

# Cutting & Grinding Fluids



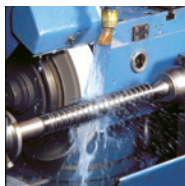
## Where Innovation Meets the Metalworking Industry

DoALL Sawing Products has been manufacturing cutting and grinding fluids since the 1950s. We offer a broad range of products including:

- Cutting oils like synthetics, semi-synthetics, soluble oils and straight oils
- Grinding fluids
- Direct application machine tool lubricants
- Metalworking and machining coolants and lubricants
- Hydraulic, transmission, gear, way and spindle oils
- Cleaners and removers
- Tank additives
- Aerosol, mist and Minimal Quantity Lubrication (MQL) lubricants
- Specialty products

### Our products are a cut above the rest!

DoALL Sawing Products has a knowledgeable sales team and distributor network that market metalworking cutting products worldwide. DoALL is committed to providing customers with high quality, cost-effective performance fluids to improve operations and reduce costs. At DoALL, we are dedicated to offering environmentally friendly and worker safe solutions to meet all your machining needs.



Solutions for ALL Your Sawing Needs

# DoALL Product Overview

## Synthetic Fluids

DoALL synthetic fluids are used for cutting and/or grinding applications. Our synthetic fluids are designed to provide superior performance for critical machining and grinding applications of ferrous metals. Our fluids offer excellent surface finish, tool life and corrosion protection.

## Semi-Synthetic Fluids

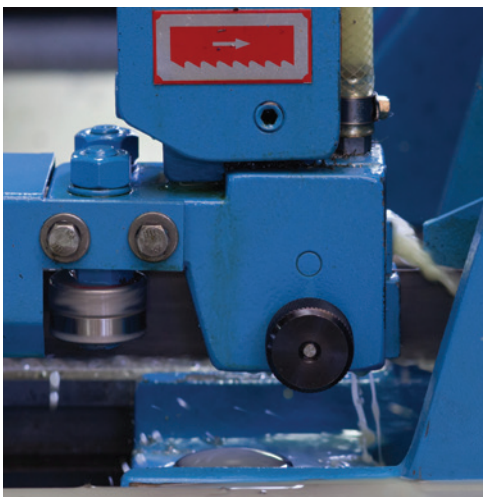
Semi-synthetics optimize the benefits of synthetics and soluble oils in one fluid. DoALL semi-synthetics are formulated with the newest technology for long sump life and the best tramp oil rejection. They easily maintain a sharp line on the refractometer for close concentration control and the best balance between control of both bacteria and mold.

## Soluble Oils

DoALL water soluble fluids form a stable oil and water emulsion to protect cutting equipment. Soluble oils have low operator sensitivity and offer good corrosion protection, tool life and surface finish. Extreme pressure fortified water soluble oils like the 300 Series have the ability to handle alloy steels.

## Straight Oils

DoALL straight oil offers the highest lubricity for cutting and grinding operations. These straight oils are 90% oil and do not emulsify in water. These are used when lubricity is the greatest requirement and the speed of the machine is slow enough that cooling action is not needed. These products are formulated for increased tool life and better surface finish.



## Aerosols

DoALL aerosols are high-efficiency metalworking lubricants compatible for use with air driven application systems or minimum quantity lubrication equipment. Our aerosols offer precision stream or broad spray action to penetrate and displace moisture to aid lubrication.

## Machining Fluids

DoALL direct application and AL-series of metalworking fluids are designed for use in applications where flood coolants are prohibited or not required. Used with an air-driven application system producing “dry” chips as the fluid is used up in the cutting operation. These fluids are suitable for use in air driven spray mist systems or MQL (Maximum Quantity Lubricant) equipment.

# Cutting and Grinding Fluids Selector

	SYNTHETIC FLUIDS					SEMI-SYNTHETIC
	BAND-ALL 103	KLEEN-KOOL	KLEEN-KOOL ES	KLEEN-KOOL GP	KLEEN-KOOL ULTRA	BAND-ALL 102
<b>METALS</b>	<b>METALS</b>					
Low Carbon Steel	Exceptional	Exceptional	Excellent	Excellent	Exceptional	Excellent
High Carbon Steel	Exceptional	Exceptional	Good	Good	Exceptional	Excellent
Stainless Steel	Excellent	Excellent	Good	Good	Excellent	Good
Cast Iron	Excellent	Excellent	Excellent	Exceptional	Excellent	Exceptional
Titanium	Exceptional	Exceptional	Excellent	Excellent	Exceptional	Unsuitable
Hastaloy	Exceptional	Exceptional	Excellent	Excellent	Exceptional	Excellent
Monel	Exceptional	Exceptional	Good	Good	Exceptional	Excellent
Inconel	Exceptional	Exceptional	Good	Good	Exceptional	Excellent
Low Si Aluminum	Exceptional	Exceptional	Excellent	Excellent	Exceptional	Excellent
High Si Aluminum	Exceptional	Exceptional	Excellent	Excellent	Exceptional	Excellent
Aerospace Aluminum	Exceptional	Exceptional	Good	Excellent	Exceptional	Excellent
Copper Alloys	Exceptional	Exceptional	Excellent	Excellent	Exceptional	Excellent
Carbide	Good	Good	Unsuitable	Good	Good	Excellent
Magnesium	Avoid	Avoid	Avoid	Avoid	Avoid	Avoid
<b>APPLICATIONS</b>	<b>APPLICATIONS</b>					
Sawing	Exceptional	Exceptional	Good	Good	Exceptional	Excellent
Drilling	Exceptional	Exceptional	Excellent	Excellent	Exceptional	Excellent
Turning/Boring	Exceptional	Exceptional	Excellent	Excellent	Exceptional	Excellent
Tapping	Exceptional	Exceptional	Excellent	Excellent	Exceptional	Excellent
Milling	Exceptional	Exceptional	Excellent	Excellent	Exceptional	Good
Gun Drilling	Exceptional	Exceptional	Good	Excellent	Exceptional	Good
Reaming	Exceptional	Exceptional	Good	Good	Exceptional	Good
Hobbing	Exceptional	Exceptional	Good	Good	Exceptional	Good
Forming/Stamping	Exceptional	Exceptional	Good	Excellent	Exceptional	Good
Broaching	Exceptional	Exceptional	Good	Good	Exceptional	Good
Grinding OD/ID	Exceptional	Exceptional	Good	Excellent	Exceptional	Good
Grinding Surfaces	Excellent	Excellent	Excellent	Exceptional	Exceptional	Good
Grinding Creep Feed	Excellent	Excellent	Good	Excellent	Exceptional	Excellent
<b>EP ADDITIVES</b>	<b>EP ADDITIVES</b>					
Chlorine	No	No	No	No	No	No
Sulfur	No	No	No	No	No	No
Phosphorus	Medium	Medium	No	No	Medium	No
Ester	Medium	Medium	No	No	Medium	Low
Other	High	High	Medium	High	High	Low
Lubricant	Medium	Medium	Low	Low	Medium	Medium
Cobalt Leach Protection	Low	Low	Low	Low	Low	Low

## Metalworking Fluids

DoALL high-efficiency metalworking lubricants form a high strength molecular coating on the cutting edge of the tool reducing friction and extending tool life. They contain no petroleum, sulfur, or chlorine and are non-toxic, non-flammable and non-polluting.

