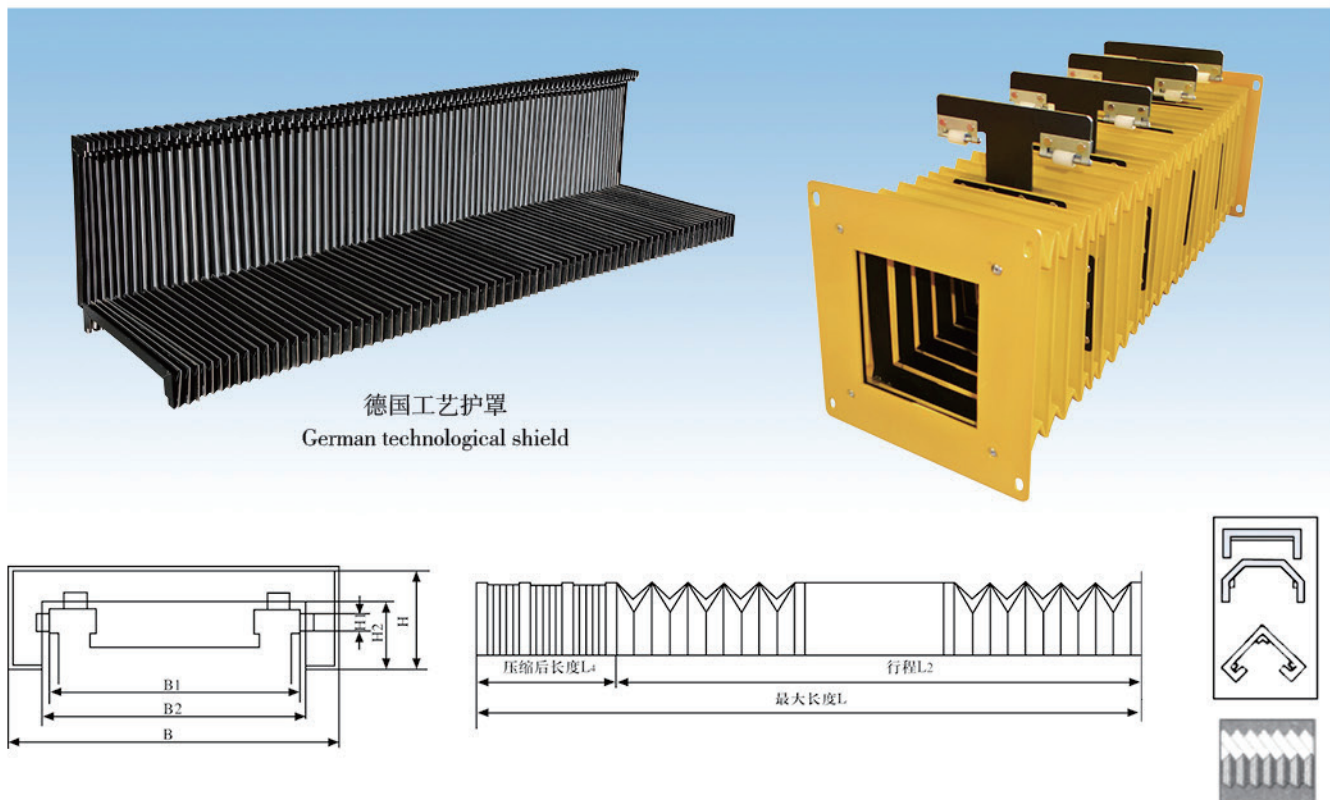


# 柔性风琴式导轨防护罩

## Flexible Accordion Type Guide Shield



德国工艺护罩  
German technological shield

### 柔性风琴式导轨防护罩设计参数

#### Design parameters for flexible accordion guide shield

代号 Code	名称 Description	数据 Data	备注 Remarks	护罩结构材料 Shield construction materials	
				面料 Plus material	尼龙革或三防布 Nylon cloth or protective cloth
L	拉伸后长度 Length after drawing			支撑 Support	PVC片材 (每格一片) PVC sheet
L <sub>1</sub>	压缩后长度 Length after compression			连接板 Connecting plate	树脂板、铁板 Resin plate, iron plate
L <sub>2</sub>	行程长度 Travel length			滑轮 Pulley	铜或尼龙轴承 Copper or nylon bearing
B	防护罩总宽 Total width of the shield				
B <sub>1</sub>	导轨宽度 Guide width				
B <sub>2</sub>	护罩内部宽度 Interior width of the shield			配套机床型号 Machine tool model number	
H	护罩总高度 Total height of the shield			订货单位 By purchase order	
H <sub>1</sub>	导轨高度 Guide height of the guide			联系人 Contact person	
H <sub>2</sub>	护罩内部高度 Interior height of the shield			联系电话 Contact tel	

