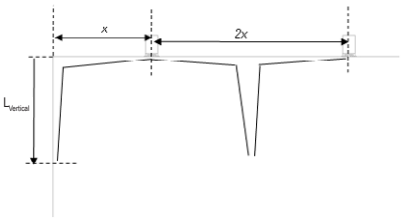
Chart for selection of ASN 469x469 diffusers taking the influence of a wall and a second diffuser into account.

Q_h [m^3/h]	Q [m^3/s]	Type	469 x 469	x (distance from a wall)				
				1 m	2 m	3 m	4 m	5 m
				$L_{Vertical}$ (Vertical range)				
100	0,028	Δp [Pa] $L_{v=0,25}$ [m] V [m/s] dB	0,3 0,8 0,36 <35					
150	0,042	Δp [Pa] $L_{v=0,25}$ [m] V [m/s] dB	0,6 1,2 0,54 <35	0,06				
200	0,056	Δp [Pa] $L_{v=0,25}$ [m] V [m/s] dB	1,0 1,6 0,72 <35	0,16				
250	0,069	Δp [Pa] $L_{v=0,25}$ [m] V [m/s] dB	1,6 1,9 0,90 <35	0,25				
300	0,083	Δp [Pa] $L_{v=0,25}$ [m] V [m/s] dB	2,1 2,3 1,08 <35	0,35	0,07			
400	0,111	Δp [Pa] $L_{v=0,25}$ [m] V [m/s] dB	3,5 3,0 1,44 <35	0,53	0,26			
500	0,139	Δp [Pa] $L_{v=0,25}$ [m] V [m/s] dB	5,2 3,6 1,81 <35	0,71	0,45	0,14		
600	0,167	Δp [Pa] $L_{v=0,25}$ [m] V [m/s] dB	7,2 4,3 2,17 35	0,89	0,64	0,29	0,04	
700	0,194	Δp [Pa] $L_{v=0,25}$ [m] V [m/s] dB	9,4 4,9 2,53 <40	1,06	0,82	0,43	0,14	
800	0,222	Δp [Pa] $L_{v=0,25}$ [m] V [m/s] dB	11,9 5,5 2,89 <40	1,24	1,00	0,58	0,23	0,03
900	0,250	Δp [Pa] $L_{v=0,25}$ [m] V [m/s] dB	14,6 6,2 3,25 <40	1,41	1,17	0,72	0,33	0,07
1000	0,278	Δp [Pa] $L_{v=0,25}$ [m] V [m/s] dB	17,5 6,8 3,61 40	1,57	1,35	0,86	0,42	0,11
1200	0,333	Δp [Pa] $L_{v=0,25}$ [m] V [m/s] dB	24,1 8,0 4,33 <45	1,91	1,69	1,14	0,61	0,20
1400	0,389	Δp [Pa] $L_{v=0,25}$ [m] V [m/s] dB	31,6 9,2 5,06 <45	2,23	2,03	1,41	0,79	0,28
1600	0,444	Δp [Pa] $L_{v=0,25}$ [m] V [m/s] dB	39,9 10,4 5,78 45	2,56	2,37	1,68	0,97	0,36

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

$\Delta p_{slice} \approx \Delta p$ x Coefficient
$L_{v=0,25\ slice} \approx L_{v=0,25}$ / Coefficient