

**Horizon**

Buckle Folder AF-406T6A

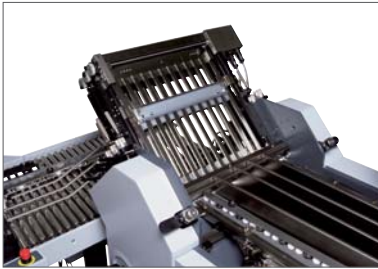
# AF-406T6A



i2i System  
Connectable Product

## Features

### Advanced Automation



Various fold patterns are automatically set by selecting the sheet size and fold pattern through the touchscreen. Advanced automation allows fine-adjustment by 0.1 mm.

### Intuitive Operation



The 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 Fold Quality



Superior and consistent fold quality is ensured with small diameter (30 mm) steel and soft-formed polyurethane combination rollers. Even pharmaceutical folds can be performed easily.

Stand-alone  
6-buckle

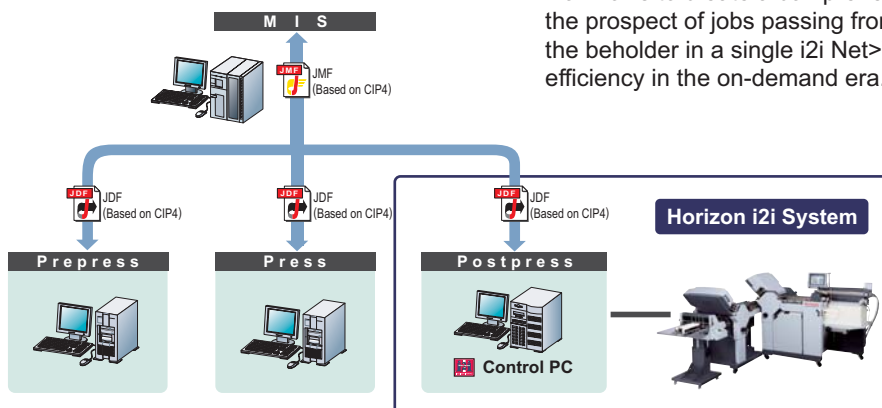


AF-406A+Standard Conveyor



## i2i System

Enhance the AF-406T6A with Horizon's unique i2i network flow system. **Option**



The Horizon i2i system can be integrated with pre-press and printing workflows to create a comprehensive automated CIP4 bindery with the prospect of jobs passing from the **eye** of the creator to the **eye** of the beholder in a single i2i Net>Work>Flow for ultimate flexibility and efficiency in the on-demand era.



Flexible Modular Design



6+6-buckle modular concept allows for flexible modular configuration and simple to complex fold patterns to cover most applications. 6-buckles on the 1st station and 6-buckles on the 2nd station can be combined as needed.

Standing Delivery Unit



Optional standing delivery unit is available to operate concertina / small format folding jobs more efficiently. Off-set stacking can be performed for accurate counting control.

Reliable Counting Mechanism



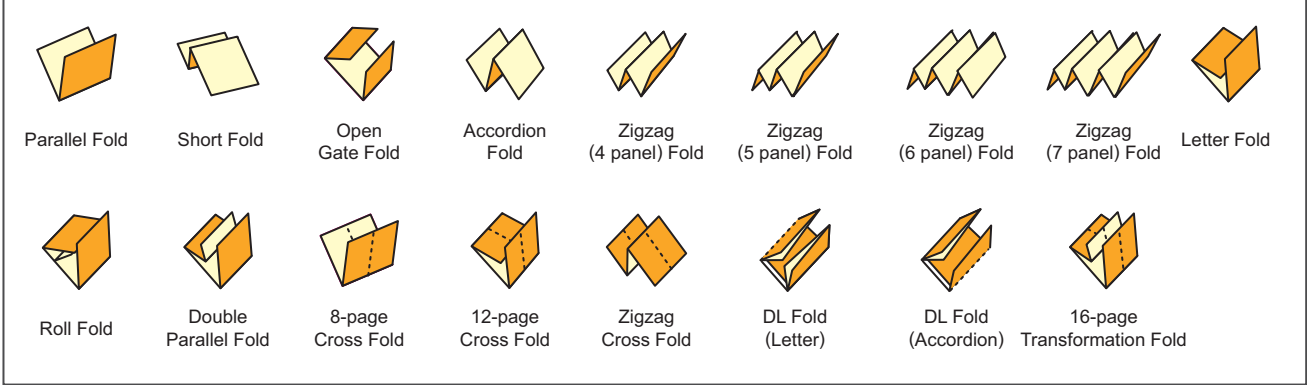
Double counter is equipped as standard at both feeder and delivery sections. This enables jobs that require accurate counting control, such as pharmaceutical folding.

