

# 伸缩钢板防护罩

*Bellows with  
telescopic sheets*

**DUPLET®**

Duplet因其对多种切屑的高度耐受性从众多产品中脱颖而出，这种产品对高温锋利切屑的耐受性尤为突出。

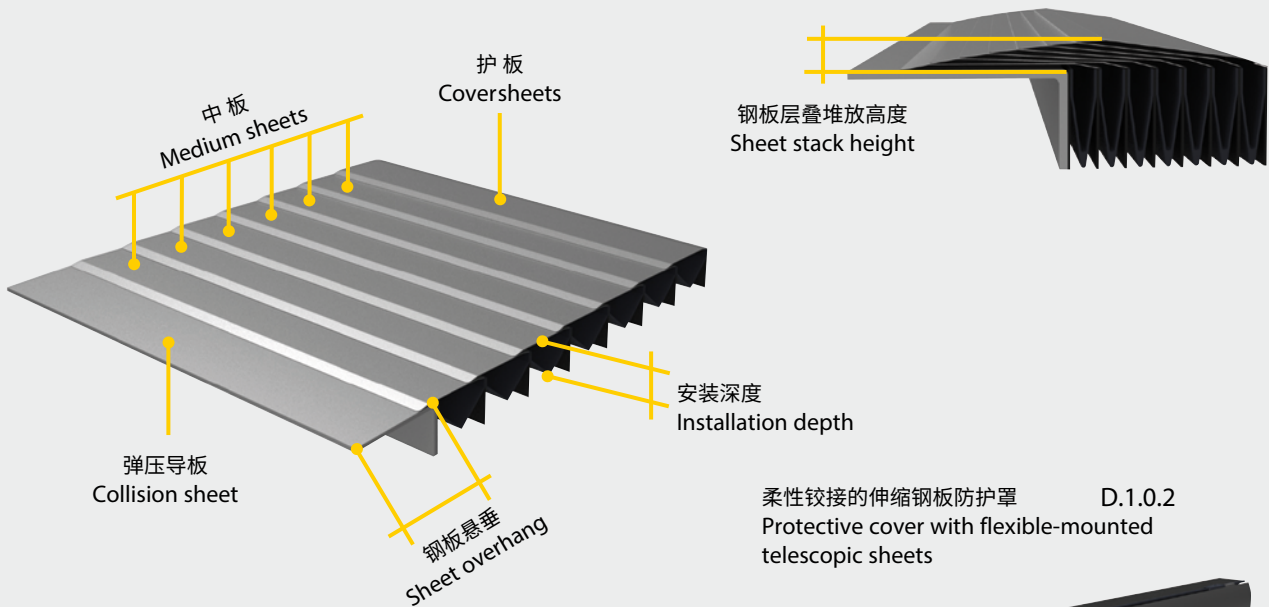
经典波纹防护罩与伸缩钢板的组合确保了优异的坚固性和稳定性，这类产品可提供全液密设计。

Duplet stands out for its high resistance to many types of swarf and particularly to hot and sharp-edged swarf. The combination of telescopic sheets in classic bellows produces a particularly robust and stable solution, which is optionally also available in a fully fluid-tight design.

