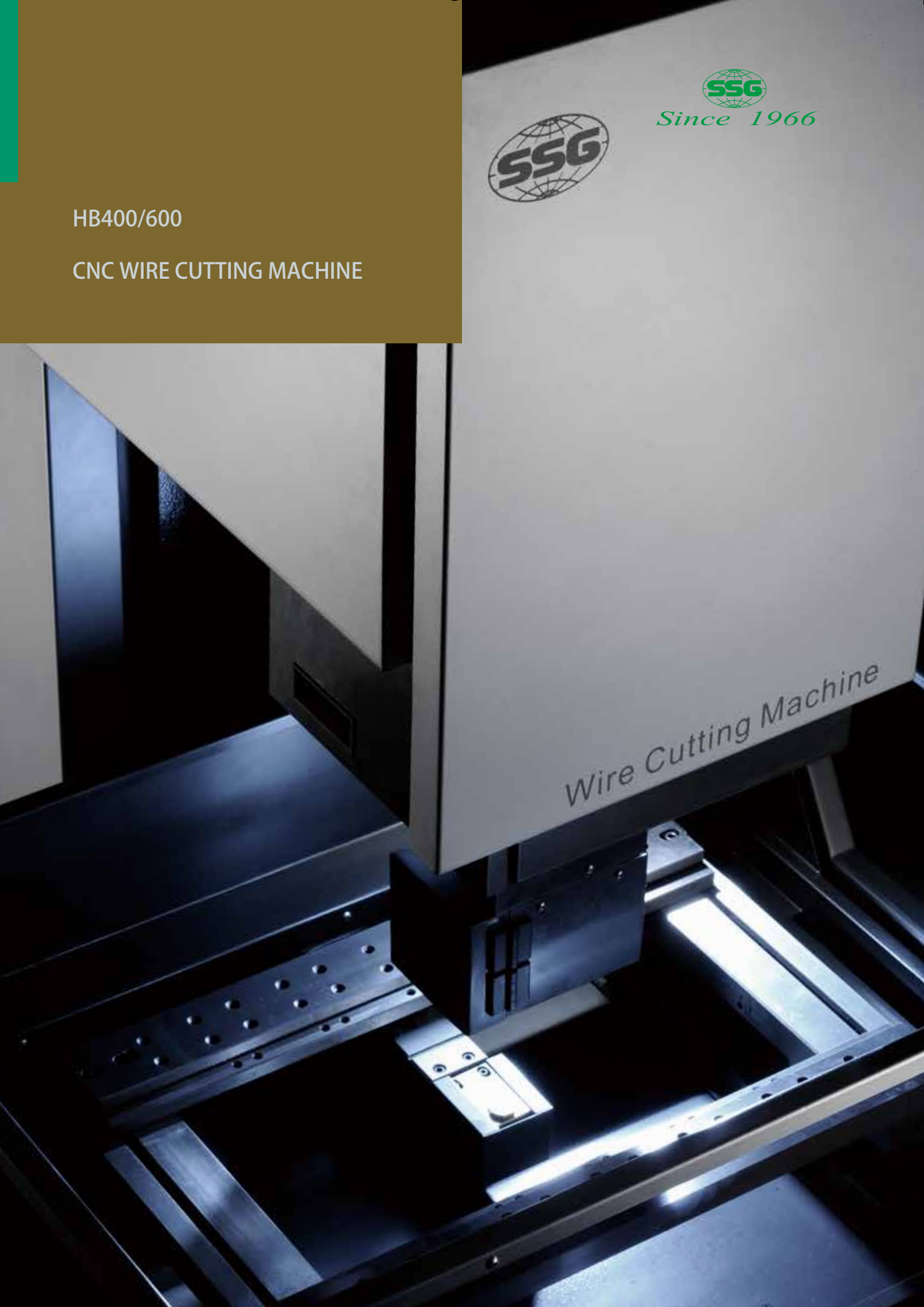
HB400/600

CNC WIRE CUTTING MACHINE



HB 400

DESIGN AWARD 2017

HB 600

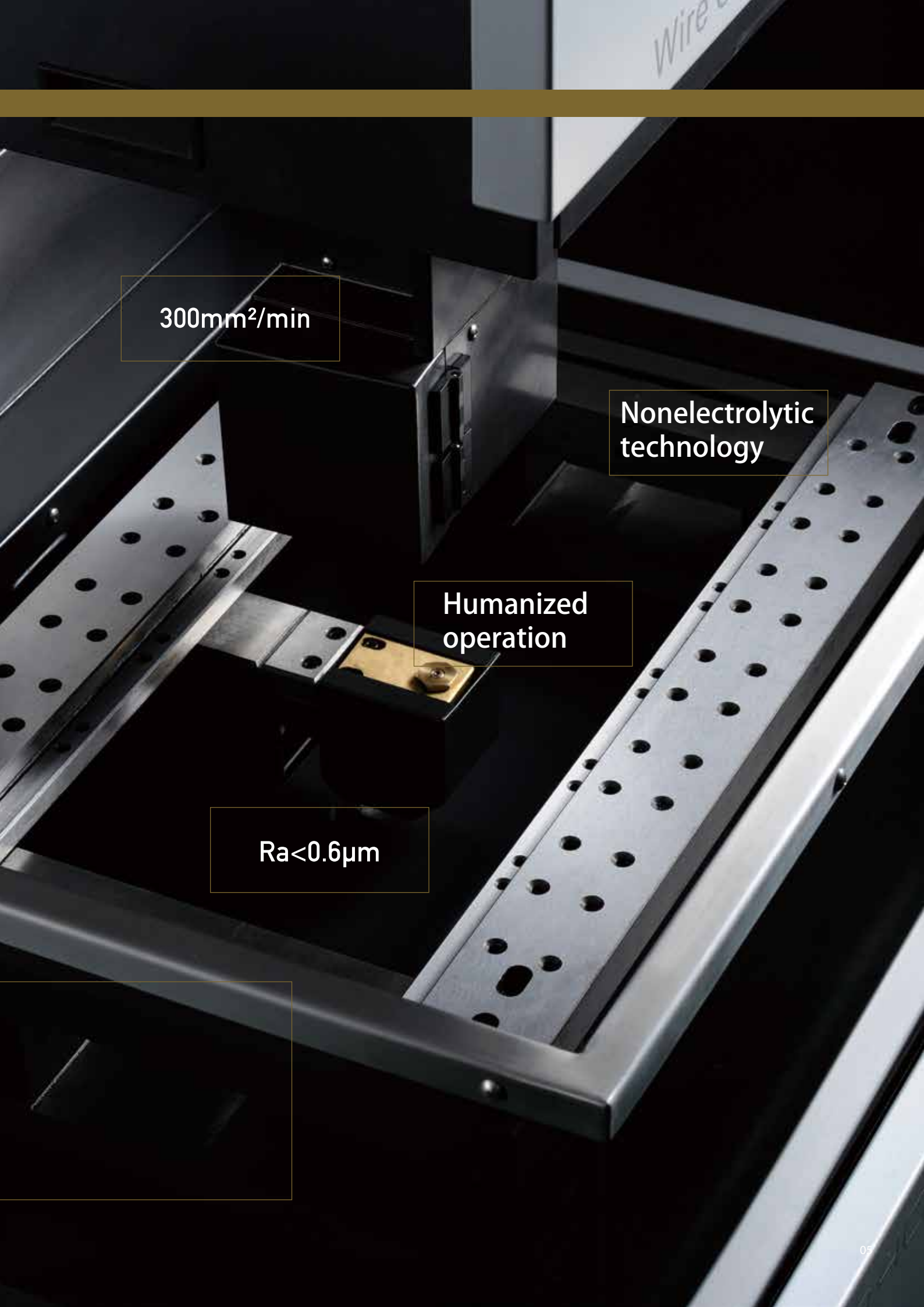
Inheritance · Innovation

No dream, no future! SSG brand WEDM has been devoted to realizing the dream of science & technology. It keeps pushing forward improvement of technologies and quality in electromachining industry of China. SSG brand WEDM will continue to transform the concept of technological innovation into industry standard. We will continuously develop new technologies and more advanced products to help you to realize your dreams and witness the bright future!

