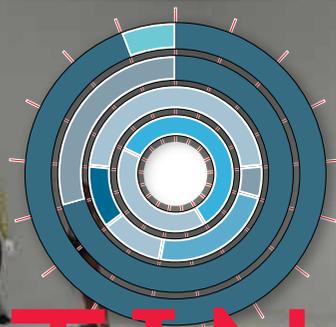


SMART
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SOLUTIONS



FABRIC AIR DUCTING

Save up to 70%

Switching from conventional metal ducting to FabricAir dispersion may save you up to 70%. The total savings potential on a project varies from 30% to 70% over the cost of conventional solutions.

SAVINGS ARE ACHIEVED THROUGH SIX KEY ELEMENTS:



No grilles or diffusers
are necessary

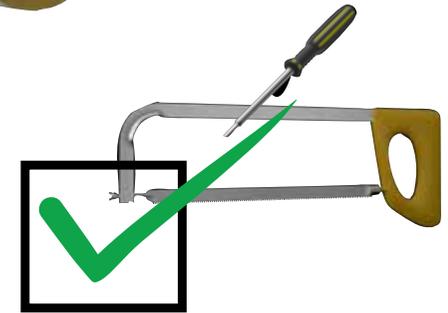
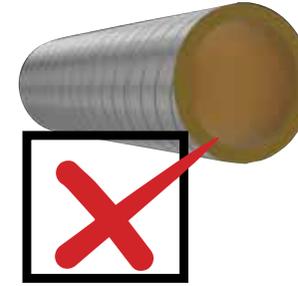
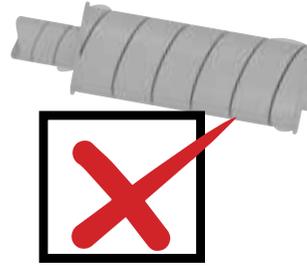
No damper
is necessary

No additional
attenuation required

Painting is not
necessary

No insulation
is necessary

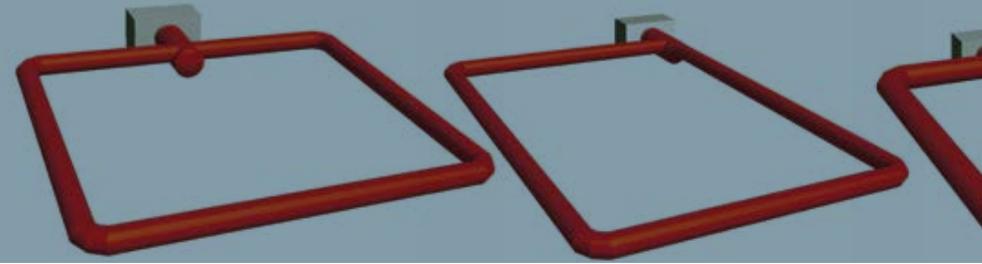
Fast and
easy installation



Air Dispersion — All Inclusive

Typically the versatility of a FabricAir Dispersion System is greater than conventional metal solutions. A fabric system does not require balancing, the need for dampers is minimal and the design work is simplified, yet much more flexible. Air dispersion all inclusive means less hassle and optimized indoor air quality.

As a rule of thumb, anywhere you can use exposed sheet metal ducting, you can achieve savings and design advantages by switching to FabricAir Dispersion Systems.



Advantages of Fabric Ducting



Quick lead times—less than two weeks

Optimized design and production processes ensure that the air dispersion solution typically arrives on site in less than 13 days from the time the order is released.



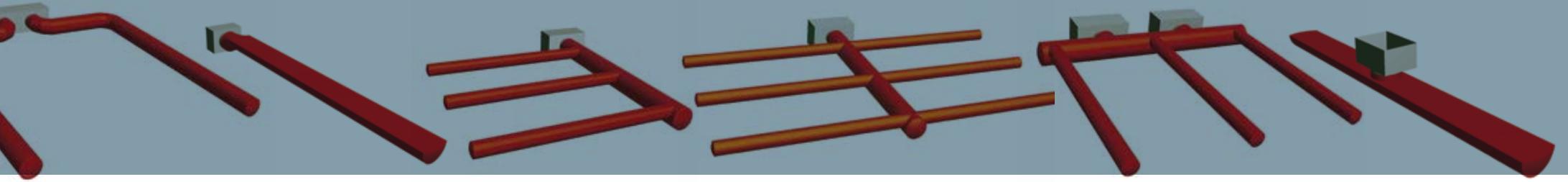
Draft-free, even air distribution

FabricAir technology ensures even air distribution with no uncomfortable drafts. The customized design takes all relevant room dimensions and requirements into consideration to create the optimal solution.



