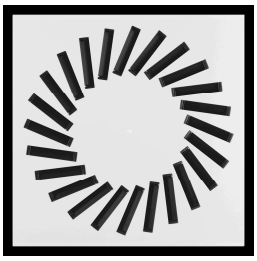
Project Structure

MÚ Ústí nad Orlicí - - - - - - - - - - - - - - - -

104	- -	'500x24
112	- -	'300x8
213	- -	'300x8
214	- -	'400x16

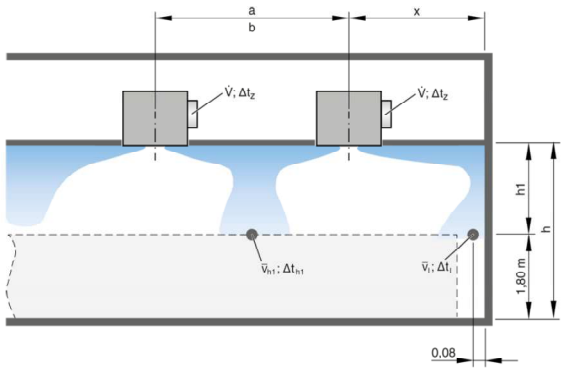


Construction style	Q	Square
System	Z	Supply air
Connection	H	Horizontal
Damper blade for volume flow rate balanci	M	With damper blade
Accessories	L	Spigot with lip seal
Nominal size	500x24	
Total amount	1	

Input Data

Strategy: Single row diffuser	
Volume flow q_v	260 m3/h
Distance a	2,4 m
Distance x	1,2 m
Distance h_1	1,2 m
Supply air to room air temperature	0 K

Schematic side view



Results

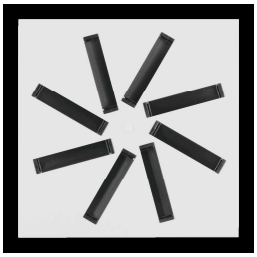
Distance (h_1 + x) l	2,4 m
Effective air velocity v_{eff}	3,44 m/s
Throw distance l_s	∞ m
Velocity at h_1 v_{h1}	0,07 m/s
Temperature difference at h_1 Δt_{h1}	0,00 K
Velocity at l v_l	0,14 m/s
Temperature difference at l Δt_l	0,00 K
Thermal output – cooling Φ_c	0 W

Acoustic results

	Δp_t [Pa]	LWA [dB(A)]	63Hz [dB]	125Hz [dB]	250Hz [dB]	500Hz [dB]	1kHz [dB]	2kHz [dB]	4kHz [dB]	8kHz [dB]	LWNC [dB]	LWNR [dB]
damper blade position open	12	20	31	31	25	16	< 15	< 15	< 15	< 15	< 15	< 15
damper blade position 45°	15	20	28	29	23	18	< 15	< 15	< 15	< 15	< 15	< 15
damper blade position closed	36	25	31	30	25	24	21	< 15	< 15	< 15	20	21

Description

Ceiling swirl diffusers with square or circular diffuser face. Supply air and extract air variants for comfort zones, for a maximum air change rate of 35 per hour. Diffuser face with individually manually adjustable air control blades for horizontal swirling supply air discharge creating high induction levels. For installation into all types of suspended ceilings. Ready-to-install component which consists of the diffuser face with radially arranged, individually adjustable black or white air control blades, and of a plenum box, equalising element (only supply air variants), side entry or top entry spigot, cross bar, and suspension holes or suspension lugs. The diffuser face is fixed to the cross bar with a central screw, concealed by a decorative cap. Spigot suitable for ducts to EN 1506 or EN 13180. Sound power level of the air-regenerated noise measured according to EN ISO 5135.

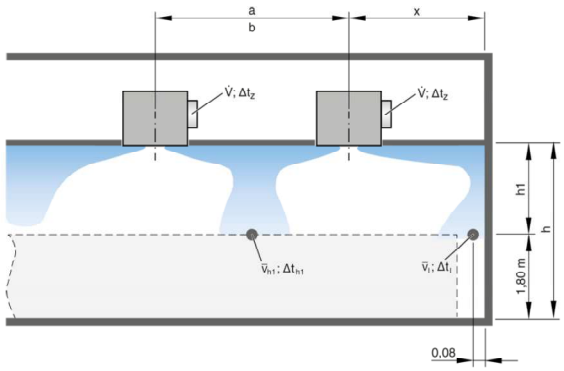


Construction style	Q	Square
System	Z	Supply air
Connection	H	Horizontal
Damper blade for volume flow rate balanci	M	With damper blade
Accessories	L	Spigot with lip seal
Nominal size	300x8	
Total amount	1	

