

VACUUM PUMP

INSTRUCTION AND MAINTENANCE MANUAL



1. DESCRIPTION

The A5801 vacuum pump is a “piston” dry type and therefore oil free. The vacuum is obtained by two serial pistons connected to and activated through an electric engine. As a consequence the air sucked in and then released outside does not contain any oil particles. This pump has been designed specifically to obtain vacuum inside the heating chamber of furnaces for dental ceramics currently used in dental laboratory. An extended use to other types of works requesting vacuum to be achieved in a closed container can also be contemplated. Any different application of the pump is forbidden and it can in no way be used as a compressor.

The unit is fitted with fixed protections preventing the User from having access to the electric components under power as well as to any mechanical parts under motion. Only skilled and authorized personnel is allowed to carry out any repair and maintenance operation.

2. TECHNICAL REFERENCE REGULATIONS AND TEST PROCEDURES

The vacuum pump is mass-manufactured by DENTALFARM in compliance with technical and safety rules in force, as provided for by the 2006/42/EEC Community Directive on machinery.

Careful inspection and full routine testing is carried out singularly on each machine which is furtherly tested by an automatic test installation assuring compliance with the fixed limits.

3. DEMOLITION AND WASTE DISPOSAL

According to International regulations, this unit has been classified as an AEE (electric and electronic device, whose correct operation depends on electric currents and electromagnetic fields) and as a consequence, at the end of its lifetime, it cannot be handled as normal waste material but it must be disposed separately, complying with the Directive 2002/96/EEC.



4. TECHNICAL SPECIFICATIONS

Pump Type	Dry Piston
Max Vacuum Level	745 mmHg
Delivery	50 l/min
Weight	Kg 7.3
Voltage Supply	220 /230 V - 50/60 Hz
Power Rating	200 W

5. GENERAL PRECAUTIONS

- Carefully read the present manual before carrying out any starting, running or maintenance operation on the machine
- Safety of the User depends on individual skills and ability, on common sense and on the caution during use; for this reason, it is of utmost importance to be familiar with the location and function of the operating controls
- The final User of the machine is a skilled and well trained professional, not merely an occasional worker
- Regularly check the parts which tend to wear out due to the specific working conditions
- Do not tamper the electrical wiring system of the machine
- The built-in safety mechanisms shall in no way be removed or modified
- Do not allow unauthorised persons to try to repair the machine
- Do not utilize petrol, solvents or any other inflammable fluids to clean some parts of the machine – use exclusively non-toxic and non-inflammable products available on the market for these specific purposes.

6. INSTALLATION AND USE

The machine must be safely flat placed in horizontal position on a sturdy bench in a dry and well ventilated place. **In case the pump is placed on the floor, make 100% sure that there is no possibility for the pump to come in contact with water or any other kind of liquids.** The A5801 Pump is standard supplied with IEC plug for connection to a ceramic furnace.

The User has the task to ensure before installation that the electric wiring system of the workroom and of the furnace it will be connected to has been built strictly in compliance with the safety regulations in force. It is particular important to make sure that the grounding system is properly efficient. In addition the network voltage has to be inspected too: should the voltage be too low (less than 210V), the engine will start too slowly and need a voltage stabilizer to be installed.

ATTENTION: avoid activating the pump under vacuum conditions because it might not start and risk to burn the engine. Should you need to start the pump already under vacuum it will be necessary to install a 3-way solenoid valve on the suction inlet in order to eliminate vacuum both from the suction pipe and from the cylinder head.

7. MAINTENANCE INSTRUCTIONS

Ordinary maintenance

This pump does not need any particular maintenance. The User must only keep it clean and remove dust residuals from the surrounding environment.

