

CNC HIGH-SPEED HORIZONTAL BAND SAW MACHINE

GT-HS Series

MACHINE FEATURES

- Cutting motion is driven by a high-performance motor combined with transmission by a spiral bevel gear, providing constant power output and heavy cutting ability.
- Sawblade running speed is controlled by a SIEMENS inverter, which allows for variable speed change.
- Material sizing and cutting feed are driven by a Siemens servomotor.
- The roller bed and independent two split vises prevent material drag and squeezing problems.
- The double column saw frame structure is fitted with roller type linear guideways, which provide outstanding vibration suppression and smooth motions.
- Using a laser to detect material position without restriction by the material shape.
- The main motor is equipped with an encoder for instant feedback control and speed compensation. This ensures no vibration at cutting start and stable output of cutting force.
- Choice of bimetal or carbide sawblade in combination with built-in parameters provides recommended cutting parameters.
- Adjustable dynamic hydraulic damping roller effectively suppresses blade vibration and noise during cutting.
- The job sheet type QR code can be used to scan and create cutting parameters, which can dramatically reduce data input time and human error.
- The use of graphical conversational operation screen and adjustable parameter setting make the machine easy to learn and operate.
- Blade types, material information and cutting database can be created, providing more efficient and convenient operation for increased production efficiency.
- Sawing accuracy: 0.03mm / 100mm

Sawing Capacity:



Ø430 mm
Ø615 mm
Ø830 mm



430 x 430 mm
615 x 615 mm
830 x 830 mm



430 x 430 mm
615 x 615 mm
830 x 830 mm

GT-HS430C
GT-HS615C
GT-HS830C



Rugged Machine Structure

Double Column Structure

- The double column structure is equipped with linear guideways.
- Features stable elevation and a dramatic reduction in vibration and chattering.

Highly Rigid Guide Arm

- The movable type and fixed type guide arm and the guide wheel seat are manufactured by casting which effectively reduces cutting resonance.
- The hold-down and guide bearings are enlarged for increased stability and service life.
- The movable side is driven by hydraulic power with anti-vibration mechanism for suppressing vibration during cutting.
- The fixed side is equipped with a high pressure coolant flushing device to avoid secondary cutting.

Out of Square Guide Function

Blade Breakage Detecting Stop Function

Saw Wheel Supported at Two Points

- Highly rigid hydraulic sawblade tension mechanism.
- Saw wheel shaft is supported at two pivots.

High Performance Motor

- Cutting motion is driven by a high-performance motor combined with transmission by a spiral bevel gear, reduces constant power output and heavy cutting ability.
- Sawblade running is controlled by an inverter for variable speed change. Surface speed range is 10~150 m/min.
- The main motor is equipped with an encoder for instant feedback control and speed compensation. This ensures no vibration for cutting start and stable output of cutting force.

Two Sets of Wire Brushes

- The wire brushes are driven by a servo inverter. The wire brush speed is synchronous with the blade speed.
- One set each of wire brushes is equipped on the right and left side. This increases blade cleaning capability.
- Wire brush position is manually adjusted with ease and convenience.

