SERVICE INSTRUCTIONS

DIAPHRAGM REPLACEMENT

1) Note the position of the clamp ring attaching screws (item #5), then remove them. GP-1 & GP-2 models use 6 screws, GP-1HD & GP-2HD models use 10 screws. Now lift off the clamp ring/handle/diaphragm assembly.

2) Turn the clamp ring upside down and remove the diaphragm retaining screw (item #11), lift off the button assembly (item #10), then remove and discard the diaphragm (item #9).

3) Install a new diaphragm onto the clevis (item #8), attach the button assembly (item #10) and install the diaphragm retaining screw (item #11).

   Note: Diaphragm retaining screw must be tight.

4) Place clamp ring assembly onto pump body being careful to align rib on diaphragm in groove in pump body. Install clamp ring attaching screws, attach hex nuts and tighten evenly.

DIAPHRAGM PERFORMANCE RECOMMENDATIONS

The following recommendations will provide maximum diaphragm operating life and performance:

Take the pump to where you need the grout! The ideal placement hose length is five feet long. When grouting door frames, place the pump on a table/cart/stand. You want the pump handle approximately waist high to the operator when standing for maximum efficiency and doing this usually allows the "standard" placement hose to reach the top of the door frame.

Always use the largest diameter hose that access will allow. The ideal size is 1 1/2" inside diameter. Never use a "rubber based" hose as it creates increased friction making it very difficult to push grout through it.

If limited access requires that you must use one of our optional hose reducer kits (either 3/4" or 1" inside diameter), remember that this reduction in hose size requires that the operator must cycle the pump handle at a much slower rate. Never force the pump handle!

It is always recommended that a good quality pre-packaged cementitious grout be used. These products usually include additives which allow the grout to flow better.

If you are mixing your own grout from raw materials (ie sand/cement/water), extra time will be required to produce and repeat a jumpable mixture. When pumping "home made" grout, lower quality pre-packaged grouts and/or many grout mixtures supplied by a ready mix company, mixture must be cement rich!

To improve pumping of these mixtures, consider purchasing a plasticizer. Another option is to add a few drops of "Joy" dishwashing liquid to your mix.

Try to avoid storing the pump for long periods in direct sunlight as the UV rays can be damaging to the diaphragm.

Following these recommendations will help produce maximum performance and will aid in reducing problems in the field.
Typical of:
GP-1HD
GP-2HD
GP-2HDSS
**FLAPPER VALVE REPLACEMENT**

1) Loosen hose clamp and remove five foot long placement hose from the pump.
2) Loosen hose clamp (closest to pump) on the coupling hose that connects the hopper support 90° fitting to the pump.
3) Remove the four screws that attach the pump to the base plate, then remove the pump assembly.
4) Remove twelve screws (5/8 inch long) and nuts from both the inlet and outlet flanges.
5) Remove and discard both flapper valves.
6) Install new flapper valves as shown below. Finish assembly in reverse order of disassembly. Tighten flange mounting screws evenly.

**Note:**

When installing the flapper valve on the side of the pump, the round protrusion of the valve must face inward towards the center of the pump.

When installing the flapper valve on the side of the pump, the round protrusion of the valve must face outward away from the center of the pump.