

TESA height gauges, an example of connected measurements in production

Connectivity, connectivity and again connectivity. At a time when data centralisation and their real-time accessibility is becoming a major issue in the pursuit of productivity, TESA joined with ease the rise of Industry 4.0.

The key word is traceability. This tendency has recently been boosted by articles in the specialised press, at trade fairs or on manufacturers' websites. Connectivity is no longer highlighted as an advantage but rather as an indispensable feature. A strategic change lies ahead! Manufacturers of metrological instruments have realised that they have to make their instruments connectable, otherwise they risk lagging behind the giants who got off to a very good start in the sector. By cable, wireless or optional, everyone has chosen his own strategy.

Alongside this race for Technology, this very same Metrology, once often reserved to a specialized elite, has been gradually democratized over the last 20 years to become accessible to a wide range of users, some of whom are even complete newcomers. In summary: Metrology yes, but simple, connected and cheap, that's what the Industry wants! This approach can be seen in many innovations developed in recent years by TESA, the world leader of height gauges. Thanks to its brand-new range, measurement in workshops becomes intuitive and therefore user-friendly, without neglecting the essential functions generally offered by this type of instrument.

Height measurement, bore/axis or groove/rib measurement: OK. Parallelism measurement: OK. Perpendicularity measurement: OK... Each family of the range has its own specificities. While the entry-level TESA-HITE 1D gauges are mainly used in workshops for basic measurements, the manual or motorised MICRO-HITE, the flagship of the range, provide access to much more advanced functions and can even compete with CMMs (coordinate measuring machines) or measuring arms.

These gauges are versatile like the genuine Swiss knives. And this is important where space is often limited. *"Workshops are ultimately very "difficult" environments where guaranteeing quality measurements is generally complicated. Optimising space around machining centres, operator movements during the measurement, projections of all kinds - these are just some of the real constraints our customers are facing. Obviously, every situation is different. In the end, this is what drives us to develop solutions that are as flexible as possible in order to guarantee a high customer satisfaction in whatever he may need. Making the measurement process enjoyable and ensuring the best user experience is very important to us... and we develop our products to suit. A measurement during which the gauge has to be moved is made less fluid by a connected power cable. The operator's freedom of movement around his instruments is an integral part of the ergonomic strategy of our instruments."* says Sébastien Grange (Product Manager, TESA).

In terms of ergonomics, data management is not to be neglected. Even if some companies (often SMEs) continue to use the good old pen and paper method to guarantee the traceability of the parts they produce, digitisation is gradually gaining market share. *"Both the hardware and the software are simplified here, since each of our systems can be equipped with a Bluetooth® transmitter. The measured values are then sent to DATA-VIEWER, an extremely simple, home-made and free software that bridges the gap between the instrument and a result processing software. The wireless goes hand in hand with our global strategy. Indeed, you cannot, on the one hand, find a solution to bypass the use of a power cable and, on the other hand, force users to connect their gauge to a computer with a cable to retrieve measurement data!"* The configuration opens up powerful data management possibilities (reports, basic statistical analysis) and definitely meets the expectations of SMEs. For more demanding users, it also allows the connection to other powerful software packages such as Q-DAS, which are widely used in companies with "larger" resources and greater implementation capacity.

To summarise, TESA has such a large variety of height gauge models that it can meet the needs of companies from the smallest to the largest ones, as well as providing a robust, reliable and long-lasting solution to the metrology problems that our customers face every day. *"Our pleasure is to discover after all that our products help our customers to solve efficiently, quickly and long term, the constraints that they encounter in their research, development and production."* (Uwe Burkardt, Marketing Director TESA).

