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PBF-100 Instructions for Assembly

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Please read these instructions carefully prior to assembling the filter. If you have any questions please call us at (504) 837-5575 or E-mail us at Aquasys@BeadFilters.com for assistance.

Parts List:

- Filter hull
- Filter head
- 7/8" shaft with propellers installed
- 10 hp 3-phase 230/460 v mixing motor
- (1) Love-Joy couplings (7/8") with key; installed on propeller shaft
- (1) Love-Joy couplings (1 3/8") with key; installed on motor shaft
- (1) Love-Joy rubber insert/spider; installed on motor shaft
- (2) neoprene gaskets (48" x 42"); one is installed between filter head and screen, second on filter hull flange.
- (1) 48" dia. perforated 316 ss screen
- (40) 1/2" x 4" 316 ss bolts for attaching the filter head to the filter hull. * These bolts **must** be treated with a light coating of an anti-seize lubricant to prevent galling.
- (40) 1/2 inch 316 ss nuts for attaching the filter head to the filter hull
- (80) 1/2 inch 316 ss flat washers for attaching the filter head to the filter hull
- (4) 1/2 inch x 1 1/2 inch 316 ss bolts for attaching the motor to the motor bracket
- (4) 1/2 inch 316 ss lock washers for attaching the motor to the motor bracket
- (1) Expanded aluminum motor guard and spring; installed

Instructions for Assembly:

- step 1: Bead Installation. If you requested that your filter(s) be shipped to you without the beads installed, the following are the bead installation instructions. Fill the filter 1/3 full with water. Pour 60 -55 lbs bags or 66 -50 lb bags of beads into the filter hull for a total of 3,300 lbs.
- step 2: Check to be sure that the rubber gaskets is still in place on the flange of the filter hull. Make sure the bolt holes in the gasket line up with those on the filter flange. Make sure there are no beads underneath the gasket or it may not provide a good seal. Check to be sure the second gasket is installed on the flange of the filter head, again make sure the bolt holes in the gasket line up with those on the filter flange and the screen. Using four (4) pinch clamps, secure the screen to the filter head so it cannot fall off.
- step 3: Assuming the beads are already installed in the filter (if not see step 1 above), Raise the filter head so that the shaft end will clear the flange using a fork lift or

overhead crane. **Do not put any pressure on the shaft when moving the filter head, as it is easily bent.** Place the filter head on the filter hull. The direction of the outlets on the filter head is left to your discretion. Use the (40) ½ inch bolts with washers and nuts to fasten the filter head to the filter hull. Make sure to put a washer on the top and the bottom of every bolt. After inserting the bolts, washers (two standard flat washers per bolt), and attaching the nuts, tighten the nuts by hand until they are snug. Establish a uniform pressure over the flange face by tightening the bolts in 5 ft. lbs. increments according to the standard 180 deg opposing sequence. **Torque all the bolts to 35 ft/lbs.** If see page occurs tighten individual bolts as needed.

step 4: The motor should be mounted after the head is bolted to the filter hull. The rubber spider must be fitted into the Love-Joy coupling on the propeller shaft. The second Love-Joy coupling is already in place on the motor shaft. Then place the motor on the stand with the wiring box facing the direction of your power supply. Be sure not to crush the rubber spider when mounting the motor. Leave a 1/8" space between the two Love-Joy couplings. The motor can be bolted in any direction by lining up the holes in the motor with the holes in the motor stand. Use the ½ inch x 1 1/2 inch bolts with lock washers to fasten the motor to the stand.