

UB-6022D/7018D-20 HIGH SPEED

Under the most critical demand for accuracy, efficiency and drilling on micro holes or on the thin boards, the needed performance can be easily found on Takisawa's ASTRON UB-6022D/7018D-20.

Machine Specifications

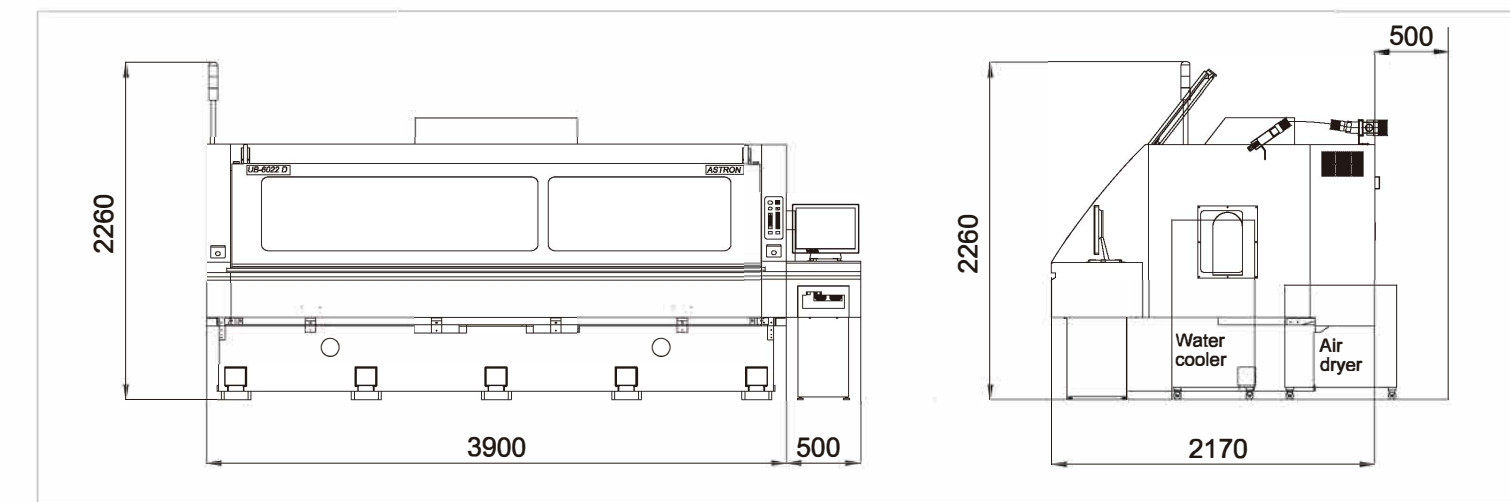
	UB-6022D-16/20	UB-7018D-16/20
Model	UB-6022D-16/20	UB-7018D-16/20
No. of spindles	6 sets	7 sets
Spindle distance	550 mm	475 mm
Max. working range	545 x 690 mm (21.5" x 27")	470 x 690 mm (18.5" x 27")
Spindle rpm	160,000 / 200,000 rpm	
X, Y-axis rapid positioning speed	50 m/min	
Z axis rapid positioning speed	30 m/min	
Capacity of tool magazine	350 bits	300 bits
Machine dimensions	4400 (L) x 2170 (W) x 2260 (H) mm	
Machine weight	8,600 kg	8,800 kg

Common Specifications

Table size	730 x 3300 mm
X, Y-axis positioning system	X, Y-axis move independently, driven by full digital AC servo motor with linear scale
X, Y-axis min. setting unit	0.001 mm
X, Y-axis positioning accuracy	±0.005 mm Full stroke
Z-axis system	The vertical movement of each Z axis (spindle) are driven respectively and independently by its own motor
Z-axis min. setting unit	0.001 mm
Z-axis feeding speed	1~9999 mm/min
Spindle type	High frequency air bearing spindle
Spindle collet	1/8"
Drilling accuracy	Within ±0.02 mm (ASTRON condition)
Air clamping	Stack-PIN

