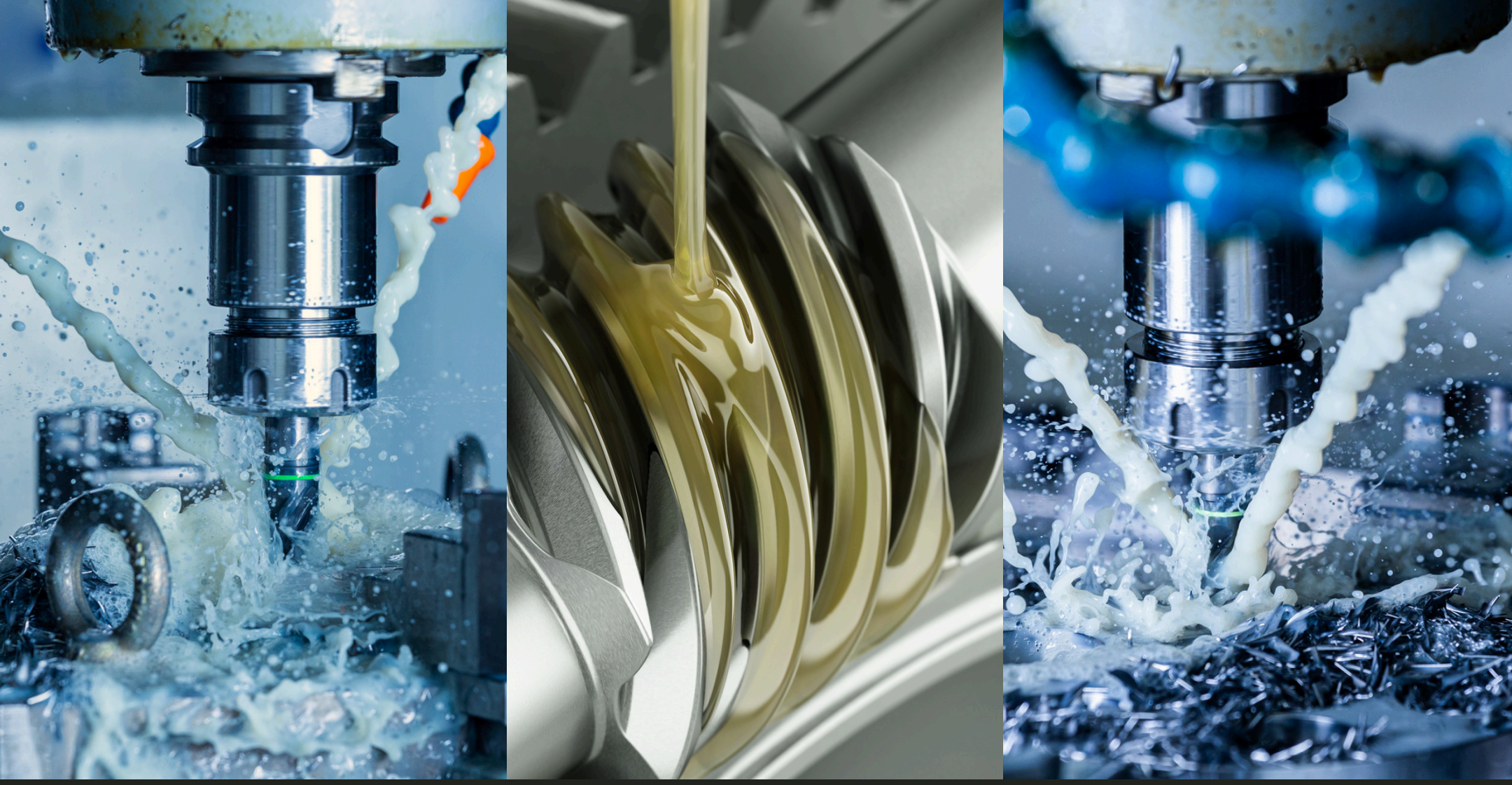


EKR Mühendislik Endüstri Maddeleri San. ve Dış Tic. Ltd. Şti.



