

## Joint Assembly Modular System Ankle Joints

This online tutorial shows the joint assembly of our modular system ankle joints using the NEURO SWING 2 system ankle joint as an example.

Besides its dynamic spring units, the NEURO SWING 2 system ankle joint provides an integrated noise reduction as well. You will find further information in the [instructions for use](#).

### FIOR & GENTZ

Gesellschaft für Entwicklung und Vertrieb  
von orthopädietechnischen Systemen mbH

Dorette-von-Stern-Straße 5  
21337 Lüneburg

☎ +49 4131 24445-0  
☎ +49 4131 24445-57

✉ info@fior-gentz.de  
🌐 www.fior-gentz.de



**FIOR & GENTZ**

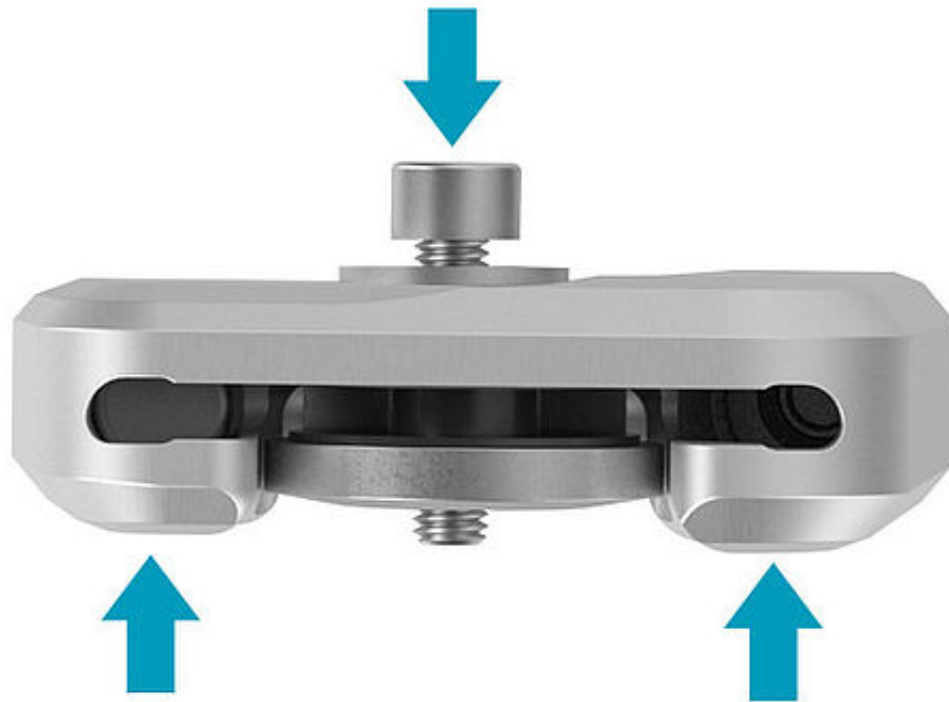
Gesellschaft für Entwicklung und Vertrieb  
von orthopädietechnischen Systemen mbH

Dorette-von-Stern-Straße 5  
21337 Lüneburg

☎ +49 4131 24445-0  
☎ +49 4131 24445-57

✉ info@fior-gentz.de  
🌐 www.fior-gentz.de





Demount the cover plate.

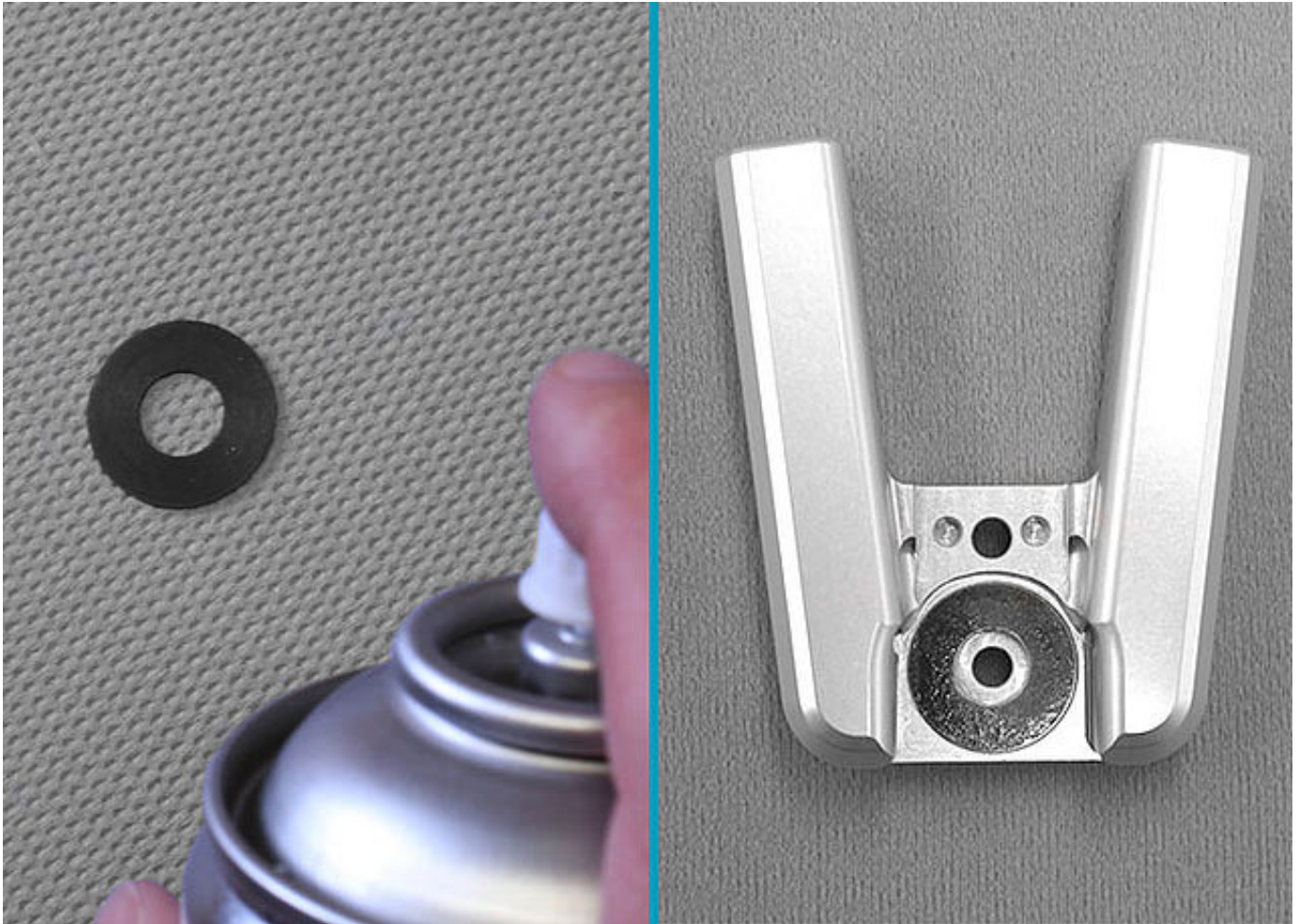
Unscrew both countersunk flat head screws. Place the washer on the cover plate and screw the pressing screw (not entirely) into the thread of the first screw. Push the joint's upper part and the cover plate apart by exerting force on them (arrows). This can be achieved by using a vice or by controlled knocks.

Remove pressing screw and washer.



Clean the system joint. In order to clean the threads in the cover plate, use the Super Clean LOCTITE® 7063 to remove any insulating wax residues.

