

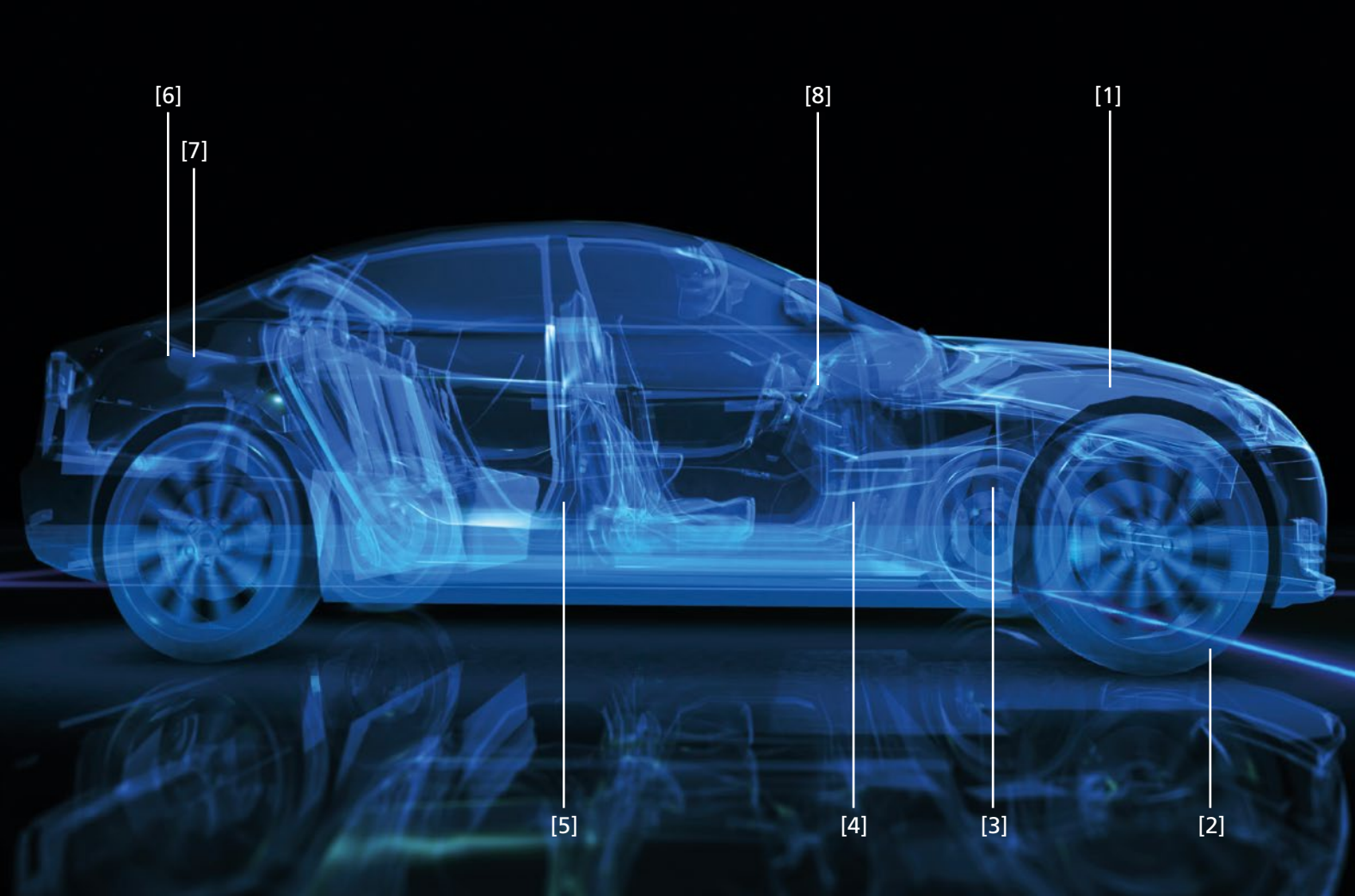
OESTNEWS

THE OEST GROUP INFORMATION MAGAZINE



In this edition

- Oest inside – there's Oest in this for you
- More than 100 years of experience in research, development, manufacturing
- Successful Östol Porsche from Kremer Racing
- AVIA retro filling station – great show
- Three new AVIA XPress filling stations opened
- Filling stations as a place to work and learn – "anything but boring"
- Successful LIGNA trade fair participation
- New PROFITAC VN joint glueing head
- CLT factory in Sweden
- OFS – services for metalworking processes
- Successful collaboration with Walter Surface Technologies Canada
- New strategic partner in India
- Bio fuels with Blue Angel
- New logistics concept for reusable containers
- Certified green electricity from Oest
- Oest Academy
- In focus



OEST INSIDE.

