

Mahr Federal



Precision Gage Repair/Reconditioning and Calibration Services



- Dimensional Calibration
- Calibration System certified to ISO 9001:2000 and accredited to ISO 17025
- Factory Gage Repair
- Reconditioning— not just repairs

Repair/Reconditioning Services

Top Quality Repair Services

- Reconditioning, not just repairs.
- Functionally like new gages.
- All of our repair/reconditioning work is done on-site in our own facility.
- We use only Genuine Mahr Federal replacement parts.

We service and repair the following equipment:

- Dial & Digital Indicators
- Snap Gages
- I.D. / O.D. Gages
- Bore Gages
- Dimentron® Plug Gages
- Thickness Gages
- Depth Gages
- Comparator Stands
- Dimensionair® Air Gages, Air Plugs & Rings
- Electronic Amplifiers, Gage Heads & Stands
- Pocket Surf® Surface Roughness Gages
- Surface Finish and Form Gaging



Column Gage Repair



Dial Indicator Repair

On Dial Indicator repairs, crystals and contact points are always replaced. Other parts replaced as part of the repair service may include gears, gear movements, dials, bezels, hands, springs, racks, backs, cases, TDL weights and screws.

Typical Quality repair/reconditioning process:

- Disassemble.
- Ultra-sonic clean.
- Replace any worn, missing or broken parts with Mahr Federal parts.
- Re-assemble and align.
- Test for repeat, calibration and functionality according to original specifications and/or customer specifications.
- Ninety (90) day warranty, one year warranty on selected gages.
- We can provide calibration certificates at a 25% discount when ordered together with repair service.

... value you'll receive nowhere else than at the factory.



From this.....to this

A Dimensionair® Amplifier repaired to its "like new" condition. We disassemble, clean every pipe, jet and bellows; then, we paint the case, replace the dial and the crystal.

No one repairs dimensional gages better than Mahr Federal...

- ISO 9001 Certified and ISO 17025 accredited facility in Providence, RI.
- Skilled factory trained technicians.
- Increased repair capacity for fast turnaround.
- Professional workmanship and quality.
- Repairs made to manufacturer's original specifications.
- Authentic Mahr Federal parts.
- Contract programs available.
- Exchange/replacement programs offered.



Reconditioning a Model 832 Amplifier



Reconditioning a Pocket Surf®

Calibration Services

International Standards require complete documentation and calibration of all gaging instruments. Mahr Federal Inc., as well as being a manufacturer of quality dimensional measuring instruments, is an established primary source for high accuracy dimensional measurement services.

Mahr Federal offers an inspection and recalibration program for dimensional standards including:

- gage blocks • master rings • master discs and plugs • master balls (roundness)
- cylindrical form and precision reference specimens surface roughness standards.



For these services, we have created an ideal environment - a metrology laboratory in Providence, Rhode Island that is ranked as one of the world's finest:

- High quality measurements - 0.06 micron/2.5 microinch uncertainty of measurement on gage blocks (up to 50 mm/2 in long).
- All measurements traceable to the Standards of the United States.
- Grand Masters/Primary standards used in our Measurement Center have been certified by NIST.
- Calibration system is certified to ISO-9001:2000 by NQA, USA and accredited to ISO 17025 NVLAP Lab Code 200605-0.
- We offer Fast turnaround and competitive prices.



Mahr Federal also specializes in the calibration and certification of the following gages including:

- Dial, Digital & Test Indicators • Mikrokators® • Micrometers
- Dial & Vernier Calipers • Pin & Radius Gages • Snaps, I.D. / O.D. & Bore Gages • Dimentron® Plugs • Plug & Ring Gages • Groove, Caliper, Thickness • Air Gages & Magnification Kits • Electronic Amplifiers & Gage Heads • Surface Finish Gages • Level Systems



Precision Measurement Center

Precision Measurement Center – Mahr Federal's Metrology Laboratory in Providence, RI.

The environment, by far, is the biggest contributor to measurement errors.

Mahr Federal's Precision Measurement Center in Providence was built to minimize environment related errors.

