Arbor Maintenance

Product

Kodak® ThermoFlex® Wide II Sleeve option

Background

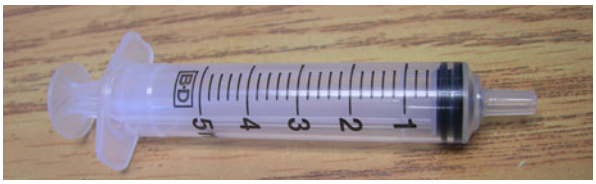
The arbor is a critical, precision piece of equipment that requires regular maintenance in order to function effectively on an ongoing basis. This document describes the level of maintenance required to keep the arbor in top running condition.

Parts required

Part Number	Part Name	Quantity
512-00267A	Absorbent pads kit	As required (shipped with the device)
500-00051A	Soft tipped camlock pin	As required
500-00049A	Plunger assembly	As required

Tools and supplies required

- Fine 3M™ Scotch-Brite™ pads
- WD-40™ penetrating oil
- 400 grit sand paper
- Arbor filling kit (512-00268A) (shipped with the device) including:
  - Disposable plastic syringe (89-0096) with the needle locking thread trimmed off (but not the tip)



  - Hydraulic system-filling adapter (690-00452A)
  - # 012 O-rings
  - Hydraulic fluid mixture (402-00168A)

Procedure

Complete the following tasks on an ongoing basis to maintain the arbor and the imager:

- Perform a visual inspection of the arbor on a regular basis.
- Clean the arbor regularly.
- Replace the absorbent pad regularly.
- Top up the hydraulic system.
- Replace the plunger assembly components as required.

Visual inspection of the arbor

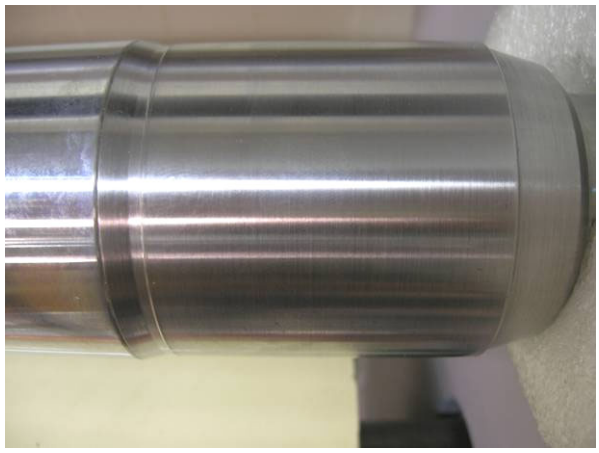
Service representatives should perform a visual inspection of the arbor at a minimum of every six months. Check the items listed below. If there is excessive damage to critical areas of the arbor, contact the PSS for the product line.

1. Is there rust forming anywhere on the arbor?
   a. Remove any rust using a Scotch-Brite pad and light oil such as WD-40.
   b. Inform the customer that they should regularly wipe down the arbor and apply a light coating of oil, as specified in the *ThermoFlex Wide II Sleeve Mode Operator Guide*.
2. Are the hydraulic expansion sections of the arbor scratched or damaged?

   It is normal to have some scratching over time, but deep gouges or dents are evidence of misuse or lack of proper cleaning of the arbor surface or the shells.

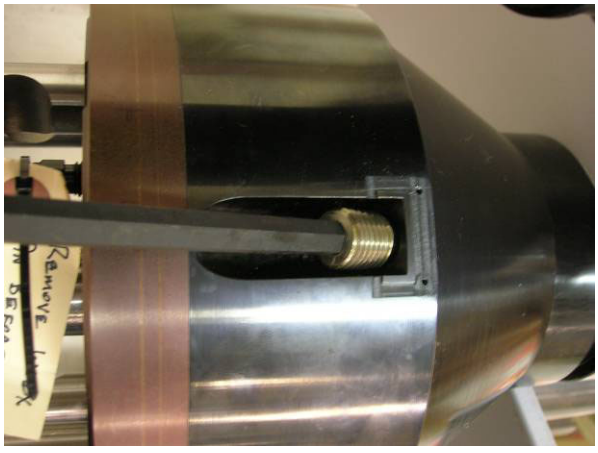
   If required, use 400-grit sandpaper to buff out dents and gouges.





