dti

DIFUSION-TEXTIL-INTEGRAL

optimizing air flow...

WHY DTI?

Fabric Ductwork for Air Diffusion

- Service
- After-sales Service
- Logistics
- Continuous Innovation
- References
- Certifications
- Testing

Our philosophy is based on 3 fundamental principles: "On time, complete and well done".

We always have channels open to respond to your service request.

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twitter.com/DTIMEXICO

After- sales Service

DTI and their representatives offer the most complete after-sales service on the market, including:

- Disassembling
- Transportation
- Cleaning and repair services
- Cleaning certification
- Shipping and functionality verification

Logistics

We ship our fabric ductwork worldwide. We understand that one of the advantages of fabric ductwork is the quick installation, so we compromise to rapid manufacturing and delivery.

DTI employs a group of engineers and developers who are able to offer a solution for every system. We have over 5000 customers in more than 20 countries.

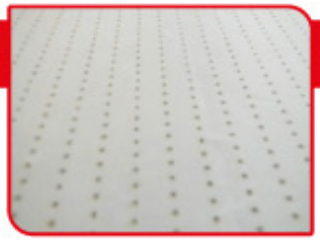
Our cutting edge technology enables us to offer you the best service and quality for your projects:

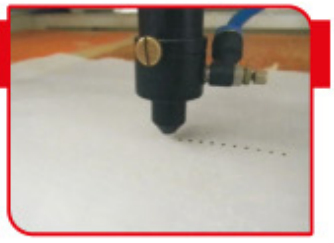
Computer Controlled Cutting System

The AUTOMETRIX system allows us to do precise cutting, using a compressor that fixes the fabric against an acrylic table while a robotic arm cuts the fabric according to the designs made by the Engineering Department, guaranteeing millimetric precision for every system.

Laser Cutting System

To satisfy the most exigent needs in the field of air diffusion we use a laser cutting system that allows us to diffuse large quantities of air in short distances at a low velocity through microperforations on the textile fabric.



