

BUILT-IN BOXES & RENOVATION

# Shading and renovating

Leading-edge shading  
and insulation solutions  
all around the window

## CONTENTS

---

<b>BESTE WERTE</b>	WE HELP IN EVERY SITUATION	04
<b>FÜRS HAUS</b>	THE COMPANY BECK+HEUN	06
	PRODUCT WORLDS	07

---

<b>LIGHTWEIGHT</b>	ROKA-THERM® XP – REVISION FROM THE INSIDE	08
<b>SHUTTER</b>	ACCESSORIES	12
<b>BOXES</b>	TECHNOLOGY	14

---

<b>LIGHTWEIGHT</b>	ROKA-SHADOW® 2 – LIMITLESS VARIETY	16
<b>VENETIAN BLIND</b>	TECHNOLOGY	19
<b>BOXES</b>		

---

<b>INSULATING</b>	THERMO-FLEX (NEOLINE) – THE FLEXIBLE	22
<b>ELEMENTS FOR</b>	CLASSIC	
<b>FRONT-MOUNTED</b>		
<b>BOXES</b>		

---



All product names marked with "®" are registered trademarks of Beck+Heun GmbH or of the insulation manufacturer.

# WE HELP IN EVERY SITUATION

Competent contact persons  
are at your side

---

## YOUR CONTACT PERSON

You will find the right contact person for all your concerns, quickly and easily on our website: [export.beck-heun.de](http://export.beck-heun.de)



---

## HOTLINE

For further information please contact our export department by telephone:  
T. +39 (0) 508052016  
M. +39 (0) 3665963076

or by email:  
[export@beck-heun.de](mailto:export@beck-heun.de)

---



**MARCO LOCATI**

Responsabile Commerciale  
Southern Europe

## Locations in Germany



**Beck+Heun GmbH  
Head Quarter**  
Reinhold-Beck-Straße 2  
D-35794 Mengerskirchen



**Beck+Heun GmbH  
South Branch**  
Industriestraße 2  
D-86450 Altenmünster



**Beck+Heun GmbH  
Erfurt Branch**  
Stotternheimer Straße 10  
D-99086 Erfurt

Export to  
more than  
23 countries  
worldwide.



## Contact persons on-site



Beck+Heun France  
Email: [info@beck-heun.fr](mailto:info@beck-heun.fr)  
Web: [www.beck-heun.fr](http://www.beck-heun.fr)



Beck+Heun Representative Slovenia  
Email: [info@medle.si](mailto:info@medle.si)  
Web: [www.medle.si](http://www.medle.si)



Beck+Heun Italia  
Email: [info@beck-heun.it](mailto:info@beck-heun.it)  
Web: [www.beck-heun.it](http://www.beck-heun.it)



Beck+Heun Representative Portugal  
Email: [orcamentos@represtor.com](mailto:orcamentos@represtor.com)  
Web: [www.represtor.com](http://www.represtor.com)



Beck+Heun Polska  
Email: [info@beck-heun.pl](mailto:info@beck-heun.pl)  
Web: [www.beck-heun.pl](http://www.beck-heun.pl)



Beck+Heun Österreich  
Email: [info@beck-heun.at](mailto:info@beck-heun.at)  
Web: [www.beck-heun.de](http://www.beck-heun.de)



Beck+Heun Tunisie + Maghreb  
Email: [info@beck-heun.tn](mailto:info@beck-heun.tn)  
Web: [www.beck-heun.tn](http://www.beck-heun.tn)



## THE COMPANY BECK+HEUN

People. Values. Visions.

Beck+Heun is the European leader in the development, manufacturing, and processing of high-efficiency systems around the window. The guarantees for success in this regard are, first and foremost, the dialogue with customers, which is conducted on a continuing basis, and the short decision paths. The products of Beck+Heun are some of the highest quality and most innovative products on the market. Moreover, the manufacturer offers by far the largest variety and is extremely flexible in the manufacturing of special solutions. In this regard for product management the following objective always applies, to provide the greatest possible benefit for all customers – for the planners and processors, as well as

for the dealers and users. The entire causal cycle is incorporated in the product development – from planning to delivery and extending to installation and ultimately operation.

Today the family-owned company, which was founded in 1962, has 475 employees. They are active at three locations in Germany. Beck+Heun GmbH is headquartered in Mengerskirchen. It is supplemented through specialised production and sales locations in Erfurt and Altenmünster (near Augsburg). Each site has its own field service team, which together cover all of Germany, and enable customer support directly on-site. Beyond Germany's borders

### FACTS & FIGURES

- Founded in 1962
- 475 employees
- 3 locations in Germany
- Worldwide export via numerous sales partners

Beck+Heun exports to more than 23 countries – and each year there are more. In many of these countries local sales partners are available.

# BESTE WERTE FÜRS HAUS

Product worlds of the innovation leader



## BUILT-IN BOXES

This variety is unique. Customers may choose from two highly-efficient insulating materials: Polystyrene® or Neopor®. The systems can have a brick or concrete face or they can be made completely in one of these materials. They can be revised either from the outside or from the inside. Many special shapes are available. Foamed-in steel reinforcements ensure optimal stability.



## TOP-MOUNTED BOXES

With 11 standard sizes, and many possibilities for special construction here you will find the right top-mounted box for virtually every application. A unique installation concept, the innovative hybrid foaming process and the use of highly-efficient materials make our top-mounted boxes among the most reliable and easy-to-install in their class.



## PREFRAME SYSTEMS

Cost savings through reduction of trades, this is what the preframe systems for window installation from Beck+Heun offer. All single components of the window are combined and optimally matched in one insulation package. Each preframe is a unique and tailor-made product that takes into account the special requirements for each building.

