GageMax. The flexible gage for production and shop-floor.

GageMax

ZEISS

We make it visible.

Excellence in production metrology: the MaxLine.

Quality assurance should be performed at the site of production. This is how manufacturing errors can best be identified and even avoided in the best case scenario. We not only provide the answer to this customer requirement with our MaxLine, but are continuing to enhance it. Carl Zeiss is one of the leading manufacturers of inprocess measuring technology.

Measure where you manufacture.
It literally started on a small scale – with a manually operated measuring machine for quick in-line jobs. **ScanMax** was the first measuring machine of the MaxLine to operate right in the center of production. Without a metrology room, with high flexibility and superb precision.
With **CenterMax** we brought tomorrow's metrology to the shop-floor today. Its resistance to production environments is still unparalleled. Neither extreme temperature fluctuations nor the typical floor vibrations caused by machine tools can affect its accuracy.
GageMax adds a coordinate measuring machine to our MaxLine that was designed specifically for the shop-floor and in-process measurement. Slim, compact and extremely versatile, it is the ideal machine for a wide workpiece spectrum. GageMax eliminates the need for doghouse gages. Seen over the entire life cycle of the machine, you will save more than 30 % of the costs required for conventional solutions. Comprehensive know-how in production metrology and consistent enhancement of proven measuring technology – this is the competence and expertise you will find in GageMax. See for yourself …

GageMax – your ideal partner for the shop-floor and production.

Your daily workload covers the complete part range of the cutting and forming industry, with component families being a frequent application. No matter whether you are dealing with individual or volume-produced parts, the diversity of components is steadily increasing. This is where GageMax is your compact and extremely flexible partner.

Goodbye to doghouse gages.
Doghouse gages, multi-point measuring systems or test devices have two major drawbacks: they are inflexible and cost money whenever they have to be changed. You pay not only for the high purchase price, but also for the costs involved in additional annual calibration and new setting masters. Add to this the fact that industry component cycle times are getting shorter all the time. This means that new doghouse gages or test fixtures are required after a very short time – very frequently for workpieces produced in only small series. Doghouse gages simply no longer work, and GageMax helps you to save money.

Higher versatility at a lower cost.
New requirements call for new measuring methods. Therefore, we have developed GageMax specifically for verifying production quality in the cutting and forming industry. Thanks to its great ease of operation, GageMax can be used on the shop-floor and in production right away and without any extensive training requirements. Unlike dedicated gages which give you only the absolute dimensions, GageMax supplies a measurement result with the utmost speed and precision. And as GageMax involves no costs for modification and calibration, it is much better value for the money than any conventional gage.

Do the ✓ Math

Maximum flexibility

Doghouse gages are simply no longer economical in the innovative cutting and forming industry. With GageMax, you measure the entire spectrum of components with one machine – today and also in the future.

Shorter pay back times

GageMax saves you the costs involved in developing and maintaining new Gages.

The rock-solid solution for your production.

A measuring machine working as a production gage on your shop-floor must harmonize perfectly with its environment. Therefore, we have come up with an absolutely unique construction principle for GageMax.

At home on the shop-floor.

To ensure that GageMax fits perfectly into your production environment, we have designed its loading features and overall dimensions to match those of production centers. GageMax can be loaded and operated from three sides and therefore be integrated into any environment. Even with any additional equipment, GageMax remains a compact unit.

Maximum versatility.

You must always be able to react flexibly to all production changes. GageMax was designed in line with the simple principle: set up, connect, measure. Simply use a fork-lift truck to transport GageMax to the place where you want to measure. In this way, moving and installation times are reduced to a minimum and GageMax is ready for operation again.

Unique: the innovative 3D Box.

