



**TIEN CHIN YU**  
Machinery Mfg. Co., Ltd.



## Easy Control

Research and Development **Classic Series**

# *Designed*

Provide the fully automatically computerized and  
high performance flexo machine  
and corrugator machine



## FEEDING SECTION

- SUN lead edge feeder with accurate feeding for all flutes and warped sheets
- Available for skip feed and feed interrupt
- Auto zero-set for feeding position with one push button
- Non back-lash transmission gear system
- All gap adjustment via eccentric device with corresponding scale
- Frequency inverter drive with variable suction control
- Optional- Dust vacuum cleaner for sheet



## PRINTING SECTION

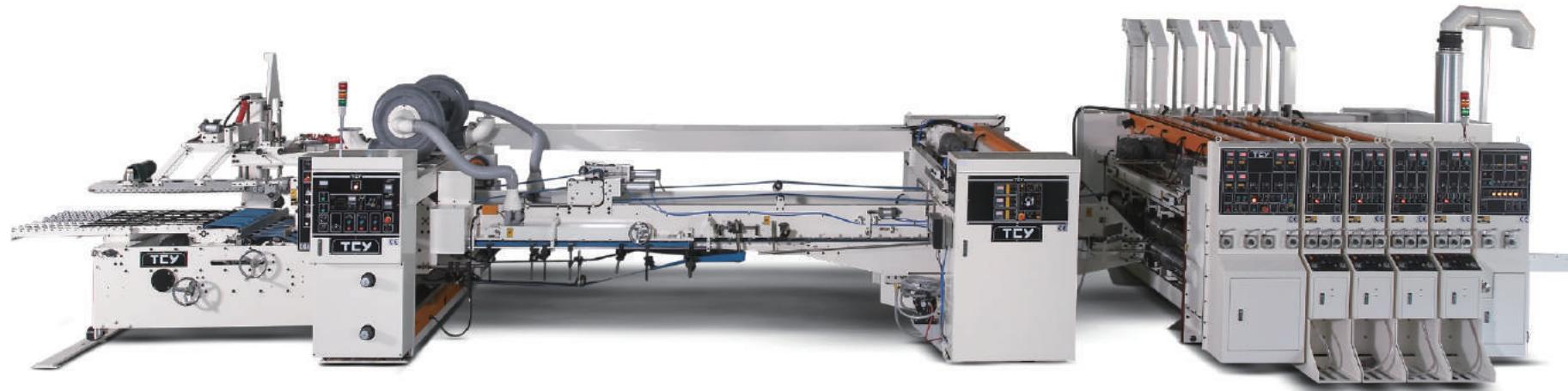
- Top print
- Highly accurate printing registration
- Laser engraved ceramic anilox roll
- Standard supply of ink chamber blade system
- Programming auto wash ink chamber system
- Auto zero-set for printing position with one push button.
- Optional- Vacuum transfer device
- Optional- Printer unit roll out with side track device



## SLOTTER CREASER SECTION

- Dual slotting shafts for leading knives and trailing knives
- Separate shaft for pre-creaser and creaser ensure sufficient crushing and creasing
- Auto zero-set for slotting knife with one push button
- Standard digital counter with pre-set one order, auto positioning of slotting knives for box panel dimension
- Optional- Single slotting shaft for both leading and trailing knives





## DIE CUTTER SECTION

- Heavy duty die cutting drum
- Hydraulic oscillation movement to prolong anvil life time
- Auto zero- set for die cutting position with one push button
- Optional- Anvil trimming and anvil drum synchronized drive
- Optional- Die cutter unit roll out with side track device



## FOLDER GLUER(FG)

- Upper suction belt with down folding for stable performance
- Sheet inclined detector equipped in folding section will stop machine automatically
- Stepless belt variator for bottom belt adjustment to square folded box
- Side belt tracking box folded edge for accurate flap gap
- Frequency inverter drive control system
- Optional- “VALCO” Flexoseal system
- Optional- Independent drive for bottom belt speed adjustment through touch screen control



## COUNTER EJECTOR(FG)

- One stage design for small box bottom loading use
- Adjustable box insert inclined angle and loading area
- Accurate counting box quantity and eject bundle of boxes
- Upper folding belt to deliver bundle of boxes without collapse
- Separate operation control panel

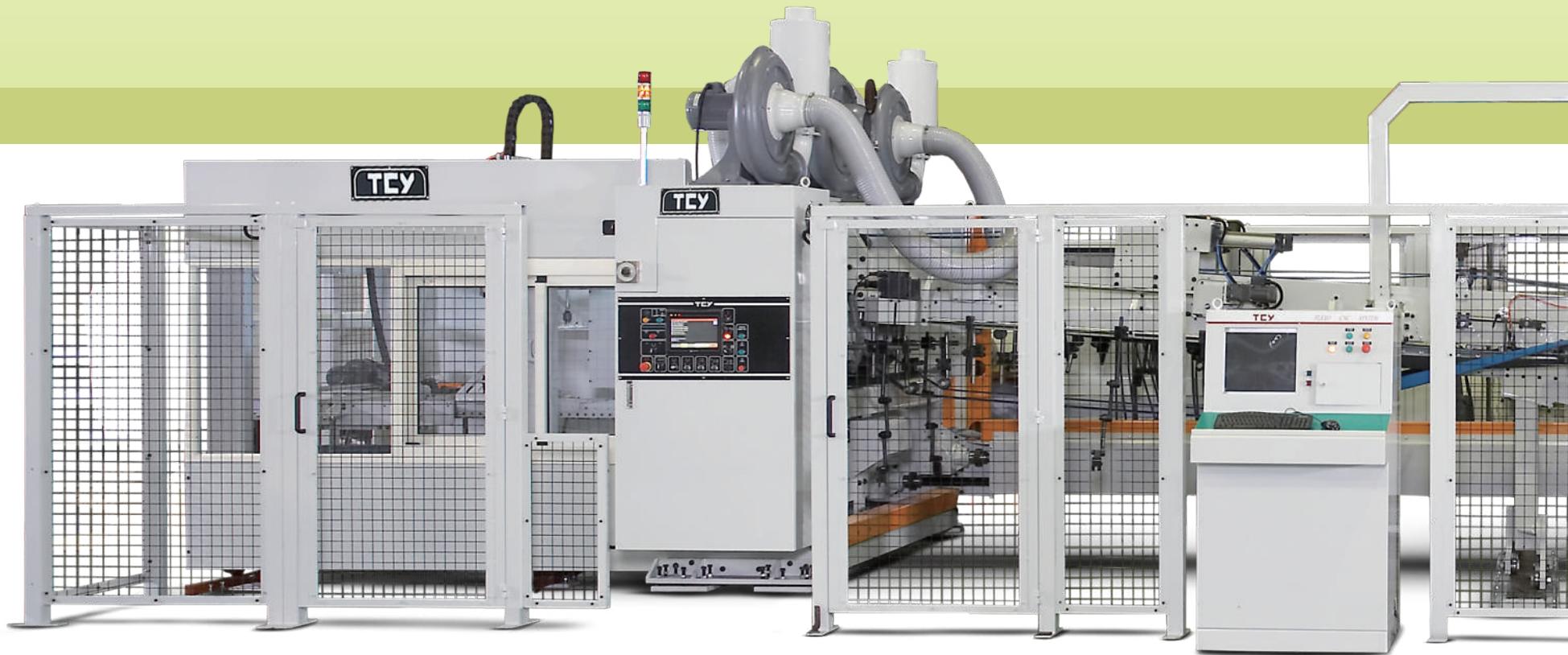


## COUNTER EJECTOR (9FGT)

- Full integrated construction and control device
- Quick setting position via AC servo control
- Top loading system for receiving and stacking boxes
- Suitable for die cutting box use
- Accurate counting box quantity and eject bundle of boxes
- Upper folding belt to deliver bundle of boxes without collapse
- Full closed unit for safety operation

