



**Bluetooth® and Apps**

Via Bluetooth\* you can easily connect the controller to the Expert app (for orthotists) and the User app (for patients).





The Expert App is required to put the orthosis into operation and to adjust it. The app must be activated once via the code generator for the Expert app on the FIOR & GENTZ website.

The orthosis can be operated by the patient using the User app.

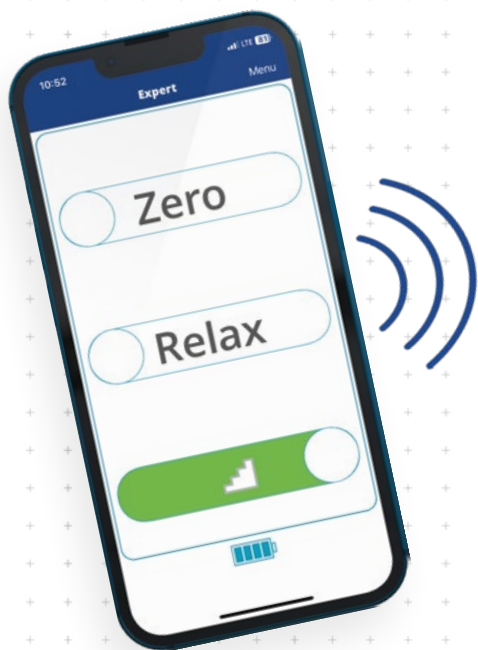


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	Dorsiflexion Stop	Plantar Flexion Stop
Main Function	 dynamic	 dynamic (with dorsiflexion assist)
Adjustment Options	adjustable, variable spring force by exchanging the spring unit	adjustable, variable spring force by exchanging the spring unit
Other Functions	mode change via Expert app/User app Zero Mode Relax Mode Stair Mode alternative function with control button (if the user app is not available)	- restoring the lower leg-to-plumb line angle to the basic position set by the orthotist (e.g. when standing or walking on inclines or slopes, when changing shoes, after using the Relax mode/Stair mode) - flexible adjustment of the lower leg-to-plumb line angle, for situations in which the patient wants to relax the foot (e.g. when sitting) - adjustment of the lower leg-to-plumb line angle when climbing stairs - manual adjustment of the ankle joint angle in both directions using the control button on the system joint

The microprocessor-controlled, automatic system ankle joint NEURO HiSWING R+ comes with integrated shock absorption.

The NEURO CLASSIC with plug + go modularity can be used as supporting joint for the NEURO HiSWING R+ system ankle joint.



To produce an orthosis with a NEURO HiSWING R+ system ankle joint, you need the following components:

- ➔ system ankle joint (page C50.4)
- ➔ controller set, connection cable set (page C50.8)
- ➔ spring units (page C50.7)
- ➔ tools, incl. assembly/lamination dummy and shaping dummy (page C50.7)
- ➔ system stirrups (page C50.10f.)
- ➔ system side bars/anchors (page I1ff.)
- ➔ Expert app
- ➔ User app

Note: the production of a KAFO in combination with system knee joints (excluding NEURO MATIC) is possible as well.



20mm



24mm

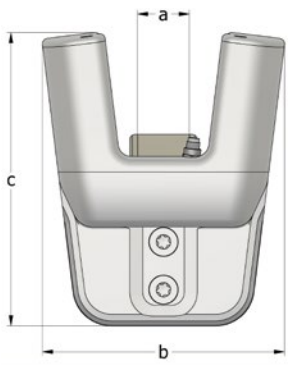
Joint Dimensions [mm]

Dimension	Description	System Width a	
		20mm	24mm
b	joint head width	93	104
c	joint height	113	125
	joint thickness	37	42

Joint Weights\* [g]

Material	Unit	System Width	
		20mm	24mm
titanium	piece	424	631

\* without spring units



The NEURO HiSWING R+ system ankle joint is delivered with the following articles:

- cover plate pressing aid
- orthosis joint grease, 3g
- assembly/lamination dummy

- ➔ Please order spring units, shaping dummy, system stirrups and system side bars/anchors separately.
- ➔ You will find spring units on catalogue page C50.7.
- ➔ You will find the shaping dummy on catalogue page C50.9.
- ➔ You will find system stirrups on catalogue page C50.10f.
- ➔ You will find system side bars and system anchors on catalogue page I1ff.

