

Horizon

Buckle Folder AF-566T4F

AF-566T4F



think **intelligent** automation.



Modular fully-automated folding machine. 6+4-buckle modular concept allows for a variety of fold patterns to cover many applications.

- This folder is designed with Horizon's "think **intelligent** automation." concept which leads the finishing market with advanced automated solutions, bringing dramatic improvements in productivity and efficiency to the bindery.
- The folder is easy and intuitive to set-up, even without a skilled operator, thanks to the intelligent automation and user-friendly design.
- All sections including the roller gaps are fully automated through the color touch-screen.
- Modular concept allows for flexible configuration and handles simple to complex fold patterns. 6-buckles on the 1st station and 4-buckles on the 2nd station can be combined as needed.
- Reduce paper waste and energy consumption and achieve a short make-ready with accurate and advanced automation.



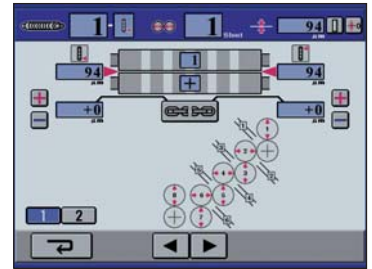
Features

Graphical user interface for intuitive operation

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



Setup is completed by selecting the desired fold pattern and inputting the sheet size.



The graphical display makes roller gap adjustment very simple.

Fully-automated setup increases efficiency and quality

42 sections are automatically setup by inputting the sheet size and fold pattern through the touch-screen. Fully-automated setup enables any operator to produce consistent, high quality folding applications.

Automated Setup

AF-566F (25 sections in total)

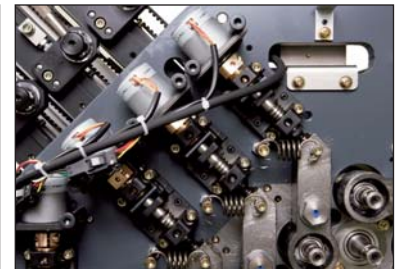
- | | | |
|--------------|----------------|-------------------------|
| ■ 1st Buckle | ■ 5th Buckle | ■ Side Lay Guide |
| ■ 2nd Buckle | ■ 6th Buckle | ■ Roller Gap Adjustment |
| ■ 3rd Buckle | ■ Suction Head | (16 sections) |
| ■ 4th Buckle | ■ Table Guide | |

T-564F (17 sections in total)

- | | | |
|--------------|--------------|-------------------------|
| ■ 1st Buckle | ■ 3rd Buckle | ■ Side Lay Guide |
| ■ 2nd Buckle | ■ 4th Buckle | ■ Roller Gap Adjustment |
| | | (12 sections) |



Buckle Section



Roller Gap Adjustment

Flexible modular concept increases folding capabilities

6+4-buckle modular concept allows for simple to complex fold patterns that maximize folding variations. Cross folding can be performed with the 6+4-buckle modular at a right angle. Thick or digitally-printed sheets can be scored on the 1st station and folded on the 2nd station to prevent image cracking. With the 6+4-buckle connected straight, zigzag (22 panel) folding can be performed.