## Cleaning Fluids

DoALL cleaning fluids are used to remove soils and contaminants from metal substrates normally found in the steel and metalworking industries. Our products clean ferrous AND non-ferrous surfaces and are compatible for use with other metalworking fluids.

## Specialty Fluids & Products

DoALL offers other specialty fluids and products that are compatible for use with other DoALL cutting fluids. For example, one of the most popular parts we offer is a lubricant wax stick called Tool-Saver which provides the opportunity to apply immediate lubrication when cutting.



SEMI-SYNTHETIC FLUIDS			SOLUBLE OILS				STRAIGHT OILS			
KOOL-ALL	KOOL-ALL GP	KOOL-ALL ULTRA	BAND-ALL 101	POWER-CUT	POWER-CUT CF	POWER-CUT GP	BRIGHT-EDGE 80	BRIGHT-EDGE 150	BRIGHT-EDGE 300	
<b>METALS</b>										<b>METALS</b>
Excellent	Good	Excellent	Exceptional	Exceptional	Excellent	Exceptional	Good	Excellent	Excellent	Low Carbon Steel
Excellent	Good	Excellent	Exceptional	Exceptional	Excellent	Exceptional	Excellent	Excellent	Excellent	High Carbon Steel
Good	Good	Excellent	Exceptional	Exceptional	Unsuitable	Good	Excellent	Excellent	Excellent	Stainless Steel
Exceptional	Good	Exceptional	Good	Good	Excellent	Good	Excellent	Good	Exceptional	Cast Iron
Unsuitable	Unsuitable	Good	Exceptional	Exceptional	Excellent	Excellent	Excellent	Excellent	Exceptional	Titanium
Excellent	Good	Excellent	Exceptional	Exceptional	Excellent	Excellent	Excellent	Excellent	Good	Hastaloy
Excellent	Good	Excellent	Exceptional	Exceptional	Excellent	Excellent	Excellent	Excellent	Good	Monel
Excellent	Good	Excellent	Exceptional	Exceptional	Excellent	Excellent	Excellent	Excellent	Exceptional	Inconel
Excellent	Good	Excellent	Exceptional	Exceptional	Excellent	Excellent	Good	Excellent	Good	Low Si Aluminum
Excellent	Good	Excellent	Exceptional	Exceptional	Excellent	Excellent	Good	Excellent	Good	High Si Aluminum
Excellent	Good	Excellent	Exceptional	Exceptional	Excellent	Excellent	Good	Excellent	Good	Aerospace Aluminum
Excellent	Good	Excellent	Exceptional	Exceptional	Excellent	Unsuitable	Unsuitable	Good	Good	Copper Alloys
Excellent	Good	Excellent	Exceptional	Exceptional	Good	Good	Unsuitable	Unsuitable	Good	Carbide
Avoid	Avoid	Avoid	Avoid	Avoid	Avoid	Avoid	Avoid	Avoid	Avoid	Magnesium
<b>APPLICATIONS</b>										<b>APPLICATIONS</b>
Excellent	Good	Excellent	Exceptional	Exceptional	Excellent	Excellent	Exceptional	Exceptional	Good	Sawing
Excellent	Good	Excellent	Exceptional	Exceptional	Excellent	Good	Good	Good	Exceptional	Drilling
Excellent	Good	Excellent	Exceptional	Exceptional	Excellent	Good	Good	Good	Exceptional	Turning/Boring
Excellent	Good	Excellent	Exceptional	Exceptional	Excellent	Good	Excellent	Good	Excellent	Tapping
Good	Good	Good	Exceptional	Exceptional	Excellent	Good	Good	Good	Exceptional	Milling
Good	Good	Good	Exceptional	Exceptional	Excellent	Good	Excellent	Excellent	Good	Gun Drilling
Good	Good	Good	Exceptional	Exceptional	Excellent	Excellent	Excellent	Excellent	Good	Reaming
Good	Good	Good	Exceptional	Exceptional	Excellent	Excellent	Excellent	Excellent	Exceptional	Hobbing
Good	Good	Good	Exceptional	Exceptional	Excellent	Excellent	Good	Good	Exceptional	Forming/Stamping
Good	Good	Good	Exceptional	Exceptional	Excellent	Excellent	Excellent	Excellent	Exceptional	Broaching
Good	Good	Exceptional	Exceptional	Exceptional	Excellent	Good	Good	Good	Exceptional	Grinding OD/ID
Good	Good	Exceptional	Exceptional	Exceptional	Excellent	Excellent	Good	Good	Exceptional	Grinding Surfaces
Excellent	Good	Exceptional	Excellent	Excellent	Good	Excellent	Good	Good	Exceptional	Grinding Creep Feed
<b>EP ADDITIVES</b>										<b>EP ADDITIVES</b>
No	No	No	High	High	No	Medium	Medium	Medium	No	Chlorine
No	No	No	Low	Low	Low	Low	Medium	No	Low	Sulfur
No	No	No	No	No	No	No	No	No	No	Phosphorus
Low	Low	Medium	Low	Low	Low	No	Medium	High	No	Ester
Low	Low	Medium	Low	Low	Low	No	No	No	Low	Other
Medium	Low	Medium	Low	Low	Low	Medium	Low	High	Medium	Lubricant
Low	Low	Low	Medium	Medium	Low	Medium	N/A	N/A	N/A	Cobalt Leach Protection



# Synthetic Fluids



## BAND-ALL® 103

Clear green, synthetic cutting and grinding fluid with a fresh scent. Performs well in most machining applications. Ideal for tough operations such as sawing, tapping and deep hole drilling. This product is suitable for use on ferrous and non-ferrous metals.

- Formulated with a premium extreme pressure additive package
- Exhibits good detergency, rejects tramp oil
- Long sump life and easily maintained



## KLEEN-KOOL®

DoALL premium synthetic with an extreme pressure additive package for moderate to heavy-duty machining operations.