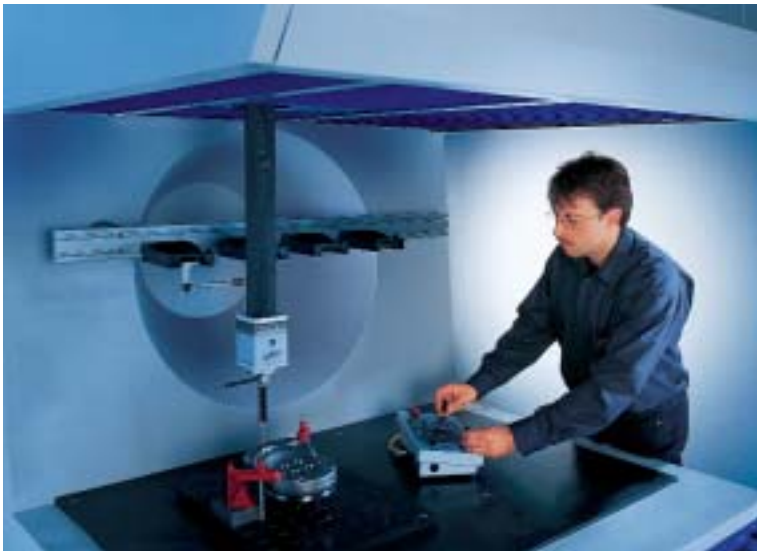
A measuring machine operating in the middle of the production area or the shop-floor must be able to take some punishment. It must be virtually immune to dust, oil, floor vibrations and temperature fluctuations. For this reason, we have packed the entire measuring technology into the protective 3D box. This box rests on the machine base and protects the more sensitive components of the coordinate measuring machine against environmental influences. The guideway consists of a sturdy, thermally stable carbon fiber unit.

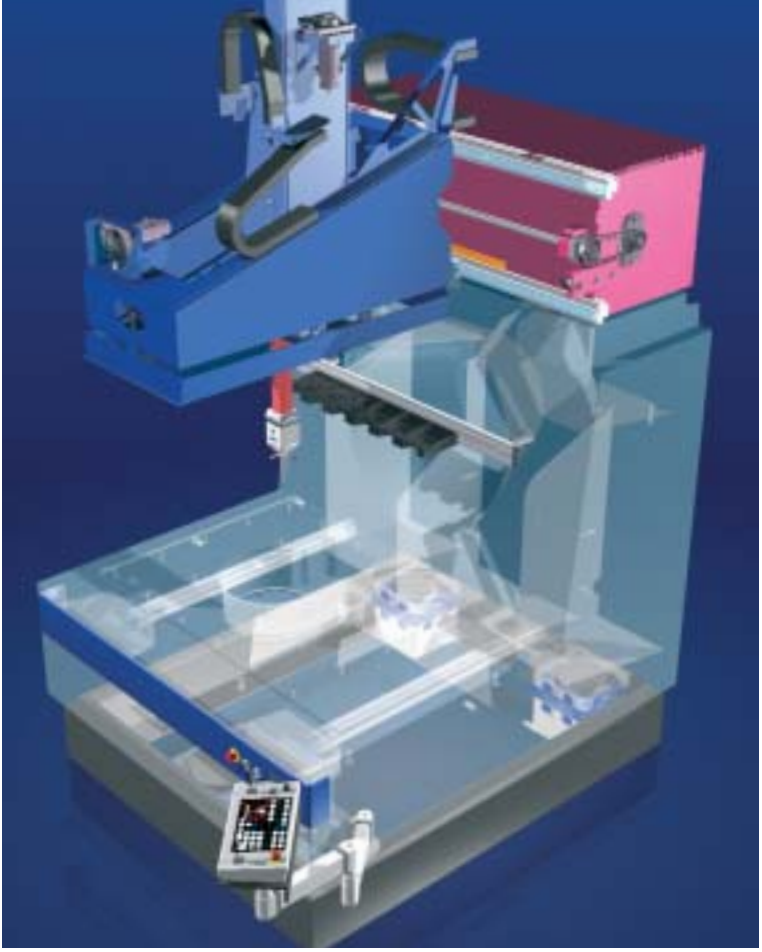
Dirt and oil? No problem!

With the optional touch-screen, contaminants like oil and dirt are no problem for GageMax.

Sturdy base.

As the metrology features of GageMax are securely housed in the 3D box, it was possible to select a robust solution for the machine base. The whole machine base consists of a mineral cast providing GageMax with a rock-solid and resistant support. The workpiece carrier is integrated in the base. The mineral cast greatly simplifies the process used to produce GageMax – one of the advantages that are passed on to you. You will be impressed by GageMax's short installation time and attractive price.





Availability.

Down-times cost money. Our TeleService team is ready and waiting for your call 24 hours a day. Should you run into problems with your GageMax, our TeleService will pinpoint the error and in most cases eliminate it right away. If this is not possible, a service engineer will be dispatched immediately with the required spare part. As a result, the idle time of GageMax is reduced to the absolute minimum. Because every down time in quality assurance costs money.

Access from all sides.

A measuring machine set up in the middle of the shop-floor must offer optimum flexibility: one of the reasons why GageMax has been designed to offer unrestricted access from three sides. Loading and pallet changing systems connect it directly with machining centers and save time-consuming transport routes.

