



SINCE 1910

Air Distribution Hoses

Enerdes

Greenhouse Climate Systems

Enerdes is the **global market leader** for greenhouse climate systems. For more than 70 years we have been specialized in air treatment and conditioning of air in semi-closed and conventional greenhouses. We offer you the **most advanced, precise and complete** solution for your greenhouse climate system that is currently available on the market.



+ All-In-One solution

We take care of it for you, from design to installation.

+ Tailor-made system

We can cater to all your specific needs.

+ 70+ years of experience

Enerdes is experienced with all sorts of greenhouses and climate systems.

+ Technical know-how

Our team of experts is highly educated. We use CFD (Computational Fluid Dynamics) modelling, in-house developed thermodynamic models and proprietary climate study software to accurately design your greenhouse.

+ Efficiency

Our products require very low power consumption and achieve the highest ratings for efficiency.

+ Precision

Precise climate control for your crop and most even air distribution in your greenhouse.

+ Patented air hose design

Enerdes has invented the double air distribution hose to have better control on pressure and air speed by converting dynamic pressure to static pressure.

+ Exclusive supplier of EC fans

EC technology is ecologically and economically superior, moving up to 2 times more volume than comparable AC fans at the same power consumption at part load conditions.

+ Independent advice

Enerdes is completely independent on the market and we can work with end costumers and all greenhouse manufacturers if needed.



(Double) Air distribution hoses

For an optimal homogenous climate in your greenhouse, good distribution hoses are a must. Enerdes is the [world leader in the air distribution hose technology](#).

We have invented the [double air distribution hose](#) which brings the air distribution performance to perfection. The perfect insulation for the double-layer air distribution hoses ensures that there are [no horizontal temperature differences](#) in the greenhouse. Both the horizontal and the vertical temperature gradient are much lower compared to conventional air hoses.

Enerdes can provide any desired customization:

- Single or double hose
- Any length
- Hole diameters from 4 to 50 mm
- Any hole pattern, linear and variable
- Hose diameters from 50 to 1,020 mm
- Our experts are able to provide you with the best advice on the hole pattern and diameter
- Optional Flame-retardant norm B1 or B2 (Dutch) or DIN4102 (German)
- Any color (default transparent or white)

Long life expectancy

No flapping and minimum fatigue

Less disease pressure

Because of perfect air movement

Controlled outflow

No turbulence or unevenness

Short delivery times

Large stock



Lower fan speed

Saves energy

Custom logo

Printed on the hose

Perfect insulation

No horizontal differences

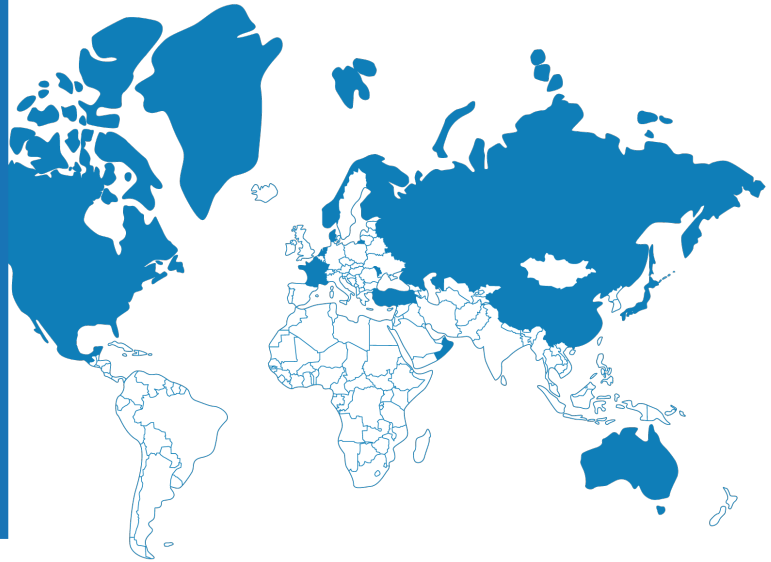
Maximum UV stabilization

Up to 5 years exposure



Enerdes: world market leader in air distribution hose technology

- Global market leader
- 110+ years of experience
- In-house production
- Endless customizability
- Worldwide delivery with ISPM 15 standard seaworthy or air freight packaging.



Any customisation is possible

Layer

Single or double air distribution hose.

Length

Any length can be produced.

Hose diameter

We offer all sizes between 50 to 1,020 mm diameter.

Thickness

All of these diameters are available in thicknesses from 90 to 180 μm .

Hole diameter

We offer any hole diameter from 4 to 50 mm.

