

QUICK TIPS

Fixturlaser SMC



FixturLaser

ACOEM Group



Products

FIXTURLASER SMC



Fixturlaser SMC Trap

For connectors (USB, power supply, Ethernet...)

USB Cable for connecting the Fixturlaser SMC to a computer (import machine templates, customize report templates)



Fixturlaser SMC power supply



WIRELESS SENSOR

Protection of the USB input



USB Cable for the wireless sensor (power supply, firmware update)



Magnet with key for triaxial orientation

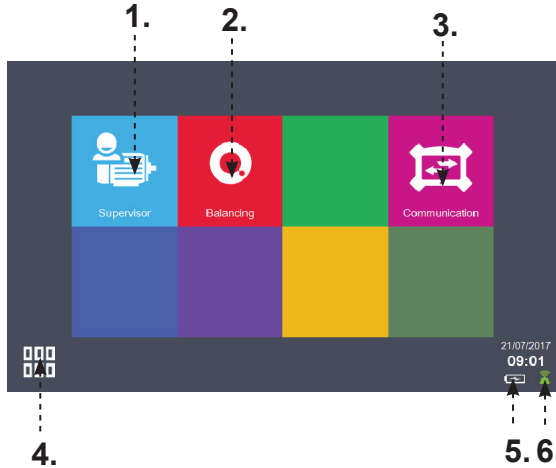


Wireless sensor power supply





First Start



1. Start auto diagnostic
2. Start balancing
3. Connect to computer
4. Access to shortcuts (strobelight, pyrometer, camera, screenshots...) and preferences (license, language, type of sensor...)
5. SMC Battery status
6. Wireless sensor connection status.
 Note: if no icon appears, you must switch the sensor type from wired to wireless in the settings of the instrument

ON/OFF button.
 Blue led flashing when ready





STEP 0

Import the templates in your language

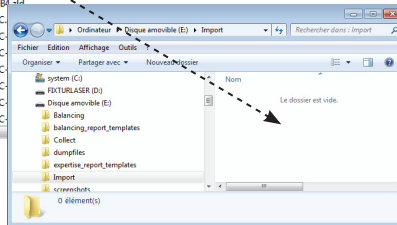
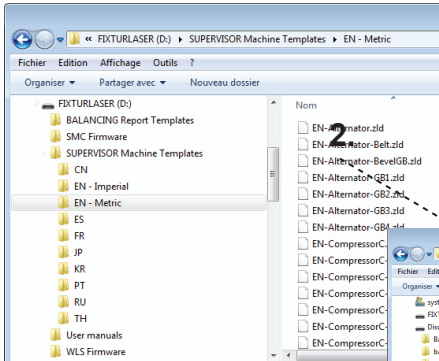
1.



All FIXTURLASER SMC are delivered as standard with English language templates in metric units (mm/s). Other languages and units are available on the USB stick delivered with the device

1. Connect your Fixturlaser SMC to the computer
 - Open the trapdoor of Fixturlaser SMC
 - Connect the Fixturlaser SMC to the PC using the USB cable
 - Select Communication on the Fixturlaser SMC

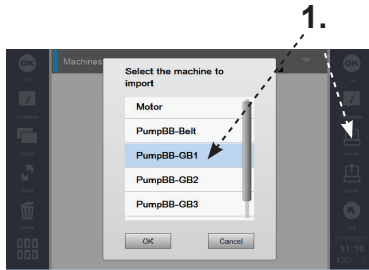
2. Copy the templates of your language from the USB stick and paste them in the Import folder



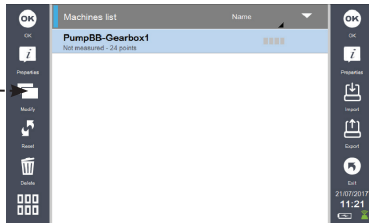


STEP 1 — Setup

Create your machine



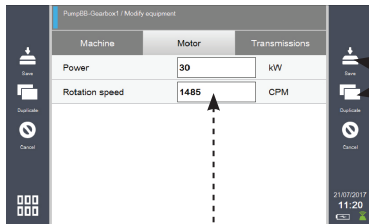
1. In the supervisor module, Click on « Import » and select the template that best describes your machine



2. Click on « modify » to access to the machine kinematics information.

3. Change the name and characteristics of your machine (speed, power, type of mounting, if applicable: transmission information)

Note: for a reduction factor, input a value between 0 and 1. E.g 0.5 if the speed of the driven component is half of the motor speed



4. Save to modify the current machine or duplicate to create a new machine

3.

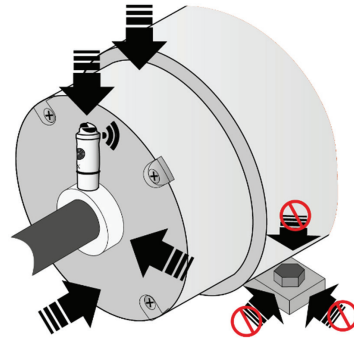
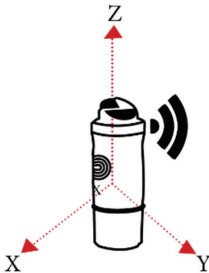


