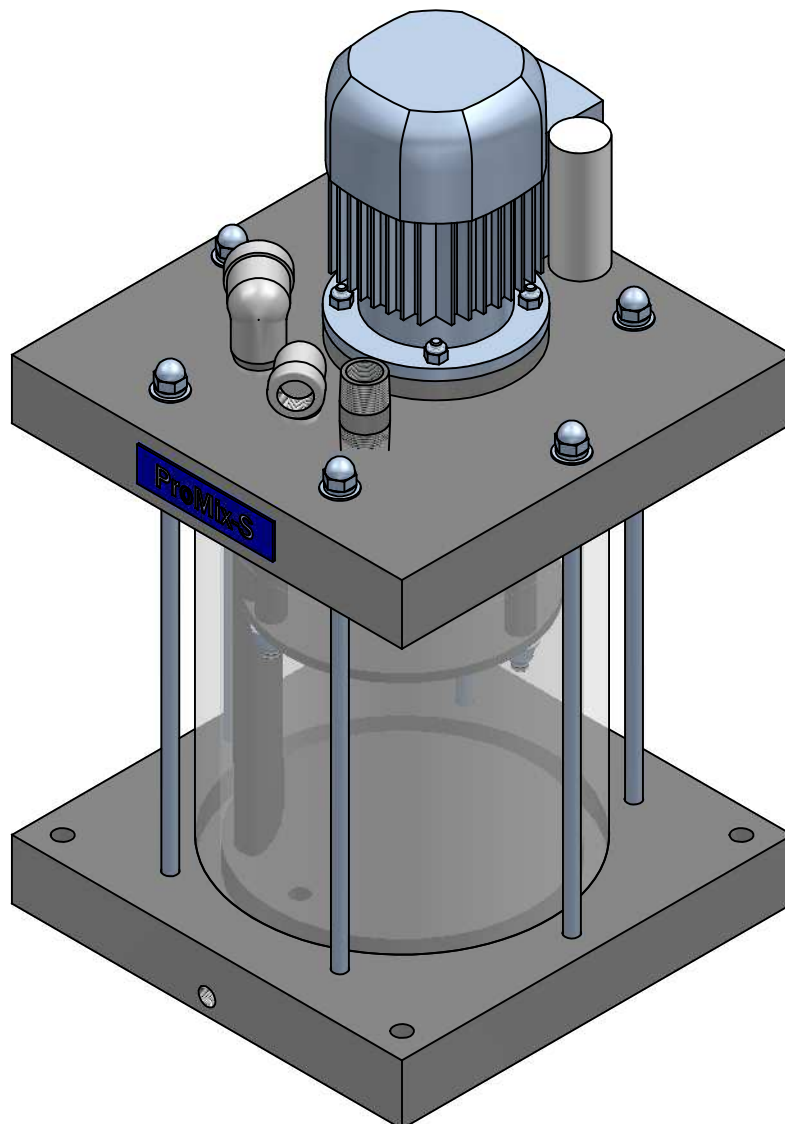


# PROMIX "S" SERIES

## MECHANICAL SEAL REPLACEMENT

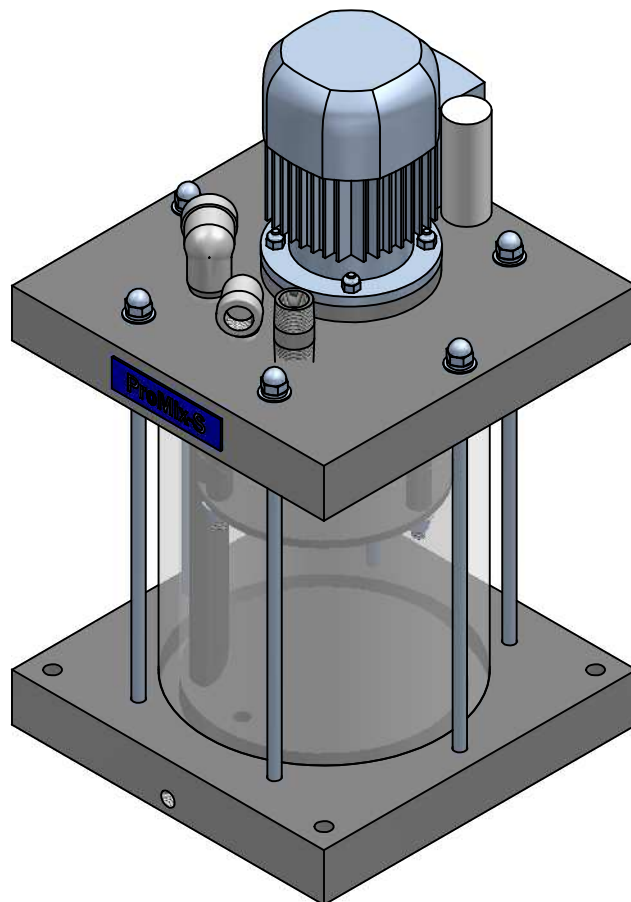
### PART NUMBER 7746589

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The following is the recommended list of tools required to replace the mechanical seal:

1. 9/16" socket wrench
2. 5/8" socket wrench
3. 7/16" box wrench
4. 9/16" box wrench
5. 5/8" torque wrench capable of 15ft-lbs
6. 1/8" hex allen wrench
7. 2.5 mm hex allen wrench
8. 8" channel locks
9. Small flat head screw driver
10. Multipurpose oil



In order to replace the mechanical seal, you first have to remove the upper mounting plate assembly from the mixing chamber.

1. Flush and drain the mixing chamber.
2. Remove the power from the mixing motor.
3. Using a 5/8" socket wrench, remove the (6) mounting studs, nuts and washers.  
If all the studs do not come out as shown, use the 8" channel locks to remove the studs from the bottom plate.

