

# Nederman

IMPROVING YOUR WORKSPACE



**Nederman Solutions  
for Sound, Safe and Efficient  
Welding Processes**

# Refresh your welding processes!

*Around the world there are millions of people working regularly with welding. In the E.U. alone there are close to one million and in the U.S more than 400 000. The need for highly skilled welders is constantly growing. Simultaneously, companies providing personnel with adequate protection and safety improve their competitiveness.*



## Health and production – closely linked

Health problems affect production. The result is reduced capacity and reoccurring disturbances, eventually decreased profit. Furthermore, not only welders are at risk in unsafe environments. Production equipment, as well as end products, are negatively affected from the lack of adequate safety measures. Automated welding equipment such as robots - and its operators - can be subject to residual fumes and also need to be protected.

Good safety and health is good business!

## International health laws

International health organizations have recognized the importance of preventing potential health hazards associated with fumes and gases generated during welding operations. Laws and regulations are continuously becoming more demanding.



*Humans breathe nearly 100 litres of air per minute. When exercising or working hard we almost double that. It is safe to say that clean air is vital to us and should be a basic Human Right.*

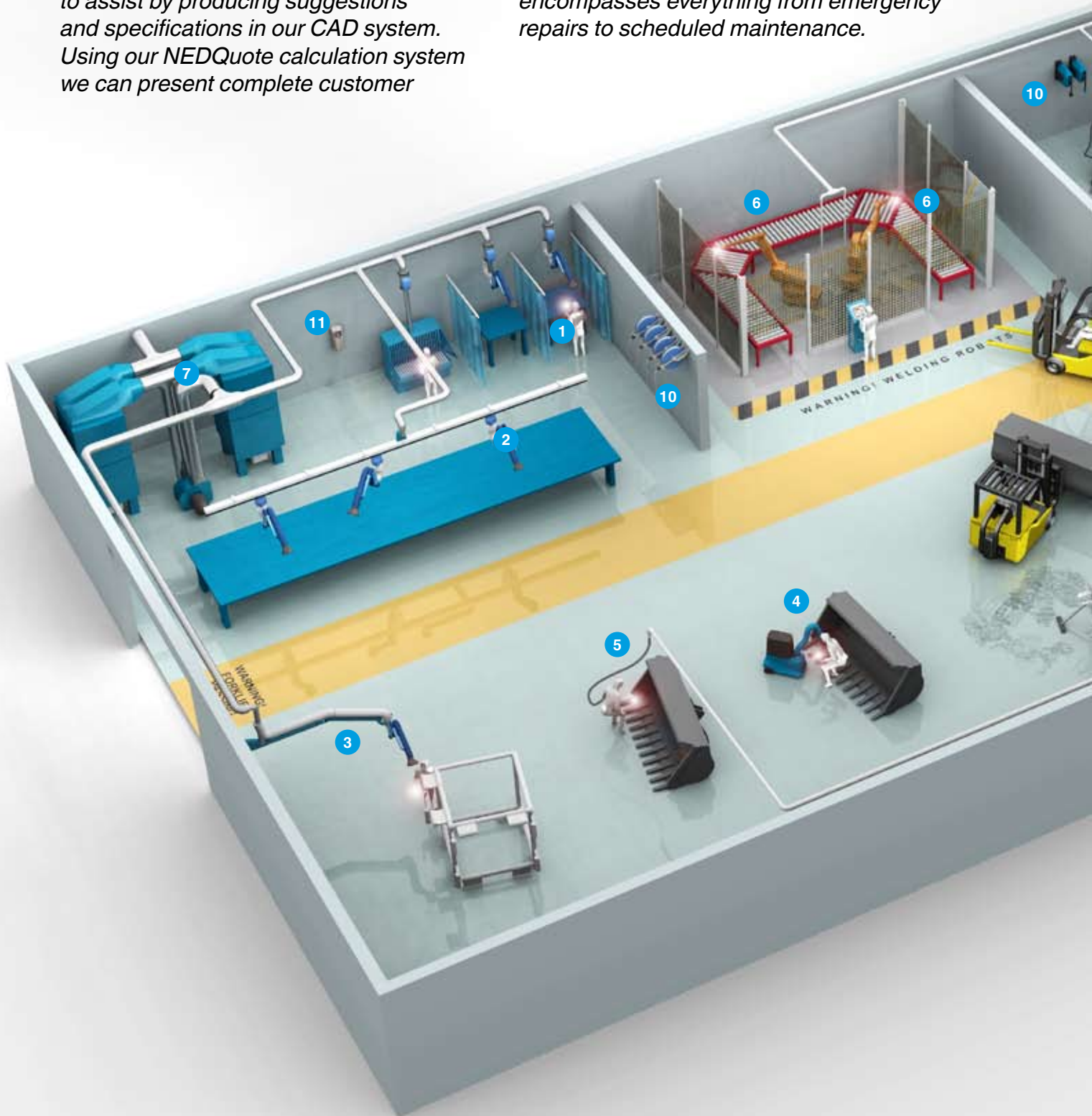
## SOME MAJOR HEALTH RISKS WITH WELDING

- **Cancer of lungs, bowel, intestines, liver**
- **Brain damage**
- **Neurological diseases**
- **Reversible/ irreversible decrease of lung capacity**
- **Pneumonia**
- **Asthma**
- **Skin diseases**
- **Allergies**
- **Fertility problems**

# Fixed or mobile, one workplace or the whole factory We have it all!

*Nederman offers everything from single products to complete systems. We carry out feasibility studies and planning. Our design department is most willing to assist by producing suggestions and specifications in our CAD system. Using our NEDQuote calculation system we can present complete customer*

*specific layout alternatives and solutions including costing. Installation work and commissioning are also parts of our services. Our After Sales service encompasses everything from emergency repairs to scheduled maintenance.*



actory.