注: 1. 用户订货时只要填明以上数据, 选定材料, 我公司代为设计制造。

2. 如用户对护罩型式有特殊要求, 我公司可与用户协商设计, 满足要求。

3. 每种防护罩填写一张。如样本不够, 可复印填写。

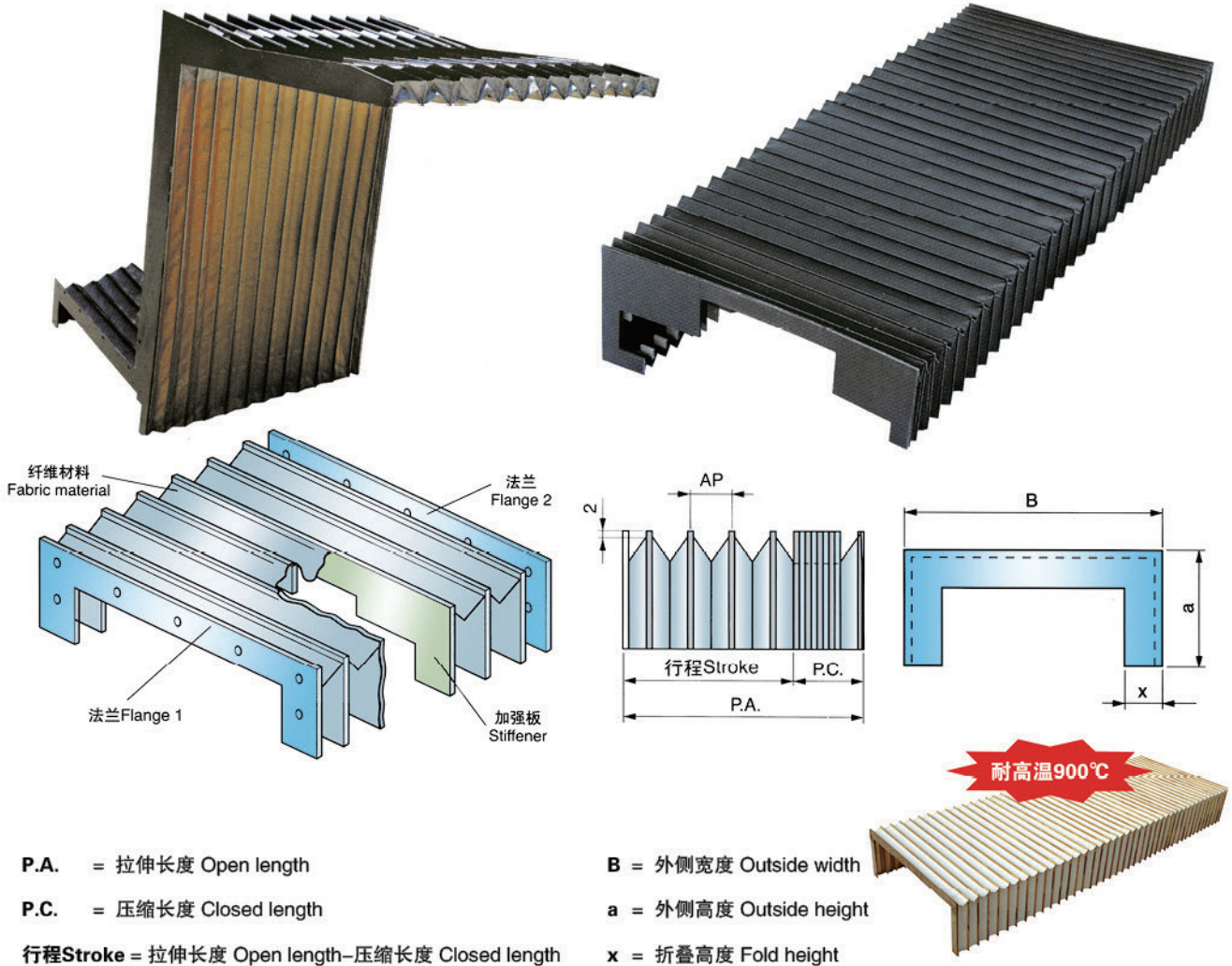
Note: 1. The enduser select the materials and data mentioned above when place an order and we will make the design and fabrication.

2. If endusers have special requirements, please let us know and we can achieve for them.

3. Please fill in a form per type of shield.

# 柔性风琴式导轨防护罩

## Flexible Accordion Type Guide Shield



- P.A. = 拉伸长度 Open length
- P.C. = 压缩长度 Closed length
- 行程Stroke = 拉伸长度 Open length - 压缩长度 Closed length
- B = 外侧宽度 Outside width
- a = 外侧高度 Outside height
- x = 折叠高度 Fold height

### 计算压缩长度的公式 Formula for calculating the CLOSED LENGTH

AP	=	一折的开度 Opening of 1 fold = $(x \cdot 2) - 8$
SM	=	纤维厚度 Fabric thickness *
SS	=	加强板厚度 Stiffener thickness *
SF	=	法兰厚度 Flange thickness *
NP	=	褶的数目 Number of folds = $\frac{P.A.}{AP} + 2$
SS	=	$(SM \cdot 8 + SS) \cdot NP + (SF \cdot 2)$

本数据表仅仅给出了我们所生产的热焊保护罩的一种。如果你需要其他型的保护罩，请与我们工程设计部联系。

This data sheet shows only one type of Thermic-Welded cover that we manufacture.

Contact our engineering department for other types.

