



The Silvent Technology.

Unique research and engineering expertise
in the area of compressed air dynamics.



Silvent helps manufacturers with energy optimization and improved working environments.



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The Silvent Technology

Silvent has invested heavily in research and development and today we offer the most advanced air nozzle technology in the world.

An investment in Silvent products quickly pays for itself in reduced energy costs. In addition, you get more efficient blowing, lower noise levels and a safer working environment for your operators.

Advanced air nozzle technology

Years of research have led to the development of the renowned, patented Silvent Technology. Its basic principle is creating a uniform, steady and straight or so-called laminar air stream rather than the turbulent and noisy stream generated by open pipe. Every Silvent nozzle features an optimal combination of high blowing force, low noise level and low energy consumption. Replacing open pipe installations with Silvent compressed air nozzles normally means:

- Lowering the sound level by 50%
- Reducing air consumption by at least 35%
- Complying with authorities' safety requirements

The problems

In most cases the installation of open pipe is not preceded by any sort of formal technical dimensioning, and since theoretical knowledge of aerodynamics is often limited, efficiency is insufficient. By over-dimensioning, open pipe blowing does work, but its drawbacks include:

- Excessive turbulence that generates harmful noise
- Inordinate energy consumption, for example waste of expensive compressed air
- A hazardous working environment with, for example the risk of embolism



Unique knowledge



Unique products

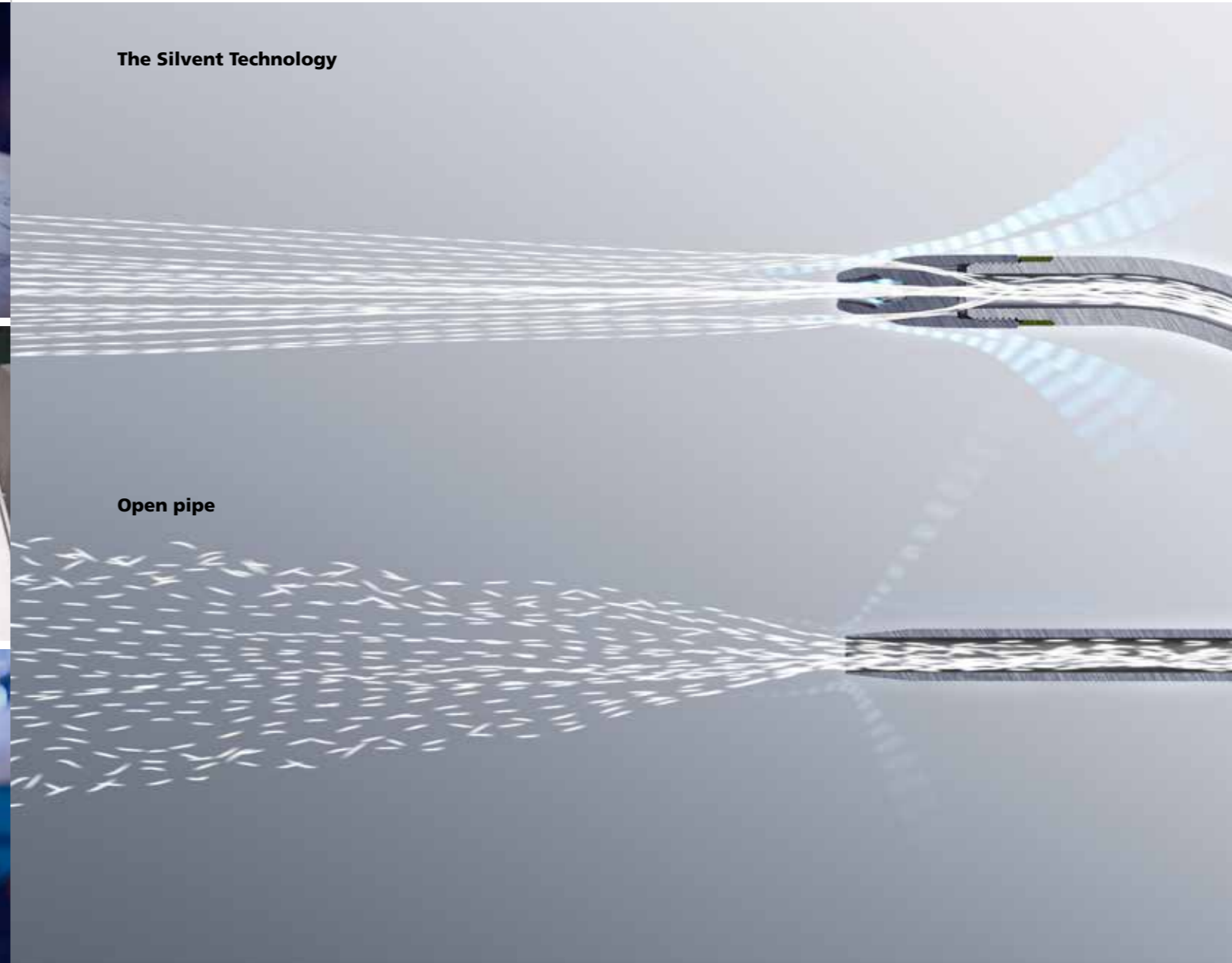


-50% dB(A)



