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**Safe and quiet
air guns**



-a **powerful** and
economical solution

Avoid occupational injuries and save your hearing with Silvent's safety guns



Every Silvent safety gun fully meets the noise limitation requirements of the EU Machine Directive as well as OSHA safety regulations

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3 major reasons for choosing Silvent safety guns

*Work and blow safely!
Read more about Silvent and safety on page 32.*



*You can never restore lost hearing.
Read more about how you can avoid injury on page 33.*



Read about what BMW saved by using Silvent safety guns on page 31.



Safe

Compressed air is an energy source that is capable of storing large amounts of energy. Improperly used it can cause serious injury. At Silvent safety is our primary concern. Our patented safety guns fully meet the noise limitation requirements of the EU Machine Directive as well as the safety regulations stipulated by OSHA (Occupational Safety and Health Administration), the government authority in the USA. Their regulations are extensive and Silvent fulfils all of these stringent requirements by a wide margin.

Quiet

Nearly 80% of all hearing loss suffered within the manufacturing industry is the result of noise generated by the use of compressed air. Researchers and experts concur that noise is one of our most serious environmental problems. Hearing impairment resulting from exposure to high noise levels can never be remedied. Today people are increasingly aware of the correlation between a good working environment and top human performance. Installing Silvent's patented air guns fitted with safety nozzles normally cuts the sound level in half and eliminates injurious noise in the workplace.

Energy efficient

Today compressed air is almost exclusively produced with electricity. Enormous amounts of expensive energy are wasted every day when blowing operations are performed using open pipe. Silvent air guns and safety nozzles utilize the compressed air more efficiently. Silvent technology allows energy savings of 30-50%. In practice an investment in a Silvent installation pays for itself in no time at all and you get a better working environment in the bargain.

Important questions and answers for people working with compressed air on a daily basis

Safety and environment are two issues that today are given high priority in virtually every company. Silvent leads the development of quality products that are easy to install and designed to improve the working environment for people who work with compressed air every day.



1 What can Silvent do for my company?

In applications involving compressed air blowing, Silvent can halve the noise level and at the same time increase safety, efficiency and quality.

2 How can Silvent eliminate harmful noise resulting from the use of compressed air?

Silvent's patented safety nozzles are designed to reduce the turbulence that is the primary cause of the high sound levels associated with blowing operations with compressed air.

3 Why does Silvent lead the field when it comes to reducing compressed air noise?

At Silvent we have specialized on reducing noise that damages hearing. We have focused all our research, development and engineering expertise on designing products that are intended to improve the working environment for people who use compressed air every day.

4 Who uses Silvent products?

Any factory that uses compressed air has a potential need for Silvent's products. Wherever compressed air is used to clean, transport, dry or cool down parts or products, Silvent can help. Companies that today are steady users of Silvent products include Ford Motor Corporation, Proctor & Gamble, Goodyear, BMW and Volvo. See a more complete list of our references on page 34.

5 Does Silvent meet the noise level limitations of the EU Machine Directive and OSHA's safety regulations?

Silvent's compressed air nozzles easily fulfil the requirements that OSHA and the EU Machine Directive stipulate regarding noise levels and compressed air safety. In the vast majority of cases, Silvent installations halve the noise level, which means that noise is reduced to a level where the risk of permanent hearing loss is eliminated.



Is your workplace safe?

The OSHA gauge,
a symbol of safety!

The OSHA gauge is an important tool for guaranteeing safety. The air pressure on the downstream side of an air gun nozzle or an open pipe is measured and may not, according to the regulations, exceed 30 psi (210 kPa). If the pressure is higher and the open pipe or air nozzle outlet is blocked by a hand or other body part, serious injury can result when air penetrates the skin and is forced into the bloodstream. Silvent safety nozzles are designed so that the outlet cannot be fully blocked and any backpressure that may result will never exceed 30 psi (210 kPa). Read more about safety on page 32.

Every year **accidents occur** when blowing with open pipe. **Nothing can compensate for lost vision or hearing.**

Silvent's safety guns provide the possibility of a safer workplace!

Every Silvent safety gun fully **meets OSHA's safety regulations!**





Important matters to consider when choosing an air gun

Economy

The major expense associated with air guns is not the purchase cost but rather the operating cost for compressed air. The purchase of an air gun with an energy-efficient and effective safety nozzle is always an investment. In a somewhat longer time perspective, it represents pure profit to raise the environmental standard and buy a slightly more expensive but safe air gun.

How should the gun be used?

Every workplace is unique. To assure your personal safety as a user, it is important to choose the right air gun for your particular situation – not too small and not too big. A properly dimensioned air gun increases safety, reduces the noise level and saves considerable amounts of costly energy.

What functions should the pistol grip provide?

Here there are nearly as many answers as there are users. In principle you should choose a grip with a good valve that allows you to fully control the airflow. This increases the possibility to save air and lower the noise level. Before making your decision, give some thought to the functions you need and what you expect of the grip. Do you always blow at full force or do you need a valve that allows you to variably regulate the blowing force? What environments must the material withstand and what type of trigger mechanism best suits your blowing operation? No matter which gun you choose from our range, rest assured that you will have chosen an ergonomically designed alternative.

Design of the safety nozzle

The design and size of the nozzle are crucial to achieving the desired results. If your application requires that you perform a sweeping motion, you should choose a nozzle that creates a strong, broad air cone. For blowing in a confined space or holes, you need a nozzle with a small diameter in order to do the work efficiently. With the proper nozzle, the blowing operation can be performed both more quickly and more efficiently. Think carefully before choosing a nozzle. The correct choice will eliminate the risk of hearing loss resulting from unnecessary noise and, at the same time, save costly compressed air.

Extension pipes and safety shields

The length of the extension pipe is both a practical and a safety matter. By choosing the appropriate length, you avoid having your face too close to the blowing operation. Fit all air guns with a suitable safety shield to protect the hands and face from possible injury. These accessories are, of course, available for all of our air guns. See page 27.

Combinations and flexibility

If you don't see the safety gun you are looking for in our broad range of standard guns, you can combine components to create your own custom solution. Silvent's assortment of products allows great flexibility. Read more about this in the combination table on pages 28-29.



There are more than 20 different types of compressed air nozzles in our product range.



Plastic safety shields are available for most of our air gun models. See page 27 for more on safety accessories.



Air shield mounted on a 007 gun. Air shields are mounted directly at our factory so be sure to specify that you want air shields when ordering. See Accessories on page 27.



Silvent has the world's widest selection of safety guns that reduce the noise level by up to 50% and save considerable amounts of compressed air.

Air shield mounted on an aluminum gun from our 2000 series. See pages 16-19 and page 27.

Quick guide!

You have **6 model series** to choose from



007-L Pg. 8-9



007-Z Pg. 8-9



007-S Pg. 8-9



007-M Pg. 8-9



007-P Pg. 10



008 Pg. 11



0971 Pg. 11

007

For the highest level of safety, valve precision and user-friendliness



500-Z Pg. 12-13



500-L Pg. 12-13



500-S Pg. 12-13



500-M Pg. 12-13



501 Pg. 14



5920 Pg. 14



520-580 Pg. 15

500

A handy and economical alternative without sacrificing safety



2055-A-500 Pg. 16-17



2055-S Pg. 16-17



2050-L Pg. 18



2050-S Pg. 18



2973 Pg. 19



2000 flex Pg. 19

2000

A highly flexible series of aluminum guns for tough conditions and greater blowing forces



751-S Pg. 20-21



753-S Pg. 20-21



755-S Pg. 20-21



757-S Pg. 20-21

750

A robust gun with durable stainless steel nozzles that generate blowing forces up to seven times greater than standard guns



4015-L Pg. 22-23



4010-S Pg. 22-23

4000

A sensational new product!
A blowing tool for extremely high blowing forces at long distances



BG 007 Pg. 24



100 Pg. 25



1710 Pg. 25

Special

Special guns for more unusual applications

007 For the highest level of safety, valve precision and user-friendliness



007-L

Customize this safety gun to suit your needs

007 with Laval nozzle
- the most common alternative

With a stainless steel Laval nozzle mounted onto the 007 grip, you can handle nearly any blowing application. A Laval hole in the center of the nozzle creates a highly concentrated air stream that moves at supersonic speed. Around the Laval hole there are also a number of diverging slots that generate a powerful, quiet and laminar air flow. The combination provides superior cleaning performance and optimal utilization of the compressed air. The surrounding fins prevent direct contact between skin and the outlet holes. Patented. **Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.**

Pistol grip 007, standard extension pipe, Laval nozzle

Order number: 007-L



Important functions of the 007 pistol grip

Two-step system The grip features a unique valve construction with a two-step system that lowers both the noise level and energy consumption considerably. The first step, variable position, allows variable adjustment of the blowing force and is generally more than adequate for most types of work. This generates a noise level of only 75 dB(A) and permits energy savings of up to 50%. The air gun's second

step, the so called "booster position", delivers twice the blowing force for the most demanding operations. From the maximum variable position, only a slight squeeze of the trigger is needed and the booster position kicks in, instantly doubling the effect. Despite this dramatic increase in blowing force, the sound level is only half that of conventional air guns.

