



- Infinite rotation
- Wireless battery pack with WiFi communication
- Repeatably mounting adaptor compatible with mobile or magnetic stand
- Very-high-resolution encoders
- New design for optimum rigidity
- Carbon fibre thermally stable
- Quick and easy mounting with unique tightening system of the tubes
- Light and ergonomic wrist
- 3D Laser Scanning probe compatible
- Touch trigger, contact or non-contact (infrared) probes (quick change and automatic detection)

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The Unique Measuring Arm with 2 configurations. Its ergonomics, its robustness, the infinite rotation make FLEX your ideal tool of metrology for your specific applications (geometrical measurements, surface control, reverse engineering...)

Articulated FLEX Arms Worldwide Exclusive Technology

The FLEX series features **worldwide exclusive** technology: Combine 2 arms of different sizes in only 1 piece of equipment with the accuracy required for each configuration. By selecting 2 arm lengths, FLEX will correspond to the right volumes and accuracy of the parts to be controlled. Make use of the ROMER technological advances thanks to the fast and easy arm length changes (under 2 minutes) and optimize the accuracy ratio/volume of measurement corresponding to your activity. FLEX Arm is the answer to your control needs, guaranteeing successful measurements.

Choose ROMER, the creator of the 3D portable measuring arms, and profit from a fast, intuitive measurement without constraints.



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Specifications

Operating temperature range
+10°C to +40°C

Operating humidity range
5% to 90% non-condensing

Power supply
Alimentation CA 100 to 240
VAC (±10%), 50/60Hz (±3Hz)

Electromagnetic compatibility
Compliant with
CEM directives 89/336/EEC,
92/31/EEC, 93/68/EEC

Applicable norms:
EN61326(98), EN55022(94)
/ A1(95), EN61000-3-2(95)
/ A1(98) / A2(98) / A14(00),
EN61000-3-3(95), EN61000-
4-2(95) / A1(98), EN61000-
4-3(96), EN61000-4-4(95),
EN61000-4-5(95), EN61000-
4-6(96), EN61000-4-11(94)

Low voltage
Compliant with low voltage
directive 73/23/EEC, 93/68/EEC
Applicable norm: EN61010-1
(2001)



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High technology and a unique modularity concept offer you total measurement comfort

Accuracy Specifications

Models	Measuring Range (Spherical diameter) mm	Repeatability Sphere Test a) mm	Repeatability Cone Test b) mm	Length Accuracy Test c) mm	Weight kg
2018	1800	± 0.012	± 0.022	± 0.030	5.9
2022	2200	± 0.017	± 0.024	± 0.030	6.0
2025	2500	± 0.020	± 0.029	± 0.041	6.1
2028	2800	± 0.030	± 0.038	± 0.053	6.2
2030	3000	± 0.042	± 0.046	± 0.065	6.2
2036	3600	± 0.059	± 0.065	± 0.089	6.4
2052	5200	± 0.102	± 0.168	± 0.150	6.8

FLEX available configurations

FLEX Arm 2518 3018 3022 3618 3622 3625 5218 5222 5225 5228
Example: Flex 2518 includes 2 configurations 2025 and 2018 (see specifications above)

Equipment delivered with Flex Arm

- Flex Arm (2 sizes)
- Romosoft including GDS (interface software)
- Set of 3 contact probes (point, 6 and 15mm ball ø)
- Fixing kit: a repeatable mounting puck, a fixing plate and c-clamps
- Counterbalance (2 sizes)
- Verification bar
- Transport case
- Wireless battery pack with WiFi communication (autonomy: 5 hours, max theoretical range 50m (inside) and 200m (outside), Li-Ion battery -removable, sound jack and integrated speaker)
- Hub box (power supply) CE



Software and hardware complementary equipments

- PC-DMIS, G-Pad, G-Surf, G-Tube software for geometric, surface and tube entities measurement
- R-Scan, the scanning accessory for reverse engineering
- Digital Rails from 800 to 3500mm
- VPS: Virtual Plate 4000 x 6000mm
- Non-contact probe for tube inspection
- G-Scan RX 2 to scan complex shapes

FLEX is available in 10 different configurations in order to provide you the greatest choice and the greatest measuring volume on the market.

For totally autonomous use, the FLEX Arm is delivered in a case especially designed for a total portability and a wireless battery pack with WiFi communication.

FLEX offers total compatibility with all Romer accessories and equipment (sensors with and without contact, scanning probes, digital rails, VPS...)

Test methods

- a) Measuring Sphere Test
With the ball probe, points around a calibrated sphere are measured by the user. Data is used to calculate the center of the sphere with the best fit of the measured points. Then, the software determines the distance between each point and the sphere center minus the theoretical radius. The result gives an idea of the repeatability but generally, it is not used like a reference value to qualify accuracy of measuring machine.
- b) Measuring Cone Test
That is the reference test to determine measurement arm repeatability with ball probe. The cone is in front of the machine. Points are measured from multiple approach directions. The average point and the deviation of each point to the average center are calculated. The result is the standard deviation.
- c) Volume Accuracy Test
That is the most representative test for volume measurement accuracy. A gage block with a known and certified length is measured several times throughout the working volume. This gage block is installed in different positions and measured depending on multiple approach directions. The result is the standard deviation of the measuring distance less the theoretical length.

ISO 9001 Certified

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