There's Oest in this for you!

[1] High quality engine and gear oils

[2] Forming lubricants for wires and profiles, especially for wire mesh inside tyres

[3] Technical lubricants such as hydraulic oils and greases

[4] Customised cooling lubricants for metal machining of connecting elements and precision parts

[5] Forming lubricants for car body parts in automotive press plants

[6] AVIA fuels for commercial and passenger cars Product from the eco fuels range

[7] Natural gas and green electricity for alternative drive technologies

[8] Dashboard panels, as well as sandwich elements for caravans, can be manufactured with adhesive technology systems from Oest Mechanical Engineering



www.oestgroup.com

Dear readers

With over 100 years of experience and strong specialist know-how, Oest offers suitable technologies and innovations for many industries, markets and processes. A special passion for progress and technology as well as the striving for quality and sustainability are reflected in many products and services.

The collaboration with global market leaders and quality-oriented customers around the world allows the Oest Group to be directly or indirectly involved in pioneering developments and sustainable solutions. But it is not always immediately obvious where Oest products are part of complex manufacturing processes and which consumer products and services involve the know-how and experience of Oest.

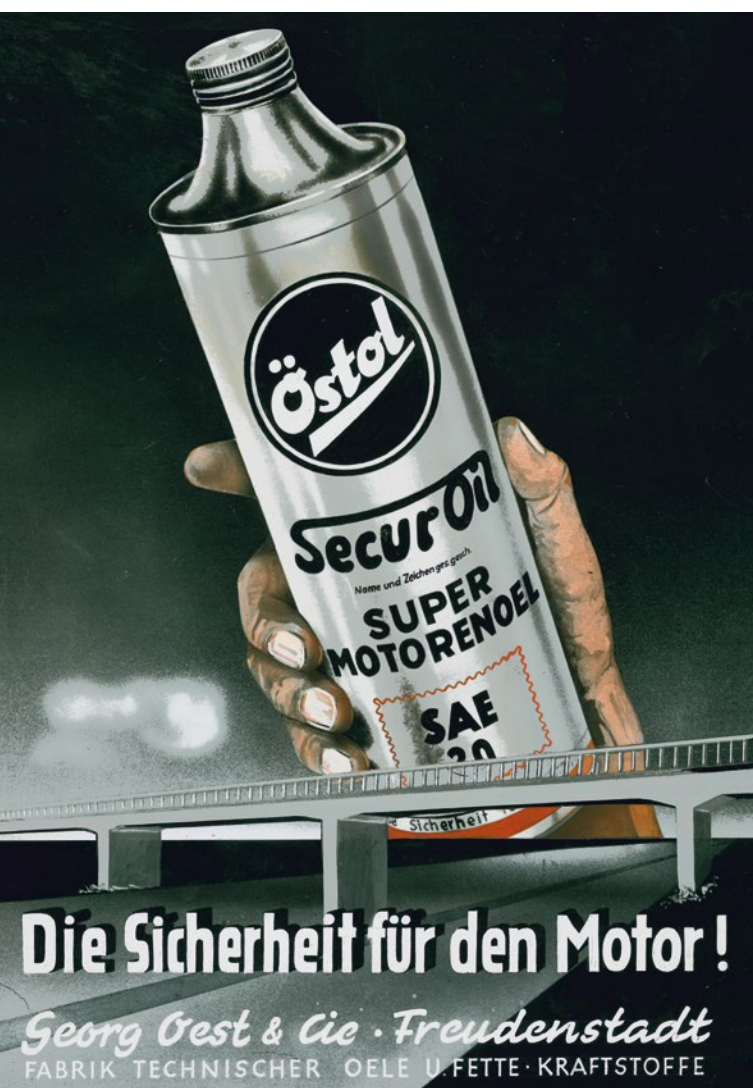
The new **Oest inside** advertising campaign can provide only a few examples of the vast sphere of action and the versatile industry solutions from the Oest Group. Oest News is therefore an important medium for reporting on innovations, new products and developments in the different divisions. Have fun reading!

