

External roller shutter systems

SK-45

OWAL

SKP

SP-E

OPOTERM

BECLEVER

RC2 / RC3

SKB Styroterm

SDZ



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ROLLER SHUTTER SYSTEMS

External roller shutters are intended both as thermal protection and security devices. Our premises, house or flat becomes a place where you can feel comfortable and safe.

Depending on the construction, type of installation and properties, roller shutters can be divided into several systems:

- **front mounted (SK-45, Owl, SKP system)** - for existing buildings,
- **built-in/flush mounted (SP-E system)** - for new buildings,
- **built-in/top mounted (Beclever, Opoterm system)** - mounted on the window before installation.
- **anti-burglary (SK-45 or Sp-E system with reinforced guides and reinforced armor)** - installed in places where additional security is required. They are available in class RC2 and RC3,
- **for building-over of the existing headrooms (SDZ system)** - offer mainly for the French and Belgian markets, a system for filling headroom boxes.

All roller shutter systems provide the excellent thermal insulation – they help to reduce heating costs in the winter and protect room against overheating in the summer and each system provides different thermal properties. The best thermal performance is provided by the systems which doesn't affect lintel or window structure.

Boxes and guides are made of aluminum or PVC, depending on the roller shutter system. The armour-platings in each system are made of foam-filled aluminum profiles and are offered in a wide range of colours.

SK-45

SYSTEM DESCRIPTION

The system is intended for use in existing buildings. The roller shutter is rolled up into an aluminum box, which is then a decorative element, matching the appearance of the building. Access to servicing the shutter is from the outside of the room. The other adaptive systems (SKP, Owl) differ only in the shape of the box into which the armor-plating rolls up. The remaining elements, methods of assembly and control are the same in all adaptation systems.



INSTALLATION

The roller shutter system is mounted on the window joinery (inside the window recess) or on facades. Roller shutters with manual control system require drilling through the wall structure or window frame, whereas roller shutters with electric control require power supply outlet at the shutter box height.

The roller shutters mounted inside the window recess are fixed to the window frame (shutter box reduces the inside dimensions of the window aperture). Mounting inside the window recess is easier and the roller shutter is less visible, since it is concealed inside the window aperture.

The roller shutters mounted on facades require use of anchor plugs compatible with wall or insulation material.

DESIGN

Roller shutter profiles and boxes are made of high-grade aluminium sheet with PUR-PA coating featuring improved abrasion and weather resistance. The profiles are filled with foam for improved thermal and sound insulation.

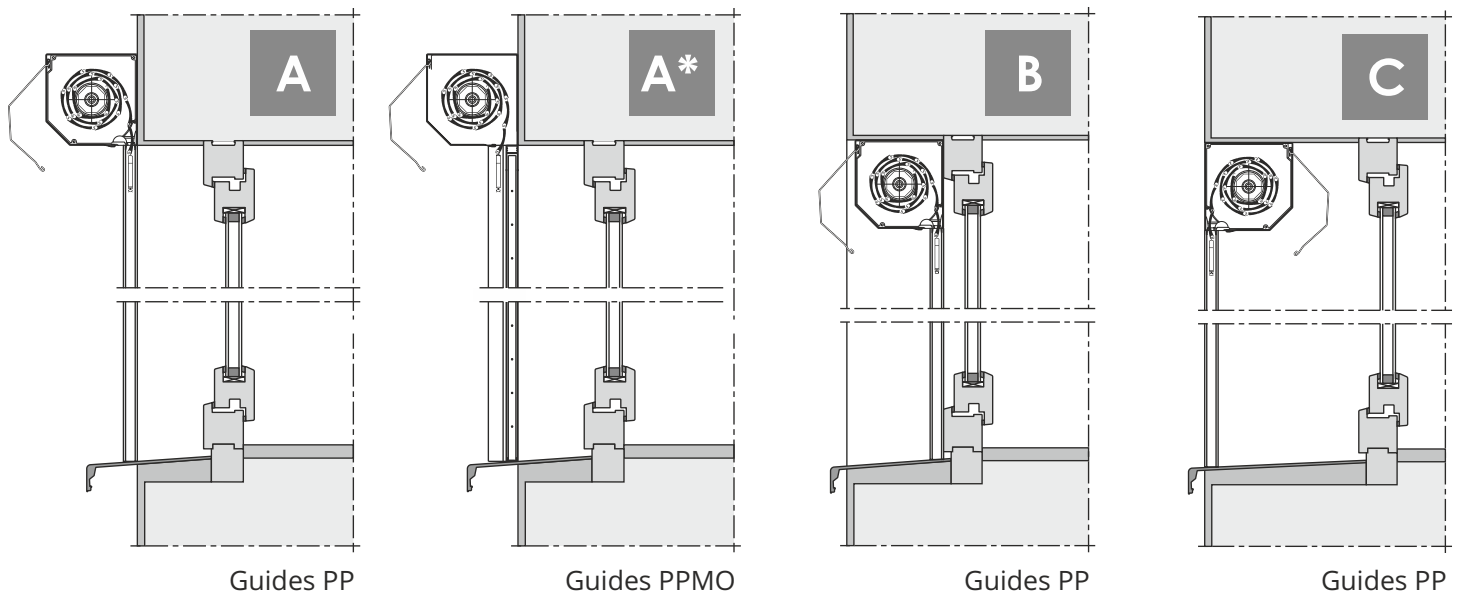
OPERATION

Available variants of roller shutter control:

- manual, a cord or tape to choose from in the following colours: white, brown or anthracite.
- electrically with the use of an electric motor, to choose from: by push-button switches (wired) or by a remote control (radio). Some of the drives allow simultaneous control with a push-button switch and a remote control, as well as remotely via a smartphone, computer, etc. Wired and radio drives are available with and without obstacles detection option.
- with a spring. The solutions are used in conjunction with a cylinder lock located in the bottom lath.

AVAILABLE COLOURS

Available in a wide variety of colours and veneers to satisfy the most demanding customers. All extruded components are powder coated.



MOUNTING METHOD A

Façade mounted shutter box and guide tracks (PP – straight guides A, PPMO – guides with off-set A*).

Balcony set (roller shutters in a common shutter box):

- add guide tracks width to balcony door width.
- add shutter box height to balcony door height.
- add shutter box height to window height (same height as for balcony door height).
- window width corresponds to roller shutter width.

A* - installation of the roller shutter in combination with a pleated insect screen with use of guides with off-set

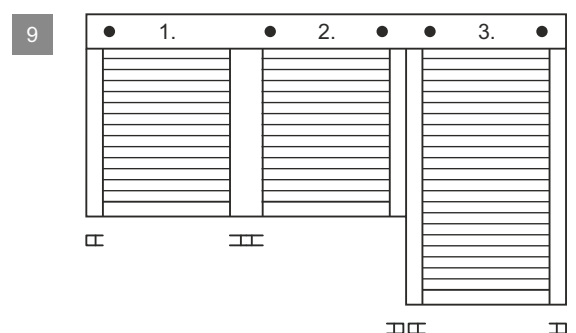
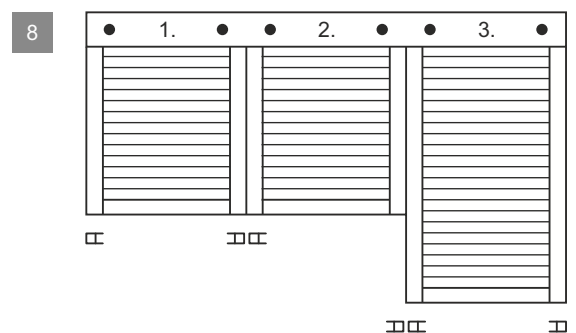
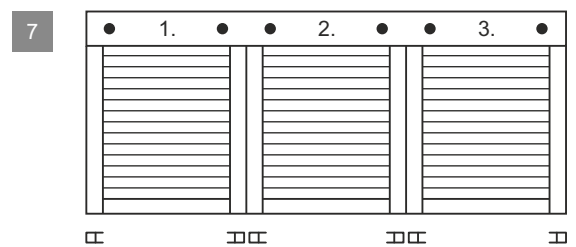
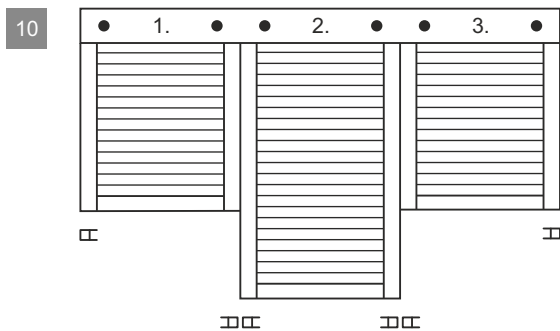
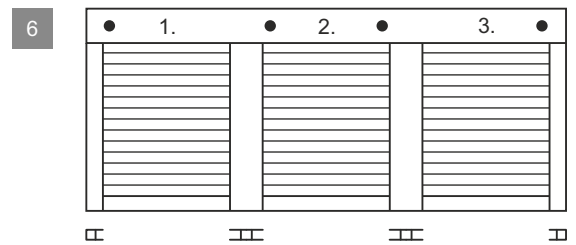
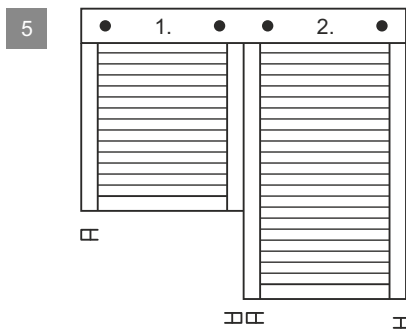
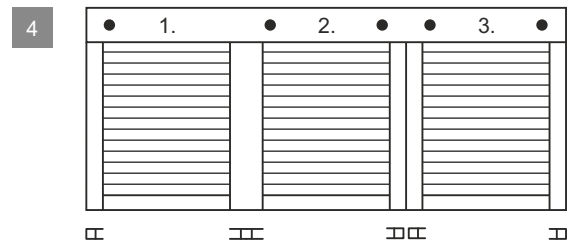
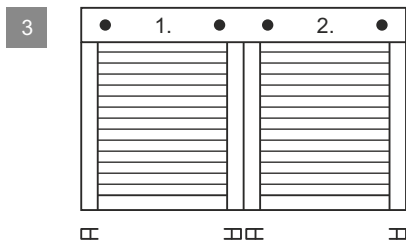
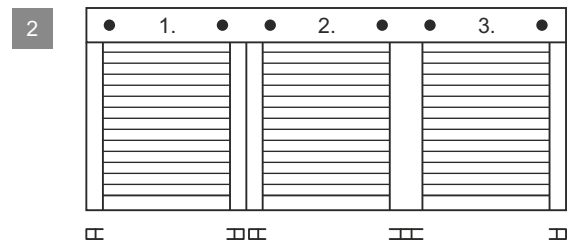
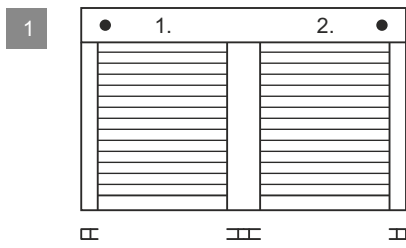
MOUNTING METHOD B AND C

Shutter box and guide tracks mounted inside the window recess (straight or angle guide tracks).

Window recess width and height correspond to total roller shutter dimensions.

Balcony set:

- door and window width correspond to roller shutter width.
- door and window height correspond to roller shutter height.



Common drive for two roller shutters in sets is available (roller shutter of the same width and height):

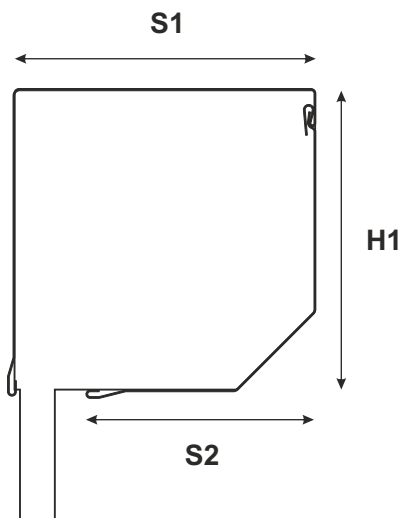
- set 1 and 3
- set 2, 4, 6, 7 in roller shutter 1 and 2 or 2 and 3

Note: do not use common drives with obstacle detection motors.

● - drive installation options.

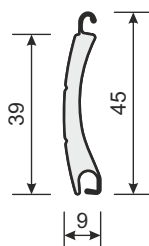
▣ or □ - single guide track 53 mm (PP-53).

▢ - dual guide track 79 mm (PPD-79).

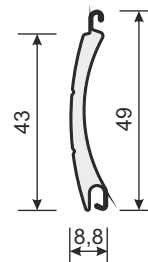


	S1	S2	H1
SK 137	137	104	137
SK 150	150	115	150
SK 165	165	131	165
SK 180	180	144	180
SK 205	205	170	205

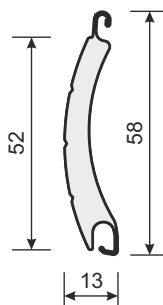
PA-39



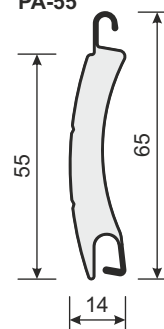
PA-43



PA-52

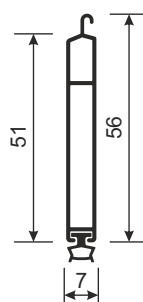


PA-55

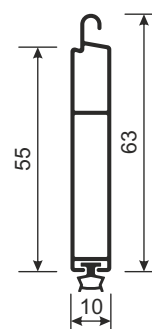


BOTTOM RAILS SK-45

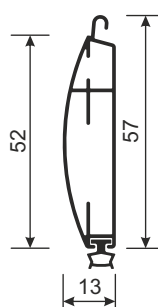
LDG / LDG-E
(do Pa-39 i Pa-43)



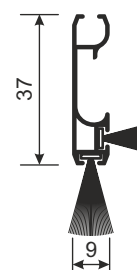
LDG / S
(do Pa-55)



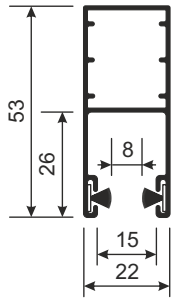
LDG 52
(to Pa-52)



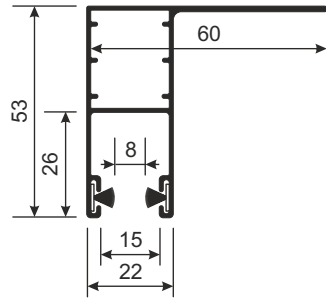
LDSM MKT
(to roller shutters with insect screens)



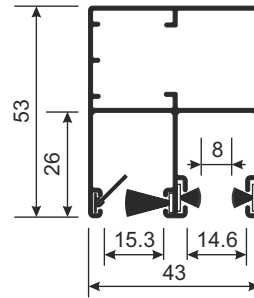
PP-53



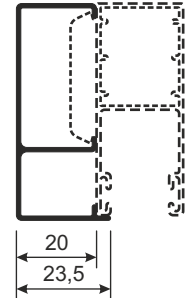
PK-53



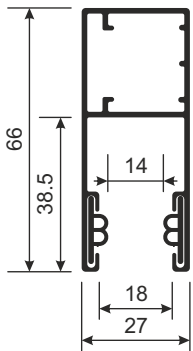
PPDO-53



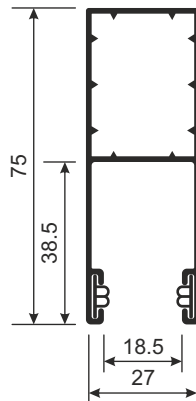
D/PP



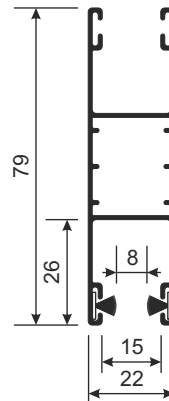
PP-66



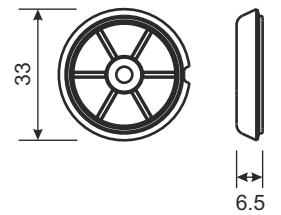
PP-75



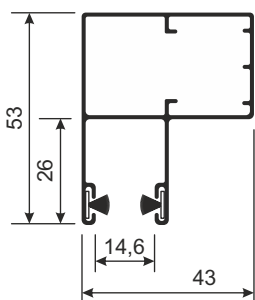
PPD-79



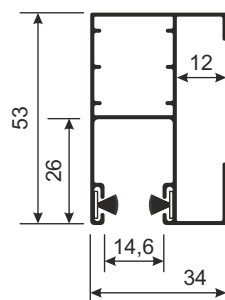
PZO



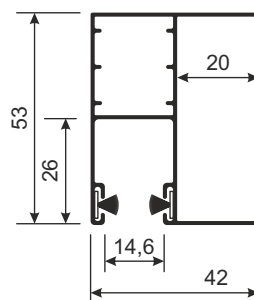
PPMO



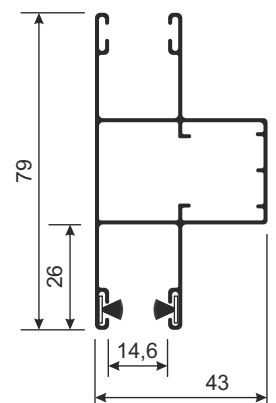
PP53/ODS



PP53/ODS/20



PPDMO79



OWAL

SYSTEM DESCRIPTION

The system has been developed for use in existing buildings. The shutter is rolled up into aluminium shutter box. The shutter box is a decorative element matching the building appearance. The maintenance access is provided the outside. The system differs from SK-45 and SKP systems with a shape of the shutter box. Other components, as well as installation and control method are the same.



