

Linear Motor Driven Precision Wire-Cut EDM
Water or Oil Technology

AP250L

Improved Cutting Performance, Ultimate Precision Linear Motor Driven Wire EDM Ideal for Micro Machining

Linear Motor Drive System Coupled with a Bridge Design

The combination of the linear motor drive system and bridge design has vast improvements in positioning and machining accuracy. It takes advantage of backlash-free precise axis movement, while minimizing the deformation of the machine structure. High levels of initial machining accuracy can be maintained for a long period of time. Sodick offers a 10 year positioning guarantee to ensure that customers can make use of Sodick EDMs with a sense of security.

Newly Developed Power Supply Unit - LN2W

The newly developed LN2W power supply unit is featured on the AP250L and utilizes "Perfect Active Control" technology. It also uses 1 Gbit/sec serial communication technology featuring high-speed processing of the discharge control and motion control in a simultaneous process.

New Eco-Cut O Technology

Eco-Cut O is a newly developed technology by Sodick. This technology enables the EDM to machine at incredible speeds using oil technology. Eco-Cut O allows the user to get the optimal surface finish of oil dielectric with the speeds of water dielectric - and faster. Eco-Cut O can increase machining speeds up to 12% over water dielectric and up to 25% over conventional oil dielectric. Eco-Cut O speeds up the cutting process due to the accuracy and surface finish being obtained at a faster pace requiring less cuts to be made to the part.

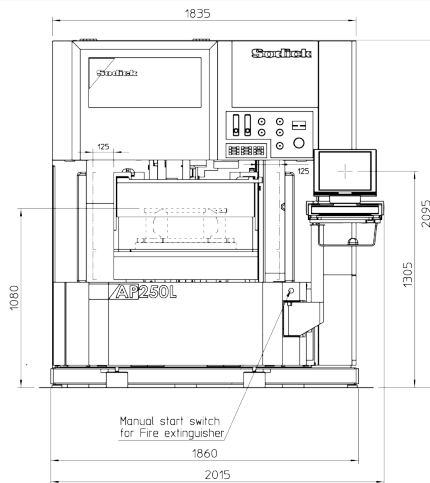


AP250L

Specifications

Machine	Specifications
X-Axis Travel	9.84" (250 mm)
Y-Axis Travel	5.91" (150 mm)
Z-Axis Travel	4.72" (120 mm)
U x V Axis	1.38" x 1.38" (35 x 35 mm)
Maximum Taper Angle	±7° (thickness: 3.94" (100 mm))
Maximum Workpiece Weight	176lbs (80 kg)
Wire Diameter	φ.001"-.008" (φ.03-.2 mm)*
Wire Tension	3 ~ 25 N
Wire Feed Rate	Max. 9.8"/sec (250 mm/sec)
Distance From Floor to Table Top	42.52" (1,080 mm)
Machine External Dimensions W x D x H	73.33" x 99.09" x 82.48" (1,860 x 2,515 x 2,095 mm)
Machine Installation Space	101.38" x 133.86" (2,575 x 3,400 mm)
Machine Unit Weight w/Power Unit and Dielectric Tank	8,223 lbs (3,730 kg)
Power Supply Requirement	3-Phase, 200/460V, 50/60 Hz
Total Power Consumption	10 kVa
Maximum Peak Amps	
Air Pressure	.5 MPa
Air Flow	30 NL/min

Layout (Oil Model)



Control: LN2W	
CNC Unit	Multi-Tasking OS, Sodick Motion Controller
Display	15.1" TFT-LCD (SVGA)
Number of Coordinate Systems	60
Maximum Input Command	±999999.999 / ±99999.9999 / ±9999.99999 (switchable)
Program Sequence Number Assignment	N000000000 to N999999999
Simultaneous Control Axes	Max. 4 Axes (Max. 8 Axes optional)
Drive Mechanism	Linear Motor
Subprogram Nesting Levels	50 Levels
Q Command Nesting Levels	7 Levels
Discharge Condition Codes	1,000 (C000 ~ C999)
Offset Settings Storage Capacity	1,000 (H000 ~ H999)
User's Memory Capacity	Editing: 100,000 blocks / Saving: 30MB
Memory Device	4 GB CF Card, 1 GB External Memory
Input Format	External Memory, Touch Panel, Keyboard, Mouse
Character Set	Alphanumeric and Symbols
Keyboard	Standard 101-Key, Function Key
Positioning Command	Incremental and Absolute
Drive Mechanism	Full Closed Loop (Linear Scales)
Jog Feed Rate	X, Y Axis: Max 118.1"/min (3 m/min), Z Axis: 78.7"/min (2 m/min)
Editing	Editing During Machining, Multi-Editing of Two Files on One Screen
Graphics	XY, YZ, ZX, Plane, 3D, Graphics Drawing During Machining, Background Graphics Drawing, etc...

Dielectric Tank	
Capacity	99 gallons (375 liters)
Tank External Dimensions (W x D x H)	41.34" x 51.57" x 62.99" (1,050 x 1,310 x 1,600 mm)
Filter Type	Replaceable Paper Filter Cartridge
Dielectric Fluid Type	Ion Exchange Water or Oil*

Standard Features	
Linear Motor (X, Y, U and V Axes)	Dielectric Cooling Unit
High Speed Electrolysis Free Circuit* ¹	AWT (Automatic Wire Threader)* ²
Taper Cut Unit	Super PIKA O/W
Corner Control	Tension Servo
Energy Saving Circuit	FT II (Fine Pick-Up Function)
Voltage Stabilizer	Wire Tip Disposal Unit

*1: Water, water/oil model only

*2: Air pressure .05 MPa is required

Please consult sales representative for more details.

The export of our company's products or technologies related (including software applications) is regulated by Japan's Foreign Exchange and Foreign Trade Control Law. In addition, since some of these products may be subject to the re-export controls of the Export Administration Regulations (EAR) of the United States, please contact us before exporting or offering our products overseas.

Due to ongoing research, specifications are subject to change without prior notice.

The content of this catalog is current as of February 2011.

Sodick

1605 N. Penny Lane.
Schaumburg, IL 60173
phone: 847-310-9000
toll free: 888-639-2325

www.sodick.com