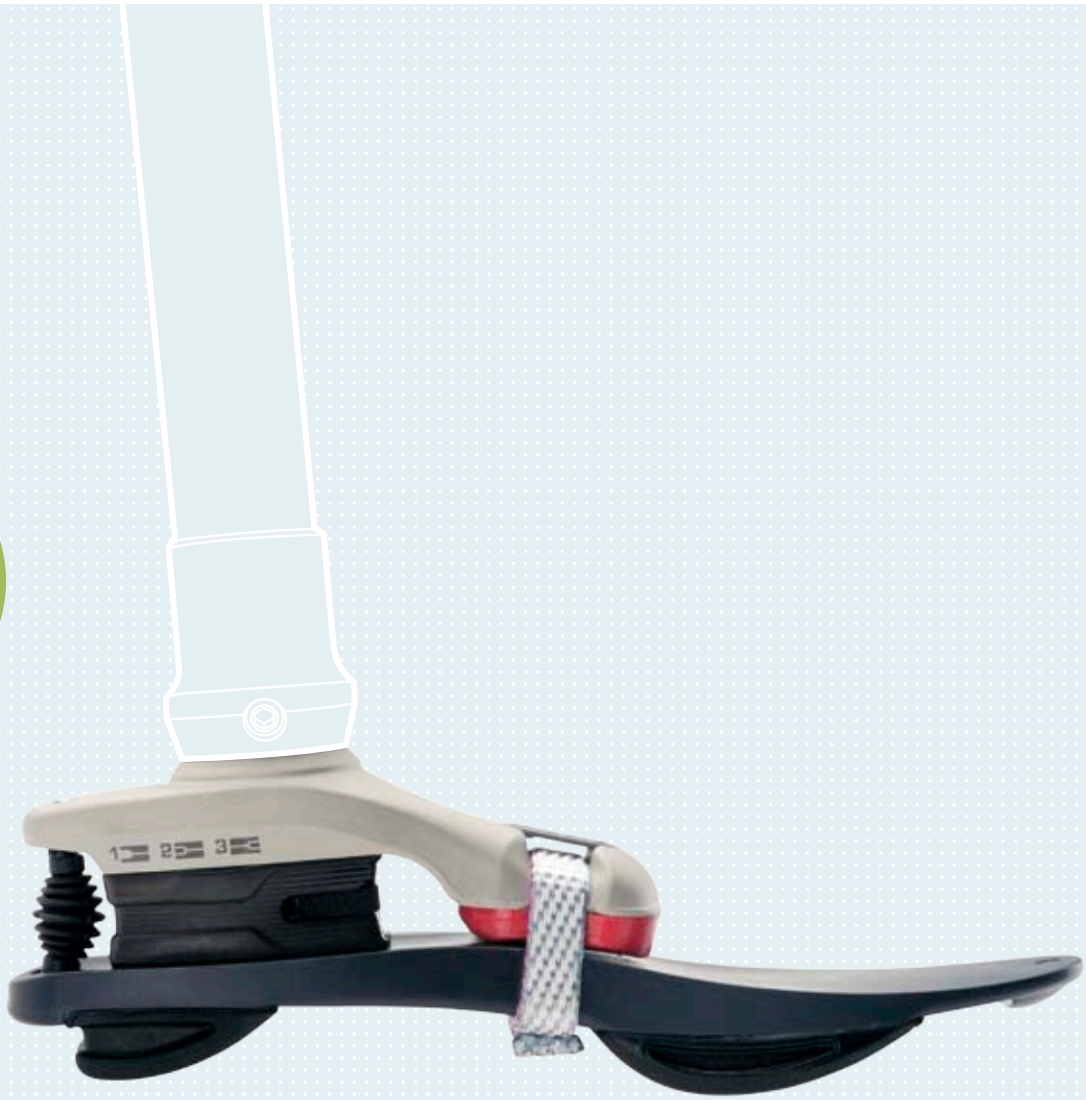
ottobock.

