

LASERPOINT

The Laser Magazine by eurolaser

15th edition / August 2013



LIVESCALE - Architectural Scale Models

Precision - Passion - Experience

Sawing is yesterday's news!

MDF furniture and trade fair construction

eurolaser international: even greater customer proximity

Applications Centres now also in Portugal/Spain, France and other countries



Strike out in a new direction!

Dear readers, customers and partners,

In this fast living times we are again and again confronted with new technologies, trends and themes. The versatility of laser technology as well as the growing economic internationalization poses us with new challenges every day. At the same time we are always amazed by each exciting new application and market, regardless on which place in the world we find them.

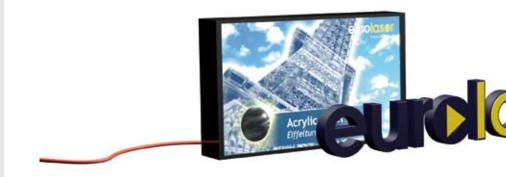
Sometimes we are asking ourselves:are we on the right track? ...are we swimming on a wave of common titles and theses of the day or do we make the wave rolling ourselves?

You will ask yourself: What has that to do with eurolaser concretely? You will find a simple explanation reading between the lines of our current laser magazine. Because above all, we are constantly facing unknown people and challenges in this one world as we present our technology - laser material processing - which often requires a high level of explanation and persuasion. The export percentage of our laser technology produced in Northern Germany has now increased to over 60%, across all industries. In this, we are aware of our far-reaching responsibilities in regard to environmental protection, sustainable business relationships, technological advancement and social commitment. This year, the launch of our eurolaser.tv and a whole new visually-animated trade fair event show aim to contribute to more transparency and a better understanding. Let yourself be persuaded by clear facts and motivated people and dare to strike out in a new direction.

We hope you will find a lot of food for thought when reading this magazine and wish you a successful trading year 2013, not only based on the motto: faster - higher - further.



Wishing you every success, M. Kluczinski



eurolaser.tv

OUR NEW ONLINE SHOW ROOM ON THE INTERNET

or those who can't get enough of laser, there is now eurolaser.tv - the video portal all about laser technology.

Laser are fascinating and offer a wide range of possibilities as a processing tool. How could you demonstrate their varied fields of application better, if not through videos? We have now summarised our comprehensive film archive on a dedicated website. Browse through our video range and be inspired by the world of laser technology. Bring the eurolaser system technology directly to your workplace or your home. eurolaser.tv is specially optimised for videos and is also suitable for mobile use via smartphone or tablet.

A video is worth more than 1000 words

Internet users interested in laser technology want to first of all know how our innovative laser systems work and how they can be used - and this is quite a lot! Over time we have filmed many application examples, but the range of possibilities is growing daily. It follows that there are still a lot of opportunities

to find new applications and present them to you via video. So it pays to make frequent visits to the site!

This provides a good overview to all those interested in eurolaser technology, whether your own application can be implemented with a eurolaser system and which advantages laser shaping can bring to them. Users can also experience our technology in action. In particular, our videos demonstrate - simply and comprehensibly - the benefits of numerous automations and options that facilitate the daily work our customers and increase the efficiency of their laser systems.

"It is now quick and easy for our customers to get an overview of the many different materials and application options. Our aim for the future is to represent topics, especially complex ones, as simply as possible, so we can present this innovative technology in an easy to understand way. eurolaser. tv aims to provide informative entertainment on the topic of laser technology", so Thorsten Brandt, Marketing Manager at eurolaser.





Find the right video quickly and easily

Using the site is very easy and intuitive for everyone. A clear menu structure ensures that it is easy to find videos on specific topics. We have created a pre-selection and associated this with the appropriate videos. They can be sorted by markets (applications), the material to be shaped, the desired processing mode, or our eurolaser products. And if you still can't find the right video straight away, you can use your own search terms.