Fast & easy installation

Installing a FabricAir Dispersion System is 4 to 5 times quicker than installing conventional metal solutions. No special tools are needed, the ducts are designed to measure, weight significantly less and do not require balancing. The user-friendly installation manual guides you quickly through regardless of suspension type - hooks, sliders or bulb edge.



Because fabric ducts are not composed of fixed bends, elbows and lengths, the product offers complete freedom in design.

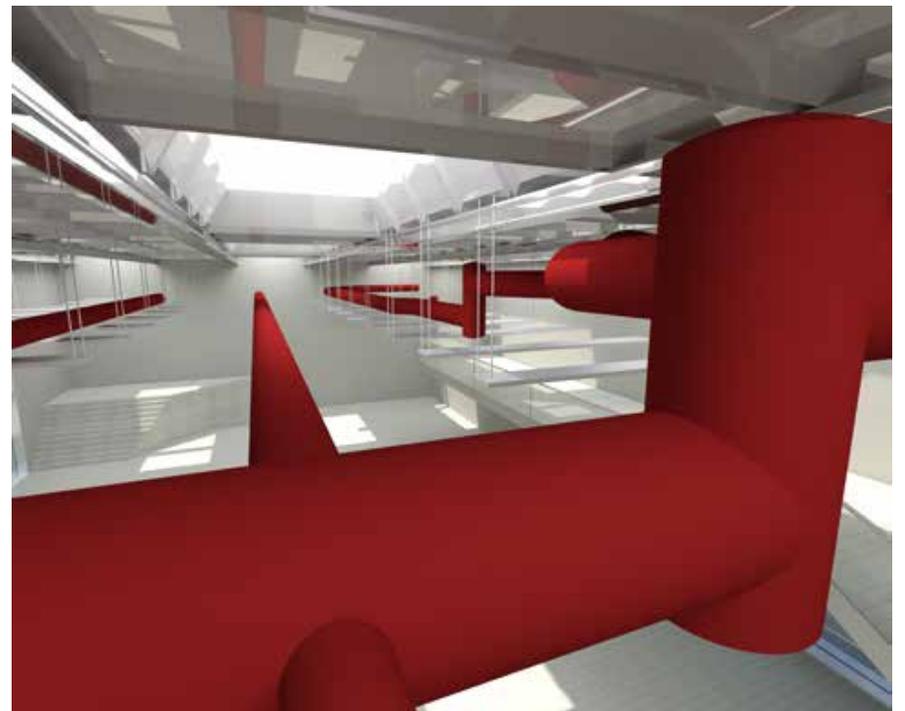
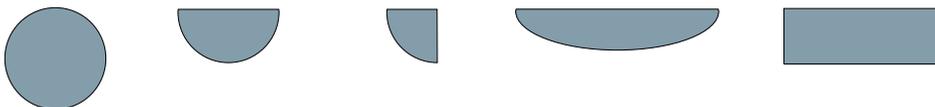


Freedom in Design

FabricAir Dispersion Systems allow for creative expression and design in shapes, transitions, profiles and flow models to create a clean and creative appearance free from seams, corrugations, duct sealant, paint streaks or inconsistencies.

Profiles

We offer a wide selection of custom duct profiles in addition to the round and D-shaped classics.



SMART
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FabricAir Dispersion Technology

– THE SMART WAY OF THINKING WITHIN HVAC/R & IAQ

A FabricAir Dispersion System consists of three elements: fabric, flow model and suspension. These may be combined in infinite ways to match the specific requirements of any given project.

COMPONENTS OF FABRIC DUCTING:

1 FABRICS
A wide variety of woven materials for any application. The fire retardant, woven material is also anti-bacterial and mold resistant.

2 FLOW MODELS
The airflow in a given space is affected by many factors. Thus, we offer unique combinations of flow models based on different principles and throw lengths depending on the project.

3 SUSPENSIONS
A wide variety guaranteed to meet the challenges of any installation.

ALL-IN-ONE

All-in-One support hoops can be added to keep the duct open when the air is off.



