

ToolNews

Number 544, April 2020

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Current state of the art: New torque/rotational angle wrench

Freedom⁴ is the brand new electronic torque/rotational angle wrench from the SCS Concept Group. The smart device is lightweight, can be charged wirelessly, and has one more external aerial than its predecessor, Freedom³, for greater Wi-Fi range and improved performance in synchronisation and exporting results.

The new analysis function allows the user to quickly select the optimum strategies for process testing. Other features include the residual torque test according to VDI/VDE, automatic detection of obstacles on the shaft of the wrench as well as incorrect handling. A self-diagnosis option and fast radio module exchange complete the range of services.

Freedom⁴: Benefits at a glance

- Easy and accurate operator guidance
- Zero-defects strategy in the production process
- Full traceability of all process data
- Three operating modes: "Lab", "Quality", "Production"
- No operator influence
- Ergonomic design reduces fatigue
- Minimal service times thanks to simple replacement
- IT security (fast radio module exchange)
- Supports major industrial protocols

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Process capability test on the assembly line.

Screw assembly – minimise risks with little effort

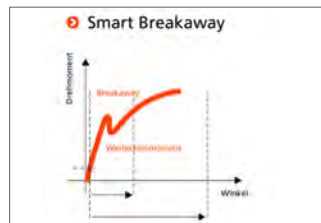
It is well known that it can be dangerous for screw connections to fail. But surprisingly, people in many places, even in manufacturing, are not aware of the various causes of failure. Screwing technology is still considered a simple discipline that does not require much training. This is an error that can be confirmed again and again by product recalls, accidents or failures of equipment — all with far-reaching effects.

Internationally recognised standards and guidelines should therefore be taken seriously. These serve as useful aids for manufacturing companies. They indicate all the factors that can affect screw connections.

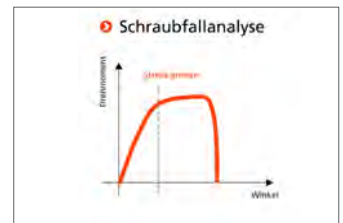
Especially in the case of process testing, many manufacturers lull themselves into a false sense of security. In this respect, they would have to guarantee by law that the use of their products does not harm people, plants or the environment. Checking and documenting screw connections with the appropriate tool is not witchcraft. Brütsch/Rüegger Tools supports its customers with the introduction of defined procedures. The goal is simple: to keep test processes lean.

What are the important factors?

An everyday situation: when unpacking a machine, an end customer discovers (incorrectly mounted) screws that have become loose during transport. Costs attributed to faults, such as production downtimes and the costly deployment of expensive service technicians, are incurred for the customer and the supplier of the components. People, tools, materials, methods and environment. These are the factors that influence screw connections. The focus is often mistakenly placed on tool inspection alone. Screw connections also suffer from component tolerances, fluctuating friction values or the influence of assembly personnel. Random checks after screwing, such as carrying out the residual torque test, help to ensure safety.



The residual torque as an evidential value of the remaining preload force in a screw connection.



Avoid unexpected damage: analysis of screw connections.



Perfect screw connections ensure safety at all levels.



Legally and economically sensible: use screws safely and with check with documentation.

Those who think long term, protect themselves

Manufacturers have a legal obligation to produce items – and therefore also to screw them together – in accordance with current state-of-the-art technology. At the same time, more and more customers expect their purchased products to have been assembled according to official specifications. And there's more: They require the specific documentation on the assembly and testing work steps. At the very least, this includes any screw connections that are critical to function and safety. Some companies are seizing the opportunity by protecting themselves. When it comes to issues of liability, documented assembly processes are important pieces of evidence. They help to prevent economic losses due to returns, complaints or reputation-damaging claims.

Traceability = competitive advantage

For SMEs, standardised test processes for screw connections entail a small additional outlay. But, in the long term, an appropriate quality strategy will lead to cost savings. Adequately documented and digitalised screwing processes will soon be essential, whether for machine manufacturers, system suppliers or contract manufacturers. If products comply with recognised guidelines and are demonstrably safe, this also functions as an internationally valid quality seal. The result is a clear competitive advantage. Finally, digital assembly processes – optimised as far as possible according to LEAN principles – are important building blocks for Industry 4.0.

Tools. Next Level.

Screw mounting and testing Consulting, implementation, training and further training!

