<table>
<thead>
<tr>
<th>Page</th>
<th>Section</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>ROMER ABSOLUTE ARM</td>
<td>ROMER ABSOLUTE ARM COMPACT 7x12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ROMER ABSOLUTE ARM 73xx SI</td>
</tr>
<tr>
<td>23</td>
<td>PROBES &amp; SCANNERS</td>
<td>THREADED CONTACT PROBES</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TKJ ANGLED CONTACT PROBES</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TKJ TOUCH TRIGGERING PROBES</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NON-CONTACT TUBE PROBES</td>
</tr>
<tr>
<td>41</td>
<td>MOUNTING SOLUTIONS</td>
<td>STANDARD BASES</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STANDS</td>
</tr>
<tr>
<td>49</td>
<td>CERTIFICATIONS &amp; ARTEFACTS</td>
<td>VERIFICATION BARS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OPTIONAL CERTIFICATIONS</td>
</tr>
<tr>
<td>55</td>
<td>TUBE INSPECTION</td>
<td>NON-CONTACT TUBE PROBES</td>
</tr>
<tr>
<td>61</td>
<td>VOLUME EXTENSION</td>
<td>GRIDLOK</td>
</tr>
<tr>
<td>65</td>
<td>OTHER ACCESSORIES</td>
<td>CABLES</td>
</tr>
<tr>
<td></td>
<td></td>
<td>INSTALLATION USB PACKAGE</td>
</tr>
<tr>
<td>71</td>
<td>SOFTWARE</td>
<td>PC-DMS PORTABLE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ROMOSOFT</td>
</tr>
<tr>
<td>79</td>
<td>WARRANTY &amp; MAINTENANCE</td>
<td>CONDITIONS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HEXAGON METROLOGY PRECISION CENTERS</td>
</tr>
</tbody>
</table>
OVERVIEW
ROMER ABSOLUTE ARM COMPACT 7X12
ROMER ABSOLUTE ARM 6 AXES 71 SERIES
ROMER ABSOLUTE ARM FOR TUBE INSPECTION
ROMER ABSOLUTE ARM 6 AXES 73 / 75 SERIES
ROMER ABSOLUTE ARM 7 AXES SI 73 / 75 SERIES
ROMER ABSOLUTE ARM 7 AXES SE 73 / 75 SERIES
Absolute Encoders
Referencing and warm-up time is a thing of the past – just switch the arm on and measure.

Measurement Volume
Size does matter: The ROMER Absolute Arm is available in seven lengths between 1.2 m and 4.5 m.

Certification
All ROMER Absolute Arms including scanning systems pass through B89.4.22 certification.
Additional certifications according to VDI/VDE 2617-9 or ISO 10360 are available.

Zero G
The Zero G counterbalance minimizes torque in the base of the arm. This allows greater freedom in mounting options such as lightweight tripods, magnetic and vacuum bases making the Absolute Arm the most portable available.

SmartLock
If the ROMER Absolute Arm is not in use it can be locked safely into its rest position. SmartLock also allows the arm to be fixed in any intermediate position.

Laser Scanning
The ROMER Absolute Arm is available with a completely integrated high-performance laser scanner or the external HP-L-20.8 scanner, for complex scanning tasks.

ROMER Absolute Arms are the only scanning systems on the market to offer fully verifiable scanning system accuracy.

Automatic and repeatable Probe Recognition
Intelligent Quick Change Probes: Swap touch-probes at any time without the need to recalibrate. The Romer Absolute Arm’s repeatable mount allows to change probes on the fly, according to your measurement needs.

Instant Feedback
The ROMER Absolute Arm provides immediate acoustic and haptic feedback to the operator allowing the ROMER Absolute Arm to be used in even the most harsh industrial environments.

Feature Packs
Thanks to easily interchangeable Feature Packs, the functionality of the ROMER Absolute Arm can always be enhanced. Feature packs are available for Wi-Fi communication, Wi-Fi scanning capability and full battery operation.

ROMER proprietary RDS software is the virtual double of the ROMER Absolute Arm. For high-speed accuracy checks, calibration and simple measurements.

Materials
Carbon fibre makes the arm rock-solid under any environmental condition such as temperature changes.

Grips
SpinGrip facilitates handling the arm on larger parts.

User aids,
such as a wrist with incorporated mouse function, a work-light and an integrated digital camera, are designed to make industrial measurement easier, anywhere.

ROMER Absolute Arm
The 6-axis ROMER Absolute Arm is designed for highly-accurate tactile measurements on countless types of workpiece. It allows for reliable touch-probe measurement and inspection of almost anything, including sheet metal parts, plastic components or carbon fibre structures. If your measurement jobs require laser scanning later, an upgrade is possible at any time.

ROMER Absolute Arm with integrated laser scanner
Freedom of movement: with a fully integrated and certified RS3 laser scanner, this is an all-purpose metrology system for almost any measurement need. Point cloud inspection, product benchmarking, reverse engineering, rapid prototyping, virtual assembly or CNC milling are just some of the typical laser scanning applications that can be added to the rich portfolio of touch-probe measurement applications. The integrated laser scanner is designed to capture data from almost any object surface. It does not need warm-up time or additional cables and controllers. Scanner and probe measurements are combined in the same software session.

ROMER Absolute Arm with external laser scanner
The ROMER Absolute Arm with external scanner is the high-end laser scanning platform designed for the HP-L-20.8 laser scanner from Hexagon Metrology. The ROMER Absolute Arm offers first-class performance on the most complex surface types. Automatic laser control means that multiple surface colours can be scanned in a single pass. Thanks to the HP-L-20.8’s unique flying dot technology, the scan width and point density are entirely variable, allowing the user to guarantee maximum scan detail where it’s needed most.
ROMER Absolute Arm

Accuracy Specifications
All probing specifications are achieved with a ROMER Absolute Arm mounted on a standard base plate or magnetic base which you will find in this catalogue under stable environmental conditions. The equipment accuracy is not guaranteed with all other stands and volume extension products.

Nomenclature

RA7525SE
- SE: Scanner External
- SI: Scanner Integrated
- T: Arm for Tube inspection

12 1.2 m
20 2.0 m
25 2.5 m
30 3.0 m
35 3.5 m
40 4.0 m
45 4.5 m
71 series - entry level
73 series - medium level
78 series - high level
RA ROMER Absolute Arm

Main Features (according to the type of arm)

ROMER ABSOLUTE ARM COMPACT 7x12

Versatile 6 axis portable measuring arm, including:
- Counterweight
- TKJ 3 mm / 6 mm / 15 mm ball probes
- RDS calibration and interface software
- Certified calibration sphere probing
- Travel case
- B89 / ISO 10360-2 certificate *
- 1 year warranty

H00000630-12 ROMER Absolute Arm 7312
1.2 m measurement volume

H00000631-12 ROMER Absolute Arm 7512
1.2 m measurement volume

RA7525SE

|| RA7525SE
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Counterbalance</td>
<td>Counterweight</td>
<td>SE</td>
<td>SI</td>
<td>T</td>
</tr>
<tr>
<td>Mounting base</td>
<td>Integrated base</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>H00003956 - Magnetic anchors 3x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NCA7-5-28062 / Magnetic blocks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>100KG x3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Probes</td>
<td>TKJ ø 15mm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TKJ - ø 6mm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TKJ - ø 3mm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scanning</td>
<td>HP-L-8.9T2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>USB - 3m</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PowerSupply</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Software</td>
<td>USB installation disk:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RDS driver and interface</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>User manuals</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Calibration
- NCA7-5-20603-01 Certified sphere ø25.4 mm

Verification
- Verification bar

Feature Pack / Battery
- Scanning Pack
- Mobility Pack
- ROM Scanning Pack**

Packaging
- Hard travel case

Certification
- ASME B89
- ISO 10360-2

Warranty
- 1 year

*: for the ROMER Absolute Arm Compact 7512, the certification can be chosen between B89 or ISO 10360-2.
**: wireless scanning not available.
### ROMER Absolute Arm

**ROMER Absolute Arm 6axes 71xx**

Versatile 6 axes portable measuring arm, available in South America and Asia, Pacific, including:
- Zero-G counterbalance
- Calibration & verification plate
- Fixed plate
- Threaded 6 mm / 15 mm ball probes
- RDS calibration and interface software
- ASME B89 certificate
- 1 year warranty

**NCA7-2-21376-25 ROMER Absolute Arm 7125**
- 2.5 m measurement volume

**NCA7-2-21376-35 ROMER Absolute Arm 7135**
- 3.5 m measurement volume

---

**ROMER Tube Inspection Arm**

6 axes portable measuring arm, designed for Tube measurement, with a special counterbalance, including:
- SmartLock
- Base plate
- TKJ 3 mm / 15 mm ball probes
- RDS calibration and interface software
- Certified calibration sphere probing
- Travel case
- ASME B89 certificate
- 1 year warranty

**NCA7-2-53173-25 ROMER Absolute Arm 7325 T**
- 2.5 m measurement volume

**NCA7-2-53173-30 ROMER Absolute Arm 7330 T**
- 3.5 m measurement volume

---

**Counterbalance**
- Zero-G

**Mounting base**
- NCA7-7-20780 - Fixed plate

**Probes**
- Threaded - ø 15mm
- Threaded - ø 6mm
- TKJ adapter

**Scanner**
- HP-L-8.9T2

**Cables**
- USB - 3m

**PowerSupply**
- USB installation disk

**Software**
- USB installation disk

**Calibration**
- NCA7-7-2166 Calibration plate

**Verifications**
- Verification plate
- Calibration & verification plate

**Feature Pack / Battery**
- Charging Pack
- Mobility Pack
- RS Scanning Pack

**Camera / Worklight**
- Holding grips
- Dust cover
- Packaging Light Box

**Certification**
- ASME B89
- 1 year warranty

---

**Counterbalance**
- SmartLock - Special Tube

**Mounting base**
- NCA7-7-2166 - Base plate

**Probes**
- TKJ - ø 15mm
- TKJ - ø 6mm
- TKJ - ø 3mm

**Scanner**
- HP-L-8.9T2

**Cables**
- USB - 3m

**PowerSupply**
- USB installation disk

**Software**
- USB installation disk

**Calibration**
- NCA7-7-20693-01 Certified sphere ø25.4 mm

**Verifications**
- Verification plate
- Calibration & verification plate

**Feature Pack / Battery**
- Charging Pack
- Mobility Pack
- RS Scanning Pack

**Camera / Worklight**
- Holding grips
- Dust cover
- Packaging Hard travel case

**Certification**
- ASME B89
- 1 year warranty

**Tube probe**
- 1 year warranty

---

**NCA7-2-21376-25 ROMER Absolute Arm 7125**
- 2.5 m measurement volume

**NCA7-2-21376-35 ROMER Absolute Arm 7135**
- 3.5 m measurement volume

---

**NCA7-2-53173-25 ROMER Absolute Arm 7325 T**
- 2.5 m measurement volume

**NCA7-2-53173-30 ROMER Absolute Arm 7330 T**
- 3.5 m measurement volume

---

**Versatile 6 axes portable measuring arm, designed for Tube measurement, with a special counterbalance, including:**
- Zero-G counterbalance
- Calibration & verification plate
- Fixed plate
- Threaded 6 mm / 15 mm ball probes
- RDS calibration and interface software
- ASME B89 certificate
- 1 year warranty
## ROMER Absolute Arm 6axes 73xx