TAG NUMBER

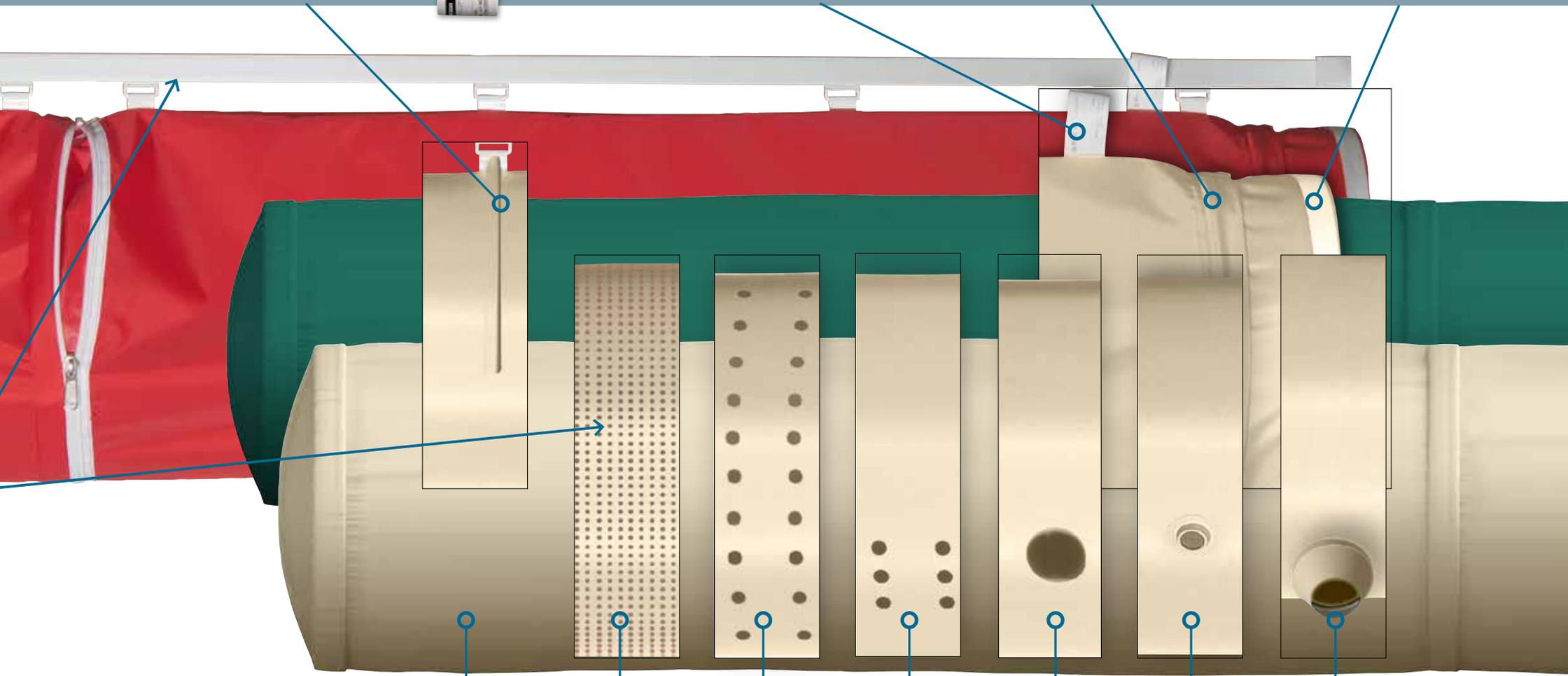
Each duct section is labelled with a tag number, which indicates the order of assembly. It contains an ID number, which makes the tracking easier.

ZIP FASTENER

The sections are assembled with heavy-duty industrial zip fasteners, discreetly hidden under an extra seam.

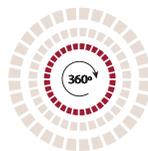
SAFE MOUNTING

Fabric ducts connected to sheet metal systems are secured using a fixing strap.



FABFLOW™

The air is distributed through the entire surface of the fabric.



MICROFLOW™

The air is distributed through micro-perforations.



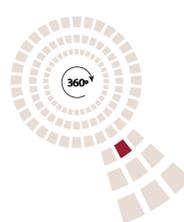
PERFOFLOW™

The air is distributed through small orifices.



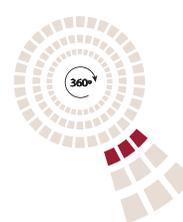
SONICFLOW™

The air is distributed through lengthwise rows of small orifices.



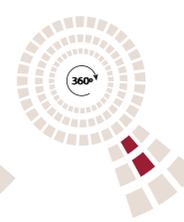
ORIFLOW™

The air is distributed through large orifices.



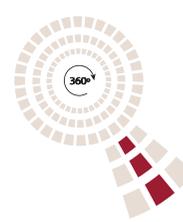
NOZZFLOW™

The air is distributed through venturi shaped plastic nozzles with excellent discharge coefficients.



JETFLOW™

The air is distributed through jets, which provide exceptionally long throws for large spaces.



