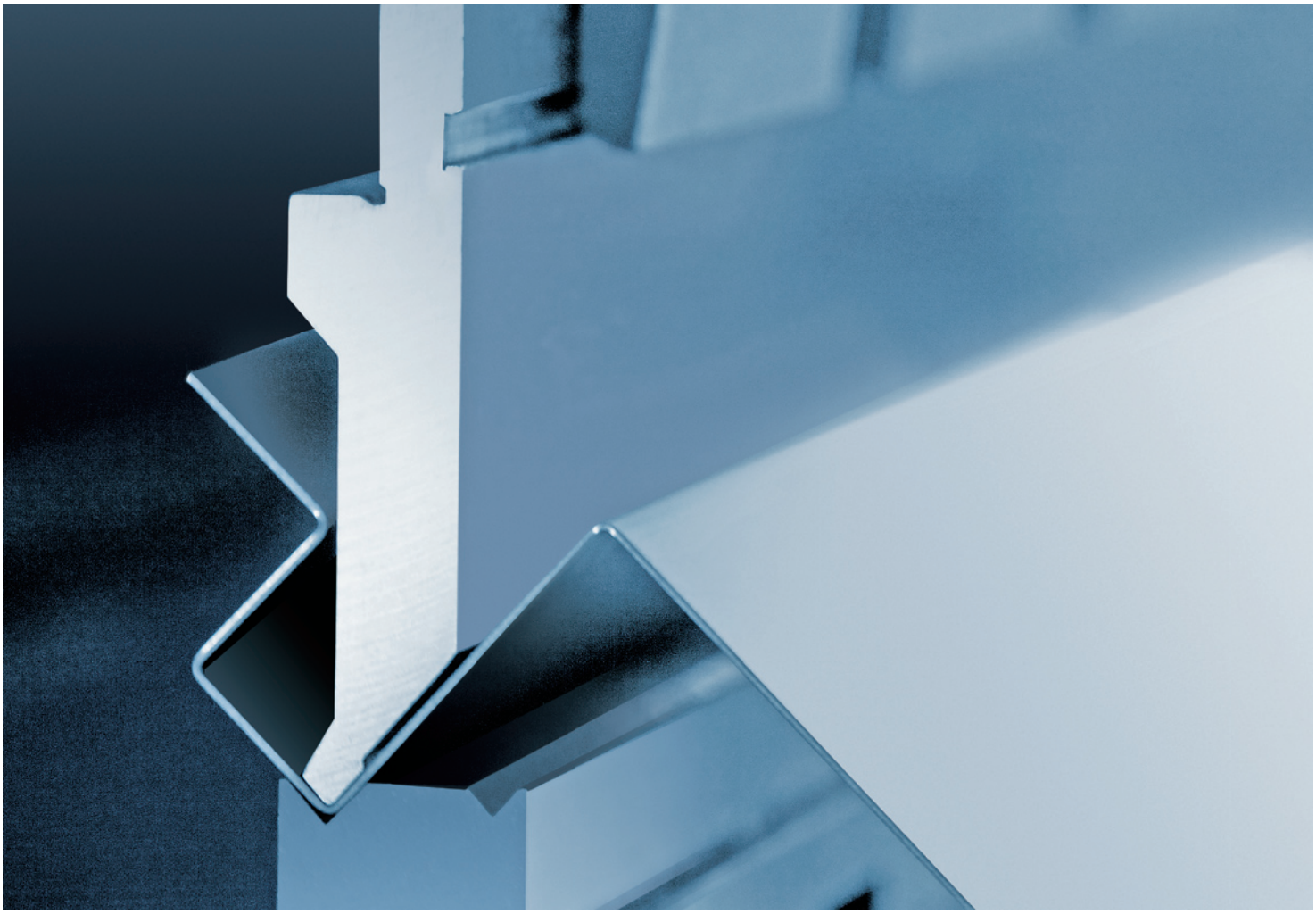


CNC Sheet Metal Press Brakes

PBA PBH PBC

Yawei 亚威

Stock Code 002559

Commitment to Excellence
Insistence to Innovation

Product Catalogue

For more than 40 years, Yawei has been dedicating to the R&D and manufacturing of high efficiency, high precision, and energy saving press brakes. With massive successful experience, Yawei press brakes are serving for all kinds of sheet metal processing industries.

Find your very best bending solutions from our extensive product series and functional accessories.

