

# ACE<sup>®</sup> Acetabular System

Detail Aid



MULTI-BEARING



ACE  
ACETABULAR SYSTEM



## The ACE<sup>®</sup> Acetabular Cup System provides you with intra-operative versatility

The surgeon panel behind the design of the ACE<sup>®</sup> Acetabular Cup System aimed to create one cup that could be used in all situations enabling maximum intra-operative versatility. Multi-bearing options include Biolo<sup>®</sup>*delta* ceramic, Dual Mobility, Neutral, 10° and 20° Proprietary XLPE cross-linked polyethylene CLP75<sup>®</sup>.

To ensure patient safety and surgeon confidence, the ACE<sup>®</sup> Acetabular Cup System needed to be both reliable and built on clinically proven technology.

### The ACE<sup>®</sup> Acetabular Cup System gives you:

- Multi-bearing acetabular platform
- 5 in 1 bearing versatility
- Maximised head-to-shell diameter ratios
- Clinically proven heritage
- Streamlined instrument trays for simplicity
- Proprietary XLPE cross-linked polyethylene CLP75<sup>®</sup>



## Proven Provenance

Based on the proven clinical heritage of the CSF and CSF *Plus* Acetabular Cup Systems, the ACE<sup>®</sup> Acetabular Cup System retains and builds upon many of the design features that have shown to be so successful.

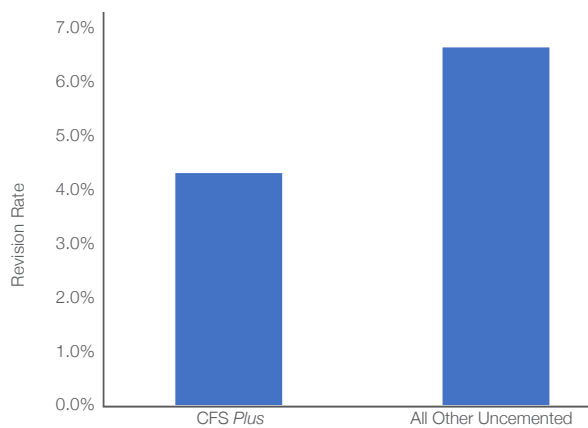


Fig. 1

Combined with the Furlong<sup>®</sup> H-A.C. stem, CSF has the lowest revision rate of any on-label uncemented bearing combination at 15 years<sup>2</sup>.

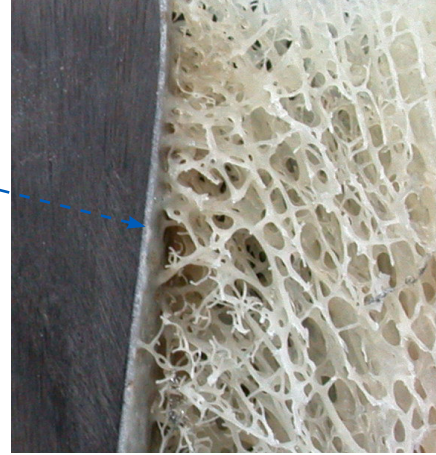
Fig 1. highlights that CSF *Plus* has a 34.84% lower acetabular revision rate compared to all other uncemented cups at 15 years (4.3% vs 6.6%)<sup>3</sup>

### The ACE<sup>®</sup> Acetabular Cup System is based on the original CSF Cup design philosophy with additional key features:

- Hemispherical cup 1.8mm larger than the reamed socket, designed for providing equatorial interference fit for primary fixation
- Vacuum Plasma Sprayed H-A.C. rather than Atmospheric which provides a 60% increase in bone-to-implant bond strength (60MPa), preventing delamination<sup>4</sup>
- Cup primary fixation designed to allow 25 – 50 $\mu$  of micromotion, optimal for encouraging bone ingrowth<sup>5</sup>
- H.A.C. coatings can inhibit migration of peri-implant P.E. particles<sup>6</sup>
- Patented Supravit Zoned<sup>®</sup> coating applied to the ACE<sup>®</sup> Acetabular Cup System is designed to increase surface area by 200%, coefficient of friction, and shear strength to promote biological fixation<sup>7,8</sup>



## Key Design Features



Over 30 years experience of naturally getting the living to bond to the inert, all JRI coatings are applied in vacuum conditions to resist thermal cracking and gas pores. This helps to prevent delamination when compared to atmospheric application adopted by many companies.

