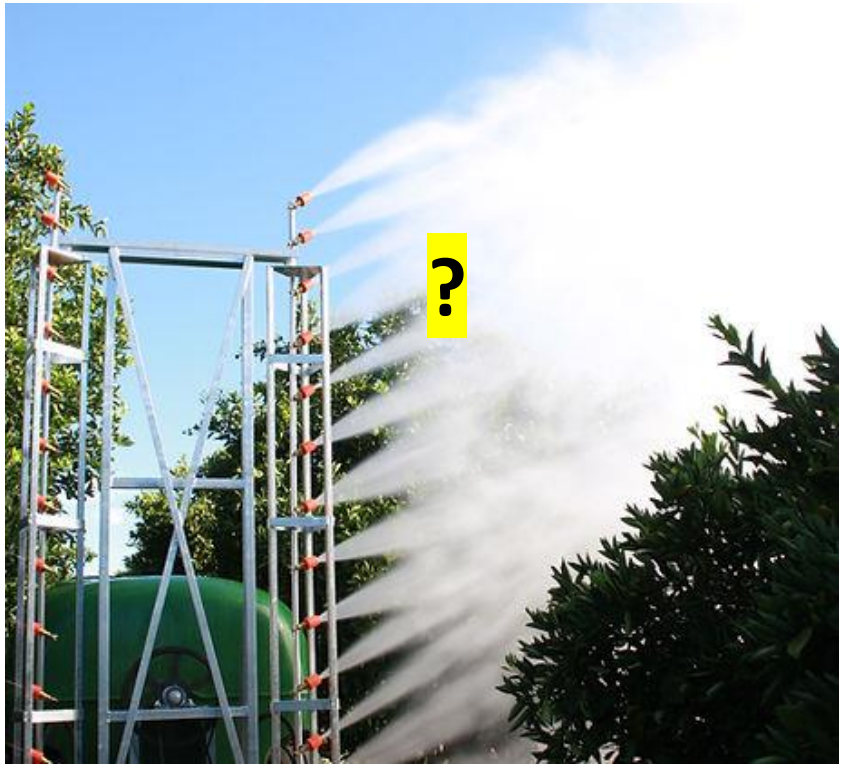
CaliBrator Quick

by

RAS Consult

How accurate is your calibrated spray volume/ha?

- **Spraying *less* than the optimally required l/ha can lead to *reduced spray deposition* and *compromised biological outcomes*, resulting in potential *crop quality and yield loss*.**
- **Spraying *more* than the optimally required l/ha can lead to excessive deposition, run off, accumulation on the target surface of the formulation, risking phytotoxicity, excessive residues and resultant crop quality issues and potential rejection.**
- **The run off causes direct excessive costs, soil and ground water contamination.**



CaliBrator Q$_{UICK}$ - How does it work?

1. Water in from external filling source.
2. Filter.
3. Flow measurement & Read display.
4. Float activated TOPI valve for final flow shut off.
5. Water into tank.
6. Manual activated valve for high flow.
7. Water into tank.

