

**Horizon**



# AFC-56 Series

Computerized Cross Folder AFC-566F/566AKT/564AKT

**Automated set-ups ensure  
user-friendly operation  
and consistent folding.**



# Comfortable folding operation

High performance, space efficient automated cross-knife folding machines - The Horizon AFC-56 series feature advanced automation with user-friendliness and high quality folding.

AFC-566F + Round Pile Feeder Unit RFU-54 + Mobile Knife Fold Unit MKU-38 + Press Stacker PST-40



## AFC-56 series - AFC-566F, AFC-566AKT and AFC-564AKT - Features

1. Set-up a wide variety of fold patterns by simply touching the corresponding icon and inputting the sheet size on the large LCD color touchscreen.  
17 fold patterns are set on **566F** **566AKT** , 14 fold patterns are set on **564AKT** .
2. Automated setups take just a few seconds. The LCD touchscreen prompts the operator through all remaining settings for fast, efficient production. All adjustments are user-friendly and require minimal skill or training.
3. All roller gap settings can be performed automatically through the LCD touchscreen inserting a single sheet at the caliper. **566F**
4. Standard wireless remote controller for more convenient operation. **566F**
5. Fold rollers are constructed with a combination of steel and soft polyurethane for superior grip and sharp, consistent folding.
6. Horizon's advanced rotary suction feed system delivers fast, consistent feeding on a wide range of paper stocks.
7. The optional extension table enables to load the sheets up to 1,100 mm / 43.3" long.
8. Up to 200 job settings can be memorized for quick and easy recall of regular job.
9. The optional pXnet bindery control system makes job scheduling and tracking for the AFC-56 series super efficient, or accept JDF setup data from an upstream workflow.



# AFC-56 series Features

## Automated Setup

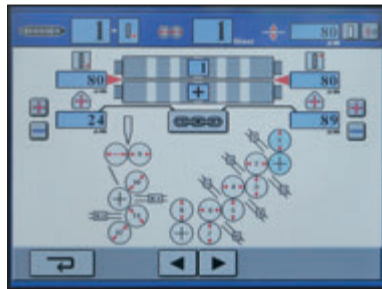
17 fold patterns are automatically set by selecting the sheet size and fold pattern on the LCD touch-screen. Each section is set automatically by high precision stepper motors for high quality folding.

\* 14 fold patterns are set on the AFC-564AKT.



### 566F

All roller gap settings are automated for the actual sheet thickness inserted to the caliper.



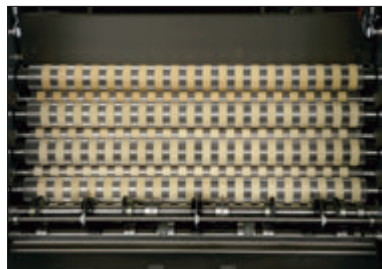
## Color LCD Touchscreen

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



## Superior Folding Quality

Superior and consistent fold quality is ensured with steel and soft-formed polyurethane combination rollers. A high precision stepper motor is employed for fine-tuning in 0.005 mm steps with a simple touch of the + or - button.



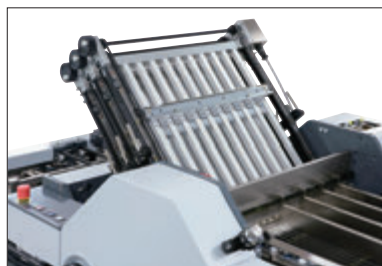
### 566F

### 566AKT

## 6 Buckle Plates

The AFC-566F and AFC-566AKT is equipped with 6 buckles, 1 cross knife and 2 buckles under the cross knife, allowing a wide variety of fold patterns in minimal floor space.

\* The AFC-564AKT is equipped with 4 buckles.



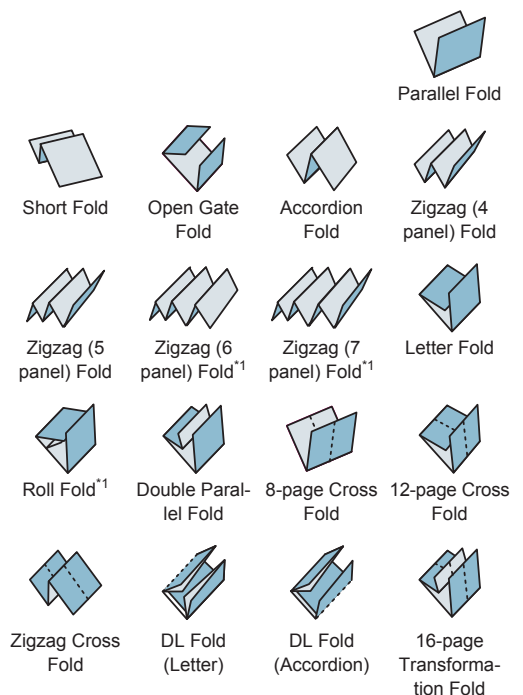
## Automated Setup Sections

566F	38 sections (All sections listed below)
566AKT	12 sections
564AKT	10 sections

