



HIGH SENSITIVITY MAXIMUM PRODUCTIVITY

Sliding front support arms
Easy clamping tool holder system.
Customer focused ergonomic solutions.
User-friendly touch screen.

WE67K Press Brake

CNC Press Brake Controller



CYBELEC CT8 (Switzerland)

- 8" color LCD display, touch screen, icon recognition function
- The "EasyBend" page is processed with easy single bending
- The fully efficient bending programming can meet the needs of mass production and processing
- Automatically calculate bending angle, main pressure and deflection compensation
- Automatic calculation of bending data
- Angle, Back Gauge correction



CYBELEC CT12 (Switzerland)

- 12" color LCD display, touch screen, icon recognition function
- The "EasyBend" page is processed with easy single bending
- Automatic calculation of bending data
- Automatic calculation of pressure and deflection compensation automatic calculation of upper die depth
- Angle, rear gear correction, 2D graphics programming
- Automatically simulate the bending sequence and provide the best bending scheme (option)



DELEM DA-53T (Netherlands)

- Standard 4+1 axis control
- Parameter programming of menu drive
- 10.4" LCD true color TFT display
- Table deflection compensation control
- Mold library
- USB interface
- The advanced Y-axis control algorithm can control both the ring and the open-loop valve
- Built in control valve amplifier



DELEM DA-58T (Netherlands)

- 2D touch graphical programming
- 15" high-resolution TFT true color display
- Bending process calculation
- Deflection compensation control
- Servo and drive control modes
- Advanced Y-axis control algorithm, you can control the used loop valve can also control the open-loop valve
- USB interface



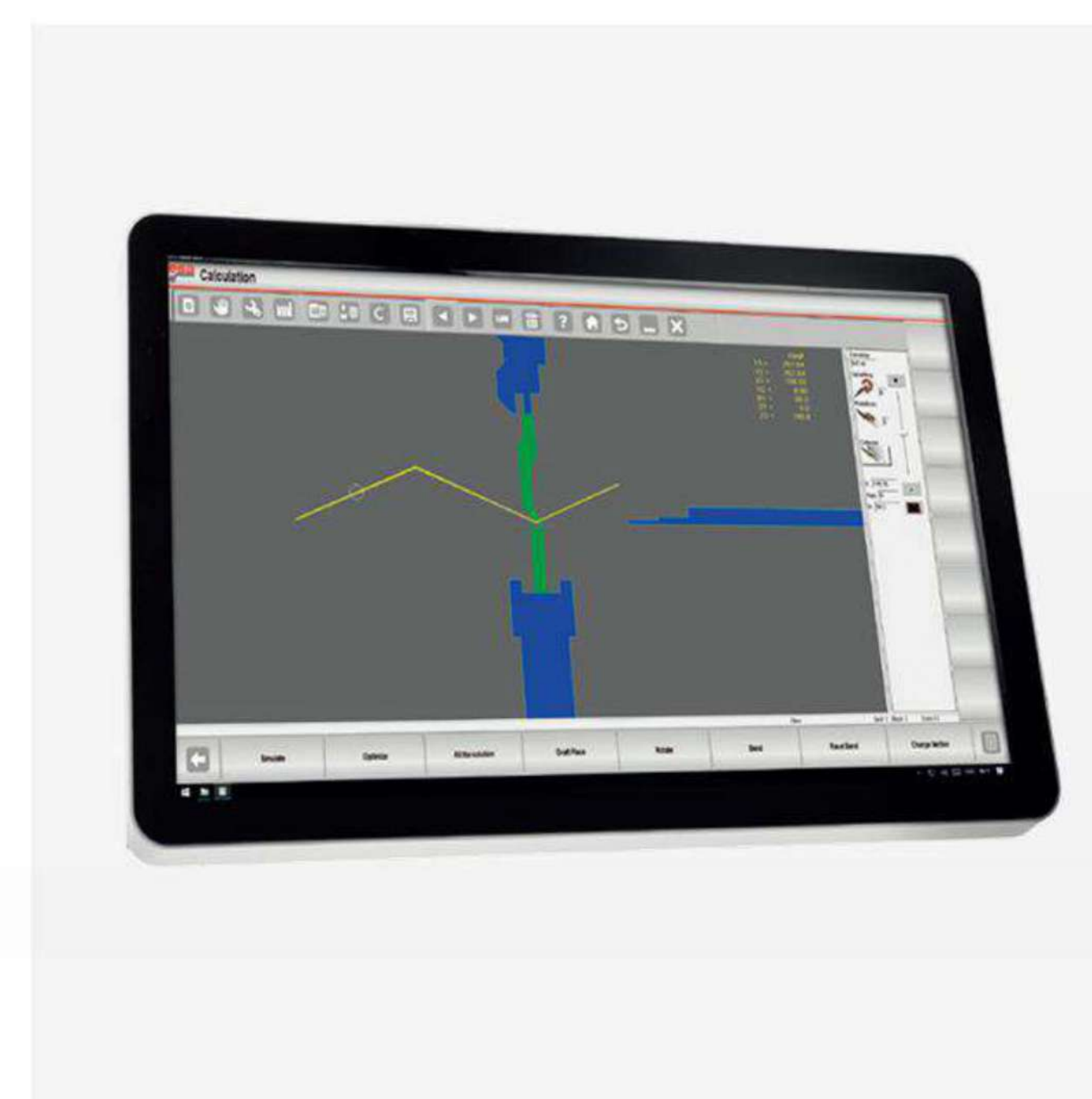
DELEM DA-66T (Netherlands)

- 2D pattern programming
- 3D product graphic simulation display
- 17" high resolution TFT true color display
- Memory capacity 1GB
- Complete windows application package



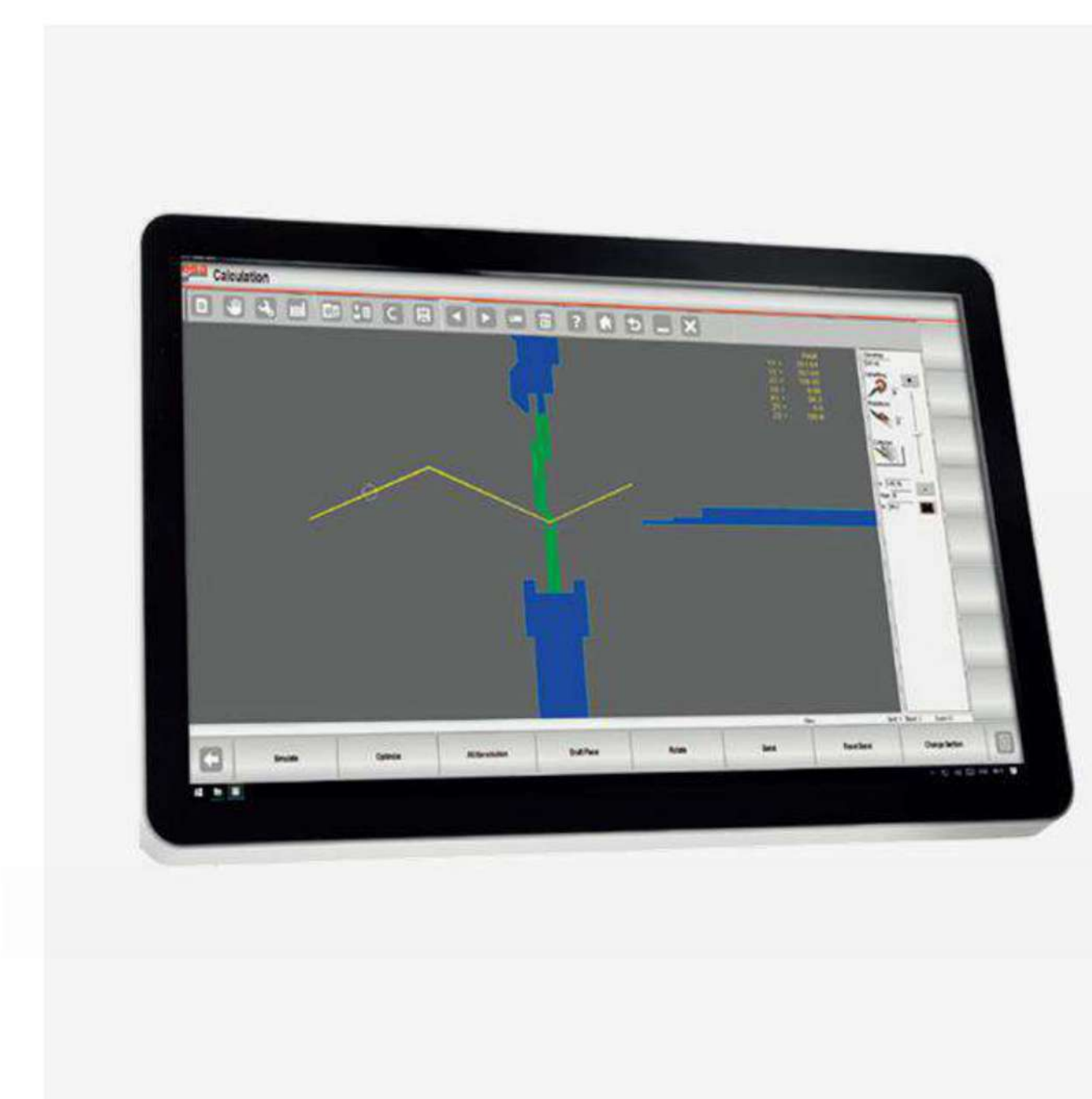
DELEM DA-69T (Netherlands)

- 17" high resolution colour TFT
- 2D and 3D graphical touch screen programming mode
- 3D visualisation in simulation and production
- Full Windows application suite
- Delem Modusys compatibility (module scalability and adaptivity)
- USB, peripheral interfacing
- Profile-T2D of software
- Sensor bending & correction interface



ESA S860 (Italy)

- 18.5" designed for multi touch screen
- Support multi touch application
- No frame, simple but powerful
- Support finger-tip work piece design
- Support import of tools shapes (.dxf files)
- Support management of tool library
- Support tool and die holders' management
- Support ESA 3D Bend software
- Equip standard industry 4.0 Modbus TCP interface



ESA S875 (Italy)

- 21.5" designed for multi touch screen
- Support multi touch application
- No frame, simple but powerful
- Support finger-tip work piece design
- Support import of tools shapes (.dxf files)
- Support management of tool library
- Support tool and die holders' management
- Support ESA 3D Bend software
- Equip standard industry 4.0 Modbus TCP interface

