



Metal Working Fluids Product Guide

Edition 23



Excision[®]
Dependable Precision

Who We Are



Dependable Precision is at the heart and foundation of everything we do.

Welcome to this insight of Excision, Australia's leading manufacturer and wholesaler of industrial cutting products and consumables such as coolants, bandsaw blades, coldsaw blades, punches & dies and more.

With Excision being in the industry for over 30 years, we have proved that high quality products give high performance. Quality machinery and consumables translate into more cost effective operations. When you deal with us, you will receive the expert technical support and industrial knowledge to maximise your output.

Our goal is to always provide you with quality, range and value for money – and our standards are high. We offer extensive warranties with a full back-up service, expert advice, training and sales support.

Excision is a family, Australian-owned and operated company.



What's Inside



Excision is a manufacturer of high quality metal working fluids for all applications. We manufacture soluble oils to neat cutting oils and also supply other metalworking fluids such as slideway oil and hydraulic oils.



Metal Working Fluids



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How We Add Value



Quality Gaurantee

- Using a combined 50 years of experience in metal working, we can guarantee the very highest quality products
- We say Dependable Precision, and we mean it. Not only do we hold ourselves to a very high standard, we also demand the same from our supply partners and our products.

Large Stock Holdings



Technical Expertise

- Brining the correct solution for your application
- Onsite support, ensuring your coolant performs to the the optimum

Unrivalled Onsite Technical Advice

- Fully trained technical support team, who work to get the most out of every litre for you
- Coolant health checks, including bacteria levels, and foam issues
- Troubleshooting problems as they come up, providing both short and long term solutions to your problems.
- Stock management, reducing the fear of running out of coolant

Process



CONTACT



VALUE PROPOSAL



START UP



MONITORING



PARTNERSHIP



CONTACT

1. Contact

At Excision we are dedicated to analyze each customer's production process in detail. Understanding and knowing your needs allows us to offer the right technical solution. We carry out an exhaustive data collection to understand your processes and particularities and therefore avoid possible subsequent problems such as downtimes or parts rejection. A correct study is key to obtain the best results.



VALUE PROPOSAL

2. Value proposal

We recommend the most suitable solution taking into account the needs of each client, their goals and the results obtained during the first phase. Each client is different, and each situation is unique, that is why our R&D department modifies our formulas until we find the product that best suits the needs of each client and that offers the best results.



START UP

3. Start up

The supplier's involvement in the product testing and demonstration phase is very important. For this reason, in addition to making on-site formulation adjustments, we also carry out training sessions to all the people who will be involved in the use and maintenance of the product, both to transmit the necessary knowledge of handling, functionality and parameterization, and to train them in occupational and environmental safety.



MONITORING

4. Monitoring

One of our main differentiating factors is the constant monitoring and control of the projects we carry out. Our Units all over the world allow us to provide our clients with close and constant support and advice, both to avoid possible unforeseen events and to correct them immediately.



PARTNERSHIP

5. Partnership

Our partnership capabilities extend beyond product sales. We provide global lubricant management services (Global Chemical Management) to optimize the daily management of a plant. We also advise and help implement solutions for the recovery and reuse of used products, as well as for the management and treatment of waste.

Coolants



Metal Working Fluids



Coolant Comparison Table

Legend: Good+ Better++ Best+++

	Type	Lubrication	Dragout	Cooling Power	Tool life performance	Corrosion protection	Water hardness range
XDP1000	Soluble	++	+	+	++	++	150-600 ppm
XDP1400	Soluble	+++	+	+	+++	++	50-300 ppm
XDP2000	Semi-Synthetic	+	++	++	+	+	50-300 ppm
XDP2100	Semi-Synthetic	+	++	++	+	+++	50-600 ppm
XDP2400	Semi-Synthetic	++	+	+	+++	+++	50-500 ppm
XDP3000	Synthetic	++	+++	+++	++	+	50-1000 ppm
XDP3200	Synthetic	++	+++	+++	++	+++	50-1000 ppm
XDP3500	Synthetic	+	+++	+++	+	++	50-1000 ppm
XDP3800	Synthetic	+++	+++	+++	+++	++	50-800 ppm

Metal Working Fluids

Dependable Metal Working Fluids

The Excision 1L system

A unique concept developed to save money, time and wastage

1 Litre pouch of coolant that is pre-measured, so all you have to do is add to 20 litres of water



Mineral

XDP 1000

Water Soluble Cutting Fluids

An economical coolant for use in a wide range of ferrous and non-ferrous metals.

Semi-Synthetic

XDP 2000

Water Soluble Cutting Fluids

An enhanced coolant developed from a formula to extend tool life.



Metal Working Fluids



⊕ XDP1000 Mineral Coolant

Soluble concentrate for general machining

XDP1000 is a water-miscible cutting fluid with high lubricating and cooling properties based on refined mineral oil and anti-wear and anti-oxidant additives. Thanks to its high oil content, it obtains a very good surface finish of parts and a long life of the tool. XDP1000 is a cutting fluid that is suitable for machining metals such as steel, copper, brass and their alloys. It can be used in a wide range of water hardness between 50 and 500 ppm CaCO₃. XDP1000 is a soluble oil free from chlorinated derivatives, boron, amines, nitrites or Sulphur's.



Benefits:

- Good corrosion and oxidation protection properties,
- High bio-stability giving a long life emulsion stability
- Better cooling and lubricating capacity
- Efficient chip removal

Application:

XDP1000 is a concentrate which must be diluted in water with hardness between 50 to 500 ppm of CaCO₃. Concentrate has to be added to water and not vice versa. The application concentration could be between 5% to 6% for light duty operations and between 8% to 10% for heavy duty operations.



