Official Website

Catalogs

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HENGERDA NEW MATERIALS (FUJIAN) CO., LTD.

+86 594 2999566

intl.trade@hengerda.com

No.2666 Lixingnan St, Huangshi Town, Licheng District, Putian City, Fujian, China

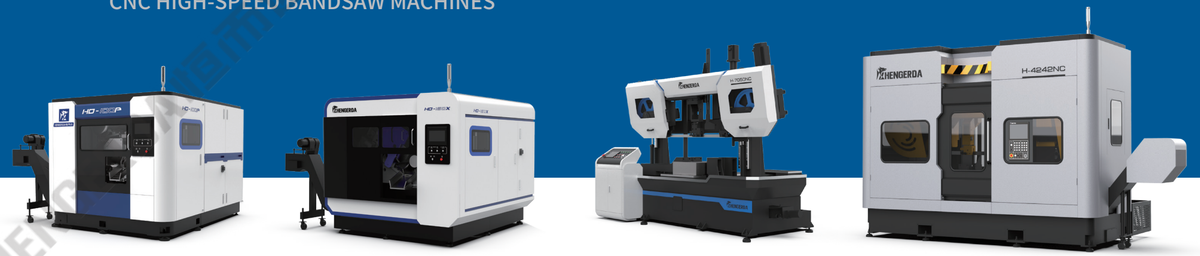
恒而达 HENGERDA

STOCK CODE:300946.SZ

INTELLIGENT SAWING MACHINES

CNC CIRCULAR SAW MACHINES

CNC HIGH-SPEED BANDSAW MACHINES



HENGERDA NEW MATERIALS (FUJIAN) CO., LTD.

CONTENTS

1995

Since

- National High-Tech Enterprise
- Publicly Listed on the ChiNext of the Shenzhen Stock Exchange in 2021
- 180+ Global Sales Networks
- Obtaining 90+ National Authorized Patents
- Lead in Drafting and Formulating Industry Standards for Die-Cutting Tools

CORPORATE PROFILE

Hengerda New Materials (Fujian) Co., Ltd. was founded in 1995. On February 8, 2021, Hengerda was listed on the ChiNext of the Shenzhen Stock Exchange. It is a national high-tech enterprise focusing on the new metal materials and the national-level “Specialized, Sophisticated, Distinctive, and Innovative Little Giant” enterprise. The company mainly engages in R&D, production, sales, and services in terms of high-strength and high-toughness materials, multi-metal composite materials, die-cutting tools, sawing tools, intelligent equipment, functional components, and other series of products. Hengerda is committed to providing product lines and integrated accessory equipment of cutting solutions to light, heavy, and military industries, machinery, construction and building materials, intelligent manufacturing, and other fundamental sectors of the national economy.

Hengerda was awarded the National Intellectual Property Advantage Enterprise in 2022. It has established Academician Expert Workstation and Provincial Enterprise Technology Center. The company has been working with the Chinese Academy of Engineering academicians for long-term cooperative research projects involving multiple disciplines and subjects. It obtained more than 90 national authorized patents. With a R&D team of nearly 100 people, the company continues to carry out R&D activities for new products, equipment, technology, and materials. It undertakes a number of national, provincial, and municipal STS and key regional science and technology projects.

Hengerda’ s main suppliers and clients are well-known enterprises at home and abroad. Its overseas markets have been laid out in North and South America, Europe, Africa, Southeast Asia, the Middle East, and other countries and regions along the Belt and Road.

ISO9001

ISO14001

ISO45001

X SERIES (TILTED SAWING)

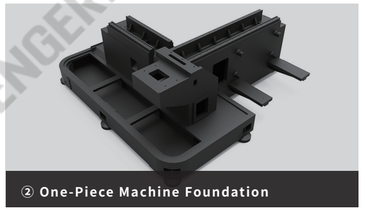
P SERIES (HORIZONTAL SAWING)

PRODUCT HIGHLIGHTS

*Photos are for reference only.

① Automation Control

The machine adopts the company`s fully self-developed PLC-based electrical control system. The HMI is easy to operate. The design of the fieldbus absolute value servo module enables the line to be simpler, with a lower failure rate and more convenient maintenance.



② One-Piece Machine Foundation

The foundation is comprehensively made of high-strength special casting material with high rigidity, shock resistance, small deformation, and outstanding shock absorption.

③ Gearbox

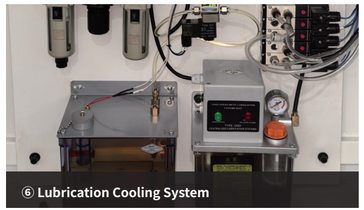
The gearbox structure and configuration adopt the gear clearance elimination structure to achieve zero-clearance transmission. It guarantees the smoothness of the gear transmission and effectively improves the cutting efficiency and saw blade lifetime.

