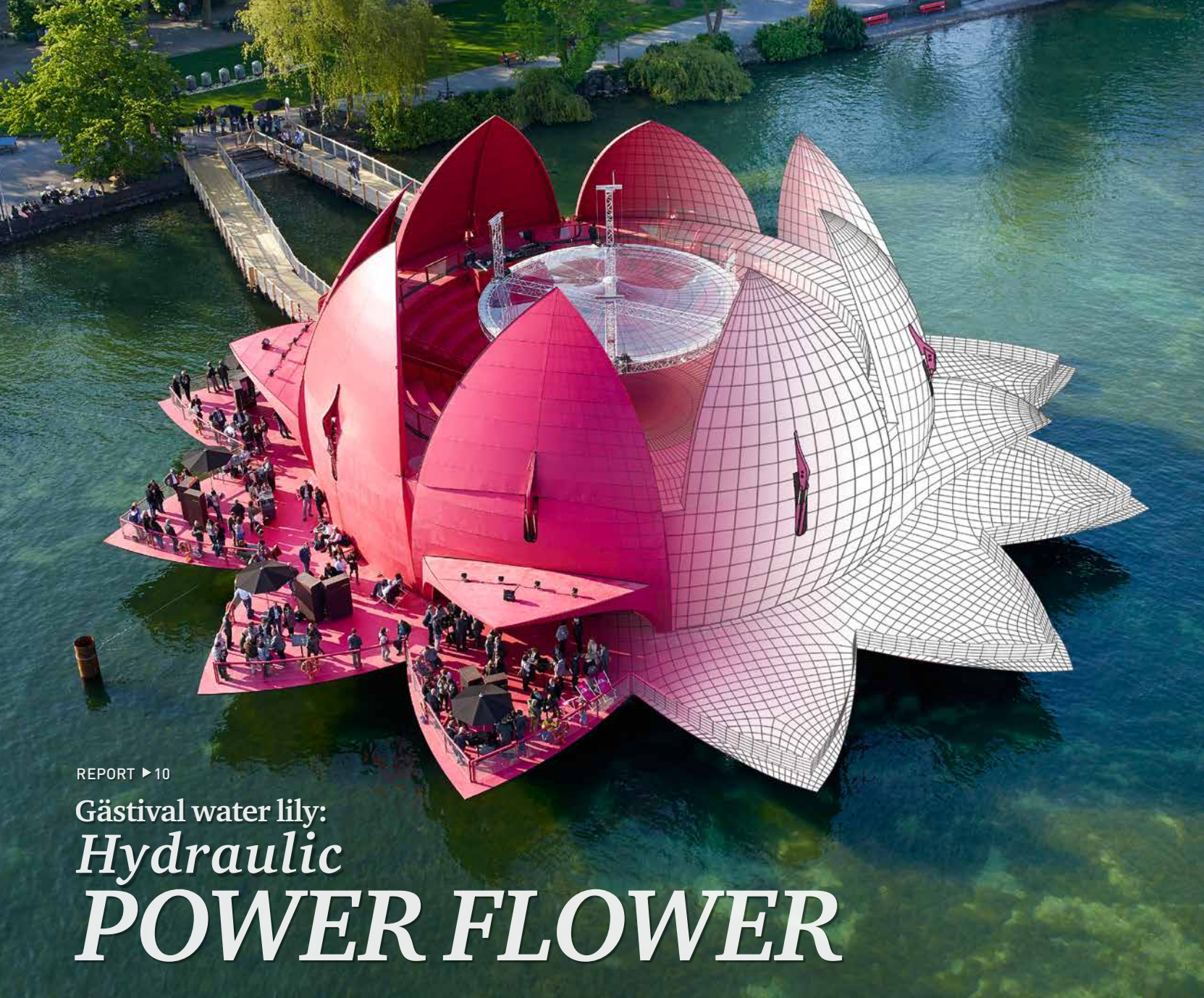


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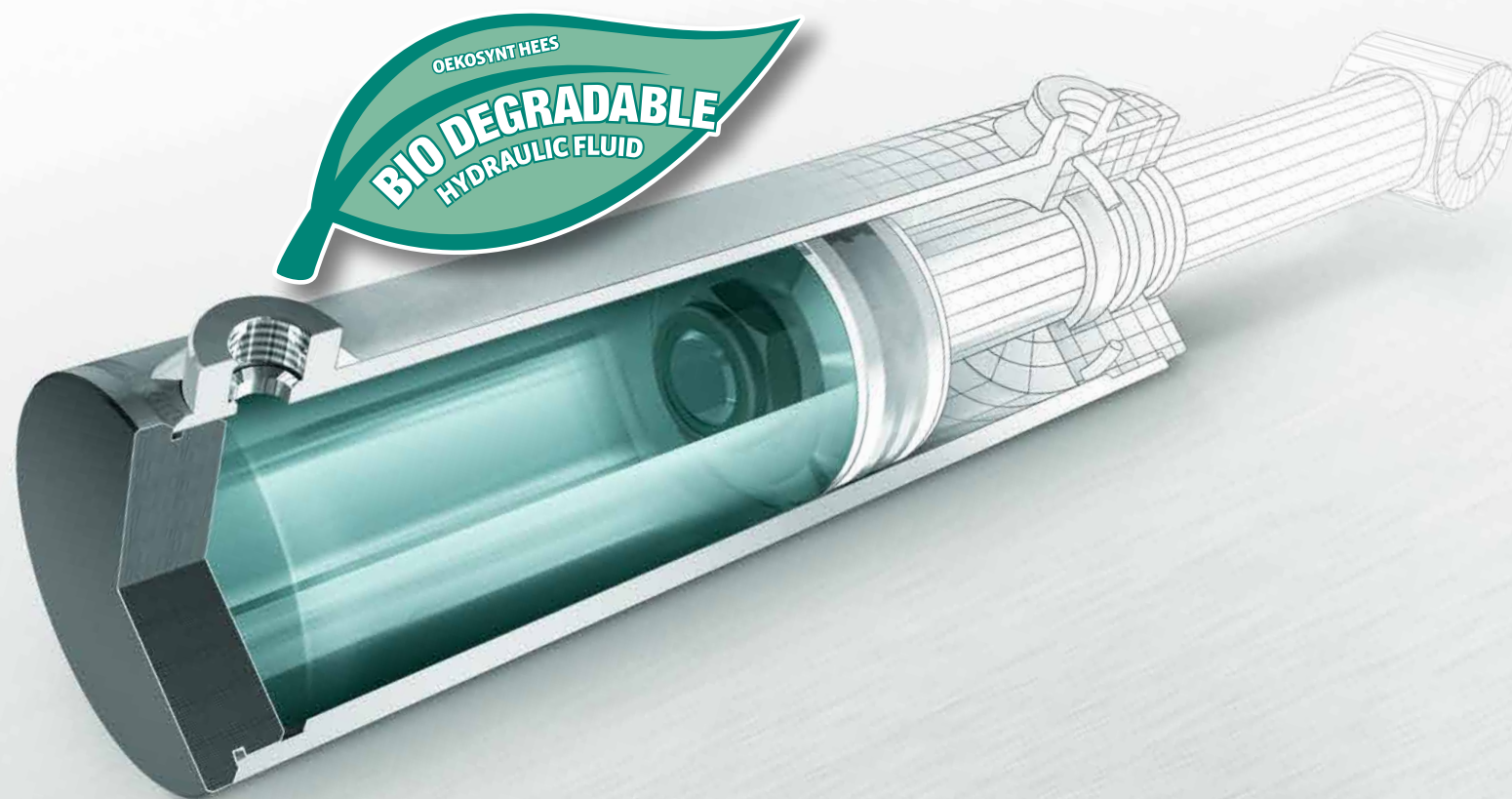
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Honing

The finishing touch
to any engine overhaul.

OEKOSYNT HEES – GREEN POWER.



