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SiDlas

Cord retraction system for laminating prostheses and orthoses

Important instructions

Must be installed by a specialist trained in installing SiDlas.
The entire line retraction system should be checked regularly to ensure that it functions properly.
If the retraction system is turned too tight, blood circulation can be impaired.
Do not use on patients with nerve problems.
Protect the cord from heat above 60C° and sharp objects.
Maximum patient weight is 90kg per installed SiDlas for lower extremities.

Contents

1 x 6mm screw
1 x cord retraction system with cord 95cm
1 x Lamination Anchor
1 x casting rope 80cm

Laminating instructions

planning

Choose a position where the cord feed system should be located on your product and where the lamination anchor should be placed. The anchor can be bent slightly to adjust it.
The long side should be aligned in the direction of the force.
Choose the route of the cord. Curves in the course of the cord should have a minimum diameter of 3cm. Be aware of material losses on the cut edges of your product due to sawing and grinding.

Before laminating

Press play dough into the thread of the laminating anchor and into the ends of the casting rope.
The underside of the laminating anchor can be covered with double-sided carbon tape.

Reinforce

During reinforcement for one-time lamination, or after the first lamination:
Glue the lamination anchor and casting rope in position.
There should be at least three layers of carbon around the anchor and the casting rope. And carbon threads should be braided through the holes of the anchor.

Lamination
Be careful not to move the position of the anchor and the casting rope during laminating.
Air forms primarily around these two. Try to prevent that as good as possble.

Sawing/grinding
Mark the elements that you want to keep and then saw them out with an oscillating saw.
Sand edges. Carefully expose the threads of the anchor and the ends of the casting rope. Remove the play dough.

Line retraction system
Pull the cord through the casting rope.
Thread the cord into the SiDlas and tie a simple knot in the cord. A simple knot is enough, but pull the excess end with pliers to apply sufficient force. Cut off the excess cord as shown at the other end.
Screw SiDlas onto the anchor with the 6mm screw. Use Loctite 243.
Please note that with SiDlas you can twist up a maximum cord length of 24cm. That's 12cm per side.

Pads
If the pressure is exerted via pads, it may make sense to place a thick pad underneath to increase the pressure.

Alternative installation
You can also retrofit this system into your project.
Use two laminating anchors for this. Drill holes for the anchors.
Prepare the anchors with play dough in the thread.
Roughen the surface of the inside of your project.
Glue the anchors into position with sealing resin. It is important that the long sides of the anchor is aligned in the direction of force.
After removing the play dough, screw SiDlas onto one anchor with the 6mm screw and screw the cord line guide from the deep drawing kit into the second anchor. Or use the placeholder nut. Screw it onto the 8mm screw and screw it together into the anchor. Now the cord can be hooked and unhooked here as desired.
This can then be combined even more extensively with additional anchors and cord line guides.