## Other product areas



### VENTILATION SYSTEMS

Ventilation is not only important, the user-independent minimum air exchange for moisture prevention is actually a legal requirement. Beck+Heun offers a variety of ventilation systems to ensure compliance with German norm DIN 1946-6.



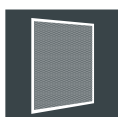
### SHADING

The product world, Shading, offers classic shutters and Venetian blinds, as well as many innovative types of sun shading. In addition this is where you find the front-mounted shutter boxes.



### RENOVATION

This product world was created for long-term value retention of existing buildings. Here you will find systems for shutter box insulation, ornamental façade profiles or insulated strap guides.



### INSECT SCREENS

Rigid, rotating, pivoting, pleated or elevating – the Beck+Heun insect screen systems cover everything. This product world is also complemented through a large selection of colours and fabric types.

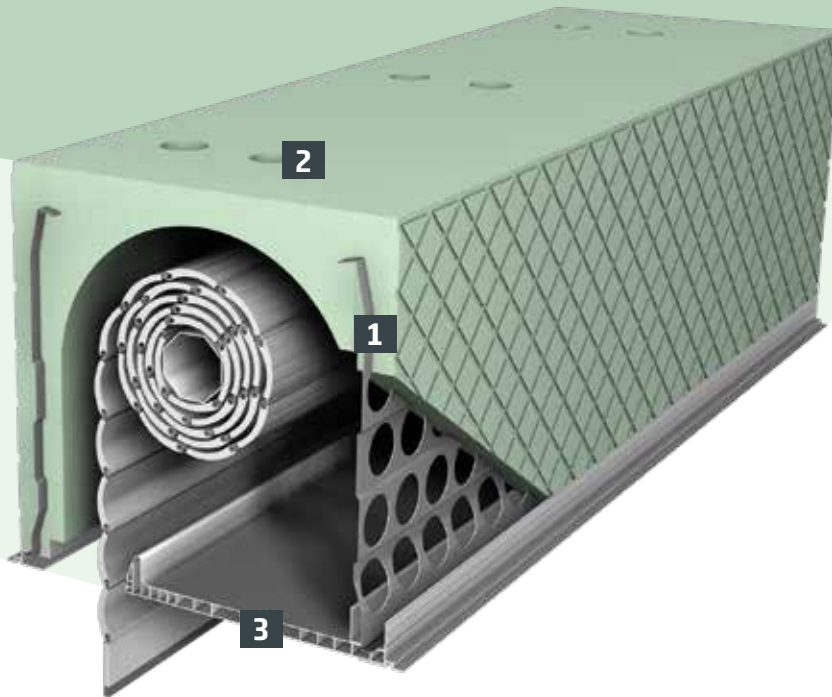


### ACCESSORIES

This is also where you will find all additional items for the shutter box and Venetian blind box. Whether drives, controllers, or guide rails, the accessories are guaranteed to be compatible and likewise high-quality.

# ROKA-THERM® XP

## Lightweight shutter boxes



### 1 STEEL REINFORCEMENT INSERT

Optionally available with profiled PLATINUM® steel plates, i.e. steel reinforcement inserts. These ensure high rigidity. Complicated support in the envelope construction phase is reduced.

### 2 BACKFILL POCKETS

For optimal anchoring in the concrete lintels, backfill pockets are integrated in the boxes.

### 3 NEW ACCESSORIES

New revision panel with integrated unroll profile available in two widths.

## EASY REVISION ACCESS IF NEEDED

ROKA-THERM® XP is characterised by its well thought-out structure. The associated revision panel and the side caps are optionally included in the scope of delivery. Retroactive access to the box interior is possible at any time. Thanks to its condition as a Polystyrene® element, the lightweight shading system weighs only few kilograms and can be transported to the construction site without the use of a crane.

### THE BOX FOR EVERY INSTALLATION SITUATION



Situation A



Situation B

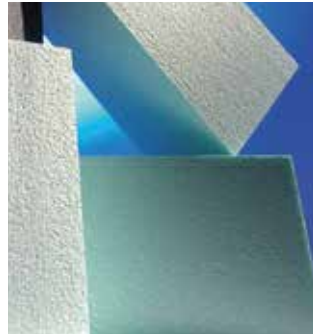


# Product characteristics that speak for themselves



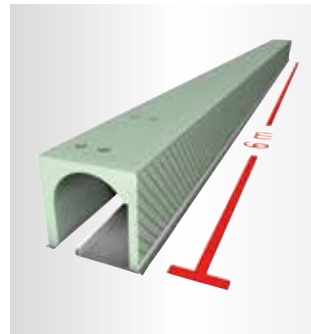
## OPTIMISED SIDE CAPS

The new side caps are symmetrically structured and have an integrated masonry support. The same side cap can be used on the left, as well as on the right. This not only reduces storage space; installation errors can also be avoided.



## HIGHLY INSULATING MATERIAL

The shutter boxes from Beck+Heun are manufactured of highly-insulating Polystyrene® [ $\lambda = 0.035 \text{ W/(mK)}$ ]. The material is environmentally-compatible, as well as energy-efficient and resource-conserving. The fire behaviour meets the Euroclass E requirements, in accordance with DIN EN 13501-1.



## UP TO 6 METERS IN LENGTH

Large window façades are becoming more and more popular due to their high light incidence and the free view of the surrounding nature. With a length of up to six meters, Beck+Heun offers optimally insulated shading elements that are easy to install.



## LOW INHERENT WEIGHT

Through the use of lightweight materials the box systems are very easy to transport by hand. Concrete backfill pockets, securely connect the systems to the building.



## MAXIMUM TRANSPORT VOLUME

The lightweight roller shutter boxes can be easily stacked inside each other up to 3 meters as a 6 meter box, and thus optimally utilise the loading space. At the same time the loading weight is very low. For example, for the ROKA-THERM® XP 300/300 box type, up to 1176 meters of shutter boxes, including side caps, can be transported on one lorry.