Each video features a brief description with topic-specific explanations. This gives you valuable information in relation to the topic on display. If that is still not enough, you can get further information by clicking. Any questions can be sent directly to us.

Laser technology at the click of a mouse

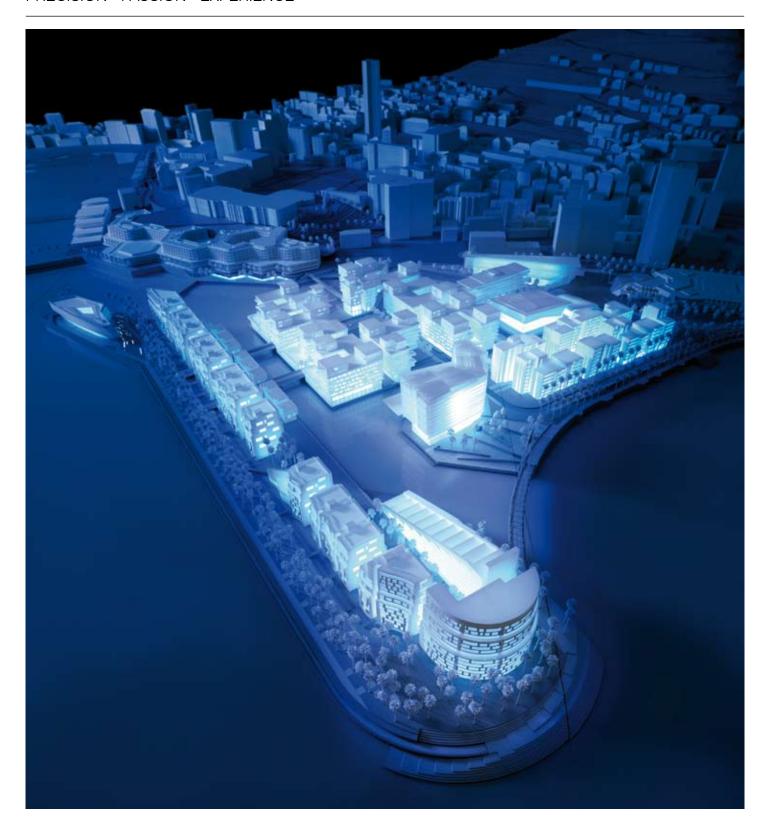
All videos are available for download at the maximum resolution or can be forwarded to colleagues or friends with a click. Either by email or through your personal account on Facebook or Google+.

"Using eurolaser.tv, we can bring the fascinating world of laser technology closer to customers and introduce them to the wide range of applications", so Thorsten Brandt. "We hope you enjoy eurolaser.tv and look forward to your feedback."



LIVESCALE -Architectural Scale Models

PRECISION - PASSION - EXPERIENCE







ounded in 1978 by Sami Bou Habib, LIVESCALE LLC has always been keen to provide highest quality architectural scale models for clients around the world and specifically architectural consultants, real estate developers, urban planning groups and city authorities. No matter how complicated the ar-

folio that includes over 2,000 scale models for cities such as Monaco, urban plans for provinces in Saudi Arabia, Dubai airports, residential and commercial projects, museums, and towers.

Today, based in two manufacturing workshops, Dubai and Beirut, the experienced teams

laser systems. Since we are considered to be the best in making architectural scale models, we have never accepted using any laser systems."

The company started as a pure manual craft when models took much more time than they do today. In the beginning of the 90s LIVESCALE started using

system XL-1600 in addition to M-1200 by eurolaser.

Sami Bou Habib: "Today, the model making business is dependent on the evolution and precision of laser systems. In this, we trust our partner eurolaser for keeping us updated with the best quality systems on the market."





chitectural design is the LIVE-SCALE team has always been up to the challenge, and for this they are now recognized as the model making who can execute any architectural design.

LIVESCALE has been continuously expanding with a portmanufacture, deliver and install scale models around the world for their clients.

