

systemair TSOI-T-125-T Perforated Face Multidirectional Ceiling Diffuser Instructions

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systemair TSOI-T-125-T Perforated Face Multidirectional Ceiling Diffuser



Description

Function

The TSOI-T is a perforated facemultidirectional ceiling diffuser with adjustable deflectors set internally. The diffuser is suitable for both supply and extract applications. As standard all side entry plenums are insulated and Top entry plenums are non insulated. Internal deflectors permit the diffuser to be set for Air pattern direction of 1 to 4 way. Diffuser and deflectors are as standard powder painted to RAL9010.

Product Description

TSOI-T-ØD-T : Top-entry perforated plate supply diffuser

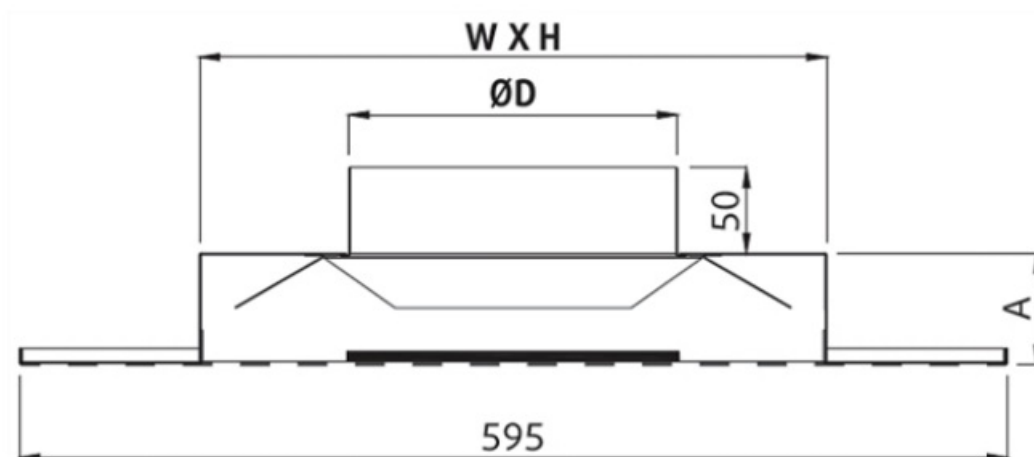
Features

- Supply and extract functionality
- Suitable for chilled, isothermal or warmed air
- Ideal for modular ceiling tile replacement
- High entrainment and mixing of surrounding air
- Short throw

Selection Criteria

- Ceiling Height 2.7m
- Temperature Differential (Room/Supply air) $\leq 10K$
- Lt, throw velocities shown in the table are for 0.375m/s to achieve air velocity of 0.15m/s in the occupied zone

Dimensions



Type	WxH	ØD	A
125	240X240	123	61
160	300X300	158	61
200	380X380	198	65
250	480X480	248	80
315	560X560	313	86

Ordering codes

	TSOI	T	ØD	S
Product series				
Plaster ceiling installation	P			
T-Bar ceiling 595x595 installation	T			
Inlet size				
			125	
			160	
			200	
			250*	
			315*	
Top entry plenum		T		
Side entry plenum		S		

Documentation

TSOI-T GB.pdf (348,08kB)

Diagram

TSOI			4-Way Supply				
m ³ /h	l/s		125	160	200	250	315
100	28	L _{t0.25}	0.5	0.4			
		ΔP _t (Pa)	8	3			
		L _{WA}	-	-			
150	42	L _{t0.25}	0.8	0.6			
		ΔP _t (Pa)	16	7			
		L _{WA}	35	-			
200	56	L _{t0.25}	1	0.8	0.7		
		ΔP _t (Pa)	33	12	5		
		L _{WA}	43	29	-		
250	69	L _{t0.25}	1.3	1	0.8	0.5	
		ΔP _t (Pa)	48	18	8	3	
		L _{WA}	52	37	-	-	
300	83	L _{t0.25}		1.2	1	0.8	
		ΔP _t (Pa)		28	12	5	
		L _{WA}		46	28	-	
400	111	L _{t0.25}			1.3	1.1	0.9
		ΔP _t (Pa)			20	9	4
		L _{WA}			39	-	-
500	139	L _{t0.25}			1.6	1.4	1.2
		ΔP _t (Pa)			32	13	6
		L _{WA}			45	33	-
600	167	L _{t0.25}				1.7	1.4
		ΔP _t (Pa)				18	9
		L _{WA}				40	29
750	208	L _{t0.25}					1.7
		ΔP _t (Pa)					13
		L _{WA}					37
1000	278	L _{t0.25}					23
		ΔP _t (Pa)					24
		L _{WA}					48

L_{t0.25} = Throw value (m) with terminal velocity of 0.25 m/s

LWA = Sound Power level in dB (A)

ΔP_t

= Total pressure Drop (Pa) With room height of 2.7m, average occupied room velocity of 0.15m/s can be achieved

The diffusers and plenums are tested together as one unit

Selection Example

Selection Criteria

Ceiling Height 2.7 m

Temperature Differential (Room to Supply air) ΔT of -10K Air Velocity In The Comfort Zone V_t = 0.15 m/s

Result

TSOI-T-ØD-S Air Volume QV = 111 l/s or 400 m³/h Throw L_t = 1.1 m Pressure Drop ΔP_t = 9Pa Noise Level LWA ≈ <25dBA

Specification text


Get In Touch

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Our Address

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Documents / Resources

	<p>systemair TSOI-T-125-T Perforated Face Multidirectional Ceiling Diffuser [pdf] Instructions TSOI-T-125-T, Perforated Face Multidirectional Ceiling Diffuser, Face Multidirectional Ceiling Dif fuser, Multidirectional Ceiling Diffuser, Ceiling Diffuser, TSOI-T-125-T, Diffuser</p>
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References

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