access

improving workplace safety

Catalogue

HEADQUARTERS

access

improving workplace safety

penta quadra si.s.ma serrature tailor made porte

machine and working areas safety fences

PRODUCTION UNIT

Index

design in safety

How to produce high-tech safety systems starting from wire rod coils? Through the daily search of new solutions in compliance with international norms and customer needs.

access

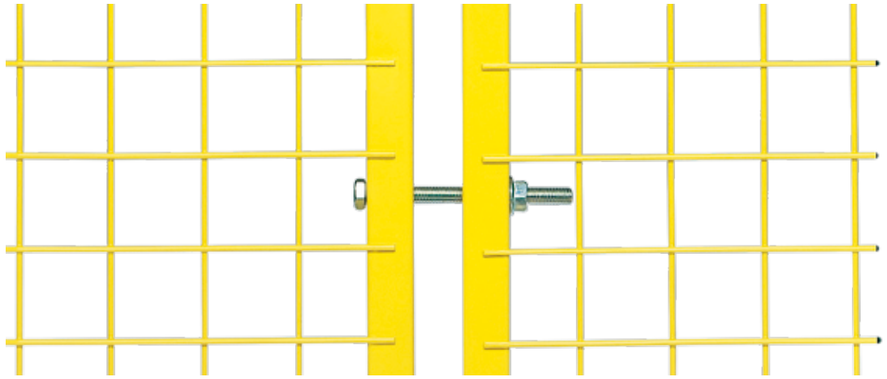
the safety fence specialist

Access was borne from a leading group in the manufacturing of wire rod based products, combining the know-how of one of the primary manufacturer of modular steel works.
The flexibility of the raw material combines with the craftsman ability of changing its shape.

Access has the objective to protect men form dangerous situation originated from mechanical parts inside factories and all the areas where machineries and operators are side by side.

The clean-cut partitioning of risky areas and their easy identification are the main passive safety factor and our main know-how.
This know-how has enabled us to expand into the field of storage system and restricted access areas.

Foresee the unforeseeable.

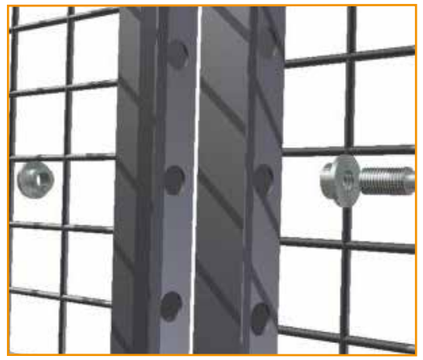


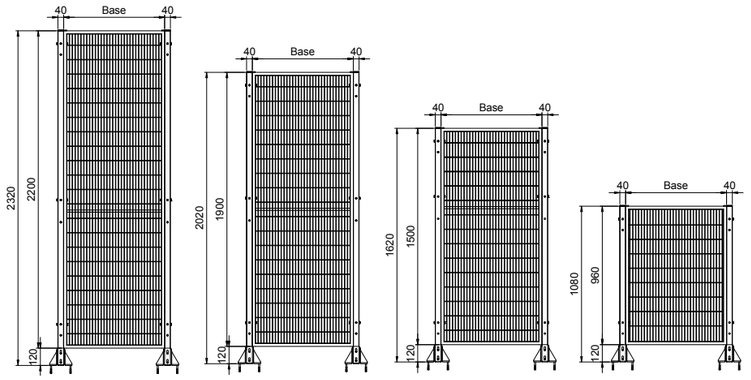
Penta System

Penta modular guard fencing system is made of electro-welded rectangular mesh. Vertical mesh is fitted on the outer side of the panel to prevent climbing as per ISO 14120 requirements.

This system is suitable for situations in which the risk of impact is likely to originate from within the danger area (annex d3, ISO14120) and has its matching fixing screws 14120.

It is installed with META® brackets or with Fixing Screw System for fixed guards.

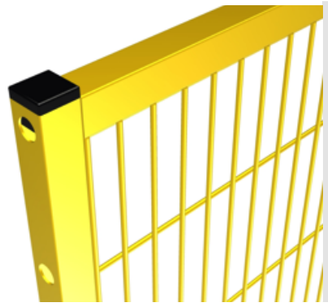




Mesh 20x100 mm, tubular frame 20x20mm, available colour range: Ral 1018, 9005, 7035.
Penta is a CE certified system compliant with the Machinery Directive 42/2006, ISO 14120, ISO 13857.

height (mm)	width (mm)							
0960	250	400	700	800	1000	1200	1500	2000
1500	250	400	700	800	1000	1200	1500	2000
1900	250	400	700	800	1000	1200	1500	2000
2200	250	400	700	800	1000	1200	1500	2000

Once mounted, the height of the protection will exceed by 120 cm the distance between the floor n the top of the pannel.



AVAILABLE COLORS:

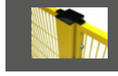
BLACK RAL 9005

YELLOW RAL 1018

GRAY RAL 7035

CUSTOMIZED COLOR

COMPATIBILITY WITH STANDS:


Brackets with fitting fixing


Meta® fixing brackets

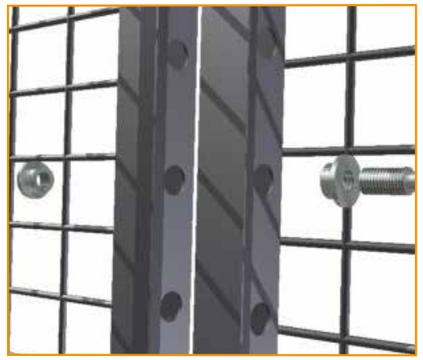

Quick support system

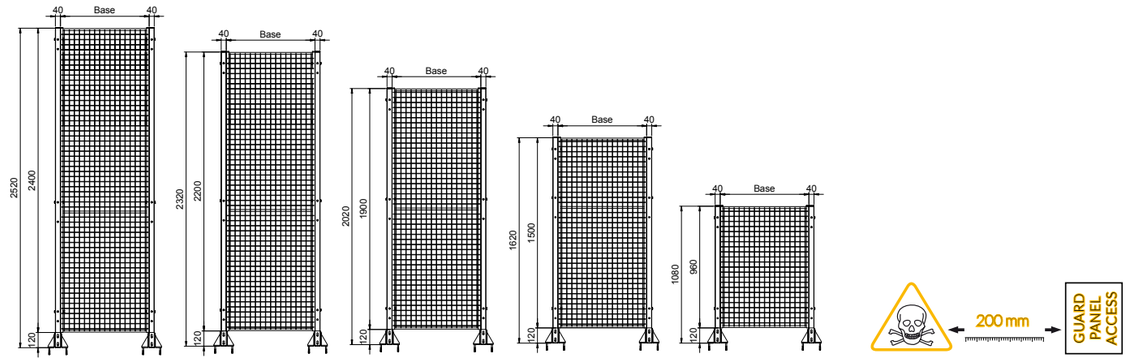
Quadra System

Quadra modular guard fencing system is made of electro-welded square mesh. Vertical mesh is fitted on the outer side of the panel to prevent climbing as per ISO 14120 requirements.

This system can be applied to situations in which the risk of impact is likely to originate from within the danger area (annex d3, ISO14120) and has its matching fixing screws 14120.

It is installed with META® brackets or with Fixing Screw System for fixed guards.