Sami Bou Habib, Founder of LIVESCALE: "The driving elements of the business are our skilled and experienced model makers using the most precise

laser technology for cutting and processing building elevations to make models out of them and soon enough, it shifted to using eurolaser systems. Amongst few scale model makers in the world, LIVESCALE has the biggest and highest quality laser





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Prize for innovation and training 2012

EMPLOYERS' ASSOCIATION HONOURS EUROLASER



The prize for innovation and training, awarded by the Arbeitgeberverband Lüneburg-Nordostniedersachsen e.V (Employers' Association for Lüneburg-North-East Lower Saxony), this year goes to eurolaser. The company's high level of innovation, widerange of training opportunities and active support of the next generation were the decisive

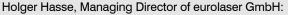
factors in winning this award. We are delighted to be given such recognition.

Innovation and well-trained staff are key factors for success in the competitive international market. Promoting these core elements is therefore seen as highly important at eurolaser, and is, amongst other things, a central focus of its business activities. The company thus hopes to ensure continuing economic success for the future. From the start, eurolaser has been committed to supporting young people, and for this reason offers a broad range of training opportunities, with either a business or a technical focus. For example, in collaboration with the Berufsakademie Lüneburg (Lüneburg Vocational

College), it is possible to take a practical course in business administration leading to a recognised qualification.

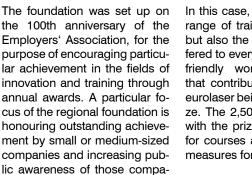
The foundation of the Arbeitgeberverband Lüneburg-Nordostniedersachsen saw this as a reason to honour eurolaser with the prize for innovation and training for 2012.





"For us, it is important to provide the trainees with a harmonious but challenging environment right from the start. Our aim is to provide them with as thorough a preparation for working life as possible, so that our trainees are later able to draw on considerable experience, and can therefore be integrated as quickly as possible into working processes. We de-

liberately give trainees responsibility for particular activities or smaller projects as soon as possible, so that they develop the ability to work in an independent, structured manner. We are proud that we are able to employ a large number of trainees in our company, and that we are able to take many on as permanent employees once they have completed their training."



nies.

In this case, it was not only the range of training opportunities, but also the level of support offered to every individual and the friendly working environment that contributed significantly to eurolaser being awarded the prize. The 2,500 euros that come with the prize will entirely used for courses and further training measures for the trainees.





eurolaser provides training for the following professions:

- Office administrator / clerk
- Office communications clerk
- Mechatronics technician
- Warehouse logistics specialist
- Industrial clerk
 - Dual course of study in business administration leading to a recognised qualification

Be careful when lasering PVC foils!

WHICH RISKS AND OPTIONS ARE THERE?

Polyvinyl chloride (PVC) is one of the most widely used plastics altogether and we regularly receive enquiries about whether it can be cut with laser. You can find out here where you have to pay attention and how you can cut PVC foils without worrying.

Cutting polyvinyl chloride foil Use a cutter tool head instead of laser

Polyvinyl chloride (PVC) has become a mass market plastic because it can be produced so cheaply and can be used in a diverse range of applications and in the meantime constitutes around 1/4 of the whole plastics market.

It is available in two main forms, hard PVC-U (unplasticized) and soft PVC-P (plasticized) that is made more elastic by the addition of softeners. This plastic is found more and more frequently in the advertising industry where it is used for decorative and labelling foil.

Although PVC can in fact be cut with laser, the thermal process produces hydrochloric acid and toxic fumes. For this reason, we advise you not to use laser for cutting PVC in order to prevent corrosion of your laser system and to ensure the safety of the machine operator. Instead, make use of the high degree of flexibility offered by the eurolaser systems with their optional expansions including mechanical tool heads when processing PVC. These allow the use of various knifes on your laser system.

