

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