Straight  
6+6-buckle



AF-406A+BG-406(Optional)+T-406A Straight Configuration+ED-40

Various fold patterns can be set up automatically.



# Versatile and Flexible folding machine performs diverse folding operations.

Horizon’s AF-406T6A adds a new dimension to pharmaceutical folder with short make-ready and intuitive operation.

- Graphical color touchscreen controls are intuitive for quick operator training and efficient operation.
- Advanced and accurate automation achieve short make-readies that reduces paper waste and energy consumption.
- 6+6-buckle modular concept allows for simple to complex fold patterns that maximize folding variations.
- Steel and soft-formed polyurethane combination rollers are employed for easy adjustment of roller gap pressure and short make-ready.
- Pharmaceutical folds can be set up automatically. Small fold dimensions down to 20 mm (0.79”) can also be performed.

## Automated Setup (13 Sections) Auto (\*Sections shown with “Auto” icon in this brochure are automatically set up.)

### AF-406A

- Side Lay Guide
- 1st Buckle
- 2nd Buckle
- 3rd Buckle
- 4th Buckle
- 5th Buckle
- 6th Buckle

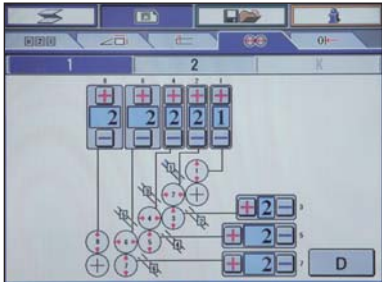
### T-406A

- 1st Buckle
- 2nd Buckle
- 3rd Buckle
- 4th Buckle
- 5th Buckle
- 6th Buckle

## Graphical User Interface



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



The number of sheets to be inserted into each gap adjust lever is indicated for quick setup.



Error navigation screen clearly locates the problem area for quick recovery.



## Control Panel 1



- Major settings can be performed easily through the icon-based color touchscreen.
- Up to 200 job settings can be memorized for quick and easy recall of regular jobs.
- Separate counters at the feeder and delivery ends of the folder can be set up for reliable, high security counting.

## Buckle Auto 2



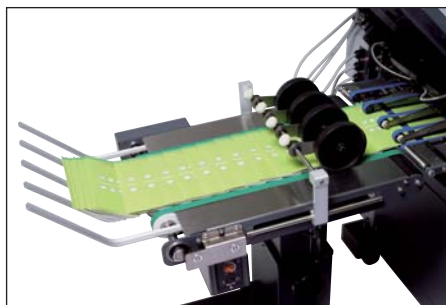
- Specially-coated buckle plates minimize paper friction to maintain fold accuracy.
- All the buckles are set up automatically with precise stepper motor drives for the sheet size and fold pattern selected.
- Each buckle has an integrated deflector/stopper.

## Fold Roller Drive 3



- Flexible cross couplings are employed for consistent drive of the fold rollers -- even with thick paper or complex folds -- and accurate folding performance over a long machine life.
- Horizon's unique belt drive system provides reliable, quiet operation.

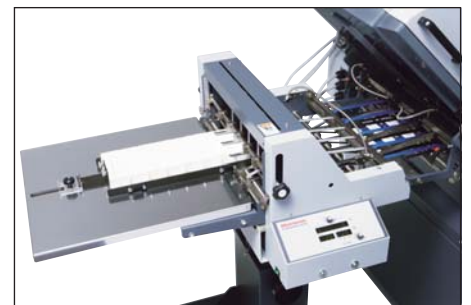
## Delivery Conveyor 4



### Standard Conveyor: DV-406

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

\*Standard accessory of AF-406A.