Steel Constructed Massive Base

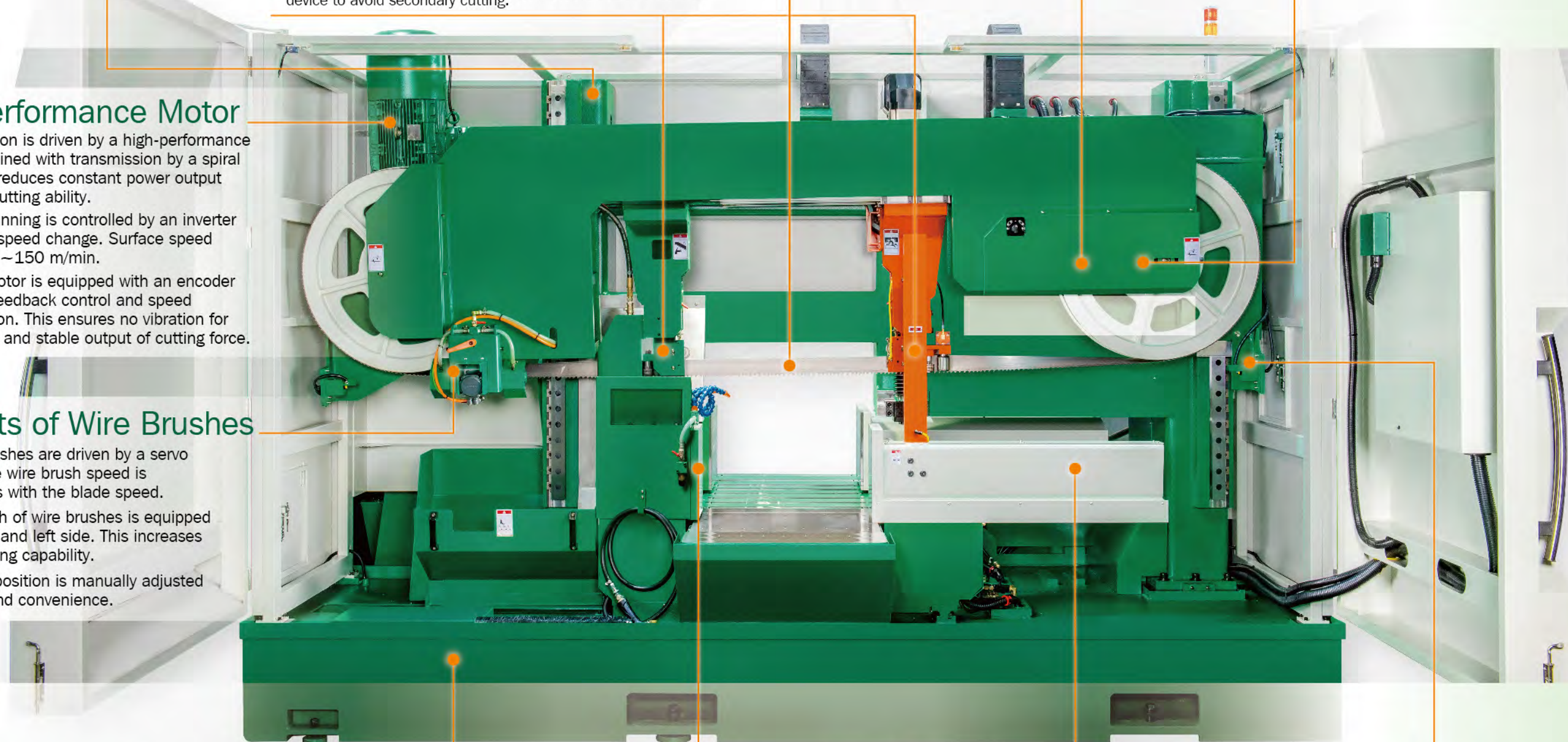
- The base is welded by H beams, providing solid support for the entire machine.
- Coolant tank features extra large capacity.

Front and Rear Vise

- Two split vises can prevent material drag.
- Equipped with high precision magnetic scale for directly measuring the material width.
- Max. material feed distance is 600 mm with servo sizing.

Height Detection by Laser

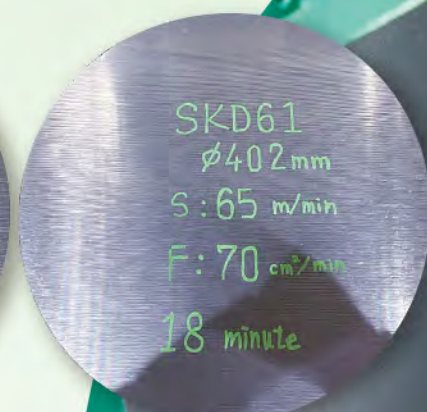
- Using a laser to detect material height without need of a rapid approach shaft. It's flexible to use and not restricted by the material shape and height.



