

# Horizon

FOLDING

# AFC-56 Series

AFC-566AKT / 564AKT



# 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.

## BENEFITS

### ADVANCED AUTOMATION

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 **566AKT** , 14 fold patterns are set on **564AKT** .

### EASY SETUP

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.

### HIGH QUALITY

Fold rollers are constructed with a combination of steel and soft polyurethane for superior grip and sharp, consistent folding. Horizon's advanced rotary suction feed system delivers fast, consistent feeding on a wide range of paper stocks.

### FLEXIBLE CONFIGURATION

The optional extension table enables to load the sheets up to 1,100 mm or 43.3" long.

### EASY ADJUSTMENT OF SCORING ROLLERS

Up to 200 job settings can be memorized for quick and easy recall of regular job.

### MANAGE YOUR BINDERY WITH HORIZON'S BINDERY CONTROL SYSTEM

The system can be enhanced with automated workflow from upstream to post-press with iCE LiNK, which uses cloud technology, Horizon's post-press management system.





# AFC-56 SERIES FEATURES.

## AUTOMATED SETUP

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

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



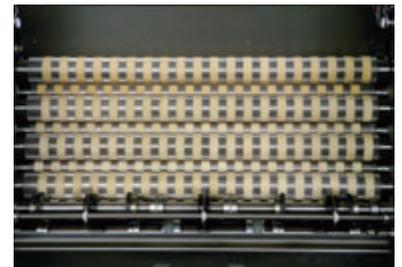
## COLOR LCD TOUCHSCREEN

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.



## 6 BUCKLE PLATES 566AKT

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.



## 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.



Side blowing assist air is an option.



Supersonic sensor is an option.

## AUTOMATED SETUP SECTIONS

**566AKT** 12 sections

**564AKT** 10 sections

		DESCRIPTIONS	
Feeder Section	Side Lay Guide	<b>566AKT</b>	<b>564AKT</b>
Fold Section	1st - 4th Buckle	<b>566AKT</b>	<b>564AKT</b>
	5th Buckle / 6th Buckle	<b>566AKT</b>	
	Knife Stopper	<b>566AKT</b>	<b>564AKT</b>
	Knife Guides (Front / Rear)	<b>566AKT</b>	<b>564AKT</b>
	K1 Buckle below Knife	<b>566AKT</b>	<b>564AKT</b>
	K2 Buckle below Knife	<b>566AKT</b>	<b>564AKT</b>

## AUTOMATED SETUP FOLD PATTERNS

<p><b>566AKT</b></p> <p><b>17 fold patterns</b> (All patterns listed below)</p> <p><b>564AKT</b></p> <p><b>14 fold patterns</b> (Except for the patterns marked with *1)</p> <p>Nonstandard fold patterns can also be set up automatically by inputting the setup size for each fold.</p>						
	Single Fold	Short Fold	Gate Fold	Accordion Fold	Zigzag Fold (4 panel)	Zigzag Fold (5 panel)
	Zigzag Fold (6 panel) *1	Zigzag Fold (7 panel) *1	Letter Fold	Round Parallel Fold (4 panel) *1	Double Parallel Fold	8-page Cross Fold
12-page Cross Fold	Zigzag Cross Fold	DM Fold (Letter)	DM Fold (Accordion)	16-page Cross Fold		

# DETAILS FOR EACH SECTION.



## 1 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.



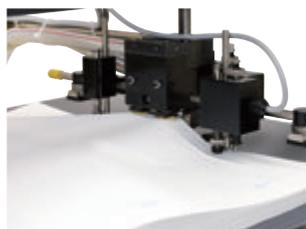
## 3 FEED ROTOR

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



## 2 SUCTION HEAD

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



## 4 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.





## 7 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.



## 5 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.



## 8 KNIFE FOLD SECTION

Knife timing and knife angle can be adjusted easily. The servo motor controlled knife enables high-speed folding. Two Transport belts and hold rollers ensure consistent transportation even for two-up applications.



