

Leader in the Production of Safety Devices equipment for Machine Tools



SAFETY GUARDS

PMU n° 05/13/E - Catalogue

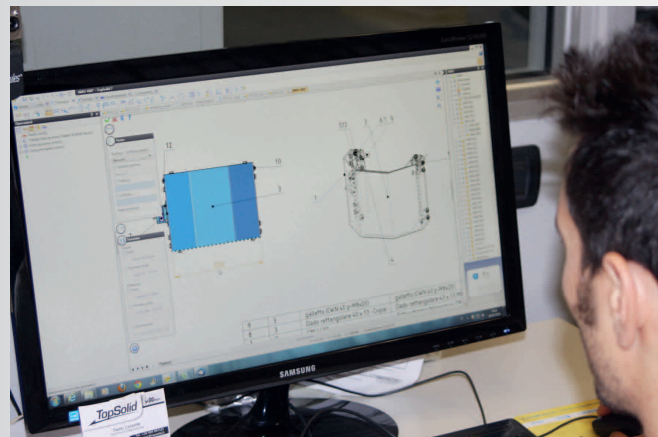


Research and innovation = quality and safety



MADE IN ITALY

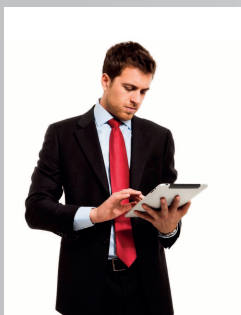




Since 1994 **Tecno Più** makes available its own research and experience of safety applied by workplaces in the field of safety guards for tooling machines. Customers of all kinds, in Italy and all over the world, trust the quality the company to all its products and which is universally recognized by its customers, from multinational to small artisan firms.

The evolution of **Tecno Più** in the offer of safety and protection systems has led the company to implement its perimetrical protection systems.

To anticipate regulations, to apply a quality system to the whole process and the ability to renew itself continuously, from the commercial field to the after-sales service, these are the main ingredients which have made possible the brand **Tecno Più** to become a leader in this field.



The commercial network

All **Tecno Più** commercial organization consists of agents with proven technical knowledge who can support and advice the customer to choose the right product according to his requirements and needs.



The production system

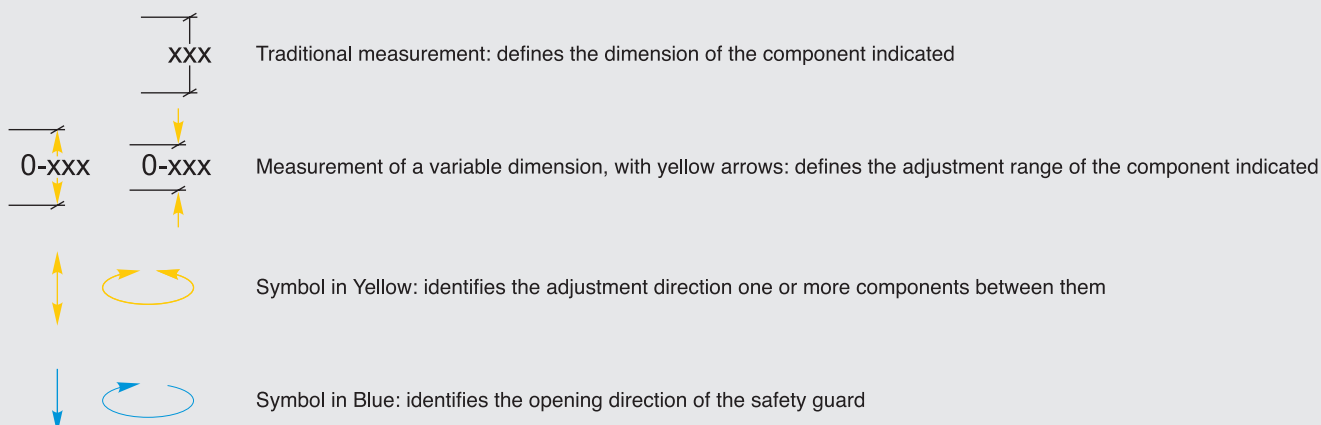
The production system and the materials always available on stock allow to process the customer orders in a very short time, even with non-standard configurations.

Packagings are extremely carefully made so to ensure quality and, at the same time, optimize transportation costs.

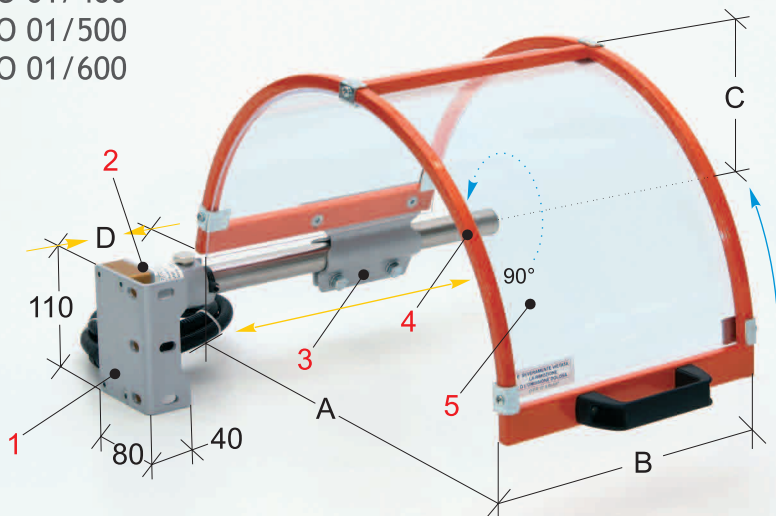


The after-sales service

Our technical department is at customer disposal for any request or change necessary to implement, inform and keep him up-dated with current safety regulations in force.



PTO 01/300
PTO 01/400
PTO 01/500
PTO 01/600



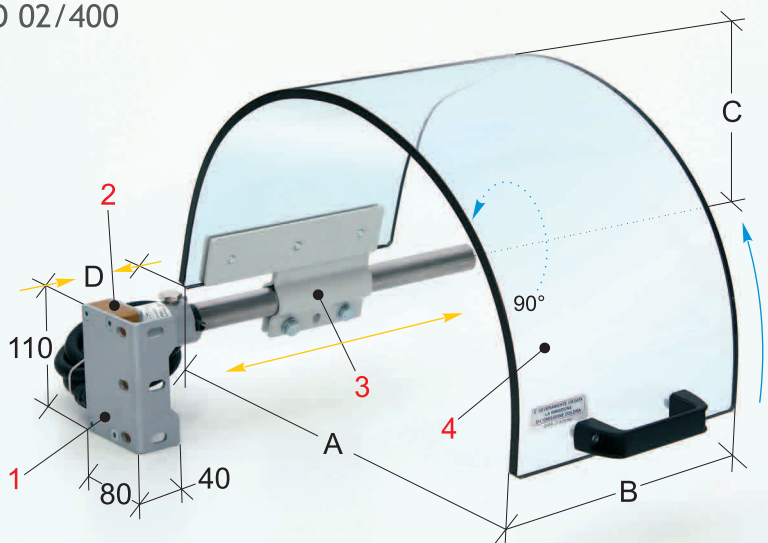
- 1 Frontal and lateral anchorage stirrup
- 2 Safety microswitch main box - 90° rotation - n.2 NC contacts
- 3 Shield connection clamp with support arm - in pressed steel
- 4 Shield structure in tubular steel
- 5 Thermo-shaped shield - in shockproof and oil-resistant plastic material

Code	A	B	C	D	Kg.
PTO 01/300	300	200	180	0-215	3,6
PTO 01/400	400	235	230	0-150	4,1
PTO 01/500	500	235	280	0-150	4,4
PTO 01/600	600	235	330	0-150	4,7

Classic safety guard equipped with steel-framed shield. The only one positionable until the machine head.

Protects the operator from direct contact with the upper part of the lathe chuck and from lubricant-coolant projection. Frontally and laterally attachable at the base. Equipped with semicircular shield, adjustable until the machine head. Complete with safety microswitch.

PTO 02/300
PTO 02/400



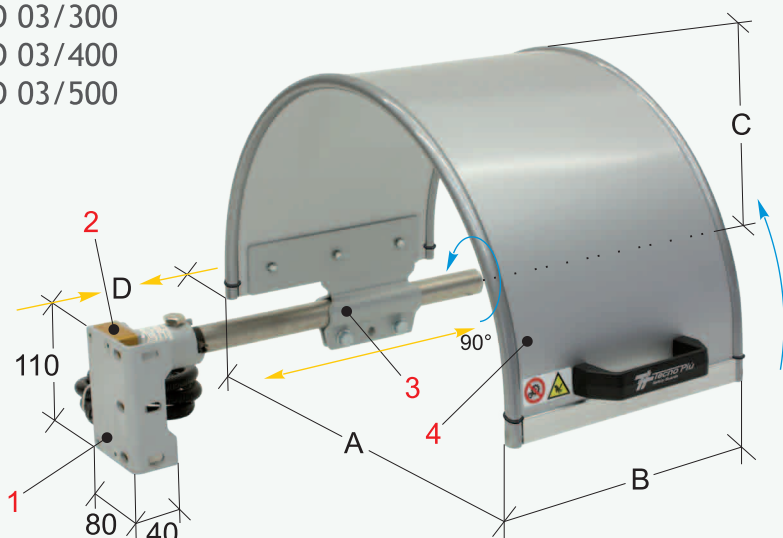
- 1 Frontal and lateral anchorage stirrup
- 2 Safety microswitch main box - 90° rotation - n.2 NC contacts
- 3 Adjustable shield connection clamp with support arm - in pressed steel
- 4 Monolithic shield - in thick plastic shockproof and oil-resistant material

Code	A	B	C	D	Kg.
PTO 02/300	300	200	200	0-200	3,0
PTO 02/400	400	220	250	0-190	4,9

The shield shape makes it ideal to be positioned until the machine head. Equipped with monolithic shield in plastic material.

Protects the operator from direct contact with the upper part of the lathe chuck and from lubricant-coolant projection. Frontally and laterally attachable at the base. Equipped with semicircular monolithic shield, adjustable until the machine head. Complete with safety microswitch.

PTO 03/200
PTO 03/300
PTO 03/400
PTO 03/500



The shield shape makes it ideal to be positioned until the machine head. Equipped with "opaque" monolithic shield in composite material.

Protects the operator from direct contact with the upper part of the lathe chuck and from lubricant-coolant projection.

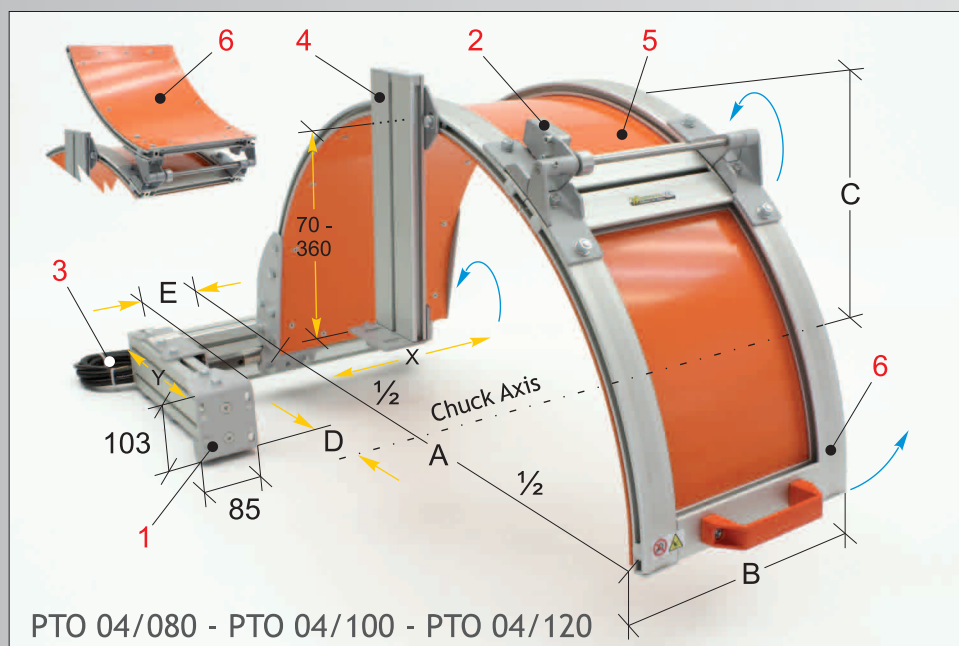
Frontally and laterally attachable at the base - Equipped with semicircular monolithic shield, adjustable until the machine head. Complete with safety microswitch.

- 1 Frontal and lateral anchorage stirrup
- 2 Safety microswitch main box - 90° rotation - n.2 NC contacts
- 3 Adjustable shield connection clamp with support arm - in pressed steel
- 4 Monolithic shield in "opaque" composite material: aluminium - hd polyethylene - aluminium

Code	A	B	C	D	Kg.
PTO 03/200	200	200	200	0-200	3,0
PTO 03/300	300	200	200	0-200	3,5
PTO 03/400	400	220	250	0-190	4,2
PTO 03/500	500	240	300	0-180	5,0

Safety guard for big lathe chuck

LATHE



Remarkably strong item, designed for lathes chuck up to Ø 1000 mm. Equipped with shield which can be opened totally or partially.

Prevents the operator from direct contact with rotating lathe chuck and helps in containing the lubricant-coolant and the working swarfs.

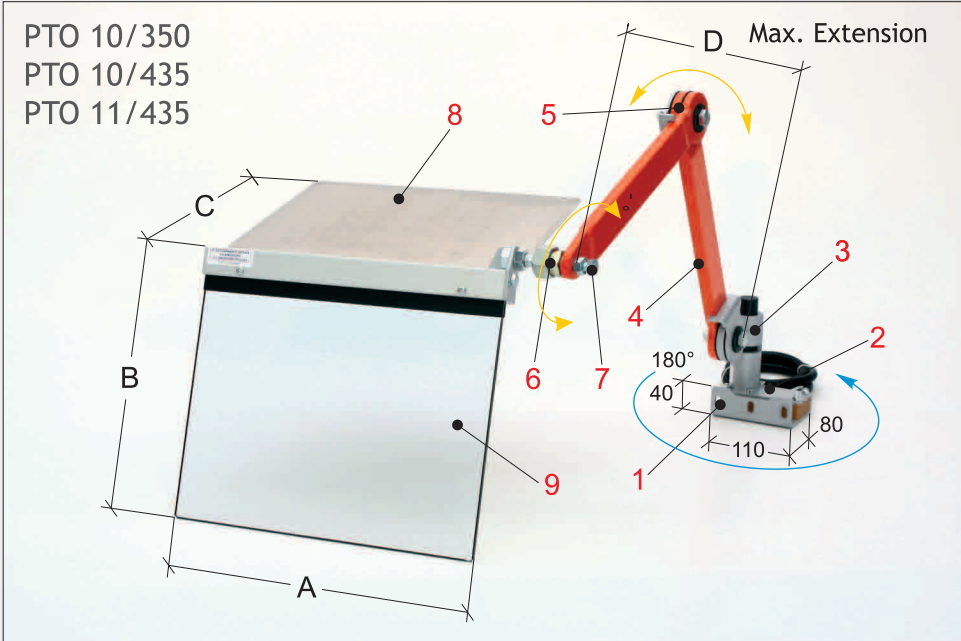
The strong support structure (point 1), fully "X - Y" adjustable, allows easy anchoring on the rear side of the machine and, if necessary, also on the front. Equipped with semicircular shield, divided into two sections to allow opening of only the front side (point 6) or total opening, overturning it completely towards the back.

Complete with double safety microswitch.

PTO 04/080 - PTO 04/100 - PTO 04/120

- 1 Anchorage and support structure of the shield, adjustable in the X - Y axes
- 2-3 Safety microswitches of the two shield opening systems n.2 NC contacts
- 4 Adjustable structure to support the shield on the lathe head
- 5 Shield made of aluminium sheet and profiles, completely overturnable on the back or lockable through a special system of its rotation axis
- 6 Front section of the shield designed for frequent openings during working operations

Code	A	B	C	D	E	Kg.
PTO 04/080	800	300	400	165-375	5-120	17,1
PTO 04/100	1000	350	500	265-475	5-70	19,7
PTO 04/120	1200	350	600	365-575	5-70	21,7



- 1 Frontal and lateral anchorage stirrup
- 2 Safety microswitch main box - 180° rotation - n. 2 NC contacts
- 3 Horizontal adjustment clamp
- 4 Articulated arms in tubular steel
- 5 Rubbing articulation with friction disc
- 6 Ball and socket joint for shield orientation
- 7 Ball and socket joint release screws
- 8 Upper anti-shavings partition in aluminium
- 9 Shield in shockproof and oil resistant plastic material

Specific multi-adjustable item, to be installed on the longitudinal carriage. Combined with the chuck safety guard, allows an excellent protection of the operator.

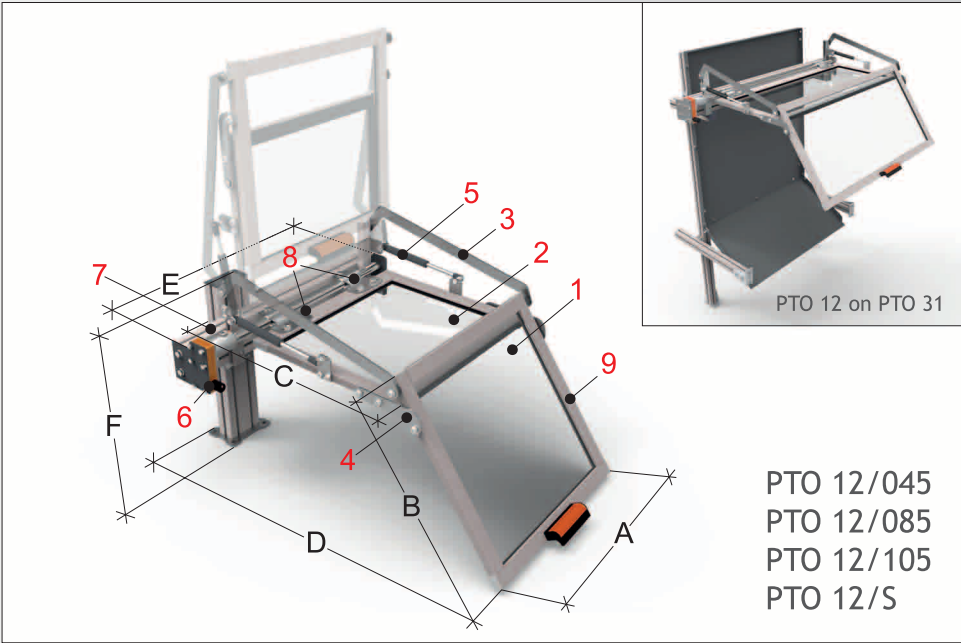
Protects the operator from direct contact with rotating components of the chuck and from the projection of shavings and lubricant-coolant.

Attachable behind the longitudinal carriage. The shield, supported by articulated arms thanks to the ball socket joint, is completely adjustable and has an anti-shavings partition. Complete with safety microswitch.