**PERFORMANT, VERSATILE,
ECONOMICAL**

MOTOREX OEKOSYNT HEES sets new standards for performance, range of uses and cost-effectiveness. No other hydraulic fluid combines these key features so impressively with biodegradability to OECD 301B. Put us to the oil test. www.motorex.com



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IMPRESSUM Editor: BUCHER AG LANGENTHAL | MOTOREX Lubrication | Bern-Zürich-Strasse 31 | CH-4901 Langenthal | Tel. +41 (0)62 919 75 75 | Fax +41 (0)62 919 75 95 | Customer service by phone. Advice and problem solving also in German, French and Italian | **Overall responsibility for content:** Manuel Gerber, Head of Marketing | **Language versions:** Published in German, English, French and Swedish. | **Total print run:** 60,000 copies | **Design, redaction and art direction:** AESCHLIMANN, Advertising Concepts and PR GmbH, Muri/Berne | **Translation:** BMP Translations AG, Basel | **Graphics and prepress:** BURKI SCHERER AG, Oftringen | **Printing:** Merkur Druck AG, Langenthal | Text contributions may be used when source is indicated. | **Cover photo:** Gästival water lily/Picture E. Ammon – aura.ch | MOTOREX® and all employed product names are internationally protected trade marks. | No responsibility is accepted for printing errors or changes in the technical data.

EDITORIAL



**OF GUESTS
AND CUSTOMERS**

Dear customers and readers

The "Gästival" is central Switzerland's celebration of 200 years of tourism in the region. The name alone says much about the attitude in which it was conceived. The focus is not on the region's own performance or on infrastructure, but on customers and guests with all their needs.

This systematic orientation of all thoughts and actions toward customers is what makes the difference. In today's world, there are multiple competitors offering good products in practically all market segments. But in the medium to long term, the customers who benefit most are those of businesses that focus systematically on their customers' needs. It is those businesses, ultimately, that deliver the greatest value.

At MOTOREX we take this mindset as our creed. Every day we strive to supplement our good products with additional services for the customer. Expert oil analysis with the producer's own specialist knowledge – see page 14 of this magazine – is only one small example. In the end, our declared aim is quite simple: we want your daily work to run like a charm.

I wish you much informative and valuable input from reading this issue.

Manuel Gerber, Head of Marketing
Member of Management
BUCHER AG LANGENTHAL

MOTOREX IN THE NEWS



10TH ANNUAL RADSTADT ALPINE TROPHY

The legendary Alpine Trophy, a premier event for vintage tractors, took place for the tenth time this year in Radstadt, Salzburg (Austria). The anniversary event on the first weekend in July featured a full and varied schedule of activities. Alpine Trophy participants take on a range of special challenges in a series of fun excursions. Whether it's high-horsepower muscle machines, veterans with wood carburetors or iron-wheeled workhorses, the name of the game is taking part and having a good time. The extensive supporting program included a drawing for an antique tractor as first prize. As in previous years, the money raised was donated for a good cause. MOTOREX again made an appearance at the festival, handing out insider lubrication tips to interested visitors. www.alpentrophy-radstadt.at

A BOUNTIFUL HARVEST WITH KORNBO MASKIN AB

Founded in 1991 and based in Staffanstorp in the southwest of Sweden, Kornbo Maskin AB is the market's leading supplier of sugar beet clean loaders. From September to December, when the sugar beet is being harvested, these machines are in service seven days a week. That makes reliability the top priority for all the machines that Kornbo Maskin AB imports, maintains and operates. Its product range comprises a wide variety of specialized agricultural machinery such as beet harvesters, self-propelled slurry machines, inter-row cleaners and crop protection sprayers from leading manufacturers such as Agrometer, Agrisem, APV, Dubex, Euroclass21, Kleine, SMS and Thyregod. The specialists at Kornbo Maskin AB know they can count on MOTOREX products for all their lubrication needs. When evaluating products, they were impressed with the Swiss quality lubricants' extremely broad coverage of all applications and manufacturers' specifications. The way is clear for another successful harvest. www.kornbomaskin.se



FOR HOT IRON: MOTOREX GREASE 6000

To keep heavy-duty roller and slide bearings properly lubricated, the grease has to remain inside the bearing even at high temperatures. Polyurea makes an ideal thickener in mineral oil-based MOTOREX GREASE 6000. The choice of base oil viscosity and a wide operating temperature range of -20°C to $+180^{\circ}\text{C}$ (up to $+200^{\circ}\text{C}$ for brief intervals) make this grease perfect for a wide range of applications. For example, GREASE 6000 is ideal for use in road pavers or track roller bearings in continuous casting systems. It also features high shear stability, protects against corrosion and is extremely water-resistant. The new GREASE 6000 meets KP2R-20 specifications under DIN 51502.



NEW UTTO OIL FOR YOUR BUNDLE OF POWER

In the context of agricultural and construction machinery, the abbreviation UTTO stands for Universal Tractor Transmission Oil. The product is designed for use in axles, transmissions, distributor drives and final drives with or without wet brakes or limited slip differentials. A multi-talented performer in multi-range viscosity SAE 0W/20. High-performance MOTOREX UTTO VT SAE 0W/20 features extreme shear stability for optimum protection against wear. Special additives support optimum functioning of wet brakes and limited slip differentials. During down-times, the lubricant also provides efficient protection against corrosion. The new UTTO lubricant meets the following specifications: API GL-4. Safety + Performance: VOLVO WB102, ZF TE-ML 03E, 05F and MASSEY FERGUSON M 1110C.



NO GEARS WITH MOTOREX CVT FLUID SB

Production of CVTs (Continuously Variable Transmissions) for passenger cars is steadily increasing, especially in Asia. The growth is a result of OEMs' ongoing search for the perfect drive train in terms of comfort, driver experience and efficiency based on a belt-driven transmission. With new CVT FLUID SB, MOTOREX's wide range of transmission fluids now addresses the needs of many CVT manufacturers (e.g. Subaru, Toyota, Honda, GM, Peugeot, Citroën) and meets their requirements in full. With its sophisticated formula, this high-performance CVT fluid's features (high shear stability, constant friction values, high thermal stability, ideal low-temperature characteristics) make it perfect for gearless transmissions. The product's broad range of applications also makes it ideal for multi-brand workshops.



MOTOREX ETHANOL TREATMENT

Blending ethanol from renewable resources into gasoline is a way of reducing fossil fuel consumption. But the high ethanol content of biofuels (E-10 through E-85) can also have unwanted side effects. That's why MOTOREX launched its ETHANOL TREATMENT additive. This biochemical fuel enhancer smooths out several typical weaknesses of conventional bioethanol fuels. The additive neutralizes ethanol's basic corrosive tendency and extends fuel storage life. Ethanol has a lower energy density than pure gasoline. ETHANOL TREATMENT fuel additive uses special inhibitors to counter this performance-reducing effect. The result is more complete combustion, less unburned fuel in the exhaust and fewer deposits. The engine again delivers top performance with maximum fuel efficiency.



ACE CAFE LUCERNE OPEN FOR BUSINESS

The original Ace Cafe London, a one-time rest station for truckers, opened over 75 years ago. Over time, the cafe in Stonebridge, in the south of London, became Britain's most popular destination for motorcyclists. Even today it radiates a fascination for gearheads from around the world. And that's just how Dany Kunz, founder of the first Ace Cafe in Switzerland, likes it. The cafe recently opened for business in Rothenburg, ideally situated as a motoring destination in the middle of Switzerland, about ten kilometers from Lucerne. It's always worth a visit, but especially on weekends, when delicious food and creative drinks (with or without alcohol) are served until 1:30 a.m. But the main attraction at Ace Cafe Lucerne, like the original in London, will always be the motorcycles and cars of all kinds that gather here. To keep them healthy, Ace Cafe Lucerne has a well-stocked oil bar with products from the MOTOREX CLASSIC LINE. www.acecafeluzern.ch





The modern exhaust gas treatment systems in the latest generation of construction equipment require a dependable supply of AdBlue®.