Top and bottom air supply connection
The grip offers two connection possibilities. From a safety and ergonomic point of view,

top feed is the best alternative. Safety valves at the connections eliminate the risk of injury. Should the plug on the connection that is not being used for some reason unscrew under pressure, there is no risk involved.

Softgrip handle The 007 safety gun has an ergonomically designed Softgrip handle made of synthetic rubber that is highly durable and oil resistant. The material insulates well against heat and cold and the handle is easy on both the hand and wrist.

Choose among 4 different safety nozzles for your 007 gun

For those who need extra durability

Safety gun 007-S with stainless steel nozzle

The stainless steel nozzle is most suitable in really tough conditions. The nozzle's solid stainless steel tip has been designed to withstand hard mechanical wear. Patented.

Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.

Pistol grip 007, standard extension pipe, stainless steel nozzle

Order number: 007-S

An economical alternative for less demanding environments

Safety gun 007-Z with zinc nozzle

A slot nozzle designed with divergent slots that utilize the surrounding air very efficiently. This nozzle allows powerful, quiet and efficient cleaning. Suitable for general-purpose blowing in environments where the nozzle is exposed to minimal mechanical wear. Patented.

Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.

Pistol grip 007, standard extension pipe, zinc nozzle

Order number: 007-Z

3 micronozzles for high precision and low energy consumption

Safety gun 007-M with micronozzle

By combining the 007 grip's valve construction and a stainless steel micronozzle, you can precisely blow exactly the amount of air required. A central hole in combination with surrounding slots makes the nozzle extremely efficient and quiet. Compared with conventional air guns without a nozzle, a Silvent micronozzle permits you to reduce compressed air consumption by up to 75% and, at the same time, keep the noise level under 75 dB (A). Patented.

Meets noise limitation requirements of the EU Machine Directive.

Choose the micronozzle that provides the blowing force your application requires.

007-MJ4 generates approximately 25% of the blowing force of a standard gun. **Order no: 007-MJ4**

007-MJ5 generates approximately 50% of the blowing force of a standard gun. **Order no: 007-MJ5**

007-MJ6 generates approximately 75% of the blowing force of a standard gun. **Order no: 007-MJ6**

The order number includes 007 pistol grip, standard extension pipe and micronozzle.



007-S



007-Z



007-M

www.silvent.com



standard - 100 mm (4")



250 mm (10")

400 mm (16")

600 mm (24")

800 mm (32")

1000 mm (40")

Extension pipes in 6 lengths

The 007 series described above is available with six different extension pipe lengths. The pipes are made of zinc-plated steel. Other materials and lengths can be supplied upon request. When ordering air guns with longer extension pipes than the standard 100 mm, specify the length you want last in the order number – pistol grip-nozzle-extension pipe length, e.g. 007-L-1000.

007^{PEEK}



Air gun with a protective PEEK nozzle

Avoid unnecessary scratching

Safety gun 007-P with PEEK nozzle

The PEEK nozzle has been specially developed for sensitive applications where expensive tools and machines absolutely may not be damaged. The nozzle is fitted on a flexible PA 12 pipe that provides additional protection against scratches caused by mechanical impact.

PEEK is a unique plastic material with properties that meet the rigorous quality and safety requirements of, for example, the aero-space industry. It is extremely impact resistant and is capable of handling aggressive chemical environments, strong cutting fluids and temperatures of up to 260° C. The nozzle is designed with a central hole that generates a concentrated air stream. At the same time, the sound level is low and air consumption is reduced. Patented.

Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.

Pistol grip 007, standard extension pipe PA 12, PEEK nozzle

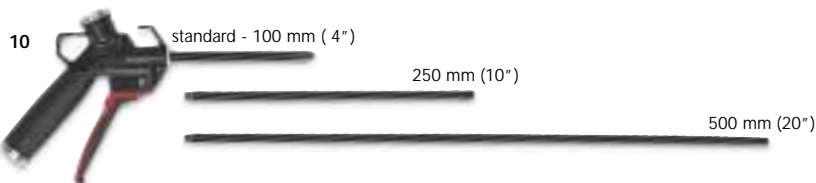
Order number: 007-P

Extension pipes in 3 lengths

The PEEK guns are available with three different extension pipe lengths as described below. Other materials and lengths can be supplied upon request. When ordering air guns with longer extension pipes than the standard 100 mm, specify the length you want last in the order number – pistol grip-extension pipe length, e.g. 007-P-250.



Extension pipes in 3 lengths



For efficient sweeping of larger surfaces

Safety gun 008

A universal and powerful air cone makes this safety gun especially effective for sweeping larger surfaces. The nozzle's wing design creates an ejector effect and thus enhanced blowing force. In spite of the high blowing force, both the noise level and air consumption are low - a combination that was long thought impossible. Patented.

Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.

Pistol grip 007, zinc nozzle

Order number: 008



Small, flat air stream

Safety gun 0971

By choosing a small flat nozzle of stainless steel, you get a safety gun with very special characteristics that is perfect when you want to blow with a somewhat narrower air stream. This nozzle is capable of withstanding excessive mechanical wear and is suitable for use in most environments. The 0971 safety gun offers the same advantages as the other 007 guns - including an ergonomic Softgrip handle, variable and booster positions, and top and bottom connection. Patented.

Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.

Pistol grip 007, stainless steel nozzle

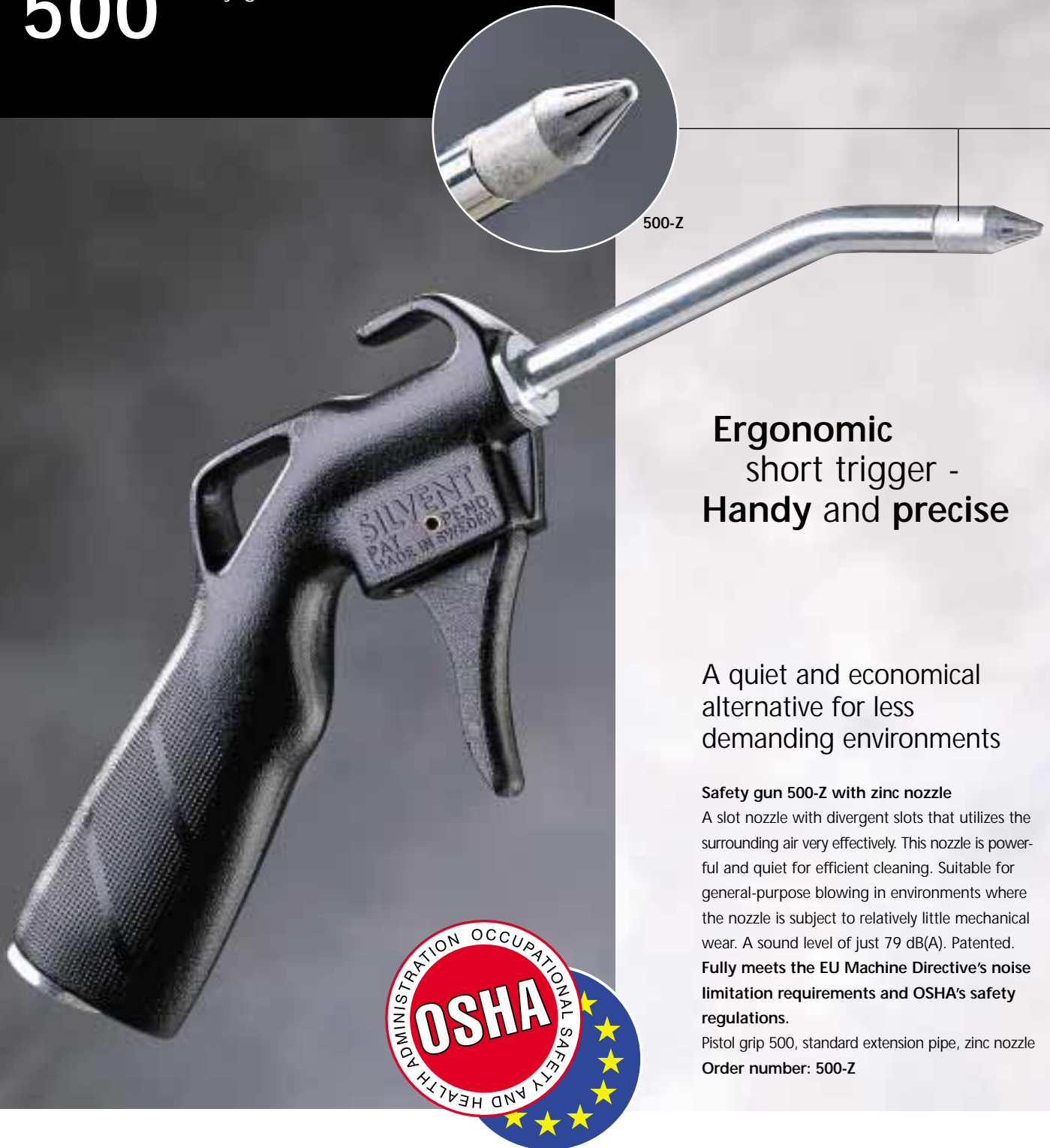
Order number: 0971



Researchers and experts agree that **noise is one of our greatest environmental problems.** Silvent's safety guns **reduce the noise level by 50%.**



500 safety guns



Ergonomic
short trigger -
Handy and precise

A quiet and economical
alternative for less
demanding environments

Safety gun 500-Z with zinc nozzle

A slot nozzle with divergent slots that utilizes the surrounding air very effectively. This nozzle is powerful and quiet for efficient cleaning. Suitable for general-purpose blowing in environments where the nozzle is subject to relatively little mechanical wear. A sound level of just 79 dB(A). Patented.

Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.

Pistol grip 500, standard extension pipe, zinc nozzle

Order number: 500-Z

The 500 pistol grip - less risk of wrist injury

Ergonomics and precision The combination of an ergonomic handle and a short trigger for one or two fingers provides a perfect grip as well as the possibility to aim the gun with precision and feeling. The ergonomic design of the handle automatically gives you the optimal blowing position so that you do not need to bend your wrist.

Easy on the hand and arm The trigger mechanism requires a pressure of only 7 N, which means

that the gun can be used frequently without the risk of taxing muscles. The average finger strength of men is 96 N and of women, 81 N. When less than 10% of the maximum strength of a finger is used, no injury arises due to muscle strain. The gun features bottom connection and three possibilities for hanging. The knurled surface of the gun handle provides a comfortable and firm grip.

Choose among 4 efficient safety nozzles for the 500 series

Concentrated air stream

Safety gun 500-L with stainless steel Laval nozzle

With a stainless steel Laval nozzle mounted onto the 007 grip, you can handle nearly any blowing application. A Laval hole in the center of the nozzle creates a highly concentrated air stream that moves at supersonic speed. Around the Laval hole there are also a number of diverging slots that generate a powerful, quiet and laminar air flow. The combination provides superior cleaning performance and optimal utilization of the compressed air. The surrounding fins prevent direct contact between skin and the outlet holes. Patented.

Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.

Pistol grip 500, standard extension pipe, Laval nozzle

Order number: 500-L

For extra durability

Safety gun 500-S with stainless steel nozzle

This stainless steel nozzle is most suitable in really tough conditions. The nozzle's solid stainless steel tip has been designed to withstand hard mechanical wear. Patented.

Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.

Pistol grip 500, standard extension pipe, stainless steel nozzle

Order number: 500-S

Low noise levels and low energy consumption

Safety gun 500-M with micronozzle

By combining the 500 grip and a stainless steel micronozzle you can save substantial amounts of compressed air in many applications. In most cases more blowing force and energy are used than necessary. The blowing force generated by a micronozzle is often more than adequate, even for general purpose blowing.

A central hole in combination with surrounding slots makes the nozzle extremely efficient and quiet.

Compared with conventional air guns without a nozzle, a Silvent micronozzle permits you to reduce compressed air consumption by up to 75% and at the same time keep the noise level under 75 dB (A). Patented.

Meets noise limitation requirements of the EU Machine Directive.

Choose the micronozzle that provides the blowing force your application requires.

500-MJ4 generates approximately 25% of the blowing force of a standard gun. **Order no: 500-MJ4**

500-MJ5 generates approximately 50% of the blowing force of a standard gun. **Order no: 500-MJ5**

500-MJ6 generates approximately 75% of the blowing force of a standard gun. **Order no: 500-MJ6**

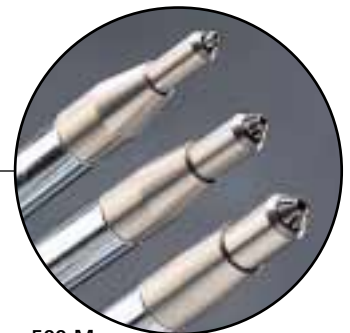
The order number includes 500 pistol grip, standard extension pipe and micronozzle.



500-L



500-S



500-M

www.silvent.com



standard - 100 mm (4")



250 mm (10")

400 mm (16")

600 mm (24")

800 mm (32")

1000 mm (40")

Extension pipes in 6 lengths

The 500 series described above is available with six different extension pipe lengths. The pipes are made of zinc-plated steel. Other materials and lengths can be supplied upon request.

When ordering air guns with longer extension pipes than the standard 100 mm, specify the length you want last in the order number – pistol grip-nozzle-extension pipe length, e.g. 500-Z-600.

500 safety guns 501 & 5920



Universal and strong

Safety gun 501

A universal and powerful air cone makes this safety gun especially effective for sweeping larger surfaces. The nozzle's wing design creates an ejector effect and thus enhanced blowing force. This globally patented nozzle generates a low noise level despite its high blowing force and low air consumption. Patented.

Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.

Pistol grip 500, zinc nozzle

Order number: 501



Quick and efficient with a broad air cone

Safety gun 5920

An air gun with a flat nozzle for applications where you want the air stream to strike a wider surface and provide quick and efficient blow-off. This low-noise nozzle is made of zinc and its outlet ports are protected against external forces by fins. Patented.

Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.

Pistol grip 500, zinc nozzle

Order number: 5920

Clean hard-to-reach places
**without the risk of injuring
the hands or face**

safety guns
flexgun 520-580 **500**



Safety gun with an adjustable hose

Safety gun Flexgun 520-580

The air gun is fitted with a bendable hose that can be adjusted to any position. The hose will not wander, even when blowing at high pressures.

Highly recommended for blowing applications that are hard to reach or directly dangerous to the operator. Flexgun allows you to perform these operations without risking injury to eyes or hands from flying chips.

Patented.

Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.

Flexgun is available in 6 different lengths.

See the order number for the respective length below.

200 mm (8") **Order number: 520**

300 mm (12") **Order number: 530**

400 mm (16") **Order number: 540**

500 mm (20") **Order number: 550**

600 mm (24") **Order number: 560**

800 mm (32") **Order number: 580**

The order number includes pistol grip 500, Flexblow hose, and zinc nozzle.



new
product
line!

A new series of modern and ergonomically designed aluminum guns with up to 5 times stronger blowing force



Safety gun 2055 with a Softgrip handle. This synthetic rubber handle may be ordered as an accessory for any gun in the 2000 series. The material is easy on the hand and insulates against both heat and cold.

Order number Softgrip handle:
SG-2000

The 2000 pistol grip can be fitted with any of Silvent's safety nozzles

Silvent's new 2000 series aluminum guns are highly versatile, lightweight and user-friendly. The grip features a new, modern and practical design that can be fitted with various types of safety nozzles, extension pipes, safety accessories etc. – everything needed to make compressed air blowing as safe, quiet and energy efficient as possible.

High blowing force Despite the compact size of the grip, the valve is dimensioned to handle even powerful safety nozzles with blowing forces up to five times those of conventional air guns.

For difficult and demanding blowing operations Equipped with an extension pipe, these guns are ideal for "hard-to-reach" applications and operations that are more demanding than those where standard guns are normally used. A properly dimensioned extension pipe protects the face from dangerous flying debris and spattering and allows the operator to maintain a more ergonomically correct working posture.



The 2000 safety gun can be fitted with an effective air shield that protects the user from flying particles. See page 27.

Improve safety - choose the right extension pipe length



For those requiring extra force

Safety gun 2055-A-500

This air gun is fitted with an aluminum nozzle designed with aerodynamic slots. The nozzle provides efficient cleaning power equivalent to five ordinary air guns. In spite of the high blowing force, the sound level is comparable to a single conventional gun. Patented.

Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.

Pistol grip 2000, extension pipe, aluminum nozzle
Order no: 2055-A- extension pipe length in mm

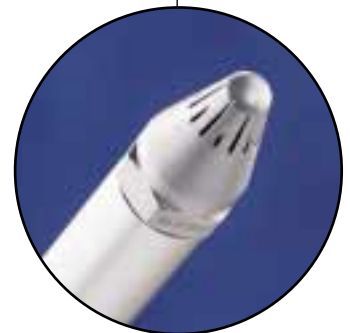
For high mechanical wear

Safety gun 2055-S-500

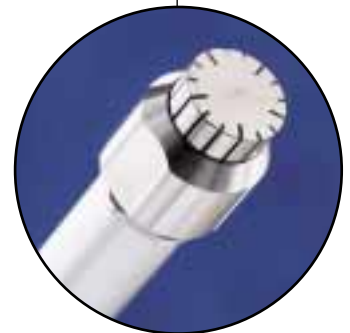
If your application requires extreme resistance to wear, we recommend this gun with its stainless steel nozzle. The nozzle can withstand nearly any existing application. It is designed with aerodynamic slots to use compressed air optimally and generate as little sound as possible. The blowing force is equivalent to the aluminum nozzle on our standard 2000 series gun. Patented.

Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.

Pistol grip 2000, extension pipe, stainless steel nozzle
Order no: 2055-S-extension pipe length in mm



2055-A



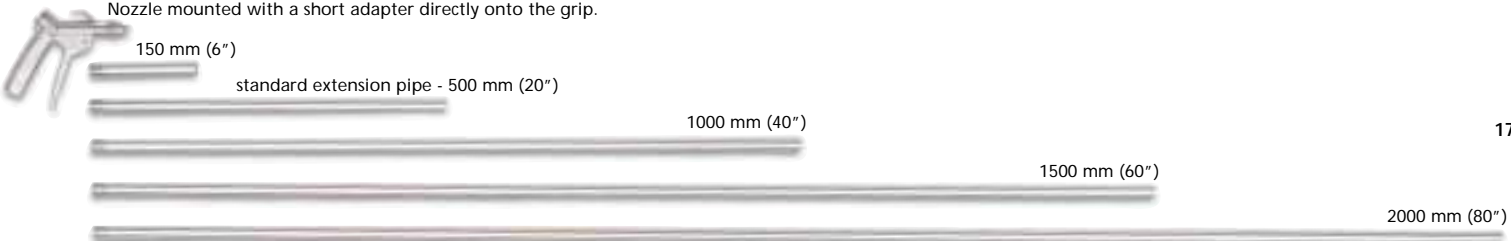
2055-S

www.silvent.com

Choose among 6 different extension pipe lengths for 2055

The air gun is available in six different versions – five with an extension pipe and one with the nozzle mounted directly on the pistol grip. Select a gun with an extension pipe of appropriate length and you will assure yourself of a comfortable and safe working posture. These extension pipes are made of aluminum. Other materials are available upon request. Indicate the extension pipe length in mm last in the order number. Pistol grip-extension pipe length: e.g. 2055-A-2000

Nozzle mounted with a short adapter directly onto the grip.



2000 safety guns



Durable aluminum guns for tough environments

2050-S



2050-L



Aluminum pistol grip with a stainless steel nozzle

Safety gun 2050-S with a steel nozzle

An extremely tough but, at the same time, handy aluminum gun. The perfect choice whenever durability is more important than a lot of technical finesses. The standard version of this gun is fitted with a durable stainless steel nozzle with a solid tip that will withstand even the toughest conditions. Patented.

Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.

Pistol grip 2000, standard extension pipe, stainless steel nozzle

Order number: 2050-S

Choose a Laval nozzle for concentrated blowing power

Safety gun 2050-L with a Laval nozzle

As an alternative to the stainless steel nozzle described above, this gun can be ordered with a stainless steel Laval nozzle. The Laval hole in the center of the nozzle creates a supersonic and more concentrated air stream. This provides excellent cleaning properties. This gun is suitable for applications where exposure to mechanical wear is not as great as environments requiring the 2050-S. Patented.

Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.

Pistol grip 2000, standard extension pipe, Laval nozzle

Order number: 2050-L

Extension pipes in 6 lengths

Every air gun in the 2000 series is available with six different extension pipe lengths. The pipes are made of zinc-plated steel. Other materials and lengths can be supplied upon request. When ordering air guns with longer extension pipes than the standard 100 mm, specify the length you want last in the order number – pistol grip-nozzle-extension pipe length, e.g. 2050-S-800.

18

standard - 100 mm (4")

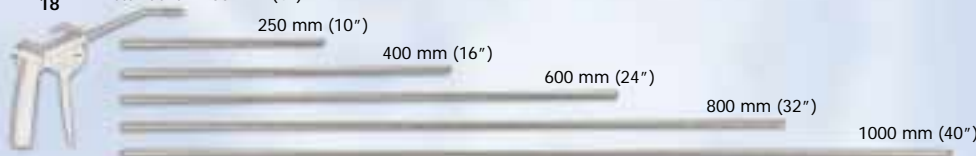
250 mm (10")

400 mm (16")

600 mm (24")

800 mm (32")

1000 mm (40")





For larger surfaces or for blow-off of large chips

Safety gun 2973

An excellent gun for applications where you need to move away large particles or chips quickly and efficiently. The design of the nozzle makes the air cone dig in and sweep the work surface clean. The gun is fitted with a powerful stainless steel nozzle that can cope with most applications. The blowing force is approximately three times that of an ordinary air gun. Despite its power, the sound level and energy consumption are low in relation to the work the gun performs. Patented.

Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.

Pistol grip 2000, standard extension pipe, stainless steel nozzle

Order number 2973



When it's hard to reach

Safety gun 2220-2280

This safety gun is a larger model of Silvent Flexgun 520-580. The grip is fitted with a larger bendable hose and a more powerful hole nozzle. The hose will not wander, even when blowing under high pressure. Used in blowing operations where it is hard to reach with a conventional air gun and in applications that may involve direct risk to the operator. Patented.

Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.



Flexgun in 6 lengths

Order number for the respective lengths as follows:

200 mm (8") – **Order number: 2220**

300 mm (12") – **Order number: 2230**

400 mm (16") – **Order number: 2240**

500 mm (20") – **Order number: 2250**

600 mm (24") – **Order number: 2260**

800 mm (32") – **Order number: 2280**

The order number includes pistol grip 2000, standard Flexblow hose, zinc nozzle.



750 safety guns

Up to 7 times greater blowing force



755-S



SILVENT



790 grip

Five times more powerful

Safety gun 755-S

This series of safety guns is fitted with the same type of stainless steel nozzle on all gun types. The difference between the various models is the number of slots, which provides different blowing forces. These aerodynamic slots allow maximum utilization of the compressed air and limit the sound level to a minimum. Safety gun 755 has five times the blowing force of a conventional air gun. Despite its high blowing force, the sound level it generates is comparable to an ordinary gun. Patented.

Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.

Pistol grip 750, stainless steel nozzle 705

Order number: 755-S

The 750 guns can also be fitted with an extended trigger. This trigger is mounted at the factory and must be specified when ordering.

Order number: 790

The most robust safety gun on the market

Greater blowing force Silvent's 750 series has been developed for jobs requiring high blowing power and working environments that demand a robust grip and valve construction. These guns can also be used when wearing work gloves and the grip is considerably more impact resistant than conventional guns. The guns of the 750 series are available in four different sizes and have up to seven times the blowing force of ordinary guns on the market today. The 750 series gets jobs done

that most other guns simply cannot handle.

Extended trigger lever In spite of the high blowing force, the sound level is equivalent to an ordinary gun. The 750 series is designed with thumb regulation to provide an ergonomically correct grip. The guns are also available with an extended trigger lever, which must be ordered separately. Among other places, these guns are commonly used at paper mills and foundries and within the rubber and food processing industries.



Choose among 4 different nozzles for the 750 series

Blowing force equivalent to an ordinary gun

Safety gun 751-S

Safety gun 751-S provides blowing forces that are comparable to an ordinary air gun. Naturally, the lower the blowing force, the lower the sound level and energy consumption. If you do not need additional blowing force, you should choose this nozzle. In other respects this gun is the same as the 755-S. Patented.

Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.

Pistol grip 750, stainless steel nozzle 701

Order number: 751-S

3 times stronger

Safety gun 753-S

Creates a blowing force that is three times that of an ordinary gun. Its other properties are identical to the 755-S. Patented.

Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.

Pistol grip 750, stainless steel nozzle 703

Order number: 753-S

7 times stronger and more concentrated blowing force

Safety gun 757-S

With this nozzle alternative you get powerful and highly efficient blowing force that is up to seven times that of a standard gun. The extra nozzle in the center focuses the blowing force for quick and effective cleaning power. Other properties are identical to safety gun 755-S. Patented.

Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.

Pistol grip 750, stainless steel nozzle 707

Order number: 757-S



751-S



753-S

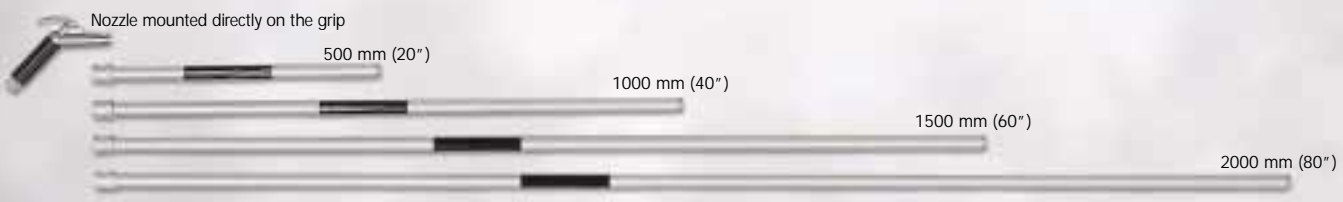


757-S

www.silvent.com

Extension pipes in 4 lengths

All the guns in the 750 series are available with four different extension pipe lengths. The pipes are made of aluminum. Other materials are available upon request. When ordering air guns with longer extension pipes than standard, specify the length you want last in the order number – pistol grip-extension pipe length, e.g. 755-S-1500.



