Platypus Stabiliser care and use

The platypus stabiliser is an instrument for use in stabilising the heart during OPCAB surgery. It will fit onto most chest retractors.

After assembly and between grafts keep the instrument immersed in Water. If only sterile saline is available, be sure to wash the bearings with water before sterilisation.

Screw the collet onto the arm rod; use a quarter of the available thread.
Insert the arm rod, into the wide end of the arm, exposing thread at the other end.
Caution: Please study the parts diagram when assembling the instrument for the first time, because it is possible for the "clamp" which is precision milled to fit onto the rod, to be erroneously pushed onto the curved "arm" where it will jam, if forced.
Slip the eye of the clamp screw onto the arm and assemble the rest of the arm clamp, as shown on parts diagram.
Assemble the arm knob and engage a few turns of the arm rod thread.
Push the arm knob into arm and hold it on a hard surface so that the desired foot can be snapped into the collet. (Expose more collet if it doesn't engage).
Push the snare cleats onto the foot. (The one with the lug goes under the arch). It may be necessary to adjust the tightness of the cleats on the foot by closing the cleat fold with a large needle holder.
Assess the appropriate orientation of the foot and tighten the arm knob 'till the foot is held firmly, but still adjustable. (Since the collet allows acute angulation in only one plane make sure it is pre-set appropriately prior to tightening).
Put a few turns on the post knob, push the post rod into the post clamp and clamp post and rod simultaneously in the desired position on the chest spreader.

Slip the arm clamp onto the rod and press the foot onto the artery while your assistant tightens the arm clamp.

Make final adjustments to the foot and fully tighten the arm knob.
At the conclusion of the anastomosis push the rear snare cleat off with a "Roberts" clamped onto the lug provided.
Hold the heart while your assistant loosens the clamp, then lift the foot clear of anastomosis.
Put stabiliser back in a bowl of water.

Platypus feet are made from grade 5 titanium. It is not only non-magnetic but is 50% lighter than stainless steel and has an ultimate strength, which is 30% greater than that of stainless steel.

Titanium is one of the most corrosion resistant materials available, exhibiting a resistance to corrosive attack comparable to glass and platinum. It simply will not corrode and no special care needs to be observed when sterilising the titanium feet. You may use any cleaning and sterilising agent you prefer. Ultrasonic cleaning is recommended prior to sterilisation.
In time, with repeated sterilising the colour of titanium will vary. The colour is not a coating but is a result of the refraction of light through the thin titanium oxide layer. The colours are called interference colours. There are no pigments or dyes involved. This film is transparent and has the strong refraction ratio.
The "fading" of the colour is the oxide layer becoming thicker (more protective) with each sterilisation.

Scratches caused by instrumentation used in the application of the cleats will not harm the cleats in any way. Titanium will form a protective oxide layer instantaneously.

Cleats will need to be tightened on occasion, so that they slide onto the feet without resistant but enough resistance to ensure that they do not fall off during the operation

The Platypus stabiliser is made from 316 stainless steel, which is the most corrosive resistant. But care must be taken to clean the instrument before sterilisation. Flush inside channels and tubes using a small tube/bottle brush.

Problem: The snare cleats are too loose.
Solution The tightness of the cleats may need to be adjusted with a clamp to have them such that they don't move during the anastomoses but can still be easily slid off at the conclusion.

Problem The lug for holding the snare is accidentally flattened.
Solution: It can be easily prised back with a no. 22 blade.

Problem: The post clamp and rod fails to hold securely on the spreader
Solution There is screw (3 mm allen Key) seen when viewing the bottom of the piston which clamps the assembly to the spreader. It may become loose. If so, it needs to be removed, dried and reinstalled with "Loctite" 277 or 222.

Problem: The bearings become corroded
Solution: Inform Beating Heart Ltd (bheart@zip.com.au) and a new set of knobs will be mailed to you. Please return old ones in the bag provided.