*Note: Mind the [safety data sheet](#) when using Super Clean LOCTITE® 7063.*



Apply spray adhesive to one side of the first sliding washer and adhere it to the cover plate. Grease the other side of the sliding washer slightly with orthosis joint grease.

**FIOR & GENTZ**

Gesellschaft für Entwicklung und Vertrieb  
von orthopädietechnischen Systemen mbH

Dorette-von-Stern-Straße 5  
21337 Lüneburg

☎ +49 4131 24445-0  
☎ +49 4131 24445-57

✉ info@fior-gentz.de  
🌐 www.fior-gentz.de





Use the delivered cover plate pressing aid to press the cover plate with the joint's upper part. Tighten the pressing screw with the corresponding torque.

*Note: You will find the appropriate torque (Nm) on the cover plate of the system joint or in the [instructions for use](#).*

**FIOR & GENTZ**

Gesellschaft für Entwicklung und Vertrieb  
von orthopädietechnischen Systemen mbH

Dorette-von-Stern-Straße 5  
21337 Lüneburg

☎ +49 4131 24445-0  
☎ +49 4131 24445-57

✉ [info@fior-gentz.de](mailto:info@fior-gentz.de)  
🌐 [www.fior-gentz.de](http://www.fior-gentz.de)







Remove pressing screw and washer.

In order to fix the cover plate for the next work steps, screw in the first countersunk flat head screw with the torque which corresponds to the system width.

**FIOR & GENTZ**

Gesellschaft für Entwicklung und Vertrieb  
von orthopädietechnischen Systemen mbH

Dorette-von-Stern-Straße 5  
21337 Lüneburg

☎ +49 4131 24445-0  
☎ +49 4131 24445-57

✉ info@fior-gentz.de  
🌐 www.fior-gentz.de

**FIOR & GENTZ**  
ORTHOPÄDIETECHNIK MIT SYSTEM



Make sure there is no space left between the cover plate and the joint's upper part.

**FIOR & GENTZ**

Gesellschaft für Entwicklung und Vertrieb  
von orthopädietechnischen Systemen mbH

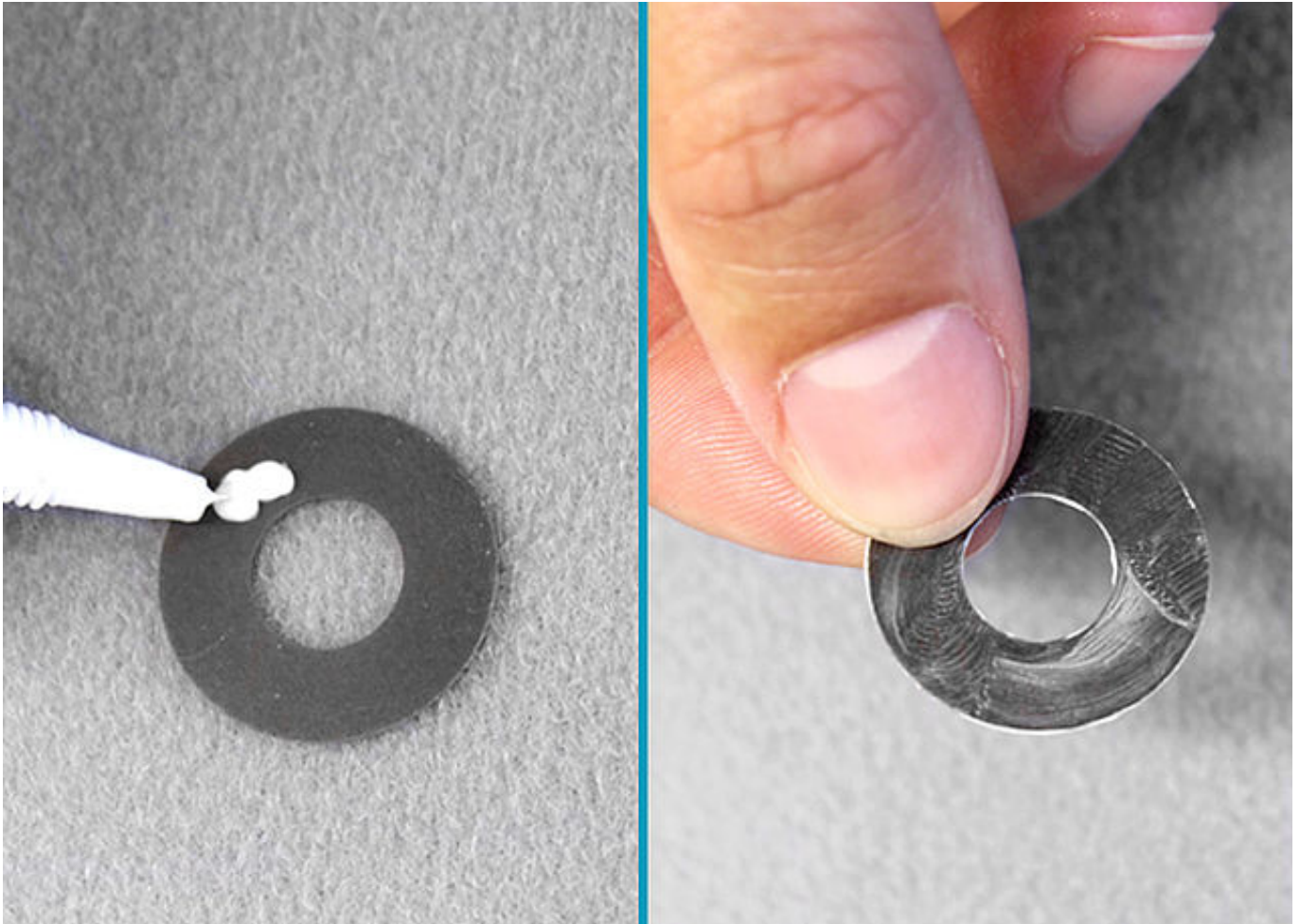
Dorette-von-Stern-Straße 5  
21337 Lüneburg

☎ +49 4131 24445-0  
☎ +49 4131 24445-57

✉ info@fior-gentz.de  
🌐 www.fior-gentz.de

**FIOR & GENTZ**  
ORTHOPÄDIETECHNIK MIT SYSTEM





Grease the second sliding washer slightly with orthosis joint grease.

