



## Sheetmetal Pressbrakes

PBH

PBA

 **Yawei** 亚威

Stock Code 002559

# No end of practice and innovation

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Since 1977, Yawei has focused on technology innovation pressbrake and R&D , accumulated a lot of successful experience, serviced for varies of sheet metal processing industries and gained broad customer base

Now the pressbrake series machine can provide variety of choices and features for the products and function, to realize the optimal bending process and solutions

### PB series pressbrake

#### New Outlook

- Complete new outlook of industrial design, leading the modern trend

#### New Function

- High frequency response hydraulic control technology, running speed- and production efficiency at its best

#### New Technology

- More technological innovation, to make sure of the bending quality, powerful function and easy to operate



## PBH series pressbrake

### High efficiency CNC pressbrake

High efficiency of tool assembling, programming and bending, carrying on precise and rapid bending processing on varies of workpiece



## PBA series pressbrake

### Economic CNC Pressbrake

Reliable Yawei quality, stable and reliable, easy operation and high quality and reasonable price

**Yawei**

**PBH110**



# PBH Series

## CNC Pressbrake

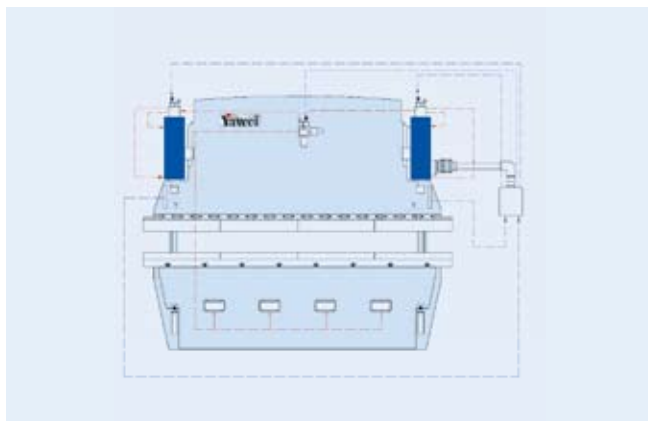
PBH series pressbrake is the best-selling machine, more efficient, more precise and more stable in same kind of machine tool

- Integrated into the modern aesthetic concepts of new industrial design, high quality production process, simple and generous appearance
- The latest high frequency response hydraulic control technology, faster speed, higher efficiency and more stable precision
- Optimizing the validation for the heat treatment frame and rigidity of whole machine, researching and applying the hydraulic compensation struction, ensure PBH series precision bending processing
- The best parameter matching, the core of the optimal configuration, gurantee the stable performance and easier operation
- Standard 2 axis of backgauge for PBH series pressbrake, 4 axis and 5 axis backgauge are options, choose suitable tools to realize bending process for all kinds of complicated workpiece

# PBH Series

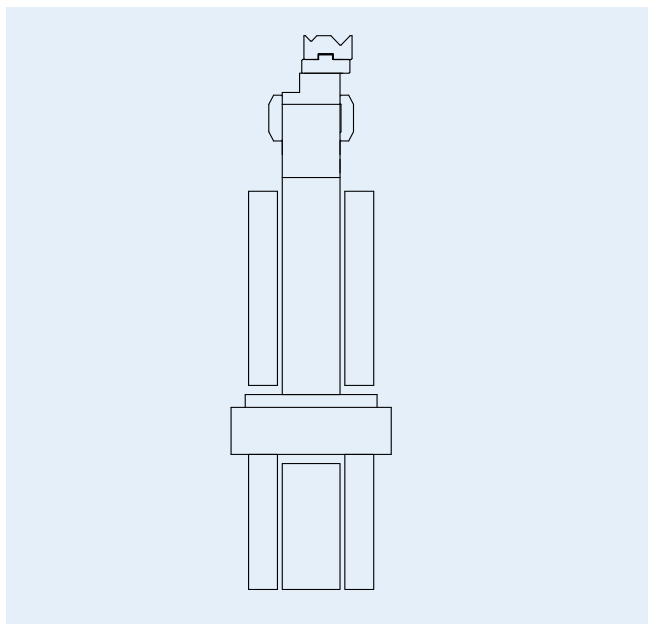
## CNC Pressbrake

### Hydraulic Control Technology



- The synchronization of pressbrake adopt the technology of full loop electro hydraulic servo control, the positioning signal of the upper beam feedback through optical scale to CNC system, and CNC system will check the opening size of synchronous valves, adjust the inlet oil amount, to realize the synchronizing movement of the upper bram (Y1, Y2) and keep the worktable always in parallel situation
- According to the technology state of the pressbrake, CNC system can control the amount of crowning compensation of worktable automaticlly, to achieve consistent angle in whole length

