

## 完整防护罩系统

### Complete protective cover systems

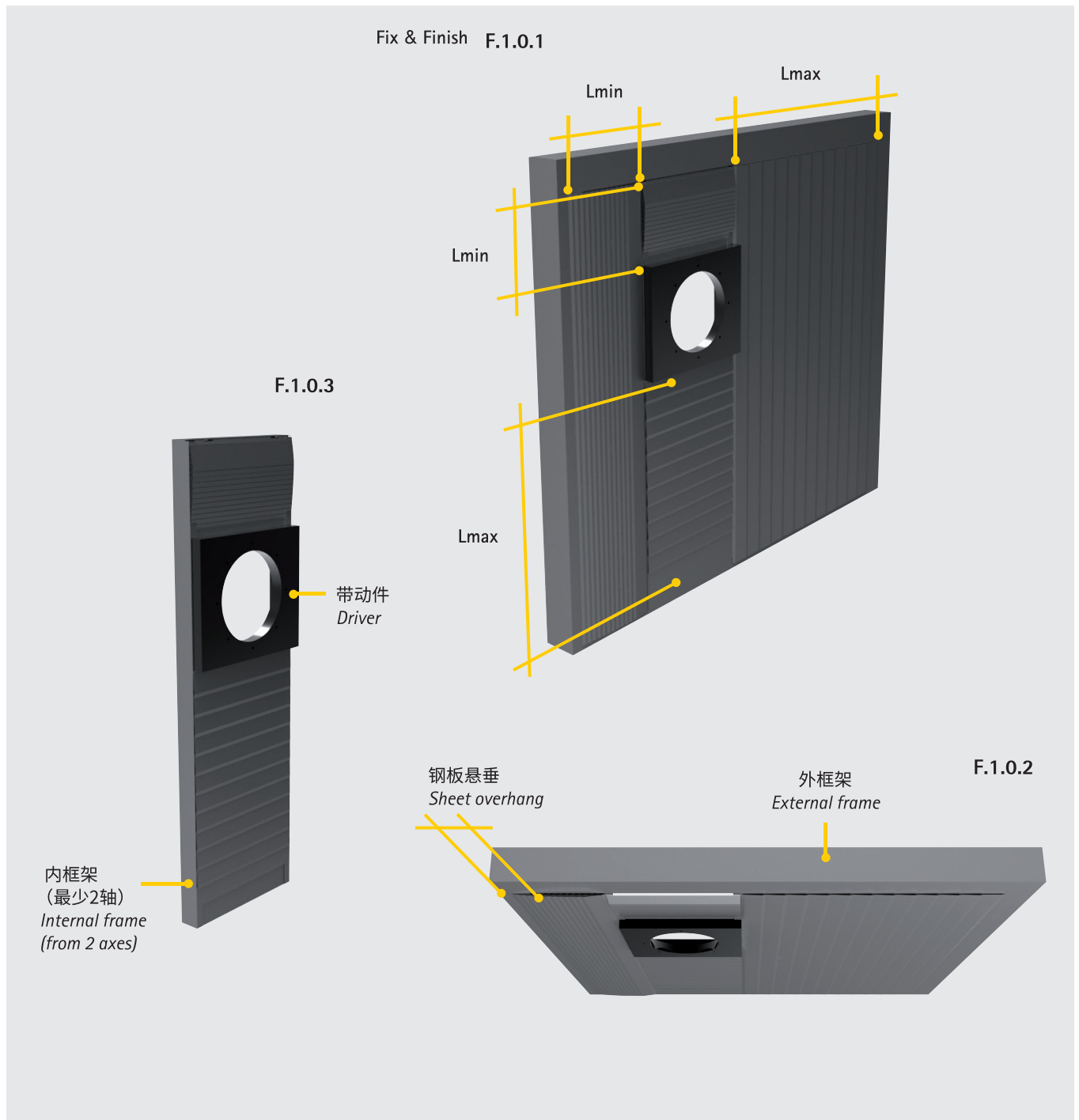
**FIX & FINISH®**

适用单轴或多轴的Fix & Finish防护罩将各部件组合成用户友好的完整系统。阿诺德公司可以精确适配客户需求，为客户预制产品并提供安装服务，将客户公司现场的装配工作降至最低。一轴、二轴或三轴的模块化结构还有其他一系列的优势。Fix & Finish也可以作为机器后面板或顶板，安装在您能想到的各种安装位置。Fix & Finish在高动态应用场景下证明了自身的不俗实力，防护罩与机器之间的界面实现了最小化，从而确保了卓越的密封性。