## FOLDER GLUER (9FGT)

- Upper suction belt with down folding for stable performance
- Sheet inclined detector equipped in folding section will stop machine automatically
- Independent drive for bottom belt speed adjustment through touch screen control
- Side guiding wheel tracking box folded edge for accurate flap gap
- Frequency inverter drive control system
- Optional- “VALCO” Flexoseal system







## FEEDING SECTION

- SUN lead edge feeder with accurate feeding for all flutes and warped sheets
- Available for skip feed and feed interrupt
- Auto zero-set for feeding position with one push button
- Non back-lash transmission gear system
- All gap adjustment via eccentric device with corresponding scale
- Frequency inverter drive with variable suction control
- Optional- Dust vacuum cleaner for sheet



## PRINTING SECTION

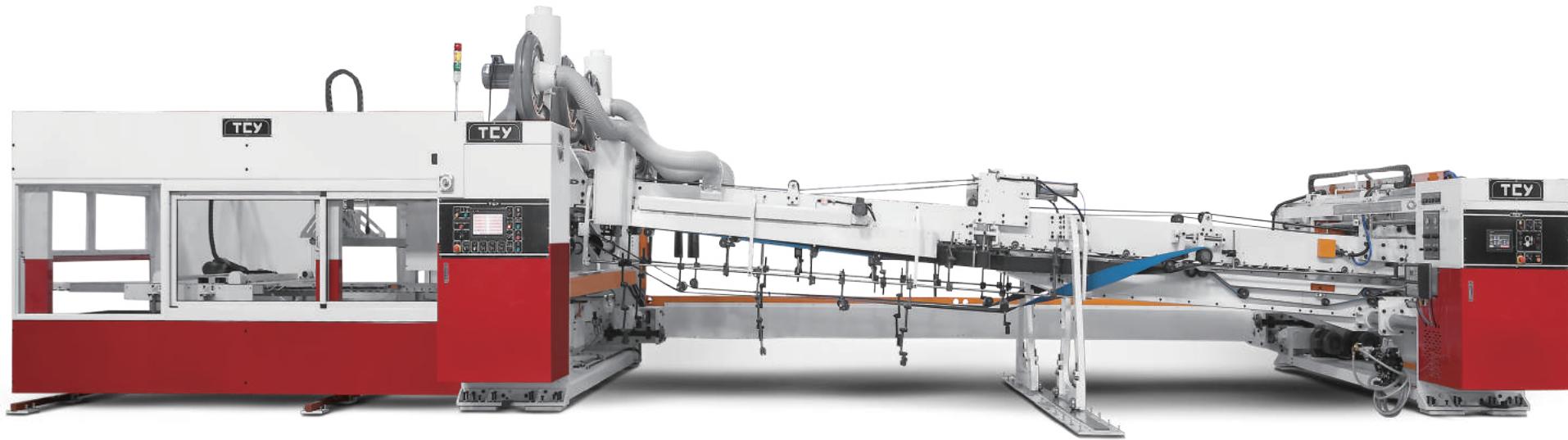
- Available for top or bottom print
- Highly accurate printing registration
- Laser engraved ceramic anilox roll
- Rubber roll system
- Auto zero-set for printing position with one push button
- Optional- Programming auto wash ink chamber system
- Optional- Vacuum transfer device for sheet
- Optional- Printer unit roll out with side track device



## SLOTTER CREASER SECTION

- Dual slotting shafts for leading knives and trailing knives
- Separate shaft for pre-creaser and creaser ensure sufficient crushing and creasing
- Auto zero-set for slotting knife with one push button
- Standard digital counter with pre-set one order, auto positioning of slotting knives for box panel dimension
- Optional- Central yoke head moveable
- Optional- Single slotting shaft for both leading and trailing knives





## DIE CUTTER SECTION

- Heavy duty die cutting drum
- Hydraulic oscillation movement to prolong anvil life time
- Auto zero- set for die cutting position with one push button
- Optional- Anvil trimming and anvil drum synchronized drive
- Optional- Die cutter unit roll out with side track device