Do not be intimidated by the Product Safety Act or the Product Liability Act. Internationally recognised standards and guidelines guide you in the right direction. Together with excellent partners, Brütsch/Rüegger Tools offers its customers a comprehensive, brand-independent product and service portfolio for screw mounting. Our experts work with you to define and develop a suitable test strategy for you by means of on-site analyses and demonstrations. As a member of various VDI working groups, we are actively involved in shaping our expertise and thus always keep it up to date with the latest technology! We also impart this expertise in our hands-on seminars and training sessions. Contact us at:

+41 (0) 44 736 63 63
or
sales@brw.ch



Training sessions and seminars complement our offer.

Measurement technology



Calibrating height gauges on site



In order to avoid interrupting the use of your height gauges, we offer calibration services on site. Your gauge remains at the place of use, saving time and money. It is calibrated on the basis of traceable standards, which are periodically checked and certified by recognised calibration institutes. After calibration, we will issue you with a factory certificate. Regular calibration and maintenance of your gauges ensures greater reliability for measurements taken under process conditions and extends their service life, since worn components can be replaced in good time. Request a no-obligation quote. For more information, email: service.messtechnik@brw.ch

NÜSSLER precision for the highest standards



Brütsch/Rüegger Werkzeuge AG has a comprehensive product range of the NÜSSLER brand for dimensional measurement technology. The range of styli and accessories allows the user to successfully handle even the most demanding measurement tasks. The versatile styli with holding threads from M2 to M6 are indispensable aids when using coordinate measuring devices, for example. The new micro styli from $\varnothing 0.05$ mm are the world's smallest styli for tactile touch probe systems and are sold by Brütsch/Rüegger. We supply you with a wide range of models made of steel, ceramics or CFRP from stock. Visit our ToolShop at www.brw.ch.

Measuring table for maximum precision

Whether it's height or comparison measurements with a dial gauge or touch probe, the design of the UP measuring table enables highly accurate measurements and combines flexibility with stability. The base is made of granite at the flatness according to DIN 876/00. **127490.0200** Measuring table 200 x 150 mm, measuring height 200 mm, working radius 180 mm, dial gauge reading $\varnothing 8$ mm, additionally with adjustable horizontal arm. **127490.1500/1510** Measuring table 200 x 150 mm / 300 x 200 mm, measuring height 200 mm, working radius 130 mm, dial gauge reading $\varnothing 8$ mm, fixed horizontal arm with fine adjustment.



Promotion

FUTURO GRIP tape measures

The nylon-coated steel tape is painted yellow to ensure high abrasion resistance, prevent corrosion and extend service life. The housing is made of impact-resistant plastic and is rubberised for secure handling. Automatic tape rewind with locking system and large sliding end hook for internal and external measurements.

159620 Tape measures FUTURO GRIP available in 3/5/8 m lengths, EG class II with **15% promotional discount**, valid until 30.04.2020.



MAHR integrated wireless

Smart, efficient quality control is the key to successful manufacturing. MAHR radio measuring devices offer maximum freedom of movement and enable fast and targeted measurements. Up to eight measuring instruments can be operated simultaneously with the USB receiver stick for computers. **MAHRLIGHTS 1 2020** Radio measuring devices- and hand-held measuring instruments at promotional prices, valid until 31.05.2020. **109263.0200** Digital caliper gauges MarCal 16 EW/Ri at the **promotional price** of **CHF 210.00** instead of CHF 269.00.

Promotion



Accurate measurement with KROEPLIN

As well as being easy to handle and highly accurate, the KROEPLIN digital quickest gauges also feature impressive IP67 protection. In addition to the optional USB and Digimatic interface, the quickest gauges can be retrofitted with a wireless Bluetooth interface. The new feature is the use of a lithium polymer battery. The inductive charging concept with the supplied charging cradle makes battery replacement unnecessary. For KROEPLIN digital quickest gauges, go to www.brw.ch



Manufacturing technology



Reduce costs with HPC NERIOX

Promotion

NERIOX



The new HPC NERIOX milling cutters boast the best price/performance ratio. With the types for ISO-P materials **227861 to 227881** and the types for ISO-M materials **227886 to 227896** you can achieve up to 31% more chip volume than with similar tools. The tools are also optimally suited for dynamic milling and solid carbide end milling.