Best regards

Alexander A. Klein
Chairman of the Board



MORE THAN 100 YEARS OF EXPERIENCE IN RESEARCH, DEVELOPMENT AND MANUFACTURING



Historic advertising for Östol.



The Oest automotive range also offers a variety of high quality engine and gear oils for modern, current car models, motorcycles, HGVs and commercial vehicles.

In 1915, Johann Georg Oest founded a factory for technical oils and greases. Shortly afterwards, Oest was already producing its own engine oils under the successful Östol brand.

In the laboratory, these were developed further and tested in the growing motorsports industry. The oil and lubricant manufacturer became involved in racing in the 1920s.

Today, several hundred products from in-house development are manufactured at the Georg Oest Mineralölwerk in Freudenstadt, including modern engine and gear oils for passenger cars, HGVs, motorcycles and commercial vehicles. The Östol brand caters exclusively to classic and vintage cars. These are still based on original recipes and are specifically tailored to the requirements of historic cars.

ÖSTOL OLDTIMER OILS

As a manufacturer, Oest differs from many other suppliers who are only traders. For in addition to the quality of the raw materials used, competence and experience as well as complete process responsibility – from development and raw materials selection to production and quality control – play an important role. Oest uses high quality primary distillates from certified suppliers to manufacture its products. Regular audits ensure compliance with the stringent environmental requirements and quality parameters.



Östol Porsche 911 RS from Kremer Racing.

SUCCESSFUL ÖSTOL PORSCHE FROM KREMER RACING

At the Nürburgring Classic Eifelrennen event, the Östol Porsche from Kremer Racing was on top form again.

In the first race, Eberhard Baunach came second in his class with the Porsche 911 RS. On day 2, the Östol Porsche did even better and took the overall win in the second race. A great success for the Kremer Racing Team and Östol!

E & M Kremer use gear and engine oils from Östol in their racing cars as well as for the classic road legal Porsches. And newer Porsche models also run on modern high performance oils from Oest.





Bjarne Mädel and Lars Eidinger in good spirits on set.

GREAT SHOW

One very special station in the AVIA filling station network is the 1960s retro station in Freudenstadt-Kniebis. It has gained cult status and also was a filming location for the successful film “25 km/h”, an entertaining road movie with a German star cast.

In the film, the two protagonists Bjarne Mädel and Lars Eidinger make their way across Germany on their mopeds to fulfil their childhood dream. One of their first stops is the AVIA filling station in Freudenstadt-Kniebis. The scene was shot over a whole day at the 1960s filling station, which was closed for filming.

Around a million people went to see the film at the cinema and it was nominated as “Best Feature Film” for the Deutscher Filmpreis award 2019. For the release on DVD and Blu-Ray, the two original mopeds from the film were exhibited at the retro filling station.



Filming at the AVIA filling station Kniebis.

THREE NEW AVIA XPRESS FILLING STATIONS OPENED

With 24 hour automatic filling stations in Mannheim, Todtmoos and Zimmern ob Rottweil, Oest has expanded its filling station network with three additional AVIA XPress stations.

The new AVIA XPress filling station in Mannheim is positioned in the direct vicinity of the Lilienthal-Center Sandhofen. The newly taken over and modernised 24 hour automatic filling station in Todtmoos and the new XPress Station in Zimmern are also in convenient central locations. At all these filling stations, customers will be able to fill up with fuel around the clock in the future. Paying is a quick, easy and convenient process thanks to modern terminals for cashless transactions with a debit, credit or fuel card.



Newly opened AVIA XPress filling station in Mannheim.

FILLING STATIONS AS A PLACE TO WORK AND LEARN – “ANYTHING BUT BORING”

The times when filling stations offered petrol, diesel and maybe a newspaper have long gone. Modern service stations are equipped with high-tech and have a wide range of products on offer. The demands on the employees have increased accordingly.

Jennifer is a retail sales apprentice at an Oest AVIA filling station and enjoys interesting and varied nature of the different tasks. “The integrated shop and bistro at our filling station require flexibility and team work. In addition to the normal filling station business and looking after the shop, there is also plenty to do in the food service area. Whether at the till or in the service area – I like helping customers, ensuring a high level of quality and providing a friendly atmosphere. Direct feedback from customers provides me with reassurance and motivation.



Modern filling stations offer a variety of responsible tasks.

For me personally, working at a filling station is more exciting than in a traditional shop.” Jennifer adds: “Maybe that also has a lot to do with my lovely colleagues and the good atmosphere at our AVIA station.”



