### Established in 1978

Focused on Uncoiler, Precision Leveler and Feeder machines as well as customized equipment for coil processing and press automation.

# CHUHSHIN



### **CHUH SHIN PRECISION MACHINERY CO., LTD.**

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## **AUTOMATIC FEEDING** EQUIPMENT FOR PRESS MACHINE

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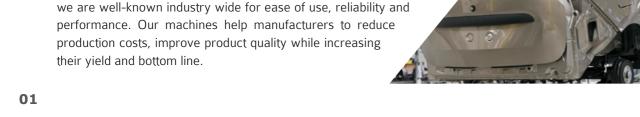




### Company History

- 2018 Product development import the core of industry 4.0 application
- 2017 Developed five sections precision of special leveler for thin material
- 2016 Set up service facility in Indonesia, Malaysia, Vietnam and Thailand
- 2013 Integration and development of a Wide Roll Material Cutter
- **2011** Developed a wide range width compact line (NCJ series)
- 2010 Developed a Twin Uncoiler 3 IN 1 compact line, and a Closed Circuit NC Servo System increasing the feed accuracy
- 2008 Established a Sales branch office for China market
- 2006 Developed a Forming Machine for Automobile Windshield Wipers meanwhile set up a service facility in Dongguan, Kunshan Chine
- 2005 Developed the Four Plane Precision Leveler unit for 2 IN 1 and 3 IN 1 model what is suitable for highly sensitive and flatness required materials. Applied for patents in Taiwan & China.
- 2003 Developed the 0.1~0.6mm, 2 Section Precision Leveler unit for the application with thin materials & then combined it with the 3 IN 1 compact line
- 2002 Developed the 2 section Precision Leveler unit with open top function
- 2001 The company moved to its present location (New Taipei Industrial Park) & established Chuh Shin Precision Machinery CO., LTD for its oversea trading business
- 1998 3 IN 1 Compact Feed line developed
- 1995 NC Roll Feeder developed
- 1990 The wide range thickness Straightening Machine was developed
- **1989** The company moved to a larger facility due to business expansion and started doing business as Chen Hsin and under the brand name of GOW.
- 1978 The company was established in Taipei County specialized in manufacturing Uncoiler, Straightener, Cradle Type Feeder Straightener

Chuh Shin Precision Machinery is focused on Uncoiler, Straightener, Precision Leveler and Feeder machines as well as customized equipment for coil processing and press automation. We are part of the GOW Group which was established in 1978. With a wide range of specialized equipment for the automotive, electronics, hardware and furniture industries we continuously develop and create patented solutions for high efficiency sheet metal production. Headquartered in Taiwan and with a sales and service branch in China for prompt delivery and service to clients around the world, we are well-known industry wide for ease of use, reliability and



### GOW **CHUHSHIN**

### **Key Press Line** Equipment

- 03 3 IN 1 NCL Series Uncoiler / Straightener / Feeder
- 07 3 IN 1 NCT Series Two Section Uncoiler / Leveler / Feeder
- 11 3 IN 1 NCJ Series Heavy Duty Uncoiler / Straightener / Feeder
- 14 NC Servo Feeder
- 17 2 IN 1 Four Plane Surface Precision Uncoiler & Leveler
- 19 2 IN 1 Two Plane Precision Uncoiler & Leveler
- 23 2 IN 1 Series Compact Uncoiler & Straightener
- 26 Uncoiler & Straightener



# NCL

## **3 IN 1 NCL** Series

### **Uncoiler / Straightener / Feeder**





Twin Type Uncoiler / Straightener / Feeder



### **Features**

- New concept and design reduces space requirements.
- High rigidity mechanical structure design and work with Mitsubishi servo control system to ensure the feeding accuracy.
- Friendly operation by adopting Human Machine Interface control system.
- Auto feed monitoring function which can be a safety operation when the unit interlock with press stamping operation.
- Feeder rolls and straightener rolls have undergone special heat treatment of HRC 60° for high precision leveling, rolls surface chromium-plating and then ground, high hardness, high wear-resistant characteristic and long service life cycle.
- Uncoiler hydraulic expansion design makes the job more efficiently.
- Collocation twin type uncoiler and coil car, save loading coil time increase efficiency.