## FOLDER GLUER (FGT)

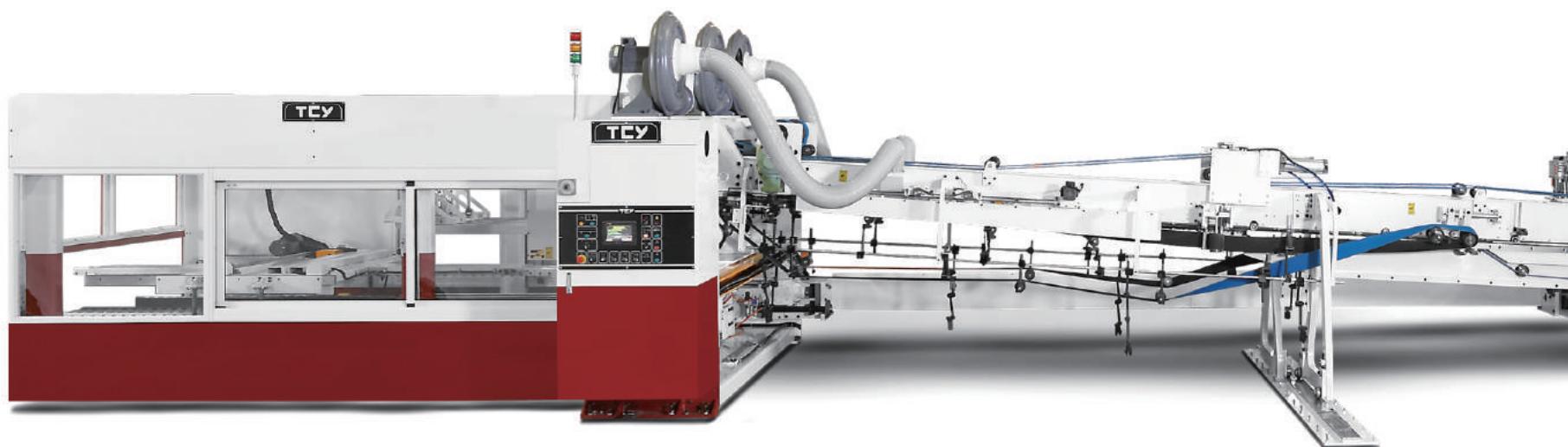
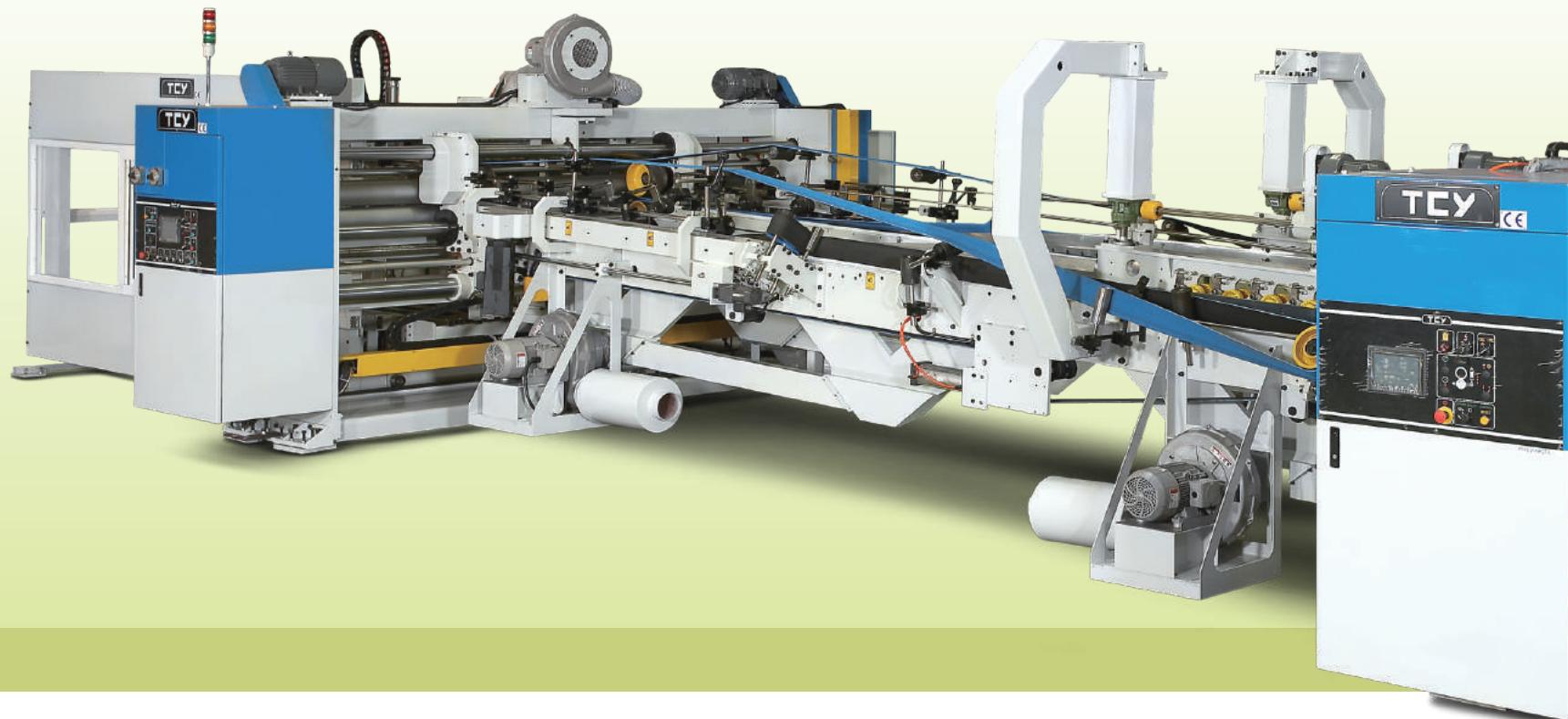
- Upper suction belt with down folding for high performance
- Sheet inclined detector equipped in folding section will stop machine automatically
- Independent drive for bottom belt speed adjustment through touch screen control
- Side guiding wheel tracking box folded edge for accurate flap gap
- Frequency inverter drive control system
- Optional- “VALCO” Flexoseal system

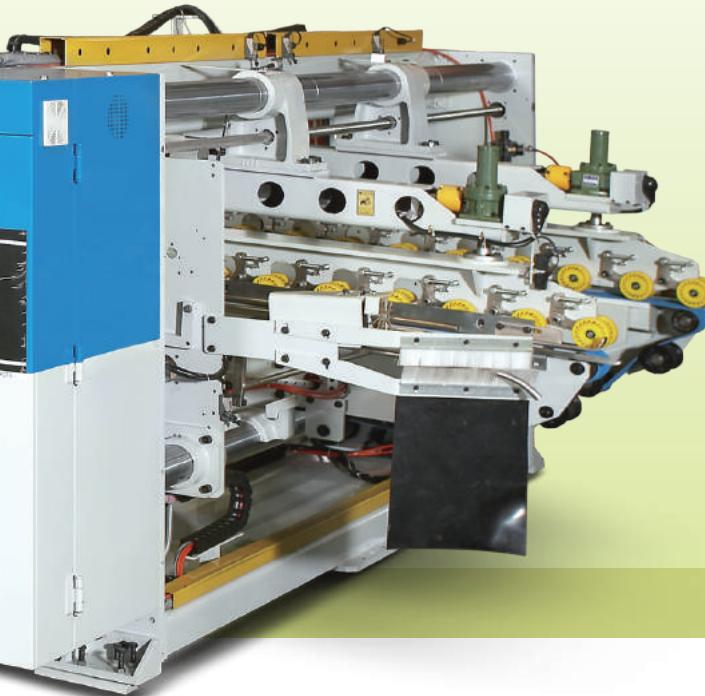


## COUNTER EJECTOR (FGT)

- Full integrated construction and control device
- Quick setting position via AC servo control
- Top loading system for receiving and stacking boxes
- Suitable for die cutting box use
- Accurate counting box quantity and eject bundle of boxes
- Upper folding belt to deliver bundle of boxes without collapse
- Full closed unit for safety operation







## FOLDER GLUER (UFGT)

- Bottom suction belt with up folding for stable performance
- Use PU crushless wheel holding sheet in folding section
- Independent drive for upper/bottom belt speed adjustment through touch screen control
- Side guiding wheel tracking box folded edge for accurate flap gap
- Frequency inverter drive control system
- Use “VALCO” flexoseal system

## COUNTER EJECTOR (UFGT)

- Full integrated construction and control device
- Quick setting position via AC servo control
- Top loading system for receiving and stacking boxes
- Suitable for die cutting box use
- Accurate counting box quantity and eject bundle of boxes
- Upper folding belt to deliver bundle of boxes without collapse
- Full closed unit for safety operation



## AUTOMATIC FOLDER GLUER (OFF- LINE)

- Speed is 250 sheet / minute
- Fast set up
- Off- line folder gluer is ideal for high speed production and avoids fish tailing
- Suitable for all die cutter box, normal RSC box and high graphic printing box



## FEEDING SECTION

- SUN lead edge feeder with accurate feeding for all flutes and warped sheets
- Available for skip feed and feed interrupt
- Auto zero-set for feeding position with one push button
- Non back-lash transmission gear system
- All gap adjustment via eccentric device with corresponding scale
- Frequency inverter drive with variable suction control
- Optional- Dust vacuum cleaner for sheet



