



**Master Fluid**  
SOLUTIONS®

# ***Sustainability Report***



## Leadership Team Message:

From Dean Froney, CEO and executive staff:

We are writing to express our collective commitment to sustainability and to share our vision for the role it plays within our organization. Sustainability is not just a buzzword; it is a fundamental principle that guides our actions and decisions as an executive team.

Sustainability is not just about environmental responsibility; it encompasses economic viability, social equity, and environmental stewardship. It is about creating lasting value for our company, our employees, our customers, and the communities in which we operate.

Key pillars of our sustainability vision:

### 1. Environmental Responsibility:

We recognize that our operations have an impact on the environment, and we are dedicated to minimizing that impact. This includes reducing our carbon footprint, conserving resources, and preventing pollution.

### 2. Innovation and Efficiency:

We believe that sustainability and innovation go hand in hand. We are committed to finding creative solutions that improve efficiency, reduce waste, and drive sustainable growth.

### 3. Employee Well-being:

Our employees are at the heart of our success. We are dedicated to creating a safe, inclusive, and supportive work environment that nurtures talent and fosters personal and professional growth.

### 4. Community Engagement:

We are part of a larger community, and we are committed to our proud tradition of being a responsible and contributing member. This means actively engaging with and giving back to the communities where we operate.

### 5. Transparency and Accountability:

We will hold ourselves accountable for our sustainability goals and outcomes. Transparency in reporting our progress is a fundamental part of our commitment.



Master Fluid Solutions embarked on our sustainability journey back in 1951 in bringing the industry advanced, water-soluble cutting and grinding fluids. Our efforts did not stop there. We realized the need to recycle fluids and extend their useful life with our XYBEX® brand and recycling systems. Our company is founded on the guiding principle of “The Golden Rule” of understanding our impact on others, the community, and the world.

In this second edition of our Corporate Sustainability Report, we are excited to highlight a clear effort by all employees and Business Units to pursue a more sustainable future. Not only in their professional lives, but also their personal lives. We strive to be good stewards of manufacturing and our communities. From a global initiative by all employees in community engagement, to investments in renewable energy, and new sustainability certifications, I am proud of our employees and all that we have accomplished as an organization.

We are excited to share with you our actions over the course of 2024 and our forward-looking strategies. Our commitment to R&D will continue bringing new and innovative products to the market which benefit the global manufacturing community and support them in their own sustainability efforts. We strive to be at the forefront in navigating the future landscape guided by our founding values. The world is changing, and Master Fluid Solutions is a champion for that change.

Dean Froney

# Global Sustainability Statement



At Master Fluid Solutions, we are committed to fostering a sustainable future for our planet and communities. We understand that as a global metalworking fluid manufacturer, our actions have a significant impact on the environment and community. Therefore, we strive to integrate sustainability into every aspect of business operations, from product development to manufacturing, distribution, and customer engagement. Since 1951, we have been operating by the guiding principles of founder, Clyde Sluhan and as early as the 1970's, Master had developed fluids and equipment to significantly decrease consumption, enable recycling, and greatly reduce disposal. As a company, we are dedicated to creating sustainable solutions for decades to come. It is at the core of our company vision:

“Premier innovator of high-performance fluids and services delivering sustainable value to the global metalworking industry through passionate people enabled to do great things.”

**We work even more closely with suppliers, distributors, and customers to ensure we continue to build a sustainable future.**

Sincerely,  
Dean Fronev, President & CEO

Focused on the environment, economy, and Master's core values, we have implemented systems to track and improve the following corporate principles:

- **Innovation:** Invest in R&D to bring new, safe, and sustainable metalworking fluids to the market
- **Destination Workplace:** Maintain a “Top Workplace” by offering industry-leading benefits and employee development programs, along with giving back to the community through charitable donations and volunteer efforts
- **Responsible Sourcing:** Source raw materials from suppliers that adhere to our supplier code of conduct and ethical sourcing guide.
- **Environmental Compliance:** Meet and exceed all regional regulatory requirements with the goal of over 95% of our products classified free of CMR substances.
- **Waste Minimization:** Reduce manufacturing wastewater as a percentage of production.
- **Customer Profitability:** Continue to lower customers' fluid usage through education and fluid recycling efforts.
- **Protect our People:** Aspire to achieve zero CMR (Carcinogenic, Mutagenic, and Reproductive Harm substances.) and TRIR (Total Recordable Incident Rate) and encourage employees with wellbeing, safety and health improvements.