*Single or multi-axis Fix & Finish protective covers combine individual components into a complete, user-friendly system, which is ready-to-install to fit precisely, supplied and fitted by Arnold as desired. The assembly work on the customer's site is thus reduced to a minimum. The modular structure with one, two or three axes has other advantages. Fix & Finish is also available e.g. as a machine foundation board or roof, in every conceivable installation position. Fix & Finish proves itself particularly with high dynamics and achieves a high seal based on the minimisation of interfaces between the protective cover and the machine.*

# 命名法

## Nomenclature



### 缩写解释 / Explanation of the abbreviations

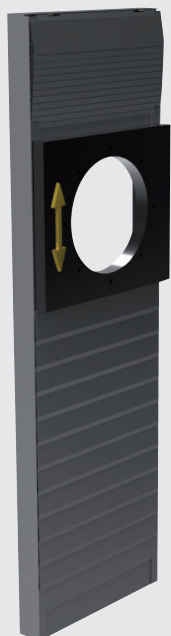
Lmax = 最大拉伸长度 / maximum length

Lmin = 最小压缩长度 / minimum length

行程=最大拉伸-最小压缩 / stroke = Lmax-Lmin



1 轴 F.1.0.4  
1 axis



2 轴 F.1.0.5  
2 axes



3 轴 F.1.0.6  
3 axes



我们提供众多产品组合和个性化的方案，阿诺德的建设团队可为您提供完整防护罩的设计服务。各零部件的计算请见相关章节。

*Because of the many combinations and individual adaptation options, the construction team from Arnold undertakes the design of the complete cover for you. The calculation of the individual components can be found in the respective chapters.*

# 导轨类型

## Guide variations

防护罩的工作区位置  
Location of the work area for the protective cover

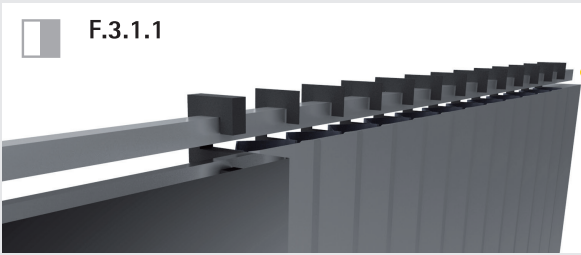


这里列举了Fix & Finish防护罩最常见的基本形状。同经典款波纹防护罩，客户可订购其他形状的防护罩产品。此外，我们还可以提供多种异形防护罩。客户也可以定制特定的几何形状。

The most popular basic shapes for Fix & Finish protective covers can be seen here. As with the classic bellows. In addition, there are already many special shapes. Customer specific geometries are also possible.

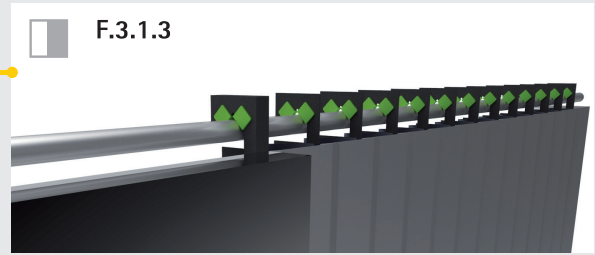
### 顶部的防护罩导轨系统 / Protective cover guidance at the top

F.3.1.1



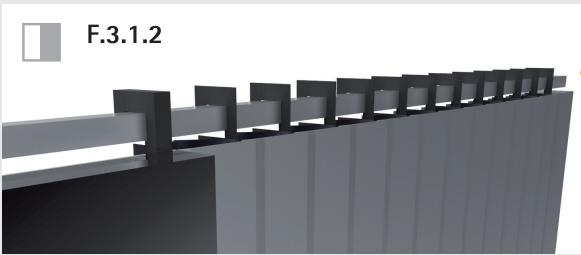
前部导轨  
Front guide.

F.3.1.3



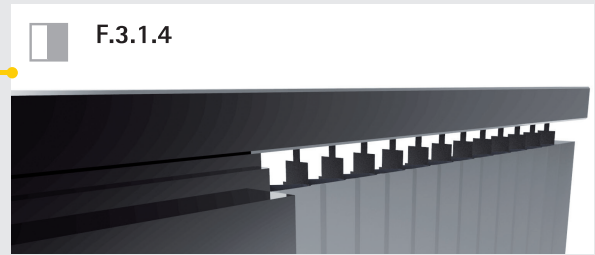
杆导承  
Rod guide.

F.3.1.2



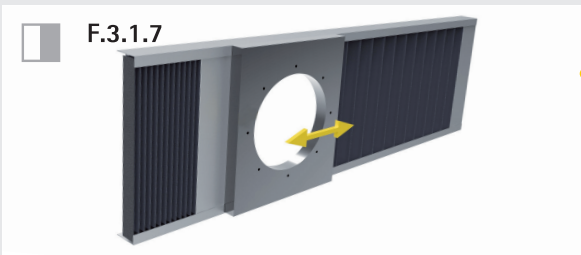
后部导轨  
Rear guide.