CNC Standard Equipment



Rexroth Hydraulic valves



Ball screw and linear guide



One-key Release Fast Clamp



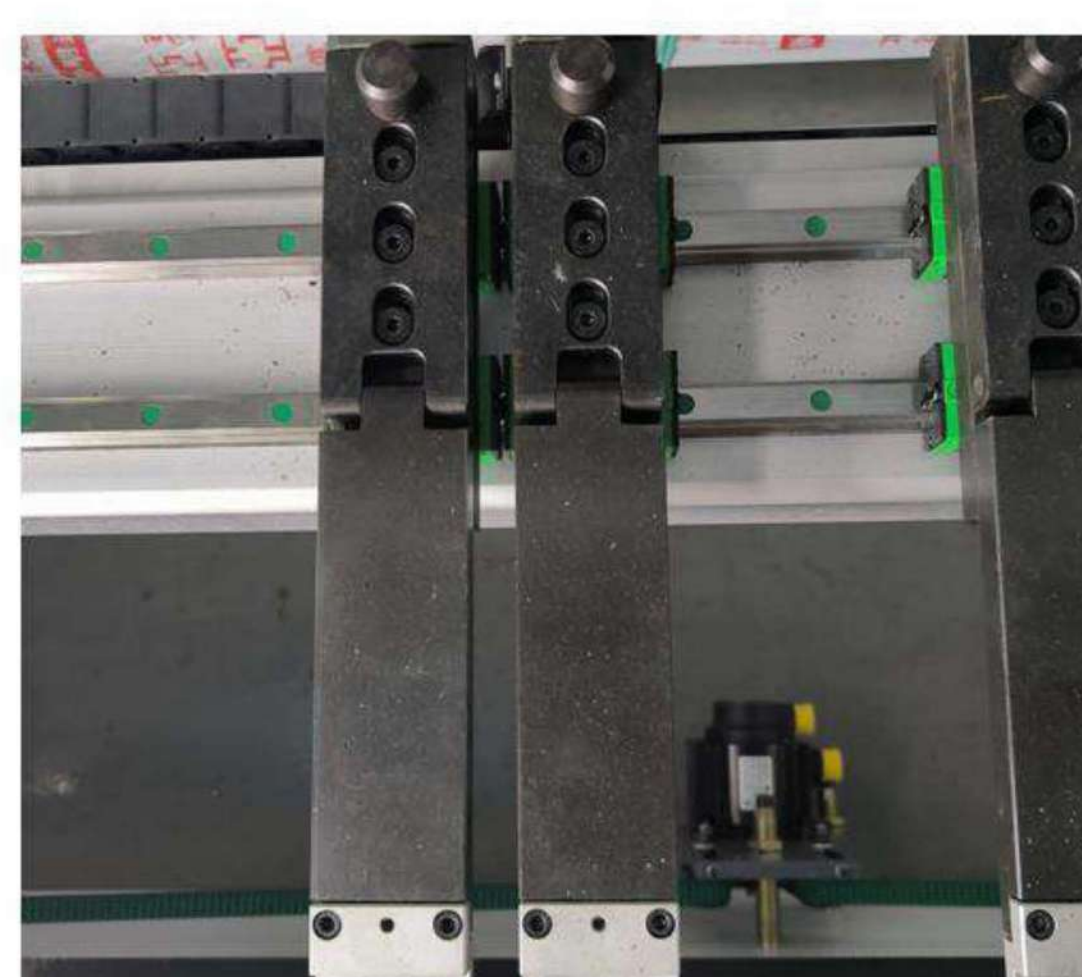
Electric Components



CNC punch and die



GIVI Grating ruler



Adjustable Z stoppers



SIEMENS Main Motor

Optional Equipment

- Servo-Pump Unit
- Tooling Cabinet
- Amada Type Tool Clamp
- Hydraulic Oil Cooler
- DSP Laser Protection
- Hydraulic Tool Clamp
- CNC Sheet Follower
- Laser Angle Measurement
- Robotic Arm For Industry 4.0

