

Klaassen

053-430 88 88

KLAASSEN MACHINES ENSCHEDE

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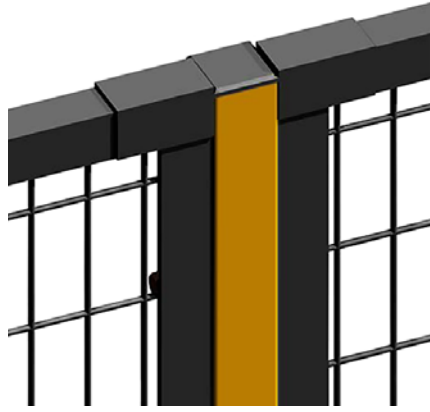
NEWTEC HEKWERK



System Newtec

The Newtec system is a specific solution made of steel at a low cost, aesthetically beautiful and easy to install with optimum stability; Ideal for all operations in dangerous areas that need to be isolated. The visibility of the closed off zone is the strong point of this product; the cooperation between the grid mesh and black color significantly improves the visibility of the hazardous area.

Scratch resistance is guaranteed by a special black color.



Modularity

Each component has been designed to be modular. The same panels can be found both as solid elements, as kits and as a hinged door or sliding door their use.

Visibility

The innovative system of 32x67 Ø3 wire combined with the black color of the panel improves the visibility of the machines inside the separate zone.

Strong

The Novatek panel has a welded grid behind the profile, it gives more elegance and stability.



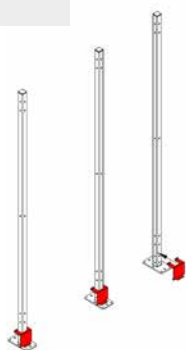


The QUICK NOVATEK kit is a tool designed to save time this kit consisting of 3 brackets, allows installation even from a single worker. The system complies with the applicable regulations. A basic requirement for fixed guards is their attachment, which must be maintained with systems which require the use of tools for opening and as much as possible they must not be able to remain in place without their fasteners.

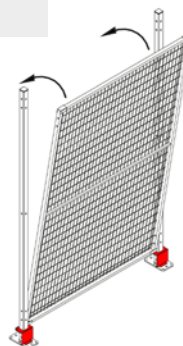
At the end of the construction operations, the kit must be removed.