## PRINTING SECTION

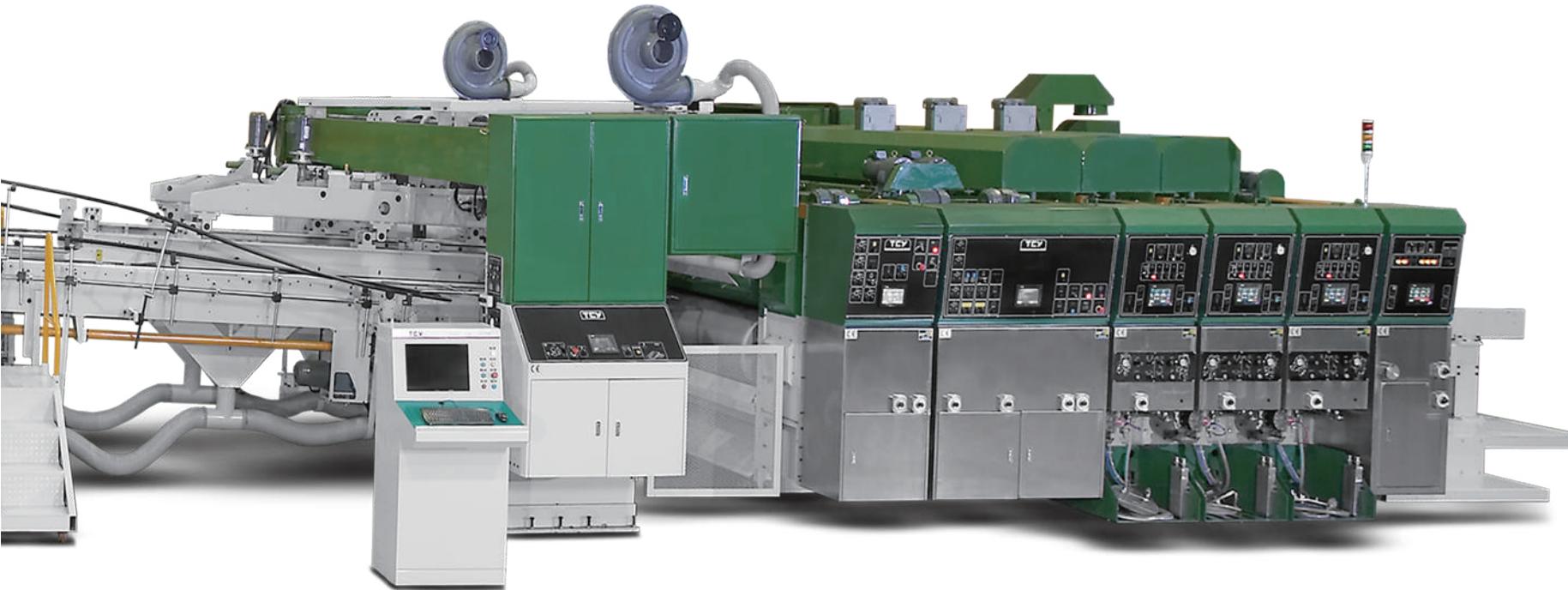
- Available for top or bottom print
- Highly accurate printing registration
- Laser engraved ceramic anilox roll
- Rubber roll system
- Auto zero-set for printing position with one push button
- Optional- Programming auto wash ink chamber system
- Optional- Vacuum transfer device
- Optional- Printer unit roll out with side track device



## SLOTTER CREASER SECTION

- Dual slotting shafts for leading knives and trailing knives
- Separate shaft for pre-creaser and creaser ensure sufficient crushing and creasing
- Auto zero-set for slotting knife with one push button
- Standard digital counter with pre-set one order, auto positioning of slotting knives for box panel dimension
- Optional- Central yolk head moveable





## DIE CUTTER SECTION

- Heavy duty die cutting drum
- Hydraulic oscillation movement to prolong anvil life time
- Auto zero- set for die cutting position with one push button
- Optional- Anvil trimming and anvil drum synchronized drive
- Optional- Die cutter unit with roll out by side track device



## VIBRATOR AND SEPARATOR (RDC)

- Two functions: include vibration and separation of sheet board
- Use vibrating belt to hit die cut sheet board for dropping waste paper
- Use blower and brusher to clean out waste paper
- Adjustable upper and bottom belting arms for alternative direction, avoiding multi-out of the cut sheet board overlap on stacker
- Belting conveyor remove waste paper out underneath the vibrator



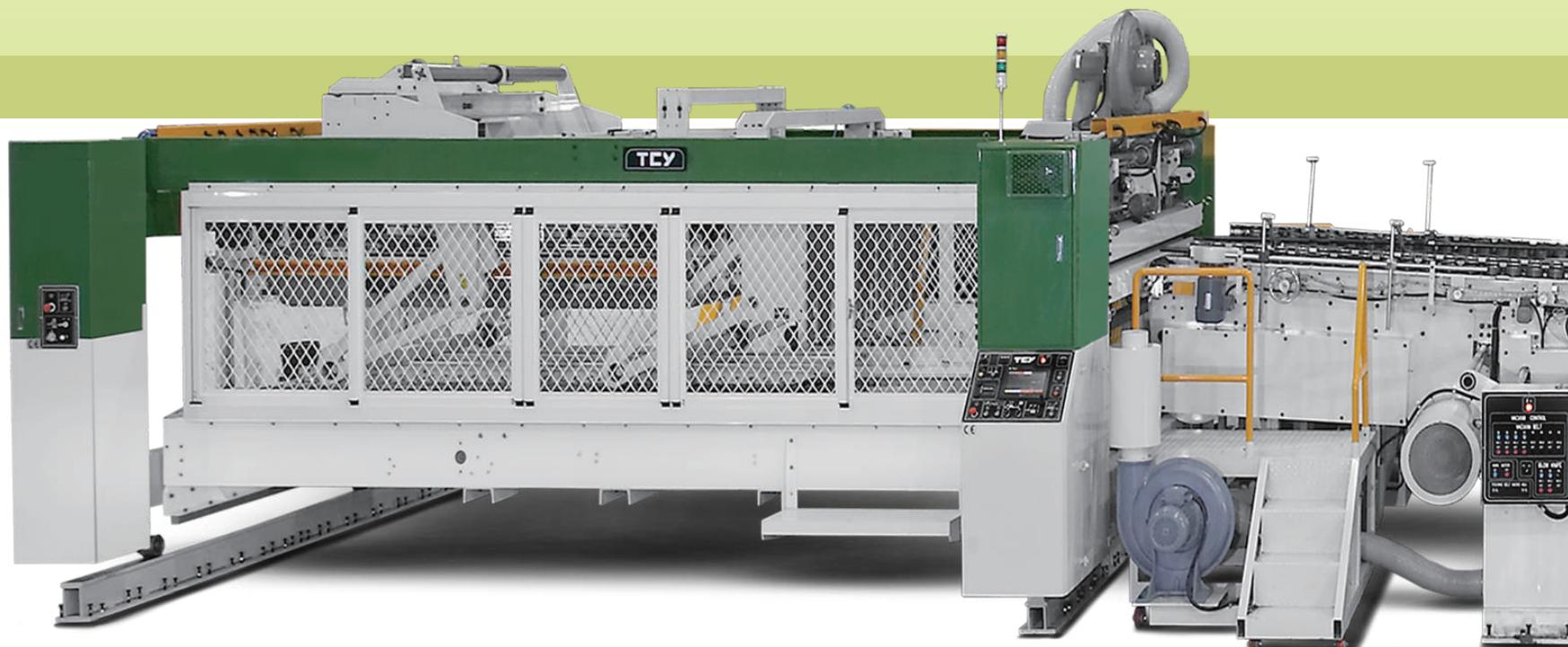
## AUTO SHEET STACKER

- Two supports for 5PA, 6PA, 8PA, 9PA
- Four supports for 8PA and 11PAB
- Dual section belt conveyor system for front and rear transportation
- Adjustable up/down movement for front belt conveyor
- Automatic lift of front belt section and collection of sheet stack for non stop batch change
- Safety lock device to prevent belting bedstead drop in case of lift chain break
- Optional- Side squaring device
- Optional- Auto plywood supply device



