PROS.A. Assembly

Correct TT and TF prosthetic alignment:
For enhanced mobility and optimum fitting quality
1 Socket clamping fixture angle settings
2 Height-adjustable footplate
3 Scale for adjusting knee-floor measurement/trochanter-floor measurement
4 Inflatable socket clamping fixture with centring unit
The first step to enhanced mobility and improved quality of life

The prosthetic alignment of a lower limb prosthesis has considerable influence on the functional qualities of the prosthesis and thus on the quality of fitting.

When aligning a transfemoral prosthesis according to the Ottobock alignment recommendations, the knee joint is used as the basis in the PROS.A. Assembly. The knee joint is fixed with joint-specific brackets (adapter inserts) directly in the alignment reference point (single axis joints = rotation axis; polycentric joints = upper anterior axis). The three-dimensional alignment of the modular lower limb prosthesis with the PROS.A. Assembly is measurable and reproducible. Alignment data can be documented and used for follow-up fittings.

The socket is clamped and positioned in the innovative quick-clamping fixture. The socket is centred by the flexible guide at the distal point and the inflatable clamping fixture at the proximal point. After clamping the socket, socket flexion is set to 3°–5°, taking into account the individual situation of the patient (e.g. hip joint contractures) and the ‘ischial tuberosity to ground’ distance.

The socket and the modular knee joint or the socket and the prosthetic foot are connected using an adapter. The prosthetic alignment is documented using the integrated measuring instruments such as mm-measures and angular measures.

Optimal prosthetic alignment is achieved in three steps:
- Bench alignment or plumb line alignment
- Static alignment optimisation
- Dynamic alignment optimisation

The PROS.A. Assembly was designed for the bench alignment of modular lower limb prostheses. For the three-dimensional alignment of a modular lower limb prosthesis, the knee joint and socket are fixed in the apparatus, and the prosthetic foot and other prosthetic components are mounted in accordance with the alignment recommendations.

The PROS.A. Assembly (743A220) consists of:
- Footplate, height-adjustable
- Alignment apparatus frame
- Knee joint holder, height-adjustable and removable for TT fittings
- Adapter inserts for Ottobock knee joints
- Socket quick-clamping fixture with hydraulic height adjustment

Benefits:
- Optimisation of the fabrication process of a transfemoral or transtibial prosthesis
- Reduction of the fabrication time
- Application of the Ottobock alignment recommendations
- High fitting quality for the patient
1 743A211 laser adapter
2 PROS.A. Assembly with laser adapter
3 743A80 50:50 gauge
4 743A212 retrofit kit: laser with powerbank
5 743Y741 caster wheels and fixed wheels
6 743Y621=1 star, large
Accessories – making your day-to-day work easier

Individually expand the PROS.A. Assembly – with additional modules perfectly coordinated to your needs.

The highlight among the accessory modules is a mounting frame that can also be retrofitted to previous models of the PROS.A. Assembly: three lasers are permanently integrated into the mounting frame so there is no need for time-consuming alignment (in contrast to external lasers).

The three lasers can be mounted in a variable way and simply slid horizontally. With the aid of an adjustment plate, you can return the lasers to their original starting position at any time.

The lasers produce practical vertical lines, with which you can precisely align the socket flexion for transfemoral prostheses from 3 to 5°, and transtibial prostheses +5° to the centre of the socket. The laser line also helps you when aligning transtibial prostheses with the correct alignment of the socket to the foot: the prosthetic foot must be positioned at the frontal plane in such a way that the laser line runs between the big toe and the second toe and on the lateral patella edge. You can find detailed alignment recommendations in the alignment posters.

The 50:50 gauge, which is also available, helps you to precisely determine the centre of the socket.

The additional caster wheels and fixed wheels are also helpful: they enable the alignment apparatus to be easily slid to the desired storage space or the place where alignment is being performed.

The list of optional accessories is rounded off with a centring star with a diameter of 210 mm. It offers the possibility of optimally aligning even large sockets at any time. The standard kit that comes with the PROS.A. Assembly already includes a centring star with a diameter of 140 mm.

The accessories for the PROS.A. Assembly at a glance:
- 743A211 mounting frame with three integrated lasers for the PROS.A. Assembly
- 743A212 retrofit kit: laser with powerbank
- 743Y741 casters for PROS.A. Assembly
- 743Y621=1 star, large
- 743A80 50:50 gauge
- 646F219=* poster "Alignment recommendations for TF modular lower limb prostheses"
- 646F336=* poster "Alignment recommendation for TT modular lower limb prostheses"