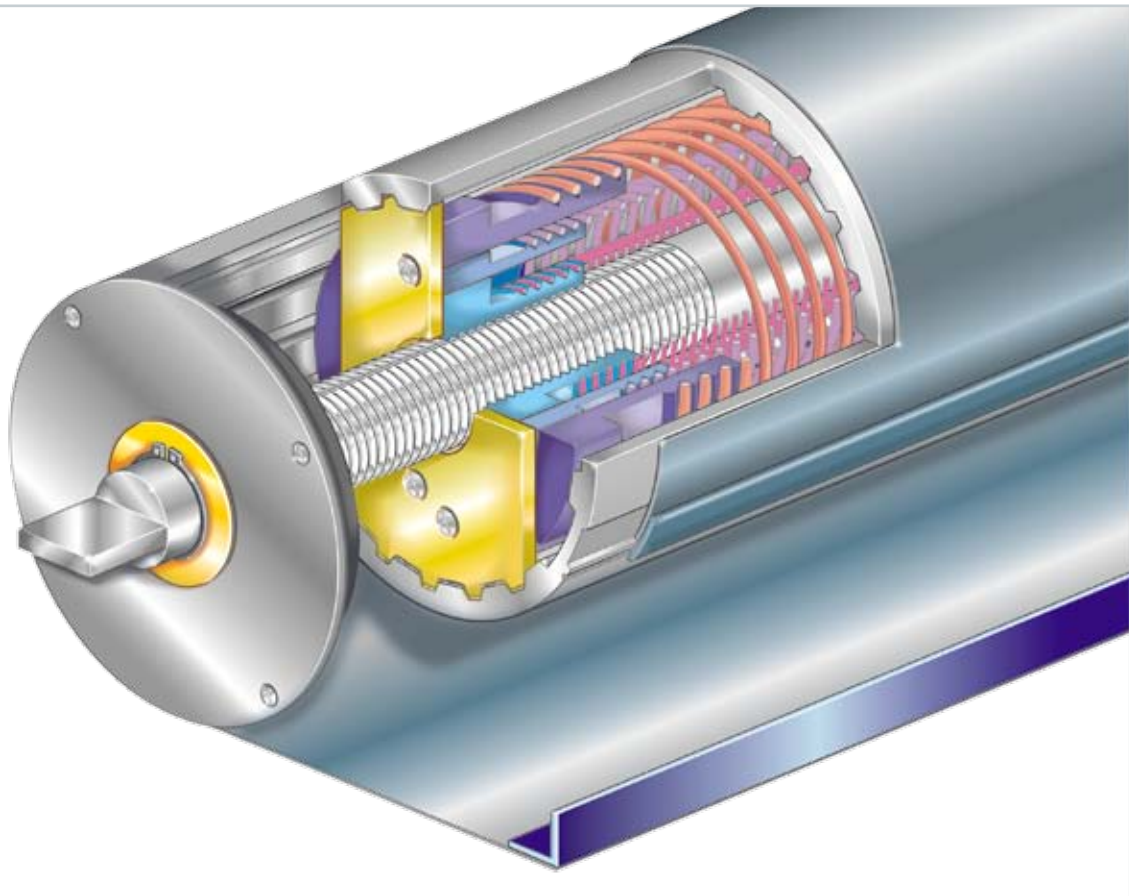


### SURE-SPRING®



The P.E.I. **Patented design** known as **SURE-SPRING®** represent the most advanced level of technical innovation in the field of roll-up covers.

The spring mechanism design takes into account the intrinsic defects in other rollers available on the market, and overcomes them by means of a radical new design of the spring mechanism.

The second major innovation consists of the mechanical system to fasten the band to the tube.

No adhesives are needed for this roll-up cover!!

In addition to those of standard P.E.I. roll-up covers, P.E.I. **SURE-SPRING®** roll-up covers offer the following advantages:

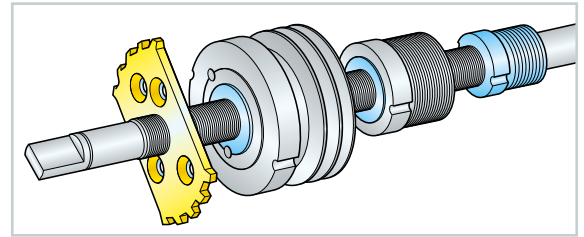
- **Suitable for HIGH SPEED operation**
- **The multiple springs remain COAXIAL**
- **The springs NEVER INTERSECT**
- **REDUCED overall diameters**
- **EXCELLENT reliability**
- **Advancement speeds of up to 150 m/min**
- **Acceleration of up to 2 g**
- **2,000,000 movements guaranteed**
- **SECURE attachment of the band to the tube, because NO adhesive products are used**
- **PRACTICAL maintenance, since the band can be replaced quickly and easily**
- **Also suitable for use in work environments where STRONGLY AGGRESSIVE chemicals are used**
- **HEALTHY for the environment.**