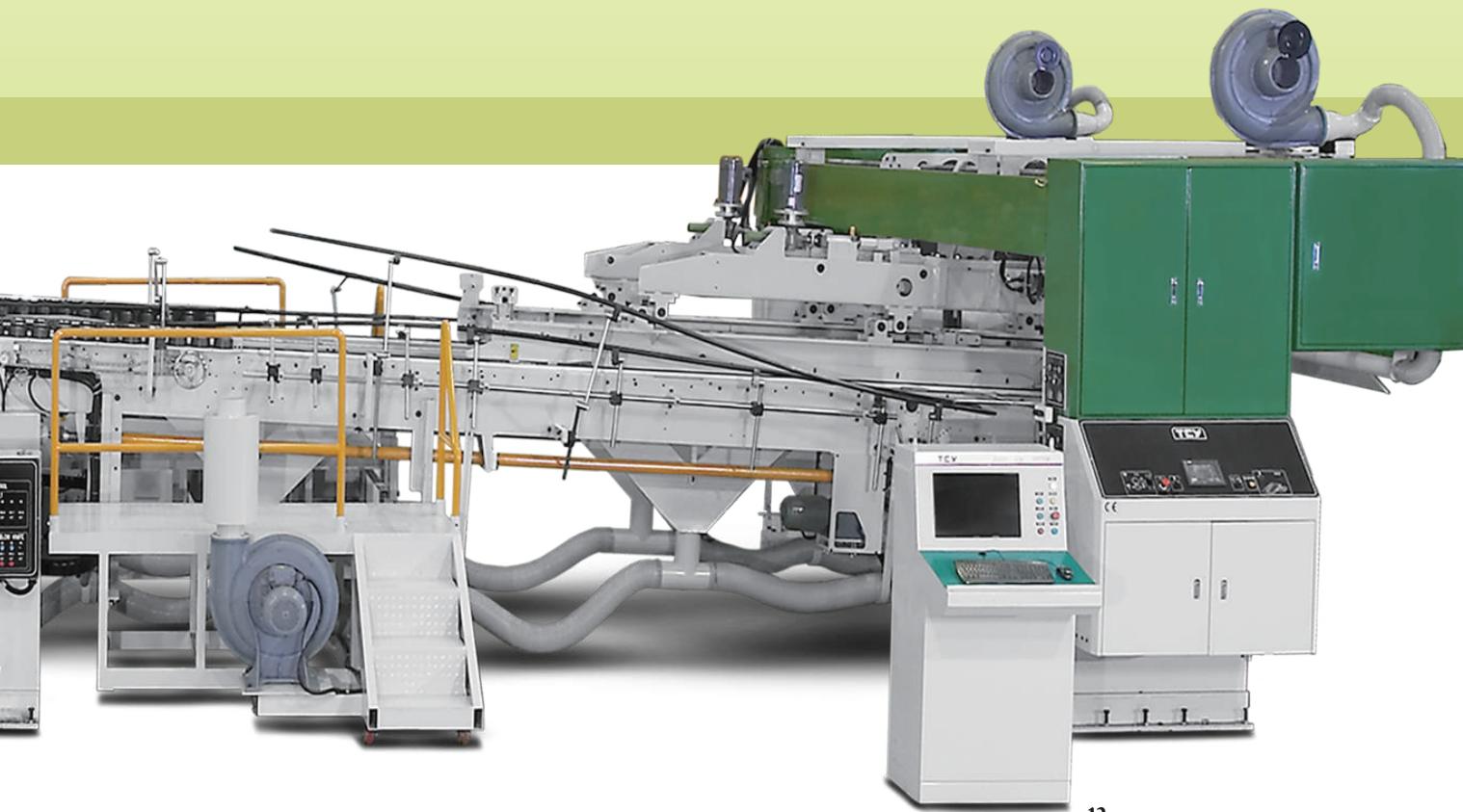
## COUNTER EJECTOR (UFGT160)

- Full intergrated construction and control device
- Quick setting position via AC servo control
- Top loading system for receiving and stacking boxes
- Suitable for die cutting box use
- Accurate counting box quantity and eject bundle of boxes
- Upper folding belt to deliver bundle of boxes without collapse
- Full closed unit for safety operation



## FOLDER GLUER (UFGT160)

- Bottom suction belt with up folding for high performance
- Use PU crushless wheel holding sheet for front folding section
- Independent drive for side guiding wheel tracking box folded edge for accurate flap gap
- Frequency inverter drive control system
- Use “VALCO” flexoseal system





## FEEDING SECTION

- SUN lead edge feeder with accurate feeding for all flutes and warped sheets
- Available for skip feed and feed interrupt
- Auto zero-set for feeding position with one push button
- Non back-lash transmission gear system
- All gap adjustment via eccentric device with corresponding scale
- Frequency inverter drive with variable suction control
- Optional- Dust vacuum cleaner for sheet



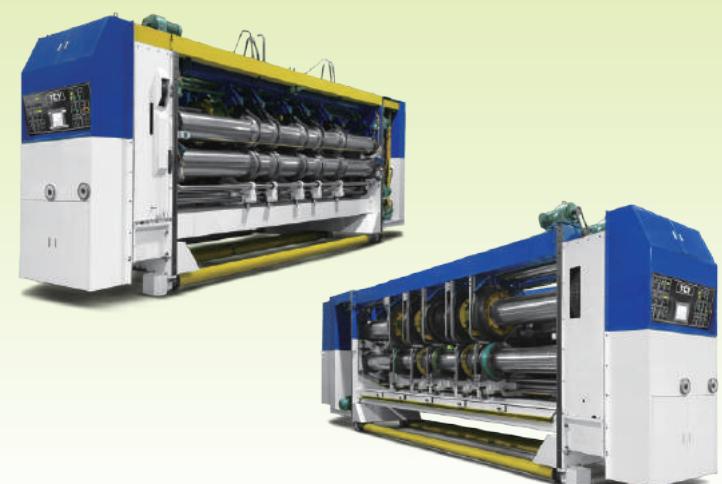
## PRINTING SECTION

- Bottom print
- Highly accurate printing registration
- Chrome plated anilox roll
- Rubber roll system
- Auto zero-set for printing position with one push button
- Optional- Laser engraved ceramic anilox roll
- Optional- Programming auto wash ink chamber system



## DUAL UNITS SLOTTER CREASER SECTION

- Separate dual units design for easy maintenance
- Each unit equipped one slotting shaft and one creasing shaft
- Heavy duty design for large and strong box use
- Auto zero-set for slotting knife with one push button
- Standard digital counter with pre-set one order, auto positioning of slotting knives for box panel dimension





## DIE CUTTER SECTION

- Heavy duty die cutting drum
- Hydraulic oscillation movement to prolong anvil life time
- Auto zero- set for die cutting position with one push button



## AUTO SHEET STACKER

- Four supports for 8PA and 11PAB
- Dual section belt conveyor system for front and rear transportation
- Adjustable up/down movement for front belt conveyor
- Automatic lift of front belt section and collection of sheet stack for non stop batch change
- Safety lock device to prevent belting bedstead drop in case of lift chain break
- Optional- Side squaring device
- Optional- Vibrator and separator
- Optional- Auto plywood supply device



## COUNTER EJECTOR (UFGT220)

- Full intergraded construction and control device
- Quick setting position via AC servo control
- Top loading system for receiving and stacking boxes
- Suitable for die cutting box use
- Accurate counting box quantity and eject bundle of boxes
- Upper folding belt to deliver bundle of boxes without collapse
- Full closed unit for safety operation

