

# Are you gambling with your health?



**Weller<sup>®</sup>FT**  
FILTER SYSTEMS

# Why you should not gambling with your health!

## 10 important things you need to know ....

1

Long term exposure to airborne particles and gases can cause permanent damage to human beings.

2

Thousands of workers all over the world contract occupational lung- and other diseases, including cancer, each year. They develop them because they breathe in too much dust, fumes or other airborne contaminants at work\*.

\*HSE Health & Safety Executive in Great Britain

3

At least 20 % of the employees in the soldering area indicate clinical symptoms of asthma\*.

\*Results from a study made in US & Europe.

4

Occupational asthma is a major issue in electronics manufacturing because when a person has developed occupational asthma he / she has to be moved from that working area.

5

Breathing with occupational asthma feels like breathing through a straw.



## ...if you work with hazardous gases and particles!

6

When asthma symptoms have developed, they are permanent and irreversible.

7

Almost everybody who works in an industrial environment comes in contact with chemicals which contain a solvent.

8

Most dangerous gases are invisible for the naked eye.

9

For people with heart diseases, short term exposure to hazardous airborne particles, can be linked to heart attacks and abnormal heart rhythms.

10

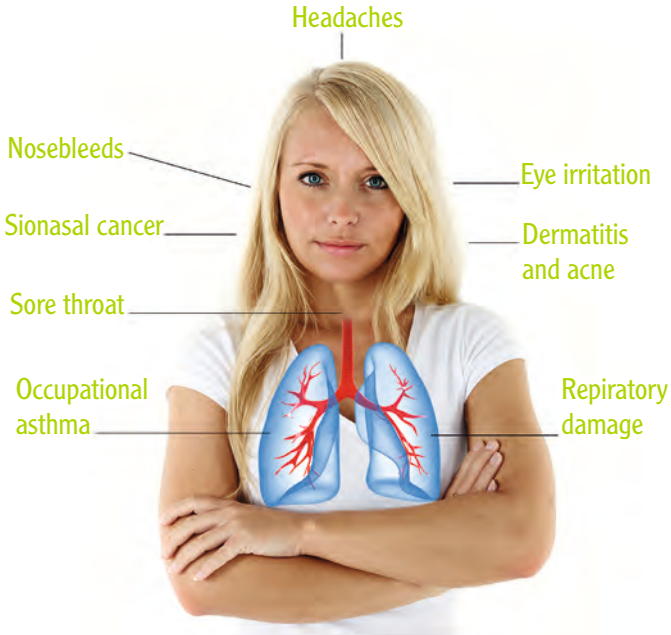
The combination of being exposed to both gases and airborne particles is more dangerous than only being exposed to gases.



# Which health problems can arise?

## Health problems

A lot of today's dust and fumes are hazardous to health when inhaled. Over exposure can lead to serious and long term medical problems such as occupational asthma or other effects like:



### Soldering



Lead free soldering produces up to 250 % more particles in the breathing zone than leaded solder. As much as 700 million small particles per cubic meter are produced, which can be transported into the alveoli.

### Gluing



Fumes from gluing can cause skin irritation, skin drying, allergic contact eczema, inhalation – and asthmatic problems.

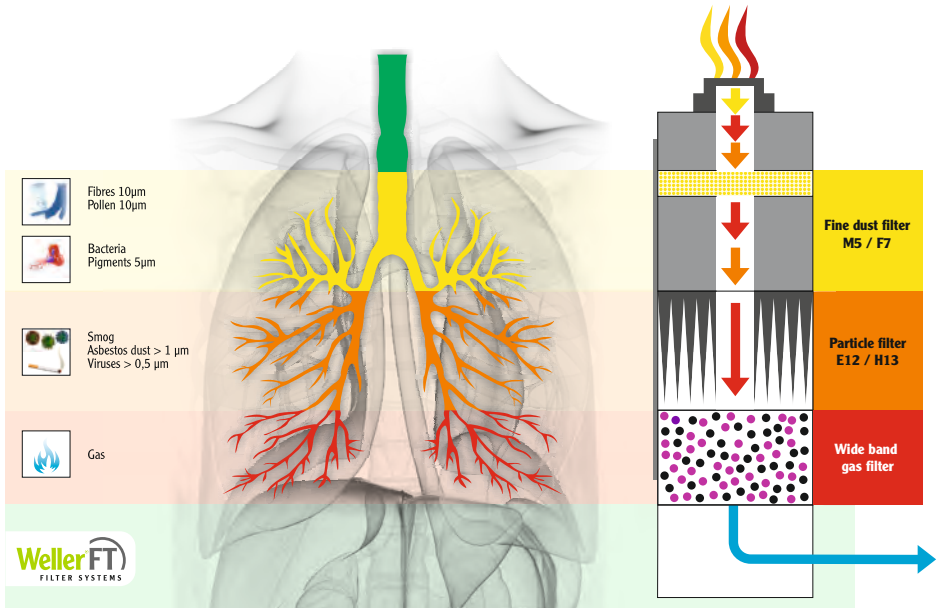
### Solvents



Fumes from organic solvents can cause damage to the nervous system, with symptoms of reduced sensibility, restless legs and arms.

# Health problems related to application

Fine dust accumulation in the human body



**90 minutes soldering**  
**with leadfree solder wire**

before



after



Why fume extraction? See the movie on  
[www.youtube.com/wellersoldering](http://www.youtube.com/wellersoldering)



# We protect your health!

**We only work with soldering, solvents and /or gluing 30 minutes per day, do we really need to protect ourselves?**

**It's about you health ... protect yourself!!**



**Protection**



**Switch on**

- 30 minutes exposure to airborne particles and gases per day is enough to cause health problems.
- 30 minutes exposure per day means approximately 110 h / year or 14 workdays with continuous exposure to hazardous gases and particles.
- WellerFT made a soldering test with a net mounted in the nozzle. 90 minutes later the net was totally clogged up (see pictures below).



The test was made with a lead free solder wire with 3 % flux.

## How do I get the best protection?

### WellerFT Filtersystems



- WellerFT Filtersystems have a guaranteed separation of both gases and airborne particles, which gives the operator the best protection.
- The filter systems are mobile, and are not fixed installations.
- The systems are easy to install and have minimal need of service.
- The filter systems have a very low sound level, and therefore does not cause any noise disturbance in the normal working area.
- The product range consists of various products that can be used for a lot of different applications.
- The filters have a long life time.

### MG Series

MG 100S



MG 130



MG 140



### Zero Smog Series

Zero Smog 2



Zero Smog 4V



Zero Smog 6V



Zero Smog 20T



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