- Offers long sump life
- Ideal for moderate to heavy-duty machining, sawing, tapping, deep hole drilling
- Suitable for ferrous and non-ferrous metals



## KLEEN-KOOL ES

Economical cutting and grinding fluid specially formulated for light to medium-duty machining.

- Cost-effective product without the use of expensive additives
- Ideal for light to moderate machining and grinding operations
- Suitable for use with ferrous and non-ferrous metals



## KLEEN-KOOL GP

A cost-effective, general purpose cutting and grinding fluid for light to medium machining.

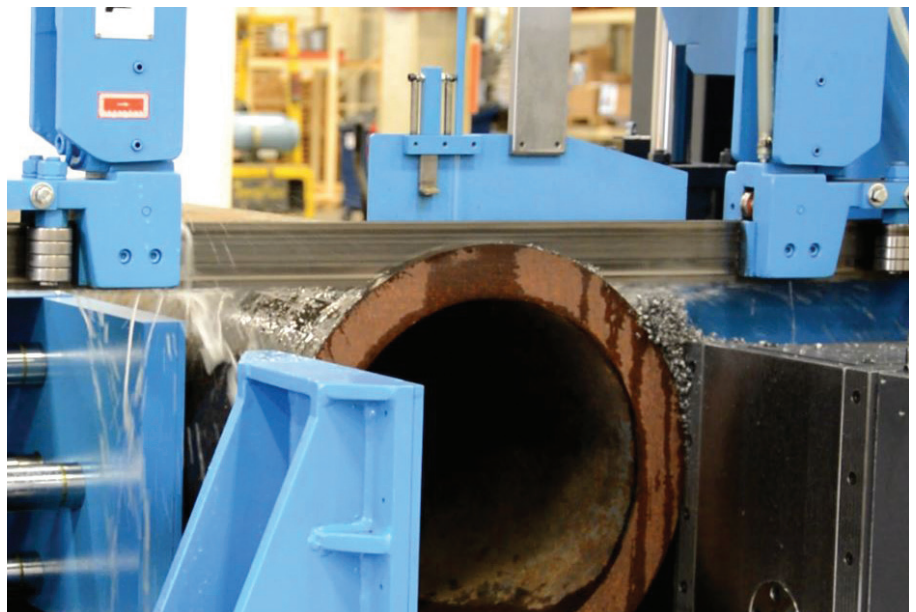
- Ideal for use in surface, cylindrical and centerless grinding applications
- Product is dyed blue



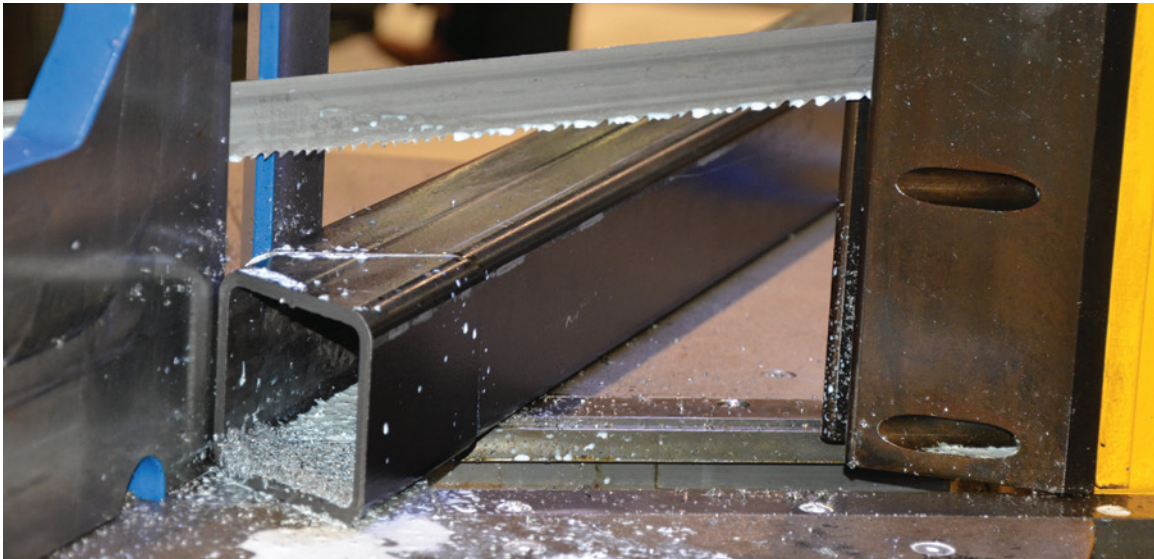
## KLEEN-KOOL ULTRA

A premium, doubly-concentrated cutting and grinding metalworking fluid for medium to heavy-duty machining operations. This product is also available in totes increasing space efficiency in your plant.

- Offers long sump life
- Specially formulated with a premium extreme pressure additive package
- Contains more additives for ultimate control of rancidity and corrosion
- Low foaming
- Suitable for use on ferrous and non-ferrous metals



Product Name	5 Gallon Pail	55 Gallon Drum	275 Gallon Tote
BAND-ALL 103 SYNTHETIC OIL	14510345	14510355	14510364
KLEEN-KOOL ES (Economy) SYNTHETIC COOLANT	14200045	14200055	14200064
KLEEN-KOOL GP SYNTHETIC COOLANT	14100045	14100055	14100064
KLEEN-KOOL SYNTHETIC COOLANT	14000045	14000055	14000064
KLEEN-KOOL ULTRA SYNTHETIC COOLANT	14400045	14400055	14400064



## Semi-Synthetic Fluids



### BAND-ALL® 102

Performs well in most machining applications. This product is generally used in sawing, drilling, turning, boring, milling and grinding applications. It is ideal for use on ferrous and non-ferrous metals.

- Contains no chlorine, sulfur, or phosphorous-based extreme pressure additives
- Contains no nitrites, phenols, or formaldehyde compounds
- Outstanding corrosion protection
- Excellent tramp oil rejection
- Good detergency and high work piece visibility
- Offers long fluid life
- Easily maintained
- This product is dyed green



### KOOL-ALL®

Premium cutting and grinding metal working fluid designed with a high oil content for increased lubricity for medium to heavy-duty machining. Excellent in high pressure coolant delivery systems and is formulated to contain no extreme pressure additives.

- Long sump life
- Excellent tool life and surface finish
- Ideal for medium to heavy-duty machining operations
- Suitable for use with mild steels, stainless steels, aluminum and most other ferrous and non-ferrous metals
- Product is dyed blue



### KOOL-ALL GP

A general purpose, cost-effective metalworking fluid designed for light to medium machining.