- Suction Head
- Table Guide
- Side Lay Guide
- 1st Buckle
- 2nd Buckle
- 3rd Buckle
- 4th Buckle
- 5th Buckle
- 6th Buckle
- Knife Stopper
- Knife Guides (Front/Rear)
- K1 Buckle below Knife
- K2 Buckle below Knife
- Roller Gap for 1st through 7th Rollers (Front/Rear)
- Perforation Rollers (Front/Rear)
- Knife Rollers (Left/Right)
- Roller Gap for 8th through 10th Rollers (Left/Right)

## Automated Setup Fold Patterns

566F	17 fold patterns (All patterns listed below)
566AKT	17 fold patterns (All patterns listed below)
564AKT	14 fold patterns (Except for the patterns marked with *1.)



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



## High-speed Feeder

Horizon's advanced rotary suction feed system with side blowing assist air for fast, consistent feeding of a wide range of paper stocks.

### 566F

The supersonic and photoelectric double feed detect sensors come standard for superior detection.



The above photos show the AFC-566FG.  
Left Photo: Side blowing assist air is an option for the AFC-566A/564A.  
Right Photo: Supersonic sensor is an option for the AFC-566A/564A.

## Remarkable Features of the Fully-Automatic AFC-566F

### 566F

AFC-566FG now has many key productivity and user-friendly design enhancements.

### Wireless Remote Controller



Wireless remote controller enables common operations and adjustments to be performed from all areas of the system for greater flexibility, performance and ease-of-use.



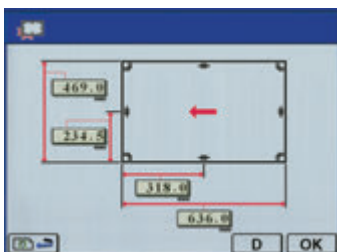
AFC-566F + PST-40

### New features for efficient production.



#### Advanced double feed control

Newly designed double sheet control system allows double feeds to stop immediately on the register table for ease of recovery and reduced machine downtime.



#### Signature set up based on fold marks.

Signature can be set up based on a fold mark in a printed job. Just by inputting the distance between edge of the sheet to the folding mark, the signature can be set up exactly to the imposition.



#### Quick adjust for accordion fold

In case a sheet is not folded evenly in the accordion-fold. Simply input the measurement of difference on the last fold, and the folding is corrected instantly.



#### Intermittent conveyor movement

Intermittent conveyor movement mode can be selected to neatly stack the folded sheet on the delivery conveyor.



#### Maintenance reminder screen

This screen reminds the operator of maintenance needs such as lubricating timing and filter cleaning to keep the machine in good condition.

# Further Details

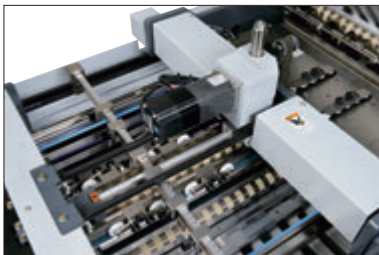
## Buckle

Specially-coated buckle plates minimize paper friction to maintain fold accuracy. All the buckles are set up automatically with precise stepper motor drives for the sheet size and fold pattern selected. Each buckle has an integrated deflector/stopper.



## Knife Fold Section

Knife timing and knife angle can be adjusted easily. The servo motor controlled knife enables high-speed folding. Transport belts (four belts for AFC-566FG, two belts for AFC-566A/564A) and hold rollers ensure consistent transportation even for two-up applications.



## Delivery Conveyor

Conveyor height is easily adjusted by the hand wheel to the proper sheet delivery height.

## Folding Roller Below Knife

The uniquely designed combination of soft polyurethane foam rubber and steel rollers have superior grip for sharp, consistent folding.