INSTALLATION

The roller shutter system is mounted on the window joinery (inside the window recess) or on facades. Roller shutters with manual control system require drilling through the wall structure or window frame, whereas roller shutters with electric control require power supply outlet at the shutter box height.

The roller shutters mounted inside the window recess are fixed to the window frame (shutter box reduces the inside dimensions of the window aperture). Mounting inside the window recess is easier and the roller shutter is less visible, since it is concealed inside the window aperture.

The roller shutters mounted on facades require use of anchor plugs compatible with wall or insulation material.

DESIGN

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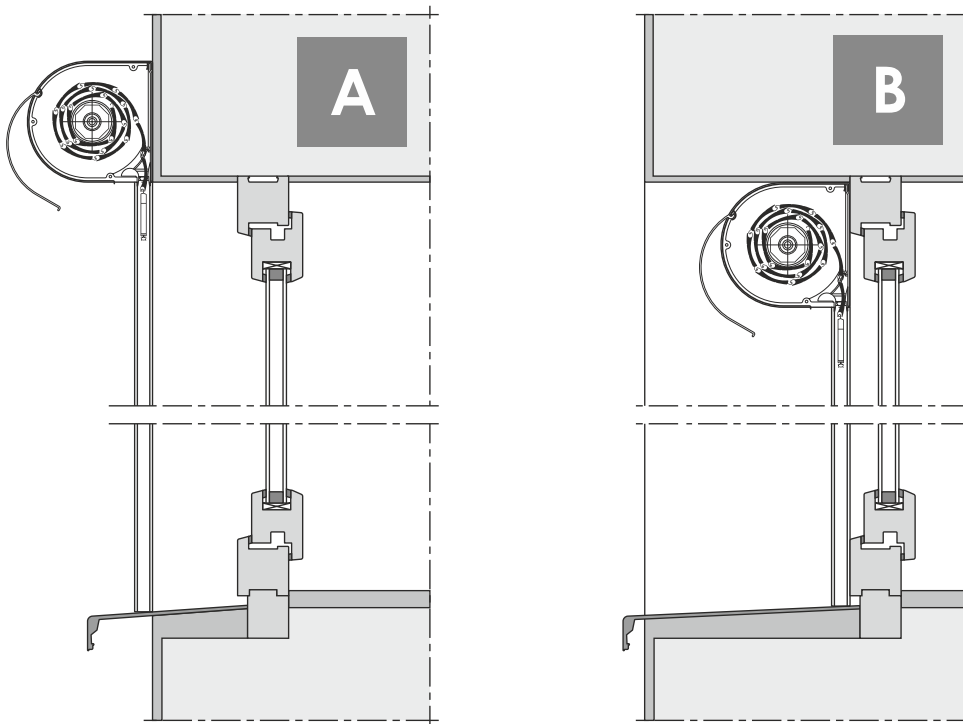
OPERATION

Available variants of roller shutter control:

- manual, a cord or tape to choose from in the following colours: white, brown or anthracite.
- electrically with the use of an electric motor, to choose from: by push-button switches (wired) or by a remote control (radio). Some of the drives allow simultaneous control with a push-button switch and a remote control, as well as remotely via a smartphone, computer, etc. Wired and radio drives are available with and without obstacles detection option.
- with a spring. The solutions are used in conjunction with a cylinder lock located in the bottom lath.

AVAILABLE COLOURS

Available in a wide variety of colours and veneers to satisfy the most demanding customers. All extruded components are powder coated.



MOUNTING METHOD A

Façade mounted shutter box and guide tracks (straight guide tracks)

Add guide tracks width to window recess width. Add shutter box height to window recess height.

Balcony set (roller shutters in a common shutter box):

- add guide tracks width to balcony door width.
- add shutter box height to balcony door height.
- add shutter box height to window height (same height as for balcony door height).
- window width corresponds to roller shutter width.

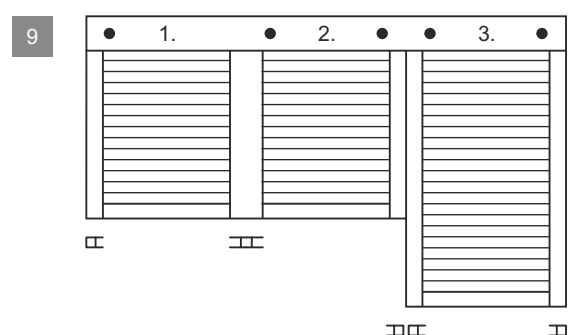
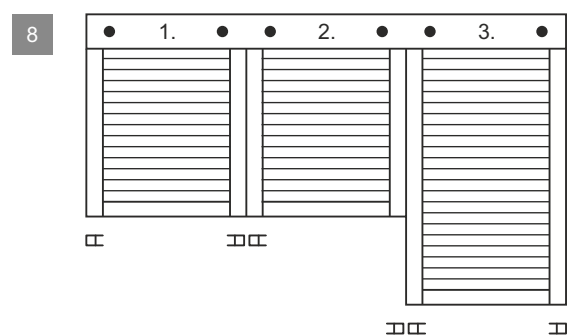
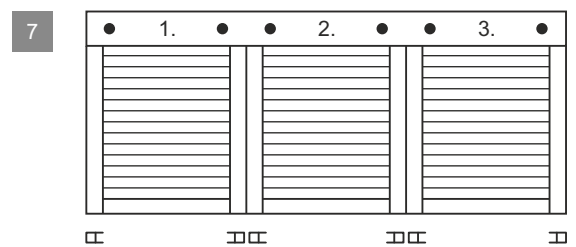
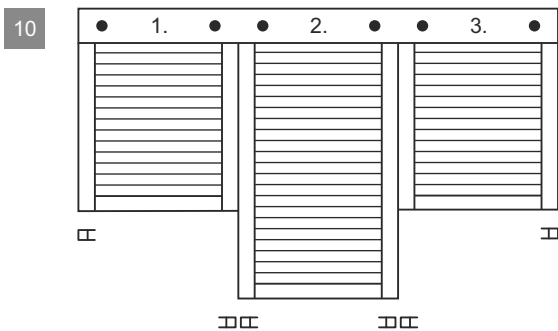
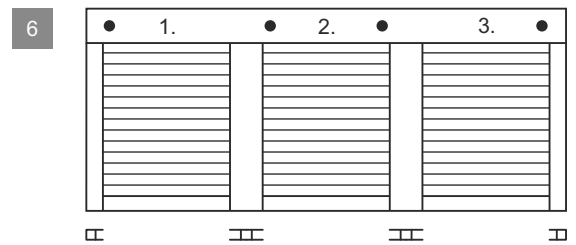
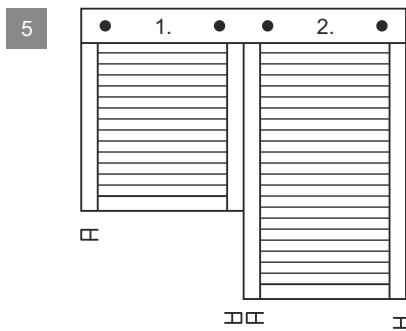
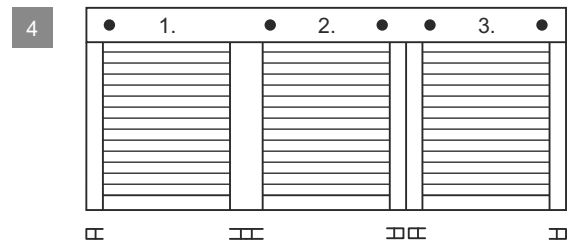
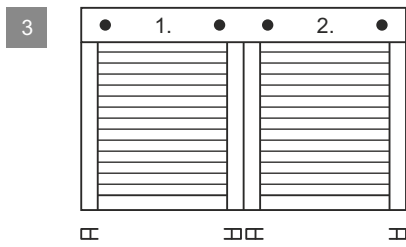
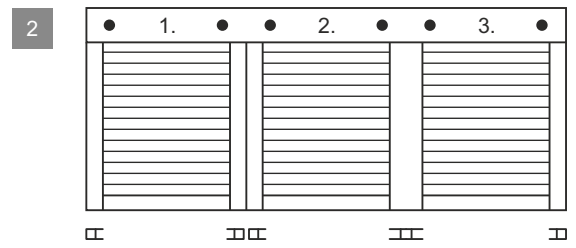
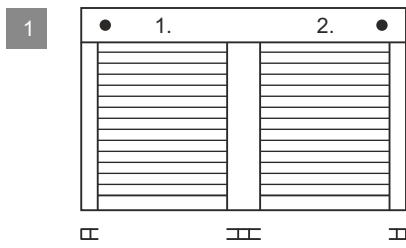
MOUNTING METHOD B

Shutter box and guide tracks mounted inside the window recess (straight or angle guide tracks).

Window recess width and height correspond to total roller shutter dimensions.

Balcony set:

- door and window width correspond to roller shutter width.
- door and window height correspond to roller shutter height.



Common drive for two roller shutters in sets is available (roller shutter of the same width and height):

- set 1 and 3
- set 2, 4, 6, 7 in roller shutter 1 and 2 or 2 and 3

Note: do not use common drives with obstacle detection motors.

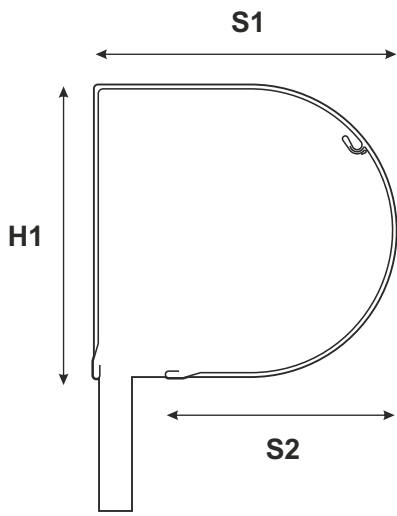
● - drive installation options.

▤ or ▥ - single guide track 53 mm (PP-53).

▨ - dual guide track 79 mm (PPD-79).

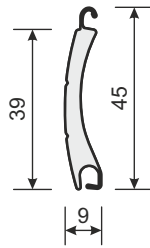
SHUTTER BOXES AND COVERS

PROFILES OWAL

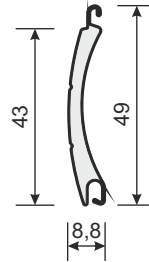


	S1	S2	H1
SKO-P 137	147	111	137
SKO-P 150	160	125	150
SKO-P 165	175	134	165
SKO-P 180	190	150	180
SKO-P 205	217	167	205

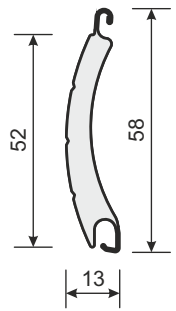
PA-39



PA-43

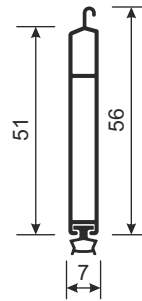


PA-52

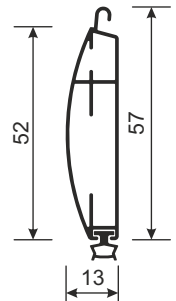


BOTTOM RAILS OWAL

LDG / LDG-E
(to Pa-39 and Pa-43)

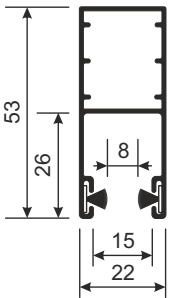


LDG 52
(to Pa-52)

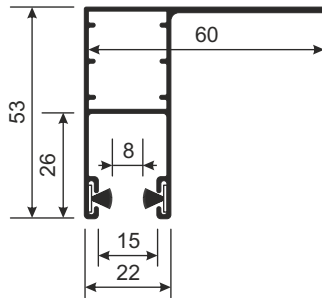


GUIDE TRACKS OWAL

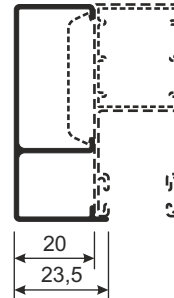
PP-53



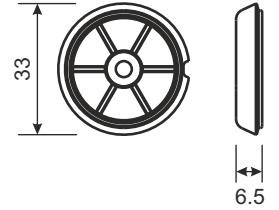
PK-53



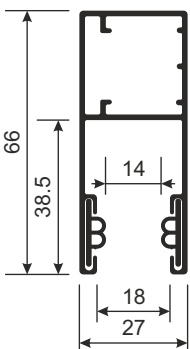
D/PP



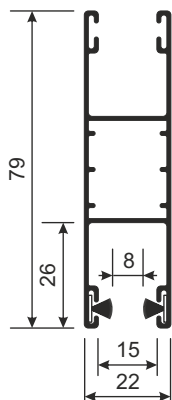
PZO



PP-66



PPD-79



SKP

SYSTEM DESCRIPTION

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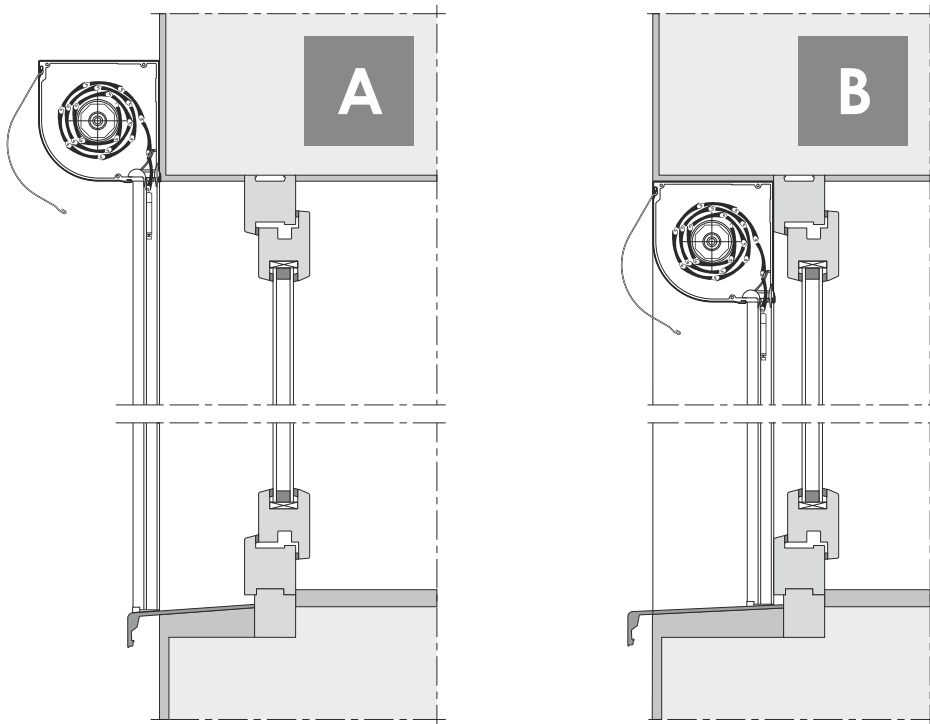
OPERATION