Size	Code
1 L	81110-1
5 L	81110-5
20 L	81110-20
205 L	81110-205



Metal Working Fluids

⊕ XDP1400 Mineral Coolant

Soluble concentrate for general machining

XDP1400 is a highly stable soluble fluid based on highly refined mineral oil, designed to obtain excellent superficial finishing in cast iron, steel, aluminum copper and brass alloys. Thanks to its formulation with EP additives it is specially recommended for heavy duty and complex operations. XDP1400 does not contain amines, boron, nitrites and sulfurized compounds and heavy metals

Benefits:

- Excellent lubrication for minimum consumption and longer tool life
- long sump life
- high corrosion protection
- low HSE impact
- low foam

Application:

XDP1400 is stable in water with a hardness comprised between 50 and 300 ppm. It has to be diluted by adding the concentrate to the water in an area of sufficient turbulence, at a minimum concentration of 5%



Size	Code
5 L	81210-5
20 L	81210-20
205 L	81210-205



Metal Working Fluids



XDP2000 Mineral Coolant

Semi-synthetic fluid for metal machining

XDP2000 is a semi-synthetic cutting fluid with high stability, designed for excellent surface finishes on ferrous metals, aluminium and aluminium alloys. It works specially where water is soft or with medium hardness. Once diluted disperses in nano-globules avoiding coalescence, depositions and other imperfections of the classic emulsions.

XDP2000 meets the latest technological advances. Contains no secondary amines, nitrites, halogenated derivatives or any other substance that may adversely affect both health and the environment.

Benefits:

- Excellent sump life
- Greater cooling power
- Increased resistance to foreign oils
- Lower drag-out
- High emulsion stability in soft or medium hard water
- High power corrosion inhibitor
- High lubricating effect
- Efficient chip removal
- Rejects hydraulic and tramp oil

Application:

Dispersed in water by adding the concentrate to the water until the minimum of 4% and the maximum of 12%. The ideal concentration is based on the complexity of the operation and water hardness: Used for machining aluminium and ferrous alloys.



Size	Code
1 L	81210-1
5 L	81210-5
20 L	81210-20
205 L	81210-205



Metal Working Fluids

⊕ XDP2100 Semi-Synthetic Coolant

Semi-Synthetic coolant for metal machining and grinding

XDP2100 is a semi-synthetic cutting fluid with high stability, designed for excellent surface finishes on aluminium, steels, alloys and all yellow metals. It is especially applicable where water is hard or very hard. Once diluted, it disperses in nano-globules avoiding coalescence, depositions, and other imperfections of the classic emulsions. XDP2100 meets the latest technological advances in cutting solution and can save your application by high longevity in use. Contains no secondary amines, nitrites, halogenated derivatives, or any other substance that may adversely affect both health and the environment.

Benefits:

- Effective cooling power
- High resistance to foreign oils
- Low drag
- High power corrosion inhibitor
- High emulsion stability in hard water

Application:

- Medium hardness: 6%
 - Hard water: 8%
 - Very hard water (> 400 ppm of CaCO₃): 10%
- The fluid will generate a layer of salts in the case of working with very extra-hard waters to avoid excessive accumulation of crystals of calcium carbonate. The use of a filter of paper is recommended to remove the salts from the product. The product will be used for machining aluminium, ferrous and yellow metals intended to minimize the drag of coolant per piece.



Size	Code
5 L	81211-5
20 L	81211-20
205 L	81211-205



Metal Working Fluids



XDP2400 Semi-Synthetic Coolant

Semi-Synthetic coolant for metal machining and grinding

XDP2400 is a semi-synthetic and bacteriostatic fluid with medium content of mineral oil, high lubrication esters and polymers, suitable for giving a solution to a wide range of operations on gray alloys (steel, cast iron and aluminium). The product is free from secondary amines, boron, formaldehyde releasing agents, chlorine and active sulfur derivatives. This advantage leads to do the job in the best working and environmental conditions.

Benefits:

- Excellent lubricating and cooling power
- High finishing on aluminium, steel, stainless steel and cast iron
- Excellent filterability
- Can be used in both individual machines and centralized systems
- Does not present any danger to workers and improves labor safety
- Can be applied in both machining and grinding operations where good finishes with low roughness are required.
- Free from boron and formaldehyde releasing agents



Application:

XDP2400 is mixed with water by adding the concentrate over the water. Minimum dilution ratio is 5% and maximum is 12%. Frequent dilution ratios are between 6-7% always depending on the requirements of the operation. Water hardness can vary between 50 and 300 ppm of CaCO₃.

Size	Code
5 L	81240-5
20 L	81240-20
205 L	81240-205

Metal Working Fluids

XDP3000 Synthetic Coolant

Synthetic coolant for metal machining and grinding

XDP3000 is a synthetic fluid free from mineral oil, designed to obtain excellent surface finishing in aluminium alloys, steel and cast iron. XDP3000 is based on the latest technology and allows minimum consumption together with long sump life. It does not contain secondary amines, nitrites, halogenated derivatives and hard metals.

Benefits:

- Highest cooling power
- Very low drag-out
- Excellent stability in a wide range of water hardness
- High detergency

Application:

XDP3000 is indicated for water hardness of 50 to 600 ppm of CaCO₃. The product has to be mixed with water by pouring it onto the water at a minimum concentration of 4%, to be adjusted depending on the severity of the operation. The product is recommended for machining of ferrous and aluminium alloys, where a minimum carry-over is expected, and for grinding.



Size	Code
5 L	81310-5
20 L	81310-20
205 L	81310-205



Metal Working Fluids



XDP3200 Synthetic Coolant

Neo-synthetic metalworking fluid

XDP3200 is a neo-synthetic water-miscible fluid for metal machining, containing latest technology lubricating, biostatic and corrosion protection agents. Its formula, mineral or vegetable oils, are replaced in their lubricating function by high-quality polymers that are completely soluble in water. XDP3200 is especially recommended to efficiently machine ferrous alloys, for excellent surface finishing. It is also advised for yellow metals. However it is not compatible with aluminum alloys. The product does not contain mineral nor vegetable oil, chlorinated and sulfurized compounds, boric acid, secondary amines, formaldehyde-releasing agents, nitrites and heavy metals.



