Quick Check-up
for X-Floc insulation blowing machines & controls

Version 2

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1 Insulation Blowing Machine

By using this quick check-up, the insulation blowing machine's current condition can be checked and noted. In case of malfunctions of your machine, performing the following test steps can already provide a helpful overview of the machine's functions and its components and therefore, enables a faster troubleshooting.

The following test steps are to be carried out in the order indicated. Depending on the machine type, test steps may be inappropriate or can be omitted. For further fault diagnosis, please contact X-Floc customer service.

Did you know that
a properly performed pressure test provides approx. **80%** of the required information for a fast troubleshooting? Please help us to improve our technical support by keeping the machine's current outlet pressure at hand.

Machine to be tested:

(see serial plate)

Description: _____

Year of construction: _____

Serial number: _____

Hours meter: _____

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1.1 Pressure Tests

The pressure test can determine the insulation blowing machine's performance. If the prescribed minimum outlet pressure cannot be reached, the following causes can be considered:

- The rotor seals (2×), the sealing rings at the airlock's wheel, are worn
- The gaskets (6-8×) on the airlock's running surfaces are worn
- A leaky tubing between blower, check valves and airlock
- Defective check valves
- Defective blowers

Required measuring device: Pressure gauge Ø 117 mm (prod. no. 7079)

Preparations:

Activity	Procedure	Exam. + i.o.
Check the functionality of the blowers via noise test	• Establish the insulation blowing machine's power supply. • Set the insulation blowing machine into operational state. Ensure that remaining insulation material has been blown out of the machine. The noise test starts by checking the main air feed unit. • Set the air flow to the highest position (at the machine or at the control). • Set the blower selector switch at the electrical switchboard to starting position 1. • Activate the air flow. • Starting from blower 1, gradually activate each blower. After each blower activation, carefully listen for approx. 15 sec. to the noise emission. An increase of the noise emission after each switching on of the blowers confirms the air supply unit's functionality. In comparison, a constant noise level indicates one or more defective blower/s. • Machines with an integrated amplifier unit need to be also checked for the additional blowers: Activate the amplifier unit and repeat the procedure for checking the functionality of the blowers. • Deactivate the air flow.	☐
Preparation for performing pressure tests	For performing the pressure tests, all machine's blowers need to be set active.	

Performance:

Activity	Procedure	Exam. + i.o.
Performing a pressure test **with air only (100%)**	• Press the pressure gauge firmly onto the machine's outlet pressure. • Activate the air flow. • Read the outlet pressure ($\Delta P_{A=10}$) after approx. 10 seconds off the pressure gauge. • The respective minimum blowing pressure ($P_{min.}$) can be taken from the table (see below). $\Delta P_{A=10}$ = _____ mbar $P_{min.}$ = _____ mbar The measured value is above the respective min. blowing pressure*:	☐
Performing a pressure test **with air (100%) and rotating airlock wheel (material 100%)**	• Press the pressure gauge firmly onto the machine's outlet pressure. • Activate the air- and material flow. • Read the outlet pressure ($\Delta P_{A+M=10}$) after approx. 10 seconds off the pressure gauge. • The respective minimum blowing pressure ($P_{min.}$) can be taken from the table (see below). $\Delta P_{A+M=10}$ = _____ mbar $P_{min.}$ = _____ mbar The measured value is above the respective min. blowing pressure*:	☐

*+/– 20-30mbar

An abrupt drop or strong fluctuations of the measuring pointer during the pressure test can be tracked back to worn sealing rings, gaskets or other damages at the machine (see causes for pressure loss, page 3).

Machine Type	Conveying Pressure (max.)	Minimum Blowing Pressure	Machine Type	Conveying Pressure (max.)	Minimum Blowing Pressure
EM100-230V-2,0 kW	250 mbar	190 mbar	**EM320**-2×230V-7,0 kW	360 mbar	270 mbar
M99-230V-3,6 kW	320 mbar	240 mbar	**EM325**-3×230V-10,2 kW	370 mbar	280 mbar
M99-DS-230V-3,6 kW	320 mbar	240 mbar	**EM340**-400V-7,3 kW	400 mbar	300 mbar
M99-DS-Pro-230V-3,6 kW	320 mbar	240 mbar	**EM345**-400V-10,5 kW	400 mbar	300 mbar
M95-230V-3,6 kW	290 mbar	220 mbar	**EM360**-400V-6,0 kW	400 mbar	300 mbar
M95-230V-3,7 kW	310 mbar	240 mbar	**EM365**-400V-9,2 kW	420 mbar	310 mbar
M95-2×230V-4,7 kW	360 mbar	270 mbar	**EM400**-400V-7,5 kW	520 mbar	390 mbar
M95-2×230V-5,1 kW	370 mbar	280 mbar	**EM430**-400V-9,5 kW	520 mbar	390 mbar
M95-400V-4,2 kW	350 mbar	260 mbar	**EM440**-3×230V-10,0 kW	380 mbar	280 mbar
M95-400V-4,7 kW	350 mbar	260 mbar	**EM440**-400V-10,5 kW	580 mbar	430 mbar
M95-400V-5,5 kW	390 mbar	290 mbar	**EM500**-400V-9,5 kW	520 mbar	390 mbar
M95-400V-6,7 kW	380 mbar	280 mbar	**VS28**-230V-2,8 kW	300 mbar	220 mbar
M95-400V-7,0 kW	400 mbar	300 mbar	**VS30**-230V-3,0 kW	380 mbar	280 mbar
M95-400V-7,3 kW	400 mbar	300 mbar	**VS33**-230V-3,3 kW	360 mbar	270 mbar

* All figures are approximate values. Older machine types on request.