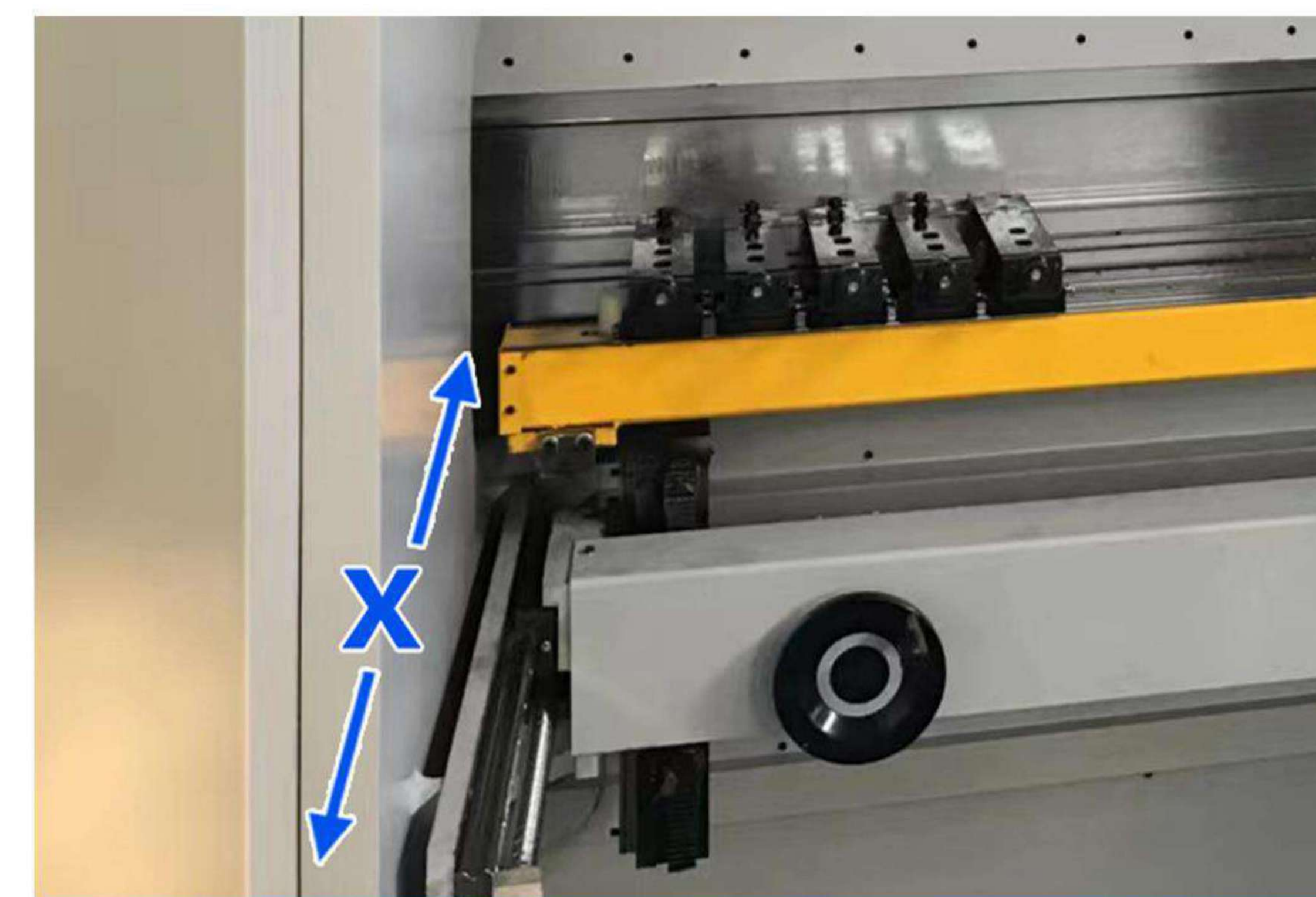


Laser protection



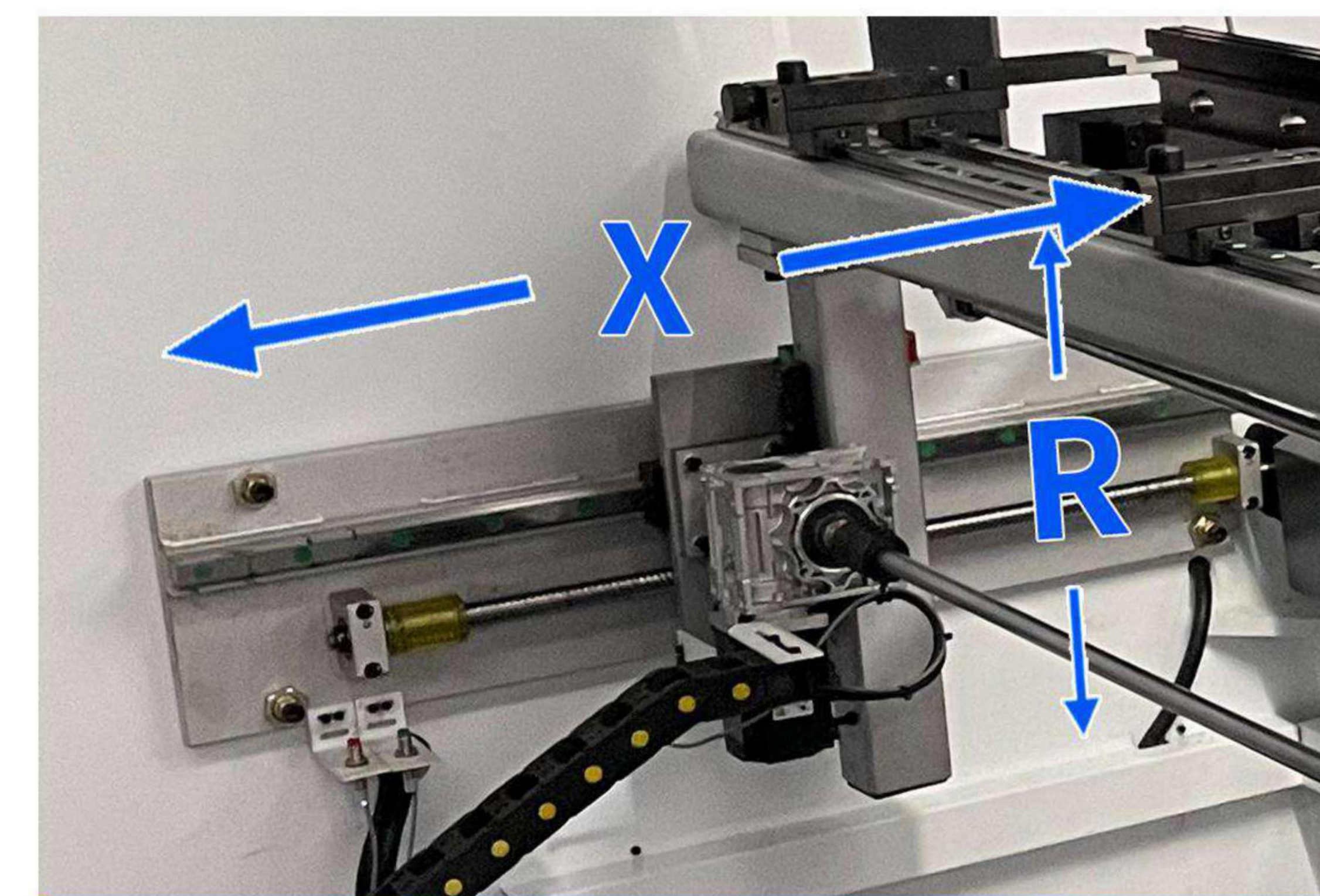
Sheet follower

CNC Backgauge



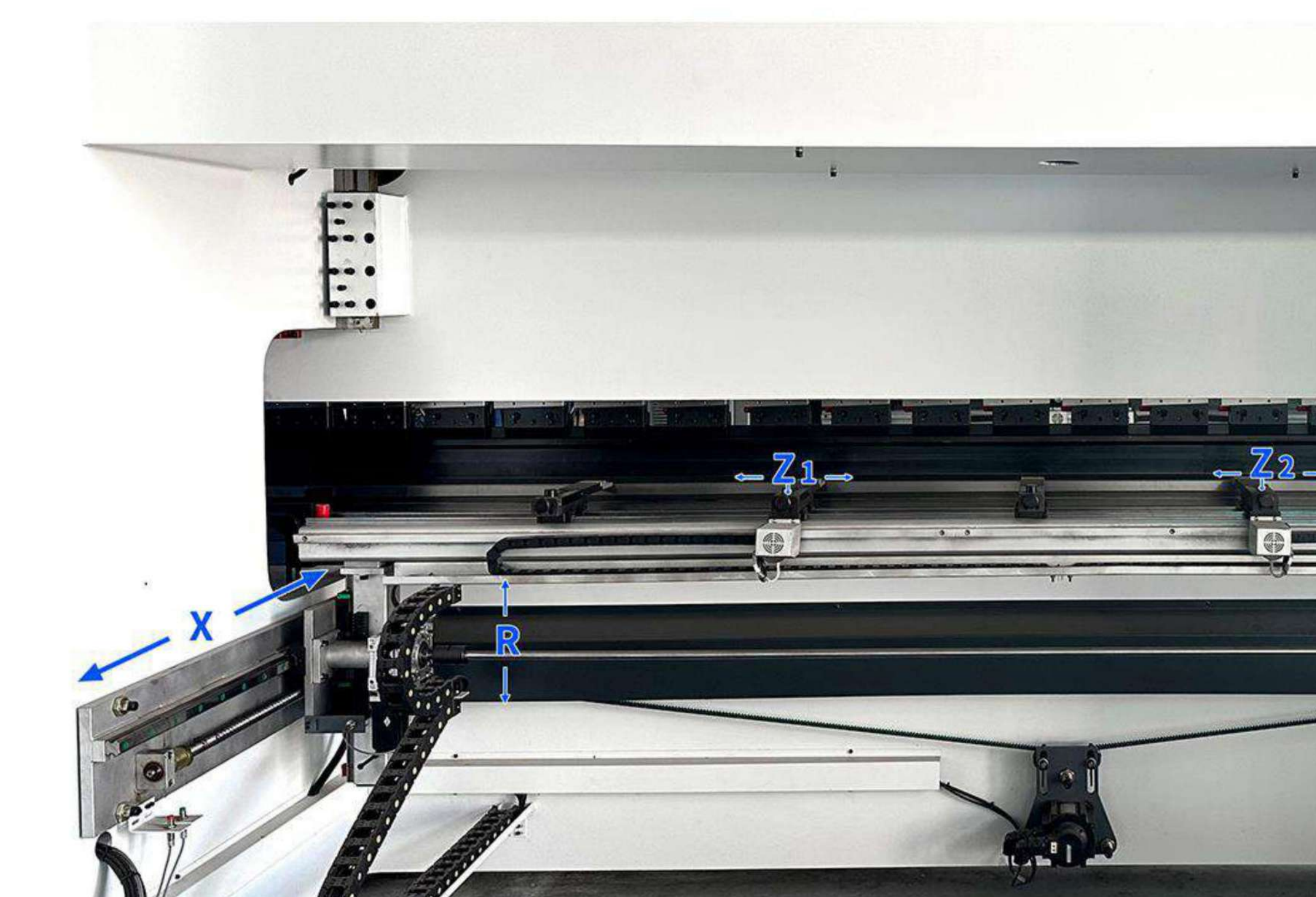
1AXIS BACKGAUGE(X)

SYSTEM MATCHING:
Cybelec:CT8 CT12 PS
Delem:DA53T DA58T DA66T DA69T
ESA:S860 S875



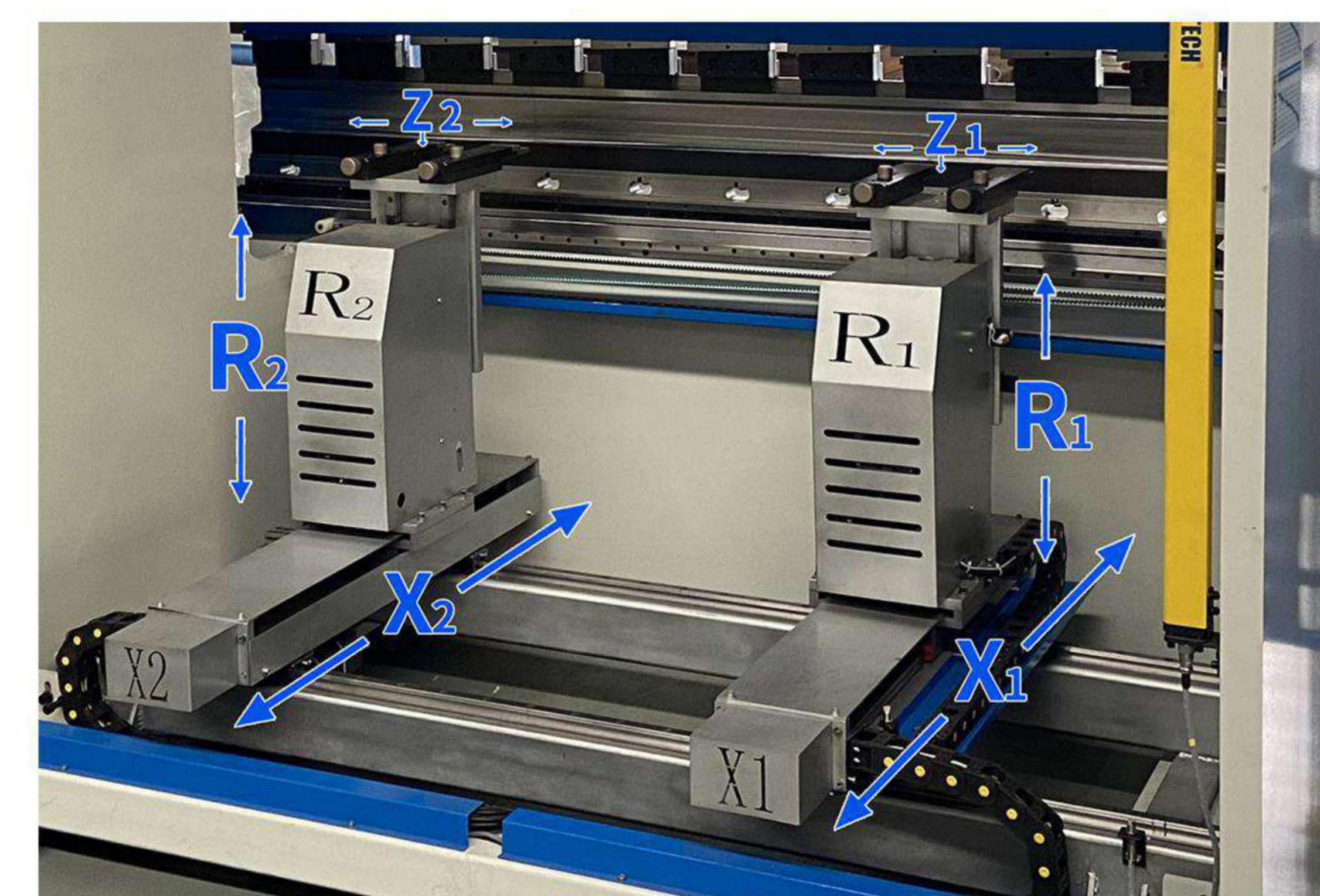
2AXIS BACKGAUGE(X+R)

SYSTEM MATCHING:
Cybelec:CT8 CT12 PS
Delem:DA53T DA58T DA66T DA69T
ESA:S860 S875



4AXIS BACKGAUGE(X+R+Z1+Z2)

SYSTEM MATCHING:
Delem:DA66T DA69T
ESA:S860 S875



6AXIS BACKGAUGE(X1+X2+R1+R2+Z1+Z2)