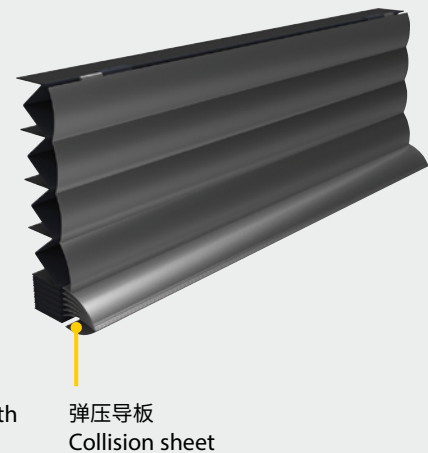
# 命名法

## Nomenclature

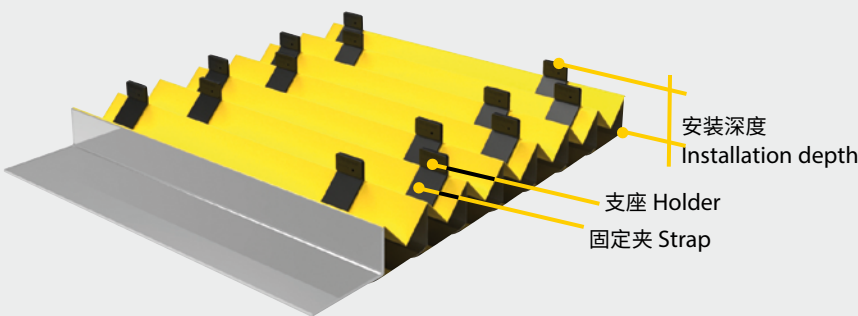
刚性安装的伸缩钢板防护罩 D.1.0.1  
Protective cover with rigid-mounted telescopic sheets



