



**MOTOREX**<sup>®</sup>  
Oil of Switzerland



SWISSLINE

# SWISSCOOL

HIGH-PERFORMANCE  
WATER MISCIBLE COOLANTS



Geometrically milled, complex aircraft structure made of aluminum.

## UNIQUE PRODUCTIVITY IN LIQUID FORM

Nowadays, what counts most in industrial production is maximum productivity and process reliability at minimum cost. However, long-term success also hinges on parameters such as top quality and the assurance that the chemicals used in the water miscible coolants are harmful to neither the people working with them nor the environment.

Highly innovative products for the metalworking industry's most challenging applications are proof of MOTOREX's capabilities. The tribology specialists at MOTOREX incorporated the latest technical discoveries into the development of SWISSCOOL water miscible coolants. The company prides itself on being able to rise to the specific challenges posed by any application with one and the same product.

### MOTOREX SWISSCOOL's winning features

- performance
- consumption
- human and machine compatibility
- safety and legal compliance
- handling and service life
- reduced production costs



# REDUCE COSTS WHILE STAYING FLEXIBLE

All MOTOREX SWISSCOOL products are universal, water miscible coolants with an exceptional cutting capacity. Above-average stability and outstanding wettability guarantee maximum cooling and lubrication with water of any hardness. What's more, a highly resistant film provides lasting protection against corrosion for machines, tools and workpieces.

All these features combine to ensure efficient, cost-effective machining of all metals, plastics and, in particular, aluminum alloys. SWISSCOOL water miscible coolants are the ideal fluids for drilling, turning, milling and grinding operations not only on modern CNC machining centers with internal cooling but also on any make of conventional machine tool.

## Why SWISSCOOL is the perfect choice

- universal – can be used with any material
- suitable for hard and soft water
- low foaming
- high emulsion stability and biostability
- contains no chlorine, zinc or heavy metals
- extremely stable pH
- enhanced tool service life
- perfect cleaning and run-off properties, outstanding demulsibility
- excellent machine compatibility
- non-irritant to skin and pleasant, neutral odor
- outstanding cost-efficiency



Knee prosthesis produced by linear and radial milling.



# HIGH-SPEED SPINDLES: AT THE HEART OF ACTION

MOTOREX's intensive research and development activities are reflected in the company's comprehensive spindle products. These days professional manufacturing companies no longer risk spindle failure by using unsuitable spindle coolants or hydraulic oil.

Spindle systems are the heart of modern machining centers, and their performance is improving all the time. Rotational speeds of 10,000 to over 100,000 rpm test the spindle bearing and cooling system to the limit.

MOTOREX works with the world's leading spindle manufacturers, who prescribe the use of various MOTOREX spindle products so that they can guarantee their customers problem-free operation and maximum quality.

## **MOTOREX COOL-X**

Ready-to-use high-performance spindle coolant offering outstanding long-term corrosion protection for all spindle materials.

## **MOTOREX COOL-X SERVICE**

Rinsing fluid for closed coolant circuits with cleaning and disinfectant care additive; suitable for all machine tools.

## **MOTOREX COOLANT F**

Water miscible coolant additive with excellent corrosion protection for all materials.

## **MOTOREX SPINDLE LUBE HYPERCLEAN**

Ultra-finely filtered HLP-D hydraulic fluid (class 13/10, ISO 4406) in the viscosity classes ISO VG 46 or 68.



Milled multi-valve cylinder head made of innovative light metal alloy.

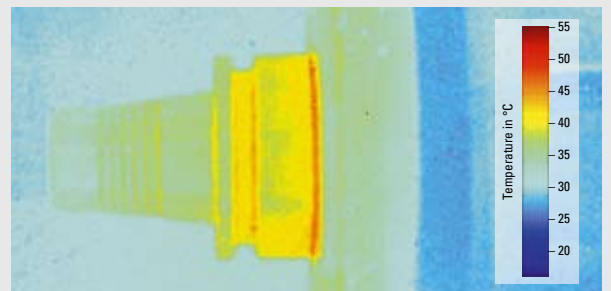
# MOTOREX COOL-X, THE PERFECT SOLUTION

## MOTOREX COOL-X spindle coolant guarantees

- long service life (long-life coolant)
- reduced maintenance effort
- compatibility with torque and linear motors
- outstanding corrosion protection
- high compatibility with materials used in spindle-making and machine tool production
- excellent heat removal properties
- no toxic additives
- consistently high quality
- maximum process reliability



The high-performance spindles need to have a consistently low temperature to minimize stretching and bearing

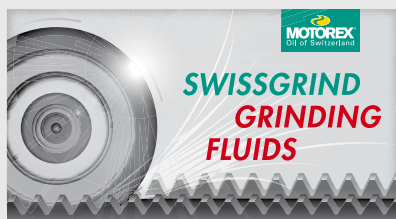


wear. The picture on the right was taken with a thermal imaging camera and shows the typical temperatures at the tip of a spindle.

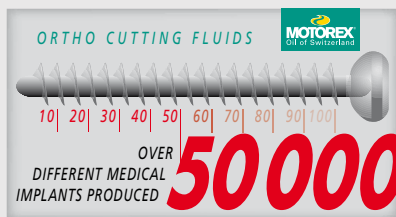
The spindle coolant's job is to reduce these temperatures and ensure equilibrium throughout the spindle. Leading high-speed spindle manufacturers recommend ready-to-use MOTOREX COOL-X.



# MOTOREX SWISSCOOL – AND YOU'LL BE HAPPY!



MOTOREX's SWISSGRIND ZOOM SYNT high-performance grinding fluid is a valuable addition to the range of grinding products currently on the market. This innovative synthetic high-performance fluid is suitable for all grinding applications and has an enticing price-performance ratio.



To date over 50,000 highly challenging and sophisticated implants of various types have been manufactured with MOTOREX machining fluids. The high-tech materials and state-of-the-art machining processes used demand top performance from Swiss-made MOTOREX machining fluids.

**MOTOREX AG LANGENTHAL**  
Industrial Lubrication Technology  
Bern-Zürich-Strasse 31  
4901 Langenthal, Switzerland  
Telefon +41 (0)62 919 74 74  
Telefax +41 (0)62 919 76 96  
[www.motorex.com](http://www.motorex.com)



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