LINK®

SP-CL®

Anatomically Adapted Cementless Hip System

Product Rationale

“The most important advancement in total hip arthroplasty in the last 50 years has been the adaption of the femoral components to the anatomy of the femur.“[1]

LINK® is one of the pioneers of anatomical prosthesis design, and has decades of experience in the development of these stem types. The impressive clinical success of the SP II® concept is well documented in the Swedish Register. [2]

LINK has taken this prosthesis system a step further by developing the cementless version SP-CL®.

We have taken clinically proven design features of the cemented SP II® prosthesis and combined them with the requirements of a cementless hip stem to create a harmonized prosthesis system, following the principle “Anatomy defines form”. [3]

The special implant design conserves bone and soft tissue [3], while the wide range of implants permits the individual adaption to each patient’s anatomy. [4]

The system is accompanied by a compact, ergonomic instrument set, which enables the surgeon to perform the arthroplasty smoothly and efficiently. [3]

Made in Germany

Features of the SP-CL® Hip System:

Anatomical Design

Rotational stability [5, 6, 7]

Ribbed profile for structural elasticity [6]

Conserves bone and soft tissue [4]

Wide range of sizes

Wide choice of versions

Uniform load distribution

The SC-PL system is designed to conform to the S-shape of the femur, thereby ensuring that very uniform load distribution is achieved. Thus the stress risers that occur with straight prosthesis stems are avoided. [6, 7, 8]

Avoidance of thigh pain

Avoiding stress risers and neutralizing torsional forces can reduce the incidence of thigh pain. [13]

Straight stems produce stress risers in an anatomically S-shaped medullar canal.

S-shaped stems result in even stress distribution.

Anatomical design

The anatomical S-shape effectively reduces stress risers and the associated risk of thigh pain, which are a familiar problem with three-point fixation of straight stems. At the same time, it lends the implant greater rotational stability.[6, 7, 8]

High primary stability and reduction of stress shielding

The clinically proven ribbed structure serves to anchor the stem in the compressed cancellous bone and provides high primary stability. [6, 11, 12]

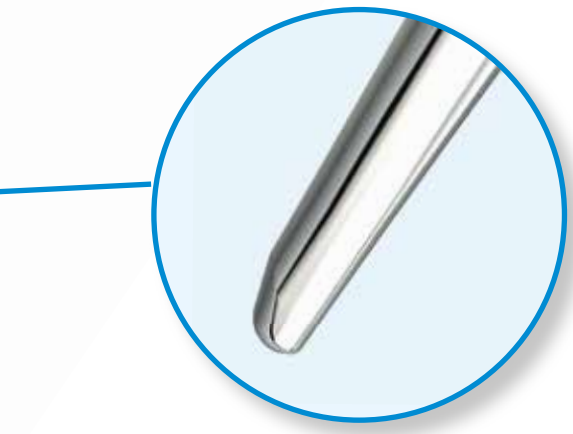
In combination with the LINK® Tilastan®-S alloy, the known elasticity of the material itself is, most importantly, supplemented by the structural elasticity of the stem design in order to reduce stress shielding.[5, 6]

Trochanter protection

Protects the greater trochanter due to flattened proximal lateral profile.[4]

LINK® HX® (CaP) coating

The osteoconductive surface promotes bone ongrowth.[9]