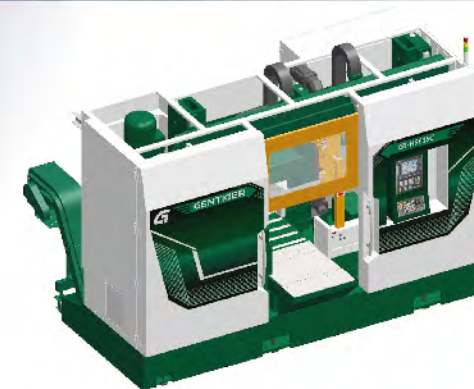
The First Choice in High Hardness Material Cutting

OUTSTANDING SAWING CAPABILITY:

- >>> Material: Ø402 mm SKD61
- >>> Thickness: 3 mm
- >>> Saw speed: 65~100 m/min
- >>> Removal rate: 70~110 cm²/min
- >>> Energy consumption: < 2 kwh
- >>> Accuracy: < 0.05 mm
- >>> Time: 18 min / 11 min 40 sec



GENTIGER **GT-HS** Series
CNC High-Speed Horizontal Band Saw
Machine features a double column machine structure. This structure design enables the machine to exhibit exceptional stability and smoothness in high-speed cutting.



Front Guard Door Device with Additional Safety Protection (Opt.)

In addition to a basic lock function with the working door, additional protection is provided at the top of the working area. This allows the machine to maximize working safety protection, while minimizing the possibility of personnel approaching a dangerous source.



Servo Control / Efficient Feed

The material feed and cutting feed motions are controlled by servo systems, featuring stable feed rates and accurate positioning. Roller type linear guideways are mounted on the slideways which provide high rigidity, high accuracy and low resistance of movement.



Fully Automatic Sizing Accurate Clamping

The front and rear split vises are designed with oversized clamping faces of the vise and shortened distance between the front and rear vise. These features not only keep remnants to a minimum but also upgrade material utilization rate without wasting any material cost.



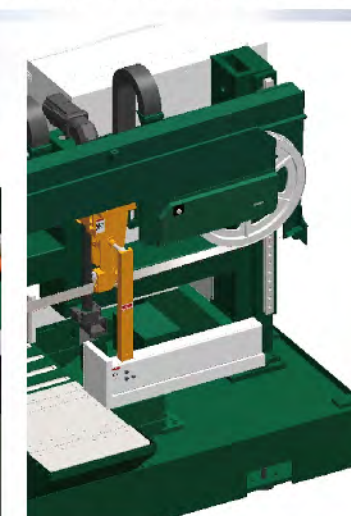
Stable Chip Removal

The sinking type hydraulic chip auger is driven by hydraulic power. The chip auger running speed is adjustable. The chip auger diameter is 100 mm, which effectively upgrades chip removing efficiency.



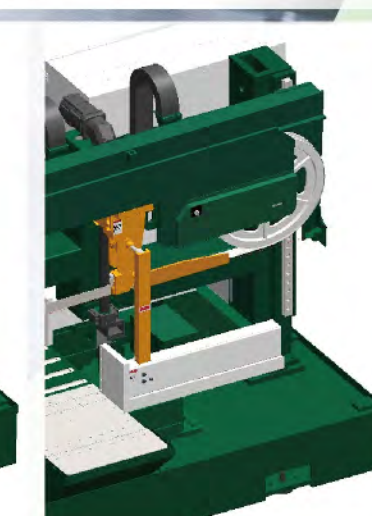
Fast and Dependable to Adjust

The wire brush position adjustment is specially designed for fast adjustment without the need of any tool.



Sawblade Guard (Opt.)