- Contains no extreme pressure additives
- Ideal for light to medium machining, sawing, drilling, turning, boring and milling
- Suitable for use with ferrous and non-ferrous metals



### KOOL-ALL ULTRA

A premium, doubly-concentrated cutting and grinding metalworking fluid with increased biocides and corrosion inhibitors. Excellent in high-pressure coolant delivery systems and is formulated to contain no extreme pressure additives with an 18 month shelf life.

- Outstanding tool life, surface finish and corrosion protection
- Microbial control for coolant stabilization
- pH control for anti-rust control
- Lower cost due to less maintenance using less product with fewer changeovers
- Mild to skin/operator sensitivity low
- Suitable for use with ferrous and non-ferrous metals.

Product Name	5 Gallon Pail	55 Gallon Drum	275 Gallon Tote
BAND-ALL 102 SEMI-SYNTHETIC OIL	13410245	13410255	13410264
KOOL-ALL GP SEMI-SYNTHETIC COOLANT	13100045	13100055	13100064
KOOL-ALL SEMI-SYNTHETIC COOLANT	13000045	13000055	13000064
KOOL-ALL ULTRA SEMI-SYNTHETIC COOLANT	13300045	13300055	13300064



# Soluble Oils



## BAND-ALL® 101

Performs well in most machining applications. This product is dyed green and is generally used in sawing and tapping operations. It is non-staining to most copper and aluminum alloys.

- Premium extreme pressure additives
- Ideal for medium to heavy-duty machining
- Excellent corrosion protection
- Good surface finish and excellent tool life



## POWER-CUT GP

General purpose biostable cutting and grinding fluid. This product is designed for use in light to medium-duty machining.

- Ideal for sawing, turning, boring, milling and grinding
- Suitable for use with a variety of materials including ferrous metals, super alloys and many aluminum types



## POWER-CUT®

Premium soluble oil specially designed with a chlorinated extreme pressure additive package.

- Ideal for sawing, tapping and heavy-duty machining applications
- This product is non-staining to most copper and aluminum alloys



## POWER-CUT ULTRA

Doubly concentrated soluble oil with more additives and emulsifier package for medium to heavy-duty machining operations on most materials.

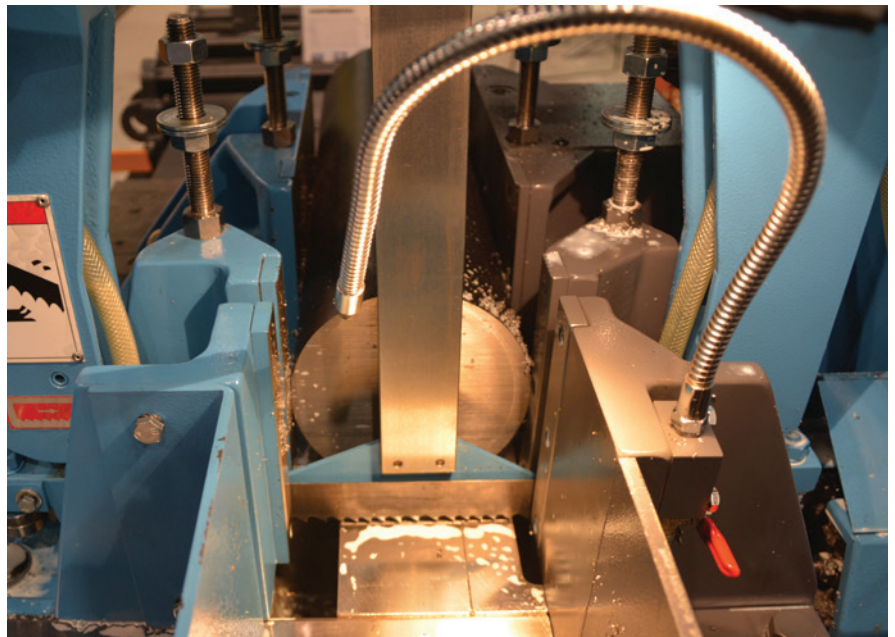
- Microbial control for coolant stabilization
- pH control for anti-rust control
- Lower cost due to less maintenance using less product with fewer changeovers
- Two-year shelf life
- Suitable for use with ferrous metals, cast iron, stainless steel and non-ferrous alloys
- Non-staining to most copper alloys and aluminum



## POWER-CUT CF

Premium soluble oil designed to achieve lubrication without the use of typical extreme pressure additives. Specially designed to perform across a broad range of metals in a variety of machining operations.

- Excellent lubricity and cooling, good rust protection tool life and surface finish
- Non-chlorinated



Product Name	5 Gallon Pail	55 Gallon Drum	275 Gallon Tote
BAND-ALL 101 PREMIUM SOLUBLE OIL	12610145	12610155	12610164
POWER-CUT CF SOLUBLE OIL COOLANT	12200045	12200055	12200064
POWER-CUT GP SOLUBLE OIL COOLANT	12100045	12100055	12100064
POWER-CUT SOLUBLE OIL COOLANT	12000045	12000055	12000064
POWER-CUT ULTRA SOLUBLE OIL COOLANT	12300045	12300055	12300075

# Straight Oils



## BRIGHT-EDGE® 80

A low viscosity oil specially formulated with anti-weld and lubricity agents. The combination of lower viscosity, high-penetrating ability, good heat removal and excellent lubricity allows for heavy-duty machining at faster speeds than normally achievable with cutting oils.

- Chlorine and sulfur extreme pressure additives
- Ideal for high-speeds turning, machining and deep cavity machining
- Suited for use with ferrous metals and super alloys
- Not suited for use with materials susceptible to sulfur staining



## BRIGHT-EDGE 150

A low viscosity oil specially formulated with anti-weld and lubricity agents. This product contains no sulfur and is non-staining to most non-ferrous metals.

- Ideal for low speed
- Low smoking
- Low-medium viscosity oil
- Ideal for sawing, drilling and grinding
- Suited for steel, stainless steel and aluminum alloys



## BRIGHT-EDGE 300 & 300-PDA

A medium viscosity oil specially formulated with chlorine free anti-weld agents and low sulfur levels. Contains high levels of lubricating agents that reduce the friction forces and heat generated during cutting actions.

- Ideal for screw machining, drilling, milling and turning
- Suited for use with ferrous and non-ferrous metals
- Low misting
- Resistant to tackiness build-up



## EDM CUTTING OIL

A high quality paraffinic fluid that is stable for use in the Electrical Discharge Machining (EDM) industry. This product is manufactured with low impurity levels to meet the demands of low electrical conductivity.

