Rivet tester

The patented rivet and tool test

both for blind rivet and rivet gun
as well as rivet nut and setting tool
Quick, secure and traceable control measurement of rivet tools with the rivet tester by CSP

Rivets become increasingly important in modern assembly. Consistent quality assurance is therefore especially important.

For the first time, the rivet tester by CSP tests your riveted joints and riveting tools in functional context and automatically documents the results. By recording and comparing the force-path traces of rivet and test devices, you can perform an exact analysis of your rivet processes at any time.

This optimizes your processes, increases your quality and lowers your costs!

According to VDI/VDE 2862, risk assessments for fasteners in assembly are divided into categories A (safety-relevant), B (function-relevant) and C (customer-critical).

For category A, high requirements within the legally stipulated product liability apply with regard to the tools employed and the products fabricated with them. Presenting proof of the tool and product capability with corresponding documentation is inevitable.

The rivet tester by CSP provides you with reliable information for A-classified joints and thereby more safety for your products

This applies both to analyses in the lab (e.g. material tests) and tests in assembly and for maintenance (e.g. after repairs). You may also generate your own data for rivets which reflect your application scenario more precisely than general manufacturer specifications.

Control measurements thus improve your rivet joints and tools:

To test the rivet units, the rivet unit and blind rivet (rivet nut) is used with a material strip (e.g. sheet metal) that is identical or similar to the original component with regard to composition and thickness.

The material strip is fitted with rivets or rivet nuts and inserted into a clip.

The loaded clip is placed into the measurement cell.

Both the rivet gun and the entire riveting process are thus tested and riveting force and path are measured.

Apart from the quality assessment of the tool, conclusions as to the rivet joint on the product are also possible. How? With the help of the rivet tester, the capability of the tool used (machine capability testing) and the behavior in the process can be simulated and substantiated. Management and documentation of the data takes place, as already tried and trusted in screwing technology, with our standard software QS-Torque. Your test data is recorded in QS-Torque and compared by way of illustration for easier reporting.
Tool and product test in a single stage

Thanks to the possible merging of original parts from assembly batches (rivet or rivet nut) with sheet metal strips identical to the components and the assembly tools used, a combination of tool test (MFU) or random sample of the device and process test (PFU) of the fastener with the material (part) is created.

One or several material strips, also of different quality and thickness, can be used for the test. The key factor is that the difference to the original assembly process is as small as possible. This produces much more useful and realistic measuring results as, e.g., screwdrivers tests where no use of components or fasteners is possible in simulation.

Technical data on the rivet tester

<table>
<thead>
<tr>
<th>Force measurement</th>
<th>up to 20 kN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Path measurement</td>
<td>max. 50 mm</td>
</tr>
<tr>
<td>Design</td>
<td>mobile (batteries) / stationary</td>
</tr>
<tr>
<td>Weight, mobile</td>
<td>approx. 180 kg</td>
</tr>
<tr>
<td>Weight, stationary</td>
<td>approx. 60 kg</td>
</tr>
<tr>
<td>Dimensions mobile L / W / H</td>
<td>110 / 65 / 110 cm</td>
</tr>
<tr>
<td>Dimensions stationary L / W / H</td>
<td>39 (depending on the clip size) / 22.5 / 44 cm</td>
</tr>
<tr>
<td>Clip and strip size</td>
<td>for 5 or 10 test specimens</td>
</tr>
</tbody>
</table>

Data is approximate, deviations possible

Manufacturer-independent test options

The supplied software supports the direct connection (data interface) to all rivet guns equipped with the corresponding interface. Please contact us regarding manufacturers that are already supported!
Your benefits at a glance

**QUALITY**
The rivet tester by CSP increases the quality of your products since it reliably tests your tools (rivet guns and rivet setting devices) as well as rivet joints.

**CONTROL MEASUREMENTS AND ANALYSES**
Traceable and documented control measurements and analyses of your rivet tools allow you to intervene more quickly in case of defects. This saves unnecessary costs, for example, for rework and product recalls.

**SAFETY**
The use of the rivet tester enables you to increase the quality of safety-critical joints.

**MANUFACTURER INDEPENDENCE**
You may employ the rivet tester individually since it tests rivets and tools regardless of the manufacturer.

**MOBILITY**
Thanks to its mobility, the rivet tester can be employed everywhere in the company. All test data is available to you at any time and throughout the company.

**HISTORY FUNCTION**
QS-Torque saves all test data and creates a history for them. This allows you to re-access your data at any time.

**QS-Torque ENVIRONMENT**
The rivet tester may be easily integrated into your existing QS-Torque environment and can be operated effortlessly. The measuring system is easy to calibrate.

**IT requirements**

- **Standalone**
  - Standard notebook with common Windows operating systems

- **Connection to your company network with Oracle database**
  - Notebook or touch panel with common Windows operating systems
  - Network connection
  - Oracle Client V10 or higher
  - QS-Torque module Client / Server

**Did you already know...**

...our solutions for reliable process data management, efficient worker guidance and database archiving? And are you familiar with our consulting services, webinars and training programs for all aspects of our software?

Our specialists will gladly advise you! Contact us at info@csp-sw.de or by calling +49 9953 / 3006 - 0 or visit us at www.csp-sw.com!