Benefits:

- Stable solution at all water hardnesses
- Low foam even at high pressures
- Excellent lubricity of ferrous alloys
- Effective detergency and refrigeration
- High compatibility with seals due to mineral oil absence.
- Total insolubility of tramp oil



Application:

XDP3200 is completely soluble in water, in which it has to be diluted at a concentration between 5 and 15%, based upon the severity of the operation.

Size	Code
5 L	81320-5
20 L	81320-20
205 L	81320-205



Metal Working Fluids

XDP3500 Synthetic Coolant

Synthetic fluid for carbide grinding and metal machining

XDP3500 is a water-soluble synthetic metalworking fluid free from mineral oil for machining and grinding hard metals. It's stable and transparent with high antioxidant power. The product is studied especially for excellent finishes in machining operations and grinding tools, dies and carbide parts containing tungsten, carbide, copper, cobalt etc. XDP3500 doesn't emulsify tramp oils.

Benefits

- Good antioxidant properties
- Does not cause leaching of cobalt
- Rejects foreign oils
- Gives better cooling effect
- Gives better lubrication without leaving oily residues

Application:

Add XDP3500 to water shaking slightly. Water hardness must not exceed 400ppm. As a general rule and normal grinding operations, concentration of employment is 3% to 6%.



Size	Code
5 L	81350-5
20 L	81350-20
205 L	81350-205



Metal Working Fluids



XDP3800 Synthetic Coolant

Neo-synthetic metalworking fluid and metal machining

XDP3800 is a neo-synthetic water-miscible fluid for metal machining, containing lubricating, biostatic and corrosion protection agents of the latest technology. In its formulation, mineral or vegetable oils are replaced in their lubricating function by high-quality polymers that are completely soluble in water. XDP3800 is especially recommended to efficiently machine aluminium with excellent surface finishing, and it is highly skin-friendly thanks to its low pH-value. The product does not contain chlorinated and sulfurized compounds, boric acid and formaldehyde-releasing agents.

Benefits:

- Stable solution at all water hardness
- Low foam even at high pressures
- Excellent aluminium lubricity
- Total insolubility of tramp oil
- Effective detergency and refrigeration

Applications:

XDP3800 is a completely water-soluble product, therefore it can be easily mixed with water, the recommended concentration being between 5 and 12%.



Size	Code
5 L	81380-5
20 L	81380-20
205 L	81380-205



Neat Oils



Neat Oil Comparison Table

	Type	Oil Type	Viscosity
XDP116	MQL	Vegetable	8.7
XDP120	MQL	Vegetable	32
XDP135	Machining	Mineral	14
XDP605	Grinding	White Oil	6
XDP900	Machining	Mineral	22
XDP905 Fluid	Machining	Mineral	49
XDP705 Fluid	Food Grade	White Oil	
XDP905 Paste	Grease	Synthetic	
XDP905 Spray	Spray	Mineral	
XDP905 Foam	Foam	Mineral	



Metal Working Fluids

XDP905 Range

Revolutionise how you do Cutting, Drilling and Tapping or use lubrication in high pressure applications. XDP 905 - high performance Paste and Oil in easy to use applicators make any job easier ensuring you get up to 5 times tooling life.



Metal Working Fluids



XDP905 Spray

Easy Spray Application

XDP905 Spray is a high performance neat oil for medium and severe cutting operations (milling, grinding, drilling, tapping, broaching and general cutting on lathes). It's suitable for cutting steel, stainless steel, low and high steel alloys, cast iron, aluminum alloys materials and yellow metals like copper and brass



Benefits

- Low viscosity – ideal for deep boring
- Reduces wear and friction
- Easy application
- Protects against corrosion
- Increases tool life up to 5 times
- Chlorine and heavy metals free technology

Size	Code
400G	84905-300



Metal Working Fluids

XDP905 Foam

Ideal for vertical drilling - remains on the cutting tool and metal machining

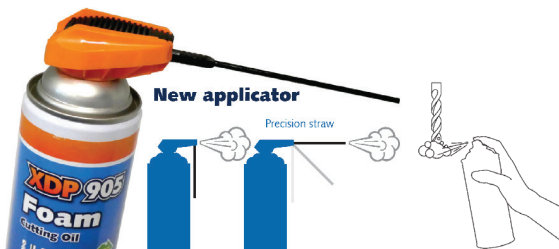
XDP 905 Foam is a cutting, drilling and tapping oil that is the ultimate performer in high pressure applications formulated for ferrous and non ferrous metals, great on stainless steel. XDP 905 Foam is a highly formulated semi-synthetic cutting oil - the latest development in extreme pressure cutting and tapping oils. XDP 905 provides exceptional film strength, adhesion to cutting edge, high speed applications, highest resistance to corrosion, and is ideal in deep boring and drilling applications. It is Chlorine and Sulphur free. Contains mineral oil for extra lubricity & low consumption - can therefore be used as minimum quantity lubricant.



Benefits

- Foam thoroughly coats cutting tool
- Increases tool life up to 5 times
- Reduces wear and friction
- Protects against corrosion
- High residual lubricant
- Easy application foaming action
- Penetrates deep into the cut
- Promotes a superior finish

Size	Code
440G	85905-440



Metal Working Fluids



XDP905 Paste

Available in mess-free application brush

XDP905 Paste is a high-performance neat product for medium and severe cutting operations (drilling, tapping, cutting, etc.). It is suitable to machine ferrous and non ferrous metals. XDP 905 Paste provides exceptional film strength, adhesion and extreme pressure properties. It has highest resistance to water and corrosion, and is an excellent anti-seize. It comes in an innovative no-mess tube with a heavy-duty industrial brush attached to it. Simply squeeze the tube and apply the paste mess-free to where it's required. The paste also comes in a traditional tub for easy dipping



Benefits:

- Chlorine-free technology
- High performance
- Outstanding tool life
- Reduces wear and friction
- Protects against corrosion



Size	Code
200G TUBE	83905-200
500G TUB	83905-500
5KG TUB	83905-5



Metal Working Fluids

XDP905 Fluid

Neat oil for metal machining

Excision's new XDP 905 Fluid for neat oil application continues the superior performance of the XDP 905 range. XDP905 is a high performance neat oil for medium and severe cutting operations (milling, grinding, drilling, tapping, broaching and general cutting on automatic lathes). It is suitable for cutting steel, stainless steel, low and high steel alloys, cast iron, aluminum alloys materials and yellow metals like copper and brass.

