



Large Bridge-type and Gantry Measuring Machines
Reliable inspection of large workpieces



We make it visible.



// PRECISION
MADE BY CARL ZEISS

The moment you receive
a new definition of accuracy.
This is the moment we work for.



Measuring technology on a large scale

Our products for mid-sized and large parts

In the aerospace industry, in vehicle and mechanical engineering, and in many other fields, measuring machines with a large measuring range are needed that do not compromise when it comes to precision. Carl Zeiss sells table, bridge-type and gantry measuring machines in various sizes. Select the appropriate optical or contact sensors. Together with the superior software from Carl Zeiss, you receive a futureproof solution tailored to your needs.



ACCURA 2000

Sizes up to
x 2000 mm | y 4200 mm | z 1500 mm

Length measuring error [μm]:
from $3.9 + L/300$

MMZ T

Sizes up to
x 2100 mm | y 4400 mm | z 1600 mm

Length measuring error [μm]:
from $2.4 + L/400$

MMZ E

Sizes up to
x 2500 mm | y 6000 mm | z 1800 mm

LängLength measuring error [μm]:
from $3.5 + L/230$



MMZ B

Sizes up to
x 3000 mm | y 6000 mm | z 2000 mm

Length measuring error [μm]:
from $4.7 + L/230$



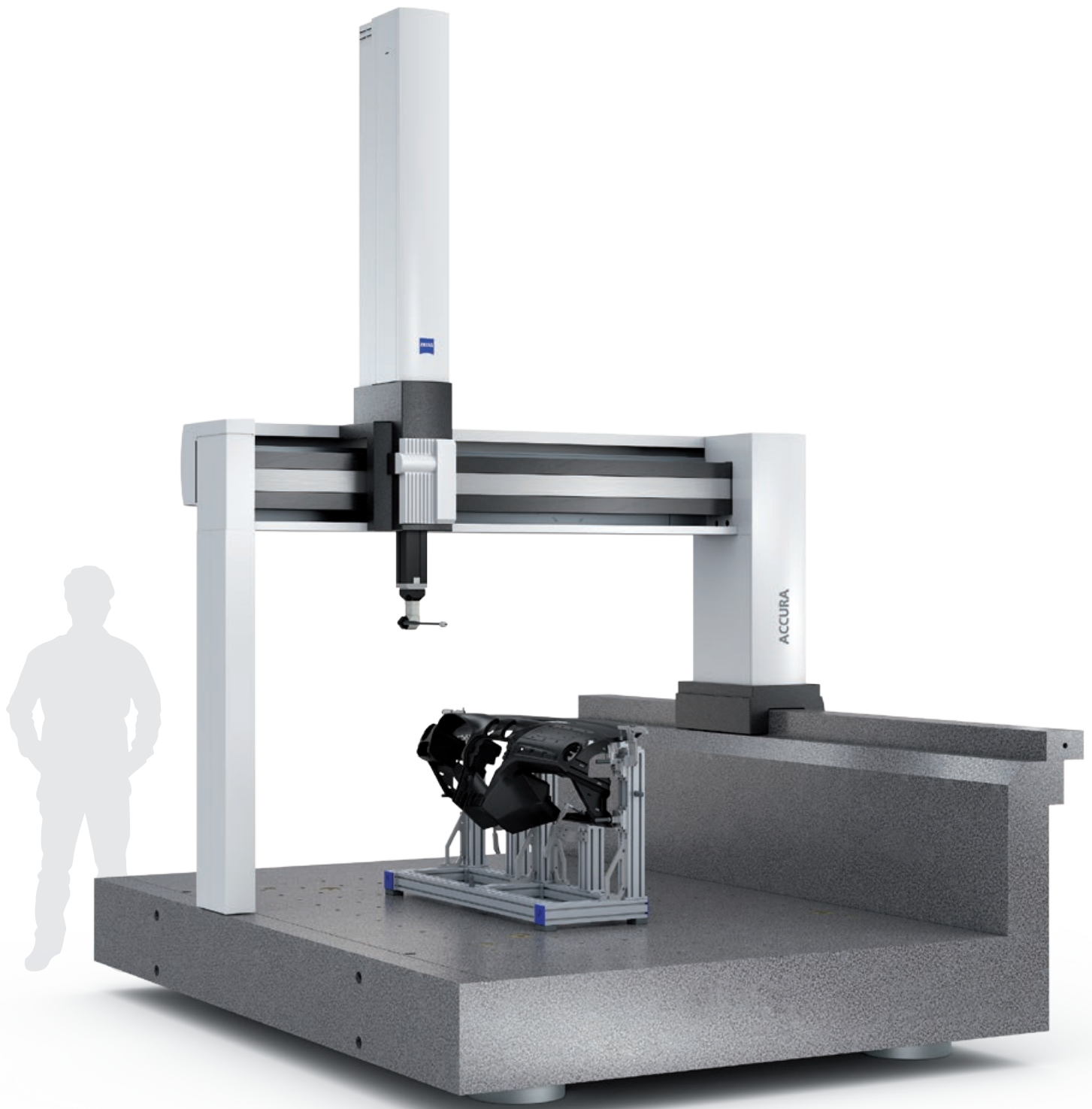
MMZ G

Sizes up to
x 6000 mm | y 8000 mm | z 3500 mm

Length measuring error [μm]:
from $2.2 + L/400$

ACCURA 2000 bridge-type measuring machine

Tailored to your needs and budget



The platform concept of the ACCURA 2000 allows you to configure the measuring machine to your needs. If your requirements on equipment, sensors and software change, ACCURA 2000 changes too. You benefit from an attractive price and low life-cycle costs. The technical highlights of ACCURA 2000 include the innovative insulation technology, new air bearings for short travel distances and higher workpiece throughput. The maintenance-friendly design ensures maximum availability.

Temperature independence thanks to F.I. technology

Temperature fluctuations must be taken into consideration, particularly with measuring applications near production. The bridge of the new ACCURA 2000 is equipped with a unique, high-performance insulation system that ensures the required precision in shop floor operations.

Maximum sensor flexibility

All available sensors from Carl Zeiss can be used on the ACCURA 2000. "mass" multisensor technology enables the time-saving change out of optical and contact sensors.

Freely selectable measuring temperature (20-26°C)

Measuring machines must be operated under constant temperatures. With the ACCURA 2000, you can freely select the measuring temperature and reduce air conditioning costs.

Performance Package featuring navigator technology

The Performance Package for ACCURA 2000 contains VAST navigator for even more accurate scanning. This technology always achieves maximum travel and scanning speed, thus reducing your valuable measuring time to a minimum. The necessary safety technology with laser monitoring is also part of the package.

