



SWISSLINE

# SWISSLINE

INDUSTRY RANGE



## PERFORMANCE, PROCESS SECURITY AND EFFICIENCY: MOTOREX SWISSLINE

In recent years, the metal-working industry has been defined by a pronounced drive in innovation. With state-of-the-art materials, increasingly complex machining processes, groundbreaking tools and highly efficient machining centres, the entire sector now operates in completely new dimensions of quality and efficiency. At the same time, costs also have to be reduced and the effects on people and the environment minimised wherever possible. Machining fluids and liquid materials that deliver maximum performance around the clock are in use behind the scenes at the point where these conflicting demands meet.

With its core competence in industrial lubrication technology, MOTOREX AG has been a top choice for both small businesses and global corporations for decades. Thanks to close cooperation with machine and tool manufacturers in MOTOREX Synergy Projects, each MOTOREX product is packed with valuable practical expertise. This is reflected in many highly innovative solutions such as Vmax technology, while the "Swiss Made" label guarantees top quality at all times.

This brochure describes the most important product groups in the comprehensive MOTOREX SWISSLINE range. Your MOTOREX partner will be happy to help if you require any further information or suggestions for your lubrication needs.

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## SWISSCOOL METAL-WORKING FLUIDS

For many leading industrial companies, the water-miscible metal-working fluids produced by MOTOREX have become fundamental to the success of production processes. All SWISSCOOL products rely on a four-pillars principle that perfectly amalgamates performance, process reliability, efficiency and service life.

MOTOREX thus satisfies all the prerequisites for the efficient, cost-effective machining of all metal materials, aluminium alloys and plastics. SWISSCOOL metal-working fluids are ideally suited to drilling, turning, milling and grinding applications on modern CNC machining centres with internal cooling, not to mention conventional machine tools from all manufacturers.

### **Advantages of MOTOREX SWISSCOOL**

- High performance
- Low consumption
- Compatibility with humans and machines
- Universal use
- Safety and adherence to applicable legal regulations
- Simple handling and long service life
- Reduction of production costs



*Artificial knee joint produced by linear and radial milling.*

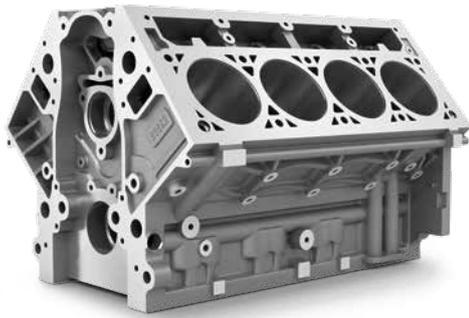
# SWISSCOOL MAGNUM UX METAL-WORKING FLUIDS

High-performance, universal metal-working fluids

SWISSCOOL MAGNUM metal-working fluids are universal, water-miscible and high-performance cutting fluids. Above-average stability combined with excellent wet ability provides optimum cooling and lubrication. Furthermore, their new formulation has given the SWISSCOOL MAGNUM emulsions a wide range of positive properties. Thanks to a high-quality system of emulsifiers, modern additives technology and excellent lubricating components, top results are achieved even with hard-to-machine metals, such as stainless steel or titanium.

## Why SWISSCOOL MAGNUM metal-working fluids are the perfect choice

- mild formulation
- good human and skin compatibility
- excellent milling performance
- above-average tool life
- highly suitable for difficult to machine materials
- produce stable and low foam emulsions, if mixed with water of hardness ranging from 10°dH to 30°dH
- complies with TRGS 611 requirements
- good rinse behaviour
- clean machines
- excellent corrosion protection
- the selected formulation prevents uncontrolled biological growth, resulting in a long emulsion service life



*Machined cylinder block made of innovative light metal alloy.*

## TechTip

### FULLY BALANCED FORMULA

The latest SWISSCOOL metal-working fluids incorporate all the extensive knowledge and skill of MOTOREX's research and development engineers. Work focused primarily on the environment and users but without compromising on the fluids' performance. Using the pioneering FULLY BALANCED FORMULA means that SWISSCOOL metal-working fluids do not need to contain any hazardous ingredients such as chlorine, boron and formaldehyde. The innovative formula, which makes use of modern additives, forms the basis for the microbiological equilibrium in the emulsion. In addition to the success factors mentioned (see advantages), this ensures the long-term stability that is so important for effective production.





## SWISSCUT CUTTING OILS

The pioneering SWISSCUT cutting oil range represents an important contribution by MOTOREX to performance-oriented production processes. This is not only the work of the lubrication technology specialists and engineers at MOTOREX – it is the result of the Synergy Project carried out by MOTOREX in close cooperation with machine manufacturers and workshops. Each SWISSCUT cutting oil now contains more experience and expertise than ever before, such as the unique MOTOREX Vmax technology, for example.

