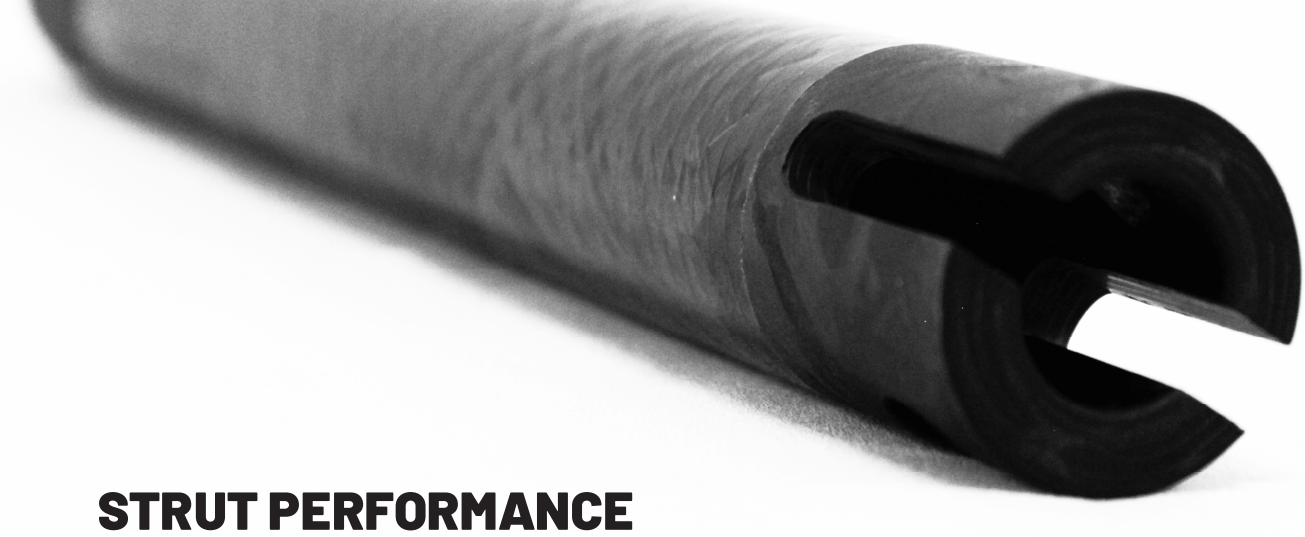
BLACK STRUTS

A REVOLUTION IN PRECISION AND MASS REDUCTION

SPACE
COMPOSITE STRUCTURES
DENMARK



STRUT PERFORMANCE

	w. Clevis interfaces	w. Threaded interface	Analysis/Test
Mass [g]	171.15	180.62	Test
Size [mm]	Ø35/Ø12; L300	Ø35/M3/4"x1/8"; L300	Test
Tensile strength [N]	32911.0	43861.5	Test
Tensile strength/Mass [KN/Kg]	188	240	Test
Tension Spring constant [N/mm]	36699	49570	Analysis
St Eigen frequency (Free) [Hz]	1798	2095	Analysis
CME [1/%]	9.32×10^{-5}	6.11 x 10-5	Test
Total CME length increase [mm]	0.0047	0.0023	Test
CTE 0°C to 50°C 1/K]	-0.47×10^{-6}	-0.51×10^{-6}	Test
CTE 0°C to -175°C [1/K]	0.05×10^{-6}	-0.19×10^{-6}	Test

- Satellite and Instrument Strut Elements
- 100% CFRP, No broken fibers, No metal
- 60% mass savings against Invar CTE=0 struts
- No cost gain compared to other strut solutions
- Coefficient of Moisture Expansion = 0
- Coefficient of Thermal Expansion = 0
- In-house Filament Winding manufacturing

SCSDK offers design, engineering, manufacturing, verification & integration support for all types of space vessel composite structures. We are a High-Tech firm focusing on disruptive approach to space business.

Performance test reports available on request

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