# ottobock.

# Custom-Orthotics Solutions and Equipment







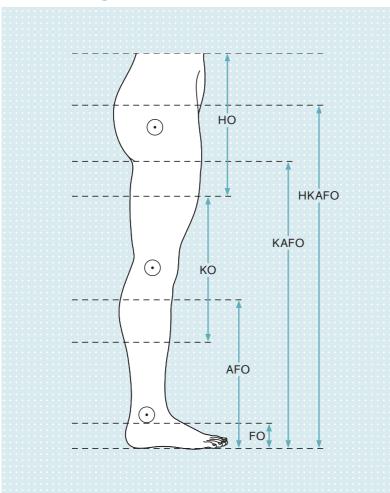
# Custom-Orthotics Solutions and Equipment

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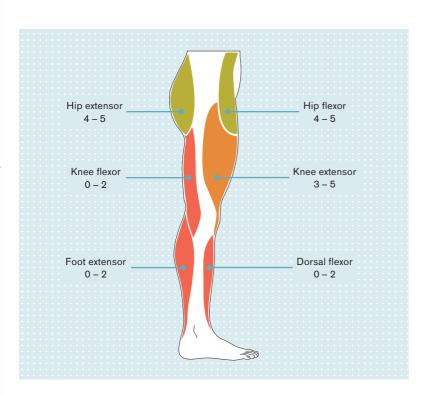


Global networking has also asserted itself in the medical technology sector. In order to work with the same terminology internationally, the abbreviations of the English terms for the different types of orthoses are used.

These are already used in many countries in the corresponding fitting or device lists. Only the abbreviations common for lower limb orthoses are shown in the overview here, but these are widely used for the entire locomotor system.

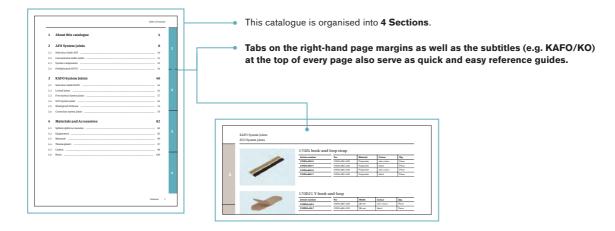
#### Lower limb orthosis types

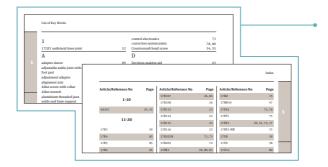
но	Hip orthosis
	Hip orthosis
•••••	Hip-knee-ankle-foot orthosis
HKAFO	Complete leg orthosis encompassing the hip, reciprocal gait orthosis (RGO)
KAFO	Knee-ankle-foot orthosis
	Complete leg orthosis
ко	Knee orthosis
	Knee orthosis
AFO	Ankle-foot orthosis
	Lower leg orthosis
FO	Foot orthosis
	Foot orthosis



### Muscle strength assessment according to Janda

-	- 0	No visible and/or palpable muscle contraction
-	- 1	Visible and/or palpable muscle contraction with no motoric effect
-	<b>- 2</b>	Distinct muscle contraction, movement with cancelling of gravity possible
-	- 3	Movement against gravity possible
-	- 4	Movement against low to medium resistance possible
-	- 5	Movement with normal strength

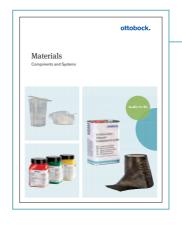




The list of keywords lists all products in alphabetical order. Alternatively, the index lets you find the page numbers for products by reference number.



Ottobock Service Fabrication offers custom orthotics products and services. These are listed in the catalogue 646K71=EN.



For more information or to place orders for products in the materials and tools category, please use the 646K1 Ottobock materials catalogue or 646K10 for Planning and Equipping.

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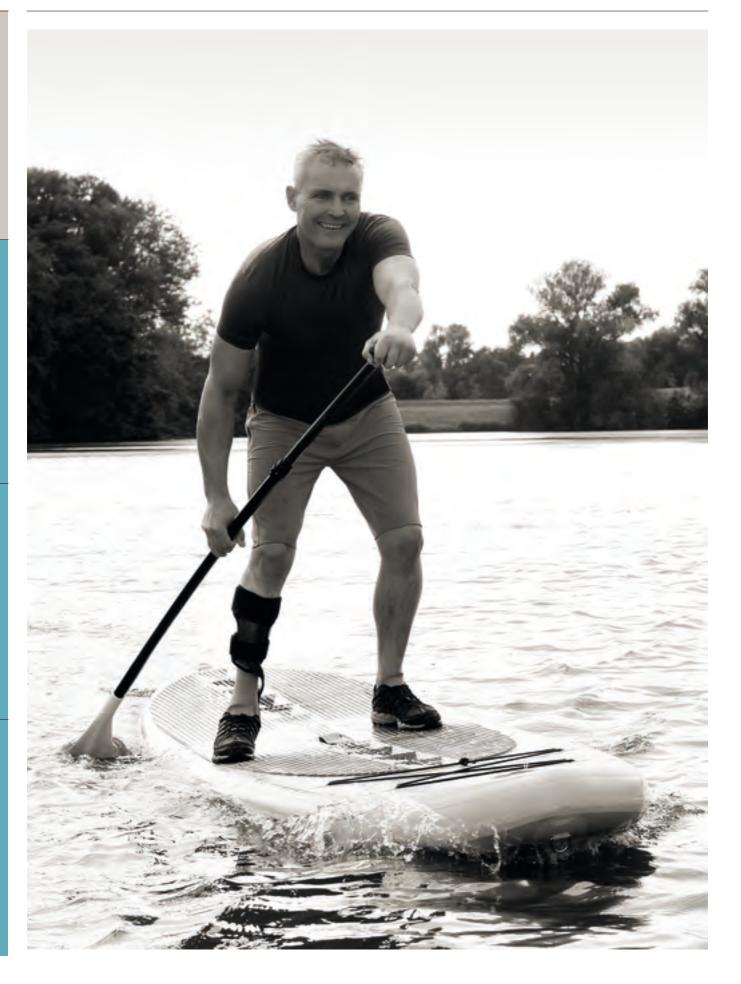
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Explanation of symbols				
i	Information sheet, poster		Recommended for lamination resin technique	
[ji]	Information material		Recommended for prepreg technique	
	Processing instructions/ instructions for use	ا ا	Recommended for joint bar/ clamp technique	
	Mixing ratio	76	Recommended for thermoplastic technique	
₽₽₽	DVD	$\boxed{\odot}$	Products suitable for children	
	Self-adhesive	<b>(So)</b>	Adjustment adapter size 1	
40	Washable at 40 °C, gentle cycle	2	Adjustment adapter size 2	
60	Washable at 60 °C	<b></b>	Adjustment adapter size 3	
		<b>(So)</b>	Adjustment adapter size 4	

Explanations of hazardous substance symbols (P/H phrases)\*

- \* The hazardous substance symbols (R/S phrases and P/H phrases) printed in the catalogue correspond to the labelling requirements for hazardous substances at the time of printing. They refer to the raw material. Changes reserved.
- Please note that the base colours shown in this catalogue may differ in actual effect.



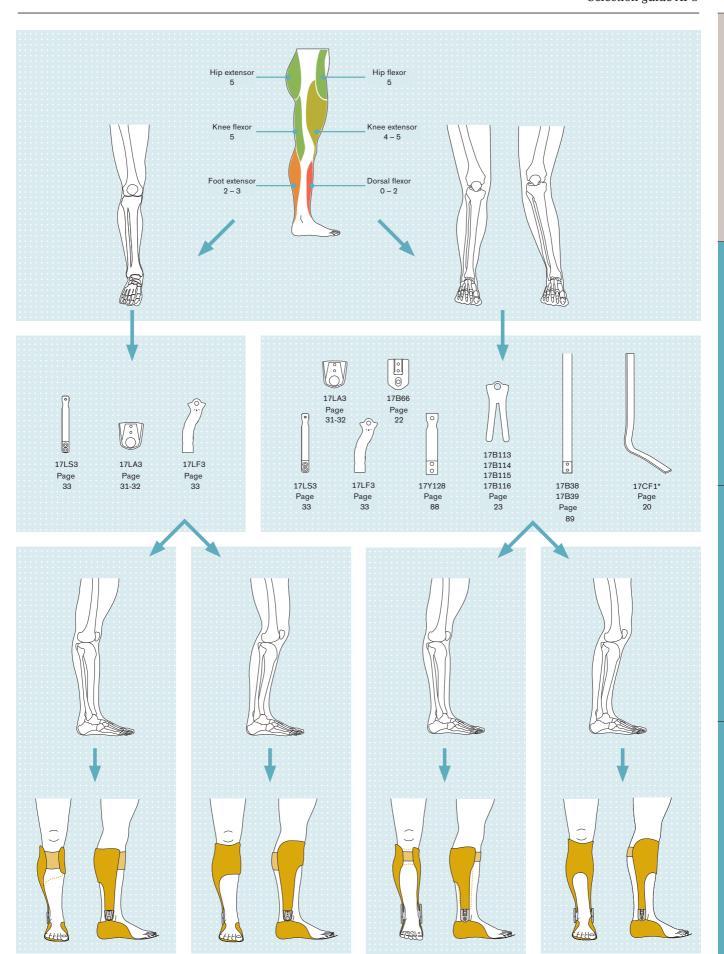
# AFO system joints

In this section, you will find a selection of ankle joints and dynamic components; proven technology and highly modern functionality.

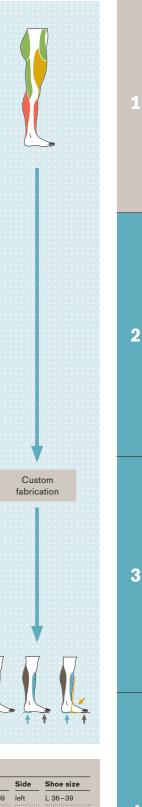
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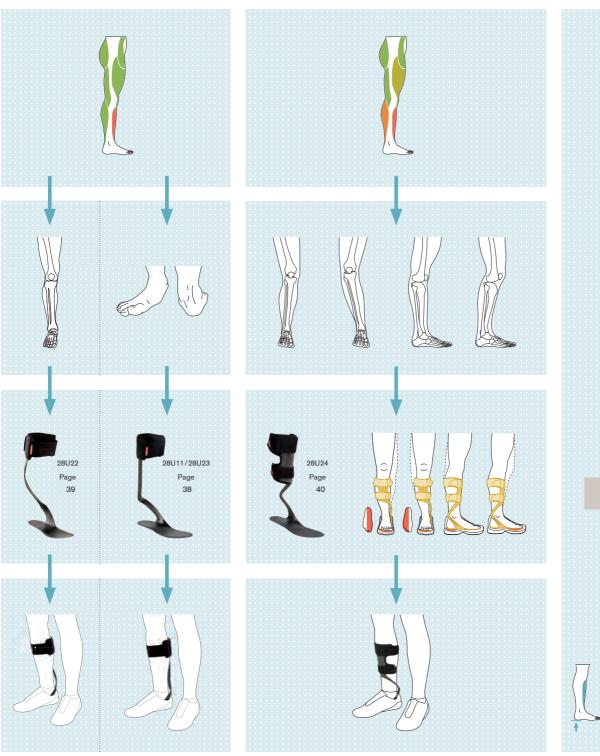
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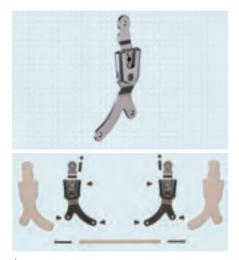


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#### 647G166

#### 17M1 Multifunction system ankle joint

for integration in ankle foot orthoses with dorsal, plantar limitation or spring assist, incl. parallel alignment aid





Article number	Overall length upper section – foot stirrup	Max. lower leg length	Max. body weight	Material	Qty.
17M1=1	120 mm	550 mm	100 kg	Stainless steel	Set
17M1=2	93 mm	350 mm	35 kg	Stainless steel	Set

Scope of delivery see illustration

#### Spare parts for 17M1

Article number	Qty.		
501S89=M5x6	Piece		
(2) Compression	spring		
Article number	for		Qty.
513D83= 1.1x3.7	17M1		Piece
(3) Bearing pin  Article number	Qty.		
30M8	Piece		
(4) Oval Allen he	ead screw, retainin	g screw	
Article number	Qty.		
501S89=M4x6	Piece		
(5) Bearing ball			
Article number	Material		Otv

Article number	Material	Qty.
509Y1=5.0	Stainless steel	Piece

#### (6) Set screw

Article number	Qty.
506G21=M6x6	Piece

#### (7) Stop pin

Article number	Qty.
506A8=2X18	Piece
506A8=3X18	Piece
506A8=5x18	Piece
506A8=5x20	Piece

#### 17M2 Free motion ankle joints

Free motion ankle joints for ankle foot orthoses





Article Overall length upper section foot stirrup		Max. lower leg length	Max. body weight	Material	Qty.
17M2=1	77.5 mm	55 mm	100 kg	Stainless steel	Set
17M2=2	63.5 mm	35 mm	35 kg	Stainless steel	Set

- Simple tool for parallel adjustment is included in the delivery
- Scope of delivery see illustration





647G166

#### Spare parts for 17M2

#### (1) Oval Allen head screw, retaining screw

-	Article number	for	Qty.
	501S89=M5x6	17M2	Piece







#### 17F31 Ankle joint bar



Article number	for	Side	Bar width	Head Ø	Clevis width	Material	Qty.
17F31=L26x2.5	17F26	Left	15 mm	26 mm	2.5 mm	Stainless steel	Piece
17F31=R26x2.5	17F26	Right	15 mm	26 mm	2.5 mm	Stainless steel	Piece
17F31=L28x3	17F26	Left	16 mm	28 mm	3 mm	Stainless steel	Piece
17F31=R28x3	17F26	Right	16 mm	28 mm	3 mm	Stainless steel	Piece
17F31=L30x3	17F26	Left	17 mm	30 mm	3 mm	Stainless steel	Piece
17F31=R30x3	17F26	Right	17 mm	30 mm	3 mm	Stainless steel	Piece



**₩** 647G3



#### 17F32 Ankle joint bar



Article number	for	Side	Bar width	Head Ø	Clevis width	Material	Qty.
17F32=L26x2.5	17F28	Left	15 mm	26 mm	2.5 mm	Aluminium	Piece
17F32=R26x2.5	17F28	Right	15 mm	26 mm	2.5 mm	Aluminium	Piece
17F32=L28x3	17F28	Left	16 mm	28 mm	3 mm	Aluminium	Piece
17F32=R28x3	17F28	Right	16 mm	28 mm	3 mm	Aluminium	Piece
17F32=L30x3	17F28	Left	17 mm	30 mm	3 mm	Aluminium	Piece
17F32=R30x3	17F28	Right	17 mm	30 mm	3 mm	Aluminium	Piece

#### 17F26 Ankle joint bars with shoe stirrup



#### Joints with rear compression spring

Article number	Shoe stirrup length	Shoe stirrup thickness	Upper section length	Joint head Ø	Material	Qty.
17F26=150	150 mm	2.5 mm	300 mm	26 mm	Stainless steel	Set
17F26=180	180 mm	2.5 mm	300 mm	26 mm	Stainless steel	Set
17F26=200	200 mm	3 mm	390 mm	28 mm	Stainless steel	Set
17F26=220	220 mm	3 mm	390 mm	28 mm	Stainless steel	Set
17F26=240	240 mm	3 mm	390 mm	28 mm	Stainless steel	Set
17F26=260	260 mm	3 mm	390 mm	30 mm	Stainless steel	Set
17F26=280	280 mm	3 mm	390 mm	30 mm	Stainless steel	Set
17F26=300	300 mm	3 mm	390 mm	30 mm	Stainless steel	Set



647G3

#### 17F28 Ankle joint bars with shoe stirrup



#### Joints with compression spring, aluminium bars, stainless steel shoe stirrups

Article number	Shoe stirrup length	Shoe stirrup thickness	Upper section length	Joint head Ø	Material	Qty.
17F28=150	150 mm	2.5 mm	300 mm	26 mm	Aluminium	Set
17F28=180	180 mm	2.5 mm	300 mm	26 mm	Aluminium	Set
17F28=200	200 mm	3 mm	390 mm	28 mm	Aluminium	Set
17F28=220	220 mm	3 mm	390 mm	28 mm	Aluminium	Set
17F28=240	240 mm	3 mm	390 mm	28 mm	Aluminium	Set
17F28=260	260 mm	3 mm	390 mm	30 mm	Aluminium	Set
17F28=280	280 mm	3 mm	390 mm	30 mm	Aluminium	Set
17F28=300	300 mm	3 mm	390 mm	30 mm	Aluminium	Set



**₩** 647G3

#### Matching foot stirrups for 17F26 and 17F28







#### 17F33 Shoe stirrup

Article number	Thickness	Head Ø	Length from joint centre to joint centre	Material	Qty.
17F33=150x2.5	2.5 mm	26 mm	150 mm	Stainless steel	Piece
17F33=180x2.5	2.5 mm	26 mm	180 mm	Stainless steel	Piece
17F33=200x2.5	2.5 mm	26 mm	200 mm	Stainless steel	Piece
17F33=220x2.5	2.5 mm	26 mm	220 mm	Stainless steel	Piece
17F33=240x2.5	2.5 mm	26 mm	240 mm	Stainless steel	Piece
17F33=260x2.5	2.5 mm	26 mm	260 mm	Stainless steel	Piece
17F33=280x2.5	2.5 mm	26 mm	280 mm	Stainless steel	Piece
17F33=300x2.5	2.5 mm	26 mm	300 mm	Stainless steel	Piece
17F33=200x3	3 mm	28 mm	200 mm	Stainless steel	Piece
17F33=220x3	3 mm	28 mm	220 mm	Stainless steel	Piece
17F33=240x3	3 mm	28 mm	240 mm	Stainless steel	Piece
17F33=260x3	3 mm	30 mm	260 mm	Stainless steel	Piece
17F33=280x3	3 mm	30 mm	280 mm	Stainless steel	Piece
17F33=300x3	3 mm	30 mm	300 mm	Stainless steel	Piece
		*	4	*	

Up to 420 mm extra length is available for an additional charge.