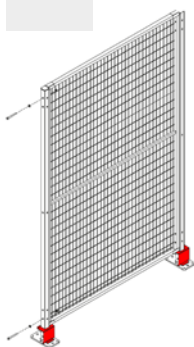
Step **1**



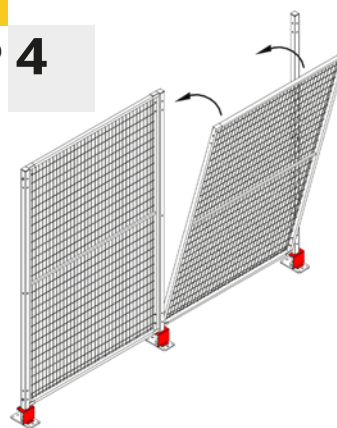
Step **2**



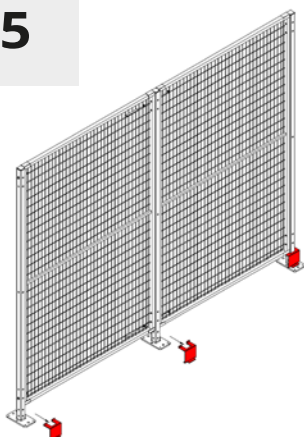
Step **3**



Step **4**



Step **5**



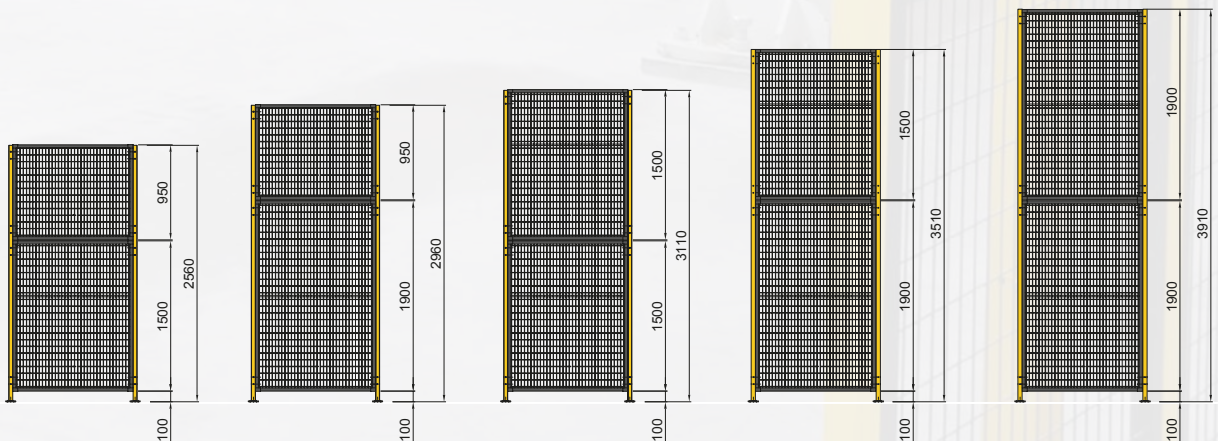
Video





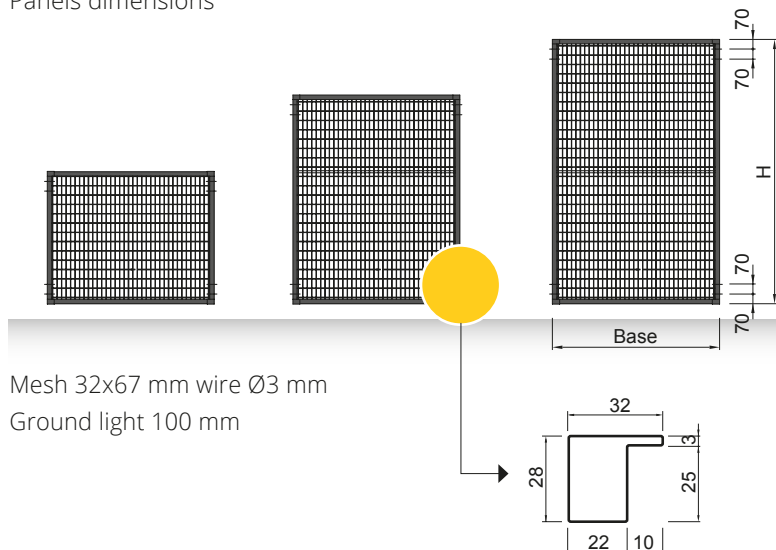
Modularity in height

The NOVATEK and ECOTEK systems combined with suitable posts, allow the construction of perimeter protections with high heights, preventing the operator from accessing the danger zone from above and any leaking of the processed material.

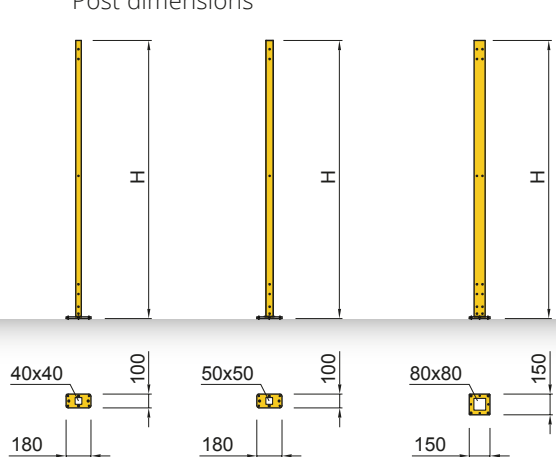


System Newtec

Panels dimensions



Post dimensions



Panels dimensions

Item No	Base	Height	Color
PNNA001	250	950	
PNNA002	400		
PNNA003	700		
PNNA004	1000		
PNNA005	1200		
PNNA006	1500		
PNNA030	250	1300	
PNNA031	400		
PNNA032	700		
PNNA033	1000		
PNNA034	1200		
PNNA035	1500		
PNNA007	250	1500	
PNNA008	400		
PNNA009	700		
PNNA010	1000		
PNNA011	1200		
PNNA012	1500		
PNNA013	250	1900	
PNNA014	400		
PNNA015	700		
PNNA016	1000		
PNNA017	1200		
PNNA018	1500		

Post dimensions

Item No	Height (H)	Cross Section	Plate	Color
MT111	1050	40x40	100x180	
MT114	1400	40x40	100x180	
MT112	1600	40x40	100x180	
MT113	2000	40x40	100x180	
MT115	2560	40x40	100x180	
KRMT001	Kit leveling for posts 40x40 - 50x50 Level plate dim. 100x180 sp. 25/10			
MT704	2000	50x50	100x180	
MT705	2560	50x50	100x180	
MT706	2960	50x50	100x180	
MT707	3110	50x50	100x180	
MT708	3510	50x50	100x180	
KRMT001	Kit leveling for posts 40x40 - 50x50 Level plate dim. 100x180 sp. 25/10			
MT211	1050	80x80	150x150	
MT214	1400	80x80	150x150	
MT212	1600	80x80	150x150	
MT213	2000	80x80	150x150	
MT215	2560	80x80	150x150	
MT216	2960	80x80	150x150	
MT217	3110	80x80	150x150	
MT218	3510	80x80	150x150	
MT219	3910	80x80	150x150	
KA201ZN KF100	Level plate dim. 150x150 sp. 30/10 Grains M8x25			

Stock colors for panels and posts



Post

The post is a basic element to ensure high stability, our posts are all equipped with a welded plate.

The installation of our posts is a lot faster than the traditional systems. The position of the holes allows the attachment of the post without moving it from the desired position.