**FIOR & GENTZ**

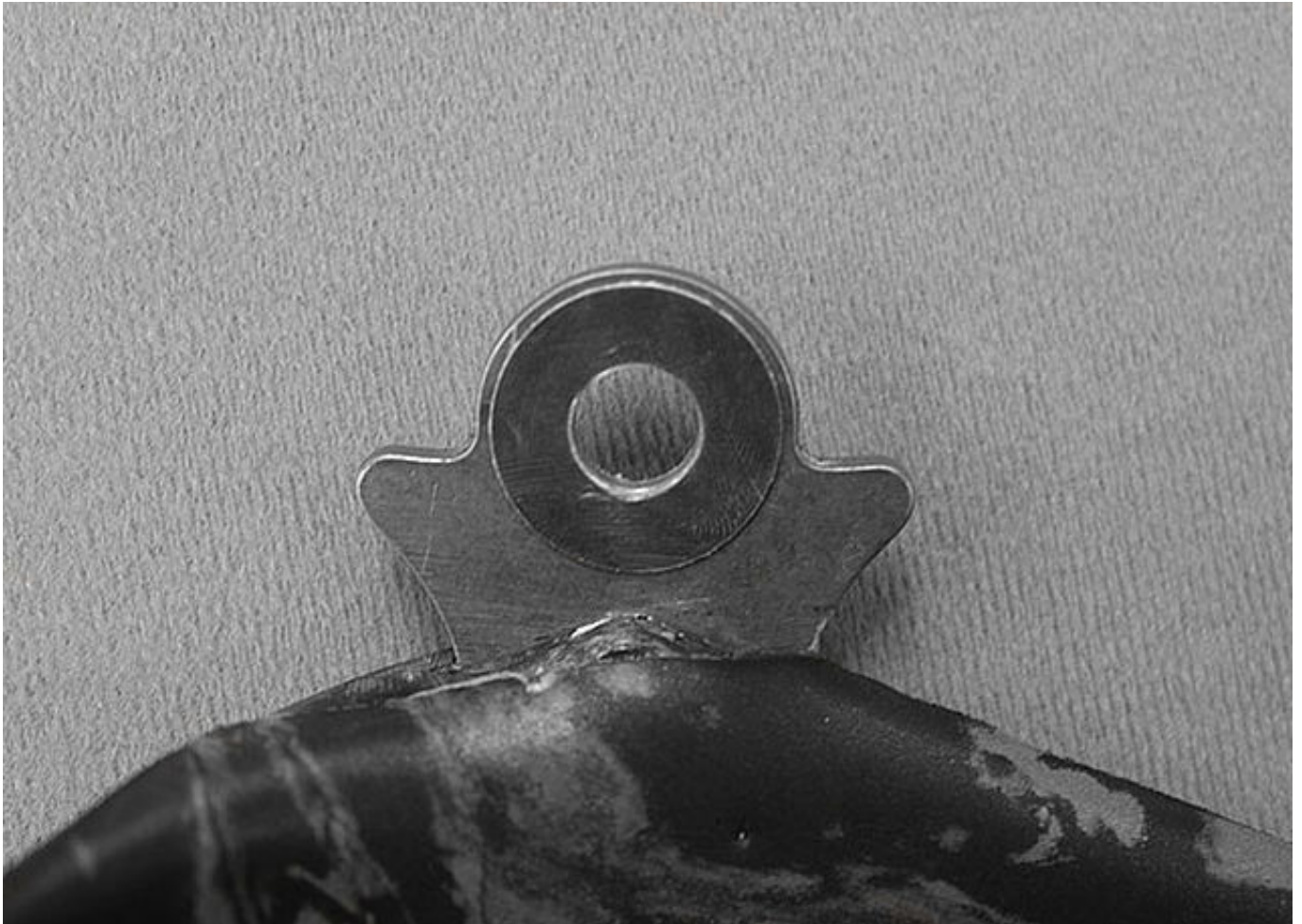
Gesellschaft für Entwicklung und Vertrieb  
von orthopädietechnischen Systemen mbH

Dorette-von-Stern-Straße 5  
21337 Lüneburg

☎ +49 4131 24445-0  
☎ +49 4131 24445-57

✉ info@fior-gentz.de  
🌐 www.fior-gentz.de

**FIOR & GENTZ**  
ORTHOPÄDIETECHNIK MIT SYSTEM



Grease the contact surfaces of the system stirrup between system stirrup and spring units with orthosis joint grease. Place the second sliding washer onto the medial side of the system stirrup.

**FIOR & GENTZ**

Gesellschaft für Entwicklung und Vertrieb  
von orthopädietechnischen Systemen mbH

Dorette-von-Stern-Straße 5  
21337 Lüneburg

☎ +49 4131 24445-0  
☎ +49 4131 24445-57

✉ info@fior-gentz.de  
🌐 www.fior-gentz.de

**FIOR & GENTZ**  
ORTHOPÄDIETECHNIK MIT SYSTEM



Slide the system stirrup from below between the cover plate and the joint's upper part. Make sure that the sliding washer remains in the correct position.

**FIOR & GENTZ**

Gesellschaft für Entwicklung und Vertrieb  
von orthopädietechnischen Systemen mbH

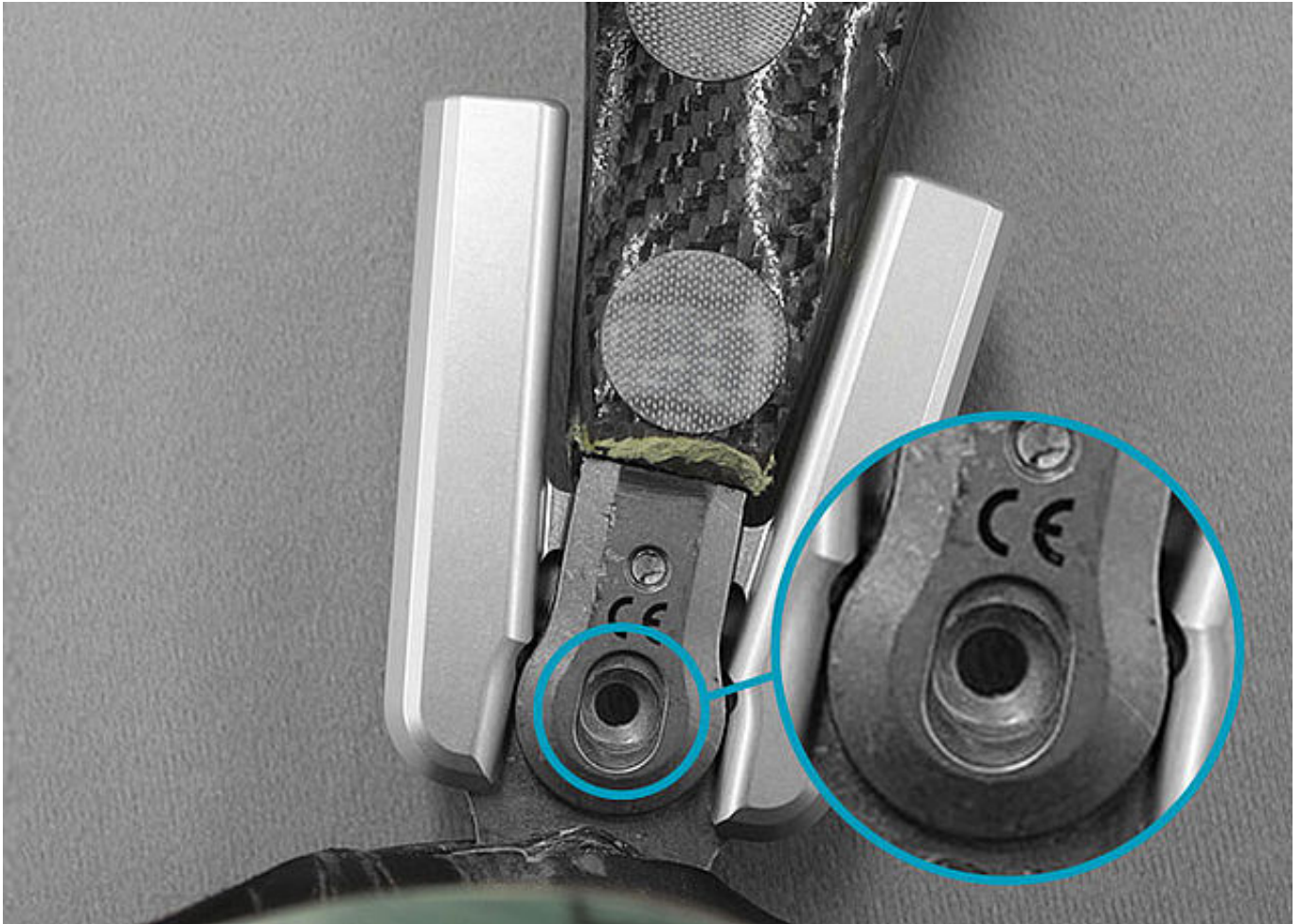
Dorette-von-Stern-Straße 5  
21337 Lüneburg

☎ +49 4131 24445-0  
☎ +49 4131 24445-57

✉ info@fior-gentz.de  
🌐 www.fior-gentz.de

**FIOR & GENTZ**  
ORTHOPÄDIETECHNIK MIT SYSTEM





Check if the sliding washer fits well.

