

# Visible Productivity. Productive measuring with PRO<sup>®</sup> and PRO T<sup>®</sup>.



We make it visible.

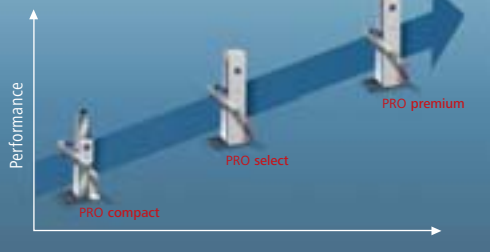
## PRO® and PRO T®: the Platforms for Productivity

**PRO** - the universal measuring machine designed for the initial batch of parts up to analysis - from the first sheet to the first tool, from a cubing model to a complete car body. **PRO** allows you to complete all these measuring tasks with one machine.

### Machine concept

#### Upgrade strategy:

Sensor system / speed / accuracy



#### Bionic design

- Unique trapezoidal design of the Y and Z axes for unparalleled rigidity
- Separation of the basic mechanical structure and guideways for more efficient maintenance

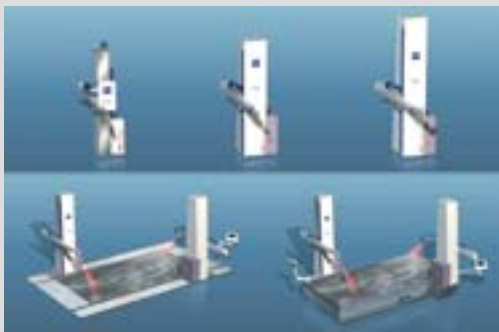
#### PRO® Platform

- Modular design for optimum configuration to the range of measuring tasks and investment levels

#### Solid investment

- Upgrade strategy for sensor mounts, sensor systems, travel speed and accuracy

### Machine technology



#### Linear guideway in all three axes

- For high accuracy, speed and long-term stability
- Acceleration up to 1500 mm/s

#### PRO®: measuring beam with large cross section and three-point bearing

- For high long-term accuracy without additional costs for realignment of the beam
- Short installation times

#### PRO® T (floor version): Lateral guideway on own rigid measuring plate

- For high long-term accuracy
- Optional active vibration damping

### Measuring range



#### PRO measuring volume

- X 5000 mm to 10000 mm
- Y 1600 mm
- Z 2100 mm, 2500 mm, 3000 mm

Other measuring ranges on request



#### PRO T measuring volume

- X 3200 mm to 6200 mm
- Y 1600 mm
- Z 2100 mm, 2500 mm

Other measuring ranges on request

## Sensor system

### Interface design with multi-sensor interface (MSI)

- For high productivity
- Upgrade to a different sensor system and sensor mount at any time
- Same Y measuring range with articulating and non-indexing sensor mounts

### RDS-CAA articulating probe holder

- Maximum availability through short calibration times, 2.5° angular position 20736 positions

### DSE articulating probe holder with EagleEye Navigator (only with PRO premium)

- For optical, fast and touch-free process controls



## Operation

### Moveable Dynalog P control panel

- Graphic display for best possible operating comfort
- All operating elements in a compact, mobile unit
- Manual operation of measuring machine and articulating probe holder for variable speed control

### Optional: numerical control panel

- All operating elements in a compact, mobile unit
- Manual operation of measuring machine and articulating probe holder for variable speed control



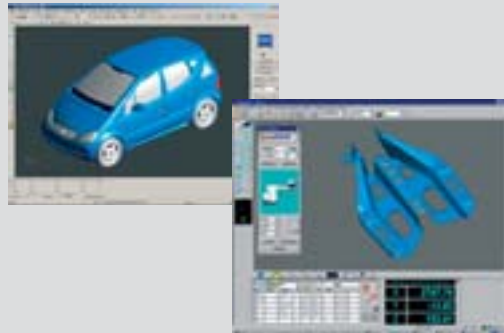
## Software

### Easy-to-use, precise software

- Available with CMM-OS or DME control and evaluation software
- Supports HOLOS, Metrolog and DMIS Engine software
- Permits connection of third-party software, e.g. Metrosoft CM