6 axes portable measuring arm, designed for all purposes tactile measurements or laser scanning, including:

- **Zero-G / SmartLock**
- **Base plate**
- **TKJ 3 mm / 6 mm / 15 mm ball probes**
- **RDS calibration and interface software**
- **1 year warranty**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Measurement Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCA7-2-52573-20</td>
<td>ROMER Absolute Arm 7320</td>
<td>2.0 m</td>
</tr>
<tr>
<td>NCA7-2-52573-25</td>
<td>ROMER Absolute Arm 7325</td>
<td>2.5 m</td>
</tr>
<tr>
<td>NCA7-2-52573-30</td>
<td>ROMER Absolute Arm 7330</td>
<td>3.0 m</td>
</tr>
<tr>
<td>NCA7-2-52573-35</td>
<td>ROMER Absolute Arm 7335</td>
<td>3.5 m</td>
</tr>
<tr>
<td>NCA7-2-52573-40</td>
<td>ROMER Absolute Arm 7340</td>
<td>4.0 m</td>
</tr>
<tr>
<td>NCA7-2-52573-45</td>
<td>ROMER Absolute Arm 7345</td>
<td>4.5 m</td>
</tr>
</tbody>
</table>

## ROMER Absolute Arm 6axes 75xx

6 axes portable measuring arm, designed for highly accurate tactile measurements, or laser scanning, including:

- **Zero-G / SmartLock**
- **Base plate**
- **TKJ 3 mm / 6 mm / 15 mm ball probes**
- **RDS calibration and interface software**
- **1 year warranty**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Measurement Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCA7-2-52575-20</td>
<td>ROMER Absolute Arm 7520</td>
<td>2.0 m measurement volume</td>
</tr>
<tr>
<td>NCA7-2-52575-25</td>
<td>ROMER Absolute Arm 7525</td>
<td>2.5 m measurement volume</td>
</tr>
<tr>
<td>NCA7-2-52575-30</td>
<td>ROMER Absolute Arm 7530</td>
<td>3.0 m measurement volume</td>
</tr>
<tr>
<td>NCA7-2-52575-35</td>
<td>ROMER Absolute Arm 7535</td>
<td>3.5 m measurement volume</td>
</tr>
<tr>
<td>NCA7-2-52575-40</td>
<td>ROMER Absolute Arm 7540</td>
<td>4.0 m measurement volume</td>
</tr>
<tr>
<td>NCA7-2-52575-45</td>
<td>ROMER Absolute Arm 7545</td>
<td>4.5 m measurement volume</td>
</tr>
</tbody>
</table>

## Specifications

- **Counterbalance**: Zero-G / SmartLock
- **Mounting base**: NCA7-5-19866 - Magnetic Base
- **Probes**: TKJ - ø 3mm, 6mm, 15mm
- **Scanner**: HP-L-8.9T2 opt
- **Cables**: USB - 3m
- **Power Supply**: USB installation disk
- **Software**: RDS driver and interface software
- **Calibration**: NCA7-5-20653-01 Certified sphere ø25.4 mm opt
- **Verification**: Verification bar opt
- **Feature Pack / Battery**: Scanning Pack opt, Mobility Pack opt, RDS Scanning Pack opt
- **Camera / Worklight**: Holding grip
- **Packaging**: Hard travel case
- **Certification**: ASME B89
- **Warranty**: 1 year
ROMER Absolute Arm 73xx SI

- 7 axes portable measuring arm, with integrated scanner, for all purposes tactile measurements and laser scanning, including:
  - Zero-G Counterbalance + SmartLock
  - Base plate
  - TKJ 3 mm / 6 mm / 15 mm ball probes
  - Integrated Scanner
  - RDS calibration and interface software

<table>
<thead>
<tr>
<th>Model</th>
<th>Measurement Volume</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCA7-2-52973-20</td>
<td>2.0 m</td>
<td>ROMER Absolute Arm 7320 SI</td>
</tr>
<tr>
<td>NCA7-2-52973-25</td>
<td>2.5 m</td>
<td>ROMER Absolute Arm 7325 SI</td>
</tr>
<tr>
<td>NCA7-2-52973-30</td>
<td>3.0 m</td>
<td>ROMER Absolute Arm 7330 SI</td>
</tr>
<tr>
<td>NCA7-2-52973-35</td>
<td>3.5 m</td>
<td>ROMER Absolute Arm 7335 SI</td>
</tr>
<tr>
<td>NCA7-2-52973-40</td>
<td>4.0 m</td>
<td>ROMER Absolute Arm 7340 SI</td>
</tr>
<tr>
<td>NCA7-2-52973-45</td>
<td>4.5 m</td>
<td>ROMER Absolute Arm 7345 SI</td>
</tr>
</tbody>
</table>

Features:
- Certified calibration sphere
- Travel case
- 1 year warranty

Counterbalance: Zero-G / SmartLock
Mounting base: NCA7-5-21497 - Base plate
Probes: TKJ - ø 3mm, TKJ - ø 6mm, TKJ - ø 15mm
Scanner: Integrated - RS3
Cables: USB - 3m, PowerSupply
Software: USB installation disk: RDS driver and interface
Certification: Arm - ASME B89, Arm + Scanner
Warranty: 1 year

ROMER Absolute Arm 75xx SI

- 7 axes portable measuring arm, with fast integrated scanner, for highly accurate tactile measurement and laser scanning, including:
  - SmartLock
  - Base plate
  - TKJ 3 mm / 6 mm / 15 mm ball probes
  - Certified calibration sphere

<table>
<thead>
<tr>
<th>Model</th>
<th>Measurement Volume</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCA7-2-52975-20</td>
<td>2.0 m</td>
<td>ROMER Absolute Arm 7520 SI</td>
</tr>
<tr>
<td>NCA7-2-52975-25</td>
<td>2.5 m</td>
<td>ROMER Absolute Arm 7525 SI</td>
</tr>
<tr>
<td>NCA7-2-52975-30</td>
<td>3.0 m</td>
<td>ROMER Absolute Arm 7530 SI</td>
</tr>
<tr>
<td>NCA7-2-52975-35</td>
<td>3.5 m</td>
<td>ROMER Absolute Arm 7535 SI</td>
</tr>
<tr>
<td>NCA7-2-52975-40</td>
<td>4.0 m</td>
<td>ROMER Absolute Arm 7540 SI</td>
</tr>
<tr>
<td>NCA7-2-52975-45</td>
<td>4.5 m</td>
<td>ROMER Absolute Arm 7545 SI</td>
</tr>
</tbody>
</table>

Features:
- Certified calibration sphere
- Travel case
- 1 year warranty

Counterbalance: Zero-G / SmartLock
Mounting base: NCA7-5-19866 - Magnetic Base
Probes: TKJ - ø 3mm, TKJ - ø 6mm, TKJ - ø 15mm
Scanner: Integrated - RS3
Cables: USB - 3m, PowerSupply
Software: USB installation disk: RDS driver and interface
Certification: Arm - ASME B89, Arm + Scanner
Warranty: 1 year

Certification: Arm - ASME B89, Arm + Scanner
Warranty: 1 year
## ROMER ABSOLUTE ARM 73xx SE

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>Measurement Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCA7-2-52773-20</td>
<td>ROMER Absolute Arm 7320 SE</td>
<td>2.0 m</td>
</tr>
<tr>
<td>NCA7-2-52773-25</td>
<td>ROMER Absolute Arm 7325 SE</td>
<td>2.5 m</td>
</tr>
<tr>
<td>NCA7-2-52773-30</td>
<td>ROMER Absolute Arm 7330 SE</td>
<td>3.0 m</td>
</tr>
<tr>
<td>NCA7-2-52773-35</td>
<td>ROMER Absolute Arm 7335 SE</td>
<td>3.5 m</td>
</tr>
<tr>
<td>NCA7-2-52773-40</td>
<td>ROMER Absolute Arm 7340 SE</td>
<td>4.0 m</td>
</tr>
<tr>
<td>NCA7-2-52773-45</td>
<td>ROMER Absolute Arm 7345 SE</td>
<td>4.5 m</td>
</tr>
</tbody>
</table>

- SmartLock
- Base plate
- TKJ 3 mm / 6 mm / 15 mm ball probes
- RDS calibration and interface software
- Certified calibration sphere probing
- Travel case
- 1 year warranty

## ROMER ABSOLUTE ARM 75xx SE

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>Measurement Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCA7-2-52775-20</td>
<td>ROMER Absolute Arm 7520 SE</td>
<td>2.0 m</td>
</tr>
<tr>
<td>NCA7-2-52775-25</td>
<td>ROMER Absolute Arm 7525 SE</td>
<td>2.5 m</td>
</tr>
<tr>
<td>NCA7-2-52775-30</td>
<td>ROMER Absolute Arm 7530 SE</td>
<td>3.0 m</td>
</tr>
<tr>
<td>NCA7-2-52775-35</td>
<td>ROMER Absolute Arm 7535 SE</td>
<td>3.5 m</td>
</tr>
<tr>
<td>NCA7-2-52775-40</td>
<td>ROMER Absolute Arm 7540 SE</td>
<td>4.0 m</td>
</tr>
<tr>
<td>NCA7-2-52775-45</td>
<td>ROMER Absolute Arm 7545 SE</td>
<td>4.5 m</td>
</tr>
</tbody>
</table>

