



Operating - Instructions for pneumatic Piston Vibrators Series „FAL“

INITIAL WARNING: Make sure the air pressure is securely cut off during Installation and any kind of handling in the close environment of the vibrator
DANGER OF INJURY ! WEAR EAR PROTECTION !

PLEASE ALSO REFER TO THE SKETCHES ATTACHED

GENERAL INFORMATION

1. The FAL-series piston vibrator produces a linear vibration with infinitely variable amplitude and frequency. The frequency is controlled by air pressure.
The vibrator is designed to feed, move and separate materials as for instance chemical powders, sand, flour etc. in- and outdoor installation possible.
The minimum air operating pressure is 2 bar (30 PSI), the maximum is 6 bar (90 PSI).
As medium instead of air also nitrogen can be used. The noise level is from 55 to 75 dBA.

Caution: The maximum **OPERATING PRESSURE** must never exceed **8 bar (120 PSI)**

2. The ambient operating temperature shall not exceed 110° C (230° F).

INSTALLATION AND START-UP

3. The mounting area must be clean and even. It is recommended to use a stiffener iron (U-profile) that is stitch welded to achieve best vibrating results. For outdoor applications make sure rain or any liquids may not enter the exhaust by using a piece of exhaust pipe with the end versus the ground.
4. to mount the vibrator use allen screws with a minimum Quality 8.8 . **(No slotted screws !)**
Tightening torque and screw's length in thread must not exceed the following values:

type	thread	Tightening torque		length in thread	
		min.	max.	min.	max.
FAL-8	M6	6 Nm	9 Nm	8 mm	10 mm
FAL-18	M10	30 Nm	42 Nm	10 mm	13 mm
FAL-25	M16	125 Nm	175 Nm	12 mm	14 mm
FAL-35	M16	125 Nm	175 Nm	12 mm	14 mm

5. Use Tooth Lock or Spring Lock Washers **(but NOT: Curved Washers)** to ensure loosening stop of the screw during vibration. The use of adhesive sealant (e.g. LOCTITE 270) is suggested. Follow the respective instructions.

Danger: LOOSEN SCREWS can cause the vibrator to fall down and HARM PEOPLE !

6. Use an AIR LINE FILTERE (5 µm). Dirt will slow down or stop the vibrator. The air inlet is in the middle of the bodie's length.
Make sure the air pressure tube is securely fixed to the connecting sleeve. Please refer to the prescriptions of the air pipe manufacturer.

Danger: LOOSEN AIR PRESSURE TUBES may HARM PEOPLE (EYE INJURIES) !

7. After some ~1'500 hours of operation, it is recommended to lubricate the vibrator sparingly in its dismantled state and after cleaning, using the enclosed grease (Klüber Altemp 3000). See item 13

Note: Greases of different viscosity will reduce the operating frequency or can lead to the piston seizing as a result of the grease becoming resinous

8. **Note:** If the device is operated with very short stop intervals (< 3 secs.), then a control valve needs to be employed that will permit the venting of the vibrator to the atmosphere, so that the piston can take up its start position.
9. Avoid lateral oscillations of the type that can occur if the vibrator is fitted to as single ribbed (L) section. Lateral oscillations lead to heavy wear on the piston.
10. A silencer is to be used on the air outlet side.

Danger: Operation without a silencer should be avoided, so as not to generate unnecessarily high noise values (possible risk of hearing loss)!

11. Air consumption. Make sure the air quantity according to the table is available even in worst case (all units on one pressure supply line in operation). Otherwise the vibrator will not perform its correct function according to the technical data given.

type	2 bar	29 PSI	4 bar	58 Psi	6 bar	87 PSI
cons./min.	Ltr.	CF	Ltr.	CF	Ltr.	CF
FAL-8	8	0.28	18	0.64	30	1.07
FAL-18	20	0.71	40	1.42	60	2.13
FAL-25	40	1.42	110	3.91	155	5.50
FAL-35	75	2.66	220	7.61	350	12.43

OPERATION AND MAINTENANCE

12. **IMPORTANT:** After the initial live run and **AT LEAST** once a **MONTH**, check the correct **ATTACHMENT** of the vibrator and the air connection and the silencer.

13. If you notice a loss of power on the part of the vibrator or if it even stops, then remove the air connector and the silencer. Dismantle the vibrator and clean its parts with petrol. Then sparingly grease the piston and its bore, using the enclosed grease (Klüber Altemp 3000), and reassemble the parts. Check the silencer as well for contamination. If necessary, wash it out with petrol or replace it.

Danger: Be sure to shut off the air supply and remove the air connector when carrying out the above work !