F.3.1.4



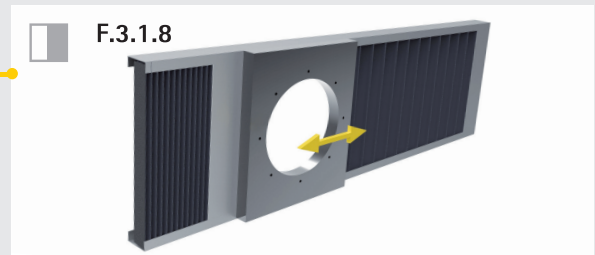
带滑轨系统的导轨  
Guidance with running rail systems.

F.3.1.7



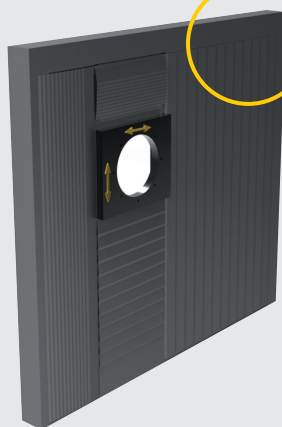
L型轨道导轨  
Guided in L-rails.

F.3.1.8



U型轨道导轨  
Guided in U-rails.

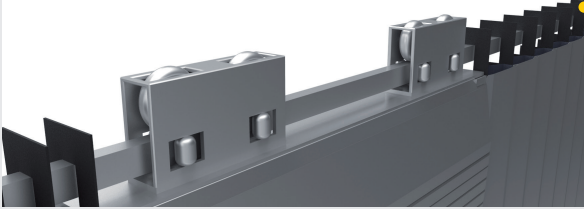
F.1.0.5





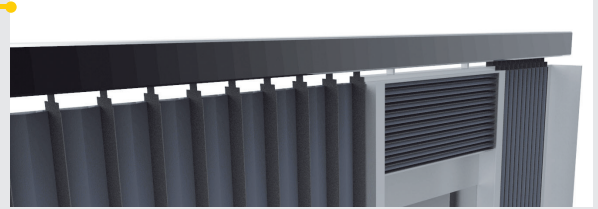
内框架顶部导轨 / Internal frame guidance at the top

F.3.0.4



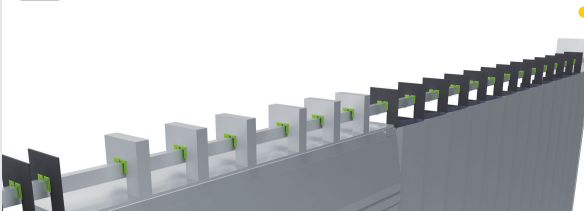
带滑轮  
*With castors.*

F.3.0.7



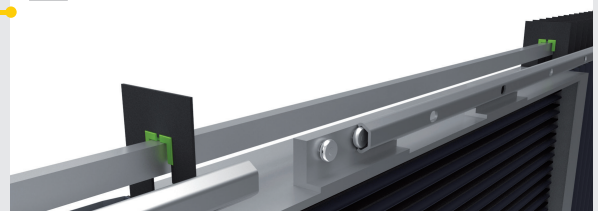
带滑轨系统  
*With running rail system.*

F.3.0.5



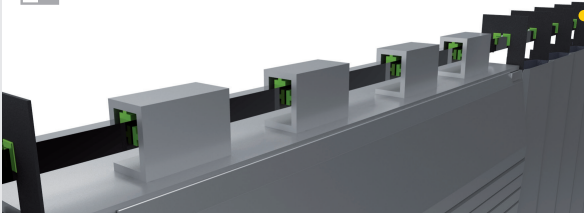
带滑块  
*With sliders.*

F.3.0.8



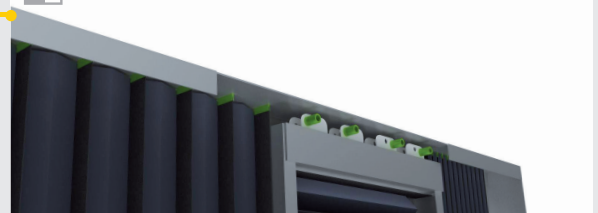
带滑架/滑轨系统  
*With carriage/running rail system.*

F.3.0.6



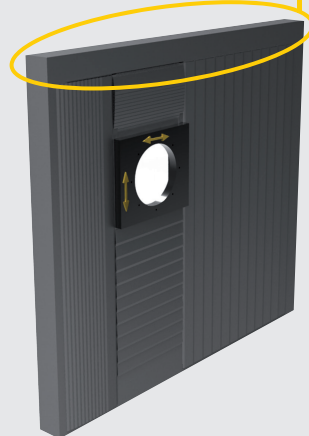
带塑料元件  
*With plastic elements.*

F.3.0.10



底部翻起，用塑料套筒固定，防止摆动。  
*Turned up at the bottom, secured with plastic sleeves to prevent oscillation.*

