

Evolve™

Cemented Hip System



EVOLVE™

Features

Cemented Hip Stem

Proven geometry and material
(High Nitrogen Stainless Steel)

1. Multiple head offsets

2. 12/14 Taper

3. Collarless neck

helps to facilitate intraoperative adjustments

4. Polished double taper

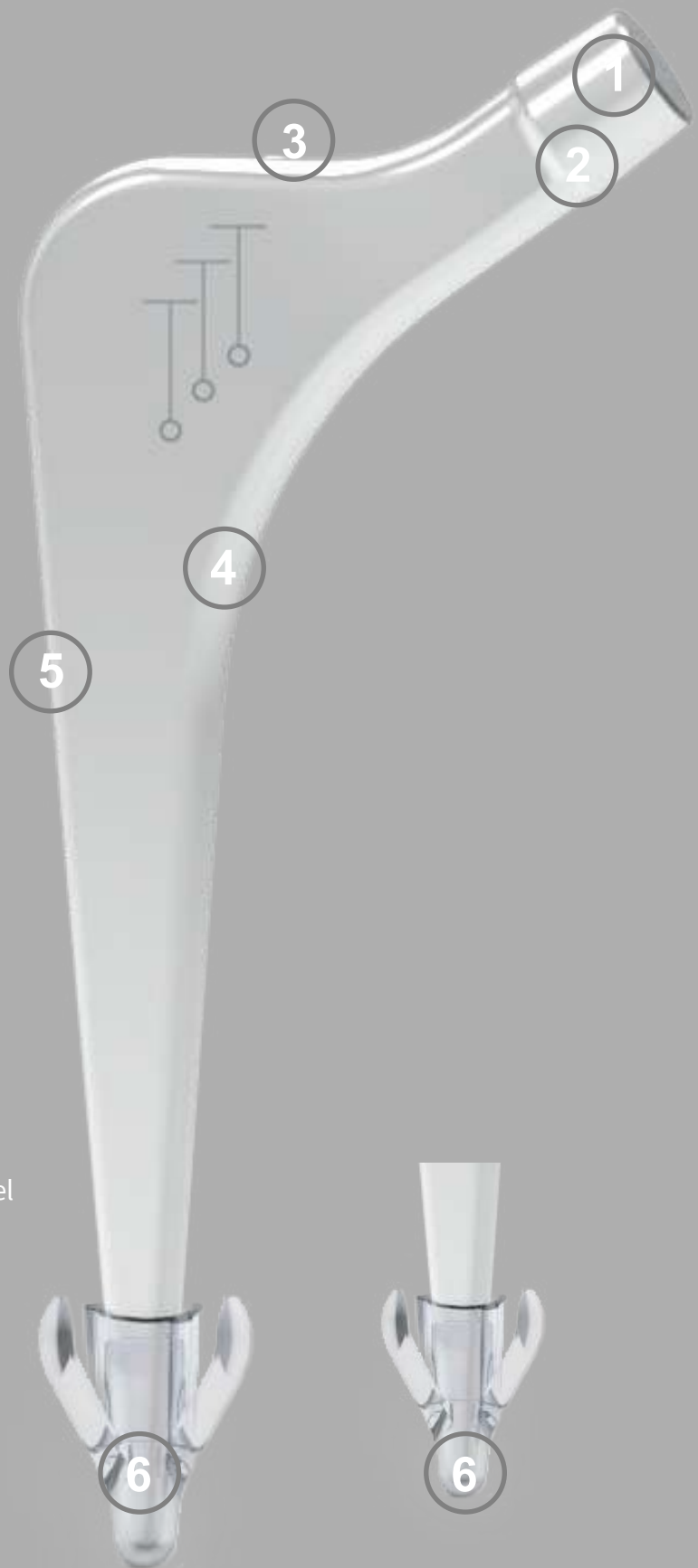
design helps to create compressive radial loading,
and reduce friction between cement and mantle