## Sub Operation Panel

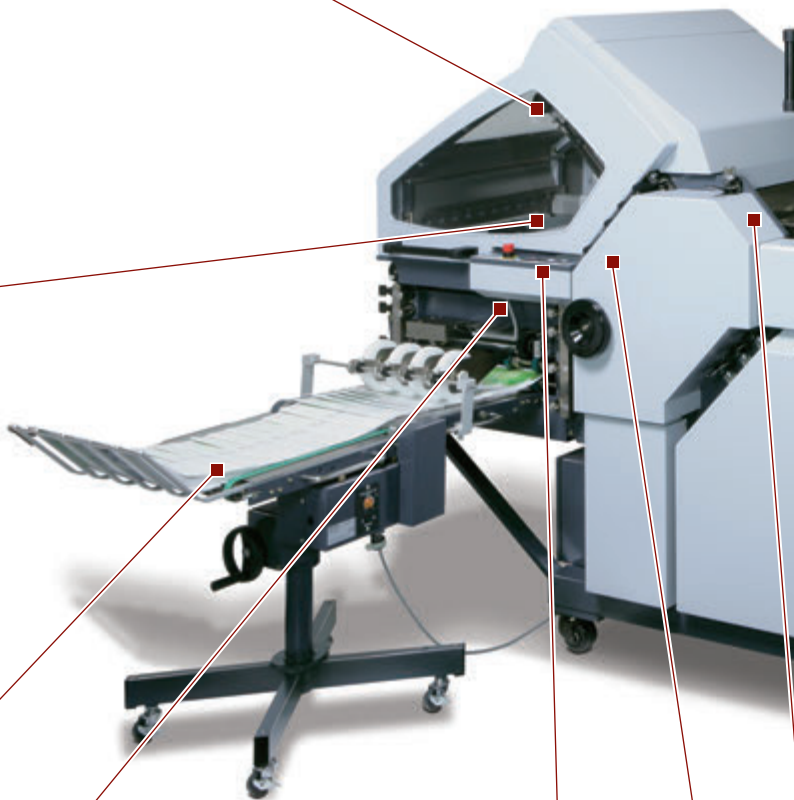
Start, Stop, Inching, Single Knife-actuation, and Test Feeding are performed at this panel.

## Perforation

Perforation, slit perforation, scoring, slitting and strip trimming can be performed inline. The perforation shaft is quick and easy to install or detach. Perforation shaft lifts up from the screen for easy perforation/scoring positioning.



AFC-566AKT



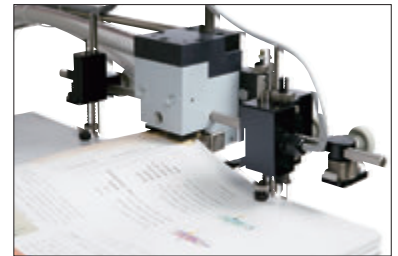
### Control Panel

An icon-based color interface provides easy operation. For set-ups, simply select one of the fold patterns from the graphical display and input sheet size. Up to 200 job settings can be memorized for quick and easy recall of regular jobs.



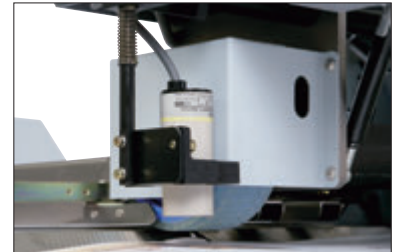
### Suction Head

An innovative detection system is employed for accurate and stable suction head positioning to achieve consistent feeding.



### Feed Rotor

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



### Feed Table Knob

The feed table knob can adjust the table position to fine-tune the sheet feeding position.

### Sheet Transportation

The side lay guide is coated with a special anti-static plating. The newly designed rigid side lay guide ensures accurate and smooth transportation of a wide range of paper stocks.



### Folding Rollers

The uniquely designed combination of soft polyurethane foam rubber and steel rollers have superior grip for sharp, consistent folding. The fold roller system employs helical gears for quiet operation and flexible cross couplings for minimal wear.



\*The right photo shows the AFC-566FG. Roller gap is automatically set on the AFC-566FG only.



