



INDUSTRIAL



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INDUSTRIAL LUBRICANTS

MICRON GP MACHINE OIL

High quality straight paraffinic type mineral oils suitable for most general purpose machine applications. The higher viscosity grades may be used for circulating systems, bearing and many gearbox applications not working under extreme pressure (EP) conditions.

ISO VISCOSITY GRADES 5, 10, 15, 22, 32, 46, 68, 100, 150, 220, 320, 460, 680

MICRON GHS MULTI-FUNCTIONAL OIL

A range of premium quality, ashless, multi-functional oils designed to satisfy the needs of machine tools and general factory equipment. Recommended for gear, hydraulic and slideway applications where their outstanding demulsifying properties, excellent load carrying and oxidation resistance provide real benefits and product rationalisation opportunities.

ISO VISCOSITY GRADES 32, 46, 68, 100, 150, 220, 320, 460

TACHUS SLIDEWAY OIL

A range of machine tool lubricants designed to give optimum performance on slideways and machine beds, thus eliminating the stick slip often associated with poor component surface finish and vibration whilst resisting the problems of wash off by soluble coolants.

ISO VISCOSITY GRADES 32, 46, 68, 100, 150, 220

SYNGEAR PAO GEAR OIL (FULLY SYNTHETIC)

The Syngear PAO range of products are synthetic, high performance gear lubricants designed to operate in extreme conditions whilst maintaining optimum component and lubricant life. They contain a carefully balanced, state-of-the-art additive system which is designed to protect against scuffing and reduce fatigue related failures such as micropitting.

ISO VISCOSITY GRADES 32, 46, 68, 100, 150, 220, 320, 460, 680
DIN 51517 PART 3, US STEEL 224, AGMA 9005-D94, DAVID BROWN S1.53.101

SYNGEAR SW GEAR OIL (FULLY SYNTHETIC)

A range of fully synthetic, high quality gear oils typically used with worm gears found in a variety of industrial equipment. Syngear SW grades are manufactured using special synthetic base oils and carefully selected additives which combine to produce ultra long lasting products. They offer outstanding high temperature protection and are ideally suited to highly stressed, high speed applications.

ISO VISCOSITY GRADES 150, 220, 320, 460

TROJAN GEAR OIL

A range of heavy duty gear oils for industrial enclosed gear sets with circulation or splash feed lubrication systems. These oils contain a high level of anti-wear and anti-foam properties together with a fully oxidation inhibited extreme pressure additive. Benefits include excellent water shedding, thermal stability, reduced tooth wear and excellent corrosion protection ensuring long service life.

ISO VISCOSITY GRADES 68, 100, 150, 220, 320, 460, 680
DIN 51517 PART 3, US STEEL 224, AGMA 250.04,9005-D94, DAVID BROWN S1.53.101, CINCINNATI MILACRON P-74

CYCLONE PAO COMPRESSOR OIL (FULLY SYNTHETIC)

The Cyclone PAO range of compressor oils is blended using high viscosity index synthetic base oils, synthetic ester and selected additives to provide long term protection and reliability. The new generation formulations using compressor specific chemistry enables oil drain intervals of up to 8000 hours to be achieved.

ISO VISCOSITY GRADES 32, 46, 68, 100, 150
DIN 51506 VD-L, DIN 51524 PART 2, AFNOR NF E 48-603 (HM), SPERRY VICKERS I-286-S, CINCINNATI MILACRON P-68, P-69, P-70

CYCLONE 4000 COMPRESSOR OIL

Superior compressor oil which allows for drain periods of up to 4000 hours between oil changes. For use in compressors with or without oil injection.

ISO VISCOSITY GRADE 46, DIN 51506 VD-L

CYCLONE HT COMPRESSOR OIL

Designed for high discharge temperature applications possessing excellent oxidation stability and meeting DIN 51506 VD-L requirements. 2000 hour drain intervals are typical with this range.

ISO VISCOSITY GRADES 32, 46, 68, 100, 150 DIN 51506 VD-L

CYCLONE FREEZE COMPRESSOR OIL

A range of mineral oil based refrigeration compressor oils suitable for use in a variety of domestic and industrial refrigerant compressors. Cyclone Freeze grades have low pour points and are compatible with a number of different refrigerant gases.

ISO VISCOSITY GRADES 32, 46, 68



EXOL'S COMPREHENSIVE RANGE OF INDUSTRIAL LUBRICANTS IS SPECIFICALLY DESIGNED TO MEET CUSTOMER REQUIREMENTS.