Challenge the limit again.

The new generation of 4 axes servo system medium-speed wire cutting machine HB400 with performance comprehensively innovated, perfect integrated design and minimum space in workshop help you to realize maximum production value.

- Best Surface Finish is below Ra0.6 μm
- Maximum efficiency is up to 300mm^2/min
- Unique nonelectrolytic power supply technology


300mm²/min
Nonelectrolytic technology
Humanized operation
Ra<0.6μm

Innovative mechanical structure aims at the best performance.

Comprehensively meet the latest national standard for medium-speed wire cutting EDM（JB/T11999.1-2014）
Four-axis (X, Y, U and V) AC servo integrating low-speed wire cutting technology and combined with four-axis ball screw and linear guide brings unprecedented accuracy guarantee and substantially improves taper machining performance.

LED light

The machine tool is equipped with high-brightness LED light and working condition indicator light*, enabling you to grasp the running state of the equipment at any time.
* represents options

Centralized lubrication

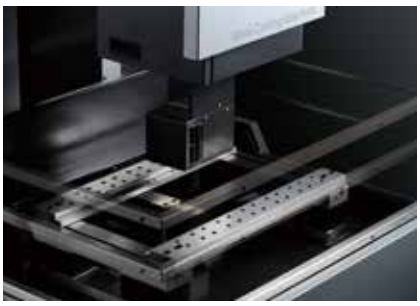
Screws of guide rails are lubricated by lubricating pump to make maintenance of the machine tool more convenient, and waste oil is collected in a centralized way to keep the workshop clean.

Operation is more comfortable

The position of operating floor can be adjusted randomly, making it easier to control the machine tool.

Protect environment

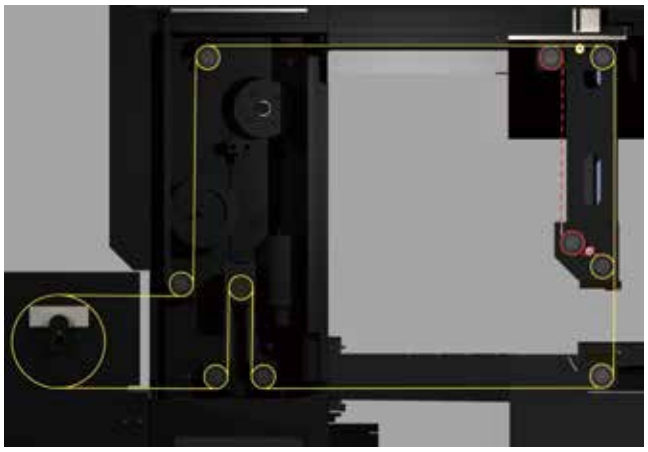
Frame-shaped water-retaining structure prevents leakage of the cutting fluid in the machining area to keep the work environment clean.



Elevating manger

The brand-new elevating manger can be lowered to "0" without being opened or removed, making it more convenient to set work-pieces and greatly saving the space.

Truss-type structure of U axis and V axis guarantees high mechanical accuracy.



Two ways of wire threading meet different machining needs and substantially prolong service life of the guider. Unified locating datum is used for all guide wheels, making it very easy to be replaced.

Independent layout of X axis and Y axis and optimal configuration of high-quality thick-walled castings and stiffeners for the body of machine tool fully inhibit deformation of the body under load. With compact structure and reasonable layout, the whole machine tool only covers an area of 4 ㎡, greatly saving the space in your plant.

Meticulous design.

Comprehensively meet the latest national standard for medium-speed wire cutting EDM （JB/T11999.1-2014）
Forward-looking design concept and wide use of low-speed wire cutting technologies ensure unprecedented machining performance and realize machining reliability and consistency on the basis of high efficiency.

