



MachineBeveiliging.com
Uw veiligheid is onze prioriteit

Klaar aan

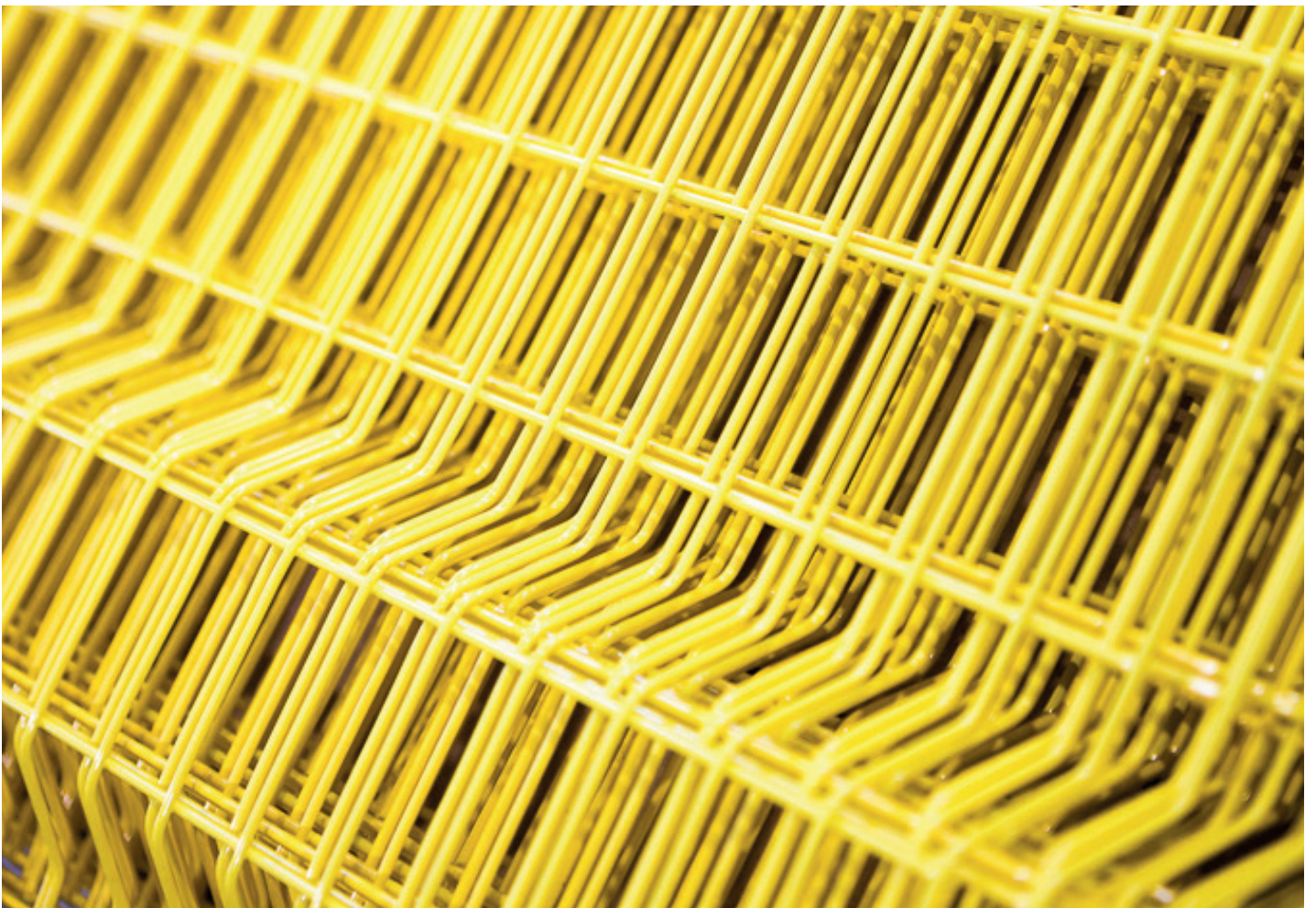
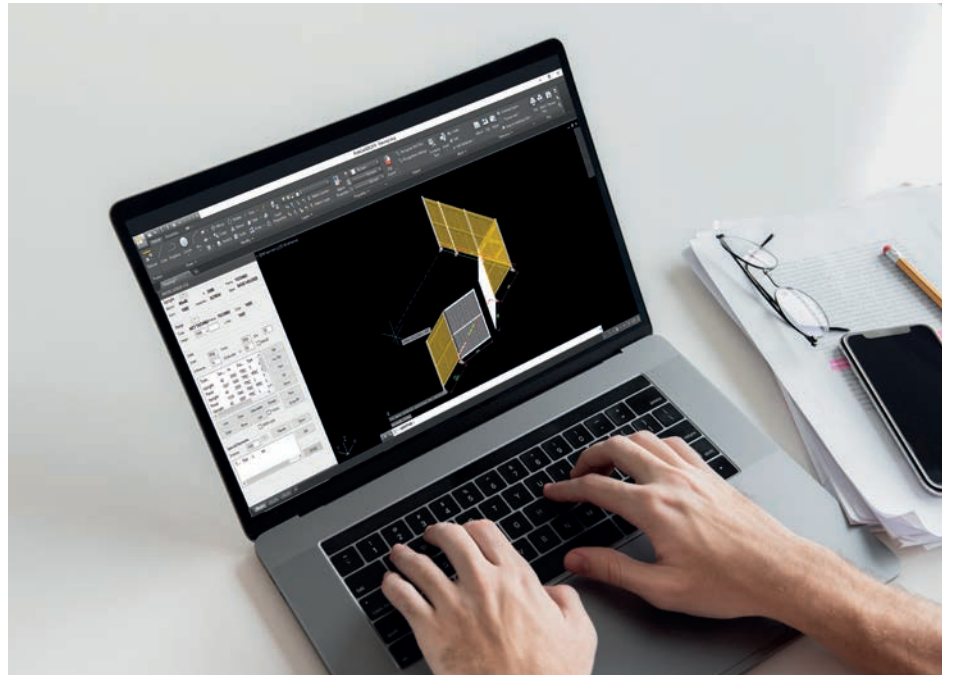
Protection Guarding

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Safe and efficient packaging

Our wooden packaging is designed to ensure the integrity of products during transport, while optimising costs. We also offer packaging that complies with the ISPM-15 standard, ensuring optimal protection and conforming to international regulations for transport.

Tailor-made installation

We offer a complete on-site pre-assembly and installation service to ensure quick and precise installation. However, for those who prefer to proceed with the assembly themselves, we provide detailed instructions.

Instruction manual

Our instruction manual is an indispensable tool designed to support both technical offices and mechanical fitters, providing simple and clear user guidelines for the kits and ensuring correct and trouble-free installation. You can easily download the instruction manual by accessing our online client area and, to ensure full support, a copy of the manual is also provided with every order, so that clear information that is always available.

Techno System

The Techno safety system available in the Ø3mm and Ø4mm wire version has been created to offer all those who have to delimit hazardous areas, a low-cost and easy-to-install steel solution.

This product was born as a self-supporting panel, with a mesh designed to improve the view of the segregated machinery. The visibility of the segregated area is a strong point of this product; the combination of mesh and black colouring significantly improves the vision of the danger zone. Scratch resistance is guaranteed by a special black paint.

Affordable

The cost is low because it is made of self-supporting mesh.

Modular

The Techno system was created with the precise intention of being interchangeable with other systems: hybrid structures can be created by mixing a framed guarding system together with Techno, one adjacent to the other. This way, the robustness of one system and the flexibility of the other are exploited.

