

艾泰克机械防护系统（太仓）有限公司

EITEC machine protection systems (Taicang) Co., Ltd.

鳞甲防护系统

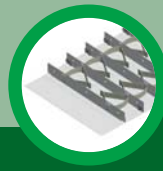
*EIPRO Steel Lamellae
Systems - EPS*



15.Version

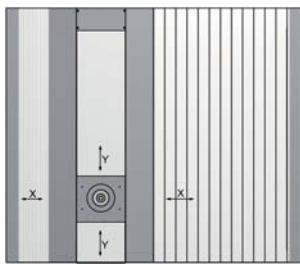


刮屑板·铝合金链式防护帘·钢板防护罩·工业卷帘·风琴式防护罩·鳞甲·模块化防护系统
Way Wipers · Alu Apron Covers · Steel Covers · Roll-Away Covers · Bellows · Steel Lamellae · EIPRO Modular Cover Systems



创新性的X/Y/Z轴防护系统

该防护系统由钣金成型的不锈钢组件层叠组成并达到最小的压缩长度。一种新型的拉伸-压缩弹簧部件将金属鳞甲片连接起来，形成了一个长度可变、鳞甲片同步运动、系统可高速移动的防护罩。较大的预张紧力确保鳞甲片形成一个致密的闭合表面，用以对整个导轨提供针对污垢，冷却润滑液，热切屑等的防护。



X/Y轴防护系统
Cover system for X/Y-axes



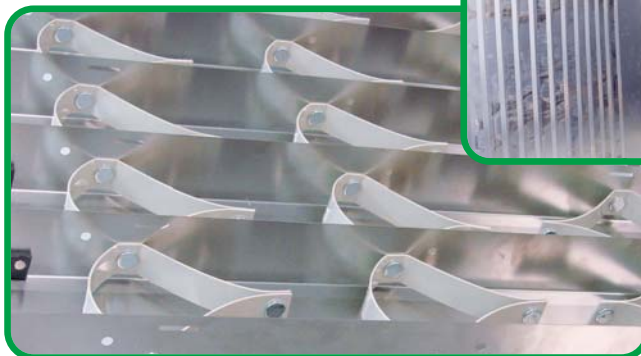
不锈钢鳞甲系统的后视图
Rear view of the steel lamella system

鉴于新开发的连接鳞甲片的拉伸-压缩弹簧单元的特殊特性，可以避免鳞甲系统运行中的震动不稳定性，因此该鳞甲系统可在高速（最高150m/min）和高加速度（1.5-2G）的机床上稳定运行。这种特性已经在EITEC的测试中心做过广泛的测试。新开发的鳞甲系统也在EITEC实验室做过完整的实验，在那里我们得到了超过5百万次运行的结果。

Machines with very high acceleration (up to 1,5 g max) and travel speed (up to 120m/min) are securely under control with the newly developed tension-compression spring which, thanks to its special characteristics, prevents vibrational instability. This has been extensively tested on the EITEC test center. Newly developed lamellae systems are thoroughly tested in our laboratory where we carry out long-term tests. More than 5 million cycles have been achieved.



EITEC测试中心 / Testcenter



拉伸-压缩-弹簧元件 / Tension-compression spring element

优点

- 本体质量小，适合高速和高加速度
- 需要的空间较小
- 紧密的表面
- 防护罩启动平稳
- 可选择加装密封的防护布层
- 统一的鳞甲片应力使系统寿命增加。
- 降低了安装费用，得益于完全组装好的、经过功能测试的X/Y防护罩单元
- 精美的外观

Overview of special advantages

- Low inherent mass suitable for high accelerations and travel speeds
- Low space requirements
- Dense surface
- Smooth start-up of covers
- Impervious sealing with optional dense curtain installed
- Long life thanks to uniform stressing of all lamellae
- Reduced installation costs thanks to functionally tested, completely mounted X/Y cover unit
- Attractive design

INNOVATIVE COVER SYSTEM FOR X/Y/Z AXES

The cover system basically consists of bent spring steel components which slide together to achieve a minimum compressed length. A newly developed tension-compression spring connects the spring steel lamellae, resulting in a fast-moving protective cover with variable lengths and synchronous movements across all lamellae. The high pre-tension of the spring steel lamellae ensures a tight and closed surface, thus providing protection against contamination, cooling lubricants and hot chips along the entire guideway.

