

TESA STAT-EXPRESS

Schleswiger Werkstätten – Germany



Quality control the easy way:
Data processing with TESA STAT-
EXPRESS software



Since its implementation in the workshops of Schleswiger Werkstätten in Germany, the TESA STAT-EXPRESS software has become indispensable: it offers simplified analysis and professional documentation for quality assurance measurement data and has impressed the machining department.

Precise machining and control of workpieces in the machining department

Approximately 700 people with disabilities are employed in the workshops of Schleswiger Werkstätten. After several years of training, they work in a specialised field such as electrical installation, metal processing, or in the machining department.



Measurement of a bearing seat with a display of values on the screen

The machining department, which was founded more than three decades ago, has been using TESA instruments for over 10 years. These include the internal micrometer TESA IMICRO, the external micrometer TESA MICROMASTER, the roughness gauge TESA RUGOSURF as well as the calliper TWIN-CAL IP67. The 17 employees of the department are supervised by two mechanical engineers and use turning, milling and drilling machines to manufacture plastic and metal pieces for gears, wind turbines, special tools etc. Afterwards, they control the quality of the workpieces with precision measuring instruments.

Acquisition and analysis of measurement data directly on the shop floor

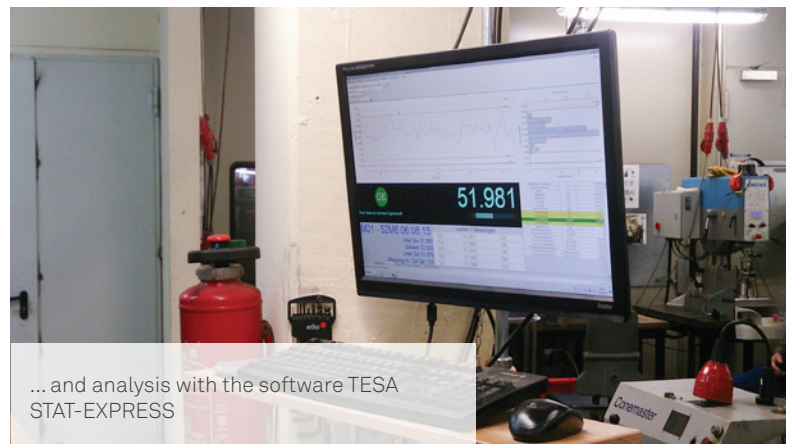
One of the challenges the machining department faces is the reconciliation of the employees' needs with the high standards on the market, because its industrial clients request very tight tolerance limits for workpieces that are produced in series. Furthermore, customers expect that the measured values are professionally documented and traceable. "Although our employees can train their motor abilities for measurements very well, they sometimes have difficulty in understanding and analysing the results", explains Ralf Nielsen, head of the machining department.

"Therefore, we were faced with the problem of finding an appropriate software to ensure the reliable acquisition and documentation of all measurement data whilst simplifying the professional use by our employees. We found the solution at an exhibition, where the STAT-EXPRESS program was presented to us by TESA."

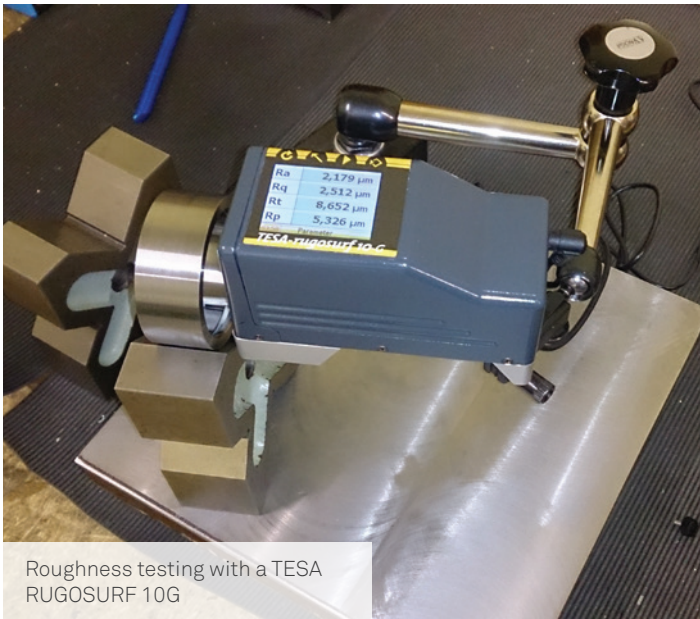
Since the acquisition of the software, the employees can work much more independently as it provides an analysis of the values directly after the measurement. The data is displayed on the screen and classified according to pre-set tolerances using different colours: green means "OK" and red signals "NO GO". This colour classification allows the employees to quickly understand the quality of the workpiece and therefore simplifies the whole manufacturing process. Moreover, it helps to reduce the workload of the supervisor, who is only informed if there is a red classification.



Measurement with a TESA TWIN-CAL IP67 depth calliper...



...and analysis with the software TESA STAT-EXPRESS



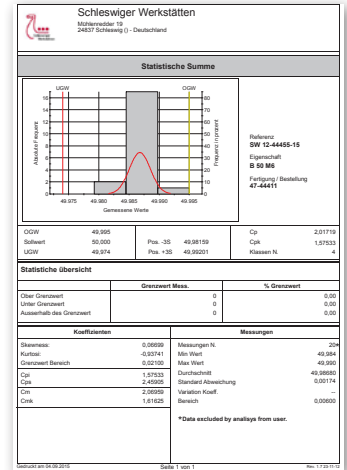
Roughness testing with a TESA RUGOSURF 10G

This principle applies to many different measuring instruments compatible with the software. As an example, the tolerances can be entered into the roughness gauge TESA RUGOSURF 10G, so that after the measurement the employees only need to take a look at the colour classification displayed on screen.