Unique nonelectrolytic power supply technology

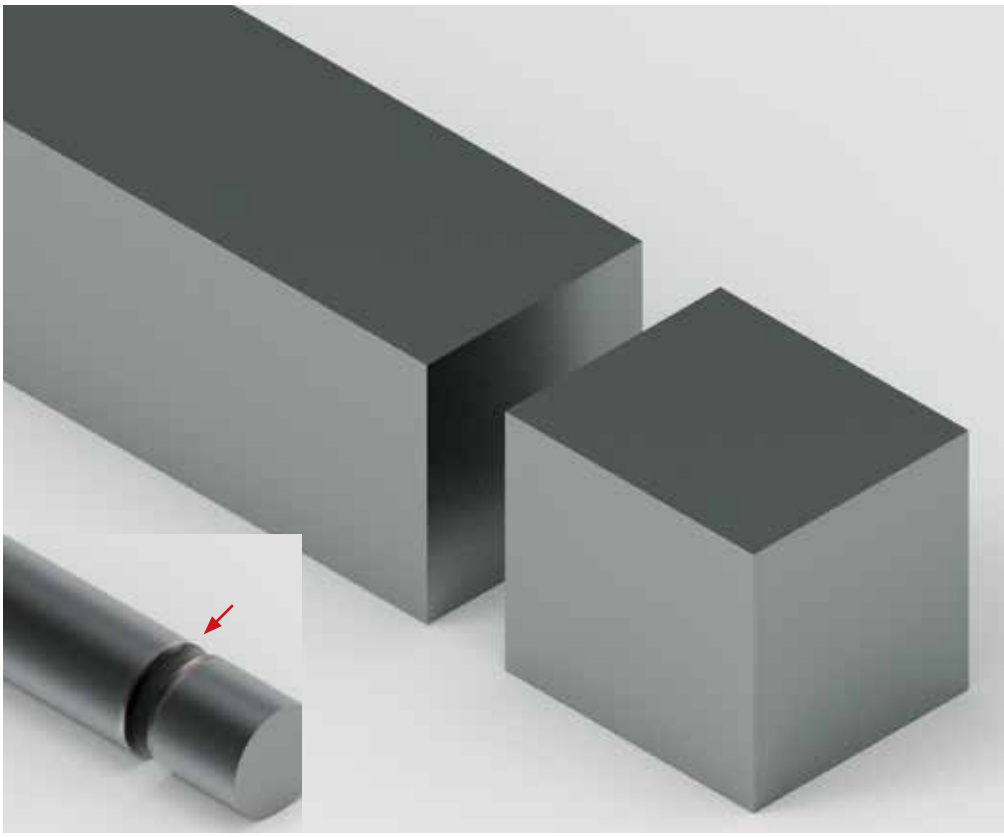
High-speed nonelectrolytic power supply inhibits electrolytic corrosion, prevents “softened layer” and improves surface quality.

Four-axis AC servo control

Effective integration of low-speed wire cutting technology and imported AC servo system for four axes (X, Y, U and V) make cutting faster and more accurate.

Nonelectrolytic machining

The titanium alloy minimizes the contamination on the surface of materials through discharge control during machining with nonelectrolytic power supply, preventing oxidation and discoloration on the surface.

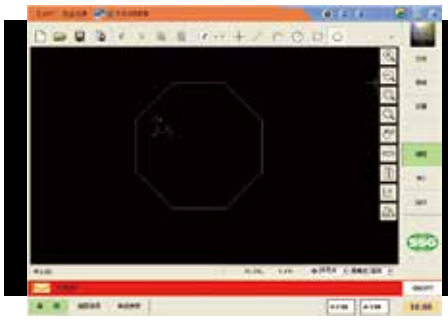


The surface of work-pieces is oxidized and cut edge turns blue during machining with ordinary power supply.