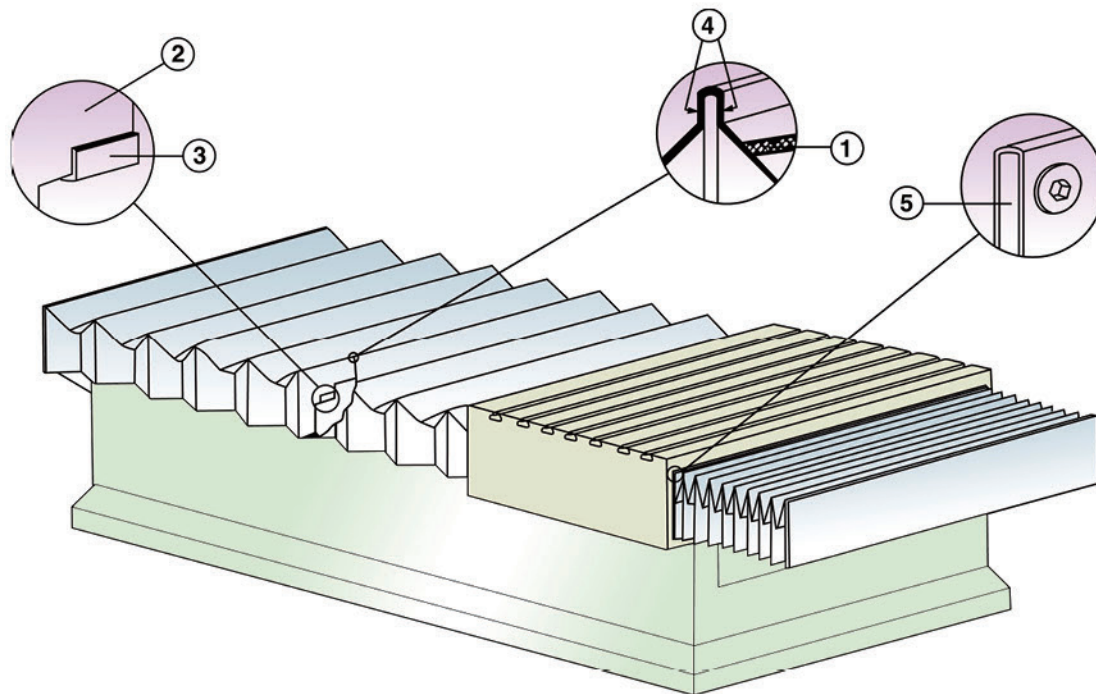
**例如 Example:**

数据 Data: 折叠高度 Fold height = 15mm  
 拉伸长度 Open length = 1000 mm  
 Opening of 1 fold =  $(15 \times 2) - 8 = 22$   
 一褶的开度 Number of folds =  $\frac{1000}{22} + 2 = 48$   
 压缩长度 Closed length =  $(0.25 \times 8 + 1^{**}) \times 48 + (2^{***} \times 2)$   
 压缩长度 Closed length =  $3 \times 48 + 4 = 148$   
**压缩长度 Closed length = 148mm**

- \* 我们假定纤维材料的代码为“TEMA015”。
- \*\* 我们假定加强板的厚度为1毫米。
- \*\* 我们假定法兰的厚度为2毫米。
- \* We hypothesize the fabric material with code "TEMA015"
- \*\* We hypothesize that the stiffener is 1 mm thick
- \*\*\* We hypothesize that the flange is 2mm thick

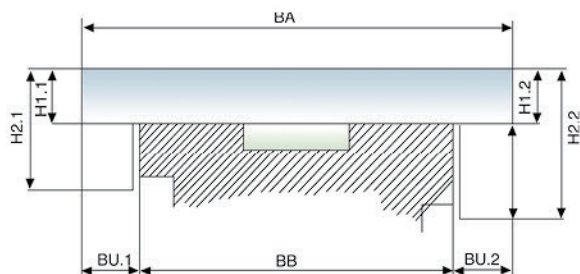
# 计算高频焊接的护罩尺寸

## Shield sizes for high frequency welding



1. 保护罩折面材料根据工作条件选择PVC(聚氯乙烯)材料和其它材料;
2. 每个折面下的PVC片材支撑;
3. 能避免在高速度下产生噪音的滑动片;
4. 高频焊接;
5. 固定用的支撑面。

1. Special coated fabric, chosen according to working condition.
2. Rigid PVC support in every fold.
3. Special shoes to prevent annoying noises at high speeds.
4. High frequency welding.
5. Fastening flange.



在设计阶段为了估算保护护罩的体积，可参考下面的有关参数：

- ★ 标准折面的高度：10mm、15mm、20mm、30mm、35mm、40mm、45mm、50mm。
- ★ 机械设备的导轨面和护罩之间的距离最小为5mm，最大为10mm。
- ★ 护罩折面张开时的尺寸等于这个折面高度的壹倍；
- ★ 被压缩折面厚度等于4mm；
- ★ 风箱被压缩后的长度等于：

$$\frac{\text{折叠保护器张开尺寸}}{\text{一个折面张开尺寸}} \times (2.6-4.5\text{mm}) + \text{支架厚度}$$

To calculate the dimensions of the welded bellows at the design stage, it is useful to pay mind some data:

- ★ The standard folds have the following heights: 10mm, 15mm, 20mm, 30mm, 35mm, 40mm, 45mm, 50mm.
- ★ The total play between the slides and the bellows must be from a minimum of 5mm, to a maximum of 10mm.
- ★ The extension of one fold is equivalent to twice the fold's height minus 10mm.
- ★ The thickness of a compressed folds is on average 4mm.
- ★ The compressed length of the bellows is equal to:

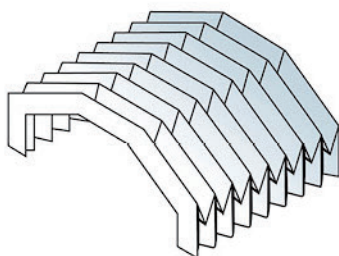
$$\frac{\text{extension of bellows}}{\text{extension of one fold}} \times (2.6-4.5\text{mm}) + \text{flange thickness}$$

## 多用途护罩主要部分的可行形状

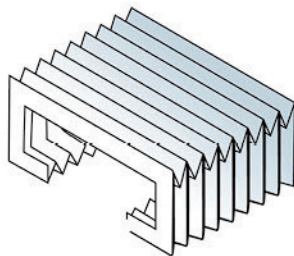
### Possible shapes for main parts of multi-purpose shield

以下是多用途护罩，他们可以应用在任何机器工具上，幸亏了他们能变化多端的形状和占用有限的空间供设计选用。

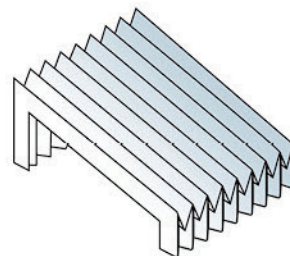
The following is the multi-purpose shields that can be used for any types of machine or tools thanks to their various shapes and space-saving design.



