HYDRONIC LIFT

Innovate your lift

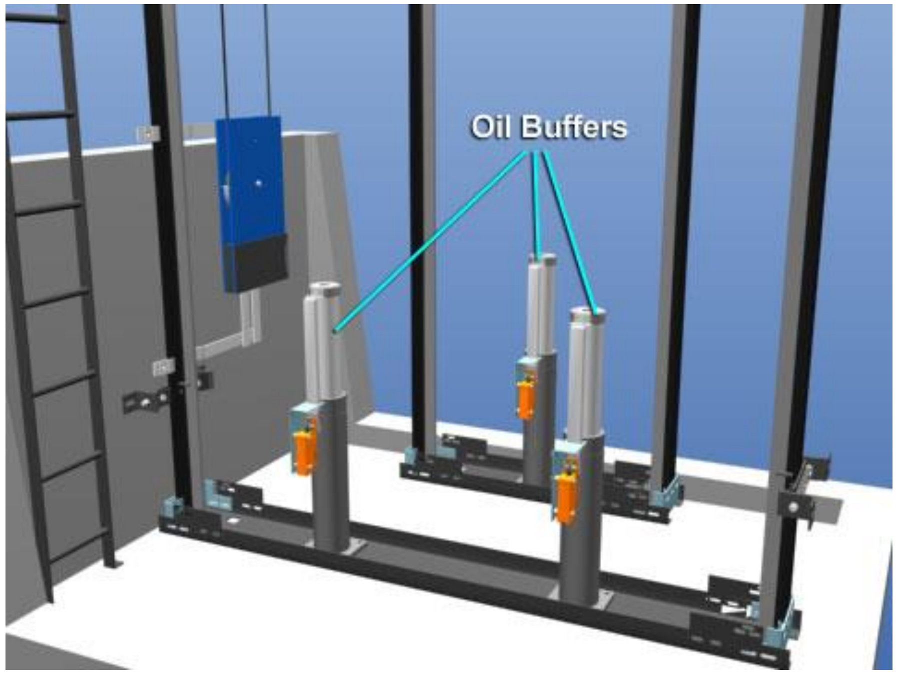
Oil Buffers

morispain

hydraulics in motion

BUFFER – What are they?

Elevator buffers are safety devices which are required to be mounted at the base of an elevator shaft. As with any safety device elevator buffers have to meet with a variety of specifications but probably the most important of these is the manner in which the buffers must bring an impacting elevator car to rest. There are different technical specifications for elevator buffers in different regions worldwide however all employ the same basic performance criteria.



These are usually hydraulic buffers which dissipate the energy of the impact in the form of heat during the travel of the buffer. This type of buffer can be used for all rated speeds, but must be used for speeds of 1.6m/s or over.

OIL BUFFER – EN. 81.20 requirements

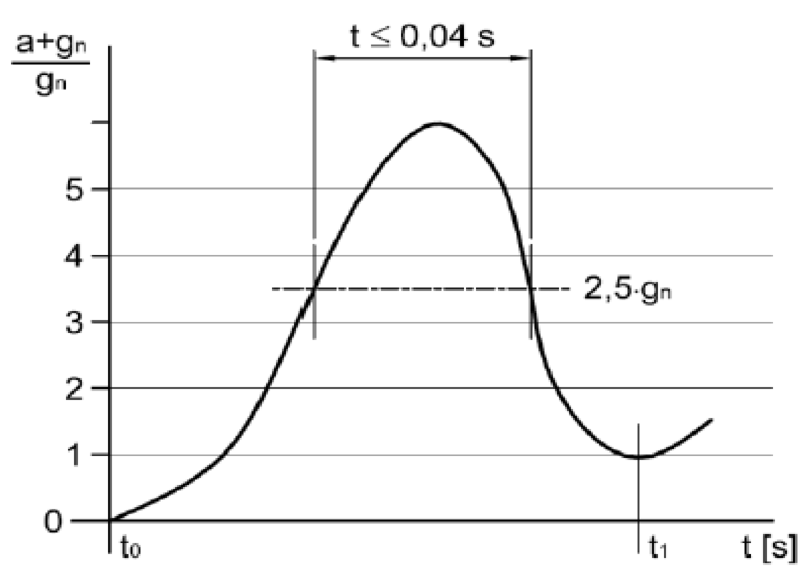
EN 81.20 REQUIREMENTS:

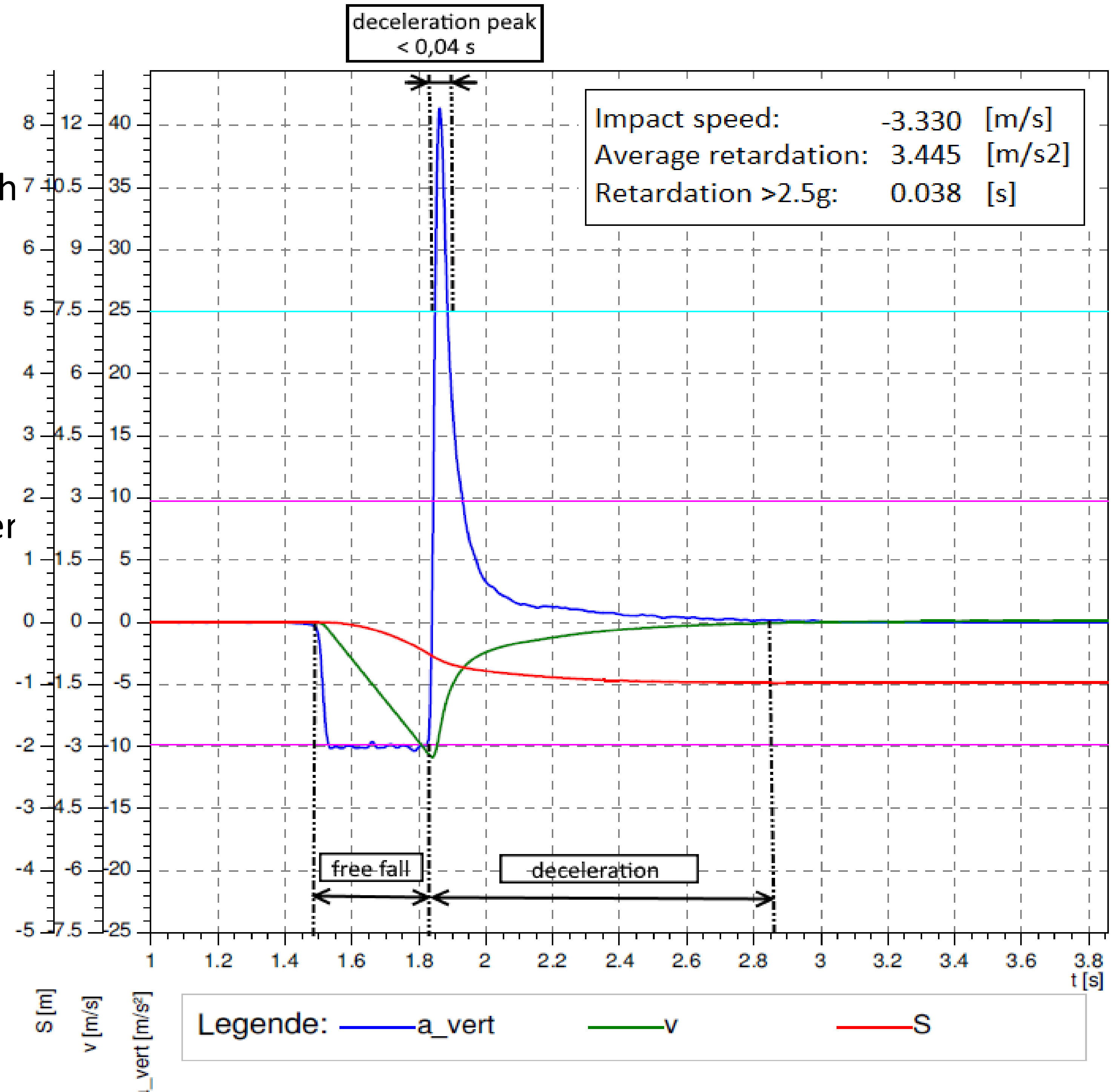
5.8.2.2.3 Energy dissipation type buffers shall fulfil the following requirements:

a) Hitting the buffer with the mass of the car with its rated load, in case of free fall with a speed of 115 % of the rated speed or the reduced speed according to **5.8.2.2.2**, the average retardation shall not be more than 1 *gn*;

b) Retardation of more than 2,5 *g* shall not be longer than 0,04 s;