- SmartLock
- Base plate
- TKJ 3 mm / 6 mm / 15 mm ball probes
- RDS calibration and interface software
- Certified calibration sphere probing
- Travel case
- 1 year warranty

### Accessories
- Counterbalance: Zero-G / Smart Lock
- Mounting base: NCA7-5-21497 - Base plate
- Probes: TKJ - ø 15mm, ø 6mm, ø 3mm
- Scanner: HP-L-20.8 T
- Cables: USB - 3m
- PowerSupply
- Software: USB installation disk: RDS driver and interface
- Certification: Arm + Scanner
- Warranty: 1 year

### Software
- RDS driver and interface software
- User manuals

### Calibration
- NCA7-5-20653-01 Certified sphere ø 25.4 mm
THREADED CONTACT PROBES
TKJ ALUMINIUM CONTACT PROBES
TKJ CARBON CONTACT PROBES
TKJ ANGLED CONTACT PROBES
TKJ CONTACT PROBE KITS
TKJ SPECIAL PROBES
TKJ TOUCH TRIGGERING PROBES
TKJ FEMALE CONTACT PROBES
M3 STYLII
NON CONTACT TUBE PROBES
HP-L-8.9 T2 LASER SCANNER
HP-L-20.8 LASER SCANNER
**THREADED CONTACT PROBES**

Threaded probes are designed for the ROMER Absolute Arm 71xx series. The Body Probe allows a large range of customized probes for the 71xx series.

For an extended use with any TKJ probe (Contact, Tube, Scanner...), an adapter is available.

**Probe-Thread-L50-15**

Threaded probe for 71xx series

<table>
<thead>
<tr>
<th>Ø (mm)</th>
<th>Tip Mat.</th>
<th>L (mm)</th>
<th>Body Mat.</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Fix ball</td>
<td>50</td>
<td>Aluminium</td>
</tr>
</tbody>
</table>

**Probe-Thread-L50-6**

Threaded probe for 71xx series

<table>
<thead>
<tr>
<th>Ø (mm)</th>
<th>Tip Mat.</th>
<th>L (mm)</th>
<th>Body Mat.</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>M3 Synth. Ruby</td>
<td>50</td>
<td>Aluminium</td>
</tr>
</tbody>
</table>

**Body Probe 50 mm**

Threaded body probe for 71xx series - M3 / M8 adapter

- Body (Aluminium): 40 mm
- Connectors: Tip M3 adapter (tip not included)
- Extension: M8 for standard extensions
- Wrist: Threaded
- Tools: body probe wrench + Tip wrench

**TKJ adapter for 71xx series**

Threaded adapter to mount any TKJ -M probe or scanner

**PIN Wrench for 71xx series**

Tool to lock threaded probes or the TKJ adapter for 71xx series

---

**TKJ ALUMINIUM-BODY CONTACT PROBES**

Standard Aluminium probes for the ROMER Absolute Arm are available from 50 to 100 mm length - its M3 connector allows the use of any M3 sphere tip.

- **NCA7-S-21787**
  - Probe-Thread-L50-15
  - Ø 15 mm, Tip: Fix ball, Tip Mat.: Stainless steel, L 50 mm, Body Mat.: Aluminium

- **NCA7-S-21788**
  - Probe-Thread-L50-6
  - Ø 6 mm, Tip Mat.: M3 Synth. Ruby, L 50 mm, Body Mat.: Aluminium

- **NCA7-S-21793**
  - Body Probe 50 mm
  - Body (Aluminium): 40 mm, Connectors: Tip M3 adapter, Extension: M8, Wrist: Threaded

- **NCA7-S-20883**
  - TKJ adapter for 71xx series
  - Threaded adapter to mount any TKJ -M probe or scanner

- **NCA7-S-21161**
  - PIN Wrench for 71xx series
  - Tool to lock threaded probes or the TKJ adapter for 71xx series

<table>
<thead>
<tr>
<th>Ø (mm)</th>
<th>Tip Mat.</th>
<th>L (mm)</th>
<th>Body Mat.</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.7</td>
<td>Ceramic</td>
<td>50</td>
<td>Aluminium</td>
</tr>
<tr>
<td>15</td>
<td>Fix ball</td>
<td>50</td>
<td>Aluminium</td>
</tr>
<tr>
<td>9.5</td>
<td>Fix ball</td>
<td>50</td>
<td>Aluminium</td>
</tr>
<tr>
<td>3</td>
<td>M3 Synth. Ruby</td>
<td>50</td>
<td>Aluminium</td>
</tr>
<tr>
<td>6</td>
<td>M3 Synth. Ruby</td>
<td>50</td>
<td>Aluminium</td>
</tr>
<tr>
<td>3</td>
<td>M3 Synth. Ruby</td>
<td>75</td>
<td>Aluminium</td>
</tr>
<tr>
<td>6</td>
<td>M3 Synth. Ruby</td>
<td>75</td>
<td>Aluminium</td>
</tr>
<tr>
<td>3</td>
<td>M3 Synth. Ruby</td>
<td>100</td>
<td>Aluminium</td>
</tr>
<tr>
<td>6</td>
<td>M3 Synth. Ruby</td>
<td>100</td>
<td>Aluminium</td>
</tr>
</tbody>
</table>

* For the ROMER Absolute Arm 71xx series, a TKJ adapter (NCA7-S-20883) is required.
### Optional Carbon-body probes for the ROMER Absolute Arm offer the largest range of probes, from 50 mm to 350 mm length, combined with standard M3 ball tips or fixed balls from 2 mm to 25 mm diameter, for any kind of hard contact probing task.

### TKJ CARBON-BODY CONTACT PROBES

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Tip Material (T)</th>
<th>L</th>
<th>Body (B)</th>
<th>Std</th>
</tr>
</thead>
<tbody>
<tr>
<td>H00000383-01</td>
<td>Probe-Carbon-L50-9.5</td>
<td>Stainless steel</td>
<td>90 mm</td>
<td>Carbon fiber</td>
<td>Yes</td>
</tr>
<tr>
<td>H00000383-02</td>
<td>Probe-Carbon-L50-10</td>
<td>Stainless steel</td>
<td>90 mm</td>
<td>Carbon fiber</td>
<td>Yes</td>
</tr>
<tr>
<td>H00000383-03</td>
<td>Probe-Carbon-L50-15</td>
<td>Stainless steel</td>
<td>90 mm</td>
<td>Carbon fiber</td>
<td>Yes</td>
</tr>
<tr>
<td>H00000383-04</td>
<td>Probe-Carbon-L75-10</td>
<td>Stainless steel</td>
<td>75 mm</td>
<td>Carbon fiber</td>
<td>Yes</td>
</tr>
<tr>
<td>H00000383-05</td>
<td>Probe-Carbon-L75-15</td>
<td>Stainless steel</td>
<td>75 mm</td>
<td>Carbon fiber</td>
<td>Yes</td>
</tr>
<tr>
<td>H00000383-07</td>
<td>Probe-Carbon-L85-½”</td>
<td>Stainless steel</td>
<td>85 mm</td>
<td>Carbon fiber</td>
<td>Yes</td>
</tr>
<tr>
<td>H00000383-09</td>
<td>Probe-Carbon-L85-25</td>
<td>Stainless steel</td>
<td>85 mm</td>
<td>Carbon fiber</td>
<td>Yes</td>
</tr>
<tr>
<td>H00000576-01</td>
<td>Probe-Carbon-L85-2</td>
<td>M3</td>
<td>Synth. Ruby</td>
<td>85 mm</td>
<td>Carbon fiber</td>
</tr>
<tr>
<td>54397-01</td>
<td>Probe-Carbon-L85-3</td>
<td>M3</td>
<td>Synth. Ruby</td>
<td>85 mm</td>
<td>Carbon fiber</td>
</tr>
<tr>
<td>54397-02</td>
<td>Probe-Carbon-L85-6</td>
<td>M3</td>
<td>Synth. Ruby</td>
<td>85 mm</td>
<td>Carbon fiber</td>
</tr>
<tr>
<td>54397-07</td>
<td>Probe-Carbon-L130-3</td>
<td>M3</td>
<td>Synth. Ruby</td>
<td>130 mm</td>
<td>Carbon fiber</td>
</tr>
<tr>
<td>54397-08</td>
<td>Probe-Carbon-L130-6</td>
<td>M3</td>
<td>Synth. Ruby</td>
<td>130 mm</td>
<td>Carbon fiber</td>
</tr>
<tr>
<td>54397-09</td>
<td>Probe-Carbon-L130-Pt</td>
<td>Point</td>
<td>Tungsten Carbide</td>
<td>130 mm</td>
<td>Carbon fiber</td>
</tr>
</tbody>
</table>

*For the ROMER Absolute Arm 71xx series, a TKJ adapter (NCA7-5-20883) is required.