**3 IN 1 NCL Series** Wide Material Uncoiler / Straightener / Feeder



## NCL

### NCL1 Series for 0.3 ~ 1.0 mm

NCLI Series	IUI <b>U</b> .	ડ~ I.u	/						
Model		NCL1-300	NCL1-400	NCL1-500	NCL1-600	NCL1-700	NCL1-800	NCL1-900	NCL1-1000
Width of Material	mm	300	400	500	600	700	800	900	1000
Thickness of Material	mm				0.3 /	~ 1.0			
Feed Roll	mm				70 x	2 pcs			
Work Roll	mm	40 x 9 pcs	40 x 9 pcs	40 x 9 pcs	40 x 9 pcs	50 x 9 pcs	50 x 9 pcs	50 x 9 pcs	50 x 9 pcs
Work Roll Arrangement					Upper 5	/ Lower 4			
Main Servo Motor	kW	2.0	3.5	3.5	3.5	5.0	5.0	5.0	7.0
Air Supply	kg/cm <sup>2</sup>					5			
P.L.H Adjustment	mm				Cust. Demar	nd High ±100	)		
NCL2 Series	for <b>0</b> .	4 ~ 2.0	mm	Ì					
Model		NCL2-300	NCL2-400	NCL2-500	NCL2-600	NCL2-700	NCL2-800	NCL2-900	NCL2-1000
Width of Material	mm	300	400	500	600	700	800	900	1000
Thickness of Material	mm				0.4	~ 2.0			1
Feed Roll	mm		70 x 2 pcs			96 x	2 pcs		132 x 2 pcs
Work Roll	mm	50 x 9 pcs	50 x 9 pcs	50 x 9 pcs	60 x 9 pcs	60 x 9 pcs	60 x 9 pcs	60 x 9 pcs	72 x 9 pcs
Work Roll Arrangement					Upper 5 / L	 Lower 4			
Main Servo Motor	kW	2.0	3.5	3.5	3.5	5.0	5.0	5.0	7.0
Air Supply	kg/cm <sup>2</sup>		1	1	<u> </u>	5	1	1	1
P.L.H Adjustment	mm				Cust. Demar	nd High ±100	)		
NCL3 Series	for <b>O</b>	$5 \sim 3.0$	mm	Ì		0			
Model		NCL3-300	NCL3-400	NCL3-500	NCL3-600	NCL3-700	NCL3-800	NCL3-900	NCL3-1000
Width of Material	mm	300	400	500	600	700	800	900	1000
Thickness of Material	mm	500	400	500		~ 3.0	800	900	1000
Feed Roll	mm		96 x 2 pcs		0.57	~ 3.0 112 x 2 pcs		132 v	2 pcs
Work Roll	mm	60 x 7 pcs	60 x 7 pcs	60 x 7 pcs	72 x 7 pcs	72 x 7 pcs	72 x 7 pcs	84 x 7 pcs	84 x 7 pcs
Work Roll Arrangement		00 x 7 pc3	00 x 7 pcs	00 x 7 pcs	Upper 4 / I		72 x 7 pc3	04 x 7 pc3	04 x 7 pc3
Main Servo Motor	kW	3.5	3.5	3.5	5.0	5.0	5.0	5.0	7.0
Air Supply	kg/cm <sup>2</sup>	5.5	5.5	5.5		5	5.0	5.0	7.0
P.L.H Adjustment	mm					nd High ±100	<u> </u>		
NCL4 Series		8 ~ / 0	mm	,			,		
	IUI <b>U</b> .		-			NCI 4 700	NCI 4 900	NCI 4 000	NCI 4 1000
Model		NCL4-300	NCL4-400	NCL4-500	NCL4-600	NCL4-700	NCL4-800	NCL4-900	NCL4-1000
Width of Material	mm	300	400	500	600	700	800	900	1000
Thickness of Material	mm				0.8 /	~ 4.0			
Feed Roll	mm		112 x 2 pcs				132 x 2 pcs		
Work Roll	mm	72 x 7 pcs	72 x 7 pcs	72 x 7 pcs	84 x 7 pcs		84 x 7 pcs	96 x 7 pcs	96 x 7 pcs
Work Roll Arrangement			1		Upper 4 / L	1	1		1
Main Servo Motor	kW	3.5	5.0	5.0	5.0	7.0	7.0	7.0	11.0
Air Supply	kg/cm <sup>2</sup>					5			
P.L.H Adjustment	mm				Cust. Demar	nd High ±100			
NCL5 Series	tor <b>1</b> .		mm			1	1	1	1
Model		NCL5-300	NCL5-400	NCL5-500	NCL5-600	NCL5-700	NCL5-800	NCL5-900	NCL5-1000
Width of Material	mm	300	400	500	600	700	800	900	1000
Thickness of Material	mm				1.0 -	~ 5.0			
Feed Roll	mm		114 x 2 pcs				132 x 2 pcs		
Work Roll	mm	84 x 7 pcs	84 x 7 pcs	84 x 7 pcs	96 x 7 pcs	96 x 7 pcs	96 x 7 pcs	114 x 7 pcs	114 x 7 pcs
Work Roll Arrangement					Upper 4 / L	Lower 3			
Main Servo Motor	kW	5.0	5.0	5.0	7.0	7.0	7.0	11.0	11.0
Air Supply	kg/cm <sup>2</sup>				1	5			
P.L.H Adjustment	mm				Cust. Demar	nd High ±100			

NCL6 Series f	or <b>1</b> .	0 ~ 6.0	mm						
Model		NCL6-300	NCL6-400	NCL6-500	NCL6-600	NCL6-700	NCL6-800	NCL6-900	NCL6-1000
Width of Material	mm	300	400	500	600	700	800	900	1000
Thickness of Material	mm				1.0 ~	~ 6.0			
Feed Roll	mm		114 x 2 pcs     132 x 2 pcs     144 x 2 pcs					2 pcs	
Work Roll	mm	96 x 7 pcs	96 x 7 pcs	96 x 7 pcs	114 x 7 pcs	114 x 7 pcs	114 x 7 pcs	120 x 7 pcs	120 x 7 pcs
Work Roll Arrangement					Upper 4 / L	ower 3			
Main Servo Motor	kW	5.0	5.0	7.0	7.0	7.0	11.0	11.0	15.0
Air Supply	kg/cm <sup>2</sup>				[	5			
P.L.H Adjustment	mm				Cust. Deman	nd High ±100			

### **Uncoiler** Specifications

Width of Material	mm	300	400	500	600	700	800	900	1000
Max. Coil Weight	kg	1500	2000	2000	3000	3000	5000	5000	5000
Coil I.D.	mm		Ø450	~ 520			Ø480	~ 520	
Max. Coil O.D.	mm				1200 c	or 1500			
Uncoiler Expansion					Hydı	aulic			
NCL1 ~ NCL3	HP	1	1	2	2	2	3	3	5
Uncoiler Motor and Inverter	kW	1.5	1.5	1.5	2.2	2.2	3.7	3.7	3.7
NCL4 ~ NCL6	HP	1	2	2	3	3	5	5	5
Uncoiler Motor and Inverter	kW	1.5	2.2	2.2	3.7	3.7	3.7	5.5	5.5

If material occur unconventional curve phenomena the straightener can't promise flat of material accuracy.
For example : Cross bow, torsion, wave edges, central buckles ..ext.

All specifications, dimensions and design characteristics shown in this catalogue are subject to change without notice.