To meet CE safety regulations, a metal sawblade guard can be equipped to fully eliminate the possibility of touching the sawblade.



The cutting data shown above is obtained by cutting tests conducted on the GENTIGER GH-HS615C. Cutting data may vary due to different environments, materials and cutting tools used.

Advanced Controller

Superior Controller

The machine is equipped with a Sinumrik 828D CNC controller. It's a real CNC control system, instead of a conventional PLC module combined with a frequency inverter. It features great performance and provides maximum utilization of energy. Based on the real CNC system, the controller supports internet connection and display monitoring (VNC)

Minimum Learning Time

The controller is designed with an innovative dynamic operation function. Unlike the traditional operation interface. Interface, the machine employs a dynamic lamp guide and keys with work indication. The lamp guide and foolproof device help to shorten the learning time and reduce the risk of operation error.

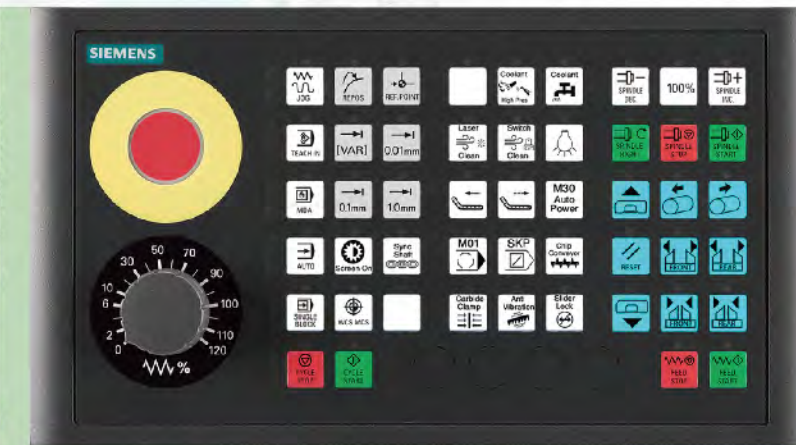


Dynamic Guide Operation Interface



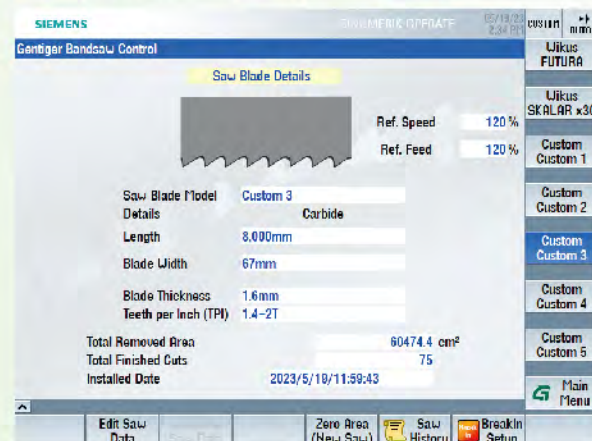
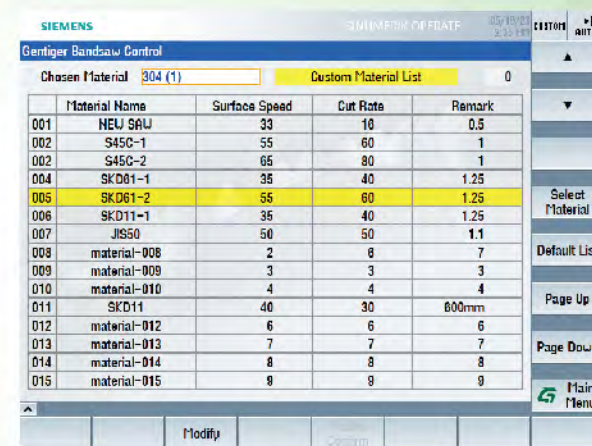
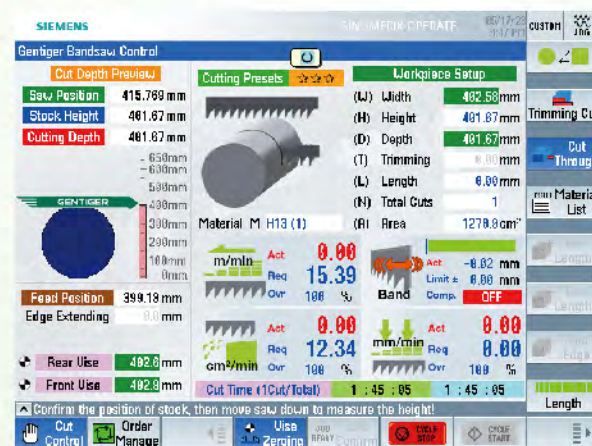
Ultra-High Efficiency Drive

