

AIRPRO 1 Digital

User's manual - Use and Maintenance
Power Flushing Compressors

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Dear Customer, thank you for choosing a KAMMAK Flushing Compressor.

MANUAL

This manual is a safe guide for the use of the compressor. Please read it carefully in all its parts before use.

This manual contains important information for the proper working and use of the equipment.

KAMMAK reserve the right to introduce any future changes without notice or replacement.

PRELIMINARY INSPECTION

Upon receipt of the compressor, take it out from the carton and check it is in perfect condition. Also check that the data on the rating plate correspond to required ones. For any problem, immediately contact the supplier specifying the kind of fault.

In case of doubts about the safety of the machine, do not use it.

DESCRIPTION

AIRPRO-1 DIGITAL flushing compressor is fitted "turbo flush technology". Turbo flush technology and flow reverser particularly recommended for difficult descaling treatments. They work in complete safety and autonomy enabling the operator to carry out other works at the same time.

The compressor are equipped with special fittings and valves to adjust the flows and purge the sludge, built up by the operation, which is then rapidly removed.

Compressors are supplied ready to use, in strong carton boxes with related user's manual.

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1 - REGULATIONS – CE MARK

Declaration of Conformity

The compressors are in conformity with the following European Directives, Laws and Regulations:
Machinery Directive 2006/42/EC



QUALITY

KAMMAK equipments are manufactured with high-quality acid-resistant materials and submitted to severe operating tests.
Follow these instructions to avoid any operating and servicing problems.

2 - THE ADVANTAGES OF THE COMPRESSOR AIRPRO 1 Digital

Time and, above all, temperature increase make calcium salts, usually present in water, precipitate in the form of microcrystals and settle on metallic surfaces of pipes, plant coils and heat exchangers, thus reducing flow rate and thermal efficiency.

To restore the original plant performance it is necessary to carry out a descaling with specific products and equipments.

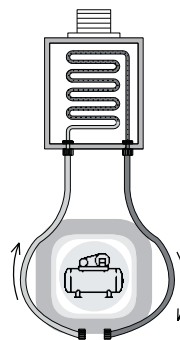
With powerful hydro-dynamic wash, high flow rated water-air mixture attacks scale on both sides, thus making descaling particularly effective and fast (as the normal dissolving action is combined with the detachment in flakes of scale, which is made friable by the double attack), even when pipes and exchangers are almost totally obstructed.

AIRPRO Digital compressors are a multifunctional appliance for flushing. It may also be used as an air compressor.

AIRPRO have powerful washing cycle with water-air mixture:
ECO Flush - the compressor supplies air to the system at the indicated time

TURBO Flush - the compressor supplies pulsating compressed air to the system in turn for 8 seconds and then stops automatically

DIRECT Flush - the compressor provides continuous air to the system



Clockwise circulation

3 - TECHNICAL FEATURES

AIRPRO 1 DIGITAL

Oil-Free Dry Piston Air Compressor

Motor	220 V - 750W / Hp 1.0
Max. working pressure	8 Bar
Degree of protection	Thermal protection
Max.temperature	60°C
Flow rate	110* l/min.
Fittings	3/4"
Air tank capacity	9 l
Dimensions HxWxD	76 x 50 x 35 cm
Weight	Kg 22

* Data referred to the compressor body outlet.

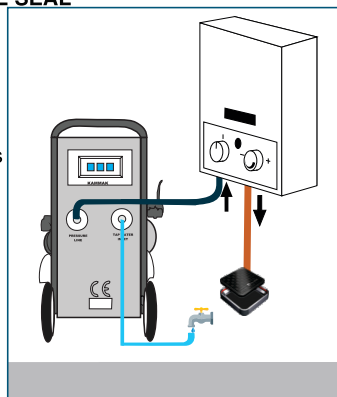
4 - CUSTOMER SERVICE

For enquiries on spare parts, please specify serial number of compressor (shown on product and carton).

5 - USE

5.1 - HOW TO PREPARE THE COMPRESSOR AND CHECK THE SEAL

- Fill the tank with air
- Screw the outer ends of the flexible hoses securely to the exchanger to be descaled.
- Connect the power cable to a single-phase 220 V power supply.
- Switch on the compressor and check the seal of the hose fittings on the exchanger and on the compressor. In case of leaks of liquid, check hoses and fittings and replace the defective components, if necessary.
- When seal is safe, switch off the compressor.