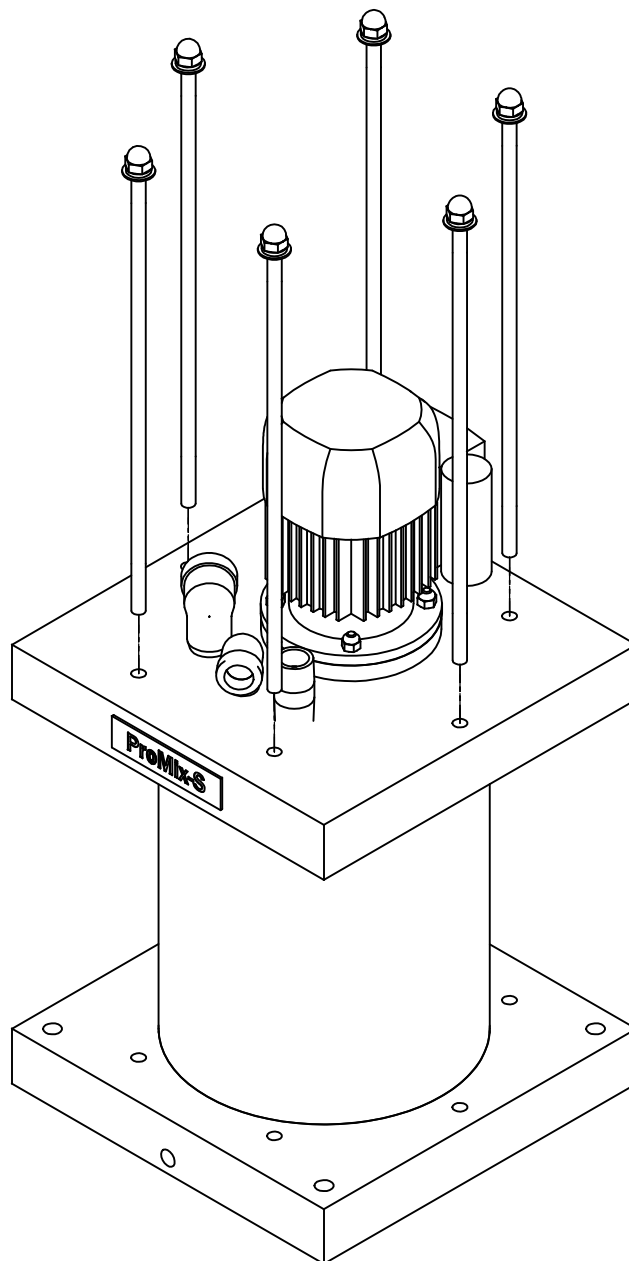


FIGURE 1

4. NOTE: Make note of the motor position on the top mounting plate. This will be helpful when reassembling the unit. Using equal force, lift the entire top mounting plate assembly with the motor out of the mixing chamber.

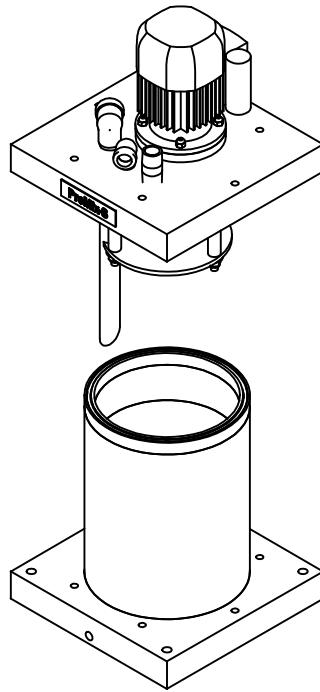


FIGURE 2

5. Turn the entire assembly on the fan shroud.  
6. Using a 2.5 mm hex allen wrench, loosen the (2) prop retention set screws and carefully remove the agitator prop.