STEP 2 — Measurement

Position the sensor on the bearing



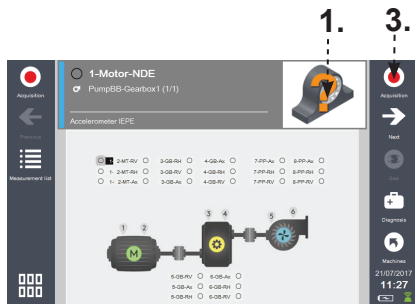
1. Put the sensor as close as possible to the bearing, in 2 steps to avoid damaging the sensor and magnet
Caution: to get reliable measurements, do not place the sensor on the machine protective casing
2. Assign the sensor position on the machine using the X mark. It is recommended to keep it parallel to the shaft





STEP 2 — Measurement

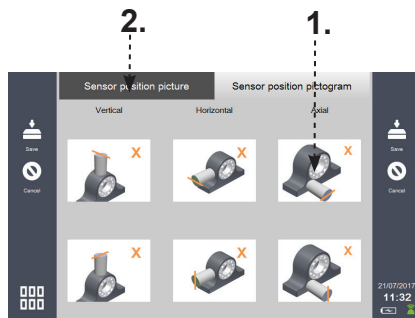
Select the sensor position



1. For each measurement point, you have to tell the system how the triaxial sensor is mounted on the machine: Select the corresponding pictogram on the device.



2. To enrich your report you can also take pictures of the triaxial sensor position on the machine, by going into the sensor position picture tab.

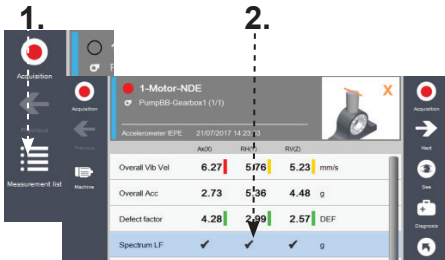


3. Click on Acquisition to start the measurement. Once finished, the SMC automatically goes to the next point. If the measurement cannot be taken, simply click Next to go to the next point. Note that the diagnostic accuracy will be reduced if you don't take enough measurements.



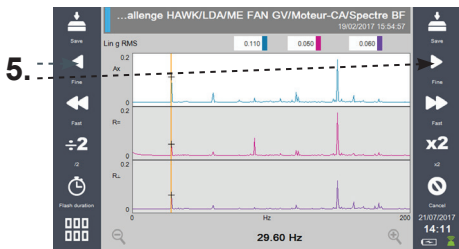
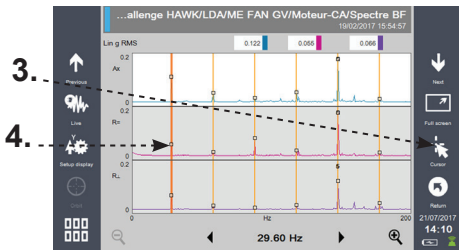
STEP 2 - Measurement

Adjust the rotation speed



The more accurate is the value of the rotation speed and the better will be the result of the automatic diagnostic. To check the speed with the built in strobe light:

1. Display the list of measurements
2. Open the low frequency spectrum « Spectrum LF »
3. Select the Harmonic cursor to best identify the right peak
4. Point to the peak around the expected rotation speed (eg a little below 25Hz for 1485RPM machine)
5. Call the strobe light from the shortcuts, adjust the speed with the arrows if needed to have the machine as static as possible, and save.





STEP 3 - Diagnostic

1.

Moteur-CA
ME FAN GV (1/1)

Accelerometer IEPE 19/02/2017 15:54:54

	AK01	RI00	FLU2	
NG Vlt/Vib	7.01	4.44	3.90	mm/s
NG Acc	0.312	0.241	0.207	g
Facteur Def	2.63	2.68	2.94	DEF
Spectre BF	✓	✓	✓	g
Spectre MF	✓	✓	✓	g
Spectre HF	✓	✓	✓	g

1. Once the measurement are finished, simply click on the diagnostic button.

2. See the global status of your machine directly on the Fixturlaser SMC

Good: No action required

Fair: Monitor the evolution

Critical: Schedule corrective action

3. See the list of defects with impact level of the defect on the global status:

Orange = minor defect
Red = major defect

4. 3. 2.

ME FAN GV
ME FAN GV/Challenge HAWK/LDA
ME FAN GV

29.60 Hz 21/07/2017 14:11:56 616 point(s)

Overall state still acceptable for the component 'Moteur électrique'.

Type	Severity	Confidence
Unbalance		☆☆☆
Structural resonance		☆☆☆☆

4. To enrich your diagnostic and report, you can take a picture, text note, voice notes or a temperature measurement by going to the shortcuts.

Picture

Voice note

Pyrometer



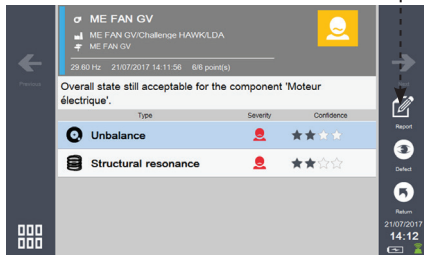
STEP 4 - Report



1.

1. Open the trap and connect a USB stick key to the Fixturlaser SMC

2. On the diagnostic screen, type on the Report button. A full editable word report and related audio comment are placed in an Export folder on the USB Stick.



2.

Note: If you don't have a USB stick, connect your Fixturlaser SMC directly to the computer and go into the Export folder to get your report.

Reports can be customized! To do so, modify the word file template in the instrument. For more information, please refer to the user manual.



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- Increase the productivity and reliability of industrial machinery
- Contribute to the development of effective, robust & noiseless products
- Protect soldiers, sites and vehicles in military theaters of operation

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