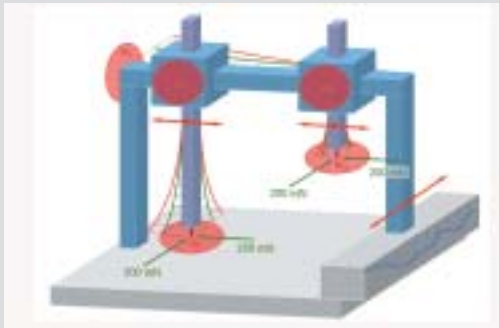# ACCURA®.

ZEISS

We make it visible.

ACCURA – the high performance class in multi-sensor technology

Optimizing all processes was a high priority right from the start of product development. The result is an affordable solution for both the measuring lab and form production applications. At the same time, all ACCURA models are able to use multi-sensor technology in dimensional metrology.

Machine strategy

Multi-sensor system

- Optical and touch-probe measuring technology integrated in one machine
- Active and passive Scanning Sensors applicable
- CAA (Computer Aided Accuracy) for computer-aided error correction of the kinematics
- In-house development of all function-related controllers, software, and sensors ensures an optimally aligned system

Machine technology
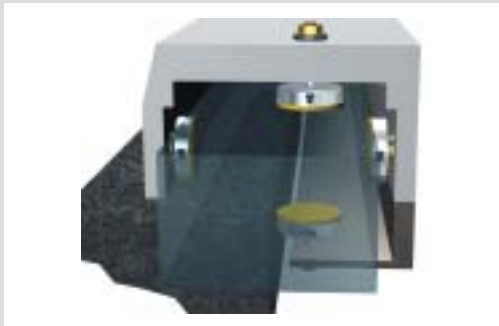
Sturdy design

- Granite table
- Highly rigid, light bridge construction made of a thermally stable composite material
- All axes with 4-side air bearings
- Fully enclosed X axis and Y drive axis
- Zerodur scales with patented thermally neutral frame
- Passive elastomer vibration damping
- Pre-wired for touch-probe and optical sensors

Measuring range
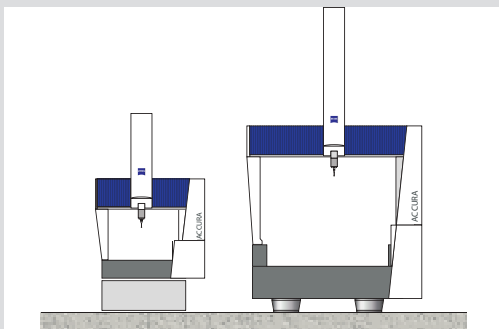
Measuring volume

- The broad range of sizes covers every measuring task
  Z measuring range from 500 – 1400 mm
  Bridge width from 700 – 1800 mm
- The measuring range position and the working surface ensure optimal use of the measuring range of the bridge working area and the permissible stylus extensions
- Integrated rotary table (4th axis)

Optional RDS-CAA or VAST XT for standard configuration
- RDS articulating probe holder with lateral swivel axis changes automatically with a wide range probe heads
- Rotation/swivel range of ± 180°
- VAST XXT makes it possible to scan on the articulating probe holder

Active scanning with VAST XT
- Active scanning probe head for touch-probe scanning and single-point measurements

Numerical control panel

Computer-independent standard control panel
- For remote manual, joystick control
- Overdrive for speed control in CNC modes

Multi software capable

Functional and user-friendly Zeiss software library
- Object-optimized programming
- Basic package and options cover practically all application requirements
- Navigator function enables automatic generation of measurement strategies
- Graphical protocol configuration and statistic
- Measuring of free-form-surfaces with HOLOS
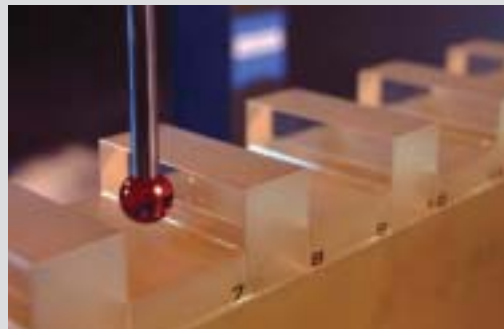- Reverse engineering with Dimension

HOLOS

GEAR PRO

Calypso

Measuring uncertainty

All ACCURA machines have extremely low dimension errors at an ambient temperature between 18 − 24 ºC
- Linear measuring tolerance with VAST XT is between 1.7 + L/300 with ACCURA 5+7 and 3.5 + L/250 with ACCURA 14 with a stylus length of 60 mm

ACCURA – more bang for the buck

Many factors influence whether or not a measuring machine works economically and thus productively. When designing ACCURA, we used proven Carl Zeiss technology for all machine components. It is a guarantee for maximum reliability and precision and therefore for productivity.

