



**tpsafe**  
SAFETY GUARDS

PMU 07/2018/E catalogue



**TECNOPIU**<sup>®</sup>

Safety is a way of life

SINCE 1994



 **MADE IN ITALY**





## THE COMPANY

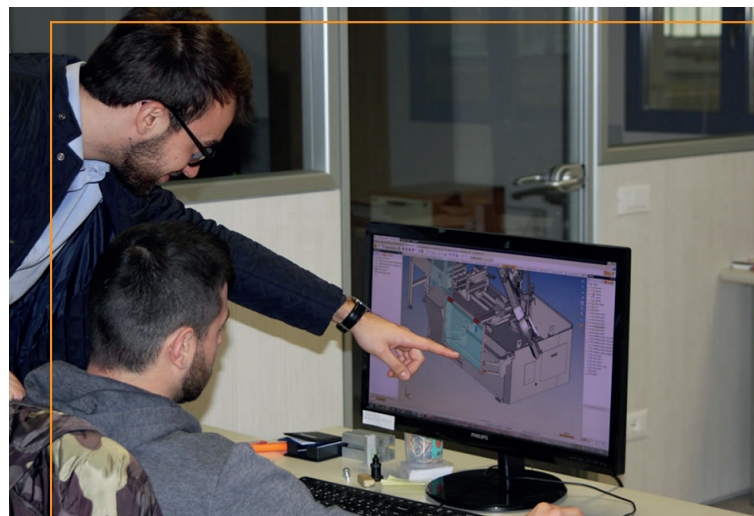
Since 1994, when Tecno Più started, the Vision of the company has always been to produce accident-prevention safety guards for tooling machines with the quality and technological innovation of its design, thus creating the most heavy-duty and versatile products currently on the market.

The company's watchword is "Safety is not a Target, It is a Way of Life", in that safety at work is not a goal to reach but it is a "choice of life". This means the company does not simply aim to provide safety equipment to safeguard workers but to understand that working in a quality and safe environment is the first rule of a good employee and the best choice for anyone.

This goal has been reached using systems designed by Tecno Più such as the rubber articulated arms to speed up the guard's set-up, the use of materials selected with the aim to decrease the weight of the system while keeping unchanged resistance to collisions, the ability to find solutions to possible operating problems so to optimize work reducing downtime, these are all characteristics that made Tecno Più a world leading company in the field of safety guards for tooling machines.

## SALES NETWORK

The whole Tecno Più commercial sales network is composed of agents with proven technical skills. They can provide support and professional solutions to identify the type of product according to the customer's need.



## THE PRELIMINARY SERVICE

According to the information obtained by the commercial office or directly by the customer, the engineering department establishes the features of the safety guard elaborating a graphic project on a 3D software. Tecno Più invested considerable resources in order to produce and implement a suitable 3D software for designing, planning and accomplishing even complex protection systems which can be personalized on the customer's demand.



## THE WORK CYCLE

Tecno Più production system, totally managed by a sophisticated software, allows to handle customer's requests rapidly also for non-standard configurations. The operations are monitored by procedures according to the standard ISO 9001.



## THE DELIVERY

When the job orders are ready, all safety guards are marked with labels showing their registration number, if necessary. The guards are then suitably packed so as to make sure the products and their finishes remain undamaged before being delivered to customers. Tecno Più works with couriers and selected transportation companies which allow to track down the delivery at all stages.



## THE TEAM OF TECNO PIÙ

All Tecno Più staff work in a tight team totally focused on the final goal: the customer satisfaction. From the storeman to the designer, everyone works according to the standard ISO 9001 which regulates quality management, the real watchword of the company.



## AFTER-SALES ASSISTANCE

Our engineering department is available to accomplish any customer's request or necessary modification and to inform or update customers about the current safety regulations in force.





[www.tecnopiu.it](http://www.tecnopiu.it)

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*Remarks:*

1 – The items with “**LYX** available” means they are available also with shockproof plastic shield **LYX® petg**. Upon request, add the suffix LYX at the end of the code (ex. PFR01/500/LYX).

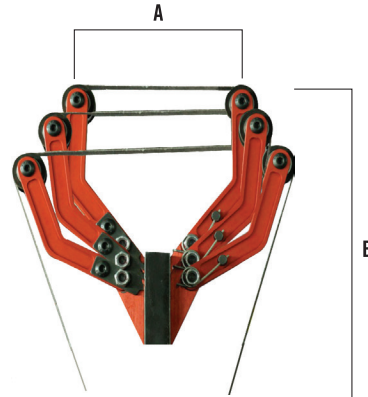
2 – The items with “**PB** available” means they are available also with accessories for “Interlocked Pneumatic Locking Device”, coupled with Electro Pneumatic Control Panels QCP (QCP 01 - QCP 02). Upon request, add the suffix PB at the end of the code (ex. PT001/400/PB).

3 – The items with “**EL** available” means they are available also with safety microswitch with separate actuator, with release electromagnet MC E01. Upon request, add the suffix EL at the end of the code (ex. PT020/800/EL).

# AUTOMATIC SANDING BELT HOLDER

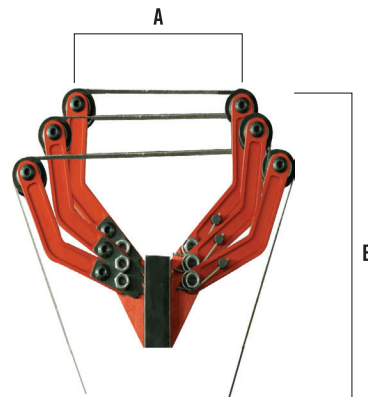
A tool for sanding and refining bars for conventional lathes, designed in accordance with ISO 23125 standards 6.2.1 (prohibition to use hands for work executions) which replaces with maximum safety, the same dangerous operation usually performed by hands. The device is fixed to the existing toolcase turret of lathe. The particular shape of the device and the tension springs allow to sand bars of different diameters. In order to keep always efficient the abrasive side, the belt can be rotated by means of the specific crank. The following device is available in three different sizes with spare abrasive belts of different grit.

## SBH 1.0



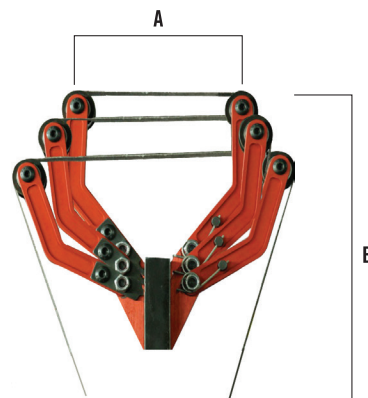
SBH 1.0	Max. Ø	A	B	Belt
Pos. 1	Ø 155	165	335	25 x 762
Pos. 2	Ø 110	125	355	25 x 762
Pos. 3	Ø 85	100	360	25 x 762

## SBH 2.0



SBH 2.0	Max. Ø	A	B	Belt
Pos. 1	Ø 210	220	370	50 x 915
Pos. 2	Ø 175	185	395	50 x 915
Pos. 3	Ø 145	155	415	50 x 915

## SBH 4.0

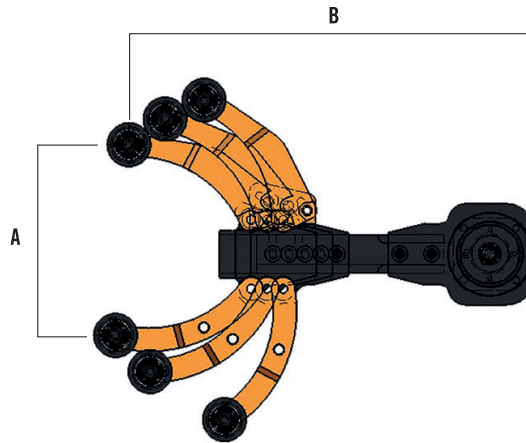
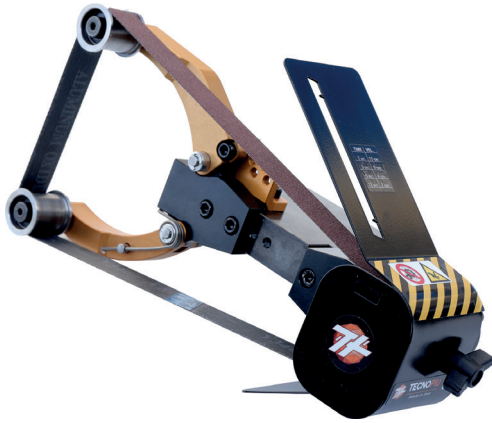


SBH 4.0	Max. Ø	A	B	Belt
Pos. 1	Ø 423	423	442	100x1372
Pos. 2	Ø 380	380	486	100x1372
Pos. 3	Ø 342	342	517	100x1372

# AUTOMATIC SANDING BELT HOLDER FOR LATHES

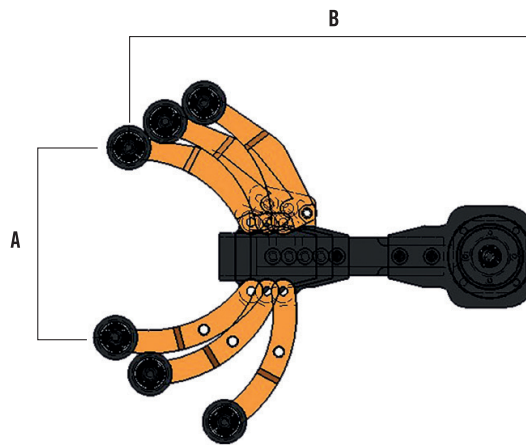
A new tool for sanding and refining bars for conventional lathes, with automatic movement of the abrasive belt, designed in accordance with ISO 23125 6.2.1. p (prohibition to use hands for work execution), which replaces, with maximum safety, the same dangerous operation usually performed by hands. The device is fixed to the existing toolcase turret of lathe and, its particular shape, with three different opening position of the anterior arms of support, allows to sand bars of different diameters. Thanks to the tension springs the belt always adheres in the best way. The perfect efficiency of the abrasive part of the sanding belt is guaranteed by an automatic sliding system (Patented) which exploits the rotating movement of the piece worked. The device is available in two sizes of 25 and 50 mm with different grit.

## SBH A10

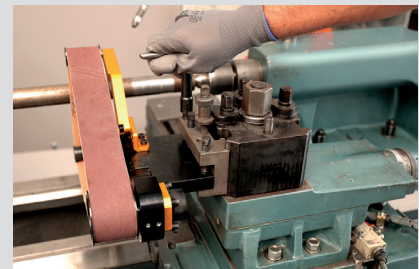
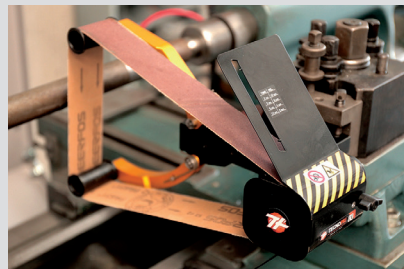
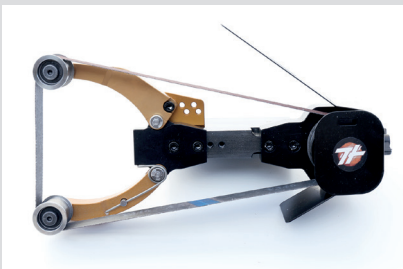


SBH A10	Max. Ø	A	B	Belt
Pos. 1	Ø 120	130	300	25 x 762
Pos. 2	Ø 160	170	295	25 x 762
Pos. 3	Ø 210	220	240	25 x 762

## SBH A20

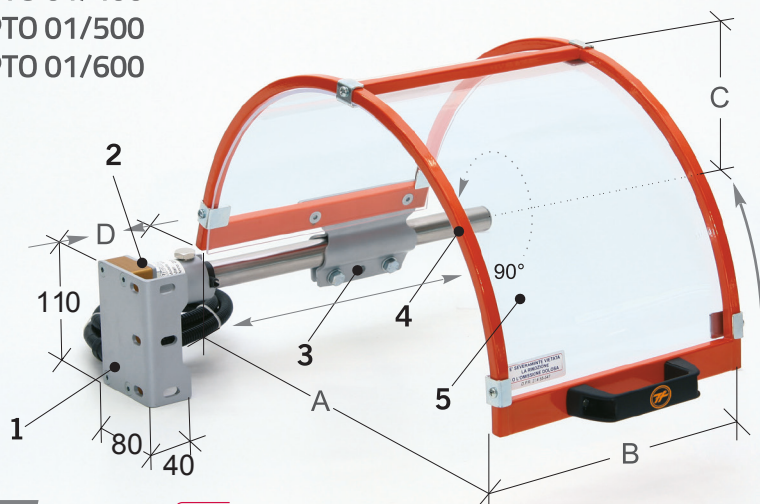


SBH A20	Max. Ø	A	B	Belt
Pos. 1	Ø 220	210	325	50 x 915
Pos. 2	Ø 220	230	315	50 x 915
Pos. 3	Ø 260	270	305	50 x 915



## SAFETY GUARD FOR LATHE CHUCK

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



**PB** SYSTEM available **LYX** available

Classic safety guard equipped with steel-framed shield. Positionable until near the machine head. Available in various dimensions.

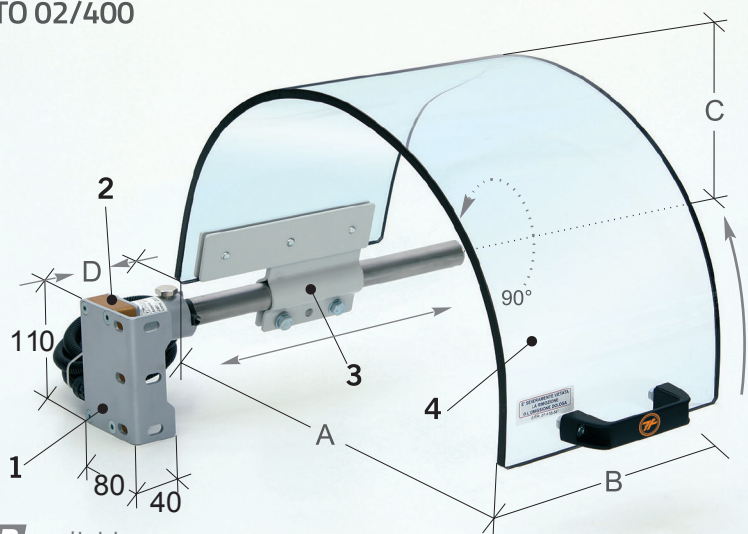
Protects the operator from direct contact with the upper part of the chuck lathe and from lubricant-coolant projection. Frontally and laterally attachable at the base. Equipped with semicircular shield, adjustable until near the machine head. Complete with safety microswitch.

1. Frontal and lateral anchorage stirrup
2. Safety microswitch main box – 90° rotation – n. 2 NC contacts
3. 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

## SAFETY GUARD FOR LATHE CHUCK

PTO 02/300  
PTO 02/400



**PB** SYSTEM available

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

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

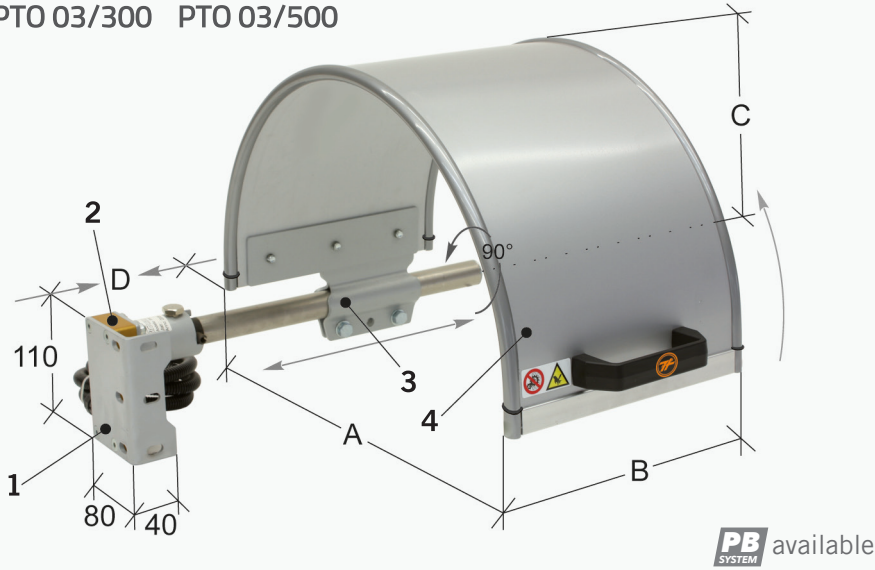
1. Frontal and lateral anchorage stirrup
2. Safety microswitch main box – 90° rotation – n. 2 NC contacts
3. Adjustable shield connection clamp with support arm – in pressed steel
4. Monolithic shield – in thick plastic shockproof and oil-resistant material

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



# SAFETY GUARD FOR LATHE CHUCK

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



The shield shape makes it ideal to be positioned until near the machine head. Equipped with “opaque” monolithic shield in composite material. Available in various dimensions.

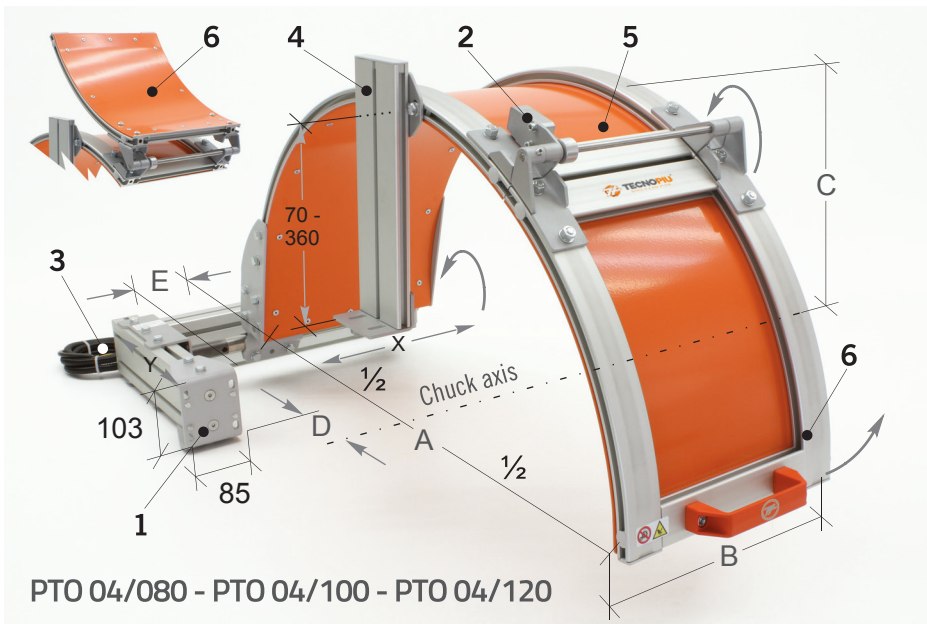
Protects the operator from direct contact with the upper part of the chuck lathe and from lubricant-coolant projection.

Frontally and laterally attachable at the base - Equipped with semicircular monolithic shield, adjustable until near 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



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

Prevents the operator from direct contact with rotating chuck lathe 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.

