



**Master Fluid**  
SOLUTIONS®

*Leaders in Aerospace  
Metalworking Fluids*



APPROVED FOR THE  
**AEROSPACE**  
INDUSTRY

*Cutting, grinding, and cleaning fluids  
approved for the aerospace industry*

Master Fluid Solutions, global manufacturer of TRIM® cutting and grinding fluids, provides the aerospace industry with cutting-edge solutions to their demanding, high-tech alloy cutting and grinding needs. With more than 70 approvals from leading North American and European aerospace manufacturers, TRIM has the right fluid to take your production to new heights and make your profits soar.



## TRIM® MicroSol® 590XT



BOEING  
FULL AEROSPACE  
APPROVAL

The newest TRIM® cutting edge fluid, MicroSol® 590XT is a maximum lubricity, advanced technology, semisynthetic microemulsion, specifically developed to meet the aerospace industry's most stringent specifications.

MicroSol 590XT surpasses the most stringent chemical content, environmental, and machining requirements of the global aerospace industry – with flying colours.

Highly lubricious MicroSol 590XT has it all: absolute foam control, dramatically extended sump life, superior corrosion and surface finish protection – all delivered with reduced downtime and an increased bottom line.

Exceed your production expectations with MicroSol 590XT.

### Case Study

#### OPERATION:

High-production machining of aerospace materials

#### APPLICATION:

A major aerospace manufacturer primarily machines aluminum, titanium, stainless, Inconel®, and other aerospace alloys for the global aerospace industry. As a premier supplier of structural components to aerospace Tier 1 and Prime OEMs, the high-production facility runs multiple shifts on approximately 35 machining centres.

Previously, they had used a coolant that had the necessary aerospace approvals, but experienced problems with odor, residue, and foaming. Offering foam control and approvals from major aerospace manufacturers, premium MicroSol 590XT was a logical switch. Running MicroSol 590XT, the customer has seen an improvement in overall machine cleanliness, their foul odor and foam issues are gone, and they are achieving excellent tool life and surface finish on their parts. They're completely impressed with the cost effectiveness and performance of MicroSol 590XT.

See your production soar with MicroSol 590XT!



## TRIM® MicroSol® 590XT

### APPROVALS

Airbus 80-T-30-4010, ABR9-0204

The Boeing Company BAC5008  
Boeing Full Aerospace Approval

Bombardier Aerospace BAMS 569-001

Fokker

SAFRAN GROUP  
(Messier/Bugatti/Dowty; Techspace  
Aero; Hispano Suiza) PCS-4001/4002

Safran Aircraft Engines PR6300 Index A

United Technologies Corporation  
(Hamilton-Sundstrand/Pratt Whitney/  
Sikorsky) PMC 9297



## TRIM® MicroSol® 690XT



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Meeting increasing demands of the aerospace industry head-on, TRIM® MicroSol® 690XT is the pinnacle of high-performance microemulsions. It delivers unsurpassed lubricity with dramatically extended tool life and improved foam control.

MicroSol 690XT provides exceptional surface finish and tool life on the difficult-to-machine aerospace aluminum alloys, Inconel®, titanium, stainless, and high tensile-strength steels. With an ultra-low foam profile, this next generation microemulsion tackles high-pressure, high-volume applications. It's an excellent alternative to the increased consumption experienced with high-mineral soluble oils, and the tooling underperformance and machine compatibility issues of a synthetic.

For peak performance, make it MicroSol 690XT.

### Case Study

#### OPERATION:

Cutting Inconel, tapping aluminum

#### APPLICATION:

Hy-Speed Machining in Oregon produces parts for the aerospace industry. After using a full synthetic, they switched to MicroSol 690XT with astonishing results.

Their cutting time for Inconel went from 12 minutes per piece to less than 4 1/2, and the \$450 drill lasts SIX times longer!

Formerly, when tapping parts, they would line them up, start the taps, put in a machine override to add tapping oil, then resume. Now, with MicroSol 690XT, they just start it up, walk away, and "come back to beautiful parts." Having cut coolant and tool costs dramatically and increased production, Hy-Speed Machining is sold on MicroSol 690XT.