4000 The world's most powerful blowing tool

**First
in the
world!**



A safe air bazooka with "dead man's grip"

New concept The introduction of Silvent 4000 heralds an entirely new concept within blowing technology. What was previously only a vision has become reality with the 4000 series – namely combining highly concentrated blowing force with easily controlled valve function and a low sound level. The nozzle has a patented design with a Laval outlet in its center.

15 times stronger Surrounding the air hole there is a ring of slots which creates the low-turbulence flow pattern required for a low sound level. At the same time, the energy of the core

stream is utilized optimally, which means that Silvent 4000 can generate blowing forces that are up to 15 times stronger than a normal air gun.

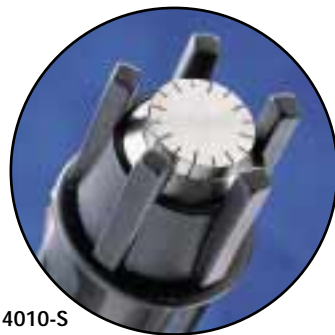
Safe and easily maneuvered The valve function is "power steered" and can be easily controlled with one hand. Light pressure from the thumb or a finger is sufficient. The rubber insulation on the handle provides a sure grip and, at the same time, protects the hand against both heat and cold. The valve is controlled with a "dead man's grip" so that it instantly closes if the tool is dropped.



The **4000 series**
 - a combination of **highly concentrated blowing force**, easily maneuvered valve functionality and **a low noise level**



4015-L



4010-S

15 times greater blowing force

Air bazooka 4015-L

Optimal utilization of compressed air characterizes this nozzle, which constitutes a breakthrough in pneumatic technology. The effect is created by surrounding a core of air traveling at supersonic speed with a protective film of air moving parallel to the central air jet. The central stream of air in the Silvent 4015-L is generated by a Laval nozzle. The design of this nozzle converts all of the energy stored in the compressed air into kinetic energy without the air jet expanding laterally after it has passed through the nozzle. The protective sheath of air around the core stream prevents it from being slowed down by the surrounding air and allows it to be utilized at full effect. The gas flow hinders the creation of turbulence and thereby lowers the sound level. The nozzle is made of stainless steel, which makes it suitable for use in virtually any environment where extra high blowing forces are required, e.g. within the paper and manufacturing industries, and at steel mills and chemical plants. Patented.

Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.

Valve 4000, Laval nozzle. **Order no: 4015-L**

10 times greater blowing force

Air bazooka 4010-S

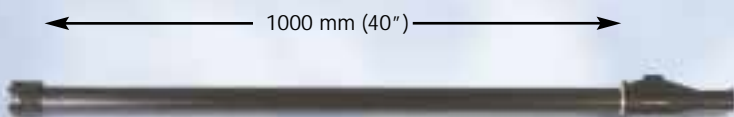
This blowing tool is fitted with a stainless steel nozzle with aerodynamic slots. The construction utilizes the compressed air optimally while lowering both the sound level and air consumption to a minimum for a traditionally designed air nozzle. Patented.

Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.

Valve 4000, stainless steel nozzle. **Order no: 4010-S**

4000 with extension pipe

As an alternative, the 4000 is available with a 1000 mm extension pipe. Custom lengths can also be delivered upon request. Choosing the right length is important to assure maximum safety and optimal working posture. When ordering the 4000 with a 1000 mm extension pipe, use order number: 4015-L-1000.





For cleaning out blind holes

Hole blower BG 007

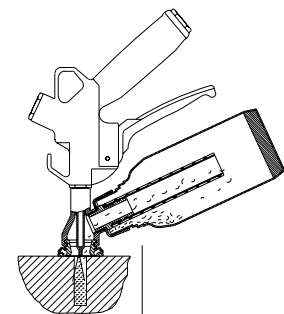
Cleaning out blind holes with compressed air generally creates loud and injurious noise. The BG 007 eliminates harmful noise while directly collecting flying chips in a vessel at the same time. This closed system makes for a cleaner, quieter and safer working environment. The specially designed rubber collar seals tight during the clean-out operation. The flexibility of the collar allows the gun to be held at the most ergonomically correct angle.

The collection vessel is easy to empty and can be rotated 360°. The gun features both top and bottom connection. Patented.

Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.

Hole blower BG 007

Order number: BG 007



BG 007 eliminates harmful noise and collects flying chips directly in a vessel at the same time.

A
cleaner
working
environment!

Special guns for highly specialized requirements



Sealed gun for use when sand blasting

Special gun 100

A safety gun with no moving parts. The blowing force is regulated by varying thumb pressure against the side of the nozzle. The valve mechanism is encapsulated and completely sealed, protecting the gun against intrusion of dust. This design makes the gun perfect for use in dirty and dusty environments, e.g. blasting cabinets. The gun is suitable for installation hanging above the operator. Patented.

Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.

Order number: 100

Infinitely variable blowing force with 10 times more power

Blowing tool 1710

A blowing tool with a stainless steel slot nozzle that generates blowing forces of up to ten times those of ordinary air guns. The manual valve allows infinitely variable adjustment of the blowing force. The nozzle's aerodynamic slots utilize the compressed air optimally while limiting the sound level and air consumption to a minimum. The blowing tool is made of aluminum with plastic insulation on the handle. Used wherever high blowing forces are required, e.g. for drying machines and vehicles after washing or blow-off of heavy chips. Patented.

Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.

Order number: 1710

Extra hand lever

Silvent 100 can be fitted with an extra hand lever. The hand lever must be ordered separately.

Order number: Hand lever 103



replacement nozzles

ORDER NUMBER:

MJ4

Nozzle of stainless steel. Standard nozzle on 007-MJ4, 500-MJ14. Connection: M4x0.5

MJ5

Nozzle of stainless steel. Standard nozzle on 007-MJ5, 500-MJ15. Connection: M5x0.5

MJ6

Nozzle of stainless steel. Standard nozzle on 007-MJ6, 500-MJ16. Connection: M6x0.75

5001

Nozzle of zinc. Standard nozzle on 500-Z, 007-Z. Connection: M7x0.75

1001

Nozzle of stainless steel. Standard nozzle on 007-L, 500-L, 2050-L. Connection: M7x0.75

0071

Nozzle of stainless steel. Standard nozzle on 007-S, 500-S, 2050-S. Connection: M7x0.75

8001

Nozzle of PEEK. Standard nozzle on 007-P. Connection: M/x0.75

2120

Nozzle of zinc. Standard nozzle on 008, 501. Connection: G1/4"

921

Nozzle of zinc. Connection: G1/8"

920

Nozzle of zinc. Standard nozzle on 5920. Connection: G1/4"

971

Nozzle of stainless steel. Standard nozzle on 0971. Connection: G1/8"

973

Nozzle of stainless steel. Standard nozzle on 2973. Connection: G1/4"

2005

Nozzle of aluminum. Standard nozzle on 2055-A. Connection: G3/8"

701

Nozzle of stainless steel. Standard nozzle on 751-S. Connection: G1/2"

703

Nozzle of stainless steel. Standard nozzle on 753-S. Connection: G1/2"

705

Nozzle of stainless steel. Standard nozzle on 755-S, 2055-S. Connection: G1/2"

707

Nozzle of stainless steel. Standard nozzle on 757-S. Connection: G1/2"

4010

Nozzle of stainless steel. Standard nozzle on 4010-S. Connection: M36x1.5

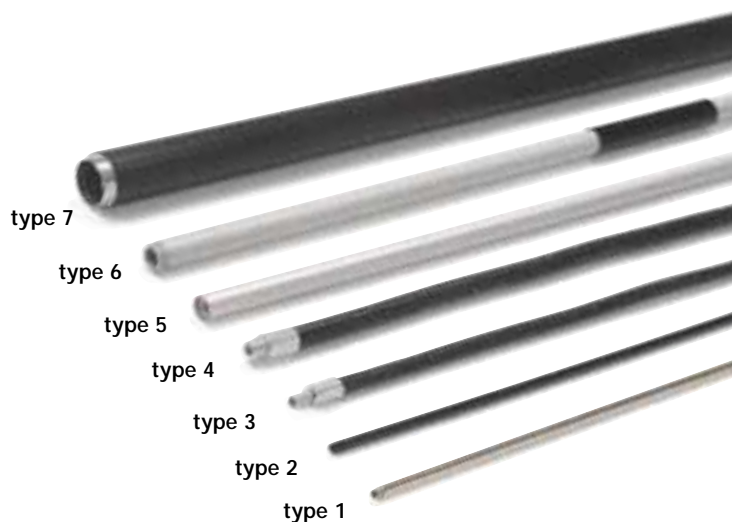
4015

Nozzle of stainless steel. Standard nozzle on 4015-L. Connection: M36x1.5



The order numbers above are for nozzle only. If you need an adapter as well, specify so when ordering and, in such case, the gun to which the nozzle is to be connected.

