

Provide Global Customers with Metal Forming Automation Solutions

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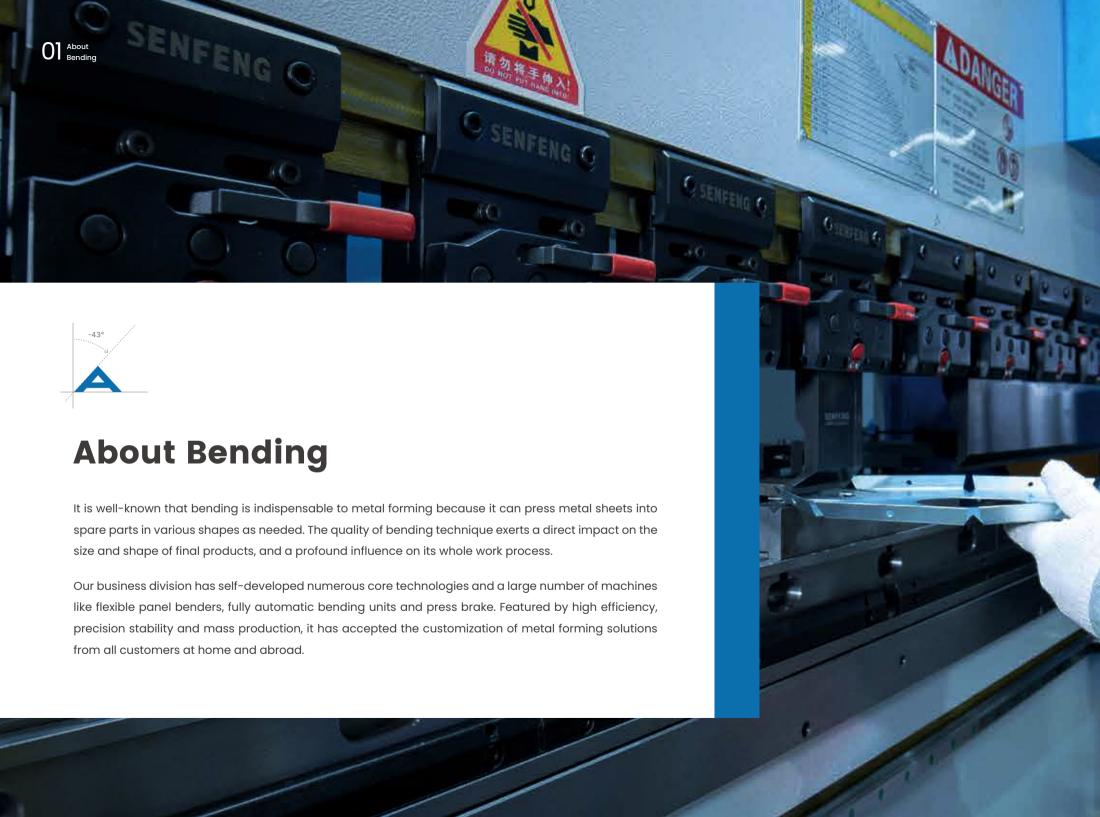
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#### **Press Brake**

BDE Series Press Brake, with rich but different models, is launched on the basis of our R&D innovation, cutting-edge bending technology and experience. Individual customization is also made possible.

Aimed at the increase of bending efficiency and precision, BDE is outfitted with high-strength machine tool, deflection compensation system, back gauge and CNC operating system as well as other modules to make your precision, stability, efficiency and security high. This powerful machine is regarded as an ideal helper to boost capacity and enable mass production.





Further optimization of finite element analysis

Well-distributed stress on frame



Take accurate control of slide blocks' precision

Electro-hydraulic servo synchronization



Mechanical deflection compensation

Maintain consistency in bending precision



High-precision back gauge system Servo motor drive for high reliability

Model	BDE10032 Series			
Metal plate Bending thickness	Stainless steel 2.5mm	Carbon steel/galvanized sheet 3.5mm	AL sheet 5mm	
Bending force	1000KN			
Main motor power	7.5KW			
Bending length	3200mm			
Throat depth	400mm (Custom-mo	ade)		
Machine weight	7600KG			