Visual and intelligent man-machine interactive system

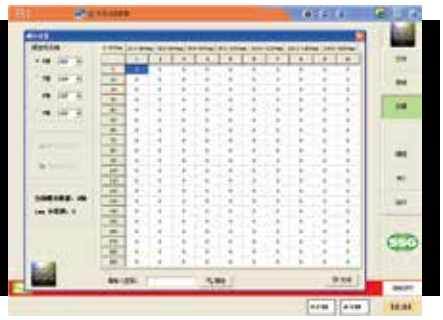
On the basis of fully understanding and researching the operating habit of customers and successful experience, a new man-machine interactive system is launched. Its visual and orderly interface helps users to quickly grasp it.

- Copyrighted Windows platform makes the system stable and reliable.
- High-resolution 15in large screen display
- The hand feeling of keyboard and mouse is excellent.
- Powerful technological parameter database.



Built-in programming graphics, automatically prepared machining code programs and multiple CPU functions realize simultaneous machining and programming.

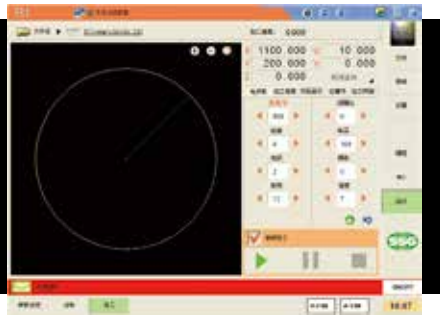
Parallel compensation, clearance angle setting, program image, corner optimization, scaling and other super functions make operation easy.



Laser ranging calibration and pitch compensation data is open in a real-time way.

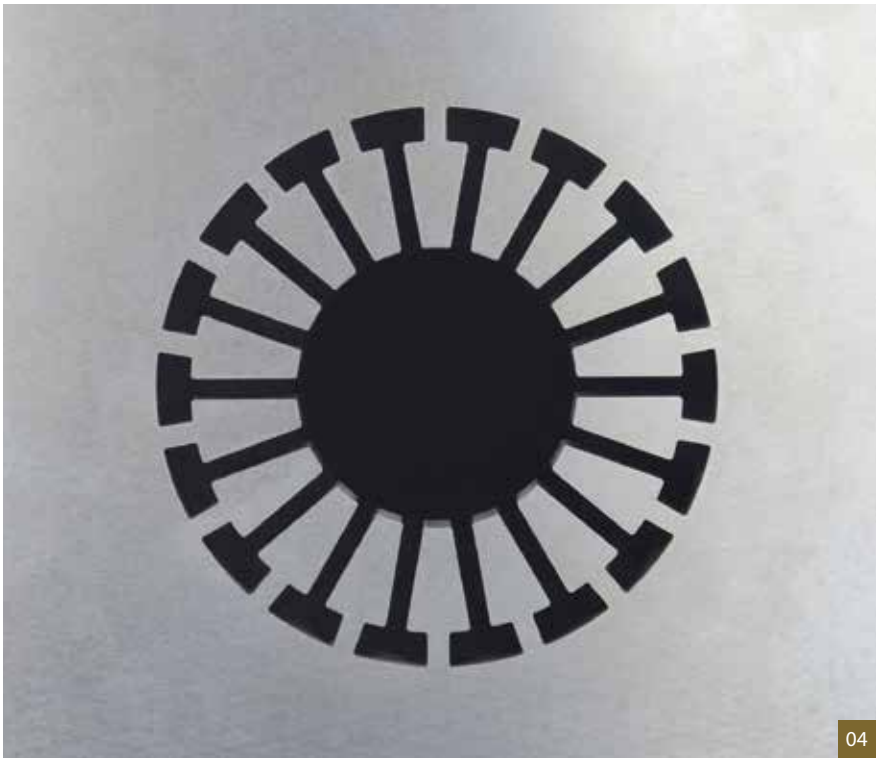
Multi-coordinate system functions can rapidly switch between work-pieces.

X axis and Y axis can be randomly exchanged to adapt to different machining states and working habits. Movement speed of wire controller is freely set.