Options

- "mass" multisensor technology
- Rotary table to measure rotationally symmetric parts
- RST-T temperature sensor with active interface

Sizes in mm		
X	Y	Z
2000	2400	1000
2000	3000	1000
2000	4200	1000
2000	2400	1500
2000	3000	1500
2000	4200	1500

Accuracy

Length measuring error [µm]:
from 3.9 + L/300

Sensoren

VAST gold, VAST XT gold, VASTXTR

On RDS articulating probe holder:
VAST XXT, VAST XDT, ViScan, LineScan

MMZ T table bridge-type measuring machines

The fascinating combination of measuring range and precision.
Ideal for large gears



With a measuring range of up to 14.8 m³, the MMZ T line is the largest of the table bridge-type measuring machines from Carl Zeiss. It allows the highly precise measurement of large gears directly on the shop floor. The open design enables easy loading with a crane. A crane interlock to protect against collisions is a standard feature.

The MMZ T line is particularly robust. Roller bearings make the system insensitive and also deliver good guideway characteristics. Insensitivity to temperatures and high rigidity are achieved through the homogeneous mix of materials and the FEM-optimized structure. The compact design and the standard insulation against vibrations eliminate the need for a foundation in most cases, even with heavy workpieces.

The MMZ T features computer aided accuracy (CAA) to ensure the high level of accuracy at every measured point. Additional highlights include the all-around collision protection for the ram and the probe, and the temperature compensation for the workpiece and scales.

VAST navigator technology

The MMZ T is equipped with the VAST gold active scanning probe. A software wizard automatically determines the maximum scanning speed. The standard navigator technology increases the quality of the results and the measuring performance.

Options

- “mass” multisensor technology
- Stylus rack for stylus and probe systems
- Rotary table to measure rotationally symmetric parts, integration possible and thus no loss of measuring range
- Dynalog control panel with 12” TFT display

Sizes in mm

X	Y	Z
2100	3200	1200
2100	3200	1600
2100	4400	1200
2100	4400	1600

Accuracy

Length measuring error [µm]:
from 2.4 + L/400

Sensors

VAST gold, VAST XT gold, VAST XTR

On RDS articulating probe holder RDS:
VAST XXT, VAST XDT, TP6

MMZ E gantry measuring machine

Ideal for the flush-floor loading of large parts



MMZ E gantry measuring machines are ideal for the inspection of workpieces that are transported via floor conveyors as they offer open access from all four sides. Crane loading can also be easily achieved. MMZ E measuring machines are used in the mechanical engineering, automotive and aerospace industries, and for the inspection of satellite technology. They are particularly well suited for the inspection of large freeform surfaces.

