

Metalcutting Product	500ml	5L	20L	205L	Other
RTD Compound	RY551211 (500g)		RY551241 (20kg)		RY551221(2.5kg)
RTD Liquid	RY550171	RY550181	RY560151		
RTD Spray					RY552132 (300g)
Safetap Compound	RY551222 (450g)				RY551223 (2.5kg)
Safetap Liquid	RY19122	RY19131			
Ultracut Premium	RY562611		RY562621		
Ultracut Longlife			RY563011	RY563015	
Ultracut Clear			RY561411	RY561421	
Ultracut Aluma-Plus			RY564011	RY564021	
Ultragrind 430			RY571471	RY571472	
Ultralube B			RY561458		
Ultralube LR			RY561457		
Ultraguard B	RY581372				
Ultraguard SC	RY581401				
Ultraglide 68	RY581351		RY581350		

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Distributor:



ROCOL®

METALWORKING LUBRICANTS

High Performance, Cost Effective
 Cutting Fluid Solutions

- Hand Applied Cutting Lubricants
- Flood Applied Cutting Lubricants
- Mist Applied Cutting Lubricants
- Flood Applied Grinding Lubricants
- Machine Tool Care Products

Creating Lubricants
 with Industry™

Today's manufacturing industry demands greater efficiency, higher output and savings in production costs. Plant and equipment is required to work continuously at peak production rates with fewer breakdowns and minimal down time.

The Rocol range of cutting fluids has been formulated to provide effective lubrication and cooling to produce dramatic improvements in cutting performance, tool life and overall cost savings.

Rocol Metalworking products can be hand, flood or mist applied. We offer an extensive range of premium quality lubricants to cover all machining operations on all metals including the most difficult alloys, as well as products for machine tool care and maintenance.

Rocol Metalworking products are manufactured at ITW Polymers & Fluids ISO9001 accredited facility at Wetherill Park, NSW, Australia.

The extensive Research and Development facility is active in developing unique products to suit customers' requirements. Additionally, as member of the ITW global network, ITW Polymers & Fluids has access to the latest advances in Metal Cutting Lubricant Technology.

For improved efficiency and economy in your machining operation call for a Rocol Metal Cutting Lubricant today

HAND APPLIED METAL CUTTING LUBRICANTS

The Rocol range of hand applied metal cutting lubricants has been developed to provide maximum lubrication between work piece and tool, reducing cutting forces, heat and wear, thereby extending tool and die life. These lubricants can double tool life when compared to conventional hand applied cutting compounds.

The use of a Rocol product will improve surface finish and increase metal removal rates on even the most difficult to machine metals including stainless steel, titanium and nickel alloys.

RTD LIQUID

A viscous fluid containing extreme pressure additives for use in reaming, tapping, drilling and other metal cutting operations. Suitable for all metals including hardened steels, titanium and nickel alloys. This product significantly reduces friction giving superb cutting performance.

RTD Liquid can be easily applied to difficult to reach areas. Since liquid flows directly to the cutting edge, this makes it ideal for providing excellent penetration into deep holes and slots.

Available in 500ml (RY550171), 5L (RY550181) and 20L (RY560151)



GUIDELINES FOR FLUID MAINTENANCE

Rocol Flood Applied cutting and grinding lubricants are water-based emulsions. The following guidelines should be followed to ensure optimum use of the products.

Water Source: If venturi mixers are used, it is important to check that reasonable water pressure is available to ensure correct mixing ratio. Hard water can affect the stability of the fluids and cause corrosion problems. We recommend the water hardness should be less than 150 ppm.

Control of Tramp Oil: Tramp oil is oil from other parts of the machine that finds its way into the cutting fluid through seepage, leakage or overflow. Tramp oil can cause emulsion to become unstable and it also provides an environment for bacteria to grow. It is important to reduce the ingress of tramp oil and if it is unavoidable, regular skimming is required.

Infrequent Use: Bacteria tends to grow quicker in stagnant water or emulsion. Hence, it is advisable to turn the coolant circulation pump on for at least one hour per week if there is no work for the machine.