# 17F35 System shoe plate, hardened with insert piece

Article number	Side	System width	Length	Channel width	Insertion depth	Material	Qty.
17F35=L120	Left	16 mm	120 mm	19 mm	60 mm	Stainless steel	Piece
17F35=R120	Right	16 mm	120 mm	19 mm	60 mm	Stainless steel	Piece
17F35=L150	Left	20 mm	150 mm	22 mm	80 mm	Stainless steel	Piece
17F35=R150	Right	20 mm	150 mm	22 mm	80 mm	Stainless steel	Piece

#### Spare parts for 17F26 and 17F28

#### (1) Bearing nut, hardened

Article number	Shoulder Ø	Shank length	Thread	Qty.
17Y93=7x6.8xM5	7 mm	6.8 mm	M5	Piece
17Y93=9x7.2xM6	9 mm	7.2 mm	M6	Piece

#### for repairs:

#### Bearing nut, hardened

Article number	Shoulder Ø	Shank length	Thread	Qty.
17Y93=7.5x6.8xM5	7.5 mm	6.8 mm	M5	Piece
17Y93=9.5x7.2xM6	9.5 mm	7.2 mm	M6	Piece

#### (2) Slotted truss head screw

Article number	Length	Head Ø	Thread	Total length	Material	Qty.
501S32=M5x12x9.5	9.5 mm	12 mm	M5	9.5 mm	Stainless steel	Piece
501S32=M6x14x10	10 mm	14 mm	M6	10 mm	Stainless steel	Piece



Article number	Thread	Thread length	Material	Qty.
17Y18=M6x11	M6	11 mm	Stainless steel	Piece
17Y18=M7x13	M7	13 mm	Stainless steel	Piece

#### (4) Bearing ball

Article number	Material	Qty.
509Y2=3/16	Stainless steel	Piece

#### (5) Thrust piece with ball

Article number	Qty.
17Y80	Piece

#### (6) Compression spring

Article number	Length	Shoulder Ø	Qty.
513D18=4.7x31	31 mm	4.7 mm	Piece
513D18=5.5x35	35 mm	5.5 mm	Piece
513D18=5.5x45	45 mm	5.5 mm	Piece



#### Practical recommendation:

On worn joints, the tolerance can be reduced with the repair bolts. A suitable reamer is usually used for adaptation.





646D232=GB 647G346

#### 17CF1 Carbon Ankle seven









#### Mechanism of action

The design of the carbon springs causes the initiation of the hip and knee-extending moments while walking and thus achieves extension and knee stability in the lower limbs. The energy generated during heel strike is stored in the carbon matrix and returned at toe-off. In contrast to conventional ankle foot orthoses, the limitations in the plantar and dorsal direction are dynamic and without static restriction.

#### **Indication**

Paralysis or weakness/restriction

- of the foot lifting and foot lowering muscles while using a dynamic ankle foot orthosis,
- of the knee extensors while using a knee ankle foot orthosis (KAFO) with locked knee joint.

Diseases such as spina bifida or poliomyelitis are typical basic diseases.

#### **Benefits**

- · Positive influence on the gait pattern
- Very lightweight design
- 7° outward rotation supports physiological alignment of the foot
- Classification for straightforward product selection
- · Suitable for thermoplastic and laminated orthoses

#### Selecting and ordering

The Carbon Ankle seven is selected on the basis of the user's body weight and activity

• Normal activity level:

A normally active user performs all everyday activities in life independently and engages in rather easy activities.

• High activity level:

A highly active user is unrestricted in everyday life. The orthosis of a highly active user must support quick changes from walking to running and vice versa, for example with people doing sports or with children.

#### Classification of the Carbon Ankle seven for AFOs

In the classification matrix shown below, you will easily find the right article number. Then just select the side (e.g. 17CF1=L9 for the left side with a normally active patient who weighs up to 30 kg/66 lbs).

The delivery includes detailed mounting instructions as well as the attachment material needed for the integration into an orthosis.

Article number	Max. body weight (normal activity)	Max. body weight (high activity)	Spring width	Qty.
17CF1=L/R1	100 kg	100 kg	30 mm	Piece
17CF1=L/R2	90 kg	80 kg	30 mm	Piece
17CF1=L/R3	80 kg	70 kg	30 mm	Piece
17CF1=L/R4	70 kg	60 kg	30 mm	Piece
17CF1=L/R5	60 kg	50 kg	30 mm	Piece
17CF1=L/R6	50 kg	-	25/30 mm	Piece
17CF1=L/R7	-	40 kg	25 mm	Piece
17CF1=L/R8	40 kg	30 kg	25 mm	Piece
17CF1=L/R9	30 kg		25 mm	Piece
17CF1=L/R10	-	20 kg	25 mm	Piece
17CF1=L/R11	20 kg	10 kg	22 mm	Piece
17CF1=L/R12	10 kg	-	22 mm	Piece



(i) 646D232=GB

- The classification applies to AFOs that are intended to influence the knee joint.
- The use of the Carbon Ankle seven carbon spring for KAFOs may require a deviation from the classification.
- The specified weights have nothing to do with durability, but only with functionality.

#### Single components 17CF1

#### Rosette washer

Article number	Qty.
507U9=M5	Piece
507U9=M4	Piece

#### Phillips oval countersunk head screw

Article number	Qty.
501S86=M5x14	Piece
501S86=M4x12	Piece

#### Welding nut

Article number	Qty.
502E3=M5x7,5	Piece
502E3=M4x6	Piece





#### (i) 646A213

647G2 647G267

#### 17B66 Multifunction system ankle joint

Multifunction system ankle joint with up to 9 setting options (spring, fixed stop or spring stop)



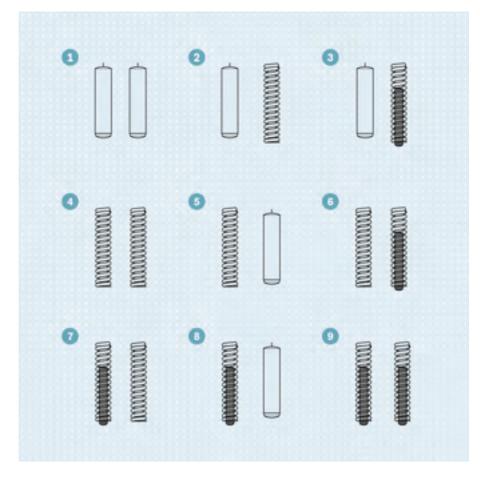






Article number	System width	Clevis width	Material	Qty.
17B66=16	16 mm	3 mm	Stainless steel	Pair with screws
17B66=20	20 mm	3 mm	Stainless steel	Pair with screws
17B66=A-16*	16 mm	3 mm	Stainless steel	Pair with screws
17B66=A-20*	20 mm	3 mm	Stainless steel	Pair with screws

<sup>\*</sup>medial and lateral joint straight, lateral bar connection



#### **Practical recommendation:**

- Increased wear of the spring due to fully compressing it.
- The cylinder pin is inside the spring. Using the cylinder pin can extend the life of the spring.

#### Accessories

#### 17B113 System foot stirrup

free motion up to 25° plantar flexion and 25° dorsal extension, with brass bushing







Article number	Material	Qty.
17B113	Stainless steel	Piece



#### 17B114 System foot stirrup

free motion up to 25° plantar flexion and 25° dorsal extension, with brass bushing





Article number	Material	Qty.
17B114	Stainless steel	Piece



#### 17B115 System foot stirrup

for 17F35=L/R150 system shoe plate free motion up to  $25^{\circ}$  plantar flexion and  $25^{\circ}$  dorsal extension, with brass bushing







#### 17B116 System shoe stirrup

free motion up to 25° plantar flexion and 25° dorsal extension, with brass bushing



Article number	System width	Thickness	Length from joint centre	Material	Qty.	
17B116=180	20 mm	3 mm	180 mm	Stainless steel	Piece	
17B116=200	. <b>7B116=200</b> 20 mm		200 mm	Stainless steel	Piece	
17B116=220	20 mm	3 mm 220 mm		Stainless steel	Piece	
17B116=240	20 mm	3 mm 240 mm		Stainless steel	Piece	
17B116=260	20 mm	3 mm 260 mm		Stainless steel	Piece	
17B116=280	20 mm	3 mm	280 mm	Stainless steel	Piece	
17B116=300	20 mm	3 mm	300 mm	Stainless steel	Piece	





#### 17Y17=9x11x2.9 Brass bushing

Article number	Material	Qty.
17Y17=9x11x2.9	Brass	Piece

#### 17B66=S Service set for 17B66

Article number	Qty.	Scope of delivery
17B66=S	Set	4x 513D18=4.7x31 4x 506A8=5x22
		4x 506A8=2.5x18 4x 509Y1=5.0
		4x 506G3=M6x6 2x 17Y93=9x6.25xM6
		2x 17193=9x6.25xm6 2x 501S32=M6x14x10

#### Spare parts for 17B66

#### (1) Bearing nut, hardened

Article number	For system width	Shoulder Ø	Shank length	Thread	Qty.
17Y93=9x6.25xM6	20/16 mm	9 mm	6.25 mm	M6	Piece

#### (2) Slotted truss head screw

Article number	For system width	Head Ø	Thread	Total length	Material	Qty.
501S32=M6x14x10	20/16 mm	14 mm	M6	10 mm	Stainless steel	Piece

#### (3) Compression spring

Article number	Shoulder Ø	Qty.
513D18=4.7x31	4.7 mm	Piece

#### (4) Bearing ball

Article number	Material	Qty.
509Y1=5.0	Stainless steel	Piece

#### (5) Stop pin

Article number	Qty.
506A8=2.5x18	Piece
506A8=5x22	Piece

#### (6) Set screw

Article number	Qty.
506G3=M6x6	Piece

#### 17B63 / 17B59 / 17B53 System ankle joints

Joint with dorsiflexion function and dorsal stop to be established by filing the foot stirrup















647G2

#### Contoured medial joint, straight lateral joint, with compression spring



Article number	Side	System width	Head Ø	Clevis width	Length from joint centre	Material	Qty.
17B63=L16	Left	16 mm	26 mm	2.5 mm	57 mm	Stainless steel	Pair
17B63=R16	Right	16 mm	26 mm	2.5 mm	57 mm	Stainless steel	Pair
17B63=L20	Left	20 mm	28 mm	3 mm	66 mm	Stainless steel	Pair
17B63=R20	Right	20 mm	28 mm	3 mm	66 mm	Stainless steel	Pair

#### Straight medial and lateral joint, with compression spring



Article number	System width	Head Ø	Clevis width	Length from joint centre	Single joint	Material	Qty.
17B59=16	16 mm	26 mm	2.5 mm	57 mm	17A59=L/R16	Stainless steel	Pair
17B59=20	20 mm	28 mm	3 mm	66 mm	17A59=L/R20	Stainless steel	Pair

#### Contoured medial joint and lateral joint, with compression spring



Article number	System width	Head Ø	Clevis width	Length from joint centre	Single joint	Material	Qty.
17B53=16	16 mm	26 mm	2.5 mm	57 mm	17A53=L/R16	Stainless steel	Pair
17B53=20	20 mm	28 mm	3 mm	66 mm	17A53=L/R20	Stainless steel	Pair



#### **Practical recommendation:**

- To isolate the joints for the lamination resin technique, we recommend 636K8=20x2x10 plastaband.
- Increased wear of the spring due to fully compressing it.

#### Matching foot stirrups for 17B63, 17B59, 17B53

#### 17B108 System foot stirrup

with brass bushing, dorsal stop to be established by filing, and 20° plantar flexion



Article number	System width	Thickness	Length from joint centre	Material	Qty.
17B108=145x2.5	16 mm	2.5 mm	145 mm	Stainless steel	Piece
17B108=165x3	20 mm	3 mm	165 mm	Stainless steel	Piece



#### 17B99 System lamination foot stirrup

free motion up to 20° dorsal extension and 20° plantar flexion, with brass bushing





Article number	System width	Thickness	Length from joint centre	Material	Qty.
17B99=16	16 mm	2.5 mm	63 mm	Stainless steel	Piece
17B99=20	20 mm	3 mm	63 mm	Stainless steel	Piece



#### 17B101 System lamination foot stirrup

with dorsal stop and 20° plantar flexion, with brass bushing





Article number	System width	Thickness	Length from joint centre	Material	Qty.
17B101=16	16 mm	2.5 mm	63 mm	Stainless steel	Piece
17B101=20	20 mm	3 mm	63 mm	Stainless steel	Piece



#### 17B107 Foot stirrup

with dorsal stop to be established by filing, and 20° plantar flexion



Article number	System width	Thickness	Head Ø	Length from joint centre	Material	Qty.
17B107=145x2.5	16 mm	2.5 mm	22 mm	145 mm	Stainless steel	Piece
17B107=165x3	20 mm	3 mm	24 mm	165 mm	Stainless steel	Piece

#### 17F70 System shoe stirrup

with brass bushing, dorsal stop to be established by filing, and  $20^{\circ}$  plantar flexion



Article number	System width	Thickness	Length from	Material	Qty.
			joint centre to joint centre		
17F70=150x2.5	16 mm	2.5 mm	150 mm	Stainless steel	Piece
17F70=180x2.5	16 mm	2.5 mm	180 mm	Stainless steel	Piece
17F70=200x2.5	16 mm	2.5 mm	200 mm	Stainless steel	Piece
17F70=220x2.5	16 mm	2.5 mm	220 mm	Stainless steel	Piece
17F70=240x2.5	16 mm	2.5 mm	240 mm	Stainless steel	Piece
17F70=260x2.5	16 mm	2.5 mm	260 mm	Stainless steel	Piece
17F70=280x2.5	16 mm	2.5 mm	280 mm	Stainless steel	Piece
17F70=300x2.5	16 mm	2.5 mm	300 mm	Stainless steel	Piece
17F70=200x3	20 mm	3 mm	200 mm	Stainless steel	Piece
17F70=220x3	20 mm	3 mm	220 mm	Stainless steel	Piece
17F70=240x3	20 mm	3 mm	240 mm	Stainless steel	Piece
17F70=260x3	20 mm	3 mm	260 mm	Stainless steel	Piece
17F70=280x3	20 mm	3 mm	280 mm	Stainless steel	Piece
17F70=300x3	20 mm	3 mm	300 mm	Stainless steel	Piece



Up to 420 mm extra length is available for an additional charge.

#### 17F35 System shoe plate, hardened

with insert piece

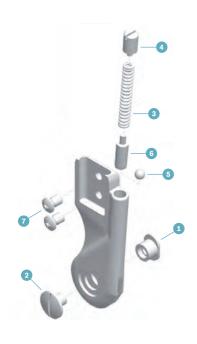
Article number	Side	System width	Length	Channel width	Insertion depth	Material	Qty.
17F35=L120	Left	16 mm	120 mm	19 mm	60 mm	Stainless steel	Piece
17F35=R120	Right	16 mm	120 mm	19 mm	60 mm	Stainless steel	Piece
17F35=L150	Left	20 mm	150 mm	22 mm	80 mm	Stainless steel	Piece
17F35=R150	Right	20 mm	150 mm	22 mm	80 mm	Stainless steel	Piece



#### 17Y17 Brass bushing

Article number	System width	Qty.
17Y17=7x9x2.4	16 mm	Piece
17Y17=9x11x2.9	20 mm	Piece





#### Spare parts for 17B63, 17B59 and 17B53

#### (1) Bearing nut, hardened

Article number	System width	Shoulder Ø	Shank length	Thread	Qty.
17Y93=7x6.8xM5	16 mm	7 mm	6.8 mm	M5	Piece
17Y93=9x7.2xM6	20 mm	9 mm	7.2 mm	M6	Piece

#### (2) Slotted truss head screw

Article number	System width	Head Ø	Thread	Total length	Material	Qty.
501S32=M5x12x9.5	16 mm	12 mm	M5	9.5 mm	Stainless steel	Piece
501S32=M6x14x10	20 mm	14 mm	M6	10 mm	Stainless steel	Piece

#### (3) Compression spring

Article number	System width	Length	Shoulder Ø	Qty.
513D18=4.7x31	16 mm	31 mm	4.7 mm	Piece
513D18=5.5x35	20 mm	35 mm	5.5 mm	Piece

#### (4) Set screw with slot

Article number	System width	Thread	Thread length	Material	Qty.
17Y18=M6x11	16 mm	M6	11 mm	Stainless steel	Piece
17Y18=M7x13	20 mm	М7	13 mm	Stainless steel	Piece

#### (5) Bearing ball

Article number	For system width	Size	Material	Qty.
509Y2=3/16	16 mm	4	Stainless steel	Piece

#### (6) Thrust piece with ball

Article number	For system width	Qty.
17Y80	20 mm	Piece

#### (7) Phillips oval countersunk head screw

Article number	Length	Material	Qty.
501T7=7.5x9xM5	9 mm	Stainless steel	Piece

3

#### 17PA1 CarbonIQ ankle joint









The 17PA1=20 ankle joint is a double-action joint and is based on the Ottobock 17B66 ankle joint. This type of joint is by far the most versatile fitting. The 9 different possibilities for settings and combinations (see fig.) allow the joint's functions to be adapted to the user's requirements at any time, even if these change over the course of the fitting.

