

CALIBRATION TECHNOLOGY



MADE IN CRONENBERG
MADE IN GERMANY

A SYSTEM THAT
... convinces

CALIBRATION TECHNOLOGY FOR TORQUE WRENCHES

CALIBRATION IN HOUSE – For more reliability and efficiency.

The demands on professionally bolted joints are increasing. Manufacturers, maintenance companies or industrial assembly companies are increasingly required to use angle controlled torque tools for screw tightening, as well as quality control, and documentation of their use.

For these companies, the topic of calibration is also becoming an increasingly important issue. After all, DIN EN ISO 9001 requires the regular testing and calibration of measuring instruments. Furthermore, DIN EN ISO 6789:2017 explicitly recommends an interval of no more than twelve months or 5,000 loads.

When calibration is necessary, there are several options available.

The torque tool is either sent to an external calibration service provider, or an investment in an in-house solution is made.

The investment in calibration equipment from STAHLWILLE will pay for itself quickly, if the volume of work is sufficient. You can calibrate in-house, saving time, reducing your costs and administration, and increasing the availability of your tools. In addition, you can introduce shorter calibration intervals at no additional cost to increase your process reliability and quality – with maximum flexibility.

As one of the world's leading torque specialists, STAHLWILLE recognised the potential of torque technology at an early stage and has established a reputation as a pioneer in the field. Today, professional users from the aerospace, automotive, energy, plant construction and trade industries, among others, rely on the precision of our torque tools on a daily basis. Many companies and accredited testing laboratories also rely on our proven testing and calibration technologies. They all know: Our torque tools, our DAkkS-certified calibration laboratory and our manual and motorised calibration equipment set the standards. And last but not least, they allow for an easy entry into the world of calibration.

[Discover the advantages of doing your own calibration!](#)



IN-HOUSE CALIBRATION – the advantages

Lower costs



The investment in your own testing and calibration equipment pays for itself within a short time. Companies that use torque tools on a daily basis reduce their costs in the long run.

- External testing and calibration of a single torque or angle controlled torque wrench can cost up to € 200.
- The associated costs for administration and shipping to an external calibration service provider are eliminated, as are the costs for testing and recalibration.
- What's more: You do not have to keep a stock of spare tools – capital is freed up.

Less effort



By calibrating on your own, you save valuable time. Your tool downtime costs will decrease and your employees will be able to focus on value-added activities.

- The administrative work involved in processing, shipping, contacting the external calibration service provider and checking the calibrated tools is considerable.
- The transport time alone means that your tool downtime costs increase with external calibration, because the tool can be on the road for several weeks at a time.

Increased process reliability



With your own calibration equipment, you can calibrate particularly quickly and trace and document calibration results seamlessly. You ensure consistently high quality, increase your process reliability and reduce risk in your business.

- You can calibrate more often – and with no additional costs.
- You can pre-calibrate when the tool is not needed.
- You can detect faulty tools earlier and minimise the risk of costly recalls or liability claims.

Ergo

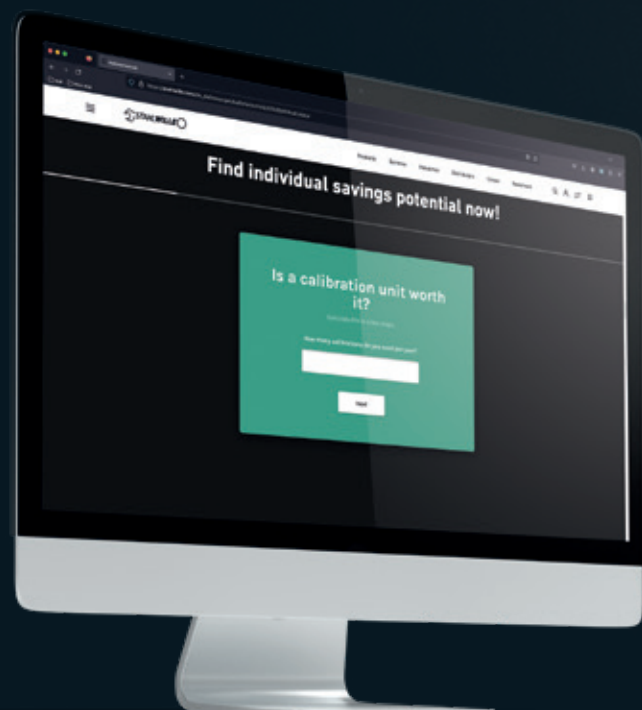


If you work with torque technology on a regular basis and have many of your own torque tools in use, a calibration system from STAHLWILLE makes an important contribution to making your business more efficient, profitable and reliable. We will be happy to advise you on the individual potential of your company – or to put you in touch with a STAHLWILLE partner near to you!