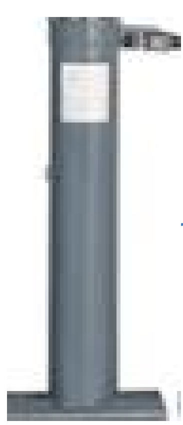
c) There shall be no permanent deformation after actuation.

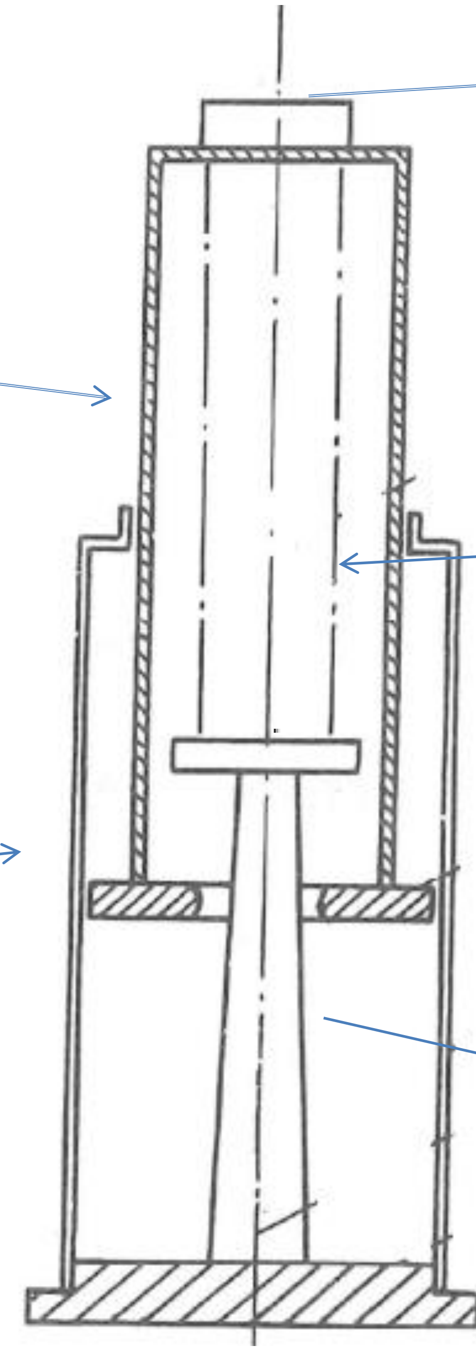




OIL BUFFER – How it's made

PLUNGER OR RAM





BUMPER HEAD

RETURN SPRING

CYLINDER

OIL

OIL BUFFER – How to choose it?