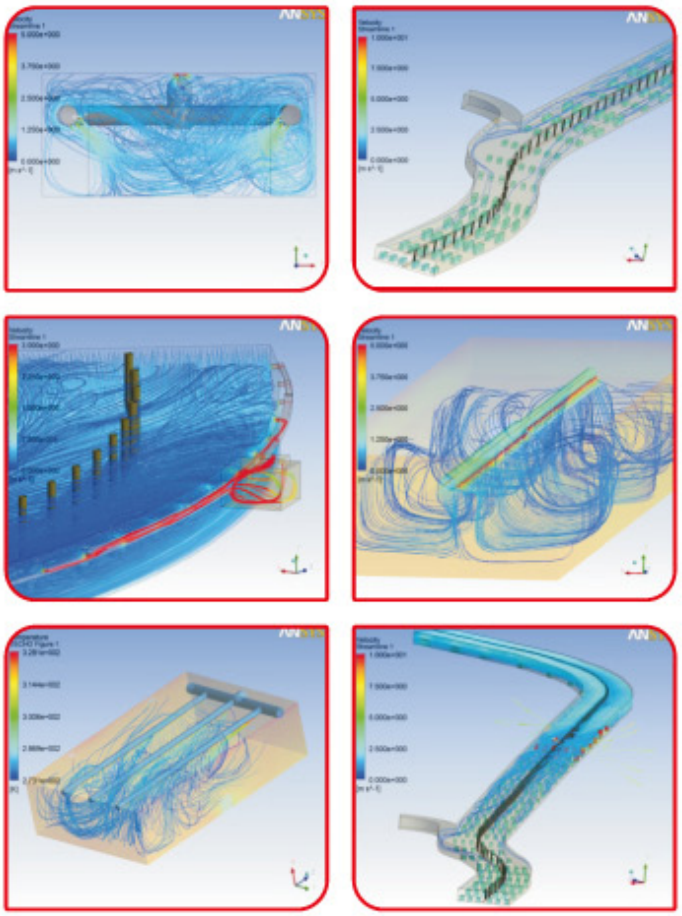


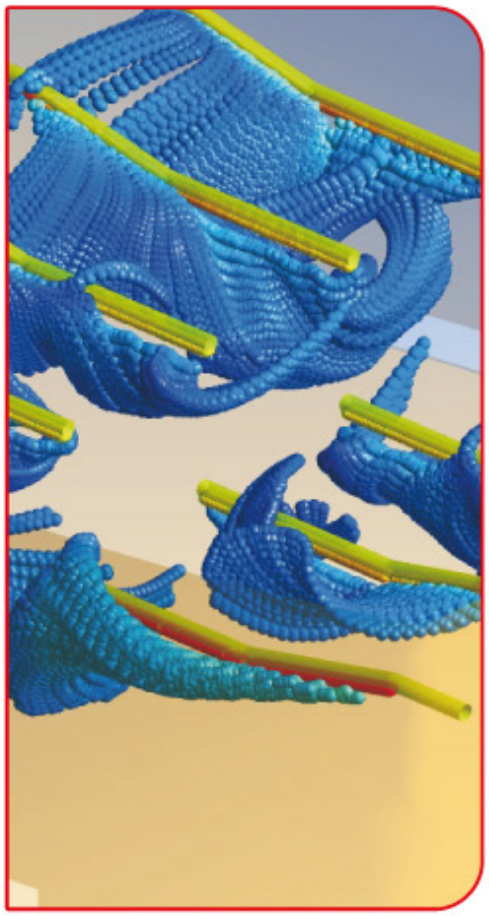
High-Frequency Soldering

High-Frequency soldering has facilitated our entry into the subterranean market, because it allows us to produce completely impermeable ducts, which are also resistant to high pressure and other adverse conditions. These ducts are the perfect product for conduction, diffusion and extractionof air in tunnels and mines.

ANSYS CFD (Computational Fluid Dynamics) Software - HVAC

The Computational Fluid Dynamics software allows us to create virtual models of ductwork, generated parametrically with real world data, increasing our capacity to correctly handle projects of higher complexity that require a superior level of information and certainty in their design.