*Tip Material Options:
- **Stainless steel**
- **Carbon fiber**
- **Synth. Ruby**
- **Tungsten Carbide**

*Body Options:
- **Fixed ball**
- **Point**
### TKJ CARBON-BODY CONTACT PROBES

<table>
<thead>
<tr>
<th>Ø</th>
<th>Tip</th>
<th>Tip Material (T)</th>
<th>L</th>
<th>Body (B)</th>
<th>Std</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 mm</td>
<td>Fix ball</td>
<td>Stainless steel</td>
<td>150 mm</td>
<td>Carbon fiber</td>
<td>Ø²</td>
</tr>
<tr>
<td>15 mm</td>
<td>Fix ball</td>
<td>Stainless steel</td>
<td>150 mm</td>
<td>Carbon fiber</td>
<td>Ø²</td>
</tr>
<tr>
<td>2 mm</td>
<td>M3</td>
<td>Synth. Ruby</td>
<td>150 mm</td>
<td>Carbon fiber</td>
<td>Ø²</td>
</tr>
<tr>
<td>3 mm</td>
<td>M3</td>
<td>Synth. Ruby</td>
<td>150 mm</td>
<td>Carbon fiber</td>
<td>Ø²</td>
</tr>
<tr>
<td>6 mm</td>
<td>M3</td>
<td>Synth. Ruby</td>
<td>150 mm</td>
<td>Carbon fiber</td>
<td>Ø²</td>
</tr>
<tr>
<td>Point</td>
<td>M3</td>
<td>Tungsten Carbide</td>
<td>150 mm</td>
<td>Carbon fiber</td>
<td>Ø²</td>
</tr>
<tr>
<td>7 mm</td>
<td>Fix ball</td>
<td>Stainless steel</td>
<td>165 mm</td>
<td>Carbon fiber</td>
<td>Ø²</td>
</tr>
<tr>
<td>10 mm</td>
<td>Fix ball</td>
<td>Stainless steel</td>
<td>180 mm</td>
<td>Carbon fiber</td>
<td>Ø²</td>
</tr>
<tr>
<td>15 mm</td>
<td>Fix ball</td>
<td>Stainless steel</td>
<td>180 mm</td>
<td>Carbon fiber</td>
<td>Ø²</td>
</tr>
<tr>
<td>20 mm</td>
<td>Fix ball</td>
<td>Stainless steel</td>
<td>180 mm</td>
<td>Carbon fiber</td>
<td>Ø²</td>
</tr>
<tr>
<td>3 mm</td>
<td>M3</td>
<td>Synth. Ruby</td>
<td>180 mm</td>
<td>Carbon fiber</td>
<td>Ø²</td>
</tr>
<tr>
<td>6 mm</td>
<td>M3</td>
<td>Synth. Ruby</td>
<td>180 mm</td>
<td>Carbon fiber</td>
<td>Ø²</td>
</tr>
<tr>
<td>Point</td>
<td>M3</td>
<td>Tungsten Carbide</td>
<td>180 mm</td>
<td>Carbon fiber</td>
<td>Ø²</td>
</tr>
<tr>
<td>3 mm</td>
<td>M3</td>
<td>Synth. Ruby</td>
<td>200 mm</td>
<td>Carbon fiber</td>
<td>Ø²</td>
</tr>
<tr>
<td>6 mm</td>
<td>M3</td>
<td>Synth. Ruby</td>
<td>200 mm</td>
<td>Carbon fiber</td>
<td>Ø²</td>
</tr>
<tr>
<td>Point</td>
<td>M3</td>
<td>Tungsten Carbide</td>
<td>200 mm</td>
<td>Carbon fiber</td>
<td>Ø²</td>
</tr>
<tr>
<td>3 mm</td>
<td>Synth. Ruby</td>
<td>293 mm</td>
<td>Carbon fiber</td>
<td>Ø²</td>
<td></td>
</tr>
<tr>
<td>6 mm</td>
<td>M3</td>
<td>Synth. Ruby</td>
<td>350 mm</td>
<td>Carbon fiber</td>
<td>Ø²</td>
</tr>
<tr>
<td>Point</td>
<td>M3</td>
<td>Tungsten Carbide</td>
<td>350 mm</td>
<td>Carbon fiber</td>
<td>Ø²</td>
</tr>
</tbody>
</table>

### TKJ CARBON-BODY CONTACT PROBES

<table>
<thead>
<tr>
<th>Ø</th>
<th>Tip</th>
<th>Tip Material (T)</th>
<th>L</th>
<th>Body (B)</th>
<th>Std</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 mm</td>
<td>M3</td>
<td>Synth. Ruby</td>
<td>200 mm</td>
<td>Carbon fiber</td>
<td>Ø²</td>
</tr>
<tr>
<td>6 mm</td>
<td>M3</td>
<td>Synth. Ruby</td>
<td>200 mm</td>
<td>Carbon fiber</td>
<td>Ø²</td>
</tr>
<tr>
<td>Point</td>
<td>M3</td>
<td>Tungsten Carbide</td>
<td>200 mm</td>
<td>Carbon fiber</td>
<td>Ø²</td>
</tr>
<tr>
<td>3 mm</td>
<td>Synth. Ruby</td>
<td>293 mm</td>
<td>Carbon fiber</td>
<td>Ø²</td>
<td></td>
</tr>
<tr>
<td>6 mm</td>
<td>M3</td>
<td>Synth. Ruby</td>
<td>350 mm</td>
<td>Carbon fiber</td>
<td>Ø²</td>
</tr>
<tr>
<td>Point</td>
<td>M3</td>
<td>Tungsten Carbide</td>
<td>350 mm</td>
<td>Carbon fiber</td>
<td>Ø²</td>
</tr>
</tbody>
</table>
TKJ ANGLED CONTACT PROBES

For difficult access, the ROMER Absolute Arm can be equipped with special angled probes, to get around obstacles. 45°, 60° and 90° angles are available.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Tip Material</th>
<th>Tip Material (T)</th>
<th>L (mm)</th>
<th>Y (mm)</th>
<th>Body (B)</th>
<th>Std</th>
</tr>
</thead>
<tbody>
<tr>
<td>54280-01</td>
<td>Probe-45°-Point</td>
<td>Point M3</td>
<td>Tungsten Carbide</td>
<td>149</td>
<td>38</td>
<td>Aluminium opt</td>
<td>qpt</td>
</tr>
<tr>
<td>54280-02</td>
<td>Probe-45°-3</td>
<td>3 mm M3</td>
<td>Synth. Ruby</td>
<td>149</td>
<td>38</td>
<td>Aluminium opt</td>
<td>qpt</td>
</tr>
<tr>
<td>54280-03</td>
<td>Probe-45°-4</td>
<td>4 mm M3</td>
<td>Synth. Ruby</td>
<td>149</td>
<td>38</td>
<td>Aluminium opt</td>
<td>qpt</td>
</tr>
<tr>
<td>54280-04</td>
<td>Probe-45°-6</td>
<td>6 mm M3</td>
<td>Synth. Ruby</td>
<td>149</td>
<td>38</td>
<td>Aluminium opt</td>
<td>qpt</td>
</tr>
<tr>
<td>54280-05</td>
<td>Probe-60°-Point</td>
<td>Point M3</td>
<td>Carbide tungsten</td>
<td>149</td>
<td>57</td>
<td>Aluminium opt</td>
<td>qpt</td>
</tr>
<tr>
<td>54280-06</td>
<td>Probe-60°-3</td>
<td>3 mm M3</td>
<td>Synth. Ruby</td>
<td>149</td>
<td>57</td>
<td>Aluminium opt</td>
<td>qpt</td>
</tr>
<tr>
<td>54280-07</td>
<td>Probe-60°-4</td>
<td>4 mm M3</td>
<td>Synth. Ruby</td>
<td>149</td>
<td>57</td>
<td>Aluminium opt</td>
<td>qpt</td>
</tr>
<tr>
<td>54280-08</td>
<td>Probe-60°-6</td>
<td>6 mm M3</td>
<td>Synth. Ruby</td>
<td>149</td>
<td>57</td>
<td>Aluminium opt</td>
<td>qpt</td>
</tr>
<tr>
<td>54280-09</td>
<td>Probe-90°-Point</td>
<td>Point M3</td>
<td>Tungsten Carbide</td>
<td>149</td>
<td>43</td>
<td>Aluminium opt</td>
<td>qpt</td>
</tr>
<tr>
<td>54280-10</td>
<td>Probe-90°-3</td>
<td>3 mm M3</td>
<td>Synth. Ruby</td>
<td>149</td>
<td>43</td>
<td>Aluminium opt</td>
<td>qpt</td>
</tr>
<tr>
<td>54280-11</td>
<td>Probe-90°-4</td>
<td>4 mm M3</td>
<td>Synth. Ruby</td>
<td>149</td>
<td>43</td>
<td>Aluminium opt</td>
<td>qpt</td>
</tr>
<tr>
<td>54280-12</td>
<td>Probe-90°-6</td>
<td>6 mm M3</td>
<td>Synth. Ruby</td>
<td>149</td>
<td>43</td>
<td>Aluminium opt</td>
<td>qpt</td>
</tr>
</tbody>
</table>

*: for the ROMER Absolute Arm 71xx series, a TKJ adapter (NCA7-5-20883) is required.

TKJ CONTACT PROBES - KITS

To enhance the possibilities of probing, customizable probe kits are available, offering different lengths, or diameters.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Body (B)</th>
<th>Tips (Synth. Ruby)</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>54388-50B</td>
<td>Body Probe 50 mm</td>
<td>Aluminium opt</td>
<td>2 mm / 3 mm / 4 mm / 5 mm / 6 mm</td>
<td>100 mm</td>
</tr>
<tr>
<td>54388-100B</td>
<td>Body Probe 100 mm</td>
<td>Aluminium opt</td>
<td>2 mm / 3 mm / 4 mm / 5 mm / 6 mm</td>
<td>200 mm</td>
</tr>
<tr>
<td>54135</td>
<td>Probe kit - body short</td>
<td>Aluminium opt</td>
<td>2 x TKJ</td>
<td></td>
</tr>
<tr>
<td>54135</td>
<td>Probe kit - body long</td>
<td>Carbon fiber</td>
<td>2 x TKJ</td>
<td></td>
</tr>
<tr>
<td>54406</td>
<td>Probe kit extended for ROMER Absolute SE (offset probe)</td>
<td>Carbon fiber</td>
<td>2 x TKJ</td>
<td></td>
</tr>
</tbody>
</table>

*: for the ROMER Absolute Arm 71xx series, a TKJ adapter (NCA7-5-20883) is required.
**TKJ - SPECIAL CONTACT PROBES**

Probes to get points on edges, probes to receive Laser tracker balls, or even probe adapter.

**TKJ Probe - for Tracker ball 12.7mm**

<table>
<thead>
<tr>
<th>Ø</th>
<th>Tip</th>
<th>L</th>
<th>(B) Body Mat.</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.7 mm</td>
<td>Magnetic seat</td>
<td>75 mm</td>
<td>Aluminium</td>
</tr>
</tbody>
</table>

**TKJ Probe - for Tracker ball 22.225mm (0.875")**

<table>
<thead>
<tr>
<th>Ø</th>
<th>Tip</th>
<th>L</th>
<th>(B) Body Mat.</th>
</tr>
</thead>
<tbody>
<tr>
<td>22.225 mm</td>
<td>Magnetic seat</td>
<td>75 mm</td>
<td>Aluminium</td>
</tr>
</tbody>
</table>

**TKJ Probe - for Tracker ball 38.1mm (1.5")**

<table>
<thead>
<tr>
<th>Ø</th>
<th>Tip</th>
<th>L</th>
<th>(B) Body Mat.</th>
</tr>
</thead>
<tbody>
<tr>
<td>38.1 mm</td>
<td>Magnetic seat</td>
<td>75 mm</td>
<td>Aluminium</td>
</tr>
</tbody>
</table>

**Universal Probe adapter - TKJ male to M8**

Body probe to adapt any M8 standard or customized probe adapter.