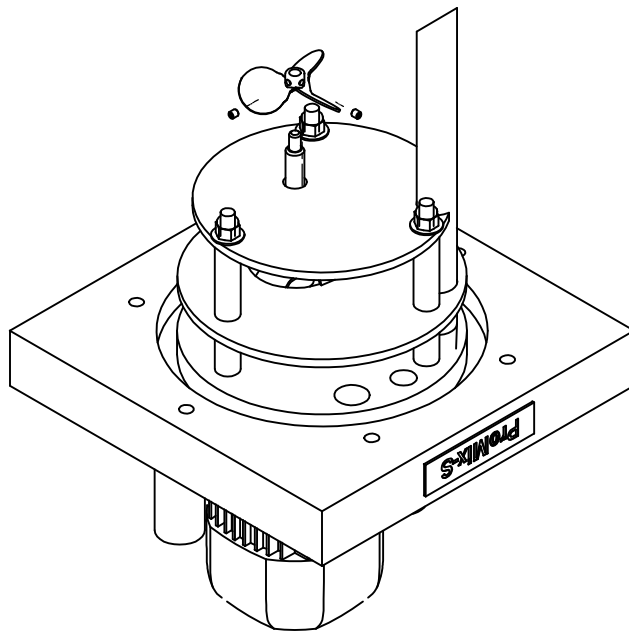


FIGURE 3

7. Using a 9/16" socket wrench, remove the (3) baffle retaining nuts and washers.

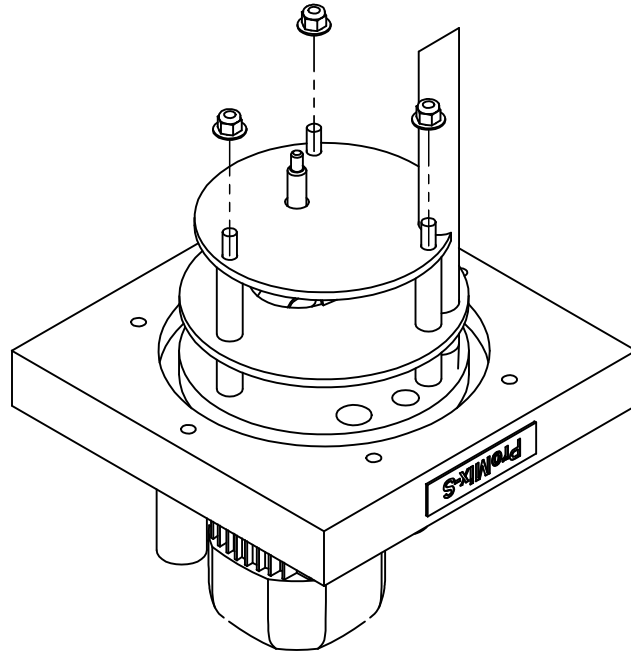


FIGURE 4

8. Remove the bottom baffle.

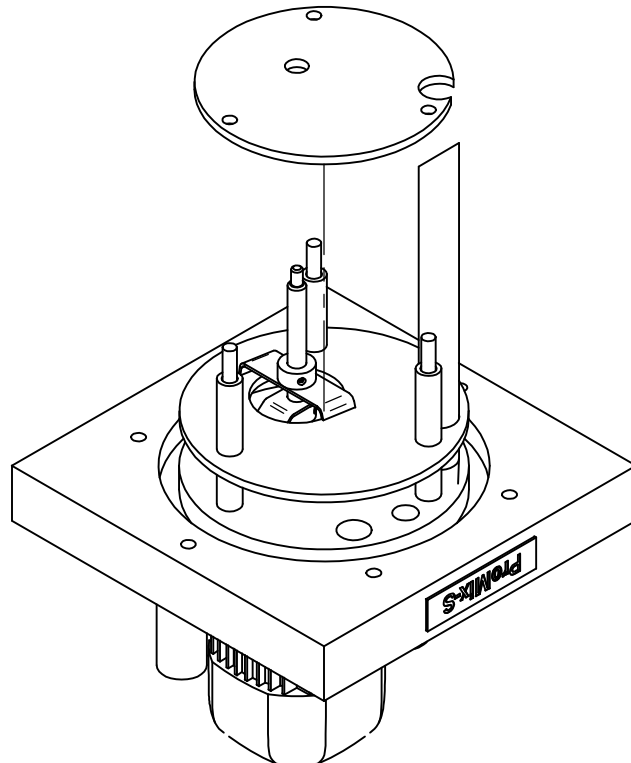


FIGURE 5

9. Remove the bottom baffle spacers.

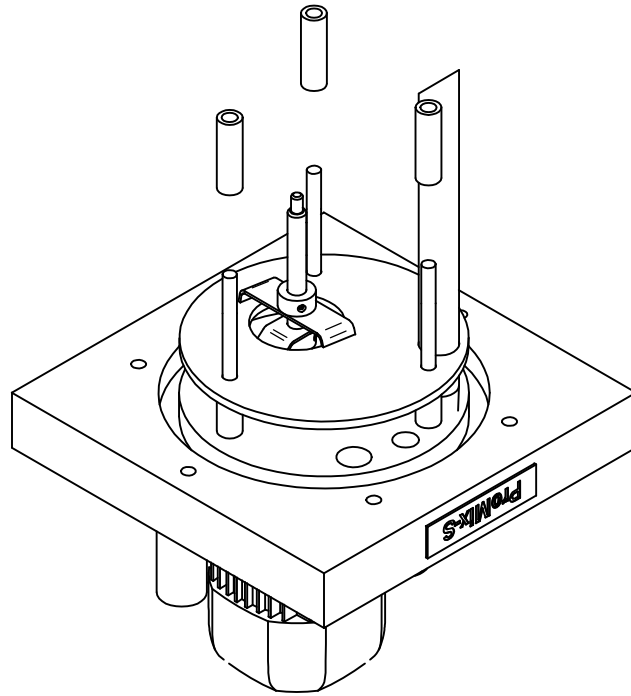


FIGURE 6

10. Using an 1/8" allen wrench, loosen the (2) blade retention set screws and carefully remove the secondary blade. Making sure not to damage the surface of the shaft.

