

Linear motor drive High speed Die-sinker EDM

# AG40L

# AG60L & AG80L

5th Generation Linear Motor Drive Die-sinker EDM

*"Perfect Active Control" adopted for  
higher machining speed and accuracy*

### Linear Motor Drive System

Linear motor drive system is the most ideal mechanism which semi-permanently sustains high-speed axis-movements and instantaneous response. The initial positioning accuracy can be maintained for years and years; machine operators will everlastingly enjoy the remarkably reliable machining performance.

### New "LP2" Controller

The 5th generation electrical discharge technology "LP2" has adopted the "Perfect Active Control," enabling simultaneous control of high-speed electrical discharge and axis-movements by using serial communication technology of 1Gbit/sec.

### Arc-less & High Quality Surface Finish

The new "Arc-less" electrical discharge system features further improved in machining performance, and ensures great reduction in machining time. Equipped with "SVC" circuit as standard, high-quality surface finishing, satin surface, and mirror surface can be achieved with great ease.



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## Specifications

Machine tool		AG40L			AG60L			AG80L		
Work table size (W x D)		600 x 400 mm			750 x 550 mm			1100 x 700 mm		
Work tank inner dimensions (W x D x H)		750 x 620 x 350mm			950 x 740 x 460mm			1400 x 950 x 500mm		
Work tank fluid level (Min. to Max.)		100~300 mm			150~400 mm			150~450 mm		
Work tank capacity		190 ℓ			325 ℓ			690 ℓ		
X axis travel		400 mm			600 mm			850 mm		
Y axis travel		300 mm			420 mm			520 mm		
Z axis travel		270 mm			370 mm			420 mm		
Clamping chuck	Automatic	EROWA	COMBI	ER-020025	EROWA	COMBI	ER-020025	EROWA	COMBI	ER-020025
		EROWA	ITS	ER-007521	EROWA	ITS	ER-007521	EROWA	ITS	ER-007521
	Manual	system3R	COMBI	3R-460.86-2	system3R	COMBI	3R-460.86-2	system3R	COMBI	3R-460.86-2
		system3R	MACRO	3R-600.86	system3R	MACRO	3R-600.86	system3R	MACRO	3R-600.86
Max. thrust		50 kg			50 kg			100 kg		
Max. weight of workpiece		550 kg			1500 kg			3000 kg		
Distance between electrode and table top		150~420 mm*1			200~570 mm*1			260~670 mm*1		
Distance from floor to table top		830 mm			850 mm			840 mm		
Machine tool dimensions (W x D x H)		1550 x 2440 x 2330 mm (Including CNC and dielectric tank)			1740 x 2785 x 2570 mm (Including CNC and dielectric tank)			2060 x 3130 x 2900 mm (Including CNC and dielectric tank)		
Machine tool weight		4000 kg			5150 kg			8800 kg		
Total power input		10 KVA			10 KVA			17 KVA		
Air pressure		0.65 MPa*2			0.65 MPa*2			0.65 MPa*2		
Air flow		100N ℓ /min			100N ℓ /min			100N ℓ /min		

\*1 : EROWA/TP. \*2 When the specified air pressure cannot be obtained, please install an air pressurizer (available as an option).

Dielectric tank		AG40L			AG60L			AG80L		
Capacity		285 ℓ			465 ℓ			835 ℓ		
Required amount		330 ℓ			560 ℓ			980 ℓ		
Dielectric		Oil			Oil			Oil		
Filtration method		Replaceable paper filter (MF-2400)			Replaceable paper filter (MF-2400)			Replaceable paper filter (MF-2400)		

CNC power supply LP2/LP20	
Max. machining current	40 A [AG80L: 80A]
Power requirement	200/220 V 50/60 Hz
NC unit	Multi-tasking OS, KSMC-LINK method
User's memory capacity	Editing: 100,000 blocks / Saving: 30MB
Memory device	CF card, external memory
Input format	External memory, touch panel, keyboard, LAN
Display type	15 inch TFT-LCD
Character set	Alphanumeric and symbols
Keyboard	Standard 101-key, Function key
Positioning command	Incremental and absolute
Max. input command	±999999.999/±99999.9999/±9999.99999 (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
Number of coordinates	60
Simultaneous control axes	Max. 4 axes (LP20 : 6 axes)
Min. input command	0.1 μm
Min. drive unit	0.1 μm
AJC speed	X, Y axis: Max. 10m/min Z axis: Max. 36m/min
Control system	Full closed loop (Linear scales)
Drive mechanism	Linear motor
Editing	Pitch error compensation, torque compensation for each axis
Graphics	XY, YZ, ZX plane, 3D, graphics drawing during machining, background graphics drawing, etc.

● LN2/LN20 are also available.  
Please consult sales representatives for more details and optional equipment.

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- ◆ Due to ongoing research, specifications are subject to change without prior notice.
- ◆ The content of this catalog is current as of June 2009.

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