5.2 - FUNCTIONING

The AIRPRO-1 has 1x250 cm pressure line hose, 1x250 cm tap water hose and 1x250 cm dump hose fitted with 3/4" brass hose connectors. The inboard end of pressure line hose should be screwed onto the corresponding 3/4" brass nipples on rear of the hose support plate, the other ends of these hoses should be connected to the system inlet (radiator/boiler). Tap water hose should be screwed onto the corresponding 3/4" brass nipples on rear of the hose support plate, the other end of this hose should be connected to the tap water. Dump hose should be connected to the system outlet (radiator, boiler, heat exchanger) and lead it to a toilet pan or drain pipe.

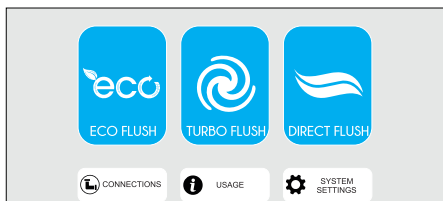
1. Switch on the compressor. It fills the pressure vessel automatically.
2. When filling the compressed air reservoir, do not pull the electrical plug when the compressor is running.
3. Open the water feed.
4. Select flushing programmes and perform the flushing.
5. After flushing, compressor must be turned off.
6. Then close the water feed.
7. Then disconnect the AIRPRO-1 from the power supply.
8. The flushing compressor must be separated from the test pipe, and all connections must be properly installed. Then a leak test is necessary.

5.3 - PROGRAMMING

ECO Flush

For ECO Flush programming follow the instructions below:

1. By press key "ECO Flush" compressor will start giving air to system with an interval of 3 seconds continuously.
2. By press key "System Settings", ECO Flush settings menu will be on display. To modify the value press once the key "-" or "+" keys. Once the time set on the display "ECO Flush" is finished, the compressor will start giving air in indicated time set.



TURBO Flush

For "TURBO Flush" programming follow the instructions below:

1. By press key "TURBO Flush" compressor will start giving air to system consecutively for 8 seconds and then stops automatically. To restart press key "TURBO Flush" again.

DIRECT Flush

For "DIRECT Flush" programming follow the instructions below:

1. By press key "DIRECT Flush" compressor will start giving continuous air to system.

5.4 - HOW TO CLEAN THE COMPRESSOR

After descaling clean the air filters, keep the compressor by discharging the air when not in use.

Change filters every 500 hours of use.

Check that the safety valve is working.

Check that the pressure valve is working.

Check that cap and casing screws fit tightly.

Once per month (or more often if the device is used in a dusty environment):

Check that the air connections are secure and that there are no air leaks.