### **Standard** Accessories

- Programmable multi pitch setting with cutting signal output function. (Cutting signal output function is able to control the cutting device.)
- HMI touch screen control panel.
- 2 points micro adjustment (Attached with dial gauge)
- Straightener work rolls air release.
- Motor drive uncoiler with inverter control.
- Uncoiler photoelectric sensor control unit.
- Uncoiler hydraulic mandrel expansion device.
- Manual coil guide.
- Snubber arm.
- Carry over guide.
- Carry over clamp. (Applicable to NCL4 above)
- Peeler.
- Pre bender. (Applicable to NCL4 above)

# NCL

### **Optional** Accessories

- Flip Top straightener head device.
- Coil car (Coil loading assisting device).
- Motorized pass line high adjustment device.
- Clamping peeler device.

## **3 IN 1 NCT** Series

### **Two Section Uncoiler / Leveler / Feeder**







### **Features**

NCT

- New concept and design reduces space requirements.
- The unique 2 sections leveling design for solving the high flatness and leveling stability of material requirement.
- Flip Top leveler head device for easy maintenance operation.
- High rigidity mechanical structure design and work with Mitsubishi servo control system to ensure the feeding accuracy.
- Friendly operation by adopting Human Machine Interface control system.

- Auto feed monitoring function which can be a safety operation when the unit interlock with press stamping operation.
- Feeder rolls and straightener rolls have undergone special heat treatment of HRC 60° for high precision leveling, rolls surface chromium-plating and then ground, high hardness, high wear-resistant characteristic and long service life cycle.
- Uncoiler hydraulic expansion design makes the job more efficiently.
- Collocation twin type uncoiler and coil car, save loading coil time increase efficiency.



Standard Accessory: Flip - Top Leveler Head Device

# NCT



**Optional Accessory:** Clamping Peeler Device

## NCT

### NCT1 Series for 0.3 ~ 1.0 mm

Model		NCT1-300	NCT1-400	NCT1-500	NCT1-600	NCT1-700	NCT1-800	NCT1-900	NCT1-1000
Width of Material	mm	300	400	500	600	700	800	900	1000
Thickness of Material	mm				0.3 -	~ 1.0		1	1
Feed Roll	mm				70 x	2 pcs			
Work Roll	mm	40 x 12 pcs	40 x 12 pcs	40 x 12 pcs	40 x 12 pcs	50 x 12 pcs	50 x 12 pcs	50 x 12 pcs	50 x 12 pcs
Work Roll Arrangement			First Sec	tion:Upper 1	/ Lower 2, 1	Second Secti	on:Upper 5 /	Lower 4	1
Main Servo Motor	kW	2.0	3.5	3.5	3.5	5.0	5.0	5.0	7.0
Air Supply	kg/cm <sup>2</sup>					5			1
P.L.H Adjustment	mm				Cust. Demar	nd High ±100			
NCT2 Series	for <b>0</b> .	4 ~ 2.0	mm	, in the second s					
Model		NCT2-300	NCT2-400	NCT2-500	NCT2-600	NCT2-700	NCT2-800	NCT2-900	NCT2-1000
Width of Material	mm	300	400	500	600	700	800	900	1000
Thickness of Material	mm			500		~ 2.0		500	
Feed Roll	mm		70 x 2 pcs		0.1	96 x	2 ncs		132 x 2 pcs
Work Roll	mm	50 y 12 ncs		50 y 12 pcs	60 x 12 pcs	1	•	60 y 12 ncs	
Work Roll Arrangement		50 x 12 pc3			Lower 2, Se				72 x 12 pc3
Main Servo Motor	kW	2.0	3.5	3.5	3.5	5.0	5.0	5.0	7.0
	kg/cm <sup>2</sup>	2.0	5.5	5.5		5	5.0	5.0	7.0
Air Supply P.L.H Adjustment	-								
	mm	F 0.0			Cust. Demar	ia High ±100			
NCT3 Series	tor <b>U</b> .								
Model		NCT3-300	NCT3-400	NCT3-500	NCT3-600	NCT3-700	NCT3-800	NCT3-900	NCT3-1000
Width of Material	mm	300	400	500	600	700	800	900	1000
Thickness of Material	mm				0.5 /	~ 3.0			
Feed Roll	mm		96 x 2 pcs			112 x 2 pcs		132 x	2 pcs
Work Roll	mm	60 x 12 pcs	60 x 12 pcs	60 x 12 pcs	72 x 12 pcs	72 x 12 pcs	72 x 12 pcs	84 x 12 pcs	84 x 12 pcs
Work Roll Arrangement			First Sectio	n: Upper 1 /	Lower 2, Se	cond Sectior	n: Upper 5 / I	_ower 4	
Main Servo Motor	kW	3.5	3.5	3.5	5.0	5.0	5.0	7.0	7.0
Air Supply	kg/cm <sup>2</sup>				I.	5			
P.L.H Adjustment	mm				Cust. Demar	nd High ±100			
NCT4 Series	for <b>0</b> .	8~4.0	mm	Ì					
Model		NCT4-300	NCT4-400	NCT4-500	NCT4-600	NCT4-700	NCT4-800	NCT4-900	NCT4-1000
Width of Material	mm	300	400	500	600	700	800	900	1000
Thickness of Material	mm	500	100	500		~ 4.0	000	500	1000
Feed Roll	mm		112 x 2 pcs		0.0	1.0	132 x 2 pcs		
Work Roll	mm	72 x 12 ncs	1	72 x 12 ncs	84 x 12 pcs	84 x 12 ncs	-	96 x 12 ncs	96 x 12 ncs
Work Roll Arrangement		72 X 12 pc3	-	-	Lower 2, Se	-	-	-	50 x 12 pc.
Main Servo Motor	kW	3.5	5.0	5.0	5.0	7.0	7.0	7.0	11.0
Air Supply	kg/cm <sup>2</sup>	5.5	5.0	5.0		5	7.0	7.0	11.0
P.L.H Adjustment	mm				Cust. Demar	-			
NCT5 Series		0 5 0	mm						
	101 1.					NCTE 700			NCTE 1000
Model		NCT5-300	NCT5-400	NCT5-500	NCT5-600	NCT5-700	NCT5-800	NCT5-900	NCT5-1000
Width of Material	mm	300	400	500	600	700	800	900	1000
Thickness of Material	mm				1.0 -	~ 5.0			
Feed Roll	mm		114 x 2 pcs				132 x 2 pcs		
Work Roll	mm	84 x 12 pcs	-	-	96 x 12 pcs	-	-	-	114 x 12 pcs
Work Roll Arrangement					Lower 2, Se		: Upper 5 / L	ower 4	
Main Servo Motor	kW	5.0	5.0	5.0	7.0	7.0	7.0	11.0	11.0
Air Supply	kg/cm <sup>2</sup>					5			
P.L.H Adjustment	mm				Cust. Demar	nd High ±100			_