## SURE-SPRING® Technical Specifications

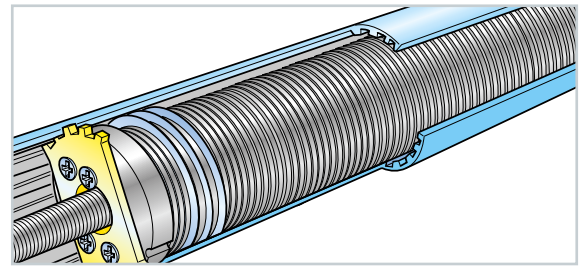
### Transmission

The rotary movement of the tube in relation to the fixed central shaft is transmitted by a sliding spline. This system compensates for the elongation of the multiple springs by moving the spring mounting point axially along a threaded shaft.



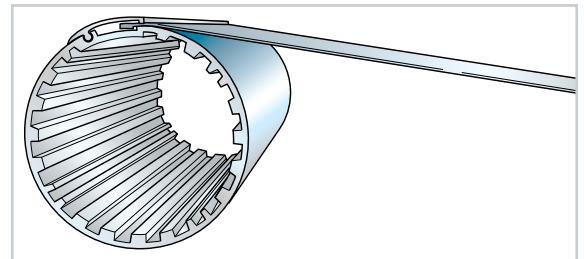
### Innovative features

This new system allows the multiple springs to work according to an ideal geometry, keeping their coils properly spaced.



### Mechanical system attaching the band to the tube

This is the most reliable system for insuring a secure attachment between the band to the tube.

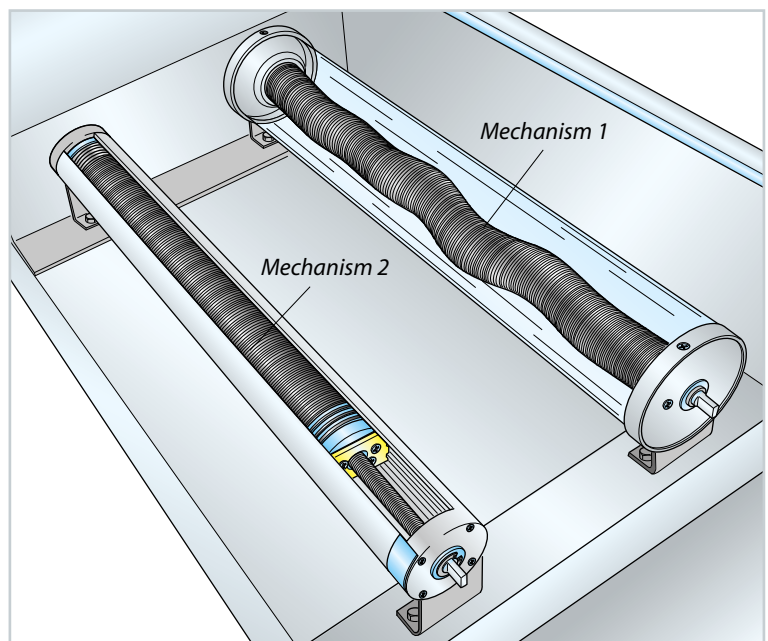


## SURE-SPRING® Operating diagram

This illustration clearly highlights the different behavior of the spring mechanisms during operation:

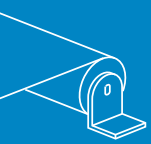
- In Mechanism 1 (traditional system) the springs are rigidly attached to the fixed caps at the ends of the shaft.  
In this system the springs helically twist and snake while winding or unwinding, causing obvious problems of friction and wear between the coils as well as between the coils and the central shaft.
- In Mechanism 2 (**SURE-SPRING®** system) the springs are attached to a special moving cap, which slides lengthwise while winding and unwinding, keeping the spring coils packed and concentric at all times. This spring configuration avoids most of the wear mentioned above, allowing better performance and a much longer operating life-span for the spring mechanism.

For recommended dimensions see page 13.