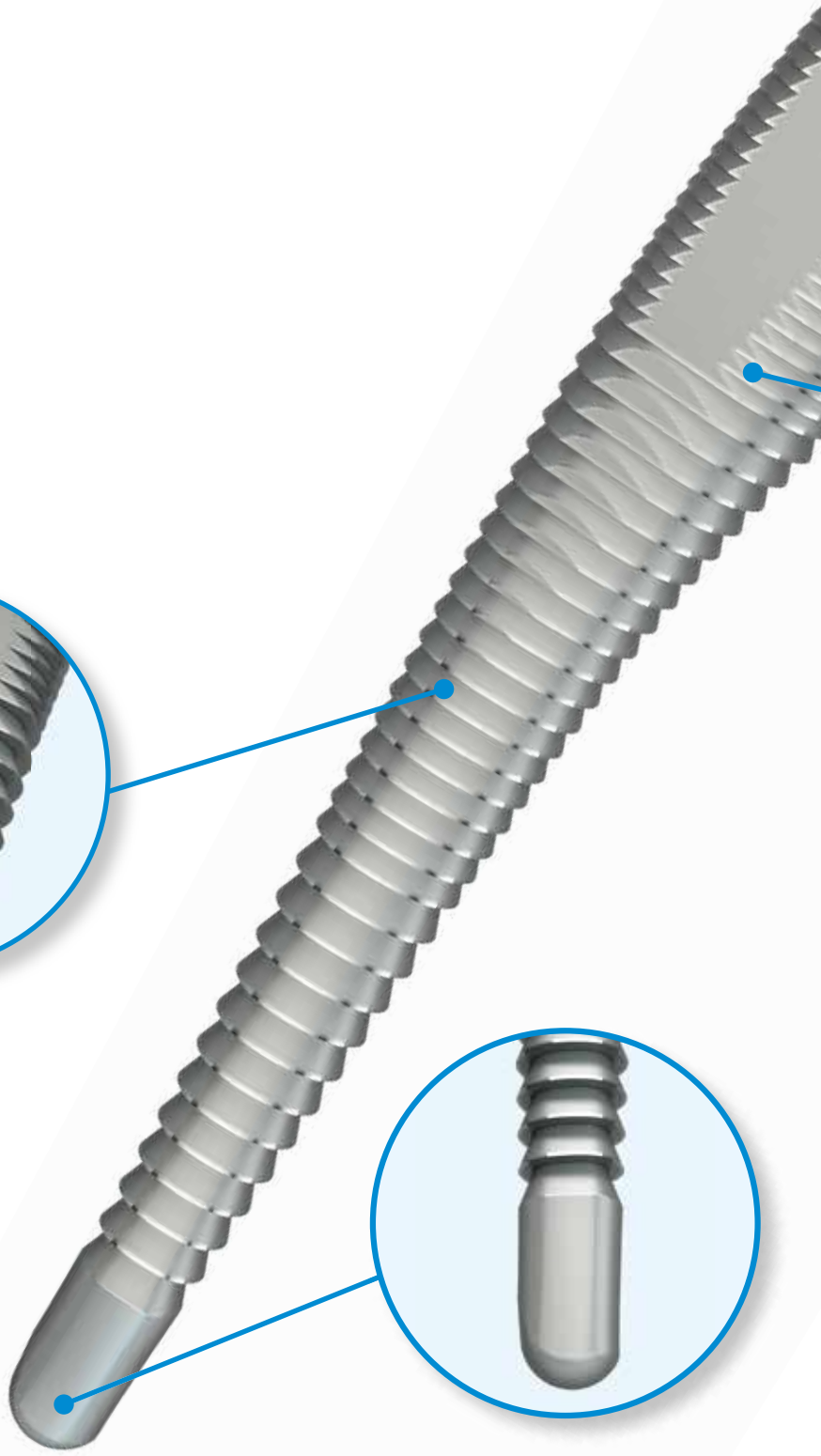


Tapered, polished distal prosthesis tip

The polished distal section of the stem facilitates implantation while also reducing the incidence of thigh pain, which can be caused by intramedullary fixation of a hip implant.[3, 13, 14]