Type	Extension pipe	Length
0	-	Nozzle mounted directly on grip
1	Ø8 steel	L = 100 (4"), 250 (10"), 400 (16"), 600 (24"), 800 (32"), 1000 (40")
2	Ø8 plastic	L = 125 (5"), 250 (10"), 500 (20")
3	Flex 600	L = 200 (8"), 300 (12"), 400 (16"), 500 (20"), 600 (24"), 800 (32")
4	Flex 800	L = 200 (8"), 300 (12"), 400 (16"), 500 (20"), 600 (24"), 800 (32")
5	Ø19 alu.	L = 150 (6"), 500 (20"), 1000 (40"), 1500 (60"), 2000 (80")
6	Ø22 alu.	L = 500 (20"), 1000 (40"), 1500 (60"), 2000 (80")
7	Ø40 alu.	L = 1000 (40")

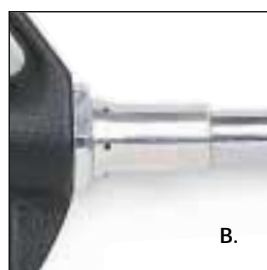
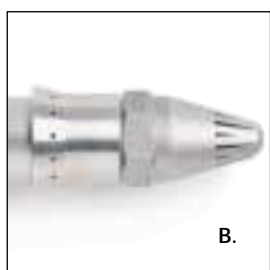
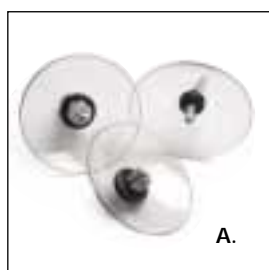


Extension pipes

Silvent offers a wide assortment of extension pipes in various materials and dimensions, from Ø8 mm to Ø40 mm in diameter. We also offer

bendable hoses that maintain their position even when blowing at high pressures. Our pipes and hoses are available in a number of different lengths, from 100 mm to 2000 mm

(see table). Special lengths are available upon request. All of the extension pipes are dimensioned for use with one of our safety nozzles.



A. Plastic safety shields

Effectively protects the body and eyes from spattering and flying chips when blowing, e.g. blind holes. Meets OSHA's standards for safe blowing. Available in three different sizes depending on the type of gun used. See table. Material: Polycarbonate.

article	dim. Ø		hole Ø		fits gun
	mm	"	mm	"	
590	100	3.94	8	0.315	007, 500, 2050
591	100	3.94	16	0.63	008, 501
592	100	3.94	18	0.71	2055-A

B. Air shields

Prevents spattering and flying chips from striking the body and eyes. Especially useful in confined spaces. Meets OSHA's standards for safe blowing. Available in two different sizes. See table. Material: Aluminum.

article	dim. Ø		thread	fits gun	air consumption	
	mm	"			Nm ³ /h	scfm
AS1	12	0.47	M8x1	007, 500, 2050	7.2	4.2
AS3	24	0.95		2055	20.7	12.2

Supplied pre-mounted at the factory. Specify with an additional designation at the end of the order number, e.g. 007-S-AS1.

C. Spiral hoses

Self-coiling spiral hoses with swivel couplings in three different materials depending on requirements and environment.

- SN - Spiral hose of polyamide. Low-cost hose.
- SP - Spiral hose of polyurethane. Standard hose.
- SA - Spiral hose of reinforced polyurethane. Exclusive hose.

These hoses create very little pressure drop, even with the longer versions. See lengths and dimensions in the table below.



article	dim. Ø		coil Ø		ext. length		connection	
	mm	"	mm	"	m	feet	BSP	NPT
SN-08-030	6.0x8.0	15/64x5/16	75	2.95	3.5	11.5	1/4"	1/4" -18
SN-08-050	6.0x8.0	15/64x5/16	75	2.95	5.0	16.4	1/4"	1/4" -18
SP-10-030	6.3x9.5	1/4x3/8	60	2.36	2.4	8	1/4"	1/4" -18
SP-10-060	6.3x9.5	1/4x3/8	60	2.36	4.8	16	1/4"	1/4" -18
SA-10-030	6.3x9.5	1/4x3/8	42	1.65	2.4	8	1/4"	1/4" -18
SA-10-060	6.3x9.5	1/4x3/8	42	1.65	4.8	16	1/4"	1/4" -18
SP-15-030	9.5x15.0	3/8x19/32	110	4.33	2.4	8	3/8"	3/8" -18
SP-15-060	9.5x15.0	3/8x19/32	110	4.33	4.8	16	3/8"	3/8" -18
SN-16-050	13.0/16.0	33/64x5/8	220	8.66	5.0	16.4	1/2"	1/2" -14

Combination table

In addition to our standard assortment, you can build air guns yourself that meet your requirements and suit your particular applications.

In the table you will find all the variations that are technically possible to assemble. We have chosen dimensions that will allow you to attain maximum performance from our guns and nozzles, i.e. you get the same low sound level and air consumption and the same safety you get with our standard guns.

It's this easy to build your own air gun:

1. Begin by choosing your pistol grip.
2. Select a suitable extension pipe type (see table on page 27).
3. Use the table below to find the nozzles that are suitable for the alternatives you have chosen. All of our nozzles are shown on page 26. Choose your nozzle.
4. Determine the extension pipe length using the table below.
5. Write the order code as shown in the example below.

Every gun is delivered complete, i.e. necessary adapters are included, and of course they have the same high quality as our standard range.

Here you can easily combine components to build
a complete safety gun
 that meets your own requirements

Air nozzle

Designation	Material
MJ4	Stainless steel
MJ5	Stainless steel
MJ6	Stainless steel
0071	Stainless steel
5001	Zinc
8001	PEEK
1001	Stainless steel
921	Zinc
920	Zinc
971	Stainless steel
973	Stainless steel
2120	Zinc
2005	Aluminum
701	Stainless steel
703	Stainless steel
705	Stainless steel
707	Stainless steel
4110	Stainless steel
4115	Stainless steel

Type	Extension pipe	Length
0	-	Nozzle mounted directly on grip
1	Ø8 steel	L = 100 (4"), 250 (10"), 400 (16"), 600 (24"), 800 (32"), 1000 (40")
2	Ø8 plastic	L = 125 (5"), 250 (10"), 500 (20")
3	Flex 600	L = 200 (8"), 300 (12"), 400 (16"), 500 (20"), 600 (24"), 800 (32")
4	Flex 800	L = 200 (8"), 300 (12"), 400 (16"), 500 (20"), 600 (24"), 800 (32")
5	Ø19 alu.	L = 150 (6"), 500 (20"), 1000 (40"), 1500 (60"), 2000 (80")
6	Ø22 alu.	L = 500 (20"), 1000 (40"), 1500 (60"), 2000 (80")
7	Ø40 alu.	L = 1000 (40")

Order code:

Pistol grip-nozzle-extension type-length
 E.g. 007-MJ4-1-250



Pistol grip 007				Pistol grip 500				Pistol grip 2000					Pistol grip 750		Bazooka grip 4000		Extension pipe			
Direct mount	Steel Ø8	Plastic Ø8	Flex 600	Direct mount	Steel Ø8	Plastic Ø8	Flex 600	Direct mount	Steel Ø8	Plastic Ø8	Flex 600	Flex 800	Alu. Ø19	Direct mount	Alu. Ø22	Direct mount		Alu. Ø40		
0	1	2	3	0	1	2	3	0	1	2	3	4	5	0	1	2	3	Type		
-	X	X	X	-	X	X	X	-	X	X	X	-	-	-	-	-	-	-	-	
-	X	X	X	-	X	X	X	-	X	X	X	-	-	-	-	-	-	-	-	
-	X	X	X	-	X	X	X	-	X	X	X	-	-	-	-	-	-	-	-	
-	X	X	X	-	X	X	X	-	X	X	X	-	-	-	-	-	-	-	-	
X	-	-	X	X	-	-	X	X	-	-	X	-	-	-	-	-	-	-	-	
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-	-	-	-	-	-	-	-	X	-	-	-	-	-	X	X	-	-	X	X	
-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	X	X	

