

KINEGEN.stream 3A2000



< 150 kg / 330 lbs

D Kniegelenk - polyzentrisch-

GB Knee Joint -polycentric-



3A2100
(max. 150 kg)



3A2200
(max. 125 kg)



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1 Technical Data

Generally

Material.....Aluminium

Knee Flexion Range.....136°

3A2000



Effective height 212 mm
Weight 1120 g
max. Body Weight..... 150 kg / 330 lbs
Total height joint head..... 38 mm
Total height 240 mm
proximal connection..... Adjustment core
distal connection Adjustment core

3A2100



Effective height 226 mm
Weight 1175 g
max. Body Weight..... 150 kg / 330 lbs
Total height joint head..... 38 mm
Total height 240 mm
proximal connection..... M36 threaded for 4-Prong-Anchor
distal connection Adjustment core

3A2200



Effective height 221 mm
Weight 1140 g
max. Body Weight..... 125 kg / 275 lbs
Total height joint head..... 33 mm
Total height 235 mm
proximal connection..... M36 threaded for 3-Prong-Anchor
distal connection Adjustment core



Suitable to the Streifeneder Walky-System (Activity Levels):

KINEGEN.stream: approved for amputees with activity-Level

3 – 4 (till unrestricted Outdoor walker and to a maximum body load

walker and inclusive carried and supported loads of 150 kg / 330lbs

(3A2000, 3A2100) resp. 125 kg / 275 lbs. (3A2200).

2 Description and Function

2.1 Application

The Polycentric Knee Joints KINEGEN.stream 3A2000, 3A2100 and 3A220 are exclusively intended for the supply with prostheses of the lower extremities.

2.2 Construction

a) Stance Phase

A safe stance is guaranteed by the posterior position of the instantaneous center of rotation caused by the polycentric axis chain. The A-P-slide option of the proximal connection (adjustment core or M36 thread for lamination anchors) allows adjustments on the stance control.

b) Swing Phase

Toe lift relates to the flexion angle of the knee joint, which enables the amputee to walk more physiologically and with higher energy efficiency. The swing phase can be initiated without any additional forefoot load or higher energetic effort.

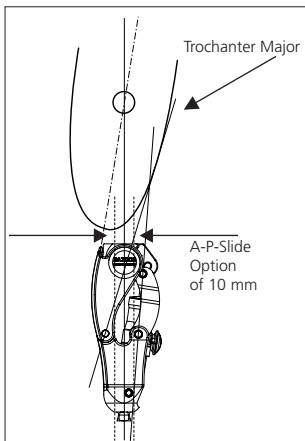
The swing phase control for flexion and extension resistances is regulated through the efficient hydraulic cylinder. This damper provides also a adjustable built-in extension impact absorption which offers the user very comfortable and smooth walking characteristics. There is also an enclosed pneumatic chamber in the lower part of the hydraulic cylinder offering a progressive spring effect for automatic gait speed adaption to a certain degree.

c) Bicycle Mode

The bicycle mode can be switched on and off by the switch disc on the back of the hydraulic cylinder. This mode offers especially for cycling a free wheel function in order to eliminate hydraulic resistances for energy saving cycling.

3 Assembling

Only a correct alignment of the prosthesis provides beneficial joint characteristics.



For a good alignment it is helpful to consider the angle of the stump for the position of the socket adapter. In order to ease the determination for the position of the lamination anchor or the socket adapter draw the plumb lines in frontal and sagittal planes starting from the hip axis center.

3.1 Basic Alignment

The load line should fall through the center of the upper axis of the frontal joint linkage and lead through the middle of the distal pyramid of the joint. For more stance safety the proximal connection can be moved in a more anterior position.

3.2 Socket alignment

For your orientation mark the socket on the lateral side proximally and distally to a center point and connect the points with a line from the upper socket edge to the socket end.

This connecting line must meet in the area of the socket entrance level with the load line. The basic attitude of socket flexion is typically 3° – 5° , but the individual situation needs to be considered, such as hip contracture.

When connecting the socket to the knee joint it is important to make sure that the knee external position of around 5° is observed and the foot external position is aligned.



Attention!

If the stump flexion is not taken into account, the joint pivot point could be too far anterior or posterior. This may lead to dysfunction and even loss of stability.

Fine adjustments should be performed later in the dynamic fitting process.

3.3 Limitation of flexion

The 3A2000 KINEGEN.stream allows knee flexion of 136° . However, this flexion angle is only achieved with correct socket- / prosthesis set-up.

Clamps of lamination anchors must be positioned at the socket medially or laterally, as per instruction manual. If the clamp is placed posterior, the flexion angle of the joint can possibly not be fully used or the joint may become damaged.

