



## EXPERTSUS HIP STEM



125°  
2 STD  
12/14  
DBH802  
REF 367-1409  
C60482

Biodynamics medical technology is the centre of excellence in the area of endoprosthetics and is specialised in joint implants and instruments.



#### CUSTOMER ORIENTATION AS A MATTER OF PRINCIPLE

We stand for medical devices based on the latest medical and technical developments. Extensive investments in high-tech facilities in the past years have enabled us to work with innovative procedures today. High-quality materials guarantee the quality our customers expect from us.

We have also applied our comprehensive knowledge in the field of endoprosthetics to develop our own OEM product range: Customer-oriented implant systems and instruments for a dependable supply of standard products.

Many of our customers complement their range of products with these systems. They rely on market-ready products which ensure an optimal combination of state-of-the-art medical standards with cost-effectiveness and flexibility. Over many decades of use, the implants have been shown to be safe.

All components are supplied in sterile packaging and labelled - in your individual packaging design, if desired. Combined with the surgical instruments, which are synchronised exactly with the implants, we provide a complete package.

For more than 75 years, quality, cost-effectiveness and reliability have formed the cornerstone of our continued success.



## EXPERSUS HIP STEM

The Expersus Hip Stem for a cementless or cemental anchoring in the femur



### PRODUCT DESCRIPTION

#### cemented treatment

The OHST OEM Expersus Hip Stem is an artificial hip stem for cementless or cemented fixation inside the femur.

In the cemented version the Expersus Hip Stem is made of CoCrMo wrought alloy (ISO 5832-12) and comes with a 12/14 cone. It has a smooth, fully polished surface and can thus be combined with both metal and ceramic femoral heads. In order to cater for the various femoral anatomies of the patients, the hip stem comes in 9 sizes with a standard 125° and standard 135° variant. The body of the stem has a triple tapered shape to ensure both self-clamping as well as the necessary rotational stability.

#### cementless treatment

In the cementless version the Expersus Hip Stem is made of titanium alloy Ti6Al4V (ISO 5832-3) and comes with a 12/14 cone. The stem can be combined with both metal and ceramic femoral heads.

Apart from the polished neck area, the cementless Expersus Hip Stem has an all-round titanium plasma spray and hydroxyapatite coating. The coating accelerates growth of the bone onto the implant, thereby promoting stable and long-term fixation. In order to cater for the various femoral anatomies of the patients, the femoral stem comes in 9 sizes with a standard -125° and standard -135° variant. The body of the stem has a triple tapered shape to ensure both self-clamping as well as the necessary rotational stability.

Both for the cemented and the cementless versions there is thus a wide range of possibilities for reconstruction of the natural geometry of the joint taking into account the biomechanical parameters centre of rotation, leg length and CCD angle. Both implant variants of the Expersus Hip Stem (cemented and cementless) can be inserted with the same instrument set.

## EXPERSUS HIP STEM

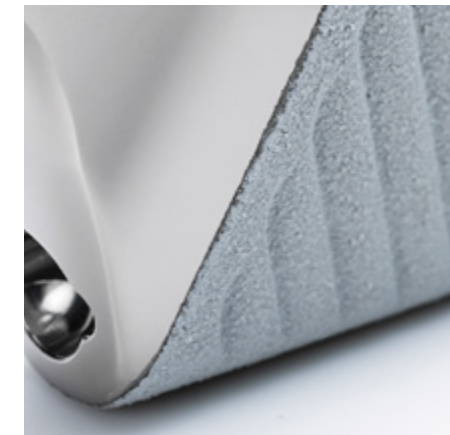
CoCrMo, ISO 5832-12  
TiAl6V4, ISO 5832-3 with  
TPS- and HA-coating



COCRM, ISO 5832-12

The cobalt-chrome-molybdenum alloy belongs to the group of cobalt-chrome alloys and has been used in hip replacement surgeries since the 1950s. It is based on the provisions of the international ISO standard 5832-12 for implant materials and therefore fully meets the strict requirements that are imposed on artificial hip joints.