④ Automatic Material Feed and Blade Feed Devices

The advanced feed with absolute value servo motor, ball screws, and ball linear guideways (P & X series) and the design of a unique material feed clamping structure effectively enhance the accuracy and reliability of feeding. The blade feed axis adopts roller type linear guideways, ensuring feeding stability and the axis's durability.

⑤ Third Vise (Short Remnant Clamping Structure) - Optional Equipment

In the unique short remnant clamping structure, its main jaws adopt two separate hydraulic cylinders for clamping and servo motor-driven dragging actions. This structure can achieve short remnant cutting, improve the yield, and save production costs.



⑥ Lubrication Cooling System

Adopting the advanced MQL saw blade spray-mist lubrication technology helps reduce saw blade temperature, improve production efficiency, prevent environmental pollution, and extend saw blade life.

PRODUCT INTRODUCTION

With years of in-depth R&D and technological innovations, Hengerda has successfully and independently developed high-speed intelligent sawing equipment featured by fully automatic and high-precision CNC circular saw machines. In addition to advanced international technologies, the products are the result of Hengerda' s three core indigenous intellectual property rights and technological strengths:

1. The metal heat treatment technology, 2. The metal material processing technology, 3. The automatic equipment manufacturing.

CNC circular saw machines are equipped with high-strength integrated casting machine bases, high-precision linear guideways, and ball screws to ensure the stability of equipment performance and processing precision. Hengerda utilizes self-developed control systems; through the fieldbus protocol controls and absolute value servo motors, they can be operated more conveniently, intelligently, and user-friendly with a wide range of advantages such as quick response and low failure rate.

At present, Hengerda mainly promotes two primary series of CNC circular saw machines:

P Series: taking advantage of linear guideways to conduct horizontal sawing

X Series: designed to conduct tilted sawing and utilizing the gear clearance elimination structure to achieve zero-clearance transmission

There are multiple specifications and types of machines to meet diverse market demands.

STANDARD

1. One set of two-axis electrical system
2. Hydraulic system
3. Automatic spray-mist lubrication system
4. Automatic material feed loader
5. Spiral type chip conveyor
6. Wire brush
7. One air spray gun
8. Circular saw blade
9. One set of tool kits

OPTIONAL

1. Oil mist collector
2. Extended feed loader
3. Power-driven wire brush
4. Cooling water pump
5. Automatic chain type chip conveyor
6. Third Vise
7. Extended carrying device for cut-off workpiece

X SERIES

TILTED SAWING

Feed axis: AC servo + ball screw
Cutting axis: AC servo + ball screw

CNC CIRCULAR SAW MACHINES

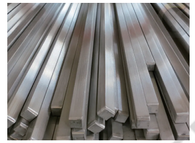
Specifications		Unit	HD-90X	
			2-AXIS	3-AXIS
CUTTING CAPACITY	Round bar	mm	●Φ15－Φ90	●Φ15－Φ90
	Square bar	mm	■15－60	■15－60
	Trimming length	mm	10－100	10－100
	Single feed length	mm	5－800	5－800
	Remnant length	mm	70	30
	Perpendicularity tolerance	mm	±0.05/100	±0.05/100
SAW BLADE	Dimensions	mm	Φ315×Φ32×T2.3/t2.0	
	Pin hole	mm	Φ63/4/Φ11	
	Number of teeth	z	54, 60, 72, 80, 100, 120	
PARAMETERS	Blade feed rate	mm/min	0－3000	0－3000
	Rapid advance movement	m/min	18	18
	Feed rate	m/min	20	20
	Blade speed	rpm	60－180	60－180
	Main drive motor	kW	15/4p	15/4p
	Blade feed servo motor	kW	2	2
	Feed servo motor	kW	1.5	1.5
	Third vise servo motor	kW	—	1
	Hydraulic pump motor	kW	2.2	2.2
	Hydraulic pressure	mpa	7	7
	Tank capacity	L	90	90
	Main vise		horizontal + tilted clamping	
	Feed vise		horizontal clamping	
	Working voltage	V	380	380
	Total power	kW	21.5	22.5
	Machine weight (loader included)	kg	4500	
	Machine dimensions estimated	mm	L2300×W1850×H1900	
	Machine dimensions estimated (loader included)	mm	L7100×W1850×H1900	
LOADER	Number of pieces	p	Φ90×6м×11	
	Length	m	3—6	