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AVAILABLE COLOURS

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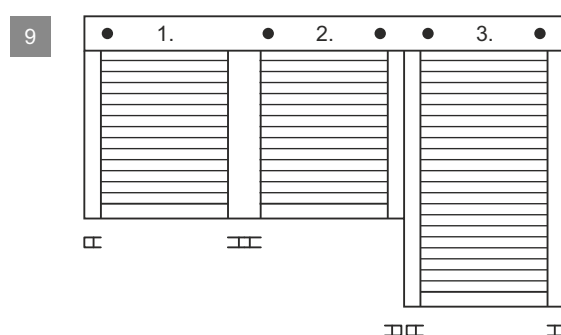
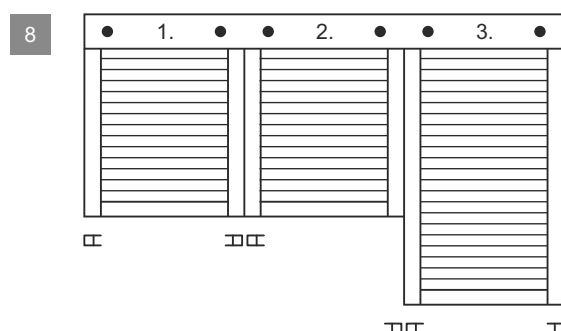
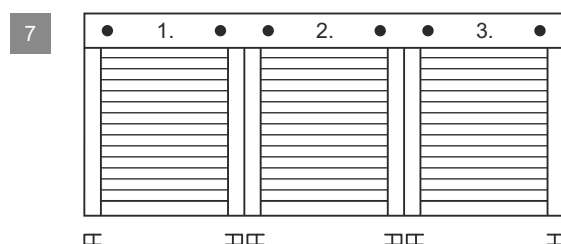
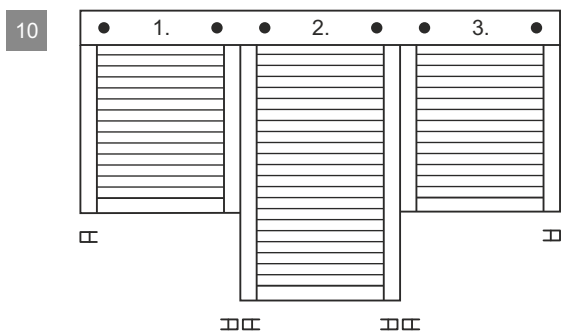
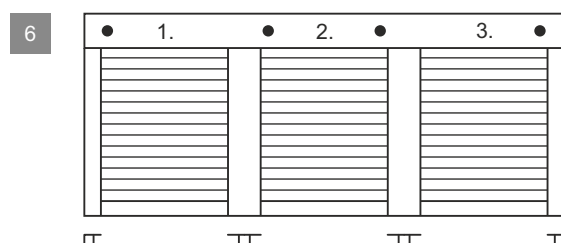
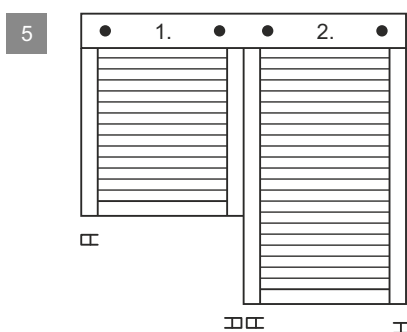
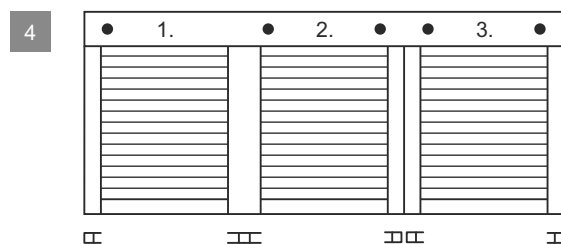
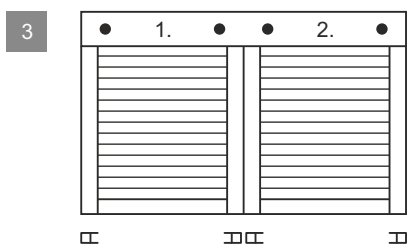
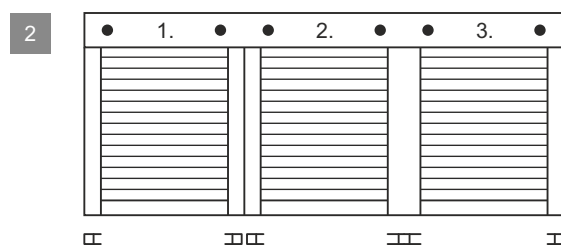
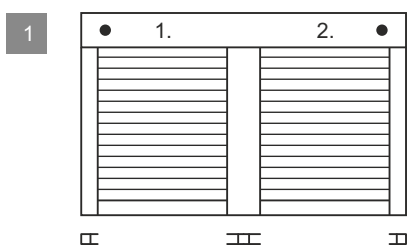
MOUNTING METHOD B

Shutter box and guide tracks mounted inside the window recess (straight or angle guide tracks).

Window recess width and height correspond to total roller shutter dimensions.

Balcony set:

- door and window width correspond to roller shutter width.
- door and window height correspond to roller shutter height.



Możliwość zastosowania wspólnych napędów do dwóch rolet w zestawach (w przypadku rolet o tej samej szerokości i wysokości):

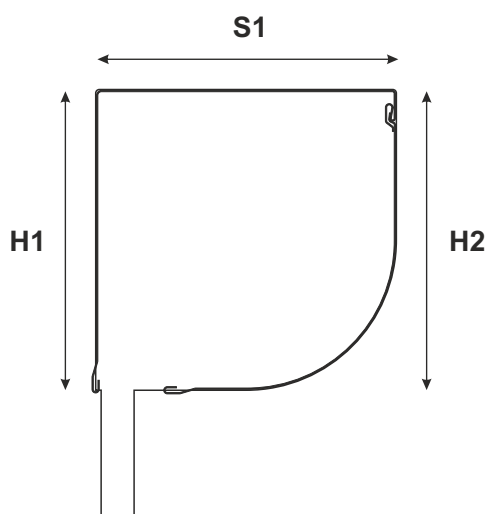
- do zestawu 1 i 3
- do zestawu 2, 4, 6, 7 w roletce 1 i 2 lub 2 i 3

Uwaga: nie można wykonać wspólnych napędów w przypadku stosowania silników z detekcją przeszkód.

- - możliwość umieszczenia napędów.
- ▭ or ▭ - prowadnica pojedyncza 53 mm (PP-53).
- ▭▭ - prowadnica podwójna 79 mm (PPD-79).

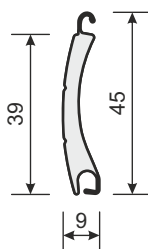
SHUTTER BOXES AND COVERS

PROFILES SKP

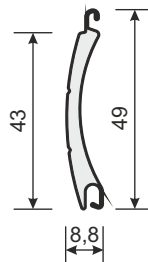


	S1	H1	H2
SKP 137	137	137	137
SKP 150	151	150	151
SKP 165	166	165	166
SKP 180	181	180	181
SKP 205	206	205	206

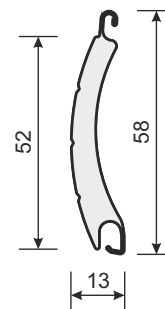
PA-39



PA-43

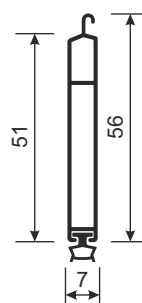


PA-52

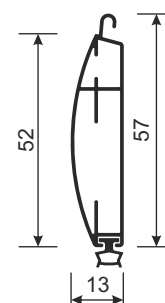


BOTTOM RAILS SKP

LDG / LDG-E
(to Pa-39 and Pa-43)

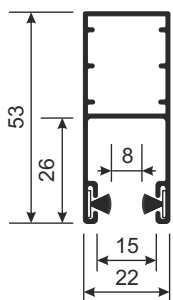


LDG 52
(to Pa-52)

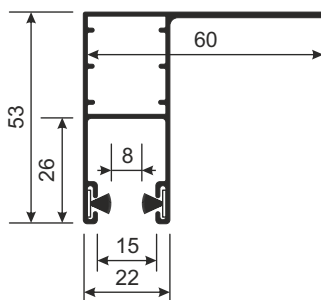


GUIDE TRACKS SKP

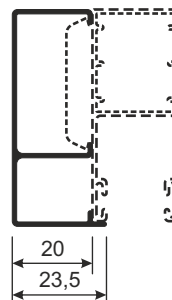
PP-53



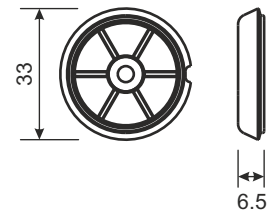
PK-53



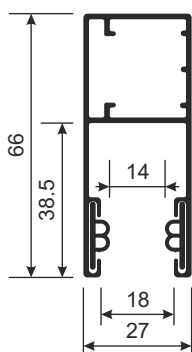
D/PP



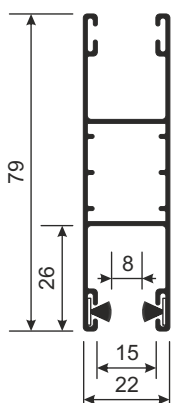
PZO



PP-66



PPD-79



SP-E



SYSTEM DESCRIPTION

The SP-E flush-mounted system is intended for use in newly erected buildings. The use of the system in existing buildings is possible after making the necessary changes within the headroom. The system provides good thermal insulation, because it does not interfere with the structure of the window or headroom, and does not affect the energy balance of the building. An additional advantage is the invisible - apart from the revision flap - roller shutter box.

INSTALLATION

The shutter box is installed on the outside. The roller shutter is installed after the windows are fitted but before thermal insulation, since the shutter box is wall mounted. The roller shutter can also be built-on if the shutter box is completely concealed by the thermal insulation. Insulate the area between the shutter box and the window lintel after the required lintel modifications are completed or after fitting windows which protrude beyond the face of building by the thickness of thermal insulation (usually 20 mm).

DESIGN

Roller shutter profiles are made of high-grade aluminium sheet with PUR-PA coating featuring improved abrasion and weather resistance. The profiles are filled with foam for improved thermal and sound insulation. The shutter box mounted to the window lintel and is an integral part of the building façade. The shutter box face can be finished with any finishing material (e.g. external plaster, facing brick) and is completely concealed.

OPERATION

Available variants of roller shutter control:

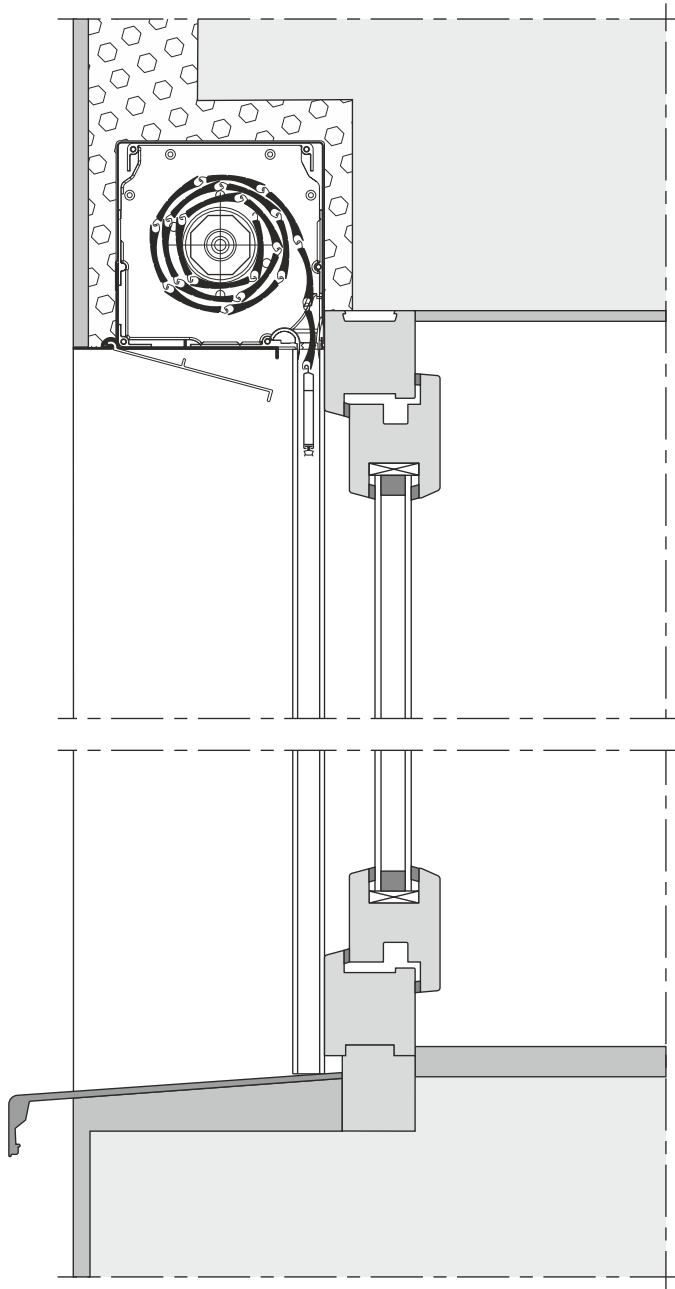
- manual, a cord or tape to choose from in the following colours: white, brown or anthracite.
- electrically with the use of an electric motor, to choose from: by push-button switches (wired) or by a remote control (radio). Some of the drives allow simultaneous control with a push-button switch and a remote control, as well as remotely via a smartphone, computer, etc. Wired and radio drives are available with and without obstacles detection option.
- with a spring. The solutions are used in conjunction with a cylinder lock located in the bottom lath.

FEATURES

Well-thought-out design and high quality materials for effective protection against intruders. Perfect thermal insulation to reduce heating costs in the winter and protect room against overheating in the summer.

AVAILABLE COLOURS

Available in a wide variety of colours and veneers to satisfy the most demanding customers. All extruded components are powder coated.



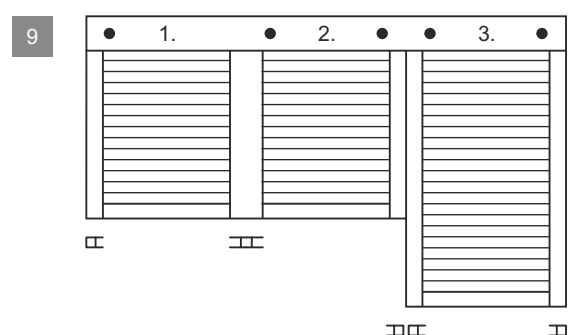
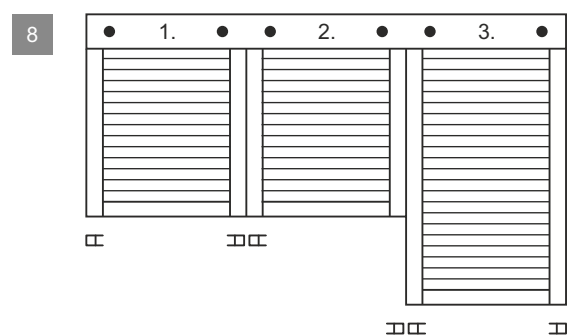
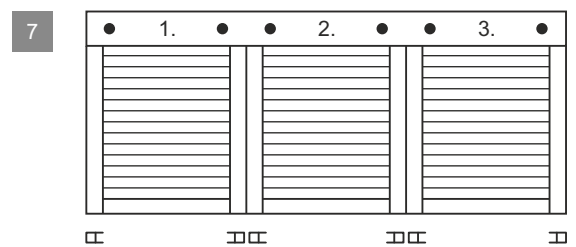
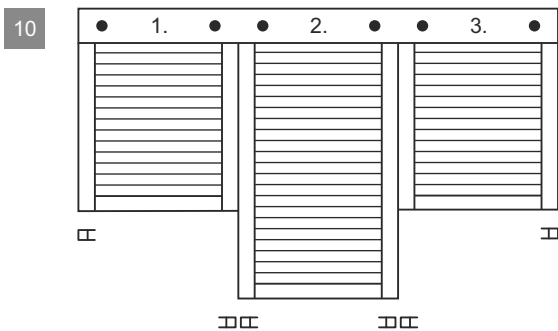
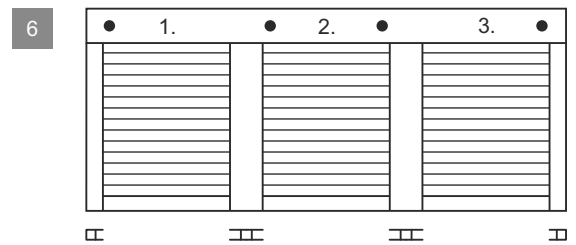
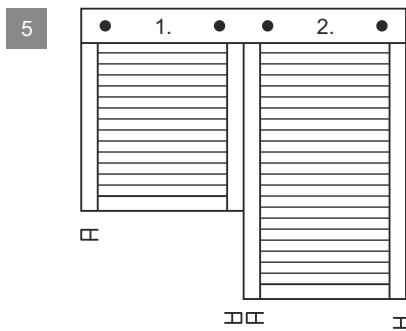
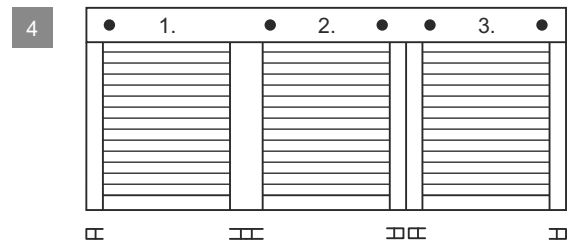
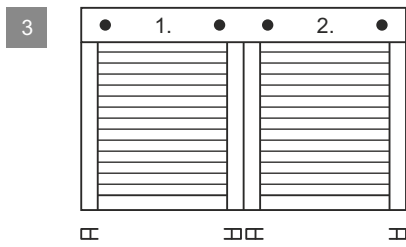
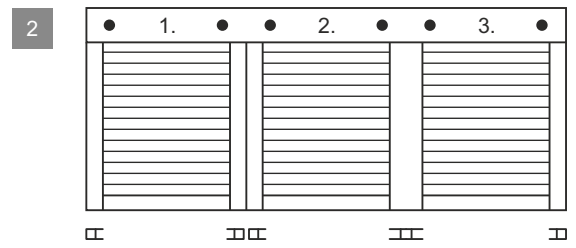
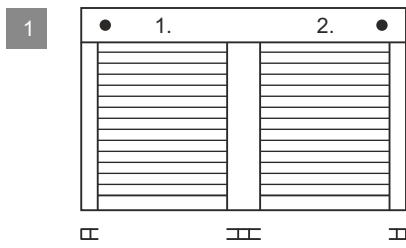
MOUNTING METHOD FOR SP-E ROLLER SHUTTERS

Guides mounted on the window frame, top mounted shutter box.

