



# 直立式魯氏鼓風機

【操作維護手冊】

*VERTICAL ROOTS BLOWER*

*Operation and Maintenance Manual*

春鼎機械工業股份有限公司

TRUNDEAN MACHINERY INDUSTRIAL CO., LTD.

## 1 安裝前的注意事項：

- (1) 首先請檢查銘牌上直立式鼓風機型式、出口口徑、額定輸出之頻率、相數、電壓、電流、壓力、風量等，是否和你所需求規格相符合。
- (2) 請確認在運輸途中產品是否損傷。尤其必須注意螺絲及螺帽等有無鬆動之情況發生。
- (3) 關於附件方面，請確認種類、件數有無錯誤。
- (4) 請注意直立式鼓風機必須依標示方向、正確運轉。

## 2 安裝時注意事項：

- (1) 請確認您使用電源的頻率及電壓是否和銘牌記載之規格相符合。
- (2) 直立式鼓風機使用之額定電壓，變動之容許值必須在 $\pm 10\%$ 以內。
- (3) 出風口配管請使用與直立式鼓風機相同之口徑。若是使用比直立式鼓風機口徑小的配管，則會因配管不當造成損失壓力增大，風量減少、電流增加，請務必注意。

## 3 運轉時注意事項：

- (1) 首先打開電源開關。
- (2) 要確認入口消音器的吸入口有無空氣吸入，若逆轉時要即刻中止運轉，改變成正確運轉方向。
- (3) 吐出口的壓力及馬達電流值請在使用範圍內，若有超過之狀況，請查原因再予運轉。
- (4) 注意直立式鼓風機有無異常的震動及噪音產生。
- (5) 鼓風機若長久放置未使用，容易產生葉輪生鏽卡死之情形，故請每週予以運轉30分鐘，若置於潮溼之地點，請每日實施之。

## 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 保養、檢查：

直立式鼓風機應注意平常運轉狀況，特別是電流值、壓力值的變化要特別注意。

##### 4-1 日常的檢查：

- ❖ 壓力值的變動是否太大。
- ❖ 檢查電流是否正常。
- ❖ 檢查鼓風機有沒有發生異樣聲音。
- ❖ 檢查機體溫度。
- ❖ 運轉方向、風量、震動是否正常。

##### 4-2 齒輪油的更換方法：

- ❖ 洩油孔的栓塞要拿掉，排出全部舊機油。
  - ❖ 舊油排完後，再從上方注入新油，油由下方溢出少許後，再把下方油栓栓上，注入新油。
- 【注意】栓塞用墊片如果損壞時，需要換新品才行。

##### 4-3 定期檢查項目 *Periodic checks*

檢查時間 <i>Duration</i>	項目 <i>Part to be Checked</i>	檢查方法 <i>Checking method</i>	檢查現象 <i>What to be checked</i>	處置 <i>How to Handle It</i>
每3個月 <i>For every three months</i>	齒輪箱機油 <i>Lubricant of the gear box</i>	把油栓全部取下 <i>Remove the plug</i>		更換R320#齒輪油 <i>Change the lubricant (R320# gear oil)</i>
每3個月 <i>For every three months</i>	軸承油脂 <i>Lubricant of the bearing</i>		保持潤滑油脂 <i>The bearing should be kept well lubricated</i>	添加潤滑油脂 <i>To add more lubricant</i>
每6個月 <i>For every six months</i>	逆止閥 <i>One-way valve</i>	閥片正常動作嗎？ <i>Part to be checked</i>	無動作 <i>The valve can not operate normally</i>	保養 <i>To be maintained</i>
每1年 <i>For every year</i>	安全閥 <i>Safety valve</i>	能釋壓正常嗎？ <i>Part to be checked</i>	超過7%以上的壓力不會動作 <i>The safety valve does not operate when pressure exceeds the nominal pressure value by 7%</i>	要拆開保養 <i>The safety valve should be opened up before maintenance may be carried out on it</i>
每1年 <i>For every year</i>	消音器清潔 <i>The cleanness of the silencer</i>		是否阻塞 <i>Whether it is clogged up</i>	清除灰塵 <i>To remove the dirt</i>

#### 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.



# 春鼎機械工業股份有限公司

**TRUNDEAN MACHINERY INDUSTRIAL CO., LTD.**

桃園總公司:桃園市富國路861巷101號

Head office / Factory:

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

台南分公司:台南縣鹽水鎮舊營里就營1-35號

Tainan Branch office:

No.1-35 Jiuying, Jiuying Li, Yanshui Township, Tainan County 73747, Taiwan

TEL:+886-6-6529455                      FAX:886-6-6529520

E-mail : tainan@trundean.com

大陸分公司:江蘇省啟東市經濟開發區海洪工業園區靈峰路899號

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

E-mail : qidong@trundean.com

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