All polyethylene for ACE® bearings are CLP75®, a Highly Cross-linked Ultra High Molecular Weight Polyethylene (XLPE) designed to reduce wear compared to standard UHMWPE.

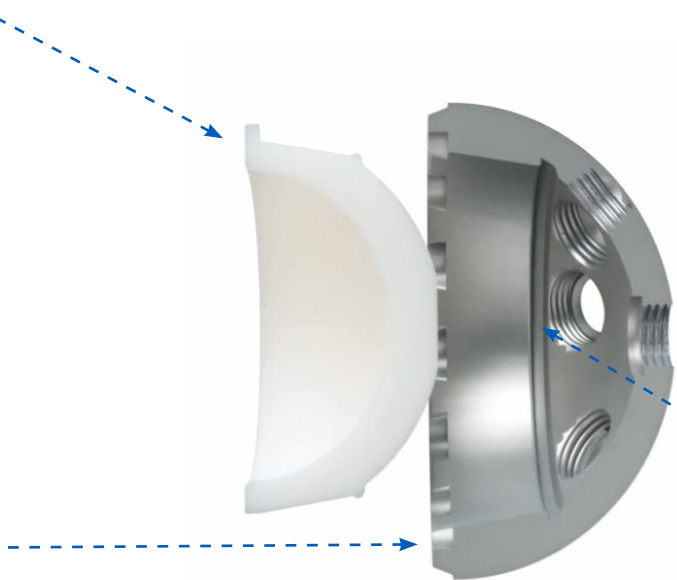
Anti-rotation  
castellations



Neutral, 10° and 20° XLPE cross-linked polyethylene CLP75® liners can be locked into place in 12 positions



Addressing fixation and biomechanics independently of one another is achieved through the 5-in-1 bearing versatility of the ACE® Acetabular Cup System.



Screw hole positioning optimised to maximize cancellous bone fixation (3 ilium, 1 ischium, 1 pubis)

Secure locking mechanism for XLPE highly cross-linked polyethylene CLP75® liner inserts



## ACE® offers you more



### Five bearing insert options fit into one acetabular shell:

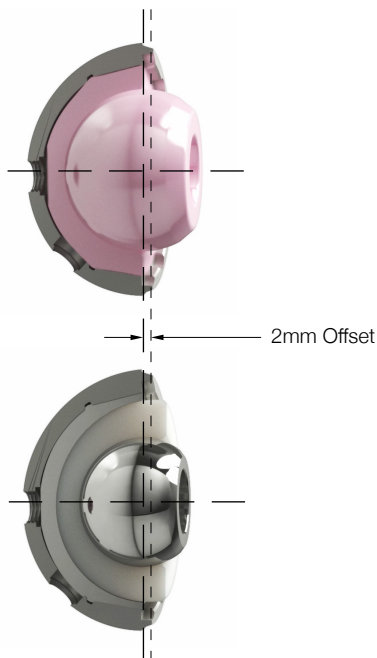
- Allowing on-table choice of bearing options
- Increased options for complex pathologies
- All bearings can be trialed in the same trial cup, or in the definitive implant

### Large bore ACE® cups offer:

- 32mm BioloX® *delta* Ceramic or CoCr head in a 46mm cup
- 36mm BioloX® *delta* Ceramic or CoCr head in a 50mm cup
- 40mm BioloX® *delta* Ceramic head in a 54mm cup

