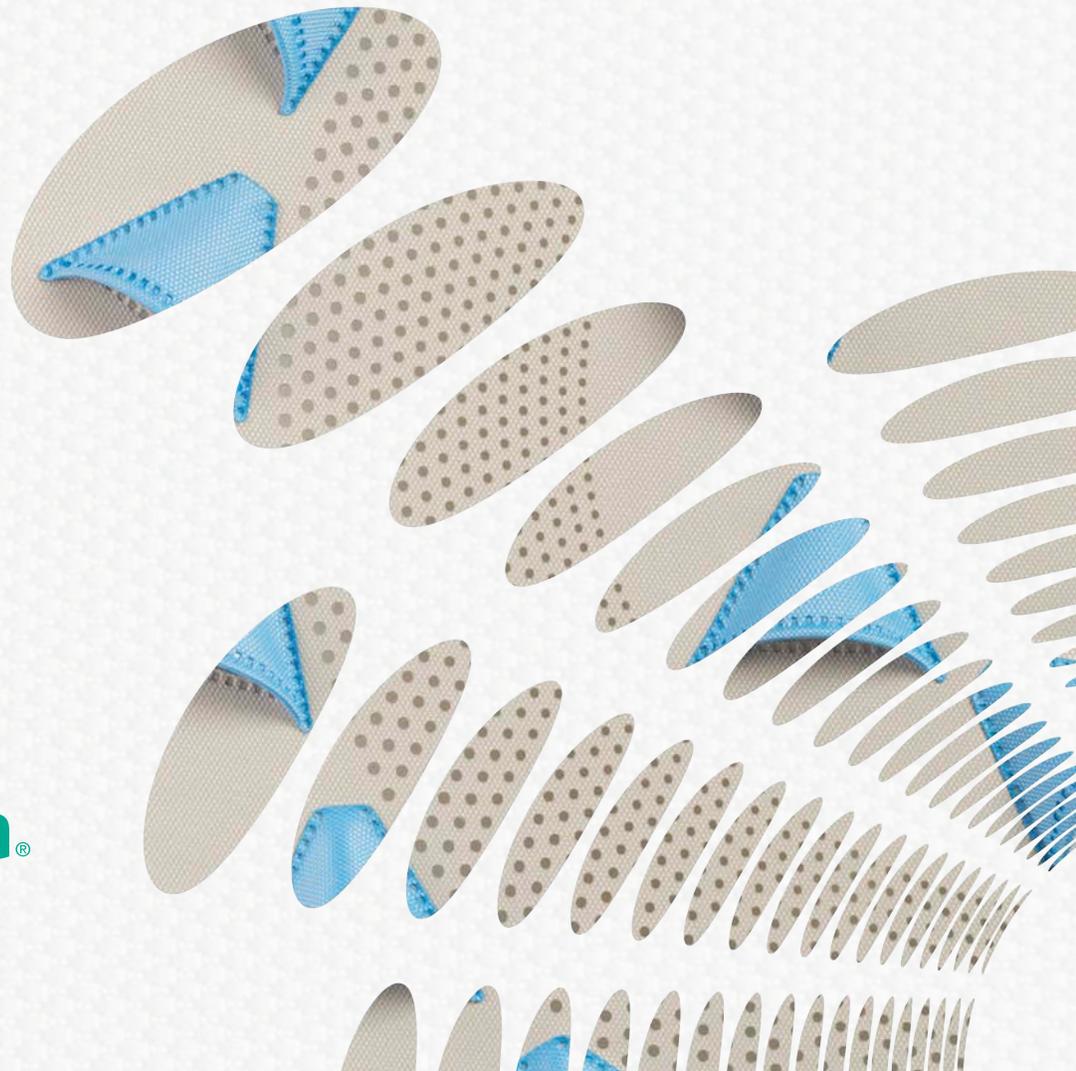


Tailor-made Air Ducting & Diffusers

SquAireTex[®]

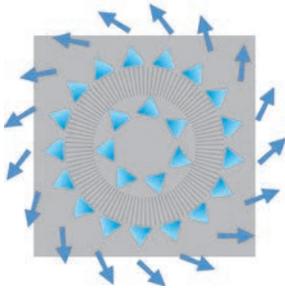
Lay-In Fabric Tile Diffusers

English version



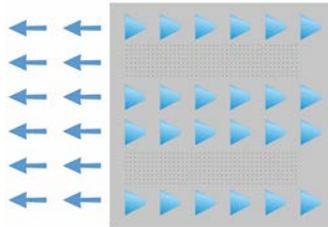
SquAireTex® lay-in fabric diffusers expand the benefits of textile air dispersion systems to suspended ceiling applications. Constructed of lightweight fabric with aluminum frames, SquAireTex® diffusers are available as high-induction *Swirl* for optimum comfort; uni-directional and bi-directional *Flow* and laminar *Perfo* for air distribution patterns tailored to each application. Insulated fabric connection plenums are available to prevent condensation and provide sound attenuation at the diffuser. SquAireTex® diffusers are made from UL/ULC listed fabrics that are available in a variety of standard and custom colors as well as with custom printing for patterns and graphics.

DISTRIBUTION METHODS:



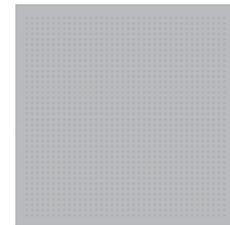
SquAireTex® swirl

High-induction swirl pattern for optimum occupant comfort.



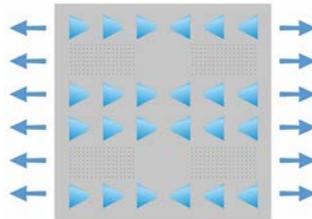
SquAireTex® flow 1 way

The air is distributed in a single direction.



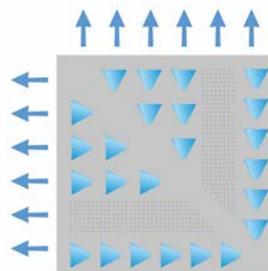
SquAireTex® perfo

Perforated diffuser provides laminar distribution of air.



SquAireTex® flow 2 way

The air is distributed in two opposite directions.