**NCA7-7-50169**

**TKJ lock key**

* for the ROMER Absolute Arm 71xx series, a TKJ adapter (NCA7-5-20883) is required.

**TKJ TOUCH TRIGGERING PROBES**

Touch Triggering Probes are a good solution for sensitive parts. Adjustable or not, probing points are triggered when touching the surface. Usable for any soft surface or easily movable parts.

**HP-T-MF Touch Trigger Probe kit**

TKJ Male probe - Trigger contact.

<table>
<thead>
<tr>
<th>Ø</th>
<th>Tip</th>
<th>L</th>
<th>(B) Body Mat.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 mm</td>
<td>Magnetic seat</td>
<td>75 mm</td>
<td>Aluminium</td>
</tr>
</tbody>
</table>

**HP-T-TP M8 adjustable Touch Trigger Probe head**

M8 head for TKJ adapter trigger probe

<table>
<thead>
<tr>
<th>Ø</th>
<th>Tip</th>
<th>L</th>
<th>(B) Body Mat.</th>
</tr>
</thead>
</table>

**NCA7-3-52696**

**HP-T-MF M8 Touch Trigger Probe head**

M8 head for TKJ adapter trigger probe

<table>
<thead>
<tr>
<th>Ø</th>
<th>Tip</th>
<th>L</th>
<th>(B) Body Mat.</th>
</tr>
</thead>
</table>

**NCA7-7-50169**

**Universal Probe adapter - TKJ male to M8**

Body probe to adapt any M8 standard or customized probe adapter.

**NCA7-5-19344**

**TKJ-M base for all M8 Touch trigger Probe heads.**

* for the ROMER Absolute Arm 71xx series, a TKJ adapter (NCA7-5-20883) is required.
### TKJ FEMALE CONTACT PROBES

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Tip (mm)</th>
<th>Tip Material</th>
<th>L (mm)</th>
<th>Body</th>
<th>Std</th>
</tr>
</thead>
<tbody>
<tr>
<td>54389-01</td>
<td>Probe-Alu-L82-3mm</td>
<td>3</td>
<td>M3</td>
<td>62</td>
<td>Aluminium</td>
<td>02F</td>
</tr>
<tr>
<td>54389-02</td>
<td>Probe-Alu-L82-6mm</td>
<td>6</td>
<td>M3</td>
<td>62</td>
<td>Aluminium</td>
<td>02F</td>
</tr>
<tr>
<td>NCA7-5-52531</td>
<td>Probe-Alu-L82-15mm</td>
<td>15</td>
<td>Fix. ball</td>
<td>62</td>
<td>Aluminium</td>
<td>02F</td>
</tr>
<tr>
<td>54389-03</td>
<td>Probe-Alu-L82-Point</td>
<td>Point</td>
<td>M3</td>
<td>62</td>
<td>Aluminium</td>
<td>02F</td>
</tr>
<tr>
<td>54389-04</td>
<td>Probe-Alu-L75-3mm</td>
<td>3</td>
<td>M3</td>
<td>75</td>
<td>Aluminium</td>
<td>02F</td>
</tr>
<tr>
<td>54389-05</td>
<td>Probe-Alu-L75-6mm</td>
<td>6</td>
<td>M3</td>
<td>75</td>
<td>Aluminium</td>
<td>02F</td>
</tr>
<tr>
<td>54389-06</td>
<td>Probe-Alu-L75-Point</td>
<td>Point</td>
<td>M3</td>
<td>75</td>
<td>Aluminium</td>
<td>02F</td>
</tr>
<tr>
<td>54389-07</td>
<td>Probe-Alu-L100-3mm</td>
<td>3</td>
<td>M3</td>
<td>100</td>
<td>Aluminium</td>
<td>02F</td>
</tr>
<tr>
<td>54389-08</td>
<td>Probe-Alu-L100-6mm</td>
<td>6</td>
<td>M3</td>
<td>100</td>
<td>Aluminium</td>
<td>02F</td>
</tr>
<tr>
<td>54389-09</td>
<td>Probe-Alu-L100-Point</td>
<td>Point</td>
<td>M3</td>
<td>100</td>
<td>Aluminium</td>
<td>02F</td>
</tr>
</tbody>
</table>

### M3 STYLII

A range of tips is available to adapt the probe to the entities to measure. All the tips are fixed with a M3 thread, and can be used on any hard contact body probe, or touch trigger probe.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Ø (mm)</th>
<th>A (mm)</th>
<th>Tip Material</th>
<th>L (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>74128</td>
<td>Tip-M3-Lg10-2mm</td>
<td>3</td>
<td>M3</td>
<td>Synth. Ruby</td>
<td>10</td>
</tr>
<tr>
<td>03969324</td>
<td>Tip-M3-Lg10-3mm</td>
<td>3</td>
<td>M3</td>
<td>Synth. Ruby</td>
<td>10</td>
</tr>
<tr>
<td>74130</td>
<td>Tip-M3-Lg10-4mm</td>
<td>4</td>
<td>M3</td>
<td>Synth. Ruby</td>
<td>10</td>
</tr>
<tr>
<td>74131</td>
<td>Tip-M3-Lg10-5mm</td>
<td>5</td>
<td>M3</td>
<td>Synth. Ruby</td>
<td>10</td>
</tr>
<tr>
<td>03969326</td>
<td>Tip-M3-Lg10-6mm</td>
<td>6</td>
<td>M3</td>
<td>Synth. Ruby</td>
<td>10</td>
</tr>
<tr>
<td>74133</td>
<td>Tip-M3-Lg10-Point</td>
<td>Point</td>
<td>M3</td>
<td>Tungsten Carbide</td>
<td>10</td>
</tr>
<tr>
<td>NCA7-7-19437</td>
<td>Tip-M3-Lg20-1mm</td>
<td>1</td>
<td>M3</td>
<td>Synth. Ruby</td>
<td>20</td>
</tr>
<tr>
<td>NCA7-7-18998</td>
<td>Tip-M3-Lg20-2mm</td>
<td>2</td>
<td>M3</td>
<td>Synth. Ruby</td>
<td>20</td>
</tr>
<tr>
<td>NCA7-7-19997</td>
<td>Tip-M3-Lg20-3mm</td>
<td>3</td>
<td>M3</td>
<td>Synth. Ruby</td>
<td>20</td>
</tr>
<tr>
<td>NCA7-7-19998</td>
<td>Tip-M3-Lg20-6mm</td>
<td>6</td>
<td>M3</td>
<td>Synth. Ruby</td>
<td>20</td>
</tr>
</tbody>
</table>
**NON-CONTACT TUBE PROBES**

Infrared Non-Contact probes for tube measurement are available in 6 different sizes, for all kinds of tubes. A laser line guides the user for precise locations. Compatible with GTube and Docs software. See below the tube diameters compatibilities.

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Tube Diameters</th>
<th>Calibration Tool</th>
<th>Verification Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCP1 - 12.5mm</td>
<td>Non-contact Tube Probe</td>
<td>Ø 4 mm &gt; 13 mm</td>
<td>T-bar ¼&quot;</td>
<td>Z-gage Ø 8 mm</td>
</tr>
<tr>
<td>NCP2 - 25mm</td>
<td>Non-contact Tube Probe 25mm</td>
<td>Ø 6 mm &gt; 20 mm</td>
<td>T-bar ¼&quot;</td>
<td>Z-gage Ø 8 mm</td>
</tr>
<tr>
<td>NCP3 - 50mm</td>
<td>Non-contact Tube Probe 50mm</td>
<td>Ø 10 mm &gt; 60 mm</td>
<td>T-bar ½&quot;</td>
<td>Z-gage Ø 20 mm</td>
</tr>
<tr>
<td>NCP4 - 75mm</td>
<td>Non-contact Tube Probe 75mm</td>
<td>Ø 12 mm &gt; 65 mm</td>
<td>T-bar ½&quot;</td>
<td>Z-gage Ø 20 mm</td>
</tr>
<tr>
<td>NCP5 - 100mm</td>
<td>Non-contact Tube Probe 100mm</td>
<td>Ø 20 mm &gt; 85 mm</td>
<td>T-bar 1&quot;</td>
<td>Z-gage Ø 40 mm</td>
</tr>
<tr>
<td>NCP6 - 150mm</td>
<td>Non-contact Tube Probe 150mm</td>
<td>Ø 20 mm &gt; 130 mm</td>
<td>T-bar 1&quot;</td>
<td>Z-gage Ø 40 mm</td>
</tr>
</tbody>
</table>

(*) for the ROMER Absolute Arm 71xx series, a TKJ adapter (NCA7-2-2195-1) is required.

(**) Calibration T-bar and Verification Z-Gage not included. Options.
HP-L-8.9 T2 LASER SCANNER

The HP-L-8.9 is an affordable 3D laser scanning solution which extends the measurement capability of the 6 axis ROMER Absolute Arm range into a wider variety of industry applications with line length of 80mm and a speed up to 45,000 points per second.

Compatible with any 6 axis ROMER Absolute Arm

HP-L-20.8 T LASER SCANNER

Designed for ROMER Absolute Arms SE, the HP-L-20.8 produces first class performance on complex workpieces made from the most challenging materials. With adjustable line lengths up to 220mm and a speed up to 150,000 points per second, this flexible laser scanner delivers accurate 3D point clouds at high speed.