Stand-alone
6-buckle



AF-566F+Conveyor

Straight
6+4-buckle



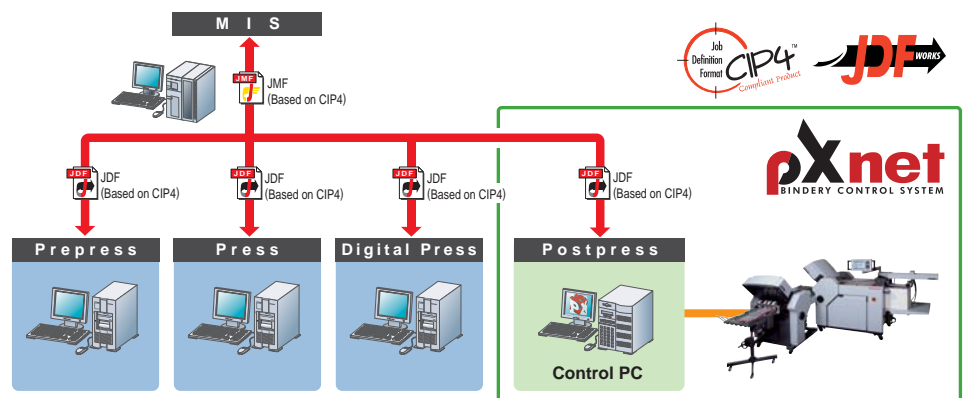
AF-566F+T-564F Straight Configuration+Conveyor

JDF workflow compatibility

pXnet System **Option**



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.



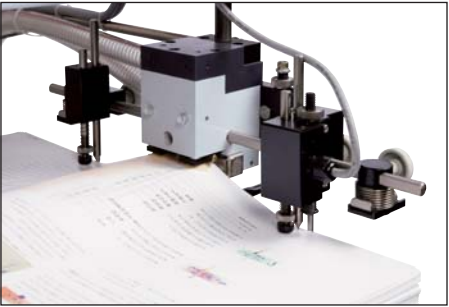
pXnet Bindery Control System based on the view of CIP4

Color LCD Touch-screen 1



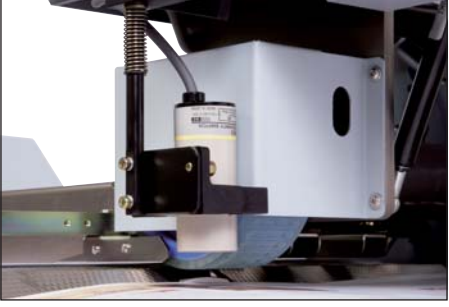
The 10.4 inch color touch-screen is icon-based for user-friendly operation. The graphical interface screen provides intuitive operation for folding setup, speed adjustments and all other fine-adjustments.

Suction Head / Assist Air 2



Innovative suction head and assist air 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 for stable feeding of a wide variety of sheets.

Feed Rotor 3



Quality polyurethane rotor provides high speed feeding (42,000 sheets/hr.) without scratching. The supersonic and photoelectric double feed detect sensors come standard for superior detection.

Double Counter 4



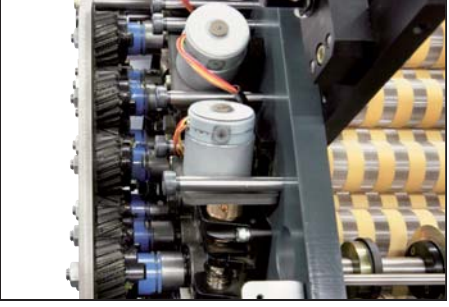
Double counter comes standard at both the feeder and delivery sections. This reliable counting mechanism helps with jobs that require accurate counting control.

Side Lay Guide 5



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.

Folding Rollers 6



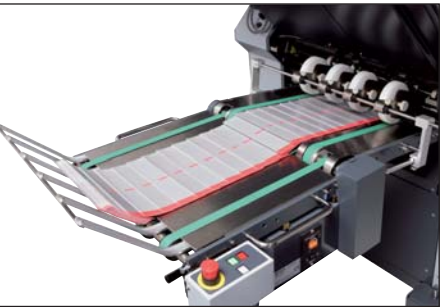
The combination soft polyurethane foam rubber and steel rollers are employed for consistent folding and simple setup. Folding rollers are driven with accurate helical gears for maximum folding precision and quiet operation.

Perforation / Scoring 7



Perforation, slit perforation, scoring and slitting can be performed. Durable scoring unit is employed for accurate scoring. Optional devices are available for strip trimming of multiple-up jobs, trimming the closed side of glued signatures and punch perforation.

