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SiDlas

Cord retraction system for deep drawing

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.

Content

5 x M4 x 6mm screw
5 x M4 x 8mm screw
5 x M4 x 10mm screw
1 x M4 x 12mm screw
1 x Placeholder Nut
1 x Cord retraction system with cord
3 x Cord line guide
5 x Anchor P

Instructions for deep drawing

Planning

Choose a position where you want the retraction system to be installed on your product and where the anchor P should be placed for the cord line guides.
To ensure that the cord line guides lies flat on your product, you can sand the contact surface to ensure that it fits properly.



Cord line guide WRONG



Cord line guide CORRECT

Before deep drawing
Press play dough into the threads of the anchors you want to use.
You can stick double-sided adhesive tape to the underside of the Anker-P and fix it on the model.
The thickness of the deep drawing material where the anchors are placed must be at least 4mm. If thinner material is used, it must be doubled at the anchor points.

Deep drawing
Make sure that you do not move the position of the anchors during deep drawing.

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 anchors using a drill and remove the play dough.

Cord line retraction system
Use Loctite 243 on all screws.
If you use the cord line guides, you should now screw them onto the anchors.
Measure the length of the cord. Please note that with SiDlas you can twist up a maximum cord length of 24cm. That's 12cm per side.
Thread the cord through the cord line guides into the retrieval system 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 the SiDlas tight and test the functionality of the entire system.

Alternative with unhookable cord
When planning, determine a fixed point where the cord can be hooked and unhooked.
Attach an anchor P there. Screw the placeholder nut onto the 8mm screw and screw it together into this anchor. Now the cord can be hooked and unhooked here as desired.
Tip: Depending on your project, you can leave out the placeholder nut.

Alternative installation
You can also retrofit this system into your project.
Drill holes for the anchors. This usually works well with a 5mm drill.
Heat the drill holes with a hot air dryer until the material becomes soft.
Carefully press the anchor P into the drill holes. Then continue as described above for the cord line retraction system.

Construction options
The following structure has proven successful:
Deep drawing a PE foam (e.g. Varioform) over the model.
Then glue the anchors into position on the PE foam and deep pull PE over them.
Both layers weld automatically. You save work steps and solvent-based glue.

The 1 anchor variant:
Screw the placeholder nut onto the 12mm screw. And then screw the cord retraction system with that screw on you project. Now let the cord run around your project and hook it into the 12mm fastening screw from SiDlas.



Cord guide in PE
The following process has proven successful:
At the same time, heat the PE for your project and another strip of PE measuring at least 2cm x 4cm.
Prepare a flexible metal wire 3 – 5 mm thick by lightly greasing it. (A 2mm x 3mm Teflon tube also works. You don't even have to remove it later)
Deep draw over your project. Position the metal wire and place the PE strip of at least 2cm x 4cm over it. It works better with two people because you have to work very quickly. Wait 5 minutes longer until the PE is not glassy any more. Then pull the metal wire out again. The channel for the pull cord is completed.
Tight radii and stretches of more than 5cm make it difficult for you to pull out the wire and should be avoided.