Oest trade fair stand at LIGNA.

OEST MECHANICAL ENGINEERING

SUCCESSFUL LIGNA TRADE FAIR PARTICIPATION

Oest Mechanical Engineering presented numerous solutions for manufacturing all types of laminated timber products on an area of 120 m² at LIGNA in Hannover. The presented metering systems and application heads for surface, joint and finger joint glueing were very well received.

Large-area glue application for manufacturing cross laminated timber (CLT) was once again a very popular subject this year. As an accompanying highlight, Oest presented a complete portal with a 3.6 m wide glue application head for 1-component PUR surface application for manufacturing CLT elements.

In addition to different glue application heads for the most common applications, newly developed application heads for finger joint and regular joint application were also shown. The new ECOTAC VN finger joint head is a combination of needle valves and application comb.

One glue outlet for each finger is opened and closed by an individual valve. The desired application height is set automatically through the PLC. During production, a driven servo axis moves the application head by one finger width after each glue application, so that the complete application width of the comb is used. This can substantially reduce cleaning and setup times. The required application height can be adapted in both directions during running production, for larger and smaller dimensions. This makes it possible to change the cross sections to be laminated without interruptions.

Many visitors were also interested in the newly developed PROFITAC VN application head which we will present in the following article.

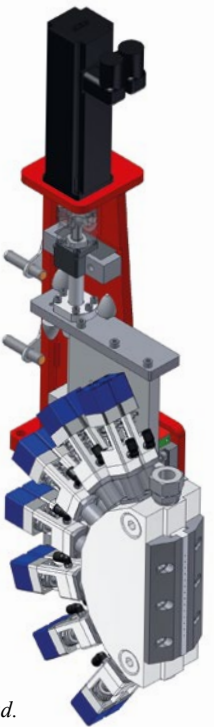
Overall, more than 90,000 visitors from 100 countries attended LIGNA 2019 over five days to learn about the latest trends.

NEW PROFITAC VN JOINT GLUEING HEAD

The idea for a new joint glueing head in a very slim design came from a customer's requirement to retrofit a 1-component PUR joint glueing system in a four-side planer with space restrictions.

The new PROFITAC VN joint glueing head is equipped with 14 needle valves in combination with an application bar. Each glue outlet is equipped with its own valve, which can be switched in an 8 mm grid. When all glue valves are in use, the maximum glue application is 110 mm. It is also possible to apply glue to smaller cross sections using fewer glue valves.

To prevent blocking of the outlets, a movable z-axis moves the application head by one glue bead after each glue application. This cyclic actuation means that all glue valves are active regularly and problematic material hardening on individual valves is factually impossible. The required application height can be adapted in both directions during running production, for larger and smaller dimensions.



PROFITAC VN joint glueing head.

CLT FACTORY IN SWEDEN

Stora Enso has already commissioned its third production facility for cross laminated timber (CLT). This makes Stora Enso the worldwide first CLT manufacturer with three factories. The Finnish-Swedish group of companies is one of the world's largest forestry companies as well as one of the largest paper and packaging manufacturers.

