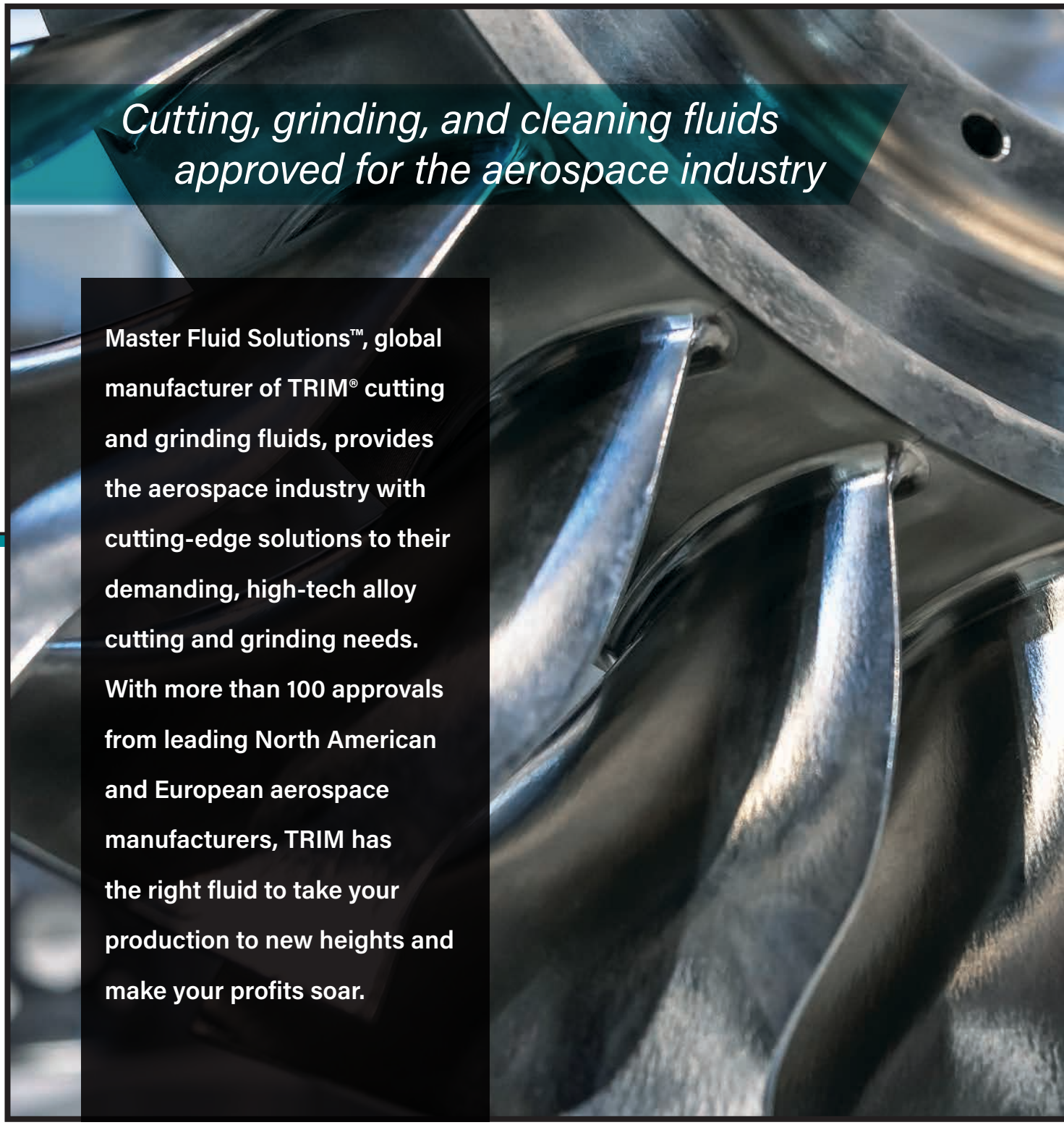
Master Fluid SOLUTIONS™

Leaders in Aerospace Metalworking Fluids

APPROVED FOR THE AEROSPACE INDUSTRY

Master Fluid SOLUTIONS™



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 100 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.

