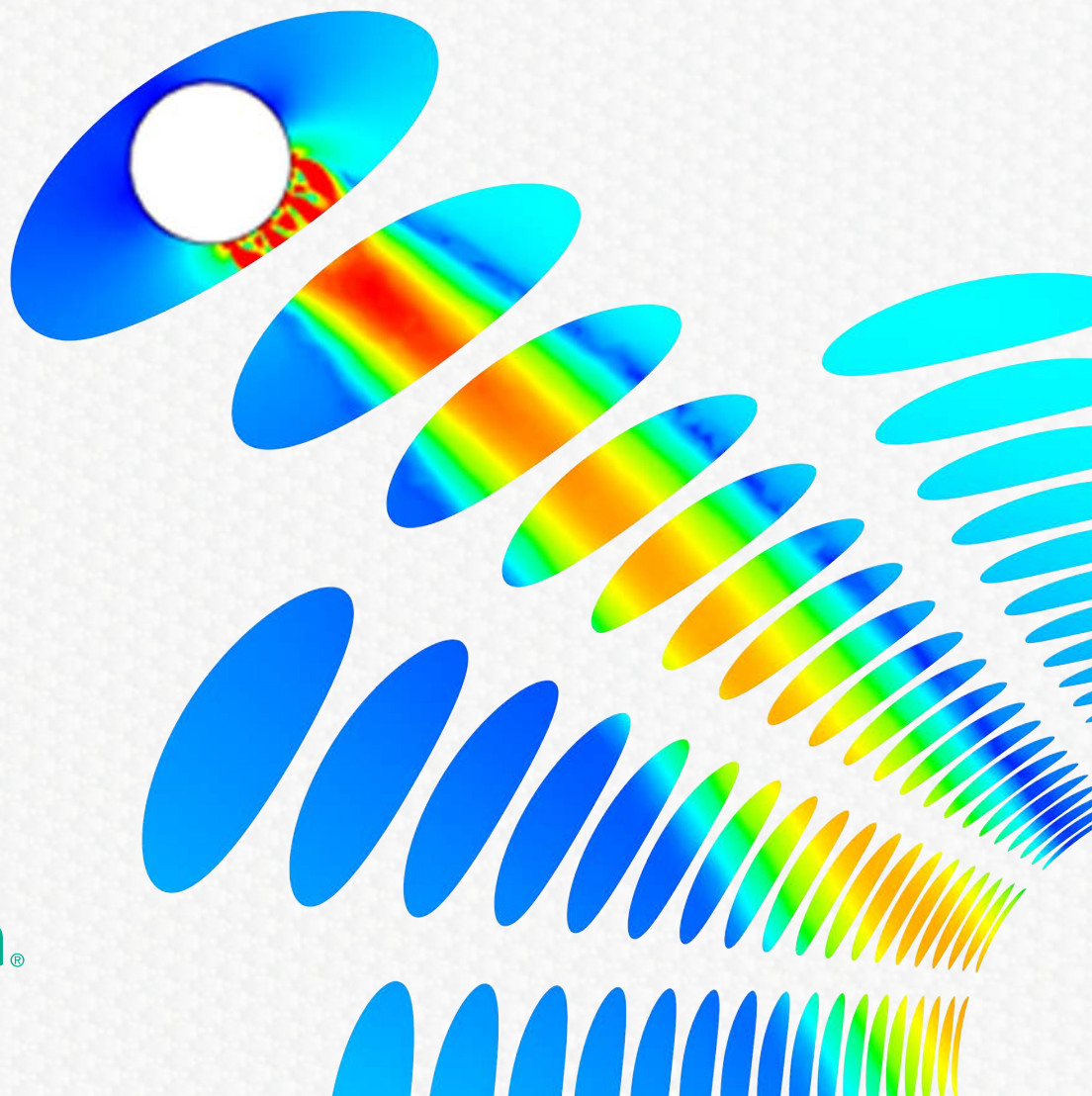


FABRIC DUCTING & DIFFUSERS

Technical data

USA version



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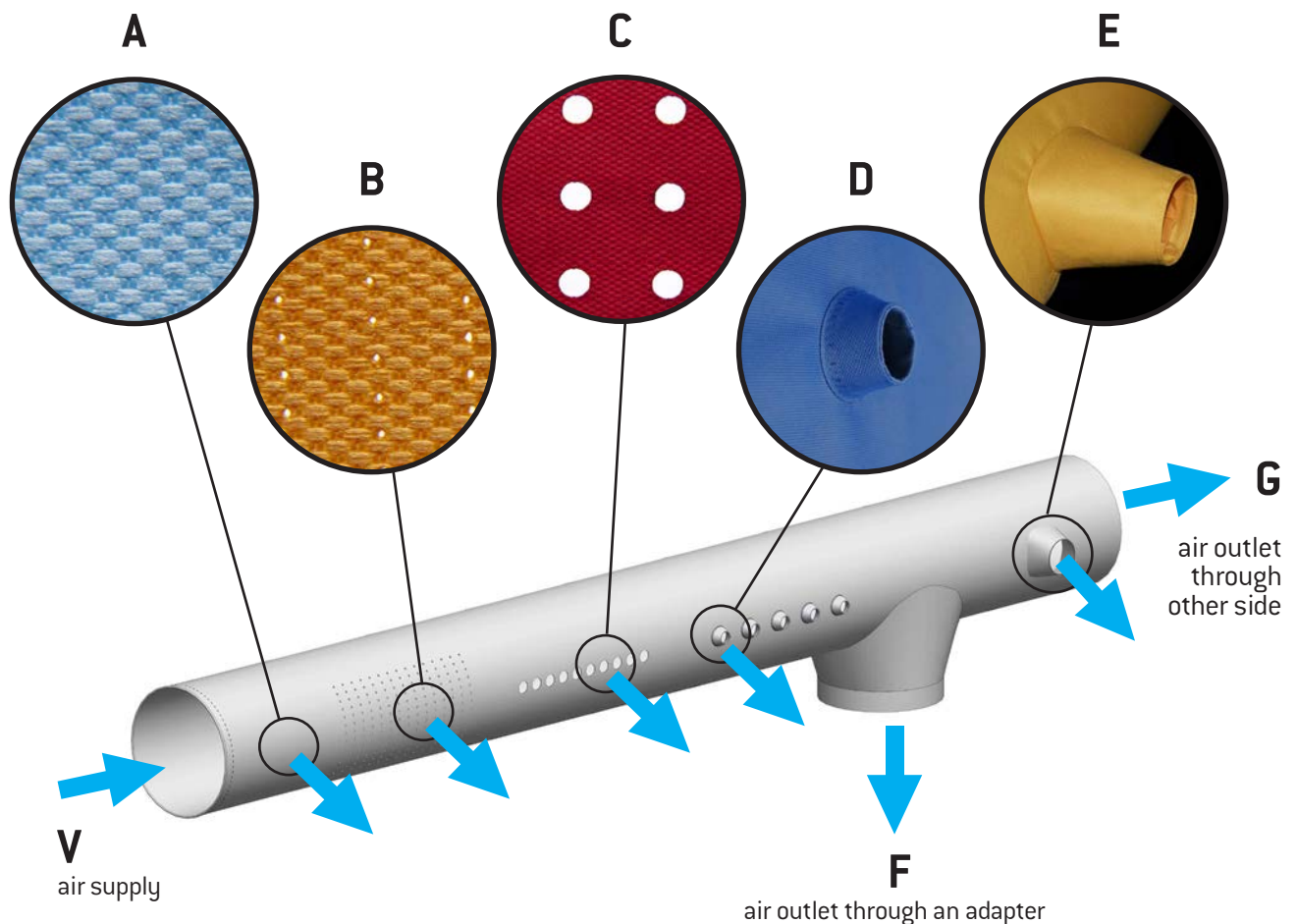
1. Fabric Ducting & Diffusers: Methods of distributing and returning air

Prihoda products are ducting as well as air distribution devices (or return devices) at the same time. We offer positive pressure air dispersion systems (fabric ducting & diffusers) as well as negative pressure ducting for exhaust or returning air to the unit from the space served.

1.1. Air dispersion / distribution options for fabric diffusers

Flow "V" brought into the diffuser through either of the ends or through an entry adapter may exit in the following manners:

- A - through a permeable fabric
- B - through microperforation – 200 – 400 μm holes in the fabric
- C - through perforation – holes with a diameter greater than 5/32" (4mm)
- D - through a small nozzle
- E - through a large nozzle
- F - through an adapter – air is guided off into another ducting branch (fabric or metal)
- G - through the second end – air leads to another diffuser or ducting (such as back to metal duct, etc.)



It always holds true that: $V = A + B + C + D + E + F + G$

[certain values of A, B, C, D, E, F, G may be zero]

Airflow Models for Prihoda Fabric Ducting & Diffusers

Air is distributed from fabric diffusers through various sizes, patterns, and types of openings. The combination of size, spacing, and grouping of holes together with various outlet flow models provide an infinite number of combinations and solutions for air distribution requirements for today's project challenges.

Microperforation - Tiny laser cut holes with a diameter of 200 – 400 μm, intended for low velocity / laminar air dispersion (Very low throw, not recommended for heating unless directional microperforation is used).

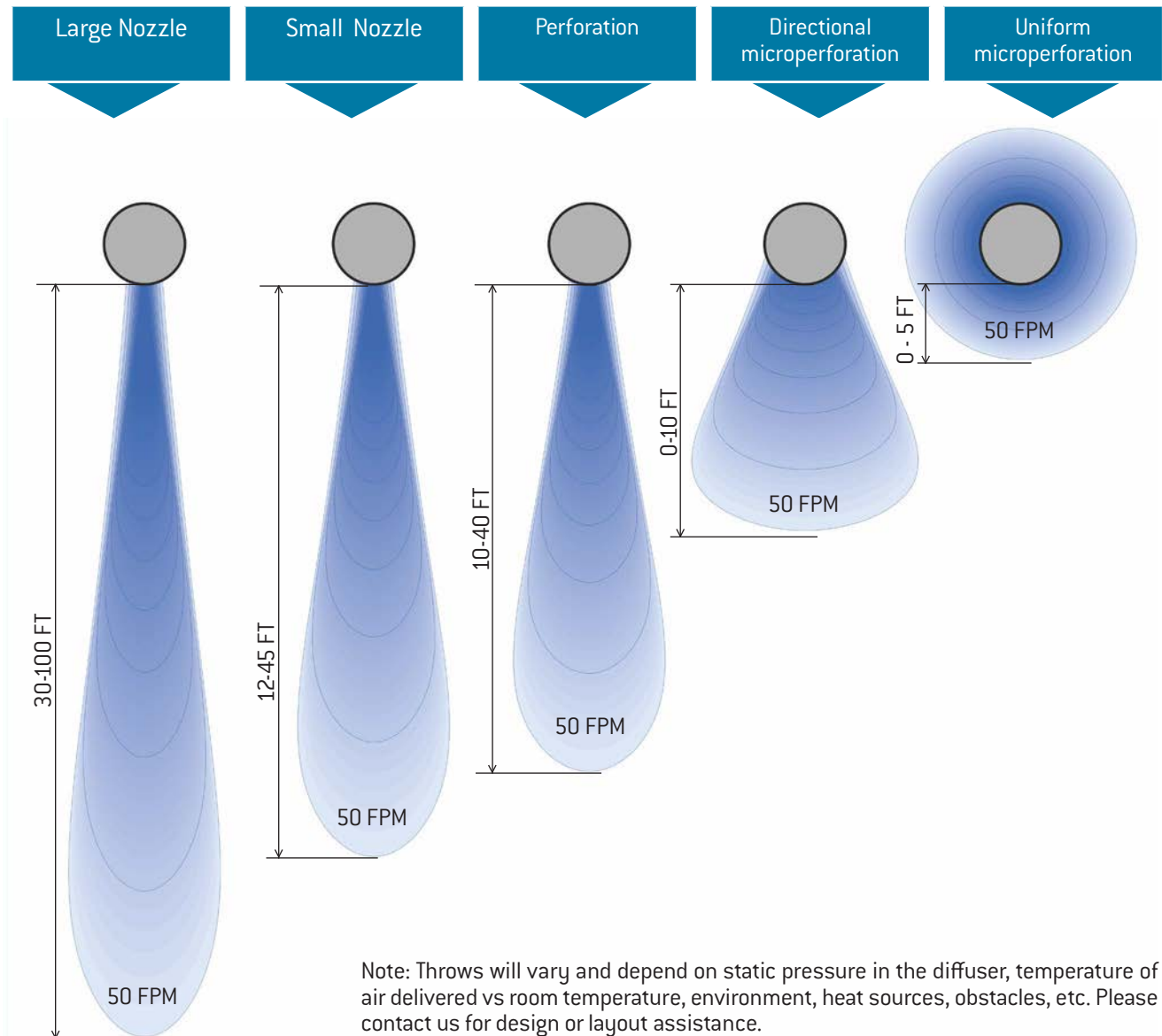
Perforations - A series of 5/32 inch (4mm) or larger holes provide directed air supply (low to medium throw for heating, cooling, and ventilating).

Nozzles - 3/4" diameter and up, very long throws or when a high velocity or spot cooling/heating is required.

* When calculating the throw/velocity at different distances from the duct, the temperature difference between the delivered air and the room (Delta T) must be considered along with the air speed from the outlets.

Fabric diffusers are an extremely versatile air distribution device which cover the entire spectrum of applied flow models used today. We achieve the desired throw by selecting the correct air diffuser outlet method, or quite often, a combination of methods.

