

## WENZEL OPENS HOTEL AND CONFERENCE CENTRE

Many prominent guests from politics and business at the opening ceremony of Villa Marburg.

In the presence of many guests as well as representatives of both Local and State Politics major Business's and customers, the Villa Marburg was opened on March 22<sup>nd</sup> 2002. As a 100% subsidiary of Wenzel Prazision GmbH, Villa Marburg represents the synthesis of a hotel, restaurant and conference centre. The conference centre can accommodate up to 40 delegates, and is used by Wenzel Prazision for all of its seminars. This conference centre offers Wenzel customers a sophisticated and well-proven range of courses that cover all aspects of metrology, thus catering for the beginner or the manager.



Werner Wenzel and his wife Helga gave a tour of the facilities for the guests. All of who commented on the successful and sympathetic way the building has been

blended to encompass the old circa 1884 sandstone building and vaulted cellar and the new ultra modern extension. This tour was followed by a delicious buffet. The hotel has 10 exclusively furnished twin bedded rooms, as well as two restaurants, and a wine



### Federal Cross of Merit for Werner Wenzel

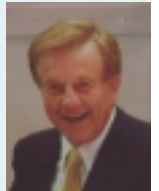
On January 18<sup>th</sup> 2002 Werner Wenzel was awarded the Federal Cross of Merit. The presentation was held in the princes room part of the "Residence of Wurzburg". The picture shows from left to right Minister of State Eberthart Sinner, Werner Wenzel and Head of the Provincial Government, Dr Paul Beinhofer.



tavern, local "Franconian" and international cuisine satisfies the most discerning palates. If you would like to sample the tranquillity of the hotel, or the superb food in one of the restaurants or book a conference just telephone 00 49 6020 979990 for the hotel and restaurant and 00 49 6020 2013 for the conference centre. (EJe)

*Dear customers, employees and friends of Wenzel!*

The last few months here at Wenzel have been extremely busy, but in a very positive way. We



have taken many valued orders, introduced new machines, and had many customers visit us. We have also undertaken a number of internal training courses, under-taken a Quality Audit by the DQS, and opened our new training centre.

With the introduction of this journal we would like to inform you about some of the major events of the last few months. We are sure that we will have more news about Wenzel over the following months, and would value your comments on our journal.

Yours sincerely

*Werner Wenzel*



Joyful faces on the opening day. The picture shows from the left: Head of the Provincial Government Dr. Paul Beinhofer, Helga Wenzel, Werner Wenzel and the mayor of Heigenbrücken Hans Wüst.

From practice:

# To the very **TOP**

**Measured and surveyed in the Cubing and Master Jig Center for VW commercial vehicles (VWN) in Hannover is the VW Transporter, reputedly the world's largest passenger car. Hannover being thus, as usually, one steep ahead....**

On entering the air-conditioned 2000 m<sup>2</sup> hall one is amidst 16 coordinate measuring machines, between silver shining aluminum chucking fixtures on an immaculate white floor. It is where Volkswagen measures its "VW-Bus" (T4).



The Cubing and Master Jig Center is, of course, furnished with the most sophisticated equipment: Software and CAD abreast of its time, multi-variable fixtures for securing the parts to be measured and high-precision 3D-coordinate measuring machines of Wenzel Präzision which, at first glance, appear as tall trees rising to the roof. "Here we have, other than our colleagues in Wolfsburg, measuring machines which, in Z-direction, measures up to 3000 mm. After all, we have to survey here the world's largest passenger car", thus Horst Giesemann, chief of the Cubing and Master Jig Center justifies the rather startling height of the measuring columns.

## Gigantic Size without Compromise on Precision

Despite the enormous size of a T4 – VWN tolerates no compromise as to quality demands and the specified gap size and flush fitting – the

principles ruling the Golf apply also to these vehicles. An achievement to which Wenzel measuring machines greatly contribute. For each measuring stand being mounted on floor level in four base plate fields of each 16 meter in length producing thus for each of the fields a measuring volume of X = 14000 mm, Y = 2 x 1600 mm and Z = 3000 mm. Over the measuring length of six meter each of the machines in duplex operation manifests a uncertainty of merely  $U_3 < 200$  micrometers.