## EASY INSTALLATION

Delivery times play an important role. Thanks to the optimal interaction between ROKA-THERM® XP and the matching side caps, in particular, very short delivery times are possible. The side caps can be easily inserted into the boxes by hand and fixed in place with screws. Thus, curing of the adhesive and other installation fixtures are dispensed with. Pre-installation of the side cap and masonry support are also dispensed with.

# ROKA-THERM® XP

Even more to offer



## FAÇADE-INTEGRABLE

Through the outer leg and inner leg that can be plastered over, complete integration of the boxes in the building façade is possible. This provides flexibility with regard to architectural design requirements.



## MASONRY SUPPORT

The lightweight shutter boxes are quickly and easily integrated in the masonry during the envelope construction phase. The support area can vary depending on operation type and box type.

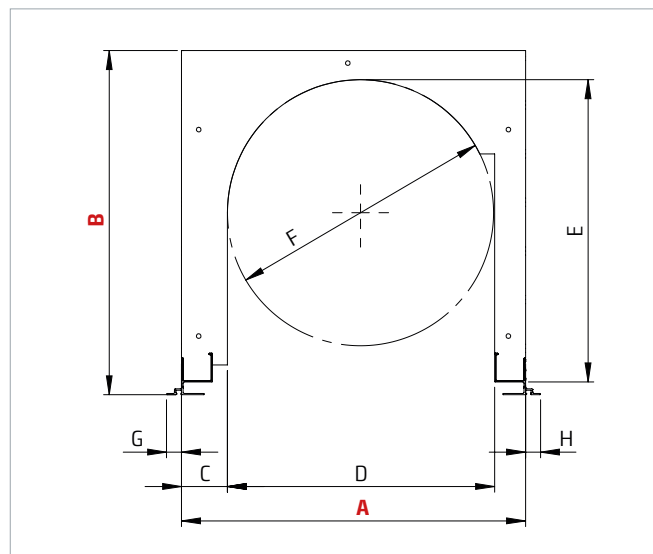
# DIMENSIONS AND INSULATION VALUES

## ROKA-THERM® XP

### Plaster (monolithic)



Window and shutter – exemplary presentation



THERMAL INSULATION VALUES	INSTALL SITUATION	
	ROKA-THERM® XP 300/300	A
$U_{Sb}$ in [W/(m <sup>2</sup> K)]	1.47	1.38

ACOUSTIC INSULATION VALUES	SHUTTER POSITION	
	ROKA-THERM® XP 300/300	Rolled out
$D_{n, e, w}$ [dB]	51	52

### Dimensions

ROKA-THERM® XP	TYPES			
<b>A</b> BOX WIDTH	250	280	300	365
<b>B</b> BOX HEIGHT	250	300	300	300
<b>C</b> Leg thickness inside	27	40	40	27
<b>D</b> Clear width	196	213	233	311
<b>E</b> Clear height	220	275	275	270
<b>F</b> Clear inside dimension <sup>2)</sup>	196	212	232	239
<b>G</b> Projection – bottom rail, inside	13	13	13	13
<b>H</b> Projection – bottom rail, outside	13	13	13	13
ROKA-THERM® XP	Standard: with steel reinforcement insert / Optional: PLATINUM® with profiled steel plate insert			

Dimension information in mm

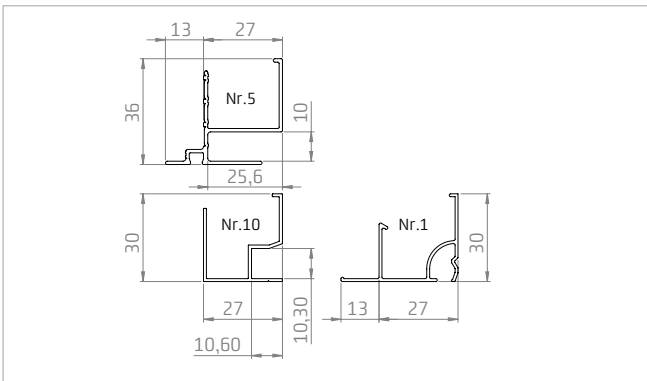
# ACCESSORIES

Select your individual equipment



## SPECIAL COATINGS

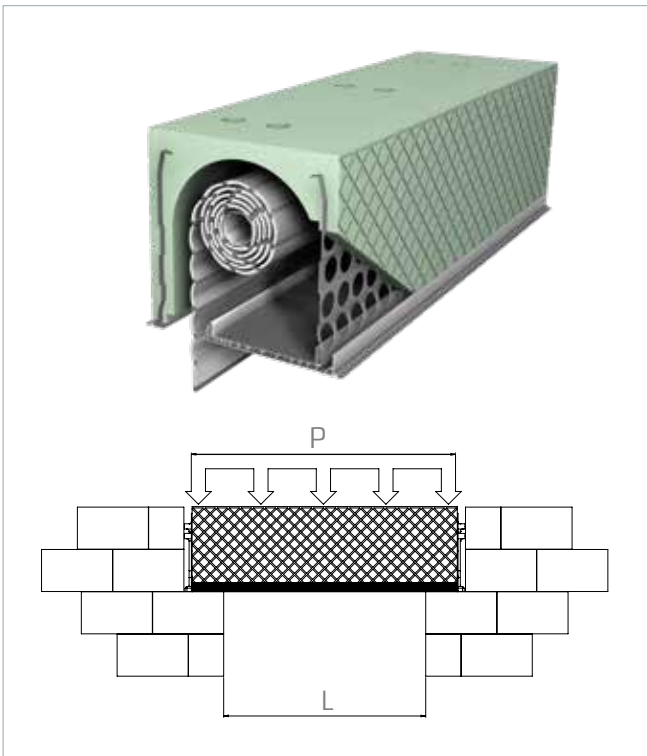
The special mineral coatings improve plaster adhesion and prevent cracks in the plaster. Thanks to the hard coating, the shutter box is additionally protected against impact and weather influences. They are available in the colours, grey, red, green and white and can be attached on the side surfaces of the ROKA-THERM® XP lightweight system. Through the appropriate coating the box visually matches the wall structure.



