



MTIwelding.com

MACHINE PERFORMANCE PACKAGE (MPP)

It's much easier to detect a potential problem with your friction welder than it is to fix an issue that is already hindering your productivity. That proactive approach is the foundation of our Machine Performance Package. Our quick but thorough visits ensure your machine continues to operate exactly the way our engineers designed it.

A DOSE OF PREVENTION...

Your friction welder plays a big role in your production process – so make sure to give it the attention it deserves. Our Machine Performance Package (MPP) is built with your company's efficiency and unique demands in mind.

An MTI-designed machine is built to last. But you can maximize its longevity by scheduling routine maintenance checks. Our MPP provides peace of mind that your friction welder is operating at peak performance, without needing to halt production for an extended period of time while our technician inspects it. Prevention today can prevent costly downtime tomorrow.

The MPP is fully customizable. We can do as little or as much and visit as infrequently or frequently as you want. It's all about what works for your company.

SCHEDULED VISITS

MTI Machine Performance service visits are coordinated with your production times and plant shutdowns to minimize disruption to parts production. Visits are cost-effective, combat production down-times, and are essential for prolonging the life of your capital investment.

INSPECT & REPAIR

Scheduled visits include a complete check of auxiliary equipment in use. The resulting MTI report will contain recommendations on how to keep your auxiliary equipment healthy and operational, including a comparison of the performance data from day one to identify any areas causing a reduction in machine performance. MTI's comprehensive machine checks and findings can be used for many standards representing machine quality upkeep. Additionally, laser alignments or secondary device calibration can be accomplished.

— AT A GLANCE —

MTI's machine performance package is a basic, visual checkup of your machine and can easily be accomplished throughout the course of a one-day visit. We keep our visits short because we don't want machine downtime to have a lasting impact on your productivity. While we're there, we will perform a basic machine health checkup and any additional maintenance services you may request. Those extra services, such as a laser alignment or new filters, are available at an additional cost. And, to ensure your machine stays on track, we offer a 5 percent discount on any work we quote. Once our inspection is complete, you'll receive documentation that shows your machine is working properly and is safe to use. How much or how little we do is completely up to you -- we will work with you to create a plan that fits your needs.

An MTI PMP is designed to be as convenient and non-disruptive to your company's processes as possible.

- ONE-DAY
- COMPREHENSIVE INSPECTION
- FULLY CUSTOMIZABLE
- BASIC MACHINE HEALTH CHECKUP



SERVICE. INSPECTION. & CUSTOMIZATION.

At MTI, maintenance isn't about fixing what breaks. It's about keeping your friction welder running at optimal performance. Our service, inspection, and calibration plan concentrates on your friction welding machine's performance, functionality, and condition based on data from previous inspections.

Keep your machine running at optimal performance with our one day, multi-point service inspection that's fully customizable to meet your needs.

Here's what all is included in our comprehensive inspection:

- Machine Condition
- Safety Stop
- Machines Data & Drives
- Hydraulics
- Automation*

Want a breakdown of what each step entails? Check out the comprehensive guide to the right.

Think we're done there? Think again.

Once we complete the multi-level inspection of your machine, the following two key benefits will ensure your machine continues to run smoothly long after our technician leaves your shop floor.

SYSTEM HEALTH REPORT

The lasting value of an MTI Machine Performance Package is in the health report you receive after every scheduled visit. MTI Worldwide Service technicians complete a comprehensive system check that details their findings, the work they performed, results from any testing conducted, and any recommendations to keep your machine performing at its optimum.

DISCOUNTED PARTS & SERVICE

With MTI's Machine Performance Package, participants receive a 5 percent discount on replacement and spare parts on any work we quote during the visit. Contact MTI for additional discounts, including instrument calibration, laser alignment, emergency service, and MRA.

MACHINE CONDITION

- Review hoses, drag chains, slides, and encoder.
- Inspect spindle chuck, tooling, & clamp condition.
- Identify areas where damage has occurred or is likely to occur.

SAFETY STOP

- Ensure all safety & emergency stop circuits are functioning properly.
- Verify components within the emergency & safety circuits show no signs of wear or damage.