# Company Values



## Safety

Firm commitment to behaviors and a culture where safety is a value



## Trust

Think positive intent and have confidence in the team



## Integrity

Do what is right even when no one is looking



## Stewardship

Protect and nurture that which has been entrusted to our care



## Innovation

Create and deliver new value throughout the organization and marketplace



## Accountability

Make a commitment, keep a commitment, and accept responsibility for actions



## Charitable Giving

Help and support people in need in the communities we live and work



## Great Place to Work

Create a nurturing environment where employees are valued and challenged



## Excellence

If it is worth doing, it is worth doing well



## Continuous Improvement

Commitment to improve all aspect of our business



## Follow the Golden Rule

Treat others (customers, suppliers, and associates) as you wish to be treated

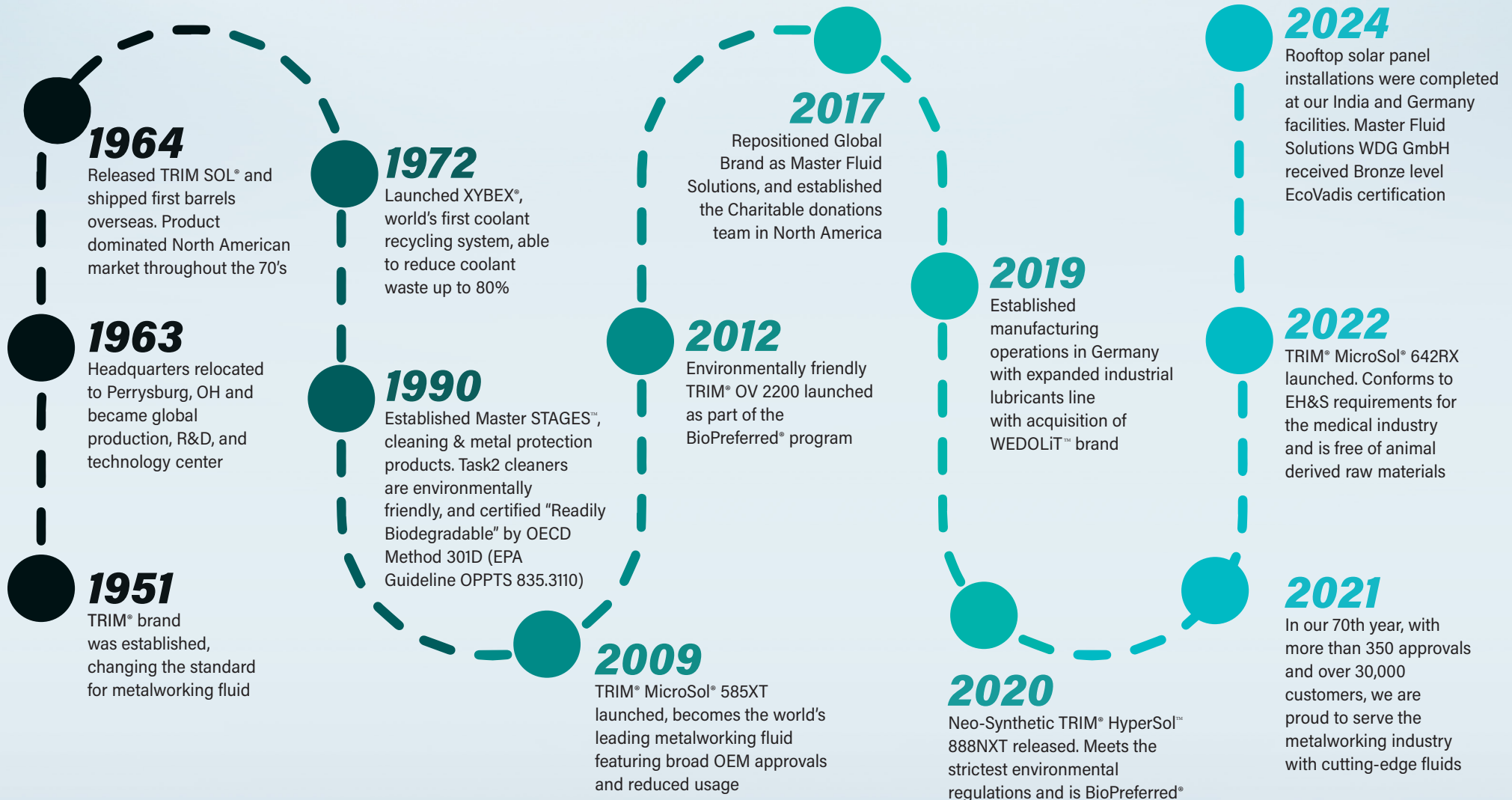
We recognize our responsibility to protect and preserve the environment. We are dedicated to minimizing our ecological footprint and continually improving our environmental performance.