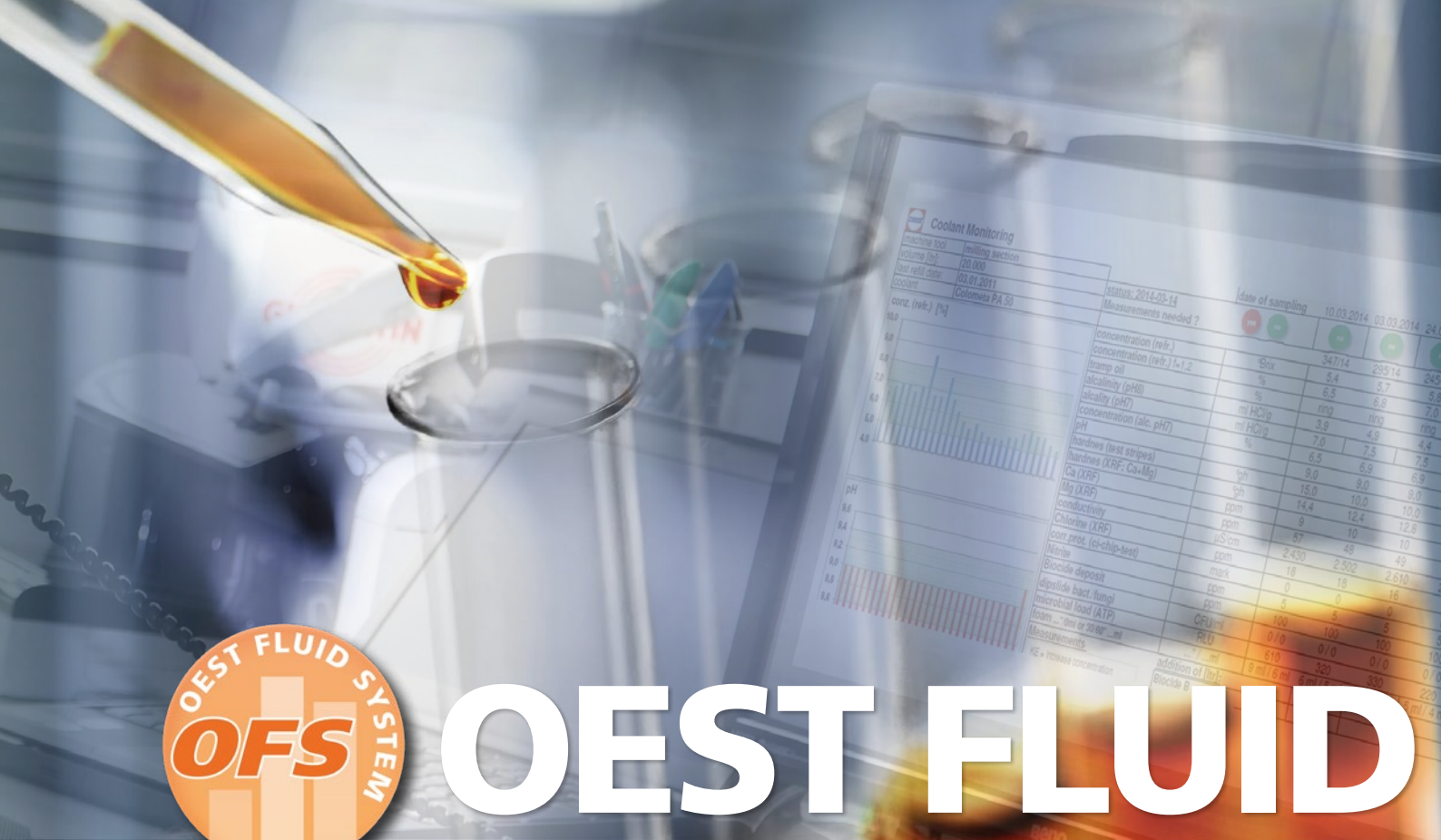
Challenges at the new Oest production plant included the high requirements for precision glue application, the safety concept and the comprehensive technical documentation. The glue is applied by a maintenance friendly application head of type FACETAC FD 3600 in combination with a portal. Glue is applied to the individual CLT layers at a feed rate of up to 120 m/min. All 72 glue valves are used regularly thanks to the "all-in-use" principle. This excludes problematic material hardening on individual



CLT production at Stora Enso.

valves. Quick change elements additionally allow easy replacement of valves when required. For customers, this means shorter setup times, more output and higher productivity.

CLT elements up to a width of 3.6 m and a length of 16 m can be manufactured at the production facility in Gruvön. The planned production volume is 100,000 m³/a.



OEST FLUID SYSTEM

SERVICES FOR METALWORKING PROCESSES



Oest has been developing and manufacturing high quality metal processing fluids for decades. The varied range is accompanied by competent support. The Oest Fluid System (OFS) offers different customised service modules – from process analysis to total fluid management.

The objective is to ensure that the high performance lubricants in the systems and machines can provide their optimum capacity with the longest possible service life. This requires continuous measures during analysis, documentation, evaluation, maintenance, service and handling.

With OFS, Oest offers its customers tailored service elements in a modular system. By outsourcing and transferring individual or all tasks, the companies benefit from reduced workloads and the consequently freed-up capacities. Additionally, process optimisations in the context of OFS can often reduce costs.

The services are implemented by an experienced team from OestFluid Management, with support from application engineering if necessary.

All analyses and evaluations can be conducted at the in-house laboratory in Freudenstadt – fast, flexible and with a constantly high service quality. Customers decide which services they want to use – from process analysis to total fluid management.



Support at the Oest laboratory and at the customer site.

