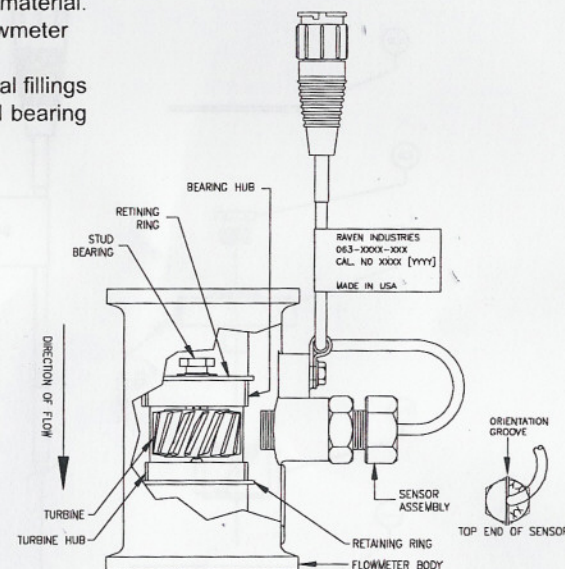


# RFM 15P FLOWMETER MAINTENANCE AND ADJUSTMENT PROCEDURE

- 1) Remove Flowmeter from Sprayer, brush away any debris and flush with clean water to remove any foreign material.
- 2) Remove the retaining rings carefully. Remove the bearing hub, turbine hub, and turbine from inside Flowmeter housing.
- 3) Clean the turbine and hubs of metal filings and any other foreign material. Use pressurized air to blow metal filings and debris out of both hubs and turbine. Confirm that the turbine blades are not worn. Hold turbine and bearing hub in your hand and spin turbine. It should spin freely with very little drag.
- 4) If bearing hub stud is adjusted or replaced, verify the turbine fit before reassembling: Put turbine hub and retaining ring in place. Put bearing hub with turbine against turbine hub inside the Flowmeter housing. (Make sure stud keys inside Flowmeter housing are lined up in the groove on the hub). Put the retaining ring into the groove, to lock bearing hub in place. Spin turbine by blowing on it. Tighten bearing hub stud until turbine stalls. Loosen the stud 1/3 of a turn. The turbine should spin freely.
- 5) Use a low pressure (5 psi) [34.5 kPa] jet of air thru Flowmeter in the direction of flow and again in opposite direction to verify that the turbine spins freely. If there is drag, loosen the stud on the bearing hub 1/16 turn until the turbine spins freely.
- 6) If turbine spins freely and the cables have checked out O.K., but the Flowmeter is not totalizing properly, verify that the Sensor Assembly is threaded all the way into the Flowmeter body, and the orientation groove on top of sensor is parallel with Flowmeter body. If Flowmeter still does not totalize, replace Sensor Assembly.

**Note:** For best performance of RFM 15P Flowmeter, allow 6" straight pipe, 1 1/2" diameter on both ends of Flowmeter (or use M200 BANJO Flange fittings instead). Do not use plumbing size smaller than 1 1/2" diameter or change the direction of plumbing within 6" at each end of Flowmeter.



## PROCEDURE TO RE-CALIBRATE FLOWMETER

- 1) Enter a METER CAL number of 10 [38] in 

METER CAL  
5
- 2) Enter a TOTAL VOLUME of 0 in 

TOTAL VOLUME
- 3) Switch OFF all booms.
- 4) Remove a boom hose and place in calibrated 5 gallon [19 liter] container.
- 5) Switch ON appropriate boom switch and MASTER switch. Pump exactly 10 gallons [38 liters].
- 6) Readout in TOTAL VOLUME is the new METER CAL number. This number should be within +/- 3% of the number stamped on the tag on Flowmeter.
- 7) Repeat this procedure several times to confirm accuracy. (Always "zero out" the TOTAL VOLUME display before retesting).

**NOTE:** For greatest precision, set METER CAL to 100 [378] and pump 100 gallons [378 liters] of water.

- 8) To verify Flowmeter calibration, fill applicator tank with a predetermined amount of measured liquid (i.e. 250 gallons). **DO NOT RELY ON GRADUATION NUMBERS MOLDED INTO APPLICATOR TANK.** Empty the applicator tank under normal operating conditions. If the number displayed under TOTAL VOLUME is different from the predetermined

amount of measured liquid by more than +/- 3%, complete the following calculation.

**EXAMPLE:**

METER CAL	= 1600 [190]
TOTAL VOLUME	= 260 [983]
Predetermined amount of measured liquid	= 250 [945]

$$\text{Corrected METER CAL} = \frac{\text{METER CAL} \times \text{TOTAL VOLUME}}{\text{Predetermined amount of measured liquid}}$$

ENGLISH UNITS:

$$= \frac{1600 \times 260}{250} = 1644$$

METRIC UNITS:

$$= \frac{[422] \times [983]}{[945]} = [439]$$

$$\text{Corrected METER CAL} = 1644 [198]$$

- 9) Enter corrected METER CAL before resuming application.



# RFM 15P FLOWMETER REPLACEMENT PARTS

063-0172-040

ITEM	DESCRIPTION	RAVEN PART #
1	Body, RFM 15 Flanged	106-0159-550
2	Rotor/ Magnet Assembly	063-0172-041
3	Hub/Bearing Assy, Upstream	063-0171-889
4	Hub Assembly, Downstream	063-0171-769
5	Ring, Retaining, Internal	335-0000-278
6	Stud Bearing	063-0173-062
7	Clamp, Cable	435-3002-017
8	Screw, Thread Forming	310-0002-137
9	Sensor, Assembly, External	063-0171-669