METAL SURFACE FINISHING CHEMICALS

Easy Way of Metal Working

[www.ekrmuhendislik.com](http://www.ekrmuhendislik.com)





TESS-SAN operates in the industrial oil sector since 2004 and produce all kinds of industry needs by its expert and trained staff in the latest technology plant where located in Istanbul Hadimkoy. Providing suitable products to the customer demands, suggesting technical solutions to the problems which may arise during the product applications and customer satisfaction take place on the basis of our existence in the sector. TESS-SAN; has been increasing its product portfolio with investments on the R&D department day by day. With our officially registered brands; TESS-SAN EUROLUB, FORCE K 102 and COLDEX, we are competing in the world market with great variety of product groups. TESS-SAN has wide range of customer profile from small and medium sized enterprises to international corporations and serves in the various sectors. Our company takes as principle the continuous improvement understanding with wide range of good quality products and has the ISO 9001 Quality Management System, ISO 14001 Environmental Management System and ISO 18001 Occupational Health and Safety Management System documents. Our main goal is to meet the customer expectations professionally in the shortest time with efficient, economical and reliable products.

## BRANDS

- 
- 
- 



## MINERAL BASED METALWORKING FLUIDS

Universal mineral based metal working fluids which are recommended to be used in the production of mineral oil based, ferrous and non-ferrous materials.

"EUROLUB TE 210

"EUROLUB TE 210 ES





## SEMI SYNTHETIC METAL WORKING FLUIDS

These fluids are produced with the latest technological formulations and can supply all the needs of the new technology high speed machines. Also they solve the putrefaction problems due to rust and bacteria formation. They are supported by the EP (Extreme Pressure) additives which provide excellent emulsion stability even in the hard waters. They guarantee very high team life and excellent surface roughness in the most challenging operations. At high turnover rates (>6000 rev/min), nonfoaming products provide long store life with specially chosen additives. Besides turning, milling and all cutting and grinding operations, these metal cutting fluids can be used successfully in screwing, broaching and reaming operations at high concentrations.

- **FORCE K 102**  
Universal Cutting & Cooling Fluid

- **TESS-SAN EUROLUB TE 255**

- **TESS-SAN EUROLUB TE 280**  
Universal Cutting & Cooling Fluid

- **FORCE K 102 TUBE**  
For Pipe Profile Sector

- **FORCE K 102 S**

- **COLDEX 58 UCM**  
For Copper & Brass Alloys

- **COLDEX 2042 CF**  
For Aliminum Materials

- **COLDEX 2053 AF**  
For Stainless and Heat - processed Materials

- **TESS-SAN EUROLUB TE 290**  
Universal Cutting & Cooling Fluid

- **TESS-SAN EUROLUB TE 290 UC**  
Universal Cutting & Cooling Fluid





## SYNTHETIC METAL WORKING FLUIDS

These fluids are developed for the applications prominent cooling performance especially grinding performance. They provide a safe working area by being convenient for environment and human health besides the maximum lifetime on the rust and bacteria inhibitors. They are %100 biodegradable.