HP-L-8.9 T2 Laser Scanner package

Includes:
- Hard transport case
- HP-L-8.9 T2 sensor
- Scanner cable
- Calibration sphere

HP-L-20.8 Laser Scanner package

Includes:
- Hard transport case
- HP-L-20.8T sensor
- HP-LC-200  (Feature Pack 4)
- Scanner cable
- Sensor soft case
- Calibration sphere
- Certification ISO 10360-8

*: for the ROMER Absolute Arm 7xx series, a TKJ adapter (NCA7-5-20883) is required
**: for all arms, at least a Scanning Pack (FP1) is required
STANDARD BASES
BASES
TRIPODS
STANDS
TABLES
RAISERS
All the standard bases for the ROMER Absolute Arm are designed with the ROMER Mounting Ring.

**NCA7-5-21487**
Standard Base Plate
- Compatible with the accuracy specifications
- Compatible with all size of arms
- Mounting ring included

**NCA7-5-19866**
Standard Magnetic base
- Compatible with the accuracy specifications
- Compatible with all size of arms
- Mounting ring included
- Magnetic force 3 x 1000 N

**NCA7-3-53008**
Vacuum mounting base
- For arms up to 2500mm size
- Mounting ring included
- Weight: 6.3Kg
- Stand alone use on battery available

**NCA7-7-19225**
Circular Magnetic Base
- For arms up to 2500mm size
- Magnetic force 4700 N (on SAE steel)

---

**NCA7-5-20146**
Mounting Ring alone

**NCA7-8-19891**
Screw, for the Mounting Ring
- SHCS, M8 x 1.25 x 25 SS - DIN 912 / ISO 4762
- Necessary to setup the Mounting ring on any support
- x6 pieces necessary for the Mounting Ring

**NCA7-2-21448**
Mounting Ring Adapter
- Allows to use any standard mounting base or tripod with the 7x12 and 71xx series.

**NCA7-7-20780**
Universal Mounting plate

---

* for the ROMER Absolute Arm Compact 7x12 and the ROMER Absolute Arm 71xx series, a Mounting Ring adapter is required.
TRIPODS

All the standard bases for the ROMER Absolute Arm are designed with the ROMER Mounting Ring.

**30826**
Brunson portable stand - M-Graphit Adjustable (MxG2000SA)
- Height adjustable 743 - 1403 mm
- Net weight: 14.6 kg
- Feet: 3 Pad feet (32390) included + 3 Point feet

**32986**
Brunson portable stand - M-Graphit Fix (MxG2000SF)
- Height adjustable 619 - 972 mm
- Net weight: 17.8 kg
- Feet: 3 Pad feet (32990) included + 3 Point feet

**NCA7-3-52550**
Brunson Tetralock portable stand 400S-D
- Aluminium / Stainless steel
- Height adjustable 750 - 1190 mm
- Net weight: 9.6 kg
- Transport case: duffel style canvas bag

**32990**
Brunson Pad feet for graphit portable stands
- For 32986 (MxG2000SF) 30826 (MxG2000SA) and NCA7-3-52550 (400S-D)
- 3 pieces

**32989**
Travel case for graphit portable stands
- For 32986 (MxG2000SF) and 30826 (MxG2000SA)

---

STANDS

*for the ROMER Absolute Arm Compact 7x12 and the ROMER Absolute Arm 7xx series, a Mounting Ring adapter is required.*

**32190**
Brunson stand Fix 230-F-24 - small
- Height: fix 610 mm (24")
- Net weight: 97 kg

**32191**
Brunson stand Fix 230-F-36 - medium
- Height: fix 910 mm (36")
- Net weight: 114 kg

**32192**
Brunson stand Fix 230-F-48 - large
- Height: fix 1220 mm (48")
- Net weight: 127 kg

**30050**
Brunson stand Variable 230 - Small
- Height: adjustable 710 - 1070 mm
- Net weight: 83 kg

**30051**
Brunson stand Variable 230 - Medium
- Height: adjustable 1090 - 1700 mm
- Net weight: 118 kg

**32004-1**
Brunson stand extension 234-20
- Height: 508 mm (20")
- Includes spacer ring
- Available in North America, Asia and Pacific

**2000-07-19221**
Brunson stand adapter 235-20
- Plate for magnetic support or 120° Puck
- Plate: Steel 229 mm (9") square
- Holes: 4 x M6 on Ø40 m and on Ø178mm
- Available in North America, Asia and Pacific

---

*for the ROMER Absolute Arm Compact 7x12 and the ROMER Absolute Arm 7xx series, a Mounting Ring adapter is required.*
TABLES

NCA7-2-21955 Portable Workstation with cabinet - 900
- For arms up to 3000mm (H)
- 900 mm (W) x 600mm (D) x 930mm (H)
- M8 holes grid - 50mm x 50 mm
- Fitted with Swivel lockable wheels
- Laptop shelf included
- Swift fix starter kit included
- Available in Europe

NCA7-2-21956 Portable Workstation with cabinet - 1200
- For all sizes of arms
- 1200 mm (W) x 900mm (D) x 930mm (H)
- M8 holes grid - 50mm x 50 mm
- Fitted with Swivel lockable wheels
- Laptop shelf included
- Swift fix starter kit included
- Available in Europe

33344 Portable Workstation with cabinet
- 609 x 914 mm (24 x 36 inch)
- Granite work surface
- Shipping weight 273 kg (602 lbs)
- Available in North America, Asia and Pacific

RAISERS

NCA7-5-52794 Arm Raiser - 250 mm
- Multi purpose stand, suitable for ROMER tube stations but also for high accuracy arm application.
- Compatible with the accuracy specifications
- Compatible with all size of arms
- Mounting ring included
- Height: 250 mm

NCA7-5-52795 Arm Raiser - 500 mm
- Multi purpose stand, suitable for ROMER tube stations but also for high accuracy arm application.
- Compatible with the accuracy specifications
- Compatible with all size of arms
- Mounting ring included
- Height: 500 mm

*: for the ROMER Absolute Arm 71xx series, a Mounting Ring adapter is required.
CERTIFICATIONS & ARTEFACTS

VERIFICATION BARS
CERTIFIED SPHERES
ARTEFACTS FOR TUBE PROBES
OPTIONAL CERTIFICATIONS
### VERIFICATION BARS

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Recommended Arm Size</th>
<th>Indicative Lengths</th>
<th>Provided with Certificate</th>
</tr>
</thead>
<tbody>
<tr>
<td>32377</td>
<td>Certified length Standard - 310mm</td>
<td>1200</td>
<td>170 / 310 mm (6.7&quot; / 12.2&quot;)</td>
<td>ISO-17025</td>
</tr>
<tr>
<td>32378</td>
<td>Certified length Standard - 711mm</td>
<td>2000-2500</td>
<td>361.95 / 711.20 mm (14&quot;½ / 28&quot;)</td>
<td>ISO-17025</td>
</tr>
<tr>
<td>32379</td>
<td>Certified length Standard - 1016 mm</td>
<td>3000-4500</td>
<td>514.35 / 1016 mm (20&quot;½ / 40&quot;)</td>
<td>ISO-17025</td>
</tr>
</tbody>
</table>

### CERTIFIED SPHERES

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Recommended Arm Size</th>
<th>Indicative Diameter</th>
<th>Hardness</th>
<th>Material</th>
<th>Provided with Certificate</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCA7-5-20653-01</td>
<td>Calibration sphere for contact probes</td>
<td>2000-2500</td>
<td>Ø 25.4 mm (1&quot;)</td>
<td>58 Rc</td>
<td>High chrome, high carbon stainless steel</td>
<td>ISO-17025</td>
</tr>
<tr>
<td>03939522</td>
<td>Calibration sphere for HP-L-20.8 / 10.8 scanner</td>
<td>2000-2500</td>
<td>Ø 25.4 mm (1&quot;)</td>
<td></td>
<td></td>
<td>ISO-17025</td>
</tr>
<tr>
<td>NCA7-5-21466</td>
<td>Checking plate</td>
<td></td>
<td>Ø 25.4 mm (1&quot;)</td>
<td></td>
<td></td>
<td>ISO-17025</td>
</tr>
<tr>
<td>NCA7-5-20653-02</td>
<td>Plate for Calibration Sphere</td>
<td></td>
<td>Ø 25.4 mm (1&quot;)</td>
<td></td>
<td></td>
<td>ISO-17025</td>
</tr>
</tbody>
</table>
**ARTEFACTS FOR TUBE PROBES**

**NCA7-2-21953-01**
Calibration artefact for Tube probe - ⅛ inch
Quarter inch diameter T bar for NC tube probe calibration.
- Recommended for NCP1 and NCP2
- Provided with its certificate

**NCA7-2-21953-02**
Calibration artefact for Tube probe - ¼ inch
Half inch diameter T bar for NC tube probe calibration.
- Recommended for NCP3 and NCP4
- Provided with its certificate

**NCA7-2-21953-03**
Calibration artefact for Tube probe - ½ inch
One inch diameter T bar for NC tube probe calibration.
- Recommended for NCP5 and NCP6
- Provided with its certificate

**NCA7-2-21954-01**
Z Gage for tube certification - Ø 8mm
Gage for NC tube probe verification.
- Recommended for NCP1 and NCP2

**NCA7-2-21954-02**
Z Gage for tube certification - Ø 20mm
Gage for NC tube probe verification.
- Recommended for NCP3 and NCP4

**NCA7-2-21954-03**
Z Gage for tube certification - Ø 40mm
Gage for NC tube probe verification.
- Recommended for NCP5 and NCP6

---

**OPTIONAL CERTIFICATIONS**

**H0000621**
Certification - B89.4.22
Certification only (without recalibration)

**H0000668**
Certification - ISO 10360-2

**NCA7-4-52504**
Certification - VDI/VDE 2617-9

---

*: for the ROMER Absolute Arm 71xx series, the use of a NC Tube probe requires a TKJ adapter (NCA7-5-20883).

*: for the ROMER Absolute Arm Compact 7512, either the B89 nor the ISO 10360 can be chosen.
TUBE INSPECTION

NON CONTACT TUBE PROBES
TOOLS
SOFTWARE & BENDER LINKS
NON-CONTACT TUBE PROBES

Non-contact probes to measure tubes without contact. Measurement with 2 infrared beams. A Laser line (class 2M) guides the user on the location of the point.