Different versions for influencing plantar flexion and dorsal extension are available.

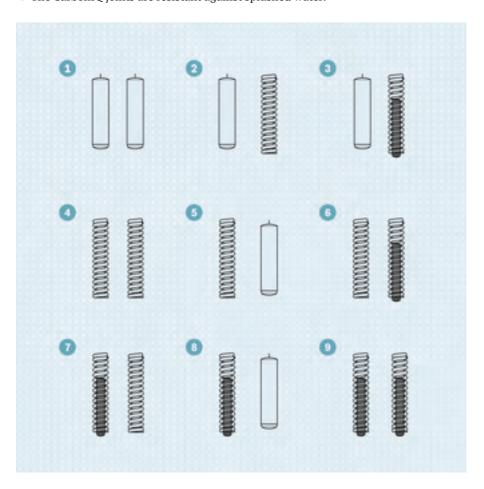
Article number	Side	Max. body weight	Material	Qty.
17PA1=20	Left and right	100 kg	Fibre-reinforced plastic	Pair



646D578=EN 646T5=4.6EN

647G641

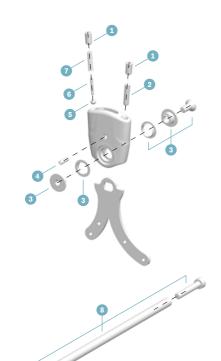
• The CarbonIQ joints are resistant against splashed water!



#### Accessories

#### 17PF1 Foot stirrup

Article number	Material	Qty.
17PF1	Stainless steel	Piece



#### Spare parts for 17PA1

#### (1) Set screw

Article number	Qty.
506G36=M6x14	Piece

#### (2) Stop pin

Article number	Qty.
506A8=5x20	Piece

#### (3) Service set

Article number	Qty.	Scope of delivery
29PA1	Set	1x 501S84=M6X14
		1x 30Y215
		1x 509G10=12X13X3
		1x 30Y214

#### (4) Set screw

Article number	Qty.
506G3=M4x12	Piece

#### (5) Bearing ball

Article	number	Material	Qty.
509Y1	=5.0	Stainless steel	Piece

#### (6) Stop pin

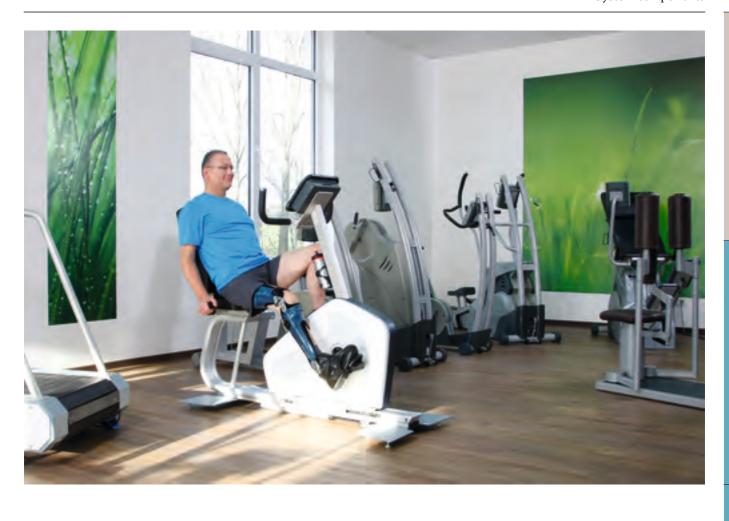
Article number	Qty.
506A8=2.5x18	Piece

#### (7) Compression spring

Article number	Qty.
513D18=4.7x31-1	Piece

#### (8) Adjustment Aid

Article number	Qty.	Scope of delivery
29PK4		1x 501T28=M6X35 1x 30Y216



#### 17LA3 Unilateral System Ankle Joint

The 17LA3 Unilateral Ankle Joint is a multifunction system ankle joint with a foot-lifting effect. Various combination possibilities allow it to be quickly adjusted to the individual user's needs at any time. Its weight classification permits unilateral use for a patient weight of up to 100 kg and bilateral use for up to 160 kg. Despite its multifunctional features, it is small, light and inconspicuous – truly versatile.



(i) 646D789=EN



#### 17LA3 Unilateral System Ankle Joint



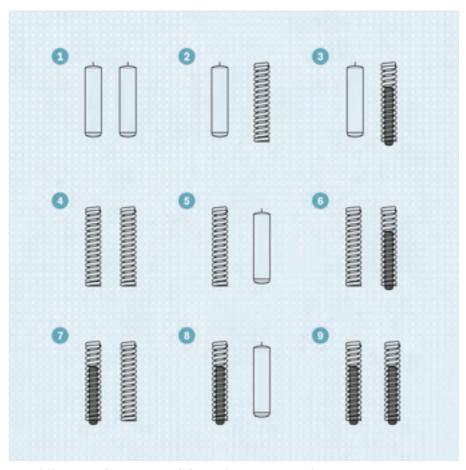






Qty.
Piece

- When using the product unilaterally, and in case of flexion contracture in the knee or hip > 10° or distinct torsion or valgus/varus instabilities or increased physical activity, the next higher size must be used.
- ${\color{red} \circ}$  For tubercle seat or valgus/varus malpositions > 10° the product must be fitted bilaterally.



Nine different combination possibilities of stop, spring and spring stop.

#### Accessories

#### 17LF3 Foot stirrup for Unilateral Ankle Joints

Free motion up to 20° plantar flexion and 20° dorsal extension, only in combination with the 17LA3=\* ankle joint





Article number	for	Material	Qty.
17LF3=12	17LA3=12	Stainless steel	Piece
17LF3=14	17LA3=14	Stainless steel	Piece
17LF3=16	17LA3=16	Stainless steel	Piece
17LF3=20	17LA3=20	Stainless steel	Piece



#### 17LS3 Lamination bar for Unilateral Joint System





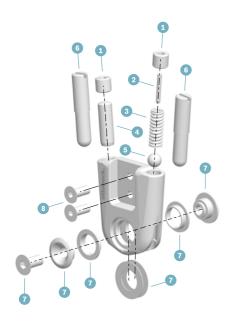
Article number	Length	Width	Material	Qty.
17LS3=12	80 mm	12 mm	Stainless steel	Piece
17LS3=12-T	80 mm	12 mm	Titanium	Piece
17LS3=14	100 mm	14 mm	Stainless steel	Piece
17LS3=14-T	100 mm	14 mm	Titanium	Piece
17LS3=16	130 mm	16 mm	Stainless steel	Piece
17LS3=16-T	130 mm	16 mm	Titanium	Piece
17LS3=20	130 mm	20 mm	Stainless steel	Piece
17LS3=20-T	130 mm	20 mm	Titanium	Piece
		1		1



# 17LD1 Lamination dummy for Unilateral Ankle Joint incl. shoulder screw

	_		
Article number	for	Material	Qty.
17LD1=12	17LA3=12	Stainless steel	Piece
17LD1=14	17LA3=14	Stainless steel	Piece
17LD1=16	17LA3=16	Stainless steel	Piece
17LD1=20	17LA3=20	Stainless steel	Piece





#### Spare parts for 17LA3

#### (1) Set screw

Article number	for	Qty.
506G3=M5x5	17LA3=12	Piece
30Y243=14	17LA3=14	Piece
30Y243=16-20	17LA3=16 17LA3=20	Piece

#### (2) Stop pin

Article number	for	Qty.
506A8=2X18	17LA3=12	Piece
506A8=3X18	17LA3=14	Piece
506A8=2.5x18	17LA3=16 17LA3=20	Piece

#### (3) Compression spring

Article number	for	Qty.
513D87=0.75X2.95X2	17LA3=12	Piece
513D87=1.1X4.8X28	17LA3=14	Piece
Article number	for	Qty.
30Y254=16	17LA3=16	Pair
30Y254=20	17LA3=20	Pair

#### (4) Stop pin

Article number	for	Qty.
506A8=4X16	17LA3=12	Piece
506A8=6X20	17LA3=14	Piece
506A8=8X26	17LA3=16 17LA3=20	Piece

#### (5) Bearing ball

Article number	for	Material	Qty.
509Y1=4.0	17LA3=12	Stainless steel	Piece
509Y1=6.0	17LA3=14	Stainless steel	Piece
509Y1=8.0	17LA3=16 17LA3=20	Stainless steel	Piece

#### (6) Stop dummy

Article number	for	Qty.
30Y261=12	17LA3=12	Piece
30Y261=14	17LA3=14	Piece
30Y261=16-20	17LA3=16 17LA3=20	Piece

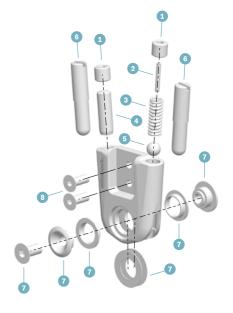
#### (7) Spare parts set 17LA3

Article number	for	Qty.
17LA30N=12	17LA3=12	Set
17LA30N=14	17LA3=14	Set
17LA30N=16	17LA3=16	Set
17LA30N=20	17LA3=20	Set

# (8) Countersunk head screw (Allen screw)

with socket head

Article number	for	Qty.
501S41=M4X9	17LA3=12	Piece
501S41=M4X10	17LA3=14	Piece
501S41=M5X12	17LA3=16	Piece
501S41=M5X14	17LA3=20	Piece

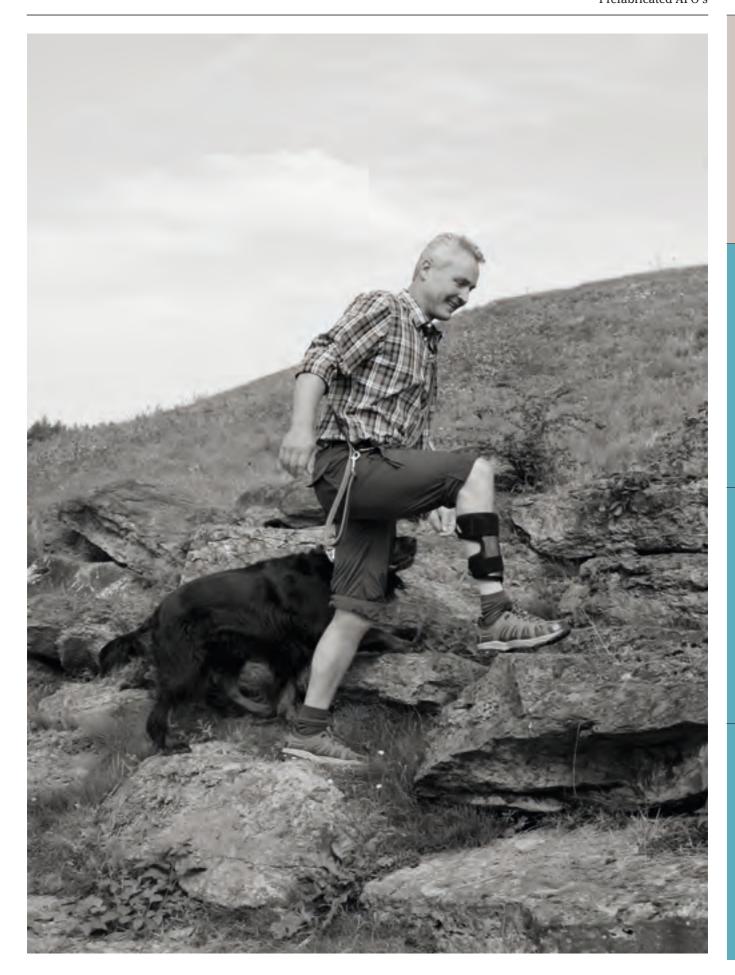


# ottobock.

# Unilateral Joint System

Order form · fax: +49 (0) 5527-72330

Company					
Technician			Date		
			_		
Customer no.			Signature		
User information					
Surname, first name	<u> </u>		Weight		
			Indication		
Age			marcation		
Side	☐ Left	☐ Right ☐	Bilateral		
The size chosen dep	ends on the pati	ent's weight and the cond	ditions of use.		
	: : :		1 17LS3=* Lam	ination bar	
			Steel version	Titanium version	
		0	☐ 17LS3=12	☐ 17LS3=12-T	
			☐ 17LS3=14	☐ 17LS3=14-T	
		<b>•</b>	☐ 17LS3=16	☐ 17LS3=16-T	
			☐ 17LS3=20	☐ 17LS3=20-T	
	1::::		2 17LK3=* Unil	ateral Knee Joint	
	<i>[.::::</i>		Steel version	Titanium version	(A) Shoulder screw*
		(A)*	17LK3=12	17LK3=12-T	
	<u> </u>	2	☐ 17LK3=14	☐ 17LK3=14-T	□ L □ R □ 30Y89
			☐ 17LK3=16	☐ 17LK3=16-T	□ L □ R □ 30Y89
			☐ 17LK3=20	☐ 17LK3=20-T	□ L □ R □ 30Y89
\	\.		3 17LS3=* Lam	ination bar	
	\:::::		Steel version	Titanium version	
	\:::		17LS3=12	17LS3=12-T	
	\::	3	☐ 17LS3=14	☐ 17LS3=14-T	
			☐ 17LS3=16	☐ 17LS3=16-T	
			☐ 17LS3=20	☐ 17LS3=20-T	
			4 17LS3=* Lam	ination bar	
		<b></b>	Steel version	Titanium version	
		4	☐ 17LS3=12	☐ 17LS3=12-T	
			☐ 17LS3=14	☐ 17LS3=14-T	
			☐ 17LS3=16	☐ 17LS3=16-T	
		□ (B)	☐ 17LS3=20	☐ 17LS3=20-T	
	/ [	<b>→</b> ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	5 17LA3=* Unil	ateral Ankle Joint	
			Steel version	Titanium version	(B) Optional lamination dummy with shoulder screw
	)	→ /") <sub>6</sub>		17LA3=12-T	
			☐ 17LA3=12	☐ 17LA3=12-1	☐ 17LD1=12
			☐ 17LA3=14	☐ 17LA3=14-1	☐ 17LD1=14
			☐ 17LA3=20	☐ 17LA3=20-T	☐ 17LD1=10
			6 17LF3=* Foot		
* (A) The 30Y89 should	der screw is not incl	uded in the scope of delivery	17LF3= F00	17LF3=16	
		joint alignment fixture.	☐ 1/LF3=12	☐ 1/LF3=10	



2

3

ı



#### 28U90 Ankle foot orthosis

#### Order example

Reference	=	Side	Size	-	Coulor
number					
28U90	=	L	37–39	_	0

Article number	28U90						
Size	35-37	37-39	39-41	41-44	44-47		
Colour	transparent,	transparent, black (7)					
Side	Left (L), Rig	ht (R)					
Height	290 mm	315 mm	345 mm	390 mm	415 mm		

# Spare parts for 28U90

29U90 Calf pad with strap

Article number	29U90				
Size	35-37	37-39	39-41	41-49, 41-44	44-47
Colour	beige (9), b	lack (7)			



### 28U11 WalkOn

#### Order example

Reference number	=	Side	Size	Coulor
28U11	=	L	36–39	-0

Article number	28U11			
Size	36-39	39-42	42-45	45-48
Side	Left (L), Right	(R)		
Height	350 mm	360 mm	370 mm	390 mm



#### 28U23 WalkOn Trimable

#### Order example

Reference number	=	Side	Size	Coulor
28U23	=	L	36–39	-0

Article number	28U23					
Size	36-39	39-42	42-45	45-48		
Side	Left (L), Right (R	?)				
Height	350 mm	360 mm	370 mm	390 mm		

# Spare parts for 28U11 and 28U23

### 623Z39 WalkOn calf pad with Outlast

Article number	Side	Size
623Z39=L	Left	36-48
623Z39=R	9	36-48



#### 28U22 WalkOn Flex

#### Order example

Reference	=	Side	Size	Coulor
number				
28U22	=	L	36–39	-0

Article number	28U22					
Size	36-39	39-42	42-45	45-48		
Side	Left (L), Right (R)		***************************************	•		
Height	350 mm	360 mm	370 mm	390 mm		



#### Accessories for 28U22

# 29U5 Calf pad

Article number	Side	Size
29U5=L1	Left	43–50
29U5=R1	Right	43–50
29U5=L2	Left	31–42
29U5=R2	Right	31–42



# Spare parts for 28U22

#### 28Z10 Lateral pronation strap

A 28Z10 pronation strap can be used as additional option to counteract spastic supination of the foot.

Article number	Size
28Z10	Universal



• 28Z10 is included in the 28U24 scope of delivery.





#### 28U24 WalkOn Reaction

#### Order example

 Reference number
 = Side
 Size
 Coulor

 28U24
 = L
 36–39
 -0

Article number	28U24					
Size	36-39	39-42	42-45	45-48		
Height	333 mm	355 mm	377 mm	400 mm		
Side	Left (L), Right	(R)				

#### Accessories for 28U24



# 28Z10 Lateral pronation strap

A 28Z10 pronation strap can be used as additional option to counteract spastic supination of the foot.