带角度鳞甲系统的应用

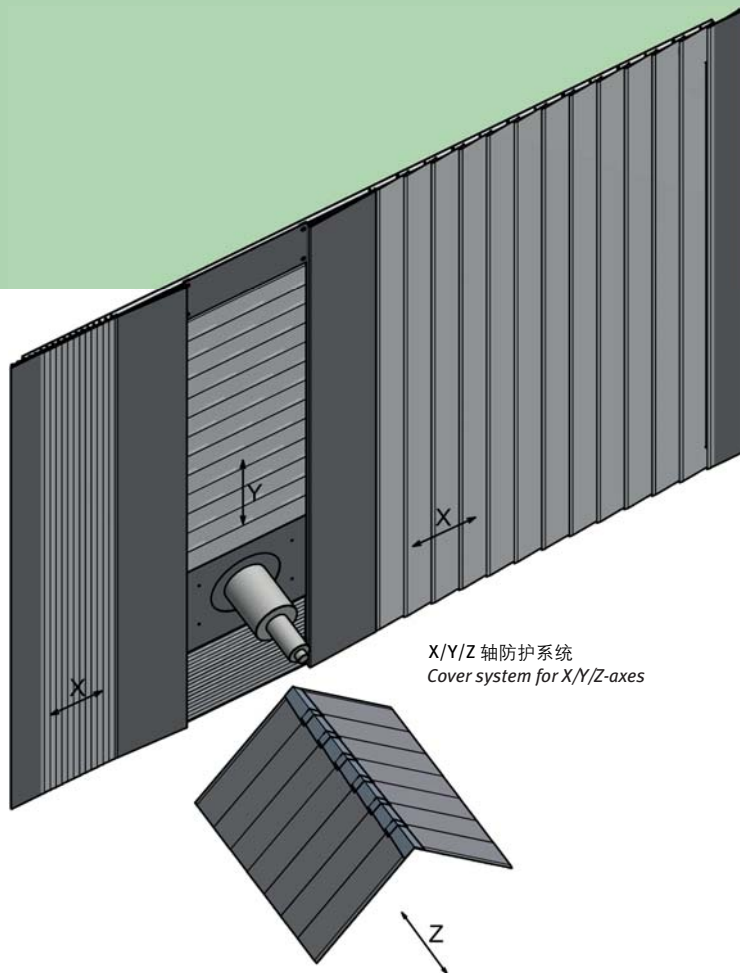
EIPRO鳞甲防护系统可以由若干个防护侧壁简单自由地组成模块化系统

防护侧壁之间的缝隙可用拐角组件妥善覆盖

Universal application also for angular shapes

EIPRO steel lamellae systems can be easily and freely integrated into modules comprising of several cover walls.

Open gaps in corner areas can be covered securely using additional corner components.



X/Y/Z 轴防护系统
Cover system for X/Y/Z-axes

可灵活连接2个斜坡的拐角组件，牢固的固定在一个防护侧壁，并且覆盖另外一个防护侧壁的安装点。因此，鳞甲片可以在两侧自由移动，并对密封没有任何影响。

The corner component used to flexibly connect both pitched slopes is securely fixed to a cover wall and also covers the joint to the second separate cover wall. Thus, the steel lamellae can freely move on either side during traversing without having any influence on the sealing properties.

