inch)]

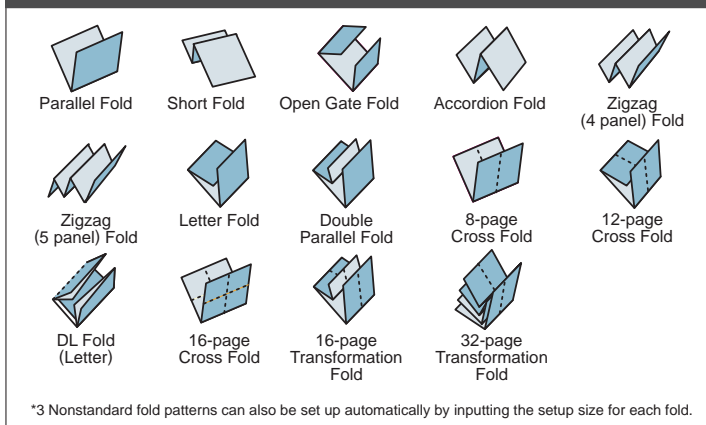


AFC-744A/744S Major Specifications

Machine Structure		4KTTL (4 Buckles + 1st Fold Knife + 2 Buckles below Knife ¹ + 2nd Fold Knife)				200 V, 50 Hz, 10.0 A / 60 Hz, 11.4 A
Max. Sheet Size		with Flat/Pallet Pile Feeder	738(W) x 1,100(L) mm (29.055" x 43.310")	Rated Current	with Flat Pile Feeder	208 V, 60 Hz, 11.2 A 220 V, 50 / 60 Hz, 11.0 A
		with Round Pile Feeder	738(W) x 1,300(L) mm (29.055" x 51.180")		240 V, 60 Hz, 11.0 A 400 V, 50 Hz, 5.0 A / 60 Hz, 5.7 A	
Min. Sheet Size		with Flat Pile Feeder	210(W) x 210(L) mm (8.270" x 8.270")		with Pallet Pile Feeder	200 V, 50 Hz, 10.0 A / 60 Hz, 12.1 A
		with Pallet Pile Feeder	210(W) x 297(L) mm (8.270" x 11.695")			208 V, 60 Hz, 12.0 A 220 V, 50 Hz, 11.0 A / 60 Hz, 12.0 A
		with Round Pile Feeder	210(W) x 148(L) mm (8.270" x 5.830")			240 V, 60 Hz, 11.0 A 400 V, 50 Hz, 5.0 A / 60 Hz, 6.0 A
		[Side Lay Guide Minimum Set Position : 82(W) mm (3.3")]				200 V, 50 Hz, 8.4 A / 60 Hz, 10.3 A
Sheet Weight Range		35 to 220 gsm			with Round Pile Feeder	220 V, 50 Hz, 8.7 A / 60 Hz, 10.0 A
				400 V, 50 Hz, 4.0 A / 60 Hz, 4.5 A		
Buckle Fold Length		1st Buckle	55 to 560 mm (2.2" to 22.0") (Auto)	Cross Folder	200 V, 50 / 60 Hz, 5.5 A 220 V, 50 / 60 Hz, 5.3 A	
		2nd / 3rd Buckle	30 to 515 mm (1.2" to 20.2") / 30 to 480 mm (1.2" to 18.8") (Auto)		400 V, 50 / 60 Hz, 2.8 A	
		4th Buckle	30 to 330 mm (1.2" to 12.9") (Auto)		[208 V, 60 Hz, 5.4 A 240 V, 60 Hz, 5.0 A only with Flat Pile Feeder/Pallet Pile Feeder]	
		K1 Buckle	Deflector (Replaceable with K2 buckle)		200 V, 50 Hz, 2.6 kW / 60 Hz, 3.3 kW	
		K2 Buckle	55 to 250 mm (2.2" to 9.9") (Manual Setup)		208 V, 60 Hz, 3.4 kW 220 V, 50 Hz, 2.7 kW / 60 Hz, 3.4 kW	
Knife Fold Size		1st Knife	Max. 738(W) x 550(L) mm (29.0" x 21.6") Min. 160(W) x 100(L) mm (6.3" x 4.0")	Power Consumption	240 V, 60 Hz, 3.5 kW 400 V, 50 Hz, 2.6 kW / 60 Hz, 3.8 kW	
		2nd Knife	Max. 550(W) x 360(L) mm (21.6" x 14.1") Min. 160(W) x 100(L) mm (6.3" x 4.0")		200 V, 50 Hz, 2.6 kW / 60 Hz, 3.5 kW	
Feeding Mechanism		with Flat/Pallet Pile Feeder	Air Suction Rotor & 1 Cylinder Separator Head		with Pallet Pile Feeder	208 V, 60 Hz, 3.5 kW 220 V, 50 Hz, 2.7 kW / 60 Hz, 3.5 kW
		with Round Pile Feeder	Air Suction Rotor & Front Blower & Side Blower (Feed interval and suction time are adjustable.)			240 V, 60 Hz, 3.6 kW 400 V, 50 Hz, 2.6 kW / 60 Hz, 3.5 kW
Maximum Pile Height		with Flat Pile Feeder	750 mm (29.5") [within 600 kg (1,322 lbs)]		with Round Pile Feeder	200 V, 50 Hz, 2.3 kW / 60 Hz, 3.1 kW
		with Pallet Pile Feeder	1,200 mm (47.2") (pallet included) [within 1,000 kg (2,204 lbs)]			220 V, 50 Hz, 2.4 kW / 60 Hz, 3.1 kW
					Cross Folder	400 V, 50 Hz, 2.2 kW / 60 Hz, 3.0 kW
Belt Speed		30 to 230 m (33 to 250 yd.)/min. [Knife Fold : 180 m (196 yd.)/min.]			200 V, 50 / 60 Hz, 1.4 kW 220 V, 50 / 60 Hz, 1.5 kW	
Production Speed		36,000 sheets/hr. [A4 (8.5" x 11") Parallel Fold]		Heat Output	208 V, 60 Hz, 1.45 kW 240 V, 60 Hz, 1.6 kW only with Flat Pile Feeder/Pallet Feeder]	
		with Flat/Pallet Pile Feeder	11,000 sheets/hr. [625(W) x 880(L) mm (24.6" x 34.6") 16-page Cross Fold]		with Flat Pile Feeder	5,800 kJ (1,380 kcal)
		with Round Pile Feeder	11,000 sheets/hr. [700(W) x 1,000(L) mm (27.5" x 39.3") 16-page Cross Fold]		with Pallet Pile Feeder	6,120 kJ (1,460 kcal)