The width of the shutter is the width of the window. Add box height to window height to calculate total roller shutter height. Roller shutter height depends on window width, shutter box height and window sill flashing type.

Balcony set:

- door and window width correspond to roller shutter width.
- add shutter box height to window height to calculate total roller shutter height.



Common drive for two roller shutters in sets is available (roller shutter of the same width and height):

- set 1 and 3
- set 2, 4, 6, 7 in roller shutter 1 and 2 or 2 and 3

Note: do not use common drives with obstacle detection motors.

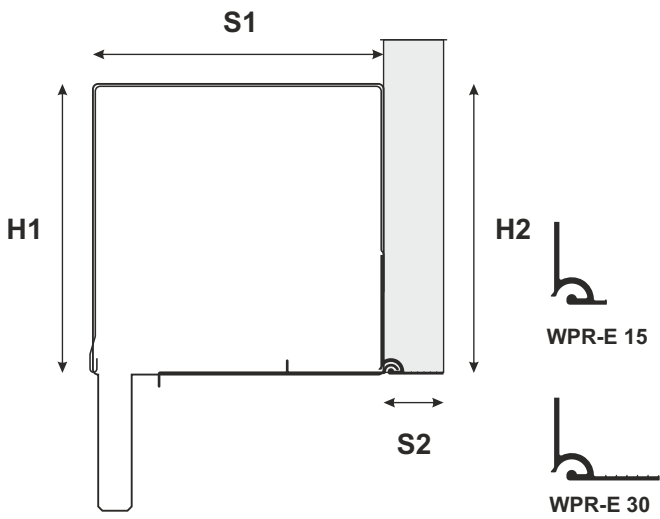
● - drive installation options.

▣ or □ - single guide track 53 mm (PP-53).

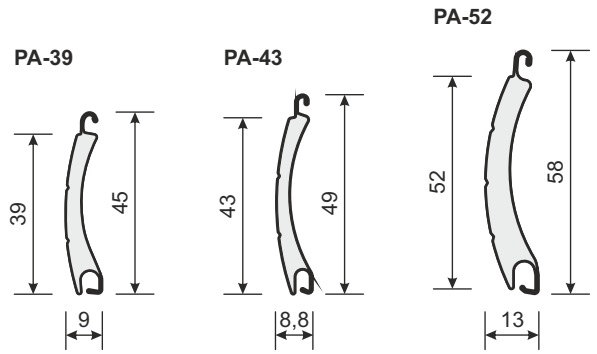
▢ - dual guide track 79 mm (PPD-79).

SHUTTER BOXES AND COVERS SP-E

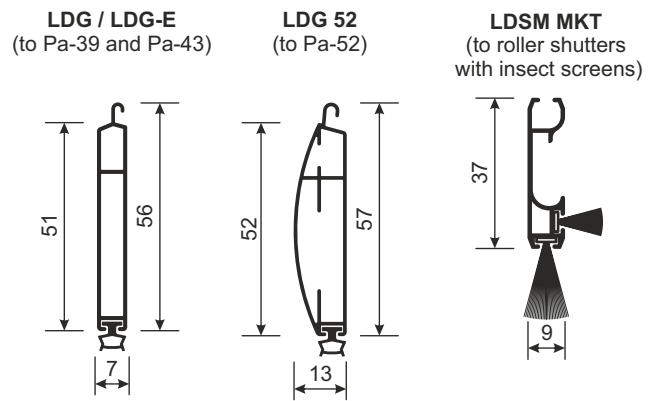
PROFILES SP-E



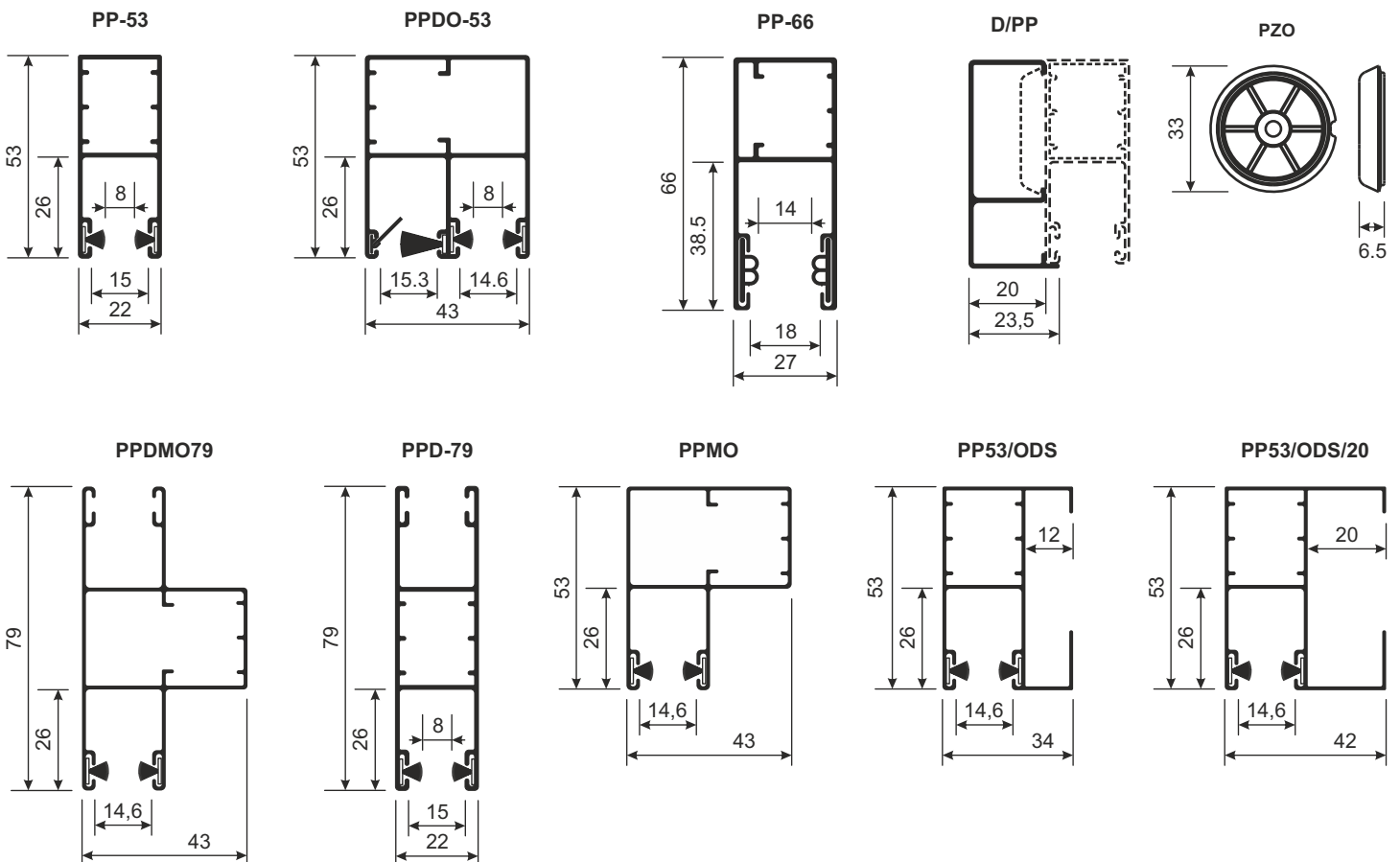
	S1	H1	H2		S2
SP-E 137	137	136	137	WPR-E 15	15
SP-E 150	150	149	150	WPR-E 30	30
SP-E 165	165	164	165		
SP-E 180	180	179	180		
SP-E 205	205	204	205		



BOTTOM RAILS SP-E



GUIDE TRACKS SP-E



OPOTERM

SYSTEM DESCRIPTION

Top mounted roller shutter system for new or existing buildings. The decision on using Revo roller shutters in new buildings should be made at the design stage or at the latest when fitting window joinery.

For existing buildings, the decision should be made when replacing old windows.

The shutter box design allows built-on, partially built-on or surface mounting. The maintenance access is provided from the bottom (from inside the room).



DESIGN

Boxes and guides are made of high-quality PVC. The internal insulation of the box significantly increases its thermal insulation. The roller shutter box is placed on the window and, after installation, is an integral part of the building facade. Elements of the Opoterm system do not interfere with the structure of the window, door or headroom. Thanks to the use of lateral and bottom steel reinforcements, as well as mounting anchors, the box has high stability even at large widths.

Roller shutter profiles are made of high-grade aluminium sheet with PUR-PA coating featuring improved abrasion and weather resistance. The profiles are filled with foam for improved thermal and sound insulation.

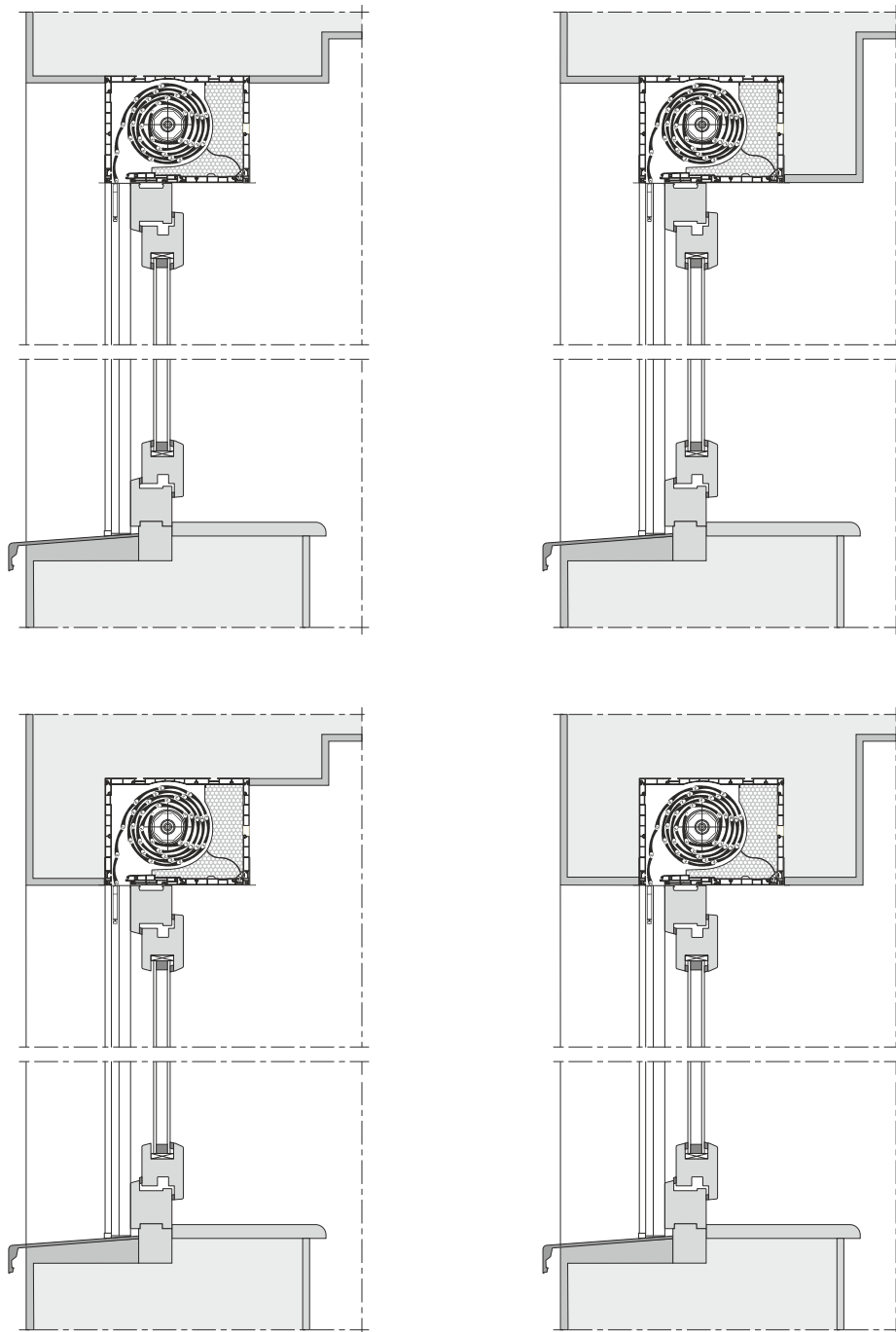
OPERATION

Available variants of roller shutter control:

- manual, a cord or tape to choose from in the following colours: white, brown or anthracite.
- electrically with the use of an electric motor, to choose from: by push-button switches (wired) or by a remote control (radio). Some of the drives allow simultaneous control with a push-button switch and a remote control, as well as remotely via a smartphone, computer, etc. Wired and radio drives are available with and without obstacles detection option.
- with a spring. The solutions are used in conjunction with a cylinder lock located in the bottom lath.

AVAILABLE COLOURS

Available in a wide variety of colours and veneers to satisfy the most demanding customers. Roller shutter boxes and guide tracks are available in a wide variety of colours with Renolit coating.



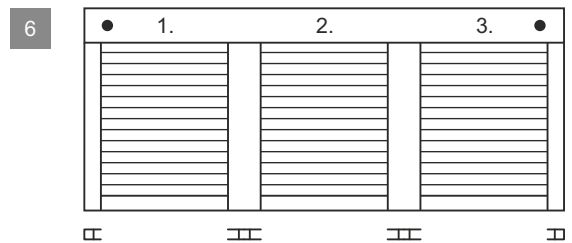
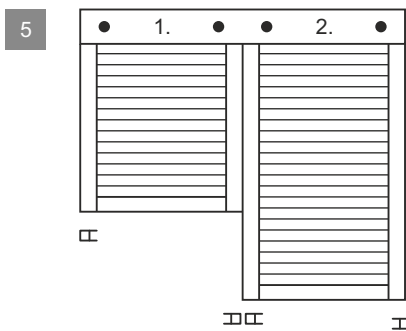
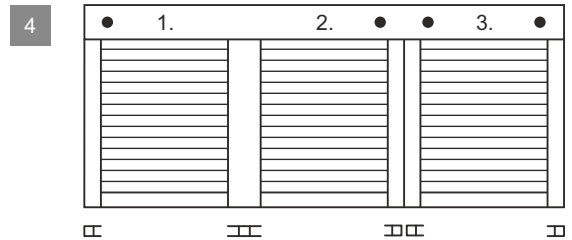
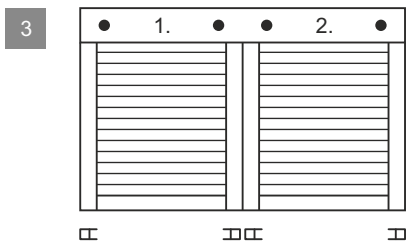
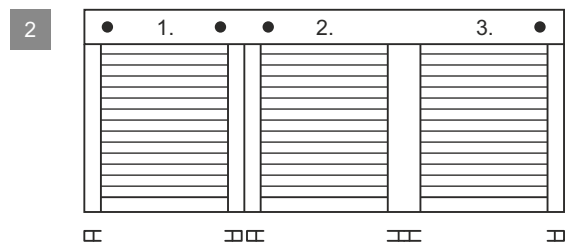
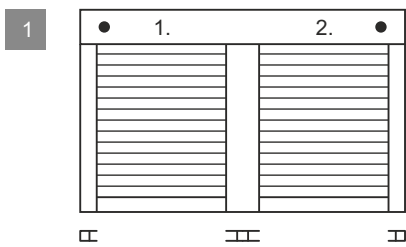
MOUNTING METHOD FOR OPOTERM ROLLER SHUTTERS

Guide tracks mounted on the window frame, box mounted on the window before fitting.