## 6 FOLD 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.



### Sub Operation Panel

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

## 9 DELIVERY CONVEYOR

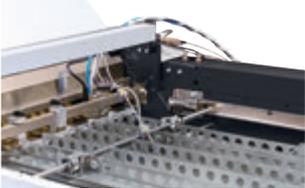
Conveyor height is easily adjusted by the hand wheel to the proper sheet delivery height.

# OPTIONS.

## Performance Enhancing Options.

### CGU-51 GLUING UNIT

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



Glue Gun



Gluing Unit Controller

### BLADES

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

Unit : mm (Cut × Blank)



Slitter Blade  
(Φ51)

Perforation  
Blade (Φ51)  
1.4×0.8

Perforation  
Blade (Φ51)  
3.2×0.8

Slit Perforation  
Blade  
(Φ52) 10×4

Slit Perforation  
Blade (Φ52)  
12×2.4

Punch Blade  
(Φ56) 12×5

### PSX-56 / PSX-56R PRESS STACKER WITH PILE DELIVERY

- 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.



### PST-66 / PST-44 / PST-44L PRESS STACKER

- First roller removes the air and second roller compresses the signature to reduce bulk. Batch separation is available to maximize productivity.



PST-44

### AF-ST5 / ST5N STRIP TRIM DEVICE

- 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)



### GFB-56 GATE FOLD BUCKLE

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



### MKU-54T MOBILE KNIFE FOLD UNIT

- 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.



### ED-40S STANDING DELIVERY UNIT

- Standing delivery stacker increases the efficiency for sheet packing. Batch kicking function allows accurate counting.



## FEEDER SECTION

NAME	MODEL	DESCRIPTION	566AKT	564AKT
Extension Table	LT-56	Enables to load sheets up to 1,100 mm or 43.3" long.	Yes	Yes
Supersonic Detector	SD-56 / SD-56C	Detects space between sheets for accurate double feed detection even with a solid black printed sheet.	Yes	Yes
Side Blowing Unit	-	Side blowing assist air for stable feeding.	*	*
Image Checker	-	A camera scans the printed image to identify any blank or misloaded sheets.	*	*
Barcode Reader	-	Barcode scanning at resistor table for higher security control.	*	*
Ionizer	-	The ionizer reduces the static on the paper to minimize static related feed / folding issues.	*	*

## FOLDING SECTION

NAME	MODEL	DESCRIPTION	566AKT	564AKT
Gluing Unit	CGU-K56 + CGU-50	Gluing gun and controller to produce glued booklet.	Yes	Yes
Front Perforation Unit	FP-56 <sup>*1</sup>	Front perforation unit. Only available as factory option.	Yes	Yes
Skip Perforation Unit	JM-AFC	Skip perforation unit. Only available with FP-56.	*	*
Strip Trim Device	AF-ST5 / AF-ST5N	Strip trimming after the parallel fold section for multiple-up jobs.	Yes	Yes
Edge Trim Device	AF-ET5 / AF-ET5N	Edge trimming for the parallel fold section.	Yes	Yes
Punch Perforation Unit	AF-PP5	Punch perforation for 8 or 12 page signature for deep glue penetration when producing perfect bound book.	Yes	Yes
	AF-PP5N			
Strip Trim Device below Knife	KT-ST5	Strip trimming after the cross fold section for multiple jobs.	*	*
Strip & Edge Trim Device below Knife	CGU-T56	Strip and edge trimming for 8-page or 12-page signatures.	Yes	Yes
Edge Trim Device below Knife	CGU-T56N	Edge trimming for 8-page or 12-page signatures.	Yes	Yes
Punch Perforation Unit below 1st Knife	KT-PP56 <sup>*2</sup>	Punch perforation for 16-page signatures with cross knife unit connection.	Yes	Yes
Gate Fold Buckle	GFB-56	Gate fold buckle to produce closed gate fold application.	Yes	Yes
Hard Urethane Roller for Parallel Fold	-	The wear-resistant hard urethane rollers. (segmented)	*	*
Sound-Proof Cover (Full Cover)	AF-FCV566	The sound proof cover achieves quiet and safe operation.	Yes	No
Sound -Proof Cover (Upper Cover)	AF-UCV564	The sound proof cover achieves quiet and safe operation. This cove is available only for the buckle chute section.	No	Yes
Flat Deflector (Parallel)	-	The flat type deflector. Replaces the parallel folding buckle.	Yes	Yes
Flat Deflector (Below Knife)	-	The flat type deflector. Replaces the buckle below knife.	Yes	Yes