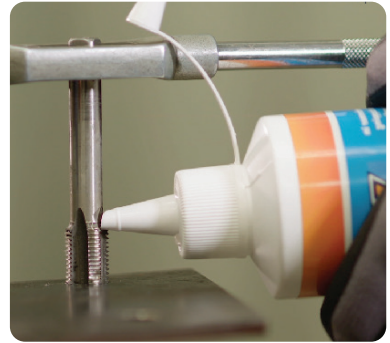
The product is a low mist and low odour formulation with excellent performance due to the presence of Extreme-Pressure additives and very highly refined mineral oils.

Benefits

- Low viscosity – ideal for deep boring
- Protects against corrosion
- Reduces wear and friction
- Increases tool life up to 5 times

Application:

Applying the lubricant when cutting, drilling or tapping has never been easier. Simply point the nozzle of the bottle to the drill or cutting area, give it a slight squeeze and vital lubrication is provided when coolant cannot be applied via coolant systems.



Size	Code
500 ML	82905-500
1 L	82905-1
5 L	82905-5
20 L	82905-20



Metal Working Fluids



XDP705 Fluid

Food Grade Lubricating Oil

XDP705 Fluid is the ultimate performer in high pressure applications. XDP705 is the latest development in Extreme pressure lubrication. XDP705 provides exceptional extreme pressure properties, high speed applications, highest resistance to water and corrosion, and is also able for use in cutting and drilling.

Benefits:

- Reduces wear and friction
- Protects against corrosion
- Increases tool life
- Low viscosity – ideal for deep boring
- Good lubricating and cooling properties
- Easy to clean
- Free of harmful compounds
- Very low mist and smells
- Good protective properties against corrosion and oxidation



Size	Code
500 ML	82705-500
5 L	82705-5
20 L	82705-20
205 L	82705-205



Nonfood Compounds
H1



MADE IN
SPAIN

Metal Working Fluids

⊕ XDP900 Threading & Cutting Oil

Neat oil for metal machining

XDP900 is a high performance neat oil for medium and severe cutting operations. It's suitable for cutting ferrous (middle to high alloyed steel) and non-ferrous materials (Aluminium, copper and brass).

XDP900 belongs to the latest technology that is based in chlorine, active sulphur and heavy metals free additives. The product is a low mist and low odour formulation with excellent performance due to the presence of Extreme-Pressure additives and very highly refined mineral oils.

Benefits:

- Chlorine and active sulphur free technology
- High performance
- Improved Tool life
- Low mist formation
- High flashpoint
- Low viscosity

Application:

XDP900 is a direct use product that needs to be filtered to lengthen its life time. The product can be used either in individual machining centers or in central systems.



Size	Code
5 L	82900-5
20 L	82900-20
205 L	82900-205



Metal Working Fluids



⊕ XDP135 Neat Machining Oil

Neat oil for metal machining and grinding

XDP135 is a highly refined mineral-based cutting oil designed for medium to heavy duty cutting and grinding operations for ferrous and non-ferrous metals. It can be used specially for cutting, grinding, lapping and honing steel, aluminium and yellow metals without staining and with very low smells. The select raw materials used in XDP135 provide good environmental conditions with very low mist and smoke in spite of its low viscosity. Thanks to its anti-wear, extreme-pressure and polar additives, XDP135 has excellent lubrication and cooling properties, ensuring good corrosion protection on workpieces and machine parts.



Benefits:

- Excellent lubricating & cooling properties
- Very good corrosion & oxidation protection
- Easy to clean
- Low mist
- Mild odour

Application:

XDP135 is used as supplied, without dilution, for cutting and grinding operations. It is suitable for ferrous and non-ferrous metals, ensuring high performance cutting conditions, good machine protection and low environmental impact.



Size	Code
5 L	82310-5
20 L	82310-20
205 L	82310-205



Metal Working Fluids

⦿ XDP605 Neat Grinding Oil

Neat oil for metal grinding

XDP 605 is a highly refined and hydro-cracked mineral oil designed for soft to medium duty cutting and grinding operations for use on ferrous and non ferrous metals. It can be used for grinding, lapping and honing steel and yellow metals without staining. The contents of XDP 605 allow it to be used in conditions of very low mist and smoke even if the viscosity is low. Its anti-wear and polar additives provides excellent lubrication and cooling.

Benefits:

- Doesn't stain any metal
- Good lubricating and cooling properties
- Easy to clean
- Excellent lubricity and wear protection
- Free of harmful compounds
- Good protective properties against corrosion and oxidation

Application:

XDP605 can be used for cutting and grinding operations without dilution. It is suitable for ferrous and non ferrous metals generally and specially cemented carbides including diamond and CBN wheels. Its characteristics allow excellent cutting conditions, high performance, machine efficiency with low environmental impact.



Size	Code
5 L	82325-5
20 L	82325-20
205 L	82325-205



Metal Working Fluids



XDP116 Spray Misting Oil

Neat oil for MQL

XDP 116 is a high performance, fully Biodegradable spray misting oil product. Formulated for aluminium cutting applications, it prevents the swarf from sticking to the cutting edge being exceptionally thin and leaving minimal residue.

Benefits:

- Minimal residue
- Fully Biodegradable
- High Anti-corrosion properties
- Chloride, nitrate, sulphur and silicone free

Application:

XDP116 is applied as supplied, preferably micro-dosed or sprayed in operations like sawing, milling and drilling of aluminium and its alloys. In general, it's suitable for non-ferrous metals. It's suitable for lubricating operations without chip, deformed or stamped product type.



