

## MRT-1098 (01/11/17) "Solder Pump Belt & Pulley Installation"

# Tools Required: Safety Glasses. High Temp Gloves Pump Belt Kit - P/N KPBK-SP 0.254" Reamer Standard Allen Wrench Set 5/32<sup>nd</sup> T Handle



"Always wear safety glasses & high temp gloves while performing maintenance on HOT solder pumps"

1. Remove pump cage cover and chain and set aside.





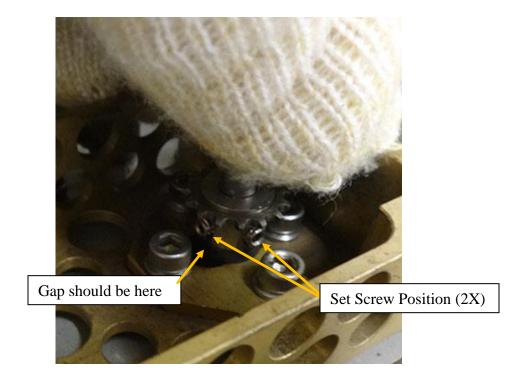
#### NOTE: Turn "OFF" the motion switch and get ready to take out the pump!

2. Remove nozzle, cap, chimney & nitrogen cover. Turn OFF the motion switch. Unplug the pump motor and hoses!

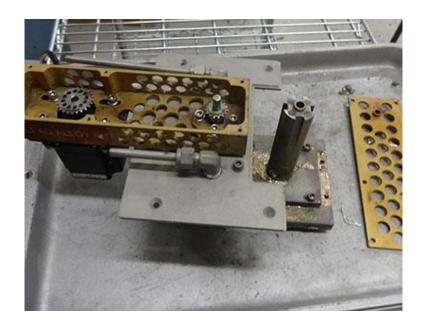


#### NOTE: If the sprocket has no gap, please call Nordson SELECT for instructions.

3. Position the impeller sprocket so the set screws are accessible as seen.
NOTE: Lift up on sprocket and verify there is a approx. 0.020" Gap!
Then seat sprocket in the down position on the graphite sleeve!



4. Take out the Flat Phillips screws (4X) and remove the pump from the solder. Move to tray and let cool. Save hardware. You can use a fan to speed up the cooling process!



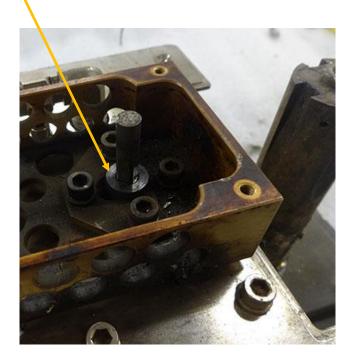
The solder left in the impeller chamber will hold the impeller in place.

And it should not move, this is OK!

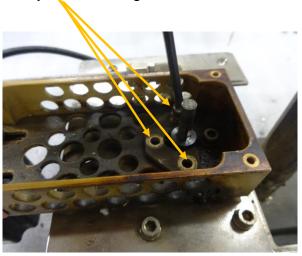
5. After the pump cools, loosen the 2 set screws on the impeller sprocket and remove it.

Inspect graphite sleeve for cracks or damage if it needs to be replaced use MRT-1031.

You can request MRT-1031 from Nordson SELECT.



6. Remove the shaft key screws using a 5/32" Allen wrench and discard screws. (3X)



7. Insert the 10-32 3/4" button head screws (3X) and tighten using a 1/8" Allen wrench as shown. **Do not over tighten screws!** 



Be careful not to damage the graphite sleeve it is very fragile!

8. Slide impeller pulley down onto the top of the graphite sleeve. Make sure the set screws are lined up on the impeller shaft flats. Use a 5/64" Allen wrench to tighten the set screws as seen. (2X)

#### Make sure pulley is seated on the top of the graphite sleeve! Firmly tighten set screws!





9. Loosen the 2 set screws on the motor sprocket and remove. Next remove the spacer as shown.

Tighten one of the motor mount screws so the motor does not slide.







10. Put the 1/4" bushing onto the motor spindle. Then slide so it seats on the bottom as seen.

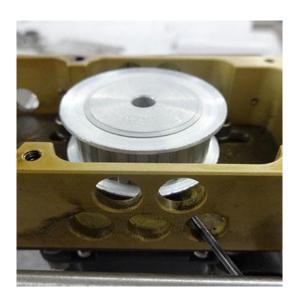


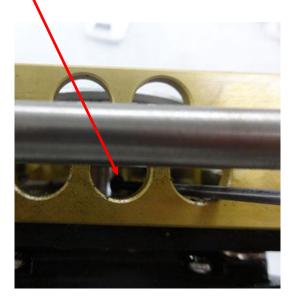


#### NOTE: Tighten the set screw on the flat area first!

11. Slide the motor pulley onto the motor spindle so it rests on the bushing. Line up a set screw to the **flat area on the motor spindle first**.