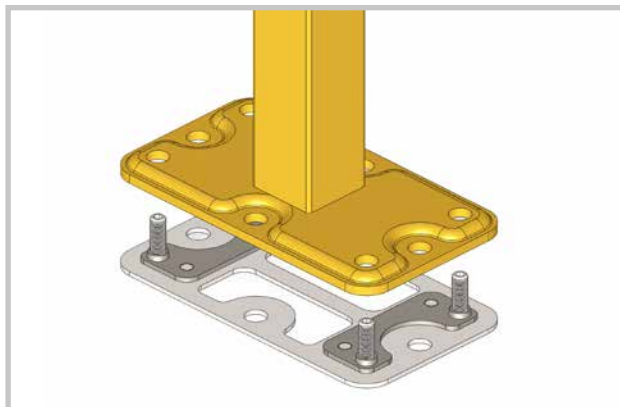
Post 40x40



Post 50x50

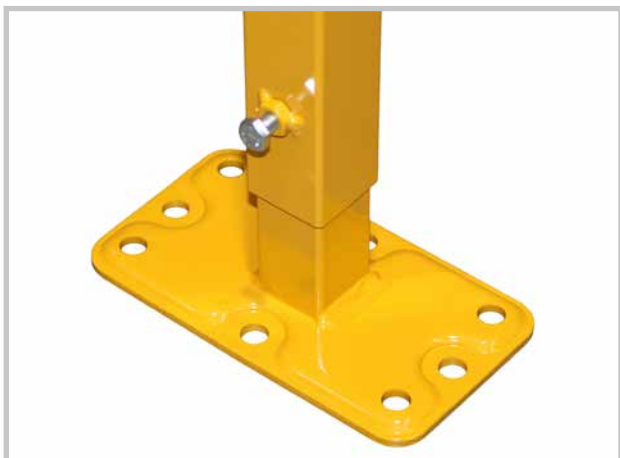


Post 80x80



Leveling kit

Height-adjustable post



This post allows, under unfavorable floor conditions with large inclinations, an easy regulation. Available in 40x40 and 50x50 section.

Intermediate Post



It is ideal for long stretches and allows to place this foot in an intermediate place of a standard post, ensuring anyway good impact resistance and economic savings.

System **Newtec-Ecotek**



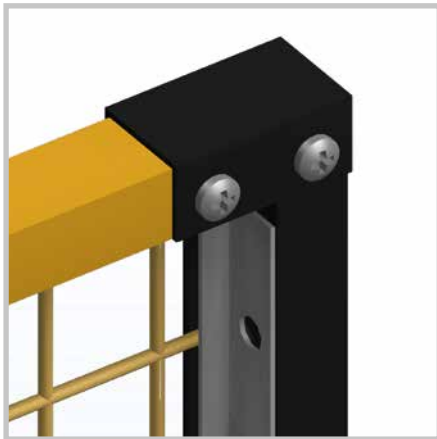
Unlosable screw set

The Machinery Directive requires that "fastening systems must remain attached to the guards or to the machine when removing the guards". The screws must not be missed unless the panel or panels need to be removed for normal maintenance and it is not possible to act on the access already provided (eg doors).

The UNI EN 14120 says: Mobile protections - when the frequency of access is high (more than once a week), or if the solid safety fence is removed It may be difficult to provide a movable guard with a latch.

In compliance with current regulations, the captive screw kit is easy to install and **will be provided on request**.

Panel cut set



✓ Novatek ✗ Ecotek

With Novatek panel cut set The framed panels can be modified and adapted on site no need to weld no need to paint them again.

Special panel fastening tool kit



✓ Novatek ✓ Ecotek

This kit allows the panels to be fixed to positions of posts that are not yet drilled.

Panel inclination kit



✓ Novatek ✓ Ecotek

With this kit, you can get inclinations from 30 ° to 180 °.

Panels with logo



✓ Novatek ✗ Ecotek

Panels can be prepared on request with custom logo, ideal for those who want to make company logo visible

Extension kit



✓ Novatek ✓ Ecotek

With the help of a screw connection you can easily reach the extension of a panel from 30 to 120 mm.

Panel connection kit

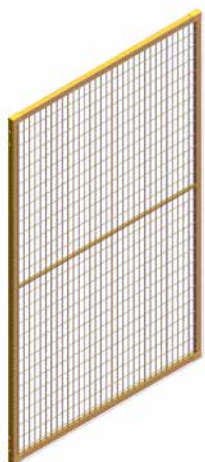


✓ Novatek ✗ Ecotek

With this kit can be connected two panels to realize intermediate lengths of panels. Ideal for special sliding doors with floor guide or to make longer standard panels.

Special finishings **Newtec - Ecotek**

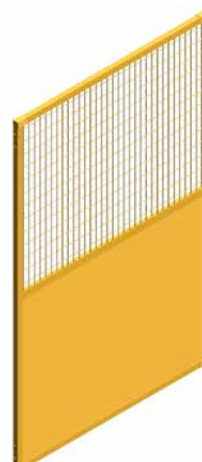
Finishing has become more and more requested, so we want to introduce a wide range of possibilities.



Novatek Ecotek



Novatek Ecotek



Novatek Ecotek

Grid

Grid panel with smaller mesh size that allows to reduce the safety distance of the danger zone.

TEC grid with 15x105 Ø3 mesh

RT grid with 11x60 Ø3 mesh

Grid + PVC or polycarbonate

32x67 mesh panel with front finishing made of PVC or polycarbonate.

Application that prevents from the outcoming of the lubricating fluid and shaving; ideal too to reduce the safety distance.

Grid + metal sheet

32x67 mesh grid on the upper part. Full metal thick 15/10 on the lower part.

Application that prevents the outflow of fluids and machine shaving.



Novatek Ecotek



Novatek Ecotek



Novatek Ecotek

Metal sheet

Full sheet metal, 15/10 thickness for Novatek version. 10/10 thickness full sheet metal for the Ecotek version.

Thick panel ideal application for welding islands, because it does not allow lightning - shedding. It can also be used to prevent outcoming of lubricating fluid and machine shaving.