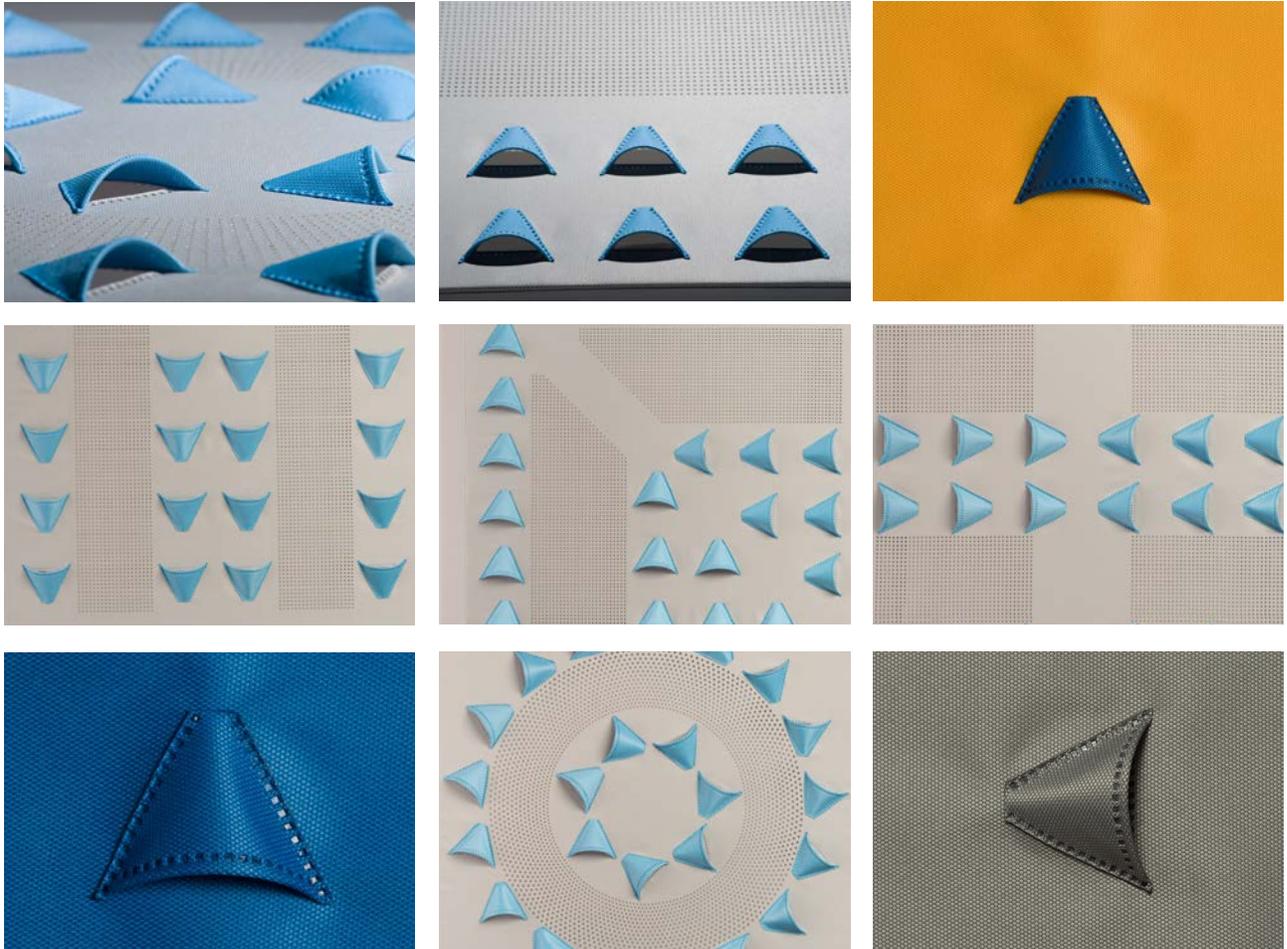


SquAireTex® flow corner

Air is distributed in two directions diverging from a 90 degree angle.

PRINCIPLE OF SQUAIRETEX® SWIRL AND FLOW DIFFUSERS

Air is supplied to the space from the *Swirl* and *Flow* diffusers by way of combined engineered perforations with patented Textile Air Control Pockets which are ultrasonically welded to the diffuser face to generate directional delivery. This directional flow pattern induces room air along with supply air from the microperforations into the delivery stream for exceptional air mixing and maximum occupant comfort.

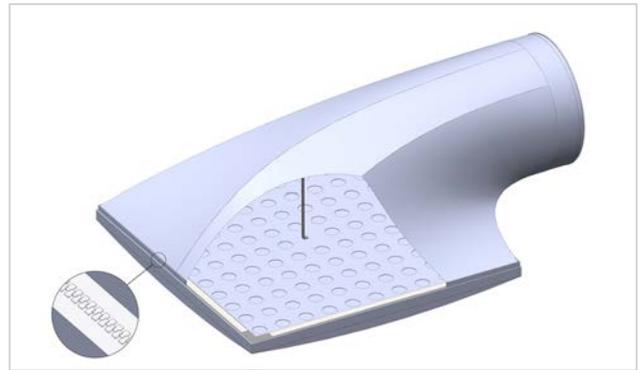
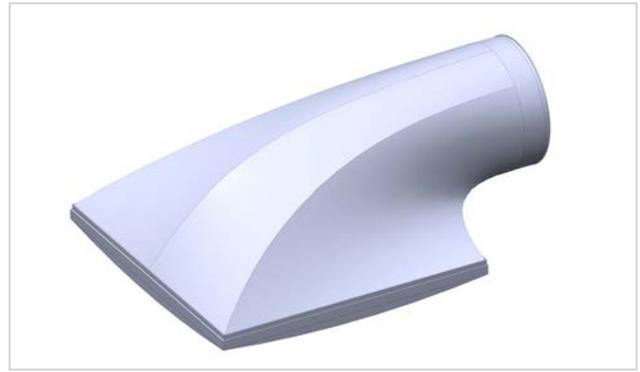


The Prihoda Classic fabrics used for the diffuser face and TAC Pockets are engineered, durable materials.

MATERIAL	100% polyester + polyurethane coating on the reverse side Endless fibres (multifilament)		
WEIGHT	6.8		oz per sq yd
THICKNESS	0.012		inch
CHARACTERISTICS	Suitable for clean rooms - Class 4 (EN ISO 14644-1)		
STRENGTH OF WARP / WEFT	1810 / 1090 N (EN ISO 13934-1)		
FIRE RESISTANCE	UL Classified & ULC Listed meeting NFPA90a		
THERMAL RESISTANCE	-22	230	degrees F
WASHING SYMBOLS	Machine washable, including the plenum box		

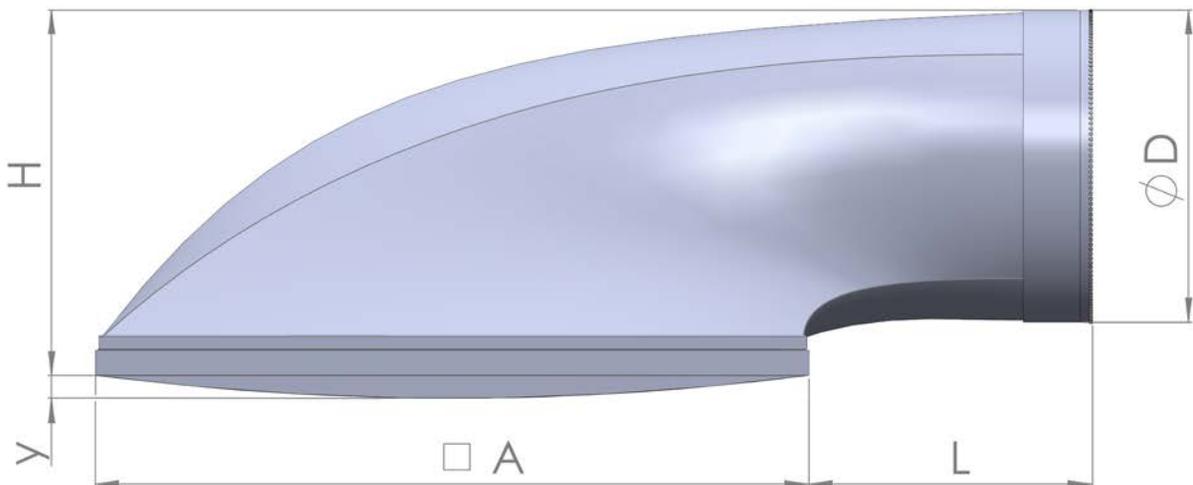
Tailored fabric inlet plenums ensure even delivery of supply air across the diffuser and minimize pressure loss while an integral fabric Equalizing Baffle assures uniform distribution across the entire diffuser.