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Metalworking Fluids
TRIM
Master Fluid Solutions™

TRIM®HyperSol™ 888NXT

Master Fluid SOLUTIONS™

Revolutionary TRIM® HyperSol™ 888NXT's neo-synthetic aerospace machining fluid is redefining excellence in the coolant industry. For exceptional performance, versatility, lubricity, and trouble-free production, look no further than HyperSol 888NXT.

Extremely versatile, HyperSol 888NXT offers exceptional performance on difficult-to-machine aerospace high-nickel alloys, titanium, stainless steels, and Inconel®, while providing the superior lubricity for machining soft, gummy aluminum alloys. Delivering low foam, low odor, and a long-running lifespan while meeting the strictest environmental regulations, HyperSol 888NXT meets the competitive demands of the aerospace industry head-on.

Turbo-charge your production with TRIM HyperSol 888NXT!

Case Study

OPERATION:

Machining titanium, Inconel, and forged aluminum

APPLICATION:

The UK division of a global company manufacturing impellers for aerospace turbojet engines and automotive turbochargers, runs 32 machines throughout its facilities. With high tooling costs, the manufacturer sought to increase tool life without sacrificing productivity.

Master Fluids Solutions ran a trial of high-performance, TRIM HyperSol 888NXT neo-synthetic on two CNC lathes machining and turning 35NCD16 steel alloy and the results were dramatic.

Tool life skyrocketed 234% while running at higher speeds with less fluid consumption. With the dramatically reduced tooling costs, significantly reduced coolant costs of 7.6%, and overall production gains, the manufacturer anticipates 20.2% annual savings.

Make the switch to long-running HyperSol 888NXT neo-synthetic for the long run!

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TRIM® HyperSol™ 888NXT

APPROVALS

Newly-released HyperSol 888NXT has already earned aerospace approvals from these leading manufacturers:

Airbus
Conforms to AIMS 12-10-001

Dassault

Rolls-Royce CSS 130

Safran Group PCS-4001/4002, PR6300 INDEX A

USDA BioPreferred - Certified Biobased Product

Metalworking Fluids
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TRIM® MicroSol™ 590XT

Master Fluid SOLUTIONS™

With its cutting-edge technology 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!

