



ANECHOIC BOX

Anechoic box is a small acoustic box for acoustic measurements. Unlike an anechoic chamber, it is not possible to make acoustic measurements in accordance with the ISO standards, however, correlative and comparative measurements are feasible by making corrections based on the master data acquired in the anechoic chamber.

In order to make acoustic measurements, acoustic analyzers such as sound level meter and FFT analyzer are used to inspect the acoustic characteristics and abnormal noises in small drive components, speakers, telecommunications equipment...etc.



Sonora Technology has developed anechoic box with extremely high sound insulating value, even higher than that of anechoic chamber. That allows to set a background noise in the box to a lower level. Depending on the installation environment, a single-digit background noise can be ensured. *OA3.5dB (actual value)

"No assembly work required"

Unlike an anechoic chamber, Anechoic box has the advantage that there is no need to do on-site construction. All you have to do is to carry in and install the anechoic box exported from Japan.

"Extensive customizability"

According to the measurement methods, Sonora Technology will suggest how to set up measurement targets and microphones. Various customization can be applied including sliding table, clumps for microphone, cable ports, lighting and coupling.

"Confidence backed up by our proven track record"

Sonora Technology has the largest market share as manufacturer of anechoic box in Japan. Since 2003, Sonora Technology has achieved to deal with 1,065 companies, mainly among major Japanese companies, and concluded with 3,348 deals during around 20 years.



| | Internal dimensions (mm) | External dimensions (mm) | | | |
|--------|--------------------------|----------------------------|--|--|--|
| TYPE-1 | W400×L450×H400 | W 850 × L850 × H850 | | | |
| TYPE-2 | W600×L650×H600 | W1050 × L1050 × H1050 | | | |
| TYPE-3 | W800×L850×H800 | W1250 × L1250 × H1250 | | | |
| TYPE-4 | W1000 × L1050 × H1000 | W1450 × L1450 × H1450 | | | |

| Sound insulating value (sound transmission loss) unit: dB | | | | | | | | | |
|---|------|-------|-------|------|-------|------|------|-------|--|
| Hz | 63 | 125 | 250 | 500 | 1 K | 2K | 4K | 8K | |
| Guaranteed value | (34) | 39 | 43 | 51 | 55 | 63 | 64 | 62 | |
| Actual measurement value | 46.2 | 44. 9 | 44. 7 | 61.8 | 64. 1 | 71.7 | 75.6 | 80. 1 | |

- Specialized baseplate (height-adjustable)
- Vibration isolation pad x four-point support
- Sound absorbing layer: AST sound absorbing material + rear-side sound absorbing layer
- Double-layer shielding sound insulation door: sound-absorbing structure from outer circumference wall
- Utility pipe: inner diameter 55 x 2 locations
- Suspension hook: M8×4 piece
- Sample fixing table: made of steel t4.5 with sound absorbing mat sheet
- Handle for sealing, operation grip
- Die-cast leaf hinge
- Adjuster, caster
- Eyebolt M20-24
- Baking coating: standard color (silver) or designated color



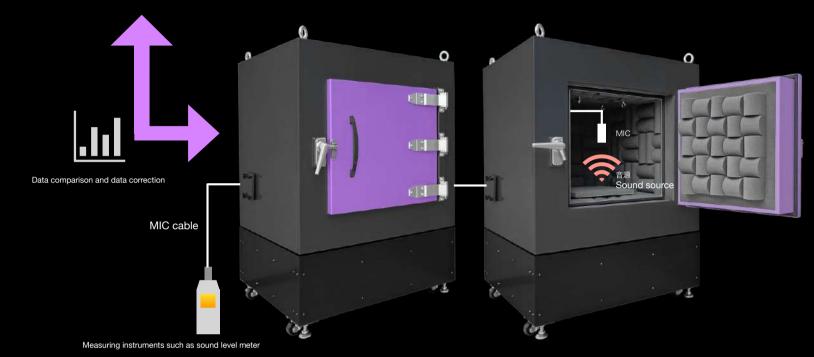
SONORA TECHNOLOGY JAPAN



Usage example of an anechoic box: it can be placed right next to the desk of person in charge of research and development. Since it has the same level of sound insulation performance as an anechoic chamber, it allows him/her to check quickly the correlation between its data and the master data acquired in the anechoic chamber. Using an anechoic box in combination with an anechoic chamber may accelerate efficiency of research and development, while the acquired data in the low frequency range will be different, since the volume and the thickness of sound absorbing layer differ from those of the anechoic chamber.