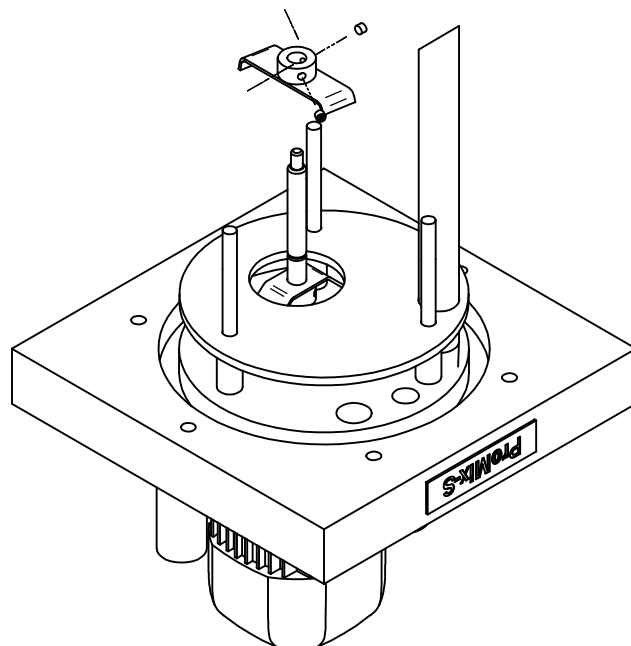


FIGURE 7

11. Remove the upper baffle.

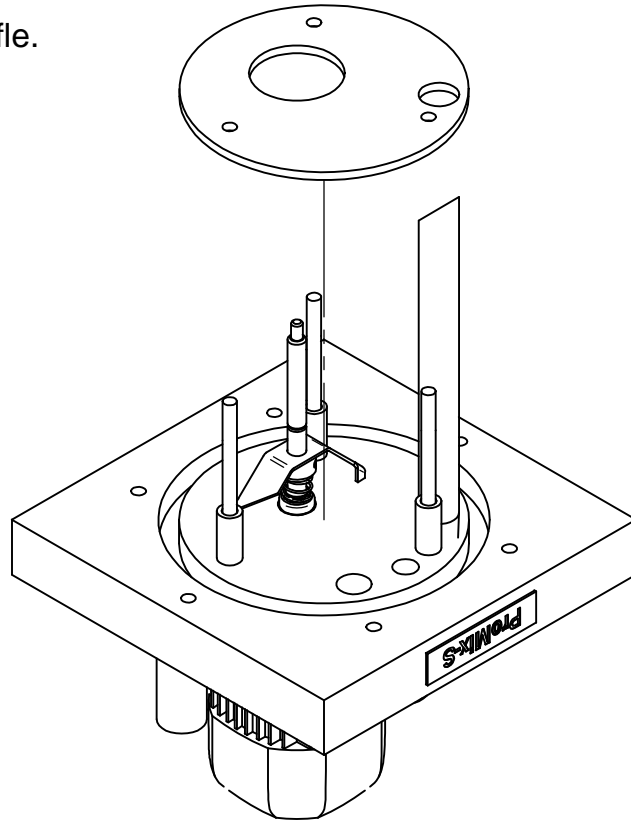


FIGURE 8

12. Remove upper baffle spacers.

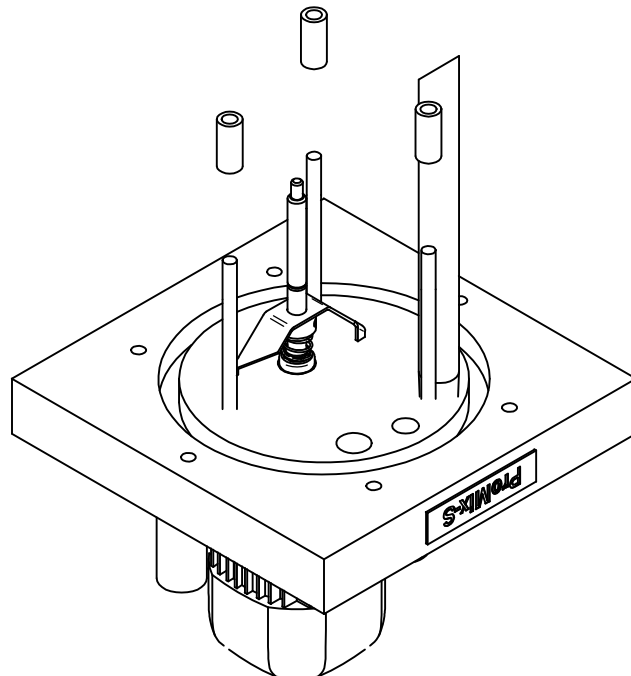


FIGURE 9

13. Using an 1/8" allen wrench, loosen the (2) blade retention set screws and carefully remove the primary blade. Making sure not to damage the the surface of the shaft.

