

Carl Zeiss 3D Automation GmbH

Original ZEISS Accessories



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Global Business Development Manager

Original ZEISS Accessories Stylus Systems – Don't ...



... use a low end stylus system on a high end cmm!

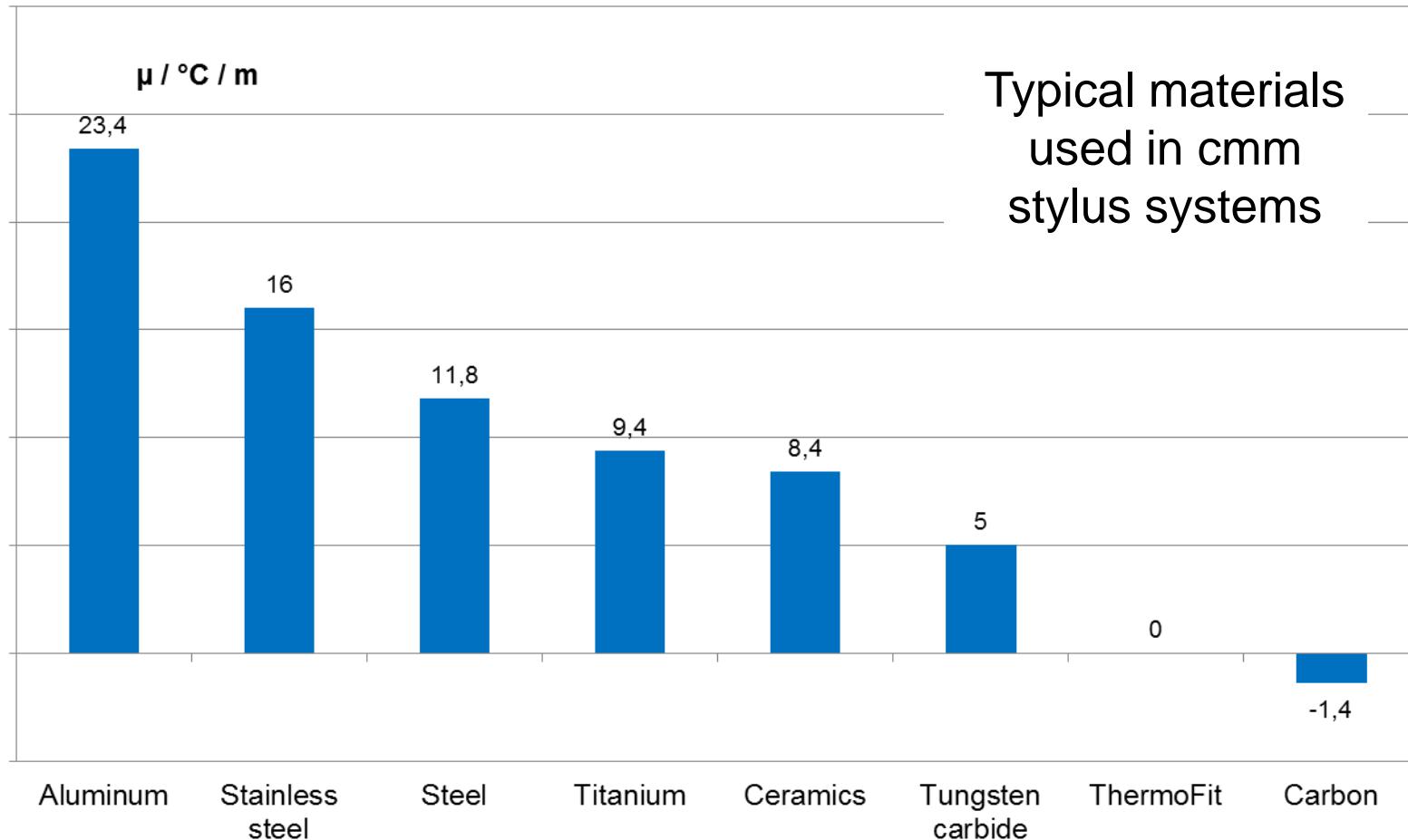


Original ZEISS Accessories

Stylus Systems – ThermoFit®



Coefficient of linear thermal expansion CTE



Original ZEISS Accessories Stylus Systems – ThermoFit®



ThermoFit®

- high stiffness carbon fibers
- woven angles optimized for stiffness and low thermal expansion and torsion
- production on own machinery
 - full control of quality and characteristics

