



TÜV Hannover/Sachsen-Anhalt e.V. • Member of TÜV CERT



EC type-examination certificate

Certification No.: 08/208/AP 004/T1

Specified Office: TÜV CERT Certification body of the
TÜV Hannover/Sachsen-Anhalt e.V.,
Ident. No.: 0032

Certificate owner: P+S Polyurethan-Elastomere GmbH & Co. KG,
Thüringer Straße 4,
D-49356 Diepholz

Date of application: 1999-03-08

Manufacturer: See Certificate owner

Product, type: Lift buffer with non-linear characteristics,
type T1, version B

Test laboratory: Test laboratory for safety of technical systems

Date and number of test report: 99/PM12390/T1 of 1999-06-02

EU Directive: Lift directive 95/16/EC

Test result: The safety component satisfies the basic safety and health
requirements of the Directive indicated for the field of
application as specified in the annex on page 1 of this type-
examination certificate.

Date of issue: 1999-09-07

TÜV CERT-Zertifizierungsstelle
für Maschinen, Aufzugs- und Fördertechnik
des TÜV Hannover/Sachsen-Anhalt e.V.

Head of the
Certification Body

Rosin



DAR-Reg.-Nr.: ZLS-ZE-136/97
Ident.No. of the specified office: 0032



TÜV Hannover/Sachsen-Anhalt e.V. ● Member of TÜV CERT

1999-09-07

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Annex to the EC type-examination certificate No. 08/208/AP 004/T1

1. Required information
 - 1.1 Lift buffer version B
 - 1.2 Field of application: for use with lifts in accordance with EN 81-1/2
 - 1.3 Permissible masses in dependence of the nominal speed
Impact speed = 1.15 x max. nominal speed

max. nominal speed	0,63 m/s	0,40 m/s
max. mass	1300 kg	1450 kg
min. mass	153 kg	153 kg

- 1.4 Ambient conditions according to manufacturer's specifications
 - 1.4.1 Temperature range: -35°C to + 80°C, continuous use up to + 50°C
 - 1.4.2 Humidity: Max. 70% relative humidity at room temperature, avoid long-term contact with water
 - 1.4.3 The buffers must not come into contact with acids or lyes (cleaning agent). Observe manufacturer's consistency list
2. Note:
The EC type-examination certificate may be used together with the corresponding appendix only.



Operating instructions for ETN lift buffers

ETN lift buffers are used as springs and damping elements for lifts. Depending on the type of lift (with or without choke or choke non-return valve), **ETN** lift buffers are available in a range of sizes for different max. and min. loads. The load ranges for **ETN** lift buffers are recorded in the EC type examination certificates.

ETN lift buffers are manufactured with three types of fittings (**A**, **B** and **C**). These are

Version A Circular steel mounting plate with central hole for central screw fitting.

Version B Plastic bush for central screw fitting.

Version C Square steel mounting plate with 4 holes for screw fitting at the corners.

ETN lift buffers can be arranged side-by-side or in line, but the following must be noted when fitting the units:

Side-by-side mounting of the lift buffers

The distance between the outer surfaces of the buffer must be at least **40 %** of the buffer diameter
(e.g. buffer \varnothing 100 mm, distance 40 mm)

In line mounting of the lift buffers

With this type of mounting the buffer attachment must not be offset from the centre by more than **10 %** of the buffer- \varnothing . If the offset is greater, the buckling resistance and therefore the power absorption of the lift buffer can no longer be guaranteed. The contact faces (on underside of the lift cage, counter-weight and buffer attachment) should be flat and parallel to each other:

Lift buffers with central plastic bush

If using this version, the size of the attachment surface and counter pressure face must be at least buffer \varnothing + **40 %**. The buffer attachment must be secured so that full contact is always guaranteed, even when fully compressed.

Buffer contact

The lift producer has to determine the size of the buffer contact area. The size of this area depends on the diameter of the lift buffer and on the clearance of the guide system of either the car or counter-weight.



Operating instructions for ETN-lift buffers

Ambient conditions

Temperature range:	-40°C to +80°C, continuous use up to 50°C
Humidity:	70% relative humidity at room temperature Avoid continuous contact with water
Contamination:	Oil and grease compatible, but protect against acids and cleaning agents.

Life, maintenance

ETN lift buffers have a minimum life of at least 5 years, but we cannot guarantee this. They are maintenance-free, but they should be subjected to regular visual checks when inspecting and maintaining safety components. Should the shape of the buffer have undergone considerable visible change, it must be exchanged for a new item. The buffer must also be changed after the lift cage has dropped hard on to the buffer. Changes in colour of the buffer from white to brown relate to the material and have no influence on the technical and physical characteristics of **ETN** lift buffers.

Note

ETN lift buffer may only be used when it has been determined that the lift installation conforms to the **Lift Directive 2014/33/EU**. **ETN** lift buffers must not be subjected to a continuous load and therefore must not be used as resting point during repair and maintenance work.

01/08/2016



Lift buffers corresponding to EN 81 Calculation

Customer

Lift-no.

Operating speed V = m/s

1. Cage + Working load

Number of buffer (n) =

$$m_{\max} = \frac{Q + F}{n} = \text{---} + \text{---} = \text{---} \text{ kg}$$

Buffer-no.

$$m_{\min} = \frac{F}{n} = \text{---} = \text{---} \text{ kg}$$

2. Counterweight

Number of buffer (n) =

$$m_G = \frac{F + \frac{Q}{2}}{n} = \text{---} + \frac{\text{---}}{2} = \text{---} \text{ kg}$$

Buffer-no.