- **Note:** Item PTO 11/435 has an articulated arm with three elements.

- **Available accessories:** PMG 60/185 - PBA 01/190 - PBA 01/325 - PBA 02/325

Code	A	B	C	D	Kg.
PTO 10/350	350	300	280	550	6,6
PTO 10/435	400	350	310	550	7,0
PTO 11/435	400	350	310	800	8,6



- 1 Front shield in shockproof and oil resistant plastic material
- 2 Upper shield in shockproof and oil resistant plastic material
- 3 Shield supporting arm
- 4 Stirrup for front shield rotation
- 5 Gas spring assembly
- 6 Safety microswitch main box - 90° rotation - n. 2 NC contacts
- 7 Supporting profile, complete with stirrups
- 8 Clamps for shield and microswitch group connection
- 9 Adjustable anchorage base

Item designed to protect the operator during working operations. Equipped with vertical opening with gas springs.

Protects the operator from direct contact rotating components of the chuck and from the projection of shavings and lubricant-coolant. Thanks to its anchoring base adjustable all along the axis of the shield support, the guard can be mounted in the rear side of the longitudinal carriage or directly on it.

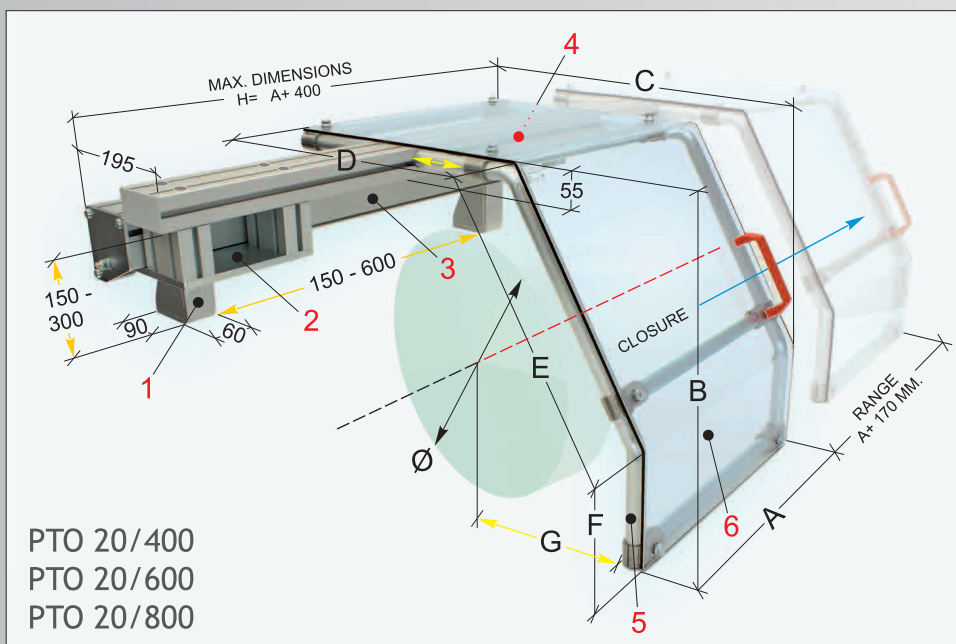
On request, through adjustable stirrups provided and the supporting rear profile of the right size (dimension to be communicated), the guard can be mounted even directly on rear protection PTO 31. The shield is composed by two articulated parts which open vertically, keeping completely clear the access to the tool. Complete with safety microswitch.

Important: when assembled on rear safety guard PTO31, specify the complete code.

Example: PTO 12/085 Safety Guard with Shield L.850 mm with supporting profile for PTO 31/120

Complementary Items: PTO 31/080 - PTO 31/120 - PTO 31/160 - PTO 31/200

Code	A	B	C	D	E	F	Kg.
PTO 12/045	450	450	400	760	630	500	14,00
PTO 12/085	850	450	400	760	1030	500	22,00
PTO 12/105	1050	450	400	760	1230	500	25,00
PTO 12/S	...	450	400	760	...	...	---



Particularly solid and functional item, designed for the secure protection of the operator from moving parts of the lathe. To be fixed on the machine head.

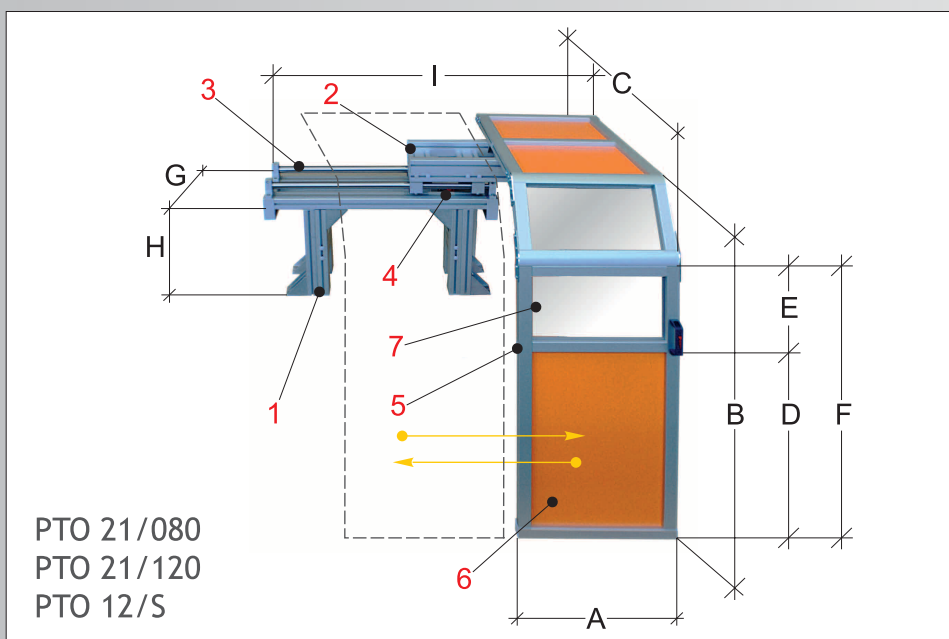
Protects the operator from direct contact with rotating components of the chuck and from the projection of shavings and lubricant-coolant.

Attachable on the machine head, equipped with different "visibility" sliding shield, with adjustments for an easy adaptation to all machines. Available in three sizes, up to a Ø chuck of 800-900 mm. Complete with safety microswitch.

- 1 Anchorage stirrup with wide vertical adjustment
- 2 Sliding mobile protection support carriage
- 3 Auto-carrying guide in extruded aluminium, with sliding system composed from tempered and rectified steel guides-bearings, placed in protected internal position
- 4 Safety microswitch with separated actuator - n. 2 NC contacts
- 5 Shield structure in tubular steel and aluminium
- 6 Shield in shockproof and oil-resistant plastic material, of great thickness

Code	Ø	A	B	C	D	E	F	G	Kg.
PTO 20/400	400-500	450	430	655	480	350	125	280-540	26,6
PTO 20/600	600-700	450	520	855	640	430	150	320-740	27,7
PTO 20/800	800-900	450	640	1065	800	530	180	370-950	28,8

Safety guard for big dimension lathe



Sliding shield for big dimension lathe, designed to be fixed on the machine head, making the whole structure of the guard stable.

Protects the operator from direct frontal contact with rotating components of the chuck and from projection of shavings and lubricant-coolant. The main feature is the sliding shield included in a solid and light aluminium structure, equipped with four anchorage points on the machine head, allowing to keep the shield in a overhanging position.

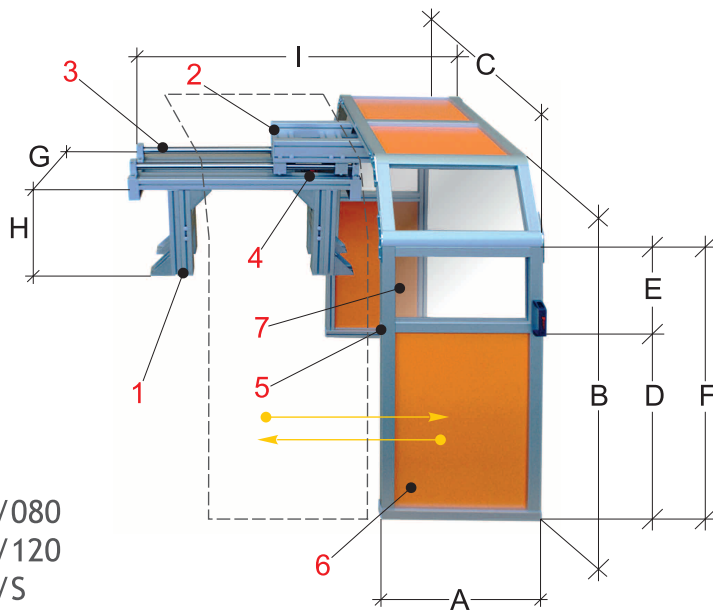
The sliding shield has a wide visual manufactured with a special material, suitable to be used for safety guards.

Available in different sizes, up to a Ø chuck of 800-1200 mm. Complete with safety microswitch.

The structure can be also customized for much bigger chucks.

- 1 Supporting structure with steel guides
- 2 Sliding carriage with bearings
- 3 Double steel guide for carriage sliding
- 4 Interlocked microswitch
- 5 Removable aluminium frame
- 6 Steel-sheet protection panel
- 7 Polycarbonate transparent protection shield

Code	A	B	C	D	E	F	G	H	I	Kg.
PTO 21/080	550	1000	1000	518	282	800	300	390-590	930-1490	---
PTO 21/120	550	1500	1400	918	282	1200	300	390-590	930-1490	---
PTO 21/5	...	...	...	...	282	...	300	...	...	---



PTO 22/080
PTO 22/120
PTO 22/S

- 1 Supporting structure with steel guides
- 2 Sliding carriage with bearings
- 3 Double steel guide for carriage sliding
- 4 Interlocked microswitch
- 5 Removable aluminium frame
- 6 Steel-sheet protection panel
- 7 Polycarbonate transparent protection shield

Code	A	B	C	D	E	F	G	H	I	Kg.
PTO 22/080	550	1000	1000	518	282	800	300	390-590	930-1490	---
PTO 22/120	550	1500	1400	918	282	1200	300	390-590	930-1490	---
PTO 22/S	...	...	...	...	282	...	300	...	...	---

Sliding shield for big dimension lathe, designed to be fixed on the machine head, making the whole structure of the guard stable.

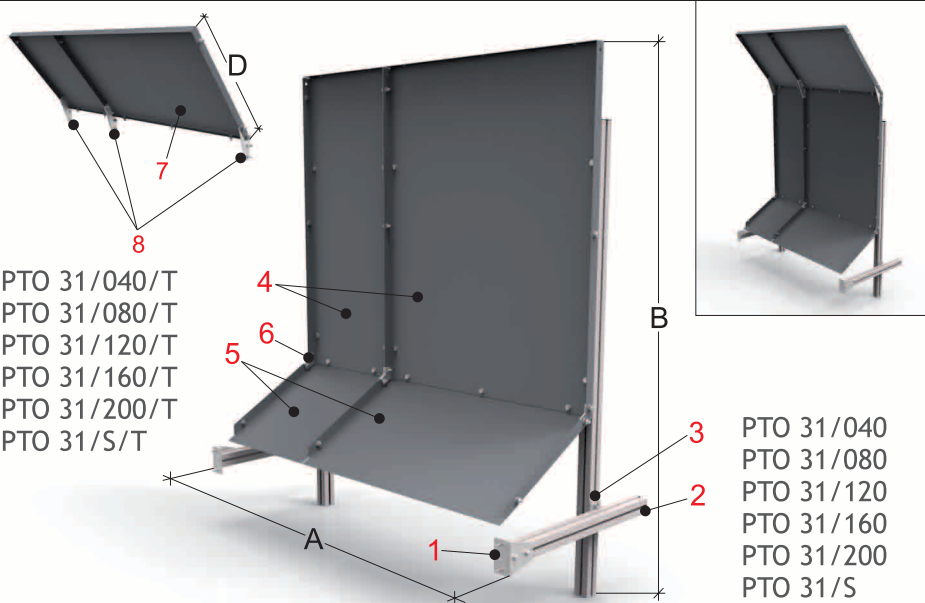
Protects the operator from direct frontal contact with rotating components of the chuck and from projection of shavings and lubricant-coolant. The main feature is the sliding shield included in a solid and light aluminium structure, equipped with four anchorage points on the machine head, allowing to keep the shield in a overhanging position.

In this case the shield is double to protect the front and the rear side of the machine.

The sliding shield has a wide visual manufactured with a special material, suitable to be used for safety guards.

Available in different sizes, up to a Ø chuck of 800-1200 mm. Complete with safety microswitch.

The structure can be also customized for much bigger chucks.



PTO 31/040/T
PTO 31/080/T
PTO 31/120/T
PTO 31/160/T
PTO 31/200/T
PTO 31/S/T

PTO 31/040
PTO 31/080
PTO 31/120
PTO 31/160
PTO 31/200
PTO 31/S

- 1 Anchorage stirrup
- 2 Adjustable supporting arms, in aluminium profile
- 3 Supporting "cross" stirrup in sheet steel
- 4 Modular central panels, in sheet steel
- 5 Modular lower panels, in sheet steel
- 6 Angular stirrups
- 7 Modular upper panels, in sheet steel
- 8 Angular supporting stirrups

Code	A	B	C	Kg.
PTO 31/040	400	1200	600	13,00
PTO 31/080	800	1200	600	20,00
PTO 31/120	1200	1200	600	28,00
PTO 31/160	1600	1200	600	34,00
PTO 31/200	2000	1200	600	41,00
PTO 31/S	...	1200	600	---

Modular system for rear protection and for shavings containment.

Made of rapid release panels. To be fixed on the lower part of the base.

Protects the operator from direct contact with rotating parts accessible from the rear side of the machine and from the projection of shavings and lubricant-coolant. Attachable at the lower side of the base and of the ground by a system of adjustable arms made of aluminium structural profile. The protective sheet steel is divided into two separate parts to reduce space in transport.

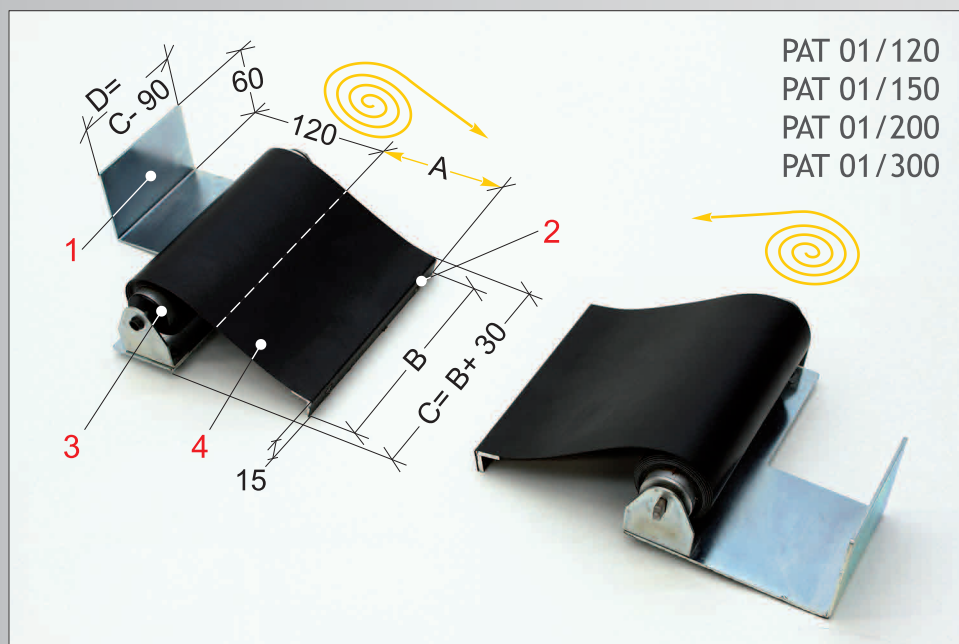
Available (on request) item PTO 31/.../T with inclined roof, for greater upper protection, if required.

The structure is compatible with safety guard PTO12/...

Important: the installation with safety guard PTO12 is not compatible with assembly of roof PTO31/.../T

Complementary Items: PTO 12/... - PTO 31/.../T.

Code	A	D	Kg.
PTO 31/040/T	400	550	4,00
PTO 31/080/T	800	550	8,00
PTO 31/120/T	1200	550	12,00
PTO 31/160/T	1600	550	16,00
PTO 31/200/T	2000	550	20,00
PTO 31/S/T	...	550	---



- 1 Base-side angular anchorage stirrups in pressed steel
- 2 Carriage-side angular anchorage stirrups in aluminium
- 3 Self-sliding roll in steel and aluminium
- 4 Protective ribbon in spread technical thread

Roll-up safety guard for Lathe advancing bars. Made from two units of self-roll up rolls, with tear and oil-resistant thread. Designed for protecting the operator from the machine advancing bars.

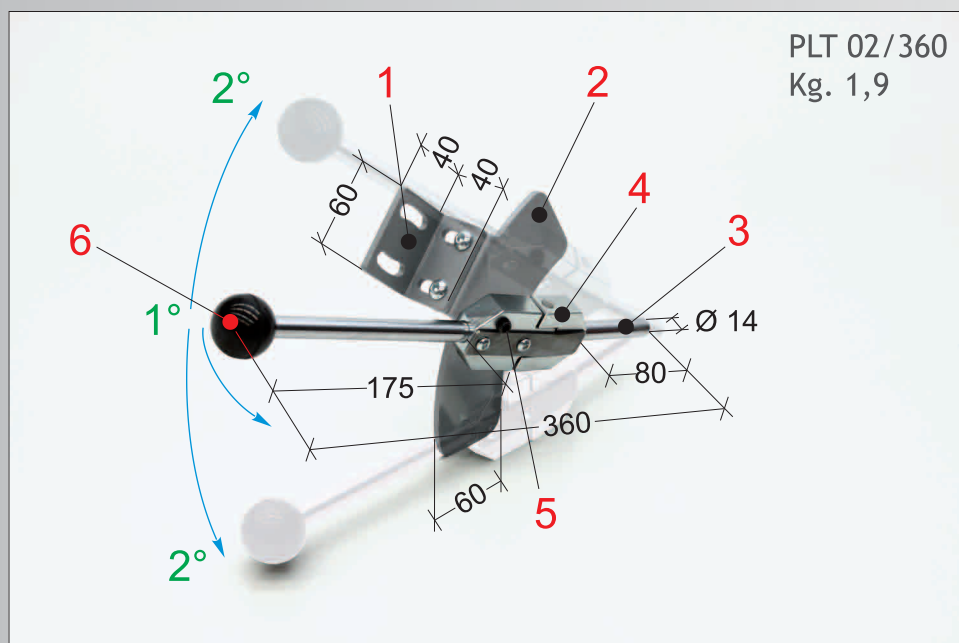
Item created for the frontal "segregation" of the lathe mother screw and the advancing bars. Protects the operator from direct contact with moving parts and avoids the possibility of "snagging" of work garments. Made from two units to fix to the two extremities of the longitudinal carriage, equipped with a particular self-sliding roll, operated from the inside by multiple springs. The protective ribbon is made of spread textile material and is resistant to coolants and abrasions. Each unit is purposely designed for its side of the carriage and is equipped with appropriate anchorage stirrups. During movement of the longitudinal carriage, the two units self-roll and unroll, constantly "segregating" the lathe mother screw and the advancing bars.