This improvement is achieved by the following features:

- uneven pitch
- uneven gradient $35^\circ / 42^\circ$
- cutting edge preparation
- TiAlN layer for ISO-P applications
- TiAlN layer for ISO-M applications
- available from $\varnothing 3$ mm

Application example: dry machining at 1.7225 $\varnothing 10$, VC 229 m/min, ap 20 mm, ae 1 mm, fz 0.1 **chip volume +31%**
Our application engineers will be happy to help you with a trial and you can take advantage of the promotional code **21.04** until 31.5.2020.

HZ-Jet parting with direct coolant

Efficient parting of difficult materials can be achieved thanks to the HZ-Jet parting tool holders from APPLITEC with integrated coolant supply. The jet of coolant is targeted directly at the cutting edge. It is virtually impossible for the coolant to be diverted by the chips. This can result in a tool life increase of up to 50%. The tools are available for width 2.2 **295060/295085** and 3.1 **295145/295170**.

APPLITEC
SWISS TOOLING



SynchroFlex® II for increased flow rates

In order to achieve maximum performance with cutting tools, cooling media with increasingly higher pressure are used. So that this can also be achieved when using threading tools, TAPMATIC has developed the new **SynchroFlex® II** tapping chuck **273050**. The axial forces on the threading tool are significantly reduced and the tool life is significantly increased.

The new **SynchroFlex® II** for increased flow rates, with up to 80 bar internal cooling.



TAPMATIC

QTAP – with internal cooling

The QTAP has been specially developed for use in virtually any material. Heat-treated steel, stainless steel, aluminium, cast iron and brass are no problem for the QTAP. For even better results, the QTAP is also available with internal cooling under **261531** and **261536**.

Your benefits:

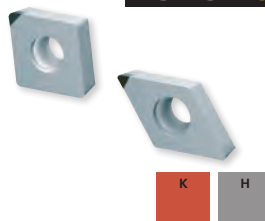
- Reduced storage costs
- Reduced set-up costs
- Easy handling
- Save tool slots on the machine



FUTURO

Hard turning with CBN

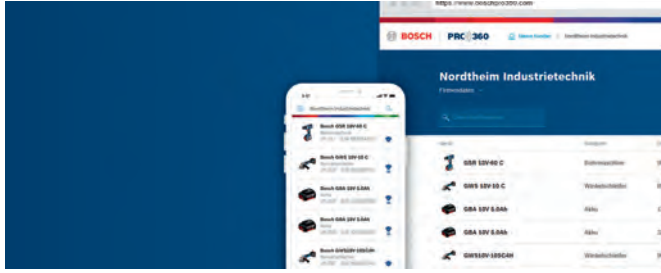
CBN cutting inserts were designed to replace grinding processes by finely processing hardened steel materials (**HRC 45-68**) at high cutting speeds of 80–200 m/min. CBN is also used in the economical machining of pearlitic grey cast iron as well as hard and alloyed types of cast iron. The CBN disposable inserts are available as DCMW **310900**, CCMW **310905**, VBMW **310910**, CNMA **310915** and CNMA **310920**, starting at **CHF 38.40**.



Assembly technology

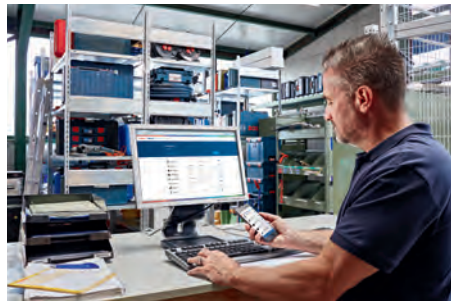


From May 2020: The new BOSCH digital platform for professional tool management



What is the PRO360 Service app?

The Service app is Bosch Professional's digital solution for extending tool warranties without any hassle. The PRO360 app allows you to register Bosch Professional electrical and measuring tools quickly and easily.



Benefits of PRO360

SAVE TIME

Save valuable time by quickly and easily registering devices by scanning the type plate with a camera.

EVERYTHING AT A GLANCE

Get a perfect overview of registered devices and their warranty rights with the digital device list.

OPTIMISED PROCESSES

The PRO360 app allows you to register devices and access warranty information from anywhere.



Up-to-the-minute 36-month full service...

...for batteries and chargers

Unique identification of batteries and chargers that are registered for the 36-month full service!