Material information

PVC is flame-retardant and can be produced in both a transparent as well as a coloured form. PVC-U is characterised by its high mechanical strength and hardness. This form of PVC is often used in the building and electrical industries and in mechanical

engineering. The addition of softeners gives PVC-P an almost rubber-like elasticity and therefore excellent damping properties. It is used mainly in advertising technology, the packaging industry, medical appliances and the photographic industry.

eurolaser systems for cutting PVC foils

- Use of knife-cutters and laser on one system
- Optimum flexibility in production
- Ideal for the processing of different materials
- Perfectly accurate cutting of the foils, in particular printed materials thanks to an optical recognition system



Sawing is yesterday's news!

MDF FURNITURE AND TRADE FAIR CONSTRUCTION

MDF, made from wood fibres and resins, is enjoying increased popularity. This inexpensive material is used, for example, in the manufacture of furniture or for trade fair constructions. Today, we show you how much time you can save by laser-cutting MDF, as opposed to mechanical machining processes, using our illustrative example.

The mechanical processing of wood is normally connected with time-intensive pre-work or re-working. The material has to be fastened, tools sharpened and the work area swept of shavings and dust. What benefits do lasers provide when processing wood? Using our illustrative example, we show you how unusual seating units can be made with MDF boards.

MDF – The material for furniture, trade fair and interior design constructions

MDF (Medium Density Fibreboard) is a very inexpensive material. As opposed to simple particleboard, it boasts almost twice the amount of flexural strength. The high density of the boards necessitates a high level of wear and tear in machining processing methods. What is less well known: MDF is ideal for laser processing!

In our example, we cut and assembled an unusual chair from MDF in 6 mm thickness. Using the simple insertion principle and the precision of laser cutting, there are no limits to your imagination. This combination is primarily interesting for the manufacture of furniture, for trade fair, shop fitting and interior design construction. Architects and designers around the globe are using MDF to make their ideas reality and laser technology is increasingly being used for manufacturing.

Simply lay out and cut

eurolaser laser systems are specially designed for industrial manufacture. The unusual large working areas mean that even large items can be cut from the whole MDF board.

Send your design directly from your graphic software to the laser system. It doesn't matter whether you want to make individual items or entire series. The MDF does not need to be fixed to the laser system, nor do you



need to clean up after cutting. The cutted pieces can be removed directly without post-processing and simply fixed together. It couldn't be more easy!

In contrast to milling and sawing, the laser system is suitable for delicate cutting, and therefore the ideal machine for our furniture application. Excellent cut edges and minimal cutting gap ensure very little wastage. The software-controlled organisation of the individual pieces (nesting) means you can increase the already very economical production. As a result, your laser system will quickly pay for itself.

In general, wooden boards of up to 25 mm thickness can be

processed. Please note that the quality of the raw material is the basis for a good end product. The colouring of the cutting edge is mainly caused by the glues and resins in the wood. Selecting suitable wood varieties can minimise the colouration if desired.

Should you have any further questions about processing wood, just give us a call. Our experts will be happy to help!



Laser cutting MDF:

- Large workpieces of up to 3210 x 3200 mm can be processed in one piece
- No tool wear and tear
- Contactless processing no inserting or fastening necessary
- Work-intensive cleaning of the working area is eliminated as no chips are created
- Very precise cutting
- Delicate and almost radius-free inner contours possible



Lasering of acrylic glass

How to realise optimal results?

THE DIFFERENCES BETWEEN GS AND XT ACRYLIC



In the processing of acrylic glass (PMMA) in the advertising industry, lettering sector and sign making field, the calibre of the cutting edge is often the key indicator in terms of material quality. However, many laser users do not know that the way you store the materials can have a significant impact on the quality of the edge after it has been

laser cut. This is why we would like to introduce to you the two main varieties of acrylic glass and also the optimum storage conditions below.