Size	Code
5 L	82410-5
20 L	82410-20
205 L	82410-205



Metal Working Fluids

XDP120 Neat Oil

Neat oil for MQL

XDP120 is a neat cutting synthetic oil used specially in the area of minimum quantity lubrication (MQL). It can be used primarily in machining steel, aluminium and aluminium alloys and non-ferrous metals in general. The product can provide high wear protection to both parts and tools. In addition to a perfect finish, leaves almost no residue on workpieces. It's free of chlorinated compounds.

Benefits:

- Doesn't stain any metal,
- Low consumption,
- Low Mist at application,
- High oxidation stability,
- Excellent lubricity and wear protection.
- Minimal residual oil content in the chip,
- Biodegradable,
- Improved health and safety conditions.

Application:

XDP120 is applied as supplied, preferably micro-dosed or sprayed in operations like sawing, milling and drilling of steel, aluminium and its alloys. In general, it's suitable for non-ferrous metals. It's suitable for lubricating operations without chip, deformed or stamped product type.



XDP120 is best applied through MQL unit.

MQL Micro Lubrication System

Size	Code
5 L	82430-5
20 L	82430-20
205 L	82430-205



Metal Working Fluids



Excision MQL Micro Lubrication System

The Excision MQL Micro Lubrication System is an easy bolt-on MQL (Minimum Quantity Lubrication) system that can be fitted to any machine. Quantity and speed of lubrication is easily adjusted to suit your needs. Used inside and outside machines. Increases tool life and production time and reduces waste and mess.

Benefits

- Extends Tool Life
- Safer for operators
- Economical and Eco-friendly
- Prevents corrosion damage to machinery & steel

Liquids that can be used

- Herbal essential cutting oils
- Industrial oils
- Solvent based essential oils
- Chain and gear oils

Standard Features

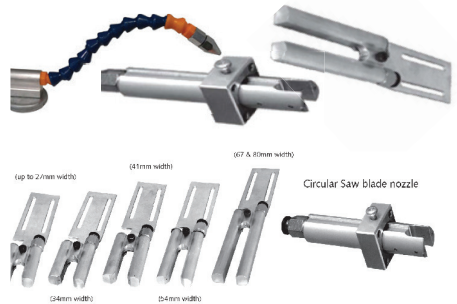
- Low level switch
- With oil filling filter
- Up to 5 pumps output feature (Max.)
- For each output nozzle is required

Technical Specification

- Working Voltage: 24V AC / DC
- Working Pressure: 4 - 6 Bar
- Oil Amount Min: 0,0012 ml
- Oil Amount Max: 0,028 ml
- Lubrication Interval: 0.1sec – 10 sec
- Lubrication Time: 0.1sec – 10 sec
- Reservoir: 1,5 litre
- Viscosity Range: 2-30 cst



Different Nozzle types Available



Size	Code
MQL 1.5 L	8501024V



Industrial Fluids



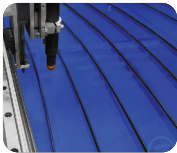
Industrial Fluids



Excision is a manufacturer of a large range of Industrial fluids from standard oils to special additives.



34
Protectant Oils & Release Agents



36-37
Plasma & Welding



38-41
Industrial Oils



42-43
Cleaner

Industrial Fluids

XDP405 Multi-Purpose Lubricant

Multifunctional protective lubricant

XDP405 is a non chlorinated solvent based rust preventative. XDP405 has a high penetration through rust and dirtiness to provide a long time protection of surfaces against oxidation and an easy separation of corroded pieces.

XDP405 is recommended to protect die casting dies against corrosion when they are not being used. XDP405 is recommended to easily unscrew or separate pieces soldered by rust. XDP405 is a low toxicity product due to the use of non chlorinated solvents.

Benefits:

- Excellent adhesion.
- Excellent anticorrosion properties.
- High penetration through rust and dirtiness
- Exempt of chlorinated solvents.

Application:

XDP405 may be applied directly by manual system, automatic or spray.



Size	Code
500 ML	84405-500
5 L	84405-5
20 L	84405-20

XDP-RA1057 Release Agent

Graphite Die Lubrication

XDP-RA1057 is a graphite in water dispersion for medium to heavy steel forging operations. This product is developed to improve the flow of the metal and to provide an optimal lubrication of the die to avoid premature wear.

XDP-RA1057 is designed to provide excellent film formation of the diluted product at high working temperatures.

Benefits:

- Excellent die lubrication
- Thorough film formation and covering properties
- Exceptional film lifetime
- Limited residues of calcination
- Low risks for the worker as contains no harmful components

Application:

XDP-RA1057 can be applied by automatic spray on the die or by dipping when used as a precoating. The recommended dilution ratio with water is from 1:1 to 1:10, always depending on the size and difficulty of the piece. The recommended temperature of the billet when there is a precoating process, is between 200-300 °C.



Size	Code
5 KG	87107-5
10 KG	87107-10
200 KG	87107-205
1000 KG	87107-1000

Industrial Fluids

⊕ XDP4500 Plasma Protector

Synthetic water-miscible plasma protector

XDP4500 is a synthetic fluid free from mineral oil, designed to effectively protect plasma cutting water tables. XDP4500 prevents oxidation from occurring in the water table and is highly effective against microorganisms of watery systems. Does not contain secondary amines, nitrites, halogenated derivatives and hard metals.

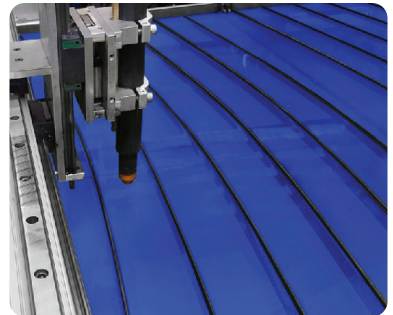
Benefits:

- Highest cooling power
- Strong anti-bacterial effect
- Effective corrosion prevention
- Excellent stability in a wide range of water hardness
- Odourless
- Easy to clean

Application:

XDP4500 is to be mixed with water at a concentration between 5 and 10%. It is recommended for protection of plasma cutting water tables.