Note: the Expert app is required to put an orthosis with a NEURO HiSWING R+ system ankle joint into operation and to adjust it. The app must be activated once via the code generator for the Expert app on the FIOR & GENTZ website. You can download the Expert app for any number of smartphones/tablets for Android and iOS and use it to adjust the orthosis. The User app is available to patients and can be operated via their smartphone/tablet or their Apple Watch\*.

\* Apple Watch is a trademark of Apple Inc., registered in the U.S. and other countries.



straight  
fig. 1



bent inwards  
fig. 2



bent outwards  
fig. 3

Straight (Fig. 1)				
Material	Leg	Unit	Article Number for System Width	
			20mm	24mm
titanium	left or right	piece	SH8205-TI/LR	SH8207-TI/LR

Bent Inwards (Fig. 2)				
Material	Leg	Unit	Article Number for System Width	
			20mm	24mm
titanium	left or right	piece	SH8225-TI/LR	SH8227-TI/LR

Bent Outwards (Fig. 3)				
Material	Leg	Unit	Article Number for System Width	
			20mm	24mm
titanium	left or right	piece	SH8245-TI/LR	SH8247-TI/LR

NEURO SWING-CLASSIC

NEURO SWING

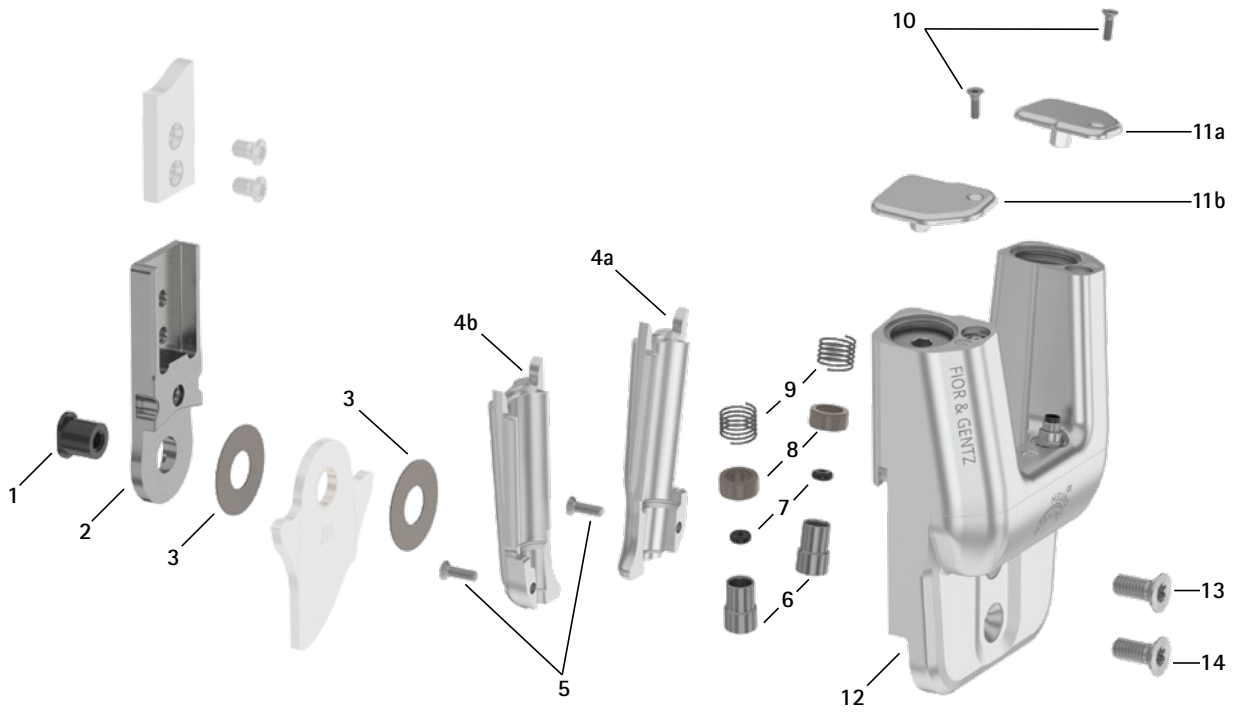
NEURO SWING 2

NEURO HiSWING

NEURO HiSWING R+

NEURO SWING Carbon

Spare Parts



Spare Parts			
Item	Article Number for System Width		Description
	20mm	24mm	
1	SB1069-L0960	SB1262-L1400	bearing nut
2	SH0815-TI	SF0317-TI	upper part, straight, titanium
2	SH0835-TI	SF0337-TI	upper part, bent inwards, titanium
2	SH0835-8/TI	SF0337-8/TI	upper part, bent outwards, titanium
3	GS2611-*	GS3013-*	sliding washer*
4a	SH0865-2/L	SH0867-2/L	spring unit cover, left rear or right front
4b	SH0865-2/R	SH0867-2/R	spring unit cover, left front or right rear