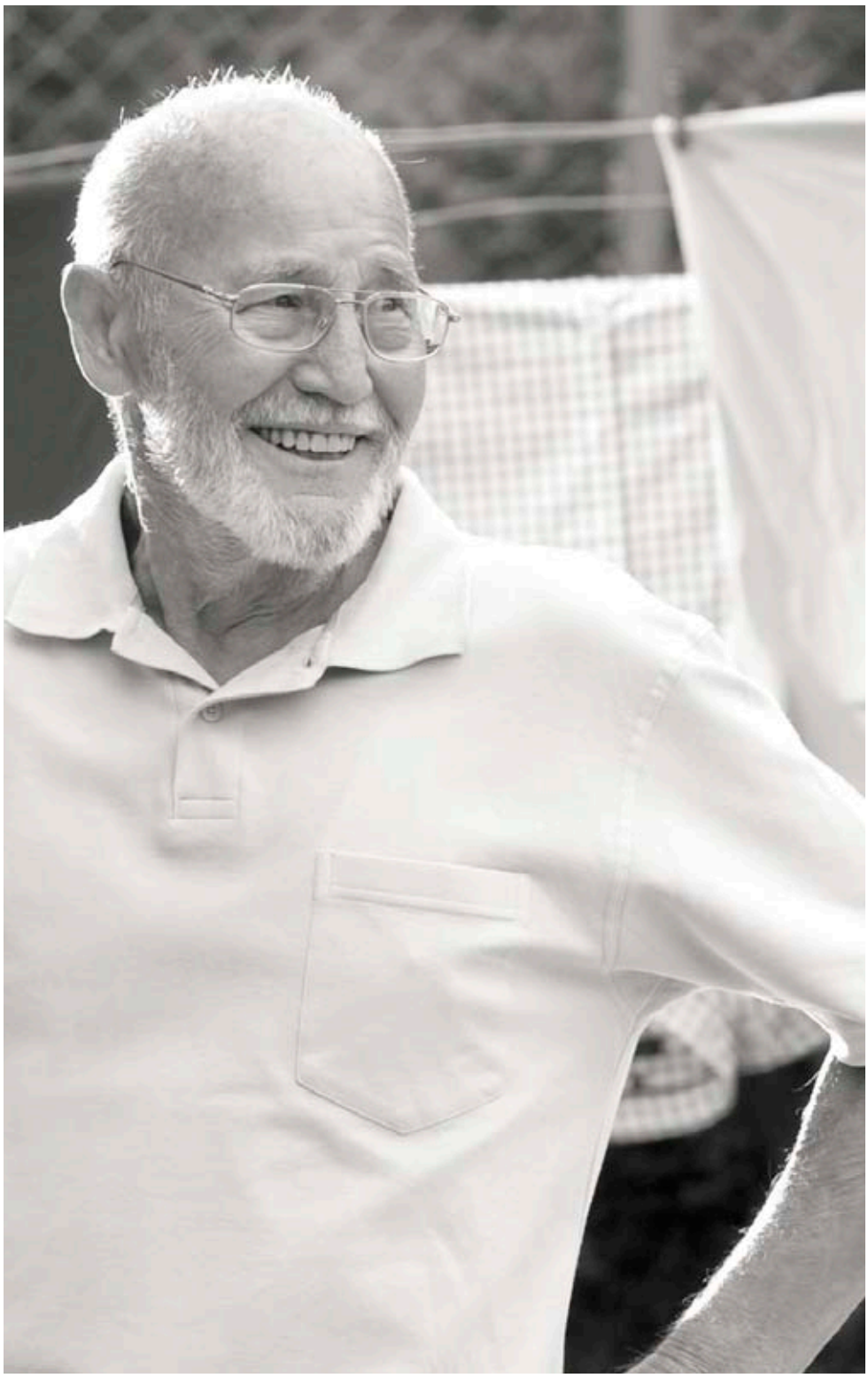
1M10 Adjust

Mobility with stability

Quality for life



Information for Practitioners



No two people are the same.

This is why Ottobock developed the 1M10 Adjust, a foot that can be readily adapted to the individual needs of the amputee – quickly and easily. The Adjust is suitable for people who spend most of their time indoors and only venture outside occasionally.

1M10 Adjust
Mobility with stability

Advantages

- Stable stance, even when weight is transferred between the prosthesis and the sound limb.
- Multiaxial behavior to compensate for uneven surfaces.
- Adjustable heel stiffness for adaptation to the individual requirements and gait pattern of the amputee without the need for realignment of the prosthesis.
- Lightweight construction (size 26 = 395 g* / 13.9 oz.).
- Attractive and functional footshell with removable connection cap in 2 versions – normal foot shape (heel height 10 mm ± 5 mm | 3/8″ ± 3/16″) and slim foot shape (heel height 20 mm ± 5 mm | 3/4″ ± 3/16″).

