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## Editorial



Felix Truninger

Dear Readers,

The 11<sup>th</sup> issue of our News continues the tradition of gazing into the far distance. To be more precise, to a place where our products are being used. So we have prepared an introduction to England's largest steel processor – and one of its largest projects at the moment, the expansion of London's Heathrow Airport. Another report focuses on Schmolz+Bickenbach, which is the first company in the world to install the new modular magnet control from TRUNINGER. The steel specialists from Düsseldorf will not be the only ones to gain in efficiency, flexibility and safety in material handling in the future with the help of our world innovation.

There is also news from our company's headquarters: we dedicated our new office building at the end of 2003. Besides the additional space that has been gained and the more pleasant working atmosphere in a modern building, the proximity to the production and assembly facilities is proving to be a distinct advantage.

Sincerely yours,



Severfield-Reeve Structures

## Recipe for success: welding instead of rolling

**A state-of-the-art, automatic production line for the manufacture of welded beams has been running in combination with a TRUNINGER magnet lifting system since December 2003: creative technology which enables even faster response to customer demands.**

The company Severfield-Reeve Structures is located in Dalton in the English county North Yorkshire. Around 1,500 tonnes of steel are processed into customer-specific steel profiles by 336 trained employees at eight production lines every week.

Severfield-Reeve Structures is thus the largest steel processor in the UK. This leading position was achieved on the basis of good ideas and state-of-the-art manufacturing methods.

Severfield-Reeve Structures is one of six companies belonging to the Severfield-Rowen Group. The Group's main activities focus on the development, manufacture and erection of steel constructions. The specialists from Severfield-Rowen plan and build

car parks, commercial offices, hospitals, shopping centres, warehouses and industrial buildings, but also work on prestigious structures such as bridges, stadiums and airports.

**Severfield adopts TRUNINGER machinery for the large project at London Heathrow as well.** In 2001, the company commissioned an innovative plate processing line and equipment so that they could produce beams in any shape or length – even in extremely small quantities. In March 2001, TRUNINGER delivered two lifting magnet systems for the plate line in the preparation zone of the production facility. So equipment

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from TRUNINGER is making a contribution to the realization of Terminal 5 at the new, modernized London Heathrow Airport. Read more about the airport expansion on page 2.

The plates are transported magnetically either to the web or flange profiling machine. The plates are cut into the correct formats, and the surfaces are cleaned for the following welding process as the next step.

The beam web and both flanges, which can vary in thickness and dimensions, are placed in the correct position at an assembly station. The first welding line welds the upper side of the three components together, while the underside of the beam is permanently connected in the second welding machine. If necessary, the beam can be turned or even bent in a further process. Then comes the desired surface treatment.

**Our magnet systems are a part of important strategic investments.** In 2003, Severfield-Reeve Structures took yet another strategically significant step and invested in what is undoubtedly

the most modern welding equipment in Great Britain. It can handle extraordinary solutions such as welded beams of up to 23 metres in length. Severfield-Reeve Structures ordered a TRUNINGER magnet system for this new production line as well. The multi-functional design of the TRUNINGER magnet beam is what makes the diversified material dimensions at all possible and is an important link in the future-oriented production process at Severfield-Reeve.

The magnet system assures the continuous feed of the three basic beam elements to the automatic welding machine. The beam comprises essentially a primary beam with five sub-beams. The two outer sub-beams to each side can be moved, while the middle beam is fixed. This arrangement secures the required longitudinal setting of the magnet position for the various material lengths. Each of the sub-beams is equipped with three rectangular magnets; the two outer magnets are suspended so that they are laterally mobile. The middle magnet, which is installed in a fixed position, can be rotated by 90°.



Multi-functional TRUNINGER system for the new production line.