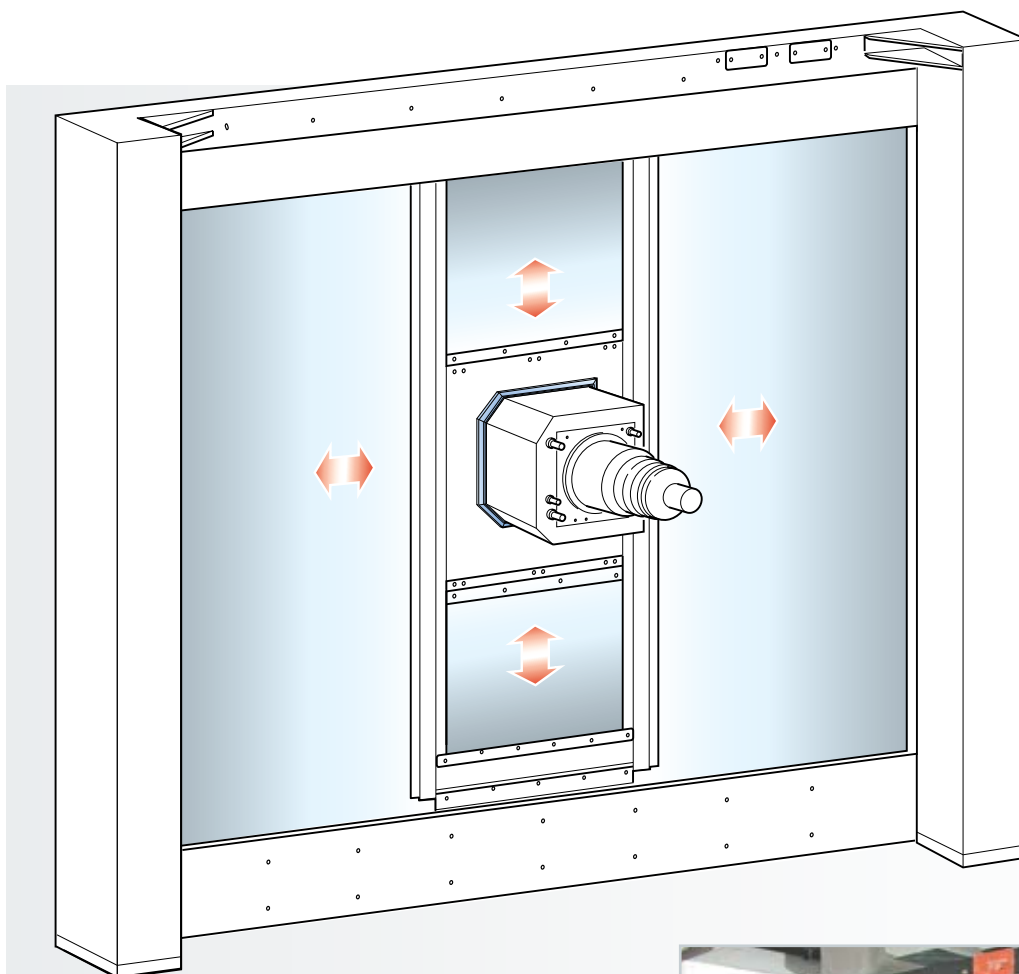


Mechanism 1: Traditional system

Mechanism 2: P.E.I. **SURE-SPRING®** system



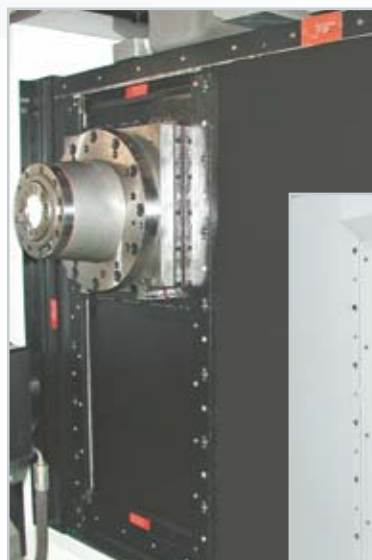
### X-Y 4R SHIELD



- The **X-Y 4R SHIELD** is a truly effective solution to the problem that occurs in horizontal machining centers when separating the tool working area from the motor area.