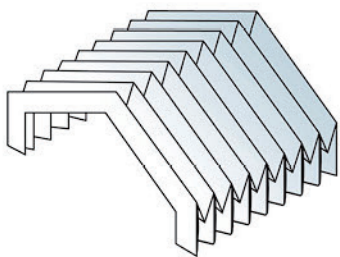
T1



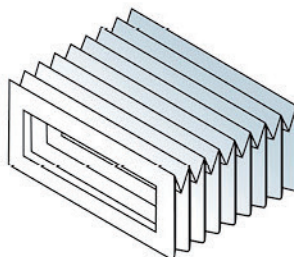
T2



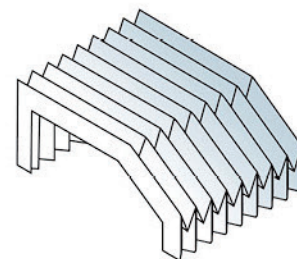
T3



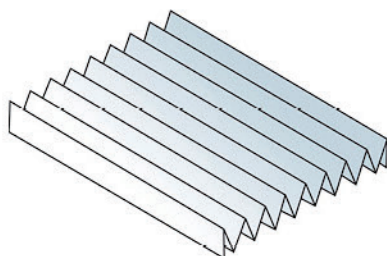
T4



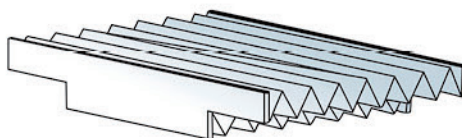
T5



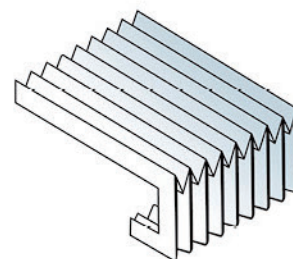
T6



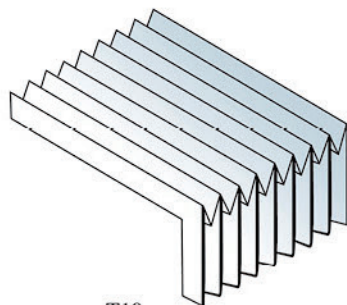
T7



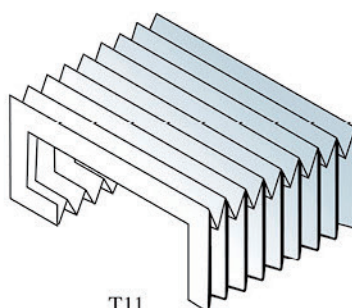
T8



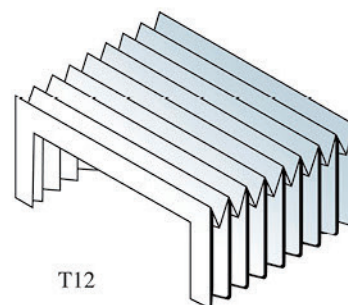
T9



T10



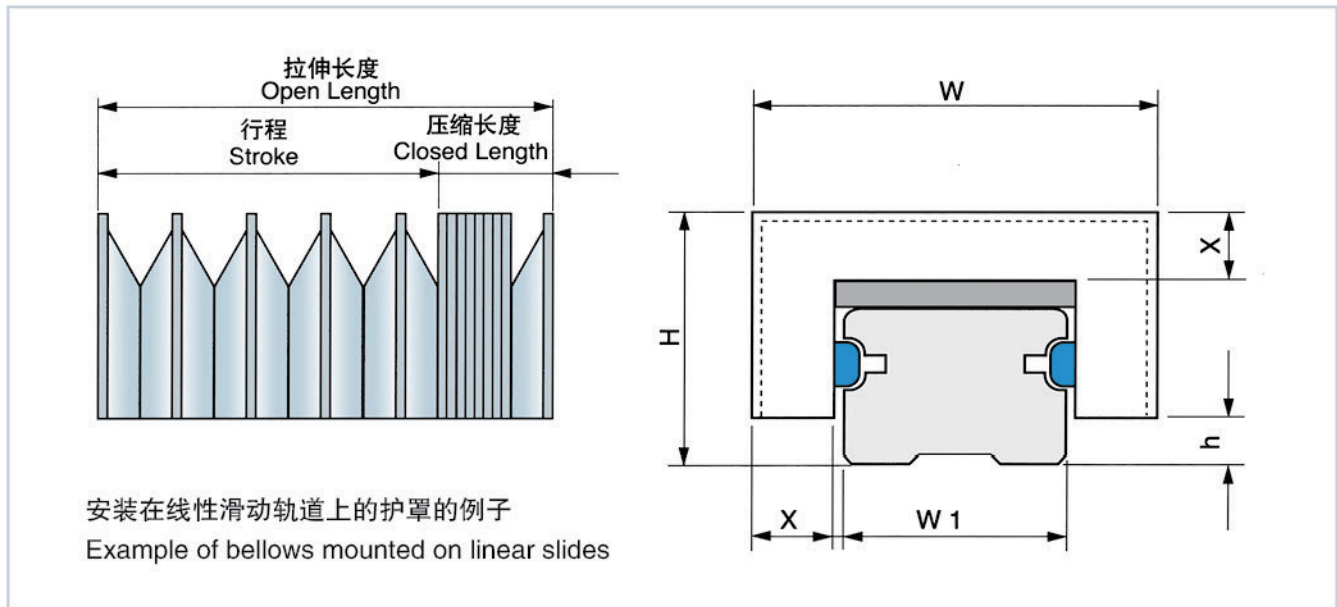
T11



T12

# 用于线性滑动轨道上的热焊接保护罩

## Thermic-welded covers for linear slides



标准材料清单 List of standard material				
代号 Code	支撑 Support	罩 Hood	拉伸长度为1000mm的闭合长度 Closed length for 1000mm of open length	是否有现货 Availability
S1	PVC 0.60	PVC + 聚酯Polyester + PVC 0.25(TEMAT020)	90	有现货 Ready to deliver
P1	PVC 0.60	聚氨酯 + 聚酯 + 聚氨酯0.25 (TEMAT015) Polyurethane + Polyester + Polyurathane	90	有现货 Ready to deliver
LX	PVC 1.00	Panox/Kevlar 聚氨酯 + 聚氨酯0.33 (TEMAT169) Panox/Kevlar Polyurethane + Polyurethane	150	根据订单要求生产制作 On request

