

Acoustic measurement of baffles for the SLC-100-4-490-510-500 silencer

Type	height [mm]	width [mm]	width the duct [mm]	the duct [m/s]	between the [m/s]	Gap width [mm]
SLC-100-4-490-510-500	510	500	100	3,9	10,0	100

Average acoustic power level: 55,0dB

Average weighted acoustic power level: 45,1 dB (A)

Average frequency in octave	Measured value dB	Calculated value dB
63	2,7	2,9
125	4,0	4,1
250	12,4	10,9
500	24,2	22,3
1000	34,5	34,9
2000	30,1	29,1
4000	19,3	20,2
8000	18,3	18,4

Table 1. Insertion loss Report P-TA 31/2014 – according to DIN EN IZO 7235

No.	dynamic pressure [Pa]	[m³/s]	speed in the gap [m/s]	pressure drop - substitutive duct [Pa]	pressure drop - tested sample [Pa]	resultant pressure drop [Pa]	[-]
1	2.3	1.0	10.0	4.2	31.2	27.0	0.47
2	3.3	1.2	12.0	6.3	43.4	37.1	0.45
3	5.1	1.5	15.0	9.1	69.5	60.4	0.47
4	9.1	2.0	20.0	16.3	117.0	100.7	0.44
5	14.2	2.5	25.0	27.5	201.0	173.5	0.49

Zeta arithmetic mean: 0,47

Table 36. Raport P-TA 31/2014 wg DIN EN IZO 7235

Ambient pressure:960 hPa

Duct temperature:21,1°C

Air density: 1,14 kg/m³