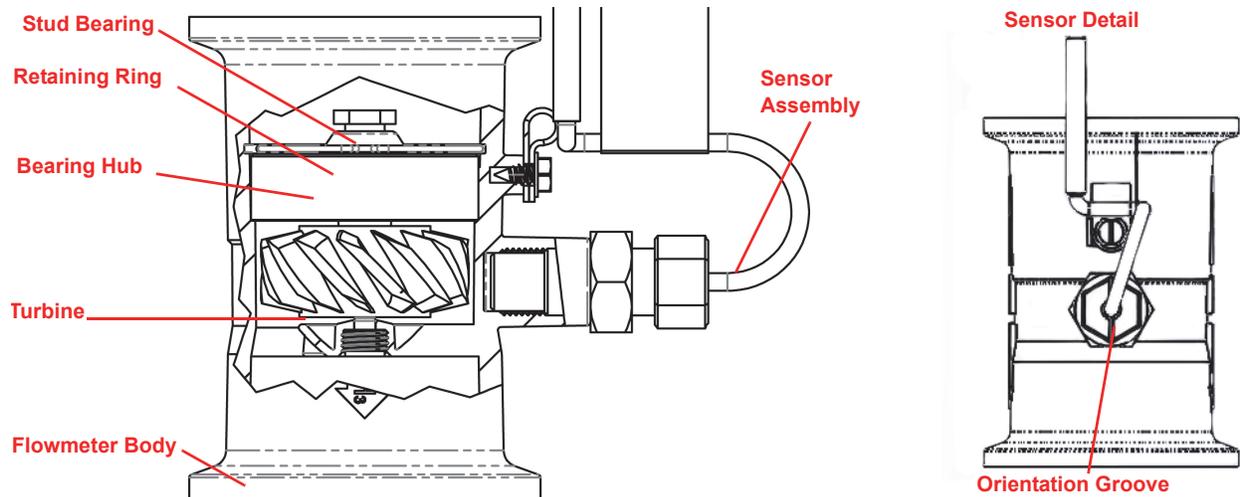


# RFM FLOWMETER MAINTENANCE AND ADJUSTMENT



1. Remove the flowmeter from the sprayer.
2. Brush away debris and flush the flowmeter with clean water to remove foreign material.
3. Carefully remove the retaining rings.
4. Remove the bearing hub, turbine hub, and turbine from inside the flowmeter housing.
5. Clean the turbine, bearing hub, and turbine hub of metal filings and other foreign material. Use pressurized air to blow metal filings and debris out of both hubs and the turbine.
6. Confirm that the turbine blades are not worn. Hold the turbine and bearing hub in your hand and spin the turbine. It should spin freely with very little drag.
7. If the bearing hub stud is adjusted or replaced, verify the turbine fit before reassembling by:
  - a. Installing the turbine hub and retaining ring.
  - b. Put the bearing hub with the turbine against the turbine hub in the flowmeter housing. Make sure the stud keys inside the flowmeter housing are lined up in the groove on the hub.
  - c. Put the retaining ring in the groove to lock the hub in place.
  - d. Blow on the turbine to spin it.
  - e. Tighten the bearing hub until the turbine stalls.
  - f. Loosen the stud 1/3 of a turn. The turbine should spin freely.
8. Use a low pressure (5 psi)[34.5kPa] jet of air through the flowmeter in the direction of flow and against the flow to verify the turbine spins freely. If there is drag, loosen the stud on the bearing hub 1/16 of a turn until the turbine spins freely.
9. If the turbine spins freely and the cables have checked okay, 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 the sensor is parallel with the flowmeter body. If the flowmeter still does not totalize, replace the sensor assembly.

**Note:** For best performance of RFM flowmeter, allow 5" to 7" straight pipe diameters on both ends of the flowmeter. Do not using a plumbing size smaller than the flowmeter diameter or change the direction of plumbing within 5" to 7" at each end of the flowmeter.

# Flowmeter Re-Calibration

1. Enter a meter cal number of 10 [38].
2. Enter a total volume of 0.
3. Switch all booms off.
4. Remove a boom hose and place it in a calibrated 5 gallon [19 liter] container.
5. Turn on the boom and master switches.
6. Pump exactly 10 gallons [38 liters].
7. The readout in total volume is the new meter cal number. This number should be within +/-3% of the number stamped of the flowmeter tag.
8. Zero out the total volume.
9. Repeat the calibration procedure several times to confirm the reading accuracy.

**Note:** For greatest precision, set the meter cal to 100 [378 liters] and pump 100 gallons [378 liters] of water.

10. To verify the flowmeter calibration, fill the applicator tank with a predetermined amount of measured liquid (i.e. 250 gallons). Do not rely on the graduation numbers molded into the applicator tank. Empty the applicator tank under normal operating conditions. If the number displayed under the total volume is different from the predetermined amount of measured liquid by more than +/-3%, complete the following calculation.

EXAMPLE: Meter Cal = 720 [190] Total Volume = 260 [983] Predetermined amount of measured liquid = 250 [945]

	<u>Meter Cal x Total volume</u>	English Units:	Metric Units:
Corrected Meter Cal =	Predetermined amount of measured liquid	$\frac{720 \times 260}{250}$	$\frac{[190] \times [983]}{[945]}$

Corrected Meter Cal Example = 749 [192]

11. Enter the corrected meter cal before resuming application.

## Specifications Based on Water

Flow Meter Size	RFM 15P (M200) Flange	RFM 60P (M200) Flange	RFM 100P (M220) Flange	RFM 200P (M300) Flange
Pressure Rating	175 PSI	175 PSI	150 PSI	150 PSI
Normal Flow Range	.5-15 GPM	2-60 GPM	3- 100 GPM	10-200 GPM
PSI Drop	15 GPM = 2 PSI	60 GPM = 5 PSI	100 GPM = 4 PSI	200 GPM = 5 PSI
Max Flow Range	.5-40 GPM	2-150 GPM	3-250 GPM	10-400 GPM
May Reduce Flow Meter Life	PSI Drop at 40 GPM = 14 PSI	PSI Drop at 150 GPM = 35 PSI	PSI Drop at 250GPM = 25 PSI	PSI Drop at 400 GPM = 18 PSI

## Replacement Parts Kits

RFM Model	Replacement Parts Kit Number	RFM Model	Replacement Parts Kit Number
15P	117-0171-639	100P	117-0171-646
60P	117-0171-640	200P	117-0171-645