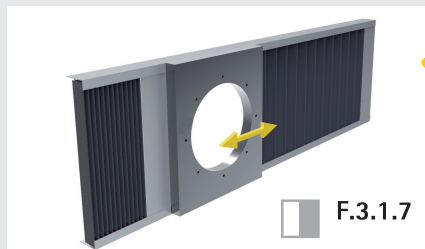
F.1.0.5



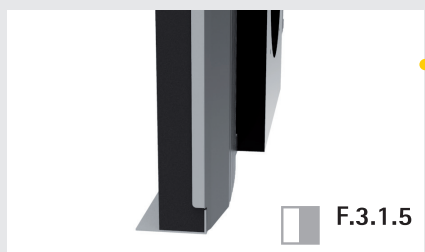
# 导轨类型

## Guide variations

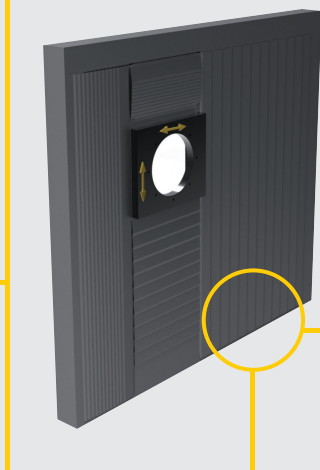
### 底部的防护罩导轨系统 / Protective cover guidance at the bottom



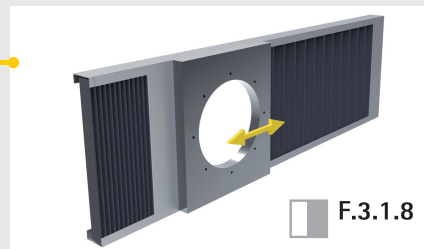
L型轨道导轨  
Guided by L-rails.



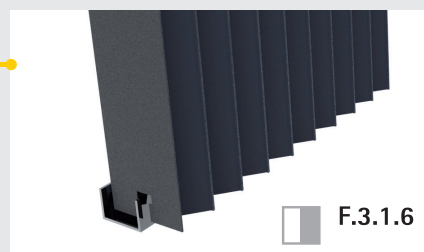
使用嵌入板  
By insert sheet.



F.1.0.5

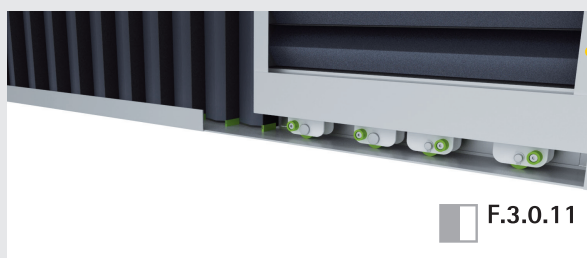


U型轨道导轨  
Guided by U-rails.

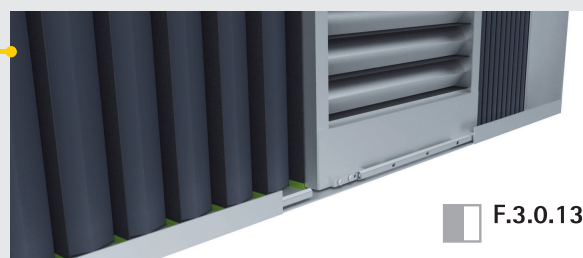


采用迷宫密封原理  
With labyrinth principle.

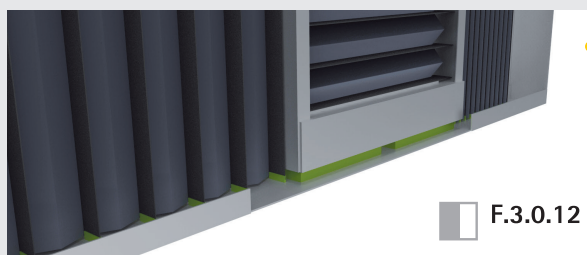
### 内框架底部导轨 / Internal frame guidance at the bottom



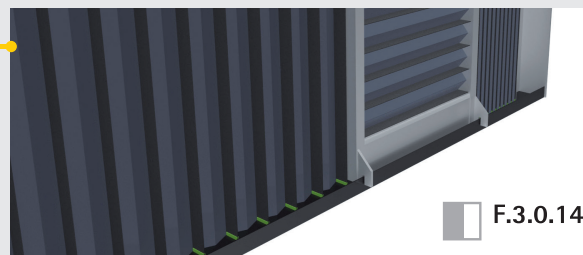
使用轴承座导引  
Guided by bearing blocks.