**FIOR & GENTZ**

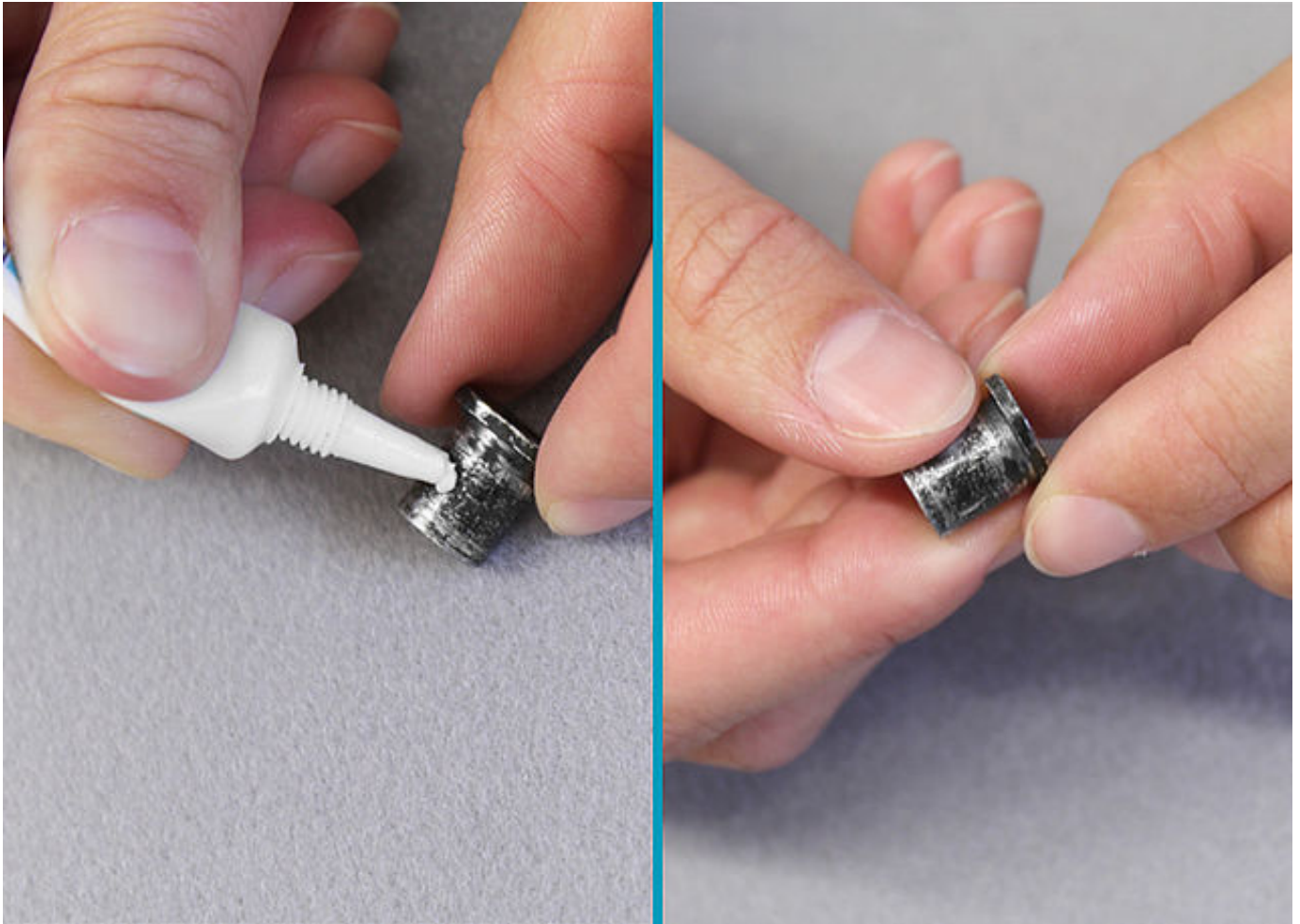
Gesellschaft für Entwicklung und Vertrieb  
von orthopädietechnischen Systemen mbH

Dorette-von-Stern-Straße 5  
21337 Lüneburg

☎ +49 4131 24445-0  
☎ +49 4131 24445-57

✉ info@fior-gentz.de  
🌐 www.fior-gentz.de

**FIOR & GENTZ**  
ORTHOPÄDIETECHNIK MIT SYSTEM



Grease the friction surfaces of the bearing nut slightly with orthosis joint grease.

**FIOR & GENTZ**

Gesellschaft für Entwicklung und Vertrieb  
von orthopädietechnischen Systemen mbH

Dorette-von-Stern-Straße 5  
21337 Lüneburg

☎ +49 4131 24445-0  
☎ +49 4131 24445-57

✉ info@fior-gentz.de  
🌐 www.fior-gentz.de





Put the bearing nut into the intended opening of the joint's upper part and make sure that it is in the correct position. Secure the bearing nut with one finger.

**FIOR & GENTZ**

Gesellschaft für Entwicklung und Vertrieb  
von orthopädietechnischen Systemen mbH

Dorette-von-Stern-Straße 5  
21337 Lüneburg

☎ +49 4131 24445-0  
☎ +49 4131 24445-57

✉ info@fior-gentz.de  
🌐 www.fior-gentz.de

**FIOR & GENTZ**  
ORTHOPÄDIETECHNIK MIT SYSTEM





Screw in the second countersunk flat head screw (axle screw) with the torque which corresponds to the system width while fixing the bearing nut from the backside with one finger.

If you have damaged a sliding washer while mounting the cover plate (you would hear a soft cracking), remove the particles and place a new sliding washer.

