

# **CERTIFICATE**

## **EU Type – Examination**

According to Directive 2014/33/EU, (Module B, annex IV)  
Certificate No: **LF/KSA/A-C-0175/ 17**

Identification No of Certification body:

MIRTEC s.a **CE** 0437

Name & Address  
of the Certificate Holder :  
of the Manufacturer:

**TEKİN** MAKİNA SANAYİ A.Ş.  
ORGANİZE SANAYİ BÖLGESİ 2. CADDE NO:4 26110  
ESKİŞEHİR, TÜRKİYE

Date of Submission for  
EU Type-Examination :

17/10/2011

Product of Safety Component:

**Instantaneous safety gear  
with 1 roller  
and part of a protection system against  
unintended car movement  
T3**

Type:

Applicable Standards:

2014/33/EU, annex I,  
EN 81-50:2014 § 5.3.2, § 5.8.  
EN 81-20:2014 § 5.6.2.1, § 5.6.7.

Examination Period:

October 2011, October 2017

Test Laboratory :

MIRTEC

Place of testing:

A' Industrial Area GR38500, Volos

Date & No of laboratory Report:

LF/A-R-1192b/11, 26/10/2011  
LF/KSA/A-R-0175/17, 20/10/2017

Documents annexed:  
to the Certification:

Product description, Drawings ,  
Installation & maintenance instructions, Material list  
ANNEX 1

Field of application

Load, speed, guide rails :

### Validation conditions / Additional instructions:

The production of the safety gear falls under random inspections from the certification body.  
For all changes on the materials, drawings and production-assembly methods the certificate holder must  
inform the certification body.

The safety gear housing should have a label with the necessary information  
(Sr.Nr, Year of production, Field of application Load, speed, and guide rails)

### Result of the examination - Declaration:

**Herewith we certify that the type of the product mentioned above, meets the requirements  
of the Directive 2014/33/EU.**

Only the products detailed in the test report have been subjected to tests.

Date of issue :

**26.10.2011 Revision 06/11/2017**

For EBETAM A.E.

I. Dimitriadis  
Director of Athens Office

Certifying department for lifts

C.Spiliotopoulos  
Inspector of Lifts

EBETAM A.E.  
CERT - safecomp / EN 03 (5.0 / 24.10.2016)  
AET:29048



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## ANNEX 1

Part of the EU Type-examination LF/KSA/A-C-0175/17

### Field of application

Max. Nom. Speed :

Car downwards: 0.63 m/s,

Counter weight or Balancing weight: 1.0 m/s

Max. tripping speed by overspeed governor:

Car: 1.0 m/s,

Counter weight : 1.0 m/s

Tripping speed by lifts with rupture valve

Min: 115% of the nominal speed downwards

Max: as the overspeed governor .

Guide rails :

Thickness 16 mm, Min gripping area 30 mm

Allowable total mass:

The max. allowable mass of empty car with relevant car components and nominal rated load-mass or balancing weight mass, in relation to the tripping speed of the overspeed governor , for one pair of the safety gear. :

| tripping speed<br>of the overspeed governor (m/s) | max. allowable mass (F+Q),( Kg )<br>for Guide rails, thickness<br>16mm |
|---------------------------------------------------|------------------------------------------------------------------------|
| 0.50                                              | 3379                                                                   |
| 0.60                                              | 3251                                                                   |
| 0.70                                              | 3112                                                                   |
| 0.80                                              | 2966                                                                   |
| 0.90                                              | 2816                                                                   |
| 1.00                                              | 2665                                                                   |
| 1.20                                              | 2371                                                                   |
| 1.40                                              | 2097                                                                   |
| 1.65                                              | 1793                                                                   |

This progressive safety gear may be used as a stopping element in a protection system against unintended car movement. It has been tested at different low speeds for this scope and it is assured that allows the stopping of the car in the ranges of stopping distances that refers to 5.6.7.5. of the standard EN 81-20.

Certification Dept. EBETAM

C. SPILIOPOULOS



EBETAM A.E.

CERT - safecomp / EN 03 (5.0 / 24.10.2016)

www.ebetam.gr

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## ANNEX 2 ( Guiderrails 16mm)

Part of the EU-Type examination LF/KSA/A-C-0175/17

Safety gear type: Calculations according to EN 81-50 § 5.3.2.3.