柔性铰接的伸缩钢板防护罩 D.1.0.2  
Protective cover with flexible-mounted telescopic sheets



Strapano D.1.0.3



缩写解释见第10页 / Explanation to the abbreviations you find on page 10

Fb = 折页宽度 / fold width

Lmax = 最大拉伸长度 / maximum length

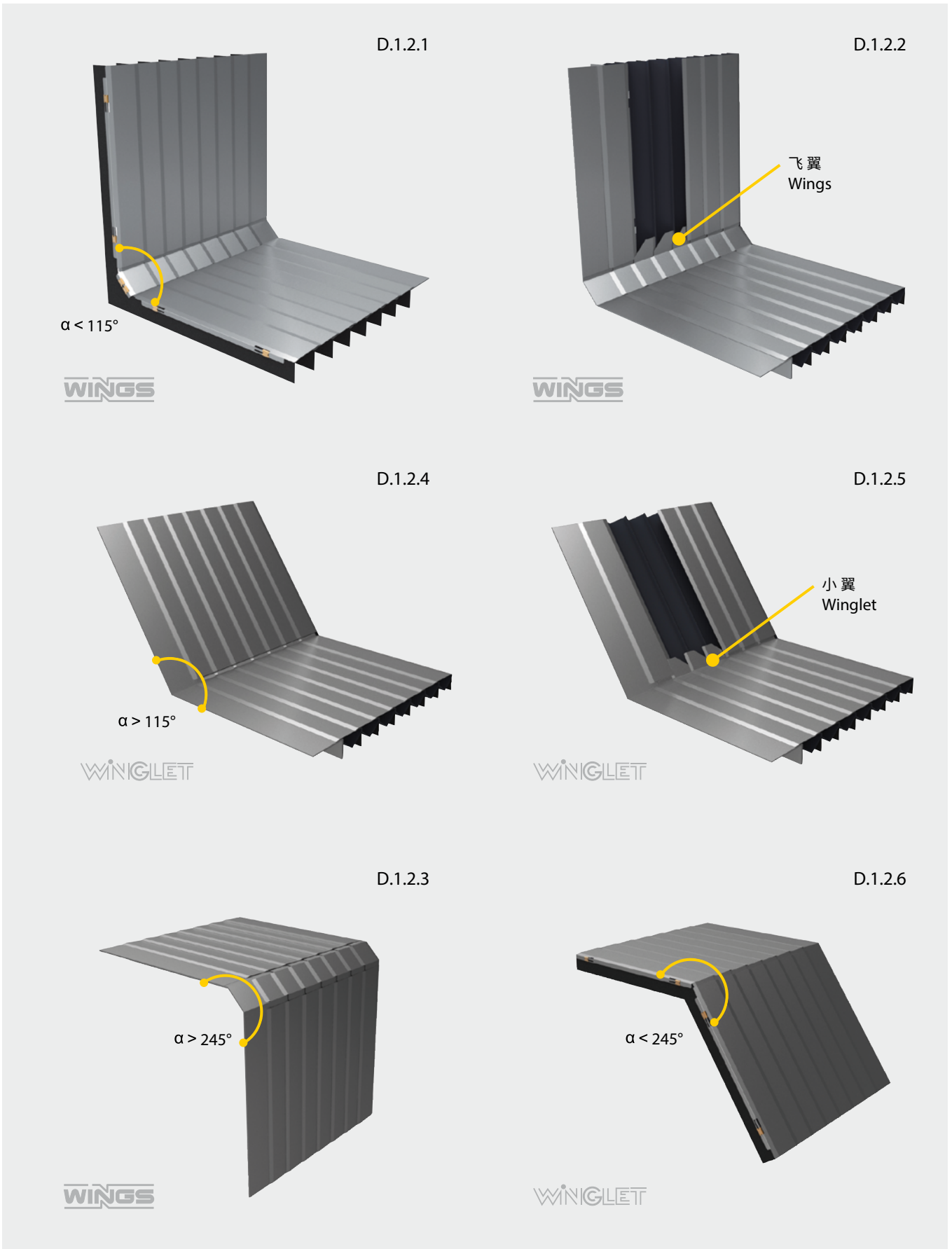
Lmin = 最小压缩长度 / minimum length

行程=最大拉伸-最小压缩 / stroke = Lmax-Lmin

LmaxFalte = 单折最大拉伸长度 / maximum length per fold

LminFalte = 单折最小压缩长度 / minimum length per fold

nF = 折数 / number of folds



# 参数

## Parameters

您可以使用所示流程图来确定所需的安装空间大小。快速一览中介绍了Duplet和Strapano产品的最大拉伸长度（Lmax）、折页宽度（Fb）和最小压缩长度（Lmin）组合。

The scale of the required construction space can be determined using the shown flow diagram. In the quick summary, a rough overview of the combination of Lmax, Fb and Lmin can be found for Duplet and Strapano.

折页宽度 (Fb) Fold width (Fb)	Duplet的单折最大拉伸长度 Lmaxfold Duplet	Strapano的单折最大拉伸长度 Lmaxfold Strapano
20	23	
25	32	
30	41	52
35	50	62
40	59	70
45	68	81
50	77	88
60	95	
70	113	
80	131	
90	149	
100	167	

产品 Product	单折最小压缩长度 Lminfold
Duplet	5,0mm
Strapano	3,5mm



		Duplet的最小压缩长度 (不计入钢板悬垂部分) / Lmin by Duplet (without sheet overhang)												D.2.0.2
Lmax	Fb	15	20	25	30	35	40	45	50	60	70	80	90	100
	#Bü	25	35	45	55	65	75	85	95	115	135	155	175	195
100	44	34	29	24	19	19	19	19	19	19	14	14	14	14
200	79	54	44	34	29	29	24	24	24	24	19	19	19	19
300	114	74	59	49	39	39	34	29	29	29	24	24	24	19
400	149	99	74	59	49	44	39	39	34	29	29	29	24	24
500	184	119	89	74	59	54	49	44	39	34	29	29	29	24
600	219	139	104	84	69	64	54	49	44	39	34	34	34	29
700	254	159	119	94	79	69	64	59	49	44	39	34	34	34
800	289	184	134	109	89	79	69	64	54	49	44	44	39	34
900	324	204	149	119	99	89	79	69	59	49	44	44	44	39
1000	359	224	164	134	109	94	84	74	64	54	49	44	44	39
1500	534	334	244	194	159	139	119	109	89	79	69	64	64	54
2000	704	439	319	254	209	179	159	139	114	99	89	79	79	69
2500	879	544	399	314	259	224	194	174	144	124	109	94	94	84
3000	1054	654	474	374	309	264	229	204	169	144	124	114	114	99
3500	1229	759	554	434	359	304	269	239	194	164	144	129	129	114
4000	1399	864	629	494	409	349	304	269	219	189	164	144	144	129
4500	1574	974	704	554	459	389	339	304	249	209	184	164	164	144
5000	1749	1079	784	614	509	434	379	334	274	234	204	179	179	159

# Bü = 钢板悬垂 / Sheet overhang

		Strapano的最小压缩长度 (不计入钢板悬垂部分) / Lmin by Strapano (without sheet overhang)												D.2.0.3
Lmax	Fb	15	20	25	30	35	40	45	50	60	70	80	90	100
	#Bü				65	75	85	95	105					
100					15	15	15	15	15					
200					22	22	18	18	18					
300					29	25	25	22	22					
400					36	32	29	25	25					
500					43	39	36	32	29					
600					50	43	39	36	32					
700					57	50	43	39	36					
800					64	53	50	43	43					
900					71	60	53	50	46					
1000					78	67	60	53	50					
1500					109	95	85	74	71					
2000					144	123	109	95	88					
2500					179	151	134	116	109					
3000					211	179	158	141	130					
3500					246	207	183	162	148					
4000					277	235	211	183	169					
4500					312	263	235	204	190					
5000					347	291	260	225	207					