## FOLDER GLUER (UFGT220)

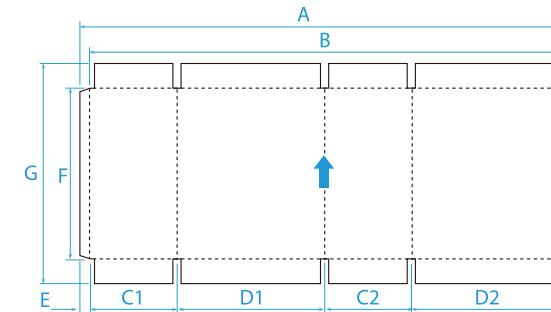
- Bottom suction belt with up folding for high performance
- Use PU crushless wheel holding sheet for front folding section
- Independent drive for side guiding wheel tracking box folded edge for accurate flap gap
- Frequency inverter drive control system
- Use "VALCO" flexoseal system
- Optional- Automatic stitcher





# SPECIFICATION

**(T)=Top Print**  
**(B)=Bottom Print**  
**(V)=Vacuum Transfer**



	Model No.	9PA	5PA/5PAB	5PA/5PAB	6PA/6PAB	6PA/6PAB	6PA/6PAB	8PAB	8PAB	
		(T)(V)	(T)(B)(V)	(T)(B)(V)	(T)(B)(V)	(T)(B)(V)	(T)(B)(V)	(B)(V)	(B)(V)	
Machine Size	IN.	27"x71"	39"x87"	39"x98"	50"x98"	50"x108"	50"x118"	66"x87"	66"x102"	
	MM	660x1800	1000x2200	1000x2500	1200x2500	1200x2750	1200x3000	1600x2200	1600x2600	
A	Finished Blank *Maximum for B+E	MAX.	1800	2200 (2200)	2500 (2500)	2500 (2500)	2700 (2700)	3000 (3000)	2200	2600
		MIN.	378 (475)	520 (755/915)	520 (755/915)	520 (755/915)	520 (755/915)	520 (755/915)	690	690
B	Printing Surface Length	MAX.	1750	2050	2400	2430	2630	2920	2100	2500
C1=C2	Panel (Small)	MAX.	771 (771)	900 (950)	1050 (950)	1050 (950)	1150 (950)	1300 (950)	815	1015
		MIN.	60 (70)	60 (100/120)	60 (100/120)	60 (100/120)	60 (100/120)	60 (100/120)	60	60
D1=D2	Panel (Large)	MAX.	821 (821)	1015 (950)	1165 (950)	1165 (950)	1265 (950)	1415 (950)	1005	1205
		MIN.	110 (115)	175 (175/240)	175 (175/240)	175 (175/240)	175 (175/240)	175 (175/240)	250	250
D1+C2	Two Panels	MAX.	881	1075 (1075)	1225 (1225)	1225 (1225)	1325 (1325)	1475 (1475)	1065	1265
		MIN.	170 (220)	235 (360/440)	235 (360/440)	235 (360/440)	235 (360/440)	235 (360/440)	310	310
E	Glue Lap Width	MAX.	38	50 (50)	50 (50)	50 (50)	50 (50)	50 (50)	70	70
		MIN.	(35)	(35)	(35)	(35)	(35)	(35)		
F	Box Height	MIN.	(80)	(90)	(90)	(90)	(90)	(90)		
G	Sheet Width (standard regular feed)	MAX.	633	988 (988)	988 (988)	1170 (1100)	1170 (1100)	1170 (1100)	1542	1542
		MIN.	190 (200)	250 (250)	250 (250)	310 (310)	310 (310)	310 (310)	365	365
	Sheet Width(Skip feed)	MAX.	840 (660)	1350 (1200)	1350 (1200)	1570 (1200)	1570 (1200)	1570 (1600)	2200	2200
	Max. Machine Speed (Sheet/Min)	MAX.	400 (400)	280 (280/250)	280 (280/250)	250 (250)	250 (250)	250 (250)	180 (150)	180 (150)

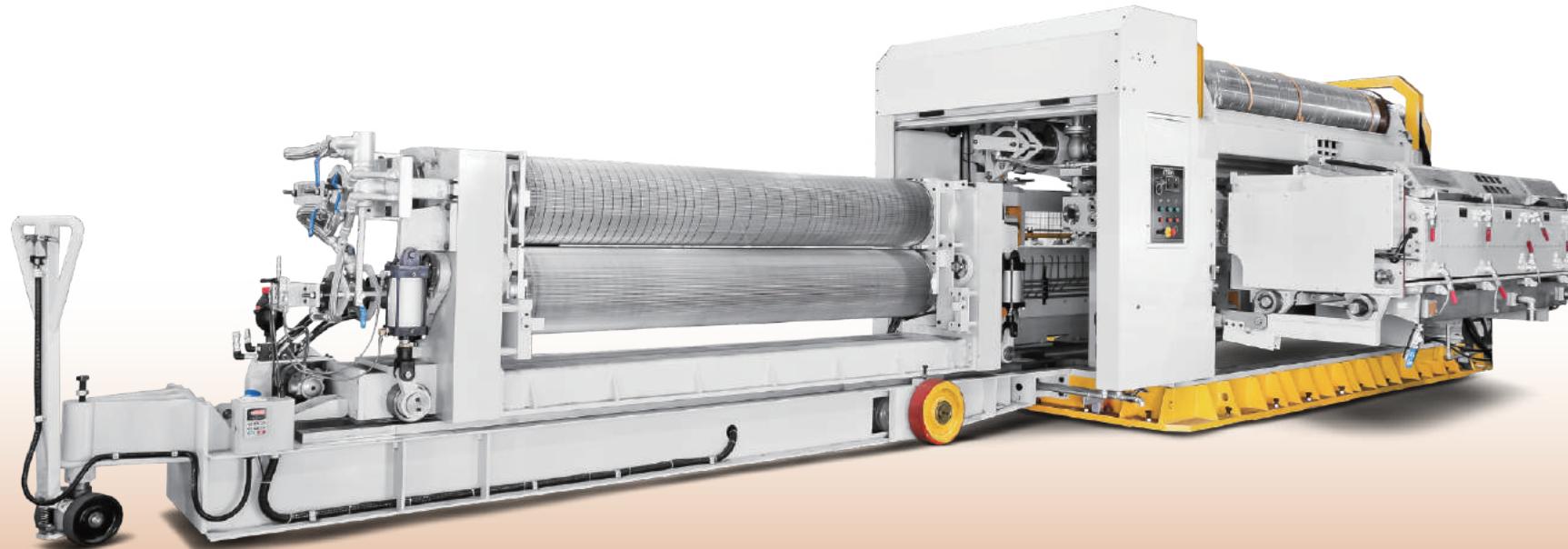
Machine Speed varied is depending on sheet quality, sizes etc.

TCY reserve the right to change specifications without notice.

( ): The values in the brackets are the working dimensions for Flexo Folder Gluer & Counter Ejector Inline.

For mid-lines both Top or Bottom Print are available. The values indicated through the "/" sign mean the difference between Top and Bottom Printing (if any).