## DELIVERY SECTION

NAME	MODEL	DESCRIPTION	566AKT	564AKT
Press Stacker	PST-66	Up to 660 mm or 26" width sheets can be received. 1.2 tons of pressure can be applied for tighter fold quality.	Yes	Yes
Press Stacker	PST-44 / PST-44L	Up to 440 mm or 17.3" width sheets can be received. Two models are available depending on space requirements.	Yes	Yes
Press Stacker with Pile Delivery	PSX-56	Tightly pressed signatures are stacked and delivered at a comfortable height.	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.	Yes	Yes
Mobile Knife Fold Unit	MKU-54T	Mobile knife unit with buckle under the knife.	Yes	Yes
Mobile Knife Fold Unit	MKU-38	Mobile knife unit for additional knife fold.	Yes	Yes
Standing Delivery Unit	ED-40S	Standing delivery for easy handling and packaging.	Yes	Yes

\* Contact your local dealer about availability of connection.

\*1 FP-56T for the T-564F

\*2 The additional CGU-T56 is required to install.

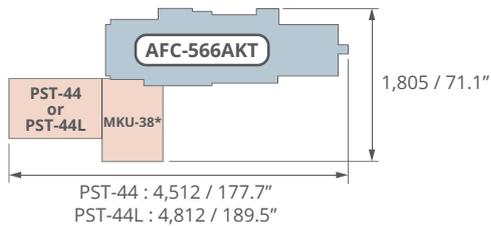
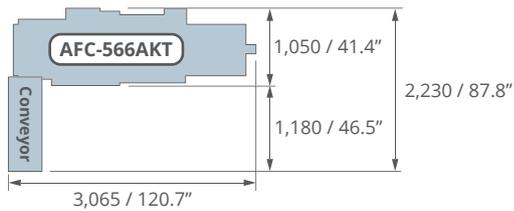
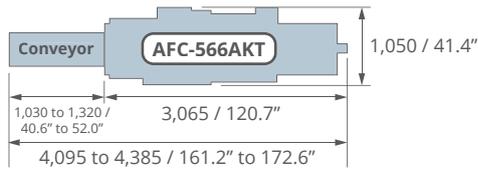
# SPECIFICATIONS.

## Machine Dimensions. (Unit : mm / inch)

Height : 1,580 / 62.3"

### AFC-566AKT

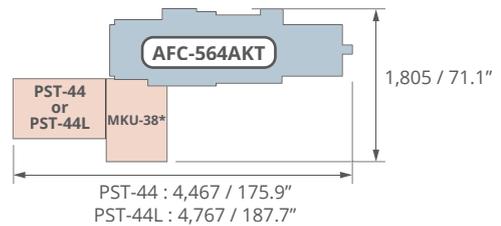
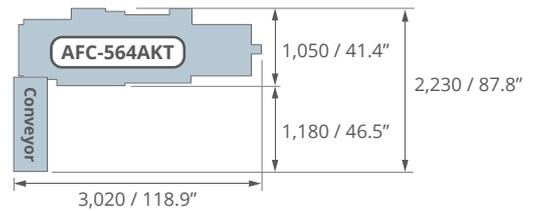
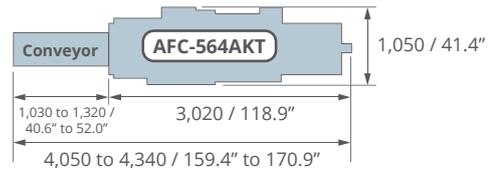
(Top View)



\*Machine dimensions not including the delivery conveyor.