Standard Accessories

- CNC controller 1 unit
- Anti-noise and anti-dust cover 1 set
- 3-Color pilot lamp 1 set
- Spindle cooling device 1 set
- Air dryer 1 set
- Service tool 1 set
- Operation & maintenance manual 1 set each
- Gauge for Z axis zero return 1 set
- Tool post A and B 2 pcs / each
- ATC gripper 2 pcs
- Pressure-foot bushing 100 pcs
- Clamping device switch 2 pcs
- Spare tool cassette 1 set
- LASER tool diameter & run-out measuring unit
- Automatic switching device for pressure-foot switch



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THE ERA OF HIGH SPEED

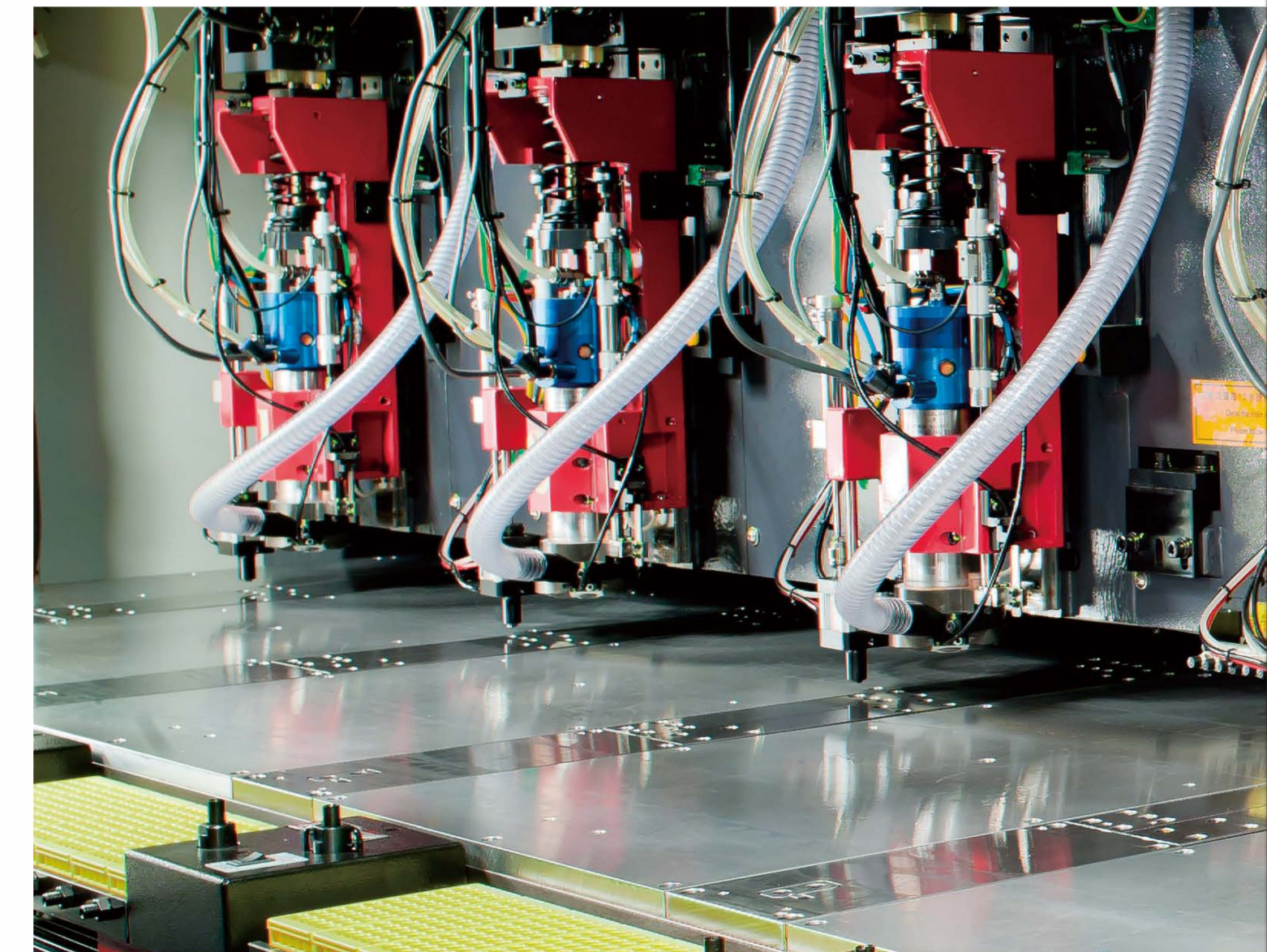


UB-6022D-16/20 UB-7018D-16/20

**160000 RPM / 200000 RPM Digital High Speed
Meticulous Drilling Machine**

- Absolute rigidity, absolute stability
- High grade ball screws and linear guideways from Japan
- Reinforced inner ribs
- High performance CNC controller: IBM SIEB & MEYER

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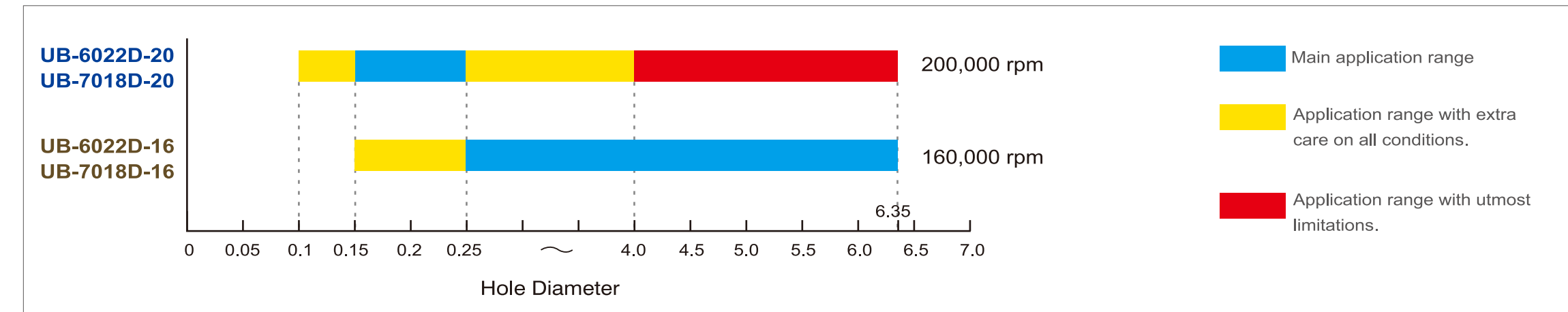