- **Note:** the extremity, equipped with the sliding roll, must be fixed onto the base side.

Code	A	B	C	D	Kg.
PTO 02/300	300	200	200	0-200	3,0
PTO 02/400	400	220	250	0-190	4,9

Lathe safety lever

LATHE



- 1 Adjustable angular anchorage stirrup in pressed steel
- 2 Levelling plate, to insert the locking pivot in pressed steel
- 3 Shaft to be inserted in the original joint of the chuck bar in steel
- 4 Joint equipped with safety pivot and recall spring in steel
- 5 Adjustable safety bolt
- 6 Manoeuvre lever equipped with round knob

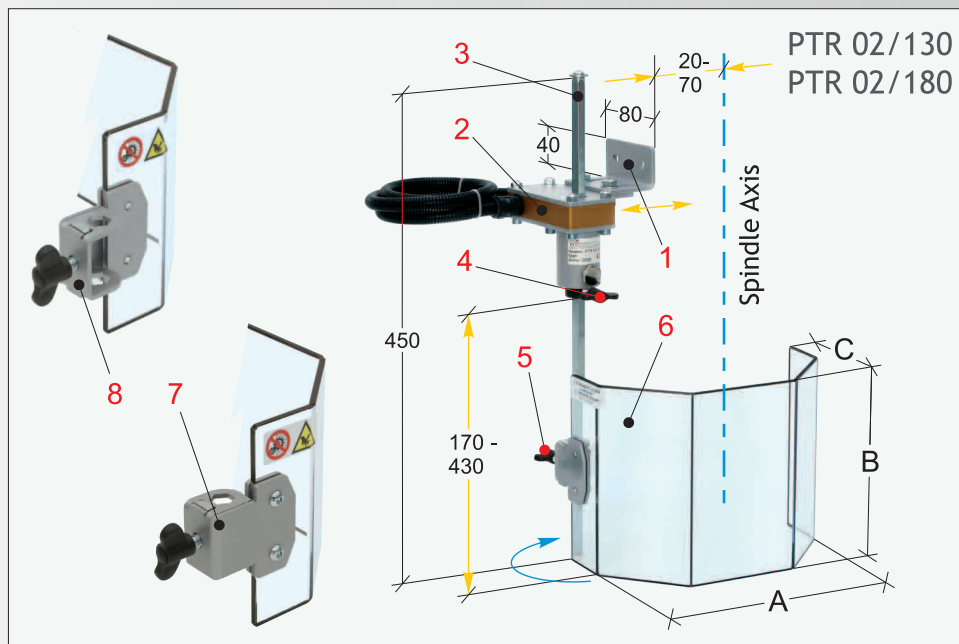
Double-movement universal device, for the insertion of chuck rotation. Provided in a single piece, to be installed as a replacement for one of the two original levers.

Allows the activation of chuck rotation, performing a forced "double movement" manoeuvre. Suitable for installation on machines with one or two levers. Provided in a single piece, to replace only one of the two original machine levers, normally identified as the most frequently used one, while the original remaining lever remains operational only for disconnection.

Equipped with universal levelling plate where a hole must be made that corresponds to the central "neutral" position.

In this way, the safety bolt on the joint enters into the hole which in turn, in case of involuntary activation, sets the lever locking.

Activation of the chuck rotation occurs by performing in sequence: movement 1° and subsequently movement 2° disconnection occurs by directly performing movement 2° until the introduction of the safety bolt into the locking hole.



- 1 Anchorage stirrup - in pressed steel
- 2 Safety microswitch main box - 180° rotation - n. 2 NC contacts
- 3 Shield support vertical arm - in steel hexagon
- 4 Arm-shield adjustment knob as regards the microswitch group
- 5 Shield adjustment knob as regards the supporting arm
- 6 Semi-octagonal shield in Polycarbonate

Solid and versatile, the only one with double shield adjustment. Suitable for installation on traditional Drills, Pantographs and similar machines.

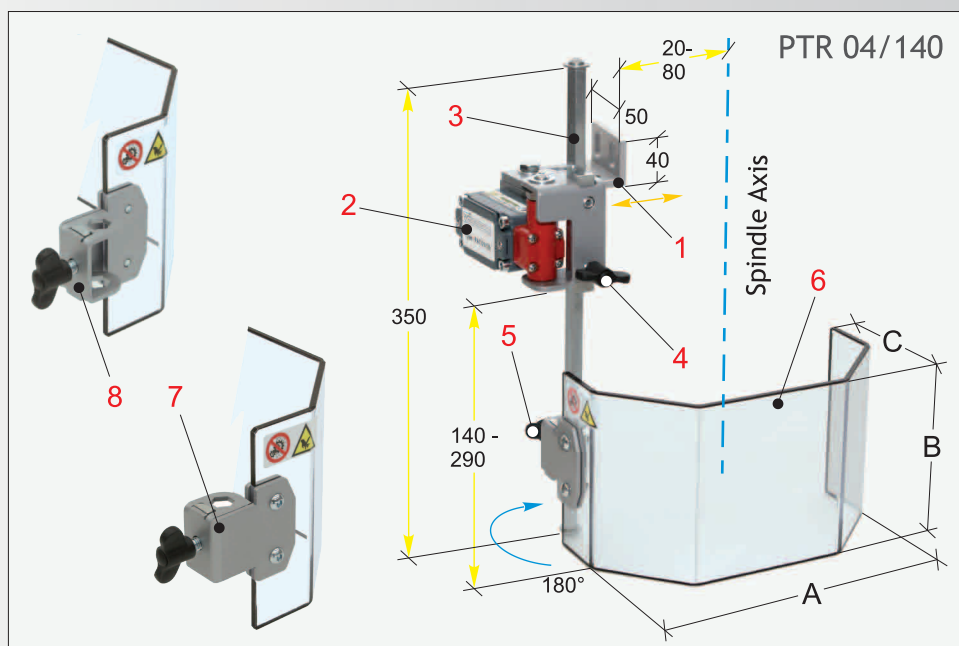
Protects the operator from direct frontal contact with rotating spindle parts and from projection of shavings and lubricant-coolant. Attachable on the left side of the machine.

The semi-octagonal shield can be adjusted vertically by two different systems: shield-arm group, adjustable through the microswitch group (point 4). The shield is adjustable through the arm (point 5).

The shield support clamp can be placed inside (point 7) or outside (point 8), allowing a wide range of horizontal adjusting.

Complete with safety microswitch.

Code	A	B	C	Kg.
PTR 02/130	230	130	115	2,5
PTR 02/180	230	180	115	2,6



- 1 Anchorage stirrup - in pressed steel
- 2 Self-bearing safety microswitch - 180° rotation - n. 2 NC contacts
- 3 Shield support vertical arm - in steel hexagon
- 4 Arm-shield adjustment knob as regards the microswitch group
- 5 Shield adjustment knob as regards the supporting arm
- 6 Semi-octagonal shield in Polycarbonate

Small item, the only one with a double shield adjustment. Suitable to be used on Drills, bench Drills and similar machines.

Protects the operator from direct frontal contact with rotating spindle parts and from projection of shavings and lubricant-coolant. Attachable on the left side of the machine.

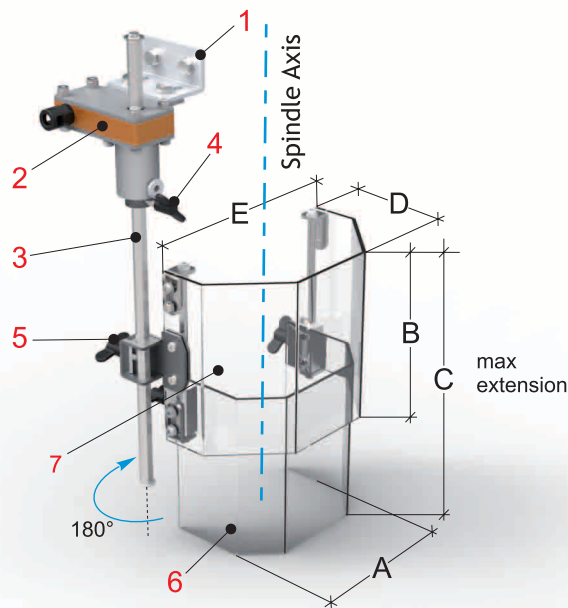
The semi-octagonal shield can be adjusted vertically by two different systems: shield-arm group, adjustable through the self-bearing microswitch (point 4). The shield is adjustable through the arm (point 5).

The shield support clamp can be placed inside (point 7) or outside (point 8), allowing a wide range of horizontal adjusting.

Complete with safety microswitch.

Code	A	B	C	Kg.
PTR 04/140	200	140	100	1,8

PTR 05/180



- 1 Anchorage stirrup - in pressed steel
- 2 Self-bearing main box with integrated microswitch - 180° rotation n. 2 NC contacts
- 3 Shield support vertical arm - in steel hexagon
- 4 Adjustment knob for arm-shield assembly with respect to the microswitch main box
- 5 Adjustment shield knob with respect to the support arm
- 6 Semi-octagonal polycarbonate front shield
- 7 "C" shaped rear shield

Code	A	B	C	D	E	Kg.
PTR 05/180	172	180	180-300	114	230	3,7

Safety guard with telescopic shield and vertical adjustment, extremely versatile for the protection of the spindle and of the working tool. Equipped with 180° rotation and safety microswitch.

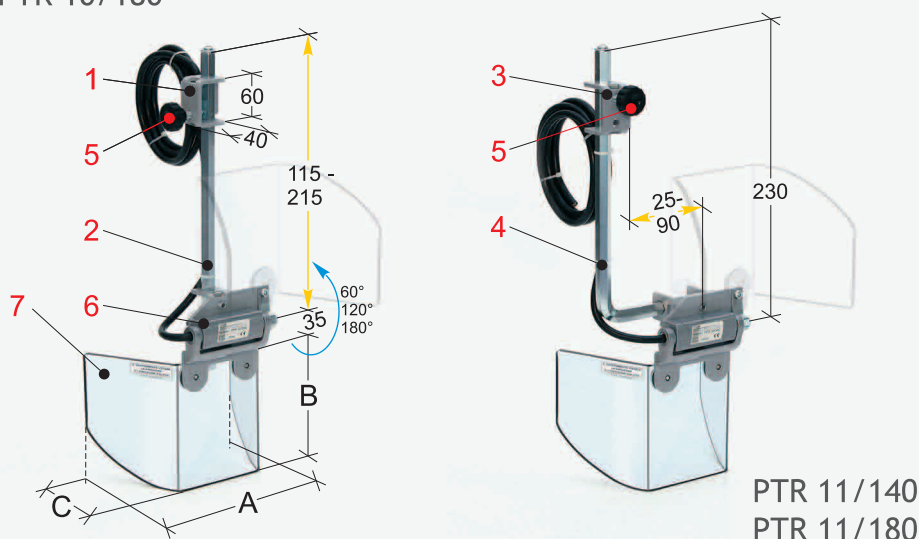
Protects the operator from direct frontal contact with rotating components of the spindle, of the tool and from projection of shavings and lubricant-coolant. The main feature is the telescopic shield, vertically adjustable (refer to dimensions "B" and "C") and positionable along arm 3.

The shield opens laterally with 180° rotary movement, allowing easy access for operations of tool change. The stirrup allows a solid anchorage at the drill structure.

Complete with pre-wired safety microswitch.

Safety guard for drills and similar machines

DRILLING MACHINE

PTR 10/140
PTR 10/180


New item proposed with double fixing system, supported by adjustable hexagonal arms. Equipped with microswitch integrated in the rotation hinge.

Protects the operator from direct frontal contact with rotating spindle parts and from the projection of shavings and lubricant-coolant.

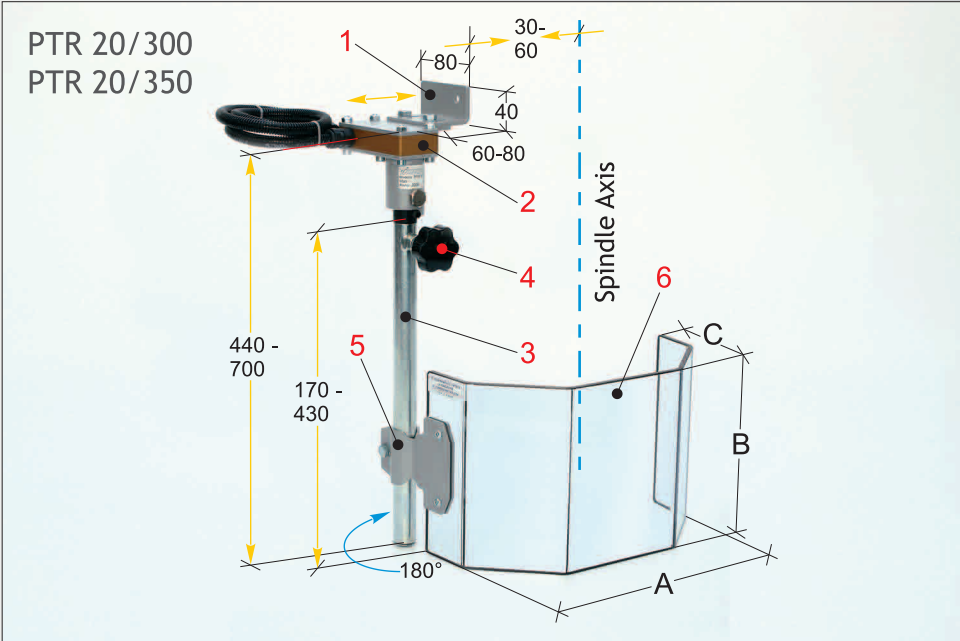
Shield equipped with innovative system of vertical opening, in the positions of 60° - 120° - 180°, supported by widely adjustable hexagonal arms. Available in two versions:

PTR 10/... = Frontally fixable version
PTR 11/... = Laterally fixable version.

The safety microswitch is integrated in the special hinge that supports the shield.

- 1 Anchorage stirrup, frontal version in pressed steel
- 2 Support arm, frontal version in steel hexagon
- 3 Anchorage stirrup, lateral version in pressed steel
- 4 Support arm, lateral version in steel hexagon
- 5 Release knob for the vertical adjustment of the shield
- 6 Shield support hinge, with integrated microswitch n. 2 NC contacts
- 7 Semi-hexagonal shield in Polycarbonate

Code	A	B	C	Kg.
PTR 10/140 - PTR 11/140	200	140	110	1,7 - 1,8
PTR 10/180 - PTR 11/180	200	180	110	2,0 - 2,1

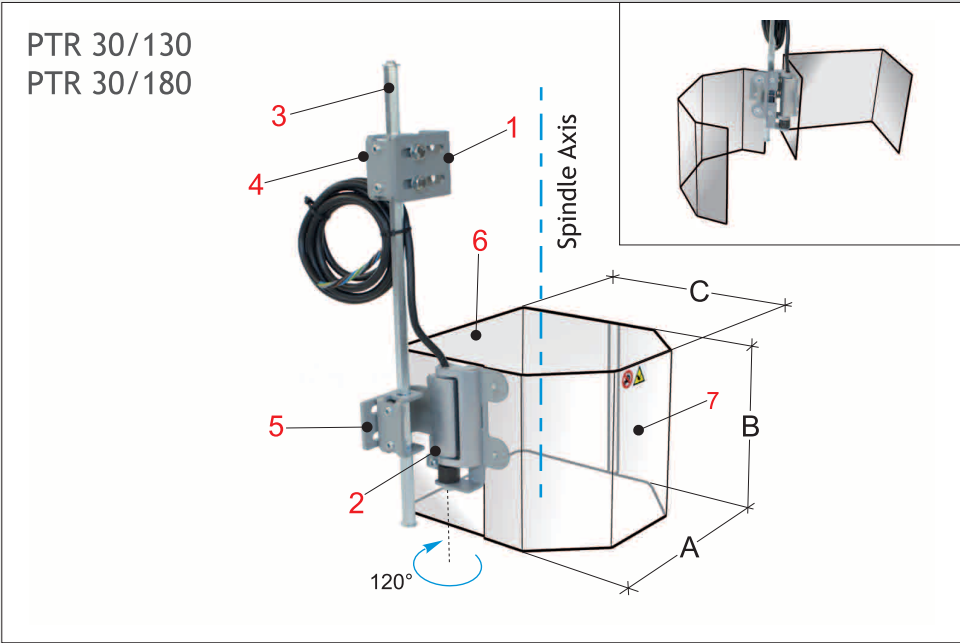


- 1 Anchorage stirrup in pressed steel
- 2 Safety microswitch main box - 180° rotation n. 2 NC contacts
- 3 Telescopic shield support arm in tubular steel
- 4 Arm-shield release knob from the internal hub
- 5 Clamp with shield release screw from the telescopic arm
- 6 Semi-octagonal shield in thick Polycarbonate

Item equipped with vertical adjustment of the shield with telescopic arm system. Suitable to be used on large-dimension drills and Radial drills.

Protects the operator from direct frontal contact with rotating spindle parts and from the projection of shavings and lubricant-coolant. Attachable on the left side of the machine. Supplied with semi-octagonal shield equipped with double system of vertical adjustment: 1 = telescopic shield-arm group, adjustable by the internal hub-Shield. 2 = adjustable on the same arm. Complete with safety microswitch.