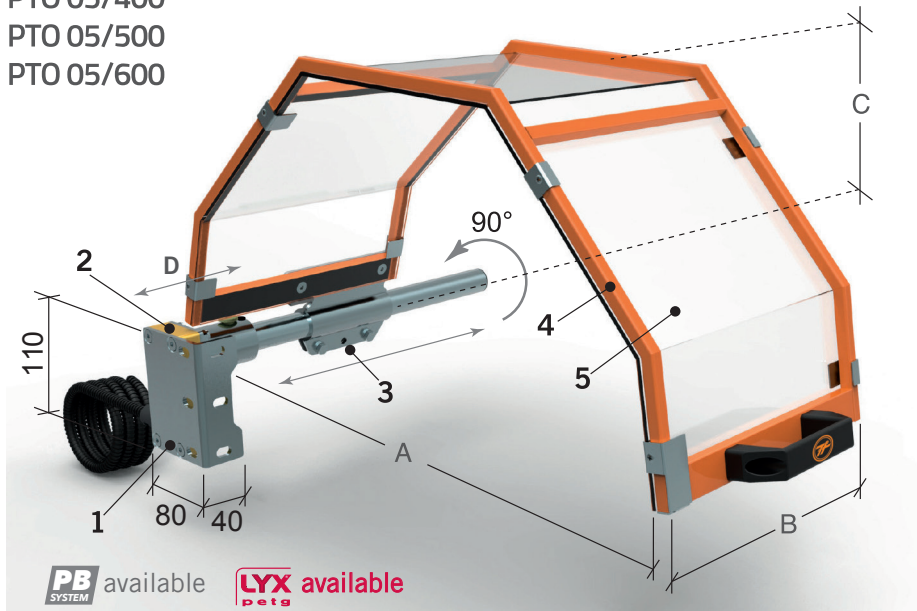
Equipped with semicircular shield, divided into two sections to allow opening of only the front side (point 6) or total opening, overturning it completely towards the back. Complete with double safety microswitch.

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

## SAFETY GUARD FOR LATHE CHUCK

PTO 05/400  
PTO 05/500  
PTO 05/600



Safety guard equipped with steel-framed shield. 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 up to the machine head.

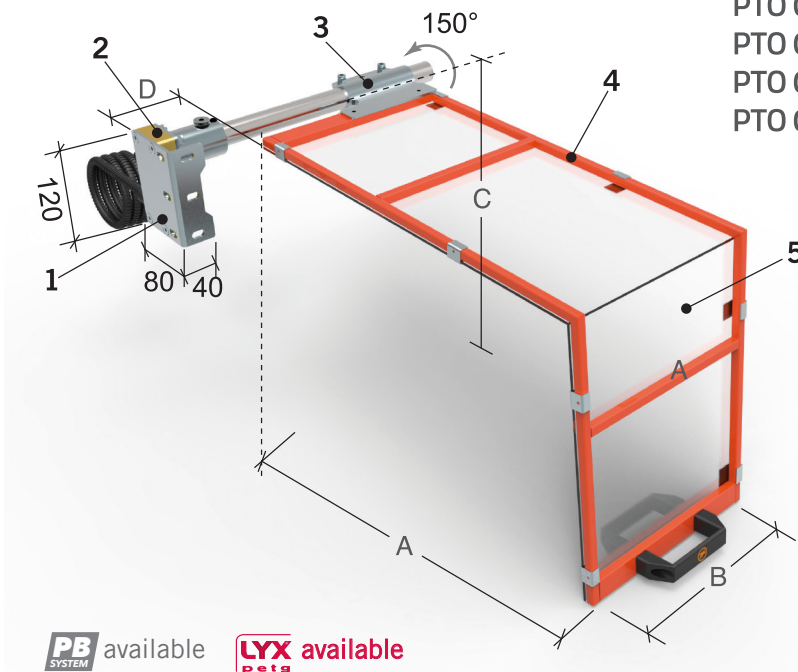
Complete with safety microswitch.

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

Code	A	B	C	D	Kg.
PTO 05/400	400	235	230	0-150	4,1
PTO 05/500	500	235	280	0-150	4,4
PTO 05/600	600	235	330	0-150	4,7

## SAFETY GUARD FOR LATHE CHUCK

PTO 06/300  
PTO 06/400  
PTO 06/500  
PTO 06/600



Safety guard equipped with steel-framed shield. Positionable until the machine head.

The shield, bent at 100°, makes it particularly suitable for small lathes with the same conformation. Protects the operator from direct contact with the upper part of the lathe chuck and from lubricant-coolant projection.

Upperly, frontally and laterally attachable at the base. Equipped with shield, adjustable up to the machine head.

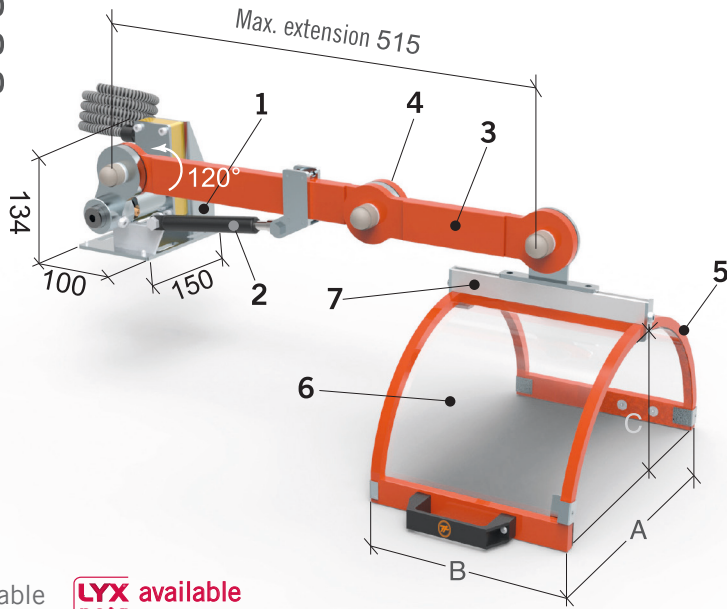
Complete with safety microswitch.

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

Code	A	B	C	D	Kg.
PTO 06/300	300	200	180	0-215	3,8
PTO 06/400	400	235	230	0-150	4,1
PTO 06/500	500	235	280	0-150	4,4
PTO 06/600	600	235	330	0-150	4,7

# SAFETY GUARD FOR LATHE CHUCK

PTO 07/300  
PTO 07/400  
PTO 07/500



available



available

1. Anchorage and support structure of the shield with safety microswitch main box – 120° rotation – n. 2 NC contacts
2. Gas spring
3. Articulated arms – in tubular steel
4. Adjustment shield knob for the arms
5. Shield structure – in tubular steel
6. Thermo-shaped shield – in shockproof and oil-resistant material
7. Anchorage stirrup – in aluminum and steel – adjustable horizontally

Vertical opening safety guard to be fixed on the machine head.

Equipped with two articulated and adjustable arms, with safety lock and a gas spring against the accidental fall of the structure on the lathe chuck and to improve the manoeuvrability of the system.

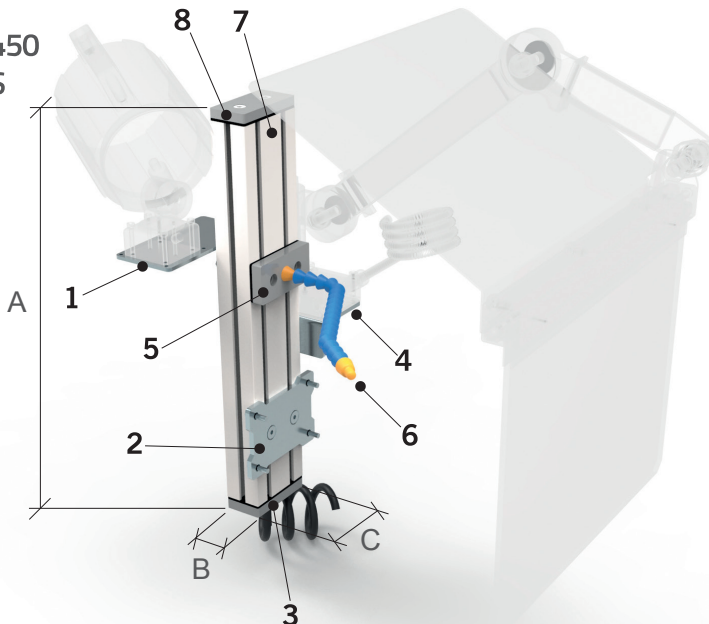
Protects the operator from direct contact with rotating lathe chuck and from lubricant coolant projection. Equipped with semicircular shield, adjustable up to the machine head. Complete with safety microswitch.

Code	A	B	C	Kg.
PTO 07/300	300	200	180	9,5
PTO 07/400	400	235	230	9,8
PTO 07/500	500	235	230	10,1



## SUPPORT COLUMN FOR LATHE ACCESSORIES

PTO 09/450  
PTO 09/S



1. Lamp support
2. Adjustable fixing plate
3. Lubricant-coolant input flange
4. Operator guard angular support
5. Lubricant-coolant output flange
6. Lubricant-coolant flexible dispenser
7. Structural aluminium profile with internal conduit for lubricant-coolant
8. Aluminium plug with gasket

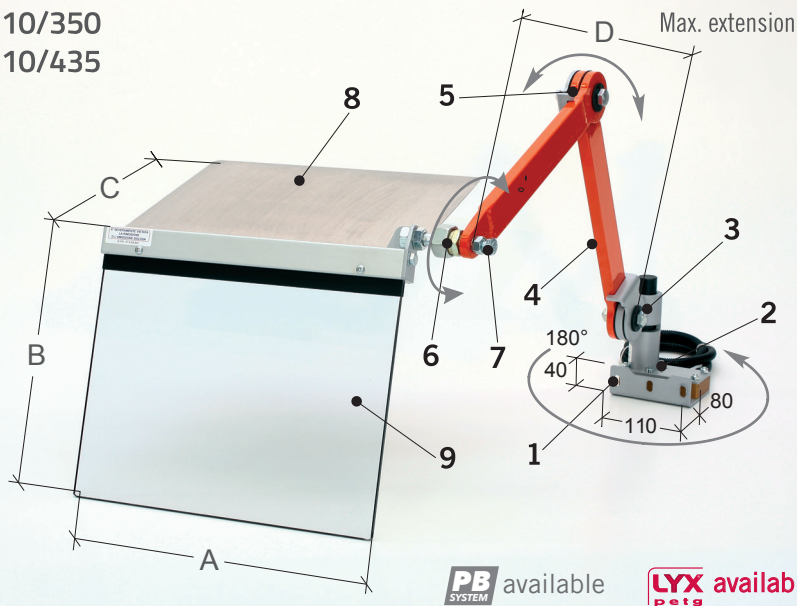
Attachable behind the longitudinal carriage, the column, whose height can be adjusted for a better configuration, is made of aluminium profile and it is equipped with support stirrups for the lamp series PLS 05/06 and for the operator safety guard PTO 10 / PTO 11.

In addition, the column is equipped with clutch on the lower side and LOC-LINE adjustable distributor for the lubricant-coolant (assembly kit to be positioned on the profile).

Code	A	B	C	Kg.
PTO 09/450	450	45	90	3,5
PTO 09/S	...	45	90	...

# LATHE CARRIAGE SAFETY GUARD

PTO 10/350  
PTO 10/435



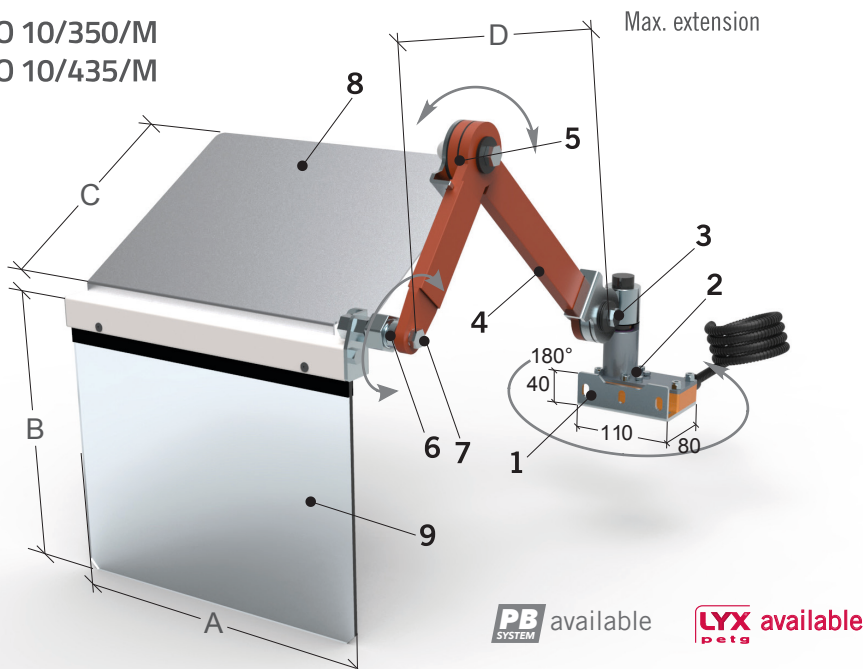
Specific multi-adjustable item to be installed on the longitudinal carriage. Combined with the chuck safety guard, allows an excellent protection of the operator. Protects the operator from direct contact with rotating components of the chuck and from the projection of shavings and lubricant-coolant. Attachable behind the longitudinal carriage. The shield, supported by articulated arm with two L. 325 mm. jointed elements, thanks to the ball socket joint, is completely adjustable and has an anti-shavings partition. Complete with safety microswitch. 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	650	6,6
PTO 10/435	400	350	310	650	7,0

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

## NEW LATHE CARRIAGE SAFETY GUARD

PTO 10/350/M  
PTO 10/435/M



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 arm with one L. 190 mm. and one L. 325 mm. jointed elements, thanks to the ball socket joint, is completely adjustable and has an anti-shavings partition. Complete with safety microswitch. Available accessories: **PMG 60/185** - **PBA 01/190** - **PBA 01/325** - **PBA 02/325**.

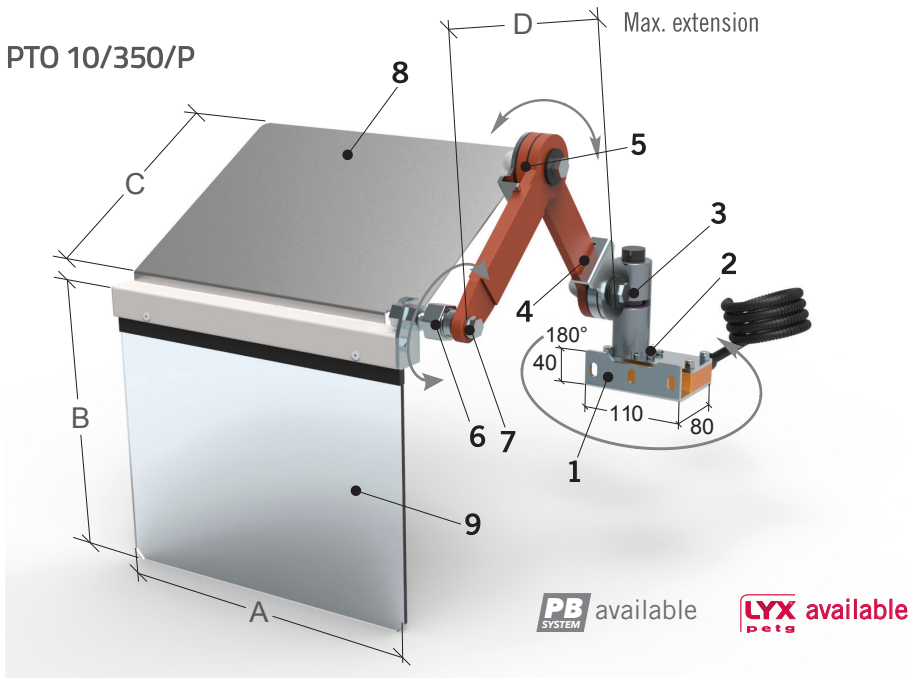
Code	A	B	C	D	Kg.
PTO 10/350/M	350	300	280	510	6,5
PTO 10/435/M	400	350	310	510	6,9

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



# LATHE CARRIAGE SAFETY GUARD

PTO 10/350/P



available



available

Code	A	B	C	D	Kg.
PTO 10/350/P	350	300	280	380	6,4

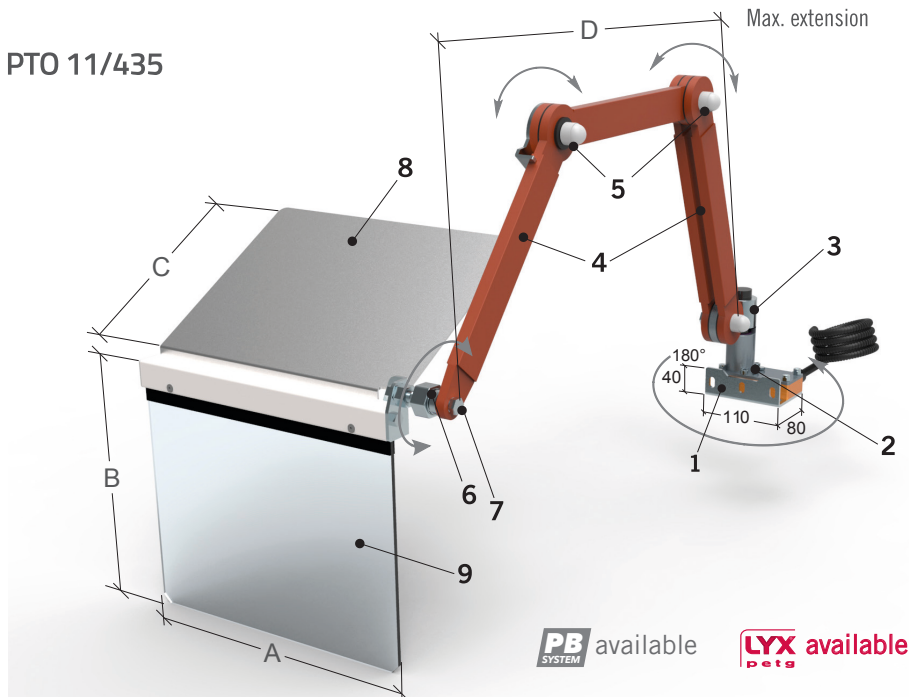
1. Frontal and lateral anchorage stirrup
2. Safety microswitch main box – 180° rotation – n. 2 NC contacts
3. Horizontal adjustment clamp
4. Articulated arms – in tubular steel
5. Rubbing articulation with friction disc
6. Ball and socket joint for shield orientation
7. Ball and socket joint release 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 arm with two L. 190 mm. jointed elements, thanks to the ball socket joint, is completely adjustable and has an anti-shavings partition. Complete with safety microswitch. Available accessories: **PMG 60/185** - **PBA 01/190** - **PBA 01/325** - **PBA 02/325**.



# LATHE CARRIAGE SAFETY GUARD

PTO 11/435



available



available

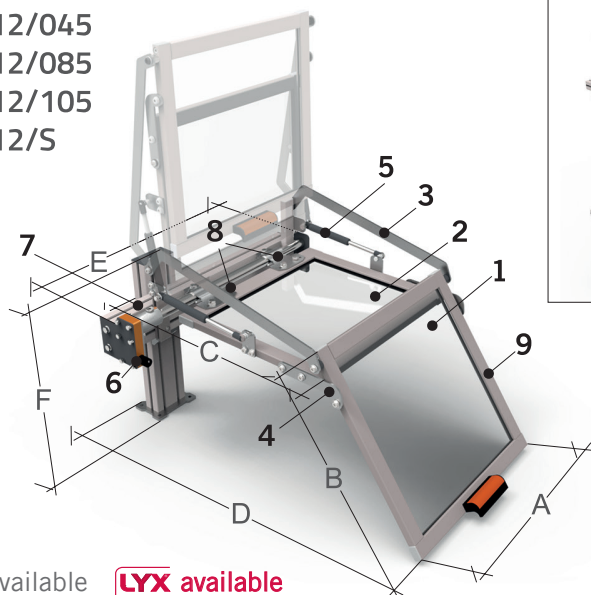
Code	A	B	C	D	Kg.
PTO 11/435	400	350	310	950	8,6

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 arm with three L. 325 mm. jointed elements (the first one is coupled), thanks to the ball socket joint, is completely adjustable and has an anti-shavings partition. Complete with safety microswitch. Available accessories: **PMG 60/185** - **PBA 01/190** - **PBA 01/325** - **PBA 02/325**.

# LATHE CARRIAGE SAFETY GUARD

PTO 12/045  
PTO 12/085  
PTO 12/105  
PTO 12/S



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.