UB-6022D/7018D-16 HIGH TORQUE

The design concept and drilling purpose of the 160000 rpm UB-6022D/7018D-16 is aiming to work pieces which require high torque output from the spindle. For drilling on normal holes or drilling on normal thickness boards, the drilling efficiency, as well as productivity is brought with the UB-6022D/7018D-16 and can be maximized to the optimum level.

Efficiency can be defined only with **high stability** and **high accuracy**

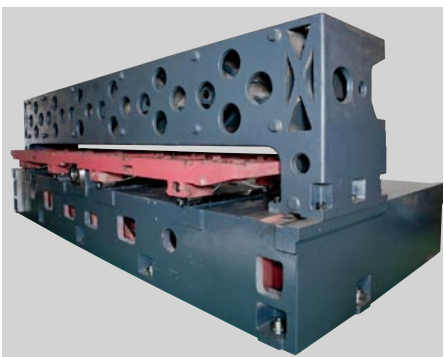
UB-6022D/7018D 160,000/200,000

The recommended drilling range for UB-6022D/7018D 160,000 and 200,000 rpm



ABSOLUTE RIGIDITY, ABSOLUTE STABILITY

The major components of the machine, such as base and column are one-piece cast iron, which is aged in a natural environment for material stabilization for 3 to 4 months before construction. The inner stress of the cast iron is released to ensure the machine remains free from deformation.



