

Unilateral Joint System

Knee and ankle joint – modular and multifunctional

Quality for life





Unilateral Joint System

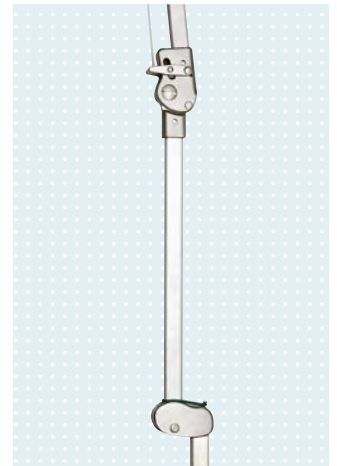
Modular, unilateral and multifunctional

In developing orthopaedic devices on the basis of modularity, Ottobock has set the current standards for technical orthopaedics in the areas of prosthetics and orthotics.

The modular system bars developed by Ottobock in the 1960s established the technical preconditions to fit patients

individually with modern components. The technology, precision and safety, as well as the service- and user-friendly nature of the system, has become the standard in orthotic fitting.

Growing demand towards the application of the system was the reason for providing additions to the assortment.



The Unilateral Joint System 17L*

With the Ottobock Unilateral Joint System, it is now technically possible to receive unilateral fitting without compromising the proven principles and high quality of Ottobock system components.

The system

The Unilateral Joint System consists of a knee and combinable ankle joint. A connection plug makes it possible to combine both functional parts with a unilateral system bar. If you want to use it with the Ottobock RGO Hip Joint System 17H100, connectors are available for completing the system.

Area of application and weight classification

The Unilateral Joint System including the RGO Hip Joint System can be used with various types of orthoses such as those for traumatic paraplegia or spina bifida at a lesion height of TH5 – S2. Use of these joints is also recommended for neuromuscular diseases such as poliomyelitis/post-polio syndrome.

When fitting with a reciprocating gait orthosis, the connectors make it possible to connect the Unilateral Joint System to the Ottobock RGO Hip Joint System.

The modular conception makes the entire system, including the RGO components, suitable “to grow with the patient”.

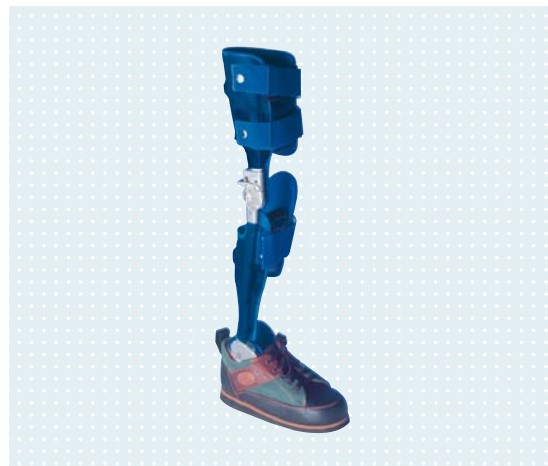
The components of the joint are classified according to body weight and lower leg length. The classification system simplifies the selection of the size.

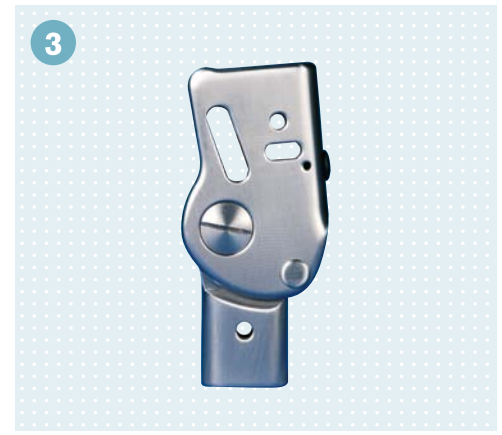
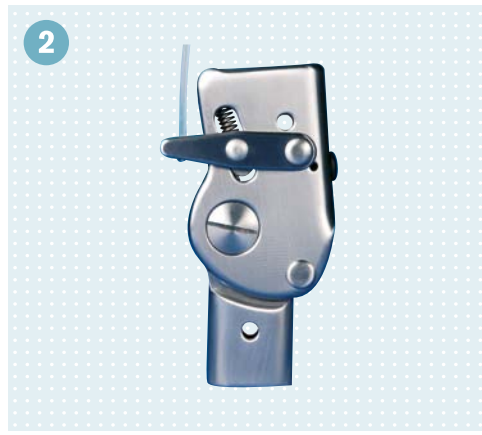
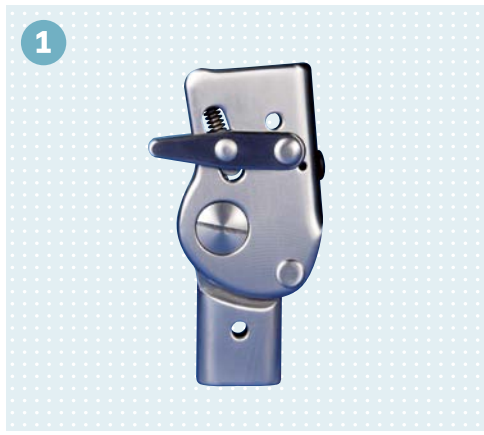
The classification of the lower leg length is also necessary because of the different degrees of leverage accompanying different body sizes.