# Bü = 钢板悬垂 / Sheet overhang

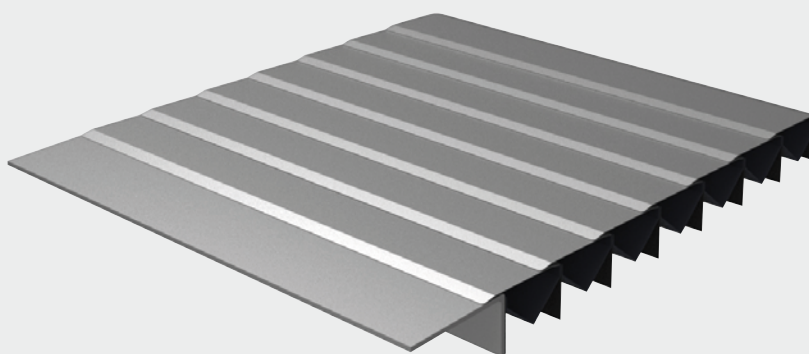
# 基本形状

## Basic shapes

这里列举了Duplet防护罩最常见的形状。同经典款波纹防护罩，客户可订购其他形状的防护罩产品，详情见第14页。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。

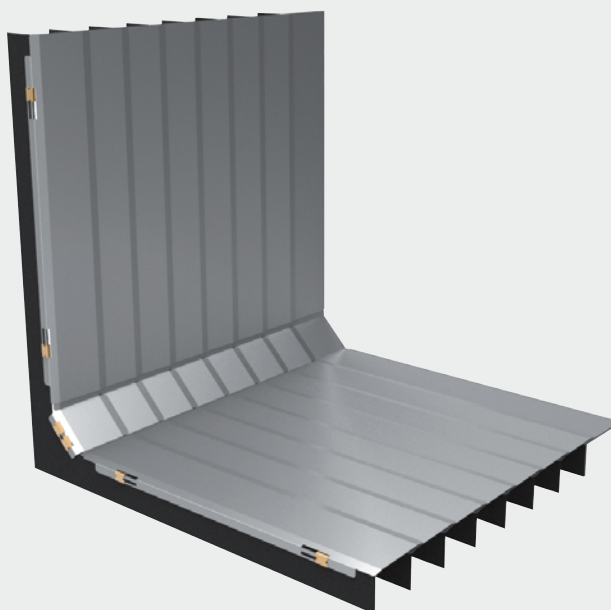
The most popular basic shapes for Duplet protective covers can be seen here. As with the classic bellows, other shapes are also possible - see p.14. In addition, there are already many special shapes. Customer specific geometries are also possible.