### **1. Extraction at-source with arms**

*A range of arms in different designs and arm lengths, hose diameters etc. Full flexibility in all directions and easy to position.*

### **2. Arm on rail**

*When extraction from extended working areas is required.*

### **3. Extension arm**

*When extra reach is needed.*

### **4. Mobile extraction/filtering units**

*A range of easy to move around mobile filter units solve most demands regarding welding fumes and dust.*

### **5. On-torch extraction**

*Welding torches with integrated extraction allow the welder to work over big areas as well as inside constructions.*

### **6. Robotic welding**

*Nederman solutions for automatic welding processes include both on torch-extraction and extraction systems with hoods.*

### **7. On-tool Extraction**

*Cutting, grinding and sanding are common operations in welding workshops generating dangerous concentrations of dust and particles. On-tool extraction is the most efficient way to capture them. Nederman offers a wide range of on-tool extraction kits for more than 600 tools.*

### **8. Stationary vacuum/ filtering systems**

*Nederman solutions include central vacuum systems with fans, filters and duct system to extract welding smoke from a number of workstations via extraction arms or from welding torches.*

*The systems are also used for extraction of particles from grinding, sanding etc., and for cleaning of workplaces, premises and machines.*

### **9. Mobile vacuum units**

*For cleaning, collection of scale rags etc. Air or electrically powered.*

### **10. Cable and Hose Reels**

*For convenient supply of gases, compressed air, water, and electric power. Hoses and cables are out of the way when not in use which improves safety.*

### **11. Energy Saving System**

*With Nederman fan control unit, motor dampers and fan inverter substantial savings in energy and operation cost are made.*

# Safe, energy efficient and profitable



*Fume extraction with a Nederman Extraction Arm*

Control of exposure to welding fumes can usually be achieved with the help of extraction and ventilation. The choice of technique depends on the circumstances. The aim is to capture the fumes as close to the source as possible. This protects not only the welder but also other workers. Nederman systems are designed to extract welding smoke from a number of workstations but are also used for cleaning of workplaces and machines. The range also includes mobile units for welding fume extraction air as well as reel hoses for gas and compressed air and cable reels for electric power.

## **Extraction at source – most effective**

Wherever it is a viable solution, it has been proven that extraction at source is the most efficient method of capturing and removing welding and similar fumes. Using this method, the risk of the welder or operator being subject to hazardous fumes is minimized.

Welding torches with integrated extraction allow the welder to work over big areas as well as inside constructions; the extraction is always at hand. It is as well a cost effective solution, as it reduces the amount of heated/conditioned air extracted from the premises.

## **Even robots must be protected**

Welding operations using automated welding equipment require careful monitoring. Operators and service personnel overseeing robotic welding equipment can be subject to residual fumes and need to be protected in a similar way to manual workers. Nederman solutions for automatic welding processes include both on torch-extraction and extraction systems with hoods.



*Welding torch with integrated fume extraction*

## **From energy wasting to energy saving**

Letting the extraction system run when not in use is bad economy. If the premises are heated or cooled, a lot of energy is also wasted by unnecessary extraction.

Nederman offers several solutions to save energy and improve working conditions: With a Nederman fan inverter the fan operation is constantly adjusted to the number of extraction points in use to ensure the required airflow. The noise, which otherwise occurs in an underloaded system, is reduced.

The easy-to-program fan timer starts and stops the fan depending on working hours, holidays etc.

Combined with Nederman motor dampers which open and shut the connections to each extraction point, the efficiency and operation cost is further improved. Nederman fan control unit (often used in smaller systems) activates the central fan to run only during welding operations. The fan is activated manually or automatically at welding.

### **Positive effects of Nederman solutions:**

- Decreased number of sick days
- Lower staff costs
- Easier to keep co-workers
- Easier to attract new workers
- Increased productivity
- Improved product quality
- Better competitiveness
- Decreased cost for cleaning of premises, machinery, etc
- Good image

# Nederman total solutions improve your welding workshop

Nederman was founded in 1944. One of our first product innovations was for welding fume extraction. Today, Nederman is one of the world's leading environmental technology companies with sales organisations in 25 countries and partners and distributors in around 30. Nederman assembly and logistics Centres are located in Sweden, Norway, Canada and China.

Our global organisation with a strong local presence ensures that we are always close at hand. We have good insight into both international and local environmental and health-related legislation.

Our total solutions encompasses everything from consultation and design to installation and After Sales service. Nederman Service safeguards uptime with scheduled maintenance, reports for functional improvements and Original Spare Parts.

Welcome to contact us!



*Protection and Safety Courses are frequently arranged at Nederman Educational Centres.*

## Nederman offers



# Nederman

[www.nederman.com](http://www.nederman.com)

**Nederman Sales companies in:** Australia, Austria, Belgium, Brazil, Canada, China, Czech Rep. Denmark, France, Germany, Hungary, India, Ireland, Northern Ireland, Norway, Poland, Portugal, Romania, Russia, Slovak Republic, Spain, Sweden, Turkey, United Kingdom, USA  
**Nederman Agents in:** Bulgaria, Cyprus, Egypt, Estonia, Finland, Greece, Holland, Hongkong, Iceland, Ireland, Italy, Japan, Korea, Latvia, Lithuania, Malaysia, New Zealand, Philippines, Saudi Arabia, Serbia, Singapore, Slovenia, South Africa, Switzerland, Taiwan R.O.C, Thailand, Turkey, United Arab Emirates