DIN EN 13621:2011-02 (E)

Food processing machinery - Salad dryers - Safety and hygiene requirements (includes Amendment A1:2010)

Contents

Page

Foreword 4

Introduction 5

1 Scope 6

2 Normative references 6

3 Terms and definitions – Description 7
3.1 Terms and definitions 7
3.2 Description 7
3.2.1 Classes of machines 7
3.2.2 Principal elements of a salad dryer: 8

4 List of significant hazards 8
4.1 General 8
4.2 Mechanical hazards 9
4.2.1 Access to the danger zones 9
4.2.2 Loss of stability 10
4.2.3 Incorrect assembly and fitting 10
4.2.4 Inadequacy of mechanical strength 10
4.3 Electrical hazards 10
4.4 Hazards generated by neglecting hygiene in machine design 10
4.5 Hazards generated by neglecting ergonomic principles in machine design 10

5 Safety and hygiene requirements and/or measures 10
5.1 General 10
5.2 Mechanical hazards 11
5.2.1 General 11
5.2.2 Access to the danger zones 11
5.2.3 Stability 12
5.2.4 Assembly and fitting 12
5.2.5 Inadequacy of mechanical strength 12
5.3 Electrical hazards 12
5.3.1 General 12
5.3.2 Safety requirements related to electromagnetic phenomena A1 *deleted text* A1 12
5.3.3 Protection against electric shock 12
5.3.4 Power circuits A1 *deleted text* A1 12
5.3.5 A1 Protection against earth faults in control circuits A1 13
5.3.6 A1 Emergency stop A1 13
5.3.7 A1 Motor enclosures A1 13
5.4 Hygiene 13
5.4.1 General 13
5.4.2 Food area 13
5.4.3 Splash area 14
5.4.4 Non food area 14
5.4.5 Surface finish 14
5.4.6 Cleanability 14
5.5 Ergonomics 15

6 Verification of the safety and hygiene requirements and/or measures 15

7 Information for use 16
7.1 General 16
7.2 Instruction handbook 16
7.3 Marking 18

Annex A (normative) Noise test code for salad dryers (Grade 2) 19
A.1 Emission sound pressure level determination 19
A.2 Installation and mounting conditions 19
A.3 Operating conditions 19
A.4 Measurement 19
A.5 Measurement uncertainties 19
A.6 Information to be recorded 20
A.7 Information to be reported 20
A.8 Declaration and verification of noise emission values 20

Annex B (normative) Additional principles of design to ensure the cleanability of salad dryers 21
B.1 Terms and definitions 21
B.2 Materials of construction 21
B.3 Design 22
B.3.1 Connections of internal surfaces 22
B.3.2 Surface assemblies and overlaps 26
B.3.3 Attaching means 31
B.3.4 Feet, support and bases for cleaning the machines underneath 32
B.3.5 Ventilation openings 37
B.3.6 Hinges 37
B.3.7 Control panel 38
B.4 Verification 39
B.4.1 Materials 39
B.4.2 Design 39
B.5 Information for use 40
B.5.1 Installation handbook 40
B.5.2 Instruction handbook 40
B.5.3 Maintenance handbook 40

Annex ZA (informative) A1 Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC A1 41

Annex ZB (informative) A1 Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC A1 42

Bibliography 43