

# **CUTTING & GRINDING FLUIDS**





FOR ALL YOUR SAWING NEEDS!

## General purpose



These coolants offer excellent protection for operator and environment. The demands on water-miscible metal working coolants are changing continuously because of production, environmental and operator safety requirements.

DoALL's semi-synthetic fluids optimize the benefits of synthetics and soluble oils in one fluid. These fluids contain mineral oil and performance enhancing chemical additives.

Product	Material	Application	Specifications						
			Content of mineral oil %	Density g/cm³	pH- value	Corrosion Protection (DIN51360/2)	Amine free	FAD free	Boron free
Kool-ALL 022 ECO	Aluminium alloys, cast iron, low alloys steels	General machining and grinding operations	30	1,01	9,4	4%	<b>V</b>	<b>V</b>	<b>V</b>
Kool-ALL 148	Steel, cast iron, aluminium, non-ferrous	General to demanding machining operations	50	0,94	9,1	5%	-	<b>V</b>	-
Kool-ALL 248	Steel, aluminium, titanium, nickel alloy, alloyed steels	Demanding, heavy machining operations	42	0,96	9,3	4,5%	<b>V</b>	<b>V</b>	<b>V</b>

## Grinding



These fluids offer the highest level of cooling, best workplace visibility, and are formulated to minimize operator sensitivity. These fluids are low foaming which is ideal in high-pressure coolant systems and also offer good detergent properties for maintaining free cutting grinding wheels.

These synthetic fluids offer a long sump life, are very easy to maintain and have the lowest disposal cost.

Product	Material	Application	Specifications						
			Content of mineral oil %	Density g/cm³	pH- value	Corrosion Protection (DIN51360/2)	Amine free	FAD free	Boron free
Kleen-KOOL 174	Non-ferrous metal, cast iron metal, steel	General machining operations	0	1,07	9,1	5%	-	<b>V</b>	<b>✓</b>
Kleen-KOOL 274	Carbide metal, steel, cast iron, non-ferrous	Grinding	0	1,1	8,9	4%	-	<b>V</b>	<b>V</b>

# Minimal Quantity Lubrication fluids

Minimal quantity lubrication fluids are formulated for use in applications where flood coolants are prohibited or not desired. These fluids are used with a pneumatic applicator unit and produce "dry" chips because the fluids is consumed totally in the cutting operation. These fluids are ideal for most cutting, sawing, turning, tapping, drilling and milling operations when applied directly on the tip of the cutting tool. These fluids can be used on almost all steels, including stainless steel, titanium, and non-ferrous metals.

These fluids are a blend of natural raw materials keeping the environment in mind.



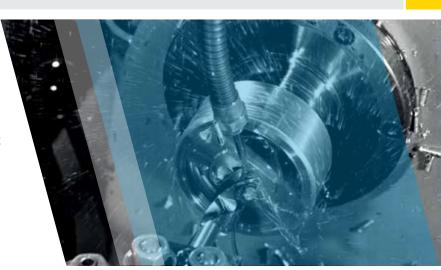
Product	Material	Application	Specifications			
			Viscosity mm²/s	Mineral oil	Density g/cm³	Flash point °C
AL-2100HVEP	Steel alloys, stainless steel, non-ferrous metal, alumi- nium alloys	MQL applications	32	0%	0,92	≥ 230
Autocut	Steel, stainlees steel, non- ferrous metal	MQL applications	22	+ HC	0,87	≥ 180

# Cutting oils

Cutting oils are blends of premium base oils and provide the highest degree of lubrication, longest tool life, and best surface finish of all metal working fluids.

These oils provide long fluid life and have no rust issues associated with their use. Plus, these oils do not require dilution, have low to mild odour, and have the least amount of operator sensitivity.

In addition, cutting oils are low misting and non-foaming.



Product	Material	Application	Specifications			
			Viscosity mm²/s	Mineral oil	Density g/cm³	Flash point °C
Bright Edge 200	Steel, cast steel, stainless steel, carbide metal, titanium	Grinding	7	+ HC	0,83	≥ 160
Bright Edge 250	Steel, stainless steel	Reaming, (thread) cutting, sawing	22	Y	0,93	≥ 150

Application							
	From standard applications to high performance						
General machining, turning, drilling, milling	Kool-ALL 022 Kleen-Kool 174	Kool-ALL 148 Kleen-Kool 174	Kool-ALL 248	Kool-ALL 248			
Sawing	Kool-ALL 022	Kool-ALL 148	Kool-ALL 248	Kool-ALL 248 Bright-Edge 250			
Grinding	Kool-ALL 022 Kleen-Kool 174	Kleen-Kool 174	Kleen-Kool 274	Kleen-Kool 274			
CBN-High speed grinding	Kool-ALL 274	Kool-ALL 274	Bright-Edge 200	Bright-Edge 200			
Tapping	Kool-ALL 148	Kool-ALL 148	Kool-ALL 248	Bright-Edge 250			
Reaming	Kool-ALL 148	Kool-ALL 148	Kool-ALL 248	Bright-Edge 250			
Gear cutting	Kool-ALL 148	Kool-ALL 148	Kool-ALL 248	Bright-Edge 250			
Minimal Quantity Lubrication	AL-2100HVEP	AL-2100HVEP	Autocut	Autocut			

#### **Welcome to DoALL**

It started with the metal cutting band saw, invented by our founder Mr. Leighton A. Wilkie in 1933. He was the first to produce all three vital elements for band sawing: sawing machines, band saw blades and cutting fluids.

DoALL invented the Bi-Metal band saw blade and released many improvements over the years. Today we are still the trendsetter in band saw blade technology. We have production facilities in the USA; Canada as well as in Europe.

## At your service!

The European Distribution Center is located strategically in Dordrecht, The Netherlands. Our sawing products are distributed throughout Europe including the Russian Federation and the Middle East. Our factory trained local distributors operate their own welding centers to provide fast and local welding service and offer technical support.

#### ISO 9001:2015 quality certification

DoALL is committed to provide you, our customer, with the best products and services available. This ambition resulted in the ISO 9001:2015 certification of our quality system.



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