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1.2 Visual Checks

Component	Activity	Where	Exam. + i.o.
Air filters	Check for heavy contamination and wear and tear	• Underneath the suction hoods	☐
Conditioning unit	Check for deformations, run and function		☐
	Check the sealings for wear and tear (felt, Teflon)		☐
Rotary airlock	Check for deformations, run and function		☐
	Check the sealings for wear and tear	• On the shaft between airlock wheel and console	☐
	Check the gaskets for wear and tear	• Airlock's running surfaces	☐
Housing seals	Check for tightness and wear and tear	• Between machine's top and machine's bottom • Between conditioning unit and machine's housing	☐
		Zellofant M95 • Between housing and switchboard (circumferential, especially on top) • Outlet socket	☐
Ball bearings	Check all bearings for contamination and lubrification	• Bearings at the conditioning unit • Airlock bearings	☐
Machine's bottom	Check for contaminations (if necessary, remove the bottom plate)	• Especially blower	☐
Hose lines	Check for tightness, kinks-free installation and fixation (seating of the hose clamps)	• Machine's bottom	☐

1.3 Noise Tests

Component	Activity	Procedure	Exam. + i.o.
Conditioning unit	Check the drive for running noises	Activate the material flow	☐
Rotary airlock	Check the airlock for unusual rotating noises	Activate the material flow, if necessary, set the material flow gradually to the highest level	☐
Air feed unit	Check each blower for running noises	See chapter 1.1, blowers' functionality	☐

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2 Control

By using this quick check-up, the current condition of your control can be checked and noted. The following test steps refer to check over cable- and radio remote controls. Depending on the control type, test steps may be inappropriate or can be omitted.

2.1 Visual Checks

Component	Activity	Where	Exam. + i.o.
Operating elements	Check for visible damages		☐
Cable connections	Check for visible damages	• Between Hand-held control and receiver • Between receiver and machine • If necessary, between hand-held control and machine	☐
Antennas	Check for visible damages	• Hand-held control • Receiver	☐
	Check the antennas' contact pin for damages	• Hand-held control • Receiver	☐

2.2 Firmware Version (only concerns radio remote control FFB2000-Pro)

Check the current firmware version: press the buttons material +/– simultaneously, read the current firmware version off the air volume scale.

Current Firmware version:

☐ 1.0

☐ 1.4

☐ 2.0

2.3 Machine Type (only concerns radio remote control FFB2000-Pro)

The hand-held control of the radio remote control FFB2000-Pro is equipped with a parameter mode which enables, inter alia, setting the machine type. This way, the machine's performance can be optimized. Switching into parameter mode depends on the firmware version (see chapter 2.2).

Firmware version 1.0: Press and hold the button OFF for approx. 10 seconds.
Firmware version 1.4/2.0: Simultaneously press the buttons material +/– and once the button OFF.

Checking the machine type: Set the air flow volume to position <7> by using the buttons air+/–. Read the value off the material flow scale. Machines of type Zellofant of series A-H require the value <4>. All other machines require the value <2>. In order to leave the parameter mode, press and hold the button OFF for approx. 6-7 seconds.

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2.4 Function Test

In order to perform the test, ensure that remaining insulation material has been blown out of the machine.

Activity	Procedure	Exam. + i.o.
Check the control for function in **radio operation**	Activate the material and air flow. If necessary, gradually increase the setting so each setting range will be selected at least once.	☐
Check the control for function in **cable operation**	Activate the material and air flow. If necessary, gradually increase the setting so each setting range will be selected at least once.	☐
Check the **dynamic pressure control's** function	• Set the control into power-on mode. • Press the pressure gauge firmly onto the machine's outlet socket and activate the air flow. • Set the blower selector switch and the air flow volume in a way that the outlet pressure will level off around approx. 270 mbar. Deactivate the air flow. Take the pressure gauge off the outlet socket. • Set the pressure value to approx. 200 mbar by using the pressure regulator. • Activate the dynamic pressure control's function: Press and hold the button OFF and press once the button air+. If the function has been activated, the current value on the air volume scale will flash. • Press the pressure gauge firmly onto the machine's outlet socket. Activate the air flow. ⇨ If the dynamic pressure control's function works correct, the outlet pressure will be regulated to the preset pressure threshold value of 200 mbar (+/– 20-30 mbar). • Deactivate the air flow. • Deactivate the dynamic pressure control's function: Press and hold the button OFF and press once the button air–. The air volume scale's flashing will stop.	☐
Check the **automatic shutdown's** function	• Set the control into power-on mode. • Press the pressure gauge firmly onto the machine's outlet socket and activate the air flow. • Set the blower selector switch and the air flow volume in a way that the outlet pressure will level off around approx. 270 mbar. Deactivate the air flow. Take the pressure gauge off the outlet socket. • Set the pressure value to approx. 200 mbar by using the pressure regulator. • Activate the automatic shutdown's function: Firmware **1.0**: Press and hold the button OFF and press once the button ON. Firmware **1.4/2.0**: Press and hold the button OFF and press twice the button ON. The overpressure LED will start flashing. • Keep the machine's outlet socket shut/sealed by using a pressure gauge or a suitable object. • Activate the air flow. ⇨ If the automatic shutdown's function works correct, the machine will be switched off automatically after several seconds of overpressure. (After the preset delay time has elapsed, only concerns FFB2000-Pro, parameter 4, factory setting 2 seconds.) • Deactivate the air flow. • Deactivate the automatic shutdown's function, see button combination for activating the function. The overpressure LED's flashing will stop.	☐

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