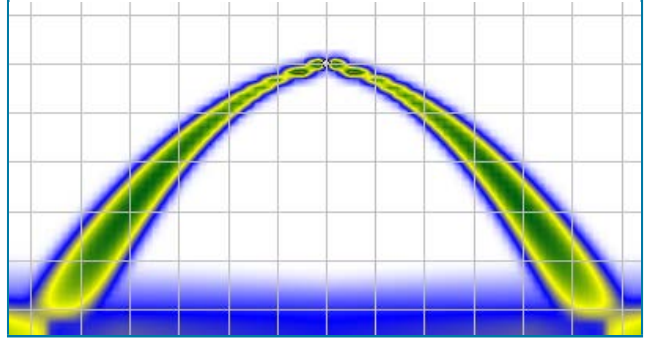
Airflow Models



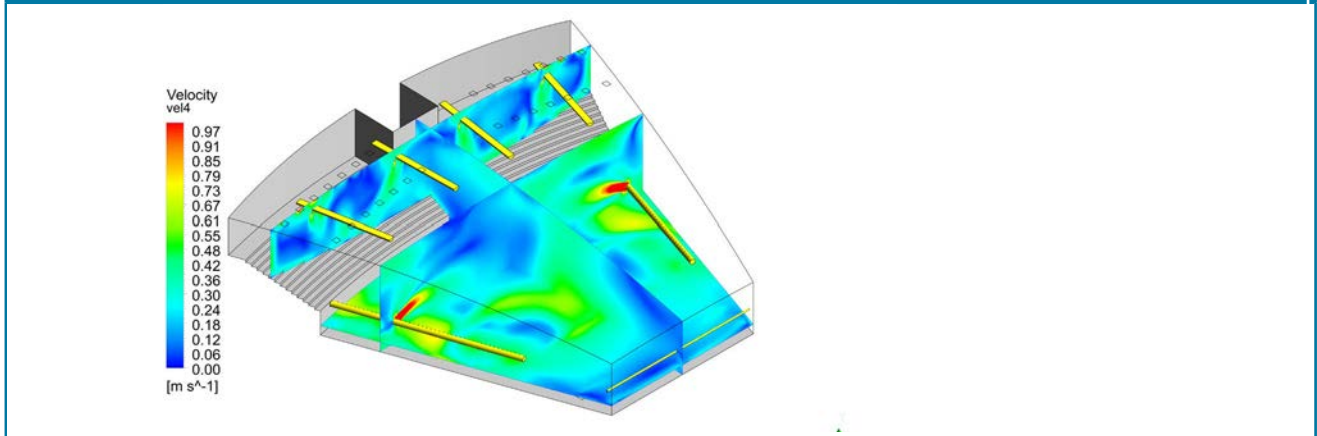
We tailor all of our products to meet the needs of each individual project. Due to every project's specific needs and the numerous combinations of flow models we decided years ago to develop design software to better assist our customers and to ensure a proper solution is achieved on every order we deliver.

Our software provides throw velocities at various distances from the diffuser (isothermal or corrected for heating / cooling), pressure loss calculations, and sound generated. Generally the design parameters are static pressure available to the diffuser, volume of air, flow model, fabric type, installation height, throw needed (space dimensions), temperature difference, sound sensitive or not, and mounting method.

Airflow patterns created by PRIHODA design software

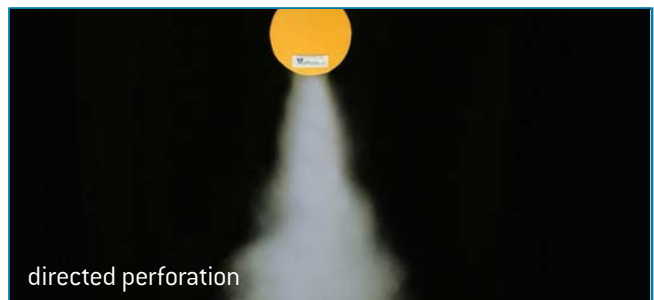
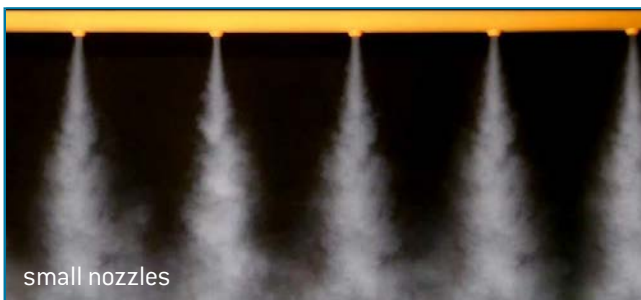


Airflow pattern created by Prihoda using Fluent Software



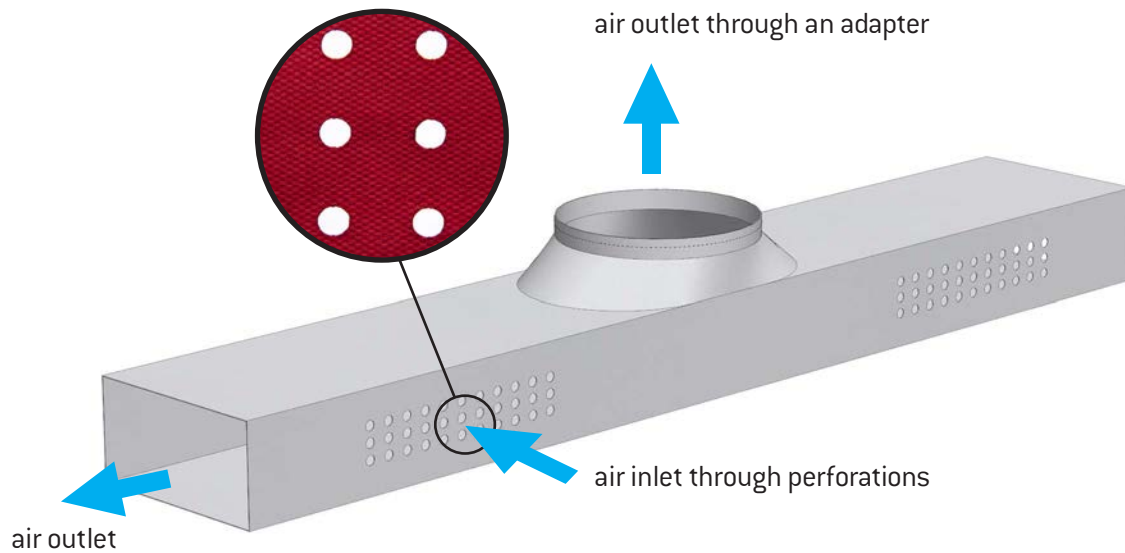
Many years of continuous software updates, lab/field testing, and thousands of installations worldwide give us complete confidence that our products will accomplish the solution your project requires. On very large or critical airflow applications, we also offer the use of Computational Fluid Dynamics software from one of the leading CFD software companies, Ansys Fluent (formerly Fluent Airpak).

Examples of airflow patterns created through a smoke test in the PRIHODA testing center



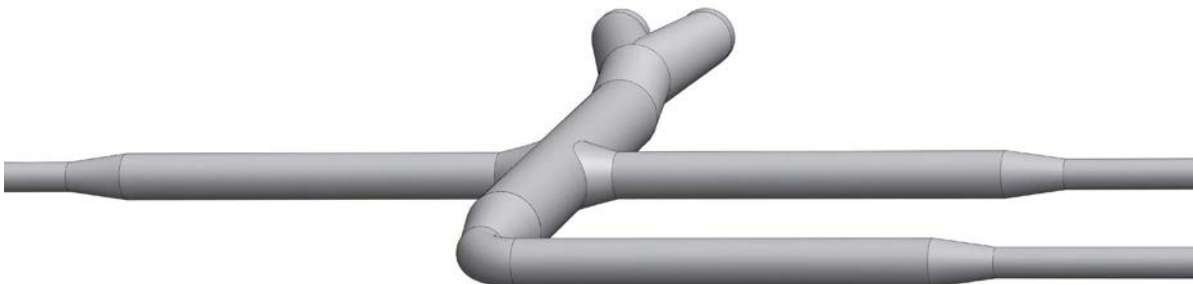
1.2. Air inlets for negative pressure ducting

Perforations are currently the only air inlet option used for negative pressure ducting.



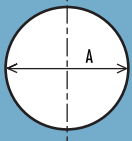
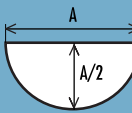
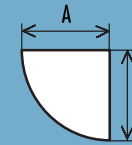
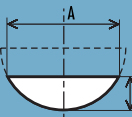
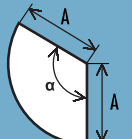
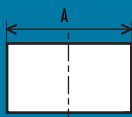
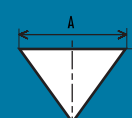
1.3. Transporting air with fabric ducting

Ducting made from impermeable fabric or insulated ducting feeds air to the point where it needs to be distributed. We can manufacture nearly any fitting required such as a "T", reducer, radius elbow and many other custom fittings.



2. Basic Properties of Prihoda Fabric Ducts

2.1. Cross Section

POSITIVE PRESSURE ONLY	C	CIRCULAR		The basic and most simple version, which is the easiest to install and maintain. Recommended unless your project requires otherwise.
	H	HALF-ROUND		Use where there is not enough space for a circular diffuser.
	Q	QUARTER-ROUND		Use where there is not enough space for a circular diffuser, or if the diffuser is to be installed in a corner of a room or space.
	SG	SEGMENT		Use where there is not enough space even for a half-round diffuser or if a low profile look is desired.
	SC	SECTOR		Use where quarter-round shape cannot be used because of an unusually shaped ceiling construction.
POSITIVE AND NEGATIVE PRESSURE	S	SQUARE		The shape is kept by means of a special structure holding all the corners of the diffuser and holding all four sides of fabric in tension.
	T	TRIANGULAR		The diffuser cross section is maintained by stretching with a weighted rod placed into the cross section bottom corner.

Note: We also make transitions to take the duct from one of the shapes above to a different shape. Some shapes deform slightly despite being properly tensioned, this is due to positive or negative pressure and the material flexibility (applies to cross sections S and T).

2.2. Dimension

We manufacture fabric ducting and diffusers ranging from 4" to 80" diameters (custom diameters upon request), depending on the project requirements. The inlet adapter dimensions are always approximately 1/2" larger than the metal connection for ease of installation.

In general, fabric diffusers are designed for similar flow speeds as traditional ducting and the volume of air determines the inlet size. Maximum velocities range from 1400-1800fpm for round ducts and 700-1400fpm for half round ducts (the higher the inlet velocity, the more static pressure required). Factors to consider are potential flow turbulence from fittings, available pressure, and sound generated by fast moving air. Specific conditions of flow, static pressure and weight of the fabric used must be taken into account to avoid vibrations/duct movement. Do not hesitate to contact us for design advice, we would be glad to help.

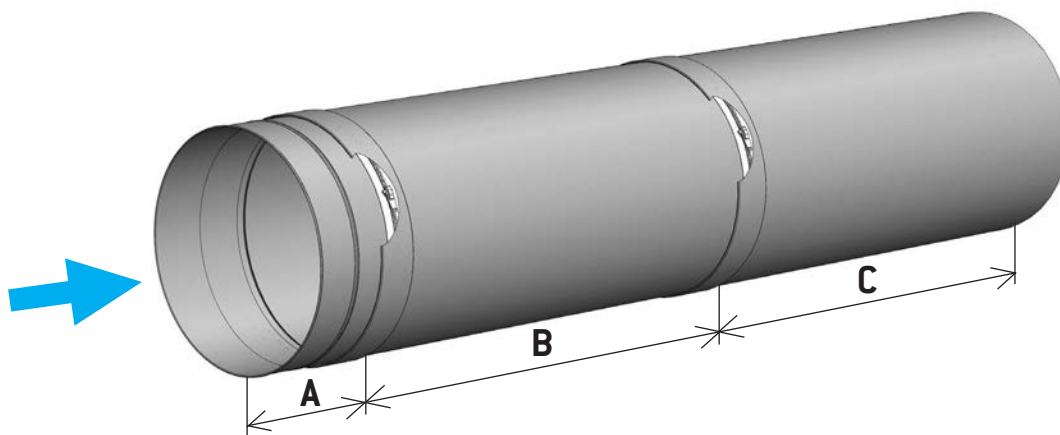
Dimension in individual shapes is understood to mean:

Cross section	Dimension (values A,B)
circular	diameter (A)
half-round	diameter (A)
quarter-round	radius (A)
segment	chord, height (A,B)
sector	radius (A)
square	length of edges (A,B)
triangular	base, height (A,B)

2.3. Length

Determining the length of fabric ducting and diffusers typically depends on the space. Generally the same air flow may be supplied into an area using a 10' - 650' long diffuser depending on the material used, its modification, and the supply fan's delivery pressure. The length of diffuser will usually correspond with the space dimensions depending on throw, velocity, and installation height. We can help to determine the length and flow model to specify for the most economical and effective solution.

MOST FREQUENT CASE



- A** - beginning (Inlet/Collar) – length 4" to 8"
- B** - continuous part (straight section) – length 16.4' to 33', may be repeated several times in sequence
- C** - end part – length from 3' to 36' (6" Zippered end caps or the end cap can be sewn directly to the last section.)