3. Does the hydraulic actuation screw look like it should be replaced?

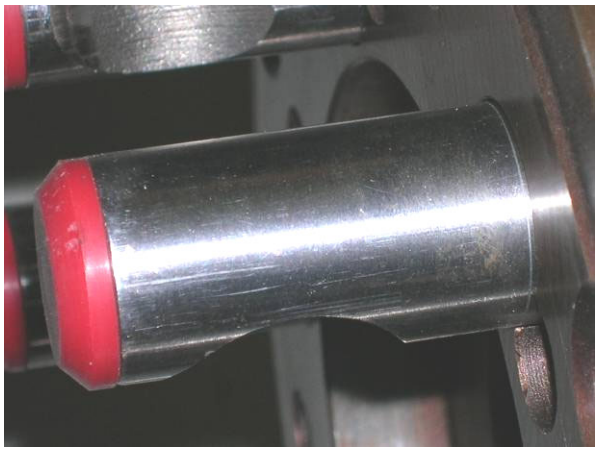
   If the hex socket is badly worn or damaged, and the 8-mm hex tool no longer operates the hydraulic screw properly, replace the entire plunger assembly. See *Replacing the Arbor Plunger Components*.



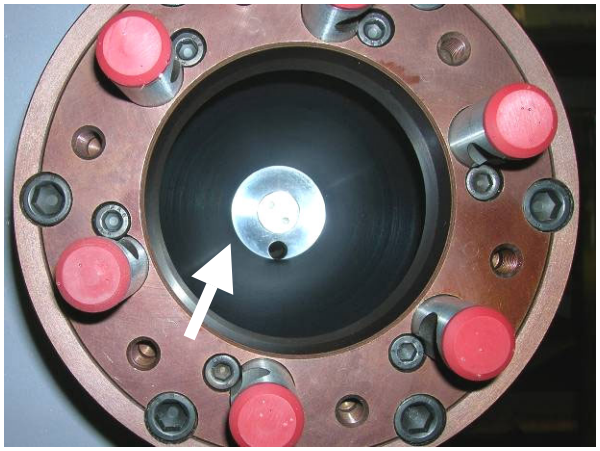
4. Inspect the faces of the arbor that mate with the spindle. They should not have excessive scratches or dents.

   Use sand paper to smooth out small scratched or dented areas but do *not* remove large amounts of material.

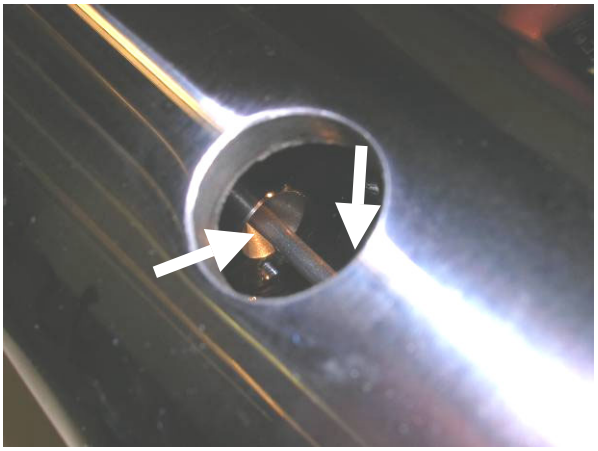
5. Check the plastic caps on the camlock pins for cracks. Replace the pins if necessary.

