

Replacing the tip seals on Edwards nXDS (BSB 06/2016)

1. Switch off pump and isolate from electrical supply.
2. Place pump on bench on end with scrolls pointing up.
3. Undo the two bolts holding the fan in place.
4. Lift off fan and disconnect the electrical plug for fan.
5. Remove 4 bolts holding fixed scroll in place.
6. Carefully separate the fixed scroll assembly from the housing using two screws drivers in the slots on the side of the scroll.
7. Turn over the fixed scroll assembly to reveal the tip seals and scroll.
8. Remove the O-ring from the fixed scroll assembly.
9. Start from one end and remove tip seal from fixed scroll.
10. Clean the scroll of dust and dirt with lint free cloth.
 - a. Use isopropanol if needed to help remove dust
 - b. Use wood stick and/or Q-tip to help remove dust
 - c. Clear the O-ring seat.
 - d. Blow out scroll area with canned air.
11. Taking new tip seal fit it in starting at the center of the scroll. Insert the tip seal into the channel. Ensure that the tip seal starts as close as possible at the center of the scroll channel (Figure 1).
12. Continue to push the tip seal into the channel while working your way around the channel profile till you reach the end.
13. Cut the tip seal at the mark near the end of the scroll channel. There should be at least 0.8" between the end of the tip seal and the end of the channel to allow for expansion (figure 2).
14. Ensure that the tip seal is pressed squarely and fully into the channel all along the tip seal.
15. Repeat steps 8-13 on the other scroll.
16. Fit the O-ring onto the fixed scroll. You can lubricate the O-ring with a very very little bit of the special low vapor pressure high vacuum PTFE grease (not silicon grease) or water to make fitting the two scrolls together easier.
17. Carefully fit the fixed scroll assembly up to the movable scroll and push gently down to mate the two scrolls. Make sure the O-ring is seated correctly and not pinched.
18. Tighten the 4 screws holding the scrolls together to 6 – 9 Nm. Use a torque wrench.
19. Assemble the fan cover assemble onto the scroll assemble. Remember to connect the electrical connector for the fan.
20. Tighten the screws for the fan cover to the scroll.
21. Start the pump and let it run ~1 minute with the inlet open to blow out the exhaust valve.
22. Seal the inlet and make sure the pump is quiet. If noisy let run for a day. The pump should now be quiet if not replace the exhaust port.

Figure 1 - Tip seal fitting

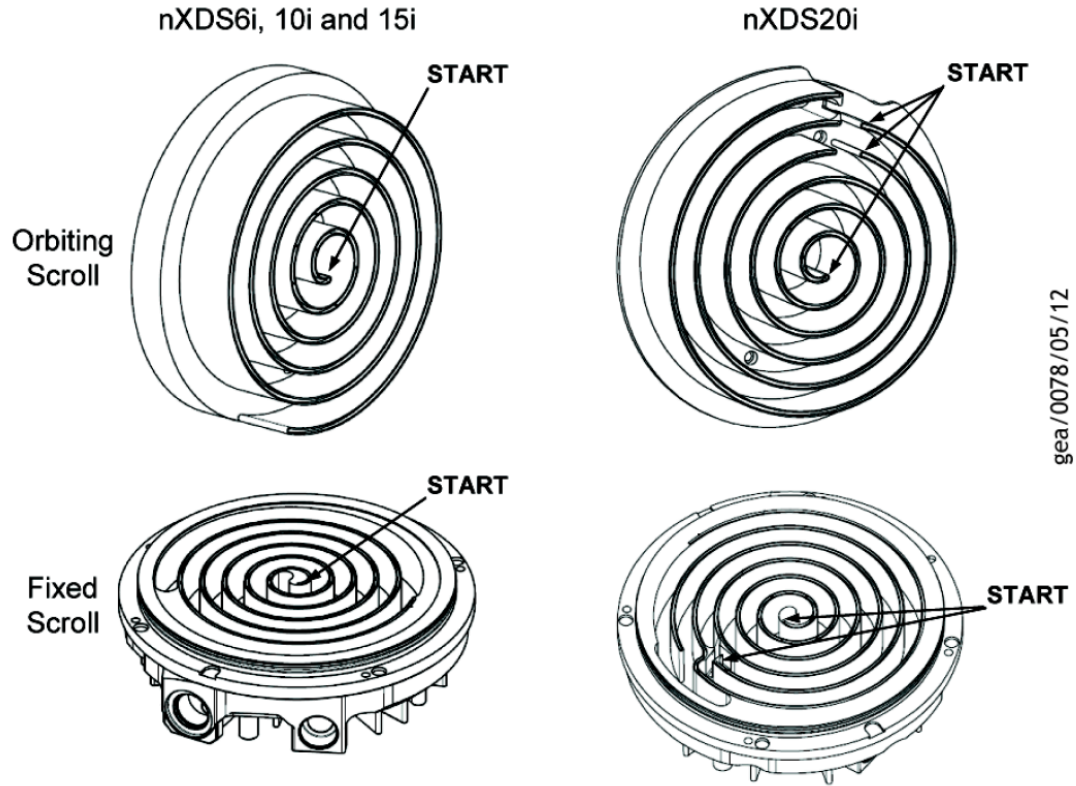
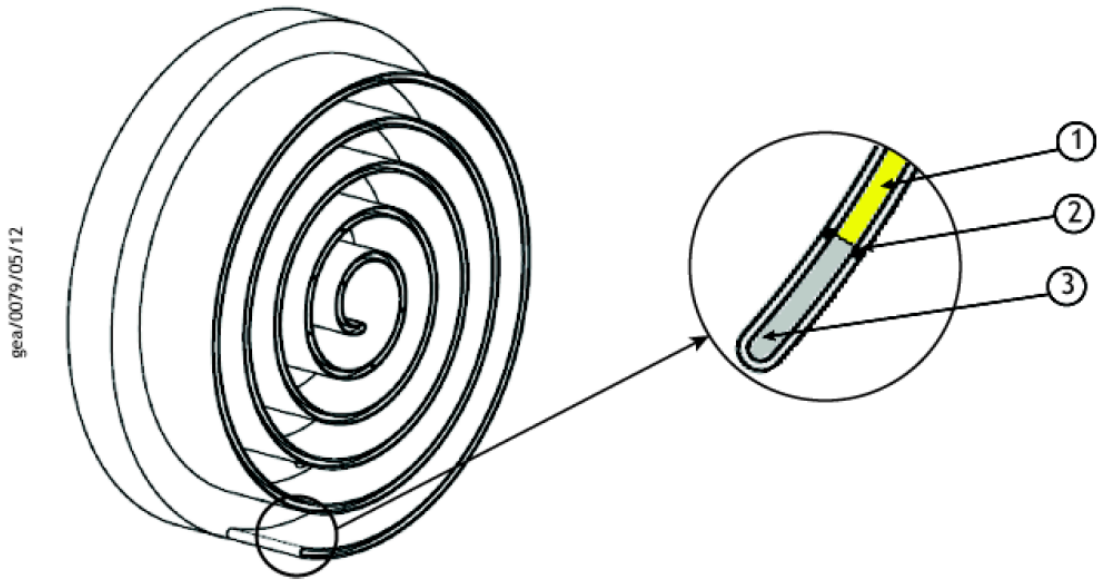


Figure 2 - Tip seal finish mark



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1. Tip seal
2. Cut mark
3. Gap (approximately 20 mm)