



VERTICAL ROOTS BLOWER
Operation and Maintenance Manual

TRUNDEAN MACHINERY INDUSTRIAL CO., LTD.

1 Matters that should be aware of before installation:

- Please check if the specifications (including the type of roots blower, outlet diameter, nominal output frequency, number of phases, voltage rating, current rating, pressure, wind output) appear on the tag match your specifications.
- Please check if the product had any damages during transport or shipping (especially if there is any loosening of the screws, bolts and nuts).
- Regarding the accessories, please check if the types and numbers of them have been correctly provided.
- Please notice that the vertical type roots blower will have to operate in the direction illustrated.

2 Matters that should be aware of during installation:

- Please make sure the frequency and voltage of the power source that you will use match those appear on the tag.
- Voltage provided will have to be within $\pm 10\%$ of the nominal voltage.
- The pipe connected to the blower discharge should have the same diameter as that of the outlet. If such pipe has a diameter smaller than that of the outlet, the air pressure will increase and the capacity will decrease in the pipe as well as the power consumption will increase.

3 Matters that should be aware of during operation:

- First, turn on the power switch.
- Check if air is sucked into the air inlet. If air enters the inlet in a direction opposing the correct direction, the roots blower must be turned off immediately and correction must be made.
- The air pressure at the outlet and the current consumption of the motor should be maintained within the allowed ranges. If either exceeds the corresponding range, please find out the reason(s) before turning the roots blower back on again.
- Please check if there are any abnormal vibrations and noises coming out from the vertical type roots blower.
- Rusting, corrosion and jamming may occur to the rotor blade of the blower if the roots blower is unused for a long time. In such case, the roots blower should be turned on for 30 minutes per week; the roots blower should be turned on for 30 minutes each day if the roots blower is placed in a surrounding with high humidity.

4 Maintenance and checks:

You should pay close attention to the operating condition (especially, the current consumption and air pressure) of the vertical type roots blower at all times.

4-1 Daily check:

- Whether the air pressure varies by a large value
- Check if the current consumption is normal
- Check if any abnormal noises coming out from the roots blower
- Check the temperature of the body of the roots blower
- Check if the rotating direction, wind level and vibrations are normal

4-2 How to change the lubricant of the gear box:

- Remove the plug and drain out all the old, existing lubricant.
- After all the old lubricant is drained out, add a little new lubricant -- after new lubricant starts to flow out from the hole on the bottom side, place the plug back on and add the new lubricant into it.

Notice: If the washer of the plug is damaged, it must be replaced.

4-3 Periodic checks

Duration	Part to be Checked	Checking method	What to be checked	How to Handle It
For every three months	Lubricant of the gear box	Remove the plug		Change the lubricant (R320# gear oil)
For every three months	Lubricant of the bearing		The bearing should be kept well lubricated	To add more lubricant
For every six months	One-way valve	Part to be checked	The valve can not operate normally	To be maintained
For every year	Safety valve	Part to be checked	The safety valve does not operate when pressure exceeds the nominal pressure value by 7%	The safety valve should be opened up before maintenance may be carried out on it
For every year	The cleanness of the silencer		Whether it is clogged up	To remove the dirt



TRUNDEAN MACHINERY INDUSTRIAL CO., LTD.

Taoyuan Head office / Factory in Taiwan:

No. 101 Lane 861, Fuguo Rd., Taoyuan City, Taoyuan County 33046, Taiwan

TEL:+886-3-3238288 FAX:+886-3-3-3238959

E-mail : blower@trundean.com

Jianjsu Branch office in China:

No. 899 , Lingfeng Road , Haihong Industrial Park, Economic Development Zone,
Qidong City, Jiangsu Province, P.R.C

TEL:+86-513-68896666 FAX:86-513-68891666

E-mail : qidong@trundean.com

Website : <http://www.trundean.com>