5. Highly Polished stem,

made from ISO5832-9 High Nitrogen Stainless Steel

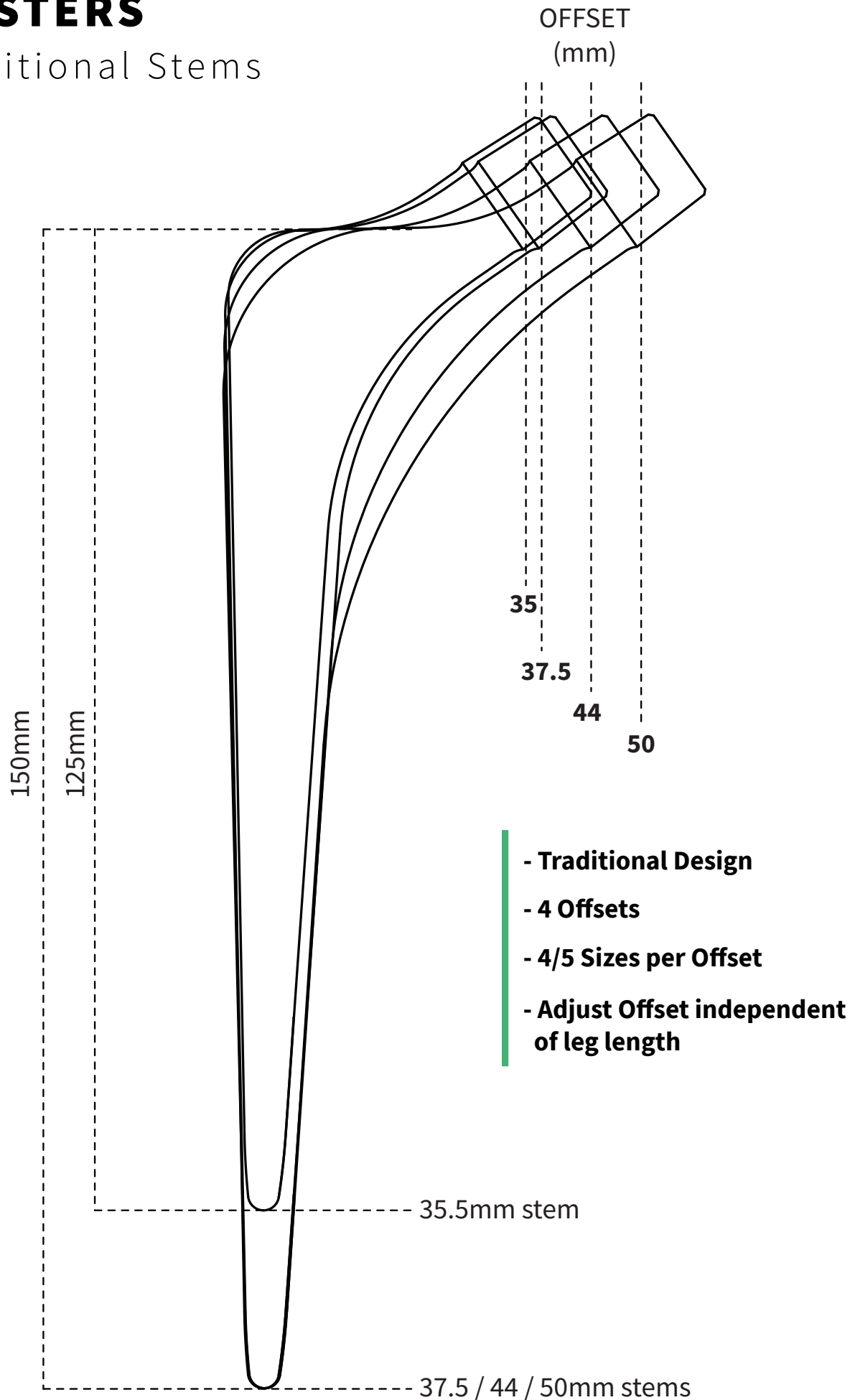
6. PMMA distal centraliser

standard and narrow options