SWISSCUT cutting oils from MOTOREX open up whole new dimensions in all production sequences. In most applications, a huge range of materials – such as light metals and non-ferrous metals, high-alloyed steels, titanium, implant steels and cobalt-chromium alloys – can be machined using the same cutting oil without the need for compromises. SWISSCUT machining fluids are extremely durable and have excellent wear limits, even at extreme temperatures.

### **Advantages of MOTOREX SWISSCUT**

- Exceptional performance
- Low consumption
- Compatibility with humans and machines
- Universal use
- Safety and adherence to applicable legal regulations
- Top marks in medical technology and uncomplicated validation
- Simple handling and long service life
- High aging resistance
- Reduction of production costs



*Modern diesel injector.*

Photo: Bosch

## SWISSCUT ORTHO CUTTING OILS

Universal, high-performance cutting oil

SWISSCUT ORTHO cutting oils have been developed in accordance with the strictest requirements for use in medical technology. Different products which correspond exactly to the widest possible range of customer requirements and performance classes can then be derived. ORTHO NF-X is a genuine first in modern manufacturing technology. This universal cutting oil is ideal for use with high-alloyed steels, non-ferrous metals and aluminium. It eliminates the need for various costly operations, such as separate production lines for mixed processing and pre-washing non-ferrous workpieces. Since ORTHO NF-X incorporates the Vmax technology developed by MOTOREX, optimised cutting data can be generated for all materials and workpiece processing times can be shortened.

SWISSCUT ORTHO is recommended by leading machine manufacturers and complies with the Bosch and Daimler-Chrysler negative\* lists, as well as with VDA guidelines.

### Advantages of ORTHO cutting oils

- Vmax technology
- Universal cutting oils for all materials
- Significantly extended tool life
- Optimum workpiece surface finishes
- Cutting data can be adjusted optimally
- Very friendly to skin
- Low evaporation
- Extremely cost effective

\* approved products

## SWISSCUT MICRO LUBRICANTS

Minimum quantity lubricants for high-pressure spray systems

SWISSCUT MICRO is a range of minimum quantity lubricants (MQL) that is ideal for use in high-pressure spray systems. Using only a few products, the full range of applications and materials can be covered. The products are based on high-quality base fluids and special additives that guarantee optimal results in both chip-forming and chip-free machining.

- Improved in tool life and surface finish
- Improved in performance and capacity of tools and machines
- Economical to use
- Dry machines, tools, workpieces and chips
- Clean workplaces
- Reduced environmental impact; disposal problems eliminated

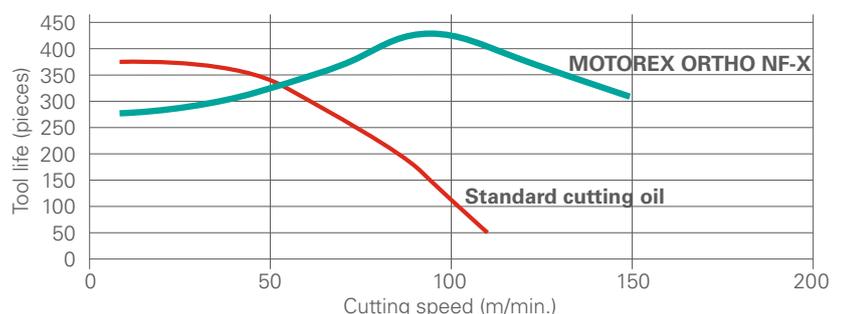


### INCREASED EFFICIENCY THANKS TO VMAX TECHNOLOGY

Anyone working in the metal-working industry is well aware of the saying "time is money". However, optimised cutting data in combination with the right product from the SWISSCUT range can significantly reduce workpiece processing times, especially on difficult-to-machine materials. Thanks to the MOTOREX Vmax

technology in SWISSCUT cutting oils, the generated heat can be used systematically at exactly the right moment. This results in positive chemical synergy effects for improved performance. Take advantage of the potential for optimising your business!

COMPARISON OF CUTTING OILS





## SWISSGRIND GRINDING OILS AND METAL-WORKING FLUIDS

Grinding is a discipline that requires flawless execution, and it is essential for components such as the grinding centre, grinding wheel and grinding fluid to complement each other optimally. Only then can a high-quality, economically compelling performance be achieved. By using products from the MOTOREX SWISSGRIND range, you can benefit from the latest in industrial lubrication technology for grinding applications.

In internal or external grinding, deep grinding, swing grinding or gear grinding, the machining fluid is always applied between the workpiece and grinding wheel. The requirements of new and increasingly faster machining processes are increasing exponentially. SWISSGRIND ZOOM products have been developed for all of today's production requirements and have impressed our international customers for many years.