Top Up: As the coolant level drops due to evaporation and drag-out, pre-diluted fluid should be added to the sump. Avoid putting large amounts of water into the sump as it will de-stabilise the solution.

Change Out: Rocol Metalworking Lubricants are long life fluids but eventually change-out is necessary, usually signalled by an odour from the fluid. At change-out, Rocol Ultraguard SC should be added at 100:1 and run for 8 hours before replacing with new fluid.

Mixing: Rocol Ultracut fluids are concentrates and designed to be diluted with water. **Always add concentrate to water.** It is important to ensure the dilution ratio is maintained within the recommended range to avoid corrosion and to ensure maximum fluid life. By using a hand held refractometer (pictured), the "refracture index" of the cutting fluid emulsion can be measured and easily converted to cutting fluid concentration using the Rocol mixing ratio table.



pH: pH is a measure of the acidity of the cutting fluid emulsion that in turn relates to the level of bacterial growth in the fluid. pH can be quickly and easily measured using colour reactive test strips (pictured), maintaining the cutting fluid within the recommended range ensures optimum fluid life and a safe working environment.

ROCOL CORROSION CONTROL PRODUCTS



RUSTSHIELD SPRAY

Displaces moisture and provides a touch dry durable film which protects metal components against the most severe corrosive conditions. Provides protection for up to 6 months outdoors.

Available in 250g (RY612152)



MOISTUREGUARD SPRAY & FLUID

Displaces moisture and provides an ultra thin film giving complete corrosion protection to both ferrous and non-ferrous components. Used for indoor storage of tools, dies and other components for up to 6 months.

Available in 300g (RY612172) and 5L (RY612701)

MACHINE TOOL CARE & MAINTENANCE PRODUCTS

Good machine tool care can contribute significantly towards greater efficiency and overall cost savings. The Ultraguard range of Machine Tool Care Products are designed to complement the Ultracut, Ultragrind and Ultralube range of metal cutting fluids and enable best practice care and maintenance of machine tools.

ULTRAGUARD B

Biocide

A biocide additive for the preservation of all water-mix metal cutting fluids by protecting against bacterial contamination or attack. Reduces disposal costs, ensures longer sump life and eliminates objectionable odours.

Available in 5L (RY581372)

ULTRAGUARD SC

System cleaner

A coolant system cleaner for use with water-mix cutting and grinding fluids. Specifically designed for use prior to recharging machine tool with fresh cutting or grinding fluid. Ultraguard SC is a biocide based cleaner and slime remover that cleans and disinfects in one operation, eliminating micro-organisms swiftly and effectively. Designed to be used in the existing fluid whilst the machine is in operation to reduce costly downtime.

Available in 5L (RY581401)

ULTRAGLIDE 68

Machine Tool Slideway Lubricant

An oil based lubricant for use on machine tool slideways that provides excellent corrosion protection, lubrication and eliminates "stick slip". It is compatible with water-mix cutting and grinding fluids and will reduce the formation of solids and the possibility of oilway blockages. Ultraglide 68 is resistant to wash off and has rapid demulsification properties that allow it to separate rapidly from cutting fluid so that it can then be easily removed from the sump. Its high film strength prevents metal to metal contact which helps to reduce wear.

Available in 5L (RY581351) and 20L (RY581350)



RTD COMPOUND

A soft, low melting point metal cutting lubricant in paste form. RTD Compound contains extreme pressure additives making it suitable for the most severe applications on metals such as hardened steels, titanium and nickel alloys. It is used where a lubricant that clings firmly to the tool or work-piece is required. RTD Compound can be applied directly by brush. Alternatively, tools such as drills, taps or reamers can be dipped into the compound. This product significantly reduces friction, by minimising metal to metal contact, giving superb cutting performance.

Available in 500g (RY551211), 2.5kg (RY551221) and 20kg (RY551241)



RTD SPRAY

An aerosol applied cutting lubricant that provides a film similar to that of RTD Liquid. It has the additional benefits associated with an aerosol application, such as convenience, cleanliness, thin film and safety. RTD Spray is particularly suitable for large and difficult to reach areas.