-35% kWh

The Silvent Technology

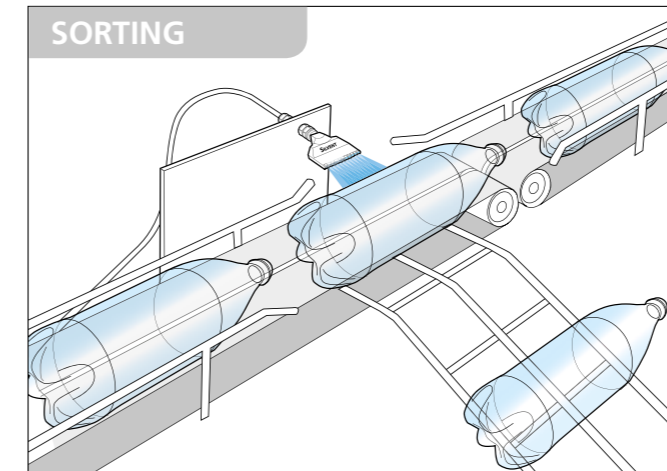


Open pipe

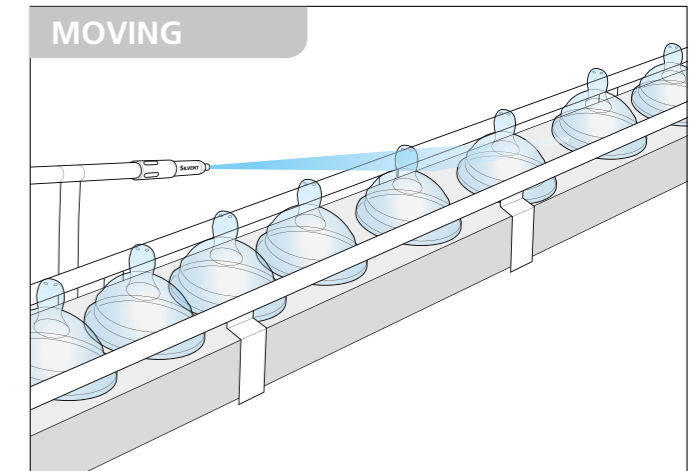
The Silvent Technology generates a laminar air jet for optimal usage and efficiency, due to minimizing the turbulence and at the same time maximizing the noise reduction. This unique combination allows a 35% energy reduction and 50% noise reduction compared to blowing with open pipes.



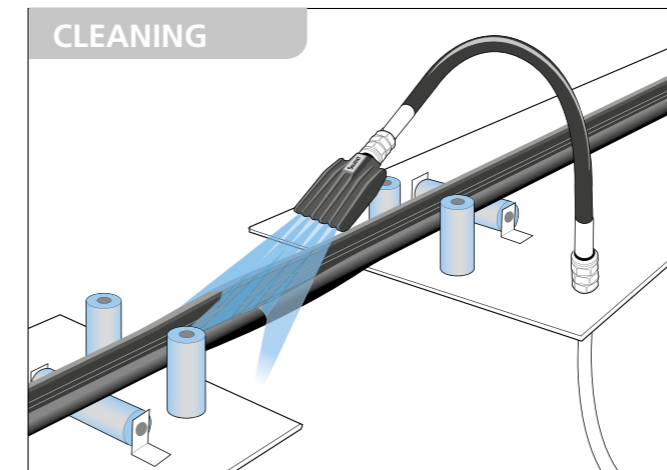
Application examples



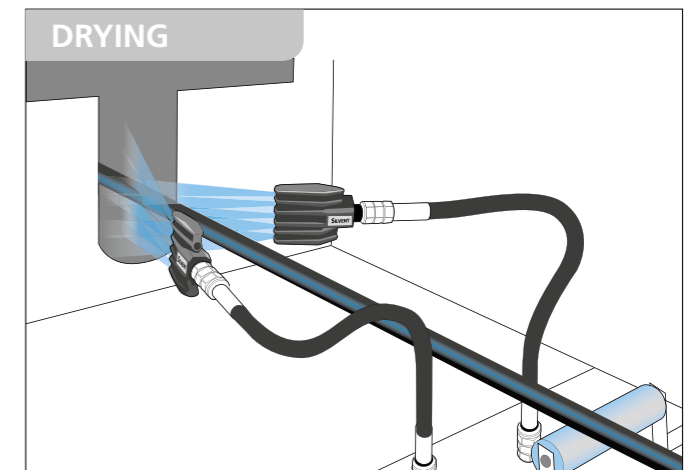
Sorting bottles on a conveyor belt with SILVENT 973 including PSK14 for fine-tuning of the optimal blowing angle.



