Hydraulico developed a 1,600 ton press equipped for forging rails to UK-based Balfour Beatty Rail. The die sets for the press are specially developed for forging the end of train rails used for railway connections. The solution also included a complete robotized handling system, boosting the company’s present productivity of 3 rails per shift to an average of 3 rails per hour, with considerable time and energy savings.

MORE DETAILS on page 2

New Ideas?
Make Them Happen on the All-New Hydraulico DAP1200 Press

An innovative press table with movable forming cylinders, Electronic Shimming® technology and extreme flexibility are some of the features on this new press from Hydraulico.

MORE ... page 3
Rail Forging: A Complete Solution

A complete solution including a 1,600 ton press with specially developed dies, and an advanced computer-controlled handling and manipulating system boosts productivity for Balfour Beatty Rail International

When Balfour Beatty Rail needed to improve output of their train rail forging plant outside Nottingham, UK, they turned to the Danish press manufacturer Hydraulico for help.

With a proven record of delivering ingenious, “tailor-made” solutions for customers with special needs, Hydraulico seemed to be the right partner for the development of an all-new concept of rail forging.

A Complex Forging Process
Forging of train rail ends is vital for ensuring a smooth and safe shifting of rails in railway crossings.

The rail ends are forged in 3 successive forging operations, providing them with just the right shape for problem-free assembling and functioning.

Rails are pre-heated in a heat-box and immediately fed into the press.

Moving Fast Was Crucial
The handling of the long and heavy rail sections offered a special challenge to the developers at Hydraulico.

Manipulators Do All the Handling
The solution was the construction of a group of computer-controlled manipulators that could lift, turn and move the rails – quickly and accurately.

The 4 manipulators, as they were dubbed, operate in perfect coordination and manage up to three complete heating, feeding and forging processes effortlessly within an hour. Each rail is only heated once, saving considerable amounts of time and energy in the complete process.

In fact, all three press operations are conducted within 90 seconds, eliminating the need for extra heating operations.

Compared to the plant’s previous output rate of 3-4 forged rail per day, the boost in productivity is formidable.
Got New Ideas?
Here’s The Press
To Make Them Happen!

Hydraulico’s new DAP1200 deep draw press allows quick tool change, has movable forming cylinders and computer-controlled shimming, yielding unprecedented flexibility.

Imagine a press that can handle an almost unlimited number of forming tools, with easy access, complete control of the drawing, and a user-friendly yet sophisticated control system…

That’s exactly what the new Hydraulico DAP1200 press is all about.

The powerful 1,200 tonnes press offers extreme flexibility and allows designers and manufacturers to produce a wide variety of products, all on the same press.

Movable Cylinders
The press is equipped with a large (2,500 x 1,100 mm) table with three movable cylinders. Each cylinder can be controlled individually, and forming can always be placed in the middle of the table. More cylinders can be built into the press on request.

Built for the Future
The DAP1200 comes with advanced servo-controlled operation, a new control panel, and is prepared for set-up in a fully automated production process.

Electronic Shimming®

With deep drawing, material flow change significantly during drawing, often causing problems with wrinkles and cracks.

The Electronic Shimming® system developed by Hydraulico has two main components: a plate and a control unit. The shimming plate holds individual pockets or zones, each pressurized by hydraulic oil and each controlled individually.

The control system allows users to set up pressure zones on the plate, modify pressure during a part run and save the settings for future recall.

Electronic Shimming® reduces scrap rates, facilitates production control, and allows for quick and uncomplicated tool changing.

> Read more on: www.hydraulico.com
**contact us. we create the solution you need.**

**high-quality presses for any purpose**

With a record of more than 4,000 presses delivered to satisfied customers all over the world, Hydraulico presses have earned a reputation for reliability and quality.

The press product programme ranges from 100 to 5,000 tonnes - from simple stamping presses to complex triple-acting press systems. The majority of our presses are tailor-made to customer specifications.

The product programme also includes blanking presses, squeeze-forming presses, cold-forging presses and laboratory presses. Please contact us for further details.

**pushing the possibilities**

During the company’s more than 60-year history, Hydraulico has produced more than 4,000 presses for customers around the world.

Today, we are still ahead of competition, creating ground-breaking solutions in deep draw technology and production automation. By utilizing the most recent developments within hydraulics, robotics, software solutions, and computer-based automation systems, we deliver custom-designed, cost-effective production systems.

**the complete solution**

With a strong focus on our customer’s productivity demands, we develop solutions with a seamless integration of hydraulic, electronic and software components - the results are extremely efficient production lines, tailored to meet our customers’ production demands and quality specifications.

The Hydraulico solutions range from single die components to fully integrated manufacturing systems.

We have designed and delivered full production lines for a wide range of productions: sinks, bathtubs, automotive parts, containers, concrete mixers, wheelbarrows, kitchenware, and much more.

Whatever your specific needs, a Hydraulico solution will guarantee you optimum performance and short payback time.

- read more at www.hydraulico.com

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**product focus**

**simple and intuitive – and yet sophisticated**

*Hydraulico’s new control panels offer advanced functionality – with exceptional user-friendliness*

Ease-of-use has been a major goal for developers at Hydraulico in the process of programming and design of the new control panels.

The two new operator panels – built into either a Siemens or an Allen Bradley controller – offer a lot of new features and technologies. The first impression, however, is the all-new graphical user interface.

Unlike the more common “linear” control interfaces, these new control panels let the operator review and change the operation commands and values in a few, easy steps.

**graphics display press operation**

At the same time, the graphical interface helps the operator. All steps in the cycle are displayed and it is easy to locate problems or wrong setting during the operation. The change setting is done directly from the same picture.

The new panels come in a Siemens (left) and an Allen-Bradley version – with almost identical functionality and design.

**smooth operation delivers higher output**

Another Hydraulico speciality – the slide has very smooth and fast movement up and down. The speed changed is control by s-curves formulas and this makes the press more productive due to lower cycle time.

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Hydraulico as

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