Delivery Conveyor 10



Conveyor height is easily adjusted to the proper sheet delivery height.

Buckle 9



Buckle stopper and deflector switching can be done automatically for efficient operation. Specially-coated buckle plates minimize paper friction to maintain fold accuracy.

Right Angle Conveyor 8



Two configurations allow for a wide variety of fold patterns. Superior sheet aligning capability ensures consistent and accurate folding.

Short make-ready with fully-automated set-up including roller gap adjustment

Right Angle
6+4-buckle

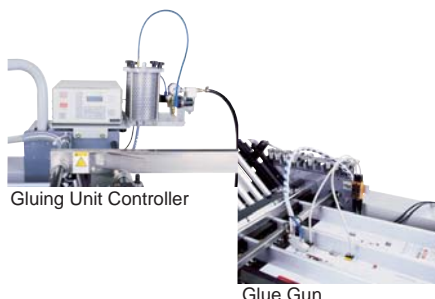


AF-566F+T-564F Right Angle+Conveyor

A Wide Range of Optional Units Option

■ Gluing Unit : CGU-50/CGU-K56

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



■ Strip Trim Device : AF-ST5N

Strip trimming in 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)



■ Standing Delivery Unit : ED-40

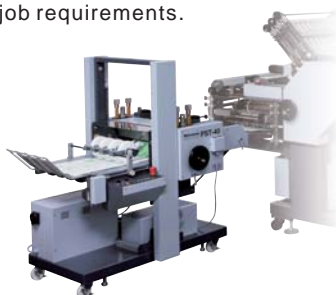
Optional standing delivery unit is available for small size stacks. This stacker includes batch counting for off-set stacking.

*The BG-566 optional bridge conveyor unit is required to connect the ED-40.



■ 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.



■ Gate Fold Buckle : GFB-56

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



■ Scoring Navigator : AF-SN56

Scoring position can be set easily depending on the fold pattern and sheet size set on the touch panel. Fine-adjustment or specific setup is memorized with a unique laser positional memory.



■ Mobile Knife Fold Unit : MKU-54

- The MKU-54 is available as the second knife unit for 16-page folds.
- The knife unit can pivot 180 degrees to allow fold-up or fold-down flexibility.



■ Round Pile Feeder Unit : RFU-54

- The RFU-54 can be attached or detached to the folder without removing the standard flat pile feed table, making it quick and easy to interrupt long runs for a short-run job.
- An error feed tray is equipped for continuous feeding operation.



■ 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.



■ Front Perforation Unit : FP-56 (FSP-56)

This unit permits perforating before folding. An accurate blade drum provides for high-precision micro perforation. Skip perforation unit (FSP-56) is also available.



*The front perforation unit is a factory option.

■ Blades

A wide variety of optional blades are available for various applications. A maximum of 12 blades can be attached.



(Unit : mm) (Cut x Blank)

■ Mobile Knife Fold Unit : MKU-54T

- The MKU-54T is available as the second knife unit for 16-page folds.
- Two buckles can be attached below the knife (one buckle is standard).



System Configurations

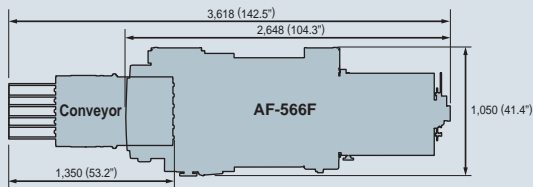
Configuration 1

Stand-alone 6-buckle



Stand-alone 6-buckle configuration for brochure or leaflet folding.

