DIN EN 12050-3:2015-08 (E)

Wastewater lifting plants for buildings and sites - Part 3: Lifting plants for limited applications

Contents

Page

Foreword 4

1 Scope 5

2 Normative references 5

3 Terms, definitions, symbols and abbreviations 6
3.1 Terms and definitions 6
3.2 Symbols and abbreviations 6
3.2.1 Symbols 6
3.2.2 Abbreviations 7

4 Material and product characteristics 7
4.1 Materials 7
4.2 Mechanical resistance 7
4.3 Watertightness 7
4.4 Odourtightness 7
4.5 Lifting effectiveness 7
4.5.1 General 7
4.5.2 Pipe connections 8
4.5.3 Ventilation 8
4.5.4 Minimum flow velocity 8
4.5.5 Minimum free ball passage of the plant 9
4.5.6 Minimum size of discharge pipework 9
4.6 Control equipment 9
4.7 Electrical equipment 9
4.8 Fixing devices 10
4.9 Reaction to fire 10
4.9.1 General 10
4.9.2 Plants classified as Class A1 without the need for testing 10
4.9.3 Plants classified according to test results 10
4.10 Noise level 11
4.11 Durability 11
4.11.1 General 11
4.11.2 Durability of watertightness and odourtightness 11
4.11.3 Durability of lifting effectiveness 11
4.11.4 Durability of mechanical resistance 12
4.12 Dangerous substances 12

5 Testing 12
5.1 General 12
5.2 Testing for hydraulic performance 12
5.3 Tightness testing 12
5.3.1 Water pressure test 12
5.3.2 Odourtightness of faecal lifting plants 12
5.3.3 Discharge pipe connection 13
5.4 Lifting effectiveness of lifting plants for limited applications for wastewater containing faecal matter 13
5.4.1 Pumping of solids 13
5.4.2 Test procedure 14
5.4.3 Completion of test 14
5.4.4 Maximum inflow 14

5.4.5 Additional connections 14
5.4.6 Device for preventing backflow (if fitted) 14
5.5 Lifting effectiveness of lifting plants for limited applications for faecal free wastewater 15
6 Assessment and verification of constancy of performance - AVCP 15
6.1 General 15
6.2 Type testing 16
6.2.1 General 16
6.2.2 Test samples, testing and compliance criteria 16
6.2.3 Test reports 17
6.2.4 Shared other party results 17
6.2.5 Cascading determination of the product type results 18
6.3 Factory production control (FPC) 19
6.3.1 General 19
6.3.2 Requirements 19
6.3.3 Product specific requirements 23
6.3.4 Initial inspection of factory and of FPC [only for products covered by AVCP system 1] 23
6.3.5 Continuous surveillance of FPC [only for products covered by AVCP system 1] 24
6.3.6 Procedure for modifications 24
6.3.7 One-off products, pre-production products (e.g. prototypes) and products produced in very low quantity 24
7 Marking, labelling and packaging 25
7.1 Manufacturer's declaration 25
7.2 Marking 25
8 Manufacturer's instructions for installation, operation and maintenance 26
Annex A (informative) Recommended materials 27
Annex ZA (informative) Clauses of this European Standard addressing the provisions of the EU Construction Products Regulation 28
ZA.1 Scope and relevant characteristics 28
ZA.2 Procedure for AVCP of Wastewater lifting plants for limited applications 30
ZA.2.1 System(s) of AVCP 30
ZA.2.2 Declaration of performance (DoP) 32
ZA.2.2.1 General 32
ZA.2.2.2 Content 33
ZA.2.2.3 Example of DoP 33
ZA.3 CE marking and labelling 35
Bibliography 39