Platypus Stabiliser sterilizing procedures

Titanium retractor

Titanium is one of the most corrosion resistant materials available, exhibiting a resistance to corrosive attack comparable to glass and platinum. It simply will not corrode and **no special care needs to be observed when sterilizing titanium**. You may use any cleaning and sterilizing agent you prefer.

Ultrasonic cleaning is recommended periodically.

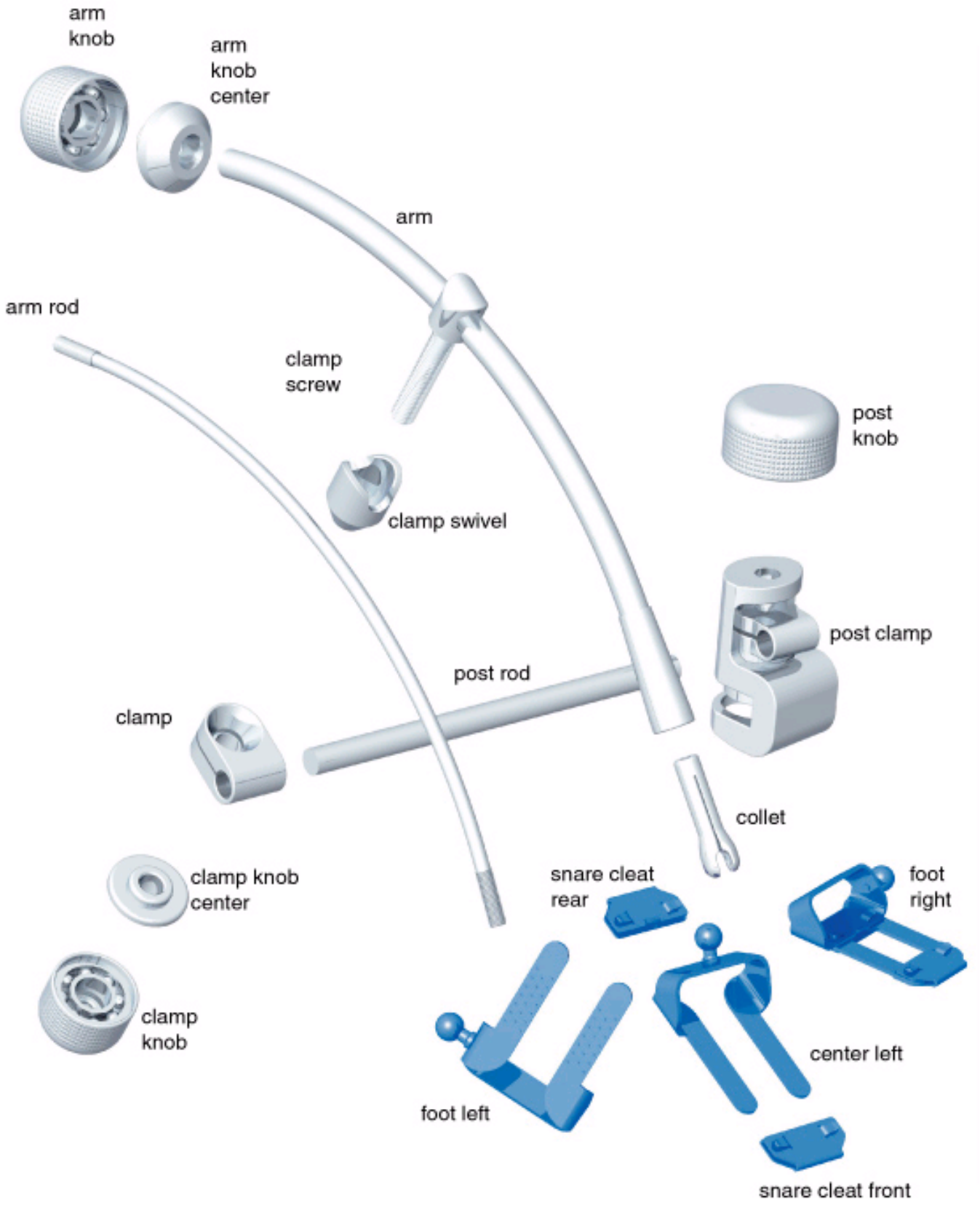
In time, with repeated sterilizing the colour of titanium will vary. The colour is not a coating but is a result of the refraction of light through the thin titanium oxide layer. The colours are called interference colours. There are no pigments or dyes involved. This film is transparent and has the strong refraction ratio.
The "fading" of the colour is the oxide layer becoming thicker (more protective) with each sterilization.