Article number	Size
28Z10	Universal

#### • 28Z10 is included in the 28U24 scope of delivery.



### 29U23 Shin pad

Article number	Size
29U23	Universal



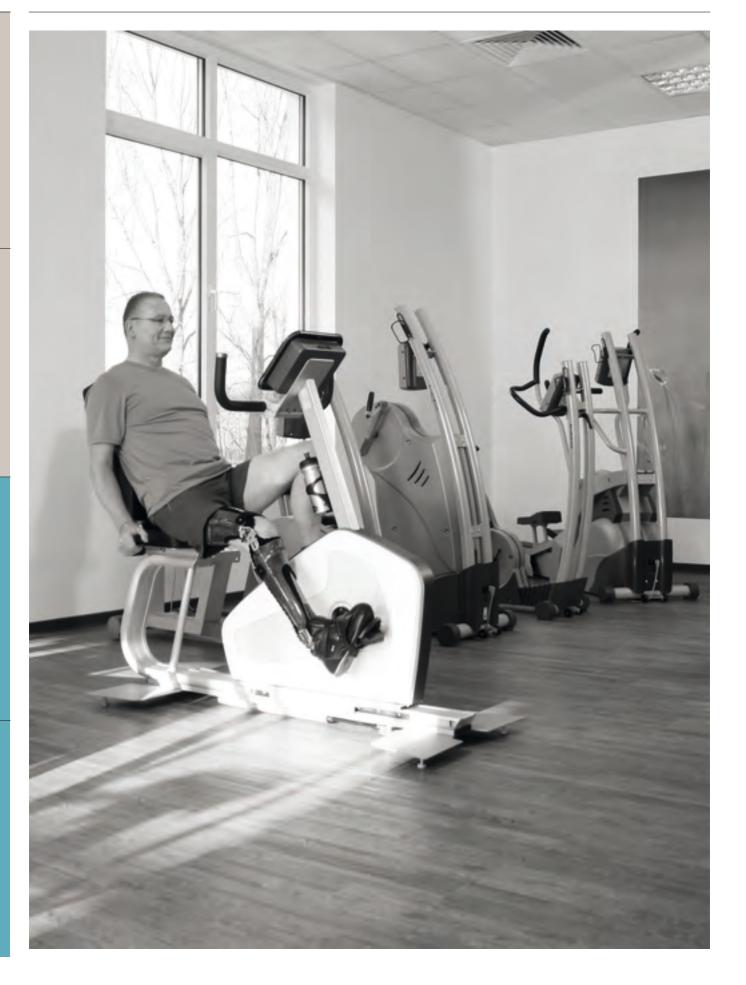
#### 29U25 Y-hook-and-loop

Article number	Size	Qty.
29U25=1	1	Piece
29U25=2	2	Piece



# 29U24 Pad for WalkOn Reaction incl. hook-and-loop closures

Article number	29U24				
Size	36 - 39	39 - 42	42 - 45	45 - 48	
Material	Outlast				
Qty.	Piece				
Side	Left (L), Right	(R)			



# KAFO system joints

You will find a selection of knee joints and knee joint systems in this section; traditional mechanical and mechatronic

Selection guide KAFO	44
Locked joints	47
Free motion system joints	59
SCO system joints	64
Waterproof orthoses	77
Correction system joints	81

3

Hip extensor

Knee flexor 0 – 2

Foot extensor

≤ 10°

170K1=\*

Page 68

Page

17LA3=\*

Page 31-32

Page 20

OR

# 17B23 / 17B23K / 17B45 / 17B92 System knee joints













**₩** 647H234

#### Contoured medial joint, straight lateral joint, with covered lock centrally\* fitted, lock lever, with pull-release cable



Article number	Side	System width	Length from joint centre upper/lower	Material	Qty.
17B23=L16	Left	16 mm	56 / 38 mm	Stainless steel	Pair
17B23=R16	Right	16 mm	56 / 38 mm	Stainless steel	Pair
17B23=L20	Left	20 mm	56 / 38 mm	Stainless steel	Pair
17B23=R20	Right	20 mm	56 / 38 mm	Stainless steel	Pair

#### Contoured medial joint, straight lateral joint, with covered lock eccentrically\* fitted, lock lever, with pull-release cable



Article number	Side	System width	Length from joint centre upper/lower	Material	Qty.
17B23=L16K	Left	16 mm	56 / 38 mm	Stainless steel	Pair
17B23=R16K	Right	16 mm	56 / 38 mm	Stainless steel	Pair
17B23=L20K	Left	20 mm	56 / 38 mm	Stainless steel	Pair
17B23=R20K	Right	20 mm	56 / 38 mm	Stainless steel	Pair

#### Straight medial and lateral joints, with covered lock, lock lever points upward\*



Article number	System width	Length from joint centre upper/lower	Material	Qty.
17B45=16	16 mm	56 / 38 mm	Stainless steel	Pair
17B45=20	20 mm	56 / 38 mm	Stainless steel	Pair

#### Medial joint contoured bottom, straight top, lateral joint straight, with covered lock\*, lock lever points upward



Article number	Side	System width	Length from joint centre upper/lower	Material	Qty.
17B92=L16	Left	16 mm	56 / 38 mm	Stainless steel	Pair
17B92=R16	Right	16 mm	56 / 38 mm	Stainless steel	Pair
17B92=L20	Left	20 mm	56 / 38 mm	Stainless steel	Pair
17B92=R20	Right	20 mm	56 / 38 mm	Stainless steel	Pair

<sup>• \*</sup> Attention: Eccentric and concentric locking lever constructions can not be mixed, otherwise the reliable barrier function can not be guaranteed!



# Spare parts for 17B23/17B23K/17B45/17B92

#### (1) Lock lever

Article number	for	Material	Qty.
17Y20	17B23 17B45 17B92	Stainless steel	Piece
30Y46	17B23K	Stainless steel	Piece

#### (2) Bearing nut, hardened

for system knee joint

Article number	Thread	For system width	Shank length	Shoulder Ø	Qty.
17Y93=9x9.2xM6	M6	16 and 20 mm	9.2 mm	9 mm	Piece

#### for repairs:

Article number	Thread	For system width	Shank length	Shoulder Ø	Qty.
17Y93=9.5x9.2xM6	M6	16 and 20 mm	9.2 mm	9.5 mm	Piece

#### (3) Slotted truss head screw

Article number	for	Thread	Length	For system width	Material	Qty.
501S32=M4x8x12	Lock lever	M4	12 mm	16 and 20 mm	Stainless steel	Piece
501S32=M6x14x12	Knee joint	M6	12 mm	16 and 20 mm	Stainless steel	Piece
501S32=M6x14x7.5	Knee joint*	M6	7.5 mm	16 and 20 mm	Stainless steel	Piece

<sup>\*(</sup>when using 17Y84)

#### (4) Knee cap ring plate

Article number	Qty.
17Y84	Piece

### (5) Oval head screw, slotted and partially threaded

Article number	for	Material	Qty.
501A11=14x9xM6		Stainless steel	Piece

#### (6) Compression spring

Article number	for	Qty.
513D19=3.8x16	17B23	Piece
	17B45	
	17B92	
	17B23K	

#### (7) Phillips oval countersunk head screw

Article number	Thread	Head Ø	Material	Qty.
501T7=7.5x9xM5	M5	7.5 mm	Stainless steel	Piece

#### (8) Bearing nut, hardened

#### for lock lever

Article number	Thread	For system width	Shank length	Shoulder Ø	Qty.
17Y93=6x9.15xM4	M4	16 and 20 mm	9.15 mm	6 mm	Piece

#### for repairs:

Article number	Thread	For system width	Shank length	Shoulder Ø	Qty.
17Y93=6.5x9.15xM4	M4	16 and 20 mm	9.15 mm	6.5 mm	Piece

#### 17MS30=A Service set

Article number	for	Qty.
17MS30=A	17B23K	Pair

- The pull-release cable can be positioned anteriorly or posteriorly.
- Thanks to the change of direction, less force is required for pulling.
- Side bars must be ordered separately.





# 17B42 / 17B20 / 17B21 Modular system knee joints

Locked knee joint with ring lock







647G2

#### Medial and lateral joints straight, with ring lock



Article number	System width	Milled head	Length from joint centre upper/lower	Material	Qty.
17B42=16	16 mm	25x4 mm	56 / 38 mm	Stainless steel	Pair
17B42=20	20 mm	25x4 mm	56 / 38 mm	Stainless steel	Pair

#### Contoured medial joint, straight lateral joint, with ring lock



Article number	Side	System width	Milled head	Length from joint centre upper/lower	Material	Qty.
17B20=L16	Left	16 mm	25x4 mm	56 / 38 mm	Stainless steel	Pair
17B20=R16	Right	16 mm	25x4 mm	56 / 38 mm	Stainless steel	Pair
17B20=L20	Left	20 mm	25x4 mm	56 / 38 mm	Stainless steel	Pair
17B20=R20	Right	20 mm	25x4 mm	56 / 38 mm	Stainless steel	Pair

#### Lower segment of the medial joint contoured, upper segment straight, lateral joint straight, with ring lock



Article number	Side	System width	Milled head	Length from joint centre upper/lower	Material	Qty.
17B21=L16	Left	16 mm	25x4 mm	56 / 38 mm	Stainless steel	Pair
17B21=R16	Right	16 mm	25x4 mm	56 / 38 mm	Stainless steel	Pair
17B21=L20	Left	20 mm	25x4 mm	56 / 38 mm	Stainless steel	Pair
17B21=R20	Right	20 mm	25x4 mm	56 / 38 mm	Stainless steel	Pair

# Spare parts for 17B42, 17B20 and 17B21

#### (1) Ring lock

Article number	Material	Qty.
17Y31=25x9.5	Stainless steel	Piece

#### (2) Bearing nut, hardened

Article number	Thread	Profile length	Shank length	Shoulder Ø	Qty.
17Y93=9x7.2xM6	M6	14 mm	7.2 mm	9 mm	Piece

#### For repairs

#### (3) Bearing nut, hardened

Article number	Thread	Profile length	Shank length	Shoulder Ø	Qty.
17Y93=9.5x7.2xM6	M6	14 mm	7.2 mm	9.5 mm	Piece

#### (4) Two-hole screw

Article number	Material	Qty.
501S34=M6	Stainless steel	Piece

#### (5) Spring-loaded thrust piece

Article number	Material	Qty.
501 <b>D</b> 1	Stainless steel	Piece

#### (6) Phillips oval countersunk head screw

Article number	Material	Qty.
501T7=7.5x9xM5	Stainless steel	Piece



#### **Practical recommendation:**

On worn joints, the tolerance can be reduced with the repair bolts. A suitable reamer is usually used for adaptation.



# 17B36 / 17B48 / 17B90 System knee joints

647H51

#### Medial joint contoured, straight top, with Swiss lock



Article number	Side	System width	Length from joint centre upper/lower	Material	Qty.
17B36=L16	Left	16 mm	56 / 38 mm	Stainless steel	Pair
17B36=R16	Right	16 mm	56 / 38 mm	Stainless steel	Pair
17B36=L20	Left	20 mm	56 / 38 mm	Stainless steel	Pair
17B36=R20	Right	20 mm	56 / 38 mm	Stainless steel	Pair

#### Straight free motion medial and lateral joint, with Swiss lock



Article number	System width	Length from joint centre upper/lower	Material	Qty.
17B48=16	16 mm	56/38 mm	Stainless steel	Pair
17B48=20	20 mm	56/38 mm	Stainless steel	Pair

#### Medial joint contoured bottom, straight top, straight lateral join, with Swiss lock



Article number	Side	System width	Length from joint centre upper/lower	Material	Qty.		
17B90=L16	Left	16 mm	56 / 38 mm	Stainless steel	Pair		
17B90=R16	Right	16 mm	56 / 38 mm	Stainless steel	Pair		
17B90=L20	Left	20 mm	56 / 38 mm	Stainless steel	Pair		
17B90=R20	Right	20 mm	56 / 38 mm	Stainless steel	Pair		

# 17PK1=\* CarbonIQ knee joint with wedge lock

The 17PK1=\* knee joint is a locked joint made of fibre-reinforced plastic with a pull-release cable. The locking system uses the latest technology for locked joints and offers a high level of security. It can be unlocked with one hand using the pull-release cable, making it very simple to use. The lock in the joint clicks into place automatically when standing up, without there being a risk of trapping clothes.









Article number	Side	Max. body weight	Material	Qty.
17PK1=L20	Left	100 kg	Plastic reinforced with carbon fibre	Pair
17PK1=R20	Right	100 kg	Plastic reinforced with carbon fibre	Pair

• The CarbonIQ joints are resistant against splashed water!



646D578=EN 646T5=4.6EN

647G641 647G642

### Spare parts for 17PK1

#### (1) Service set

Article number	Qty.	Scope of delivery
29PK1	Set	1x 501S146=4.0X12
		1x 30Y206
		1x 21A18=2
		1x 513D52=1
		1x 21A12
		1x 30Y207

#### (2) Service set

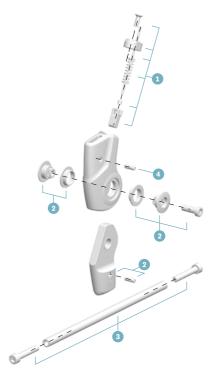
Article number	Qty.	Scope of delivery
29PK2	Set	1x 509G10=14X16X5 1x 30Y210 1x 501T39=M6X18 1x 30Y209

#### (3) Adjustment Aid

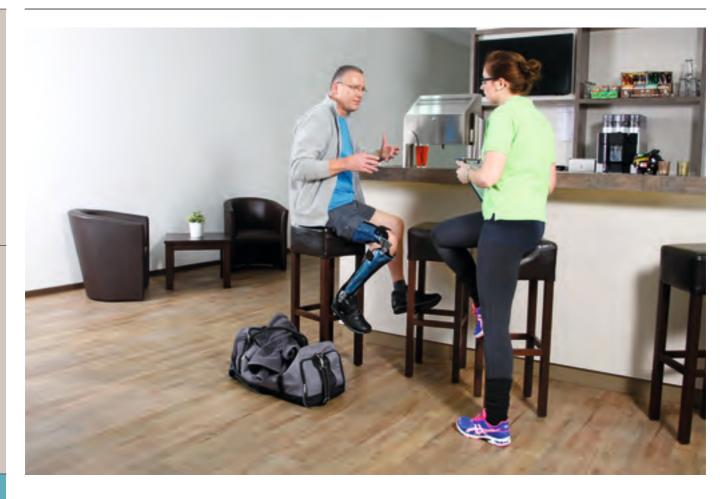
Qty.	Scope of delivery
Set	1x 501T28=M6X35 1x 30Y216

#### (4) Set screw

Article number	for
506G3=M4x12	17PK1=*







# 17LK3 Unilateral Knee Joint

The 17LK3 Unilateral Knee Joint is a system knee joint with wedge lock. It is particularly attractive due to its lightweight construction.

Its weight classification permits unilateral use for a body weight of up to 110 kg and bilateral use for up to 160 kg.

The system is suitable for prepreg and lamination resin techniques. The scope of delivery includes a temporary switch for releasing the joint, e.g. for training on a therapeutic bike.

#### 17LK3 Unilateral Knee Joint

System knee joint with wedge lock









Article number	Side	System width	Max. body weight	Material	Qty.
17LK3=L12	Left	12 mm	20 kg / 40 kg*	Steel	Piece
17LK3=L12 - T	Left	12 mm	20 kg / 40 kg*	Titanium	Piece
17LK3=R12	Right	12 mm	20 kg / 40 kg*	Steel	Piece
17LK3=R12 - T	Right	12 mm	20 kg / 40 kg*	Titanium	Piece
17LK3=L14	Left	14 mm	50 kg / 80 kg*	Steel	Piece
17LK3=L14 - T	Left	14 mm	50 kg / 80 kg*	Titanium	Piece
17LK3=R14	Right	14 mm	50 kg / 80 kg*	Steel	Piece
17LK3=R14 - T	Right	14 mm	50 kg / 80 kg*	Titanium	Piece
17LK3=L16	Left	16 mm	85 kg / 120 kg*	Steel	Piece
17LK3=L16 - T	Left	16 mm	85 kg / 120 kg*	Titanium	Piece
17LK3=R16	Right	16 mm	85 kg / 120 kg*	Steel	Piece
17LK3=R16 - T	Right	16 mm	85 kg / 120 kg*	Titanium	Piece
17LK3=L20	Left	20 mm	110 kg / 160 kg*	Steel	Piece
17LK3=L20 - T	Left	20 mm	110 kg / 160 kg*	Titanium	Piece
17LK3=R20	Right	20 mm	110 kg / 160 kg*	Steel	Piece
17LK3=L20 - T	Right	20 mm	110 kg / 160 kg*	Titanium	Piece
* with hilateral use					



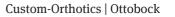
- When using the product unilaterally, and in case of flexion contracture in the knee or hip > 10° or distinct torsion or valgus/varus instabilities or valgus/varus malpositions or increased physical activity, the next higher size must be used!
- For tubercle seat the product must be fitted bilaterally.