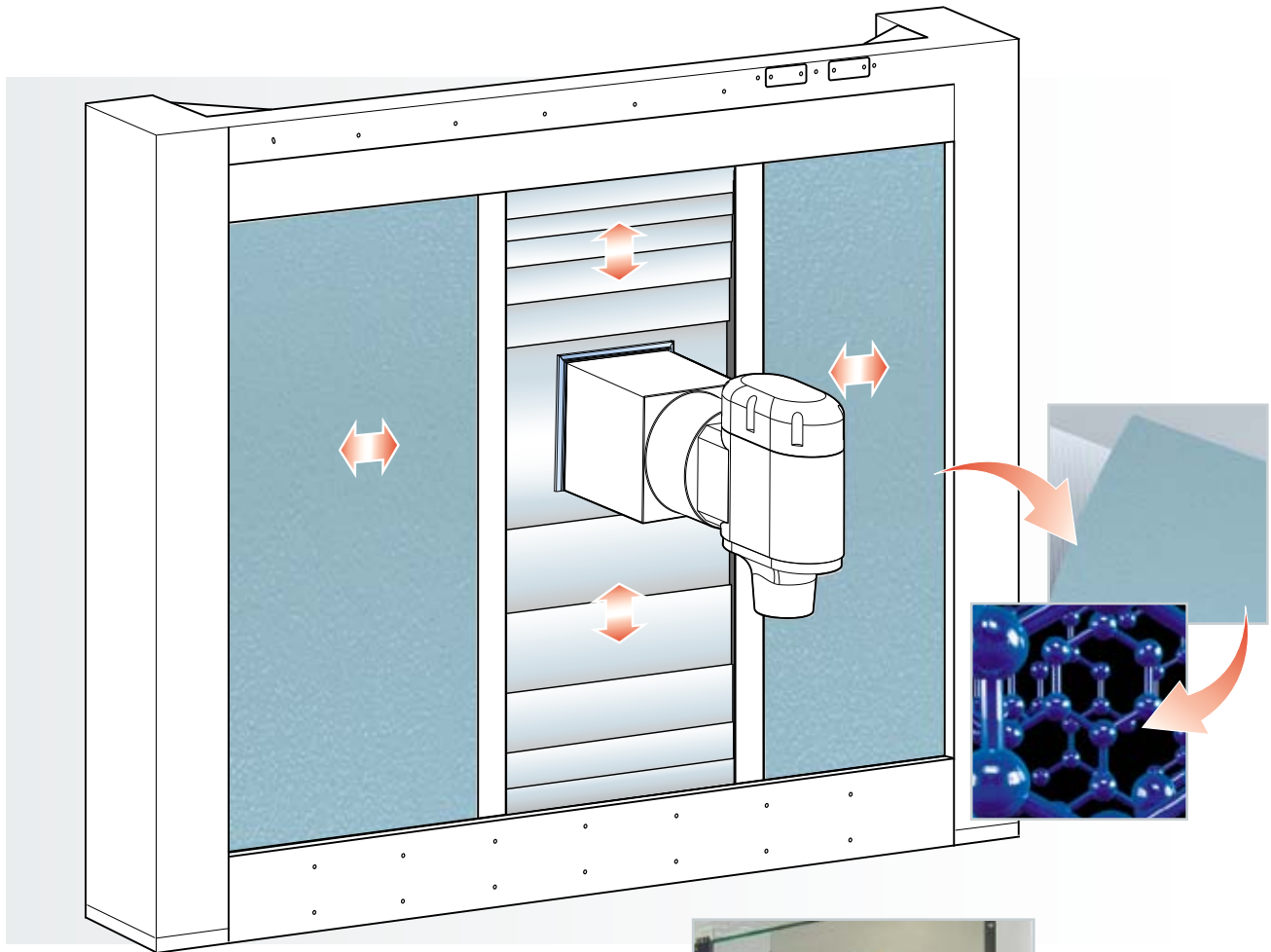
The protective wall of the **X-Y 4R SHIELD** encloses and seals the machine, while at the same time allowing the spindle to move freely in all directions.

- The **X-Y 4R SHIELD** uses four **SURE-SPRING®** roll-up covers, making the system very sturdy and reliable, even for the fastest machine tools on the market.
- **X-Y 4R SHIELDS** are designed for acceleration up to 1.5 g and speeds up to 90 m/min.  
Special designs are required for higher accelerations and speeds.
- The modular system is designed to the customer's specifications, allowing rapid assembly of the machine.  
Its simple design makes maintenance and inspection easy.





## X-Y SP-2R SHIELD



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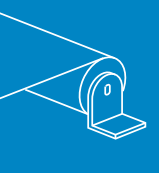
- The **X-Y Sheet-Pocket™-2R SHIELD** offers all the advantages of **X-Y 4R SHIELD**.

It represents the most reliable system for protecting the work area, on the horizontal and vertical machining centers, in an environment where a large quantity of hot shavings is produced.

As shown in the above picture, this system is mounted on a **SHEET-POCKET™** Steel Cover (patented - see page 9) on the Y-axis and two rollers on X-axis with **Ceramix** bands:

- ✓ **CERAMIX** is a very resistant band covered by a high ceramic polymer coating.
- ✓ **CERAMIX** is very reliable and ensures excellent resistance against the impact of hot shavings and is efficient also in cases of dry-working. It is very resistant against mineral oils too.
- ✓ **CERAMIX** has an excellent abrasion resistance and excellent shear strength.
- ✓ **CERAMIX** has a compact size and is light weight.
- We can guarantee this system up to accelerations of 1 g and speeds up 90 m/min. For higher applications, please contact our Engineering Department.  
(See Technical Characteristics of Ceramix band on pages 52-53 under code TEMAT180).