AF-566F+Conveyor



Machine Dimensions [Unit : mm (inch)]

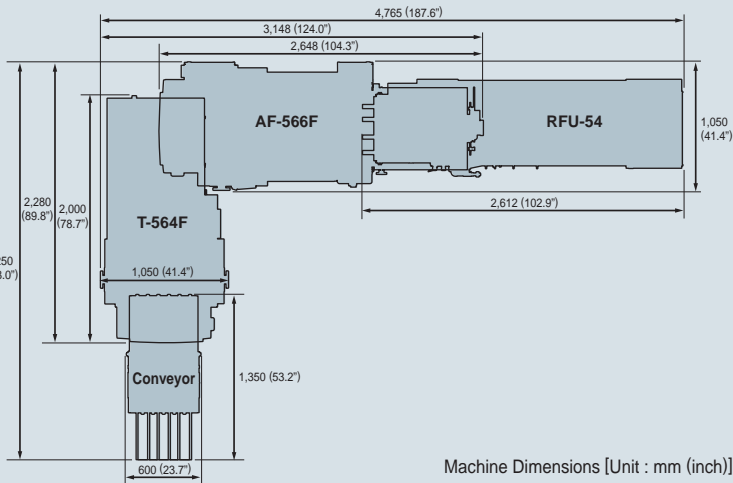
Configuration 2

Right Angle 6+4-buckle



6+4-buckle modular system with the right angle conveyor for 8-page signature and DL folding. This configuration also allows scoring on the first station and folding on the second station for heavier weight stocks.

AF-566F+T-564F Right Angle+Conveyor+RFU-54



Machine Dimensions [Unit : mm (inch)]

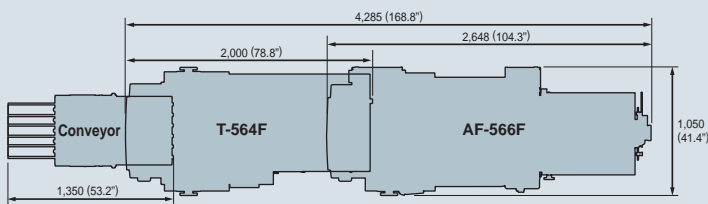
Configuration 3

Straight 6+4-buckle



Straight 6+4-buckle modular system for maximum 10-buckle operation. Complex fold patterns can be performed using this configuration.

AF-566F+T-564F Straight+Conveyor



Machine Dimensions [Unit : mm (inch)]

