

**USER'S MANUAL**  
**EXTRACTION SYSTEM**  
  
**SUITABLE FOR**  
**POWDER EXTRACTION**

September 2000

Clean Air Techniek bv - Kuipersweg 37 - 3449 JA WOERDEN, The Netherlands  
Tel. +31-348 - 411114 - Telefax +31-348 - 422684

Before you use the extraction system, you first have to read this user's manual carefully.

## **Preface**

By your purchase, you have become the owner of an installation that has the **CE quality mark**.

This means that:

As from 1 January 1995, The Netherlands, as a EU-member, have declared this CE guideline binding, which is an objective of the EU to guarantee quality, quality assurance and the intrinsic safety for the user.

This guarantee does not only include the components that were used for the production of the installation, but also the safety guarantee for the user and the environment, the purpose for which you purchased this installation.

It would lead too far afield to discuss the details, but we would like to point out that the installations that meet the CE requirements, will be checked by both the relevant inspection service and the Labour Inspectorate for the logo that has to be applied clearly visible.

We congratulate you with your choice for a top-quality product produced in the Netherlands, and we hope you will enjoy using it for many years.

Clean Air Techniek bv

## TABLE OF CONTENTS

	Page
1. INTRODUCTION	3
2. OPERATING THE INSTALLATION	3
3. GENERAL INFORMATION	4
4. SPECIFICATIONS	5
5. SAFETY REGULATIONS	6
6. INSTALLATION	7
7. OPERATION	7
8. MAINTENANCE	8
9. DEFINITION	9

## **1. INTRODUCTION**

The Clean Air extraction system, type NEG, is an installation equipped with a prefilter and a HEPA filter.

This HEPA filter has an efficiency of 99,999% for particles of 0,3 µm according to the BS 3928 by means of a D.O.P. test.

The installation therefore offers “USER PROTECTION”.

## **2. OPERATING THE INSTALLATION**

Air is extracted from the workingarea through the prefilter and HEPA filter fitted in the backwall of the cabinet.

The initial resistance of the filter package is about 150 Pa at an air velocity of 0.45 m/s (15 mm water pressure). The resistance will raise throughout the years, however is strongly dependant from the total working hours (max. 300 Pa, max. 30 mm water pressure).

### **Prefilter**

To keep the HEPA filter as long as possible, we advise you to change the prefilter on a regular basis. When the prefilter turns grey, it is advisable to change it.

### **3. GENERAL INFORMATION**

Producer: Clean Air Techniek bv  
Kuipersweg 37  
3449 JA WOERDEN  
The Netherlands

Tel: +31-(0)348-411114  
Fax: +31-(0)348-422684

Serie: Exhaust system

Type: NEG

Construction year: 20

Serial number: WO.....

#### 4. SPECIFICATIONS

Construction	:	Completely manufactured in waterproof laminated layer, covered with white formica.
Noise	:	Low noise level, about 52 dBA.
Prefilter	:	Simply replaceable, with an efficiency of 98% according to the BS 2831, the prefilter is mounted in the working area.
Absolute	:	<p>The absolute HEPA filter has an efficiency of 99,999% for particles of 0,3 micron and larger, according to the U.S. Federal Standard '209 B', D.O.P. test method and the British Standard 3928.</p> <p>According to the uranic test method, the efficiency is 99,99% for particles higher than 0,15 micron.</p> <p>A fine mesh, non-static grill, which has a rilsan coating, protects the absolute filter.</p>
Fan	:	Low speed, double suction, directly coupled, 220 Volt, 1 phase. The number of revolutions can be regulated smoothly from 0-100% by means of a transformer.
Electrical ...	:	According to EN 61010 standards.
Operation	:	<p>By means of a mounted:</p> <ul style="list-style-type: none"><li>- fan switch</li><li>- light switch (additional)</li></ul>
Testing	:	<p>All installations are tested by means of</p> <ul style="list-style-type: none"><li>- Particle counter</li><li>- Fed. St. 209 B or</li><li>- Dioctylphtalate (D.O.P.)</li></ul>

##### **Electrical construction**

Voltage	:	220 V – 50 Hz – 1 phase
Maximum Power connection	:	1 kW
Fuse	:	16 Ampere

## **5. SAFETY REGULATIONS**

### **WARNING:**

- It is not allowed to use the installation for other purposes than mentioned in this order, without written permission from Clean Air Techniek bv.
- Each injury or danger that is being caused by incorrect use is for risk of the user.
- By placing the installation, take into account disturbance of the correct operation of the installation. Disturbance is caused by uncontrolled air turbulence because of opening of doors / windows and by placing the installation in the neighbourhood of blast grids in the ceiling and/or wall.
- Please decide for the proper correct working place in consultation with Clean Air Techniek bv or the concerning distributor.
- ALWAYS switch off the power in case you want to maintain the installation.
- Never start the installation without a prefilter, because it lengthens the lifetime of the HEPA filter.
- Always be careful when using inflammable substances such as alcohol!
- The installation may not be placed higher than 1000 m above sea level (NEN 3153 1.4.2).
- Place the installation in:
  - temperature range: +5° C - +40° C
  - relative humidity may not be higher than 50% at 40° C en 90% at 20° C.
- Variation in power supply of nominal voltage may not be more than  $\pm 10\%$ .

## **6. INSTALLATION**

Connect the Euro plug with the installation and the earthened socket.

## **7. OPERATION**

Before you start using the exhaust system, clean the working surface and the sidewalls. We advise you to clean with a 70% alcohol solution.

For cleaning the outer side, a slight humid towel can be used, eventually with a non-aggressive cleanser.



## **8. MAINTENANCE**

### **Regular routine / inspections**

The frequency of the change of filter depends on the application, surroundings and use. This means; installations in clean rooms ask less maintenance than in a standard laboratory.

- Check the prefilter regularly on filthiness.  
This is to be seen at the darkening of the white fibres.  
It is easy to remove the prefilter, by pulling it out of the frame corners. If necessary, change the filter.
- By correct use, the HEPA filter has a lifetime of more years.

### **Trouble shooting**

What to do if the fan is not working:

- check if the plug is connected with the socket
- check if the switch for the fan is switched on
- check power supply

\* In case there is power and still disturbance, contact your service department or distributor.

- check the prefilter on filthiness.

## 9. DEFINITION

- Prefilter* : Filter for catching rough dust particles out of the air.
- Fan* : Supplies the suction of the wanted air quantity and compresses this air quantity and air velocity in the working area into the wanted overpressure.
- HEPA-filter* : HEPA is an abbreviation of High Efficiency Particle Air. This filter provides a very high degree of catching dust particles out of the sucked air.

## WARRANTY

THE, IN THIS CERTIFICATE MENTIONED INSTALLATION, IS  
MANUFACTURED AND THOROUGHLY INSPECTED AND TESTED BY:  
CLEAN AIR TECHNIEK B.V.

CLEAN AIR TECHNIEK B.V. PROVIDES THE CUSTOMER WITH A ONE-  
YEAR GUARANTEE ACCORDING TO THE GENERAL DELIVERY  
CONDITIONS OF CLEAN AIR TECHNIEK B.V.

***TYPE*** :

***SERIAL NUMBER*** :

***CONSTRUCTION DATE*** :

