



tpsafe
SAFETY GUARDS

PMU 08/2023/E catalogue



TECNOPIU[®]
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 motto is "Safety is not a Target, It is a Way of Life", meaning 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 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 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.

TECNO PIÙ TEAM

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.



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Remarks:

1 – The items with “ 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 “ 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).

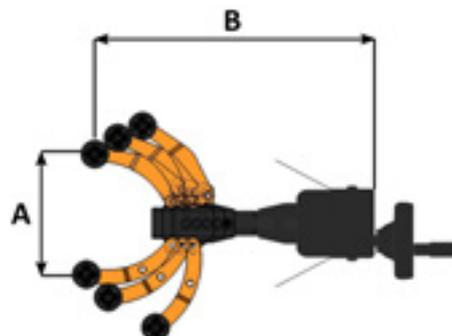
3 – The items with “**EL** available” means they are available also with safety microswitch with separate actuator, with release electromagnet MC E01. Upon request, add the suffix EL at the end of the code (ex. PT020/800/EL).

MANUAL 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.

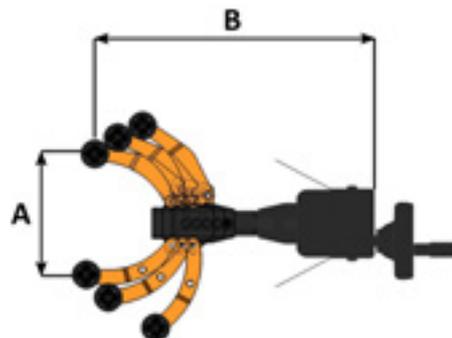
The particular shape of the device and the tension springs allow to sand bars of different diameters. In order to keep always efficient the abrasive side, the belt can be rotated by means of the specific crank. The following device is available in three different sizes with spare abrasive belts of different grit.

>> SBH M10



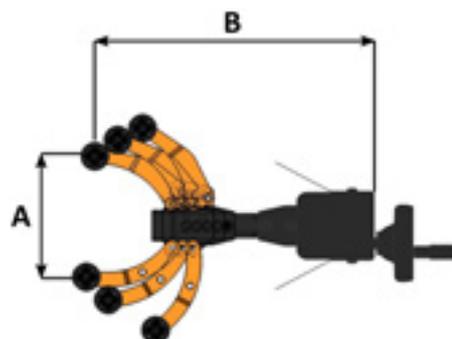
SBH M10	Max. Ø	A	B	Belt	Kg.
Pos. 1	Ø 120	130	295	25 x 762	5,0
Pos. 2	Ø 160	170	280	25 x 762	
Pos. 3	Ø 210	220	260	25 x 762	

>> SBH M20



SBH M20	Max. Ø	A	B	Belt	Kg.
Pos. 1	Ø 220	210	340	50 x 915	5,2
Pos. 2	Ø 220	230	320	50 x 915	
Pos. 3	Ø 260	270	275	50 x 915	

>> SBH M40



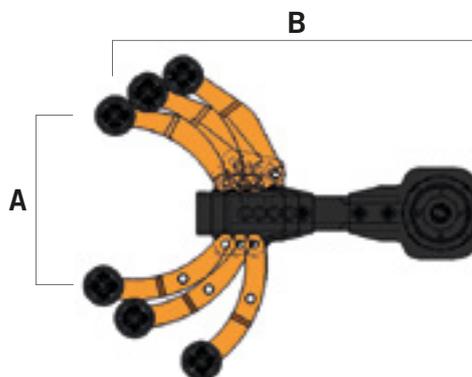
SBH M40	Max. Ø	A	B	Belt	Kg.
Pos. 1	Ø 320	342	480	100 x 1372	9,3
Pos. 2	Ø 370	390	455	100 x 1372	
Pos. 3	Ø 400	460	425	100 x 1372	

»» AUTOMATIC SANDING BELT HOLDER

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, it's particular shape, with three different opening position of the anterior arms of support, allows to sand bars

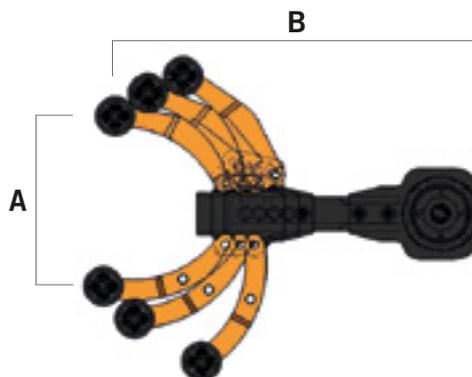
of different diameters. Thanks to the tension springs the belt always adheres in the best way. The perfect efficiency of the abrasive part of the sanding belt is guaranteed by an automatic sliding system (Patented) which exploits the rotating movement of the piece worked. The device is available in two sizes of 25 and 50 mm with different grit.

»» SBH A10



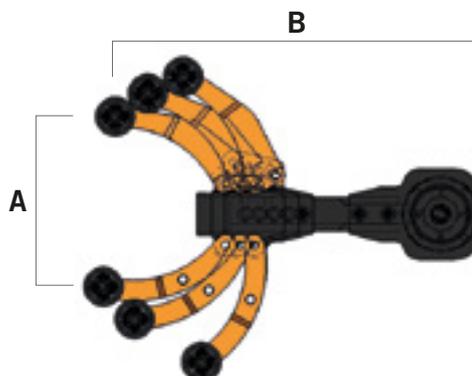
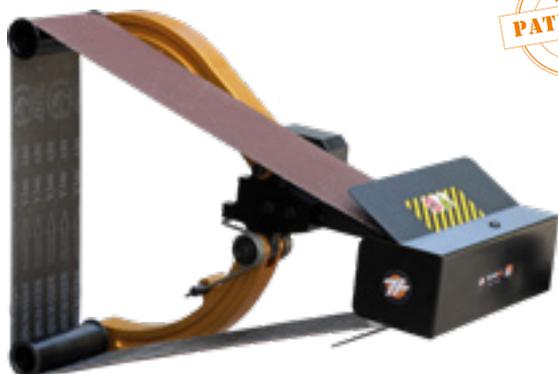
SBH A10	Max. Ø	A	B	Belt	Kg
Pos. 1	Ø 120	130	295	25 x 762	4,7
Pos. 2	Ø 160	170	280	25 x 762	
Pos. 3	Ø 210	220	260	25 x 762	

»» SBH A20



SBH A20	Max. Ø	A	B	Belt	Kg
Pos. 1	Ø 220	210	340	50 x 915	5,0
Pos. 2	Ø 220	230	320	50 x 915	
Pos. 3	Ø 260	270	275	50 x 915	

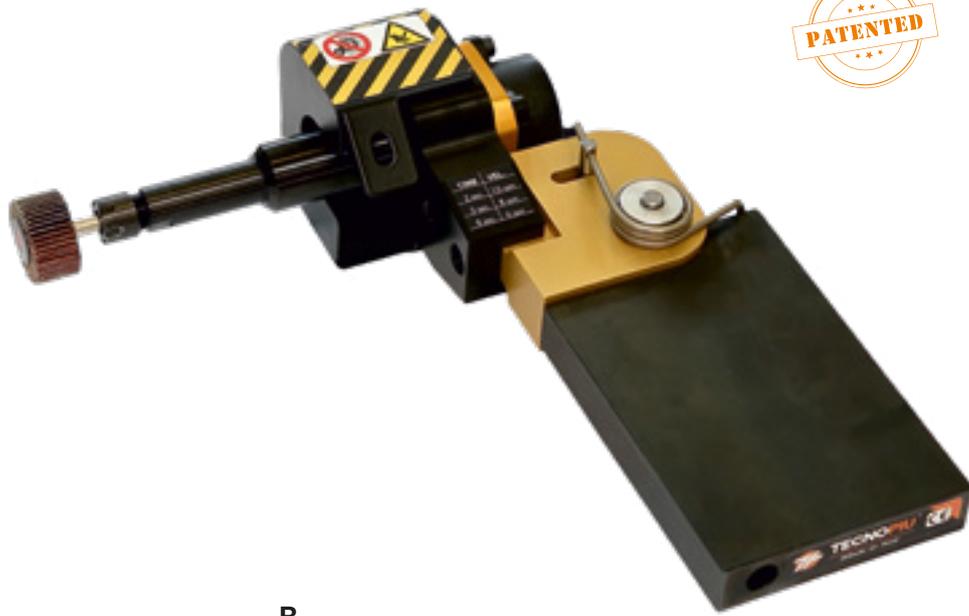
»» SBH A40



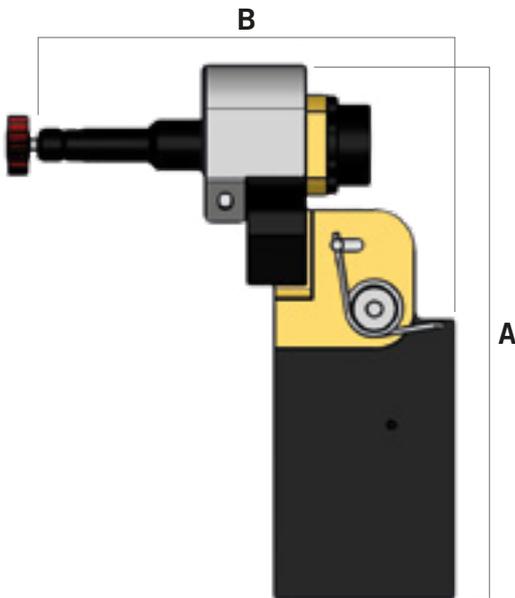
SBH A40	Max. Ø	A	B	Belt	Kg
Pos. 1	Ø 423	423	480	100 x 1372	9,0
Pos. 2	Ø 380	380	455	100 x 1372	
Pos. 3	Ø 342	342	425	100 x 1372	

»» AUTOMATIC SANDING WHEEL HOLDER

»» SWH A01



A new tool for sanding and refining the internal and frontal surfaces of bars for conventional lathes, with automatic movement of the abrasive tool, designed in accordance with ISO 23125: 2015 6.2.1p (prohibition to use hands for machining operations) which replaces, with maximum safety, the same dangerous operation usually performed manually. The device is fixed to the lathe tool case turret and, thanks to the tension spring, the tool always adheres to the surface in an optimal way. The perfect efficiency of the device is guaranteed by an automatic sliding system (patented), which exploits the rotating movement of the workpiece. The device is provided with a tool holder nipper for 6 mm diameter. Supplied with: no. 3 abrasive flaps for internal grinding and no. 2 pads for front grinding.



Code	A	B
SWH A01	207	267

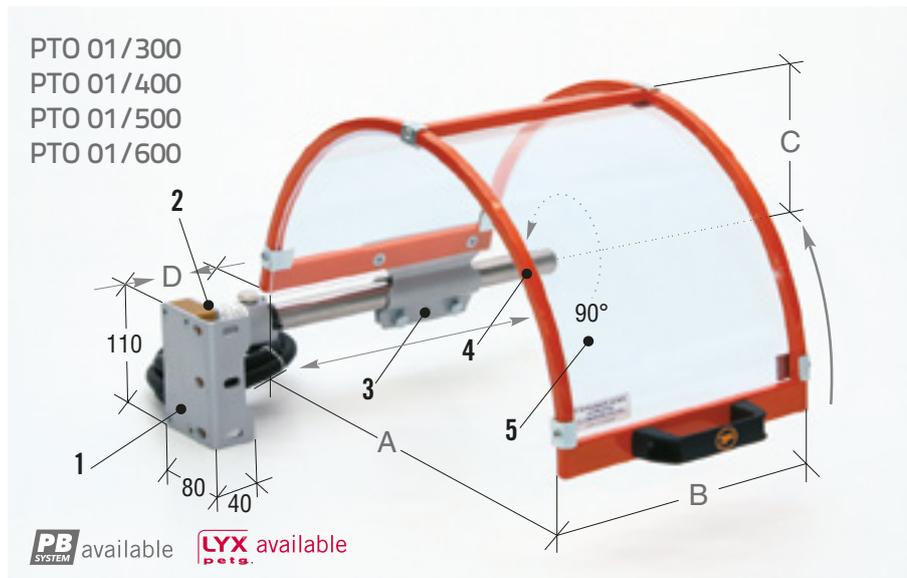


Grinding the inner surface.



Grinding the front surface.

» SAFETY GUARD FOR LATHE CHUCK

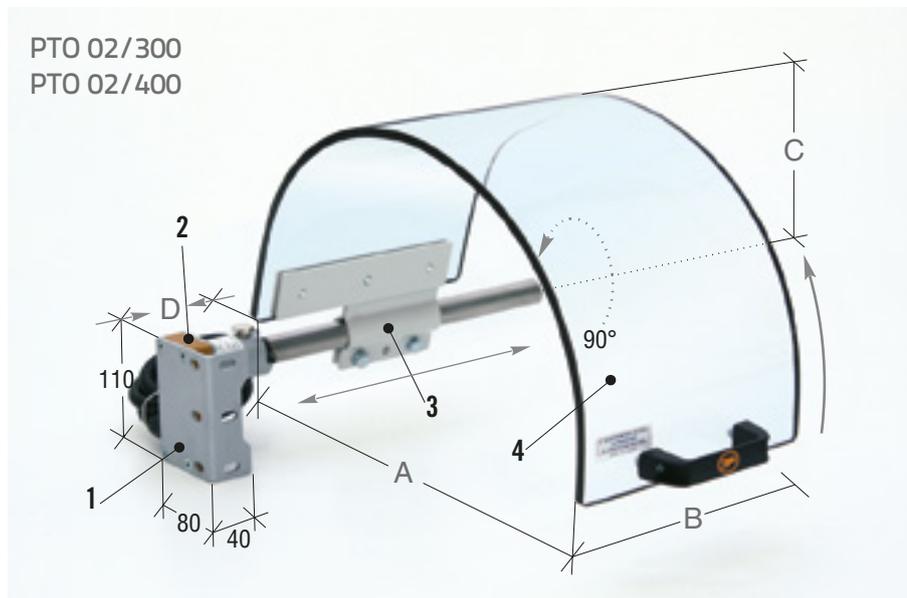


Classic safety guard equipped with steel-framed shield. Positionable until near the machine head. Available in various dimensions.

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.

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

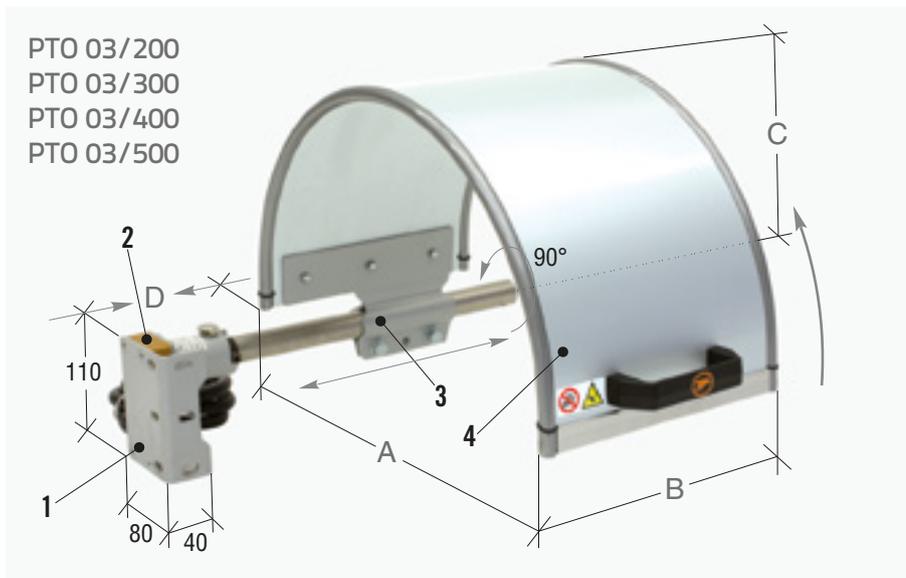


The shield shape makes it ideal to be positioned until near the machine head. Equipped with monolithic shield in plastic material. Available in various dimensions.

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.

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 03/300
PTO 03/400
PTO 03/500

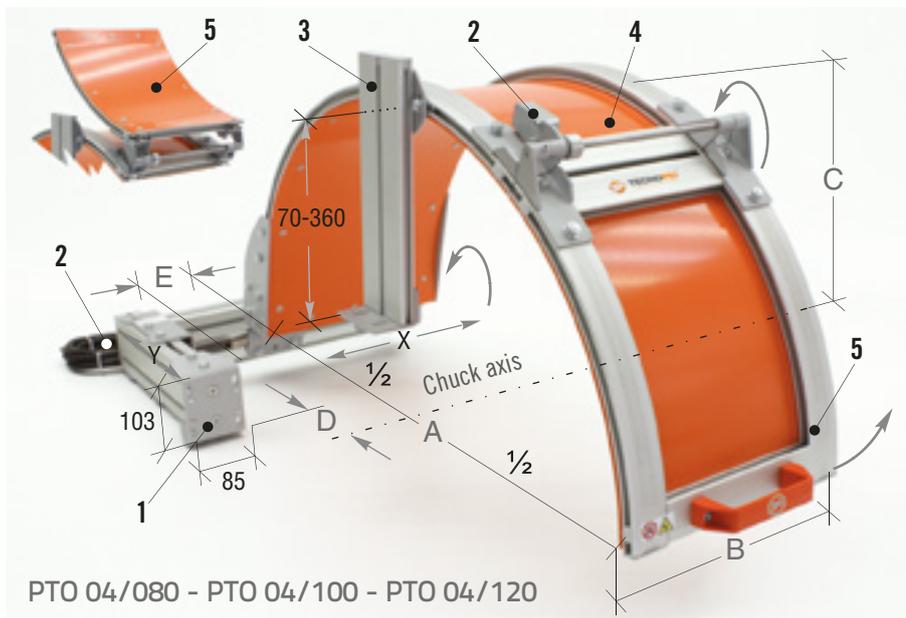
1. Frontal and lateral anchorage stirrup
2. Safety microswitch main box – 90° rotation – n. 2 NC contacts
3. Adjustable shield connection clamp with support arm – in pressed steel
4. Aluminum monolithic shield

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.

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



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

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

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.

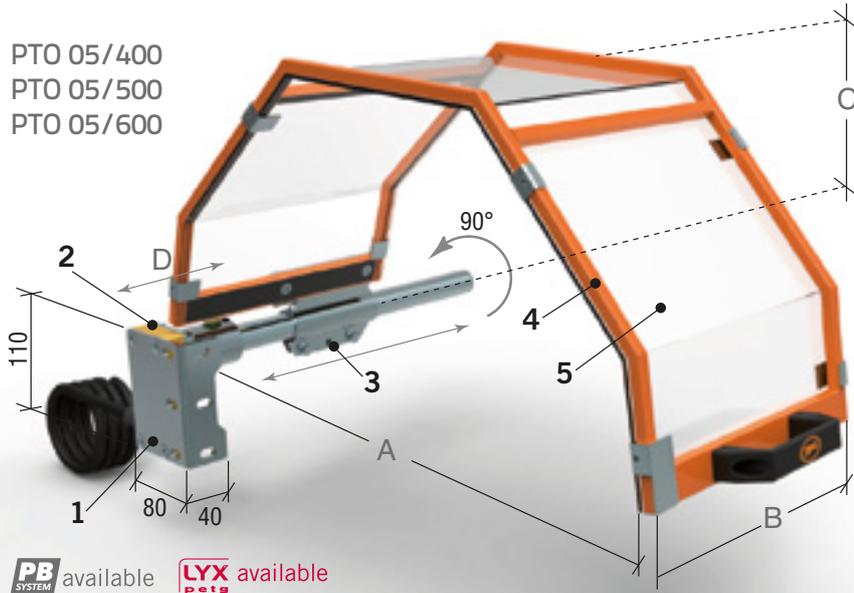
Equipped with semicircular shield, divided into two sections to allow opening of only the front side (point 6) or total opening, overturning it completely towards the back.

Complete with double safety microswitch.

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



PB SYSTEM available **LYX** PETS available

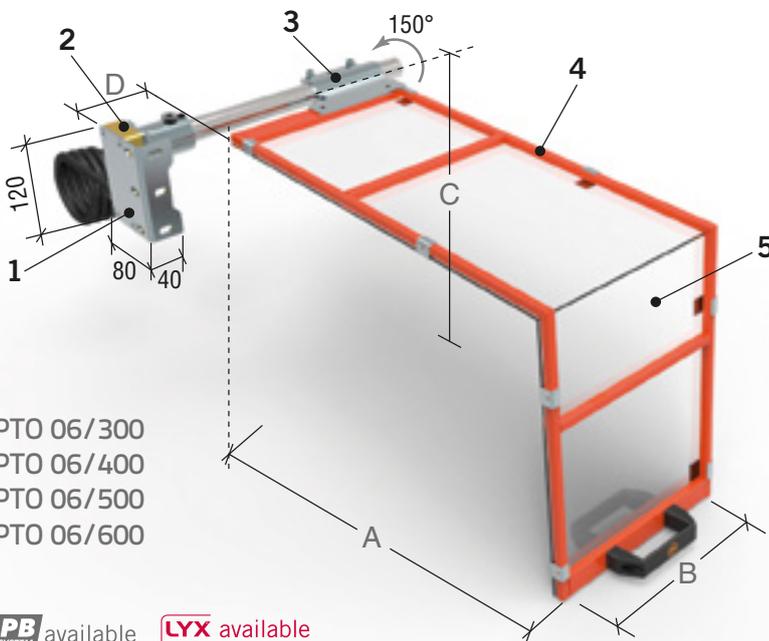
1. Frontal and lateral anchorage stirrup
2. Safety microswitch main box – 90° rotation – n. 2 NC contacts
3. Shield connection clamp with support arm – in pressed steel
4. Shield structure – in tubular steel
5. Shield – in shockproof and oil-resistant plastic material

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.