### Specific Models(Electro-hydraulic Synchronization)

Mode	Mode Bending force	Bending length	Width between	Throat depth	Oil cylinder	Open height	Main motor	Spee	d (mm/s)		Overall c	dimensio	ns (mm)	Machine weight
	(kN)	(mm)	columns (mm)	(mm)	stroke (mm)	(mm)		Approach	Bend	Return	Length	Width	Height	(kg)
BDE5016	500	1600	1200	205	160	460	5.5	180	0-10	160	2100	1770	2395	3400
BDE7025	700	2500	2100	350	160	460	7.5	180	0-10	160	3000	1765	2450	5500
BDE7032	700	3200	2600	350	160	460	7.5	180	0-10	160	3700	1765	2450	6000
BDE10025	1000	2500	2100	400	200	480	7.5	180	0-10	160	3000	1930	2630	6300
BDE10032	1000	3200	2600	400	200	480	7.5	180	0-10	160	3700	1930	2630	7600
BDE10042	1000	4200	3600	400	200	480	7.5	180	0-10	160	4700	1930	2630	8300
BDE13025	1300	2500	2100	400	200	480	11	180	0-10	160	3000	1930	2630	6400
BDE13032	1300	3200	2600	400	200	480	11	180	0-10	160	3700	1930	2630	7800
BDE13042	1300	4200	3600	400	200	480	11	180	0-10	160	4700	1930	2630	8500
BDE17032	1700	3200	2600	400	200	480	11	160	0-10	130	3700	2070	2680	8200
BDE17042	1700	4200	3600	400	200	480	11	160	0-10	130	4700	2070	2730	9800
BDE17050	1700	5000	4200	400	200	480	11	160	0-10	130	5500	2120	2990	14800
BDE17060	1700	6000	4800	400	200	480	15	150	0-10	130	6500	2120	3050	18000
BDE20032	2000	3200	2600	400	200	480	15	140	0-10	120	3700	2120	2725	9350
BDE20042	2000	4200	3400	400	200	480	15	140	0-10	120	4700	2120	2760	11500
BDE20050	2000	5000	4200	400	200	480	15	140	0-10	110	5500	2150	3080	16500
BDE20060	2000	6000	4800	400	200	480	18.5	140	0-8	110	6500	2150	3290	18500
BDE25032	2500	3200	2600	400	250	500	18.5	130	0-8	120	3700	2120	2800	10300

### Specific Models(Electro-hydraulic Synchronization)

Mode	Rending force	ding force Bending length	g force Bending length Width between Thr	Throat depth	Oil cylinder	Open height	Main motor				Overall dimensions (mm)			- Machine weight
(kN) (mm)	0 0	columns (mm)	(mm)	stroke (mm)	(mm)	power (kW)	Approach Bend Return		Return	Length	Width	Height	(kg)	
BDE25042	2500	4200	3400	400	250	500	18.5	130	0-8	120	4700	2120	2820	12500
BDE25050	2500	5000	4200	400	250	500	18.5	100	0-8	100	5500	2190	3350	17800
BDE25060	2500	6000	4800	400	250	500	22	100	0-8	100	6500	2190	3520	20500
BDE32032	3200	3200	2600	500	250	530	22	110	0-8	100	3700	2480	3200	14800
BDE32042	3200	4200	3400	500	250	530	22	110	0-8	100	4700	2480	3200	18000
BDE32050	3200	5000	4200	500	250	530	22	100	0-8	100	5500	2480	3525	21500
BDE32060	3200	6000	4800	500	250	530	22	100	0-8	100	6500	2535	3620	26500
BDE40032	4000	3200	2600	500	300	600	30	100	0-8	100	3700	2520	3300	18000
BDE40042	4000	4200	3400	500	300	600	30	100	0-8	100	4700	2520	3400	22000
BDE40050	4000	5000	4200	500	300	600	30	90	0-8	90	5200	2620	3800	31000
BDE40060	4000	6000	4800	500	300	600	30	90	0-7	90	6200	2640	3950	35000
BDE50042	5000	4200	3400	500	300	600	37	90	0-7	90	4400	2520	4050	32000
BDE50050	5000	5000	4200	500	300	600	37	90	0-7	90	5200	2520	4150	38000
BDE50060	5000	6000	4800	500	300	600	37	90	0-7	90	6200	2520	4250	43000
BDE60042	6000	4200	3400	600	300	670	45	90	0-7	90	4400	2700	4550	41000
BDE60050	6000	5000	4200	600	300	670	45	90	0-7	90	5200	2700	4650	47000
BDE60060	6000	6000	4800	600	300	670	45	90	0-7	90	6200	2700	4750	52000

# **Key Configurations**

Name	Manufacturer	Notes
CNC system	DELEM	Netherlands
Hydraulic control system	REXROTH (Germany)	Electro-hydraulic servo-hydraulic valve bank Synchronous control assembly Hydraulic control assembly
Oil pump  Main motor  Magnetic railing rule	SUNNY SIEMENS SENTEK	America Germany Turkey
Drive parts	HIWIN (Taiwan, China)	Linear guideway Ball screw
Cylinder seal elements  Electrical parts  Sleeve-type tubing connector  Deflection compensation system	SKF SCHNEIDER EMB HuangShi	Sweden France Germany China

Notes: These configurations have been verified as the best. If you want something to change, please note that irreversible influence may happen.