Size	Code
5 L	81445-5
20 L	81445-20
205 L	81445-205



XDP4700 Anti-Spatter Fluid

Water-based Anti-Spatter Fluid

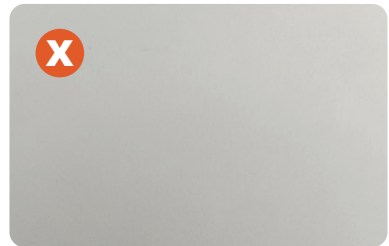
XDP4700 Anti Spatter Fluid is a water soluble liquid to prevent spatters from adhering to the nozzles or tips of welding devices and surfaces. It is based on the new synthetic release technology which makes it an easy and efficient product to be used. As it is a 100% soluble liquid product no mixing is required. Being a water based product, it is not flammable and odourless. This allows it to be used in enclosed areas. Its solubility makes it very easy to remove using water

Benefits:

- Non-flammable
- Paintable
- Odourless
- Very easy to remove from surface, thus grinding is not necessary
- Non silicone base
- Contains no mineral oil or solvents

Application:

XDP4700 Anti Spatter Fluid is applied directly by brush or sprayed onto the surface to be protected. Spatter falling on treated surface can be easily removed.



Size	Code
500 ML	86002-500
5 L	86002-5
20 L	86002-20

Industrial Fluids

XDP-SW Slideway Oil

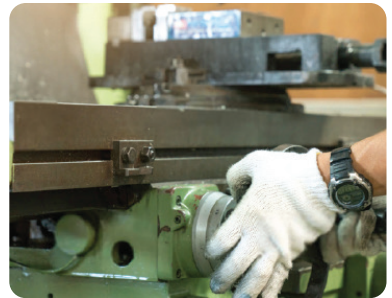
Available in ISO 32, 68, 220 grades

XDP-SW Slideway Oil is an oil based lubricant formulated with highly refined mineral oil and special additives for its use in guides and slides on machines. It contains friction modifiers, extreme-pressure additives and demulsifiers which offer unctuousness and facilitate the separation of the coolants. It can be also used in tool-machines gearboxes and mechanical transmission subjected to very high loads.

Benefits:

- Very high adhesion on metallic surfaces avoiding noises and vibrations
- Anti-wear and high extreme-pressure properties to enable its use in gearboxes and mechanical transmission for tool-machines
- Excellent protection against corrosion and oxidation

Size	Code
XDP-SW32 5 L	84132-5
XDP-SW32 20 L	84132-20
XDP-SW68 5 L	84168-5
XDP-SW68 20 L	84168-20
XDP-SW68 205 L	84168-205
XDP-SW220 5 L	841220-5
XDP-SW220 20 L	841220-20



Industrial Fluids



XDP-HYD Hydraulic Oil

Available in ISO 32, 46, 68 grades

XDP-HYD Hydraulic Oil is intended for all hydraulic systems operating at high pressures and are not required to have significant variations in viscosity with temperature. Based on latest generation of high refining paraffins, ZDDP and viscosity improvers. Thus it provides high reliability in preventing viscosity falls, oxidation and fluid stability.

Benefits:

- Low wear of valves and pumps
- Easy separation from water
- It protects against corrosion and oxidation
- Good anti-wear components
- Contains extreme-pressure elements



Size	Code
XDP-HYD32 5 L	82132-5
XXDP-HYD32 20 L	82132-20
XDP-HYD32 205 L	82132-205
XDP-HYD46 5 L	82146-5
XDP-HYD46 20 L	82146-20
XDP-HYD46 205 L	82146-205
XDP-HYD68 5 L	82150-5
XDP-HYD68 20 L	82150-20
XDP-HYD68 205 L	82150-205



Industrial Fluids

XDP-HFC Hydraulic Oil

Fire resistant hydraulic water-glycol based fluid

XDP-HFC, specially designed to prevent the ignition of other fluids, is a Hydraulic fireproof safety fluid with a water-glycol base suitable for any type of application and requirement. Meet ISO HFC, among others.

Benefits:

- Excellent transmission of the force
- Excellent lubrication of pumps and hydraulic circuits
- Excellent fire resisting properties
- Excellent compatibility with hydraulic parts
- No harmful additives



Size	Code
5 L	84346-5
20 L	84346-20
205 L	84346-205



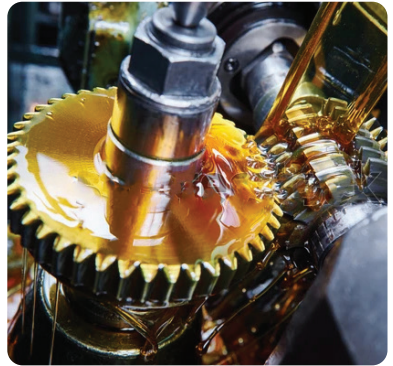
XDP-GEAR Industrial Gear Oil

Available in ISO 68, 100, 150, 220, 320, 680 grades

XDP GEAR Oil is a lubricating oil for all type of gears, gear boxes and industrial equipments. It's formulated from highly refined mineral base which by it's high viscosity index and incorporating AW/EP properties provide excellent service under severe working conditions and temperature. XDP GEAR Oil is suitable oils for slideway application with high performance because of its outstanding anti-wear, anticorrosive and antioxidation additive giving specialty good anti-stick-slip and demulsifying properties.

Benefits:

- Excellent performance
- Low maintenance costs
- High viscosity index
- Extend gear life
- Low oil consumption
- Excellent rust and corrosion protection



Size	Code
XDP-GEAR68 5 L	84268-5
XDP-GEAR68 20 L	84268-20
XDP-GEAR68 205 L	84268-205



Industrial Fluids

XDP825 Punch & Shear Oil

XDP825 is a high performance neat oil for medium and severe punch and shear operations. It is suitable for cutting ferrous (middle to high alloyed steel) and non-ferrous materials (Aluminium, copper and brass). Excellent performance due to Extreme-Pressure additives and highly refined mineral oils.

Size	Code
500 ML	82825-500



XDP System Cleaner

XDP System Cleaner is a specially designed cleaner that removes all dirtiness accumulated in pipes and tanks with metalworking fluids. XDP System Cleaner is formulated to clean, disinfect and remove lime or other salt residues formed after long periods of the metalworking fluid circulating inside the pipelines.

