

# OZOMAT

**Operating Instructions**

**Ozomat SB -- WP**



## **LIST:**

- 1 installation**
- 2 operating**
- 3 Maintenance**
- 4 parts**
- 5 Conformity**

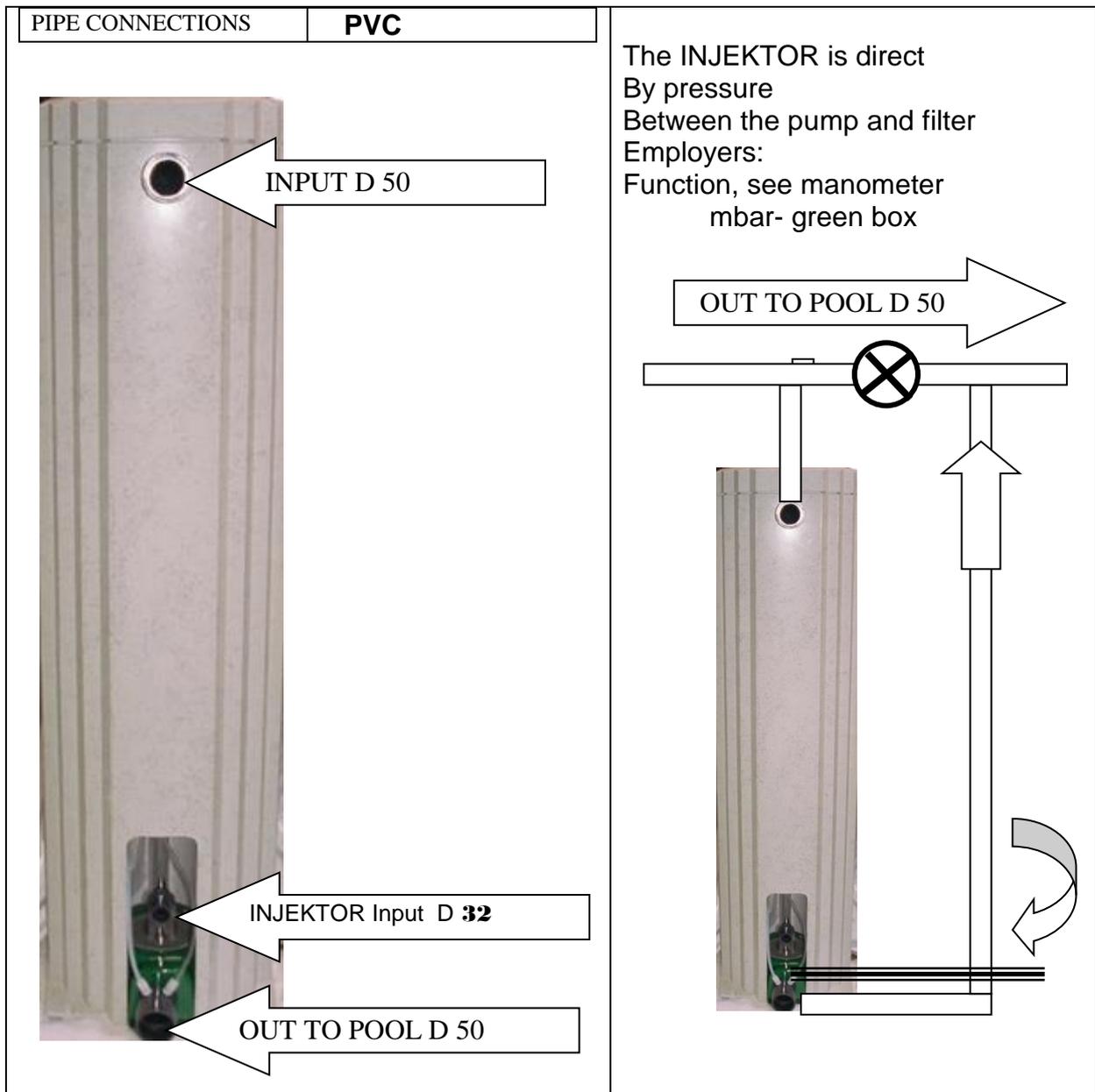
### **CAUTION**

**Read the instruction manual carefully before you install the plant.**

**If problems occur contrary to expectations, log.**

**We offer the joint commissioning via mobile phone.**

**PHONE: 0049-561-883079 FAX: 0049-561-885400 E-mail-info@ozomat.de**



**CAUTION:**

The installation of the system may not take place in wet areas.  
For a fresh injection in the technology space is to provide.