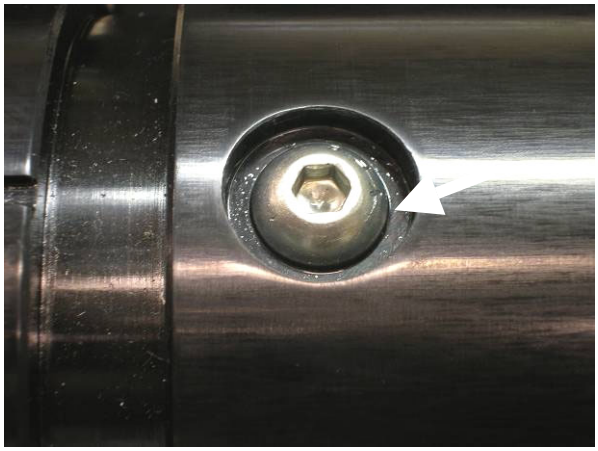


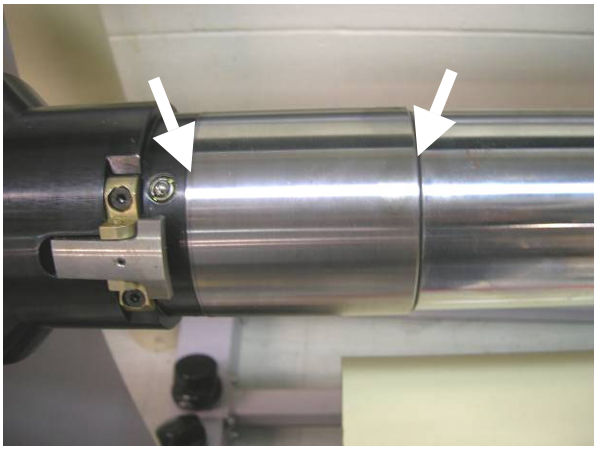
6. Pressurize the arbor, and check for leaks at all of the seal locations including:
   - inside the headstock end
   - inside the tailstock end
   - in the 16-mm holes in the shaft pipe on both sides
   - around the filling port screw
   - around the edges of the hydraulic sleeves

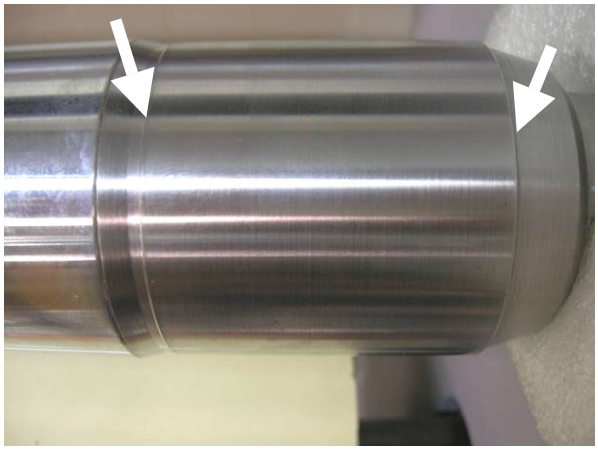












Cleaning the arbor

The customer should clean the arbor daily with regular use as specified in the *Thermoflex Wide II Sleeve Mode Operator Guide*. If necessary, a thorough cleaning should be done every six months during Planned Maintenance (PM). A thorough cleaning includes the following steps.

1. Clean the arbor of all debris, dirt, and rust using 100% isopropyl alcohol and lint free wipes, Scotch-Brite pads and WD-40 for rust, and acetone for difficult to remove stains.

   Use solvents and cleaners sparingly to *avoid* getting them into the cracks of the arbor, and into contact with the seals inside the arbor.

2. Apply a small amount of WD-40 or other light oil to a lint free cloth, and then wipe all surfaces of the arbor, especially those that were cleaned vigorously.
3. Wipe the arbor again with a clean, dry cloth and leave only a thin layer of oil to hinder rust.

Replacing the absorbent pad

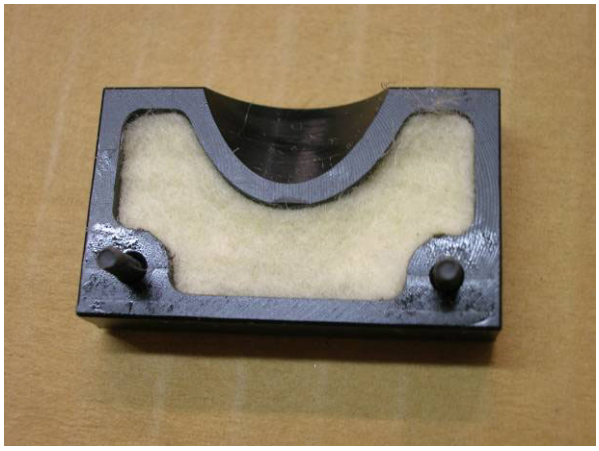
Check the absorbent pad at every six-month PM visit, and replace it if necessary. The spray cap and absorbent pad prevent excess oil from the plunger bore from spraying inside the device when the arbor is spinning.

