

MTIwelding.com

# COMPONENT CALIBRATION

# **CALIBRATION IS IMPORTANT**

Your friction welder is an important part of your production process. And keeping your equipment properly calibrated can help you avoid trouble. Without a calibrated machine:

- You will never know when your machine stops performing optimally and starts producing scrap, impacting production and profitability.
- You could lose potential quality-conscious customers looking for consistency and dependability in their product and their supplier.
- · You may not be able to comply with industry or customer requirements or maintain your certification, which could prevent you from obtaining new business.
- Your produced parts are at higher risk for being out of specification, resulting in a costly recovery plan.

# NON-CALIBRATED EQUIPMENT MAY LEAD TO PROBLEMS

Choosing to delay calibration may be risky. If your machine is out of calibration, then you may:

- · Produce out of spec parts, which will cost you time and money to correct an otherwise avoidable scrap rate situation.
- Experience disrupted production schedules caused by unscheduled troubleshooting downtime to isolate and fix neglected equipment and components.
- Be forced to run multiple, costly make-up shifts to recover lost time and low production numbers because of increasing scrap or production interruptions.
- Incur tooling or equipment damage, which would be more expensive than a simple visit from MTI's calibration expert.

#### MTI PEACE OF MIND

We will inspect, calibrate, and make recommendations for proper RPM (speed), system and weld cycle pressures, and Slide Scale positioning. Our experts will:

· Check electrical components for Frequency-to-Voltage (F > V) conversions that drive RPM, necessary for producing repeatable energy for accurate upset (length).

But the most important reason for calibrating your equipment is the prevention of non-calibrated components causing equipment failure, equipment damage, and possible personal injury.

If you have experienced any one of these scenarios, then it's time to call in the calibration experts from MTI. Our team will coordinate an appointment with you to inspect, test, calibrate, or replace your noncalibrated, malfunctioning, or obsolete equipment or components.

As the Original Equipment Manufacturer (OEM) of your friction welder, we have the know-how to perform on-site calibration that will meet your equipment and process requirements. We do on-site calibration and certification of friction welding machines, as well as third-party equipment, ranging from one ton up to the largest 2000 ton aerospace machines.

Let MTI help you ensure your continued success through component calibration.



Fluke Pressure Regulator, Digital Gauge and

Fluke 726 Precision Multifunction Process Calibrator checks Frequency to Voltage (F>V) conversions that generate RPM

- Check the Slide bed scale positioning for part
- loading, weld positioning, upset, and overall length positions to meet final part specifications. · Check system and weld cycle pressures, critical to ensure
- weld integrity and upset limits that reduces scrap, saves time, and money.
- Verify the accuracy of the rotary encoder on your direct drive friction welder that maintains constant speed for proper energy output into a weld, if applicable.







#### **BENEFITS OF MTI CALIBRATION**

MTI calibration gives you peace of mind with:

- Controlled RPM and flywheel energy to produce accurate upset.
- Controlled system and weld cycle pressures to maintain weld integrity.
- Consistent part upset (length) to meet specifications.
- A Slide table scale report on its accuracy and functionality to properly position the Slide to produce a good weld with correct upset.
- Consistent, good welds that let you better control production costs.
- Confidence in having a consistent weld quality as your scrap rate diminishes.
- Fewer equipment repairs caused by non-calibrated components, saving you time and money.
- Fewer unscheduled troubleshooting downtimes.
- Peace of mind from knowing your equipment will operate at optimum performance.



**MTI INGENUITY** Brings it all together! INNOVATIVE. GENUINE. CONTINUITY.

#### WARRANTY

MTI's calibration warranty period begins immediately following the completion of the scoped work. Your MTI calibration warranty package includes:

- A full report of our inspection and assessment of equipment and components.
- New, installed calibration tags.
- Full warranty on any new parts purchased from, and installed by, MTI for up to six months.
- A signed MTI Certificate of Calibration.

## **DON'T HESITATE: CALIBRATE**

Non-calibrated components can allow unwanted contact between uncontrolled high-force moving parts during a weld cycle, causing damage to tooling and rendering the machine unusable.

A calibrated system produces consistency, accuracy, builds trust, and provides peace of mind while contributing to a more efficient and reliable operating environment.

Calibration is the first step in developing a comprehensive equipment maintenance plan. To find out how we can help you construct a supportive, cost-saving maintenance plan that includes calibration, don't delay. Call MTI today.

Lower cost of operation by avoiding the 2x - 4x cost increase for an alignment or maintenance visit.



Consistently produce good parts, greatly reducing scrap.



Gain peace of mind through less downtime and increased part consistency.



#### **CONTACT MTI SERVICE**

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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, surehanded response.