REINFORCED INNER RIBS

The box-type machine base and column is reinforced by inner ribs, which are deployed precisely in the structure's critical positions; featuring high damping effect, and also reducing unnecessary cast iron volume, while maximizing machine rigidity.



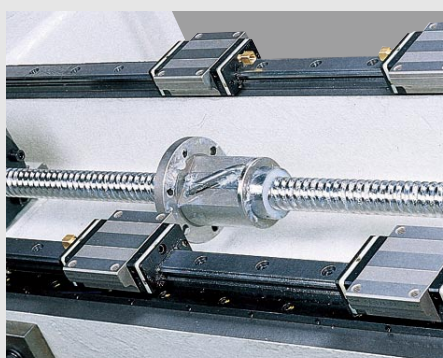
CLOSE LOOP COORDINATE DETECTION

The positions of X and Y axis are detected by linear scales. The backlash of ball screws as well as any linear thermo deformation can be eliminated by this external linear position encoder.



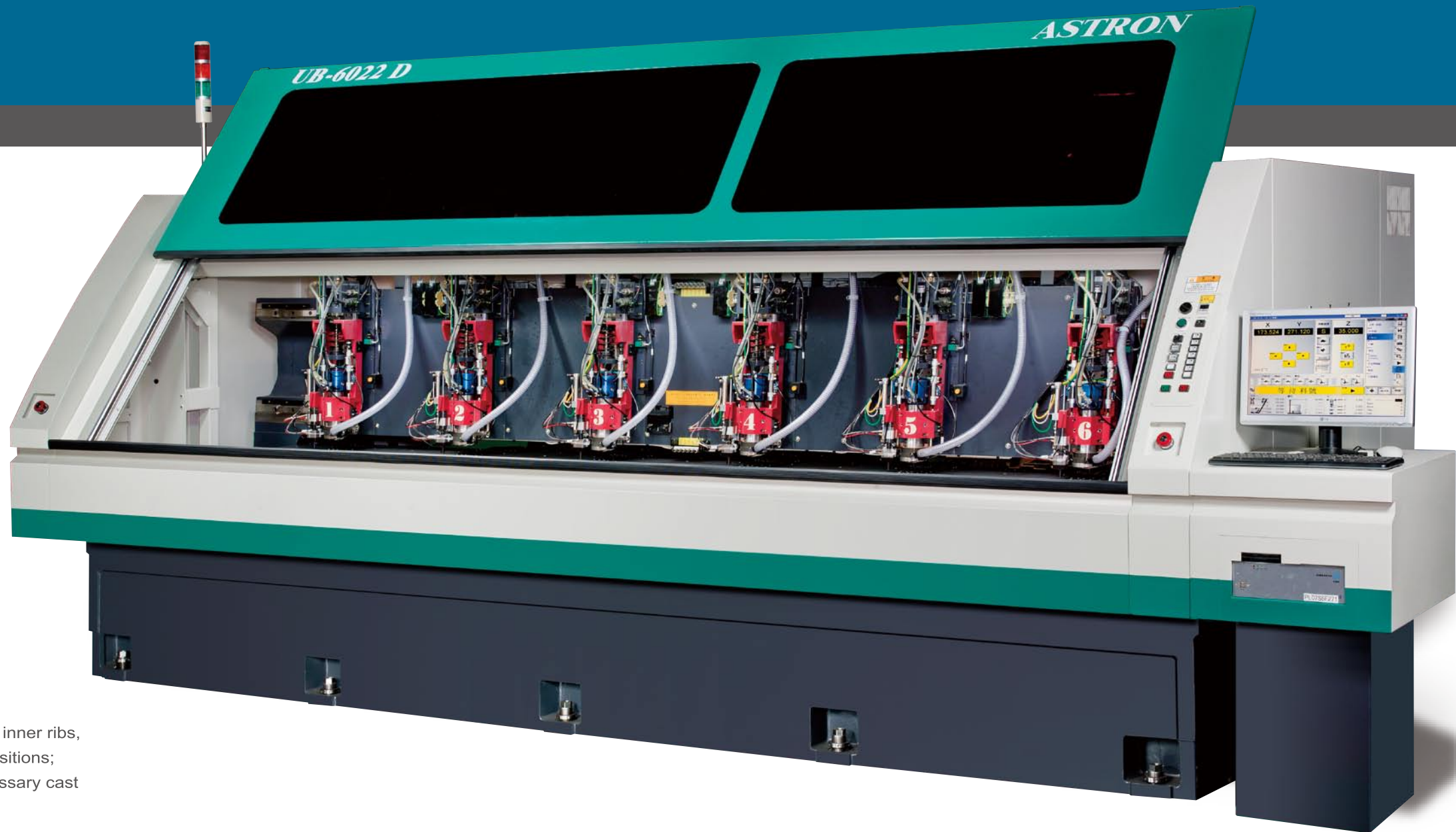
TELESCOPIC COVERS

Ball screws and linear guideways are protected by high grade telescopic covers to prevent the ingress of cutting chips and dusts.



HIGH GRADE BALL SCREWS AND LINEAR GUIDEWAYS FROM JAPAN

The machine adopts high grade ball screws and linear guideways from Japan. The self-lubrication device ensures all axes run smoothly.



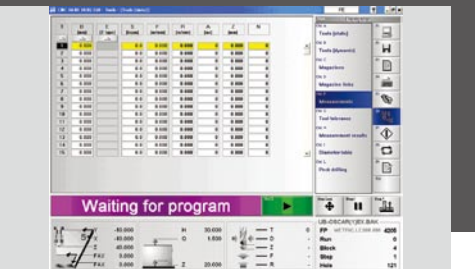
State-of-the-art motion control technology, featuring high acceleration / deceleration, achieving optimum positioning accuracy, as well as repeatability accuracy.

High Performance CNC Controller: IBM SIEB & MEYER



AUTO PAGE

Machine status such as drilling condition, spindle speed and feedrate can be monitored conveniently, the highest quality parts are produced under strict surveillance.



TOOL DATA STORAGE

The details of all tool data are stored in the system, the tool data settings can be tuned to unify cutting management. This operator friendly function minimizes human error and increases working efficiency.