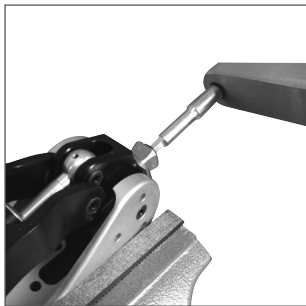


Attention!

The 3A2000 KINEGEN.stream features an integrated flexion limit. Please make sure that the socket construction is never used as flexion limit. This may result into damage and / or to destruction of the entire prosthesis.

4 Adjustment

4.1 Adjustments on the Stance phase



To adjust the desired stability loosen only the proximal locking screw of the connector with a 6 mm allen wrench. Then you can move the pyramid or the M36 thread in the anterior direction to increase the stability and in the posterior direction to achieve more dynamic characteristics. For the subsequent tightening of the screw secure the joint if necessary **carefully** in a felt protected vise clamp and tighten with a calibrated torque wrench 173P11 (torque **30 Nm**).



Attention!

When you tilt the knee joint more in anterior direction, the stance stability is reduced. When it is tilt in more posterior direction, the stance stability is increased. These adjustments are not recommended, because they lead to incorrect weight acceptance in the bearings and to premature wear!

4.2 Setting of swing phase



The order for the adjustment of the swing phase is the following:

1. To increase the resistance of flexion (F) turn the screw for the valve clockwise. Best setting is achieved when both heels reach the same height level during a gait cycle. To decrease the resistance of flexion turn the screw for the valve counter-clockwise.
2. To increase the resistance of extension (E) turn the screw clockwise. Best setting is achieved when both sides reach the same step length during a gait cycle and the gait pattern appears harmoniously. For a faster stride on the prosthetic side please turn the set screw counter-clockwise.



Attention!

Please do not screw the extension damping completely to the limit stop, because of inhibited prosthetic knee extension. The user could fall!



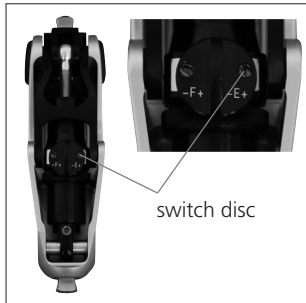
3. The extension enddamping can be adjusted by using the screw on top of the hydraulic damper. Please rotate clockwise until the user is feeling no tough mechanical impact in the full extension anymore. For this adjustment please use the allen key which is enclosed.



Attention!

The extension enddamping adjust carefully because if it's too tough the user could fall.

4.3 Activating the cycling mode



To set the cycling mode, simply turn the adjusting wheel on the hydraulic damper in any direction by 90°. Repeated turning in one direction will not cause dysfunction nor will the adjusting wheel come off.



Attention!

While flexing the knee joint don't grab into the joint mechanism -

Risk of injuring by trapping your fingers!

5 Factory Settings

The proximal connection is set in the middle position to enable an additional adjustment in A-P-direction (10 mm).

Condition of delivery for the swing phase:

- The flexion screw is opened with **2.5** counter-clockwise turn
- The extension screw is opened with **4** counter-clockwise turn (maximally opened)
- Screw for extension enddamping is opened **2** turns counter-clockwise
- Bicycle mode is off (handle of switch disc in vertical position)

6 Single Component Kits 3A2000 series and accessories



- | | |
|--|------------|
| 1. Cover Kit | 3A2000/E70 |
| 2. Connection Bolt with Hex Nut and Pyramid Slide (150 kg / 330 lbs) | 3A2000/E50 |
| 3. M36 Threaded Slide for 3-Prong-Anchor (125 kg / 275 lbs) | 3A2200/E50 |
| 4. M36 Threaded Slide for 4-Prong-Anchor (150 kg / 330 lbs) | 3A2100/E50 |
| 5. Set of Elastomers | 3A2000/E80 |
| 6. Recommended Cosmetic Soft Foam Cover | 62A52/... |
| | 62A152/... |

7 Service directions and recommendations

The knee joints KINEGEN.stream 3A2000, 3A2100 and 3A2200 must to be checked on function and pollution after 6 months. If necessary, it is to be cleaned (not with compressed air) and to be readjusted. In case of severe functional problems, please send the knee joint back to Streifeneder ortho.production GmbH.



Attention!

In order to eliminate sounds in the foam cosmetic, **use silicone spray 116P11**, not talcum. Using talcum causes increased danger of falling of the patient, as it withdraws grease from the mechanic construction parts, which may cause malfunctions. Using this medical device in connection with talcum, all warranty rights against Streifeneder ortho.production will be void. Spray the silicone spray 116P11 directly onto the friction surfaces of the foam cosmetic.



