

Concise installation and operating instructions for pneumatic vibrators series NCB, NCR, NCT

S a f e t y



Make sure that the compressed air is shut off during assembly or during other work on the vibrator and on the supply lines. Hoses must be tightly connected.

A hose coming loose under pressure may cause injury. Vibrations can cause loosening of bolted connections and equipment. This may cause damage to persons and material.

Observe the enclosed drawings.



Alterations to the unit may change the characteristics of the vibrator or even damage the unit and will cause the rejection of any warranty claims.

G e n e r a l N o t e s

The vibrators are made in accordance with the EC machine regulation 2006/42/EEC. The standards DIN EN ISO 12100 part 1 and part 2 have been particularly observed.

The vibrators produce non-directed vibrations. They are used for emptying bunkers, to drive chutes, screens and vibrating tables. Generally for loosening, conveying and separating of bulk materials and for the reduction of friction.

When observing the operating instructions of the customer they may also be used in food processing or wet environments. The vibrators may be used outdoors. The frequency and the dependent centrifugal force are determined by the operating pressure.

Drive medium:

As drive medium clean, filtered (filter < 5µm) com-

pressed air or nitrogen of 2 to 6 bar (30 to 90 PSI) is required. The vibrators are designed for lubrication-free operation. The life time of NCB and NCR will be extended with lubrication

Non-filtered air will damage the vibrators.



Maximum operating pressure

The max. operating pressure must not exceed 6 bar (90PSI).

Noise level:

Depending on the type of vibrator and air pressure the noise level is 75-85 dB(A) (with silencer). If the air pressure is lower, the noise level is also lower. In order to avoid unnecessary noise for the environment, the vibrators should not be operated without a silencer.

I n s t a l l a t i o n



The unit must be fastened to a clean and level surface with two fastening screws (for screw size and tightening torque see table).

Use self-locking screw retention washers (no spring washers).

Use self-locking nuts or e.g. Loctite 270 against loosening.

It is highly recommended to use a reinforcement section (U-section) as substructure. This reinforcement section should be welded to the object. This allows optimal transfer of the vibration energy.

Supply line:

The air resistance increases with the length of the hose. For hose lengths of up to 3 m to the next bigger hose cross section the minimum cross sections in the table are recommended. For longer supply lines it is recommended to use bigger cross sections.

Air discharge:

If the out flowing air is discharged and the turbine vibrator should work with full power, the discharge hose must have a bigger nominal width than the supply hose.

Type	Thread	Tightening torque	Supply line thread	Supply line diameter	For use in or under water	Lubrication free	Temperature range*
NCB 1, 2	M 6	10,4 Nm	G 1/8	NW 6	no	limited	-20°C - 200°C
NCB 3, 5, 10, 20	M 8	25,0 Nm	G 1/4	NW 10	no	limited	-20°C - 200°C
NCB 50, 70	M 10	51,0 Nm	G 3/8	NW 12	no	limited	-20°C - 200°C
NCR 3	M 6	10,4 Nm	G 1/8	NW 6	no	limited	-20°C - 200°C
NCR 10, 22	M 8	25,0 Nm	G 1/4	NW 10	no	limited	-20°C - 200°C
NCR 57	M 12	86,0 Nm	G 3/8	NW 12	no	limited	-20°C - 200°C
NCR 120	M 16	215,0 Nm	G 3/8	NW 12	no	limited	-20°C - 200°C
NCT 1, 2, 3, 4	M 6	10,4 Nm	G 1/8	NW 6	yes	yes	-20°C - 120°C
NCT 5, 10	M 8	25,0 Nm	G 1/4	NW 8	yes	yes	-20°C - 120°C
NCT 15,29	M 8	25,0 Nm	G 1/4	NW 10	yes	yes	-20°C - 120°C
NCT 55, 108	M 10	51,0 Nm	G 3/8	NW 12	yes	yes	-20°C - 120°C
NCT 126, 250	M 16	215,0 Nm	G 3/8	NW 12	yes	yes	-20°C - 120°C

*) -20°C - 200°C corresponds to -4°F to 392°F. -20°C - 120°C corresponds to -4°F to 248°F

Commissioning and Operation

The vibrator can be commissioned immediately after the correct installation. Make sure that the pressure air system is able to meet the air consumption value specified in the operating instructions. Otherwise the vibrator will not be able to work according to the technical specifications.



Permissible operating conditions

Ambient temperature range*

NCB/NCR -20° C to +200° C

NCT -20°C to +120°C

NCB, NCR require heat resistant hose nipples

Checklist for Assembly and Commissioning:

1. Install the unit carefully. Secure the fastening screws.
2. Install service unit (filter, regulator), valve, supply line.
3. If necessary install lubricator and adjust oil flow (2 to 5 drops/h) .
4. Check: Are fastening screws secured?

Have notes on hose length and nominal width been observed?

and silencers for temperatures above 120°C (248°F)



NCT Vibrators may be operated inside liquids if the exhaust air is piped into the atmosphere.

Note NCT 1 / 2:

Due to the high efficiency these units reach very high rotary speeds.

These high speeds reduce the lifetime of the bearings and increase the noise level. We therefore recommend to operate NCT 1 and NCT 2 only with 2-3 bar (max. 15.000 revolutions) or to use them for interval operation.