As well as the ability to enter tolerances and to analyse the data, the software also provides functions for processing and archiving measured values. The users can create and save lists of measurements, measurement reports with values obtained from one or several measuring instruments, and detailed reports including statistics, which guarantees the traceability of the values.

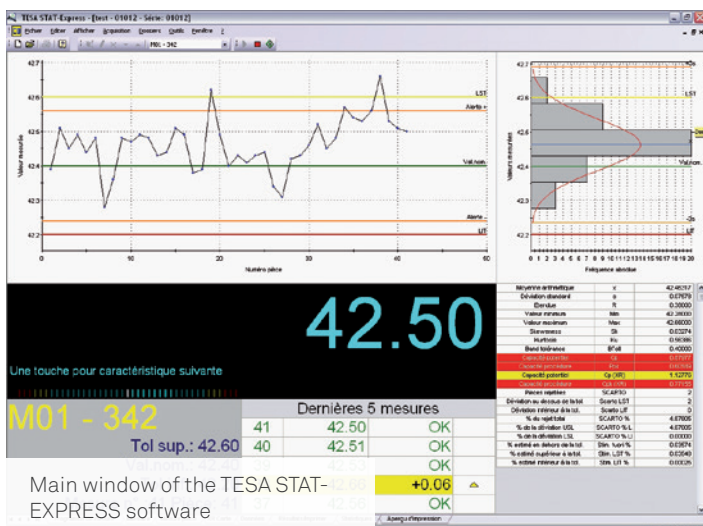
Thanks to these features, the software has helped the machining department of the Schleswiger Werkstätten workshops to meet the customers' high requirements. "TESA STAT-EXPRESS has clearly proved its worth in such harsh workshop conditions where we use computers without fans. It is definitely very helpful for our everyday business," confirms Ralf Nielsen.

Schleswiger Werkstätten Mühlenstraße 19 24837 Schleswig - Deutschland			
Messliste			
Referenz	SW 12-4445-15 Lagerrollen-Hochleistungs	Client: SW	Date: 04.01.17
Particulars / Particulars: 47-44411			
Meil 1	51.000	49.999	
Meil 2	51.000	49.999	
Meil 3	51.000	49.999	
Meil 4	51.000	49.999	
Meil 5	51.000	49.999	
Meil 6	51.000	49.999	
Meil 7	51.000	49.999	
Meil 8	51.000	49.999	
Meil 9	51.000	49.999	
Meil 10	51.000	49.999	
Meil 11	51.000	49.999	
Meil 12	51.000	49.999	
Meil 13	51.000	49.999	
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Meil 15	51.000	49.999	
Meil 16	51.000	49.999	
Meil 17	51.000	49.999	
Meil 18	51.000	49.999	
Meil 19	51.000	49.999	
Meil 20	51.000	49.999	
Meil 21	51.000	49.999	
Meil 22	51.000	49.999	



Schleswiger Werkstätten Mühlenstraße 19 24837 Schleswig - Deutschland			
Statistische Summe			
Referenz	SW 12-4445-15 Lagerrollen-Hochleistungs W27	Client: SW	Date: 04.01.17
Particulars / Particulars: 47-44411			
Ergebnis/Result	Meinung/Opinion	Standard	Min
A 2.5 µm	51.000	0.0000	51.000
Software	50.000	0.0000	51.000
DGM	49.999	0.0000	49.999
LGM	49.974	0.0000	49.984
Pos. 35	49.98159	0.0000	49.984
Pos. 25	49.99291	0.0000	49.994
Cq	2.91719	0.0000	3.00000
Crk	1.91625	0.0000	2.00000

List of measurements, detailed measurement report and statistical overview



Main window of the TESA STAT-EXPRESS software

We thank Schleswiger Werkstätten for their friendly support and for the authorization to publish this case study.



About Schleswiger Werkstätten

The Schleswiger Werkstätten workshops employ approximately 700 people with disabilities and offer services and products for industrial clients as well as individuals.

The workshops' specialised fields include a bicycle service and a special needs facility as well as departments for electrical installations and cable assembly, garden and landscaping, housecraft, assembly and packaging, metal processing, machining, pallet construction, powder coating, cabinet making and a dockyard.

In the machining department, the employees of Schleswiger Werkstätten use modern turning, milling and drilling machines to manufacture complicated precision workpieces.



TECHNOLOGY

About TESA

Established in 1941 and headquartered in Renens, Switzerland, TESA SA manufactures and markets precision measuring instruments that stand for quality, reliability and longevity.

For more than 70 years, TESA has distinguished itself in the market through its excellent products, its unique expertise in micromechanics and precision machining as well as its proven experience in dimensional metrology.

The TESA brand is the global market leader in the field of height gauges and a pioneer thanks to its wide range of instruments, including callipers, micrometers, dial gauges, lever-type dial test indicators and inductive probes. TESA is a true benchmark for the inspection of incoming goods, as well as for production workshops and quality assurance laboratories.

Through its worldwide distribution network the company focuses on the mechanical engineering, micromechanical, automotive, aerospace, watchmaking and medical industries.

In 2001, TESA became part of Hexagon, a leading global provider of information technologies.

www.tesagroup.com



About Hexagon Metrology

Hexagon Metrology offers a comprehensive range of products and services for all industrial metrology applications in sectors such as automotive, aerospace, energy and medical. By empowering our customers to fully control their manufacturing processes, we enhance the quality of products and increase efficiency in manufacturing plants around the world. For more information, visit www.hexagonmetrology.com.

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