- Rapid settling of particulate contamination
- Good flushing qualities
- Low skin irritation
- Low smoking



## HONE-ALL® 80-88

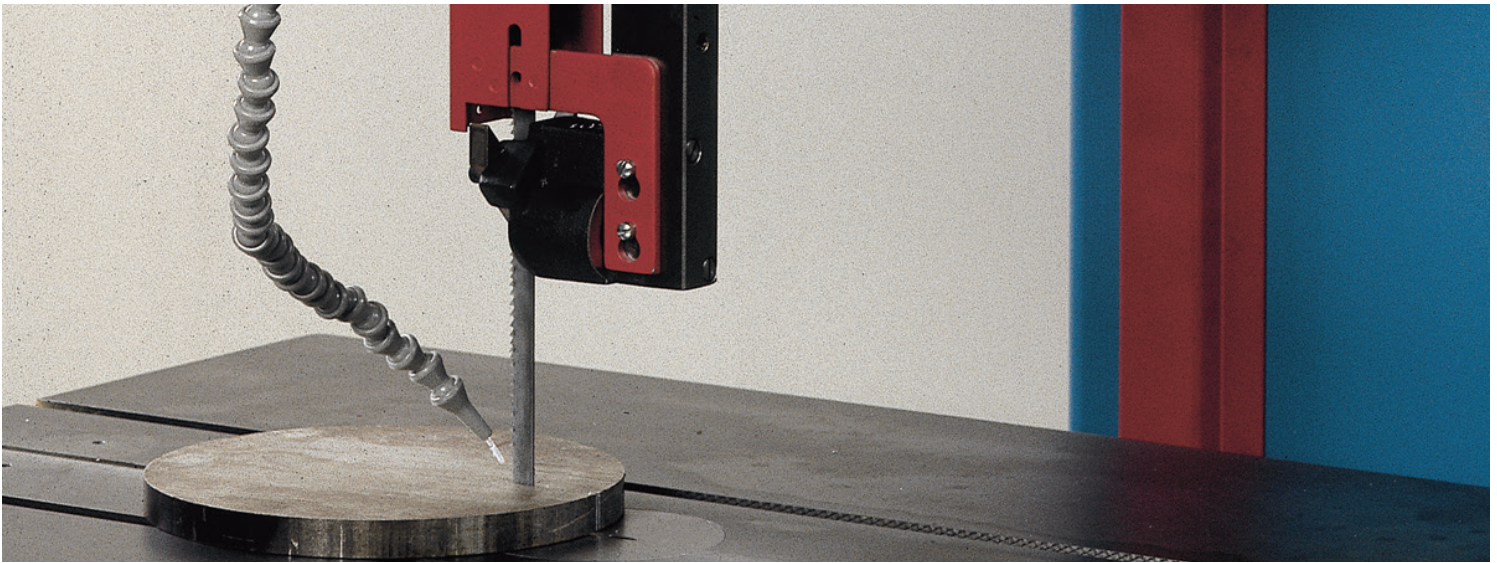
Premium light oil-based fluid suitable for cutting, threading and honing operations.

- Formulated with a synergistic blend of wetting agents and extreme pressure additives
- Good surface finishes and long tool life
- Ideal for use on ferrous metals and stainless steel



Product Name	5 Gallon Pail	55 Gallon Drum	275 Gallon Tote
BRIGHT-EDGE 150 STRAIGHT OIL	11015045	11015055	11015064
BRIGHT-EDGE 300 STRAIGHT OIL	11030045	11030055	11030064
BRIGHT-EDGE 300-PDA STRAIGHT OIL W/ADDITIVE	N/A	11330055	N/A
BRIGHT-EDGE 80 STRAIGHT OIL	11008045	11008055	11008064
EDM CUTTING OIL	22000545	22000555	N/A
HONE-ALL HONING OIL 80-88	11808845	11808855	Special order





# Direct Application and Aluminium (AL) Metalworking Fluids



## AL-500®

A vegetable-based lubricant.

- A light to medium-duty lubricant for general machining
- Suitable for use on ferrous and non-ferrous metals



## AL-700® MIST AND MQL

A metalworking fluid derived from natural oils.

- A light to medium-duty lubricant for general machining
- Suitable for use on ferrous and non-ferrous metal



## AL-2000® MICRO

A full synthetic lubricant ideal for most turning, general tapping, machining drilling, milling, cutting and sawing operations.

- Suitable for steel, use and on mild other steel, ferrous and aluminum, non-ferrous titanium, stainless steel and other ferrous and non-ferrous metals
- Food grade approved



## AL-2100® MIST

Universal synthetic lubricant formulated from ester oil. Used as cutting and spray oil and is designed for use in minimal lubrication systems. It is suitable to use for sawing and machining operations for steel and non-ferrous metals.

- Recommended for use on circular saws
- Does not tend to smoke and is suitable for use in wide range of ambient temperatures (from -15°C)
- Suitable for sawing of aluminum blocks and profiles
- Easily biodegradable



## AL-3000® MICRO

A natural blend of synthetic-based products ideal for medium to heavy-duty machining operations.

- Suitable for use on mild steel, aluminum, titanium, metals stainless steel and other ferrous and non-ferrous
- Contains a versatile extreme pressure additive
- Designed for use in air-driven spray mist systems or MQL equipment
- Contains a versatile extreme pressure additive



Product Name	5 Gallon Pail	55 Gallon Drum	275 Gallon Tote
AL-2000 MICRO MACHINE LUBRICANT	21200045	21200055	21200064
AL-2100 MIST LUBRICANT	21210045	21210055	Special Order
AL-3000 MICRO MACHINE LUBRICANT	21300045	21300055	21300064
AL-500 MACHINE LUBRICANT	21050045	21050055	Special order
AL-700 MIST & MQL LUBRICANT	21070045	21070055	Special order



# Aerosols



## GAGE BLOCK CLEANER

A premium industrial cleaner designed to safely and effectively clean all gage blocks.

- Removes dirt, grime, grease and oil
- Non-abrasive cleaning action
- Prolongs gage block life
- Specially formulated with lubricity agents



## MACHINE CLEANER POLISH

A premium industrial machine cleaner designed for use on all painted machine surfaces.

- Removes grease, oil and shop grime
- Leaves a protective coating behind
- Improves appearance on new and old machines



## MICR-ALL® 3000

A high-efficiency, direct application lubricant that forms a high strength molecular coating on the cutting edge of the tool, preventing heat build-up and decreasing down time.