The SquAireTex diffuser face is zipped to the plenum back allowing for easy removal for cleaning, to change the flow type or direction, or to change the color or pattern for future flexibility.



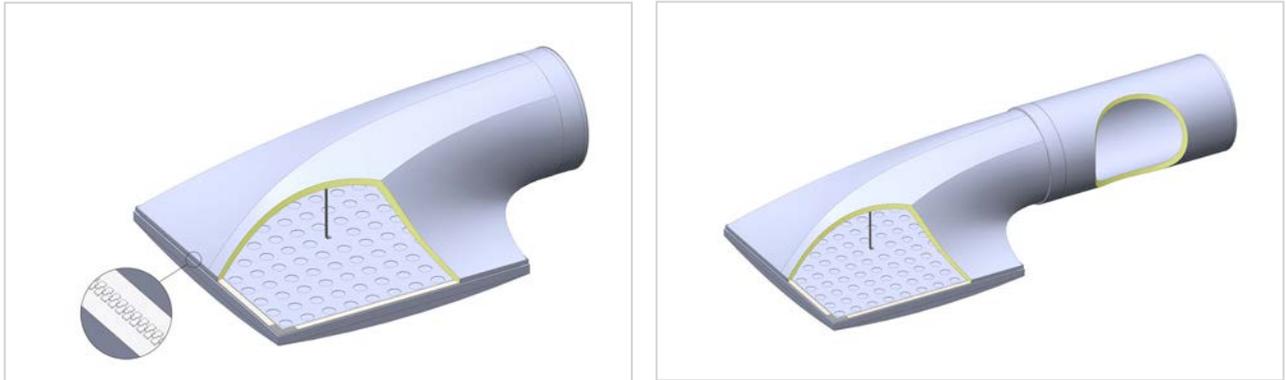
SUMMARY OF BASIC DIMENSIONS (CUSTOM SIZES AVAILABLE UPON REQUEST)

SquAireTex	□ A [inch]	H [inch]	øD [inch]	L [inch]	0.12 in wc [cfm]	y _{max} [inch]	Weight [lb]	Sound power L _{WA} 0.12 in wc [dB]
12"	11 3/4	9 3/4	10		55	3/8	1.3	10.3
14"	13 3/4	9 3/4	12		65	19/32	1.5	12.6
16"	15 3/4	9 3/4	14	7 27/32	114	19/32	2.2	16.2
20"	19 3/4	11 3/4	18		223	25/32	2.8	17.7
24"	23 3/4	15 3/4	20		324	31/32	3	20.4
48"	47 3/4 x 23 3/4	21 3/4	20		614	31/32	4.8	24.0



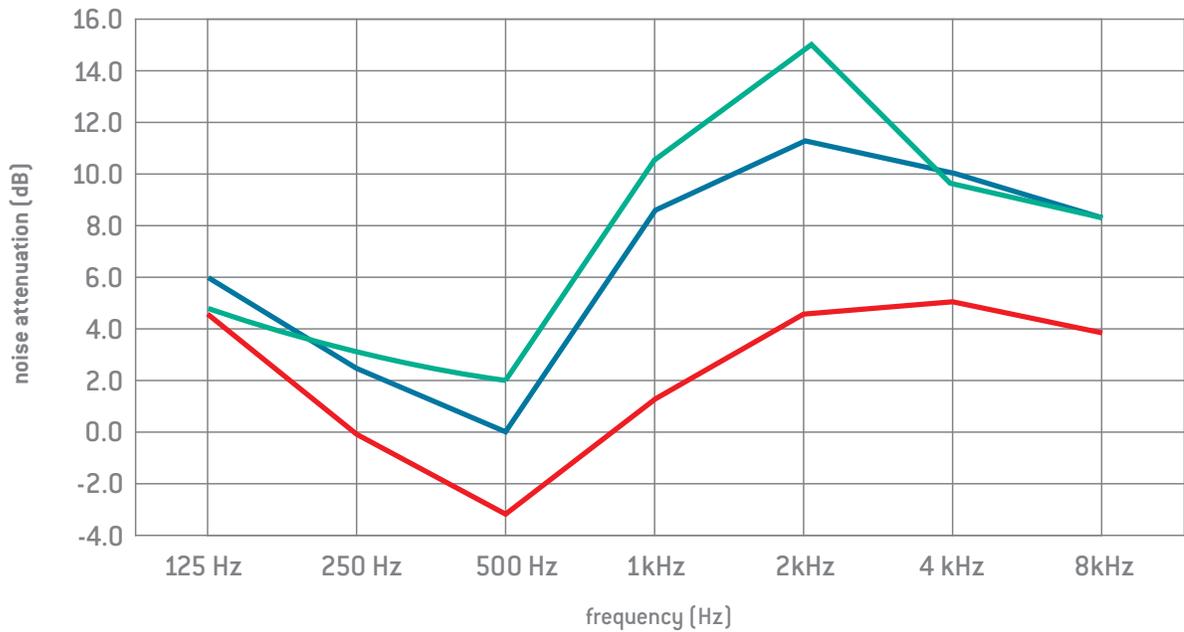
INSULATION

The fabric plenum back and inlet connection can be insulated to prevent condensation and provide sound attenuation. Additional noise reduction can be achieved by installing a Prihoda QuieTex Textile Sound Attenuator upstream of the standard diffuser inlet.