D.1.1.1



I-型 / I-shape

D.1.2.1



L-型 / L-shape

# 导轨类型

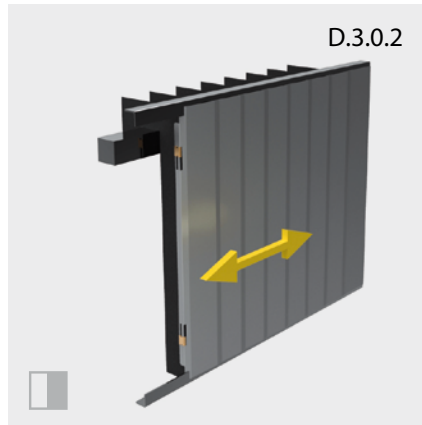
## Guide variations

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



下图显示了各种安装位置的基本形状和相应导向装置的几何形状。黄色箭头表示行进方向。

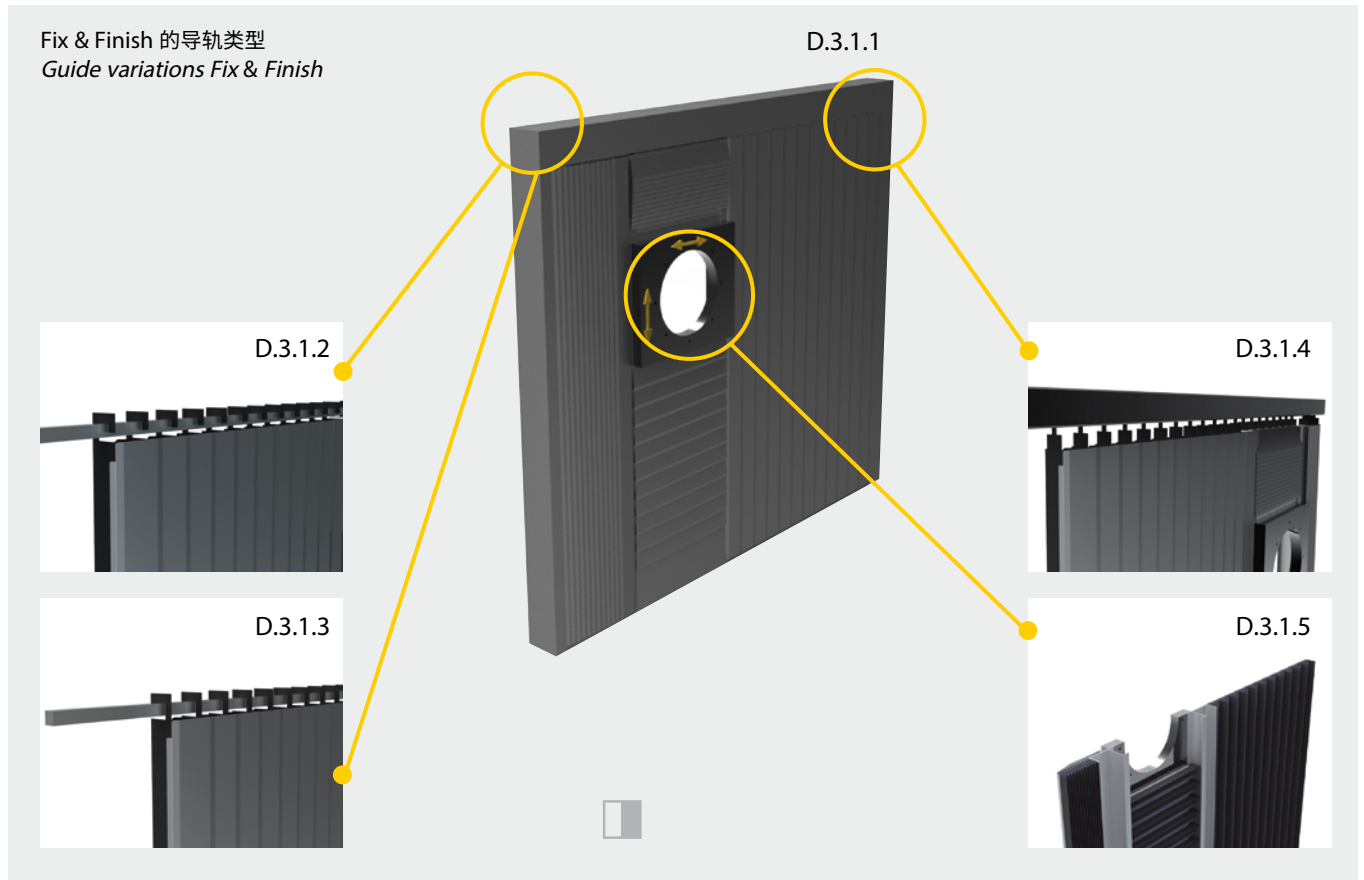
The following pictures show the basic shapes in various positions of mounting and the associated guide geometries. The process direction is indicated by the yellow arrow.