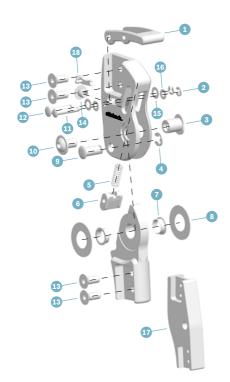
#### Accessories

# 17LS3 Lamination bar for Unilateral Joint System

Article number	Length	Width	Thickness	Material	Qty.
17LS3=12	80 mm	12 mm	5 mm bottom, 3 mm top	Stainless steel	Piece
17LS3=12-T	80 mm	12 mm	5 mm bottom, 3 mm top	Titanium	Piece
17LS3=14	100 mm	14 mm	6 mm bottom, 2.5 mm top	Stainless steel	Piece
17LS3=14-T	100 mm	14 mm	6 mm bottom, 2.5 mm top	Titanium	Piece
17LS3=16	130 mm	16 mm	6 mm bottom, 3 mm top	Stainless steel	Piece
17LS3=16-T	130 mm	16 mm	6 mm bottom, 3 mm top	Titanium	Piece
17LS3=20	130 mm	20 mm	6 mm bottom, 3 mm top	Stainless steel	Piece
17LS3=20-T	130 mm	20 mm	6 mm bottom, 3 mm top	Titanium	Piece







# Spare parts for 17LK3

#### (1) Knee lever

Article number	for	Qty.
30Y265=12	17LK3=12	Piece
30Y265=14	17LK3=14	Piece
30Y265=16	17LK3=16	Piece
30Y265=20	17LK3=20	Piece

#### (2) Lock washer

Article number	for	Qty.
507S96=2.3	17LK3	Piece

#### (3) Bearing nut, hardened

Article number	for	Qty.
17Y93=9x9.2xM6	17LK3=12, =14	Piece
17Y93=9x10.75xM6	17LK3=16	Piece
17Y93=9x11.75xM6	17LK3=20	Piece

#### (4) Lock washer

Article number	for	Qty.
507 <b>S</b> 96=4	17LK3=16, =20	Piece
507 <b>S</b> 96=3.2	17LK3=12 ,=14	Piece

#### (5) Compression spring

Article number	for	Qty.
513D83=0.75×4.6×20	17LK3=14, =16, =20	Piece
513D83=0.75x4.3x19	17LK3=12	Piece

#### (6) Lock wedge

Article number	for	Qty.
17Y156 / 17Y157 / 17Y158	17LK3=12, =14	Piece
17Y157	17LK3=16	Piece
17Y158	17LK3=20	Piece

Lock wedges must always be replaced with identical lock wedges (=1, =2 or =3)

#### (7) Bushing

Article number	for	Qty.
30Y87=1	17LK3=16, =20	Piece
30Y87=3	17LK3=12, =14	Piece

#### (8) Bearing washers

Article number	for	Qty.
170Z93=1	17LK3=16, =20	Set

#### (9) Axle

Article number	for	Qty.
4A101=5x10.6	17LK3=12, =14	Piece
4A101=6x12.7	17LK3=16	Piece
4A101=6x13.7	17LK3=20	Piece

#### (10) Screw with flattened half-round head

Article number	for	Qty.
501F7=M6x8	17LK3=12, =14	Piece
501F7=M6x10	17LK3=16, =20	Piece

#### (11) Axle

Article number	for	Qty.
4A101=3.2x15.1	17LK3=12, =14	Piece
4A101=4x17.1	17LK3=16	Piece
4A101=4x18.1	17LK3=20	Piece

#### (12) Axle

Article number	for	Qty.
4A101=4×15.1	17LK3=12, =14	Piece
4A101=4x17.1	17LK3=16	Piece
4A101=4x18.1	17LK3=20	Piece

#### (13) Countersunk head screw (Allen screw)

Article number	for	Qty.
501S41=M4X10	17LA3=14	Piece
501S41=M5X12	17LA3=16	Piece

#### (14) Protective plug

Article number	for	Qty.
30Y91=1	17LK3=16, =20	Piece
30Y91=3	17LK3=12, =14	Piece

#### (15) Washer

Article number	for	Qty.
30Y267=4.2	17LK3 (all sizes)	Piece

#### (16) Washer

Article number	for	Qty.
30Y267=3.3	17LK3 (all sizes)	Piece

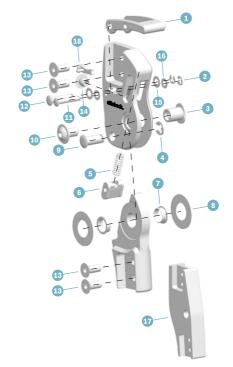
#### (17) Joint dummy

Article number	for	Qty.
30Y268=12	17LK3=12	Piece
30Y268=14	17LK3=14	Piece
30Y268=16	17LK3=16	Piece
30Y268=20	17LK3=20	Piece

The article number of the matching shoulder screw for the joint dummy is 30Y89.

#### (18) Temporary switch

	Article number	for	Qty.	
	17Y162=3	17LK3=12, =14	Piece	
	17Y162=2	17LK3=16	Piece	
	17Y162=1	17LK3=20	Piece	



# ottobock.

# Unilateral Joint System

Order form · fax: +49 (0) 5527-72330

Company					
Technician			Date		
			_		
Customer no.			Signature		
User information					
Surname, first name	<u> </u>		Weight		
			Indication		
Age			marcation		
Side	☐ Left	☐ Right ☐	Bilateral		
The size chosen dep	ends on the pati	ent's weight and the cond	ditions of use.		
	: : :		1 17LS3=* Lam	ination bar	
			Steel version	Titanium version	
		0	☐ 17LS3=12	☐ 17LS3=12-T	
			☐ 17LS3=14	☐ 17LS3=14-T	
		<b>•</b>	☐ 17LS3=16	☐ 17LS3=16-T	
			☐ 17LS3=20	☐ 17LS3=20-T	
	1::::		2 17LK3=* Unil	ateral Knee Joint	
	<i>[.::::</i>		Steel version	Titanium version	(A) Shoulder screw*
		(A)*	17LK3=12	17LK3=12-T	
	<u> </u>	2	☐ 17LK3=14	☐ 17LK3=14-T	□ L □ R □ 30Y89
			☐ 17LK3=16	☐ 17LK3=16-T	□ L □ R □ 30Y89
			☐ 17LK3=20	☐ 17LK3=20-T	□ L □ R □ 30Y89
\	\.		3 17LS3=* Lam	ination bar	
	\:::::		Steel version	Titanium version	
	\:::		17LS3=12	17LS3=12-T	
	\::	3	☐ 17LS3=14	☐ 17LS3=14-T	
			☐ 17LS3=16	☐ 17LS3=16-T	
			☐ 17LS3=20	☐ 17LS3=20-T	
			4 17LS3=* Lam	ination bar	
		<b></b>	Steel version	Titanium version	
		4	☐ 17LS3=12	☐ 17LS3=12-T	
			☐ 17LS3=14	☐ 17LS3=14-T	
			☐ 17LS3=16	☐ 17LS3=16-T	
		□ (B)	☐ 17LS3=20	☐ 17LS3=20-T	
	/ [	<b>→</b> ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	5 17LA3=* Unil	ateral Ankle Joint	
			Steel version	Titanium version	(B) Optional lamination dummy with shoulder screw
	)	→ /") <sub>6</sub>		17LA3=12-T	
			☐ 17LA3=12	☐ 17LA3=12-1	☐ 17LD1=12
			☐ 17LA3=14	☐ 17LA3=14-1	☐ 17LD1=14
			☐ 17LA3=20	☐ 17LA3=20-T	☐ 17LD1=10
			6 17LF3=* Foot		
* (A) The 30Y89 should	der screw is not incl	uded in the scope of delivery	17LF3= F00	17LF3=16	
		joint alignment fixture.	☐ 1/LF3=12	☐ 1/LF3=10	

# 17K33 / 17K32 Knee joint bars for children

Free motion knee joint bar









**€** 647G2

#### Joints require grinding, joint centre 15 mm to the posterior



<del></del>							
	Article number	Upper/lower bar length	Bar width/thickness	Joint head Ø	Material	Qty.	
	17K33=6	220 / 250 mm	12 / 3 mm	16 mm	Stainless steel	Pair	
	17K33=5	220 / 250 mm	14 / 3 mm	18 mm	Stainless steel	Pair	
	17K33=4	220 / 250 mm	16 /3 mm	20 mm	Stainless steel	Pair	

#### Knee joint extension stop can be adjusted by filing, flat bar profile, no posterior placement

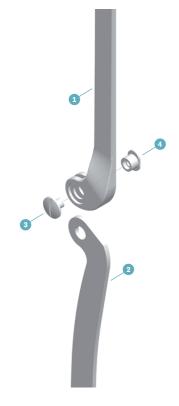


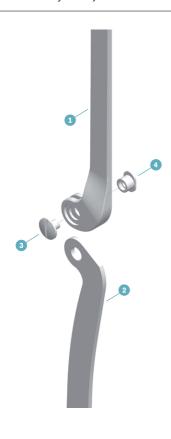
Article number	Upper/lower bar length	Bar width/thickness	Joint head Ø	Material	Qty.
17K32=6	220 / 250 mm	12 / 3 mm	16 mm	Stainless steel	Pair
17K32=5	300 / 320 mm	14 / 3 mm	18 mm	Stainless steel	Pair
17K32=4	410 / 390 mm	16 / 3 mm	20 mm	Stainless steel	Pair

# Spare parts for 17K32 and 17K33

#### (1) Knee joint bar upper section

` '	• •					
Article number	for	Side	Material	Qty.		
17X9=L6	17K33=6	Left	Stainless steel	Piece		
17X9=R6	17K33=6	Right	Stainless steel	Piece		
17X8=L6	17K32=6	Left	Stainless steel	Piece		
17X8=R6	17K32=6	Right	Stainless steel	Piece		
17X9=L5	17K33=5	Left	Stainless steel	Piece		
17X9=R5	17K33=5	Right	Stainless steel	Piece		
17X8=L5	17K32=5	Left	Stainless steel	Piece		
17X8=R5	17K32=5	Right	Stainless steel	Piece		
17X9=L4	17K33=4	Left	Stainless steel	Piece		
17X9=R4	17K33=4	Right	Stainless steel	Piece		
17X8=L4	17K32=4	Left	Stainless steel	Piece		
17X8=R4	17K32=4	Right	Stainless steel	Piece		
				4		





#### (2) Knee joint bar lower section

Article number	for	Material	Qty.
17U9=6	17K33=6	Stainless steel	Piece
17U8=6	17K32=6	Stainless steel	Piece
17U9=5	17K33=5	Stainless steel	Piece
17U8=5	17K32=5	Stainless steel	Piece
17U9=4	17K33=4	Stainless steel	Piece
17U8=4	17K32=4	Stainless steel	Piece

#### (3) Slotted truss head screw

Article number	for	Thread	Length	Material	Qty.
501S32=M4x10x9.5	17K32=6 17K32=5 17K33=6 17K33=5	M4	9.5 mm	Stainless steel	Piece
501S32=M6x14x10	17K32=4 17K33=4	M6	10 mm	Stainless steel	Piece

#### (4) Bearing nut, hardened

Article number	for	Thread	Shank length	Shoulder Ø	Qty.
17Y93=6x6.7xM4	17K33=5 17K33=6	M4	6.7 mm	6 mm	Piece
17Y93=9x7.2xM6	17K33=4	M6	7.2 mm	9 mm	Piece

#### for repairs:

Article number	for	Thread	Shank length	Shoulder Ø	Qty.
17Y93=6.5x6.7xM4	17K33=5 17K33=6	M4	6.7 mm	6.5 mm	Piece
17Y93=7x6.7xM4	17K33=5 17K33=6	M4	6.7 mm	7 mm	Piece
17Y93=9.5x7.2xM6	17K33=4	M6	7.2 mm	9.5 mm	Piece
17Y93=10x7.2xM6	17K33=4	M6	7.2 mm	10 mm	Piece



#### **Practical recommendation:**

- On worn joints, the tolerance can be reduced with the repair bolts. A suitable reamer is usually used for adaptation.
- With 17K29/32/33/34/42 joint bars for children, the following shoulder screws can be used: 501A1=12x6xM4

# 17B26 / 17B47 / 17B3 / 17B43 System knee joints













Medial joint contoured bottom, straight top, straight lateral joint, free motion, with ball bearing, joint centre 16 mm to the posterior



Article number	Side	System width	Length from joint	Material	Qty.
			centre upper/lower		
17B26=L16	Left	16 mm	33 / 38 mm	Stainless steel	Pair
17B26=R16	Right	16 mm	33 / 38 mm	Stainless steel	Pair
17B26=L20	Left	20 mm	33 / 38 mm	Stainless steel	Pair
17B26=R20	Right	20 mm	33 / 38 mm	Stainless steel	Pair

Straight free motion medial and lateral joint with ball bearing, joint centre 16 mm to the posterior



Article number	System width	Length from joint centre upper/lower	Material	Qty.
17B47=16	16 mm	33 / 38 mm	Stainless steel	Pair
17B47=20	20 mm	33 / 38 mm	Stainless steel	Pair

Medial joint contoured bottom, straight top, straight lateral joint, free motion, with ball bearing, joint centre 22 mm to the posterior



Article number	Side	System width	Length from joint centre upper/lower	Material	Qty.
17B3=L16	Left	16 mm	33 / 38 mm	Stainless steel	Pair
17B3=R16	Right	16 mm	33 / 38 mm	Stainless steel	Pair
17B3=L20	Left	20 mm	33 / 38 mm	Stainless steel	Pair
17B3=R20	Right	20 mm	33 / 38 mm	Stainless steel	Pair

Straight free motion medial and lateral joint with ball bearing, joint centre 22 mm to the posterior



Article number	System width	Length from joint centre upper/lower	Material	Qty.
17B43=16	16 mm	33 / 38 mm	Stainless steel	Pair
17B43=20	20 mm	33 / 38 mm	Stainless steel	Pair

# Accessories for 17B26, 17B47, 17B3 and 17B43

# System extension assist

with two rubber rings

Article number	for	Qty.	
17Y32	System knee joints without lock	Piece	
17Y35	System knee joints without lock	Piece	

# Service parts for 17Y32 and 17Y35



# 18Z1 / 18Z2 Rubber ring

Article number	for	Outside Ø	Inner Ø
18Z1=20.8x14.5	17Y32	20.8 mm	14.5 mm
18Z1=24.6x18.3	17Y32	24.6 mm	18.3 mm
18Z2=21.0x12.9	17Y35	21 mm	12.9 mm
18Z1=26.8x17.7	17Y35	26.8 mm	17.7 mm



#### 501S27 Oval head screw, slotted

Article number	for Material	
501S27=M3x4	Cover plate	Stainless steel



### 501S43 Flat head screw

Article number	
501S43=M3x4	



# 501S79 Special screw

To attach the extension assist

Article number	
501S79=M5x4.1x16.1	



### 507S11 Serrated lock washer

Article number	
507S11=5.3	

# 509G2 Slide bearing

Article number	for
509G2=5x7x5	17Y35

# Spare parts for 17B26, 17B47, 17B3 and 17B43

#### (1) Ball bearing

Article number	Qty.
509K11=5x16x4	Piece

#### (2) Oval head screw, slotted and partially threaded

Article number	Material	Qty.
501A6=4x5xM5	Stainless steel	Piece

#### (3) Phillips oval countersunk head screw

Article number	Qty.
501T7=7.5x9xM5	Piece





#### E-MAG Active





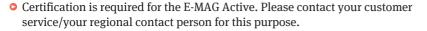
#### **Functional description**

The E-MAG Active is the first electronically controlled system knee joint with a locked stance phase and free swing phase that is not dependent on the ankle and sole of the foot. The principle of the E-MAG Active is as innovative as it is consistent: An intelligent sensor system measures the leg position while walking and controls the orthosis joint accordingly. Since the joint is activated independently of the ankle and sole of the foot, patients can take advantage of the functionality offered by the orthosis joint even if they do not have use of the ankle.

#### **Delivery condition**

The E-MAG Active joint system is supplied in a case with all required components. The case contains the entire matched system including a charger, a battery, and the required dummies for installation in an orthosis. The E-MAG is suitable for a body weight of up to 100 kg (with use of the 17B205 medial support). Unilateral use of the joint is possible up to 85 kg as long as there are no non-physiological deviations in the frontal and sagittal planes. Furthermore, the matching bars can be ordered as special accessories.

Article number	Side	Flexion angle		
17B202N=L	Left	5°		
17B202N=R	Right	5°		
17B202N=L-7.5	Left	7.5°		
17B202N=R-7.5	Right	7.5°		
17B202N=L-10	Left	10°		
17B202N=R-10	Right	10°		







646D518=EN 646DV41 646D580=EN 646D517

**₩** 646A214=GB

647G639 647G640

#### Scope of delivery

- (1) Dummy for battery
- (2) Dummy for electronics
- (3) Dummy for battery receptacle
- (4) Dummy for electronics receptacle
- (5) Dummy for knee joint
- (6) Receptacle for battery
- (7) Lock unit for battery (317E20 connecting cable)
- (8) Receptacle for electronic control unit with connecting cable
- (9) Rechargeable battery
- (10) Control electronics
- (11) E-MAG Active knee joint
- (12) AC adapter for battery charger
- (13) Battery charger

Installation instructions (not illustrated)

Instructions for use (no illustrated)

Quick start guide (not illustrated)





#### Practical recommendation:

Please observe the particularities of patient selection for stance phase controlled systems. Further information is found in the 646A214\* brochure for technicians and therapists.