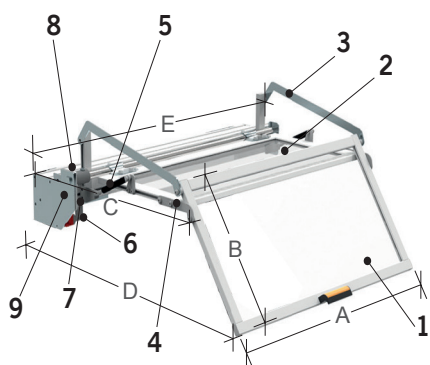
**PB** SYSTEM available **LYX** available

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

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	...	...	...

# SLIDING SAFETY GUARD FOR LATHE

PTO 13/065  
PTO 13/085



Safety guard designed to protect the operator during working operations. Equipped with double opening: vertical one with gas springs and sliding one on auto-carrying guide.

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

The guard can be mounted exclusively on aluminium profile rear support which can be bought separately (code SPTO 13/...) or directly on the rear protection for lathe (code PTO 31). The shield cannot be opened in working position because the vertical opening of its two articulated parts is not allowed by a mechanical lock and protected by a safety microswitch with separated actuator. The opening is allowed by doing a double movement, sliding and vertical one, keeping completely clear the access to the chuck and the toolpost.

- **Important:** when assembled on rear safety guard PTO 31, please specify the length of the guide according to the dimensions of the rear panels.

- **Example:** PTO 13/085/120: safety guard with shield L. 850 mm, with guide L. 1200 mm for PTO 31/120.

- **Complementary items:** PTO 31/080, PTO 31/120, SPTO 13/080.

**EL** available  
**LYX** available

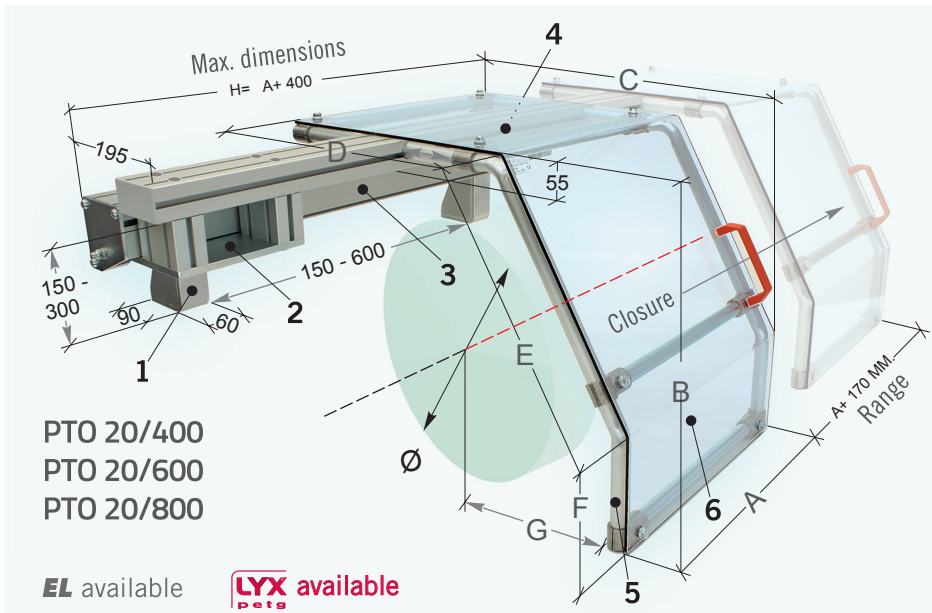
1. Front shield - in shockproof and oil resistant plastic material
2. Upper shield - in shockproof and oil resistant plastic material
3. Shield supporting arm
4. Stirrup for front shield rotation
5. Gas spring assembly
6. Safety microswitch with separate actuator – n. 2 NC contacts
7. Sliding carriage for shield support
8. Auto-carrying guide - in extruded aluminium, with sliding system composed from tempered and rectified steel guides-bearings, placed in protected internal position
9. Antirotation mechanical lock

Optional support for safety guard PTO 13/065, available in two widths, 800 mm and 1200 mm, depending on the desired linear guide.

Made of aluminium profile 45x90 and equipped with stirrups to be anchored at the base of the lathe and the ground.

Codice	A	B	C	D	E	Kg.
PTO 13/065/080	650	450	620	870	1030	27
PTO 13/065/120	650	450	620	870	1230	29
PTO 13/085/080	850	450	620	870	1030	30
PTO 13/085/120	850	450	620	870	1230	32
PTO 13/065/S	650	450	620	870	...	...
PTO 13/085/S	850	450	620	870	...	...

# SLIDING SAFETY GUARD FOR LATHE



PTO 20/400  
PTO 20/600  
PTO 20/800

EL available

LYX available  
pete

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 wide "visibility" sliding shield, with various 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.

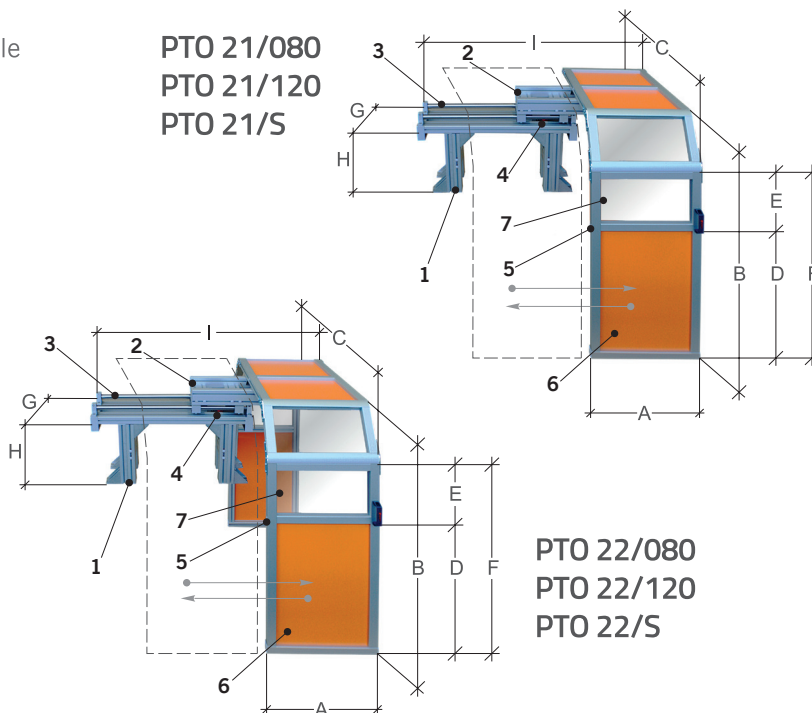
1. Anchorage stirrup with wide vertical adjustment
2. Sliding mobile protection support carriage
3. Auto-carrying guide – in extruded aluminium, with sliding system composed from tempered and rectified steel guides-bearings, placed in protected internal position
4. Safety microswitch with separated actuator – 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

EL available

PTO 21/080  
PTO 21/120  
PTO 21/S



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

Sliding shield for big dimension lathe, designed to be fixed on the machine head and on the ground, 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.

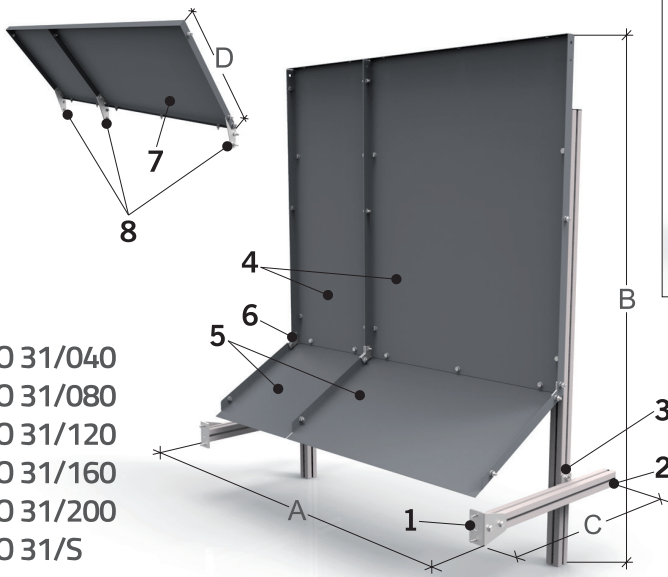
The sliding shield has a wide visual manufactured with a special material, suitable to be used for safety guards.

Available in different sizes, up to a Ø chuck of 800-1200 mm. Complete with safety microswitch. The structure can be 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/S	...	...	...	...	...	...	...	...	...	...

# REAR SAFETY GUARD FOR LATHE



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



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

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/...**

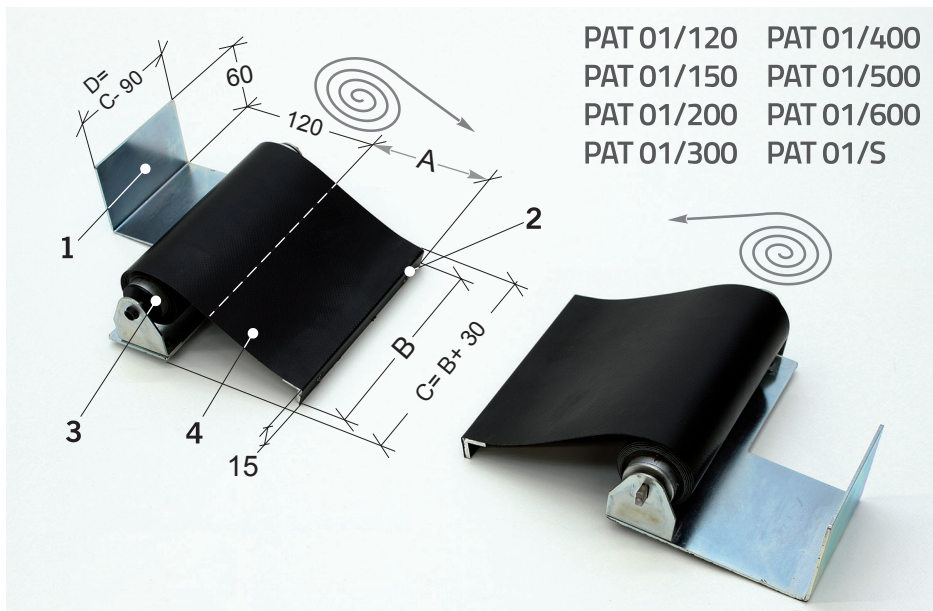
**Important: the installation with safety guard PTO12 is not compatible with assembly of roof PTO31/.../T.**

Complementary items: **PTO 12/... - PTO 31/.../T.**

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.	Code	A	D	Kg.
PTO 31/040	400	1200	600	13,00	PTO 31/040/T	400	550	4,00
PTO 31/080	800	1200	600	20,00	PTO 31/080/T	800	550	8,00
PTO 31/120	1200	1200	600	28,00	PTO 31/120/T	1200	550	12,00
PTO 31/160	1600	1200	600	34,00	PTO 31/160/T	1600	550	16,00
PTO 31/200	2000	1200	600	41,00	PTO 31/200/T	2000	550	20,00
PTO 31/S	...	1200	600	...	PTO 31/S/T	...	550	...

# ROLL-UP SAFETY GUARD FOR LATHE ADVANCING BARS



PAT 01/120 PAT 01/400  
PAT 01/150 PAT 01/500  
PAT 01/200 PAT 01/600  
PAT 01/300 PAT 01/S

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.

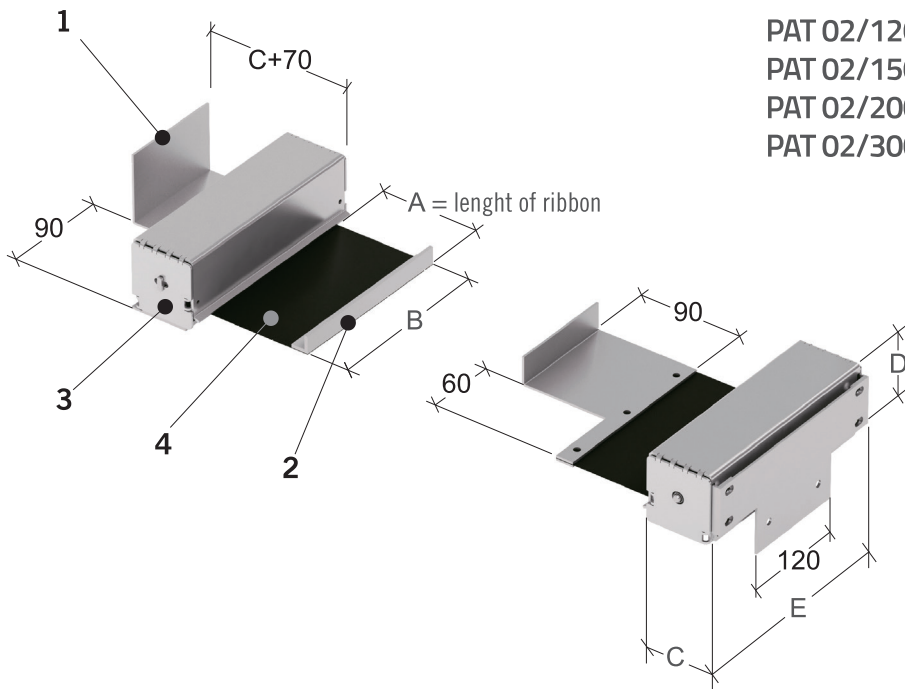
- *Note:* the extremity, equipped with the sliding roll, must be fixed onto the base side.

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 TEMAT 202 technical thread

Codice	A	B	Kg
PAT 01/120	1200	150	1,6
PAT 01/150	1500	200	2,2
PAT 01/200	2000	200	3,0
PAT 01/300	3000	250	5,0
PAT 01/400	4000	300	
PAT 01/500	5000	350	
PAT 01/600	6000	400	
PAT 01/S	...	...	...



# ROLL-UP SAFETY GUARD FOR LATHE ADVANCING BARS



PAT 02/120  
PAT 02/150  
PAT 02/200  
PAT 02/300

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.

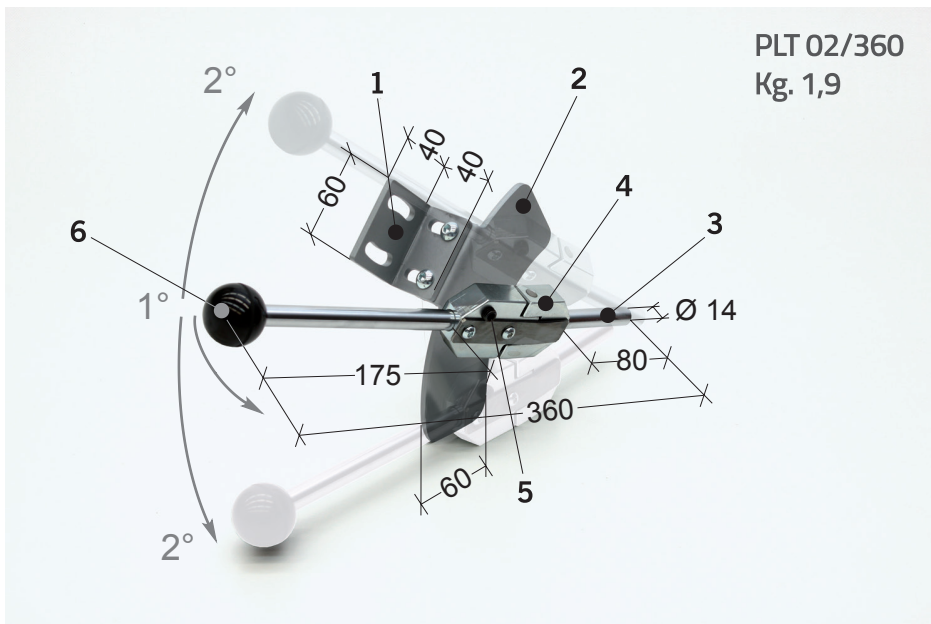
Item created for the frontal "segregation" of the lathe mother screw and the advancing bars. Protects the operator from direct contact with moving parts and avoids the possibility of "snagging" of work garments. Made from two units to fix to the two extremities of the longitudinal carriage, equipped 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.

1. Base-side angular anchorage stirrups – in pressed steel
2. Carriage-side angular anchorage stirrups – in aluminium
3. Protective box of self-sliding roll
4. Protective ribbon – in TEMAT 202 technical thread

Code	A	B	C	D	E	Kg.
PAT 02/120	1200	150	55	58	185	1,9
PAT 02/150	1500	200	60	65	235	2,5
PAT 02/200	2000	200	70	70	235	3,5
PAT 02/300	3000	250	90	90	285	5,6

# LATHE SAFETY LEVER



PLT 02/360  
Kg. 1,9

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.

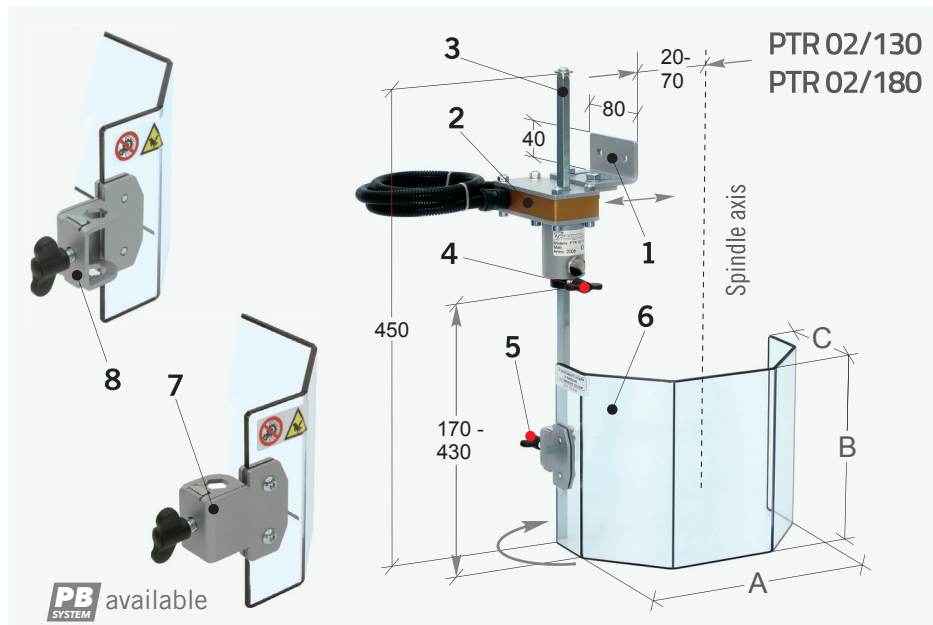
Provided in a single piece, to replace only one of the two original machine levers, normally identified as the most frequently used one, while the original remaining lever remains operational only for disconnection.

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. 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

## SAFETY GUARD FOR DRILLS AND RADIAL DRILLS



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).

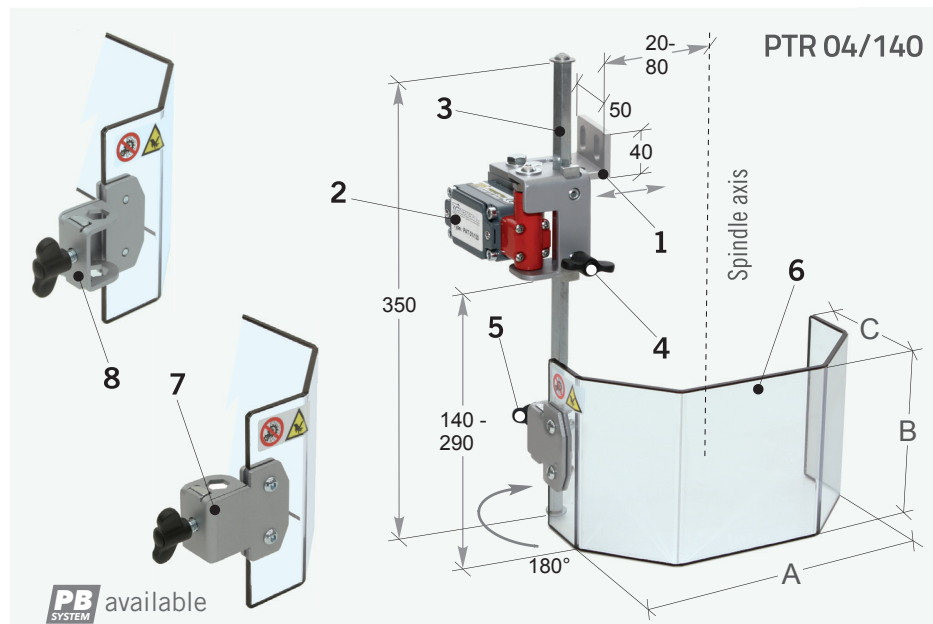
The shield support clamp can be placed inside (point 7) or outside (point 8), allowing a wide range of horizontal adjusting.