Small machine – large measuring volume.

Despite its compact design GageMax offers a surprisingly spacious measuring volume. To avoid any restrictions, stylus changing magazines, workpiece fixtures or loading devices can be set up outside the effective measuring volume. This provides maximum flexibility and ensures that your measuring machine can deal with your entire part spectrum.

Do the ✓ Math

Absolute flexibility

You purchase only one machine, but are ready to tackle your complete part spectrum. If changes have to be made in your production, you simply reprogram GageMax to fit the new conditions.

Slim-line

GageMax is designed to take up as little room as possible in your production line, allowing you to make optimum use of the available floor space. Another money-saver.

Around the clock

With TeleService, you have a service engineer virtually installed in your measuring machine. And this allows us to solve almost any problem immediately. Availability that pays.

Incredibly fast and accurate.

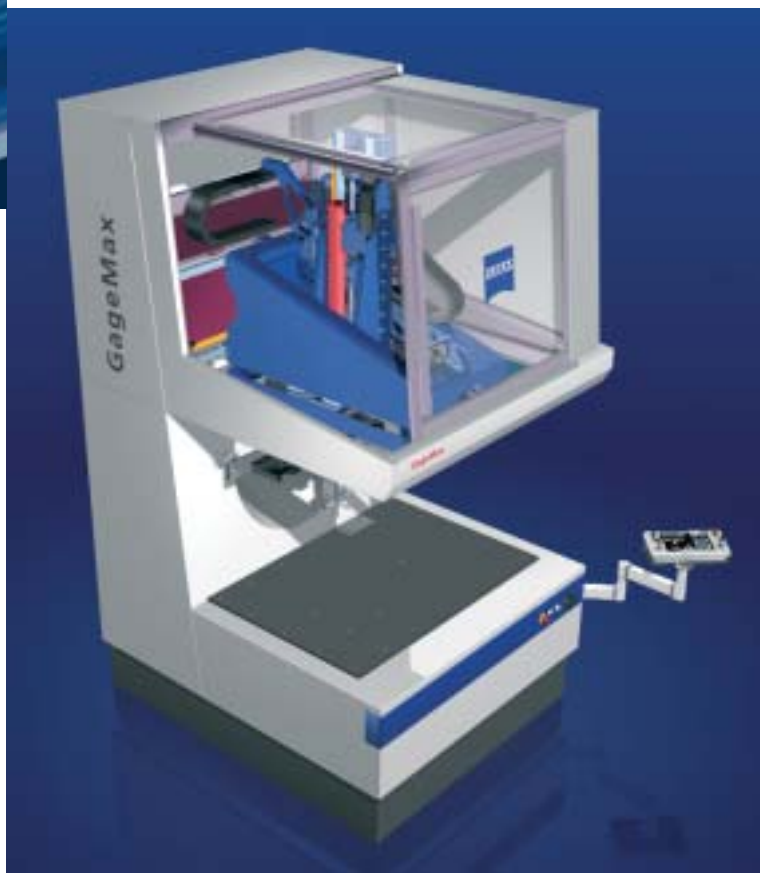
If you want to measure in your production environment, you must be able to rely on your coordinate measuring machine. Compromises at the expense of precision and speed are not acceptable. With GageMax, one thing is for certain: it is faster and more accurate than any other machine of its class.

The recipe for precision.

Unlike other manufacturers we do not specify the accuracy of our coordinate measuring machines for a specific temperature, but for a wide temperature range. Only Carl Zeiss defines the temperature-dependent accuracy (TVA = Temperature Variable Accuracy) which allows you to calculate the exact accuracy of GageMax at any temperature. This is a vital factor for high-precision measurement, because normally you only have an appropriate idea of your machine's accuracy. With GageMax, the quality of your results is exactly known.

Stable in any temperature.

On your shop-floor it may be icy cold or sub-tropically hot. With its good thermal stability GageMax operates in ranges between 15 °C and 32 °C (optionally up to 40 °C). In other words, this is the temperature range in which you can rely on highly accurate results. Styli and extensions made of CFK play a substantial role here. You can therefore save the cost of an expensive metrology room and the long transport routes between production and quality assurance.



There's no faster way.