Scratches caused by instrumentation used in the application of the cleats will not harm the cleats in any way. Titanium will form a protective oxide layer instantaneously.

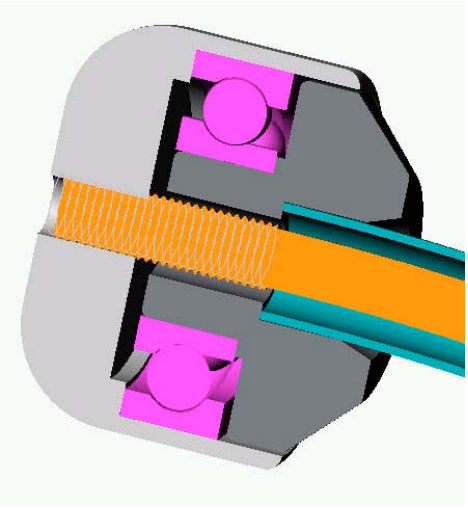
Stainless steel components

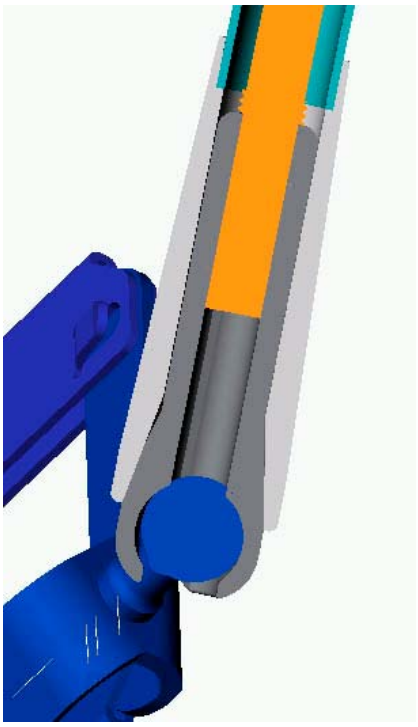
The Platypus stabiliser is made from 316 stainless steel, which is the most corrosive resistant. But care must be taken to clean the instrument before sterilization. Flush inside channels and tubes using a small tube/bottle brush.

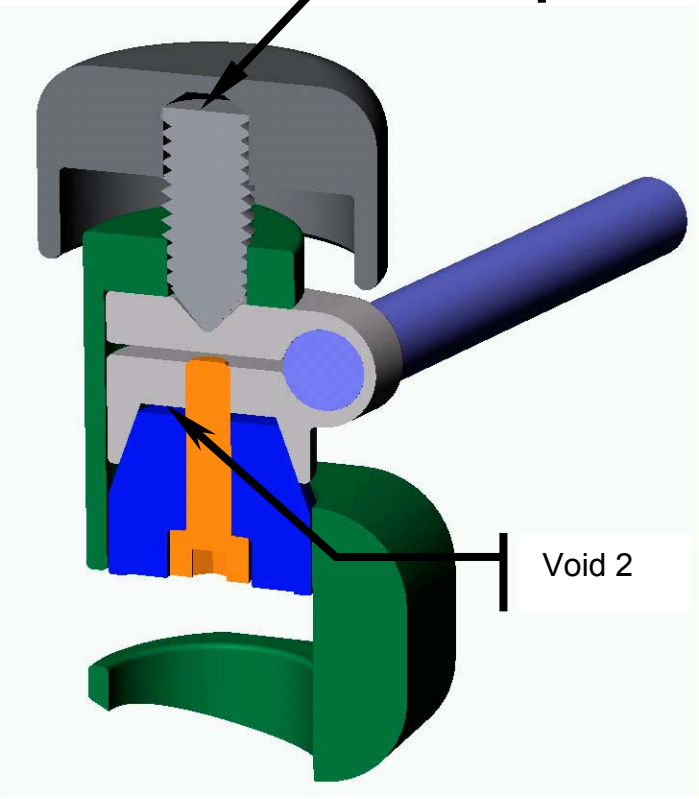
Apart from rinsing thoroughly prier to sterilizing, there are no special requirements with regard to sterilizing temperatures or procedures.


