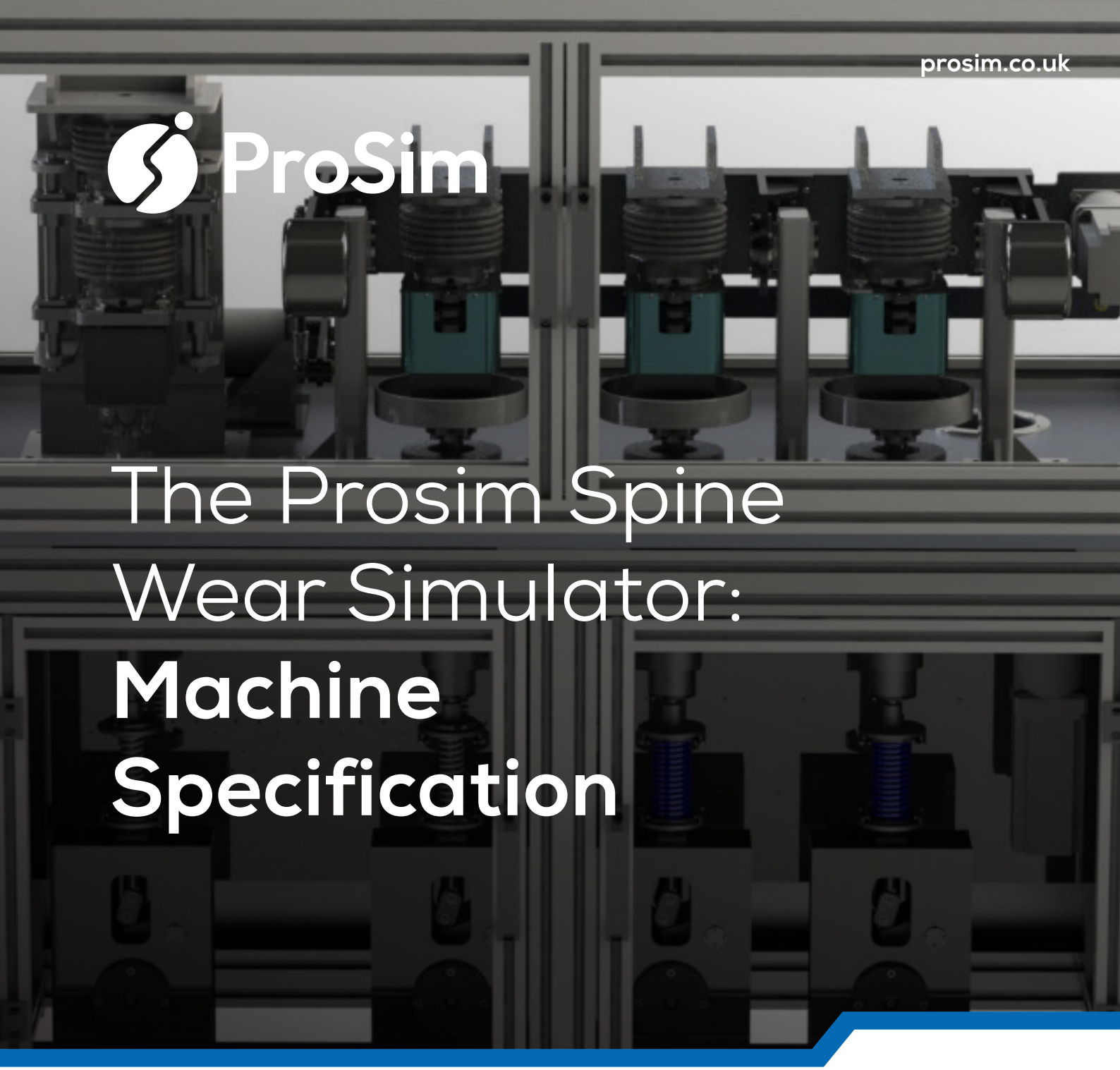
ProSim



The Prosim Spine Wear Simulator: **Machine Specification**

The **Prosim Spine Wear Simulator** is a multi-station machine designed for the reliable and repeatable testing of both cervical and lumbar total intervertebral disc replacement implants.

The Prosim Spine Wear Simulator meets the following apparatus requirements:

- **ISO 18192-1 (2011) –** Implants for surgery – wear of total intervertebral spinal disc prostheses - Part 1: loading and displacement parameters for wear-testing machines and corresponding environmental conditions for test

The Prosim Spine Wear Simulator includes numerous features and benefits:

- Up to three TDR implants can be kinematically tested simultaneously
- Up to two TDR implants can be 'load soak' tested simultaneously
- Both cervical and lumbar TDRs can be accurately tested to meet the requirements of ISO 18192-1.
- Axial load plus three axes of articulation (FE, LB and AR) for each kinematic station
- Axial load only on soak station
- Up to 50 programmable profiles
- Operating frequency of motions programmable from 0.5 to 2.0 Hz
- Capable of running programmed sequences of walking, jogging, running and periods of rest
- Test fluid temperature is maintained at 37°C ±2°C using a Peltier heater/cooler
- Axial loading of up to 2kN per station
- Up to +/- 10° (with accuracy of +/-0.5°) of programmable motion on the flexion-extension axis
- Up to +/- 100 (with accuracy of +/-0.5°) of programmable motion on the axial rotation axis
- Up to +/-100 (with an accuracy of +/-0.5°) of programmable motion on the lateral bending axis
- Real-time logging of position and load allows instant verification of the test cycle
- Clinically and physiologically representative testing of TDR

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