The MMZ E line is known for its superior measuring technology and dynamic properties. It impresses with its accuracy, speed and reproducibility – even on the shop floor. This is due to the particularly rigid, but lightweight design with aluminum parts, the temperature-tolerant anchor system and the specially coated and ground guideways.

Sizes in mm		
X	Y	Z
2000	3000	1000
2000	4000	1000
2000	3000	1500
2000	4000	1500
2000	5000	1500
2500	4000	1500
2500	5000	1500
2500	6000	1500
2500	5000	1800
2500	6000	1800

ACTIVE

Standard components

- VAST Navigator
- “mass” multisensor technology
- Temperature sensors for linear temperature compensation

Options

- Rotary table to measure rotationally symmetric parts
- Stylus rack for stylus and probe systems
- Dynalog control panel with 12” TFT display

Accuracy

Length measuring error [µm]:
from 3.5 + L/230

Sensors

VAST gold, VAST XT gold

On RDS articulating probe holder RDS:

VAST XXT, TP6

COMPACT

Options

- Temperature sensors for linear temperature compensation
- Stylus rack for stylus and probe systems
- Dynalog control panel with 12” TFT display

Accuracy

Length measuring error [µm]:
from 4.0 + L/170

Sensors

On RDS articulating probe holder RDS:
VAST XXT, TP6, TP20, TP200

MMZ B gantry measuring machine

For maximum requirements on accuracy



*Similar to image shown

Compared to the MMZ E gantry measuring machines, the MMZ B line features a more rigid design. Together with the VAST gold scanning sensor, it delivers higher accuracy and performance. At the same time, the design focused on quality reduces maintenance and calibration work.

Because of the gantry design, MMZ B measuring machines are ideal for the inspection of large parts or assemblies transported via floor conveyors. Crane loading can also be easily achieved. Fields of application include the mechanical engineering, automotive and aerospace industries, as well communication and satellite technology.

Very rigid construction

The MMZ B features a round X axis. The special design ensures very high rigidity at minimal weight and minimizes rotation in the X axis during travel. The two Y guideways are made of drawn, tempered, ribbed steel in a V shape. The material and design ensure maximum rigidity even at high speeds.

Double drive

In order to meet the needs of higher moving masses, the MMZ B 3000 (X measuring range = 3000 mm) has two drives in the Y axis – one in each Y guideway. This ensures high travel speed, low measuring uncertainty and short acceleration and stopping distances.

Options

- VAST Navigator
- “mass” multisensor technology
- Stylus rack for stylus and probe systems
- Rotary table to measure rotationally symmetric parts
- Dynalog control panel with 12” TFT display
- Temperature sensors for linear temperature compensation

Sizes in mm

X	2000, 2500, 3000
Y	3000, 4000, 5000, 6000
Z	2000

Available in all size combinations.