SYSTEM MATCHING:
Delem:DA66T DA69T
ESA:S860 S875

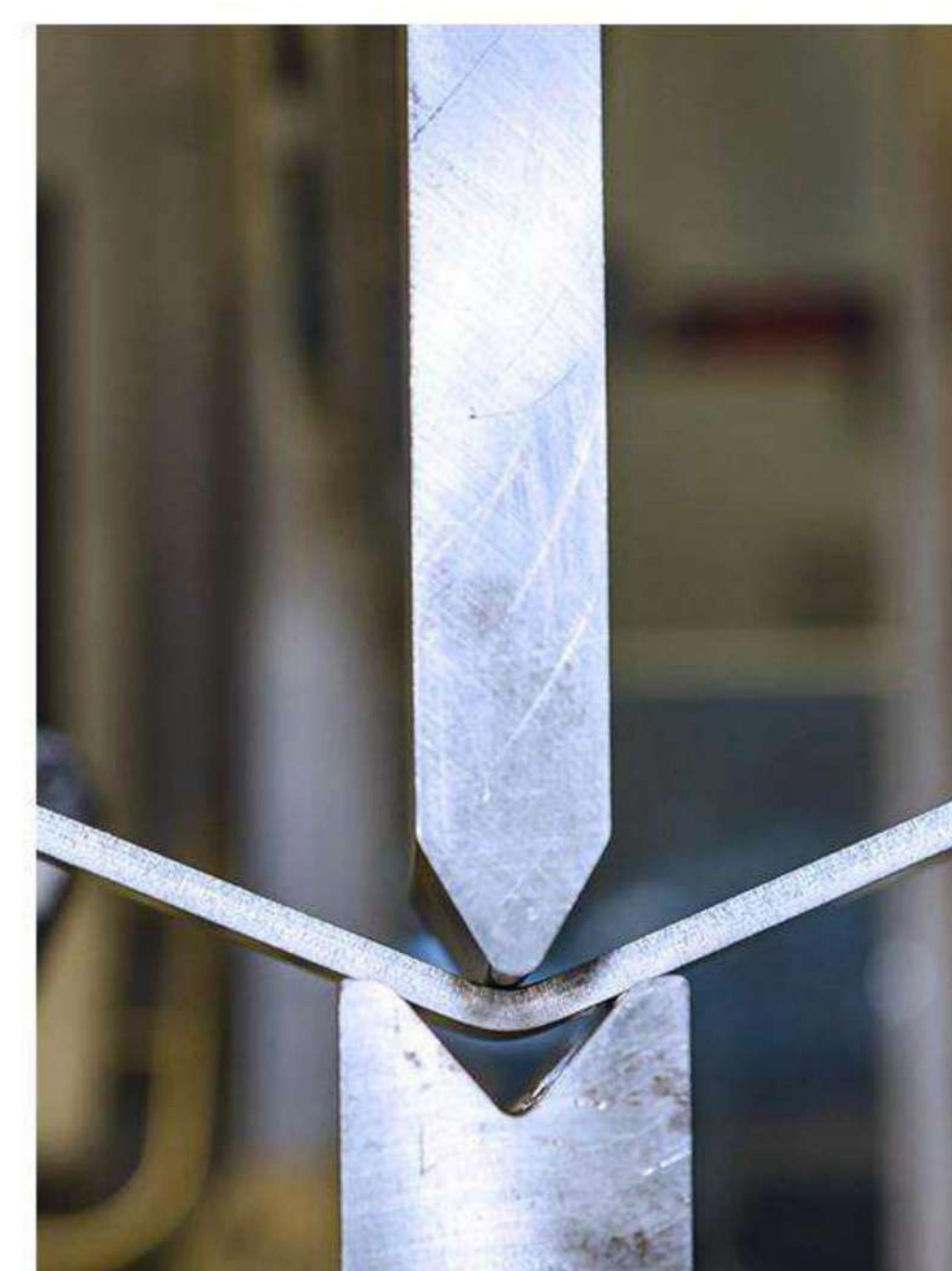
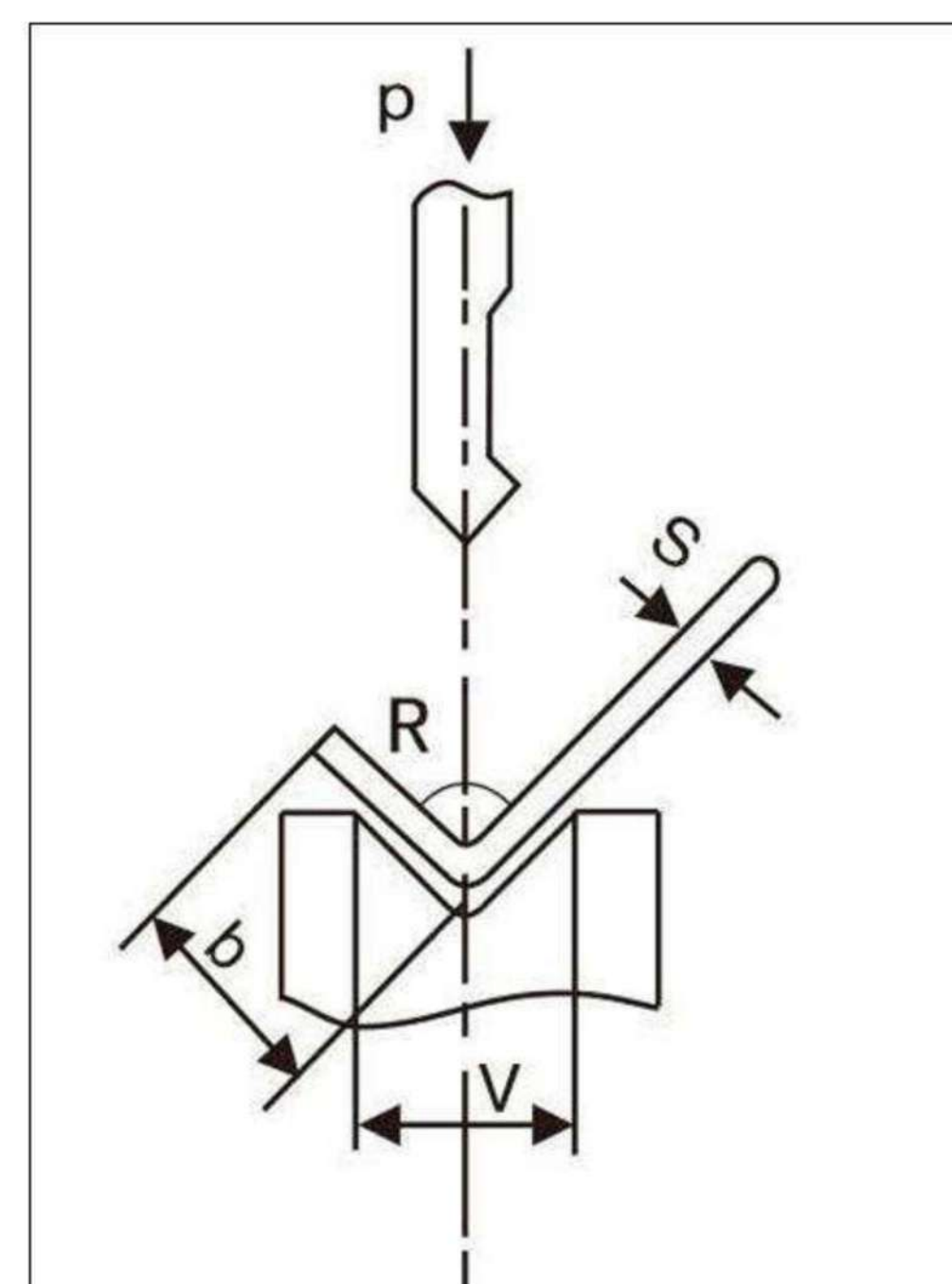
► Bending Force Table

Die opening		4	6	8	10	12	14	16	18	20	24	28	32	36	40	45	50	55	60	65	70	80	90	100	120
Minimum flange lenath b min		2.8	4	5.5	7	8.5	10	11	12.5	14	17	20	22	25	28	31	35	38	42	46	49	56	63	70	85
Bending radius		0.7	1	1.3	1.6	2	2.3	2.6	3	3.3	3.8	4.5	5	6	6.5	7	8	9	10	11	12	13	14	16	19
Thickness (t) →	0.5mm	40	30																						
	0.6mm	60	40	30	30																				
	0.8mm		70	50	40	30																			
	1mm		110	80	70	60																			
	1.2mm			120	100	80	70	60																	
	1.5mm				150	120	110	90	80																
	2mm					220	190	170	150	130	110														
	2.5mm							250	220	200	170	150	130												
	3mm								330	290	250	210	180	160											
	3.5mm									400	330	290	250	220	200										
	4mm										440	370	330	290	260	230	210								
	4.5mm											470	410	370	330	300	270	250							
	5mm												510	450	400	360	330	300	270	250	340				
	6mm														580	520	470	430	390	360	600	300			
	8mm																820	750	700	640	920	520	460	420	
	10mm																		1070	990	1320	810	720	650	
	12mm																					1160	1030	950	780
	14mm																							1400	1250

Force Calculation Formula for Press Brake:

- Calculation method of sheet bending force:
- P-bending force (KN)
- S-plate thickness (mm)
- L-plate width (m)
- V-lower die notch width (mm)

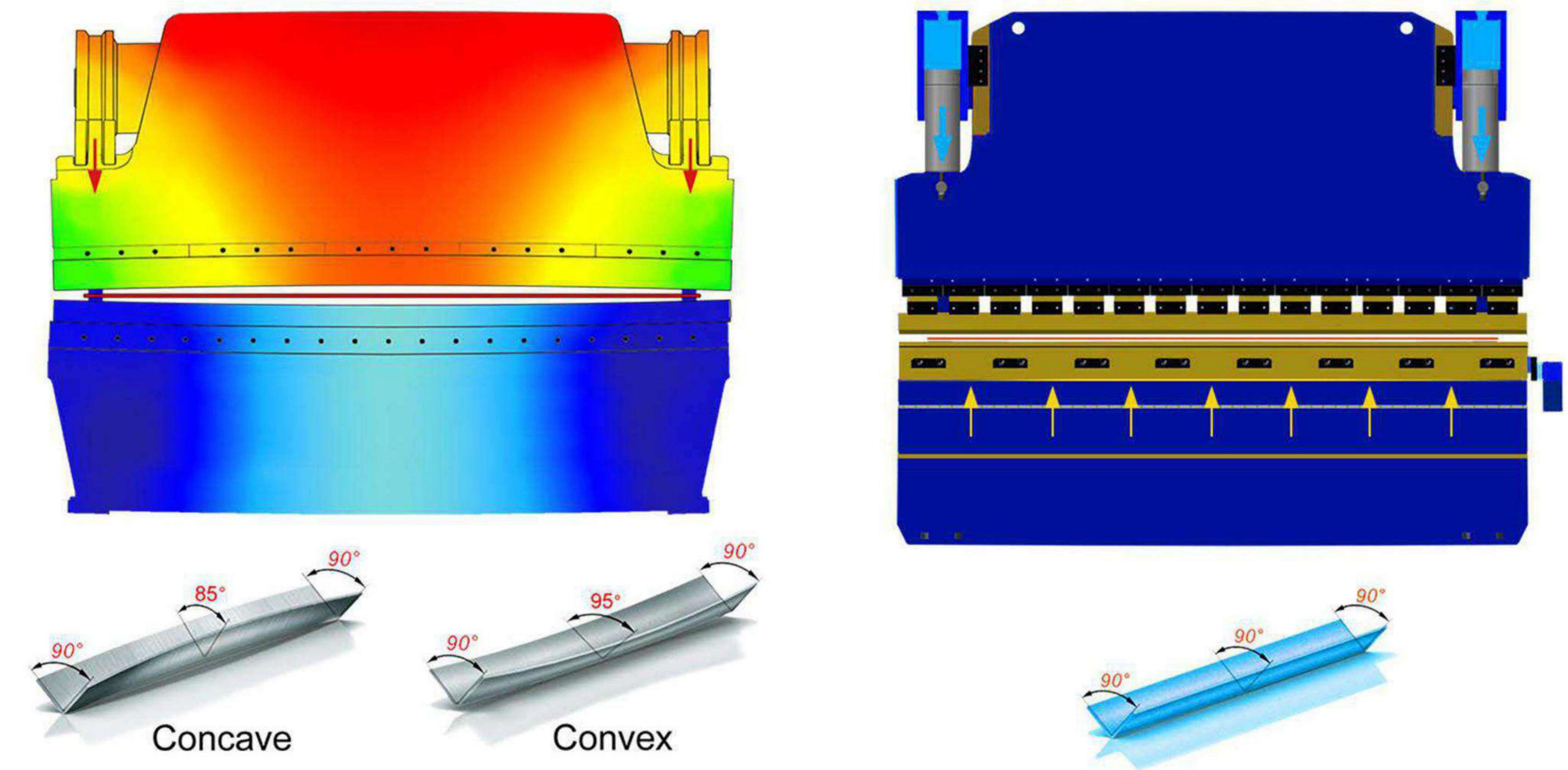
Calculation formula: $P = \frac{650S^2L}{V}$ ($\delta b = 450 \text{ N/mm}^2$)