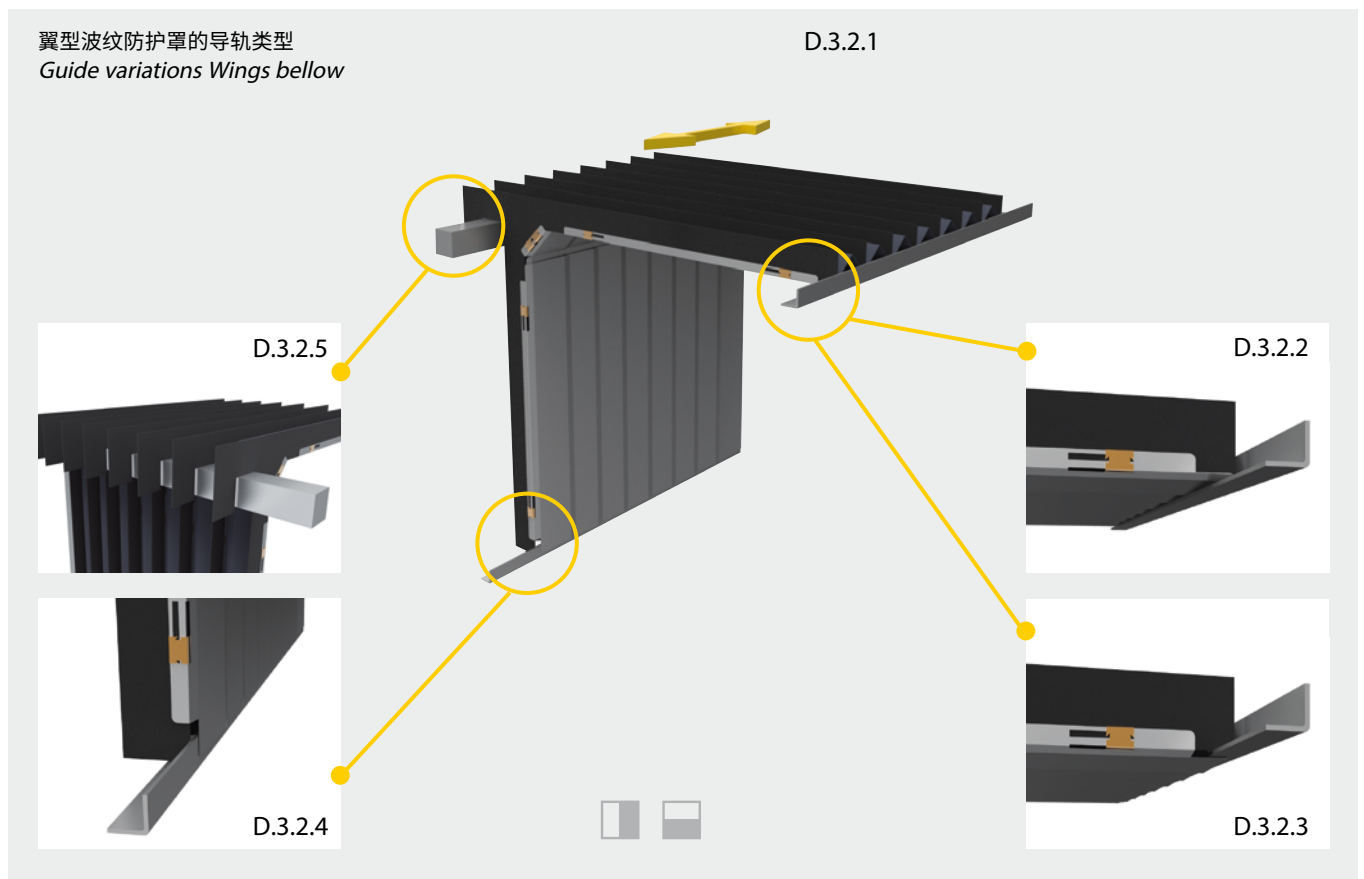
# 导轨类型

## Guide variations

Fix & Finish 的导轨类型  
Guide variations Fix & Finish



翼型波纹防护罩的导轨类型  
Guide variations Wings bellow





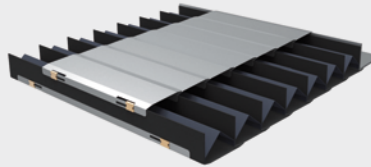
额外选项为您提供量体裁衣的防护罩产品。您可以选择组合方案或定制特殊的解决方案。

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.