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

PB SYSTEM available **LYX** PETS available

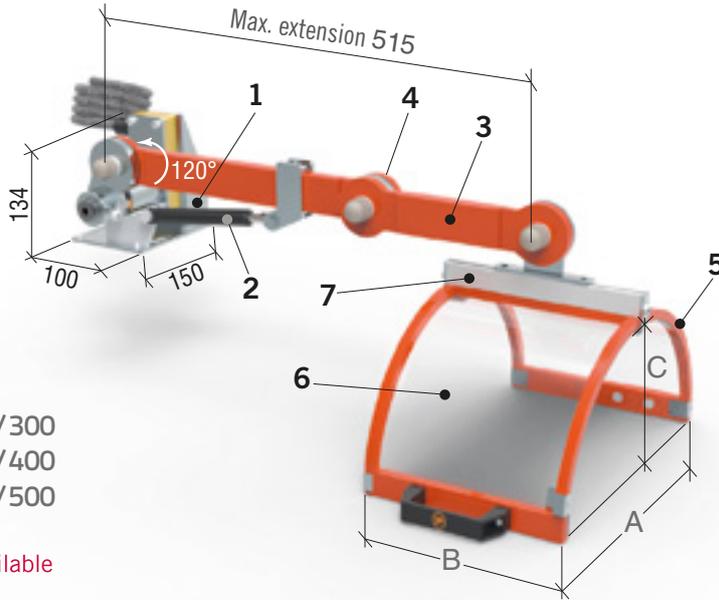
1. Frontal and lateral anchorage stirrup
2. Safety microswitch main box – 90° rotation – n. 2 NC contacts
3. Shield connection clamp with support arm – in pressed steel
4. Shield structure – in tubular steel
5. Shield – in shockproof and oil-resistant plastic material

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.

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

LYX 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.

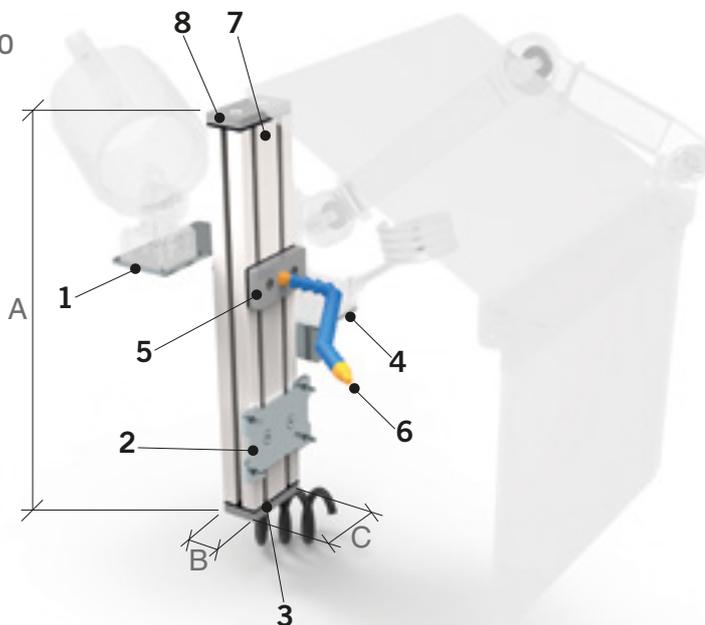
Protects the operator from direct contact with rotating lathe chuck and from lubricant coolant projection. Equipped with semicircular shield, adjustable up to the machine head.

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



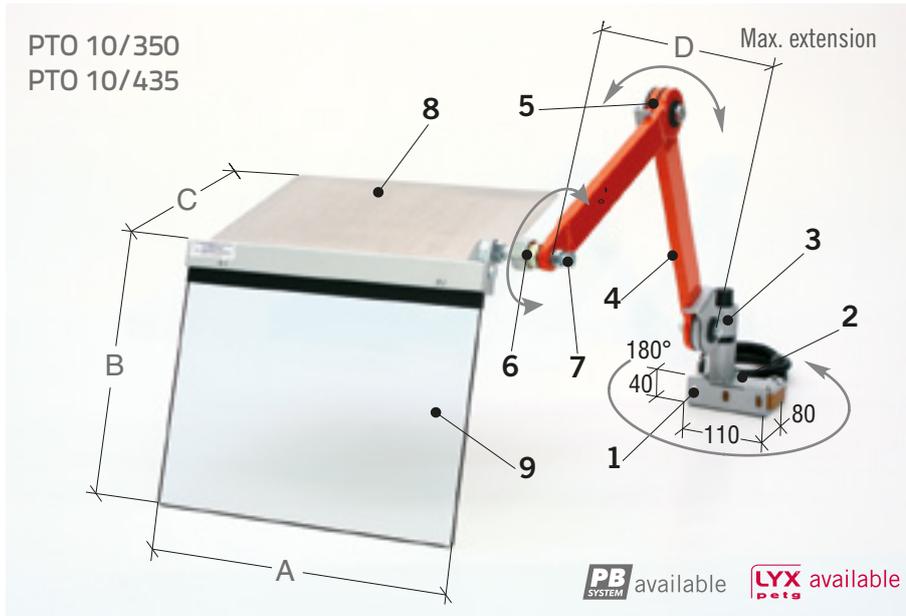
1. Lamp support
2. Adjustable fixing plate
3. Lubricant-coolant input flange
4. Operator guard angular support
5. Lubricant-coolant output flange
6. Lubricant-coolant flexible dispenser
7. Structural aluminum profile with internal conduit for lubricant-coolant
8. Aluminum plug with gasket

Attachable behind the longitudinal carriage, the column, whose height can be adjusted for a better configuration, is made of aluminum 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



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.

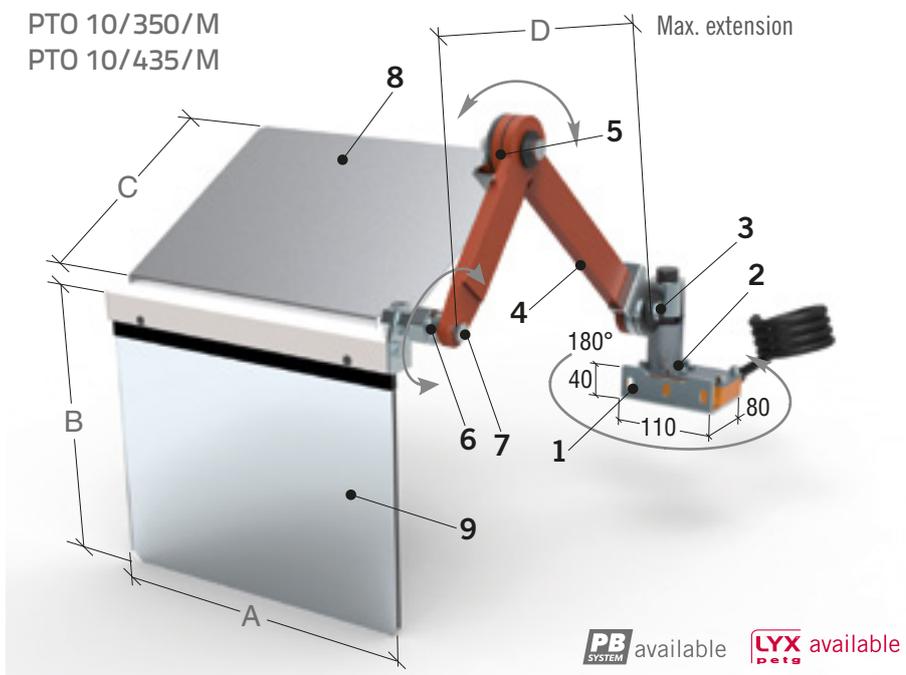
Complete with safety microswitch.

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

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 aluminum
9. Shield – in shockproof and oil resistant plastic material

Code	A	B	C	D	Kg
PTO 10/350	350	300	280	650	5,6
PTO 10/435	400	350	310	650	7,0

» LATHE CARRIAGE SAFETY GUARD



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 or to the PTO 09 support. 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.

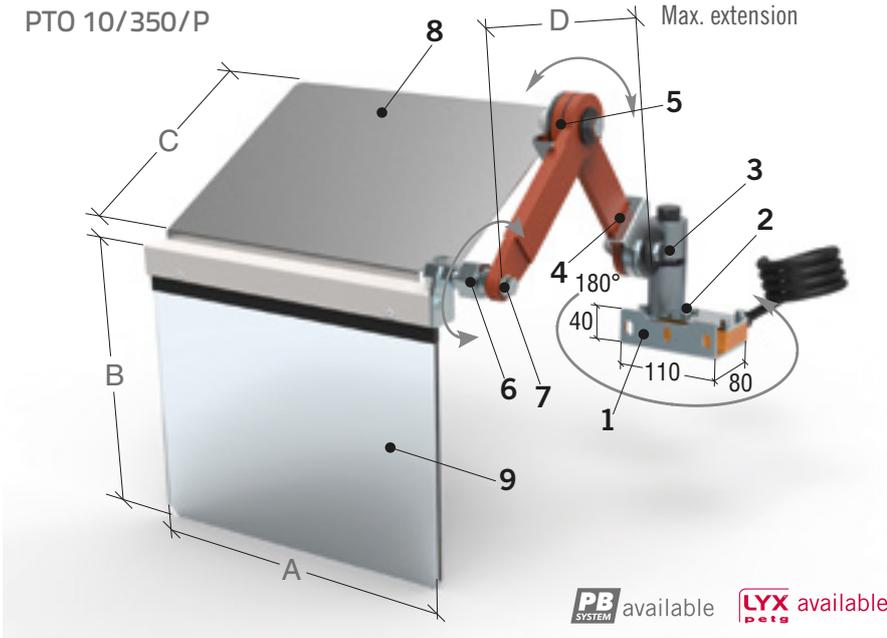
- Available accessories: PMG 60/185 - PBA 01/190 - PBA 01/325 - PBA 02/325.

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 aluminum
9. Shield – in shockproof and oil resistant plastic material

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

» LATHE CARRIAGE SAFETY GUARD

PTO 10/350/P



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 or to the **PTO 09** support. 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.

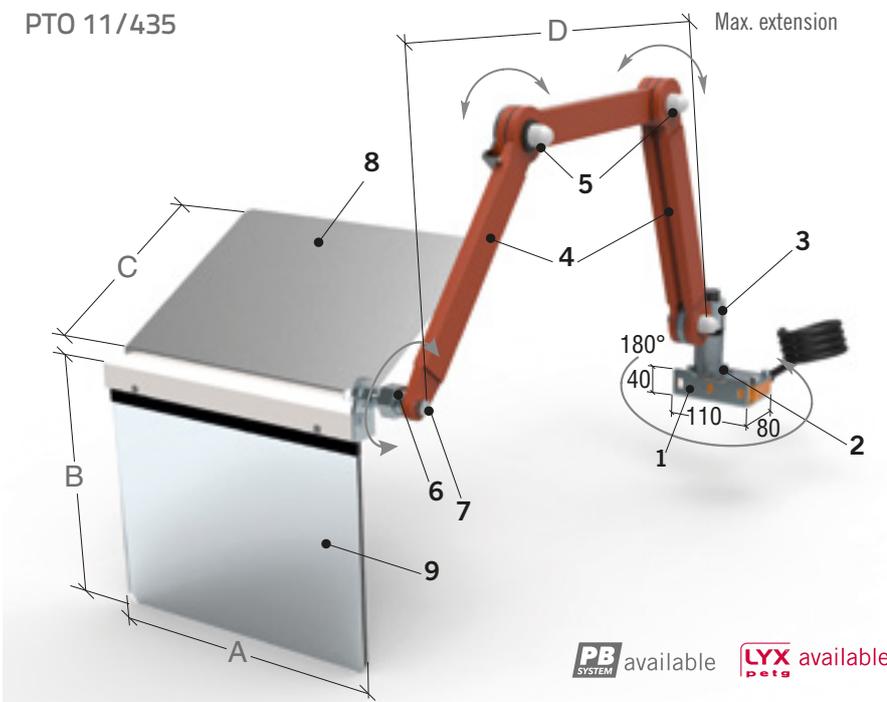
- Available accessories: **PMG 60/185** - **PBA 01/190** - **PBA 01/325** - **PBA 02/325**.

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 aluminum
9. Shield – in shockproof and oil resistant plastic material

Code	A	B	C	D	Kg
PTO 10/350/P	350	300	280	380	5,4

» LATHE CARRIAGE SAFETY GUARD

PTO 11/435



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 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.

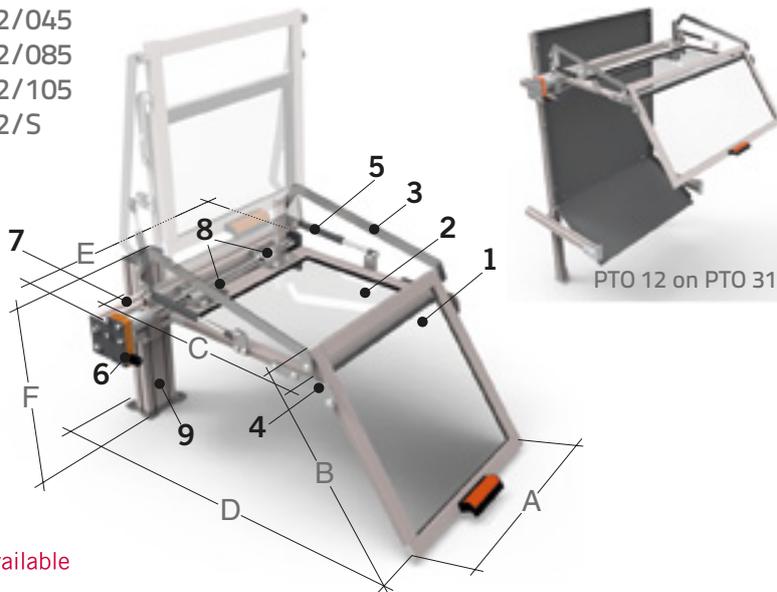
- Available accessories: **PMG 60/185** - **PBA 01/190** - **PBA 01/325** - **PBA 02/325**.

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 aluminum
9. Shield – in shockproof and oil resistant plastic material

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

» LATHE CARRIAGE SAFETY GUARD

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



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

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

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

Thanks to its anchoring base adjustable all along the axis of the shield support, the guard can be mounted in the rear side of the longitudinal carriage or directly on it.

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

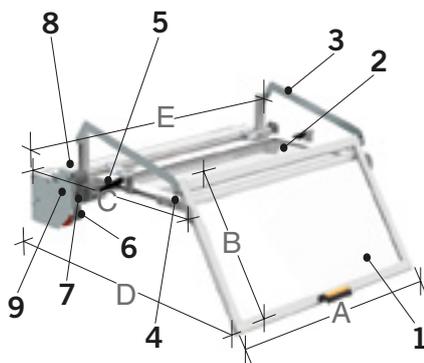
- **Important:** when assembled on rear safety guard **PTO31**, specify the complete code. **Example: PTO 12/085** safety guard with shield L.850 mm with supporting profile for **PTO 31/120**

- **Complementary items:** **PTO 31/080 - PTO 31/120 - PTO 31/160 - PTO 31/200.**

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

» SLIDING SAFETY GUARD FOR LATHE

PTO 13/065
PTO 13/085



PTO 13 on PTO 31



PTO 13 on SPTO 13/080
PTO 13 on SPTO 13/120

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 aluminum, with sliding system composed from tempered and rectified steel guides-bearings, placed in protected internal position
9. Antirotation mechanical lock

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 aluminum 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.**

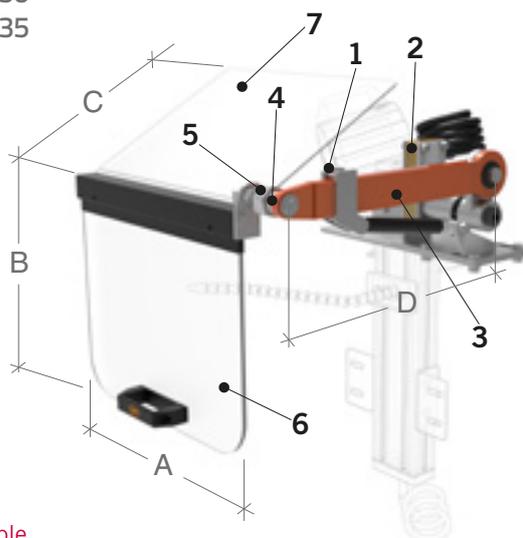
- **Complementary items:** **PTO 31/080, PTO 31/120, SPTO 13/080.**

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

Code	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	...	...

» LATHE CARRIAGE SAFETY GUARD

PTO 14/350
PTO 14/435



LYX available
PETS

1. Anchorage stirrup
2. Safety microswitch – n. 2 NC contacts
3. Articulated arm – in tubular steel
4. Ball and socket joint release screws
5. Ball and socket joint for shield orientation
6. Shield – in shockproof and oil resistant plastic material
7. Upper anti-shaving partition – in shockproof and oil resistant plastic material

Vertical opening safety guard with single arm equipped with gas spring to protect the operator during working operations.

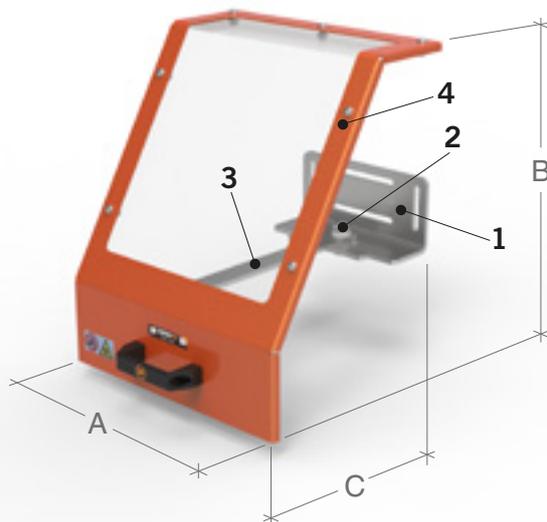
Protects the operator from direct contact with rotating components of the chuck and from the projection of shavings and lubricant-coolant. Attachable to **PTO 09** or a similar support to be positioned on the longitudinal carriage. The shield, with upper anti-shaving partition made of transparent plastic material, thanks to the articulated arm and the particular ball socket joint is completely adjustable in the best operating position. Complete with safety microswitch.

- Complementary items: **PTO 09**.

Code	A	B	C	D	Kg
PTO 14/350	350	300	280	320	6,4
PTO 14/435	400	350	310	320	6,7

» LATHE CARRIAGE SAFETY GUARD

PTO 15/350
PTO 15/450



LYX available
PETS

1. Steel anchorage stirrup
2. Rotation pin
3. Arm – made of steel
4. Shield – in aluminum and shockproof, oil resistant plastic material

Swinging opening safety guard with single arm for the operator protection during working. Not equipped with microswitch.

Protects the operator from direct contact with rotating components of the chuck and from the projection of shavings and lubricant-coolant. Attachable in front of the longitudinal carriage. The shield is completely adjustable and, thanks to its configuration, allows the perfect view of the workpiece also from above.

Code	A	B	C	Kg
PTO 15/350	300	400	250	6,0
PTO 15/450	400	400	250	7,0

» LATHE CARRIAGE SAFETY GUARD

PTO 16/350
PTO 16/450



LYX available
parts

1. Steel anchorage stirrup
2. Rotation pins
3. Arms – made of steel
4. Shield – in aluminum and shockproof, oil resistant plastic material

Swinging opening safety guard with double arm for the operator protection during working. Protects the operator from direct contact with rotating components of the chuck and from the projection of shavings and lubricant-coolant. Attachable in front of the longitudinal carriage. The shield is completely adjustable and, thanks to its configuration, allows the perfect view of the workpiece also from above.
Without safety microswitch.

Code	A	B	C	Kg
PTO 16/350	300	400	250	6,0
PTO 16/450	400	400	250	6,5

» LATHE CARRIAGE SAFETY GUARD

PTO 17/350
PTO 17/450



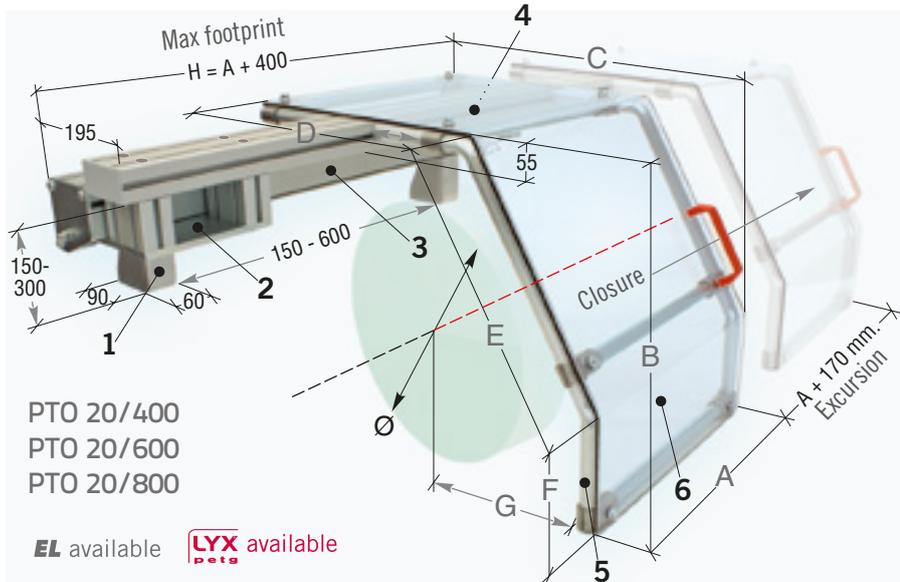
LYX available
parts

1. Steel anchorage stirrup
2. Rotation pins
3. Arms – made of steel
4. Shield – in aluminum and shockproof, oil resistant plastic material
5. Safety microswitch – n. 2 NC contacts

Swinging opening safety guard with double arm for the operator protection during working. Protects the operator from direct contact with rotating components of the chuck and from the projection of shavings and lubricant-coolant. Attachable in front of the longitudinal carriage. The shield is completely adjustable and, thanks to its configuration, allows the perfect view of the workpiece also from above.
With safety microswitch.

