THE NEW UNI TECHNICAL NORM

REGULATING

IMPACT SAFETY BARRIERS

NEW SAFETY

STANDARD

STOMMPY

JOIN THE REVOLUTION

A GLOBAL VISION

STOMMPY was founded in 2000 and now has a presence in over 15 Countries. **It ranks first among Italy's producers of Impact Safety Barriers.**

It holds two international invention patents and a third one is on its way.

In 2018, with a 6 € milions revenue, STOMMPY produced and installed:

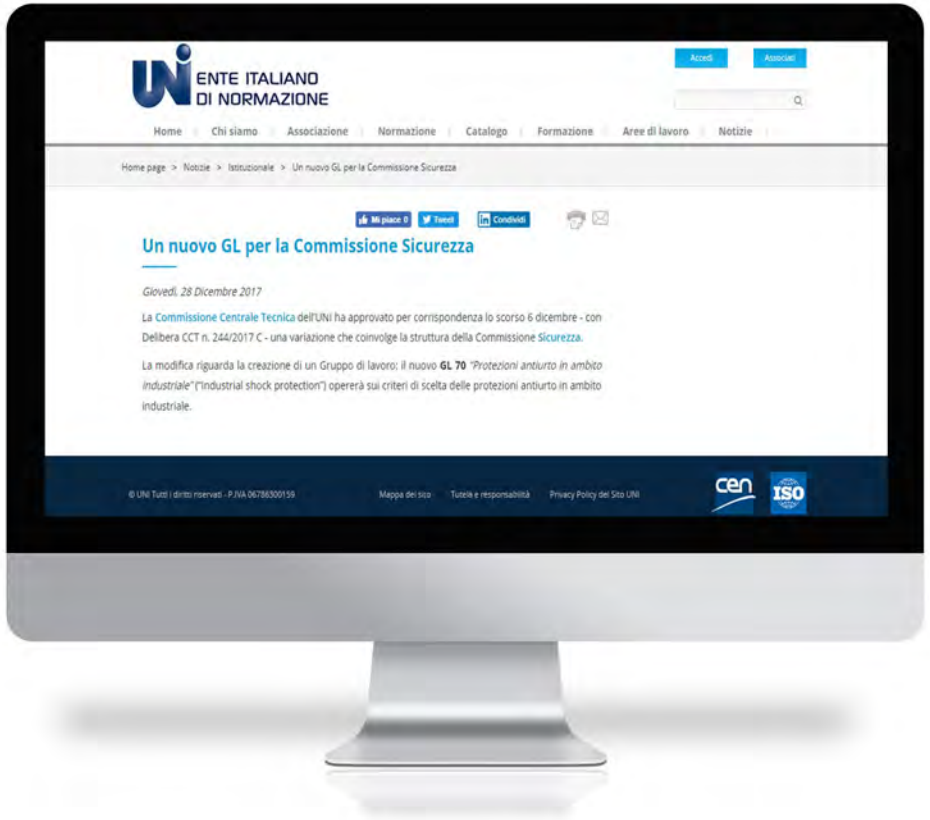
- **14.000+vertical** safety systems (bollards),
- **22.000+** horizontal safety systems (guardrails)

It is the only company guaranteeing up to 10 years for manufacturing defects and floor damages

SECTORS

- FOOD & BEVERAGE
- PHARMA & CHEMICAL
- LOGISTICS
- MECHANICS

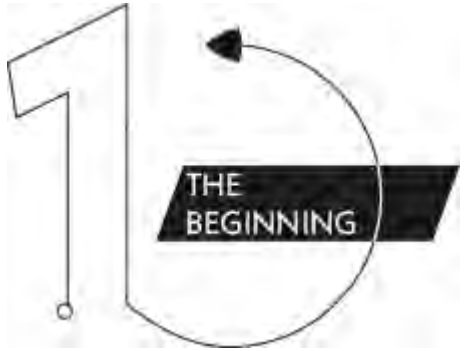
2020



THE FIRST UNI TECHNICAL NORM IS INTRODUCED TO REGULATE THE

IMPACT SAFETY BARRIERS MARKET

It is an Italian initiative, stemming from a STOMMPY proposal, which was embraced and developed further by UNI (Italian National Unification). It is the first norm regulating IMPACT SAFETY BARRIERS in the industry sector.



