

ROMER

HEXAGON METROLOGY



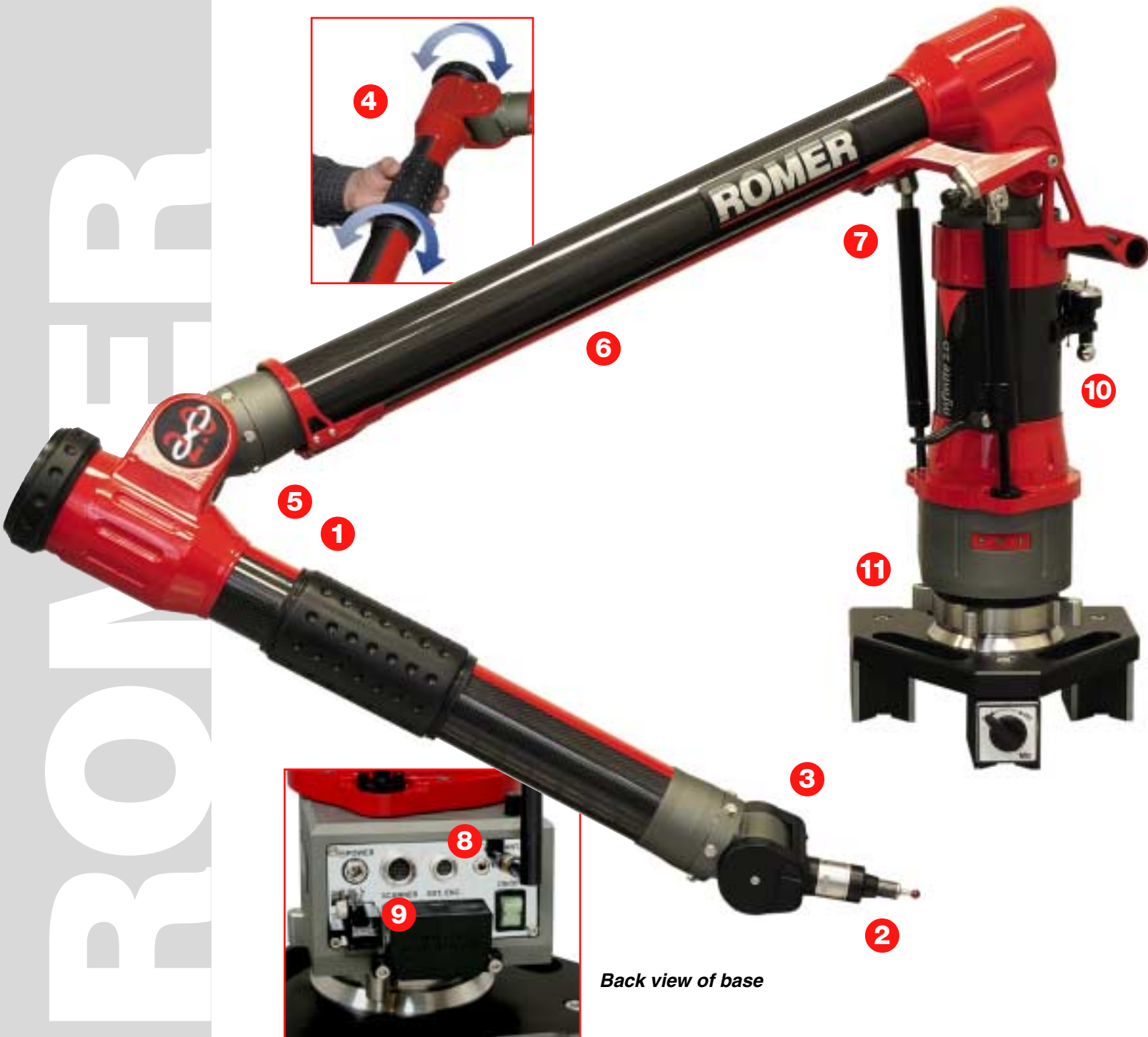
INFINITE[®] 2.0

Portable Coordinate Measurement Machines



INFINITE[®] 2.0 Portable CMM

The new INFINITE 2.0 is ROMER's easiest-to-use and most accurate articulating arm ever. New handling and performance features — along with patented infinite rotation, quick-change probes, exclusive wireless connectivity and battery power — provide *INFINITE* portability and measuring power. INFINITE 2.0 Plus models, with unsurpassed repeatability and volumetric accuracy, are ideal for the most demanding inspection tasks. ROMER also offers system verification “in the field” with a NIST-traceable calibrated length standard with every arm. This allows the operator to easily verify and document system performance for ISO or vendor requirements.



Back view of base



The interchangeable ScanShark V4ix probe can be used with Brown & Sharpe bridge-type CMMs.

INFINITE 2.0 seven-axis CMM with new ScanShark™ non-contact laser scanner

Combine portable CMM flexibility with laser scanning for real-time surface inspection in a complete turnkey package. It's ideal for large workpieces that can't be moved, difficult-to-access areas and flexible, fragile or soft-bodied parts that could be marred or deflected by a contact probe. ScanShark can gather up to 25 times more points per second than other laser systems, so it's perfect for large complex areas and generating point clouds for reverse engineering.