The servo system utilizes SIEMENS SINAMICS S120 driver, which provides more than 83% conversion efficiency. When performing high-speed cutting optimal energy consumption is achieved.



Physical Control Panel

The use of SIEMENS MCP310 control panel with comprehensive key control, features good operating feel. The main control key areas are easy to distinguish by color. The feed override knob is used for controlling cutting speed and is highly intuitive.



- Cutting data (blade speed and chip removal rate) can be adjusted automatically or self set as desired.
- Creates a materials classification database.
- The operator may define a sawblade for speed and removal rate adjustment.

Unlimited Expansion (Opt.)



Electrical Hand-Wheel
for Precise Sizing Adjustment

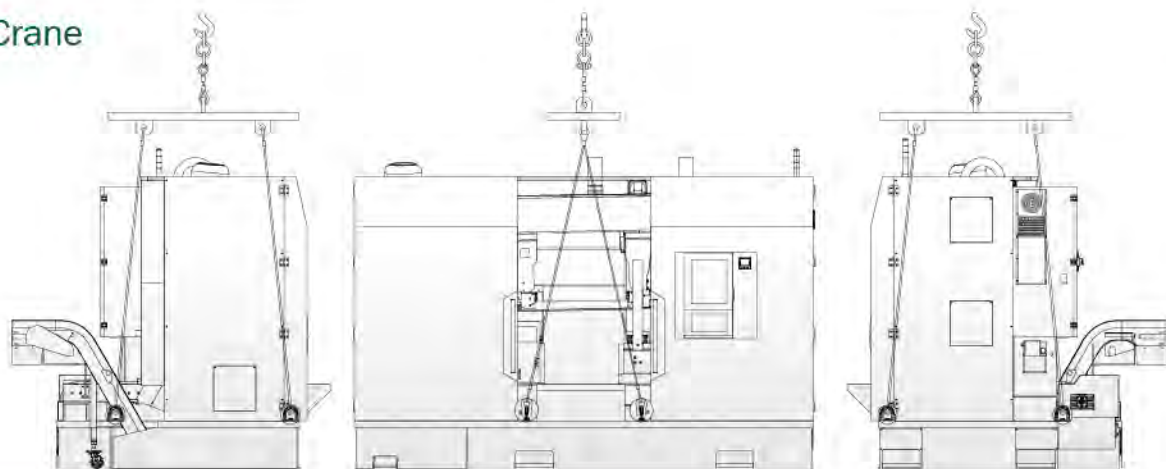


Multi-Function
Power Meter

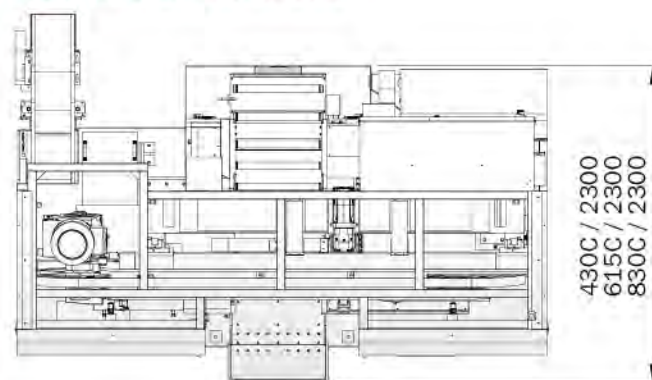


Process Bar Code
Scanning Import
Operation Interface

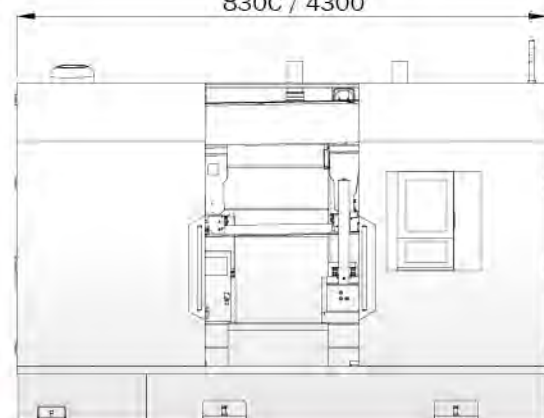
► Lifted by Crane



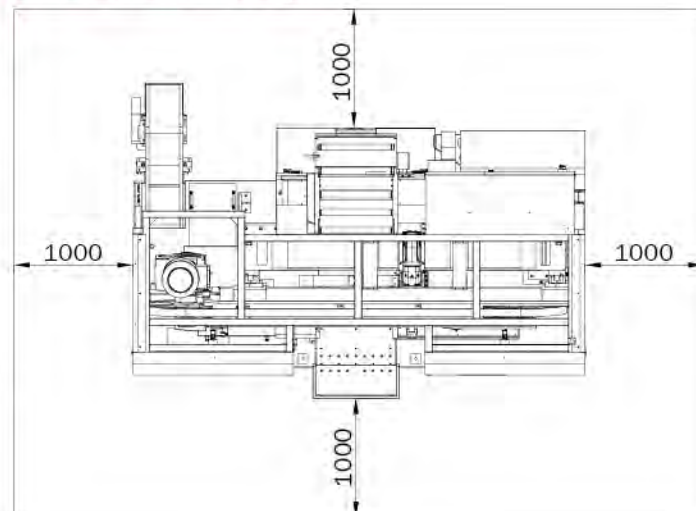
► Machine Dimensions



430C / 3300
615C / 3800
830C / 4300

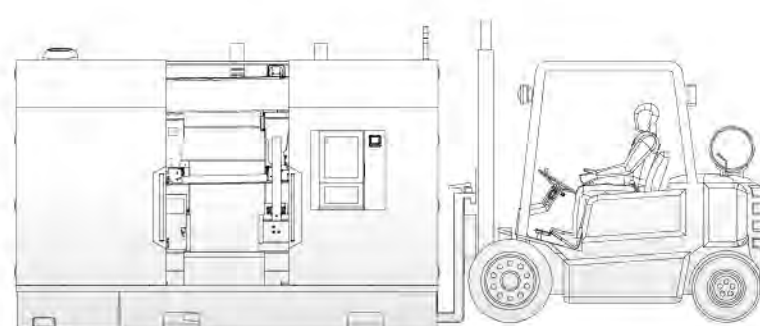
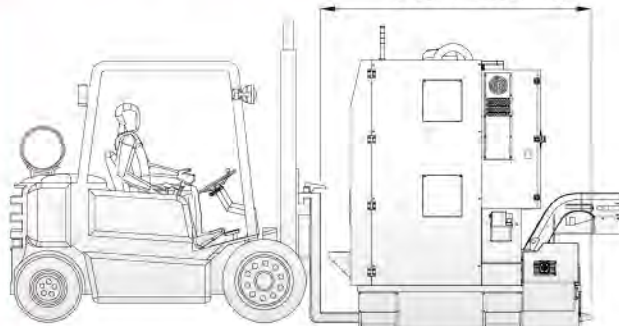


