



## With MTS into the future

**To ensure that production machines do precisely what they are intended for, namely produce, pressure die-casting mold manufacturer PT. MEIWA MOLD relies on the many advantages of EROWA's MTS datum point tooling system.**

PT. Meiwa Mold Indonesia, which was set up in 2002, is a subsidiary of MEIWA CO. LTD., which is based in Japan. The corporate group includes further branches in China and Thailand. The company based in Indonesia's Jawa Barat province specializes in the production of pressure die-casting molds for cast aluminum engine parts. Various reputable firms such as Aisin Seiki, Yamaha Motor, Daihatsu Motor und many others commission the company to produce sophisticated casting molds.

### Competitive environment

Demands made on producers in South East Asia are constantly increasing. Automobile and engine manufacturers, in particular, focus on their core competencies and outsource many processes. This generates cost pressure, attracts competitors and thus the necessity to optimize processes and achieve faster delivery periods. Technologies which answer that need are called for.

With consistent process optimization, the subcontracting industry is able to realize rationalization and cost-cutting potentials and to cushion cost pressure. Continual quality improvements are also required: subcontractors must analyze their production processes step by step, identify faults quickly and specifically tackle their causes.

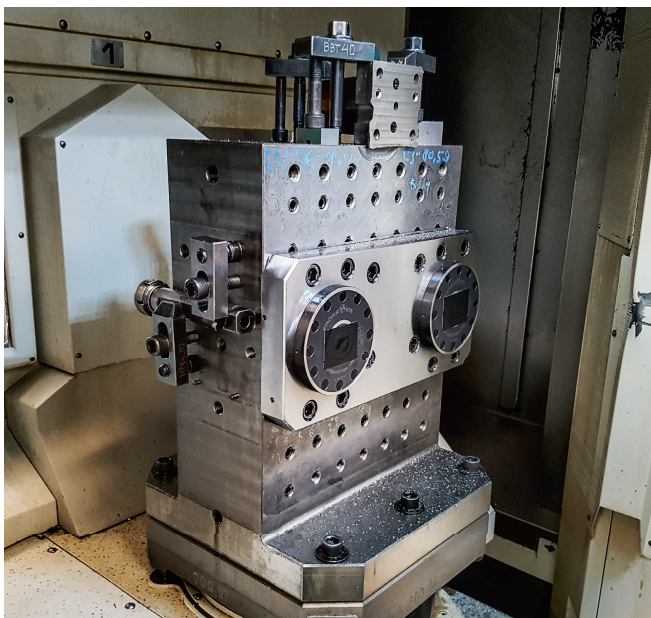






### Optimizing production

Pt. Meiwa Mold produces its electrodes on site. For this purpose, fairly large graphite blocks are machined at times: the average size of electrodes is 400x450x250mm. They serve to produce casting molds that consist of several elements and with which customers then manufacture aluminum pressure die-cast parts. Production can take up to 120 hours' EDM time!



For a long time, no standardized palletizing system was used to set up and reset electrodes and workpieces on milling and EDM machines. Setting up times were correspondingly considerable. Depending on the job in hand, machines had down-times of several hours.

This is precisely where the company intended to intervene: to remove as many set-up and aligning times as possible from the milling and EDM machines in order to reduce machining times. Ideally, jobs should be prepared and set up while the machines are productive.



### The solution is called EROWA

As of late, the EROWA MTS datum point tooling system has been in use as a universal interface both on the milling and EDM machines and on the measuring station. This allows for palletized workpieces and electrodes to be clamped quickly in their exact positions with precisely repeatable references.

The seven milling machines are equipped with MTS 4-fold base plates, MTS 6-fold base plates or MTS Single and Multi Chucks. A Hartford graphite milling machine is equipped with a special version of an MTS 2-fold base plate with an additionally integrated MTS Single Chuck to machine smaller electrodes.

On the five EDM machines, MTS 6-fold base plates and MTS Single Chucks are in use. The measuring station is also based on MTS. Examinations and in-process checks of dimensions and reference points are carried out quickly and without any problems, as are checks on and the preparation of pressure die-casting molds for repair or of graphite electrodes for re-use.



### Objective achieved

Pt. Meiwa Mold now profits from distinctly reduced reset and set-up times, faster machining times, an increase in production and improved capacity. Clearly improved precision results in less rework. Reliability, a simpler setting-up process and uncomplicated operation, flexible use depending on the range of parts thanks to the various clamping surfaces on the machine tables are further advantages. Average set-up time on the milling machines was reduced from half an hour to a few minutes.

The time saved by setting up for EDM even amounts to more than 60 %. In view of this positive experience, it does not come as a surprise that Pt. Meiwa Mold is planning to implement the MTS datum point tooling system in further production plants.

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