### TeleService

- Onboard diagnostics
- Software upgrade and user assistance



## Precision

### Optimum accuracy

- Uniform for PRO and PRO T

### Basic accuracy for Y = 1600 and Z = 2100 and 2500 measuring volumes:

- |                                    |                                                     |
|------------------------------------|-----------------------------------------------------|
| <b>PRO compact</b>                 | ● MPE E = $(30+L/70) \mu\text{m} \leq 80$ (Single)  |
|                                    | ● MPE E = $(40+L/50) \mu\text{m} \leq 100$ (Dual)   |
| <b>PRO select/<br/>PRO premium</b> | ● MPE E = $(25+L/100) \mu\text{m} \leq 60$ (Single) |
|                                    | ● MPE E = $(40+L/70) \mu\text{m} \leq 90$ (Dual)    |

### High accuracy: (optional)

- MPE E =  $(18+L/125) \mu\text{m} \leq 50$  (Single)
- MPE E =  $(30+L/80) \mu\text{m} \leq 75$  (Dual)



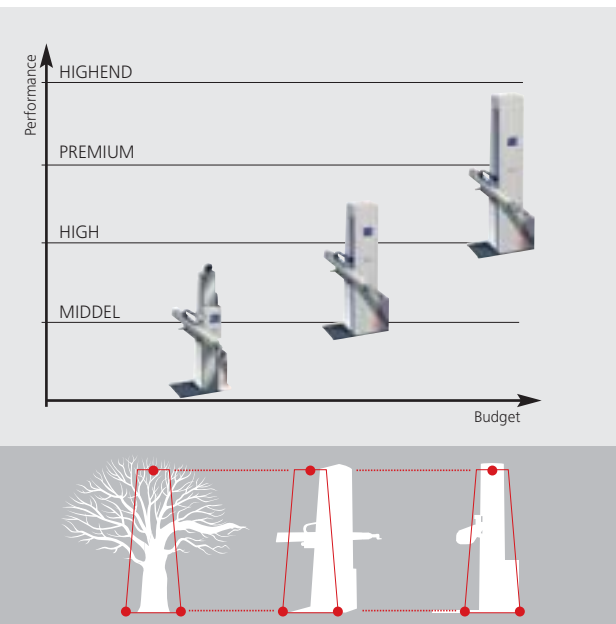
# PRO® and PRO T®: productivity made to measure.



**The productivity of a measuring machine is directly related to its flexibility - particularly in the automotive and supplier industry. The easier a coordinate measuring machine can be adapted to changing product requirements, the more profitable it becomes.**

## The platform strategy

- PRO® Compact, PRO® Select and PRO® Premium feature a modular design, enabling the machine to be configured to the particular range of tasks and current investment levels.
- PRO® is an absolute solid investment as the platform strategy is also designed to meet future demands. This allows you to increase the productivity of PRO by adjusting the sensor system, travel speed, and accuracy.
- With PRO® T, the X measuring range within the machine category can be expanded as often as necessary by simply enlarging the measuring plate.



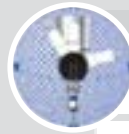
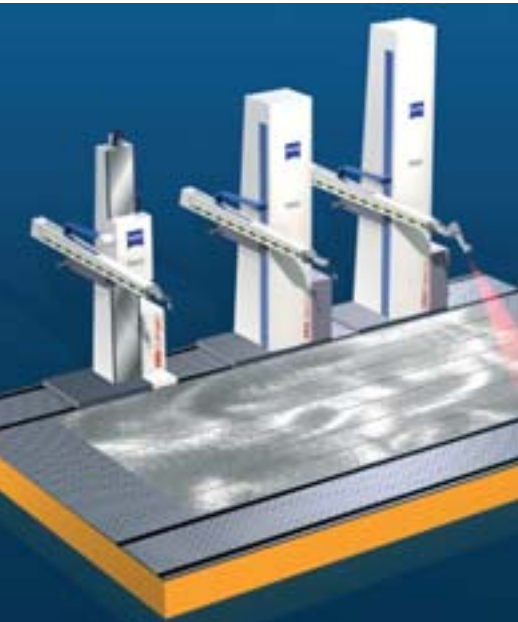
### Machine strategy

- The bionic design on PRO® permits the separation of mechanical floor structures and guides.
- Combined with the unique trapezoid design of the Y and Z axes, PRO® provides maximum inherent rigidity, thus enabling maximum speed with unparalleled accuracy.
- Flexibly adapted to a variety of measuring situations, investment volume and throughput, PRO® provides as much measuring technology as needed and is still ready for future applications.

### Machine technology

- The linear guideways used in all PRO® machines ensure high accuracy, speed and long-term stability. You receive fast and highly accurate measuring results.
- The measuring beam on PRO® is equipped with an exceptionally large cross section and a three-point bearing. This is another design feature that also considerably increases the long-term stability of PRO®. There are no unnecessary costs for re-adjusting the beam.
- The measuring beam guided laterally on the rigid measuring plate on the PRO® T also contributes to long-term accuracy.