Through the development and promotion of environmentally friendly products, the efficient use of resources, and the reduction of waste and emissions, we aim to contribute to a healthier planet for future generations.

We are actively performing the following initiatives to uphold our commitment toward environmental stewardship.

# Master Fluid Solutions® Journey





## Environmentally focused for 73 years:



# Worldwide Sustainability: North America Key Achievements

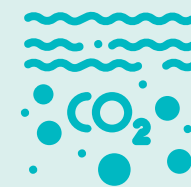
## Philanthropic Values

2024 North America Charitable Giving

Employee Engagement		94.4%
Food Items Collected for Annual Food Drive		4,054
Given to Charities by Master Fluid Solutions and associates		\$122,530
Hours Donated to Charity by Master Fluid Solutions employees		1,992



## Waste Water produced



**8%**  
decrease  
over 2023

## Special Material Disposals



**72%**  
reduction  
over 2023

## Technology Recycling

- 105 Computers Recycled
- 1 Large scale printer
- 15 Monitors
- 10 Docks
- 10 Keyboards and mice
- 4 Switches
- 5 Boxes of cables



# Worldwide Sustainability: APAC Key Achievements

## Environmental Impact:

76 kW Rooftop Solar System Equals

### Yearly Environmental Impact

CO2 Offset	Planted	Km Driven
89 Tons	115 trees planted	3,18,000 km

### 25 Years Environmental Impact

CO2 Offset	Planted	Km Driven
1,905 Tons	3,049 trees planted	5,800,000 km



Number of Solar Panels (540 Wp each)	Total Solar System Size
151 Nos	83 kW
Energy Generation Details:	
System Size	83 kW
Avg. Annual Production (kWh)	116,636
Avg. Monthly Production (kWh)	9,720
Avg. Daily Production (kWh)	324
Units generated / day / kw (kWh/Watt/years)	3.83

## Empowering Sustainability: Solar Energy at Our India Facility

We are proud to share the successful implementation of solar panels at our India manufacturing facility, marking a significant step in our journey toward sustainability. By leveraging the region's abundant solar energy, we have significantly reduced our carbon footprint and energy costs, reinforcing our commitment to environmental responsibility and resource efficiency.

This achievement underscores our dedication to long-term sustainability and highlights our role as a socially responsible corporate entity. The transition to solar energy not only strengthens our operations but also contributes positively to the local community and environment, positioning our facility as a leader in green manufacturing practices.

By completing this project, we have reduced our reliance on fossil fuels and demonstrated our commitment to addressing climate change. This milestone reflects our vision for a cleaner, greener future for India and the world.

## MFS China Develops a Partnership with Suzhou Technician College

MFS China started partnership with Suzhou Technician College in 2024. With this cooperation, we have provided free coolant sample support (annual maximum 50K RMB value) for students' mechanical processing exercise, scholarship prize, and bonus of Master Cup Machining Skill Competition (annual 30K RMB) as well as, product and application training to their teachers and students.