In fact, the doors themselves are made with the Novatek series.

Visibility

The innovative 32x67 Ø3mm mesh system improves the view of the machinery within the segregated area.

Adjustable on site

This system has the great advantage of being adjustable on site using very few tools.

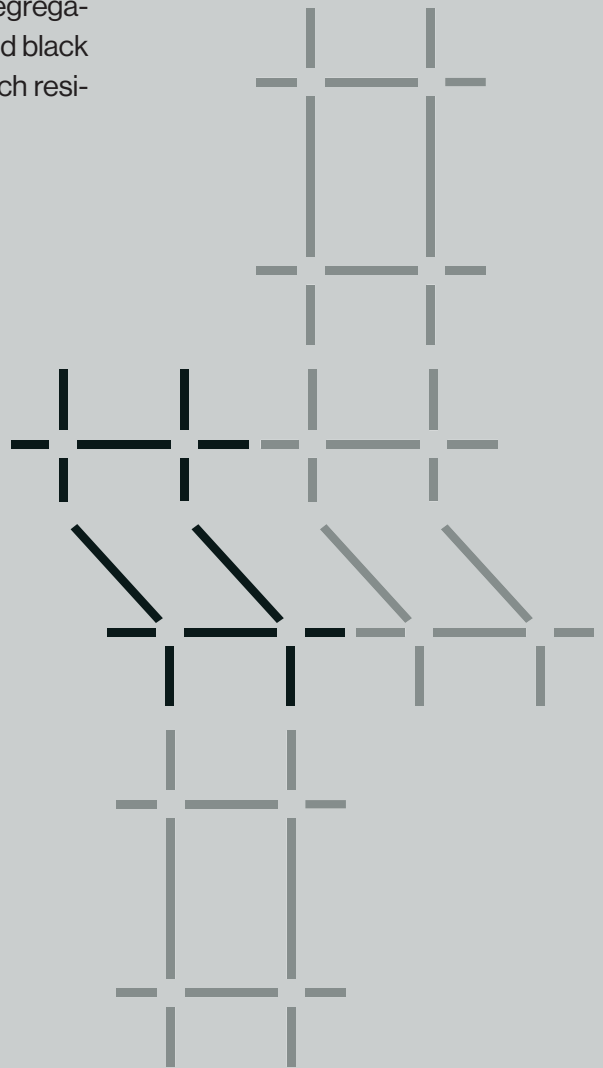
Resistant

The Techno system has passed the resistance test and complies with the EN ISO 14120.

Anti-climbing

The Techno system has been designed to make climbing difficult.

The vertical wires of the 32x67 Ø3mm mesh are welded externally prevent climbing. The position and inclination of the mesh wires make it difficult for a shoe to grip onto them.





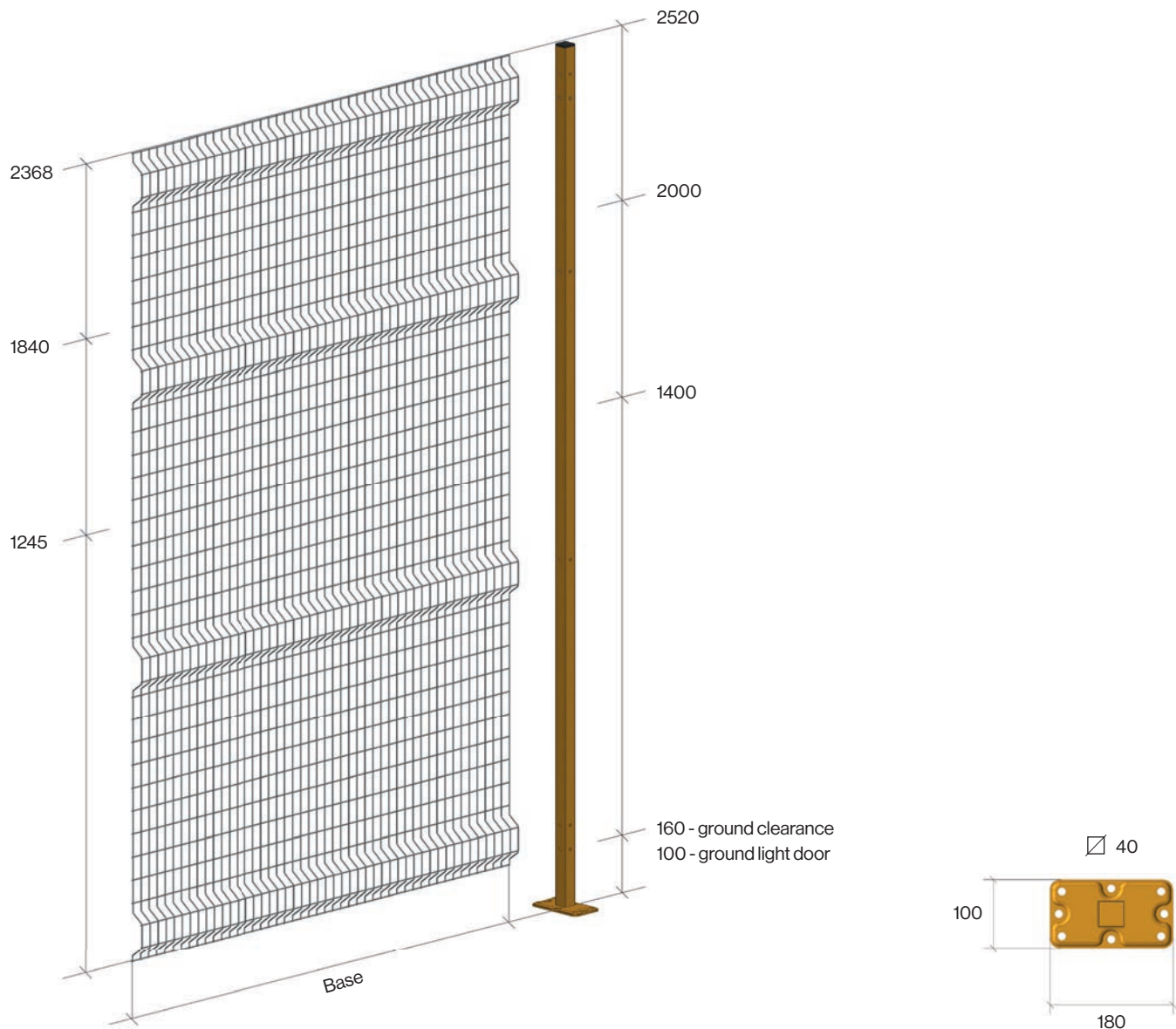
Example of applications of the Techno system for the delimitation of areas with hazardous machinery.



Techno Ø3 system

The Techno Ø3 system is composed of Ø3mm wire self-supporting mesh panels, is available in different heights and in combination with the 40 ∇ posts offers versatile, low-cost and quick to assemble solutions. In addition, scratch resistance is guaranteed by a special black paint.

The posts have a welded plate to increase impact resistance and to allow the system to be fixed to the floor without having to move it from the desired position.



