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C.I.F. B-48833404



HC-OZON





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HC-OZON

The ozone molecule, O_3 , is formed by joining a molecule of oxygen, O_2 , with a atom free of oxygen, O . The free atoms and of course the ozone, is the result of a molecular dissociation of the oxygen when the molecules are submitted to a strong discharge.

Due to his oxidation power, the ozone is able to:

- Attack and destroy all sorts of micro-organisms such as:
 - Bacteria's
 - Virus
 - Algues
 - Spores
 - Protozoon
- To decompose organic substances.
 - Detergents
 - Phenols
 - Pesticides
- Neutralise the inorganic substances
 - Ammoniac
 - Urea
 - Nitrites
 - Cyanides

And with an exceptional advantage verses any other oxidant: the environment treated with ozone don't get loaded anymore eight new undesirable chemical subproducts, as its self destruction will convert it in oxygen.



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OZONE GENERALITIES

During the year 1.758 M.VON MARUM, investigating with electrostatic devices, noticed the presence of a characteristic smell, phenomenon that he wrote in his conclusions.

The same experience for M. Ciukshank in 1.801, carrying out water electrolysis.

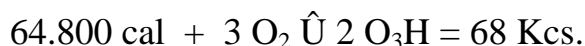
Until 1.840 ozone was not classified. It was the scientist SCOBEIN who named it as “OZONE” name that comes from the Greek language and means “ODOUR”.

Since 1.840 to 1.863 we thought it was a hydrogen peroxide until Mr. SORET confirmed that it was a compound where it only showed up oxygen atoms, and he even gave his formula. Many scientists wanted to determinate his characteristics but only M.P. OTTO, gave is density, molecular weight, etc. obtaining is production and control on a artificial way.

SIEMENS in 1.857 build the first ozone generator by electric irradiation.

¿BUT THEN, WHAT IS THE OZONE?

The ozone is a alotropic form of the oxygen. His molecule O_3 is produced from the activity of the oxygen molecule, according to the endothermic reaction.



We can see that it's necessary three oxygen molecules to form two ozone molecules.

The formula proposed by LAURY et LEWIS, based on which it has been called semi-polar connection, alouds to understand the properties attributed to the ozone in his action verses other chemical compounds.

Only small concentration of ozone is needed (0,2 mg O_3/m^3 d'air) to confirm the advantages that he offers and that we will tell in different opportunities, removing his usefulness in different fields, as:

Public atmosphere, sterilisation and water treatment, refrigerators, etc.



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On water he presents big solubility, due to coefficient on the balance between the liquid phase and the gaseous phase for the same conditions of pressure and temperature.

However, you get the balance only in the moment when all the reducible materials that exist in this phase are oxidised. It will always remain a small quantity of ozone in the water, if we are contributing with ozone to neutralise the action of the reducible materials that can be formed, and also if the water is purified and suitable for the purpose of her destination.

In normal conditions of pressure and temperature, the ozone is unstable; increasing this instability by an increase of temperature and humidity getting to a total over 200° C.

After this exposition, we can say that the ozone is:

After the Fluor, ozone is the most oxidant compound due to his easiness in collecting electrons. Easy decomposition.

In gaseous condition his colour is lightly blue; dark blue in liquid condition and dark red in solid condition.

He presents a molecular structure typically angular between the three oxygen atoms that makes his molecule.

At equal conditions, he is more stable on water that on air.



OZONE CHARACTERISTIC

- Weith molecular.....48
- Temperature condensation.....-112 ° C
- Temperature criticism.....-12.1 ° C
- Fusion temperature.....-192.5 ° C
- Presure criticism.....54 atm.
- Density (Liquid a -182 1 C).....1,572 gr/cm³
- Weith per litre of gas (at 0 1 C and 1 atm).....2,144 gr
- He is 1,3 heavier that the air.

NATURAL PRODUCTION OF THE OZONE.

The ozone, compound derived from the oxygen, can be found in the atmosphere in small quantities.

His natural formation is due to the action of electrical discharges that are produced in the atmosphere, as well as to the ultraviolet rays coming from the sun, forward to the oxygen existing in the atmosphere.

Those atmospheric accidents are the ones who are in charge to furnish the necessary energy for the ozone to be formed according to the endothermic that we have announced before.

You can find it on the nature in bigger or smaller proportions depending on the environment purification rate. We can detect his penetrating odour in the free spaces and specially after the storms, where there has been a big electrical potential.

On the atmosphere that surrounds the big cities, specially on the confined environments, the absence of ozone is practically complete, taking into consideration that he has inclinations for all the substances that rarefies the air.



