AIR. NOTHING ELSE.

INSTALLATION CHECKLIST MAS-100 ISO MH

This installation checklist serves as a template to ensure the functionality of the instrument by the integrator. These tests must be carried out prior an IQ/OQ. If one of the tests fails, please contact service@mbv.ch.

1. NEEDED TOOLS

Article	MBV Article Number	Comments
Software Manual MAS-100 Iso NT&MH en	N/A	https://www.mbv.ch/media/software_manual_mas-100_iso_nt_und_mas-100_iso_mh_en.pdf
Software MAS-100 Iso NT and MH Air Sampler - C&C	N/A	Check for newest version: https://www.mbv.ch/en/expert-center/downloads/
Pressure Test Kit	04.4900.02	N/A
MAS-100 Regulus® with cables	130.3035	Within calibration validity

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This installation checklist is for instrument serial number: _____

2. HARDWARE INSTALLATION

1. Ensure that the main unit of the instrument is accessible for servicing. This includes easy access to cable jacks, USB port, power supply and air flow outlet. Removal of the main unit for maintenance must be possible.
   Checked and confirmed ☐

2. Ensure that the installation criteria for the tubing are met. Recommended pipe inner diameter should be 22-27 mm and Tri-Clamps should be fit with silicon gaskets.
   Checked and confirmed ☐

3. Define number of sampling heads, pipe length and inner diameter. Open the C&C Software and access as service (password: mbvservice). Go to the Process and device settings menu of the instrument and set the parameters.
   Checked and confirmed ☐

4. Perform a blower test to ensure the flow after installation Open the C&C Software and access as service (password: mbvservice). Go to the service menu and open valve 1.X (longest tube connected) and valve 2 and start the blower. Increase the PWM to its maximum and put the MAS-100 Regulus on the sampling head. Flow must be > 108 SLPM for installed instruments.
   Checked and confirmed ☐

5. Prevent back pressure of > 50 mbar on the air and decontamination flush outlets. Do not combine the air outlets of different air samplers or other instruments that must return air to the plenum.
   Checked and confirmed ☐

6. For initial and regular adjustment and/or calibration of the instrument with the air flow reference device, a RS-232 extension cable must be installed from the instrument to near distance (3m) to the sampling head(s) in the isolator.
   Checked and confirmed ☐

Hardware installed, and blower test performed Date: _____ Signature: _____

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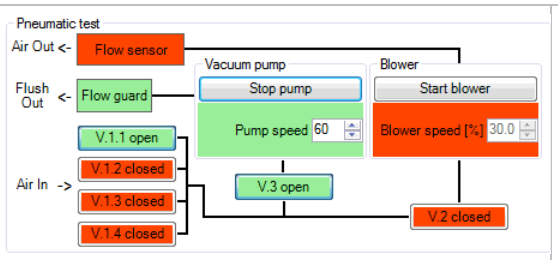
3. PRESSURE TEST

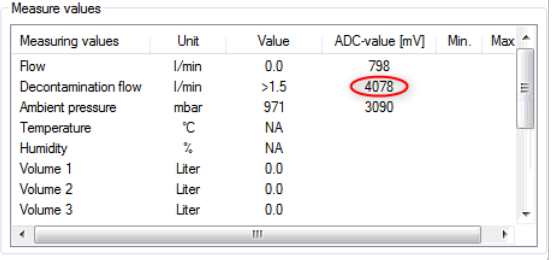
A pressure test must be carried out after installation and prior to every calibration. The test verifies the tightness of the installed tubing system, the valves and the internal connections.

For detailed instruction refer to the MAS-100 Iso NT MH Pressure Test manual.

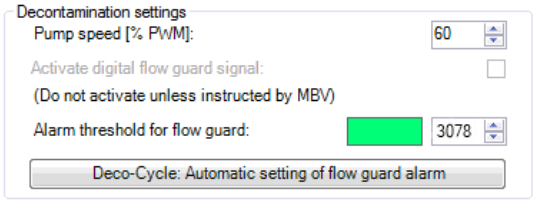
Pressure test executed & passed Date: _____ Signature: _____

4. DECONTAMINATION CYCLE VERIFICATION

<table>
<tr>
<td> 
</td>
<td>– Determine which of «Valve 1.1» to «Valve 1.4» is attached to the longest tube and open this valve
– Open «Valve 3»
– Start «Vacuum pump»
– Set PWM to 60%.

Green = Open
Red = Closed / Inactive</td>
</tr>
<tr>
<td> 
</td>
<td>Read the «ADC-value» and note this value:_____

Deduct 1000 mV from the noted value and set the «Alarm threshold for flow guard» in the next window.

Example
Set «Vacuum pump »PWM to 60% and read «ADC-value»: 4078 mV
Calculate «Alarm threshold for flow guard»:
4078 – 1000 mV = 3078 mV</td>
</tr>
<tr>
<td> 
</td>
<td>The «Digital flow guard signal » can neither be activated, nor deactivated.

Green bar = Flow ok
Red bar = Not enough flow (the PC Software will issue error 95 «Decontamination flow too low» or at the end of the cycle an error 96 «Valves do not close».</td>
</tr>
</table>

Deco cycle working Date: _____ Signature: _____

5. ADJUSTMENT / CALIBRATION

Perform an adjustment and calibration as described in the User Manual of the MAS-100 Regulus.

All heads can be calibrated individually with a certificate.
The head which has been calibrated most recently will be taken to automatically define the calibration validity of the entire instrument.

Instrument adjusted and calibrated	Date:	_____	Signature: _____

6. MEASUREMENT TEST

Power off the instrument for 5 seconds and power on again. Verify with a measurement if the instrument is working as expected. Proceed as follows:

1. Start PC Software and login as «Standard» user
2. Go to menu «All devices» and start a measurement
3. No alarm must be reported during this test

Measurement working correctly	Date:	_____	Signature: _____

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