Advantages

- All new outlook design
- High speed and high efficiency bring higher profits
- High rigidity and high precision decide better quality
- Easy to operate, low maintenance cost

PBA Series

Universal CNC Press Brake

- Proven Yawei quality, stable and reliable
- High quality bending operations to all types of workpieces
- Automatic mechanical crowning system, closed-loop control

PBH Series

High Speed CNC Press Brake

- High frequency response valve control technology, high dynamic response, high precision
- Low oil temperature control technology, reduce hydraulic breakdown rate and increase overall life time
- High precision and high efficiency bending to all kinds of workpieces

PBC Series

High Performance CNC Press Brake

- High frequency response valve control technology, high dynamic response and high precision
- Automatic mechanical crowning system, closed-loop control, very high precision
- Low oil temperature control technology, reduce hydraulic breakdown rate and increase overall life time
- High precision and high efficiency bending to all kinds of workpieces


Yawei
PBA-110/3100

PBA Series

Universal CNC Press Brake

- Simplified industrial design, elegant appearance
- Better parameters, better configurations, good performance, and easy to operate
- High rigidity machine frame, automatic mechanical crowning table for high precision bending operations

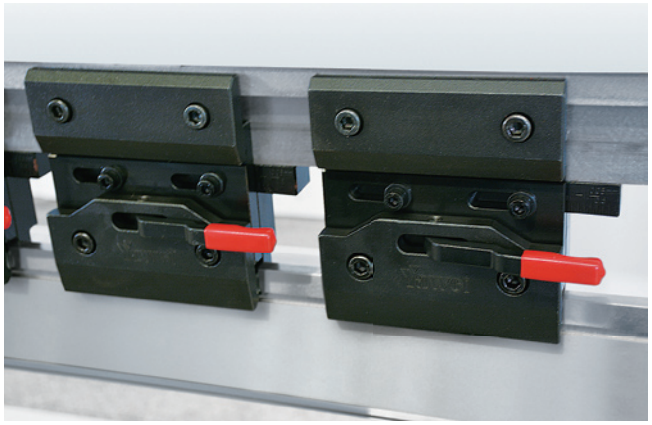
Multiple Configurations
Flexible Combinations

Backgauge

Standard Backgauge (Standard)

- CNC axis is driven by AC servo motor, moved with ball screw, guided by linear guide

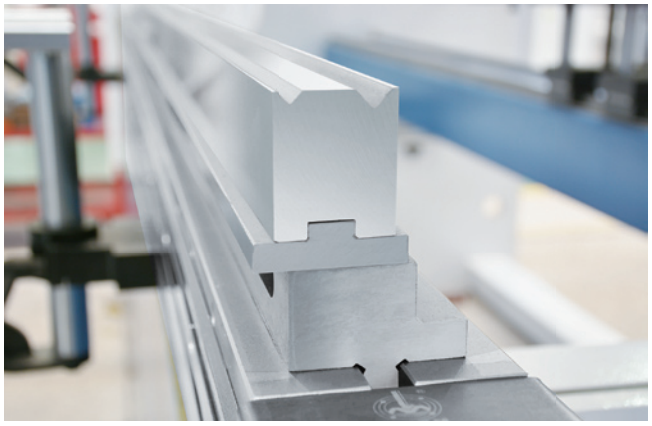
Upper Tool Clamping



Mechanical Fast Clamping (Standard)

- Mechanical fast clamping enables a fast change of upper tool

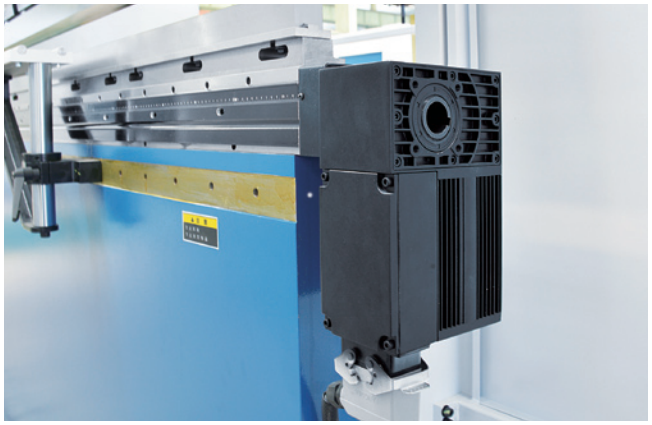
Lower Die Clamping



2-V Clamping (Standard)

- 2-V fast change clamping enables a fast change of lower die

Crowning Compensation



Mechanical Crowning Device (Standard)

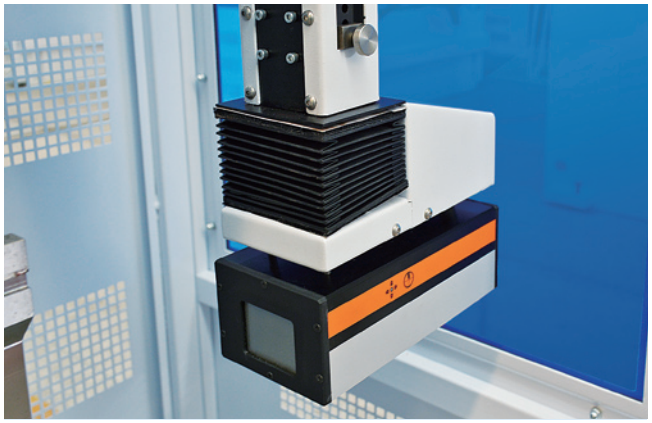
- Automatic adjustment of crowning compensation according to the instructions programmed by CNC

Front Sheet Support

Step-adjusted Front Sheet Support (Standard)

- Standard front sheet support, manual adjustment of height, can be turned left and right