DSP:2015 - Impact Safety Barriers

STOMMPY publishes the first edition of the Guidelines featuring:

- Parameter selection and computation of material handling vehicles' impact energy
- Impact safety barriers are selected according to the appropriate impact energy class.

AVAILABLE FOR FREE

DSP:2017 Impact Safety Barriers

STOMMPY publishes the second edition of the Guidelines:

- Data collection to calculate material handling vehicles' impact energy - risk assessment procedure;
- Impact safety barriers' selection according to the appropriate resistance class, provided that installation was carried out properly.

AVAILABLE FOR FREE

PAS 13:2017
BSI British Standard Institution

- Publishes the "Code of practice for safety barriers used in traffic management within workplace with test methods for impact safety barriers".
- A-Safe UK is the main initiative's sponsor and STOMMPY, a steering committee member, greatly contributes to this document.

FOR SALE

UNI – 2020 TECHNICAL NORM

- Project code: UNI1605398

Title:	Impact Safety Barriers in the industry sector
1st part:	Testing methods and classification criteria
For:	Manufacturers

- Project code: UNI1604054

Title:	Impact Safety Barriers in the industry sector
2nd part:	Selection and installation criteria
For:	Users

A TECHNICAL NORM ABOUT IMPACT SAFETY BARRIERS IN THE INDUSTRY SECTOR: WHY?

TO FILL THE NORMATIVE GAP ABOUT IMPACT SAFETY BARRIERS IN THE INDUSTRY SECTOR, WITHOUT WHICH:

- manufacturers do not have any benchmark when designing products;
- users do not have any benchmark to compare their purchase to.

UNI: WHAT IT IS AND ITS SCOPES

WHAT IS UNI

UNI (Ente Nazionale Italiano di Unificazione) is a private no-profit association acknowledged by the Italian Government and the European Union. In the last 100 years they developed and published non-binding technical norms applying to all sectors: industry, commerce and service. UNI represents Italy at CEN (European Committee for Standardization) and at ISO (International Organization for Standardization).

WHAT IT DOES

- It promotes integration between norms and regulations for a smooth functioning of the European Single Market;
- It supports the specific characteristics of the Italian manufacturing way, promoting techniques that embrace past experience and the tradition of national manufacturing.

WHO'S PART OF IT

UNI associates are firms, professionals, associations, public bodies, research institutes, schools and universities, consumers' and manufacturers' representatives. Taken together they compose a unique national multi-stakeholder group sharing technical challenges and experiences.

EUROPEAN NATIONAL BODIES FOR TECHNICAL NORMS

ISO

cen

AUSTRIA	BELGIUM	BULGARIA				CROATIA	CYPRUS	CZECH REPUBLIC	
DENMARK	ESTONIA	FINLAND	FRANCE	GERMANY	GREECE	HUNGARY	ICELAND	IRELAND	
LATVIA	LITHUANIA	LUXEMBOURG	MALTA	NETHERLANDS	NORWAY	POLAND	PORTUGAL	REPUBLIC OF NORTH MACEDONIA	
ROMANIA	SERBIA	SLOVAKIA	SLOVENIA	SPAIN	SWEDEN	SWITZERLAND	TURKEY	UNITED KINGDOM	

ADVANTAGES OF A TECHNICAL NORM

TO TECHNICAL DEVELOPMENT

- Technical norms are documents defininig several characteristics of a product, service or process like e.g. shape and dimensions, performance, environmental characteristics, quality, organization and safety, according to the state-of-the-art. Such technical norms are developed thanks to experts in Italy and worldwide sharing their knowledge.
- The decision to stick to technical norms is advantageous for businesses' competitivity, for the public administration and also to protect consumer's rights. The European Union stated that in each Member State there should be just one accreditating body in charge of giving out certifications. In Italy, ACCREDIA is the accreditating body that issues certifications in line with UNI technical norms.