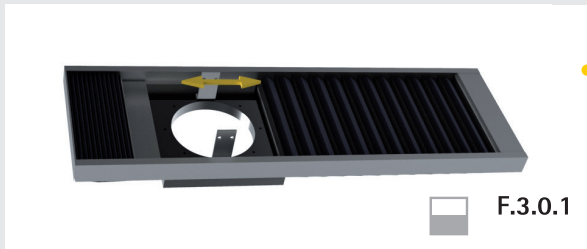
带滑架/滑轨系统  
With carriage/running rail system.



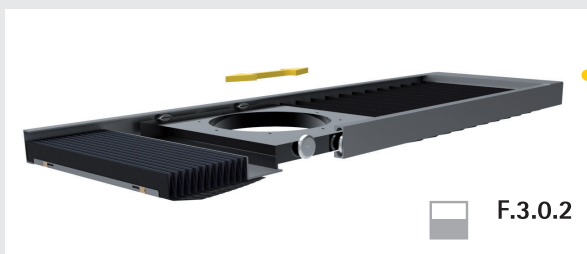
使用塑料元件导引  
Guided by plastic elements.



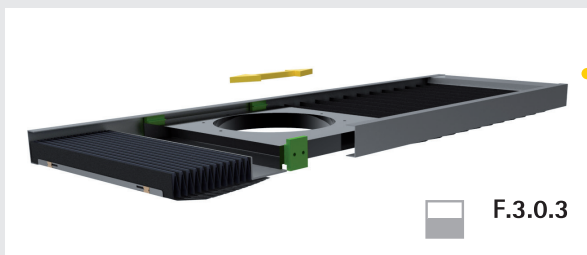
采用塑料元件  
With plastic elements.



与移动立柱直接连接  
*Direct connection on the moving pillar.*

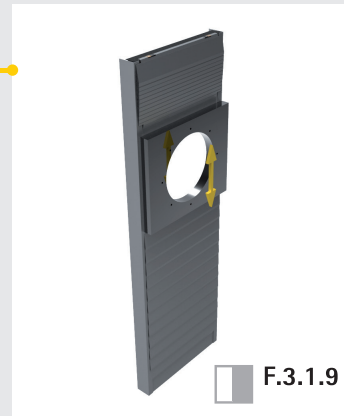
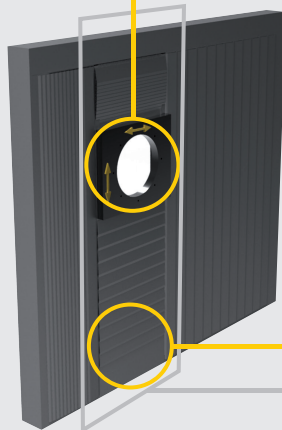


用滑轮导引带动件  
*Guidance of the driver by castors.*



用塑料元件导引带动件  
*Guidance of the driver by plastic elements.*

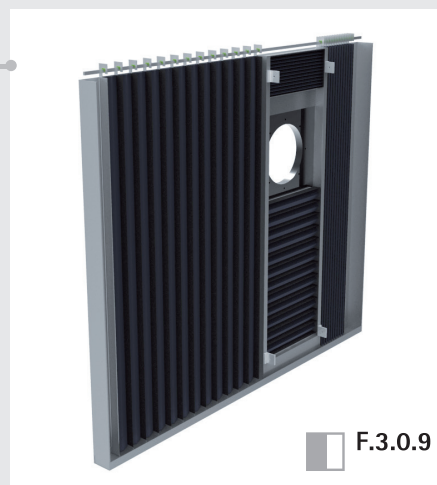
F.1.0.5



带L型轨道的侧向导轨系统  
*Sideways guidance with L-rails.*



带U型轨道的侧向导轨系统  
*Sideways guidance with U-rails.*



用螺栓将内框架固定在移动立柱上  
*Internal frame screwed to the moving pillar.*



# 导轨类型

## Guide variations

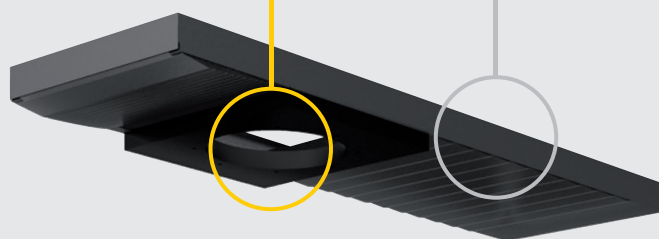
### 架空安装 / Installation location overhead



