

ENVIRONMENT AIR DEPURATION SYSTEM ECOLOGY AND ENERGY SAVING **AMY ACH 53-3**

One of the biggest problems in the modern world concerns the pollution of the ambient air that limits and qualifies our standard of living, the environment in which we live is polluted by many substances produced by man and by the production processes invented for the production of goods and products and services that make up the environment where man lives.

For years man has produced pollution regardless of the damage that would have caused, now we realize that action must be taken to reduce this problem has become in some cases unbearable. Every activity has to do with the quality of the air that breathes, every environment from the home to public places to work places, wherever there are people who breathe and not only, even plants for their growth and existence need clean Air.

The environments that need clean air are treated with machines that filter the air with mechanical filtration systems through filtering cartridges that retain impurities; these systems are expensive and have maintenance problems for cartridge replacement and waste cartridge disposal problems. Our aim is to create an equipment that purifies the air with the principle of natural purification, without the need for mechanical filtration and therefore with zero maintenance costs, which operates as little electric power as possible.

Realization:

Driven by the need of my biological cultivation activity to have clean air we decided to apply the natural principle of air cleaning: the storm. Do you know the quality of the air after a storm? With the rain, nature drags all the powders and substances suspended in the air to the ground, leaving the air clean. The problem that passed rain the soil dries up and the dust returns to pollute the air. Applying the natural rain principle we have created a device that we have called AMY ACH 53-3.

Our AMY ACH 53 system can be summarized in the following terms:

In a closed circulation hydraulic circuit a controlled fall of water occurs in a flow of air blown by a centrifugal aspirator. Through an appropriately studied path, the flow of air is forced to cross the flow of water that meets several times in its path; The water carries with it the suspended parts up to an underlying tank which retains the polluting part, freeing the purified air which continues towards the environment to which it is directed.

AMY ACH53 has the following operating characteristics:

- It has a continuous operation
- It can work both outdoors with the introduction of purified air inside an environment or inside the environment itself for circulation
- It has a noise level lower than 55 dba
- It works with an electric power comparable to a 90 Watt bulb
- Use a quantity of water of about 12 liters
- The pollutant is kept in the water periodically you will have to change the water using the exhausted to water plants in the garden.

- From the tests that we have submitted the water, the substances that we have detected withheld are mainly organic in nature therefore AMY is able to retain the pollens contained in the air and the bacterial flora

In the use of AMY ACH 53 we have experimented with some characteristics deriving from the air treatment obtained with our system:

- As a result of Waal's law, drops of water exert a molecular attraction on the particles contained in the air, increasing the desired effect.

- We have found that the operation causes a lowering of the water temperature and consequently of the air introduced into the environment, therefore AMY has the effect of room air conditioner with the reduction of the temperature of 3, 4 degrees ambient.

- Due to its operating characteristics, AMY lends itself to being added with drops of essences, thus practicing the aromatherapy effect.

- From analyzes carried out on a sample of water after 2 weeks of filtration are retained:

. multicellular plant material

. parameci (unicellular organisms)

. molds (due to humidity)

. bacteria. Bacterial charge 10000 UFC units forming colony (as water reference drinking 1000 units UFC) so you can download in the environment for watering.

. above the twenty degrees centigrade the pathogenic microorganisms form colonies, ours AMI ACH 53 system by lowering the temperature prevents the proliferation of the Microorganisms contained in the water.

We have tested the system on different sample sizes of 35, 120 and 900 cubic meters per hour of treatment capacity respectively.

The ability to transfer suspended substances in a gas such as air in a different fluid, a liquid such as water makes application interesting as it frees the air from impurities such as powders and water is easier to be treated or disposed in kind for irrigation systems or other.

The abatement system with the help of water barriers has long been used in the industry for the abatement of fumes, powders or vapors of work in various sectors such as painting, textile plants, siderugic plants.

Our different system in water management but similar in principle can solve problems for the reduction of emissions in ambient air in any application

The application of our system in the output of air conditioning systems allows the introduction of clean air

In the environment and would limit the damage that would cause the dirty filters of the air conditioner itself.

We are available to customize and dimension according to the needs and volumes to be treated.

THE REPORTER
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