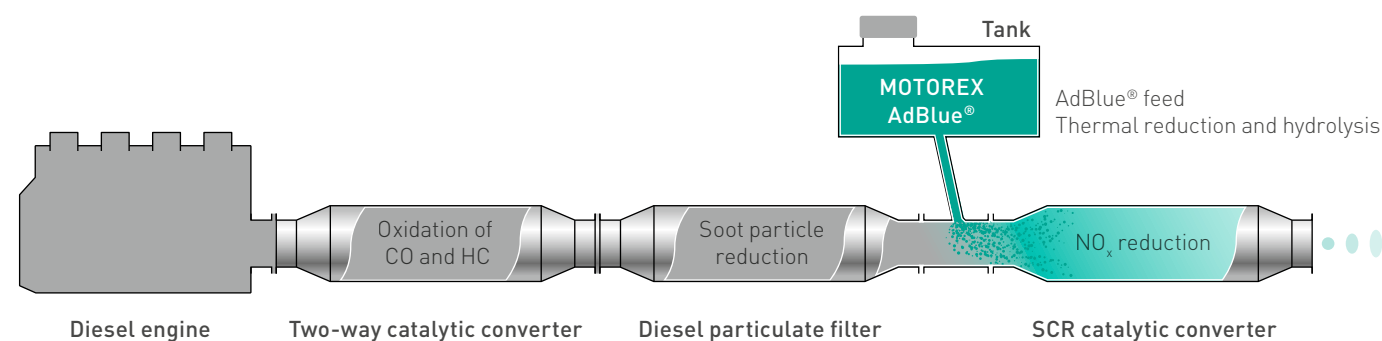
RELIABLE ADBLUE® SUPPLY

The SCR (selective catalytic reduction) technology in modern diesel engines can cut nitrogen oxide (NO_x) emissions by up to 90%. That's why a reliable supply of AdBlue® urea solution for exhaust gas treatment is just as important as tanking up with fuel.

Systematically reducing pollutant emissions demands the highest degree of technical know-how. As the technology's name implies, injecting just the right amount of AdBlue® upstream of the SCR catalytic converter in a sophisticated self-regulating system makes it possible to selectively target nitrogen oxides (NO_x).

WHAT IS ADBLUE® ANYWAY?

MOTOREX AdBlue® is a special fluid for post-treatment of exhaust gases in diesel engines. It is a synthetically produced 32.5% urea solution (not to be confused with uric acid!). MOTOREX AdBlue® is colorless, transparent, non-toxic, easy to handle and environmentally safe. It meets DIN 70070, ISO 22241 and AUS32® standards.



The practical 10-liter container has a removable dispenser on the back – handy for refilling AdBlue® tanks.

SCR technology has proven to be an effective way of efficiently removing NO_x from exhaust gases. Several truck manufacturers were the first to use the technology in 2005. With the introduction of Euro 6, the system is now used by all truck makers. SCR using AdBlue® is also becoming widespread in construction machinery. This means machines equipped with SCR catalytic converters need to be supplied not only with fuel, but also with AdBlue® urea solution at the work site, which is often remote from supply facilities. Sounds like a job for MOTOREX!

A SINGLE SOURCE FOR EVERYTHING

MOTOREX has been producing high-quality lubricants and care products for a wide range of applications since 1917. Research, development and production of the entire 7500-item product range take place in Langenthal. As lubricant supplier to garages, commercial enterprises and many construction and transportation businesses, MOTOREX pays close attention to customer needs. Supplying AdBlue® at attractive conditions is a logical extension of the MOTOREX range, especially considering that the logistical capacity to seamlessly serve customers is already there.

MAXIMUM AUTONOMY

Since construction equipment often remains in the field for extended periods, professional AdBlue® supply systems are now needed at all major construction sites alongside mobile diesel fuel tanks. Depending on the machine, consumption of the urea solution can equal 6–8% of fuel consumption, or roughly two liters per hour. Since cleanliness is essential when filling up, it makes sense to have the right accessories for

resupplying machinery and vehicles. This equipment is mobile and can be used whenever needed, whether at the depot or to supply fleets on the road. MOTOREX supplies AdBlue® along with a complete range of accessories.

CONTAINER SIZES FOR EVERY NEED

The MOTOREX AdBlue® range includes 1000, 210 and 10-liter container sizes. Many organizations find it helpful to stock up on large quantities of AdBlue® from MOTOREX, just as they do with lubricants. This is not only more economical, but also offers various logistical advantages for seamlessly supplying construction sites.



Observe the precautions below when using MOTOREX AdBlue®:

- **Ensure maximum cleanliness when refilling**
- **Clean up spills with water**
- **Avoid contact with metals (corrosion!)**
- **Corrodes concrete, masonry and certain paints**
- **Store at temperatures from –5 °C to +25 °C**

PRACTICAL ACCESSORIES

As noted above, cleanliness is important when adding AdBlue®. AdBlue® should therefore always be dispensed directly from the original containers into the tank on the machine. The practical accessories available from MOTOREX-TOPTECH AG can be helpful. In addition to stationary equipment at the operations depot, several mobile MOTOREX AdBlue® filling solutions are available. These include pumps (electric or manual), meters, pump nozzles and drip pans. You're guaranteed to find the right solution for every application among them. •

Practical: Use this electric pump kit for clean and easy refilling of AdBlue® tanks. Also available with meter.





Zürichsee-Fähre Horgen-Meilen AG is a paragon of efficiency. The lubricant tanks of the company's five Lake Zurich ferries were recently filled during operation with MOTOREX high-lubricity NEXUS FE SAE 5W/30 motor oil.

CUTTING COSTS WITH NEXUS FE SAE 5W/30

We often equate economy with doing without, but it doesn't have to be that way. Versatile and economical NEXUS FE SAE 5W/30 proves it in three different ways: It reduces fuel costs, CO₂ emissions and, thanks to its superior protection against wear, repair and maintenance costs as well. These are facts that can be measurably verified in a wide range of industries.

When a business invests both in modernizing its existing fleet and in the latest generation of vehicles and machinery, the impact on operating costs should be as positive as possible. New technologies can improve fuel efficiency and lower emissions. The additional savings potential of using an innovative high-lubricity motor oil like MOTOREX NEXUS FE, however, is often underestimated...

WITH LESS FUEL

Fuel consumption is a variable component in operating cost calculations. These days manufacturers and operators alike are making serious efforts to optimize every factor affecting consumption. Coupled with a fuel economy motor oil, these factors can reduce fuel consumption by up to a further 1–3%. Of course these efforts aren't appropriate for all applications. Today any respon-

sibly managed business can lower long-term costs by using NEXUS FE (Fuel Economy).

A GROUNDBREAKING FORMULA

With the new NEXUS FE (Fuel Economy) synthetic high-lubricity motor oil, the MOTOREX range includes a groundbreaking low-SAPS oil in the SAE 5W/30 viscosity class. Its low viscosity and special additives result in a measurable improvement in fuel efficiency. Quality base oils and modern additives keep the engine clean in all operating conditions while offering high shear stability and long-lasting protection against wear. And less wear sooner or later leads to lower maintenance and repair costs. The same applies to technically sophisticated exhaust gas treatment systems.

MOTOREX NEXUS FE is one of the first motor oils to meet both the ACEA E6 and API CJ-4 specifications. Until now customers have had to use two different oils to meet both specifications, making NEXUS FE a pioneer in simplified inventory management as well.

LOW-SAPS TECHNOLOGY

Keeping the latest generation of engines with innovative exhaust gas treatment systems running efficiently and economically requires a low-SAPS motor oil (with very low sulfate ash, phosphorus and sulfur content). Currently MOTOREX's most modern low-SAPS high-lubricity motor oil for diesel engines, NEXUS FE SAE 5W/30 not only measurably lowers fuel consumption, it also reduces CO₂ emissions at the same time. And it offers outstanding protection against wear, is extremely versatile and is ideal for EURO 6 engines.

SUCCESS ON THE ROAD

It's not just the latest generation of engines, but older ones as well that can benefit from the advantages of extremely versatile NEXUS FE SAE 5W/30. Customers from a wide range of industries have enthusiastically rushed to adopt MOTOREX's multitalented high-lubricity motor oil.

Switching to NEXUS FE SAE 5W/30 pays off. Your MOTOREX partner will be happy to provide advice and assistance. ●

NEXUS FE SAE 5W/30 APPROVALS

ACEA E9-08/2, E7-08/2, E6-08/2
API CJ-4, CI-4/SN
MB-Approval 228.51
MAN M 3677, M 3477, M 3271-1
VOLVO VDS 4, VDS 3, CNG
Renault RXD, RLD-3, RLD-2, RGD
Deutz DQC IV-10LA
MTU Type 3.1, Cummins CES 20081
MACK EO-M Plus, EO-O, Premium Plus, EO-N
CAT ECF-3, ECF-2, ECF-1a
Safety + Performance:
MB 228.31



Perfect not only for use in agricultural machinery,



but also for buses in the public transport sector,



large ship's engines,



heavy goods vehicles



and a range of construction machinery and trucks.