Hole pattern

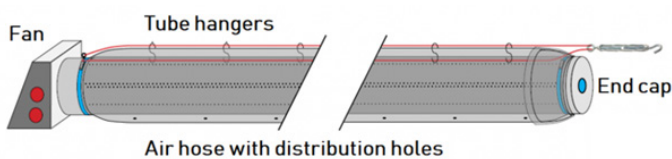
We can produce any hole pattern, linear or variable.

Color

Transparent or full white.

Custom logo


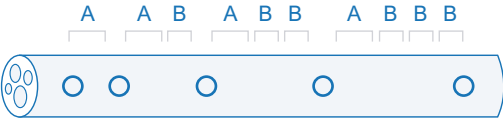


We can print your logo on one side of the air distribution hose on the desired location and with the desired repeating distance. This service is free of charge and FDA approved.



How to choose the right hole size

	Ø4 mm	Ø8 mm	Ø12 mm	Ø20 mm	Ø50 mm
Hole diameter	Ø4 mm 5/32"	Ø8 mm 5/16"	Ø12 mm 15/32"	Ø20 mm 25/32"	Ø50 mm 2"
Application	Condensate drain	Air distribution	Air distribution	Air distribution	Air distribution
Flow per hole	0.2 - 0.3 m ³ /h	1.0 – 1.5 m ³ /h	2.5 – 3.5 m ³ /h	5 - 10 m ³ /h	30 - 6 m ³ /h
Air throw distance @ 1 m/s	< 0.1 m	0.2 m	0.4 m	0.6 m	> 1.0 m
Air distribution	Micro climate				Macro climate

Custom hole pattern examples

	<ul style="list-style-type: none"> + Linear distribution 	Default
	<ul style="list-style-type: none"> + Variable distribution + Pressure loss compensation 	Custom
	<ul style="list-style-type: none"> + Variable distribution + Pressure loss compensation + Different outflow angles 	Custom
	<ul style="list-style-type: none"> + Variable distribution + Pressure loss compensation + Different outflow angles + Different throw distances 	Custom



Our experts can advise you in choosing the right hole size and pattern.

Strong material

All our air distribution hoses are made of the most durable high standard LDPE granulate. With our decades of experience in the market we have finetuned our recipe and are proud to be producing the **most durable and long lasting air distribution hose** on the market.

Part of our secret is the **highest possible UV resistance** in the market of 400KLY (up to 5 years exposure) and anti-static treatment which is added to the production process.

Hanging materials

Enerdes has designed its own perfect suspension hooks that are durable, lightweight, UV-stabilised and minimally invasive to the air hose foil. It consists of aluminum clamps and tensioners. The S-hooks support the hose every 1.5 meters.

End Caps

- We offer a wide range of end caps for closing off the end of the air distribution hose.
- We have several end caps available with or without adjustable holes for air movement around the center path.
- All end caps are available in aluminum, stainless steel or galvanized steel (powder coating is optionally).
- We can supply customized stickers with your logo on the end caps.



Complete greenhouse climate system

Enerdes offers a wide range of equipment for your greenhouse, from fans to an entire greenhouse climate system.

Climate study

Enerdes has developed a proprietary climate study software. By selecting the location of the greenhouse the software calculates the equipment needed to create the perfect climate based on your specific selection criteria.

Air handling units

The Enerdes greenhouse engineers have developed AHU systems that have excellent performance and at the same time are extremely energy efficient and cost effective.

EC fans

Enerdes is the exclusive dealer of both EBM Papst en Reinders EC fans. EC fans move up to 2 times more volume than comparable AC fans at the same power consumption at partial load.

Fogging system

Enerdes is exclusive dealer from PrimaAir Humidification systems and we supply state-of-the-art high pressure fogging systems.

Cooling system

At Enerdes, we can size the ideal cooling/ dehumidification system for your specific greenhouse. We will compare different scenarios between various cooling methods, such as active cooling with chillers, DX-units (direct expansion) or evaporative cooling with cooling pads.

Heating system

Enerdes engineers and supplies the most efficient heating system for your needs, from boilers, cogen implementation, Low Temperature heating to piperail, snowpipe heating and the use of renewable energy systems.

CO₂ distribution

In order to promote the growth of the plants, additional Carbon Dioxide can be added to increase the level of CO₂ inside the greenhouse.





Enerdes

Reinders Corporation

Enerdes is a proud member of Reinders Corporation. A private company in the 4th generation, operating in more than 100 countries across six continents. Since 1910, the name Reinders has come to be associated with a reputation for excellence in air and climate solutions worldwide.

Interested or questions?

Get in touch with us. The experts of Enerdes are at your service!

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