**An investment that pays off:
Faster than you think.**

Calculate how quickly a STAHLWILLE calibration system amortises based on your individual requirements. You will be surprised!
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GETTING STARTED – We make it easy.

If you choose a calibration system from STAHLWILLE, we will support you with your investment whenever you need us. We will also be there for you after you have made your purchase: Our employees are there to support you with their expertise, keep you up-to-date with the latest developments, and assist you both individually and personally.



Advice.

Our application specialists will advise you individually before you make your investment decision. Whether it be on-site, in online meetings, at a webinar, or at our Wuppertal headquarters, they take the time to answer any questions you may have about applicable calibration standards, explain the differences between our products, or demonstrate how they can be used. Together with your STAHLWILLE dealer, we will always find an optimal calibration solution for your individual requirements.

Webinar.

In addition to our classroom training, we also offer high-quality, informative webinars. Here, your employees can expand on their existing expertise from the comfort of their own workplace, and have direct contact with our experts. Our webinars take place on a regular basis. In addition to topics such as torque technology and products, the programme also includes the webinar “Increasing process reliability and quality with testing and calibration technology” and a webinar on our TorkMaster calibration software. Registration is easy through the STAHLWILLE website.



Training.

STAHLWILLE not only provides you with the technology. We share our expertise in theory and application with our trading partners and end-users. To ensure that your on-site staff can work safely and efficiently at all times, our historic facility in Wuppertal-Cronenberg houses a modern information centre and offers a wide range of classroom training for individuals and teams – including user training for our 7791, 7792 and 7794-1 manual calibration systems, and 7794-2 / 7794-3 motorised models.



Support and commissioning.

Our experienced experts will support you from the very first moment. They accompany you by video call or on-site during commissioning and answer your questions. In addition, the STAHLWILLE team will always be there to help you with product, software or application issues, as well as troubleshooting or process optimisation.



Scan the QR code to learn more about our webinars and to register!



TORKMASTER – For efficient and fast calibration as well as tool-related MFU [machine capability test].

With the introduction of the new ISO 6789:2017 standard for conformance testing and calibration of hand torque tools, the calibration process has become considerably more complex. The TorkMaster software nevertheless allows for fast and efficient calibration of torque tools – including the creation of standard-compliant calibration certificates. In addition, a module is available for the tool-related machine capability test according to VDI 2645 sheet 2 (MFU).

TorkMaster



Self-explanatory.

The software interface is designed to be virtually intuitive. Employees are able to use it after just a short training session.

Expandable.

Licenses for adjusting transducers or integrating the calibration equipment into test management systems (CAQ) are available as an option.

Diverse.

In addition to calibration, a machine capability test (MFU) is also possible upon purchase of the appropriate module.

TorkMaster software – Easy and professional calibration

- TorkMaster allows easy conformance testing and calibration of torque wrenches and screwdrivers according to DIN EN ISO 6789:2017 Parts 1 and 2 – with minimal effort for the user.
- Loading curves and the measured value are graphically displayed, calibration certificates are printed / saved / exported as a PDF, and calibration data is exported as a CSV file.
- Even effort-reducing motorised calibrations are possible in conjunction with the perfectControl calibration equipment.
- Different user authorisation levels simplify day-to-day administrative tasks.
- A separate calibration history can be created for each tool.

TorkMaster Gateway Software – The interface between the CAQ system and TorkMaster

- The optional CAQ interface enables connection to your primary CAQ system, which thus has access to all test data at all times.
- In doing so, TorkMaster Gateway reads, checks and analyses the data from the external CAQ system and automatically executes a sequence using TorkMaster 5.2, as specified by the CAQ system.
- Thus, central data sovereignty is maintained in the primary CAQ system and redundant data maintenance is eliminated.
- The safe storage of all data and the documentation of the calibration is automated.



Tool-related MFU with TorkMaster – Efficient validation of torque tools

- The tool-related MFU according to VDI/VDE 2645-2 uses statistical methods to make a statement about the stability of an adjusted single value.
- Typically, between 25 and 100 measurements are taken at each of three support points (minimum value, 60 per cent, maximum value). This means that a significantly higher number of measured values are recorded compared to calibration.
- For torque wrenches used to tighten screws in medium or large series, the MFU is the better alternative to calibration due to its more accurate analysis.
- TorkMaster and perfectControl calibrating equipment automate the MFU together. Despite the increase in the number of measurements required, the process runs efficiently and quickly.
- The software navigates through all steps, documents the results, creates printouts or PDFs of MFU verifications, and records them in the history.



CALIBRATION TECHNOLOGY – As a world-renowned torque expert, we offer our customers a particularly broad portfolio.