Process analysis

- Determining the actual condition
- Identifying the optimisation potential

Monitoring

- Reliable documentation of all parameters
- Always available, incl. graphic evaluation and trend indicators

Maintenance and cleaning

- Checking and correction of fill levels
- Cooling lubricant change and machine cleaning
- Swarf handling

Total fluid management

- Modular system, with individual combinations, up to taking over all tasks for all processing media

Process analysis takes stock of the system, taking into account the given general conditions and targets. Basis for showing possible optimisation approaches and recommended measures.

Monitoring is an important factor for success. Especially for water miscible cooling lubricants, relevant changes can occur within a very short time due to the nature of the product, requiring special control measures.

Maintenance and cleaning of the systems has a significant influence on the stability of the cooling lubricants and on the optimisation of service life. Expensive downtimes and negative impact on the process can be prevented.

If requested by the customer, **total fluid management** comprises taking over all tasks with regard to lubricants, including machine filling, stock handling, type and demand optimisation, disposal, etc.



INTERNATIONAL



SUCCESSFUL COLLABORATION WITH WALTER SURFACE TECHNOLOGIES CANADA

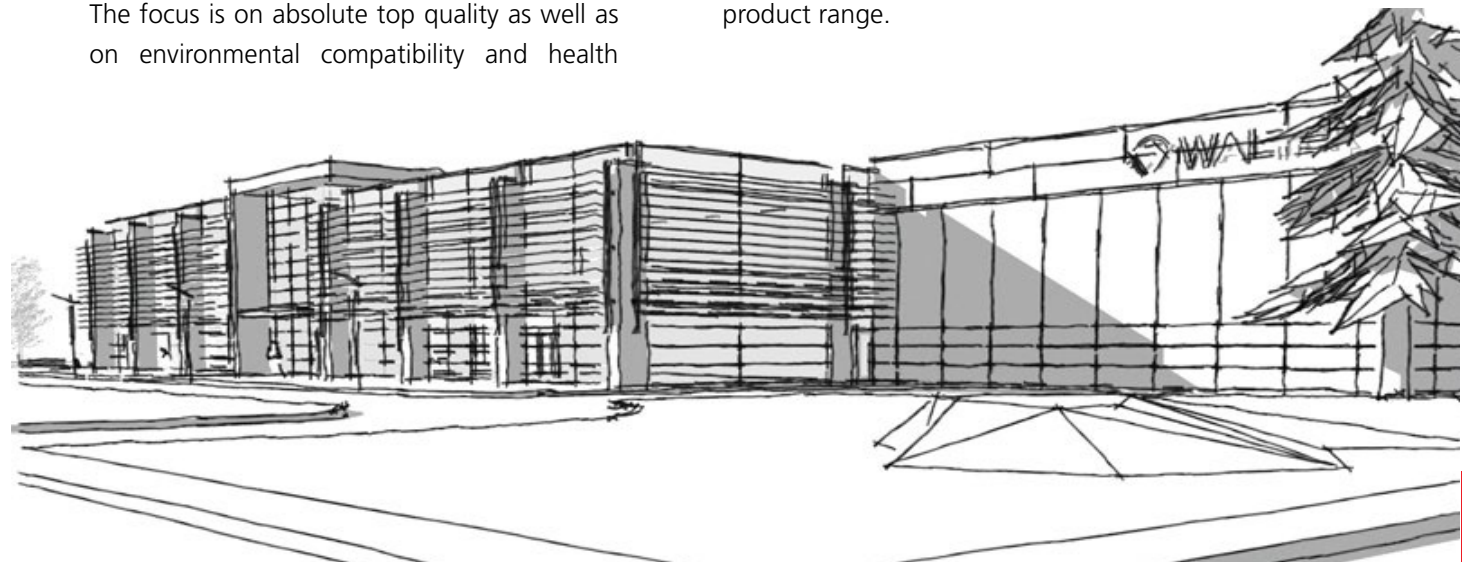
The Canadian company WALTER Surface Technologies has been a technology leader in the field of surface treatment for over 65 years. In addition to metalworking, the company's product range also includes cleaning systems and cooling lubricants. The quality-oriented company has been working successfully with Oest for many years.

WALTER continuously develop new tools for increasing productivity and safety in metalworking and finishing. For parts and surface cleaning, WALTER also offer innovative solutions with their "Bio-Circle" product range. The focus is on absolute top quality as well as on environmental compatibility and health

aspects. The renowned company received a range of international awards for this, such as the American Eagle Award, the Environmental Choice Eco Logo, the Clean Tech Award as well as the German Raw Material Efficiency Award and the Technology Innovation Award of the Wall Street Journal.

