

Specifications guide



Primary and revision porous implants

Porous coating ROUGHCOAT® porous coating increases the friction between the implant and bone, improving implant stability and providing a porous surface for bone ingrowth.

Driving platform The ECHELON® implants feature a threaded driving platform with an elliptical slot for rotational and axial implant control during insertion.

Neck geometry A circulo trapezoidal neck provides increased range of motion compared to a circular neck of the same strength.

Collar options For revision implants, a standard collar and two calcar platforms are available to match the implant to the proximal defect.

Shoulder relief The lateral shoulder is rounded to minimize the risk of fracturing the greater trochanter during stem insertion.

Lateral proximal flare ECHELON has a 3° proximal anterior/posterior flare to improve proximal fill, without preventing implant seating.

Distal flutes The ECHELON system offers distal flutes to increase rotational stability.

Distal slot The distal slot eases stem insertion, reduces the risk of fracture and reduces distal stem stiffness.

Distal bullet tip The bullet tip reduces the stress between the distal implant tip and bone to minimize end-of-stem thigh pain.

Size range ECHELON porous stems are offered in 1mm increments to minimize bone removal and provide optimum canal fill.



Cemented revision implants

Double taper proximal geometry Limits shear stresses and promotes compressive stress transfer between the cement and implant.

Proximal A/P groove Increases rotational stability without increasing cement stresses.

Trapezoidal distal cross section Improves resistance to rotation.

Neck geometry Circulo trapezoidal neck provides increased range of motion compared to a circular neck of the same strength.

Collar options A standard collar and two calcar platforms are available to match the implant to the proximal defect.



Porous primary implant specifications

General specifications:

- Cobalt Chromium material
- Neck shaft angle 131°
- Standard collar shaft angle 50°
- Primary stem length 130-160mm*
- Porous coating length 90-108mm**
- The broach is .5mm smaller than the implant.
- Distal flute diameter is .25mm larger than porous coated cylindrical diameter.

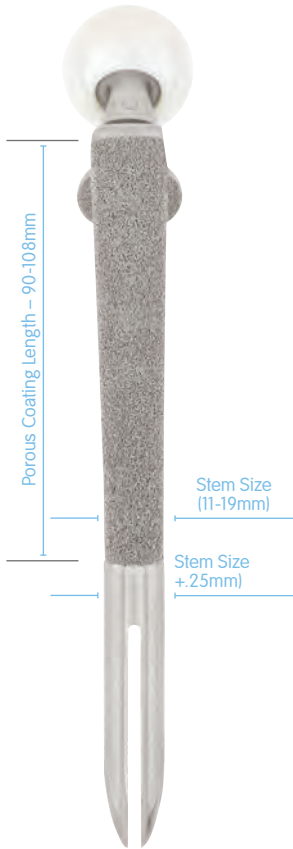


* Stem length is measured from the collar to the distal tip.

** Porous coating length is measured from the shoulder to the distal end of the coating.

Length measurements		
Standard/High offset size	Stem length	Porous coating length
11-12	130mm	90mm
13-14	140mm	96mm
15-17	150mm	102mm
18-19	160mm	108mm

Neck height (mm)												
	Standard offset				High offset							
Size	-3	25	27	+0	30	+4	+8	+12	+16			
11-12	25	25	27	27	30	30	32	32	35	35	37	37
13-14	28	28	30	30	33	33	35	35	38	38	40	40
15-17	30	30	32	32	35	35	37	37	40	40	42	42
18-19	34	34	36	36	36	39	41	41	44	44	46	46



Neck length (mm)												
	Standard offset		High offset									
Size	-3	+0	+4	+8	+12	+16						
11-12	24	28	27	31	31	35	35	39	39	43	43	47
13-14	27	33	30	36	34	40	38	44	42	48	46	52
15-17	31	36	34	39	38	43	42	47	46	51	50	55
18-19	34	39	37	42	41	46	45	50	49	54	53	58

Neck offset (mm)												
	Standard offset		High offset									
Size	-3	+0	+4	+8	+12	+16						
11-12	32	38	34	40	37	43	40	46	43	49	46	52
13-14	35	43	37	45	40	48	43	51	46	54	49	57
15-17	38	46	40	48	43	51	46	54	49	57	52	60
18-19	41	49	43	51	46	54	49	57	52	60	55	63

Porous revision implant specifications

General specifications:

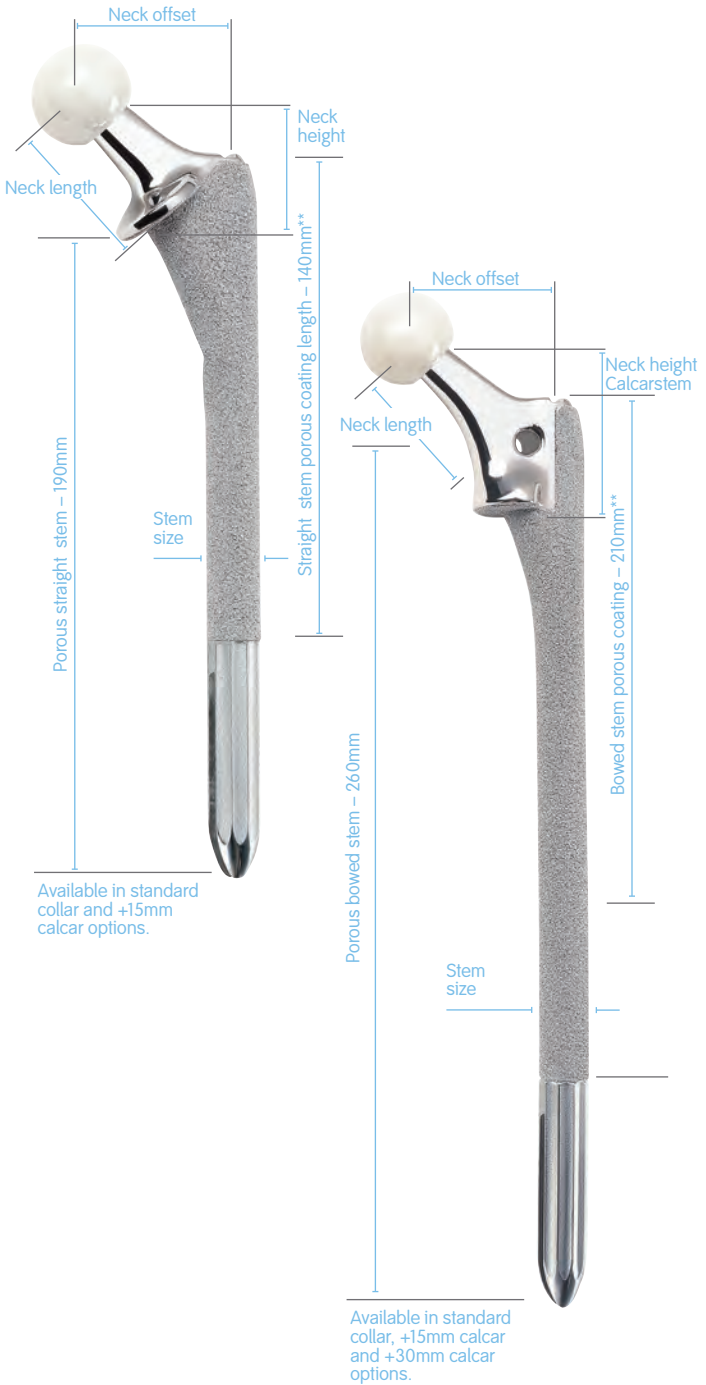
- Cobalt and Chromium material
- Neck angle 131°
- Standard collar angle 50°
- Straight stem length 190mm*
- Bowed stem length 260mm*
- The porous stem trial is 1.25mm smaller than the implant.
- The broach is .5mm smaller than the implant (.25Mm per side).

*Stem length is measured from the standard collar area to the distal tip.

Neck length (mm)						
Size	-3	+0	+4	+8	+12	+16
11-12	34	37	41	45	49	53
13-17	36	39	43	47	51	55
18-22	38	41	45	49	53	57