**FIOR & GENTZ**

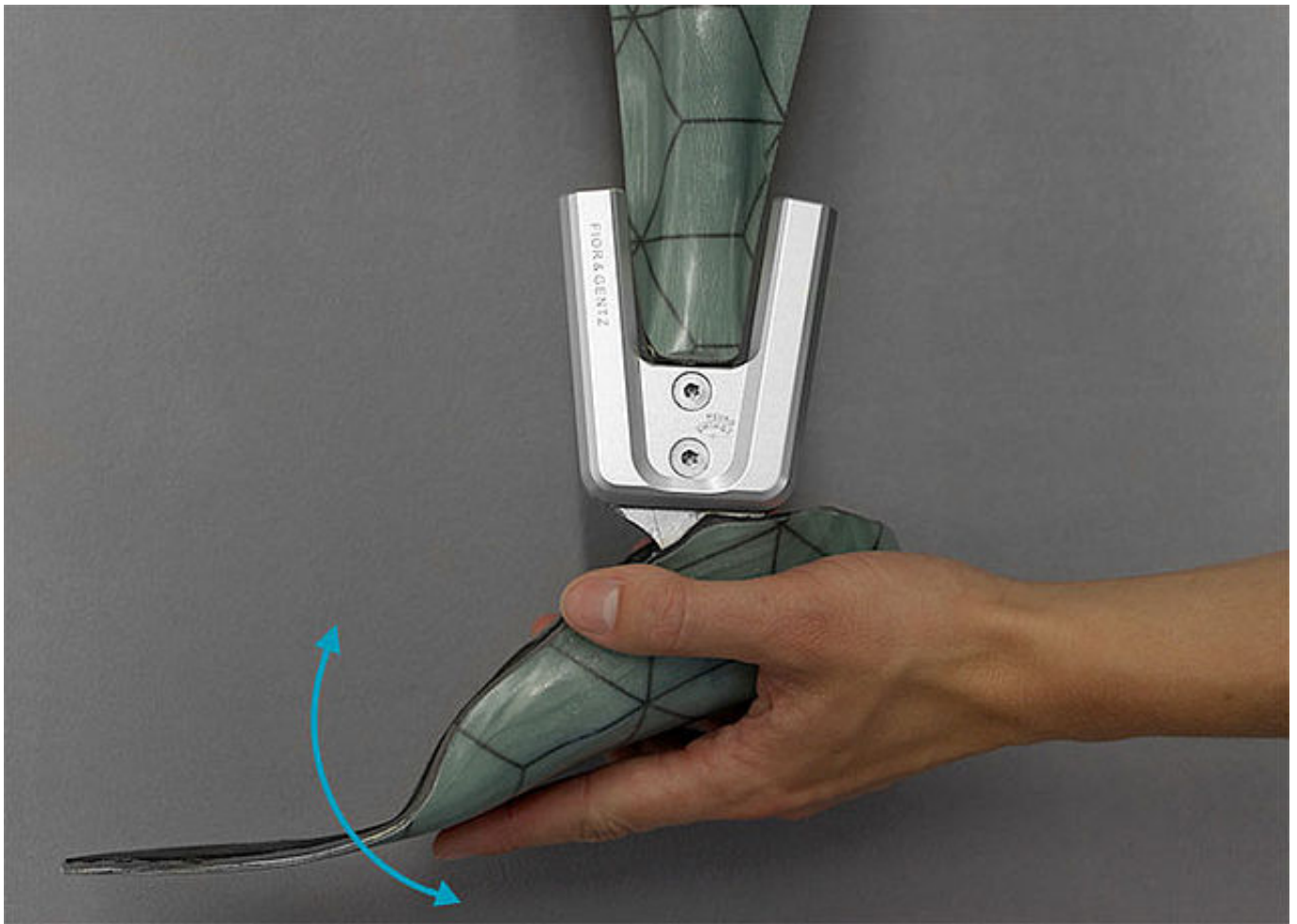
Gesellschaft für Entwicklung und Vertrieb  
von orthopädietechnischen Systemen mbH

Dorette-von-Stern-Straße 5  
21337 Lüneburg

☎ +49 4131 24445-0  
☎ +49 4131 24445-57

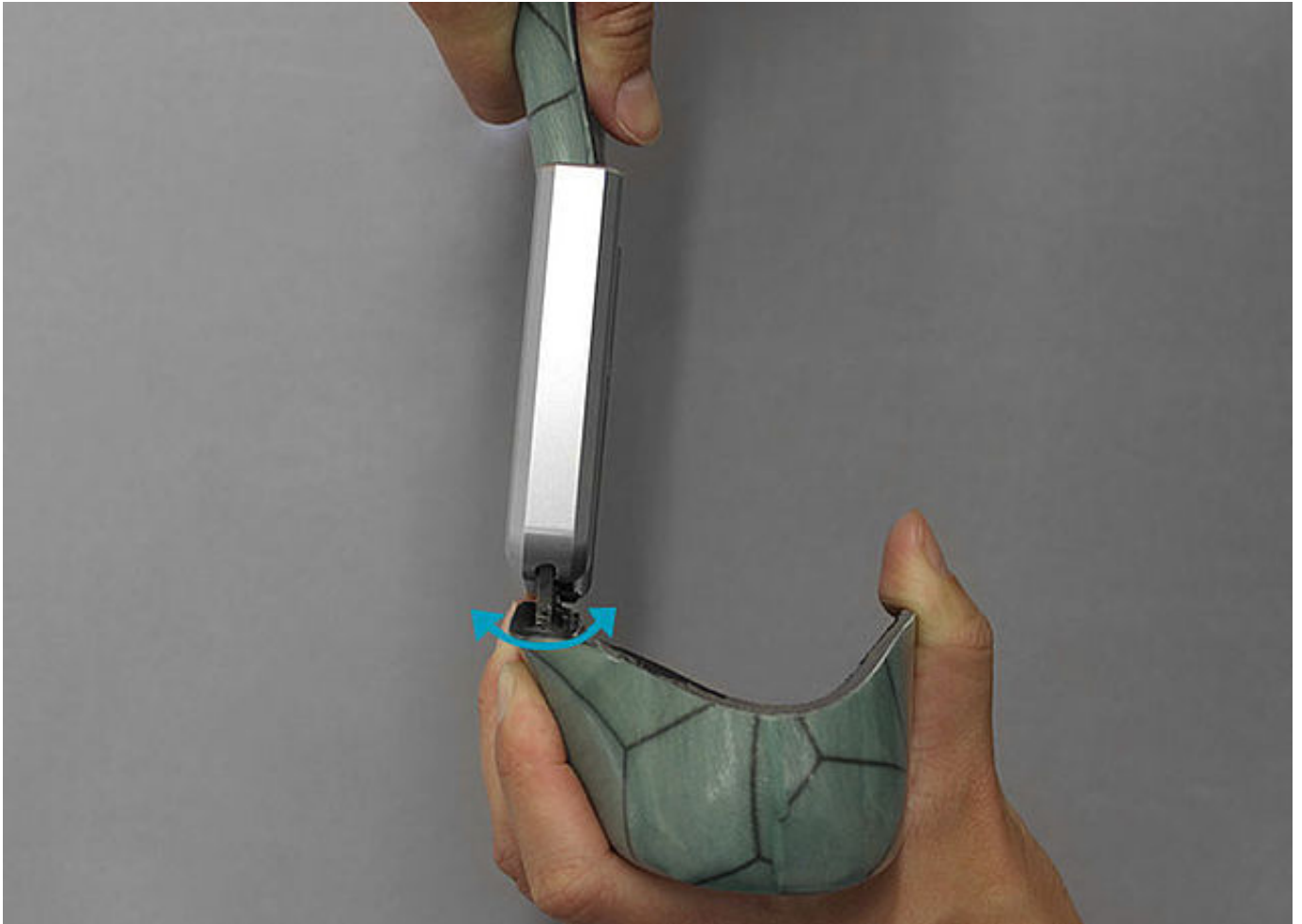
✉ info@fior-gentz.de  
🌐 www.fior-gentz.de

**FIOR & GENTZ**  
ORTHOPÄDIETECHNIK MIT SYSTEM



Bring the system joint in plantar flexion/dorsiflexion. If the system joint does not move freely, mount the next thinner sliding washer, repeat all steps from step 7 onwards and check again.

*Note: Check if the joint moves freely before mounting the spring units. At a bilateral orthosis, only check one system joint at a time.*



Hold the tibial shell and try to move the foot piece in pronation-supination direction. If the system joint has lateral play, mount the next thicker sliding washer, repeat all steps from step 7 onwards and check again.