NCT6 Series	for 1.	.0 ~ 6.0	mm						
Model		NCT6-300	NCT6-400	NCT6-500	NCT6-600	NCT6-700	NCT6-800	NCT6-900	NCT6-1000
Width of Material	mm	300	400	500	600	700	800	900	1000
Thickness of Material	mm				1.0 -	~ 6.0			
Feed Roll	mm		114 x 2 pcs			132 x 2 pcs		144 x	2 pcs
Work Roll	mm	96 x 12 pcs	96 x 12 pcs	96 x 12 pcs	114 x 12 pcs	114 x 12 pcs	114 x 12 pcs	120 x 12 pcs	120 x 12 pcs
Work Roll Arrangement			First Section	on:Upper 1 /	Lower 2, Se	cond Section	n:Upper 5 / L	ower 4	
Main Servo Motor	kW	5.0	5.0	7.0	7.0	7.0	11.0	15.0	15.0
Air Supply	kg/cm <sup>2</sup>				l	5			
P.L.H Adjustment	mm				Cust. Demar	nd High ±100			

### **Uncoiler** Specifications

Width of Material	mm	300	400	500	600	700	800	900	1000
Max. Coil Weight	kg	1500	2000	2000	3000	3000	5000	5000	5000
Coil I.D.	mm		Ø450	~ 520			Ø480	~ 520	
Max. Coil O.D.	mm				1200 c	or 1500			
Uncoiler Expansion					Hydr	aulic			
NCT1 ~ NCT3	HP	1	1	2	2	2	3	3	5
Uncoiler Motor and Inverter	kW	1.5	1.5	1.5	2.2	2.2	3.7	3.7	3.7
NCT4 ~ NCT6	HP	1	2	2	3	3	5	5	5
Uncoiler Motor and Inverter	kW	1.5	2.2	2.2	3.7	3.7	3.7	5.5	5.5

If material occur unconventional curve phenomena the leveler can't promise flat of material accuracy.
For example : Cross bow, torsion, wave edges, central buckles ..ext.

All specifications, dimensions and design characteristics shown in this catalogue are subject to change without notice.

### **Standard** Accessories

- Programmable multi pitch setting with cutting signal output function. (Cutting signal output function is able to control the cutting device.)
- HMI touch screen control panel.
- 2 points micro adjustment (Attached with dial gauge)
- Flip Top leveler head device.
- Leveler work rolls air release.
- Motor drive uncoiler with inverter control.
- Uncoiler photoelectric sensor control unit.
- Uncoiler hydraulic mandrel expansion device.
- Manual coil guide.
- Snubber arm.
- Carry over guide.
- Carry over clamp. (Applicable to NCT4 above)
- Peeler.
- Pre bender. (Applicable to NCT4 above)

# NCT

### **Optional** Accessories

- Coil Car (Coil loading assisting device).
- Motorized pass line high adjustment device.
- Clamping peeler device

## **3 IN 1 NCJ** Series

### Heavy Duty Uncoiler / Straightener / Feeder



**NCJ8 Series** Heavy Duty Uncoiler / Straightener / Feeder



Flip – Top Straightener Head Device

### **Features**

NCJ

- High rigidity mechanical structure design and work with Mitsubishi servo control system to ensure the feeding accuracy.
- Multi-functions touch panel designed, easy to configure and operation increase efficiency with pressing machine high perform connection operation.
- Special clamping peeler device, offering the solution easier to solve the customer in feeding material problem.
- Straightener / Precision leveler adopting screw lift designed by motor drive to easy adjustment the 3 IN 1 feeder machine pass line high as press machine change different dies.
- Feeder rolls and straightener rolls have undergone special heat treatment of HRC 60° for high precision leveling, rolls surface chromium-plating and then ground, high hardness, high wear-resistant characteristic and long service life cycle.
- Uncoiler hydraulic expansion design makes the job more efficiently.
- Collocation twin type uncoiler and coil car, save loading coil time increase efficiency.



**NCJ-DH Series** Twin Type Heavy Duty Uncoiler / Straightener / Feeder







Flip – Top Straightener Head Device

### Specification

Model		NCJ4-400	NCJ4-600	NCJ4-800	NCJ4-1000	NCJ4-1250
Width of Material	mm	400	600	800	1000	1250
Thickness of Material	mm			0.8 ~ 4.5		
Feed Roll	mm			136 x 4 Pcs		
Work Roll	mm			80 x 7 Pcs		
Work Roll Arrangement				Upper 4 / Lower 3		
Main Servo Motor	kW	5.0	7.0	7.0	11	11
Air Supply	kg/cm <sup>2</sup>			5		
P.L.H Adjustment	mm		Cu	ist. Demand High ±1	00	
NCJ6 Series	for <b>1.0</b>	<b>6.0</b> mm				
Model		NCJ6-400	NCJ6-600	NCJ6-800	NCJ6-1000	NCJ6-1250
Width of Material	mm	400	600	800	1000	1250
Thickness of Material	mm			1.0 ~ 6.0 (Option:8 )		
Feed Roll	mm			144 x 4 Pcs		
Work Roll	mm			114 x 7 Pcs		
				Upper 4 / Lower 3		
Work Roll Arrangement				11	11	15
	kW	7.0	7.0	11		
Work Roll Arrangement Main Servo Motor Air Supply	kW kg/cm <sup>2</sup>	7.0	7.0	5		

### NC Servo Feeder



### **NC-H** Servo Feeder (Double Feed Rolls Thick Material Type)

### **Uncoiler** Specifications

Width of Material	mm	400	600	800	1000	1250
Max. Coil Weight	kg	3000	5000	8000	8000	1000
Coil I.D.	mm	Q	ð460 ~ 520		Ø480 ~ 520	·
Max. Coil O.D.	mm			1200 or 1500		
Uncoiler Expansion				Hydraulic		
Uncoiler Motor	HP	3	5	7.5	7.5	10
	kW	3.7	3.7	5.5	5.5	7.5

• If material occur unconventional curve phenomena the straightener can't promise flat of material accuracy. For example : Cross bow, torsion, wave edges, central buckles ..ext.