Code	A	B	C	Kg.
PTR 20/300	300	200	150	3,9
PTR 20/350	350	240	175	4,2

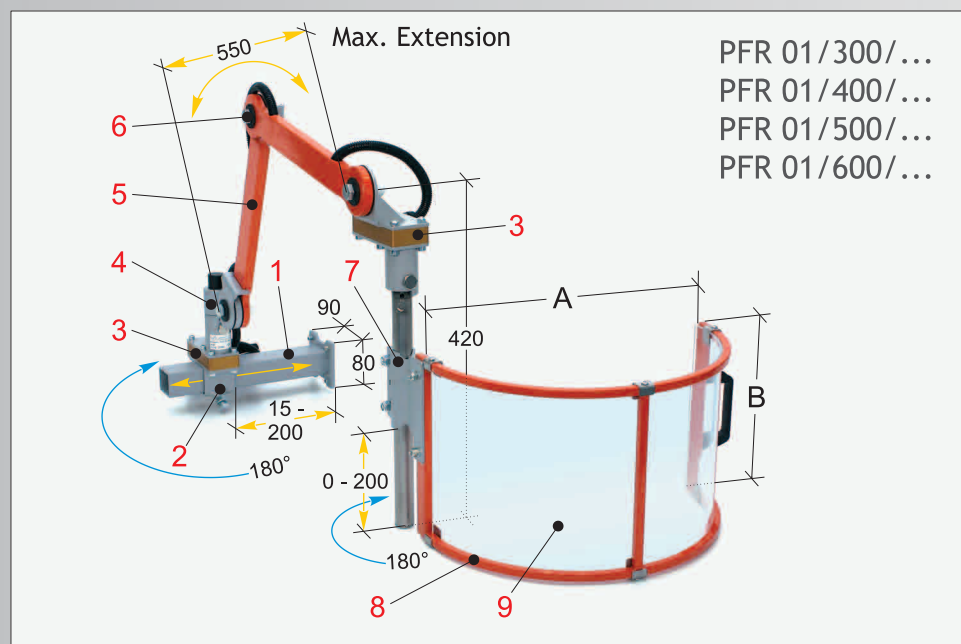


- 1 Anchorage stirrup - in pressed steel
- 2 Shield support hinge with integrated microswitch - n. 2 NC contacts
- 3 Shield support vertical arm - in steel hexagon
- 4 Adjustable stirrup for support anchorage - allows adjustment towards Left
- 5 Adjustable stirrup for shield support - allows adjustment towards Right
- 6 Semi-octagonal polycarbonate front shield
- 7 "C" shaped rear shield

Universal and solid item with rear protection and lateral opening of the shield with hinge equipped with integrated microswitch

Protects the operator from direct contact with rotating components of the spindle and from projection of shavings and lubricant-coolant. Attachable on the left side of the machine. The anchorage systems at the machine and the fastening of the shield can be both adjusted for better positioning of the guard according to position of the spindle. Complete with safety microswitch integrated in the hinge of the shield.

Code	A	B	C	Kg.
PTR 30/130	220	130	235	2,7
PTR 30/180	220	180	235	3,0



PFR 01/300/...
PFR 01/400/...
PFR 01/500/...
PFR 01/600/...

Classic universal safety guard with articulated arms. The rubbing articulations make it particularly versatile and able for immediate placement.

Protects the operator from direct contact with rotating parts of the vertical spindle and from the projection of shavings and lubricant-coolant.

Attachable on the base flank, equipped with semi-circular shield with double opening system: 1 = shield openable horizontally on its axis. 2 = "swinging" total of the safety guard, outside the field of work. Complete with double safety microswitch.

- **Note:** Specify the mounting side by adding the suffix: /DX = Right - /SX = Left

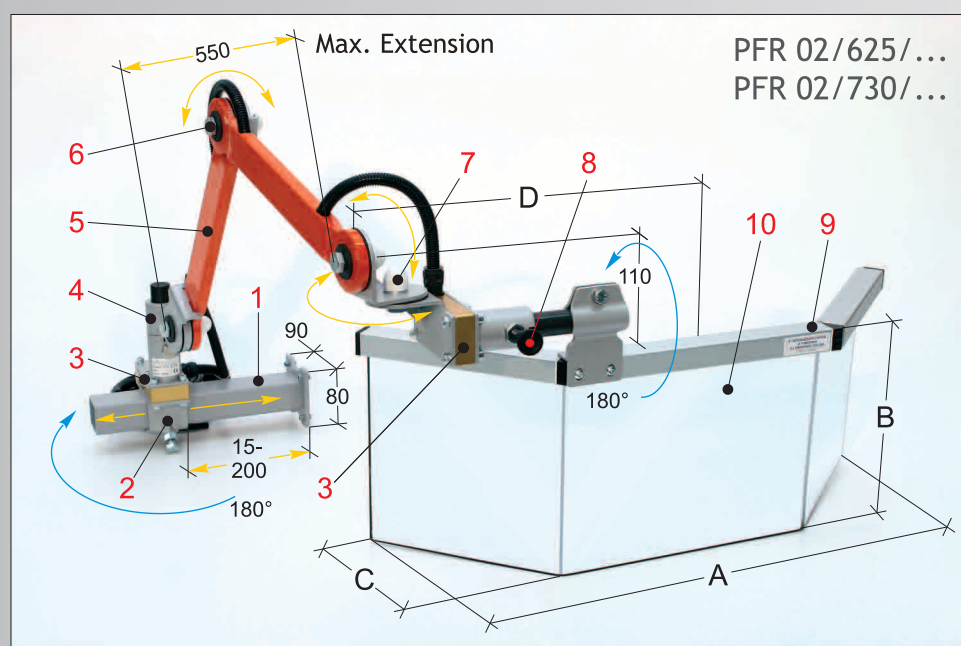
- **Available accessories:** PMG 60/185 - PBA 01/190 - PBA 01/325 - PBA 02/325

- 1 Levelling anchorage stirrup in tubular steel
- 2 Depth-adjustable safety guard support
- 3 Safety microswitch main box 180° rotation n. 2 NC contacts
- 4 Horizontal adjustment clamp
- 5 Articulated arms in tubular steel
- 6 Rubbing articulation with friction disc
- 7 Shield-arm connection clamp in pressed steel
- 8 Shield structure in tubular steel
- 9 Thermo-formed shield in plastic shockproof and oil-resistant material

Code	A	B	Kg.
PFR 01/300/...	300	200	9,5
PFR 01/400/...	400	235	9,8
PFR 01/500/...	500	235	10,1
PFR 01/600/...	600	235	10,4

Multi-adjustable safety guard for universal mills

MILLS



PFR 02/625/...
PFR 02/730/...

Thanks to the proven system of rubbing articulated arms, it is the only one to be truly, versatile and manageable. Suitable for frequent changes of operation.

Protects the operator from direct contact with rotating parts of the vertical spindle and from the projection of shavings and lubricant-coolant.

Attachable on the base flank, equipped with wide "visibility" shield and double opening system: 1 = Shield openable vertically with position-locking knob.

2 = "swinging" total of safety guard, outside field of work.

Complete with double safety microswitch.

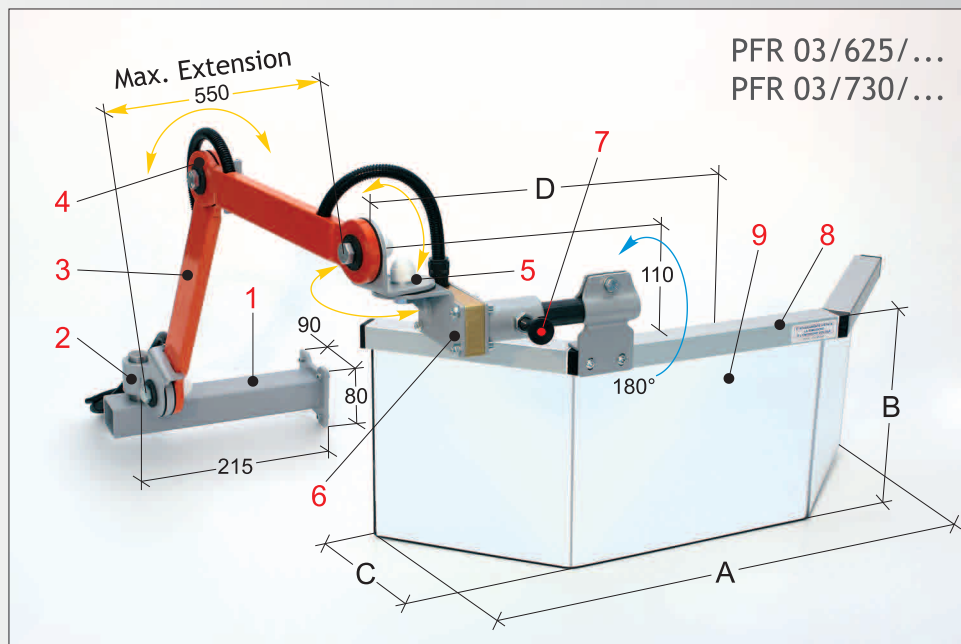
- **Note:** Specify the mounting side by adding the suffix: /DX = Right - /SX = Left

- **Available accessories:** PMG 60/185 - PBA 01/190 - PBA 01/325 - PBA 02/325 allowing a wide range of horizontal adjusting.

Complete with safety microswitch.

- 1 Levelling anchorage stirrup in tubular steel
- 2 Depth-adjustable safety guard support
- 3 Safety microswitch main boxes 180° rotation n. 2 NC contacts
- 4 Horizontal adjustment clamp
- 5 Articulated arms in tubular steel
- 6 Rubbing articulation with friction disc
- 7 Angular junction for the vertical turnover of the shield
- 8 Shield opening unlocking knob
- 9 Shield structure in aluminium profile
- 10 Shield in plastic shockproof and oil-resistant material

Code	A	B	C	D	Kg.
PFR 02/625/...	620	250	170	405	10,4
PFR 02/730/...	725	300	200	430	10,9



PFR 03/625/...
PFR 03/730/...

Universal safety guard with rubbing articulated arms. Practical and manageable. Suitable for frequent changes of operation.

Protects the operator from direct contact with rotating parts of the vertical spindle and from the projection of shavings and lubricant-coolant.

Attachable on the base flank, equipped with wide "visibility" shield with vertical opening system and position-unlocking knob.

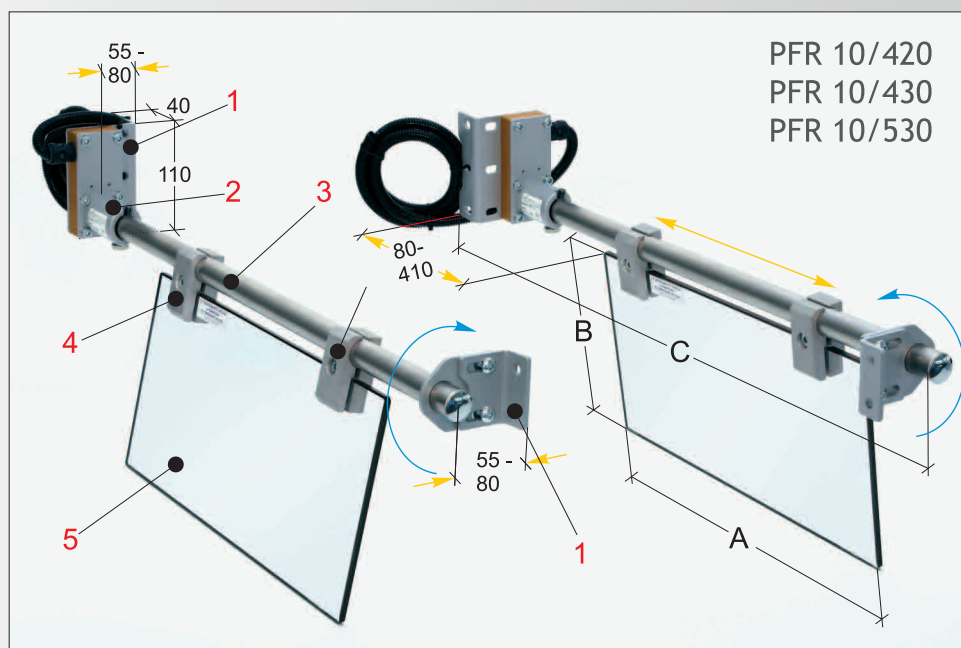
Complete with safety microswitch.

- **Note:** Specify the mounting side by adding the suffix: /DX = Right - /SX = Left.

- **Available accessories:** PMG 60/185 - PBA 01/190 - PBA 01/325 - PBA 02/325

- 1 Levelling anchorage stirrup in tubular steel
- 2 Horizontal adjustment clamp
- 3 Articulated arms in tubular steel
- 4 Rubbing articulation with friction disc
- 5 Angular junction for the vertical turnover of the shield
- 6 Safety microswitch main box 180° rotation n. 2 NC contacts
- 7 Shield opening unlocking knob
- 8 Shield structure in aluminium profile
- 9 Shield in plastic shockproof and oil-resistant material

Code	A	B	C	D	Kg.
PFR 03/625/...	620	250	170	405	8,9
PFR 03/730/...	725	300	200	430	9,4



PFR 10/420
PFR 10/430
PFR 10/530

Item composed of two mirrored elements, to be installed on the sides of the horizontal slide. Equipped with easy adjustments for a frequent change of operation.

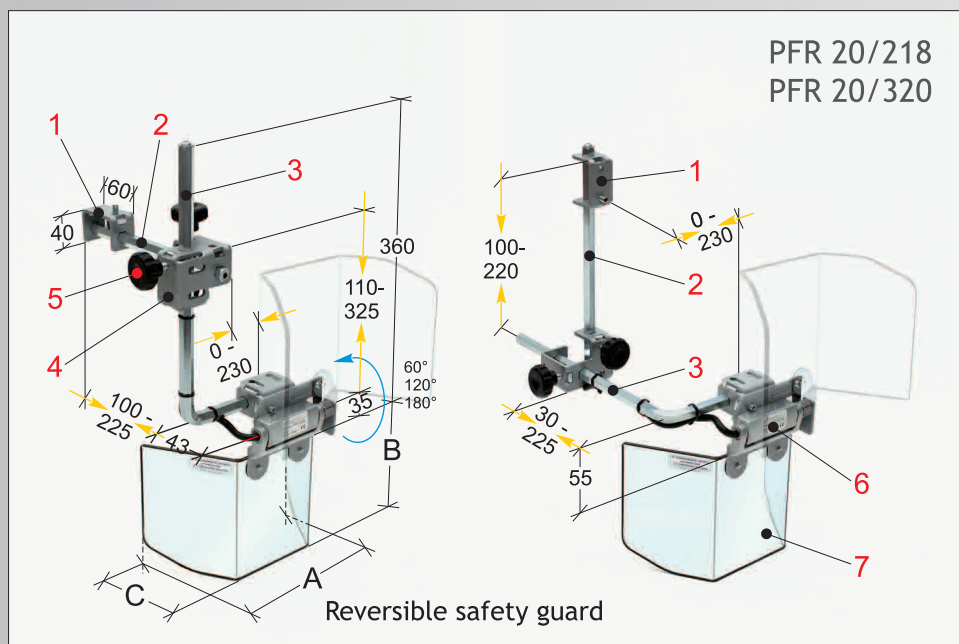
Protects the operator from direct contact with the horizontal shaft-spindle and its parts placed in rotation and accessible from the two sides of the machine (the frontal "segregation" of the dangerous parts is excluded), in addition to the projection of shavings and lubricant-coolant.

Horizontally attachable to the two sides of the slide. Equipped with axially and radially adjustable shields, shapeable if needed for possible interference with the equipment in use.

Equipped with double safety microswitch.

- 1 Adjustable angular stirrups, for microswitch box anchorage and support of the horizontal arm in pressed steel
- 2 Safety microswitch main box 180° rotation n. 2 NC contacts
- 3 Horizontal shield support arm in tubular stainless steel
- 4 Fixing clamps for the axial and radial adjustment of the shield in aluminium
- 5 Shield in plastic shockproof and oil-resistant material

Code	A	B	C	Kg.
PFR 10/420	400	200	830	8,5
PFR 10/430	400	300	830	8,8
PFR 10/530	500	300	930	9,1



- 1 Anchorage stirrup in pressed steel
- 2 Straight support arm in hexagonal steel
- 3 Angular support arm in hexagonal steel
- 4 "Cross" clamp for arm adjustment in pressed steel
- 5 "Cross" clamp adjustment knobs
- 6 Shield support hinge with integrated microswitch - n. 2 NC contacts
- 7 Semi-hexagonal shield - in plastic shockproof and oil-resistant material

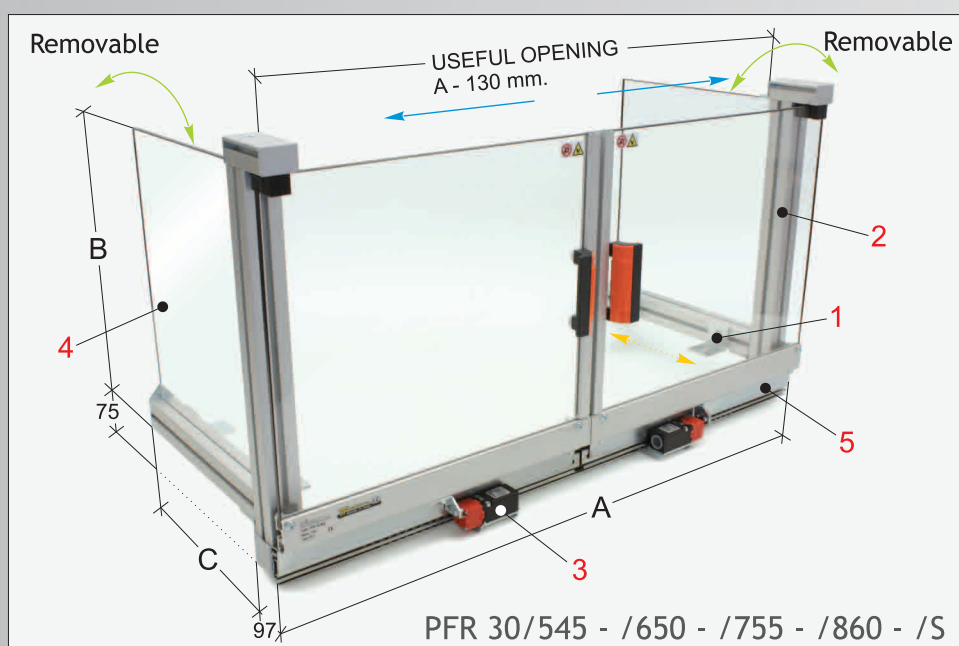
Exclusive item supported by adjustable hexagonal arms. Equipped with vertical opening shield, with microswitch integrated in the rotation hinge.

Protects the operator from direct contact with rotating parts of the vertical spindle and from the projection of shavings and lubricant-coolant. Shield equipped with innovative vertical "spring" opening system in the 60° - 120° - 180° positions. Supported by widely-adjustable hexagonal arms, reversible between themselves to make available various fixing configurations. The safety microswitch is integrated in the special hinge that supports the shield.

Code	A	B	C	Kg.
PFR 20/218	250	180	110	3,1
PFR 20/320	300	200	125	3,2

Perimeter safety guard to install on the table

MILLS

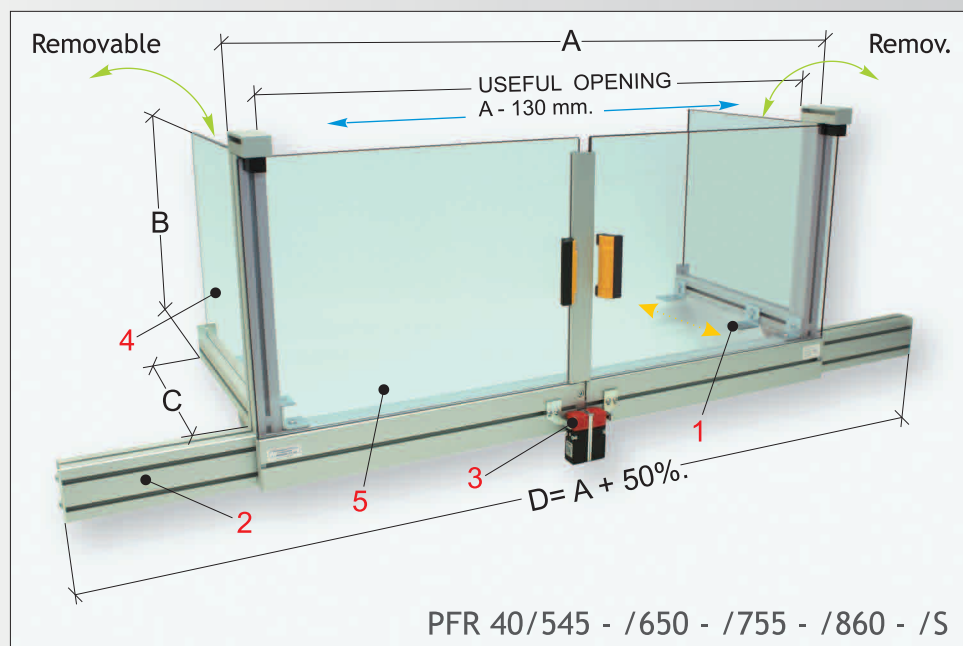


- 1 Angular anchorage stirrups in pressed steel
- 2 Perimeter structure - in aluminium profile
- 3 Safety microswitches with separated actuator - n. 2 NC contacts
- 4 Removable lateral panels - in plastic shockproof and oil-resistant material
- 5 Sliding ball guides, with an excursion equal to their length

Equipped with two total opening sliding doors and removable lateral panels. Also customized on request.