Available in 300g (RY552132)

SAFETAP[®] LIQUID

Eco-friendly metalworking lubricant. For environments where petroleum based products are not suitable. Safetap is a **water-based biodegradable** product containing no petroleum oils, solvents or chlorine. Safetap Liquid is approved for use where incidental food contact is likely. It can be used on all metals except magnesium and is ideal for reaming, tapping, drilling and threading operations.

Available in 500ml (RY19122) and 5L (RY19131)



ROCOL INSPECTION PRODUCTS



FLAWFINDER KIT (3 PART)

A simple and effective visible dye crack detection system, comprising of Cleaner, Penetrant and Developer for micro crack detection in welded joints, castings and other engineering components.

Available in:

- Flawfinder Detection Kit (3 Part Kit) (RY642543)
- Flawfinder Cleaner Spray 300g (RY642552)
- Flawfinder Developer Spray 300g (RY642572)
- Flawfinder VW Penetrant Spray 250g (RY642564)



SAFETAP[®] COMPOUND

An all **natural biodegradable** metal cutting lubricant in paste form. Suitable for use on all metals and is non corrosive and non-staining as it contains no chlorine or sulphur. The product is safe and pleasant to use producing only very low levels of smoke and odour when applied as directed.

Safetap Compound will prolong tool and die life as well as improve the thread and surface finish on the work-piece. The compound adheres to the working surface and won't fling off, ensuring complete coverage. It is not miscible with water.

Available in 450g (RY551222) and 2.5kg (RY551223)

FLOOD APPLIED METAL CUTTING LUBRICANT TYPES

A variety of water soluble Rocol flood applied machining and grinding fluids are available. These include soluble oil, semi-synthetic and synthetic lubricants that are designed primarily to lubricate and cool. Rocol Ultracut lubricants reduce heat build-up during the machining and grinding process, which reduces distortion of the work piece, extends tool life and allows maximum chip loading for faster production.

• Water Soluble Oils

Formulated from oil and emulsifiers, water-soluble oils combine the lubricity of cutting oil with the cooling ability and economy of water dilution. In addition to yielding finer finishes, water-soluble oils are compatible with virtually all types of machinery and metals. They prevent rusting by providing a thin layer of oil and corrosion inhibitors, prevent rancidity and extend sump life through their unique bio-stable formulation. Water soluble oils exhibit low foaming characteristics.

• Semi-Synthetic

Semi-synthetic metal machining and grinding fluids are water-based lubricants that typically contain some oil for added lubricity and corrosion protection. This makes them ideal for light-to-moderate machining and grinding applications. Semi-synthetic lubricants offer many of the same advantages as water soluble oils together with the economy of a high dilution water based cutting fluid.

• Synthetics

Full synthetic lubricants utilise a soluble combination of chemicals and do not contain any petroleum oils. Synthetics do not support bacteria growth due to the lack of oil content and hence offer extended sump life.



FLOOD APPLIED METAL CUTTING LUBRICANTS

ULTRACUT ALUMA-PLUS

High Performance Long Life Cutting Fluid for Aluminium

A high performance water-mix, aluminium cutting fluid uniquely formulated to give a long predictable sump life. Particularly suitable for **medium/severe** duty machining and cutting of Aluminium, it is also suitable for a wide range of other non-ferrous and ferrous metals and their alloys. The product will prevent built-up edge on tooling and extend tool life whilst promoting the optimum surface finish on your work-piece. Ultracut Aluma-Plus can be used to rationalise several cutting fluids into one. It is inherently resistant to bacterial degradation, rejects tramp oil and forms a milky emulsion when mixed with water.