HYDRAULIC FLUIDS

ULTRAMAX MG (MULTIGRADE)

A high viscosity index range of hydraulic oils (VI>150) suitable for applications where wide temperature variations may exist or where rationalisation of grades is desired.

ISO VISCOSITY GRADES 15, 22, 32, 46, 68, 100
DIN 51524 PART 3, ISO 6743/4, DIN 51517 PART 3,
POCLAIN SPEC - MEETS REQUIREMENTS

ULTRAMAX AF (ZINC FREE)

The Ultramax AF range of zinc free high performance hydraulic oils has been formulated for use in hydraulic systems containing silver plated bearings and machine tool lubrication systems with high tolerance precision plain journal bearings where zinc containing additives are not desired.

ISO VISCOSITY GRADES 5, 10, 15, 22, 32, 46, 68, 100, 150
DIN 51524 PART 2, ISO 6743/4, SPERRY VICKERS I-286-S, AFNOR NFE 48603 (HM), CINCINNATI MILACRON P-68, P-69, P-70

ULTRAMAX FF (FINE FILTERED)

A range of high viscosity index, mineral oil based hydraulic oils which, by virtue of special manufacturing processes, possess exceptionally high cleanliness levels. In addition, high levels of anti-wear, anti-corrosion and oxidation resistance are key features of this range.

ISO VISCOSITY GRADES 32, 46
DIN 51524 PART 2, ISO 6743/4, SPERRY VICKERS M-2950-S, SPERRY VICKERS I-286-S, US STEEL 127, SEB 181.222, VDMA 24318, THYSSEN TH N-256132, AFNOR NF E 48-600, DENISON FILTERABILITY TP 02100

ULTRAMAX

Ultramax grades are a range of premium quality hydraulic oils designed and developed for use in hydraulic power transmission and hydraulic control systems. This group of hydraulic oils is made from solvent refined, high viscosity index base oils containing a carefully balanced mix of anti-wear, anti-corrosion, anti-oxidant and anti-foam additives.

ISO VISCOSITY GRADES 3, 5, 10, 22, 32, 46, 68, 100, 150, 220, 320, 460
DIN 51524 PART 2, ISO 6743/4, DENISON HF-2, TP 02100 FILTERABILITY, SPERRY VICKERS I-286-S, M-2950-S, US STEEL 127, AFNOR NF E 48-600, THYSSEN TH N-256132, SEB 181.222, VDMA 24318

ULTRAMAX BD

Environmental concerns have led to a growth in ecologically sensitive, biodegradable lubricants. Ultramax BD products reflect this and are particularly suitable for use where accidental spillages would otherwise have a serious environmental impact. They are free from zinc and other heavy metal additives and are the product of several years extensive field testing on the railway network. Ultramax BD grades have low pour points to ensure adequate flow on even the coldest winter mornings.

ISO VISCOSITY GRADES 32, 46
BIODEGRADABILITY > 98% (CEC-L-33-T-82)

ULTRAMAX SE 46

Ultramax SE46 is a synthetic ester based, biodegradable hydraulic fluid designed for use in sensitive locations where accidental spillages would otherwise cause serious environmental contamination issues if conventional oils were used. Its anti-oxidation properties and resistance to gumming allow extended service life compared with more conventional biodegradable fluids.

ISO VISCOSITY GRADE 46
EUROPEAN ECOLABEL, ISO 15380 HEES, SWEDISH STANDARD SS 15 54 34, DENISON HF-2, HF-6

ULTRAMAX WG12

A fire resistant fluid of the water glycol type (HFC) for use where mineral oil based fluids are likely to present a fire hazard. This type of fluid relies on the water content to aid its fire retardant properties and therefore should be checked regularly. The hydraulic circuit should be specifically designed for this type of fluid.

VISCOSITY @ 40°C 39 cSt

WATER SOLUBLE CUTTING AND GRINDING FLUIDS

EXCELFLUID 2238

An ultra high performance cutting fluid for use in all types of arduous machining operations. Excellfluid 2238 has demonstrated outstanding tool life performance when used in the machining of titanium as well as demonstrating superb properties on high tensile steels. The unique formulation prevents scum and soap formation associated with more reactive materials which, coupled with high lubricity additives, make this an ideal choice when machining difficult aluminium alloys.