- Individual parts are connected with zippers; the number of zippers may be modified per customer request.
- Only the overall length in feet (thus A + B + C) is provided in the material list; ducting and diffusers are separated into segments during production.

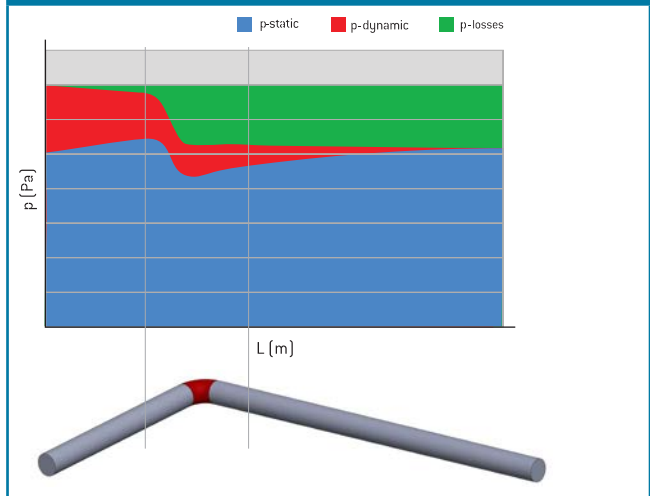
2.4. Pressure

Fabric ducting is typically designed with the static regain method. Pressure losses of fabric diffusers & ducting are very similar to those of traditional metal ducting, however there are important differences. The biggest difference is that for most fabric duct applications the air is continuously distributed along the entire length, so the velocity of the air continuously decreases. This equates to a lower velocity or friction pressure loss per running foot for fabric ducting when compared to traditional metal ducting. For very long duct runs, typically over 100', we will also reduce the duct diameter similar to metal ducting to ensure even air delivery from inlet to the endcap.

Minimum static pressure necessary to keep a fabric diffuser or duct fully inflated depends on the weight of the fabric used and if reinforcement options are used. Sufficient pressure for light weight materials is .10 INWG and 0.20 INWG for medium and heavy weight fabrics (if no reinforcement options used).

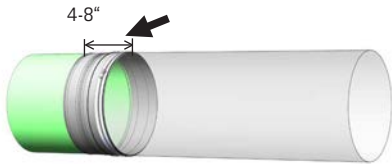
Generally Fabric ducts are designed on average for .50" wg inlet external static pressure loss. Do not hesitate to contact us for design assistance of the distribution system or ducting, as our software can easily provide accurate pressure loss calculations.

Graph of pressure distribution in a fabric diffuser



2.5. Available End Configurations and Connection Types

F BEGINNING (Inlet/Collar)



H HEMMING (No Zip)



WOUT OUTER WINGS (outer square flange)



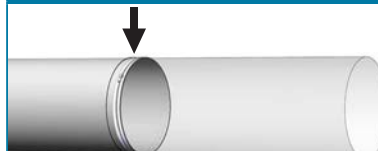
WIN INNER WINGS (inner square flange)



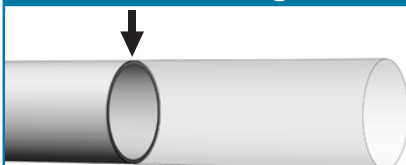
B BLANKING (end cap)



Z ZIP



S SUTURE (sewn together sections with no zip)



3. Installation

Installation no.	Cross section view	Type of suspension	Additional accessories	
0		This type is without mounting material, hooks or enlarged cord. For vertical installations secured and hung by the inlet clamp, horizontal installations only suspended by tensioner ring in endcap (see chapter 5.7), or for under floor ducting which require no suspension.		
1		1 wire	D, F, K, M	
2		2 wire	D, F, K, M	
3		1 profile (track), velcro	A, B, C, G, J, L, H	
4		2 profiles (tracks)	B, C, G	
5		1 suspended profile (track)	A, B, C, G, I, D, E, F, K, L, M	
6		2 suspended profiles (tracks)	A, B, C, G, I, D, E, F, K, L, M	N
7		tensioner	D, F, H can be added to any other installation	
8		profiles (tracks), velcro	A (can be added to any other installation), B, C, G, L, H, J	
9		profiles (tracks)	A, D, E, F, K, L, M	
10		profiles (tracks)	A, L	
11		profiles (tracks)	A, E, K, L, M	

Hook for wire & Glider for profile [track]



Aluminum profile [track]



Plastic coated wire [galv.] and galvanized mounting material



Enlarged strip [A]



Plastic profile [track] [B]



Aluminum profile with hangers [C]



Plastic coated wire [galv., stain.] and stainless mount. m. [D, F]



Threaded rod [E]



Profile/track connectors



Stainless profile [track] [G]



Tensioner in end cap [H]



Reinforced Aluminum profile [track] [I]



Velcro [J]



Galvanized chain [K]



Screw Tensioner in the profile [track] [L]



Gripple hangers - upper parts [M]



Gripple hangers - lower part [M]



External Arch profile [track] hanger [N]



4. Design Features

We offer a solution for nearly any application. Everything is tested by our Research and Development Engineers in our state-of-the-art testing laboratory and followed up with real world field tests to confirm our data. All products are custom-made and we are ready to meet your specific requirements for custom equipment or designs which are not published in our catalog or website. Feel free to contact us with your unique application and put us to the test!

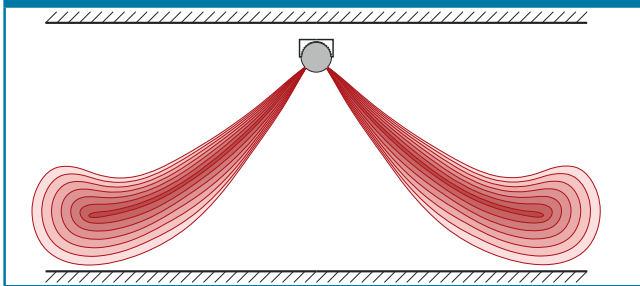
4.1. Products for special use

Membrane Diffuser

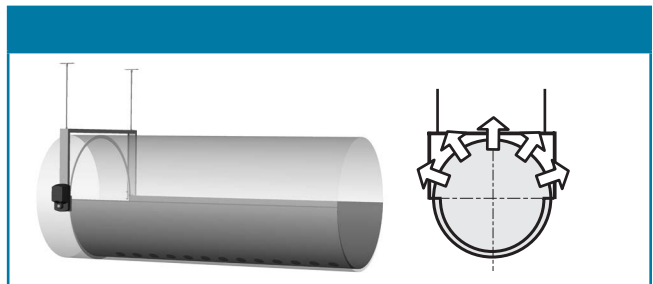
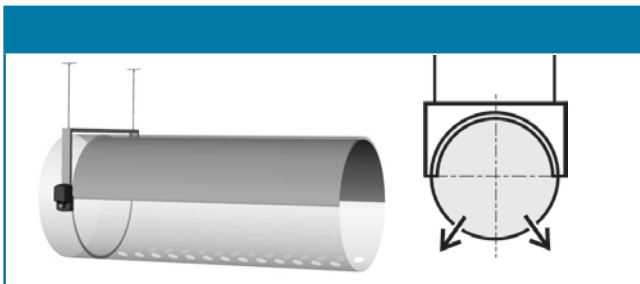
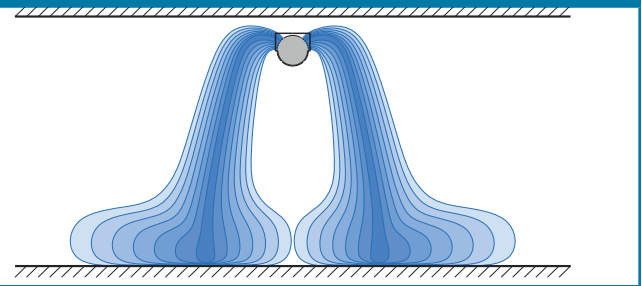
Diffuser for two different supply air modes

This option combines two types of diffusers into one. The membrane, which is produced from a light weight, non-permeable fabric, is sewn horizontally into the center of the diffuser. It covers either the top or bottom of the inside of the duct in an alternating fashion. The front end of the membrane is fastened to a flap controlled by a servo motor (or manual chain-and gear) which makes it possible to select between two positions, usually cooling or heating. In heating mode the membrane seals the top half of the diffuser and the air exits through a series of perforations downwards. In cooling mode the membrane seals the bottom half and the air exits only out of the top of the fabric or microperforation for a laminar flow / displacement cooling effect.

Heating (flap seals top)



Cooling (flap seals bottom)



FLAP

A 15.75" sleeve is used to switch the membrane between operating modes made from Classic (PMS/NMS) or Premium (PMI/NMI) material depending on the duct specification. The internal drive arm and external mounting frame are constructed of galvanized steel. Available with optional electronic actuator or configured for manual control.

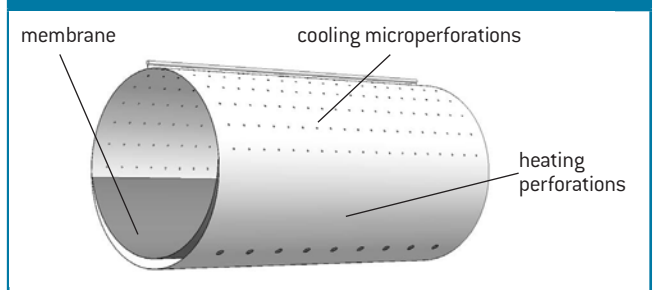
DIFFUSER

The membrane always covers one half of the diffuser and leaves the other open to supply air.

Detail of flap with servomotor



Detail of Membrane diffuser



Negative Pressure Ducting

Negative pressure ducting is only supplied in square or triangular cross-sections. To prevent the duct from collapsing due to negative pressure and flexible fabric, the duct walls must be stretched and held in tension in the lengthwise and crosswise directions. Tensioning is done with track profiles, threaded rods, and weighted rods for the triangular cross sections. Air is drawn into the duct through perforations that can be positioned on any side and anywhere along the length of the duct. To ensure equal extract/exhaust rates, we can adjust the perforation diameters or span between the perforations progressively along the duct. Designed for use where regular / complete cleaning of ducting is required (such as the food industry), negative pressure fabric ducting may be easily removed from the suspension structure. The parts are tagged and separated by zippers for washing, maintenance, and re-installation. It can also be a good option for corrosive environments such as pools and natatorium return ducts. If NMI material is used, the ducting will be antibacterial.

Fabric Ducting for removing air

Square fabric negative pressure ducting with a stretching structure



IMPORTANT NOTE: For impermeable fabrics Classic (NMS), Premium (NMI) or Durable (NMR) only.

Insulated Ducting

Used for decreasing heat losses/gains when transporting air through unconditioned spaces from the air handler to the area intended to be conditioned. An unwoven 1.2" polyester layer is used as insulation (classification of fire resistance B-s2,d0 according to EN 13501) and is sewn in between the inner wall (light weight material) and the external wall of the duct which is usually a medium weight material; however all of our materials are suitable for use as the external layer. The process of sewing somewhat decreases the thickness of the insulation by about 0.8". The maximum achieved heat coefficient is 1.5 W/ m2K. We typically provide 7' sections with diameters starting at 10". There is one ring every 3.3 ft. This insulated hose also has excellent sound attenuation properties as an added benefit

Thermal insulation

Insulated duct



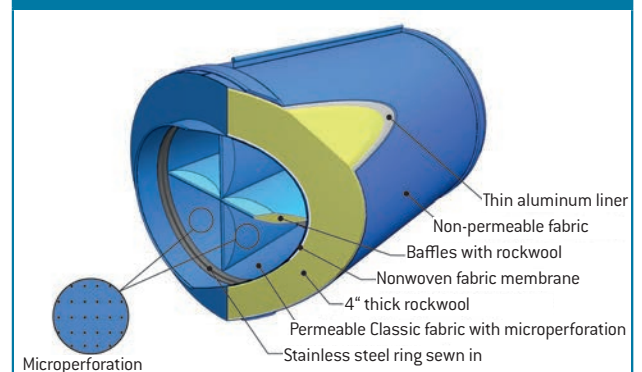
QuieTex - Textile Sound Attenuator

Designed to dampen system noise transmitted through metal ductwork upstream of fabric diffusers, the QuieTex Sound Attenuator is constructed using an internal liner of microperforated fabric with 4" of rockwool encapsulated in a thin aluminum liner and covered with non-permeable fabric to provide excellent attenuation of system noise entering the diffuser system.

See QuieTex® brochure for more details (available on www.prihoda.com under downloads).

Sound attenuation

Construction of the QuieTex sound attenuator



Noise attenuation values in dB (16" ID)

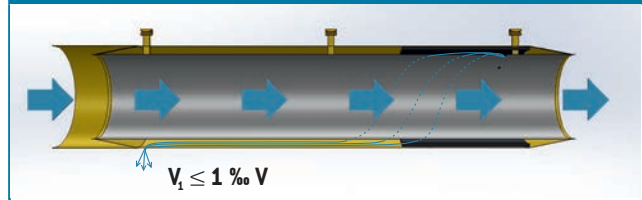
Hz	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Fabric noise attenuator	6	11	15	23	29	35	30	20

Double Wall Fabric Ducting

Condensation is avoided by the use of double wall fabric ducting. The inner layer is maintained in the correct position by a negligible flow of air (about 1% of the ducting flow). The heat transfer coefficient reaches up to 3.5 W/m²/K.