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The ozone is one of the essential constituents of the atmosphere, where a cape of ozone called “OZONOSPHERE”, acts as a real filter with this way of doing, the ultraviolet radiation’s irradiated by the sun reaches the earth with only one millionth part of his action, because if not it would be a disastrous for the humanity.

ARTIFICIAL FORMATION

The ozone can be obtained by a physical-chemical procedure:

- By electrolyses of the percloric acid on a concentration of -50°C between Leas cathode (Pb) and Platinum Anode (Pt).
- This procedure is not profitable on the industrial point of vue and less in the domestic possibilities.
- By ultraviolets lamps with wave lengths between 1.942 and 1.949 Å. this system of obtaining ozone is not recommended because as we are working in very short wave lengths, the radiation’s are similar at the ones produced by de X Ray photons transmitters, which act on the living tissues producing their destruction.

In addition, it is normal that been a radioactive process a big excess of heat is produced, with the additional cost that takes the evacuation of big mass of heat.

This is were we can demonstrate the big advantages of our production systems, that is called IN COLD due to the fact that they are normal temperatures, and also because, as it has been demonstrated by many analysis, they don’t produce any type of radioactive particles.

Following our exposition, the new oxygen (monatomic condition) formed by ozone decomposition, is the most oxidiser after the Fluor (F). This action of oxidation gives the power of the ozone, destroying organic substances producers of odours, destroying at the same time bacteria’s, virus and germs of all types.



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WAYS OF ACTION

The ozone makes his destruction action on the following ways:

- A) Oxidation action in which only on oxygen atom takes part, (oxidation potential $E_0 = 1,5 \text{ V}$.
- B) By Ozonolyses, with formation of ozonurs (HO_3). In this case the complete molecule of the ozone takes part over the organic substances. Those ozonurs are very unstable destroying in different compounds to the organic molecule.
- C) Catalysing the oxide effect of the oxygen O_2 , that has not participated in the formation of the ozone. In this case, oxygen has a more important role.

The reactions of section A) are simple oxidations with a very fast reaction (practically instantaneous)8.

The other exposures on sections B) and C) are quite complex and slow, needing high concentrations for them to appear on a detectable way.

INSTALLATION OF THE OZONE DEVICE

For the installation of the HC-OZON, the following step must be taken:

- Place the Installation drawing in the wall where you will install the HC-OZON device, respecting the minimum measures (see the drawing enclosed).
- Prepare two holes in the wall with a 6mm drill, their position are on the drawing.
- Introduce the wooden pegs in the holes and screw the spikes.



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FUNCTIONING

The performance of the HC-OZON is very simple. When we will decide to do an OZONE treatment, we will have to place a plastic tube (same type as the one used for the irrigation on the Hydrocolon therapy devices) and joining the output of the irrigation at the entrance of the HC-OZON: at the output of the HC-OZON we will connect the irrigation tube that will be used on the Hydrocolon therapy session.

This connections can be done at the beginning of the session or in the moment that we will like to introduce the ozone. It's easier and more comfortable to do it from the beginning.

The HC-OZON will start to introduce ozone, when been switch on, the water goes through the device.

The maximum flow rate to work with this device is 60 l/h. The recommended range to work with during the session goes from 40 to 50 l/h.

APPLICATIONS PER PATHOLOGY

- Infections
- Fungus
- Ulcerous colitis
- Fistula
- Vaginitis
- Blood oxygenation
- Ulcerations
- Aerobian germs
- Chron Illness
- Haemorrhoids
- Increase of the sportive income.
- Acceleration of the cuts healing



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QUOTATIONS

“ Ozonotherapy has no ending possibilities, but there is no much information about it....because there is no need of using medicaments “

D'AUTREC

“ Through air we breath almost all the illness we get to suffer. Wherever the germ get in touch with the ozone, they get burnt and the toxins destroyed”