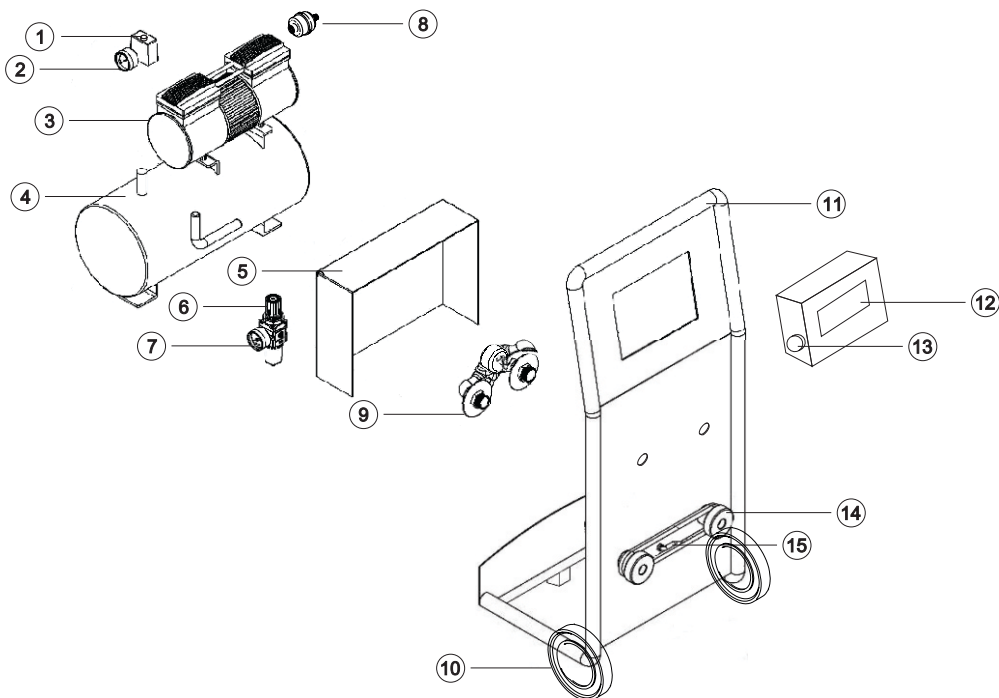
6 - SAFETY INSTRUCTIONS

- Avoid using the compressor in rooms where there are liquids, gases, flammable powders or with risk of explosion.
- Before plugging in the compressor to the outlet, make sure the switch is off.
- The outlet must be suitable for the plug of the compressor. Do not use non CE-marked defective outlets.
- Use (CE) approved extensions, only if necessary.
- Do not use plug adapter. Do not carry out any modifications to the plug nor to the electrical cable.
- Compressor shall always kept in perfect efficiency.
- During maintenance operations, check the switch is off and the plug is not connected.
- All maintenance operations must be carried out by the authorized Technical Assistance Service.
- Only use KAMMAK original spare parts.
- Do not carry out any modifications to the compressor if not authorized by Technical Department (ask for written authorization).
- Keep children and unauthorized persons away from the compressor.
- Keep the compressor out of reach of children and unauthorized persons.
- Do not use the compressor if tired or under the effect of alcohol, medicines or drugs.
- When using the compressor, wear overalls, do not wear jewellery, keep hair away from the compressor.
- When handling descaling liquids, be very careful. It is necessary to use Individual Protection Equipment (IPE).

7 - EXPLODED VIEWS AND SPARES DIAGRAMS

AIRPRO 1 Digital

P.S...For enquiries on spare parts, please specify always if needed for the model AIRPRO 1 Digital.



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|---------------------------------|------------------------|
| 1. Main switch | 9. 2 way pipe fittings |
| 2. Pressure indicator | 10. Wheel |
| 3. Compressor | 11. Metal case |
| 4. Air tank | 12. Touch display |
| 5. Metal case | 13. Secondary switch |
| 6. Pressure regulator valve | 14. Cable holder |
| 7. Pressure regulator indicator | 15. Electric cable |
| 8. Air filter | |

8 - DIRECTIONS FOR DISPOSAL

In accordance with the WEEE directive 2002/96/EC on waste electrical and electronic equipment, the pump, when no longer used, shall be disposed of in a RAEE – WEEE collection centre authorized for disposal of waste electrical and electronic equipment, or directly contact your dealer.



9 - WARRANTY TERMS AND AFTER-SALE ASSISTANCE CONDITIONS

KAMMAK guarantee that the equipments sold are free from designing, manufacturing and material defects, under normal operating conditions and according to the directions contained in the instructions manual supplied with the equipment.

KAMMAK, placed in Bursa - Turkey, guarantee the equipments against any conformity defects appearing within 12 (twelve) months from the purchase date, even when warranty operations have been carried out during this period, if only proved by a document.

The warranty covers all components of the equipment and provides for the repairing or, if necessary, the free replacement of those parts that, according to your Dealer, have conformity defects.

The warranty does not cover the aesthetic parts and the parts subject to wear and tear, nor does it cover all damages or failures whose cause is not due to the manufacturer, such as: transport, wrong installation or maintenance, tampering, sudden changes of electric voltage and/or hydraulic pressure, thunderbolts, corrosions, excess of humidity, accidental bumps or events beyond our control.

The warranty is valid only if the equipments have been installed, used and properly maintained according to all directions supplied by KAMMAK in the instructions manual attached to the equipment.

Should any conformity defects of the product be found during the warranty period, the Customer shall notify the Dealer to agree upon the terms of repairing and/or replacing of the product.



PRECAUTIONS

Only use "KAMMAK" chemicals in order to ensure good working and avoid damaging the equipments.

Once the lifetime of the compressor has expired, do not dispose of it with household waste. The compressor must be recycled in authorized centres and can be assimilated to a household appliance.



During handling lift the compressor and do not drag it in order to avoid damages to the tank.

Temperature of the descaling solution must never exceed 60 °C.

Flexible hoses and fittings can be damaged in time; make sure to check the seal whenever using the compressor, as indicated in the compressor preparation instructions.



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