Polycarbonate + sheet metal

4 mm thick polycarbonate panel. Full sheet thickness 15/10 lower part.

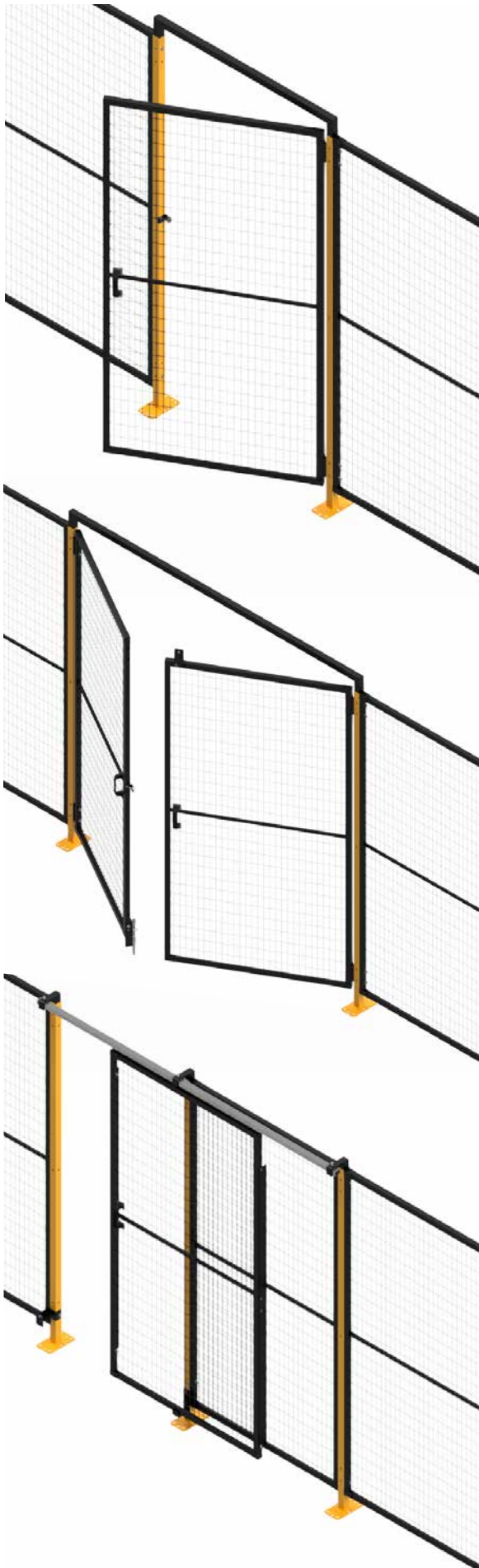
Ideal application for delimiting the big machine tools. Polycarbonate (shockproof) fixed with special glass stops, enables the vision of the island from the side of the operator and protects at the same time from the outcoming of lubricating fluid and machine shaving.

Polycarbonate

Polycarbonate thickness 4 mm.

Ideal application around the isolated zone completely visible with polycarbonate (shockproof) Supplied with special glass stops.

Components to the Accesses



Single double door

The door was designed as antipanic door: through a magnet system it allows Evacuation from the isolated zone by pressing the Door panel.

- Light 735 Center distance 775 (Panel B = 700)
- Light 1035 Center distance 1075 (Panel B = 1000)
- Light 1235 Center distance 1275 (Panel B = 1200)
- Light 1535 Center distance 1575 (Panel B = 1500)

Double doors

The double-door uses the same concept of the single door but with a vertical bolt allows to anchor one of the two door panels to the ground.

- Light 1450 Center distance 1490 (Panel B = 700 + 700)
- Light 2050 Center distance 2090 (Panel B = 1000 + 1000)
- 2450 light center distance 2490 (panel B = 1200 + 1200)
- 3050 light center distance 3090 (panel B = 1500 + 1500)

Single hanging sliding door

The single sliding door uses, at the top, a single upper guide with a rolling rack, in the lower part there is a plastic profile (Polizene) that allows the smooth running of the panel.

- Light 865 Center distance 905 (Panel B = 1000)
- Light 1065 Center distance 1105 (Panel B = 1200)
- Light 1365 Center distance 1405 (Panel B = 1500)

Double hanging sliding door

The double sliding door allows opening from the two doors in a opposite way and uses the same single-door concept.

- Light 1223 Center distance 1263 (Panel B = 700 + 700)
- Light 1823 Center distance 1863 (Panel B = 1000 + 1000)
- Light 2223 Center distance 2263 (Panel B = 1200 + 1200)
- Light 2823 Center distance 2863 (Panel B = 1500 + 1500)

Single sliding door with floor guide

The simple sliding door uses a floor guide, upon the panel with two wheels. The same panel is guided in the upper part of a plate with nylon roller system.

- Light 792 Center distance 896 (Panel B = 1000)
- Light 992 Center distance 1096 (Panel B = 1200)
- Light 1292 Center distance 1396 (Panel B = 1500)

Option with rubber wheel

The same set can be requested as a rubber wheel option that allows, at the top and bottom, that the light remain free from obstacles; Example: Transpallet movement.

