



Method sheet: Packaging technology – Shrink Packer
Sheet no.: 050701 – 1.01
Date: June 2008

Machine: Shrink Packer
Criteria: Shape and position of the product group

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Shape and position of the product group

1. Definition: Machine and Criteria

An important parameter of a shrink packer is the accuracy of the formed packages. If the used film fulfils the specifications prescribed by the manufacturer of the shrink packer, the produced packets have to be in a tolerance range as explained later.

For all actions the relevant safety instructions must be strictly adhered to.

Further related documents:

free

2. Inspection

2.1 Scope

Detection of the deviation of shape and position of product groups of shirked packets to a set range by means of a ruler.

2.2 Apparatus

Ruler or sliding calliper with a precision better than ± 0.01 mm. A visual inspection of the used measurement devices by a person is necessary.

2.3 Procedure

The shrink packer random samples have to be taken. The assessment threshold is the interface between the shrink tunnel exit and the downstream conveyor. The packets have to be checked accurately.

The following parameters are recommended:

Variable	A	=	Length of product group in MD
Variable	B	=	Width of product group in CD
Variable	C	=	Height of product group
Variable	D	=	Tolerance for "nested"
Variable	E	=	Tolerance for "angularity CD"
Variable	F	=	Tolerance for "angularity MD"
Variable	G	=	Tolerance for "centricity of the bull's eye"
Variable	H	=	Tolerance for "centric of the film MD front and rear"
Variable	I	=	Tolerance for "centricity of the film MD top"