arm knob
arm knob center
arm
arm rod
clamp screw
post knob
clamp swivel
post clamp
post rod
clamp
collet
clamp knob center
snare cleat rear
foot right
clamp knob
center left
foot left
snare cleat front

The following are section drawings of the platypus and Mitral setups







All bearings are exposed and can be cleaned ultrasonically
There are two voids these are sealed with high temperature loctite adhesive.
All other components can be fully disassembled.

Platypus mitral retractor system care and use

beating surgical instruments heart
4 Alma Ave Enmore NSW Australia
Tel 95180007 Fax 95908558
http://www.beating-heart.com/platypuscare.pdf

The platypus mitral retractor is an instrument for use in retracting for mitral valve surgery.

The Platypus mitral retractor system is made from 316 stainless steel, which is the most corrosive resistant. But care must be taken to **clean the instrument before sterilisation**. Flush inside channels and tubes using a small tube/bottle brush and especially the bearings.

The VC200 titanium retractor

It is important to spray some water for irrigation on the rack of retractor prier retracting the chest. This lubricates the action and

increases the life of the retractor considerably.

Titanium is one of the most corrosion resistant materials available, exhibiting a resistance to corrosive attack comparable to glass and platinum. It simply will not corrode and no special care needs to be observed when sterilising the titanium feet. You may use any cleaning and sterilising agent you prefer. Ultrasonic cleaning is recommended prior to sterilisation.
In time, with repeated sterilising the colour of titanium will vary. The colour is not a coating but is a result of the refraction of light through the thin titanium oxide layer. The colours are called interference colours. There are no pigments or dyes involved. This film is transparent and has the strong refraction ratio.
The "fading" of the colour is the oxide layer becoming thicker (more protective) with each sterilisation. Scratches caused by the adapter clamp will not harm the titanium retractor in any way. Titanium will form a protective oxide layer instantaneously.

Problem: The bearings become corroded
Solution: Inform Beating Heart Ltd (bheart@zip.com.au) and a new set of knobs will be mailed to you. Please return old ones in the bag provided.

Problem: The rod will not fit onto the clamps. It is most likely that at some stage the clamps have been tightened without there being a rod in the clamp. As a result, the clamps are deformed.
Solution: Open the back of the clamps with the assistance of a screwdriver applied to the slot. Not too much though.

Platypus Stabiliser sterilizing procedures

Titanium retractor

Titanium is one of the most corrosion resistant materials available, exhibiting a resistance to corrosive attack comparable to glass and platinum. It simply will not corrode and **no special care needs to be observed when sterilising titanium**. You may use any cleaning and sterilising agent you prefer.

Ultrasonic cleaning is recommended periodically.

In time, with repeated sterilising the colour of titanium will vary. The colour is not a coating but is a result of the refraction of light through the thin titanium oxide layer. The colours are called interference colours. There are no pigments or dyes involved. This film is transparent and has the strong refraction ratio.
The "fading" of the colour is the oxide layer becoming thicker (more protective) with each sterilisation.

Scratches caused by instrumentation used in the application of the cleats will not harm the cleats in any way. Titanium will form a protective oxide layer instantaneously.

Stainless steel components

The Platypus stabiliser is made from 316 stainless steel, which is the most corrosive resistant. But care must be taken to clean the instrument before sterilisation. Flush inside channels and tubes using a small tube/bottle brush.

Apart from rinsing thoroughly prier to sterilizing, there are no special requirements with regard to sterilizing temperatures or procedures.