### **Advantages of MOTOREX SWISSGRIND**

- Proven products for every grinding application
- Constant performance
- Reduction of production costs
- Universal use
- Safety and adherence to applicable legal regulations
- Compatibility with human and machines
- High ageing resistance
- Optimal filterability



*High-quality ground knife blades made from stainless steel.*

## SWISSGRIND ZOOM GRINDING OILS

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Universal, high-performance grinding oils

MOTOREX SWISSGRIND ZOOM is a range of clear, chlorine-free and aroma-free grinding oils designed to meet the highest demands. The oils are characterised by extraordinary cooling that comes into its own when large quantities of material are being processed. SWISSGRIND ZOOM grinding oils are available in different performance classes. All SWISSGRIND ZOOM products have a specially selected combination of additives, that minimises oil mist formation during the grinding process. The grinding wheels are flushed out effectively and thus retain their abrasive properties throughout.

- Excellent cooling
- Extremely low oil mist formation
- Odourless
- Excellent filterability
- Friendly to skin
- Clear colour

## SWISSGRIND ZOOM AQUA METAL-WORKING FLUIDS

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Universal, water-miscible metal-working fluids for grinding applications.

SWISSGRIND ZOOM AQUA is a range of water-miscible metal-working fluids that are free of chlorine and mineral oils and produce a clear solution when mixed with water. SWISSGRIND ZOOM AQUA fluids guarantee good protection against corrosion, have extremely low foaming tendencies, leave no sticky residues and also have a good wetting and rinsing effect. The careful selection and combination of active ingredients also ensures excellent skin friendliness.

- Chlorine free
- No cobalt solubility (ZOOM AQUA HM)
- Very stable solution
- Friendly to skin