### **Core Components**

#### High-precision Servo Motor (Optional)

Servo motor, as primary power source of hydraulic pump, can help to save 40% energy, get efficiency gains of slide blocks by 70%, and reduce oil temperature by roughly 10–20°C.



#### High-precision Mechanical Compensation Device

High-precision wedging compensation device is used for fine compensation and bending effects under the control of CNC system.



### **Core Components**

#### High-precision Back Gauge System

To ensure high positioning accuracy and long service life, X axis is driven by ball screw and linear guideway. Custom-made fingers have been further lengthened and widened. As for finger support frames installed on dual linear guideway, there are 4+1, 6+1 and 8+1 axis back gauges that can support your diversified demands.







Adjust at will, high degree of automation. It can adapt to fingers' different demands on sheet bending position, depth, height and width.





6+1 Axis CNC Back Gauge

Based on actual workpiece, it will move fingers to right place automatically. With such precise positioning, the workpiece is ensured to satisfy your standards.

8+1 Axis CNC Back Gauge

One gauge positioning mechanism driven by servo motor will be added in horizontal, vertical and fore-and-aft direction respectively of current back gauge system. As thus, the workpiece can be well positioned rapidly by press brake when it is bent in multiple angles.

# Electric Servo-driven Press Brake

Its main motor power is almost equal to load power. The mechanical transmission rate has reached up to 95%, minimizing total electric consumption when slide blocks return in no-load way. Requiring no hydraulic oil, the resulting pollution caused by oil and liquid wastes will be effectively avoided.

Both bending speed and bottom dead center are controlled by servo motor and lead screw. With quick response, its work efficiency has been nearly doubled. For hydraulic press brake, the rise of oil temperature is likely to lower repositioning accuracy, however, it will not happen to electric press brake because their slide blocks move up & down and are positioned by servo motor and lead screw. In view of no high heat effect, they will work at high precision for a long term.



Further optimization of finite element analysis Well-distributed stress on frame



No hydraulic oil for eco-friendly effect Fast response and high efficiency gains



Mechanical deflection compensation

Maintain consistency in bending precision



BDE6020

High-precision back gauge system Servo motor drive for high reliability

Model	BDE6020 Series			
Metal plate Bending force Bending length	Stainless steel 600KN 2000mm	Carbon steel/galvanized sheet	AL sheet	

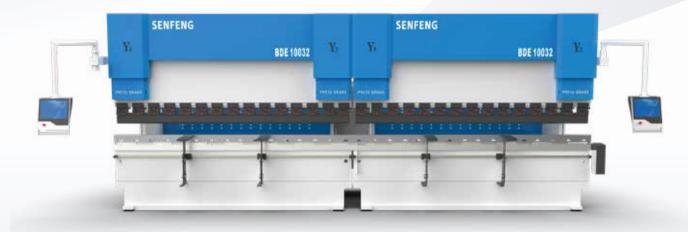
### Specific Models(Servo-driven)