SOUND ATTENUATION IN FREQUENCY BANDS

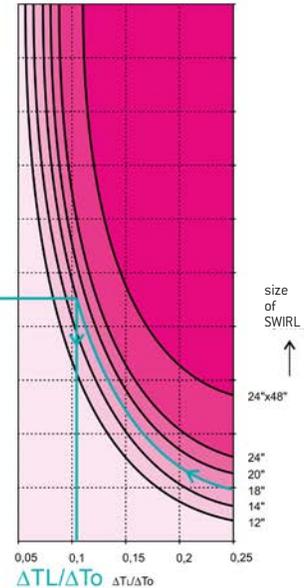
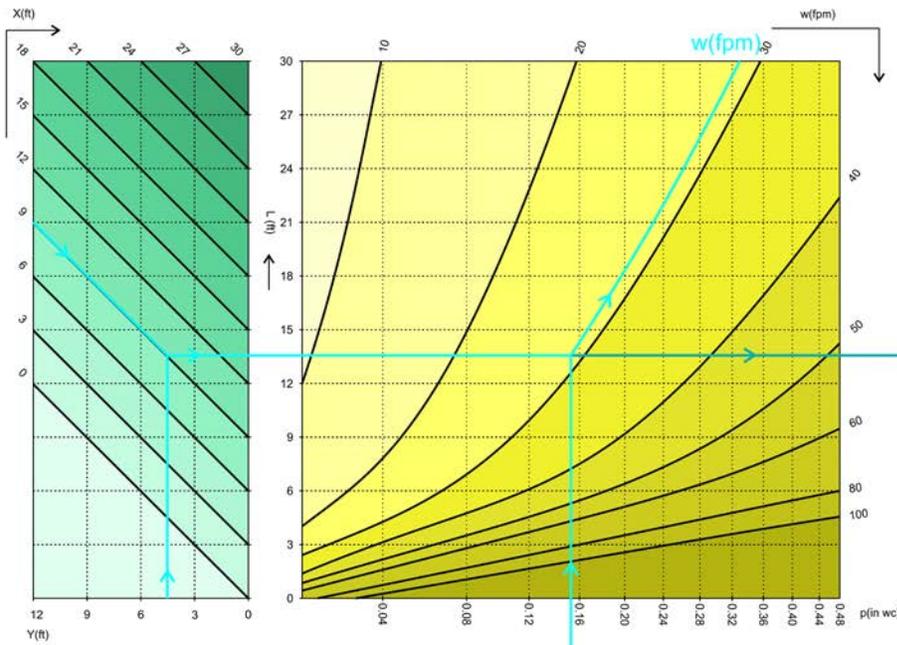
— insulated plenum box — insulated ducting 30 mm — uninsulated plenum box



ATTENUATION VALUES (DB) IN FREQUENCY BANDS (HZ)

Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
INSULATED FABRIC PLENUM	6.0	2.4	0.1	8.7	11.5	10.4	8.2
INSULATED DUCTING (3.3FT)	5.0	3.1	2.0	10.7	15.0	9.8	8.4
UNINSULATED FABRIC PLENUM	4.6	-0.1	-3.2	1.8	4.5	4.9	3.9

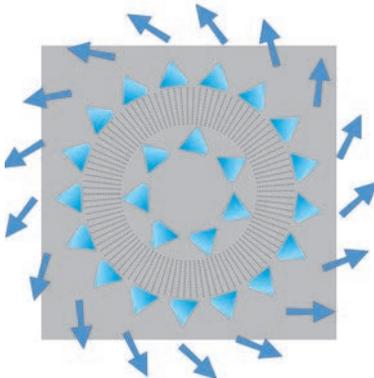
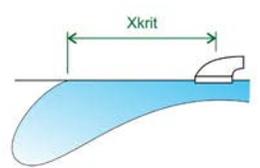
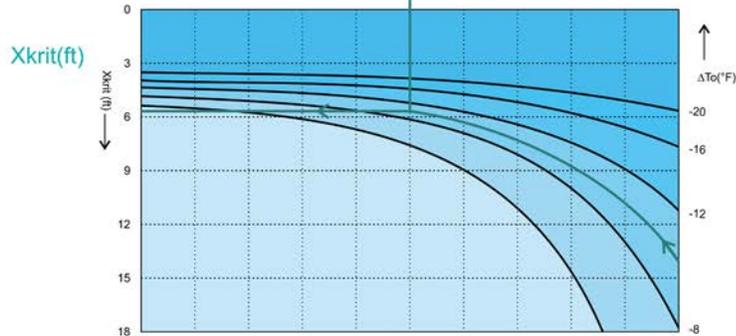
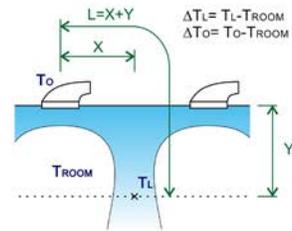
DESIGN DIAGRAMS - SquAireTex® swirl



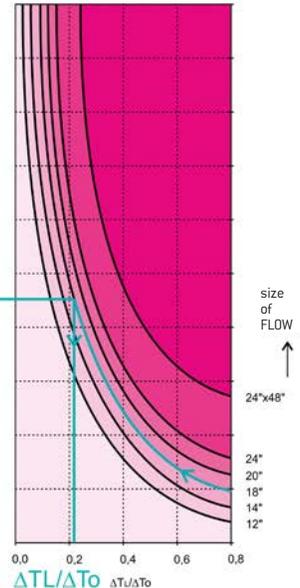
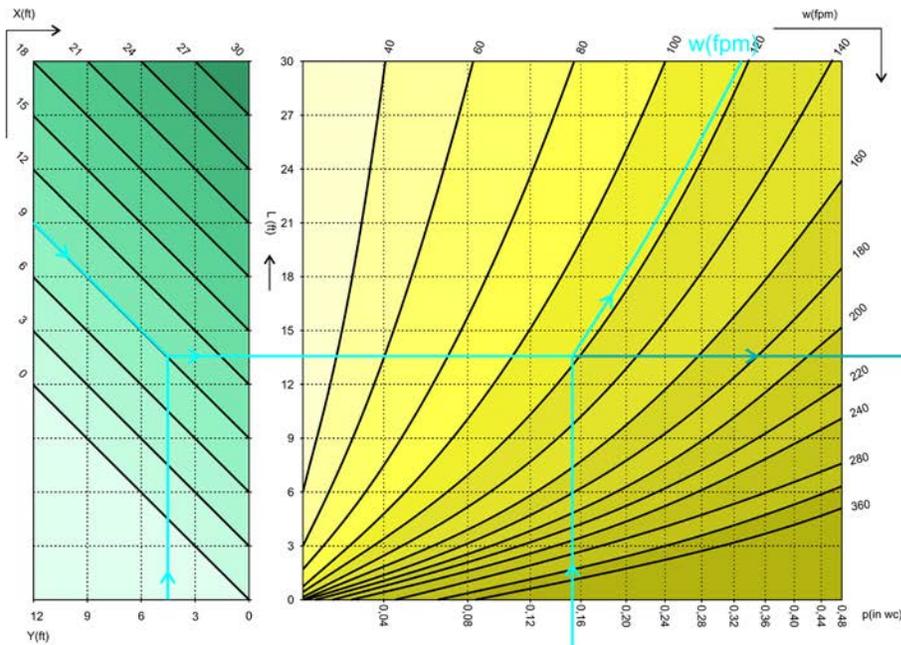
Example
Input data:
SAT Swirl 18"
X=A/2=9ft
Y=4.5ft
V=130cfm
ΔTo=-10°F