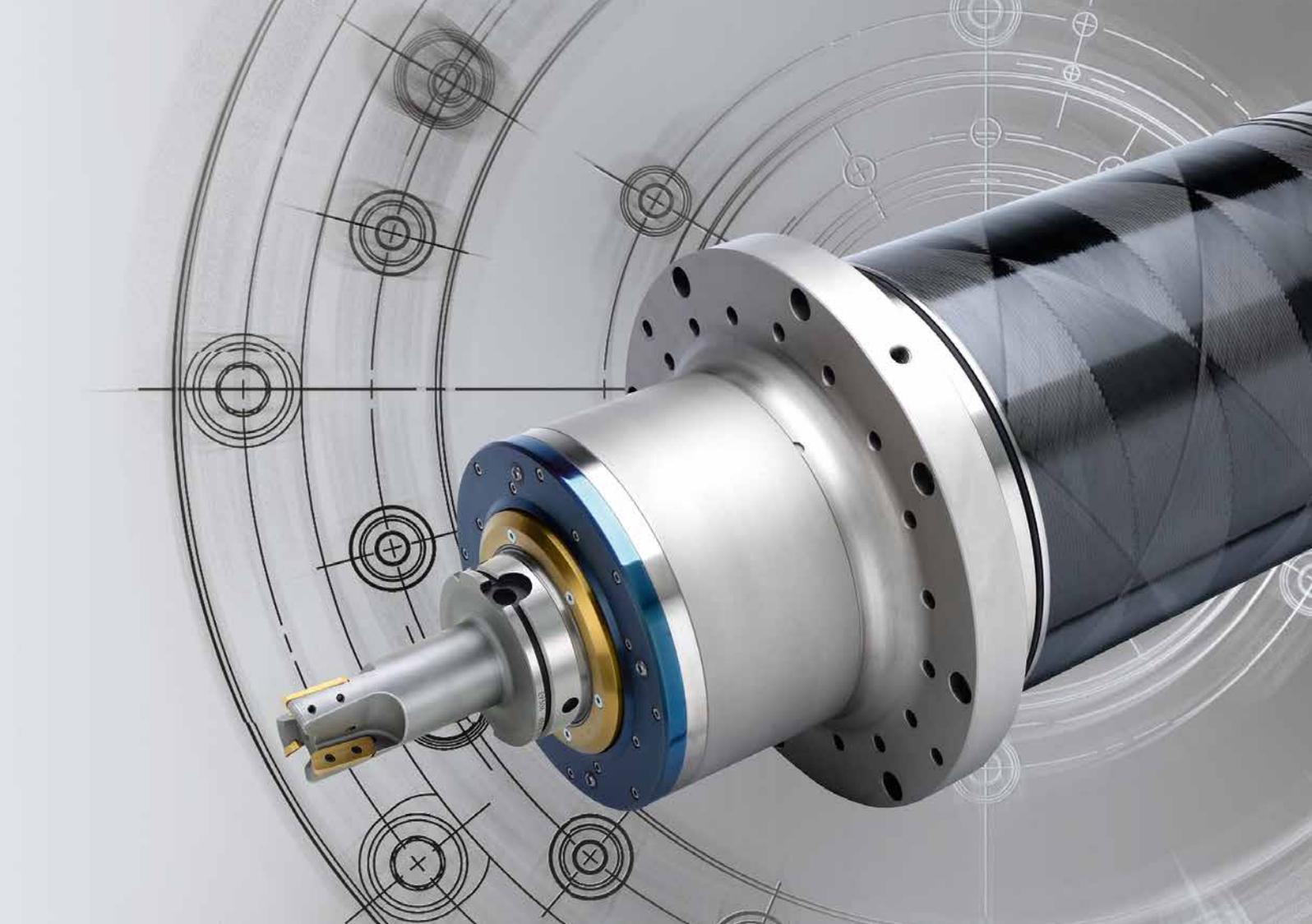
TechTip

### SWISSGRIND ZOOM SYNT MAKES THE DIFFERENCE

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With the launch of the universal, high-performance ZOOM SYNT grinding oil, MOTOREX has made a quantum leap in the field of grinding technology. This aromatic-free, Synthetic Performance grinding oil is suitable for all grinding operations. ZOOM SYNT cools and rinses perfectly even with large quantities of material and produces virtually no oil mist. It can also be mixed with synthetic PAO (polyalphaolefin) grinding oils. The attractive price/performance ratio means that ZOOM SYNT also makes sound economic sense.





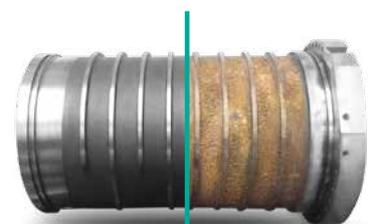
## SPINDLE LINE: PRECISION SPINDLE FLUIDS

The intensive research and development work carried out by MOTOREX is reflected in its comprehensive range of spindle products. Production professionals no longer run the risk of losing a spindle as a result of using an unsuitable spindle coolant or hydraulic oil.

Increasingly powerful spindle systems are at the heart of modern machining centres. Spindle speeds of between 10,000 and > 45,000 rpm push the spindle bearing and coolant to their limits. MOTOREX works together with well-known spindle manufacturers from all over the world. These prescribe various MOTOREX spindle products to guarantee problem-free operation that satisfies the highest quality standards.

### **Advantages of MOTOREX SPINDLE LINE**

- Complete product range for all spindle types
- Development partnership with spindle manufacturers
- Numerous manufacturer approvals and recommendations
- Long-life spindle coolant
- Available as ready-to-use fluids or concentrates
- Simple handling thanks to ready-to-use mixtures
- Good compatibility with humans and machines



*With MOTOREX  
spindle coolant*

*With inadequate  
coolant quality*

## MOTOREX "READY" SPINDLE COOLANT

Ready-to-use MOTOREX spindle coolants are a safe bet. They are prepared using treated water to ensure the same clearly defined high quality levels all around the world – regardless of the local water quality. The ready-to-use spindle coolants are child's play to handle, which eliminates possible sources of errors and spindle damage as a result of incorrect use.

These coolants offer exceptional heat dissipation, passivate the different materials and offer maximum protection against

corrosion. They are suitable for cooling high-performance spindles and also for servo, torque and linear motors on machine tools.

- Ready to use
- Guaranteed water quality and maximum biostability
- Efficient protection against corrosion and electrolysis
- Simple handling and safe application
- Low maintenance thanks to long-life technology

## MOTOREX "CONCENTRATE" SPINDLE COOLANT

MOTOREX concentrates for spindle coolants are fully synthetic, water-soluble one-stop solutions for corrosion protection. When mixed with clean drinking water they produce efficient, fully synthetic coolants with exceptional corrosion protection characteristics.

- Efficient heat dissipation
- Prevention of electrochemical corrosion
- Protects non-ferrous, ferrous and light metals from corrosion

## SPINDLE LUBE HYPERCLEAN

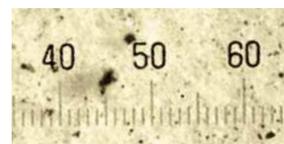
Ultra-fine-filtered spindle oils for bearing lubrication in high-frequency spindles

MOTOREX SPINDLE LUBE is a range of ultra-fine-filtered spindle oils. The purity class is specified as 15 / 13 / 10 in accordance with the ISO standard. The oils are characterised by excellent detergent and dispersing characteristics.

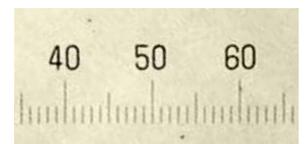
- Ultra-fine filtration of purity class 15/13/10 (ISO 4406)
- Highly effective wear-reducing ingredients
- Effective EP characteristics
- Fast air separation capacity
- Good anti-foaming action with detergent effects
- Special dispersion capacity and water absorption capacity of up to 5 %

### OIL PURITY CLASSES ACCORDING TO ISO 4406

Microscopic image at 100 x magnification. One scale line is equal to 10 µm. Explanation of counting range and number of particles per unit. To the left is a standard oil with a purity class of 20 / 18 / 15 according to ISO 4406. To the right is MOTOREX SPINDLE LUBE with a purity of 15 / 13 / 10.



