



- YOTAPR 1000/1000
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YOTAPR – Suction table

Maintenance manual

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1. EC Declaration of Conformity

EC-DECLARATION OF CONFORMITY

Manufacturer:

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Lysbjergvej 10, Hammelev, 6500 Vojens, Denmark
Tel.: +45 74 52 30 75, Fax: +45 74 53 01 64

hereby declare that:

Machine: Extraction table with fan

Name: Gram

Type:

Year: 20XX

Machine no.: XXXXXX-XXXXX

was manufactured in conformity with the provisions of the Machinery Directive (Directive 2006/42/EC) and with national implementing legislation under special reference to Annex I of the Directive on essential safety and health requirements relating to the design and construction of machinery and safety components.

ISO 12499
ISO 14694
ISO 13857
IEC standards
Directive 2006/95/EU

Position: X

Name: X X

Company: V. Aa. Gram A/S

DK-Vojens, date: XX.XX.XXXX

XXXXXXXXXXXXXXXXXX

(Signature)

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2. General description

The extraction table type YOTAPR with fan is used for extraction of dust and gases from processed air.

The standard enameling of the table is a powder enameling for indoor mounting.

The table can evenly be loaded with 150kg/m². If the table is designed to have greater loads, it will be stated on table marking.

WARNING : The extraction table type YOTAPR may not be used in connection with ATEX-zones.

3. Functioning

The process air is led in through the table ribs and out through the fan to the ducting connection at the end of the table.

3.1 Daily maintenance

Filter cartridge must be cleaned with 5 - 10 turns of Roto-cleaning after end use or at dropping extraction capacity (see system guard).

Extraction table may only be cleaned when the fan is stopped.

The dust container must be emptied at maximum 75% filled condition.

Where a back wall with side wall set is used, the side walls must be locked with hinged top. But note that the top may not be used without the side wall set.

The ribs integrated in the table surface must be checked for damages and replaces accordingly.

Repairs on the table may only be carried out by professionally trained personnel.

4. Unit condition during operation

Check that the dust container is mounted correctly before start-up.

Only for Denmark (DK): Outlet must be led outside.

5. Intentional / unintentional application

The extraction table may only be used for the extraction of dry dust, gases (non-explosive) or the like. DO NOT USE IT IN A DANGER ZONE (EX).

NOTE : Suitable protection mask, eye protectors and protection gloves must be used (dependent on dust type equipment is selected).

6. Mounting

The extraction table type YOTAPR is delivered standing on a pallet.

The place where the unit will be mounted must be even and stable and the table needs to be bolted to the surface through the holes in the legs.

The extraction tables can be adjusted to a suitable working height by adapting the leg height. The table can be lifted with a forklift. All 12 leg bolts must be assembled and tightened before the table is taken into use.

6.1. Electrical connection

At extraction table type YOTAPR with fan the electro-motor is connected to 3x400V as well as earthing through motor protection, which is set correctly, as well as supply breaker for use at repairs and maintenance.

With tables with 2 fans these must be connected as described above.

Power Code must be followed.

Extraction table type YOTAPR may not be taken into use without this connection.

System guard type L may not be connected to the same power source. Sensor connection piece can be mounted in filter door on the backside.

The sense of rotation must be checked. Cooling wing sense of rotation must be in accordance with the Gram arrow on the cooling plate.

BEFORE start-up the fan wheel must be rotated manually by hand to check, whether it runs freely and do not hit the cabinet.

If fan wheel hits the cabinet, it can be due to fan damages or motor has moved during transport. If it is due to damages, please contact us for rectification of it.

Fan type	kW	Working current consump.	Start current consump.
VF 2000	1,5	3,67	22,02
VF 2500	2,2	4,76	33,32

6.2. Ducting connection

The ducting connection is made with approved ventilation pipes and possible hard-wearing flexible hose on the inlet.

At fan connection to piping or other it must be ensured that persons cannot get in touch with the fan rotating parts. In openings, where you can reach the fan wheel, a suitable protection grid must be mounted that meets ISO 13857. Protection grid is dimensioned and delivered by Formula Air. At mounting, dismounting or maintenance the fan must be stopped and supply break disconnected.

For Denmark (DK): Outlet must be led outside with up-turned outlet at the correct height.

6.3. Adjustments

Every unit is dimensioned for a particular air volume, which may not be exceeded, since it would result in filter life reduction.

Unit is dimensioned for following air volume:

_____ m³/h (Must be filled out by ventilation contractor)
 _____ dust sort (e.g. welding smoke, grinding dust)

Ventilation contractor name:

_____ (Must be filled out by ventilation contractor)

6.4. Automatic Roto-cleaning (optional)

At operation with automatic Roto-cleaning the control automatic is delivered loosely with. This is connected to the power grid in accordance with enclosed diagram and Power Code.

Sensor hose is closed by enclosed sensor connection piece for clean air side in filter chamber.

7. Noise damping

Fan outlet noise on extraction table type YOTAPR can be damped with channel silencers.