Moving caps with SILVENT MJ4-QS equipped directly on a 4 mm diameter open pipe.



Cleaning of a rubber section with SILVENT 9002W equipped with adjustable FlexBlow hose.



Drying parts after cooling with SILVENT 9002W nozzles equipped with adjustable FlexBlow hoses.

Rasmus Tibell, Technical Director at Silvent gives his advice about

Blowing with compressed air

It is essential to choose the right air nozzle to ensure that the application will be safe, quiet and effective, as well as economical. Each blowing operation is unique, but taking the factors on this page into account makes it easy to optimize the blowing application.



1. Blowing force

Blowing force is crucial; if it is inadequate, the blowing application cannot be performed, while if it is oversized, it is not possible to take full advantage of the Silvent technology. Blowing force is measured in newtons (N) and ounces (oz) or pounds (lbs). Contact Silvent if you are uncertain about the blowing force required for your application.

2. Blowing pattern

Flat Generates a broad air jet.

Wide Generates a large conical air jet.

Concentrated Generates a centered conical air jet.

Laval Generates a core jet with supersonic speed surrounded by a protective airstream.

3. Material

Zinc Handles blowing applications with low ambient temperatures and limited mechanical abrasion. From -20° to +70°C (-4° to +158° F).

Stainless Tolerates high ambient temperatures, mechanical abrasion, aggressive and corrosion-prone atmosphere as well as requirements for cleanliness. From -20° to +400°C (-4° to +752° F).

Zytel An advanced fiberglass-reinforced polyamide with good performance in terms of moisture, temperature, and chemical environment. Max temperature is 180°C (356°F).

For other materials, please visit [silvent.com](https://www.silvent.com)

How can we help you?

With more than 25 years of experience helping our customers with their blowing applications, we will assist you in selecting the optimal nozzles and give you advice of what to think about when implementing our technology. Never hesitate to contact us if you have any questions or if you want to discuss how to improve your blowing applications.

Looking forward to hearing from you!



Implement the Silvent Technology in two simple steps

Follow our two simple steps to a better solution today.

1. Measure your inner diameter pipe size and choose the one within your range here below.

2. What kind of blowing pattern fits your solution? Choose the one that suits you. You are now ready to improve your application. It's as simple as that!



The nozzles below are just eight examples from our wide range of more than 300 nozzles. For larger or smaller dimensions and complete range of air nozzles, please visit silvent.com

* The cost for compressed air is estimated to 0.30 USD / 1000 scfm. The examples below are calculated based on eight hours usage, five days per week, 52 weeks per year, which gives these annual savings.

1

Replace open pipe: Ø 3 – 4 mm

Replace open pipe: Ø 5 – 6 mm

Replace open pipe: Ø 7 – 8 mm

Replace open pipe: Ø 9 – 10 mm

2

Blowing pattern



SILVENT 209 L

Order no: 209 L	SI units	US units
Blowing force	3.4 N	12.0 oz
Air consumption	17 Nm ³ /h	10.0 scfm
Sound level	78 dB(A)	
Connection	G 1/4"	1/4"-18 NPT
Material	Zinc	
Noise reduction	17 dB(A)	
Air savings	43 %	
Cost savings*	288 \$	



SILVENT 1011

Order no: 1011	SI units	US units
Blowing force	4.4 N	15.5 oz
Air consumption	26 Nm ³ /h	15.3 scfm
Sound level	84 dB(A)	
Connection	G 1/8"	1/8"-27 NPT
Material	Stainless steel	
Noise reduction	18 dB(A)	
Air savings	61 %	
Cost savings*	906 \$	



SILVENT 703 L

Order no: 703 L	SI units	US units
Blowing force	10.6 N	2.3 lbs
Air consumption	60 Nm ³ /h	35.3 scfm
Sound level	91 dB(A)	
Connection	G 1/2"	1/2"-14 NPT
Material	Stainless steel	
Noise reduction	17 dB(A)	
Air savings	49 %	
Cost savings*	1 280 \$	



SILVENT 705 L

Order no: 705 L	SI units	US units
Blowing force	17.0 N	3.8 lbs
Air consumption	95 Nm ³ /h	55.9 scfm
Sound level	93 dB(A)	
Connection	G 1/2"	1/2"-14 NPT
Material	Stainless steel	
Noise reduction	19 dB(A)	
Air savings	49 %	
Cost savings*	1 988 \$	