Panels Options

Base	H 1240	H 1840	H 2368
259	-	X	X
419	-	X	X
707	-	X	X
1027	X	X	X
1219	-	X	X
1507	X	X	X
2019	-	X	

Posts Options

Section	H 1400	H 2000	H 2520
∇40	X	X	X

Colour Options

	RAL 1003
	RAL 9005 anti-scratch
	Customised option

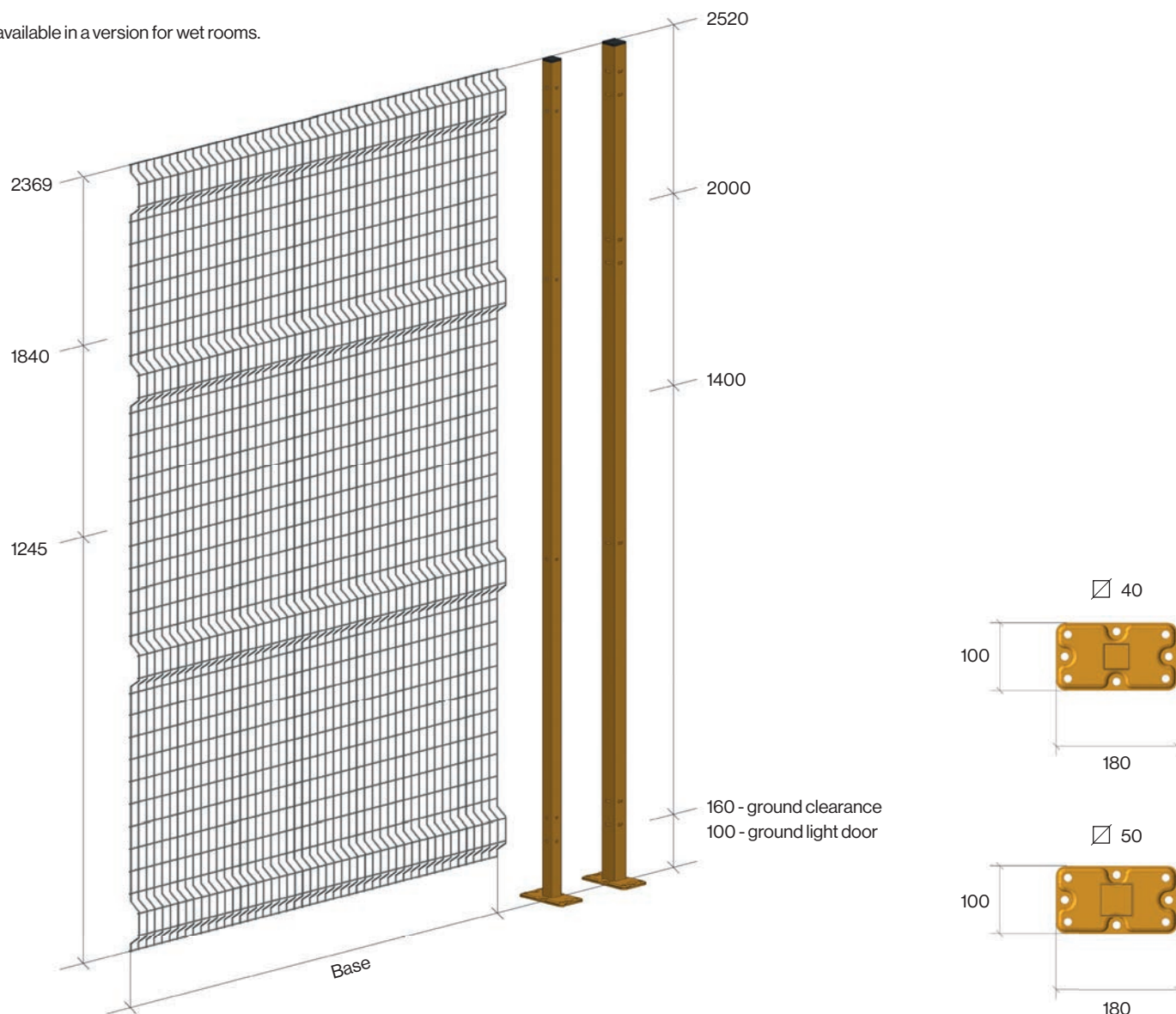


Techno Ø4 system

The Techno Ø4 system is composed of Ø4mm wire self-supporting mesh panels, is available in different heights and in combination with the 40 $\square$ or 50 $\square$ posts offers versatile solutions, robust and quick to assemble. In addition, scratch resistance is guaranteed by a special black paint.

The posts have a welded plate to increase impact resistance and to allow the system to be fixed to the floor without having to move it from the desired position.

Also available in a version for wet rooms.



Panels Options

Base	H 1240	H 1840	H 2369
260	-	X	X
420	-	X	X
708	-	X	X
1028	X	X	X
1220	-	X	X
1508	X	X	X
2020	-	X	X
2500	X	X	-

Posts Options

Section	H 1400	H 2000	H 2520
$\square$ 40	X	X	X
$\square$ 50	X	X	X

Colour Options





Example of application of the Techno system for the delimitation of areas with the handling of loads at high heights.

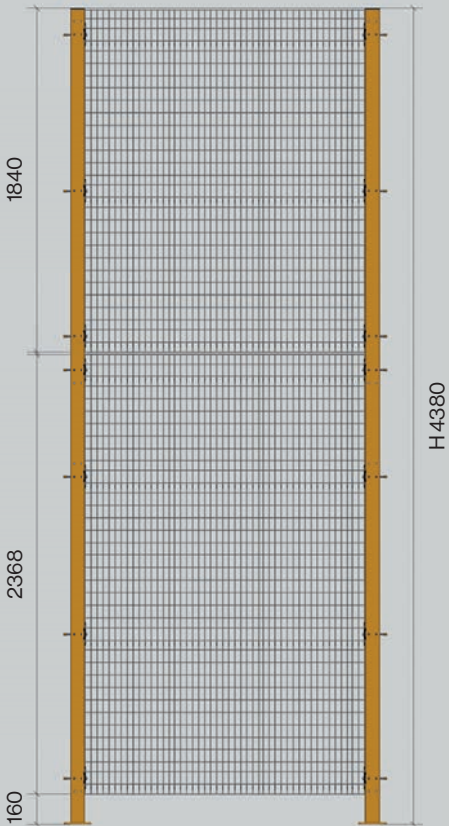
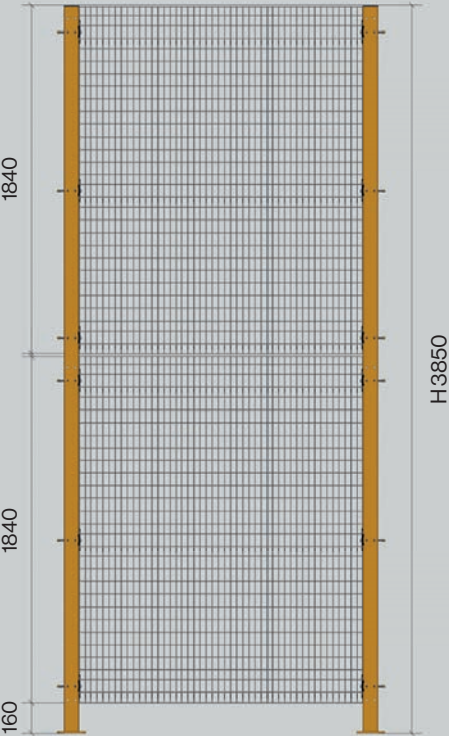
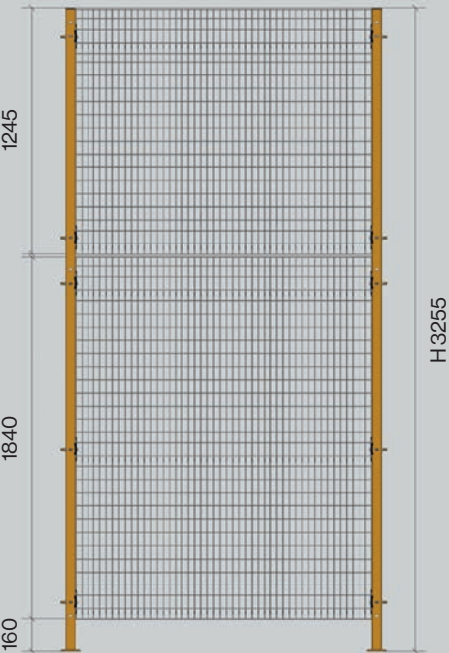
Modularity of the Techno system

The Techno safety system allows you to create higher protections, thanks to the use of special posts. This makes the Techno system extremely versatile, allowing the barriers to be adapted to the specific needs of each working environment.



