

# INFINITE SC SPECIFICATIONS



**Axes Configuration:** 7 axes, 2-2-3  
**Operating Range:** 0 to 46 degrees C  
**Humidity:** Relative Humidity from 5% to 95%, Non-Condensing  
**Protection:** Provides protection to IP 64 standards  
**Permissible Angular Accelertion:** 105 rad/s<sup>2</sup>  
**Vibration:** (55 to 2000Hz): < 100 ms / s<sup>2</sup> EN 60 068-2-6  
**Shock & Impact:** 6ms (IEC 68-2-27), <1000 ms / s<sup>2</sup> EN60 068-2-27  
**Power Supply:** Universal worldwide voltage 110-240  
**Certification:** CE Compliant  
 EMC, Electromagnetic Compatibility  
 Directive 89/336/EEC, 92/31/EEC, 93/68/EEC  
 EN 61326-1 (1997), Group 1, Class "A"  
 EC 1000-4-2, 3, 4, 5, 6 (1995), IEC 1000-4-11 (1995)  
 EN61000-3-2, EN61000-3-3  
 Low Voltage Directive 73/23/EEC, 93/68/EEC  
 EN 61010-1:1993 (includes A1) + A2: 1995

ROMER INFINITE SC	Cone Test or S.P.A.T. (mm)	Cone Test or S.P.A.T. (in.)	Volumetric Length Accuracy (mm)	Volumetric Length Accuracy (in.)
1.8 m (6 ft.)	0.024	0.0009	0.035	0.0014
2.4 m (8 ft.)	0.028	0.0011	0.040	0.0016
2.8 m (9 ft.)	0.045	0.0018	0.064	0.0025
3.0 m (10 ft.)	0.050	0.0020	0.071	0.0028
3.6 m (12 ft.)	0.070	0.0028	0.100	0.0039

## All tests performed with the 15mm probe in the center axis mount position

### Cone Test or S.P.A.T.

The probe is placed within a trihedral seat or conical socket, and individual points are measured from multiple approach angles with maximum articulation of all of the principal joints. Each individual point measurement is analyzed as a range of deviations about the average value for the point locations. This test is intended to assess the arm's ability to provide similar values of a point coordinate, when the arm is articulated through the maximum possible range of motion for that single point.

### Volumetric Length Accuracy Test (Volumetric Performance Test)

Volumetric length accuracy is determined by using certified length standards (included with all arms) that are measured at various locations and orientations throughout the measuring volume of the ROMER CimCore arm. This test most accurately represents the reasonable expectations for machine performance in practical measuring applications. The Volumetric Length Accuracy Test is the most appropriate test for determining machine accuracy and repeatability since it involves measuring a certified length standard many times in several locations and orientations and compares the resultant measurements to the actual length.

**Note:** The ASME Standards committee has established a working group (B89.4.22) to develop a standard for Methods of Performance and Evaluation of Articulated Arm Coordinate Measuring Machines. The standard has not been finalized, approved or released to date. ROMER CimCore endorses the Single Point Articulation Test and the Volumetric Performance Test since they are integral to the proposed B89 standard.

## INFINITE SC™ Configuration

- INFINITE SC™ CMM available in your choice of measuring envelopes: 6-, 8-, 9-, 10- and 12-foot
- Zero-G™ Counterbalance
- WinRDS™ and HighRES™ software
- NIST-traceable calibrated length standard
- 15 mm ball, 6 mm ruby tip and point tip carbide-shaft probes<sup>(1)</sup>
- Magnetic base
- Carrying case
- One-year warranty

<sup>(1)</sup> 13-pin configuration. A 9-pin set of probes for the offset probe position available at an additional cost.

Specifications determined in laboratory environment with experienced operators.