NCA7-2-21952-01
NCP1 - Non-contact Tube Probe 12.5mm
Ø 4 mm > 13 mm [0.15” > ½”]
Calib T** ¼” - ref 30227-1
Z gage** Ø 8mm - ref NCA7-5-21954-1

NCA7-2-21952-02
NCP2 - Non-contact Tube Probe 25mm
Ø 8 mm > 20 mm [0.3” > ¾”]
Calib T** ¼” - ref 30227-1
Z gage** Ø 8mm - ref NCA7-5-21954-1

NCA7-2-21952-03
NCP3 - Non-contact Tube Probe 50mm
Ø 10 mm > 40 mm [0.4” > 1.6”]
Calib T** ½” - ref 30247-1
Z gage** Ø 20mm - ref NCA7-5-21954-2

NCA7-2-21952-04
NCP4 - Non-contact Tube Probe 75mm
Ø 12 mm > 60 mm [0.47” > 2.37”]
Calib T** ⅜” - ref 30247-1
Z gage** Ø 20mm - ref NCA7-5-21954-2

NCA7-2-21952-05
NCP5 - Non-contact Tube Probe 100mm
Ø 20 mm > 80 mm [0.79” > 3.15”]
Calib T** ⅝” - ref 30301-1
Z gage** Ø 40mm - ref NCA7-5-21954-2

NCA7-2-21952-06
NCP6 - Non-contact Tube Probe 150mm
Ø 30 mm > 130 mm [1.2” > 5.1”]
Calib T** ⅞” - ref 30301-1
Z gage** Ø 40mm - ref NCA7-5-21954-2

*: For the ROMER Absolute Arm 71xx series, a TKJ adapter (NCA7-5-20883) is required.
**: Calibration T-bar and Verification Z-Gage not included.

TOOLS

EBD-12865
Tube Holder ø 0-20 mm
– Available for Europe, Middle East, Africa and South America

EBD-12866
Tube Holder ø 20-70 mm
– Available for Europe, Middle East, Africa and South America

20539-4
Tube Holder ø 0-50 mm (2”)
– Available for North America, Asia and Pacific
SOFTWARE & BENDER LINKS

EEA-19368  GTube Software
Tube inspection and bending program correction
- Compatible with NC Tube probes - Excel reports + direct print out - Shop floor interface.
Can be added as an option to GPad.

EEA-19369  GTube - Off Line
Off Line version of GTube.
Can be added as an option to GPad Offline.

EBC-12868  GTube Bender link - option for 1 bender
Option to connect one bender with a known protocols.

EBC-12870  GTube Bender link - Unknown protocol
Development of a new protocol (on quote)

NCA7-1-52538INT  DOCS Software
Tube inspection and bending program correction
- Geometric features, and alignments.
Compatible with NC Tube probes.

12533-M  DOCS - Off Line

13437  DOCS - Additional Bender Interface
GRIDLOK

GridLOK 4 x 6 m installation

GridLOK stand-alone license

Dongle protection to activate the use of GridLOK function.

LEAP FROG

Leap Frog kit

Set of 4 magnetic seats used for leap frogging.

- Box included.
CABLES
FEATURE PACKS & BATTERIES
DUST COVERS
INSTALLATION USB
CABLES

NCA7-6-50035  USB Cable - 3m
USB Arm-to-computer.
Specific for ROMER Absolute Arm

H00000707  USB Cable - 5m with Hub
USB Arm-to-computer powered cable.
Specific for ROMER Absolute Arm

NCA7-6-52107  USB + Scanner cable - 3m for RSx and HP-L
Twin cable including USB arm cable and Scanner cable.
Only suitable for arms with the following scanners:
- RSx
- HP-L-8.9
- HP-L-20.8 (with FP4)

H00000708  USB + Scanner cable - 5m for RSx and HP-L
Twin cable including USB-powered arm cable and Scanner cable.
Only suitable for arms with the following scanners:
- RSx
- HP-L-8.9
- HP-L-20.8 (with FP4)

FEATURE PACKS & BATTERIES

Romer Feature Packs unfold the full potential of a portable measuring arm. These interchangeable extensions can be mounted onto the rear of the arm, providing you with new functionality.

FP1 - Scanning Pack
The Feature Pack 1 adds scanning capability for all arms.
- Stand alone: No
- Probing: USB only
- Scanning: Wired only
- Packaging box: Yes

FP2 - Mobility Pack
Adds wired scanning, WiFi probing, and battery power capability for arms for a stand-alone use.
- Stand alone: Probing only / 1 battery
- Probing: USB + Wi-Fi
- Scanning: Wired only
- Packaging box: Yes

FP3 - Wireless Scanning Pack for RSX scanner
Adds wireless scanning and probing, and battery power capability for a full stand-alone use with the RSX scanner.
- Stand alone: Probing + Scanning / 2 batteries
- Probing: USB + Wi-Fi
- Scanning: Wired + Wireless
- Packaging box: Yes

Battery Internal Li-ion (1 unit)
For FP2 and FP3

Charger for Li-ion battery
External quick charger for the battery
- Charger for Li-ion battery
- Charger for Li-ion battery (EU)
- Charger for Li-ion battery (UK)
- Charger for Li-ion battery (US)

(*) for the ROMER Absolute Arm 71xx series, the use of the HP-L-8.9 requires a TKJ adapter (NCA7-5-20883).
### DUST COVERS

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Product Description</th>
<th>Arm Size Range</th>
<th>H00000636</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCA7-3-21681-01</td>
<td>Dust cover - 750 mm</td>
<td>1200 (7x12 compact)</td>
<td>7x12 Std (*)</td>
</tr>
<tr>
<td>NCA7-3-21681-02</td>
<td>Dust cover - 1080 mm</td>
<td>1500 - 2000</td>
<td>75 / 75 Std (*)</td>
</tr>
<tr>
<td>NCA7-3-21681-03</td>
<td>Dust cover - 1280 mm</td>
<td>2500 - 3000</td>
<td>75 / 75 SE Std (*)</td>
</tr>
<tr>
<td>NCA7-3-21681-04</td>
<td>Dust cover - 1640 mm</td>
<td>3500 - 4500</td>
<td>75 / 75 SI Std (*)</td>
</tr>
</tbody>
</table>

* Standard dust cover according to the size of the arm.

### INSTALLATION USB PACKAGE

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Product Description</th>
<th>Installation Memory Stick</th>
<th>H00000924</th>
</tr>
</thead>
<tbody>
<tr>
<td>H00000924</td>
<td>USB Package ROMER Absolute Arm</td>
<td>Installation USB memory stick, including RDS installation, and all the user manuals.</td>
<td></td>
</tr>
</tbody>
</table>
PC-DMIS PORTABLE
PC-DMIS TOUCH
PC-DMIS RESHAPER
GTUBE
DOCS
SPATIAL ANALYZER
Software

Bringing Metrology to the Shop Floor

Portable measurement devices have changed the way you monitor your operations, making it possible to take measurements and analyze the results where parts are made and assembled. PC-DMIS Portable provides the tools you need to more effectively monitor operations and identify minor issues before they turn into costly problems.

ROY-PROBE-I-A
PC-DMIS CAD++ Probing
Includes LMS license + RDS Probing interface + XACT 6007, IGES / DXF / DWG / STEP203 / STEP214 / VDAFS / XST / 3D PAD and DMIS I/O translators

ROY-SCAN-SI-I-A
For RSx / HP-L-8.9

ROY-SCAN-HPL-I-A
For HP-L-20.8

ROY-SCANMESH-SI-I-A
For RSx / HP-L-8.9

ROY-SCANMESH-HPL-I-A
For HP-L-20.8

Upgrade PC-DMIS
UPGRADE PC-DMIS CAD ++ Probing to CAD++ Scanning
Upgrade PC-DMIS CAD++ Scanning to Scanning / Mesh

Software Maintenance Agreement
Software Maintenance Agreement (SMA) provides access to the updates and unlimited technical support.

SMA-PROBE-I-A
Annual SMA for CAD++ Probing

SMA-SCAN-I-A
Annual SMA for CAD++ Scanning

SMA-MESH-I-A
Annual SMA for CAD++ Scanning / Mesh

PC-DMIS PORTABLE

PC-DMIS TOUCH

Tablet-based measurement for ROMER Absolute Arms

PC-DMIS Touch is a revolutionary new way to interact with inspection data and coordinate measurement devices. With a full-screen interface, advanced Multi-Touch technology, intuitive inspection routines, and the power of PC-DMIS built in, PC-DMIS Touch is an ideal complement to many measurement applications.

NCA7-2-53568
PC-DMIS Touch probing software

NCA7-1-22102
SMA for PC-DMIS Portable touch
Software Maintenance Agreement (SMA) provides access to the updates and unlimited technical support.

NCA7-5-22083
Upgrade from GPad software
Upgrade from GPad to PC-DMIS Portable Touch

Laptop not included.
PC-DMIS RESHAPER

New attractive solution for reverse engineering

PC-DMIS Reshaper application for ROMER Absolute Arms & scanners: a complete 3D point-cloud processing software for users who need to handle rapidly generated point clouds files and obtain high-quality 3D meshes. All licenses include 1 year warranty.