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**INSTALLATION:**

The device is ready for delivery.

The piping of OZOMATEN made in accordance with the installation drawing.

**INSTALLATION PARTS:**

2x T-pieces D 50 ----- 1 x REGULATOR D 50

1x T-piece D 50 D reduced to 32 (departure pumps Injektor line D 32)

## ELECTRICAL CONNECTION:

The OZOMAT is electrically 220 - 240 V / 50Hz after the present electrical wiring diagram with the time of filtration locked.

If the filter off switches equally with the Ozomat from.

## AIR-DRY FIELD:

**Only for the production of ozone in the facility (no Dehumidifiers for rooms)**

The air drying system is replaced by permanent tension and is not related to the timing of the filter pump, the only black electric cable with permanent tension must be supplied.

In the digital clock (front installation) is the program for

Regeneration of air drying, this factory is already programmed and

can not be overridden, because otherwise, securing the ozon tube later the entire ozone electrically powered off.

## Times for air dryers :

Times for air dryers are programmed so that these

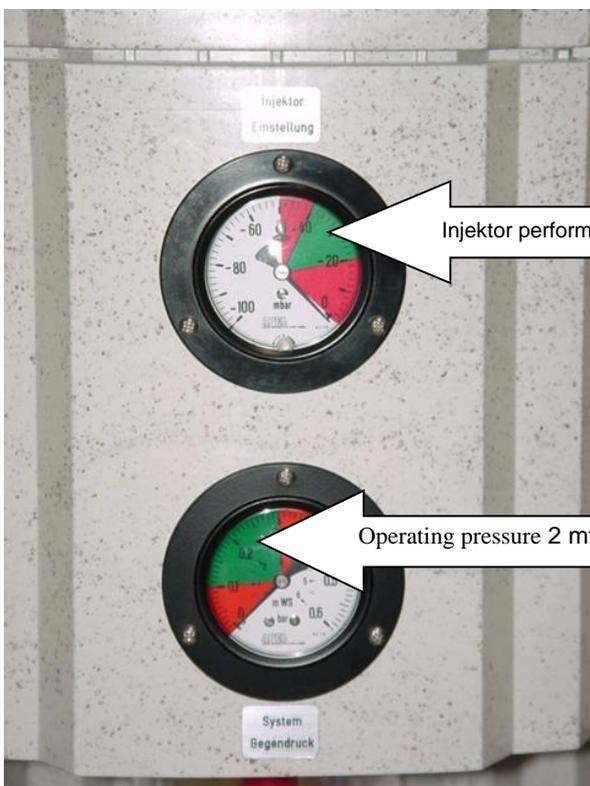
Halt the filtration take place.

**5°° Uhr - 8°° and 21°° - 00°° Uhr**

**In the clock is not shown at all, it must be re-programmed.**

The regeneration is done automatically, at this time is no ozone produced.

## CONTROL – MANOMETER:



The two control-manometer  
Documenting the function of  
OZOMATEN - SB

Injektor performance in mbar

mbar, shows the suction of the  
Ozone-injector to.

It will ensure that ozone  
In the reactor is initiated.

Minimum setting 22-25mbar

Operating pressure 2 mtr.

m WS, displays the necessary  
Against pressure to the device.  
This should not exceed 3 mtr.

## **RUNNING - OPERATION:**

When properly performed installation and adjustment, according to this description, there are no problems.

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They initially put the filter in operation.

The main stream of water from the top of the reactor started, with

By fitting the regulator a throughput of about 10 cubic meters will be adjusted.

Set the ozone with the red switch to "ON"

If the pressure gauge in the green area are adjusted, after a short time the ozone mixture bubbles at the bottom of the reactor is visible.

If the manometer "mbar" not rising, it is with dial "1", according to drawing "by piping", the pressure of the pen line '3 "shall be increased until the pointer in the green zone occurs.

This process is important for the function suction and discharge of

Ozone in the reactor.

## **REACTOR FUNCTION:**

After the sand filtering the water plant led to ozone.

In the reactor, the water is mixed with ozone, it creates a very high Germicidal effective, further OZONE oxidizes all organic ingredients, the man swimming brings, as well as chemical ingredients in the water.

After this treatment is no ozone in the pool water,

the treatment is only intensively in the reactor, according to the patented APEL procedure.