Competitor carbon fiber

- cheaper, lower quality carbon fibre
- rough and wide wraps, not optimized for thermal torsional stiffness



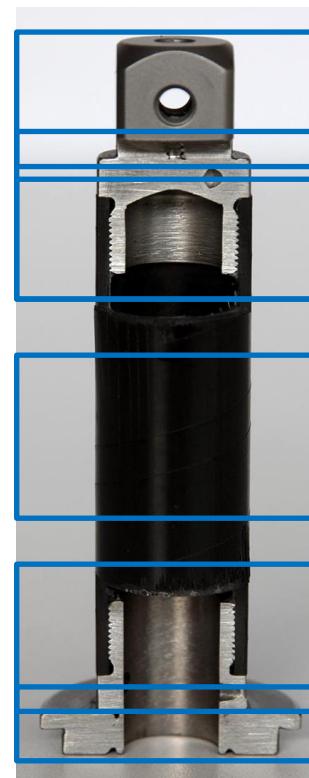
Original ZEISS Accessories Stylus Systems – ThermoFit®



Comparison between ThermoFit® and competitors carbon fiber



- ① one solid piece
- ③ no glueing gap
- ④ unique alignment of carbon fibers
- ⑤ extra thick material, high stiffness titanium grade 5

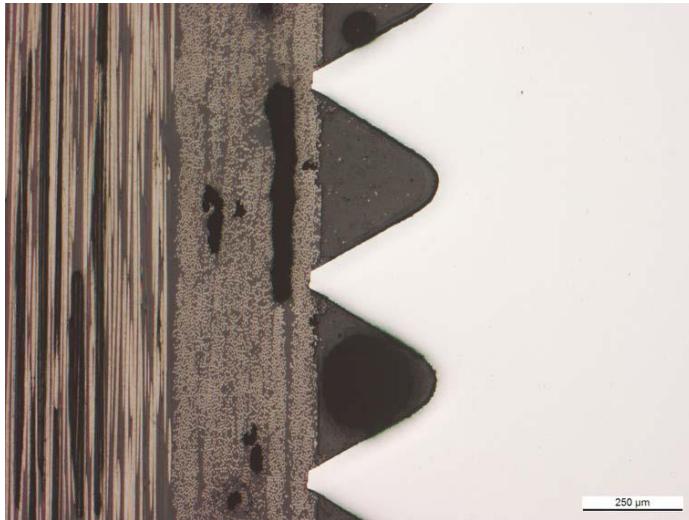


- ① several pieces welded together
- ② weld
- ③ glueing gap
- ④ no own design of fibers
- ⑤ less and lower stiffness material (titanium grade 2)

Original ZEISS Accessories Stylus Systems – ThermoFit®

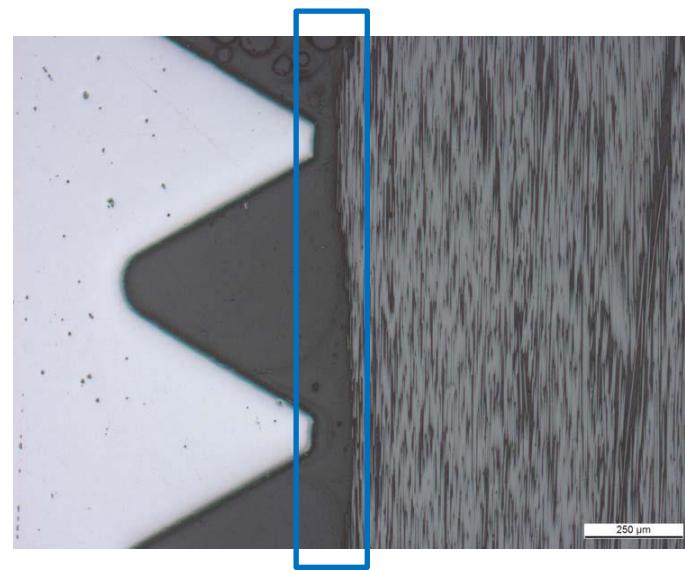


Comparison of bonding between ThermoFit® and competitors carbon fiber



ThermoFit® original bonding

- adaptors are cut into carbon fiber, both have very high stiffness
- no soft glueing gap