D.4.0.1

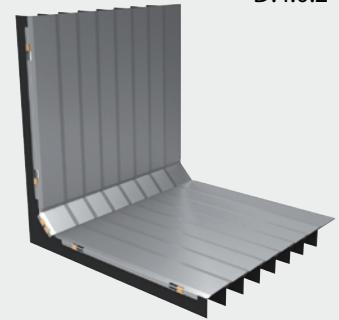


QuickStep

后部的伸缩钢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 result in a pressure increase on the skimming edge of the sheets in the work area, improved seal, overhead installation possible.

D.4.0.2

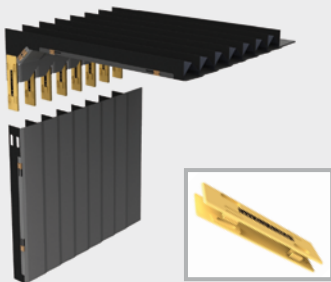


WINGS

弯折有角度的防护罩使用了飞翼，可提供不同高度平面上的保护。适用于所有形状（U型、斜面桌型、屋顶型和箱型）。

Angled cover using the wings, allows protection on different levels. Can be used with all shapes (U, desk, roof and box shape).

D.4.2.1



ArnocliX

可选闭锁连接防护顶盖，无需工具即可组装。

Interlocking attachment of an optional roof cover, can be assembled without the need for tools.

D.4.0.3

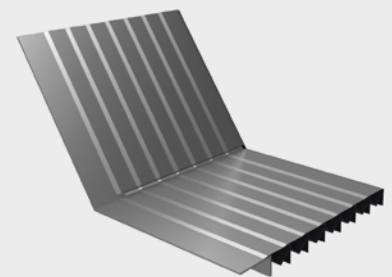


CURVELET

该解决方案减小了应力，适用于两层或更多层的防护罩，外形设计优雅大气。

Reduced voltage solution for covers on 2 or more levels, elegantly shaped design.

D.4.0.4



WINGLET

弯折有角度的防护罩使用了翼尖小翼，可提供不同高度平面上的保护。适用于所有形状（U型、斜面桌型、屋顶型和箱型）。

Angled cover using a Winglet, allows protection on different levels. Can be used with all shapes (U, desk, roof and box shape).

# 选项

## Options

D.4.0.5



WINGLET

弯折有角度的防护罩使用了翼尖小翼，可提供不同高度平面上的保护。适用于所有形状（U型、斜面桌型、屋顶型和箱型）。

*Angled cover using a Winglet, allows protection on different levels. Can be used with all shapes (U, desk, roof and box shape).*

D.4.0.6



WINGS

弯折有角度的防护罩使用了翼尖小翼，可提供不同高度平面上的保护。适用于所有形状（U型、斜面桌型、屋顶型和箱型）。

*Angled cover using a Winglet, allows protection on different levels. Can be used with all shapes (U, desk, roof and box shape).*

D.4.0.7



WINGS

内角和外角的组合。

*Combinations of internal and external angles.*

D.4.0.8



CATENA

柔性集成导轨；在无法使用连续导轨时具有优势。允许自由进入工作区，例如：可用于起重机装载。

*Integrated, flexible guide; helpful if continuous guide impossible. Guarantees free access to the work area, e.g. for crane loading.*

D.4.2.2



通过减重确保高动态性，金属护板只安装在经典款波纹防护罩上切屑直接飞溅的范围内。

*For high dynamics through weight saving, as plates are assembled only in the direct swarf range on the classic bellow.*

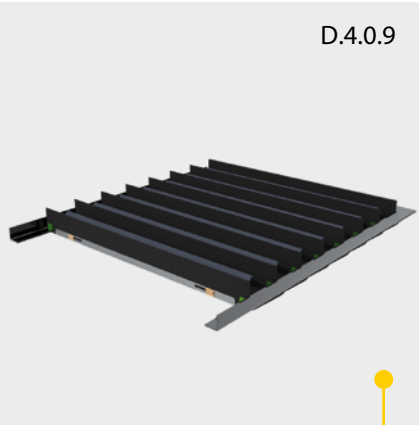
D.4.0.16



一个折页上有2个伸缩钢板，提高对大块较重切屑的耐受性。

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

D.4.0.9



**夹式滑块：**  
运行性能得到改善，适用于难以抵达的点位；可更换。

*Clip slider*  
Improved running properties, can be used at points that are difficult to access; replaceable.