Output data:
p=0.15in wc
Lwa=31.5dB
w=28fpm
Xkrit=5.7ft
ΔTL/ΔTo=0.105

Swirl	12"	14"	18"	20"	24"	24"x48"
Lwa(dB)	120	120	120	120	120	120
V(cfm)	30	30	30	30	30	30
Lwa(dB)	15	15	15	15	15	15
V(cfm)	60	60	60	60	60	60
Lwa(dB)	20	20	20	20	20	20
V(cfm)	90	90	90	90	90	90
Lwa(dB)	25	25	25	25	25	25
V(cfm)	120	120	120	120	120	120
Lwa(dB)	30	30	30	30	30	30
V(cfm)	150	150	150	150	150	150
Lwa(dB)	35	35	35	35	35	35
V(cfm)	180	180	180	180	180	180
Lwa(dB)	40	40	40	40	40	40
V(cfm)	210	210	210	210	210	210
Lwa(dB)	45	45	45	45	45	45
V(cfm)	240	240	240	240	240	240
Lwa(dB)	50	50	50	50	50	50
V(cfm)	270	270	270	270	270	270
Lwa(dB)	55	55	55	55	55	55
V(cfm)	300	300	300	300	300	300
Lwa(dB)	60	60	60	60	60	60
V(cfm)	330	330	330	330	330	330
Lwa(dB)	65	65	65	65	65	65
V(cfm)	360	360	360	360	360	360
Lwa(dB)	70	70	70	70	70	70
V(cfm)	390	390	390	390	390	390
Lwa(dB)	75	75	75	75	75	75
V(cfm)	420	420	420	420	420	420
Lwa(dB)	80	80	80	80	80	80
V(cfm)	450	450	450	450	450	450
Lwa(dB)	85	85	85	85	85	85
V(cfm)	480	480	480	480	480	480
Lwa(dB)	90	90	90	90	90	90
V(cfm)	510	510	510	510	510	510
Lwa(dB)	95	95	95	95	95	95
V(cfm)	540	540	540	540	540	540
Lwa(dB)	100	100	100	100	100	100
V(cfm)	570	570	570	570	570	570



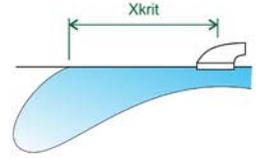
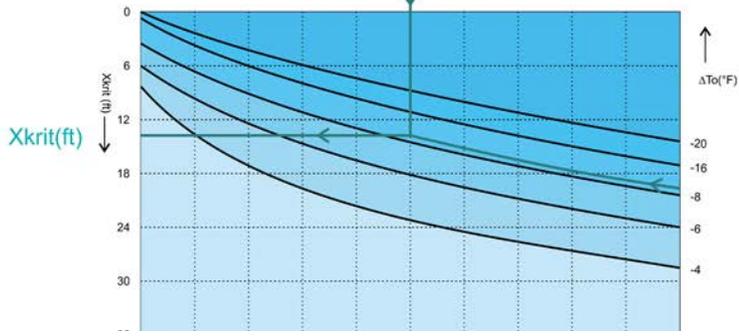
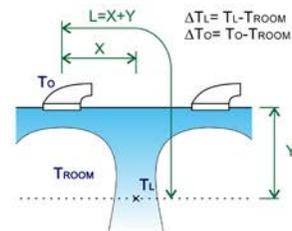
DESIGN DIAGRAMS - SquAireTex® flow 1 way



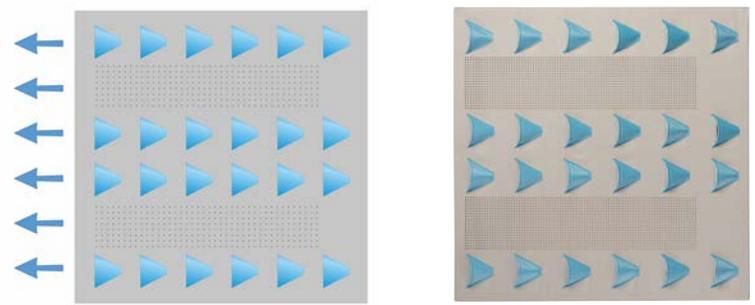
Example
 Input data:
 SAT Flow One 18"
 X=A/2=9ft
 Y=4.5ft
 V=130cfm
 ΔTo=-10°F

Output data:
 p=0.15in wc
 Lwa=31.5dB
 w=118fpm
 Xkrit=14ft
 ΔTL/ΔTo=0.22

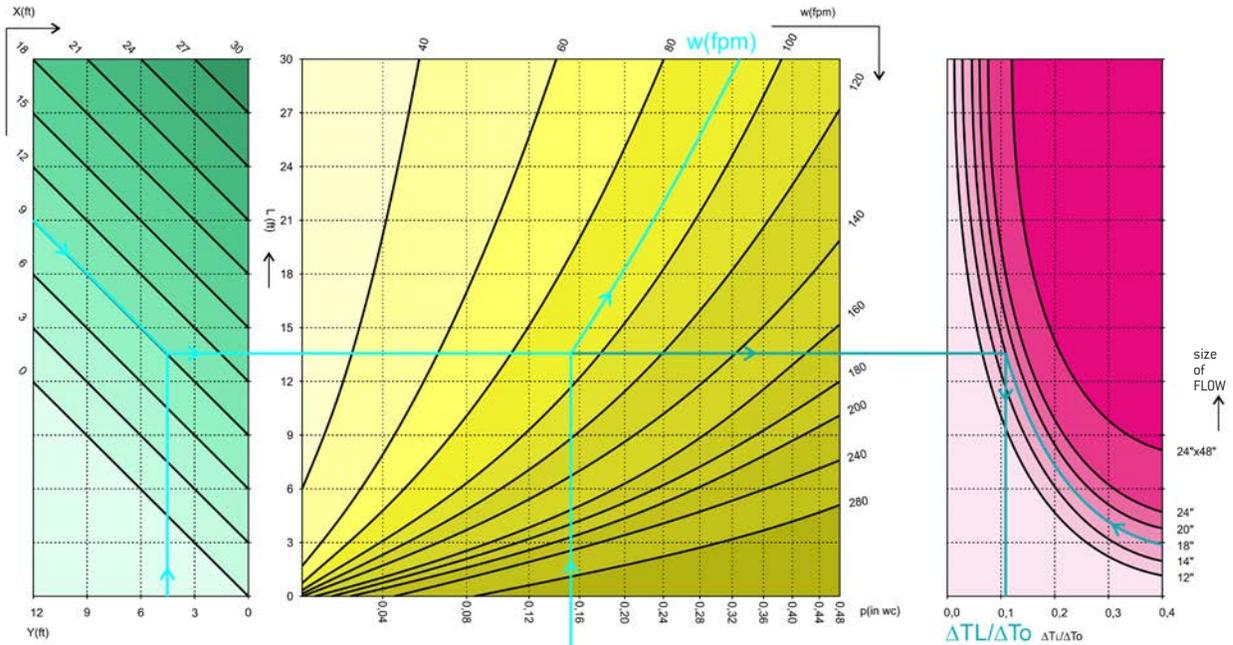
Flow One	12"	14"	18"	20"	24"	24" x 48"
Lwa(dB)	120	120	120	120	120	120
V(cfm)	30	30	30	30	30	30
Lwa(dB)	15	15	15	15	15	15
V(cfm)	60	60	60	60	60	60
Lwa(dB)	20	20	20	20	20	20
V(cfm)	90	90	90	90	90	90
Lwa(dB)	25	25	25	25	25	25
V(cfm)	120	120	120	120	120	120
Lwa(dB)	30	30	30	30	30	30
V(cfm)	150	150	150	150	150	150
Lwa(dB)	35	35	35	35	35	35
V(cfm)	180	180	180	180	180	180
Lwa(dB)	40	40	40	40	40	40
V(cfm)	210	210	210	210	210	210
Lwa(dB)	45	45	45	45	45	45
V(cfm)	240	240	240	240	240	240
Lwa(dB)	50	50	50	50	50	50
V(cfm)	270	270	270	270	270	270
Lwa(dB)	55	55	55	55	55	55
V(cfm)	300	300	300	300	300	300
Lwa(dB)	60	60	60	60	60	60
V(cfm)	330	330	330	330	330	330
Lwa(dB)	65	65	65	65	65	65
V(cfm)	360	360	360	360	360	360
Lwa(dB)	70	70	70	70	70	70
V(cfm)	390	390	390	390	390	390
Lwa(dB)	75	75	75	75	75	75
V(cfm)	420	420	420	420	420	420
Lwa(dB)	80	80	80	80	80	80
V(cfm)	450	450	450	450	450	450
Lwa(dB)	85	85	85	85	85	85
V(cfm)	480	480	480	480	480	480
Lwa(dB)	90	90	90	90	90	90
V(cfm)	510	510	510	510	510	510
Lwa(dB)	95	95	95	95	95	95
V(cfm)	540	540	540	540	540	540
Lwa(dB)	100	100	100	100	100	100
V(cfm)	570	570	570	570	570	570
Lwa(dB)	105	105	105	105	105	105
V(cfm)	600	600	600	600	600	600
Lwa(dB)	110	110	110	110	110	110
V(cfm)	630	630	630	630	630	630
Lwa(dB)	115	115	115	115	115	115
V(cfm)	660	660	660	660	660	660
Lwa(dB)	120	120	120	120	120	120
V(cfm)	690	690	690	690	690	690