	Model No.		8PAB	8PAB	8PAB	11PAB	11PAB	11PAB
			(B)(V)	(B)(V)	(B)(V)	(B)	(B)	(B)
	Machine Size	IN.	66"x118"	66"x140"	66"x165"	87"x161"	87"x189"	87"x205"
		MM	1600x3000	1600x3600	1600x4200	2200x4100	2200x4800	2200x5200
A	Finished Blank *Maximum for B+E	MAX.	3000 (3000)	3600 (3600)	4200 (4200)	4100 (4100)	4800 (4800)	5200 (5200)
		MIN.	690 (940)	690 (940)	690 (940)	840 (1140)	840 (1140)	840 (1140)
B	Printing Surface Length	MAX.	2900	3450	4100	4000	4700	5100
C1=C2	Panel (Small)	MAX.	1215 (1165)	1490 (1440)	1815 (1765)	1570 (1570)	1920 (1920)	2120 (2120)
		MIN.	60 (150)	60 (150)	60 (150)	85 (150)	85 (150)	85 (150)
D1=D2	Panel (Large)	MAX.	1405 (1315)	1680 (1590)	2005 (1915)	1770 (1770)	2120 (2120)	2320 (2320)
		MIN.	250 (300)	250 (300)	250 (300)	285 (400)	285 (400)	285 (400)
D1+C2	Two Panels	MAX.	1465 (1465)	1740 (1740)	2065 (2065)	1855 (1855)	2205 (2205)	2405 (2405)
		MIN.	310 (450)	310 (450)	310 (450)	370 (550)	370 (550)	370 (550)
E	Glue Lap Width	MAX.	70 (70)	70 (70)	70 (70)	100 (100)	100 (100)	100 (100)
		MIN.	(40)	(40)	(40)	(40)	(40)	(40)
F	Box Height	MIN.						
G	Sheet Width (standard regular feed)	MAX.	1542 (1542)	1542 (1542)	1542 (1542)	2092 (2092)	2092 (2092)	2092 (2092)
		MIN.	365 (365)	365 (365)	365 (365)	650 (650)	650 (650)	650 (650)
	Sheet Width(Skip feed)	MAX.	2200 (2200)	2200 (2200)	2200 (2200)	2500 (2500)	2500 (2500)	2500 (2500)
	Max. Machine Speed (Sheet/Min)	MAX.	180 (150)	150 (120)	120 (120)	100	100	100



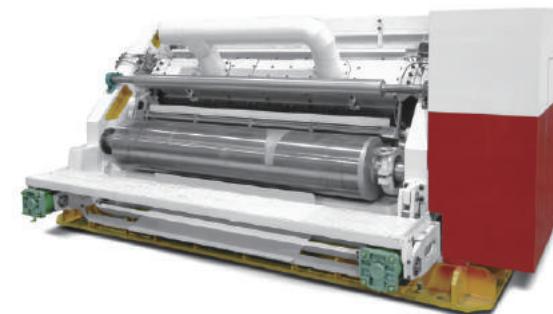
## MODEL : BSF

- Corrugating roll diameter: 405mm, maximum speed 300m/min
- Features advanced technical innovation design for blowing type
- Corrugating roll with cartridge device, capable of changing within 20 minutes
- Full automatic glue gap control via PLC and touch screen
- Hydraulic pressure control system
- Optional- Spare cartridge corrugating rolls includes preheating device



## MODEL : VTC

- Corrugating roll diameter: 340mm, maximum speed 220m/min
- Glue roll driven by an independent AC inverter motor
- AC inverter motor driven by timing belt (No Gearbox)
- Suction chamber with turbo fan (Suction type)
- Pneumatic Pressure control system

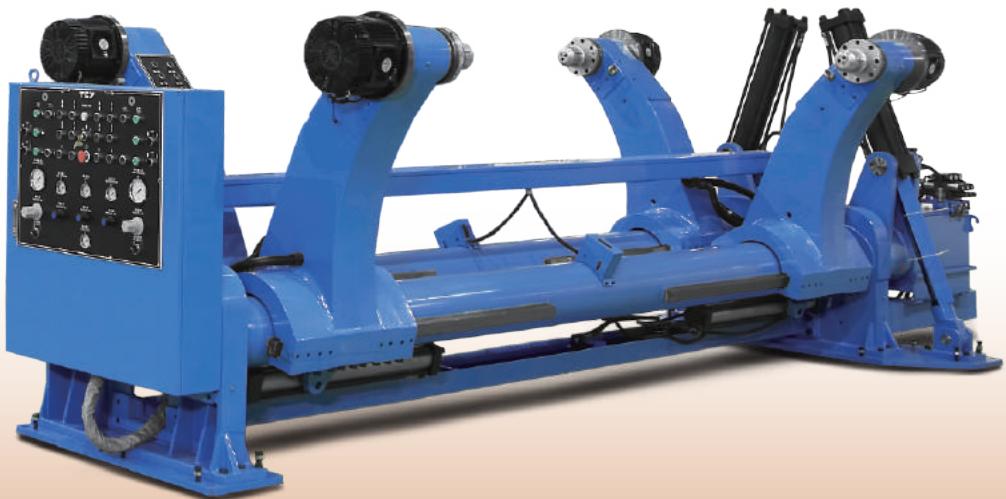


## MODEL : VSF

- Corrugating roll diameter: 405mm, maximum speed 250m/min
- Glue roll driven by an independent AC inverter motor
- AC inverter motor driven by timing belt (No Gearbox)
- Suction chamber with turbo fan (Suction type)
- Hydraulic pressure control system
- Optional- Auto adjusted glue gap via PLC and touch screen control

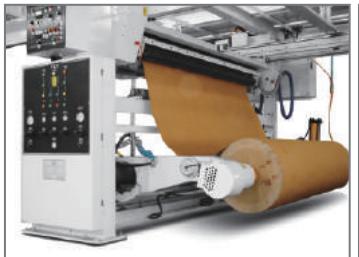


# MILL ROLL STAND & AUTO SPLICER



## MODEL : MS

- Working paper diameter : max. 1500mm, min. 300mm
- Working paper width : 1600mm 2500mm
- The operation directions are:  
←←(left hand direction) , →→(right hand direction)  
→←(relative direction) , ←→(opposite direction)  
↑↑(upward)                            ↓↓(downward)
- It can clamp with two paper rolls by individual hydraulic pump cylinder
- Air disc brake for paper tension control to be operated by manual adjustment (if link with auto splice will be full automatic tension control of paper)



## MODEL : SP-90A

- Design splicing speed: 200m/min
- High precision, electronic tension control on tension roll by PLC to obtain reliable splicing
- Minimum interval between splicing is less than 1 minute
- Sensor device lets splicing auto start when paper comes off the pipe
- Paper cutting by saw type cutter with pneumatic cylinder
- Splicing device unit moves right/left and splicing done on new paper side for feeding new paper on both ends



## MODEL : LPH /3LPH/2PH

- Preheating drum diameter : 900mm (LPH/3LPH),750mm (2PH)
- Preheating drum with delicate finishing surface
- Standard manual brake equipped on drum shaft-end, offering preheating drum for free rotation or fixation
- With one stationary web guide roll (φ 125mm) and one motorized adjustment web guide roll (φ 125mm) for preheating area adjustment
- Optional- Preheating drum drive by an inverter motor for synchronized rotation with paper speed and integrated preheating area of liner paper



# SUCTION GUIDE DEVICE & BRIDGE

# GLUE UNIT



## MODEL : SG2 & FS

- Motorized web guider plate adjustment with preset digital counter on bottom control panel
- Transverse adjustable web guider plate to center upper and bottom web liner paper
- Each deck includes one set of suction blower for web tension control and volume via inverter adjustment
- Take up belt device and transportation belt for accumulated web



## MODEL : 2GL

- Glue application rolls with 35 screen/ mesh roll
- Rid roll loading and lifting via pneumatic cylinder
- Glue roll driven via independent inverter motor and synchronized device with main motor for production. When main motor stops, it will be idle run to avoid glue dry on surface
- Each web equipped with one fixed preheating drum  $\varphi 400\text{mm}$
- Optional- “Contact Bar” I/O ride roll