## Quality – The Critical Point

Contrary to the master jig, cubing parts are not evaluated via reference points but reference surfaces. This being made possible by resorting to a replication milled into aluminum at a scale of 1:1. The perfect fit of parts is on such a model verified or, if appropriate, optimized. The model of a T4, with raised roof, can achieve a height of up to 2430 mm. The Cubing and Master Jig Center in Hannover obviously has to somewhat exceeded such dimensions.



## Positive Experiences with Wenzel

It was beyond any question that VWN decided to equip this center with measuring machines of Wenzel. In the word of Horst Giesemann "Wenzel at Volkswagen proved its efficacy in the Cubing and Master Jig field. They were, moreover, the forerunner as to the introduction of the continuous positioning motorized probe head PHS". All four of the base plate fields dispose of a passively damped foundation block with each 95 dampers, a system which effectively cushions the system from all vibrations. The CNC drives can be decoupled, allowing also a manual maneuvering of the measuring arm which may become necessary during marking-out work. The heavy-weight master jigs and cubes are moved over the floor with air bearings so that all of the machines had to be conceived as floor level execution. Machines travel over their full length, even the terminals travel with the machines. (CDi)

## +++Ticker+++

Wenzel successfully achieve full accreditation as a principal supplier to Volkswagen

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New generation CNC controller WPC 2020 successfully introduced to the market

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The Volkswagen Group confirmed Metrosoft CM as fully Audimess compatible after exhaustive tests in Chur (Switzerland)

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5% discount on all accessories if you buy on line from the Wenzel-Online-Shop: [www.wenzel-cmm.com](http://www.wenzel-cmm.com)

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The production measuring machines RAD plus are an integral part of the production of the new "Colorado" in the Volkswagen plant in Bratislava

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A new more robust milling head "DMH" (mainly for clay) has been well accepted by our customers

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Trendsetter with Hand Terminals, Wenzel introduces a wireless hand box

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New installations: Porsche (RAD), FAC (LHF), Snecma (LH), RUAG (LHF), Mangan Steyr (RAD plus)

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New orders for Wenzel BMW Project RR (RAD) McLaren (RSD), MCC Smart (RSD plus)

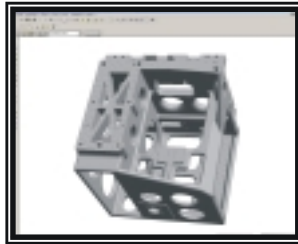
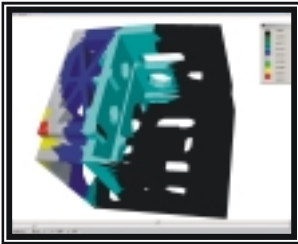
## Masthead

### Editor:

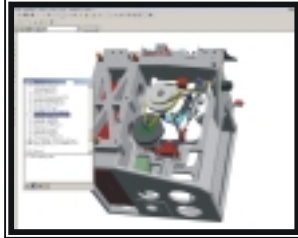
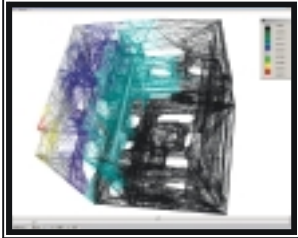
Wenzel Präzision GmbH  
Wenzel-Präzision-Straße  
D-97859 Wiesthal  
Tel. +49 (0) 60 20/ 2 01-0  
Fax +49 (0) 60 20/ 2 01-290  
Mail: [info@wenzel-cmm.com](mailto:info@wenzel-cmm.com)  
Internet: [www.wenzel-cmm.com](http://www.wenzel-cmm.com)

### Editorial Staff:

Christoph Dietrich (V.i.S.d.P.)  
[christoph.dietrich@wenzel-cmm.com](mailto:christoph.dietrich@wenzel-cmm.com)



Operating at Wenzel: High-End CAD technology and Finite Elements Method.