Model Bending force	ending force Rending length	Rending length	Width between Three	Throat depth	Stroke	Open height	Main motor	Speed (mm/s)		Overall dimensions (mm)			Machine weight
(kN)	(mm)	columns (mm)	(mm)	(mm)	(mm)	(kW)	Approach	Bend	Return	Length	Width	Height	(kg)
250	1000	800	200	180	430	18	200	0-30	200	1500	1450	2370	2000
400	1600	1200	205	180	470	2*11	200	0-30	200	2100	1730	2350	3500
600	2000	1600	350	230	470	2*18	200	0-30	200	2500	1730	2535	4500
700	2500	2100	350	230	470	2*18	200	0-30	200	3000	1750	2535	5200
100	3200	2600	400	250	515	2*37	200	0-30	200	3700	1950	2835	8200
130	3200	2600	400	250	515	2*37	200	0-30	200	3700	1950	2835	8400
	250 400 600 700	(kN) (mm)  250 1000  400 1600  600 2000  700 2500  100 3200	Bending force (kN)         Bending length (mm)         columns (mm)           250         1000         800           400         1600         1200           600         2000         1600           700         2500         2100           100         3200         2600	Bending force (kN)         Bending length (mm)         columns (mm)         Inroat depth (mm)           250         1000         800         200           400         1600         1200         205           600         2000         1600         350           700         2500         2100         350           100         3200         2600         400	Bending force (kN)         Bending length (mm)         columns (mm)         Throat depth (mm)         Stroke (mm)           250         1000         800         200         180           400         1600         1200         205         180           600         2000         1600         350         230           700         2500         2100         350         230           100         3200         2600         400         250	Bending force (kN)         Bending length (mm)         columns (mm)         Ihroat depth (mm)         Stroke (mm)         Open height (mm)           250         1000         800         200         180         430           400         1600         1200         205         180         470           600         2000         1600         350         230         470           700         2500         2100         350         230         470           100         3200         2600         400         250         515	250   1000   800   200   180   430   18   400   1600   1200   205   180   470   2*11   600   2000   1600   350   230   470   2*18   700   2500   2600   400   250   515   2*37	Bending force (kN)         Bending length (mm)         Width between columns (mm)         Throat depth (mm)         Stroke (mm)         Open height (mm)         Main motor power (kW)         Approach           250         1000         800         200         180         430         18         200           400         1600         1200         205         180         470         2*11         200           600         2000         1600         350         230         470         2*18         200           700         2500         2100         350         230         470         2*18         200           100         3200         2600         400         250         515         2*37         200	Bending force (kN)         Bending length (mm)         Width between columns (mm)         Throat depth (mm)         Stroke (mm)         Open height (mm)         Main motor power (kW)         Approach         Bend           250         1000         800         200         180         430         18         200         0-30           400         1600         1200         205         180         470         2*11         200         0-30           600         2000         1600         350         230         470         2*18         200         0-30           700         2500         2100         350         230         470         2*18         200         0-30           100         3200         2600         400         250         515         2*37         200         0-30	Bending force (kN)   Bending length (mm)   Width between columns (mm)   Throat depth (mm)   Stroke (mm)   Open height (mm)   Main motor power (kW)   Approach   Bend   Return	Bending force (kN)   Bending length (mm)   Columns (mm)   Column	Bending force (kN)   Bending length (mm)   Width between columns (mm)   Throat depth (mm)   Stroke (mm)   Open height (mm)   Width   Approach   Bending length (mm)   Length   Width	Bending force (kN)   Bending length (mm)   Bending length (kN)   Bending length (mm)   Bending length (mm)   Bending length (mm)   Columns

#### **Tandem Press Brake**

#### (Electric/Electro-hydraulic Synchronization)

Two or more dual-cylinder press brake of same specifications are combined together, which is outfitted with tandem or multi-machine synchronization device; Fitting to bend extra-long workpiece, this model has been widely applied in urban construction, street lamp post on the highway, electric pole and automotive frame. This tandem machine also allows independent work at a higher efficiency.





Further optimization of finite element analysis
Well-distributed stress on frame



Electro-hydraulic servo synchronization
Take accurate control of slide blocks' precision



Mechanical deflection compensation

Maintain consistency in bending precision



High-precision back gauge system Servo motor drive for high reliability

Model	BDE10032-BDE10032	Series		
Metal plate	Stainless steel	Carbon steel/galvanized sheet	AL sheet	
Bending thickness	2.5mm	3.5mm	5mm	
Bending force	2000KN			
Main motor power	7.5KW			
Bending length	6400mm			
Throat depth	400mm (Custom-m	nade)		

### **Fully Automatic Bending Unit**

Through PLC control system and software, Press brake can work with bending robots to grab, center, follow up and stack up sheets automatically. Thanks to its much less dependence on human labor, finished products will be highly consistent with each other at high efficiency. All customers may apply for custom-made solutions according to their actual demands. In this way, bending automation will come true to the great extent.





Need much less labor force



Minimize potential safety hazards



Work around the clock



High consistency among workpieces

Model	BDE10032ES Series						
Parameters	Unit	Concrete value					
Robot axis	Number of axis	6+1					
Robot load	kg	80/130/220/500					
Max size of workpiece	mm	2500*1250/3000*1500/4000*1500/6000*1500					
Min thickness of sheet	mm	0.8					
Max weight of workpiece	kg	130					
Max loading height of sheet	mm	400					
Max stack-up height of finished products	mm	900					

### Heavy-tonnage Press Brake (BDE40060)

BDE Series press brake, with rich but different models, is launched on the basis of our R&D innovation, cutting-edge bending technology and experience. Individual customization is also made possible.