Speed – 1,6m/s – 2,00m/s …

Max Impact P+Q

Total Height Oil Buffers
Space in your Pit

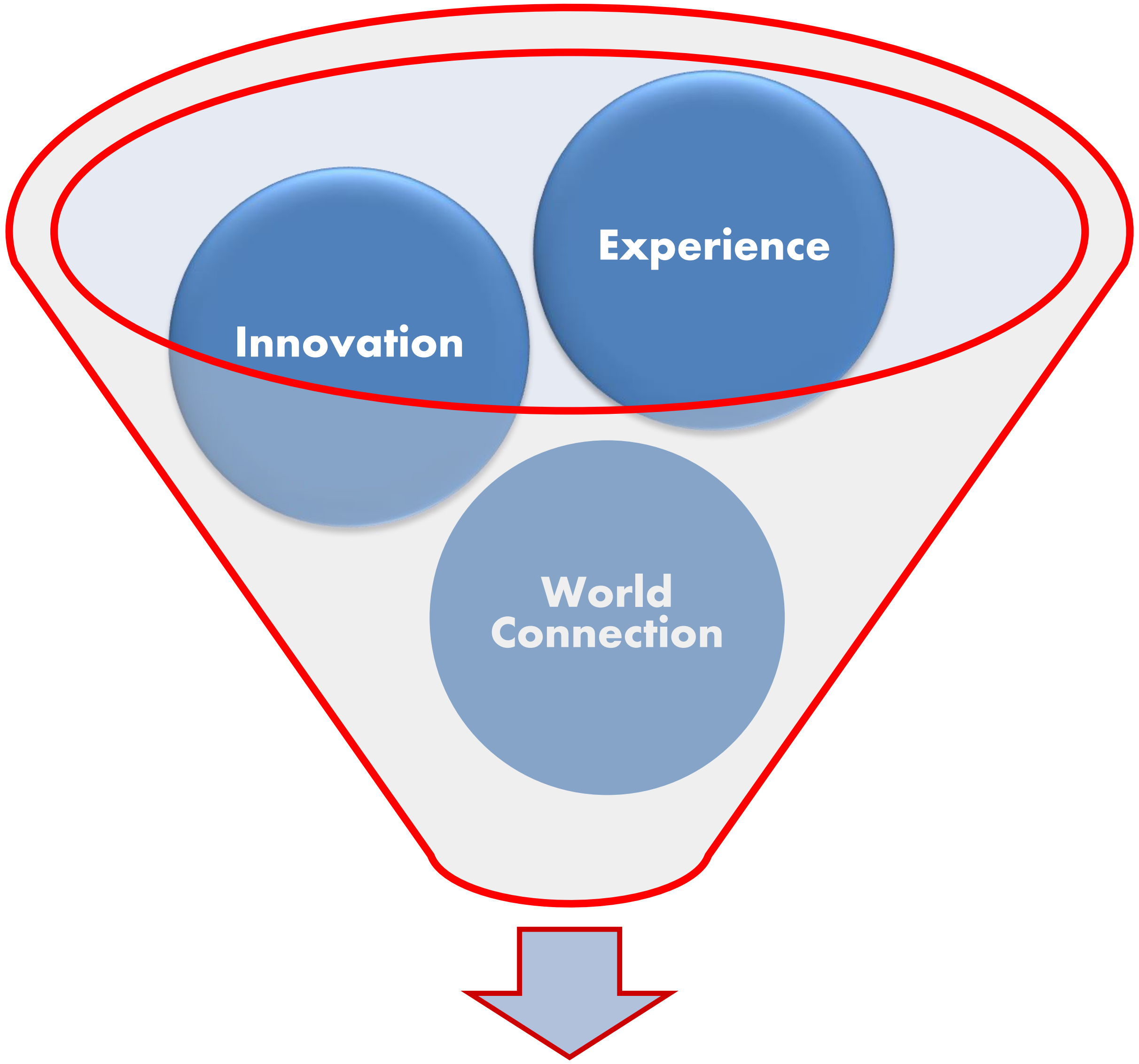
OIL BUFFER – How to choose it?

Type	rated speed(m/s)	max Mass(kg)	min Mass(kg)	Stroke （mm)	Height (mm)	Oil （KG）
OB16	≤1.6	5300	700	175	625	29
OB18	≤1.75	5300	700	230	765	32
OB20	≤2	5300	700	290	915	36
OB35	≤3.5	5300	700	860	2365	71

Given: your LIFT

- **max/min impact mass (e.g. 1,800/950Kg)**
- **nom. rated speed (e.g.1.6 m/s)**

Who is Hydronic Lift S.p.A.