# Optional Accessories

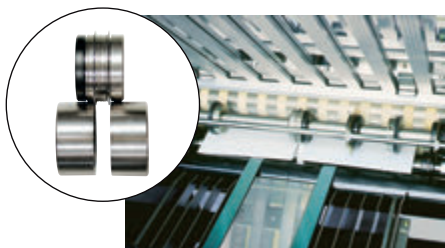
## Round Pile Feeder Unit RFU-54

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



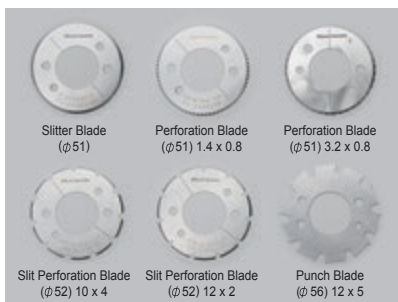
## Strip Trim Device AF-ST5/ST5N

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)



## Blades

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



Unit : mm (Cut x Blank)

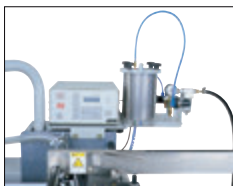
## Mobile Knife Fold Unit MKU-54T

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.



## Gluing Unit CGU-50

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



Gluing Unit Controller



Glue Gun

## Strip & Edge-Trim Device CGU-T56F

Center strip trim and edge trim are available under the cross knife. Segmented rollers allows flexible adjustment of the cutting positions. (CGU-T56 is available for AFC-566AKT/564AKT.)



## 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.



## Mobile Knife Fold Unit MKU-38

The MKU-38 can be connected with various folders as an additional knife unit. A wide range of applications are covered with a sheet size of 90 mm / 3.54" to 380 mm / 14.96".



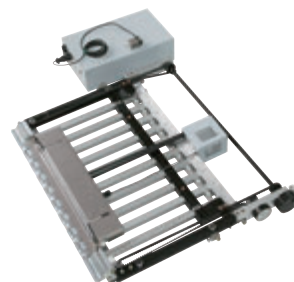
## Front Perforation Unit FP-56 (Factory Option)

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



## Gate Fold Buckle GFB-56

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



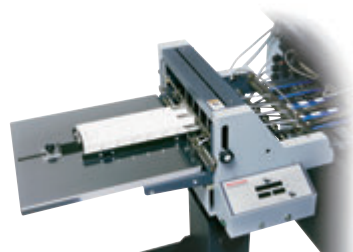
## Press Stacker with Pile Delivery PSX-56/56R

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.



## Standing Delivery Unit ED-40S

Increased efficiency for sheet counting and packing. Clean stacked sheets for easy handling. Batch kicking function allows accurate counting and packaging.





## Option List

### Feeder Section

Name	Model	Description	Factory Option	566FG	566A	564A
Round Pile Feeder Unit	RFU-54	Suitable for long-run jobs with easy reloading.	No	Yes	Yes	Yes
Extension Table	LT-56	Enables to load sheets up to 1,100 mm (43.3") long.	No	No	Yes	Yes
	LT-56F		Yes	Yes	No	No
Supersonic Double Feed Detect Sensor	SD-56/SD-56C	Detects space between sheets for accurate double feed detection even with a solid black printed sheet.	No	Standard	Yes	Yes
Side Blowing Unit	-	Side blowing assist air for stable feeding.	No	Standard	*	*
Image Checking System	-	A camera scans the printed image to identify any blank or misloaded sheets.	No	*	*	*
Barcode Reader	-	Incorporation check and misprinting detection.	No	*	*	*

### Folding Section

Name	Model	Description	Factory Option	566FG	566A	564A
Gluing Unit	CGU-K56+CGU-50	Produces 8-page or 12-page glued booklets. Additional air source (CGU-50COM) is necessary.	No	Yes	Yes	Yes
Front Perforation Unit	FP-56	Permits perforating before folding.	Yes	Yes	Yes	Yes
Skip Perforation Unit	FSP-56	Skip perforation is available. Additional controller and sensor are necessary when CGU-50 is not installed.	No	*	*	*
Strip Trim Device	AF-ST5/AF-ST5N	Strip trimming after the parallel fold section for multiple-up jobs.	No	Yes	Yes	Yes
Edge Trim Device	AF-ET5/AF-ET5N	Edge trimming for the parallel fold section.	No	Yes	Yes	Yes
Punch Perforation Unit	AF-PP5	Square punch perforation for 8-page or 12-page signatures. This helps to produce a strong book with deep glue penetration on the spine.	No	Yes	Yes	Yes
Strip Trim Device below Knife	KT-ST5	Strip trimming after the cross fold section for multiple-up jobs.	No	*	*	*
Strip & Edge Trim Device below Knife	CGU-T56F	Strip and edge trimming for 8-page or 12-page signatures.	No	Yes	No	No
	CGU-T56		No	No	Yes	Yes
Edge Trim Device below Knife	CGU-T56FN	Edge trimming for 8-page or 12-page signatures.	No	Yes	No	No
	CGU-T56N		No	No	Yes	Yes
Punch Perforation Unit below 1st Knife	KT-PP56	Square punch perforation for 16-page signatures with cross knife unit connection.	No	Yes	Yes	Yes
Gate Fold Buckle	GFB-56	Easy adjustment for precise, accurate gate folding.	No	Yes	Yes	Yes
Blades	-	Scoring, slit perforation, slitter, perforation and punch blades are available for various applications.	No	Yes	Yes	Yes
Flat Deflector	-	Replaceable flat type deflector with parallel buckle.	No	Yes	Yes	Yes