With Oest cooling lubricants, WALTER has added another segment to its range for the metalworking industry. The Oest lubricants sold by WALTER also meet the highest requirements for efficiency, environmental compatibility and ease of use – an optimum addition to the powerful WALTER product range.

Headquarters in Quebec.



NEW STRATEGIC PARTNER IN INDIA

The worldwide demand for high performance metalworking fluids "made in Germany" is still increasing. To open up new markets, Oest works with local qualified strategic partners, such as WAF Witmans Advanced Fluids in Pune/India.

The ISO 9001:2008 certified company was founded in 1989 and is an innovative supplier in the fields of water treatment, industrial dyes, cutting tools and lubricants.

In addition to a wide range of standard lubricants, WAF also produce media for metalworking. The link between the "water treatment" division and Oest cooling lubricants has proven to be in ideal combination in this regard. WAF optimise and thereby expand their product portfolio with a view to new areas of application and the capacity of covering complete process chains as a system supplier.



Santosh Chakraborty, Managing Director at WAF Witmans Advanced Fluids and Michael Kreft, Director International Sales at Oest.

Witmans Advanced Fluids stand for quality and reliable products which meet high international standards, also with respect to environmental protection and health and safety. The biocide-free metalworking media from Oest also take this into account and are therefore an ideal addition to the WAF range. The formulations also anticipate future legal regulations – for best possible protection of humans and the environment without affecting performance.

The strategic partnership between Oest and WAF strengthens the market presence of both companies on the Indian subcontinent, which saw economic growth rates between 6 and 7 per cent in recent years.



Exchange of information and experiences during a visit in Pune.



FOCUS ON

BIO FUELS WITH BLUE ANGEL

In addition to the Oecomix 2T® and Oecokraft 4T® special fuels and the renewable Oecopower D® diesel fuel, the Oest product range comprises a variety of lubricants for passenger cars, commercial vehicles as well as forestry, agricultural and construction machines – made in Germany. This includes engine, gear and hydraulic oils, but also easily biodegradable special lubricants.

Oest Biosynt, for example, is a chainsaw oil as per the German Federal Environment Agency for “biodegradable lubricants” and received the German “Blue Angel” environmental label. It is produced from vegetable oils and non-toxic additives

which do not pollute the environment as they can be broken down by microorganisms within a short time.

The high quality chainsaw oil has very favourable viscosity temperature behaviour, particularly good cold temperature resistance and – due to its adhesion and lubrication properties – a high level of protection against wear and corrosion while still being highly economically efficient.

Oest Biosynt HV 150 is the corresponding product with the same properties for harvesters. Particularly in professional forestry work, the environmentally friendly lubricants as well as the two-stroke and four-stroke special fuels from Oest set standards for environmentally compatibility, safety and protection for man and machine.



NEW LOGISTICS CONCEPT FOR REUSABLE CONTAINERS

After the successful switch to paperless invoicing, the logistics department of Georg Oest Mineralwerk implemented another optimisation which increases efficiency while being kinder to the environment.

The proven 1,000 litre IBC tanks, which previously were returned to us – and from there to the IBC supplier – are now sent back directly to the manufacturer. This means that empty containers are returned over a shorter distance and without intermediate storage, making the process faster, more efficient and more environmentally friendly. Of course without additional cost to our customers!



1,000 litre IBC tank.

SUSTAINABILITY

CERTIFIED GREEN ELECTRICITY FROM OEST

With different AVIA electricity and gas tariffs, Oest offers individually tailored consumer solutions. Personal consultations for companies and private households are one of the main strengths of the Oest Energy team.

Longstanding customers appreciate this service, the fair conditions, the special transparency and the flexible tariff options. This also applies to the increasing number of green electricity customers, who can also choose between different AVIA tariffs. Regardless of which conditions and contract terms they choose – the quality and origin of AVIA green electricity is regularly tested and guaranteed by independent bodies. This is ensured by the certification with the OK power quality seal, which applies very strict criteria. One of the requirements is that the electricity has to be mostly generated at new, modern plants.

100 % of AVIA green electricity comes from hydropower – with 33 % from hydroelectric power plants which are less than 6 years old and another 33 % from plants which are less than 12 years old. Our consistent compliance with this age concept ensures the continuous expansion of green electricity generation.



