

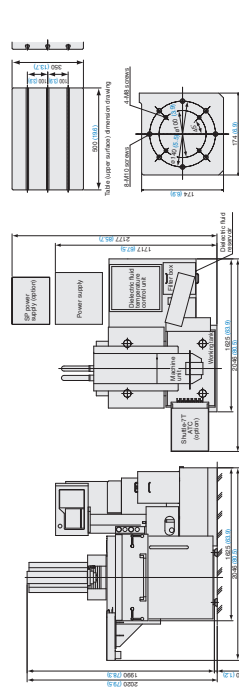
EA8 / EA12D

Powerful Functions in a Compact Body

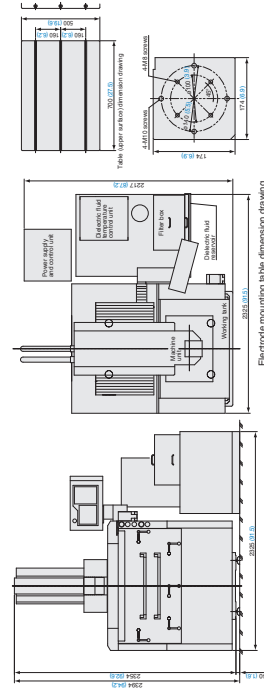


A standard EDM with high productivity and cost performance

EA8



EA12D



(Unit: mm (in))

- Standard functions**
- Closey mirror finish circuit (SMZ circuit)
- Options**
- Automatic dielectric fluid supply/drain (EA6)
 - Programmable flushing nozzle
 - SP power supply
 - SP power supply + Automatic charger (EA6)
 - Power supply for tungsten carbide machining
 - Shuttle-ATC
 - Spindle manual operation box
 - Lighting
 - Dielectric fluid distributor

Standard delivery entrance (EA8)

Standard specifications	1252 (49.28)	2150 (84.6)
Shuttle-ATC specifications	1522 (59.91)	2150 (84.6)
Shuttle-ATC specifications	1672 (65.8)	2150 (84.6)

Standard delivery entrance (EA12D)

Width (mm (in))	1500 (59.1)
Standard specifications	1882 (74.3)
Shuttle-ATC specifications	2242 (88.3)
Shuttle-ATC specifications	2524 (99.3)

- FP II power supply** —①
- Standard low-wear machining circuit and finishing circuit
 - High-grade finishing, suitable for die machining, is possible
 - Energy-saving specifications incorporate no-resistance method

Highly accurate and rigid machine structure —②

- Highly rigid structure has low head
- Highly rigid bed structure has no concave section
- An optimum design and compact body have been attained using CAE structure analysis

Fuzzy adaptive control —③

- Machining conditions are optimally controlled to match the machining state
- Stable machining is realized with SS jump
- Optimum machining according to the flushing method (no-flush, emission, fluid jet, suction) is possible

Improved workability with GUI —④

- Dedicated language is not required for any process from set-up to machining
- Navigation method allows even beginners to operate easily
- Various machining applications are possible with the HybridPack (GUI: Graphical User Interface)



Machine unit (standard specifications)

Model	EA8M	EA12DM
Dimensions (W x D x H)	1625 x 1717 x 2000	1840 x 1960 x 2245
Total system weight	2000 (4400)	2500 (6300)
Axis stroke (X x Y x Z)	300 x 250 x 250	400 x 300 x 300
Distance between table top and spindle	200 to 450	300 to 600
Max. electrode weight	25 (55)	50 (110)
Method	Vertical front door	Vertical front door
Working tank	770 x 500 x 250	1050 x 700 x 450
Fluid level adjustment range (from top of table)	110 to 200	180 to 400
Dimensions (W x D)	500 x 350	700 x 500
Max. workspace dimensions (W x D x H)	720 x 570	1025 x 650
Distance between floor and top of table	830 (32.7)	840 (33.1)
Max. loading weight	550 (1200)	1000 (2200)
T-slot	Three slots at 12 (60) pitch	Three slots at 12 (60) pitch
Dielectric fluid reservoir	196 (51)	500 (132)
Filtering method	One paper filter	Unit cooler

C-axis/ATC (option)