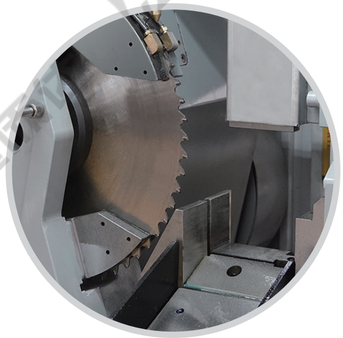
HD-110X		HD-130X		HD-160X	HD-180X
2-AXIS	3-AXIS	2-AXIS	3-AXIS	2-AXIS	3-AXIS
●Φ25－Φ110	●Φ25－Φ110	●Φ30－Φ130	●Φ30－Φ130	●Φ40－Φ160	●Φ75－Φ180
■25－80	■25－80	■30－90	■30－90	■40－110	■75－130
10－100	10－100	10－100	10－100	10－100	10－100
5－800	5－800	8－800	8－800	10－800	10-800
70	30	70	30	80	80
±0.05/100	±0.05/100	±0.05/100	±0.05/100	±0.05/100	±0.05/100
Φ360×Φ40×T2.6/t2.25		Φ400×Φ50×T2.6/t2.25		Φ460×Φ50×T2.7/t2.25	Φ520×Φ50×T3.0/t2.5
Φ90/4/Φ12.5		Φ80/4/Φ16		Φ90/4/Φ14	Φ90/4/Φ14
54, 60, 72, 80, 100, 120		54, 60, 72, 80, 100, 120		40, 54, 60, 72, 80, 100, 120	40, 54, 60, 72, 80, 100, 120
0－3000	0－3000	0－3000	0－3000	0－3000	00－3000
18	18	18	18	18	18
20	20	20	20	20	20
60－135	60－135	60－125	60－125	50－110	50－100
15/4p	15/4p	15/6p	15/6p	18.5/6p	22/6p
2	2	3	3	4.5	4.5
1.5	1.5	2	2	3	3
—	1	—	1	—	—
2.2	2.2	2.2	2.2	3.7	3.7
7	7	7	7	9	9
90	90	90	90	90	90
horizontal + tilted clamping					
horizontal clamping					
380	380	380	380	380	380
21.5	22.5	24	25	31.5	35
4500		5000		6000	6500
L2300×W1850×H1900		L2400×W1950×H1900		L2500×W2200×H1900	L2500×W2200×H1900
L7100×W1850×H1900		L7400×W1950×H1900		L7750×W2200×H1900	L7750×W2200×H1900
Φ110×6м×9		Φ130×6м×8		Φ160×6m×6	Φ180×6m×6
3—6		3—6		3—6	3—6

P SERIES

HORIZONTAL SAWHEAD MOVEMENT

Feed axis: AC servo + ball screw
Cutting axis: AC servo + ball screw





Specifications		Unit	HD-70P		HD-100P	
			2-AXIS	3-AXIS	2-AXIS	3-AXIS
CUTTING CAPACITY	Round bar	mm	●Φ10－Φ70	●Φ10－Φ70	●Φ20－Φ100	●Φ20－Φ100
	Square bar	mm	■10－60	■10－60	■20－80	■20－80
	Trimming length	mm	10－100	10－100	10－100	10－100
	Single feed length	mm	5－800	5－800	5－800	5－800
	Remnant length	mm	70	30	70	30
	Perpendicularity tolerance	mm	±0.05/100	±0.05/100	±0.05/100	±0.05/100
SAW BLADE	Dimensions	mm	Φ285xΦ32xT2.0/t1.75		Φ360xΦ40xT2.6/t2.25	
	Pin hole	mm	Φ63/4/Φ11		Φ90/4/Φ12.5	
	Number of teeth	z	54, 60, 72, 80, 100, 120		54, 60, 72, 80, 100, 120	
PARAMETERS	Blade feed rate	mm/min	0－3000	0－3000	0－3000	0－3000
	Rapid advance movement	m/min	18	18	18	18
	Feed rate	m/min	20	20	20	20
	Blade speed	rpm	60－140	60－140	60－140	60－140
	Main drive motor	kW	7.5/4p	7.5/4p	11/4p	11/4p
	Blade feed servo motor	kW	2	2	2	2
	Feed servo motor	kW	1	1	1.5	1.5
	Third vise servo motor	kW	—	1	—	1
	Hydraulic pump motor	kW	2.2	2.2	2.2	2.2
	Hydraulic pressure	mpa	7	7	7	7
	Tank capacity	L	90	90	90	90
	Main vise		horizontal + vertical clamping			
	Feed vise		horizontal clamping			
	Working voltage	V	380	380	380	380
	Total power	kW	14.5	15.5	18.5	19.5
	Machine weight (loader included)	kg	4500		5000	
	Machine dimensions estimated	mm	L2700xW2050xH1790		L2700xW2050xH1790	
	Machine dimensions estimated (loader included)	mm	L7180xW2050xH1790		L7180xW2050xH1790	
LOADER	Number of pieces	p	Φ70x6mx10		Φ100x6mx10	
	Length	m	3—6		3—6	

