

**3 IN 1 NCL-DH Series**

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

NCL1 Series for 0.3 ~ 1.0 mm

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 ²	5							
P.L.H Adjustment	mm	Cust. Demand High ±100							

NCL2 Series for 0.4 ~ 2.0 mm

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							
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 / 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 ²	5							
P.L.H Adjustment	mm	Cust. Demand High ±100							

NCL3 Series for 0.5 ~ 3.0 mm

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	0.5 ~ 3.0							
Feed Roll	mm	96 x 2 pcs			112 x 2 pcs			132 x 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		Upper 4 / Lower 3							
Main Servo Motor	kW	3.5	3.5	3.5	5.0	5.0	5.0	5.0	7.0
Air Supply	kg/cm ²	5							
P.L.H Adjustment	mm	Cust. Demand High ±100							

NCL4 Series for 0.8 ~ 4.0 mm

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	84 x 7 pcs	96 x 7 pcs	96 x 7 pcs
Work Roll Arrangement		Upper 4 / Lower 3							
Main Servo Motor	kW	3.5	5.0	5.0	5.0	7.0	7.0	7.0	11.0
Air Supply	kg/cm ²	5							
P.L.H Adjustment	mm	Cust. Demand High ±100							

NCL5 Series for 1.0 ~ 5.0 mm

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 / 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 ²	5							
P.L.H Adjustment	mm	Cust. Demand High ±100							

NCL6 Series for 1.0 ~ 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	
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 / Lower 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 ²	5							
P.L.H Adjustment	mm	Cust. Demand 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 or 1500							
Uncoiler Expansion		Hydraulic							
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)

Optional Accessories

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