EXCELFLUID ULTRA EPDX

A new generation, biostable cutting fluid utilising soap free technology to create a non-staining high performance coolant. Ideal for use on sensitive aluminium alloys as well as ferrous metals. Chlorine free.

EXCELFLUID RR

A water miscible, semi synthetic biostable cutting and grinding fluid for both ferrous and non-ferrous materials. Excellfluid RR contains a relatively high emulsifier to oil ratio which results in a highly stable micro emulsion being formed when the concentrate is added to water. This promotes improved wetting characteristics and allows for excellent workpiece visibility.

EXCELFLUID EP

Biostable, heavy duty, extreme pressure semi synthetic cutting fluid for use on tough alloy steels and non ferrous metals. Forms a micro emulsion in water for enhanced operator visibility. Greatly improves tool life and surface finish.

EXCELFLUID EPX

An opaque emulsion with excellent biostability and EP performance suitable for use in both hard and soft water conditions. This product is multi metal compatible and can be used on both conventional and CNC machines.

EXCELFLUID AL

Biostable soluble cutting fluid formulated with a unique blend of fatty esters which gives superb cutting performance. Designed for use in the machining of the toughest ferrous metals and difficult to machine aluminium alloys. It can be used in applications where neat oil is normally considered.

EXCELFLUID GP

Biostable, semi synthetic cutting fluid suitable for use on conventional and CNC machines. High performance and chlorine free.

EXCELFLUID NPX

General purpose non-staining extreme pressure low odour milky soluble oil. Used for machining a wide range of ferrous and non-ferrous materials including tough steels and aluminium alloys.

EXCELFLUID NP

A high quality soluble oil which forms a milky type emulsion when mixed with water. This new improved version of Excellfluid NP possesses greater biostability for extended sump life, greatly improved rust protection, consistent pH in a variety of water types and improved miscibility when added to water. Suitable for a wide range of non-arduous machining operations on both ferrous and non-ferrous materials.

EXCELGRIND XL

A fully synthetic nitrite free grinding fluid which has excellent fines separation and coolant longevity. Highly recommended for surface and cylindrical grinding on both ferrous and non-ferrous metals.

EXCELFLUID ACL

A fully synthetic grinding fluid principally designed for use on tungsten carbide where the fluid's anti-cobalt leaching properties are desirable. It is formulated using the latest technology and offers excellent corrosion protection, stable solutions, low foaming tendency, excellent fines separation and resistance to bacterial spoilage.

EXCELFLUID HD SYSTEM CLEANER

HD System Cleaner is a highly effective biocidal cleaning agent designed for the sterilisation of machine tools where water-mix metalworking fluids are employed. It is extremely effective at lifting oily residues and swarf from heavily contaminated systems, whilst at the same time killing bacteria and fungal spores.

FULL DETAILS ON THESE HIGHLY ADVANCED PRODUCTS AND DATA SHEETS ARE AVAILABLE FROM THE TECHNICAL SERVICES DEPARTMENT ON REQUEST.

NEAT CUTTING OILS

EXCELCUT 401

A cost effective medium viscosity neat cutting oil suitable for the light to medium duty machining of ferrous and non ferrous materials especially free cutting bronzes etc. Excelcut 401 is bland in odour and straw in colour.

VISCOSITY @ 40°C 22 cSt

EXCELCUT 427

A medium viscosity neat cutting oil containing chlorinated additives. It is suitable for medium duty machining such as milling, turning and automatic spindle work of mild steels and non ferrous materials. Excelcut 427 is bland in odour and straw in colour.

VISCOSITY @ 40°C 22 cSt

EXCELCUT 431

A medium viscosity neat cutting oil. It is totally chlorine free, an important feature when considering fluid disposal and recycling. It is suitable for medium duty machining such as hobbing, threading and tapping, multi-spindle auto work, milling and turning of all tensile steels including stainless and non ferrous metals. Excelcut 431 is bland in odour and amber in colour.

VISCOSITY @ 40°C 33 cSt

EXCELCUT 432

A heavy duty, medium viscosity neat cutting oil containing very high levels of chlorinated and controlled release sulphur additives. It is suitable for heavy duty machining, gear hobbing and shaping, threading and tapping and multi-spindle auto work on mild, medium and high tensile steels, including stainless, and non ferrous materials. Excelcut 432 is mild in odour and amber in colour.

