

# BDE13032 CNC Bending Machine

**Technical Solutions** 

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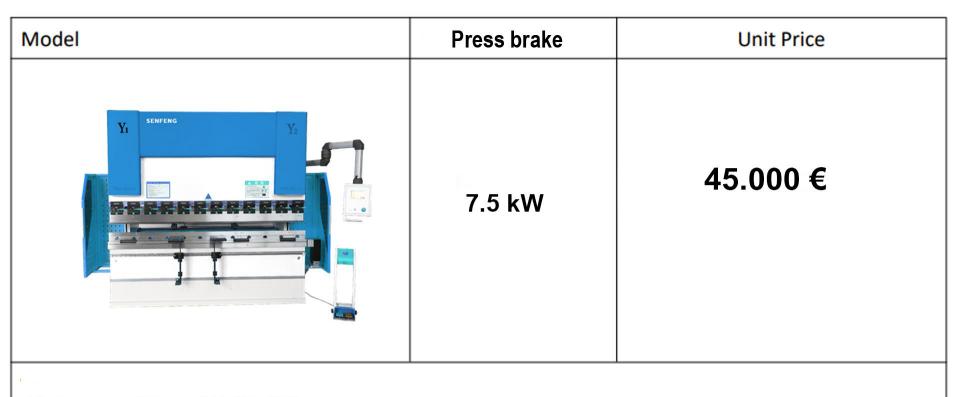
# I. Product introduction





- BDE13032 is in streamlined design with heat treatment rack, high rigidity worktable, optional mechanical compensation device, to achieve precision bending.
- Hydraulic synchronous control and <u>DELEM-53T</u> programmable logic controller ensure accurate repeatability and ease use.
- Integrated hydraulic system (Bosch Rexroth Germany) allows automatically switch to slow bends in a quick way.
- The best ratio of parameters, optimal core configuration ensure stable performance and more convenient operation.





Koha e arritjes: 45-60 ditë Kushtet e pageses: 30% kur të bëhet porosia/ 70% kur te behet ngarkes pas 7-10 dite Servisi online : 24/7



# **II.**Technical Parameter

Item	Parameter
CNC system	DELEM-53T
Quantity of Axis	X,Y1,Y2,R,C (4+1)
Bending capacity (mm)	4.5*3200
Press capacity (KN)	1300
Main motor	7.5 kW
Working table (mm)	3200*90
Feeding Method	Lower press arm type
Distance between columns (mm)	2600
Cylinder stroke (mm)	200
Frame Gap (mm)	400
Descending speed (mm/s)	180
(mm/s)	10
Ascending speed (mm/s)	120
Outline size (mm)	L:3450*W:1800*H:2670
Machine Total Weight (T)	8.2
Working temperature (°C)	0-45
Power parameters	Three-phase AC 380V 50Hz



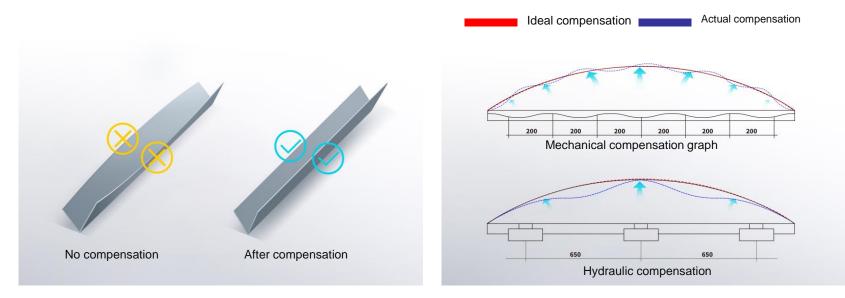
# III.Configuration

NAME	NO.	BRAND
Control System	1 set	DELEM-53T
Hydraulic Block	1 set	REXROTH
Motor	1set	SIEMENS
Oil Pump	1set	SUNNY
Oil Cylinder	1set	HEYAN
Fixturing Tool	1 set	SENFENG
Grating Scale	1 set	Turkey-made
Pallet Rack	1 set	SENFENG
Mechanical compensation table	1 set	SENFENG



### **IV.**Main Features

### More efficient mechanical compensation



The mechanical compensation device sets 15 compensation points on the entire 3200-degree working width, and

the actual compensation curve is close to the ideal, which can better ensure the accuracy of the workpiece.

### Mechanical



The main structure of the machine is automatically simulated and calculated by the computer <u>PRO/E3D</u> latest version of the mathematical trigonometric function precision program. The tensile strength, compressive strength of the main structure and the parallel straight lines of table deflection are all within the safe range.

This machine adopts <u>Q235B high-quality steel plate</u>, and all the joints are with bevel edges to ensure the strength of the whole machine.