All specifications, dimensions and design characteristics shown in this catalogue are subject to change without notice.

### **Standard** Accessories

- Programmable multi pitch setting with cutting signal output function. (Cutting signal output function is able to control the cutting device.)
- HMI touch screen control panel.
- 2 points micro adjustment (Attached with dial gauge)
- Straightener work rolls air release.
- Motor drive uncoiler with inverter control.
- Uncoiler photoelectric sensor control unit.
- Uncoiler hydraulic mandrel expansion device.

### **Optional** Accessories

Flip – Top straightener head device.

- Manual coil guide.
- Snubber arm.
- Carry over guide.
- Carry over clamp.
- Peeler.
- Pre bender.
- Coil Car (Coil loading assisting device).
- Motorized pass line high adjustment device.

### **Features**

- High rigidity mechanical structure design and work with Mitsubishi servo control system to ensure the feeding accuracy.
- Friendly operation by adopting Human Machine Interface control.
- Programmable multi-pitch setting function to support the different feeding length and feeding frequency requirement.







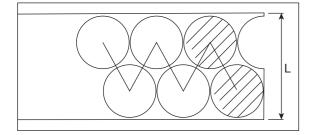
- Auto feed monitoring function which can be a safety operation when the unit interlock with press stamping operation.
- Applicable for selecting the optional 4 feeding rolls to meet the thicker material request, to ensure the feeding accuracy.

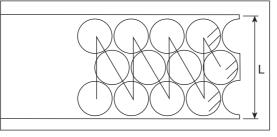
## NC-RL Zig - Zag Servo Feeder











### **Features**

- Zig Zag motion feeding feature is to achieve the material cost saving and that is performing better than the conventional feeders.
- The unit is made under the one-piece body construction design and adopting the linear slide rails, ball screw driving device to achieve the highest working stability.

Specificatio										1	
Model		NC-150	NC-200	NC-300	NC-300S	NC-400	NC-500	NC-600	NC-800	NC-1000	NC-125
Width of Material	mm	150	200	300	300	400	500	600	800	1000	1250
Thickness of Material	mm		0.1 ~ 2.0				0.1 ~ 3	.0 (Option:	: 4 or 6)		
Feed Roll Up	mm	72	x 1 ( Pu R	oll )			112	x 1 ( Pu R	Roll )		
Work Roll Down	mm		72 x 1					112 x 1			
Servo Motor	kW	1.0	1.0	1.0	2.0	2.0	3.5	3.5	5.0	5.0	7.0
Feed Length	mm					1~99	99.99				
P.L.H Adjustment	mm		156 ~ 226					187 ~ 367			

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### **Standard** Accessories

- Programmable multi-pitch setting with cutting signal output function. (Cutting signal output function is able to control the cutting device.)
- 5.7 "Mitsubishi Touch panel
- PLC controller Mitsubishi (Made in Japan)
- Orientation controller Mitsubishi (Made in Japan)
- NC servo controller Mitsubishi (Made in Japan)
- Feeding rolls air release.

### **Micro-Adjusted Lubricator**



AT Series: Thickness of material: 0.1~6.0 mm

**BT** Series: Thickness of material: 0.1~2.0 mm

### **FNC- Servo Feeder**



### **Optional** Accessories

- Micro-Adjusted lubricator
- Gear box driven type device. (Applicable to material thickness above 3 ~ 4 mm)
- Four feeding rolls set unit with gear box driving device. (Applicable to material thickness above 5 ~ 6 mm)
- Closed loop type AC servo control system.
- Special software demand.





#### **Optional** Accessories

 Tank with solenoid valve and level switch.

NC

- Stainless tank with solenoid valve.
- Motor oil pump tank.

### **SNC Servo Feeder**



### **2 IN 1 Four Plane Surface**

### **Precision Uncoiler & Leveler**



Flip – Top Leveler Head Device



### 2 IN 1 Four Plane Surface Precision Uncoiler & Leveler + Coil Car





### **Features**

- The unique patent design leveler (Taiwan & China).
- 2 IN 1 uncoiler & straightener is designed for save the space.
- Flip Top leveler head device designed for easy maintenance operation.
- Customer made accessories for pneumatic snubber arm, hydraulic expansion device...etc. It is welcome for any your special demand to create your own suitable machine.
- For high flatness required production, the unique four plane leveling design can not only make the precise flatness to front-rear (longitudinal curvature) side of the material but also left-right (transverse curvature) side of the material.