#### Accessories for the E-MAG Active



# 17LS1=2 Unilateral system splint

Article number	Length	Width	Thickness	Material	Qty.
17LS1=2	100 cm	17.8 mm	7 mm	Aluminium	Piece



# 17LS2=2 Lamination bar for conventional lamination resin or prepreg technique

Article number	Length	Width	Thickness	Material
17LS2=2	130 mm	17.8 mm	7 - 2 mm	Steel



# 17B205 Medial support

Includes lamination dummy

Article number	Max. body weight	Ansatzschraube	Material	Qty.
17B205=L	100 kg		Stainless steel	Piece
17B205=R	100 kg		Stainless steel	Piece

### 647G336

# 605P8 Joint bar system for medial support (without illustration)

Suitable for fabricating system splints, with rounded edges, strength approx. 400  $\ensuremath{\text{N}/\text{mm}^2}$ 

Article number	Length	Width	Thickness	Material	Qty.
605P8=20	2,000 mm	20 mm	5 mm	Aluminium	Piece
605P8=20-12	305 mm	20 mm	5 mm	Aluminium	Piece

# Service sets for maintenance of the joint bearings

# 17BS200 Service set

Article number	for	Qty.
17BS200	E-MAG Active knee joint	Piece



# 17BS205 Service set

Article number	for	Qty.
17BS205	17B205 medial support joint	Piece



# Spare parts for E-MAG Active

Article number	Designation		
30G62=L	E-MAG Active knee joint		
30G62=R	E-MAG Active knee joint		
317X202N=L	Dummy for knee joint		
317X202N=R	Dummy for knee joint		
317B20	Replaceable battery		
317L20	Battery charger		
757L16-2	Power supply		
317B3	Control electronics		
317B3	Control electronics		



Article number	Designation	Consisting of	
317E2	Electronics cable		
317Z12	Receptacle for control electronics		
317E20	Connecting cable		
317Z13	Receptacle set (electronics)	Electronics receptacle Dummy for receptacle Dummy for electronics	
317Z21	Receptacle set	Battery receptacle Dummy for receptacle Dummy for battery	

646D352=GB 646T5=4.1GB



### 170K1 Free Walk orthosis

The Free Walk orthosis is pre-fabricated for the first trial fitting according to your specifications. The tool kit and datasheets are needed for the measurements required for the fabrication of the orthosis.

Article number	Side	for patient weight up to	Colour
170K1=L-80-7	Left	80 kg	Black
170K1=R-80-7	Right	80 kg	Black
170K1=L-80-0	Left	80 kg	Skin colour
170K1=R-80-0	Right	80 kg	Skin colour

Article number	Side	for patient weight up to	Colour
170K1=L-120-7	Left	120 kg	Black
170K1=R-120-7	Right	120 kg	Black
170K1=L-120-0	Left	120 kg	Skin colour
170K1=R-120-0	Right	120 kg	Skin colour

- Delivery condition: as shown, but without foot part
- You may order a test orthosis on loan for a functional test on the patient upon request. Please contact your customer service/your regional contact person for this purpose!



# **Functional principle**



Stability in the stance phase:

The orthotic knee joint locks automatically when the knee is extended prior to heel strike. The patient can then stand securely and put pressure on the leg during the stance phase. The Free Walk thus fulfills the functions of a locked orthosis.

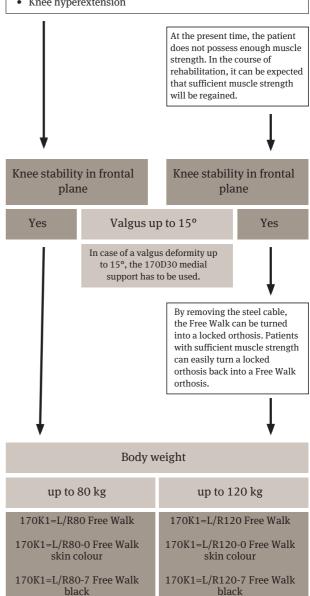


Disengagement in the swing phase: The patient releases the orthotic knee joint by extending his or her knee prior to toe-off and allowing a dorsal flexion of the upper ankle joint. This allows him or her to flex the leg and let it swing through freely.

# **Decision-making aid**

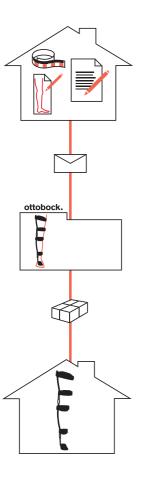
One of the following prerequisites are given:

- Muscle strength of the hip extensors is 3 to 5 or
- Muscle strength of the knee extensors 3 to 5 or
- Knee hyperextension



# Information for the ordering process

Take the patient measurements (note the 646T5=4 technical information). Please also complete the forms (patient data and measurement form, measurement forms for the outline sketch) included in the 170W2 Free Walk orthosis tool kit (may be obtained on loan for initial fittings).



Please submit all forms to Ottobock Service Fabrication.

Ottobock Service Fabrication will fabricate a Free Walk orthosis for you, and usually ships it after 5 working days.

You receive a Free Walk orthosis with an exact fit, supporting a harmonious gait pattern and secure stance.

 $\mathbf{i}$ 

646S3=15.03GB (Info sheet)

642T32 (measurement taking forms for an Ottobock Free Walk orthosis)

647F136=GB Patient data and measurement form

2x 647F140=1 measurement form for outline sketch

646T5=4.1GB technical information

646D182=GB (information for doctors)

646D183=GB (patient information)

646A214 (therapeutic application)

646D352=GB (product information)

#### Accessories for 170K1

## 170D50 Triple control

- Extension of the indication through greater knee joint functionality
- Locked function
- Free function
- Free Walk function

Article number	for patient weight up to	Colour	Qty.
170D50=L	80/120 kg	Black	Piece
170D50=R	80/120 kg	Black	Piece



647G437 647G437=1 647G437=2

## 170D30 Medial knee guide

- Extension of the indication
- 5° more valgus deformity can be fitted

Article number	for patient weight up to	Colour	Qty.
170D30=120-7	120 kg	Black	Set
170D30=80-7	80 kg	Black	Set



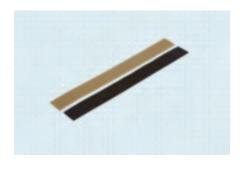
647G449

## Spare parts for 170K1

## 170D80 / 170D120 Foam pads

Article number	for	Colour	Qty.
170D80=1-0	170K1=80	Skin colour	Piece
170D80=2-0	170K1=80	Skin colour	Piece
170D80=1-7	170K1=80	Black	Piece
170D80=2-7	170K1=80	Black	Piece
170D120=1-0	170K1=120	Skin colour	Piece
170D120=2-0	170K1=120	Skin colour	Piece
170D120=1-7	170K1=120	Black	Piece
170D120=2-7	170K1=120	Black	Piece





## 170Z4 Hook-and-loop strap

Article number	for	Material	Colour	Qty.
170Z4=400-0	170K1=80/=120	Polyamide	skin colour	Piece
170Z4=400-7	170K1=80/=120	Polyamide	black	Piece
170Z4=600-0	170K1=80/=120	Polyamide	skin colour	Piece
170Z4=600-7	170K1=80/=120	Polyamide	black	Piece



## 170D21 Y-hook-and-loop

Article number	for	Width	Colour	Qty.
170D21=38-0	170K1=80/=120	38 mm	skin colour	Piece
170D21=38-7	170K1=80/=120	38 mm	black	Piece



#### **Practical recommendation:**

Close before washing to protect the closure and/or other items in the wash.



#### 170D17 Pad button

Article number	Used for	Qty.
170D17	170D20 Strap guide loop for pad button	Piece



## 170D20 Strap guide loop for pad button

Article number	Colour	Qty.
170D20=0	skin colour	Piece
170D20=7	black	Piece



## 170D18 Strap guide loop with tube connection

Article number	for	Colour	Qty.
170D18=80-7	170K1=80	Black	Piece
170D18=120-7	170K1=120	Black	Piece
170D18=80-0	170K1=80	Skin colour	Piece
170D18=120-0	170K1=120	Skin colour	Piece



## 170Z120 Joint protector

Article number	for	Colour	Qty.
170Z120=7	170K1=L/R120/80	Black	Piece
170Z120=0	170K1=L/R120/80	Skin colour	Piece

3

## 170Z99 Maintenance set for lock

Article number	for	Qty.
170Z99=2	170K1	Set



## 170X12 Maintenance set for Free Walk

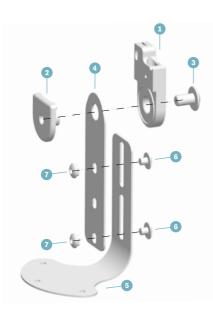
Article number	for	Qty.
170X12=2	170K1	Set



## 170X16 Adjustable ankle joint with universal foot part

Article number	Side	Qty.	Scope of delivery
170X16=L	Left	Set	1x 170C11=L
			1x 170D28
			1x 501F7=M6X10-1
			1x 170F11
			1x 170F7
			2x 501T52=M4X4-1
			2x 170D26
170X16=R	Right	Set	1x 170C11=R
	Ü		1x 170D28
			1x 501F7=M6X10-1
			1x 170F11
			1x 170F7
			2x 501T52=M4X4-1
			2x 170D26





## Spare parts for 170X16

#### (1) Ankle joint, lower part

Article number	Side	ty.	
170C11=L	Left	Piece	
170C11=R	Right	Piece	

## (2) Threaded plate

Article number	Qty.
170D28	Piece

## (3) Screw with flattened half-round head

Article number	for
501F7=M6X10-1	

#### (4) Foot upper part

Article number	Qty.
170F11	Piece

#### (5) Foot lower part

Article number	Qty.
170F7	Piece

#### (6) Oval head flange screw

Article number	Qty.
501T52=M4X4-1	Pair

#### (7) Ankle setting nut

Article number	Qty.
170D26	Pair

## Accessories for measuring

## 170W2 Tool kit

Article number	for	Qty.	
170W2=M	Measuring and fine-tuning the Free	Piece	
	Walk orthosis		



## 170W3 Contour scriber

Article number	
170W3	

#### 170W4 Tension band

Article number

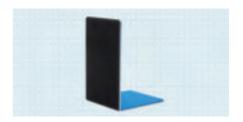
170W4



## 170W8 Ankle and knee support

Article number

170W8



## 743B4 Spring-tensioned measuring tape

Article number	Length
743B4	1500 mm



## 170W10 Drilling template

Article number

170W10



## 170W14 Mounting aid

Article number

170W14



## 170W12 Pad holder bending help

Article number

170W12=1

170W12=2





## 170W11 Frontal contour bending tool

Article number

170W11



## 170W13 Aluminium threaded jaws

Article number

170W13



## 170W18 Bending irons

Article number

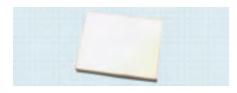
170W18



## 170W19 Calliper

Article number

170W19



## 170W6 Gluteal pad

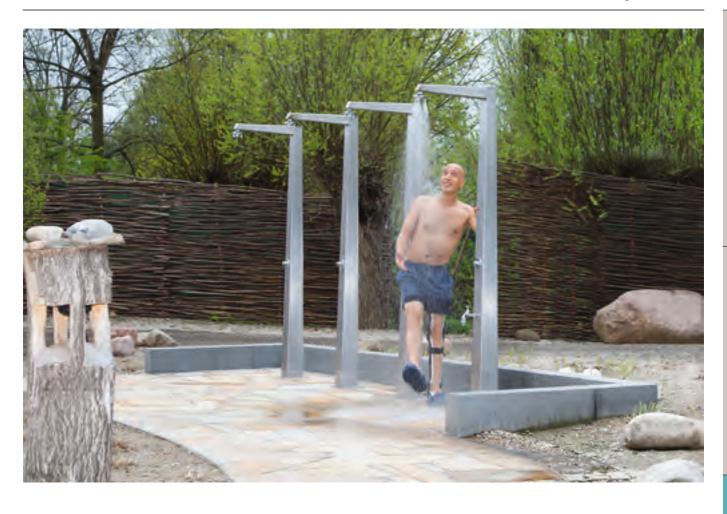
Article number

170W6

## 170W7 Knee pad, roll

Article number

170W7



## Aqualine orthosis system

The Aqualine orthosis system is a waterproof walking aid for orthosis wearers. Offering the user the greatest possible safety with simultaneous freedom of movement. The waterproof versions of the CarbonIQ knee and ankle joints form the heart of the Aqualine orthosis system. The individual components are resistant to corrosion, and contact with chlorine, salt water or soap does not impair their functionality.













## (1) Hook-and-loop strap

Article number	Length	Material	Colour	Qty.
170Z4=400-7	400 mm	Polyamide	black	Piece

#### (2) Joint bar system for medial support

Article number	Length	Width	Thickness	Material
605P8=20	2,000 mm	20 mm	5 mm	Aluminium

#### (3) Waterproof CarbonIQ knee joint with wedge lock

Article number	Side	Max. body weight	Material	Qty.
17PK1=L20-WR	Left		Fibre-reinforced plastic	Pair
17PK1=R20-WR	Right	100 kg	Fibre-reinforced plastic	Pair

#### (4) Antibacterial ThermoLyn PP-H

Article number	Width	Colour
616T420=2	1,000 mm	natural colour

#### (5) Flat head screw

Article number	Qty.
501S84=M4x8	Piece

#### (6) Waterproof CarbonIQ ankle joint

Article number	Max. body weight	Material	Qty.
17PA1=20-WR	100 kg	Fibre-reinforced plastic	Pair

#### (7) Foot stirrup

Article number	Material	Qty.
17PF1	Stainless steel	Piece

#### (8) Outsole

Article number	Side	Material	Qty.
29F18=L	Left	Rubber plate with crepe profile	Piece
29F18=R	Right	Rubber plate with crepe profile	Piece



#### **Practical recommendation:**

- All components of a waterproof walking aid should be waterproof and easily washable.
- We generally recommend the use of a full-surface non-skid sole or a bathing shoe, as well as the use of a knee joint with lock.
- · We recommend the use of antibacterial materials.
- The waterproof walking aid should minimise skin contact.

## Spare parts for 17PA1=20-WR

#### (1) Set screw

Article number	Qty.
506G21=M6x14	Piece

#### (2) Stop pin

Article number	Qty.
506A27=5M6x20	Piece

#### (3) Service set

Article number	Qty.	Scope of delivery
29PA1	Set	1x 501S84=M6X14
		1x 30Y215
		1x 509G10=12X13X3
		1x 30Y214

#### (4) Set screw

Article number	Qty.
506G21=M4x12	Piece

#### (5) Bearing ball

Article number	Material	Qty.
509Y1=5.0	Stainless steel	Piece

## (6) Stop pin (small)

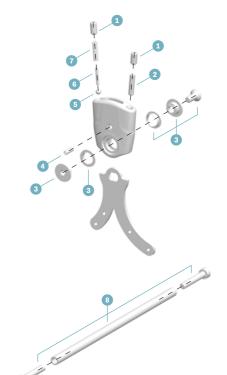
Article number	Qty.
506A5=2.5M6x18	Piece

#### (7) Compression spring

Article number	Qty.
513D18=4.7x31-2	Piece

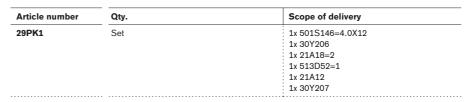
#### (8) Adjustment Aid

Article number	Qty.	Scope of delivery	
29PK4		1x 501T28=M6X35	
		1x 30Y216	



## Spare parts for 17PK1=L/R20-WR

## (1) Service set



#### (2) Service set

Article number	Qty. Scope of delivery				
29PK2	Set	1x 509G10=14X16X5			
		1x 30Y210			
		1x 501T39=M6X18			
		1x 30Y209			

## (3) Adjustment Aid

Article number	Qty.	Scope of delivery
29PK4	Set	1x 501T28=M6X35
		1x 30Y216

#### (4) Set screw

Article number	Qty.
506G21=M4x12	Piece

#### 17BK1 Correction system joints

Static joints for positioning orthoses







Article number	Side	System width	Dynamic unit	Material	Qty.	Medial support
17BK1=L1	Left	20 mm	17BK2=L1	Aluminium	Piece	17BK3=18
17BK1=R1	Right	20 mm	17BK2=R1	Aluminium	Piece	17BK3=18
17BK1=L2	Left	16 mm	17BK2=L2	Aluminium	Piece	17BK3=18
17BK1=R2	Right	16 mm	17BK2=R2	Aluminium	Piece	17BK3=18
17BK1=L3	Left	14 mm	17BK2=L3	Aluminium	Piece	17BK3=14
17BK1=R3	Right	14 mm	17BK2=R3	Aluminium	Piece	17BK3=14
17BK1=L4	Left	12 mm	17BK2=L4	Aluminium	Piece	17BK3=14
17BK1=R4	Right	12 mm	17BK2=R4	Aluminium	Piece	17BK3=14

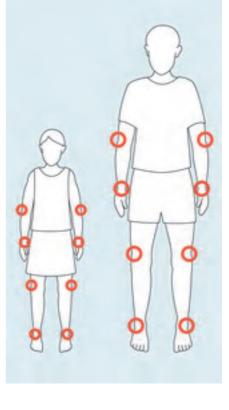
Delivery condition: The joint is supplied with an adjustment wrench.



Body height	Wrist joint	Elbow joint	Knee joint	Ankle joint
Child up to 1 m	=L/R4	=L/R4	=L/R4	=L/R4
Child 1-1.40 m	=L/R4	=L/R3	=L/R3	=L/R3
Adults up to 1.60 m	=L/R4	=L/R3	=L/R2	=L/R2
Adults 1.60 - 1.90 m	=L/R3	=L/R2	=L/R1	=L/R1

• Attention: this information constitutes recommendations only. The correct size for the respective patient has to be determined and specified by the orthotist. The joints are used individually or in pairs depending on the application. We recommend to always use a medial support, e.g. an integrated plastic joint. In case of knee and ankle joints, bilateral fitting (in pairs) is mandatory. The left/right side indications refer to application of the joints on the wrist, knee joint or ankle joint. Due to anatomical characteristics, the sides must be reversed for elbow applications (right to left and left to right).







646D449=EN 646D537

647G482

#### Accessories for 17BK1

#### 17BK2 Dynamic unit for correction system joint

The 17BK2 dynamic unit is available for all four sizes of the 17BK1 static correction system joint and, depending on the joint size, offers a maximum spring force of approx. 10 Nm.