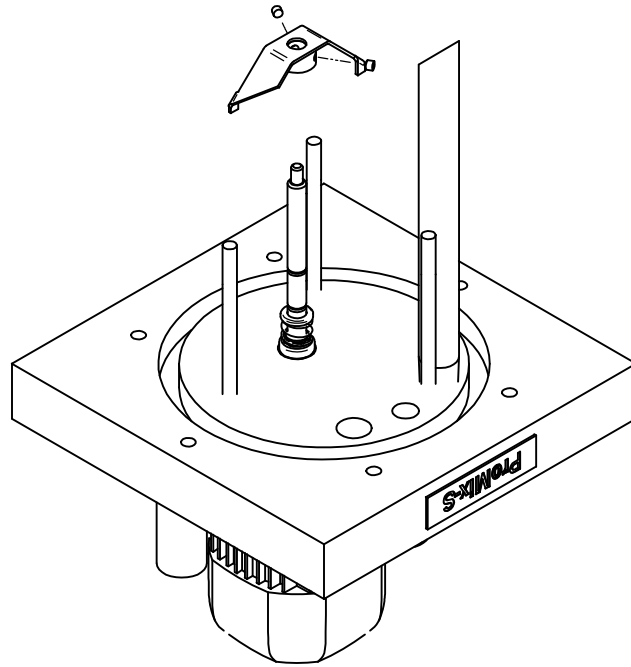


FIGURE 10

14. Remove the lower spring portion of the mechanical seal. Making sure not to damage the the surface of the shaft.

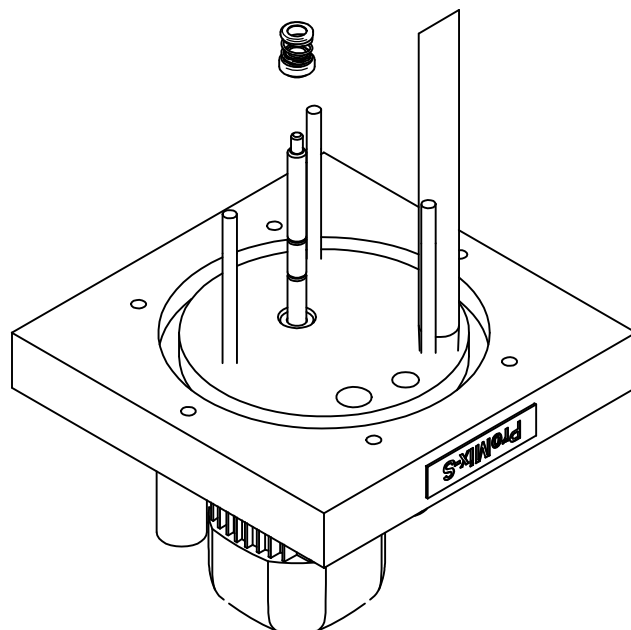


FIGURE 11



15. Using a 7/16" box wrench, remove the (4) mixer motor nuts.

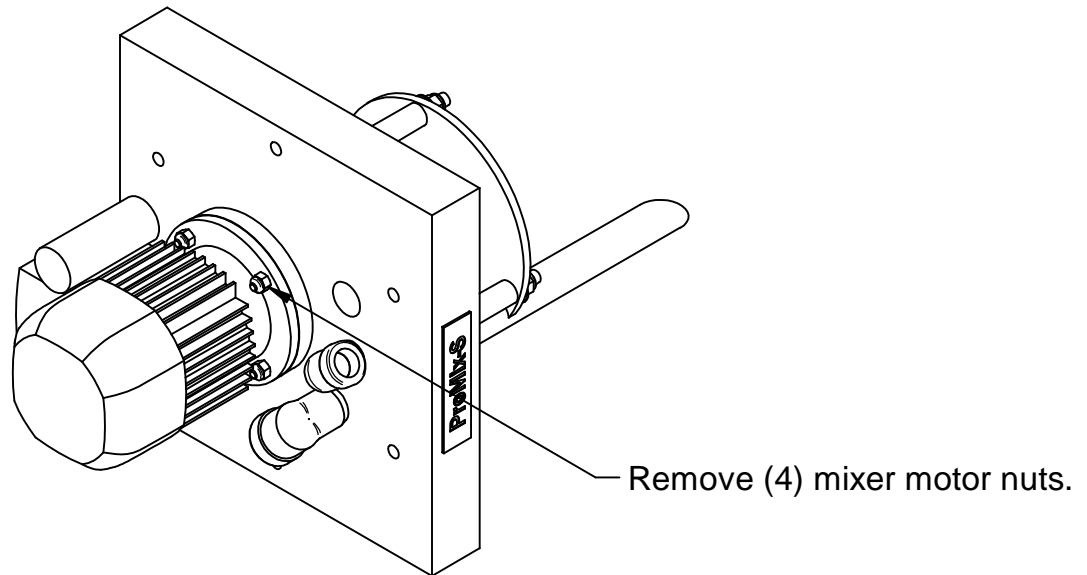


FIGURE 12

16. Gently raise the top mounting plate assembly from the motor. NOTE: The shaft will still be attached to the motor.

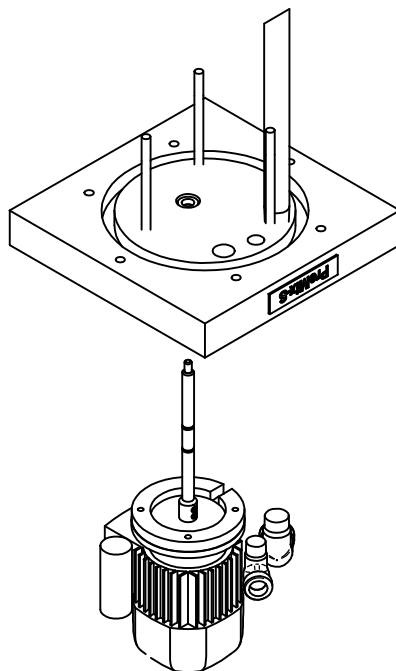


FIGURE 13

17. Using a small flat blade screwdriver, gently pry the upper mechanical seal seat from the top mounting plate. Making sure not to damage the seal recess. Inspect and clean the seal recess.

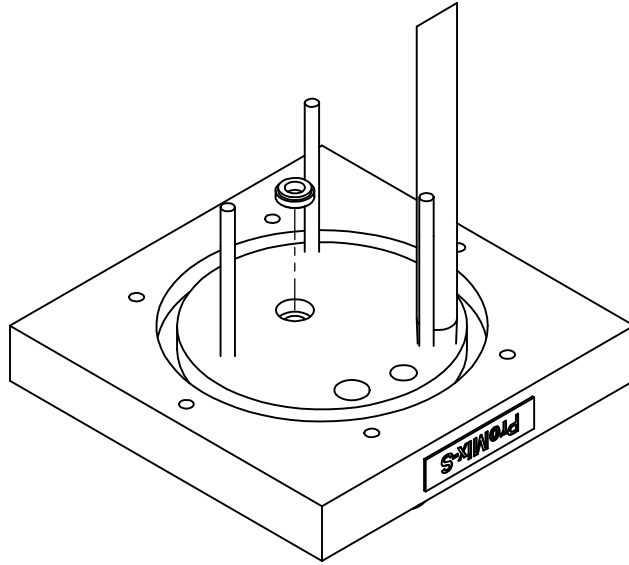


FIGURE 14

18. Inspect and clean the mixer shaft.  
19. Lubricate the shaft with a light multipurpose oil.

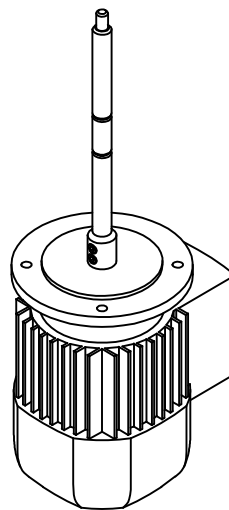


FIGURE 15

20. Lubricate the rubber outer diameter of the stationary upper mechanical seal seat with a light multipurpose oil. Using your finger to apply force and a very clean soft cloth, press the upper mechanical seal into the top mounting plate. This is a light press fit.
21. Slide the entire top mounting plate assembly over the mixer shaft and align the motor flange and motor with the top mounting plate motor studs.  
NOTE: From step 4, realign the motor to its original position with the mounting plate.
22. Install the (4) mixer motor nuts and tighten.
23. Lubricate the rubber inner diameter of the rotating lower spring portion of the seal with a light multipurpose oil. Check both seal surfaces to assure they are free of any foreign matter. Install the lower spring portion of the mechanical seal onto the shaft so that the faces of the seals face each other.  
NOTE: Seal faces should not be lubricated. Never use grease or heavy oil as an installation lubricant. Do not get any dirt or oil on the face of the seal.