Press Brake Sketch Map

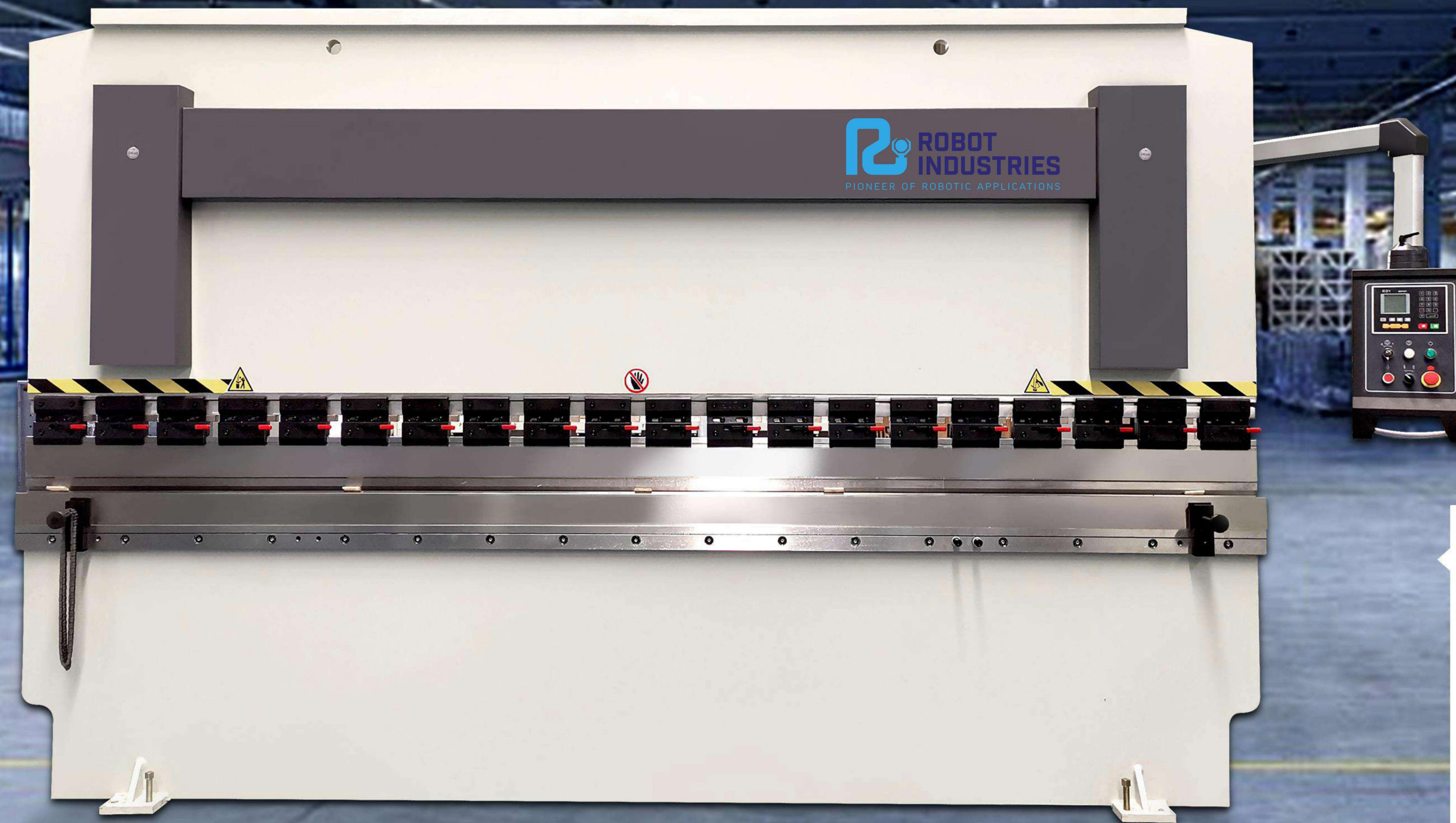
► CNC CROWNING

The stress can cause the ram and worktable some deformation during the process of bending the CNC crowning can make relevant compensation to the ram deformation, which improves the precision of press brake by a wide margin. It is specially applied to make some high precision products, such as stainless steel.



Motorized Crowning

Name		Unit	40T1250	40T1600	63T1600	63T2500	63T3200	80T2500	80T3200	100T2500	100T3200	100T4000	130T2500	130T3200	130T4000	170T2500	170T3200	170T4000	200T3200	200T4000	250T3200	250T4000	300T3200	300T4000
Bending force		KN	400	400	630	630	630	800	800	1000	1000	1000	1300	1300	1300	1700	1700	1700	2000	2000	2500	2500	3000	3000
Bending length		mm	1250	1600	1600	2500	3200	2500	3200	2500	3200	4000	2500	3200	4000	2500	3200	4000	3200	4000	3200	4000	3200	4000
Column distance		mm	700	1000	1000	2000	2500	2050	2500	2000	2500	3200	2000	2500	3200	2000	2500	3200	2500	3200	2500	3200	2500	3200
Throat depth		mm	300	300	300	300	300	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400
Cylinder stroke (Y1, Y2)		mm	160	160	160	160	160	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	250	250
Daylight(Die loading height)		mm	390	390	390	390	390	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420
Y-axis down speed		mm/sec	200	200	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	140	140	140	140
Y-axis working speed		mm/sec	12 (adjustable)	12 (adjustable)	12 (adjustable)	12 (adjustable)	12 (adjustable)	12 (adjustable)	12 (adjustable)	12 (adjustable)	12 (adjustable)	12 (adjustable)	12 (adjustable)	12 (adjustable)	12 (adjustable)	12 (adjustable)	12 (adjustable)	12 (adjustable)	12 (adjustable)	12 (adjustable)	11 (adjustable)	11 (adjustable)	9 (adjustable)	9 (adjustable)
Y-axis return speed		mm/sec	180	180	160	160	160	140	140	140	140	140	140	140	140	140	140	140	140	140	120	120	120	120
Y-axis accuracy		mm	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01
Work-piece linearity		mm	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Max backgauge travel		mm	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
X-axis (R-axis) speed		mm/sec	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400
X-axis (R-axis) accuracy		mm	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01	±0.01
Front sliding arms		pcs	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Back gauge finger stopper		pcs	2	2	2	2	3	2	3	2	3	4	2	3	4	2	3	4	3	4	3	4	3	4
Main motor		KW	5.5	5.5	5.5	5.5	5.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	11	11	11	15	15	22	22	30	30
Dimension	Length	mm	1800	2200	2200	3200	3900	3200	3900	3200	3900	4700	3200	3900	4700	3200	3900	4700	3900	4700	3900	4700	3900	4700
	Width	mm	1250	1300	1400	1500	1500	1600	1600	1700	1750	1800	1700	1750	1850	2000	2000	2000	2000	2050	2050	2150	2150	2300
	Height	mm	2060	2060	2160	2260	2260	2260	2260	2560	2560	2560	2560	2550	2560	2550	2550	2550	2550	2550	2900	2900	3100	3300



ECONOMIC SENSE AND USER-FRIENDLY

Low investment cost.
Economic machine.
Strong rigid structure
Easy tool replacement.

WC67K
Press Brake

▶ NC Press Brake Controller



ESTUN 21 (China)

- Positioning control of back gauge
- One-way and two-way positioning function, effectively eliminating the screw gap
- Retreat escape function, automatic search reference function
- One-button backup and restore function, rapid location teaching function
- 40 multi-step program storage space, each program has 25 steps
- Power protection function



ESTUN 300P (China)

- Control functions, to support the X,Y,R axis servo control C axis hydraulic/mechanical compensation two modes are optional
- Precise point of programming calculation function, built-in mold base and material list, promoted Angle calculation accuracy
- The standard USB interface, which can realize the parameters, the program a key online backup and system software upgrade



DELEM DA-41T (Netherlands)

- Ultra-high resolution 7" widescreen TFT LCD display
- Industrial-grade PCT tempered glass touch screen
- Ergonomic design for easy operation
- High strength and scratch resistance, can be operated with gloves
- Each nuance highlights the high-end level
- The shell is designed based on panel installation, easy to integrate
- Perfect combination with current bending machinedesign style



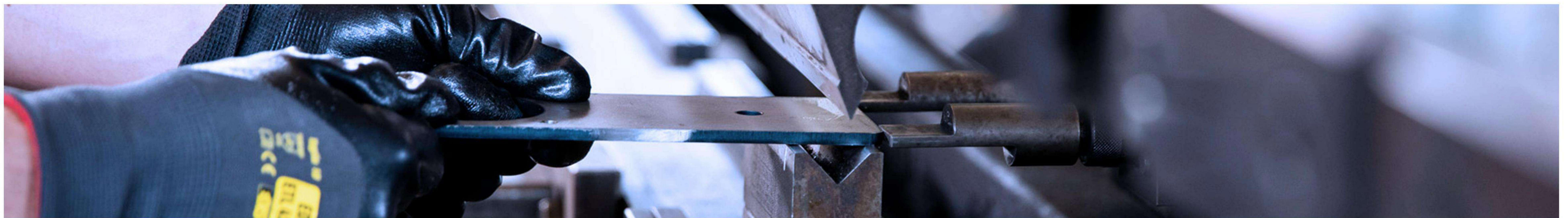
CYBELEC CT8 (Switzerland)

- 8" color LCD display, touch screen, icon recognition function
- The "EasyBend" page is processed with easy single bending
- The fully efficient bending programming can meet the needs of mass production and processing
- Automatically calculate bending angle, main pressure and deflection compensation
- Automatic calculation of bending data
- Angle, Back Gauge correction



TP 10S (China)

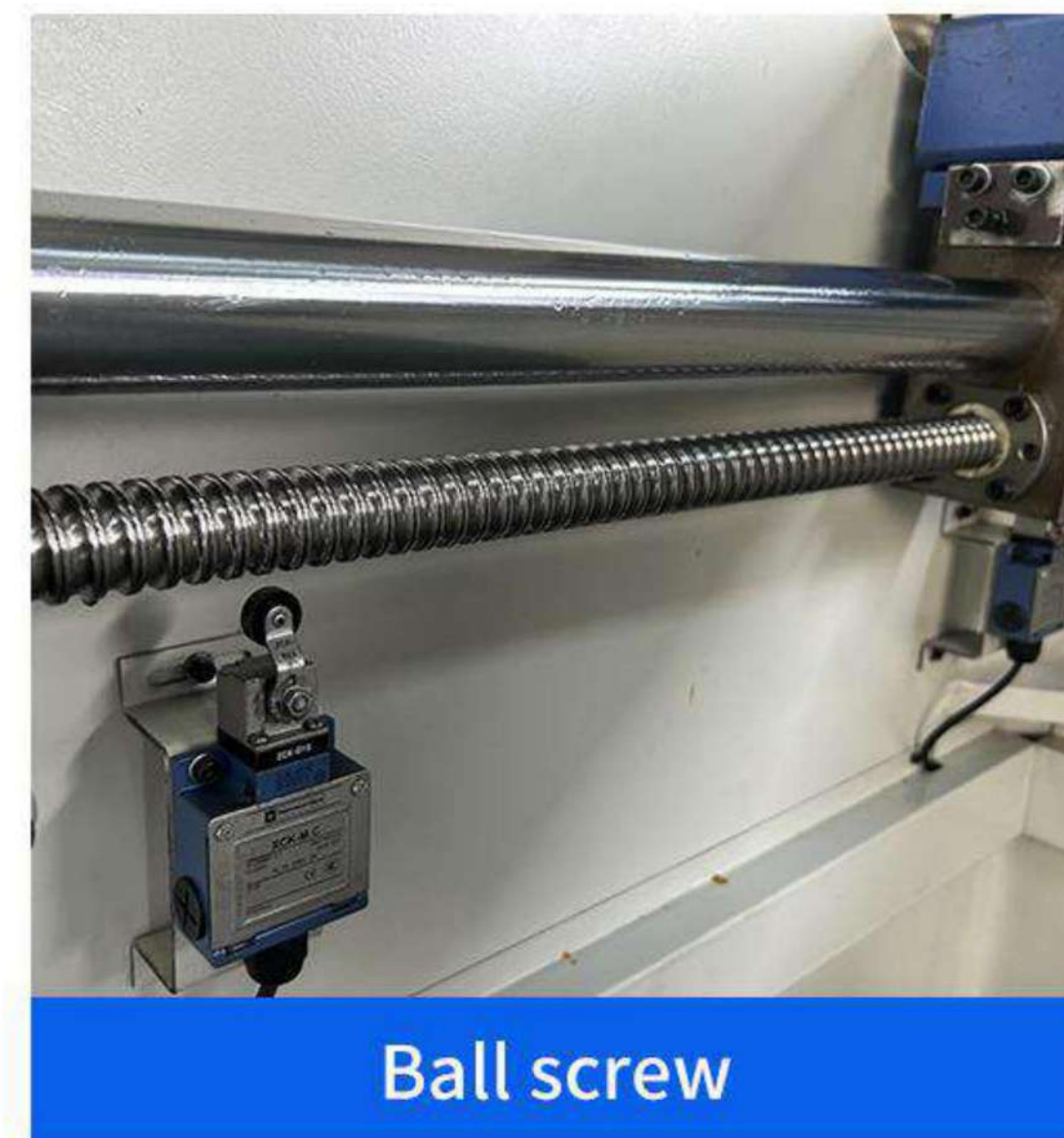
- Cylinder stroke (Y axis) control
- Back gauge (X axis) control
- Angle programming
- Tool programming
- Retract function
- Up to 220 programs
- Servo control
- Up to 24 bends per program