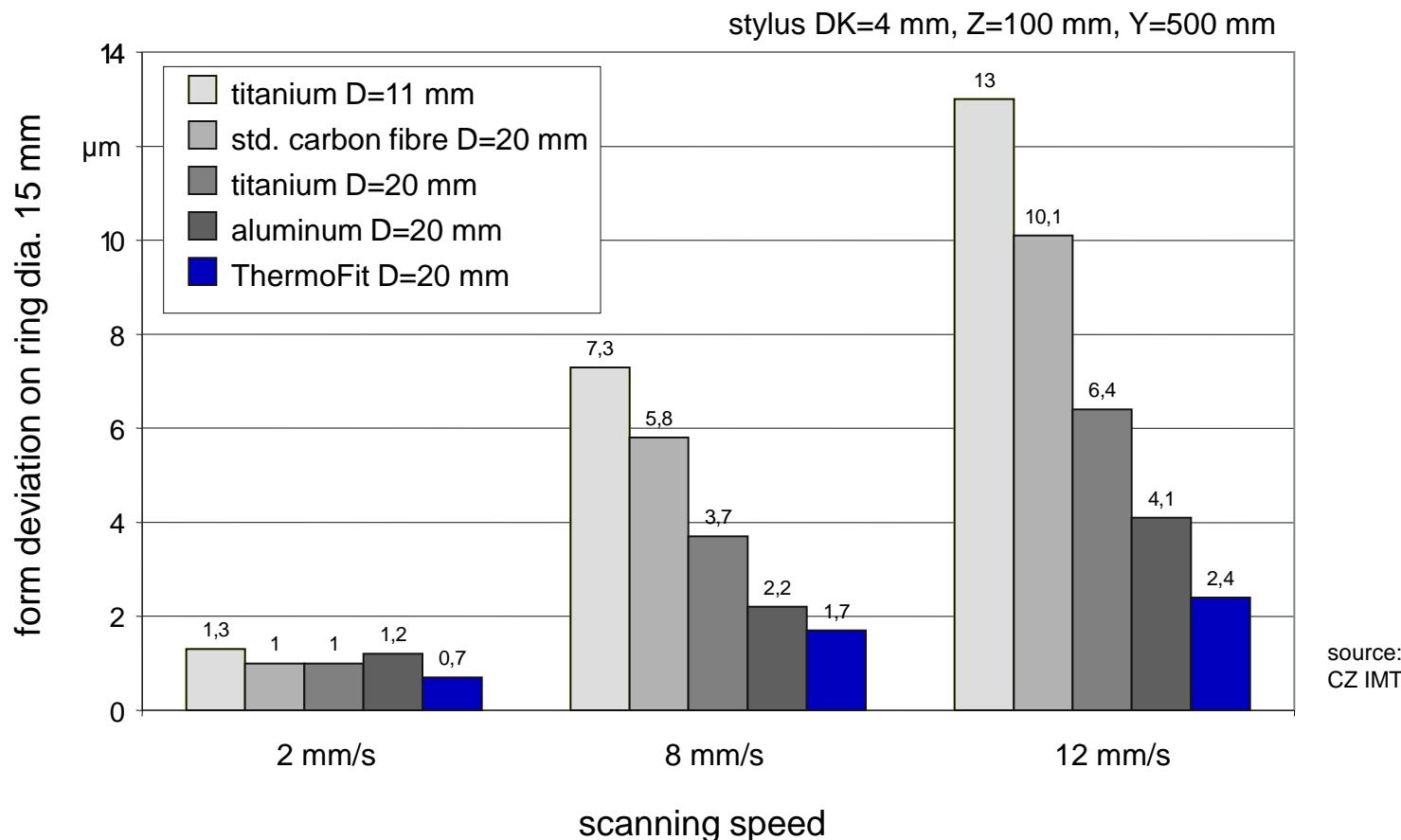


Competitor copy (best price design)