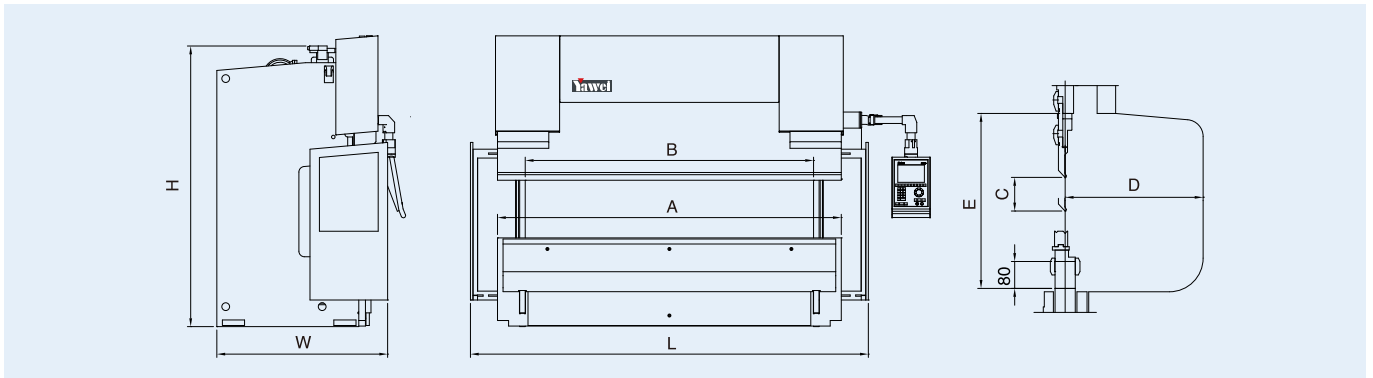
### Crowning Compensation Technology



- Crowning compensation system on the worktable can make the workpiece have same precision full along the length of the worktable; Hydraulic crowning compensation system is composed of a group of cylinders in worktable, which can form a relative movements of worktable, forming a curve needed of adding convex to worktable, to ensure the relative position to the upper beam of worktable is unchanged after the worktable being under pressure; The crowning compensation amount is calculated automatically by CNC system according to the thickness of the sheet, opening of the tooling and material characteristics

## Standard configuration

- Adopt DELEM DA56 from the Netherlands
- Hydraulic system adopt full loop electro-hydraulic servo synchronnized control system from Germany
- Backgauge has two axis as standard, X axis move forward and backward, R axis make upward and downward, finger-stop can move easily along linear guide
- Adopt mechanical fast clamp and European type upper tooling, 2-V quick change for bottom die
- Front supprt can be adjusted along worktable by step



## Technical parameter

Model	Bending force	Bending length A	Distance between upright 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	2240	6800
PBH-110/3100	1100	3100	2600	410	215	520	200	14	160	11	300	3590	1540	2530	9800
PBH-110/4100		4100	3600								360	4590			11800
PBH-160/3100	1600	3100	2600	410	215	520	160	11	140	15	380	3610	1600	2590	11900
PBH-160/4100		4100	3600				170				430	4610			15000
PBH-220/3100	2200	3100	2600	410	215	530	130	10	120	18.5	400	3630	1830	2630	15000
PBH-220/4100		4100	3600								500	4630		2730	18100
PBH-250/3100	2500	3100	2600	410	215	530	120	9	105	18.5	400	3630	1830	2630	15100
PBH-250/4100		4100	3600								500	4630		2730	18200
PBH-300/3100	3000	3100	2600	410	265	580	130	9	100	22	450	3600	1950	2750	20500
PBH-300/4100		4100	3600								600	4600		3000	24400

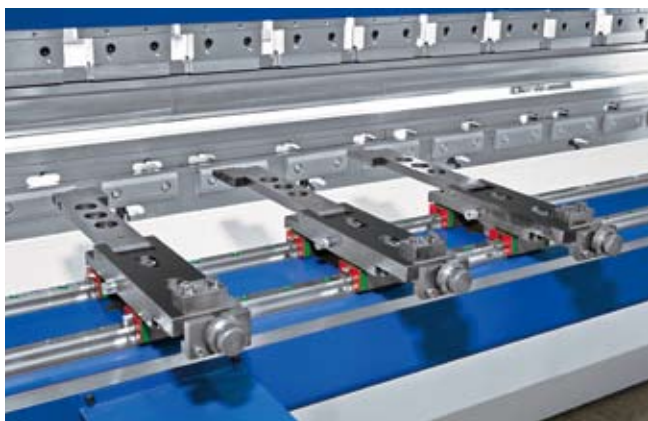
Models with special parameters can be customized