Machine technology

- Proven Zeiss technology such as bearing and drive components, sensors, controllers, high-quality measuring systems and scales guarantee maximum reliability and precision.

- The full enclosure of the X axis, which is unique in this class, reduces maintenance and repair costs. This increases operational safety and lowers the costs for preventive maintenance considerably.

- The latest control and wiring technologies are the basis of multi-sensor technology.

Measuring range

- ACCURA is available in different sizes and configurations – exactly as required by the range of parts, measuring tasks and production conditions.

- ACCURA features an ergonomically designed workstation, fully-integrated Zeiss controller, protected cables for peripheral devices and lockable computer tray.

- With ACCURA, all measuring technologies are integrated: ACCURA makes multi-sensor measuring more economical. The right sensor is available for every measuring task.

Improve process quality

- ACCURA demonstrates its full power with the VAST probe heads with active scanning technology and the automatic stylus changing system for maximum scanning performance.

- ACCURA uses scanning technology to deliver highly accurate and reliable measuring results. In addition to size and position, form measurements can also be completed in a single run.

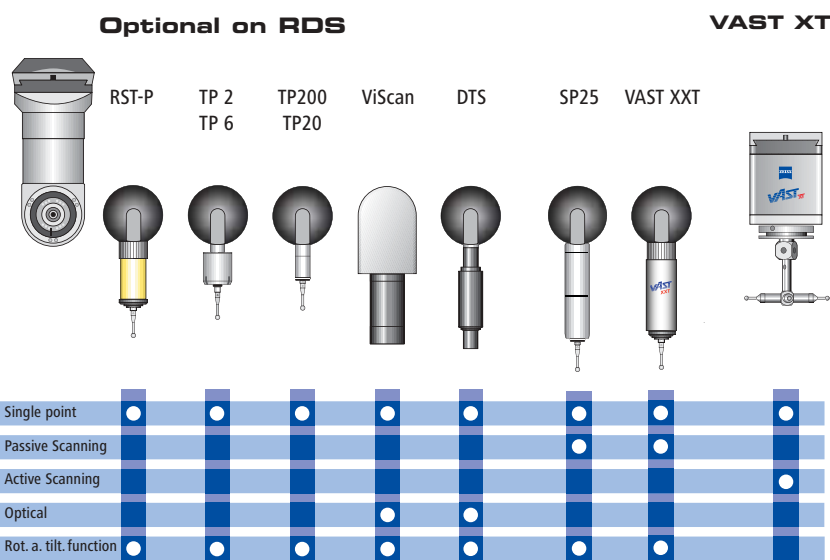- ACCURA offers absolute flexibility.