ADVANTAGES OF A TECHNICAL NORM

TO INNOVATION

- **TO SHARE** KNOWLEDGE
- **TO TRANSFER** TECHNOLOGY
- **TO SHORTEN** THE TIME NEEDED TO LAUNCH PRODUCTS AND SERVICES ON THE MARKET
- **TO CREATE** COOPERATION BETWEEN FIRMS AND RESEARCH
- **TO DEFINE** IN WHICH CONTEXT NEW PRODUCTS AND MARKETS DEVELOP

ADVANTAGES OF A TECHNICAL NORM

TO MANAGEMENT

- **TO REDUCE** MANAGEMENT COSTS
- **TO IMPROVE** QUALITY, SAFETY AND MINIMIZE THE ENVIRONMENTAL IMPACT
- **TO INCREASE TRANSPARENCY** IN SUPPLIERS' AND CUSTOMERS' RELATIONSHIPS
- **TO INCREASE** TECHNICAL KNOWLEDGE AND INNOVATION
- **TO FACILITATE COMPLIANCE WITH THE LAW**

ADVANTAGES OF THIS REVOLUTION

1 The SPECIFICATION (TECHNICAL STANDARD) for MANUFACTURERS AND TEST CENTERS

- It defines testing conditions and criteria for impact resistance classification, working width and acceleration severity index (ASI) for impact safety barriers in the industry sector.
- It provides manufacturers and test centers with a clear procedure to classify impact safety barriers in the industry sector.

2 The TECHNICAL REPORT for USERS

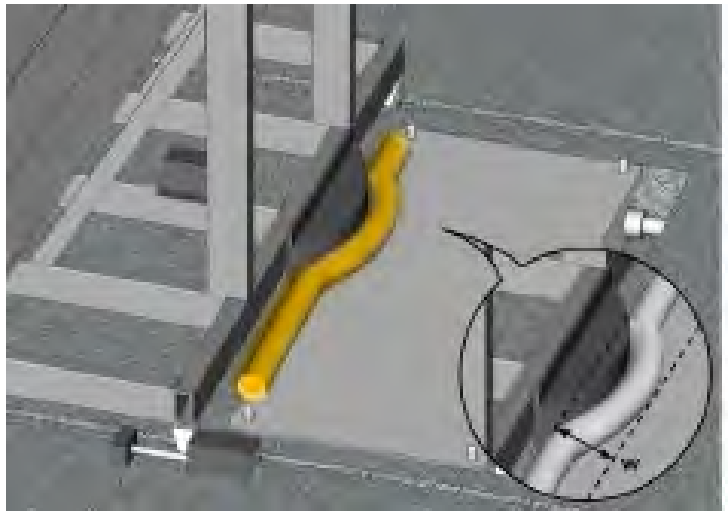
- It defines the different types of safety barriers, that differ by shape, functions, performance and installation procedure. The aim is to guarantee the expected performance as it is certified by the manufacturer.
- It supports and introduces a proper risk evaluation framework to designers, technicians, safety specialists, managers and employers. It enables stakeholders to make informed choices depending on the type of environment, worplace and management systems that are in place. The aim is to improve safety at the workplace.

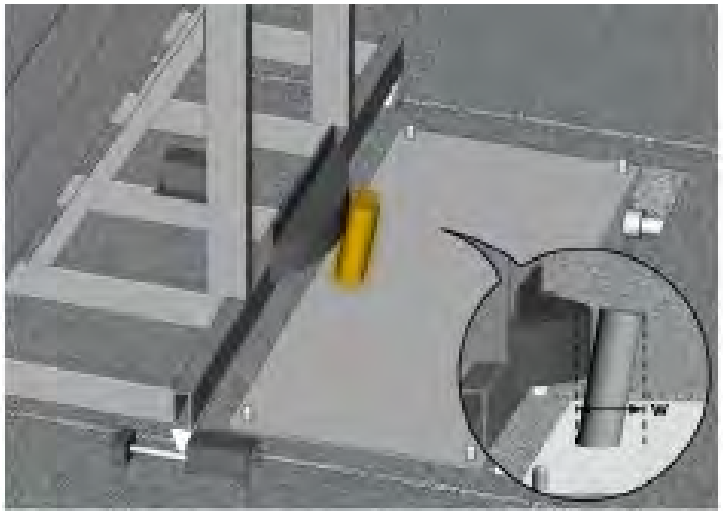
THE SPECIFICATION (TECHNICAL STANDARD)