The whole machine has done annealing stress relief treatment to ensure rigidity, strength, precision and structural stability. This machine is annealed and sand blasted to remove rust and then treated with anti-rust spray paint.a large floor boring milling machine is used to form the machine at one time to ensure the parallelism and perpendicularity of each installation part.



### Mechanical



This machine guide rail is made of high-quality wearresistant materials, which is equipped with a lubricating device. The backgauge X axis is a high-precision backgauge group, equipped with two sets of Taiwan Shangyin high-precision linear motion rails. The backgauge is formed in one piece, driven by a high-precision servo motor. The guide rail adopts a linear flat slide with fast and accurate positioning. It's noise-free and moving smoothly and easy to return to zero. Front and rear, left and right dual-stage has fine-tuning functions.



### **Hydraulic**



- The hydraulic valve group adopts <u>German Rexroth</u> or the same level, with overload protection device and the highest pressure adjustment setting.
- The hydraulic system adopts German Rexroth or similar digital closed circuit system, with high-load and logically sealed design.
  It has closed hydraulic circuit with no noise and no oil leakage.
- Stepless adjustment of working tonnage, with double pressure overload safety protection valve to prevent improper actions from endangering the safety of people and machines.

- The internal gear high-pressure oil pump can withstand high pressure with low noise.
- The seal adopts an advanced modular structure with strong sealing performance and long life.
- The oil level is clearly displayed, and there is an early warning device for filter blockage in the oil tank.
- The machine can work continuously for over 14 hours under a certain load to ensure the continuous and stable operation of
- the hydraulic system and ensure the accuracy.

# **Control system DELEM-53T**



### System Features

- ✓ 1. "Hot-key" touch navigation
- ✓ 2. 10.1" high resolution colour TFT
- ✓ 3. Up to 4 axes (Y1,Y2 + 2 aux. axes)
- ✓ 4. Crowning control
- ✓ 5. Tool / material / product library
- ✓ 6. Servo and frequency inverter control
- ✓ 7. Advanced Y-axis control algorithms for closed-loop as well as open-lo
- ✓ 8. TandemLink (option)
- ✓ 9. USB memory stick interfacing
- ✓ 10. Profile-T offline software



# V.Bending Capacity

Carbon steel, stainless steel, aluminum alloy.





### **VI.** Application Industry

Kitchenware, air conditioners, elevators, fans, ceiling curtain walls, office furniture, cabinets, etc.





File Cabinet/Electrical Cabinet



Kitchen Ware/Refrigerator



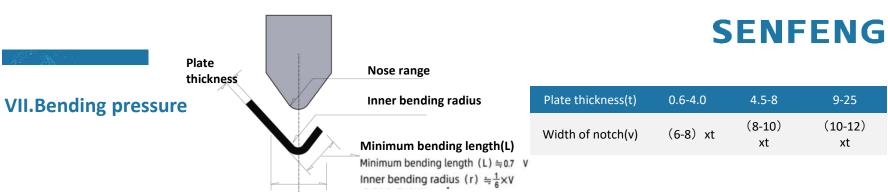
**Curtain Wall** 



**Elevator/Furniture** 



Ventilating Device/Fan Industry



Windth of notch(V)

Radius of	Minimum	Т																		
curved plate R	foot lengeh L	0.5	1.0	1.2	1.6	2.0	2.3	2.6	3. 2	3.4	3.6	4.5	6	9	12	16	19	22	25	30
1	4	3	11																	
1.5	5.5	2	8	12																
1.5	7	2	7	10	17															
2	8.5		6	8	14	22														
2.5	11			6	11	17	22													
3	14				9	13	17	22												
4	18					11	14	21	27											
2.5	23						11	17	21	27										
6.5	28							11	17	21	34									
8	35								14	17	27	50								
10	45									14	21	38	85							
13.5	57											60	67							
16	71												24	54	95					
20	89													43	76	13 5				
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## VIII.Bed body processing process





The raw materials for machine bed welding are all cut by laser.



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### **Machine Bed Welding**

Machine bed welding adapts mixed gas (80% argon 20% carbon dioxide) which can better ensure the formation ,firmness and smoothness of the welding, to improve the overall quality of the bed.



### Natural Aging Treatment

The bed will be placed outdoors for 1 to 6 months after welding, under the overload caused by thermal stress, the residual stress is relaxed and the dimensional accuracy is stabilized.



#### **Heat Treatment**

It takes about 24 hours for the overall heat treatment of a bed, achieving the purpose of eliminating residual stress, stabilizing size, reducing deformation and cracks, making our bed more durable and longer in service life.