## LONDON HEATHROW AIRPORT



### Europe's largest construction project in steel

**British Airport Authority's Terminal 5 is one of the largest construction sites in Europe at present. The Terminal has been designed as a multifunctional traffic hub. It includes the new passenger terminal with two satellite buildings, a control room and a train station with a connection to the Piccadilly Line on the London underground.**

The British government approved the plans for the expansion of London's Heathrow Airport in November 2001. By adding T5, Heathrow will be able to maintain its position as Europe's leading international airport – and acquire the urgently needed infrastructure for the future demands in international air travel. T5 will be able to handle 30 million passengers a year on their way to destinations around the world. According to the planners, the work on "the most exciting and most attractive airport" will be completed by spring 2008.

**Masterpiece in steel.** Severfield-Reeve has been involved in the T5 project for some time. Their engineers played a decisive role in the construction of the main building – from the concept phase to the design and detail planning stage to their contribution to the construction itself. Severfield-Reeve will process some 40,000 tonnes of steel for Heathrow at their production site in Dalton, surface-coated products making up about 50% of the volume. The Severfield-Reeve production facilities and their associated companies will together supply structural steel products totalling 70,000 tonnes. An enormous project which demands detailed planning, high production capacity and outstanding logistics.

## V A U L T

### The prize: iPod, the cult device from Apple



If you can crack the «vault», you will have a chance to own the original rather than one of the many copies. The compact, super-light iPod is the perfect link between the worlds of computer and music.

The digital music player iPod can be used with stationary stereo speakers or on the road with the player's headphones. No matter which you choose, thousands of songs are available at your fingertips. But the iPod can do a lot more than just play music. For example, you can use it as an address book or notebook, as a diary or for games.



#### How to crack the vault.

- 1 Log onto [www.truninger.com](http://www.truninger.com).
- 2 Select the rubric vault under "Lifting Magnets".
- 3 Crack the vault with the code 3998.
- 4 Have fun, and good luck!



**Many safecrackers, one winner.** The vault with the multi-functional Sony camcorder DCR-IP220 and a Zeiss objective lens was cracked. Once again, a large number of potential safecrackers found their way via the Internet to the TRUNINGER vault. Thank you for your efforts. The work was especially rewarding for one visitor. The camcorder went to **David G. Cox, ASD metal services, Leeds, UK**. Congratulations to the lucky winner; we hope he has a lot of fun with the Handycam.

The new modular magnet control unit from TRUNINGER

# Control technology of the future

The most important technological trend in state-of-the-art control technology is the increased use of decentralized PC-based control units which have been connected with one another in a network to form a functional unit.

In future, the computers for warehouse management, the crane, the scales and the lifting equipment will more and more frequently be linked to form a portal robot for magnetic cranes. The result: sophisticated handling solutions with increased efficiency for every aspect of material handling.

If products from various manufacturers are to be easily linked into a single function unit, open control systems with interfaces which are compatible anywhere in the world are a must. That is exactly what TRUNINGER has accomplished by developing the magnet control module

enabling the integration of many new functions and increasing safety.

**Remote control, measurements and maintenance.** It is becoming more and more important throughout the industrial world to be able to query and control machines and devices at any time from a central location. Remote control and remote maintenance assure high availability, while simultaneously increasing efficiency because competence is bundled in a service centre and specialists at this one location can monitor and intervene in systems around the world.

The advantages of such a system were previously not possible for magnet controls because they are mobile installations on the crane bridge where there is no connection to a network. So we have equipped the control module SmartPick™ with a Bluetooth radio interface for direct, wireless communication. Now data can be fed into a landline network, simply and at low cost, by the mobile control unit via a standard modem, laptop or wireless phone and then transmitted directly to the TRUNINGER service centre.

**Comprehensive protection for people and machines.** The highest priority for automated transport processes is safety. This is all the more the case wherever people work in the immediate proximity of the handling area, or where loads are transported using production machines requiring high capital investments.

SafePick™ is the world's first parallel computer module for magnet control units. It can be used wherever protection of people and equipment must be realized flexibly and efficiently. SafePick™ monitors all of the functions of the magnet control, working in the background as a so-called slave.