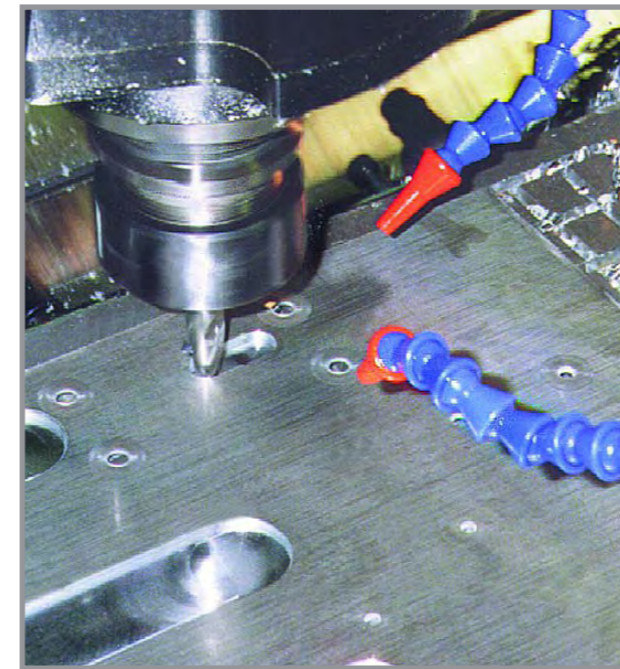
Available in 20L (RY564011) and 205L (RY564021)



MIST APPLIED CUTTING LUBRICANTS

The Rocol range of mist applied cutting oils are designed primarily for circular and band sawing, turning, milling, drilling, tapping, reaming and forming aluminium and aluminium alloys. The extremely low volume of lubricant required results in dry swarf and filings that can be easily removed by vacuum or other methods, rendering the working environment very clean and safe.

There is no water-mix cutting fluid to be disposed of and no fluid maintenance is required. Mist applied cutting lubricants often improve productivity and reduce operating costs and in some applications, mist applied lubricants are the only ones that can provide enough lubricity for cutting or forming.



ULTRALUBE LR

Synthetic Mist Applied Cutting Fluid

A **low residue** mist applied synthetic metal cutting lubricant for cutting and sawing aluminium extrusion and castings. It can also be used on other ferrous and non-ferrous alloys. Ultralube LR evaporates cleanly making it ideal for processes where the work piece has to go through an annealing oven. It is formulated to provide minimal residue and no stain on the work piece after the annealing process and is non-corrosive to aluminium or its alloys.

Available in 20L (RY561457)

ULTRALUBE B

Heavy Duty Mist Applied Cutting Fluid

A heavy duty mist applied neat oil metal cutting lubricant for sawing and cutting large aluminium billets, castings and extrusions. It can also be used on other ferrous and non-ferrous alloys. Ultralube B has been formulated to provide maximum blade and tool life. It promotes excellent surface finish and will not stain aluminium or its alloys.

Available in 20L (RY561458)



FLOOD APPLIED GRINDING LUBRICANTS

ULTRAGRIND 430

Synthetic Grinding Fluid

A nitrite free, synthetic, water-mix grinding fluid containing excellent corrosion inhibitors and wetting agents. Formulated to provide a long sump life, Ultragrind 430 is designed for multipurpose grinding applications including cylindrical grinding on both ferrous and non-ferrous metals, with all types of grinding wheels. The transparent liquid gives a good view of the work piece, is low foaming and being oil free will not promote wheel glazing. Rapid settlement of grinding fines ensures an excellent surface finish.

Available in 20L (RY571471) and 205L (RY571472)