带L型轨道的侧向导轨系统  
*Sideways guidance with L-rails.*



带U型轨道的侧向导引系统  
*Sideways guidance with U-rails.*



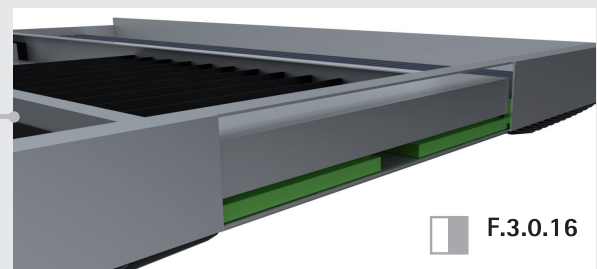
适用于单轴和多轴系统  
*Any desired installation locations possible.*

F.4.0.9

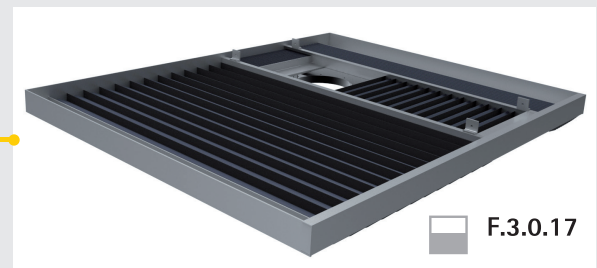
适用于单轴和多轴系统 *Applies for single and multi-axis systems.*



用滑轮导引内框架  
*Internal frame guided with castors.*



用塑料元件导引内框架  
*Internal frame guided with plastic elements.*



用螺栓将内框架固定在移动立柱上  
*Internal frame screwed to the moving pillar.*

额外选项为您提供量体裁衣的防护罩产品。您可以选择组合方案或定制特殊的解决方案。我们将竭诚为您提供咨询服务，塑造符合您需求的防护罩产品。

Select additional options to make the protective cover specific to your requirements. Combinations and individual special solutions are possible.

We will be happy to advise you on which options are suitable for the protective cover you desire.



2 轴，Duplet 或 Strapano。

2 axes, Duplet or Strapano.



2 轴，Duplet 和 轧辊防护罩的组合。

2 axes, combination of Duplet and roller cover.



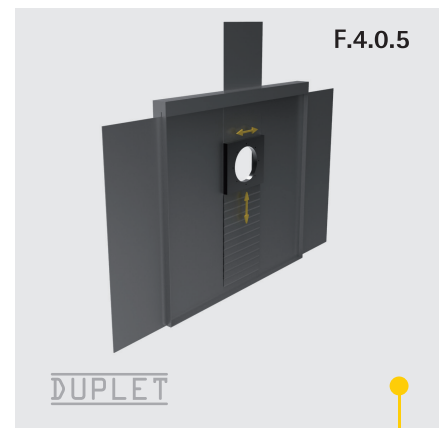
2 轴，Duplet 和 挡帘防护罩的组合。

2 axes, combination of Duplet and apron cover.



2 轴，塑料带轧辊防护罩与钢带轧辊防护罩的组合。

2 axes, combination of roller cover with plastic band and roller cover with steel band.



2 轴，滑动片和 Duplet 的组合。

2 axes, combination of sliding sheets and Duplet.

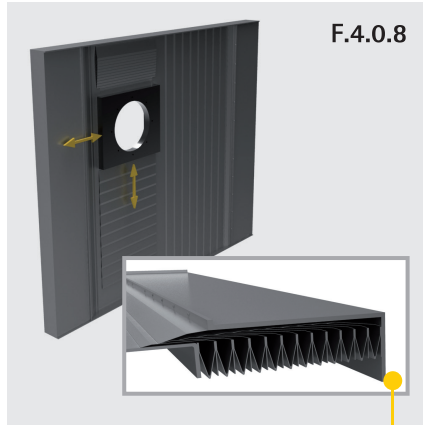
# 选项

## Options



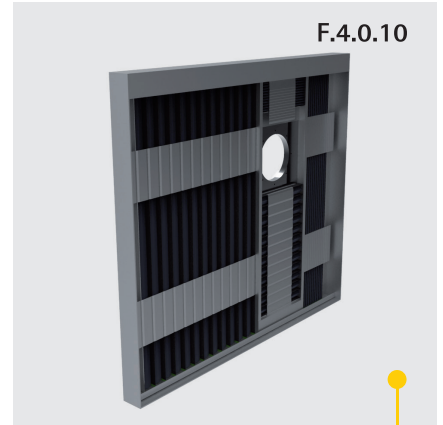
F.4.0.6

2 轴，经典款。  
2 axes, Classic.