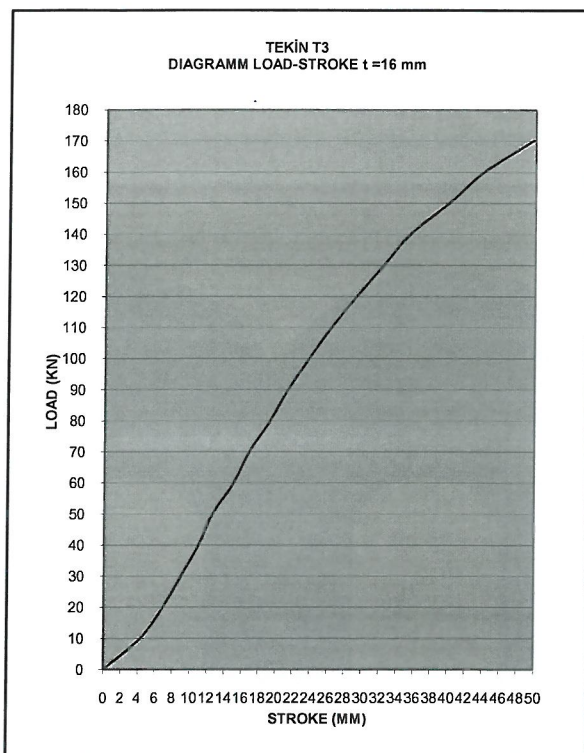
**INSTANTANEOUS SAFETY GEAR WITH 1 ROLLER**

TYPE : T-3

**(DIAGRAM LOAD-STROKE ) Guiderrails 16 mm Thickness**

Η δοκιμή έγινε στα εργαστήρια της EBETAM Α.Ε στον Βόλο στις 17/10/2011

Test performed in Mirtec's Lab in Volos 17/10/2011



### ΥΠΟΛΟΓΙΣΜΟΙ CALCULATIONS

Υψος ελεύθερης πτώσης: ( h: Height of free fall )  
 $h_i = V_i^2 / (2 \cdot g) + 0.1 + 0.03$  ( V: Relevant speed )

|     |       |    |          |
|-----|-------|----|----------|
| h1= | 0,269 | V1 | 1,65 m/s |
| h2= | 0,230 | V2 | 1,4 m/s  |
| h3= | 0,203 | V3 | 1,2 m/s  |
| h4= | 0,181 | V4 | 1 m/s    |
| h5= | 0,171 | V5 | 0,9 m/s  |
| h6= | 0,163 | V6 | 0,8 m/s  |
| h7= | 0,155 | V7 | 0,7 m/s  |
| h8= | 0,148 | V8 | 0,6 m/s  |
| h9= | 0,143 | V9 | 0,5 m/s  |

tripping speeds of regulator according to  
 EN 81-50 § 5.6.2.2.1. and EN 81-20 § 5.6.2.1.2.

Συνολική απορροφούμενη ενέργεια σε J:

$$(P+Q) = (2/l) \cdot K_{ol} \cdot g \cdot h$$

**(Absorbed Energy in J)  $K_{ol}=4731,6$**

Με τη βοήθεια του σχεδιαστικού πακέτου AUTOCAD

2002 λαμβανω ως επιφανεια του διαγραμματος

μετακίνησης - δυναμής:

**$K_{ol}=4731,6$**

Λαμβάνεται συντελεστής ασφαλείας  $I=2$  για τους υπολογισμούς

Επομένως έχουμε:

$$(P+Q) = (2/2) \cdot K_{ol} \cdot g \cdot h$$

|         |       |     |      |          |         |
|---------|-------|-----|------|----------|---------|
| Για h1= | 0,269 | V1= | 1,65 | (P+Q) 1= | 1793 Kg |
| Για h2= | 0,230 | V2= | 1,40 | (P+Q) 2= | 2097 Kg |
| Για h3= | 0,203 | V3= | 1,20 | (P+Q) 3= | 2371 Kg |
| Για h4= | 0,181 | V4= | 1,00 | (P+Q) 4= | 2665 Kg |
| Για h5= | 0,171 | V5= | 0,90 | (P+Q) 5= | 2816 Kg |
| Για h6= | 0,163 | V6= | 0,80 | (P+Q) 6= | 2966 Kg |
| Για h7= | 0,155 | V7= | 0,70 | (P+Q) 7= | 3112 Kg |
| Για h8= | 0,148 | V8= | 0,60 | (P+Q) 8= | 3251 Kg |
| Για h9= | 0,143 | V9= | 0,50 | (P+Q) 9= | 3379 Kg |

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