**TECHNICAL AND FUNCTIONAL CHARACTERISTICS OF THE COORD3 ARES NT THREE-DIMENSIONAL COORDINATE MEASURING MACHINE MOD. 7.7.5**

The **COORD3 ARES NT 7.7.5** coordinate measuring machine (CMM) is designed for high-precision metrology applications. This model offers a combination of structural rigidity, accuracy and versatility, making it suitable for both shop floor and quality control laboratory environments.

**Main technical features**

**Measuring range**: 700 mm (X axis) × 700 mm (Y axis) × 500 mm (Z axis)

**Construction**: Ultra-rigid alloy frame with silicon carbide Z-axis column for greater rigidity

**Measuring system**: Optical scales with 0.1 µm resolution and dynamic signal processing

**Motion**: Fully digital motion control with probe path fusion; friction reducers with near-zero hysteresis on all axes

**Speed and acceleration**:

Maximum positioning speed: 517 mm/s

Maximum acceleration: 1730 mm/s².

**Temperature compensation system**: Wireless dynamic temperature compensation, including part temperature detection

**Damping system**: Passive vibration damping system to isolate external vibrations

**Accessibility**: Free access to the measuring area from all sides

Environmental and Power Specifications

**Operating temperature**: 15 - 35 °C (metrological range: 18 - 22 °C)

**Relative humidity**: 40 - 80% (non-condensing)

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**Acceptable vibrations**

30 mm/s² (1-10 Hz)

15 mm/s² (10-20 Hz)

50 mm/s² (20-100 Hz)

**Air supply**: Minimum 5 bar, air consumption: 100 Nl/min

**Power supply**: 230 V 50 Hz or 110 V 60 Hz (±2% single-phase), maximum **consumption**: 10 A, 1200 W (1600 W for larger models)

**Equipment and Options**

**Measuring head**: Compatible with Renishaw manual or motorised probe heads, including the PH10M for scanning applications

**Software**: Compatible with software such as TouchDMIS, CMM Manager, Verisurf, Modus and others compliant with i++ standard

**Additional options**:

Laser scanning sensor

Pneumatic vibration isolation system

Modular parts clamping kit

Accuracy and Repeatability

Maximum permissible error (MPEe): 2.5 µm + L/300 (where L is the measurement length in mm)

Repeatability: up to 2.3 µm