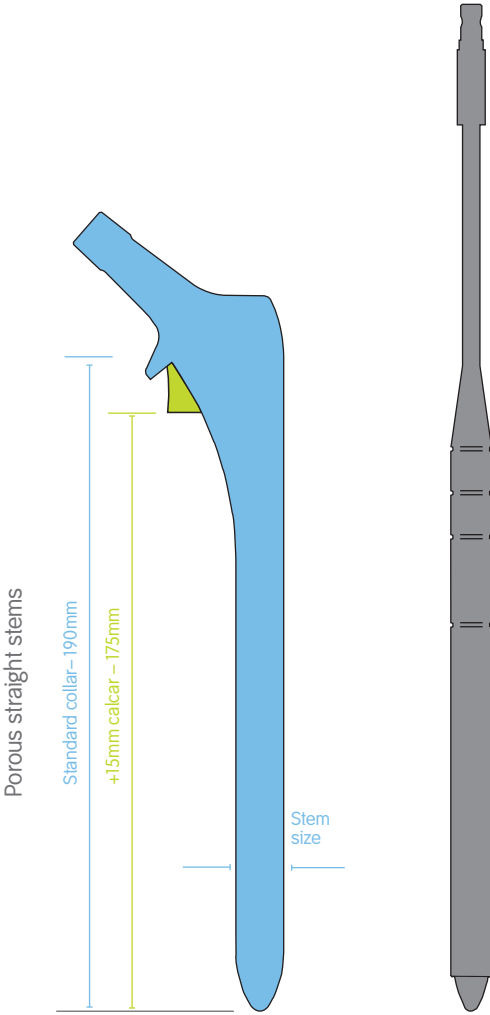
Neck offset (mm)						
Size	-3	+0	+4	+8	+12	+16
11-12	38	40	43	46	49	52
13-17	43	45	48	51	54	57
18-22	48	50	53	56	59	62

Neck height (mm)							
Collar options	Size	-3	+0	+4	+8	+12	+16
Standard collar	11-22	38	40	43	46	49	52
+15mm calcar	13-22	43	45	48	51	54	57
+30mm calcar	18-22	48	50	53	56	59	62



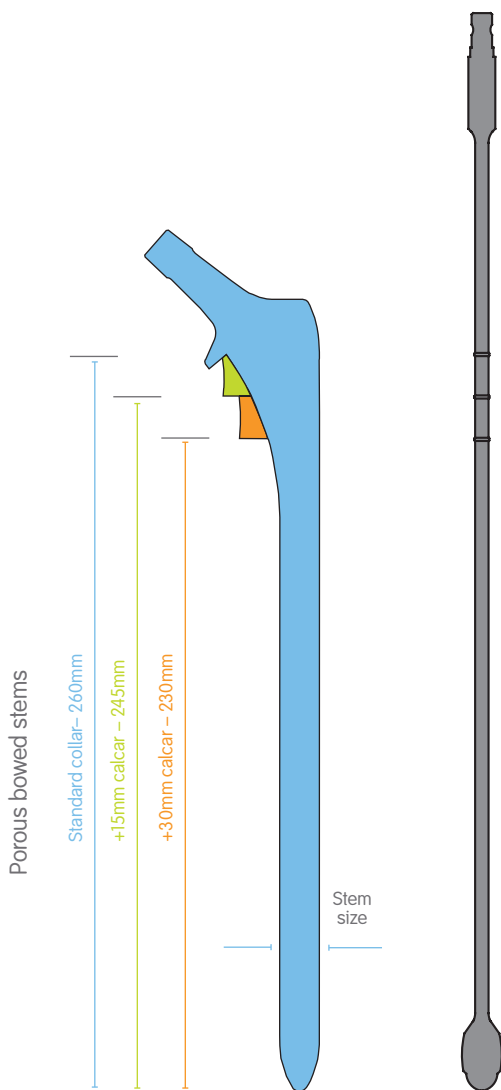
**Porous coating length is measured from the shoulder to the distal end of the coating.

Femoral reaming (porous straight)



Porous straight 190mm implant reaming	
Collar options	Reaming depth from medial resection level
Standard collar	190mm
+15mm calcar	175mm

Femoral reaming (porous bowed)



Porous bowed 260mm implant reaming	
Collar options	Reaming depth from medial resection level
Standard collar	260mm
+15mm calcar	245mm
+30mm calcar	230mm

Cemented revision implant specifications

General specifications:

- Cobalt and chromium material
- Neck angle 131°
- Standard collar angle 50°

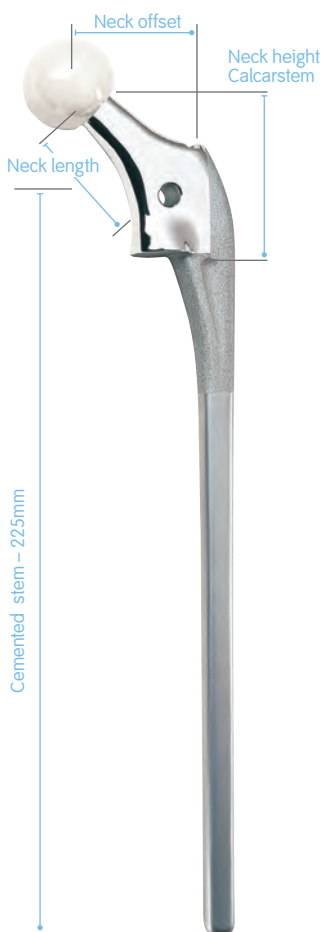
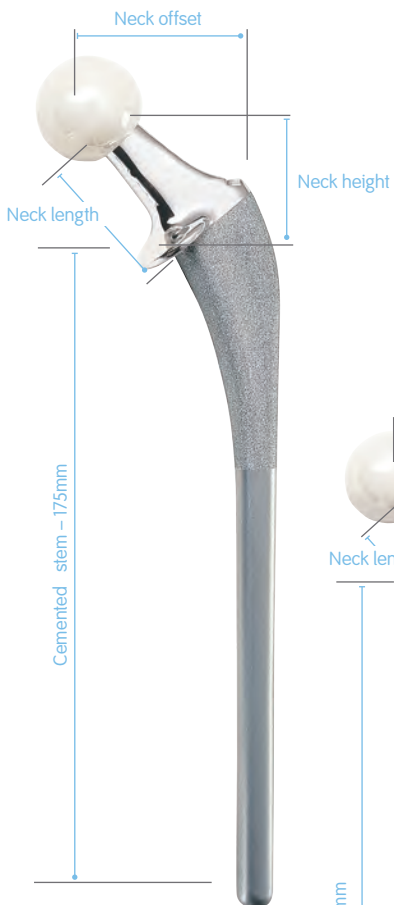
Stem specifications					
Stem size	Stem length* mm	Final broach size	Final reamer size	Distal stem size	Cement mantle
12	175/225	12	12mm	9mm	1.5mm
13	175/225	14	14mm	11mm	1.5mm
16	175/225	16	16mm	13mm	1.5mm

*Stem length is measured from the standard collar area to the distal tip.

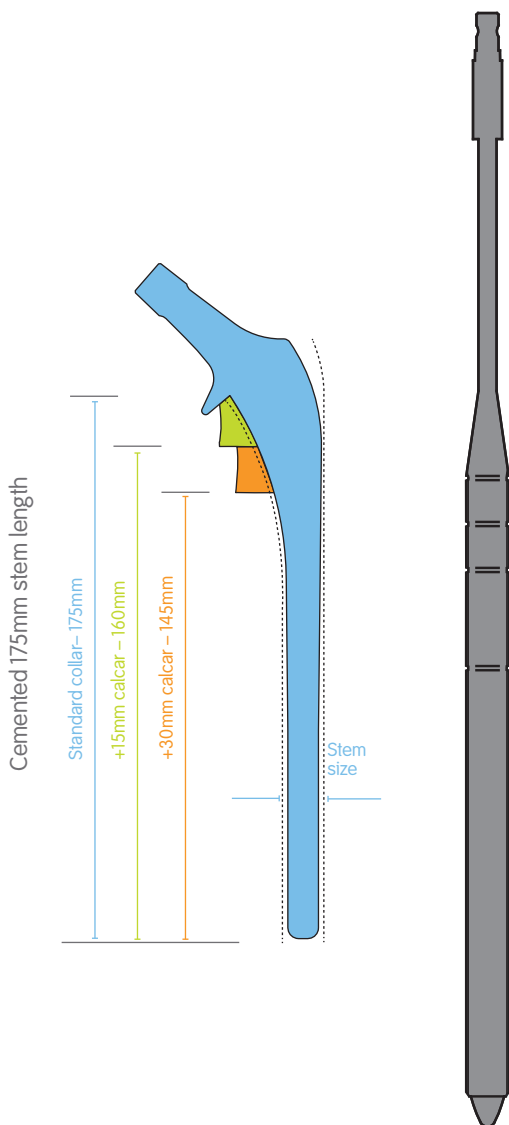
Neck length (mm)						
Size	-3	+0	+4	+8	+12	+16
12	34	37	41	45	49	53
14	36	39	43	47	51	55
16	36	39	43	47	51	55

