

Chart for selection of ASN 245x245 diffusers taking the influence of a wall and a second diffuser into account.

Q _h [m³/h]	Q [m³/s]	Type	245 x 245	x (distance from a wall)				
				1 m	2 m	3 m	4 m	5 m
50	0,014	Δp [Pa] L _{V=0,25} [m] V [m/s] dB	0,9	L _{Vertical} (Vertical range)				
			0,9 0,38 <35					
100	0,028	Δp [Pa] L _{V=0,25} [m] V [m/s] dB	3,0	0,14				
			1,5 0,75 <35					
150	0,042	Δp [Pa] L _{V=0,25} [m] V [m/s] dB	6,1	0,29				
			2,1 1,13 <35					
200	0,056	Δp [Pa] L _{V=0,25} [m] V [m/s] dB	10,2	0,43	0,15			
			2,6 1,50 <35					
250	0,069	Δp [Pa] L _{V=0,25} [m] V [m/s] dB	15,0	0,55	0,29			
			3,0 1,88 35					
300	0,083	Δp [Pa] L _{V=0,25} [m] V [m/s] dB	20,7	0,68	0,41	0,11		
			3,5 2,25 <40					
400	0,111	Δp [Pa] L _{V=0,25} [m] V [m/s] dB	34,2	0,91	0,65	0,30	0,05	
			4,3 3,00 40					
500	0,139	Δp [Pa] L _{V=0,25} [m] V [m/s] dB	50,6	1,12	0,88	0,49	0,17	
			5,1 3,75 <45					
600	0,167	Δp [Pa] L _{V=0,25} [m] V [m/s] dB	69,6	1,33	1,10	0,66	0,29	0,05
			5,9 4,50 45					
700	0,194	Δp [Pa] L _{V=0,25} [m] V [m/s] dB	91,1	1,53	1,30	0,83	0,40	0,10
			6,6 5,25 <50					
800	0,222	Δp [Pa] L _{V=0,25} [m] V [m/s] dB	115,1	1,72	1,50	0,99	0,51	0,15
			7,3 6,00 50					
900	0,250	Δp [Pa] L _{V=0,25} [m] V [m/s] dB	141,4	1,91	1,70	1,14	0,61	0,20
			8,0 6,75 >50					
1000	0,278	Δp [Pa] L _{V=0,25} [m] V [m/s] dB	170,1	2,09	1,88	1,30	0,71	0,24
			8,7 7,50 >50					
1200	0,333	Δp [Pa] L _{V=0,25} [m] V [m/s] dB	234,0	2,44	2,25	1,59	0,91	0,33
			10,0 9,00 >50					

Note:

Chart concerns diffusers with open dampers.
Values are approximate.
Pressure loss for a single diffuser.

Δ [Pa] Pressure loss

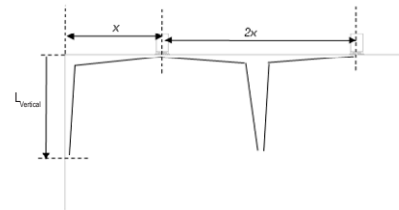
L_{V=0,25} [m] Distance along the ceiling at which the maximal air stream velocity does not exceed 0.25 m/s.
Average air stream velocity ranging from 0.08-0.1 m/s

L_{Vertical} [m] Vertical distance from the ceiling at which the maximal air stream velocity does not exceed 0.25 m/s.
Average air stream velocity ranging from 0.08-0.1 m/s

x [m] Distance from a wall, or half a distance between diffusers

V [m/s] Maximum adhering air stream velocity at the edge of the diffuser

dB Noise



The degree of damper closure can be taken into account using the coefficient

Closing angle	Coefficient
20%	1.2
40%	1.5
60%	3.0
80%	7.0
100%	15.0

Δp_{dist} ≈ Δp x Coefficient

L_{V=0,25 dist} ≈ L_{V=0,25} / Coefficient