Attention!

The prosthetic components must never be exposed to corrosion-promoting chemicals / disinfectants or substances such as salt- and freshwater, acids, dust or sand! Disregarding this regulation will result in loss of all warranty rights against Streifeneder ortho.production GmbH. **Please inform the prosthesis wearer accordingly!**

8 Use

The Polycentric Knee Joints KINEGEN.stream 3A2000, 3A2100 and 3A2200 requires qualified and individual adaption to the patient according to medical indication. All adjustments must be done by qualified professional staff.

8.1 Restriction of Use

Requires qualified and individual adaption to the patient according to medical indication. All adjustments must be done by qualified professional staff.



Attention!

We are pointing out, that the **KINEGEN.stream 3A2000, 3A2100 and 3A2200** are tested and released only in combination with all other Streifeneder modular parts.

8.2 Misuse of Product

The Polycentric Knee Joints KINEGEN.stream 3A2000, 3A2100 and 3A2200 are exclusively constructed for the activity levels (walky) 3-4 and is not suitable for sportive activities like jumping, e. g.

8.3 Product Life Cycle

The product life cycle is limited on 5 years.

9 Warranty

9.1 Period of Warranty

The warranty period varies depending on the product and service. In each case, however, it begins with the date of delivery to the customer. The specific terms and conditions of the warranty for this product are:

Polycentric Knee Joints KINEGEN.stream 3A2000, 3A2100 and 3A2200
warranty period = 12 months

We will offer you a free service for extension the term of warranty if you send the 3A2000 knee-joint for a first technical service within 12 month to streifeneder ortho-production. The extension of the term of warranty is assured for another 12 month.

9.2 Extent of Warranty

It is guaranteed that the products are free of material and design defects. This manufacturer's warranty applies if the products are not overused, further if the products are used as intended, no unauthorized modifications are made, all instructions and directives are complied with, and if the products are adjusted by, or under the guidance of, a certified / licensed orthopedic technician.

Damage caused by accidental, negligent or improper application or application beyond the service capabilities of the product, further damages caused by incorrect installation, use of damaged parts, replacement of parts with parts not authorized by Streifeneder, repairs or modifications by third parties, where the material has been damaged or other adverse effects on the product or parts thereof have occurred, are not covered by this warranty.

In case of a warranty claim, at Streifeneder ortho.production GmbH's option the product will either be repaired, replaced, or re-fabricated free of charge or the cost of the product or part thereof will be reimbursed to the original purchaser.

The here described specific warranty is in lieu of any other expressed or implied warranty and (to the extent legally possible) replaces the usual restrictive warranties or suitability for a particular purpose.

All of these aforesaid guarantees and warranties are excluded and rejected by Streifeneder. Under no circumstances shall Streifeneder be liable for specific damages or negligence, nor for consequential damages even in the case that Streifeneder was advised of the possibility of such potential loss or damage.

10 Declaration of Conformity



Streifeneder ortho.production GmbH declares as manufacturer in sole responsibility, that the Polycentric Knee Joints KINEGEN.stream 3A2000, 3A2100 and 3A2200 complies with the requirements of directive 93/42/EWG.

11 Disposal



The product must be disposed of or recycled according to your regional or national regulations.

3A2000 und 3A2100 wurden wie folgt geprüft:
3A2000 and 3A2100 are being tested as follows:


ISO 10328 - P6 + 20% -*) 



-  *) Grenzwert der Körpermasse (maximales Körpergewicht, einschließlich getragener und gestützter Lasten), darf nicht überschritten werden!
-  Zu weiteren Einzelheiten siehe die schriftlichen Anweisungen des Herstellers zum vorgesehenen Verwendungszweck!


ISO 10328 - P6 + 20% -*) 



-  *) Body mass limit not be exceeded (maximum body weight including carried or supported loads)!
-  For further details see manufacturer's written instructions on intended use!

3A2200 wurde wie folgt geprüft:
3A2200 is being tested as follows:

ISO 10328 - P6 -*) 

-  *) Grenzwert der Körpermasse (maximales Körpergewicht, einschließlich getragener und gestützter Lasten), darf nicht überschritten werden!
-  Zu weiteren Einzelheiten siehe die schriftlichen Anweisungen des Herstellers zum vorgesehenen Verwendungszweck!

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Streifeneder
ortho.production GmbH
Moosfeldstraße 10
82275 Emmering
Germany
T +49 8141 6106-0
F +49 8141 6106-50
office@streifeneder.de
www.streifeneder.de/op

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