*Note: Check if the joint runs with lateral play before mounting the spring units. At a bilateral orthosis, only check one system joint at a time.*



Secure both screws with LOCTITE 243® medium strength and the torque corresponding to the system width. Let the adhesive harden (final strength after approx. 24 hours).

*Note: Mind the [safety data sheet](#) when using LOCTITE® 243 medium strength.*

**FIOR & GENTZ**

Gesellschaft für Entwicklung und Vertrieb  
von orthopädietechnischen Systemen mbH

Dorette-von-Stern-Straße 5  
21337 Lüneburg

☎ +49 4131 24445-0  
☎ +49 4131 24445-57

✉ info@fior-gentz.de  
🌐 www.fior-gentz.de

**FIOR & GENTZ**  
ORTHOPÄDIETECHNIK MIT SYSTEM





Insert any present spring units.

**FIOR & GENTZ**

Gesellschaft für Entwicklung und Vertrieb  
von orthopädietechnischen Systemen mbH

Dorette-von-Stern-Straße 5  
21337 Lüneburg

☎ +49 4131 24445-0  
☎ +49 4131 24445-57

✉ info@fior-gentz.de  
🌐 www.fior-gentz.de

**FIOR & GENTZ**  
ORTHOPÄDIETECHNIK MIT SYSTEM



Place the orthosis on its forefoot and put weight on the system joint in dorsiflexion. Screw in any present spring units until the required alignment of the orthosis is achieved.

At a bilateral orthosis with two NEURO SWING 2 system joints, mount each system joint's anterior spring unit and make sure that both system joints are adjusted alike.

At a bilateral orthosis with a supporting joint, the range of motion of the NEURO SWING 2 system joint should be limited without being restricted by the supporting joint. You might need to file off the stops of the supporting joint's system stirrup.

**FIOR & GENTZ**

Gesellschaft für Entwicklung und Vertrieb  
von orthopädietechnischen Systemen mbH

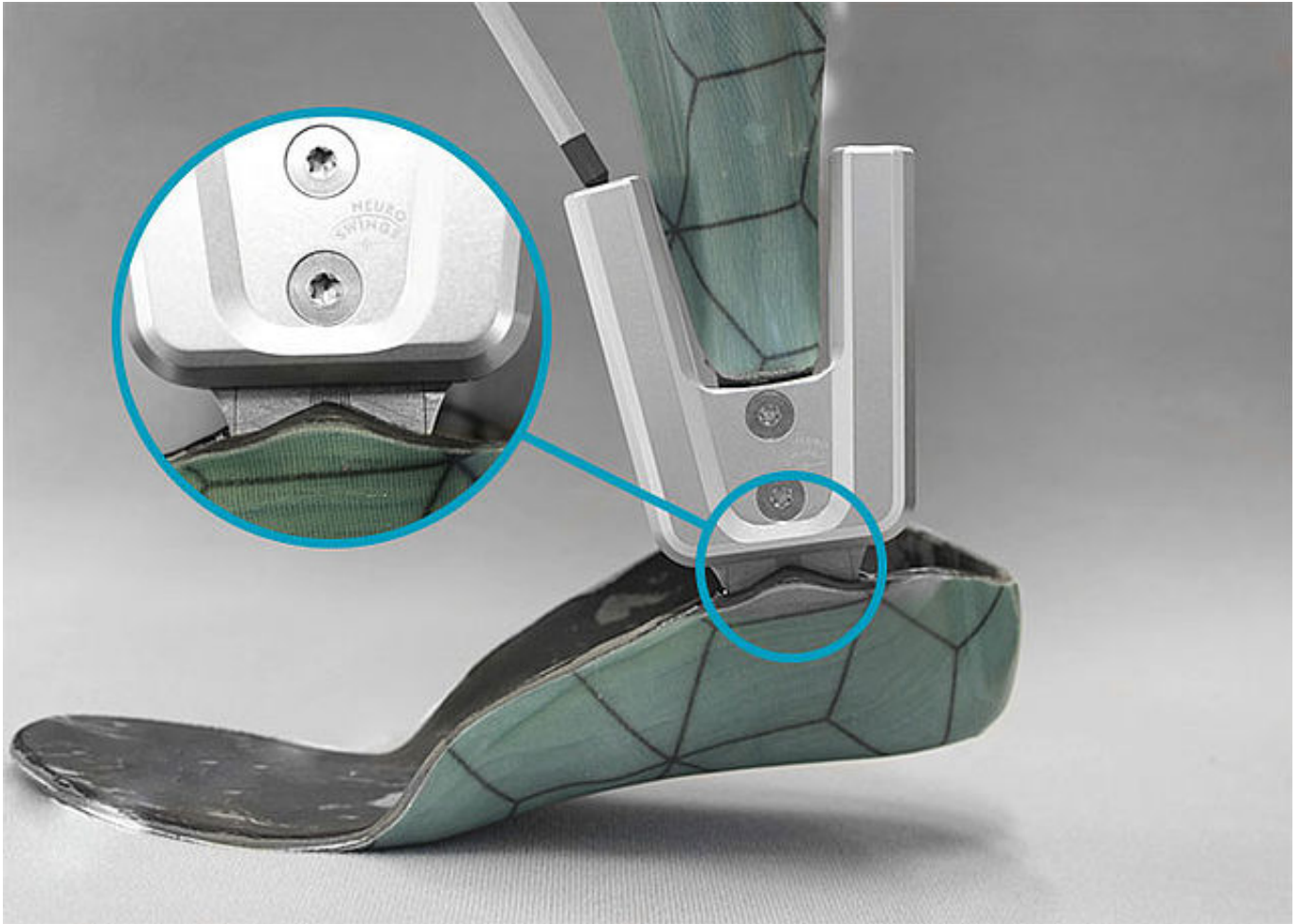
Dorette-von-Stern-Straße 5  
21337 Lüneburg

☎ +49 4131 24445-0  
☎ +49 4131 24445-57

✉ info@fior-gentz.de  
🌐 www.fior-gentz.de

**FIOR & GENTZ**  
ORTHOPÄDIETECHNIK MIT SYSTEM





Check the joint angle by reading the markings on the system stirrup and the cover plate.