Use of the 17BK2 dynamic unit allows for extension or flexion yielding, depending on the joint and indications. Spring force is used to slowly correct the joint back into the desired position.

The tension is continuously adjustable, allowing for individual dynamic treatment of contractures.

Article number	for	Max. tension	Qty.	
17BK2=L1	17BK1=L1	~ 10 Nm	Piece	
17BK2=R1	17BK1=R1	~ 10 Nm	Piece	
17BK2=L2	17BK1=L2	~ 6 Nm	Piece	
17BK2=R2	17BK1=R2	~ 6 Nm	Piece	
17BK2=L3	17BK1=L3	~ 6 Nm	Piece	
17BK2=R3	17BK1=R3	~ 6 Nm	Piece	
17BK2=L4	17BK1=L4	~ 3 Nm	Piece	
17BK2=R4	17BK1=R4	~ 3 Nm	Piece	

#### 17BK3 Medial support for correction system joint

Article number		Material	Qty.	
	17BK3=14	Aluminium	Piece	
	17BK3=18	Aluminium	Piece	

• Please note that the size and side of the static and dynamic units have to be identical.

## Selection of Ottobock system joint bars matching the joints

#### 17F52 Side bar

Article number	for	Length	Width	Thickness	Material	Qty.
17F52=12x3x220	17BK1=L4 17BK1=R4	220 mm	12 mm	3 mm	Aluminium	Piece
17F52=14x3x220	17BK1=L3 17BK1=R3	220 mm	14 mm	3 mm	Aluminium	Piece



(ii) 646A230=GB

#### 605P8 Light metal profile bar

Suitable for fabricating system splints, with rounded edges, strength approx. 400  $\,$   $\,$  N/mm^{2}

Article number	for	Length	Width	Thickness	Material	Qty.
605P8=16	17BK1=L2 17BK1=R2	2,000 mm	16 mm	5 mm	Aluminium	Piece
605P8=20	17BK1=L1 17BK1=R1	2,000 mm	20 mm	5 mm	Aluminium	Piece

## Spare parts for 17BK1

## (1) Upper joint section

Article number	for	Side	Qty.
17X14=L1	17BK1=L1	Left	Piece
17X14=R1	17BK1=R1	Right	Piece
17X14=L2	17BK1=L2	Left	Piece
17X14=R2	17BK1=R2	Right	Piece
17X14=L3	17BK1=L3	Left	Piece
17X14=R3	17BK1=R3	Right	Piece
17X14=L4	17BK1=L4	Left	Piece
17X14=R4	17BK1=R4	Right	Piece



#### (2) Lower joint section

Article number	for	Side	Qty.	
17U14=L1	17BK1=L1	Left	Piece	
17U14=R1	17BK1=R1	Right	Piece	
17U14=L2	17BK1=L2	Right	Piece	
17U14=R2	17BK1=R2	Right	Piece	
17U14=L3	17BK1=L3	Left	Piece	
17U14=R3	17BK1=R3	Right	Piece	
17U14=L4	17BK1=L4	Left	Piece	
17U14=R4	17BK1=R4	Right	Piece	

#### (3) Lock cover

Article number	for	Side	Qty.
30Y154=L1	17BK1=L1	Left	Piece
30Y154=R1	17BK1=R1	Right	Piece
30Y154=L2	17BK1=L2	Left	Piece
30Y154=R2	17BK1=R2	Right	Piece
30Y154=L3	17BK1=L3	Left	Piece
30Y154=R3	17BK1=R3	Right	Piece
30Y154=L4	17BK1=L4	Left	Piece
30Y154=R4	17BK1=R4	Right	Piece

#### (4) Joint nut

Article number	for	Qty.
30Y156=1	17BK1=L1, 17BK1=R1	Piece
30Y156=2	17BK1=L2, 17BK1=R2	Piece
30Y156=3	17BK1=L3, 17BK1=R3	Piece
30Y156=4	17BK1=L4, 17BK1=R4	Piece

#### (5) Gear wheel

Article number	for	Qty.
30Y157=1	17BK1=L1, 17BK1=R1	Piece
30Y157=2	17BK1=L2, 17BK1=R2	Piece
30Y157=3	17BK1=L3, 17BK1=R3	Piece
30Y157=4	17BK1=L4, 17BK1=R4	Piece

#### (6) Set wheel with lever

Article number	for	Qty.
30Y212=1	17BK1=L1, 17BK1=R1, 17BK1=L2, 17BK1=R2, 17BK1=R3	Piece
30Y212=2	17BK1=L4, 17BK1=R4	Piece

#### (7) Phillips flat head screw

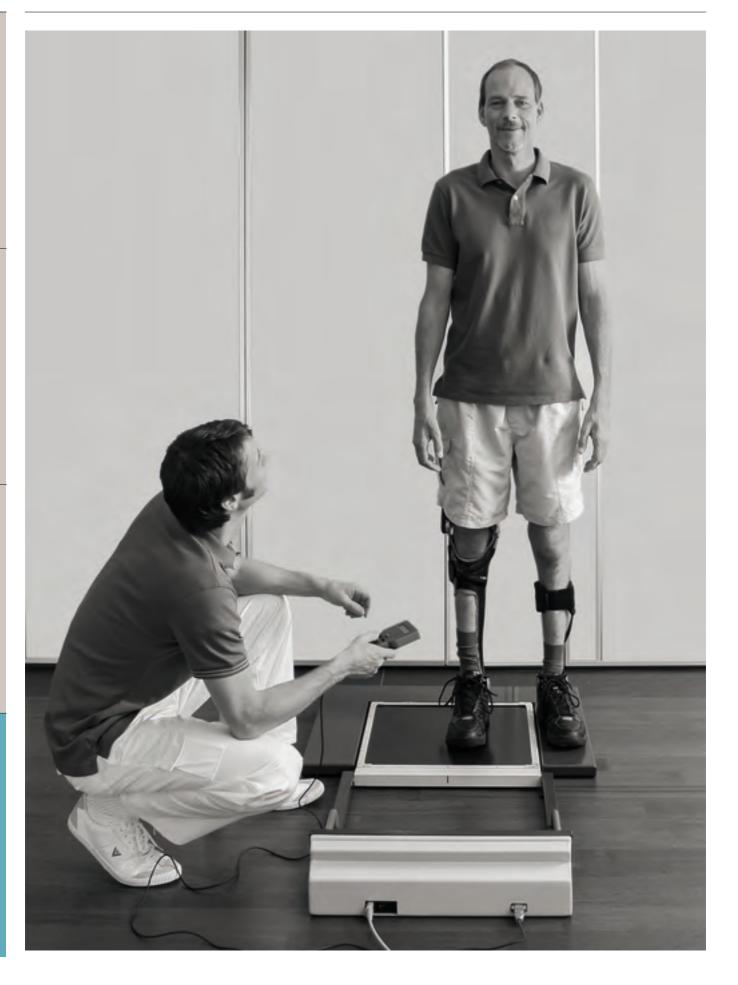
Article number	for	Material
501T19=M4X16-1	17BK1=L1, 17BK1=R1	Stainless steel
501T19=M4X14-1	17BK1=L2, 17BK1=R2, 17BK1=L3, 17BK1=R3	Stainless steel
501T19=M3X12-1	17BK1=L4, 17BK1=R4	Stainless steel

#### (8) Washer set

Article number	for	Qty.
17BK1=S-1	17BK1=L1, 17BK1=R1	Piece
17BK1=S-2	17BK1=L2, 17BK1=R2	Piece
17BK1=S-3	17BK1=L3, 17BK1=R3	Piece
17BK1=S-4	17BK1=L4, 17BK1=R4	Piece

## (9) Phillips oval countersunk head screw

Article number	for	Material	Qty.	
501T7=7.5x11xM5	17BK1=L1, 17BK1=R1, 17BK1=L2, 17BK1=R2	Stainless steel	Piece	
Article number	for	Material	Qty.	



H

# Materials and accessoires

In this section, you will find a selection of materials, tools and accessories that are essential for modern orthosis fabrication.

Please note that this catalogue does not contain all tools and materials that can be used for the fabrication of orthoses and prostheses. For further tools and materials please refer to our catalogues "Orthotic-Prosthetic Materials" (646K1) and "Planning and Equipping" (646K10).

Bars and stirrups	88
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Carbon materials	104
Resin	105

3

4



## 17B58 Foot stirrup

Article number	Thickness	Bar width	Stirrup length	Head Ø	Material	Qty.
17B58=26x2.5x145	2.5 mm	16 mm	145 mm	26 mm	Stainless steel	Piece
17B58=28x3x165	3 mm	20 mm	165 mm	28 mm	Stainless steel	Piece
17B58=30x3x165	3 mm	20 mm	165 mm	30 mm	Stainless steel	Piece



## 17B65 Shoe stirrup

Article number	System width	Thickness	Channel width	Head Ø	Length from joint	Material	Qty.
17B65=26x2.5 x 145	16 mm	2.5 mm	19 mm	26 mm	centre 145 mm	Stainless steel	Piece
17B65= 28x3x165	20 mm	3 mm	22 mm	28 mm	165 mm	Stainless steel	Piece
17B65= 30x3x165	20 mm	3 mm	22 mm	30 mm	165 mm	Stainless steel	Piece



## 17B107 Foot stirrup

with dorsal stop to be established by filing, and 20° plantar flexion

Article number	System width	Thickness	Length from joint centre	Material	Qty.
17B107=145x2.5	16 mm	2.5 mm	145 mm	Stainless steel	Piece
17B107=165x3	20 mm	3 mm	165 mm	Stainless steel	Piece



## 17Y128 System lamination bar

System lamination bars are glued with 636W28 Ottobock special adhesive.

Article number	System width	Length	Thickness	Material	Package contents	Qty.
17Y128=16x80	16 mm	80 mm	4 mm	Stainless steel	2 pcs.	Piece
17Y128=20x80	20 mm	80 mm	4 mm	Stainless steel	2 pcs.	Piece
17Y128=16x100	16 mm	100 mm	4 mm	Stainless steel		Piece
17Y128=20x100	20 mm	100 mm	4 mm	Stainless steel		Piece

• Attention! The system lamination bars always have to be used in pairs in the leg orthosis. Unilateral use can cause the lamination bar to break due to overloading.

#### 17B38 System side bar set

flat, consisting of two 17B4 and 17B4=T upper side bars and one each, left and right, 17B5 and 17B5=T lower side bars, with 636W28 Ottobock special adhesive

Article number	System width	Thickness	Material	Qty.
17B38=16	16 mm	4 mm	Stainless steel	Set
17B38=20	20 mm	4 mm	Stainless steel	Set

## Individual components of 17B38

#### (1) 17B4 Upper side bar

Straight free-motion medial and lateral joint with ball bearing, pivot point  $16\ \mathrm{mm}$  to the posterior

Article number	System width	Length	Thickness	Qty.
17B4=16	16 mm	410 mm	4 mm	Piece
17B4=20	20 mm	410 mm	4 mm	Piece

#### (2) 17B5 Lower side bar

Article number	Side	System width	Length	Thickness	Qty.
17B5=L16	Left	16 mm	450 mm	4 mm	Piece
17B5=R16	Right	16 mm	450 mm	4 mm	Piece
17B5=L20	Left	20 mm	450 mm	4 mm	Piece
17B5=R20	Right	20 mm	450 mm	4 mm	Piece



## 17B39 System side bar set

consisting of two upper side bars and one each, left and right, lower side bars, with Ottobock special adhesive

Article number	System width	Thickness	Material	Qty.
17B39=16	16 mm	5 mm	Aluminium	Set
17B39=20	20 mm	5 mm	Aluminium	Set

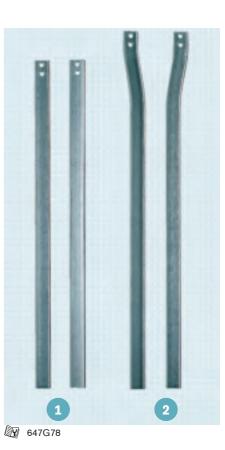
## Individual components of 17B38

## (1) 17B6 Upper side bar

Article number	Length	Thickness	System width	Qty.
17B6=16	410 mm	5 mm	16 mm	Piece
17B6=20	410 mm	5 mm	20 mm	Piece

#### (2) 17B7 Lower side bar

Article number	Side	Thickness	System width	Qty.
17B7=L16	Left	5 mm	16 mm	Piece
17B7=R16	Right	5 mm	16 mm	Piece
17B7=L20	Left	5 mm	20 mm	Piece
17B7=R20	Right	5 mm	20 mm	Piece







## 743A6 Orthotic alignment aid

for three-dimensional alignment of leg orthoses and positioning of knee and ankle joint points on a plaster negative or plaster positive.

Article number	Dimensions WxDxH	Weight
743A6	270 x 380 x 770 mm	14 kg



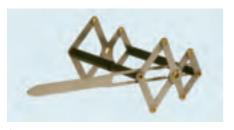


## 743A7 Pivot point adjustment aid

to determine and establish the knee and ankle pivot point and reference lines on a plaster positive or negative

Article number	Material
743A7	Stainless steel





#### 743A8 Knee pivot gauge

to determine the comprise pivot point according to Nietert, incl. rotation indicator

Article number	Material	To be used for
743A8		To determine the compromise pivot axis
		according to Nietert (60:40 graduation)

**₩** 647H465



## 743A9 Foot plaster casting aid

for an accurate foot impression with heel height and toe pitch on the forefoot

Article number	Material
743A9	Plastic/stainless steel

## 749F16=\* Silicone sanding cones

Article number	749F16=5/8	749F16=M16		
Thread	5/82	M16		
Weight	0.66 kg			
To be used for	Polishing and rounding edges of thermoplastic materials			
Scope of delivery	4-piece set: Silicone sanding cone, conical Silicone sanding cone, conical and pointed Silicone sanding cone, round Silicone sanding cone, round with grooves			

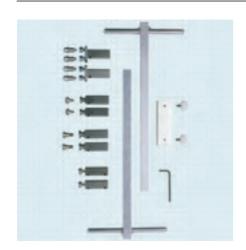


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## 743R6 Orthotic joint alignment set

Article number	To be used for	
743R6	As an aid for lower limb orthosis fabrication, suitable for the "structural orthosis fabrication" technique according to a drawing and for the lamination resin and deep-drawing techniques according to a plaster model	

## consisting of

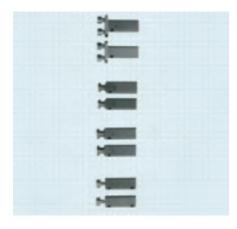
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## (1) 743Y55 Alignment axis

Article number	Material
743Y55	Aluminium

## (2) 743Y70 Parallel adapter

Article number	Width	Material	
743Y70=50	50 mm	Aluminium	
743Y70=80	80 mm	Aluminium	



## (3) 743Y56 Adjustment adapter

ticle number	Size	Material	
3Y56=1	1	Stainless steel	
3Y56=2	2	Stainless steel	
3Y56=3	3	Stainless steel	
3Y56=4	4	Stainless steel	
	3Y56=1 3Y56=2 3Y56=3	3Y56=1 1 3Y56=2 2 3Y56=3 3	



## (4) 743Y72 Allen screw with collar

Article number
743Y72

#### (5) 501A1 Shoulder screw

Article number	for	Thread
<b>501A1=12X6XM4</b> 743Y56=2 adjustment adapter		M4
501A1=12x7xM4	743Y56=2 adjustment adapter	M4
<b>501A1=12X8XM6</b> 743Y56=3 adjustment adapter		M6
501A1=14x9xM6	743Y56=3 adjustment adapter	M6

The article number of the matching shoulder screw for the joint dummy of the 17LK3 Unilateral Knee Joint is 30Y89.

#### (6) 709S10=\* Allen key

Article number	Side piece length	Material
709S10=2.5	57 x 20 mm	Nickel-plated CV-steel



#### 743Y47=\* Locating bolt

Article number	for	For system width	Material
743Y47=1	Alignment adapter: 743Y56=* System knee joints: 17B36, 17B48, 17B90, 17B17, 17B16	16 mm	Stainless steel
743Y47=2	Alignment adapter: 743Y56=* System knee joints: 17B36, 17B48, 17B90, 17B17, 17B16	20 mm	Stainless steel



#### 743Y46 Positioning aid

Article number for		Material	
<b>743Y46</b> 743Y56=* alignment adapter		Stainless steel	



#### 743Y48 Adapter sleeve

The adapter sleeves are slid onto the 743Y55 alignment axis and positioned in the plaster negative. Adapter sleeve made of rigid foam for receiving the 743Y56 adjustment adapters in the plaster positive. The adapter sleeves are slid onto the 743Y55 alignment axis and positioned in the plaster negative.

Article number	Length	Material	Package contents
743Y48	290 mm 29 cm	Rigid foam	4 pcs.



#### 743Y49 Shoulder screw set

matching 743Y56=4 adjustment adapter

Article number	for	Package contents
743Y49	Knee joint bars 17M10 through 17M31	4 pairs



## 711S1=\* Bending iron

Article number	711S1=6X4	711S1=8X6	711S1=9X7	
Version	Straight jaws			
Material	CV steel			
Jaw opening	4 and 6 mm	6 and 8 mm	7 and 9 mm	
Length	245 mm			



## 711S3 Bending iron

Article number	711S3	
Material	Tool steel, high-alloyed	
For bar widths	4 and 6 mm	
Length	500 mm	



## 711S2 Bending pusher set

Article number	711S2
Material	Steel
Package contents	3 pc.
To be used for	Use in vice
Scope of delivery	3 pc.

