

# INSTALLATION CHECKLIST MAS 100 ISO NT/RABS



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](mailto:service@mbv.ch).

## 1. NEEDED TOOLS

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

**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. 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 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 ☐
4. 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 ☐
5. 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: \_\_\_\_\_

### 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.

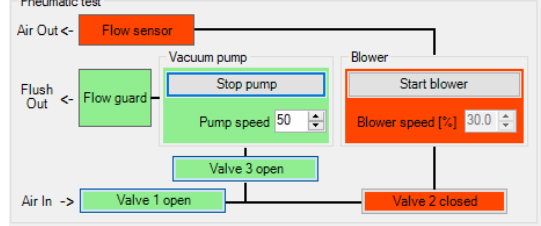
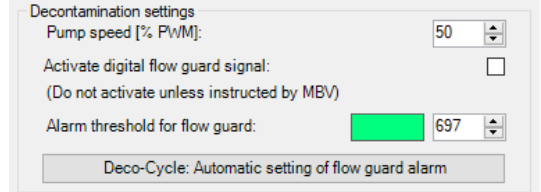
For detailed instruction refer to the [MAS-100 Iso NT MH Pressure Test](#) manual.

Pressure test executed &  
passed

Date:

Signature:

### 4. DECONTAMINATION CYCLE VERIFICATION

	<p>Open valve 1 and 3 and start the decontamination pump. Pump speed is set to 50%.</p>																																																						
<table border="1"><thead><tr><th>Measuring values</th><th>Unit</th><th>Value</th><th>ADC-value [mV]</th><th>Min.</th><th>Max</th></tr></thead><tbody><tr><td>Flow</td><td>l/min</td><td>0.0</td><td>792</td><td></td><td></td></tr><tr><td>Decontamination flow</td><td>l/min</td><td>&gt;1.5</td><td>1010</td><td></td><td></td></tr><tr><td>Ambient pressure</td><td>mbar</td><td>971</td><td>3099</td><td></td><td></td></tr><tr><td>Temperature</td><td>°C</td><td>30.0</td><td></td><td></td><td></td></tr><tr><td>Humidity</td><td>%</td><td>35</td><td></td><td></td><td></td></tr><tr><td>Volume</td><td>Liter</td><td>135.9</td><td></td><td></td><td></td></tr><tr><td>Time remaining</td><td>(hh:mm:ss)</td><td>00:00</td><td></td><td></td><td></td></tr><tr><td>Blower current</td><td></td><td></td><td>1</td><td></td><td></td></tr></tbody></table>	Measuring values	Unit	Value	ADC-value [mV]	Min.	Max	Flow	l/min	0.0	792			Decontamination flow	l/min	>1.5	1010			Ambient pressure	mbar	971	3099			Temperature	°C	30.0				Humidity	%	35				Volume	Liter	135.9				Time remaining	(hh:mm:ss)	00:00				Blower current			1			<p>Read the «ADC-value» and note this value: _____</p> <p>The ADC-value for decontamination flow at 50% pump speed must be &gt; 800 mV</p>
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	<p>Execute the automatic setting of the flow guard alarm.</p> <p>The set flow guard value should be approx. 300 mV below ADC Flush flow value noted above.</p>																																																						

Deco cycle working

Date:

Signature:



The RABS version has no decontamination hardware path.

## 5. ADJUSTMENT / CALIBRATION

Perform an adjustment and calibration as described in the [User Manual of the MAS-100 Regulus](#).

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:

\_\_\_\_\_