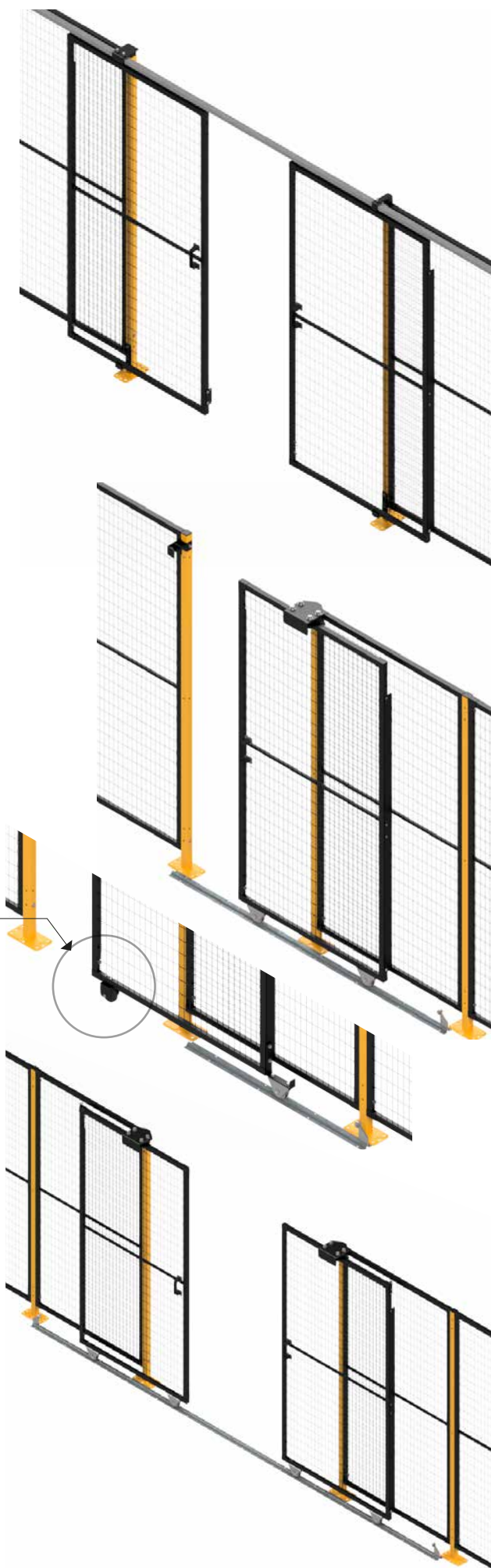
Double sliding door

The double sliding door makes it possible to open the two doors in opposite directions and uses the same concept of the single sliding door.

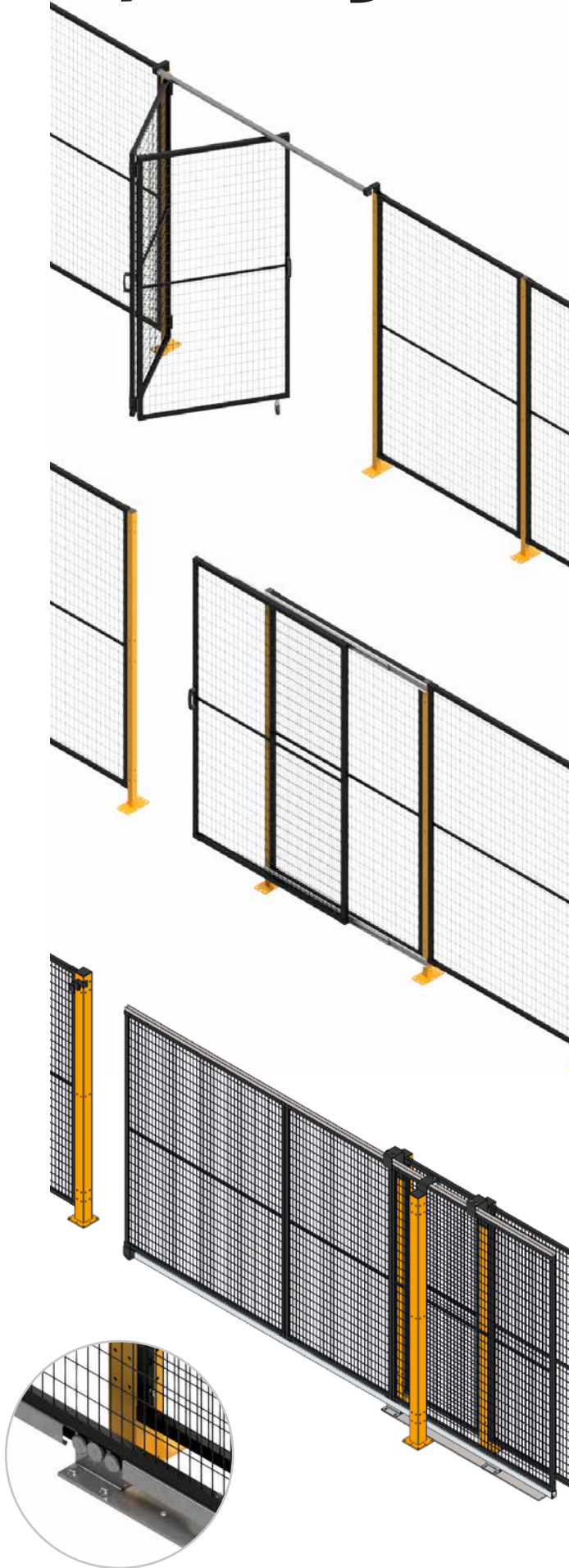
- Light 1065 Center distance between 1233 (Panel B = 700 + 700)
- Light 1665 Center distance 1833 (Panel B = 1000 + 1000)
- Light 2065 Center distance 2233 (Panel B = 1200 + 1200)
- Light 2665 Wheelbase 2833 (Panel B = 1500 + 1500)

Option with rubber wheel

The option can also be requested for this kit



Additions to the Openings



Folding door

The folding door allows a pack opening from all doors. The operation of this door is done by an upper guide and a rubber wheel in the lower part, so that the good stability is guaranteed. It is possible to deliver folding doors with or without floor guide.