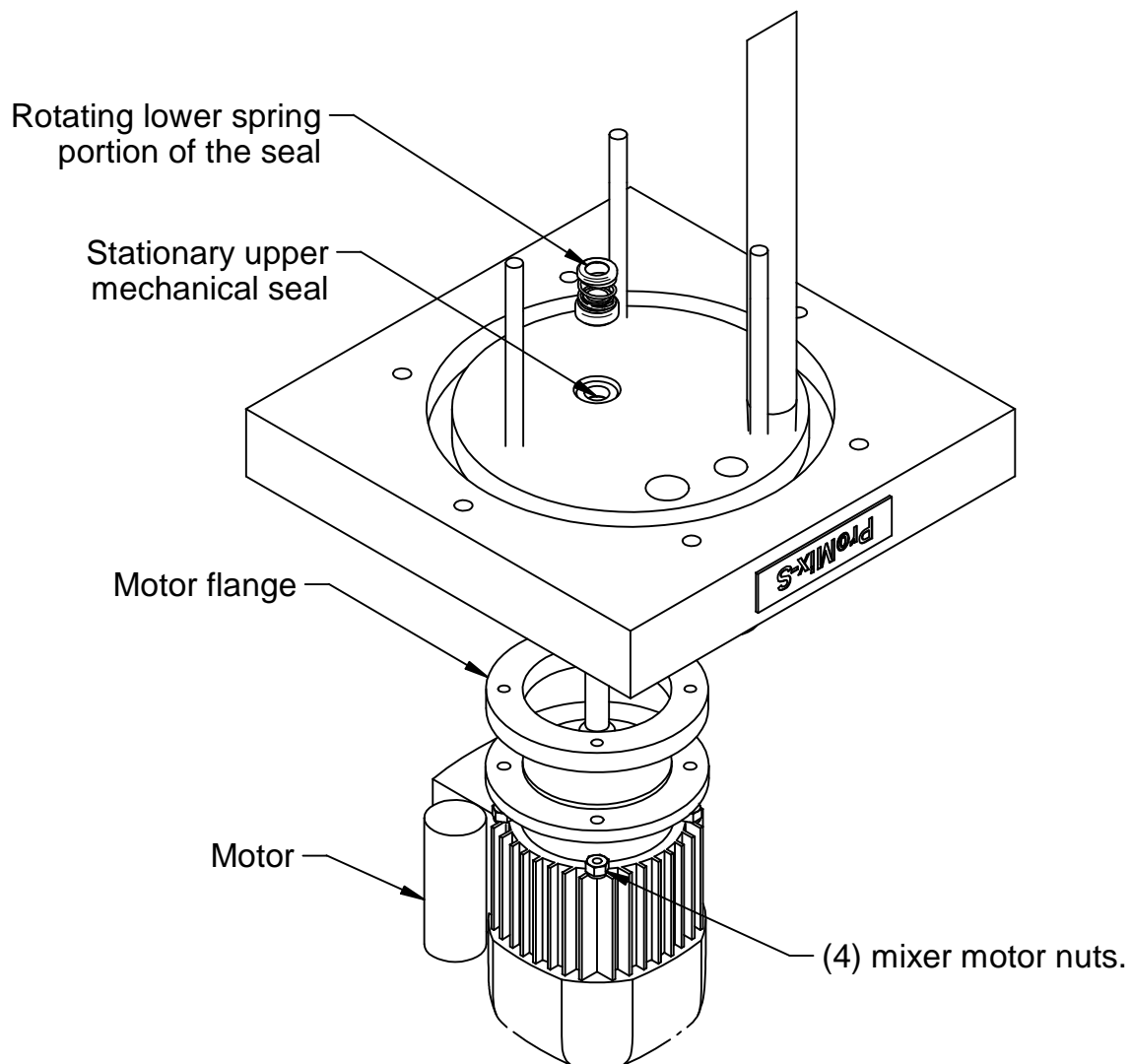


FIGURE 16

24. Install the the primary blade (High shear blade) on the mixer shaft with the blade collar facing the top mounting plate.
25. Align the set screw so that it falls into the pre-machined groove on the mixer shaft and tighten. This will pre-load the mechanical seal.

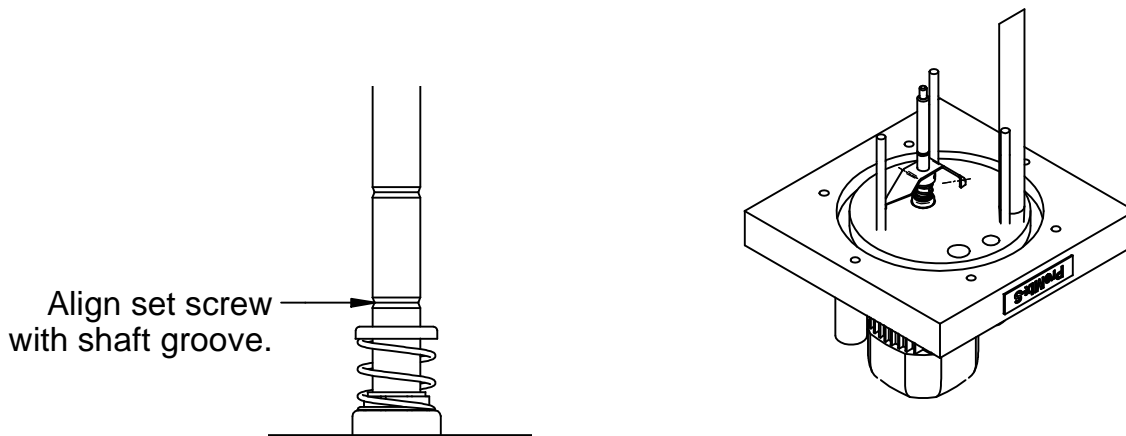


FIGURE 17

26. Install the short spacers on the baffle mounting studs.
27. Slide the Upper baffle (The larger of the two) onto the discharge pipe and mounting studs until the baffle sits flush with the spacers.

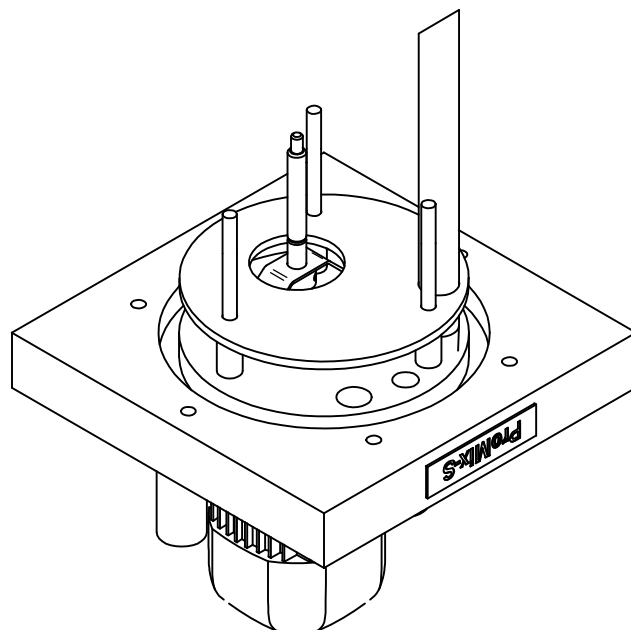


FIGURE 18

28. Install the the secondary blade (Velocity blade) on the mixer shaft with the blade collar facing away from the top mounting plate. Use the primary blade as a guide and align the secondary blade so that it is 90 degrees from the primary blade.
29. Align the set screw so that it falls into the pre-machined groove on the mixer shaft and tighten.