屋顶形状的Z轴内部视图
Roof shape Z-axis interior view



屋顶形状的Z轴外部视图
Roof shape Z-axis exterior view



拐角组件
Corner component



模块化结构

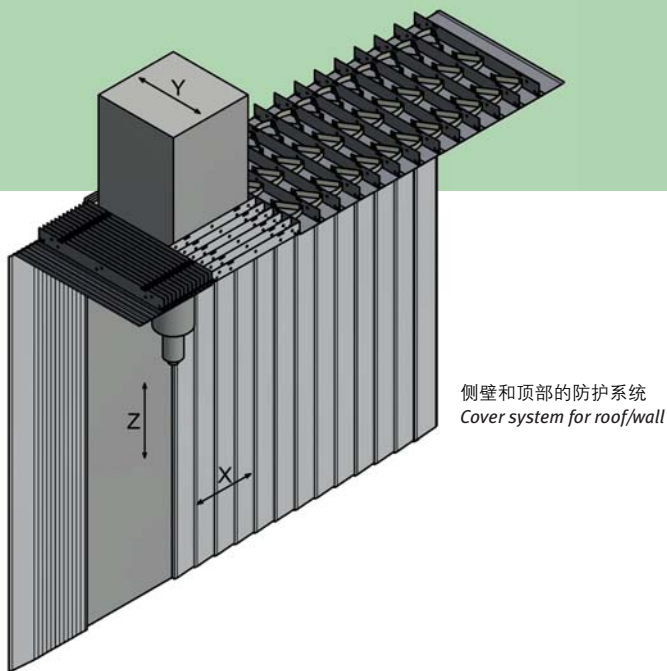
由于防护罩两侧均是可拆卸联接，因此鳞甲系统可以根据客户选择，以装配/未装配的状态来发货。

除此之外，防护罩型号得以减少，并且可以灵活的组合以适用不同型号不同尺寸的机床。

Modular Structure

Based on the detachable connection of both sides of the cover, it is possible to allow for individual requirements regarding assembly / disassembly and delivery of the cover system.

Apart from that, the diversity of models gets limited and creates a possibility for flexible combinations for serial machines of different types and dimensions.



侧壁和顶部的防护系统
Cover system for roof/wall



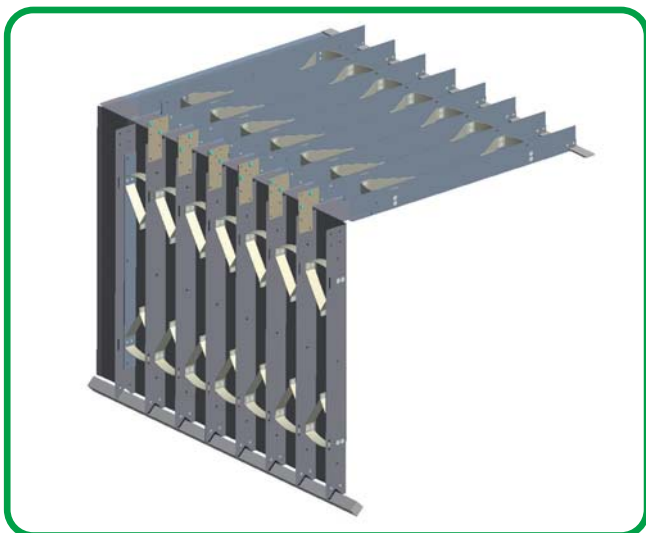
工作中的EIPRO鳞甲防护
EIPRO steel lamellae in operation

顶部防护和侧壁防护的边缘用螺丝连接在一起，形成一个可简单拆卸的固定连接。

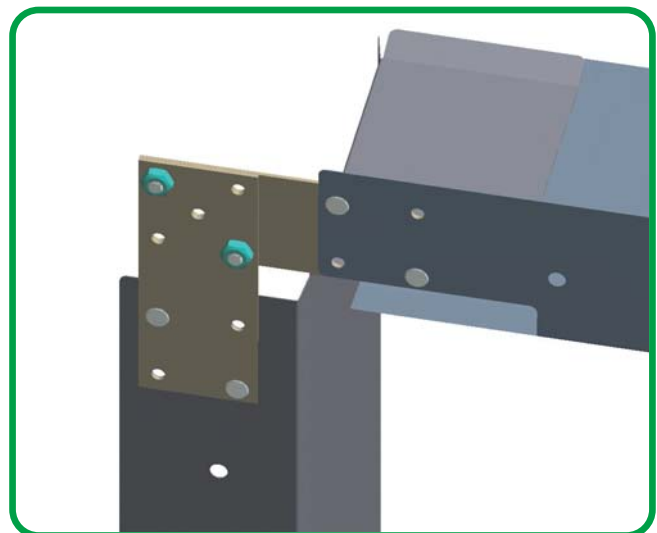
Roof cover and cover wall are screwed together in the corners, resulting in a force-locked connection which can easily be undone again.

请联系我们进一步了解其他连接方式。

For further information regarding different types of connection please contact us.