Condensation Prevention

Principle of Double Wall Fabric Ducting

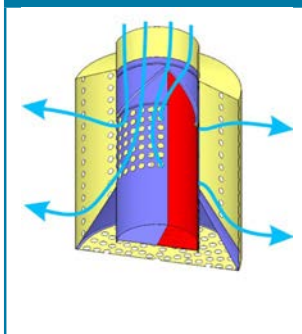


Lantern with Membrane

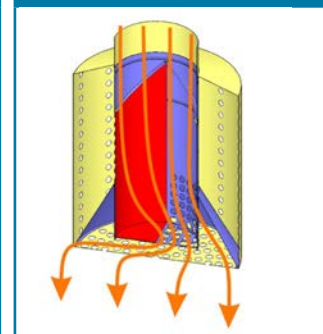
Unique combination of double-wall construction and non-permeable interior membrane allows control of airflow direction between 360 degree horizontal discharge for cooling, makeup air, or direct downward vertical dispersion for heating mode. Launderable, lightweight fabrics allow for easy hygienic maintenance and simple, single-point connection to supply air outlet.

Diffuser for commercial & industrial spot heating/cooling

Horizontal outlet



Vertical outlet



Anti-static Design

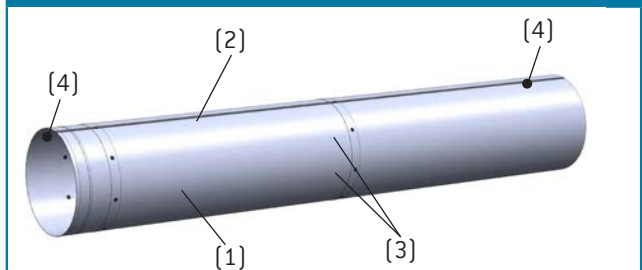
Anti-static design is intended for rooms where there can be no risk of electrostatic discharge from the diffuser (sensitive electronic equipment, battery manufacturing, server rooms, data storage, etc.)

It consists of 4 components and must be asked for in the design and quote process:

1. A conductive fabric (Prihoda Premium has conductive carbon fibers woven into the material).
2. A highly conductive strip sewn in along the length of the diffuser.
3. All zippers are equipped with metal joints.
4. Grounding points at the ends of the diffuser.

Eliminating Electrostatic Discharge (ESD)

Anti-static Design

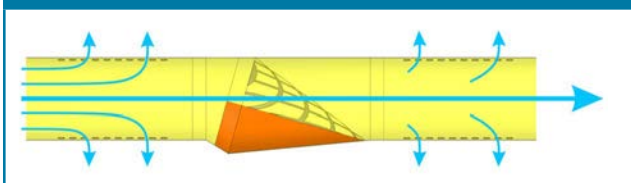


Fabric Shut-off Damper

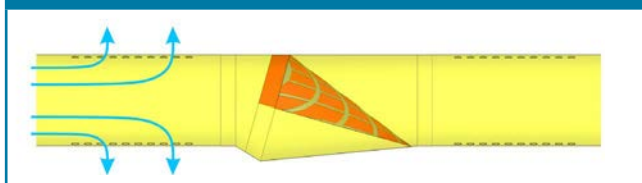
A conical, non-permeable membrane and drive arm which can be driven manually or by electronic actuator for on/off control of airflow into downstream sections of duct. Can be useful for zone heating and cooling applications.

Closing off duct sections

Fabric Shut-off Damper open



Fabric Shut-off Damper closed

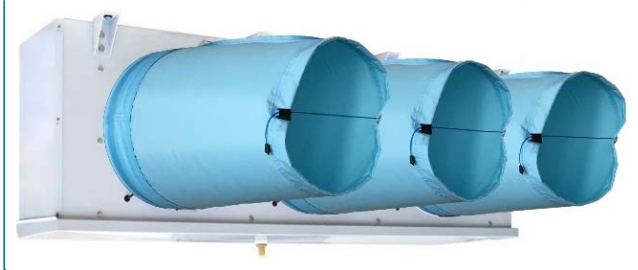


Defrost Damper for Walk-In Coolers/Freezers

Faster and more efficient cooler defrosting

The purpose of the Defrost Damper (DeDa) is to simply close off the coils from the walk-in cooler or freezer to speed up the defrost cycle. Our lightweight, hydrophobic NLW fabric reduces frost buildup on the Defrost Damper itself, while ensuring proper coverage of the fan opening to minimize the defrost cycle for increased energy savings.

Defrost Damper on a cooler in operation (1)



Defrost Damper on a cooler out of operation (2)

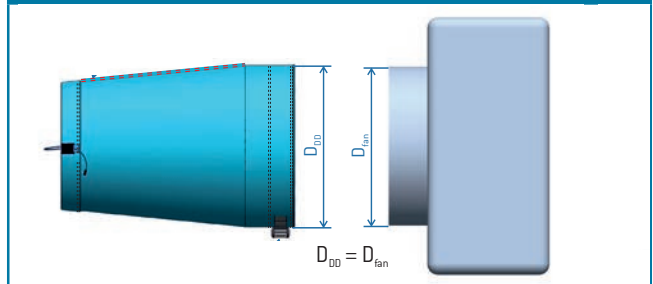


1. While the fan runs, the damper is open and the supply air is flowing into the cooler. There is a slight pressure loss through the defrost damper that can decrease the flow rate slightly depending on the fan curve characteristics and how much the damper is adjusted.

2. During the defrost cycle, the Defrost Damper collapses over the fan discharge opening to keep the cold air in the cooler and away from the defrosting coils which speeds the defrost cycle.

3. The adjustment strap at the outlet of the damper allows for adjusting the damper restriction during installation to allow maximum airflow from the fan while minimizing fabric movement during operation.

Defrost damper shape and installation (3)

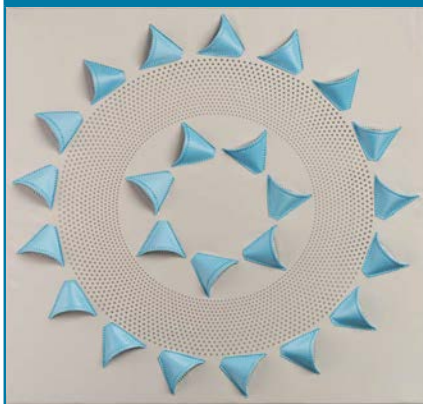


SquAireTex[®] Lay-in Diffusers

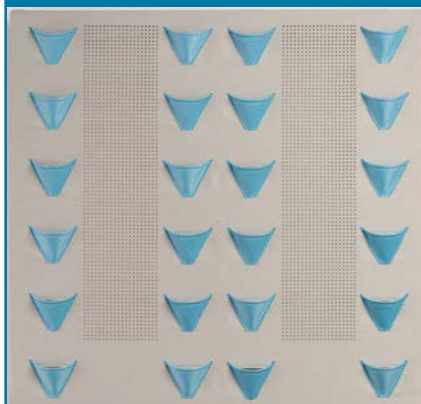
Fabric Tile Diffusers for ceilings and walls

SquAireTex[®] lay-in fabric diffusers by Prihoda were given an Honorable Mention in the 2016 AHR Innovation Awards for expanding the benefits of textile air dispersion systems—light weight, low cost, easy install/maintenance, and engineered air distribution—to suspended ceiling applications. SquAireTex[™] diffusers are available as high-induction swirl for optimum occupant comfort, uni-directional or bi-directional flow and low velocity, laminar flow perfo, to provide tailor-made air distribution in offices, classrooms, laboratories and any suspended ceiling application where metal diffusers have been used in the past. Made from ultra-lightweight aluminum frames and UL/ULC listed engineered fabric, SquAireTex[™] diffusers do not require independent suspension like ordinary metal diffusers; reducing installation labor costs while providing optimum air distribution. 9 standard colors are available for both diffuser face and Textile Air Control pockets. SquAireTex[®] diffusers are the next evolution in ceiling mounted air distribution. See SquAireTex[®] brochure for more details [available on www.prihoda.com under downloads].

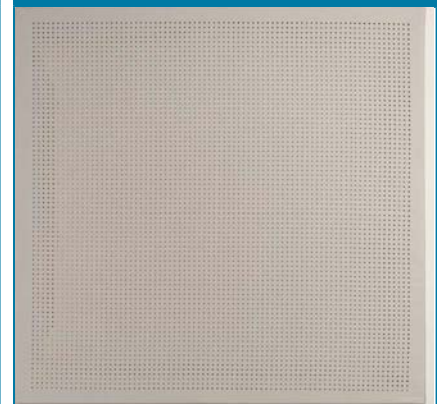
SquAireTex Swirl



SquAireTex Flow



SquAireTex Perfo

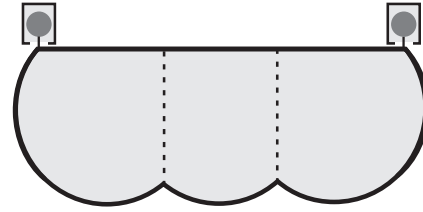


Combined Half-Round Section (Oval)

This is a combination of several half-round diffusers sewn together side by side. It allows for higher volumes of air for applications with limited overhead space preventing a full round diffuser from being used.

High volume, low profile diffuser

Example of Combined half-round section



4.2. Solutions for Medium to High Throw Applications

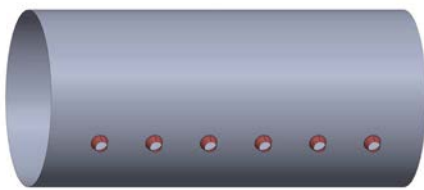
Small Nozzles

Perpendicular discharge and 25% increased throw

As perforations increase in size, the air discharge angle or “deflection” angle toward the end cap increases unless there is sufficient pressure behind the orifice to correct the deflection. This angled discharge can cause more tempered air to be delivered at the far end of the space (near the end cap) causing undesired temperature differences and uneven distribution in the space. Small nozzles offered by Prihoda are made from the same material as the duct and are ultrasonically welded to the duct to correct this discharge angle. A CFD analysis also shows a 25% increase in throw when comparing the performance of nozzles and perforations of the the same size, airflow, and pressure. Small nozzles are available in 3/4” (20mm), 1” (30mm), and 1.5” (40mm), which can be provided in two variants: industrial, for when it just needs to function at the lowest cost, and premium when it needs to function while having a better finished appearance (less prone to wrinkle).

IMPORTANT NOTE: For Premium (PMI, NMI), Classic (PMS, NMS), Durable (NMR), Recycled (PMSre, NMSre) fabrics only

Small nozzles on the diffuser



Row of small nozzles

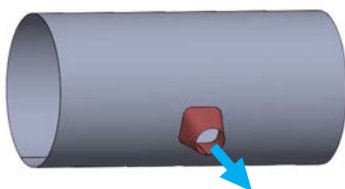


Large Nozzles

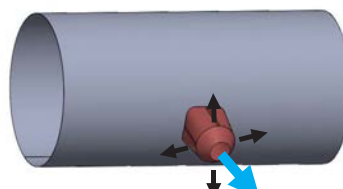
For longest throw

Large nozzles can accomplish the longest throw distance from fabric diffusers. Depending on the volume of air, static pressure, and temperature difference, throws of more than 70ft can be achieved. Large Nozzles can be fixed position (centered), directed in a certain angle from the factory, or adjustable onsite, but the appearance of each type of nozzle is about the same. The adjustable nozzle may be directed as desired up to $\pm 45^\circ$ using 4 belts. The folds and belts are covered in fabric so they are concealed along with a damper that is sewn internally in the nozzle to adjust the flow of air if needed. Please feel free to contact us with the requirements and details of your long throw/high velocity nozzle design.

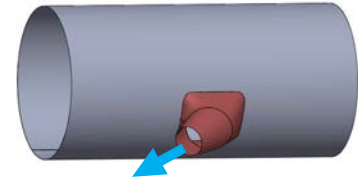
Fixed nozzle



Adjustable nozzle



Directed nozzle



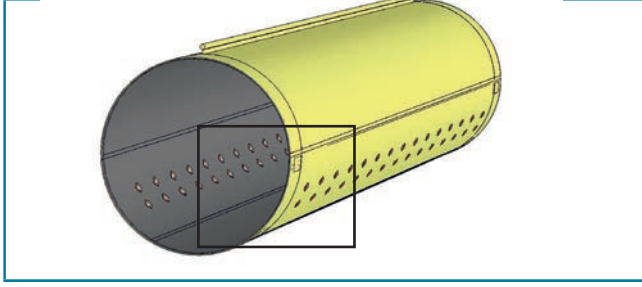
4.3. Products with adjustable parameters

Adjustable Perforation

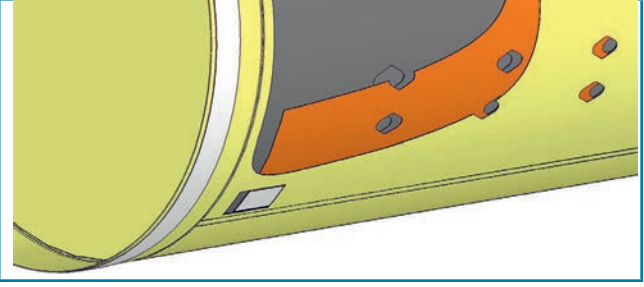
Setting airflow

Pushing the innovative envelope yet again, Prihoda engineers have designed a unique solution which allows manual adjustment of the free area of perforations and subsequently the airflow and throw from the diffuser openings. If placed on both sides of the duct it allows an installer or end user to fine tune the percentage of air coming from either side of the duct or completely shut one side, while opening the other side 100%. The size, number, and placement of the openings selected by the factory will be project dependant and based on available pressure and airflow requirements.