Code	A	B	C	Kg
PTO 17/350	300	400	250	6,0
PTO 17/450	400	400	250	6,5

» SLIDING SAFETY GUARD FOR LATHE



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.

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

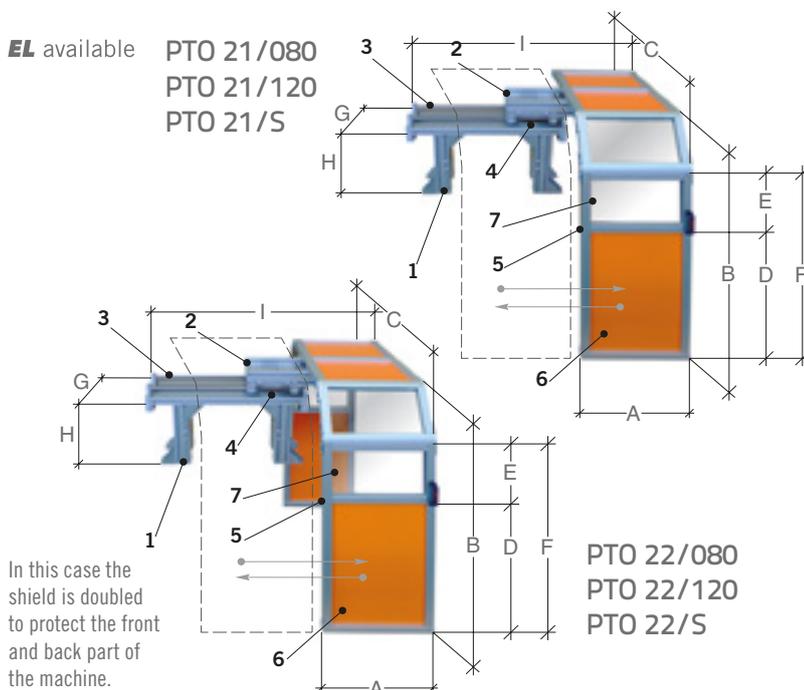
EL available **LYX** available

1. Anchorage stirrup with wide vertical adjustment
2. Sliding mobile protection support carriage
3. Auto-carrying guide – in extruded aluminum, 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 aluminum
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

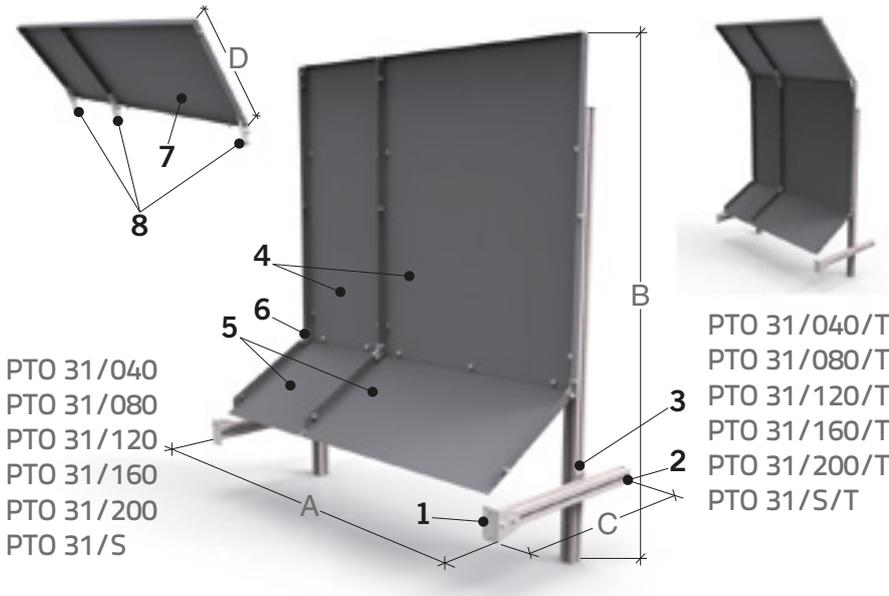
Sliding shield for big dimension lathe, designed to be fixed on the machine head and on the ground, making the whole structure of the guard stable.

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 aluminum 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 aluminum frame
6. Steel-sheet protection panel
7. Polycarbonate transparent protection shield

Code	A	B	C	D	E	F	G	H	I	
PTO 21/080	PTO 22/080	550	1000	1000	518	282	800	300	390-590	930-1490
PTO 21/120	PTO 22/120	550	1500	1400	918	282	1200	300	390-590	930-1490
PTO 21/S	PTO 22/S	...	...	...	...	...	...	...	...	...

» REAR SAFETY GUARD FOR LATHE



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 aluminum 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 **PT012/...**

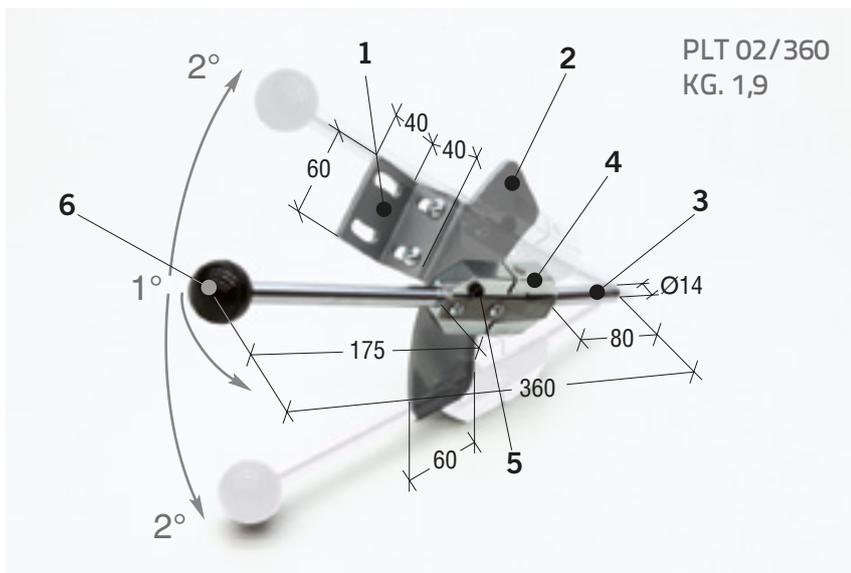
- **Important:** the installation with safety guard **PT012** is not compatible with assembly of roof **PT031/.../T**.

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

1. Anchorage stirrup
2. Adjustable supporting arms – in aluminum 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	...

» LATHE SAFETY LEVER



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.

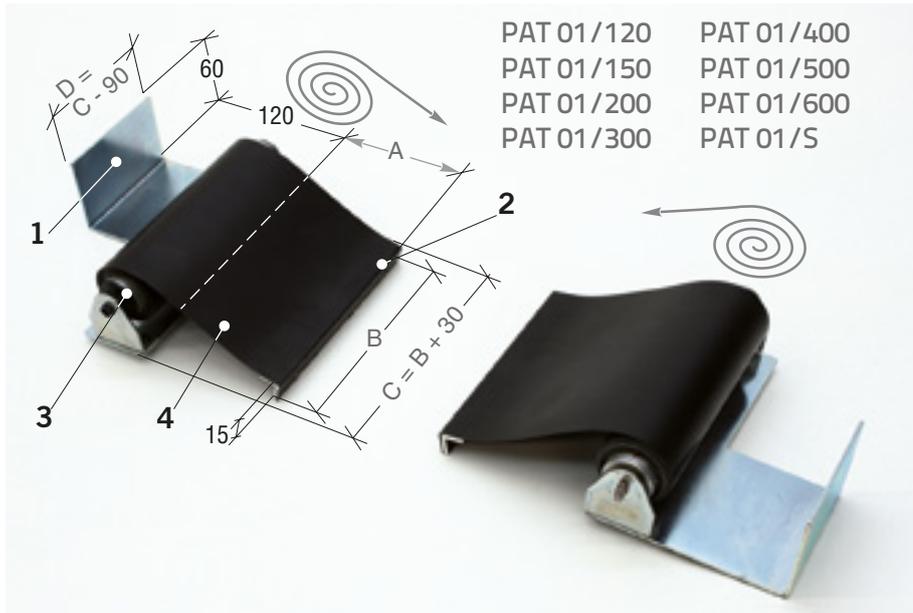
Allows the activation of chuck rotation, performing a forced “double movement” manoeuvre. Suitable for installation on machines with one or two levers. Provided in a single piece, to replace only one of the two original machine levers, normally identified as the most frequently used one, while the original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

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

» ROLL-UP SAFETY GUARD FOR LATHE ADVANCING BARS



1. Base-side angular anchorage stirrups – in pressed steel
2. Carriage-side angular anchorage stirrups – in aluminum
3. Self-sliding roll – in steel and aluminum
4. Protective ribbon – in TEMAT 202 technical thread

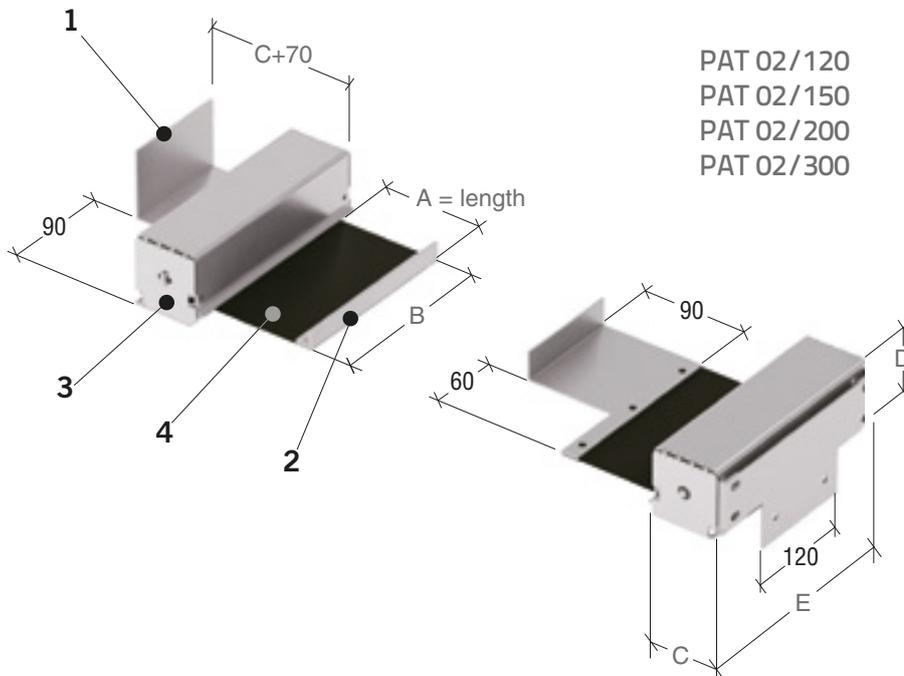
Roll-up safety guard for lathe advancing bars. Made from two units of self-roll up rolls, with tear and oil-resistant thread. Designed for protecting the operator from the machine advancing bars.

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

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

Code	A	B	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	10,0
PAT 01/500	5000	350	
PAT 01/600	6000	400	
PAT 01/S	...	...	...

» ROLL-UP SAFETY GUARD FOR LATHE ADVANCING BARS



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

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.

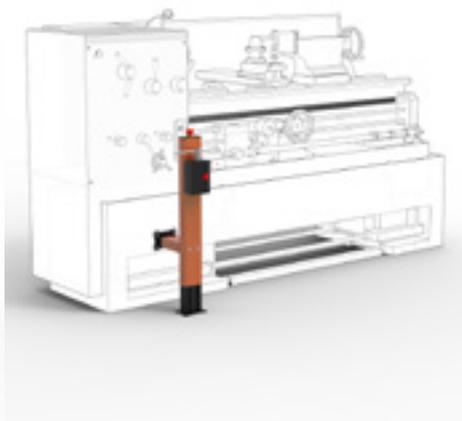
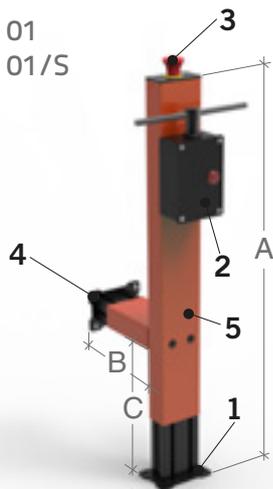
Item created for the frontal “segregation” of the lathe mother screw and the advancing bars. Protects the operator from direct contact with moving parts and avoids the possibility of “snagging” of work garments. Made from two units to fix to the two extremities of the longitudinal carriage, equipped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

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

» CKH - CHUCK KEY HOLDER

CKH 01
CKH 01/S



1. Floor fixing iron plate
2. Box with inductive sensor and led warning light
3. Emergency pushbutton
4. Iron plate for machine connection
5. Aluminum telescopic profile – orange RAL2004

This device allows the key of the lathe spindle to be placed safely.

It can be secured on the ground and on the machine. Equipped with housing for the spindle key and inductive sensor which prevents the lathe motor to start when the key is not in.

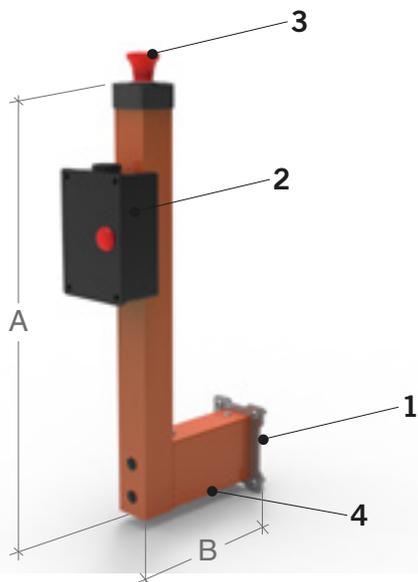
Also provided with an emergency pushbutton and warning light for key absence.

The item is supplied complete with a bushing kit (kit consisting of three bushings: Ø10mm, Ø12mm and Ø14mm).

Code	A	B	C	Kg
CKH 01	700-830	150-210	150-280	8,2
CKH 01/S	...	...	...	...

» CKH SLIM - CHUCK KEY HOLDER

CKH 02
CKH 02/S



1. Iron plate for machine connection
2. Box with inductive sensor and led warning light
3. Emergency pushbutton
4. Aluminum telescopic profile
5. Aluminum telescopic profile – orange RAL2004

This device allows the key of the lathe spindle to be placed safely.

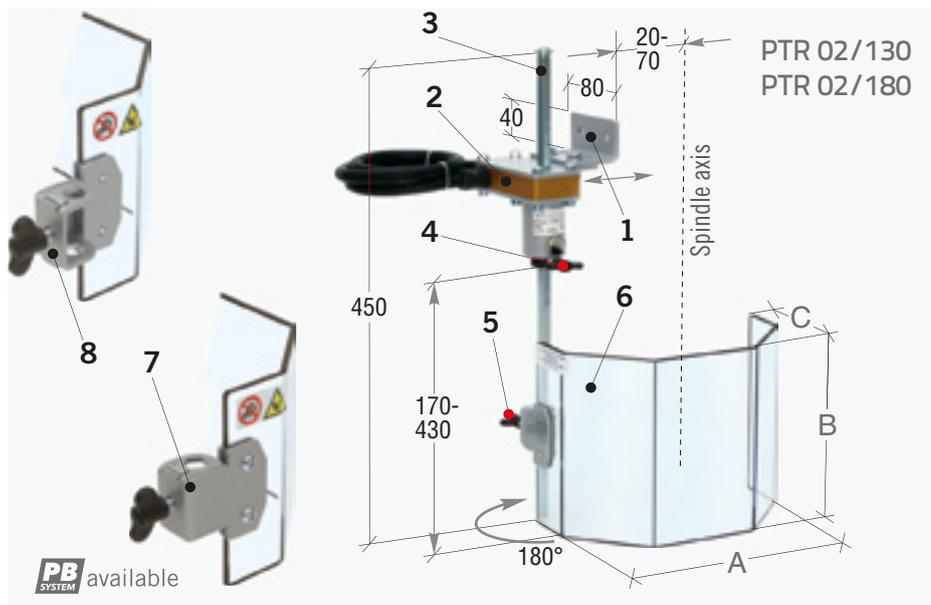
It can be secured only on the machine. Equipped with housing for the spindle key and inductive sensor which prevents the lathe motor to start when the key is not in. Also provided with an emergency pushbutton and warning light for key absence.

The item is supplied complete with a bushing kit (kit consisting of three bushings: Ø10mm, Ø12mm and Ø14mm).

Code	A	B	Kg
CKH 02	550	205-266	6,2
CKH 02/S	...	...	...

DRILLING MACHINES

SAFETY GUARD FOR DRILLS AND RADIAL DRILLS



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

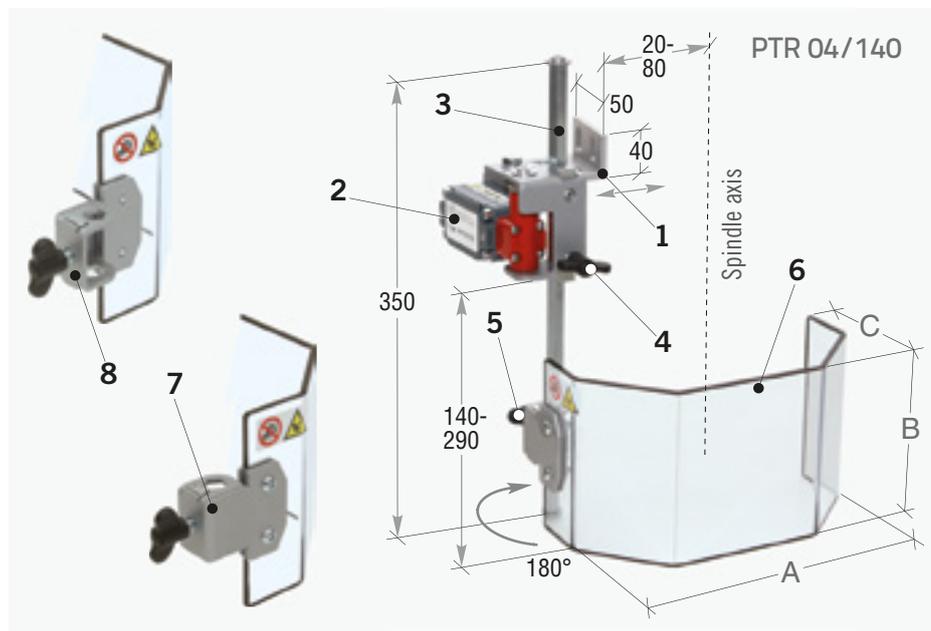
Solid and versatile, the only one with double shield adjustment.
Suitable for installation on traditional Drills, Panto-graphs and similar machines.

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

The semi-octagonal shield can be adjusted vertically by two different systems: shield-arm group, adjustable through the microswitch group (point 4). The shield is adjustable through the arm (point 5). The shield support clamp can be placed inside (point 7) or outside (point 8), allowing a wide range of horizontal adjusting. Complete with safety microswitch.

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

SAFETY GUARD FOR MEDIUM-SMALL DRILLS



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

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

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

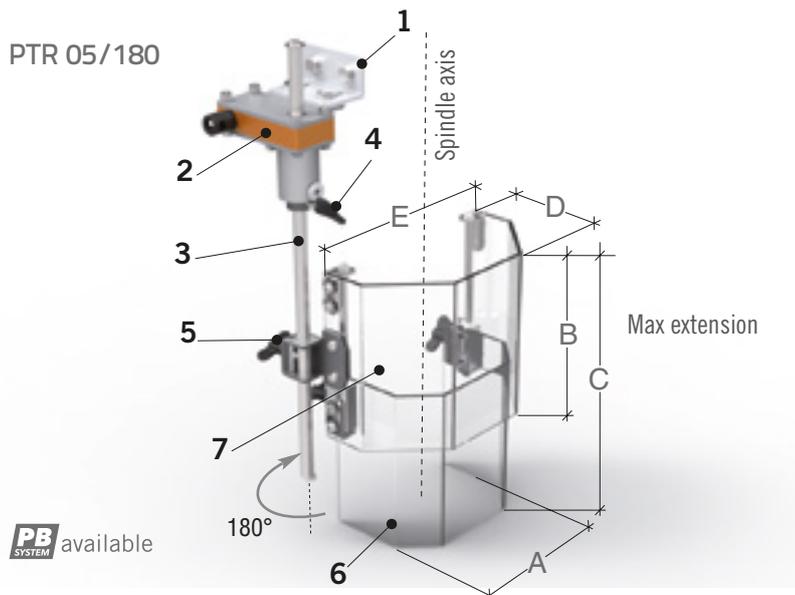
The semi-octagonal shield can be adjusted vertically by two different systems: shield-arm group, adjustable through the self-bearing microswitch (point 4). The shield is adjustable through the arm (point 5). The shield support clamp can be placed inside (point 7) or outside (point 8), allowing a wide range of horizontal adjusting.

Complete with safety microswitch.

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

TELESCOPIC SAFETY GUARD FOR DRILL

PTR 05/180



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

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).