## BOX BOTTOM RAIL

Alternatively to the standard bottom rail no. 5, different aluminium rails can be foamed into the box. Rails no. 1 and 10 are offered.

Attention: When using alternative bottom rails, use of the Beck+Heun side caps and revision panels must be tested.



## PLATINUM® INSIDE

In addition to the standard type, with structural steel reinforcement, the ROKA-THERM® XP series shutter boxes are also available with profiled PLATINUM® steel plates. The result is optimal stability and rigidity of the boxes. Laboratory tests have confirmed that up to a clear window width of 2 meters the shutter box does not need to be additionally supported. The table below shows the additional loads (e.g. offload lintel) with which the boxes can be loaded for a limited time:

CLEAR WIDTH L	SUPPORT LOAD P
1.26 m	2.54 kNm
1.51 m	1.84 kNm
1.76 m	1.25 kNm
2.01 m	1.03 kNm

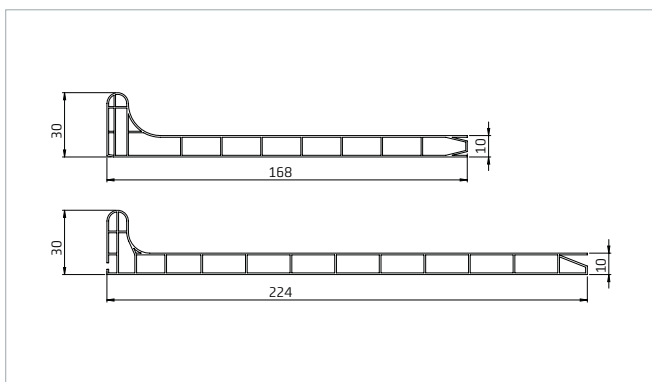
Note: Lightweight shutter boxes from Beck+Heun are not bearing components in the sense of statics. The specified loads will only be borne for a limited time.

# ROKA-THERM® XP system accessories



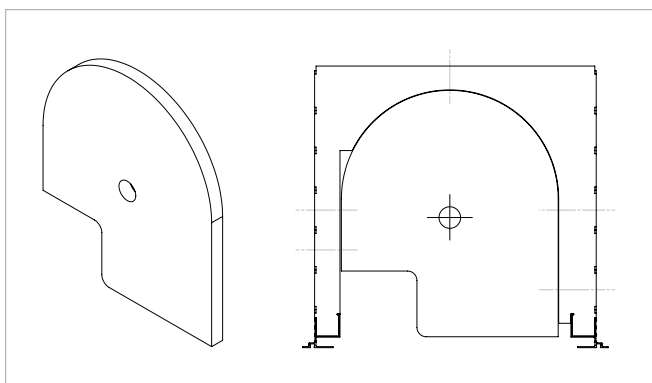
## PLASTIC SIDE CAPS WITH INTEGRATED SUPPORT MODULE

Suitable side caps are available for all box sizes. These can be inserted in a few steps in the form block of ROKA-THERM® XP and offer a variety of drilling patterns for fastening the shutter system. Through the symmetric structure the side caps can be used on the left and right side, which keeps storage requirements to a minimum.



## REVISION PANEL

The new revision panels are offered as 6 meter elements in two widths. By shortening the plastic revision panels in width and length, they can be adapted to a wide variety of installation situations. For ROKA-THERM® XP series shutter boxes, they are fixed in place by sliding them into the standard bottom rail and onto the side caps.



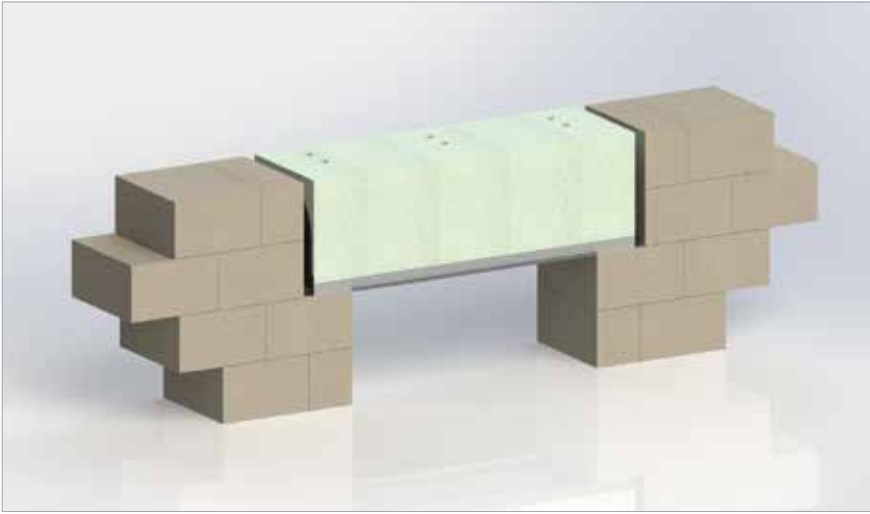
## PARTITION BOARD

Suitable for the system, partition boards offer the possibility of installing two, or even more, individual shutter systems in one box. They are simply inserted into the system and bolted from three sides. Then the motor bearing and shaft bearing can be fastened on the partition boards themselves. The partition boards are adapted to the desired box size in precisely the same manner as described for the side caps.