### **Shot Blasting**

It can clear the excess rust layer, oxide skin and oil stains on the bed, which can greatly improve the cleaning efficiency and strengthen the surface quality of the bed.





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#### Spray

We adopt automatic process, which is safe and stable, and efficient; the high temperature paint baking room can heat up quickly, dry quickly, and make the surface of the bed smooth and without impurities.



### Machining

The final finishing of the bed and beam can completely eliminate the stress caused by welding and processing, ensuring the stability and high precision of the bed, which will run for a long time without deformation.



### Accuracy Detection

We use CMM and other instruments to test the accuracy of the bed.



# IX.Product Certification



### X.5 Star Service



#### High efficiency

24 hours a day (mainly for international), 7 days a week, 365 days a year at any time to receive repair calls;

#### After-sale service



The seller provides one time free installation and training in buyer's factory. Seller pays for the airplane tickets and salary for engineers, buyer should provide accommodation and food to engineers. The seller will provide technical guide's e-mail, telephone, WeChat, WhatsApp and so on. The seller should pay for the travel expense if local service needed within warranty time.



### Warranty

The warranty of laser source is1 years.

The warranty of the machine is 1 years (main spare parts). Warranty counts from the date marked on the label of the laser source and machine.

Except the damage artificially, seller is responsible for offering the fittings free of charge during the warranty period. Exceeding the warranty period, parts need to be repaired or changed, shall be paid.



### Worry-free

Pre-sale service: theoretical + practical operation training, self-diagnosis training for common faults, guidance for quick repair of difficult faults, and warning of matters needing attention in use; Regular service: regular maintenance reminder, regular door-to-door service, regular promotional activities; Value-added services: equipment software and hardware upgrading services, financial leasing services, delayed warranty service.



### **Field Service**

Our branches in United States, Germany, India, Pakistan, Serbia, Vietnam provide localized services and technical support for global customers.

### Service Oriented and Customer First





# **XI.**Customer Testimonials







# XII.Trade show





# XIII.Company Strength



# About us



Senfeng Laser is a leading manufacturer engaged in the research, development, Production, sale and service of fiber laser cutters, fiber laser cleaning machine, laser marking machine, laser welding machine ,3D robot, press brake bending machine, metal sander, etc.





# XIV.Product Line



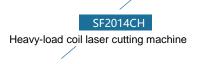


### Fully Enclosed Metal Sheet Cutter







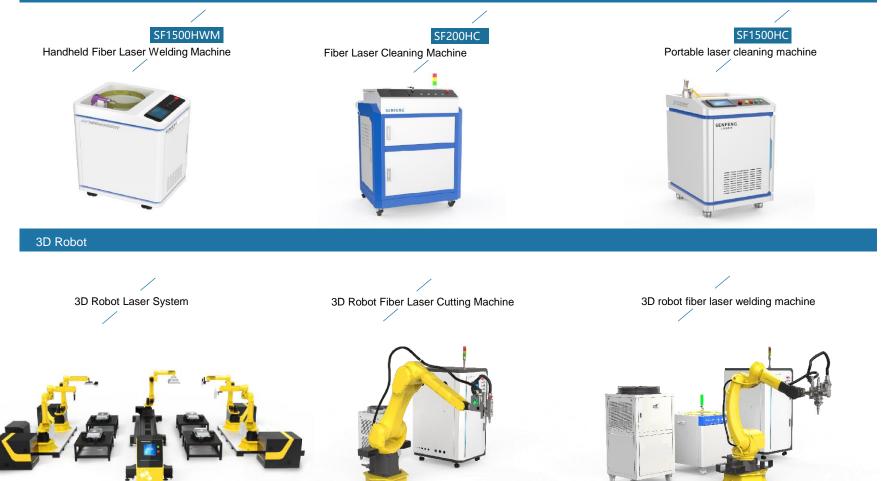








#### Fiber Laser Welding Machine / Fiber Laser Cleaning Machine







### XVI.Core Technology

SENFENG



SENFEN

Senfeng laser generators which are independently developed have been widely used in laser cutting, welding, cleaning, cladding additive and other fields

#### • Auto Focus

Operator can set consequent focus adjustment by procedure, finishing quick piercing to thick plates and cutting different thickness plates automatically.

#### Water cooling

Focusing parts of laser cutting head with water cooling, reducing high temperature and flog by long time cutting.

#### • Storm cut

Storm cut technology with ultra high power laser source, with SENFENG cutting technology, realizing high speed

#### Bright Cut Technology

Bright Cut Technology developed by SENFENG LASER can efficiently solve: too much burr, cutting surface not smoothly, difficult to cut high-reflect material etc.

CTU 1

More details about senfeng R&D,feel free to visit website: www.sfcnclaser.com

SENFENG



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