Diffuser with adjustable perforation



The perforation section is made up of three layers of fabric



Closable Nozzles

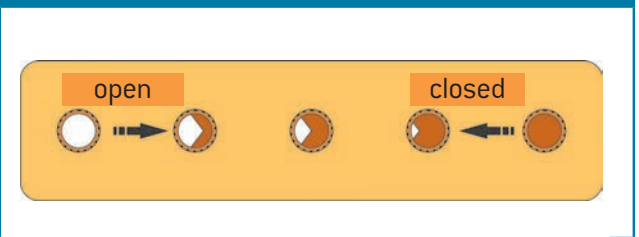
Adjustable Air Flow

Small nozzles can be closed off with an integrated strip of perforated fabric that is constructed between two layers of fabric. Sliding the fabric strip and securing it with velcro switches between closed and open positions. If the nozzles are only partially open the flow can change from perpendicular throw to a deflected, unpredictable angle. The quantity of nozzles controlled can be customized. Alternatively, individual nozzles can be capped off with single nozzle plugs.

Maximum length of sections is 4'

Nozzle sizes	Maximum number of nozzles
.75"	7, 51cfm @ .40" wg
1.25"	5, 85cfm @ .40" wg
1.5"	4, 124cfm @ .40" wg

Option to close certain nozzles

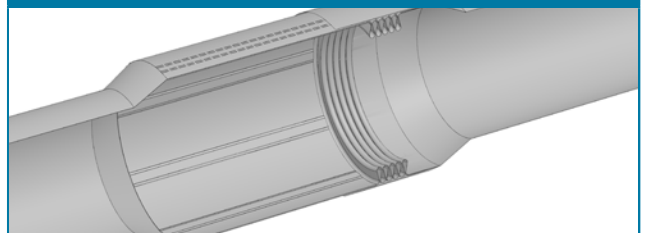


Adjustable Length and Elbows

Possibility to change length and angle during installation

Eight adjustment belts sewn along the length of a circular duct allow for manual length adjustment up to 3.2' and elbow angle adjustment from 0 to 90 degrees.

Adjustable length – sectional view

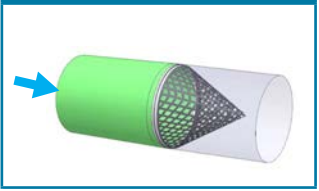
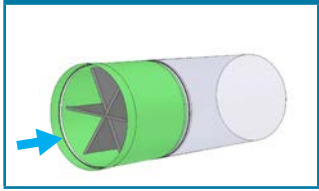
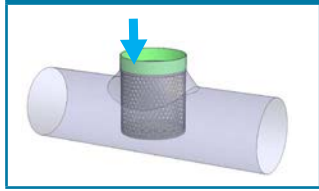
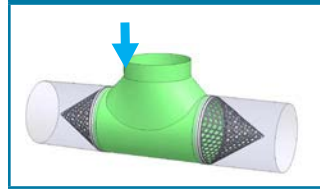

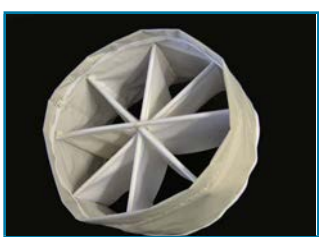

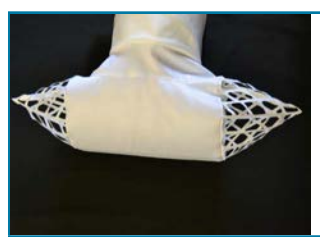


4.4. Solutions for problematic air flow

Equalizers

Airflow equalizing/Flow correction

Equalizers are internal devices used for equalizing flows and reducing turbulence downstream of the fan or a fitting. Their use can reduce vibrations and movement in the fabric caused by irregular flow. However, they add a pressure loss which should be considered in the design process. Many of our competitors use similar devices made of a fine mesh material which can act like a filter and clog with dust and debris over time. Prihoda's unique design is clog resistant.

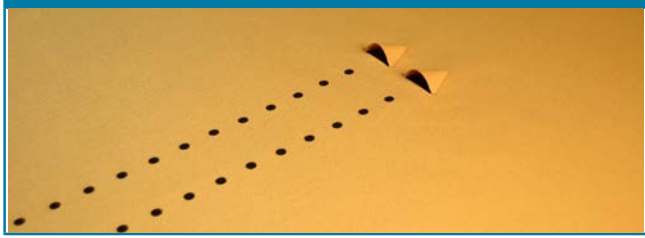
EQ	EQS (star)	EQP (pot)	EQT (T-shape)
perforated fabric cone	star-shaped fabric sewn into the diffuser	cylinder sewn from a perforated fabric with bottom	equalizer copies inside form of diffuser
			
			

Textile Air Control Pockets

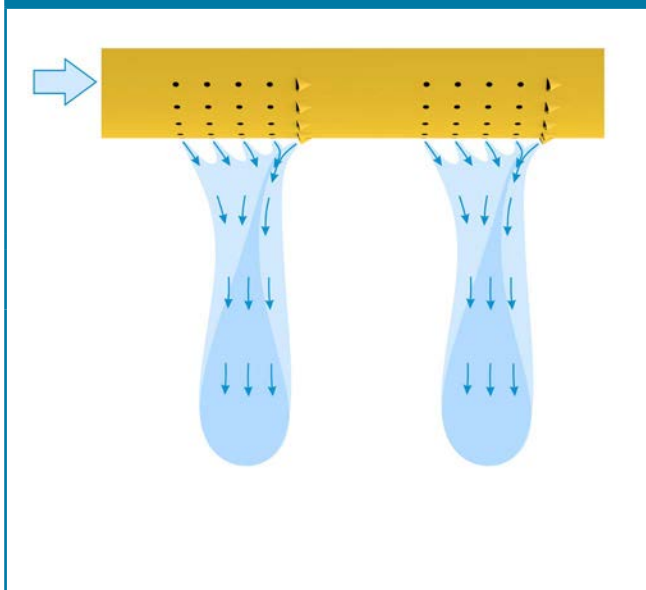
Solution for deflection of flow from perforations

In certain situations air can exit from perforations (holes) at a very pronounced angle towards the endcap, a condition we refer to as deflection. Textile Air Control Pockets are designed to prevent deflection using the interaction of two air flows of similar momentum. Air discharged from the last outlet in a row of holes is directed at a certain angle using a fabric pocket to balance the air deflection angle from the preceding series of perforations. The result from this effect is perpendicular throw without the use of a nozzle for every air outlet. Our software monitors the deflection angle towards the endcap out of perforations in real-time during the design to alert the designer when Textile Air Control Pockets are applicable.

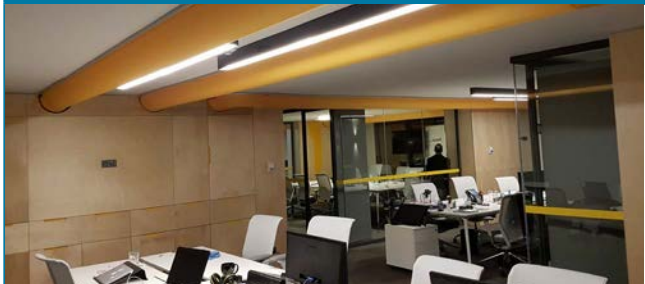
Textile Air Control Pockets on the diffuser



Detail of Textile Air Control Pockets



Textile Air Control Pockets principle

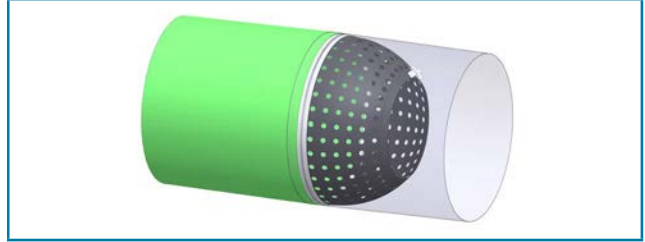


Damper

Similar to an equalizer only it has an adjustable outlet where the diameter may be adjusted using a sewn in belt with stopping clamp. Maximum opening to the diffuser diameter means zero pressure loss, and in contrast, fully closing the outlet side provides the highest local loss. The setting may be adjusted at any time by opening the zipper where the damper is located. It serves to equalize the static pressure along the diffuser, thereby equalizing the dispersion. It can also be used for flow regulation into the diffuser or to help balance a complex system. Most fabric duct systems do not require balancing if designed properly, but dampers do add increased adjustability of the system and are included in all of the large nozzles as a standard.

Airflow equalizing/Flow correction

Damper

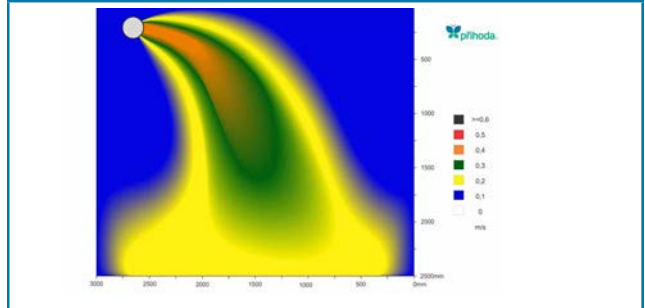


Diffuser for High Load Cooling

When cooling with a high delta T, cold air can fall rapidly below even a uniform microperforated diffuser due the density of very cold air compared to room temperature air. To prevent occupant discomfort and drafts over sensitive equipment, we recommend horizontal air discharge from directed microperforations rather than uniform microperforations. By placing the microperforations in a row on either side of the duct and ensuring the horizontal airflow pattern achieves a certain speed we can prevent premature downward deflection of the airflow. With sufficient outlet speed (determined by static pressure) it is possible to introduce 400W (1364 btus/hr) of cooling capacity per meter of duct (3.3ft), while maintaining a velocity below 50fpm in the occupied zone. Airflow patterns are illustrated to the right, please contact us for the specific calculations on your project.

Cooling with high temperature difference (>6K)

Airflow patterns, microperforation 90°, 165 Pa



Anti-deflector

The Anti-deflector prevents deflection of airflow from fabrics microperforated by holes larger than the thickness of the fabric. It is made of a fine mesh and covers the diffuser from the inside. Proper filtration must be used to prevent additional maintenance. Our calculation software recommends its use when the deflection is noticeable from microperforations.

Prevents the deflection of airflow from microperforation

Detail of diffuser with anti-deflector



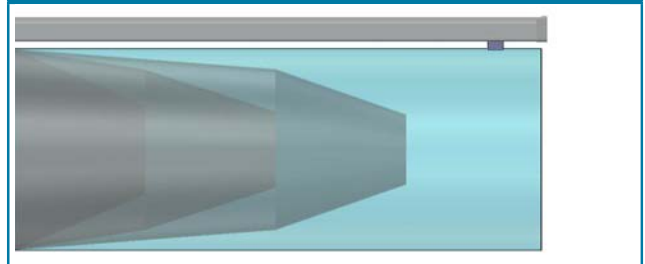
Start-up Shock Absorber

Fabric Diffusers are designed with static regain, meaning they capture Dynamic (Velocity) pressure and convert it to static pressure. The initial fan startup sends a shock wave to the endcap from the sudden pressure conversion which can be noisy and detrimental to the fabric duct system. We recommend supply fans for Textile air dispersion systems to be equipped with a VFD or soft-start with a 30 second ramp-up period to eliminate this inflation popping effect.

If soft-start/VFD is not available or present on the fan, the Start-up Shock Absorber virtually eliminates this sudden impact of air against the end cap by the use of three concentric fabric cones which slow the conversion of velocity pressure to static pressure. Start-up Shock Absorbers are available for new ducts or as a retrofit for existing systems.

Reduce impact on the diffuser's endcap from rapid startup

Shock Absorber is composed of three truncated cones



4.5. Premium and aesthetic options

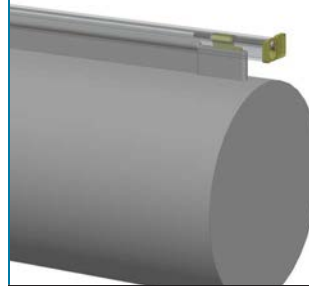
In-Track Tensioning System

Screw tensioners in the track profile are used to improve the duct appearance by removing creases and wrinkles in the fabric that may have been created when the ducts were packed and shipped from the factory. The pliability of the fabric allows stretching by up to 0.5% of the length. Non-stretched diffusers are thus 0.5% shorter than specified in drawings and the proper length is achieved by using tensioners. The installation procedure is specified in the assembly instructions included with all deliveries.

CONDITIONS OF USE: We recommend using whenever possible, i.e. in all aluminium profile (track) installations.

Wrinkle reduction

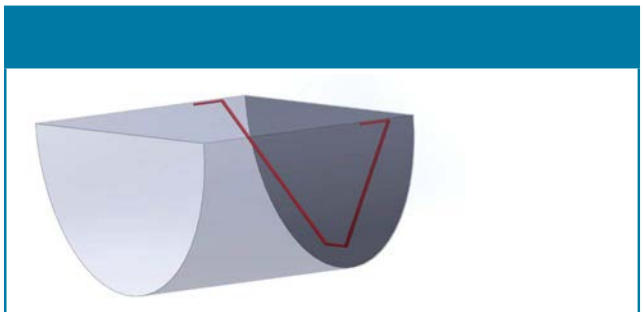
Principle of tensioner in the profile



Half-round End Cap Reinforcement

An internal metal tensioner applies force in the longitudinal direction of the half-round end cap improving the appearance of the diffuser.