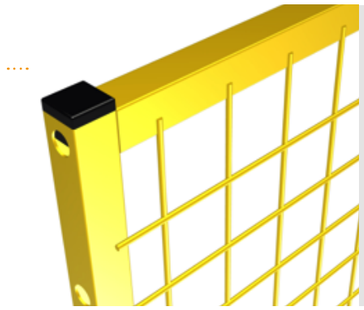




Mesh 40x40x3 mm – tubular frame 20x20 mm with transom 20x20 mm- available colour range: Ral 1018, 9005, 7035.
Quadra is a CE certified system compliant with the Machinery Directive 42/2006, ISO 14120, ISO 13857.

height (mm)	width (mm)							
0960	250	400	700	800	1000	1200	1500	2000
1500	250	400	700	800	1000	1200	1500	2000
1900	250	400	700	800	1000	1200	1500	2000
2200	250	400	700	800	1000	1200	1500	2000
2400	250	400	700	800	1000	1200	1500	2000

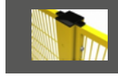
Once mounted, the height of the protection will exceed by 120 cm the distance between the floor n the top of the pannel.



AVAILABLE COLORS:

BLACK RAL 9005 | YELLOW RAL 1018 | GRAY RAL 7035 | CUSTOMIZED COLOR

COMPATIBILITY WITH STANDS:

 Brackets with fitting fixing

 Meta® fixing brackets

 Quick support system

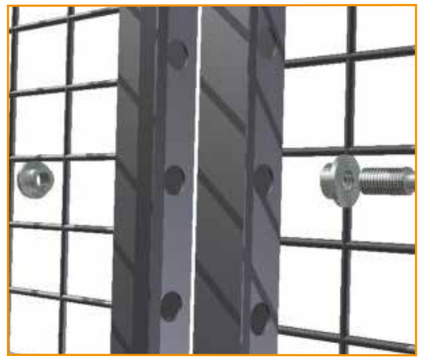
Metal Sheet and Lexan System

Lexan or Metal Sheet modular guard fencing systems are employed in all those situations in which the risk of parts being emitted from within the danger area is higher or when the guard fencing acts as a sound or dangerous substance absorbant.

The panels can be entirely of metal sheet, with shock proof inspection window, polycarbonate, adiactinic polycarbonate or laser-specific material.

The system is manufactured with standard universal frames in order to guarantee full interchangeability. Inspection windows are fitted with Access's exclusive system which allows substitution for maintenance purposes and are fitted with antivibration neoprene edges.

This modular system is installed with META® brackets or with Fixing Screw System for fixed guards.

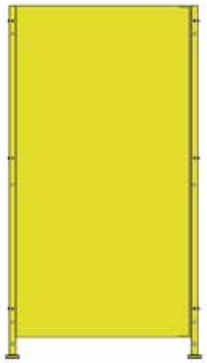


This system is suitable for all situations in which there is a risk of impact from within the danger area (annex d3, ISO 14120) with matching 14120 Captive Screw Kit.

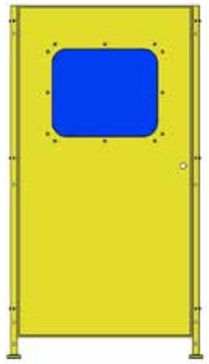
height (mm)				width (mm)			
960	250	400	700	800	1000	1200	1500
1500	250	400	700	800	1000	1200	1500
1900	250	400	700	800	1000	1200	1500
2200	250	400	700	800	1000	1200	1500
2400	250	400	700	800	1000	1200	1500

Once mounted, the height of the protection will exceed by 120 cm the distance between the floor n the top of the pannel.

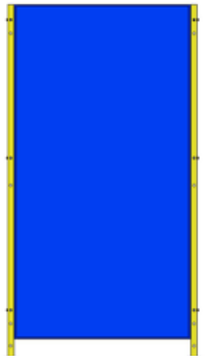
METALSHEET

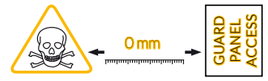


LEXAN METALSHEET

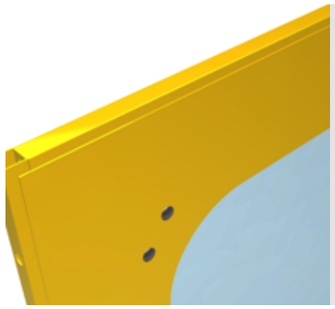


LEXAN





Metal sheet type 15/10 or 20/10, polycarbonate thickness 4mm, 6mm, 8mm,10mm, 20 mm tubular frame Colour range: Ral 1018, 9005, 7035 with anti-reflex powder coating to prevent strobe effect. The system is CE certified in comformity with Machinery Directive 42/2006, ISO 14120. ISO 113857.



AVAILABLE COLORS:

BLACK RAL 9005

YELLOW RAL 1018

GRAY RAL 7035

CUSTOMIZED COLOR

Inox System

Our Guard fencing system for machinery employed in the food industry and the chemical industry is realised using Stainless Steel and materials which are long-lasting, cleanable, disinfectable, fissure-free, splint-free and rough-ends free.

This system has been designed in compliance with standard UNI EN 1672 in order to seek the ever better compromise between hygiene requirements and operator safety issues.

Access's catalogue offers two solutions which have been designed for the SPLASH Area type SH and NO FOOD Area type NF. Both solutions integrate the requirements in terms of hygiene risk and machinery risk prevention as outlined in the following standards: UNI EN ISO 12100, UNI EN ISO 13857, ISO 14120 and ISO 14159.

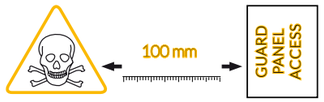
Area Splash type SH

Panels and poles can be completely dissasembled and are cleanable. The panel mesh can be removed from frame and is interchangeable, mesh prevents finger trapping, surfaces are rounded off and have no rough ends or irregularities

Area No Food NF

Cleanable panels and poles, not interchangeable mesh fixed to frame, standard mesh, surfaces with rough ends and irregularities

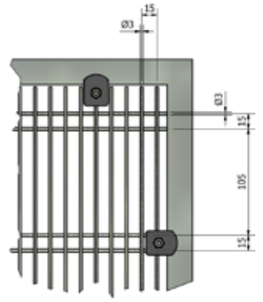
Area SH



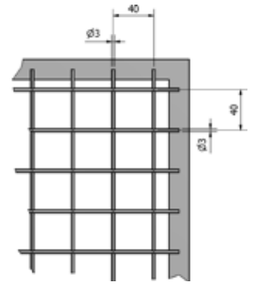
Area NF

Once mounted, the height of the protection will exceed by 120 cm the distance between the floor n the top of the pannel.