► NC Standard Equipment



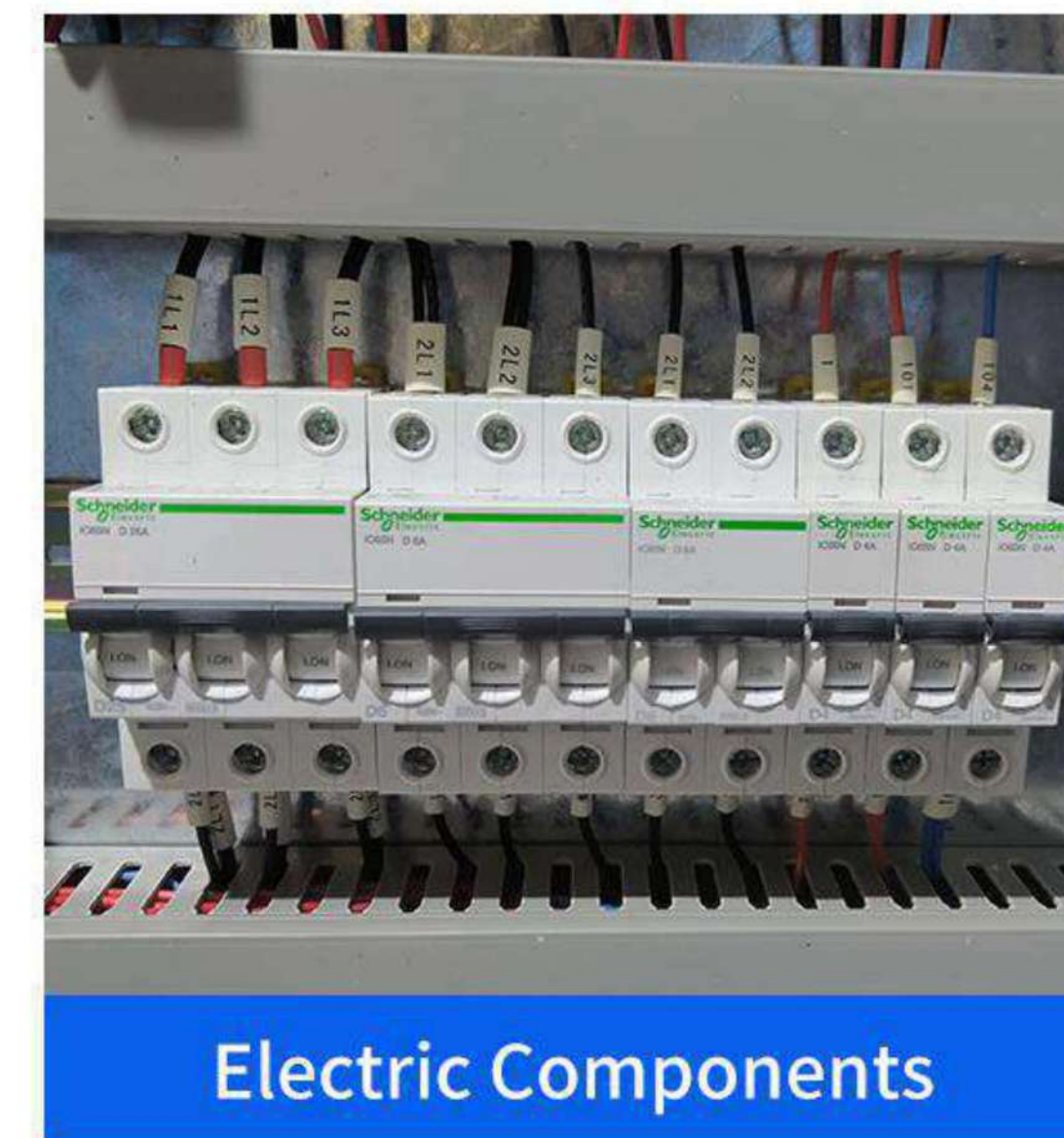
Hydraulic valve



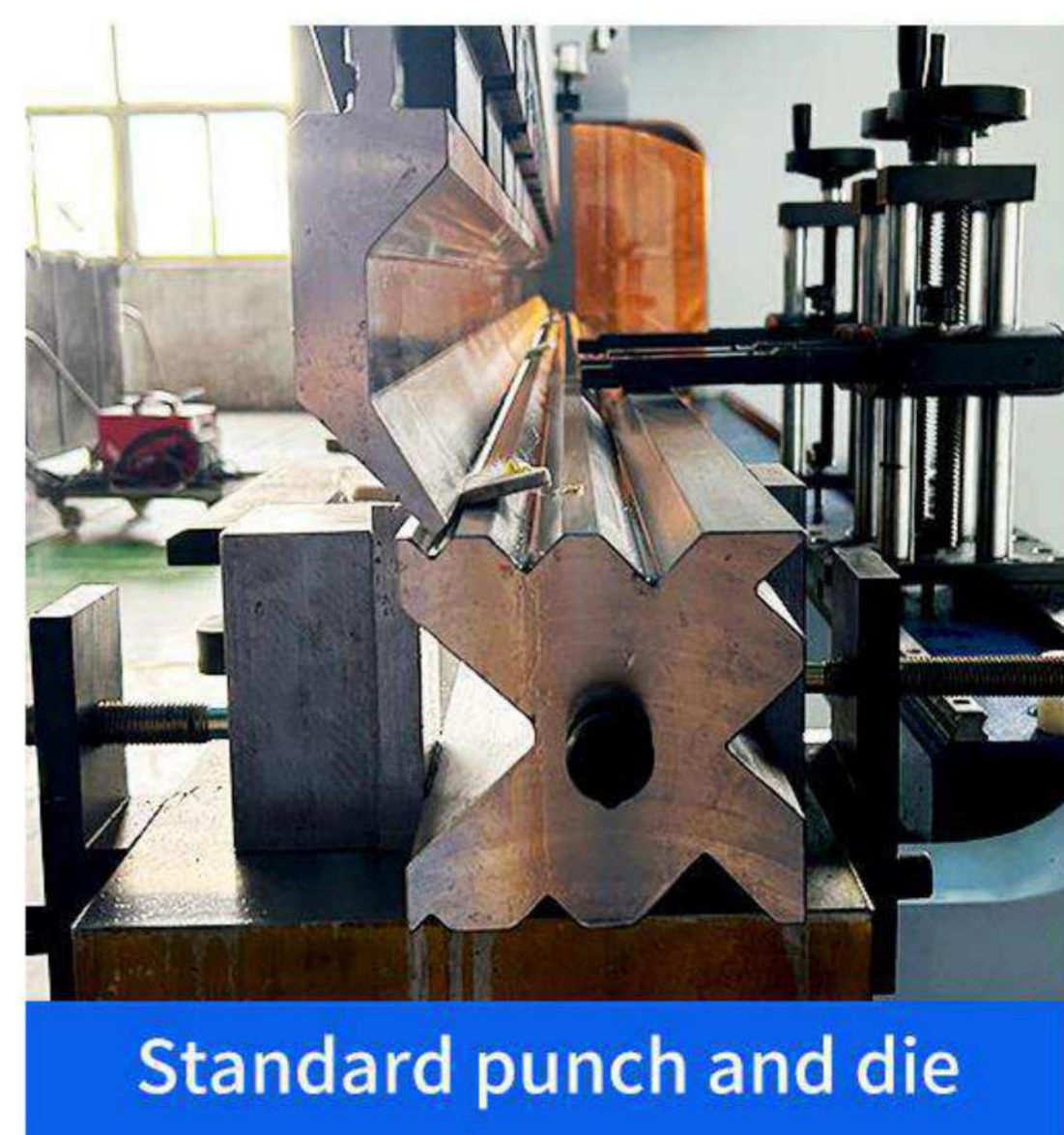
Ball screw



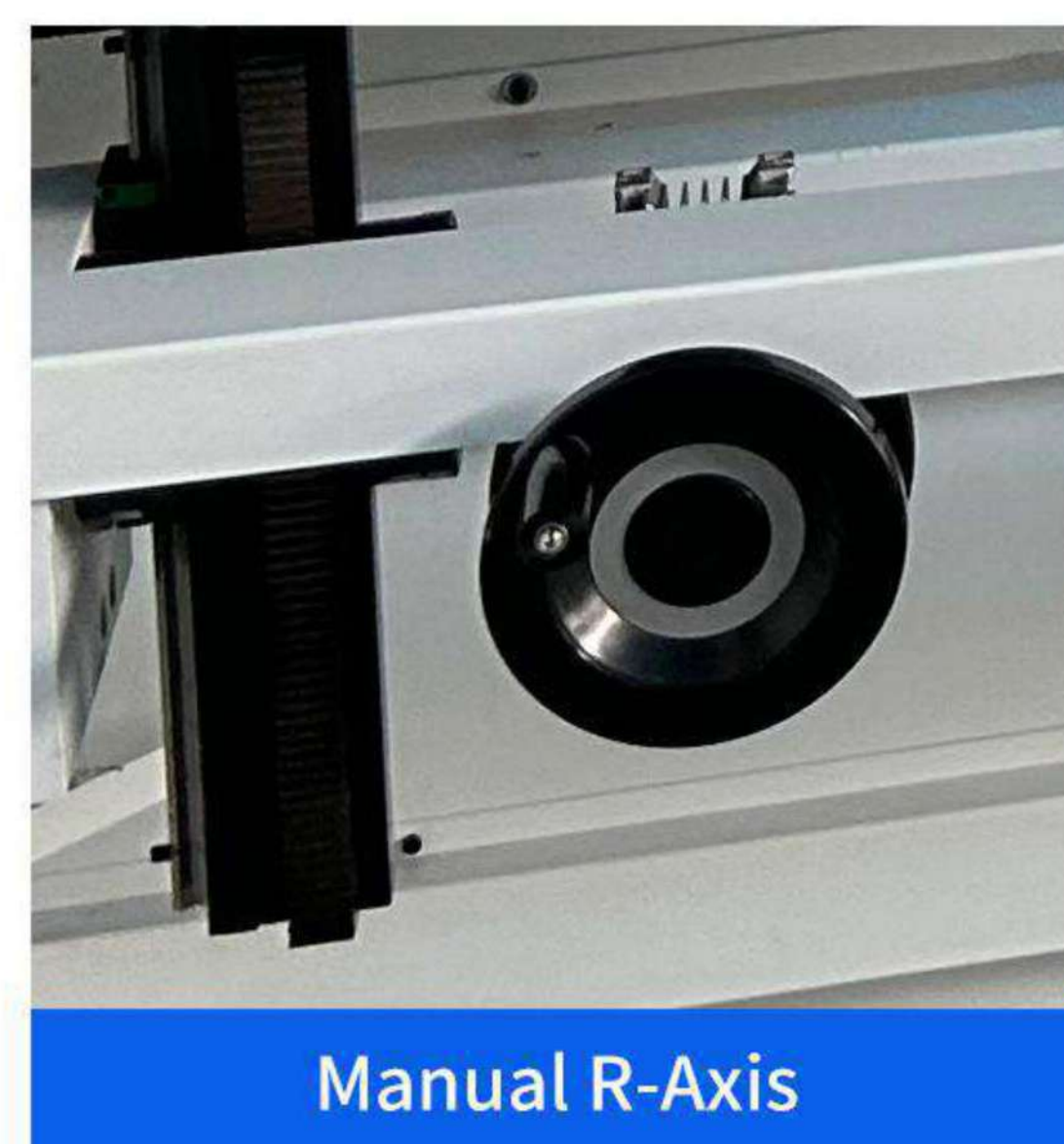
One-key Release Fast Clamp



Electric Components



Standard punch and die



Manual R-Axis



Adjustable Z stoppers



SIEMENS Main Motor

► Optinal Equipment

- Light curtain
- MSD Laser Protecion
- Tooling Cabinet
- Manual crowning system



Light curtain



Laser protection



Crowning system

► NC torsion bar

Only HUNSONE uses a pressure-controlled bending method that is faster and two or three times more productive than traditional pressure holding method in other factories.