 **SquAireTex®**
 flow 1 way



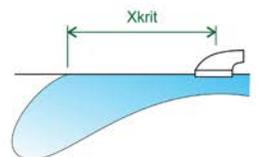
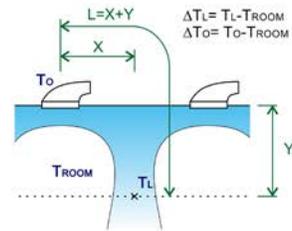
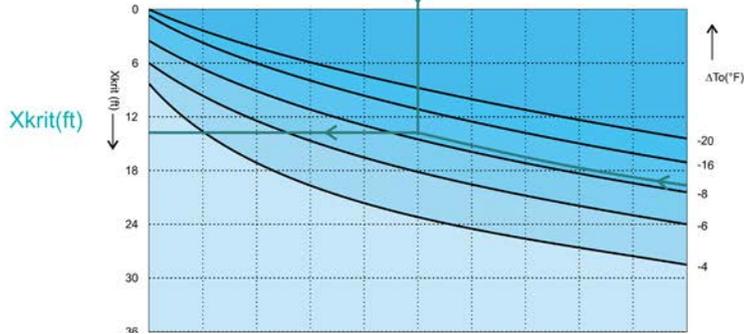
DESIGN DIAGRAMS - SquAireTex® flow 2 way



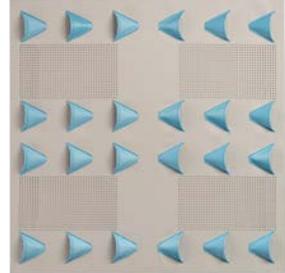
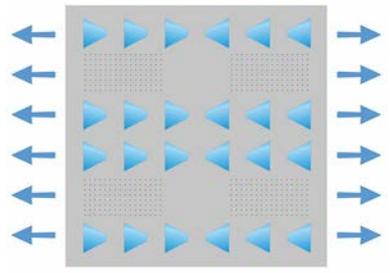
Example
Input data:
SAT Flow Two 18"
 $X=A/2=9\text{ft}$
 $Y=4.5\text{ft}$
 $V=130\text{cfm}$
 $\Delta T_o=-10^\circ\text{F}$

Output data:
 $p=0.15\text{in wc}$
 $L_{wa}=31.5\text{dB}$
 $w=92\text{fpm}$
 $X_{krit}=14\text{ft}$
 $\Delta T_L/\Delta T_o=0.11$

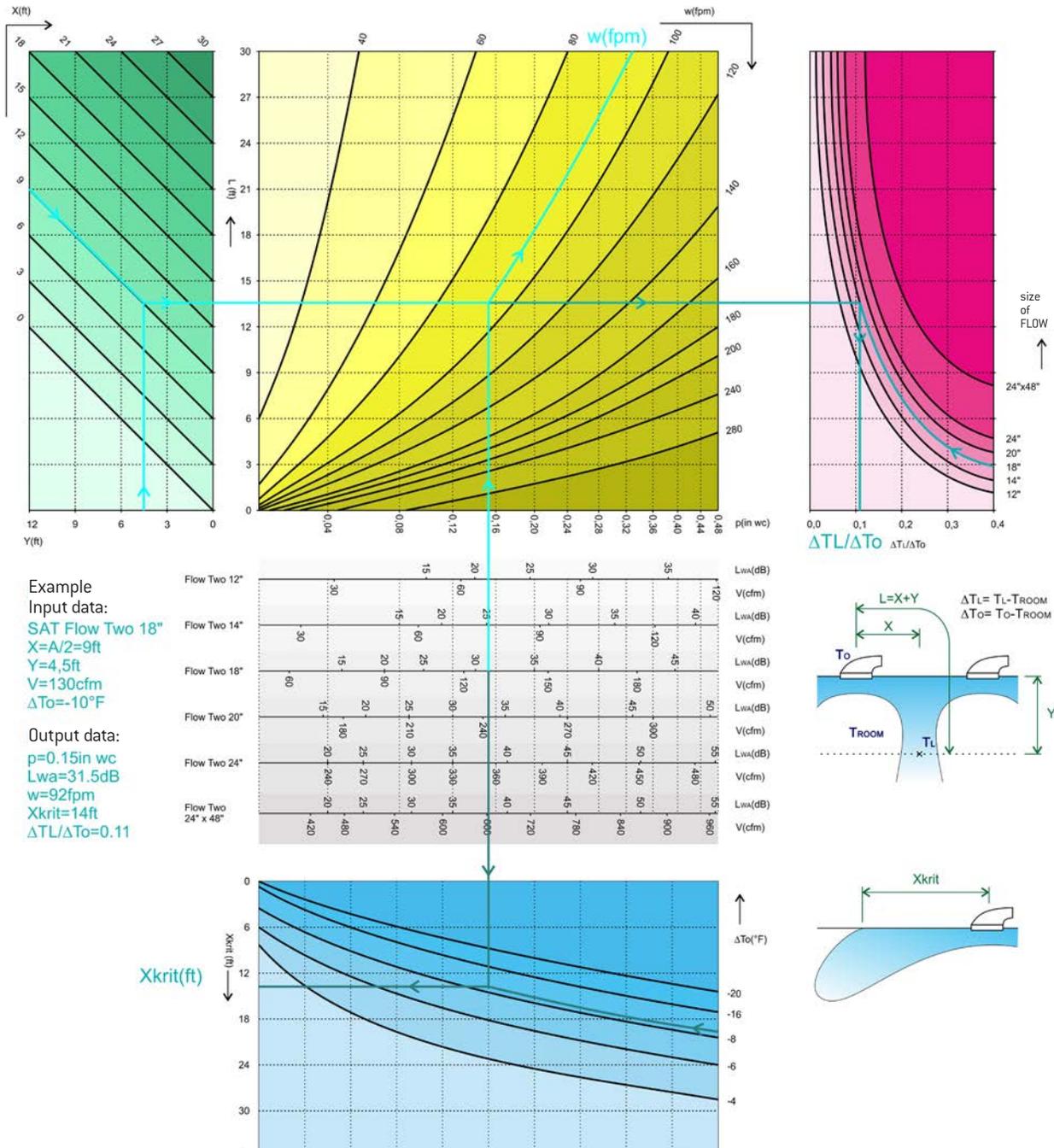
Flow Two 12"	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120
30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
450	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450
55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350
420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420
480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480
550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550
350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350
420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420
480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480
550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550	550
350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350
420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420
480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480
540	540	540	540	540	540	540	540	540	540	540	540	540	540	540	540	540	540	540	540	540	540	540
600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600
660	660	660	660	660	660	660	660	660	660	660	660	660	660	660	660	660	660	660	660	660	660	660
720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720
780	780	780	780	780	780	780	780	780	780	780	780	780	780	780	780	780	780	780	780	780	780	780
840	840	840	840	840	840	840	840	840	840	840	840	840	840	840	840	840	840	840	840	840	840	840
900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900
960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960



