

# ABB Measurement Products On-site Service for MagMaster flowmeters

## Test Inline, Stay Inline with CalMaster Service

### Why is on-site MagMaster flowmeter calibration important?

It is essential to carry out periodic tests to ensure that performance has not deviated significantly from specified tolerances. This is especially important for custody transfer or billing applications where significant cost can be avoided or income can be generated.

ABB has developed a unique in-situ verification tool — CalMaster™ — to enable these tests to be carried out without having to remove the MagMaster flowmeter.

### What are the benefits of ABB CalMaster Services?

**Process Optimization** – Reduce raw material cost, increase process speed & data accuracy

**Quality** – Calibration certified and traceable to National Institute of Standards & Technology (NIST)

**Safety** – Regular calibration, consistent intervals and record keeping help minimize accidents

**Cost Reduction** – Plug the knowledge gaps, reduce training and maintenance costs. No need for expensive calibration equipment or training for employees.

**Regulatory Compliance** – Independent verification of calibrations, record keeping & calibration to NIST standards

**NPDES Compliance** – Meets EPA minimum annual requirement for discharge flowmeters at municipal water treatment facilities

**Custody Transfer** – Improved accuracy, independent verification of calibration

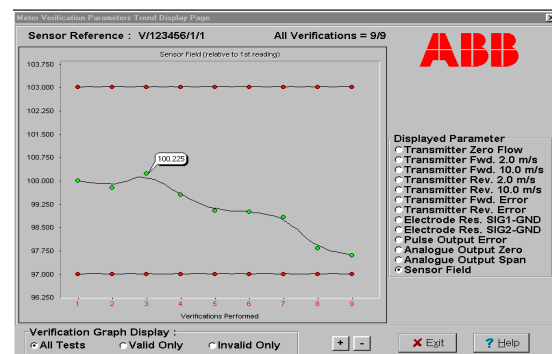
**Traceability** – Annual certification of CalMaster System insures complete documentation for regulatory and ISO compliances.

“The greatest value from your capital investments can only be achieved if optimal measurement performance of field devices is maintained.”



### What is MagMaster flowmeter Verification Service?

In-situ flowmeter verification of calibration of installed MagMaster flowmeters using a considerably lower cost option to full removal and wet calibration of flowmeter. An electronic fingerprint is made which enables in-situ verification to +/- 1% accuracy using ABB's unique CalMaster technology.



Sample screen for condition monitoring parameters

CalMaster features ...

- Full system function check
- Stores calibration data on encrypted data base
- Long term trending analysis
- Advanced warning of possible system failure
- Parameter monitoring ... and more

# On-Site Service for MagMaster

Certificate of Calibration provided for each MagMaster flowmeter at every service.

ABB			
Flowmeter Calibration Verification Certificate			
Customer	GSD		
Date Performed	Tuesday 13 December 2011 15:38		
Date Certificate Printed	Wednesday 4 January 2012 14:13		
<u>Site Details</u>			
Location	#4 RAS FLOW		
Tag	AMR-07-02-03		
Operator	Mike LaVigne		
<b>Results :</b>	Transmitter Zero Pass Transmitter Span Pass Transmitter Pulse Output Pass Transmitter Analogue Output Pass Sensor Electrode Integrity Pass Sensor Energising Coil Integrity Pass Declared "Don't Know" pipe status appears to be FULL.		
<b>Accuracy :</b>	The above tests and results verify that the flowmeter is functioning within normal working limits, and is within $\pm 1\%$ of original calibration certificate.		
<b>Transmitter Settings</b>	<b>Calmaster Details</b>		
Sensor Calibration Factor	1.3316/-7/5/1.000		
Flow Range	20.0 Mega Ugal/Dy		
Response Time Constant	15 seconds		
Probe Factors	ins 1.00000, prof 1.00000		
Analogue Output	4-20 Forward		
Second Analogue Range	100.0% (20.0 Mega Ugal/Dy)		
Pulse Output	1.00000 pulses/Mega Ugal		
Totaliser Units	Mega Ugal		
	Instrument, Serial No. CM0191, P/27789/1/1 Last Calibrated Fri 4 Nov 2011 Next Calibration Date Sun 4 Nov 2012 Firmware Version CalMaster v1.0 36/96 PC Software Version v2.10 13/03/2000 (Intn.) DVM Serial No. Resistor Serial No. (Not Used)		
	<b>Flowmeter Details</b>		
	Type MagMaster, Electromagnetic		
	Sensor S/No. 07W036159		
	Transmitter S/No. VKH105070		
	Tag No. AMR-07-02-03		
	Meter Size 500 mm		
CalMaster is fully traceable to National and International Standards. For details please refer to CalMaster Traceability Documentation. ABB Instrumentation World Flow Technology Centres			
ABB Instrumentation Ltd., Oldens Lane, Stonehouse Gloucestershire England, GL10 3TA Tel +44 (0) 1453 85 3422 Fax +44 (0) 1453 82 1121	ABB Instrumentation Div., 125 E County Line Road, Warminster, PA 18974, USA Tel +215-674-6000 Fax +215-674-6394	ABB Instrumentation Pty Ltd., PO Box 2083 Taren Point NSW 2229 Australia Tel +61-2-540-0000 Fax +61-2-540-0001	ABB Instrumentation, Dransfelder Str.2 37070 Göttingen Germany Tel +49 0551 905 0 Fax +49 0551 905 777
CALMASTER HELPLINE Email : calmaster@gb.abb.com or calmaster@us.abb.com		QSTA1138 Iss. 6	

Calibration certificate provided with each MagMaster flowmeter



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## What can ABB Service do for you?

Contact ABB Service to...

- Schedule a service appointment
- Commission you new instrumentation (Extend your warranty 12 months)
- Discuss a service contract
- Schedule a site assessment of your current instrumentation
- Schedule training on your instrumentation
- Discuss bundling services, repairs and technical support

Contact **ABB Customer Service Center at 1-800-HELP-365 (1-800-435-7365)**

- Press 3 for "Instrumentation or process analytics"
- Then press 1 for "On-site Service"

*Or contact your ABB representative or your ABB single-point-of-contact.*

Email: [instrumentation.service@us.abb.com](mailto:instrumentation.service@us.abb.com)

Fax: 919-666-1413

Web: [www.abb.com/measurement](http://www.abb.com/measurement)