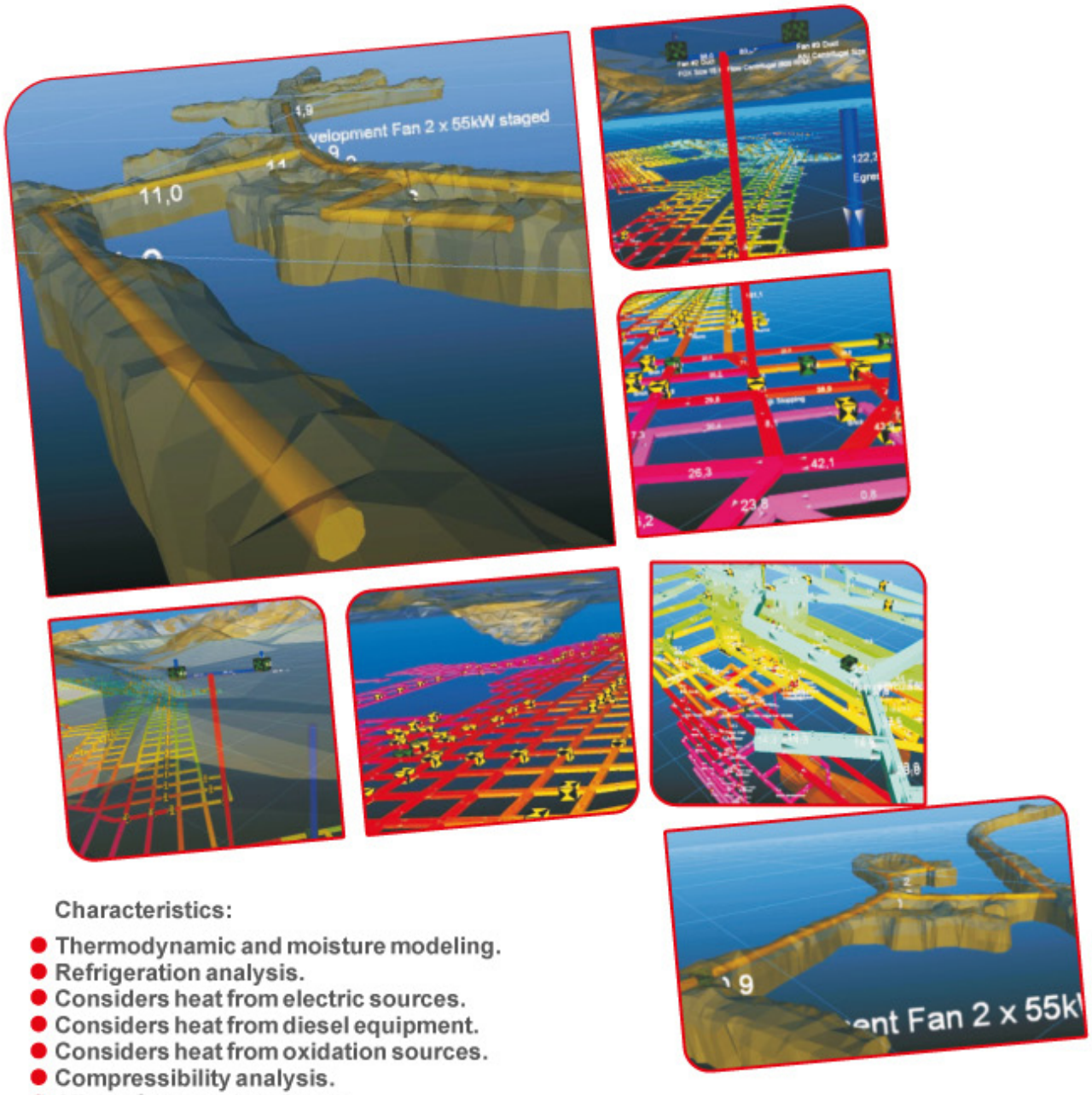


Specifying the most possible data for a project allows us to obtain specific and reliable results. Those include: air velocity inside and outside the duct, temperature distributions, pressure losses and determining if the capacity of the HVAC equipment is adequate for the project. It also shows the motion of the air inside the room under analysis.

It's important to mention that counting with the most possible data for each of the factors influencing the functioning of a HVAC system gives us a more accurate result.

VentSIM Software

VentSIM is used to analyze ventilation systems in mines, incorporating compressible flow equations and air density automatically, adjusting to fan curves and considering natural ventilation. It predicts temperature and moisture distributions considering thermal radiation from the rock, diesel machinery and electric motors. It can also predict contaminant concentrations at each level of the mine.



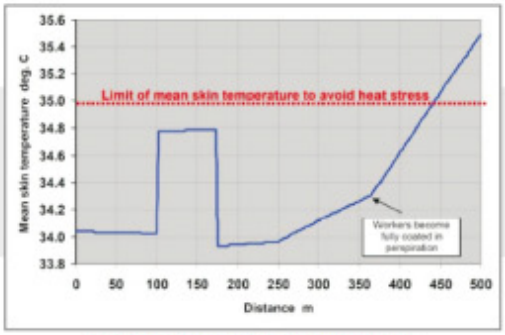
Characteristics:

- Thermodynamic and moisture modeling.
- Refrigeration analysis.
- Considers heat from electric sources.
- Considers heat from diesel equipment.
- Considers heat from oxidation sources.
- Compressibility analysis.
- Allows fan curves as input.