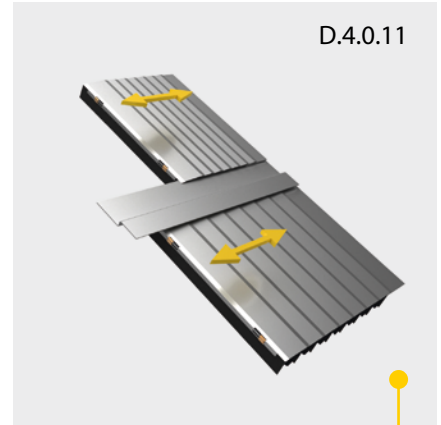
D.4.0.10



**转角滑块：**  
用夹代粘：运行性能得到改善，转角稳定，可更换。

*Angle slider*  
Clipping rather than sticking: improved running properties, corner stabilisation, replaceable.

D.4.0.11



引导和保护两个相邻的防护罩，两个防护罩彼此独立地运行。阿诺德负责施工和生产。

*Guide and protection* of two adjacent covers, which operate independently of each other. Construction and production is carried out by Arnold

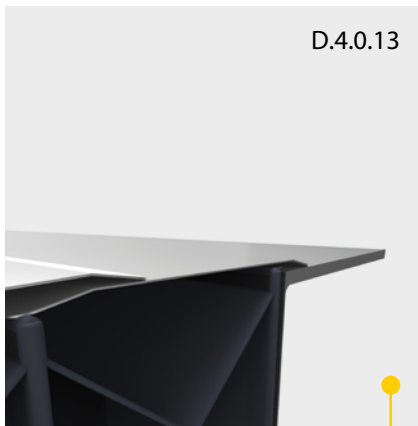
D.4.0.12



连接钢板处每两个折页的宽度减小，由此降低了安装深度。

*Reduction of the installation depth* by combining a small fold with sheets on ever 2nd fold.

D.4.0.13



下方波纹防护罩的焊接设计提高了液密性。建议采用无铆钉孔的连接方式。

*Welded design* of the bellows below increases fluid-tightness. A connection with no rivet holes is recommended.

D.4.0.14

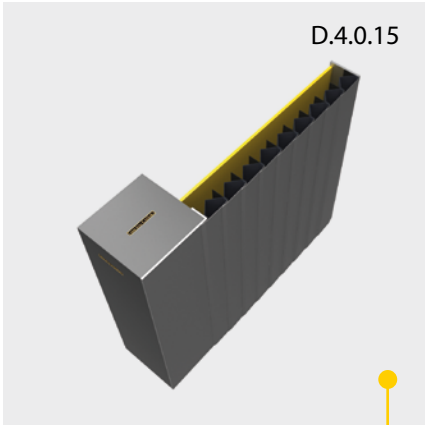


**滴水檐：**  
钢板悬垂部分弯折有角度。

*Drip edge:*  
The sheet overhang of the sheets is angled.

# 选项

## Options



约束系统：  
提高能量吸收。

*Restraint system:*  
Increases energy absorption.



用柔性铰接钢板进行弹簧预张紧。

*Spring pre-tensioning with flexible-mounted sheets.*



防护罩最小压缩长度达到最小值，并且安装深度浅，I型设计，带柔性铰接钢板。

*Minimum L<sub>min</sub> at the same to as low installation depth, design in I-shape with flexible-mounted sheets.*



圆弧形导向装置允许重新配置工作区后方的模块尺寸。

*Bowing* allows relocation of the block size behind the work area.



# 连接件

## Connections

根据实际情况决定机器固定方式。各类连接方式见经典款波纹防护罩章节中的图示。第22至24页展示了最常见的固定方式。若客户需求超出此范围，我们很乐意为您开发专门定制的解决方案。

The machine can be fixed according to the respective conditions. The connection variants correspond to the illustrations in the classic bellows chapter. Here, you will find some of the most popular fixing types on pages 22 to 24. For requirements above and beyond this, we are happy to develop special solutions for you.