

METALWORKING SEMI-SYNTHETIC  
LUBRICANT

INCORPORATING NANO ADDITIVES

**“ATOM LUB CUT”**



# BENEFITS



Increases the useful life of tools up to 15-30%.



Reduces lubricant consumption in up to 30-50%.



Reduces machining cycle times in up to 10-20%



Provides excellent surface finishes to the machined parts

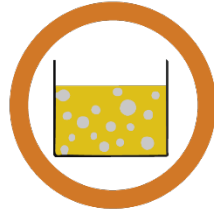


Excellent bioresistance, eliminating bad odors and skin irritations

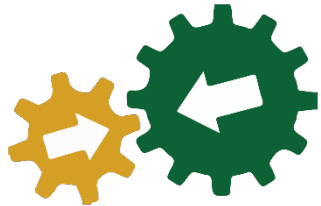
# ADDITIONAL BENEFITS



**Antifoaming** capacity.



Great **stability to the emulsion** in all types of water, even in hard ones.



No damage to **seals** and **packaging** of circulation pumps.



Great capacity of **protection against corrosion** in machined parts.



Higher **cooling capacity** than a conventional soluble.



**Reduces bad odors** and **skin irritations** in the operators.



# TEMPORARY APPROVAL BY General Motors

## TESTS COMPLETED BY “Atom Lub Cut”:

- ✓ Sticking, Gummy Tendency
- ✓ Viscosity at 40/100 °C ASTM D445
- ✓ Pour Point ASTM D97
- ✓ Cu Corrosion ASTM D130
- ✓ Four Ball Wear EP
- ✓ Compatibility with Seals
- ✓ Emulsion Stability ASTM D3707
- ✓ Waste Treatability
- ✓ Corrosive Effect on Aluminum (AL 319, AL 356, AL 380, AL 383, AL 390)
- ✓ Cast Iron Chip Rust Test ASTM D4627
- ✓ Foam by Blender Test
- ✓ Bioresistance
- ✓ Filterability, 20mm filter paper
- ✓ Active sulfur
- ✓ Coefficient of friction by 4-ball
- ✓ Tramp Oil Rejection, 5% solution, 24h ASTM D1401
- ✓ pH @ 20 deg C
- ✓ Elements, mass %
- ✓ Residual Elements
- ✓ Modified Ames Test

# QUALITY CERTIFICATION



## CERTIFICATE

**ISO 9001:2015**  
**NMX-CC-9001-IMNC-2015**

The Certification Body  
"The Quality Alliance S.A. de C.V."  
CERTIFY that:

**GLOBAL NANOADDITIVES, S.A.P.I. DE C.V.**

Has a satisfactory management system with a scope  
applicable to:

"Production and Marketing of Lubricants for the Metal-  
Mechanical Industry".

On-site located at:

Av. Tecnología 301, Parque de Investigación e Innovación  
Tecnológica (PIIT), Apodaca, Nuevo León, C.P. 66628,  
México.

ID: A101QA22-SGC-1208

Grant date: February 2, 2023

Effective date: February 1, 2026



**ema**  
ORGANISMO DE CERTIFICACIÓN  
ACREDITADO 109/16



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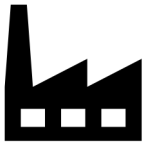
Lic. Edgar Ortiz Monreal  
CEO

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# ATOM LUB CUT'S PERFORMANCE



## Company Description:

Company with experience in the metallurgical branch, specializing in the production, design and repair of parts and spare parts for all types of industry and with CNC and conventional lathes capability.



## Operation Details:



Type of Tool: ½" HSS reamer, Tungsten reamer and ¼" HSS drill bit



Type of Material: 6061 T6 Aluminium-squared, 2024 Aluminium and 7075 Aluminium



## Operating Parameters:

- In Spindoll of 5500 rpm (with 6061)
- With Cobalt and Tungsten endmills of 130 ipm (with 6061)
- When cutting of 650 ft/min and feed rate of 0.35 (Lathes with 6061, 2024 and 7075)
- When roughing of 12000 rpm and feed rate of 4800 mm/min (5-axis with 2024 and 7050)
- When finishing of 10600 rpm and feed rate of 3800 mm/min (5-axis with 2024 and 7050)

# ALUMINIUM (Part 1)



# ATOM LUB CUT'S PERFORMANCE

## ALUMINIUM (Part 2)



### OUTCOMES



Increase in conditions up to 150% of what was programmed, maintaining normal energy consumption without effort

- 137.5% rpm increase in the Spindoll
- 162.0% ipm increase in Endmills (Tungsten and cobalt)



Increase in Useful Life of Tool: 100%



Improved the machined appearance and allowed to increase the feed rates of the machine.