- soft glue inbetween adaptor and carbon fiber tube weakens overall stiffness

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Stylus Systems – ThermoFit®



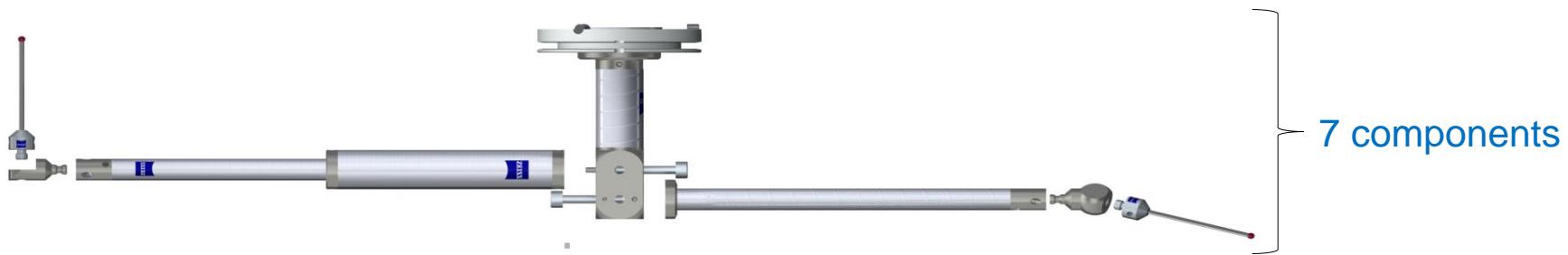
Original ZEISS Accessories Stylus Systems – ThermoFit® Pro



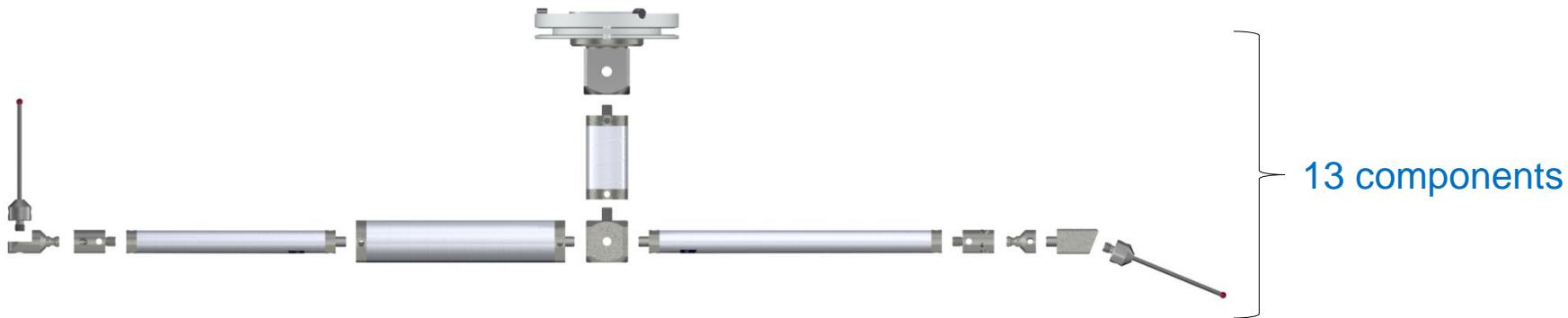
Original ZEISS Accessories Stylus Systems – ThermoFit® Pro



① ThermoFit® Pro → Prealigned and exchangeable groups of components



② „Normal ThermoFit®“ → Multiple single components



Original ZEISS Accessories Stylus Systems – ThermoFit® Pro



Standard solutions for complex applications

Original ZEISS Accessories

Stylus Systems – ThermoFit® Pro



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626107-2000-963



626107-2000-961



626107-2xxx-941



626107-2xxx-945



626107-2xxx-960



626107-2xxx-964



626107-6060-004

Indexscheibe

Mit der Indexscheibe können Mehrfachaufnahmen an ThermoFit Pro Würfeln befestigt werden. So können komplexe Mehrfachaufnahmen für räumliche Winkelstücke aufgebaut werden.