Hydronic Lift S.p.A.
Top Player of Oil Buffers

TIMELINE – EXPERIENCE

1996
Starting
the production
at Pero site

June 1998
Hydronic lift S.p.A
is founded

2003
Hydronic achieves Lift
Directive 95/16 EC
Company Certification

2004
Compact oil buffer
OBL16

2011
First Russian
Certification

2012
KTL Corean
Certification

OBH High
speed series for
Leadenhall building

New
test tower

2013
Moving to new
manufacturing site

Chinese SISE
Certification

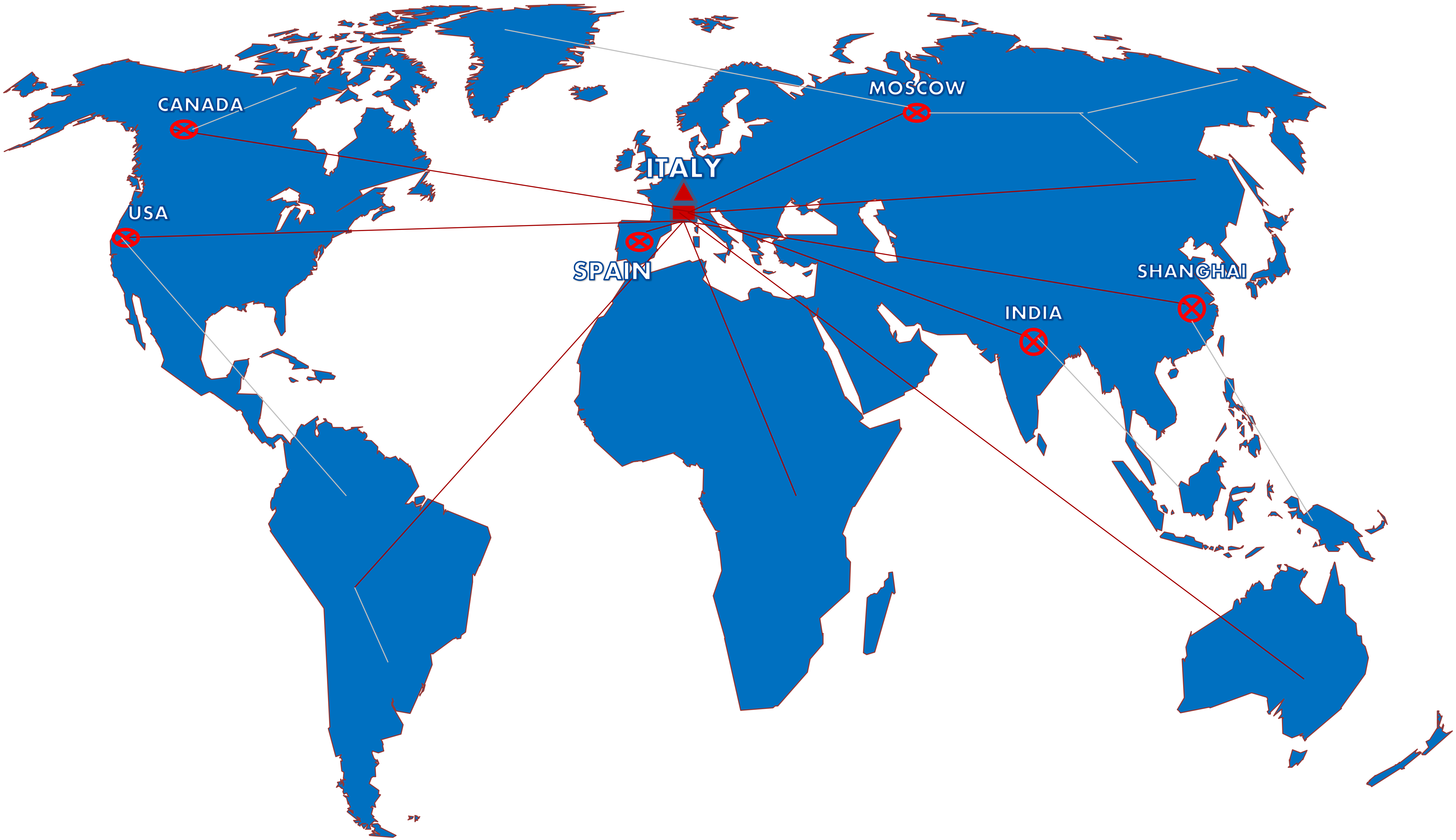
2014
Russian Customs
Union Certificate

Hydronic Lift
Engineering
(Shanghai) Co.Ltd
is founded

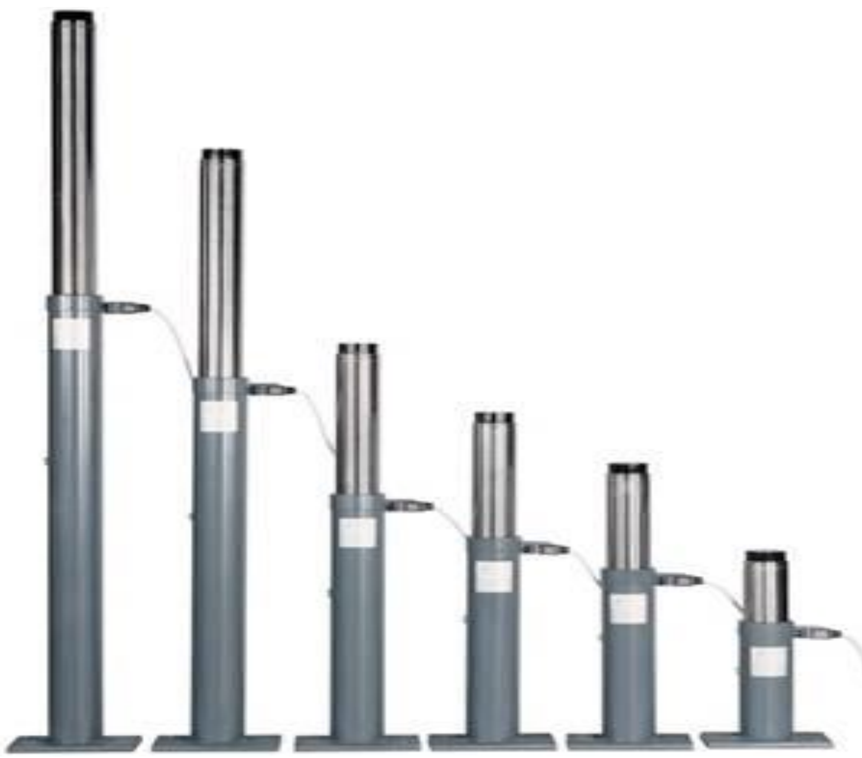
2014/2015
Chinese
development of
new products
and OBH58