Area Splash type SH



Area No Food NF



Area Splash type SH	Area No Food NF
Raw Material INOX AISI A 304	Raw Material INOX AISI A 304
Finishing by mechanical polishing	Finishing by mechanical polishing
Tubolar frame 25 x 25 x 1,5 mm without screw housings	Tubolar frame 25 x 25 x 1,5 mm without screw housings
Anti-finger trapping mesh type TEC mesh 15 x 105 mm thread 3,0 mm	Mesh 40x40 mm thread 3,0 mm
Assembly with mesh clamps in plastic suitable for food applica-tions	Assembled with electro – welding without soldering material
Frame welded with TIG and finished with abrasive carton grinder	Frame welded with TIG and finished with abrasive carton grinder
Sealing caps in plastic suitsble for food appications	Sealing caps in plastic suitsble for food appications
Tubolar fixing brackets 40x40x1,5 mm with no housings	Tubolar fixing brackets 40x40x1,5 mm with no housings
Profiled and raised base plate to allow liquid drainage	Profiled and raised base plate to allow liquid drainage
META® fixing kit with rounded head screws	META® fixing kit with rounded head screws
META® cap with special profile	META® cap with special profile

Crash Test

UNI EN ISO 14120 Crash test

Methods applied to Access products with ISO 14120 marking.

Typically, guards carry out two main functions: prevent people from accessing the danger area and containment i.e. prevent emission of machinery parts or liquid spillage, fumes etc. from within the protected area.
In order to validate guards design and construction according to the ISO 14120 standard and their application in situations in which there is the need to prevent access from outside the danger area and/or contain ejections from within the danger area, load tests need to be carried out as per the methods outlined below

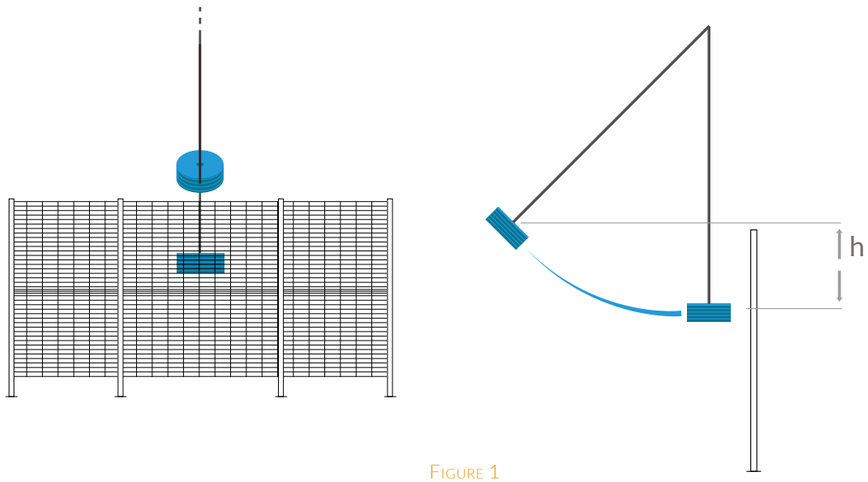


Figure 1

Impact strength i.e. resistance to impacts from outside the danger area (annex d2)

The basic values for the verification of guards impact strength simulate a human body with a minimum total weight of 90 kilos which inadvertently crashes into the protection guards of a danger zone. The minimum speed of the sample weight must be set at 1.6 m/sec, which means that impact energy will be at least E=115 J. The test employs the pendulum method as shown in figure 1.

Impact strength i.e. resistance to impacts from inside the danger area (annex d3)

Energy impact tests depend on the machinery itself according to the formulas below:
$E = ½ m \times V^2$ (C.1) where E represents energy [J] or [Nm]; m represents the mass of the projectile part [kg]; V represents the projectile speed [m/s].
or:
$E = m \times g \times h$ (C.2) where m represents the mass of the part [90 kg]; g is 9,81 m / s^2 (constant); h represents the mass fall [m].
The energy value is measured shortly before impact and it is conventionally expressed in Joules as a result of the 90 kilo body minimum mass impacting as shown in figure 1.
Protections are validated and therefore CE certified even in presence of permanent deformations provided that there isno penetration or total break of support brackets.

Access guards are fitted with 14120 captive screw kits which have passed all tests and can resist to impacts both from the outside and the inside of the danger area up to 2500 Joules.

Crash Test with rigid body

Crash Test

UNI EN ISO 14120 optional crash test

Methods upon customer request.

Guard strength against impacts from within the danger area – Projectiles
The aim of this test is to simulate the danger which may occur when broken machinery or tool parts are ejected from the machine. The test proves the protection resistance to penetration of the parts ejected from the machine when machinery breakdown occurs.
This method is applied to machines fitted with rotating parts with the following perimetral speed:

$$Vc = B \times \pi \times n \quad (C.3)$$

where:
- Vc represents the perimetral speed [m / s];
- B represents the maximum diameter of the rotating element [m];
- n represents the rotation speed [s-1].

This method can also be applied to machines with similar hazard situations.
The test machinery includes a projectile, a system which can push the projectile to the required impact speed (e.g. a air cannon device) and a sample support. Figure 2.

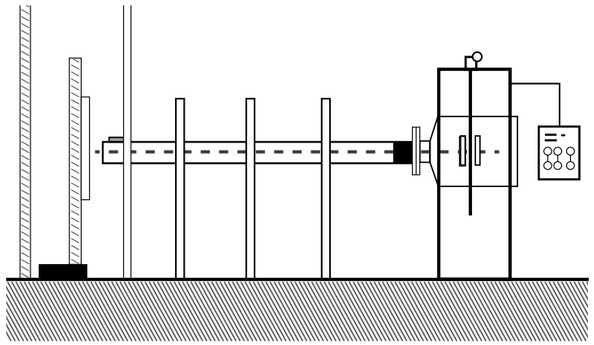


Figure 2

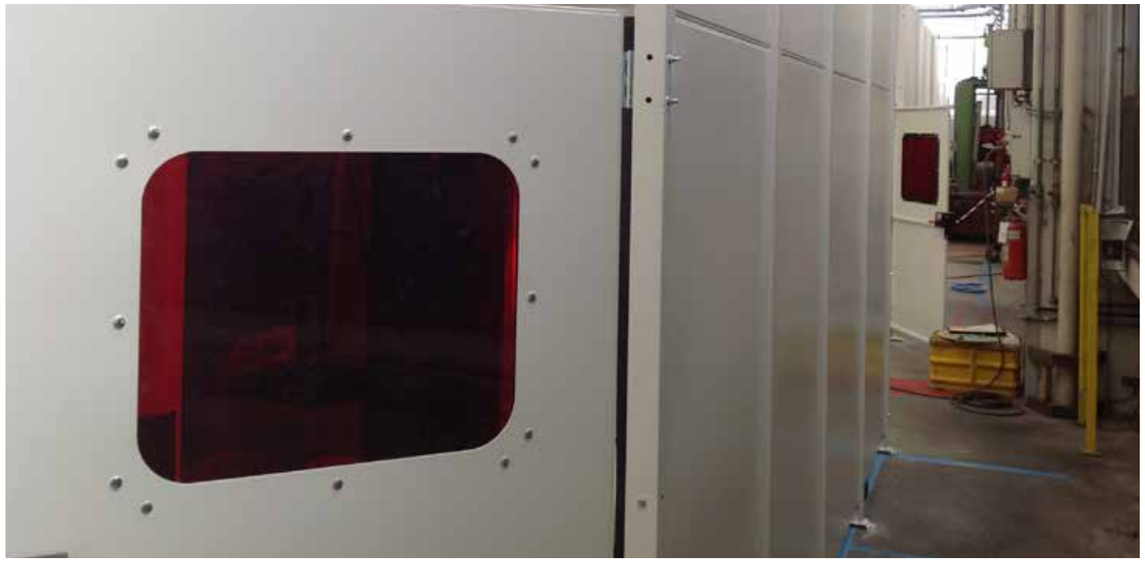
The ejected parts or projectiles are defined both in terms of shape and mechanical features and the shooting speeds are specified.