The cemented Expersus Hip Stem is made of a CoCrMo wrought alloy which is made of very fine grain and has a particularly high degree of hardness. This alloy is thus ideal both for use as a supporting and also tribological component, i. e. as a sliding partner. Cobalt-chrome-molybdenum alloys are characterised by their excellent wear properties and high robustness. In addition, the cemented Expersus Hip Stem manufactured from a cobalt-chrome-molybdenum alloy is resistant to corrosion and leaching in case of contact with blood or other bodily fluids. The high biocompatibility of the material prevents damage of the recipient tissue. The mechanical strength of the CoCrMo wrought alloy ensures a permanent transmission of force between the implant and bodily tissues.



TiAl6V4, ISO 5832-3 WITH  
TPS- AND HA-COATING

The cementless Expersus Hip Stem is made of TiAl6V4 wrought alloy in accordance with ISO 5832-3. The high fatigue strength and elasticity make this alloy particularly suitable for the manufacture of hip endoprostheses. The special requirements applicable to the manufacture of a hip implant, including resistance to corrosion, tissue compatibility and elasticity are met to a high degree by the TiAl6V4 titanium alloy.

The TPS- and HA-coating of the Expersus Hip Stem increases the surface area. This coating is an innovative thin-layer technology made of bioactive calcium phosphate. It guarantees an absolutely even, complete covering of structured surfaces even when thin layers are applied. In addition, the microporous structure offers high absorption capacity. The bioactive titanium plasma spray and hydroxyapatite coating accelerates the integration process and promotes the growth of the bone cells.



Expersus Hip Stem cemented  
and cementless



Expersus Hip Stem STD 125°, CoCr Mo,  
ISO 5832-12

Size	Art.-no.
2	367-1326
3	367-1327
4	367-1328
5	367-1329
6	367-1330
7	367-1331
8	367-1332
9	367-1333
10	367-1334



Expersus Hip Stem STD 135°, CoCrMo,  
ISO 5832-12

Size	Art.-no.
2	367-1317
3	367-1318
4	367-1319
5	367-1320
6	367-1321
7	367-1322
8	367-1323
9	367-1324
10	367-1325



Expersus Hip Stem STD 125°, Ti6Al4 V,  
ISO 5832-3, TPS- and HA-coating

Size	Art.-no.
2	367-1409
3	367-1410
4	367-1411
5	367-1412
6	367-1413
7	367-1414
8	367-1415
9	367-1416
10	367-1417



Expe rsus Hip Stem STD 135°, Ti6Al4 V,  
ISO 5832-3, TPS- and HA-coating

Size	Art.-no.
2	367-1400
3	367-1401
4	367-1402
5	367-1403
6	367-1404
7	367-1405
8	367-1406
9	367-1407
10	367-1408



WE RECOMMEND

The cementless Expersus Hip Stem in combination with the Primaro Cup, an XL-PE 75 Inlay and the ELEC ceramic femoral head.

EXPERSUS STEM  
INSTRUMENT SET

A well-designed  
instrument set to ensure  
successful implantation



INSTRUMENT DESCRIPTION

All implant versions of the Expersus Hip Stem can be inserted with the same instrument set and the same surgical technique. For the modular rasps there are two trial cones available with the corresponding offsets which serve the purpose of intraoperative trial reduction and are therefore used for confirming the pre-operatively selected implant size and version. Compared to all cemented Expersus Hip Stems, the rasps are oversized by 1 mm by means of an equal all-round cement coating.

BASIC INSTRUMENT SET

In addition to a modern, ergonomically shaped silicone handle system which meets all cleaning and sterilisation requirements, the basic instrument set also comes with a guided impactor for more control and more precise handling as well as a stem reducer with a modular striking weight which enables intraoperative reduction.

