



Technology and experience at the service of the customer

The calibration system is accredited for both *volume* and *flow volume* and consists of **6 calibration lines** functioning in accordance to the nominal diameter of the instrument under calibration. Each calibration line is equipped with a hydraulic connection to a group nominal diameters according to the following table:

CALIBRATION LINE	NOMINAL DIAMETERS
line 1	DN3
line 2	DN6, DN10
line 3	DN15, DN20, DN25
line 4	DN32, DN40, DN50
line 5	DN65, DN80, DN100
line 6	DN125, DN150, DN200, DN250



The flow range and the test volume for each calibration line are the following:

CALIBRATION LINE	VOLUME FLOW		VOLUME	
	minimum dm^3s^{-1}	maximum dm^3s^{-1}	minimum dm^3s	maximum dm^3
line 1	0,0036	0,072	2	9
line 2	0,0065	0,8	30	130
line 3	0,0065	4,5	200	520
line 4	0,025	20	500	2800
line 5	0,08	78	2000	8850
line 6	0,5	280	4000	26000

The laboratory can calibrate instruments with the following characteristics:

- Flanged, threaded or wafer connections.
- Digitally emitted type ON/OFF signals of fractional volume, or connection via RS485 with defined protocol.



N. 6 CALIBRATION LINES FUNCTIONING with both the static weight based method and direct comparison with Master Meter.

The calibration lines can operate to the static weight based method or by direct comparison with a Master Meter:

CALIBRATION LINE	CALIBRATION METHOD	
	STATIC WEIGHT	DIRECT COMPARISON
line 1	•	•
line 2	•	•
line 3	•	•
line 4	•	•
line 5	•	•
line 6	•	•

Each calibration line consists of a submersed pump regulated by an inverter (drawing from a common pool with a 600m³ capacity), a system of steel pipes form the hydraulic pathway, valves, hydraulic devices for air venting, connection fittings to the instrument under calibration and a storage tank on an electronic scale suiting the capacity test volumes. Each weighing tank is loaded by means of a precision flow diverter. A collector (bypass) hydraulically connects the flow diverters of the six calibration lines allowing the diversion of the calibration cycle to the weight scale with the most suitable resolution, consenting the optimized performance of the meteorological test. With the comparison to Master Meter method, metrological performance is ensured by the possibility to choose for each line, one of three master meters of different nominal diameters.



The tanks with electronic scales and emptying valves.



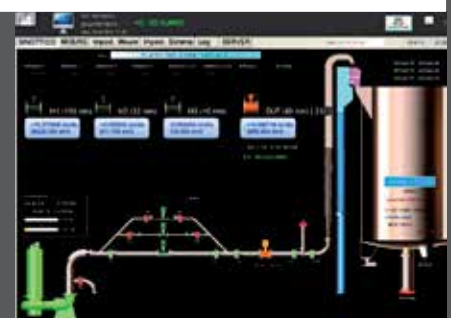
The calibration lines.

THE MANAGEMENT



The management of calibration orders is a fully automated and interfaces directly with the management software system issuing certificates of calibration at the end of the tests.

THE SOFTWARE



The system is fully automated. The software allows management, control and monitoring of all calibration operations.



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