### Delivery Section

Name	Model	Description	Factory Option	566FG	566A	564A
Press Stacker	PST-40	Compresses the signatures for reduced bulk and tighter folds.	No	Yes	Yes	Yes
Press Stacker with Pile Delivery	PSX-56	Stacked signatures or booklets are pressed and delivered to a comfortable working height.	No	Yes	Yes	Yes
Press Stacker with Pile Delivery	PSX-56R	Stacked signatures or booklets are pressed and delivered to a comfortable working height. The PSX-56R is for opposite delivery direction.	No	Yes	Yes	Yes
Mobile Knife Fold Unit	MKU-54T	One buckle below the knife is standard.	No	Yes	Yes	Yes
Mobile Knife Fold Unit	MKU-38	Compact knife unit handles a wide range of sheet size.	No	Yes	Yes	Yes
Standing Delivery Unit	ED-40S	Increased efficiency for sheet counting and packing.	No	Yes	*	*

### Others

Name	Model	Description	Factory Option	566FG	566A	564A
JDF Network System	pXnet	Automated bindery control system with JDF workflow	No	Yes	Yes	Yes

\* Contact your local dealer about availability of connection.

# Specifications

## Machine Dimensions [Unit : mm / inch]

Model	AFC-566F	AFC-566AKT	AFC-564AKT
Parallel Fold	<p>Height 1,580 / 62.3"</p> <p><sup>*1</sup> Min. 630 mm / 24.9" to Max. 860 mm / 33.9" when connecting with the optional short conveyor SCV-54.</p>	<p>Height 1,580 / 62.3"</p> <p><sup>*1</sup> Min. 630 mm / 24.9" to Max. 860 mm / 33.9" when connecting with the optional short conveyor SCV-54.</p>	<p>Height 1,580 / 62.3"</p> <p><sup>*1</sup> Min. 630 mm / 24.9" to Max. 860 mm / 33.9" when connecting with the optional short conveyor SCV-54.</p>
	<p>Height 1,580 / 62.3"</p> <p><sup>*2</sup> Min. 480 mm / 18.9" to Max. 710 mm / 28.0" when connecting with the optional short conveyor SCV-54.</p>	<p>Height 1,580 / 62.3"</p> <p><sup>*2</sup> Min. 480 mm / 18.9" to Max. 710 mm / 28.0" when connecting with the optional short conveyor SCV-54.</p>	<p>Height 1,580 / 62.3"</p> <p><sup>*2</sup> Min. 480 mm / 18.9" to Max. 710 mm / 28.0" when connecting with the optional short conveyor SCV-54.</p>
Extended Connection with Optional Devices	<p>Height 1,580 / 62.3"</p> <p><sup>*3</sup> Machine dimensions not including the delivery conveyor.</p>	<p>Height 1,580 / 62.3"</p> <p><sup>*3</sup> Machine dimensions not including the delivery conveyor.</p>	<p>Height 1,580 / 62.3"</p> <p><sup>*3</sup> Machine dimensions not including the delivery conveyor.</p>