RASP INSTRUMENT SET

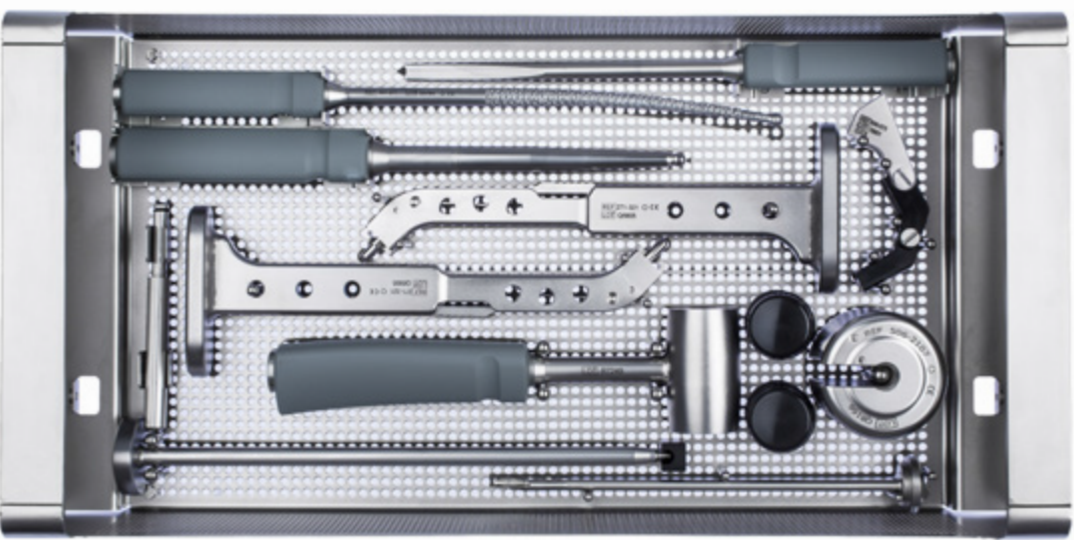
The precision-ground rasps made of premium-grade, hardened stainless steels contained in the rasp instrument set allow the surgeon to prepare a highly accurate contour. The rasps are CNC-ground and subsequently plasma-polished. This makes the instruments particularly durable and facilitates easy reprocessing.

MONOLITE TRAYS

Both the basic instrument set and the rasp instrument set can be supplied in our Monolite trays. The instrument trays are cast in one piece from high-quality stainless steel. Their high thermal and chemical resilience and the use of the transport covers as lids make transport and sterilisation particularly easy. The system is characterised by its light weight and can be stacked as desired. The optimal positioning of the holding elements in the hole matrix ensures a smooth workflow during any surgical procedure. In the trays, a shaded layout facilitates the arrangement of the instruments.

Art.-Nr. 367-1493

Basic Instrument Set for Expersus Hip Stem



RASP HANDLES  
Art. no. 271-329 | Rasp Handle right  
Art. no. 271-328 | Rasp Handle left

As an alternative to the straight rasp handle we also offer you other versions: For example, a right/left double-offset version