5	SC1403-L10	SC1404-L14	countersunk flat head screw with hexalobular socket
6	SH0493-01	SH0493-01	plunger
7	VE3771-012/26	VE3771-012/26	O-ring damper
8	GS1108-500	GS1108-500	sliding bushing
9	FE1027-01	FE1027-01	coil spring
10	SC1403-L08/1	SC1403-L08/1	countersunk flat head screw with hexalobular socket
11a	SH0865-3/L	SH0867-3/L	adjusting screw cover, left rear or right front
11b	SH0865-3/R	SH0867-3/R	adjusting screw cover, left front or right rear
12	-	-	cover plate**
13	SC1416-L14	SC1416-L20	countersunk flat head screw with hexalobular socket
14	SC1416-L14	SC1416-L20	countersunk flat head screw with hexalobular socket (axle screw)
4-14	SH8975-AL***	SH8977-AL	functional unit***

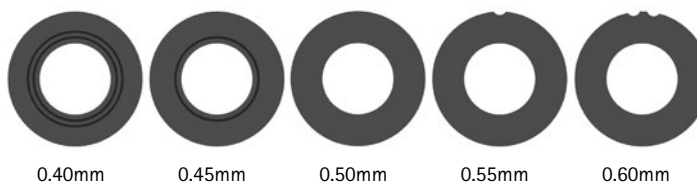
\*\* The cover plate cannot be ordered separately.

\*\*\* The functional unit is delivered fully assembled. The hydraulic system of the functional unit must not be opened. You can see from the exploded view drawing which parts of the functional unit may be disassembled.

#### \* Sliding Washers

Article Number for System Width	
20mm	24mm
∅ = 26mm	∅ = 30mm
GS2611-040	GS3013-040
GS2611-045	GS3013-045
GS2611-050	GS3013-050
GS2611-055	GS3013-055
GS2611-060	GS3013-060

The last three digits of the article number stand for the thickness of the sliding washer, e. g. GS2611-040. The thickness of this sliding washer is 0.40mm. In total, the sliding washers are available in five different thicknesses. The thickness of a sliding washer is indicated by the markings. For example, a sliding washer with two notches is 0.40mm thick, whereas a sliding washer with one notch is 0.55mm thick.



➔ You will find system stirrups on catalogue page C50.10f.

➔ You will find system side bars and system anchors on catalogue page I1ff.