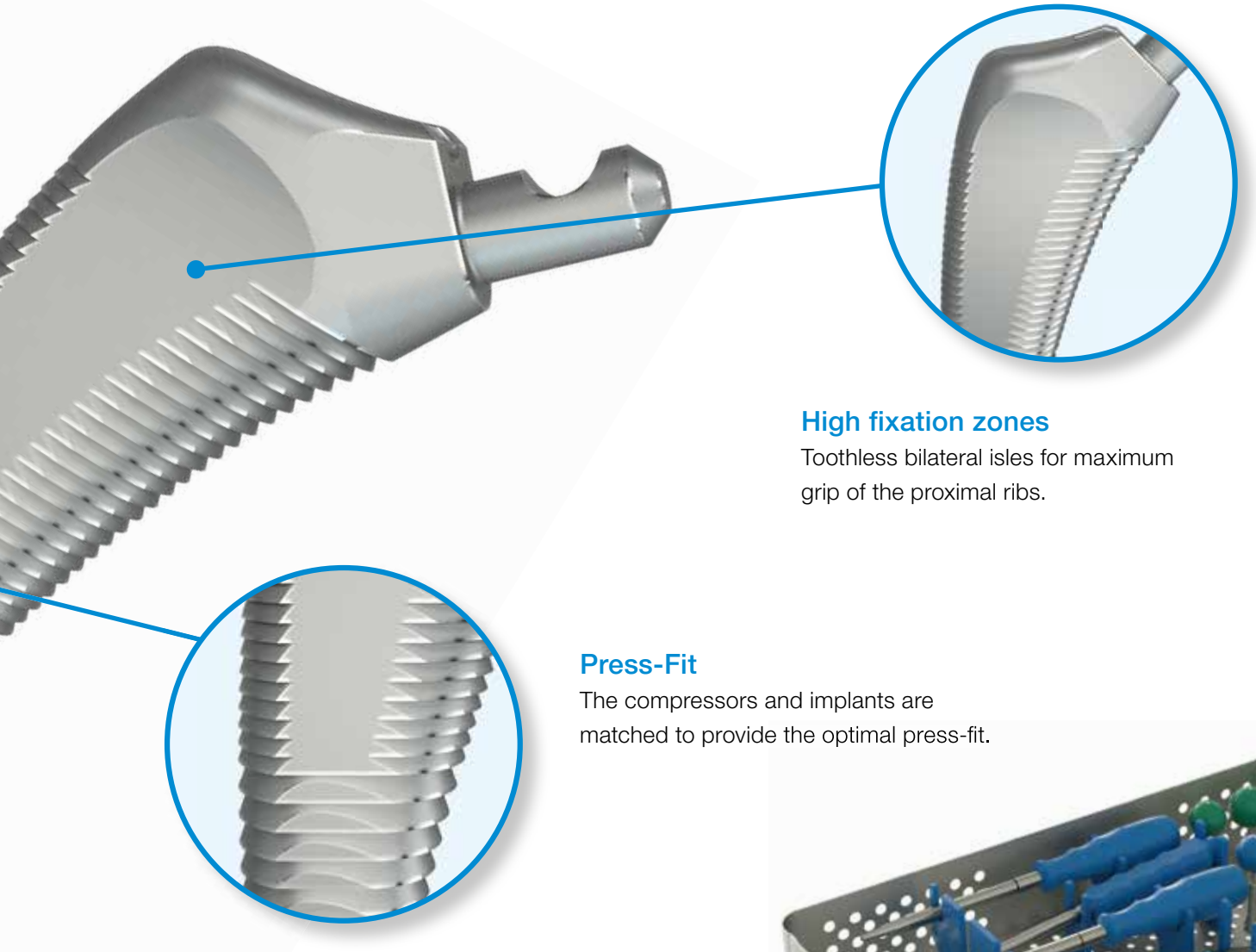
Anatomical shape of the compressors

Anatomically shaped stems require anatomically shaped instruments. The compressors of the SP-CL® system strictly follow the anatomical stem design and prepare a bony bed for the SP-CL® stem following the natural shape of the intramedullar canal of the proximal femur.



The terraced profile of the compressors

The SP-CL® stems are anchored in a bed of compacted cancellous bone. The teeth of the SP-CL® compressors ensure that the cancellous substance is firmly compacted.[5, 10]



High fixation zones

Toothless bilateral isles for maximum grip of the proximal ribs.

Press-Fit

The compressors and implants are matched to provide the optimal press-fit.

Rounded distal tip

of compressor for safe guidance and to avoid via falsa.[3]

Literature / References

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