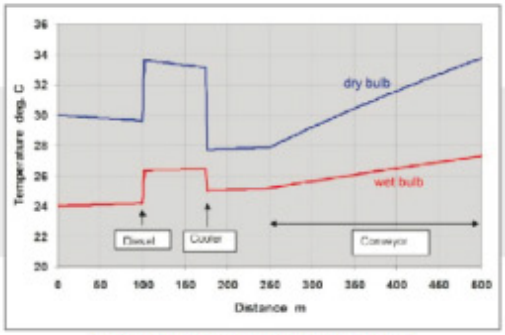
- Financial analysis of ventilation systems.
- Recirculation prediction.
- Diesel particulate modeling.

DuctSIM Software (Auxiliary Ventilation Systems) UVP

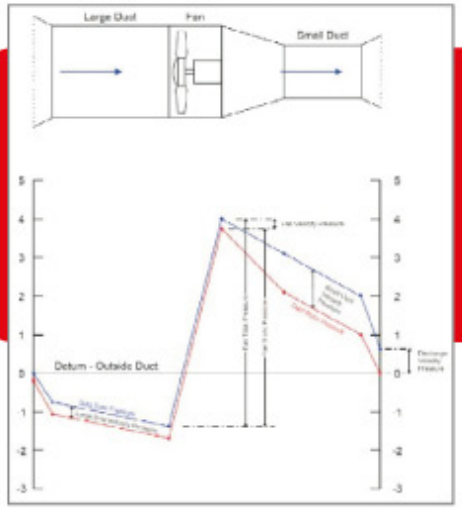
Used for designing underground ventilation systems, this software is useful for designing and improving existent duct installations. It can show the reasons behind a bad installation and how to improve it, leading to safer working conditions.

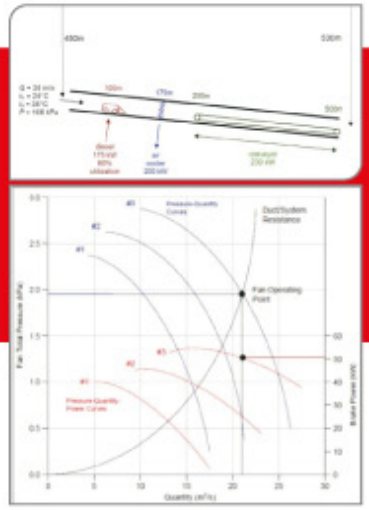


Graphical output for average mean skin temperature of workers along the airway.



Graphical output for wet and dry bulb temperatures along the airway.





According to the input parameters, it is capable to construct and optimize models, considering duct dimensions, friction losses, amount of personnel, diesel equipment, etc.

It allows looking at the auxiliary ventilation system, the motion of the air and the tendency of the pressure along the duct. It's very useful for identifying critical or leaky areas.

Characteristics:

- It allows selecting the length of the duct, its diameter, the material and allows creating regions based on the transitions of the duct, with options to select inlets and outlets.

- It gives pressure loss, system curves (flow and pressure profiles) and the working point (if a fan curve is supplied).

Additional treatments

Sugar Free

Our Sugar Free agent avoids the accumulation of sugars in the duct, avoiding the obstructions and dirtiness caused by such accumulations. This system finds application in the food industry, facilitating the cleaning of the ducts and guaranteeing good air quality.

Static Free

DTI has created and patented the Static Free system which allows us to use any kind of textile fabric in the electronics industry. It uses copper wire in the seams of the duct, which serves as a conductor to ground any static charge generated by the friction caused by the interaction of the air with the ducting.

Antibacterial Coating

Our antibacterial agent is used in all projects for the food industry, guaranteeing good air quality and hygiene.

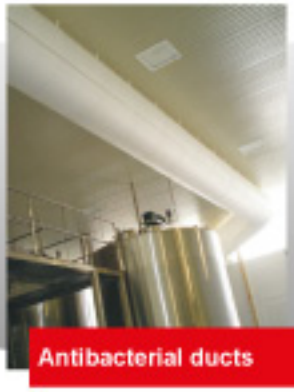
We are certified by ATSM INTERNATIONAL and laboratories that continually test the effectiveness of our products.