Single or double telescopic door

The telescopic door has the advantage of having no guides in the Upper or lower part, it is ideal for these customers who may have problems with obstacles.

His operation takes advantage of the telescopic sliding guides or linear handling systems that guarantee excellent efficiency and long life.

Self-supporting door

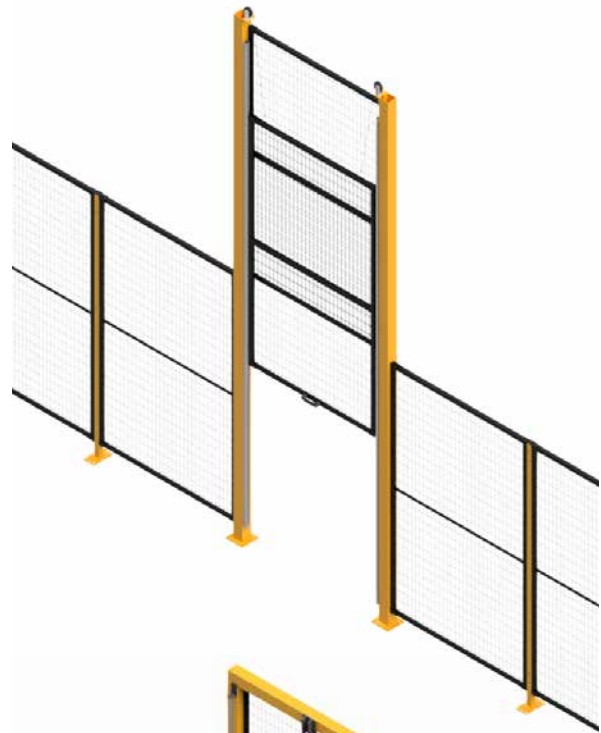
The self-supporting door was made to eliminate the obstacles from the top and the bottom of the transit room.

Using standard panels we can supply also large doors in an a cheap way and with limited delivery times.

Door light - mm	Panel - mm
725	1000
875	1200
1125	1500
1425	1000 + 1000
1825	1000 + 1500
2125	1500 + 1500
2425	1000 + 1500 + 1000
2725	1500 + 1000 + 1500
3025	1500 + 1500 + 1500
3425	1500 + 1000 + 1000 + 1500

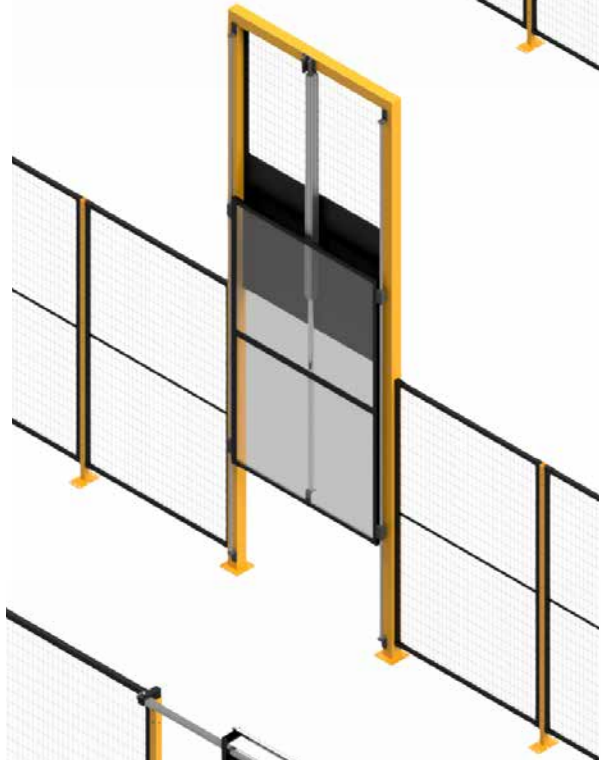
Vertical manual sliding door

The vertical sliding door with manual movement uses a system of pulleys, linear guides and counterweights this guarantees its safety, functionality and long life.