Blowing pattern



SILVENT 941

Order no: 941	SI units	US units
Blowing force	3.4 N	12.0 oz
Air consumption	18 Nm ³ /h	10.6 scfm
Sound level	78 dB(A)	
Connection	G 1/8"	1/8"-27 NPT
Material	Stainless steel	
Noise reduction	17 dB(A)	
Air savings	40 %	
Cost savings*	266 \$	



SILVENT 9002W

Order no: 9002W	SI units	US units
Blowing force	6.0 N	1.3 lbs
Air consumption	30 Nm ³ /h	17.7 scfm
Sound level	80 dB(A)	
Connection	G 1/4"	1/4"-18 NPT
Material	Zytel	
Noise reduction	22 dB(A)	
Air savings	55 %	
Cost savings*	816 \$	



SILVENT 973

Order no: 973	SI units	US units
Blowing force	9.5 N	2.1 lbs
Air consumption	58 Nm ³ /h	34.1 scfm
Sound level	86 dB(A)	
Connection	G 1/4"	1/4"-18 NPT
Material	Stainless steel	
Noise reduction	22 dB(A)	
Air savings	51 %	
Cost savings*	1 325 \$	



SILVENT 9005W

Order no: 9005W	SI units	US units
Blowing force	15.0 N	3.3 lbs
Air consumption	76 Nm ³ /h	44.7 scfm
Sound level	87 dB(A)	
Connection	G 1/4"	1/4"-18 NPT
Material	Zytel	
Noise reduction	25 dB(A)	
Air savings	59 %	
Cost savings*	2 407 \$	



Optimize your application

Smart accessories and alternative products help you to get the best performance out of your blowing application. Fine tuning of the blowing angle or the blowing force allow a better usage of the compressed air, and in many applications the blowing angle needs to be adjusted depending on the object or surface.



	Fine tuning of blowing angle	Fine tuning of blowing force	On/off valve
 209 L	PSK 14	FV 14	KV 14
 941	PSK 18	FV 18	KV 18
 1011	PSK 18	FV 18	KV 18
 9002W	PSK 14	FV 14	KV 14
 703 L	703 LA* 	KVM 12	KVM 12
 973	PSK 14	973 F* 	KV 14
 705 L	705 LA* 	KVM 12	KVM 12
 9005W	PSK 14	FV 14	KV 14

*Integrated in product.



Read more about our wide range of smart accessories and alternative products at silvent.com

Alternative products including 209 L and 9002W

220 L – 280 L

209 L nozzle mounted on a bendable FlexBlow hose that maintains the desired position, even at high pressures. Silvent's FlexBlow hoses are available in 6 standard lengths with 1/4" male connection thread.

Connection: 1/4"

Lengths: 200 – 800 mm (7.87 – 31.49 inches)

221 L – 281 L

Magnetic base and bendable FlexBlow hose. Allows quick and easy adjustment to the correct blowing angle. Maintains the desired position, even at high pressures. Available in 6 standard lengths.

Connection: Ø 9 mm

Lengths: 200 – 800 mm (7.87 – 31.49 inches)

220 W – 280 W

9002W nozzle mounted on a bendable FlexBlow hose that maintains the desired position, even at high pressures. Silvent's FlexBlow hoses are available in 6 standard lengths with 1/4" male connection thread.

Connection: 1/4"

Lengths: 200 – 800 mm (7.87 – 31.49 inches)

221 W – 281 W

Magnetic base and bendable FlexBlow hose. Allows quick and easy adjustment to the correct blowing angle. Maintains the desired position, even at high pressures. Available in 6 standard lengths.