# PRO®-Platform: the right measuring machine for all requirements.



RDS-CAA		PH10M
2.5°	Angle	7.5°
20736	Number of positions	720
350 mm PECF	TP6 extension	200 mm PAA
350 mm PECF	TP20 extension	300 mm PAA
6 min	Length of calibration for 50 pos.	180 min
Joystick	Manual swivel	with HCU1

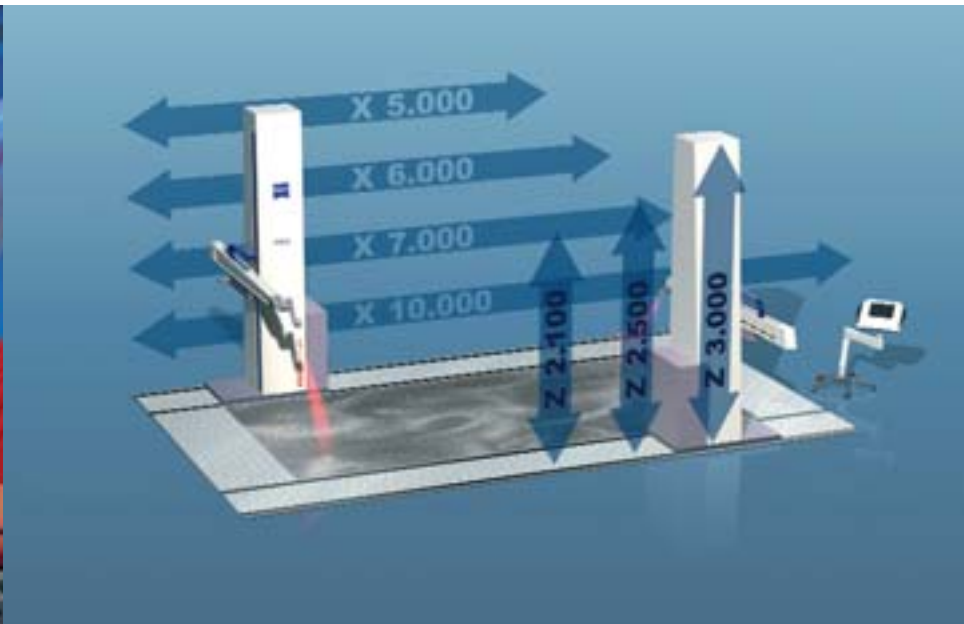


*Comparison of RDS-CAA and PH10M: while the standard calibration method requires 3 hours for only 50 angular positions, the entire calibration procedure with RDS-CAA needs only 6 minutes for all angular positions.*

**The machine strategy behind the PRO® line is based on a completely new platform strategy. All three product lines consist of a common base and can be “upgraded” at any time. This enables all three models, whether on the floor or flush floor, to be customized to the current working conditions. All three product lines offer maximum throughput at minimum cost.**

## Sensor system

- PRO® is equipped with a new interface design featuring a multi-sensor interface (MSI). The interface design makes it possible to retrofit different sensors and sensor mounts at any time.
- PRO® Premium is equipped with DSE and RST-P ex works. PRO Premium can be equipped with EagleEye Navigator for fast, touch-free measuring.
- PRO® Compact and PRO® Select come standard with RDS-CAA and RST-P or TP 6. The TP 20, PH10M and MIH sensors are optional.
- The Y measuring range remains unchanged with articulating and non-indexing sensor mounts.



## Operation

- The measuring machine and articulating probe holder can be controlled remotely with the computer-independent Dynalog control panel via the joystick. An overdrive function enables speed control during CNC operations. All operating elements are integrated in a compact, mobile unit.
- The 12" TFT monitor integrated into the control panel provides all measuring software functions right at the measurement location. You can work efficiently without long distances.
- PRO® can also be equipped with a numerical control panel.
- The unique safety strategy consisting of a buckling sensor and a light barrier (optional) protects the sensor system, sensor mounts and operator from dangerous and costly collisions.

## Software

- All PRO® models are equipped with CMM-OS or DME control and evaluation software.
- This automatically supports HOLOS, Metrolog and DMIS Engine.
- Furthermore, third party software can also be easily used, e.g. Metrosoft CM.
- All PRO® models are equipped with TeleService ex works. Onboard diagnostics, software updates, and user support are available via direct access to the measuring machine.

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