1. Fabrics

PERMEABLE FABRIC

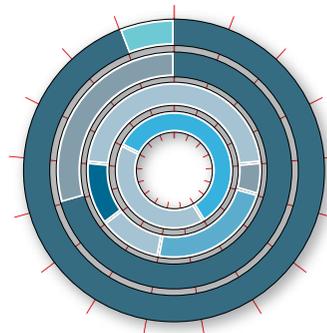
Permeable fabrics eliminate condensation on the duct surface by creating an air blanket around the circumference of the duct.

These are ideal in humid spaces, such as food processing facilities or swimming pools, where there is a high probability of condensation.

NON-PERMEABLE FABRIC

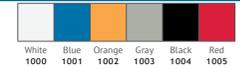
Non-permeable fabrics are inherently airtight. The air is distributed solely through the flow model. These ducts are typically made out of coated materials.

Find a fabric selector tool on the back of this literature



FABRICAIR® TREVIRA

Permeable fabric, suitable in places where there is a risk of bacteria growth or condensation. Machine washable and retains its dimensions after washing (max. 0.5% shrinkage). The permeability is uniform (max. 5% variation).



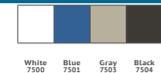
FABRICAIR® COMBI

Permeable and non-permeable fabric variants. Strong and durable. Machine washable and retains its dimensions after washing (max. 0.5% shrinkage).



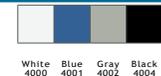
FABRICAIR® LITE

Non-permeable fabric. Strong and durable. Anti-microbial and anti-static features are optional. Machine washable and retains its dimensions after washing (max. 0.5% shrinkage).



FABRICAIR® GLASS 220

Non-combustible. Used in areas with strict requirements for fire rating.



FABRICAIR® POLY

Non-permeable fabric, mainly used in heavy industrial installations for distributing isothermal or heated air.



Fabric	Condensation free		Certificate						Perfor- mance	Warranty	Anti- Micro- bial	Anti- static	All- in- One	Wash- able	Flow models available					
	Permeable	non-perme- able	DS 428 EN 13501-1	UL 723	ULC s102.2	GOST Gost	NFP 92:507	Oeko- Tex							UL 2518	FabFlow™	MicroFlow™	PerforFlow™	SonicFlow™	OriFlow™

FABRICAIR® TREVIRA BASIC	✓			✓	✓	✓	✓	✓	✓	⑤			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FABRICAIR® TREVIRA CS 100	✓		B-s1,d0	✓	✓	✓	✓	✓	✓	⑩			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FABRICAIR® TREVIRA CS 150	✓		B-s1,d0	✓	✓	✓	✓	✓	✓	⑩	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

FABRICAIR® COMBI 20	✓		B-s1,d0	✓	✓	✓	✓	✓	✓	⑤			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FABRICAIR® COMBI 30		✓	B-s1,d0	✓				✓	✓	⑤			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FABRICAIR® COMBI 60	✓				✓			✓	✓	⑩			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FABRICAIR® COMBI 65		✓						✓	✓	⑩			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FABRICAIR® COMBI 70	✓		B-s1,d0	✓	✓	✓	✓	✓	✓	⑩			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FABRICAIR® COMBI 80	✓		B-s1,d0	✓	✓	✓	✓	✓	✓	⑩	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FABRICAIR® COMBI 85		✓	B-s1,d0	✓	✓	✓	✓	✓	✓	⑩			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FABRICAIR® COMBI 90		✓	B-s1,d0	✓	✓	✓	✓	✓	✓	⑩	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

FABRICAIR® LITE 5		✓	B-s1,d0					✓		③				✓		✓	✓	✓	✓	✓				
FABRICAIR® LITE 10		✓	B-s1,d0					✓		③				✓		✓	✓	✓	✓	✓				
FABRICAIR® LITE 15		✓	B-s1,d0					✓		③				✓		✓	✓	✓	✓	✓				
FABRICAIR® LITE 20		✓	B-s1,d0					✓		③		✓		✓		✓	✓	✓	✓	✓				

FABRICAIR® GLASS 220		✓	A2-s1,d0	✓	✓	✓	M0			①						✓	✓	✓	✓	✓				
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FABRICAIR® POLY		✓								①											✓			
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2. Flow Models

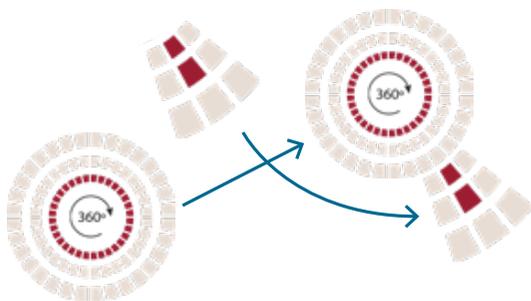
FabricAir offers a wide variety of flow models that can be combined to create the ideal air distribution, addressing any specific project challenges.