By Pass with the regulator "2 'adjust the flow so that the bottom

Reactor tube an approximately 8-10 cm clarified water zone created.

There are about 150 liters gas through the pen into the reactor initiated.

At the top tube is a departure pressure hose with a 6mm appropriate, which at the bottom outlet is installed.

Here, the excess air is removed from the nozzles will be fine place.

The **ORP values**, immediately after the ozone measured behind the reactor, is **800 - 900 mv**.

Ozone systems, as **OZOMAT-SB - Exclusive** controller with control and measure your complete swimming accet.

The controller displays on a digital display, the entire state

Water levels and plant.

## **MAINTENANCE:**

All functional parts in the device are interchangeable.

Maintenance work should only be performed by an authorized person.

When disturbances, the producer at Tel: 0049 (0) 561-883079 informed.

The mode of operation and conditions initially reviewed. (setting)

gauges control. (Red - green fields)

## **FILTER TIME:**

The directive states that all 3 hours of content the pool Filtration should be directed.

At least should be a pool of 60 m<sup>3</sup> content with a pump of 18 m<sup>3</sup> / h be.

A revolution thrice a day is enough for a pelvic stability of the water to reach. Clock from 22 - 5 ° ° clock can complete water treatment in the night off.

For outdoor plants with strong UV radiation is a 12-hour mode of operation necessary.

### **POOL WATER:**

For a good water treatment is the ability of the mineral water filling important. Well water is not always appropriate, since the ingredients of iron-manganese, or high phosphate levels can cause problems.

The precipitation of these substances to the technical parts are manifold.

At high calcium worthy PH problems arise, including the emergence of diatoms are the result.

### **OZONE PERFORMANCE:**

The OZOMAT Ozone is a powerful regulator from 0 - 100% equipped.

The integrated ozone technology is sufficient for a 80 m<sup>3</sup> tanks.



At a private pool of 60 cubic meters sufficient to power setting of 85-90%.

In the outdoor area can be a higher power may be chosen.

### **IMPORTANT:**

Basically, for an ozone treatment of PH - the value is very important.

When alkalinity of the water, the pH value of 7 are met.

This value is the highest virtue oxidation.

### **OZONE PRODUCTION:**

The ozone production in the OZOMATEN is following the rules of the German DIN 19 627 made.

The specificity of SB OZOMATEN is based on a sub-pressure process, which is an outbreak of ozone in the surroundings completely excluded.

Also, a highly clean and Ozone by a sophisticated, self-regenerating air dry cell.

The patented technology contact kinetics of ozone in the reactor shows a particular effectiveness. In the lower part of the integrated ozone jet injector is typically used by the filter and is driven pump with a setback technology.

When properly drift performance that sucks the ozone produced by the generator from and hurls the ozone mixture in the crosscurrent.

A residual ozone destruction belongs to the past, because the impact of our Reactors such a way that ozone completely reduced.

### **Oxidation and Germicidal PERFORMANCE:**

In OZONE REACTOR build ORP values of 1000mv, with an optimal water recovery takes place.

The pool water can be many things to be contaminated.

The swimmers secretes cosmetics, sweat, excrement, bacteria, etc. , which by light, heat and oxygen to a unhygienic matter in the water developed.

The ozone exerts on all of these substances by virtue of oxidation, and a Germicidal from spontaneous.

After completion of this process remains in the pool water itself is not ozone, was much more water enriched with pure oxygen.

In addition, the water is a stabilizing **ORP POTENTIAL** imposed.

The sand filter has the task of being in the water, suspended from colloidal filter, and the proper circulation to ensure performance.

Ozone in the water exerts a very good therapeutic effect, but this is only in a hot tub or a pool to trim, since the O<sup>3</sup> molecules in a smaller quantity of water can be faster later.

In medicine has long taken hold OZONE, blood laundering, washouts, Skin diseases including will be treated very successfully.

In addition, the ozone treatment in many other applications, such as drinking water treatment, fish farming, waste water recycling, sterilization etc. its application.

### **WATER QUALITY:**

The review of water quality is the responsibility of the operator or installer.

Ozon und Wassertechnik GmbH offers for permanent control to a OZOMATEN integrated microprocessor, with the title: OZOMAT controller.

Furthermore, the commercial tablets different measurement methods.

The optical purity of the water, the crystalline clarity, but also with the human eye immediately perceive.

The water is turbid or greenish, it must be assumed with the water chemistry is something wrong.