The re-certification with the OK-Power quality seal 2019 guarantees the controlled ecological generation of AVIA green electricity from Oest.



SUPPORT AND FURTHER EDUCATION AT OEST

Dynamisation of the markets and the consequently increasing demands place an ever stronger focus on motivation and qualification of employees – for each company, but also for the employees themselves.

With this background and the objective of individually supporting each employee according to their personal skills and targets, the Oest Group attaches special importance to continuous further education and future-oriented personnel development.



OEST ACADEMY

These efforts were further expanded and structured with the Oest Academy to allow all employees to achieve continuous improvement and to attain their personal career goals through targeted qualifications. Different personnel development modules at technical and management levels were introduced for this purpose. Employees can pass through these systematically with the corresponding qualification.

In addition to mandatory qualification measures, e.g. in safety and quality management, the Oest Academy offers voluntary training courses as well as other supportive measures through special projects, job rotation, etc.

When an employee successfully completes an individual training measure, they receive a certificate as well as a recommendation for additional development modules or the next technical or management level. This opens up new tasks, areas of responsibility and targets. Examples for recommendations are further training to become a qualified commercial professional, a foreman or engineer or to attend a degree course.

The training program of the Oest Group is versatile and modules are selected based on the individual development plan.



IDENTIFYING POTENTIALS – SEIZING OPPORTUNITIES

School and academic education

Upon agreement and on request, we support further school or academic qualification of employees and support their careers to the master craftsman's examination, bachelor or masters degree.

Internal training

Regular training measures – from employees for employees – offer the opportunity to acquire specialist knowledge in a variety of different company divisions and support exchange of information between departments.

External training

Workshops, courses and lectures from highly qualified specialists are offered in cooperation with renowned training institutes and training providers.

Personal coaching

In addition to technical qualification measures, the Oest training portfolio also includes opportunities in the areas of healthy lifestyles, work-life balance, management and personal development.

Foreign language support

In view of increasing international business relations and growing export rates, certified language courses are offered regularly as part of the foreign language support.

Interdisciplinary collaboration

In addition to the training courses from the different divisions, in some cases there are also opportunities for a temporary internal move or a project-based interdisciplinary collaboration within the group of companies.





Ideally prepared at the apprenticeship information day.

APPRENTICES AND DA STUDENTS IN ACTION

With commercial, technical and chemical apprenticeships and different degree apprenticeships, the Oest Group offers a wide range of education options.

Apprenticeships and degree apprenticeships at Oest do not only stand for competent imparting of knowledge and individual support, but also for team spirit, constructive collaboration and independent implementation of projects and events.

The apprenticeship information day at the Oest Group, for example, was partially organized by the apprentices. Pupils and parents came to learn about apprenticeships and study courses first hand. The agenda included role play sessions for interviews, factory tours and discussion groups with longstanding employees, who identified possible career and further education opportunities. Different activities and a helpful check for application documents completed the successful information day.

For the apprenticeship information day, the Oest apprentices and DA students recorded a video to briefly present the different apprenticeships and degree apprenticeships. The team obviously enjoyed filming, including directing, sound and editing. The result is impressive. The clip is available on YouTube and on the homepage.

Filming for the new YouTube clip.



NEW BROCHURE ABOUT BGM & BENEFITS

Varied professions and a modern working environment are strong points for a career at Oest. Beyond this, the group of companies offers its employees a range of attractive additional benefits.

In particular, this includes measures to promote a healthy lifestyle and opportunities in the scope of the company health management programme (BGM), for which Oest was the first company to receive the "Active healthy company" award.

Different voluntary social benefits and services with discounts, rewards and subsidies complete the portfolio of the health management programme.

A new information brochure provides an overview of all currently available options for employees of the Oest Group.



POWERED BY OEST!

Oest sponsors the German Youth Motocross Association (DJMV) and provides the budding talents with powerful products. In addition to different lubricants, the environmentally friendly special fuels Oecomix 2T and Oecokraft 4T have proven successful in motocross.

The association, which was founded in 1978, has over 400 members. Many volunteers work to help children and young people get into motocross. The numerous training camps and race events in different classes are specially tailored to young motocross racers between 5 and 18 years of age. Four additional classes are offered for over 18s, including a separate women's category, which is very popular. Information on events and the German Youth Motocross Association can be found at www.djmv.de.



"Starting young!" – in the DJMV powered by Oest.

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