Duct Sphere

Our Duct Sphere system, used normally in departmental stores, allows us to diffuse air in all directions, delivering an efficient diffusion and optimizing space at the same time. This is achieved by placing the system strategically, fully covering the area to ventilate.

Ellipsis Line

This system is the recommended way to deliver maximum airflow when there are space restrictions (usually on the vertical plane). Elliptical ducts optimize the use of dead spaces.



Antibacterial ducts

Duct Sphere

Ellipsis Line

Green Line Solutions by dti

Special products

In order to help with the conservation of the environment, DTI offers ducts made of recycled fabric.

These are an excellent choice for LEED buildings.

WHY DTI?

Characteristics:

- **Continuous polyester filaments produced from recycled polymers.**
- **Respects the environment.**
- **Highest level of sustainability in both crude and dyed versions.**
- **Versatility in production. PET dyed with Nanofeel and UV stabilizer.**
- **Capacity to produce threads for all processes, including texture, image, warp or distortion.**

Special products

Green Line Solutions by dti

The source of our polymers is guaranteed. NOYFILSA guarantees the post-consumer nature of the polymers used to manufacture our ducts.

The eco-compatibility of additives and dyes is certified OEKOTEX Class 1 across the whole range.

PET recycling protects the environment

PET is a valuable material because it originates from petroleum or natural gas and it's fully recyclable. It doesn't lose its properties and can be repeatedly worked with to create products of great value.

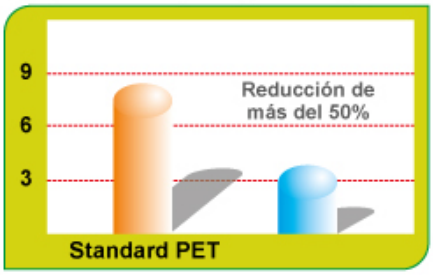
PET recycling is ecological

When PET is recycled, CO_2 emissions are reduced. For each kg of PET recycled, 3 kg of CO_2 are no longer emitted. Recycling 1000 kg of PET prevents the emission of 3000 kg of greenhouse gases, corresponding to the annual emissions of an average car.

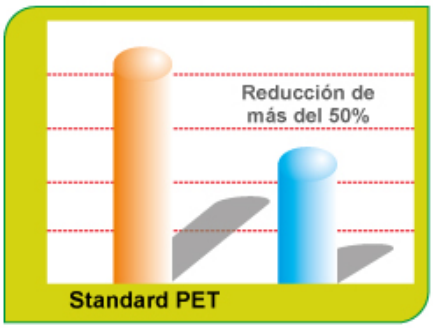
PET recycling saves energy

When recycling PET, approximately 50% of the energy to manufacture it is saved. This protects the non-renewable sources of energy, which are rapidly depleting and costlier every day, also reducing the impact on the environment.

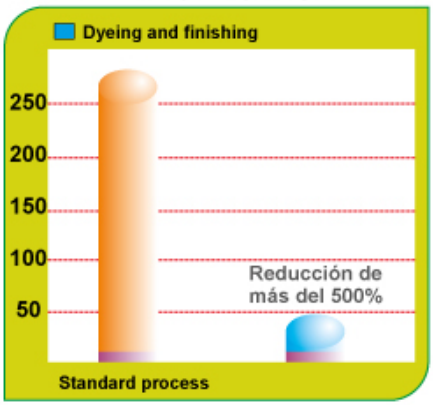
Co_2 emissions per kg thread (kg)



Energy consumption per kg thread



Water consumption per kg thread



Green Line Solutions by dti

RADICI GROUP For Sustainability

REVIVE

Stabio 27-08-2010

Est.
NOYFIL S.p.A.
via Giuseppe Verdi, 1
24040 Chignolo d´Isola (BG) - I

DECLARATION OF CONFORMITY

Hereby NOYFIL SA
declares
that the pet filament yarns in the lot specified below
are produced from

