Operation, Installation

and Maintenance Instruction

SIDE CHANNEL BLOWER

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1. Features

This ring blowers are suitable for all those applications requiring considerably higher pressures than those can be achieved using centrifugal fans. Side channel exhausters are used in all 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, therefore remains uncontaminated and completely oil-free.

The other main features are:

1) Beautiful surface
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, socks knitting machine, plasticgranule conveying, chemical plant, health application, 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 rang of the performance curve. Overload Of the motor may occur failure of excessive system resistance (current consumption).Should it to be possible to exclude overloading due to the system resistance, a pressure relief valve must be provided on the suction or pressure side. The ring blower must not be subjected to shock or vibration loads.

4.Installation

A. Transportation

Check all parts from damage during transport, the blowers are to be installed weather protected and are not to be store outdoors unprotected. When the blowers are outdoors they must be covered with objects.

B. Installation assembly

Install ring blower horizontally or vertically and whether protected. Do not subject 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 acc. Max ambient temperature are +40 degree.

C. Electrical connection

Note! work described here may be executed by a qualified electrician only. Connect the motor acc. to wiring diagram to be found in the terminal box. The blower has a single or three phase motor as described on motorplate. 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 not, move 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.

The ring blowers have very high suction power. Objects, clothing and hair can easily be sucked into the blower and 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.

When operates the blower housing can be almost +110°C. The blower must be protected from direct contact to avoid burn injury.

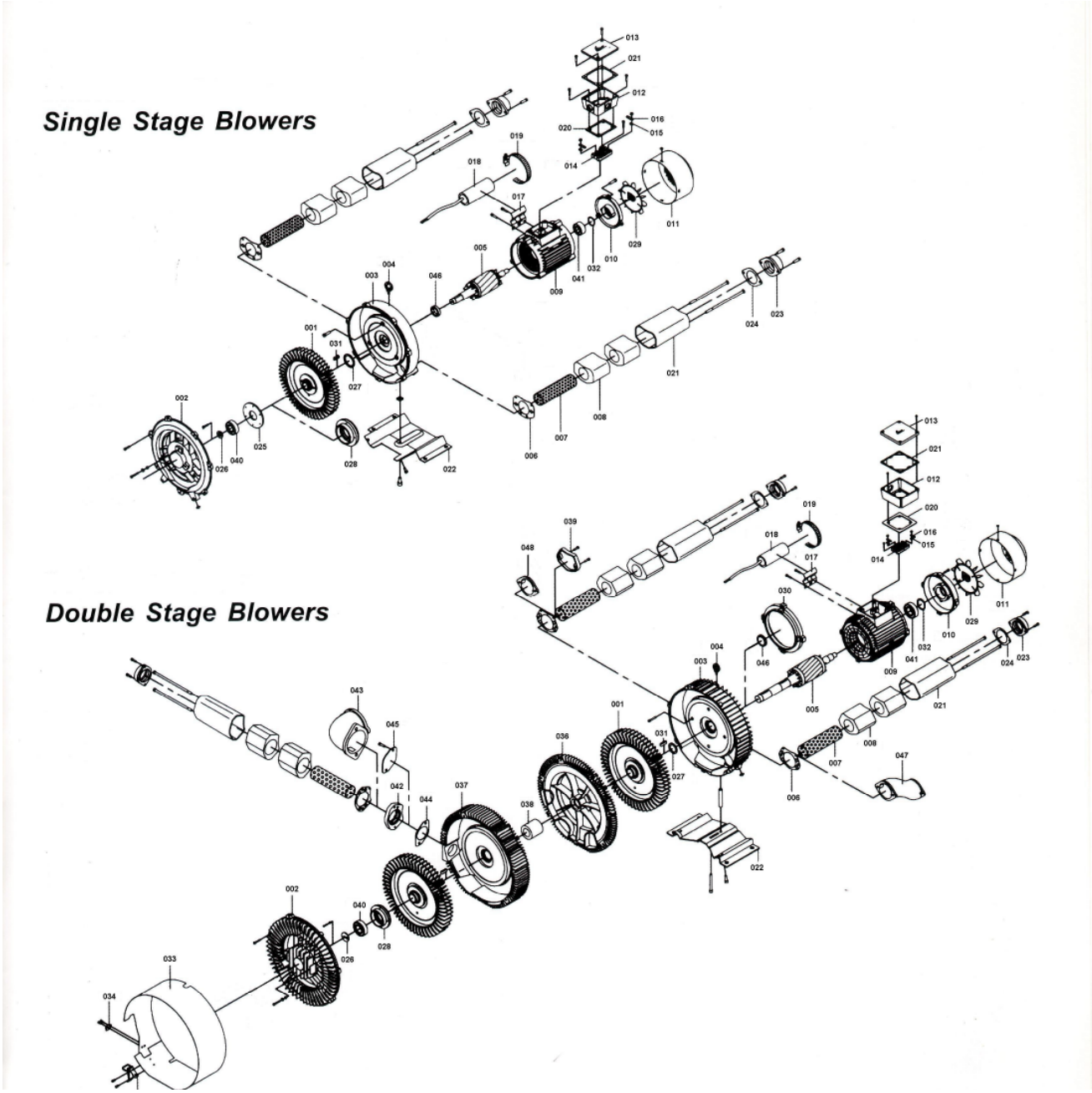
D. Electrical connection

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

6.Maintenance

The ring blower have non-contact operation and do 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, the load and the other influences, such as temperature and etc. The blowers are equipped with enclosed deep groove ball bearings, which are not to be regreased and have a minimum service life of approximate 12,000 hours.

5. Parts illustration



NO	Parts name	NO	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 sponge	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	90º 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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6. Warranty conditions

1 - The machines are warranted for a period of 12 months from the date of shipment.

2 - The warranty covers those parts of the machines which are defective either in materials, construction or workmanship. The warranty does not cover wearing parts (e.g. bearings), defects arising from chemical corrosion or galvanic action, from failure to follow the instructions contained in this manual, or from modifications or repairs not expressly authorized in writing by ourselves.

3 - Any claims for defects must be made in writing and the purchaser is not entitled to withhold or delay any payments or cancel any contract as a result of these defects.

4 - The supplier will not assume any responsibility under the terms of this warranty for equipment which has not been paid for at the time of the complaint.

5 - Within the warranty period the supplier will repair or replace, ex works his factory, as soon as possible, those parts which are determined by him to be defective.

6 - Within the warranty period, defective parts should be returned to the supplier, carriage paid, and any parts repaired or replaced by him, will be shipped back to the purchaser, carriage forward. The supplier will not be responsible for any costs incurred in the removal and reinstallation of the equipment.

7 - Should it be agreed that the repairs under warranty will be carried out in the field, the supplier will provide the necessary skilled personnel, and it is understood that such services will be charged according to the rates in force at the time.

In such a case, at his charge, the purchaser will provide the supplier with all facilities and assistance necessary for the repair.

8 - Within the warranty period, for any product repaired or replaced by others than the supplier or his representative, the warranty will become void and unenforceable and the supplier shall not be liable for any damage, to anything or anybody, that could happen after any unauthorized repair or replacement.

9 - The supplier shall not be liable for any damage directly or indirectly arising in connection with the machine non-use during the repair under guarantee. The supplier shall not be liable for any damage directly or indirectly arising in connection with the incorrect use of the machines.