

Chart for selection of ASN 498x498 diffusers taking the influence of a wall and a second diffuser into account.

Q _n [m³/h]	Q [m³/s]	Type	498 x 498	x (distance from a wall)					
				1 m	2 m	3 m	4 m	5 m	
100	0,028	Δp [Pa] L _{v=0,25} [m] V [m/s] dB	0,2 0,7 0,28 <35	L _{Vertical} (Vertical range)					
150	0,042	Δp [Pa] L _{v=0,25} [m] V [m/s] dB	0,5 1,1 0,42 <35	0,02					
200	0,056	Δp [Pa] L _{v=0,25} [m] V [m/s] dB	0,8 1,4 0,56 <35	0,11					
250	0,069	Δp [Pa] L _{v=0,25} [m] V [m/s] dB	1,1 1,7 0,69 <35	0,20					
300	0,083	Δp [Pa] L _{v=0,25} [m] V [m/s] dB	1,6 2,1 0,83 <35	0,29	0,01				
400	0,111	Δp [Pa] L _{v=0,25} [m] V [m/s] dB	2,6 2,7 1,11 <35	0,47	0,19				
500	0,139	Δp [Pa] L _{v=0,25} [m] V [m/s] dB	3,8 3,3 1,39 <35	0,64	0,38	0,08			
600	0,167	Δp [Pa] L _{v=0,25} [m] V [m/s] dB	5,2 4,0 1,67 <35	0,81	0,56	0,23			
700	0,194	Δp [Pa] L _{v=0,25} [m] V [m/s] dB	6,8 4,6 1,94 35	0,99	0,74	0,37	0,09		
800	0,222	Δp [Pa] L _{v=0,25} [m] V [m/s] dB	8,6 5,2 2,22 <40	1,16	0,91	0,51	0,19	0,01	
900	0,250	Δp [Pa] L _{v=0,25} [m] V [m/s] dB	10,6 5,9 2,50 <40	1,33	1,09	0,65	0,29	0,05	
1000	0,278	Δp [Pa] L _{v=0,25} [m] V [m/s] dB	12,8 6,5 2,78 <40	1,50	1,27	0,80	0,38	0,09	
1200	0,333	Δp [Pa] L _{v=0,25} [m] V [m/s] dB	17,5 7,7 3,33 40	1,83	1,62	1,08	0,57	0,18	
1400	0,389	Δp [Pa] L _{v=0,25} [m] V [m/s] dB	23,0 9,0 3,89 <45	2,17	1,96	1,36	0,75	0,26	
1600	0,444	Δp [Pa] L _{v=0,25} [m] V [m/s] dB	29,0 10,2 4,44 <45	2,50	2,31	1,64	0,94	0,34	
1800	0,500	Δp [Pa] L _{v=0,25} [m] V [m/s] dB	35,7 11,4 5,00 45	2,83	2,65	1,91	1,12	0,42	

Note:

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

Δ [Pa] Pressure loss

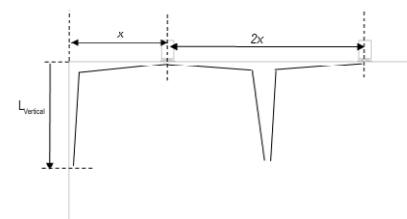
L_{v=0,25} [m] Distance along the ceiling at which the maximal air stream velocity does not exceed 0.25 m/s.
Average air stream velocity ranging from 0.08-0.1 m/s

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

$$\Delta p_{size} = \Delta p \times \text{Coefficient}$$

$$L_{v=0,25 size} = L_{v=0,25} / \text{Coefficient}$$