

## Chart for selection of ASN 301x301 diffusers taking the influence of a wall and a second diffuser into account.

Q <sub>n</sub> [m <sup>3</sup> /h]	Q [m <sup>3</sup> /s]	Type	301 x 301	x (distance from a wall)						
				1 m	2 m	3 m	4 m	5 m		
50	0,014	Δp [Pa] L <sub>v=0,25</sub> [m] V [m/s] dB	0,5	L <sub>vertical</sub> (Vertical range)						
			0,9 0,32 <35							
100	0,028	Δp [Pa] L <sub>v=0,25</sub> [m] V [m/s] dB	1,7 1,5 0,64 <35	0,14						
			3,5 2,0 0,96 <35		0,28					
200	0,056	Δp [Pa] L <sub>v=0,25</sub> [m] V [m/s] dB	5,7 2,5 1,28 <35	0,41		0,14				
			8,5 3,0 1,60 <35		0,53		0,26			
300	0,083	Δp [Pa] L <sub>v=0,25</sub> [m] V [m/s] dB	11,6 3,4 1,92 35	0,65		0,38		0,08		
			19,2 4,2 2,56 <40		0,86		0,60		0,26	0,02
500	0,139	Δp [Pa] L <sub>v=0,25</sub> [m] V [m/s] dB	28,4 4,9 3,19 <40	1,06		0,81		0,43		
			39,1 5,6 3,83 40		1,24		1,00		0,58	0,24
700	0,194	Δp [Pa] L <sub>v=0,25</sub> [m] V [m/s] dB	51,2 6,2 4,47 <45	1,42		1,19		0,73		
			64,7 6,9 5,11 45		1,59		1,37		0,88	0,43
900	0,250	Δp [Pa] L <sub>v=0,25</sub> [m] V [m/s] dB	79,5 7,5 5,75 <50	1,76		1,54		1,02		
			95,7 4,5 6,39 50		0,95		0,69		0,34	0,07
1200	0,333	Δp [Pa] L <sub>v=0,25</sub> [m] V [m/s] dB	131,6 9,2 7,67 >50	2,23		2,03		1,41		
			172,4 10,3 8,94 >50		2,52		2,34		1,66	0,95

**Note:**

Chart concerns diffusers with open dampers.

Values are approximate.

Pressure loss for a single diffuser.

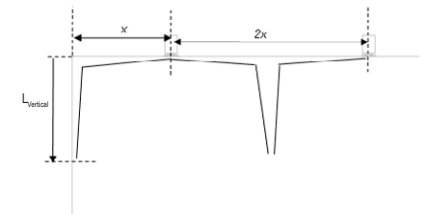
Δ [Pa] Pressure loss

L<sub>v=0,25</sub> [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/sL<sub>vertical</sub> [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

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

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