### AFC-564AKT

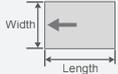
(Top View)



\*Machine dimensions not including the delivery conveyor.

## AFC-566AKT

## AFC-564AKT

<b>Machine Structure</b>	6KTT (6 Buckles + Fold Knife + 2 Buckles Below Knife)	4KTT (4 Buckles + Fold Knife + 2 Buckles Below Knife)
<b>Sheet Size</b>	 <b>Width × Length</b> Max. 558 × 850 mm or 21.965" × 33.460" (Length 1,100 mm or 43.310" with optional extension table) Min. 128 × 148 mm or 5.040" × 5.830" (Register guide minimum set position : width 74 mm or 3.0")	
<b>Sheet Weight Range</b>	Uncoated Paper 40 to 250 gsm, Coated Paper 50 to 232 gsm	
<b>Belt Speed</b>	30 to 230 meters per minute or 99 to 754 feet per minute, Knife Fold 180 meters per minute or 590 feet per minute	
<b>Production Speed</b>	Suction Head 40,000 cycles per hour, Knife 21,000 cycles per hour	
<b>Buckle Fold Length</b>	1st / 2nd / 3rd / 5th Buckle : 30 to 450 mm or 1.2" to 17.7" 4th / 6th Buckle : 30 to 360 mm or 1.2" to 14.1" K1 / K2 Buckle : 30 to 150 mm or 1.2" to 5.9"	1st / 2nd / 3rd / Buckle : 30 to 450 mm or 1.2" to 17.7" 4th Buckle : 30 to 360 mm or 1.2" to 14.1"
<b>Vacuum Pump</b>	Flow : 40 m <sup>3</sup> per hour Voltage / Frequency : 3-phase Delta Connection : 230 / Y400 V ± 10 % 50 or 60 Hz Power Consumption : 1.8 / 2.2 kW (50 or 60 Hz)	
<b>Voltage / Frequency</b>	3-Phase 200 / 220 / 400 V, 50 or 60 Hz	
<b>Machine Dimensions</b>	<b>Main Body</b>	W3,065 × D1,050 × H1,580 mm or W120.7" × D41.4" × H62.2"
	<b>Conveyor</b>	W1,320* × D600 × H1,130 mm or 52.0" × 23.7" × 44.5" (*Minimum W : 1,030 mm or 40.6")

## PST-66

<b>Signature Size</b>	 <b>Maximum Width</b> With Offset Delivery : 660 mm or 25.984" Without Offset Delivery : 690 mm or 27.165" (In either delivery, the maximum width is 380 mm or 14.96" when the extension belt section is used.) <b>Minimum Length</b> 50 mm or 1.969" (When the extension belt section is used.)
<b>Signature / Booklet Thickness</b>	Max. 4 mm or 0.15"
<b>Production Speed</b>	Press Roller Speed : 30 to 180 m per minute
<b>Offset Amount</b>	30 mm or 1.18"
<b>Number of Press Rollers</b>	Air Remove Roller × 1 Press Roller × 1
<b>Voltage / Frequency</b>	3-phase 200 to 220 V, 50 or 60 Hz Single Phase 200 to 240 V, 50 or 60 Hz
<b>Machine Dimensions</b>	W2,145 × D1,159 × H1,359 mm or W84.5" × D45.7" × H53.6"

