

Please find below noise spectrum data for the spray booth fans.

This data show inlet and outlet noise at different frequencies and in-duct noise levels at 1m and 6m from the fan.

The tip of the exhaust duct terminating outside of the building is approx. 6m from the fan in your case.

Sound Data:

	Total	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	Distances	1m	6m
LwA(A,in) [dB(A)]	93	80	88	91	85	85	83	78	71	LpA(A _{in})	86	73
LwA(A,out) [dB(A)]	96	86	93	96	92	91	89	84	76	LpA(A _{out})	89	76

Environmental Noise

A significant amount of attenuation is likely to take place within the air handling unit due to the filters, humidifier etc so I would expect noise levels environmentally to be fairly low. However, as a guide, below are measured noise readings taken from a booth with similar air handling plant but with both stacks terminating vertically. In this case, the intake is through the side wall of the building. The levels are an approximation after taking account of other external noise sources. Please note that these figures are generic and noise is specific to each site depending on other noise sources in the area, topography, wind direction and other site specific factors. Site specific noise measurements and exact calculations would need to be done by a qualified Acoustician and are not within the Junair scope. This information is a guide to the external noise you might expect at ground level 15m from the noise source

	Octave Band Centre Frequency (Hz)								dBA
	63	125	250	500	1000	2000	4000	8000	
Supply Only	50.6	49.8	46.6	42.7	46.0	41.7	34.6	25.7	49.1
Extract Only	49.7	51.3	46.6	45.3	46.4	44.3	38.3	28.1	50.6
Total	52.3	57.3	54.5	51.6	50.6	47.5	42.0	30.2	55.2
After A-weighting	26.3	41.3	45.5	48.6	50.6	48.5	43.0	29.2	55.2

Internal Noise

Junair design all equipment to achieve no more than 78dBA. We attenuate as necessary to achieve this noise level inside the cabin.