* Stiffness 1 – weight without footshell

material award 2010

Designpreis Deutschland 2011 NOMINEE

reddot design award winner 2010

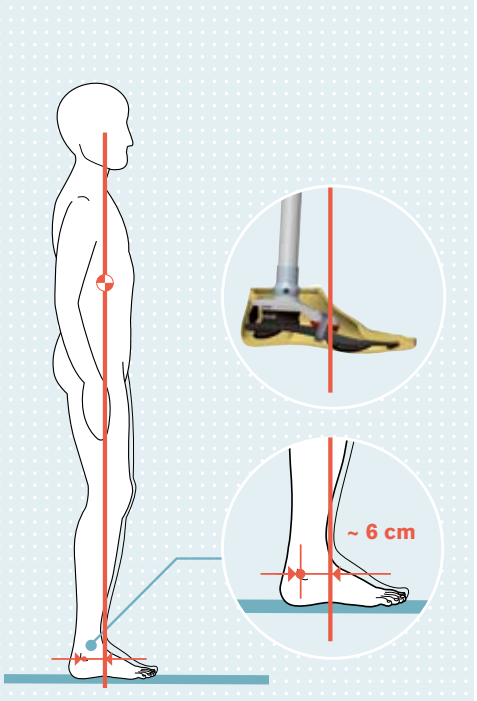
Biomechanics

The position of the load line in relation to the ankle joint helps to determine the demands placed upon the body to maintain standing stability. In order to balance the body's weight during normal standing, there is a forward and backward shifting of the weight over the foot and this changes the position of the load line on the foot. In this process, the equilibrium of forces is maintained through targeted contractions of various muscle groups. This allows the individual to maintain a stable standing position on a wide variety of surfaces.

If the load line were to run through the center of ankle rotation, little or no muscle strength would be required for balanced standing. However, when the body's weight shifts, then the muscles both in front of and behind the joint have to continuously and alternately stabilize the person.

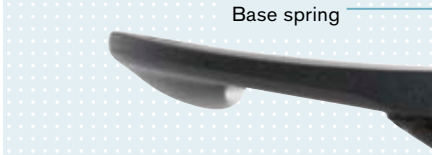
When the load line runs approximately 6 cm in front of the joint – as it does in nature – the user need only contract the powerful calf muscles to maintain balance.

Our engineers have developed an innovative design for the Adjust: A multiaxial joint positioned at the load line. Thanks to this design, the user is able to maintain a stable standing position – regardless of the proportion of the body weight supported by the prosthesis. Shifting weight from one leg to the other, as well as forward and backward shifts of the body's weight on the foot, have only minimal effect on standing stability.