reduces point loading onto the cement mantle



MASTERS

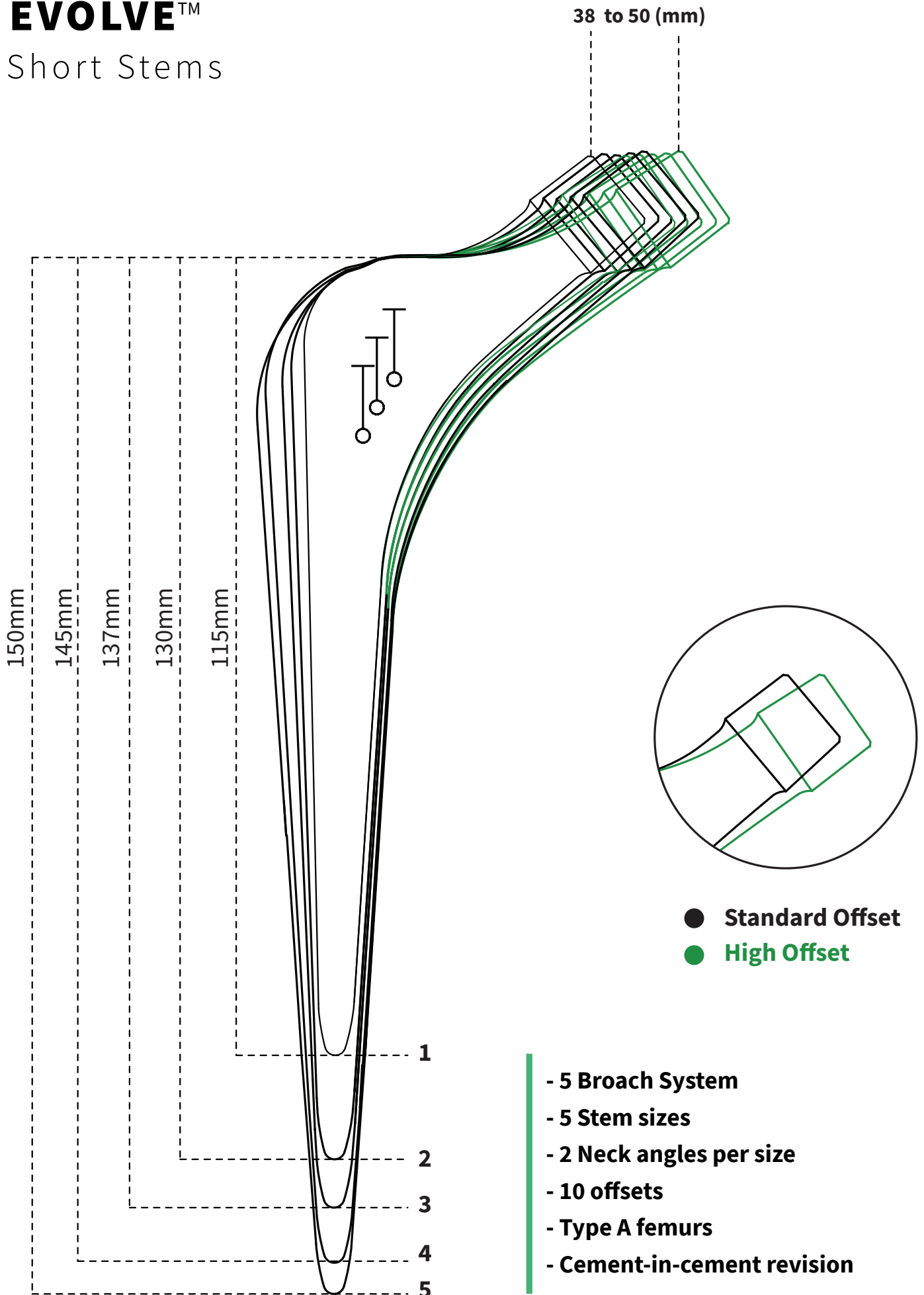
Traditional Stems



Any anatomy . Any femur-type . Any offset .