The ideal flow model often consists of primary and secondary airflows in combination, depending on throw requirements. The primary airflow addresses the main issue, such as no draft for increased comfort, whereas the secondary airflow is used to ensure that no condensation builds up on the duct in humid environments.

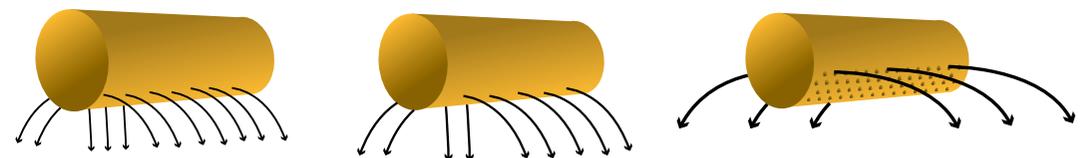
It is of utmost importance to understand the type of space that is being designed in order to select the appropriate flow models, especially in applications that are intended to maximize occupant comfort.

COMBINING FLOW MODELS

By combining surface flow models with directional flow models you can achieve the ideal airflow regardless of the project complexity.



Surface Flow Models		
FABFLOW™	MICROFLOW™	PERFOFLOW™
Permeable	Micro-perforations 0,2–0,6 mm [0.008”–0.024”] diameter	Perforations 3,0-14,0 mm [0.12”-0.55”] diameter
Near-zone: 0 (surface velocity below 0,5 m/s or [98 fpm])	Near-zone: Maximum 300 mm [11.81”]	Near-zone: up to 6.400 mm [21’]
In FabFlow™, the air exits the duct through the permeable fabric surface. The air is driven by thermodynamic forces preventing drafts in the occupied zone, resulting in a high level of comfort.	With MicroFlow™, the air exits the duct via laser cut micro-perforations, along the circumference of the duct. The micro-perforations can cover between 90° and 360° of the duct’s circumference. MicroFlow™ has the smallest near-zone of all of the perforated fabrics available. In most cases the near-zone will not extend beyond 300 mm [11.81”].	With PerfoFlow™ the air exits the duct via laser cut perforations, along the circumference of the duct. The perforations can cover between 90° and 360° of the duct’s circumference. The size of the near zone depends on the static pressure inside the duct, the percentage of the circumference that is perforated, the size and spacing of the perforations.



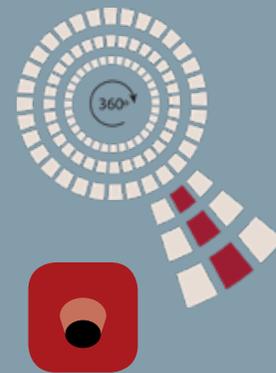
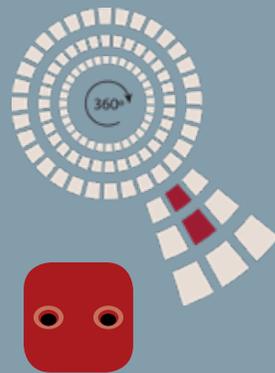
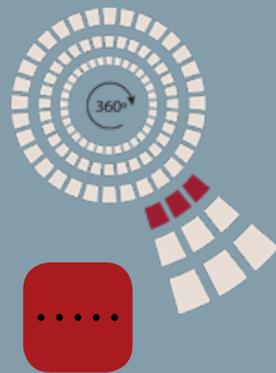
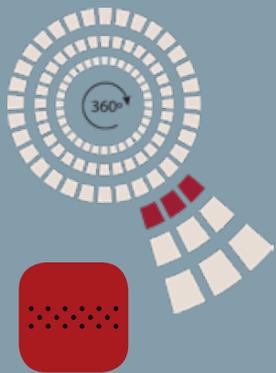
Linear Flow Models

SONICFLOW™

ORIFLOW™

NOZZFLOW™

JETFLOW™



Perforations 3,0–14,0 mm
[0.12”–0.55”] diameter

Orifices 14,1–125,0 mm
[0.56”–4.92”] diameter

Nozzles 18,0 mm
[0.70”] diameter

Jets 50 to 250 mm
[1.97” to 9.84”] diameter

7,0 to 13,0 m/s
[1.378 to 2.559 fpm]

7,0 to 18,0 m/s
[1.378 to 3.543 fpm]

7,0 to 20,0 m/s
[1.378 to 3.937 fpm]

7,0 to 20,0 m/s
[1.378 to 3.937 fpm]

Medium–directional

High–directional

High–directional

High–directional

SonicFlow™ is a directional flow model, where the air exits the duct via rows of laser cut perforations.

