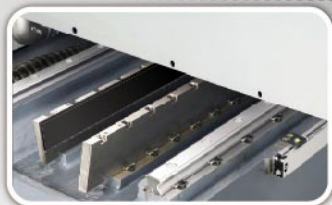




ULTRA-PRECISION OIL WIRE CUT EDM

SP3020L



:: In-House High Efficient Linear Motor

Linear Motors with linear scales lead a complete close loop. Linear Drive obtains many advances such like backlash-free, perfect accurate positioning as well as long life span.



:: Gantry Moving structure Design

Global pioneer with patent licence of gantry moving structure design requires less space and is suitable for heavy loading possible. This perfect design obtains high rigidity and extremely accurate machining. Interference free design between lower arm and work tank to secure job accuracy and get rid of water leakage.



:: New G7 power supply circuit

With exclusively developed power saving techniques; the New Power Control System can transform the power applied in discharge process and recharge the electricity of the generator. This process can reduce the power consumption up to 20% (compared with the previous models). Also, it reduces the heat emission problem. It fits the idea of energy saving and carbon emission reduction.

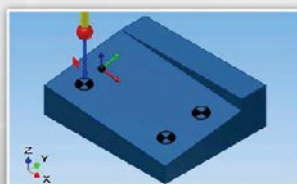
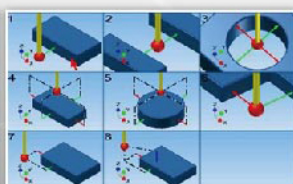
:: High Accuracy DTC

Equipped with the inverter Chiller to hold the temperature variation within $\pm 0.3^{\circ}\text{C}$ for precise machining and save energy consumption up to 45%.



:: Real Time Probe Measurement System

- ① Visually and directly offset compensation for B-axis application by probe measurement.
- ② Real Time measuring on edge, slot center, hole center, hole distant and variety profiles.



Oil Technology

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HIGH QUALITY TOOL ACCURACY

PCD TOOL MACHINING AND THE APPLICATION WITH B AXIS



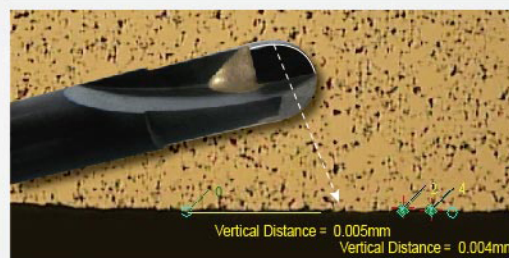
OIL CUTTING VS. WATER CUTTING

Material: PCD
Wire: 0.20mm

Oil Cutting:
Surface of Cutting
Path (Blade)
Less Recasting Layer

Water Cutting:
Surface of Cutting
Path (Blade)
Obvious Recasting Layer

Dielectric	Recasting Layer
Oil	0.005mm
Water	0.030mm

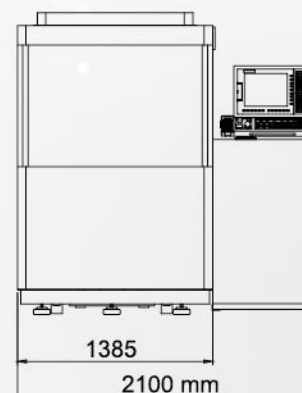
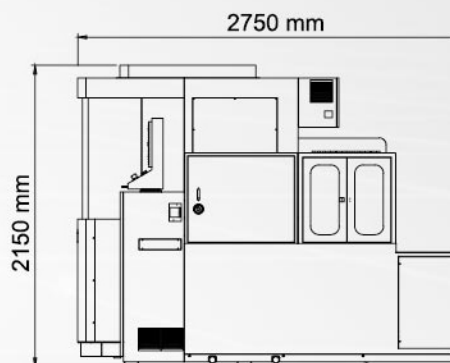


▷ GAP			
3 Cuts	Water	Oil	Diff. mm
	0.107	0.102	0.005
▷ Min. Inside Corner R Value			
3 Cuts	Water	Oil	Diff. mm
	0.114	0.107	0.007
▷ Burn Layer			
3 Cuts	Water	Oil	Diff. mm
	0.006	0.003	0.003



SPECIFICATION	SP3020L
Axis Travel (X/Y/Zmm)	300x200x150
Axis Travel (U/Vmm)	60x60
Max. Size of Workpiece (WxDxHmm)	600x450x145
Max. Weight of Workpiece (kg)	300
X Y Feed Rate(mm/min)	Max. 1500
Axis Drive System	X,Y Linear Motor ;U,V,Z AC motor
Wire Dia.(standard)	Ø0.15~0.3(Ø0.25)(opt. 0.1mm)
Max. Wire Feed Rate	300 (mm/sec)
Wire Tension	300~2500 (gf)
Max. Taper Angle(°/mm)	±14.5°/80(Wide nuzzle)
Machine Dimension (WxDxHmm)	2100x2750x2150
Max. Machine Weight (inc. power and filter system (kg))	2680

Machine Layout



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