Improved shape of half-round end cap



End Cap Tensioning

Anchored into the wall in the axis of the diffuser



Stretches the entire length of the diffuser

Anchored into the profile (track) on the ceiling (wall)

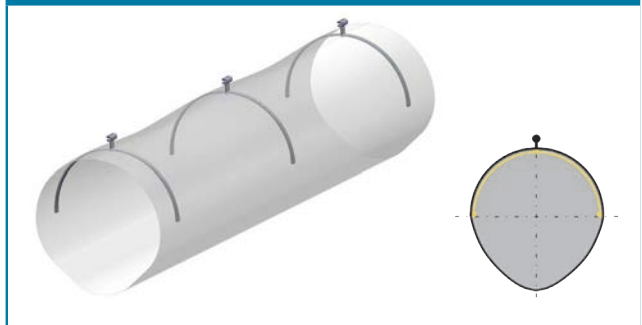


Internal Arcs Supports

Used for improving ducting/diffuser shape when the unit is off and reducing rapid inflation pop/snap if no soft starter device or VFD on fan. Aluminum Arcs are inserted into pockets sewn in the top of the internal ducting wall/roof and fastened in the middle by a Velcro attachment. They are installed from the factory and provide a cheaper alternative to full circumference rings. See chapter 9, FAQ 1 to see the cross section views of the hold open options with no air in the diffuser.

Prevents sagging of the diffuser with no air supply

Diffuser with arcs without air supply



Internal Rings/Hoops Supports

Made of a flat aluminum profile (standard), stainless steel, or fire resistant plastic. Each material has its advantages and limitations. Plastic rings are only available for circular ducts and diffusers. The rings are typically factory installed at 3.3ft spacing standard but can be as close as 20" or as far as 5 feet. Velcro fastening allows them to be removed for maintenance.

Maintains Shape

Round diffuser with rings

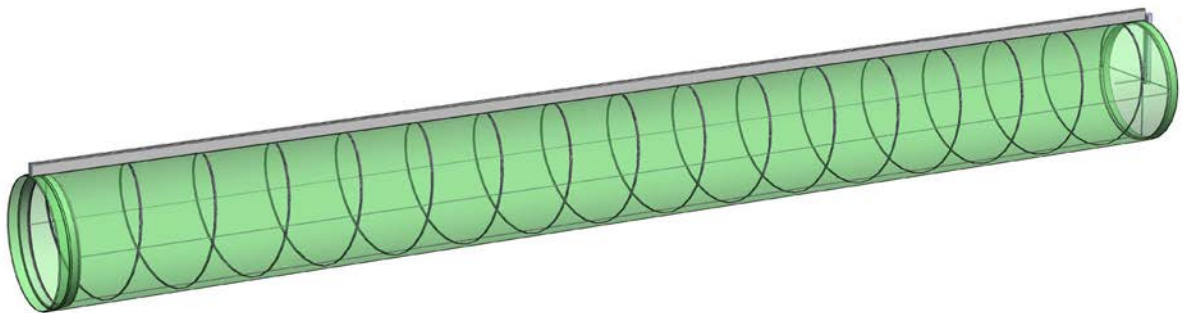


Helix Tensioning System

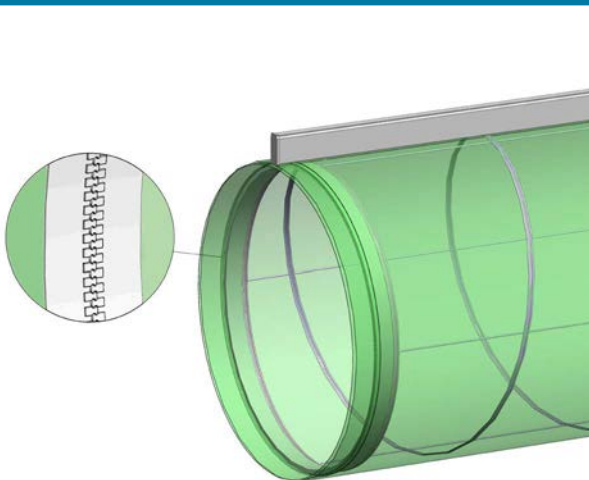
Internal, factory-installed 16' sections of fabric-encased metal spiral maintain the shape of round diffusers. In-track and end-cap tensioning tightens fabric to eliminate any sag or movement. The spiral is easily removed and reinstalled for diffuser maintenance.

Eliminates fabric sag and start-up pop

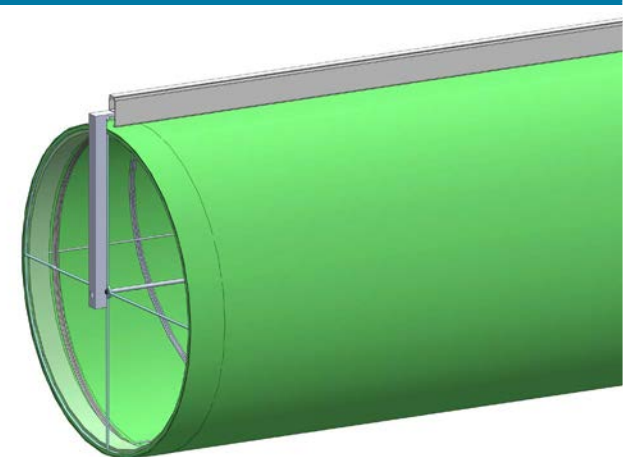
Helix Tensioning System



Detail of beginning



Detail of end cap



Prihoda Art

Unlimited Architectural Finishes

Custom dyeing technology allows ducts to be manufactured in any Pantone color, any pattern, or with any high-resolution image, giving designers virtually limitless options for incorporating ducting and diffusers as functional and aesthetic design elements for any space.

Special colors



Building material patterns and textures



Logos



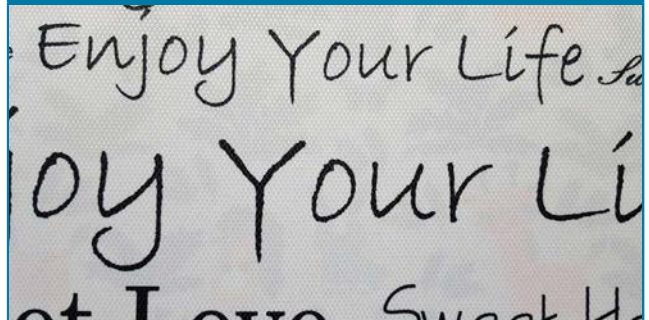
Patterns



Photographs



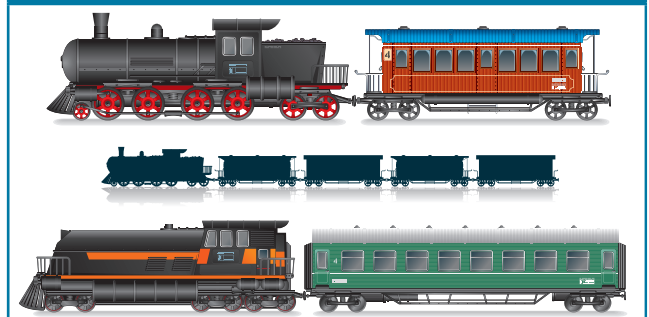
Wording or Phrases



Product photographs



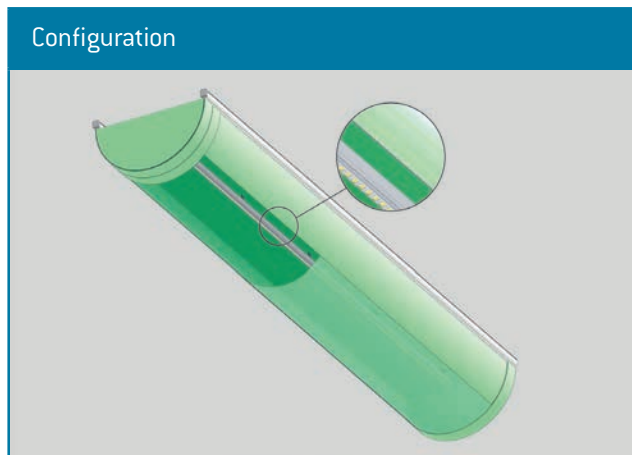
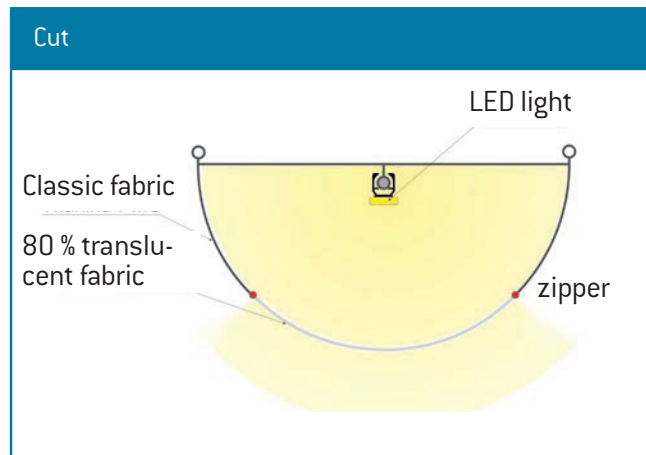
Illustrations and Cartoons



LucentAir

Combination of lighting and ventilation

LucentAir diffuser combines air supply with room lighting. Fabric walls are partly made of highly light transmitting fabric (80%). These parts, usually strips, are connected by zippers to allow cleaning. Source of light (LED strips usually) is fixed on an aluminium profile inside of the diffuser. We supply the hanging profile but not the light source. This has to be solved by a specialist.



Office Design/Premium Finish

Details for improved appearance

Previously reserved for half round diffusers in offices for optimum aesthetics, it is now an option for any shape. The premium finished look is done by reinforcing the endcap so it doesn't balloon out, manufacturing with the fewest seams possible and comes with a hidden clamp on the inlet. - Smallest possible number of fabric parts used i.e. minimum number of lengthwise seams

4.6. Mounting simplification

Winch System

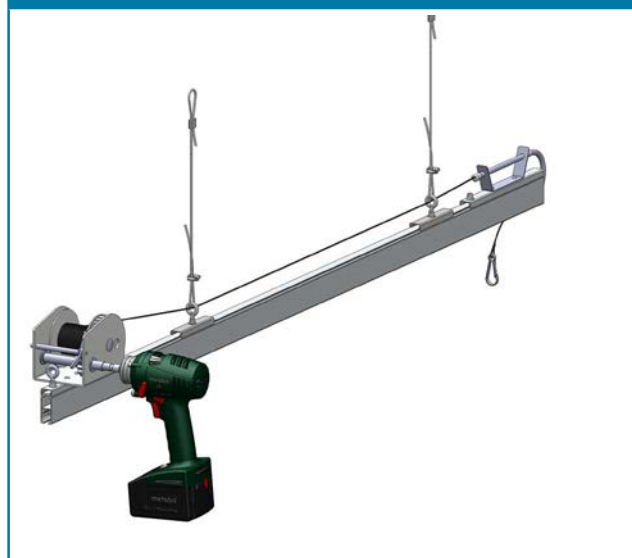
The entire diffuser can be pulled into the aluminum profile track from one end using a simple winch. This significantly simplifies installing and un-installing the diffuser especially if installed over permanent equipment or pools where the ducts are not easily accessible.

CONDITIONS OF USE: It is only suitable for installation 5, 5D, 5F, 5I, 5DI, 5FI, let us know in the design or quote phase if your project may require this option and we can advise the type of installation method needed.

Diffuser maximum weight: 220lbs

Install & remove the diffusers from one end

Winch winding using approved site tools



5. Material

5.1. List of most important benefits of our fabrics

Fabric is the central component of our product, so Prihoda places great emphasis on ensuring that only the highest quality materials are used. Every material we offer has been through a long development process in order to achieve the highest value for our customers as possible. The Prihoda Premium (PMI/NMI) fabrics provide all of the built in benefits listed below at no additional cost.

High tear strength	Our basic Premium, Classic and Recycled (PMI/NMI, PMS/NMS/PMSre/NMSre) fabrics offer optimum strength and durability. It is 1800 N/10mm in the texture, and 1000 N/10mm in the weave. Because of these parameters, it is nearly impossible that the material will come apart or fray under normal operating conditions.
High fire resistance	The PMI/NMI/PMS/NMS fabrics are certified according to EN 13501-1 with an excellent result. They achieve B-s1,d0 classification meaning they meet a specified flame spread / smoke development index, and do not produce burning droplets. Glass (NHE) fabrics in fact meet class A requirements. PMI/NMI/PLI/NLI/PMS fabrics meet UL723/NFPA 90A 25/50 index (UL file number R125183).
Very low fiber shedding	Due to the use of endless fibres, ALL of our fabrics can be used in cleanrooms up to ISO Class 4. Independent laboratory tests demonstrate that there is practically no particle shedding from our material during operation.
Antistatic effect	Woven carbon fiber in Premium (PMI/NMI) and Durable (NMR) materials eliminate electrostatic discharge from the diffuser. (Note: Grounding accessories must be used to fully dissipate electrostatic discharge).
Antimicrobial effect	We utilize a special treatment which kills various types of bacteria and fungi that come in contact with our fabric Premium (PMI/NMI) and Durable (NMR). Independent testing has proven even after TEN washes there was no reduction in the efficacy of the treatment. This essentially means a permanent effect due to the low maintenance requirements (see the following point).
Easy to maintain	Our fabrics made of endless fibers are not prone to clogging from impurities in the airflow. This air is distributed through the holes, and the textile diffusers remain nearly clean inside (in a normal environment with EU3/G3/MERV 5 filtration) so the diffusers do not require maintenance other than outer dusting. Washing is usually only needed due to sanitary or aesthetic reasons.
Durable Appearance	Thanks to our endless fiber technology, the appearance of the fabric does not change over time, or with multiple washing cycles, unlike materials made of staple fibres. Our Premium, Classic and Recycled (PMI/NMI/PMS/NMS/PMSre/NMSre) materials retain their aesthetics after many maintenance cycles.