Multiple rows of SonicFlow™ can be specified for a duct, with each row covering a maximum of 30° of the circumference.

The throw depends on the static pressure inside the duct, the size, and spacing of the perforations.

OriFlow™ is a directional flow model, where the air exits the duct via rows of laser cut orifices. Multiple rows of OriFlow™ can be specified for a duct.

The throw depends on the static, pressure inside the duct, the size, and spacing of the orifices.

NozzFlow™ is used in applications where very precise directional airflow is needed.

The discharge coefficient is almost at unity, due to the shape of the nozzle. This results in higher discharge velocities than equivalently sized orifices, and longer more directional throws.

JetFlow™ is capable of generating exceptionally long throws through the use of conical jets in varying diameters.

The jets have a very high discharge coefficient, due to the conical shape of the jet. This results in higher discharge velocities, than an equivalently sized orifices.

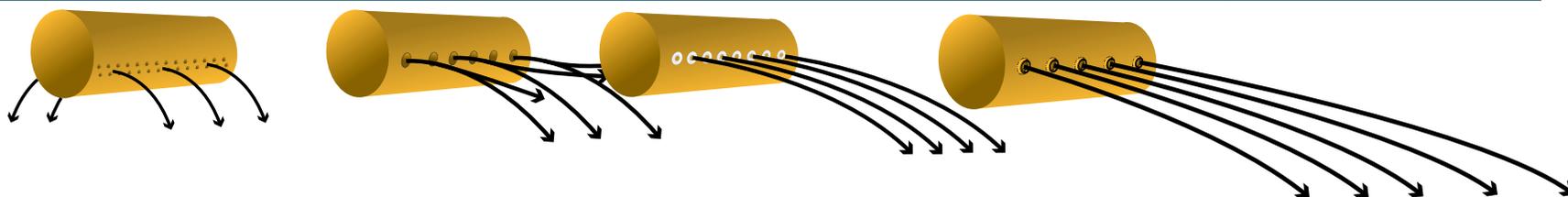
FLOW MODEL CHARACTERISTICS:

SURFACE

EXIT VELOCITY (OR NEAR-ZONE)

THROW

DESCRIPTION





Type 1 / Type 1 AIO

Type 2

Type 3 / Type 3 AIO

Type 4

Type 5 / Type 5 AIO

Suspension method		Cable	Cable	T-rail	T-rail	H-rail
Requires fixed ceiling				✓	✓	
Position of attachment		12 o'clock	3 & 9 o'clock	12 o'clock	3 & 9 o'clock	12 o'clock
Material options	100% galvanized steel	✓	✓			
	100% stainless steel	✓	✓			
	Aluminum/stainless steel			✓	✓	✓
	Aluminum/galvanized steel			✓	✓	✓
Installation	Quick installation	☆☆☆☆☆	☆☆☆	☆☆☆☆☆	☆☆☆	☆☆☆
	Elevations	☆☆	☆	☆☆☆	☆☆	☆☆
	Horizontal elbows	☆☆☆	☆	☆☆☆	☆☆	☆☆☆☆☆☆
Cost level (components)		Low	Low	Low	Medium	Medium/High



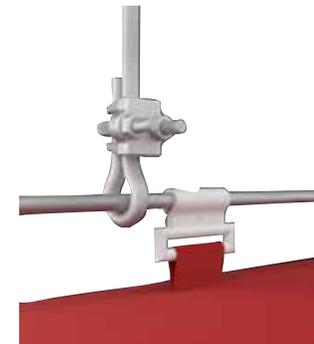
H-rail is used to suspend complex systems, as the rail can be bent to suit the elbows.

During the installation, the rails are joined by metal connectors using set screws, and the duct will have sliders or a bulb edge to slide into the H-rail profile.



T-rail is primarily used in a two rail configuration to suspend D-shaped, semi-oval, and quarter-round ducts, although it can also be used to mount round ducts.

T-rail is attached directly to any type of ceiling. The duct will have sliders, or a bulb edge, to slide into the T-rail profile at the appropriate locations for both single and double T-rail configurations.



Cable suspension is an economical suspension method, used in single or double configurations. It may also be used for vertical suspension.

The duct will have clips to hang the duct on the cable at the appropriate positions for either type of suspension.