The difference of performance level calculated from the acquired data in an anechoic chamber can be used as an offset, which enable the data to correct the performance level measured in an anechoic box.

Since no standards nor clear criteria are defined unlike an anechoic chamber, an anechoic box is suitable to be used for the ancillary and simple purpose.









Additional door, additional utility pipe



Lighting , Clump for microphone, mesh ceiling, unburnable interior materials

xamples of optional materia



Special dimensions, detachable adjuster and caster



Coupling type



Customized table in accordance with samples and jigs



PARTIAL RECORD OF DELIVERY BY INDUSTRY

Transport Equipment:

- Toyota Motor
- Honda Motor
- Matsuda Motor
- Nissan Motor
- SUBARU
- Aisin Seiki
- Denso
- Toyota Boshoku
- Continental Automotive Japan
- Schaeffler Japan
- and others

Machinery:

- Mitsubishi Heavy Industries
- Kawasaki Heavy Industries
- IHI
- NTN
- Hitachi Construction Machinery
- NSK
- Caterpillar Japan
- THK
- Sinfonia Technology
- Nippon Seiki
- and others

Other Products:

- NHK
- NTT
- Electric Power Development
- TEPCO
- KEPCO
- Tocalo
- Kao
- YKK AP
- Yakult
- ENEOS
- and others

Electrical Equipment:

- Sony Group
- Panasonic
- Canon
- Mitsubishi Electric
- Toshiba
- Hitachi
- NIDEC
- NEC
- Konica Minolta
- Taiyo Yuden
- and others

Precision Equipment:

- Carl Zeiss
- Kurashiki Kako
- Hitachi High-Tech
- Nikon
- Kioxia
- Citizen HD
- Seiko HD
- Nippon Electronics
- Pixie Dust Technologies
- HOYA
- and others

Schools and government agencies:

- The University of Tokyo
- Keio University
- Kyoto University
- National Institute for Materials Science (NIMS)
- Foundation for Promotion of Material Science and Technology (MST)
- Japan Aerospace Exploration Agency (JAXA)
- National Traffic Safety and Environment Laboratory (NTSEL)
- RIKEN
- National Institute of Advanced Industrial Science and Technology (AIST)
- Chemicals Evaluation and Research Institute (CERI)
- and others

#1 Dimensions of anechoic box, measurement target, setting of the measurement methods

- The required distance from the measurement target till the microphone, when the object is placed in an anechoic box.
- The frequency of the measurement target, measured sound pressure level (basically the background noise in an anechoic box subtracted 10dB from the measured sound pressure level is required.)

#2 Information on planned installation site

Where the anechoic box is installed:

- Floor loading capacity (kg/m2)
- Which floor: first floor or second floor or?
- Vibration data on the floor surface: dB, Hz *if no such data is available, we will set the guaranteed sound insulating value.
- On-site acoustic data: dB, Hz *if no such data is available, we will set the guaranteed sound insulating value.
- On-site carry-in route: such as size and capacity of the elevator, gap in the steps
- Unloading conditions: such as conditions when unloading the anechoic box from the truck

#3 Information on ancillary equipment

- Acoustic measuring instrument, methods for measurement
- Ancillary equipment inside/outside anechoic box: such as sliding table, cable port, lighting

#4 Terms and conditions of transaction

- Guaranteed performance value: guaranteed sound insulating value, guaranteed value of background noise
- Delivery date
- Payment conditions
- Required documents

The following service is provided free of charge:

- Quotations, conception drawings, specifications
- Meetings

For further clarification, please feel free to contact us.

- In case of no available data
- Selection of measuring instruments
- Distributor or agent
- and other requirements



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