PRODUCT INTRODUCTION

The CNC high-speed bandsaw machine adopts a self-developed electrical control system. It can use bi-metal/carbide tipped band saw blades for sawing different materials. Based on material characteristics, the operator can easily adjust the sawing parameters in the system such as blade feed rate and blade speed to attain a better sawing effect. The machine is safe and reliable and has features including compact structures, high processing precision, low material waste, and low noise. Applicable for the efficient processing of various materials.

At present, Hengerda has mainly launched two series of CNC high-speed bandsaw machines:

GY Series: mainly for round/square bars, which can achieve repetitive automatic feeding

GF Series: mainly for the single-cut of square/rectangular materials

There are various machine specifications to meet diverse market demands.

PRODUCT HIGHLIGHTS

· Self-Developed System

Customize the system parameters according to different materials.

· Information Management System

Optional equipment - remote control, which can monitor processing data to understand the use of equipment quickly and conveniently.

· Intelligent Control

The system developed by Hengerda can intelligently identify changes during the cutting and the operator can adjust processing parameters in real time. Servo system control, high cutting precision, high efficiency, high-speed cutting, longer blade lifetime.

· Energy-Saving

Total energy-saving around 15-30% for different cutting tasks compared to ordinary bandsaw machines.

GY SERIES

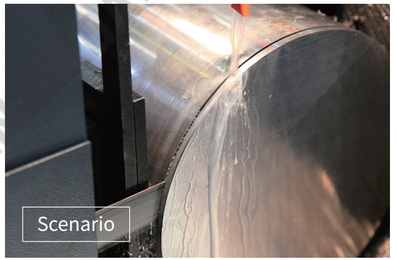
GY Series:
H4545NC, H6565NC,
H8585NC, and others.

- Mainly used for cutting various bars, profiles or plates in various industries.
- PLC automatic control, touch-screen operations, can set feed lengths and frequencies.
- Servo motor + ball screw combination to improve the feeding and cutting accuracy.

Hengerda also sells:
carbide tipped band saw blades/bi-metal band saw blades

Specifications	Unit	*H-4545NC*
Machine dimensions (without loader)	mm	3500x2200x2300
Cutting capacity	mm	⩽Φ450
Saw blade dimensions	mm	5350x41
Blade speed	m/min	0-100
Blade feed rapid advance movement	mm/s	0-50
Feed rapid advance movement	mm/s	0-250
Main drive motor	kW	7.5
Hydraulic pump motor	kW	2.2
Table height (estimated)	mm	＜750
Working voltage	V	380V/50Hz
Control panel	inch	10

Please note: all product technical information, parameters, specifications, dimensions, and designs shown in this catalog are subject to change without prior notice.
For more information, please contact Hengerda.