### Standing Delivery Unit: ED-40 (Option)

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

Right Angle  
6+6-buckle





AF-406A+BG-406(Optional)+T-406A Right Angle Configuration+ED-40

## Right Angle Conveyor 9



- Connected to the first station at a right angle, 6+6-buckle modular allows complex folding such as pharmaceutical fold and DL fold.
- Superior sheet aligning capability ensures consistent and accurate folding.

## Perforating / Scoring 8



- Perforating, scoring and slitting can be performed.
- Scoring is performed with urethane grooved lower rollers for easy score positioning.
- 3 sets of cutter blade holders and perforation blades are provided as standard equipment.
- 2 sets of scoring rollers come as standard equipment.

## Side Lay Guide Auto 5



- The side lay guide is coated with a special anti-static plating.
- Uniquely designed rigid side lay guide ensures accurate and smooth transportation of a wide range of paper stocks.
- Superior sheet aligning capability ensures consistent and accurate folding.

## Suction Head / Assist Air 6



- Innovative position detecting system precisely positions the suction head to ensure stable feeding.
- Easy air adjustment provides smooth feeding of various paper stocks.
- Side blowing assist air is employed for fast, consistent feeding.

## Feed Rotor 7



- Quality polyurethane rotor provides high speed feeding without scratching.
- Feed timing and feed interval can be adjusted through the touchscreen.
- Suction angle can be adjusted easily for various sheet types.

# System Configurations

## Configuration 1

Stand-alone 6-buckle

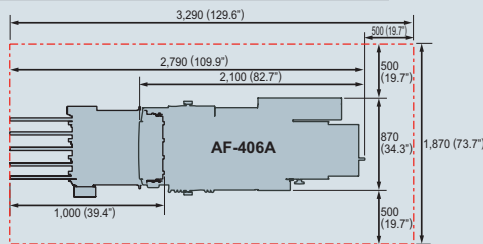


Stand-alone 6-buckle configuration for brochure or leaflet folding.

### AF-406A+Standard Conveyor



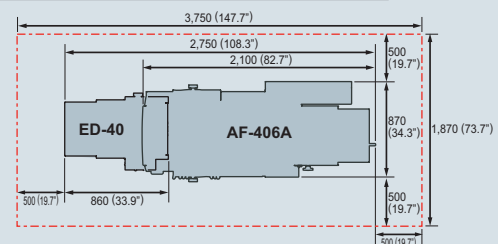
Machine Dimensions and Installation Space [Unit : mm (inch)]



### AF-406A+BG-406(Optional)+ED-40



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



## Configuration 2

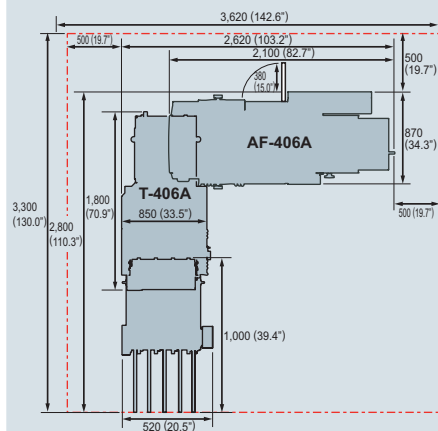
Right Angle 6+6-buckle



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

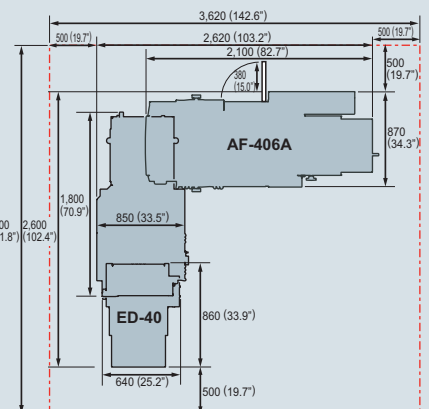
### AF-406A+T-406A Right Angle+Standard Conveyor

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



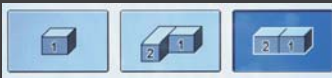
### AF-406A+BG-406(Optional)+T-406A Right Angle+ED-40