Standard spindle oil  
20/18/15



MOTOREX SPINDLE LUBE  
15/13/10



TechTip

### PRACTICAL AND RELIABLE: MOTOREX READY-TO-USE FLUIDS

With all miscible coolants, the quality of the water added to them usually has a crucial impact on their service life of the coolant and its corrosion protection characteristics. It is also



still very much the case that most cases of contamination are caused by improper manipulation or a lack of maintenance. Additionally, the drinking water and service water mixed with the spindle coolant are not always of the required quality in all countries.

For these reasons, MOTOREX offers ready-to-use fluids that meet the demands of leading spindle manufacturers.



## SWISSGLIDE FLUIDS FOR LOW-FRICTION OPERATION

However diverse they may be, all industrial applications share the same goal: Moving parts must operate with as little friction as possible and also be protected against long-term wear. The trusty old oil can no longer suffice when dealing with increasingly challenging lubrication requirements. MOTOREX first analyses the existing machinery at first, before creating lubrication solutions that are exactly tailored to the existing conditions. In combination with the correct lubricants, these lubrication concepts form the basis for maximum operating reliability and friction-free operation.

**The MOTOREX SWISSGLIDE range includes:**

- Waylube oils
- Gear oils
- Hydraulic oils
- Industrial greases



*High-tech linear guides and profile rails for innovative mechanical engineering.*

## SWISSGLIDE SUPERGLISS

Waylube oils for plastic-coated waylubes

SUPERGLISS waylube oils contain surface-active substances that improve the coefficient of friction and prevent stick-slip even at slow feed rates and heavy loads. MOTOREX SUPERGLISS K is a range of lubricating oils that form a pressure-resistant, adhesive lubricating film. This film is ideal even for vertical guide rails as no droplet formation occurs.

- Superior adhesion strength
- Reduction of stick-slip
- Excellent extreme pressure (EP) absorption capacity
- Outstanding wear protection

## GEAR COMPOUND PLUS

Gear oils with exceptional high-pressure characteristics

Mineral oil-based, zinc-free and lead-free high-pressure gear oils based. Prescribed for gear units with components made from bronze or other copper base alloys. These oils have proven particularly suitable for industrial use.

- Free of lead and zinc
- Fully compatible with all metals
- Economical thanks to extremely long oil change intervals

## COREX HYDRAULIC OILS

Hydraulic oils with exceptional high-pressure characteristics

Single-grade and multi-grade hydraulic oils with extremely varied areas of application, such as hydraulic oils in industrial systems. Thanks to their extremely stable viscosity, COREX hydraulic oils are also suitable for use in high-precision hydraulic power transmission, regulation and control systems. Their excellent detergent and dispersing characteristics prevent malfunctions.

- Available as single-grade or multi-grade hydraulic oil
- Very shear stable (stay-in-grade)
- Optimal wear protection
- Compatible with other mineral oil-based hydraulic oils
- Neutral behaviour with seals



### PREVENTING STICK-SLIP WITH MOTOREX EASY GLIDE

Stick-slip is the specialist term used to describe the spontaneous jerking motion that can occur while two objects slide over each other. This occurs when the static friction coefficient is larger than the kinetic friction coefficient. If an applied force is large enough to overcome the static friction, then this results in a jump in the velocity of the movement. This causes vibrations that have a negative effect on the machining process and dimensional stability. The special additives in the waylube oils developed by MOTOREX change the friction coefficient and effectively prevent stick-slip, even at low speeds.





## SWISSPROTECT CORROSION PROTECTION PRODUCTS

Whether used in semi-finished products, automatic turning parts, machines or metal tools, high-performance corrosion protection is a vital part of industrial production processes. Thanks to its ongoing research and development in corrosion protection, MOTOREX has been able to gain practical insights in the field over a period of many years. The result is a remarkable technological advantage, as demonstrated by the development of VOC-free INTACT corrosion protection fluids. INTACT products are also the result of a MOTOREX Synergy Project with the metal-working industry.

If corrosion protection is not taken seriously, then product quality visibly suffers and the reject rate increases significantly. It is also not uncommon to see irreparable damages to products, machines and tools. This is something that no business can afford. By obtaining the right advice and corrosion protection products from MOTOREX, your company is always on the safe side!

### **Advantages of MOTOREX SWISSPROTECT**

- Highly effective corrosion protection
- Comprehensive range for every application
- Use of VOC-free active ingredients
- Maximum cost efficiency



*MOTOREX SWISSPROTECT FLUIDS  
protect the most diverse materials  
efficiently and economically.*

## SWISSPROTECT INTACT

Corrosion protection fluid, VOC-free (volatile organic compounds)



SWISSPROTECT INTACT corrosion protection fluids actively infiltrate water and leave behind a highly effective protective film. The various formulations in the INTACT range cover the full range of applications. The particular requirements, as well as storage conditions at the customer, dictate whether the corrosion protection has to be slightly oily, dust dry or particularly thick and dry. INTACT corrosion protection fluids are also free of most dutiable solvents (VOCs).