Designation	Permeability	Weight	Material	Specification									
Prihoda Premium (PMI/NMI)	yes/no	medium	100% PES	●	B	●	●	●	●	9	●	●	
Prihoda Classic (PMS/NMS)	yes/no	medium	100% PES	●	B	●	●	●	●	9	●	●	
Prihoda Recycled (PMSre/NMSre)	yes/no	medium	100% PCR PES	●	B	●	●	●	●	9	●	●	
Prihoda Light (PLS/NLS)	yes/no	light	100% PES	●	B	●	●	●	●	9	●	●	
Prihoda Durable (NMR)	no	medium	100% PES	●	B	●	●	●	●	1	●	●	
Prihoda Glass (NHE)	no	heavy	100% GL, 2x PUR	●	A	●	●	●	●	7	●	●	
Prihoda Plastic (NMF)	no	medium	100% PES, 2x PVC	●	B	●	●	●	●	4	●	●	
Prihoda Foil (NLF)	no	light	100% PE	●	●	●	●	●	●	1	●	●	
Prihoda Translucent (NMT)	no	medium	90% PVC, 10% PES	●	C	●	●	●	●	1	●	●	
Prihoda Hydrophobic (NLW) <small>(only for DeDa)</small>	no	light	85% PES, 15% NY	●	E	●	●	●	●	1	●	●	

● yes	
● no	

antimicrobial	fire resistant (class)	antistatic	high strength	machine washable	suitable for clean rooms	number of standard colors	special colors/Prihoda Art	water repellent
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5.2. Selection of the most suitable material

1) Classic or Premium

Two levels of fabric to meet any application and budget requirements; Classic and Premium. Premium fabric with anti-microbial coating and anti-static interwoven carbon fibers is suitable for the most critical applications.

Classic fabric provides the optimum solution for typical commercial HVAC applications.

Both fabrics are fully tested and UL/ULC certified meeting NFPA 90a 25/50 and UL2518.

2) Permeable or Non-Permeable

Permeable fabrics are engineered to disperse very small amounts of air solely to act as an insulating layer around the duct to prevent condensation when cooling below dew point.

Non-Permeable fabrics are intended for air transport in locations where dispersion is not required or when cooling below dewpoint is not a risk (use in applications where single wall metal duct would be used).

3) Light materials

Simple, lightweight fabrics for use in temporary installations or permanent installations where frequent washing is not required (50 wash cycles max).

4) Foils and coated fabric - Foil, Plastic, Glass, Translucent

Foils and coated fabrics - Foil (NLF) a thin, tarp-like plastic material, PVC coated polyester (NMF), woven fiberglass material with polyurethane coating (NHE), Translucent plastic (NMT)

These materials cannot be washed in a washing machine, but are easily cleaned with a rag, duster or can be sprayed off with water and are the most economical materials.

5) Recycled materials

The industry's only 100% post-consumer recycled material fabric that is UL/ULC listed meeting NFPA 90a, Prihoda Recycled is made entirely from recycled PET water bottles. Every square yard of fabric diverts 11 PET bottles from landfills, converting them into engineered, sustainable air distribution systems. Environmental Product Declaration and Life Cycle Analysis are available for this product to bolster LEED v4 Contribution.

6) Colors and finishes

Typical materials are available in 9 standard colors as well as custom finishes in any Pantone color, any image, or any pattern using PrihodaArt.



Please ask for a color sample if you wish to see or match a precise color or shade.

6. Maintenance and Warranty

All of our ducting & diffusers are made from high quality and highly resistant materials without natural fiber additives. The material used is specified within the technical description of your order. If the diffuser/ducting is equipped with rings, arcs or tensioning systems, these fixed components need to be taken out before washing.

How to wash and clean fabric ducting & diffusers

1. Textile diffusers and ducts that can be washed in a washing machine

*Prihoda Classic (PMS, NMS), Prihoda Premium (PMI, NMI), Prihoda Light (PLS, NLS), Prihoda Recycled (PMSre, NMSre)
Prihoda Durable (NMR), Prihoda Hydrophobic (NLW)*

- 1.1. Heavily soiled diffusers should be first dusted using a vacuum cleaner (compressed air, soft brush).
- 1.2. When the diffuser is more soiled on the inside, turn inside out prior to washing.
- 1.3. For machine washing use industrial detergents (per manufacturer's instructions). Use washing programs for 104 degrees F, with spinning between 400-800 rpm and intensive rinsing.
- 1.4. Standard and commercial detergents may be used. Recommendations available on request.
- 1.5. Repeat the washing cycle if necessary.
- 1.6. A disinfectant can be used for added safety (medical or food service applications) but is not generally needed due to the antimicrobial agent already in the material (PMI/NMI). Do not use harsh chemicals which can harm the material or whiteners/bleaches which can discolor the diffuser. Use as directed by manufacturer.
- 1.7. Re-install or hang diffusers to dry. DO NOT TUMBLE DRY WITH HEAT!
- 1.8. Surface dirt can usually be removed directly from installed diffusers using a vacuum extension and brush.

2. Textile diffusers and ducts that cannot be washed in a washing machine

Prihoda Plastic (NMF), Prihoda Foil (NLF), Prihoda Glass (NHE), Prihoda Translucent (NMT)

- 2.1. Diffusers can typically be cleaned by vacuuming or blowing with compressed air.
- 2.2. More heavily soiled diffusers can be cleaned with a sponge, cloth, or soft brush.
- 2.3. Diffusers may be hand washed and rinsed in 104 degree F water. Re-install or hang diffusers to dry. DO NOT TUMBLE DRY
- 2.4. Surface dirt can usually be removed directly from installed diffusers using a vacuum extension and brush.

Legend for symbols

	Machine wash at max. temperature of 40°C [104°F], normal mechanical action, normal rinse, normal spin cycle.
	Gentle/delicate machine wash only, rinse at falling temperature, light spin, max. temperature 40°C [104°F].
	Hand wash only, do not machine wash, max. temperature 40°C [104°F], handle gently.
	Do not bleach product.
	Do not dry the product in a rotary drum dryer.
	Iron at a max. temperature of 110°C [230°F], use caution when steam ironing.
	Do not iron product; steaming and steam processing is prohibited.
	Do not dry clean product, do not remove spots using organic solvents.
	The product is safe to dry clean using perchlorethylene and all solvents specified under the symbol F.

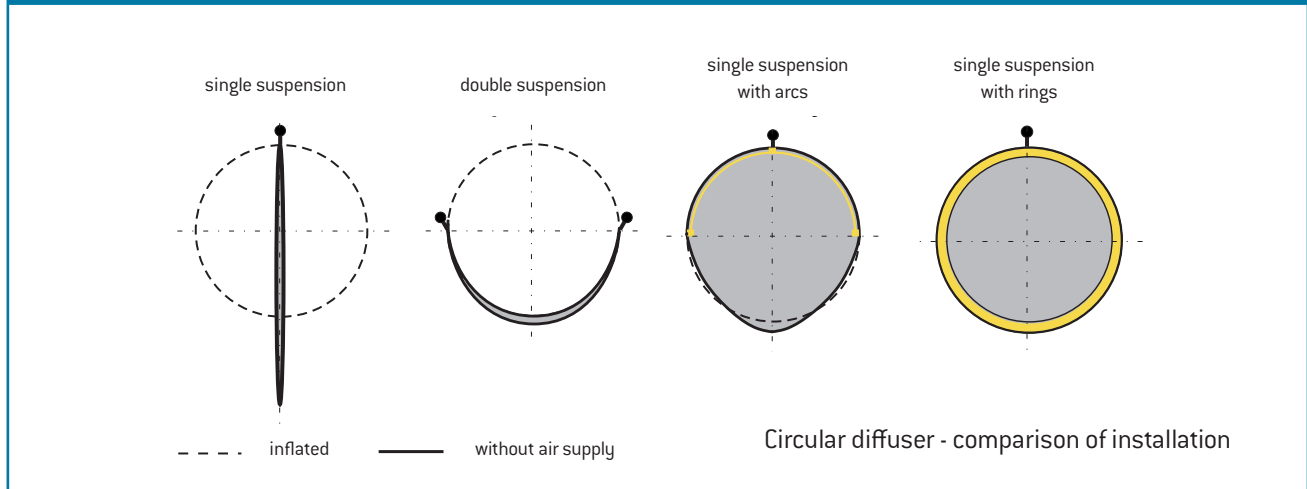
Any maintenance must strictly follow the washing label symbols sewn into every section.

pos01-part01-of02	<input type="checkbox"/> Number of the position, part
OP 182250	<input type="checkbox"/> Order number at PRIHODA
High Tech-CM.1351	<input type="checkbox"/> Identification by customer
NMI 100% polyester	<input type="checkbox"/> Material
	<input type="checkbox"/> Treatment symbols
	<input type="checkbox"/> Manufacturer
PŘÍHODA s.r.o.	
Tailor-made Air Ducting&Diffuser	
Za Radnicí 476 CZ 539 01 Hlinsko tel.: +420 469 311 856 fax: +420 469 311 856 info@prihoda.com www.prihoda.com	
Made in EU - Czechia in September 2018	<input type="checkbox"/> Where and when it has been made

7.

Frequently Asked Questions

1/ What does a textile diffuser look like when the fan is switched off?



2/ Is it possible to use Fabric Ducting for exhaust or return air?

PŘÍHODA was the first fabric duct manufacturer worldwide to introduce negative pressure ducting into the market. It is made with a square or triangular shape. The principal is based on sufficient stretching of all ducting walls by means of a tensioning system. The construction enables simple disassembly and re-installation. Laser cut perforations are used to draw the air into the duct.

3/ What is the service-life duration of fabric diffusers?

Prihoda fabric ducts are not a temporary or short term solution. Diffusers made from good quality fabrics will last for 15 years or longer. In fact, some of our first installations from the early 90's are still in use with the original ducts in place, which is a testament to the longevity of our products. The Light fabrics (PLS, NLS, approx. 100 g/m²) or polyethylene ducts, Foils (NLF) have limited durability and are used for short term installations when cost has the highest priority.

4/ What is the pressure loss of a fabric diffuser?

The external static pressure required at the inlet of our round duct systems range from .20inwg - 1inwg, with the average being about .50in wg ESP. Smaller air handlers may have less static pressure available or some projects may require much higher throws or smaller duct diameters (higher inlet velocities) which increases the static pressure needed. Complex systems with elbows, T's and equalizers present certain pressure losses which need to be taken into consideration and is easily calculated in our software. Friction loss for fabric ducts is usually lower than traditional metal systems (designed with equal friction) due to the decreasing air speed inside our diffusers (static regain design). Lighter materials or half round ducts require as little as .10 in wg.

5/ What to do with diffusers when they get clogged by contamination?

Diffusers with micro-perforation or larger laser cut holes rarely, if ever, get completely clogged by contamination (if used with minimum pre-filtration EU3/MERV5). Diffusers with laser cut perforations and microperforations are superior to ducts with mesh slots and materials woven to a specific permeability as our diffusers do not act like giant filters. The maintenance (typically washing in a washing machine) is really only necessary for hygienic and aesthetic reasons. Each individual zipped section contains a washing label which provides all washing information. Our experience has proven that our fabrics made of continuous fibers remain practically clean on the inside after many years of operation with proper filtration.

6/ Is it possible to use rectangular diffusers?

Prihoda has developed a special construction which enables use of a rectangular cross-section. The principal is based on stretching the fabric in transverse and longitudinal direction by means of a tensioning system. The construction enables simple disassembly and re-installation. Fabric ducting with rectangular cross-section can be assembled directly on the ceiling or suspended from the structure above.

7/ Can fabric diffusers get moldy?

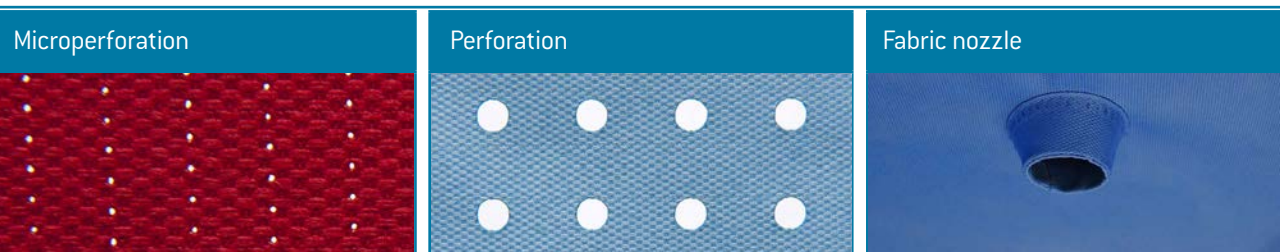
Generally the answer is no for all of our products when installed and air is running through them. Antimicrobial treatments in our Premium fabric (PMI/NMI) offer added protection from many forms of bacteria, molds, mildew and fungi however, mold can form on any kind of untreated surface if left moist and unventilated and there is an organic food source such as dirt or cardboard. Therefore, never store moist diffusers and do not keep them out of operation for long periods of time. Mold is extremely difficult and often impossible to remove once established. It is usually best to replace the diffusers if they have gotten wet while stored or have been exposed to mold growth.