Neck offset (mm)						
Size	-3	+0	+4	+8	+12	+16
12	38	40	43	46	49	52
14	43	45	48	51	54	57
16	43	45	48	51	54	57

Neck height (mm)							
Collar options	Size	-3	+0	+4	+8	+12	+16
Standard collar	12, 14, 16	33	35	38	40	43	46
+15mm calcar	12, 14, 16	48	50	53	55	58	61
+30mm calcar	12, 14, 16	63	65	68	70	73	76



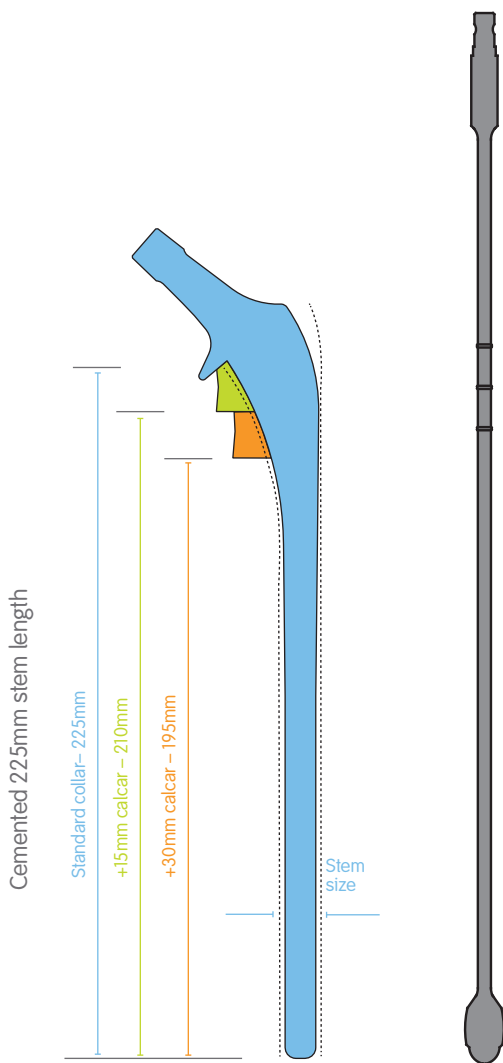
Femoral reaming (cemented 175mm)



Cemented 175mm implant reaming		
Collar options	Stem length measured from collar	Reaming depth from medial resection level*
Standard collar	175mm	190mm
+15mm calcar	160mm	175mm
+30mm calcar	145mm	160mm

*Reaming depth includes 1.5cm for the distal cement plug.

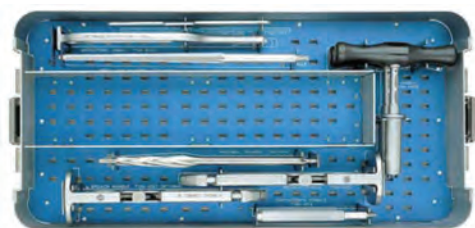
Femoral reaming (cemented 225mm)



Cemented 225mm implant reaming		
Collar options	Stem length measured from collar	Reaming depth from medial resection level*
Standard collar	225mm	240mm
+15mm calcar	210mm	225mm
+30mm calcar	195mm	210mm

*Reaming depth includes 1.5cm for the distal cement plug.

ECHELON[◇] instrumentation



Starter tray



Rigid reamer tray



Revision straight stem trial tray (porous and cemented)

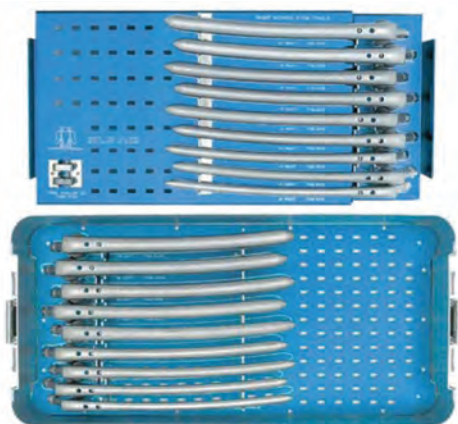
ECHELON[◇] instrumentation



Broach tray



Thinshaft reamer tray



Revision bowed stem trial tray

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