Tighten the set screw to the flat area using a 5/64" Allen wrench. Run Allen wrench through side of cage. Then tighten the 2<sup>nd</sup> set screw.

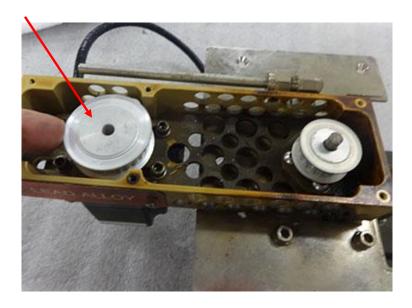




12. Turn the Allen wrench as shown and firmly tighten the flat side set screw first. Then tighten the  $2^{nd}$  set screw on the motor pulley. (2X)



13. Loosen the motor screws and slide pulley toward impeller, as seen.



14. Install the hi temp belt over the impeller pulley and properly seat the belt tabs in the pulley.



### 15. Slide the belt over the motor pulley and fit into place



16. Slide the motor pulley back to tighten the belt and tighten the motor screw using 5/32nd Allen wrench.

Make sure the belt is properly placed on the pulley!



NOTE: Very important the belt tension determines the lifespan of the graphite sleeve!

17. Adjust the belt to have some deflection as seen.

The belt must have some deflection! Not too tight not too loose!



18. Press the old hi temp bushing out of the cover using an Arbor press and a screw head as seen.



NOTE: Never put any type of lube on the hi temp bushing!!!

19. Press in new 1/4" bushing on top side of cover using an arbor press.

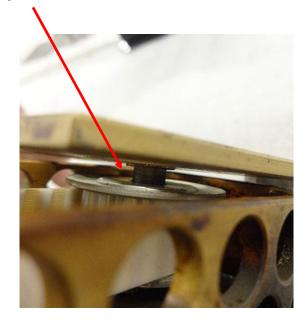
Press bushing so it's approx. 0.050" through on the bottom side of the cover as seen.





20. Ream the new 1/4" hi temp bushing using a 0.254" reamer. Press the bushing down to get it very close to the top of the pulley. Put the cover on the cage, verify the hi temp bushing has approx. 0.010" - 0.005" gap between the top of the pulley and the bushing. Make sure the bushing is not rubbing on the pulley!





#### **NOTE:** If the pulley has no gap, please call Nordson SELECT for instructions.

21. Install the solder pump without the cage cover in solder pot and let the pump reach operating temp. When the pump is at operating temp pull up on the impeller shaft, **there must be a gap approx. 0.020**" between the bottom of the pulley and the graphite sleeve

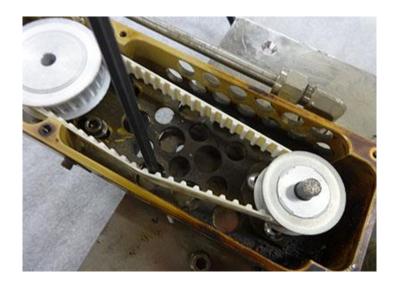




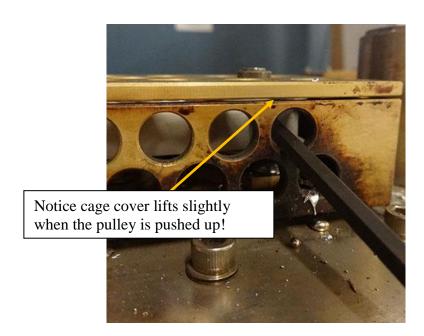
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22. Check belt tension. Adjust the belt to have some deflection as seen.

The belt must have some deflection! Not too tight not too loose!



23. Slide the cage cover on and make sure the bushing is set properly using an Allen wrench to lift pulley! It is very important that when you lift the impeller pulley up, the cage cover lifts up slightly! The cage cover should sit on the drive box with no gap, when the pulley is down. If the impeller floats up the pulley should contact the bottom of the bushing!



24. Install the 6-32 3/8" screws & washers as seen. (6X) Leave the screws loose.

Adjust the pump speed to 300 RPM and turn the pump ON. Gently tighten all cover screws. (6X)

NOTE: The pump should sound quiet and have no scraping or grinding sounds!





25. Next adjust the pump to operating speed. The pump should sound quiet!

NOTE: Very Important the Belt Tension determines the lifespan of the graphite sleeve!

NOTE: Check belt tension daily. The belt must have some deflection! Not too tight not too loose!



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