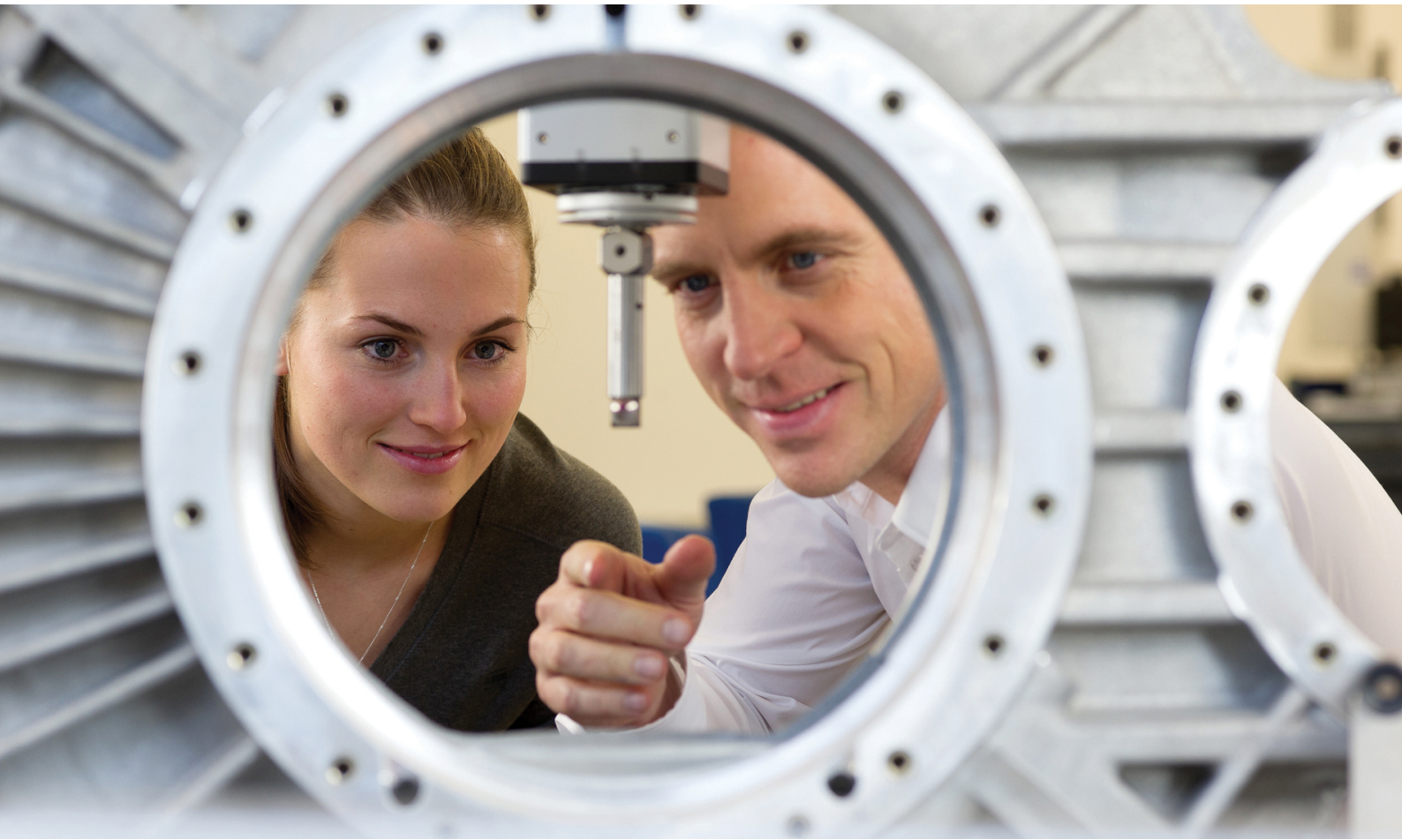


Improve Productivity by Retrofitting Hardware

CMMs — Reliable, High-quality Measuring Technology



ZEISS Retrofit

Performance Upgrade for your CMM



Seeing beyond

Future-Proofing Your CMM with ZEISS

How can you give your metrology equipment a new lease on life? If your decades-old coordinate measuring machine (CMM) isn't delivering optimal results, and is holding your quality department back, it needs to be retrofitted.

Make your CMM fit for the future. Individual retrofit products from ZEISS Industrial Quality Solutions can bring your outdated machines up to spec so you'll save money and stay competitive with modern standards.

Reasons to Retrofit

There are many reasons to retrofit an older CMM. And if you already have a CMM, modernizing it is so much less expensive than buying a new machine.

"It is conservatively estimated that there are more than 150,000 Coordinate Measuring Machines (CMM) in active service globally," says Metrology News. "Very many of these are more than 10 years old and in fact since CMMs are not subject to the daily rigors of most other forms of manufacturing equipment many 25-year-old CMMs can still be found measuring precision parts on a daily basis."