"EUROGRIND A

Universal Grinding Fluid

"EUROGRIND K 305

Universal Grinding Fluid

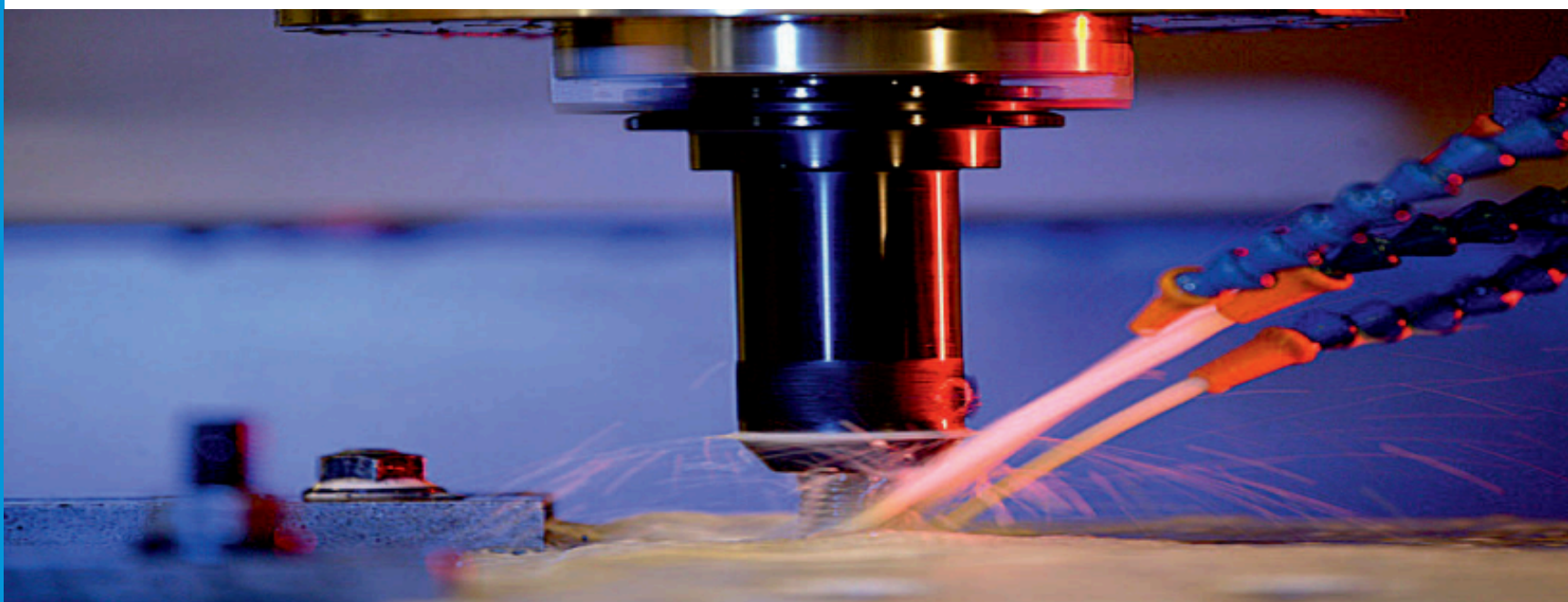
"EUROGRIND ACO

For the use of Cobalt and Cobalt-Alloy Materials

"FORCE K 102 B

Grinding Fluid with EP additive for the use of steel, cam and crank shaft cylindrical grinding operations.

"FORCE K102 DK





## COPPER WIRE DRAWING FLUIDS

Wire drawing fluids are developed for the purpose of drawing the copper and copper-alloys in every size. It keeps clean the benches with the excellent carrying and detergent properties. It provides excellent surface quality by preventing copper surface corrosion with convenient Ph range. Thanks to its special formulations, it provides a clean working area by ensuring maximum emulsion life with high stability.

'EURODRAW TE 410 Emulsion Annealing Fluids

EURODRAW TE 418

Thin and Super Thin Wire Drawing Operations

EURODRAW TE 428

Medium & Thin Wire Drawing Operations

EURODRAW TE 438

Multi-wired, Drawing Operations

EURODRAW TE 448

Thick Wire Drawing Operations

## COPPER WIRE DRAWING FLUIDS

Preventive oils which are developed for the purpose of preventing corrosion and rusting during stocking, transporting of all kind of iron and steel materials. Various type products can be recommended according to the desired protective film layer, time and easy cleaning properties.