Complete with safety microswitch.

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

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

## SAFETY GUARD FOR MEDIUM-SMALL DRILLS



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.

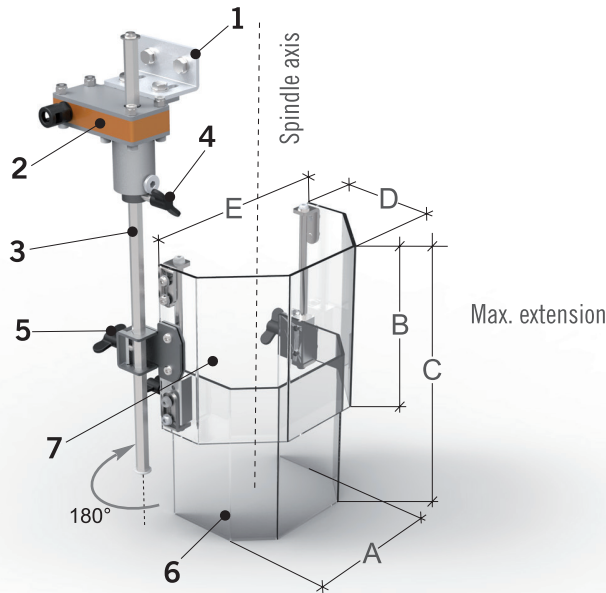
Complete with safety microswitch.

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

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

# TELESCOPIC SAFETY GUARD FOR DRILL

PTR 05/180



**PB** SYSTEM available

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

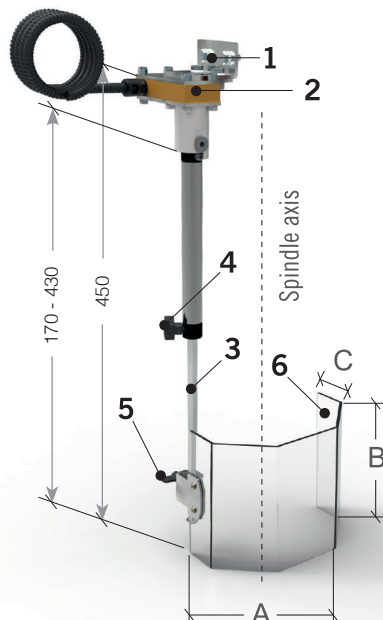
Protects the operator from direct frontal contact with rotating components of the spindle, of the tool and from projection of shavings and lubricant-coolant. The main feature is the telescopic shield, vertically adjustable (refer to dimensions "B" and "C") and positionable along arm (point 3).

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 RADIAL DRILLS

PTR 06/130  
PTR 06/180



**PB** SYSTEM available

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

Safety guard with vertical shield. Adjustable with telescopic arm system. 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 .

The semi-octagonal shield can be adjusted vertically by two different systems:

1) the shield / hexagonal arm group is adjustable inside the tubular stainless support and lockable with a knob (4).

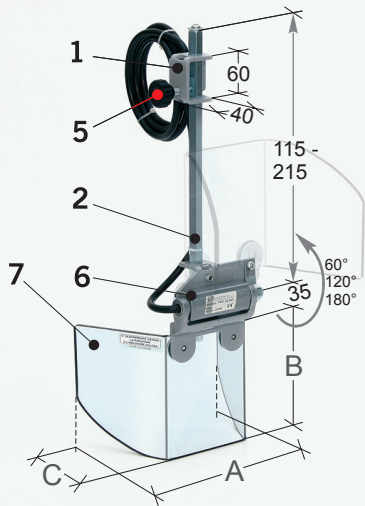
2) possibility to choose the position of the shield by adjusting the shield support clamp (5) in the right position.

Complete with safety microswitch.

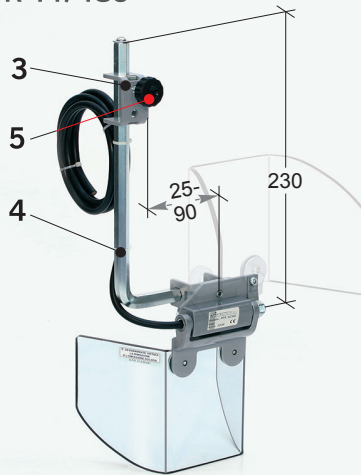
Code	A	B	C	Kg.
PTR 06/130	230	130	115	2,8
PTR 06/180	230	180	115	2,9

## SAFETY GUARD FOR DRILLS AND SIMILAR MACHINES

PTR 10/140  
PTR 10/180



PTR 11/140  
PTR 11/180



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

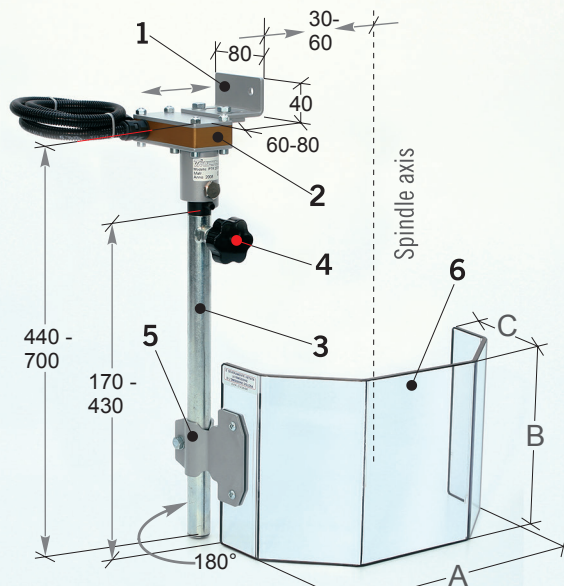
The safety microswitch is integrated in the special hinge that supports the shield.

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

## SAFETY GUARD FOR RADIAL DRILLS

PTR 20/300  
PTR 20/350



**PB SYSTEM** available

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.

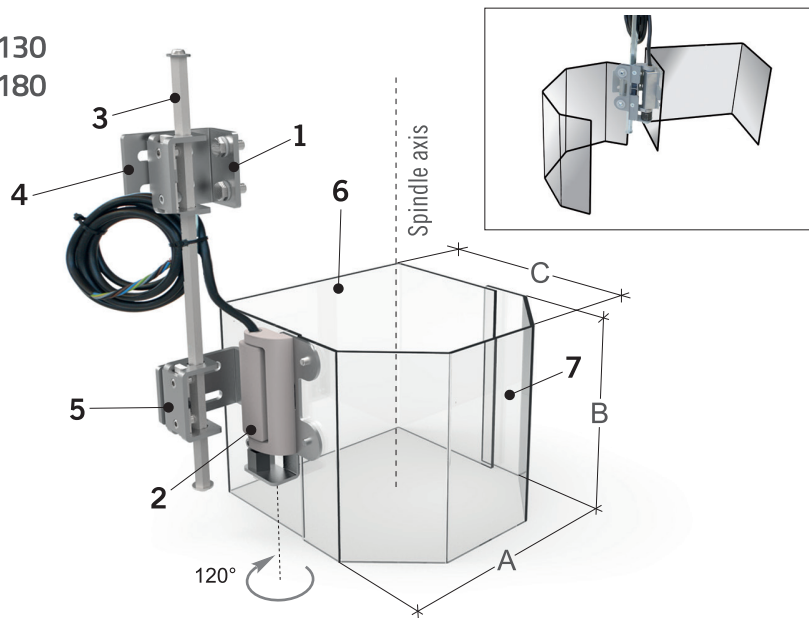
Complete with safety microswitch.

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

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

## SAFETY GUARD FOR DRILLS WITH REAR SHIELD

PTR 30/130  
PTR 30/180



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.

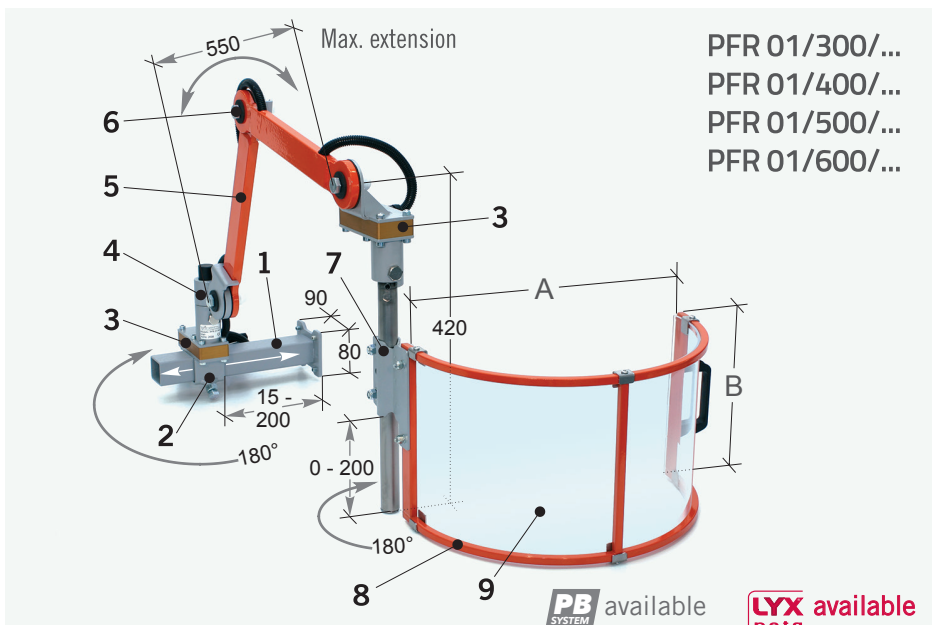
Protects the operator from direct contact with rotating components of the spindle and from projection of shavings and lubricant-coolant. Attachable on the left side of the machine.

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

## ADJUSTABLE SAFETY GUARD FOR UNIVERSAL MILLS



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. Available in various dimensions.

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.

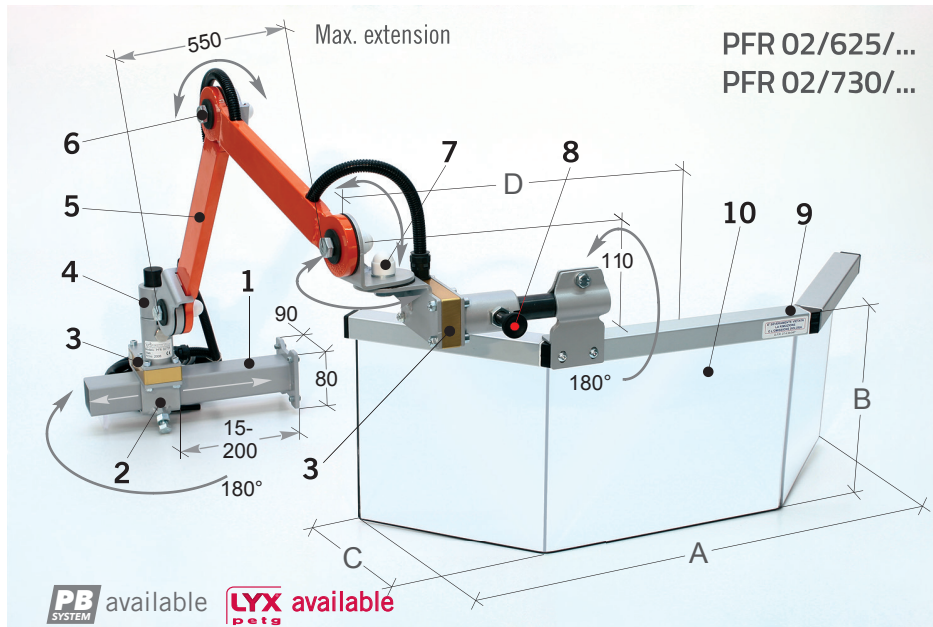
- Note: specify the mounting side by adding the suffix: /DX = right - /SX = left.

- 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



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.

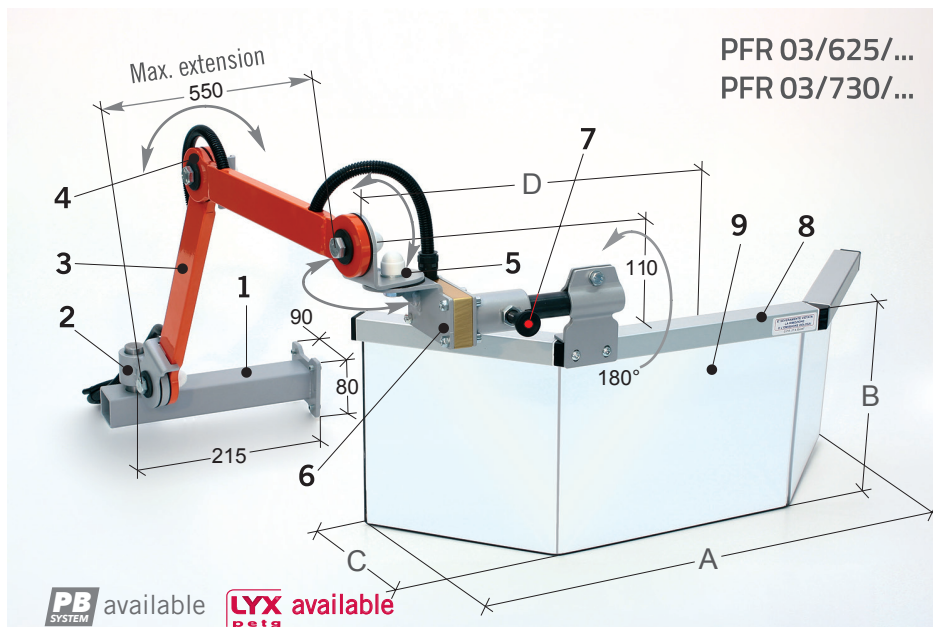
- *Available accessories:* PMG 60/185 – PBA 01/190 – PBA 01/325 – PBA 02/325 allowing a wide range of horizontal adjusting. Complete with safety microswitch.

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

MILLS

# ADJUSTABLE SAFETY GUARD FOR UNIVERSAL MILLS



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.

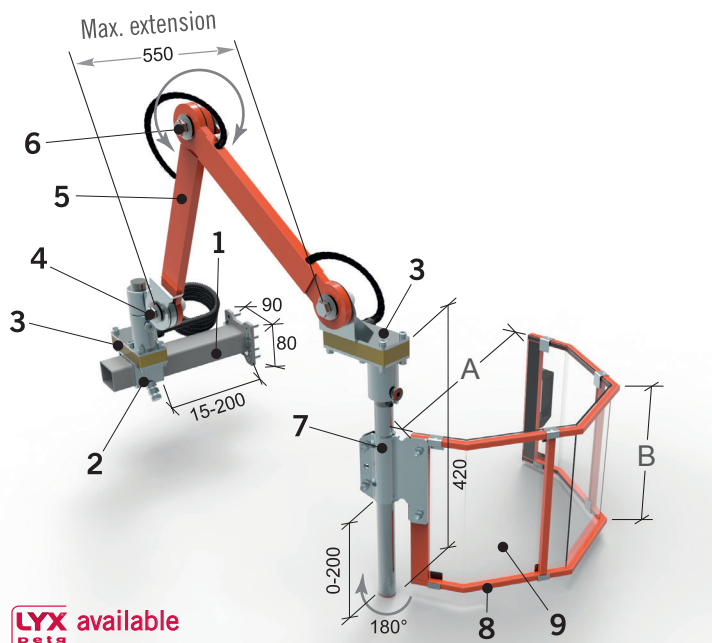
- *Available accessories:* PMG 60/185 – PBA 01/190 – PBA 01/325 – PBA 02/325.

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

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

# ADJUSTABLE SAFETY GUARD FOR UNIVERSAL MILLS

PFR 04/400  
PFR 04/500  
PFR 04/600



available



available

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

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 flange, equipped with double opening system shield:

- 1) shield openable horizontally on its axis.
- 2) total "swinging" 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.

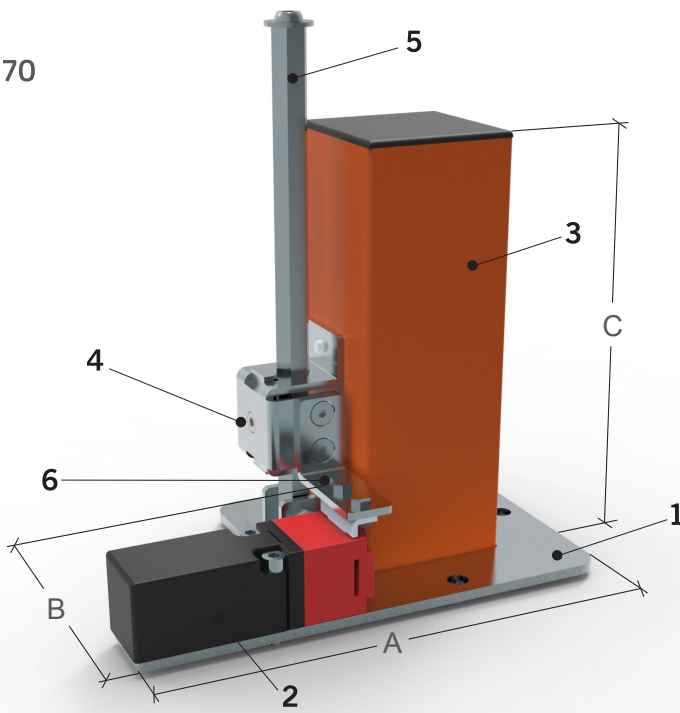
- *Available accessories:* PMG 60/185 – PBA 01/190 – PBA 01/325 – PBA 02/325.

Code	A	B	Kg.
PFR 04/400	400	235	9,8
PFR 04/500	500	235	10,1
PFR 04/600	600	235	10,4



## SAFETY CAP FOR MILLING DRAWBARS

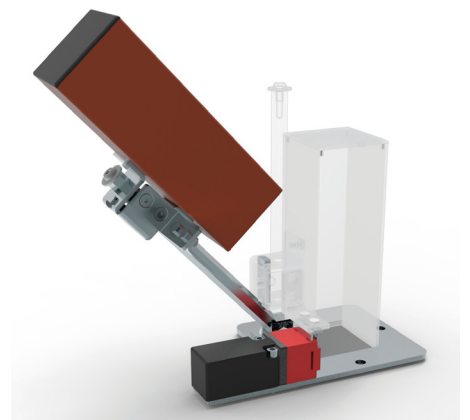
PFR 05/170



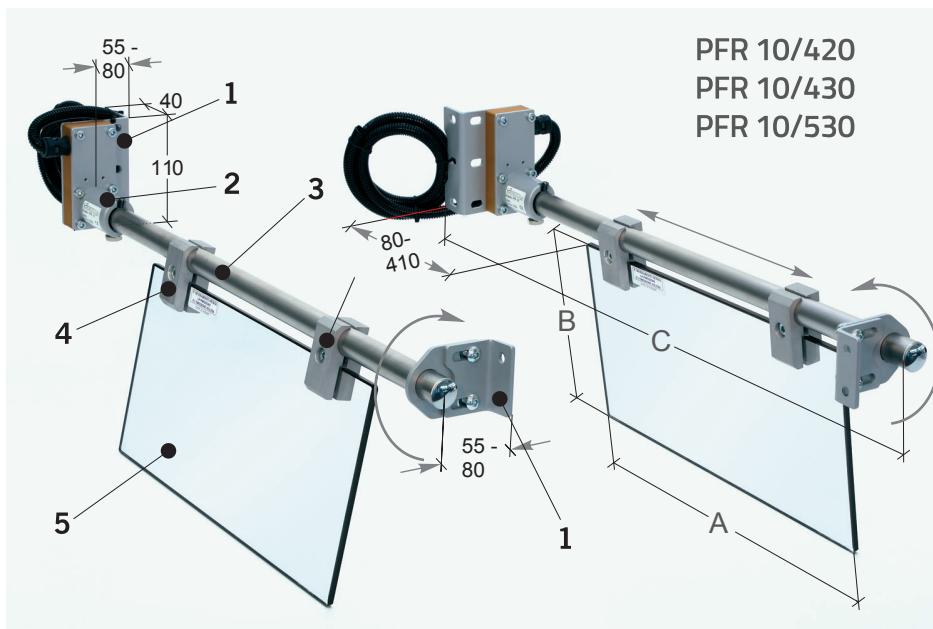
1. Fixing plate
2. Safety microswitch with separated actuator
3. Crankcase
4. Crankcase support stirrup
5. Hexagonal sliding rod
6. Microswitch key support

Code	A	B	C
PFR 05/170	193	120	172

Safety guard for upper and rear milling machine drawbar, with tied opening/closing movements. Equipped with pre-drilled flange for easy installation, opening protected by safety microswitch and screw locking.



