

**FEATURES:**

- **Acoustically Controlled Test Environment**
- **Survey and/or Engineering Grade Design**
- **Applicable Test Standards:**
  - ISO 3744
  - ISO 3746
  - ISO 532B
  - ISO 11201
  - GM W7293



*Acoustic Systems Small Device Test Enclosure  
Shown With Optional Equipment*

**ETS-Lindgren's Acoustic Systems  
Small Device (SD) Test Enclosures**

provide a free-field environment for making survey and engineering grade measurements on small devices. SD test enclosures are an affordable option when precision grade testing is not required, including testing the acoustic (sound power, sound pressure) levels of automotive components, computer hard drives, fans, pumps, and small mechanical and electric assemblies.

Testing can be conducted using either a single microphone, or a small array of microphones. SD enclosures can also be used with vibration test equipment when required. Four sizes of SD enclosures are available to accommodate most small test objects.

**FEATURES  
Controlled Test Environment**

The SD series isolates and controls acoustic energy to provide the ideal testing environment of small electronics, including computer

equipment, hearing aids and automotive components.

**Survey/Engineering Grade Design**

With minimum 10.2 cm (4") thick acoustic walls and sound absorbing floor and ceiling, the SD test enclosures are ideal for making survey and engineering level measurements on small devices.

**Applicable Test Standards**

SD series test enclosures meet ISO 3744, ISO 3746, ISO 532B, ISO 11201, GM W7293, and test standards.

**APPLICATIONS**

- Automotive Components
- Quality Assurance/Comparative Analysis
- Testing of Telephone Handsets or Mounted Transducers for Noise Quality
- Insertion Measurements of Hearing Aids
- Evaluation Testing of Microphones or Preamplifiers for Noise Cancellation, Conductivity and Noise Emissions

- Testing Noise Emissions of Small Parts or Components
- Head & Torso Testing (SD3) Computer Components
- IT Product Noise Testing

**STANDARD CONFIGURATION**

- Acoustic Walls, Ceiling, and Floor
- Sound Absorbing Perforated Steel Interior (Walls and Ceiling)
- Panelized Floor (Reflective)
- Floor Vibration Rails, SD2 & SD3
- Floor Vibration Pads, SD & SD1
- Cable Ports
  - 1 ea. 5.1 cm (2 in.)
  - 1 ea. 2.5 cm (1 in.)
- Acoustic Door with Window

**OPTIONS**

- Test Stands (Not Available on SD3)
- Absorptive Mini Wedges
- Interior Perforated Floor
- Stainless Steel Liner
- Light
- Ventilation Silencers (SD3 only)