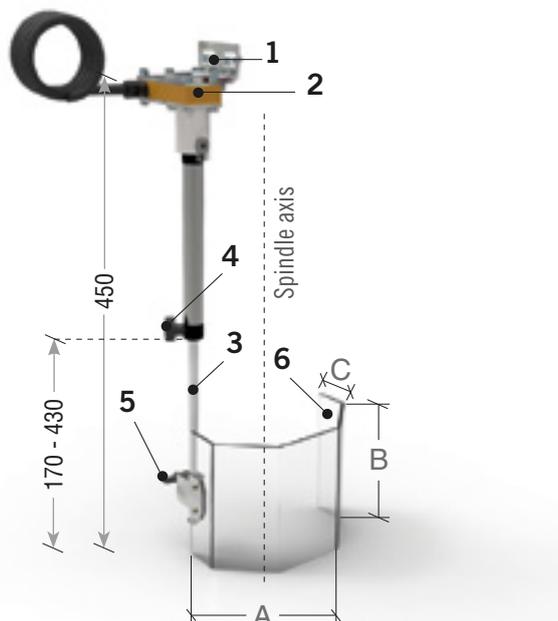
The shield opens laterally with 180° rotary movement, allowing easy access for operations of tool change. The stirrup allows a solid anchorage at the drill structure.

Complete with pre-wired safety microswitch.

Code	A	B	C	D	E	Kg
PTR 05/180	172	290	180-300	114	230	3,7

SAFETY GUARD FOR DRILLS AND RADIAL DRILLS

PTR 06/130
PTR 06/180



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:

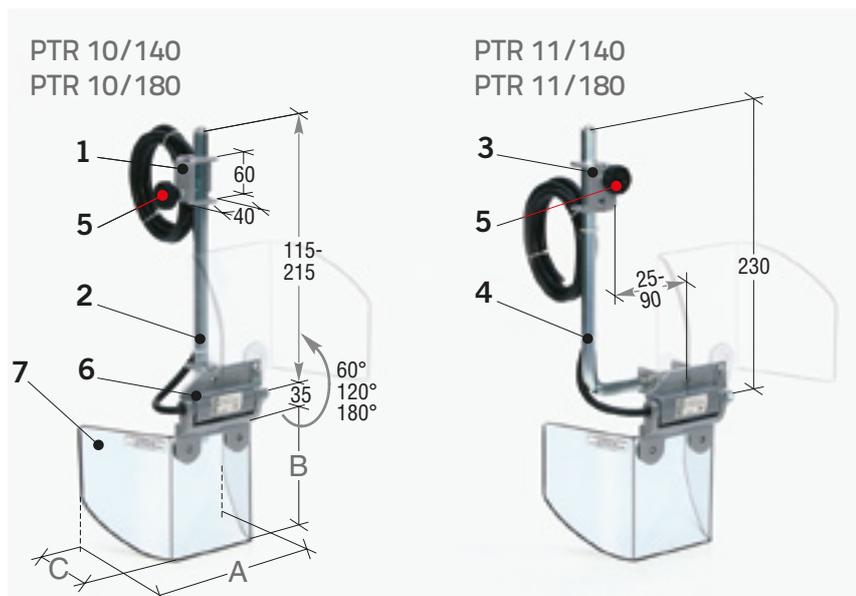
1) the shield / hexagonal arm group is adjustable inside the tubular stainless support and lockable with a knob (4).

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



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

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:

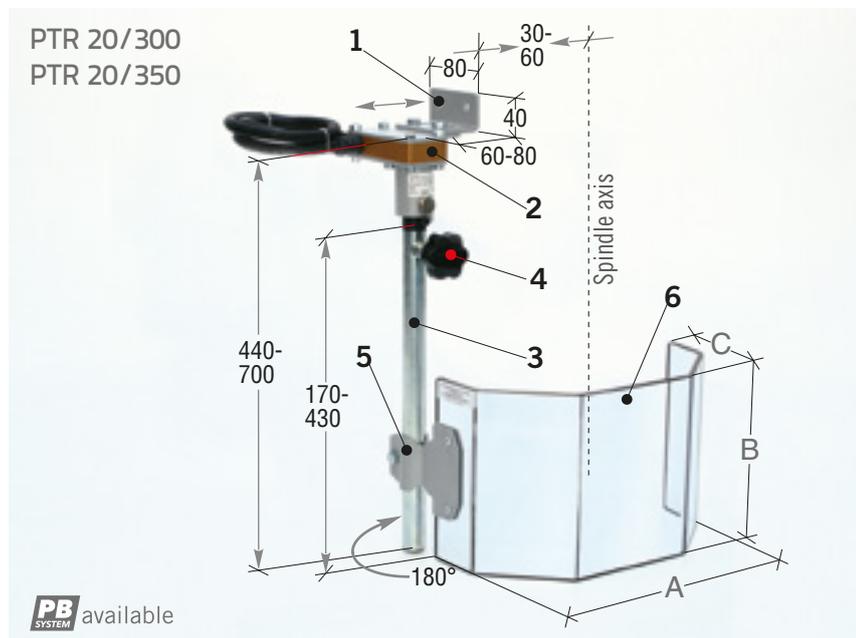
PTR 10/... = frontally fixable version

PTR 11/... = laterally fixable version

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

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



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

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

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

Attachable on the left side of the machine. Supplied with semi-octagonal shield equipped with double system of vertical adjustment:

1) telescopic shield-arm group, adjustable by the internal hub-shield.

2) adjustable on the same arm.

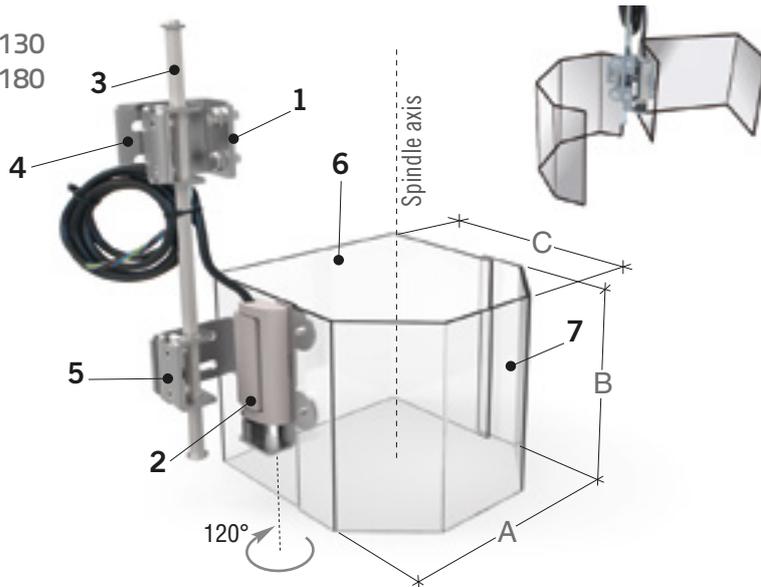
Complete with safety microswitch.

Code	A	B	C	Kg
PTR 20/300	300	200	150	3,9
PTR 20/350	350	240	175	4,5

DRILLING MACHINES

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.

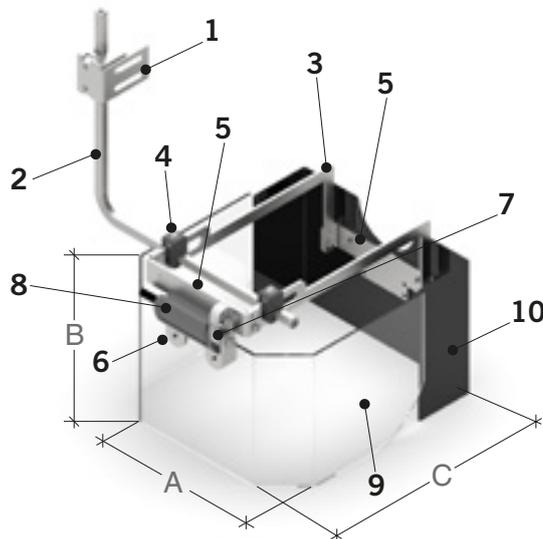
Attachable on the left side of the machine. The anchorage systems at the machine and the fastening of the shield can be both adjusted for better positioning of the guard according to position of the spindle.

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

SAFETY GUARD FOR DRILLING-MILLING MACHINES

PTR 40/320
PTR 40/S



1. Anchorage stirrup - in pressed steel
2. Support arm – in steel hexagon
3. Shield frame arms
4. Shield fixing and adjustment clamps
5. Support plates of microswitch and rear shield
6. Support plate of microswitch and front plastic shield
7. Front shield snap opening system
8. Shield opening hinge with integrated microswitch – n. 2 NC contacts
9. Semi-octagonal shield - in polycarbonate
10. Rear shield in aluminum sheet

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

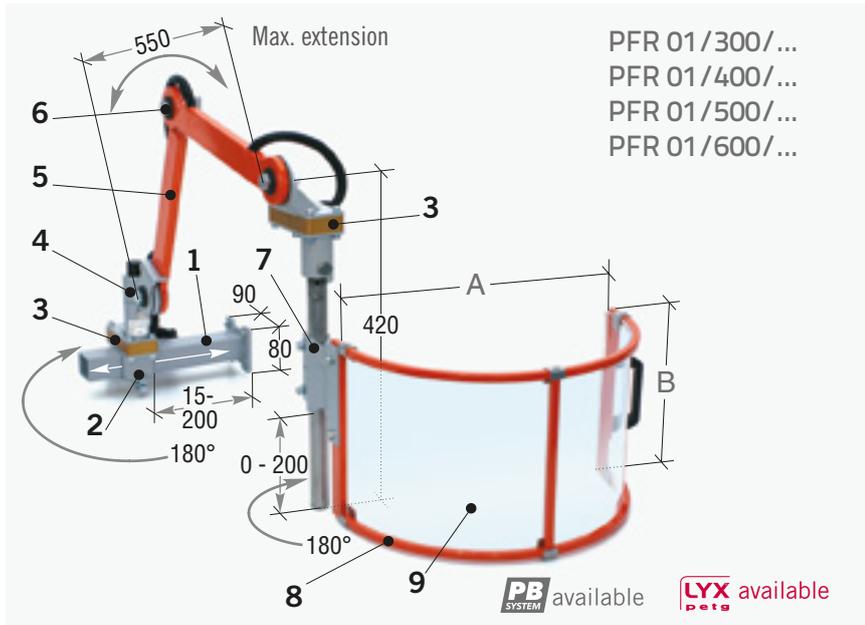
The structure consists of a hexagonal arm having wide excursion and of special adjustment clamps acting on the hexagonal arm and on the bearing frame of the shields. The shield features the exclusive vertical "snap" opening system of 60 in 60 degrees.

This new arrangement makes it possible to keep the front part of the worktable completely free for changing the working piece or tool. The rear shield, in aluminum plate, prevents the access from the rear to the dangerous area by any unauthorized personnel.

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

Code	A	B	C	Kg
PTR 40/320	300	200	334	4,2
PTR 40/S	...	...	...	...

>> 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.

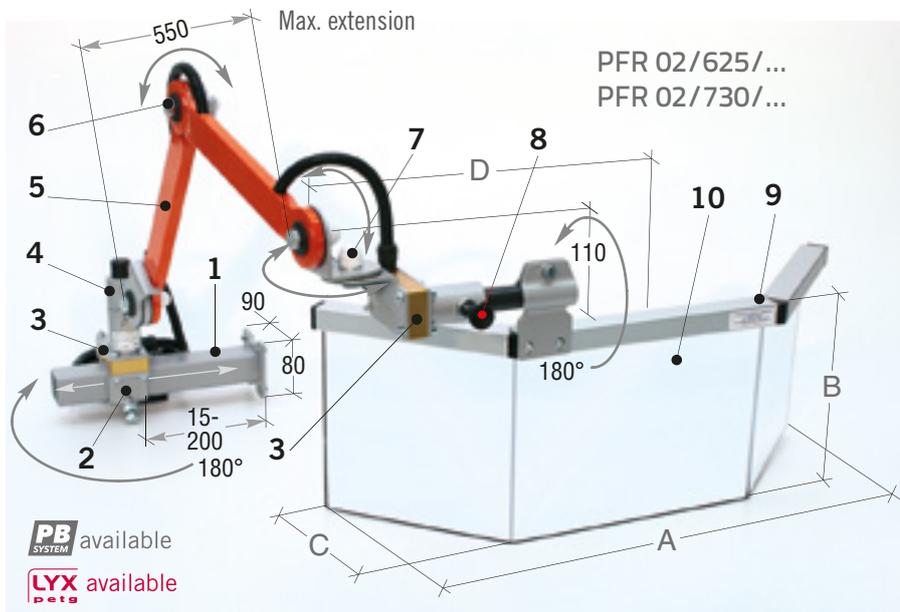
- Note: specify the mounting side by adding the suffix: /DX = right - /SX = left.

- 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



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

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

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

Attachable on the base flank, equipped with wide "visibility" shield and double opening system:

- 1) shield openable vertically with position-locking knob.
- 2) "swinging" total of safety guard, outside field of work.

Complete with double safety microswitch.

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

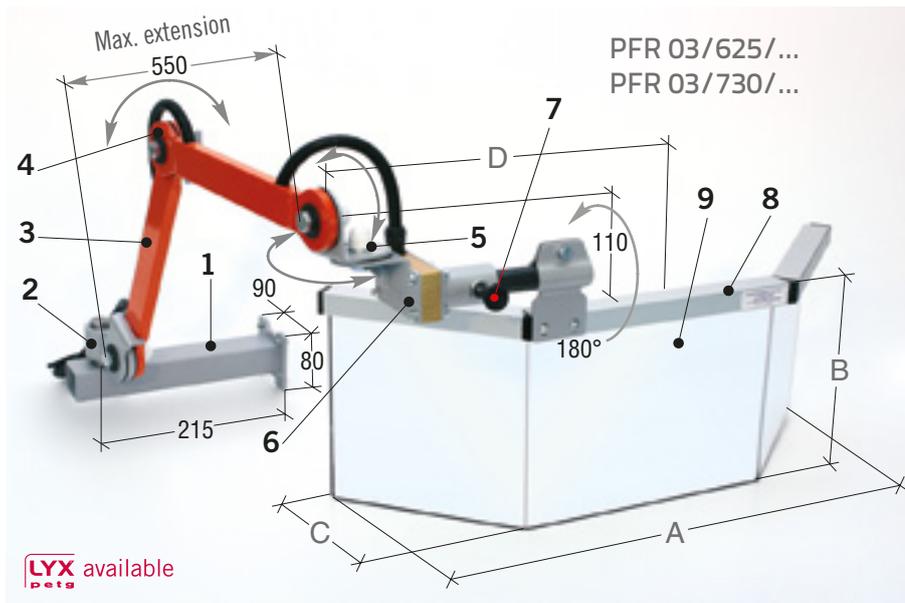
- Available accessories: PMG 60/185 – PBA 01/190 – PBA 01/325 – PBA 02/325 allowing a wide range of horizontal adjusting.

Complete with safety microswitch.

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

>> ADJUSTABLE SAFETY GUARD FOR UNIVERSAL MILLS



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

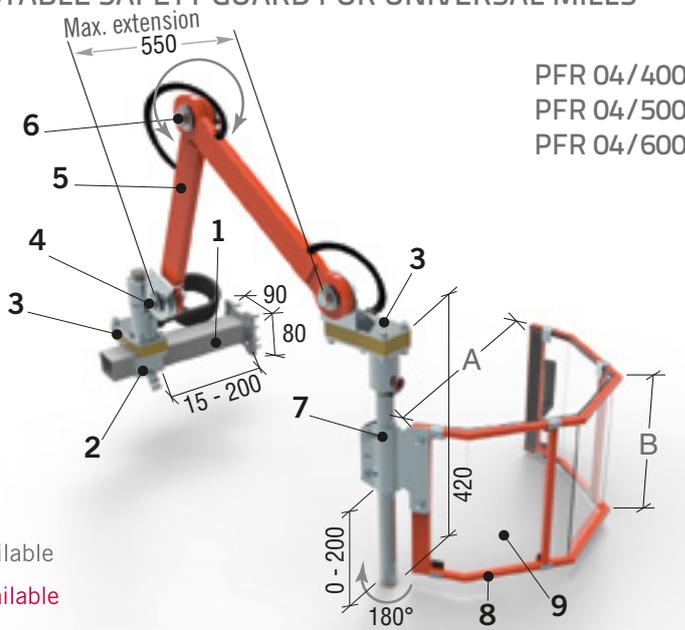
Protects the operator from direct contact with rotating parts of the vertical spindle and from the projection of shavings and lubricant-coolant.
Attachable on the base flank, equipped with wide "visibility" shield with vertical opening system and position-unlocking knob.
Complete with safety microswitch.
- *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.

LYX available

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 aluminum profile
9. Shield – in plastic shockproof and oil-resistant material

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

>> ADJUSTABLE SAFETY GUARD FOR UNIVERSAL MILLS



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

Protects the operator from direct contact with rotating parts of the vertical spindle and from the projection of shavings and lubricant-coolant.
Attachable on the base flank, equipped with 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.

PB SYSTEM available

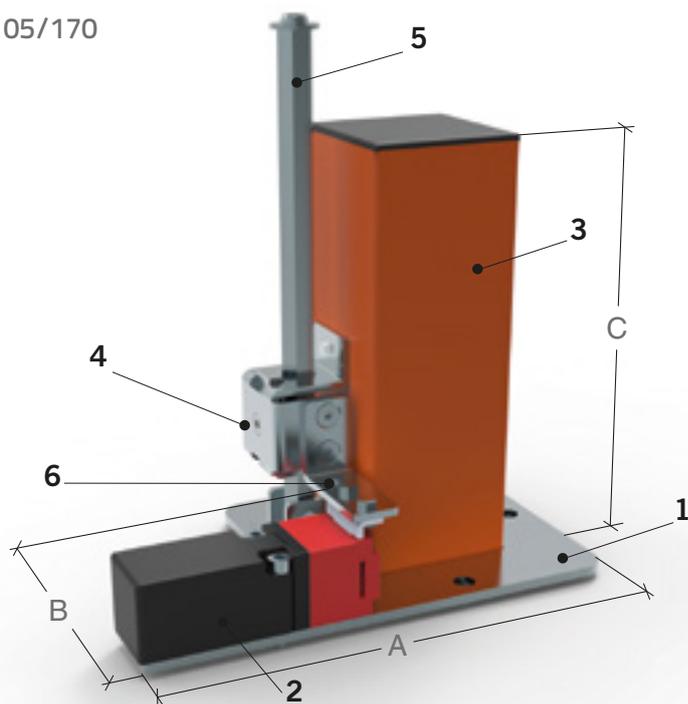
LYX available

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

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

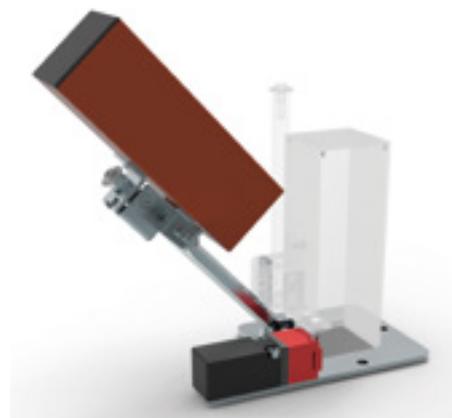
» SAFETY CAP FOR MILLING DRAWBARS

PFR 05/170



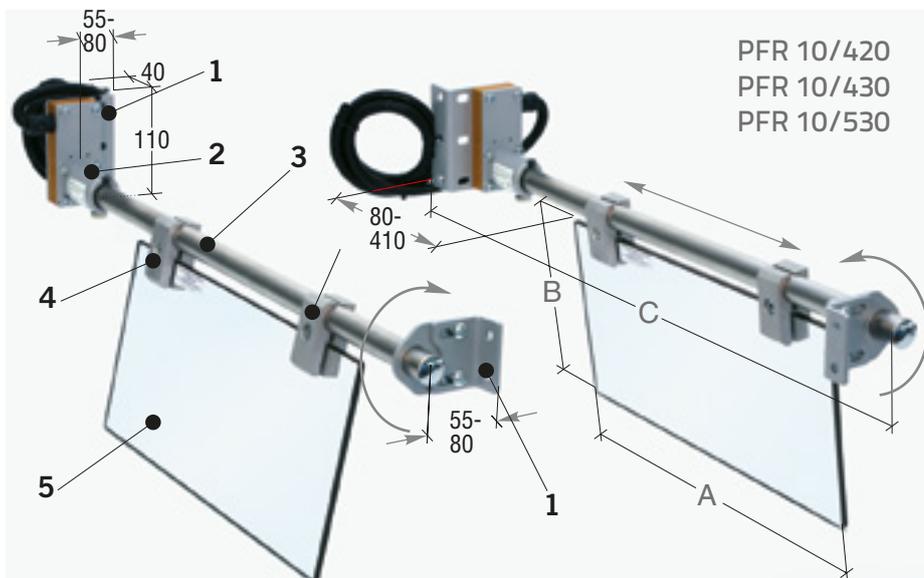
1. Fixing plate
2. Safety microswitch with separated actuator
3. Crankcase
4. Crankcase support stirrup
5. Hexagonal sliding rod
6. Microswitch key support

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.



Code	A	B	C
PFR 05/170	193	120	172

» SAFETY GUARD FOR HORIZONTAL SLIDE MILLS



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

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 aluminum
5. Shield – in plastic shockproof and oil-resistant material

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.