Just in time for the Gästival, the “Seerose” (water lily) at Lucerne opened to visitors on May 29. Its eight petals open and close hydraulically as required, driven by 400 liters of rapidly biodegradable MOTOREX hydraulic fluid in 16 hydraulic cylinders.



Pictures: E. Ammon – aura.ch/Redaktion/Gästival

The Gästival water lily: *Hydraulic POWER FLOWER*

When tradition combines with progress, the result isn't always as graceful as the “Seerose” (water lily) that forms part of the Gästival festivities celebrating 200 years of tourism in central Switzerland. The floating event platform symbolizes the region's own exceptional capability for unfolding itself. It was built to the highest standards in just seven months by Shiptec AG in Lucerne.

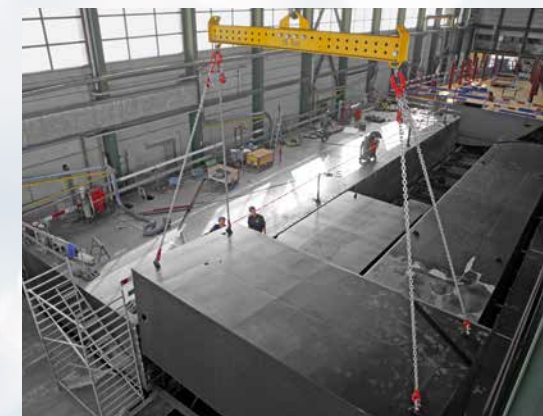
The “Gästival” anniversary project combines touristic, cultural, social and historical aspects under one roof. The celebration is a joint project of the five cantons of Uri, Schwyz, Obwalden, Nidwalden and Lucerne. The heart of the Gästival is the floating “Seerose” (water lily)

Various landing points in the five cantons

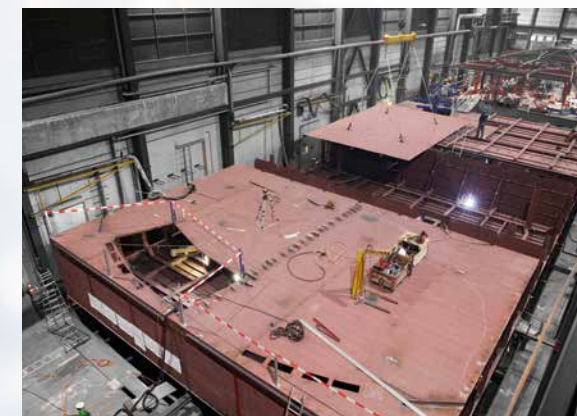
platform. From May 29 until October 4, 2015, the platform will dock at various landing points in the five cantons surrounding the lake, where it will serve as a meeting point for hosts and guests, artists and festival goers, civic clubs and the general public.

TAKING PRIDE IN LOCAL CREATIVITY

The platform was designed by the Lucerne architectural firm Dolmus following a broad-based competition for ideas held by the Engineering & Architecture and Art & Design schools at Lucerne University of Applied Sciences and Arts. Some 50 students spent five months developing the basic structure and shape of the water lily. Its design is an abstract representation of a water lily, and it is meant to be perceived not as a boat or building, but as a sculpture. In keeping with the philosophy of the Gästival, the twelve-petaled floating water lily was produced almost entirely within the region.



Building the pontoon in Shiptec AG's boatyard.



Assembling the center section of the pontoon.



Side sections after floating.



Beginning superstructure assembly.



Superstructure bearing structure during assembly.



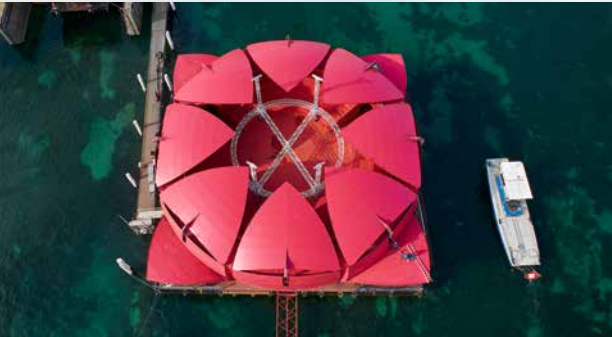
Completing a moving petal prior to mounting.

BUILT ON THE SHORES OF LUCERNE

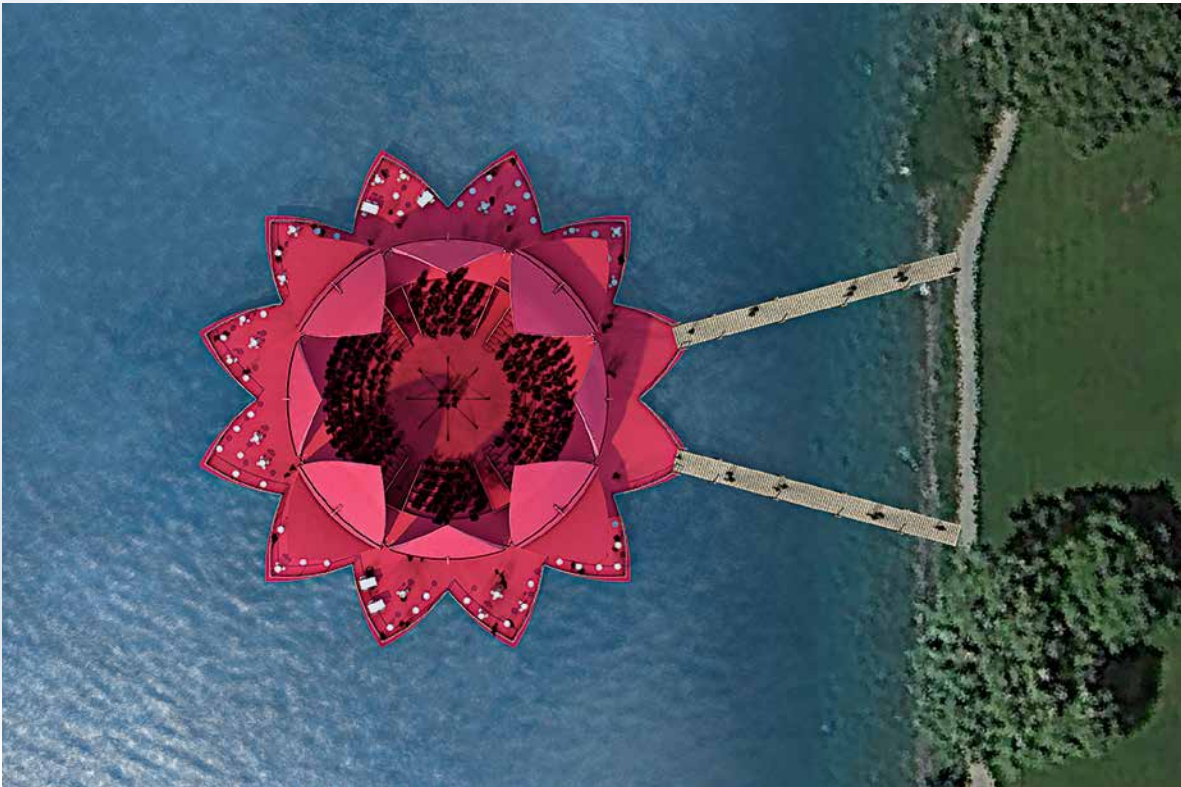
The organizers from the “200 years of central Switzerland” association were fortunate to have a highly capable shipyard in their own backyard to plan and build the unmotorized platform. Shiptec AG is a subsidiary of lake navigation company Schifffahrtsgesellschaft des Vierwaldstättersees (SGV) in Lucerne. The water lily project was comparable in scope to various major renovation projects for passenger boats. There were similarities in the way the project was organized too. The steel platform was assembled from massive individual sections and welded to form a semi-floating pontoon. In building the platform, Shiptec AG was able to draw on experience from past projects and the expertise of its over 60 employees. The stands at the heart of the water lily were built from prefabricated units. The leaf-shaped elements were lifted onto the structure by crane and mounted.



