

# Skilfully handled



## Biedermann measures with FIXATORs from Hegedüs

The Biedermann company in Villingen-Schwenningen has been an absolute specialist for innovative prostheses and implants for over 100 years. The family-owned company with an international focus attaches great importance to quality and precision. With the FIXATOR clamping device from Hegedüs, not just the measuring processes alone could be significantly simplified and accelerated.



Biedermann Motech GmbH & Co. KG in Villingen-Schwenningen can look back on more than 100 years of innovations in medical technology.

None other than the famous surgeon Prof. Ferdinand Sauerbruch worked with the technician Max Biedermann in 1916 to produce groundbreaking prostheses for war invalids. It was the start of an impressive company history called Biedermann.

After the Second World War, the son, Walter Biedermann, continued the orthopaedic business in his Swabian homeland. Decades of experience have led the family to delve further and further into the matter of supportive measures for people with impaired movement.

It was therefore hardly surprising that the renowned expert on spinal surgery, Prof. Jürgen Harms turned to his grandson Lutz Biedermann in 1986 to develop the world's first polyaxial screw and a vertebral body replacement.



The production manager Marc Kling (left) and measurement engineer Jürgen Lehmann save up to 40% of time in measurement technology with the FIXATOR as a clamping device for test parts.



The previous clamping method by means of a vice was cumbersome and could not rule out deformations of the measuring part. In addition, the part was not fully visible on the test screen.

## A global leader

Today, the fourth generation is already in the management of Biedermann MOTTECH GmbH & Co. KG. The Villingen-Schwenningen location alone employs more than one hundred people.

There are numerous international partnerships and research initiatives in spinal and trauma surgery. The name Biedermann stands for a world leading company in this sector. Well over a thousand patents underscore its innovative strength.

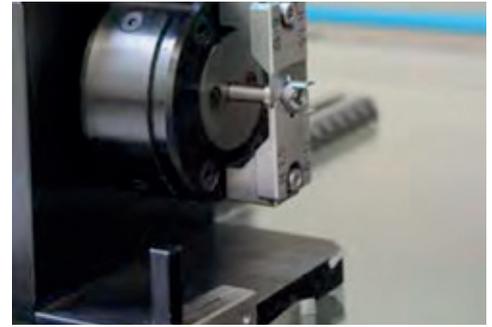
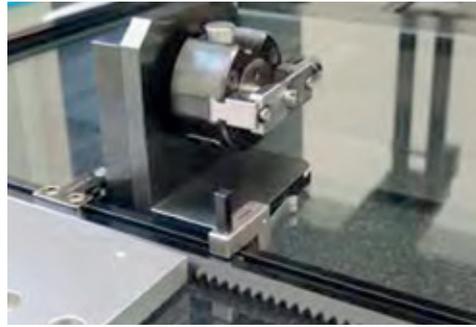
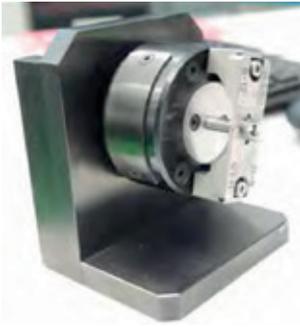
## Polyaxial bone screws

The technology relating to the polyaxial screws was gradually expanded. A mini polyaxial screw system made of titanium allowed minimally invasive interventions at the highest level with the greatest flexibility in attachment. Precisely these parts presented the production manager Marc Kling and the measuring engineer Jürgen Lehmann with a real challenge in quality assurance.