HYDRAULICS

- Check for leaks on both the HPU and the machine.
- Check solid pipe condition and fittings.
- Check hoses and fittings for wear and report age of hoses.
- Check valves & valve wiring for any damage.
- Confirm servo valve tuning and condition based on valve offset data and point-to-point accuracy & report any variances.
- Confirm the temperature control functionality and reset if required.

MACHINES DATA & DRIVES

- Verify motor settings and condition based on acceleration and min/max rates.
- Confirm motor tuning & condition based on drive stability and point-to-point accuracy.
- Run RPM test and check rundown of the spindle for obvious signs of vibration or wear.
- Confirm the temperature control functionality and reset if required.
- Analyze the data archive to ensure weld traces are collected as required & create a backup of weld data.

AUTOMATION*

- Verify the cell is in good condition and still functional and maintains cycle times as designed.
- Inspect conveyor systems for any damaged tracks, obvious wear to belts, etc.
- Check functional performance & setting of all switches and actuators.
- Examine robot for obvious signs of wear or damage.
- Analyze the part contact tooling for signs of wear, such as the gripper arms or fingers.
- Review the condition of ancillary parts such as engravers, cameras, etc.

ADDITIONAL SERVICES

Just like our machines, MTI's maintenance plans are fully customizable to meet your needs. Purchase additional services, including official calibration certificates, filter changes, and oil inspections to create a plan that fits your needs.

OIL SAMPLING

Oil samples may be taken during each scheduled visit and then sent to one of MTI's recommended laboratories for analysis. The resulting data will be recorded by MTI as part of a complete report, including laboratory data, which will be sent to you.

SERVICE THAT TRAINS

When major maintenance or minor tweaks are necessary, our expert service technicians do more than fix it and forget it. We'll train you.

MTI offers training programs tailored to meet your requirements, ranging from operator use, controls training, and machine process improvements. Training programs are instructor-lead, include a complete set of training material for each attendee, and are hands-on when practical. MTI's on-site technicians can utilize their "open" time to refresh operators on techniques, setups, review routine maintenance items and machine control files. With an MTI Machine Performance Package, you will receive a discount on training.



*IF YOUR MACHINE INCLUDES MTI SUPPLIED AUTOMATION

OUR PROCESS

THE MTI DIFFERENCE.

What makes having the best technology in the world even better? Knowing MTI can help you keep that technology running at its best. For more than 40 years, our Service and Spare Parts division has made it its mission to continually offer you a turnkey solution. That solution may include shifting to a more in-depth and frequent check of your machine. That's where our Preventative Maintenance Package (PMP) comes in. It's broken up into three tiers because we know friction welder maintenance isn't a one-size-fits-all concept.

PREVENTATIVE MAINTENANCE PACKAGE COMPARISONS

| GOLD | SILVER | BRONZE |
|---|--|---|
| <p>SILVER and BRONZE packages plus:</p> <ul style="list-style-type: none"> • mWeld program evaluation, including any possible improvements. • Check machine ways, spindle, fixtures, and acceleration/deceleration times for possible adjustments. • Record results as benchmark against future comparisons. | <p>BRONZE package plus:</p> <ul style="list-style-type: none"> • Hydraulic manual pressure settings adjusted upon customer's approval and per print. • All fault logs evaluated. • Recommend, and perform if needed, corrections to existing malfunctions. | <ul style="list-style-type: none"> • Complete inspection for damaged, worn, leaking, and exposed machine components. • Oil analysis and hours-based filter change. • All operational functions and positions checked. • All machine guarding and safety features checked. • Comprehensive health status report, including recommendations how to maintain machine's optimum performance. |



YOUR FRICTION WELDING TEAM

MTI'S global service technicians in the US and Europe are friction welding experts. We know the details of your equipment inside and out and how to keep it running.

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WORLDWIDE SERVICE & SUPPORT

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Peace of mind is complete confidence, knowing you have the finest machine in the world, backed by the finest support at all times. It's knowing that obstacles to keeping your machine operating at optimal performance will be met with a quick, sure-handed response.