Longitudianl curveture

#### Transverse curveture

Specification	
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Model		GSF-150	GSF-200	GSF-300	GSF-400
Width of Material	mm	150	200	300	400
Thickness of Material	mm		0.1 ~	~ 0.6	
Leveler Rolls	mm	20 x 32 pcs			
Leveler Motor	HP	1	1	2	2
Leveler Inverter	kW	1.5	1.5	2.2	2.2

<b>GMF</b> Series						
Model		GMF-150	GMF-200	GMF-300	GMF-400	GMF-500
Width of Material	mm	150	200	300	400	500
Thickness of Material	mm			0.1 ~ 0.6 or 0.2 ~ 1.0	)	
Feeding Upper Rolls	mm			60 x 2 pcs		
Feeding Lower Rolls	mm			60 x 2 pcs		
Leveler Rolls	mm	30 x 32 pcs	30 x 32 pcs	30 x 32 pcs	30 x 32 pcs	30 x 32 pcs
Leveler Motor	HP	1	2	2	3	3
Leveler Inverter	kW	1.5	2.2	2.2	3.7	3.7
<b>GWF</b> Series						
Model		GWF-200	GWF-300	GWF-400	GWF-500	GWF-600
Width of Material	mm	200	300	400	500	600
Thickness of Material	mm			0.2 ~ 1.0 or 0.3 ~ 1.2	2	
Feeding Upper Rolls	mm			60 x 2 pcs		
Feeding Lower Rolls	mm			60 x 2 pcs		
Leveler Rolls	mm	40 x 32 pcs	40 x 32 pcs	40 x 32 pcs	40 x 32 pcs	40 x 32 pcs
Leveler Motor	HP	2	2	3	3	3
Leveler Inverter	kW	2.2	2.2	3.7	3.7	3.7
<b>GOF</b> Series						
Model		GOF-200	GOF-300	GOF-400	GOF-500	GOF-600
Width of Material	mm	200	300	400	500	600
Thickness of Material	mm			0.4 ~ 2.0		
Feeding Upper Rolls	mm			60 x 2 pcs		
Feeding Lower Rolls	mm			60 x 2 pcs		
Leveler Rolls	mm	50 x 32 pcs	50 x 32 pcs	50 x 32 pcs	50 x 32 pcs	50 x 32 pcs
Leveler Motor	HP	2	2	3	3	3
Leveler Inverter	kW	2.2	2.2	3.7	3.7	3.7

### **Uncoiler** Specifications

Width of Material	mm	150	200	300	400	500	600			
Max. Coil Weight	kg	1000	1000	1000	1500	1500 2000				
Coil I.D.	mm	Ø450 ~ 5	520 (Option: Ø30	00 ~ 520)	Ø450 ~ 520					
Max. Coil O.D.	mm	1200 or 1500								
Uncoiler Expansion				Manual or	Hydraulic					
Uncoiler Motor	HP	1/2	1/2	1/2	1	1	2			
	kW	0.75	0.75	0.75	1.5	1.5	2.2			

If material occur unconventional curve phenomena the leveler can't promise flat of material accuracy. For example : Cross bow, torsion, wave edges, central buckles ..ext.

• All specifications, dimensions and design characteristics shown in this catalogue are subject to change without notice.

### **Standard** Accessories

- Flip Top leveler head device.
- Manual in feed coil guide device.
- Motor driven Uncoiler & Leveler with inverter control.
  - 2 points micro adjustment with 3 sets. (attached with dial gauge)
  - H Type touch loop control sensor.
  - A frame type coil guide.

### **Optional** Accessories

- Hydraulic expansion device.
- Snubber arm.
- Quick fixed coil guide.
- Ultrasonic speed loop control device.
- Photoelectric sensor.
- Coil car (Coil loading assisting device).

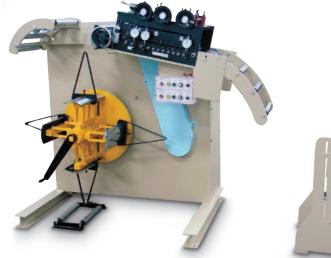
### 2 IN 1 Two Plane Surface **Precision Uncoiler & Leveler**







Flip – Top Leveler Head Device



GWT / GXT / GOT / GLT Series



Flip - Top Leveler Head Device



MLT / MLAT Series

### **Two Plane Precision Leveler** CMT / CWT / CXT / COT / CLT Series







CMT Series Type 2

• The combination of CMT Leveler & CT electronically controlled horizontal uncoiler is designed for saving the space.

### **Features**

- 2 IN 1 uncoiler & straightener is designed for save the space.
- The unique 2 section leveling designed for solving the high flatness and leveling stability of material requirement.
- Flip Top leveler head device designed for easy maintenance operation.
- Adopting the dual inverter driving motors to reduce the scratching problem of the material surface.





Flip - Top Leveler Head Device



**CT** Series

- Manual type in feed coil guiding device to simplify the coil loading operation.
- Custom-made accessories for pneumatic snubber arm, hydraulic expansion device...etc. It is welcome for any your special demand to create your own suitable machine.

### Specification

#### GMT / CMT Series for 0.1 ~ 0.6 mm Model CMT-100 GMT-150 / CMT-150 | GMT-200 / CMT-200 | GMT-300 / CMT-300 | GMT-400 / CMT-400 Width of Material mm 100 150 200 300 400 Thickness of Material mm 0.1 ~ 0.6 Leveler Rolls mm 20 x 22 pcs ΗP Leveler Motor 1/2 1 1/2 1 1 1 Leveler Inverter kW 0.75 0.75 0.75 1.5 1.5 GWT / CWT Series for 0.2 ~ 1.0 mm GWT-150 GWT-200 GWT-300 GWT-400 GWT-500 GWT-600 Model CWT-150 CWT-200 CWT-300 CWT-400 CWT-500 CWT-600 Width of Material mm 150 200 300 400 500 600 Thickness of Material mm 0.2 ~ 1.0 Feeding Upper Rolls mm 60 x 1 Pce Feeding Lower Rolls mm 60 x 1 Pce Leveler Rolls 30 x 20 pcs 30 x 20 pcs 30 x 20 pcs 30 x 20 pcs mm 30 x 20 pcs 30 x 20 pcs Leveler Motor ΗP 2 2 1 1 2 Leveler Inverter kW 0.75 0.75 1.5 1.5 1.5 2.2 CXT Series for 0.3 ~ GXT 1.2 mm GXT-200 GXT-300 GXT-400 GXT-600 GXT-700 GXT-800 GXT-500 Model CXT-200 CXT-300 CXT-400 CXT-500 CXT-600 CXT-700 CXT-800 Width of Material 500 mm 200 300 400 600 700 800 Thickness of Material mm 0.3 ~ 1.2 Feeding Upper Rolls 60 x 1 Pce mm Feeding Lower Rolls mm 60 x 1 Pce Leveler Rolls mm 40 x 14 pcs | 40 x 14 pcs 40 x 14 pcs 40 x 14 pcs 40 x 14 pcs 50 x 14 pcs 50 x 14 pcs Leveler Motor ΗP 5 2 2 3 1 2 3 kW Leveler Inverter 0.75 1.5 1.5 2.2 3.7 1.5 2.2 GOT / MLT / COT Series for 0.5 ~ 2.0 mm GOT-500 GOT-600 GOT-700 GOT-800 GOT-900 GOT-1000 GOT-200 GOT-300 GOT-400 MLT-500 MLT-600 MLT-700 MLT-800 MLT-900 MLT-1000 Model COT-200 COT-300 COT-400 COT-500 COT-600 COT-700 COT-800 COT-900 COT-1000 Width of Material mm 200 400 500 700 300 600 800 900 1000 Thickness of Material mm 0.5 ~ 2.0 Feeding Upper Rolls mm 60 x 1 Pce Feeding Lower Rolls mm 78 x 1 Pce Leveler Rolls mm 50 x 14 pcs 60 Leveler Motor ΗP 5 1 2 2 2 3 3 5 7.5 Leveler Inverter kW 0.75 1.5 1.5 1.5 2.2 2.2 3.7 5.5 3.7 GLT / MLAT / CLT Series for 0.5 ~ 3.0 mm