POST CONSUMER RECYCLED PET

Jg79 - POY dtex 280(167)f78 semi dull

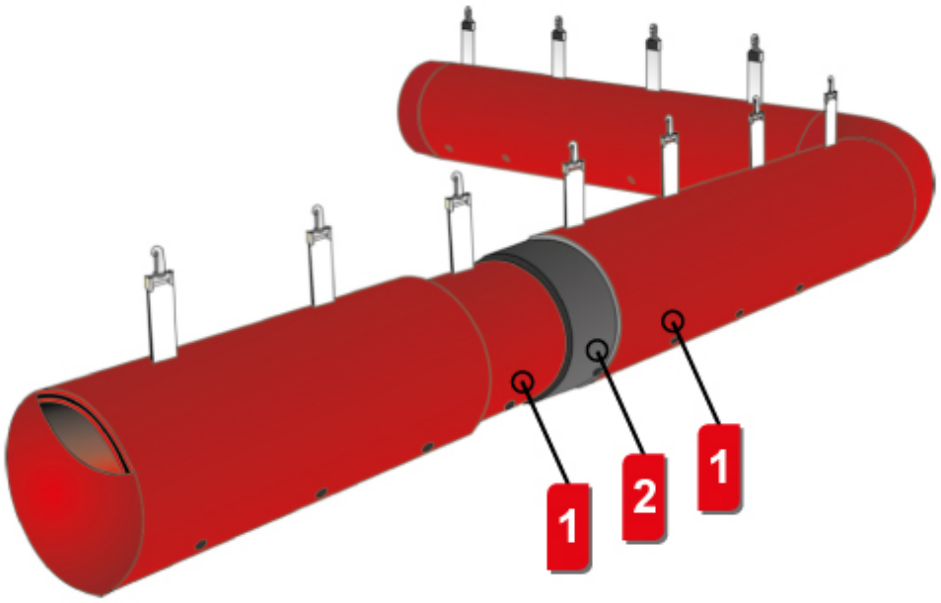
NOYFIL S.A.

Daniele Dossi
Quality Assurance Department

NOYFIL S.A. Via Gaggiolo 32 -6845 Stabio (TI) - Switzerland
Tel. +41 (0) 91 441 6141 Fax +41 (0) 91 47 2806
E.mail: infonoyfol.nofilswizzera@radicigroup.com No IV A 189543

Insul Duct Mechanic Line

The Insul-Duct Mechanic coating is used when the climatic conditions are extreme: high temperature, constant moisture. This system allows us to keep the temperature of the air inside the duct constant, limiting the impact of the external conditions and avoiding condensation. This guarantees that our customers get their air at the desired temperature.



1

PERFORMANCE METHODS	METRIC	US STANDARD
Total weight ASTM-D 3776, Method C	508 g/m²	15 oz. / sq. yd.
Width of Fabric	1.52 m.	60 in
Flame Resistance ASTM D 6413 War & Fill	After flame - 2 sec. Max. Char Length - 6.0" Max. 0 Melt Drip	After flame - 2 sec. Max. Char Length - 6.0" Max. 0 Melt Drip