# PBH Series

## CNC Pressbrake

### Standard functional parts for PBH series pressbrake



#### X, R axis backgauge

- Standard backgauge has two axis, X and R axis, finger-stop can move along linear guide, Options of 4 axis or 5 axis can be choosed based on different workpiece with geometrical shape, option of 6 axis backgauge can also be supplied, two backgauge device can move seperately, realizing the more flexible bending process



#### Upper tooling fast clamp

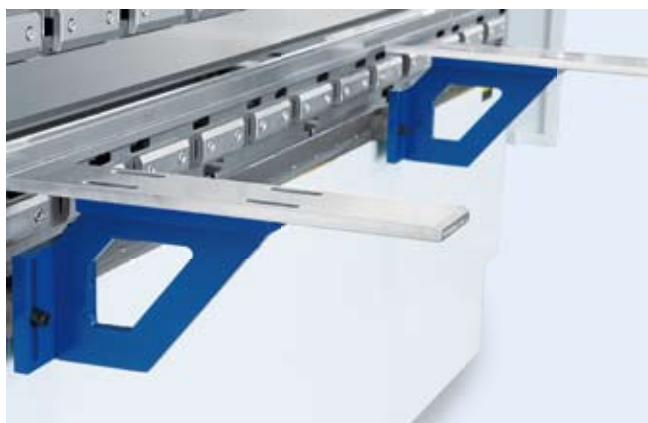
- Upper tooling clamping device is fast clamp, domestic and imported whole hydraulic upper tool clamping device are options



#### 2-V quick change bottom die

- Adopt 2-V quick change clamping, single V clamping and single V hydraulic clamping are options; multi-V bottom die and worktable is option





### Step-adjust front sheet support

- Step-adjust front support is standard, moving along linear guide for the front support can be chosen as option; servo-driven bending help and hydraulic bending help can be chosen as options based on the weight of workpiece



### CNC system

CNC system is DA56S as standard configuration, axis more than (4+1), need to choose option of DA66T controller

#### Configuration and function for standard CNC controller

- 10.4 inch LCD TFT colour display, 800×600 pixels
- 500MHZ microprocessor, memory capacity 256MB
- Tool storage, 30 pieces of top tool and 60 pieces of bottom die
- USB memory connection, internet connection (option)
- Standard WINDOW operation platform, ensure the stability of the controller operation, support for instant shutdown
- Quick program for parameter in one page, GPS short cut key

- Calculating the crowning compensation for worktable automatically
- Micro switch panel
- Calculate the bending force and tool safety area automatically
- Run the function of analysis tool and system diagnosis
- Angle correct database



# PBA Series CNC Pressbrake

PBA series economic CNC Pressbrake follows Yawei consistent quality, stable and reliable, easy operation and high-quality and reasonable price, worth your trust and choice

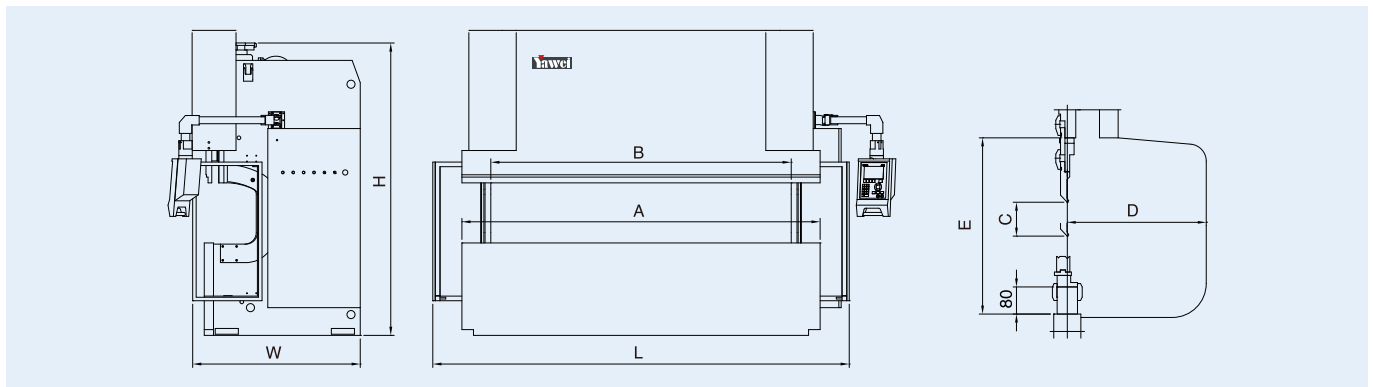
- Contracted style of the new industrial design, simple and generous appearance
- The latest high frequency response hydraulic control technology, stable precision and more reliable running performance
- Heat treatment of the frame, high rigid design worktable, optional mechanical compensation device, realizing the precise bending process
- The best parameter matching, the core of the optimal configuration, guarantee the stable performance and easier operation
- Standard single axis of backgauge for PBA series pressbrake, 2 axis, 4 axis and 5 axis backgauge are options, choose suitable tools to realize bending process for all kinds of complicated workpiece