VISCOSITY @ 40°C 22 cSt

EXCELCUT 433

A low viscosity, chlorine free neat cutting oil containing very high levels of controlled release sulphurised additives making it suitable for heavy duty machining, deep hole drilling, trepanning, broaching and high speed gear generation of mild, medium and high tensile steels, including stainless, and non ferrous metals. Excelcut 433 is mild in odour and brown in colour.

VISCOSITY @ 40°C 10 cSt

EXCELCUT EP LIQUID

A premium quality cutting lubricant for direct application to the tool when drilling, reaming and tapping. The very high levels of extreme pressure additives ensure the highest quality surface finish and tool life.

VISCOSITY @ 40°C 152 cSt

EXCELCUT 445E

A biodegradable neat cutting fluid based on a synthesised ester derived from a fatty acid of vegetable origin and is formulated to provide outstanding cutting performance while having high levels of operator acceptability. Excelcut 445E is an ultra low odour, low misting product capable of providing the ultimate surface finish on a variety of metal grinding and cutting operations.

VISCOSITY @ 40°C 9 cSt

METAL FORMING OILS

EXCELCUT E1574M2

A metal forming oil fortified with high levels of extreme pressure and lubricity additives. Excelcut E1574 M2 has been designed for use as a high performance cold heading oil but can also be used in a variety of other cold forming and pressing applications. It possesses very high film strength and significantly extends tool life.

VISCOSITY @ 40°C 94 cSt

EXCELFORM 2228

Excelform 2228 is a very high performance metal forming oil formulated for use in arduous pressing, blanking and drawing operations. It is ideal for deep drawing and cold reducing operations on stainless steels and nickel alloys. It is also compatible with non-ferrous materials such as brass where its non-staining properties are advantageous.

VISCOSITY @ 40°C 189 cSt

EXCELFORM 911

A versatile, non-staining heavy duty metal forming and pressing lubricant suitable for use on stainless steels, nimonics and non-ferrous materials. It can be used in applications ranging from deep drawing to blanking and piercing operations.

VISCOSITY @ 40°C 128 cSt

EXCELFORM 909

A very light viscosity forming and stamping lubricant suitable for all materials, containing a mild corrosion inhibitor for post pressing protection.

VISCOSITY @ 40°C 5 cSt

EXCELCUT 444V

Excelcut 444V is a very low viscosity metalworking lubricant based on low odour, light hydrotreated petroleum distillates and fortified with synthetic high lubricity additives. It is designed to lubricate light to medium duty metal forming operations and then evaporate to leave no residual film.

VISCOSITY @ 40°C 2 cSt

GREASES

ULTRA LIFE 2

SYNTHETIC HI-TEMP 2

LITHIUM COMPLEX

LIBRA EP2

LIBRA EP2M

LIBRA EP3

WHITE FOOD GREASE

OPEN GEAR GREASE 2.5

ANCILLARY PRODUCTS

TRANSFORMER OIL

MEDIC WHITE OILS

OIL ABSORBENT GRANULES

HYGIENICS HAND CLEANER

AEROSOLS

EDM FLUIDS

RUST PREVENTATIVES

QUENCH OILS

MOULD RELEASE OILS





INDUSTRIAL OVERVIEW

Exol's extensive industrial product range has been designed to cover all aspects of industrial plant, workshop, machine shop and production unit requirements ranging from basic lubricating oils through to high technology metal cutting and forming oils. The range of Exol products for the machine shop are particularly comprehensive and include neat cutting oils, water soluble fluids (both conventional and semi synthetic), slideway oils and headstock oils.

In addition to the standard industrial products and greases in the range, Exol can also customise industrial and process oils to customer requirements. Many other specialist products are also available from Exol's technical service department.

SELECTION CHART SOLUBLE OILS

PRODUCT	MATERIAL COMPATIBILITY			APPLICATIONS		
	Ferrous	Aluminium	Yellow Metals	Grinding	Gen. Purpose Cutting	Heavy Duty Cutting
Excefluid NP	++	X	+	+	++	X
Excefluid NPX	++	X	+	X	++	+
Excefluid GP	++	+	X	+	+++	+
Excefluid EPX	+++	+	+	+	+++	++
Excefluid EP	+++	X	X	X	+++	+++
Excefluid AL	++	+++	+	+	++	+
Excelgrind XL	+++	X	X	+++	X	X
Excefluid Ultra EPDX	++	+++	+++	++	+++	++
Excefluid 2238	+++	+	+	X	++	+++
Excefluid RR	++	X	+	++	+++	X

- X - Not suitable
- +
- ++ - Recommended
- +++ - Highly recommended