TESS-SAN EUROLUB CP 510 Water Based Preventive Oil

TESS-SAN EUROLUB CP 520

TESS-SAN EUROLUB CP 536

Thick Waxed Film, Convenient for Oversea Transports, Very Long Protect Life

TESS-SAN EUROLUB CP 536 S/50 Thin Waxed Dry Film Layer

TESS-SAN EUROLUB CP 536 S/75 Mid Waxed Dry Film Layer

TESS-SAN EUROLUB CP 536 S/150

TESS-SAN EUROLUB CP 545

Thin-fatty Film, Convenient for Oversea Transport

TESS-SAN EUROLUB CP 550

Fatty Film Layer, Convenient for Longlife Protectio

TESS-SAN EUROLUB CP 575

Mid-fatty Film, Convenient for Oversea Transports

TESS-SAN EUROLUB CP 585

Thin-dry Film, Convenient for Intermediate Lubrications

TESS-SAN EUROLUB CP 585 D

Thin-dry Film Layer, Odorless



## SYNTHETIC METAL WORKING FLUIDS

Cutting and cooling fluids which are specially developed for the use in glass working industry which is aimed to achieve maximum edge life and excellent quality. Also maximum yield is aimed with the diversified products for straight board cutting and radius cutting operations. They have an easy cleaning property after cutting.

**-TESS-SAN EUROLUB GC 620**

Volatile Glass Cutting Fluid

**-TESS-SAN EUROLUB GC 630**

Water Based Shear Dil; for Bottles and Decorative Nicknacks

**-TESS-SAN EUROLUB GC 640**

Board Cutting; Radial Cuttings

**-TESS-SAN EUROLUB GC 660**

Thick Glass Cutting

**-TESS-SAN EUROLUB GC 670**

Board Cutting, Volatile

**-TESS-SAN EUROLUB GC 680**

Board Cutting, Volatile

**-TESS-SAN EUROLUB GC 690**

Straight Cutting, Volatile Glass Cutting Fluid





## BLANKING OILS

These oils are reinforced with the oxidation preventing additives which provide working for long hours with high performance. They are durable with high pressure and temperature. With the containing corrosion preventing additives they increase the cutting tool life and prevent high temperature hazing and tarnishing problems. They are successfully used in Screwing, Hobbing, Deep Drawing, Broaching, Taper Grinding, Honning And Grinding operations.

### **TESS-SAN EUROLUB CX 705**

Grinding and Turning

### **TESS-SAN EUROLUB CX 710**

General Usage

### **TESS-SAN EUROLUB CX 720**

Al Cutting Oil

### **TESS-SAN EUROLUB CX 730**

General Usage

### **TESS-SAN EUROLUB CX 735**

Deep Drilling and Cutting Operations

### **TESS-SAN EUROLUB CX 740**

Stainless and Hard Materials

### **TESS-SAN EUROLUB CX 750**

Tapping Oil

### **• TESS-SAN EUROLUB HON A**

Honning Operations

### **• TESS-SAN EUROLUB HON A EP**

Honning Operations (EP added)

### **TESS-SAN EUROLUB BR 40**

Broach Oil





## DEEP DRAWING OILS

While cold formalizing of metal plates, these deep drawing oils make smooth varnishing surfaces by forming an excellent film layer at high temperature and pressure conditions without causing hazing. They are also easy to clean in degreasing baths.

TESS-SAN EUROLUB DD 920

TESS-SAN EUROLUB DD 920 YI

TESS-SAN EUROLUB DD 920 YI/74

TESS-SAN EUROLUB DD 920 YII

Oil-based Forming Fluids

TESS-SAN EUROLUB TF 950

TESS-SAN EUROLUB TF 950 D

Volatile Forming Fluids

TESS-SAN EUROLUB TF 940

Water Based Forming Fluids

-TESS-SAN EUROLUB DD 970

-TESS-SAN EUROLUB DD 980

Deep Drawing and Polishing Pastes



## FORGINS OIL

These products can give optimum results of the extrusion of the iron materials, stamping operations regarding by the all kind of ferrous and nonferrous materials, cold and hot forging operations. Especially usage of developed graphite free products presents significant advantages on production of aluminum and brass parts. Product interaction is zero and leaves a clean surface.

TESS-SAN EUROLUB FO 1050 G

Graphite Forging Oil

TESS-SAN EUROLUB FO 1060 WG

Water Based Graphite Forging Oil

TESS-SAN EUROLUB FO 1060 W

Graphite - freeWater Based Forging Oil

TESS-SAN EUROLUB FO 1060 WN

Graphite freeWater Based Forging Oil

TESS-SAN EUROLUB FO 1070

Graphite-free Forging Oil

## PH INCREASERS & CORROSION INHIBITORS

Auxiliary chemicals which are used for preventing of corrosion occurred after the test of impermeability. They increase the corrosion performances of the metal working fluids. They are used for the purpose of breaking of distilled water corrosion tendency.