# ATOM LUB CUT'S PERFORMANCE



## Company Description:

Company dedicated to the production of auto parts.



Roughing

## Operation Details:



Type of Tool: AC420K Sumitomo carbide insert.



Type of Material: 250 BHN Nodular iron Shaft-PMG rotor

## OUTCOMES



Increase in Useful Life of Tool: 300%



Tool Saving:  
USD \$3126.00 / year per machine

# NODULAR IRON



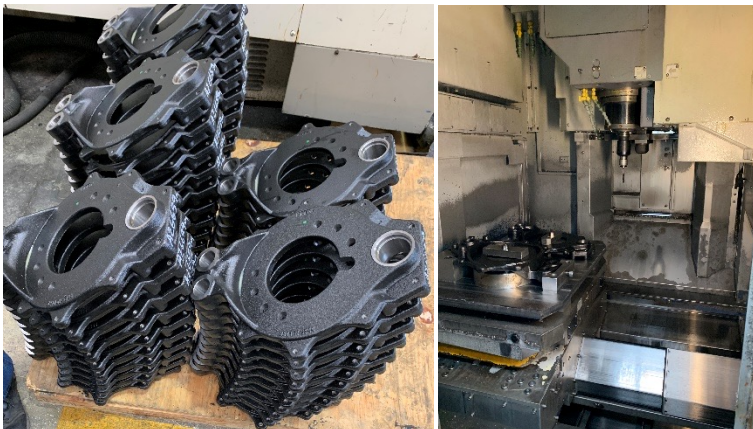


# ATOM LUB CUT'S PERFORMANCE





## Company Description:

Renowned company in the aerospace and automotive industry for producing rings for commercial airplane turbines with inconel, titanium, among others and differential axes for heavy equipment with cast and nodular iron.




## Operation Details:


 Type of Tool: CNMA 120 412 CNMA 433 and YBD 15 2C K05-K25


 Type of Material: Nodular iron and cast iron


### Operating Parameters:

-  • Roughing insert – 1169 rpm
- Roughing Endmill – 1080 rpm
- Finishing insert – 600 rpm
- ½ " Herring – 460 rpm
- ¼ " Drilling – 1600 rpm

## OUTCOMES

 Lubricant Consumption Saving: 50%

 Tool Saving:  
USD \$9000.00 / year per machine

 Lubricant Consumption Saving:  
USD \$ 1800.00/ year per machine

# CAST IRON



# ATOM LUB CUT'S PERFORMANCE

## STEEL 1018






### Company Description:

Company dedicated to the production of auto parts.





Threading

### Operation Details:

-  Type of Tool: 16ERG60-B AH725 of the brand TUNGALOY
-  Type of Material: 1018 AISI Steel, with 0.850 in diameter
-  Operating Parameters: 1400 rpm, with feed rate of 0.010 in

### OUTCOMES

-  Increase in Useful Life of Tool: 160%
-  Tool Saving:  
USD \$3816.00 / year per machine

# ATOM LUB CUT'S PERFORMANCE





## Company Description:


Die Casting manufacturing company.



## Operation Details:


 Type of Tool: ISCAR FFQ4 SOMT0904 Insert

 Type of Material: 4140 AISI Steel

 Duration of Machining Cycle:  
• 25% decrease (from 24 to 18 hours)

 Reduction of Tool Consumption: 16%

 Tool Saving:  
USD \$44,489.00 / year per machine

 Lubricant Consumption Saving:  
USD \$1,075.00 / year per machine

**OUTCOMES**

# STEEL 4140





# TRACTION: Aerospace and autoparts sectors

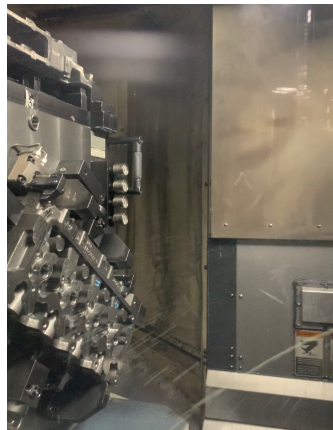


- ✓ Tool cost reduction by 40%
- ✓ Lub consumption reduction by 50%



**JOHN DEERE**

- ✓ Increase of Tool life by up to 110%
- ✓ Lub consumption reduction by 50%



**AERnnova**

- ✓ Machining cycle time reduction by 20%
- ✓ Lub consumption reduction by 50%



**FRISA**

- ✓ Increase of Tool life by up to 40%
- ✓ Lub consumption reduction by 50%