Stem impactor  
Art. no. 271-301 | Spher e ø 8 mm; L: 300 mm



Hammer  
Art. no. 506-072 | L: 250 mm; weight: 1100 g



Opening Broach, hewn  
Art. no. 367-271



Rasp handle straight  
Art. no. 271-321 | L: 235 mm



Box chisel small  
Art. no. 506-091 | 6 mm x 20 mm



Tray Basic Instrument Set (empty)  
Art. no. 367-285

Tray Lid  
Art. no. 452-013

Extractor rod M8  
Art. no. 367-1251



Modular striking weight  
Art. no. 506-2107



Stem setting instrument, guided  
Art. no. 367-284



Guide rod  
Art. no. 506-015 | ø 8 mm, L: 120 mm



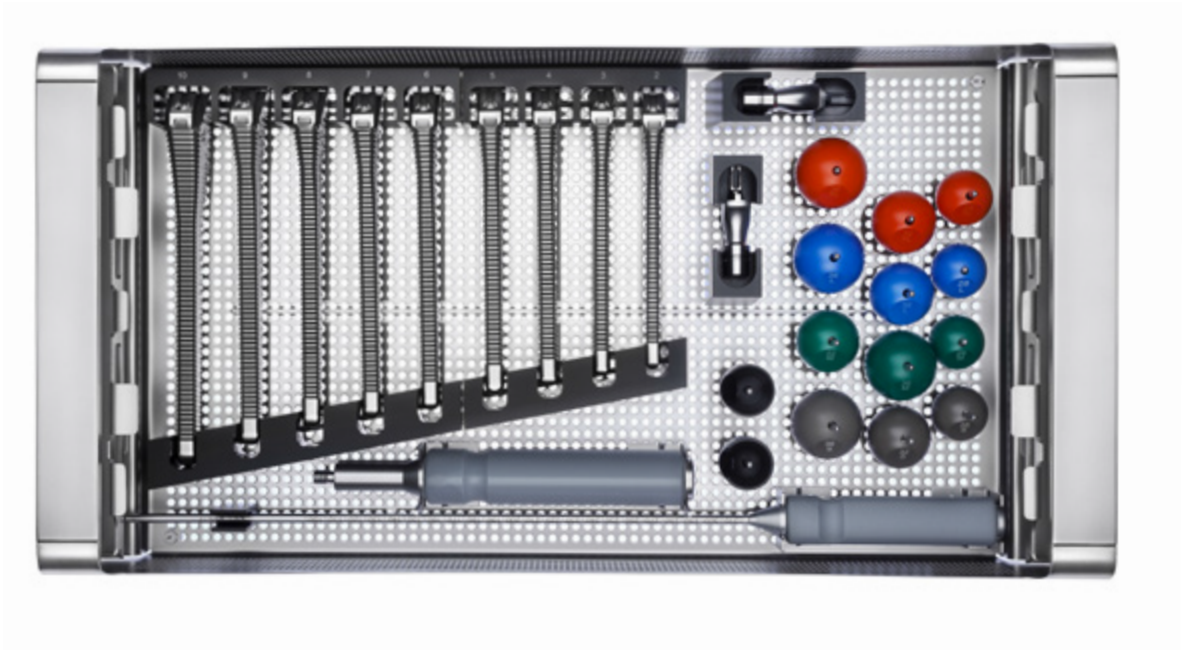
Stem - Repositioner  
Art. no. 506-073





Art.-Nr. 367-1492

Rasp Instrument Set Expersus Hip Stem



Tray Rasp Instrument Set Expersus (empty)  
Art.-Nr. 367-1491

Tray Lid  
Art.-Nr. 452-013

Seating instrument for cement plug  
Art. no. 506-100



Head impactor handle  
Art. no. 506-060 | L: 165 mm, thread: M8



Head impactor head unit, thread M8



Rasp for Expersus Hip Stem



Rasp for Expersus Hip Stem

Size	Art. no.
2	367-1380
3	367-1381
4	367-1382
5	367-1383
6	367-1384
7	367-1385
8	367-1386
9	367-1387
10	367-1388

Expersus trial cone



Expersus trial cone

Variant	Art. no.
125°	367-1437
135°	367-1389

Head impactor head unit, thread M8

Size	Art. no.
ø 28/32 mm	506-062
ø 36 mm	506-1212

Trial head, cone 12/14



Trial head, cone 12/14

Size	Colour	Art. no.
ø 28 mm S	POM grey	512-280
ø 32 mm S	POM grey	512-320
ø 36 mm S	POM grey	512-361
ø 28 mm M	POM green	512-281
ø 32 mm M	POM green	512-321
ø 36 mm M	POM green	512-362
ø 28 mm L	POM blue	512-282
ø 32 mm L	POM blue	512-322
ø 36 mm L	POM blue	512-363
ø 28 mm XL	POM dark-orange	512-283
ø 32 mm XL	POM dark-orange	512-323
ø 36 mm XL	POM dark-orange	512-364





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#### Disclaimer

This product brochure is intended exclusively for specialists in medical technology.

It is not meant as information for medical lay persons. The explanations about the products contained in the brochure are general explanations and do not constitute medical advice.

The product information was created and compiled by medical experts and technically qualified employees of Biodynamics to the best of their knowledge.

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