Benefits:

- High cleansing properties
- Non-corrosive properties
- Compatible with all materials present in metalworking industries

Application:

XDP System Cleaner is diluted in water at 3-6% depending on the dirtiness in the system. The system needs to be completely emptied. Load the minimum amount of water that allows the system to be set up in circulation mode and add the corresponding % of XDP System Cleaner to reach the desired concentration. Solution needs to be in recirculation for at least 2 hours and rinsed out with clear water before refilling with fresh product. If water coming out is not clean, repeat the operation described above until you reach an acceptable level of cleanliness.

Size	Code
500 ML	84620-500
1 LT	84620-1



Industrial Fluids

XDP Alube

Aluminum Lube Stick

XDP Aluminium Lube Stick is a wax-like lubricant that can be applied to the cutting edge to prevent aluminium swarf sticking to the blade.

Size	Code
150G	84120-150
1KG	84120-1000



Hand Cleaner

Contains heavy duty poly beads for cleaning all tough dirt, grime and grease.

Benefits:

- Formulation for cleaning the toughest grime and grease!
- Powerful Anti-bacterial Action - kills 99.9% of germs
- Trusted robust cleaning & hygiene performance

Size	Code
5LT	84610-5
20LT	84610-20
5LT WITH HAND PUMP	84610-5P
20LT WITH HAND PUMP	84610-20P



Hand Wash

Protects your hands from drying out, as well as killing 99.9% of germs.

Benefits:

- Soothes & nourishes your skin, leaves your skin refreshed & clean
- Powerful Anti-bacterial Action - kills 99.9% germs
- Robust cleaning & hygiene performance

Size	Code
5LT	84616-5
20LT	84616-20
5LT WITH HAND PUMP	84616-5P
20LT WITH HAND PUMP	84616-20P



Coolant Accessories



Coolant Accessories



XDP Emulsion Mixer

XDP Emulsion Mixer ensures accurate and consistent blending of cutting oils or other liquids, which are to be mixed with water. The mixer is driven by water pressure only. Just turn on the water supply when re-filling your machines. Also available in a bigger aluminum model with a flow of 2000 l/hv.



Type	Code
EMULSION MIXER	84610-205M

XDP Rotary Hand Pump

- Solid cast iron construction
- Approx. 3 revolutions per litre
- 3 piece steel suction pipe & 2" Bung Adaptor



Type	Code
ROTARY PUMP	84610-205P

XDP Refractometer

The Refractometer is developed for control of the concentration of various industrial fluids. At a recommended oil concentration of 8% –12%, the emulsion will perform both the lubrication and cooling tasks.



Type	Code
DIGITAL REFRACTOMETER	84610-05DR
MANUAL REFRACTOMETER	84610-05R

Coolant Accessories

MQL Micro Lubrication System

The Excision MQL Micro Lubrication System is an easy bolt-on MQL (Minimum Quantity Lubrication) system that can be fitted to any machine. Quantity and speed of lubrication is easily adjusted to suit your needs. Increases tool life and production time and reduces waste and mess.

Benefits:

- Extends Tool Life
- Economical and Eco-friendly
- Safer for operators
- Prevents corrosion damage to machinery & steel

Type	Code
MQL SLT	8501024V

Different nozzle types available



Coolant Pumps

A full range of coolant pumps to suit all models and makes. Making sure you have constant flow of coolant is critical.

Type	Code
85MM LEG 240/415V	88140020
115MM LEG 240/415V	88140022
140MM LEG 240/415V	88140025



Coolant Vacuum

Fast and efficient system to remove Coolants, Oils, Sludge, Swarf and other industrial waste

- Efficiently drains coolant tanks even with chips and swarfs
- Adapts to standard 205 L (44gallon) drums
- Virtually no maintenance - quiet operation
- High suction rate at 45L/pMin (at 100psi)



Coolant Accessories



XDP Oil Skimmer

This Oil Skimmer removes unwanted tramp oils and other contaminants from the surface of the cooling lubricant. Surface Oil should always be removed, not only to extend the emulsion life, but also to create optimal conditions.



Type	Code
OIL SKIMMER	84610-055

XDP 90F 24 Tank Filter

XDP 90F is a filtration system for coolant lubricants, oils and watery solutions. XDP 90F is suitable for all industrial basins. You can clean and filter all of your baths immediately - the patented mechanical micro filtration technology of XDP 90F only needs a couple of minutes. The result is a clean high quality coolant lubricant, oil and watery solution - freed from chips and solids.

Type	Code
90L/MIN	85590



MADE IN GERMANY

20LT Drum

Empty 20 L drum with a tap in the lid, perfect for mixing your metalworking fluid solution.

Type	Code
20LT	20LTDRUM





Handling & Care of Coolants



Handling & Care of Coolants



General

1. Keep the working environment clean and orderly.
2. Handle the product with safety glasses and gloves.
3. Do not eat, drink or smoke in the working environment.
4. For any doubt refer to SDS (Safety Data Sheet) of the product.

Safety Glasses



Safety Gloves



No Food



No Smoking



Storage



Always keep product away from direct sunlight



Keep the temperature between 5°C and 40°C



Check expiry date on label. If the product has expired, consult MF representative

General

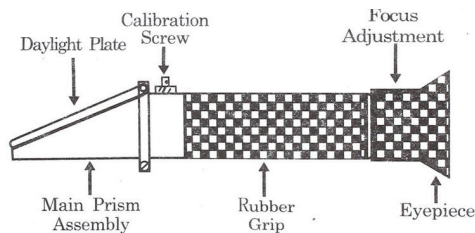
1. Before Filling

- Add Excision cleaning product at recommended concentration to the emulsion in use and work it for a time sufficient for the entire bath to completely recirculate in the system
- Thoroughly clean the machine, the sump and the circuit of all swarf, sludge and any other residue. It is recommended to use a high-pressure spray.
- Empty the system
- Place (preferably hot) water diluted with XDP System Cleaner (See page 38) at recommended concentration and recirculate it again with all machine tool functions working
- Empty the machine thoroughly and dispose the removed fluid properly.