# SAFETY GUARD FOR HORIZONTAL SLIDE MILLS



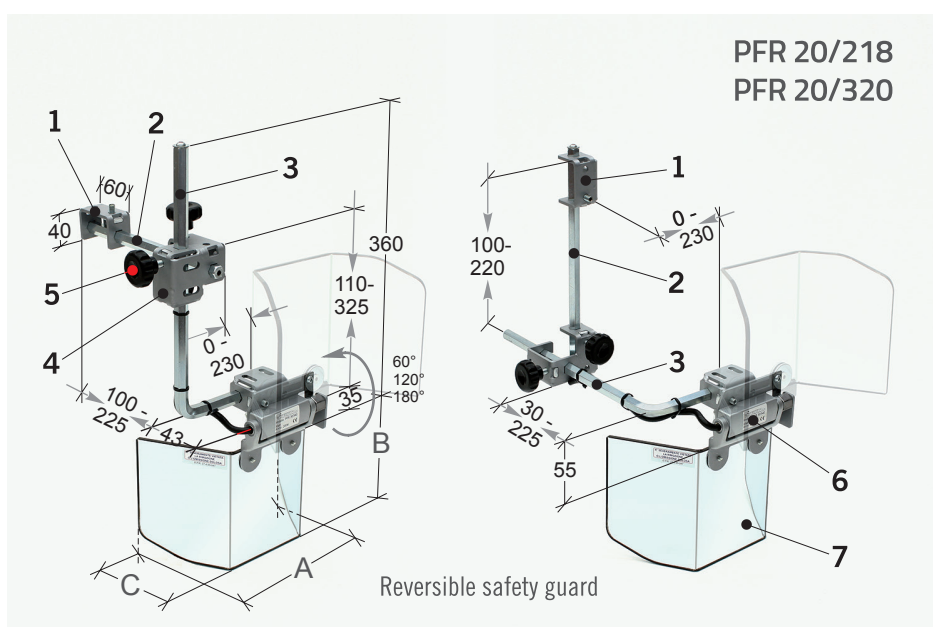
Item composed of two mirrored elements, to be installed on the sides of the horizontal slide. Equipped with easy adjustments for a frequent change of operation.

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

# SAFETY GUARDS FOR SMALL MILLS AND SIMILAR MACHINES



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.

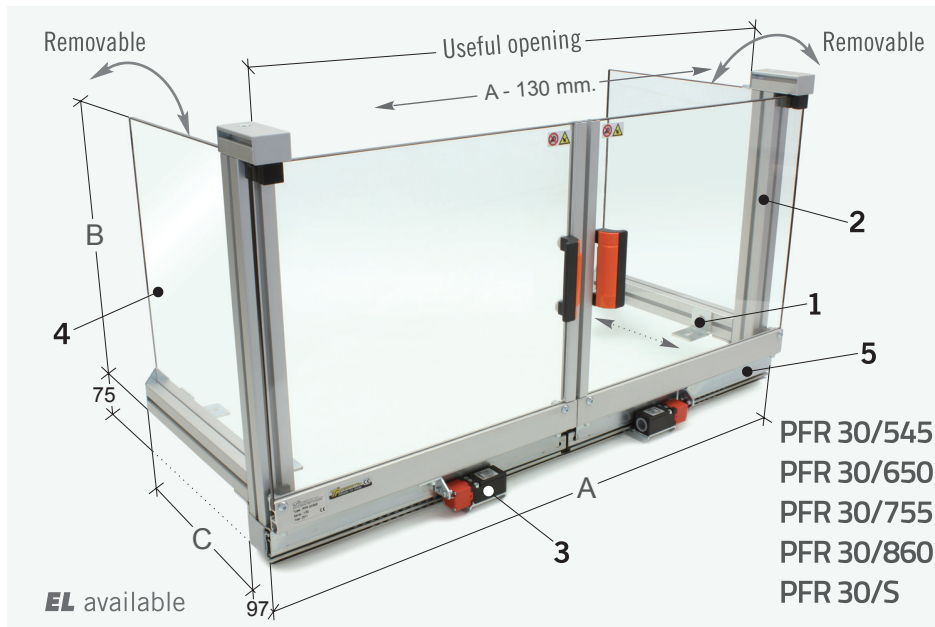
Shield equipped with innovative vertical "spring" opening system in the 60° - 120° - 180° positions. Supported by widely-adjustable hexagonal arms, reversible between themselves to make available various fixing configurations. The safety microswitch is integrated in the special hinge that supports the shield.

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

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



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

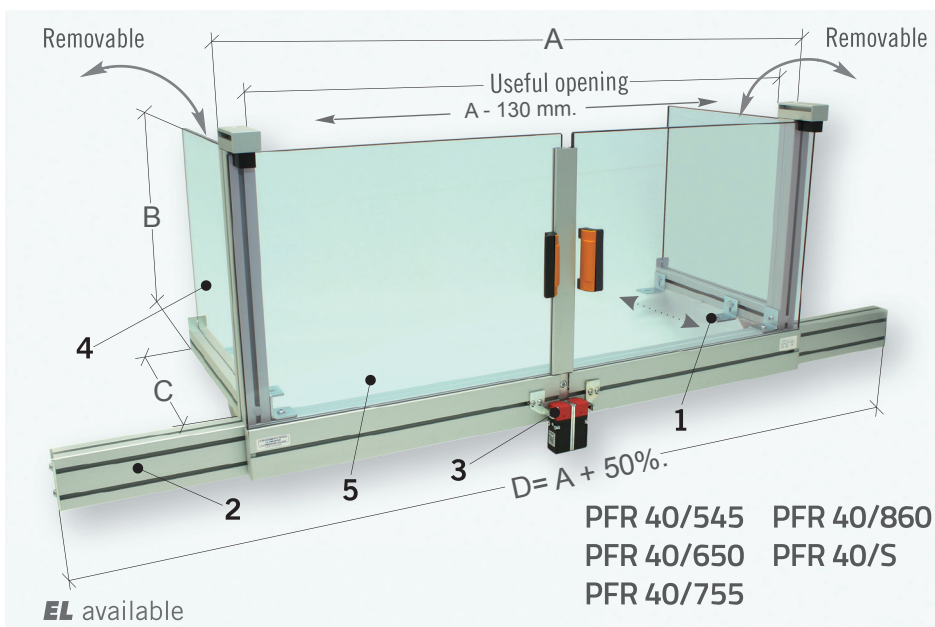
Equipped with two total opening sliding doors and removable lateral panels. Also customized on request.

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	...	...	...	...

## PERIMETER SAFETY GUARD TO INSTALL ON THE TABLE



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

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

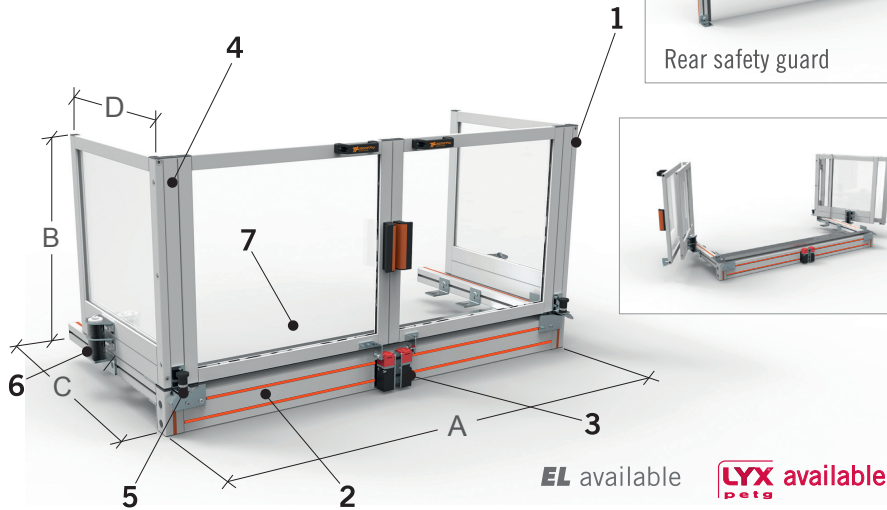
Protects the operator from direct contact with rotating parts of the spindle and from the projection of shavings and lubricant-coolant. Equipped with two “total” opening doors, sliding on Polyethylene “skates”, made in thick plastic material, “shapeable” for potential vice passage.

Complete with double safety microswitch.

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	...	...	...	...	...

## PERIMETER SAFETY GUARD TO INSTALL ON THE TABLE

PFR 70/545  
PFR 70/650  
PFR 70/S



PFR /.../R



Rear safety guard



Equipped with two doors (each with two hinged sections), to cover completely the front and the side parts of the working surface, with total opening.

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 doors with two sections hinged together to let the frontal side of the working table of the machine free, when it is open.

The shape of the guard allows to use the vice, without having to make openings in the frontal side of the doors. A steel plate compels to enter with the hands from the lower side of the guard. Complete with n. 2 safety microswitches.

*Complementary items:* **PFR 70/545/R – PFR/70/650/R** – Rear adjustable protective panel, to cover the rear side behind the spindle.

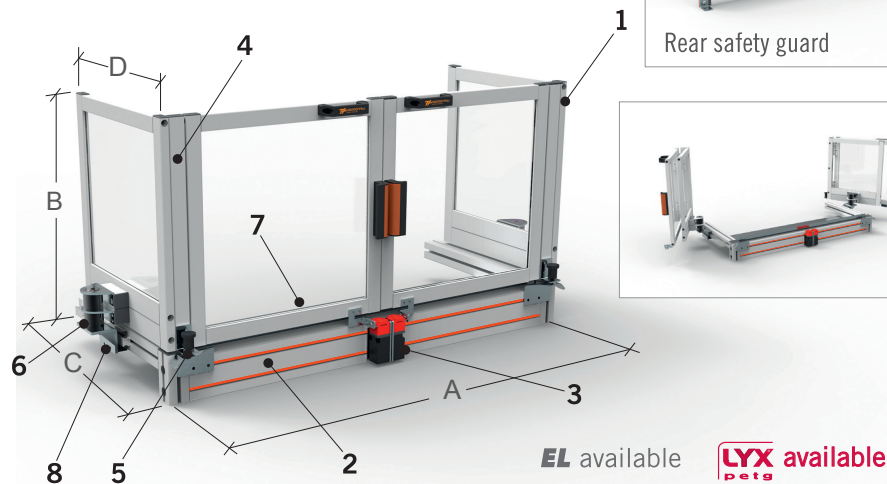
EL available **LYX** available

1. Angular anchorage stirrups – in pressed steel.
2. Supporting structure – in aluminium profiles
3. Safety microswitches with separated actuator – n. 2 NC contacts
4. Doors with two hinged sections – In plastic shockproof and oil resistant material
5. Locking piston
6. Rotation door system
7. Protective lower steel plate – in pressed steel

Code	A	B	C	D	Kg.
PFR 70/545	1000	450	505	405	26,1
PFR 70/650	1200	500	555	455	30,1
PFR 70/S	...	...	...	...	...

## PERIMETER SAFETY GUARD TO INSTALL ON THE TABLE

PFR 71/545  
PFR 71/650  
PFR 71/S



PFR /.../R



Rear safety guard



Equipped with two doors (each with two hinged sections), to cover completely the front and the side parts of the working surface, with total opening. With sliding guideways.

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 doors with two sections hinged together, that can be opened on a rotating system mounted on a linear guideway, to let the frontal and the lateral sides of the working table of the machine free, when it is open.

The shape of the guard allows to use the vice, without having to make openings in the frontal side of the doors. A steel plate compels to enter with the hands from the lower side of the guard.

Complete with n. 2 safety microswitches.

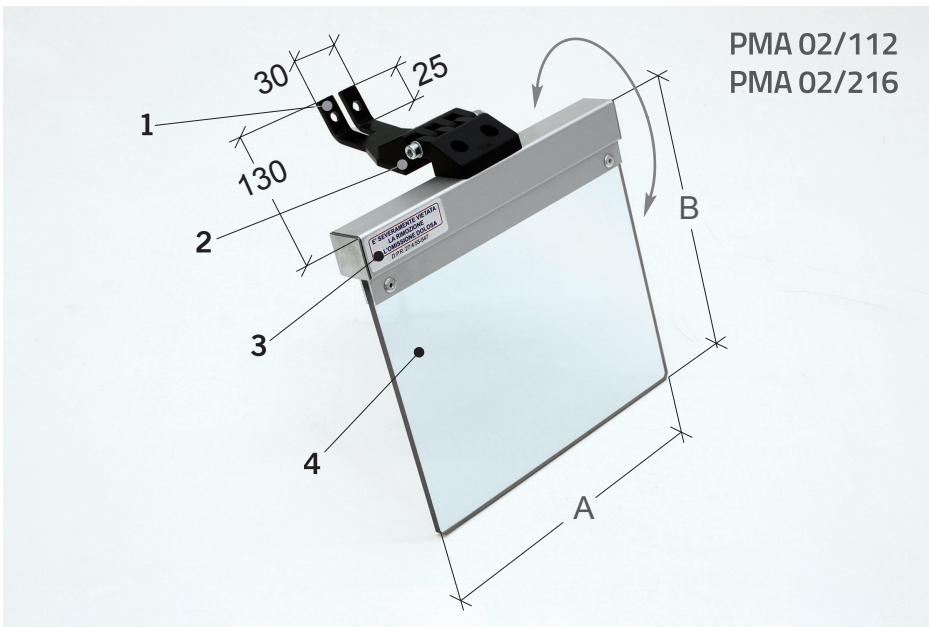
- Complementary items: **PFR 70/545/R – PFR/70/650/R** – Rear adjustable protective panel, to cover the rear side behind the spindle.

EL available **LYX** available

1. Angular anchorage stirrups – in pressed steel
2. Supporting structure – in aluminium profiles
3. Safety microswitches with separated actuator – n. 2 NC contacts
4. Doors with two hinged sections – In plastic shockproof and oil resistant material
5. Locking piston
6. Rotation door system
7. Protective lower steel plate – in pressed steel
8. Linear guideway – with sliding block

Code	A	B	C	D	Kg.
PFR 71/545	1000	450	505	405	28,0
PFR 71/650	1200	500	555	455	32,0
PFR 71/S	...	...	...	...	...

## SAFETY GUARD FOR GRINDER AND TOOL GRINDER



PMA 02/112  
PMA 02/216

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

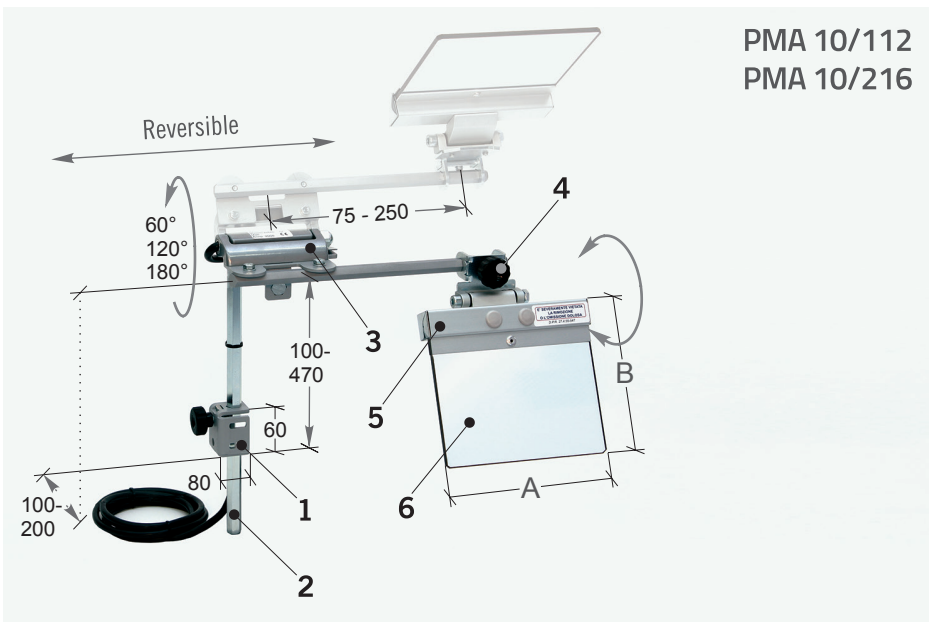
Protects the operator's face from the projection of sparks and emery.

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.

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

## SAFETY GUARD FOR GRINDER AND TOOL GRINDER



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.

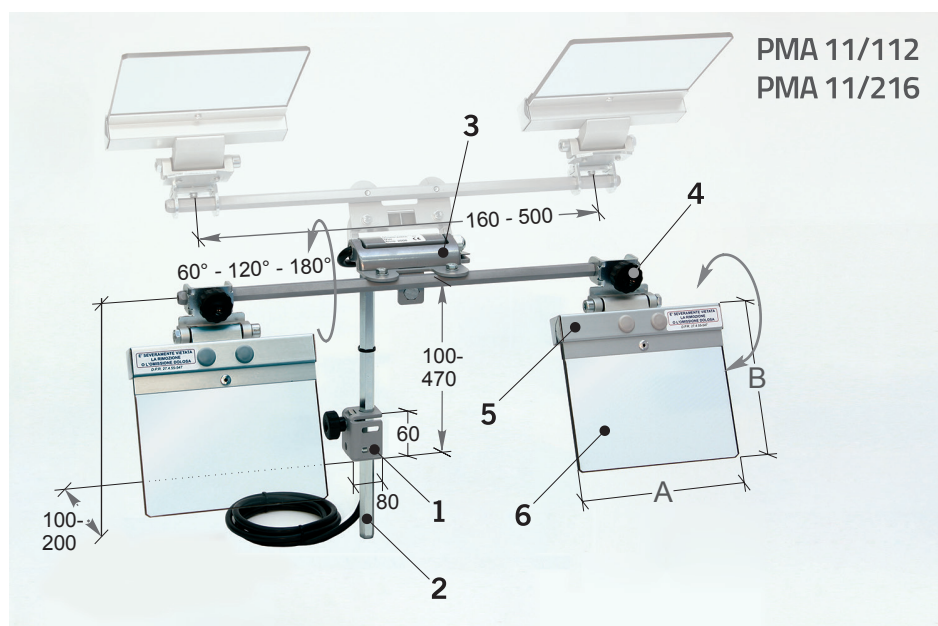
Protects the operator's face from the projection of sparks and emery.

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

## SAFETY GUARD FOR GRINDER AND TOOL GRINDER



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.