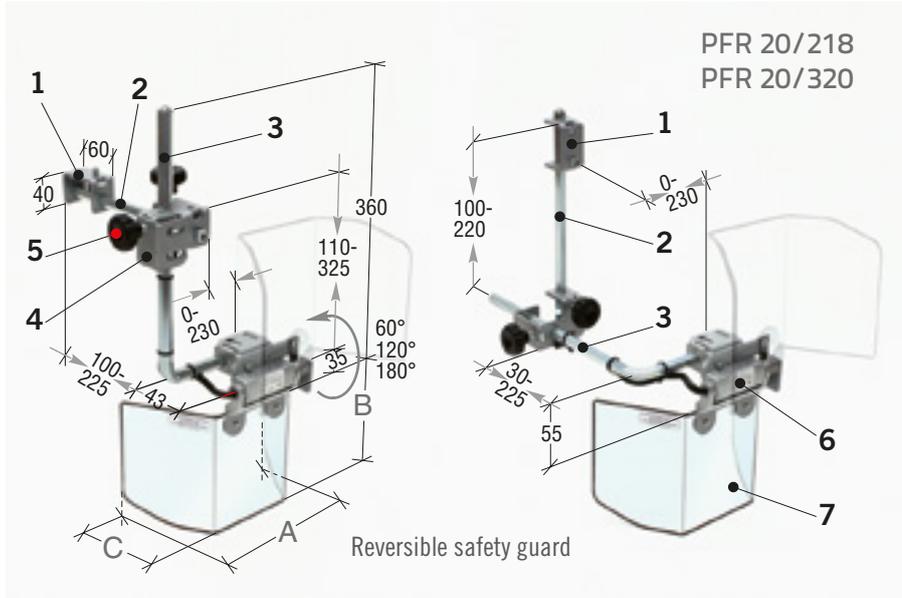
Protects the operator from direct contact with the horizontal shaft-spindle and its parts placed in rotation and accessible from the two sides of the machine (the frontal “segregation” of the dangerous parts is excluded), in addition to the projection of shavings and lubricant-coolant.

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.

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



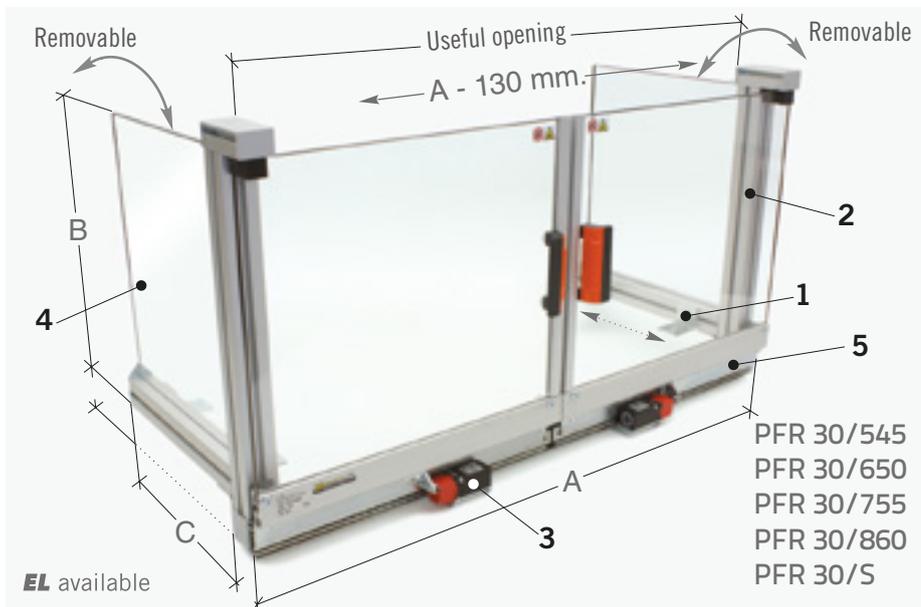
1. Anchorage stirrup – in pressed steel
2. Straight support arm – in hexagonal steel
3. Angular support arm – in hexagonal steel
4. “Cross” clamp for arm adjustment – in pressed steel
5. “Cross” clamp adjustment knobs
6. Shield support hinge with integrated microswitch – n. 2 NC contacts
7. Semi-hexagonal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

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

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

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

» PERIMETER SAFETY GUARD TO INSTALL ON THE TABLE



1. Angular anchorage stirrups – in pressed steel
2. Perimeter structure – in aluminum 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

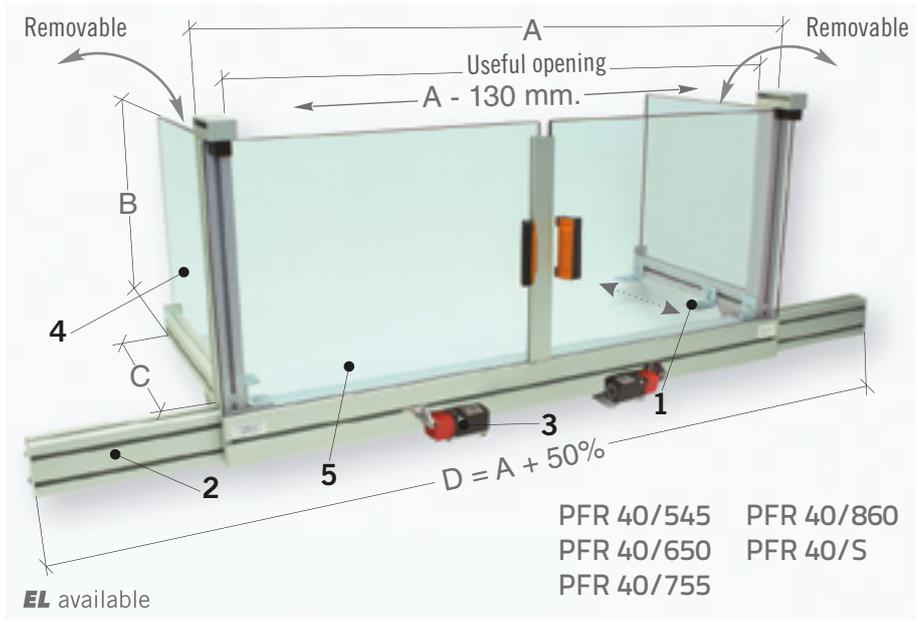
Equipped with two total opening sliding doors and removable lateral panels. Also customized on request.

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

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



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

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

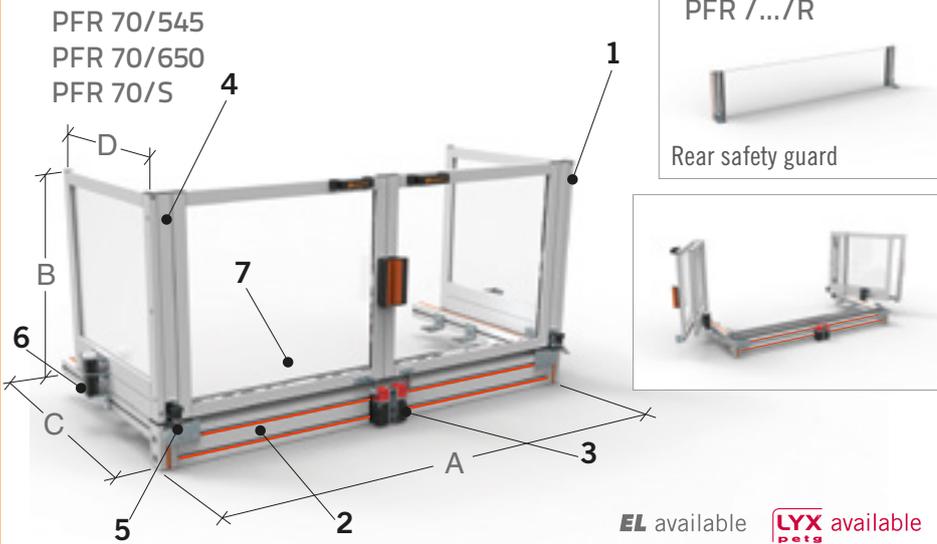
Equipped with two “total” opening doors, sliding on Polyethylene “skates”, made in thick plastic material, “shapeable” for potential vice passage.

Complete with double safety microswitch.

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

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

>> PERIMETER SAFETY GUARD TO INSTALL ON THE TABLE



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

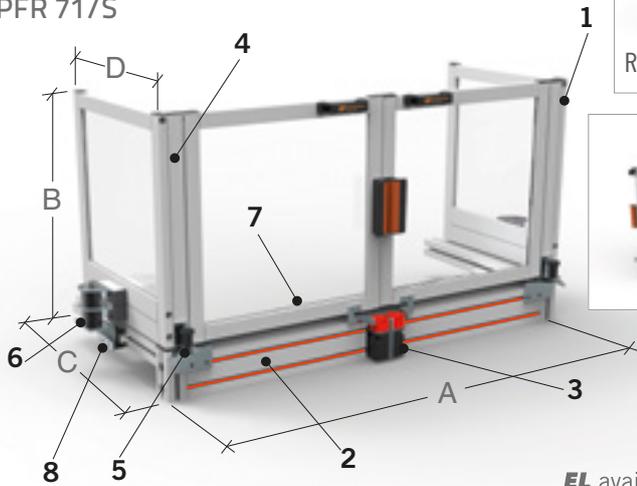
– Rear adjustable protective panel, to cover the rear side behind the spindle.

1. Angular anchorage stirrups – in pressed steel.
2. Supporting structure – in aluminum 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



EL available

LYX available

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.

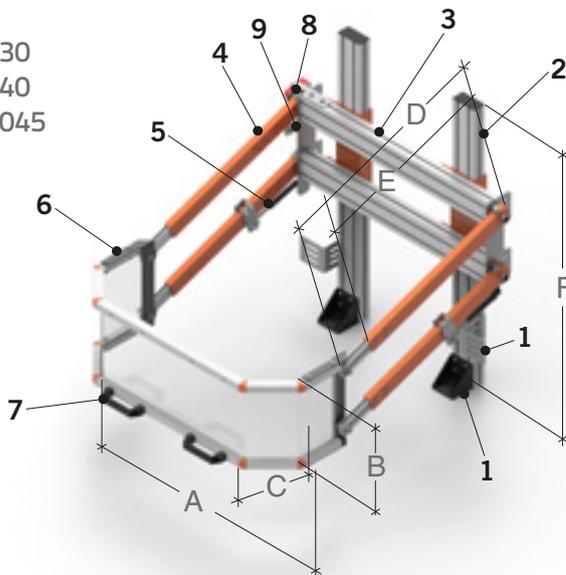
- *Complementary items:* PFR 70/545/R – PFR/70/650/R – Rear adjustable protective panel, to cover the rear side behind the spindle.

1. Angular anchorage stirrups – in pressed steel
2. Supporting structure – in aluminum 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	...	...	...	...	...

» PFR 80 VERTICAL LIFTING SAFETY GUARD FOR UNIVERSAL MILLS

PFR 80/830
PFR 80/940
PFR 80/1045
PFR 80/S



1. Anchorage stirrups
2. Supporting frame
3. Main frame of the guard
4. Telescopic arm with guided parallel movement
5. Gas spring
6. Shield in plastic shockproof and oil resistant material
7. Handles to move the shield
8. Microswitch - n. 2 NC contacts
9. Guard locking system in closed position

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

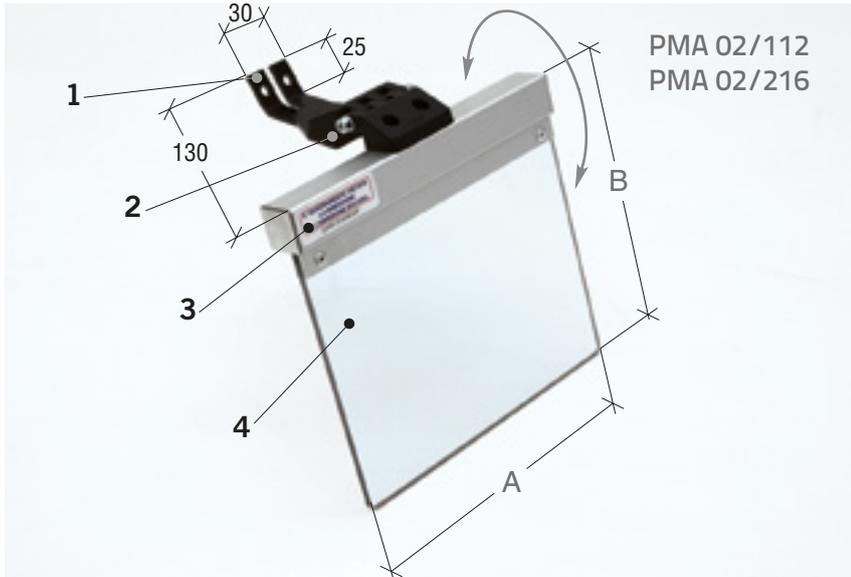
Attachable on the supporting frame (supplied) and on the base of the machine.

Equipped with a wide visibility shaped shield, with vertical lifting, supported by gas shock absorbers and adjustable, in extension, by means of the telescopic arms provided.

Complete with safety microswitch with n. 2 NC contacts.

Code	A	B	C	D	E	F
PFR 80/830	800	300	290	Max 950	600	1000
PFR 80/940	900	400	300	Max 950	600	1000
PFR 80/1045	1000	450	350	Max 1000	700	1000
PFR 80/S	...	...	...	...	...	...

» SAFETY GUARD FOR GRINDER AND TOOL GRINDER



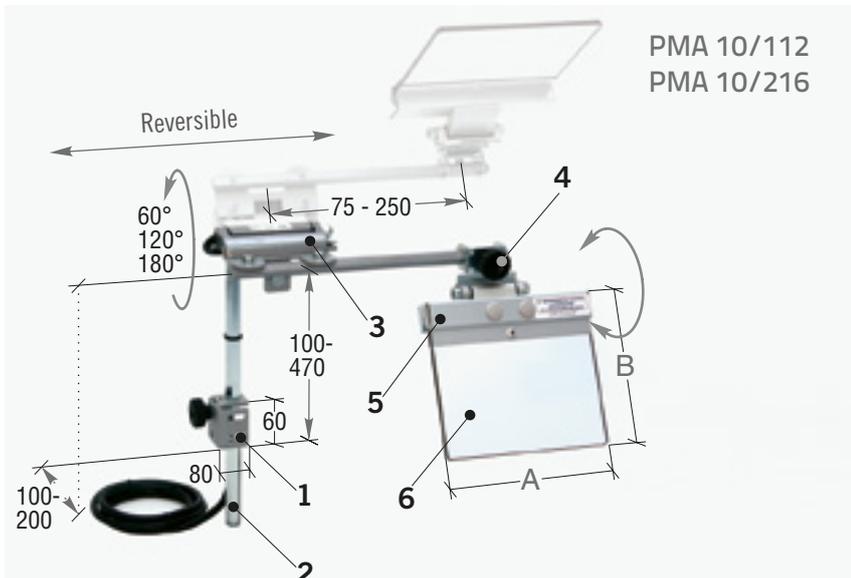
1. Anchorage stirrup – in pressed steel
2. Rubbing articulation – in reinforced polyamide
3. Shield support border – in aluminum profile
4. Shield – in plastic shockproof material

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.

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



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 aluminum profile
6. Shield – in plastic shockproof material

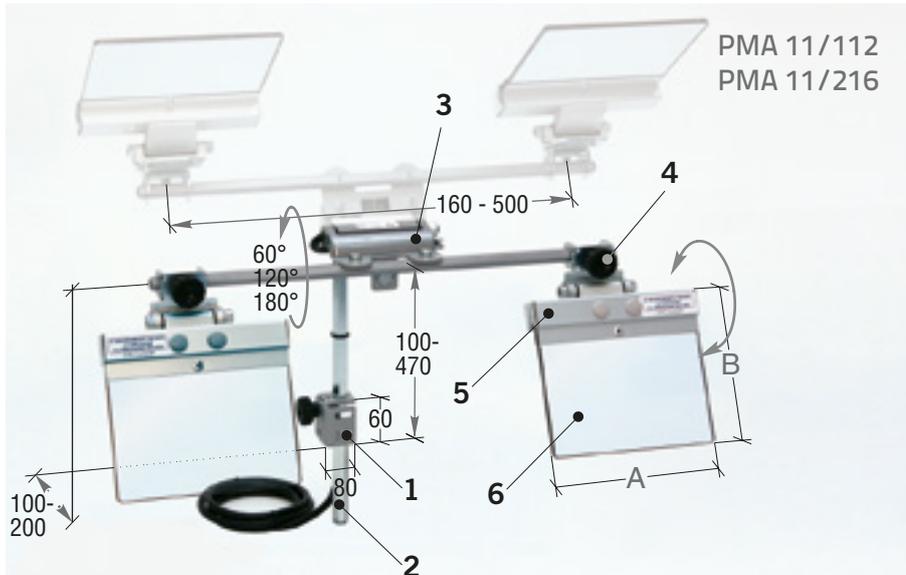
Safety guard with single right-left reversible shield, supported by multi-adjustable hexagonal arms. Equipped with microswitch integrated in the support hinge.

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.

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

GRINDERS

SAFETY GUARD FOR GRINDER AND TOOL GRINDER



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 aluminum profile
6. Shield – in plastic shockproof material

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.

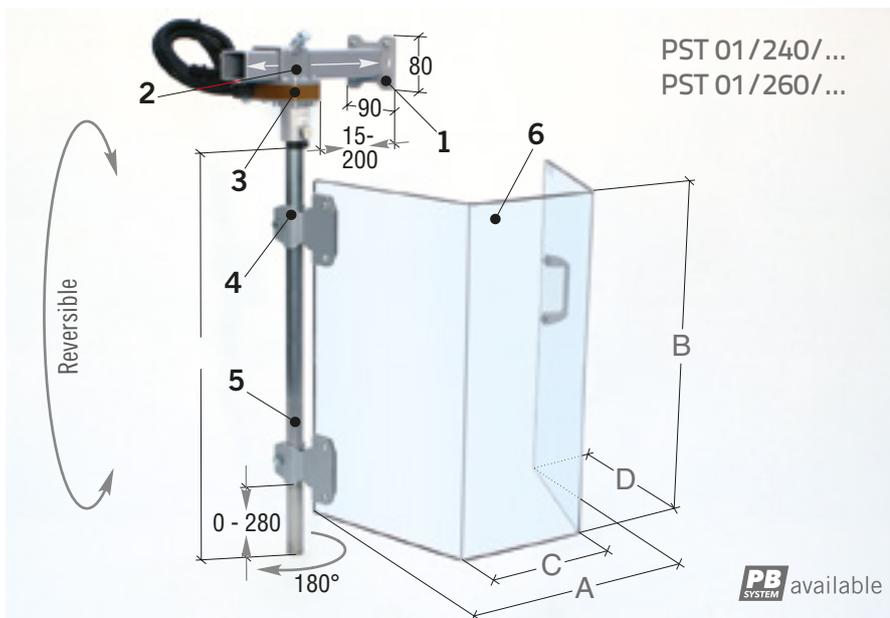
The particular multi-adjustable hexagonal arms structure allows an easy anchorage on the most different structures, allowing use even on machines with grindstone in "overhang" position.

The hinge that supports the protective shield is integrated with the safety microswitch.

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

SLOTING MACHINES GRINDERS

SAFETY GUARD FOR SLOTING - BROACHING MACHINES



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

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.

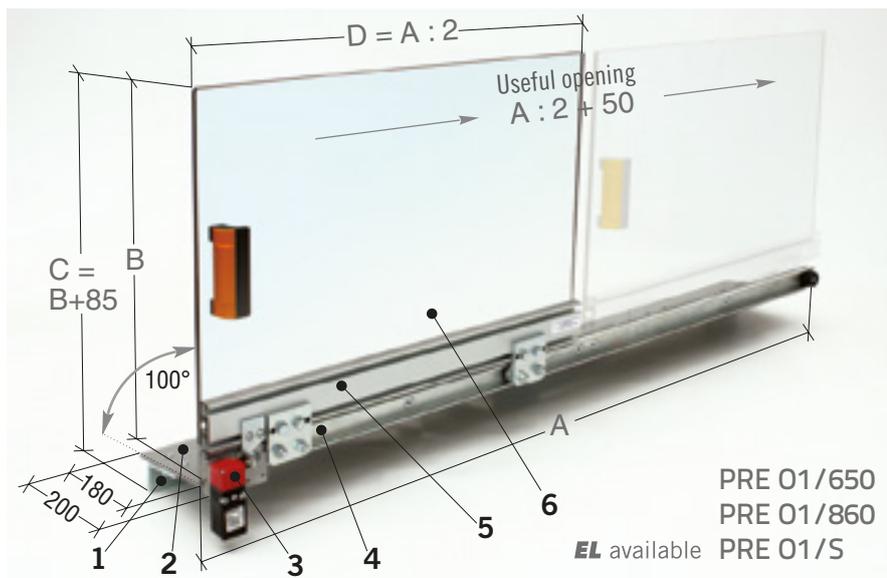
- *Note:* specify the mounting side by adding the suffix: /DX = right - /SX = left.

Complete with double safety microswitch.

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

GRINDING MACHINES

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 aluminum 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.

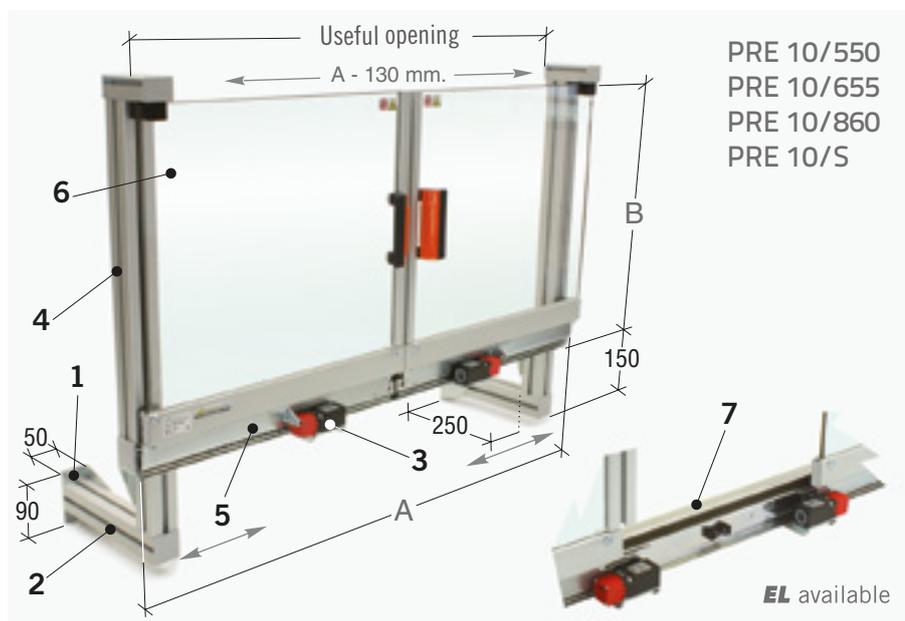
Attachable to the machine by solid inclined sheet metal, also used for liquid collection.