Laser Safety Guard



Laser Guarding Device (Standard)

- CNC and safety controller can monitor the machine operations in real time to effectively protect the hands and arms of the operator

Multiple Configurations
Flexible Combinations

DA52S Controller (Standard)

Features

- 7 inch LED wide screen with TFT display
- 64MB memory
- Tool storage: 30 pieces of upper tools, 30 pieces of lower dies
- USB connection for data storage
- Quick programming for parameters in 1 page, automatic calculation of crowning compensation for worktable
- Data programming
- Micro switch panel
- Automatic calculation of the bending force and tool safety area
- On-line analysis tools
- Angle correction database
- System diagnosis function

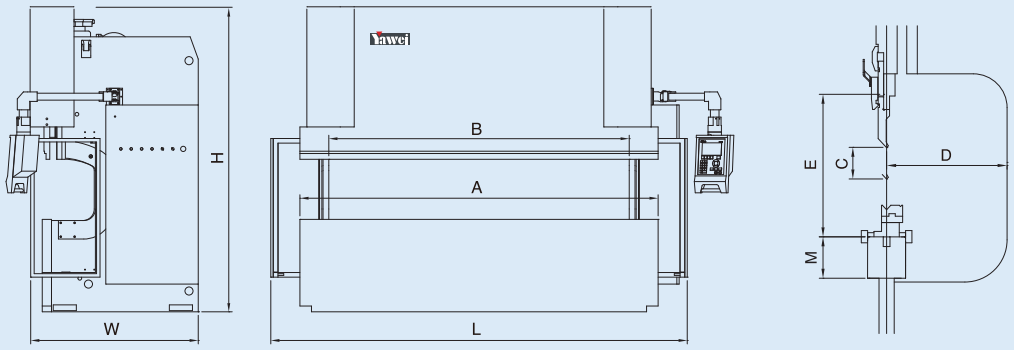
Yawei CNC Controller (Option)

Features

- 15 inch LED wide screen with TFT display
- Max axes controlled (Y1,Y2,and 4 additional axes)
- 2GB memory
- Tool storage: 99 pieces of upper tools, 99 pieces of lower dies
- Quick programming for parameters in 1 page, GPS short-cut key
- 2D programming, 3D display
- On-line analysis tools
- Angle correction database
- System diagnosis function
- Real time WINDOWS operation platform, smooth operations, instant turn-off supportable

Outstanding Parameters
Extraordinary Performance

Technical Parameters



Model	Bending force	Bending length A	Distance between uprights B	Throat depth D	Ram stroke C	Die setting height E	Ram speed			Main motor power	Oil tank volume	Overall dimension L × W × H			Weight
	kN	mm	mm	mm	mm	mm	mm/s			kW	L	mm			kg
PBA-35/1250	350	1250	950	300	120	450	180	16	180	4	100	1720	1390	2340	3000
PBA-50/2050	500	2050	1750	350	175	480	180	16	180	5.5	150	2600	1450	2450	4000
PBA-110/3100	1100	3100	2600	410	215	520	160	10	130	7.5	250	3610	1550	2500	7000
PBA-110/4100		4100	3600				160	10	130	7.5	300	4610	1550	2500	8500
PBA-160/3100	1600	3100	2600	410	215	520	130	9	120	11	350	3610	1600	2530	8600
PBA-160/4100		4100	3600				130	9	120	11	400	4610	1600	2530	10500
PBA-220/3100	2200	3100	2600	410	215	530	120	10	120	15	400	3630	1830	2730	10800
PBA-220/4100		4100	3600				120	10	120	15	500	4630	1830	2730	12800


Yawei
PBH-110/3100

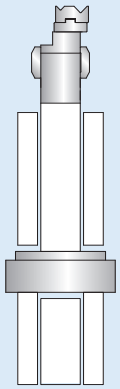
PBH Series

High Speed CNC Press Brake

- All new outlook design, friendly human-machine interface
- High frequency response valve control technology, high speed, high efficiency, and high precision
- Balancing valve control technology, less overflow and lower oil temperature, more stable and reliable performance
- Optimized parameters and configurations, more functions while easier to operate

PBH Series Hydraulic Control Technologies

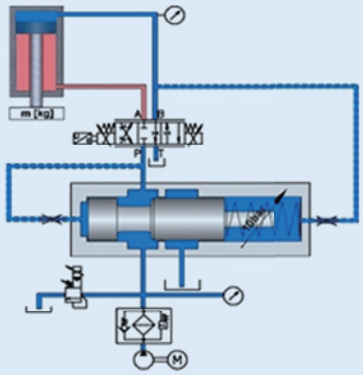
Crowning Compensation



Hydraulic Crowning Technology (Standard)

- Hydraulic crowning system is composed of a group of hydraulic cylinders under the worktable, which enables a relative movement of the worktable to form a convex curve to make sure the relative position between the ram and the worktable remains unchanged after the worktable is under pressure. The crowning compensation value is calculated automatically by CNC according to the thickness of the sheet, the opening of the lower die, and other material properties