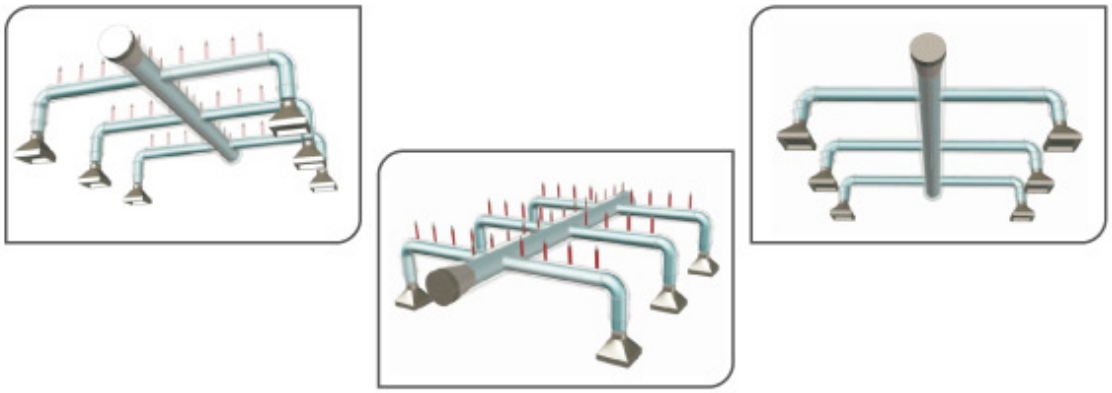
2

PERFORMANCE METHODS	METRIC
Density	25-30 kg/m³
Thermal Conductivity	0.034 W/mK at 0°C 0.038 W/mK at 40°C
Range of temperature	-5°C to 60°C
Smell	Neutral
Toxicity	**It contains neither nitrous cyanide nor sulphurous gases**

Insul Duct Air Line

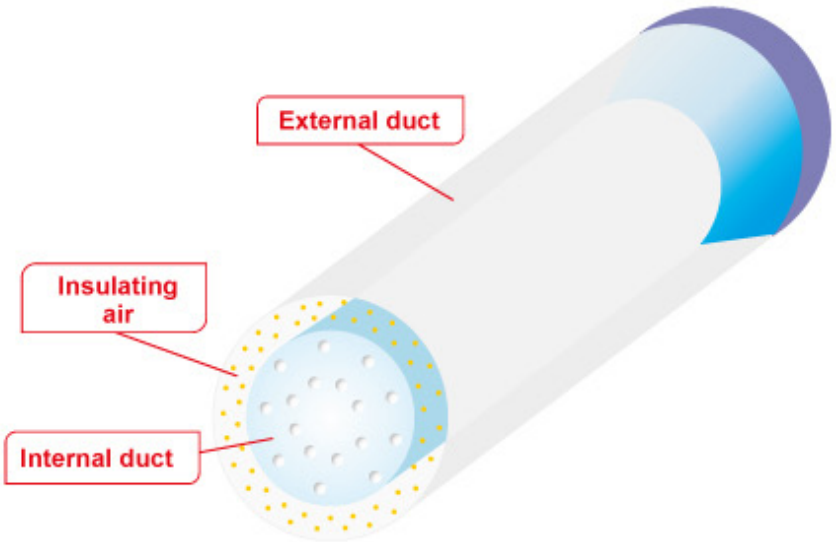
This system works by surrounding an internal duct (through which air flows) with an external duct filled with static air acting as a thermal insulator.

The air conducted through the internal duct can be diffused either through a performed end or diffusors, depending on the needs of our clients.