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 aluminum 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 aluminum 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.

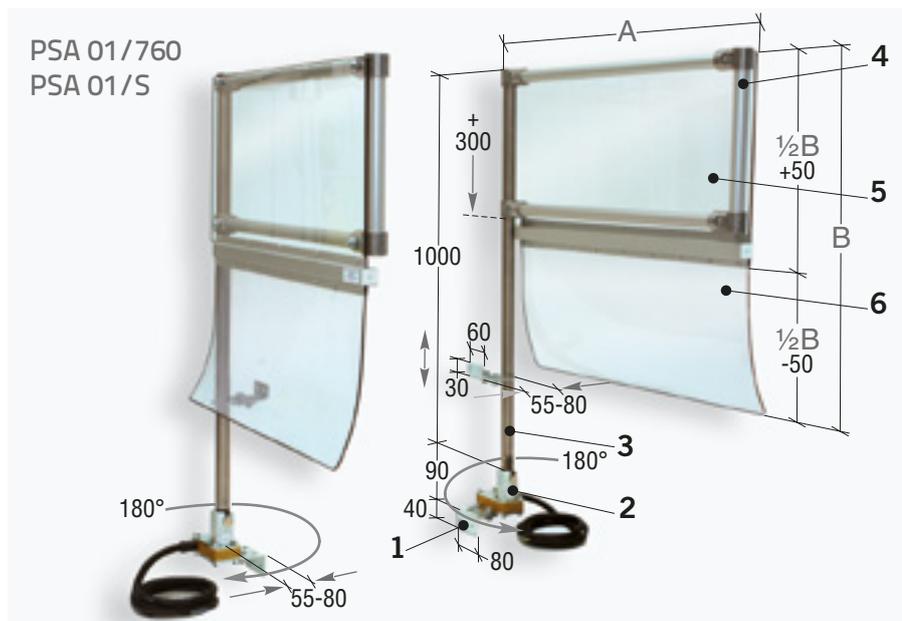
Equipped with two “total opening” sliding doors on ball guides, made in thick plastic material.

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	...	...	...

SAWING MACHINES

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 aluminum
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

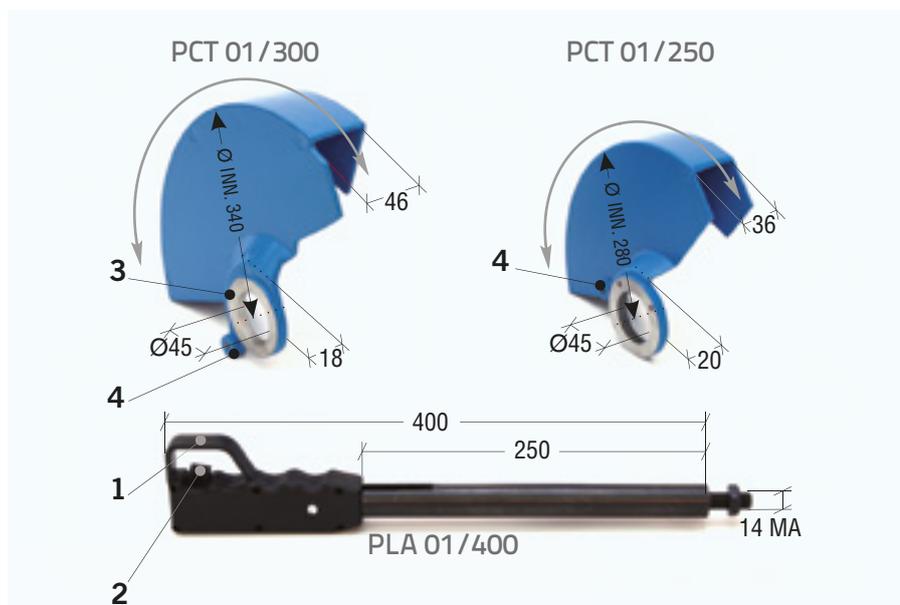
Made from two elements to be fixed on the flanks of the base. Equipped with panels subdivided into two sections, the lower one is shapeable for passage of rods.

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

DISPOSITIVI VARI PER TRONCATRICI A DISCO



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

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

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

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

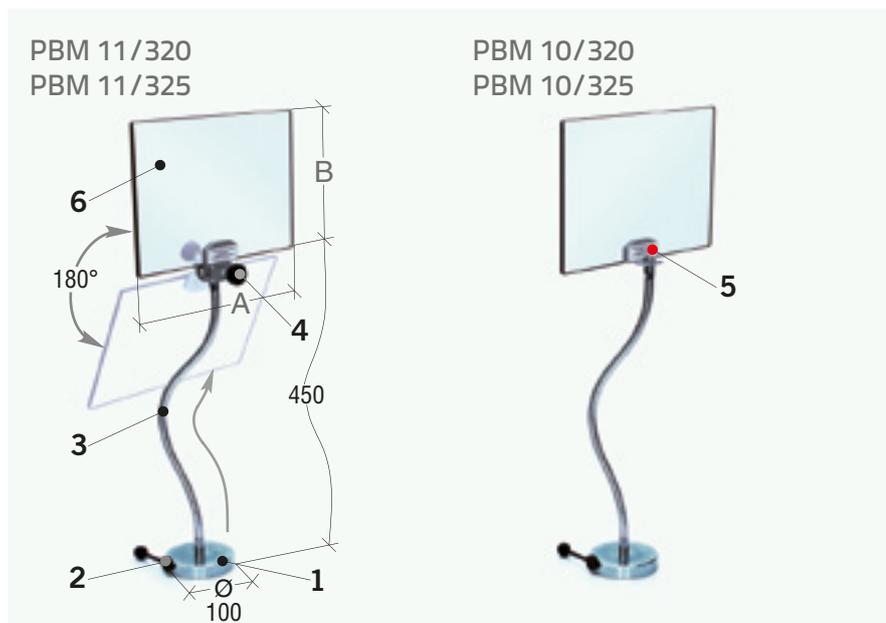
- *Note:* for a sure compatibility check with the machine, it is advised to examine all the dimensions indicated, particularly the dimensions of the rotation collar (point 3).

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

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

PLA 01/400 = universal command lever for Miter saws, equipped with ergonomic handle, with guard ring and pushbutton with contact: (2 Pin) NO.

>> SAFETY GUARDS WITH MAGNETIC BASE



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.

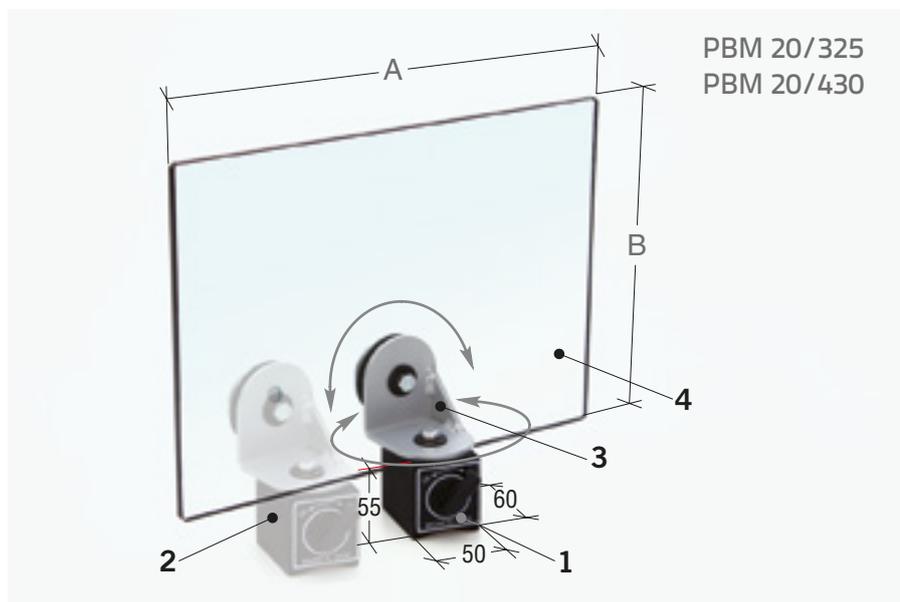
- Offered in two versions:

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



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

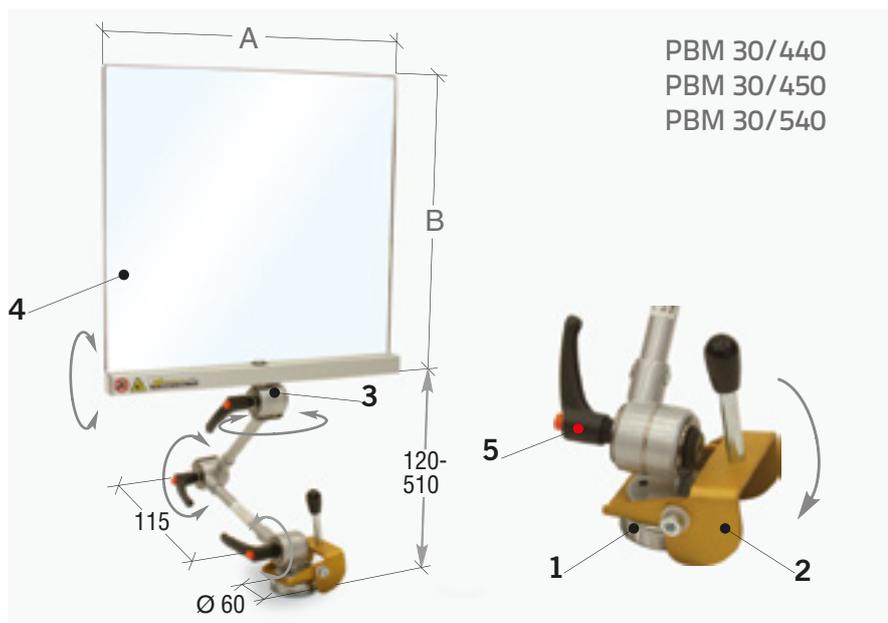
Universal magnetically-fixed safety guard, provided with adjustable shield on two positions. Magnetic base insertable with appropriate selector.

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

» VARIOUS MACHINES

» SAFETY GUARD WITH MAGNETIC BASE



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

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

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

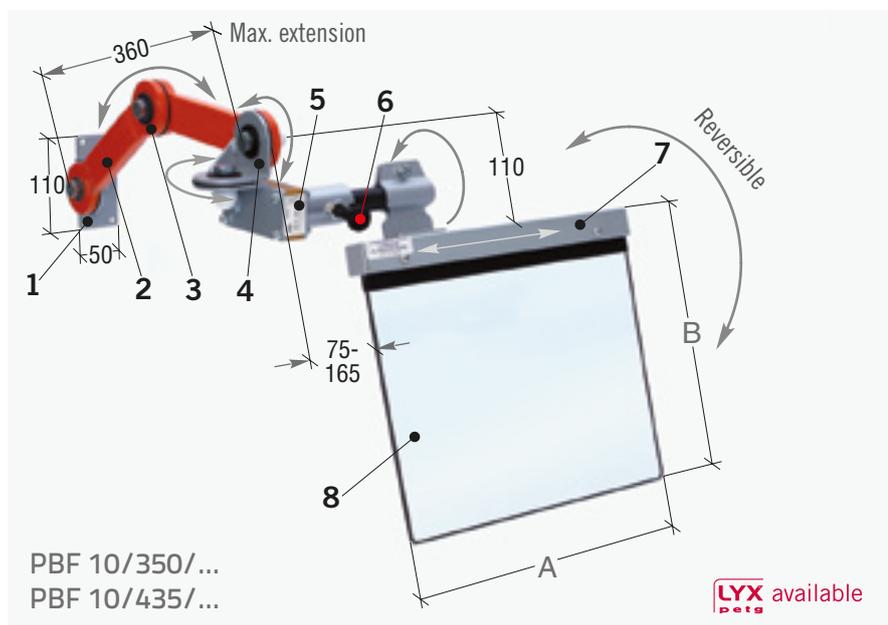
Magnetic fastening item for universal use, suitable to be used on metal work surfaces and machinery bases. Its numerous articulations allow a shield positioning in any direction: vertically - horizontally “flag type” with its upper end in contact with the base.

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.

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/...

LYX available

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 aluminum profile
8. Shield – in plastic shockproof and oil-resistant material

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

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

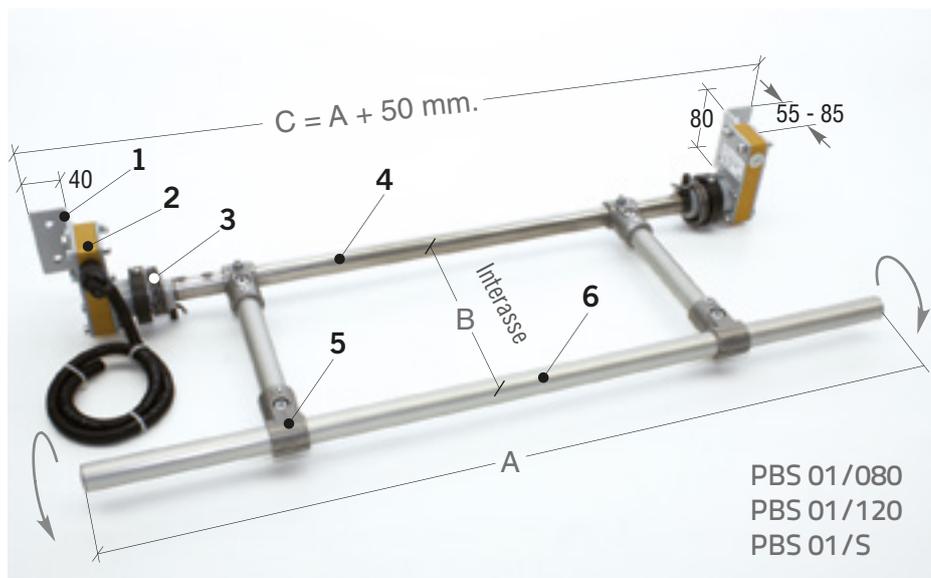
Frontally attachable to the machine Equipped with wide “visibility” reversible opening shield: vertical or horizontal and left or right, with position- release knob. Equipped with safety microswitch.

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

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

Code	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 aluminum

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.

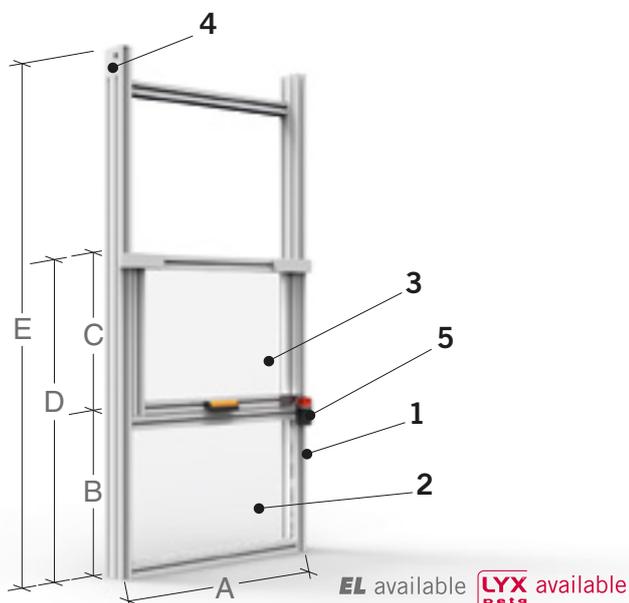
Available with single microswitch, code **PBS 01/...** (assembled on the left box and, if necessary, shifted on the right) or with double microswitch, code **PBS 02/...** Item designed to be mounted near the ground for being operated with feet (typical emergency function), or in raised position.

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



1. Perimetral structure with aluminum 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

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

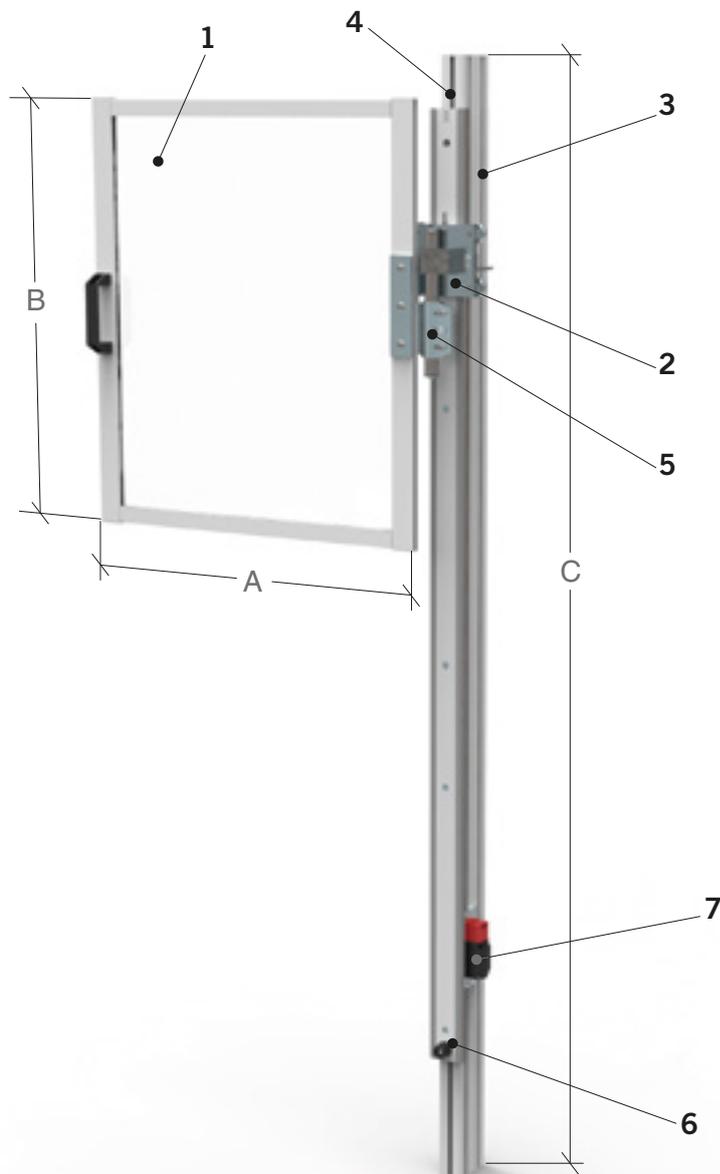
Protects the operator from direct contact with the moving piston and from the eventual projection of working parts.

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.

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

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

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

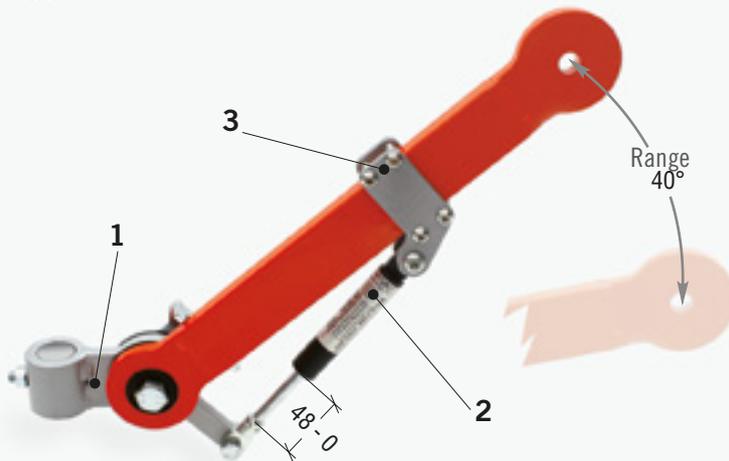
Protects the operator from direct contact with moving parts of the machine and from the projections of shavings and lubricant-coolant.
Complete with safety microswitch.

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

COMPLEMENTARY ACCESSORIES

» 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

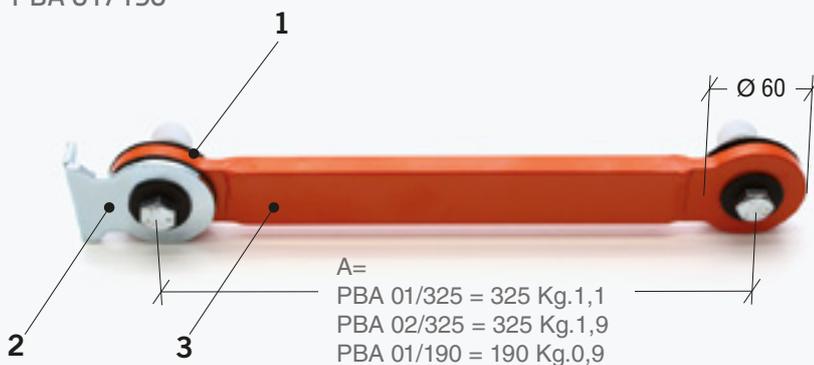
Complete kit for the increase in manoeuvrability of all articulated arms safety guards. Ideal for frequent changes in operation.

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 Ø 60 mm – in pressed brake lining
2. Joint opposition plate – in pressed steel
3. Additional articulated arm – in tubular and discs in welded steel

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.