Balancing Control



Pressure Differential Balancing Control Technology (Standard)

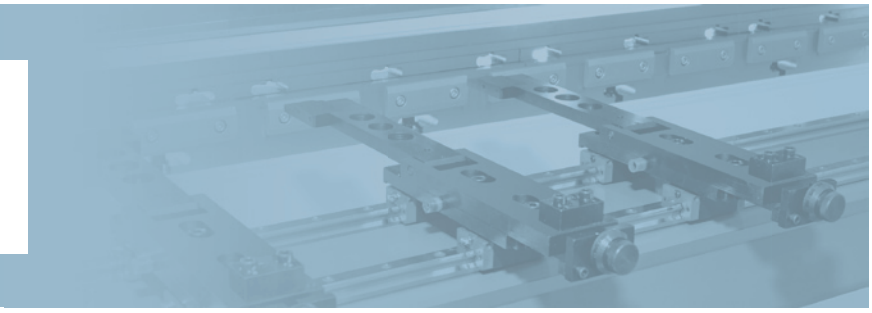
- Pressure differential balancing system can control the overflow of the hydraulic system in advance to effectively control the temperature of the hydraulic system, which helps for a long-term stabilized operation of the machine

Control Technology

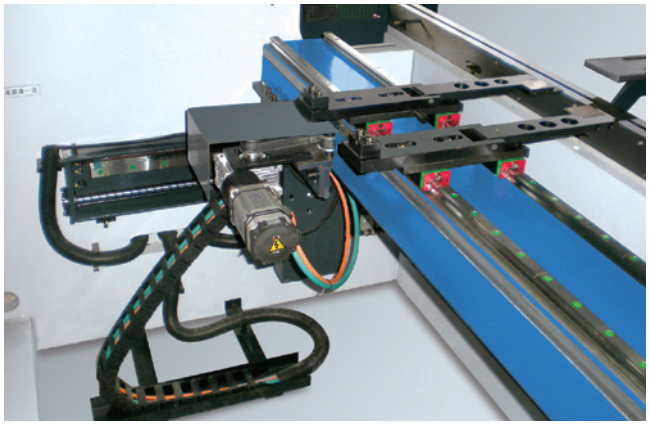
High Frequency Response Valve Control Technology (Standard)

- Thanks to the high frequency response proportional valve, the synchronization precision of Y1 and Y2 in high speed operation is largely improved for higher bending efficiency

Multiple Configurations
Flexible Combinations

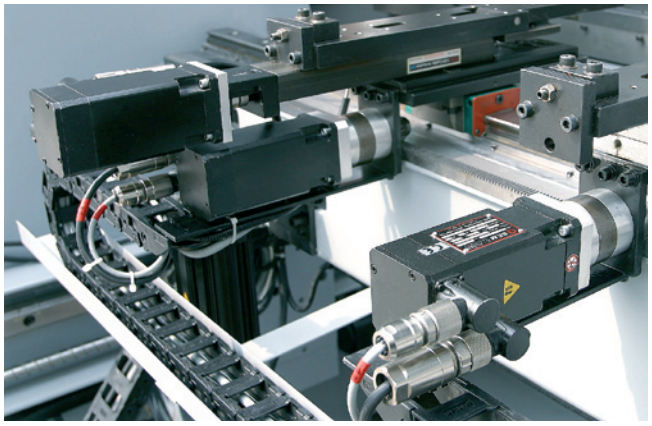


Backgauge



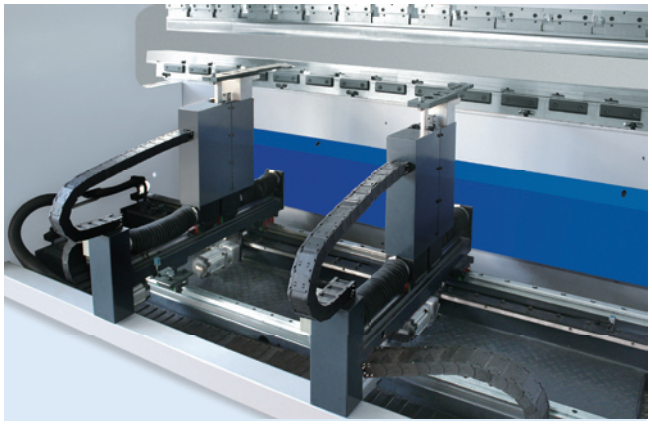
Dual-linear Guide Backgauge (Standard)

- Axis: X, R
- CNC axis is driven by AC servo motor, moved with ball screw, guided by linear guide



5-axis Backgauge (Option)

- Axis: X, R, Z1, Z2, X1
- Suitable for positioning of complicated workpiece, as well as workpiece with inclined plane



6-axis Backgauge (Option)