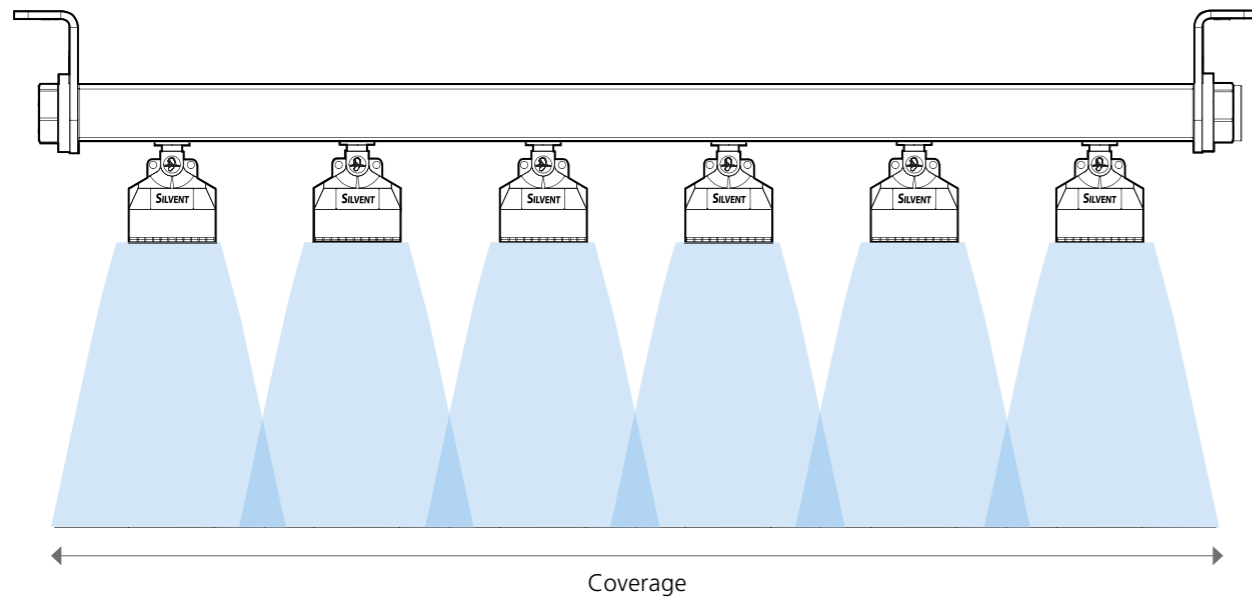
Connection: Ø 9 mm

Lengths: 200 – 800 mm (7.87 – 31.49 inches)



Customized solutions designed with experience and unique knowledge

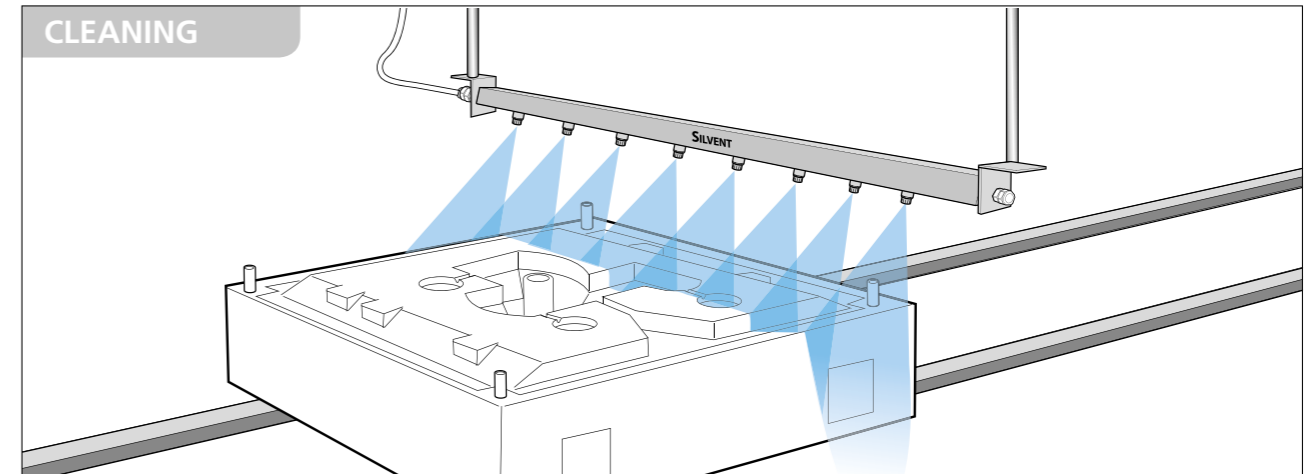
Often you need to cover a bigger area or object. For these applications, we design a customized air knife called SILVENT 300™ that is optimized for the specific needs. Just give us a description of the application and what area to cover, and we will design your air knife and advise you how to install it for best performance.



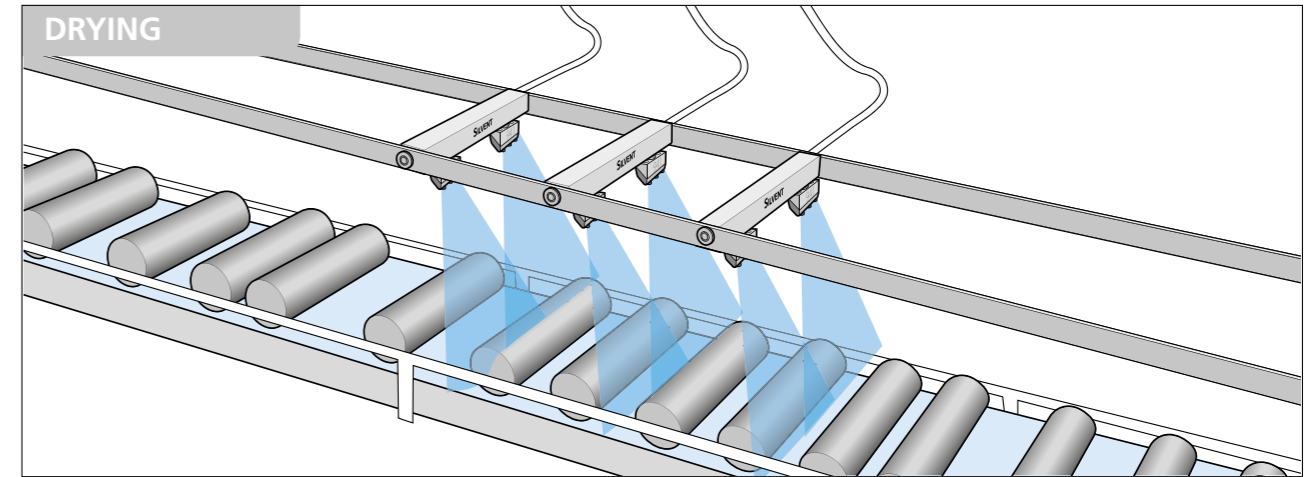
Are you interested in SILVENT 300™ or would you like to contact Silvent's application engineers? Contact your sales representative or send an email to info@silvent.com.