F.4.0.8

对安装空间的最佳利用，2 轴，波纹防护罩离开工作区。  
*Optimum use of construction space, 2 axes, the bellows leave the work area.*



F.4.0.10

后部的伸缩板可以增加工作区钢板刮口边缘的压力，从而改善密封性，适用于架空安装。  
*Rearside telescopic sheets increase the pressure increase on the skimming edge of the sheet in the work area, resulting in an improved seal, overhead installation possible.*



F.1.0.6

3 轴，第3个轴可用经典款、Duplet 或 Rondet。  
3 axes, for 3rd axis Classic, Duplet or Rondet possible.



F.4.0.12

平面偏置，从而优化了最小压缩长度。  
*Optimisation of Lmin thanks to offset levels.*



F.4.0.7

2个防护独立主轴。  
*Covering of 2 independent spindles.*



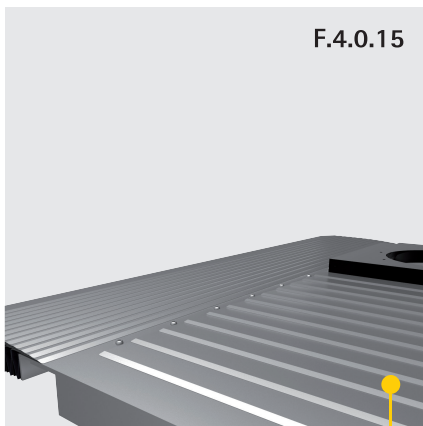
F.4.0.14



从前面拧紧螺丝（带动件），拆装方便。

*Easy assembly and dismantling with screwing from the front (driver).*

F.4.0.15



从前面拧紧螺丝（外框架的防护罩），拆装方便。

*Easy assembly and dismantling with screwing from the front (cover in the external frame).*

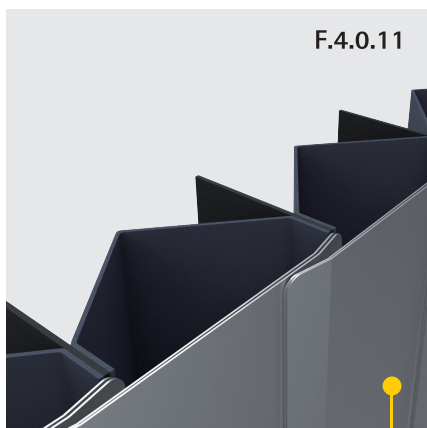
F.4.0.16



从前面拧紧螺丝（内框架的防护罩），拆装方便。

*Easy assembly and dismantling with screwing from the front (cover in the internal frame).*