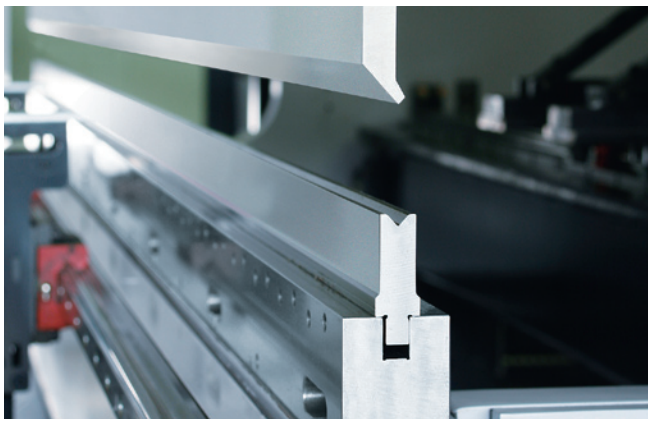
- Axis: X1, X2, R1, R2, Z1, Z2
- Suitable for positioning of complicated workpiece, as well as workpiece with inclined plane

Multiple Configurations
Flexible Combinations

Lower Die Clamping

2-V Clamping (Standard)

- 2-V fast change clamping enables a fast change of lower die



1-V Clamping (Option)

- 1-V clamping is used for high precision 1-V lower die. Fast change of lower die. 1-V lower die is narrow in width, very suitable for complicated flanging bendings

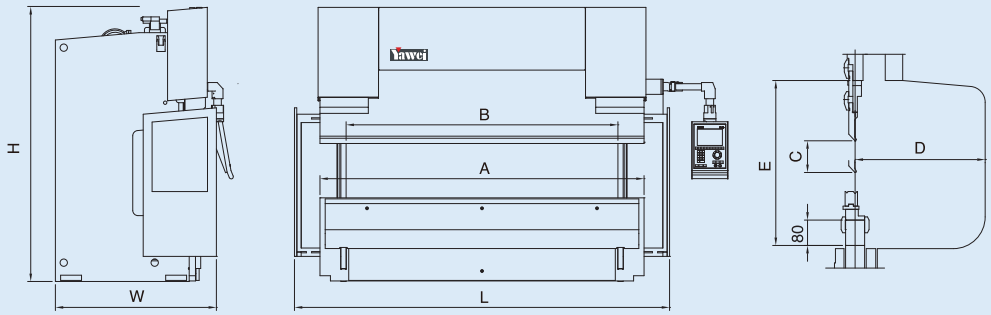
Bending Help

Mechanical Servo Bending Help (Option)

- The sheet support of the bending help can follow up the sheet when it is in the bending process. The follow-up angle and speed are automatically calculated and controlled by CNC. Bending help can be moved along the linear guide

Outstanding Parameters
Extraordinary Performance

Technical Parameters



Model	Bending force	Bending length A	Distance between uprights B	Throat depth D	Ram stroke C	Die setting height E	Ram speed			Main motor power	Oil tank volume	Overall dimension L × W × H			Weight
	kN	mm	mm	mm	mm	mm	mm/s			kW	L	mm			kg
PBH-80/2550	800	2550	2150	350	175	480	200	14	170	7.5	230	3140	1540	2520	6500
PBH-110/3100	1100	3100	2600	410	215	520	200	14	160	11	300	3610	1550	2530	8800
PBH-110/4100		4100	3600								360	4610			11000
PBH-160/3100	1600	3100	2600	410	215	520	160	11	140	15	380	3630	1600	2590	10300
PBH-160/4100		4100	3600								430	4630			12500
PBH-220/3100	2200	3100	2600	410	215	530	130	10	120	18.5	400	3650	1850	2630	12800
PBH-220/4100		4100	3600								500	4650		2730	16000
PBH-250/3100	2500	3100	2600	410	215	530	120	9	105	18.5	400	3650	1850	2630	13000
PBH-250/4100		4100	3600								500	4650		2730	16200
PBH-300/3100	3000	3100	2600	410	265	580	120	9	100	22	450	3650	1950	2750	16000
PBH-300/4100		4100	3600								600	4650		3000	19000


Yawei
PBC-110/3100

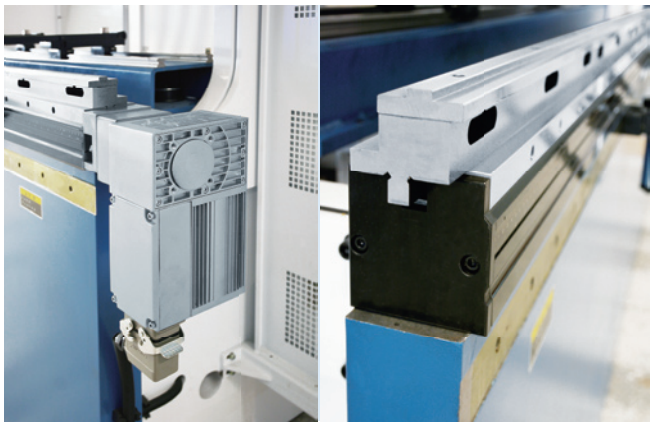
PBC Series

High Performance CNC Press Brake

- All new outlook design, friendly human-machine interface
- High frequency response valve control technology, speed, efficiency, and stability are largely increased
- Automatic mechanical crowning table for high precision bending operations.
- Optimized parameters and configurations, more functions while easier to operate