**ROLL-UP COVERS FOR LATHES**

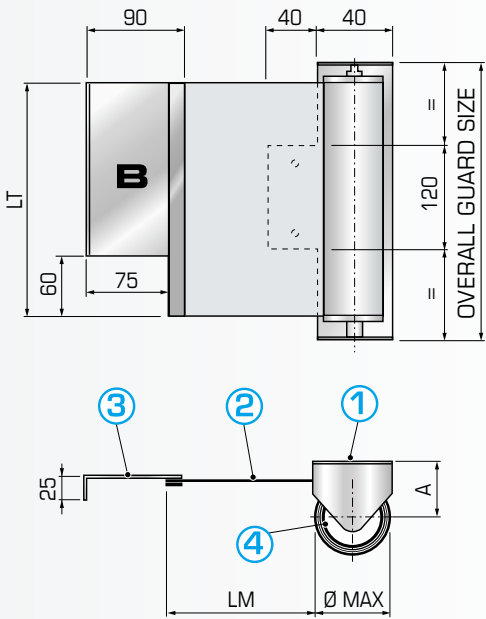
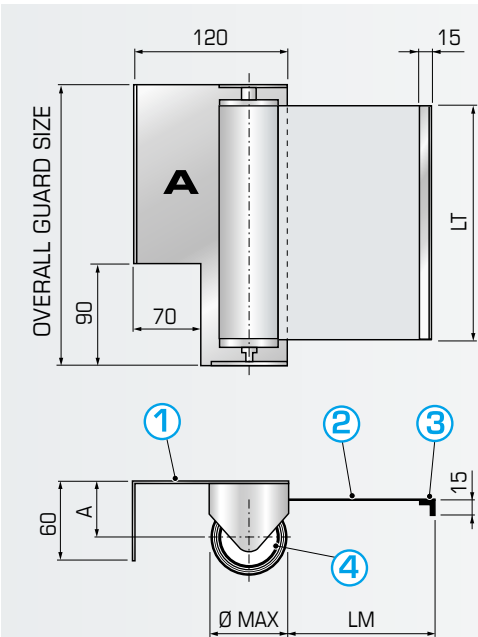
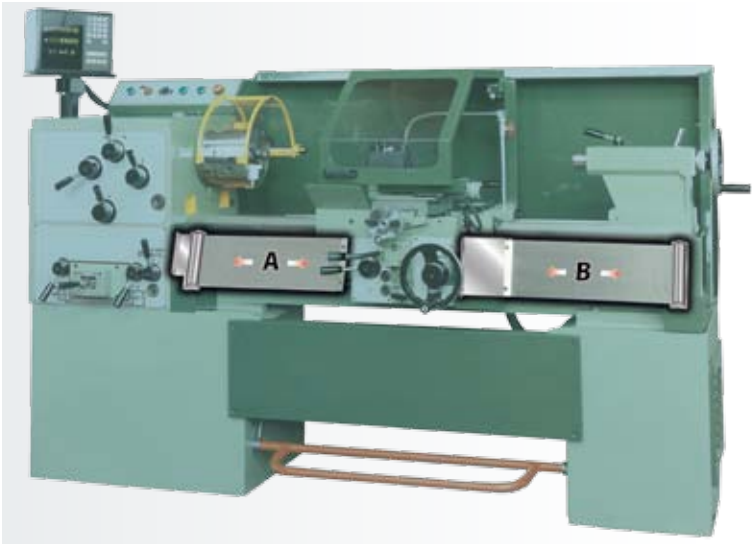
**P.E.I. ROLL-UP COVERS for LATHES** respond to the need to limit hazards caused by movement of the lead screw and/or spline shaft.

**P.E.I. ROLL-UP COVERS for LATHES** offer the following advantages:

- Ease of installation.
- Adaptable to any type of lathe.
- Compact size.
- Shatter-proof in case of accidental breakage.

**CHARACTERISTICS OF ROLL-UP COVERS:**

- BRACKET of galvanized steel for fastening to the machine.
- BAND of coolant and oil resistant fabric
- RETURN MECHANISM with single or multiple springs
- Contact our engineering department for housings and cover guards **PER CUSTOMER DRAWINGS**.



- KEY:**
- ① ③ **BRACKETS:**  
of galvanized steel
  - ② **BAND:**  
of coolant and oil  
resistant fabric
  - ④ **RETURN  
MECHANISM:**  
with single or  
multiple springs

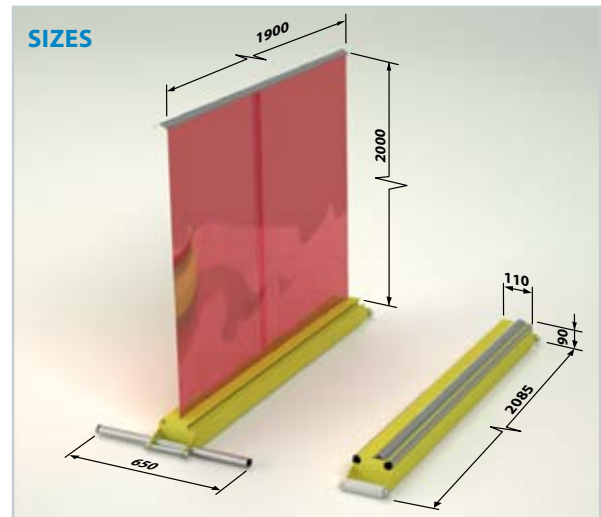
STANDARD SIZE					
Code	Description	ID Code			
		LT150LM1200	LT200LM1500	LT200LM2000	LT250LM3000
LT	Band Width	150	200	200	250
LM	Max. Length	1200	1500	2000	3000
Ø MAX	Max. Diameter	48	52	62	83
A	Distance between supports	33	50	50	50
Measurements in mm. OVERALL GUARD SIZE = LT + 30					