HUNSONE uses two slide bases to connect the cylinders, the gap only has 0.05mm.

Other factories use connecting arms and fix them with screws, the gap will slowly become large.



Our- two slide bases



Other-connecting arms

Solid cylinders are made of a solid, monolithic material with a relatively simple structure that reduces possible vibration and loosening problems between components, making them more stable and reliable during operation. It is suitable for heavy duty seismic devices under heavy force and pressure. Many manufacturers use hollow pistons, but HUNSONE uses solid pistons, which are heavier, more stable and more durable.



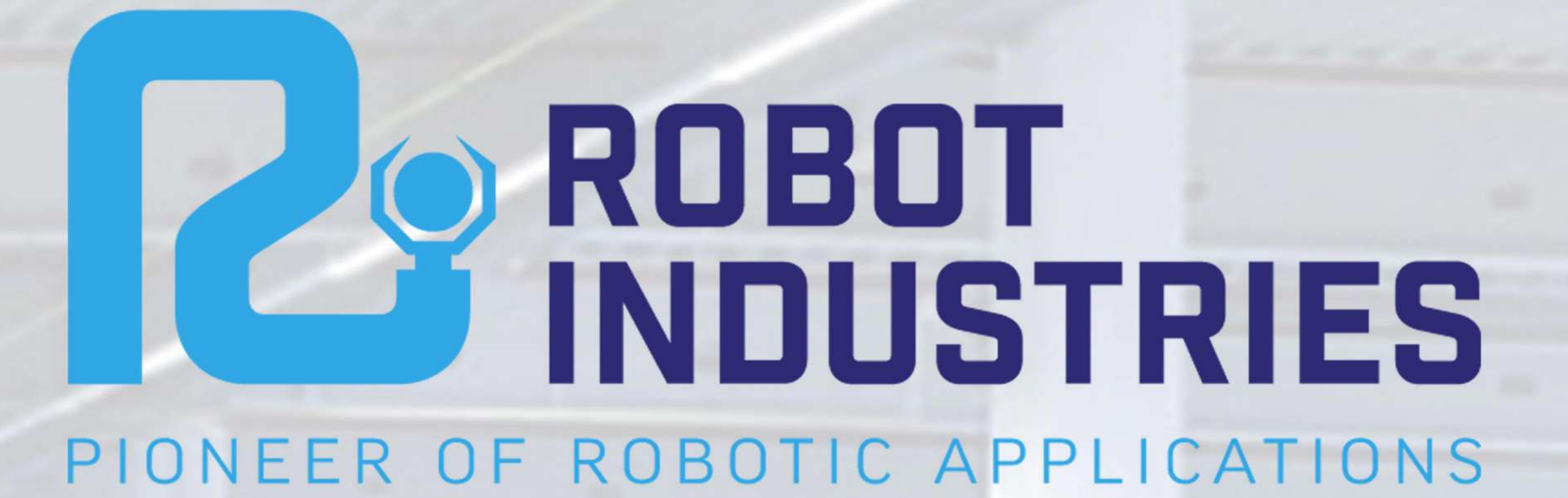
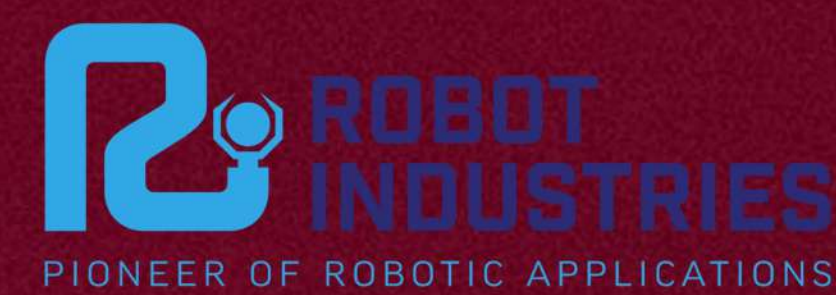
Our-solid pistons



Other-hollow pistons

 SPECIFICATION

Name		Unit	70T2500	70T3200	100T2500	100T3200	100T/4000	135T2500	135T3200	135T4000	165T2500	165T3200	165T4000	200T3200	200T4000	250T2500	250T3200	250T4000	300T3200	300T4000
Bending force		KN	700	700	1000	1000	1000	1350	1350	1350	1650	1650	1650	2000	2000	2500	2500	2500	3000	3000
Bending length		mm	2500	3200	2500	3200	4000	2500	3200	4000	2500	3200	4000	3200	4000	2500	3200	4000	3200	4000
Column distance		mm	2000	2500	2000	2500	3150	2000	2500	3150	2000	2500	3150	2500	3500	2000	2500	3200	2500	3200
Throat depth		mm	300	300	300	300	400	300	300	400	300	300	400	300	400	300	300	400	400	400
Ram stroke		mm	100	100	130	130	130	130	130	130	160	160	160	175	175	250	250	250	250	250
Max. opening height		mm	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	420	420
Ram down speed		mm/sec	160	160	160	160	160	160	160	160	140	140	140	120	120	120	120	120	110	100
Ram back speed		mm/sec	140	140	140	140	140	140	140	140	120	120	120	110	110	110	110	110	100	90
Ram working speed		mm/sec	≈12	≈12	≈12	≈12	≈12	≈12	≈12	≈12	≈11	≈11	≈11	≈10	≈10	≈9	≈9	≈9	≈9	≈9
Work-price linearity		mm	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Max. Back gauge distance		mm	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
Front sliding arms		PCS	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Bending angle accuracy		(°)	±50	±50	±50	±50	±50	±50	±50	±50	±50	±50	±50	±50	±50	±50	±50	±50	±50	±50
Back gauge finger stopper		PCS	2	3	2	3	4	2	3	4	2	3	4	3	4	2	3	4	3	4
Main motor		kw	5.5	5.5	7.5	7.5	7.5	7.5	7.5	7.5	11	11	11	15	15	18.5	18.5	18.5	22	22
Control system		/	E21	E21	E21	E21	E21	E21	E21	E21	E21	E21	E21	E21	E21	E21	E21	E21	E21	E21
Dimension	Length	mm	2600	3300	2600	3300	4100	2600	3300	4100	2600	3300	4100	3300	3300	2600	3300	4100	3300	4100
	Width	mm	1250	1250	1330	1350	1350	1350	1550	1550	1550	1550	1650	1700	1700	1800	1800	1800	1800	1900
	Height	mm	2250	2250	2350	2350	2350	2350	2350	2350	2350	2350	2350	2650	2650	2800	2800	2900	3050	3050



High efficiency High automation

Dynamic and efficient bending machines can reduce the need for manpower, reduce labor costs, and reduce errors and losses caused by human factors.
High degree of automation

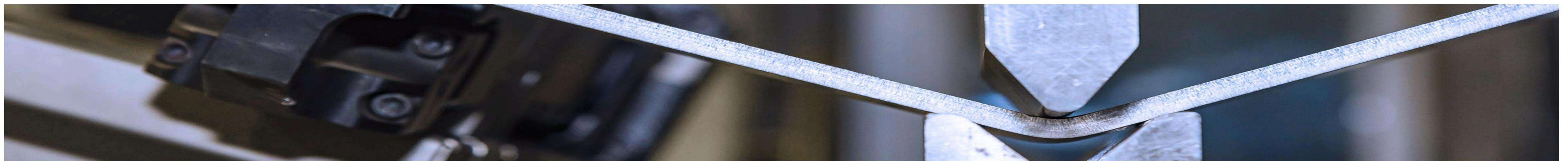
MINI CNC Pure electric press brake

▶ Mini CNC Pure electric press brake Controller



EASYCAT ET15 (China)

- Green and environmental protection: no need to use and replace hydraulic oil, which terminates the pollution of waste hydraulic oil to the environment.
- High precision: 5um resolution magnetic scale and high-digit encoder double-loop control, repeat positioning accuracy $\pm 5\mu\text{m}$.
- High speed: The maximum fast forward speed of Y axis is 200 mm/s, and the working speed is 0-30 mm/s.
- The CNC system ET 15 adopts a high-end CNC system development platform and advanced special algorithms for sheet metal bending and motion control algorithms. The main boards all use industrial-grade chips. The CNC system has passed EMC electromagnetic compatibility verification and high and low temperature environment adaptability testing.
- The numerical control system adopts high-speed acceleration and deceleration algorithms and trajectory look-ahead algorithms. Before bending, the numerical control system performs overall planning of the movement trajectory according to the bending speed and vector characteristics, and ensures good bending accuracy while accelerating and decelerating at high speed. And soft sports characteristics, so that high speed and high precision are effectively integrated!
- Processing consistency: avoid the influence of oil temperature changes on the consistency of bending workpieces.
- The CNC system ET 15 is mainly used in all-electric servo CNC bending machines, which is particularly power-saving and environmentally friendly.