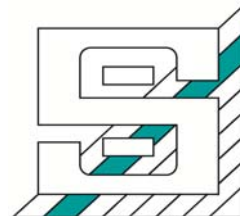
m = Weight [kg]

F = Cage weight [kg]

Q = Working load [kg]

m_G = Counterweight [kg]

<p>Lift producer:</p> <p>Signature:</p> <p>Dated:</p>	<p>Technical regularity body:</p> <p>Signature:</p> <p>Dated:</p>
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EU type-examination

Details of test results for lift buffers type **T1-1** until **T3-1** and **T1** until **T5**.
Configuration **A, C** and **D**, respectively configuration **A, B, C** and **D**.

production control by: TÜV NORD CERT GmbH

Notified body: 0044

The type-examination tests for **P+S**-lift buffers made from **Diepocell®** have been carried out in accordance with the lift directive **95/16/EU**. The **certificate number** records the permissible load ranges for every type of lift buffer. A EU type-examination test certificate can be issued for every type of **P+S**- lift buffer on request. The bold printed types of buffer are available at short notice ex stock, the other types of buffer will be made available on request.

For lifts with **lower** speeds than the nominal speed ($v_{n,max}$) used for the EU type-certification, the load range is applicable, if the max. counterweight loads are within the **max.** and **min.** load (kg) according to the EU type examination

valid for buffers version A, C and D

Load limits according to EN 81	Notified body		0044		
	Buffer size		T 1-1	T 2-1	T 3-1
	Dia (mm)	D	80	100	125
	Height (mm)	H	80	80	80
Nominal velocity (m/s)	Load range		Load (kg)		
0,40	max.		1450	2000	2900
	min.		150	150	230
0,63	max.		1200	1700	2100
	min.		150	150	230
1,00	max.		950	1300	1600
	min.		220	300	450

valid for buffers version A,B,C and D

Load limits according to EN 81	Notified body		0044				
	Buffer size		T 1	T 2	T 3	T 4	T 5
	Dia (mm)	D	80	100	125	165	220
	Height (mm)	H	80	80	80	80	80
Nominal velocity (m/s)	Load range		Load (kg)				
0,40	max.		1450	1886	2650	6170	9200
	min.		153	153	228	310	465
0,63	max.		1300	1137	1500	3000	7100
	min.		153	153	228	379	1000
1,00	max.		503	800	1000	2450	6000
	min.		233	290	253	568	1344

Assembly instruction for subsequent labelling of lift-buffers acc. to lift-directive 2014/33/EU



Assembly instruction for labelling of lift-buffers acc. to lift-directive 2014/33/EU

Lift-buffers of series „T“ with type examination certificate acc. to lift-directive 95/16/EG for the use in elevators, acc. to EN 81-1/2 do not full-fill the requirement for labelling acc. to lift-directive 2014/33/EU **in its entirety** and have to be labelled with an extra label.

Information ON the buffer



Manufacturer: **P+S**

Type name of the buffer: „T“

No. of the notified body: **0044**

Label of conformity: **CE**

Information ON the extra label



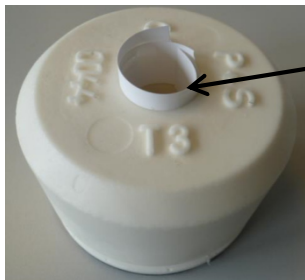
Manufacturer item no.: (xxxxxxxx)

Type examination certificate no.: (Cert.:)

Production date of the part: (Batch No.:)

Full postal address of the manufacturer

On following pictures the assembly of the label is shown.



At delivery the label is placed inside the central bore of the lift-buffer.

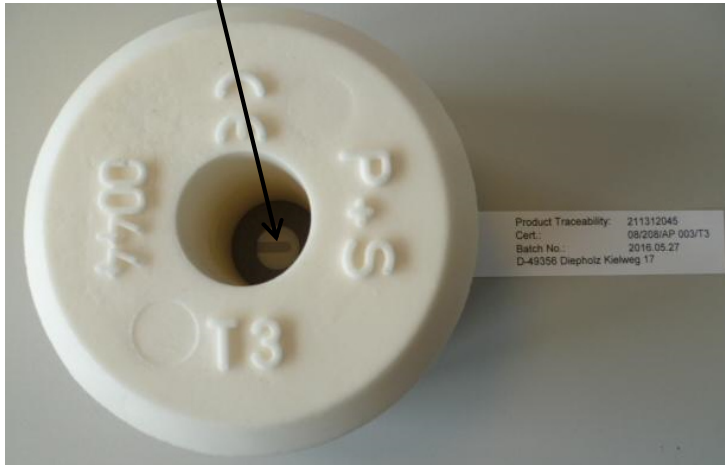
Assembly instruction for subsequent labelling of lift-buffers acc. to lift-directive 2014/33/EU



In general the label has to be installed in a way that the information of the label is visible. **The label has to be installed between installation surface and the liftbuffer.**



Bore for the installation between installation surface and the lift-buffer.



Information corresponds to the lift-directive 2014/33/EU and was installed in a proper way.



Information corresponds to the lift-directive 2014/33/EU **BUT** was installed wrong.

This way is NOT permitted.