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Maintenance

MST COMPLETE DISASSEMBLY PROCEDURE

1. Refer to the MST drawing.
2. De-pressurize the tank and allow it to come to ambient temperature.
3. Empty the tank, and clean and neutralize the tank as necessary.
4. Turn off and disconnect all power and plumbing to the mixer.
5. While supporting the external portion of the mixer, remove the fasteners holding the mixer mounting flange to tank flange.
 - a. If there is no shaft coupling, remove the integral shaft and impeller assembly out through the tank mounting flange along with the rest of the mixer.
 - b. If there is a shaft coupling, support the shaft and impeller assembly from inside the tank, and remove the coupling bolts. Then move the external portion of the mixer away from the tank.
6. Support the mixer, preferably on a bench. It may be helpful keeping the mixer vertical.
7. If there is a removable output shaft coupling half, remove it from the shaft bottom.
8. If there is a mechanical seal, remove the fasteners and slide the seal and seal housing off the shaft bottom.
9. Remove the motor if it presents a problem, such as a weight imbalance.
10. Remove the eye bolts holding the bearing housing (item 11) to the magnet housing (item 10).
11. Slide the magnet housing and gearbox assembly clear away from the bearing housing, taking care not to damage the outer rotor or canister. **Note that the magnets will create a resistance and one needs to watch their hands. If necessary, use jacking bolts.**
12. Remove the canister from the bearing housing by unscrewing the cap screws holding it in place. This exposes the inner magnets, shaft, and bearings.

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13. Remove the inner rotor and sleeve from the top of the shaft.
14. Remove the circlip holding the upper bearing in place.
15. From the bottom of the shaft, push the shaft and upper bearing out of the housing, and remove the bearing.
16. If there is a lip seal, remove it to expose the lower bearing.
17. Remove the circlip holding the lower bearing in place.
18. Slide the shaft and lower bearing out of the bottom of the bearing housing.