Type 6

Type 7

Type 8 / Type 8 AIO

Type 11

Type 11A

Type 12

Type 13

H-rail

H-rail

H-rail

T-rail

T-rail

T-rail

H-rail

3 & 9 o'clock

12 o'clock

12 o'clock

3 & 9 o'clock

3 & 9 o'clock

3 & 9 o'clock

3 & 9 o'clock



High

Medium/High

Medium

High

High

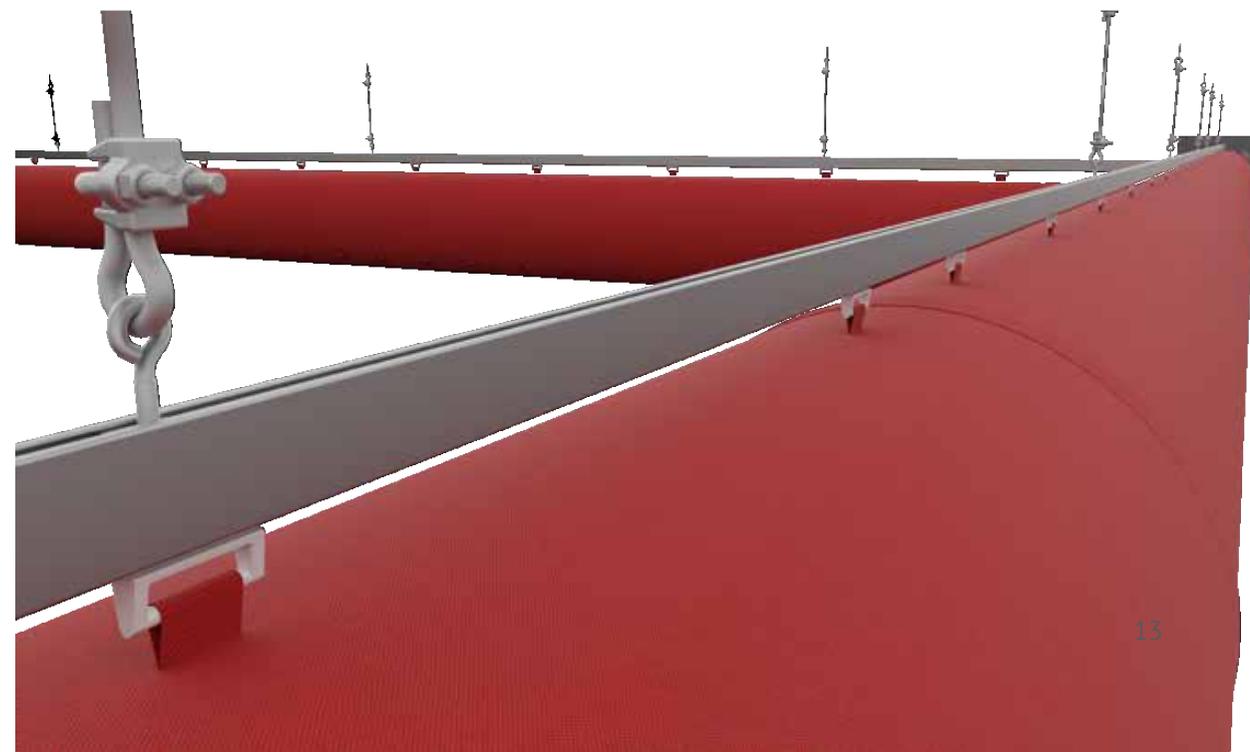
Low

High

3. Suspension Types

FabricAir provides a wide variety of suspension systems guaranteed to meet the challenges of any installation condition you may encounter. Selecting the right suspension type will allow you to save time and money on your project. There are three basic suspension systems: "H" rail, "T" rail and Cable.

Our suspension types are made from anodized aluminum or coated stainless steel making them suitable for corrosive environments. In projects with a high risk of corrosion, make sure a third party advisor specifies the appropriate alloy to ensure against stress corrosion cracking.





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PRODUCT CATALOG



START FROM THE INSIDE AND WORK YOUR WAY OUT TO SELECT THE APPROPRIATE FABRIC

LITE 20
MicroFlow™ • PerfoFlow™
SonicFlow™ • OriFlow™

LITE 15
MicroFlow™ • PerfoFlow™
SonicFlow™ • OriFlow™

COMBI 90
MicroFlow™ • PerfoFlow™
SonicFlow™ • OriFlow™
NozzFlow™ • JetFlow™

COMBI 80
FabFlow™
MicroFlow™ • PerfoFlow™
SonicFlow™ • OriFlow™
NozzFlow™ • JetFlow™

TREVIRA CS 150
FabFlow™
MicroFlow™ • PerfoFlow™
SonicFlow™ • OriFlow™
NozzFlow™ • JetFlow™

TREVIRA CS 100
FabFlow™
MicroFlow™ • PerfoFlow™
SonicFlow™ • OriFlow™
NozzFlow™ • JetFlow™