- Clean mist application
- Extends tool life
- Non-polluting and non-toxic



## PEN-ALL® 4000 PENETRATING OIL

A biodegradable industrial strength fast acting penetrating and lubricating oil. This product loosens seized and corroded nuts, bolts and other frozen metal mechanisms.

- Clean mist application
- Renewable resource technology
- Penetrates in hard to reach areas
- Non-polluting and non-toxic
- Reduces maintenance costs



## STEEL INK BLUE

A high-quality industrial layout ink designed for precise layout work on dies, templates, tool and machine parts.

- Smooth non-coating
- Dark blue color for visibility of scribed lines
- Does not contain fluorocarbon propellant



## STEEL INK REMOVER

An effective, premium industrial solvent ink remover designed to efficiently and quickly remove Blue Steel Ink, as well as other layout fluids.

- Removes ink, oils, greases, dirt and grime
- Non-abrasive cleaning action
- Fast drying
- Leaves no residue

Product Name	Part Number
GAGE BLOCK 9.4 oz. AEROSOL CLEANER	62200082
MACHINE CLEANER 15 oz. AEROSOL POLISH	52000087
MICR-ALL 3000 11.5 oz. METALWORKING AEROSOL	21300082
PEN-ALL 4000 15 oz. PENETRATING OIL AEROSOL	63400088
STEEL INK 12 oz. BLUE	62000084
STEEL INK 12 oz. REMOVER	62200083



# Machine Lubricants



## AUTOMATIC TRANSMISSION FLUIDS

Multipurpose automatic transmission fluid specially formulated to meet the service requirements on a wide variety of applications. This product is designed for new generation, electronically controlled transmissions.

**Available products:**  
**ATF MP #3**  
**ATF TYPE D34**



## HYDRAULIC OILS

Premium quality anti-wear, rust and oxidation inhibited lubricating oils. The several viscosity grades meet or surpass the requirements of major manufacturers and users of hydraulic equipment.

- Increased water tolerances than conventional anti-wear hydraulic oils
- Suitable to withstand the combination of water and heat better than standard hydraulic oils
- Specially formulated with a thermally stable, modified zinc dialkyldithiophosphate (ZDDP) additive
- Withstands high-temperature operating conditions

**Available viscosity grades:**

**ESL HYDRAULIC OIL AW 22**  
**ESL HYDRAULIC OIL AW 32**  
**ESL HYDRAULIC OIL AW 46**  
**ESL HYDRAULIC OIL AW 68**  
**ESL HYDRAULIC OIL AW 100**  
**RUST & OXIDATION (R&O) HYDRAULIC OIL**



## GEAR OILS

These products are formulated to meet or exceed industry gear lube standards such as The American Gear Manufacturing Association (9005.094 & 250.4) and U.S. Steel (224). High quality base oils are blended with special non-corrosive phosphorus extreme pressure additives to enhance the load bearing capabilities of each grade.

- Ideal high temperature stability
- Resists oxidation
- Non-foaming
- Excellent corrosion protection

**Available viscosity grades:**

**ESL GEAR OIL 68**  
**ESL GEAR OIL 100**  
**ESL GEAR OIL 150**  
**ESL GEAR OIL 220**  
**GEAR & BEARING OIL S**  
**GEAR OIL S**



Product Name	5 Gallon Pail	55 Gallon Drum	275 Gallon Tote
ATF MP #3 TRANSMISSION FLUID	45000345	45000355	Special order
ATF TYPE D34 TRANSMISSION FLUID	45003445	45003455	45003464
ESL GEAR OIL 100	42010045	42010055	Special order
ESL GEAR OIL 150	42015045	42015055	Special order
ESL GEAR OIL 220	42022045	42022055	Special order
ESL GEAR OIL 68	42006845	42006855	Special order
ESL HYDRAULIC OIL AW 100	41010045	41010055	Special order
ESL HYDRAULIC OIL AW 22	41002245	41002255	41002264
ESL HYDRAULIC OIL AW 32	41003245	41003255	41003264
ESL HYDRAULIC OIL AW 46	41004645	41004655	41004664
ESL HYDRAULIC OIL AW 68	41006845	41006855	Special order
GEAR & BEARING OIL S	42062945	Special order	Special order
GEAR OIL S	42046045	Special order	Special order
R&O HYDRAULIC OIL	41100045	41100055	Special order



# Machine Lubricants



## 30 WT ND NON-DETERGENT OIL

High quality motor oil recommended for use in all applications that specify a non-detergent oil such as certain air compressors and other industrial applications.

- Formulated to provide good wear protection
- Resistance to oxidation, rust and corrosion and foaming



## MACHINE 100 MP (RECON)

A R&O-inhibited, anti-wear circulating oil developed for use in circulation systems, centrifugal air compressors, geared turbines, lightly loaded enclosed gear drives and many other industrial applications.

- Contains a low level of ashless (zinc-free) additive
- Mild wear protection qualities



## SPINDLE OILS

Light bodied oils designed for close tolerance, high-speed spindle bearings found in machine tools. These high quality oils provide excellent lubrication protection to precision bearings.

- Designed to meet industry standards
- Low foaming
- Fortified to resist oxidation
- Prevents corrosion

