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Air **nozzles**  
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**Silencers**



a complete system for:  
noise **control**  
energy **conservation**  
compressed air **safety**



# A complete catalog of our products and a handbook on **efficient** and **environment-friendly** **blowing technique**

## Welcome to Silvent!

Silvent's globally patented compressed air nozzles have become a well-known concept throughout the world. Our products eliminate harmful compressed air noise, conserve energy and meet the highest standards for safety.

The catalog you are now holding in your hands serves two purposes. It presents our wide range of compressed air nozzles, safety air guns and silencers. But it is also a handbook on efficient and environment-friendly blowing technique.

Researchers and experts view noise as one of our greatest environmental problems. A new feature of this catalog is an entire chapter that deals with noise control programs.

Taking responsibility for the environment is an important part of our work and therefore Silvent works in accordance with the environmental standard ISO 14000 as well as the quality standard ISO 9000.

Welcome to Silvent! Let us help you to cut the noise level in half, lower energy costs and improve safety at your place of work.

Sincerely,

Peder Ekberg, President of Silvent AB

## Compressed air nozzles



## Safety air guns



## Silencers



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reduce noise  
conserve air  
improve safety

# Silvent's unique blowing technique solves many problems

## The problem:

Blowing with compressed air in a manufacturing process certainly constitutes a problem. It is extremely noisy, it consumes large amount of energy and it is often directly dangerous for the user. The most common blowing method is simply to use a sawed off bit of pipe that has been bent and shaped with a pair of pliers to perform the blowing operation. The other alternative is using a nozzle intended for liquids or other type of nozzle that has not been specifically designed for blowing purposes. Both these methods generate extremely high noise levels and involve the risk of serious hearing impairment. Noise levels in excess of 100 dB(A) are by no means uncommon. Furthermore these methods consume enormous amounts of energy, are highly inefficient and fail to meet the safety standards imposed by national agencies.

## The solution:

Using Silvent's unique and globally patented blowing technology eliminates these problems. In most cases Silvent's highly efficient products halve both the noise level and energy consumption while fulfilling the strictest safety requirements of government authorities.

### Problems associated with the use of open pipe:

- Excessive turbulence which generates harmful noise
- High energy consumption
- Hazardous procedure
- Poor efficiency
- Unacceptable working environment

### Using Silvent means:

- Laminar airflow which halves the noise level
- Considerably lower compressed air consumption
- Compressed air safety
- Optimal utilization of costly energy
- Improved working environment

## Halve the noise level with Silvent

Nearly 80% of all hearing loss suffered within the manufacturing industry is caused by noise associated with the use of compressed air. Experts agree that noise is one of our greatest environmental problems. Hearing impaired by exposure to noise can never be restored. Today more and more people have come to understand the correlation between a good working environment and human performance.

Silvent's patented safety nozzles are designed to reduce the air turbulence that is the primary cause of the high noise levels associated with blowing operations. Installing Silvent's patented products normally reduces the sound level by half and eliminates injurious noise.

By, for example, replacing an open pipe with a Silvent nozzle, you can reduce the noise level by at least 10 dB(A). A decrease of 8-10 dB(A) is experienced by the ear as a 50% reduction.

Silvent's silencer systems reduce impulse noise from pneumatic valves by up to 30 dB(A).

Read more about sound and suggestions for noise control programs in Chapter 6 on page 6.2.



## Save energy with Silvent

Today electric energy is almost exclusively used when producing compressed air. Large amounts of costly energy are wasted every day when blowing operations are performed with open pipe. Silvent's air nozzles and safety guns utilize your compressed air more efficiently. Using Silvent technology provides energy savings of 30-50%. In principle, an investment in Silvent products pays for itself in a relatively short time and in addition you get a better working environment in the bargain.

BMW recently conducted a study of energy saving and noise reducing air guns. They found that investing in Silvent safety guns reduced their compressed air consumption by up to 57%. Read more about how you too can save energy in Chapter 6 on page 6.14.



## Work safely with Silvent

Compressed air is an energy source that can store large amounts of potential energy. Improperly used it can result in serious injury. At Silvent we put safety first. Our patented products fully meet the noise limitations of the EU Machine Directive as well as the safety regulations stipulated by OSHA (Occupational Safety and Health Administration), the government agency responsible for safety in the workplace in the USA. These regulations are extremely comprehensive and Silvent fulfills all these requirements by a wide margin.

If the outlet pressure of an open pipe or air gun is greater than 30 psi (210 kPa) and the opening is blocked by, say, a hand, serious injury may result when air is forced through the skin and enters the bloodstream. Silvent safety nozzles are designed so that they can never be dead-ended and so that the maximum amount of backpressure can never exceed 30 psi (210 kPa). Read more about safety in Chapter 6 on page 6.16.



*The OSHA gauge, a symbol of safety!*



*Every Silvent safety gun fully complies with the noise exposure limitations of the EU Machine Directive as well as OSHA safety regulations.*

# Silvent offers the widest product range in the world

## **Work efficiently and safely**

Safety and the environment are two issues that are highly prioritized at virtually every company. Silvent leads the field in the development of quality products that are easy to install and designed to improve the working environment for people who work with compressed air on a daily basis.

We have focused all our research, development and engineering know-how on designing efficient products that reduce noise levels, conserve energy and fulfill the requirements of occupational safety authorities.

Every factory that makes use of compressed air has a potential need for Silvent's products. Whenever compressed air is used to clean, move or cool off parts or products, Silvent can help. Many of the world's largest and most well known companies today use Silvent's unique products – companies such as British Steel, General Motors, Coca-Cola, Caterpillar, Toyota, Volvo etc. On page 8.1 you will find further examples of steady users of Silvent products.



*Air bazooka 4000. A blowing tool for extremely high blowing forces and long blowing distances.*

# Product groups

## Compressed air nozzles (Chapter 2)

Silvent's air nozzles have become a well-known concept throughout the world. Silvent offers the widest selection of quiet, energy efficient and safe air nozzles on earth. Our range consists of round nozzles, flat nozzles, air

knives, air curtains, flex systems and multi-nozzles. In this chapter there is also a section describing what you should consider when choosing the "right" nozzle for different applications.

## Safety air guns (Chapter 3)

At Silvent, safety comes first. Our broad range of patented safety guns fully complies with the restrictions governing noise exposure stipulated in the EU Machine Directive as well as OSHA safety regulations. Using Silvent safety guns guarantees a safer and more efficient workplace.

We offer safety guns for virtually every conceivable type of application. Choose among models ranging from Microguns to our Air Bazooka depending on the blowing force and spread pattern you require. In this chapter you will also find a section explaining how to choose the "right" air gun for your particular needs.

## Silencers (Chapter 4)

Silvent silencers allow you to effectively muffle the noise from single or multiple pneumatic valves. Silvent's silencing systems eliminate harmful noise and oil mist in all compressed air systems.

Our various silencers consist of hose silencers, central silencers and expansion silencers. Which of these is most suitable for your requirements is explained in the section "how to choose the right silencer".

