

make **THE CHANGE** to EAS

Periodical about QMC and
QDC changing systems
2008 - 19

NEWS AND EXHIBITIONS

Dear customer,

Time is still money and Just-in-time (JIT) manufacturing and SMED principles (Single Minute Exchange of Dies) are applied by more and more companies.

EAS offers solutions for the reduction of costly and inefficient mould & die change time.

The reduction of change over time from hours to minutes can be achieved in the injection moulding industry with the EAS QMC (Quick Mould Change) product portfolio and also in the metal stamping and vertical press applications with the EAS QDC solutions (Quick Die Change).

We have therefore developed and reviewed our QDC product portfolio and are proud to introduce this new range at the forthcoming Euroblech exhibition in Hannover Germany.

Simple hydraulic clamps and die lifters make it simple, safe and quick to change dies.

At the forthcoming Fakuma exhibition in Frederichshafen Germany and at the Equiplast in Barcelona Spain we will show our complete QMC program for the plastic injection moulding industry.

EAS supplied completely automated 15 ton mould change on 1300 ton injection moulding machines with driven rollers in the machines and on the tables, hydraulic mould clamping, automatic multi couplers for pre heating and cooling and the mould change tables, resulting in a mould change time of less than 60 seconds. That is fast!

We would like to invite you to visit our exhibition stands or our website to discuss what our solutions will do for you, to lower YOUR manufacturing cost



Harm Nijzink
President of EAS Holding BV



A 15t mould changed in less than 60 seconds



The World's No.1

Hannover Germany
21-25 October 2008
Hall 12 Booth B 26



Frederichshafen Germany
14-18 October 2008
Hall A1 Booth 1223



Barcelona Spain
20-24 October 2008
Hall P6 Booth A 131



QDC application



Colofon

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COMPLETELY REVIEWED QDC PRODUCT LINE

EAS has for many years also been active with time saving die change solutions on vertical presses. We have been reviewing our total QDC program with new developments and products from other companies with whom we work very closely.

automated die change solutions from one international source. A new 64 page internet catalogue with full details and in different languages is available and can be found under www.EASchangesystems.com/QDC on our new website. Furthermore a printed EAS QDC capability brochure is also available to show what our time saving solutions can do for you. Our hydraulic clamping line consists of simple adaptive single acting clamps fitting standard T slots, double acting adaptive solutions, traveling die clamps for large automotive stamping presses as well as integrated solutions such as three position clamps.

In this Change nr 19 we will highlight some of these new QDC products, one being air operated die lifters, and another die splitters.

This has resulted in a completely new product portfolio with a wide range of single and double acting hydraulic clamping cylinders, specially developed permanent magnetic clamping systems for vertical presses, an enlarged range of die lifters, pump units with controls, die change and handling solutions, tilting units, die splitters and inspection units, magnetic lifters and safety overload press valves. A complete range from simple to fully

AIR OPERATED DIE LIFTERS

In addition to our existing program of spring loaded and hydraulically actuated die lifters we are now introducing air operated die lifters, type DAR. These economic air operated die lifters use 6 bar air pressure and come with a manual air valve and quick air coupler. Using air as the power source is in many cases an economic alternative to hydraulics.

The die lifters are available as rollers and the bar is made out of aluminum. Standard sizes follow the metric DIN 650 T slot sizes T22, T28 and T36 as well as the imperial 1" T slot size.

Lifting capacities are:

DAR 22- 13kN/meter at 6 bar,

DAR 28- 17kN/meter at 6 bar and

DAR 36- 25kN/meter at 6 bar.

EAS also offers an aluminium die lifter housing for the DAR 28 die lifter size. Using this housing and the integrated die lifters one can design and built a die change table to suit your application. Of course EAS can also build them for you.



Air operated die lifters

In the left picture you can see an example using this solution, a manual die change table to easily and quickly change relatively large and heavy dies.



DIE SPLITTER



Die splitters or die separators make it possible to split and open dies, turn one half for maintenance and then join the two halves again. One operator can therefore split and service a die set in a safe, controlled and repeatable way. Available for die weights from 2 to 60 tons.

Complete catalogues on internet

On the EAS website you can go to the EAS coupler and EAS QDC catalogues page by page and download the information you wish.

DIE & MOULD HANDLING SOLUTIONS

EAS offers die splitters and inspection units to carefully handle expensive moulds & dies and to enable in house maintenance and repair. EAS also offers a wide range of mould & die handling systems for vertical presses and for horizontal injection moulding machines which can cope with all sizes and weights of mould. For example a simple set of pre rollers mounted on the front of the press on to which tools can be loaded by an overhead crane or forklift truck. The actual movement of the tool in and out the press takes place manually, travelling over the pre rollers and die lifters in the press bed.

Heavy tools can be moved to and from storage to the press with an electrically driven change car as shown in the next picture. Tool weight in this case 40 tons.

This battery powered single station car was designed to accommodate moulds that are used in thermoforming machines where the mould halves have to be separated to load on each side of the machine feedline. Available with 1 or 2 tons capacity.

To transport tools or to push them into presses we offer the Tugunit. In the picture it is used to tow a simple trolley carrying a tool to the storage area.

For automatic die or mould change EAS offers several solutions among these is the rail guided car carrying two dies with the tool change taking place at the side of the metal stamping press.



THE TRUTH AND NOTHING ELSE BUT THE TRUTH ABOUT EAS PERMANENT ELECTRIC MAGNETIC CLAMPING SYSTEMS

When comparing permanent electric magnetic technologies with each other one has to understand the background of why EAS is applying two different technologies. We have looked at the machines and applications which differ when comparing small to large machines

Pressmag SP with 47 mm square pole technology for machines up to 400 tons

Facts:

- 1) Smaller machines use smaller moulds with thinner back plates. With large square pole systems (for example 80 x 80 mm) the magnetic flux will pass through the thin back plate possibly interfering with mould operation. With the smaller 47mm square pole the magnetic flux remains concentrated in the thin back plate resulting in a higher holding force.
- 2) Smaller 47 mm square poles reduce the thickness of the magnetic clamping system to 38 mm, which is important on smaller machine to optimize daylight opening.
- 3) Small 47mm square poles are easier to position around centering and ejector holes resulting in a higher overall holding force than with large square poles.
- 4) EAS ensure the secure mounting of the magnetic clamping system by using the maximum number of fixing points available thus avoiding any frame deflection causing an air gap and reduced holding force.
- 5) EAS SP systems are suitable for maximum 150°C applications where other suppliers can only offer 110°C or 120°C

Pressmag HP with long pole technology for machines larger than 400 tons

Facts:

- 1) Large injection moulding machines are often fitted with a variety of big and medium sized moulds. Square pole systems are only working and creating holding force when a pair of poles (north and south) is covered by the mould. The EAS long pole technology is therefore used on larger machines because the magnetic flux is always concentrated into the mould, even when the pole is partially covered.
- 2) Using the long pole system the north and south pole surface areas are balanced resulting in a neutral condition with no stray flux.
- 3) The total frame is stronger than with large square poles as it is only necessary to machine the pockets for the long north poles, resulting in less deflection, no changes in air gap and reduced holding force.
- 4) Testing actual holding force of a large square pole system versus the EAS long pole system under the same conditions shows significantly increased holding force for the EAS long pole system.



Square pole PressmagSP



Long pole Pressmag HP

Ask for our 'TRUTH' document containing more detailed and truthful descriptions of EAS magnetic clamping systems and their benefits.

For addresses and other information please see our website:

www.EASchangesystems.com