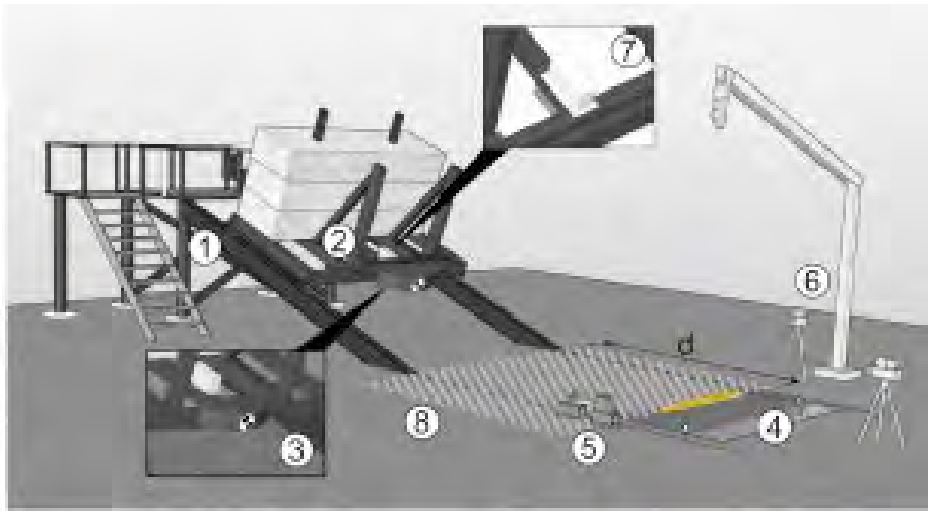
1

The SPECIFICATION (TECHNICAL STANDARD) for MANUFACTURERS AND TEST CENTERS

- It takes into account speed and total impact mass and it defines criteria for collision tests, energy resistance classification, working width and Acceleration Severity Index (ASI) for impact safety barriers in the industry sector.
- It provides manufacturers and test centers with a clear procedure to classify impact safety barriers in the industry sector.







THE SPECIFICATION (TECHNICAL STANDARD)

IMPACT SAFETY BARRIERS can be VERTICAL or HORIZONTAL. Anchorage systems play a key role to both meet performance goals and validate them.

PARAMETRI DI CLASSIFICAZIONE

1. CLASSIFICATION OF IMPACT SAFETY BARRIERS ACCORDING TO ENERGY RESISTANCE CLASSES
2. CLASSIFICATION OF IMPACT SAFETY BARRIERS ACCORDING TO WORKING WIDTH CLASSES
3. CLASSIFICATION OF IMPACT SAFETY BARRIERS ACCORDING TO INJURY SEVERITY CLASSES

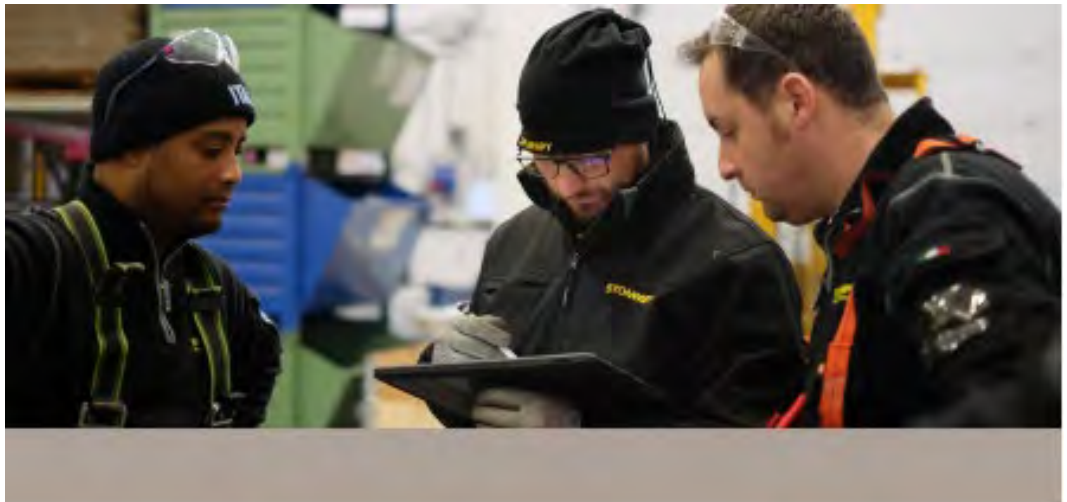
1

The SPECIFICATION (TECHNICAL STANDARD) for MANUFACTURERS AND TEST CENTERS

THE TECHNICAL REPORT

The TECHNICAL REPORT for USERS

2



- It defines the different types of safety barriers, that differ by shape, functions, performance and installation procedure. The aim is to guarantee the expected performance as it is certified by the manufacturer.