AF-566F Major Specifications		
Machine Structure	6 Buckles	
Sheet Size	Max. 558(W) x 865(L) mm (21.970" x 34.000") Min. 128(W) x 148(L) mm (5.040" x 5.830")	
Sheet Weight Range	Normal Paper : 35 to 209 gsm Art/Coated Paper : 50 to 232 gsm	
Buckle Fold Length	1st Buckle	30 to 450 mm (1.180" to 17.720")
	2nd Buckle	30 to 450 mm (1.180" to 17.720")
	3rd Buckle	30 to 450 mm (1.180" to 17.720")
	4th Buckle	30 to 360 mm (1.180" to 14.170")
	5th Buckle	30 to 450 mm (1.180" to 17.720")
	6th Buckle	30 to 360 mm (1.180" to 14.170")
Feeding Mechanism	Air Suction Rotor & 2 Cylinder Separator Head (Feed interval and suction time are adjustable.)	
Maximum Pile Height	Max. 740 mm (29.1") [within 250 kg (551.3 lb)]	
Belt Speed	30 to 240 m (32 to 261 yd.)/min.	
Production Speed	42,000 sheets/hr. [A4 (8.5" x 11") Parallel Fold]	
Standard Fold Roller	Combination of Soft Polyurethane Foam Rubber and Steel Roller	
Roller Gap Adjustment	Automatic Setting	
Slit Perforation	Cut 6 mm (0.24"), Blank 4 mm (0.16") (Standard)	
Perforation	Cut 3.2 mm (0.13"), Blank 0.8 mm (0.03") / Cut 1.4 mm (0.06"), Blank 0.8 mm (0.03") / Cut 2.5 mm (0.10"), Blank 0.8 mm (0.03") (All options)	
	Min. Perforation Distance : 30 mm (1.19") in one operation	
	Min. Distance from Sheet Edge : 12 mm (0.48")	
	Scoring Width : About 1 mm (0.04") (Depends on sheet type)	
Scoring	Min. Scoring Distance : 30 mm (1.19") in one operation	
	Three Scoring Wheels (Diameter 51.5 mm) (Two installed, One accessory)	
	Diameter 51 mm, 52 mm options.	
	Standard : 3 (2 for Scoring and 1 for Perforation)	
Number of Holders	Max. of 12 holders can be attached.	
Automatic Setup	Suction Head, Table Guide, Side Lay Guide, 1st to 6th Buckle (9 sections in total)	
	Roller Gap Adjustment (16 sections in total)	
	Setting Dimension : +/-0.1 mm	
Automatic Setup Accuracy	Consistent Accuracy : +/-0.1 mm	
Deflectors	1st to 6th Buckle : Buckle Stopper and Deflector	
Fold Patterns	Parallel Fold, Short Fold, Gate Fold, Accordion Fold, Zigzag (4 panel) Fold, Zigzag (5 panel) Fold, Zigzag (6 panel) Fold, Zigzag (7 panel) Fold, Letter Fold, Double Parallel Fold, Round Parallel Fold (4 panel), Single Fold + Double Parallel Fold	
Job Memory	200 Jobs	
Vacuum Pump	Flow	40 m³/hr.
	Voltage / Frequency	3-Phase▽230 / Y400 V +/-10 % 50 / 60 Hz
	Power Consumption	1.8 / 2.2 kW (50 / 60 Hz)
Voltage / Frequency	3-Phase 200 V, 50 / 60 Hz	
	3-Phase 220 V, 50 / 60 Hz	
	3-Phase 400 V, 50 / 60 Hz	
Rated Current	3-Phase 200 V, 50 / 60 Hz, 9.1 / 10.6 A	
	3-Phase 220 V, 50 / 60 Hz, 8.8 / 10.1 A	
	3-Phase 400 V, 50 / 60 Hz, 4.9 / 5.5 A	
Power Consumption (Including Pump)	3-Phase 200 V, 50 / 60 Hz, 2.9 / 3.5 kW	
	3-Phase 220 V, 50 / 60 Hz, 2.9 / 3.6 kW	
	3-Phase 400 V, 50 / 60 Hz, 2.8 / 3.5 kW	
Heat Output	3,220 kJ (890 kcal)	
Motors	0.75 kW x 1, 0.2 kW x 1, 25 W x 1, 0.4 kW x 1, 2.2 kW x 1 (Pump)	
Machine Dimensions	1st+2nd Station : Installation at right angle 3,148(W) x 2,280(D) x 1,600(H) mm (124.0" x 89.8" x 63.0")	
	1st+2nd Station : Installation at straight 4,285(W) x 1,050(D) x 1,600(H) mm (168.8" x 41.4" x 63.0")	
Installation Space	1st+2nd Station : Installation at right angle 4,148(W) x 3,750(D) mm (163.4" x 147.7")	
	1st+2nd Station : Installation at straight 5,755(W) x 2,050(D) mm (226.6" x 80.8")	
Machine Weight	743 kg (1,638.3 lb), Vacuum Pump : 61 kg (134.5 lb), Transformer : 70 kg (154.3 lb)	
Temperature & Humidity	Temperature : 0 °C to +40 °C, Humidity : 20 % to 75 %RH (25 degrees Celsius and 52 +/-6 %RH are recommended.)	

