SensiTiN™ DM CONVERTER

COBALT-FREE MODULAR DOUBLE MOBILITY

Brochure

Joint | Spine | Sports Med

Medacta International

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COBALT-FREE MODULAR DOUBLE MOBILITY

Instability remains a major challenge and a significant issue for both primary and revision total hip arthroplasties, and **Double Mobility (DM)** devices can provide a viable solution.[1,2,3]

To date, most of the Double Mobility Converters on the market are made of **Cobalt-Chromium alloy**, with several papers reporting **corrosion of the taper connection**.[4,5]

Medacta's focus on improving the **patient's well-being** through **innovative solutions** has led to the development of the **SensiTiN Double Mobility Converter**, a High Nitrogen Stainless Steel, completely **cobalt-free**, modular DM device with an outer Titanium Nitride coating to **improve corrosion resistance**.

1 ADVANCED MATERIALS

2 OPTIMIZED STABILITY

3 FIRM LOCKING MECHANISM

4 EXTENSIVE COMPATIBILITY

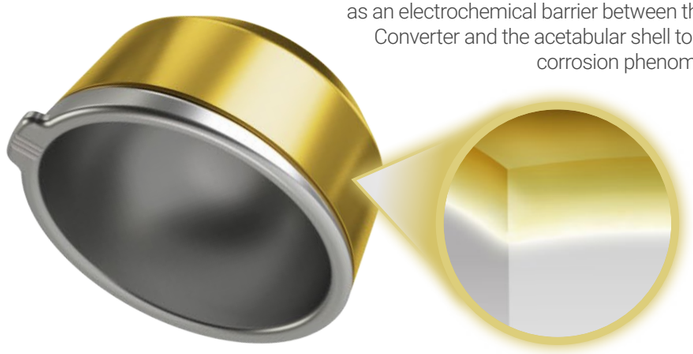
1 ADVANCED MATERIALS

OUTER COATING: SENSITIN

The Titanium Nitride ceramic-like coating acts as an electrochemical barrier between the DM Converter and the acetabular shell to lower corrosion phenomena.[9]

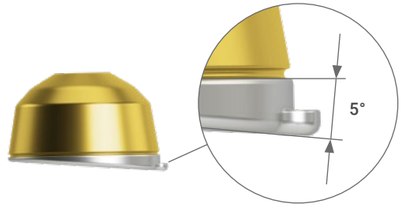
BULK MATERIAL: HIGH NITROGEN STAINLESS STEEL

With over 50 years of successful clinical history in Double Mobility, this bulk material provides for a completely Cobalt-free device, eliminating any potential issues of elevated Cobalt and/or Chromium ion serum levels, which have been shown to cause: soft tissue necrosis, osteolysis and pseudotumor formation.[6,7,8]



2 OPTIMIZED STABILITY

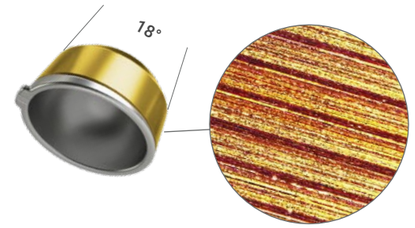
The **5° raise** provides **185°** of liner coverage, **further increasing the Jumping Distance**, thus **reducing** the risk of **luxation**.[9]
The **5° raise** is based on the **successful experience** with Versafitcup DM and Mpact DM.



3 FIRM LOCKING MECHANISM

The effective locking system of the SensiTiN DM Converter liner **minimizes micromotions** at the shell-converter interface[9] and features:

- An **18° taper**, a **clinically and mechanically proven** connection system widely and successfully used on the market
- Micro-threads on the tapered surface to further increase **converter stability** within the shell