**Available grades:**  
**SPINDLE OIL No. 10**  
**SPINDLE OIL No. 22**

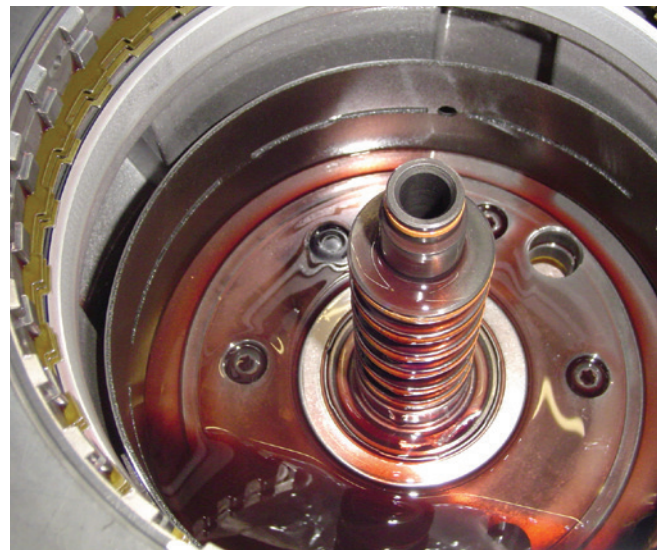
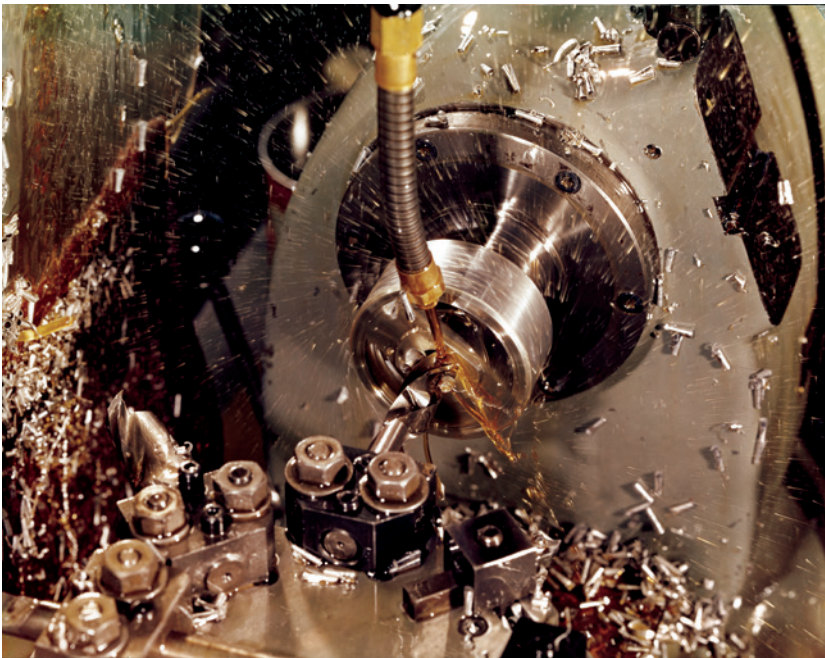


## WAY LUBRICANTS

Premium quality, heavy-duty way oils formulated to provide high lubricity and excellent slip-stick performance in every day use. These products are formulated with special extreme pressure additives to reduce friction between the carriage and slide ways allowing smoother operation.

- Low in sulfur and fatty acids
- Ideal for use with water-based cutting fluids
- Does not promote odor producing bacteria
- Offers excellent demulsibility

**Available viscosity grades:**  
**ESL WAY OIL 32**  
**ESL WAY OIL 68**  
**ESL WAY OIL 150**  
**ESL WAY OIL 220**



Product Name	5 Gallon Pail	55 Gallon Drum	275 Gallon Tote
ESL WAY OIL 150	44015045	44015055	Special order
ESL WAY OIL 220	44022045	44022055	Special order
ESL WAY OIL 32	44003245	44003255	Special order
ESL WAY OIL 68	44006845	44006855	Special order
SPINDLE OIL No. 10	43001045	43001055	Special order
SPINDLE OIL No. 22	43002245	43002255	Special order
MACHINE 100 MP (RECON)	N/A	80010055	N/A
30 WT ND NON-DETERGENT OIL	10003045	10003055	Special order



# Cleaners



## DOKLEEN® 2007

An effective cleaner designed for removing soils and metal fines from machinery and hard to reach places within the coolant reservoir system. It is developed for use as an in-process conditioner and is added tank side into existing coolant on a weekly basis in order to restore the coolant and extend sump life.

- Removes “rotten egg” odor
- Cleans most common metalworking fluid contaminants
- Eliminates bacteria and removes fungus growth
- Effective at restoring loose emulsions in soluble oil systems caused by tramp oil and bacteria



## DOKLEEN 3004

An oil emulsifying cleaner designed for removing soils and oil from machinery and the manufacturing floor. It is developed for use as an in-process cleaner and is added tank side into existing coolant.

- Lower pH enables compliance with waste stream restrictions
- Cleans most common metalworking fluid contaminants
- Eliminates bacteria and removes fungus growth
- Minimizes downtime for sump cleaning



## HEAVY-DUTY MACHINE CLEANER

Quickly and effectively aids in the removal of mineral oils, fatty oils, polishing compounds, greases and grime from machine surfaces.

- Protects machine efficiency
- Retains integrity of machine tool paint films
- Spot cleaning of workplace floor



## KLEEN-FLUSH®

A water-based non-ionic cleaner designed to be used as a general purpose cleaning of cutting and grinding fluid systems before charging with fresh coolant.

- Ideal for removing grease, oil, sludge and scum
- Effective in minimizing or eliminating bacteria and fungus
- Non-foaming



## KLEEN-SURF®

A specially design industrial cleaner for use in cleaning granite surface plates commonly found in inspection and gage areas.

- Readily removes grease, oil and other shop grime from plates
- Leaves no filmy residue
- Preserves plate accuracy
- Non-abrasive
- Deep cleaning

Product Name	1 Gallon Jug	5 Gallon Pail	55 Gallon Drum	275 Gallon Tote
DOKLEEN 2007 CLEANER	51060041	51060045	Special order	Special order
DOKLEEN 3004 CLEANER	51050041	51050045	Special order	Special order
HEAVY-DUTY MACHINE CLEANER	52000041	52000045	52000055	Special order
KLEEN-FLUSH CLEANER	52800041	52800045	Special order	Special order
KLEEN-SURF SURFACE CLEANER	52200041	52200045	52200055	Special order



# Specialty Fluids



## DEFOAM®

An organic (non-silicone) based defoamer specially formulated for general purpose use in water soluble cutting and grinding fluids.

- Add tank side to eliminate foaming issues
- Prolongs coolant life



## RUST PREVENTATIVE 100

Solvent-based corrosion preventative that provides superior indoor protection on ferrous substrates. It will displace water and water based fluids from a damp part or machine. Dries to a clear thin film that can be easily removed.

- Excellent protection in humid conditions
- Superior indoor corrosion protection
- Easily removed with aqueous alkaline cleaners



## RUST REMOVER

Dissolves rust and iron stains from stainless steel, chrome and other metals.

- Minimal scrubbing
- Prevents new stains from forming



## TAPPING CREAM®

Offers the necessary lubricity to assure the desired finish as well as increased tool life. Product does not contain sulfur. This product can also be used for hand tapping of tough materials.

- Designed for machine tapping of softer metals such as aluminum, bronzes and brasses
- Safe to use with copper-bearing alloys



Product Name	1 Gallon Jug	5 Gallon Pail	55 Gallon Drum	275 Gallon Tote
DEFOAM ADDITIVE	31040041	31040045	N/A	N/A
RUST PREVENTATIVE 100	61010041	61010045	61010055	Special order
RUST REMOVER	61200041	61200045	61200055	Special order
TAPPING CREAM	23000041	23000045	N/A	N/A

# Specialty Products



## BELT-MAGIC®

Wax stick provides a smooth, non-staining finish on aluminum, brass, magnesium and other non-ferrous and ferrous metals. Also used for other cutting, milling and drilling operations where non-circulating lubrication is required.