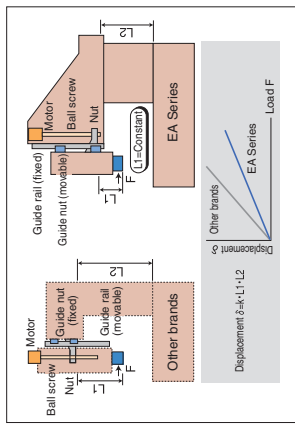
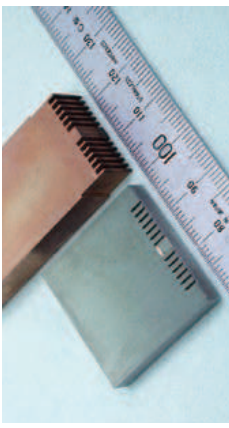
C-axis	3R	EROWA
Max. electrode weight	10 (22)	Max. (15)
Speed	10, 20	—
Shuttle	—	—
4T	—	—
ATC	—	—
7T	—	—

Max. electrode dimensions: 70.7.0 x 100 (2.7 x 3.9) [mm (in)]
 Max. electrode weight: 5kg (11lb) / electrode
 Magazine total: 20kg (44lb.)
 Max. electrode dimensions: 33.3 x 101 (1.3 x 3.9) [mm (in)]
 Max. electrode weight: 2.5kg (5lb.) / electrode
 Magazine total: 10kg (22lb.)

(Note 1) For MACRO 3, of 3R-Combi used. Compact of EROWA-COMBI, the weight is 2.5kg (5lb.) / electrode.
 (Note 2) For MACRO 3, of 3R-Combi used. Compact of EROWA-COMBI, the weight is 2.5kg (5lb.) / electrode.
 (Note 3) For MACRO 3, of 3R-Combi used. Compact of EROWA-COMBI, the weight is 2.5kg (5lb.) / electrode.
 The magazine to total is 10kg (22lb.).
 (Note 4) ATC can be used with EROWA-1TS50, but not with EROWA-Combi (manual only).

Distance between table and electrode mounting surface

EA8	MACRO 3	EROWA	MACRO 3R	COMBI
C-axis	170 to 420	182.5 to 435.5	170 to 420	182.5 to 435.5
EA12D	278 to 578	278 to 578	271 to 571	281 to 581
	10.9 to 22.7	11.2 to 23.1	10.6 to 22.4	11.0 to 22.8



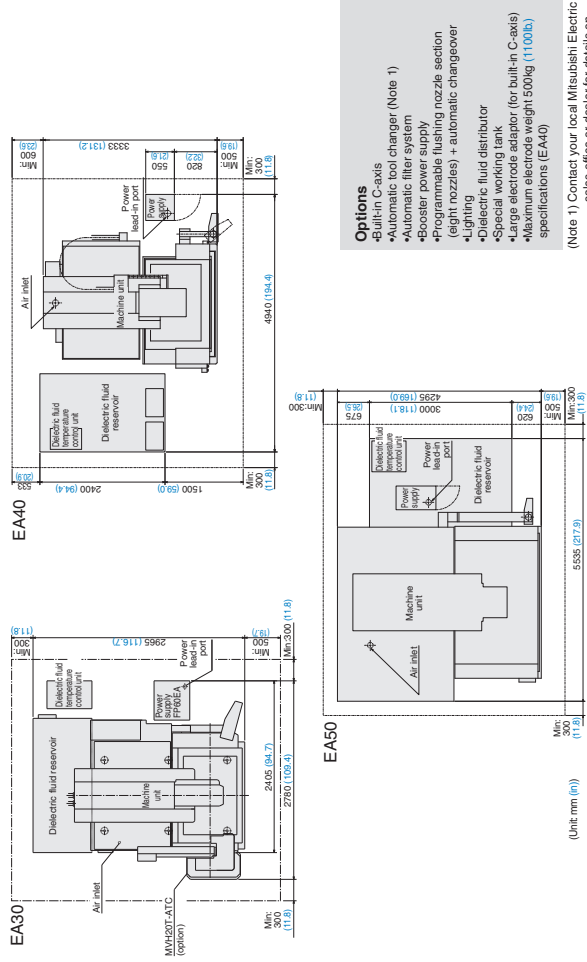
EA30 / EA40 / EA50

Diverse Line-up for Machining Large Workpieces



Large working tank and large fixed table for machining large workpieces

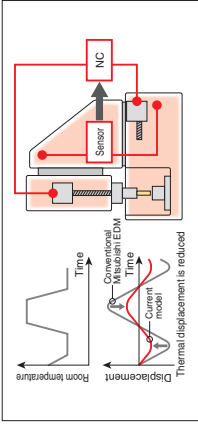
The EA40/50 machine photos are shown with the built-in C-axis, automatic filter system and booster power supply options.