Protects the operator from direct contact with rotating parts of the spindle and from the projection of shavings and lubricant-coolant. Attachable on the perimeter of the machine table. Equipped with two "total opening" sliding doors on ball guides, made in thick plastic material, "shapeable" for potential vice passage. The lateral panels are removable for an easier operation of long pieces. Complete with double safety microswitch.

Code	A	B	C	Kg.
PFR 30/545	1000	450	350	15,9
PFR 30/650	1200	500	400	18,9
PFR 30/755	1400	550	450	23,0
PFR 30/860	1600	600	500	25,0
PFR 30/S	.....	.....	.....	---

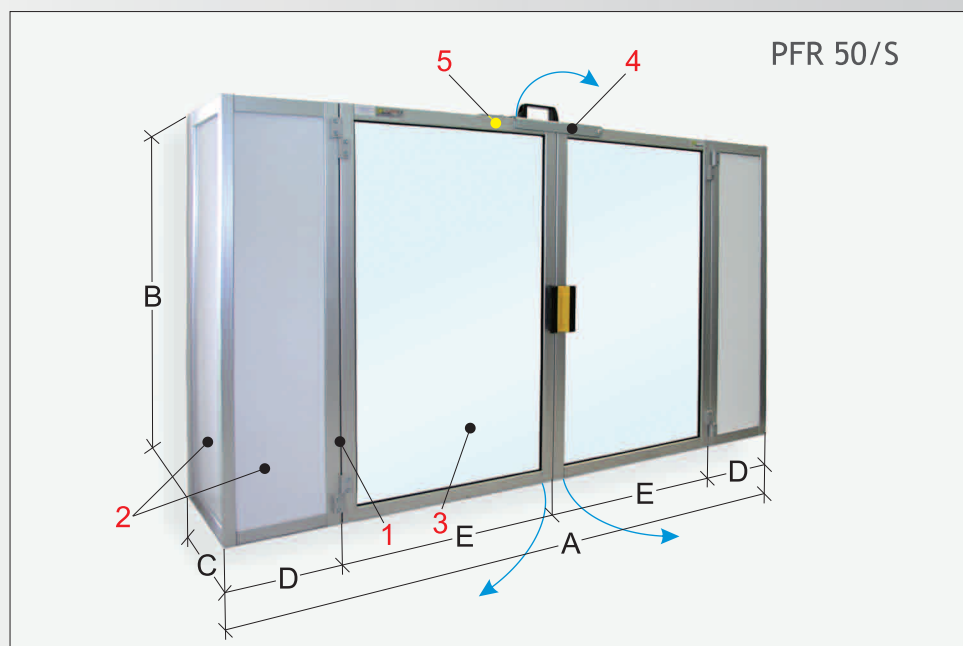


Equipped with two total opening sliding doors and removable lateral panels. Also customized on request.

Protects the operator from direct contact with rotating parts of the spindle and from the projection of shavings and lubricant-coolant. Equipped with two "total" opening doors, sliding on Polyethylene "skates", made in thick plastic material, "shapeable" for potential vice passage. Complete with double safety microswitch.

- 1 Angular anchorage stirrups in pressed steel
- 2 Perimeter structure in aluminium profile
- 3 Safety microswitches with separated actuator - n. 2 NC contacts
- 4 Removable lateral panels - in plastic shockproof and oil-resistant material
- 5 Front panels in plastic shockproof and oil-resistant material

Code	A	B	C	D	Kg.
PFR 40/545	1000	450	350	1500	20,0
PFR 40/650	1200	500	400	1800	24,0
PFR 40/755	1400	550	450	2100	28,0
PFR 40/860	1600	600	500	2400	32,0
PFR 40/S	.....	.....	.....	.....	---

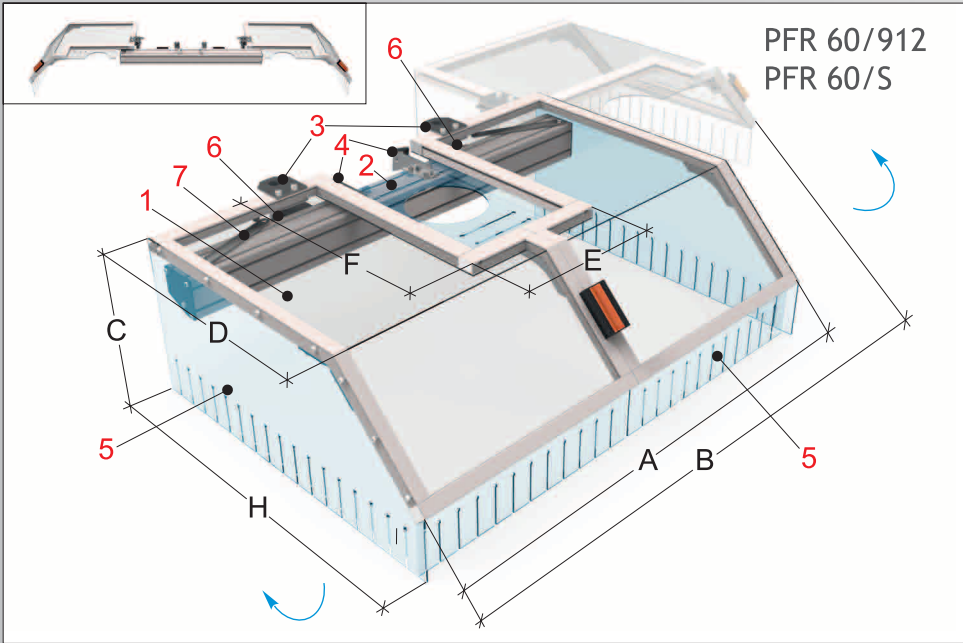


Made from two central doors with "knocker" opening and fixed lateral. "L"- shaped structures. Made only on request.

Protects the operator from contact with rotating spindle parts and from the projection of shavings and lubricant-coolant. Made according to the measurements of the machine table, to which it becomes anchored with the appropriate stirrups - Made from a external structure in aluminium outline, two central doors, with "knocker" opening and "compass" locking system, they are dressed in plastic transparent shockproof and oil-resistant material, while the lateral fixed structures are dressed in "blind" stratified plastic laminate. Complete with safety microswitch.

- 1 Perimeter structure in aluminium profile
- 2 Lateral panels - in stratified shockproof and oil-resistant plastic laminate
- 3 Knocker doors - in plastic transparent shockproof and oil-resistant material
- 4 Safety closure with "compass" system
- 5 Safety microswitch with separated actuator - n. 2 NC contacts

Code	A	B	C	D	E	Kg.
PFR 50/S	---



- 1 Shield in shockproof and oil resistant plastic material
- 2 Auto-carrying guide in extruded aluminium, with sliding system composed by tempered and rectified steel guides-bearings, placed in protected internal position.
- 3 Shield movement unit
- 4 Anchorage stirrups
- 5 Protective bands made of flexible PVC
- 6 Safety microswitches with separate actuator - n. 2 NC contacts (on request also interlocked)
- 7 Opening arm to shield movements

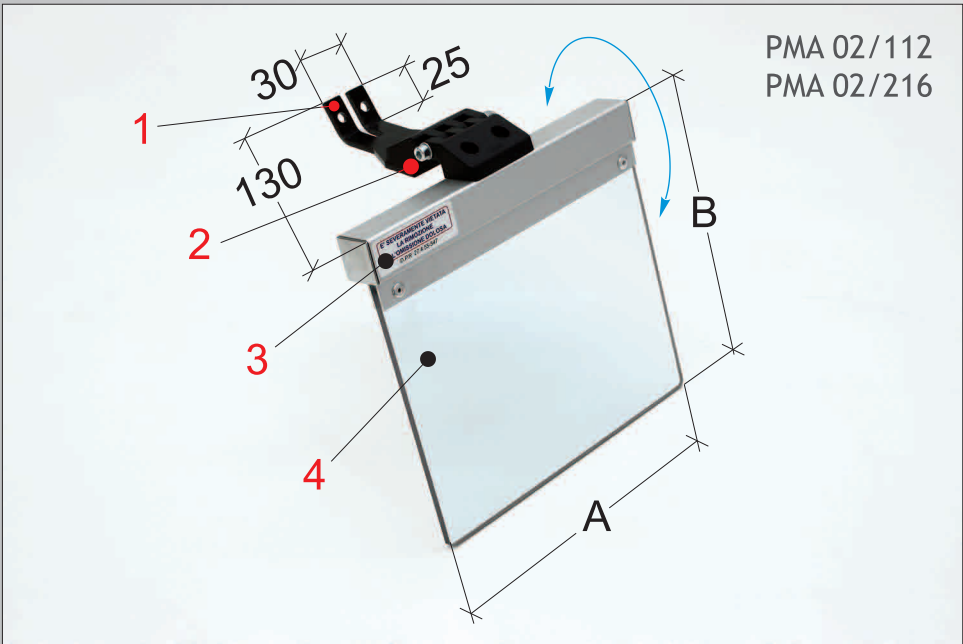
Code	A	B	C	D	E	F	H	Kg.
PFR 60/912	1230	1375	400	650	290	540	895	48,00
PFR 60/S	...	...	...	...	...	...	...	---

Equipped with two opposite shields with lateral opening. Also customized on request

Protects the operator from direct contact with rotating parts of the spindle and from the projection of shavings and lubricant-coolant.
To be fixed on the machine head - Equipped with two “total opening” doors having double movement, rotary and translational one, with sliding system composed by tempered and rectified steel-guides-bearings, placed in protected internal position.
Complete with flexible lateral and front bands for the protection from lubricant-coolant protection and, at the same time, to allow working of long parts.

Safety guard for grinder and tool grinder

GRINDER

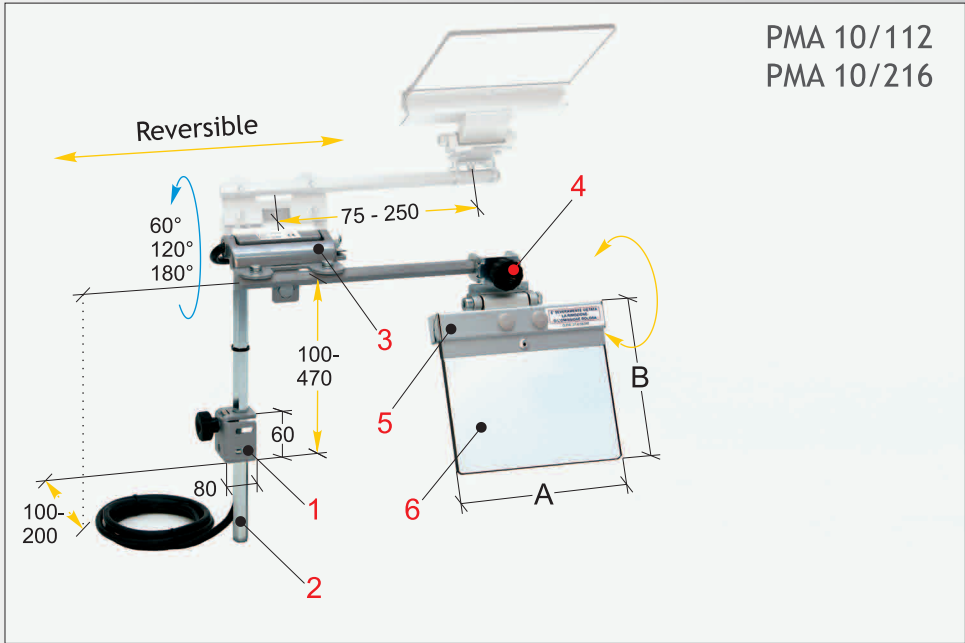


- 1 Anchorage stirrup - in pressed steel
- 2 Rubbing articulation - in reinforced polyamide
- 3 Shield support border - in aluminium profile
- 4 Shield in plastic shockproof material

Code	A	B	Kg.
PMA 02/112	160	145	0,4
PMA 02/216	200	185	0,5

Single shield to be fixed on the grindstone cap, for protection from sparks and emery.
Equipped with rubbing articulation for rapid adjustment.

Protects the operator’s face from the projection of sparks and emery.
The particular form of the anchorage stirrup also allows use on machines with two “flange” caps.
Equipped with rubbing articulation for rapid adjustment and wide plastic shockproof material shield.



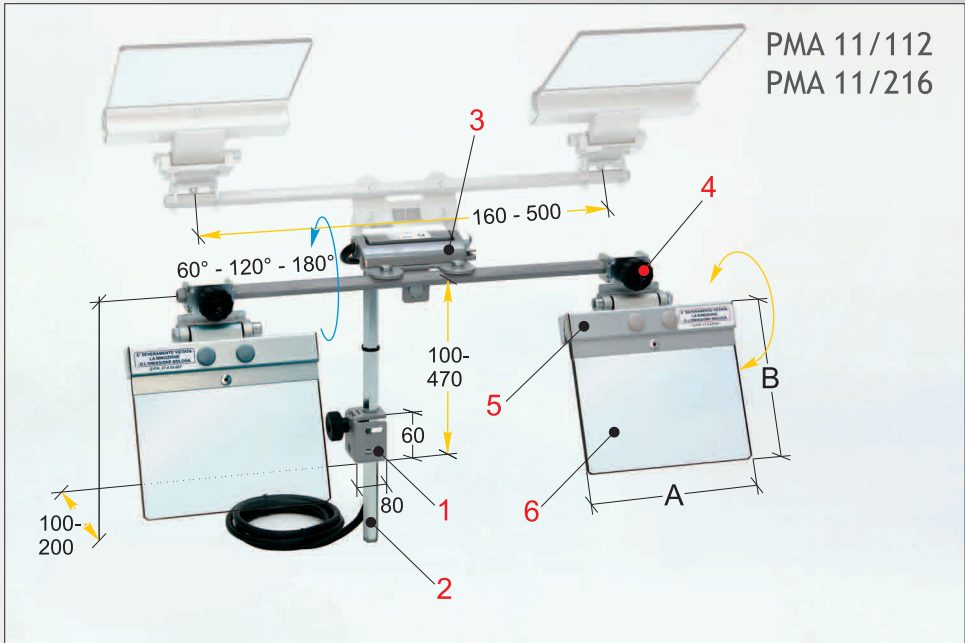
PMA 10/112
PMA 10/216

Safety guard with single right-left reversible shield, supported by multi-adjustable hexagonal arms. Equipped with microswitch integrated in the support hinge.

Protects the operator's face from the projection of sparks and emery. The particular multi-adjustable hexagonal arms structure allows an easy anchorage on the most different structures, allowing use even on machines with grindstone in "overhang" position. The hinge that supports the protective shield is integrated with the safety microswitch. Complete with safety microswitch.

- 1 Anchorage stirrups in pressed steel
- 2 Adjustable support arms in steel hexagon
- 3 Shields group rotation hinge, integrated with safety microswitch - n. 2 NC contacts
- 4 Articulated clamp for the horizontal and vertical adjustment of the shield
- 5 Shield support border in aluminium profile
- 6 Shield in plastic shockproof material

Code	A	B	Kg.
PMA 10/112	160	145	2,4
PMA 10/216	200	185	2,6



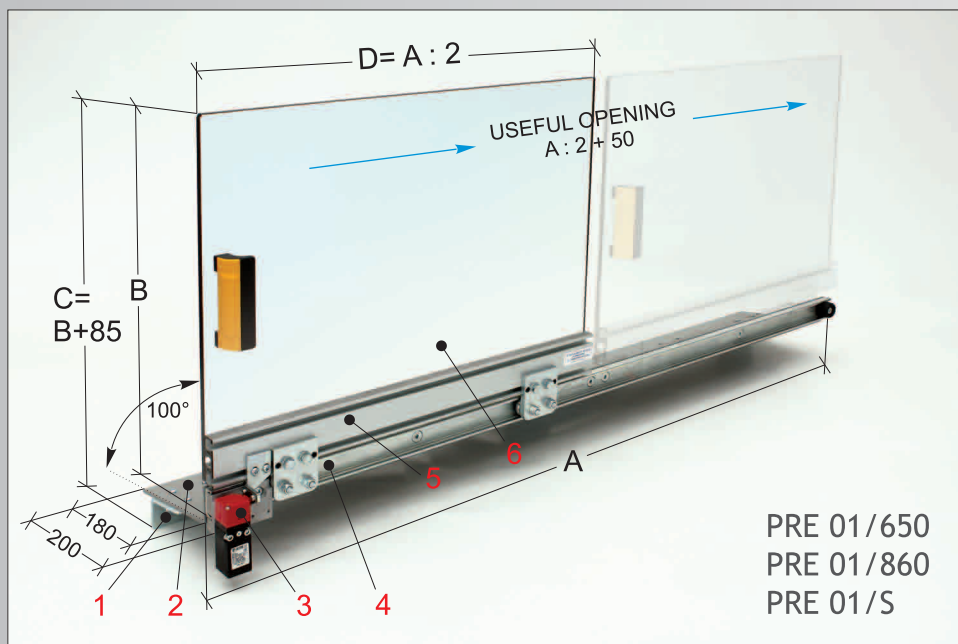
PMA 11/112
PMA 11/216

Double-shield safety guard, supported by multi-adjustable hexagonal arms. Equipped with microswitch integrated in the support hinge

Protects the operator's face from the projection of sparks and emery. The particular multi-adjustable hexagonal arms structure allows an easy anchorage on the most different structures, allowing use even on machines with grindstone in "overhang" position. The hinge that supports the protective shield is integrated with the safety microswitch.