### Clever measuring

Edition

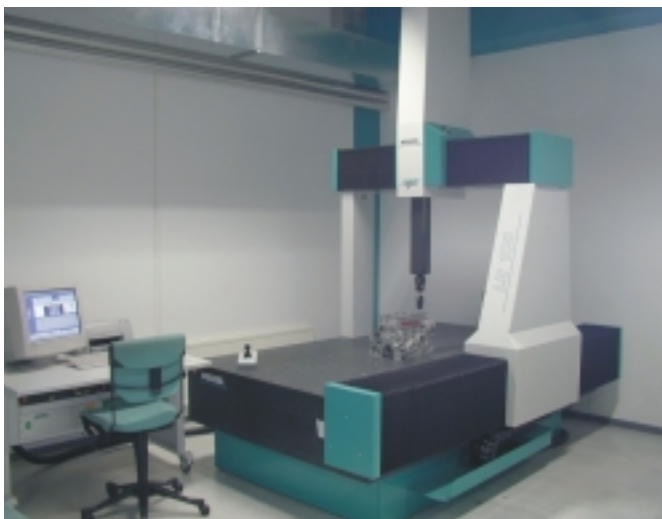


Extremely fast  
Extremely precise  
Extremely well-equipped  
Extremely economical ...

...these are the characteristics of the new range of machines designated "X3M". With this enhanced range based on the established "LH" Wenzel offers a complete system incorporating the SP 600, PH 10M and CM SurfPro Software. Whether it's standard geometry or non-geometrical shapes or surfaces, the combination of the SP 600, PH10M and SurfPro Software ensure that a continuous data stream is

available to evaluate each feature or surface rather than that produced from the touch probe method. The SP 600 can be used in conjunction with the standard probe changer systems from Renishaw.

This compact system enables the PH 10M to index the scanning probe at the optimal position, thus avoiding the problems experienced with the "probe tree" method of scanning. The accuracy and repeatability of the system is measured in micrometers, which is sufficient for all but the very precise measuring tasks. (CPu)



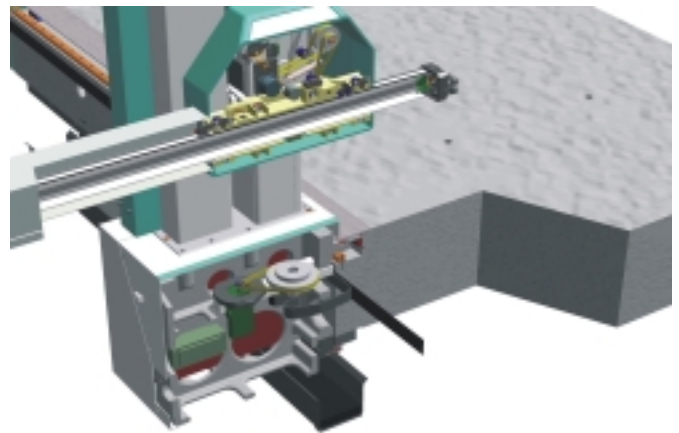
## Wenzel remains better! The new series



With immediate effect the all new RS *plus* range of machines will replace the RS / RSD range of which Wenzel have sold several hundred. Demands from the market for a more robust, more operator friendly, faster and more accurate machine

new design enables real shop floor operation to be achieved without loss of measuring capability.

Another new design feature that is incorporated into the RS *plus*, is the newly developed "Toothed Belt"



machines. The all new RS *plus* machines incorporate customer proven design features, the "Z" axis utilises a steel profile with high-grade hardened stainless steel guide ways, the "Y" is manufactured from a carbon fibre compound to give lightness and rigidity, substantial changes have been introduced into the "X" axis design, a new guide way system incorporating a high precision guide rail with an adjustable flat rail enables new standards of accuracy to be achieved. To meet the requirements for measuring machines to operate in harsher workshop conditions, the complete "X" axis guide system and opto-electronic positioning measuring system are completely covered by a concertina steel cover. The

drive system, which gives the system outstanding dynamic capabilities. Maximum accelerations of 1000mm/s/s can be reached, with a maximum positioning speed of 300mm/s. The combination of these ensures that the minimum floor to floor times are achieved as a standard. The machines can be supplied as either manual or CNC or as CNC with Disengaugable drives, thus giving the full flexibility for use in the development phase of a project and then in full production. Another option is to fully incorporate the controller and computer into the body of the machine, thus reducing the footprint, a distinct advantage in a cramped production environment. (CPu)

