

MAINTENANCE GUIDE FOR THE JV-XXBB SERIES FLOW METER

Cleaning, inspecting, or repairing a JV-BB Series gear flow meter is easily accomplished by following the procedures below. Read all instructions before starting.

Step by Step video link: <https://www.youtube.com/watch?v=J MxHwUxwGI>

Tools Needed:

- 5mm, 8mm, or 3/8" Hex Key
- Hammer
- Torq Wrench
- Cleaning solution

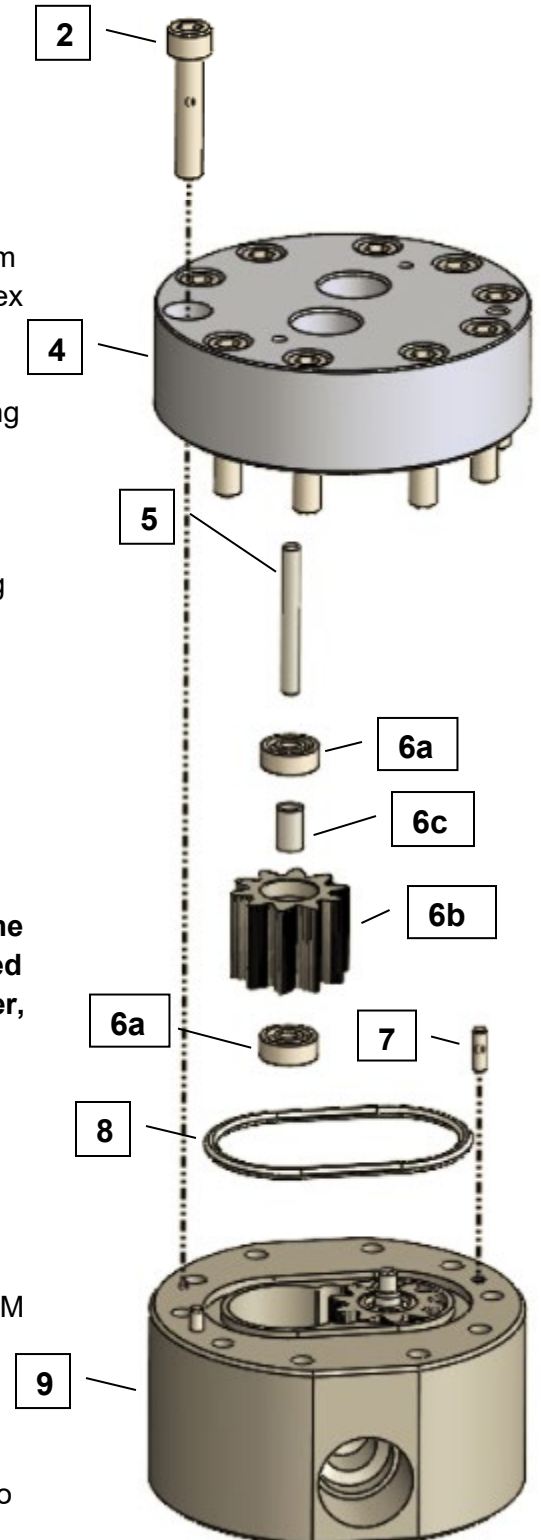
1. Remove the Sensor from the flow meter body Upper Housing (4).
2. The JV-30 size and smaller use M6 Bolts (2), loosen them using a 5mm hex key. The JV-60 uses M10 Bolts (2), loosen them using an 8mm hex key. The JV-80 and larger uses 1/2-20 Bolts (2), loosen them using an 3/8" hex key. Keep the 2 opposing bolts, near the Locating Pins (7), engaged by a few threads to avoid stress on the shafts and the locating pins during housing separation. **Please note the orientation of the Upper and Lower housings with respect to each other so that the meter is reassembled the same way.**
3. Holding the Upper Housing (4), gently tap on the top of the 2 opposing bolt heads to separate the Upper Housing (4) from the Lower Housing (9). **Do NOT use chisels or screwdrivers to split and pry apart the housings. This can cause damage to the meter bodies and meter internal parts.**
4. After separation, remove, clean, and inspect the gear assemblies (6) and shafts (5). Clean out the O-ring groove, shaft holes and meter cavity.

IMPORTANT: The gear assembly consists of two bearings (6a), the Gear (6b), and a Bearing Spacer (6c). These parts are loosely fitted and can fall out during removal. These parts are matched together, and careful attention **MUST** be made to their orientation and location as they **MUST** be replaced the exact way they were removed.

5. After cleaning all parts completely, the Gear Assemblies (6) and Shafts (5) can be reinserted. Check for free and easy rotation of the gears.
6. Replace the O-Ring (8). PTFE O-rings should always be replaced. FKM O-rings can be reused if they are not damaged.

Note: JVx-60BB flow meters use 2 O-rings per meter.

7. During reassembly keep the meter housings as parallel as possible. Make sure the housings are orientated the same way they were prior to disassembly. Model and serial number tags should match up as a reference.



8. Replace the Bolts (2) and torque to 11 ft/lbs for the 12, 20 and 30 size meters, 22 ft/lbs for the 60 size meters, and 50 ft/lbs for the 80 and 90 size meters. Do not force the meter housings together. Do NOT use a hammer or other such device. Over tightening may fatigue the bolts and/or restrict the operation if internal surfaces are not completely clean.

Note: Torque specs are for standard bolts

9. Clean any debris from the pickup holes before remounting the sensor to the upper Housing (4). **Note for dual pickup sensors there is a correct and incorrect orientation for mounting on the flow meter.** Please see the AW Gear Meters website for further documentation.

CROSS REFERENCE GUIDE FOR JV-XXBB SERIES SPARE PARTS

Part - Qty per meter [Drawing Ref #]	JV-12BB	JV-20BB	JV-30BB	JV-60BB	JV-80BB	JV-90BB
Locating Pin - 2 [7]	LP-3x10	LP-3x10	LP-3x10	LP-8x32	LP-JVA-80KL	LP-JVA-80KL
Shaft - 2 [5]	ST-4X23.5-SS	ST-4X23.5-SS	ST-4X35.5-SS	ST-6X45.5-SS	None	None
Gear Assembly - 2 [6]	GR-12BB	GR-20BB	GR-30BB	GR-60BB	GR-80BB	GR-90BB
PTFE O-Ring - 1 [8]	SEL-OT9-39X3	SEL-OT9-46X3	SEL-OT9-46X3	SEL-OT9-68X4	SEL-OT9-2x352	SEL-OT9-2x352
FKM O-Ring - 1 [8]	SEL-OV9-39X3	SEL-OV9-46X3	SEL-OV9-46X3	SEL-OV9-68X4	SEL-OV9-2x352	SEL-OV9-2x352
Bolts - 10 (16 for 80/90) [2]	FAS-SM610-5	FAS-SM610-5	FAS-SM610-5	FAS-SM1015-5	JSC-80KL-1/2-20X2.5-SOCKET	JSC-90KL-1/2-20X3.5-SOCKET
Washers - 16 [3]	None	None	None	None	WASHER-FLAT-1/2-SAE-GRADE-8	WASHER-FLAT-1/2-SAE-GRADE-8
Kit (2 gears, 2 shafts, 1 PTFE and FKM O-Ring)	JV-KIT-12BB	JV-KIT-20BB	JV-KIT-30BB	JV-KIT-60BB	JV-KIT-80BB	JV-KIT-90BB

*JV-60 Kit includes 2 of each O-ring