25	32	50	63	80	100	125	150	180	230

Tab 2

Projectile		
M mass kg	**D diameter mm**	**a x a front face mm x mm**
0,100	20	10 x 10
0,625	30	19 x 19
1,25	40	25 x 25
2,5	50	30 x 30

Tab 1



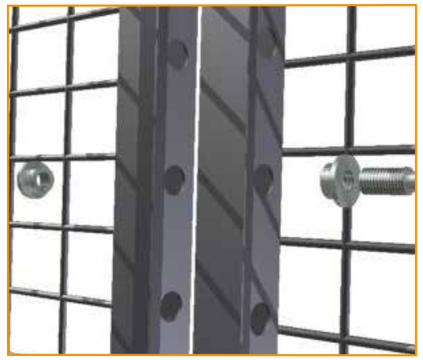
- Resistance to traction R = 560 N / mm2 e 690 N / mm2
- Yield strength R0,2 ≥ 330 N / mm2
- Ultimate elongation A = 20%

The protection will be validated according to the acceptability criteria reported in a specific chart which allows for acceptance of permanent deformation provided there is no penetration of the expelled part or total break of support brackets.

Simulation of the impact of concentrated load

Meta® Fixing Brackets

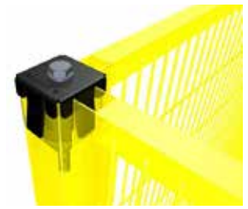
Access has designed and engineered Meta® brackets (European patent No. 2226451) in conformity with the UNI EN ISO 14120 (already EN 953), EN 12100 Standards and the Machinery Directive 42/2006, Meta® brackets meet all the requirements in terms of design and manufacturing of work area guard systems therefore they can be used as an essential fixing system for all CE certified mobile guards.
Access Meta® unbeatable fixing bracket system is supplied with plugs for floor fixing with welded plate base or adjustable option.
Meta bracket section 40x40, 60x60 , tested according to crashtest ISO 14120 (annex d3) complete with housing for **screw kit 14120**.



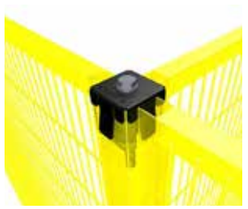
Meta Fixing Brakets					
	h.1080	h.1620	h.2020	h.2320	h.2520
Sezione 40 x 40	√	√	√	√	-
Sezione 60 x 60	-	√	√	√	√
Sezione 80 x 80	-	-	-	-	-

Example of fixing system: Line Meta 1

Meta® Fixing Bracket 1
Linear



Meta® Fixing Bracket 1
Terminal

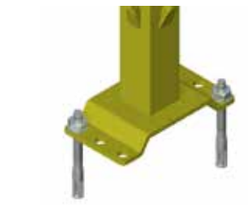


Meta® Fixing Bracket 1
T Insertion

Fixing Systems

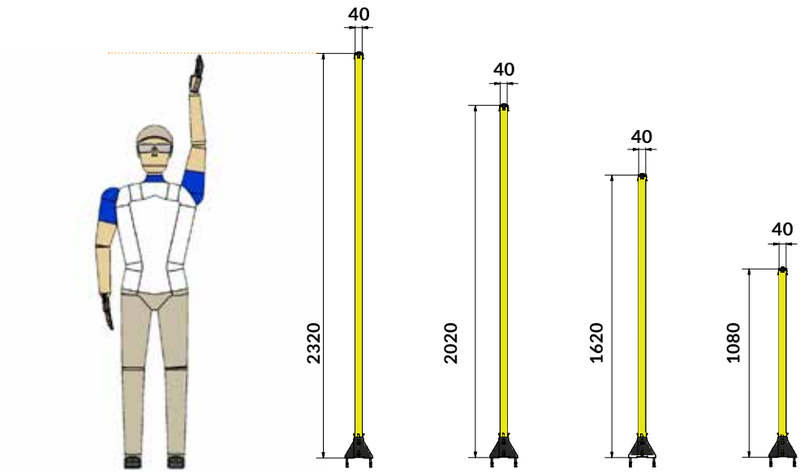
Adjustable Base 60x60 DBS

Adjustable Base 40 x40 REGOLO

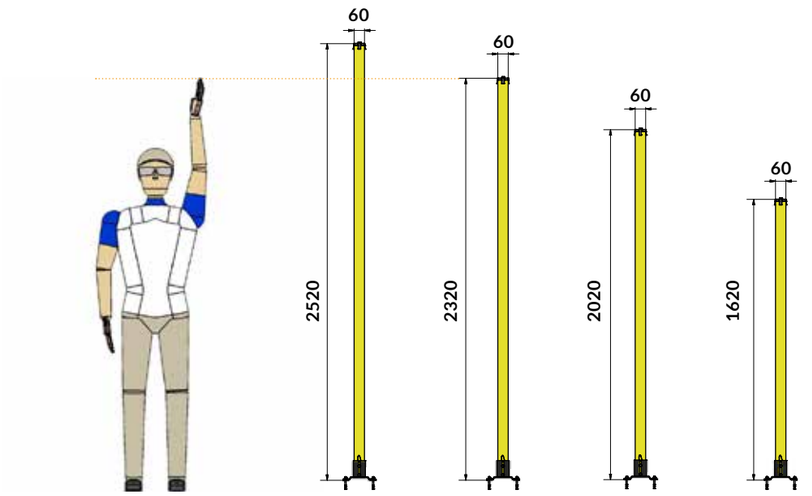


Welded Base DBS

Meta® Fixing Btackets 40x40



Meta® Fixing Btackets 60x60



UNIVERSAL

Meta® can be used with the full range of Access panels and in general with any panel with a 20 mm frame; Meta® is suitable for any assembly configuration and does not require dedicated parts.

FAST

Meta® saves up to 40% of the installation time compared to traditional fitting systems thanks to its fixing expansion pin and the preformed profile at 120mm from floor level.

CERTIFIED

Meta® guarantees CE certification to the guard system as it is recognized as a safety component conformant with the 42/2006 Machinery Directive.

COST EFFECTIVE

Meta® can be assembled by a single operator thanks to its easy lock system in the pre-assembled group.

access

Brackets with fittings fixing

For those applications, in which there is no need to remove guards, it is still possible to use simple screw fixing systems for fixed guards.
Access supplies complete assembly kits which include panel connecting screws, base support connecting screws, PVC plugs and floor fixing dowels.

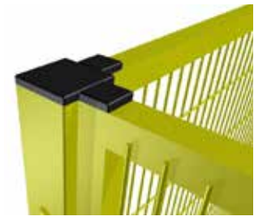
Fixing screw kits are available for 40-60-80 mm sections and in the following connection types: in-line, 90° angle bracket, different width angle brackets, end connection, door connection, T inserts and X inserts.

Brackets with fitting fixing					
	h.1080	h.1620	h.2020	h.2320	h.2520
Section 40 x 40	√	√	√	√	-
Section 60 x 60	-	√	√	√	√
Section 80 x 80	-	-	-	-	-

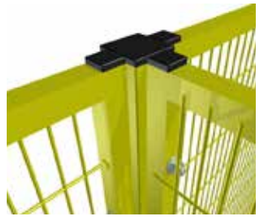
Fitting fixing bag Kit Example

Brackets

Brackets with Linear fittings fixing.