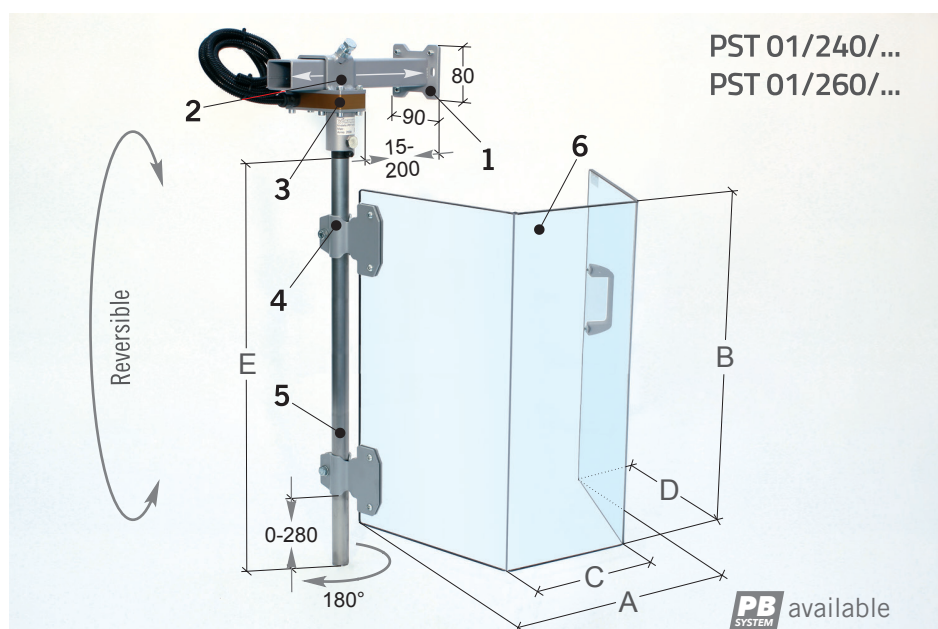
The particular multi-adjustable hexagonal arms structure allows an easy anchorage on the most different structures, allowing use even on machines with grindstone in "overhang" position.

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

## SAFETY GUARD FOR SLOTING - BROACHING MACHINES



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

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.

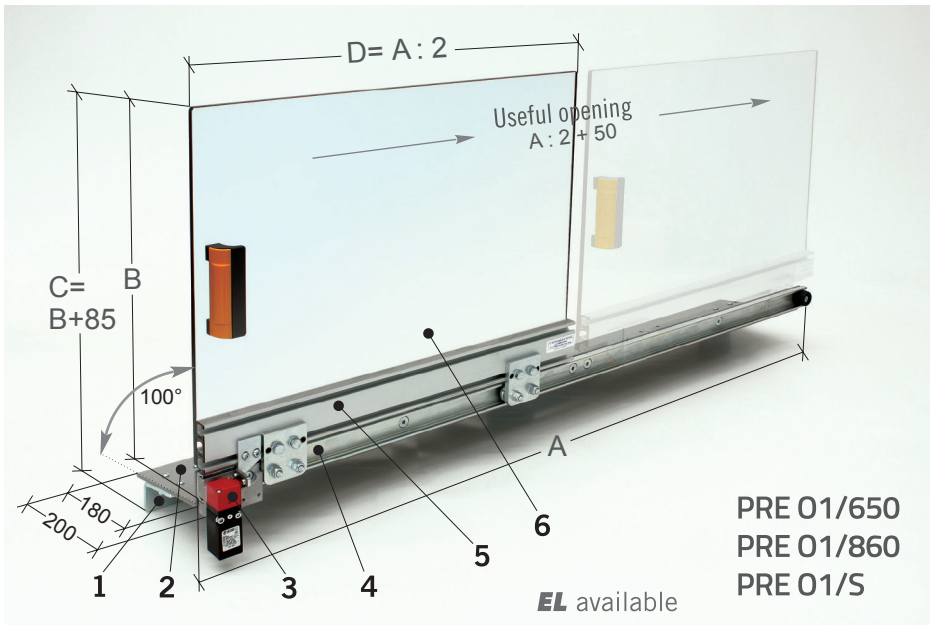
- Note: specify the mounting side by adding the suffix: /DX = right - /SX = left.

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

## SAFETY GUARD FOR UNIVERSAL AND SURFACE GRINDERS



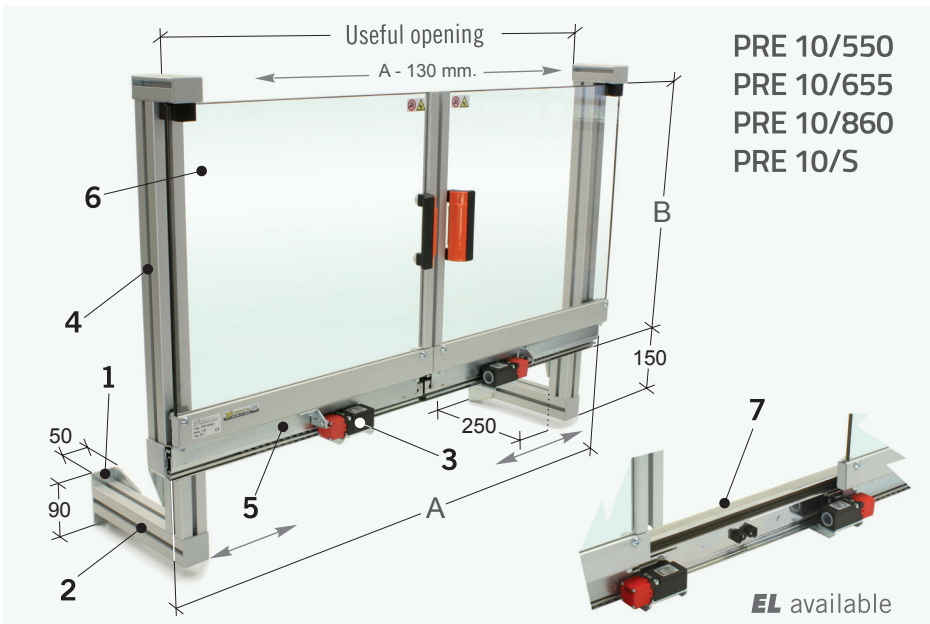
1. Angular anchorage stirrups
2. Inclined support sheet metal – in sheet steel
3. Safety microswitch with separated actuator with n. 2 NC contacts
4. Steel sliding guide with tempered bearings
5. Shield support structure – in aluminium profile
6. Shield – in shockproof and oil-resistant thick plastic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

## SAFETY GUARD FOR UNIVERSAL AND SURFACE GRINDERS



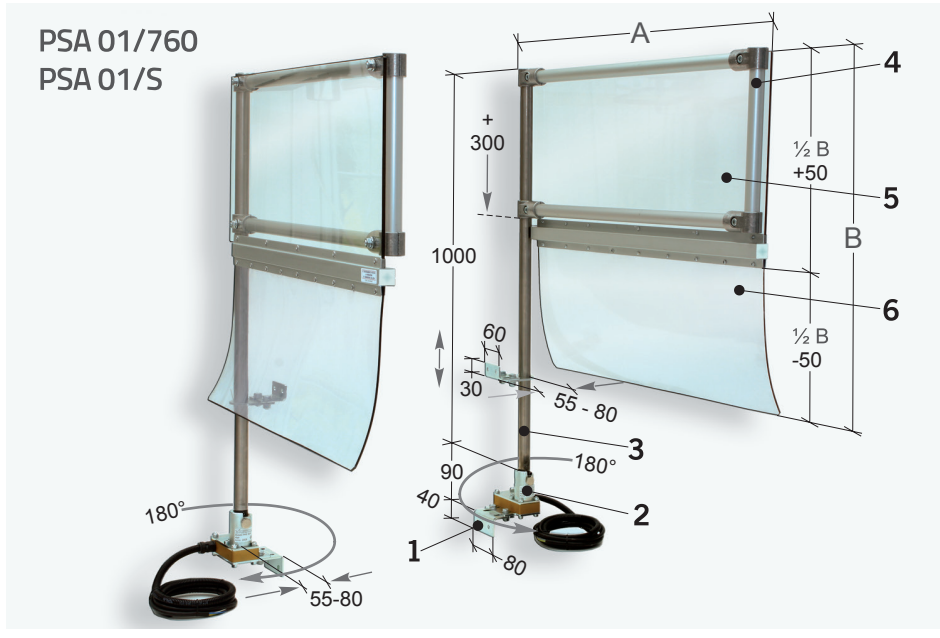
1. Angular anchorage stirrups – in pressed steel
2. Multi-adjustable support structure, with two different attachment systems
3. Safety microswitch with separated actuator – n. 2 NC contacts
4. Perimeter structure – in aluminium profile
5. Sliding ball guides, with an excursion equal to their length
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	...	...	...

## SAFETY GUARD FOR ALTERNATIVE SAW



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

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

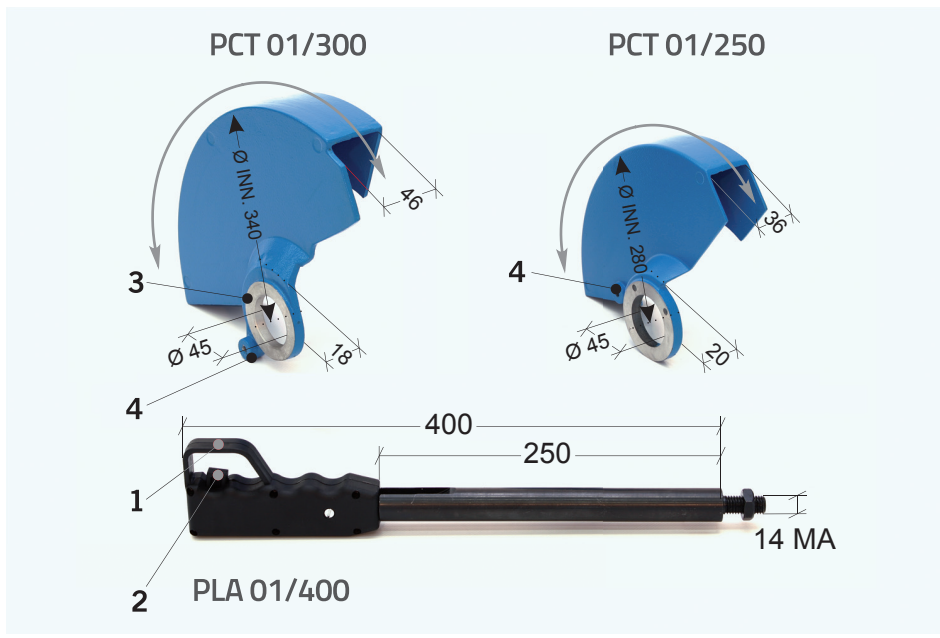
Equipped with panels subdivided into two sections, the lower one is shapeable for passage of rods.

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.

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

## VARIOUS DEVICES FOR METAL MITER SAW



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
4. Safety shield rotation collar
5. 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 Ø maximum of a 250 mm disc.

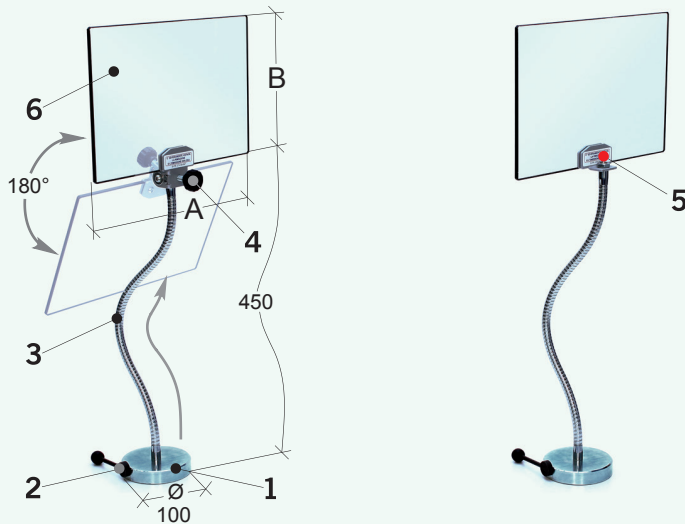
**PCT 01/300** = safety guard with Ø maximum of a 300 mm disc.

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

## SAFETY GUARDS WITH MAGNETIC BASE

PBM 11/320 - PBM 11/325

PBM 10/320 - PBM 10/325



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.

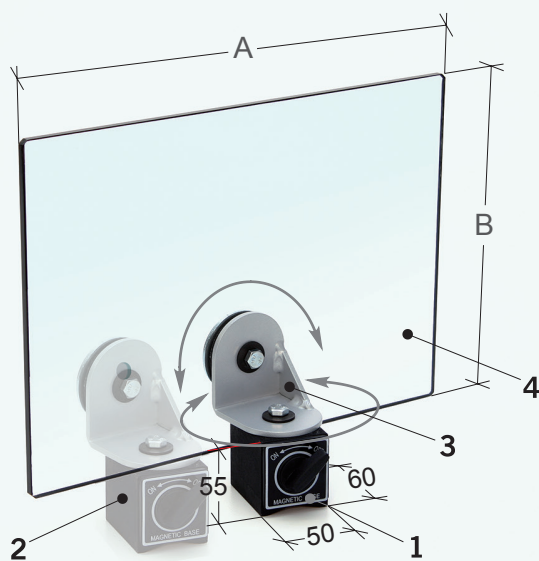
Offered in two versions:

**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

## SAFETY GUARDS WITH MAGNETIC BASE



PBM 20/325  
PBM 20/430

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

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

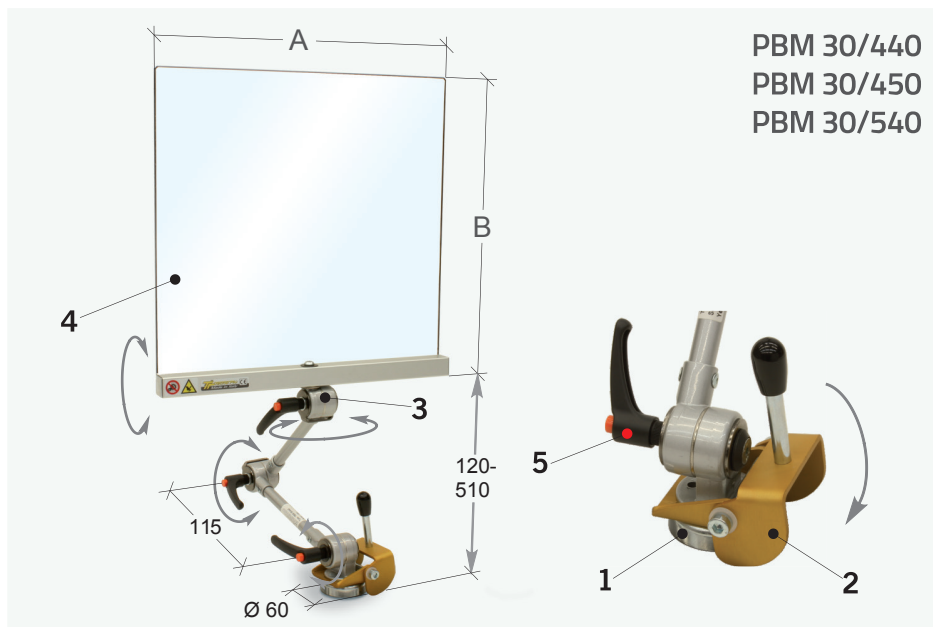
Protects the operator's face from the projection of emery, dusts and small parts generated during operations.

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.

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

## SAFETY GUARD WITH MAGNETIC BASE



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.

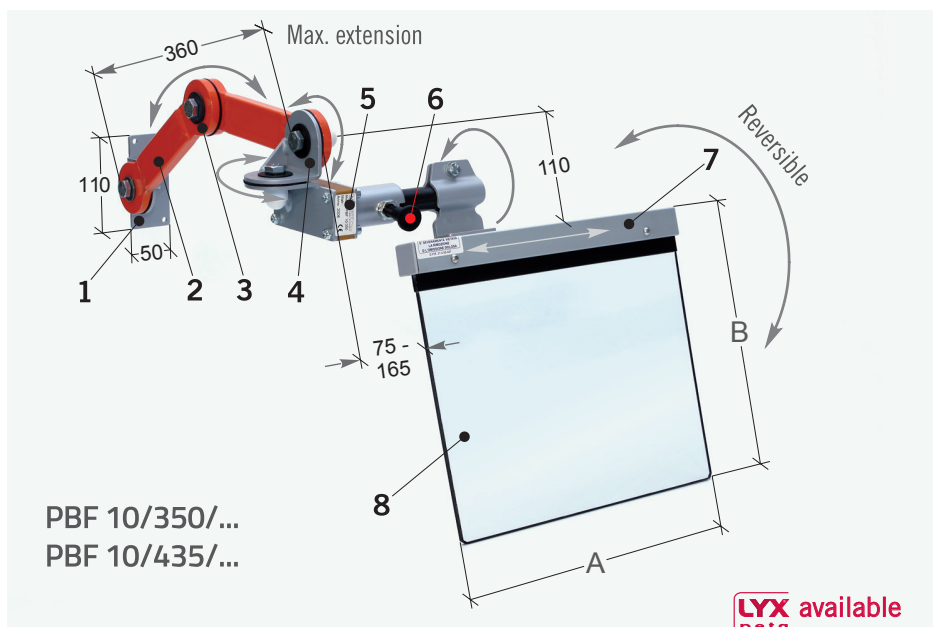
Its features make it suitable for general use: to grind to assembly small components from possible accidental "projection" extempored situations where rapidity of intervention is required and where a safety guard with electric interlock is not specifically requested.

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  $\varnothing$  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

## SAFETY GUARD FOR HYDRAULIC PRESSES AND VARIOUS MACHINES



PBF 10/350/...  
PBF 10/435/...

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. Equipped with safety microswitch.

- *Note:* specify the mounting side by adding the suffix: /DX = right - /SX = left.

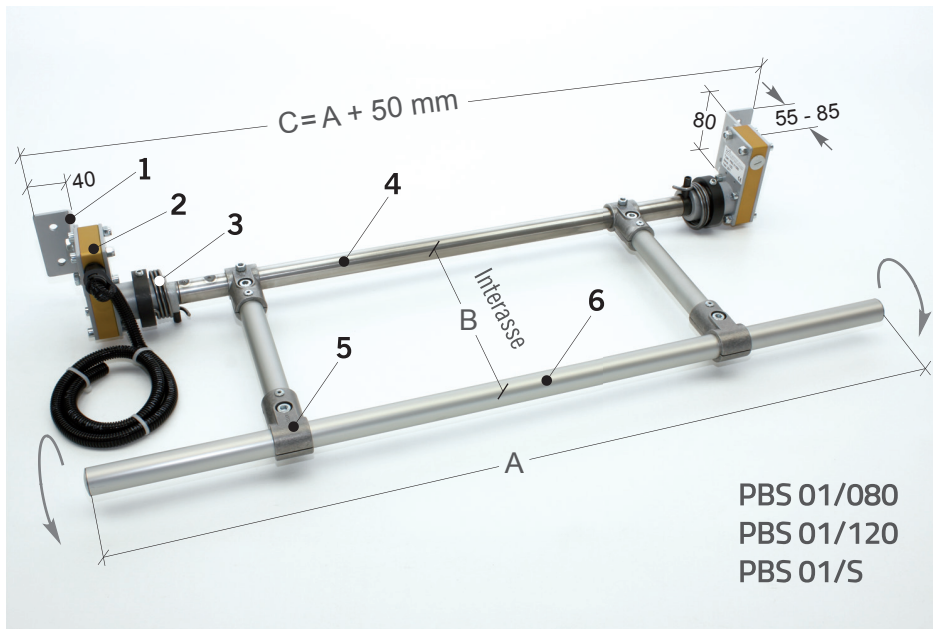
- *Available accessories:* PBA 01/190 – PBA 01/325 – PBA 02/325.