Customer benefits from registering batteries and chargers:

- Save time by eliminating the hassle of finding and sending the 36-M FS device certificate for battery identification.
- Do not receive any unjustified cost estimates. In PRO360 it is always clear which batteries and chargers are entitled to 36 months of full service.



Standard parts



Huge promotion on watering products!

Promotion



Summer is just around the corner. Start the summer with a new hose cart, a new hose or a GARDENA wall-mounted hose box and take advantage of Brütsch/Rüegger's huge promotion on watering products until 30.06.20! In the separate insert entitled "Watering" you will find a range of other products, including fittings, couplings, hoses, hose clamps, hose trolleys and wall-mounted hose holders. We also offer a very large range of **GARDENA products from our warehouse in Urdorf**. If you're in a hurry, you can also pick up all in-stock items from the ToolStore right away!

Order the **promotional brochure "Watering"** under **code 41.04**.

Fittings/couplings

- Couplings GEKA and accessories
- Couplings STORZ and accessories
- Couplings Neomatic and NITO and accessories
- Couplings GARDENA and accessories

Hoses/hose clamps/product sets

- PVC water hoses TRICOFLEX / GARDENA
- Pre-assembled hoses with couplings GEKA and STORZ
- Hose clamps, tightening straps and product sets OETIKER

Hose trolleys/wall-mounted hose holders

- Various hose trolleys ALBA and GARDENA
- Various wall-mounted hose holders ALBA
- Wall-mounted hose boxes GARDENA

OETIKER tightening straps

The Oetiker tightening straps with the associated locks are ideal for clamping larger round or even irregular shapes. The straps are available in different lengths. You can cut the tightening strap required for your application to the desired length and secure it easily and safely using the appropriate lock.

839930/839931/839932

Screw lock/tightening strap type 174

839936/839937

Screw lock/tightening strap type 180



Hose markers

Simple assembly and quick line identification! Our nylon hose markers are ideal for marking and labelling hoses and fittings.

Available in two variants:

- Installation date marker
- Individual marker

Temperature range up to +150°C

Available in red and blue for differentiating between connectors. Avoid costly repairs with correct hose identification!



RUD BLUE ID SYSTEM

The safer your equipment, the better protected your employees are too. And the safer the loads that you move every day. But those wanting to meet their obligations often face major challenges: The time, personnel and financial costs of the checking process are enormous. Documentation in particular ties up a huge amount of resources day to day. Create legal certainty now with significantly less effort.

The solution: the **RUD BLUE ID SYSTEM**.



Promotion



Drill bushes with and without collar

Drill bushes according to DIN 179 A without collar and DIN 172 A with collar, hardened and ground, are used in a wide range of applications and often need to be available at short notice. Take advantage of our promotion until **30 April, 2020**. Flawless quality and high delivery capability at top prices.

- DIN 179A without collar **865600, 865630, 865660**
- DIN 172A with collar **865690, 865720, 865750**

Promotional prices from as little as one unit!

Personal Protective Equipment



An eye injury every five minutes



unico graber ag
safety eyewear



SUVA records a work-related eye injury every five minutes. Injuries often occur at the workplace, i.e. when milling, turning, grinding or handling compressed air etc. In 2005, there were almost 100 accidents among 1000 full-time employees. It was possible to reduce this number to 59 accidents by means of protective measures. If safety glasses were worn consistently, this number would fall even further.

At Brüttsch/Rüegger Tools, we offer you a wide range of models and brands. UVEX, BOLLE, UNICO, 3M, UNIVET or one of our attractive alternatives, NERIOX and FUTURO.

Are you a glasses wearer? Then Brüttsch/Rüegger Tools offers you everything you need from a

single source and at very attractive prices. Single-vision corrective safety glasses for only **CHF 199.00!**

You only have 2 eyes. Protect them at all times! A fraction of a second can change your whole life. So protect yourself properly and don't let it come to that.

Wherever it happens, we at Brüttsch/Rüegger Tools are happy to advise you directly at your workplace. Call us on +41 44 736 63 55.

The new UVEX i-5 sets new standards!

The latest safety glasses from UVEX set new standards in many respects. The i-5 has a 3-stage inclination and adjustable side arm lengths. This allows the wearer to precisely adjust the glasses to their face for a perfect fit! The soft nose support prevents pressure points and increases comfort. As a result, the new UVEX i-5 **531132** are safety glasses that are a pleasure to wear and promote employee satisfaction. Put them to the test: +41 44 736 63 55!