### INTACT CORROSION PROTECTION FLUIDS

- VOC-free
- Highly effective against corrosion
- Extremely water-repellent
- Easy to use
- Very economical
- Virtually odourless
- Not classified as hazardous goods
- Easy to remove

## SWISSPROTECT FLUID

Corrosion protection fluid containing VOCs

All SWISSPROTECT FLUIDS combine exceptional corrosion protection with excellent dewatering properties. Depending on the product, an extremely thin, durable protective film remains after the application (spraying, brushing, dipping, galvanising). This film is non-adhesive and does not attract dust. The range includes a variety of formulations that perfectly cover each field of application. The MOTOREX FLUID film can be removed easily using a solvent cleaner (e.g. REX CLEANER).

### ALL MOTOREX SWISSPROTECT FLUIDS

- Protect against corrosion
- Repel water
- Do not emulsify
- Do not react to paintwork
- Can be removed easily



*Outstanding protection ensures, parts and components retain their value up to the point of use.*

### TechTip

## VOC-FREE CORROSION PROTECTION IMPRESSES IN PRACTICE

Regardless of whether it is used in series parts or high-precision metal tools, high-performance corrosion protection is a vital part of the industrial production process. If corrosion protection is not taken seriously, product quality visibly suf-

fers, the reject rate increases significantly and the product may even be completely destroyed. For environmental reasons, many products are free of VOCs (volatile organic compounds). This means that all metal materials can be protected optimally and significant cost savings achieved by exemption from VOC duties in certain countries. Dewatering in particular has been virtually inconceivable without VOCs up to now, which is exactly why INTACT products are so innovative. They combine impressive de-watering properties with good corrosion protection without the use of solvents (VOCs). Your MOTOREX partner will be happy to help you find the right product for your application.





## SWISSCLEAN CLEANER: A SPARKLING IDEA

The cleaning of parts, machine, tools and facilities now requires more know-how than ever. More and more applications now also demand reproducible cleaning processes that can be validated. The SWISSCLEAN range from MOTOREX includes different products for the cleaning challenges of today. Wherever possible, we ensure that the active ingredients are both effective and environmentally friendly. In addition to many VOC-free cleaners, specially developed and proven products are available for each cleaning process.

For cleaning in particular, it is worthwhile analysing the requirements in advance together with your MOTOREX partner. All additional costs associated with your cleaning process and the increasing costs for material disposal must also be taken into account here. In many cases, the number of different products used can be reduced to just a few universal SWISS-CLEAN cleaners. Get in touch with your MOTOREX partner!

### Advantages of MOTOREX SWISSCLEAN

- Wide range of products for all cleaning applications
- Effective and mild product formulations
- Use of VOC-free active ingredients
- Low disposal costs
- Maximum cost efficiency



*High-precision automatic turning parts have to be cleaned correctly.*

## SWISSCLEAN SWASH CLEANER

Highly effective A3 industrial cleaner

MOTOREX SWASH CLEANER is a solvent cleaner made from isoparaffinic hydrocarbons. Its universal cleaning power is especially suitable for oily dirt. The low aromatic content makes the cleaner virtually odourless.

### SWISSCLEAN SWASH CLEANER

- Removes grease, oil and waxes
- Is virtually odourless and can be distilled when undecomposed
- Narrow boiling range
- No danger of corrosion on any metals
- Residue-free drying
- Non-toxic

## SWISSCLEAN REX CLEANER

Universal cleaner containing aromatics

MOTOREX REX CLEANER is an aromatic-containing solvent cleaner containing white spirit. It is suitable for degreasing metal and plastic parts, and is ideal for use in cleaning devices for small parts.

### SWISSCLEAN REX CLEANER

- Removes grease, oil and waxes
- Does not affect electrical windings
- Dries quickly

## SWISSCLEAN REFO CLEANER

Universal VOC-free cleaning concentrate

MOTOREX REFO CLEANER is a VOC-free cleaning concentrate. This high-performance cleaner removes oil, grease and general industrial contamination. It is well suited to the machine applications and does not generate foam thanks to special MOTOREX low-foam additives it contains. It is quickly biodegradable.

### SWISSCLEAN REFO CLEANER

- Biodegradable
- Suitable for cleaning machines
- Compatible with plastics, varnish and metal
- Free of solvents (VOCs)



## SWISSCLEAN OPAL 5000

Universal VOC-free cleaner

MOTOREX OPAL 5000 is a low-odour universal cleaner. It has similar cleaning characteristics to normal VOC-dutiable solvent cleaners, but is composed of active ingredients that are not subject to VOC levies. MOTOREX OPAL 5000 is particularly suited to cleaning and degreasing components and is ideal for use in cleaning devices for small parts and ultrasound systems.