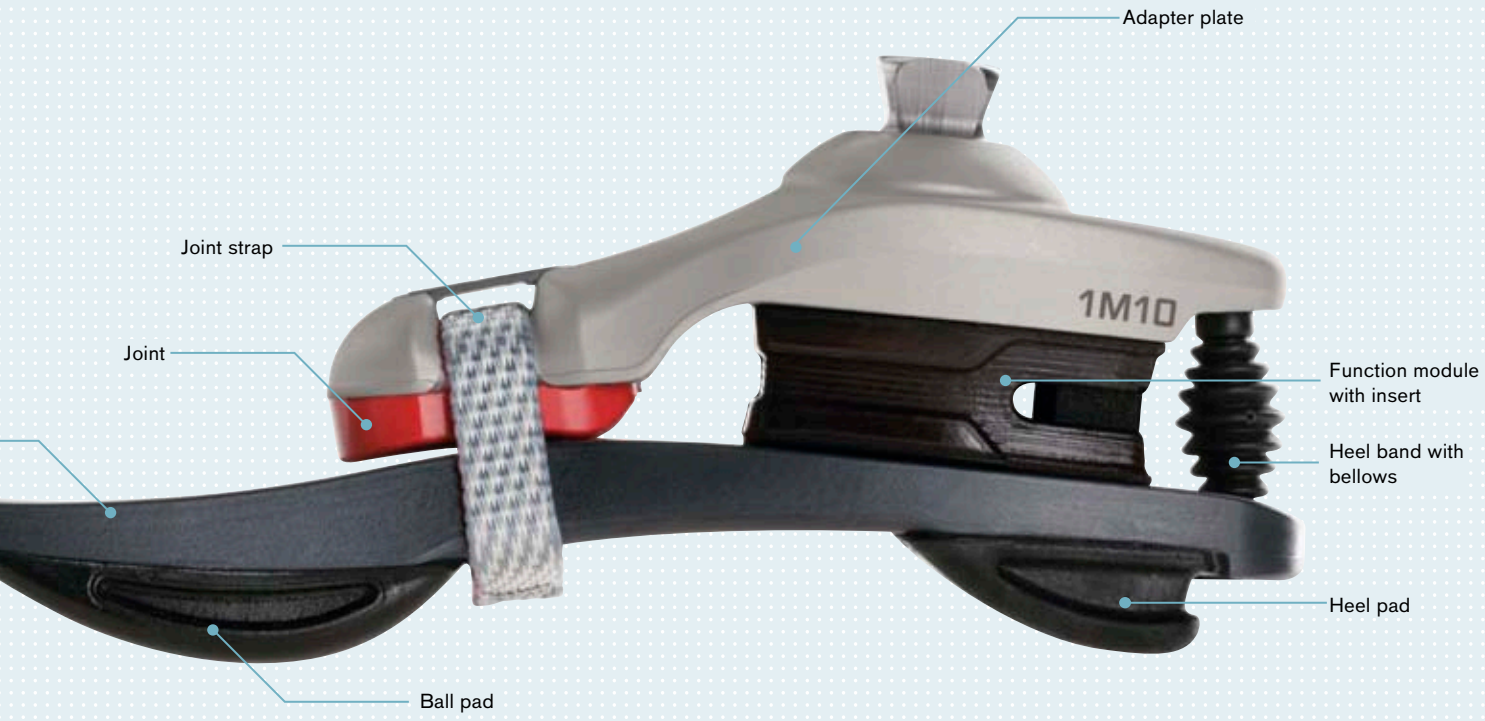


Load Line

runs approximately 6 cm in front of the joint.



1M10 Adjust elements



Adjust heel characteristic

The adjustable function module of the Adjust allows individual heel characteristic requirements to be taken into account when optimizing the prosthesis. The adjustments can be done without the need for alignment changes to the prosthesis. Elaborate, time-consuming trial fittings which are strenuous for the user are reduced.

Configuration 1
provides the softest heel strike.

Configuration 2
The pre-set configuration 2 provides a moderate heel strike. The settings are easy to change from this position.

Configuration 3
provides the firmest heel strike.

Indication and application

The Adjust is suitable for patients with a transtibial amputation, knee disarticulation, transfemoral amputation or hip disarticulation and low activity level who require a lightweight foot with a high level of standing and walking security.

Recommended for amputees with mobility grade 1 or 2 – indoor walkers and restricted outdoor walkers – according to the Ottobock MOBIS mobility system.

Max. 80 kg
Size 22–23 cm

Size 24–25 cm

Size 26–30 cm

Order information

The 1M10 Adjust is available in sizes from 22 to 30 cm. The scope of delivery includes the footshell with connection cap and a spectra sock. Both the color and shape of the footshell can be selected.

Stiffness Chart

Stiffness \ Size	22 cm–23 cm	24 cm–25 cm	26 cm–27 cm	28 cm–30 cm
1	up to 52 kg (up to 115 lbs)	up to 58 kg (up to 128 lbs)	up to 72 kg (up to 159 lbs)	up to 77 kg (up to 169 lbs)
2	53 – 68 kg (116 – 150 lbs)	59 – 76 kg (129 – 168 lbs)	73 – 95 kg (160 – 210 lbs)	78 – 100 kg (170 – 220 lbs)
3	69 – 80 kg (151 – 176 lbs)	77 – 100 kg (169 – 220 lbs)	96 – 125 kg (211 – 275 lbs)	101 – 125 kg (221 – 275 lbs)

Article number (example)

Article number	=	Side	Size	-	Stiffness	-	P	/	Color	Shape
1M10	**=**	**L**	**26**	**-**	**2**	**-**	**P**	**/**	**4**	**N**

Color: beige (4) and light brown (15)

Foot shape: normal (N) slim (S) in size 22–26 cm

Fitting example 1M10 & 3R93

The goal of a prosthetic fitting for amputees with low mobility is to provide the users with high stability during standing and walking.

The combination of the 1M10 Adjust with the 3R93 Friction Brake Knee Joint with optional locking function is intended to do exactly that. The user has a stable stance due to the multi-axial joint of the 1M10 which is placed on the load line and due to the load-dependent braking mechanism of the 3R93.

The foot and knee joint complement one another in a special way:

- The adjustable function module of the 1M10 Adjust meets the user's individual heel characteristic requirements. This allows the 1M10 to provide effective support to the 3R93, which is locked under load or when the locking function is activated. The impact damping during heel strike is increased if a soft setting is selected for the function module. A firmer stiffness setting can be chosen for more active users in order to increase the system dynamics.
- The foot and knee joint can be adjusted easily and reproducibly to the user's individual requirements.
- The easy rollover and forefoot characteristics of the 1M10 Adjust also support release of the 3R93 brake when the load is removed to initiate the swing phase.

This combination can be complemented effectively by the 4R160 KISS System with 6Y80 SIL Liner and the 4R57 Rotation Adapter.

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