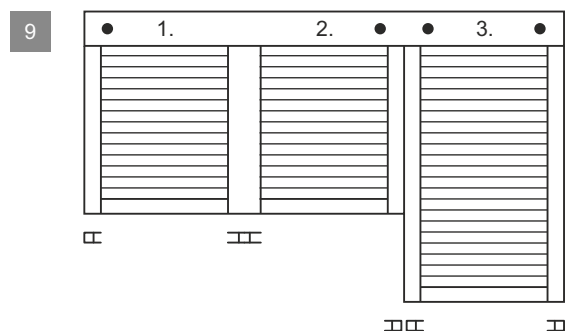
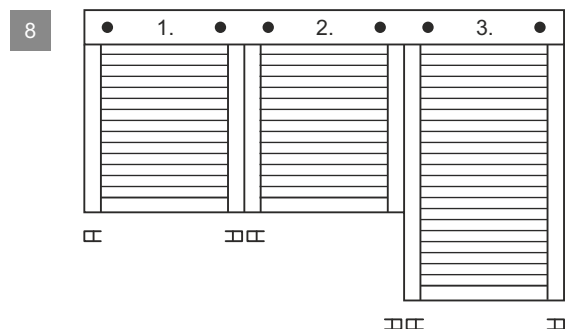
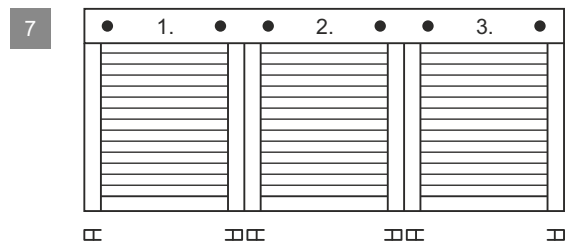
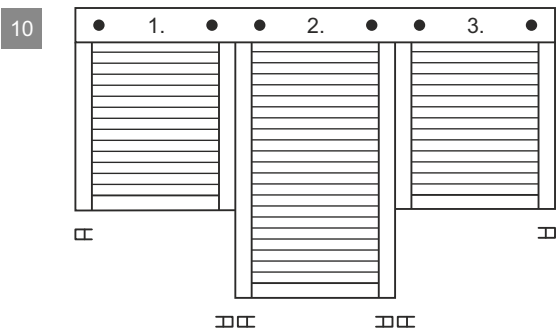
Window width correspond to total roller shutter width. Add shutter box height to window height to calculate total roller shutter height.

Balcony set:

- door and window width correspond to roller shutter width
- add shutter box height to window height to calculate total roller shutter height.



No possibility to perform . The exception is the use of common motor for roller shutters 1 and 2 or 2 and 3.



Common drive for two roller shutters in sets is available (roller shutter of the same width and height):

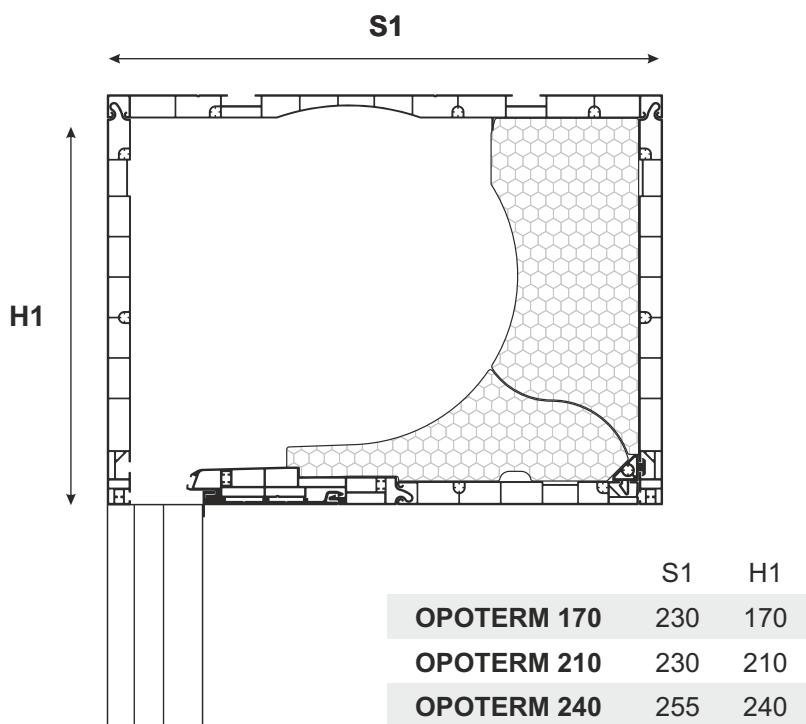
- set 1 and 3
- set 2, 4, 6, 7 in roller shutter 1 and 2 or 2 and 3

Note: do not use common drives with obstacle detection motors.

● - drive installation options.

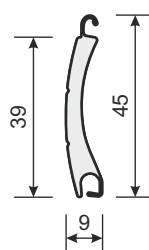
▣ or ▢ - one-sided guide track 60 mm.

▢▢ - two-sided guide track 60 mm.

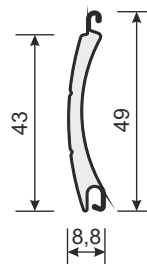


Informations about the use of connection profiles on page 24.

PA-39

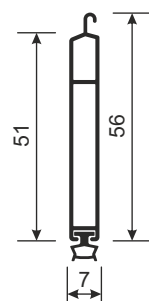


PA-43

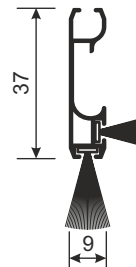


BOTTOM RAILS OPOTERM

LDG / LDG-E

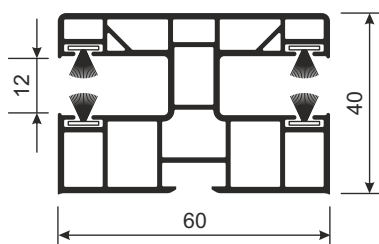


LDSM MKT

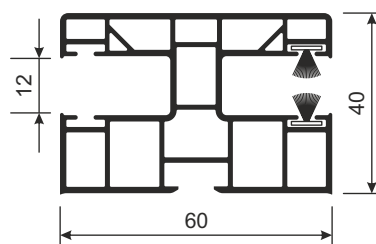


GUIDE TRACKS OPOTERM

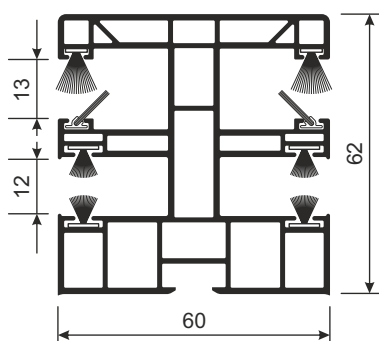
PPD 60/12



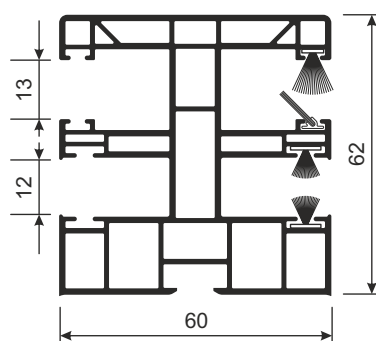
PPD-P 60/12

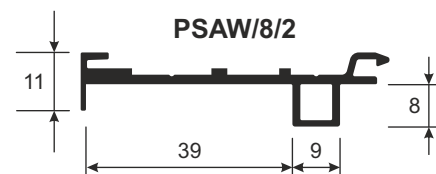
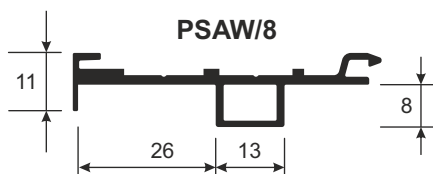
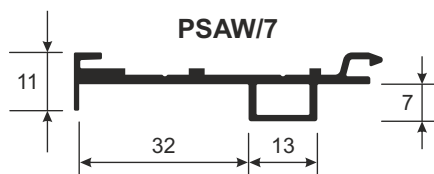
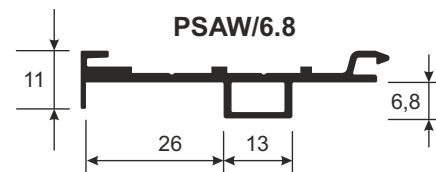
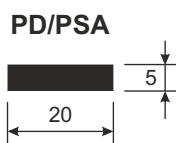
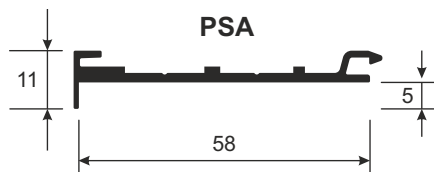


PPDM 60/12



PPDM-P 60/12





PSA	PSAW 6,8	PSAW 7	PSAW 8	PSAW 8/2
LB-Profil CL 4-25	Brugmann bluEvolution 92	Inoutic Eforte	Dobroplast Awantgarde 7000	Gealan S 9000
LB-Profil AL 7-5	Brugmann Salamander SL/3D	Schueco Corona SI82	Dobroplast Awantgarde 8000	Trocal innoNova70.A5 classic
LB-Profil AL 1-3	Brugmann Salamander 2D 70	Drutex Iglo Energy	Dobroplast Ovlo	Trocal innoNova70.A5 elegance
Foris 100	Brugmann Salamander 2D	Wojmarplast eForte	Dobroplast Ovlo classic	Trocal innoNova70.A5 natura
Foris 500	Veka Alphaline 90MD		Dobroplast Encore	Trocal innoNova70.A5 balance
Foris 501	Veka Efectline		Dobroplast Prime	Trocal innoNova70.AD
Brugmann AD/MD	Veka Perfectline		Inoutic Prestige	Trocal 88+
Brugmann bluEvolution 82 AD/MD	Veka Softline 82		Stoekel 3113	
Trocal 9000	Veka Softline 213		Stoekel Eco design + Twinste	
KBE 80Plus	Veka Topline 70AD		Rehau Basic/thermo/Nova 60	
Koemerling 80+	Aluplast Ideal 2000		Rehau Basic/thermo/Nova 70	
Roplasto 5402ROP 58	Aluplast Ideal 3000		Gealan S 8000 IQ	
Profilalis 2500	Aluplast Ideal 4000		Gealan S 8000 IQ +	
Profilalis 300	Aluplast Ideal 5000		Gealan S 3000	
	Aluplast Ideal 6000		Gealan 5001	
	Aluplast Ideal 7000		Thyssen 5402THP Prestige	
	Aluplast Ideal 8000		KBE Nowa 70	
	Inoutic Arkade		KBE 5401 kbe 70	
	Schueco Corona CT70		KBE 5401 kbe 58	
	Schueco Corona AS60		Koemerling 5401KO Erodur	
	Drutex Iglo 5		Koemerling 5402KO Futur	
	Thyssen 5402THY Elite		Profilalis Dimex Komfort 60	
	Actual 70		Trocal 88+	
	Profilalis Zendow			

Attention!

1. The suggested, initial adapter selection, however, each time requires a practical checking on a specific window frame.
2. If a PSA adapter is used, a PD / PSA spacer profile should be used between the window frame and the adapter.
3. An expansion tape should be used under each of the adapters.

BECLEVER

SYSTEM DESCRIPTION

Top mounted BeClever roller shutter system for new and existing buildings. The decision on using BeClever roller shutters in new buildings should be made at the design stage or at the latest when fitting window joinery. For existing buildings, the decision should be made when replacing old windows.



BeClever roller shutters (window frame mounted) are compatible with various mounting and finishing methods to adapt the roller shutter to the building design. Two shutter box types are available with maintenance access from the box face or bottom (from inside the room).

DESIGN

The shutter boxes and the guide tracks are made of high quality PVC. Internal thermal insulation of the shutter box significantly improves its thermal performance. Window mounted shutter box is an integral part of the building façade. Installation of Revo system components does not require modification of window, door and lintel structure. With side and bottom steel reinforcements and anchors, the shutter box guarantees high stability even at large widths.

Roller shutter profiles are made of high-grade aluminium sheet with PUR-PA coating featuring improved abrasion and weather resistance. The profiles are filled with foam for improved thermal and sound insulation.

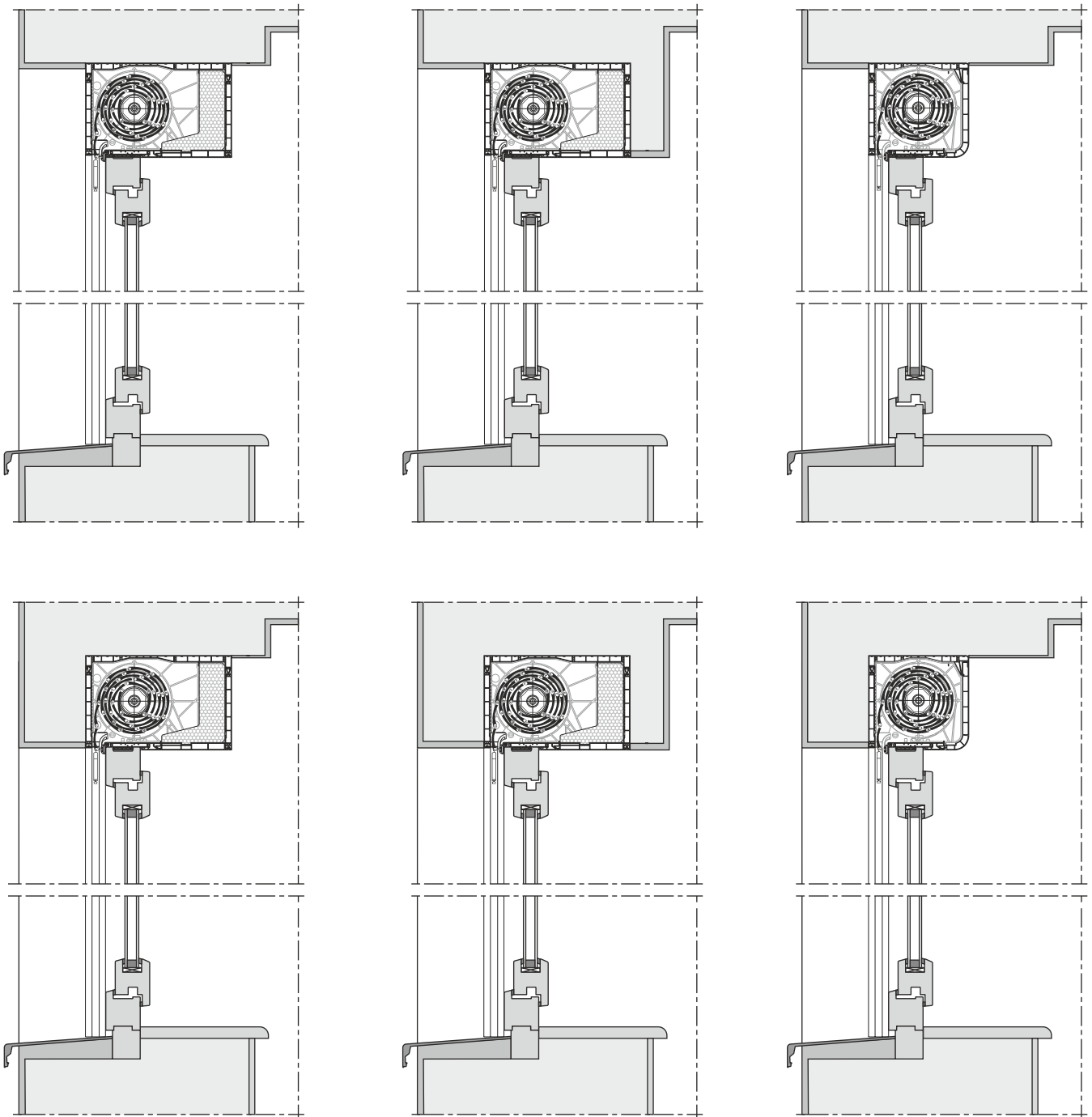
OPERATION

Available variants of roller shutter control:

- manual, a cord or tape to choose from in the following colours: white, brown or anthracite.
- electrically with the use of an electric motor, to choose from: by push-button switches (wired) or by a remote control (radio). Some of the drives allow simultaneous control with a push-button switch and a remote control, as well as remotely via a smartphone, computer, etc. Wired and radio drives are available with and without obstacles detection option.
- with a spring. The solutions are used in conjunction with a cylinder lock located in the bottom lath.