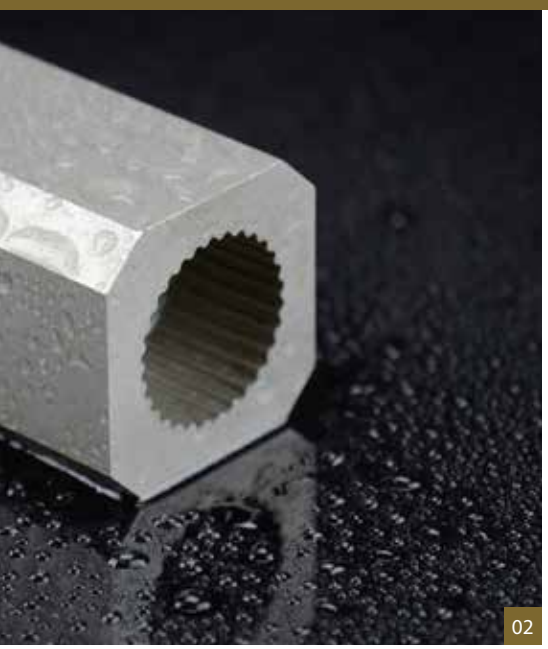
Tracking of machining information and machining monitoring ensure safe unmanned operation.

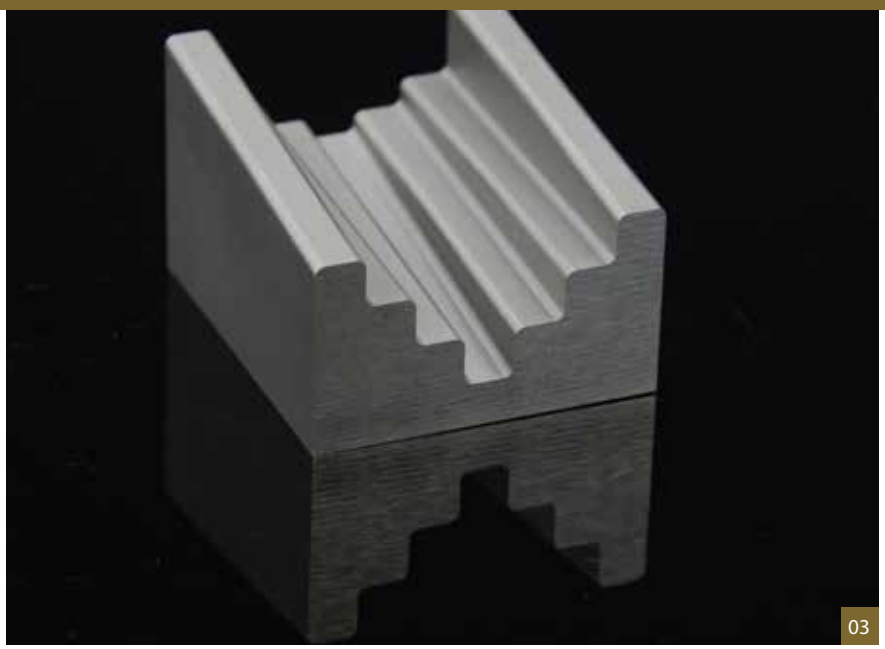
HB 400/600 Machining Features



01	02	03
Punch&Die	**Punch&Die**	**Tapper Cutting**
Thickness: 40 mm	Thickness: 40 mm	Thickness: 60 mm
Material of workpiece: SKD61	Material of workpiece: SKD61	Material of workpiece: SKD11
Roughness Ra＜0.6 μm	Roughness Ra＜0.6 μm	Roughness Ra＜0.8 μm
Cutting times: 4	Cutting times: 4	Cutting times: 4
Fit clearance: 5 μm	Fit clearance: 5 μm	Taper angle ±6°

* All the data of workpieces above are under the specified conditions(material, machining parameter,measurement,environment)


02


03


05


06

04

Motor Stator
Thickness: 20 mm
Material of workpiece: Cr12
Roughness Ra＜0.6μm
Pitch Accuracy ＜0.009 mm

05

High Height Straight Cutting
Thickness: 200 mm
Material of workpiece: Cr12
Up&Down Consistency 0.008mm
Cutting times: 1

06

Punch&Die
Thickness: 40 mm
Material of workpiece: SKD61
Roughness Ra＜0.6μm
Cutting times: 4
Fit clearance: 5μm

Ball-bar is used for dynamic accuracy test to ensure that dynamic performance of the machine tool meets standard requirements.