Multiple Configurations
Flexible Combinations

Crowning Compensation



Mechanical Crowning Device (Standard)

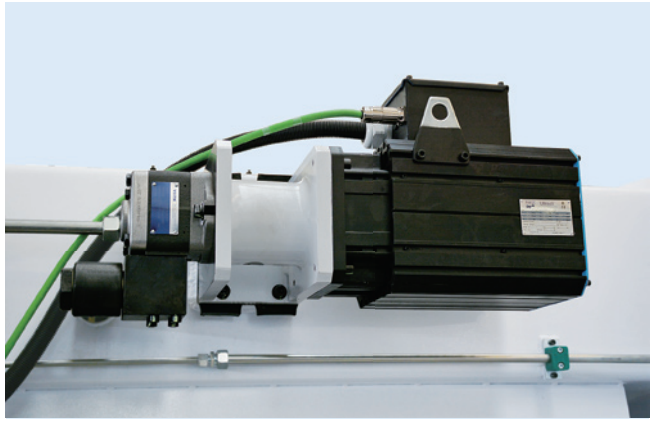
- Automatic adjustment of crowning compensation according to the instructions programmed by CNC

Control Technology

High Frequency Response Valve Control Technology

- Thanks to the high frequency response proportional valve, the synchronization precision of Y1 and Y2 in high speed operation is largely improved for higher bending efficiency

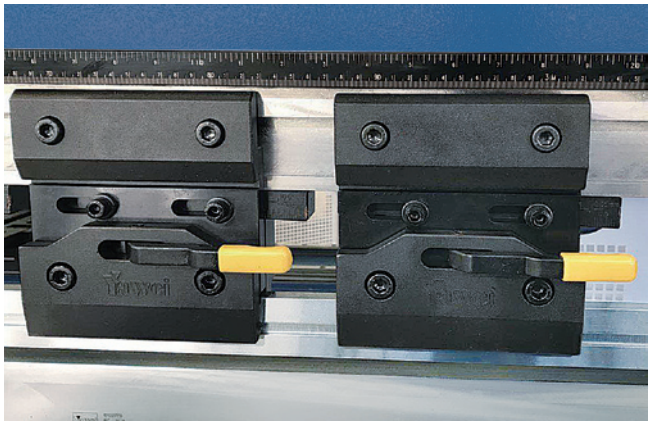
Servo Motor



Servo Motor (Option)

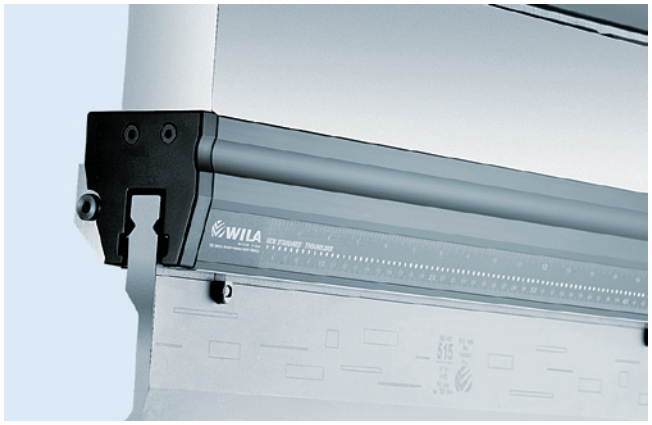
- Can choose servo motor to save energy, reduce oil temperature, increase overall life time, and reduce maintenance cost

Upper Tool Clamping



Mechanical Fast Clamping (Standard)

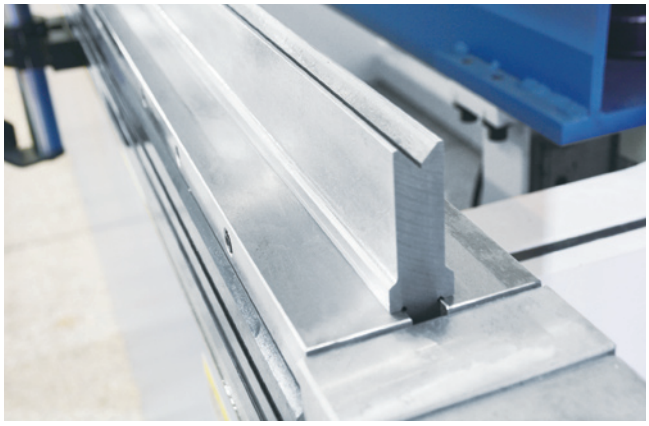
- Mechanical fast clamping enables a fast change of upper tool



Hydraulic Clamping (Option)

- Clamping and loosing actions are electrically controlled. Strong clamping force, easy and effective change of tool