View of the passage beneath the stands.



All the moving leaves in place.



The event platform is a multipurpose sculpture of a water lily.



Nearly 420 meters of hydraulic lines were installed on the platform at the shipyard.



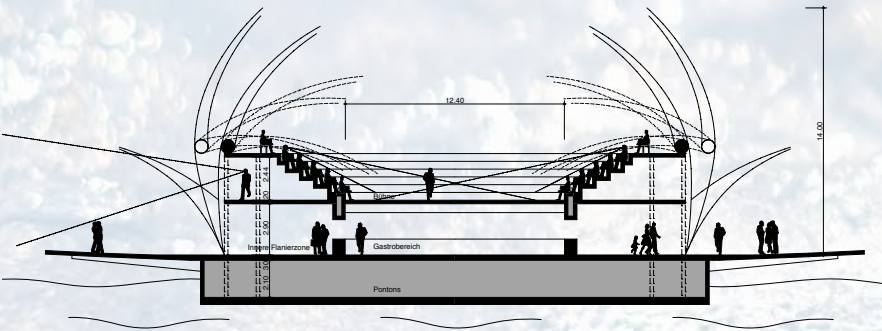
Each of the eight petal tips is raised and lowered by two powerful hydraulic cylinders.



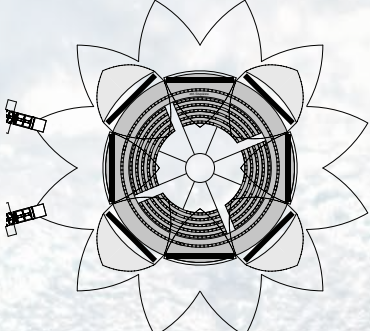
A sophisticated control system is used to position the petal tips.



The hydraulic system holds 400 liters of rapidly biodegradable OEKOSYNT HEES.



The leaf tips can be opened or closed to keep the weather at bay or accommodate event requirements.



The stands are located on the water lily's upper level. All seats provide an ideal view of the event area.

CONSTRUCTION IN JUST 7 MONTHS

Construction began in September 2014. The ambitious timetable and special requirements demanded a great deal of flexibility, especially since the steel construction techniques used were different from those in conventional shipbuilding. But the greatest challenges were in engineering, planning and logistical organization to meet the tight deadline. The ten-person engineering team put a huge amount of work into developing the project, calculating load-bearing capacity, statics, structural strength and seaworthiness in both normal and partially flooded condition (for passing under the Acheregg Bridge). Strict safety requirements imposed by the owners and the

local authorities also had to be observed. The focal point of the festival was delivered to the organizers at the end of March 2015.

KEY FIGURES	
Total usable area	1400 m ²
Diameter	48 m
Total capacity	700 people
Stand capacity	max. 493 people
Stage area in m ²	max. 115 m ²
Covered catering capacity	max. 300 people
Catering area incl. strolling area (covered)	500 m ²
Boatyard and project management	Shiptec AG, www.shiptec.ch

NO ENGINE, BUT EQUIPPED WITH HYDRAULICS

In principle, the platform is an unpowered pontoon that has to be pushed or towed from one berth to the next by two pushboats. This means visitors will find no engine or tiller aboard the platform. What they will find instead is a powerful hydraulic system. Sophisticated controls enable an operator to open and close the tips of the eight central petal or sepal-shaped leaves of the water lily. The immense power needed to move them is transmitted by rapidly biodegradable OEKOSYNT HEES from MOTOREX in 16 hydraulic cylinders at pressures of up to 200 bar. Like the Gästival water lily itself, OEKOSYNT HEES emulates nature, using quality natural esters in its sophisticated formula.

MEETING PLACE ON THE LAKE

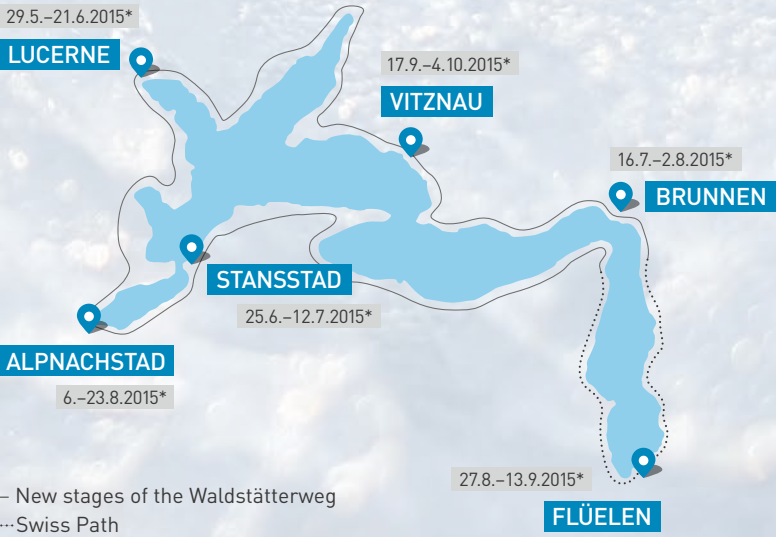
Visitors to the water lily platform will find a diverse and varied schedule of events. During the day, the ingredients of hospitality are celebrated. Joy, curiosity, passion and warmth infuse the artistic displays and fine dining. Visitors to the water lily can also experience the unique history of tourism in central Switzerland. In the evening the platform becomes a venue for concerts, theater and other cultural activities, with space in the stands for an audience of 493. Visitors can meet their hosts and ex-

perience the diversity of central Switzerland in all its colorful variety.

WHERE TO FIND THE PLATFORM DURING THE GÄSTIVAL

The water lily will dock at six locations during the Gästival. See the festival website for the varied schedule of events: ●

www.gaestival.ch



Take a virtual tour of the water lily at <http://bit.ly/1SYhC12>





INFORMATIVE OIL ANALYSES

Oil analysis is crucially important for condition monitoring in machines or installations. MOTOREX offers customers analysis kits and services tailored precisely to their needs.

Whether it's motor oil, gear oil, hydraulic fluid, metal machining fluid, compressor oil or some other lubricant that you need to analyze, a properly interpreted oil analysis always yields informative conclusions on the condition and use of your equipment. For certain installations such as cableways, regular laboratory analysis is even mandatory for condition monitoring.

OIL SAMPLE AS STARTING POINT

A meaningful analysis always starts with a properly collected oil sample. The machine should be at operating temperature and the oil should, if possible, be taken from a sampling point in the oil circulating system. The sample should never be taken from the bottom or top surface of the tank. Oil analysis kits for clean sampling can be obtained from your MOTOREX partner. Be sure to fill out the cover sheet completely and properly label the sample in the included bottle. Next simply

mail the cover sheet and sample to MOTOREX in the included envelope.

The MOTOREX laboratories in Langenthal currently perform some 120 different types of analysis. Each year the technical staff analyze 8,000 lubricant samples using state-of-the-art equipment. The lab measurements are evaluated and compiled with comments in a test report in partnership with the application technicians in Technical Customer Service. The report also includes specific recommendations for the customer.

FOR CONDITION MONITORING

Lubricant analysis is a perfect tool for condition monitoring. A large number of available tests for a wide range of applications offer a direct look inside the machinery. Analysis thus provides insights into the general condition of a machine, often revealing damage,



Informative: a 100 ml sample is sufficient for the MOTOREX lab to carry out its analysis.

overloading (heat, abrasion), penetration of foreign bodies or water, leaks and microbiological contaminants. Lubricant analyses also offer other valuable benefits such as:

- Verifying and even extending oil change intervals
- Optimizing maintenance intervals
- Reducing costs and increasing cost transparency
- Enhancing operating safety

PRODUCER'S ADVANTAGE

As a producer of lubrication products, MOTOREX is well versed in petrochemicals. Whether it's determining the properties of a hydraulic fluid composed of fully synthetic esters, special high-pressure additives or the behavior of rapidly biodegradable products, a company that knows the composition of a product range encompassing several thousand recipes knows what's important in the analysis.

