Sodick

Linear motor drive Wire-cut EDM

AQ327L

Q³vic-Solution

Q³vic-Solution

Global manufacturing innovation created by Sodick's linear perfect machines

High speed machining

By developing stable wire-running techniques suitable for high-precision machining and linear motor drives, distinguished high-speed machining on the normal wire electrode become possible. Together with, the ultra high-speed automatic wire threading improves the production efficiency.

High performance
High operability

The internal structure of a work tank is extremely simple. This creates easier and safer environment for work preparations and maintenances. In addition, various new functions ; such as the automatic vertical-motion work tank, the wide monitors and fluid level automatic control; are employed, making automation of the workplace easier, and realizing high performance. The top lebel space saving design has been developed with 3D-design analysis, keeping its wide-range taper control angle.

Q³vic-Solution

Q³vic-Solution is a key technology for the future generation. An epoch-making automatic programming function using shape identification is developped, and this enables an accurate pass solution based on a 3D solid model.This model gives strong support for machining operations with unified data administration system.

save

Nano & Solution

Nanolution

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Specifications

AQ327L

Machine tool

Work tank inner dimensions (W x D)	mm	865 x 645
X axis travel	mm	370
Y axis travel	mm	270
Z axis travel	mm	250
U x V axis travel	mm	120 x 120
Taper angle		±25° (Work. thickness 100 mm)
Max. size of workpiece (W x D x H)	mm	570 x 420 x 240 (Flush machining) 570 x 420 x 230 (Submerged machining)
Max. weight of workpiece	kg	500 (Flush machining) 350 (Submerged machining)
Wire diameter	mm	ϕ0.15 to ϕ0.3*1
Wire tension		3 to 23N
Wire feed speed	mm/sec	Max. 420
Distance from floor to table top	mm	995
Machine tool dimensions (W x D x H)	mm	2125 x 2200 x 2120
Machine installation dimensions		3200 x 3200
Machine tool weight	kg	3400
Total power input	kVA	13 *2

*1: ϕ0.1 mm is optional.
*2: When using ϕ0.2 mm wire.

Dielectric tank

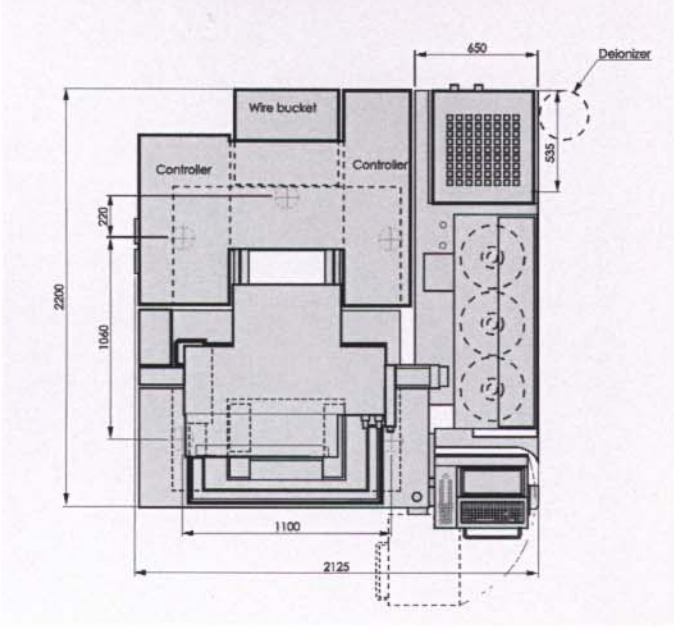
External dimensions (W x D)	mm	650 x 2200
Weight (Empty)	kg	400
Capacity	ℓ	600
Filtration method		3replaceable paper filter
Deionizer		Ion-exchang resin (10 ℓ)

CNC power supply LQ1W/LQ10W

Max. machining current	40A
Power requirement	200/220V, 50/60Hz
CNC unit	Multi-task OS, Sodick Motion Controller
User's memory capacity	Edit: 100,000 blocks / Saving: 30MB
Memory device	Hard disk, floppy disk
Input format	3.5" floppy disk, Touch panel, Keyboard
Display type	15" TFT-LCD (SVGA)
Character set	Alphanumeric and symbols
Keyboard	Standard 101-key, Function key
Positioning command	Incremental and absolute
Max. input command	±999999.999/±99999.9999 (switchable)
Machining conditions storage capacity	1000 conditions (C000 to C999)
Offset settings storage capacity	1000 conditions (H000 to H999)
Program sequence number assignment	N000000000 to N999999999
Subprogram nesting levels	50
Q command nesting levels	7
Number of coordinates	60
Simultaneous control axis	Max. 4 axes (LQ 10W: Max. 8 axes)
Min. input command	0.1 μm
Min. drive unit	0.1 μm
Jog feed rate	Max. 5 m/min
Positioning command	Full closed loop (Linear scales)
Drive mechanism	Linear motor
Compensation	Separated to each axes / Backlash and Torque compensation
Editing	2-screen simultaneous display, Background editing
Graphics	XY plane, XY-YZ plane, 3D, Background graphics.

Layout

Unit: mm



Standard

High speed electrolysis free circuit	Dielectric cooling unit
FTII (Fine pick-up function)	Float nozzle
Energy saving circuit	Linear scale (X.Y.U.V axis)
Corner control	Wire tip disposal unit
H-AWT (High speed AWT) *3	Paper filter
Taper cut unit	Ion-exchange unit
Z axis synchronization Water level	Tension Servo
Tool kit	Nozzle 10mm approach

*3: Air pressure 0.5 Mpa is required.
Please consult sales representative for more details.

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