

DIN EN 14366-1:2023-09 (E)

Laboratory measurement of airborne and structure-borne sound from service equipment - Part 1: Application rules for waste water installations

Contents		Page
European foreword.....		4
Introduction		5
1 Scope.....		6
2 Normative references.....		6
3 Terms and definitions		7
4 Symbols.....		8
5 Measuring method.....		9
5.1 Airborne sound measurements.....		9
5.2 Structure borne sound measurements		10
5.2.1 General.....		10
5.2.2 Calibration of the test facilities.....		10
5.2.3 Indirect procedures for testing the specimen		11
5.2.4 Specimen free velocity direct measurement.....		12
5.2.5 Specimen single equivalent mobility estimation		12
6 Equipment		13
6.1 Requirements for the frequency range of measurement		13
6.2 Requirements for the acoustic equipment		13
6.3 Requirements for the hydraulic equipment.....		13
6.4 Requirements for the vibration measuring equipment.....		13
7 Test facilities.....		14
7.1 Construction requirements.....		14
7.1.1 Test room		14
7.1.2 Test wall		14
7.2 Acoustic requirements.....		14
8 Test specimen.....		14
8.1 Geometry.....		14
8.1.1 Components		14
8.1.2 Falling height h		14
8.1.3 Standard configuration.....		14
8.1.4 Other configurations considered		16
8.2 Mounting of the specimen.....		16
8.2.1 General.....		16
8.2.2 Requirements for airborne sound measurement		16
8.2.3 Requirements for the standard configuration		16
9 Expression of the results		17
9.1 General.....		17
9.2 For use in comparing products and materials.....		17
9.2.1 General.....		17
9.2.2 Single number descriptor for airborne sound.....		18
9.2.3 Single number descriptor for structure-borne sound		18
9.3 For use in predicting equipment sound pressure levels in buildings.....		19
9.4 Summary		19
10 Accuracy		19

11	Test report	20
Annex A	(normative) Cases of vertical pipes with offset and horizontal pipes.....	22
A.1	General	22
A.2	Vertical pipes with offset	22
A.3	Horizontal pipes.....	22
Annex B	(normative) Test procedures for piping system mitigation measures.....	26
B.1	General	26
B.2	Mitigation measure characterization.....	26
B.2.1	Pipe enclosure (technical shaft).....	26
B.2.2	Pipe lining.....	28
B.3	Single number descriptor for mitigation measures.....	29
B.4	Test results for mitigation measures	29
B.4.1	Pipe enclosure	29
B.4.2	Pipe lining.....	29
Annex C	(informative) Link from EN 14366:2004+A1:2019 to EN 14366-1	31
Bibliography	32