Brackets with Terminal fittings fixing.

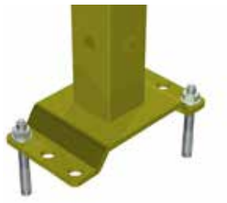


Brackets with T Insertion fittings fixing.

Fittings fixing

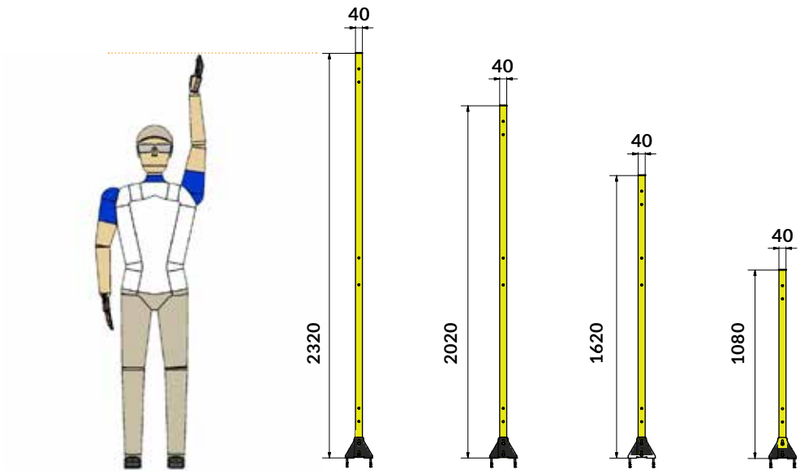
Adjustable Base 60x60

Adjustable Base 40 x40

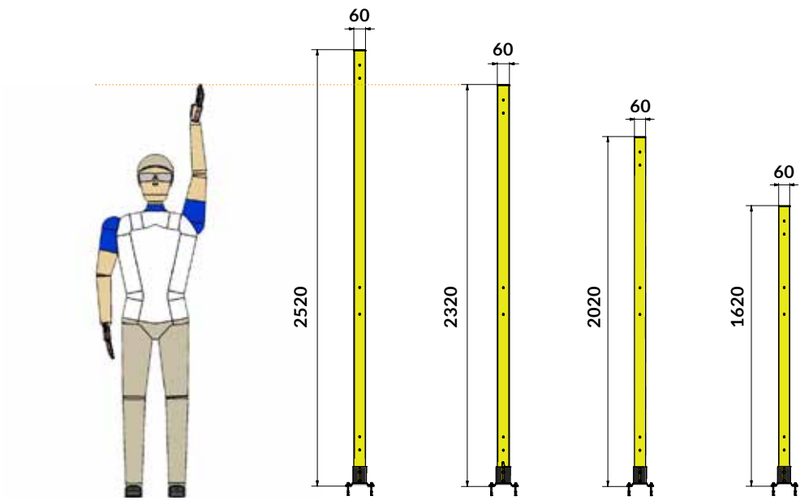


Welded Base DBS

Brackets with fittings fixing 40x40



Brackets with fittings fixing 60x60



PRATICAL

Ready for installation with all angle types, no extra posts needed, packed in specific sacks with standard codes.

COST EFFECTIVE

The best solution for fix guards for tight budgets projects.

RESISTANT

Screws assure maximum impact strenght up to 2500 kn.

INTEGRABLE

Standard screws can be replaced by 14120 captive screws for CE certified removable guards.

access

Door Kits

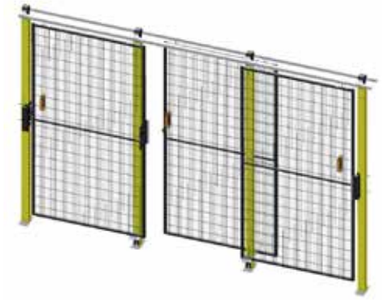
Access door kits respond to the “Door-in-a- box” philosophy i.e. they are supplied separately and can be fitted on any Access frame in any position.
Should it be necessary to increase the number of doors in the guard fencing system, all you need to do is to order the required kit choosing among the standard types ready for delivery.
Upon request, door kits can be supplied along with a number of locks either from Access’s catalogue or by other manufacturers to meet specific customer requirements.
In order to meet any specific need, Access stocks a wide range of customised and universal brackets designed to house the most popular international safety switches.
Door kits are ready for delivery in dedicated boxes and come with picture assembly instructions .
Access offers a wide range of kits to transform standard panels into practically any type of door according to specific needs:

- Single Leaf Doors
- Double Leaf Dorrs
- Single Sliding Doors with Upper Rail
- Single Sliding Doors with Lower Rail
- Double Sliding Doors with Upper Rail
- Double Sliding Doors with LowertRail
- Single Sliding Door on bearing rollers
- DoubleSliding Door on bearing rollers
- Single Bi-Fold doors
- Double Bi-Fold doors
- Flap doors
- Flap doors

Door-in-a-box

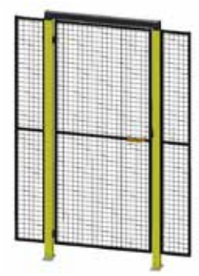
Doors

Doors


Door with alternating double top rail


Door with superimposed double top rail

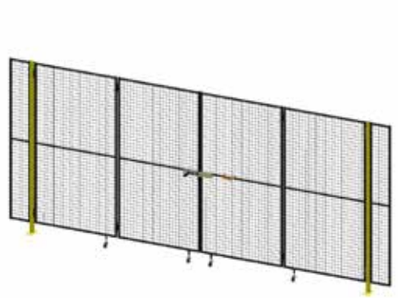

Single sliding door with higher guidance


Single knocker door


Double knocker door


Opposed telescopic door

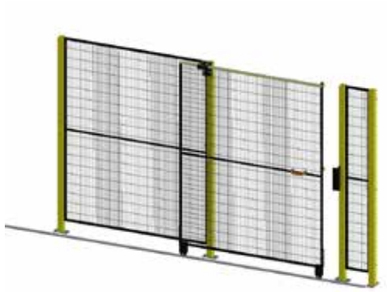

Single book door with 2 doors


Double book door with 4 doors


Telescopic Single door


single containment rollers door


Door with superimposed double ground guide


Single sliding door with ground guide

access

Special Doors

Access is able to supply a variety of customised special doors to meet customer needs by mixing and matching all door components according to specfic requirements such as:

Door size H (height) x W (width)
Max allowed door space
Max push load on movement
Machinery working cycle
Max/min opening speed
Specfic work area safety requirements

Access is able to design and manufacture automatic doors for special industrial applications in which maximum safety needs to be granted by segregating working areas when machinery is running, or simply there is a need to manage mobile guards opening/closing for product loading/unloading.

Access doors can be designed to be controlled by a pneumatic cylinder, a chain or cable transmission electric motor or linear units and are fitted with the appropriate mobile guard safety device as prescribed in the following standards: ISO 14120, ISO 14119, ISO 13855, ISO 13856.

Doors are equipped with a control cabinet which can be fitted with optional features such as a safety control unit, an inverter for electric motors, radio frequency devices interfacing the production line PLC.

Such systems are supplied as semi-machines with a CE certification or incorporation declaration and come with assembly manual, component technical data sheet and technical booklet.