# TECHNICAL DATA

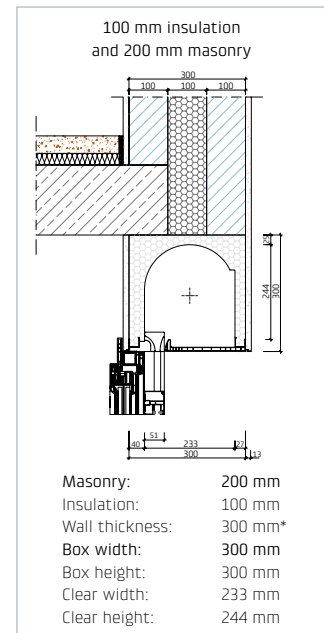
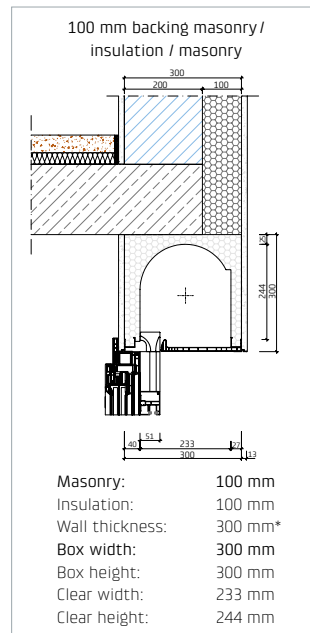
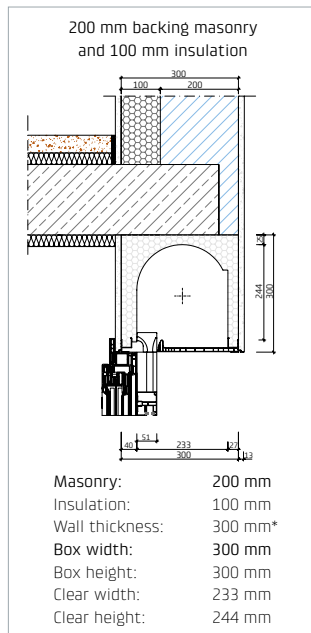
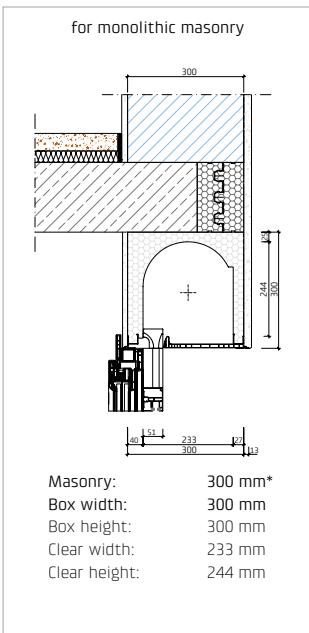
## Masonry support and & installation examples

### Masonry support

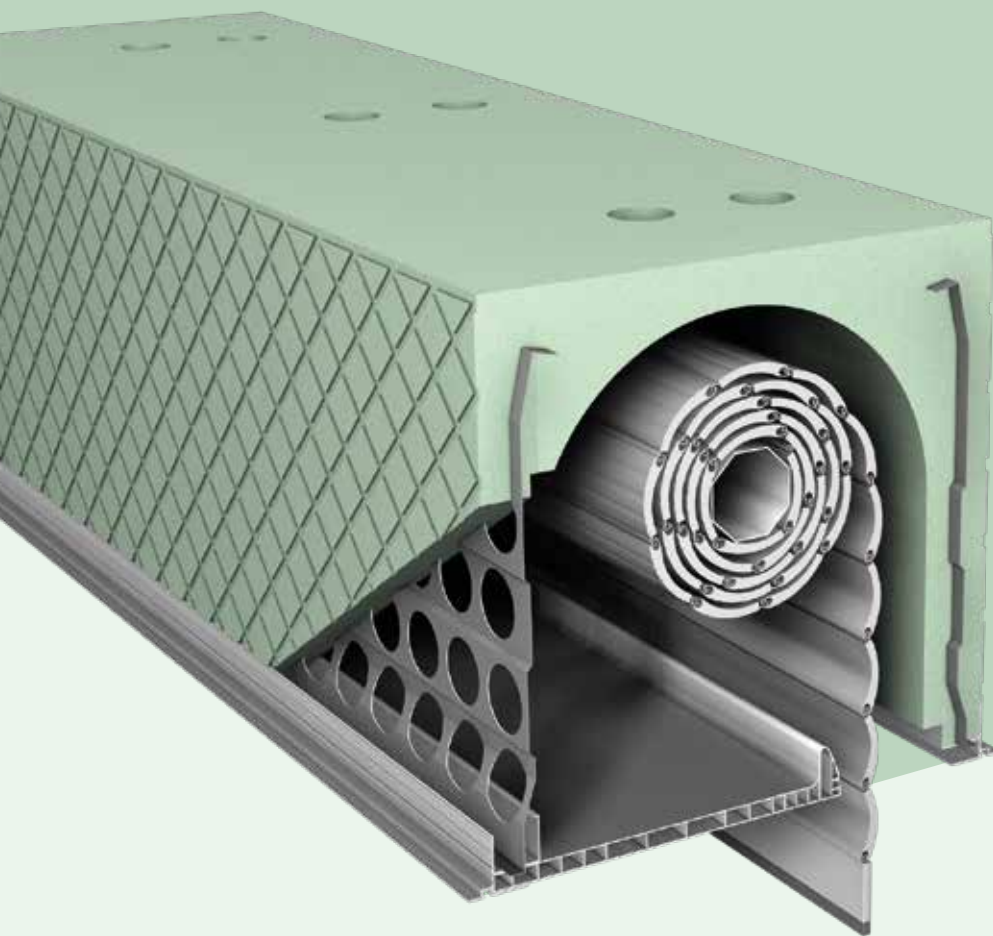


The standard masonry support is 90 mm (minimum 60 mm). To enable mounting and dismounting of the revision panel, the masonry support should not exceed 115 mm.

