**QUADRA SYSTEM**

**INSTRUMENTATION**

- One tray to implant Quadra-S, Quadra-H, Quadra-C*
- Both standard and lateralised trial necks fit onto the broaches for quick and precise trial reduction
- Reliable manual and motorised broach handles
- Offset broach handles available in left and right versions for motorised and manual use with 2 different inclinations
- High quality sharp broaches for precise preparation of the medullary cavity
- Monoblock motorised broaches option for use with femoral stem trials
- Dedicated AMIS instrumentation

**ONE TRAY IS ENOUGH!**

**REFERENCES**

8. Dora C, Müller DA, Zingg P. 5 year survival and radiological outcome of minimally invasive total hip replacements using a relatively new implant. 71 th Congrès annuel de la Société

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**REDEFINING THR: THE AMIS SYNERGY**

The anterior approach, consolidated by years of clinical experience, is the only technique that follows an intermuscular and internervous path and therefore lowers the risk of damaging percutaneous structures such as vessels, tendons, vessels and nerves.

Medacta International is the world leader for educating and supporting surgeons in their pursuit of Anterior Minimally Invasive Surgery (AMIS). Reference Centers around the world provide the necessary AMIS education experience and Medacta offers continuous support for surgeons, as well as constantly improving and developing the industry’s most specialised instrumentation platform.

When you use the Quadra System, you enter the Medacta International world of AMIS.

Discover:
- The definitive MIS approach: AMIS;
- Dedicated AMIS instrumentation;
- The AMIS Mobile Leg Positioner: the original extension table included as part of the instrumentation, which makes surgery easier and reproducible;
- The AMIS Education Programme based on Medacta’s proven educational methods.

The AMIS Mobile Leg Positioner will be supplied as part of the instrumentation to help assure effective and reliable positioning of the leg during surgery. Traction, adduction and hyperextension have never been so easy.

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* Dedicated instrumentation requires a different tray for dedicated broaches and trial necks.
**Quadra-S and Quadra-H** are made in a niobium-titanium alloy. Titanium is a biocompatible material ideal for direct interaction with the bone. [5,6,7]

**Quadra-C** is made of high nitrogen stainless steel providing the ideal stiffness for a cemented solution.

**Quadra-S Surface** - The surface has a superficial Ra roughness between 4μm and 7μm thanks to a specific sand-blasting treatment on the shaft, which allows outstanding osteointegration.[4]

**Quadra-H and Quadra-R Surface** - The surface has an 80 μm thick HA coating applied after sand-blasting. The HA coating has chemical characteristics similar to those of human bone.[8,9,10,11] When the HA coating is absorbed there is good interaction between stem and bone, leading to long-term fixation.

**Quadra-C Surface** - Mirror polished surface for correct interaction with the cement mantle.

**Quadra-R** is a cementless straight long stem for revision purposes or pertrochanteric fractures. Based on the Quadra-H, Quadra-R provides the stem with a longer and larger distal shaft for greater distal stability in the femoral cavity. It shares most of the characteristics of the cementless options. Quadra-R is available with a dedicated instrumentation tray.

**Quadra-C** is the cemented stem in the Quadra System range.

**Quadra-C** has:
- Rounded edges to avoid peak stresses within the cement mantle.
- The same instrumentation as the Quadra cementless stems.

**Quadra-R and Quadra-H** are made in a niobium-titanium alloy. Quadra-C is made of high nitrogen stainless steel providing the ideal stiffness for a cemented solution.

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**CEMENTLESS STEM**

**CEMENTLESS LONG STEM**

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**CEMENTED STEM**

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- Rounded edges to avoid peak stresses within the cement mantle.
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**PRODUCT RANGE**

**QUADRA-S & QUADRA-H**
- 11 STANDARD sizes with 135° neck-shaft angle and 7 LATERALISED sizes with 127° neck-shaft angle.
- Shorter neck sizes are available for both STANDARD and LATERALISED versions.

**QUADRA-C**
- 8 STANDARD sizes with 135° neck-shaft angle.

**QUADRA-R**
- 10 sizes with 127° neck-shaft angle.

**MATERIALS & FINISHES**

**QUADRA-S & QUADRA-H**
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**QUADRA-C**
- 8 STANDARD sizes with 135° neck-shaft angle.

**QUADRA-R**
- 10 sizes with 127° neck-shaft angle.

**CONCEPT**

**SHAPE**
- Designed as an experience with straight, rectangular cementless stems.

**DESIGN**
- Triple taper with trapezoidal cross section providing good axial and rotational stability, with optimal anchoring to the bone.[12]

**NECK**
- Different offsets to reproduce patient joint geometry including standard, lateralized and short neck options.
- Mirror polished rounded neck to minimize wear.

**TAPER**
- Micro threaded.
- 12/14 EUROCONE (5°42’30”).
- Shortened to increase ROM.

**PROXIMAL FEMUR**
- Close contact between the stem and the cortical bone thanks to the tapered shape and high precision broaches.
- Good stability.
- Natural load transfer.
- Minimised stress-shielding risk, preserving healthy bone.

**MACROSTRUCTURES**
- Horizontal and vertical macrostructures increase contact surface area by 10-15%.[13]
- The proximal horizontal macrostructures increase axial stability.
- The vertical distal macrostructures increase rotational stability.

**DIAPHYSIS**
- Squared shape for an adequate primary diaphyseal fit.[14]
- Enhanced rotational stability.

**DISTAL TIP**
- Double tapered distal tip reduces the risk of stress peak in the diaphysis.

**QUADRA SYSTEM: COMPLETE RANGE OF STRAIGHT STEMS**

**CEMENTLESS STEM**

Quadra-C is the cemented stem in the Quadra System range.

**CEMENTLESS LONG STEM**

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