8/ Does the textile diffuser function as a filter at the same time?

If materials woven to a specific permeability are used, the fabric functions as a filter for the part of the transferred air that goes through the fabric. As the fabric contamination gradually increases, the pressure loss grows and the air flow decreases (or energy costs increase). Therefore, it is necessary to frequently wash those types of fabrics. This is why Prihoda utilizes microperforated or laser cut perforated fabric as a better solution because they do not function as filters thus significantly reducing maintenance. Furthermore, it is much easier to change a filter before the duct system rather than washing the entire duct system...we are a manufacturer of air distribution ducts and diffusers, we are not in the business of filtering air.

9/ Why doesn't PRIHODA use plastic nozzles or mesh slots?

Mesh slots were first used as a method to reduce washing maintenance for fabric ducts with no openings that only distributed air through materials woven to a certain permeability. By placing mesh slots in the duct with horizontal discharge, maintenance requirements were reduced as the mesh did not clog as quickly as the material. Mesh slots were never intended to solely distribute the air from the ducts and are an outdated flow model which clogs with dirt, creates higher noise, and does not control the air as well as perforations or nozzles do. We offer textile nozzles instead of plastic nozzles because our textile nozzles have the exact same color, texture, flame spread / smoke development as the material itself, will not adversely increase the weight of the duct, and will not crack or degrade which is not the case for plastic nozzles.



10/ Why doesn't PRIHODA use fabrics with various permeability?

We use permeable materials to avoid condensation where supply air temperature is below dew point. However, we only have material of a single permeability value. It is very low and serves just to prevent condensation. Distribution of air is done exclusively using holes (perforation or microperforation or a combination of both) and adjusted holes (nozzles, pockets). Our product portfolio also includes non-permeable materials, which are often useful in other situations.

11/ What certifications do PRIHODA fabric diffusers carry?

Our materials are certified for fire resistance in accordance with EN 13501-1 (in various classes depending on materials) and the AMERICAN UL 723 and CAN/ULC 102.S2 meeting NFPA90a (25/50) and UL2518. The PRIHODA company has a certified quality management system in accordance with ISO 9001 and an environmental management system in accordance with ISO 14001. Prihoda's fabric diffusers also obtained an Oeko-Tex certificate.



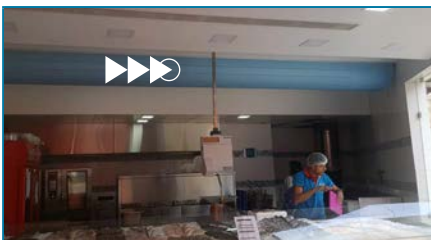
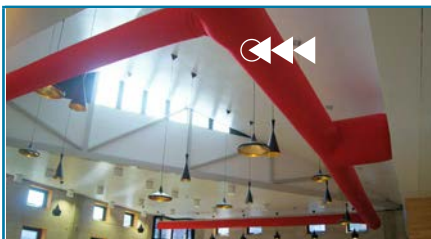
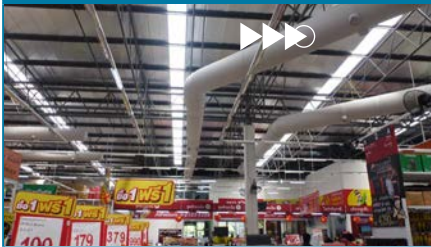
8. Applications / Project References

Food Processing Industry

The first fabric diffusers were used in the food industry. Sanitary regulations require that all food processing devices should be easily sanitized and cleaned. Out of all the air distribution system options, this condition is only met by Fabric Ducting. Fabric Ducts are perfectly clean after washing and a disinfecting agent can also destroy any pathogens that may resist the antibacterial treatment. Fabrics made of continuous fibers, developed especially for Pihoda's textile diffusers, are very smooth and do not allow the build up of impurities. This unique and special feature distinguishes them from diffusers made of standard fibers that continuously trap dust and can represent a sanitary risk.



Supermarkets, Exhibition, and Large Retail Areas



For large retail areas we can provide supply air through laser cut perforations or nozzles, whichever suits the application best. Experience over many years shows that Fabric ducting & diffusers offers a substantially better, more uniform air pattern than can be achieved with traditional systems, whilst also offering substantial cost savings. The wide range of 9 stock colors allows for many different aesthetic designs whilst the Fire Resistance of our fabrics meet all worldwide standards.

Food Storage, Low Temperature Production Areas

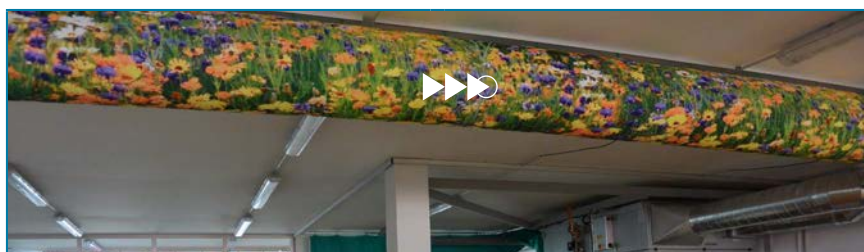
In large cold storage rooms, Prihoda Fabric Ducting distribution systems provide uniform air distribution, ensuring maintenance of stable product temperatures and temperature zones. In production zones with large amounts of people working in low temperatures, high air velocity will be a major cause of discomfort and may cause a higher sickness or absence rate. Fabric ducts and diffusers disperse cold air without causing drafts, and create comfortable, low velocity environments for workers.



Chemical, textile and electronic industry

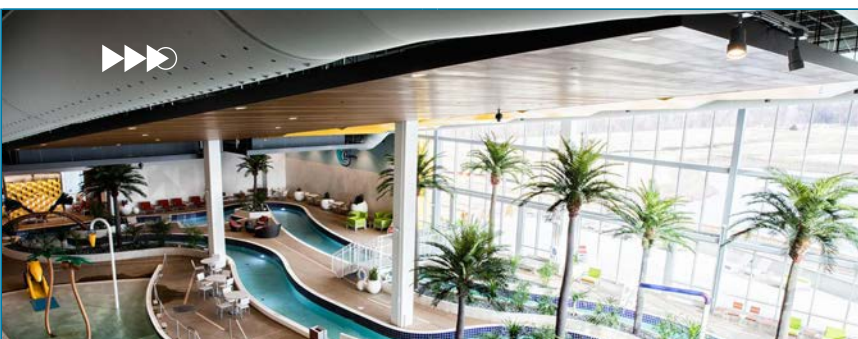
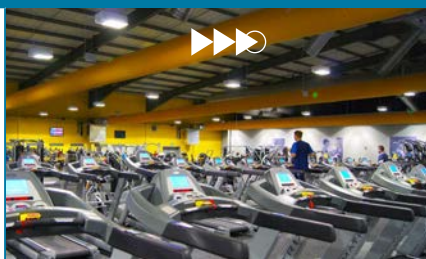


Prihoda Fabric Ducting air distribution is a perfect solution for any industrial operation. Prihoda Fabric Ducts provide uniform low velocity air distribution, or targeted air patterns, at unbeatably low costs. Over 100 suspension solutions make it possible to choose a convenient installation style for any application, easily accommodating most suspended and formed ceiling types. Contaminated production environments may require the use of fabrics with larger laser cut perforations.



Pools, Sport, and Fitness Facilities

Large sports facilities are a typical application for Prihoda Fabric Ducting & Diffusers. We are able to create a large range of diffusion air patterns to suit any project. Our many installations at sports and fitness centers provide comfortable cooling & air movement for customers "working out". In these applications low ceiling heights are often encountered, where half round fabric ducts make an aesthetic and functional low cost solution. Swimming Pools are a perfect application for Fabric Ducts, as the fabric material will not rust, corrode, or sweat, and is a fraction of the cost of double wall treated/SS/ALU metal systems. The bright colors available also revive and enhance many swimming pool interiors.

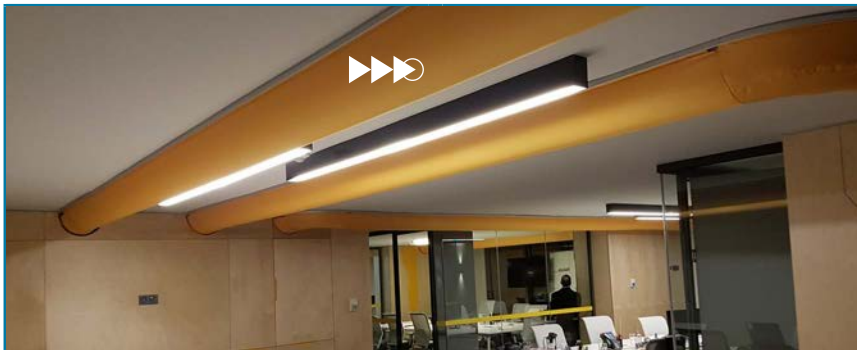
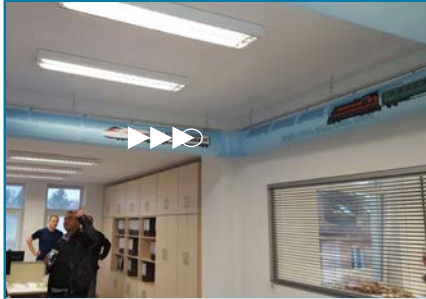


Kitchens

Space in kitchens is usually limited, and their extreme load with heat and vapors requires intense ventilation. Prihoda Fabric Ducts disperse high volumes of air uniformly into this environment without creating drafts. The fabric material used is resistant to steam and vapors and maintenance is quick and easy. Compared to a traditional stainless steel installation, fabric ducting is a lower cost purchase. There is cost savings with installation and maintenance, and sanitary demands are easily achieved due to the fact that the fabric ducts are washable.



Offices, Retail, Restaurants, Cinemas, etc.



Higher aesthetic demands can be satisfied by the multiple colors and shapes available with Prihoda Fabric Ducting air distribution systems. When designed properly and correctly installed, fabric diffusers become an elegant part of an interior. Air diffusion through Fabric Ducting provides similar comfort results to chilled beams or perforated ceilings, however at a much lower capital cost. Unlike the traditional diffusers, embedded in soffits, our even and continuous diffused solutions do not cause any local discomfort such as drafts or dead zones. Studies have demonstrated that employees in such evenly distributed and cooled offices are significantly more comfortable, and sick leave can be reduced.

Temporary Installations



The benefits of using Prihoda Fabric Ducting and distribution systems for cooling or heating of large scale tents or other temporary structures are quite obvious. Light weight roof structures can easily support fabric ducting and diffusers because they weigh less than a pound per linear foot. Installation is very quick, using the supporting wires and hooks provided as part of the system. Top quality materials allow multiple repeated use so the ducting system can be taken down and reused with the tent. Cooling or heating using a large AHU and Fabric Duct diffusing all along the structure is much more economical and comfortable than simply blowing the air into a space. Specifically with heating the warm air rises quickly creating stratified hot air near the ceiling, and thus an enormous heat loss. In cooling, with air diffused through metal ducts, intense airflow causes local air currents and drafts; while elsewhere dead zones with insufficient cooling develop. Both cases are successfully resolved by a properly designed Fabric Ducting air distribution system.

Tailor-made air ducting & diffusers

We are a Czech-based Global manufacturer of custom-designed fabric ducting and diffuser systems for air dispersion with manufacturing facilities in Europe, North America and Asia. Our products are not sold by the foot but are Tailor-Made to your specific project requirements.



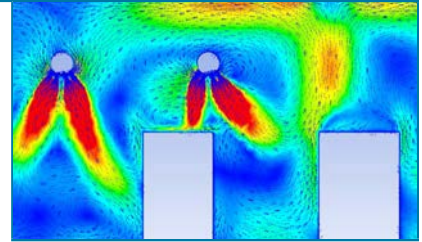
A smart choice for air distribution

Our fabric ducting and diffuser systems incorporate a wide range of design and technical innovations to ensure precise air distribution and optimum occupant comfort for any space. Our ducts and diffusers are available in a wide array of shapes and can be finished with any color, pattern, or graphic image.



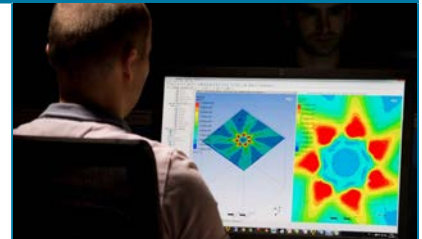
Custom solutions for virtually any application

Powerful software and state-of-the-art test facilities combined with our decades of experience allow us to model airflow patterns and precisely customize each system's technical details to ensure optimum performance.



Widest range of innovative solutions

Working in close partnership with our distributors and customers we are constantly expanding the capabilities of fabric duct systems to create new products and solutions.



***Our office has moved. Please update our address for all correspondence, payments and shipments to:

Prihoda North America
7841 Bullitt Drive
Mobile, AL 36619