New



New

New: Safety glasses from UNIVET

Brüttsch/Rüegger Tools attaches great importance to having major brands in its product set. That's why with us you'll also find UNIVET safety glasses. UNIVET is a pioneer in design and comfort! It is important for safety glasses to be appealing to the person wearing them so that they are worn consistently.

Want to try out UNIVET safety glasses? Contact our experts by phone at: +41 44 736 63 55



One in two people wears glasses

In Switzerland, one in two people need a visual aid. It is important, particularly in the digital age, to see quickly and correctly. A lot of the information we receive is taken in via our eyes. That's why it's all the more important for your employees to be able to work with corrective glasses while at work.

With our glasses service, we offer you an uncomplicated solution for purchasing protective safety glasses. We will be happy to advise you over the phone: +41 44 736 63 55.



The alternative: NERIOX

The new brand from Brüttsch/Rüegger Tools is a real alternative. NERIOX does not compromise on quality and certainly not on safety! All safety glasses are tested and comply with the latest standards!

To see the complete range of NERIOX safety glasses, visit www.brw.ch. Does a particular model appeal to you? Would you like to try out the glasses? Contact us by phone: +41 44 736 63 55 or by email: verkauf.arbeitsschutz@brw.ch to receive your NERIOX test glasses.



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Last Minute



Scanning with the highest precision



The articulated stand FISSO STRATO μ line is the smallest model of the μ line and is suitable for the high-precision range. Any dial test indicator (from **124210**) can be mounted on the dovetail holder. The precision fine adjustment with high repeatability is especially suitable for measurements in the μ range. The precision fine adjustment allows vernier adjustment of the position. A magnet that has a prism sole and can be switched on and off via a rotary handle ensures a stable base. The FISSO articulated stands are Swiss-made and meet the highest quality standards.

126525.0100 at the promotional price of **CHF 341.00** instead of 379.00 valid until 30.04.2020.

Ultra-slim NC high-precision drill chuck

For smaller interference contours and higher clamping forces, the high-precision drill chuck FUTURO is the first choice.

- improved clamping safety independent of the direction of rotation with a high clamping torque of up to 15 Nm
- available with a clamping range from 0.3 mm

Available in SK **331105** and HSK-A 331544 versions.



Promotion



Ratchet screwdriver FUTURO

Pneumatic ratchet screwdriver FUTURO, type 2100, also for work in hard-to-reach areas; adjustable for right and left-hand rotation. Cold-insulated soft-grip handle, exhaust air duct and air connection can be rotated 360°. Features speed control.

Square drive: 1/4"
Screw size: M8

577250.0100 at the promotional price of **CHF 199.00** per unit instead of CHF 282.00 per unit

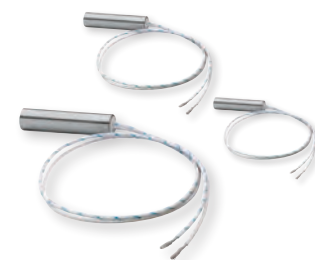
Valid until 30.04.2020

High-performance heating cartridges

Top quality at the lowest prices!
You have until **30 April, 2020** to take advantage of our unbeatable promotion on high-performance heating cartridges **840160**.

Ground CrNi steel casing made of 1.4541, with gas-tight welded cartridge base, temperature-resistant up to max. 750°C (continuously 600°C) and with glass-fibre insulated, 1000 mm long nickel cord — these features are a testament to top quality. Special prices from as little as one unit.

Promotion



Promotion



Eye protection does not have to be expensive!

Brüttsch/Rüegger Tools offer you a range of safety glasses at sensational prices:

531132 UVEX i-5, at the promotional price of **CHF 16.40** instead of 18.90

531016 Univet 5X6, at the promotional price of **CHF 10.90** instead of 14.50

531106 Bollé RUSH+, at the promotional price of **CHF 7.60** instead of 11.50

531163 3m Solus 1000, at the promotional price of **CHF 11.60** instead of 13.80

Promotion valid until 30.04.2020

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OUR PARTNER



SERVICEBOX



ToolBook, Edition 19

The tool catalogue with the complete range over 3200 pages
code 01.04



NERIOX Booklet, Edition 2019 code 02.04



FUTURO Booklet, Edition 2017 code 03.04



Quality inspection using a stereo microscope: this requires very high concentration levels.