Possible combinations

The diagrams show the height combinations of the Techno system.



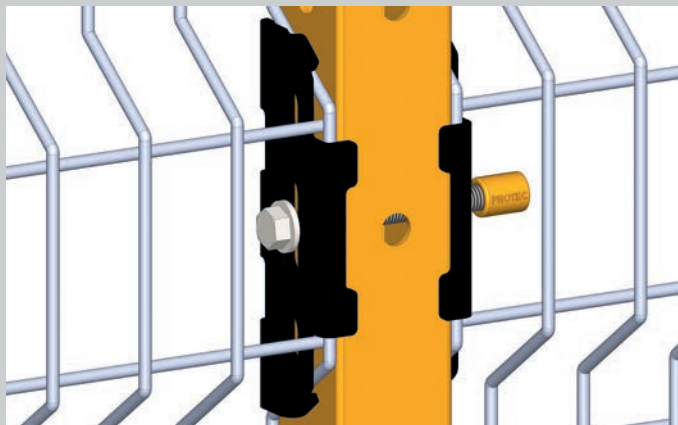
Techno Overlay

Section	H 3255	H 3850	H 4380
Ø 40	-	-	-
Ø 50	X	-	-
Ø 80	-	X	X

Accessories

Captive screw kit

Patented system, compliant with current standards, is easy to install and is always supplied.



Convex corner kit

This accessory allows you to make convex 90° angles.



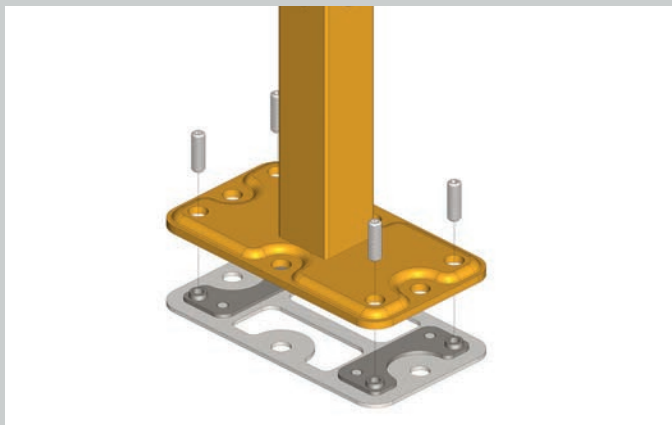
1 fold panel fixing kit

This accessory allows you to fix the panel to the posts after shortening it following a horizontal cut.



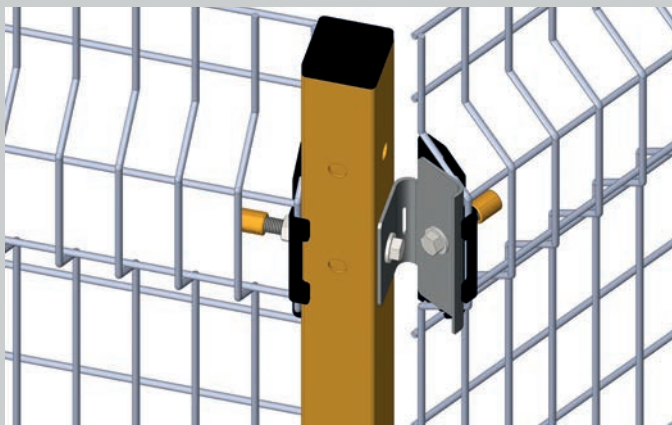
Leveling kit

This kit allows you to level and level the posts. Ideal for adjusting door posts.



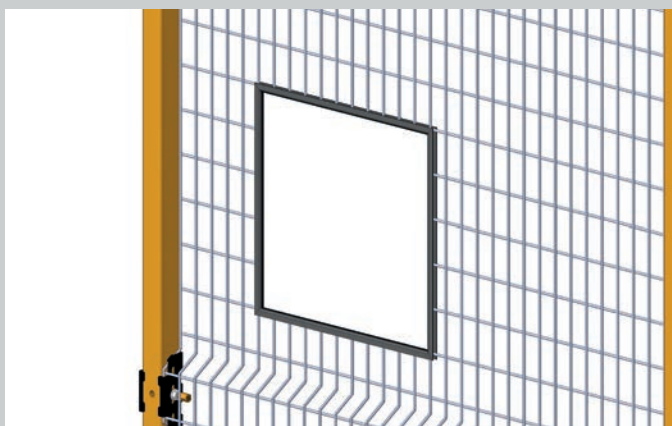
Panel inclination kit

This accessory allows you to make inclinations from 30° to 180°.



Rubber profile

This accessory helps protect against sharp edges.





Quick Techno kit

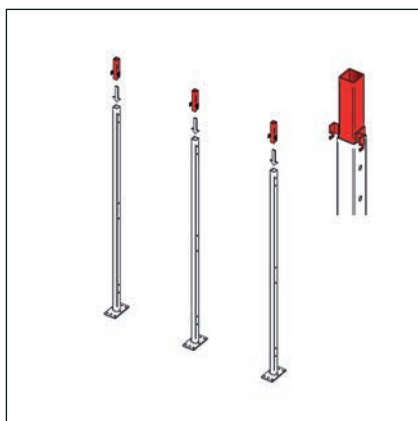
The Quick Techno kit is a tool designed solely and exclusively to reduce assembly times. In fact with this kit, consisting of three brackets, installation by a single operator is even possible.

The system complies with current regulations.

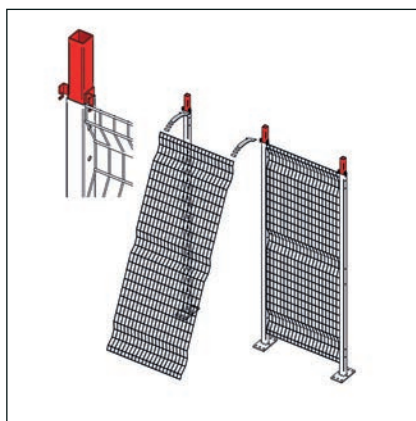
A basic requirement for fixed guards is that they must be fastened using systems that can only be opened with the use of tools and, as far as possible, must not be able to remain in place without their fastening mechanism.

At the end of the operations, therefore, the kit must be removed.