Speed in measurement is by no means an end in itself. The faster your machine, the more quickly you can use the results to identify errors. Your throughput rate is also distinctly increased. This is an invaluable benefit if you have to deal with large measuring volumes. We performed a reference measurement to check this: 6 features were verified twice each, once in a conventional way, once using GageMax with the VAST Navigator. The outcome was absolutely amazing. GageMax supplied the relevant results not only faster, but also with up to 43% higher accuracy.

Cutting-edge performance.

GageMax comes standard with the VAST XT, because today scanning is an absolute must for any measuring machine. Optionally, GageMax can be supplied with our most recent development, the third-generation VAST Navigator probe, which further boosts the performance of your measuring machine. This means: higher information content and enhanced reliability within a much shorter time. Particularly for highly complex tasks such as cylinder bores, for example, the measuring time is reduced by 30% using the VAST Navigator – precious time you can use for other jobs.

Do the ✓ Math

Quantifiable precision

Knowing the exact quality of your results eliminates costly production errors.

Measuring without a metrology room

GageMax saves the high cost of maintaining a metrology room and time-consuming transport routes.

Results right at your fingertips

Thanks to the VAST XT or VAST Navigator, GageMax measures faster than any other coordinate measuring machine of its class. In short: it provides optimum reliability in no time. Unbeatable time and cost savings.

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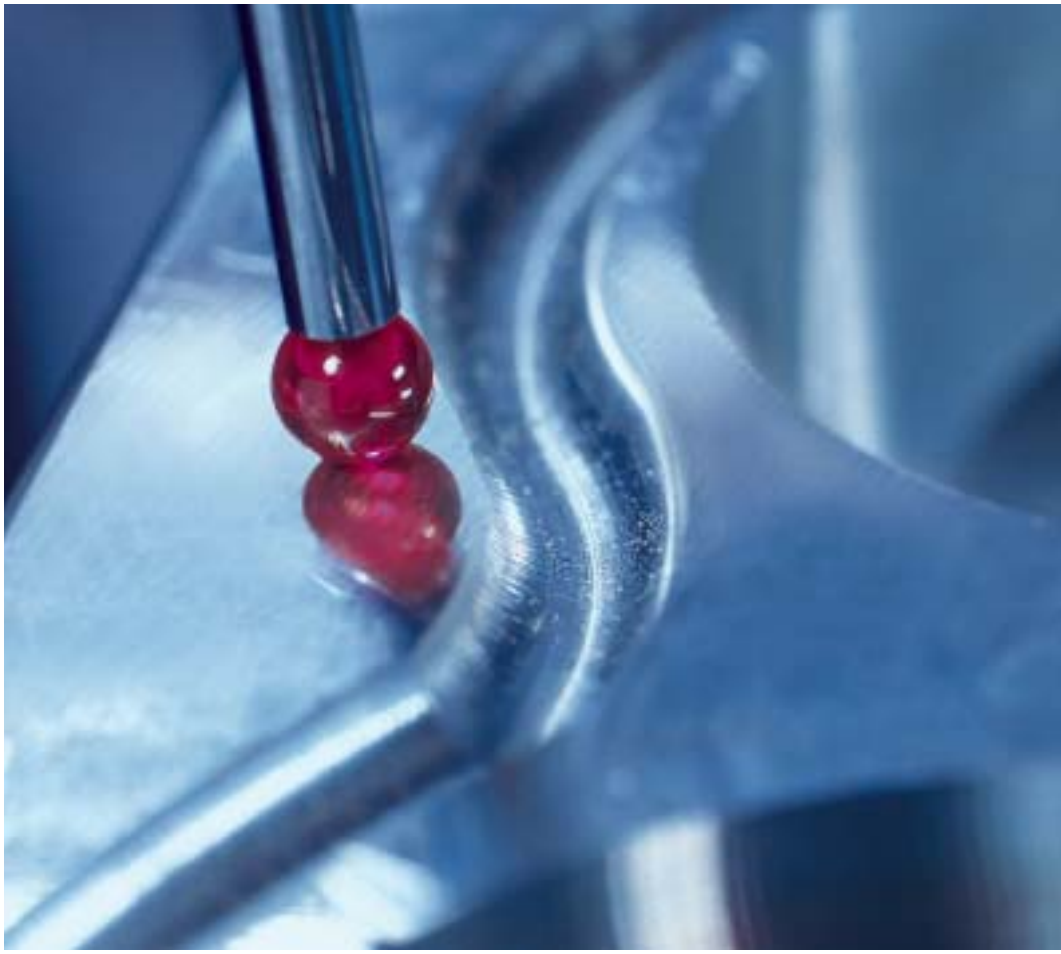

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