Instructions for the charts for selection of swirl diffusers AWK with and without a consideration of the influence of a wall and the second diffuser

AWK1	310-8	x (distance from a wall)				
A_{ef} [m^2]	0,0166	1 m	2 m	3 m	4 m	5 m
Q_h [m^3/h]		$L_{Vertical}$ (Vertical range)				
25	$L_{Horizontal\ V=0.2}$ [m]	0,4					
	L_{max} [m/s]	1,2					
	V_{av} [m/s]	0,4					
	ΔP [Pa]	0,7					
	dB (A)	<30					
50	$L_{Horizontal\ V=0.2}$ [m]	1,0					
	L_{max} [m/s]	2,3					
	V_{av} [m/s]	0,8					
	ΔP [Pa]	2,6					
	dB (A)	<30					
100	$L_{Horizontal\ V=0.2}$ [m]	2,2	0,3				
	L_{max} [m/s]	4,7					
	V_{av} [m/s]	1,7					
	ΔP [Pa]	10,7					
	dB (A)	<30					
150	$L_{Horizontal\ V=0.2}$ [m]	3,3	0,6	0,4	0,1		
	L_{max} [m/s]	7,0					
	V_{av} [m/s]	2,5					
	ΔP [Pa]	24,2					
	dB (A)	<30					
200	$L_{Horizontal\ V=0.2}$ [m]	4,5	1,0	0,7	0,3	0,1	
	L_{max} [m/s]	9,3					
	V_{av} [m/s]	3,3					
	ΔP [Pa]	43,3					
	dB (A)	30					
250	$L_{Horizontal\ V=0.2}$ [m]	5,7	1,3	1,0	0,6	0,3	
	L_{max} [m/s]	11,7					
	V_{av} [m/s]	4,2					
	ΔP [Pa]	67,8					
	dB (A)	35					
300	$L_{Horizontal\ V=0.2}$ [m]	6,9	1,6	1,4	0,9	0,4	0,1
	L_{max} [m/s]	14,0					
	V_{av} [m/s]	5,0					
	ΔP [Pa]	98,0					
	dB (A)	40					
350	$L_{Horizontal\ V=0.2}$ [m]	8,1	1,9	1,7	1,2	0,6	0,2
	L_{max} [m/s]	16,3					
	V_{av} [m/s]	5,9					
	ΔP [Pa]	133,7					
	dB (A)	43					

Part of the basic diagram concerning a reflow along the ceiling without the influence of a wall.

Part considering the influence of a wall or other diffuser for range.

Example:

1) Singular diffuser without the influence of a wall eg. Q_h=250 m^3/h has the stream range velocity equal to 0,2 m/s 5,7m.

2) If we take into consideration the influence of a wall eg. from a distance equal to 3 m, then: Range through a ceiling is equal to 3 m till a wall, vertical range through a ceiling equals 0,6 m from a ceiling (alltogether 3 m + 0,6 m = 3,6 m).

3) If we have two diffusers in a distance of eg. 6 m from each other and we search for a stream range between them, it is expected to divide by two the distance between them (so in this case it will be 3 m) and to read it as for the influence of a wall in a distance of 3 m.