2015
Opening the second
manufacturing site
in Brebbia

World Connection



TALK ABOUT NUMBERS…



56 %
EUROPE

39%
ASIA

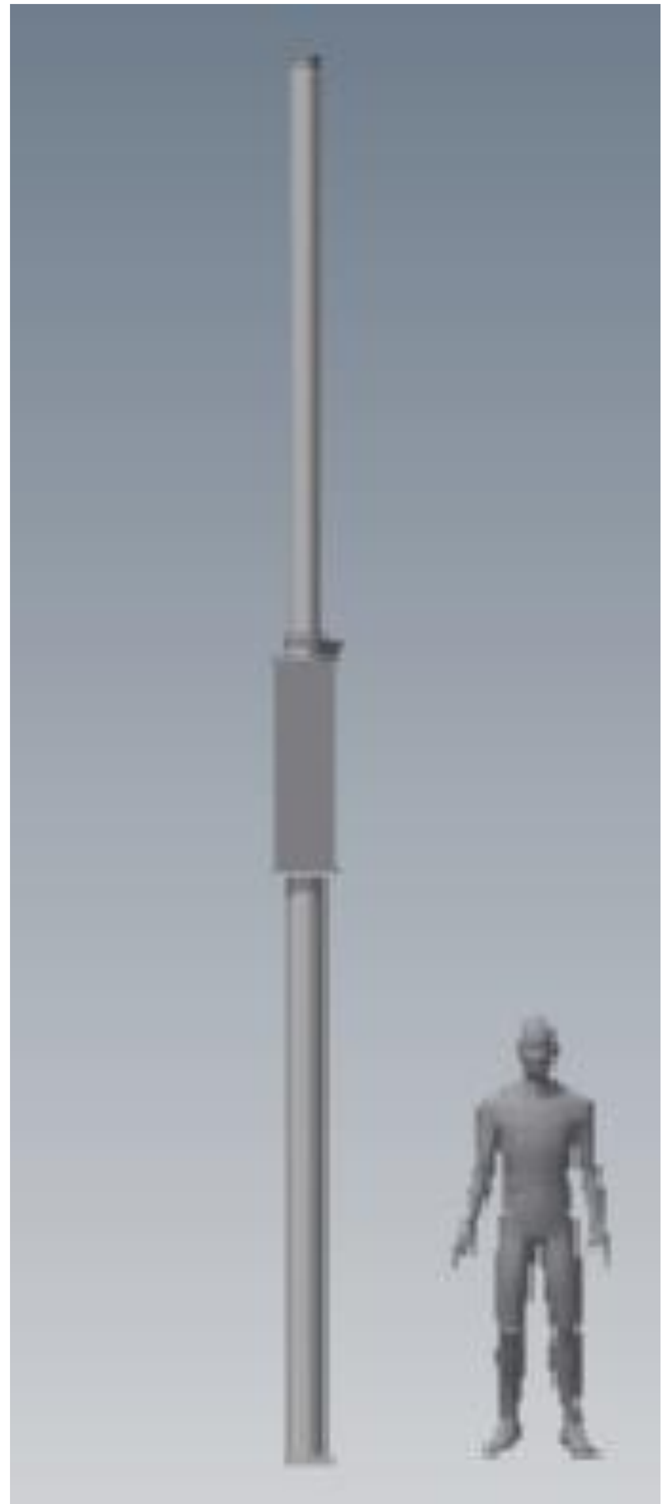
5%
AMERICA

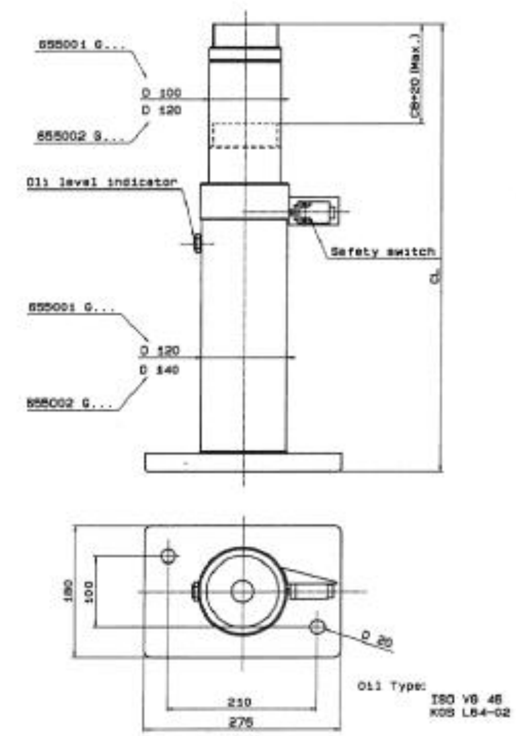
20.000

OIL BUFFERS/YEAR

OBH 58

For elevator with nominal speed up to 10 m/s





Dedicated series of Oil buffer for High speed application:

OBH32 / OBH35 / OBH42 / OBH50 / OBH56

OIL BUFFER – How It's made

OUT

IN

OIL BUFFERS – Test tower

OIL BUFFER – Oil Buffers test

Buffers are strictly tested in a test tower:

- **To optimaze the braking curve**

- **To check the buffer resistance under the worst conditions**

- **The buffer are certified and comply with the European standards**

OIL BUFFER – Oil Buffers test

CERTIFICATIONS


TYPE-EXAMINATION REPORT

Chinese GB 7588


안 전 인 증 서

Korean KLT


CERTIFICATO
CERTIFICATE

LIFT DIRECTIVE

95/16 EC Annex IX

Module H

Russian

CUSTOMS UNION

WHY CHOOSE HYDRONIC LIFT?

- OWNER OF DESIGN, KNOW HOW AND TESTING
- FLEXIBLE TO CUSTOMER'S NEED
- QUALITY PROCESSES

GUINNESS WORLD RECORD

BEILONG ELEVATORS, China

morispain
hydraulics in motion

HYDRONIC LIFT
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