SafePick™ detects every malfunction relevant for safety and automatically takes over control of the system as the so-called master in such cases. Thanks to this innovative design, the safety class of the magnet control is increased from one to four (as classified by EN 954-1).

**Maximum flexibility thanks to modular construction.** Thanks to a standardized building block system, the three different modules, SmartPick™, SafePick™ and PowerPick™, can be used in any combination to create a magnet control unit meeting every customer's specific needs within a very short time. Moreover, the modular design assures flexibility for current and future production requirements. The use of tried and proven components can ensure minimum technical risk for equipment as well as maximum operational safety.



The new magnet control comprises three standardized modules: SmartPick™, PowerPick™ and SafePick™.

SmartPick™. It is now possible to connect the magnet control to the crane control using CAN or Profibus instead of the usual parallel wiring of each individual function. In addition to lowering installation costs, the technique allows simple exchange of information among the networked control units,

SCHMOLZ + BICKENBACH



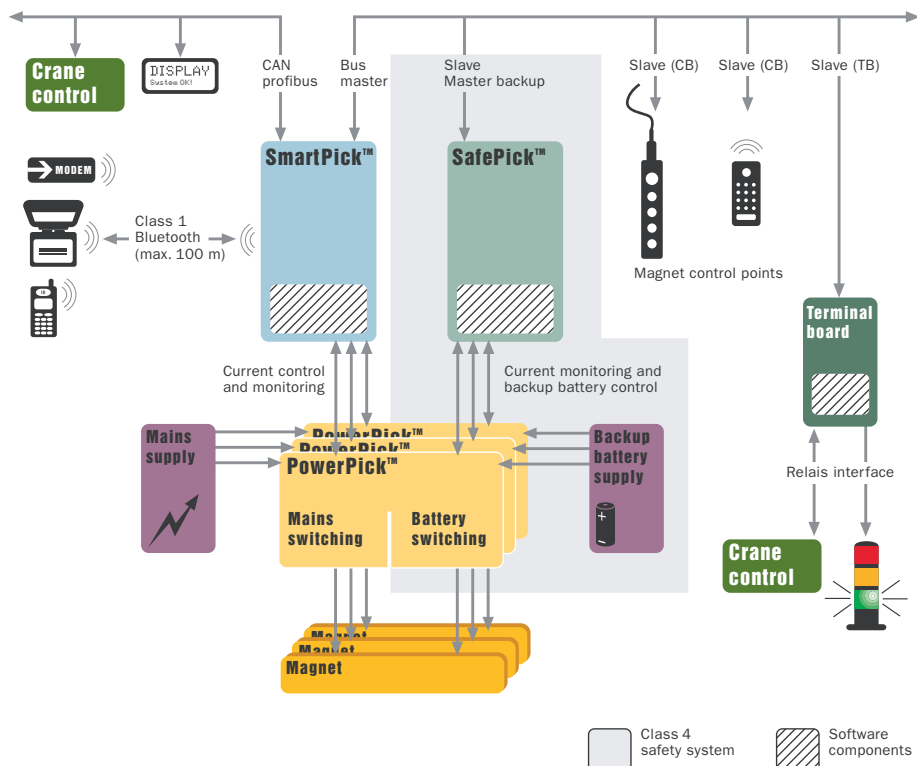
## New magnet equipment with smart control

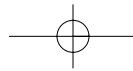
The company SCHMOLZ + BICKENBACH BLANKSTAHL GmbH in Düsseldorf is one of the first companies to install the new modular magnet control from TRUNINGER.

The steel specialists from Düsseldorf stand for precision in steel processing and offer to their customers an especially wide and deep range of high-quality steel products. One of their strategic business fields is the expansion of bright steel production. More than 1,000 tons of steel in over 600 individual consignments are loaded at the central warehouse and the branch warehouses every day! Output of this volume demands efficient warehouse and distribution logistics. At the beginning of 2004, TRUNINGER delivered two magnet systems for the handling of tubes with a length of up to 14 metres. The pole surface can be adjusted to the load by the use of retractable poles integrated in the magnets. Lowered poles grip individual tubes while the entire pole surface can be used for tubes with a greater diameter or for bundles. Both of the magnet systems are controlled by the tried and proven TRUNINGER magnet control QuickPick™.