TESS-SAN EUROLUB ANTICOR TE - 50

"TESS-SAN EUROLUB ANTICOR TE - 50 D





## DIE CASTING LUBRICANTS

These mould release products which are modified with the special additives for die casting of coloured metals and alloys which have low melting point like aluminum, magnesium, zinc and zamak. Thanks to its special additive containing, these lubricants don't cause a hazing at high temperature and pressure conditions. They prevent surface defects and provide excellent casting surface by easy release of part from the mould. They don't damage the after casting processes (dying and coating).

TESS-SAN EUROLUB ALP 5

Core Mould Oil (paste)

TESS-SAN EUROLUB DL 170

TESS-SAN EUROLUB DL 111

Water Based Mould Release

TESS-SAN EUROLUB DL 150

TESS-SAN EUROLUB DL 165

TESS-SAN EUROLUB DL 190

Zamak Mould Release

TESS-SAN EUROLUB DL PG

Graphite Piston Oil

TESS-SAN EUROLUB DL PS

Liquid Piston Oil



## PLASTIC/RUBBER INDUSTRY LUBRICANTS

Mould release products which formulated based on the silicon or synthetic oil while die casting process of plastic and rubber materials.

### **TESS-SAN EUROLUB MR 1830**

Water Based Mould Release

### **TESS-SAN EUROLUB MR 1870**

Synthetic Based, Silicon-free Mould Release

### **TESS-SAN EUROLUB MR 1840**

Water Based Mould Release

### **TESS-SAN EUROLUB MR 1350**

Silicon Based Mould Release

### **TESS-SAN EUROLUB MR1850**

Water Based Mould Release





## HYDRAULIC SYSTEM OIL

They show highly efficient performance due to oxidation, rust and foam preventive additives. With easy pumping and filtering properties, they decrease the manufacturing costs. They can be used in hydraulic systems at very high temperature and pressure by means of their thermal stability

- EUROLUBRIC VG 32
- EUROLUBRIC VG 46
- EUROLUBRIC VG 68
- EUROLUBRIC VG 100

## NON-FLAMMABLE HYDRAULIC FLUIDS

Water and ester based products which provide long oil life and viscosity index and prevent corrosion with high temperature endurance property. They are used for strengthening the extremely dangerous operations which working at very high temperatures such as; mining, coke industry, automotive industry, die-casting, hydraulic pressing.

### **COLDEX HFD 46**

Esther Based Non-flammable Hydraulic Fluids

### **COLDEX HFC 46**

Water Based Non-flammable Hydraulic Fluids



## SLIDEWAY OILS

They are formulized for the lubrication of slideways at machine tools. Due to increased adhesiveness they don't drip easy through slideways or bears and they don't elapse from the shafts. They provide high protection against wear and corrosion.

**EUROWAY 46**

**EUROWAY 68**

**EUROWAY 100**

## TEXTILE OILS

They are antistatic oils which are developed for the production of wools and synthetic threads. They prevent wears and fractures by reducing frictions to minimum amount. With high fiber cohesion property they gain resistance and dimension to threads. They prevent static charging. They don't let the corrosion and bacteria formations with anticorrosive, antioxidant and antimicrobial additive content.

**EUROSOL 100 T**

**EUROSOL 100 TD**





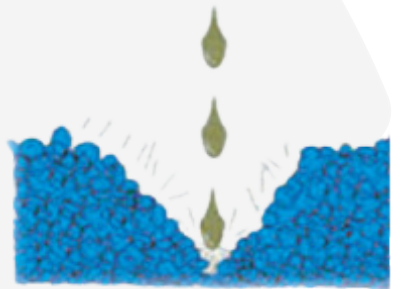
## EMULSION PERFORMANCE ADDITIVES

These products can solve the problems that may arise because of the inconvenient plant water, insufficient emulsion control, not making disinfection before the emulsion preparation.

