



Operation, Installation and Maintenance Instruction Manual

RING BLOWERS



1. Features

Greenco ring blowers are suitable for those applications requiring considerably higher pressures than those can be achieved using centrifugal fans. Side channel exhausters are used in those applications requiring an operating vacuum higher than the one achievable by a fan, but not as high as to require the use of a vacuum pump. The rotating parts are not in contact with the casing. There is, therefore, no friction during operation, and thus no internal lubrication is necessary. Gas moving through the machine remains uncontaminated and completely oil-free.

The other main features are:

- 1) Neat appearance
- 2) Easy installation
- 3) Low noise level
- 4) No vibration, and therefore complete dynamic stability
- 5) Pulsation-free discharge
- 6) Minimal maintenance
- 7) Higher pressure ratio
- 8) Cooler running bearings
- 9) Longer grease life
- 10) Simple maintenance
- 11) 100% oil-free air
- 12) Small dimensions
- 13) Suitable for environmental protection

2. Applications

The ring blowers are suitable for very wide field of application such as pneumatic conveying, bakery materials handling, paper feeding, sock knitting machine, plastic granule conveying, chemical plant, health and dental applications, furnace air supply, bottling plant, waste water treatment, metal treatment baths, etc

3. Operation

If the rated current of the motor is exceeded during operation, the voltage and frequency of the power supply should be checked and compared with data on the unit rating plate. Some blowers can't be operated over the whole range of the performance curve. Overload of the motor may occur due to excessive system back-pressure. In applications where over-pressure conditions may occur, a relief valve must be installed. The ring blower must not be subjected to shock or vibration loads.

4. Installation

A. Transportation

Check all parts from damage during transport.

B. Installation assembly

The blowers are to be installed weather protected and are not to be stored outdoors unprotected. When the blowers are installed outdoors they must be covered.

Install ring blower horizontally or vertically. Do not subject blowers to vibrations or shocks. Blower with base should be secured tightly at site of operation on solid, even ground. Open in-take and discharge parts are to be protected by wire guard in accessory pack.

Max ambient temperature is +40 C.

C. Electrical connection

Note! Work described here must be executed by a qualified electrician only. Connect the motor in accordance to wiring diagram to be found in the terminal box. The blower has a single or three phase motor as described on motor plate. The motor should be protected with an overload switch. Connection to earth is to be found in the terminal box.

D. Control of rotation direction

Start up the blower a short moment, Check the rotation direction. The rotation direction on the impeller must be in accordance with arrows on the motor. If incorrect rotation is experienced, then interchange the L1 and L3 phases for three phase operation or check the wiring circuit in the terminal box.

5. Warning

Following safety instructions must be carefully followed with regard to preventing injury or damage to surrounding equipments and to the blower itself.

A. Suction.

Ring blowers have very high suction power. Objects, clothing and hair can easily be sucked into the blower and could cause injury. Make sure that there are no persons nearby the inlet side when the blower is working. Suction filter/guard should be assembled before operation of the blower.

B. Discharge side

There is a very powerful stream of air from the discharge side. Foreign bodies that might have been sucked in to the blower can be thrown out at a high speed and cause injury. Never put the hand directly at the discharge or suction side.

C. Temperature.

During operation the blower housing can be reach +110 °C. The blower must be protected from direct contact to avoid burn injury.

D. Electrical connection

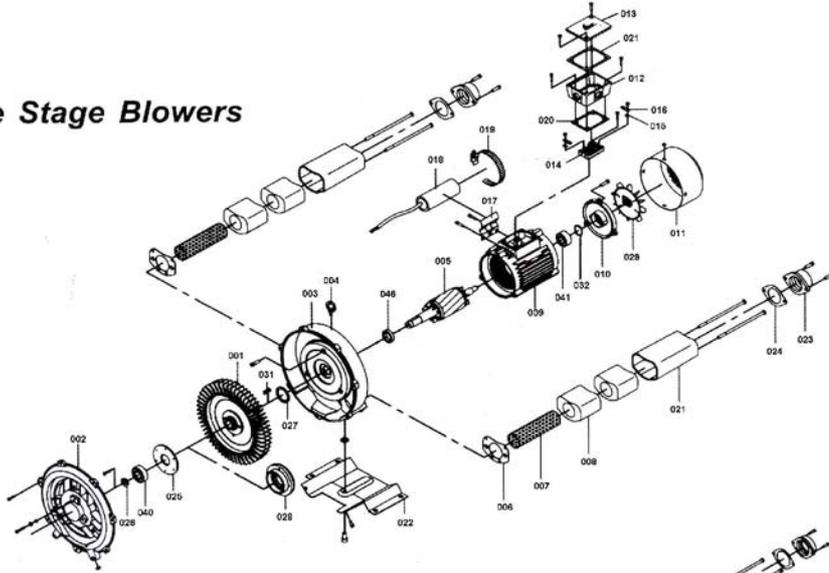
Electrical connection must be made by skilled electrician only. The drive motor should be protected with an overload switch.