Input Data

Strategy: Single row diffuser	
Volume flow q_v	100 m3/h
Distance a	2,4 m
Distance x	1,2 m
Distance h_1	1,2 m
Supply air to room air temperature	0 K

Schematic side view



Results

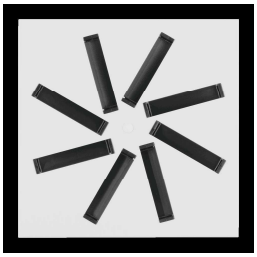
Distance (h_1 + x) l	2,4 m
Effective air velocity v_{eff}	3,97 m/s
Throw distance l_s	∞ m
Velocity at h_1 v_{h1}	0,03 m/s
Temperature difference at h_1 Δt_{h1}	0,00 K
Velocity at l v_l	0,08 m/s
Temperature difference at l Δt_l	0,00 K
Thermal output – cooling Φ_c	0 W

Acoustic results

	Δp_t [Pa]	LWA [dB(A)]	63Hz [dB]	125Hz [dB]	250Hz [dB]	500Hz [dB]	1kHz [dB]	2kHz [dB]	4kHz [dB]	8kHz [dB]	LWNC [dB]	LWNR [dB]
damper blade position open	10	16	20	22	22	< 15	< 15	< 15	< 15	< 15	< 15	< 15
damper blade position 45°	11	15	17	22	22	< 15	< 15	< 15	< 15	< 15	< 15	< 15
damper blade position closed	19	18	19	21	24	< 15	< 15	< 15	< 15	< 15	< 15	< 15

Description

Ceiling swirl diffusers with square or circular diffuser face. Supply air and extract air variants for comfort zones, for a maximum air change rate of 35 per hour. Diffuser face with individually manually adjustable air control blades for horizontal swirling supply air discharge creating high induction levels. For installation into all types of suspended ceilings. Ready-to-install component which consists of the diffuser face with radially arranged, individually adjustable black or white air control blades, and of a plenum box, equalising element (only supply air variants), side entry or top entry spigot, cross bar, and suspension holes or suspension lugs. The diffuser face is fixed to the cross bar with a central screw, concealed by a decorative cap. Spigot suitable for ducts to EN 1506 or EN 13180. Sound power level of the air-regenerated noise measured according to EN ISO 5135.

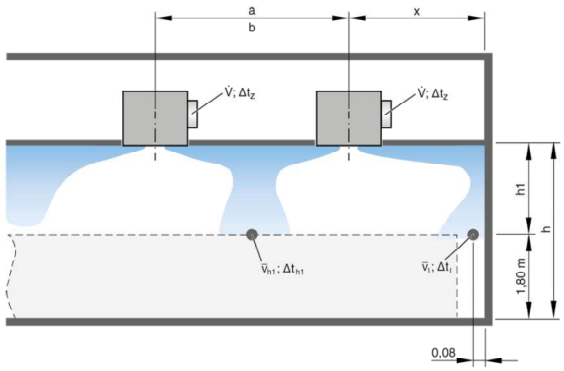


Construction style	Q	Square
System	Z	Supply air
Connection	H	Horizontal
Damper blade for volume flow rate balanci	M	With damper blade
Accessories	L	Spigot with lip seal
Nominal size	300x8	
Total amount	1	

Input Data

Strategy: Single row diffuser	
Volume flow q_v	50 m3/h
Distance a	1,2 m
Distance x	1,2 m
Distance h_1	1,2 m
Supply air to room air temperature	0 K

Schematic side view



Results

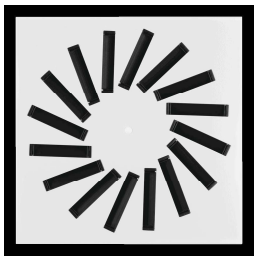
Distance (h_1 + x) l	2,4 m
Effective air velocity v_{eff}	1,98 m/s
Throw distance l_s	∞ m
Velocity at h_1 v_{h1}	0,01 m/s
Temperature difference at h_1 Δt_{h1}	0,00 K
Velocity at l v_l	0,02 m/s
Temperature difference at l Δt_l	0,00 K
Thermal output – cooling Φ_c	0 W