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

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



## SAFETY BAR FOR VARIOUS MACHINES



1. Adjustable angular anchorage stirrups – in pressed steel
2. Main boxes, equipped with one safety microswitch – 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/...**

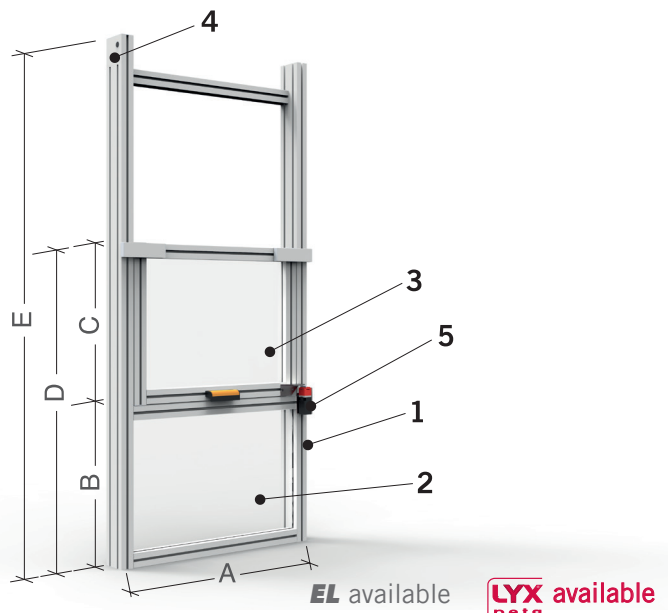
Item designed to be mounted near the ground for being operated with feet (typical emergency function), or in raised position.

Equipped with adjustment of microswitch action.

Code	A	B	Kg.
PBS 01/080	800	250	5,3
PBS 01/120	1200	250	6,0
PBS 01/S	...	...	...

## SAFETY GUARD FOR HYDRAULIC PRESS WITH DOUBLE SUPPORTS

PPR 01/100  
PPR 01/S



Safety guard equipped with total opening vertical sliding door and higher and lower panels. Also customized on request.

Protects the operator from direct contact with the moving piston and from the eventual projection of working parts.

Equipped with a total opening door, sliding on polyethylene parts, with supporting counterweights placed inside the guard to allow an easier movement and support the weight.

Shield made in polycarbonate.

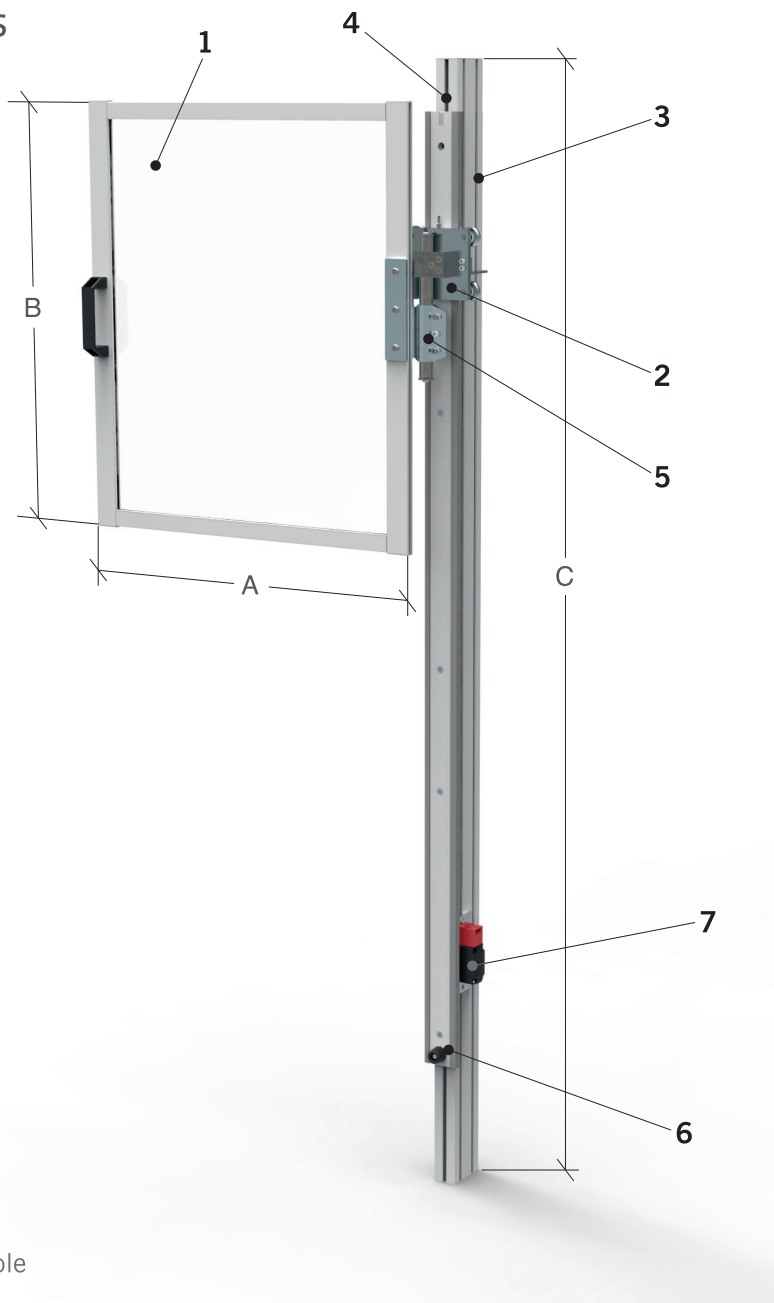
Complete with safety microswitch.

1. Perimetral structure with aluminium profiles
2. Polycarbonate fixed lower panel
3. Polycarbonate vertical opening door
4. Up and down opening system with counterweights
5. Safety microswitch with separated actuator – n. 2 NC contacts

Code	A	B	C	D	E	Kg.
PPR 01/100	1000	500	500	1000	1500	29,5
PPR 01/S	...	...	...	...	...	...

# SAFETY GUARD FOR BORING MACHINE

PAL 01/780  
PAL 01/S



**EL** available

Item equipped with a protection panel, vertically sliding, with manual opening.

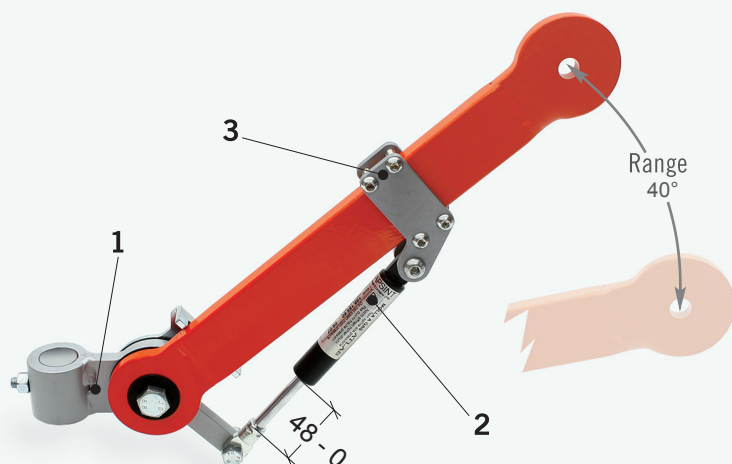
Protects the operator from direct contact with moving parts of the machine and from the projections of shavings and lubricant-coolant. Complete with safety microswitch.

1. Protective adjustable shield – in polycarbonate and aluminium profiles
2. Sliding block to support the shield
3. Supporting guideway – in extruded aluminium – equipped with sliding system on temperd and rectified steel guides-berings
4. Counterweights
5. Adjustable shield connection – in pressed steel
6. Antivibration
7. Safety microswitch with separated actuator – n. 2 NC contacts

Code	A	B	C	Kg.
PAL 01/780	700	800	2000	30,0
PAL 01/S	...	...	...	...

## BALANCE KIT

PMG 60/185  
Kg 0,9



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.

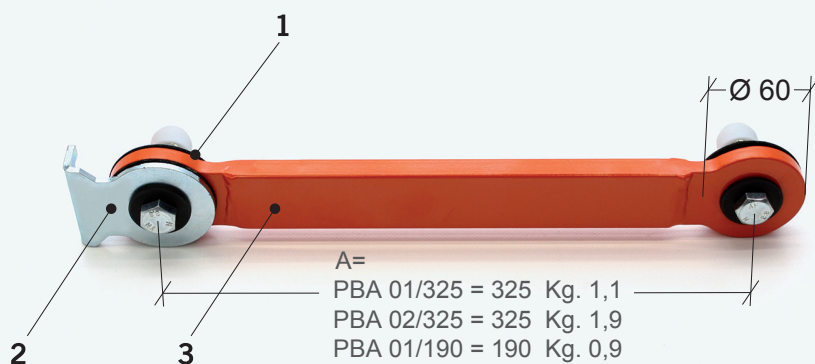
Allows an increase in manoeuvrability of all safety guards originally equipped with articulated arms support system. Complete with all the necessary accessories and bolts, including the support clamp (point 1).

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**.

## ADDITIONAL ARTICULATED ARMS KITS

PBA 01/325  
PBA 02/325  
PBA 01/190



1. Friction disc  $\varnothing$  60 mm – in pressed brake lining
2. Joint opposition plate – in pressed steel
3. Additional articulated arm – in tubular and discs in welded steel

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.

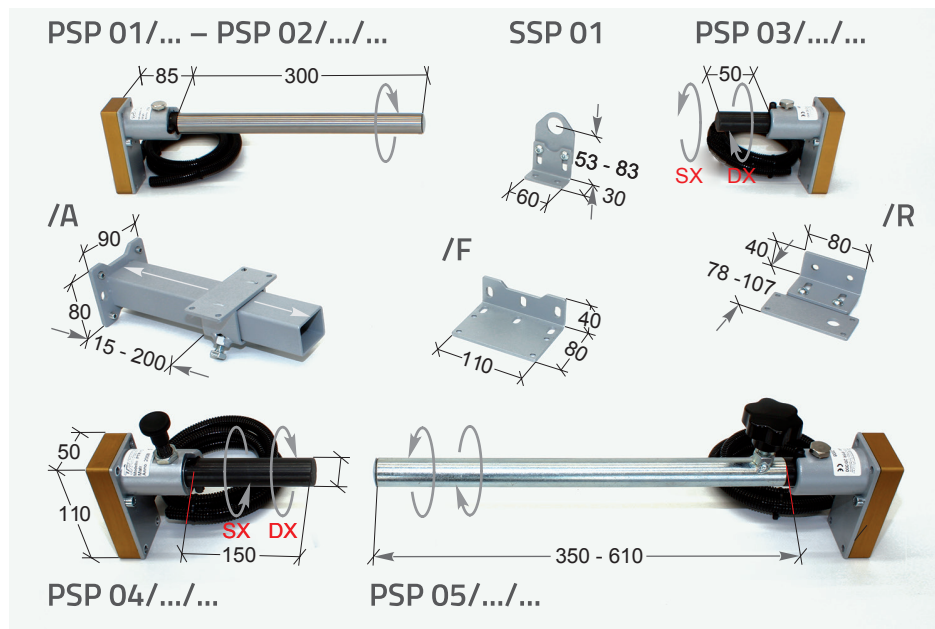
**PBA 02/325** = reinforced articulated arm (composed of two side by side arms) wheel base 325 mm.

**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, cod. **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 SUPPORT GROUPS



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:

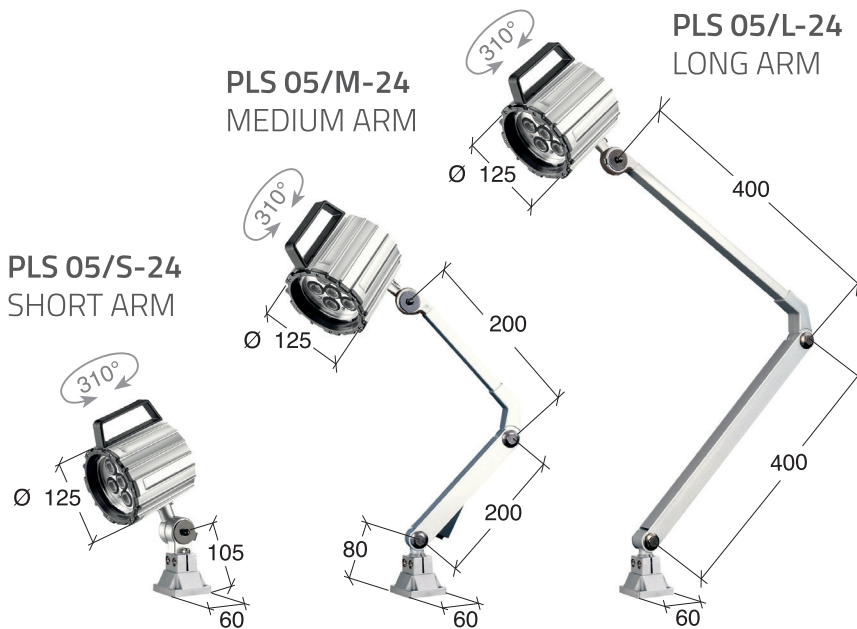
- PSP 01/...** = group with microswitch box with 90° rotation arm L = 300 mm
- PSP 02/.../...** = Group with microswitch box with 180° rotation arm L = 300 mm
- PSP 03/.../...** = group with microswitch box with 180° rotation hub L = 50 mm
- PSP 04/.../...** = group with microswitch box with 180° rotation 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



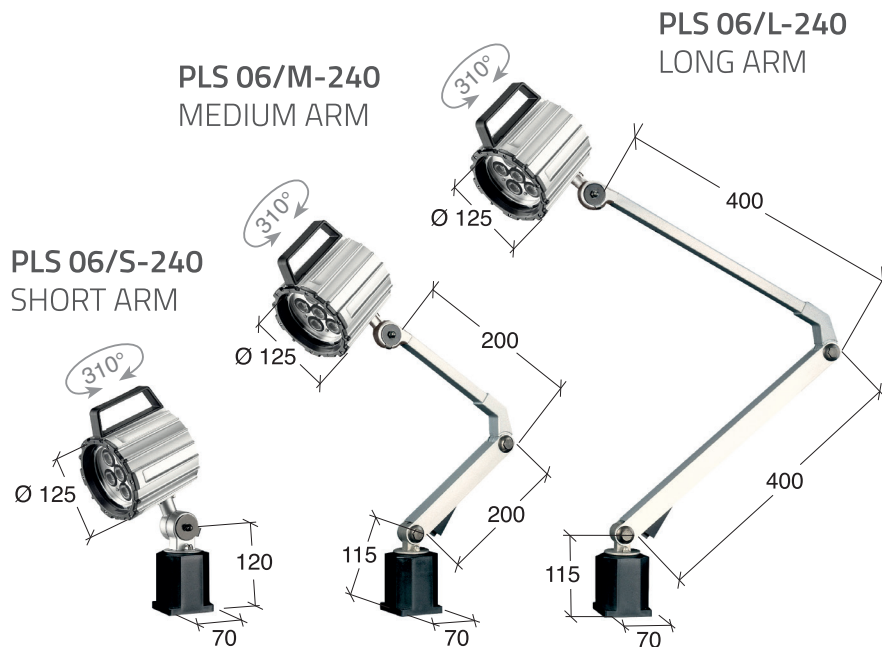
Equipped with a powerful led floodlight. Designed specifically to be used on tooling machines, according to applications foreseen in the directive EN 1837.

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°.

LED driver is built in the lamp head

- Low voltage power AC/DC 24V with 1.8 meters of cord without plug Also Standard lighting angle is 60°
- Power of each LED bulb is 2W x 6pcs
- Reinforced lense for high crack-resistance
- Well prevention for explosion, dust, coolant and lubricant
- Long service life up to 40,000 lighting hours
- Applicable for semiconductor manufacturing equipment and clean room
- Suitable for temperature range - 30° ~ + 50°
- Free of infrared ray and ultraviolet ray radiation

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### LED driver is built in the lamp head

- Equipped with a LED driver for directly connecting to voltage of AC power 100V ~ 240V (50Hz-60Hz) with 1.8 meters of cord and plug (for high voltage)
- Standard lighting angle is 60°
- Power of each LED bulb is 2W x 6pcs
- Reinforced lense for high crack-resistance
- Well prevention for explosion, dust, coolant and lubricant
- Long service life up to 40.000 lighting hours
- Applicable for semiconductor manufacturing equipment and clean room
- Suitable for temperature range - 30° ~ + 50°
- Free of infrared ray and ultraviolet ray radiation

## ADJUSTABLE LAMPS FOR GENERAL USE



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 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.

### LED driver is built in the lamp head

- Suitable for power source AC 100V ~ 240V with 1.8 meters of cord and plug
- Consists of 3 LED bulbs (2W)
- Well prevention for water, lubricants, coolants, dust and other liquids
- Double shades design permits fast heat dissipation
- Lighting angle = 30°

### LED driver is built in the lamp head

- Suitable for power source AC 100V ~ 240V (50Hz/60Hz) with 1.8 meters of cord and plug
- Consists of 1 LED bulb x 3W
- Well prevention for water, lubricants, coolants, dusts and other liquids
- Special design for fast heat dissipation
- Flexible goose neck arm covered with sleeve l. 500mm
- Driver is built in base

# COMPLETE ELECTRICAL PANELS

A range of control panels available in different configurations, designed to be used on Drilling Machines, Miter Saws, Lathes and Generic Machines with no minimum safety requirements. A range of electrical kits realized to achieve the minimum safety requirements, then: avoid unexpected starting of the machine after restoring from an accidental break of electrical power supply - Use the very low circuit voltage 24 VAC, to connect safely possible external control and position devices, like a push button and/or microswitches of safety guards.

ELECTRICAL PANELS



## QGE 10

Kit for generic machines, in die-cast box, equipped with protection against short-circuits and power overloads. Complete with general magnetothermic safety switch arranged for padlock. Contactor, safety thermal relay with automatic reset, transformer 400/24 VAC - 30 VA, n. 2 fuses to protect auxiliary circuits, emergency pushbutton and double start-stop button, with voltage warning light. The max. machine absorption, in Ampère or Kw of 400V must be communicated.



## QGE 11

Kit for generic machines, in die-cast box. Complete with contactor, transformer 400/24 VAC - 20 VA, n. 2 fuses to protect auxiliary circuits, emergency pushbutton and double start-stop button, with voltage warning light. Suitable for machines with absorption Max = 4,3 Kw, at a voltage of 400 V.



## QGE 12

Kit for generic machines, in die-cast box, equipped with protection against short-circuits and power overloads. Complete with contactor, safety thermal relay with automatic reset, transformer 400/24 VAC - 20 VA, n. 2 fuses to protect auxiliary circuits, emergency pushbutton and double start-stop button, with voltage warning light. Suitable for machines with absorption Max = 4,3 Kw, at a voltage of 400 V.



## QGE 15

kit for generic machines, with steel-printed box equipped with a door whose opening is allowed only by disconnected voltage and protection against short-circuits and power overloads. Complete with general magnetothermic safety switch arranged for padlock, double remote control switch, safety relay, transformer 400/24 VAC - 30 VA, n. 2 fuses to protect auxiliary circuits, emergency pushbutton and double start-stop button with voltage warning light and reset button. The max. machine absorption, in Ampère or Kw of 400V must be communicated.



## QGE 01/380

Kit for direct control of simple machines (for example grinding machines). It is composed by: thermoplastic housing with safety three-pole switch, minimum voltage coil (24 VAC) – not suitable for connection with possible micro-switches of safety guards and/or buttons, as it has no circuit at very low voltage (24 VAC).



# ELECTRICAL PANELS WITH MOTOR BRAKE

Electrical panels in different configurations. Designed to be used on machines without electromechanical brake or which, in any case, require fast stopping times of moving parts. The electronic device for engine braking with DC input (exclusive Tecno Più), these panels are equipped with, continually checks the activation of the engine ignition contactor. When this control changes from ON into OFF, the device starts to operate by braking the motor (whose time and intensity can be adjusted by the trimmer placed on the device itself. The minimum safety requirements, as for other panels in our catalogue, remain unchanged.