EVOLVE™

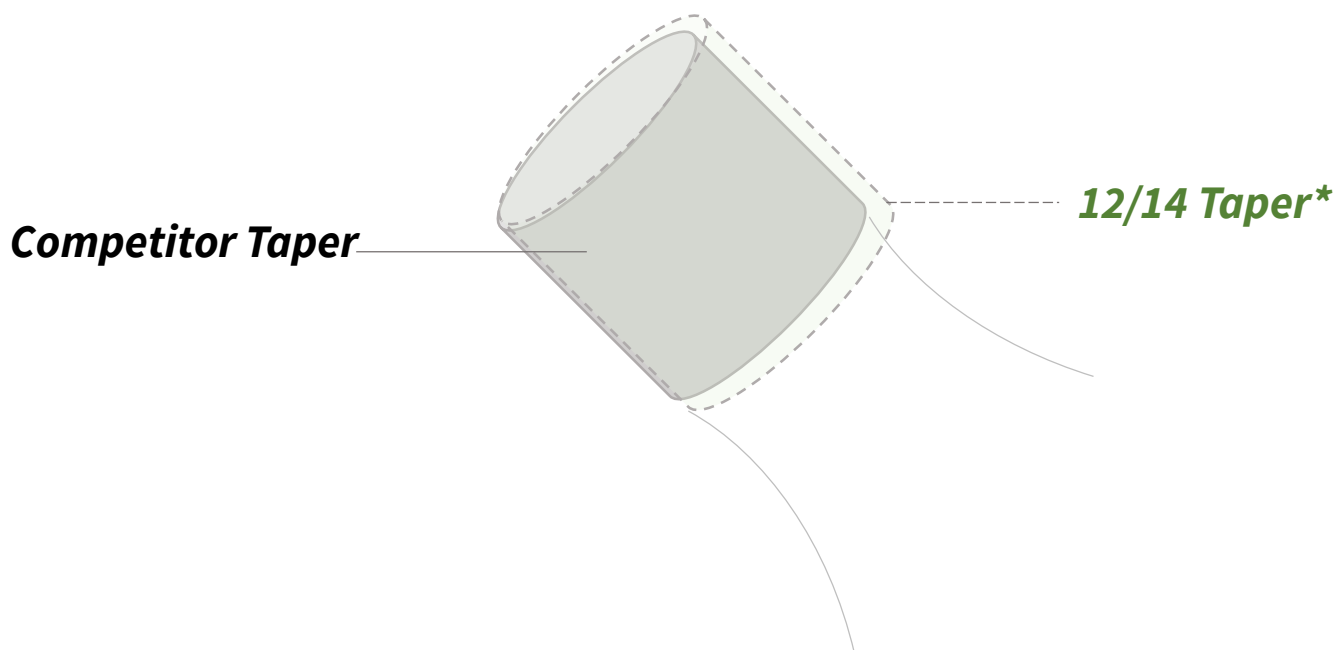
Short Stems



TAPER SIZE

Fretting corrosion

Longer, wider trunnions have been associated with less wear and less susceptibility to fretting corrosion compared to shorter, narrower trunnion designs ^{1,2,3}. The larger trunnion surface area increases the contact area between the head-trunnion interface which reduces the stress concentrations at a given load and minimises the severity of fretting corrosion ^{2,4,5}.