technical specifications

Safety gun	Max. temp.		Max. pressure		Blowing force		Sound level	Air consumption		Connection		Nozzle material
	°C	°F	MPa	psi	N	oz	dB(A)	Nm³/h	scfm	BSP	NPT	
007-MJ4	+70	+158	1.0	143	0.9	3.2	76	4	2.4	1/4"	1/4"-18	Stainless steel
007-MJ5	+70	+158	1.0	143	1.8	6.3	79	10	5.9	1/4"	1/4"-18	Stainless steel
007-MJ6	+70	+158	1.0	143	2.5	8.8	82	14	8.2	1/4"	1/4"-18	Stainless steel
007-P	+70	+158	1.0	143	2.4	8.4	79	14	8.2	1/4"	1/4"-18	PEEK
007-S	+70	+158	1.0	143	2.8	9.9	81	16	9.4	1/4"	1/4"-18	Stainless steel
007-Z	+70	+158	1.0	143	3.0	10.6	79	17	10.0	1/4"	1/4"-18	Zinc
007-L	+70	+158	1.0	143	3.5	12.4	82	22	12.9	1/4"	1/4"-18	Stainless steel
008	+70	+158	1.0	143	3.0	10.6	80	17	10	1/4"	1/4"-18	Zinc
0971	+70	+158	1.0	143	3.3	11.6	81	19	11.2	1/4"	1/4"-18	Stainless steel
500-MJ4	+70	+158	1.0	143	0.9	3.2	76	4	2.4	1/4"	1/4"-18	Stainless steel
500-MJ5	+70	+158	1.0	143	1.8	6.3	79	10	5.9	1/4"	1/4"-18	Stainless steel
500-MJ6	+70	+158	1.0	143	2.5	8.8	82	14	8.2	1/4"	1/4"-18	Stainless steel
500-S	+70	+158	1.0	143	3.2	11.3	81	19	11.2	1/4"	1/4"-18	Stainless steel
500-Z	+70	+158	1.0	143	3.2	11.3	79	19	11.2	1/4"	1/4"-18	Zinc
500-L	+70	+158	1.0	143	4.2	14.2	83	25	14.7	1/4"	1/4"-18	Stainless steel
520-580	+70	+158	1.0	143	2.9	10.2	79	16	9.4	1/4"	1/4"-18	Zinc
501	+70	+158	1.0	143	3.5	12.4	80	19	11.2	1/4"	1/4"-18	Zinc
5920	+70	+158	1.0	143	5.5	19.4	81	30	17.7	1/4"	1/4"-18	Zinc
2050-S	+70	+158	1.0	143	3.2	11.3	81	19	11.2	3/8"	3/8"-18	Stainless steel
2050-L	+70	+158	1.0	143	4.4	15.5	84	26	15.3	3/8"	3/8"-18	Stainless steel
2220-2280	+70	+158	1.0	143	3.5	12.4	80	19	11.2	3/8"	3/8"-18	Zinc
2973	+70	+158	1.0	143	9.5	33.5	86	58	34.2	3/8"	3/8"-18	Stainless steel
2055-A	+70	+158	1.0	143	13.5	47.7	93	92	54.2	3/8"	3/8"-18	Aluminum
2055-S	+70	+158	1.0	143	15.0	52.9	92	95	55.9	3/8"	3/8"-18	Stainless steel
751-S	+70	+158	1.0	143	3.2	11.3	82	21	12.4	1/2"	1/2"-14	Stainless steel
753-S	+70	+158	1.0	143	9.6	33.9	89	57	33.6	1/2"	1/2"-14	Stainless steel
755-S	+70	+158	1.0	143	15.0	52.9	92	95	55.9	1/2"	1/2"-14	Stainless steel
757-S	+70	+158	1.0	143	17.0	60.0	93	110	64.8	1/2"	1/2"-14	Stainless steel
4010-S	+70	+158	1.0	143	30.0	105.9	99	216	127.2	3/4"	3/4"-14	Stainless steel
4015-L	+70	+158	1.0	143	54.0	190.6	104	312	183.8	3/4"	3/4"-14	Stainless steel
BG 007	+70	+158	1.0	143	1.0	3.5	72	4.4	2.6	1/4"	1/4"-18	Stainless steel
100	+70	+158	1.0	143	3.5	12.4	80	19	11.2	1/4"	1/4"-18	Aluminum
1710	+70	+158	1.0	143	30.0	105.9	99	216	127.2	3/4"	3/4"-14	Stainless steel

Companies all around the globe are striving to reduce their costs. Today many of them are aware of the fact that improving the working environment, by for example reducing noise levels, increases job satisfaction and general well being and thereby work capacity and productivity.

BMW saves large amounts of money annually by using Silvent's safety guns

Several years ago BMW conducted a study of energy saving and noise reducing air guns. Silvent's 500 air gun was compared with a conventional gun that was being used at the company. Extensive testing was done, including examination and measurement of 1,300 workstations. The results confirmed that an investment in Silvent's safety guns reduced compressed air consumption by up to 57% and lowered the noise level by approximately 50%.

A study of conservation of energy and the environment

The environmental department in Great Britain recently conducted a study of how compressed air consumption might be reduced by using safety guns. Silvent's safety nozzles were compared with conventional open pipe blowing. The test was performed by Van Leer Ltd., who manufacture steel drums. Compressed air is used at a number of stations throughout the entire production process. After testing Silvent's nozzles, the following conclusions were drawn:

- A 25% reduction of energy costs
- Payback time on the investment was four months
- Potential for substantial savings
- Extremely simple measures necessary



Excerpt from the results of the BMW report:

Our company uses approximately 753,000 Nm³ of compressed air per year. By using energy saving and noise reducing air nozzles it would be possible to reduce our air consumption by 57%. This corresponds to a volume of 430,000 Nm³ per year. At a cost of 1 cent/ Nm³ this means an annual savings of approximately \$6,250 USD and reduced energy consumption equivalent to approximately 48,000 kWh. The noise level would be reduced by at least 8 dB(A), which people would experience as though the noise level were only half as high.

An investment in Silvent air guns of the 500 series would cost approx. \$15,500 USD. An equivalent number of the guns we have been using would cost \$10,200 USD. The cost difference would be \$5,300 USD.

Implementation

The project was presented to the foremen at the company. They determined how many and what sort of guns the different sectors would need. Silvent's guns became standard. The old guns were scrapped. Payback time for the investment was less than one year.



A report made by the environmental department in Great Britain shows how compressed air can be saved by using the right air nozzles.

Important considerations when using air guns

Safety

Technology is developing at an ever-quickenning pace and the performance of our mechanical and electronic aids is improving daily. However, the latest innovations often increase not only our capacity but the risk of injury as well. Our tools are becoming more and more powerful and the only thing that cannot quite keep up with the pace is our own body.

Within in automotive field, the trend has been toward faster and more powerful models. In its wake there have been a large number of serious accidents. As the number of accidents rises, the demand for better safety standards increases. Today safety belts, neck rests, air bags and ABS brakes are so natural that they are taken for granted. That was not the case twenty years ago. Today nobody would dream of buying a new car with the safety standard of twenty years ago.

In the workplace, safety has generally improved though the tempo has increased and performance aims have risen. At some point in most manufacturing processes however compressed air is used for cleaning or drying. In today's highly productive industry, the risk of hearing loss and eye injury in association with blowing operations has increased dramatically.

Compressed air is an energy source that is capable of storing large amounts of energy, and improperly used it can cause serious accidents. Despite the risk of injury, open pipe air guns are still used in many places.

At Silvent we put safety first. We have always strived to develop and refine our products in order to minimize the risk involved in cleaning with compressed air.

Silvent's unique and patented air gun and air nozzle systems amply meet the strict requirements of government authorities for safety, noise limitation and energy conservation.

In the United States, safety in the workplace is governed by OSHA's regulations. OSHA stands for the Occupational Safety and Health Administration. The use of compressed air is

covered in OSHA's § 1910.242 (b). The paragraph defines safety regulations regarding pressure and protection from flying chips associated with compressed air cleaning.

Paragraph 29CFR § 1910.242 (b) states regarding "Handheld and portable pneumatic tools and equipment in general":

Compressed air for cleaning

"Compressed air may not be used for cleaning purposes unless the pressure of the air is reduced to less than 30 psi and then only together with effective chip guarding and personal safety equipment."

OSHA has also issued a clarification of how the paragraph shall be interpreted. In OSHA Instruction STD 1-13.1 the following is stated:

"3. Interpretation. The phrase "reduced to less than 30 psi (210 kPa)" means that air pressure downstream of a nozzle (nozzle pressure) or outlet of an air gun, open pipe or air lance etc. that is used for cleaning purposes shall maintain a level of pressure that is less than 30 psi (210 kPa) in all static conditions. The regulations for the dynamic flow are such that should the outlet opening be blocked, the static pressure at the primary orifice must not exceed 30 psi (210 kPa). These regulations are necessary to prevent the build-up of backpressure if the nozzle should become obstructed or dead ended. This is by no means intended to limit the diameter of the nozzle opening or to limit the flow from it.

"Effective chip guarding" means providing some method or equipment to prevent a chip or particle, regardless of size, from blowing into the eye or against the skin of the operator or a fellow worker. This chip protection may be separate from the nozzle as in the case where shields or barriers are used. Generally speaking, the use of protective air cones provides adequate protection for the operator, but screens, baffles or shields may be necessary to protect fellow workers from exposure to flying chips or particles."

