STIEFELMAYER

Metrology in Perfection

Sustainable and flexible

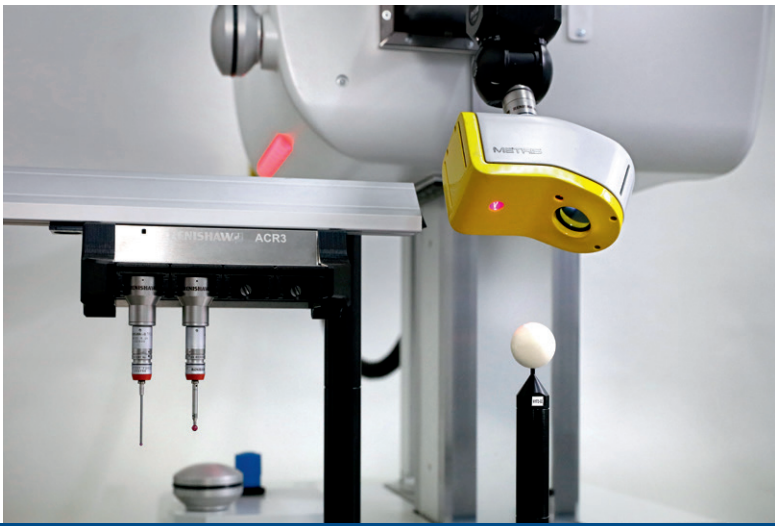
Why Stiefelmayer?

Stiefelmayer measurement systems and service at maximum flexibility

Compared to rigid systems like big bridge type CMMs, Stiefelmayer measurement solutions may be used in a much more flexible way. Even floor level, walkable and passable systems can be realized. Projects may be designed with high flexibility, starting from new machines up to used machines high-quality retrofitted.

Decade-proven successful operation e.g. in car design, automotive suppliers or at manufacturers for large gears, wind mills, mobility or turbines.

Measurement of single parts up to CNC series either with tactile probes or per scanner as well as milling of soft materials: This can be realized as single or combined option, either based on new Stiefelmayer measurement equipment or with older machines in most cases starting from 1980 year of manufacture.



Combination of CNC- and manual measurement with an ease of movement

In manual mode all axes are movable with minimum force either per hand or handwheel. At the same time all axes remain in position by a self-locking system. This technology enables an unique ease of movement compared e.g. to linear guiding systems.

Customer individual solutions and various options available

- Y- and Z-axis available in various lengths and X-axis fully flexible
- Implementation floor and side guided, walkable, passable or even ceiling mounted
- Many ways of installation at new or existing measuring plates
- Modification of axis lengths also at used machines

Commitment to tradition – Pioneer role in measuring enables high level of expertise

Since 1874 Stiefelmayer has been active in metrology and thus has developed various innovations. For example, the metrology standard MZ-1060-protocol. Accessories like the first measurement heads or the cubic head were developed by Stiefelmayer as well. The very first 3D-horizontal arm machine using digital display was an innovation by Stiefelmayer already in the 70th.

We focus on sustainable quality

Precision is already embedded in Stiefelmayer mechanics:

- Manufacturing processes improved since generations like for hardened columns or measurement arms
- Optimum geometry of measurement systems by mechanical alignment ex works Stiefelmayer. Thus good results can be achieved even without additional compensation which is mandatory for other solutions
- Outstanding stability and durability which reduces failures to nearly zero
- Maximized lifetime of major mechanical components up to forty years

Experts of Stiefelmayer service ensure that measurement accuracy remains at high level over decades. This service is certified and in accordance to DAkkS standard.

	ACTURA	FUTURA	VENTURA (DESIGN)
Application	• Measurement of large single parts • Marking of workpieces • Marking, measuring also in clay-design • Check of measure at fixtures	• Measurement of large single parts • Recurring measurement tasks in series • Precise measurement tasks • Combination of tactile measuring and scanning by usage of automatic tool change	• Measurement of large single parts • Recurring measurement tasks in series • Precise measurement tasks • Combination of tactile measuring and scanning by usage of automatic tool change • Marking of workpieces • Marking, measuring, milling of soft material e.g. in clay-design • Check of measure at fixtures
Benefits	• Easy usage • Ease of movement • Duplex option • Solid and robust • Stability • Floor level possible	• Switchable mode: manual ⇆ CNC • Ease of movement • Duplex option • Many retrofitting options • Precision and stability	• Switchable mode: manual ⇆ CNC • Ease of movement • Duplex option • Many retrofitting options • Precision and stability • Floor level possible
Attachment of measurement plate	Guiding rail with screwed or plugged in lineal on measurement or marking plate cut to size	Guiding system screwed on side of measurement plate. Measurement plate can be fully used as working surface	Measuring plate on floor level which is walkable and passable. Guiding or measuring system integrated into guiding rail
Accuracy E_o	45 – 120 µm + L/20 < 100 – 240	20 – 65 µm + L/20 < 50 – 160	25 – 90 µm + L/20 < 60 – 210
Measuring range X	Unlimited	Unlimited	Unlimited
Measuring range Y	Up to 2000 mm (2500 mm)*	Up to 2000 mm	Up to 2000 mm (2500 mm)*
Measuring range Z	Up to 3000 mm	Up to 3500 mm	Up to 3500 mm (4000 mm)*
Drive units X, Y, Z	ACTURA manual: X, Y, Z manual by handwheel	FUTURA manual: X, Y, Z manual by handwheel FUTURA CNC/CNC-manual: X, Y, Z CNC or motorized CNC-manual: switchable to manual mode by usage of handwheel	Ventura manual-motorized: X motorized handwheel, Y, Z manual by handwheel or motorized VENTURA CNC/CNC-manual: X, Y, Z CNC or motorized CNC-manual: switchable to manual mode by usage of handwheel

* Maximum measurement range for marking of workpieces only

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