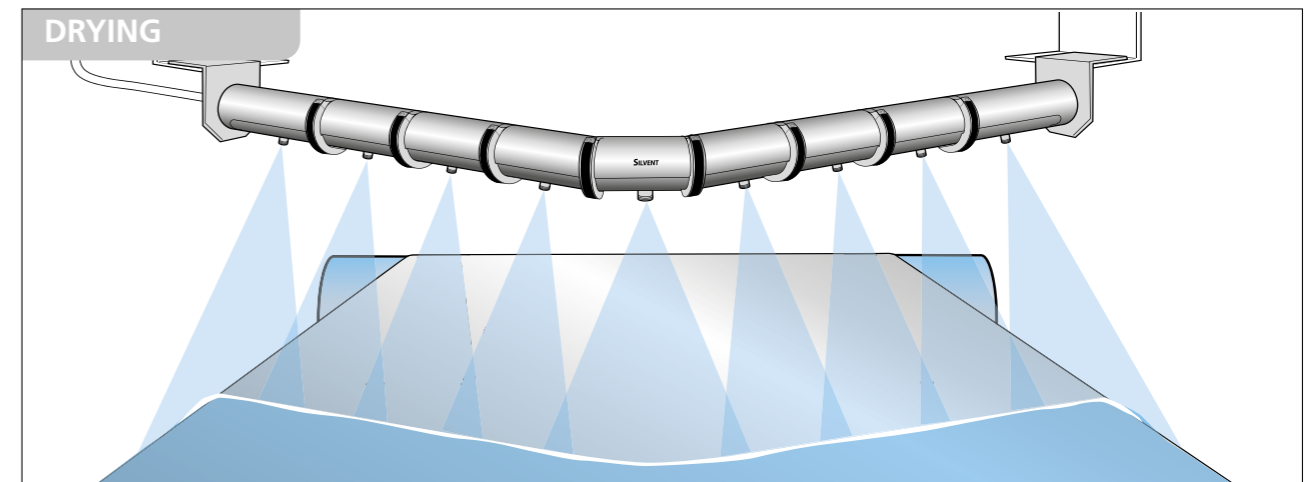
Examples



Removing dust etc. from molding tools with a SILVENT 300™.



Drying parts with 3 pcs SILVENT 300™ after washing process.



Removing coolant from a steel strip to avoid quality issues with a SILVENT AirFlow.



ProOne™

Patented air gun designed by users for users

SILVENT Pro One

Pro One is a durable hand tool designed for professional industrial use. The air gun is fitted with a specially designed, patented nozzle in stainless steel. This allows an effective blowing force and a low noise level. The nozzle creates a concentrated jet of air which reduces turbulence, thus enabling a more targeted, effective blowing force.

The model has a lightweight, slim design. The ergonomic handle allows several different grips to make work easier and reduce the risk of repetitive strain injuries.

Order no: Pro One

Blowing force	2.8 N (9.9 oz)
Sound level	78 dB(A)
Air consumption	14 Nm ³ /h (8.2 scfm)
Connection	1/4"
Material (nozzle)	Stainless steel (316 L)
Material (handle)	PA66
Noise reduction	>10 dB(A)

Prize winning design



reddot award 2017 winner



1. NOZZLE Specially designed, patented nozzle in stainless steel. The nozzle is designed to produce a concentrated blowing force.

2. MATERIAL Pro One is designed for industrial use and made of a flexible, durable material. Pro One is a robust hand tool designed for use in tough, challenging environments.

3. HANDLE Pro One has a lightweight, slim design. The ergonomic handle allows several different grips to make work easier and reduce the risk of repetitive strain injuries. What's more, Pro One is designed to fit both small and large hands.

4. CONNECTION Pro One is equipped with a patented check valve to avoid recoil and peak-sound pressure when disconnecting. Pro One has a 1/4" metal connector.