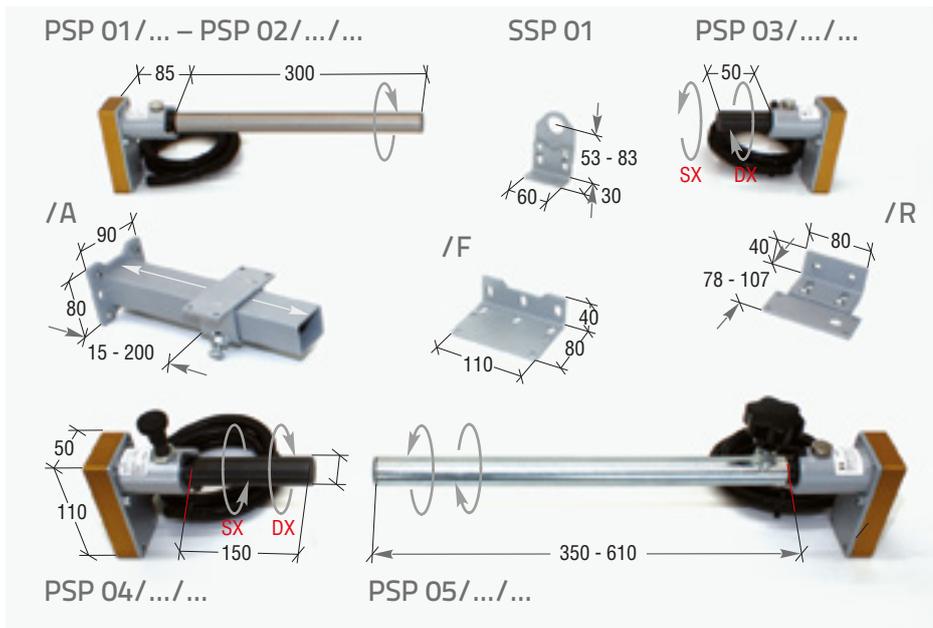
PBA 01/190 = simple articulated arm, wheel base 190 mm.

- *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.

COMPLEMENTARY ACCESSORIES

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.

- *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

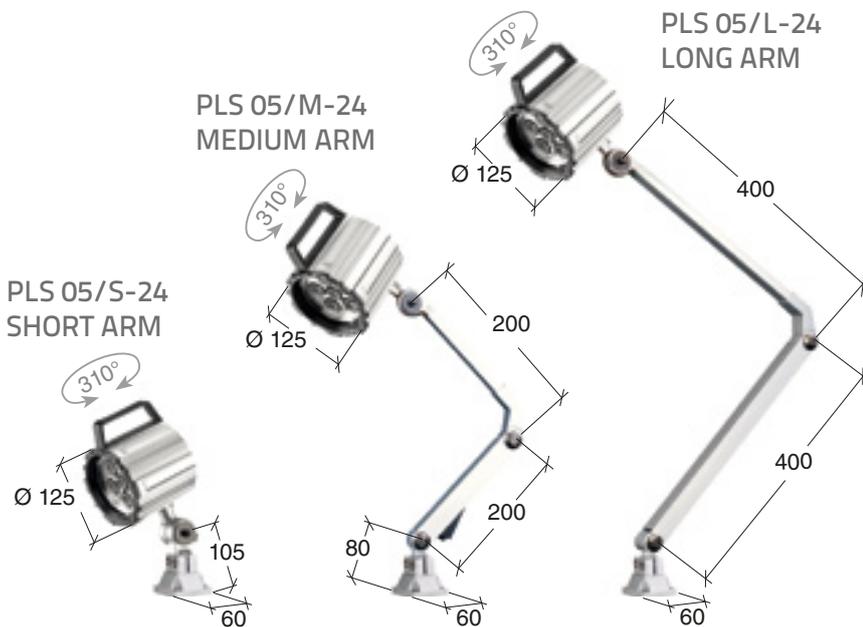
- *Note:* specify the operation direction of the microswitch indicating in the final part of the code the suffix: /DX = right - /SX = left. - *Note:* all versions are equipped with microswitch of n. 2 NC contacts.

- *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.

TP-LED ELECTRICAL DEVICES



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.

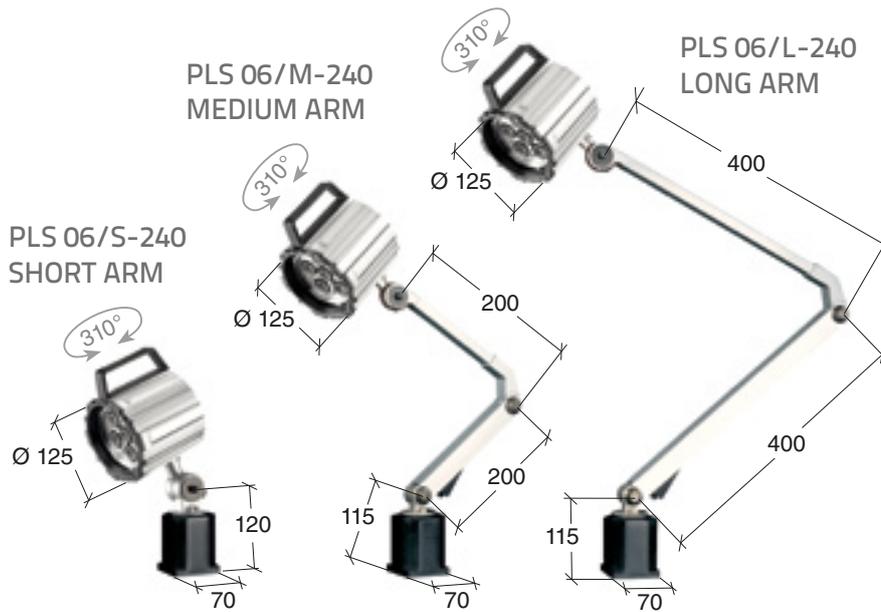
Equipped with white light led floodlight, with 40.000 hours estimated lifetime.

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
- 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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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

- Equipped with a LED driver for directly connecting to voltage of AC power 100V ~ 240V (50Hz-60Hz) with 1.8 meters of corg 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.

PLS 10

- 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°

PLS 30

- 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

»» MOTOR ELECTRONIC BRAKE WITH DIRECT CURRENT INJECTION

The electronic brake of the MFS series with direct current injection, by Tecno Più, provides a rapid and regular braking action to machines which require rapid stopping times of the moving parts, by applying a direct voltage to windings. The device constantly monitors the operation of the motor start remote switch.

When its state switches from ON to OFF, the module starts functioning

and brakes the motor through a magnetic field which does not change its polarity. The braking time and intensity can be adjusted by using trimmers located on the module itself. Furthermore, every time the device is activated, it carries out an internal and external check of the correct operation of the entire braking system, blocking, in the event of incorrect feedback, the subsequent activation of the motor, until the problem is solved.



»» MFS 020 - ELECTRONIC BRAKE 0,8/4KW (1 <> 5 HP)

DC injection electronic brake for small power machines (e.g. column drills, grinders, disc cut-off machines, belt grinders, etc.).

- *Dimensions:* 58x70x86mm – prepared for DIN rail mounting



»» MFS 035 - ELECTRONIC BRAKE MISSING 4,1/7,5KW (5,1 <> 10 HP)

DC injection electronic brake for medium power machines (e.g. drills, milling machines, lathes, etc.).

- *Dimensions:* 58x70x86mm – prepared for DIN rail mounting



»» MFS 080 - ELECTRONIC BRAKE 7,6/11KW (10,1 <> 15 HP)

DC injection electronic brake for medium/high power machines (e.g. milling machines lathes, etc.).

- *Dimensions:* 95x70x125mm – prepared for DIN rail mounting



» ELECTRICAL BOXES

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.

» QGE 01 - DIRECT CONTROL FOR SIMPLE MACHINES



IP65

Direct control for simple machines (e.g.: grinders). It consists of: thermoplastic case with three-pole magnetothermic safety switch with minimum voltage coil, not suitable for connection with any safety microswitches of guards and/or pushbuttons as it has not a very low voltage circuit (e.g.: 24 V). Prepared for padlock closure. Panel for machines with Max absorption = 7,5KW/400V, IP65.

- *On request:* version for machines with Max absorption up to 28KW (when asking for an offer / placing and order, notify machine absorption and voltage).

» QGE 09 - ELECTRICAL BOX WITH DEAD MAN PUSHBUTTON



IP65

Electrical box with dead man pushbutton (e.g.: disc miter saw), with control for low voltage device. Panel for machines with Max absorption = 5KW/400V, IP65

- *On request:* version for machines with Max absorption = 4KW at 230V voltage.

- *Box dimensions (W x H x D):* 140x170x90mm

- *Optional:* Bracket **SQE 03**

» QGE 10 - GENERIC ELECTRICAL BOX FOR TOOLING MACHINES



IP65

Electrical box for generic machines made in die-cast aluminum case, equipped with protection against short circuits and power overloads. Complete with magnetothermic motor protection general safety switch, prepared for padlock closure, contactor, 400/24 VAC transformer, no. 2 fuses to protect the auxiliary circuits, emergency mushroom-shaped pushbutton and start-stop pushbutton, with voltage warning light. Panel for machines with Max absorption = 7,5KW/400V, IP65.

- *On request:* it can be supplied with input voltage 4,5KW/230V.

- *On request:* **QGE 10.02** for machines with Max absorption = 12,5KW/400V.

- *Box dimensions (W x H x D):* 250x220x100mm

- *Optional:* Bracket: **SQE 01**

Minimum voltage coil on general switch

- *Important:* When placing an order, notify the maximum absorption of the machine, in Ampere (or KW) and the operating voltage.

» QGE 11N - GENERIC ELECTRICAL BOX FOR LOW POWER SUPPLY MACHINES



IP65

Electrical box for generic machines made in die-cast aluminum case. Complete with contactor, transformer 400/24 VAC, no. 2 fuses to protect the auxiliary circuits, emergency mushroom-shaped and start-stop pushbuttons, with voltage warning light. Panel for machines with Max absorption = 5KW/400V, at a voltage of 400V, IP65

- *On request:* it can be supplied with input voltage 3KW/230V.

- *Box dimensions (W x H x D):* (W x H x D): 140x170x90mm

- *Optional:* Bracket **SQE 03**

» ELECTRICAL BOXES

» QGE 12 - GENERIC ELECTRICAL BOX FOR LOW POWER SUPPLY MACHINES – WITH THERMAL RELAY



IP65

Electrical box for generic machines made in die-cast aluminum case. Complete with contactor, transformer 400/24 VAC, no. 2 fuses to protect the auxiliary circuits, emergency mushroom-shaped and start-stop pushbuttons, with voltage warning light and safety thermal relay. Panel for machines with Max absorption = 5KW/400V, IP65

- *On request:* it can be supplied with input voltage 3KW/230V.

- *Box dimensions (W x H x D):* 200x170x100mm

- *Optional:* Bracket **SQE 02**

- *Important:* When placing an order, notify the maximum absorption of the machine, in Ampere (or KW) and the operating voltage.

» QGE 13 - GENERIC ELECTRICAL BOX FOR LOW POWER SUPPLY MACHINES



IP65

Electrical box for generic machines made in die-cast aluminum case. Complete with contactor, transformer 400/24 VAC, no. 2 fuses to protect the auxiliary circuits, emergency mushroom-shaped and start-stop pushbuttons, with voltage warning light and general switch. Panel for machines with Max absorption = 5KW/400V, IP 65

- *On request:* it can be supplied with input voltage 3KW/230V.

- *Box dimensions (W x H x D):* 200x170x100mm

- *Optional:* Bracket **SQE 02**

» QGE 14 - GENERIC ELECTRICAL BOX FOR LOW POWER SUPPLY MACHINES – WITH THERMAL RELAY



IP65

Kit for generic machines made in die-cast aluminum case. Complete with contactor, transformer 400/24 VAC, no. 2 fuses to protect the auxiliary circuits, emergency mushroom-shaped and start-stop pushbuttons, with voltage warning light, general switch and safety thermal relay. Panel for machines with Max absorption = 5KW, at a voltage of 400V, IP65

- *On request:* it can be supplied with input voltage 3KW/230V.

- *Box dimensions (W x H x D):* 200x170x100mm

- *Optional:* Bracket **SQE 02**

- *Important:* When placing an order, notify the maximum absorption of the machine, in Ampere (or KW) and the operating voltage.

» ELECTRICAL BOXES

» QGE 15 - COMPLETE ELECTRICAL BOX WITH SAFETY MODULE



IP65

Electrical box for generic machines, with pressed steel case equipped with door (whose opening is only allowed when the general switch is "Off") and with protection against short circuits and current overloads. Complete with general magnetothermic safety switch arranged for padlock closure, double contactor, two-channel safety module, 400/24 VAC transformer, no. 2 auxiliary circuit protection fuses, emergency mushroom-shaped and start-stop pushbuttons, reset button, with voltage warning light. Panel for machines with absorption Max = 7,5KW/400V, IP66

- On request: **QGE 15.01** for machines with Max absorption = 12,5KW/400V.

- Box dimensions (W x H x D): 250x300x150mm

- Optionals: Bracket **RZA 62**

Minimum voltage coil on general switch

- Important: When placing an order, notify the maximum absorption of the machine, in Ampere (or KW) and the operating voltage.

» QGE 16 - MOTOR CONTROL ELECTRICAL BOX AND AUXILIARY OUTPUT



IP66

Electrical box for generic machines, with pressed steel case equipped with door (whose opening is only allowed when the general switch is "Off") and protection against short circuits and current overloads. Complete with general magnetothermic safety switch arranged for padlock closure, no. 2 contactors, 400/24 VAC transformer, no. 2 auxiliary circuit protection fuses, emergency mushroom-shaped and double start-stop pushbuttons, with voltage warning light, auxiliary output protected by thermal relay. Panel for machines with absorption Max = 7.5KW/400V, IP66

- On request: **QGE 16.02** for machines with Max absorption = 15KW

- Box dimensions (W x H x D): 250x300x150mm

- Optionals: Bracket **RZA 62**

Minimum voltage coil on general switch

- Important: When placing an order, notify the maximum absorption of the machine and of the auxiliary power, in Ampere (or KW) and the operating voltage.

» QGE ST1 - ENGINE CONTROL BOX WITH STAR/DELTA STARTER



IP65

Electrical panel for generic machines with star/delta starting, in die-cast aluminum case. Complete with no. 2 contactors, 400/24 VAC transformer, timer for Star => Delta transition, no. 2 auxiliary circuit protection fuses, emergency mushroom-shaped and start-stop pushbutton, with voltage warning light, general safety prepared for padlock closure. Panel for machines with Max absorption = 5KW/400V, IP65.

- Box dimensions (W x H x D): 250x200x100mm

- Optionals: Bracket **SQE 01**

» ELECTRICAL PANELS WITH MOTOR BRAKE

Series of electric switchboards, in different configurations, designed for use on machines without electromechanical brake or that need, in any case, fast stop times of the moving parts. The electronic engine brake device with DC injection (exclusive Tecno Più), with which these switchboards are equipped, constantly monitors the operation of the engine ignition switch.



» QGE 20 - GENERIC ELECTRICAL BOX FOR TOOLING MACHINES



IP66

Electrical box for generic machines, with metal case equipped with door (whose opening is only allowed when the general switch is "Off") and protection against short circuits and current overloads. Complete with general magnetothermic safety switch arranged for padlock closure, no. 2 contactors, 400/24 VAC transformer, electronic motor brake device with DC injection (Exclusive Tecno Più), no. 4 fuses, emergency mushroom-shaped and double start-stop pushbuttons with motor start warning light, voltage warning light and brake failure warning light. Panel for machines with absorption Max = 7,5KW/400V, IP66

- *On request:* **QGE 20.01** for machines with Max absorption = 11KW/400V with protected auxiliary control

- *Box dimensions (W x H x D):* 250x300x150mm

- *Optionals:* Bracket **RZA 62**
Minimum voltage coil on general switch

- *Important:* When placing an order, notify the maximum absorption of the machine, in Ampere (or KW) and the operating voltage.

» QGE 21 - GENERIC ELECTRICAL BOX FOR LOW POWER SUPPLY MACHINES



IP65

Electrical box for small dimension machines (example: sanders, grinders or small disc miter saws) made in die-cast aluminum case. Complete with general switch, no. 2 contactors, 400/24 VAC transformer, electronic motor brake device with DC injection (Exclusive Tecno Più), no. 4 fuses, emergency mushroom-shaped pushbutton, start-stop button with motor start warning light and voltage warning light.

Panel for machines with Max absorption = 3,5KW/400V, IP65

- *Box dimensions (W x H x D):* 250x220x100mm

- *Optionals:* Bracket **SQE 01**

» QGE 22 - GENERIC ELECTRICAL BOX FOR LOW POWER SUPPLY MACHINES



IP65

Electrical box for small dimension machines (example: sanders, grinders, drills and radial drills or small disc miter saws), made in die-cast aluminum case. Complete with general switch, no. 2 contactors, safety thermal relay with automatic reset, 400/24 VAC transformer, electronic motor brake device with DC injection (Exclusive Tecno Più), no. 4 fuses, double emergency mushroom-shaped pushbutton, start-stop button with motor start warning light and voltage warning light.

Panel for machines with Max absorption = 3,5KW/400V, IP65

- *Box dimensions (W x H x D):* 250x220x100mm

- *Optionals:* Bracket **SQE 01**

- *Important:* When placing an order, notify the maximum absorption of the machine, in Ampere (or KW) and the operating voltage.

» ELECTRICAL PANELS WITH MOTOR BRAKE

» QGE 25 - GENERIC ELECTRICAL BOX WITH SAFETY MODULE



IP66

Electrical box for generic machines, with metal case equipped with door (whose opening is only allowed when the general switch is "Off") and protection against short circuits and current overloads. Complete with general magnetothermic safety switch arranged for padlock closure, no. 3 contactors, 400/24 VAC transformer, electronic motor brake device with DC injection (Exclusive Tecno Più), no. 4 fuses, emergency mushroom-shaped pushbutton and start-stop button with motor start warning light, voltage warning light and 2-channel safety module with reset button and warning-light for brake failure.

Panel for machines with Max absorption = 7,5KW/400V, IP66

- Box dimensions (W x H x D): 300x300x150mm

- *Optional:* Bracket **RZA 62**

Minimum voltage coil on general switch

- *Important:* When placing an order, notify the maximum absorption of the machine, in Ampere (or KW) and the operating voltage.

» QGE 30 - MOTOR CONTROL ELECTRICAL BOX AND AUXILIARY OUTPUT



IP66

Electrical box for generic machines with metal case equipped with door (whose opening is only allowed when the general switch is "Off") and protection against short circuits and current overloads. Complete with general magnetothermic with minimum voltage coil, arranged for padlock locking, no. 3 contactors, 400/24 VAC transformer, electronic motor brake device with DC injection (Exclusive Tecno Più), no. 4 fuses, emergency mushroom-shaped pushbutton and double start-stop button with motor start warning light, voltage warning light, AXS 125 KHz access control and auxiliary output protected by thermal relay.

Panel for machines with Max absorption = 7,5KW/400V, IP66

- *On request:* **QGE 31** with **AXS** 13,5 MHz access control.

- Box dimensions (W x H x D): 400x300x150mm

- *Optional:* Bracket **RZA 62**

- *Important:* When placing an order, notify the maximum absorption of the machine and of the auxiliary power, in Ampere (or KW) and the operating voltage.

» QGE 35 - MOTOR CONTROL ELECTRICAL BOX WITH REVERSE AND AUXILIARY OUTPUT



IP66

Electrical box for generic machines with metal case equipped with door (whose opening is only allowed when the general switch is "Off") and protection against short circuits and current overloads. Complete with general magnetothermic safety switch with minimum voltage coil, arranged for padlock closure, no. 4 contactors, 400/24 VAC transformer, electronic motor brake device with DC injection (Exclusive Tecno Più), no. 4 fuses, emergency mushroom-shaped pushbutton and double start-stop button with motor start warning light, voltage warning light, reverse direction, auxiliary output protected for coolant pump control.

Panel for machines with Max absorption = 7,5KW/400V, IP66

- Box dimensions (W x H x D): 400x300x150mm

- *Optional:* Bracket **RZA 62**

- *Important:* When placing an order, notify the maximum absorption of the machine and of the auxiliary power, in Ampere (or KW) and the operating voltage.

» SPU 01 – ANGULAR STIRRUP TO SUPPORT PUSHBUTTONS



Angular stirrup to support pushbutton for single operator - in galvanized steel.
 - *Dimensions:* 70x110x45 mm. for **AEM01** – **ASC01**, with fastening screws.

» SPU 02 – ANGULAR STIRRUP TO SUPPORT PUSHBUTTONS



Angular stirrup to support pushbutton for two operators - in galvanized steel.
 - *Dimensions:* 70x160x45 mm. for **AME02** – **ASE02**, with fastening screws.

» SQE 01 – ANGULAR STIRRUP TO SUPPORT ELECTRICAL BOXES



Angular stirrup to support electrical panels – in galvanized steel.
 - *Dimensions:* 210x245x45 mm. for **QGE ST1** - **QGE10** – **QGE21** – **QGE22**, with angular stirrup and fastening screws.

» SQE 02 – ANGULAR STIRRUP TO SUPPORT ELECTRICAL BOXES



Angular stirrup to support electrical panels – in galvanized steel.
 - *Dimensions:* 160x185x45mm for **QGE12** – **QGE13** – **QGE14** – **QCP01**, with angular stirrup and fastening screws.

» SQE 03 – ANGULAR STIRRUP TO SUPPORT ELECTRICAL BOXES



Angular stirrup to support electrical panels – in galvanized steel.
 - *Dimensions:* 135x160x45 mm. for **QGE09** – **QGE11**, with angular stirrup and fastening screws.

» SCE 01– HINGE FIXING STIRRUP KIT



Fixing stirrup kit for hinge microswitches **MC102** and hinge **CC101** – in aluminum.
 - *Dimensions:* 30x170x3 mm., with fastening screws.