# PBA Series

## CNC Pressbrake

### Standard configuration

- Adopt DELEM DA52S from the Netherlands
- Hydraulic system adopt full loop electro-hydraulic servo synchronnized control system from Germany
- Backgauge has one axis as standard, X axis move forward and backward, R axis make upward and downward by hand, finger-stop can move easily along cylindrical guide
- Adopt mechanical clamping and European type upper tooling, 2-V quick change bottom die
- Front supprt can be adjusted along worktable by step



### Technical parameter

Model	Bending force	Bending length A	Distance between upright 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	80	1720	1390	2340	2700
PBA-50/2050	500	2050	1750	350	175	480	180	16	180	5.5	150	2520	1450	2450	4700
PBA-80/2550	800	2550	2150	350	175	480	130	8	110	5.5	130	2940	1450	2450	5300
PBA-110/3100	1100	3100	2600	410	215	520	130	8	110	7.5	200	3600	1450	2580	7500
PBA-160/3100	1600	3100	2600	410	215	520	130	8	110	11	300	3620	1500	2700	9000
PBA-220/3100	2200	3100	2600	410	215	530	110	8	100	15	330	3640	1740	2780	11500

Models with special parameters can be customized

## Standard functional parts for PBA series pressbrake



### X axis backgauge

- Backgauge has one axis X axis as standard, R axis make upward and downward by hand, finger-stop can move easily along cylindrical guide
- Optional 2 axis, 4 axis and 5 axis backgauge can be choosed for all kinds of complicated workpiece



### Upper tooling mechanical clampings

- Upper tooling clamping device is mechanical wedge, fast clamp, domestic and imported hydraulic upper tool clamping device are options



### 2-V quick change bottom die

- Adopt 2-V quick change clamping, multi-V bottom die and worktable and single V clamping are options

# PBA Series

## CNC Pressbrake



### Step-adjust front sheet support

- Step-adjust front support is standard, optional is front support moving along linear guide



### CNC system DA52S

CNC system is DA52S as standard configuration, if need graph programming function, optional is DA56S

Configuration and function for standard CNC controller

- Calculating the crowning compensation for worktable automatically
- CNC program
- Micro switch panel
- Calculate the bending force and tool safety area automatically
- Run the function of analysis tool and system diagnosis
- Angle correct database
- 8 inch LCD TFT colour display
- Max axis control (Y1, Y2 and other additional axis)
- 266MHZ microprocessor, memory capacity 64MB
- Tool storage, 30 pieces of top tool and 30 pieces of bottom die
- USB memory connection, RS232 connection
- Standard WINDOW operation platform, ensure the stability of the controller operation, support for instant shutdown
- Quick program for parameter in one page, GPS short cut key

## Optional Functional parts for PBA series pressbrake



### Manual mechanical crowning compensation for worktable

- In order to improve the convenience to adjust the bending precision for workpiece with different thickness and different length, optional mechanical crowning compensation for worktable is suggested, adjust the compensation by hand, scale shows the compensation quantity



### CNC mechanical crowning compensation for worktable

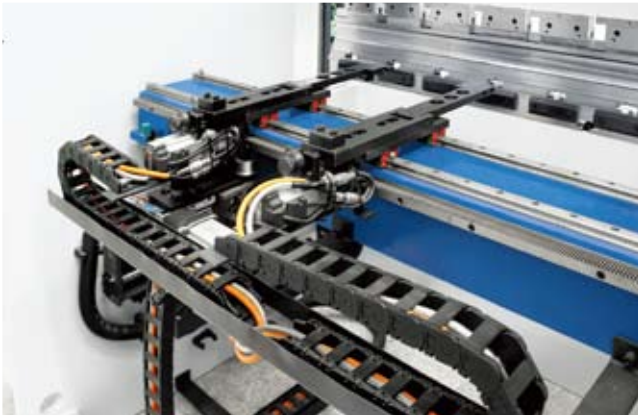
- In order to improve the convenience to adjust the bending precision for workpiece with different thickness and different length, optional CNC mechanical crowning compensation for worktable is suggested, CNC compensation device can be adjusted automatically according to programming code of CNC controller
- Equip with single V or double V bottom die