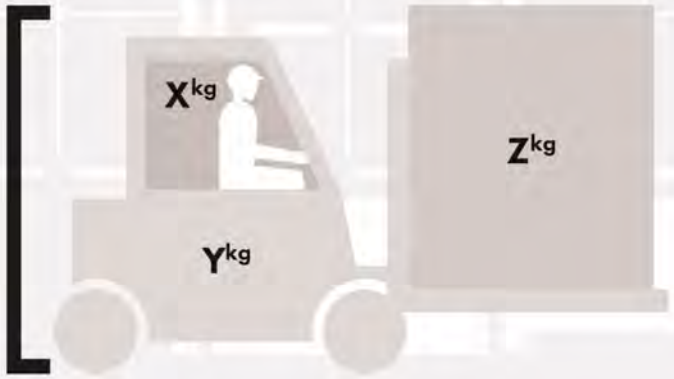
- It supports and introduces a proper risk evaluation framework to designers, technicians, safety specialists, managers and employers. It enables stakeholders to make informed choices depending on the type of environment, worplace and management systems that are in place. The aim is to improve safety at the workplace.

HOW TO COMPUTE VEHICLES' IMPACT ENERGY

kg

total mass

$= X^{kg} + Y^{kg} + Z^{kg}$



1

FIND TOTAL IMPACT MASS

2

FIND THE MATERIAL HANDLING VEHICLE'S MAXIMUM SPEED AND IMPACT ANGLE

Given mass and speed, the closer **the impact angle gets to 90°**, the higher the impact energy and the higher the energy resistance that impact safety barriers should stand.

Therefore, a 90° angle allows to compute the maximum safety coefficient to pick the right impact barrier.

Km/h

THIS WILL GIVE YOU THE **BARRIER RESISTANCE VALUE,** BUT THAT'S NOT ENOUGH...

HOW TO COMPUTE VEHICLES' IMPACT ENERGY

WORKING WIDTH is the space that the Impact Safety Barrier occupies in its maximum deformation when there is a collision with the calculated energy

3

MEASURE
THE WORKING WIDTH
AVAILABLE FOR
IMPACT
SAFETY BARRIERS

4

EVALUATE THE
INJURY
SEVERITY INDEX

THE INJURY SEVERITY INDECES relate to the injury severity levels, that are influenced by the acceleration the worker on-board the material handling vehicle is exposed to in case of a collision, given the computed impact energy.