Special Doors

Single horizontal sliding telescopic door with pneumatic cantilever cylinder

Vertical pneumatic door with counterweight

Vertical pneumatic double cylinder door, two-stage

Vertical pneumatic door with counterweight

Horizontal single pneumatic door

Horizontal double pneumatic door

Vertical manual door with counterweights

Single sliding door with 3 doors with floor and upper guide

Access control systems compliance with ISO 13849

Access door locking systems have been designed to reach the perfomance level (Plr) required by the risk analysis as outlined by ISO 13849 standard (Safety Control system components - part 1 : General design principles) in order to meet the ISO 14119 requirements in regards to tampering prevention.

Access has developed a number of standardized solutions to solve the most common risk cases by integrating Euchner components with the tested mechanics of its own locking systems.

In case of emergency, all locking systems can be opened manually from the inside and are designed to fit housings for personal padlocks which prevent incidental closing and therefore the risk of machinery re-starting while workers are still present in the danger area.

Assembly provides ant-tampering screws to prevents human related factors commonly associated with interblocks tampering.

All locking systems come in an individual package along with certification and assembly and maintenance instructions.

Standards references: UNI EN ISO 12100, UNI EN ISO 13849, UNI EN ISO 14119, CEI 62061.

Category (old EN954)	B	1	2	2	3	3	4
D_{cavg}	no one	no one	Low	Medium	Low	Medium	High
$MTTF_d$ each channel							
Low	a	no coverage	a	b	b	c	no coverage
Medium	b	no coverage	b	c	c	d	no coverage
High	no coverage	c	c	d	d	d	e

Dcavg Average diagnostic coverage
MTTFd Average time to dangerous failure

PLe Cat. 4 SIL 3 Euchner CES

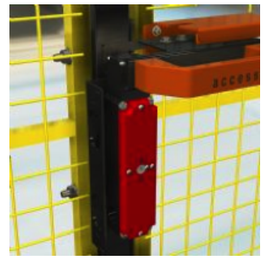
Door locking control system fitted with Euchner CES transponder multicode safety switch, certified dual-channel PLe. This system does not need mechanic activators and it is particularly suitable for frequent door openings, as in the food industry or where up to 20 switches need to be connected in series still maintaining the required performance level qualities and where mechanic blocks are not needed. This system can be fitted to all types of doors.

PLe Cat. 4 SIL 3 Euchner MGB

Complete door lock system with an interlocking device based on Euchner MGB nodel with transponder philosophy and mechanical interlock. This system is fitted with two press buttons which can be connected according to needs, emergency stop button, inner release handle and housings for personal padlocks. This system is particularly suitable in situations where maximum performance levels need to be reached through the implementation of a flexible control system which manages both the mechanic and electronic activators thanks to a wide variety of settings. This system can be fitted to all types of doors.

PLd Cat. 3 SIL 2 Euchner GP1

Locking system which integrates Acess' Clo.Sys locks and Euchner GP1 interlock with key-activator. The implementation of Clo.Sys locks allows for the guided entry of the activator, hence preventing possible cam-sensor damages therefore guaranteeing a PLd safety level even if using a single interlocking device. This is a practical and inexpensive solution which applies to a great number of situations where door retention is not needed. This system can be fitted to all types of hinged doors.



PLd Cat. 3 SIL 2 Euchner TP3

This lock system integrates Access Clo.Sys key lock and Euchner TP3 interlocking device with key-activator and mechanic retention, and emergency release device from the inside to prevent trapping. The implementation of Clo.Sys locks allows for the guided entry of the activator, hence preventing possible cam-sensor damages therefore guaranteeing a PLd safety level even if using a single interlocking device. This solution can be applied in those cases where access points need to be fitted with a mechanic interlocking device. This system can be fitted to all types of hinged doors.

Note

In types 3 and 4 matched to a Clo.Sys locking system include an anti-tampering cover and emergency release lever.

Clo.Sys® Locking system

Clo.Sys Locking System has been designed to reach a performance level which responds to the criteria outlined in the ISO 13849 Standard (i.e. Safety related command system parts- Part 1: General designing principles) and can be integrated with safety switches type Euchner TP3 and Pizzato FG60 with antipanic push-handle.

Clo.SyS Locking System has been designed with safety requirements for machine guard locking systems in mind. In case of emergency it can be opened manually from the inside, it can be padlocked to prevent accidental closing with personnel moving within the danger zone. Moreover, it has been assembled with anti-tampering fixing devices.

Clo.Sys Locking System is varnished with high-visibility orange RAL 2004 thermo-hardening powders. An ergonomic handle is supplied with the kit which comes complete with assembly and maintenance instructions.

Reference standards: UNI EN ISO 12100, UNI EN ISO 13849, UNI EN ISO 14119, CEI 62061.

CAT. (old Norm EN 954)	PL (Performance Level EN 13849)	SIL (IEC 61508-7) high/continuous mode of
N. correspondence	a	N. correspondence
B	b	1
1	c	1
2	d	2
3	e	3
4	e	3

Clo.Sys®

Immaterial Barriers

Safety optical barriers are electrosensitive devices with one or more light beams produced by a Transmitter and received by a Receiver which create an immaterial controlled area. The main features are:

- Level of safety: defines the surveillance and safety principles of the device, the safety level depends by machine risk assestment.
- Height of protected area: i.e. the height the barrier controls. If the barrier is positioned horizontally it will indicate the depth of the protected area.
- Yield: i.e. the maximum existing working distance between transmitter and receiver.
- Response time: i.e. the time the barrier takes to send an alarm once intrusion in the protected area has been detected.
- Resolution: i.e. the minimum dimension an object must have in order to be detected when trespassing the controlled area.

Access supply optical barriers amongst the best avaiable on the market in compliance with machine risk assestment and CEI 62061. ISO EN 13855 sets the distance for barrier installation:

Where:

S is the minimum safety distance between the guard and the danger area expressed in mm.

K is the object or object part approaching constant expressed in mm/sec.

K can be:

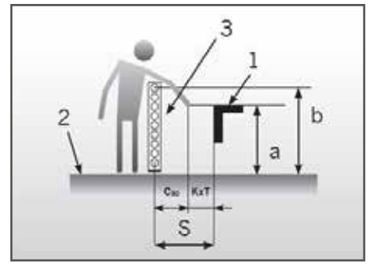
- K= 2000 mm/sec for distances up to 500 mm.
- K= 1600 mm/sec for distances over 500 mm.

T is the time the machine needs to come to a complete stop expressed in seconds:

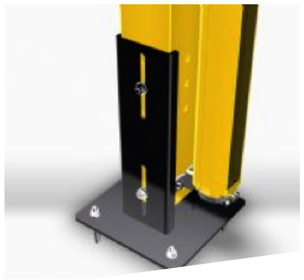
- T1 barrier response time in seconds.
- T2 response time i.e. time the machine needs to come to a complete stop expressed in seconds.

C is the extra distance expressed in mm.

$$S = K \times T + C$$



Photoelectric barriers



Accessories

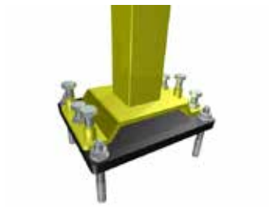
Qr code: news

Access optional kits cater for all mounting needs and/or integrate the guard fencing systems with machinery and sensors support components.