14. Fault possibilities: (- after installation - - during operation)

- air pressure connected to exhaust	- air tube bucklings
- air pipe to small in diameter or too long	- leakage, check air supply pipes
- silencer clogs, wash with petroleum	- filter clogs, wash or replace
- or replace	

15. Die Ersatzteile können aufgrund der Modellnummer bestellt werden. (siehe Ersatzteilliste)

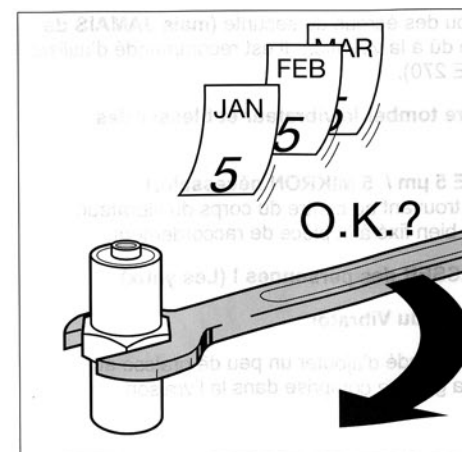
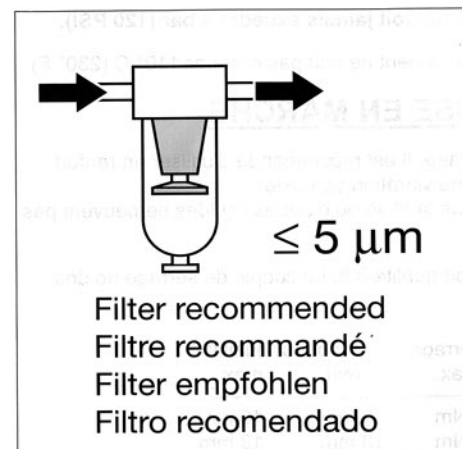
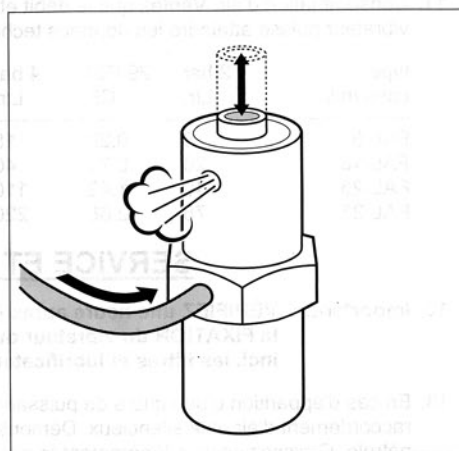
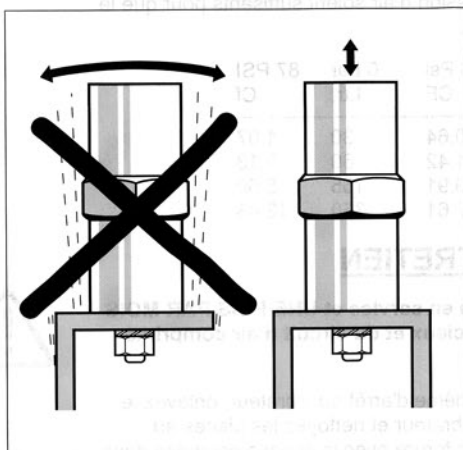
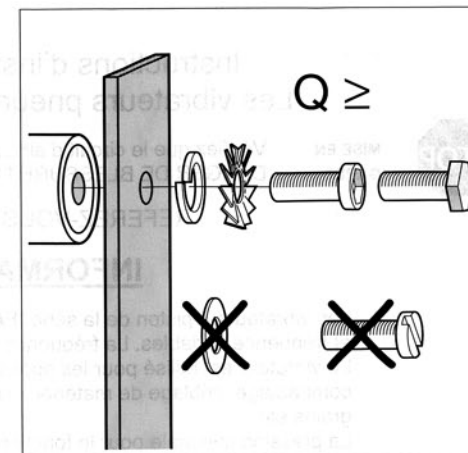
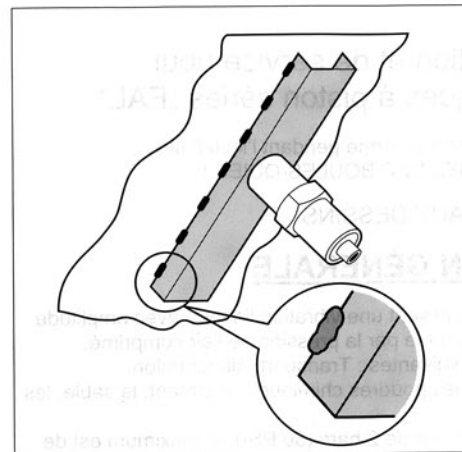
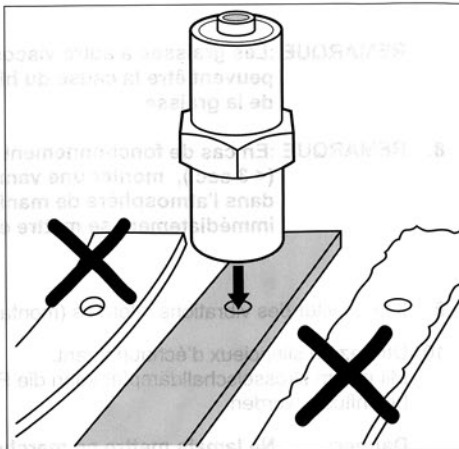
16. The parts of the vibrator can be recycled:
- Body and End Caps > Aluminium; - Piston > Bleibronze

This operation instruction shall be kept for future use.



**Betriebsdruck
Pressure
Pression**

**8 bar / 120 PSI max.
110°C / 230°F**



G&D

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