PASTEUR

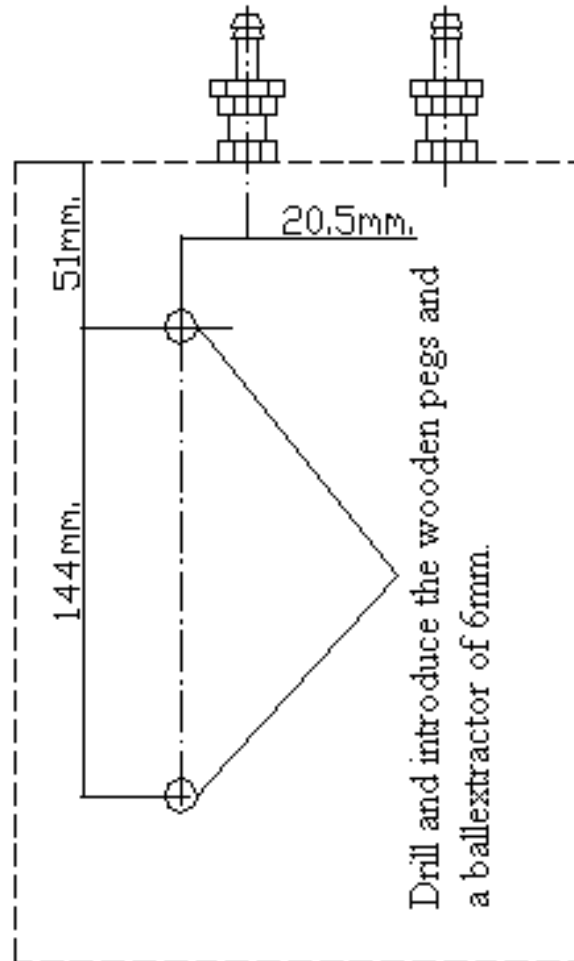
TECHNICAL CHARACTERISTICS

Work tension:	110v/220v
Frequency:	60Hz/50Hz
Potency:	25W
Measures	290 x 175 x 160mm.
Weight	3.750 gr.
Flow range	40-100 l/h.
Concentration	29 mg/l.



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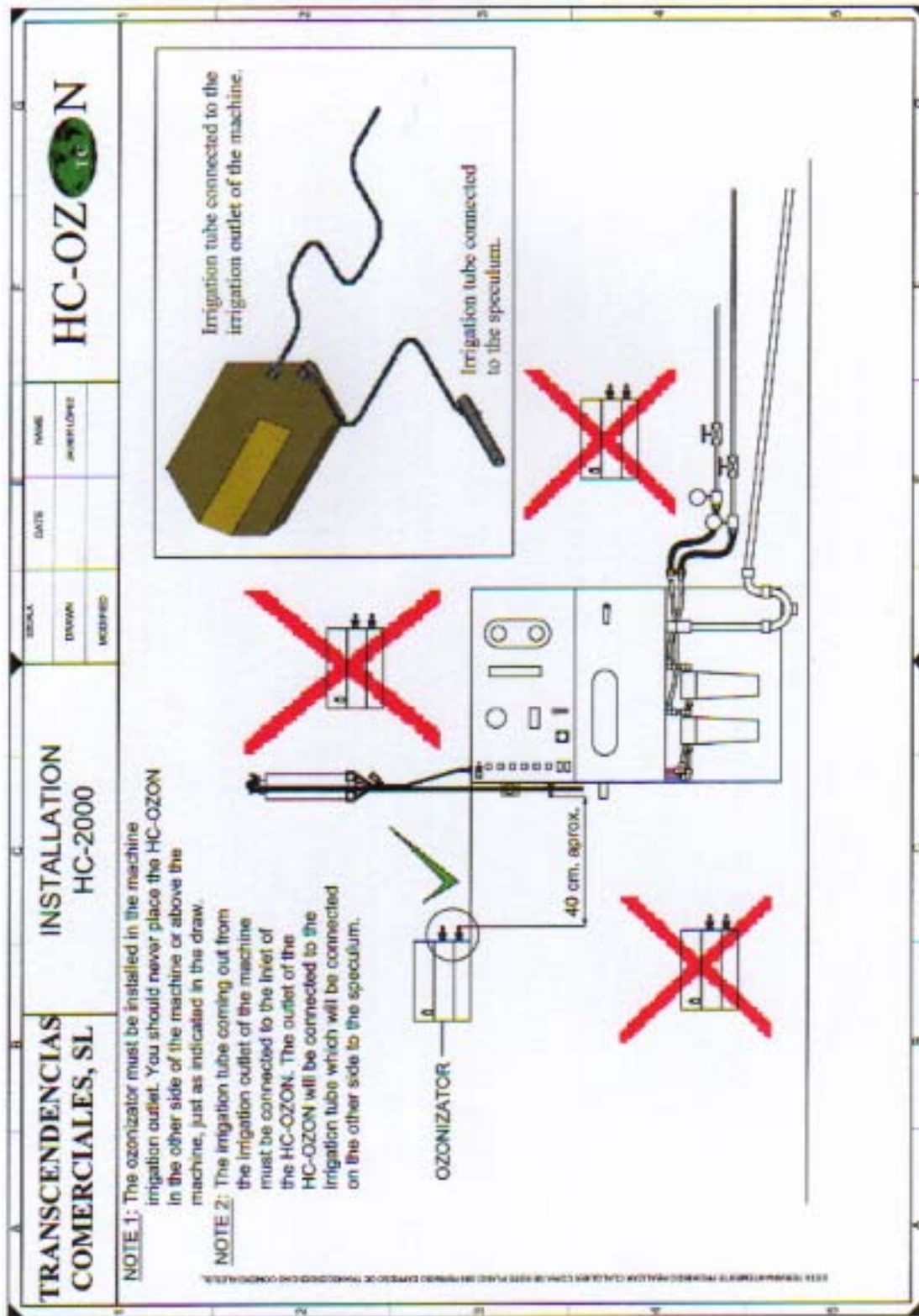