### SWISSCLEAN OPAL 5000

- Removes grease, oil and waxes
- Does not affect electrical windings
- Dries slowly, thus offering temporary protection from corrosion
- Is not VOC dutiable
- Is virtually odourless



## MOTOREX LOW FOAM FOR CLEANING WITH MINIMAL FOAM BUILD-UP

Foam is a hindrance in many cleaning tasks and in cleaning machines in particular. Foam build-up also slows down all cleaning processes. MOTOREX thus offers special low-foam cleaners such as REFO CLEANER in its product portfolio. Low-foam formulations produce 90 % less foam compared to standard cleaners.



Standard cleaner



MOTOREX low-foam cleaner



## MOTOREX SPRAYS: TOOLS IN A CAN

MOTOREX has over 40 years' experience of manufacturing spray products. Tool sprays are now absolutely indispensable in a variety of tasks. MOTOREX has used CFC-free propellants from the outset. The spray head with its clever ball valve, allows the contents of the spray to be used up completely, even when turned upside down. This means that even hard-to-reach areas can always be accessed reliably during maintenance. Where appropriate, the products are equipped with an extended spray nozzle. This is especially practical when carrying out precise relubrication of exposed lubrication points.

MOTOREX sprays include all the applications needed for industrial and service needs. The sprays are manufactured to the highest "Swiss Made" quality at MOTOREX.



*All MOTOREX sprays have 360° functionality.*

## INTACT MX 50 SPRAY

Universal industrial spray



Indispensable for industry, trade, workshops and service stations. Lubricates all moving parts. Perfect for protecting metal surfaces and preserving tools. Stops squeaking. Leaves behind a very effective protective film. Repels and infiltrates water, thus preventing corrosion.

## TOOL GUARD

Protection spray



Creates a thin protective film (<math><0.4\mu\text{m}</math>) that is an excellent preservative for tools, equipment, machines etc. Infiltrates water and provides invisible, dry and non-slip protection against moisture and sweaty hands. Ideal protection for internal bearings. No long-term protection or protection for external bearings.

## SPRAY 2000

Adhesive lubricant



Long-acting, fully-synthetic, high-pressure-resistant lubricant for universal application. Penetrates rapidly and protects against corrosion. Thermally stable from  $-30\text{ }^{\circ}\text{C}$  to  $+200\text{ }^{\circ}\text{C}$ . Adhesive, water resistant, silicone free, pressure and impact resistant, colourless.

## CHAINLUBE PROFESSIONAL

Chain lubricant



Deep penetrating, fully synthetic chain lubricant. Chain drives often operate out in the open and are therefore exposed to dirt and water. MOTOREX CHAINLUBE PROFESSIONAL repels dirt and water, providing effective protection against their effects.

## SPRAY 466

Long-acting corrosion protection



Barium-free long-term corrosion protection which quickly builds up a tough, non-slip waxy film that protects against external influences.

## PROWELD SPRAY

Weld protection



Silicone- and solvent-free, non-flammable air spray. Prevents welding beads from sticking, protects welded items and equipment from corrosion, leaves behind no ash residue and is easily washed off with water.

## POWER CLEAN

Cleaner/degreaser



Cleans and removes even the most stubborn dirt. Eliminates oil, grease, tar etc. Does not affect rubber, plastic and varnishes.

## EASY CUT PUMP SPRAY

Drilling and cutting spray



Oil spray for use with all high-alloyed steel grades as well as non-ferrous metals and aluminium. For drilling, thread cutting, sawing, turning, milling and stamping. Propellant-free pump spray.

## PTFE OIL SPRAY

High-performance lubricant



MOTOREX PTFE OIL SPRAY combines the characteristics of an oily lubricant with those of a dry PTFE-based lubricant. The solid particles in the lubricant make surfaces smooth and help separate the parts requiring lubrication. This ensures the oil remains in the lubrication point for a really long time.