### ANTIFOAM

Auxiliary chemical which is used for the purpose of removing the foam that may arise at very soft water and high pressure working areas of metal working emulsions.

**"TESS-SAN EUROLUB ANTIFOAM S**



## NON-FLAMMABLE HYDRAULIC FLUIDS

### BIOCIDE & DISINFECTANTS

Auxiliary chemicals which are used for increasing the metalworking fluids life, cleaning the tank and the system. They are used for removing bacteria, mold, yeast etc.

**TESS-SAN EUROLUB TE-SD**

Cleaning Disinfectant

**TESS-SAN EUROLUB TE-B**

**TESS-SAN EUROLUB TE-BI**

Biocides - Bacteria Preventives

**TESS-SAN EUROLUB TE-F**

Fungicides Mold, yeast, fungi Preventives

**TESS-SAN EUROLUB TE-WR**

Water Hardness Designator Additive



## INDUSTRIAL CLEANERS

These chemicals are used to achieve convenient surfaces before dying or coating operations and cleaning of oil, rust and impurities that may arise during and after metal working processes.

### DEGREASING CHEMICALS;

#### **EUROLUB CLEANER TE - D**

Water Based Basic Lubrication

#### **EUROLUB CLEANER TE - DS**

Volatile Degreasing

#### **TESS-SAN EUROLUB ST 67**

#### **TESS-SAN EUROLUB ST 70**

Alkali Degreasing Fluids

#### **EUROLUB CLEANER TE -S**

Silicon Cleaning Fluid



### RUST REMOVERS;

#### **TESS-SAN EUROLUB RR 850**

Neutral Rust Remover and Degreasing Fluid

#### **TESS-SAN EUROLUB RR 860**

Acidic Rust Remover

#### **TESS-SAN EUROLUB RR 870**

Acidic Rust Remover





## ELECTRO EROSION FLUIDS

They form an amazing surface quality by balancing the load distribution between the electrode and the workpiece at erosion benches. They provide a safe working area with high flash point. There isn't any ignition or burning risk.

**TESS-SAN EUROLUB EDM ER 75**

**TESS-SAN EUROLUB EDM ER 100**

## EMULSION CONTROL EQUIPMENTS

Equipments which are used to control of the necessary values to provide a proper working area so as to prolong the life of used emulsion and produce convenient parts. By rutin basic controls, hard-to-solve problems that may arise in the future is aimed to remove.