## PST-44 / PST-44L

<b>Signature Size</b>	 <b>Maximum Width</b> With Offset Delivery : 440 mm or 17.322" Without Offset Delivery : 470 mm or 18.503" (In either delivery, the maximum width is 380 mm or 14.96" when the extension belt section is used.) <b>Minimum Length</b> 50 mm or 1.969" (When the extension belt section is used.)
<b>Signature / Booklet Thickness</b>	Max. 4 mm or 0.15"
<b>Production Speed</b>	Press Roller Speed : 30 to 180 m per minute
<b>Offset Amount</b>	30 mm or 1.18"
<b>Number of Press Rollers</b>	Air Remove Roller × 1 Press Roller × 1
<b>Voltage / Frequency</b>	3-phase 200 to 220 V, 50 or 60 Hz Single Phase 200 to 240 V, 50 or 60 Hz
<b>Machine Dimensions</b>	PST-44 : W1,845 × D980 × H1,359 mm or W72.7" × D38.6" × H53.6" PST-44L : W2,145 × D980 × H1,359 mm or W84.5" × D38.6" × H53.6"

## PSX-56 / PSX-56R

<b>Signature Size</b>	 <b>Width × Length</b> Max. 546 × 330 mm or 21.496" × 12.992" Min. 128 × 92 mm or 5.04" × 3.622"
<b>Signature / Booklet Thickness</b>	Max. 4 mm or 0.15"
<b>Stack Height</b>	Max. 200 mm or 7.87" Min. 10 mm or 0.40"
<b>Production Speed</b>	Max. 900 stacks per hour (With continuous motion of the pushers)
<b>Number of Press Rollers</b>	Two Sets (Air Remove Roller, Press Roller)
<b>Voltage / Frequency</b>	3-phase 200 to 220 V, 50 or 60 Hz Single Phase 200 to 240 V, 50 or 60 Hz
<b>Machine Dimensions</b>	W2,120 × D2,280 × H1,080 mm or W83.5" × D89.8" × H42.6"

## MKU-54T

<b>Signature Size</b>	 <b>Width × Length</b> Max. 538 × 350 mm or 21.1" × 13.7" Min. 165 × 80 mm or 6.5" × 3.2"
<b>Sheet Weight Range</b>	Uncoated Paper 35 to 244 gsm
<b>Belt Speed</b>	50 to 180 meters per minute
<b>Belt and Roller Gap</b>	Fold Roller Section : Max. 2 mm or 0.024" *When making a letter fold using a A4 size booklet : Up to 3 sheets (12 pages) of normal paper of 81 gsm Up to 4 sheets (16 pages) of normal paper of 64 gsm
<b>Buckle Fold Length</b>	60 to 150 mm or 2.36" to 5.90" (Manual Setting)
<b>Voltage / Frequency</b>	Single Phase 208 to 240 V, 50 or 60 Hz
<b>Machine Dimensions</b>	W860 × D1,100 × H1,280 mm or W33.9" × D43.3" × H50.4"

## MKU-38

<b>Signature Size</b>	 <b>Width × Length</b> Max. 380 × 280 mm or 14.9" × 11.0" Min. 90 × 20 mm or 3.6" × 0.8"
<b>Sheet Weight Range</b>	Uncoated Paper 35 to 210 gsm
<b>Belt Speed</b>	30 to 180 meters per minute 99 to 590 feet per minute
<b>Belt and Roller Gap</b>	Fold Roller Section : Max. 4 mm or 0.157"
<b>Voltage / Frequency</b>	Single Phase 200 to 240 V, 50 or 60 Hz
<b>Machine Dimensions</b>	W685 × D858 × H1,283.5 mm or W27.0" × D33.8" × H50.6"

## ED-40S

<b>Signature Size</b>	 Max. Width 400 mm or 15.74" Length 150 mm or 5.90" Min. Width 30 mm or 1.19" Length 20 mm or 0.79" *Note * Note that even if the minimum height is 20 mm or 0.79" or above, depending on the opening amount of the signatures, the signatures can sometimes not be transported or delivered between the upstream device and the ED-40S.
<b>Thickness of Folded Piece</b>	Max. 3 mm or 0.12"
<b>Stack Capacity</b>	Max. 395 mm or 15.55" Min. 5 mm or 0.20"
<b>Belt Speed</b>	30 to 160 meters per minute
<b>Offset Amount</b>	Minimum Offset : Five sheets
<b>Voltage / Frequency</b>	Single Phase 200 to 240V, 50 or 60 Hz

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