Firstly, not all acrylic glass is created equal. As a synthetic, thermoplastic, glass-like plastic, poly (methyl methacrylate) (PMMA) is also known as Plexiglas® or Perspex®. A distinction is made here, depending on the manufacture, between cast (GS) and extruded (XT) acrylic, whereby these two alternatives display certain differences in laser shaping. Selecting the right material means you can ensure the smooth running of your production activities in advance.

In the manufacture of cast acrylic (GS), the liquid raw material is poured into a mould like a kind of raw mixture. In this context, glass sheets are often used for contouring. This casting process serves to harden the material and the technical jargon for it is ,polymerisation'. This version of acrylic primarily boasts excellent surface quality.

The benefits of CO₂ laser shaping cast acrylic glass:

- Optimum cutting edges without burrs
- Excellent engravings with different colours to the engraved areas
- Improved effect with contrasting laser engravings

The benefits of CO₂ laser shaping extruded acrylic:

- lower thickness tolerances compared to the cast alternative
- a positive impact on the accuracy of your product
- cheaper to procure and thus, more economical use in mass production



Extruded acrylic (XT), however, is made from granules which are heated using what is known as an extruder by means of rotating screws. The resulting acrylic melt is pumped through nozzles at the end of the extruder and shaped into the desired form.

In general, you can process both types of acrylic glass with CO2 lasers as there is no wear and tear tools, unlike with alternative shaping processes such as sawing or milling.

Knowing about the advantages and disadvantages in the field of laser shaping means you can use the material in a targeted way, depending on your needs.

Below are some examples of the positive impact of CO₂ laser cutting technology on your production:

- · polished cutting edge without post-processing
- · no clamping necessary to the material
- · engraving and cutting in one step
- · smooth extraction of the cutting gases
- · cutting of printed materials using an optical detection system

Therefore you can meet your customers' growing needs for customisation and exclusivity and increase the efficiency of your production at the same time.

But which specific effects can incorrect storage have on acrylic processing and how can you counteract this?

First, ensure that the the storage space is dry and protected from the weather. Acrylic glass is hygroscopic to a certain degree, i.e. it absorbs the moisture contained in the air. This evaporates abruptly during the cutting process and creates unsightly blisters on the cutting edge. Especially in the winter months, storage rooms can quickly become damp at colder ambient temperatures; this is why we recommend storing acrylic sheets in a well-ventilated place with consistent temperatures, at about 15°C, and covering it with thick cardboard, a water-repellent cloth or film where possible. You should also not expose the material to direct sunlight as the protective film can become porous with excessive heat development. In addition, very long storage times can also have an impact on the protective film as this can begin to shrink over time and may no longer be detached without leaving a residue. In the worst case scenario, this leads to the material becoming unusable.



If you have leftover plastic waste in your production, simply let us know. We will be happy to pair you

up with a well-known partner who recycles this valuable material. Do your part to protect the environment and save money! Our applications experts will of course be happy to help with any other questions!











eurolaser international: even greater customer proximity

APPLICATION CENTRES NOW ALSO IN PORTUGAL/SPAIN, FRANCE, RUSSIA, GREECE, SKANDINAVIA, USA, THAILAND, CZECH REPUBLIC, SLOVAKIA AND TURKEY



Closer to your customers in the international market! With this motto, eurolaser reinforces its presence in other European countries and installs additional Application Centres. Our customers and interested parties benefit from shorter distances, lower travel costs and quicker response times.

The Application Centre is eurolaser's centrepiece. Over 10,000 material samples and constant new applications enableknow-how to develop here to the benefit of our customers. Additional Application Centres in Spain/Portugal, France, Russia, Greece, Scandinavia, USA, Thailand, Czech Republic,

Slovakia and Turkey are now being opened.

The aim is clear: greater customer proximity!

eurolaser works together with prestigious companies which are available as contacts for customers and interested parties on site.