Elaborate manufacturing.

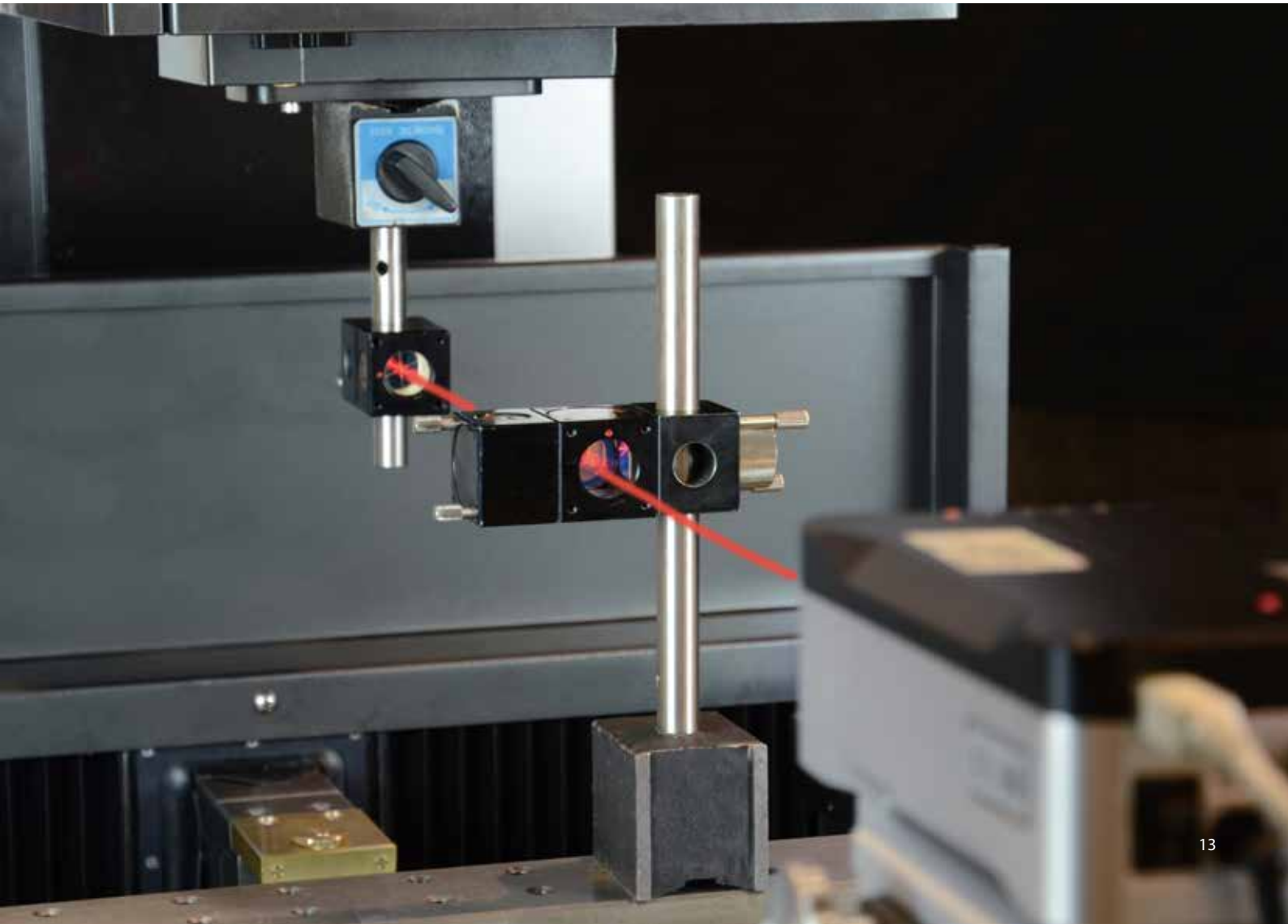
Comprehensively meet the latest national standard for medium-speed wire cutting （JB/T11999.1-2014）

The use of dual-frequency laser interferometer, three-coordinate measuring instrument, ball-bar, geometric accuracy measuring instrument and other high-precision testing instruments and inspection and test procedures executed in strict accordance with the latest national standard for medium-speed wire cutting run through the whole production process of products, guaranteeing the excellent quality of each product in an all-round way.