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



## Configuration 3

Straight 6+6-buckle

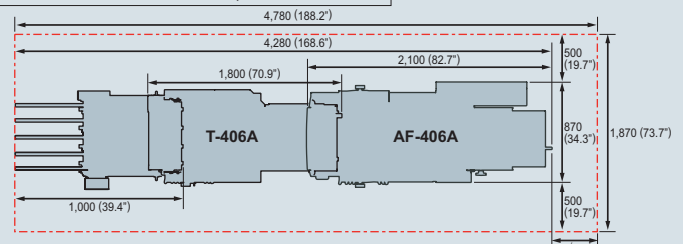


Straight 6+6-buckle modular system for maximum 10-buckle operation. Complex fold patterns can be performed using this configuration.

### AF-406A+T-406A Straight+Standard Conveyor



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





## AF-406A Major Specifications

Machine Structure	6/6 (6 Buckles and 6 Buckles)	
Sheet Size	Max. 400(W) x 650(L) mm (15.748" x 25.590") Min. 50(W) x 100(L) mm (1.969" x 3.938")	
Sheet Weight Range	35 to 157 gsm	
Buckle Fold Length	1st Buckle	20 to 350 mm (0.788" to 13.779")
	2nd Buckle	20 to 260 mm (0.788" to 10.236")
	3rd Buckle	20 to 350 mm (0.788" to 13.779")
	4th Buckle	20 to 260 mm (0.788" to 10.236")
	5th Buckle	20 to 350 mm (0.788" to 13.779")
	6th Buckle	20 to 260 mm (0.788" to 10.236")
Feeding Mechanism	Air Suction Rotor & 2 Cylinder Separator Head (Feed interval and suction time are adjustable.)	
Maximum Pile Height	Max. 500 mm (19.6") [within 150 kg (330.7 lb.)]	
Belt Speed	50 to 180 m (54 to 196 yd)/min.	
Production Speed	30,000 sheets/hr. [A4 (8.5" x 11") Parallel Fold]	
Standard Fold Roller	Combination of Soft Polyurethane Foam Rubber and Steel Roller	
Roller Gap Adjustment	Insert the instructed number of sheets into the gap adjust lever.	
Slit Perforation	Cut 6 mm (0.24"), Blank 4 mm (0.16") (option)	
Perforation	Cut 2.5 mm (0.1"), Blank 0.8 mm (0.03") [Option : Cut 3.2 mm (0.13"), Blank 0.8 mm (0.03") / Cut 1.4 mm (0.06"), Blank 0.8 mm (0.03")]	
	Min. Perforation Distance : 20 mm (0.79") 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 : 20 mm (0.79") in one operation	
	Accessory : 2 blades	
Number of Holders	Standard : 3 (2 for Scoring and 1 for Perforation)	
	Max.12 of holders can be attached.	
Automatic Setup	Side Lay Guide, 1st to 6th Buckle	
Automatic Setup Accuracy	Setting Dimension : +/-1 mm	
	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, Round Parallel Fold (4 panel), Double Parallel Fold, Triple Parallel Fold	
	Job Memory	
Vacuum Pump	Flow	25 m³/hr. (50 Hz), 30 m³/hr. (60 Hz)
	Voltage / Frequency	Single Phase V230 / 3-Phase Y220 V +/-10 % 50 / 60 Hz
	Power Consumption	1.1 / 1.3 kW (50 / 60 Hz)
Voltage / Frequency	3-Phase 200 V, 50 / 60 Hz	
	3-Phase 220 V, 50 / 60 Hz	
	Single Phase 230 V, 50 Hz	
Rated Current	3-Phase 200 V, 50 / 60 Hz, 7.8 / 8.3 A	
	3-Phase 220 V, 50 / 60 Hz, 7.2 / 7.4 A	
	Single Phase 230 V, 50 Hz, 7.5 A	
Power Consumption (Including Pump)	3-Phase 200 V, 50 / 60 Hz, 2.1 / 2.2 kW	
	3-Phase 220 V, 50 / 60 Hz, 1.8 / 2.2 kW	
	Single Phase 230 V, 50 Hz, 1.5 kW	
Heat Output	2,700 kJ (650 kcal)	
Motors	0.4 kW x 1, 0.2 kW x 1, 1.5 kW x 1 (Pump)	
Machine Dimensions	1st+2nd Station : Installation at right angle 2,620(W) x 2,600(D) x 1,500(H) mm (103.2" x 102.4" x 59.1")	
	1st+2nd Station : Installation at straight 4,280(W) x 870(D) x 1,500(H) mm (168.6" x 34.3" x 59.1")	
Installation Space	1st+2nd Station : Installation at right angle 3,620(W) x 3,600(D) mm (142.6" x 141.8")	
	1st+2nd Station : Installation at straight 4,780(W) x 1,870(D) mm (188.2" x 73.7")	
Machine Weight	350 kg (771.7 lb.), Vacuum Pump : 49 kg (108.0 lb.), Transformer : 43 kg (94.8 lb.)	
Temperature & Humidity	Temperature : 0°C to + 40°C, Humidity : 20 % to 75 %RH (25 degrees Celsius and 52 +/-6 %RH are recommended.)	