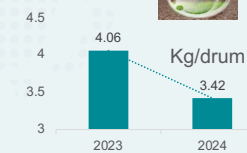
### Social Responsibility

- Support local education
- Talent cultivation
- Enrich college teachers and students' knowledge of metalworking fluid
- Benefit to reduce risk of production loss caused by using metalworking fluid inappropriately when they join in work after graduation



## MFS Tianjin Plant Reduces Resource Consumption

### Wastewater reduction

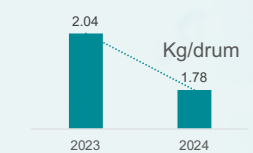


- Reduce wastewater 0.6kg/drum(FP)
- Saving water 16 ton

### Measure

- Optimize production arrangement
- Improving equipment
- Improving operation skill

### RM packing material waste reduction



- Reduce RM packing material 0.26kg/drum(FP)
- Reducing waste packing material 4.5 ton

### Measure

- Re-using IBC for FP packing
- Purchasing RM by bulk and big packing if possible
- Push suppliers to recycle and reuse packaging

# Worldwide Sustainability: European Key Achievements

## Environmental Impact:

99,45 kW Rooftop Solar System

234 Solar Panels (425 W each)

Total Solar System Size

Battery

99.45 kW

2x 19.2 kW

System online since 6 Nov. 2024

Yield 2024  
(56 days)

CO2 Reduction 2024  
(56 days)

Total: 1945 kWh  
34,73 kWh/day

Total: 1342,05 kg  
23,97 kg/day



### New Rooftop Solar System Installed at European Technology Center

A newly installed rooftop solar system at our European Technology Center in Düsseldorf, Germany, has begun to make its mark since going online on November 6, 2024. The system, with a total capacity of 99.45 kW, comprises 234 solar panels, each rated at 425 W, and is supported by two batteries with a combined capacity of 38.4 kW.

In the first 56 days of operation, the solar system has generated a total of 1945 kWh, averaging 34,73 kWh per day. This early performance has led to a reduction in CO2 emissions, totaling 1342,05 kg, or 23,97 kg per day.

The implementation of this solar system represents a notable step towards sustainable energy solutions and highlights the potential for renewable energy to contribute to environmental goals.



Master Fluid Solutions is proud to announce that our German office has earned a Bronze EcoVadis Certification, highlighting our dedication to sustainability and corporate social responsibility in the region. This achievement reflects our commitment to implementing environmentally responsible practices, ethical business operations, and sustainable supply chain management. The Bronze Certification underscores the German office's role in advancing our global mission to prioritize sustainability while delivering innovative solutions to our customers. We are proud to be recognized for our efforts and remain committed to driving positive environmental and social impact within the industry.



# Forward Looking Vision



## *We operate as one global company*

- Dynamic and Growing
- Long term sustainable path
  - Profitable growth
- Common purpose
- One family vision



## *We live our Vision, Mission, and Values*

- Benefit owners
- Benefit external shareholders
- Benefit employees
  - "Golden Rule"
- One family vision



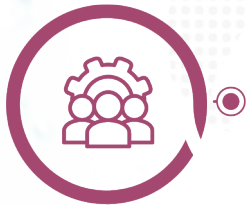
## *We relentlessly innovate to make our customers more successful*

- Investment in technology
- Long term sustainable path
  - Profitable growth
- Dynamic and growing
  - Long term value for all stakeholders



## *We reduce "Total Cost of Ownership" with safe and sustainable solutions*

- Builds long term value
- All stakeholders Investment in technology
- Long term sustainable path
  - Profitable growth



## *We form the best team and have the best place to work in all locations*

- Sustainable business
- Benefit employees
  - Dynamic and growing business
  - Long term value for all stakeholders



**Board of Directors** (Left to Right) Andy Gilicinski, Aaron Wright, Jim Rosa, Robert Nosal, Julia Poston, Dean Fronev, John Sluhan, Ronald Brown, Diane Sluhan, and Carrington Smith.

## Product Testimonials

### Performance Machine Technologies Reduces Coolant Concentration by 78% with TRIM® HyperSol® 888NXT

#### The Challenge

PMT struggled with their metalworking fluids, which required a 45% coolant concentration to achieve their desired tool life and part finish quality. This high concentration drove up operational costs and hindered the company's ability to invest in other critical projects. The coolant also had bacterial issues and produced excessive odor, negatively impacting their employees and operations. PMT embarked on a mission to find a more cost-effective and efficient coolant solution.