侧壁和顶部的防护系统 / Cover system for roof/wall



角接头 / Corner joint

EIPRO STAHLAMELLEN - EPS

EIPRO STEEL LAMELLAE SYSTEMS - EPS

导轨

鳞甲防护系统可以采用现有的标准PVC滑块，也可以根据您的需求测绘定制。

对于大型鳞甲系统，可以采用钢质轨道加滚轮，或者滑块加钢销的导向方式。

根据不同的联接情况，可选择合适的轨道截面形状。

Guide rails

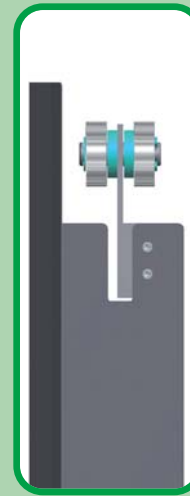
The lamellae covers can either be guided by using the existing standard version of PVC gliders or it is possible to develop your individual made-to-measure solution.

For particularly large dimensions, track rollers in steel guides or steel bolts running in slide rails are used.

Suitable rail profiles can be selected depending on the existing connection situation.



鳞甲片和滑块
Lamella with glider



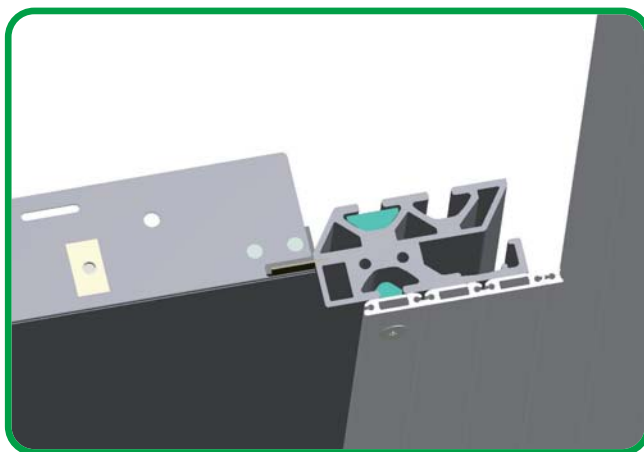
鳞甲片和滚轮
Lamella with track roller



鳞甲片和钢销
Lamella with steel bolt



EIPRO模块化套件中的鳞甲



鳞甲也可整合到EIPRO模块化套件中。

采用EIPRO导轨，铝合金链式防护帘和鳞甲系统可以组成完美的组合式防护。

EIPRO导轨也可防止切屑从侧面进入鳞甲内部。

Steel lamellae in the EIPRO Modular Kit

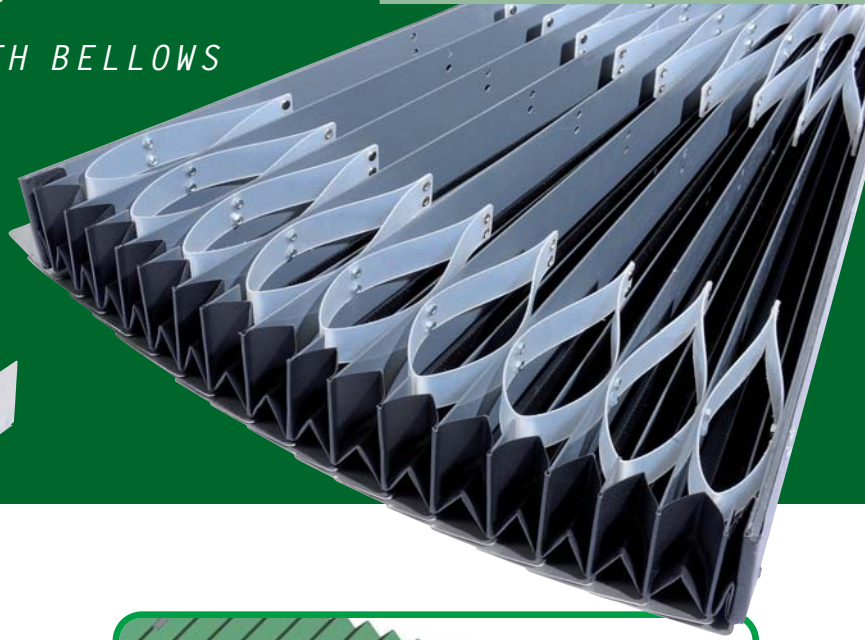
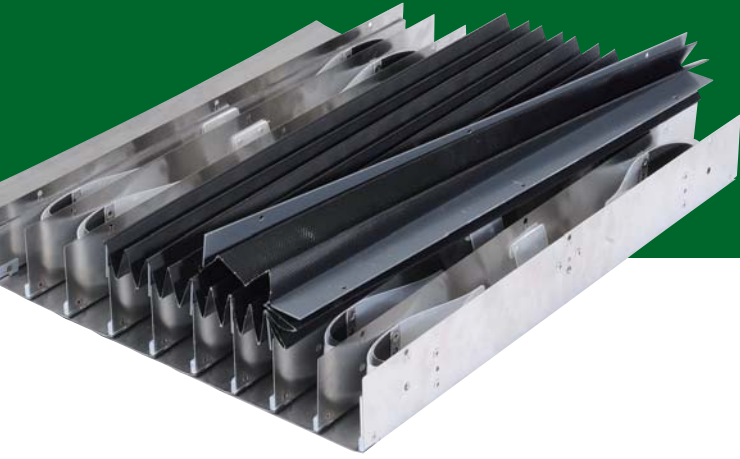