COMBI 70
FabFlow™
MicroFlow™ • PerfoFlow™
SonicFlow™ • OriFlow™
NozzFlow™ • JetFlow™

COMBI 20
FabFlow™
MicroFlow™ • PerfoFlow™
SonicFlow™ • OriFlow™
NozzFlow™ • JetFlow™

COMBI 85
MicroFlow™ • PerfoFlow™
SonicFlow™ • OriFlow™
NozzFlow™ • JetFlow™

COMBI 30
MicroFlow™ • PerfoFlow™
SonicFlow™ • OriFlow™
NozzFlow™ • JetFlow™

LITE 5
MicroFlow™ • PerfoFlow™
SonicFlow™ • OriFlow™

LITE 10
MicroFlow™ • PerfoFlow™
SonicFlow™ • OriFlow™

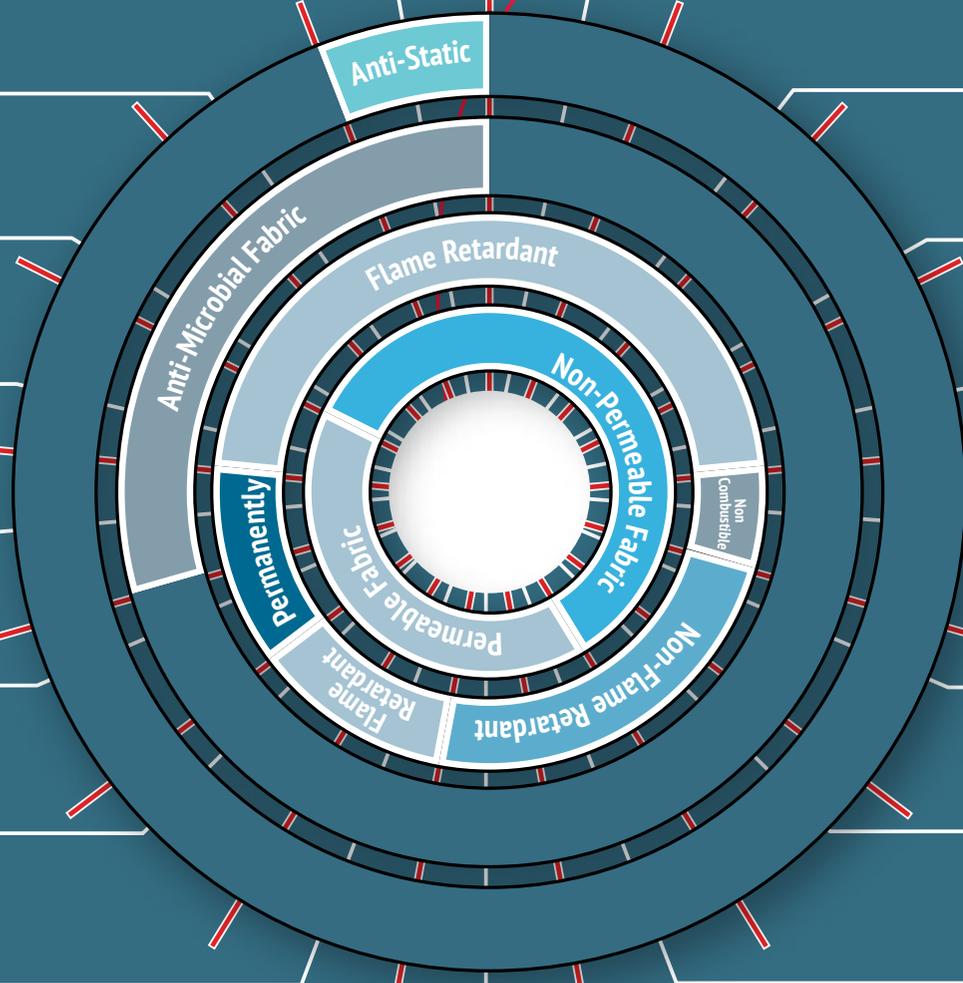
GLASS 220
MicroFlow™ • PerfoFlow™
SonicFlow™ • OriFlow™

POLY
OriFlow™

COMBI 65
MicroFlow™ • PerfoFlow™
SonicFlow™ • OriFlow™
NozzFlow™ • JetFlow™

TREVIRA BASIC
FabFlow™
MicroFlow™ • PerfoFlow™
SonicFlow™ • OriFlow™
NozzFlow™ • JetFlow™

COMBI 60
FabFlow™
MicroFlow™ • PerfoFlow™
SonicFlow™ • OriFlow™
NozzFlow™ • JetFlow™



www.fabricair.com/contacts