

maxx
orthopedics



LIBERTAS®



HIP

Collared Stems

*Hydroxyapatite (HA) Coated Stems

Engineered for Stability, Built for Life....

Pursue Life™

HA Coating Over the Region Mating with the Bone Surface

The stem is coated with **Hydroxyapatite (HA)** in the region that directly interfaces with the bone. HA is a biocompatible material that mimics the natural mineral composition of bone, promoting optimal bone on-growth and osseointegration. This coating facilitates a direct bond between the bone and the implant, allowing for a more stable, uncemented fixation. By encouraging bone on-growth, the HA coating ensures a more secure and long-lasting implant without the risks associated with cemented fixation (e.g., osteolysis and loosening over time).



The Collar Provides Protection Against Subsidence

The **collar** at the proximal end of the stem plays a critical role in **preventing subsidence** — the downward migration of the stem into the femoral bone, which can occur over time, especially under high stress or load. The collar provides an additional point of contact with the femur, offering a **stable mechanical stop** that resists vertical movement. It also helps distribute vertical forces more evenly across the femoral head, reducing the risk of implant migration. This design feature is particularly beneficial in patients with higher activity levels or those with bone quality that may be more prone to subsidence without such support.



Stepped Geometry Minimizes Shear Forces & Maximizes Compression Loading to Enhance Implant Longevity

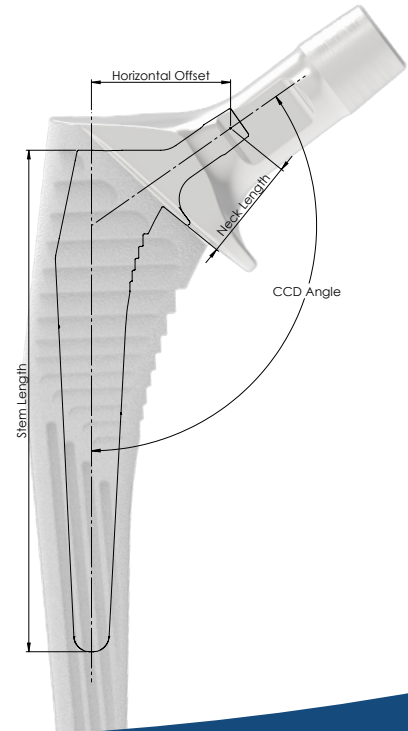
The stepped geometry not only facilitates optimal force distribution but also minimizes shear forces while maximizing compression loading. This is crucial for enhancing the longevity of the implant. Shear forces, which can cause micromotion at the bone-implant interface, are reduced by the gradual step design, which increases the surface area in contact with the bone.

This improves the distribution of forces, thereby reducing the likelihood of implant loosening. In contrast, compression loading is optimized along the axis of the stem, encouraging the bone to adapt and integrate more effectively with the implant. By promoting bone consolidation around the stem and minimizing stress points, the stepped design significantly contributes to the implant's long-term durability and the overall success of the hip replacement.



Collared Stems Size Chart

Sr. No.	Size	CCD Angle	Horizontal Offset	Stem Length	Neck Length
1	Size 01	125°	45.5	130.0	38.8
2	Size 02		46.5	140.0	38.8
3	Size 03		47.0	145.0	38.8
4	Size 04		48.0	150.0	38.8
5	Size 05		48.5	154.0	38.8
6	Size 06		49.0	160.0	38.8
7	Size 07		50.0	165.0	38.8
8	Size 08		50.5	170.0	38.8
9	Size 09		51.5	180.0	38.8
10	Size 10		52.5	189.3	38.8
11	Size 00	135°	38.0	115.0	38.8
12	Size 01		38.5	130.0	38.8
13	Size 02		39.5	140.0	38.8
14	Size 03		40.0	145.0	38.8
15	Size 04		41.0	150.0	38.8
16	Size 05		41.5	154.0	38.8
17	Size 06		42.0	160.0	38.8
18	Size 07		43.0	165.0	38.8
19	Size 08		43.5	170.0	38.8
20	Size 09		44.5	180.0	38.8
21	Size 10		45.5	189.3	38.8



For more information about LIBERTAS™ Hip - Collared Stems. please contact your local representative.

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 Collared Stems.

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

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