Measuring and Evaluation Software



## Version 3.40 will be presented on the Control in April 2002

With the new version 3.4, Metromec is once again one step ahead in metrology software. The 3.4 software has been enhanced with many new features. The development was undertaken in close co-operation with our users, to ensure that we are able to meet the demands of the market.

Wenzel is the first CMM company in the world to integrate the new range of optical measuring sensors into our standard software. This was a logical consequence of the company to achieve a real multi sensor-measuring machine. In version 3.4 both contact and optical sensors can be used from one interface for the first time.



The OLS is used for digitising; ORS is used in the main for "Flush and Gap" type measurement. The control of these sensors with CM Software offers not only a distinct price advantage but also a reduction in training costs.

As a further enhancement of CM 3.4, free form programming directly in DMIS is a standard capability, as well as this, the ability to run measuring programs within excess of 10,000 lines including, High Level Language Extensions.

Other CM 3.4 capabilities include the integration of the SP 600 extended scanning capability. New calibration routines insure increased measuring accuracy and reproducibility, as well as integrating the SP 600 into the SCR change rack.

The first systems will be installed in June 2002. If you wish more detailed information about Metrosoft CM 3.40, please ask for our documentation. Phone: 0049 6020 2010 (CDi)



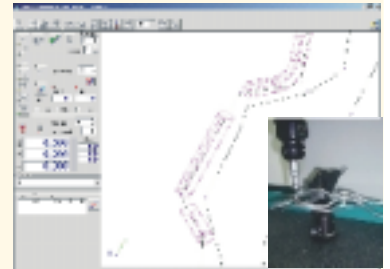
New Software for Pipe Inspection:

## PipeMeas

PipeMeas is a software for the acquisition of unknown pipes and the evaluation of well known single pipes and pipe bundles including their geometric elements. The first market tests created a very good customer feedback.

This is the PipeMeas characteristics:

- Customer or project related administration
- Data record in Access data base
- Acquisition of unknown pipes and output of all specific dates
- Acquisition of nominal pipe values or geometric elements via input editor
- Measuring of pipes with help of cylinder or circle segments; measuring of geometry via single points
- Conjunction methods: projection, section, symmetry...
- Numeric and graphical evaluation with individual orientation
- Graphical template evaluation with coloured fault marking
- Output as list and/ or graphic and label illustration
- Run in simulation mode or on a Coordinate Measuring Machine possible (CDi)



Would you like to receive the Wenzel-Journal as PDF-file? No Problem. Simply send an email to [christoph.dietrich@wenzel-cmm.com](mailto:christoph.dietrich@wenzel-cmm.com) or have a look at our homepage: [www.wenzel-cmm.com](http://www.wenzel-cmm.com)

### Fair Dates:

9. - 14.4.  
Techni-Show, Frederica (Denmark)  
9. - 12.4.  
Control, Sinsheim (Germany)  
18. - 19.4.  
Wenzel World Sales Conference, Wiesthal (Germany)  
23. - 27.4.  
Fameta, Nuernberg (Germany)

29.4. - 3.5.  
MACH, Birmingham (GB)  
10. - 15.5.  
Die & Mould, Shanghai (China)  
14. - 16.5.  
Emex, Auckland (NZ)  
21. - 26.5.  
Feimafe, Sao Paulo (Brazil)  
22. - 26.5.  
Feimafe, Kuala Lumpur (Malaysia)  
27. - 31.5.  
Metallobrobotka, Moscow (Russia)