Within packaging enclose an installation drawing a real scale as the one above



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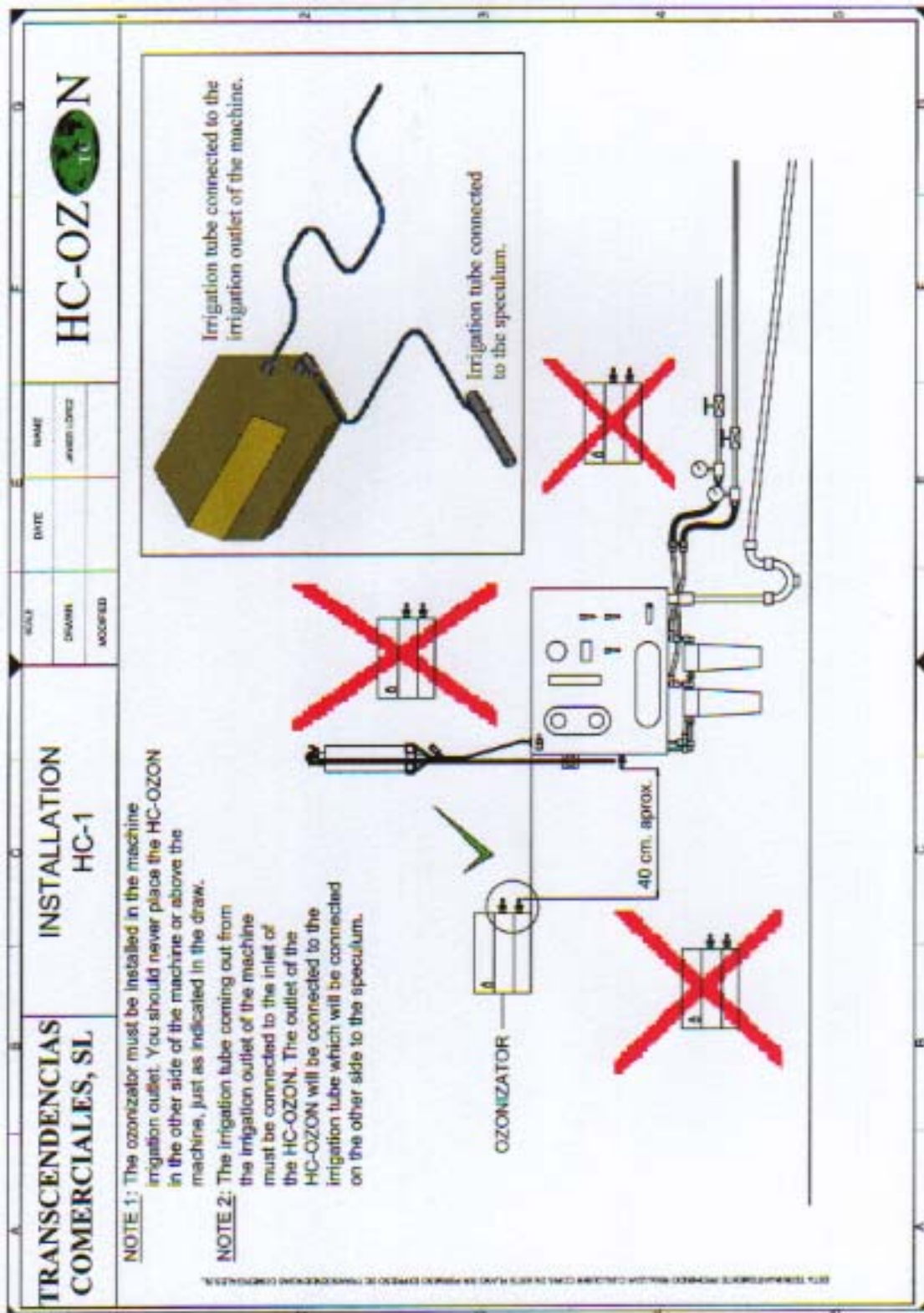
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