THE WIDELY USED XRF METHOD

One of the methods MOTOREX uses for rapid and precise analysis of used lubricants is X-ray fluorescence (XRF) analysis. This is one of the most frequently used methods for qualitative and quantitative analysis of elemental sample composition. It can be used for an extremely wide range of applications. The sample is not destroyed during measurement. The method is capable of detecting traces as small as one microgram (0.000001 gram). Proper calibration of the device is crucial. Depending on the lubricant, conclusions can be drawn from a selective analysis of the sample. The analysis generally looks for:



Different samples of hydraulic fluid, for example, can be directly compared using X-ray fluorescence analysis.

- Elemental content such as additives and their concentration
- Abraded elements (metals) for analysis of wear and any damage
- Contamination
- Blends (other oils)
- Raw material content of fresh products (production testing)

A company that knows the composition of a product range encompassing several thousand recipes knows what's important in the analysis.

COST IMPACT OF ANALYSIS

Lubricant analysis of customer samples can lead to different results depending on the product and analysis method. Accordingly, the cost of testing by specialist staff in a specially equipped analytical laboratory can vary. The results of the analysis are reviewed by experienced application technicians, evaluated and then usually returned by e-mail. If necessary, your MOTOREX partner can explain the results to the customer. All in all, oil analysis can generate costs ranging from CHF 100 to CHF 300. Compared to the cost of refilling a large piece of construction equipment with usable hydraulic fluid after ultrafine filtration, the amount is negligible.

The services provided by the MOTOREX lab are a significant factor in efficient operation. Your MOTOREX partner will be glad to provide more information. •



Peter Feller, founder of Euroline Inc.

EUROLINE INC. MANUFACTURING EXPERTISE IN THE USA

Twenty years ago, Euroline Inc. brought the MOTOREX brand to North America for the first time. The anniversary is the perfect occasion for a brief introduction to the company and the philosophy of its founder, Peter Feller.

The first encounter between MOTOREX and Peter Feller, founder of Euroline Inc. in New Milford, Connecticut, took place no less than twenty years ago. At the time Feller was working for a well-known Swiss machine tool builder, so he knew exactly what properties an ideal machining fluid should have. Peter Feller always turned first to MOTOREX for lubricants. Sophisticated, proven products, a strong research and development department and effective marketing made the Langenthal company the perfect partner.

FOCUS ON MANUFACTURING

In 1996 Feller founded a company on the East Coast to serve as distributor of a range of MOTOREX products in the United States. In 2001 Euroline decided to focus

exclusively on the manufacturing sector. The company expanded its network of distributors and began introducing additional prestigious customers to the benefits of the MOTOREX SWISSLINE. The addition of groundbreaking MOTOREX ORTHO NF-X cutting oil with Vmax technology brought another unique product to Feller's product range. The entire Euroline technical team regularly attends product and application training in Langenthal.

At the same time as Euroline decided to focus solely on industrial products, MOTOREX introduced the SPINDLE-LINE, a new line of products for lubricating, cooling and cleaning fluid-cooled high-speed spindles and cooling circuits that was perfectly tailored to manufacturers'



Brett Buckes is Peter Feller's longtime right-hand man. He is always available at headquarters to help customers with their concerns.

needs. The steadily growing number of machine tool builders who recommended these items smoothed the way to America for other SWISSLINE products.

CUSTOMERS FROM ALL OVER THE UNITED STATES

"As a relatively small supplier from Switzerland, MOTOREX doesn't always have it easy on the enormous North American market," notes Peter Feller with a grin. But the facts speak for themselves, and word is getting out among manufacturers. Close collaboration with machine tool makers like Star and Willemin-Macodel has been especially fruitful. Euroline's success, especially in the most challenging machining processes, has been a result of broad expertise in machined stainless steel and titanium parts and knowledge of manufacturers' real-world needs. Alongside well-known names like Boeing, GE, DePuy-Synthes, Caterpillar, SFS Intec and Structure Medical, Euroline's enthusiastic customers number over 500 more companies of all sizes.

FOCUS ON SERVICE AND EFFICIENCY

Feller sees a focus on technical expertise and fast, friendly customer service as a cornerstone of Euroline's success. Processes are always structured to be as efficient as possible. Small shipments ordered before 4 p.m. are dispatched by courier the same day. According to Brett Buckes, who is responsible for order processing at headquarters, this



Euroline Inc. operates several warehouses and often makes daily deliveries to customers. The company frequently ships by air to many U.S. states.

rapid response is very important because many customers simply forget to order out-of-sight supplies until they see a red light flashing on a machine. As a result, Euroline air-freights packages to customers on a daily basis.

EXPERTISE IN DEMAND

"Although business grew only slowly at first, with fierce competition making it a real challenge to introduce a new brand, things have changed significantly over the years," says Feller. "Our commitment to top-notch service and quality is the perfect strategy for marketing MOTOREX products and services. This integrity has ultimately paid off, because when we do the right thing for our customers, word gets around. Nowadays customers and prospects come to us for advice when they're planning new projects or have problems with existing processes. We're not trying to be all things to all people, but just to focus on the higher end. Not only is that generally more interesting, but there's a lot less competition, too. It's always very rewarding when we can help our customers move forward with MOTOREX." •

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MOTOREX ORTHO NF-X universal machining fluid enables performance-enhancing synergies both on conventional and, to a much greater extent, on latest-generation machine tools.

ORTHO NF-X MEETS SWISSNANO

Precision turned pieces have been key components of more than one technical masterpiece. With the introduction of the compact NC-controlled Tornos SwissNano, old-fashioned cam-controlled lathes may soon be obsolete. A comparison of the two generations of machines and the machining fluid used at Ultra Décolletage SA illustrates the potential gains that can be achieved.

Many precision-turning companies have been masters of their trade for generations. While new technologies, processes, materials and machines have come and

gone, certain eras have left traces that are still visible in some factories today. In the watch industry especially, there is still a market for millions of pieces made on old-fashioned cam-controlled automatic lathes.

MORE FLEXIBILITY NEEDED

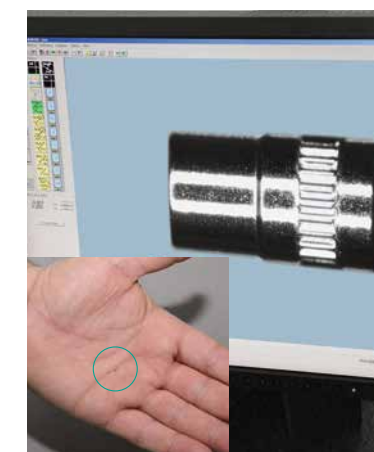
Manufacturers who frequently make small and medium-sized production runs know the advantages of effective shop floor scheduling. Nowadays customer delivery date requests tend to be hard-and-fast deadlines that can strongly influence whether a job is won or lost. Under these circumstances, flexibility is at a premium. The new Tornos SwissNano generation of lathes offers just this kind of flexibility. The single-axis NC lathe is quick to set up, and its high capacity and precision make



The Tornos SwissNano was developed for machining very small parts to the most stringent tolerances. It features six linear axes and two C-axes and is suitable for bar diameters up to 4 mm.



ORTHO NF-X's Vmax technology consists of special additives that are only activated when certain temperatures are reached. Performance gains are guaranteed!



The stainless steel (Inox 4C 27A) piece in this test is made in four processing steps. Millions of identical parts are used in the watchmaking industry as threaded feet.



Bar turners can tell a lot from the wear and color of tools.

it a worthwhile investment in the future in this fiercely competitive environment. MOTOREX was involved in the development of the new Tornos compact class as lubrication specialist, expanding the machine's potential by exploiting synergies.

CUTTING OIL FROM MEDICAL TECHNOLOGY

As the name suggests, MOTOREX's high-performance ORTHO NF-X cutting oil was originally used in the exceptionally challenging world of medical technology. This is a field where hard-to-cut materials are worked to the highest quality standards in demanding applications. Among other things, these requirements make a machining fluid with a very large performance reserve a necessity. This reserve has been built into the general SWISSCUT ORTHO cutting oil line, where it sets new standards in a wide range of applications. MOTOREX has brought the desire for enhanced productivity, longer tool life and optimum machining results to life with SWISSCUT ORTHO NF-X with Vmax technology. A comparison between a cam-controlled automatic lathe and a Tornos SwissNano using a standard cutting oil and MOTOREX ORTHO NF-X ISO 15 strikingly demonstrates just how much additional potential is available (see illustration).