Complete with 24 VAC extra low voltage circuit, for a safe connection of any external control and protection devices such as a pushbutton panel and/or safety guards microswitches.



## QGE 20

Kit for generic machines consisting of a metal box equipped with a door. Opening is allowed only when voltage is switched off, provided with protection against short circuits and power overloads. Complete with general magnetothermic safety switch with sensitivity to phase failure, arranged for padlock, n. 2 contactors, transformer 400/24 VAC, electronic device for engine braking with DC input (exclusive Tecno Più) n. 4 fuses, emergency pushbutton and double start-stop button with engine start indicator light, voltage warning light. Communicate the maximum absorption of the machine in Ampere or KW at a voltage of 400 V.



## QGE 21

Kit for small machines (e.g. grinders, belt sanders or cutting-off machines), in die-cast aluminium box. Complete with general switch, n. 2 contactors, 400/24 VAC transformer, electronic device for engine brake with DC input (exclusive Tecno Più), n. 4 fuses, double emergency pushbutton and start-stop button with engine start indicator light and voltage warning light. *Maximum output power = 5 kW.*



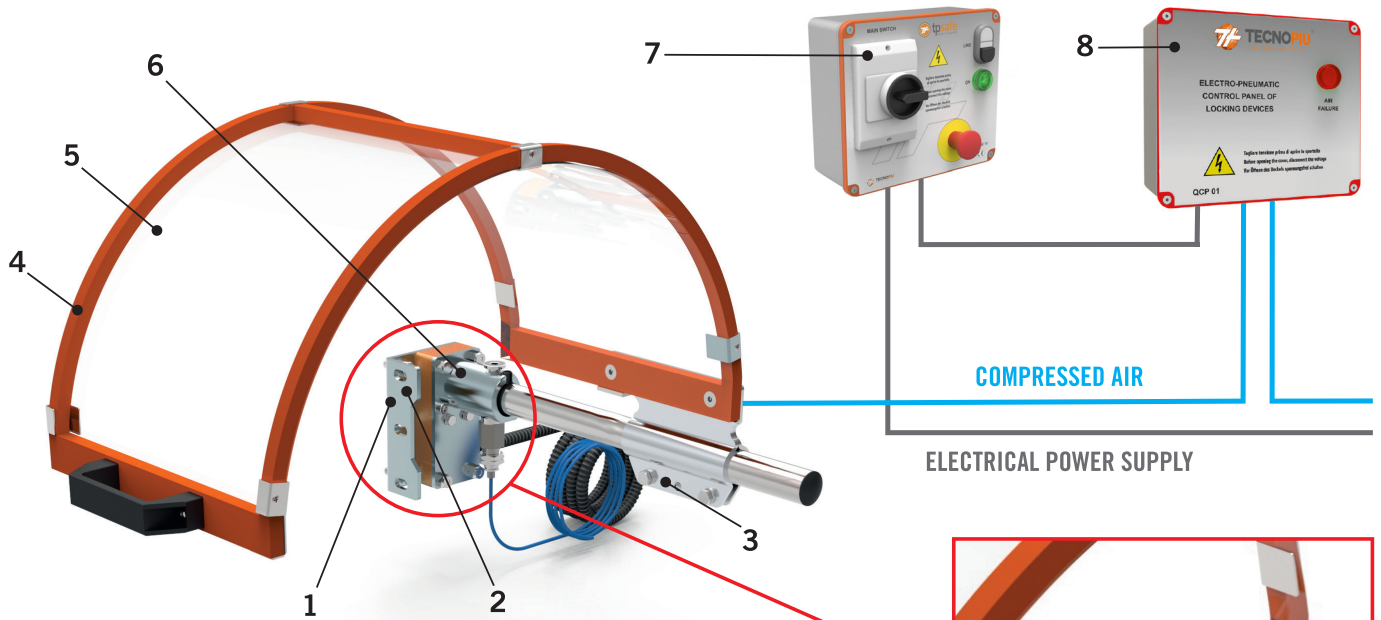
## QGE 22

Kit for small machines (e.g. grinders, belt sanders, drilling machines or drilling milling machines, cutting-off machines), in die-cast aluminium box. Complete with general switch, n. 2 contactors, safety thermic relay with automatic reset, 400/24 VAC transformer, electronic device for engine brake with DC input (exclusive Tecno Più), n. 4 fuses, double emergency pushbutton and start-stop button with engine start indicator light and voltage warning light. *Maximum output power = 5 kW.*

With more and more restrictive rules coming in the field of machine safety, security systems and safety guards are characterized by the use of increasingly advanced systems. In this context Tecno Più designs and manufactures its own customized products and a continuous restyling of its own range. The safety level of the system is ensured by a mechanical/pneumatic locking device on rotating pin.

The system USES two power sources: electrical power supply, from the electrical panel, which controls the machine and the safety electromechanical systems and the compressed air, which operates the pneumatic lock actuator through the electropneumatic logical control panel **QCP01** and **QCP02**. The electrical interlock device allows start-up of the machine only when safety guard is closed.

The mechanical locking device, by means of a pneumatic actuator, allows the guard to be closed until the end of a potential dangerous event like, for example, a rotating spindle.



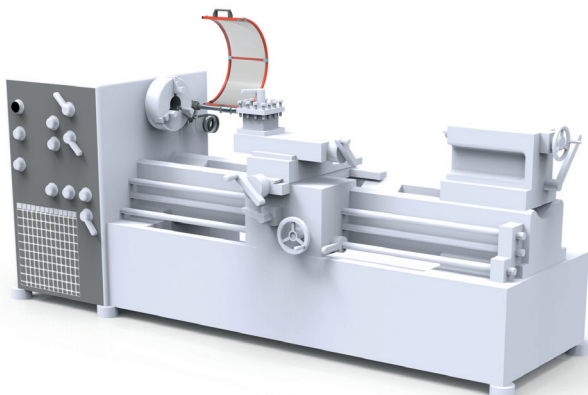
1. Frontal and lateral anchorage stirrup
2. Safety microswitch main box – 90° rotation – n. 2 NC contacts
3. Shield connection clamp with support arm – in pressed steel
4. Shield structure in tubular steel
5. Thermo-shaped shield – in shockproof and oil-resistant plastic material
6. Pneumatic locking device of rotation system
7. Power supply and control panel (existing)
8. Electro-pneumatic control panel of locking device

Available for

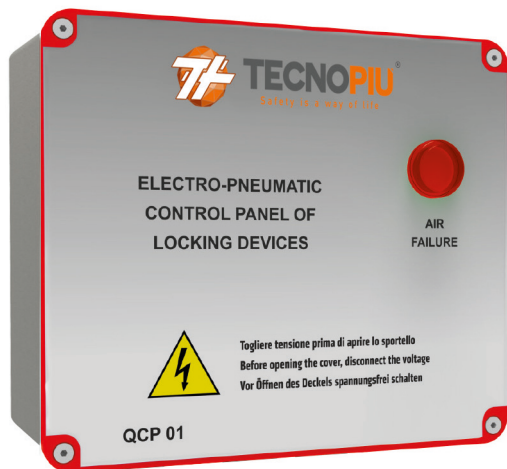
- Lathe
- Drilling machine
- Milling machine
- Customized safety guards

The mechanical locking device, by means of a pneumatic actuator, allows the guard to be closed until the end of a potential dangerous event like, for example, a rotating spindle.

The electrical interlock device allows start-up of the machine only when safety guard is closed.







## QCP 01

Pneumatic control panel for a safety guard locking device which stops the rotating axis. Guard can only be opened when machine is at stop.

Provided with a security check which, should air supply fail, prevents the machine from working and shows a malfunction of the system with a warning light on the front panel.

It can be used with additional alarms, sounders or flashing beacons which can be placed where required.



## QCP 02

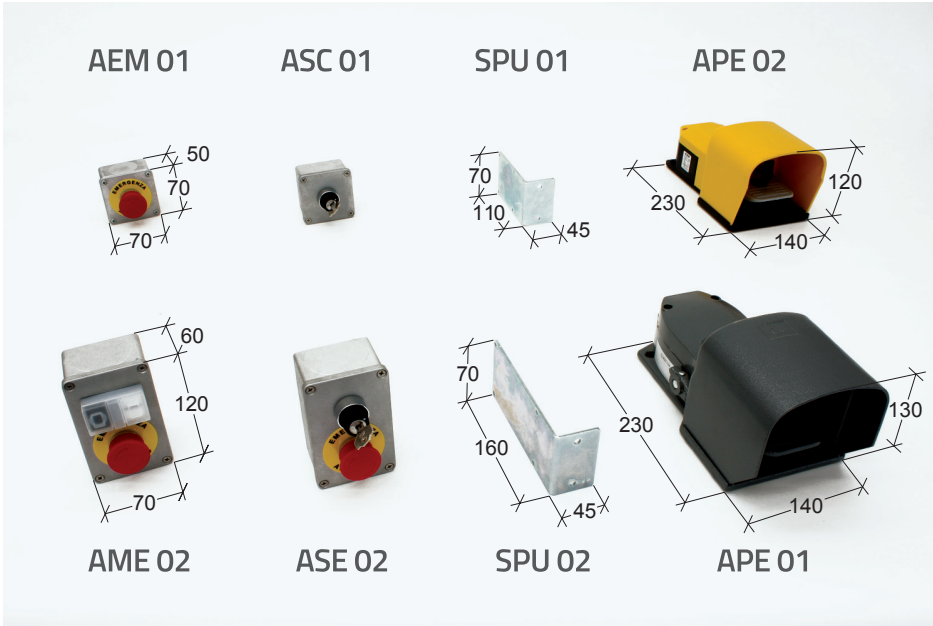
Pneumatic control panel of the locking system of the rotation axis for the safety guards having rotating opening in relation to the potential difference of the motor phases.

The system allows the opening of the guard only when the rotor is completely stopped and it has a safety control which, should air supply fail, prevents the machine from operating by signaling the malfunctioning of the system with a warning light on the front panel.

It is equipped with a reset device (lighted push button) on the front panel, for restarting the control module in case of temporary malfunctionings.

It is preset with additional warning lights, acoustic and visual ones, to be positioned where necessary.

## ELECTRICAL CONTROL DEVICES



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 stirrup.

**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.

## ELECTRICAL SAFETY DEVICES



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").



## R04 LITHE



Lithe is a fast assembly perimeter protection consisting of mesh panels 100x22x3 mm. and of profiles made of painted aluminium, exclusive TP-REX design, and painted steel tubular uprights 50x50 mm section equipped with exclusive baseplates whose height can be adjusted for small arrangements (supplied already pre-assembled).

The exclusive TP-REX assembly system, in case of need, allows easy removal of the panel simply by loosening the locking system, by acting on a simple nut and leaving the uprights in their position. The system is absolutely flexible, as it allows the construction of panels of non-standard dimensions and contains costs as it is completely free of any welding.



## R05 FLASH



R05 FLASH is a perimetral protection with a particular assembly system that combines toughness and low cost thanks to reduction of weldings and great versatility of the whole system. R05 FLASH is made of mesh panels 22x100x3, uprights 40x40 prearranged to insert the mesh and the use of adjustable telescopic tie-rods (patented).

FLASH system is designed to combine at the same time low cost, versatility and easy installation. Mesh panels are opportunely pre-shaped and they are inserted inside the slits of the posts. The panel strain is ensured by the position of the adjustable telescopic tie-rods.



[see our online catalogue!](#)



LAMBDA System consists of panels made of sheet metal, polycarbonate and metal + polycarbonate together which are essential to protect dangerous perimetrical areas as well as the operator from projection of flying chips or small parts. In order to create compound perimetral safety systems, LAMBDA panels are fully compatible with SWIFT and FLASH systems.

This system, available in two different heights, 1800 and 2000 mm, does not need uprights. The baseplate (patented) is easy to insert directly in the self-bearing panel.



**R07 LAMBDA SHEET**

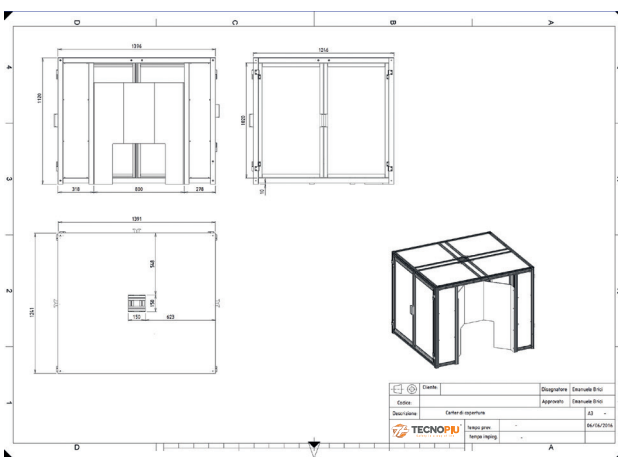
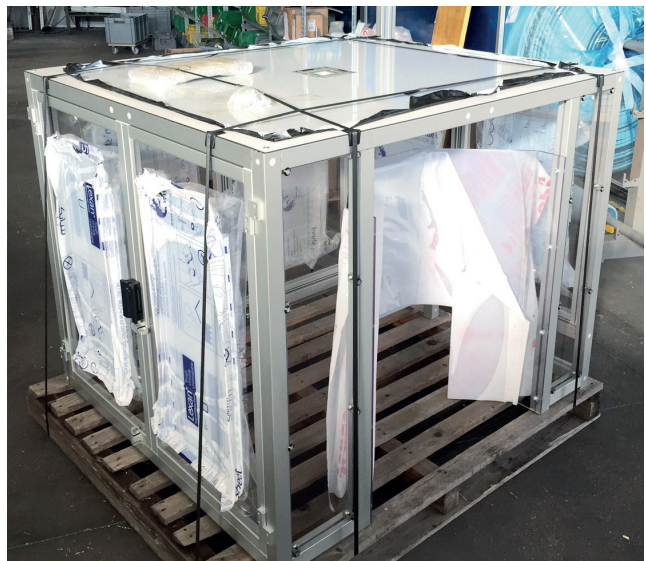
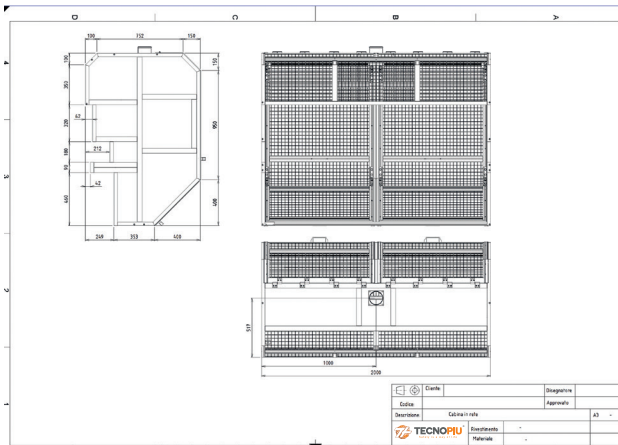


**R07 LAMBDA POLYCARBONATE**



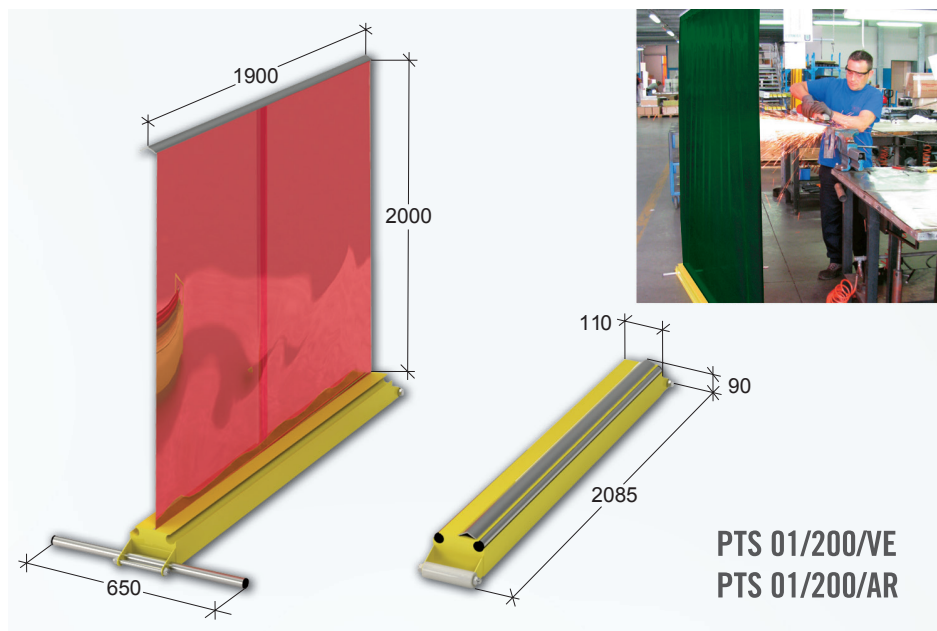
**R07 LAMBDA SHEET + POLYCARBONATE**

Tecno Più produces safety systems and customized guards for special machines, made of extruded aluminium profile and anti-shock plastic material, steel-metal or net. Design, if not provided directly, is developed in cooperation with the customer to meet any requirement, from the easiest to the more complex one.



Tecno Più Team, from the designer to the assembler, is constantly seeking the best possible solutions to satisfy, successfully, all single request submitted.

## PROTECTION SCREEN FOR WELDING AND GRINDING STATIONS



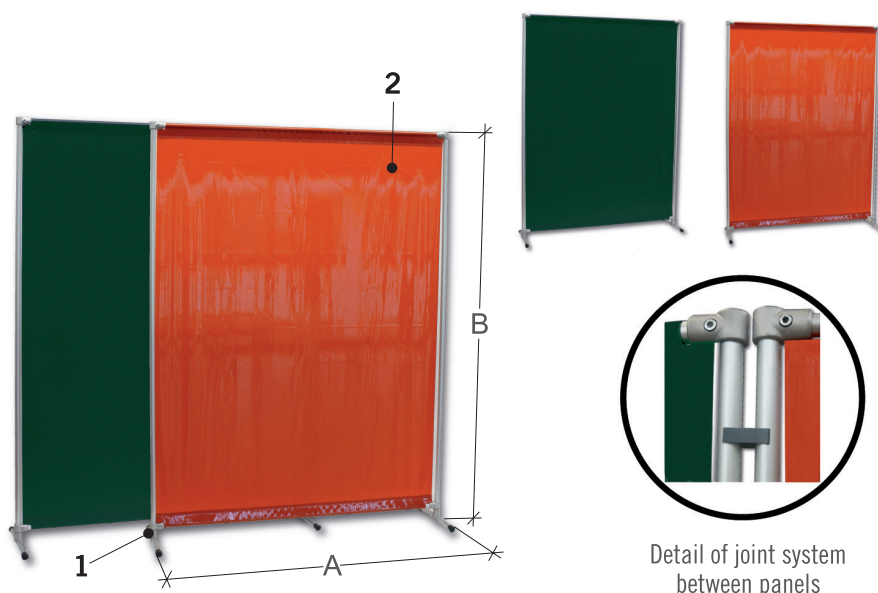
Weld Screen offers protection to personnel close to welding and grinding work areas.

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.

REFERENCE STANDARD  
UNI EN 1598

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

## SEPARATION PANEL FOR WELDING AND GRINDING STATIONS



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 sheet 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.

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

REFERENCE STANDARD  
UNI EN 1598

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

## Our catalogues



TECNO PIÙ group



Catalogues can be downloaded in the [PRODUCTS](#) page on our website [www.tecnopiu.it](http://www.tecnopiu.it)



**REMARKS / MAINTENANCE**

A large rectangular area with a light gray background, containing numerous horizontal dashed lines for writing.



A large rectangular area with a light gray background, containing numerous horizontal dashed lines for writing.

**REMARKS / MAINTENANCE**

**REMARKS / MAINTENANCE**

A large rectangular area with a light gray background, containing 25 horizontal dashed lines for writing.





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