5. TRIGGER The trigger is designed to provide the best possible blowing force control. Because trigger opening force is independent of pressure, the risk of repetitive strain injuries is reduced.

6. HANGING Pro One is provided with two hang-up options – by the trigger or by the specially designed lug. Both surrounding areas are reinforced to withstand increased wear.



7 x blowing force

SILVENT 767 L

Designed for working environments that require a high blowing power. The valve handle is robust and tailored to provide the operator with the best possible grip. Silvent's special technology makes it possible to combine a concentrated and strong stream of air with a low noise level. The blowing force is roughly 7 times stronger than a regular air gun.

Order no: 767 L	SI units	US units
Replace open pipe	12 mm	1/2 inch
Blowing force	20.0 N	4.4 lbs
Air consumption	120 Nm ³ /h	70.6 scfm
Sound level	94 dB(A)	
Blowing pattern	Laval	
Connection	1/2"	
Material (nozzle)	Stainless steel	
Noise reduction	22 dB(A)	78 %
Air/cost savings	146 Nm³/h	55 scfm



15 x blowing force

SILVENT 4015-LF

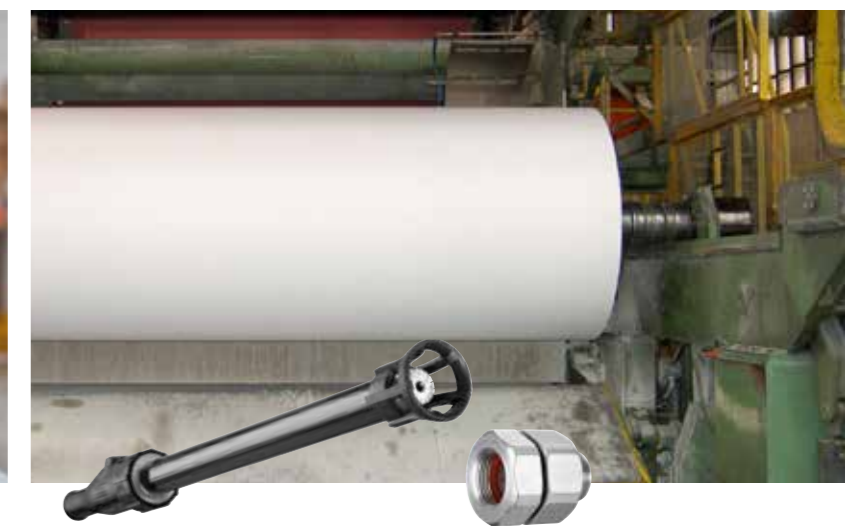
A unique product that combines highly concentrated blowing force with an easily maneuverable valve construction and low sound level. The patented nozzle design with a Laval orifice in the center surrounded by a ring of slots generates a low-turbulence air stream, which means a low sound level with no sacrifice of blowing force.

Order no: 4015-LF	SI units	US units
Replace open pipe	20 mm	3/4 inch
Blowing force	54.0 N	11.9 oz
Air consumption	312 Nm ³ /h	183.6 scfm
Sound level	104 dB(A)	
Blowing pattern	Laval	
Connection	3/4"	
Material (nozzle)	Stainless steel	
Noise reduction	22 dB(A)	78 %
Air/cost savings	428 Nm³/h	58 scfm



ALTERNATIVES:

Extension pipes: in two lengths 500 mm (20"), 1000 mm (40")



ALTERNATIVES:

Extension pipes: in two lengths 500 mm (20"), 1000 mm (40")
SW-4000 is a swivel joint that makes the Bazooka easy to use and keeps hoses free from tangles.

Patented safety silencers with warning indicators

Warning indicator

Provides early warning before problems arise in the pneumatic system.

Two-chamber system

Decreases backpressure when the expansion volume increases and new filter surface is exposed.



Outer diffuser

Effectively muffles noise through optimal use of the material volume.

Inner diffuser

Extends from the outer silencer chamber when backpressure is too great.

Clogging

A well-known problem with conventional silencers is that, sooner or later, the filter – the diffuser – becomes clogged with impurities and causes:

- **Costly machine stoppage**
- **Operational disturbance that is difficult to pinpoint**
- **Risk of explosion**

This has resulted in many production technicians removing silencers to avoid problems of this sort. Quite simply, the advantages of noise abatement have had to take a back seat to the practical problem of clogging.

Warning indicators offer a solution

Years of research have enabled Silvent to develop a new, unique and patented series of safety silencers with built-in warning indicators. Basically, the design allows the silencer itself to determine and set the optimal combination of flow capacity and noise reduction through the use of a dynamic inner diffuser. A reliable warning system also indicates that the silencer is about to clog. Using safety silencers of this type means that you:

- **Minimize costly machine stoppage**
- **Receive a warning before problems arise**
- **Reduce the risk of industrial accidents**
- **Allow prioritization of noise control measures**



SILVENT SIS-02 – 05

Safety silencers that offer extremely effective noise reduction, compact size and a unique and patented warning system. The silencer's warning indicator gives early warning that backpressure in the system is too high. Maintenance personnel can both see and hear (by an elevated sound level) that it is time to replace the silencer before costly and unnecessary operation disturbance occurs. Patented.