The advantages for customers are clear:

- shorter distances
- reduced travelling costs
- quicker response times

The aim is clear: greater customer proximity! eurolaser works together with prestigious companies which are available as contacts for customers and interested parties on





The eurolaser partners provide optimum on-site support for customers:

Samples

Our partners have their own eurolaser demonstration system. This enables them to carry out demonstrations quickly and professionally and thus provide the customer with detailed data regarding the processing of material.

Live Demonstrations

Interested parties can assess and test the laser systems live on-site in the Application Centres in order to establish the optimum solution for their application and to be won over by the eurolaser technology.

Technical Support

Our partners have excellent technical knowledge which is ensured by close contact with the eurolaser headquarter and regular training sessions. All questions concerning the eurolaser system technology are answered quickly and expertly.

Service

Highly trained technicians ensure that your laser system is in perfect condition. Only replacement parts tested by eurolaser are used for repairs.

The following prestigious companies will provide eurolaser with customer service support internationally.

eurolaser Russia

The company We R.Supply supports the eurolaser GmbH for its Russian customers. We R.Supply was founded in 1995 and it is one of the biggest providers of outside advertising related products.

eurolaser Scandinavia

The long term partner Zünd Skandinavia is the official Zünd distributor for the whole Scandinavian region. With over 20 years of experience, Zünd Skandinavia is a wonderful partner. At present the company is providing support to more than 60 satisfied eurolaser customers.

eurolaser Portugal / Spain

Hejamara has undoubtedly been the biggest importer of machines and tools for metal working in the Iberian area for 6 years. Hejamara will be providing support for eurolaser customers in Spain and Portugal from now on.

eurolaser Greece

ZapaDel Ltd. provides reliable support for customers in Greece. The company employs excellent technicians who provide active support for all questions concerning the eurolaser system.

eurolaser France

MATRELEC is a specialist for packaging machines and special machines. We are delighted to have gained a partner for France in the shape of this company.

eurolaser USA

Zund America, Inc. looks after the North American region. Our partner consists of an extensive experience in the market for cutting plotters and has been working closely with eurolaser for years.

eurolaser Turkey

For our customers in Turkey, we were able to win over Mat Kağıtçılık Sanayi ve Ticaret A.Ş for eurolaser. Our Turkish partner is expert in the printing and packaging industry and has extensive service and sales experience with our system partner Zund.

eurolaser Thailand

Founded in Bangkok in 2002, Zund Systemtechnik (Thailand) Co., Ltd. is known as a reliable and competent contact partner for cutting solutions. Our partner in Asia is distinguished by its technical knowhow of both flatbed cutters and laser cutting machines. The in-house laser-job-shop guarantees excellent quality of service and advice.

eurolaser Czech Republic

Our partner in the Czech Republic specialises in mechanical engineering. HaWe systems s.r.o. will support all customers and interested parties with its comprehensive knowledge and will always offer optimal technical solutions.

eurolaser Slovakia

Our customers in Slovakia are guaranteed excellent service by NeoTec Martin s.r.o. Besides, NeoTec specialises in machinery for the further processing of textiles, but is also a competent partner in all other fields of application.

All partners are official Master Distributors with extended support from the eurolaser centre in Lüneburg (Germany).





















Print Stars 2012 – The German Printing Industry Innovation Award

LASER-PROCESSED PAPER MAIL SHOT TAKES GOLD





With the help of laser technology, even the most unusual ideas suddenly become viable. This was echoed in the statement of diemaker Nieke + Partner GmbH from Neuss when they accepted an order from a customer which at first didn't seem possible.

Under the auspices of the Federal Minister of Economics and Technology, Dr Philipp Rösler, the PrintStar 2012 was awarded at the start of October. The prestigious award honouring the best print products and their manufacturers proves that even small and medium-sized businesses can produce innovative print products.

Things really got going in the Stuttgart Liederhalle. With over 420 invited guests, including the main representatives of the German print industry, 400 entries and over 900 participating industry companies, this year's PrintStars once again enjoyed record attendance.