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

## T-406A Major Specifications

Machine Structure	6/6 (6 Buckles and 6 Buckles)	
Sheet Size	Max. 400(W) x 650(L) mm (15.748" x 25.590") Min. 50(W) x 100(L) mm (1.969" x 3.938")	
Sheet Weight Range	35 to 157 gsm	
Buckle Fold Length	1st Buckle	20 to 260 mm (0.788" to 10.236")
	2nd Buckle	20 to 260 mm (0.788" to 10.236")
	3rd Buckle	20 to 260 mm (0.788" to 10.236")
	4th Buckle	20 to 260 mm (0.788" to 10.236")
	5th Buckle	20 to 260 mm (0.788" to 10.236")
	6th Buckle	20 to 260 mm (0.788" to 10.236")
Belt Speed	50 to 180 m (54 to 196 yd)/min.	
Standard Fold Roller	Combination of Soft Polyurethane Foam Rubber and Steel Roller	
Roller Gap Adjustment	Insert the instructed number of sheets into the gap adjust lever.	
Slit Perforation	Cut 6 mm (0.24"), Blank 4 mm (0.16") (option)	
Perforation	Cut 2.5 mm (0.1"), Blank 0.8 mm (0.03") [Option : Cut 3.2 mm (0.13"), Blank 0.8 mm (0.03") / Cut 1.4 mm (0.06"), Blank 0.8 mm (0.03")]	
	Min. Perforation Distance : 20 mm (0.79") 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 : 20 mm (0.79") in one operation	
	Accessory : 2 blades	
Number of Holders	Standard : 5 for Scoring	
	Max.12 of holders can be attached.	
Automatic Setup	1st to 6th Buckle	
Automatic Setup Accuracy	Setting Dimension : +/-1 mm	
	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, Round Parallel Fold (4 panel), Double Parallel Fold, Triple Parallel Fold	
	Voltage / Frequency	
Rated Current	3-Phase 200 V, 50 / 60 Hz	
	3-Phase 220 V, 50 / 60 Hz, 1.5 / 1.4 A	
	3-Phase 220 V, 50 / 60 Hz, 1.0 / 1.6 A	
Power Consumption (Including Pump)	Single Phase 230 V, 50 Hz, 2.5 A	
	3-Phase 200 V, 50 / 60 Hz, 380 / 400 W	
	3-Phase 220 V, 50 / 60 Hz, 360 / 490 W	
Heat Output	Single Phase 230 V, 50 Hz, 480 W	
	900 kJ (220 kcal)	
Motors	0.4 kW x 1	
Machine Weight	200 kg (441.0 lb.)	
Temperature & Humidity	Temperature : 0°C to + 40°C, Humidity : 20 % to 75 %RH (25 degrees Celsius and 52 +/-6 %RH are recommended.)	

## Options

- Press Stacker : PST-40
- Short Conveyor : DV-406
- Long Conveyor : DV-54
- Sanding Delivery Unit : ED-40
- Bridge Conveyor Unit : BG-406

\*Required for AF-406A when connecting T-406A.  
\*Included in T-406A as standard.



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