- Extends the life of abrasive belts
- Helpful to immediately add extra lubrication



## TOOL-SAVER®

Specially compounded to combat detrimental abrading and friction between the work and the tool.

- Extends tool life
- Improves finish
- Reduces overall production costs
- Lowers power requirements



## MAGNETIC CHIP REMOVER

Magnetic chip remover is a stainless steel round rod with a strong magnet inside the rod.

- Collects unwanted metal chips
- Increases cleanliness in the workplace
- Easy to use



## REFRACTOMETER

A handheld instrument that measures how light is refracted through a liquid. When using a refractometer for metalworking fluids, it is the coolant concentration that causes light to refract.

- Economical, easiest and quickest way to monitor coolant concentration
- Accurate Brix scale reading
- For use with water soluble coolants and brands



## SUMP DEODORIZING TABLETS

Odor eliminating tablets designed for small sumps of 200 gallons or less.

- Eliminates and prevents odors
- Reduces biofilm, a breeding ground for bacteria and fungi
- Neutralizes endotoxins released from the micro-organisms
- Contains no formaldehyde or formaldehyde-releasing chemicals
- Leaves no residue



Product Name	Part Number
BELT-MAGIC 16 oz. LUBRICANT STICK	24002201
TOOL-SAVER 16 oz. LUBRICANT STICK	24000001
MAGNETIC CHIP REMOVER	226028
REFRACTOMETER	229616 or XTERF18
SUMP DEODORIZING TABLETS (15 tablets)	34800099



# Refractometer



A refractometer is a hand held instrument that measures how light is refracted through a liquid. When using a refractometer for metalworking fluids, it is the coolant concentration that causes light to refract. Properly maintaining coolant concentrations will assist in preventing disruption in production due to cleanouts, costly disposal, less coolant waste, will protect the tool and machine, provide better cut results and avoid leaning the alkalinity reserve that may cause rusting and encourage bacteria.

Using a refractometer is the most economical, easiest and quickest way to measure coolant concentration and can be used with all coolant types and brands. It is important to note that all coolants have their own distinctive concentration readings and scale.

## Dilution and Brix Reading Chart

Percentage (%) Brix* Refractometer Chart									
Concentration Percentage →	2%	3%	4%	5%	6%	7%	8%	9%	10%
Dilution Ratio →	50:1	33:1	25:1	20:1	16:1	14:1	12:1	11:1	10:1
Ounces Per Gallon →	3	4	5	6	8	9	10	12	13
DoALL Product	↓ Refractor Readings for Above Dilution Ratios ↓								
POWER-CUT	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
POWER-CUT 470	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
POWER-CUT GP	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
POWER-CUT CF	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
POWER-CUT ULTRA	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
BAND-ALL 101	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
TUFF-KUT	2.6	3.0	4.0	4.5	5.8	6.5	7.6	8.7	9.0
TUFF-KUT ULTRA CF	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
KOOL-ALL	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
KOOL-ALL ESS	0.7	1.2	1.4	2.0	2.3	2.9	3.1	3.8	4.0
KOOL-ALL GP	0.9	1.4	1.8	2.3	2.7	3.2	3.6	4.1	4.5
KOOL-ALL C	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
KOOL-ALL ULTRA	1.8	2.7	3.6	4.5	5.4	6.3	7.2	8.1	9.0
BAND-ALL 102	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
KLEEN-KOOL	0.9	1.4	1.8	2.3	2.7	3.2	3.6	4.1	4.5
KLEEN-KOOL ES	0.6	1.0	1.2	1.7	2.0	2.4	2.9	3.2	3.5
KLEEN-KOOL GP	0.8	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0
KLEEN-KOOL ULTRA	1.5	2.3	3.0	3.8	4.5	5.3	6.0	6.8	7.5
KLEEN-KOOL 330	0.9	1.4	1.8	2.3	2.7	3.2	3.6	4.1	4.5
BAND-ALL 103	0.9	1.4	1.8	2.3	2.7	3.2	3.6	4.1	4.5

\*BRIX Percentage is based on the metalworking industry refractive measurement index

# Metal Cutting Band Saws

DoALL® Sawing was founded in 1927 by Leighton A. Wilkie, who invented and manufactured the first metal cutting band saw in 1933. We continue to be a global leader for ALL your sawing needs! DoALL provides manual, semi-automatic and automatic metalworking band saws.

Even though we specialize in metal cutting band saws, our legacy continues to parts and service as well. DoALL Sawing Products offers a complete line of service, replacement and repair parts for our current line of band sawing machines. Our skilled team of service professionals – spread across United States and around the globe – are trained in service and repair of the entire line of DoALL band saws as well as competitive machines.



## Band Saw Blades

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, Mexico as well as in Europe. Besides having our own team of dedicated band saw blade experts, we have factory authorized distributors around the world who are focused on band saw blades, with many of them managing their own weld centers. Our network is able to provide technical support and fast response to any issue. We are committed to your satisfaction and look forward to serving you.



## Commitment To A Greener Future

DoALL continues to expand its product line to offer innovative and environmentally conscious metalworking fluids. DoALL strives to provide environmentally responsible and worker safe products to our customers that are:

- Readily biodegradable
- Non-polluting
- Renewable resource technology
- Low misting
- Non-toxic (using natural ingredients that are less hazardous)
- Lower volatile organic compounds (VOC)
- Recyclable packaging options

Using our years of coolant experience we developed the Ultra Series (marked with the symbol shown above). Ultra fluids are a doubly concentrated form of some of our existing products specially designed to eliminate odors, extend sump life, provide pH control for anti-rust properties, enforce microbial control for coolant stabilization and permanently reject tramp oil for cleanliness. This concentrated advantage allows us to provide more coolant additives and less water in the product unlike traditional coolant, offering a reduction in freight costs. Combined with our environmentally friendly recyclable containers we offer the most economical and ecological choices around.

## Additional Sawing Resources



DoALL replacement and repair parts are now available 24-hours a day online at [www.DoALLsaws.com/store](http://www.DoALLsaws.com/store)



Sign up for our DoALL University training program and sharpen your skills today! Class includes: Four hour training on the elements of sawing (machines, blades and fluids).



Free Sawing Analysis: DoALL offers complimentary saw inspections and sawing efficiency analysis. Visit [DoALLsaws.com/free-sawing-analysis](http://DoALLsaws.com/free-sawing-analysis)



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