

ISO 3744:2010-10 (E)

Acoustics - Determination of sound power levels and sound energy levels of noise sources using sound pressure - Engineering methods for an essentially free field over a reflecting plane

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	2
3	Terms and definitions	2
4	Test environment	8
5	Instrumentation	11
6	Definition, location, installation, and operation of noise source under test	12
7	Reference box and measurement surface	14
8	Determination of sound power levels and sound energy levels	18
9	Measurement uncertainty	26
10	Information to be recorded	29
11	Test report	31
	Annex A (normative) Qualification procedures for the acoustic environment	32
	Annex B (normative) Microphone arrays on a hemispherical measurement surface	37
	Annex C (normative) Microphone arrays on a parallelepiped measurement surface	44
	Annex D (informative) Microphone arrays on a cylindrical measurement surface	55
	Annex E (normative) Calculation of A-weighted sound power levels and A-weighted sound energy levels from frequency band levels	59
	Annex F (normative) Alternative microphone array on a hemispherical measurement surface for direct measurements of A-weighted sound pressure levels	61
	Annex G (normative) Sound power level and sound energy level under reference meteorological conditions	64
	Annex H (informative) Guidelines on the development of information on measurement uncertainty	66
	Bibliography	77