# PBH(A) series

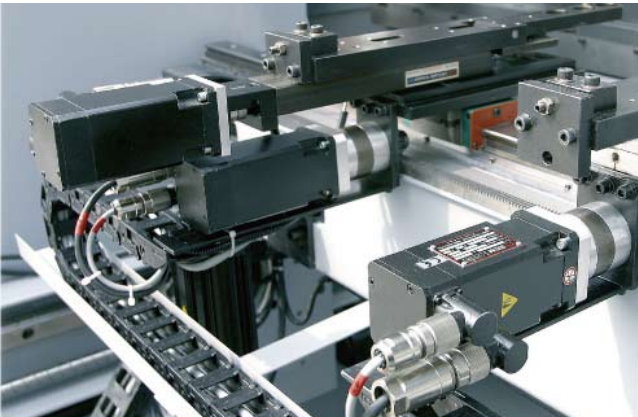
## pressbrake optional parts

### Backgauge



#### 4 axis backgauge (X, R, Z1, Z2)

- X axis move front and rear, R axis move upward and downward, Z1 axis and Z2 axis are two finger stops moving left and right, 4 axis linkage positioning precisely programmed by CNC controller, realizing the bending positioning for complicated workpiece



#### 5 axis backgauge (X, R, Z1, Z2, X1)

- X axis move front and rear, R axis move upward and downward, Z1 axis and Z2 axis are two finger stops move left and right, X1 axis is finger stop moving front and rear, 5 axis controlled by CNC controller to make linkage positioning precisely
- Realize bending positioning for complicated workpiece, workpiece with inclined plane also can be realized for bending positioning



#### 6 axis backgauge (X1, R1, Z1, X2, R2, Z2)

- Left and right backgauge device has separate X, R and Z axis
- Finger stop can move along three axis, CNC controller program 6 axis linkage positioning precisely
- Realize bending process for complicated workpiece

## Front support device



### Front support moving along linear guide

- Front support can move along linear guide left and right, adjust the height by hand
- Optical light curtain safety device can be supplied



### Hydraulic bending help

- Separate hydraulic station controlled, connection rod mechanism driven by oil cylinder, realize the turn over movement
- When make bending, support plate can realize the function of turning over following, following angle and speed is calculated and controlled by CNC controller; Move along linear guide left and right, adjust the height up and down by hand, front and rear can also be adjusted manually to suit for different bottom die opening
- Supporting plate has two options of brush or steel pipe, based on workpiece size, two supports linkage movement or separate movement can be chosen



### Mechanical servo bending help

- Controlled by servo motor, driven by arc chain wheel, realize the turn over movement
- When make bending, support plate can realize the function of turning over following, following angle and speed is calculated and controlled by CNC controller; Move along linear guide left and right, adjust the height up and down by hand, front and rear can also be adjusted manually to suit for different bottom die opening
- Supporting plate length can be made according to requirement, based on workpiece size, two supports linkage movement or separate movement can be chosen

## PBH(A) series

### pressbrake optional parts

#### Upper tooling clamping device



##### Upper tooling mechanical clamping device

- Upper tooling mechanical fast clamp, no need to adjust the bolt, easy operation and convenient for tool changes



##### Upper tooling hydraulic clamping

- Domestic upper tooling hydraulic clamping device, clamping loose action controlled by electric automatically, clamping force powerful and reliable, much easier and efficient for tool changes



##### WILA upper tooling hydraulic clamping

- WILA upper tooling hydraulic clamping, clamping loose action controlled by electric automatically, special hook type design, tool can be taken out directly or assemble in front, force on the top, stable structure and much easier and efficient for tool changes

## Lower tool clamping device



### Single V lower tool, mechanical clamping

- Single V lower tool clamping, high precision for tool, easy for tool changes, narrow tool width, suitable for complicated turnover bending workpiece



### Single V lower tool, hydraulic clamping

- WILA lower tool clamping device, clamping loose action controlled by electric automatically, much easier and efficient for tool changes

## Lasersafe safety guard



### Lasersafe safety guard

- Lasersafe PSC-OHS safety guard, communication between CNC controller and safety control module
- Double laser beam form protection area 4mm below the bottom of upper tool tip, effectively protect the safety of operator's fingers; Front, middle and rear of laser beam can be flexible closed, effectively guarantee bending for complicated box; mute point is 6mm above sheet plate, realize efficient and safe production

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