# DOUBLE FACER

# ROTARY SHEAR



## MODEL : CD & PR

- Hot plate are made of cast iron, surface with precision machinery grinding and hard chrome plated
- Hydraulic cylinder stroke for weight roll lowering and lifting, also with push button for micro adjustment to meet the thickness of single wall and double wall sheet board
- Operative tension rolls for upper belt stretcher via hydraulic cylinder
- Belting drum surface to be covered with anti-slip rubber
- Each 6 piece of heating plate with thermometer and digital display for temperature control
- Optional- "Thermo Bar" I/O weight roll



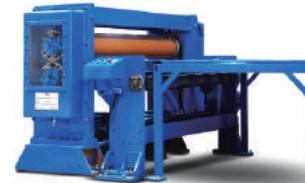
## MODEL : RCT

- Upper serrated knife with bottom PU anvil
- Adjustable position between bottom anvil and upper knife
- Extrusive waste paper device
- Push button with single cut for order change and continuous cut for waste paper

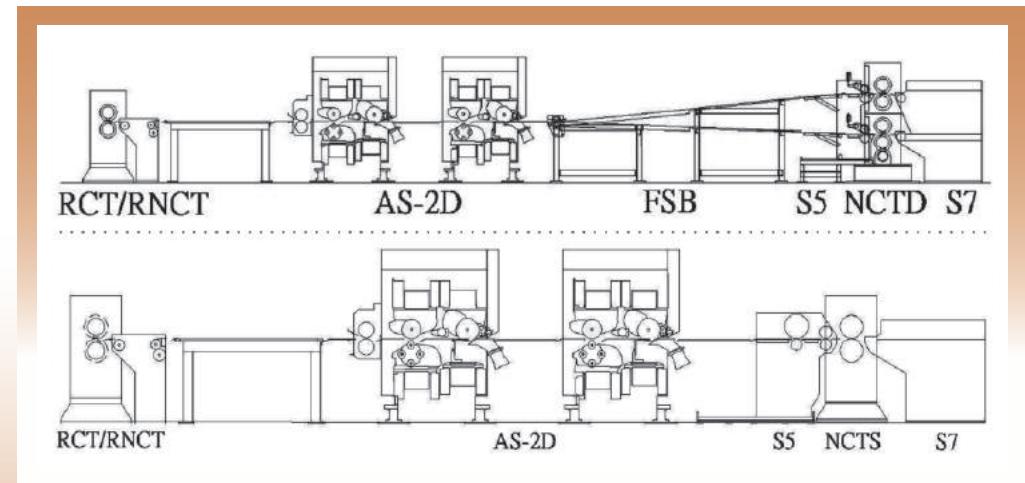


## MODEL : RNCT

- Construction same as NC Cutter, with double helical knife design for upper and bottom knife
- High and noiseless performance order change driven by independent servo drive, maximum speed up to 200m/min
- Right position of order change for knife cut sheet via NC control
- Single cut for order change and continuous cut off for extrusive waste sheet board



# SLITTER SCORER



## MODEL : AS-2D

- Single disc blade design, available for four types of scorer Such as :
- Tandem system for each non stop order change. Order change setting for each set with 8 seconds
- Slotting and scoring accuracy within  $\pm 1\text{mm}$
- Knives and scorers position adjustable by each individual motor with inverter
- Transversal movement adjustment:  $\pm 100\text{mm}$
- CNC control for knives and scorers positioning and order change, may link with PC for full auto operation



• S5(Single)



• S5(Double)

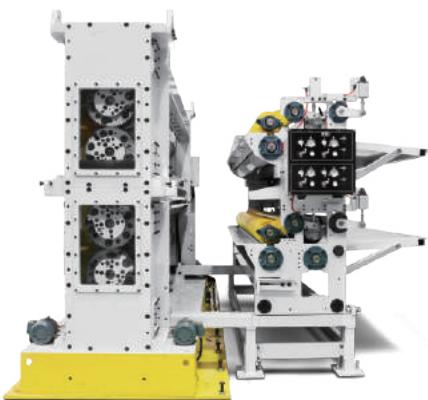
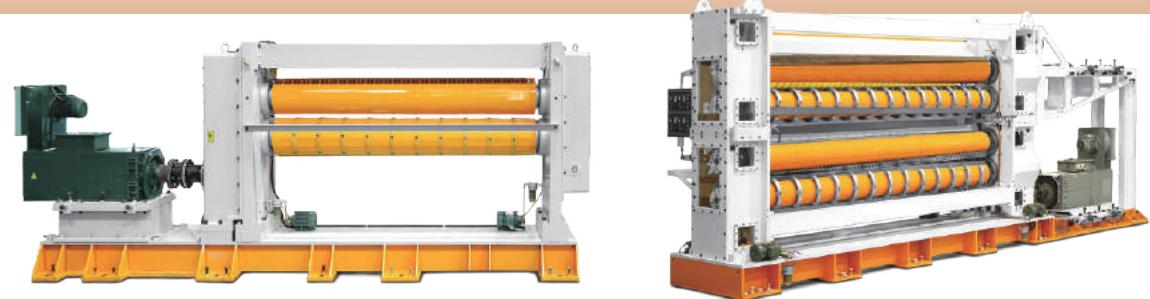


# CUT OFF KNIFE



## MODEL : NCTS / NCTD

- Working speed: 250m depends on cutting length of sheet
- Cutting length: 500mm~5000mm
- Cutting accuracy:  $\pm 1.0\text{mm}$
- Gear back-lash adjustable with meshed gear at each shaft end
- Lubricant circulation via oil pump
- Maximum cutting sheet weight: 2000 GRM/SGM





## MODEL : S6

- Separated guiding bar via pneumatic cylinder control for slitter web forward to double cut off
- Link with CNC of slitter scorer unit for automatic operation



• S6(Single)



• S6(Double)



## MODEL: DSTK / DDSK

- Six stages of belting conveyor driven by 5HP inverter motor
- Hydraulic cylinder lift platform for smooth sheet stacking and sheet descend accumulation
- Designed geometric angle for receiving and stacking sheet to eliminate board damage
- First stage with suction belt holds rear end of sheet, avoiding next sheet board to get squash
- High performance stacking up to 250 meter per minute



# STARCH MIXING UNIT



## MODEL : GS

- 568 liters primary mixing tank with 5HP motor : 1 set
- 3000 liters starch mixing tank with 15HP motor : 1 set
- 3000 liters storage stirring tank with 1HP motor : 2 sets
- Each set with rotary glue pump, but excluded piping to machine



# SPECIFICATION

## CORRUGATED CARDBOARD MAKING EQUIPMENT

MODEL	MAX. PRODUCTION SPEED	MAX. PAPER WIDTH	PRODUCTION CAPACITY
TCY-18(S.D.)	200~250m/min	1800mm	130,000m <sup>2</sup> /8 hours
TCY-20(S.D.)	200~250m/min	2000mm	145,000m <sup>2</sup> /8 hours
TCY-22(S.D.)	200~250m/min	2200mm	158,000m <sup>2</sup> /8 hours
TCY-25(S.D.)	200~250m/min	2500mm	180,000m <sup>2</sup> /8 hours

S: SINGLE WALL    D: DOUBLE WALL  
TRIPLE WALL CORRUGATOR IS AVAILABLE

## COMBINATION OF FLUTE



FLUTE	Flutes per meter	Flute thickness (mm)
A	113±7	4.6±0.15
B	160±7	2.6±0.15
C	133±7	3.6±0.15
E	283±7	1.3±0.15
F	420±7	0.95±0.15

U-TYPE AND V-TYPE FLUTES ARE AVAILABLE



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