The weekly filter back flushing and Beck are among the cleaners Care, and monitor the PH value.

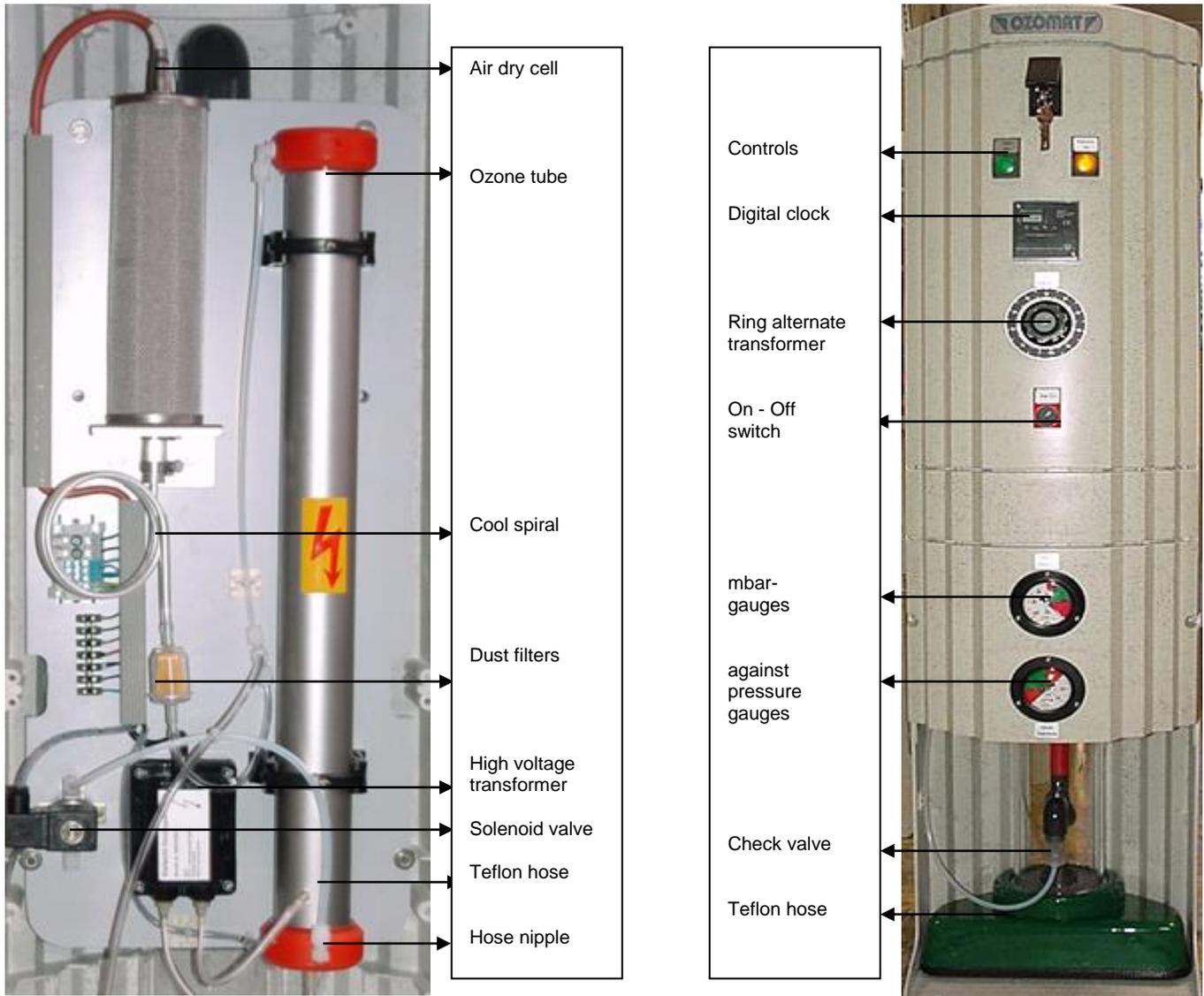
### **DISORDER:**

Expect should resist the water quality worse, so the setting is and review of water treatment technology provided.

Calcifications in equipment and valves, hoses and blockages, or the failure of electrical components can be causally.

In the event of loss of electrical components in the ozone technology, the electrician this identify.

## COMPONENTS - REPLACEMENT:



## OPERATING CONDITIONS:

Maximum ambient temperature 25 ° C in dry areas with good air circulation.