Lower Die Clamping

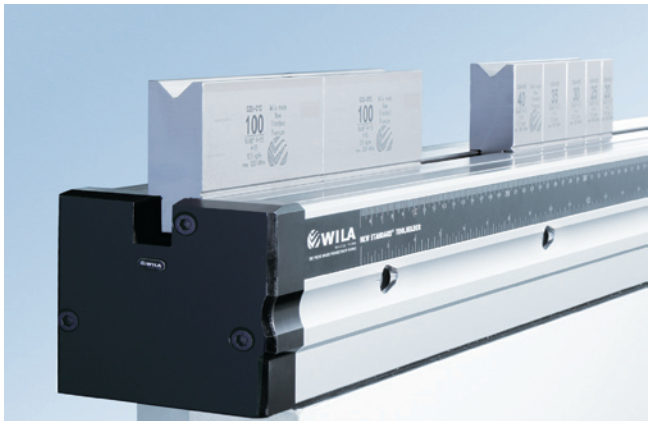


1-V Clamping (Option)

- 1-V clamping is used for high precision 1-V lower die. Fast change of lower die. 1-V lower die is narrow in width, very suitable for complicated flanging bendings

Multiple Configurations
Flexible Combinations

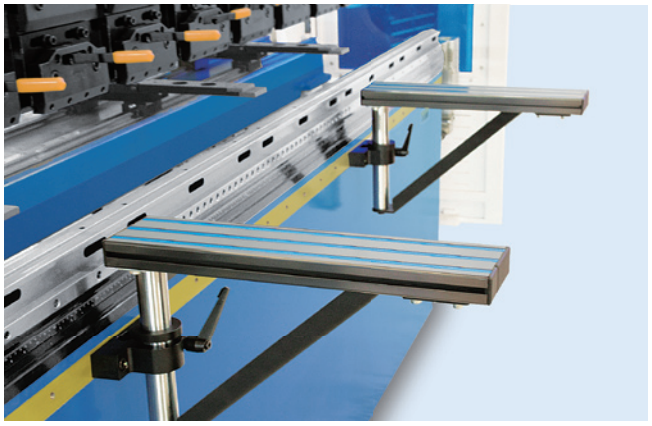
Lower Die Clamping



1-V Automatic Hydraulic Clamping (Option)

- Clamping and loosing actions are electrically controlled, easy and effective change of lower die

Front Sheet Support



Step-adjusted Front Sheet Support (Standard)

- Standard front sheet support, manual adjustment of height, can be turned left and right

Front Sheet Support Moving Along Linear Guide (Option)

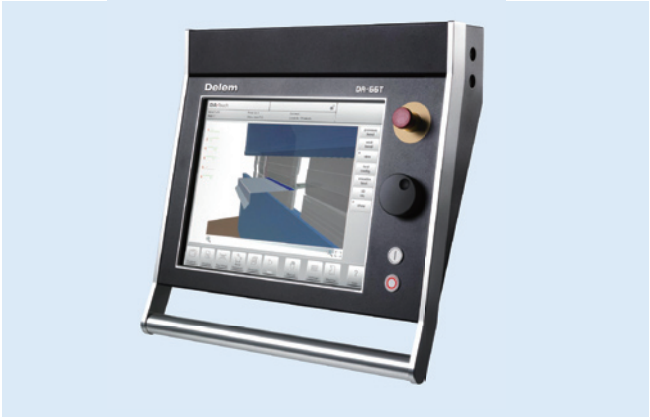
- Front sheet support moving along linear guide, manual adjustment of height

DA58T CNC Controller (Standard)

Features:

- Colorful LCD display
- 15 inch TFT, 1024*768 pixels
- Integrated valve amplifier
- Power breakdown memory
- Servo control
- Crowning compensation control
- Tandem linkage
- Automatic calculation of bending sequence
- Bending sequence can be switched and moved in graphics editing
- Programming of flanging bending supportable
- Tool and workpiece selection in graphical display

DA66T CNC Controller (Option)

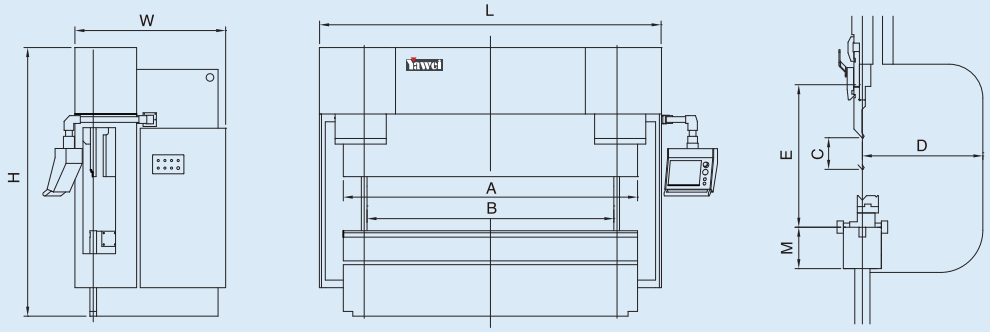


Features:

- Colorful LCD display
- 17 inch wide TFT screen
- Full touch screen operation
- 1GB memory
- 2D programming, 3D display
- USB connection for data storage
- Automatic calculation of bending sequence
- Programming of big arc flanging bending supportable
- Bending help control and angle detection supportable