Steel lamellae can also be integrated in the EIPRO Modular Kit. Cover combinations made up of Aluminium apron covers and steel lamellae covers are perfectly balanced when using the EIPRO guide rails.

EIPRO guide rails also provide protection from chips getting into the steel lamellae system from the sides.

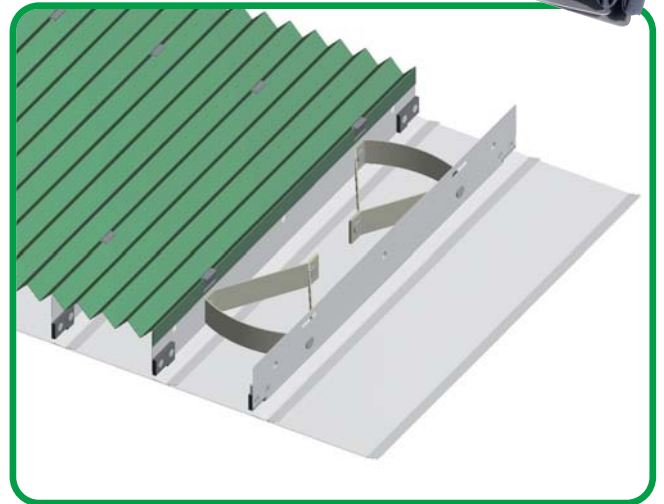
EIPRO 带风琴护罩的鳞甲防护系统

EIPRO STEEL LAMELLAE WITH BELLOWS



EIPRO鳞甲防护系统提供的安全防护可抵御热切屑和冷却润滑油。一个显著特征是，作为选装项目，可以在背面加装风琴式防护罩。防护罩上一些可拆卸的连接件例如弹簧卡夹就是用于此用途，并且使后期加装额外部件成为可能。

EIPRO steel lamellae systems provide safe protection from hot chips and cooling lubricants. An outstanding feature of these systems is that additional rear bellow covers can be fitted as an option. Detachable connecting elements such as spring clips are used for this purpose also and enable the existing covers to be upgraded at any time later on.



带风琴防护罩的鳞甲系统
Steel lamellae with clipped-on bellows

EIPRO = EITEC-PROTEC
EPS = EITEC-PROTEC Steel lamellae

其它产品

FURTHER PRODUCTS



刮屑板
Way Wipers



铝合金链式防护帘
Alu Apron Covers



模块化防护系统
EIPRO Modular Cover Systems



工业卷帘
Roll-Away Covers



风琴式防护罩
Bellows



钢板防护罩
Steel Covers

请联系我们
EITEC给您机床内防护系统的建议

Please contact us –
will be glad to advise you on
EITEC-PROTEC!

Steel-Away Covers are individually designed to protect people and machines. Their possible applications are almost unlimited. Roll-Away Covers are designed for optimum service life and due to their material structure they are subject to wear in dynamic use.