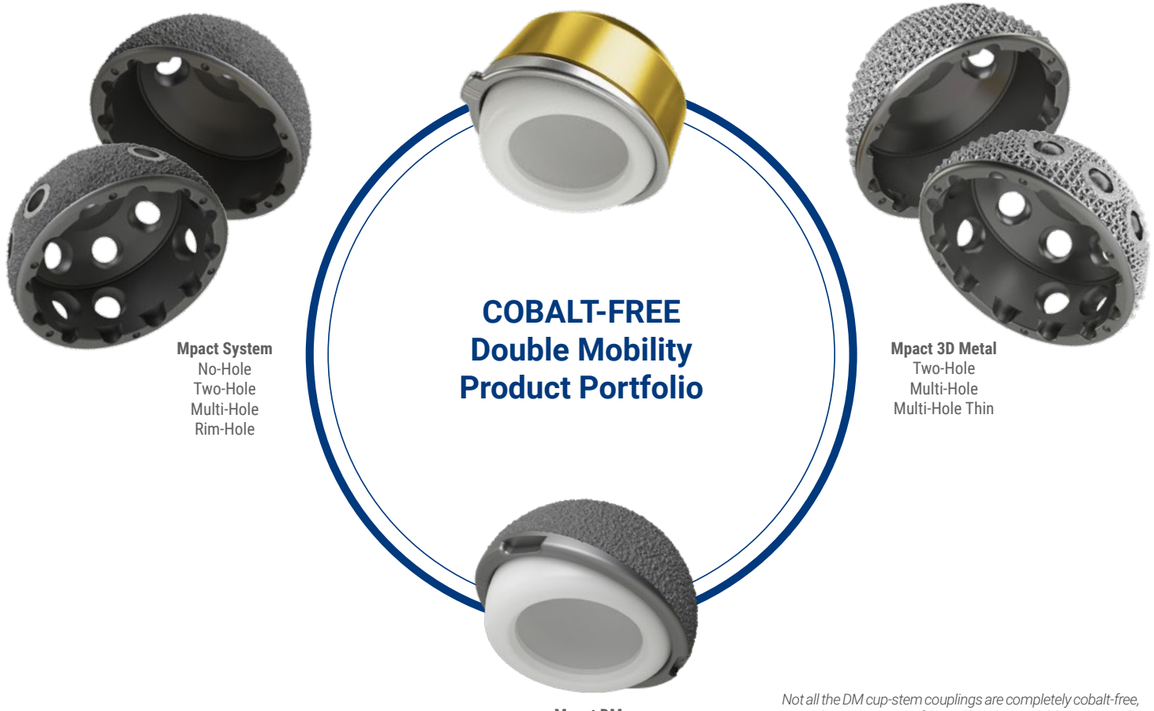


4 EXTENSIVE COMPATIBILITY

The **SensiTiN DM Converter** has been optimized to be **fully compatible** with **all** of the **Medacta fixed-bearing acetabular cups**, further enriching the current Medacta personalized offering.

The **SensiTiN DM Converter** further **expands** the **current Medacta Double Mobility portfolio**, creating a **COMPLETELY COBALT-FREE DM SYSTEM**.

With the **SensiTiN DM Converter**, the surgeon can select the right implant for each specific patient, safely addressing instability and risk of dislocation in a wide range of patients, from primary to revision.



Not all the DM cup-stem couplings are completely cobalt-free, since the 22.2 mm size femoral head is available in CoCr only.

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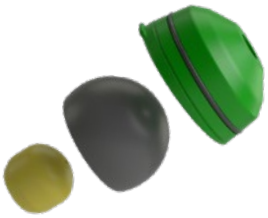
SMART INSTRUMENTATION

One tray is enough! To implant the SensiTiN DM Converter, only **one single-level tray** is needed. This tray is combined with each of Medacta's acetabular cup standard sets.