Side view

Isometric view



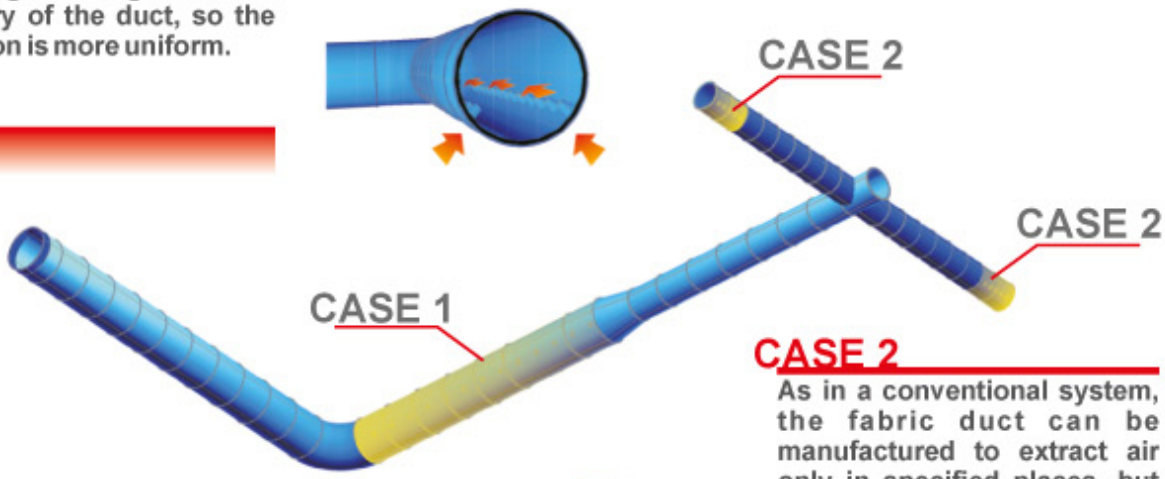
Extraction Ductwork

We also offer ducts of extraction. Reinforcing the duct with metal rings allows it to conserve its shape so it doesn't collapse (obstructing air flow).

How do they work?

CASE 1

The system can work extracting air along the whole trajectory of the duct, so the extraction is more uniform.



CASE 2

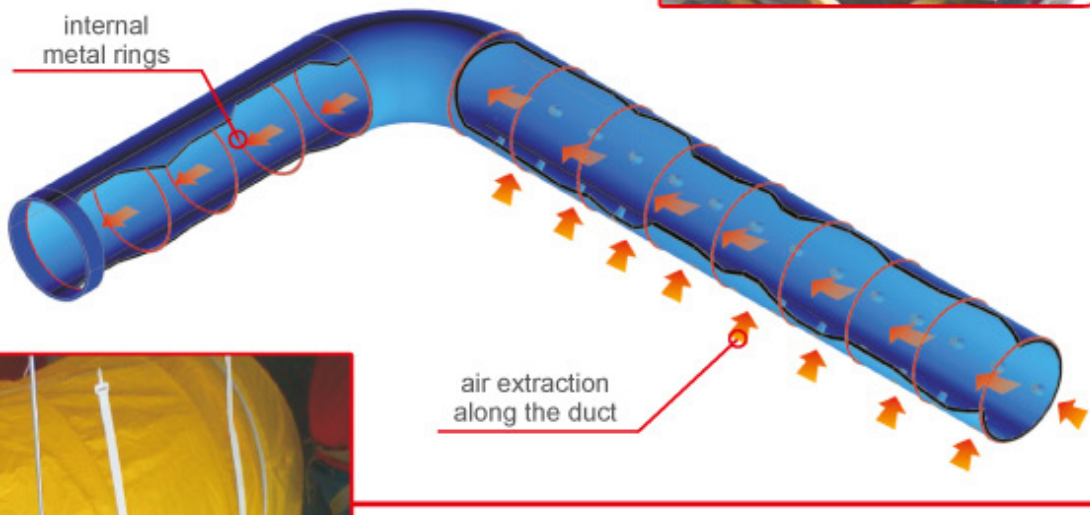
As in a conventional system, the fabric duct can be manufactured to extract air only in specified places, but the use of grids can be eliminated because the extraction is done directly on the duct using textile nozzles.

Extraction Ductwork

Metal rings are inserted into the duct, but remain independent and are removable in order to facilitate maintenance operations.

Insulation, static free and antibacterial treatments can also be applied to these ducts.

Similarly to diffusion ducts, extraction ducts are installed using steel cables to support their weight.



HVAC

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UNDERGROUND VENTILATION

FARALLON MINING LTD. · ENDEAVOUR SILVER · GREAT PANTHER SILVER · FRESNILLO · ice · PEÑOLES

Certifications

We are backed by...

CLASSIFIED UL — ACR: DISTRIBUTION DEVICES IN ACCORDANCE WITH FLAMMABILITY REQUIREMENTS OF NFPA 90A

ASTM INTERNATIONAL — Standards Worldwide

MEMBER OF NFPA

NFPA UL 90A.