6. Maintenance

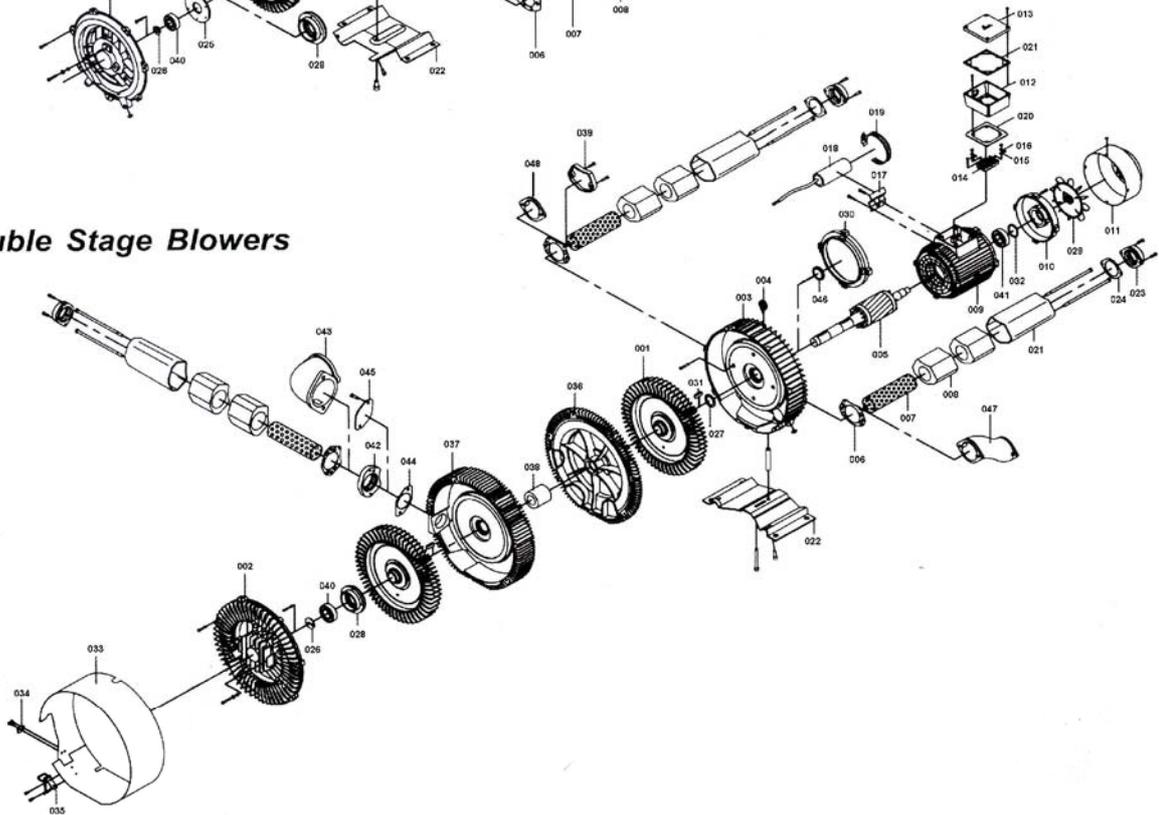
The ring blower has non-contact operation and does not normally require maintenance. Wearing parts are subjected to the recommended maintenance intervals and are a constituent part of the applicable warranty claims. The service life of bearing parts (ball Bearing v-belts and filter) depends on the operating hours, load and the other Influences such as temperature and operating pressure. The blowers are equipped with deep groove ball bearings, which are not to be re-greased and have a minimum service life of approximate 12,000 hours.

7. Parts illustration

Single Stage Blowers



Double Stage Blowers



Item	Part name	Item	Parts name
001	Impeller	025	Bearing washer
002	compressor cover	026	washer
003	compressor housing	027	washer
004	Bronze ring	028	Bearing socket
005	Rotor	029	Fan
006	Silencer washer	030	Middle motor cover
007	Silencer mesh pipe	031	Rotor pin
008	Silencer foam	032	wave washer
009	Motor	033	Protection steel skin
010	Motor cover	034	Buckle(up)
011	Fan cover	035	Buckle(down)
012	Terminal box	036	Middle compressor cover
013	Terminal box cover	037	Middle compressor housing
014	Wire socket	038	Impeller fixing set
015	Fixed slice	039	Outlet cover
016	Wire connection slice	040	Front bearing
017	Capacitor stator	041	Back bearing
018	Capacitor	042	Silencer socket
019	Steel clip	043	90° extend elbow
020	Terminal box washer	044	Silencer socket washer
021	Silencer housing	045	Cover
022	Mounting plate	046	Oil seal
023	Inlet/Outlet	047	Extend pipe
024	Inlet/Outlet washer	048	Socket washer



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