

## **Packaging and Agitator Replacement**

A200/A200I

Service Procedure #FS004 **REV 2/8/23 SLC** 

This procedure is for the ANKOM A200/A200I and can be used for the replacement of any or all of these parts and assemblies.



F26 Packing Set Assembly



F28 Agitator with **Packing Set Assembly** 



F27 Maintenance Alert Inner Assembly



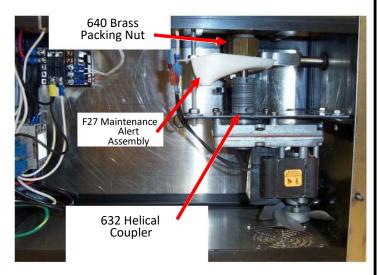
632 Helical Coupler



640 Brass Packing Nut

- Turn off the power to the machine and unplug the A200/A200I instrument to be serviced.
- Place cardboard on a table. Lay the A200/A200I on it's front. Remove the nuts that secure the back panel. Remove the panel. Remove the feet and mounting screws, then remove the bottom panel.
- Inspect the Helical Coupler. If this is broken, order part # 632 for replacement.



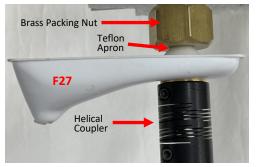




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- 4. Loosen the Brass Packing Nut until it is finger loose.
- Loosen the upper set screw on the Helical Coupler.
- Remove the nut and two bolts that secure the motor bracket in place.
- Set the motor with bracket aside. Wires can be disconnected at the quick disconnect terminals if needed.





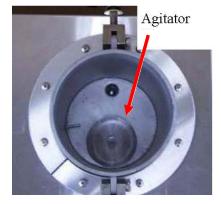


Step 4

Step 6

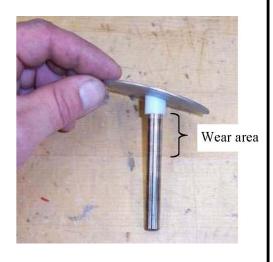
Step 7

- Remove the F27 Maintenance Alert Inner Assembly (drip tray, Teflon apron and brass washer) and set aside. If any of these parts are damaged or worn, replace F27.
- 9. From inside the vessel, twist and pull up to remove the agitator.



#### **Check the Agitator**

- 10. Check the agitator for wear and pitting in the shaft surface. The surface should be very smooth without grooves, pits or a thinned diameter.
- 11. The F28 Agitator with packing set can be installed if needed.
- 12. Follow subsequent steps and, if necessary, replace the agitator that comes with the F28 assembly.





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#### **Replacing the Packaging**

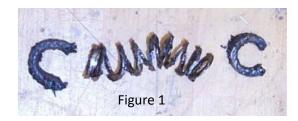
13. Remove the Brass Packing Nut and PEEK bushing.

PEEK Brushing

**Brass Packing Nut** 



14. Using a screwdriver, remove the two carbon ropes and one compressed graphite cylinder. When removed, it will look similar to figure 1. Ensure both ropes are removed or the new packing will not fit.



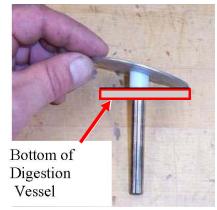




15. Obtain either the new agitator (part of the F28 assembly) or the original one and Insert the agitator into the vessel.

#### Note:

The Agitator **Teflon Collar** must rest against the bottom of the Digestion Vessel when installed.



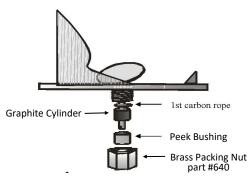


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- 16. Using the 1st new carbon rope (from the F26 or F28 assembly) wrap this around the shaft and push into the nipple. Push the graphite cylinder into the nipple as far as it will go.
- 17. Install the PEEK Bushing and Brass Packing Nut (part #640) onto the agitator shaft. Temporarily use the packing nut, tightening and compressing the packing.





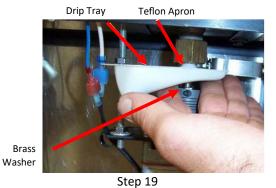
18. Remove the Brass Packing Nut and PEEK bushing. Now install the 2nd carbon rope. Reinstall the PEEK bushing and the Brass Packing Nut. Confirm that the agitator is resting against the bottom of the vessel before final tightening of the Brass Packing Nut. Tighten the Brass Packing Nut. The packing is compressed enough when the bushing top is flush with the nipple bottom after the 2nd rope is installed.





Brass Packing Nut

- 19. Reinstall F27 Maintenance Alert Inner Assembly (Teflon apron, drip tray, and brass washer), either a new one or the original assembly removed earlier. Finger tighten the two nuts against the drip tray on the left threaded rod.
- 20. Reinstall the motor assembly and connect the wiring if this was disconnected. Loosely reattach the nut and two bolts (with washers) from the motor bracket.





Step 20

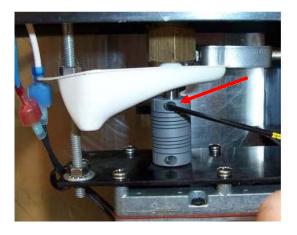


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**Tighten the Packaging** 

- 21. Reconnect the Helical Coupler to the agitator shaft, holding the agitator down within the vessel while doing so. Tighten the upper set screw on the Helical Coupler. Make sure the coupler lines up parallel with the shaft.
- 22. Tighten the nut and two bolts onto the motor bracket.
- 23. Stand the A200/A2000I back on it's feet, plug the instrument back in and turn on the power.



- 24. To tighten the Packing Nut, turn the motor on, using the AGITATE button. When the motor is activated, turn the Packing Nut to the right until you stall the motor.
- 25. Loosen the Packing Nut until the motor starts to run, then loosen the Packing Nut off slightly more, (approximately an additional 1/8 turn)
- 26. Turn the instrument off and replace the back cabinet.



- 27. Inspect the Drain Tray during the next run to make sure there is no leaking. If leaking is discovered, repeat the packing nut adjustment process but only loosen the Packing Nut 1/16 of a turn.
- 28. If further assistance is needed, please contact us at ANKOM Technology at 315-986-8090 or at www.ankom.com/contact/technical-services.