But the best reason to retrofit your CMMs is to keep pace with technological advancements. For example, the automotive industry is currently experiencing a shift with the popularity of new electric vehicles (NEV).

Different measuring applications than what would be used with powertrain are now required, including a need for optical sensors that can capture freeform surfaces.

Big Data is also becoming a major priority. "As Smart Factories and the connected shopfloor become the norm, old machines and systems gaining access to new technologies is critical," says Marc Mapanao, Product Specialist – HW Retrofit, ZEISS Industrial Quality Solutions. "Old machines can become smart machines, gathering data for analysis that contribute toward productivity and efficiency as well as increasing the total lifespan of the machine with preventative maintenance functionalities."

Challenges of Older CMMs

You have many factors to consider when deciding between purchasing new quality equipment versus modifying equipment already in your inventory. Of course, budget is a chief concern.

"Smaller, Tier 2 and Tier 3 job shops don't have budget for new machines," says Frank Canney, Product Manager, ZEISS Industrial Quality Solutions. "Cost savings are important, but you need the latest technology in order to stay competitive and be compatible with the OEMs you're supplying. Retrofitting your CMM can provide that advantage at a reasonable cost. For 35% to 50% of costs of new machine, you can rebuild an older machine."

Serviceability also becomes a problem as machines age. Older technicians retire and you can't find anyone with the expertise to service a CMM. But retrofitted CMMs are made vital again,

with the same hardware and software as a new CMM. These revamped machines can be serviced by a technician only familiar with contemporary systems.

There's also the question of seasoned employees who are resistant to change. They have been with a company for a long time and have been working with the same equipment for decades — they want more of the same, just upgraded. Retrofit means they don't need to learn new equipment as everything is brought to the same platform and same level and even be put in the same spot.

"A customer doesn't want to move a machine from its spot in a piece of granite, they just want new electronics, wiring and controllers," explains Canney.

Improve Performance and Expand Longevity in Your CMM

Benefits of a CMM Retrofit

- More complex components, shorter measuring times, huge amounts of data make retrofitted CMMs state of the art
- Fewer downtimes and fast service make for more confidence
- New features including a new controller, connections for additional measuring systems and up-to-date software enable compatibility for the latest technologies increase usability
- Extended life of machines that are <30 years old, including updating digital services
- Measurement machines all speak in one language with other systems on the shop floor, allowing them to function with uniform databases and cloud services across multiple locations and devices
- Like new, but more cost-effective with up to 70% cost savings compared to new equipment
- Up to 60% time-savings thanks to new functionalities
- Sustainability and the environment - Material efficiency is increased, and material and energy consumption are decrease

Performance Upgrade for your CMM. ZEISS Retrofit.

Retrofitting your current ZEISS CMM improves technological performance, increases functionality, makes for a more accessible operation and reduces repair costs.

"ZEISS offers comprehensive solutions for an entire software and hardware upgrade package," says Mapanao. "We can

replace the 16-bit controllers of a 10- to 15 year-old ZEISS PRISMO with 32-bit controllers. Now the machine allows for Retrofitted older machines also gain the ability to transfer parts with newly-purchased ZEISS machines. "Same software, same controller, same everything," says Canney.

ZEISS SensorFit

Sensors are the key factor in quality assurance right now with NEV, additive manufacturing and other industry advancements. ZEISS can install an optical sensor on a CMM for surface roughness or put articulating stylus on a ZEISS VAST, amongst many other options.

These retrofit options provide ZEISS CMMs with an unparalleled range of sensors for a multitude of measurement applications:

- The performance upgrade for maximum flexibility
- New wiring harness and controller cabinet and includes ZEISS FutureFit
- For ZEISS PRISMO, ZEISS CenterMax and ZEISS ACCURA with C99 controller from 2000 onwards



ZEISS FutureFit

The advanced upgrade for older devices

- Controller PC Retrofit includes control panel and small parts and includes ZEISS ConFit
- For ZEISS CMMs manufactured from 2000 onwards

ZEISS ConFit

The basic upgrade for more functionality

- Firmware retrofit including checks and adjustments of probe and drives
- For ZEISS CMMs manufactured from 2010 onwards