► Machine Footprint



► Moved by Forklift

Fork Length 2000
430C / 7000 kg
615C / 9000 kg
830C / 12000 kg



GT-HS Series

MODEL		GT-HS430C	GT-HS615C	GT-HS830C
Cutting Capacity	●	430 mm	615 mm	830 mm
	■ ■■	430 x 430 mm	615 x 615 mm	830 x 830 mm
Sawblade	Speed	10 - 150 M/min	10 - 150 M/min	8 - 120 M/min
	Size	6900 x 54 x 1.6 mm	8000 x 67 x 1.6 mm	9000 x 67 x 1.6 mm
	Tension	Hydraulic Control	Hydraulic Control	Hydraulic Control
Motor	Sawblade	11 kw	15 kw	18.75 kw
	Hydraulic	2.25 kw	2.25 kw	2.25 kw
	Wire Brush	0.75 kw	0.75 kw	0.75 kw
	Low Pressure Coolant Pump	0.75 kw	0.75 kw	0.75 kw
	High Pressure Coolant Pump	1.75 kw	1.75 kw	1.75 kw
	Chip Removing Motor	0.187 kw	0.187 kw	0.187 kw
Material Feed Servomotor		1.71 kw	3.55 kw	3.55 kw
Arch Drive Servomotor		3.03 kw	3.55 kw	3.55 kw
Capacity	Oil Tank	130 L (34 gal)	130 L (34 gal)	130 L (34 gal)
	Coolant Tank	300 L (79 gal)	300 L (79 gal)	300 L (79 gal)
Bed Height		720 mm (28.3")	720 mm (28.3")	720 mm (28.3")
Floor Area Occupied		3300 x 2300 x 2100 mm (129.9" x 90.6" x 82.7")	3800 x 2300 x 2500 mm (149.6" x 90.6" x 98.4")	4300 x 2300 x 3300 mm (169.6" x 90.6" x 129.9")
Machine Weight		7000 kg	9000 kg	12000 kg

► All specifications, designs and characteristics shown in this catalogue are subject to change without prior notice.

STANDARD ACCESSORIES

- ☐ Automatic feed system with servo controlled cutting feed
- ☐ Inverter controlled variable blade speed
- ☐ High precision vise with magnetic scale measuring material width
- ☐ Swiveling control box with HMI
- ☐ Material and sawblade database
- ☐ Graphical conversation for cutting mode control
- ☐ One-piece bed and roller type material feed
- ☐ Hydraulic blade vibration suppressing mechanism
- ☐ Cutting data record check export function
- ☐ Cutting data remote reading export function
- ☐ Link chain type and screw type chip conveyor
- ☐ IE3 high efficiency spiral bevel gear reducer
- ☐ Highly rigid hydraulic blade tension mechanism
- ☐ Hydraulic blade vibration suppressing mechanism
- ☐ Roller type linear guideways and blocks on the entire machine
- ☐ High pressure blade washing and chip removing device
- ☐ Blade breakage detecting stop device
- ☐ Laser sensor for elevation system
- ☐ Hydraulic blade clamping device
- ☐ Compliant fully enclosed splashguard
- ☐ 2M material feeder
- ☐ Tool box

OPTIONAL ACCESSORIES

- ☐ Electrical hand-wheel for precise sizing adjustment
- ☐ Process bar code scanning import operation interface
- ☐ Cutting line automated connection function
- ☐ Front guard door device
- ☐ CE front guard door device
- ☐ Motorized material magazine
- ☐ Multi-function power meter



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GT-HS

CNC HIGH-SPEED HORIZONTAL
BAND SAW MACHINE

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CE ISO 9001
ISO 14001
ISO 45001