# Accessory Parts NEURO HiSWING R+

NEURO SWING-CLASSIC

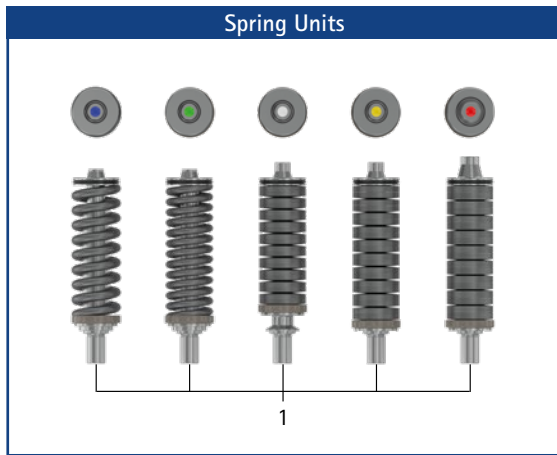
NEURO SWING

NEURO SWING 2

NEURO HiSWING

NEURO HiSWING R+

NEURO SWING Carbon



## Spring Units\* (You Need Two of the Following Spring Units for One NEURO HiSWING R+ System Ankle Joint):

Item	Article Number for System Width		Description	Unit
	20mm	24mm		
1	SH5805-15/18	SH5807-15/12	spring unit, blue, normal, max. 15° range of motion	piece
1	SH5805-15/25	SH5807-15/25	spring unit, green, medium, max. 15° range of motion	piece
1	SH5805-10/40	SH5807-10/53	spring unit, white, strong, max. 10° range of motion	piece
1	SH5805-10/60	SH5807-10/80	spring unit, yellow, very strong, max. 10° range of motion	piece
1	SH5805-05/99	SH5807-05/99	spring unit, red, extra strong, max. 5° range of motion	piece

\* For the NEURO HiSWING R+ system ankle joint, the same spring units are required as for the NEURO SWING 2 system ankle joint.

## Spring Units Weights [g]

Spring Unit	Article Number	System Width	
		20mm	24mm
spring unit, blue, normal, max. 15° range of motion	see table spring units	36	39
spring unit, green, medium, max. 15° range of motion	see table spring units	41	46
spring unit, white, strong, max. 10° range of motion	see table spring units	52	85
spring unit, yellow, very strong, max. 10° range of motion	see table spring units	61	97
spring unit, red, extra strong, max. 5° range of motion	see table spring units	64	99

## Spare Parts Spring Units

Item	Article Number for System Width		Description
	20mm	24mm	
2	VE3771-11/10	VE3771-140/10	O-ring for securing the spring unit

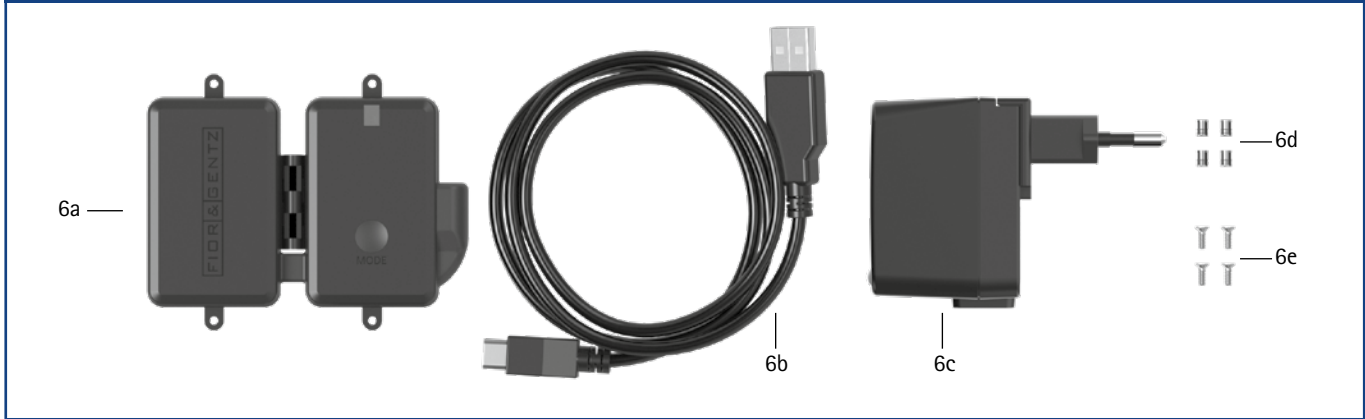
## Accessory Parts

Item	Article Number for System Width		Description	Unit
	20mm	24mm		
3	WZ5114-T08	WZ5114-T08	hexalobular screwdriver, T-handle, T8**	piece
4	WZ5114-T10	-	hexalobular screwdriver, T-handle, T10***	piece
-	-	WZ5114-T15	hexalobular screwdriver, T-handle, T15***	piece
-	WZ5114-T30	WZ5114-T30	hexalobular screwdriver, T-handle, T30	piece
5	WZ5112-5010	WZ5112-5010	hexagonal screwdriver with spherical head, 5 x 100mm	piece

