

# Noise Enclosure - Offshore

## Datasheet



Adresse:  
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Telefon:  
+47 917 62 249

Org.nr.:  
922 031 193 MVA



#### **DESCRIPTION OF PRODUCTS:**

Zilento AS is specialized in the design and production of noise houses tailored for the offshore industry. Our noise houses are modular and can be adapted exactly to the customer's needs and preferences, in terms of design and functionality. We build in rotating equipment such as compressors, pumps, gears and motors in the noise houses to meet specific noise requirements.

All our noise houses are supplied with standard documentation that follows the NORSOK standard. This ensures that our products meet the industry's high requirements for quality and safety.

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## Test Results

### Aker Carbon Capture

#### 1.1 RESULTS

The following result are displayed without the uncertainty factor K (+/- 1.5 dB on A-weighted level for engineering grade). Declared sound emission values,  $L_d = L + K$ , is determined by adding the measured sound emission value L and the positive part of the uncertainty factor K = 1.5 dB.

The sound power insulation obtained due to the enclosure is:

**Dw = 28.1 dB**

Table 1-1 Sound power insulation

Frequency [Hz]	1/1 Octave Bands (lin) dB								dBA
	63*	125	250	500	1k	2k	4k	8k*	
SWL Speaker	96.9	108.7	113.7	110.6	106.7	105.2	100.7	91.8	112.8
SWL Enclosure	83.7	89.6	91.6	80.7	67.1	69.2	65.6	50.5	84.7
<b>SWL Insulation</b>	<b>13.3</b>	<b>19.0</b>	<b>22.1</b>	<b>29.8</b>	<b>39.5</b>	<b>36.0</b>	<b>35.1</b>	<b>41.3</b>	

\* Extended frequency range

### Aker BP

#### 1.1 NOISE INSULATION RESULTS

The result in Table 1-1 are displayed without the uncertainty factor K (+/- 1.5 dB on A-weighted level for engineering grade). Declared sound emission values,  $L_d = L + K$ , is determined by adding the measured sound emission value L and the positive part of the uncertainty factor K = 1.5 dB.

Table 1-1 Sound power insulation

Frequency [Hz]	1/1 Octave Bands (lin) dB								dBA
	63*	125	250	500	1k	2k	4k	8k*	
SWL Speaker	66.0	89.2	100.3	103.1	101.9	102.5	97.0	89.9	108.5
SWL Enclosure	82.7	84.0	87.2	79.5	68.7	68.2	65.5	58.4	81.3
<b>SWL Insulation</b>	<b>-16.7</b>	<b>5.2</b>	<b>13.2</b>	<b>23.6</b>	<b>33.2</b>	<b>34.2</b>	<b>31.5</b>	<b>31.5</b>	

\* Extended frequency range

Values in the extended frequency range are outside the recommended frequency range for the 12 mm spacer used for the sound intensity measurements. Further use of these values is left to the readers discretion.

The sound power insulation obtained due to the enclosure when using a pink noise source is:

**Dw = 27.2 dB**

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## Reference:

Our expertise within the offshore industry is based on many years of experience. We have proudly completed successful projects on most of the installations on the Norwegian continental shelf.

Some of our references are; Jotun FPSO, Johan Sverdrup, Statfjord, Troll, Heidrun, Åsgard B, Gullfaks, Gudrun, Castberg, Norne, Oseberg, Gullfaks, Eldfisk. Of the land-based facilities, we have delivered to Mongstad and Kollsnes.

An important feature of our noise houses is ease of use. All panels can be easily opened without the need for special tools, thanks to our clever design with two quick locks on each panel. This gives quick and easy access to the equipment inside the noise house, which is crucial in an offshore environment.

## MATERIALS:

For added durability and resistance to the demanding offshore conditions, we use high quality materials including Lean Duplex, Aisi 316 L and 5754 seawater resistant aluminium.

We also have solutions for galvanic separation of various materials.

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