### PRODUCT FEATURES AND OPTIONS

| MODEL # | CHAMBER DIMS OUTSIDE (L x W x H)                             | CHAMBER DIMS INSIDE (L x W x H)                              | FEATURES   | OPTIONS  | APPLICATIONS   | SOME APPLICABLE STANDARDS   |
|---------|--|--|--|--|--|---|
| SD      | 91.4 cm x 86.4 cm x 91.4 cm<br>(36 in. x 34 in. x 36 in.)    | 71.1 cm x 66.0 cm x 71.1 cm<br>(28 in. x 26 in. x 28 in.)    | For Testing > 500 Hz<br>Solid Steel Floor<br>Cable Ports (2)<br>Vibration Pads (4)<br>AS-A504 Walls  | Test Stand<br>5.1 cm (2 in.) Melamine Foam<br>Perforated Interior Floor Skin<br>Stainless Steel Liner<br>Light (1) | Quality Control<br>Comparative Analysis  | ISO 3744<br>ISO 3746<br>ISO 532B<br>ISO 11201                       |
| SD1     | 111.8 cm x 111.8 cm x 111.8 cm<br>(44 in. x 44 in. x 44 in.) | 91.4 cm x 91.4 cm x 91.4 cm<br>(36 in. x 36 in. x 36 in.)    | For Testing > 500 Hz<br>Solid Steel Floor<br>Cable Ports (2)<br>Vibration Pads (4)<br>AS-A504 Walls  | Test Stand<br>5.1 cm (2 in.) Melamine Foam<br>Perforated Interior Floor Skin<br>Stainless Steel Liner<br>Light (1) | Sound Power and<br>Sound Pressure of<br>Auto Parts,<br>Computer Parts, and<br>Small Parts      | ISO 3744<br>ISO 3746<br>ISO 532B<br>ISO 11201<br>GMW7293            |
| SD2     | 152.4 cm x 152.4 cm x 162.6 cm<br>(60 in. x 60 in. x 64 in.) | 121.9 cm x 121.9 cm x 132.1 cm<br>(48 in. x 48 in. x 52 in.) | For Testing > 500 Hz<br>Solid Steel Floor<br>Cable Ports (2)<br>Vibration Rails (2)<br>AS-A506 Walls | Test Stand<br>5.1 cm (2 in.) Melamine Foam<br>Perforated Interior Floor Skin<br>Stainless Steel Liner<br>Light (1) | Engineering Test of<br>Small Parts   | ISO 3744<br>ISO 3746<br>ISO 532B<br>ISO 11201<br>GMW7293<br>MS14011 |
| SD3     | 127 cm x 127 cm x 241.3 cm<br>(50 in. x 50 in. x 95 in.)     | 106.7 cm x 106.7 cm x 213.4 cm<br>(42 in. x 42 in. x 84 in.) | For Testing > 250 Hz<br>Solid Steel Floor<br>Cable Ports (2)<br>Vibration Rails (2)<br>AS-A504 Walls | 5.1 cm (2 in.) Melamine Foam<br>Verification Silencers<br>Light (1)  | Head & Torso Testing<br>Speech Intelligibility<br>Codec Scoring<br>End to End Signal Integrity | ISO 3744<br>ISO 3746<br>ISO 532B<br>ISO 11201                       |

### PHYSICAL SPECIFICATIONS

| MODEL # | CHAMBER DIMS OUTSIDE (L x W x H)                             | CHAMBER DIMS INSIDE (L x W x H)                              | ESTIMATED WEIGHT (L X W) | DOOR DIMS (L X W)                       | WINDOW DIMS (L X W)                    | PANEL TYPE AND DEPTH       |
|---------|--|--|--------------------------|---|--|----------------------------|
| SD      | 91.4 cm x 86.4 cm x 91.4 cm<br>(36 in. x 34 in. x 36 in.)    | 71.1 cm x 66.0 cm x 71.1 cm<br>(28 in. x 26 in. x 28 in.)    | 352.9 kg.<br>778 lbs.    | 61.0 cm x 50.8 cm<br>(24 in. x 20 in.)  | 30.5 cm x 30.5 cm<br>(12 in. x 12 in.) | AS-A504<br>10.2 cm (4 in.) |
| SD1     | 111.8 cm x 111.8 cm x 111.8 cm<br>(44 in. x 44 in. x 44 in.) | 91.4 cm x 91.4 cm x 91.4 cm<br>(36 in. x 36 in. x 36 in.)    | 618.2 kg.<br>1363 lbs.   | 61.0 cm x 61.0 cm<br>(24 in. x 24 in.)  | 30.5 cm x 30.5 cm<br>(12 in. x 12 in.) | AS-A504<br>10.2 cm (4 in.) |
| SD2     | 152.4 cm x 152.4 cm x 162.6 cm<br>(60 in. x 60 in. x 64 in.) | 121.9 cm x 121.9 cm x 132.1 cm<br>(48 in. x 48 in. x 52 in.) | 872.3 kg<br>1923 lbs.    | 91.4 cm x 91.4 cm<br>(36 in. x 36 in.)  | 30.5 cm x 30.5 cm<br>(12 in. x 12 in.) | AS-A506<br>15.2 cm (6 in.) |
| SD3     | 127 cm x 127 cm x 241.3 cm<br>(50 in. x 50 in. x 95 in.)     | 106.7 cm x 106.7 cm x 213.4 cm<br>(42 in. x 42 in. x 84 in.) | 1123.1 kg<br>2476 lbs.   | 81.3 cm x 203.2 cm<br>(32 in. x 80 in.) | 50.8 cm x 76.2 cm<br>(20 in. x 30 in.) | AS-A504<br>10.2 cm (4 in.) |

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