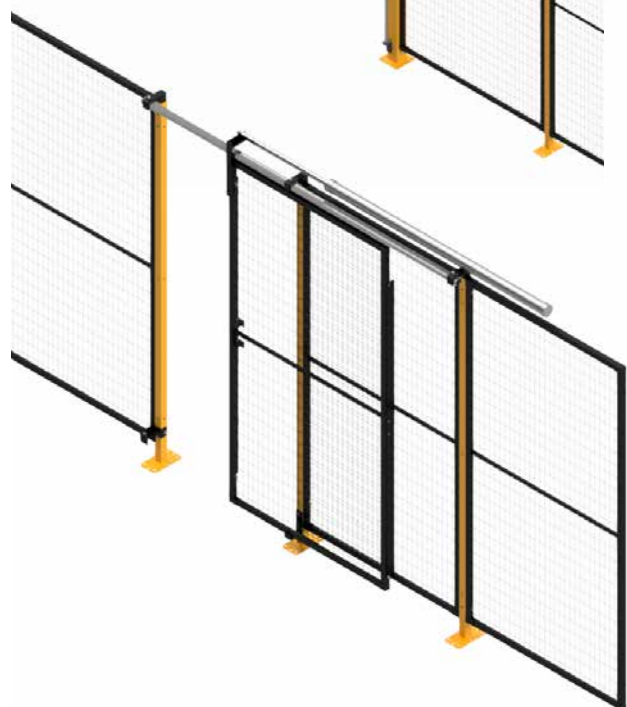
Vertical automatic sliding door

The vertical pneumatic sliding door uses a system of pulleys, linear guides with balls circulation and counterweights that guarantee the Safety, functionality and durability. For this application we recommend, in the accessible area, the use of a buffer made of shockproof material, to prevent the operator from shearing danger.



Horizontal automatic sliding sliding door

The suspended pneumatic sliding door uses the standard sliding door set with additional clamps and a pneumatic piston which is suitable for the requested light.



Complements

Locks and microswitches



Anti-panic lock for flying doors

The anti-panic lock for flying doors are usually used in automatic warehouses. It fulfills the need to lock the door and at the same time allows the operator to exit in case of closure.

Available with:

Differents keys, Art. No. : KP050

Same key, Art. Nr. : 101020201



Lock for doors or sliding doors

The lock allows to close the flying door or the sliding door with key to avoid the access by unauthorized people and to prevent staff to remain closed inside the protected area. It is designed for use from one to three padlocks to prevent the operators intervening in the machinery remain accidentally imprisoned.

Cod. 101020021 Door lock with door (opening with right hand)

Code 101020022 Door lock with door (opening with the left hand)

Cod.101020150 Lock for sliding door (opening with the right hand)

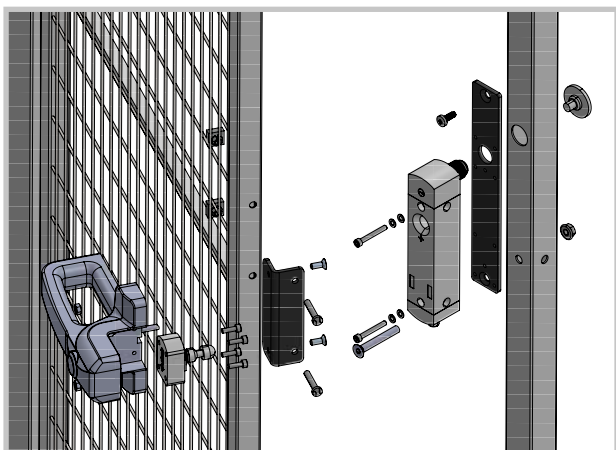
Cod.101020151 Sliding door lock (opening with the left hand)



Interlocking system

The interlocking system is a device that increases the security level of the facility.

It prevents the start-up of the machine against the will of the person inside the restricted area thanks to a coded key system that cannot be duplicated.



Custom-made brackets for microswitches and electromechanical locks

Our technical department is able to design customised brackets for your microswitches or solenoid locks:

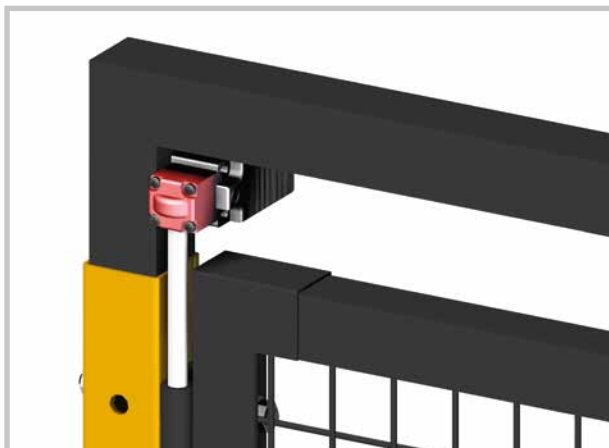
Pizzato, Euchner, Schmersal, etc.

Microswitch kit for flying doors

Uses a safety switch fixed above the hinge, model Pizzato FR2096-L16M1 1NO + 2NC; positioned and secured he is firmly connected to the hinge.

Code: 101030100 for hinged doors without upper crossbar

Code: 101030101 for hinged doors with upper crossbar



RFID switch kit with lock for turning doors

Uses a safety switch Pizzato model NG 2D1D411A-F31

Cod. 101030147 (*)



Micro-kit for sliding doors

Uses a safety switch model FR2093-D1M1 1NO + 2NC; positioned between the fixed panel and the door panel and it is compatible both for the hanging sliding doors as well as for doors equipped with a floor guide.

Cod. 101030102 (*)

Code 7030002867 Protective housing for shielding the security device (on request)



RFID switch kit with sliding door lock

Uses a safety switch from Pizzato.