T-564F Major Specifications		
Machine Structure	4 Buckles	
Sheet Size	Max. 558(W) x 558(L) mm (21.970" x 21.970") Min. 50(W) x 128(L) mm (1.970" x 5.040")	
Sheet Weight Range	Normal Paper : 35 to 209 gsm Art/Coated Paper : 50 to 232 gsm	
Buckle Fold Length	1st Buckle	30 to 360 mm (1.180" to 14.170")
	2nd Buckle	30 to 360 mm (1.180" to 14.170")
	3rd Buckle	30 to 360 mm (1.180" to 14.170")
	4th Buckle	30 to 360 mm (1.180" to 14.170")
Belt Speed	30 to 240 m (32 to 261 yd.)/min.	
Standard Fold Roller	Combination of Soft Polyurethane Foam Rubber and Steel Roller	
Roller Gap Adjustment	Automatic Setting	
Slit Perforation (Option)	Cut 6 mm (0.24"), Blank 4 mm (0.16")	
Perforation	Cut 3.2 mm (0.13"), Blank 0.8 mm (0.03") / Cut 1.4 mm (0.06"), Blank 0.8 mm (0.03") / Cut 2.5 mm (0.10"), Blank 0.8 mm (0.03") (All options)	
	Min. Perforation Distance : 30 mm (1.19") in one operation	
	Min. Distance from Sheet Edge : 12 mm (0.48")	
	Scoring Width : About 1 mm (0.04") (Depends on sheet type)	
Scoring	Min. Scoring Distance : 30 mm (1.19") in one operation	
	Diameter 51 mm, 51.5 mm, 52 mm (All options)	
	Max. of 12 holders can be attached.	
	Side Lay Guide, 1st to 4th Buckle (5 sections in total)	
Automatic Setup	Roller Gap Adjustment (12 sections in total)	
	Setting Dimension : +/-0.1 mm	
	Consistent Accuracy : +/-0.1 mm	
Deflectors	1st to 4th Buckle : Buckle Stopper and Deflector	
Fold Patterns	Parallel Fold, Short Fold, Gate Fold, Accordion Fold, Zigzag (4 panel) Fold, Letter Fold, Double Parallel Fold	
Voltage / Frequency	3-Phase 200 V, 50 / 60 Hz	
	3-Phase 220 V, 50 / 60 Hz	
Rated Current	3-Phase 200 V, 50 / 60 Hz, 1.8 / 2.2 A	
	3-Phase 220 V, 50 / 60 Hz, 1.5 / 1.6 A	
Power Consumption (Including Pump)	3-Phase 200 V, 50 / 60 Hz, 540 / 700 W	
	3-Phase 220 V, 50 / 60 Hz, 550 / 620 W	
Heat Output	1,540 kJ (370 kcal)	
Motors	0.75 kW x 1	
Machine Weight	467 kg (1,029.7 lb)	
Temperature & Humidity	Temperature : 0 °C to +40 °C, Humidity : 20 % to 75 %RH (25 degrees Celsius and 52 +/-6 %RH are recommended.)	

Options		*1 Factory Option
■ Press Stacker : PST-40	■ Skewed Folding Detector	
■ Press Stacker with Pile Delivery : PSX-56	(for Transport Conveyor of T-564F)	
■ Mobile Knife Fold Unit : MKU-54/MKU-54T	■ Image Checking System : IC-AFC TM /IC-AF TM	
■ Round Pile Feeder Unit : RFU-54	■ Gate Fold Buckle : GFB-56	
■ Bridge Conveyor Unit : BG-566	■ Gluing Unit : CGU-50/CGU-K56	
■ Standing Delivery Unit : ED-40	■ Front Perforation Unit : FP-56 TM	
■ Scoring Navigator : AF-SN56	■ Front Skip Perforation Unit : FSP-56	
■ Strip Trim Device : AF-ST5N	■ Punch Perforation Kit	
■ Edge Trim Device : AF-ET5N	■ Blades (Scoring/Slit Perforation/Slitter/Perforation Blade)	
	■ pXnet	

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

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HORIZON INTERNATIONAL, INC.

510 Kuze Ooyabu-cho, Minami-ku, Kyoto, 601-8206, Japan Phone : +81-(0)75-934-6700, Fax : +81-(0)75-934+6708, www.horizon.co.jp