

# DIN EN 13885:2011-02 (E)

## Food processing machinery - Clipping machines - Safety and hygiene requirements (includes Amendment A1:2010)

---

<b>Contents</b>		<b>Page</b>
Foreword .....		4
Introduction .....		5
<b>1</b>	<b>Scope .....</b>	<b>6</b>
1.1	This European Standard applies to clipping machines .....	6
1.2	This European Standard covers the following types of machines: .....	6
1.3	Description .....	8
1.4	Intended use .....	9
<b>2</b>	<b>Normative references .....</b>	<b>9</b>
<b>3</b>	<b>Terms and definitions .....</b>	<b>10</b>
<b>4</b>	<b>List of significant hazards .....</b>	<b>12</b>
4.1	General .....	12
4.2	Mechanical hazards .....	12
4.3	Electrical hazards .....	16
4.4	Pneumatic hazards .....	16
4.5	Hazards generated by loss of stability .....	16
4.6	Hazards generated by noise .....	16
4.7	Hazards generated by neglecting ergonomic principles .....	16
4.8	Hazards generated by not neglecting hygienic principles .....	17
<b>5</b>	<b>Safety and hygiene requirements and/or protective measures .....</b>	<b>17</b>
5.1	General .....	17
5.2	Mechanical hazards .....	17
5.3	Electrical hazards .....	25
5.4	Pneumatic hazards .....	28
5.5	Hazards generated by loss of stability .....	28
5.6	Noise reduction .....	28
5.7	Ergonomic requirements .....	28
5.8	Hygiene and cleaning .....	28
<b>6</b>	<b>Verification of safety and hygiene requirements and/or protective measures .....</b>	<b>30</b>
<b>7</b>	<b>Information for use .....</b>	<b>31</b>
7.1	General .....	31
7.2	Instruction handbook .....	31
7.3	Training of operators .....	33
7.4	Marking .....	33
<b>Annex A (normative)</b>	<b>Noise test code for clipping machines (grade 2) .....</b>	<b>35</b>
<b>Annex B (normative)</b>	<b>Design principles to ensure cleanability of clipping machines .....</b>	<b>37</b>
<b>Annex C (normative)</b>	<b>Common hazards for food processing machines and reduction requirements applicable to clipping machines .....</b>	<b>42</b>
<b>Annex ZA (informative)</b>	<b>!Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC" .....</b>	<b>44</b>

<b>Bibliography .....</b>	<b>45</b>
---------------------------	-----------

**Figures**

<b>Figure 1 — Machine with removal by fixed clip guide.....</b>	<b>7</b>
<b>Figure 2 -- Machine with removal by movable clip guide .....</b>	<b>7</b>
<b>Figure 3 -- Machine with spread-removal .....</b>	<b>8</b>
<b>Figure 4 -- Spread-removal - detail .....</b>	<b>8</b>
<b>Figure 5 -- Clipping machine with fixed clip guide .....</b>	<b>12</b>
<b>Figure 6 -- Clipping machine with movable clip guide .....</b>	<b>13</b>
<b>Figure 7 -- Floor machine - Danger zones .....</b>	<b>14</b>
<b>Figure 8 -- Added or integrated machines .....</b>	<b>15</b>
<b>Figure 9 -- Table top machine with fixed clip guide .....</b>	<b>18</b>
<b>Figure 10 -- Section A/A .....</b>	<b>18</b>
<b>Figure 11 -- Section A/A with fixed protection beading .....</b>	<b>19</b>
<b>Figure 12a -- Clipping machine with movable clip guide - removal open .....</b>	<b>20</b>
<b>Figure 12b -- Clipping machine with movable clip guide - removal shut .....</b>	<b>20</b>
<b>Figure 12 -- Clipping machine with movable clip guide in different positions .....</b>	<b>20</b>
<b>Figure 13 -- Infeed and outfeed side at clipping machines with protection bars .....</b>	<b>22</b>
<b>Figure 14 -- Infeed- and outfeedside at clipping machines with protection hood .....</b>	<b>23</b>
<b>Figure 15 -- Position of actuation devices .....</b>	<b>24</b>
<b>Figure 16 -- ON/OFF-switch with hood .....</b>	<b>26</b>
<b>Figure 17 -- Hygiene areas .....</b>	<b>29</b>
<b>Figure B.1 -- Smooth surfaces - food area .....</b>	<b>37</b>
<b>Figure B.2 -- Angles and radii in the food area .....</b>	<b>38</b>
<b>Figure B.3 -- Angles in the food area .....</b>	<b>39</b>
<b>Figure B.4 -- Intersecting surfaces in the food area .....</b>	<b>39</b>
<b>Figure B.5 -- Admissible fasteners - head profiles .....</b>	<b>40</b>
<b>Figure B.6 -- Castors - dimensions examples .....</b>	<b>41</b>