



The **Freedom Titan Knee** features a titanium niobium nitride (TiNbN) coating which is shown to block the release of Co and Cr ions common in standard implants.¹

The Freedom Titan knee maintains the same advanced design engineering as the Freedom Primary Knee and includes multi-radius kinematics, high-flexion and bone conserving features that produce successful and reproducible results.²

PROPERTIES OF TiNbN SURFACE COATINGS:

- Proven outstanding biocompatibility¹
- 4x harder than conventional CoCr alloys
- Low friction coefficient with UHMWPE articulation¹
- Significant scratch resistance to third body particulate¹
- Higher synovial fluid wettability¹

ADVANTAGES OF TiNbN INCLUDE:

- Reduction of Co and Cr ion release
- Avoidance of potential metal ion sensitivity/allergy
- Long term chemical stability¹
- Extreme adhesive strength to substrate material
- Available in both PS and CR primary systems



REFERENCES

1 Serro et al. (2009) A Comparative Study of Titanium Nitrides, TiN, TiNbN and TiCN, as Coatings for Biomedical Applications. *Surface & Coatings Technology* 203 (2009), pp. 3701–3707.

2 Durbhakula S, Durbhakula V, Durbhakula N, Restoration of Femoral Condylar Anatomy for Achieving Optimum Functional Expectations Continuation of an Earlier Study at 5-Year Minimum Follow-Up. *Reconstructive Review*, Vol 9: 2019.

FEMORAL COMPONENTS

Part Number	Description	AP	ML
UFPSRA00-GK	TiNbN Coated Femoral PS, Size A, Right	51	54
UFPSLA00-GK	TiNbN Coated Femoral PS, Size A, Left		
UFCRRA00-GK	TiNbN Coated Femoral CR, Size A, Right	54	58
UFCRLA00-GK	TiNbN Coated Femoral CR, Size A, Left		
UFPSRB00-GK	TiNbN Coated Femoral PS, Size B, Right	58	62
UFPSLB00-GK	TiNbN Coated Femoral PS, Size B, Left		
UFCRRB00-GK	TiNbN Coated Femoral CR, Size B, Right	60	64
UFCRLB00-GK	TiNbN Coated Femoral CR, Size B, Left		
UFPSRC00-GK	TiNbN Coated Femoral PS, Size C, Right	62	66
UFPSLC00-GK	TiNbN Coated Femoral PS, Size C, Left		
UFCRRC00-GK	TiNbN Coated Femoral CR, Size C, Right	66	70
UFCRLC00-GK	TiNbN Coated Femoral CR, Size C, Left		
UFPSRD00-GK	TiNbN Coated Femoral PS, Size D, Right	66	70
UFPSLD00-GK	TiNbN Coated Femoral PS, Size D, Left		
UFCRRD00-GK	TiNbN Coated Femoral CR, Size D, Right	66	70
UFCRLD00-GK	TiNbN Coated Femoral CR, Size D, Left		
UFPSRE00-GK	TiNbN Coated Femoral PS, Size E, Right	66	70
UFPSLE00-GK	TiNbN Coated Femoral PS, Size E, Left		
UFCRRE00-GK	TiNbN Coated Femoral CR, Size E, Right	66	70
UFCRLE00-GK	TiNbN Coated Femoral CR, Size E, Left		
UFPSRF00-GK	TiNbN Coated Femoral PS, Size F, Right	66	70
UFPSLF00-GK	TiNbN Coated Femoral PS, Size F, Left		
UFCRRF00-GK	TiNbN Coated Femoral CR, Size F, Right	66	70
UFCRLF00-GK	TiNbN Coated Femoral CR, Size F, Left		

FEMORAL COMPONENTS (CONT.)

Part Number	Description	AP	ML
UFPSRG00-GK	TiNbN Coated Femoral PS, Size G, Right	70	74
UFPSLG00-GK	TiNbN Coated Femoral PS, Size G, Left		
UFCRRG00-GK	TiNbN Coated Femoral CR, Size G, Right	74	78
UFCRLG00-GK	TiNbN Coated Femoral CR, Size G, Left		
UFPSRH00-GK	TiNbN Coated Femoral PS, Size H, Right	74	78
UFPSLH00-GK	TiNbN Coated Femoral PS, Size H, Left		
UFCRRH00-GK	TiNbN Coated Femoral CR, Size H, Right	74	78
UFCRLH00-GK	TiNbN Coated Femoral CR, Size H, Left		

TIBIAL COMPONENTS

Part Number	Description	AP	ML
MTUUX100-GK	TiNbN Coated Tibial Base Plate, Size 1	40	59
MTUUX200-GK	TiNbN Coated Tibial Base Plate, Size 2	40	62
MTUUX300-GK	TiNbN Coated Tibial Base Plate, Size 3	42	66
MTUUX400-GK	TiNbN Coated Tibial Base Plate, Size 4	46	66
MTUUX500-GK	TiNbN Coated Tibial Base Plate, Size 5	48	71
MTUUX600-GK	TiNbN Coated Tibial Base Plate, Size 6	50	72
MTUUX700-GK	TiNbN Coated Tibial Base Plate, Size 7	52	76
MTUUX800-GK	TiNbN Coated Tibial Base Plate, Size 8	54	78

Freedom Total Knee[®] System (Titan)



Maxx Orthopedics, Inc.
2460 General Armistead Ave, Ste 100
Norristown, PA 19403 USA



Carefully read all instructions and be familiar with the surgical techniques prior to use.

Please see the package insert for complete device description, product selection information, indications, contraindications, precautions, adverse effects, warnings, materials, sterilization and patient guidance associated with the Freedom Total Knee[®] System.

CAUTION: THIS DEVICE IS RESTRICTED TO SALE BY OR ON THE ORDER OF A LICENSED PHYSICIAN

WARNING: THIS DEVICE IS INTENDED FOR CEMENTED USE ONLY

Freedom Knee[®] is manufactured by Maxx Orthopedics, Inc. FREEDOM, FREEDOM KNEE and TITAN KNEE are Registered Trademarks of Maxx Orthopedics, Inc.

©2023 Maxx Orthopedics. All rights reserved. Updated May 2023

LEARN MORE ABOUT MAXX PRODUCTS WITH OUR APP:



SEARCH: Maxx Ortho

Maxx Orthopedics Brochure No. MXO-MP00050-R01