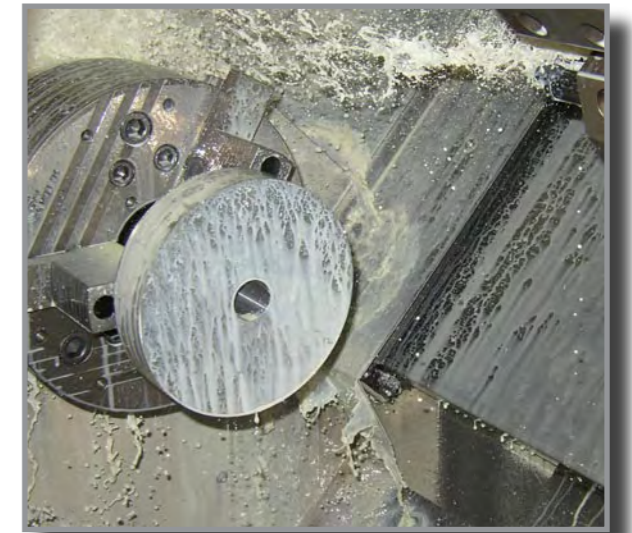


ULTRACUT PREMIUM

High Performance Metal Cutting Fluid

A bio-stable, extreme pressure (EP) water soluble oil formulated to provide premium cutting performance and excellent corrosion resistance. Suitable for **severe** duty machining operations such as milling, turning, and boring over a wide range of ferrous and non-ferrous metals including copper alloys. The addition of an EP package provides extended tool life. Exceptional bio-stability provides long sump life. It provides stable pH levels, and resists bacterial and fungal growth which lead to rancidity and unpleasant odours. Ultracut Premium forms a milky emulsion when mixed with water.

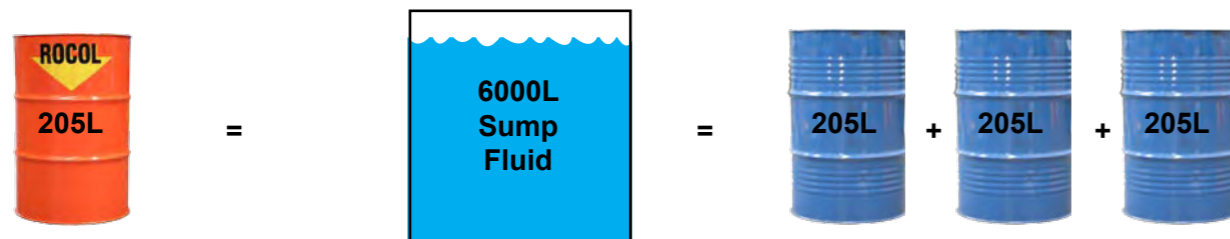
Available in 5L (RY562611) and 20L (RY562621)



INCREASE SUMP LIFE AND CONTROL COSTS

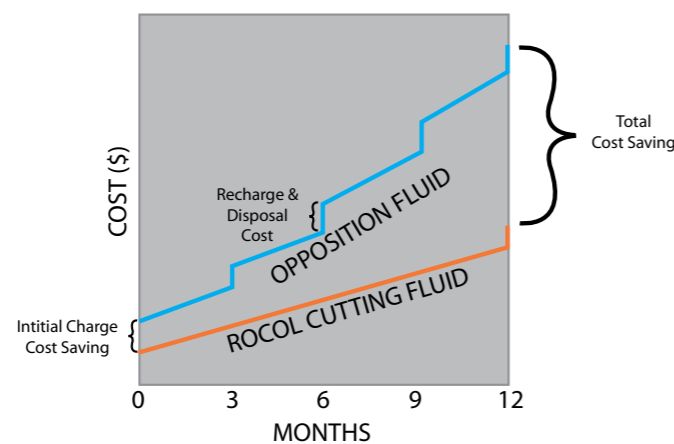
Rocol metalworking fluids enable you to manage expenses by increasing sump life and reducing the high cost of fluid replacement. Many opposition metalworking fluids have hidden costs, i.e. frequent disposal and replacement. Rocol's high quality metalworking fluids with higher dilution rates and longer sump life are the most cost-effective for your operation.

ILLUSTRATION OF TOTAL COST SAVING



Rocol Ultracut Longlife @ 30:1 dilution ratio

Opposition Fluid @ 10:1 dilution ratio



Rocol Metalworking Lubricants save you time and money.