Aimed at the increase of bending efficiency and precision, BDE is outfitted with high-strength machine tool, deflection compensation system, back gauge and CNC operating system as well as other modules to make your precision, stability, efficiency and security high. This powerful machine is regarded as an ideal helper to boost capacity and enable mass production.





Further optimization of finite element analysis
Well-distributed stress on frame



Electro-hydraulic servo synchronization
Take accurate control of slide blocks' precision



Mechanical deflection compensation

Maintain consistency in bending precision



High-precision back gauge system Servo motor drive for high reliability

Model	BDE40060 Series			
Metal plate Bending thickness	Stainless steel 8mm	Carbon steel/galvanized sheet 5mm	AL sheet 12mm	
Bending force	4000KN			
Main motor power	30KW			
Bending length	6000mm			
Throat depth	500mm (Custom-m	ade)		
Machine weight	35000KG			

### Heavy-tonnage Press Brake (BDE60060)

BDE Series press brake, with rich but different models, is launched on the basis of our R&D innovation, cutting-edge bending technology and experience. Individual customization is also made possible.

Aimed at the increase of bending efficiency and precision, BDE is outfitted with high-strength machine tool, deflection compensation system, back gauge and CNC operating system as well as other modules to make your precision, stability, efficiency and security high. This powerful machine is regarded as an ideal helper to boost capacity and enable mass production.





Further optimization of finite element analysis
Well-distributed stress on frame



Electro-hydraulic servo synchronization
Take accurate control of slide blocks' precision



Mechanical deflection compensation

Maintain consistency in bending precision



High-precision back gauge system Servo motor drive for high reliability

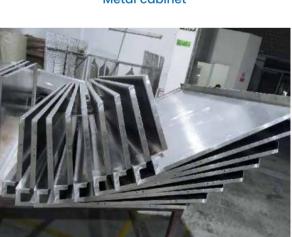
Model	BDE60060 Series			
Metal plate Bending thickness	Stainless steel 12mm	Carbon steel/galvanized sheet 7.5mm	AL sheet 18mm	
Bending force	6000KN			
Main motor power	45KW			
Bending length	6000mm			
Throat depth	550mm (Custom-mo	ade)		
Machine weight	52000KG			

# **Bending Materials**

Our Press Brake can bend stainless steel, carbon steel, galvanized sheet, fluoraluminum zinc sheet, copper and AL. (For actual bending effects, please see below)