\*\* is needed to screw the countersunk flat head screws on the adjusting screw covers in and out

\*\*\* is needed to screw the countersunk flat head screws on the spring unit covers in and out

Controller Set (6a-6e)

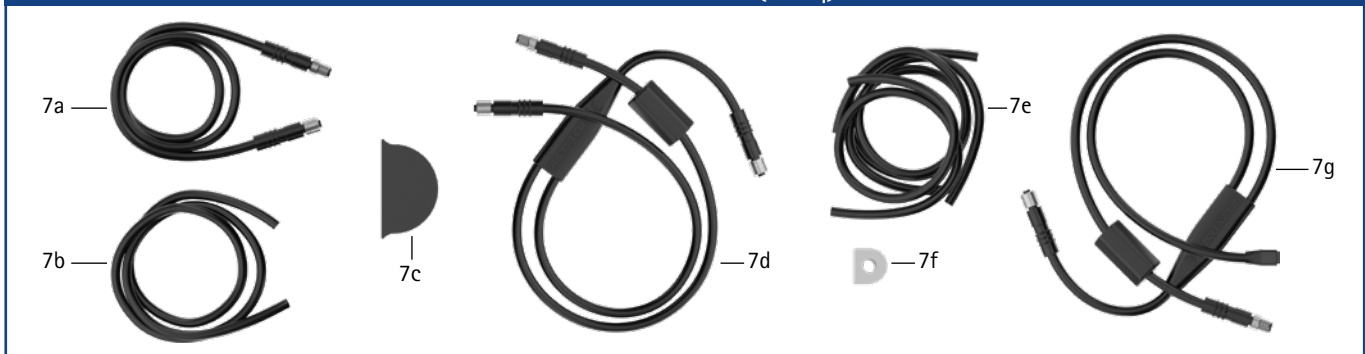


Controller Set

Item	Article Number	Description	Unit	Quantity Unilateral
6a-6e	SL3860-S	controller set	set	1
6a	ET3860	controller with Bluetooth with lithium-polymer battery	piece	1
6b	ET0710-01	charging cable for controller, 1m	piece	1
6c	ET0780-01	power supply unit incl. primary adapters for Europe, USA/Japan, Great Britain, Australia	set	1
6d	VE0831-A3*	thread insert*	piece	4
6e	SC1302-L06*	countersunk flat head screw with cross recess H*	piece	4

\* required for mounting the controller

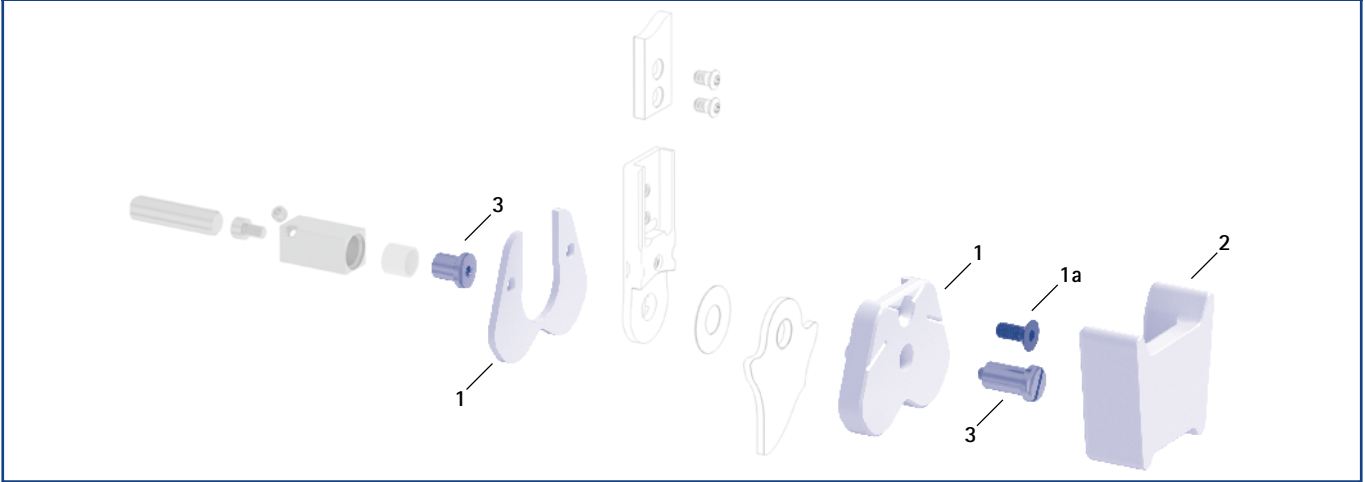
Connection Cable Sets (7a-7g)