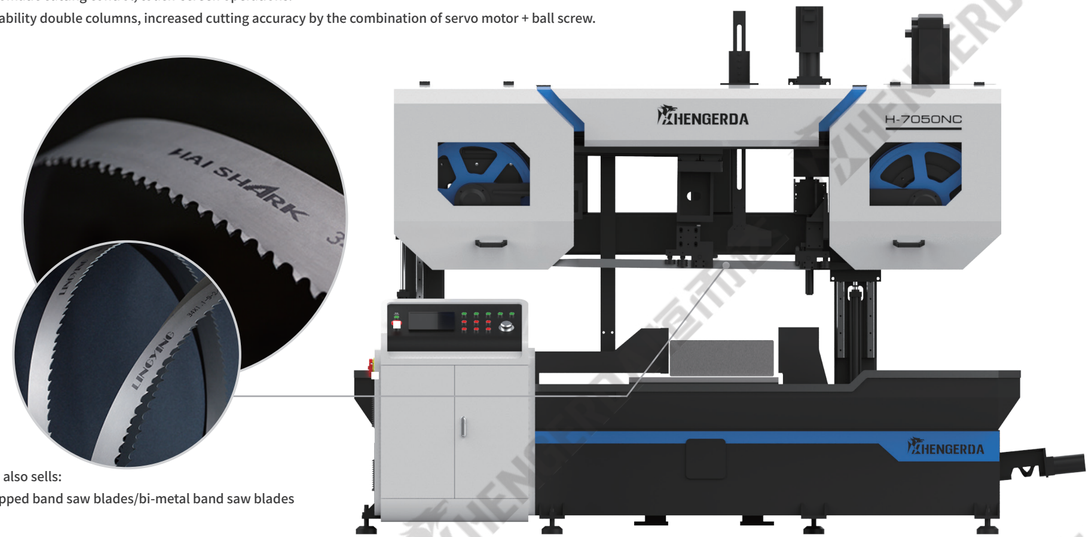


Cutting Test Reference Table

Materials	*Material Dimensions (mm)*	*Blade Feed Rate (mm/min)*	*Cutting Time (min)*	*Cutting Efficiency (cm^2/min)*
#45 steel	Φ300	50-70	5	120-150
	430x220	45-65	4.3	190-220
TI4-TI15	Φ200	13-18	20	16-20
TI16-TI20	Φ200	7-10	26	12-14
TI4-TI15	Φ200	10-15	28	11-15
TI16-TI20	Φ200	5-7	50	6-8
GH706	Φ250	5-8	42	11-13
GH4169	Φ250	3-6	60	8-10
GH141	Φ250	3-5	65	7-9

GF SERIES

- Mainly used for cutting various square and rectangular profiles or plates in different industries.
- Servo control.
- PLC automatic cutting control, touch-screen operations.
- Good stability double columns, increased cutting accuracy by the combination of servo motor + ball screw.



Hengerda also sells:
carbide tipped band saw blades/bi-metal band saw blades

Specifications	Unit	H-7050NC
Machine dimensions (without loader)	mm	3250x3350x2500
Cutting capacity (LxW)	mm	700x500
Saw blade dimensions	mm	6450x54
Blade speed	m/min	0-100
Blade feed rapid advance movement	mm/s	0-50
Main drive power	kW	7.5
Hydraulic pump motor	kW	2.2
Table height (estimated)	mm	＜750
Working voltage	V	380V/50Hz
Control panel	inch	10

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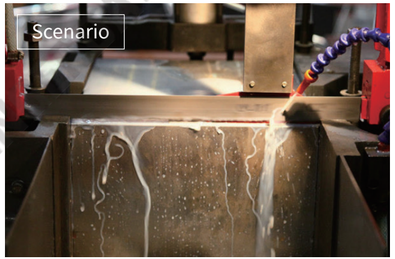


Cutting Test Reference Table

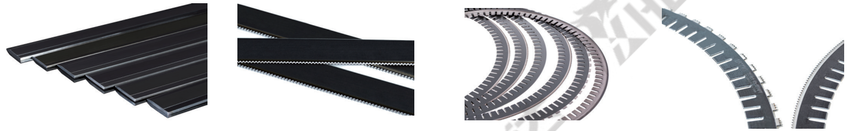
Materials	Material Dimensions (mm)	Blade Feed Rate (mm/min)	Cutting Time (Min)	Cutting Efficiency (cm^2/min)
P20	430x300	12-20	24	50-65
H13	400x200	7-12	30	25-35
718	400x200	10-14	20	40-50
4Cr13Mo	400x300	8-12	32	37-42
XPM	400x250	10-16	22	45-60

PRODUCT FAMILY

DIE-CUTTING TOOLS

Rule Die Steel, Steel Rules, Rotary Die-Cutting/Creasing Rules

Applications: the products are widely used in die-cutting materials of footwear, toys, bags, stationery and sporting goods, automotive interior trim, PU, clothes, paper, etc.



SAWING TOOLS

Bi-Metal Band Saw Blades, Carbide Tipped Band Saw Blades, Wood Cutting Band Saw Blades, Circular Saw Blades

Applications: the products are widely used in the sawing of alloy steel, structural steel, mold steel, and other metal materials in the fields of military industry, heavy industry, machinery, metallurgy, construction and building materials, etc.

INTELLIGENT EQUIPMENT

CNC Circular Saw Machines, CNC High-Speed Bandsaw Machines, Cutting Machine for Flexible Materials, CNC Five-Axis Machine, Machining Centers

Application: the products are widely used in the rapid cutting of metals such as mold steel and round steel, as well as metal cutting in machinery manufacturing, metallurgy, automobile, bridge, shipbuilding, and other industries.

MACHINE ELEMENT

Linear Guideways

Applications: the products are widely used in high-end CNC machine tools and equipment, complete sets of flexible production lines, mechanization, automation, and other modern intelligent industrial equipment manufacturing.