## WELD SCREEN

**WELD SCREEN** is a protection screen for welding and grinding stations.

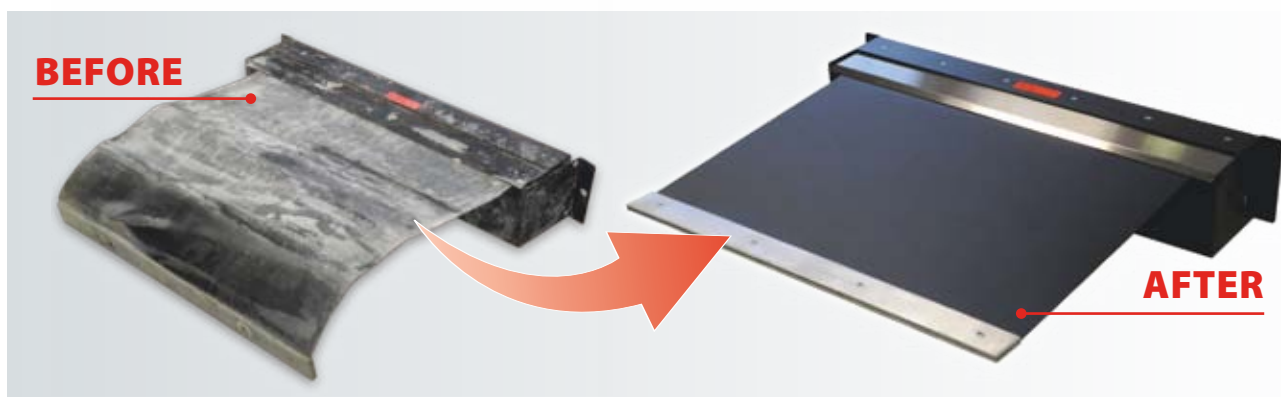
- **WELD SCREEN** offers protection to personnel who are in the vicinity of welding and grinding work areas. The semi-transparent screen protects personnel from contact with metal chips and sparks produced during the welding and grinding processes.
- **WELD SCREEN** is fitted with a mobile stand allowing the user to adjust the screen as required.
- **WELD SCREEN** is foldaway making it compact and portable.



### TECHNICAL DATA

- ✓ **WEIGHT:** 8,9 Kg
- ✓ **REFERENCE STANDARD:** UNI EN 1598  
DL 626/94 DL 81/2008
- ✓ **AVAILABILITY:** Immediate

## Roll-up covers REVISION



- Overhaul of ALL TYPES of ROLL-UP COVERS AND SHUTTERINGS WITH OR without Canister
- Replacement of the damaged FLEXIBLE COVER, SHUTTERING or BAND
- Replacement of the MECHANISM
- Replacement of WIPERS or other COMPONENTS if worn-out
- Cleaning and buffing of ALL SURFACES to original finish
- If the roll-up cover should be too damaged, we can build a new one