Model		GLT-200 CLT-200	GLT-300 CLT-300	GLT-400 CLT-400	GL1-500 MLAT-500 CLT-500	GLT-600 MLAT-600 CLT-600	GL1-700 MLAT-700 CLT-700	GLT-800 MLAT-800 CLT-800	MLAT-900 CLT-900	MLAT-1000 CLT-1000	
Width of Material	mm	200	300	400	500	600	700	800	900	1000	
Thickness of Material	mm		0.5 ~ 3.0								
Feeding Upper Rolls	mm			60 x 1 Pce			66 x	1 Pce	72 x	1 Pce	
Feeding Lower Rolls	mm			78 x 1 Pce			78 x	1 Pce	78 x	1 Pce	
Leveler Rolls	mm	60 x 14 pcs	60 x 14 pcs	66 x 14 pcs	66 x 14 pcs	72 x 14 pcs	72 x 14 pcs				
Leveler Motor	HP	1	2	2	2	3	3	5	5	7.5	
Leveler Inverter	kW	0.75	1.5	1.5	1.5	2.2	2.2	3.7	3.7	5.5	

### **Uncoiler** Specifications

Width of Material	mm	150	200	300	400	500	600	700	800	900	1000
Max. Coil Weight	kg	1000	1000	1000	1500	2000	2000	3000	3000	5000	5000
Coil I.D.	mm		Ø450 ~ 520 on: Ø300 ~		Ø450 ~ 520			Ø480 ~ 520			
Max. Coil O.D.	mm					1	200 or 150	0			
Uncoiler Expansion				Manual or	Hydraulic				Hydr	aulic	
Uncoiler Motor	HP	1/2	1/2	1/2	/2 1 1 1 2 2 3					3	3
and Inverter	kW	0.75	0.75	0.75	0.75	0.75	1.5	1.5	2.2	2.2	3.7

### CT Series Electronically Controlled Horizontal Uncoiler

Model		CT-1000	CT-1500		
Coil Weight	kg	1000	1500		
Max. Coil O.D.	mm	10	00		
Rotational Speed	R.P.M	0 ~	- 24		
Uncoiler Motor and Inverter	HP	1/2	1		
	kW	0.75	0.75		

If material occur unconventional curve phenomena the leveler can't promise flat of material accuracy. For example : Cross bow, torsion, wave edges, central buckles ..ext.

• All specifications, dimensions and design characteristics shown in this catalogue are subject to change without notice.

### Standard Accessories

- Flip Top leveler head device.
- Manual in feed coil guide device.
- Motor driven Uncoiler & Leveler with inverter control.
- 2 points micro adjustment with 3 sets. (Attached with dial gauge)
- Touch loop control sensor.
- A frame type coil guide.



**GMT** / **GWT** / **GXT** / **GOT** / **GLT** Series + Coil Car + Hydraulic Expansion Device.



### **Optional** Accessories

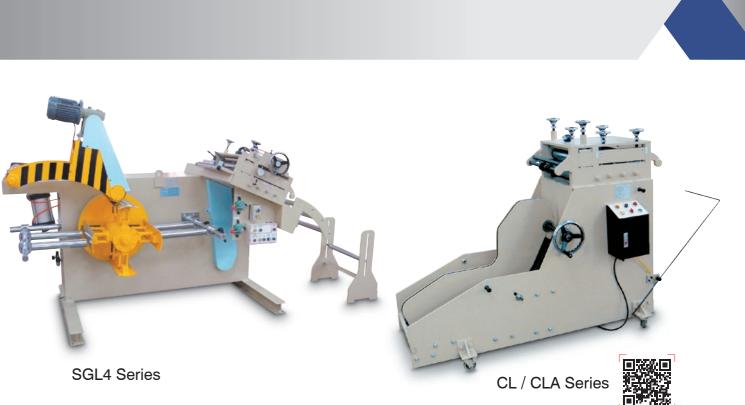
- Hydraulic expansion device.
- Snubber arm.
- Quick fixed coil guide.
- Ultrasonic speed loop control device.
- Photoelectric sensor.
- Coil Car (Coil loading assisting device).



**GOT** / **GLT** Series + Snubber Arm + Hydraulic Expansion Device + Ultrasonic Speed Loop Control Device.

### 2 IN 1 Series Compact Uncoiler & Straightener





### Features

- 2 IN 1 uncoiler & straightener is designed for save the space.
- Friendly operation controlled by adopting the independent control cabinet.
- Customer can optional the dual inverter driving motors to reduce the scratching problem of the material surface.