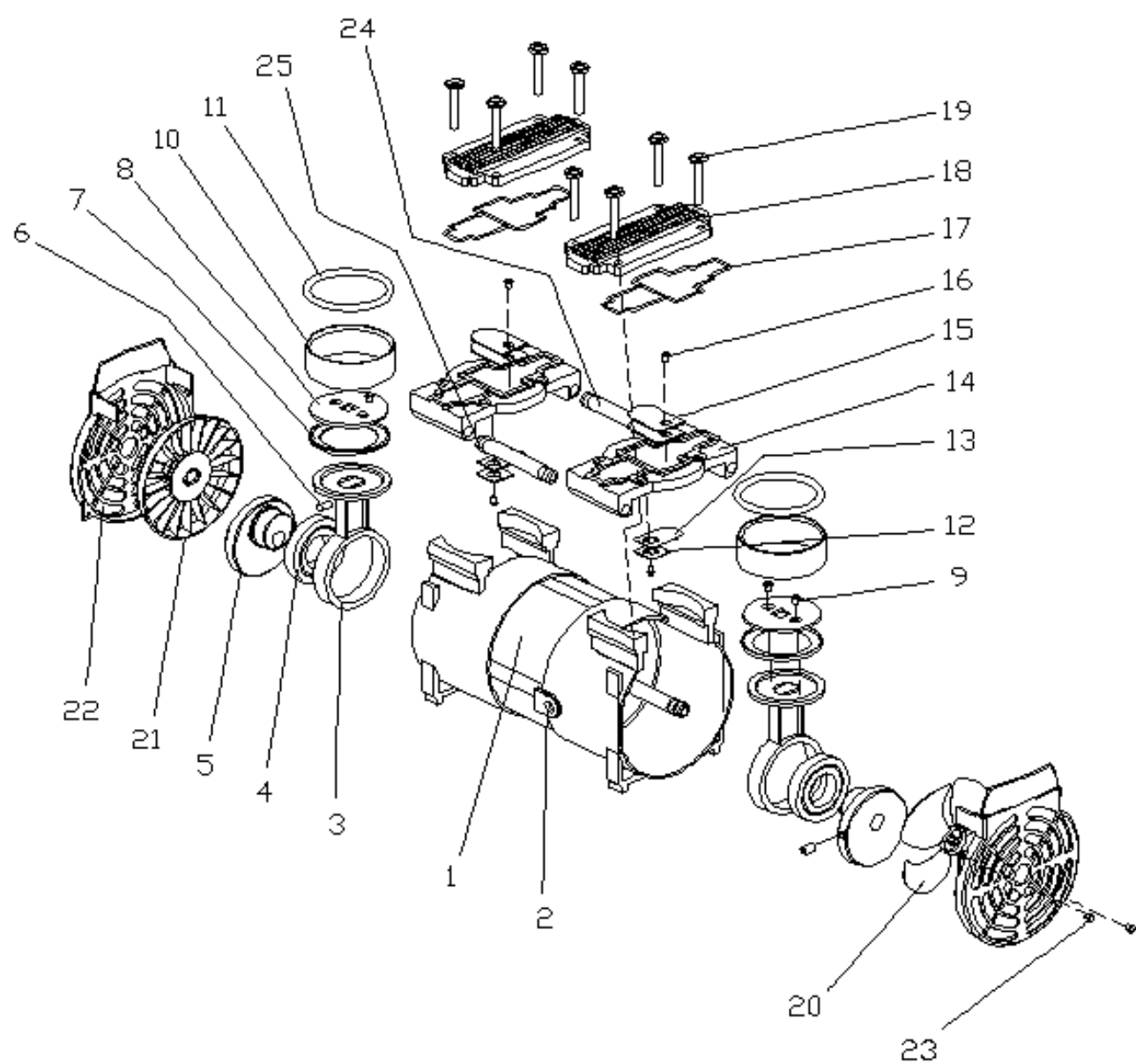
Extraordinary maintenance

To repair the machine or replace some of the worn out components, we recommend the User to contact only skilled technicians or directly the manufacturer.

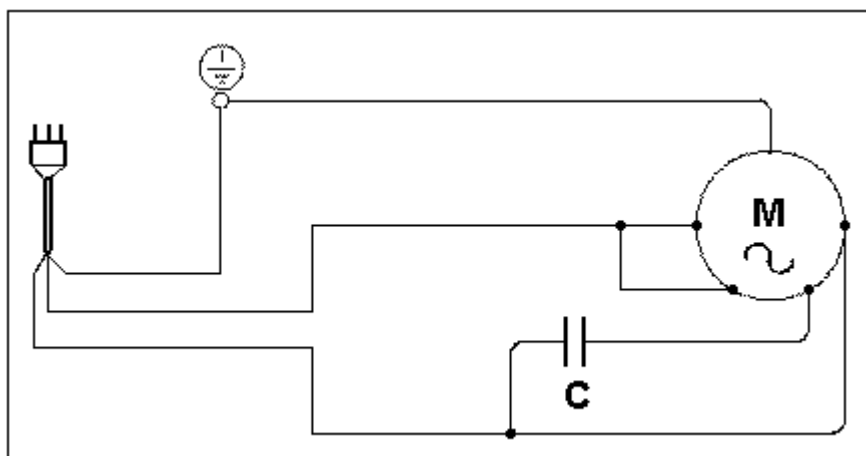
Categorically avoid to open any of the fixed protection without proper safety precautions. Always disconnect the power supply plug before any maintenance operation.

8. EXPLODED DRAWING AND SPARE-PART LIST VACUUM PUMP (A5801)

NO.	CODE	DESCRIPTION
1	050.01	MOTOR
2	050.02	WIRE HOLDER
3	050.03	ROD
4	050.04	BALL BEARING 6006ZZ
5	050.05	CAM
6	050.06	M8x12 ADJUSTING SCREW
7	050.07	TEFLON YELLOW SEAL RING
8	050.08	PISTON CAP
9	050.09	M4x12 PISTON SCREW
10	050.10	CYLINDER
11	050.11	WHITE SILICONE OR RING
12	050.12	SPACER
13	050.13	VALVE
14	050.14	HEAD PLATE
15	050.15	V/V WASHER
16	050.16	M4x6 SCREW
17	050.17	SILICONE HEAD JOINT
18	050.18	HEAD
19	050.19	TIGHTENING SCREW
20	050.20	FRONT FAN
21	050.21	REAR FAN
22	050.22	FAN COVER
23	050.23	M4x8 SCREW
24	050.24	CONNECTION PIPE
25	050.01	RED SILICONE OR RING



9. WIRING DIAGRAM



POS.	DESCRIPTION
M	Motor
C	Capacitor

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