Replacing Valve Cartridges

BEYOND 40 IN./LBS VALVE TIGHTENING. DO NOT TIGHTEN FITTINGS TO ATTACHING YOUR FITTINGS TO PREVENT FURTHER STABILIZE THE VALVE WITH A ½" WRENCH WHEN SAPPHIRE SEATS TO CRACK.

OVERTIGHTENING THE VALVES CAN CAUSE THE SAPPHIRE SEATS TO CRACK.

Installation of New Valves

which include the cartridge and instructions. cartridge in the valve, you may purchase replacemen prevent parts from falling out. If you wish to replace the counter

valve. Remove the valves with a ½" wr

end assembly (see Figure 4.1

The valves are the two hexagon

Removal of Existing Valves

from outlet valves by the groove on the hexagonal part of the valve. Remove the valves with a ½” wrench, turning in a counter-clockwise direction. After removal, be careful to keep the valve oriented so the translucent washers face upwards to prevent parts from falling out. If you wish to replace the cartridge in the valve, you may purchase replacement cartridges, which include the cartridge and instructions.

Installation of New Valves

1. Inlet valves can be distinguished from outlet valves by the groove on the hexagonal part of the valve.
2. Unscrew the shipping nut and remove the metal shipping washer, as these are not used for installation of the valves.
3. Insert the new valve into the liquid end assembly and tighten by hand until just finger-tight. Then use a ½” wrench and tighten ¼ turn more. You should tighten valves to the point at which no further leakage occurs, or not more than 4.5 ft./lbs.

OVERTIGHTENING THE VALVES CAN CAUSE THE SAPPHIRE SEATS TO CRACK.

STABILIZE THE VALVE WITH A ½" WRENCH WHEN ATTACHING YOUR FITTINGS TO PREVENT FURTHER VALVE TIGHTENING. DO NOT TIGHTEN FITTINGS TO BEYOND 40 IN./LBS. OR THE POINT WHERE NO FURTHER LEAKAGE OCCURS.

Replacing Valve Cartridges

1. Remove the valve from the cylinder (see above for detailed instructions).
2. Using the smaller dowel pin provided (1-1/4" long by 1/8"diameter), press out the internal components of the valve assembly using a steady pressure (you will need a 1/16" dowel pin when disassembling 1373 or 1374). Do not hammer parts through with the dowel pin or hammer on the dowel pin. Do not allow the valve parts to fall out of the valve onto a hard surface.
3. Reassemble the valve by placing the valve insert in the valve housing using the larger (3/16") dowel pin provided (1373 and 1374 valves use a total of 3 washers, one is installed before installing the valve insert). Make sure it is oriented correctly (see Figure 4.1). Press a CTFE seal into place. Slide the valve cartridge into the valve housing making certain it is oriented correctly. Press another new CTFE seal into place. The CTFE seal will extend approximately 0.020 – 0.030” from the valve housing.
4. Re-install the rebuilt valve into the liquid end assembly and tighten by hand until just finger-tight. Then use a ½” wrench and tighten ¼ turn more. You should tighten valves to the point at which no further leakage occurs, or not more than 4.5 ft./lbs.