### Specification

GO / SGO	) / N	IL Sei	ries for	0.5 ~	1.6 m	n					
			GO-200	GO-300	GO-400	GO-500	GO-600	GO-700	GO-800	GO-900	GO-1000
Model		ML-150	SGO-200	SGO-300	SGO-400	SGO-500	SGO-600	SGO-700	SGO-800	SGO-900	SGO-1000
			ML-200	ML-300	ML-400	ML-500	ML-600	ML-700	ML-800	ML-900	ML-1000
Width of Material	mm	150	200	300	400	500	600	700	800	900	1000
Thickness of Material	mm					0.5 -	~ 1.6				
Feeding Upper Rolls	mm					60 x 3	2 Pce				
Feeding Lower Rolls	mm					80 x 3	2 Pce				
Straightener Rolls	mm	50 x 7 pcs	50 x 7 pcs	50 x 7 pcs	50 x 7 pcs	50 x 7 pcs	50 x 7 pcs	60 x 7 pcs			
Straightener Motor	HP	1	1	1	1	2	2	3	3	5	5
GL / SGL	/ M	LA Se	ries fo	r <b>0.5</b> ~	<b>3.0</b> m	m					
			GL-200	GL-300	GL-400	GL-500	GL-600	GL-700	GL-800	GL-900	GL-1000
Model		MLA-150	SGL-200	SGL-300	SGL-400	SGL-500	SGL-600	SGL-700	SGL-800	SGL-900	SGL-1000
			MLA-200	MLA-300	MLA-400	MLA-500	MLA-600	MLA-700	MLA-800	MLA-900	MLA-1000
Width of Material	mm	150	200	300	400	500	600	700	800	900	1000
Thickness of Material	mm					0.5 -	~ 3.0				
Feeding Upper Rolls	mm					70 x	1 Pce				
<b>F</b> 1' 1 <b>D</b> 1			98 x 1 Pce								
Feeding Lower Rolls	mm					98 x	TPCe				
Straightener Rolls	mm mm	60 x 7 pcs	60 x 7 pcs	60 x 7 pcs	60 x 7 pcs	98 x 60 x 7 pcs		72 x 7 pcs			

• Custom-made accessories for pneumatic snubber arm, hydraulic expansion device...etc. It is welcome for any your special demand to create your own suitable machine.

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#### SGI 4 / MI A4 Series for $0.8 \sim 4.0$ mm

		es ioi <b>0.0</b>	~ 4.0 11111				
		SGL4-200	SGL4-300	SGL4-400	SGL4-500	SGL4-600	SGL4-800
Model		MLA4-200	MLA4-300	MLA4-400	MLA4-500	MLA4-600	MLA4-800
Width of Material	mm	200	200 300 400 500			600	800
Thickness of Material	mm			0.8 /	~ 4.0		
Feeding Upper Rolls	mm		84 x	1 Pce		96 x	1 Pce
Feeding Lower Rolls	mm		114 x	1 Pce		114 x	1 Pce
Straightener Rolls	mm	84 x 7 pcs	84 x 7 pcs	84 x 7 pcs	84 x 7 pcs	96 x 7 pcs	96 x 7 pcs
Straightener Motor	HP	2	3	3	3	5	5
MLA6 Series	for <b>1</b> .	.0 ~ 6.0 m	nm				
Model		MLA6-200	MLA6-300	MLA6-400	MLA6-500	MLA6-600	MLA6-800
Width of Material	mm	200	300	400	500	600	800
Thickness of Material	mm			1.0 -	~ 6.0		
Feeding Upper Rolls	mm		96 x	1 Pce		120 x	1 Pce
Feeding Lower Rolls	mm		114 x	1 Pce		150 x	1 Pce
Straightener Rolls	mm	96 x 7 pcs	96 x 7 pcs	96 x 7 pcs	96 x 7 pcs	120 x 7 pcs	120 x 7 pcs
Straightener Motor	HP	3	3	3	5	5	7.5

### **Uncoiler** Specifications

Width of Material	mm	150	200	300	400	500	600	700	800	900	1000
Max. Coil Weight	kg	1000	1000	1000	1500	2000	2000	3000	3000	5000	5000
Coil I.D.	mm		Ø450 ~ 520 on: Ø300 ~			Ø450 ~ 520	)	Ø480 ~ 520			
Max. Coil O.D.	mm					1	200 or 150	0			
Uncoiler Expansion				Manual or	Hydraulic				Hydr	aulic	
Uncoiler Motor	HP	1/2	1/2 1/2 1/2 1 1 1					2	2	3	3
and Inverter	kW	0.75	0.75	0.75	0.75	0.75	1.5	1.5	2.2	2.2	3.7

### CL / CLA Series

Model		CL-150	CL-200	CL-300	CLA-150 CLA-200 CLA-30			
Width of Material	mm	150	200	300	150	150 200 300		
Thickness of Material	mm		0.5 ~ 1.6			0.5 -	~ 3.0	
Feeding Upper Rolls	mm	60 x 2 Pce 70 x 1 Pce						
Feeding Lower Rolls	mm		80 x 2 Pce 98 x 1 Pce					
Straightener Rolls	mm	50 x 7 pcs	50 x 7 pcs	50 x 7 pcs	60 x 7 pcs	60 x 7 pcs	60 x 7 pcs	
Straightener Motor	HP	1/2	1	1	1	1	2	
Max. Coil O.D.	mm	1000						
Max. Coil Weight	kg	400	600	800	400	600	800	

**Optional** Accessories

• All specifications, dimensions and design characteristics shown in this catalogue are subject to change without notice.

### **Standard** Accessories

- Touch loop control sensor.
- Material holder.
- A frame type coil guide.
- Uncoiler inverter.
- Hydraulic expansion device.

Straightener dial gauge.

Straightener inverter.

Uncoiler motor driving

**Uncoiler & Straightener** 







Coil car (Coil loading assisting device).

Snubber arm.

Quick fixed coil guide.

Photoelectric sensor.

Ultrasonic speed loop control sensor.

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