7.1. Noise data

Table type	dB (A)
UFPR 1000/1500	75
UFPR 2000/2500/3000	75

8. Maintenance

The extraction table must be maintained 1 to 2 times a year to work optimally.

With electrical supply still connected, fan is checked for vibrations and unusual noise.

With electrical supply removed check the filter tightness. Seals at fan and door are checked and changed if necessary.

Check the table for dust deposit in table and its distributor channel and clean it.

Check ribs for damages and replace them, if damages are found.
Defective filter elements are exchanged. Do not forget correct size and quality. Washable filters can possibly be washed.

NOTE : Suitable protection mask, eye protectors and protection gloves must be used (dependent on dust type equipment is selected).

8.1. Filter element replacement

Every electric supply must be disconnected.

Filter elements are exchanged from behind through cover plate by dismounting filter cup on top of filter element. DO NOT FORGET to move Roto-bar with plastic strips.

Dimension must be correct and quality must be fitted according to task.

Used filter elements must be disposed of according to governmental demands.

8.2. Filter element cleaning

Filter elements that can be washed are dismounted as described in point 8.1. Filter cartridges are washed with high pressure cleaner at max. 50°C hot water. Possible soap without detergent.

Filter material G104 and G105 are not washable.

Nozzle distance: 30 - 50cm (DO NOT FORGET: wide spread)

You wash the dirt from the dirty air side of the filter, so the net supports the filter cloth.

Filter elements must be completely dry before operation.

New filter elements must in dimension be equal to original cartridge. Filter cloth quality must be according to filter job. Original type of filter elements can be seen on machine marking.

8.3. Fan maintenance and repair

At service maintenance personnel must be aware of hot surfaces - especially the electro motor.

At service take care that fan wheel does not rotate (check motor cooling wing), even though power is cut off.

Fan maintenance personnel must be aware of the dangers with fan service and those substances that the fan possibly transports.

During service you must be aware of the fact that the fan wheel can be very sharp and can rotate in connection to motor.

8.4. Fan service check

Below you find those points that have to be checked at service.

At service please check the following:

- Whether fan wheel rotate correctly according to rotation arrow marking.
- Whether fan wheel is in balance during operation.
- Check whether fan wheel is dirty (this can cause unbalance), if yes:
 - Remove it through washing, brushing or scraping. Be careful: do not damage wheel.
 - Check whether no desired foreign matter is present in fan wheel or housing, if yes:
 - Remove it and find cause.
 - Check whether electrical connection is intact.
 - Clean on and around fan.

8.5. Exchange of motor and impeller

At disassembling you must take care that fan wheel is not rotating (check motor cooling wing) and that current is disconnected and dismantled.

Personnel that disassembles fans must be aware of the dangers at fan disassembling, where dangerous substances or gases can be present in fan housing.

Motor flange, motor and wheel are taken off fan housing. Set screw, washer and shaft bolt are loosened. Fan wheel can be pulled off and replaced by new original wheel.

If motor must be changed, it is loosened from motor flange. Electro motor may only be exchanged with similar type. After ended service all bolts and washers must be mounted again and tightened up.

Always use suitable lifting gear, hand gloves and suitable personal protection.

8.6. Irregularities

In case of unbalanced fan wheel we recommend that you send the wheel (motor + motor flange and fan wheel as complete unit) to our factory for balancing. Do not forget to inform formula Air that you request us to balance the fan wheel. Submitting requires a case number, before we can handle the case.

Irregularities can normally be found through changed noise picture and changed pressure.

Changed pressure can be seen directly as alarm on statutory control device (valid for Denmark) for process ventilation units.

9. After maintenance

After maintenance electricity and compressed air are connected. Unit is tested and checked before operation.

10. Dismantling and recycling

When dismantling a unit, be sure to keep in mind the following important information:

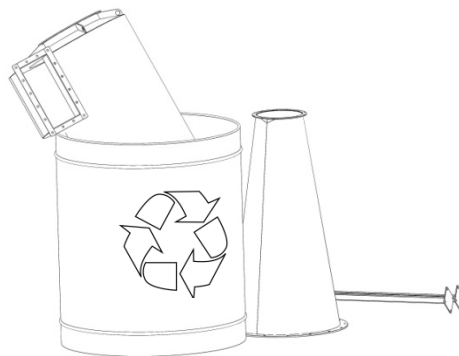
As the unit is dismantled, set aside all still functioning parts in order to re-use them on another unit.

You should always separate the different materials depending on their type : iron, rubber, oils, greases, etc...

Recyclable parts must be disposed of in the appropriate containers or brought to a local recycling company.

The rubbish must be collected in special containers with appropriate labels and disposed of in compliance with the national laws and/or local legislations in force.

CAUTION! It is strictly forbidden to dispose of toxic wastes in municipal sewerage and drain systems. This concerns all oils, greases, and other toxic materials in liquid or solid form.



11. Spare parts

For spare parts please contact Formula Air Group.

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NOTE : All drawings and references contained within this manual are non-contractual and are subject to change without prior notice at the discretion of the Formula Air group and its partners.