Classification of the joint

Size	Weight	Lower leg length (MTP/floor)
1	up to 100 kg	up to 55 cm
2	up to 75 kg	up to 45 cm
3	up to 45 kg	up to 35 cm

In all three knee joint sizes the weight bearing line must not be more than 3 cm posterior to the compromise centre of rotation according to Nietert (60/40)!





Unilateral Knee Joint (17LK1*)

The unilateral knee joints, like our well-known system, have been developed modularly. The modular design simplifies the adaptation and maintenance of the joints and makes them more economical. All moveable components can be replaced at any time. The knee joint can be equipped or adapted to meet the requirements of the patient. It is possible for you to use one joint type for various purposes when treating a patient.

The following configurations are possible:

1. Joint with knee lever lock (Figure 1)
2. Joint with cable control lock (Figure 2)
3. Freely moveable joint positioned posterior to weight bearing line (Figure 3)

The joints are delivered with all equipment options. This allows you to choose, try, and determine the optimal function with the patient during the fitting session.

The position of the knee joints posterior to the weight bearing line has two significant advantages:

- Application as freely moveable joint
- Quick and easy disengagement of the lock

The functional construction of the knee joint allows the retrofitting or upgrading of individual functions at any time.

Since the design of the knee joint allows for straight lower leg bars, bars with contoured calf are no longer needed.

Unilateral system bars made of aluminium are available for the connection to the ankle bars as well as to the proximal extension of the construction. The dimensions of the 17LS1=* extension bars are coordinated with the knee and ankle joints.

The delivered system bars are 100 cm long and in available sizes =1, =2 and =3.

Option: Temporary release

17Y162=* is an additional option that can be installed later into the knee joint. It allows to set the knee joint to a temporary open position, e. g. for riding a therapeutic bike.
 Sizes: =1; =2; =3



Different sizes



17LK1=1



17LK1=2



17LK1=3

Unilateral Ankle Joint (17LA1*)

The special feature of this joint is its slim design, which – for a unilateral ankle joint – is rather unusual.

By offsetting the lower leg bar and the foot stirrup towards each other, it has been possible to design the joint with dimensions hardly larger than a normal ankle joint.

This offers decisive advantages in terms of structural height, effectiveness of the dorsiflexion-assist and cosmetics.

In terms of functionality, it offers the orthopaedic technician many possibilities.

Replaceable stop inserts allow different stop angles to be used for limiting movement.

These range from an angle size of 0° – 15°. Another feature is the connection between ankle joint and knee joint.

The lower leg rod with the attachment device for the ankle joint can be directly connected to the knee joint at the proximal end. This considerably reduces the structural height and improves function and appearance of the orthosis.

The dorsiflexion function, which can be used if necessary, ensures effective and soundless

dorsiflexion. Using an O-ring made of polyurethane makes it low maintenance and easy to retrofit. If necessary, it is possible to use a second ring for increasing the strength of the dorsiflexion-assist. Thanks to the special bearing technology in the joint, lubrication is unnecessary.

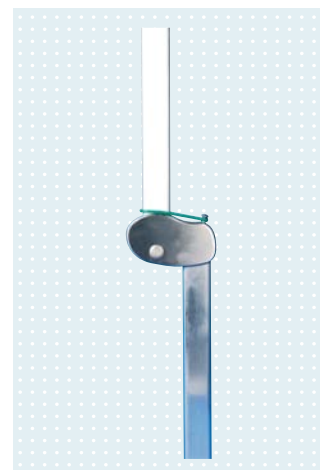
For maintaining the ankle joint, all the moveable parts are easily accessible and can be replaced at any time if required.