ULTRACUT LONGLIFE

Heavy-Duty Metal Cutting Fluid

A bio-stable, extreme pressure (EP) water soluble oil formulated to provide long sump life, good cutting performance and excellent corrosion resistance. Suitable for **medium/severe** duty machining and sawing over a wide range of ferrous and non-ferrous metals including copper alloys. The addition of an EP package provides extended tool life. Exceptional bio-stability provides long sump life, when properly maintained. It provides stable pH levels, and resists bacterial and fungal growth. The combination of extreme pressure performance, long sump life and higher dilution rates permit higher productivity and true cost efficiency. Ultracut Longlife forms a milky emulsion when mixed with water.

Available in 20L (RY563011) and 205L (RY563015)

ULTRACUT CLEAR

High Dilution Semi-Synthetic Metal Cutting Fluid

A high dilution, semi-synthetic water-mix cutting oil providing an extremely low in-sump cost. Ultracut Clear is a versatile product which is suitable for use as a **light/medium** cutting and grinding fluid on a wide range of ferrous and non-ferrous metals, including stainless and alloy steel. When mixed with water, a translucent green micro-emulsion is formed providing a clear view of the work piece. The product's exceptional resistance to bacterial and fungal growth and ability to emulsify tramp oil provides a long and predictable coolant sump life.

Available in 20L (RY561411) and 205L (RY561421)



The Rocol Flood Applied Metal Cutting Fluids are formulated to provide effective lubrication and cooling, and will provide improvements in cutting performance and tool life. Rocol Fluids are generally of high dilution ratio and provide a long and predictable sump life. Where multiple fluids are listed for the same operation Rocol's preferred recommendation is shown first. For further support or technical information call our toll free phone number (Aust) 1800 063 511 or (NZ) 0800 476 265 or visit our website www.rocol.com.au.

	Aluminium and Alloys	Free Machining Non-Ferrous Alloys, Brasses Copper, Bronze	Tough Non-Ferrous Metals and Alloys, Titanium, Nickel, Bronze	Cast Iron Wrought Iron Malleable Iron	Low Tensile Steels	Medium Tensile Steels	High Tensile Steels	Stainless Steel, Heat Resistant Alloys, Tool Steels, High Speed Steels
Turning Milling Drilling Boring Cold Sawing Threading	Ultracut ALUMA-PLUS (20:1)	Ultracut ALUMA-PLUS (25:1) or Ultracut CLEAR (50:1)	Ultracut ALUMA-PLUS (25:1) or Ultracut LONGLIFE (30:1)	Ultracut LONGLIFE (35:1) or Ultracut CLEAR (60:1)	Ultracut LONGLIFE (35:1) or Ultracut CLEAR (60:1)	Ultracut LONGLIFE (30:1) or Ultracut CLEAR (50:1)	Ultracut LONGLIFE (30:1) or Ultracut CLEAR (40:1)	Ultracut PREMIUM (30:1) or Ultracut LONGLIFE (25:1)
Tapping Reaming Rolling	Ultracut ALUMA-PLUS (20:1)	Ultracut ALUMA-PLUS (25:1)	Ultracut ALUMA-PLUS (20:1)	Ultracut LONGLIFE (35:1)	Ultracut LONGLIFE (35:1)	Ultracut LONGLIFE (30:1)	Ultracut LONGLIFE (25:1)	Ultracut PREMIUM (30:1) or Ultracut LONGLIFE (25:1)
Deep Hole Drilling Ejector Drilling Gun Drilling	Ultracut ALUMA-PLUS (20:1)	Ultracut ALUMA-PLUS (25:1)	Ultracut ALUMA-PLUS (20:1) or Ultracut LONGLIFE (25:1)	Ultracut LONGLIFE (25:1)	Ultracut LONGLIFE (25:1)	Ultracut LONGLIFE (25:1)	Ultracut PREMIUM (30:1) or Ultracut LONGLIFE (25:1)	Ultracut PREMIUM (25:1) or Ultracut LONGLIFE (25:1)

FLOOD APPLIED GRINDING APPLICATIONS FLUID SELECTION

Rotary, Surface and Cylindrical	Ultracut ULTRAGRIND 430 (50:1) or Ultracut CLEAR (60:1)
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