Maintenance

NCT-vibrators are maintenance-free. From outside they can be cleaned with a water jet.

Operate the vibrator for a short while after.



Dirty compressed air causes clogging of filter and silencer.

If necessary empty the filter, clean filter element and silencer (wash out).



Screw connections must be checked and retightened after 1 hour of operation and then at regular intervals (normally every month).

For maintenance instructions and trouble shooting refer to the operating instructions.

Waste disposal:

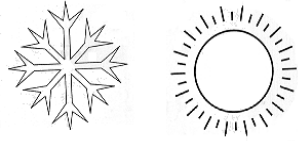
The parts must be disposed off according to valid regulations, depending on the material.

All units can be disposed of through your supplier. The valid waste disposal prices are available on request.

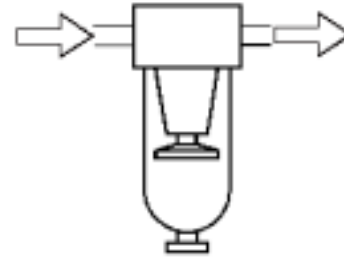


Betriebsdruck
Pressure
Pression
6 bar / 90 PSI max.

NCB / NCR
-20°C - 200°C
-4°F - 392°F

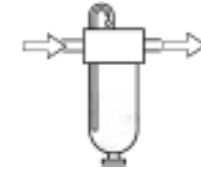


NCT
-20°C - 120°C
-4°F - 248°F

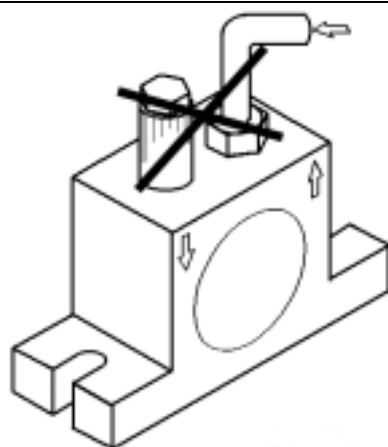
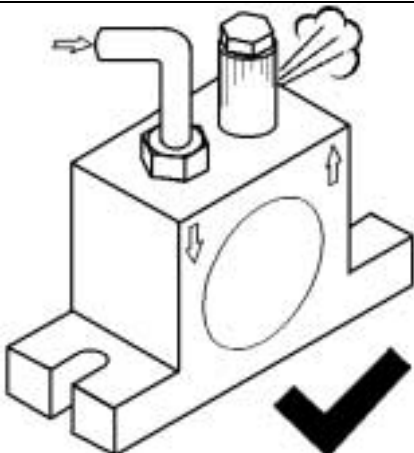
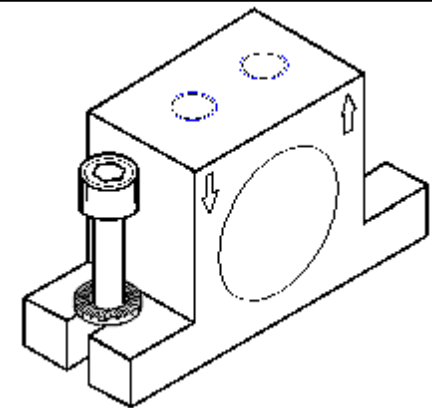
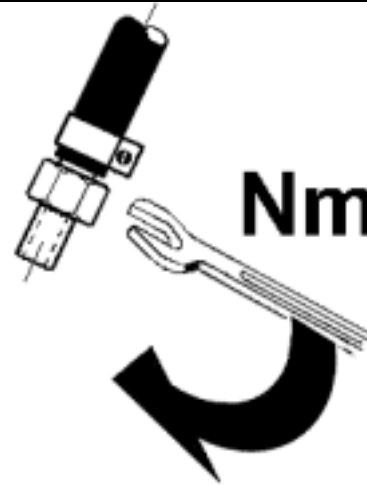
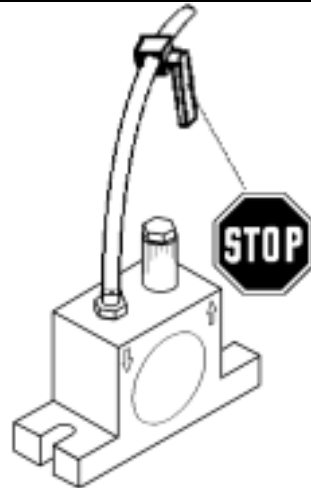
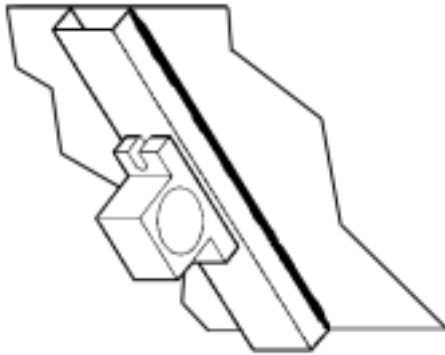


≤ 5µm
Filter erforderlich
Filter recommended
Filtre recommandé

NCB / NCR



Öl / Oil / Huile
NCT



Jan. / Feb. / ...