Structurally, the Center is different. All measurement equipment rests on a five-foot thick concrete slab located just below the floor. Weighing nearly 375 tons, the slab is independent of the surrounding building and is supported by three 30-foot tubular steel columns which rest on a vibrationally stable layer of rock.

This elaborate construction eliminates the influence of external vibrations which could cause measurement inaccuracies ... even eliminating the influence of laboratory personnel moving about the room. Because the slab is so well isolated from its local environment, other disturbances such as highway traffic and heavy equipment in the adjoining factory do not adversely affect the high accuracy gaging equipment.



Model 130B Gage Block Comparator

High Accuracy Measurements

High accuracy is realized measuring gage blocks (up to 50 mm / 2.0 inch long) with a best uncertainty of 0.06 micron / 2.5 microinch

The Mahr 828 CiM in the Precision Measurement Center has a gaging uncertainty of as little as .000004". Its measuring precision, high measuring speed, innovative measuring processes, and ease of operation all combine to ensure fast, reliable measurements.

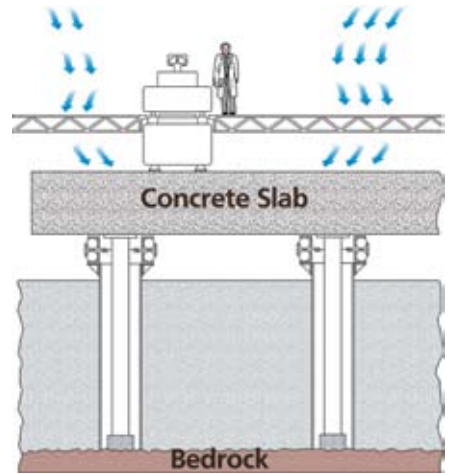
Additionally, the Mahr Federal Model 130B-24 and Model 130B-16 Gage Block Comparators, widely used and recognized as the finest of their kind, are employed in the Precision Measurement Center together with the Model 136B-3 Master Ring and Disc Comparators.

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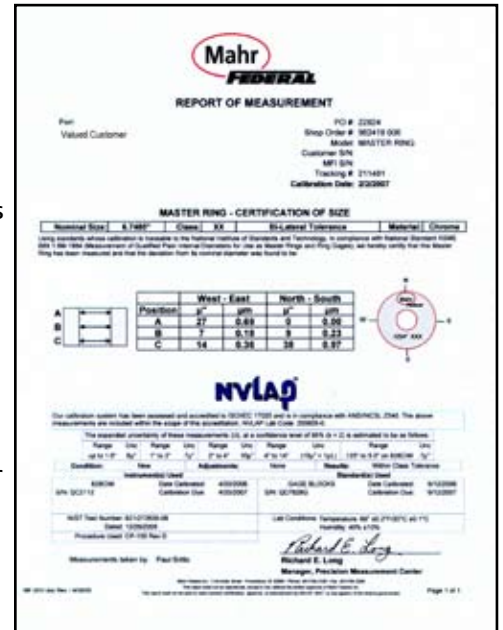
Air and Atmosphere ... tightly controlled

A complex air conditioning, circulation and filtration system controls our Measurement Center's temperature and atmospheric conditions. Air cascades through the room from ceiling to floor, changing itself every half-minute. This important vertical down flow eliminates air stratification, helps control dust and provides a barrier of clean air between the gages and technicians. Since air temperature and humidity can adversely affect measurements, air temperature is maintained at 68°F/20°C, within 2/10 of 1°F and relative humidity is a constant 40%, ±10%.



NIST Traceability Grand Master Sets

Working masters are remeasured annually against the Grand Master sets, which are calibrated at NIST on a regular schedule. This procedure provides Mahr Federal and its customers with a link directly traceable to NIST, assuring not only that our standards are accurate, but the lab itself, the equipment and measuring techniques used are rigidly maintained. Thereby, our commitment to a constant quest for the highest reliability in industrial metrology is also constantly maintained.



Mahr Federal's calibration system is certified to ISO 9001:2000 by NQA, USA and accredited to ISO 17025 NVLAP Lab Code 200605-0.

For fast service
Call 1-800-486-8858