

Procedure for cleaning GMP and GRP Series Pumps

The following is the recommend procedure for removing, inspecting, cleaning and reinstalling either a GMP or GRP Series pump. Please use all safety devices such as, but not limited to, gloves and eye protection. When working with solvents do so in a well-ventilated area free of combustible items. Take every effort not to mar any surface, which come in contact with materials.

1. Disassembly

1.1. Remove Tank & Inlet (assuming all material has been removed from the tanks)

1.1.1. Open bleed valve on top of inlet block, if supplied.

1.1.2. Remove tank straps, if supplied.

1.1.3. Remove (3) of the 4 bolts on the back of the pump.

1.1.4. Loosen the fourth bolt to allow the inlet to come off the pump and drain any remaining material. Remove the bolt and the tank after enough material is drained.

1.1.5. Discard O-ring between inlet and pump.

1.1.6. Clean any foreign objects, crystallized or partially hardened material from the tank & pump inlet block.

2. Cleaning Of Residues From Pump

2.1. Partially Disassemble & Clean Pump

2.1.1. Remove the four bolts in the inlet side of the pump. The back of the pump should pull off the shaft & front section. Excessive force should be used only with extreme caution, to prevent damage to the pump.

2.1.2. Be careful not to lose the two alignment pins, which prevent incorrect assembly of the pump. Clean them if necessary.

2.1.3. The bolts should be cleaned of any material.

2.1.4. Prevent any damage to all interior surfaces of the pump.

2.1.5. Carefully remove the outer stator ring housing.

- 2.1.6. Assuming that any crystallized material is located between the stator (internal teeth) and rotor (external teeth), soak (with a compatible solvent) the area in contact with material to soften it.
- 2.1.7. Gently remove & clean the stator. The rotor should be carefully cleaned at this time, while still mounted on the pump shaft. Use nylon brushes instead of steel if possible, to preserve the surface finishes.
- 2.1.8. Keep all parts, except for o-rings.
- 2.1.9. All residues of old material are to be removed from all internal surfaces of the pump parts.
- 2.1.10. Test to see if the pump shaft can be made to turn:
 - 2.1.10.1. Check to see if the motor will turn it by turning on the machine briefly.
 - 2.1.10.2. Remove the belt and turn the pulley with a wrench if necessary.
 - 2.1.10.3. If pump shaft will turn, further disassembly is unnecessary, unless material is leaking from the shaft seals (check behind the drive pulley).
- 2.1.11. Once completely clean, re-assemble the pumps. Note: the mechanical side of the pumps cannot be assembled incorrectly if the two (2) guide pins are in place. Use new o-rings. The use of petrolatum grease is recommended to lubricate all internal surfaces immediately before installation, and may make it easier, along with future servicing of the pump.
- 2.1.12. Lubricate the pumps using the zerks supplied. Use only petrolatum grease for this purpose.
3. Load Material into Machine Per Operator's Manual.
4. Test Machine per Operator's Manual.
 - 4.1. Check cured material for uniform cure and consistency.
 - 4.2. See "Troubleshooting" section in operator's manual if any problems are observed.
5. Restock any items used in procedure