

## PORTABLE COORDINATE MEASUREMENT MACHINES

Our systems combine large volume and increased accuracy with the widest range of applications. Simple to operate, they are the most affordable portable CMM systems on the market.

Compare tools, parts and assemblies to CAD or blue-print, using the LED application kit option to efficiently study deformation and process repeatability, or take the system to your supplier or customer to investigate problems with interfacing parts. Metronor systems also support efficient alignment of objects in position and orientation in 6 degrees of freedom.

Using one or two cameras and a hand-held wireless probe, the systems versatility and portability address all your geometry-related issues, while providing high-end coordinate measuring capability anywhere in the production process.



## ABOUT METRONOR

Metronor is a high technology company headquartered just outside Oslo, Norway, with subsidiaries in the US, Germany and China, globally supporting partners and customers.

Based on in-house innovation and research, Metronor has since 1989 developed a range of electro-optical portable coordinate measuring systems that have become popular among leading manufacturers worldwide.

Metronor's management system is certified to ISO 9001 and complies with ISO 14001.

For more information, please visit our website [www.metronor.com](http://www.metronor.com)



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Presenting

# Capability Options



## LED APPLICATION KIT

Metronor DUO in combination with the LED application kit is unique in measuring many points simultaneously.

Study repeatability of machines, track deformations and align parts with this added functionality. Even determining the effects of stress on materials and parts is possible, as described in our Schmitz Cargobull case study.



System applications include:

- In-process inspection
- On-machine inspection
- Deformation analysis
- Large assembly measurement
- Process repeatability verification
- Root cause analysis – check tool, parts, variation and interference in single session



## VIBRATION STABILITY CONTROL KIT

The Vibration Stability Control Kit is designed for shop-floor use and includes unique features that cancel environmental changes. It allows precise measurements where shocks, vibration or severe temperature changes would otherwise be a problem – such as in or near stamping plants or loading docks – or where object fixturing during measurement is not practical.

It enables the system to mathematically maintain the same camera-to-object relationship, even if the object in reality has moved relative to the cameras, resulting in precise measurements also in unstable environments or on unstable objects.



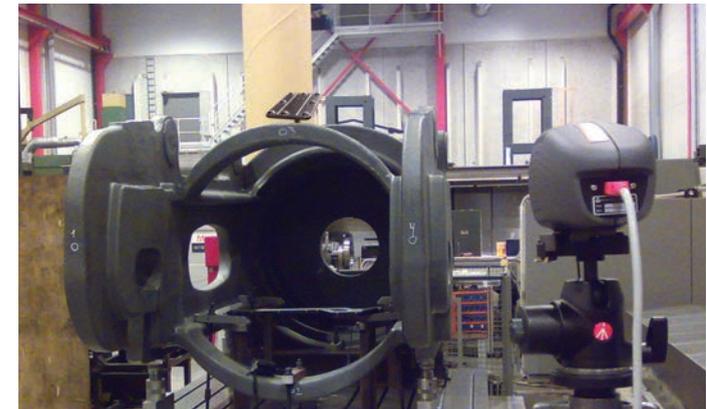
## PRECISION POSITIONING KIT

The Precision Positioning Kit is the fastest and most flexible way to precision-assemble parts with continuous part-position and orientation updates in all 6 degrees of freedom. It saves the cost of expensive assembly and mating tooling.

Optimized for high-accuracy inside a small range of angles, its stable planar carbon structure with embedded LEDs is designed for precise fine-tuning of object position – for example of large castings on the milling machine bed.

Advantages:

- Real-time alignment/guidance
- Environment independent



## MODULARITY

All Metronor systems are modular and can be easily extended or upgraded. By turning a DUO into a SPLIT you will be able to separate your system into two completely independent SOLO systems. A system that can grow alongside your production and needs – giving you the performance for more measurement tasks.