BOEING
FULL AEROSPACE APPROVAL

TRIM® MicroSol™ 590XT

APPROVALS

Airbus AIPS00-00-010

Boeing BAC5008
Boeing Full Aerospace Approval

Bombardier Aerospace BAMS 569-001

Dassault DQGT0.4.2.0065 Appendix D

Lufthansa Technik

Raytheon Technologies/Collins Aerospace/
Pratt & Whitney PMC9297

Safran Group PCS-4001/4002,
PR6300 Index A

Metalworking Fluids
TRIM
Master Fluid Solutions™

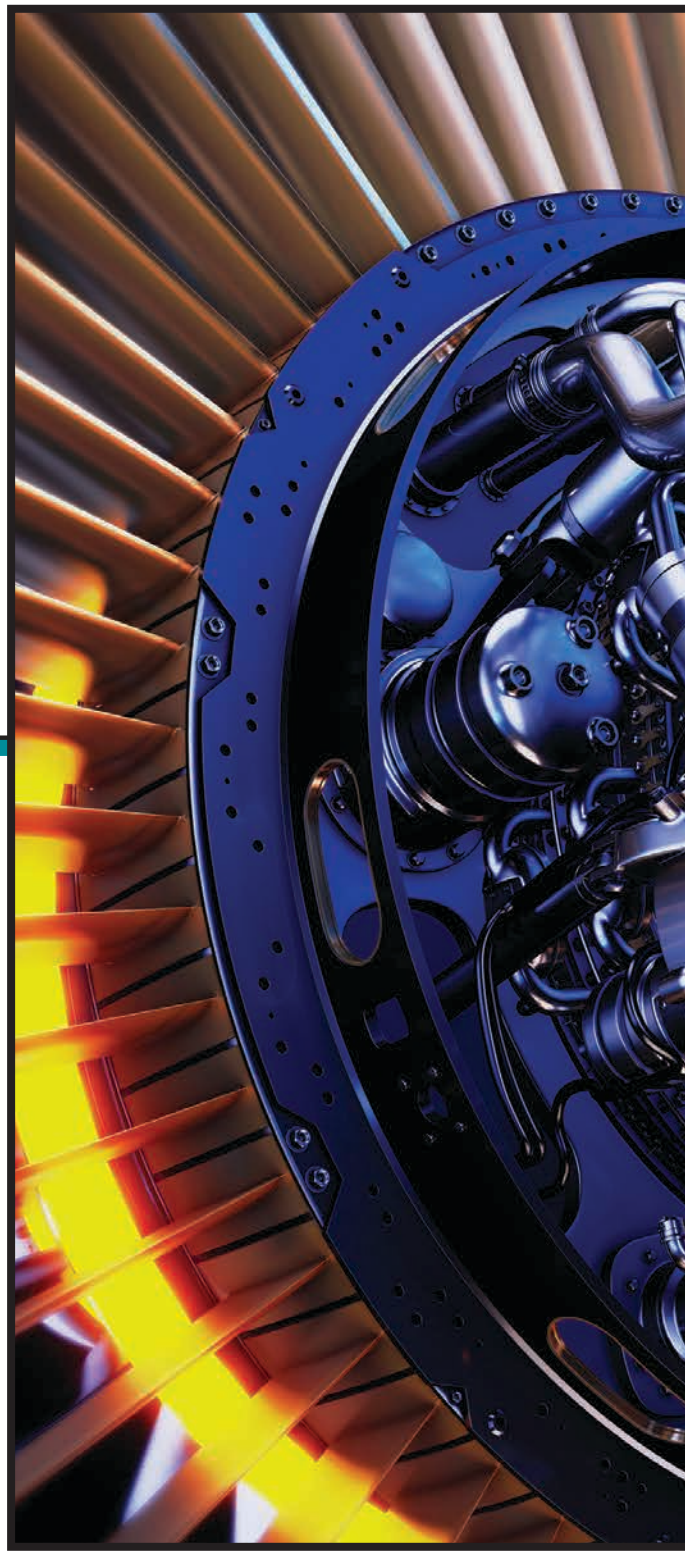
TRIM® MicroSol™ 585XT

Master Fluid SOLUTIONS™

Also from the MicroSol family is the highly lubricious TRIM MicroSol 585XT semisynthetic, microemulsion coolant. It provides excellent lubricity, surface finish, foam control, and dramatically extended tool life without chlorinated EP additives.

TRIM 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!

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TRIM® MicroSol™ 585XT

APPROVALS

Aerojet ASTM F 945

Airbus AIPS00-00-010

Applied Materials UHV

Boeing BAC 5008

Bombardier Aerospace BAMS 569-001

Fokker

GE Aviation SDS# EVEN-11232

Lockheed Martin/Sikorsky G34.62, G74.0051, F74.0051

Lord Corporation MTL-S-0136

Raytheon Technologies/Collins Aerospace/ Pratt & Whitney PMC9362

Rolls-Royce CSS 127

Safran Group PCS-4001/4002

TRIM® MicroSol™ 690XT

Master Fluid SOLUTIONS™

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, and 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, 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 4½, 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.