- Options**
- Built-in C-axis
 - Automatic tool changer (Note 1)
 - Automatic filter system
 - Booster power supply
 - High-pressure flushing nozzle section (e.g. nozzles) + automatic charger
 - Lighting
 - Electric fluid distributor
 - Special working tank
 - Large electrode adaptor (for built-in C-axis)
 - Maximum electrode weight: 500kg (1100lb.) specifications (EA40)
- (Note 1) Contact your local Mitsubishi Electric sales office or dealer for details on the EA40 and EA50 ATC.

Thermal displacement compensation function (EA30/EA40/EA50)

- Temperature sensors constantly monitor changes in the environment
- Axes are controlled in real-time based on changes in temperature
- Highly accurate machining, less affected by the work environment, is possible



Automatic vertical front door (EA40/EA50)

The working tank door opens and closes automatically when a button is pressed. In addition, work safety and operability are enhanced as the front door's clamp is automatically latched.



Machine unit (Standard specifications)

Model	EA30M	EA40M	EA50M
Machine unit dimensions (W x D x H)	2520 x 3055 x 2495 (99.2 x 120.3 x 98.2)	3050 x 3633 x 3140 (120.0 x 143.0 x 123.6)	4080 x 4695 x 4100 (160.5 x 189.0 x 161.4)
Machine unit weight	6660 (15100)	12000 (26000)	20000 (44000)
Axis	700 x 500 x 350 (27.6 x 19.7 x 9.8)	1000 x 600 x 450 (39.3 x 23.6 x 17.7)	1500 x 600 x 450 (59.0 x 23.6 x 23.6)
Stroke	None	None	X-axis left 600 (23.6) X-axis left 600 (23.6)
Distance between table and electrode	300 to 650 (11.8 to 25.6)	450 to 900 (17.7 to 35.4)	500 to 1100 (19.6 to 43.3)
Spindle	200 (440)	300 (660) (500 (1100)) (Note 1)	500 (1100)
Working tank internal dimensions (standard)	1280 x 850 x 450 (50.4 x 33.5 x 17.7) (XK16A)	1600 x 1700 x 500 (62.9 x 66.9 x 19.6) (XK170)	2500 x 1800 x 850 (98.4 x 70.9 x 33.4) (XK270)
Fluct. lev. adjustment range (from top of table)	190 to 400 (7.5 to 15.7)	200 to 460 (7.9 to 17.7)	400 to 800 (15.7 to 31.4)
Table dimensions	1100 x 750 (43.3 x 29.5)	1400 x 950 (55.1 x 37.4)	2000 x 1350 (78.7 x 53.1)
Max. workpiece dimensions (reference)	1200 x 800 x 350 (48.4 x 31.5 x 13.8)	1500 x 1000 x 400 (59.0 x 39.3 x 15.7)	2400 x 1500 x 750 (94.4 x 59.0 x 29.5)
Distance between floor and top of table	845 (33.3)	860 (33.9)	1300 (51.2)
Table	2000 (4400)	5000 (11000)	10000 (22000)
Max. loadable workpiece weight	800 (210)	1900 (500)	5200 (1370)
Fl-slit	Four slits at 14-180 pitch	Five slits at 14-200 pitch	Seven slits at 14-200 pitch
Dielectric fluid	One paper filter	Two paper filters	Four paper filters
Filtering method	Unit cooler	Unit cooler	Unit cooler
Dielectric fluid temperature control unit	Standard	Standard	Standard
Manual displacement compensation function	Pendant with fixed arm	Pendant with fixed arm	Pendant with turning arm
Operation panel	High-function manual operation box	High-function manual operation box	High-function manual operation box
Manual operation box	Standard	Standard	Standard
Automatic dielectric fluid supply / drain	Vertical front door	Automatic vertical front door	Automatic vertical front door
Automatic open/close working tank door	Standard	Standard	Standard

(Note 1) The maximum electrode weight 500kg (227.0lb.) specifications are available as an option for the EA40.
(Note 2) For large models, the installation site floor must be sufficiently thick.