MOTOR OUTPUT WAVEFORM

The S&M controller offers powerful self-detection/diagnosis functions by monitoring motor's output waveforms.

Controller Specification

Controllable axis	The servo control of X, Y and Z axis are independent with multi-functions.
No. of axes controlled simultaneously	3 axis positioning simultaneously and linear interpolation , 2 axis circular interpolation simultaneously
Setting unit (Increment Value)	Input: 0.001mm · Traveling: 0.001mm · Reading: 0.001mm
Max. command value	±99999.999 mm
Format	S&M system and Ex standard system
Feedrate	X,Y axis rapid positioning: 50,000 mm/min, Z axis feeding: 1~9999 mm/min, Jogging: 0-2000 mm/min
LCD display function	English Displayed 19" LCD monitor
Diagnosis function	Automatic self diagnosing the working range, drilling stroke and tool's data
Environmental conditions	Ambient temperature 0-45C, working temperature: 20-26C humidity (Relative): less than 75% vibration, Less than 0.5G
Hard disk capacity	≥ 80GB
CPU Specification	2 GHz
USB Interface	4 sets

Additional Features

- Tool On/Off monitoring device
- Optical tool length measurement
- Automatic PIN reverse and anti-crash protection function
- On-line operating system (IBM SIEB & MEYER)
- CNC controller: SIEB & MEYER-CNC84.00
- Memory capacity 512 MB

Operation Requirements

Total power consumption	AC200/220V, 50/60Hz, 20KVA
Air consumption	900 liter/min
Compressed air requirements	7~8 kg/cm ²
Vacuum pressure for chip collection	1,900 mm-H ₂ O
Static air pressure for chip collection	4 CMM (Cubic Meters/Minute)