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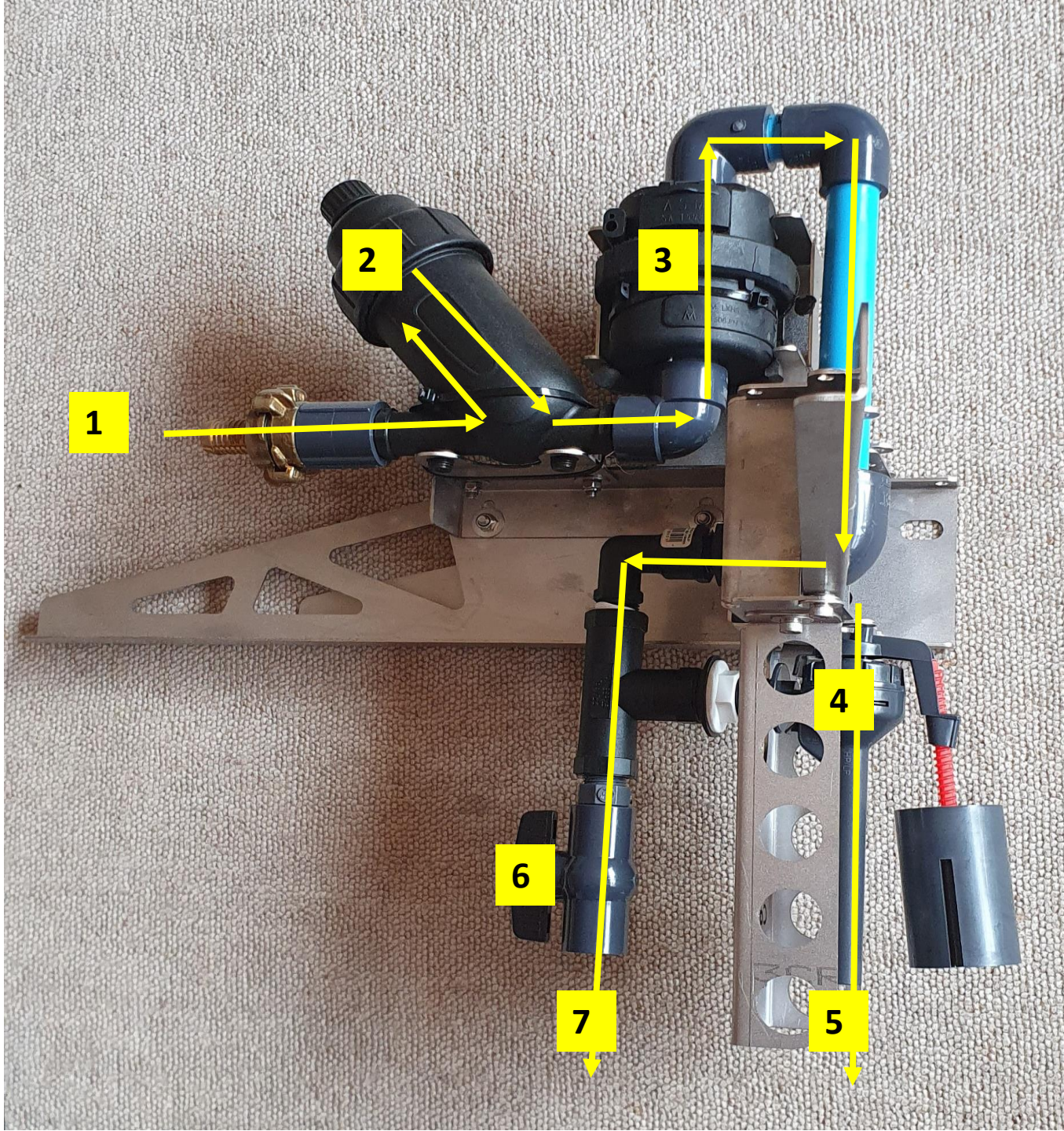

Installation of *CaliBrator Q* for use on *any* Sprayer Tank

The 20mm male GEKA coupling is to be connected to a water supply hose to supply water flow to the *CaliBrator.*

The hose must be looped and routed securely, not to cause any movement of the *Calibrator* during testing.

Check that the float TOPI valve has ample vertical space to close the valve before touching the inside of the tank.

CALIBRATOR Q measuring procedure

l/min = [l/ha x Row Width(m) x Spraying Speed (km/h)]/600

1. The sprayer must remain stationary in the parked position throughout the process, parked under the overhead filling point.
2. Fill the tank via the high-volume overhead filler pipe to the metal base of the CaliBrator. Valve 6 – manual high flow valve, in open position.
3. Close the overhead filler pipe and with open Valve 6, filling until the TOPI valve float touches the water level. Close Valve 6.
4. Fill the remainder of the tank through the TOPI Valve until it automatically is shut off by the TOPI valve. This is the Zero-base reference tank water level.
5. Take the base reference reading on the flow meter. (Take a photo)
6. Start the sprayer to operate by firstly engaging the PTO, taking it to 540 rpm, and once stabilized, open the spray valve and start the stop watch simultaneously.
7. Spray for 1 minute. Close the spray valve, stop the timer simultaneously and stop the PTO & engine.
8. *If a very high flow rate is measured, time can be saved by opening manual Valve 6 until the tank level touches the float of the TOPI valve, at which point Valve 6 must be closed.*
9. Wait for the TOPI float valve to close again, having filled the tank back to the Zero-base start level.
10. Take the END READING on the flow meter. (Take a photo.)
11. Subtract the Zero-base reading from the END READING, which will yield the total flow over total time (1 minute) sprayed.
12. This is the actual l/min sprayed.
13. Compare to required l/min and adjust pressure if required.
14. Repeat the measuring procedure until satisfied that the required flow rate (l/min) is achieved. The flow rate (l/min) is now calibrated.
15. Left and right side of sprayer can be calibrated separately in the same way.

END READING **MINUS** **Zero-base READING** **= Total flow rate (l/min)**

MINUS

= 23,6 l/min

1232,35 **MINUS** **1208,75** **= 23,6 l/min**

The CALIBRATOR Q features & specifications

- **Flow Meter *95% - 98% accurate*, approved to SANS 1529-1 standard.**
- **High flow rate (15 l/min) TOPI valve ensures quick fill response time.**
- **Frame manufactured from 2mm *3CR12 Stainless steel* for quality and longevity.**
- **Measuring clean water, with *130-micron filter (clean regularly please)* element, and thus maintain reliability and accuracy.**
- **Fully portable, fits all known spraying equipment and *needs no installation* on the sprayer.**
- **Requires only a water filling source line to operate, and *no electrical or electronic components* used.**
- **Robust, simple to use and requires *no re-calibrations*.**
- **No more guessing, no mess, no fuss, stay dry!**

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