1. Patented infinite rotation of principle axes allows inspection in difficult-to-reach areas.

2. With the new Bridge-CMM class TESA kinematic multiwire probe joint

you get unsurpassed measuring performance. Carbon fiber probes feature automatic probe recognition.

3. A new smaller, easy-grip head features an LED worklight and an integrated digital camera that allows the operator to graphically document a setup.

4. New SpinGrip infinite-rotating grips at elbow and forearm provide two low friction grip positions for better ergonomics. SpinGrip allows the CMM to "float" in the operator's hands maximizing accuracy and minimizing operator fatigue.

5. Heidenhain encoders, manufactured to our specifications, offer "wide-track" bearing support that enhances performance.

6. Advanced carbon fiber arm tubes are strong, light weight, thermally stable and feature a lifetime warranty.

7. An improved, low-profile Zero-G counterbalance reduces operator fatigue and delivers effortless control in all positions, including above and below the centerline.

8. An upgraded 802.11g WIFI connection — transmitting up to 6 times farther and 50 times faster than Bluetooth — allows the operator to position the computer where it is most convenient.

9. A Li-Ion battery allows on-site inspection without AC power or cables. A sealed battery cover prevents

contamination of the battery compartment or accidental dislodging of the battery.

10. A quick-clip probe holster keeps three spare probes and the change key safe and handy.

11. The universal mounting system attaches to a variety of bases, including a magnetic mount for a smaller footprint and simplified set-up.

PC-DMIS Portable is standard

With the world's largest installed base of any dimensional measurement and inspection software, PC-DMIS is the ideal match for the INFINITE 2.0. PC-DMIS Portable makes it easy to inspect parts in real-time, quickly generate new inspection programs and produce customizable results reports. PC-DMIS

is compatible with most CAD files, and is available with optional direct CAD interfaces for even faster programming and improved accuracy.



INFINITE 2.0 Specifications

INFINITE 2.0 (Six Axis)



| Measuring Range | Point Repeatability | Volume Length Accuracy | Arm Weight |
|-----------------|-----------------------|------------------------|----------------------|
| 4 ft. (1.2 m) | 0.0004 in. (0.010 mm) | 0.0006 in. (0.016 mm) | 15.18 lbs. (6.89 kg) |
| 6 ft. (1.8 m) | 0.0006 in. (0.016 mm) | 0.0009 in. (0.023 mm) | 16.68 lbs. (7.57 kg) |
| 8 ft. (2.4 m) | 0.0008 in. (0.020 mm) | 0.0011 in. (0.029 mm) | 17.24 lbs. (7.82 kg) |
| 9 ft. (2.8 m) | 0.0011 in. (0.029 mm) | 0.0016 in. (0.041 mm) | 17.57 lbs. (7.97 kg) |
| 10 ft. (3.0 m) | 0.0013 in. (0.034mm) | 0.002 in. (0.050 mm) | 18.1 lbs. (8.22 kg) |
| 12 ft. (3.6 m) | 0.0020 in. (0.050 mm) | 0.0027 in. (0.068 mm) | 19.00 lbs. (8.65 kg) |

INFINITE 2.0 (Seven Axis)



| | | | |
|----------------|-----------------------|-----------------------|----------------------|
| 6 ft. (1.8 m) | 0.0009 in. (0.024 mm) | 0.0014 in. (0.035 mm) | 17.74 lbs. (8.05 kg) |
| 8 ft. (2.4 m) | 0.0011 in. (0.028 mm) | 0.0016 in. (0.040 mm) | 18.36 lbs. (8.33 kg) |
| 9 ft. (2.8 m) | 0.0018 in. (0.045 mm) | 0.0025 in. (0.064 mm) | 18.73 lbs. (8.33 kg) |
| 10 ft. (3.0 m) | 0.0020 in. (0.050 mm) | 0.0028 in. (0.071 mm) | 19.51 lbs. (8.85 kg) |
| 12 ft. (3.6 m) | 0.0028 in. (0.070 mm) | 0.0040 in. (0.100 mm) | 20.12 lbs. (9.13 kg) |

INFINITE 2.0 Plus (Six Axis)



| | | | |
|----------------|------------------------|------------------------|----------------------|
| 8 ft. (2.4 m) | 0.00070 in. (0.017 mm) | 0.00098 in. (0.025 mm) | 17.24 lbs. (7.82 kg) |
| 12 ft. (3.6 m) | 0.0017 in. (0.043 mm) | 0.0022 in. (0.058 mm) | 19.00 lbs. (8.65 kg) |

Humidity: 5% - 95% noncondensing

Shock & Impact: 6ms, <1000 ms/s²

Certification : CE compliant

Vibration: (55 to 2000Hz): < 100 ms/s²

Power requirement: Universal worldwide voltage 110-240

Point Repeatability Test (also known as Single Point Articulation Test, or S.P.A.T.): Results analyzed via Range/2 method. 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 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): Results analyzed via Range/2 method. 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. 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.

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ISO 9001:2000 and
 17025 certified



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