DIN EN 15861:2012-09 (E)

Food processing machinery - Smokehouses - Safety and hygiene requirements

Contents

Page

Foreword 4

Introduction 5

1 Scope 6
1.1 Requirements 6
1.2 Types 6

2 Normative references 7

3 Terms and Definitions 8

4 List of significant hazards 9
4.1 General 9
4.2 Mechanical hazards 10
4.3 Electrical hazards 11
4.4 Hydraulic and pneumatic hazards 11
4.5 Hazards from loss of stability 11
4.6 Noise hazard 11
4.7 Hazards from non-compliance with ergonomic principles during construction 11
4.8 Hazards from non-compliance with hygiene principles 12
4.9 Thermal hazards 12
4.9.1 Hazards from hot surfaces 12
4.9.2 Hazards from hot steam 12
4.10 Being enclosed 12
4.11 Explosion hazards 12
4.12 Hazards from chemical materials and agents 12
4.13 Hazards from slipping, tripping and falling 12

5 Safety and hygiene requirements and/or protective measures 13
5.1 General 13
5.2 Mechanical installation 13
5.2.1 General 13
5.2.2 Measures for particular danger zones 13
5.3 Electrical installation 14
5.3.1 General 14
5.3.2 Emergency stop 14
5.3.3 Protection against water ingress 14
5.4 Hydraulic and pneumatic installations 14
5.5 Hazards from loss of stability 15
5.6 Noise reduction 15
5.7 Ergonomic requirements 15
5.8 Hygiene and cleaning 15
5.8.1 Design 15
5.8.2 Food area 16
5.8.3 Splash area 16
5.8.4 Non-food area 16
5.8.5 Surface condition 17
5.8.6 Cleaning and disinfecting 17
5.9 Measures against high temperatures and hot steam 17
5.10 Measures against being enclosed 17
5.11 Explosion prevention measures 17

5.11.1 General 17
5.11.2 Smokehouses with open system and saw dust/wood chip smoke generator or friction smoke generator: 18
5.11.3 Smokehouses with open system and saw dust/wood chip smoke generation and only thermic buoyancy: 18
5.11.4 Smokehouses with open system and steam smoke generator: 18
5.11.5 Smokehouses with re-circulated system: 19
5.12 Measures against chemical materials and agents 19

6 Verification of safety and hygiene requirements and/or protective measures 19

7 Information for use 20
7.1 General 20
7.2 Manual 21
7.3 Marking 22

Annex A (normative) Noise test code for smokehouses (grade 2) 23

A.1 Determination of the emission sound pressure level 23
A.2 Installation and mounting conditions 23
A.3 Operating conditions 23
A.4 Measurement 23
A.5 Measurement uncertainty 24
A.6 Information to be recorded 24
A.7 Information to be reported 24
A.8 Declaration and verification of the noise emission values 25

Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC 26

Bibliography 27

Figure Figure 1 -- Danger zones of smokehouses 10

Figure 2 -- Hygiene areas on smokehouses 16

Table Table 1 20