- 1 Anchorage stirrups in pressed steel
- 2 Adjustable support arms in steel hexagon
- 3 Shields group rotation hinge, integrated with safety microswitch - n. 2 NC contacts
- 4 Articulated clamp for the horizontal and vertical adjustment of the shield
- 5 Shield support border in aluminium profile
- 6 Shield in plastic shockproof material

Code	A	B	Kg.
PMA 11/112	160	145	3,2
PMA 11/216	200	185	3,4

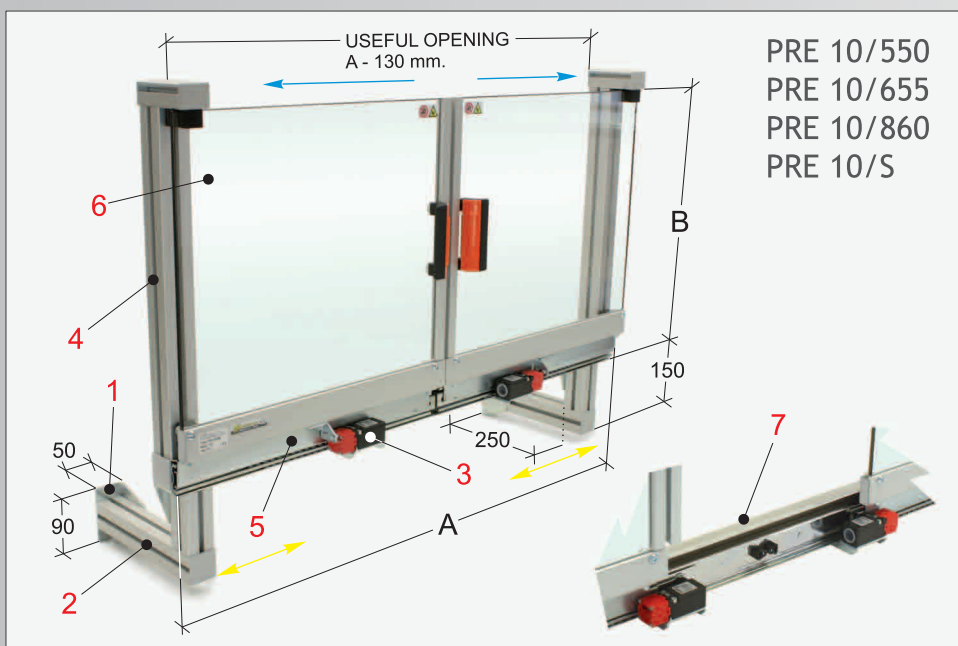


- 1 Angular anchorage stirrups
- 2 Inclined support sheet metal in sheet steel
- 3 Safety microswitch with separated actuator with n. 2 NC contacts
- 4 Steel sliding guide with tempered bearings
- 5 Shield support structure in aluminium profile
- 6 Shield in shockproof and oil-resistant thick plastic material

Equipped with sliding door on a steel guide and tempered bearings. Supported by inclined structure used for liquid collection. Also customized on request

Protects the operator from direct contact with rotating parts of the grindstone and from the projection of lubricant-coolant. Attachable to the machine by solid inclined sheet metal, also used for liquid collection. Equipped with sliding door made in thick shockproof plastic material, sliding on steel guides and positioned externally. Complete with safety microswitch.

Code	A	B	Kg.
PRE 01/650	1200	500	16,5
PRE 01/860	1600	600	20,5
PRE 01/S	.....	.....	---

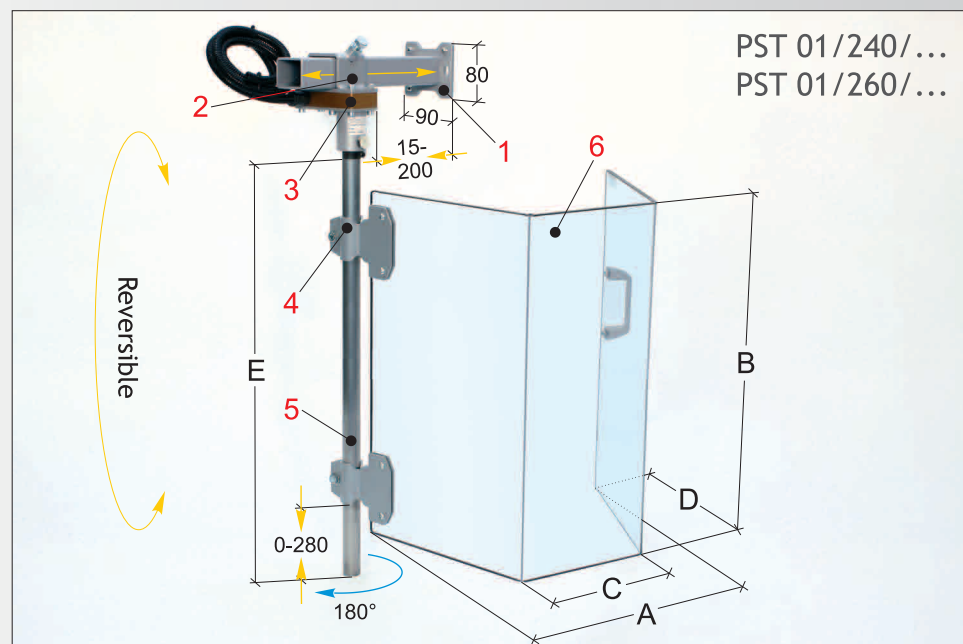


- 1 Angular anchorage stirrups in pressed steel
- 2 Multi-adjustable support structure, with two different attachment systems
- 3 Safety microswitch with separated actuator n. 2 NC contacts
- 4 Perimeter structure - in aluminium profile
- 5 Sliding ball guides, with an excursion equal to their length
- 6 Shields in shockproof and oil-resistant thick plastic material
- 7 Inner inclined structure for lubricant liquid collection - in aluminium sheet

Equipped with two sliding doors on telescopic total-opening ball guides. Available with double anchorage system. Also customized on request.

Protects the operator from direct contact with rotating parts of the grindstone and from the projection of lubricant-coolant. Attachable to the fix base of the machine with two horizontally multi-adjustable supports, (point 2) that allow an anchorage of the guard from the bottom side (as shown) or frontally. The supports are also easily shortened if necessary. Equipped with two "total opening" sliding doors on ball guides, made in thick plastic material. Complete with double safety microswitch.

Code	A	B	Kg.
PRE 10/550	1000	510	14,7
PRE 10/655	1200	560	17,5
PRE 10/860	1600	660	21,6
PRE 10/S	.....	.....	---



PST 01/240/...
PST 01/260/...

Item characterized by the vertical reversibility of the support system, for an easy installation on the most different machines.

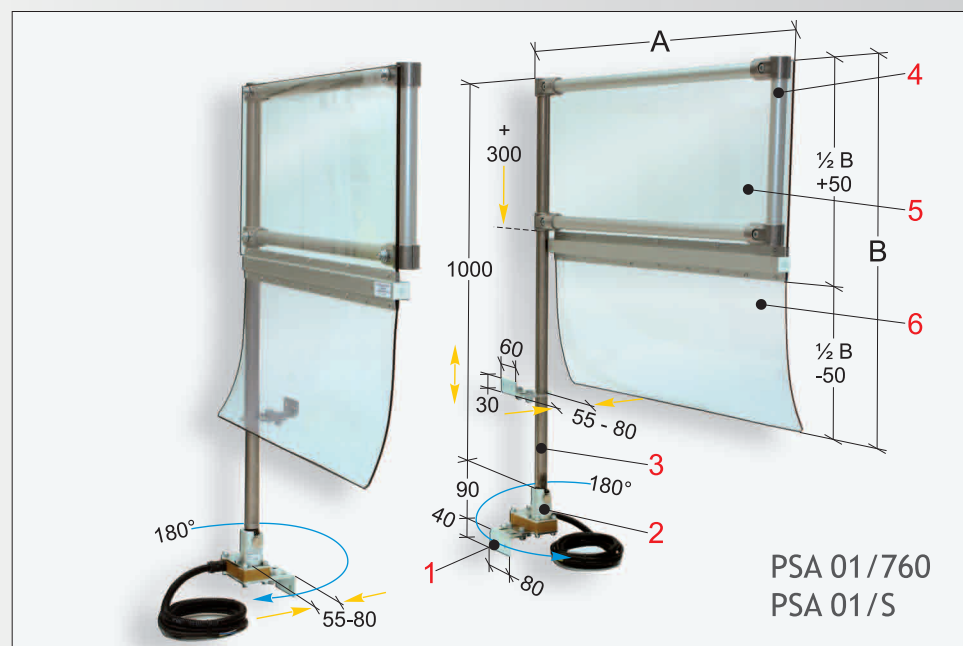
Protects the operator from direct contact with alternate moving parts of the vertical slide and from the projection of shavings.

Thanks to its reversibility it is attachable on the right or left flank of the base, in addition with the high or low support group. Equipped with a completely transparent monolithic shield. Complete with safety microswitch.

- **Note:** Specify the mounting side by adding the suffix: /DX = Right - /SX = Left. Complete with double safety microswitch.

- 1 Levelling anchorage stirrup in tubular steel
- 2 Depth-adjustable safety guard support
- 3 Safety microswitch main box 180° rotation n. 2 NC contacts
- 4 Adjustable shield-arm fixing clamps in pressed steel
- 5 Vertical shield support arm in tubular stainless steel
- 6 Semi-hexagonal monolithic shield in thick plastic shockproof and oil-resistant material

Code	A	B	C	D	E	Kg.
PST 01/240/...	400	400	200	250	600	7,7
PST 01/260/...	400	600	200	250	800	8,9



PSA 01/760
PSA 01/S

Made from two elements to be fixed on the flanks of the base.

Equipped with panels subdivided into two sections, the lower one is shapeable for passage of rods.

Protects the operator from direct contact with alternative moving parts of the cut group accessible sideways as well as from the projection of metallic parts that could be generated.

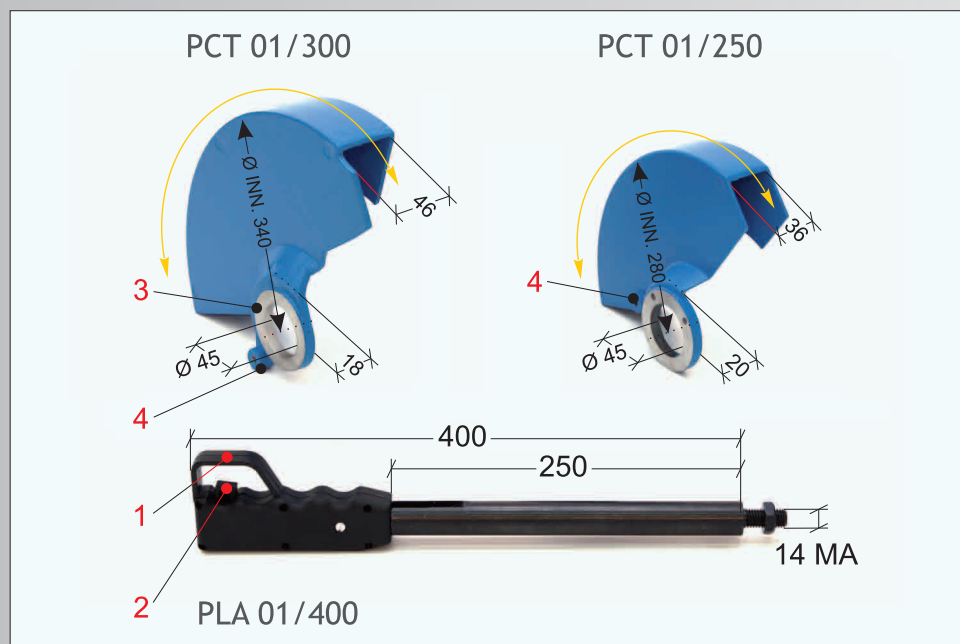
Posteriorly attachable on the two sides of the base.

The shields are subdivided into two sections, the lower one is made of flexible Pvc, to be potentially shaped for the passage of rods in working.

Complete with safety microswitch.

- 1 Adjustable angular anchorage stirrup in pressed steel
- 2 Safety microswitch main box - 180° rotation - n. 2 NC contacts
- 3 Vertical shield support arm in tubular stainless steel
- 4 Shield structure in tubular aluminium
- 5 Upper section of shield in plastic shockproof and oil-resistant material
- 6 Lower section of shield in flexible Pvc, shapeable for the passage of rods

Code	A	B	Kg.
PSA 01/760	700	600	11,9
PSA 01/S	.....	.....	---



- 1 Ergonomic handle with guard ring
- 2 Pushbutton with contact (3 Pin) COM - NO - NC
Contact rate: 16(4) A 250VAC 1E4 - 12(4) A 250VAC 5E4
- 3 Safety shield rotation collar
- 4 Reaction arm fulcrum point (not provided)

Command device and mobile safety guards, for machines lacking typical safety systems of the metal miter Saw

Universal items to apply to metal miter Saws, lacking typical safety systems of such machines.

The items: PCT 01/250 - PCT 01/300 are made of pressure-fused aluminium, they represent the mobile part of the complete safety guard, that must be integrated with the fixed part, normally already present on the machine or to be done opportunely. The mobile safety guard rotates automatically during the descent of the disc, thanks to the reaction arm fixed between the guard, (point 4) and the machine's fixed structure.

- **Note:** For a sure compatibility check with the machine, it is advised to examine all the dimensions indicated, particularly the dimensions of the rotation collar: (point 3).

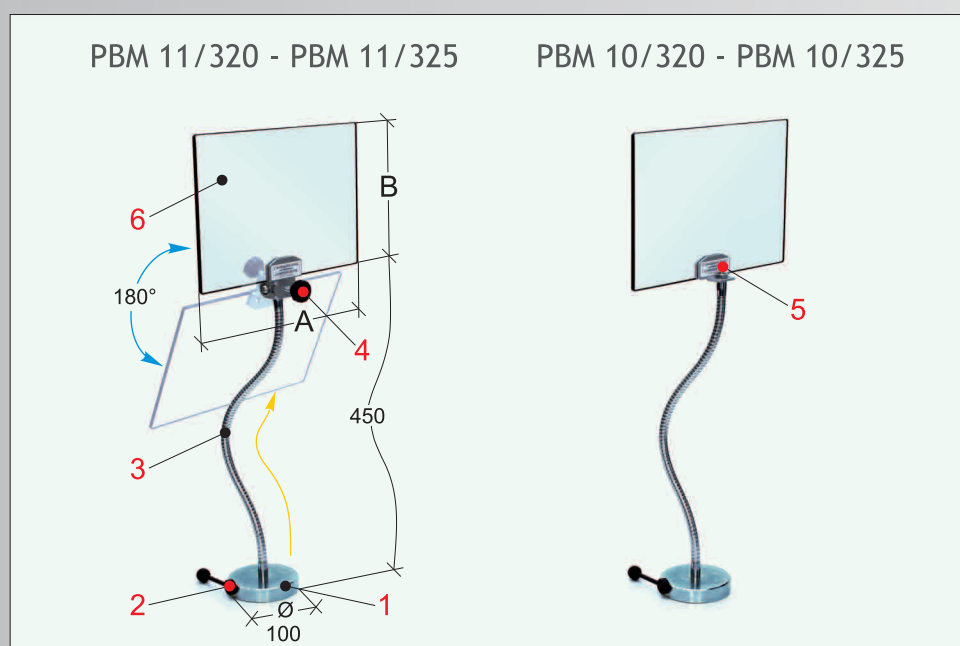
PCT 01/250 = Safety guard with \varnothing maximum of a 250 mm disc.

PCT 01/300 = Safety guard with \varnothing maximum of a 300 mm disc.

PLA 01/400 = Universal command lever for Miter saws, equipped with ergonomic handle, guard ring and pushbutton with contact: (3 Pin) COM - NO - NC

Safety guards with magnetic base

OTHER MACHINES



- 1 Magnetic base \varnothing 100 mm. force of attraction 55 Kg.
- 2 Eccentric disconnection lever
- 3 Flexible articulated arm
- 4 Shield support clamp equipped with articulated joint and locking knob
- 5 Shield support clamp without joint
- 6 Shield in plastic shockproof and oil-resistant material

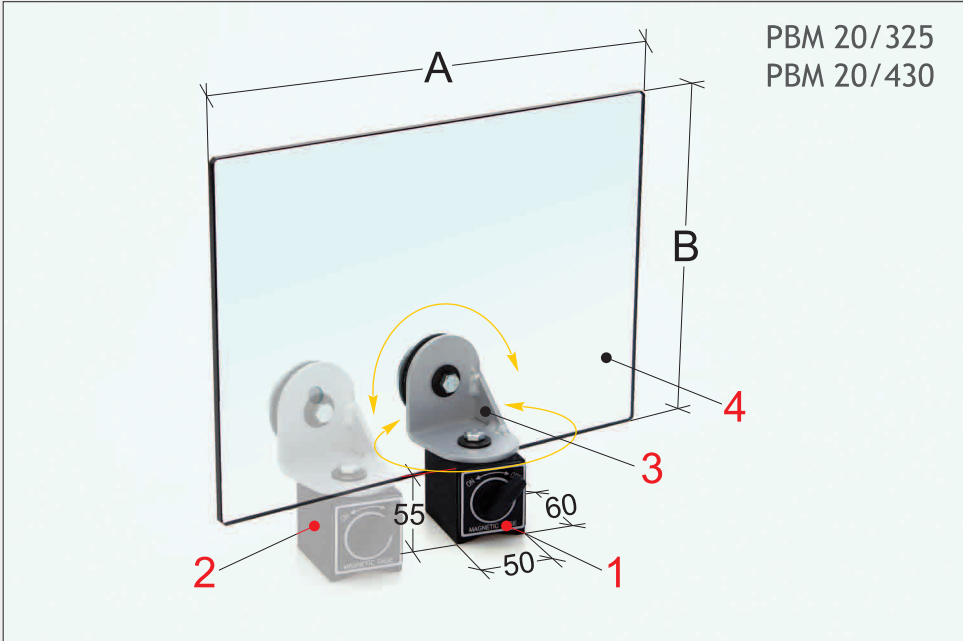
Versatile magnetically-fixed item, offered in two versions:

- with adjustable shield on flexible arm;
- with adjustable shield also with joint.

Protects the operator's face from the projection of emery, dusts and small parts generated during operations. Equipped with a powerful magnetic base with eccentric disconnection lever. To be used on bases of machines and flat iron surfaces.

Offered in two versions: PBM 10/... with shield adjustment by the single flexible arm - PBM 11/... with shield adjustment by flexible arm and articulated joint.