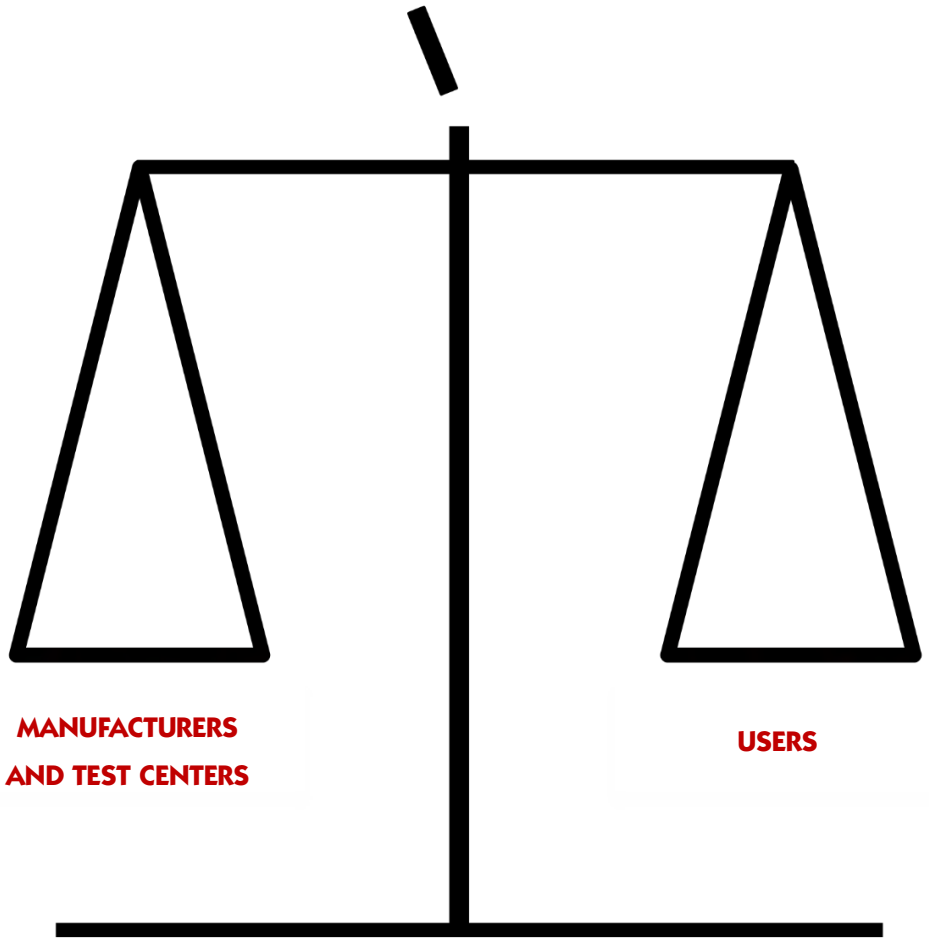
ASI/THIV

AN EFFECTIVE **RISK ASSESSMENT** TAKES EVERY DETAIL INTO ACCOUNT, FOR MAXIMUM **SAFETY**.

WHO IS RESPONSIBLE FOR WHAT

MANUFACTURERS AND TEST CENTERS

They must provide Impact Safety Systems that are validated according to parameters defined in the Specification (Specifica Tecnica) UNI 1605398 and they must state performance levels on the product' technical data sheet as established by the Norm.



USERS

They must carry out an impact Risk Assessment about the trucks circulating in the working environment. This step is needed to identify the proper parameters to choose and install the right **IMPACT SAFETY BARRIERS** in the working environment, following the Technical Report (Rapporto Tecnico) UNI 1604054.

IMPACT SAFETY BARRIER FOR SAFETY AT THE WORKPLACE

IF THEY ARE ADEQUATELY DESIGNED, SELECTED AND INSTALLED.

- **THEY PROTECT** WORKERS PASSING BY OR AT THEIR POSTS IN ALL AREAS WHERE TRUCKS ARE CIRCULATING
- **THEY PROTECT** TRUCK DRIVERS IN THE EVENT OF AN ACCIDENTAL CRASH
- THEY ARE **A VALUABLE BUSINESS ASSET**, AN INVESTMENT THAT PAYS OFF IN THE SHORT TO MEDIUM TERM ALREADY

IMPACT SAFETY BARRIER FOR THE BUSINESS' ASSETS

IF THEY ARE ADEQUATELY DESIGNED, SELECTED AND INSTALLED.

- **THEY PROTECT** OTHER VALUABLE BUSINESS ASSETS, SO INVESTMENTS PLANS ARE NOT AFFECTED BY ACCIDENTAL CRASHES
- **THEY ALLOW** TO AVOID ASSETS REPARATION COSTS AND ALL COSTS RELATED TO DOWNTIME, SHOULD THE PLANT STOP BECAUSE OF AN ACCIDENTAL CRASH
- THEY ARE **A VALUABLE BUSINESS ASSET**, AN INVESTMENT THAT PAYS OFF IN THE SHORT TO MEDIUM TERM ALREADY

THE RULES OF THE GAME

Here is a testimony from the book «**THE RULES OF THE GAME**», which is not about the UNI's history, but rather an introduction to the logic, the **VALUES** and the opportunities that are implicitly contained in technical norms, so that they can become **A COMMON ASSET TO SOCIETY.**

"It is an important committment to develop technical norms: you commit to share and discuss your own experiences, point of views and standards with an extended audience including all stakeholders, also your own competitors, and that is not always easy.
But the advantages you can gain yourself by sticking to a technical standard on a voluntary basis are so many more with respect to a closed-minded attitude, in which each one protects their own business secrets."

Piero Torretta
UNI President

STOMMPY

JOIN THE REVOLUTION

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