The Art of Economy

EDM Drilling Power
Three models
and endless possibilities.
If you’ve got grand designs, 
you need someone strong you can count on.

Since 1970, a growing number of European companies have therefore been turning to high-performance EDM machines from world market leader Mitsubishi Electric.

Only by producing components in-house is it possible to tailor them perfectly to the intended task. Mitsubishi Electric resorts to its own controls, semiconductors, motors and other items, which are adapted in detail to all requirements. The only thing you notice is that it works – and often for many decades after purchase.

If you want to invest soundly in a durable EDM machine, choose Mitsubishi Electric.
Equipped for everything.
Three sizes, one strategy.

Small holes, great precision
The perfect complement to the wire-cutting systems from Mitsubishi Electric. The start EDM drilling systems not only master small dimensions on start holes with 0.3–3.0 mm electrodes, but also functional bores. The manual version offers comfortable operation during manual positioning, while the CNC version also masters a large number of holes in a single sweep.

Speed and simplicity
An EDM drilling system simply has to get the job done – and must not distract from important tasks. The start series is therefore designed to bring the user quickly and simply to his goal. Speed and simplicity are also all-important as far as maintenance and organisation are concerned – everything is readily accessible and accommodated immediately in the machine. Even electrode tubes and guides can be stored within the machine. Everything within easy reach.

Drilling by EDM, precisely and efficiently.
The supply module for fresh dielectric integrated in the machine saves space and takes the effort out of maintenance. Long-lasting filters and low consumption of deionising resin lift profitability to a new level.

Digital control in the manual version
A monument to precision.
Solid granite and plenty of power.

Intelligent generator technology
The generator is designed for low-wear operation without compromising on performance. Micro Discharge Technology makes it possible. Drilling technology for a variety of tasks is available in the technology database. For exotic materials, technologies can be modified and stored at any time – in-built flexibility.

Diversified machining strategies inclusive
Automatic positioning measurement is a convenient function of the CNC-controlled version. Further important automatic functions of the machines:
- Electrode wear compensation
- Z axis retraction function
- Depth calculation for blind holes

Ergonomic fixed table
Good accessibility permits convenient and swift set-up. The tidy, granite-based work area is designed and optimised for easy workpiece clamping. Furthermore, the fixed table makes the machine compact and permits loading with heavier workpieces.

Solid base, high-grade guides and spindles – in the service of precision
The machine base is solidly designed. The granite stiffening components and high-grade linear guides are an assurance of durability and long-term accuracy. The granite base of the work table also prevents accidental drilling into the table.

Drills many materials, but not the work table.
Whether manual or CNC control, convenience is what counts – in both cases.

Position manually, ...
...conveniently assign the technology via the touch panel and select the machining details. And then you can start.

Position automatically...
...by CNC command. The drilling position can be manually entered on the screen or conveniently adopted from external sources. You can either read in a positioning table or adopt the drilling position from an already loaded DXF file – the choice is yours. Incidentally, the interfaces for data transfer are already available: USB or TCP/IP, serving all commonly used standards.

Direct selection from DXF
A convenient way to select the position: the DXF of a component being machined is read in and the drilling points are adopted directly from the graphics. It could hardly be simpler!
It’s easy.
Simple solutions for everyday tasks.

**Simple set-up**
The work table is ergonomically organised and optimised for simple workpiece clamping. The automatic position detection by means of simple set-up cycles in the CNC control identifies workpiece position and orientation and calculates the correct drilling positions. This way, workpieces are processed quickly and comfortably.

**Maintenance made easy**
The entire dielectric preparation and supply is accommodated in the machine base. This saves space and eliminates tripping hazards. All components are readily accessible at arm’s length, which makes maintenance easy. Long-lasting filters and the use of standard deionising resin keep operating costs low in addition. Simply an intelligent solution.

**Everything within reach**
Another intelligent solution: the integrated storage pocket for accessories like electrode tubes, the user’s manual and any other documents. Everything in its place and directly available – integrated in the machine, within easy reach.

Now watch: www.mitsubishi-edm.de/s-filter-en
98.7% of the spare parts available in Europe – delivery within 24 hours ex Düsseldorf warehouse

167,000 parts at the Düsseldorf warehouse

You don’t like call centres and queuing systems? We don’t either. With every Mitsubishi Electric EDM system you buy excellent service as part of the package.

