DIN EN 14957:2010-11 (E)

Food processing machinery - Dishwashing machines with conveyor - Safety and hygiene requirements (includes Amendment A1:2010)

Contents

Page

Foreword 4

Introduction 5

1 Scope 6

2 Normative references 6

3 Terms, definitions and description 7
3.1 Terms and definitions 7
3.2 Description 8

4 List of significant hazards 9
4.1 General 9
4.2 Mechanical hazards 9
4.3 Electrical hazards 10
4.4 Thermal hazards 11
4.5 Chemical hazards 11
4.6 Hazards generated by neglecting hygiene principles in machine design 11
4.7 Hazards generated by neglecting ergonomic principles 11
4.8 Hazard from loss of stability 11

5 Safety and hygiene requirements and/or protective measures 11
5.1 General 11
5.2 Mechanical hazards 12
5.3 Electrical hazards 15
5.4 Thermal hazards 16
5.5 Chemical hazards 16
5.6 Hygiene 16
5.7 Ergonomics 16
5.8 Hazard from loss of stability 16

6 Verifications of safety and hygiene requirements and/or protective measures 17

7 Instruction for use 17
7.1 General 17
7.2 Instruction handbook 18
7.3 Marking 19

Annex A (normative) Noise test code for dishwashing machines with conveyor (Grade 2) 21

A.1 Emission sound pressure level determination 21
A.2 Installation and mounting conditions 21
A.3 Operating conditions 21
A.4 Measurement 22
A.5 Measurement uncertainties 22
A.6 Information to be recorded 22
A.7 Information to be reported 22
A.8 Declaration and verification of noise emission values 22

Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC 24

Annex ZB (informative) !Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC" 25

Bibliography 26

Figures Figure 1 -- Types of dishwashing machines 9

Figure 2 -- Hazards zones 10

Figure 3 -- Flight type machine - Zone 1 12

Figure 4 -- Reciprocating rack conveyor device 13

Figure 5 -- Safety distance for a flight type machine 14

Figure 6 -- Safety distance for a rack conveyor type machine 14

Figure A.1 -- Microphone positions 21

Tables Table 1 -- Methods of verifications 17