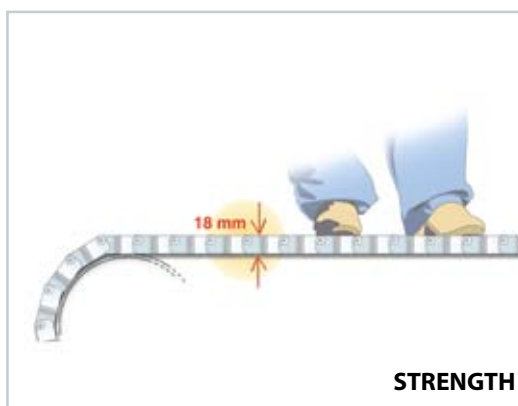
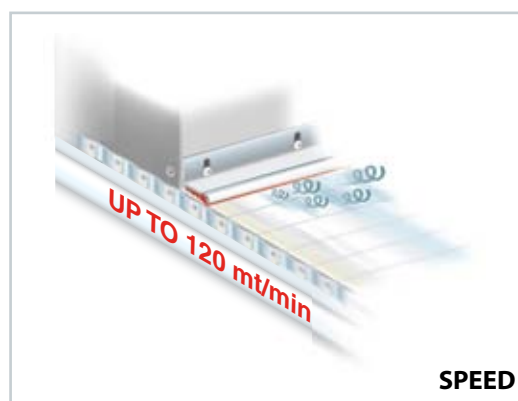
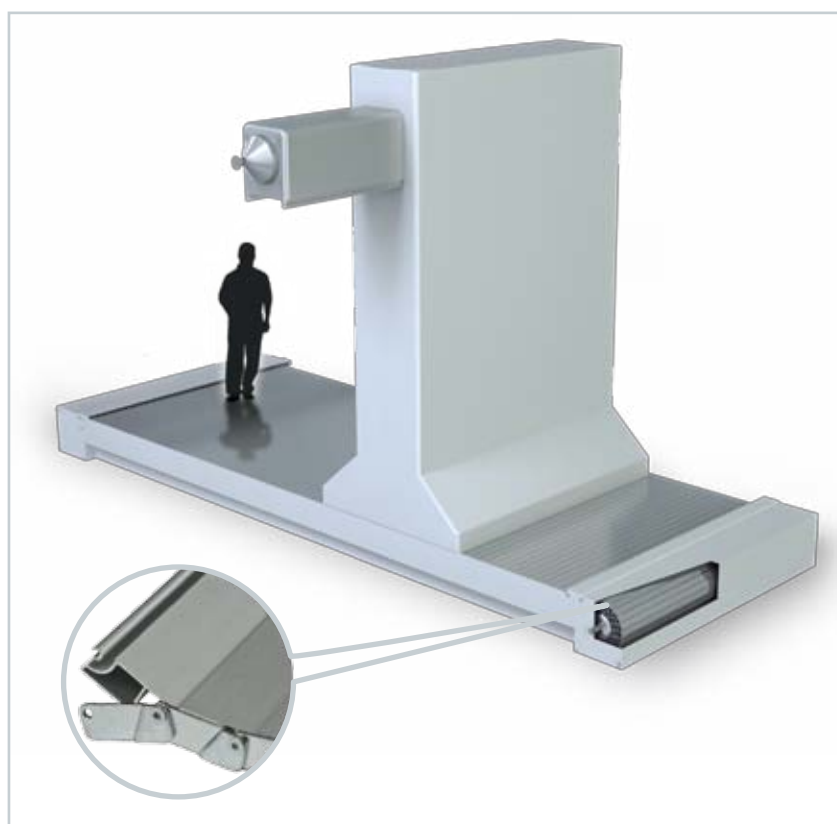
**SHORT DELIVERY TIME**



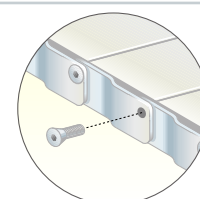
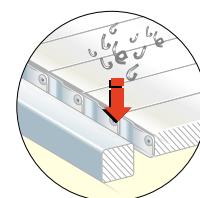
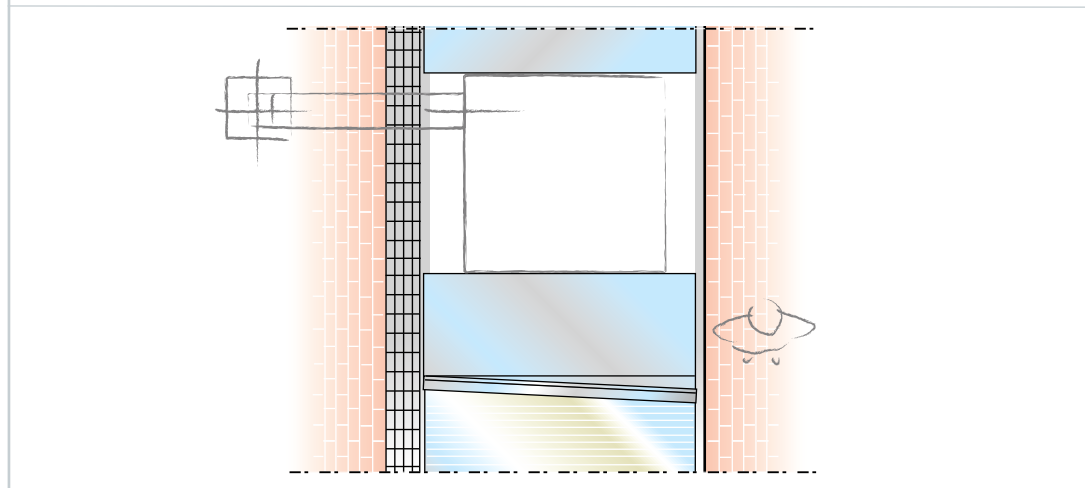
### Roll-up Covers with COVER TYPE J

Roller protections equipped with **type-J SHUTTERING** are particularly suitable for covering large bases, pits or holes. These protections have the following characteristics:

- **SPEED:** suitable for high speed applications, both dry and coolant processing.
- **QUIET:** thanks to the mechanical roller system, there is no noise caused by collisions or vibrations.
- **STRENGTH:** particularly suitable for walk-on applications.
- **CLEANING:** the belt slide on the side of the shaving conveyor has been designed to make the shaving fall in the conveyor without causing any clogging.
- **RAPID MAINTENANCE:** if some elements are damaged the belt does not need to be removed. The damaged elements can be removed simply by unscrewing lateral screws.



The wiper is slightly angled relative to the travel direction of the cover so as to force the chips and coolant towards the chip conveyor trough side.