2. Refractometer

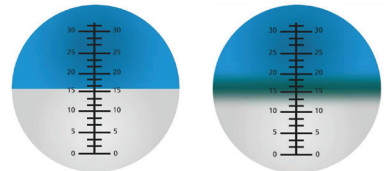
A. Calibration

- Calibrate the refractometer before every use
- Place a couple of water drops on the refractometer screen and close the plastic cover (tap water is one)
- Look through the eyepiece against the light and align the blue/white division with the 0 line by rotating calibration screw
- The device is now calibrated



B. Reading

- Place a couple of emulsion drops, avoiding tramp oil, on the refractometer screen and close the plastic cover
- Look through the eyepiece against the light: if the line is blurred, adjust the focus by rotating the eyepiece and proceed to reading
- If the blue/white division is hazy, then the emulsion is either heavily contaminated with emulsified tramp oil, or it is at the end of its life cycle



Handling & Care of Coolants



Filling

3. Filling

Manual Dosage

We recommend preparing the emulsion in an independent sump & to add it afterwards to the tank.

- Prepare the emulsion in the preparaton sump, filling it first with water and adding the concentrate, at the recommended concentration. Agitate it properly and add it to the machine tank. Repeat the operation until reaching the first half of the machine sump.
- Check concentration. See section 2.B
 - If concentration is ok, then continue topping up at same concentration and agitate properly.
 - If concentration is higher or lower, adjust accordingly by topping up and agitate properly. See section 6
- Once the circuit is full you may start working.

Maintenance

Controls

Daily Checks

Appearance

- Colour and homogeneity are maintained
- No noticeable foam, fines, sludge floating, or tramp oil
- No biofilm on visible surfaces or in filters



Odour

- No unusual and unpleasant smell (could indicate bacterial contamination)

Weekly Checks

Emulsion Temperature

- If higher than 30°C, microbial growth and evaporation loss increases are more likely to happen

pH Value

- By means of pH-meter or test strips; adjust it by adding fresh coolant, or in extreme situations, an additive recommended by Excision

Lower pH may indicate microbial contamination

Higher pH may indicate alkaline contamination (e.g. from cleaners)

Handling & Care of Coolants



Problem Solving

Recommended Solutions

Problem	Solution	Image
Tramp Oil	Remove it by skimming or sucking	
Biofilm	Remove it and check for microbial contamination by means of dipslide	
Bad Smell	Check for microbial contamination by means of dipslide	
Foam	Check concentration, which could be higher than usual. If so, adjust by topping up with fresh product. Check level of emulsion in the sump. If low, top up	
Staining Discolouration (Non-Fe-Alloys)	Check pH-value: if high, top up with fresh emulsion (NON-FE-ALLOYS)	
Temperature higher than usual	Check sump level and top up	
pH Low	Check for microbial contamination with dipslide	
pH High	Check for contamination of emulsion with alkaline cleaner	
Rust (Fe-Alloys)	Check concentration, which could be lower than usual Check sump level and top up Check microbial contamination with dipslide	

Handling & Care of Coolants



Problem Solving

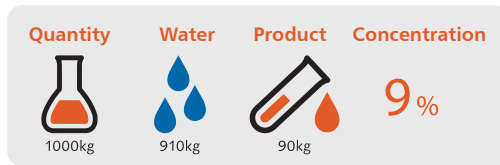
Emulsion Addition

- After checking the emulsion concentration, define the top-up concentration, based on the quantity of emulsion to add
 - Dosing Automatically - Adjust equipment accordingly
 - Dosing Manually - Always add emulsion, even if at low dilution, never water or concentrate alone

Example of High Concentration

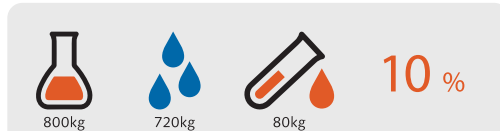
- After checking the emulsion concentration, define the top-up concentration, based on the quantity of emulsion to add
 - Dosing Automatically - Adjust equipment accordingly
 - Dosing Manually - Always add emulsion, even if at low dilution, never water or concentrate alone

1. Initial Filling

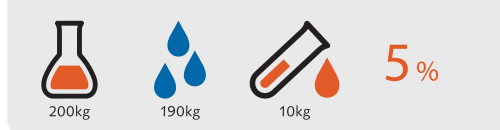


2. Top-Up

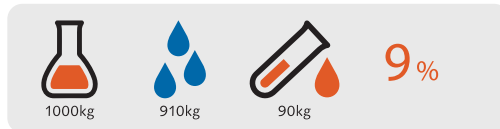
A. Current Situation



B. Re-filling Needed



3. New Status



If the concentration is lower than desired please contact our team of experts.

Shutdown Process

Shutdown Recommendations

- Make sure the concentration is at 5% at least.
- Make sure that the emulsion is recirculated during 30 minutes every day in all machines.
 - If it is not possible, check that there is no tramp oil.
 - If there is tramp oil present, remove it immediately and completely from the emulsion surface.
- Leave the emulsion to stand, keeping it properly protected from external agents, but in contact with clean air.
 - If you have a maintenance (continuous-action) tank-side biocide for preventive purposes (not one for shock treatment, though) you might one to add it.
 - Make sure that the emulsion is recirculated during 30 minutes.

Re-starting Recommendations

- Before re-starting your machines you should:
- Make sure the visual appearance of the release agent is good & homogeneous, & no bad smell is present.
 - Check concentration & pH.

If all parameters are correct:

- Re-start the machines & check the first pieces. If everything is correct you can continue; If not, please contact Excision for advice.
- All MWFs should be disposed of in accordance with national and local legislative requirements. An approved waste disposal contractor should be hired.





Excision®

Dependable Precision



Freecall: 1800 633 448
Phone: +61 3 5551 4555
Email: info@Excision.com.au
Website: Excision.com.au