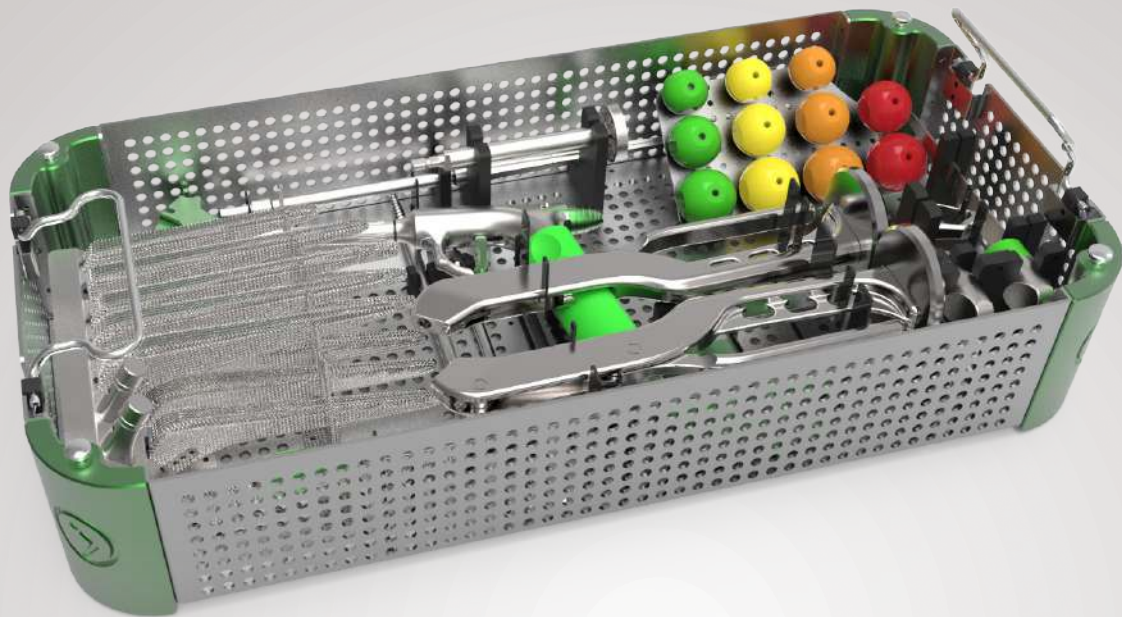
***12/14 Taper has a 2.3x greater surface contact area**

References

1. Kao, Y. Y. J. Koch, C. N., Wright, T. M., & Padgett, D. E. (2016). Flexural rigidity, taper angle, and contact length affect fretting of the femoral stem trunnion in total hip arthroplasty. *The Journal of arthroplasty*, 31(9), 254-258.
2. Higgs, G. B. MacDonald, D. W. Gilbert, J. L. Rimnac, C. M., Kurtz, S. M., & Implant Research Center Writing Committee. (2016). Does taper size have an effect on taper damage in retrieved metal-on-polyethylene total hip devices? *The Journal of arthroplasty*, 31(9), 277-281.
3. Panagiotidou, A. Meswania, J. Hua, J., Muirhead-Allwood, S., Hart, A., & Blunn, G. (2013). Enhanced wear and corrosion in modular tapers in total hip replacement is associated with the contact area and surface topography. *Journal of orthopaedic research*, 31(12), 2032-2039. Jacobs, J.J., Gilbert, J.L., Urban, R.M. (1998). *Current Concepts Review - Corrosion of Metal Orthopaedic Implants*. *J Bone and Joint Surgery*, 80-A(2), 268-282.
4. Osman, K., Panagiotidou, A. P., Khan, M., Blunn, G., & Haddad, F. S. (2016). Corrosion at the head-neck interface of current designs of modular femoral components. *Bone Joint J*, 98(5), 579-584.
5. Brock, T. M., Sidaginamale, R., Rushton, S., Nargol, A. V., Bowsher, J. G., Savisaar, C., & Langton, D. J. (2015). Shorter, rough trunnion surfaces are associated with higher taper wear rates than longer, smooth trunnion surfaces in a contemporary large head metal-on-metal total hip arthroplasty system. *Journal of Orthopaedic Research*, 33(12), 1868-1874.