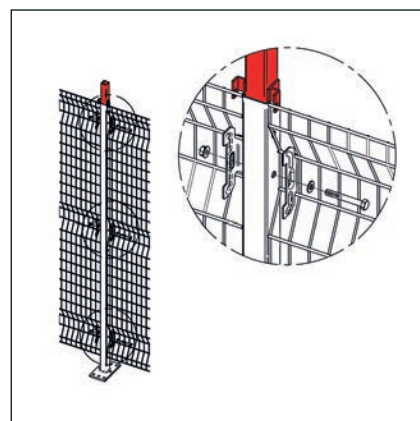
Step 01



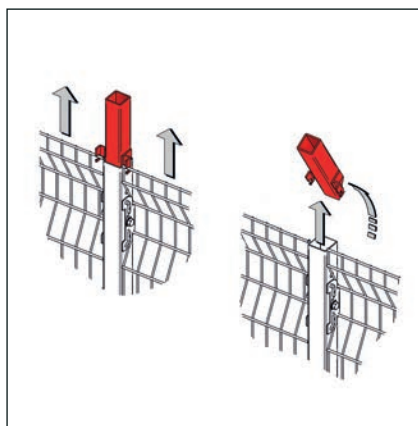
Step 02



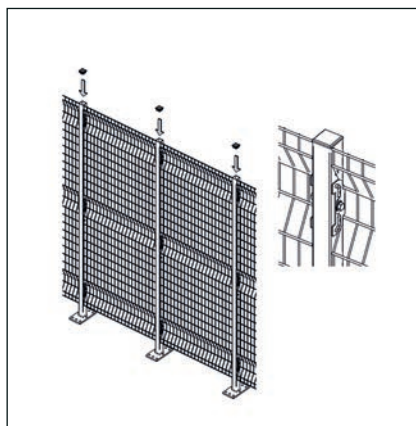
Step 03



Step 04



Step 05



Watch the video



Swing door

It is available in a single or double version.

It acts as a panic alarm using a magnet system and also enables operators to evacuate the segregated area by pushing the door panel.

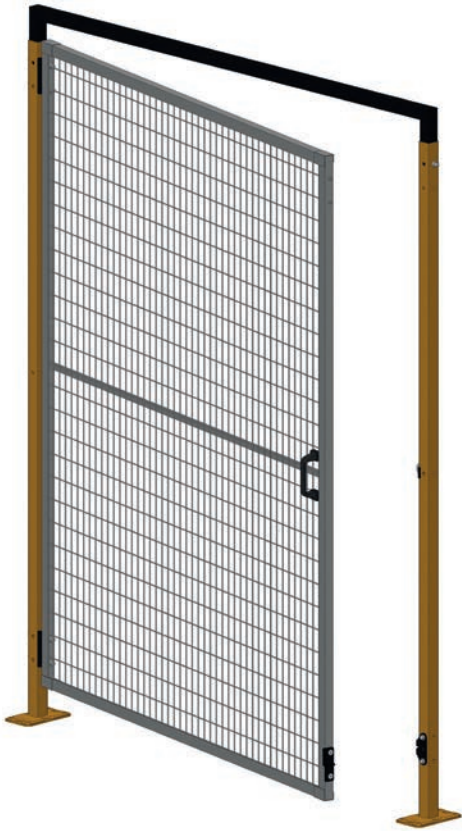
Ø 40 or Ø 50 posts

Light available from 735 to 3050 with the use of standard panels.

Single door light = B (700, 1000, 1200, 1500) + 35

Double door light = B (1400, 2000, 2400, 3000) + 50

More light on request.



Folding door

It is available in a single double version.

The folding door allows to pack all panel together when opened.

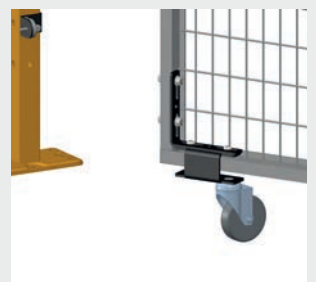
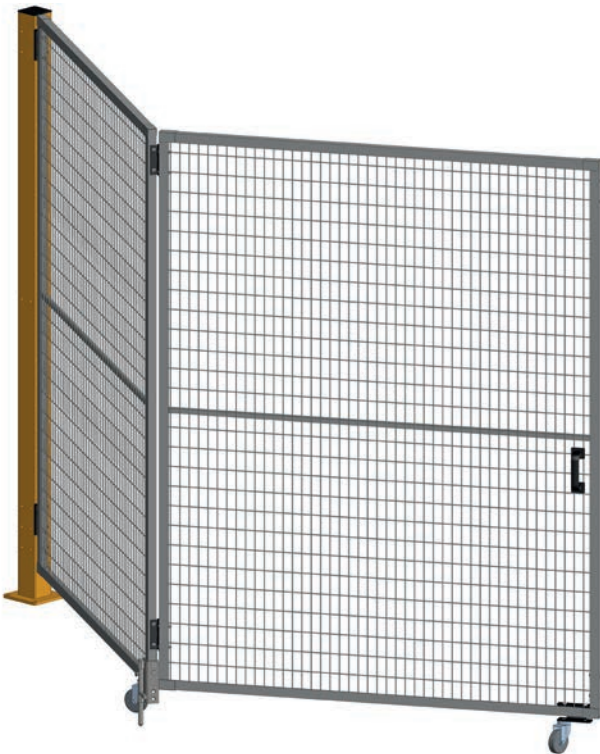
Also available with a top rail.

Ø 50 posts

Single door light up to 3000

Double door light up to 6000

More light on request.





Suspended sliding door

It is available in a single or double version.

The upper part of the door is guided by a monorail and trolleys, while in the lower part a polypropylene profile ensures the smoothness of the panel.

Ø 40 or Ø 50 posts

Light available from 865 to 2820 with the use of standard panels.

Single door light = B (1000, 1200, 1500) - 135

Double door light = B (1400, 2000, 2400, 3000) - 175

More light on request.



Sliding suspended folding door

Allows the door to be opened by folding it on one side only.

The upper part of the door is guided by a monorail and trolleys, while in the lower part a polypropylene profile ensures the smoothness of the panel.

Ø 50 posts

Light up to 2850 with the use of standard panels.

Sliding door on the ground

It is available in a single or double version.

The door is guided on the ground by a rail and at the top by a roller system.

Ø 40 or Ø 50 or Ø 80 posts

Light available from 792 to 2665 with the use of standard panels.

Single door light = B (1000, 1200, 1500) - 210

Double door light = B (1400, 2000, 2400, 3000) - 335

More light on request.

Option with rubber wheel

It allows you to have the opening light free of clutter.



Sliding door on the ground without ground guide

It is available in a single or double version.

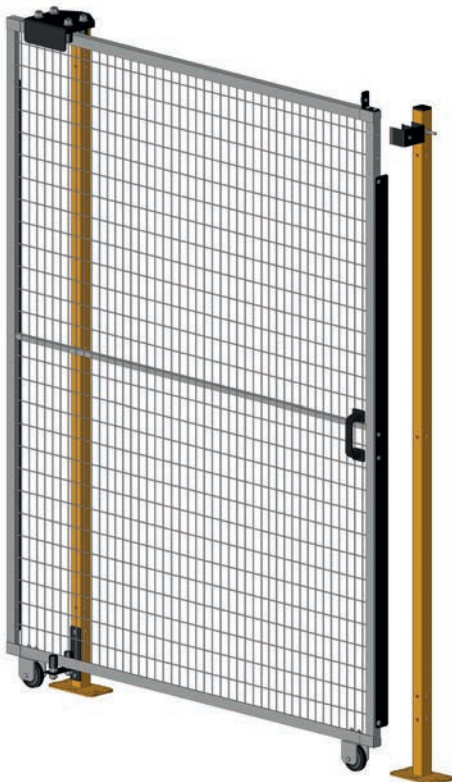
The door is guided by a roller system.

Ø 50 posts

Single door light up to 1800

Double door light up to 3500

More light on request.



Freestanding door

It is available in a single or double version.

The door leaves no top or bottom static elements, when opened.

Ø 80 posts

Light available from 725 to 3425 with the use of standard panels.

More light on request.



Telescopic door

It is available in a single or double version.