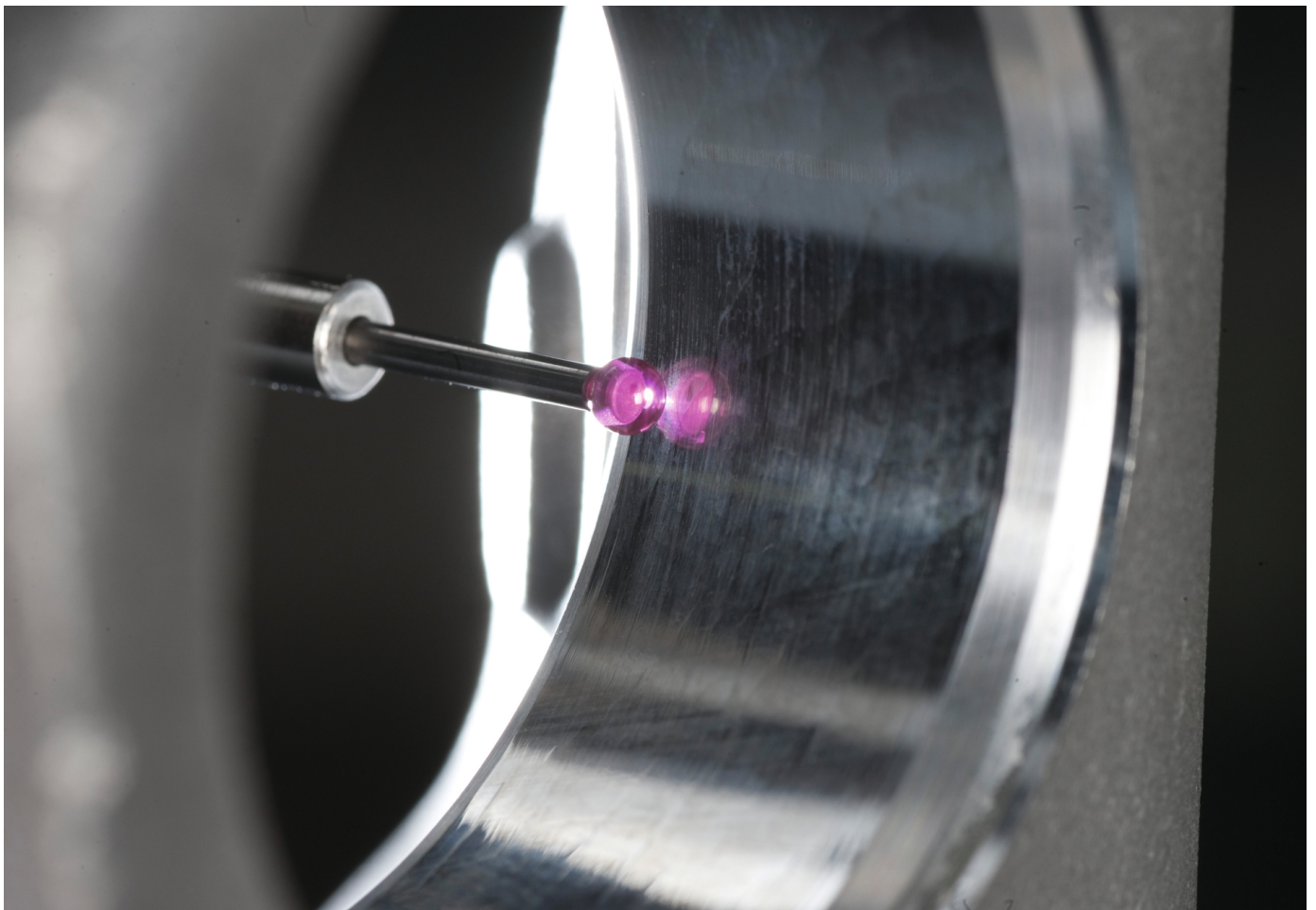
ZEISS Services — Installation, Training & Support

ZEISS will install your CMM retrofit — but the relationship with customers doesn't end there. "Our technicians provide all the training you need to be comfortable with your enhanced equipment," says Canney.

Training is available both on-site and at ZEISS Quality Excellence Centers across the country. As well, ZEISS offers self-paced, downloadable training.

We're also available for all the support you need if a machine goes down or isn't meeting your expectations. Our experienced industry veterans can provide in-person tech support or assist virtually.

The best benefit of all? A retrofitted CMM comes with the same one-year warranty as a brand-new machine!



Achieve Reliable Measurement Results with ZEISS Originals

Performance for Life

What can you do if your measuring machine is so old that it cannot be retrofitted?

Buying a new device is not the only option — you can achieve reliable measurement results with ZEISS Originals!

ZEISS Originals Systems are used measuring devices that have been checked and refurbished by our experts in accordance with strict criteria and individual requirements. You'll be able to stick to your budget while still achieving all your measuring needs with a used device made good as new.

Advantages of ZEISS Originals include:

- Technology updates to current manufacturer standards for hardware/software
- Replacement of all worn parts
- Device tested to ISO standards
- 12-month manufacturer warranty (the same as a new device)
- Guaranteed availability of replacement parts up to 10 years old (depending on the device type)

ZEISS' standards remain the same regardless of whether you are the first or second owner of a measuring device. Harness the full potential of your quality assurance and achieve reliable measuring results with ZEISS Originals!





Conclusion

A new hardware and software retrofit will revitalize your ZEISS CMM into cutting-edge equipment. Your company will increase productivity, extend machine life and increase accuracy.

Your CMM isn't obsolete or over the hill. Contact us today to retrofit your measurement machine to be like new!

Contact us to learn more information.