AVAILABLE COLOURS

Available in a wide variety of colours and veneers to satisfy the most demanding customers. Roller shutter boxes and guide tracks are available in a wide variety of colours with Renolit coating.



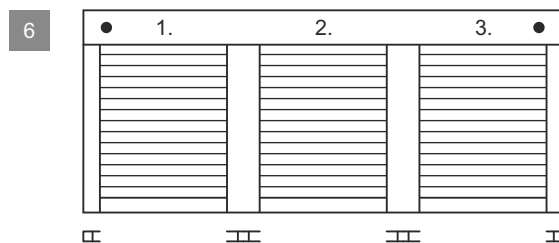
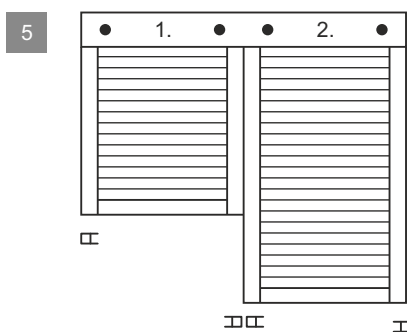
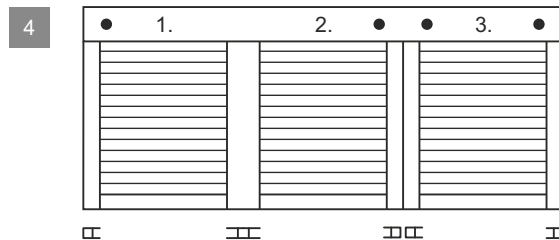
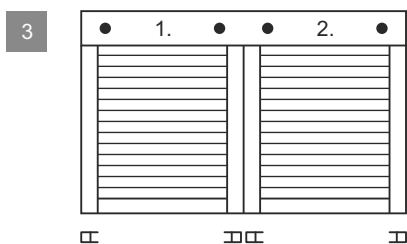
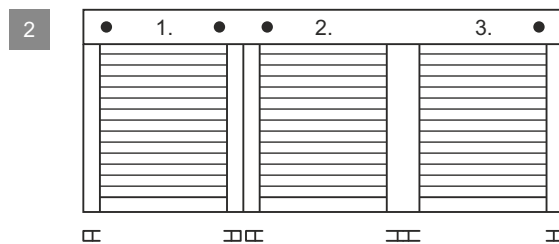
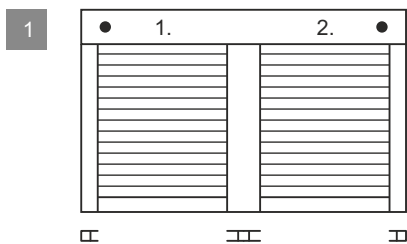
MOUNTING METHOD FOR BECLEVER ROLLER SHUTTERS

Guide tracks mounted on the window frame, box mounted on the window before fitting.

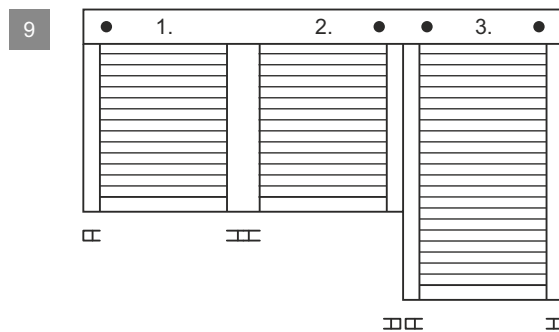
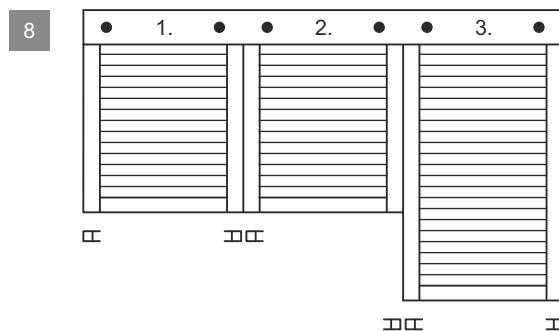
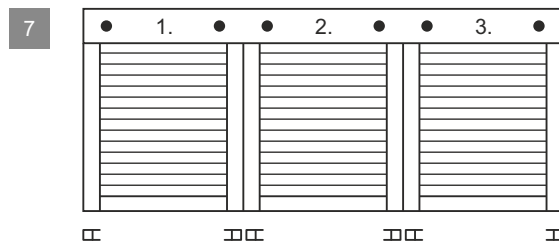
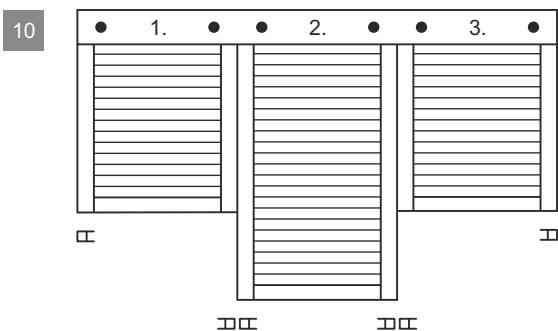
Window width correspond to total roller shutter width. Add shutter box height to window height to calculate total roller shutter height.

Balcony set:

- door and window width correspond to roller shutter width.
- add shutter box height to window height to calculate total roller shutter height.



No possibility to perform . The exception is the use of common motor for roller shutters 1 and 2 or 2 and 3.



Common drive for two roller shutters in sets is available (roller shutter of the same width and height):

- set 1 and 3
- set 2, 4, 6, 7 in roller shutter 1 and 2 or 2 and 3

Note: do not use common drives with obstacle detection motors.

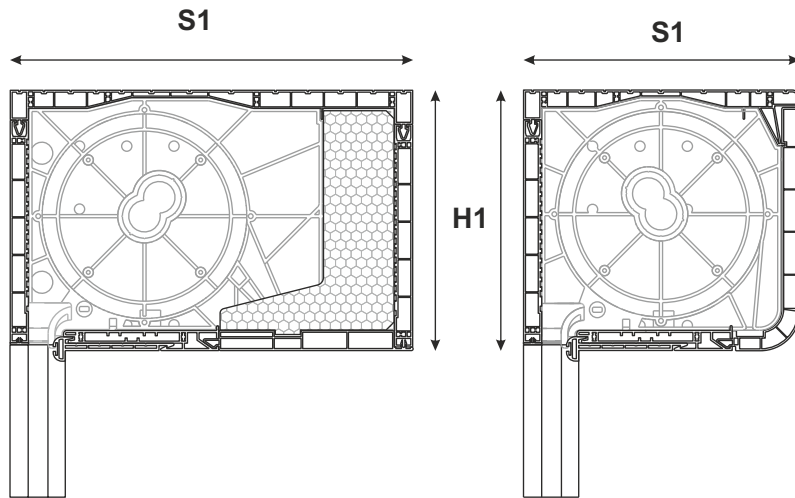
● - drive installation options.

▤ or ▥ - one-sided guide track 60 mm.

▨ - two-sided guide track 60 mm.

SHUTTER BOXES AND COVERS BECLEVER

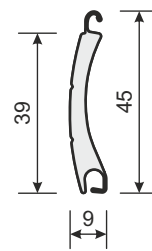
PROFILES BECLEVER



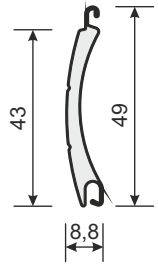
	S1	H1
CB OW N	255	165
CB OW N	255	205
CB OW N	255	245

	S1	H1
CB OW N	175	165
CB OW N	215	205

PA-39

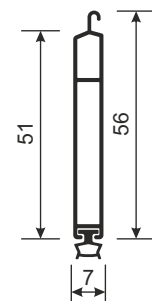


PA-43

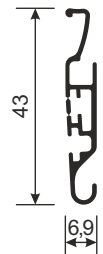


BOTTOM RAILS BECLEVER

LDG / LDG-E

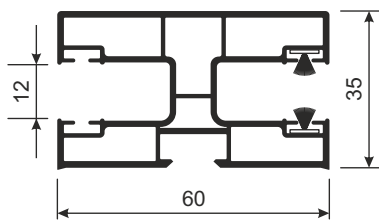


LDSM BECLEVER

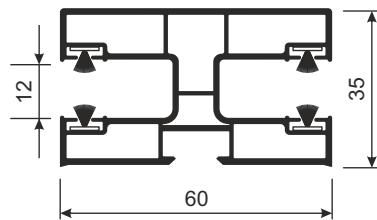


GUIDE TRACKS BECLEVER

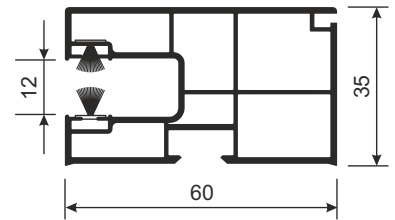
PG-02



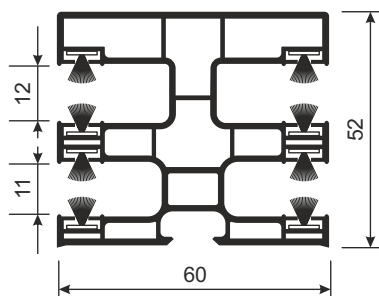
PG-02 A



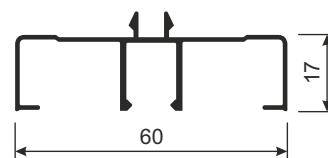
PG-08



PG-09



PG-04



Anti-theft roller shutters RC2 or RC3 class in a SK45 or Sp-e box



SYSTEM DESCRIPTION

Anti-burglary roller shutters are used in places where additional security is required or increased protection against burglary is necessary. Depending on the used components, there are available two classes of burglary resistance to choose from: RC2 and RC3.

To obtain a certificate, the roller shutters must be equipped with an electric drive and a block-hanger. In addition to the anti-burglary function, the roller shutters provide thermal protection and also protect against wind, rain or snow.

INSTALLATION

The blinds can be mounted directly to the window sash (in the window recess) or to the wall. Installation on the facade requires screwing to the wall. Installation directly to the window joinery requires drilling through the steel reinforcement inside the window frame.

When the roller shutter is mounted on a wall, it is required to use appropriate dowels, depending on the material, which the wall or insulation is of.

DESIGN

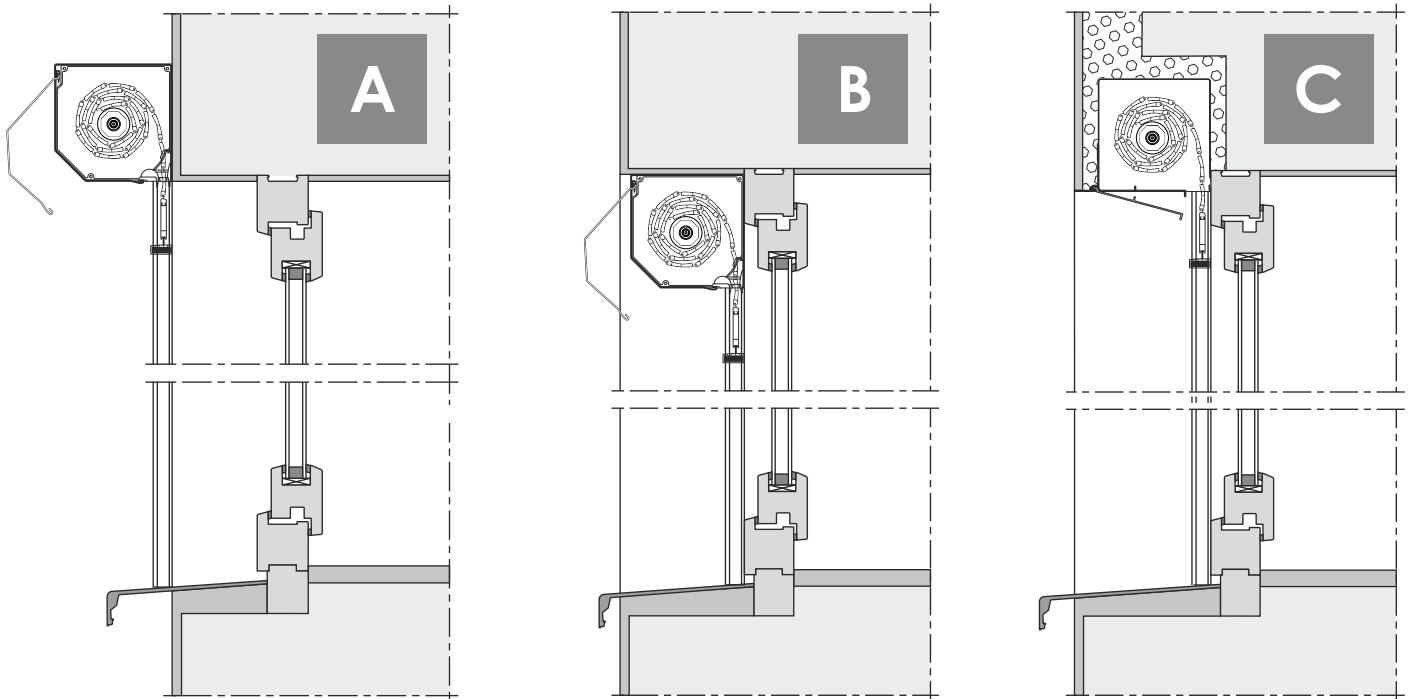
The roller shutter profiles and guides are made of extruded aluminum, which protects them against damage. The structure of the guides is additionally reinforced, which prevents of their bending and disassembling of the roller shutter. An installed in the bottom rail ratchet mechanism prevents of lifting the closed armor curtain. Roller shutters can be made in an adaptive and flush-mounted system.

OPERATION

The roller shutters can be controlled electrically with using of (to choose from) an wired (control by key switches) or radio motor (control by a remote). Some of the drives enable simultaneous operation with a switch and a remote control, as well as remotely via a smartphone, computer, etc. Wired and radio drives are available with or without obstacle detection.

AVAILABLE COLOURS

The colours of the roller shutters are similar to the colours of adaptive, flush-mounted and top-mounted roller shutters, and the only difference is the lack of woodlike colours. However, it is possible to paint all elements (including the armor curtain) in any RAL colour, which will satisfy the needs of even the most demanding customers.



MOUNTING METHOD A (SK-45 RC2 / RC3)

Facade mounted shutter box and guide tracks (straight guide tracks). Add guide tracks width to window recess width. Add shutter box height to window recess height.

Balcony set (roller shutters in a common shutter box):

- add guide tracks width to balcony door width.
- add shutter box height to balcony door height.
- add shutter box height to window height (same height as for balcony door height).
- window width corresponds to roller shutter width.

MOUNTING METHOD B (SK-45 RC2 / RC3)

Shutter box and guide tracks mounted inside the window recess (straight or angle guide tracks). Window recess width and height correspond to total roller shutter dimensions.

In the case of a balcony set:

- the width / height of the doors and windows will be the widths / heights of the shutters.

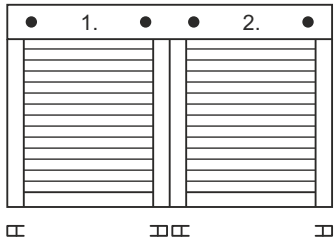
MOUNTING METHOD C (SP-E RC2 / RC3)

Guides mounted on the window frame, top mounted shutter box. The width of the shutter is the width of the window. Add box height to window height to calculate total roller shutter height. Roller shutter height depends on window width, shutter box height and window sill flashing type.

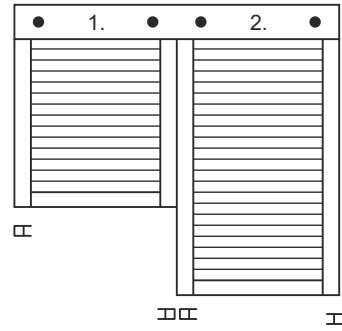
Balcony set:

- door and window width correspond to roller shutter width.
- add shutter box height to window height to calculate total roller shutter height.