The door has no upper and lower dimensions, and by means of folding guides it also reduces the side dimensions.

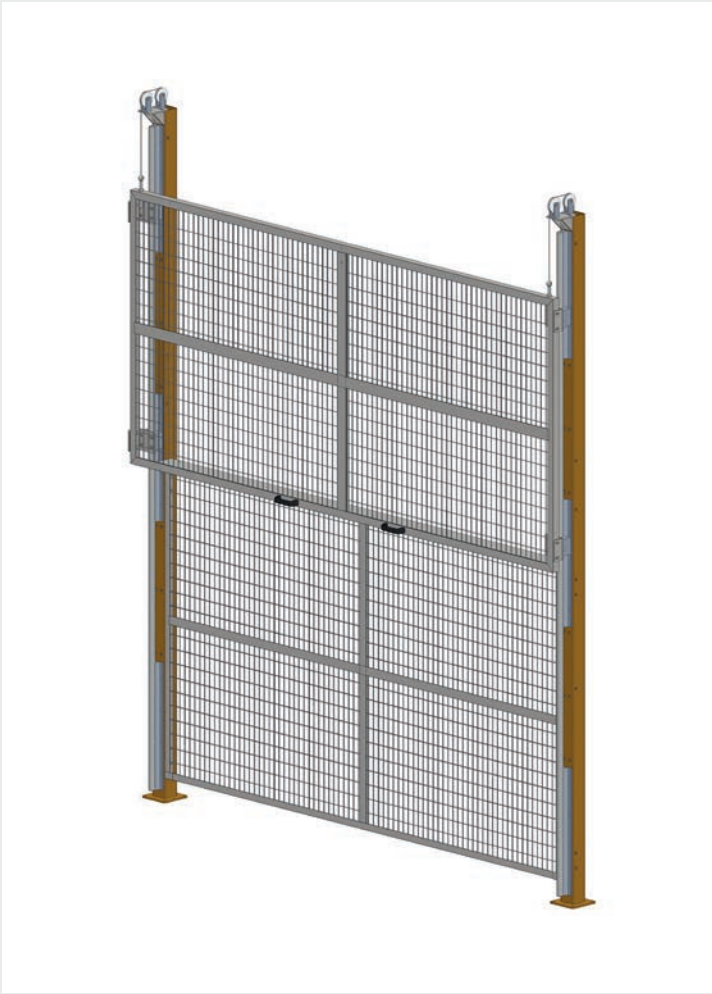
Ø 40 or Ø 50 or Ø 80 posts

Single door light up to 4500

Double door light up to 9000

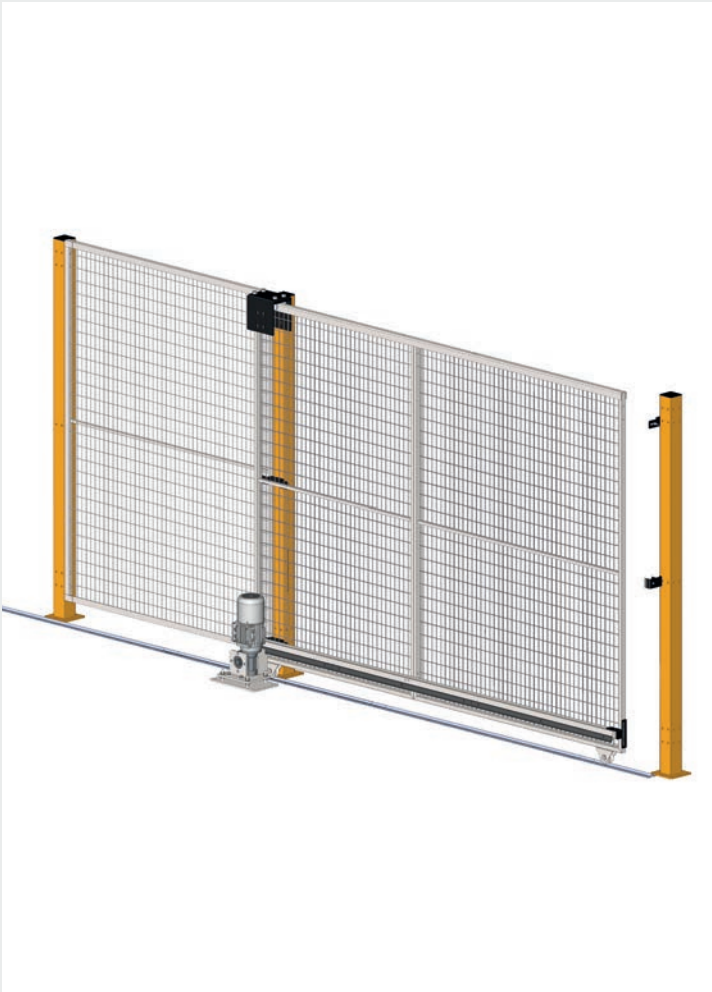
More light on request.





Vertical sliding door

The vertical sliding door with manual movement uses a system of pulleys, linear guides and counterweights.



Automatic doors

We can offer both pneumatic and motorized drive system.

	Motorised	Pneumatic door
Sliding door	X	X
Suspended sliding door	X	X
Vertical sliding door	X	X

Locks and Microswitches

Panic lock for swing doors

The panic lock for swing doors satisfies the need to lock the door and at the same time to give the operator the opportunity to exit in case of accidental closing.



Key lock for swing or sliding doors

The lock allows the door to be closed with a key and thus prevents access by unauthorised personnel. It is designed for the use of up to three padlocks to prevent operators from being accidentally trapped.



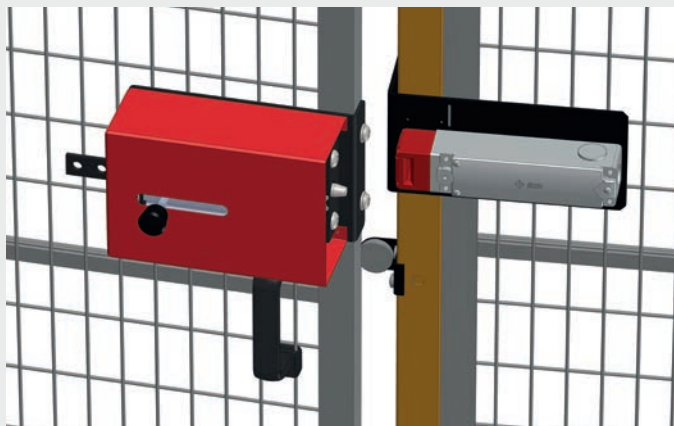
Trapped key lock

This is a device that allows you to increase the degree of security of the system. It prevents the restart of the machine against the will of those inside the segregated area using a non-duplicable coded key system.



Multi Lock

The lock, which can be applied to swing doors, controls access to hazardous areas as part of an integrated system. Equipped with an internal anti-imprisonment lever, it guarantees emergency exit. Designed for the use of up to three padlocks to prevent operators from being accidentally trapped.



Micro kit for swing door

The Pizzato FR2096-L16M11NO+2NC safety microswitch has a customised pin that acts directly on the hinge; once positioned and pinned, it becomes integral with the hinge itself.