The device may only be performed by a qualified electrician can be connected.

None of dust high dirt load suspend (static forces of attraction)

For maintenance, plant strictly off, not touching the inner parts a connected system (HV)

Premises not covered with water or water hose work.

Concrete shafts with electric exhaust-equipped to corrosion damage otherwise.

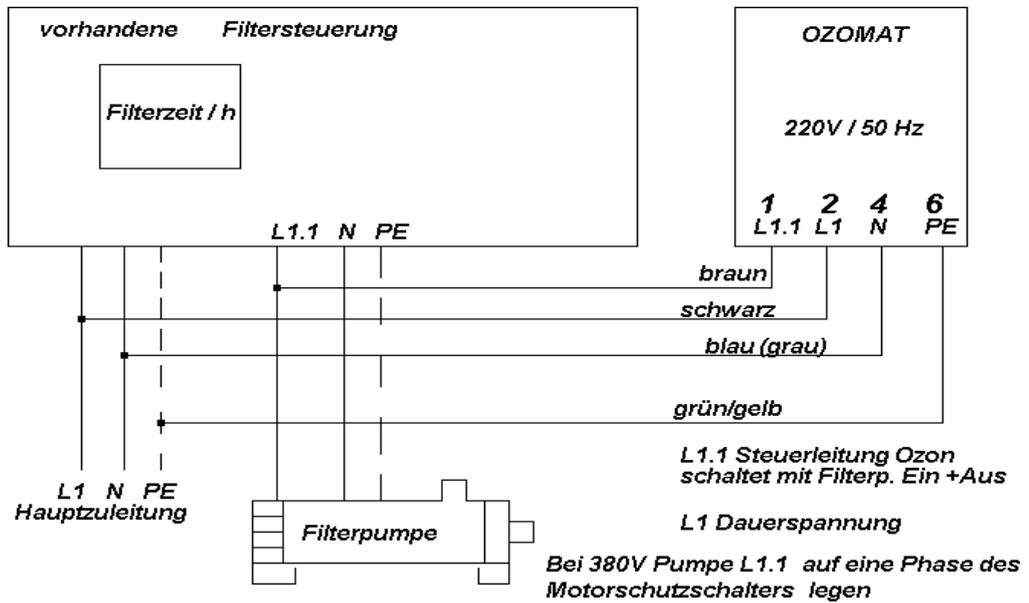
Children in the technology space away, rough finish.

No objects or rags to create the facility.

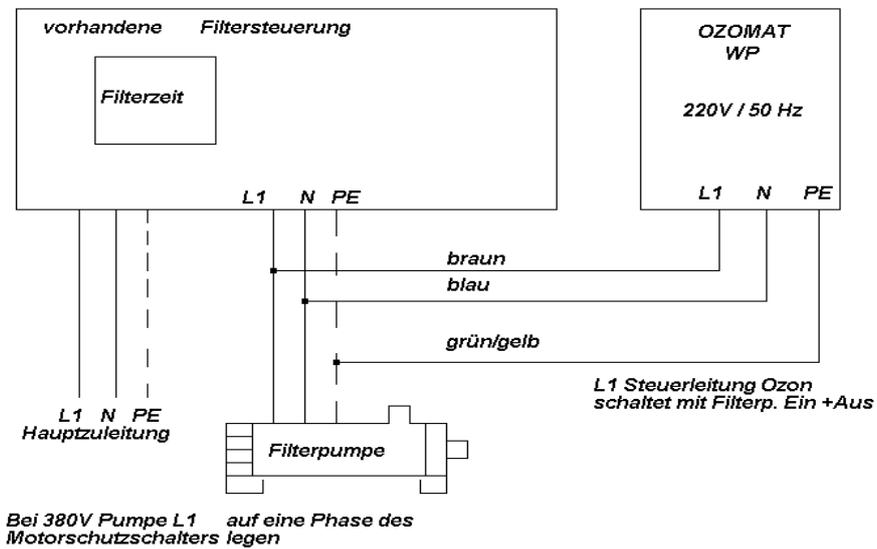
The Ozomat is not a plant, while the space dehumidification over.

There must be separate halls dehumidification used.

### Elektroanschluß OZOMAT SB



### Elektroanschluß OZOMAT WP



**ACHTUNG !**

Der Elektroanschluß ist durch ein Elektrobetrieb, nach VDE auszuführen.

Die Schwimmbadanlage ist mit einem FI - Schutzschalter ( 30 mA ) abzusichern.