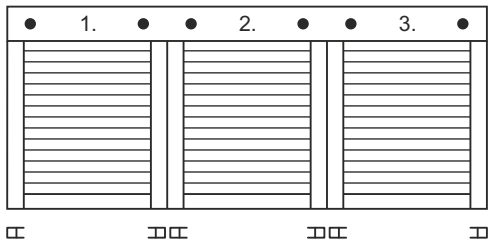
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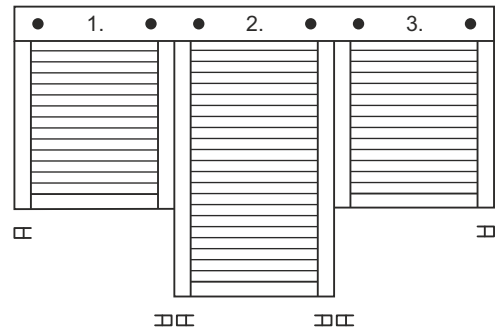
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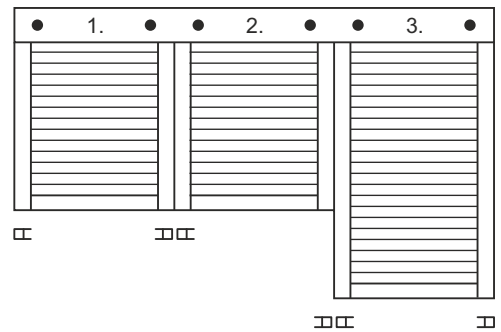
7



10

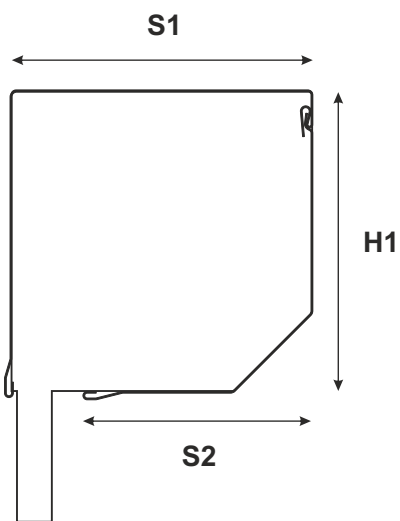


8



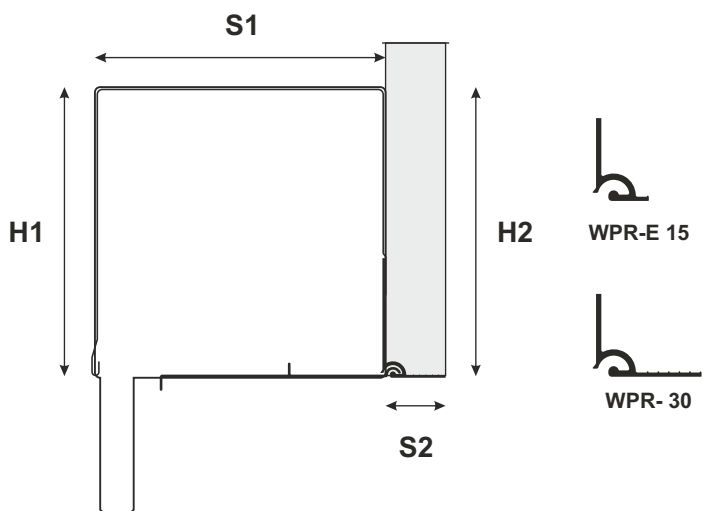
- ☐ or ☐ - Guide PPW66 (RC2)
- Guide PPW80 (RC3)
- Guide PPW90 (RC3).

RC2 SK-45 :



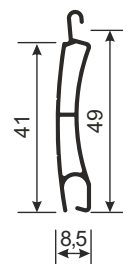
	S1	S2	H1
SK 165	165	131	165
SK 180	180	144	180
SK 205	205	170	205

RC2 SP-E :



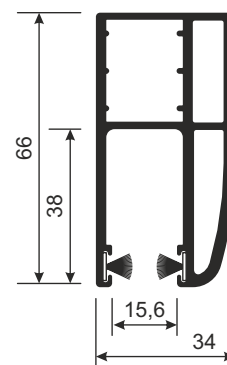
	S1	H1	H2	S2
SP-E 165	165	164	165	WPR-E 15 15
SP-E 180	180	179	180	WPR-E 30 30
SP-E 205	205	204	205	

PE-41



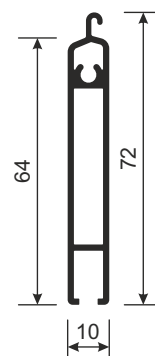
GUIDE TRACK RC2

PPW 66

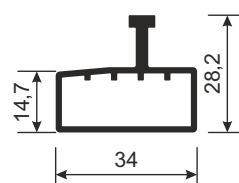


BOTTOM RAILS RC2

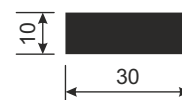
LDG 41



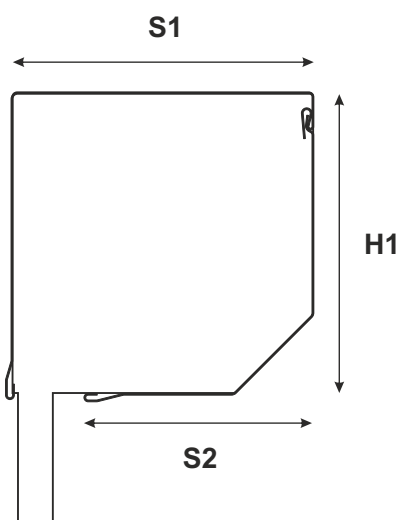
W-LDG 41



PW-LDG 55

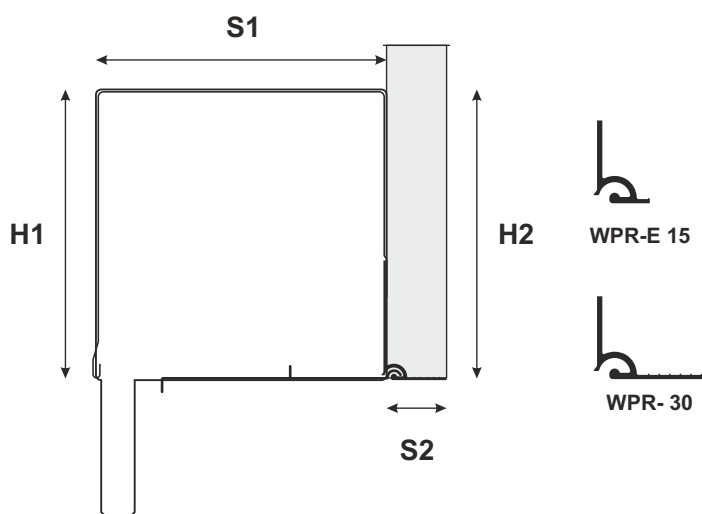


RC3 SK-45:



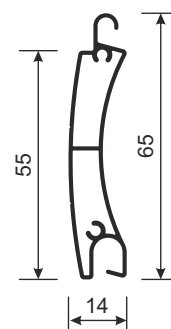
	S1	S2	H1
SK 180	180	144	180
SK 205	205	170	205
SK 250	252	-	252
SK 300	302	-	302
SK 350	360	-	355

RC3 SP-E:



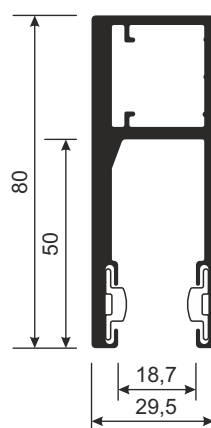
	S1	H1	H2	S2
SP-E 180	180	179	180	WPR-E 15 15
SP-E 205	205	204	205	WPR-E 30 30

PE-55

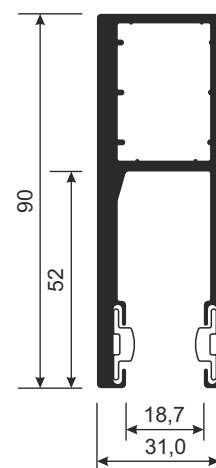


GUIDE TRACK RC3

PPW 80

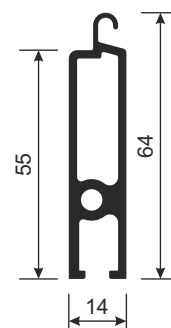


PPW 90

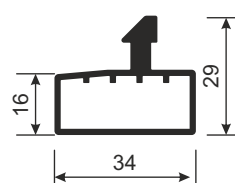


BOTTOM RAILS RC3

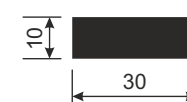
LDG 55



W-LDG 55



PW-LDG 55



SKB Styroterm

SYSTEM DESCRIPTION

The top-mounted SKB Styroterm roller shutter system is intended for complete building-over in thermal insulation, thanks to which the box remains an invisible element of the facade.

The system was designed to improve the energy balance of the building. Research at the renowned IFT ROSENHEIM institute has shown that the proposed solution is characterized by an extremely low heat transfer coefficient (U_{sb} from $0.29 \text{ W} / \text{m}^2\text{K}$), which places this system in the first place among other products of this type.

The advantage of this product is also the possibility to choose the method of revision from the inside (SKB RI) or from the outside (SKB RA) of the room.



DESIGN

The box, in line with Aluprof's guidelines, is made of a specially designed material with very good thermal properties.

The guides are made of high-quality PVC. The shutter box is putted on the window and then this set is mounted in the prepared opening.

The roller shutter profiles are made of high-quality aluminum sheet, covered with a two-layer varnish coat in the PUR-PA system, characterized by increased resistance to abrasion and weather conditions. The foam, which fills the profiles, provides very good thermal and sound insulation.

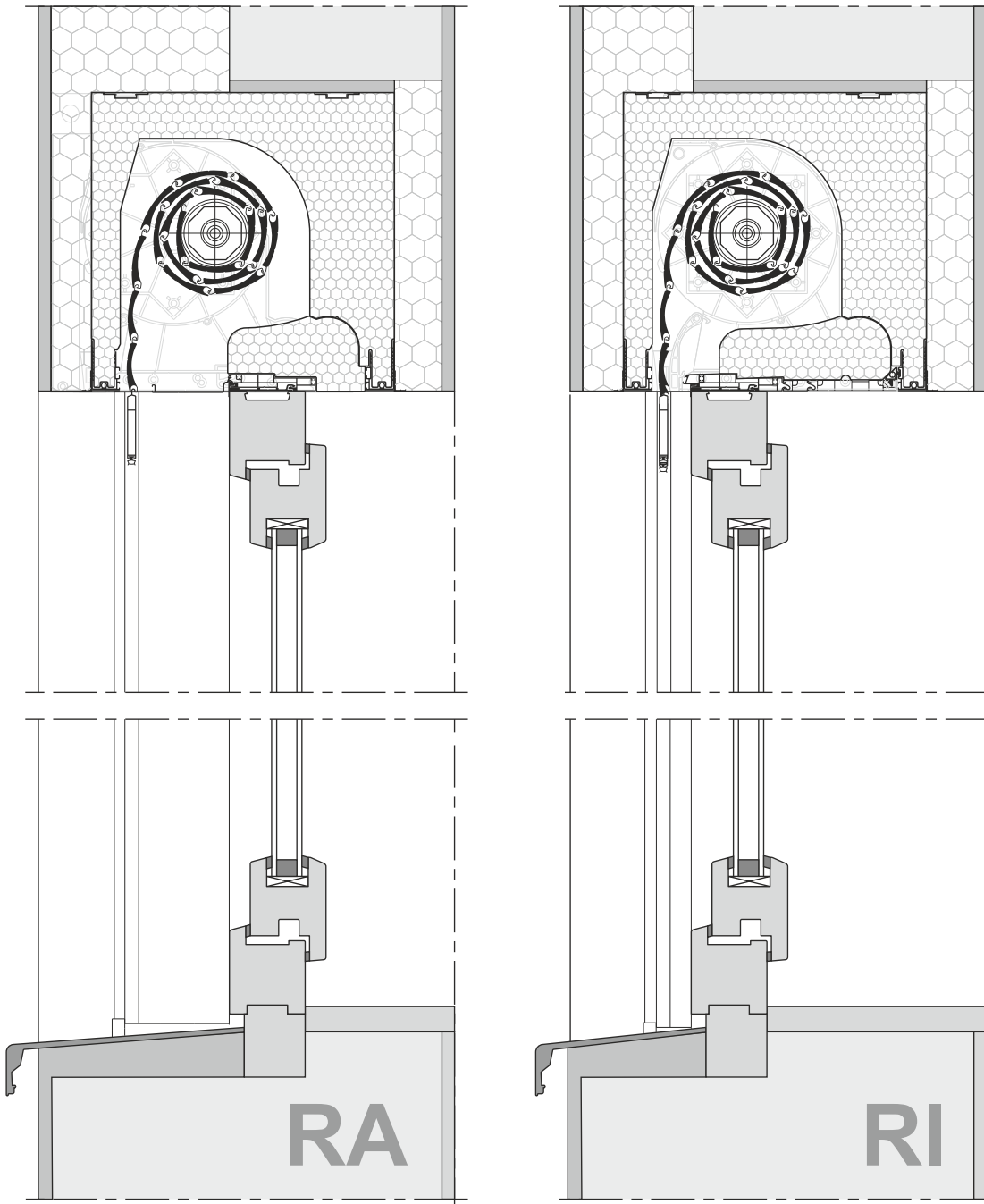
OPERATION

Available variants of roller shutter control:

- manual, with a tape in the following colours: white, brown or anthracite.
- electrically with the use of an electric motor, to choose from: by push-button switches (wired) or by a remote control (radio). Some of the drives allow simultaneous control with a push-button switch and a remote control, as well as remotely via a smartphone, computer, etc. Wired and radio drives are available with and without obstacles detection option.

AVAILABLE COLOURS

The colours of the roller shutters are similar to the colours of adaptive, flush-mounted and top-mounted roller shutters, and the only difference is the lack of woodlike colours. However, it is possible to paint all elements (including the armor curtain) in any RAL colour, which will satisfy the needs of even the most demanding customers.



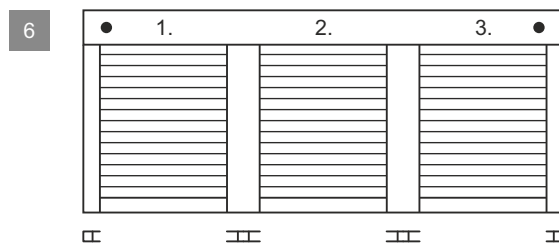
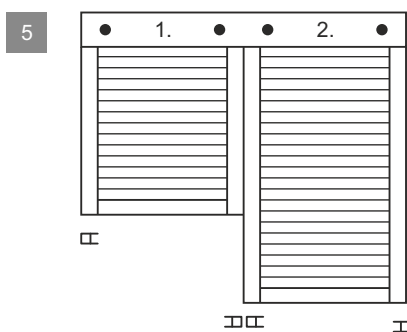
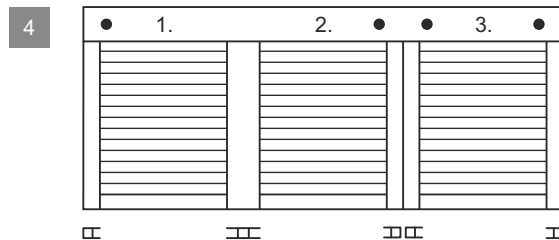
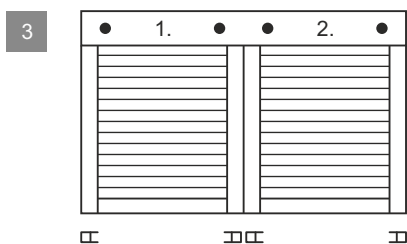
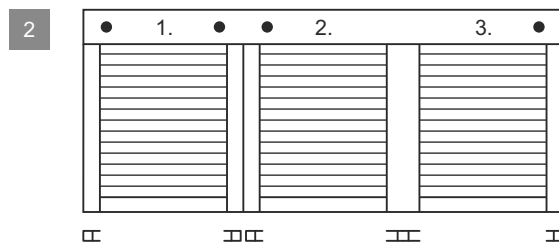
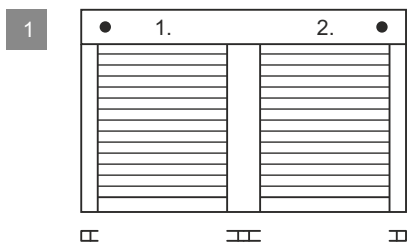
MOUNTING METHOD FOR SKB STYROTERM

The box and guides are mounted on the window before its installation. The roller shutter box should be slid or clicked on the adapter, which is previously screwed to the window. The rails are slid onto special screws screwed to the window frame.