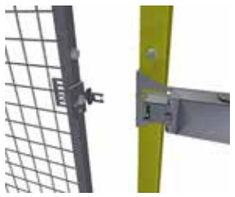
Height cutting Kit
Panel height reshaping kit

Width cutting kit
Panel width reshaping kit

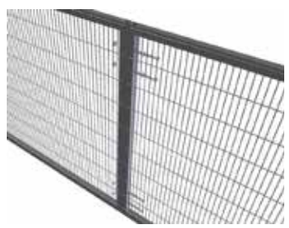
Gap bracket kit
Bracket kit for panel installation at different floor levels



Push/pull plate
Adjustable push and pull plate for standard posts



Universal bracket
Universal Bracket for microswitch and actuator installation



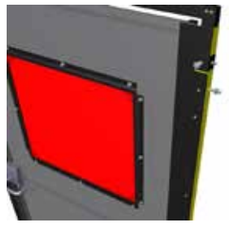
Panel to panel fixing screws kit
Pack of fixing screws for panel to panel connection, available for 20x20 mm and 30x30 mm frames

Grounding device kit
Equipotential protection circuit kit for grounding compliant with IEC 60204

Bracing kit
Bracing kit with set of fixing components

Cable chain kit
Fixing components (brackets and screws)
Cable Chain support edge

Cable tray bracket
Cable tray bracket



Buss bar kit
Rubber buss bar with fixing components

Quick fixing system
Bracket-less fixing system in compliance with UNI EN ISO 14120

Wiring

Wiring with profilnet/profilbus architecture in compliance with IP grade **CEN 60529**. Casing protection grades.

Pressure sensitive devices

Pressure sensitive devices with programmable ECU in compliance with **UNI EN ISO 13856**. Protection devices pressure sensible.

Safety guard system

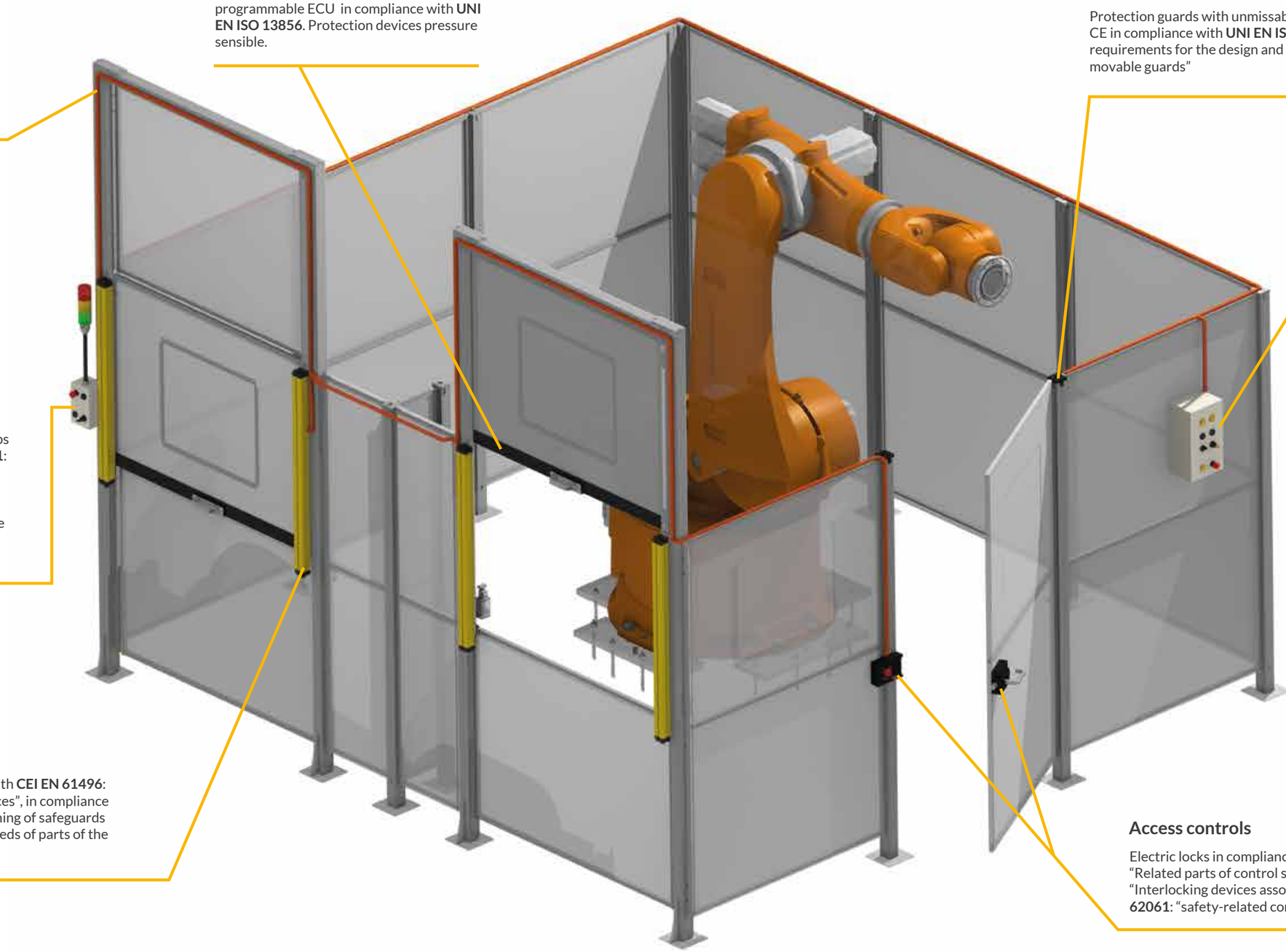
Protection guards with unmissable fixing brackets certificated CE in compliance with **UNI EN ISO 14120**. " General requirements for the design and construction of fixed and movable guards"

Control cabinet

Control cabinet with modular architecture or PLc Safety, arranged for machinery interface **CEI EN 60204**: " Electrical equipment of machines".

Emergency lamps Reset buttons

Modular acustic Emergency lamps in compliance with **UNI ISO 7731**: Warning signal for public and working area. Acustic "warning signals". Reset and entry permission buttons in compliance with **UNI EN ISO 13850**. "Emergency stop – Project rules"



Optical Barriers

Optical barriers in compliance with **CEI EN 61496**: "electrosensible protection devices", in compliance with **UNI EN ISO 13855**. Positioning of safeguards with respect to the approach speeds of parts of the body.

Access controls

Electric locks in compliance with PLr **UNI EN ISO 13849**: "Related parts of control systems" **UNI EN ISO 14119**: "Interlocking devices associated with guards", **IEC 62061**: "safety-related control systems for machinery"

Perimetra®

Perimetral Functional Safety

Add Safety in your productivity equation.

Safety Guard System complete with safety modules or PLc safety for the management of: optical barriers, sensors, mats and bumpers, push-button reset, emergency lamps reset buttons, key reset, wiring, control panel with architecture.