"PH meter, PH paper "Conductivity meter

"Water Hardness Kit

"Refractometer

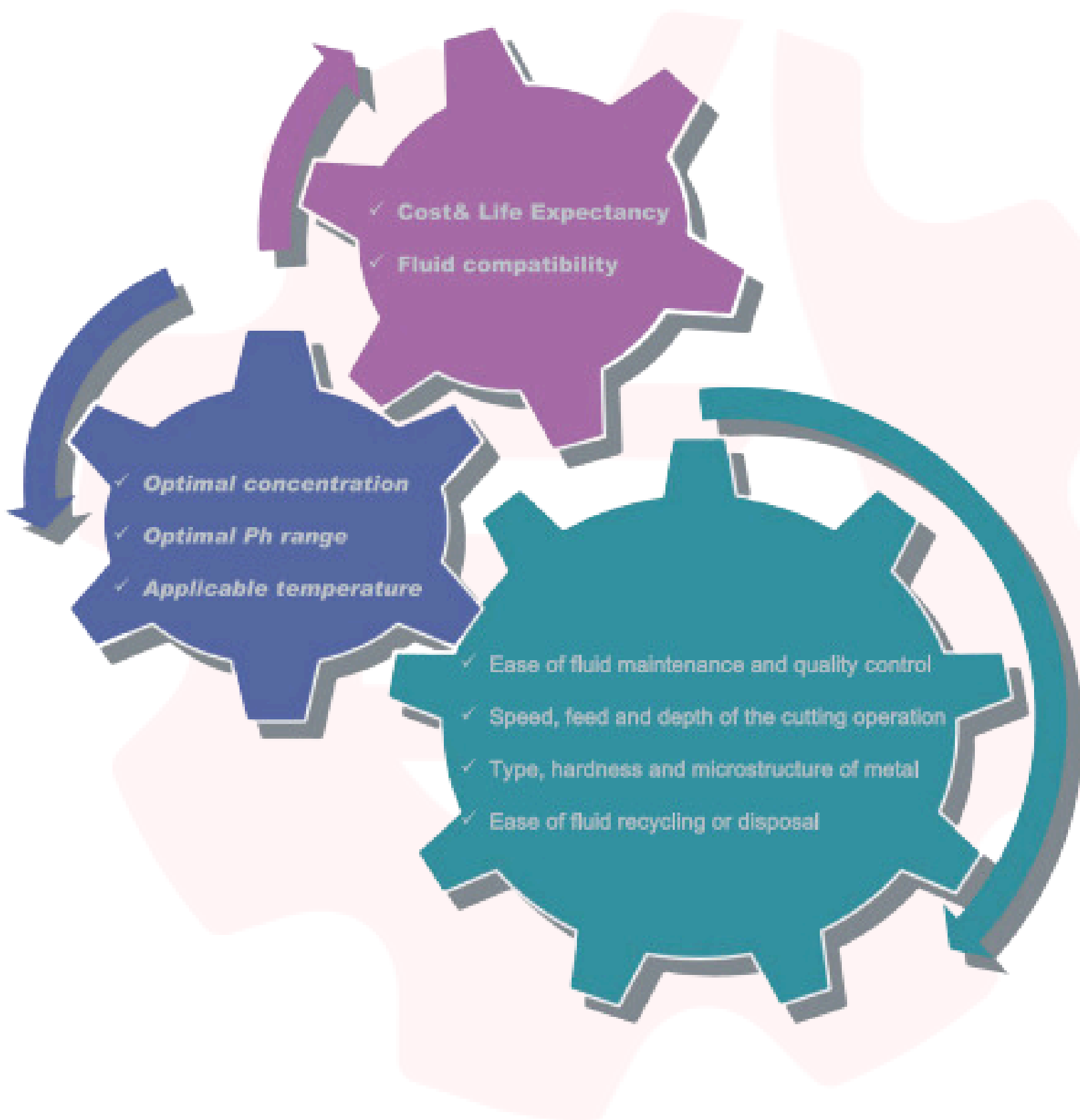
"Dosage Pump

"Bacteria Test Kit

"CNC Bench Filter Paper

## CHOOSING THE RIGHT METAL WORKING FLUID

Following factors should be considered when selecting a fluid.





PROBLEMS,REASONS AND SOLUTIONS

Problems	Reasons	Solutions
DECREASE OF TIP LIFE	Insufficient concentration	Arrange the concentration by adding needed product.
	Contamination	Find and remove the contaminated substance which may cause the decrease in tool life. These substances could be excessive leak oil, surface cleaning agent/ detergent etc.
	Quality of water	If the hardness of water is less than 200 ppm(11 A.S), that may cause the emulsion instability and decrease in tool life.
	Stability problem in emulsion	It may cause the decrease in tool life because lubrication may decrease. Look for the solution 'stability problem in emulsion'
	Use of wrong tool or prosess parameters in operation	Make sure using the right tool.
	Change of materials	Control the used material
Problems	Reasons	Solutions
CORROSION	Insufficient concentration	Arrange the concentration by adding needed product.
	Bad water quality, water corrosion	Use better quality water
	High Temperature / Moisture	Reduce temperature and moisture, use preventive oil.
	Contamination	Find and remove the contaminated substance. These substances could be heat treatment chemical, surface cleaning agent/ detergent etc.
	Corrosive atmosphere	Determine the corrosive smoke and ventilate
	Usage / Storage	Use clean, plastic brackets when the parts are drying. Use preventive oil in long term storages.
Problems	Reasons	Solutions
FOAM	Insufficient or excessive concentration	Arrange the concentration by adding needed product.
	Contamination	Find and remove the contaminated substance. These substances could be cleaning agent/ detergent etc.
	Water quality	Usage of softened water(if hardness of water lower than 100 ppm) may cause the foam in some metal working fluids.
	Operation type	Some operations for example surface grinding, may cause the foam formation. During selection of metal working fluid, operation should be considered.
	Low level of metal working fluid	Fill the tank/reservoir till observe a distance enough to allow air outlet.
	Mechanical problems	Check the filtration system, liquid distribution/flow or feedback system.

