### Press release Reutlingen, February 2020

*PR message for trade journals in the disciplines...*

***Quality control / Metrology***

***Computed tomography***

***Additive manufacturing***

**Modular fixating system for computed tomography**

**in quality control of additive manufacturing**

Due to its many advantages, 3D printing has a bright future and is therefore the fastest growing sector. Therefore new materials, processes, machines, products... and unfortunately also errors are constantly being created!

Since additive manufacturing can play out all its advantages, especially with highly complex components, its field of application is often found in very quality-sensitive industries and consequently requires precise testing.

In addition, 3D metal printing involves its own new and specific risks compared to conventional manufacturing, as several dozen parameters can influence the result.

While dimensional deviations could be measured tactilely or optically on the exterior of the additively manufactured components, the situation is rather more unfavourable for the interior dimensions of the products. Computed tomography not only makes these internal geometries accessible, but also identifies all defects such as cavities, inclusions and microstructure defects.

The conclusion: In additive high-tech manufacturing a specific component analysis is required, which is perfectly realised with CT technology. However, with each individual CT scan, the user is faced with the same question: Which fixation is best used to hold a component in the ideal scanning position in a simple, fast, secure, re-adjustable and as repeatable as possible way so that the result can be perfectly evaluated?

After many years of tinkering with polystyrene, dk FIXIERSYSTEME GmbH & Co.KG is now relieving users across all industries and showing how a modular system provides solutions for all conceivable clamping tasks.

These consist of basic, structural, clamping and clamp intermediate elements. The basic, structural and clamping elements are generated from the extensive and well-proven dk module systems for optical and tactile measurement technology. The clamp intermediate elements are new. These are full or hybrid elements which are X-ray transparent relative to the test part either completely or only in the contact zones. This means that the test specimen is completely detected in the scan, but the fixating element is not, even though it is in direct contact, since it holds the part mechanically in position.

The benefits of the dk modular clamping system for CT are particularly evident when compared to the use of polystyrene and other foamed material, which are formed from the solid:

* Clean, structured, documentable and therefore professional working method
* Effortless assembly of a sturdy clamping device
* infinite adjustment and trouble-free re-adjustment of the spatial position of the test specimen
* Repetitive clamping of several identical parts in succession
* Fixtures can be disassembled and reconfigured for identical or different components
* Permanent use of a sensibly expandable module system over many years

**Number of characters**

Total: 2,935 characters

Words: 430 words

**A short profile of dk FIXIERSYSTEME GmbH & Co. KG**

The core expertise at dk FIXIERSYSTEME focuses on modular clamping specifically for measuring technology but also for laser technology, dispensing technology, assembly technology, microtechnology and parts handling.

Active since 1972, the dk team began working with fixating technologies from an early stage and has further developed this range of products over the course of time. The latest development is the fixation program for industrial computed tomography.

Today, the product range encompasses ca. 1,000 products which can be freely combined and therefore form a modular system. Users who work with dk technology regularly confirm that the possibility to combine modules flexibly and the durability of the elements guarantee a precise measurement result with a continuous workflow.

*dk Fixiersysteme: modular. simple. better.*

dk FIXIERSYSTEME

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Image 1:

**CT fixating solution**

with linear adjustment, 3D pivot head, precision vice

and X-ray transparent clamp intermediate elements

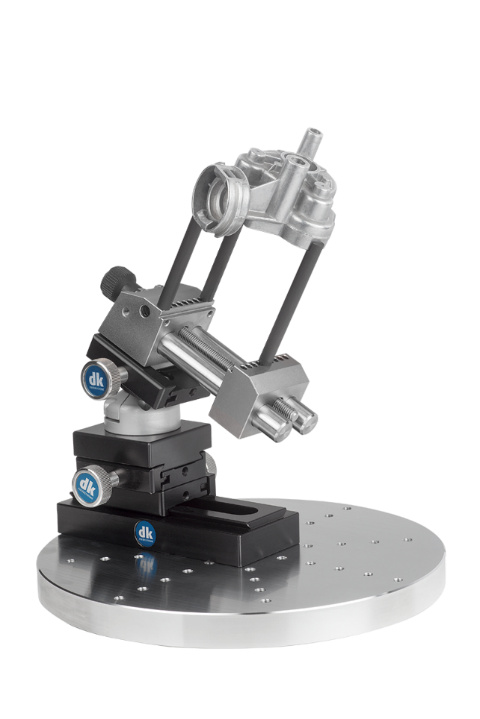


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