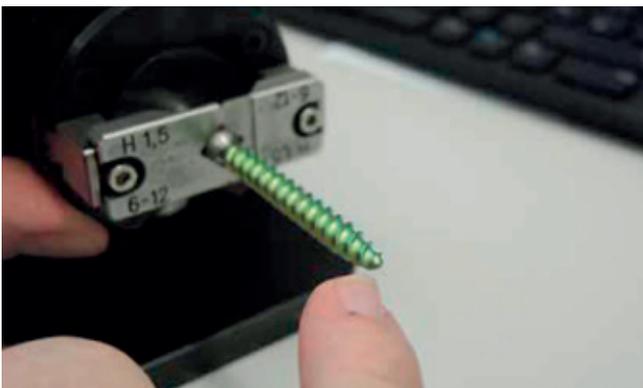
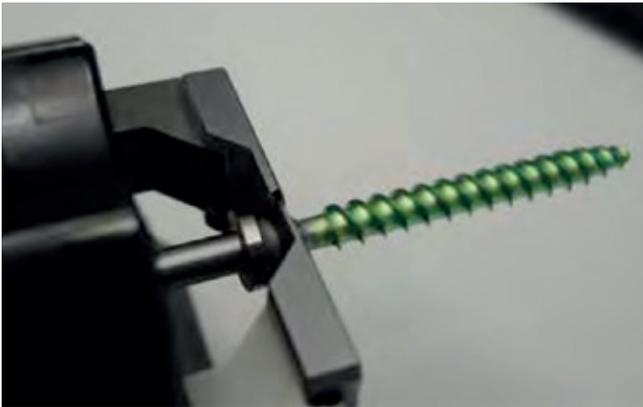
## Conventional measuring equipment is inadequate

Firstly, it was the sheer number of parts ranging from 250 to 500 pieces that were regularly available for measuring, and secondly, the filigree structure.

A moulded insert forms the heart of the tensioning and alignment of the titanium screws. In order to get these precisely on the optical measuring device, the measurement engineer Lehmann has so far used a vice and a rod as a holder. However, opening the sharp-edged moulded insert was tedious and not exactly pleasant for the fingers in the long run. In addition, Jürgen Lehmann could never be completely sure whether there would be any measurement errors if the part was pulled over the rod and possibly deformed. The wreath-like structure also had to be turned in order to reach all areas through the use of measurement technology.



Simple, fast, flexible. The FIXATOR solves clamping tasks on the measuring machine in a matter of seconds.



Even difficult measuring tasks such as screws are no problem with the FIXATOR.

## The FIXATOR makes it easy

The solution was provided by a special clamping system from the Viktor Hegedüs GmbH. The specialist for titanium anodisation and colour marking in medical technology also faced the problem of quick and reliable clamping of parts for reliable measurement. Nothing adequate was offered by the measuring machine manufacturers.

Since conventional systems seemed too cumbersome and prone to errors, he developed the FIXATOR. The system clamps rotationally symmetrical parts in a matter of seconds and makes them freely accessible for measurement from all sides.

## 40 Percent faster

The measurement engineer Lehmann is enthusiastic: „We received a FIXATOR with an adjusted clamping force, so I could be sure that no deformation would occur. Clamping is child’s play and done at the push of a button. Absolutely correct alignment is always assured thanks to the sophisticated mechanics and my fingers are protected. But the decisive factor is the time required.

We save 35 to 40 percent of time than in the past. After undertaking initial tests, we have discovered more and more possibilities, especially since there is a whole range of clamping sizes as well as internal and external clamping jaws. The ingeniously simple clamping system is as fast as lightning and can be used by anyone.“



Laser markings of all-round markings are perfectly feasible with the FIXATOR.

### **Repeatability assured**

Quality plays a key role at Biedermann. There are no compromises when it comes to spinal implants. Production manager Marc Kling describes the requirements: „We have many 100% tests in quality control because our customers and their patients also rely on us 100%. The FIXATOR offers us an easily repeatable process with a defined clamping force for clamping and aligning. That is ‚the be all and end all‘ in a measurement process. Operating errors are virtually impossible, which means that we can also safely involve suppliers in measuring tasks.“

### **Screws become measurable**

Encouraged by the good experiences, Jürgen Lehmann dared to measure screws with the FIXATOR: „I never thought before that it would be so easy. The screws are correctly aligned immediately. By simply turning, we are led directly to the critical points of the screw on the thread and on the head.“

### **New laser marking application**

The FIXATOR also found a new purpose outside the measuring lab. When it was necessary to laser-mark a new instrument with a scale and circumferential markings, this was initially classified as not possible with the usual precision. Marc Kling brought the FIXATOR into play, special clamping jaws were manufactured by Hegedüs and the labelling has been running accurately and easily ever since.

**„The versatility and ease of use have made the FIXATOR an indispensable help for us, which we never want to do without again.“**

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