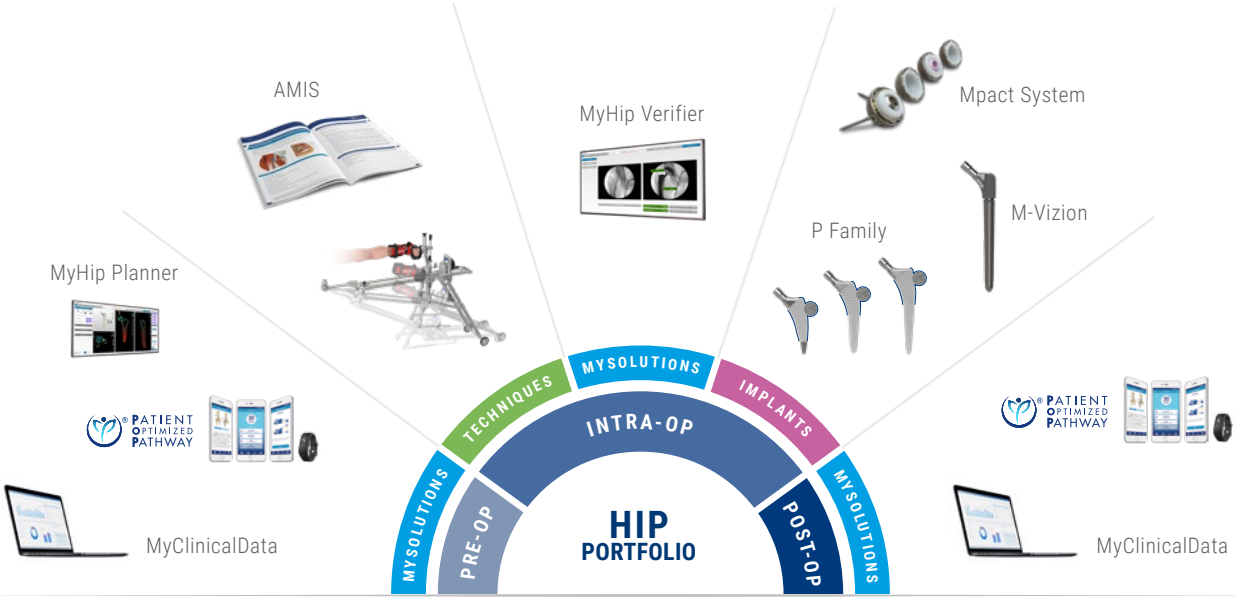


A complete **trial system** is available in any standard set to intraoperatively check for hip stability and length.

A **removal hook**, to easily disengage the DM Converter from the shell, easily connects to the generic multi-function handle for a quick and straightforward liner disengaging procedure.

PERSONALIZED SOLUTIONS IN HIP REPLACEMENT

The Medacta Hip Offering embraces a **Personalized Medicine Vision** with a comprehensive platform for a personalized care experience through a **Holistic Approach**. **Innovative implants**, **surgical techniques** and **technologies** offer value throughout the **entire patient journey**.



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[1] *https://aoanjrr.sahmri.com/annual-reports-2020.* ***[2]*** *F. Farizon, R. de Lavison, J. J. Azoulai, G. Bousquet. Results with a cementless alumina coated cup with a dual mobility: a twelve years follow-up study. Int Orthop. 1998; 22(4) : 219-224.* ***[3]*** *C. Batailler, C. Fary, R. Verdier, T. Aslanian, J. Caton, S. Lustig. The evolution of outcomes and indications for the dual mobility cup: a systematic review.* ***[4]*** *M.S. Abdelaal, E. Zachwieja, P.F. Sharkey. Severe Corrosion of Modular Dual Mobility Acetabular Components Identified During Revision Total Hip Arthroplasty. Arthroplasty Today 8 (2021) 78-83.* ***[5]*** *R. Civinini, A. Cozzi Lepri, C. Carulli, F. Matassi, M. Villano, M. Innocenti. Patients Following Revision Total Hip Arthroplasty With Modular Dual Mobility Components and Cobalt-Chromium Inner Metal Head are at Risk of Increased Serum Metal Ion Levels. The Journal of Arthroplasty 35 (2020) S294-S298.* ***[6]*** *J.M. Kolz, C.C. Wyles, D.W. Van Citters, R.M. Chapman, R.T. Trousdale, D.J. Berry. In Vivo Corrosion of Modular Dual Mobility Implants: A Retrieval Study. The Journal of Arthroplasty 2020; 35 (11): 3326-3329.* ***[7]*** *K.A. Sonn, R.M. Meneghini. Adverse Local Tissue Reaction due to Acetabular Corrosion in Modular Dual-Mobility Constructs. Arthroplasty Today 6 (2020) 976-980.* ***[8]*** *W.C. Witzleb, J. Ziegler, F. Krummenauer, V. Neumeister, K.P. Guenther. Exposure to chromium, cobalt and molybdenum from metal-on-metal total hip replacement and hip resurfacing arthroplasty. Acta Orthopaedica2006; 77:5, 697-705.* ***[9]*** *I. De Martino, G.K. Triantafyllopoulos, P.K. Sculco, T.P. Sculco. Dual mobility cups in total hip arthroplasty. World J. Orthop2014; 5(3): 180-187.*

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