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TRIM® MicroSol™ 690XT

APPROVALS

Fokker

GE Aviation SDS# EVEN-12659

Lockheed Martin/Sikorsky 864-009

Northrop Grumman

Raytheon Technologies/Collins Aerospace/
Pratt & Whitney PMC 9293

Safran Group PCS-4001/4002,
PR6300 Index A

Metalworking Fluids
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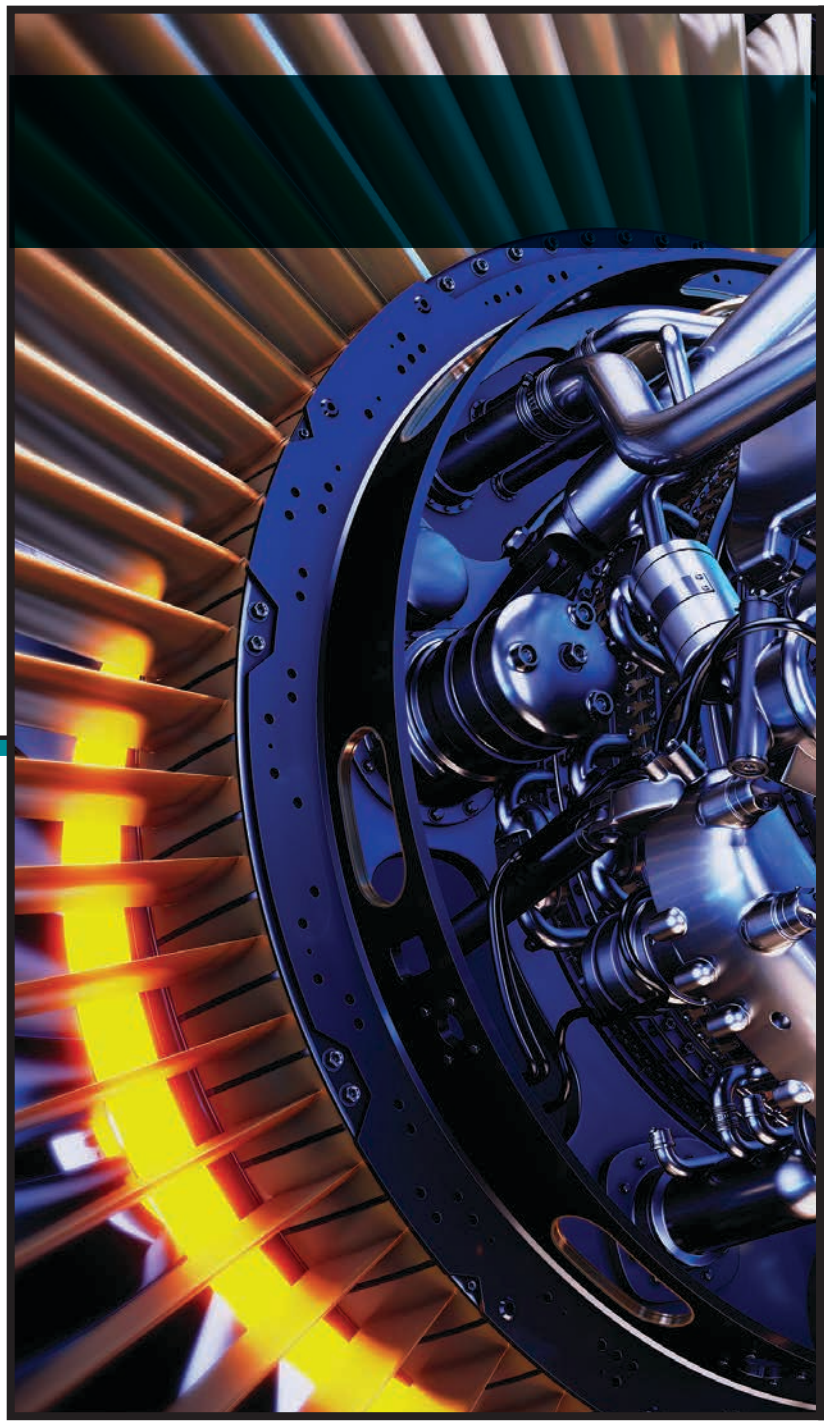
Contact us.

Let us create a detailed, fact-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 and additional information, contact your Master Fluid Solutions Representative.

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www.masterfluids.com/in/en-in/