Code: 101030148 (*) with NG 2D1D411A-F31 device

Code: 101030191 (*) with NS D4A21SMK-F41 device



(*) Mounting systems (screws) comply with Table 3 of UNI EN 14119

Regulations



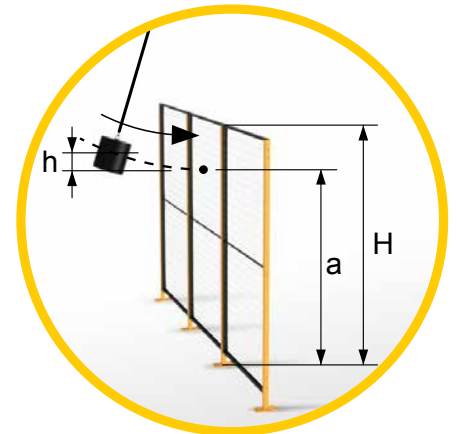
Modular guards have been developed according to the criteria of the following reference standards

- EN ISO 12100** Safety of machinery - General principles for design - Risk assessment and risk reduction.
- EN ISO 13849-1** Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design.
- EN 60204-1** Safety of machinery - Electrical equipment of machines - Part 1: General requirements.
- EN ISO 13857** Safety of machinery - Safety distances to prevent hazard zones being reached by upper and lower limbs.
- EN ISO 13854** Safety of machinery - Minimum gaps to avoid crushing of parts of the human body
- 2006/42/CE** Machinery directive.
- EN ISO 14119** Safety of machinery - Interlocking devices associated with guards - Principles for design and selection.
- EN ISO 14122-3** Permanent means of access to machinery - Stairs, stepladders and guard-rails
- EN ISO 14120** Safety of machinery - Guards - General requirements for the design and construction of fixed and movable guards

Look at the resistance TEST

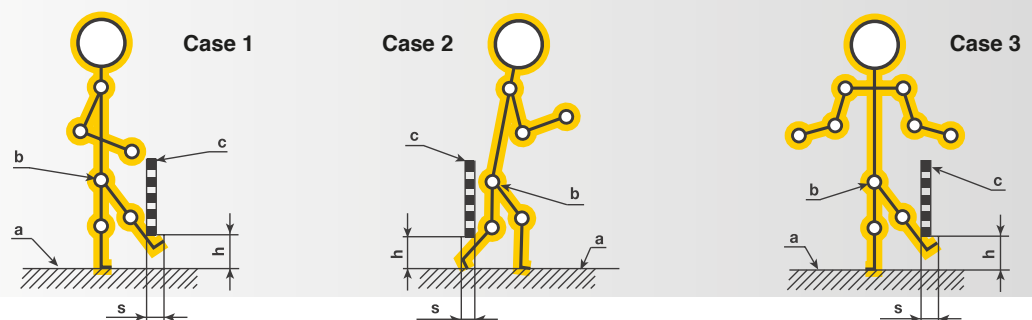


- H:** Guard height
- h:** Falling down height
- a:** $H \cdot \frac{2}{3} (\leq 1600)$
Height of point of impact, which shall not be higher than 1600



Reference tables lower limbs EN ISO 13857, Annex B

Restriction of freedom of movement under protective structures



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

Height of the protective structure h	Distance s		
	Case 1	Case 2	Case 3
$h \leq 200$	≥ 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

Dimensions in mm

Reference table for the upper limbs

Limiting the freedom of movement over the protective structures

EN ISO 13857, 4.2.1

Reaching upwards

- If there is a low risk from hazard zone, then the height of the hazard zone, h , shall be 2 500 mm or more.
- If there is a high risk from the hazard zone, then the height of the hazard zone, h , shall be 2 700 mm or more.

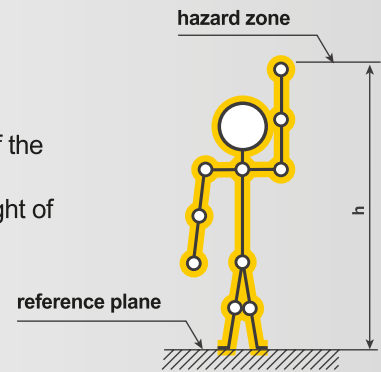


Fig. 1

EN ISO 13857, 4.2.2

Reaching over protective structures

- a height of hazard zone
- b height of protective structure
- c horizontal safety distance to hazard zone

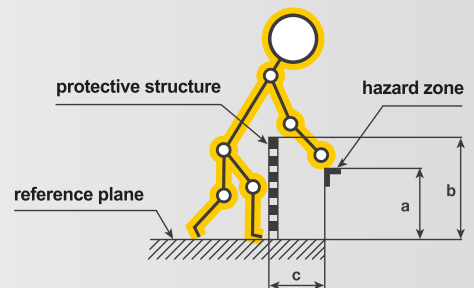


Fig. 2

In the following table (relevant to high risk) the protective structures with a lower height of 1000 mm, are not mentioned because they do not limit enough, the movement of the body.

Protection systems with a height below 1400 mm should not be used without additional safety measures.

If the risk situation is reduced, protection systems with a height greater than - or equal to 1000 mm are allowed.

The safety distance, shown in the table below with a dash, mean that must be used the distances in relationship with the grid mesh with 32x67 mesh and $\varnothing 3$ wire or 40x40 wire $\varnothing 3 - \varnothing 4$, the minimum safety distance is 200 mm.

Table 2 High risk

Height of dangerous area a	Height of protective structure b									
	1000	1200	1400	1600	1800	2000	2200	2400	2500	2700
Horizontal distance from the danger zone 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	-	-	-	-	-	-	-	-

Dimensions in mm

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