### Installation situation – examples



Everyone talks about  
the future, we build it!



# ROKA-SHADOW® 2

The perfect partner for shutter boxes



## 1 INSULATION BLOCK

Satisfies the most rigorous requirements, extending to construction in the lintel area free of thermal bridges.

## 2 BRACING PROFILE

The PVC profile fixes the window frame in place. It is always equipped with a torsion-resistant steel reinforcement element.

## 3 STEEL REINFORCEMENT INSERT

High stability is the distinguishing feature of our shutter boxes. Profiled PLATINUM® reinforcement inserts ensure high rigidity. Complicated support in the envelope construction phase is reduced.

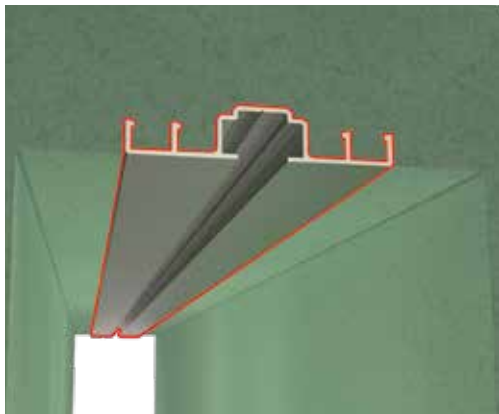
## UNIFORM OVERALL APPEARANCE OF THE FAÇADE

The ROKA-SHADOW® 2 Venetian blind box is the specialist for combination with a shutter box from the ROKA-THERM® XP series. The inside height and outside height are the same for both boxes. In spite of using two different box types, a uniform overall appearance of the façade occurs.

## DETAILS REFINED

The outer integrated box bottom rail has been designed with even more stability. The moulded honeycomb structure provides ideal plaster adhesion.

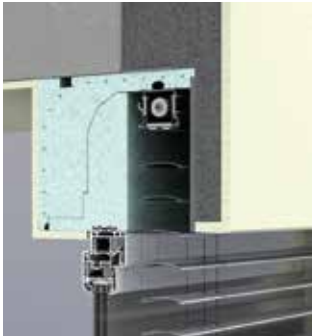
### INTEGRATED INSTALLATION RAIL



Quickly and easily installed: With the already integrated installation rail the Venetian blind package can be quickly integrated in the box without bothersome marking of fastening points. Moreover, it ensures even greater stability of the entire Venetian blind box.

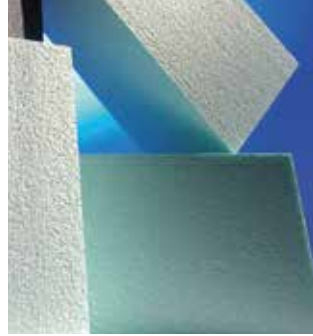


# Versatile product characteristics



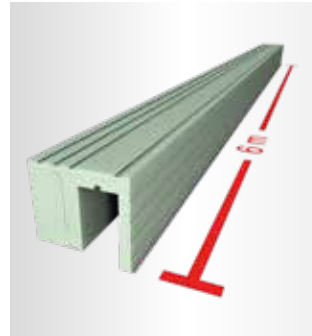
## ESPECIALLY FOR ETICS FAÇADES

A type with narrow outer leg is available for use in the external thermal insulation composite system (ETICS). It has a Phonotherm panel. In accordance with plastering regulations, it must be fitted with at least 40 mm of insulation<sup>1)</sup>.



## HIGHLY INSULATING MATERIAL

The Venetian blind systems from Beck+Heun are manufactured of highly-insulating Polystyrene® [ $\lambda = 0.035 \text{ W/(mK)}$ ]. The material is environmentally-compatible, as well as energy-efficient and resource-conserving. The fire behaviour meets the Euroclass E requirements, in accordance with DIN EN 13501-1.



## UP TO 6 METERS IN LENGTH

Large window façades are becoming more and more popular due to their high light incidence and the free view of the surrounding nature. With a length of up to six meters, Beck+Heun offers optimally insulated shading elements that are easy to install.

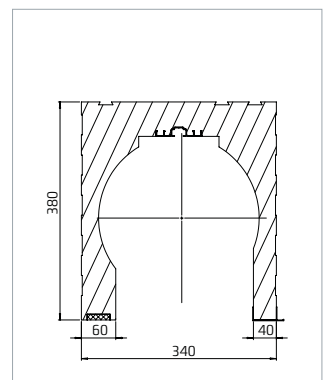
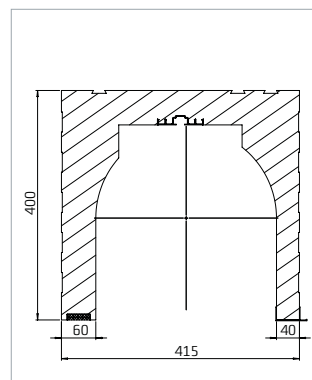
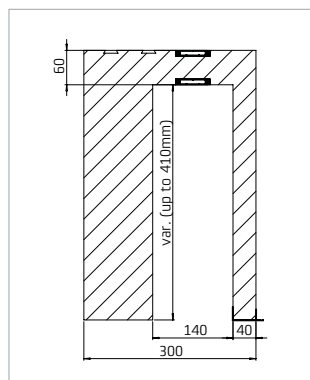


## FAÇADE-INTEGRABLE

Through the outer leg and inner leg that can be plastered over, complete integration of the boxes in the building façade is possible. This provides flexibility with regard to architectural design requirements.