## SPRAY WITH PTFE

Dry lubricant

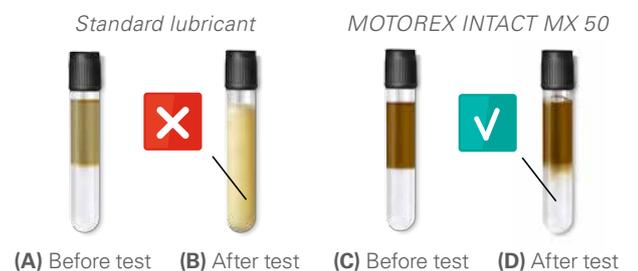


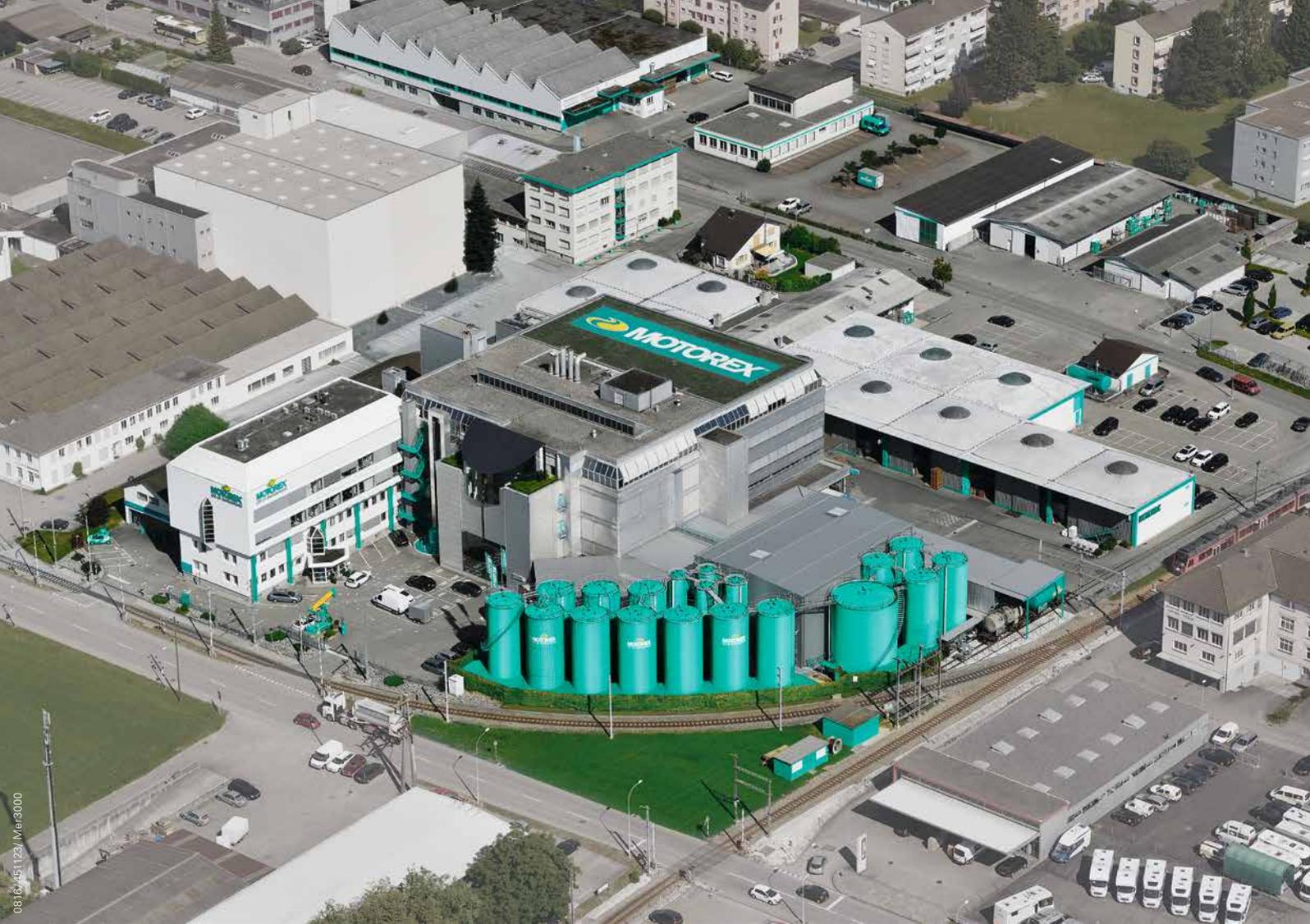
Dry lubricant which can be used as an anti-seize and release agent and does not leave behind any oily marks. The extremely thin Teflon layer with a particle size of  $5\text{ }\mu\text{m}$  prevents parts sticking to moulds and stops mounted parts becoming seized on machine tools. Almost unlimited chemical resistance and suitable for use over a very wide range of temperatures ( $+265\text{ }^{\circ}\text{C}$ ). Antistatic.

### TechTip

#### MOTOREX INTACT MX 50 IN LABORATORY TEST

The water emulsification test is one of the tests that shows noticeable differences between universal lubricants. In figure (A) to the left, the lubricant and water separate visibly. After shaking, the standard lubricant emulsifies (mixes) with the water (B) and does not separate again – even after a long rest period. In contrast, MOTOREX INTACT MX 50 repels the water effectively (C) and separates again immediately after shaking (D).





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## FACING THE FUTURE WITH PIONEERING SPIRIT



For over 95 years, BUCHER MOTOREX has been synonymous with pioneering lubricants of the highest quality. With the foundation of subsidiary MOTOREX AG at the start of the 1970s, the independent Swiss company began to focus on industrial applications.

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