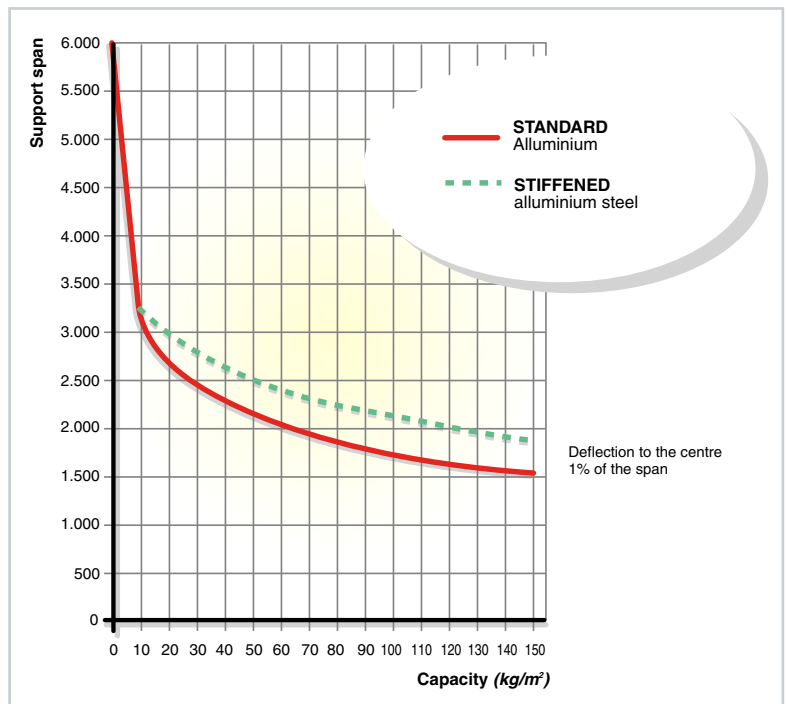




## Roll-up Covers with COVER TYPE J

### TECHNICAL DATA FOR COVER TYPE J

- **Entirely** made of metal
- Perfect **flatness** of the side exposed to chips
- Cleaning **wiper** on the side exposed to chips
- **Shielded** joint with integrated labyrinth to prevent coolant from getting trough
- High **bending resistance**. See graphic of Span/Capacity
- **Reinforced version** with steel profiles
- Highly resistant to tensile stress.  
Minimum guaranteed **2 KN/m of width**
- Steel lateral caps with **chain** joint
- Thickness of the carpet: **18 mm**
- Take-up in both directions on a **150 mm** diameter
- Reduced weight: **12.5 kg/sqm**  
(**29 kg/sqm** for the reinforced version)
- **Modular** system with individual interchangeable elements
- Operating speeds up to **120 m/min**
- Life guaranteed: **1.000.000** movements

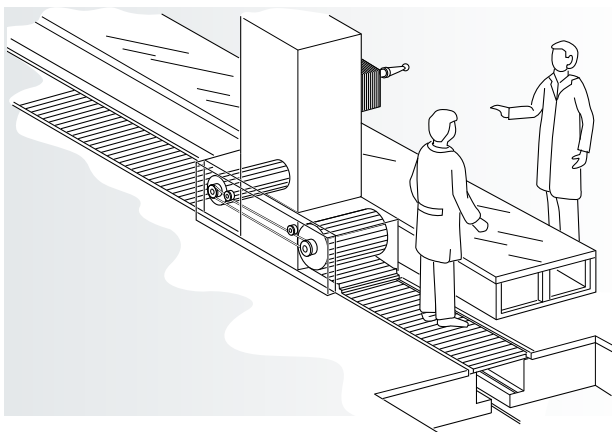


P.E.I. manufactures these moving walkway/pit covers for horizontal, mobile surfaces, to meet accident prevention and safety regulations. These units cover the upper part of the machine pit whose base is below the walking surface and allow the crossing of the pit by anyone, thus avoiding possible accidents or damage to people or equipment which could occur with the pit uncovered.

The variable speed drive system, which allows for mechanical speed control, makes the drive system independent from the general machine control system. Size and speed are established by the customer and studied by our technical staff in order to obtain optimal operation.

## Special Product: Roll-up Covers with Chain Movement

P.E.I.'s patented system of **ROLL-UP COVERS WITH CHAIN MOVEMENT** have the essential feature of keeping the strip perfectly fixed while the machine is running.



- The band is fixed relative to the floor, allowing people to cross the machine trench at any time even while the machine is in operation.
- During operation, the special interconnecting chain causes the unwinding action of one roll to automatically wind-up the opposite roll. Our patented compensating mechanism keeps the system in balance, even though the diameters of rolls continuously change.
- The patented compensating mechanism is very compact and is mounted to the machine column in its own canister.
- The patented design insures a perfectly functional and reliable design.
- Upon request, we can design a system using DC or pneumatic motors.
- The dimensions, layout, and speed of travel are developed for each order and can meet your exact needs.