## 21Y78 Hook-and-loop closure

With strap guide loop and bracket

Article number	Length	Width	Colour
21Y78=25-0	420 mm	25 mm	skin colour
21Y78=30-0	420 mm	30 mm	skin colour
21Y78=38-0	420 mm	38 mm	skin colour
21Y78=50-0	420 mm	50 mm	skin colour





Article number	Length	Width	Colour
21Y78=25-2	350 mm	25 mm	red
21Y78=30-2	350 mm	30 mm	red
21Y78=38-2	350 mm	38 mm	red
21Y78=50-2	350 mm	50 mm	red

Article number	Length	Width	Colour
21Y78=25-4	350 mm	25 mm	yellow
21Y78=30-4	350 mm	30 mm	yellow
21Y78=38-4	350 mm	38 mm	yellow
21Y78=50-4	350 mm	50 mm	yellow

Article number	Length	Width	Colour
21Y78=25-5	350 mm	25 mm	blue
21Y78=30-5	350 mm	30 mm	blue
21Y78=38-5	350 mm	38 mm	blue
21Y78=50-5	350 mm	50 mm	blue

Article number	Length	Width	Colour
21Y78=25-6	350 mm	25 mm	white
21Y78=30-6	350 mm	30 mm	white
21Y78=38-6	350 mm	38 mm	white
21Y78=50-6	350 mm	50 mm	white

Article number	Length	Width	Colour
21Y78=25-7	350 mm	25 mm	black
21Y78=30-7	350 mm	30 mm	black
21Y78=38-7	350 mm	38 mm	black
21Y78=50-7	350 mm	50 mm	black



#### **Practical recommendation:**

Close before washing to protect the closure and/or other items in the wash.





## 170D21 Y-hook-and-loop

For quick fabrication of straps, e.g., directly on the patient

Article number	for	Width	Colour	Quantity unit
170D21=38-0	170K1=80/=120	38 mm	skin colour	Piece
170D21=38-7	170K1=80/=120	38 mm	black	Piece



#### **Practical recommendation:**

Close before washing to protect the closure and/or other items in the wash.



## 170Z4 Hook-and-loop strap

Made especially for FreeWalk orthosis

Article number	for	Length	Material	Colour	Quantity unit
170Z4=400-0	170K1=80/=120	400 mm	Polyamide	skin colour	Piece
170Z4=400-7	170K1=80/=120	400 mm	Polyamide	black	Piece
170Z4=600-0	170K1=80/=120	600 mm	Polyamide	skin colour	Piece
170Z4=600-7	170K1=80/=120	600 mm	Polyamide	black	Piece





#### **Practical recommendation:**

Close before washing to protect the closure and/or other items in the wash.



#### 623P5 Padding tape

For hook-and-loop closures, compatible with hook-and-loop

Article number	Length	Width	Colour
623P5=1	985 mm	65 mm	Black
623P5=2	985 mm	55 mm	Black

96

## 3

## 623Z4 Micro hook-and-loop, self-adhesive

Article number	Width	Colour
623Z4=50-6	50 mm	white

Please specify length when ordering.







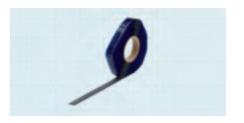
#### **Practical recommendation:**

For better adhesion of the micro hook-and-loop on the orthosis, apply some contact adhesive to the gluing surface on the orthosis and slightly warm the self-adhesive surface of the micro hook-and-loop with the hot air gun.

#### 636K8 Plastic band

Plastic tape for sealing, filling and protection during work with lamination resin, e.g., for orthotic joints

Article number	Length	Width	Thickness	Colour
636K8=20x2x10	10 m	20 mm	2 mm	Grey





#### **₩** 647H468

#### 617R11 Thermoprepregs PE/PP

Thermoprepregs consist of thermoplastic material (PE or PP) with unidirectional continuous fibreglass threads (see illustration). The fibreglass rovings are blended into the cover layers of the profile and unevenly distributed along either side. The heat-weldable side contains a higher proportion of fibres than the opposite side to counteract distortion of the sheet material. This side can be easily recognised by its 2 mm edge radius and the "Ottobock" logo.

#### Application example



Prior to vacuum forming, pull stockinettes such as 81A1 nylon sock on a roll or 623T3 perlon stockinette over the plaster model. Cut 617R11=PE/PP thermoprepreg and thermoplastic material to the required size and place into the pre-heated oven until appropriately heated for the vacuum forming process (e.g. ThermoLyn PP-H becomes transparent).

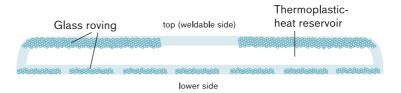


Remove the tailored thermoprepreg sheeting from the oven and place it on the model in the required position. While doing so, keep the oven door closed to prevent the tailored thermoplastic sheeting from cooling.



Immediately after shaping the thermoprepreg, vacuum form the thermoplastic sheeting over it.

Illustration showing cross section of the thermoplastic prepreg:



Article number	Length	Width	Order by
617R11=PE	1,200 mm	20 mm	Package of 3
617R11=PP	1,200 mm	20 mm	Package of 3

Thermoformable at 110 °C/230 °F on a hotplate or in a convection oven

Article number	Length	Width	Thickness	Colour	
617S7=2	1,000 mm	1,000 mm	2 mm	Skin colour	
617S7=3	1,000 mm	1,000 mm	3 mm	Skin colour	
617S7=4	1,000 mm	1,000 mm	4 mm	Skin colour	
617S7=5	1,000 mm	1,000 mm	5 mm	Skin colour	
617 <b>S</b> 7=6	1,000 mm	1,000 mm	6 mm	Skin colour	
617S7=7	1,000 mm	1,000 mm	7 mm	Skin colour	
617 <b>S</b> 7=8	1,000 mm	1,000 mm	8 mm	Skin colour	
617S7=10	1,000 mm	1,000 mm	10 mm	Skin colour	
617 <b>S</b> 7=12	1,000 mm	1,000 mm	12 mm	Skin colour	
617 <b>S</b> 7=15	1,000 mm	1,000 mm	15 mm	Skin colour	
617S7=17-B	1,000 mm	1,000 mm	17 mm	Skin colour	
617S7=18	1,000 mm	1,000 mm	18 mm	Skin colour	
617S7=20	1,000 mm	1,000 mm	20 mm	Skin colour	
617 <b>S</b> 7=30	1,000 mm	1,000 mm	30 mm	Skin colour	
617S7=25	1.000 mm	1.000 mm	25 mm	Skin colour	







## 617S9 / 617S14 / 617S13 / 617S12 Evazote®

Other sheet thicknesses available upon request.



Article number	Length	Width	Thickness	Colour
617S9=3	1,000 mm	1,000 mm	3 mm	White
617S9=4	1,000 mm	1,000 mm	4 mm	White
617S9=5	1,000 mm	1,000 mm	5 mm	White
617S9=6	1,000 mm	1,000 mm	6 mm	White
617S9=8	1,000 mm	1,000 mm	8 mm	White
617S9=10	1,000 mm	1,000 mm	10 mm	White
617S9=12	1,000 mm	1,000 mm	12 mm	White
617S9=20	1,000 mm	1,000 mm	20 mm	White











Article number	Length	Width	Thickness	Colour
617S13=2	1,000 mm	1,000 mm	2 mm	Blue
617S13=3	1,000 mm	1,000 mm	3 mm	Blue
617S13=4	1,000 mm	1,000 mm	4 mm	Blue
617S13=5	1,000 mm	1,000 mm	5 mm	Blue
617S13=6	1,000 mm	1,000 mm	6 mm	Blue
617S13=8	1,000 mm	1,000 mm	8 mm	Blue
617S13=10	1,000 mm	1,000 mm	10 mm	Blue
617S13=15	1,000 mm	1,000 mm	15 mm	Blue

Plastazote® and Evazote® are registered trademarks of Zotefoams.

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Article number	Length	Width	Thickness	Colour
617S12=2	1,000 mm	1,000 mm	2 mm	Yellow
617S12=3	1,000 mm	1,000 mm	3 mm	Yellow
617S12=4	1,000 mm	1,000 mm	4 mm	Yellow
617S12=5	1,000 mm	1,000 mm	5 mm	Yellow
617S12=6	1,000 mm	1,000 mm	6 mm	Yellow



## 623F62 SpaceTex padding fabric

For soft inner sockets, density 0.20 g/cm³, hardness 40° Shore A, thermoformable between 120 and 170 °C/248 and 338 °F on a hotplate or in a convection oven, washable, skin-friendly

For manufacturing reasons, the plates can either be smooth on one side and rough on the other, or smooth on both sides.

Article number	Length	Width	Thickness	Colour
623F62=1-7	1 m	1,400 mm	3 mm	black
623F62=2-7	2 m	1,400 mm	3 mm	black
623F62=5-7	5 m	1,400 mm	3 mm	black



646F295=GB



#### **Practical recommendation:**

Can be combined with 623Z4 micro hook-and-loop. Apply 636W71 CP contact adhesive to the micro hook-and-loop and fasten it to the surface to be padded.



## 623P3 Terry cloth padding fabric

For soft inner sockets, density 0.20 g/cm³, hardness 40° Shore A, thermoformable between 120 and 170 °C/248 and 338 °F on a hotplate or in a convection oven, washable, skin-friendly

For manufacturing reasons, the plates can either be smooth on one side and rough on the other, or smooth on both sides.



Article num	ber Length	Width	Thickness	Colour	
623P3=1	1 m	1,460 mm	4 mm	Blue	
623P3=2	2 m	1,460 mm	4 mm	Blue	
623P3=5	5 m	1,460 mm	4 mm	Blue	
623P3=10	10 m	1,460 mm	4 mm	Blue	









#### **Practical recommendation:**

Can be combined with 623Z4 micro hook-and-loop. Apply 636W71 CP contact adhesive to the micro hook-and-loop and fasten it to the surface to be padded.



#### 

#### 616T95 ThermoLyn PE 200

Hard polyethylene with low shrinkage, processing temperature 180 °C/356 °F (heating plate), 165 °C/329 °F (convection oven), 165 °C/329 °F (infrared oven)



Article number	Length	Width	Thickness	Colour
616T95=2	2,000 mm	1,000 mm	2 mm	natural colour
616T95=3	2,000 mm	1,000 mm	3 mm	natural colour
616T95=4	2,000 mm	1,000 mm	4 mm	natural colour
616T95=5	2,000 mm	1,000 mm	5 mm	natural colour
616T95=6	2,000 mm	1,000 mm	6 mm	natural colour
616T95=8	2,000 mm	1,000 mm	8 mm	natural colour
616T95=10	2,000 mm	1,000 mm	10 mm	natural colour
616T95=12	2,000 mm	1,000 mm	12 mm	natural colour
				*

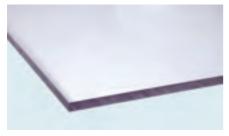


#### 616T120 ThermoLyn PP-C

The new 616T120 ThermoLyn polypropylene copolymer is a thermoplastic sheet material that uses copolymerisation to combine the benefits of polypropylene and the toughness of polyethylene. The polypropylene copolymer (PP-C) obtained in this way shows considerably increased impact strength in comparison with a homopolymer polypropylene (PP-H), especially at low temperatures.



Article number	Length	Width	Thickness	Colour
616T120=2	2,000 mm	1,000 mm	2 mm	natural colour
616T120=3	2,000 mm	1,000 mm	3 mm	natural colour
616T120=4	2,000 mm	1,000 mm	4 mm	natural colour
616T120=5	2,000 mm	1,000 mm	5 mm	natural colour
616T120=6	2,000 mm	1,000 mm	6 mm	natural colour



#### **i** 646F265=GB

646D300=GB 646D119=GB 646D695=EN

#### 616T83 ThermoLyn clear

The processing temperature for heating plates, convection and infrared ovens is  $165\,^{\circ}\text{C}/329\,^{\circ}\text{F}$ . The transparency of the check socket made of ThermoLyn clear facilitates precise verification of the fit and skin discolouration on the residual limb. By warming the socket, it is possible to reform the thermoplastic at, for example, pressure points.

Article number	Length	Width	Thickness	Colour				
616T83=8	400 mm	400 mm	8 mm	clear				
616T83=10	400 mm	400 mm	10 mm	clear				
616T83=12	400 mm	400 mm	12 mm	clear				
616T83=15	400 mm	400 mm	15 mm	clear				
616T83=20	400 mm	400 mm	20 mm	clear				
616T83=1250x1025x3	1,250 mm	1,025 mm	3 mm	clear				
616T83=1250x1025x4	1,250 mm	1,025 mm	4 mm	clear				
616T83=1250x1025x6	1,250 mm	1,025 mm	6 mm	clear				



#### Practical recommendation:

For working edges we recommend hot air or 634A80 SuperSkin cleaning agent.

## 616T420 Antibacterial ThermoLyn PP-H



Article number	Length	Width	Thickness	Colour
616T420=2	2,000 mm	1,000 mm	2 mm	natural colour
616T420=3	2,000 mm	1,000 mm	3 mm	natural colour
616T420=4	2,000 mm	1,000 mm	4 mm	natural colour
616T420=5	2,000 mm	1,000 mm	5 mm	natural colour
616T420=6	2,000 mm	1,000 mm	6 mm	natural colour
616T420=8	2,000 mm	1,000 mm	8 mm	natural colour
616T420=10	2,000 mm	1,000 mm	10 mm	natural colour
616T420=12	2,000 mm	1,000 mm	12 mm	natural colour
616T420=15	2,000 mm	1,000 mm	15 mm	natural colour





#### **Practical recommendation:**

The low impact value means great care must be taken during machining in order to avoid brittle fractures (stress concentration).

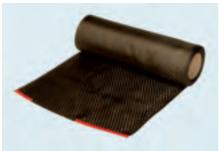


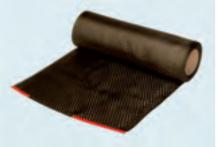


## 616B2 Carbon-fibreglass webbing

Unidirectional, easy to shape, drapable

Article number	Length	Width				
616B2=25x5	5 m	25 mm				
616B2=25x10	10 m	25 mm				
616B2=25x20	20 m	25 mm				
616B2=25x50	50 m	25 mm				
616B2=50x5	5 m	50 mm				
616B2=50x10	10 m	50 mm				
616B2=50x20	20 m	50 mm				
616B2=50x50	50 m	50 mm				





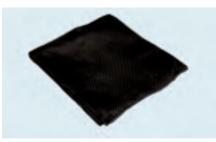


## 616B17 Carbon fibre mesh

For partial high-strength laminate reinforcements in lower limb prostheses as well as

Processability including the woven edge is advantageous (edges are not sewn), because masking is not necessary.

Article number	Length	Width
616B17=50x1	1 m	50 mm
616B17=50x5	5 m	50 mm
616B17=50x10	10 m	50 mm
616B17=100x1	1 m	100 mm
616B17=100x5	5 m	100 mm
616B17=100x10	10 m	100 mm
616B17=300x1	1 m	300 mm
616B17=300x5	5 m	300 mm
616B17=300x10	10 m	300 mm





647G51

#### 616G12 Carbon fibre mesh

For partial high-strength laminate reinforcements

Article number	Length	Width
616G12=1	1 m	1,200 mm
616G12=2	2 m	1,200 mm
616G12=5	5 m	1,200 mm
616G12=10	10 m	1,200 mm
616G12=20	20 m	1,200 mm
616G12=30	30 m	1,200 mm

All Ottobock reinforcement materials are photographed from top to bottom. Lengthwise (warp), crosswise (weft)

## 617H119 Orthocryl lamination resin 80:20 PRO

Article number	Net contents
617H119=0.900	0.9 kg
617H119=4.600	4.6 kg
617H119=25	25 kg

Resin		hardener		colour paste	
100	:	2-3	•	3	

• 642K13 filling set is available for containers of 25 kg and over.









#### **Practical recommendation:**

For sheet casting, use only 616F4 PVA film or 99B81 PVA bags.

642K13 filling set is available for containers of 25 kg and over.

In order to ensure that all air bubbles are eliminated from the reinforcement, the following has to be observed:

- Make sure that the plaster model is under a constant vacuum from the outset.
- Cast the resin all at once, and not gradually, which is done with conventional resins.

## 617P37 Hardening powder

For Orthocryl resins, with 1 g measuring spoon

Article number	Net contents
617P37=0.030	0.03 kg
617P37=0.150	0.15 kg













#### Practical recommendation:

Applies to all Orthocryl resins: add max. 3% 617P37 hardening powder.



## 99B81 PVA bags

For working with Orthocryl and polyester lamination resins 10 per package

Article number	Length	Width	Thickness	Order by
99B81=60x11x4	60 cm	11 cm	0.08 mm	10 pcs.
99B81=70x19x5	70 cm	19 cm	0.08 mm	10 pcs.
99B81=70x27x5	70 cm	27 cm	0.08 mm	10 pcs.
99B81=100x19x5	100 cm	19 cm	0.08 mm	10 pcs.
99B81=100x26x5	100 cm	26 cm	0.08 mm	10 pcs.
99B81=100x30x5	100 cm	30 cm	0.08 mm	10 pcs.
99B81=100x36x5	100 cm	36 cm	0.08 mm	10 pcs.
99B81=120x50x10	120 cm	50 cm	0.08 mm	100 pcs.
99B81=130x19x5	130 cm	19 cm	0.08 mm	10 pcs.
99B81=130x22x5	130 cm	22 cm	0.08 mm	10 pcs.
99B81=130x26x5	130 cm	26 cm	0.08 mm	10 pcs.

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Y-hook-and-loop

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