

# DIN EN ISO 6926:2016-08 (E)

## Acoustics - Requirements for the performance and calibration of reference sound sources used for the determination of sound power levels (ISO 6926:2016)

---

<b>Contents</b>		<b>Page</b>
European foreword .....		4
Foreword .....		5
Introduction .....		6
<b>1</b>	<b>Scope</b> .....	<b>7</b>
<b>2</b>	<b>Normative references</b> .....	<b>8</b>
<b>3</b>	<b>Terms and definitions</b> .....	<b>8</b>
<b>4</b>	<b>Reference meteorological conditions</b> .....	<b>10</b>
<b>5</b>	<b>Performance requirements</b> .....	<b>11</b>
5.1	General .....	11
5.2	Temporal steadiness (stability) of sound power output .....	11
5.3	Total broadband sound power level .....	11
5.4	Spectral characteristics .....	11
5.5	Directivity .....	12
5.6	Recalibration .....	12
<b>6</b>	<b>Instrumentation</b> .....	<b>13</b>
6.1	General .....	13
6.2	Microphone in a hemi-anechoic room .....	13
6.3	Microphone in a reverberation test room .....	13
6.4	Microphone frequency response correction .....	13
6.5	Verification .....	14
6.6	Microphone calibration check .....	14
<b>7</b>	<b>Installation and operation of the reference sound source during calibration</b> .....	<b>14</b>
7.1	General .....	14
7.2	Requirements in hemi-anechoic rooms .....	15
7.3	Requirements in reverberation rooms .....	15
<b>8</b>	<b>Calibration procedure in hemi-anechoic rooms</b> .....	<b>15</b>
8.1	Test environment .....	15
8.2	Microphone positions .....	15
8.2.1	General .....	15
8.2.2	Meridional paths .....	15
8.2.3	Spiral path .....	15
8.2.4	Fixed point array .....	15
8.2.5	Coaxial circular paths .....	15
8.3	Measurements .....	16
8.3.1	General .....	16
8.3.2	Directivity index .....	16
8.3.3	Temporal steadiness .....	16
8.4	Calculations .....	17
<b>9</b>	<b>Calibration procedure in reverberation test rooms</b> .....	<b>18</b>
9.1	Test environment .....	18
9.2	Microphone positions .....	18
9.3	Measurements .....	18
9.3.1	General .....	18
9.3.2	Temporal steadiness .....	19
9.4	Calculations .....	19

<b>10</b>	<b>Alternative calibration procedure at low frequencies</b> .....	<b>19</b>
<b>11</b>	<b>Measurement uncertainty</b> .....	<b>19</b>
11.1	General .....	19
11.2	Typical values of the reproducibility standard deviation .....	20
<b>12</b>	<b>Information to be recorded</b> .....	<b>21</b>
<b>13</b>	<b>Information to be reported</b> .....	<b>21</b>
<b>Annex A</b> (informative)	<b>Guidance on the determination of <math>C_2</math></b> .....	<b>22</b>
<b>Annex B</b> (normative)	<b>Alternative calibration procedure at low frequencies</b> .....	<b>24</b>
<b>Bibliography</b> .....		<b>25</b>