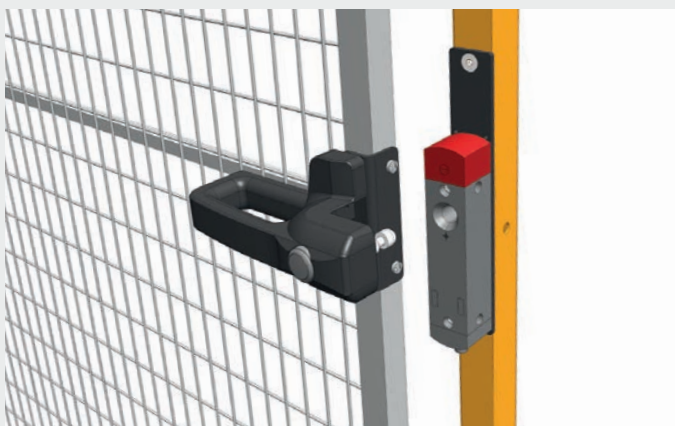
Cable duct

This accessory allows the use of cable ducts. It can be anchored on the upright or on the panel.



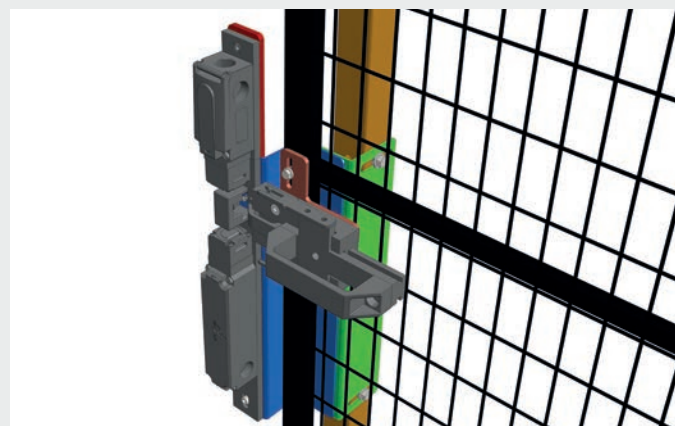
Brackets for anchoring

The most frequently used safety microswitches, such as Pizzato, Euchner, Schmersal, etc., are available.



Custom-made brackets for microswitches or electric locks

Our technical department is able to design custom-made brackets for your microswitches or electric locks.



The solution best suited to you

Cost-effective

Techno System Ø3 mm



The cost is low because it is made of self-supporting mesh.

Techno System Ø4 mm



The cost is low because it is made of self-supporting mesh.

Novatek System



The price/quality ratio makes this product unique and very competitive in the market.

Ecotek System



The cost is low compared with the same Novatek system because it is made with 10x25 tubulars.

Modularity



Interchangeable with other frame systems.
The doors are made with the Novatek series.

Adjustable on site.



Interchangeable with other frame systems.
The doors are made with the Novatek series

Adjustable on site.



Interchangeable with other frameless systems.
The panels act both as fixed elements and, through the use of kits, as a hinged or sliding door.

Can be modified on site with cutting kit or extension kit.



Interchangeable with other frameless systems.
The doors are made with the Novatek series.

No special panels are made.

Visibility



The innovative system of the 32x67 Ø3 wire mesh combined with the black colour of the panel improves the visibility of the machine within the segregated area.



The innovative system of the 32x67 Ø3 wire mesh combined with the black colour of the panel improves the visibility of the machine within the segregated area.



The innovative system of the 32x67 Ø3 wire mesh combined with the black colour of the panel improves the visibility of the machine within the segregated area.



The innovative system of the 32x67 Ø3 wire mesh combined with the black color of the panel improves the visibility of the machine within the segregated area.

Resistance

Test reports available in the client area.



Test reports are available online in our client area.
The Techno system has passed the endurance test. The system complies with EN ISO 14120.

Panel B=1500 resistance 800J - post $\geq$ 40
Panel B=2000 resistance 280J - post $\geq$ 40



The Techno system has passed the endurance test. The system complies with EN ISO 14120.

Panel B=1500 resistance 1300J - post $\geq$ 40
Panel B=2500 resistance 650J - post $\geq$ 40
Panel B=2000 resistance 2000J - post $\geq$ 50
Panel B=2500 resistance 1600J - post $\geq$ 50



The Novatek system has passed the resistance test and complies with the EN ISO 14120 standard. See the test report online in our client area.

Panel B=1500 resistance 1300J - post $\geq$ 40
Panel B=1500 resistance 2000J - post $\geq$ 50
Panel B=1500 resistance 2500J - post $\geq$ 80

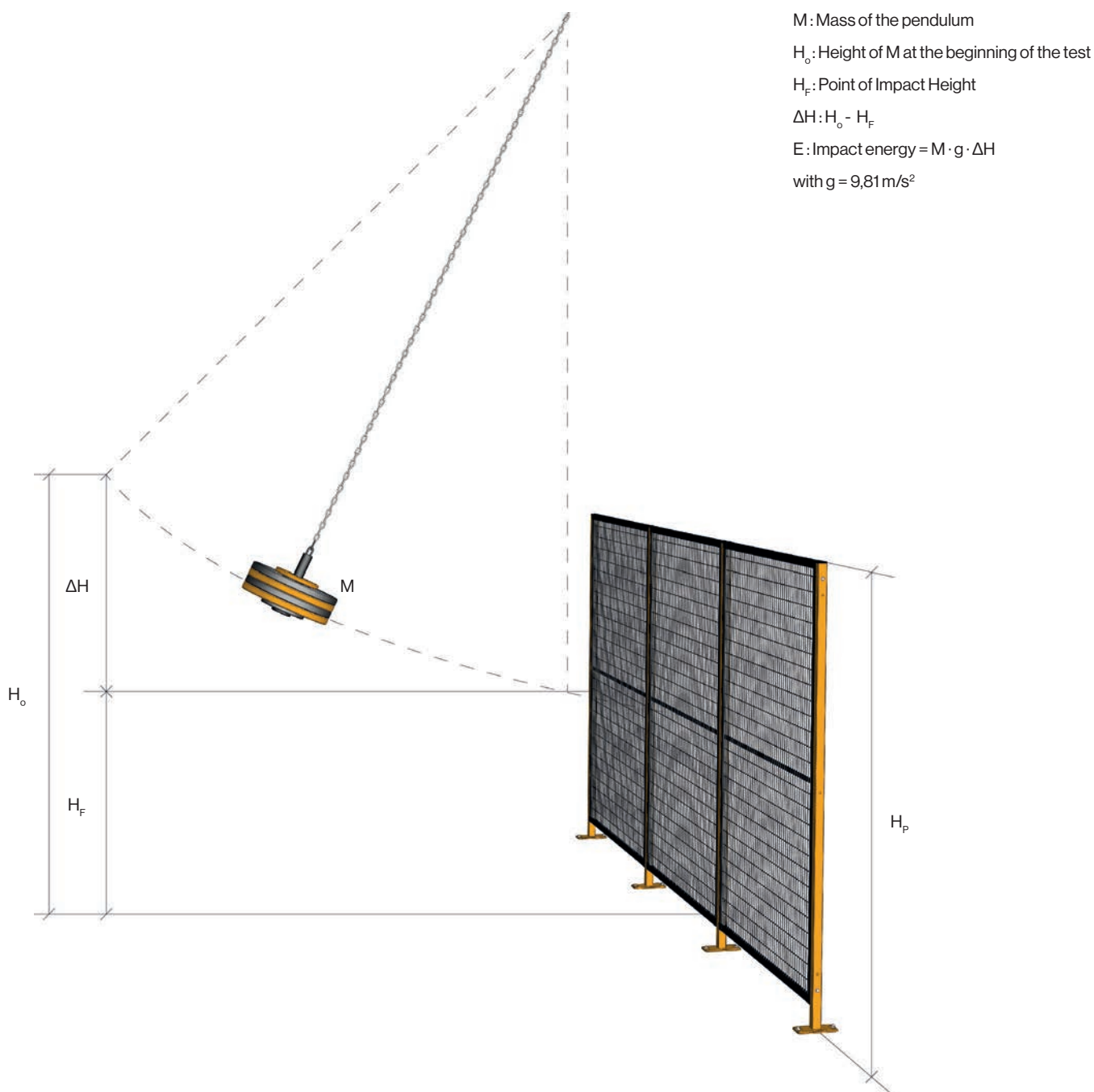


The Ecotek system has passed the resistance test and complies with the EN ISO 14120 standard.