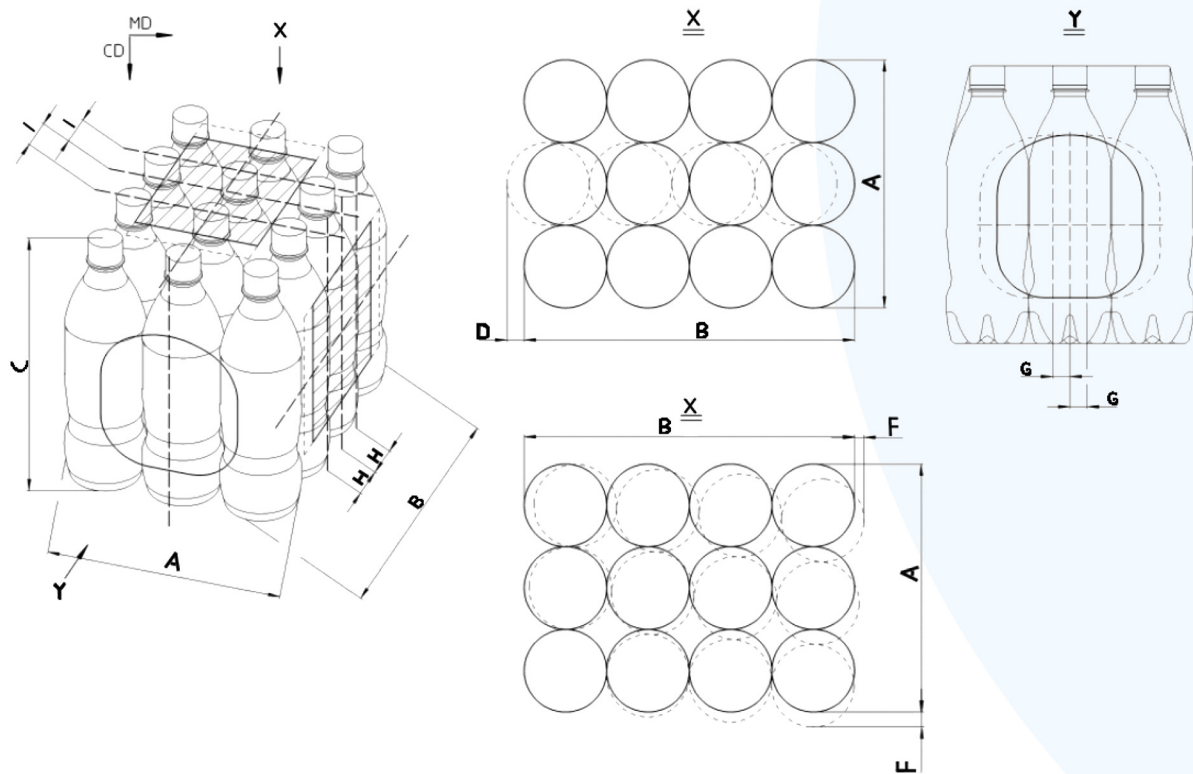


Fig. 01: Parameters concerning shape and position of a product group

3. Sampling

To check the accuracy of formed packages, samples are needed. Samples have to be taken after 15 minutes of production in standard operation and at nominal capacity.

Quantity of samples: 100 Packs.

The film should be cold and stable after the hot shrink tunnel.

3.1 Calculation

Free



3.2 Results and data sheets

3.2.1 Data sheet part (I /III)

Date: _____ Site: _____ Line: _____

Product parameters:

Product: _____

Type of container (can, PET bottle, glass bottle e.g.) _____

Fill in the measured result in [mm] for all variables shown in figure 1.

Number	A	B	C	D	E	F	G	H	I
1									
2									
3									
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23									
24									
25									



3.2.1 Data sheet part (II /III)

Number	A	B	C	D	E	F	G	H	I
26									
27									
28									
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30									
31									
32									
33									
34									
35									
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59									
60									



3.2.3 Data sheet part (III /III)

Number	A	B	C	D	E	F	G	H	I
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62									
63									
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98									
99									
100									



4. Evaluation and Documentation

4.1 Evaluation

Variable A length min = _____ mm
 Variable A length max = _____ mm
 Variable A set = _____ mm
 Variable A _(length min) _____ \geq _____ Variable A _(detected) \leq _____ Variable A _(length max)

Variable B width min = _____ mm
 Variable B width max = _____ mm
 Variable B set = _____ mm
 Variable B _(width min) _____ \geq _____ Variable B _(detected) \leq _____ Variable B _(width max)

Variable C height min = _____ mm
 Variable C height max = _____ mm
 Variable C set = _____ mm
 Variable C _(height min) _____ \geq _____ Variable C _(detected) \leq _____ Variable C _(height max)

Variable D tolerance min = _____ mm
 Variable D tolerance max = _____ mm
 Variable D set = _____ mm
 Variable D _(tolerance min) _____ \geq _____ Variable D _(detected) \leq _____ Variable D _(tolerance max)

Variable E tolerance min = _____ mm
 Variable E tolerance max = _____ mm
 Variable E set = _____ mm
 Variable E _(tolerance min) _____ \geq _____ Variable E _(detected) \leq _____ Variable E _(tolerance max)

Variable F tolerance min = _____ mm
 Variable F tolerance max = _____ mm
 Variable F set = _____ mm
 Variable F _(tolerance min) _____ \geq _____ Variable F _(detected) \leq _____ Variable F _(tolerance max)



Variable G tolerance min = _____ mm

Variable G tolerance max = _____ mm

Variable G set = _____ mm

Variable G (tolerance min) _____ \geq _____ Variable G (detected) \leq _____ Variable G (tolerance max)

Variable H tolerance min = _____ mm

Variable H tolerance max = _____ mm

Variable H set = _____ mm

Variable H (tolerance min) _____ \geq _____ Variable H (detected) \leq _____ Variable H (tolerance max)

Variable I tolerance min = _____ mm

Variable I tolerance max = _____ mm

Variable I set = _____ mm

Variable I (tolerance min) _____ \geq _____ Variable I (detected) \leq _____ Variable I (tolerance max)

4.2 Documentation

The test is passed if $\geq 80\%$ of all packages are in the tolerance range.

Shape and position are o.k. ☐

Shape and position are not o.k. ☐

Name and signature of inspector: _____