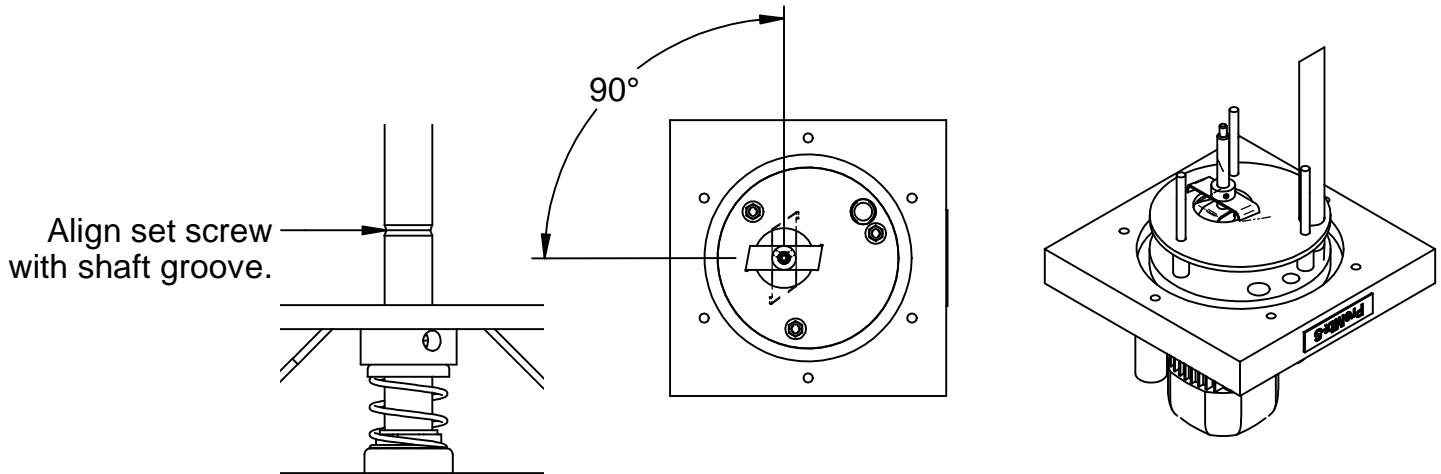


FIGURE 19

30. Install the longer spacers on the baffle mounting studs.
31. Slide the bottom baffle onto the discharge pipe and mounting studs until the baffle sits flush with the spacers. Reuse the flat washers and nylock nuts to secure.

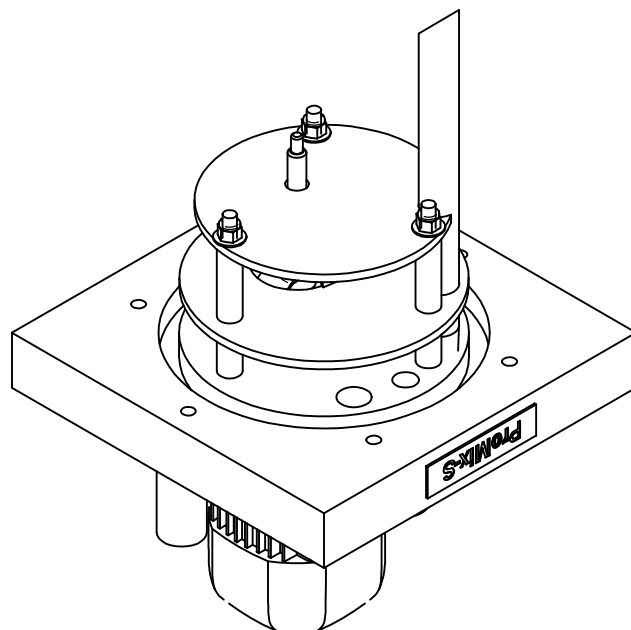


FIGURE 20

32. Install the agitator prop onto the mixer shaft and reinstall set screws.

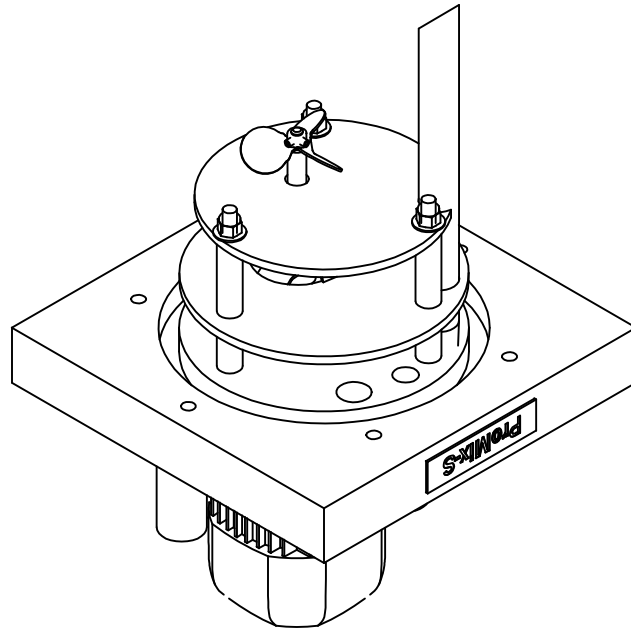


FIGURE 21

33. Inspect the chamber O-ring for any damage and install the entire top plate assembly back into the mixing chamber.

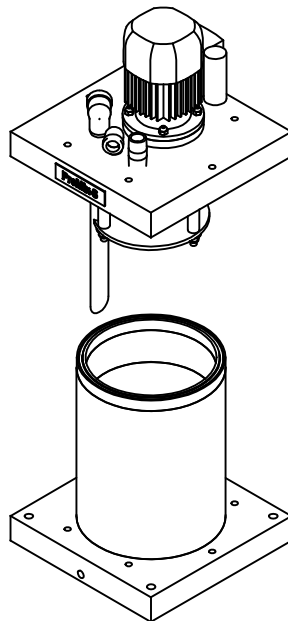


FIGURE 22

34. Install the nuts onto the mounting studs first until they are tight. Install the studs, lock washers and flat washers into the top and bottom mounting plates.
35. Using a 5/8" torque wrench, torque the (6) studs in a star pattern to 15 Ft-Lbs. When installed the studs will be flush with the bottom of the bottom mounting plate.