## INDUSTRIAL CLEANERS

Water soluble metal working fluids which are produced with the new technological formulations; are developed so as to keep the CUTTING EDGE and TOOL LIFE at maximum by providing optimum lubrication and cooling during. They give the excellent results by forming long lasting emulsions even in the most difficult operations thanks to containing EP ADDITIVES and BIOCIDES suitable with the emulsion. They prevent the problems like odor, corrosion, adhesion and accumulation etc. They resolve the factors that cause the skin irritation thanks to its ph balance and long life. Possible problems that may arise at the Al, Cu, brass and casting materials are removed in TESS-SAN products by developed formulations considering processing metal parts.

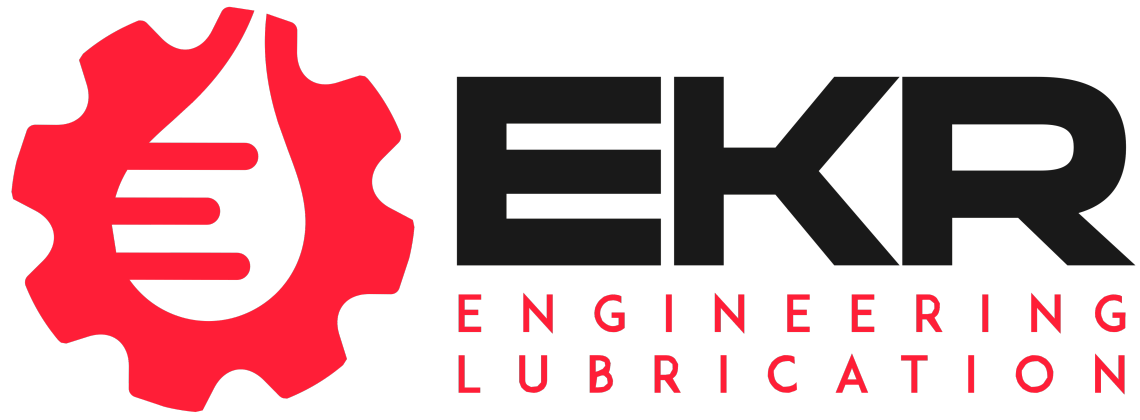
### Usage Areas:

Turning, Milling, Drilling, Screwing, Hobbing, Sawing, Broaching, Reaming, Grinding, Tube Milling

Operation	Synthetic Eurogrind Serie	EP Synthetic TE 300 Serie	EP Semi Synthetic TE 200 Serie	EP Mineral TE 210 Serie	Cutting Oils CX 700 Serie
Surface Grinding	●	●	○		
Cylindrical Grinding		●	●		
Centerless Grinding	○	○	○		
Lathe / Router		○	●	●	
Cutting			●	○	○
Reaming / Tapping			●	●	○
Deep Drawing			●	○	●
Broaching					●
Hobbing			●	○	●
Screwing			●	○	●
Automat Benches			○		●
Fellow Benches					●
Tube Drawing		○	●	○	●
Material					
Carbon Steel	●	●	●	○	○
Stainless Steel	●	●	●	●	●
Tool Steel	●	●	●	●	●
Casting	○	●	●	○	
Copper Alloy			●	●	
Aluminum Alloy			●	●	○
Process Weight					
Light	●	●	●	○	
Mid Heavy		●	●	●	

● 1st choice   ○ 2nd choice





**[www.ekr-lubrication.ro](http://www.ekr-lubrication.ro)**

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