# KONFORMITÄTSERKLÄRUNG

für Maschinen gemäß EG-Richtlinien 89/392/EWG

Hersteller:	Apel Ozon + Wassertechnik GmbH Wolfhagerstr. 396 D- 34128 Kassel
erklärt hiermit, daß	
Art der Maschine:	OZONERZEUGER ZUR ENTKEIMUNG VON PRIVATBÄDERN
Type:	OZOMAT SB / SB excl. / WP.
Baujahr:	Ab 2018

konform ist mit den einschlägigen Bestimmungen der EG-Maschinenrichtlinie ( EG-Richtlinie 89/392/EWG ), EG-Niederspannungsrichtlinie ( 73/23/EWG ) i.d.F. 93/68/EWG, EG-Richtlinie EMV ( 89/336/EWG ) i.d.F. 93/68/EWG.

Bei jeder Änderung ohne unserer vorherigen schriftlichen Genehmigung verliert diese Erklärung Ihre Gültigkeit.

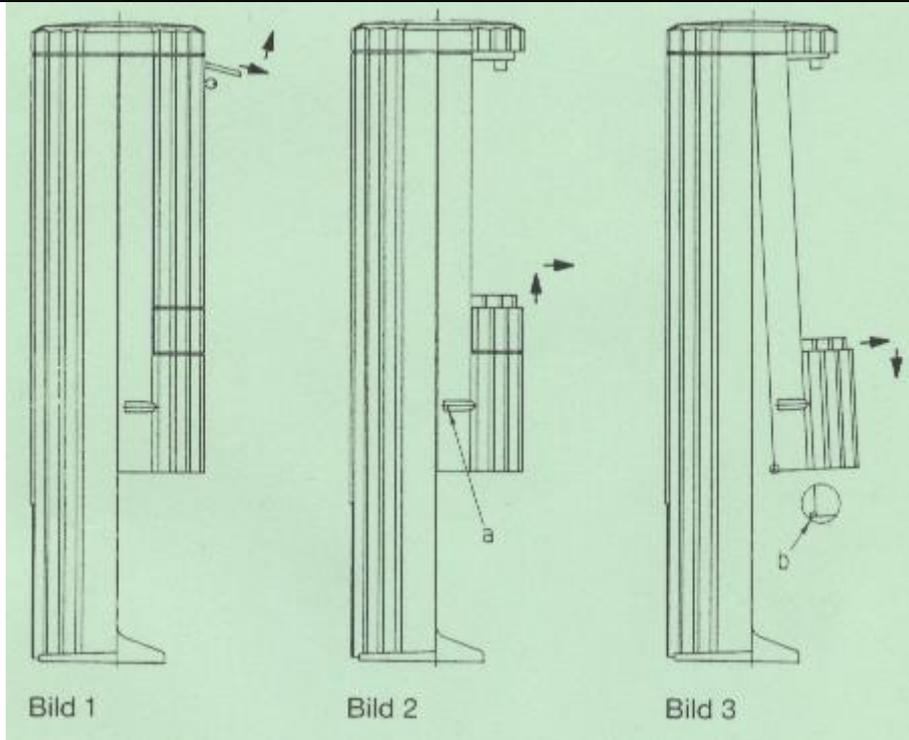
Folgende harmonisierte Normen ( oder Teile/Klauseln daraus ) gelangten zur Anwendung:

EN 60204-1  
EN 292-1:1991 (=ÖNORM EN 292-1:1992)  
EN 292-2:1991 (=ÖNORM EN 292-2:1992)  
EN 55011  
DIN 19 627

Der Unterzeichner erklärt hiermit, dass die oben beschriebene Anlage den angeführten Bestimmungen entspricht.

Firma: Apel Ozon + Wassertechnik GmbH

## Open the cabinet for Ozomat SB, SB excl. WP



### **DISMANTLING:**

- Door unlock, move forward, unplug cable connector, and upwards to decrease (Figure 1)
- Between pieces move upwards and forwards to take away (Figure 2)
- All parts of the decrease Berührschutzes
- 2 from screws Pos "a" (Figure 2) quite turn out, the front part at the bottom and move forward after robbing below (Figure 3).

### **Connection:**

- After dismantling can cable to the terminal points can be connected.

### **Mounting:**

- The front part of the roof introduce high and push press. Feet 'b' (Figure 3) at the bottom must be in the back mount
- Further assembly in reverse order for dismantling.