▶ Mini Pure Electric Standard Equipment



IF Ball screw



Linear guide



SANYO Servo motor



Schneider electrical components



NSK bearing



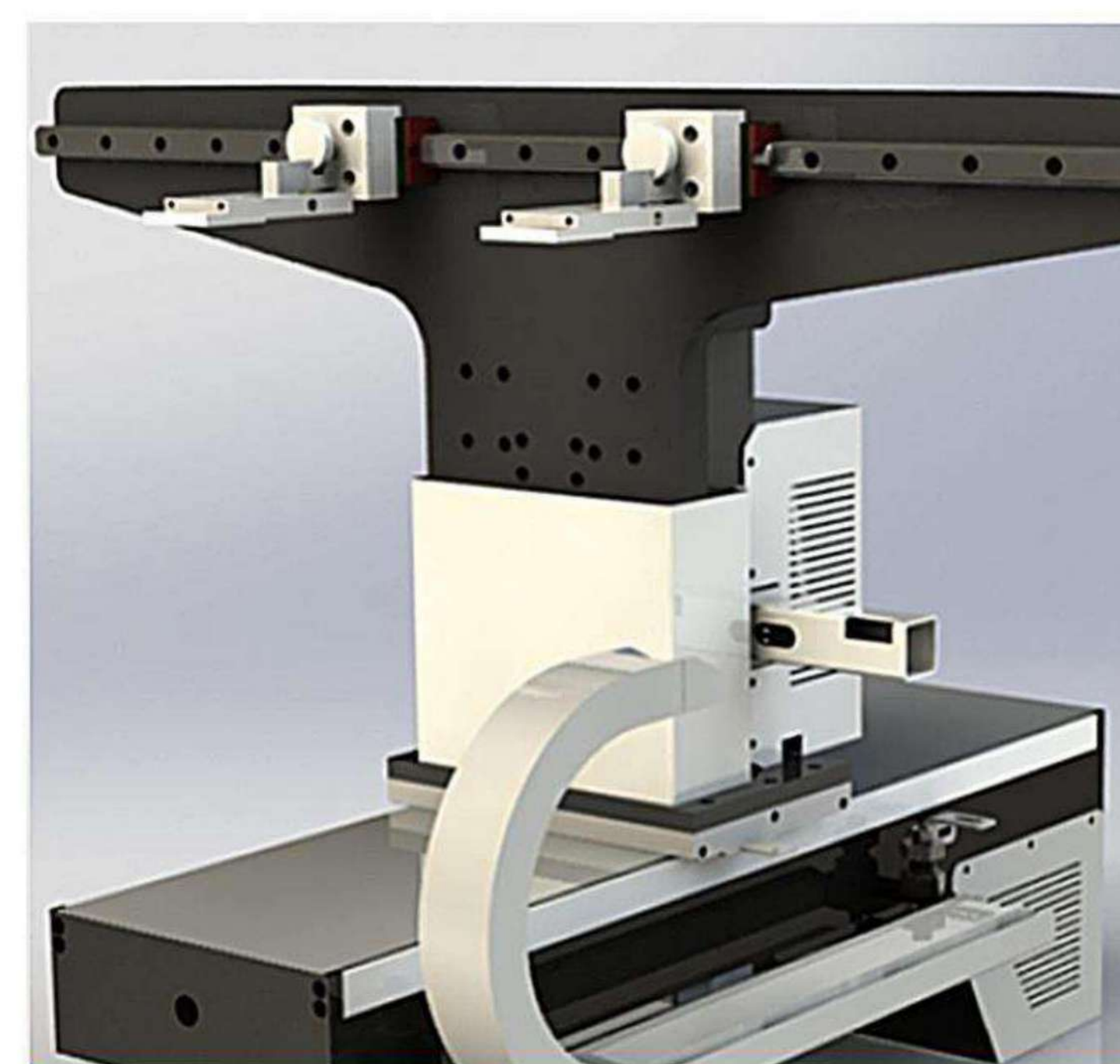
ET15 Control system



One-key release fast clamp



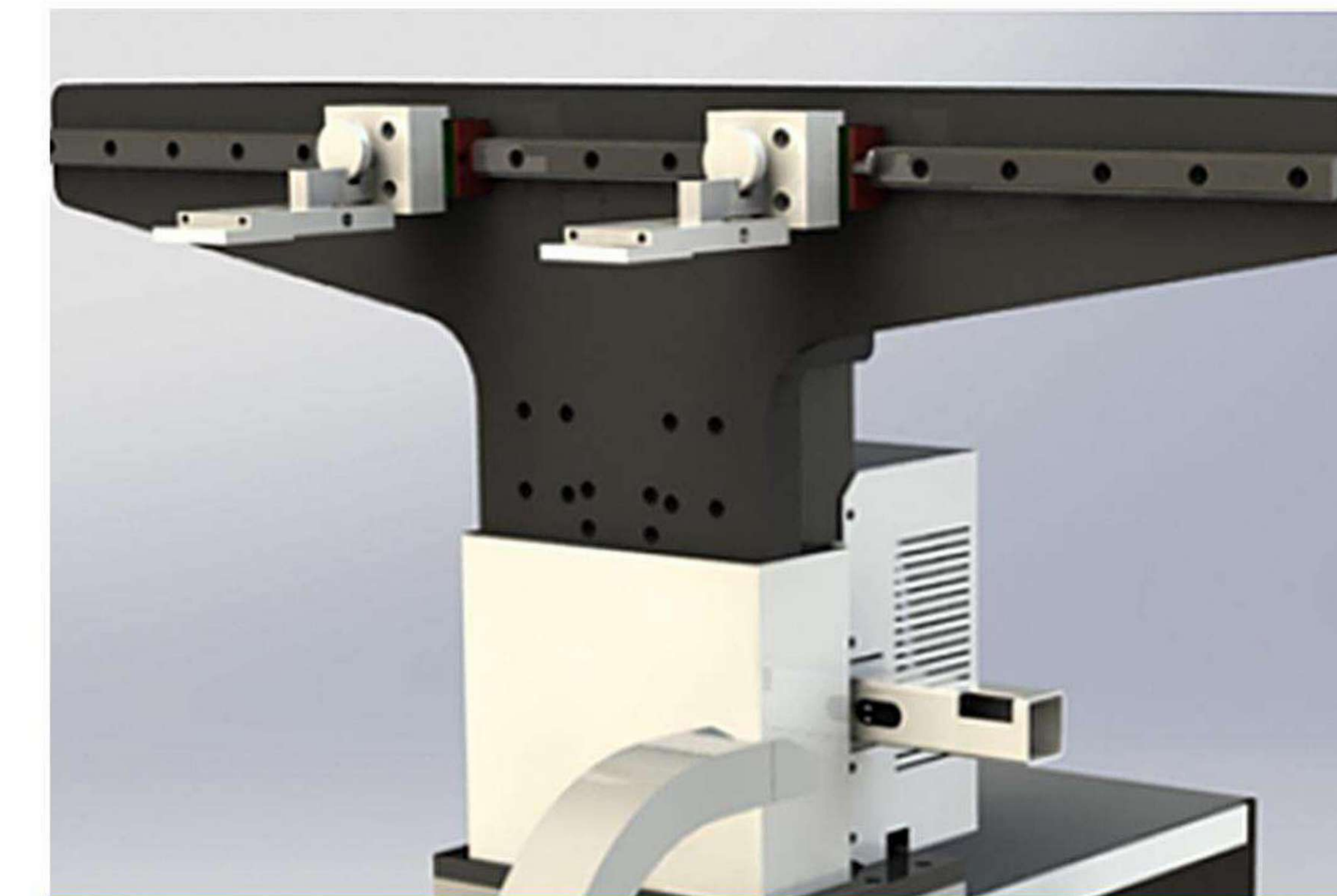
Punch and die



Adjustable Z stoppers

▶ Mini Pure Electric Press Brake features

The key mechanical parts of the machine tool use finite element analysis of deformation and safety factor to ensure the overall high rigidity requirements of the machine tool and long-term reliability. The standard configuration is two-axis (X, R) CNC floor-standing back gauge, and two-axis (X, R), four-axis (X, R, Z1, Z2), six-axis (X1, X2) can be selected according to different needs of customers (R1, R2, Z1, Z2).



Fixed Clamps



Auxiliary Clamps

One-button quick clip operation is simple, just press a button to complete the clamping or release action, improve the work efficiency. The double-sided fixture has a strong clamping mechanism and a stable control system, which can firmly grip the object and maintain a stable clamping state to avoid the movement or sliding of the object.



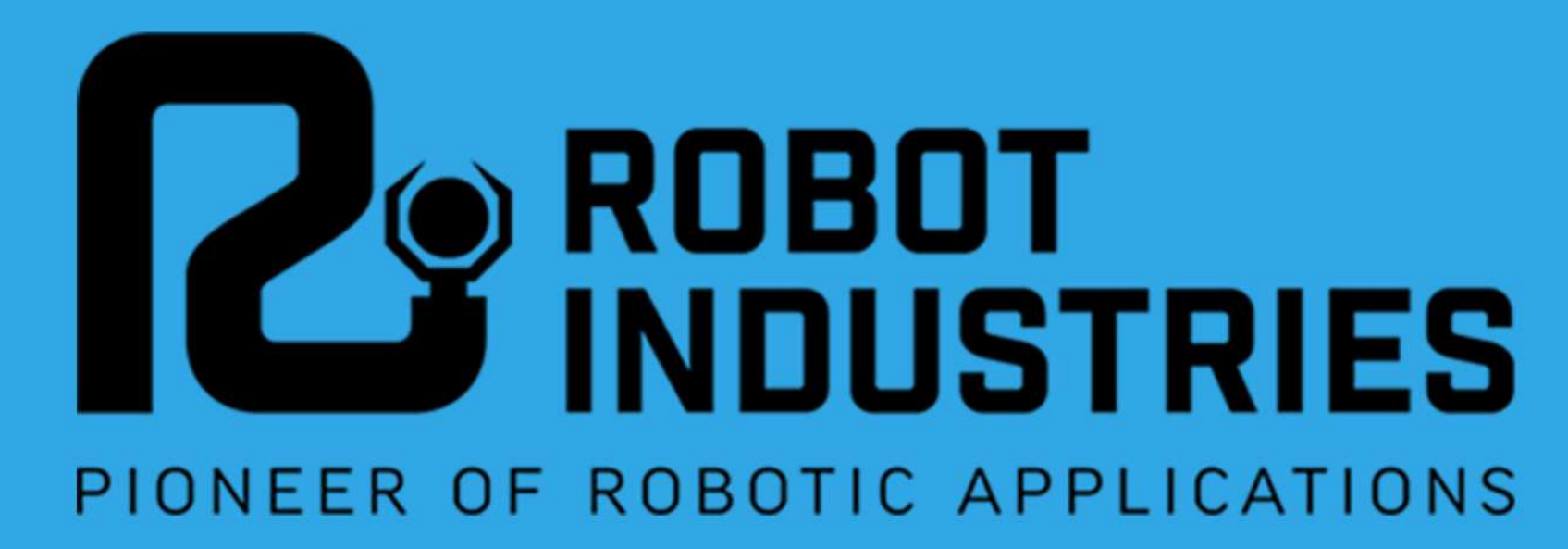
Left side grooving



Right side grooving

SPECIFICATION

Mode	EP-35T1250	EP-43T2000	EP-65T2500
Bending Capacity	35T	43T	65T
Y-axis Servo Motor	6.5KW	7.5KW	15KW
Bending Length	1250mm	2000mm	2500mm
Column Pitch	1130mm	1400mm	2100mm
Throat Depth	410mm	410mm	410mm
Daylight	470mm	470mm	470mm
Slider Inclination	±30mm	±30mm	±30mm
Y Rapid Speed	135mm/s	180mm/s	160mm/s
Y Working Speed	50mm/s	50mm/s	50mm/s
Y Retrack Speed	135mm/s	180mm/s	165mm/s
X Rapid Speed	500mm/s	500mm/s	500mm/s
R Rapid Speed	200mm/s	200mm/s	200mm/s
Z1/Z2 Rapid Speed	400mm/s	400mm/s	400mm/s
Y-axis	±0.01mm	±0.01mm	±0.01mm
X-axis	±0.02mm	±0.02mm	±0.02mm
R-axis	±0.1mm	±0.1mm	±0.1mm
Z1/Z2-axis	±0.1mm	±0.1mm	±0.1mm
Y Stroke	200mm	200mm	200mm
X Stroke	500mm	500mm	500mm
R Stroke	140mm	140mm	140mm
Z1/Z2 Stroke	400mm	600mm	900mm
Controller System	SL100-P4/6	SL100-P4/6	SL100-P4/6
Installed capacity	15kVA	15kVA	25kVA
Dimension	1475x1358x2439mm	2020x1388x2439mm	2520x1700x2664mm
Weight	3000kg	3300kg	5100kg



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