**FIOR & GENTZ**

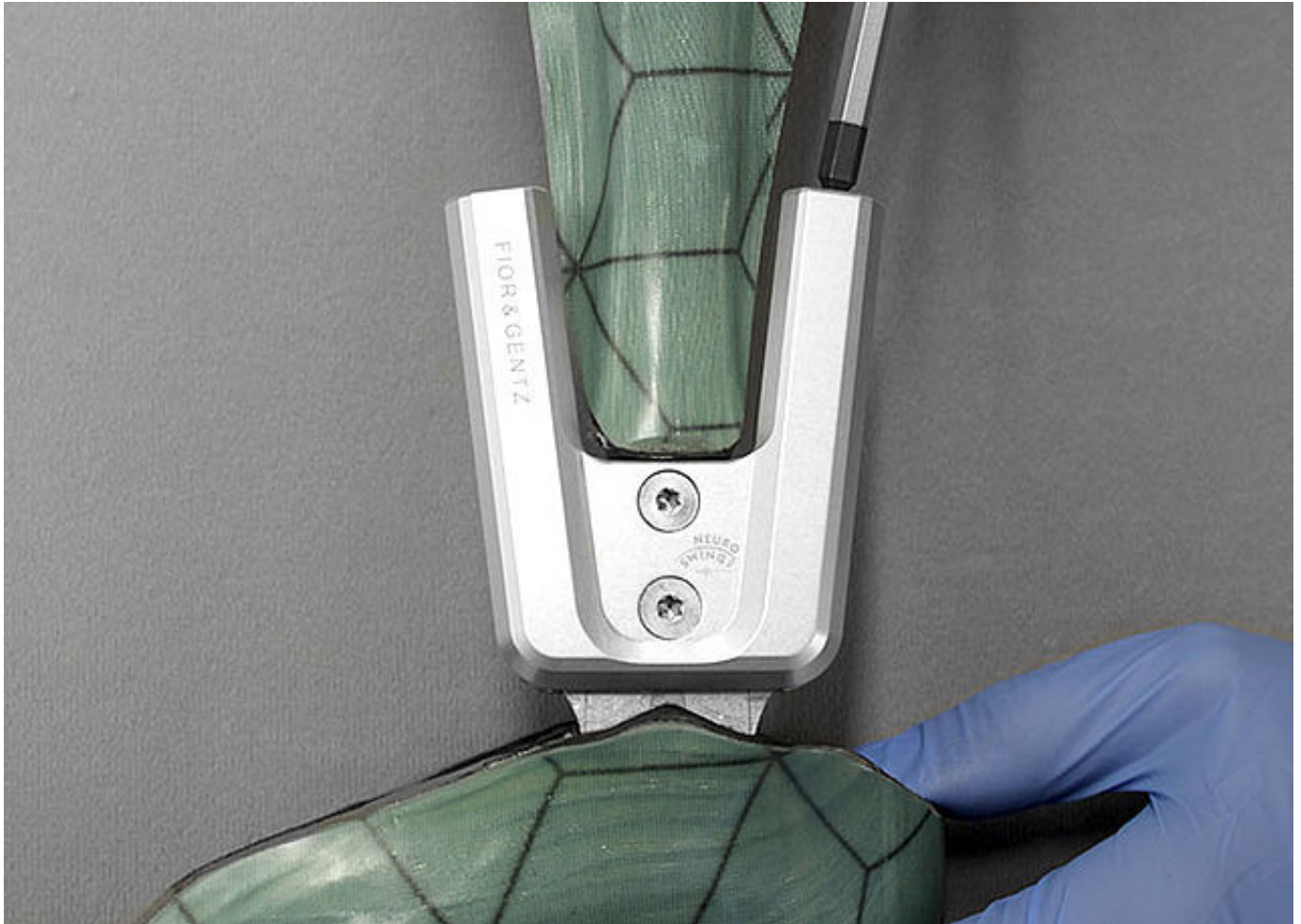
Gesellschaft für Entwicklung und Vertrieb  
von orthopädietechnischen Systemen mbH

Dorette-von-Stern-Straße 5  
21337 Lüneburg

☎ +49 4131 24445-0  
☎ +49 4131 24445-57

✉ info@fior-gentz.de  
🌐 www.fior-gentz.de

**FIOR & GENTZ**  
ORTHOPÄDIETECHNIK MIT SYSTEM



Adjust any present spring units for the plantar flexion.

*Note: You will find information about the assembly of the spring units in the [instructions for use](#).*

At a bilateral orthosis with two NEURO SWING 2 system joints, mount each system joint's posterior spring unit and make sure that both system joints are adjusted alike.

At a bilateral orthosis with a supporting joint, the range of motion of the NEURO SWING 2 system joint should be limited without being restricted by the supporting joint. You might need to file off the stops of the supporting joint's system stirrup.

**FIOR & GENTZ**

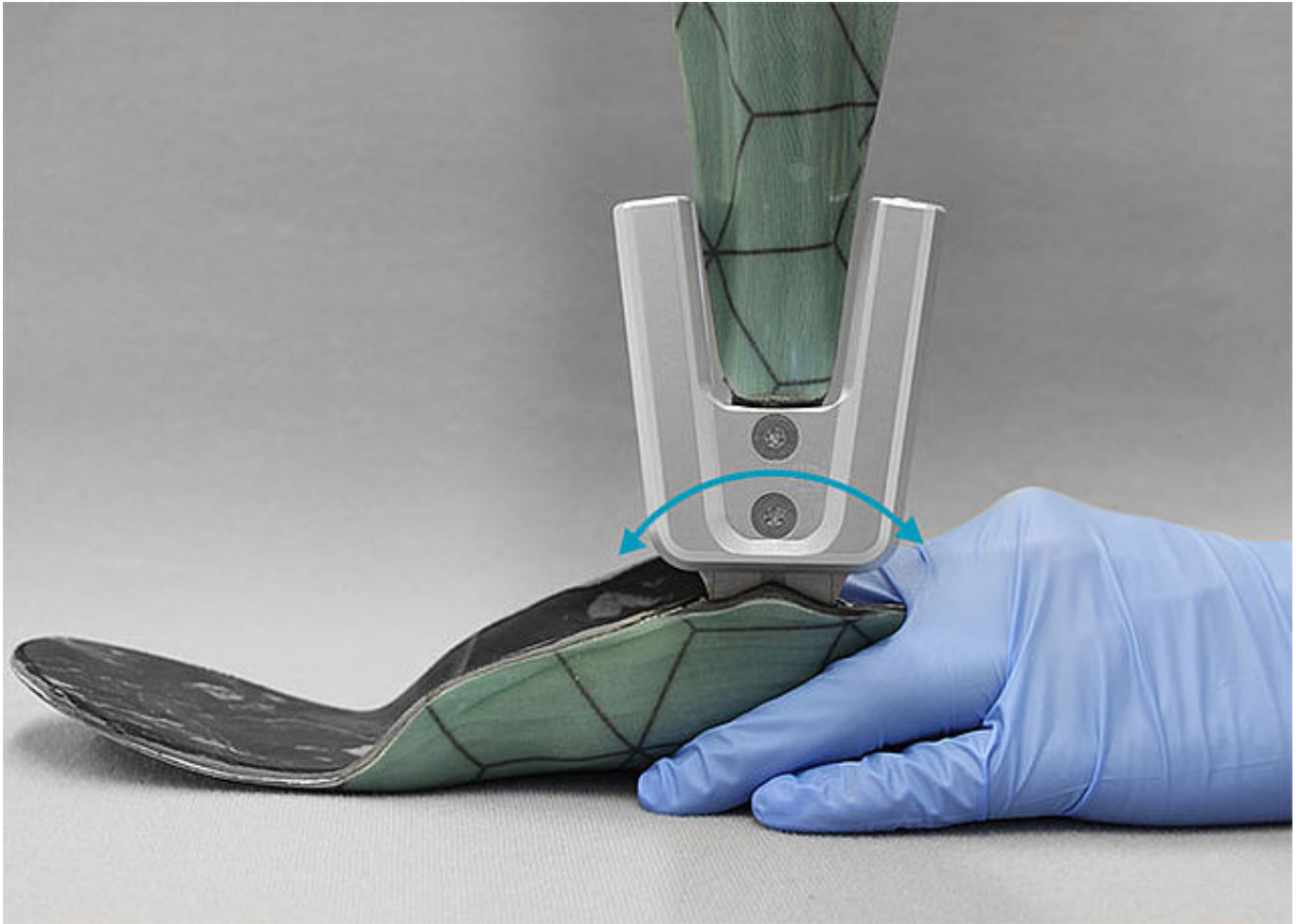
Gesellschaft für Entwicklung und Vertrieb  
von orthopädietechnischen Systemen mbH

Dorette-von-Stern-Straße 5  
21337 Lüneburg

☎ +49 4131 24445-0  
☎ +49 4131 24445-57

✉ info@fior-gentz.de  
🌐 www.fior-gentz.de

**FIOR & GENTZ**  
ORTHOPÄDIETECHNIK MIT SYSTEM



Bring the system joint in plantar flexion/dorsiflexion. Any present spring units should move by compression only. At a high spring force, it might be impossible to cause any movement manually. If the system joint still runs idle, carefully screw the posterior alignment screw further in.