Accuracy

Length measuring error [µm]:
from 4.0 + L/166

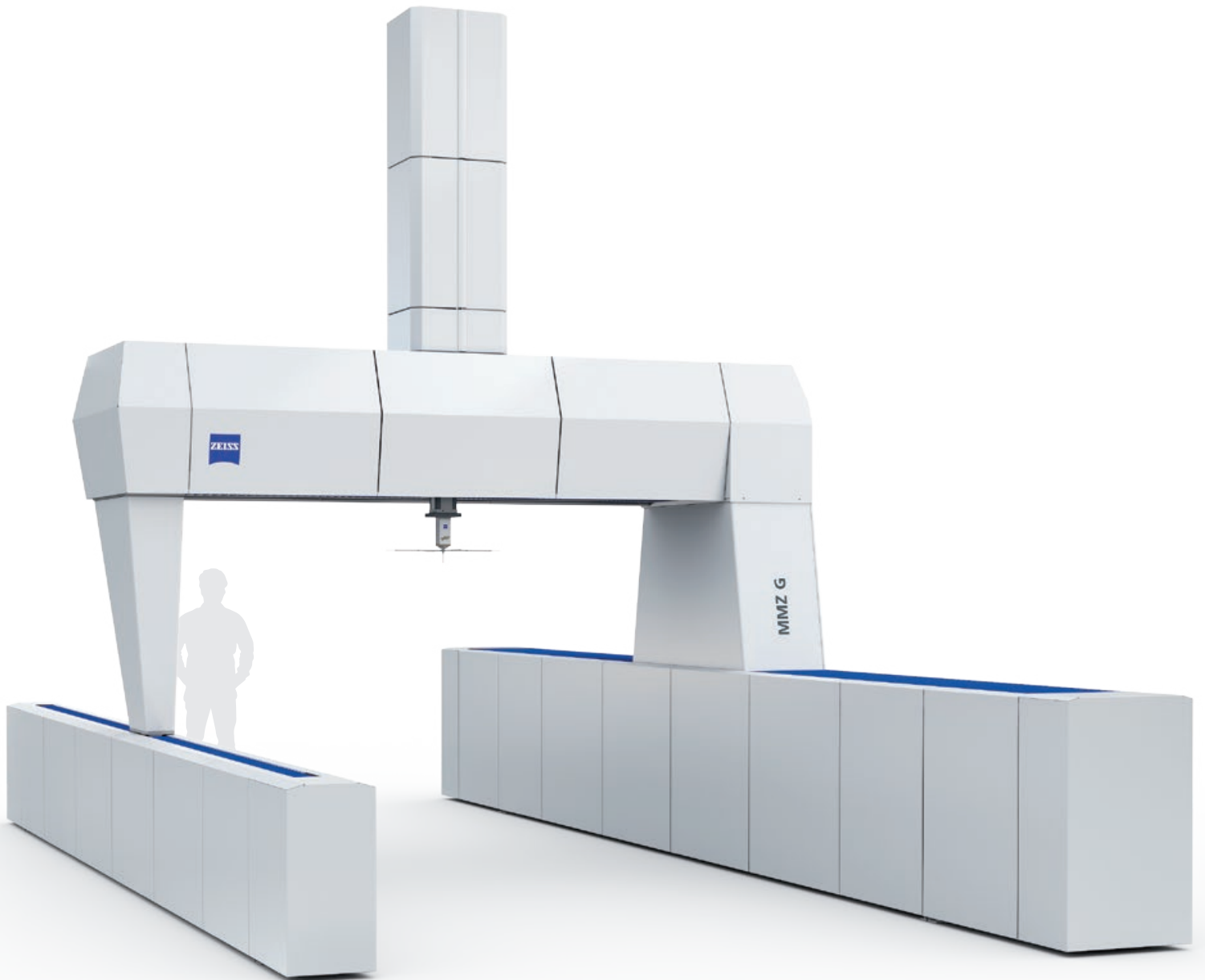
Sensors

VAST gold, VAST XT gold

On RDS articulating probe holder RDS:
VAST XXT, TP6

MMZ G large bridge-type machines

Unparalleled greatness



Large bridge-type machines in the MMZ G line meet the highest demands: they feature the largest measuring range of all measuring machines offered by Carl Zeiss with unparalleled accuracy. This makes them ideal for the inspection of complex large parts. MMZ G machines are used by manufacturers of printing machines and wind turbines, as well as the automotive and aerospace industries.

The MMZ G measuring machines ensure production quality even on the shop floor where they are exposed to increased temperature ranges and air impurities. They can be loaded from all sides by a crane or floor conveyor. A crane interlock to protect against collisions is a standard feature.

The MMZ G line is particularly robust. Roller bearings make the system insensitive and also deliver good guideway characteristics. Insensitivity to temperatures and high rigidity are achieved through the homogeneous mix of materials and the FEM-optimized structure. The maximum permissible workpiece weight depends on the foundation. Perfect flexibility is offered in the design of the measuring range: the largest bridge features a range of 193 m³ and has an 11 meter Y axis.

The MMZ G line features computer aided accuracy (CAA) to ensure the high level of accuracy at every measured point. The ram and probe come standard with collision protection.

VAST navigator technology

The MMZ G is equipped with the VAST gold active scanning probe. A software wizard automatically determines the maximum scanning speed. The standard navigator technology increases the quality of the results and the measuring performance.

Options

- "mass" multisensor technology
- Stylus rack for stylus and probe systems
- Rotary table to measure rotationally symmetric parts

Sizes in mm	
X	2000, 2500, 3000, 3500, 4000, 4500, 5000, 6000
Y	3000, 4000, 5000, 6000, 7000, 8000
Z	1200, 1600, 2000, 2500, 3000, 3500

Available in all size combinations
Additional sizes upon request.

Accuracy

Length measuring error [µm]:
from $2.2 + L/400 < 12$

Sensors

VAST gold, VAST XT gold

On RDS articulating probe holder RDS:
VAST XXT, TP6

Carl Zeiss
Industrielle Messtechnik GmbH
73446 Oberkochen
Germany

Sales: +49 (0) 7364/ 20-6336
Service: +49 (0) 7364/ 20-6337
Fax: +49 (0) 7364/ 20-3870
Email: imt@zeiss.de
Internet: www.zeiss.de/imt