'Here, an innovative idea was implemented with a great sense for aesthetics. This product was by far the one that best achieved playfulness, presentation and refinement', said the jury who chose the winner about the mailshot by Nieke + Partner GmbH.

With their submitted mailshot, the company from Neuss demonstrated the fact that one can operate very flexibly with laser systems. The exceptional A5-format mailshot boasted unusual design and perfect technical implementation.

Nieke + Partner GmbH implemented an excellent project in paper with the 'Targobank Premium Card' product mailshot, thus earning gold for the first prize in the 'PrintStar Direct Mail' category.

We would like to congratulate Nieke + Partner GmbH on this award and wish them much continued creativity and success with our laser system.





Helping is a matter of course

EUROLASER DONATION CAMPAIGN 2013

Financial worries, occupational hopelessness or family problems - Unfortunately, the sad everyday life for many people. In such a difficult situation, you often need someone who stands by your side. The nonprofit association ,Albatros e.V.' dedicates itself to this challenge. Founded in 1979, the association with its team of 11 people assists children, adolescents and families by providing professional help. Apart from a competent consulting and support in crisis and conflict situations, the organisation offers leisure activities for families and groups as well. Having a sympathetic ear for all concerns represents a crucial element for Albatros. The association based on the principle ,Helping from one hand' and thus, it offers a contact point for different kinds of family problems, no matter how complex they might be.

As eurolaser feels connected to its region and enjoys supporting such an exemplary engagement, we present this support and consulting centre with a donation amounting to 1,000 Euro at the start of the year 2013.

The team of the eurolaser GmbH wishes Albatros e.V. a lot of power and engagement in order to remain still a helpful contact person for families of the region Lüneburg in the future.





eurolaser - Personalities

New recruitments

Name	Profession	Start of employment
Katharina Latipow	Housekeeper	06.09.2012
Tobias Hesse	Service Support	15.10.2012
Meike Johannsen	Core Data Management	01.11.2012
Sabrina Gade	Marketing	16.11.2012
Gerhard Borchers	Area Sales Manager	15.02.2013
Christian Twesten	Area Sales Manager	15.02.2013
Christian Dürr	Area Sales Manager	15.02.2013
Marcel Koziol	Service Technican	15.03.2013
Björn Engler	Service Support	01.04.2013
Mücahit Acar	Electronics/Automation	01.04.2013
Daniel Faber	Application Engineer	16.04.2013
Ole Rogge	Network Administrator	03.06.2013

Anniversaries

Name	Time in company	Date
Sven Mohr	15 years	01.03.1998
Klaus Poppe	15 years	01.06.1998
Ibrahim Bayour	5 years	07.11.2007
Ralf Neben	5 years	01.03.2008
Jörg Trapp	5 years	01.04.2008
Thorsten Brandt	5 years	01.06.2008

Examinations passed

paces		
Name	Profession	Date
Tina Rackmann	Industrial Clerk	10.01.2013
Susann Scholle	Clerk for Office Communication	22.01.2013
Dennis Widemann	Industrial Clerk	22.01.2013
Gregor Bast	Specialist for Warehouse Logistics	15.01.2013
Nika Hölandt	Industrial Clerk	05.06.2013
Rashad Khan	Industrial Clerk	05.06.2013
Wayne Gerth	Industrial Clerk/ BA-Student	05.06.2013
Florian Buchholz	Industrial Clerk/ BA-Student	05.06.2013
Thorsten Soer	Clerk for Office Communication	12.06.2013
Tamara Simenenko	Industrial Clerk	14.06.2013
Nils Ripke	Specialist for Warehouse Logistics	14.06.2013

New trainees

Name	Training course	Start of employment
Alana Wenzel	Dual course of studies/Industrial Clerk	09.10.2012
Timo Birrenkoven	Industrial Clerk	03.12.2012

Dates



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