**Advantage from flexible control.** Four new TRUNINGER magnet systems with modular control have been in use in the central warehouse in Neuss since August. They are used primarily for the transport of steel bar bundles. The two magnet groups are joined by a telescoping guide beam. The distance between the magnet groups can be adjusted to the material length by moving the crabs. The magnet design makes it possible to lift and safely transport up to three bundles of steel rods at once. By the way, the Downcycle Degauss system built into the SmartPick™ dissipates completely the magnetism induced by magnetic handling.

## Overview of the new controller generation





TRUNINGER in modern office block

## Fresh breeze

**The ambitious goal – planning, construction and moving in within nine months – was achieved: we were able to celebrate Christmas 2003 in the new office block. Furniture and other furnishings were transported to the new rooms, which still smelled of fresh paint, in the following week.**

The demands made on a modern office block have undergone a massive transformation in the last 30 years. A pleasant working

atmosphere and individual design of the workplaces are possible only in bright, spacious rooms. Ergonomic design is an essential factor in the arrangement of the PC and CAD workplaces. Network technology plays a greater role in dictating the technical installations. Maintaining a pleasant room temperature is only possible through the use of modern heating and air-conditioning technology.

**Closer and less expensive.** All of these considerations led the management at TRUNINGER AG to decide that it was time to build a new office facility. A key objective was to locate the administration in closer proximity to production. The logical solution was to add an annex to the existing production and assembly facility at TRUNINGER. Communications paths between office and production were shortened, and at the same time it was possible to realize a low-cost variation.

**Everything has been different since January 2004.**

The move had yet another benefit: it was easier to get rid of accumulated ballast. Following a short adjustment phase, the new infrastructure can now be used to its full advantage.

## EMPLOYEES



**Daniel Ischi, technical clerk for electromechanics.** I successfully completed my last two years of training as an electromechanic at TRUNINGER. After my training, I was able to acquire additional professional experience as a QP control builder in the electrical workshop. Further internal training qualified me to work as a control inspector, so I was responsible for the faultless functioning of all of the QuickPick control units.

Since February 2003, I have been working in the technical office of the electrical engineering department. My tasks including the preparation of the electrical diagrams and parts lists for magnet control units, the issue of production orders for control construction and the scheduling and capacity planning for the electrical workshop. Finding and purchasing electrical components which are not kept in stock provide variety in my job.

Since the beginning of the year, I have been responsible for the project work on the new TRUNINGER control unit SmartPick. The implementation of a new control system demands great commitment and intensive contact with the development department. All of the electrical diagrams, parts lists and production plans must be recreated and carefully thought out.

In my spare time, I play football in our village club or sit in front of my computer at home and study. At the moment, I am working hard preparing for the admissions test for in-service studies of commercial informatics and hope that I will be able to start school in October.

### Wine around the World

Our thanks to all of you for your enthusiastic participation in our contest in Magnet News Issue 10. The 12 premium wine sets for the most sophisticated tastes were won by:

1. **Australia:** Chris Schafferius, OneSteel Steel + Tube
2. David Lipscombe, Bisalloy Steels
3. **Brazil:** Ricardo Gandolpho da Rocha, CSN
4. **Germany:** Bernd Balkow, ThyssenKrupp Eisenbahn & Häfen GmbH
5. Falk Grasenack, Kranbau Köthen GmbH
6. Peter Suhrer, Stahlwerk Annahütte
7. **France:** Bernard Castaing, Société SETEM
8. **Luxembourg:** Nico Heisbourg, SNCFL
9. **Switzerland:** Bernhard Werlen, Acifer Visp
10. **Slovakia:** John W. Pavia, U.S. Steel Kosice
11. **Spain:** Alejandro Garcia Alvarez, Grupo Comercial de Laminados
12. Ramon Ignacio Fernandez, CELSA

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