### 标准热焊接保护罩尺寸 / Standard thermic-welded covers size

滑动轨道的公称值 Slide nominal value W1	层高 Ply height X	护罩宽度 Bellows width W	总高度 Total height H	滑动轨道的偏差 Slide deviation h
15	19	56	36	5
20	19	61	40.5	5
25	19	67	43	7.5
30	19	72	51	8
35	19	76.5	51	9
45	19	87.5	61	10

### 护罩识别代号的例子

Example of the identification code of a bellows

滑动轨道的型号 Slide model	KUE
滑动轨道的公称值 Slide nominal value(W1)	35
拉伸长度 (行程+闭合长度) Open length (stroke + closed length)	1250
材料的形式 Type of material	S1

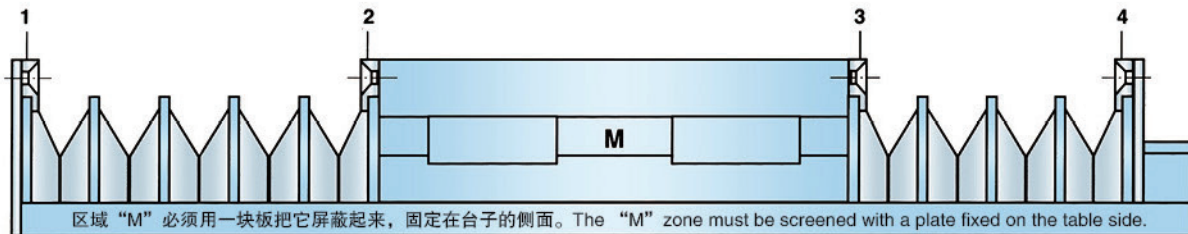
参于55和65的W1滑动轨道，请与我们的技术部门联系。  
For the W1 slide size of 55 and 65, please contact our technical dept.

# 线性滑动轨道的热焊接保护罩标准系统

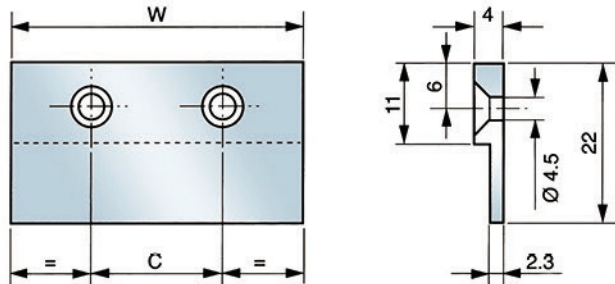
## Thermic-welded covers standard systems for linear slides

### 方法A: 紧固支架 Solution A: Fastening holdfast

护罩-线性滑动轨道的紧固标准系统  
Bellows-fastening standard systems for linear slides



区域“M”必须用一块板把它屏蔽起来，固定在台子的侧面。The “M” zone must be screened with a plate fixed on the table side.



适用于用客户提供的角或板支撑把护罩固定在位置1-2-3-4上。  
Suitable for bellows fastening in positions 1-2-3-4,  
with angular or plate supports provided by customers

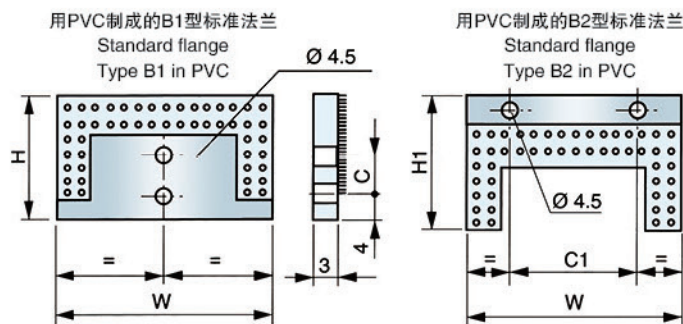
滑动轨道 Slide	W	C	孔数 N.Holes
15	52	26	2
20	57	29	2
25	63	32	2
30	68	34	2
35	72	36	2
45	83	28	3
55	104	35	3
65	128	32	4

### 方法B: Velcro法兰紧固 (B1 e B2) Solution B: Velcro flange fastening (B1 e B2)

适用于干燥的工作地点  
Suitable for dry working places



区域“M”必须用一块板把它屏蔽起来，固定在台子的侧面。The “M” zone must be screened with a plate fixed on the table side.



Slide	W	H	C	H1	C1	孔数 No. Holes
15	56	36	0	42	26	2
20	61	40.5	8	46.5	29	2
25	67	43	8	46.5	32	2
30	72	51	8	54	34	2
35	76.5	51	18	53	36	2
45	87.5	61	18	62	28	3
55	108	73	18	69	35	3
65	132	90	18			

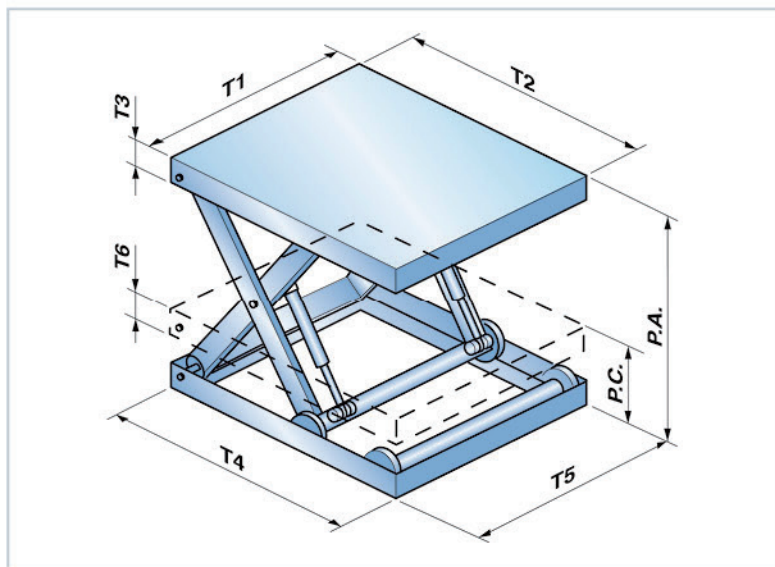
- 位置1 a). 把型1标准法兰固定在滑动轨道的头上。  
b). 通过用力压挤的方法，把护罩固定在型1标准法兰上。
- 位置2-3 a). 用螺丝钉把台子固定到型2标准法兰上。  
b). 通过用力压挤的方法，把护罩固定在型2标准法兰上。
- 位置4 a). 用螺丝钉把型2标准法兰固定用户提供的角支撑上去。  
b). 通过用力压挤的方法，把护罩固定在型2标准法兰上。
- 另外: 位置1-4所显示的紧固方法都可以互换使用的。