TRADITION AND INNOVATION

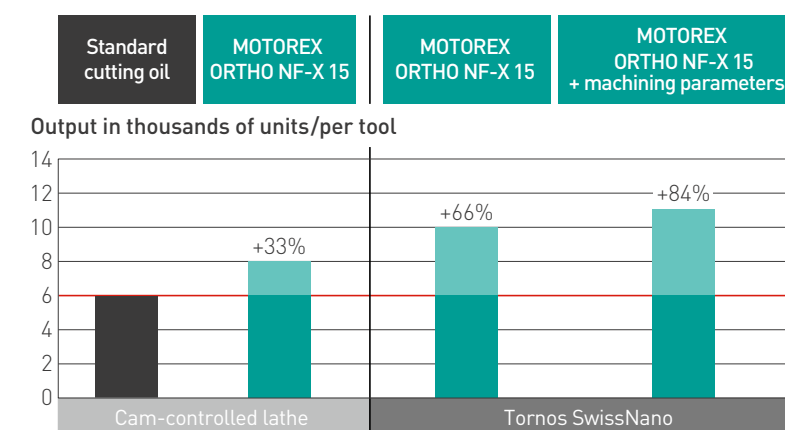
Founded in 1906, Court-based Ultra Décolletage SA is a perfect example of the sort of family business where tradition and innovation coexist in perfect harmony. On its shop floor are several generations of automatic lathes. Its successful production of tiny watch and device parts is built on knowledge and skill gathered over four gener-

ations. The Tornos SwissNano is the perfect addition to the factory's existing production equipment. All 49 automatic lathes are currently operated using ORTHO NF-X. Ultra also produces gear assemblies on 15 machines and mills watch parts on 30 machines. Production runs range from 25 to several million per month. Using a single cutting oil for all the lathes has simplified fluid handling while increasing output and improving tool life.

We'll be happy to provide more information on using SWISSCUT ORTHO cutting oils. We recommend real-world testing in your own factory. • www.ultradec.ch

PERFORMANCE ANALYSIS: PRECISION-TURNED PART

Using a standard cutting oil and MOTOREX ORTHO NF-X 15 on a cam-controlled lathe and a Tornos SwissNano.
Material: Inox 4C 27A
Part: Threaded foot for watchmaking



* Increased feed and cutting rate

Honing is used to abrade and roughen a cylindrical surface in a controlled fashion. Usually the final step in the machining process, honing is significant in ensuring proper function. Along with ample experience and proper equipment, the honing oil used is key to achieving a perfect result.



Know-how in demand: Perfect interplay between piston rings and cylinder can only be achieved with proper honing and correctly honed surface.

THE FINISHING TOUCH

“Honing” originally referred to abrading an object by scrubbing it with a stone. Ford applied the technique in engine production as early as 1923.

A WIDESPREAD PROCESS: LONG-STROKE HONING

In long-stroke honing (just one form of honing among many) of cylinder liners (cast/steel), the tool rotates around its own axis while oscillating up and down along the entire length of the bore. Working the same surface repeatedly with different stroke directions results in the straight or intersecting elliptical grooves that are typical of honing. A cross-hatch pattern at an angle of approximately 45 degrees is characteristic of a honed surface. It is a key factor in the sliding, seal and fail-safe characteristics of an engine, since oil can accumulate in the tiny

grooves. Cylinder grinding operations also achieve optimum results when working cylinder liners by applying a plateau finish (see box).

MANY TINY BLADES

Honing tools consist of guide elements and hones, also called honing stones. Honing stones are grinding elements made of abrasive grains held together by an adhesive; they vary according to the material to be processed and the desired surface finish. The many irregular cutting edges on a honing stone are clearly visible under a microscope. A cylinder grinder can also use the honing process to selectively affect the cylindrical shape of the workpiece.

STRICT REQUIREMENTS FOR HONING FLUID

MOTOREX offers the right SWISSCUT and SWISSFINISH honing fluids for a wide range of honing processes. The honing fluid cools the workpiece and tool during the process, flushes the abraded material from the work zone and provides a clearly specified lubrication. For optimum honing performance, however, the lubricating effect must not be too great as this would make it slow work – or even impossible – to achieve the desired surface finish.

Do you have any questions? Your MOTOREX partner will be glad to assist you. ●

PLATEAU HONING OF CYLINDER LINERS

Plateau honing refers to a process of removing the peaks in the surface from the previous processing step (boring/honing). The material removed in this step must be included in calculations.



Cylinder surface before plateau finishing



Cylinder surface after plateau finishing



Aftermarket manager Johan Ljungar and sales engineer Claes Fehling of Swedmog AB understand the importance of top-quality lubricants.

Unimog is short for “Universal-Motor-Gerät” – roughly, all-purpose motorized device. Swedmog AB successfully imports these legendary, multi-talented all-wheel-drive vehicles to Sweden along with two other brands and provides comprehensive service. MOTOREX products are one of the company’s key success factors.

POWER PLAY WITH SWEDMOG

Swedmog AB is based in Mönsterås on the east coast of Sweden, between Oskarhamn and Kalmar. The company was founded in 1991 by brothers Lars and Leif Fehling (General Manager) and is the exclusive importer of Mercedes-Benz Unimog, the versatile Multihog implement carrier and high-speed JCB Fastrac tractors.

HEAVY-DUTY LUBRICATION

Take a close look at the technology in a well-equipped Unimog and you’ll see just how much engineering goes into these all-terrain implement carriers. Heavy-duty features beneath the frame include a turbocharged Euro-6-compliant engine, transmission with transfer and low-ratio gears, permanent all-wheel drive with operator-engaged differential locks, integrated hydraulic system and power take-offs. To minimize friction and wear in this literal power play, Swedmog depends on MOTOREX’s comprehensive range of lubricants – including expert advice and a smoothly functioning logistics network throughout Sweden.

ON THE GO IN THE GREAT OUTDOORS

Most Swedmog customers work outdoors. Builders, power plant operators, municipal services, foresters and the military all demand 100% reliability from their equip-

ment. Swedmog’s biggest order to date, incidentally, was for 54 specially equipped Unimogs for the Swedish armed forces. The company frequently handles custom orders for civil defense and fire departments as well. With its broad, well-structured product portfolio, Swedmog can configure the right machine for any mission.

QUALITY PAYS

OEKOSYNT HEES has been well received by Swedmog’s customers. This hydraulic fluid is a favorite for its long life under constant heavy use as well as its rapid biodegradability. Swedmog uses it in the Multihog implement carrier for municipal service and in agricultural and construction equipment. Connoisseurs of the brands Swedmog represents know that quality always pays. That’s what makes MOTOREX a perfect fit for the business philosophy of the pros from Mönsterås. ●

FACTS AND FIGURES

Company	Swedmog AB
Headquarters	Mönsterås, Sweden
Established	1991
Employees	5
Market	Sweden
Sales	SEK 30 million
Exclusive importer for	Mercedes-Benz Unimog, Multihog, JCB Fastrac



Garage owner Ariel Taboada from the Italian-speaking Swiss canton of Ticino found inspiration for an eye-catching advertising gimmick when he visited the MOTOREX stand at this year's Geneva Motor Show. The stand featured a cool custom bike sporting a MOTOREX look, and it inspired him to adopt a small, nippy and affordable roadster in MOTOREX colors as an advertisement for his

"SMART" ADVERTISING FROM TICINO

garage. When looking for a car for this completely novel idea, Ariel opted for the remarkable Smart Roadster. It took a few weeks to come up with the final design, during which the compact (343 cm) runabout was



fitted with 17-inch wheels, and a few modifications were made to its exhaust system, chassis and other components. Ariel's 8-year-old son Andrea is delighted that the athletic-looking Smart is a two-seater because he loves to travel with his father in the green roadster. And if you drive MOTOREX colors, it goes without saying that you're a disciple of MOTOREX products. They're a smart bunch in Italian-speaking Switzerland. • www.atgarage.ch