EVOLVE™ Instruments

- One tray of Instruments
- Posterior Approach
- Direct Anterior Approach



- Evolve™ Masters Reacher Trials**
- Trial higher offset from insitu broach



- Evolve™ Zero Broaches**
- 0.5mm cement mantle for narrow canals

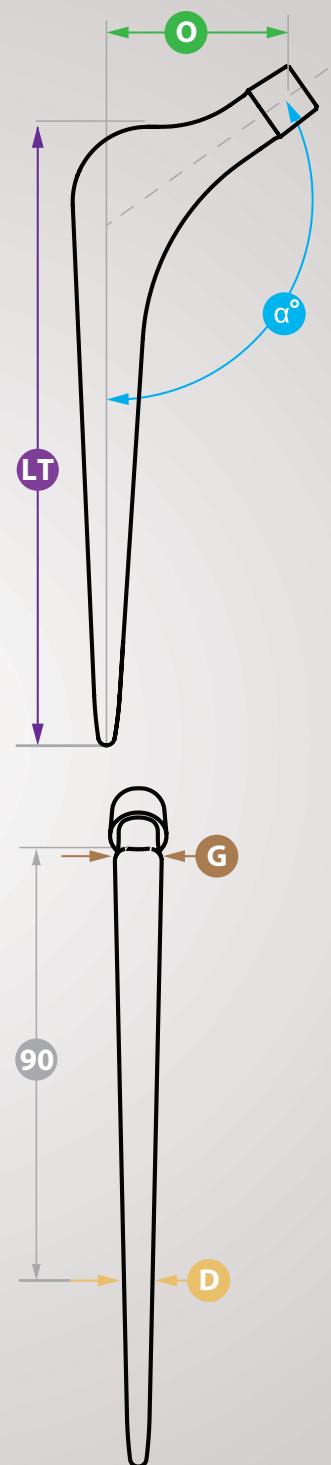
EVOLVE™/ MASTERS

Sizing Table

Evolve Masters					
P/N	Size	LT	0	a°	G
111-242-351	35.5 Size 1	127	35.5	125	10.9
111-242-370	37.5 Size 0	150	37.5	125	10.4
111-242-371	37.5 Size 1	150	37.5	125	10.9
111-242-372	37.5 Size 2	150	37.5	125	11.4
111-242-373	37.5 Size 3	150	37.5	125	11.9
111-242-440	44 Size 0	150	44	125	10.4
111-242-441	44 Size 1	150	44	125	11.0
111-242-442	44 Size 2	150	44	125	11.4
111-242-443	44 Size 3	150	44	125	11.9
111-242-444	44 Size 4	150	44	125	12.6
111-242-501	50 Size 1	150	50	125	10.9
111-242-502	50 Size 2	150	50	125	11.4
111-242-503	50 Size 3	150	50	125	11.9
111-242-504	50 Size 4	150	50	125	12.6

Evolve					
111-162-133	SO Size 1	116	37.5	130	11.0
111-162-142	HO Size 1	116	40.5	125	11.0
111-162-240	SO Size 2	125	39.5	130	11.0
111-162-244	HO Size 2	125	44	125	11.0
111-162-342	SO Size 3	134	41.5	130	11.0
111-162-364	HO Size 3	134	46	125	11.0
111-162-444	SO Size 4	143	43.5	130	11.5
111-162-448	HO Size 4	143	48	125	11.5
111-162-546	SO Size 5	151	45.5	130	12.0
111-162-550	HO Size 5	151	50	125	12.0

		Ø28	Ø32	Ø36	Ø40
S	CrCo	-3.5	-4.0	-4.0	-4.0
	Ceramic	111-152-011 111-152-611	111-152-021 111-152-621	111-152-031 111-152-631	111-152-041 111-152-641
M	CrCo	0.00	0	0.00	0
	Ceramic	111-152-012 111-152-612	111-152-022 111-152-622	111-152-032 111-152-632	111-152-042 111-152-642
L	CrCo	+4.0	+4.0	+4.0	+4.0
	Ceramic	111-152-013 111-152-613	111-152-023 111-152-623	111-152-033 111-152-633	111-152-043 111-152-643
XL	CrCo		+8.0	+8.0	+8.0
	Ceramic		111-152-024 111-152-624	111-152-034 111-152-634	111-152-044 111-152-644





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