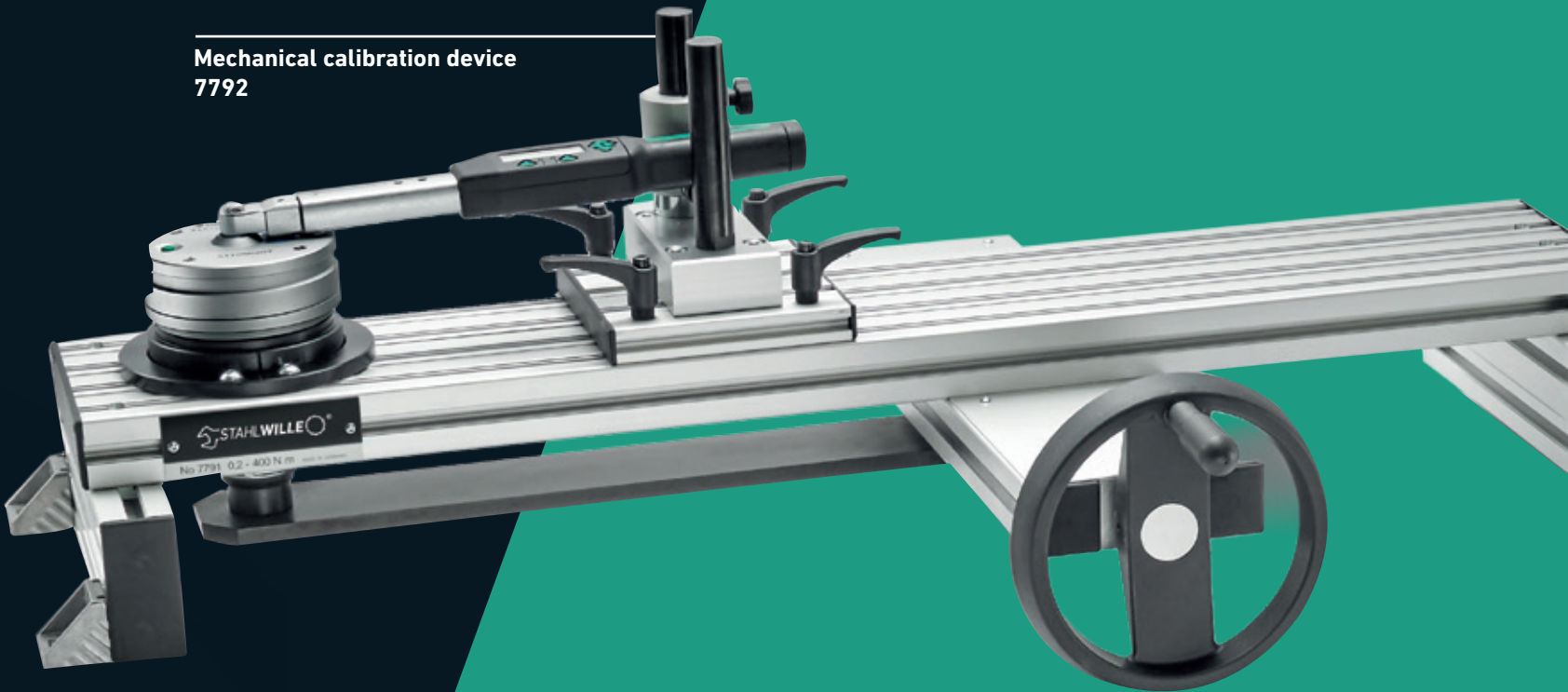
With our manual and motorised calibration systems, hand torque tools are calibrated quickly and efficiently to established industry standards.

Accurate.

All measurements without shifting the force application point. The measurement devices accurately detect, digitise the measured values and transmit them to the PC.

- Modular system with virtually intuitive operation – one user training session from STAHLWILLE is all it takes.
- Intelligent and low-maintenance design that makes measurement errors caused by incorrect operation almost impossible.
- Available as a mechanical model (MANUTORK® 7791, 7792 and perfectControl® 7794-1) and as an electronic, motorised version (perfectControl® 7794-2 and 7794-3).
- The perfectControl® 7794-3 also enables the calibration and adjustment of STAHLWILLE angle controlled torque wrenches.
- Torque range up to 1,000 N·m, depending on the model.

Mechanical calibration device
7792



A solution for every need.

Our product range includes both manual and motorised calibration systems.

Capable of integration.

DAPTIQ® calibration equipment works perfectly with control systems in state-of-the-art production facilities.

Motorised calibration system
7794-2



Automated calibrating and
adjusting unit 7794-3 for electronic
torque/angle controlled torque
wrenches



Available from your STAHLWILLE dealer

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