

# **Installation- and Operating-Instructions for pneumatic Roller Vibrators Series "R"**



**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 EAR AND/OR EYE INJURIES !**

PLEASE ALSO REFER TO THE SKETCHES ATTACHED

## **GENERAL INFORMATION**



- The R-series roller vibrator produces a rotative vibration with infinitely variable amplitude and frequency. The frequency is controlled by air pressure.  
The vibrator is designed to perform the following activities : Moving, feeding, compacting and/or separating of all kind of materials such as chemical powders, sand, corn, gravel, cement etc. It is designed for indoor and outdoor applications but not to be submerged in any kind of liquids.  
The minimum air operating pressure is 2 bar (30PSI), the maximum is 6 bar (90PSI). As power medium instead of air also nitrogen can be used. Noise level is 75 to 100 dBA.

**CAUTION:** The maximum OPERATING PRESSURE must never exceed 7 bar (105 PSI).

- The ambient operating temperature shall not exceed 140°C (280°F).

## **INSTALLATION AND START-UP**

- 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 other liquids may not enter the exhaust by using a exhaust piece of pipe with the end versus the ground.
- To mount the vibrator use Allen screws with a minimum quality 8.8. (No slotted screws !). The tightening torque must not exceed the following values:

type	thread		tightening torque	
			min.	max.
R-50	M6	--->	6 Nm	10 Nm
R-65/-80	M8	--->	15 Nm	21 Nm
R-100	M10	--->	30 Nm	42 Nm
R-120	M12	--->	50 Nm	72 Nm

- Use Tooth Lock or Spring Lock Washers or Spring-Action Lock Nut (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.



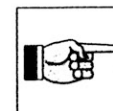
**DANGER:** LOOSEN SCREWS can cause the vibrator to fall down and HARM PEOPLE !

- The AIR pressure supply should be CLEAN (FILTRE < 50 µm). The connection can be made either through the top or the side inlet port. The other port is to be closed by the plug-screw. Make sure the air pressure tube is securely fixed to the connecting sleeve. Please refer to the prescriptions of the air pipe manufacturers.



**DANGER:** LOOSEN AIR PRESSURE TUBES may HARM PEOPLE (EYE INJURIES) !  
**DANGER:** The EXHAUST is under pressed through both the MEMBRANES at the End Caps and may HARM PEOPLE (EYE or EAR INJURIES) !

- A line oiler (drip feed type) is strongly recommended to be used mounted close to the vibrator that supplies for lubrication pneumatic oil with a viscosity of 15 cST/40 °C according to ISO VG 15 example: Klüber Airpress 15.



**NOTE:** Oil with other viscosity will reduce frequency and power of the vibrator.

- Air consumption. Make sure the air quantity according to the table is available even in worst case (all units at 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	
	Ltr.	CF	Ltr.	CF	Ltr.	CF	Ltr.	CF	Ltr.	CF	Ltr.	CF
R-50	100	3.5	145	5.1	195	6.9						
R-65	200	7.0	300	10.6	400	14.1						
R-80	290	10.2	430	15.2	570	20.1						
R-100	370	13.0	550	19.4	730	25.8						
R120	500	17.6	730	25.8	970	34.2						

- When starting-up first time check the working frequency with full load (and without if ever operated so). The frequency in 1000 rounds per minute (1000 r.p.m.) shall not exceed the following figures at the respective operating pressure :

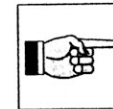
type	2 bar		6 bar		Type	2 bar		6 bar	
	Ltr.	CF	Ltr.	CF		Ltr.	CF	Ltr.	CF
R-50	18	22			R-100	9	11		
R-65	12	16			R-120	8	10		
R-80	12	15							



**DANGER:** Wear EAR PROTECTION during above procedure !

If the vibrator runs too fast the the vibration energy is too small and the roller abrasion is very high. Then change to the next bigger type.  
Also avoid transverse vibration (as it may occur e.g. by using a weak single rib stiffener.).

## **OPERATION AND MAINTENANCE**



- NOTE:** Make sure the lubricant container is always filled. Dry operation of the roller vibrator will cause abrasion of the end plates and the roller.
- IMPORTANT:** CHECK one hour after first operation and at least ONCE A MONTH the correct MOUNTING of the vibrator incl. silencer and the air supply (including air-line filter and lubricator).

- If the roller vibrator slows down or stops, check the air line filter, wash it out or replace. Also make sure the screw plug in the not used inlet-port is securely fixed.



**WARNING:** Make sure the AIR PRESSURE is securely CUT during above procedure.

- Fault possibilities : (• after installation - during operation)

• air pipe too small in diameter or too long - leakage, check air supply pipes  
• air tube bucklings

- To change spare parts, follow the instructions supplied with the new parts. For spares designation use the model number (e.g. Roller for R-65).

- The parts of used vibrators can be recycled :

- Roller ---> steel  
- Body (powder painted) ---> aluminum with cast iron race inlay  
- Threaded End Caps ---> Grastin (normal waste)  
- Membranes ---> steel plate

This Operation Instruction shall be kept for future use.

R-E.FN

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**! max. !**

**6 bar / 90 PSI  
140°C / 280°F**