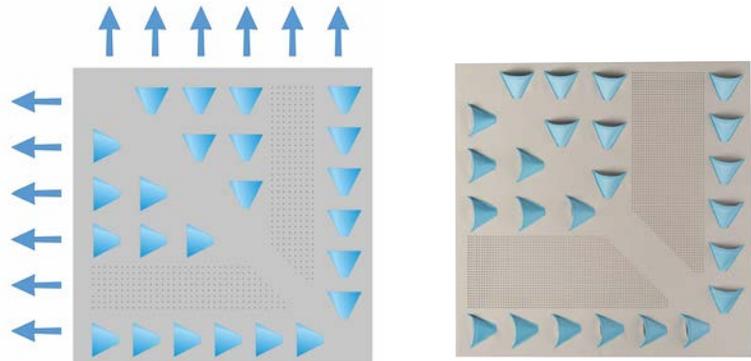
 **SquAireTex®**
flow 2 way



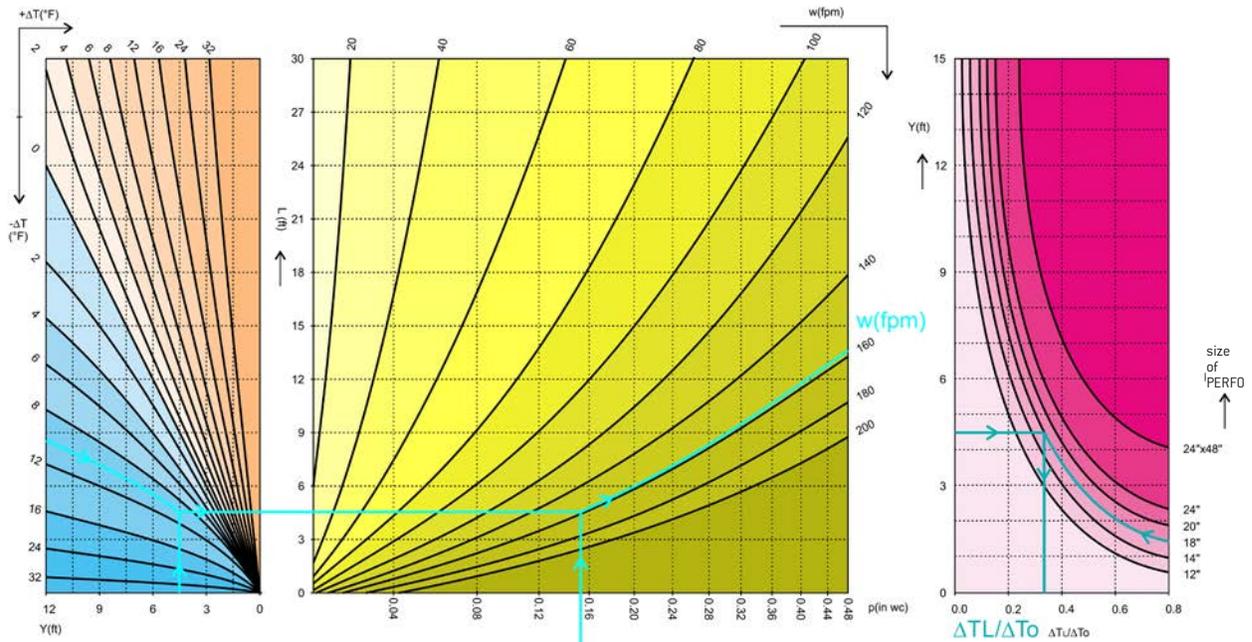
DESIGN DIAGRAMS - SquAireTex® flow corner



 **SquAireTex®**
 flow corner



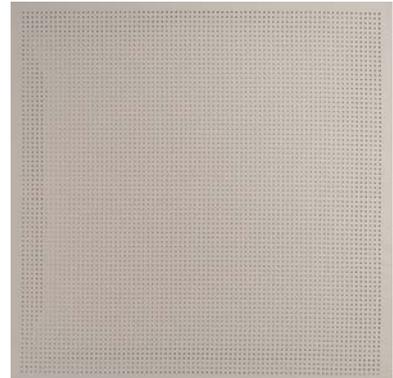
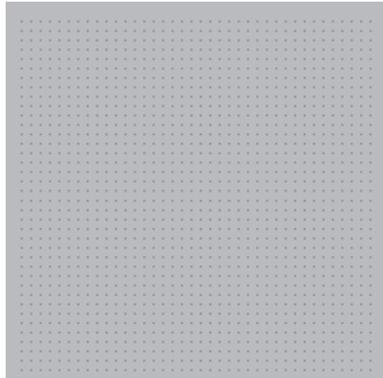
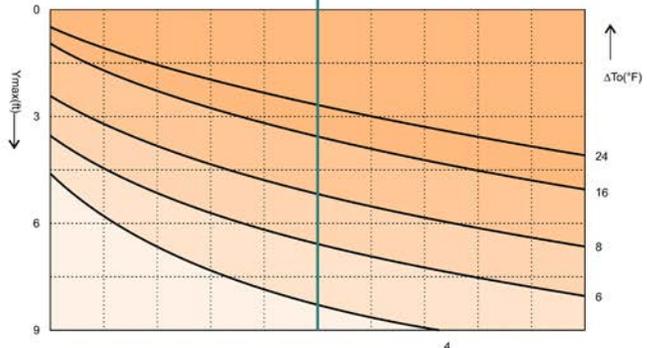
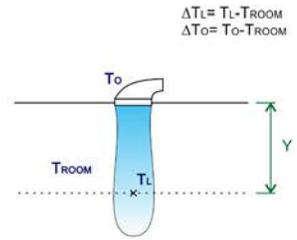
DESIGN DIAGRAMS - SquAireTex® flow perfo