- Pos.1 a). Fix the type 1 standard flange at the head of the slide.  
b). Fix the bellows to the type 1 standard flange by pressing strongly.
- Pos.2 a). Fix the table to the type 2 standard flange by means of screws.  
b). Fix the bellows to the type 2 standard flange by pressing strongly.
- Pos.4 a). Fix the type 2 standard flange to the angular support provided by the customer by means of screws.  
b). Fix the bellows to the type 2 standard flange by pressing strongly.
- N.B. Fastening options showed in Pos. 1-4 are interchangeable.

本技术图表所给出的技术数据和资料是用于我们所能提供的线性滑动轨道的护罩紧固的标准方法，对于其它的尺寸，请与我们的技术部门联系。  
This technical card represents the standard systems used for the fastening of bellows for linear slides we can provide. For different sizes, please contact our technical department.

## 升降平台的资料

### Information on the hoisting platform



#### 平台的尺寸

Platform dimensions

#### 上侧 Upper side

T1 = 台宽 table width  
T2 = 台长 table length  
T3 = 框架的高度 frame height

#### 下侧 Lower side

T4 = 台宽 table width  
T5 = 台长 table length  
T6 = 框架的高度 frame height

#### 打开 Opening

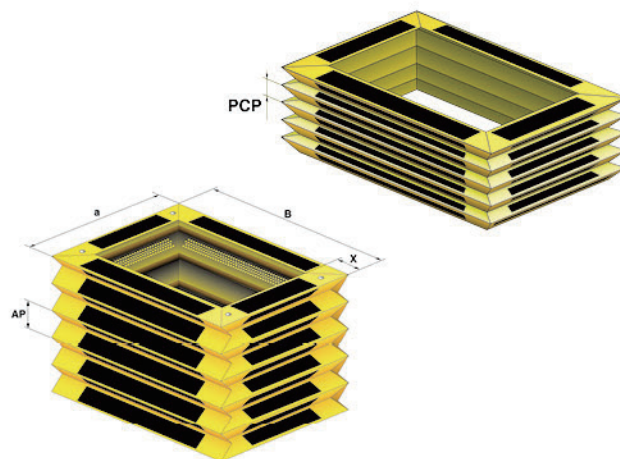
P.A. = 拉伸长度 Open length

#### 闭合 Closing

P.C. = 压缩长度 Closed length

## 方护罩的特性

### Characteristics of bellows duratite



#### 计算压缩长度的公式

Formula for calculating the CLOSED LENGTH

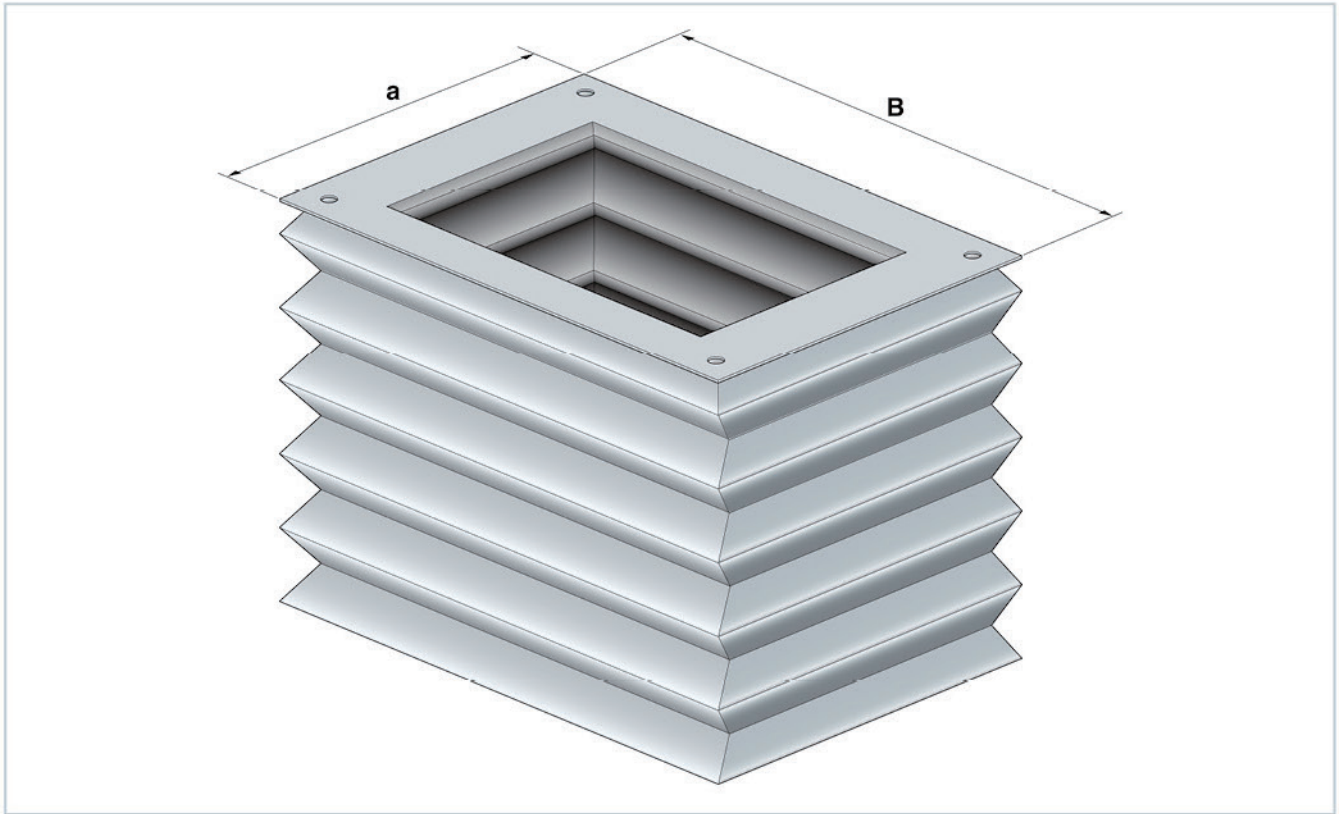
$$P.C. = NP \cdot PCP + 10mm$$

$$NP = \frac{\text{褶的数目}}{\text{Number of folds}} = \frac{P.A.}{AP}$$

X	AP	PCP	材料Material	颜色Color	相关代码Reference code
38	55	10	PVC/PU	黄Yellow/黑Black	DM-PU-G
			PVC/PU	黑Black	DM-PU-N
67	100	10	PVC	黄Yellow/黑Black	DM-PU-G
			PVC	黑Black	DM-PU-N
89	125	10	PVC	黄Yellow/黑Black	DM-PU-G

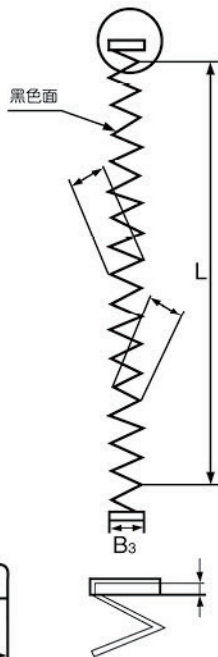
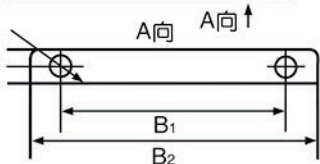
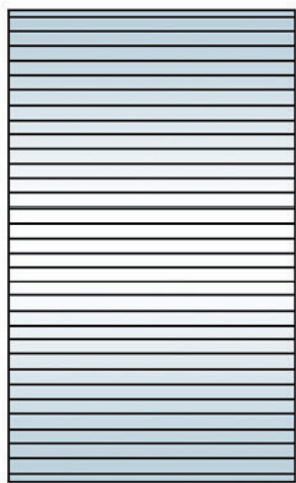
## 升降平台的护罩QL-RETT型热焊接护罩的安装

Bellows for hoisting platform execution with thermic-welded bellows type QL-RETT



## 风琴式防尘折布

Shielding folding cloth



防尘折布按用户要求制作  
Cloth can be made upon user's request

代号 Code	名称 Description	数据 Data	面料尼龙革 Nylon leather
B1	孔距 Holedis		连接树脂 Kesin
B2	宽度 Width		
B3	折高 Height		
L	伸长 Length		

