

## XL-5309

# SYNTHETIC EXTREME PRESSURE CUTTING AND GRINDING FLUID

**XL-5309** is a high performance, oil-rejecting synthetic fluid formulated for the most severe steel and aluminum applications. **XL-5309** is designed to outperform EP-fortified soluble oils and semi-synthetics in most operations. **XL-5309** contains no *chlorinated, sulfurized, or phosphorous-containing* additives. **XL-5309** is formulated to reject tramp oil contamination by rendering the fluid non-compatible with such materials. **CHARACTERISTICS:**

- Low Foaming (from very soft to hard water)
- Excellent sump life
- Quick tramp oil rejection
- Long lasting

APPLICATIONS and DILUTIONS	Dilution Levels
Blanchard / Double Disc	4:1 - 2:1
Severe Grinding	4:1 - 2:1
Heavy Duty Machining	2:1 - 1:1

TYPICAL PROPERTIES	
Appearance	Clear Yellow
Specific Gravity	1.0
pH	8.8

CNC DRILLING AND TAPPING EVALUATION:		
Material	1018 Cold Rolled Steel	
Size of Plate	6" x 4" x 0.5"	
Tooling	#25 (0.1495) HSS Steel	
	DRILLING	TAPPING
Speed	2000 RPM	394 RPM
Feed	10.0 IPM	15.6 IPM
Maximum Number of Holes	405	405
XL-5309 Concentration	50%	100%

DRILLING	
Number of Holes	Tool Wear (inches)
60	0.0007
120	0.0010
180	0.0012
240	0.0014

DRILLING	
300	0.0015
360	0.0016
405	0.0019

TAPPING	
Maximum Number of Holes	405
Number of holes tapped	405
Average wear (inches)	0.0032
Surface Condition	Good

	Ferrous Evaluation	Aluminum Evaluation
Material	1018 Cold Rolled Steel	356T-6 Cast Aluminum
Size of Plate	8" x 10" x 1"	4" x 6" x 3/4"
Tooling	1/4" HSS Steel Drill	#7 HSS Steel Drill
Speed (RPM)	1300	2800
Feed (IPM)	7.0	14.0
Maximum Number of Holes	600	2000
XL-5309 Dilution	2:1	1:1