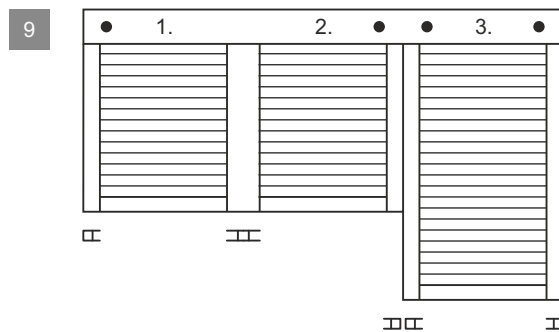
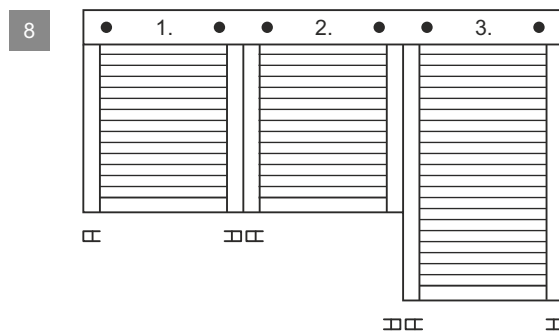
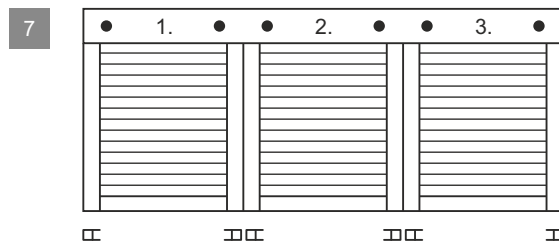
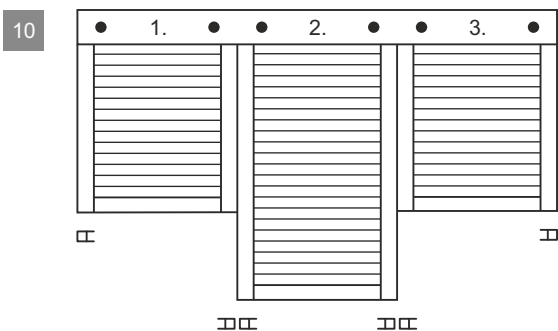
The width of the window is the total width of the shutter, the height of the shutter is calculated by adding the appropriate box height to the window height.

In the case of a balcony set:

- the widths of the door and window are the widths of the shutters,
- to calculate the total height of the roller shutter, to the height of the door and window, add the same box size.



No possibility to perform . The exception is the use of common motor for roller shutters 1 and 2 or 2 and 3.



Common drive for two roller shutters in sets is available (roller shutter of the same width and height):

- set 1 and 3
- set 2, 4, 6, 7 in roller shutter 1 and 2 or 2 and 3

Note: do not use common drives with obstacle detection motors.

● - drive installation options.

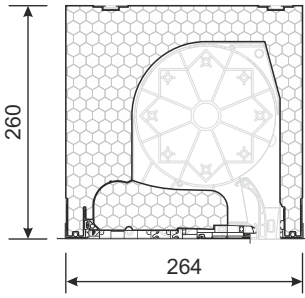
▤ or ▥ - one-sided guide track 60 mm.

▨ - two-sided guide track 60 mm.

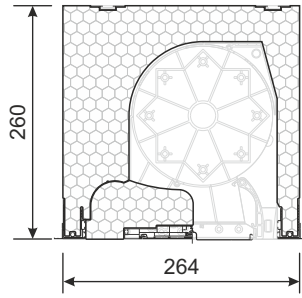
SHUTTER BOXES AND COVERS STYROTERM

PROFILES STYROTERM

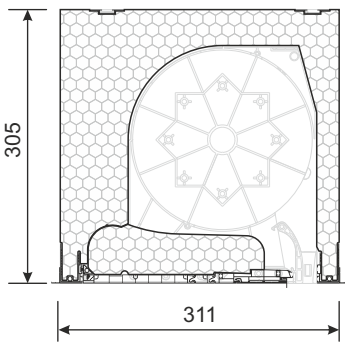
SKB / 260 / RI



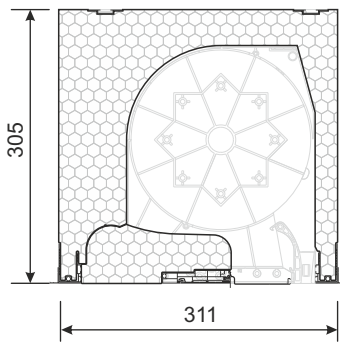
SKB / 260 / RA



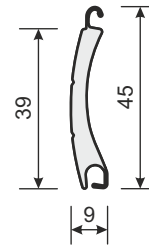
SKB / 300 / RI



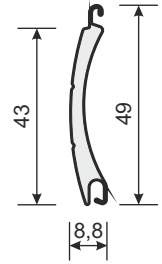
SKB / 300 / RA



PA-39

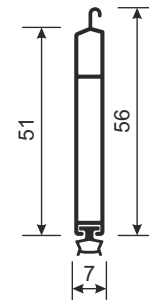


PA-43

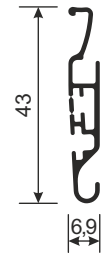


BOTTOM RAILS STYROTERM

LDG / LDG-E



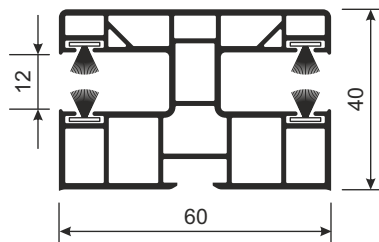
LDSM BECLEVER



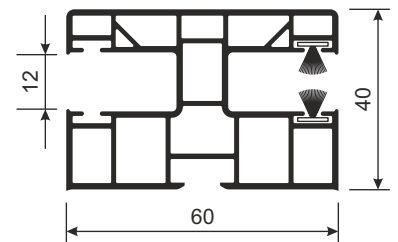
GUIDE TRACKS STYROTERM

GUIDE TRACKS RI:

PPD 60/12

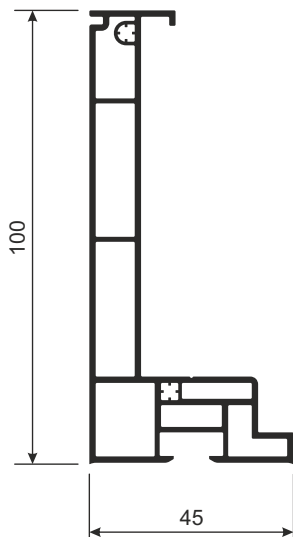


PPD-P 60/12

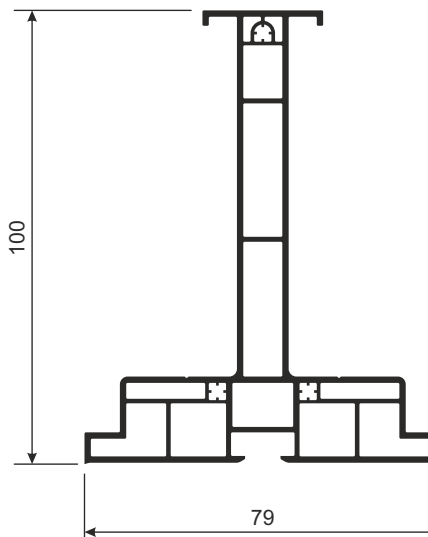


GUIDE TRACKS RA:

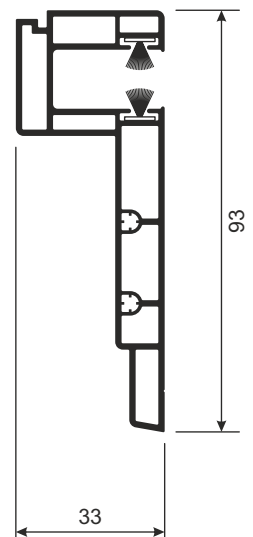
APRA 45



APPDRA 79



PPRA/12



SDZ



SYSTEM DESCRIPTION

The system of roller shutters for building-over is most often used in the modernization of existing buildings, when the headroom is properly prepared. It is a system for filling the headroom boxes; the most popular on the French and Belgian market.

INSTALLATION

The shutter box is located from the without. The roller shutter is designed to be built-over, so it is installed after the windows are installed, but before the building's insulation. The box can also be mounted on a wall, but only when it is completely hidden in the thickness of the building's insulation. Remember to insulate the surface between the box and the headroom, which is possible after appropriate preparation of the headroom structure, or - if this is not possible - after installing windows overhanging beyond the wall plane by the thickness of this insulation (usually 20 mm).

DESIGN

The design of the mounting brackets allows for quick and non-invasive installation of the product. The roller shutter profiles are made of high-quality aluminum sheet covered with a two-layer varnish coat in the PUR-PA system, which is characterized by increased resistance to abrasion and weather conditions, and the foam filling the profiles guarantees very good sonic and thermal insulation.

OPERATION

Available variants of roller shutter control:

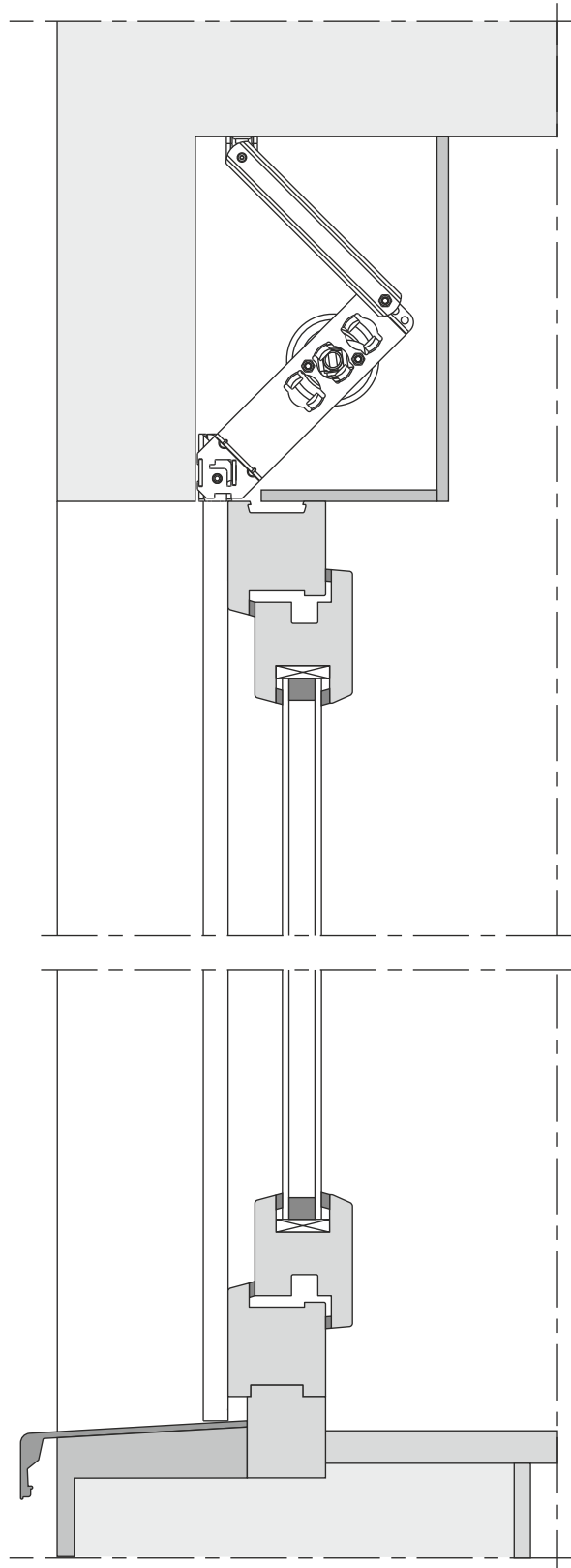
- manual, with a tape in the following colours: white, brown or anthracite,
- electrically with the use of an electric motor, to choose from: by push-button switches (wired) or by a remote control (radio). Some of the drives allow simultaneous control with a push-button switch and a remote control, as well as remotely via a smartphone, computer, etc. Wired and radio drives are available with and without obstacles detection option,
- with using of an ACE gear mechanism.

UTILITY VALUES

The well-thought-out structure of the roller shutters and appropriately selected materials provide effective protection against unwelcome visitors, and the excellent thermal insulation significantly reduces heating costs in winter and prevent of the rooms overheating in the summer.

AVAILABLE COLOURS

The colours of the roller shutters are similar to the colours of adaptive, flush-mounted and top-mounted roller shutters, and the only difference is the lack of woodlike colours. However, it is possible to paint all elements (including the armor curtain) in any RAL colour, which will satisfy the needs of even the most demanding customers.

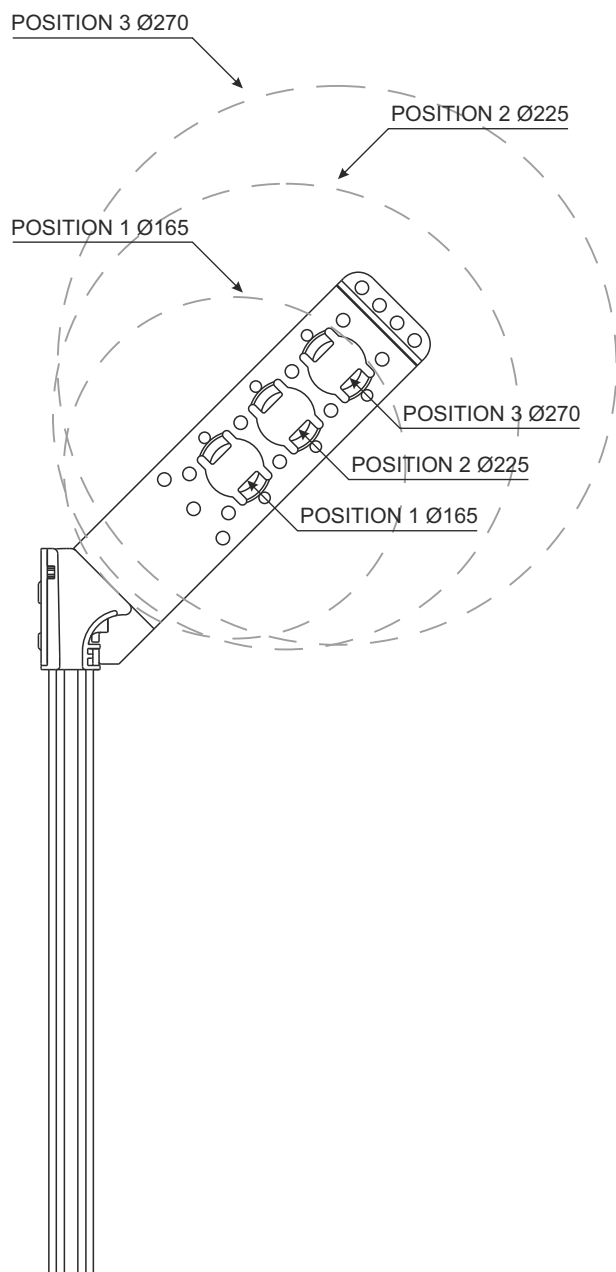


MOUNTING METHOD FOR SDZ

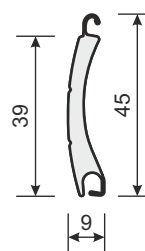
The guides are mounted on the window frame, and the structural elements in the headroom.

The width of the blind is the width of the window recess. According to height of the window, which is given as the height of the system, the appropriate structure is selected, that enables embedding of the winding shaft with the armor-plating.

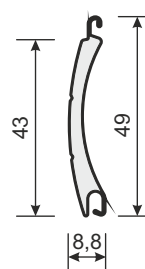
The position of the winding pipe should be assumed by taking into account the winding diameter of the armour-plating after coiling.



PA-39

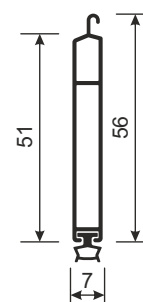


PA-43



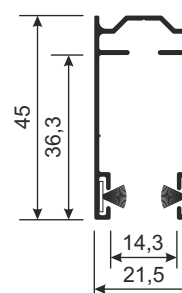
GUIDE TRACK SDZ

LDG / LDG-E



BOTTOM RAIL SDZ

PU45/14



Position of the winding pipe	Winding diameter of the armour-plating
Position 1	≤ 165 mm
Position 2	≤ 225 mm
Position 3	≤ 270 mm

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Fart Produkt Ltd. Limited partnership,
Towarowa street 3, 87-100 Toruń

ul. Towarowa 3
87 - 100 Toruń
tel. + 48 56 623 55 77
www.fartprodukt.pl
e-mail: export@fartprodukt.pl