### EDGE acetabular graters with improved cutting coverage designed to provide:

- A more predictable feedback to aid insertion
- A reduced risk of prosthetic fracture



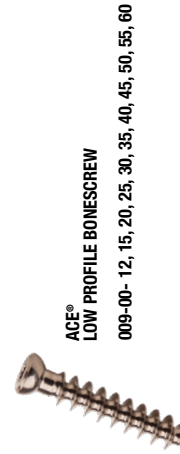
### Consistent head centre of rotation throughout bearing options and head size gives you:

- The ability to change bearings without consideration for offset
- The option of revising to a different bearing option without the need to re-cut or reposition acetabular or femoral components



# ACE® Combinations Chart

ACE® H-A.C. CUP	BIOLOX® delta CERAMIC	XLPE LINER	XLPE 10° HOODED LINER	XLPE 20° HOODED LINER	DUAL MOBILITY SLEEVE	DUAL MOBILITY XLPE BEARING
001-44-00 001-46-00 36 (BORE)	000-44-28 44/46	002-44-28	003-44-28			
001-46-01 001-48-00 001-50-00 40	000-46-32 000-46-28 46+/48/50	002-46-32 002-46-28	003-46-32 003-46-28	005-46-32 005-46-28	006-46-36	007-36-22
001-50-01 001-52-00 001-54-00 44	000-50-36 000-50-32 50+/52/54	002-50-36 002-50-32 002-50-28	003-50-36 003-50-32 003-50-28	005-50-36 005-50-32 005-50-28	006-50-40	007-40-22
001-54-01 001-56-00 001-58-00 48	000-54-40 000-54-36 000-54-32 54+/56/58	002-54-36 002-54-32 002-54-28	003-54-36 003-54-32 003-54-28	005-54-36 005-54-32 005-54-28	006-54-44	007-44-22 007-44-28
001-60-00 001-62-00 001-64-00 52	000-60-40 000-60-36 000-60-32 60/62/64	002-60-36 002-60-32 002-60-28	003-60-36 003-60-32 003-60-28	005-60-36 005-60-32 005-60-28	006-60-48	007-48-22 007-48-28
TRIAL LINERS BLUE = BIOLOX® delta CERAMIC LINER & HIGH CROSS-LINKED UHMWPE LINER GREEN = 10° HOODED XLPE LINER ORANGE = 20° HOODED XLPE LINER GREY = DUAL MOBILITY SLEEVE						



**xx-xx-01** = Optimised for large bearings/  
Blanking Plugs cannot be used

**xx-xx-xx** = Product Code

**xx-xx-xx** = Outside diameter

**xx-xx-xx** = Bearing size

**+** = Large Bore

NB: The use of a skirted femoral head is not recommended for use with ACE® dual mobility

## References

- <sup>1</sup> The ACE® Acetabular Cup system is made in Britain. Other components within this document which are not sourced in Britain are: BIOLOX®*delta* Ceramic.
- <sup>2</sup> National Joint Registry 16th Annual Report 2019.
- <sup>3</sup> Summary Report HP Cup CSF All.26/05/2020.11:31.
- <sup>4</sup> ISO testing. (Data on file).
- <sup>5</sup> Goodman S, Aspenberg P. Effects of mechanical stimulation on the differentiation of hard tissues. *Biomaterials*. 1993;14:563–9.
- <sup>6</sup> Sealing effect of hydroxyapatite coating on peri-implant migration of particles. Rahbek O, Overgaard S, Lind M, Bendix K, Bunge C, Søballe K. *J Bone Joint Surg[BR]* 2001;83-B:441-7.
- <sup>7</sup> The basic science of peri-implant bone healing Paul RT Kuzyk, Emil H Schemitsch *Indian J Orthop*. 2011 Mar-Apr; 45(2): 108–115. doi: 10.4103/0019-5413.77129.
- <sup>8</sup> Surface area XRD evaluation (data on file).



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