Panel B=1500 resistance 1300J - post $\geq$ 40
Panel B=1500 resistance 2000J - post $\geq$ 50

Impact Tests

Our products are tested according to the indications given by the EN ISO 14120 standard. The pendulum test consists of testing the resistance of the guards against impacts from inside and outside the protected danger zone.





We have an internal test area at our disposal, which allows us to carry out dynamic impact resistance tests from the inside out using a rigid body.

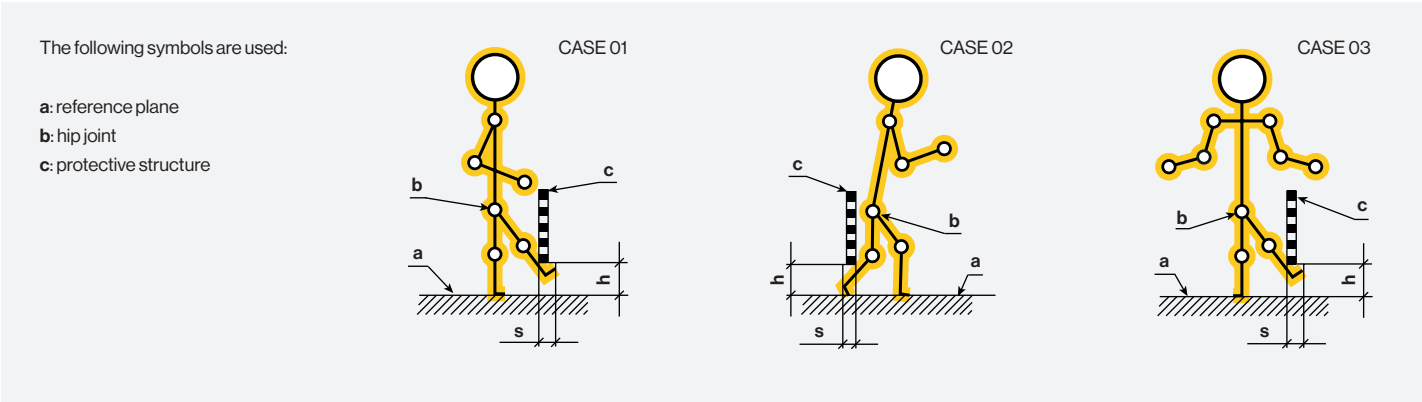
Standards

The modular guards have been designed according to the criteria contained in the following reference standards:

EN ISO 12100 Machinery safety. Fundamental concepts, general design principles for the design and construction of fixed and mobile guards.	EN ISO 13857 Safety distances to prevent reaching dangerous areas with the upper and lower limbs.	EN ISO 14119 Safety of machinery - Interlocking devices associated with guards - Principles of design and selection.
EN ISO 13849-1 Safety of machinery - Parts of control systems related to safety. General principles for design.	EN ISO 13854 Safety of machinery. Minimal clearances to prevent crushing of body parts.	EN ISO 14122-3 Permanent means of access to machinery. Stairs, bunk ladders and parapets.
EN 60204-1 Safety on machinery. Electrical equipment of machines. Part I: General Rules.	2006/42/CE Machinery Directive.	EN ISO 14120 Safety of machinery - guards - general requirements for the design and construction of fixed and movable guards.

Lower limb access table EN ISO 13857, Annex B

Limitation of free movement under protective structures.



Irregular openings and accessibility from below : Slit openings >180mm and square or circular >240mm allow access to the entire body.

Height to the structure of guards h	Distance S		
	CASE 01	CASE 02	CASE 03
$h \leq 200$	≥ 340	≥ 665	≥ 290
$200 < h \leq 400$	≥ 550	≥ 765	≥ 615
$400 < h \leq 600$	≥ 850	≥ 950	≥ 800
$600 < h \leq 800$	≥ 950	≥ 950	≥ 900
$800 < h \leq 1000$	≥ 1125	≥ 1195	≥ 1015

Upper limb access table EN ISO 13857



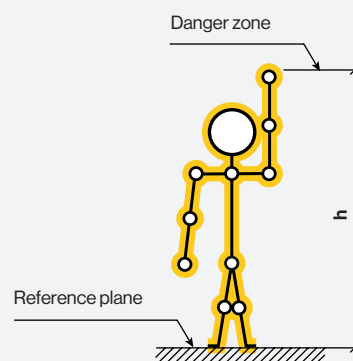
Restriction of free movement over protective structures.

EN ISO 13857, 4.2.1

Fig.1

Upward accessibility

- If the danger zone is a reduced hazard, the height h of the hazardous area must be greater than or equal to 2500 mm.
- If the danger zone is at high risk, then:
The height h of the hazardous area must be greater than or equal to 2700mm or other safety measures must be taken.



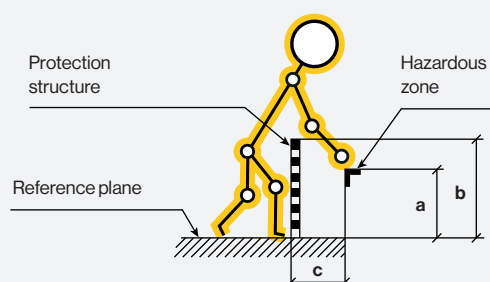
EN ISO 13857, 4.2.2

Fig.2

Accessibility above of protective structures

The following symbols are used:

- a:** height of the danger zone
- b:** height of the protective structure
- c:** horizontal distance of the hazardous area



In the table below (relating to high risk) protective structures with a height of less than 1000 mm are not considered because they do not sufficiently limit the movement of the body. Protective structures with a height of less than 1400 mm should not be used without additional safety measures.

In a situation of reduced risk, protective structures with a height equal to or greater than 1000 mm are considered. If the safety distance is expressed in the table below with a hyphen, then the distances according to the size of the net must be used. With 32x67 wire Ø3 or Ø4 mesh, the minimum safety distance is 200 mm.

EN ISO 13857, 4.2.2.1.2 Table 2 height risk

Height of the hazardous area a	Height of the protective structure b									
	1000	1200	1400	1600	1800	2000	2200	2400	2500	2700
	Horizontal distance from the hazardous area c									
2700	-	-	-	-	-	-	-	-	-	-
2600	900	800	700	600	600	500	400	300	100	-
2400	1100	1000	900	800	700	600	400	300	100	-
2200	1300	1200	1000	900	800	600	400	300	-	-
2000	1400	1300	1100	900	800	600	400	-	-	-
1800	1500	1400	1100	900	800	600	-	-	-	-
1600	1500	1400	1100	900	800	500	-	-	-	-
1400	1500	1400	1100	900	800	-	-	-	-	-
1200	1500	1400	1100	900	700	-	-	-	-	-
1000	1500	1400	1000	800	-	-	-	-	-	-
800	1500	1300	900	600	-	-	-	-	-	-
600	1400	1300	800	-	-	-	-	-	-	-
400	1400	1200	400	-	-	-	-	-	-	-
200	1200	900	-	-	-	-	-	-	-	-
0	1100	500	-	-	-	-	-	-	-	-