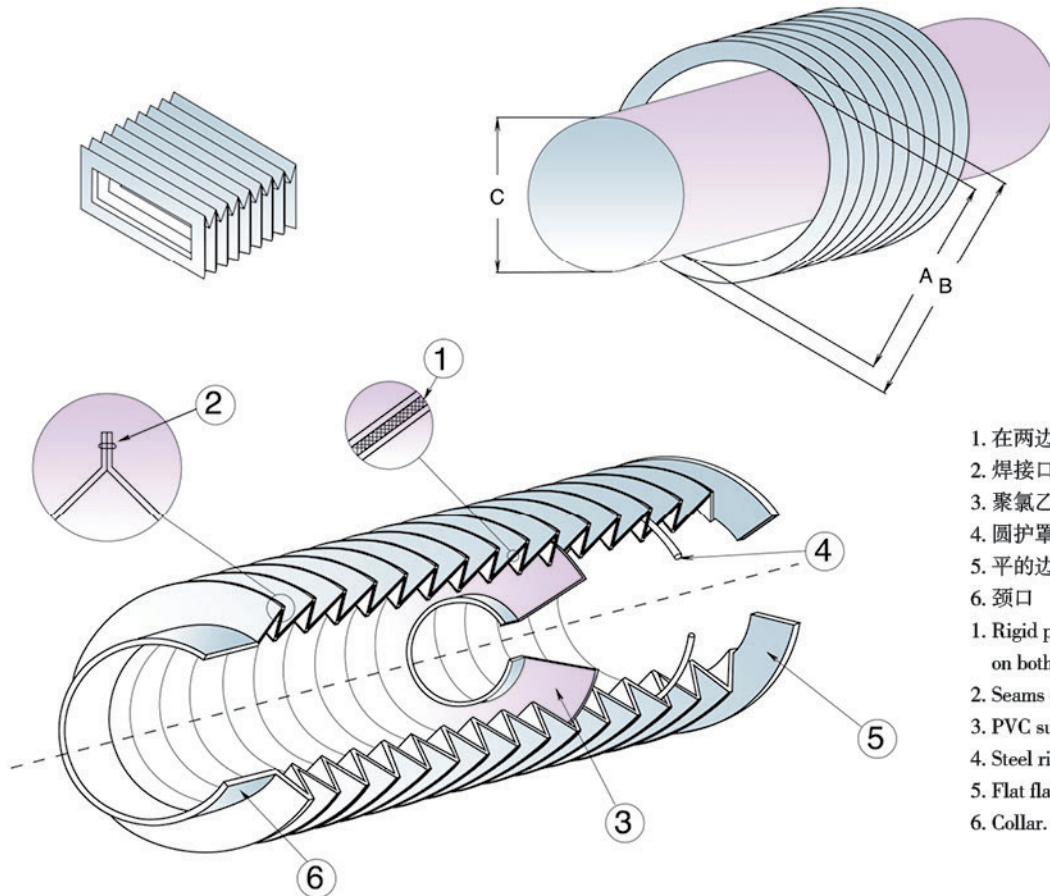
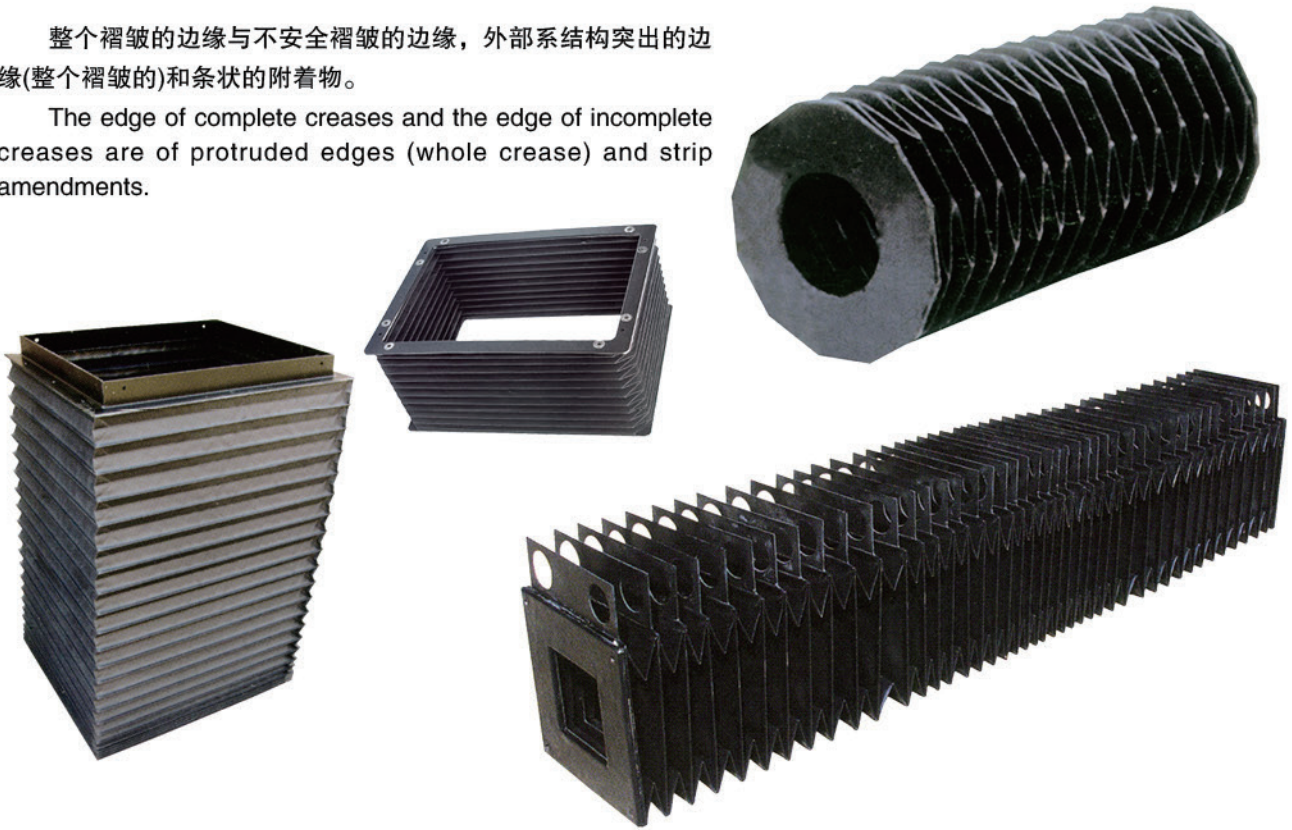


## 圓型、方型、八角型护罩分类

### Classification of round type, square type and octagonal shield

整个褶皱的边缘与不安全褶皱的边缘，外部系结构突出的边缘(整个褶皱的)和条状的附着物。

The edge of complete creases and the edge of incomplete creases are of protruded edges (whole crease) and strip amendments.



1. 在两边有一层坚硬的保护环
  2. 焊接口和缝合线
  3. 聚氯乙烯支撑环，每折一片
  4. 圆护罩支撑钢丝圈
  5. 平的边缘
  6. 颈口
1. Rigid polyamide or kevlar rings coated on both sides.
  2. Seams or weldings.
  3. PVC supporting shoes.
  4. Steel rings for the bigger bellows.
  5. Flat flange.
  6. Collar.

# 盔甲式机床防护罩

## Armoured vertical shield for machine tools

### 盔甲式机床护罩

盔甲式不锈钢机床立护罩的每个折层能经受强烈的振动而不变形，同时应用在风箱上，以900℃高温而仍保持原有的状态，他们之间彼此支持，起着阻碍小碎片渗透的作用。

### Armoured shield

Each fold of the armoured vertical shield can withstand strong shocks without any deformation. at the same time, It can stand a high temperature of 900℃ when used for bellows. They support each other and prevent debris from dropping inside.

### 特点

- ★ 按在护罩格上伸缩片
- ★ 小的空间必要条件
- ★ 可靠的保护层抵御大量的灰尘，砂末，铁屑耐高温
- ★ 伸缩片是铝合金和不锈钢板制成
- ★ 没有粘合关系

### Features

- ★ Hinged mounted telescopic sheets.
- ★ Small space requirement.
- ★ Reliable protection against large quantities of swarfs.
- ★ Individual telescopic sheets are easy to replace.
- ★ No glued connections.