1. Remove the spray cap.



2. Replace the absorbent pad in the spray cap with a pad from the kit (512-00267A) that was shipped with the device.

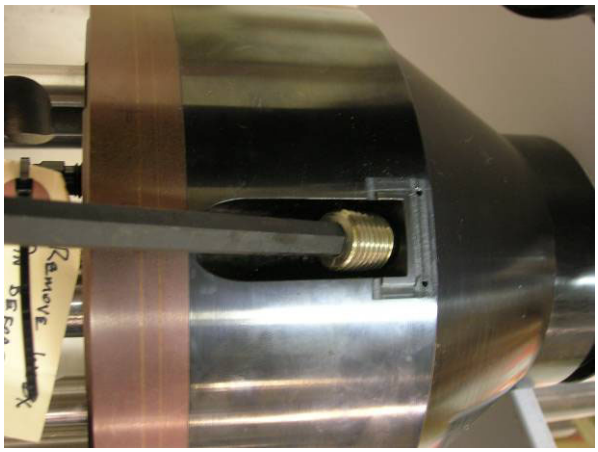




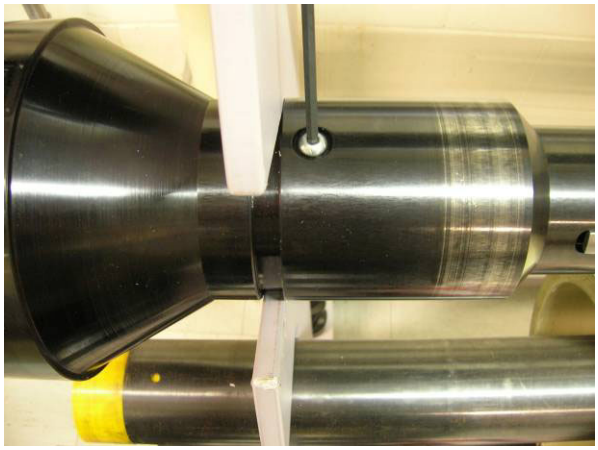
3. Replace the spray cap and be careful *not* to overtighten the screws.

Topping up the hydraulic system

1. Fully retract the plunger screw.

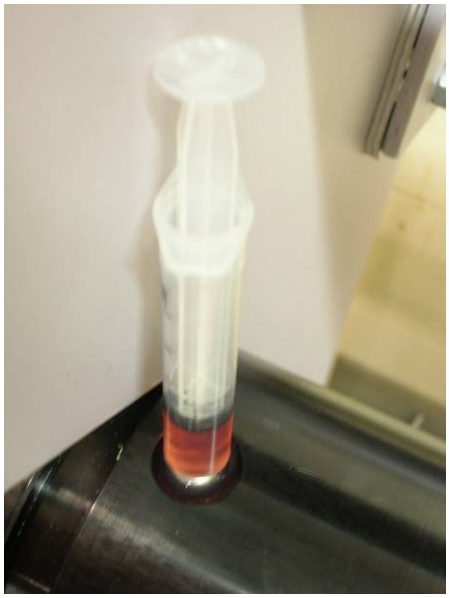


2. Turn the arbor so that the filling port is facing up.
3. Use a 5-mm hex key to remove the M8 button-head screw from the filling port near the headstock end of the arbor.



4. Fill the hole to the top with hydraulic fluid
5. Thread the hydraulic fluid filling adapter (690-00452A) into the filling port.
6. Put at least 3 ml of hydraulic fluid (402-00168A) into the syringe (89-0096), and make sure there is no air trapped in the syringe.
7. Insert the tip of the syringe into the filling adapter and push the plunger of the syringe until it moves.

8. Continue to push the syringe plunger until it stops. The amount of fluid that enters the arbor will vary based on the quantity of fluid that was already in the arbor. In most cases it will be 1-3 ml.



9. Remove the syringe and filling adapter.
10. Remove the O-ring from the filling port and replace it with a new one from the installation kit.
11. Fill the port up to the top of the threads with hydraulic fluid.
12. Thread the M8 button-head screw back into the filling port, and tighten the screw.
13. Wipe up any hydraulic oil around the filling port.

Replacing plunger assembly components

The plunger actuates the hydraulic chamber of the arbor and it has several elastomeric seals. You will have to replace the seals over time because of wear or degradation due to usage and age. See *Replacing the Arbor Plunger Components* for instructions.

See also	*Thermoflex Wide II Sleeve Mode Operator Guide* (653-00752A) Replacing the Arbor Plunger Components
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