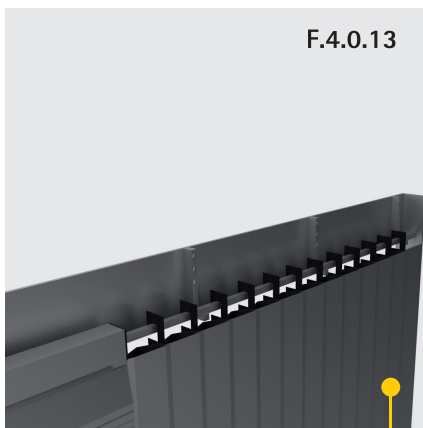
F.4.0.11



一个折页上有2个伸缩钢板，提高了对大块较重切屑的耐受性。

*2 telescopic sheets on one fold, increased resistance to large and heavy chip.*

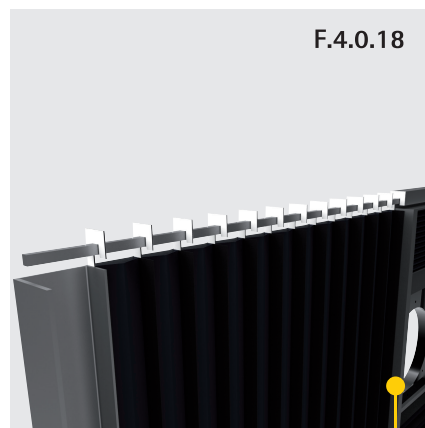
F.4.0.13



导轨长度大，有支撑。

*Large guide lengths with bracing.*

F.4.0.18



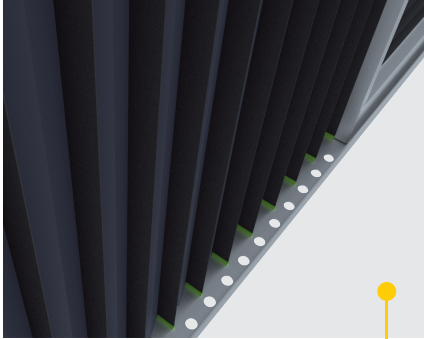
导轨架的强化设计适用于高动态应用场景。

*Reinforced design of the guide frame for high dynamics.*

# 选项

## Options

F.4.0.19



有针对性地排出冷却润滑剂。

*Specific draining of cooling lubricants.*

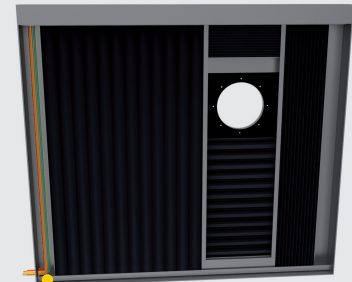
F.4.0.25



集成了润滑系统，耐用性高。

*High durability due to integrated lubrication system.*

F.4.0.20



Kabelstrang / cable harness

合理利用现有的结构空间。

*Sensible use of the construction space available.*

F.4.2.1



1 轴，L 型。

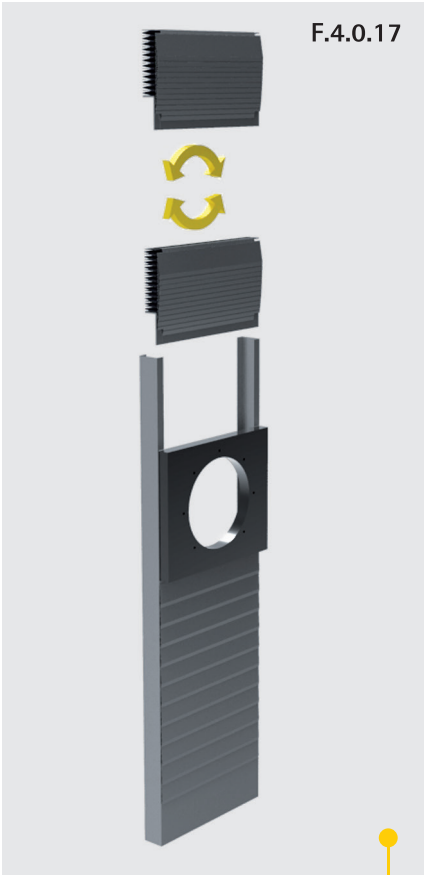
*1 axis L shape.*

F.4.0.9



可以安装在任意位置。适用于多轴系统。

*Any desired installation locations possible. Also applies for multi-axis systems.*



F.4.0.17

带有可更换的子组件，易于维护。  
*Maintenance friendly due to replaceable sub-assemblies.*



F.4.0.21

交付预组装的标准件。  
*Delivery of ready-made standard parts.*



F.4.0.22

将预组装的防护罩放在架子上交货。  
*Delivery of the pre-assembled cover on a rack.*



F.4.0.23

使用合适的包装交付预组装的防护罩。  
*Delivery of the pre-assembled cover in a suitable packaging.*



F.4.0.24

使用合适的包装交付子组件。  
*Delivery of the individual sub-assemblies in a suitable packaging.*



# 连接件

## Connections

Fix & Finish系统的连接件可采用经典款和Duplet的选项。另外，我们也可以“用4个螺钉”简单便捷地安装及固定整个单元。在这方面，我们也可以为客户提供量身定制的特殊解决方案。例如，防护罩可以包含4个焊接螺母，并将起重机链条固定在上面。链条的防护罩可抬升至机器内部，在较少的几个点位上拧紧螺丝，用以固定。整台机器防护系统可在最短时间内完成组装。借助一款特殊的智能CAD软件，我们能够解决建筑领域的复杂任务。这些年来，这一领域的任务要求变得越来越严苛和复杂。

凭借我们精湛的专业技术与成熟的保护系统产品，公司在项目早期便能提升功能、确保装配的简易性，并可控制成本。这是公司的一大优势所在。

从方案设计到整个施工项目的开展，再到现场调试，阿诺德为您竭诚提供高质量的服务。这套系统可按需进行预组装，并准时交付到客户的手中。我们为世界各地提供备件，这也是公司的一项增值服务。

*The connection of Fix & Finish systems can be composed of the options shown for Classic and Duplet. Alternatively, the complete unit can be simply installed and fixed "with 4 screws". Here too, we can cater for individual customer requirements. For example, the cover can contain 4 weld nuts, to which the crane chains are fixed. On these, the cover is lifted into the machine and screwed at relatively few points. Within the shortest time, the complete machine protection is assembled. With a special, clever piece of CAD software, we solve complex tasks in the area of construction, which have become increasingly demanding over the years.*

*One big plus is that, with our know-how and the associated protective systems, we are able to have an influence on function, ease of assembly and costs at a very early stage.*

*Arnold looks after you from conceptualisation through development of the complete construction to commissioning on site. The system, which is pre-assembled if desired, is delivered just-in-time. As an additional service, we provide spare parts worldwide.*