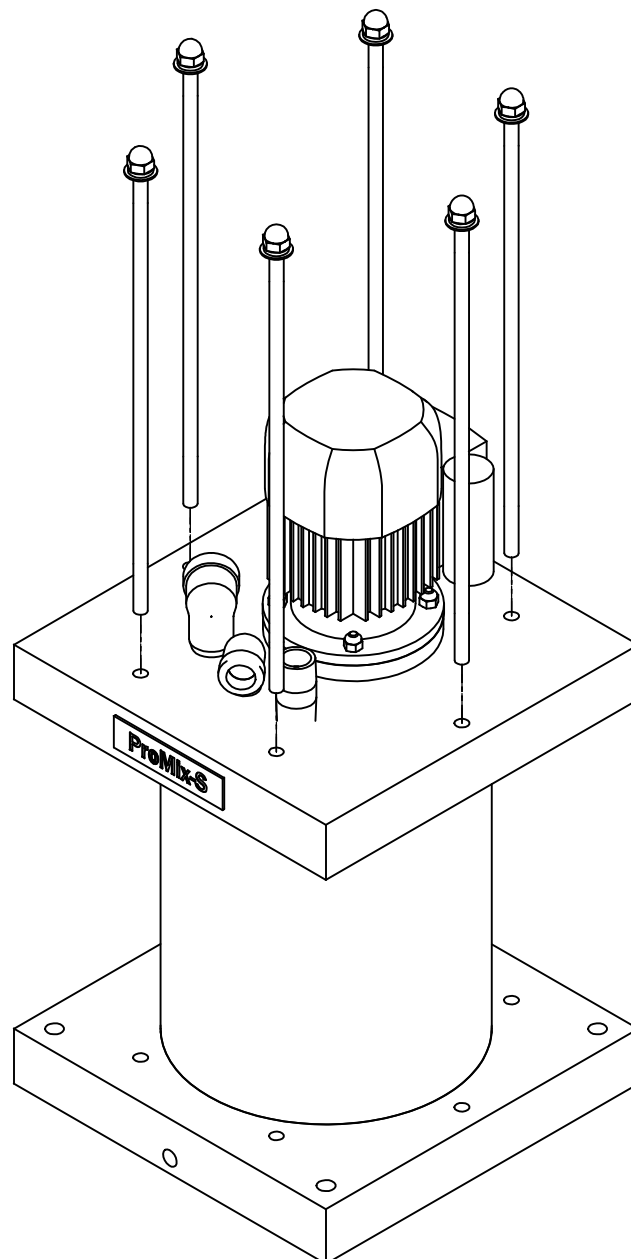


FIGURE 23

36. Completed assembly.

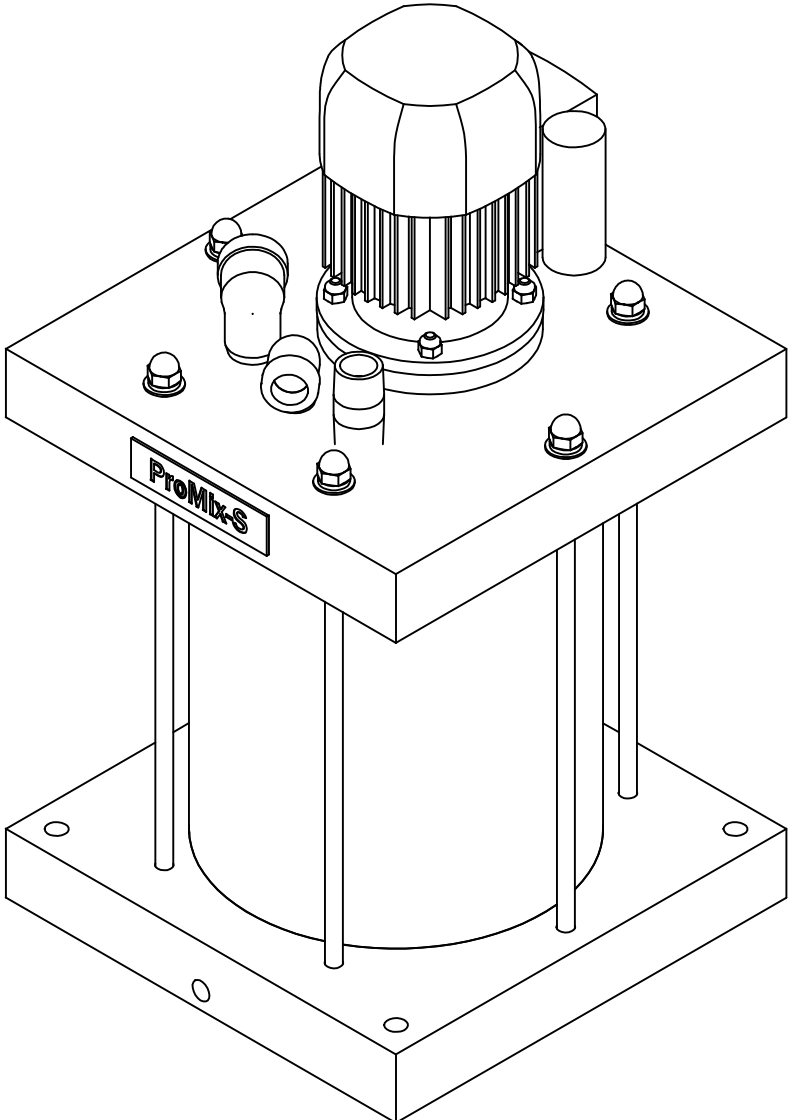


FIGURE 24