

# Instruction Sheet

## PVC AutoPrime Valve Spare Parts Kit

### Part Number 48040



Warning: Always wear protective clothing, face shield, safety glasses and gloves when working on, near or performing any maintenance or replacement on your metering pump.



#### TOOLS REQUIRED FOR KIT REPLACEMENT

- 9/64" allen wrench
- Standard pliers
- 1/16" drill bit
- Small hammer
- (1) sheet rock screw
- Soapy water

#### DEPRESSURIZE THE PUMP AND DISCHARGE LINE

Warning: Always wear protective clothing, face shield, safety glasses and gloves when working on, near or performing any maintenance or replacement on your metering pump.

Caution: Be sure the injection check valve is properly installed and is operating. If a shut-off valve has been installed downstream of the injection valve, it should be closed while maintenance is being performed. Be sure the relief tubing is connected to the AutoPrime valve and multi-function valve and runs back to the solution drum.

1/4 turn the black knob on the multi-function valve. The discharge line is now depressurized. Keep the valve open until solution drains back down the discharge tubing into the solution drum. Then 1/4 turn the knob back to the closed position.

Remove suction line from solution drum. Place the foot valve in a container of water or other neutralizing solution. Turn the pump on to flush the head assembly and AutoPrime valve. Once the pump is flushed, lift the foot valve out of the solution and continue to pump air to purge the liquid end of excess solution or water. Using a rag wrapped around the fittings, disconnect all discharge and return line tubing connections to both the AutoPrime valve and multi-function valve (if so equipped). Remove the AutoPrime valve from the pump head, unscrewing it counter clockwise.

#### REMOVE REPLACEMENT PARTS (See Figure 1)

- 1 Using a 9/64" allen wrench, remove item 1 (four socket head screws).
- 2 Discard item 1 (four screws) and item 2 (o-ring) from item 3 (lower cap).
- 3 Place item 3 and 4 (lower and upper caps) to one side.
- 4 Remove and discard item 5 (spring) from item 14 (main body).
- 5 Remove and discard item 6 (top and bottom o-ring) from item 14 (main body). It may be necessary to pierce the old o-ring with an exacto knife to remove. **Use care not to scratch or gouge the o-ring seat.**
- 6 Remove the large check valve assembly. Insert the 9/64" allen wrench into the spring hole until it rests on item 7 (valve ball). Using a small hammer tap the allen wrench against the ball until items 7, 8 and 9 (ball, seat and valve cone) disengage (valve cone has a light press fit in main body). Discard the old ball and seat. **Note: DO NOT discard the valve cone. This piece will be re-assembled.**
- 7 Remove item 10 (vent plug). Using a pair of pliers, attempt to gently pry the vent plug out of the main body (vent plug has light press fit in main body. If the top of the vent plug breaks, screw a sheet rock screw in a couple of threads and pry out the vent plug. Remove the old vent plug and item 11 (black ball) and discard.
- 8 Remove item 13 and 12 (small white ball and guide.) Insert the back end of a 1/16" drill into the center hole in the main body until it rests on the valve ball. Using a small hammer, tap the drill end until the ball and guide disengages (guide has a light press fit in main body). Discard both parts.
- 9 Clean parts with water before re-assembling.



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## INSTALL NEW SPARE PARTS

- 1 Place item 13 (small white ball) in item 12 (guide). Apply soapy water to outside of guide. Install guide in main body. Carefully press the part into place using your finger. The part should be flush with the main body when finished. Note: If guide can't be completely seated flush, turn main body over and use a flat surface such as a table to press the guide in place.
- 2 Install the large check valve assembly. Assemble item 9, 8 and 7 (valve cone, seat and large white ball). Apply soapy water to the sides of item 9 (valve cone). Carefully press the valve cone assembly into the main body. The starting edge of the cone should be flush with the main body when installed.
- 3 Turn the body over. Install item 11 and 10 (black ball and vent plug). Apply soapy water to vent plug. Carefully press the vent plug into place using your finger. Install the vent plug so the first step is flush with the main body.
- 4 Install item 6 (two o-rings) in main body. Note: Because of a design change, your kit is supplied with two different sized body o-rings. Please match the proper size o-ring in the spare parts kit to the old o-ring that was removed from the valve. Using your finger push the o-ring into the o-ring groove.
- 5 Install item 5 (spring) and position the upper cap so the spring fits in the guide. Place the upper cap on the main body.
- 6 Position item 3 (bottom cap) on the main body. Note proper orientation of the cone recess. Install the four socket head cap screws. Tighten to approximately 12 in/ lbs.
- 7 Install item 2 (o-ring) on the bottom cap.
- 8 Install AutoPrime valve in pump head. Reconnect all tubing connections.

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*Figure 1*