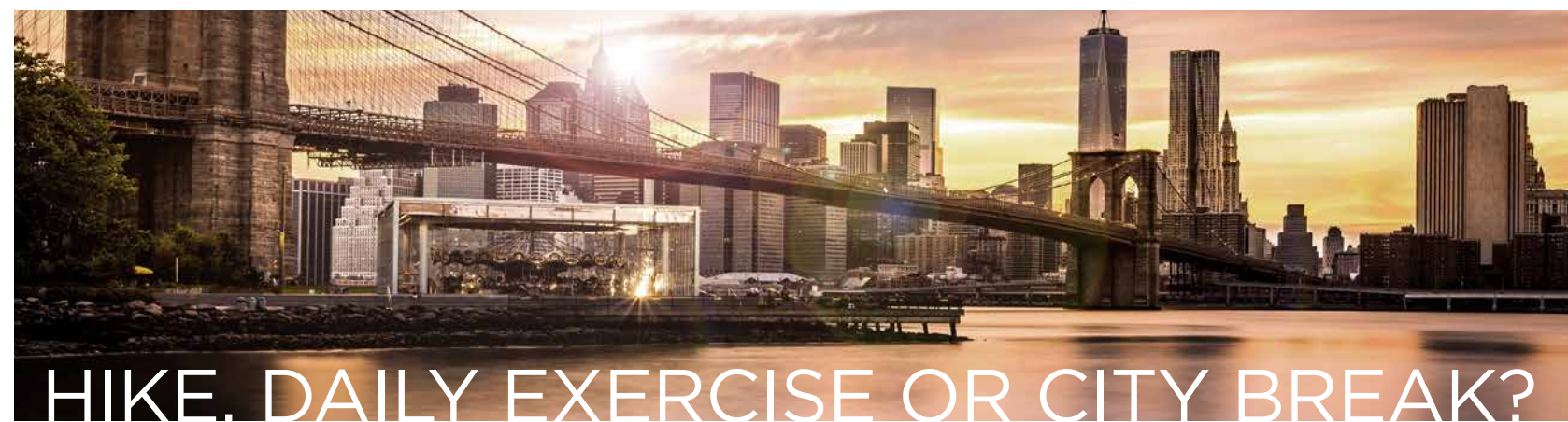
DID YOU KNOW THAT MONKEYS CAN MOVE AT 149.233 KM/H?



Minibikes are miniature, but nonetheless speedy motorcycles. Probably the most popular minibike for customizing and souping up is the 50-cc Honda Monkey, nicknamed the Gorilla. Daytona, the longstanding MOTOREX MOTOLINE importer for Japan, offers a tuning kit that is perfectly matched to this model. A combination of a Keihin FCR33 carburetor and a capacity increase from 50 to 125 cc enables the engine to turn out more than 20 hp. A Daytona

Gorilla that had been modified in this way recently achieved a maximum speed of no less than 149.233 km/h at the Fuji International Speedway! This makes this (admittedly unusual) gorilla speedier than the fastest land animal – the cheetah, which can run at up to 120 km/h – by a considerable margin. And these particular gorillas are especially fond of MOTOREX as a cure for tired muscles after their feats of exertion! • www.daytona-global.com

OTTOREX



BACKPACK MOTOREX

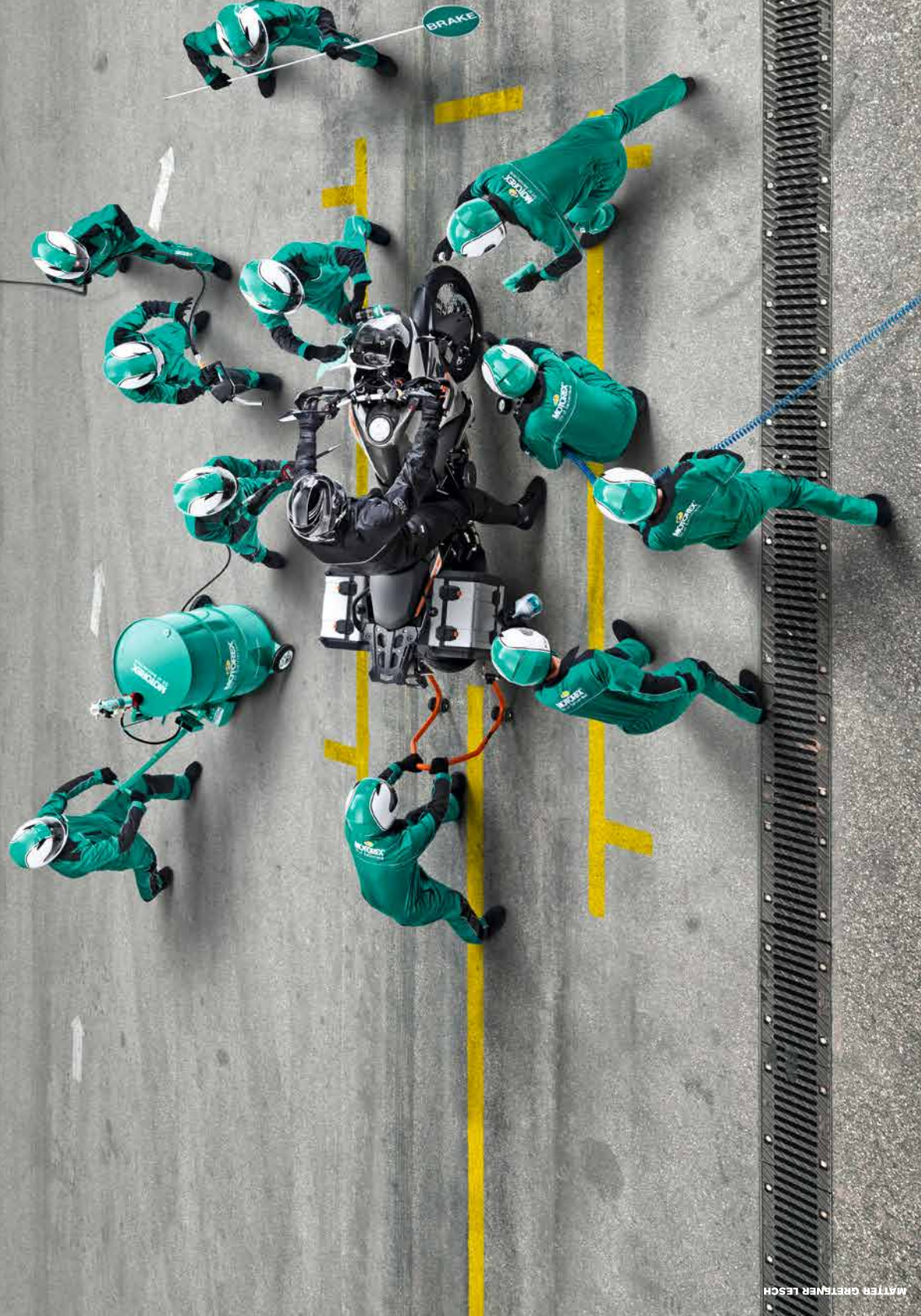
Multi backpack with anatomically shaped shoulder straps and hip belt. Front with elastic holder for helmet or clothes. Two mesh pockets at side and various practical inside and outside pockets. Interior snaplink for keys. Studded base. Rubber badge with MOTOREX logo at front.

SPORT BAG MOTOREX

Training bag with waterproof base; large main compartment; two side pockets and an inner compartment with zip fastener; ventilated footwear compartment and wet/dry compartment for keeping equipment separate; removable and adjustable shoulder strap with padding; double handle with Velcro fastener. Printed logo and rubber badge with MOTOREX logo. Dimensions (L/W/H) approx. 45x35x30 cm. Material: 100% polyester.

Please order these articles exclusively through your importer.

MOTOREX. AND IT RUNS LIKE A CHARM.



MATTER GREINER LESCH

A motorcycle is not just a vehicle – it stands for passion, sportiness and pure driving pleasure. Unless the mechanics let you down. That's why the MOTOREX MOTO LINE offers you a unique, specialised line of lubricants and care products that are all easy to use and effective. Find out more about how our partnership with world-class racing teams and leading motorcycle brands ensures greater reliability, higher performance and enhanced safety: www.motorex.com

