

Machine Tool Preventive Maintenance Gauges

Planning to implement a Preventive Maintenance (PM) program?

Contact us for advice
on simple but effective steps
to prevent costly repairs
and unexpected machine
down time.



TAC Rockford
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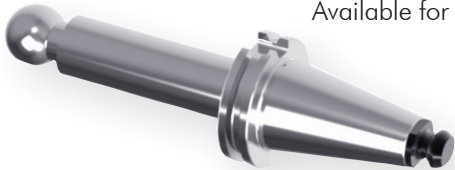
Spindle Runout Test Arbors

Spindle runout test arbors offer a quick and easy way to verify that a machine spindle is running true after a crash, after moving a machine, or periodically as an accuracy check. TAC Rockford stocks runout arbors for Steep Taper CAT/ANSI, BT, and DIN, as well as for HSK, Capto, and KM.



Ball-End Spindle Test Arbors

Designed for checking 5-axis machines, ball-end spindle test arbors allow 3D positioning accuracy and repeatability to be checked. Available for Steep Taper and HSK.



Spindle Balancing Masters

Designed to eliminate any imbalance resulting from tool holders, spindle balancing masters are an indispensable tool for use when checking for spindle balance and vibration.



Master Setting Gauges

Master setting gauges are a multi-function "universal" gauge. Uses are only limited by your imagination — spindle alignment/verification, presetter verification, etc. Available for Steep Taper, HSK, Capto, and KM.



Tool Changer Alignment Tools

Improper alignment between tool pockets, changer arms, and the machine spindle can cause premature wear on tool changer components, the spindle taper, and tool holders. Tool changer alignment tools help with initial set-up of the tool changer, as well as periodic adjustment or verification of correct alignment as part of a preventive maintenance program. Available for Steep Taper, HSK, Capto, and KM.



Spindle Taper Dimensional Gauges

Spindle taper gages are used to check for worn tapers on machine spindles, as well as for re-grinding or manufacturing spindle tapers. As with tool holders, a correctly made and non-worn taper is critical for a strong connection between spindle and tool holder. Units are available for Steep Taper CAT/ANSI, DIN, and BT taper in contact gauges, dial indicator gauges, as well as air gauges. For HSK, we offer dial indicator, electronic, and air gauges.



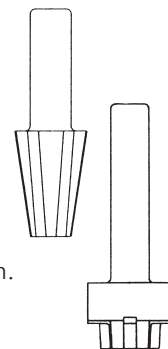
Tool Holder Taper Dimensional Gauges

Without a dimensionally correct tool holder taper, it is not possible to ensure a proper spindle/tool holder connection. Using tool holder dimensional gauges, the taper and other key features can be checked for wear or new holders can be checked as a part of incoming inspection. In addition, gauges are a necessity when manufacturing tool holders. Units are available for CAT/ANSI/DIN/BT taper in basic contact gauges, dial indicator gauges, as well as air gauges. For HSK, we offer dial indicator, electronic, and air gauges.



Tool Holder and Spindle Cleaning

Before checking tapers, we recommend thoroughly cleaning tool holder and spindle tapers. Critical to maintaining a rigid interface is cleanliness of the spindle and tool holder taper. We offer spindle taper wipers and tool holder cleaning units to help make cleaning an easy and consistent part of an effective preventative maintenance program.





ForceCheck Machine Tool Force Gauges

The ForceCheck line of gauges is known industry-wide as the standard for reliable, easy to use, and accurate machine tool force gauges. In fact, most major machine tool manufacturers use ForceCheck in their service departments!

ForceCheck Drawbar Force / Tool Retention Gauges

This critical element – the tool clamping force – is often never measured after a machine is put into service. Regular verification allows problems such as broken springs or incorrect stroke to be detected early so maintenance and repairs can be scheduled. As a result, emergencies and unexpected downtime can be avoided. When troubleshooting, drawbar performance can quickly be verified. ForceCheck adapters are available for Steep Taper CAT/ANSI, DIN, BT, and ISO from 10 to 60, HSK sizes from 25 to 160, Capto, KM, and other standards.



The ForceCheck gauge is available in a corded version, as well as wireless hand-held and machine controller integrated configurations.

Custom Case Services

TAC Rockford can custom manufacture a gauge case to your exact requirements. Let us know what gauges you want to include in the case, and how you plan to use the case. Customized cases are available in heavy duty plastic, standard duty plastic, and Baltic Birch plywood. Foam is milled for exact fit and optimal protection of gauges.



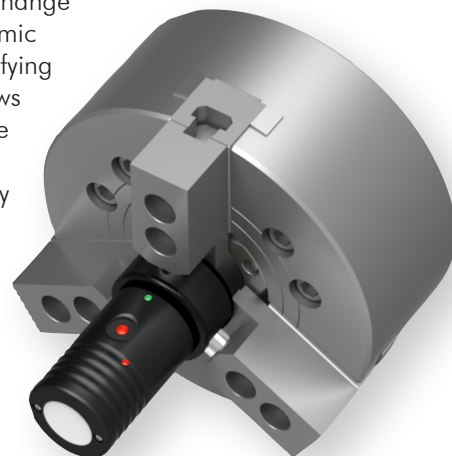
Pallet Holding Force

Verify that pallet holding force is correct with ForceCheck pallet clamping force gauges. Pallet force sensors are available for BERG Spanntechnik, OTT, Erowa, and other pallet systems.



ForceCheck Wireless Chuck Force Gauge

The ForceCheck wireless chuck force gauge is designed to quickly and accurately measure holding force and speed of chucks. Because forces change considerably under dynamic (rotating) conditions, verifying chuck holding force allows manufacturers to improve the repeatability of a manufacturing process by checking actual holding force – too much force can distort parts, while insufficient force can cause parts to come out during machining. In addition, regular verification of holding force is a critical preventive maintenance check.



ForceCheck Collet Force Gauge

The ForceCheck collet force gauge allows tool holder and workholding collet holding force to be quickly and easily measured. Because it is problematic to measure, this critical holding force is typically not checked, even though it plays an important role in manufacturing repeatability.



Special Application Force Sensing

Have a clamping, workholding, or other application where you're concerned about clamping or holding force? Our expertise in the machining world and with force sensors allows us to offer custom-built application-specific units at a reasonable cost. We have produced adapters for various collets, proprietary tool holding systems, vises, as well as other systems – contact us with your application.

Involved in machine
tool maintenance?

**We have the tools
you need.**



Machine Tool Preventive Maintenance Gauges

- Spindle Runout Test Arbors
- Spindle Balancing Masters
- Master Setting Gauges
- Tool Changer Alignment Tools
- Spindle Taper Dimensional Gauges
- Tool Holder Dimensional Gauges
- Drawbar Force Gauges
- Chuck Force Gauges