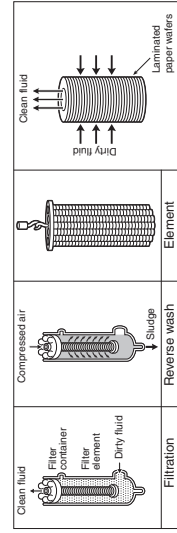
Special working tank (option)

In addition to the standard working tanks above, the following special working tanks are available for the EA30/EA40/EA50.

Model	Working tank	Inner dimensions (mm (in))	Max. workpiece dimensions (mm (in))	Table electrode mounting surface distance (mm (in))	Fluid level adjustment range (mm (in))	Required column up (mm (in))	Door method	Remarks
EA30M	XK141A	1280 x 850 x 950 (50.4 x 33.5 x 37.4)	1290 x 900 x 450 (50.8 x 35.4 x 17.7)	400 to 750 (15.7 to 29.5)	240 to 500 (9.4 to 19.7)	100 (3.9)	Hinged open/close method	130A (500 l) (51 gal.) Dummy workpiece 50L
	XK150AS	1400 x 950 x 700 (55.1 x 37.4 x 27.6)	1350 x 900 x 600 (53.1 x 35.4 x 23.6)	550 to 900 (21.7 to 35.4)	315 to 650 (12.4 to 25.6)	250 (9.8)	Vertical front door	130A (130 l) (35 gal.) Dummy workpiece 100L
	XK152A	1500 x 1000 x 750 (59.1 x 39.4 x 29.5)	1450 x 950 x 600 (57.1 x 37.4 x 23.6)	450 to 800 (17.7 to 31.5)	265 to 550 (10.4 to 21.7)	150 (5.9)	Hinged open/close method	130A (130 l) (35 gal.) Dummy workpiece 100L
	XK160AS	1500 x 1000 x 800 (59.1 x 39.4 x 31.5)	1450 x 950 x 600 (57.1 x 37.4 x 23.6)	450 to 800 (17.7 to 31.5)	265 to 550 (10.4 to 21.7)	150 (5.9)	Vertical front door	130A (130 l) (35 gal.) Dummy workpiece 100L
	XK210A	2000 x 1200 x 800 (78.7 x 47.2 x 31.5)	1900 x 1100 x 700 (74.8 x 43.3 x 27.6)	550 to 1000 (21.7 to 39.4)	360 to 750 (14.2 to 29.5)	100 (3.9)	Automatic vertical front door	3400 l (900 gal.) Dummy workpiece 400L
EA40M	XK212A	2300 x 1600 x 700 (90.6 x 63.0 x 27.6)	2200 x 1500 x 600 (86.6 x 59.1 x 23.6)	450 to 900 (17.7 to 35.4)	315 to 650 (12.4 to 25.6)	250 (9.8)	Automatic vertical front door	3400 l (900 gal.) Dummy workpiece 400L
	XK240A	2500 x 1800 x 800 (98.4 x 70.9 x 31.5)	2400 x 1700 x 700 (94.5 x 66.9 x 27.6)	550 to 1000 (21.7 to 39.4)	360 to 750 (14.2 to 29.5)	100 (3.9)	Automatic vertical front door	3400 l (900 gal.) Dummy workpiece 400L
	XK251A	2800 x 1800 x 1100 (110.2 x 70.9 x 43.3)	2700 x 1500 x 1000 (106.3 x 59.1 x 39.4)	700 to 1300 (27.6 to 51.2)	500 to 1050 (19.7 to 41.3)	200 (7.8)	Automatic vertical front door	6300 l (1660 gal.) Dummy workpiece 200L

Automatic filter system

- Long-life laminated paper filters with outstanding filtering performance are used
- Reverse washing eliminates filter replacement (option for EA40/EA50)



Type	Capacity	Remarks
TF40	3000 l (790gal.)	EA40(XK170)
TF50	4000 l (1060gal.)	EA40(XK212A)
TF63	6300 l (1660gal.)	EA50(XK270)