The all-in-one strategy offers ultimate flexibility
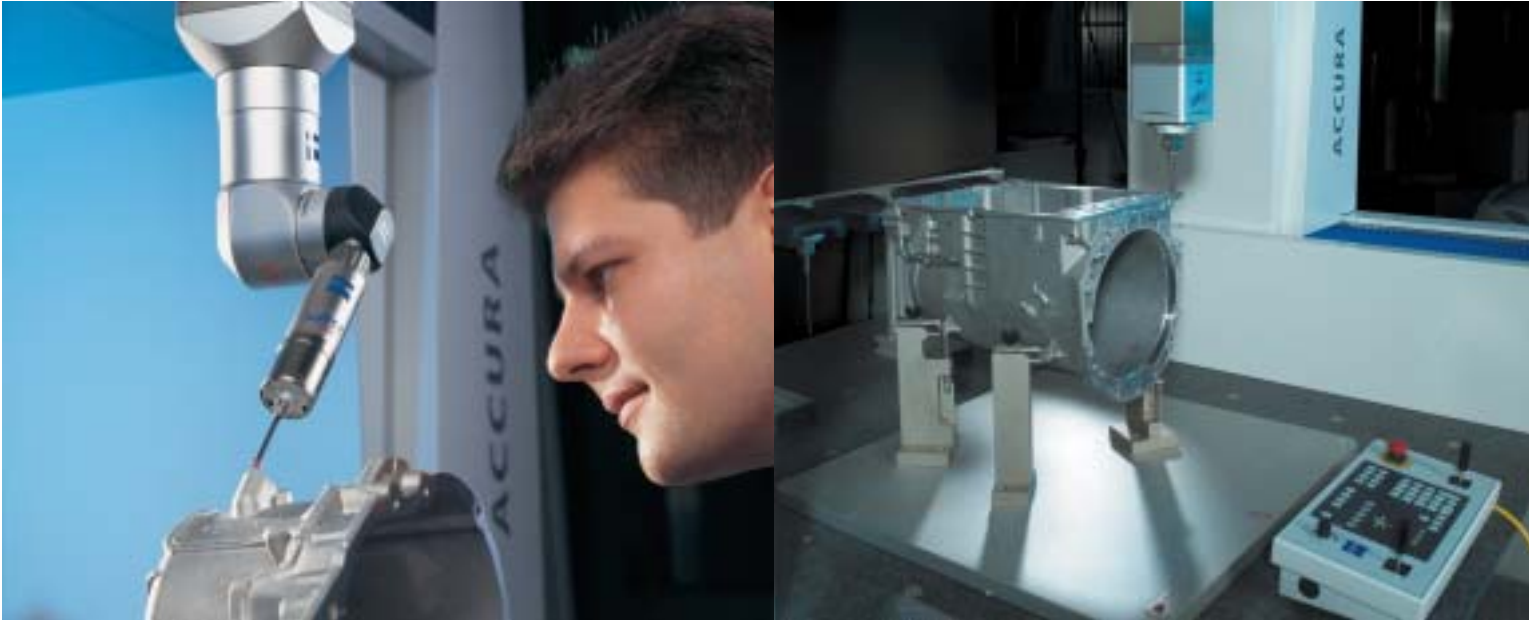
The latest control and wiring technology are the heart of multi-sensor technology. The selection of touch-trigger probes, which can be automatically changed using the RDS articulating probe holder, up to the VAST probes with active scanning technology, provide ACCURA with unparalleled flexibility. The economical system package is supplemented with modular magazine technology combined with an automatic stylus rack.

Design features

- The combination of carbon fiber composites and ceramic in the bridge assembly reduce the weight of ACCURA without compromising rigidity. This ensures optimum precision and reliably reproducible results even at high measuring speeds.

- Ceramic is thermally stable meaning that temperature fluctuations have practically no influence on the reliability of the results.

- Measuring range position, working surface, large bridge working area and the permissible styli extensions ensure optimal use of the measuring range.

- All axes are equipped with 4-sided Carl Zeiss air bearings to provide more stability and a highly precise measurement.

Optional on RDS

VAST XT

	RST-P	TP 2 TP 6	TP200 TP20	ViScan	DTS	SP25	VAST XXT	
Single point	●	●	●	●	●	●	●	●
Passive Scanning						●	●	
Active Scanning								●
Optical				●	●			
Rot. a. tilt. function	●	●	●	●	●	●	●	

Sensor system

- With ACCURA, you have the choice between the VAST XT active scanning probe and a wide range of sensor options for the RDS. The right sensor is available for every measuring task.

- An ideal team: VAST technology combined with the flexibility of an articulating probe holder – the VAST XXT passive scanning sensor for RDS makes it possible. VAST XXT as a replacement for trigger sensors increases operational safety and the accuracy of the measurement. It also adds scanning functionality to the measuring pallet, thus permitting a form measurement of the features.

- ViScan – the solution for optical measurements. The ViScan optical sensor can be automatically exchanged via the multi-sensor rack

on the RDS. This allows you to perform touch-probe and optical measurements in one measuring run and one software environment. The automatic feature recognition and the auto focus are unbeatable.

- Thanks to the multi-sensor rack from Carl Zeiss, all available sensors or sensor-rack magazines can be changed.

Software

Three essential advantages place CALYPSO on top of the list:

- Easy creation of measurement plans with to object-oriented programming
- Software and sensor flexibility while measuring
- Application-specific output of measuring results

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