Example Input data:
 SAT Perfo 18"
 Y=4.5ft
 V=130cfm
 ΔTo=-10°F

Output data:
 p=0.15in wc
 Lwa=32dB
 w=159fpm
 ΔTL/ΔTo=0.33
 Ymax - is given in mode heating only

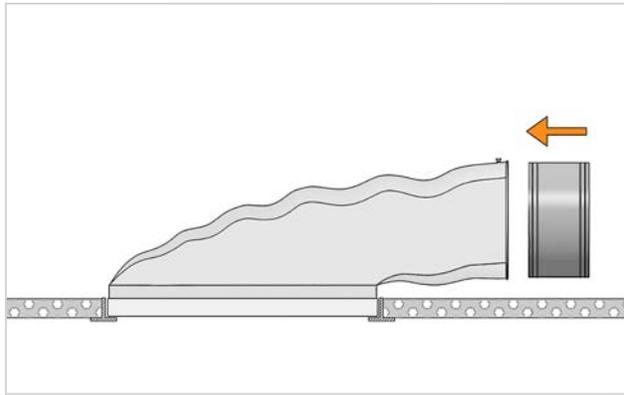
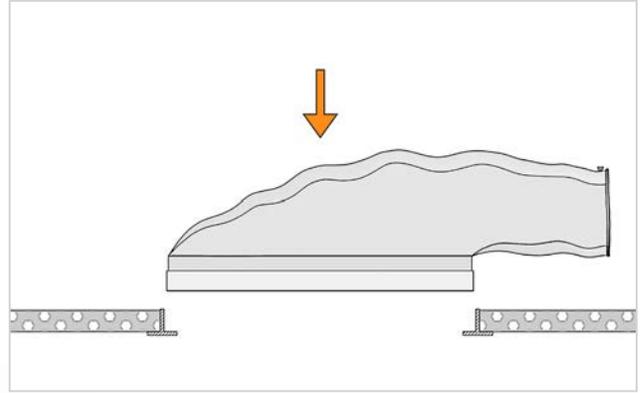
Perfo 12"	30	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	Lwa(dB)	V(cfm)
Perfo 14"	30	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	Lwa(dB)	V(cfm)
Perfo 18"	30	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	Lwa(dB)	V(cfm)
Perfo 20"	30	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	Lwa(dB)	V(cfm)
Perfo 24"	30	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	Lwa(dB)	V(cfm)
Perfo 24" x 48"	30	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	Lwa(dB)	V(cfm)



INSTALLATION INSTRUCTIONS

SquAireTex diffusers' lightweight construction requires no independent suspension. Installation is simply inserting the diffuser frame directly into the grid of the suspended ceiling.

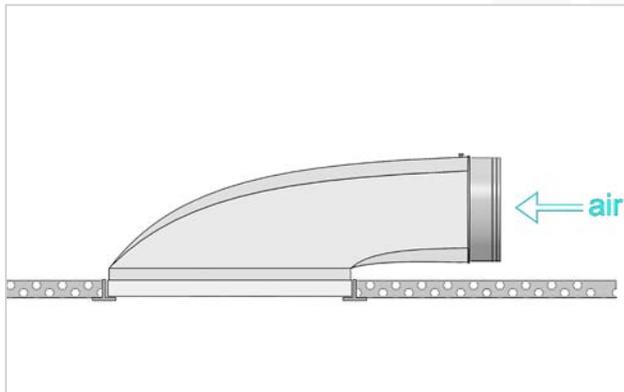
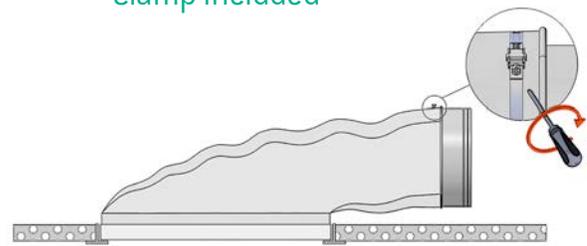
STEP 1



STEP 2

STEP 3

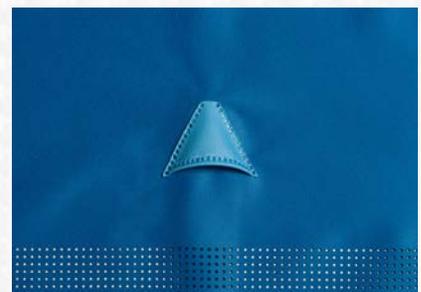
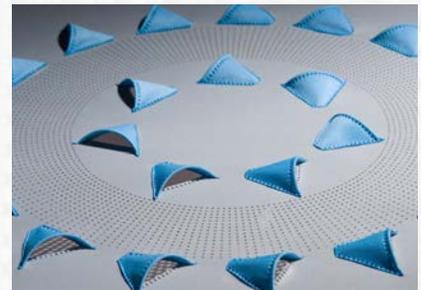
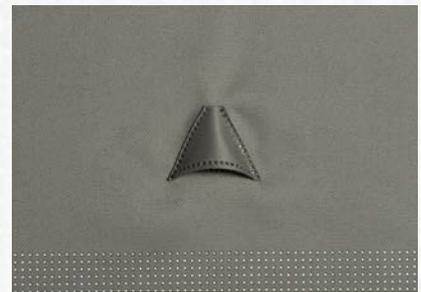
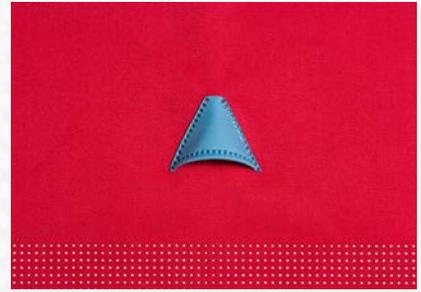
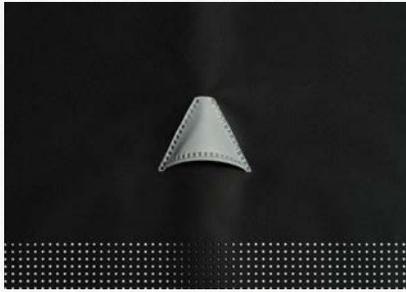
Clamp included



STEP 4

ADVANTAGES OF SQUAIRETEX® DIFFUSERS

- Lightweight
- Fast, easy installation
- Optimum comfort
- Custom sizes, colors and patterns
- Easy maintenance and cleaning
- Available with 100% post-consumer recycled materials



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