Connection Cable Sets

Item	Article Number	Description	Unit	Quantity Unilateral
7a-7c	SH8860-K	connection cable set NEURO HiSWING R+	set	1
7a	ET0711-03	connection cable for functional unit NEURO HiSWING R+, 510mm	piece	1
7b	SH0985-11	lamination dummy for connection cable, 390mm	piece	1
7c	ET0971-1	lamination dummy for cable length compensation	piece	1
7c-7f	SL3860-K/4	connection cable set NEURO HiSWING R+, NEURO HiTRONIC	set	1
7c	ET0971-1	lamination dummy for cable length compensation	piece	3
7d	ET0713-02	connection cable for functional unit NEURO HiTRONIC and NEURO HiSWING R+, 660mm	piece	1
7e	SH0985-15	lamination dummy for connection cable for NEURO HiSWING R+ functional unit, 270mm	piece	1
7e	SH0985-16	lamination dummy for connection cable for controller, 140mm	piece	1
7e	SL0935-17	lamination dummy for connection cable for NEURO HiTRONIC functional unit, 190mm	piece	1
7f	ET0972-3	lamination dummy for connection cable for functional unit	piece	1
7c, 7e-7g	SK3860-K/4	connection cable set NEURO HiSWING R+, NEURO TRONIC	set	1
7c	ET0971-1	lamination dummy for cable length compensation	piece	3
7e	SH0985-15	lamination dummy for connection cable for NEURO HiSWING R+ functional unit, 270mm	piece	1
7e	SH0985-16	lamination dummy for connection cable for controller, 140mm	piece	1
7e	SK0935-11	lamination dummy for connection cable for NEURO TRONIC functional unit, 250mm	piece	1
7f	ET0972-3	lamination dummy for connection cable for functional unit	piece	1
7g	ET0714-02	connection cable for functional unit NEURO TRONIC and NEURO HiSWING R+, 660mm	piece	1

Assembly/Lamination Dummy, Shaping Dummy and Joint Retainer (1, 2, 3)



Assembly/Lamination Dummy, Shaping Dummy and Joint Retainer

Item	Article Number for System Width		Description	Unit
	20mm	24mm		
1	SH0985-LR1	SF0957-LR1	assembly/lamination dummy, two parts (2 dummies with screw)	set
1a	SC1056-L14	SC1056-L16	countersunk flat head screw with hexagon socket	piece
2	SF0955-5LR2	SF0957-LR2	shaping dummy	piece
3	PE1025-LR	PE1127-LR	joint retainer	piece
	7/C	11/D	laser marking	-

- ➔ Assembly/lamination dummies are included in the scope of delivery of the system joints.
- ➔ You will find an overview of our tools on catalogue page J1ff.
- ➔ You will also find the joint retainers and the corresponding laser markings in the tool case on the catalogue pages J15 and J16.