All of Silvent's safety guns are designed to meet these regulations.



"Silvent's products amply meet the strict requirements of government authorities for safety, noise limitation and energy conservation."



Every Silvent safety gun fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations.

Sound

In the past a noisy machine was a symbol of strength, power and wealth. People accustomed themselves to the noise, i.e., they accepted it as the noisy machine meant income and existence. The fact that those exposed to the noise became hard of hearing or practically deaf was considered a natural part of the occupation. Today we no longer need to accept this rationalization. There are possibilities to reduce or eliminate noise, both in the workplace and in our private lives. It is simply a matter of making people aware of the dangers and the possibilities so that we can take action against noise. Many experts and researchers view noise pollution as one of the most major of today's environmental problems.

The problem of noise has come to the attention of numerous government agencies. Both the EU's Machine Directive and OSHA's regulations in the USA set limits for maximum daily exposure to noise. Should the designated exposure limit be exceeded, an investigation of the cause must be conducted. Corrective measures must be devised, scheduled and implemented. Exposure must be reduced as much as is practically possible to below the designated limit.

Quite often air guns can be the decisive factor when meeting the authorities requirements. Noise abatement at the source of the noise is generally the most effective and economical solution.

The EU Machine Directive states in § 1.5.8:
 "Machines shall be designed and constructed so that the risks associated with the emission of air-borne noise are reduced to the lowest level possible with consideration to technological advances and existing devices designed to reduce noise, particularly at its source."

The EU directive further states that former reference to the economic feasibility of noise control measures is no longer valid. The purpose of the EU directive is, among other things, to assure that companies and countries shall not be allowed to improve their competitive position at the expense of a healthy working environment.

Using Silvent's air guns and safety nozzles allows you to meet the strictest noise limitation requirements and thereby also amply fulfill the EU Machine Directive's and OSHA's regulations.

Energy

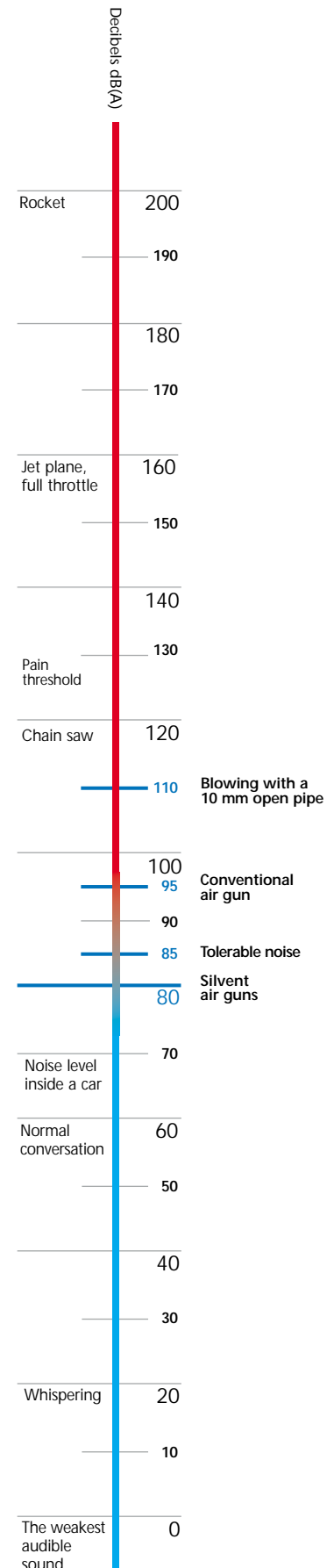
Within every company there is an ongoing aspiration to reduce costs. Every expense is scrutinized, including energy costs. Electrical energy is the dominating type of energy used in virtually all production of compressed air. The prospects for saving energy associated with the use of compressed air are extremely good and often ignored, for example through recycling, reducing pressure, eliminating leaks and optimizing use.

At least as important as saving money is investing in energy saving measures that provide increased comfort and quality of life. More and more people have understood the connection between job satisfaction and human performance. A good example is using properly dimensioned air guns fitted with safety nozzles when cleaning with compressed air. In addition to reducing energy costs, you also get considerably lower noise levels.

Clearly the cost of energy is a key factor when dimensioning a compressed air installation. Therefore it is important to find a solution that not only meets the requirements for performance and quality, but requirements for efficient utilization of energy as well. The additional cost that may arise when purchasing equipment that fulfills both criteria may well be a good investment in the long run.

Silvent's patented air guns and safety nozzles allow more efficient utilization of the compressed air. This permits you to lower the pressure at your workstations and still perform the same job. Lower pressure means an even lower sound level as well as lower energy consumption.

You should always strive to have the right pressure in the right place – neither too high nor too low. The operating pressure directly affects the need for power. Higher pressure of course means higher energy consumption. Raising the operating pressure to compensate for pressure drop always means higher operating costs. A concrete example of this is that raising the pressure by one bar means an approximately 8% increase in energy consumption. An equivalent reduction results in an equally large increase of profit.



Silvent - world leader in fixed installations

In this brochure we have presented our broad range of unique and globally patented safety guns. Our safety guns represent but one of our three main product areas. The others are safety nozzles for fixed installations and silencers for pneumatic valves - all products that save energy, eliminate dangerous compressed air noise and make the daily working environment a safer and more comfortable place to be.

Silvent is world leader in fixed compressed air blowing applications. Our customers represent every field, from food processing to the steel and manufacturing industries the world over. The reference list to the right shows some of the companies that today are steady users of Silvent's products.

ABB
ALUMINIUM NORF
ASTRA
BASF
BAYER AG
BOEING
BMW
BRITISH STEEL
CATERPILLAR
COCA COLA
CITROEN
DAIMLER BENZ
ERICSSON
FRIGOSCANDIA
FORD
GENERAL ELECTRIC

GENERAL MOTORS
GRUNDIG
HASSELBLADS
HOECHST
HERSEY FOODS
INTEL
JAGUAR
JOHN DEERE
MICHELIN
MITSUBISHI
MODO
NIPPON STEEL
ORREFORS
PHARMACIA & UPJOHN
PORSCHE
PRATT & WHITNEY

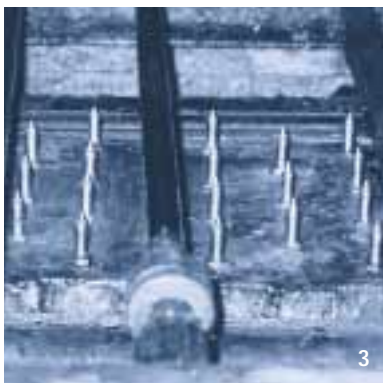
RENAULT
ROLLS ROYCE
SAAB
SANDVIK
SCA
SIEMENS
SKF
SSAB
TETRA PAK
TOYOTA
TUBORG
VOLKSWAGEN
VOLVO
WALT DISNEY
YAMAHA



1



2



3



4

1. Silvent high force multi-unit 1212 (with 12 nozzles) solves quality and environmental problems at British Steel.

2. Swedish camera maker Hasselblad has installed Silvent silencers in their production facilities to eliminate oil mist and impulse noise. The picture shows a CNC machine fitted with a central silencer and oil separation.

3. At Yamaha in Japan, 35 Silvent 011s have been installed in each of 10 lines to clean cylinder heads. The nozzles have reduced energy consumption by 50% and cut the noise level in the workshop in half. Previously open pipe was used for drying.

4. Norsk Blikkvalseverk manufactures sheet metal for the packaging industry. They save more than 100,000 Swedish crowns in energy costs annually after installing Silvent safety nozzles 705, 209 and 920. The nozzles effectively dry the sheet metal and thereby prevent oxidation that negatively affects quality.



Silvent's safety nozzles have become an institution throughout the world. We are continuously developing new products and can today offer the widest assortment of compressed air nozzles on earth.

From our headquarters in Borås, Sweden we distribute our safety products via our agents or our own sales companies all over the world.



Order our main catalog **today!**

Here you will find our entire assortment of products, including air knives, safety nozzles, safe air guns and silencers. The catalog also serves as a handbook in the science of noise abatement and energy conservation. Silvent provides information and advice on how to eliminate harmful compressed air noise easily and effectively and, at the same time, save considerable amounts of costly compressed air.

Contact us at once and we will send you our main catalog free of charge.

Do you want the main catalog even quicker? Visit our web site and download the entire catalog directly from the Internet!

www.silvent.com



improve safety
reduce harmful noise
conserve energy



Silvent's air guns provide the possibility of a safer workplace. Our patented safety guns meet the noise limitations requirements of the EU Machine Directive and OSHA (Occupational Safety and Health Administration). By choosing Silvent you choose a unique safety gun that lowers the noise level and, at the same time, conserves compressed air and thereby energy as well.

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