»» INTERLOCKED SAFETY GUARDS WITH PNEUMATIC LOCKING DEVICE

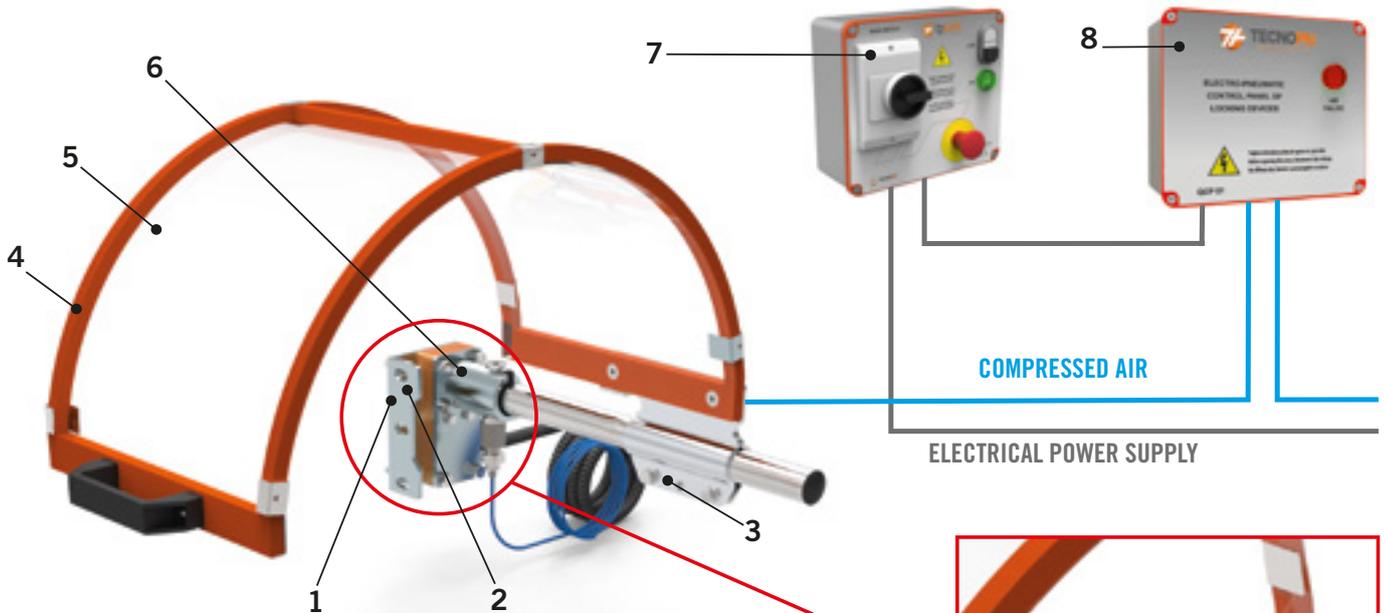
With more and more restrictive rules coming in the field of machine safety, security systems and safety guards are characterized by the use of increasingly advanced systems. In this context Tecno Più designs and manufactures its own customized products and a continuous restyling of its own range. The 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.

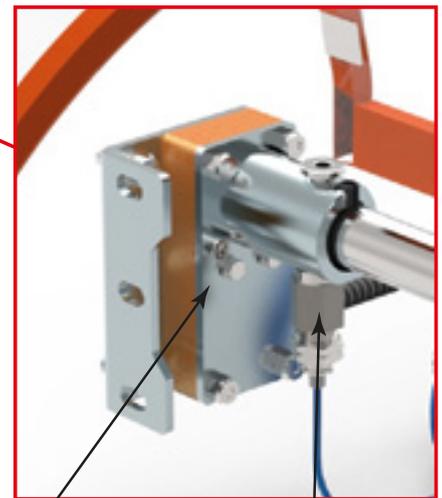
The mechanical locking device, by means of a pneumatic actuator, allows the guard to be closed until the end of a potential dangerous event like, for example, a rotating spindle.



- 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

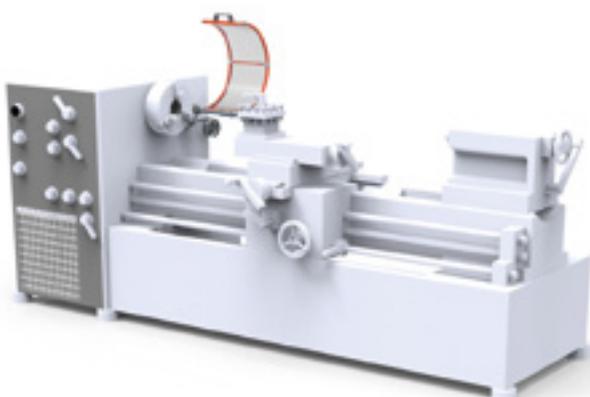
Available for

- 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 - TIMED PNEUMATIC ELECTRICAL BOX



IP65

Electrical box to be used only on safety guards with pneumatic blocking system.

Pneumatic control panel with low voltage (input 24Vac) for the blocking system of the safety guards rotation axis according to the stopping time of the machine spindle. The system allows the timed opening of the guard and has a safety control which, in the absence of air, prevents the machine from functioning by signaling the presence of a malfunction with a warning light on the front panel. Prepared for the use of additional alarm systems, acoustic and visual ones.

- *Box dimensions (W x H x D):* 200x170x100mm – IP65

- *Optional:* Bracket **SQE 02**

»» QCP 02 - PNEUMATIC ELECTRICAL BOX WITH STOPPED MOTOR



IP66

Electrical box to be used only on safety guards with pneumatic blocking system.

Pneumatic control panel for the blocking system of the safety guards rotation axis according to the presence of potential difference between the motor phases. The system allows the opening of the guard only when the motor is completely stopped and has a safety control which, in the absence of air, prevents the machine from functioning by signaling the presence of the system malfunction with a warning light on the front panel. Equipped with a button reset system on the front panel to reinitialize the control module in the event of temporary malfunctions. Prepared for the use of additional alarm systems, acoustic and visual ones.

- *Box dimensions (W x H x D):* 250x300x150mm – IP66

- *Optional:* Bracket **RZA 62**

» ELECTRICAL CONTROL DEVICES

» AEM 01 – EMERGENCY PUSHBUTTON



Single operator pushbutton panel, with emergency mushroom-shaped pushbutton (nr. 1 NC contact) – Yellow label Ø 60 “Emergency”, IP65

- *Optional:* Bracket **SPU01**

IP65

» ASC 01 – KEY SELECTOR



Single operator pushbutton panel, with two stable positions selector 0 – 1 and removable key, nr. 1 NC contact, IP65

- *Optional:* Bracket **SPU01**

IP65

» AME 02 – EMERGENCY PUSHBUTTON WITH START-STOP



Two-operators pushbutton panel, with Start-Stop-Warning Light pushbutton, led warning-light 12/30 V ac-dc, (nr. 1 NC + nr. 1 NO contact) – emergency mushroom-shaped pushbutton (nr. 1 NC contact) – Yellow label Ø 60 “Emergency”, IP65

- *Optional:* Bracket **SPU02**

IP65

» ASE 02 – SELECTOR WITH EMERGENCY PUSHBUTTON



Two-operators pushbutton panel, with two stable positions selector 0 – 1 and removable key, (no. 1 NC contact) – emergency mushroom-shaped pushbutton (no. 1 NC contact) – Yellow label Ø 60 “Emergency”, IP65

- *Optional:* Bracket **SPU02**

IP65

» AME 04 – FOUR-OPERATORS WITH EMERGENCY PUSHBUTTON



Four-operators pushbutton panel, with Start-Stop pushbutton (no. 1 NC + no. 1 NO contact) + led warning light 12/30 V ac-dc, emergency mushroom-shaped pushbutton (no. 1 NC contact), green warning light, blue reset button (no. 1 NC contact), IP65

IP65

» 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 aluminum, complete with accessories and available with angular anchorage stirrup.

- Complementary accessories for pushbutton stations:

ANC 01 = supplementary NC contact.

ANO 01 = supplementary NO contact.

» APE 01 - "Heavy-type" foot switch



Heavy-type foot switch with lever against accidental operations – in die-cast aluminum – no. 1 NC contact + no. 1 NO contact.
- Dimensions: 230x140x130mm

» APE 02 - Foot switch



Foot switch with lever against accidental operations – in thermoplastic resin - 1 NC contact + no. 1 NO contact.
- Dimensions: 230x140x120mm

» AKF 01 – Kit for rope microswitch



Rope emergency front activation kit, consisting of microswitch 2NC (**MFU01**), 3 metres rope, with hooking terminals, no.3 emergency signalers, no.2 aluminum supports equipped with no.4 fixing angles.

» MPI 02 – Metal piston safety microswitch



Metal safety microswitch, with slow action piston - pre-wired cable of mt. 2 – no. 2 NC contacts with forced opening.
- Dimensions: 30x52+11mm

» MPR 02 – Roller metal safety microswitch



Metal safety microswitch, with roller piston , pre-wired cable of mt. 2 – no. 2 NC contacts with forced opening.
- Dimensions: 30x52+21mm

» MFU 01 – Rope metal safety microswitch



Rope metal safety microswitch, no. 2 NC contacts.
- Dimensions: 35x100x40mm

» MCH 01 – Safety microswitch with separated actuator



Safety microswitch with separated actuator – no. 2 NC contacts – complete with straight and bent key.
- Dimensions: 30x93x31mm

» MCP 01 – Safety microswitch with separated actuator



Safety microswitch with separated actuator, heavy-duty version – no. 2 NC contacts – complete with straight and bent key.
- Dimensions: 38x109x41mm

» MCE 01 – Safety microswitch with separated actuator with release electromagnet



Safety microswitch with separated actuator, with release electromagnet – to pull out the actuator when the coil is energized – 24 VAC-DC coil – no. 2 NC contacts – complete with straight and bent key.
- Dimensions: 56x135x35mm

» MMA 01 – Magnetic microswitch



Magnetic safety sensor complete with actuator - Pre-wired – no. 2 NC contacts - Activation distance 5 mm.
- Dimensions: 12x36x52mm

» MCI 02 – Hinge safety microswitch



Hinge to support doors and safety shields, integrated with safety microswitch – no. 2 NC contacts with forced opening – the combination with counter-hinge Item no. CCI 01 allows to be used on big protective doors and swing doors in general.
- Dimensions: 100x50mm

» CCI 01 - Hinge



Hinge to support doors and safety shields – to be combined with hinge MCI02 to be used on big protective doors and swing doors in general.
- Dimensions: 100x50mm

»» ELECTRONIC ACCESS CONTROL WITH CODED SYSTEM



This device can allow/prevent personnel to access dangerous areas or machines in the company, assuring and protecting compliance with the authorizations issued by the company to its employees. All this, for example, thanks to the simple use of personal badges available to each employee for marking the entry and exit of any timekeeping system which uses one of the two available frequencies: 125 KHz and 13,5 MHz. Or, these badges, can be supplied with the device itself. Programming is immediate through a master badge produced by Tecno Più which remains available to the manager of the company in charge of authorizations.

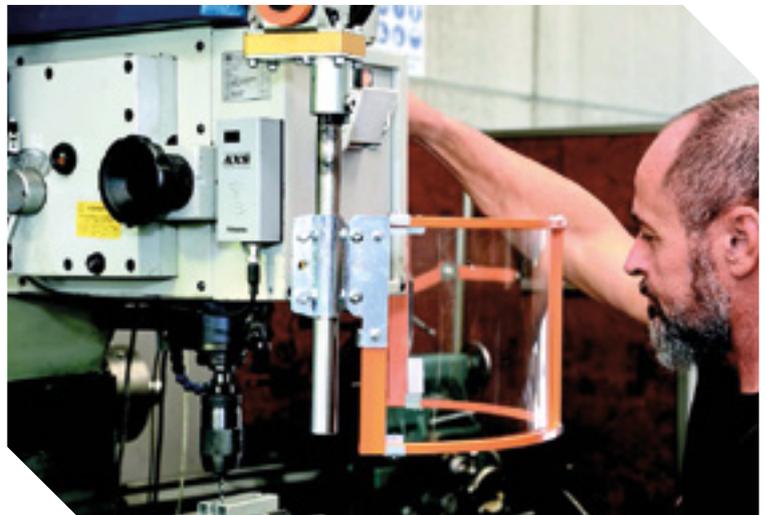
»» AXS 02

In addition to being able to recognize whether one or more operators are authorized to access the protected area, it does not enable the machine to be authorized until until each operator presents his badge again when exiting. This control prevents accidental restarting of the machine by other authorized personnel who ignore the presence of the operator inside the dangerous area.



»» AXS 10

It gives direct power over the machine or the forklift controls, allowing its use only by authorized personnel. In case of accidental forgetfulness to deactivate the system at the end of the machine use, the system is programmed to auto-disable after 75 seconds.



» R03 SWIFT

This product was created to provide all customers, who need to define hazardous areas, with a steel material solution which is low-cost and easy to install. It was conceived as a self-supporting grid panel, with a mesh size designed to improve visibility of the machine behind the fence.

The "R03 Swift" security system is available in the following versions:

- System "R03 SWIFT" Ø3mm
- System "R03 SWIFT" Ø4mm
- System "R03 SWIFT" Ø3mm inox AISI 304
- System "R03 SWIFT" Ø3mm inox food AISI 304



» R04 LITHE

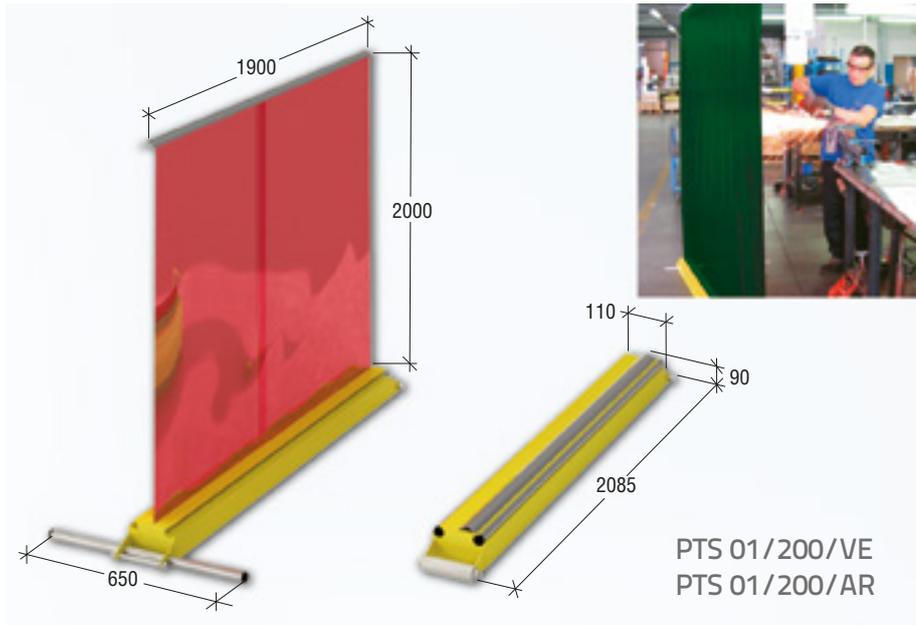
R04 LITHE is a fast assembly perimeter protection consisting of mesh panels 100x22x3 mm and of profiles made of painted aluminum, exclusive TP-REX design, and painted steel tubular uprights 50x50 mm section equipped with exclusive baseplates whose height can be adjusted for small arrangements. The exclusive 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.



WELDING SCREENS

PROTECTION SCREEN FOR WELDING AND GRINDING STATIONS



REFERENCE STANDARD
UNI EN 1598

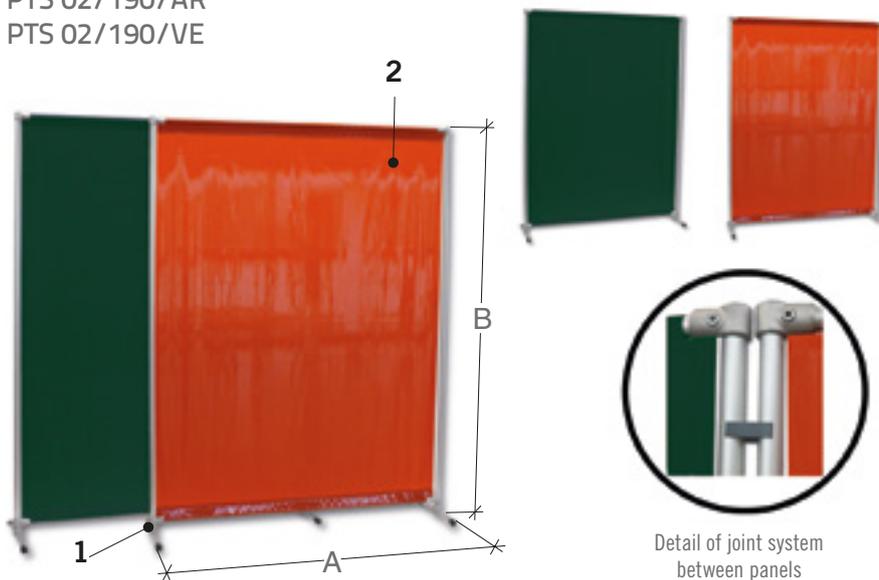
Weld Screen offers protection to personnel close to welding and grinding work areas.

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.

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

SEPARATION PANEL FOR WELDING AND GRINDING STATIONS

PTS 02/190/AR
PTS 02/190/VE



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

REFERENCE STANDARD
UNI EN 1598

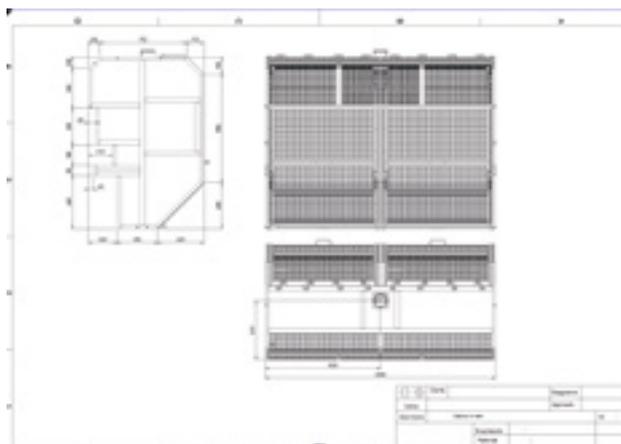
Protects personnel close to welding and grinding work areas from projection of sparks and metal chips produced by welding machine.

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.

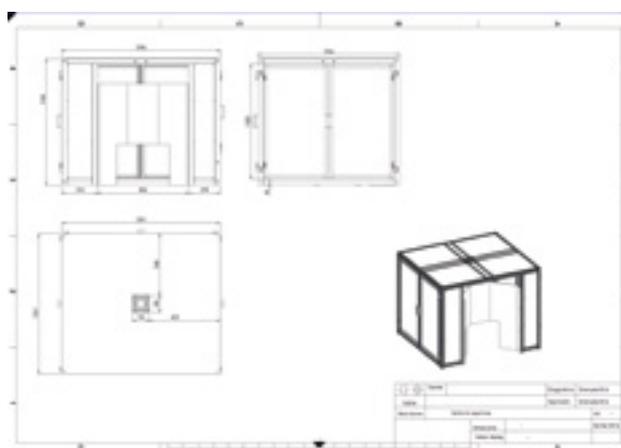
Code	A	B	Kg
PTS 02/190/AR	1900	2000	7,0
PTS 02/190/VE	1900	2000	7,0



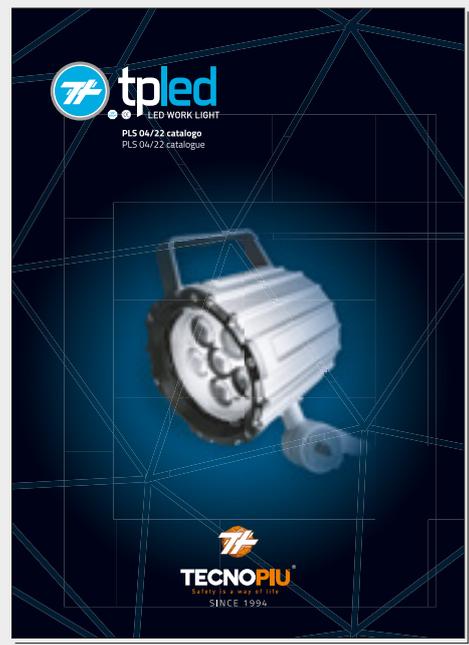
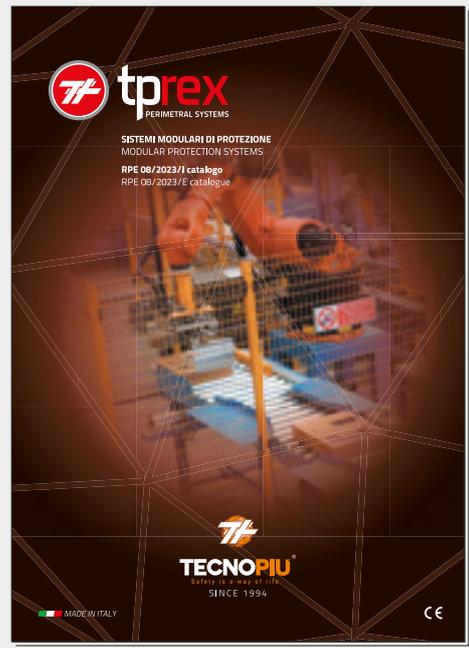
Tecno Più produces safety systems and customized guards for special machines, made of extruded aluminum profile and antishock plastic material, steel-metal or net. Design, if not provided directly, is developed in cooperation with the customer to meet any requirement, from the easiest to the more complex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



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



Our catalogues



TECNO PIÙ group



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





SAFETY

is a way of life

n
respect
e
professional
a s s i o
t y
experience





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