#### The Solution

To address PMT's coolant-related challenges, an expert from Master Fluid Solutions® recommended TRIM® HyperSol® 888NXT. HyperSol 888NXT's neo-synthetic technology masters the art of versatility. Providing exceptional performance on hard aerospace metals such as titanium and high-nickel alloys, stainless steels, and Inconel®, it also offers the superior lubricity necessary for machining soft, gummy aluminum alloys. HyperSol 888NXT also delivers low foam, low odor, and a long sump life with low carryoff while meeting the strictest environmental regulations. It is also part of the USDA BioPreferred program.

#### The Results

PMT put HyperSol 888NXT to the test, running it at a significantly lower concentration of just 10% for 30 days. The results were incredible. PMT eliminated foaming issues, reducing downtime. HyperSol 888NXT improved machine cleanliness and eliminated odor in the facility, creating a more pleasant working environment. One of the most remarkable outcomes of adopting HyperSol 888NXT was the substantial cost savings realized by PMT. PMT significantly reduced coolant consumption by reducing their coolant concentration from 45% to 10%, a 78% reduction in target concentration.

Thrilled with the results, PMT converted their remaining machines to HyperSol 888NXT. Additionally, PMT is excited to explore other products offered by Master Fluid Solutions to optimize their machining processes further and achieve even greater efficiencies and cost savings.



### Electric Vehicle Manufacturer Reduces Coolant Usage by 20% with TRIM® MicroSol® 692XT

#### The Challenge

The manufacturer processes a number of aluminum extrusions for EV, along with drilling, taping, and milling. Their previous coolant was causing strong odors from heavy bacterial growth. Despite multiple and frequent machine cleanouts, these problems persisted, leading to increased costs and a dissatisfied workforce. Desperate for improvements, the company was eager to upgrade their coolant. The high-lubricity, machine-friendly characteristics of TRIM® MicroSol® 585XT allowed the manufacturer to maintain a long sump and tool life with an impressive throughput of 16-18 parts per hour.

They were also seeking a simple method to further improve productivity while reducing fluid consumption. Therefore, Master Fluid Solutions® identified a coolant upgrade as the best plan of action.

#### The Solution

In search of a resolution, the customer sought the expertise of Master Fluid Solutions. Upon consultation with Master's coolant experts, the customer recommendation was to trial TRIM® MicroSol® 692XT, a high-lubricity, semisynthetic, microemulsion coolant with excellent sump life. This advanced coolant was chosen for its ability to address the challenges faced by the electric vehicle manufacturer.

#### The Results

The trial of MicroSol 692XT spanned three months and proved to be an overwhelming success. Throughout the entire test period, the customer never experienced unpleasant odors, which significantly improved the working environment including morale of their employees. Moreover, laboratory samples showed no trace of bacteria, indicating that the new coolant is effectively controlling bacterial issues. In addition to resolving the odor and bacterial issues, the customer experienced an unexpected and substantial benefit. By switching to MicroSol 692XT, they were able to reduce fluid consumption by 20%. This reduction was achieved by using a lower makeup rate and carryoff, resulting in cost savings and a more sustainable coolant management process.

The impressive results of the trial led the customer to make the decision to convert all their machines to MicroSol 692XT. By doing so, they not only solved their coolant challenges but also improved their overall machining processes, enhancing efficiency, and reducing operational costs. The success of this transition in coolant contributed to their continued leadership in the electric vehicle manufacturing industry.



# Product Testimonials

## Aerospace Components Supplier Resolves Contamination Using Master Fluid Solutions®

### The Challenge

The aerospace components supplier encountered a problem controlling bacterial contamination in its metalworking fluid. This meant it had to conduct regular machine cleans of approximately two to three machines per month. It took half a day to clean and refill the machines and the lost machine time cost \$76 per hour.

The existing metalworking fluid also periodically caused machining issues. The machines would tap oversize holes, which meant those component parts would have to be completely scrapped. Each scrapped component resulted in a \$2,330 loss.

### The Solution

Weary of losing more money and productivity, the aerospace components supplier agreed to a six-week trial of TRIM® E715, run at 6% - 10% concentration. TRIM E715 is a universal soluble oil that requires minimal maintenance and is suitable for machining aluminum, steel, and nickel alloys, as well as cast iron and yellow metals.