## SPECIAL DESIGNS

Whether box dimension or shaft dimension, Beck+Heun offers the greatest possible selection of heights, widths and depths. Moreover, almost limitless possibilities arise through the flexible adaptation to structural particularities and the manufacturing of individual solutions.

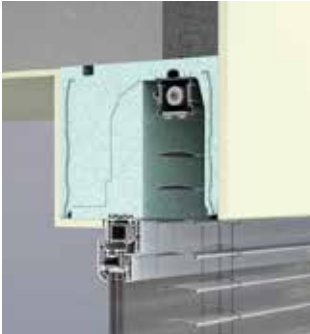


<sup>1)</sup> See guideline: Connections on windows and shutter blinds for plaster, ETIC system and dry construction, issue 2010-2).

# DIMENSIONS AND INSULATING VALUES

## ROKA-SHADOW® 2

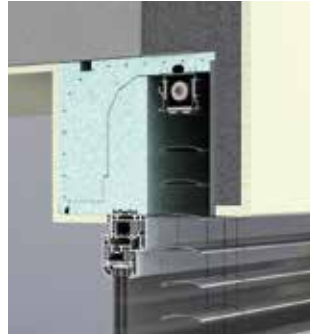
### Plaster (monolithic)



### Plaster in the ETICS



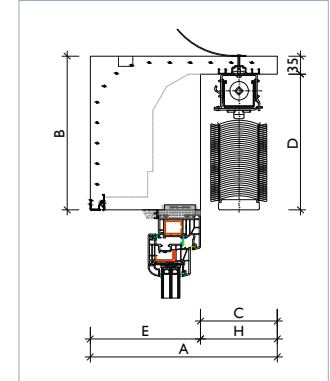
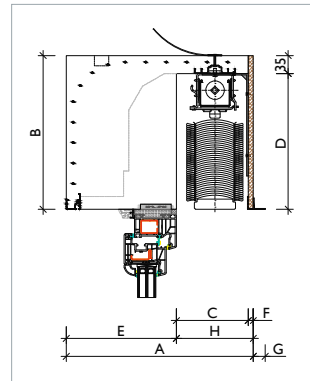
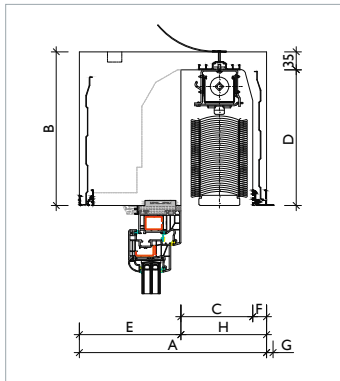
### ETICS



### Clinker



Window and shutter – exemplary presentation



THERMAL INSULATION VALUES using box width as the example	Plaster (monolithic)		Plaster in the ETICS		ETICS		Clinker	
	365 mm	Fig. 60 <sup>1)</sup>	345 mm	Fig. 62 <sup>1)</sup>	345 mm	Fig. 62 <sup>1)</sup>	345 mm	Fig. 63 <sup>1)</sup>
$\Psi$ (Psi) in [W/(mK)]	0.13	$\leq 0.32$	0.19	$\leq 0.23$	0.18	$\leq 0.23$	0.14	$\leq 0.25$
$f_{Rsi}$ [-]	0.77	$\geq 0.70$	0.78	$\geq 0.70$	0.78	$\geq 0.70$	0.78	$\geq 0.70$
$U_{sb}$ in [W/(m <sup>2</sup> K)]	0.32	$\leq 0.85$	0.33	$\leq 0.85$	0.32	$\leq 0.85$	0.32	$\leq 0.85$

## Dimensions

ROKA-SHADOW® 2	PLASTER TYPE				ETICS TYPE				CLINKER TYPE			
<b>A</b> Box width	280	300	345	365	280	300	345	365	280	300	345	365
<b>B</b> Box height	300	300	300	300	300	300	300	300	300	300	300	300
<b>C</b> Shaft depth	140	140	140	140	140	140	140	140	150	150	150	150
<b>D</b> Shaft height	265	265	265	265	265	265	265	265	265	265	265	265
<b>E</b> Insulation thickness, inside	113	133	178	198	130	150	195	215	130	150	195	215
<b>F</b> Thickness – outer leg	27	27	27	27	10	10	10	10				
<b>G</b> Projection – bottom rail	13	13	13	13	23	23	23	23				
<b>H</b> Window seat front outside box	167	167	167	167	150	150	150	150	150	150	150	150