## TRIM® MicroSol® 690XT

### APPROVALS

General Electric SDS# EVEN-12659

Lockheed 864-009

Northrop Grumman

### SAFRAN GROUP

(Messier/Bugatti/Dowty; Techspace Aero; Hispano Suiza) PCS-4001/4002

United Technologies Corporation  
(Hamilton-Sundstrand/Pratt Whitney/Sikorsky) PMC 9293



## TRIM® MicroSol® 585XT



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Also from the MicroSol family is the highly lubricious TRIM® MicroSol® 585XT semisynthetic, microemulsion coolant. With characteristics similar to the MicroSol 690XT, it provides high performance without chlorinated EP additives.

MicroSol 585XT is exceptional for machining titanium and aluminum alloys, highly-engineered thermoplastics and composites. The extremely hard-water tolerant, fast-wetting coolant markedly extends sump life and provides superior corrosion protection along with substantial savings on time and material.

For exceptional lubricity and surface finish, use MicroSol 585XT.

### Case Study

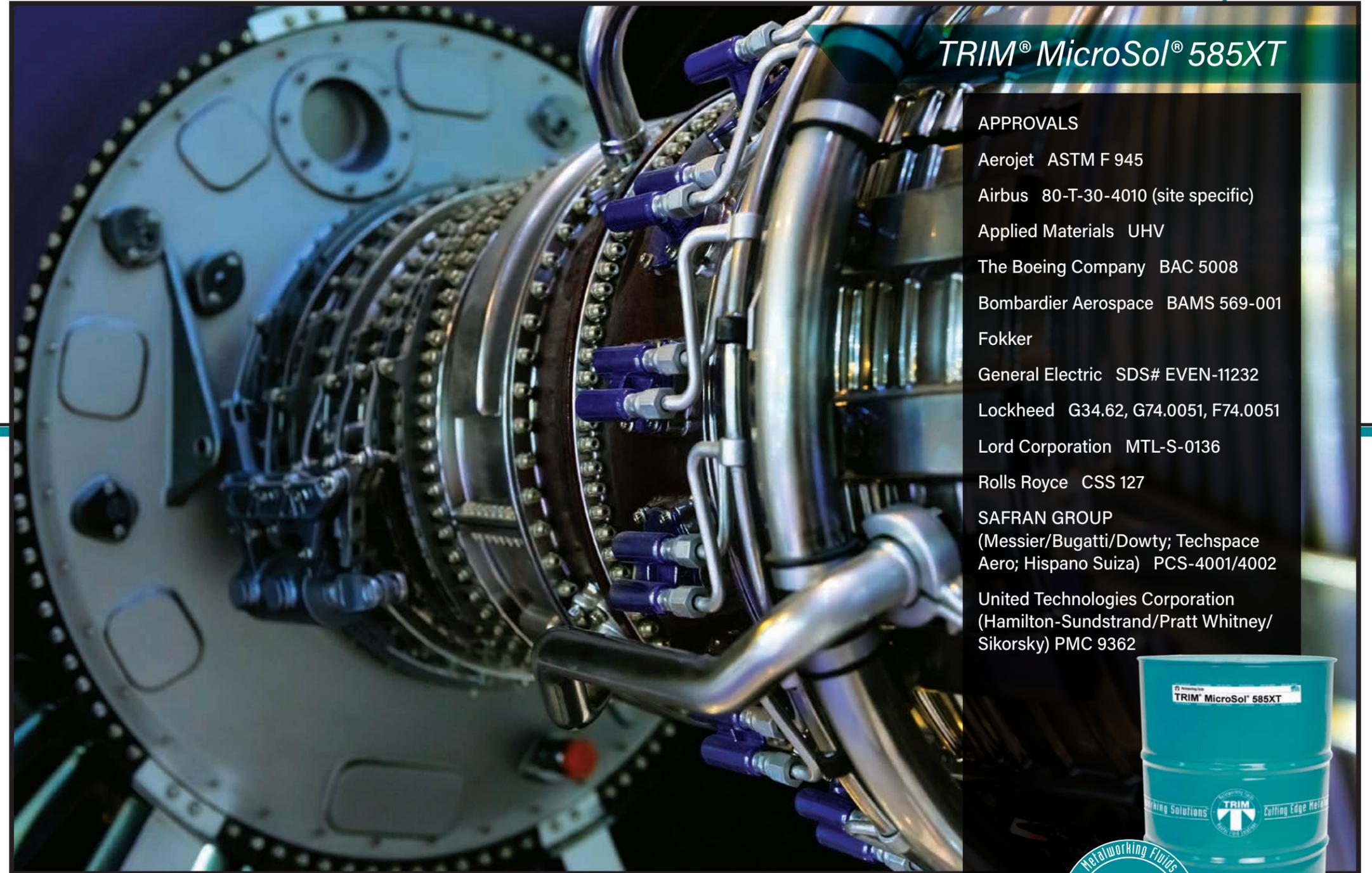
#### OPERATION:

Milling and turning aluminum, titanium, and aerospace alloys

#### APPLICATION:

A USA-based manufacturer of aerospace turbine blades was experiencing problems with other coolants: from foul odor and high carryoff, to damaged seals and residue, as well as smoking and excess makeup. The customer ran tests on MicroSol 585XT and found that smoking and misting were significantly reduced, there were no bad odors or damage to seals, and usage was measurably reduced.

With the switch to MicroSol 585XT, they have experienced much longer sump life, and problems with smoking, residue, foul odor, seal damage, and excess carry-off are a thing of the past. The customer has seen a significant boost to their bottom line with MicroSol 585XT!



## TRIM® MicroSol® 585XT

### APPROVALS

- Aerojet ASTM F 945
- Airbus 80-T-30-4010 (site specific)
- Applied Materials UHV
- The Boeing Company BAC 5008
- Bombardier Aerospace BAMS 569-001
- Fokker
- General Electric SDS# EVEN-11232
- Lockheed G34.62, G74.0051, F74.0051
- Lord Corporation MTL-S-0136
- Rolls Royce CSS 127
- SAFRAN GROUP  
(Messier/Bugatti/Dowty; Techspace Aero; Hispano Suiza) PCS-4001/4002
- United Technologies Corporation  
(Hamilton-Sundstrand/Pratt Whitney/Sikorsky) PMC 9362



## TRIM® E925



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TRIM® E925 – the ultimate chlorine-free emulsion for high performance and a premium surface finish. The highly lubricious E925 emulsion flies through production of otherwise difficult machining operations.

TRIM® E925 premium emulsion delivers! The proprietary, chlorine-free formula delivers more lubricity to the point-of-cut. As versatile as it is long-lasting, E925 gives exceptional surface finish on difficult-to-machine aerospace titanium and aluminum alloys, exotics, stainless, and high tensile-strength steels.

For the pinnacle in productivity, repeatability, performance, and profitability, make it E925.

### Case Study

#### OPERATION:

High speed milling of gas turbine airfoils.

#### APPLICATION:

A Southern US aerospace customer was using a straight cutting oil for high-speed milling of gas turbine airfoils. Then they made the switch to TRIM E925, which gave them better tool life, reduced cycle times, and the same quality surface finish as the straight oil.

By replacing the straight oil with E925, this customer was able to reduce the cycle time by 30% while saving more than 80% on the cost of the cutting fluid. Additionally, they saw a 75% reduction in the cost of fluid disposal and eliminated the need for multiple cutting fluids.

Production and the bottom line soared with TRIM E925.

