



# ***Start-Up / Commissioning Process for*** **QuantiMass™ Mass Flow Measurement System**

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Commissioning, or calibration, of the QuantiMass™ system is done on site within the process; exposing the installed sensor to actual flow conditions.

Commissioning, or calibration, involves only a few steps but each is important.

- Begin with a completely installed and fully operational QuantiMass system.
- Operate the conveying system at maximum capacity. By use of the supplied QuantiMass PC software or controller make adjustments to optimize the system to the flow rate.
- Expose the QuantiMass sensor to a no flow condition and associate the QuantiMass detection value with the no flow. Adjust QuantiMass PC software or controller to establish a baseline calibration point.
- Expose the QuantiMass sensor to the minimum flow rate and associate the QuantiMass detection value with this flow rate\* in the PC software or controller.
- Expose the QuantiMass sensor to the maximum flow rate and associate the QuantiMass detection value with this flow rate\* in the PC software or controller.
- In the event the flow rate is known to be non-linear between the min and max rates additional intermediary (up to ten total) calibration points can be recorded by the QuantiMass system. The more calibration points the greater the accuracy of the QuantiMass flow metering.

\* One of three typical methods is employed to determine flow rate.

1. **Capture and Weigh.** This method is the most accurate and must be implemented if optimal reporting accuracy is required from the QuantiMass system. This method involves operating a conveying line for a recorded period of time and collecting the conveyed material in a vessel, which is then weighed.
2. **Batch Flow Method.** This method will see a known quantity of material conveyed past the QuantiMass sensor over a measured period of time.
3. **Calculation Method.** In the event Method 1 or 2 is not possible a calculated flow rate can be associated with the QuantiMass measurement number. Often this is done by calculating the rate at which a conveying line operates.

**Factory assistance is available for sensor commissioning. A factory technician can be made available to assist as a consultant to provide on-site guidance through the commissioning process. This is an excellent source for proper calibration techniques and operator training.**

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