**Standalone licenses**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROY-RSH-BASE-STD</td>
<td>PC-DMIS Reshaper Standard: Point cloud+mesh+3D inspection</td>
</tr>
<tr>
<td>ROY-RSH-FLINE-STD</td>
<td>Option: Feature lines + curvature analysis</td>
</tr>
<tr>
<td>ROY-RSH-CAD-STD</td>
<td>Option: Feature lines + curvature analysis + CAD reconstruction for complex surfaces</td>
</tr>
<tr>
<td>ROY-RSH-TXTR-STD</td>
<td>Option: Photo texture mapping + orthoimage</td>
</tr>
</tbody>
</table>

**NETWORK licenses: 1st License**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROY-RSH-BASE-NET1</td>
<td>PC-DMIS Reshaper Standard</td>
</tr>
<tr>
<td>ROY-RSH-FLINE-NET1</td>
<td>Option: Feature lines + curvature analysis</td>
</tr>
<tr>
<td>ROY-RSH-CAD-NET1</td>
<td>Option: Feature lines + curvature analysis + CAD reconstruction for complex surfaces</td>
</tr>
<tr>
<td>ROY-RSH-TXTR-NET1</td>
<td>Option: Photo texture mapping + orthoimage</td>
</tr>
</tbody>
</table>

**NETWORK licenses: Next Licenses**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROY-RSH-BASE-NET2</td>
<td>PC-DMIS Reshaper Standard</td>
</tr>
<tr>
<td>ROY-RSH-FLINE-NET2</td>
<td>Option: Feature lines + curvature analysis</td>
</tr>
<tr>
<td>ROY-RSH-CAD-NET2</td>
<td>Option: Feature lines + curvature analysis + CAD reconstruction for complex surfaces</td>
</tr>
<tr>
<td>ROY-RSH-TXTR-NET2</td>
<td>Option: Photo texture mapping + orthoimage</td>
</tr>
</tbody>
</table>

**Interfaces**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROY-RSH-I-RDS</td>
<td>RDS interface (probing + scanning)</td>
</tr>
</tbody>
</table>

**Upgrades**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROY-RSH-UPGNET</td>
<td>Standalone license upgrade to Network</td>
</tr>
<tr>
<td>ROY-RSH-UPGRADE</td>
<td>Upgrade for licenses under maintenance</td>
</tr>
<tr>
<td>SMA-RSH-QUOTE</td>
<td>Maintenance renewal on quote</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Options</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPTIONS</td>
<td></td>
</tr>
</tbody>
</table>

**Option: Feature lines + curvature analysis**

**Option: Feature lines + curvature analysis + CAD reconstruction for complex surfaces**

**Option: Photo texture mapping + orthoimage**

**NETWORK licenses: 1st License**

**NETWORK licenses: Next Licenses**

**Interfaces**

**Upgrades**

**License renewal**

- Romosoft - GPad License renewal - 1st time
  - Renewal for a new MAC address. First renewal is free of charge.

- Romosoft - GPad License renewal - 2nd /next times
  - Renewal for a new MAC address.

**Upgrade**

- Romosoft upgrade
  - GPAD and GTube upgrade.

**Bender link**

- Option for 1 bender
  - Option to connect one bender with a known protocol.

**Development of a new protocol (on quote)**

**Laptop not included.**

ROMOSOFT

The quick non-contact measurement solution for the inspection of bent tubes in your workshop. GPAD / GTube is the ideal solution especially designed for tube shop and mainly in automotive, aerospace, furniture, air conditioning and subcontracting industries.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEA-19365</td>
<td>Romosoft - GPad Geo metric measurement - Macro programming - Excel reports.</td>
</tr>
<tr>
<td>EEA-19367</td>
<td>Romosoft - GPad Offline Offline version of GPad standard</td>
</tr>
<tr>
<td>EEA-19366</td>
<td>Tubinspect option for GPad Option for tube measurement and inspection in GPad - compatible with NC Tube probes - Excel reports + direct print out - Shop floor interface.</td>
</tr>
<tr>
<td>EEA-19368</td>
<td>Romosoft - GTube Tube inspection and bending program correction - Compatible with NC Tube probes - Excel reports + direct print out - Shop floor interface.</td>
</tr>
<tr>
<td>EEA-19369</td>
<td>Can be added as an option to GPad. Romosoft - GTube Offline Off Line version of GTube. Can be added as an option to GPad Offline.</td>
</tr>
<tr>
<td>EEA-19834</td>
<td>Romosoft exchange protection dongle - Romosoft License renewal - 1st time</td>
</tr>
<tr>
<td>EEA-19406</td>
<td>Renewal for a new MAC address. First renewal is free of charge.</td>
</tr>
<tr>
<td>EEA-19406</td>
<td>Romosoft License renewal - 2nd /next times</td>
</tr>
<tr>
<td>EEA-19406</td>
<td>Renewal for a new MAC address.</td>
</tr>
<tr>
<td>EBC-12868</td>
<td>Bender link - option for 1 bender Option to connect one bender with a known protocol.</td>
</tr>
<tr>
<td>EBC-12870</td>
<td>Bender link - Setup of unknown protocol Development of a new protocol (on quote)</td>
</tr>
</tbody>
</table>

Laptop not included.
DOCS

ROMER DOCS is the premier CAD-based tube inspection software. Designed to revolutionize quality control in the tubing industry, DOCS stands for Data Overlay Camera System and is compatible with ROMER Absolute Arms. DOCS can inspect and measure round metallic and non-metallic wire, tubing, and piping used in almost any industry - automotive, aerospace, shipbuilding, medical, machinery, appliance, and more. DOCS can also produce corrected bend data for CNC tube benders.

NCA7-1-53538NF  DOCS Software standard
Contact and non-contact tube measurement. Contact geometric measurement. Macroprogramming. 1 standard bender interface included.

NCA7-1-53538OFF  DOCS - Off Line
Offline version of DOCS standard

12533-M  DOCS - Software maintenance agreement

13437  DOCS - Additional Bender Interface

SPATIAL ANALYZER®

Powerful and traceable metrology and analysis software

SpatialAnalyzer® (SA) is a powerful, traceable and easy to use metrology and analysis software package, tailored for the Hexagon Metrology portable CMM family. SA offers a vast number of benefits, including:
- Intuitive, state of the art graphical environment
- Interfaces to all Hexagon Metrology portable CMMs
- All common CAD exchange and native formats
- Advanced analysis and processing and unique alignment techniques
- Easy multiple instrument station bundling
- True GD&T and feature checks
- Numerous reporting options
- Measurement uncertainty calculation
- USMN to achieve the ideal instrument network
- Integrated Modern Scripting Language to automate complete workflows
- Multiple language support
- Free SA Viewer to share SA job files easily

SpatialAnalyzer® makes metrology easy.
CONDITIONS

Standard Manufacturer’s Warranty Plan

Renewal of standard manufacturer’s warranty plan for ROMER Absolute Arms. Arm must be currently covered by an existing warranty plan. If your arm is out of warranty, then the arm must be returned to your Hexagon Metrology Service Center for a calibration and checkout. Any required repair parts or labor is extra. Plans are available to cover one, two or three years. These plans include:
1. Replacement or repair at our option, free of charge, any part or parts which upon examination we find defective in workmanship or material.
2. Unlimited telephone technical support during the warranty period.
3. Under normal usage, the carbon graphite tubes have a lifetime warranty.

Extended Maintenance Plan:

Extended Maintenance for ROMER Absolute Arms. Arm must be currently covered by an existing warranty plan. If your arm is out of warranty, then the arm must be returned to for a calibration and checkout. Any required repair parts or labor is extra. Plans are available to cover one, two or three years. These plans include:
1. Customer is entitled to one calibration during each year of the warranty period (no carryover).
2. Replacement or repair at our option, free of charge, any part or parts which upon examination we find defective in workmanship or material.
3. Unlimited telephone technical support during the warranty period.
4. Under normal usage, the carbon graphite tubes have a lifetime warranty.

Customer assumes all shipping costs.

WARRANTY

Arm - 1 Month standard warranty extension
Renewal of Standard Manufacturer’s Warranty Plan for ROMER Absolute Arms series. 1 Month. (Can be added as an option, BEFORE the first 12 months of standard warranty have expired.)

Arm - 1 Year standard warranty extension
Renewal of Standard Manufacturer’s Warranty Plan for ROMER Absolute Arms series. 1 Year. (Can be added as an option, BEFORE the first 12 months of standard warranty have expired.)

Arm - 2 Years standard warranty extension
Renewal of Standard Manufacturer’s Warranty Plan for ROMER Absolute Arms series. 2 Years. (Can be added as an option, BEFORE the first 12 months of standard warranty have expired.)

Arm - 3 Years standard warranty extension
Renewal of Standard Manufacturer’s Warranty Plan for ROMER Absolute Arms series. 3 Years. (Can be added as an option, BEFORE the first 12 months of standard warranty have expired.)

Sensor + Controller

Sensor only
EXTENDED MAINTENANCE PLAN

NCA7-3-52543
1 Year extended maintenance plan - 6 axes
Renewal of Extended Manufacturer’s Maintenance Plan for ROMER Absolute Arms series. (6 axes).
1 Year. (Can be added as an option, BEFORE the first 12 month of standard warranty have expired.)

NCA7-3-52544
2 Years extended maintenance plan - 6 axes
Renewal of Extended Manufacturer’s Maintenance Plan for ROMER Absolute Arms series. (6 axes).
2 Years. (Can be added as an option, BEFORE the first 12 month of standard warranty have expired.)

NCA7-3-52545
3 Years extended maintenance plan - 6 axes
Renewal of Extended Manufacturer’s Maintenance Plan for ROMER Absolute Arms series. (6 axes).
3 Years. (Can be added as an option, BEFORE the first 12 month of standard warranty have expired.)

NCA7-3-52546
1 Year extended maintenance plan - 7 axes
Renewal of Extended Manufacturer’s Maintenance Plan for ROMER Absolute Arms series. (7 axes).
1 Year. (Can be added as an option, BEFORE the first 12 month of standard warranty have expired.)

NCA7-3-52547
2 Years extended maintenance plan - 7 axes
Renewal of Extended Manufacturer’s Maintenance Plan for ROMER Absolute Arms series. (7 axes).
2 Years. (Can be added as an option, BEFORE the first 12 month of standard warranty have expired.)

NCA7-3-52548
2 Years extended maintenance plan - 7 axes
Renewal of Extended Manufacturer’s Maintenance Plan for Absolute Series Arms (7 axes).
2 Years. (Can be added as an option, BEFORE the first 12 month of standard warranty have expired.)
Hexagon Metrology offers a comprehensive range of products and services for all industrial metrology applications in sectors such as automotive, aerospace, energy and medical. We support our customers with actionable measurement information along the complete life cycle of a product – from development and design to production, assembly and final inspection.

With more than 20 production facilities and 70 Precision Centers for service and demonstrations, and a network of over 100 distribution partners on five continents, we empower our customers to fully control their manufacturing processes, enhancing the quality of products and increasing efficiency in manufacturing plants around the world.

For more information, visit www.hexagonmetrology.com

Hexagon is a leading global provider of information technologies that drive productivity and quality across industrial and geospatial applications. Hexagon’s solutions integrate sensors, software, domain knowledge and customer workflows into intelligent information ecosystems that deliver actionable information. They are used in a broad range of vital industries.

Hexagon (Nasdaq Stockholm: HEXA B) has more than 15,000 employees in 46 countries and net sales of approximately 2.6bn EUR.

Learn more at www.hexagon.com