ÖSSUR®
LIFE WITHOUT LIMITATIONS

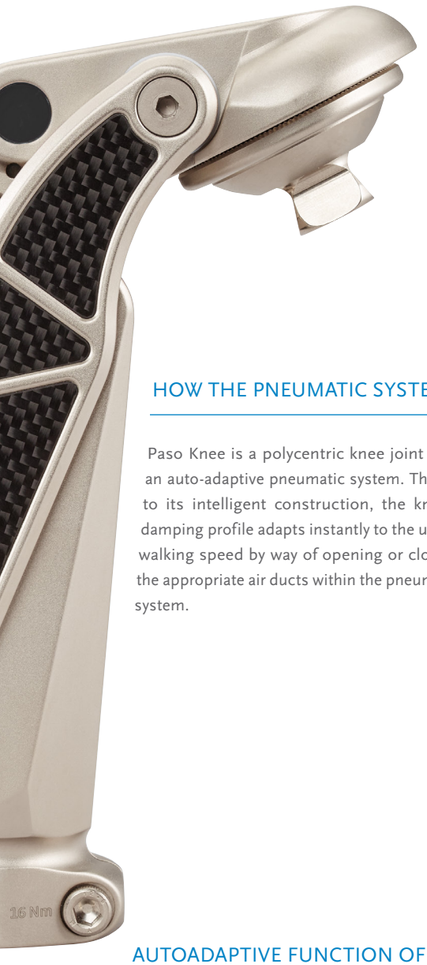
PASO KNEE™

Polycentric knee joint with
auto-adaptive pneumatic
swing phase control

ÖSSUR BALANCE SOLUTIONS | ÖSSUR IMPACT SOLUTIONS | ÖSSUR DYNAMIC SOLUTIONS

Össur Impact Solutions are designed to enable especially active people to engage in high-impact endeavors.

PASO KNEE – POWERFUL & PRECISE ADAPTATION



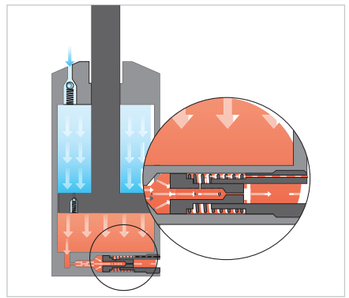
Paso Knee – Powerful, precise movements

THE AUTO-ADAPTIVE KNEE THAT COMBINES SAFETY AND FLEXIBILITY

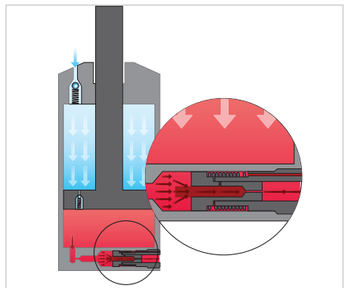
The Paso Knee from Össur offers powerful, but natural movements for a range of activities. The knee adapts instantly to variations in speed (up to 7 km/h), providing the user with a high level of safety and freedom of movement. Paso Knee also allows up to 150° of flexion, making it much easier to kneel, sit, or get into a vehicle.

HOW THE PNEUMATIC SYSTEM WORKS

Paso Knee is a polycentric knee joint with an auto-adaptive pneumatic system. Thanks to its intelligent construction, the knee's damping profile adapts instantly to the user's walking speed by way of opening or closing the appropriate air ducts within the pneumatic system.



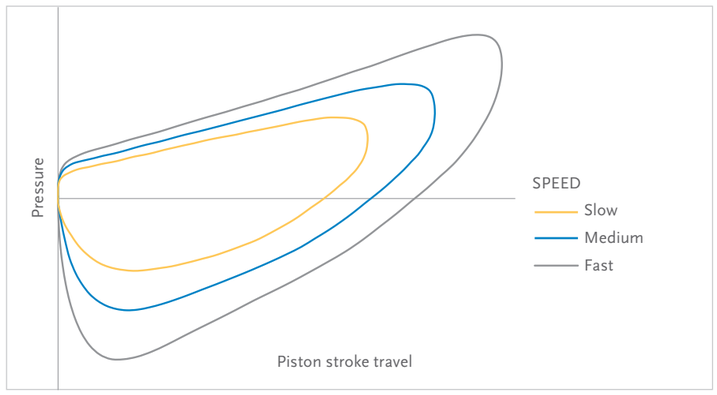
Airflow behaviour in the pneumatic system at 2 km/h: lower resistance due to the open side air duct.



Airflow behaviour in the pneumatic system at 7 km/h: higher resistance due to the closed side air duct.

AUTOADAPTIVE FUNCTION OF THE PNEUMATIC SYSTEM

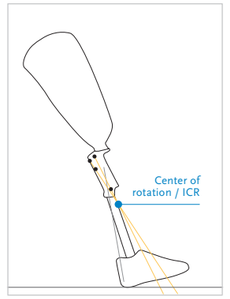
The diagram to the right shows the adaptiveness of the Paso Knee pneumatic unit to varying requirements in relation to the user's walking speed. This auto-adaptive function ensures the knee always provides the necessary and appropriate level of damping, which in turn promotes natural, safe and energy-efficient gait.