## Specifications

Model		AFC-566F	AFC-566AKT	AFC-564AKT
Machine Structure		6KTT (6 Buckles+Fold Knife+2 Buckles Below Knife)		4KTT (4 Buckles+Fold Knife+2 Buckles Below Knife)
Sheet Size		<b>Width x Length</b> Max. 558 x 850 mm / 21.965" x 33.460" [Length 1,100 mm / 43.310" with optional extension table] Min. 128 x 148 mm / 5.040" x 5.830" [Register guide minimum set position : width 74 mm / 3.0"]		
Sheet Weight Range		Normal Paper 35 to 244 gsm Art/Coated Paper 50 to 232 gsm	35 to 220 gsm	
Buckle Fold Length		1st / 2nd / 3rd / 5th Buckle : 30 to 450 mm / 1.2" to 17.7" 4th / 6th Buckle : 30 to 360 mm / 1.2" to 14.1"		1st / 2nd / 3rd / Buckle : 30 to 450 mm / 1.2" to 17.7" 4th Buckle : 30 to 360 mm / 1.2" to 14.1"
Belt Speed		30 to 240 meters (99 to 787 feet) per minute Knife Fold 200 meters (656 feet) per minute	30 to 230 meters (99 to 754 feet) per minute Knife Fold 180 meters (590 feet) per minute	
Voltage / Frequency		3-Phase 200 / 400 V, 50 / 60 Hz 3-Phase 220 V, 60 Hz	3-Phase 200 / 220 / 400 V, 50 / 60 Hz	
Machine Dimensions	Main Body	W3,260 x D1,050 x H1,580 mm W128.4" x D41.4" x H62.3"	W3,050 x D1,050 x H1,580 mm W120.1" x D41.4" x H62.2"	W3,020 x D1,050 x H1,580 mm W118.9" x D41.4" x H62.3"
	Conveyor	1,320 x D600 x H1,130 mm / W52.0" x D23.7" x H44.5"		

Model		PST-40
Press Width		Max. 440 mm / 17.3" (without offset : 470 mm / 18.5")
Offset Amount		30 mm / 1.1"
Number of Press Rollers		Two Sets(Air Remove Roller , Press Roller)
Production Speed		Max. 230 meters per minute (905.5" per minute)(depending on fold device)
Voltage / Frequency		3-phase 200 to 220 V, 50 / 60 Hz Single Phase 220 to 240 V, 50 / 60 Hz
Machine Dimensions		W1,230 x D790 x H1,230 mm / W48.5" x D31.1" x H48.5" (when housing the infeed section and receiving tray into the machine) W1,850 x D790 x H1,230 mm / W72.9" x D31.1" x H48.5" (when using the infeed section and receiving tray)

Model		MKU-54T
Sheet Size		<b>Width x Length</b> Max. 538 x 350 mm / 21.1" x 13.7" Min. 165 x 80 mm / 6.5" x 3.2"
Sheet Weight Range		Uncoated Paper 35 to 244 gsm
Belt Speed		50 to 180 meters per minute
Max.Folding Thickness		Max. 0.6 mm / 0.024 Booklet of 12 pages [81gsm] , Booklet of 16 pages [64gsm]
Buckle Fold Length		60 to 150 mm / 2.36" to 5.90"(Manual Setting)
Voltage / Frequency		Single Phase 208 to 240 V, 50 / 60 Hz
Machine Dimensions		W860 x D1,180 x H1,280 mm / W33.9" x D46.5" x H50.4"

Model		PSX-56/56R
Sheet Size		<b>Width x Length</b> Max. 546 x 330 mm / 21.49" x 12.99" Min. 128 x 92 mm / 5.04" x 3.63"
Sheet / Booklet Thickness		Max. 4 mm / 0.15"
Stack Height		Max. 200 mm / 7.87" Min. 10 mm / 0.40"
Production Speed		Max. 900 stacks per hour (With continuous motion of the pushers)
Number of Press Rollers		Two Sets (Air Remove Roller , Press Roller)
Voltage / Frequency		3-phase 200 to 220 V, 50 / 60 Hz Single Phase 200 to 240 V, 50 / 60 Hz
Machine Dimensions		W2,120 x D2,280 x H1,080 mm / W83.5" x D89.8" x H42.6"

Model		MKU-38
Sheet Size		<b>Width x Length</b> Max. 380 x 280 mm / 14.9" x 11.0" Min. 90 x 20 mm / 3.6" x 0.8"
Sheet Weight Range		Uncoated Paper 35 to 210 gsm
Belt Speed		30 to 180 meters per minute 99 to 590 feet per minute
Max.Folding Thickness		Up to 2.3 mm / 0.09" thickness of folded sheet
Voltage / Frequency		Single Phase 200 to 240 V, 50 / 60 Hz
Machine Dimensions		W685 x D858 x H1,283.5 mm / W27.0" x D33.8" x H50.6"

Model		ED-40S
Sheet Size		<b>Width x Height</b> Max. 400 x 110 mm / 15.74" x 4.33" Min. 30 x 20 mm / 1.19" x 0.79"
Thickness of Folded Piece		Max. 3 mm / 0.12"
Stack Capacity		Max. 395 mm / 15.55" Min. 5 mm / 0.20"
Belt Speed		30 to 160 meters per minute
Offset Amount		Minimum Offset: Five sheets
Voltage / Frequency		Single Phase 200 to 240V, 50 / 60 Hz





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

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