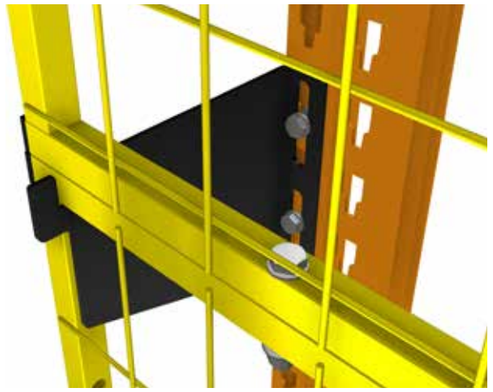
SI.S.MA. Anti-Collapse System

Standard modular or customised anticollapse panel system and mesh walls.
The exclusive design of the connection systems allow the panels to be fitted to any rack or posts without width or length size limits and are suitable for all types of marketed brackets.

The panels prevent hazards due to objects falling accidentally from shelves and prevent unauthorised access in the stock areas.

Mesh 60x80x3, or 50x50x3, perforated tubular frame 20x20.
Economy connector types distance 50 mm, 100 mm, 150 mm, 200 mm, 250 mm, 300 mm, 350 mm, 400 mm.

SI.S.MA. Anti-Collapse System

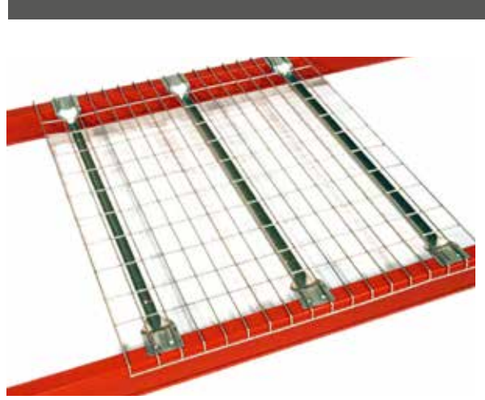


height (mm)	width (mm)
1500	2250
1000	2250

Mesh racks for shelves

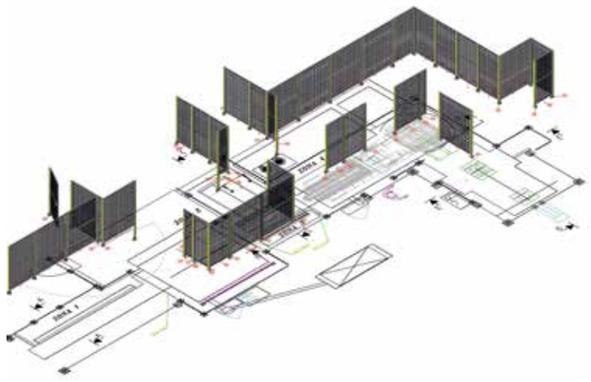
Mesh racks prevent fall of pallets and/or other items stored on the shelves. They also favour the correct functioning of sprinkler fire systems thanks to the gaps in the mesh.
Racks come in different standard sizes and load capacity and are designed to be matched to any marketed warehouse modular system. Alternatively they can be designed to meet specific load capacities.

STANDARD TECHNICAL FEATURES
width: 880, 1090, 1340 mm
depth: 1000, 1050, 1100, 1200 mm
Load capacity: 800, 1000 kg (uniformly distributed)
wire diameter: 5 mm
mesh size: 50x100 mm
reinforcements thickness: 1,5 mm
finishing : brilliant zinc



Technical Support

On a daily basis, Access receives machinery, warehouse or risk areas complex layouts for which, thanks to a dedicated software, perimetral guard fencing systems are designed in conformity with ISO 13857 standards.
Access technical support is fast and interfaces directly with the customer. Access's philosophy is to supply high quality products which are interchangeable and if possible re-installable, through the combination of simple assembly and high mechanical endurance features.
The non conformant technical drawing becomes a CE certifiable project which can also be employed as an assembly layout.

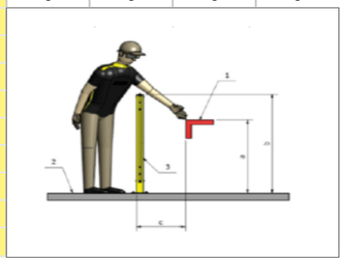


Quality

The meaning of Quality to Access refers not only certification of process but mainly design and manufacture systems that are compatible with the daily use in factories and lasting over the years.
Every detail, whether mechanical or common steel works, is studied by integrating a number of factors, the effective security, the norms & standards in force, self weight, visibility, ease of installation and resistance to heavy daily use.
Access performs Quality tests on the sample kept at the standard, pre-mechanical assembly and testing of functionality of mobile automated repair.
Access control every single package that should include lay out machines, kits in boxes with relevant instructions.

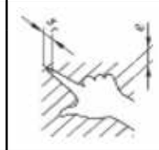
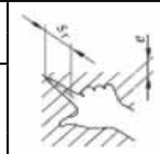
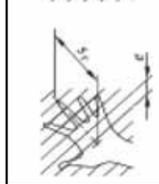
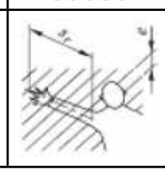
Access over protective structures - high risk - ISO 13857, TAB. 2

Height of the danger zone *a* (mm)	Height of the Shelter *b* (mm)									
	1000	1200	1400	1600	1800	2000	2200	2400	2500	2700
	Safety distance horizontal danger zone *c* (mm)									
2700	0	0	0	0	0	0	0	0	0	0
2600	900	800	700	600	600	500	400	300	100	0
2400	1100	1000	900	800	700	600	400	300	100	0
2200	1300	1200	1000	900	800	600	400	300	0	0
2000	1400	1300	1100	900	800	600	400	0	0	0
1800	1500	1400	1100	900	800	600	0	0	0	0
1600	1500	1400	1100	900	800	500	0	0	0	0
1400	1500	1400	1100	900	800	0				
1200	1500	1400	1100	900	700	0				
1000	1500	1400	1000	800	0	0				
800	1500	1300	900	600	0	0				
600	1400	1300	800	0	0	0				
400	1400	1200	400	0	0	0				
200	1200	900	0	0	0	0				
0	1100	500	0							



a) Protection structure with height lower than 1000mm are not included because they don't limit enough body movements.
b) Structure height lower than 1400mm shouldn't be used without additional security devices.

Reaching though regular openings - Persons of 14 years of age and above - ISO 13857

Body part	Illustration	Opening	Security distance, s_r		
			Slotted hole	Square	Round
Fingertip		e ≤ 4	≥ 2	≥ 2	≥ 2
		4 < e ≤ 6	≥ 10	≥ 5	≥ 5
Finger to the knuckle		6 < e ≤ 8	≥ 20	≥ 15	≥ 5
		8 < e ≤ 10	≥ 80	≥ 25	≥ 20
Hand		10 < e ≤ 12	≥ 100	≥ 80	≥ 80
		12 < e ≤ 20	≥ 120	≥ 120	≥ 120
		20 < e ≤ 30	≥ 850 [a)]	≥ 120	≥ 120
Arm up to the shoulder joint		30 < e ≤ 40	≥ 850	≥ 200	≥ 120
		40 < e ≤ 120	≥ 850	≥ 850	≥ 850
The bold lines in the table indicate the part of the body limited by the size of the opening					
a) If the length of the opening of the slot is less than or equal to 65 mm, the thumb acts as a stop and the safety distance can be reduced to 200 mm.					

access

The locations of Access are visible on the website: www.accessafe.eu

access
improving workplace safety

access

improving workplace safety

Access s.r.l.

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