Key parts of the machine tool are strictly tested with three-coordinate measuring instrument to ensure accuracy of parts assembled by the machine tool.

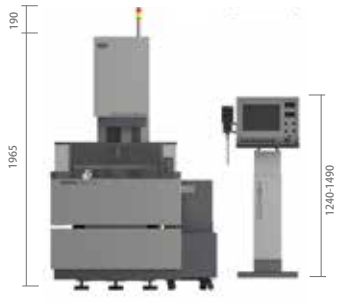
Strict geometric accuracy test ensures that all geometric accuracy indicators meet standard requirements.

Laser interferometer is used for test to reliably guarantee positional accuracy of the machine tool.

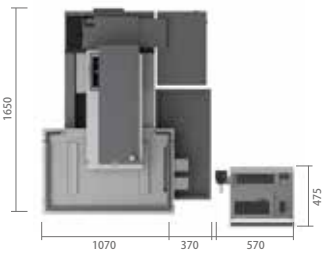



SSG
Wire Cutting Machine

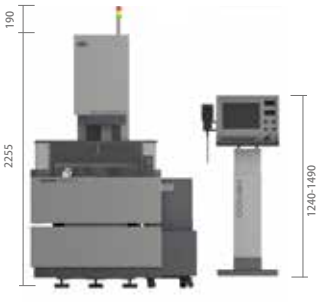
			HB 400	HB 600
Machine Body	X,Y Table Travel	mm	400 x 300	600 x 400
	Wire Diameter	mm	φ0.10-0.25	φ0.10-0.25
	Wire Traveling Speed	m/s	1.18 -11.8	1.18 -11.8
	Machine Weight	Net/Gross kg	2260/2560	2460/2760
	Machine Dimensions	L*W mm	1640x1650	1965x1800
Workpiece	Max.Workpiece Thickness	mm	300	400
	Max.Taper Angle	°/thickness mm	20° / 100	20° / 100
	Max. Workpiece Size	mm	580 x 460 x 300	1250 x 700 x 400
	Max.Workpiece Weight	kg	500	900
Dielectric Tank	Filtering Precision	mm	0.01	0.01
	Capacity	L	130	130
	Working method		Multi-filtration system	Multi-filtration system
Pulse Power	Max. Cutting Speed	mm^2/min	⩾300	⩾300
	Best Surface Finish	Ra⩽μm	0.6	0.6
	Max.cutting Current	A	12	12
CNC Power Supply Unit	Hardware Configurations		LCD、 AC Servo System 、 Import Inverter	
	Connecting Port		USB 、LAN	
	Program Code		ISO Code	
	Axis Numbers		4-axis Simultaneous Control, Realizing pitch compensation	
	Joy Stick		Standard	
	Language		Chinese、 English 、Korean、 Japanese	
	Aluminum Machining		Option	
	Titanium Machining		Standard	
	Z axis Motor		Standard	
Power Supply	Power		3～380V±10% 50±1Hz	
	Working Temperature Range		10-35° C	
	Power Consumption		1.2KVA	



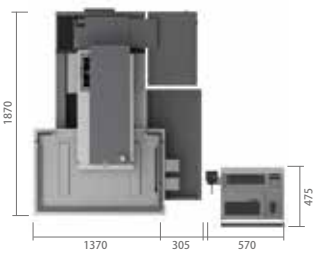
HB400 Front view



HB400 Top view



HB600 Front view



HB600 Top view

Subject to change without prior notice

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