Code	A	B	Kg.
PBM 10/320 - PBM 11/320	300	200	1,5
PBM 10/325 - PBM 11/325	350	250	1,6



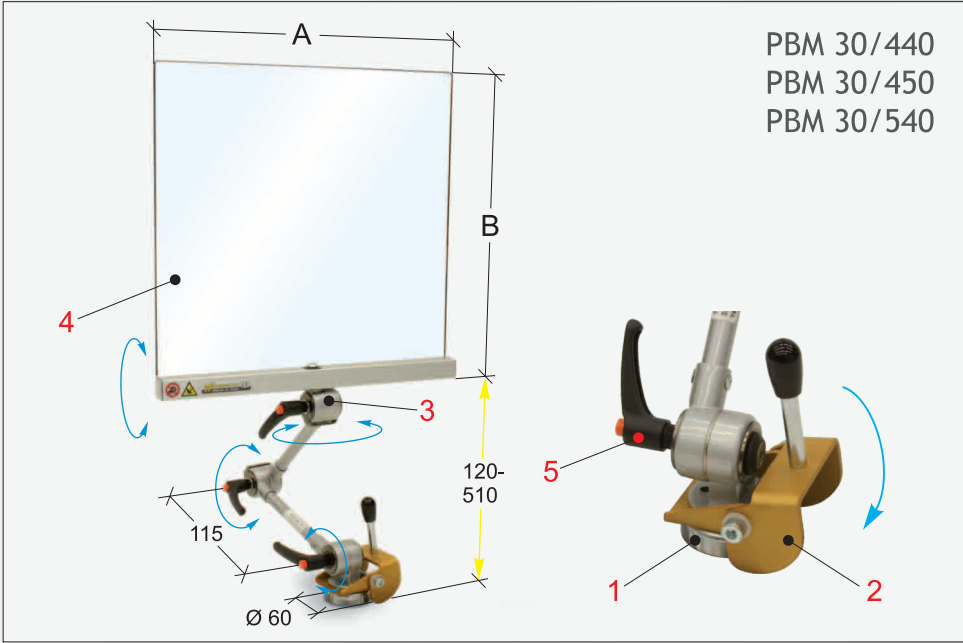
PBM 20/325
PBM 20/430

Universal magnetically-fixed safety guard, provided with adjustable shield on two positions.
Magnetic base insertable with appropriate selector.

Protects the operator's face from the projection of emery, dusts and small parts generated during operations.
Equipped with a magnetic base with insertion selector. To be used on bases of machines and flat iron surfaces.
Shield made of plastic shockproof and oil-resistant material, supplied with double fixing position and angular coupling for an easy positioning.

- 1 Magnetic base dim. 50x60 mm with insertion selector force of attraction 40 Kg.
- 2 Lateral mounting position of magnetic base
- 3 Rubbing angular coupling in pressed steel
- 4 Shield in plastic shockproof and oil-resistant material

Code	A	B	Kg.
PBM 20/325	350	250	1,9
PBM 20/430	400	300	2,0



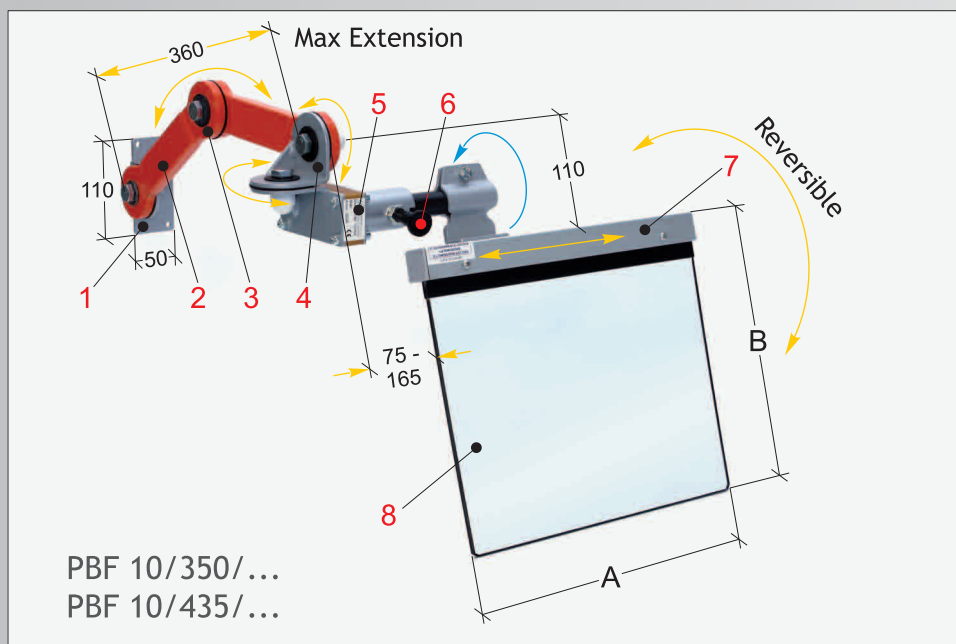
PBM 30/440
PBM 30/450
PBM 30/540

Universal magnetically-fixed safety guard. The only one to be also positioned vertically, thanks to the powerful Neodymium magnet. Complete with release lever.

Magnetic fastening item for universal use, suitable to be used on metal work surfaces and machinery bases.
Its numerous articulations allow a shield positioning in any direction: vertically - horizontally "flag type" with its upper end in contact with the base.
Its features make it suitable for general use: to grind to assembly small components from possible accidental "projection" extempored situations where rapidity of intervention is required and where a safety guard with electric interlock is not specifically requested.
The powerful fastening Neodymium magnet can be used in any situation, even in vertical position or hanging from above.

- 1 Support base with Neodymium magnet Ø 60 mm force of attraction 110 Kg
- 2 Detachment eccentric cam of magnetic base
- 3 Support arm with double articulation, for complete shield adjustment
- 4 Shield in plastic shockproof oil-resistant material, with aluminium structure
- 5 Knobs for articulations lock

Code	A	B	Kg.
PBM 30/440	400	400	2,2
PBM 30/450	400	500	2,3
PBM 30/540	500	400	2,6



- 1 Angular anchorage stirrup in pressed steel
- 2 Articulated arms in tubular steel
- 3 Rubbing articulation with friction disc
- 4 Angular junction for vertical turnover of the shield
- 5 Main box with 180° rotation and safety microswitch with n. 2 NC contacts
- 6 Shield-opening release knob
- 7 Shield structure in aluminium profile
- 8 Shield in plastic shockproof and oil-resistant material

Universal rubbing articulated arms guard, with reversible opening direction. Practical and immediately adjustable. Designed for frequent changes of operation.

Protects the operator from direct contact with dangerous parts frontally segregated by the shield.

Frontally attachable to the machine
Equipped with wide "visibility" reversible opening shield: vertical or horizontal and left or right, with position-release knob. Available with safety microswitch.

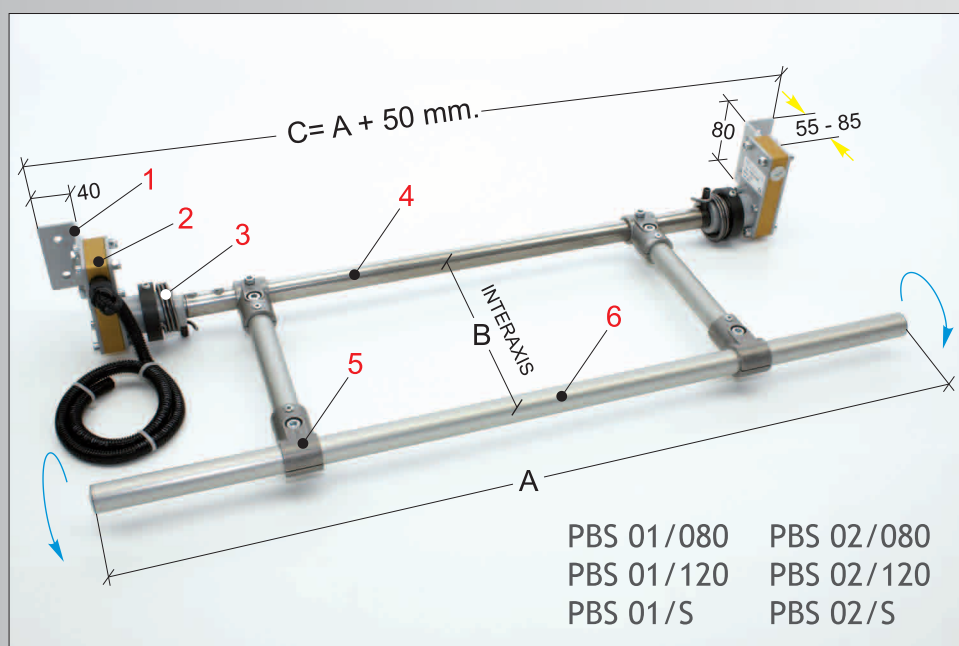
- **Note:** Specify the mounting side by adding the suffix: /DX = Right - /SX = Left

- Available accessories: PBA 01/190 -
PBA 01/325 - PBA 02/325

Code	A	B	Kg.
PBF 10/350/...	350	300	5,5
PBF 10/435/...	400	350	5,8

Safety bar for other machines

OTHER MACHINES



- 1 Adjustable angular anchorage stirrups - in pressed steel
- 2 Main boxes, equipped with one or two safety microswitches - n. 2 NC contacts
- 3 Spiral springs for the bar recall in resting position
- 4 Connection bar - in tubular stainless steel
- 5 Clamps for adjustment of manoeuvre bar
- 6 Manoeuvre bar - in tubular aluminium

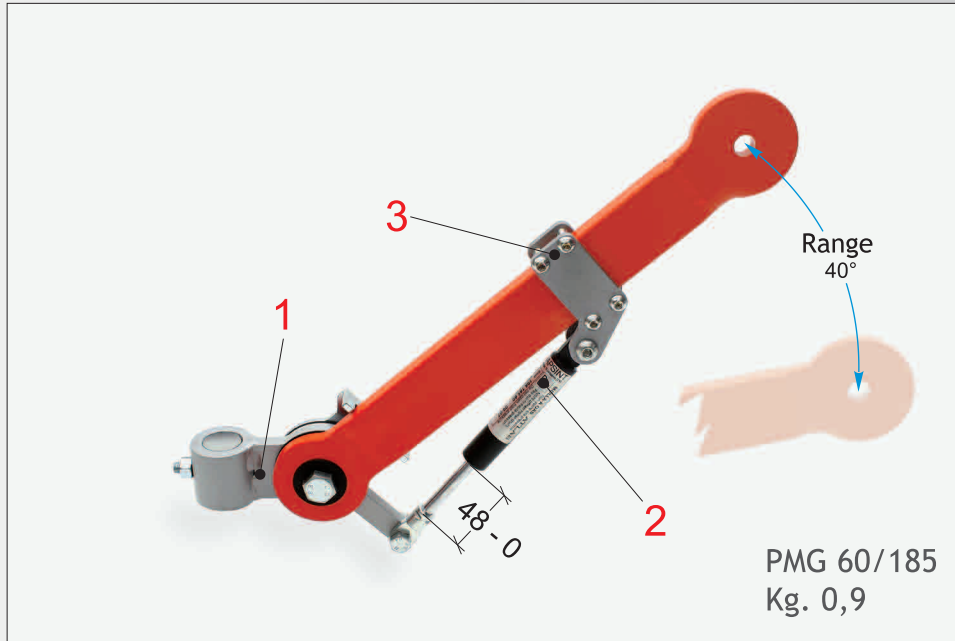
Solid and versatile device, to be used as Stop - Start - Emergency system. Operated with arms or feet. Also customized on request.

Multi-function item, particularly strong and with various adjustments, suitable for use on different types of machines. Based on the purpose for which it is installed, it allows to operate the "Stop - Start" system, for the simple stopping and-or starting routine, or the "emergency" system for unexpected dangerous situation. Available with single microswitch, code PBS 01/... (assembled on the Left box and, if necessary, shifted on the Right) or with double microswitch, code PBS 02/....

Item designed to be mounted near the ground for being operated with feet (typical emergency function), or in raised position.

Equipped with adjustment of microswitch action.

Code	A	B	Kg.
PBS 0../080	800	250	5,3
PBS 0../120	1200	250	6,0
PBS 0../S	.....	.....	---



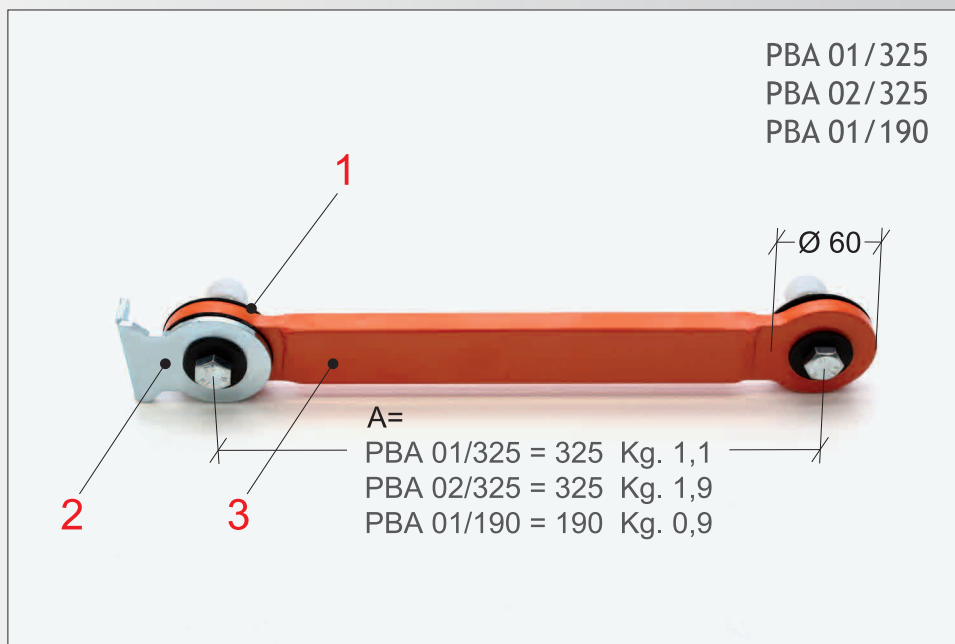
- 1 Gas spring support clamp, to replace the original in welded steel
- 2 Gas spring loaded to 60 Kg.
- 3 Connection clamp with articulated arm, in pressed steel

Complete kit for the increase in manoeuvrability of all articulated arms safety guards. Ideal for frequent changes in operation.

Allows an increase in manoeuvrability of all safety guards originally equipped with articulated arms support system. Complete with all the necessary accessories and bolts, including the support clamp (point 1).

The kit is equipped with a gas spring (point 2) charged with a force of 60 Kg. (average value to understand a good part of the cases of use), axially adjustable along the articulated arm, thanks to the particular clamp (point 3), this determines the operation range of the spring, corresponding to an angle of about 40°. The effect of the spring auto-suspension implies a reduced clamping of the first joint, (obviously the most subject to the effects of gravity) with consequent reduced physical force for the adjustment and smaller mechanical stress of the component.

- **Note:** The use of the PMG 60/185 Kit, thanks to its auto-suspension effect, contributes to a better functionality of the additional arm kits: PBA 01/325 - PBA 01/325.



- 1 Friction disc Ø 60 mm - in pressed brake lining
- 2 Joint opposition plate - in pressed steel
- 3 Additional articulated arm - in tubular and discs in welded steel

Additional articulated arms kits.

Complete kits proposed for the expansion of the range of action of all the safety guards

Increases the shield range of action of all the items originally equipped with the articulated arms support system.

Complete with all the necessary accessories and bolts. Available in three versions, according to the range and the rigidity requested:

PBA 01/325 = Simple articulated arm, wheel base 325 mm.

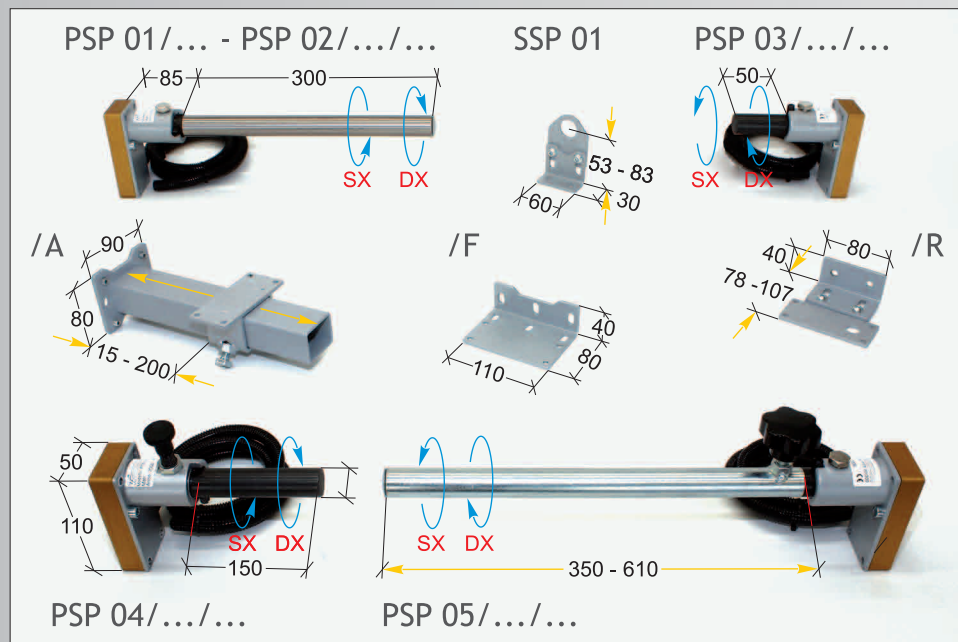
PBA 02/325 = Reinforced articulated arm (composed of two side by side arms) wheel base 325 mm.

PBA 01/190 = Simple articulated arm, wheel base 190 mm.

- **Note:** Item PBA 02/325 thanks to its rigidity is recommended to increase the range of action of safety guards with shield of a certain volume and weight, as well as all situations where it is considered necessary to increase the "locking" degree of the system and friction of the first arm.

- **Other available accessories:**

the balancing kit with spring, code PMG 60/185, is designed to better support heavy safety guards and to facilitate frequent vertical adjustments, therefore achieving an increase in the holding of the first arm.



Complete shield support kits, available as replacements of the originals and for the production of special safety devices. Available in various configurations.