Standard Fold Roller		Combination of Soft Polyurethane Foam Rubber and Steel Roller		with Round Pile Feeder	5,590 kJ (1,340 kcal)	
Roller Gap Adjustment		Insert the instructed number of sheets into the gap adjust lever.		with Flat Pile Feeder	1.5 kW x 1, 0.4 kW x 2, 40 W x 1, 0.4 kW x 1 (Servo), 0.2 kW x 1 (Servo)	
Slit Perforation		Parallel Fold	Cut : 10 mm (0.39") Blank : 3 mm (0.12"), Cut : 4 mm (0.16") Blank : 2.5 mm (0.10")	Motors	with Pallet Pile Feeder	1.5 kW x 1, 0.75 kW x 1, 40 W x 1, 0.4 kW x 1 (Servo), 0.2 kW x 1 (Servo), 3.7 kW x 1 (Pump)
		Below Knife	Cut : 12 mm (0.47") Blank : 3 mm (0.12")		with Round Pile Feeder	1.5 kW x 1, 0.2 kW x 1, 40 W x 1, 0.4 kW x 1 (Servo), 0.2 kW x 1 (Servo), 3.7 kW x 1 (Pump)
Perforation		Cut : 2.5 mm (0.10") Blank : 0.8 mm (0.03") Min. Perforation Distance : 66 mm (2.6") in one operation / Min. Distance from Sheet Edge : 12 mm (0.48")			Machine Dimensions	with Flat Pile Feeder
Scoring		Scoring Width : 1 mm (0.04") (Depends on sheet type)		with Pallet Pile Feeder		4,310(W) x 1,700(D) x 1,690(H) mm (169.7" x 67.0" x 66.6")
Number of Holders		3 pcs + 1 pc (Accessory) (Possible to add up to 14 pcs)		with Round Pile Feeder		4,670(W) x 1,700(D) x 1,690(H) mm (183.9" x 67.0" x 66.6")
Automatic Setup		Feed Guide Bar, Side Lay Guide, 1st to 4th Buckles, 1st and 2nd Knife Stoppers		Conveyor		1,515(W) x 740(D) x 1,070(H) mm (59.7" x 29.2" x 42.2")
Automatic Setup Accuracy		Setting Dimension : +/- 1 mm (0.04") / Consistent Accuracy : +/- 0.1 mm (0.004")		with Flat Pile Feeder	6,205(W) x 3,915(D) mm (244.3" x 154.2")	
Deflectors		1st Buckle	Buckle Stopper and Swing-Arm Deflector	Installation Space	with Pallet Pile Feeder	6,525(W) x 3,915(D) mm (256.9" x 154.2")
		2nd to 4th Buckle	Integrated Stopper / Deflector		with Round Pile Feeder	6,885(W) x 3,915(D) mm (271.1" x 154.2")
		K1 Buckle (Below Knife)	Deflector	Noise Level	L _A peak : 89.3 dB / L _{Aeq} : 86.9 dB	
		K2 Buckle (Below Knife)	Buckle Stopper and Swing-Arm Deflector			
Fold Patterns		Parallel Fold, Short Fold, Open Gate Fold, Accordion Fold, Zigzag (4 panel) Fold, Zigzag (5 panel) Fold, Letter Fold, Double Parallel Fold, 8-page Cross Fold, 12-page Cross Fold, DL Fold, 16-page Transformation Fold, 16-page Cross Fold, 32-page Transformation Fold		Machine Weight	with Flat Pile Feeder	Main Body : 1,240 kg (2,734 lbs), Feeder : 540 kg (1,191 lbs), Conveyor : 81 kg (179 lbs), Vacuum Pump : 71 kg (157 lbs), Transformer : 45 kg (100 lbs) [Total 1,977 kg (4,361 lbs)]
Job Memory		200 Jobs			with Pallet Pile Feeder	Main Body : 1,240 kg (2,734 lbs), Feeder : 700 kg (1,544 lbs), Conveyor : 81 kg (179 lbs), Vacuum Pump : 71 kg (157 lbs), Transformer : 45 kg (100 lbs) [Total 2,137 kg (4,714 lbs)]
Vacuum Pump		Flow	50 m³/hr. / 100 m³/hr. (with Round Pile Feeder)		with Round Pile Feeder	Main Body : 1,240 kg (2,734 lbs), Feeder : 850 kg (1,874 lbs), Conveyor : 81 kg (179 lbs), Transformer : 45 kg (100 lbs) [Total 2,216 kg (4,887 lbs)]
		Voltage / Frequency	3-Phase ▽230 / Y400 V +/-10 % 50 / 60 Hz			
		Power Consumption	3.0 / 3.6 kW (50 / 60 Hz)			
Voltage / Frequency		with Flat/Pallet Pile Feeder	3-Phase 200 / 220 / 400 V, 50 / 60 Hz, 3-Phase 208 / 240 V, 60 Hz	Temperature & Humidity	Temperature : 0 °C to +40 °C / Humidity : 20 % to 75 %RH (25 °C and 52+/-6 %RH are recommended.)	
		with Round Pile Feeder	3-Phase 200 / 220 / 400 V, 50 / 60 Hz			