**FIOR & GENTZ**

Gesellschaft für Entwicklung und Vertrieb  
von orthopädietechnischen Systemen mbH

Dorette-von-Stern-Straße 5  
21337 Lüneburg

☎ +49 4131 24445-0  
☎ +49 4131 24445-57

✉ info@fior-gentz.de  
🌐 www.fior-gentz.de

**FIOR & GENTZ**  
ORTHOPÄDIETECHNIK MIT SYSTEM





Grease the contact surfaces of the cover plate with orthosis joint grease to prevent friction noises between cover plate and joint's upper part.

**FIOR & GENTZ**

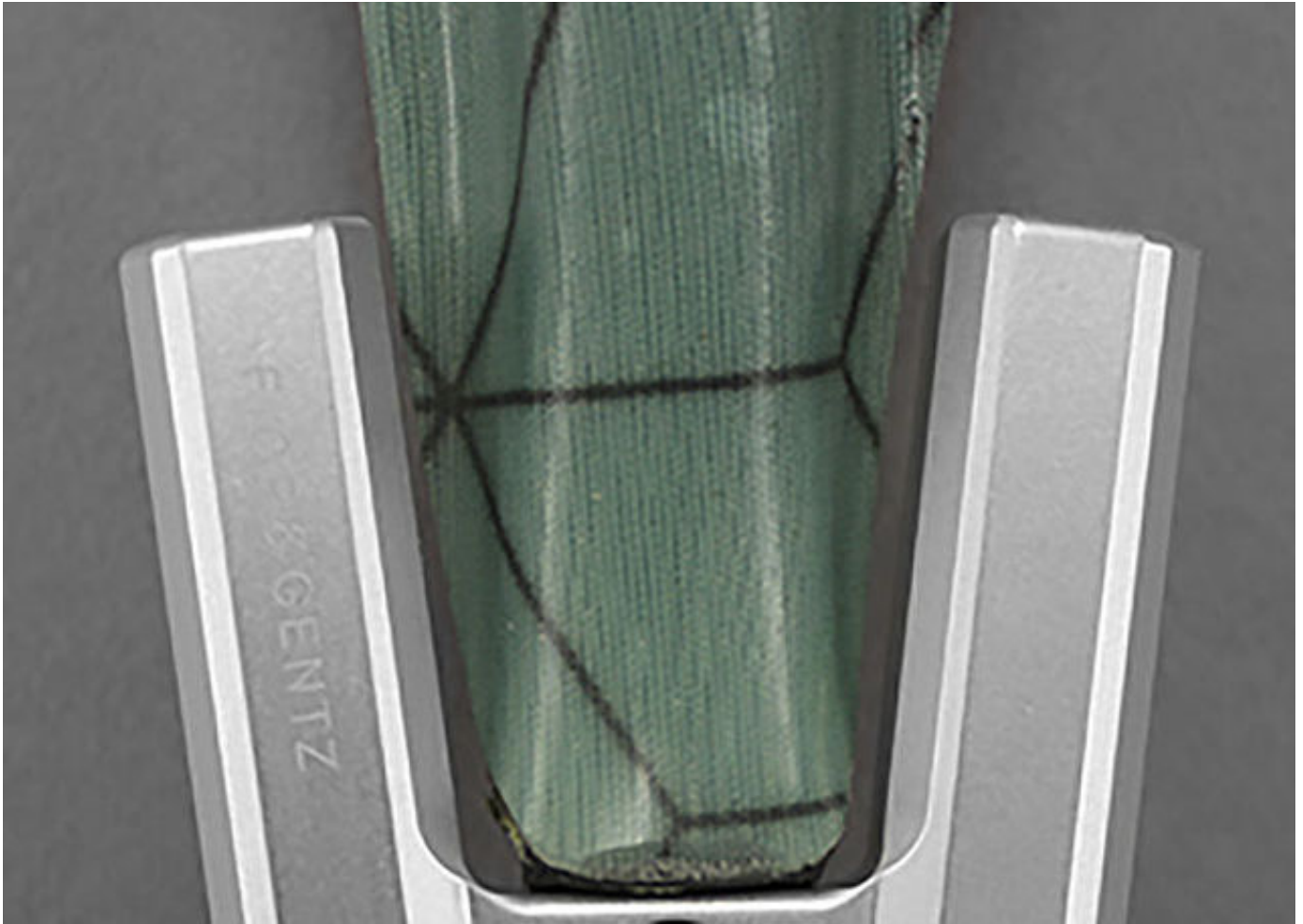
Gesellschaft für Entwicklung und Vertrieb  
von orthopädietechnischen Systemen mbH

Dorette-von-Stern-Straße 5  
21337 Lüneburg

☎ +49 4131 24445-0  
☎ +49 4131 24445-57

✉ info@fior-gentz.de  
🌐 www.fior-gentz.de





Make sure that there is no contact between the laminate and the cover plate to prevent the development of noise under dynamic load.

If necessary, rework the laminate edges.

Make sure that you do not grind the lateral surfaces of the joint's upper part. This can damage the fit between the joint's upper part and the cover plate, which can lead to mechanical noises and to the breakage of the feather keys with pin.

**FIOR & GENTZ**

Gesellschaft für Entwicklung und Vertrieb  
von orthopädietechnischen Systemen mbH

Dorette-von-Stern-Straße 5  
21337 Lüneburg

☎ +49 4131 24445-0  
☎ +49 4131 24445-57

✉ info@fior-gentz.de  
🌐 www.fior-gentz.de



## FIOR & GENTZ

Gesellschaft für Entwicklung und Vertrieb von orthopädietechnischen Systemen mbH

Dorette-von-Stern-Straße 5  
D-21337 Lüneburg

Tel.: [+49 4131 24445-0](tel:+494131244450)  
Fax: [+49 4131 24445-57](tel:+4941312444557)  
E-Mail: [info\(at\)fior-gentz.de](mailto:info@fior-gentz.de)

### Beratung und Technischer Support

[Verkauf im Innendienst](#)

[Verkauf im Außendienst](#)

[Technischer Support](#)

[Export](#)



#### FIOR & GENTZ

Gesellschaft für Entwicklung und Vertrieb  
von orthopädietechnischen Systemen mbH

Dorette-von-Stern-Straße 5  
21337 Lüneburg

☎ [+49 4131 24445-0](tel:+494131244450)  
☎ [+49 4131 24445-57](tel:+4941312444557)

✉ [info@fior-gentz.de](mailto:info@fior-gentz.de)  
🌐 [www.fior-gentz.de](http://www.fior-gentz.de)

**FIOR & GENTZ**  
ORTHOPÄDIETECHNIK MIT SYSTEM



**FIOR & GENTZ**

Gesellschaft für Entwicklung und Vertrieb  
von orthopädietechnischen Systemen mbH

Dorette-von-Stern-Straße 5  
21337 Lüneburg

☎ +49 4131 24445-0  
☎ +49 4131 24445-57

✉ info@fior-gentz.de  
🌐 www.fior-gentz.de