Cover Plate Pressing Aid (4)

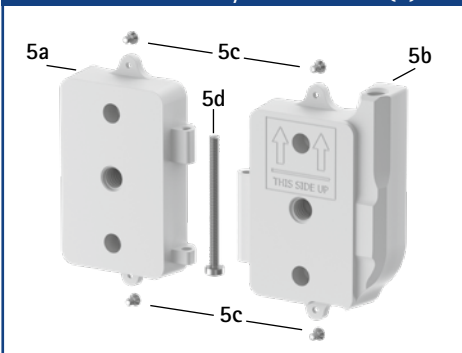


Cover Plate Pressing Aid

Item	Article Number for System Width		Description	Unit
	20mm	24mm		
4	WE5005-SF	WE5007-SF	cover plate pressing aid (pressing screw and washer)	set

- ➔ The cover plate pressing aid is included in the scope of delivery of the system joints.

Lamination Dummy for Controller (5)



Lamination Dummy for Controller

Item	Article Number	Description	Unit
5	ET0935	lamination dummy for controller, two parts	set
5a	ET0935-1	lamination dummy for controller, battery side	piece
5b	ET0935-2	lamination dummy for controller, cable side	piece
5c	SC1302-L04	countersunk flat head screw with cross recess H, 4 pieces	piece
5d	SC0403-L40	pan head screw with hexalobular socket	piece



rivet stirrup



lamination/prepreg stirrup



thermoformage stirrup



side view

General Measures of the System Stirrups

Measure [mm]	System Width	
	20mm	24mm
thickness	3.0	4.5
neck width	30.8	32.5
bore hole diameter	10.5	12.5

Bent

Description	Leg/Leg Side	Unit	Article Number and Measures for System Width	
			20mm	24mm
rivet stirrup	left or right	piece	FB5015-LR/ST5	-
length from the middle of the bore hole [mm]			164	-
weight [g]			143	-
lamination/prepreg stirrup	left lateral or right medial	piece	FB5115-L/ST1	FB5137-L/TI2
	left medial or right lateral		FB5115-R/ST1	FB5137-R/TI2
length from the middle of the bore hole [mm]			68	71
weight [g]			70	78
thermoformage stirrup	left or right	piece	FB5215-LR/ST3	FB5237-LR/TI4
length from the middle of the bore hole [mm]			73	74
weight [g]			66	72

# System Stirrups – Straight

NEURO SWING-CLASSIC

NEURO SWING

NEURO SWING 2

NEURO HiSWING

NEURO HiSWING R+

NEURO SWING Carbon



rivet stirrup



lamination/prepreg stirrup



thermoformage stirrup

## Straight

Description	Unit	Article Number and Measures for System Width	
		20mm	24mm
rivet stirrup	piece	FB5015-ST/5	-
length from the middle of the bore hole [mm]		165	-
weight [g]		143	-
lamination/prepreg stirrup	piece	FB5115-ST/1	-
length from the middle of the bore hole [mm]		69	-
weight [g]		70	-
thermoformage stirrup	piece	FB5215-ST/3	-
length from the middle of the bore hole [mm]		74	-
weight [g]		66	-

## Spare Parts System Stirrup

Item	Article Number for System Width		Description
	20mm	24mm	
1	BR1211-L030	BR1413-L070	sliding bushing

➔ All system stirrups of the NEURO HiSWING R+ system ankle joint are delivered with an integrated sliding bushing.

## Information for Processing

### Rivet Stirrup:

➔ This system stirrup is riveted to the foot piece.

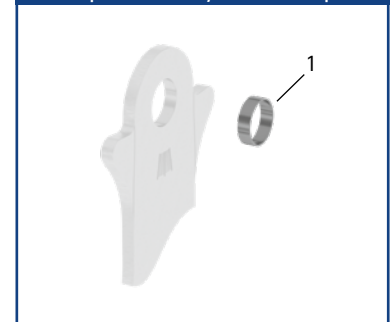
### Lamination/Prepreg Stirrup:

➔ This system stirrup is embedded into the laminate of the foot piece.

### Thermoformage Stirrup:

➔ This system stirrup is embedded into thermoformable plastics, but can be embedded into laminates as well.

## Spare Parts System Stirrup



➔ The system stirrup is marked with lines in the neck area in order to read the joint angle.



NEURO SWING-CLASSIC

NEURO SWING

NEURO SWING 2

NEURO HISWING

NEURO HISWING R+

NEURO SWING Carbon