## TRIM® E925

### APPROVALS

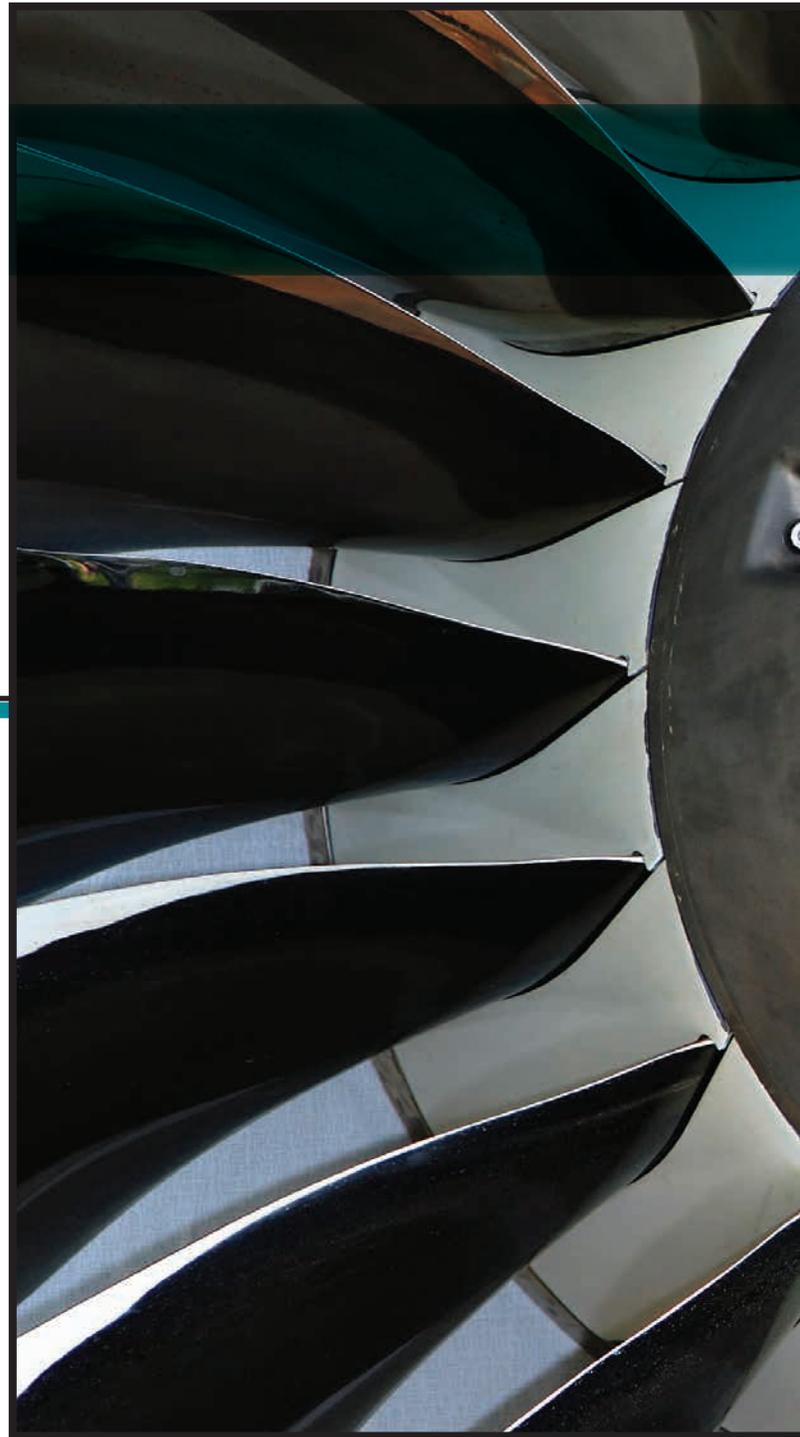
TRIM E925 chlorine-free, high-performance emulsion, developed specifically for machining advanced aerospace materials, is assured rapid acceptance in the aerospace industry.



*Contact us.*

Let us create a detailed, facts-based, customized analysis to prove just how much we can save your operation in time, material, and cost, while improving quality, with the premium coolant just right for your production.

For prices or additional information, contact your Master Fluid Solutions Distributor.



[www.masterfluidsolutions.com](http://www.masterfluidsolutions.com)