Metal cabinet





Stainless steel plate



Fluorine aluminum zinc sheet



Cold plate



Copper sheet

### **Special Treatment of Machine Tool**

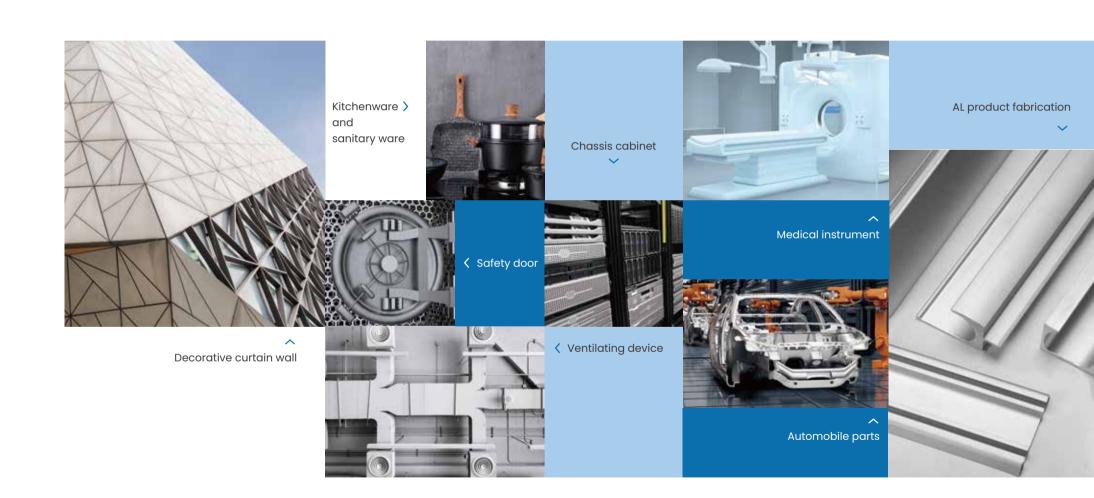
Large-sized shot blasting machine



Gas truck style thermal treatment furnace

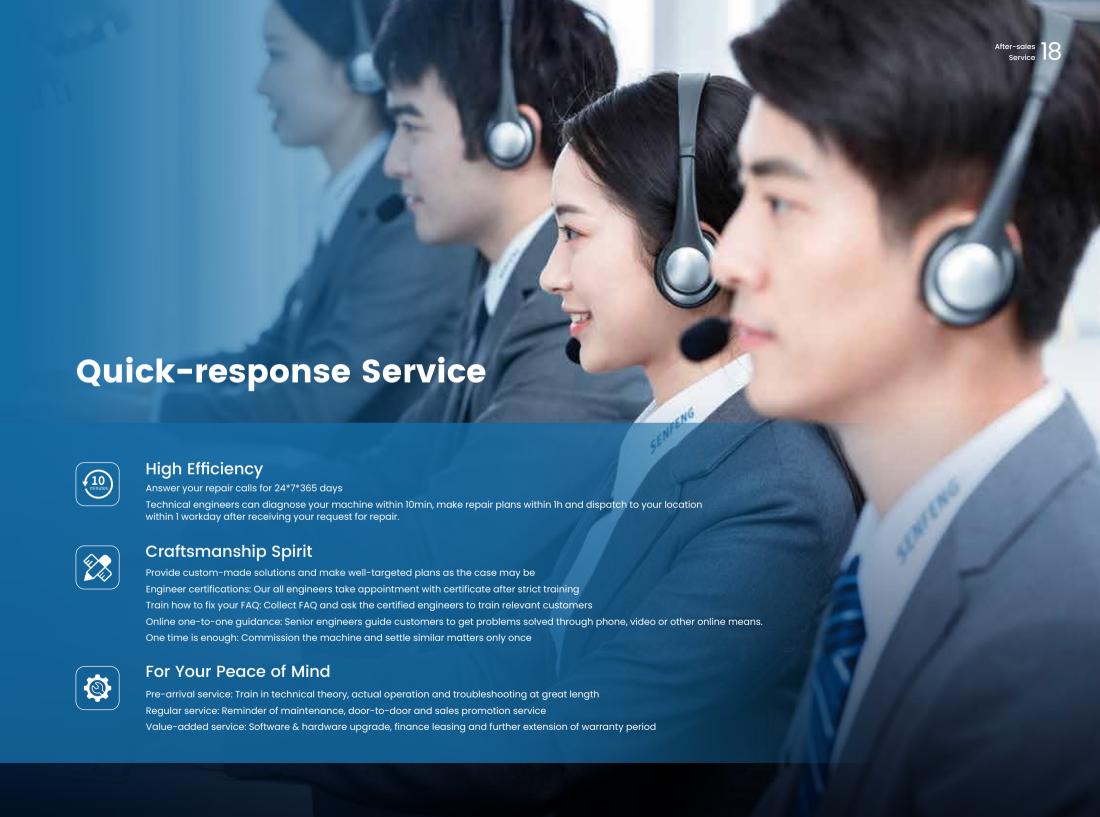
Small-sized vertical machining center

# **Applicable Industries**



# **After-sales Service**





Uphold the Spirit of Craftsmanship to

Make Our Future Smarter

#### Jinan Senfeng Laser Technology Co., Ltd.

② No. 1777 Kejia Road, High-tech Zone, Jinan City, Shandong Province, PRC

• www.senfenglaser.com

#### ▶ Germany Subsidiary

Add: Oberer Westring 33, 33142 Büren, Germany

#### **▶** UAE Subsidiary

Add: Al Sajaa Industrial -Al Jlail -Sharjah -UAE

#### ▶ Pakistan Service Center

Add: Dullukhur metro station 26 Ferozpur road, Lahore

#### ▶ Vietnam Service Center

Add: K13 Ngã 3 Ngọc Hồi Xã Ngũ Hiệp Huyên Thanh Trì Hà Nô

#### **USA Subsidiary**

Add: 5989 Rickenbacker Road, Commerce CA90040

#### ▶ India Service Center

Add: Plot no 4/09, survey no -519, TSIIC , ip nadergui, nyderabad

#### Jordan Service Center

Add: Amman -Sahab -Alazrag highway

Note: The pictures and parameters in the album are for reference only, and the actual product shall prevail. Printed in Oct. 202