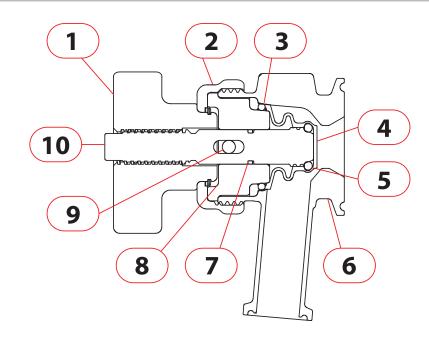
## Boworks!

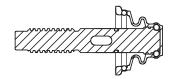
## BDV: Bio Drain Valve

## Service Manual

## BDW Parts:

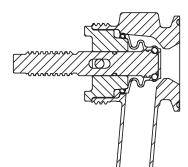
- 1: Handle (PEI)
- 2: Assembly Collar (316L SS)
- 3: 2-121 (Silicone O-ring)
- 4: BDV Seal (TFM)
- 5: 2-111 (Silicone O-ring)
- 6: Valve Body (316L SS)
- 7: 2-012 (Silicone O-ring)
- 8: Seal Retainer (316L SS)
- 9: 3/16" x 1 1/2" Dowel Pin (18-8 SS)
- 10: Valve Stem (316L SS)





1: Replace O-ring (7) on valve stem if needed. Screw valve stem (10) on new seal (4) clockwise until the bottom seal O-ring (5) is pressed into the TFM seal. This should be evident by the O-ring's red color becoming visible through the TFM seal. If you have trouble gripping the valve stem to turn it use the dowel pin (9) to create leverage.

2: Apply silicone grease to the valve stem (10) near the O-ring (7) and then install the seal retainer (8) and insert the dowel pin (9).



**3:** The dowel pin (9) is supposed to extend  $\sim 0.1$ " out of one side of the seal retainer (8). This side of the pin is to be aligned with the slot in the thread pad of the valve body (6). Align these and gently push the seal retainer (8) into the valve body (6).

4: Screw the handle (1) onto the valve stem (10) counter-clockwise until the assembly collar (2) touches the thread pad of the body (6). Make sure that the dowel pin (9) is retained in it's slot while installing handle. Begin screwing the assembly collar (2) clockwise onto the body (6) while turning the handle (1) couter-clockwise at the same rate. It is **absolutely critical** that you unscrew the handle (1) while installing the collar (2) or else you will break the handle when the seal (4) bottoms out on the lower valve seat. Torque assembly collar (2) to ~35-40 ft-lbs.