626107-6021-xxx



626107-6060-007



626107-6060-003



626107-6060-000



626107-4xxx-000



626107-4xxx-xxx



626107-6020-xxx



626107-6280-050



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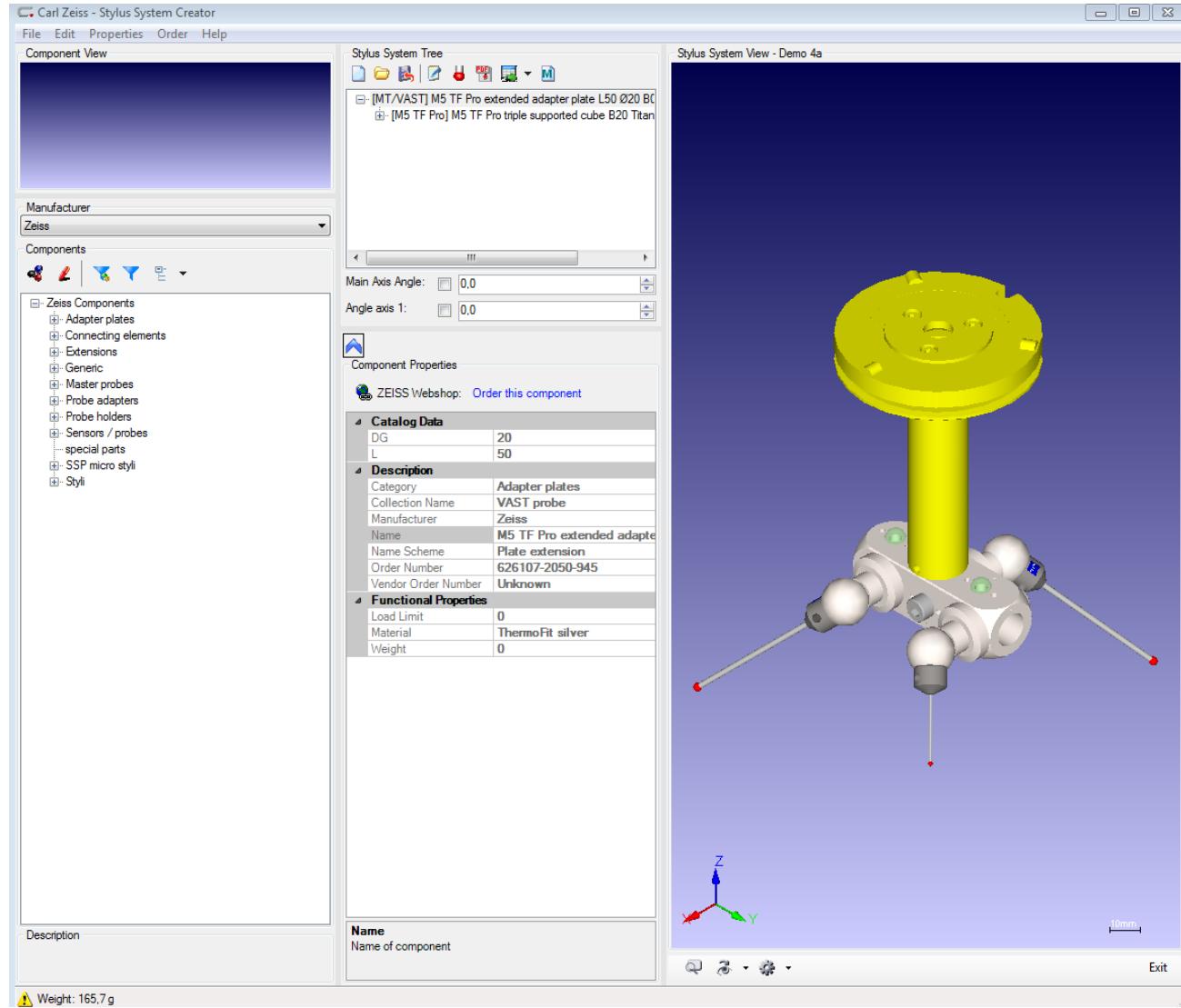
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Original ZEISS Accessories Stylus Systems – SSC Software



- Quickly build stylus systems and simulate them in Calypso Planner Simulation
- Library with over 2.000 components available
- One click Pdf documentation (in Chinese)
- Generate complex angles with generic standard components
- No CAD knowledge required



Original ZEISS Accessories Proven Success



[Home](#)

Case Study: GM Cuts Inspection Time by 40%

August 3, 2012

Zeiss aids General Motors in the design and manufacture of custom probe tooling.



ThermoFit Pro components do not have threads but instead are conjoined by plug-in connections and are then screwed from the backside of the cube. Source: Carl Zeiss Industrial Metrology



We make it visible.