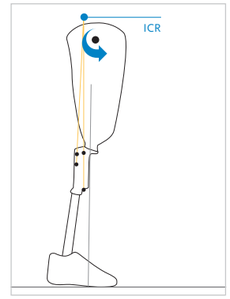
The pressure in the pneumatic system varies with the piston stroke travel, depending on the walking speed. (Source: Össur Bayreuth Gaitlab)

SAFETY DURING STANCE

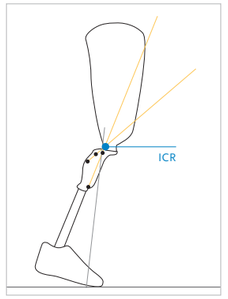
The carefully designed geometry of Paso Knee offers the user a high degree of safety during stance phase.



The knee's centre of rotation is below and in front of the joint at heel strike. At this point, the knee is locked and uncontrolled flexion is impossible, giving confidence to the user of a safe heel strike.



The knee's centre of rotation moves above and to the back of the joint only during transition from mid-stance to toe-off, when it is then closely aligned with the ground reaction force line (load line).



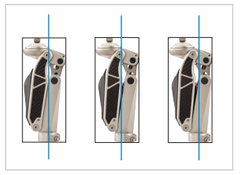
Controlled flexion commences and the appropriate swing phase for the prosthesis is initiated.

SAFETY TO SUIT USER PREFERENCES

Use of Paso Knee's Dynamic Set allows the joint's geometry to be adjusted precisely to suit individual user requirements.

The actuation time of the knee, in terms of initiating swing phase, can be adjusted using the Dynamic Set to match the user's activity level and need for safety.

More safety:
Later actuation of the swing phase



More dynamic:
Earlier actuation of the swing phase

Takes into account the individual need for safety
The actuation time of the knee joint can be adapted by using the Dynamic Set to match the user's degree of activity and need for safety.

An added benefit:
Inserting wedges A or B makes sitting down more comfortable. It is then easier to flex the joint while weight-bearing on the forefoot.

FURTHER BENEFITS

Simple adaptation to socket connectors
Choose between a pyramid, an IKF, or loop adapter. As an additional relief of stresses on the locomotor apparatus using the IKF-adapter, you gain shock absorption due to simulation of the physiological knee flexion angle.

Simple optimisation of prosthesis alignment
AP/ML shift of 5 mm and full pivoting with all proximal adapter variants except IKF.

With the loop adapter (e.g. prosthesis for knee disarticulation), special adjustment washers can be used to tilt the socket by an angle of up to 10° in any direction. The alignment can be optimised without major effort – even after the test phase.

Greater freedom of movement and comfort
Up to 150° of flexion makes it easier to kneel, sit, or get into a vehicle. The insertion of wedges in the knee can make it more comfortable when sitting down and easier to flex the knee when weight-bearing on the forefoot.

Easy set up
Intelligent construction of the pneumatic system eliminates the need for adjustment of flexion and extension resistance during the dynamic trial fitting session.

PASO KNEE™

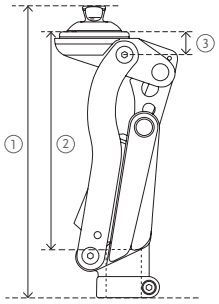
TECHNICAL INFORMATION:

	Paso Knee with pyramid	Paso Knee with IKF adapter
Material	Aluminium + Carbon	Aluminium + Carbon
Amputation level	Transfemoral	Transfemoral
Overall fitted height (1)	Approx. 215 mm	Approx. 230 mm
Effective fitted height (2)	Approx. 158 mm	Approx. 174 mm
Fitted height (3)	Approx. 18 mm	Approx. 33 mm
Weight	Approx. 1050 g	Approx. 1180 g
Ground Clearance	Approx. 15 mm	Approx. 15 mm
Proximal connection	Pyramid	Pyramid
Distal connection	Integrated 30 mm tube clamp	Integrated 30 mm tube clamp
Swing phase	Pneumatic	Pneumatic
Stance phase	Adjustable geometry	Adjustable geometry, stance phase flexion
Axis	Polycentric	Polycentric
Flexion range	0°–150°	0°–150°

	Paso Knee with loop adapter
Material	Aluminium + Carbon
Amputation level	Knee disarticulation, transfemoral
Overall fitted height (1)	Approx. 207 mm
Effective fitted height (2)	Approx. 168 mm
Fitted height (3)	Approx. 27 mm
Weight	Approx. 1065 g
Ground Clearance	Approx. 15 mm
Proximal connection	Loop adapter
Distal connection	Integrated 30 mm tube clamp
Swing phase	Pneumatic
Stance phase	Adjustable geometry
Axis	Polycentric
Flexion range	0°–150°

PRODUCT INFORMATION

Part#	Description
1.728.180	Paso Knee with pyramid
1.728.181	Paso Knee with IKF adapter
1.728.182	Paso Knee with loop adapter



KEY ADVANTAGES

- Ready for use - works straight "out of the box"
- Powerful, precise movement - adapts instantly and automatically to changes in speed, for smooth walking/jogging up to 7 km/h
- Up to 150° of flexion for comfort and freedom of movement
- High degree of safety during stance
- Adjustable swing safety to suit user requirements

USER PROFILE:

- Transfemoral or knee disarticulation amputation
- Maximum user weight 136 kg