Outstanding Parameters
Extraordinary Performance

Technical Parameters



PBC Technical Parameters (Main motor is normal motor)

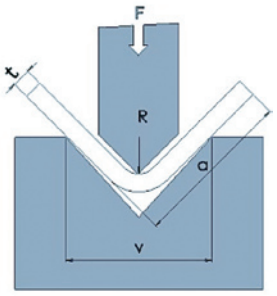
Model	Bending force	Bending length A	Distance between uprights B	Throat depth D	Ram stroke C	Die setting height E	Ram speed			Main motor power	Oil tank volume	Overall dimension L × W × H			Weight
	kN	mm	mm	mm	mm	mm	mm/s			kW	L	mm			kg
PBC-50/2050	500	2050	1750	350	175	495	180	16	180	5.5	150	2550	1450	2485	4500
PBC-80/2550	800	2550	2150	350	215	535	200	14	170	7.5	230	3140	1540	2535	6200
PBC-110/3100	1100	3100	2600	410	265	585	200	14	160	11	300	3610	1550	2935	8800
PBC-110/4100		4100	3600				200	14	160	11	360	4610	1550	2985	9600
PBC-160/3100	1600	3100	2600	410	265	585	160	11	140	15	380	3630	1600	2985	10400
PBC-160/4100		4100	3600				160	11	140	15	430	4630	1600	3025	12300
PBC-220/3100	2200	3100	2600	410	265	595	120	10	120	18.5	400	3650	1850	2995	12800
PBC-220/4100		4100	3600				120	10	120	18.5	500	4650	1850	3095	14500

PBC Technical Parameters (Main motor is servo motor)

Model	Bending force	Bending length A	Distance between uprights B	Throat depth D	Ram stroke C	Die setting height E	Ram speed			Main motor power	Oil tank volume	Overall dimension L × W × H			Weight
	kN	mm	mm	mm	mm	mm	mm/s			kW	L	mm			kg
PBC-30/1050	300	1050	950	90	120	450	200	20	200	3	40	1790	1235	2385	3000
PBC-50/2050	500	2050	1750	350	175	495	200	20	190	4.8	150	2550	1450	2485	4500
PBC-80/2550	800	2550	2150	350	215	535	200	17	200	8.4	230	3140	1540	2535	6200
PBC-110/3100	1100	3100	2600	410	265	585	200	15	180	8.4	300	3610	1550	2935	8800
PBC-110/4100		4100	3600				200	15	160	8.4	360	4610	1550	2985	9600
PBC-160/3100	1600	3100	2600	410	265	585	160	14	160	12	380	3630	1600	2985	10400
PBC-160/4100		4100	3600				160	14	150	12	430	4630	1600	3025	12300
PBC-220/3100	2200	3100	2600	410	265	595	120	12	130	15	400	3650	1850	2995	12800
PBC-220/4100		4100	3600				120	12	120	15	500	4650	1850	3095	14500

Calculation Chart of Force for Air Bending

Calculation Chart of Force for Air Bending



- The calculation results are based on 90°bending with bending length 1 meter. This chart can help you to easily calculate the bending force needed per meter on different workpieces. The bending force needed is up to the thickness of the sheet and the opening width of the lower die. The shortest edge length and inside radius are decided by the opening width of the lower die.

Mild steel 450N/mm²

Thickness of the sheet	V	6	8	10	12	16	20	24	32	36	40	50	60	63	80	100	120	130	140
	a	4.5	5	7	8.5	12	15	17	23	25	28	35	43	45	57	71	85	92	100
	r	1	1.2	1.6	2	2.5	3	3.5	5	5.5	6	8	9.5	10	12	15.5	19	21	23
	0.5	2.5																	
	0.8	7	4.8																
	1	11	8	6															
	1.2		12	9	7														
	1.5			15	12	8													
	2				23	16	20												
	2.5					26	20	15											
	3						30	24	16										
	4							44	31	28									
	5									47	43	31							
	6										61	45	36						
	8												69	65	47	36			
	10														80	60	47	43	
	12															90	71	65	58

Stainless steel 700N/mm²

Thickness of the sheet	V	6	8	10	12	16	20	24	32	35	40	50	60	63	80	100	120	130	140
	a	4.5	5	7	8.5	12	15	17	23	25	28	35	43	45	57	71	85	92	100
	r	1	1.2	1.6	2	2.5	3	3.5	5	5.5	6	8	9.5	10	12	15.5	19	21	23
	0.5	4																	
	0.8	11	8																
	1	18	13	10															
	1.2		19	14	11														
	1.5			24	19	13													
	2				37	26													
	2.5					42	32	24											
	3						48	38	26										
	4							70	50	45									
	5									75	69	50							
	6										98	72	58						
	8												110	104	75	58			
	10														128	96	75	69	
	12															144	114	104	93

F：Bending force T/m　V：Opening width of the lower die mm　a：Length of the shortest edge mm　r：Inside radius mm

Best opening width of the lower die

JIANGSU YAWEI MACHINE TOOL CO., LTD.

INTERNATIONAL

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Part sales phone: +86-514-86519148
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