Shield support kits, complete with safety microswitch box, available as replacements for standard safety guards and for the production of special devices:

PSP 01/... = Group with microswitch box with 90° rotation arm L = 300 mm

PSP 02/.../... = Group with microswitch box with 180° rotation arm L = 300 mm

PSP 03/.../... = Group with microswitch box with 180° rotation hub L = 50 mm

PSP 04/.../... = Group with microswitch box with 180° rotation arm L = 150 mm and unlocking knob of position 0° and 180°

PSP 05/.../... = Group with microswitch box with 180° rotation telescopic arm L = 350 mm

SSP 01 = Adjustable angular stirrup for the support of the terminal part of the arm Ø 25 mm

- **Note:** indicate the type of anchorage stirrup desired completing in the central part of the code the corresponding suffix:
/A = heavy-type levelling anchorage stirrup
/F = frontal and lateral anchorage stirrup
/R = adjustable lateral anchorage stirrup

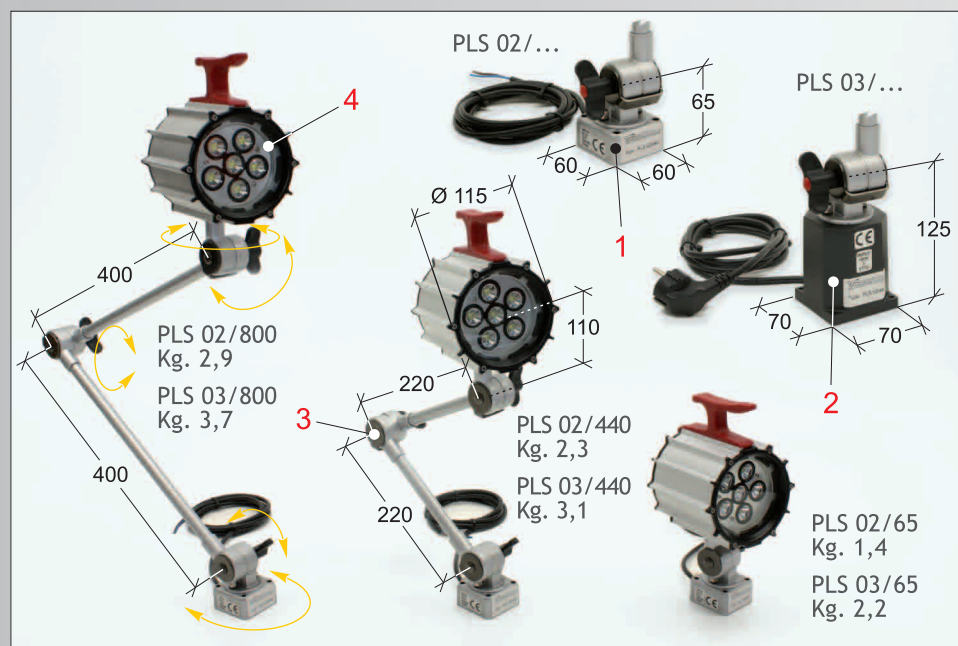
- **Note:** Specify the operation direction of the microswitch indicating in the final part of the code the suffix: /DX = Right - /SX = Left

- **Note:** All versions are equipped with microswitch of n. 2 NC contacts.

- **Example code:** PSP 02/F/SX = group with microswitch box with 180° rotation arm L = 300 mm - Frontal and lateral anchorage stirrup - Operating microswitch on left side - n. 2 NC contacts.

Adjustable lamps for machine tools

ELECTRICAL DEVICES



Equipped with a powerful led floodlight. Designed specifically to be used on tooling machines, according to applications foreseen in the directive EN 1837.

Adjustable lamp proposed in three size and two different supply voltages.

Equipped with white light led floodlight, with 40.000 hours estimated lifetime.

The protection degree IP65 of all its components and resistance to lubricant-coolant oils, make it suitable for use in industrial environments and especially on tooling machines where the different adjustment devices allow an immediate orientation of its light beam which, in the standard version, is projected with angle of 60°.

PLS 02/... = Version with supply voltage, 24V-AC/DC - 6W.

PLS 03/... = Version with incorporated transformer, supply voltage 110÷230V-AC - 6W.

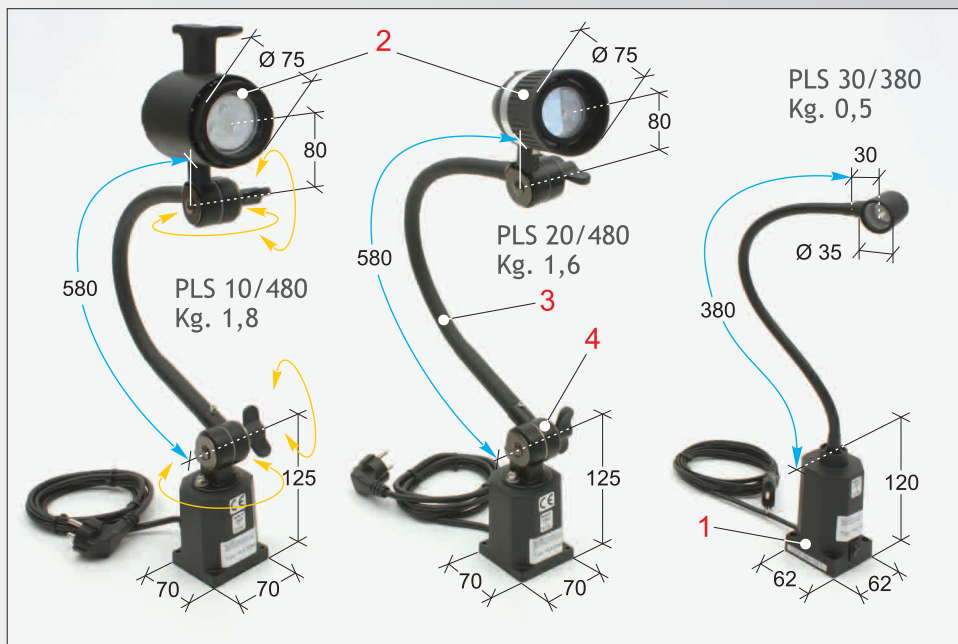
- **Note:** For version PLS 02/..., the use of an electromagnetic transformer (not electro- nic) is recommended.

- **Spare parts:** PLS 02/L60 = complete led group, with angle of the light beam at 60° - 6W.

PLS 02/FST = standard neutral filter, Ø 110 mm.

- **Note:** On request, floodlights with light beam at 25° and 40° and coloured filters are available.

- 1 PLS 02/... Metal supporting base - supply 24V-AC/DC
- 2 PLS 03/... Plastic supporting base with transformer - supply 110÷230V-AC
- 3 Adjustable articulation, frictionable or lockable in their seat
- 4 Adjustable led floodlight, with rear light switch



- 1 PLS 30/... Plastic supporting base, equipped with light switch
- 2 PLS 10/... - PLS 20/... Led floodlight with rear light switch
- 3 Metal flexible arm, with protective plastic sheath
- 4 Adjustable articulation, frictionable or lockable in their seat

Equipped with led floodlight. Suitable to be used on general machines and on work benches, according to applications foreseen in the directive EN 1837.

Series of lamps suitable for different uses, immediately positionable thanks to the flexible arm and the various frictionable articulations. Available in different configurations and one supply voltage (110÷230V-AC). Complete with incorporated transformer and white led floodlight, with 40.000 hours estimated lifetime.

PLS 10/... = suitable for industrial environments, in particular on tooling machines. Led Floodlight 3W. Light beam angle 30°. Protection degree IP65. Supply voltage 110÷230V-AC.

PLS 20/... = Suitable for general machines and work benches. Led Floodlight 3W - Light beam angle 30°. Protection degree IP20. Supply voltage 110÷230V-AC.

PLS 30/... = suitable for small tooling machines and locations for precision works. Led Floodlight 1W Light beam angle 45°. Protection degree IP55. Supply voltage 110÷230V-AC.

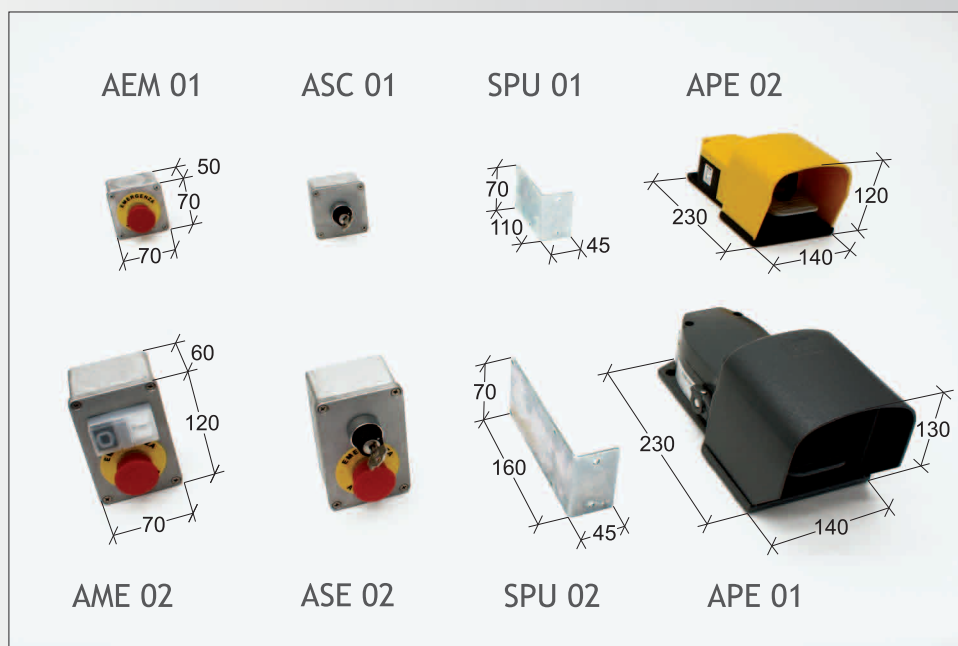
- Spare parts:

PLS 10/L30 = complete led group - 3W. PLS 10/FST = standard neutral filter, Ø 65 mm.

PLS 20/L30 = complete led group - 3W.

PLS 20/FST = standard neutral filter, Ø 50 mm.

- **Note:** on request, all models are available with flexible arm of different sizes.



Control unit and complementary accessories, proposed in "heavy" configuration. Made to fulfill the electrical safety requirements.

Pushbutton station and foot switches made in pressure-fused aluminium, complete with accessories and available with angular anchorage stirrups.

AEM 01 = single operator pushbutton station, with mushroom-shaped Emergency pushbutton, with n. 1 NC contact Yellow label Ø 60 "Emergency".

ASC 01 = single operator pushbutton station, with Selector of two stable positions 0-1 with extractable key, with n. 1 NC contact.

AME 02 = two-operators pushbutton station, with Start-Stop-Light pushbutton, (n. 1 NC contact + n. 1 NO contact). Mushroom-shaped Emergency pushbutton (n. 1 NC contact). Yellow label Ø 60 "Emergency".

ASE 02 = two-operators pushbutton station, with Selector of two stable positions 0-1 with extractable key (n. 1 NC contact). Mushroom-shaped Emergency pushbutton (n. 1 NC contact). Yellow label Ø 60 "Emergency".

SPU 01 = angular anchorage stirrup, for single operator Pushbutton station in pressed steel. SPU 02 = angular anchorage stirrup for two-operators Pushbutton station in pressed steel.

APE 01 = heavy-type Foot switch with lever against accidental operations in aluminium pressure die-casting. N. 1 NC contact + n.1 NO contact.

APE 02 = Foot switch with lever against accidental operations in thermoplastic resin n.1 NC contact + n.1 NO contact.

- **Complementary accessories for pushbutton stations:**

ANC 01 = supplementary NC contact
ANO 01 = supplementary NO contact



Safety microswitches, suitable for general use and replacement for standard safety devices. Meets requirements for current regulations. Equipped with forced-opening contacts.

Safety microswitches proposed in various configurations:

MCE 01 = safety microswitch with separated actuator, with release electromagnet: (free actuator with excited electromagnet) supply 24 VAC-DC. N. 2 NC contacts complete with straight and bent key (original replacement of some production safety devices with sliding doors).

MCH 01 = safety microswitch with separated actuator, light version. N. 2 NC contacts. Complete with straight and bent key (original replacement of some production safety devices with sliding doors).

MCP 01 = safety microswitch with separated actuator, heavy-duty version. N. 2 NC contacts. Complete with straight and bent key (original replacement of some production safety devices with sliding doors).

MCI 02 = hinge for door support and safety shield, integrated with safety microswitch n. 2 NC contacts connectable with item CCI 01 (original replacement of some production safety devices).

MPR 02 = small-roller safety microswitch in metal, with pre-wired cable of 2 mt. n. 2 NC contacts (original replacement for some production devices, equipped with "microswitch box").

MPI 02 = Small-piston safety microswitch in metal, with pre-wired cable of 2 mt. n. 2 NC contacts (original replacement for most devices equipped with "microswitch box").

Multi beam safety sensors

ELECTRICAL DEVICES

BMR 2 - 4

OMRON



From cooperation with company OMRON we can offer a wide range of multi beam safety sensors with excellent characteristics of reliability and versatility.

The complete range of multi beam safety sensors F3S-TGR-CL complies with EN 61496 and EN ISO 13849-1 standards and meets safety applications type 2 and 4. Standards models are available to satisfy most of the solutions while advanced models provide additional functionality. Each unit of the range has been designed exactly in the same way so to save time in all stages, reducing costs without affecting safety. All new multi beam safety sensors Omron F3S-tGR-CL offer full protection of body, hand and finger, they are suitable for a wide range of safety systems in packaging field and industry in general. These sensors can be adapted to different applications, they are very simple to install and set up.

Choice and configuration of sensors

For configuration of category and type of sensors in the optimal solution for you, we kindly invite you to contact our technical department.

PERIMETER SYSTEMS

Perimeter systems fitted for the production of “work areas” and the segregation of dangerous machinery



PDM-12 - System fitted with diving panels, for the production of walls and secluded work areas. Available in many configurations for many types of environments in industry and work places in general.



R01-INST-ALL - Perimeter panels system fitted with: columns, modular panels and accessories for the production of circumscribed work areas and the segregation of machinery and dangerous situations in general.



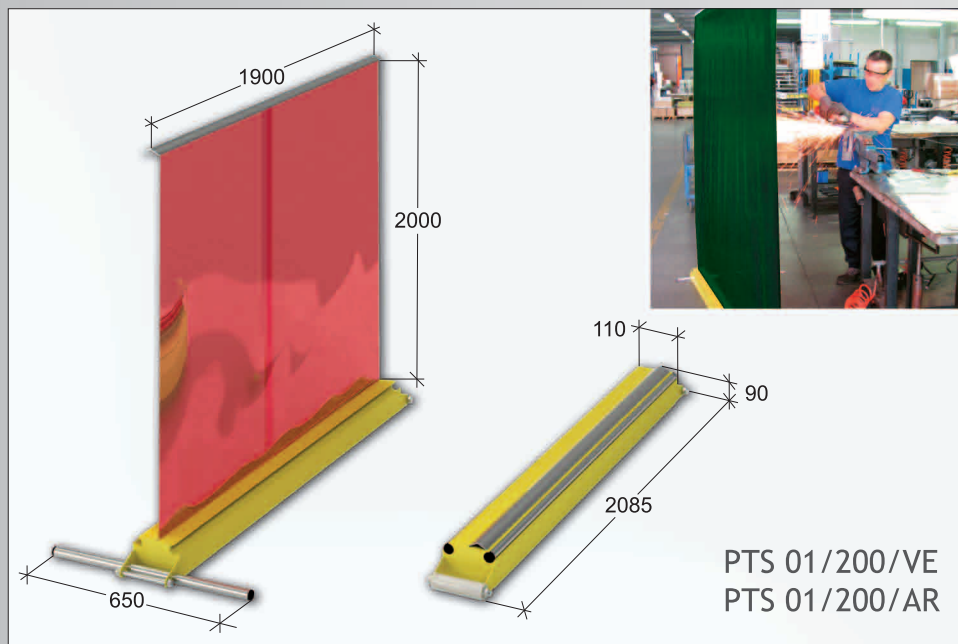
R02-SWIFT - Perimeter system without uprights with a swift assembly system developed by Tecno Più which allows to save the time of installation by at least 50% compared to traditional systems. It consists of self-standing panels with frame 30x30 and electrowelded mesh, assembled directly with each other using the exclusive baseplate and the clip for upper connection (Tecno Più Patent).



R03-DUAL - This protection system consist of mesh panels stiffened by four frets and lateral tubular elements 10x40 for vertical support, assembled to uprights 20x40x2 so to form a single unit assembly which, together with its matching counterpart, allows to have an assembled self-bearing column with section 40x40, much more resistant than other light compositions on the market. Installation is simple and quick thanks to special baseplates, pre-assembled to columns, and to practical fastening system with special screws.



R04-IVY - This protection system is composed by uprights with section 60x60, tubular panels 30x30x2 and mesh, assembled together by means of an exclusive quick coupling system. Strong and high performing, IVY is suitable for heavy systems such as robotized machine protections or large modification and machining plants of big components.



TECHNICAL DATA
Weight: 8,9 Kg.

REFERENCE STANDARD
UNI EN 1598

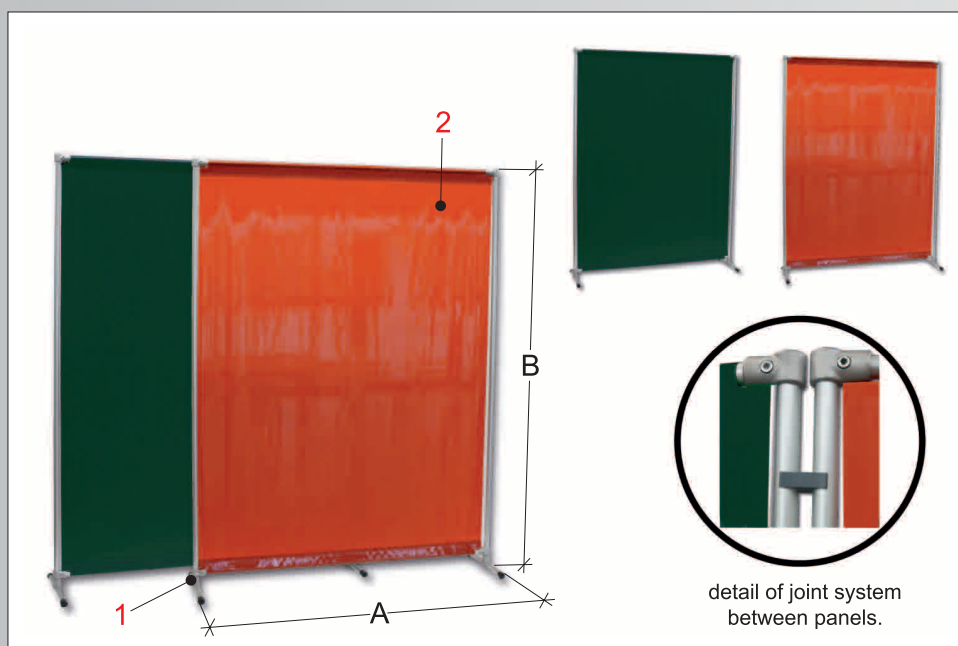
Weld Screen offers protection to personnel close to welding and grinding work areas.

The semi-transparent screen protects personnel from contact with metal chips and sparks produced during the welding and grinding processes. Weld Screen is fitted with a mobile stand allowing the user to adjust the screen as required. Furthermore, the screen is foldaway, making it compact and portable.

Code	Screen colour	Kg.
PTS 01/200/VE	Green	8,9
PTS 01/200/AR	Orange	8,9

Separation panel for welding and grinding stations

WELD SCREEN



- 1 Self-supporting aluminium frame
- 2 Sheet available in two colours: orange, dark green

Protects personnel close to welding and grinding work areas from projection of sparks and metal chips produced by welding machine.

The panel offers protection to personnel close to welding stations and grinding areas.

The light and self-bearing structure can be easily positioned within working areas.

The screen protects from direct contact with shavings, in conformity with UNI EN 1598 standards against welding and grinding sparks.

Panels can be positioned in series using the coupling kit D20/U (optional), feet of panels can be adjusted to form division areas with variable angle.

Code	A	B	Kg.
PTS 02/190/AR	1900	2000	7,0
PTS 02/190/VE	1900	2000	7,0



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Safety Guards

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