Machining and watch parts Two companies, three locations

In the third generation

The family run business, with three locations in Court (BE), has two divisions. These are Schneeberger Compositant Horloger SA and Schneeberger Compositant Horloger SA, which was set up ten years ago. The company, which employs 30 people, was founded by the grandfather of Eric Schneeberger, the current owner and managing director.

Competitive across the board

The wide variety of machining options and high production flexibility have enabled the company to take up a competitive position in various segments of the market. Whether producing miniature components or rotating parts with diameters of up to 60 mm – the Jurassians are equipped for orders of all shapes and sizes. ISO certification guarantees the quality of all processes. For more information, see the following link:

<https://schneeberger-decolletages.ch>



The Schneeberger Compositant Horloger plant.

Schneeberger SA – The Industry 4.0 enthusiasts of Court

Driving through Court, a small village in the Bernese Jura, you notice the high density of metal-processing plants. Of the more than ten machining companies that are located here, each one operates in its own niche. One of them is Schneeberger SA, which has three sites in Court and has far more customers than the nearby watchmaking industry. Their customers also come from the automotive, food & beverage and plug-in connector industries as well as dental/medical technology. Agility and diversification are essential requirements for meeting constantly changing customer requirements as a supplier. After all, a clockwork pinion that is accurate to one hundredth of a second requires completely different manufacturing processes from a finger-length support for deploying an avalanche airbag. Hence, the one common feature of the customer parts produced by Schneeberger is that they all require complex manufacturing. The process often requires multiple production steps that involve high levels of expertise. This is precisely the core competency of the Jurassians, who manufacture a wide variety of specialised parts, from screwdriver sets to dentist utensils.

From prototypes to mass production

The wide variety of components and batch sizes requires a high level of manufacturing flexibility, which is achieved with a machine pool of over 70 CNC machines. This means that Schneeberger always has the right resources for a broad range of tasks. And that's hugely important because manufacturing a domestic appliance component is very different from manufacturing a "balance staff" for a watch mechanism. Several dozen different materials are turned, milled, drilled, rotofinished, heat-treated, ground and polished. Customer-specific embossing and laser engraving are also standard. Both component assembly and individual special designs require precise manual work – and these are also core competencies at the company. Thanks to high responsiveness and flexibility, short lead times and high quality are achieved even in small batches. Ready-to-use, pre-assembled and packaged products are delivered according to customer requirements.



Five-axis machining centre: customers benefit from a complete range of milling processes.



Five times as fast as a single spindle: this multi-spindle machine performs six processes simultaneously.



Depending on the component or order, assembly is completely automated.



This Tsugami system manufactures extremely complex parts on five simultaneous axes.

Intelligence in quality assurance

Schneeberger also has highly automated production systems, which ensure efficient throughput in mass production for the automotive and food & beverage industries. In this area, the company is pushing ahead with digitalisation. In the recently renovated third company building, assemblies such as special screwdrivers will soon be put together by robots. Digital networking also supports Industry 4.0 enthusiasts in another challenge: growing customer requirements. While dentistry requires absolutely flawless surfaces (as well as detailed visual inspection), elsewhere we see a demand for more complex shapes and tighter tolerances. So there is no way to avoid costly quality assurance. Philippe Wastian, COO at Schneeberger SA, explains: "In order to guarantee impeccable quality, we use comprehensive control systems and log all manufacturing processes and quality tests."

Toolbox accelerates digital networking

For decades, the Jurassians have been ordering miscellaneous measurement technology and assembly items as well as shoes, tools and consumables from Brütsch/Rüegger Tools. A Toolbox has just recently been put into operation in Court too. One purpose of this is to provide an overview of test and measuring gauges, which have increased in number over recent years. Another is – as one of the first users – to form an effective interface to the software for measuring instrument management. Philippe Wastian is enthusiastic about the system: "Thanks to the Toolbox, we not only simplify test gauge monitoring, but also optimise all inventory processes." This modernisation was triggered by a presentation at the DEFI studio of the CIP-CTDT in Tramelan, which Philippe Wastian attended. A second Toolbox will soon be integrated for the management of equipment and tools. The COO emphasises: "Such systems, which enable universal networking, are very useful for us."