*1 1 buckle is standard.

14 Fold Patterns



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

Options

*2 Factory Option

- Press Stacker : PST-40
- Mobile Knife Fold Unit : MKU-54/MKU-54T
- Press Stacker with Pile Delivery : PSX-56
- Supersonic Detector : USS-74
- Gluing Unit Kit : CGU-K74^{*2}
- Front Perforation Unit : FP-74^{*2}
- Gate Fold Buckle : GFB-74
- Gluing Unit : CGU-50
- Automated Buckle below 1st Knife
- Image Checking System : IC-AFC^{*2}/IC-AF^{*2}
- Strip Trim Device : AF-ST6
- Strip Trim Device below 1st Knife : KT-ST6
- Edge Trim Device : AF-ET6
- Edge Trim Device below 1st Knife : KT-ET6
- Punch Perforation Unit : AF-PP6
- Punch Perforation Unit below 1st Knife : KP-PP6
- Perforation Unit below 2nd Knife : MS-2K
- Front Skip Perforation Unit : FSP-74
- Blades (Scoring/Slit Perforation/Slitter/Perforation Blade)
- pXnet

Product Configuration

Product	Knife Stopper Automatic Fine-adjustment	Deflector below Knife	Front Buckle below Knife	Rear Buckle below Knife	Supersonic Detector (Feeder)
AFC-744A	×	○	Option	○	Option
AFC-744S	○	○	Option	○	Option

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