Normal shoes can generally be worn thanks to the unilateral guidance and the flat form of the joint. The 17LA1 Ankle Joints are classified similar to the knee joints.

Please notice that the ankle joint is only delivered with joint insert limiting the range of motion, i.e. 0° – 0°. You can reorder the joint inserts as a set or as single parts.

Joint insert set:

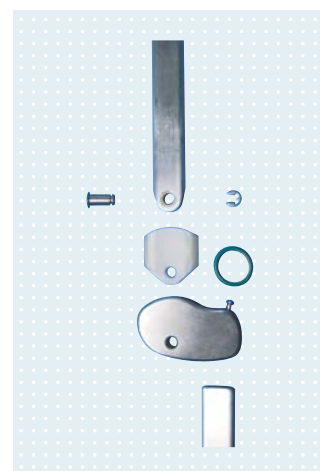
17LA10=1	for size 1
17LA10=2	for size 2
17LA10=3	for size 3



Unilateral ankle joint with foot stirrup



Unilateral ankle joint with split foot stirrup



Upon delivery

Individual joint inserts

Size 1	Size 2	Size 3	Limitation of movement
17LA11	17LA12	17LA13	=0–0
17LA11	17LA12	17LA13	=0–5
17LA11	17LA12	17LA13	=0–10
17LA11	17LA12	17LA13	=0–15
17LA11	17LA12	17LA13	=5–5
17LA11	17LA12	17LA13	=5–10
17LA11	17LA12	17LA13	=5–15
17LA11	17LA12	17LA13	=10–15

Connectors 17LH100

for RGO Hip Joint System 17H100



The coordinated connection of the Unilateral Joint System and the RGO

Especially in the area of fittings with reciprocating gait orthoses, it is important, particularly when fitting children, that the components of the orthoses are adjusted to the patient.

The 17H100 RGO Hip Joint System has already been constructed so that it can be easily adjusted on a growing user.

The pelvic width of the orthosis can be adapted to the child's growth simply by exchanging the tube connection.

The exchangeable elements, such as the unilateral system bars, can be adjusted in length in accordance with the requirements in practice.

The 17LH100 connectors make it possible to connect the new Unilateral Joint System to the RGO Hip Joint System. The connectors are available in 4 different sizes. The article numbers are classified accordingly. The size of the RGO follows the actual number 17LH100 for the connector. The size of the unilateral system comes after the hyphen.

As a result of similar construction of the RGO 17H100=1 and 17H100=0, these sizes (different cable lengths) are both identified as =1.

Ordering example:

17LH100=2-3 Connector suitable for RGO 17H100=2 and 17LK1=3 Unilateral Knee Joint

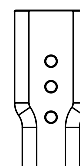
Available connector sizes

17LH100=2-3

17LH100=2-2

17LH100=1-2

17LH100=1-1



Unilateral Joint System

Fax order form

Contact	<input type="text"/>	Customer number	<input type="text"/>	Date	<input type="text"/>
Customer			Shipping address (if different from customer address)		
Company	<input type="text"/>	Company	<input type="text"/>		
Street	<input type="text"/>	Street	<input type="text"/>		
Postal code/city	<input type="text"/>	Postal code/city	<input type="text"/>		
Patient ID	<input type="text"/>	Phone	<input type="text"/>		

Patient information Male Female Indication

Age Weight kg Lower leg length cm

Side Left Right Bilateral Reciprocating gait orthosis

The size is selected according to patient weight and lower leg length.

RGO 17H100
Please order with a separate order form.
Information sheet ref. no. 646S3=4.04.GB

Connectors from RGO to Kniegelenk 17LK1=*
 17LH100=2-3 17LH100=1-2
 17LH100=2-2 17LH100=1-1

System bar 17LS1=*
 3 2 1
length of 100 cm

Unilateral Knee Joint
17LK1=L/R3-5 L R
17LK1=L/R2-5 L R
17LK1=L/R1-5 L R

System bar 17LS1=*
 3 2 1
length of 100 cm

Unilateral Ankle Joint
17LA1=3
17LA1=2
17LA1=1

Foot Stirrup	Split Foot Stirrup
17LF1=3 <input type="checkbox"/>	17LF2=3 <input type="checkbox"/> L <input type="checkbox"/> R
17LF1=2 <input type="checkbox"/>	17LF2=2 <input type="checkbox"/> L <input type="checkbox"/> R
17LF1=1 <input type="checkbox"/>	17LF2=1 <input type="checkbox"/> L <input type="checkbox"/> R

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