### The Results

The trial of TRIM E715 resolved the bacterial contamination issue completely, eliminating the need for costly cleanouts, a savings of nearly **\$9,325** per year. Resolving bacterial contamination also removed the bad odors that operators frequently complained about. All machines have since been switched over to TRIM E715.

TRIM E715 also fixed the issue with oversized holes that resulted in scrapped parts. The aerospace components supplier has had no reports of issues since the conversion.

And, as a bonus, several operators who suffered from dermatitis with the former metalworking fluid have had their skin clear up since the switch to TRIM E715.

"During the six-week test run, we resolved the bacterial contamination issue, leading to no need for costly cleanouts since April 2019."

-Machine Shop Manager



## Innovations of Sustainable Products

### **TRIM® HyperSol™ 888NXT:**

HyperSol 888NXT is a neo-synthetic precision machining fluid formulated with an advanced, patented technology designed for the Aerospace industry. HyperSol 888NXT will reshape the industry having exceptional performance on hard metals including high-nickel alloys, stainless steels, and titanium alloys, coupled with the mechanical lubricity to machine soft, gummy aluminum alloys. This leading-edge fluid was formulated to pass aerospace approval test requirements utilizing state-of-the-art materials to deliver low foam, low odor, and a long running lifespan while meeting the strictest environmental regulations.



### **TRIM® OV 2200:**

TRIM® OV 2200 is a bio-based straight oil for machining difficult alloys and stainless steels. Formula utilizes a proprietary blend of renewable resources to eliminate the need for traditional additives such as chlorine, sulfur, and animal fats. Allows users to improve their environmental profile by replacing products that contain V.O.C.



### **TRIM® MicroSol® 642RX**

TRIM MicroSol 642RX is specifically formulated for the medical device industry. This product is low-foaming, has high-lubricity, a long sump life, is clean running, and is free of animal derived raw materials. This metalworking fluid is formulated in compliance with the medical industry's environmental, health and safety requirements.



# **Master Fluid Solutions is a 11-year Recipient of Top Workplace**

Top Workplaces is the nation's leading employer recognition program, through research-backed surveys. Creating a Top Workplace is about more than offering great benefits and vacation time. It's about putting employees first. The employer recognition program helps organizations of all sizes create work experiences that unlock potential and inspire performance.



**THE BLADE**



# Forward Looking Vision

**Golden Rule:** Do unto others as you would have them do unto you.

In the coming years, we envision a corporate landscape that transcends traditional profit-centric models and becomes a driving force for global sustainability. Our organization is committed to leading this transformative journey towards a regenerative future, where businesses play a pivotal role in harmonizing economic prosperity, environmental stewardship, and social equity.



## **Regenerative Business Models:**

We see a future where businesses are not just sustainable but actively contribute to regenerating the environment. Our company will continually seek innovative ways to integrate regenerative practices into our core operations, whether through circular supply chains, regenerative agriculture, or carbon-negative manufacturing.



## **Resilience Through Diversity:**

We recognize that diversity and inclusivity are not just ethical imperatives but also sources of strength. Our vision includes fostering diverse talent pools, leadership teams, and partnerships, ensuring that a wide range of perspectives and experiences guide our decisions and strategies.



## **Circular Economies:**

We are committed to transforming linear production models into circular economies, where waste is minimized, and resources are continually reused, recycled, or repurposed. Our vision embraces a closed-loop approach to product design and manufacturing.



## **Community Engagement:**

We aim to be a positive force in the communities where we operate. Our vision includes actively engaging with local communities, supporting education, skills development, and infrastructure projects that improve the quality of life and well-being for all.



## **Global Collaboration:**

We recognize that the challenges of sustainability are global in nature, and solutions require collaboration across borders and industries. Our vision involves actively seeking partnerships, sharing best practices, and advocating for global sustainability agreements and policies.



We endeavor to preserve and build upon the values inspired by Clyde and Marian Sluhan. Those values include integrity, hard work, and dedication to an enterprise bigger than ourselves. We expect the highest in ethics and character from one another, and we expect the same from those associated with Master Fluids Solutions. Business practices should be transparent and efficient so that high-value products may be developed. That value is the foundation for our long-term customer relationships, with ethical, value-driven suppliers and distributors.