With 167,000 parts in stock in Ratingen near Düsseldorf, you have a swift and reliable source of parts – on request by express in less than 24 hours. Service is performed by our own highly skilled service technicians so that production is kept dependably up and running.

Service hotline: +49 (0) 1801 486-600
Application support: +49 (0) 1801 486-700
Monday to Friday: 7.30 am to 8 pm
Saturday: 9 am to 4 pm
We’re there to help you.

Service.
Always there.

Training
Users acquire skills at the machine and at specially equipped PC workstations. This way they benefit most from the direct transfer of know-how.

Users are assisted over the phone and benefit from the expertise and wealth of experience of Mitsubishi Electric specialists.

Expert assistance whenever I need it.
Key data at a glance.

**start 43Z**

- Machine body weight: 680 kg
- Machine height: 2200 mm
- Required minimum dimensions for doorways (W x H) in mm: 1030 x 2300

**start 43C**

- Machine body weight: 1140 kg
- Machine height: 2130 mm
- Required minimum dimensions for doorways (W x H) in mm: 1300 x 2230

**start 64C**

- Machine body weight: 1350 kg
- Machine height: 2100 mm
- Required minimum dimensions for doorways (W x H) in mm: 1500 x 2200
Details can be found in the assembly plan of the machine:
www.mitsubishi-edm.de/download

The EDM hole-drilling machine should be set up on a suitable hard industrial floor and preferably on a consolidated concrete floor. Any shielding that may be necessary in conformity with the EMC Directive is not included in the equipment supplied by Mitsubishi Electric.

Unloading by forklift truck – no unloading by crane!

Consumables

**Single-channel electrode tubes**

**Multi-channel tubes**
- 2-channel (different versions)
- 3-channel (different versions)

**Ceramic guides**
Diameters of 0.10–3.00 mm

**Collet**
Size from 0.3–3.0 (stainless)
- Collet 0.3 mm for 0.3–0.4 mm tube
- Collet 0.5 mm for 0.4–0.5 mm tube
- Collet 0.9 mm for 0.7–0.9 mm tube
- Collet 1.1 mm for 0.9–1.1 mm tube
- Collet 1.3 mm for 1.2–1.4 mm tube
- Collet 1.5 mm for 1.4–1.6 mm tube
- Collet 1.7 mm for 1.6–1.8 mm tube
- Collet 1.9 mm for 1.9–2.0 mm tube
- Collet 2.1 mm for 2.0–2.2 mm tube
- Collet 2.3 mm for 2.2–2.4 mm tube
- Collet 2.5 mm for 2.4–2.6 mm tube
- Collet 2.7 mm for 2.7–2.9 mm tube
- Collet 2.9 mm for 2.9–3.0 mm tube

**Drill chuck**
Size: 0.3–3.00 mm

**Rubber seal**
Size: 0.3–3.00 mm

**Power supply**
230 V/AC, 30 A

**Technical data and equipment**

<table>
<thead>
<tr>
<th>Machine</th>
<th>start 43Z</th>
<th>start 43C</th>
<th>start 64C</th>
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</thead>
<tbody>
<tr>
<td>Table dimensions in mm</td>
<td>910 x 650</td>
<td>920 x 680</td>
<td>1100 x 720</td>
</tr>
<tr>
<td>Travel (X/Y) in mm</td>
<td>400 / 300</td>
<td>400 / 300</td>
<td>650 / 400</td>
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<tr>
<td>Travel Z in mm</td>
<td>345</td>
<td>345</td>
<td>350</td>
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<tr>
<td>Max. electrode length in mm</td>
<td>0.3–3.0</td>
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<td>350</td>
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<tr>
<td>Max. workpiece height in mm</td>
<td>200</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Max. workpiece weight in kg</td>
<td>680</td>
<td>1140</td>
<td>1350</td>
</tr>
<tr>
<td>Overall dimensions (W x D x H) in mm</td>
<td>914 x 1020 x 2200</td>
<td>1567 x 1345 x 2130</td>
<td>1740 x 1530 x 2100</td>
</tr>
<tr>
<td>Power supply</td>
<td>230 V/AC, 30 A</td>
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**Toolbox** 1 (inclusive of standard toolkit)

**Electrode chuck** 1

**Ceramic guides** 1 each 0.8 mm / 1.5 mm

**Electrode tubes** 20 each 0.8 mm / 1.5 mm

**Sealant set for electrodes** 6 sets

**Dielectric filters** 2

**Deionising resin** 1 litre

**USB flash drive** 1