Silvent offers four different dimensions.

Order no	Connection	Air flow	Sound level	Noise reduction
SIS-02	1/8"	27 Nm ³ /h (15.9 scfm)	65.5 dB(A)	32 dB(A)
SIS-03	1/4"	53 Nm ³ /h (31.2 scfm)	66.5 dB(A)	33 dB(A)
SIS-04	3/8"	89 Nm ³ /h (52.4 scfm)	73.2 dB(A)	30 dB(A)
SIS-05	1/2"	115 Nm ³ /h (67.7 scfm)	76.5 dB(A)	33 dB(A)

SILVENT SIS-10 – 20

Safety silencers designed to handle sensitive systems with large flows that require minimal flow restriction. The silencers are compact in size, provide extremely effective noise suppression and feature a built-in warning indicator that immediately shows any increase of backpressure in the system. The unique filter material is divided into numerous "noise traps" or cells and gives extremely good muffling with minimal flow restriction.

The silencers are available in two sizes, 1 inch and 2 inch, and reduce noise levels 40-45 dB(A). They are supplied with a mounting bracket.

Order no	Connection	Air flow	Sound level	Noise reduction
SIS-10	1"	670 Nm ³ /h (394.3 scfm)	81.6 dB(A)	42 dB(A)
SIS-20	2"	1210 Nm ³ /h (712.2 scfm)	94.3 dB(A)	41 dB(A)





Silvent - the company and the people

Silvent helps manufacturers worldwide with energy optimization and improved working environments. Its headquarters is in Sweden where all research and development are done. The company has unique research and engineering expertise in the area of compressed air dynamics.

Silvent is a shortening of the Latin Silencium Ventum, which means quiet wind. Since the company was founded in 1989, the goal has been to optimize compressed air usage and improve the working conditions for those people who work with compressed air on a daily basis.

The Silvent R & D department is located at the headquarters in Sweden. Large resources are being put on the development of new products. The development work is often done in close cooperation with our customers and users. All manufacturing and assembly of the products takes place in Sweden.

Silvent's highly trained employees have cutting edge expertise in blowing with compressed air.



World Wide

Today, Silvent's products are used in 77 countries. Silvent's air guns, air knives, air nozzles, silencers and customized solutions for blowing with compressed air are used by major global companies with well-known brand names such as General Motors, Volvo, Toyota, Tetra Pak, Samsung, Baosteel, Kimberly-Clark and SKF.

Support

Our application engineers are always ready to give you advice and tips on how you can apply Silvent technology at your company. Today, we have experience from all kinds of industries. We offer full support all the way from the first contact until the application is installed and ready.

Research and development

Silvent's skilled staff have unique, cutting edge competence in the field of compressed air blowing. This know-how, together with Silvent's patented products, not only help companies to save enormous amounts of expensive compressed air, it improves the working environment for operators all over the world – an unbeatable combination according to many of Silvent's satisfied customers.



All products are assembled and inspected at our headquarters in Sweden prior to delivery.



KEY FACTS ABOUT SILVENT

- *Silvent Competence Centers are located in Sweden, USA, China, France, England and Austria.*
- *Owns world patents in compressed air dynamics and ergonomic design for a large part of the products.*
- *Silvent products have received awards such as Red Dot Product of the Year, IDEA and Plastovation of the Year.*
- *All products are manufactured in Sweden.*
- *Silvent is part of Lifco Group that is listed on Nasdaq Stockholm.*





A few of our customers

Volvo

Kimberly-Clark

Baosteel

Tetra Pak

Sandvik

Coca-Cola

Volkswagen

General Motors

Foxconn

SCA

ABB

BMW

Toyota

Lockheed Martin

Arconic

Schneider Electric

Porsche

Georgia Pacific

SSAB

Nestlé

Pratt & Whitney

Saint Gobain PAM

General Electric

Siemens

Tefal

Essity

Renault

Ferrero

Barilla

Marcegaglia

Coesia

Brembo

Boeing

Orrefors

Pilatus

Procter & Gamble

Voest Alpine

Tesla

Rolex

KTM

Hydro Aluminium

SKF

Magellan Aerospace

Rockwell Collins

Arcelor Mittal

Lenoch Engineering

Mincon International

3M

L'Oréal

Mercedes Benz

Stelco

and others

Contact

Silvent North America, Inc.
6370 Ameriplex Drive
Portage, Indiana 46368

Phone: +1 800-263-5638, +1 219-762-6876
Email: info@silvent.com

silvent.com