Acoustic results

	Δp_t [Pa]	LWA [dB(A)]	63Hz [dB]	125Hz [dB]	250Hz [dB]	500Hz [dB]	1kHz [dB]	2kHz [dB]	4kHz [dB]	8kHz [dB]	LWNC [dB]	LWNR [dB]
damper blade position open	2	< 15	< 15	< 15	< 15	< 15	< 15	< 15	< 15	< 15	< 15	< 15
damper blade position 45°	3	< 15	< 15	< 15	< 15	< 15	< 15	< 15	< 15	< 15	< 15	< 15
damper blade position closed	5	< 15	< 15	< 15	< 15	< 15	< 15	< 15	< 15	< 15	< 15	< 15

Description

Ceiling swirl diffusers with square or circular diffuser face. Supply air and extract air variants for comfort zones, for a maximum air change rate of 35 per hour. Diffuser face with individually manually adjustable air control blades for horizontal swirling supply air discharge creating high induction levels. For installation into all types of suspended ceilings. Ready-to-install component which consists of the diffuser face with radially arranged, individually adjustable black or white air control blades, and of a plenum box, equalising element (only supply air variants), side entry or top entry spigot, cross bar, and suspension holes or suspension lugs. The diffuser face is fixed to the cross bar with a central screw, concealed by a decorative cap. Spigot suitable for ducts to EN 1506 or EN 13180. Sound power level of the air-regenerated noise measured according to EN ISO 5135.

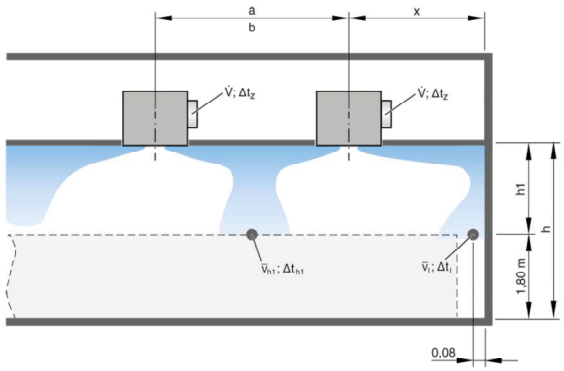


Construction style	Q	Square
System	Z	Supply air
Connection	H	Horizontal
Damper blade for volume flow rate balanci	M	With damper blade
Accessories	L	Spigot with lip seal
Nominal size	400x16	
Total amount	1	

Input Data

Strategy: Single row diffuser	
Volume flow q_v	210 m3/h
Distance a	2,4 m
Distance x	1,2 m
Distance h_1	1,2 m
Supply air to room air temperature	0 K

Schematic side view



Results

Distance (h_1 + x) l	2,4 m
Effective air velocity v_{eff}	4,17 m/s
Throw distance l_s	∞ m
Velocity at h_1 v_{h1}	0,07 m/s
Temperature difference at h_1 Δt_{h1}	0,00 K
Velocity at l v_l	0,13 m/s
Temperature difference at l Δt_l	0,00 K
Thermal output – cooling Φ_c	0 W

Acoustic results

	Δp_t [Pa]	LWA [dB(A)]	63Hz [dB]	125Hz [dB]	250Hz [dB]	500Hz [dB]	1kHz [dB]	2kHz [dB]	4kHz [dB]	8kHz [dB]	LWNC [dB]	LWNR [dB]
damper blade position open	12	21	34	26	26	17	< 15	< 15	< 15	< 15	< 15	15
damper blade position 45°	14	22	30	29	27	18	< 15	< 15	< 15	< 15	< 15	16
damper blade position closed	27	24	33	30	27	22	20	< 15	< 15	< 15	18	20

Description

Ceiling swirl diffusers with square or circular diffuser face. Supply air and extract air variants for comfort zones, for a maximum air change rate of 35 per hour. Diffuser face with individually manually adjustable air control blades for horizontal swirling supply air discharge creating high induction levels. For installation into all types of suspended ceilings. Ready-to-install component which consists of the diffuser face with radially arranged, individually adjustable black or white air control blades, and of a plenum box, equalising element (only supply air variants), side entry or top entry spigot, cross bar, and suspension holes or suspension lugs. The diffuser face is fixed to the cross bar with a central screw, concealed by a decorative cap. Spigot suitable for ducts to EN 1506 or EN 13180. Sound power level of the air-regenerated noise measured according to EN ISO 5135.