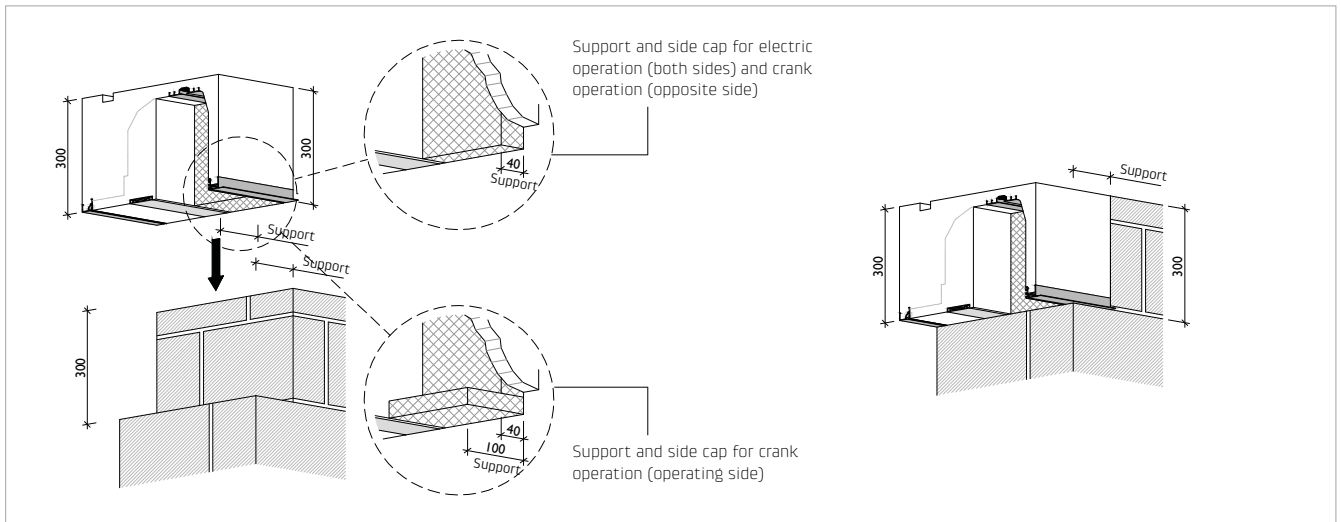
Dimension information in mm

<sup>1)</sup> Thermal insulation values in accordance with the image information in German norm DIN 4108 Supplement 2:2006-03, reference values for  $\Psi$  (Psi) and  $f_{Rsi}$  are complied with. The system is considered a "Supplement 2 equivalent" installation detail.

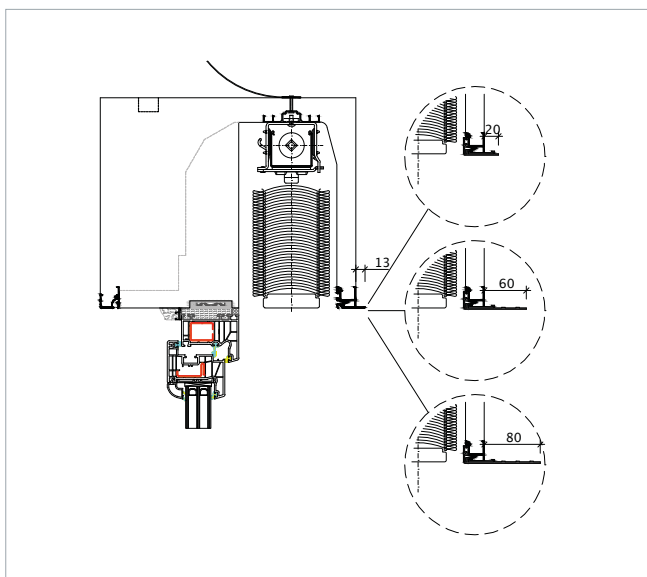
# TECHNICAL DATA

## Masonry support & outer bottom rail widening

### Masonry support



### Outer bottom rail widening



# TECHNICAL DATA

## Installation situation – examples

for monolithic masonry

Masonry:	365 mm*
Box width:	365 mm
Box height:	300 mm
Shaft width:	140 mm
Shaft height:	265 mm
Window seat from outside:	167 mm*

for ETICS masonry and 175 mm backing masonry

Masonry:	175 mm
Insulation:	200 mm
Wall thickness:	375 mm*
Box width:	300 mm
Box height:	300 mm
Shaft width:	140 mm
Shaft height:	265 mm
Window seat from outside:	242 mm*

for ETICS masonry and 200 mm backing masonry

Masonry:	200 mm
Insulation:	200 mm
Wall thickness:	400 mm*
Box width:	345 mm
Box height:	300 mm
Shaft width:	140 mm
Shaft height:	265 mm
Window seat from outside:	222 mm*

for ETICS masonry and 240 mm backing masonry

Masonry:	240 mm
Insulation:	200 mm
Wall thickness:	440 mm*
Box width:	365 mm
Box height:	300 mm
Shaft width:	140 mm
Shaft height:	265 mm
Window seat from outside:	242 mm*

for ETICS masonry and 175 mm backing masonry

Masonry:	175 mm
Insulation:	200 mm
Wall thickness:	375 mm*
Box width:	300 mm
Box height:	300 mm
Clear width:	140 mm
Clear height:	265 mm
Window seat from outside:	225 mm*

for ETICS masonry and 200 mm backing masonry

Masonry:	200 mm
Insulation:	200 mm
Wall thickness:	400 mm*
Box width:	345 mm
Box height:	300 mm
Clear width:	140 mm
Clear height:	265 mm
Window seat from outside:	205 mm*

for ETICS masonry and 240 mm backing masonry

Masonry:	240 mm
Insulation:	200 mm
Wall thickness:	440 mm*
Box width:	365 mm
Box height:	300 mm
Clear width:	140 mm
Clear height:	265 mm
Window seat from outside:	225 mm*

for clinker masonry and 150 mm backing masonry

Masonry:	150 mm
Insulation:	120 mm
Air shaft:	30 mm
Clinker masonry:	115 mm
Wall thickness:	415 mm*
Box width:	300 mm
Box height:	300 mm
Shaft width:	150 mm
Shaft height:	265 mm
Window seat from outside:	265 mm*

for clinker masonry and 175 mm backing masonry

Masonry:	175 mm
Insulation:	140 mm
Air shaft:	30 mm
Clinker masonry:	115 mm
Wall thickness:	460 mm*
Box width:	345 mm
Box height:	300 mm
Shaft width:	150 mm
Shaft height:	265 mm
Window seat from outside:	265 mm*

for clinker masonry and 200 mm backing masonry

Masonry:	200 mm
Insulation:	140 mm
Air shaft:	25 mm
Clinker masonry:	115 mm
Wall thickness:	480 mm*
Box width:	365 mm
Box height:	300 mm
Shaft width:	150 mm
Shaft height:	265 mm
Window seat from outside:	265 mm*

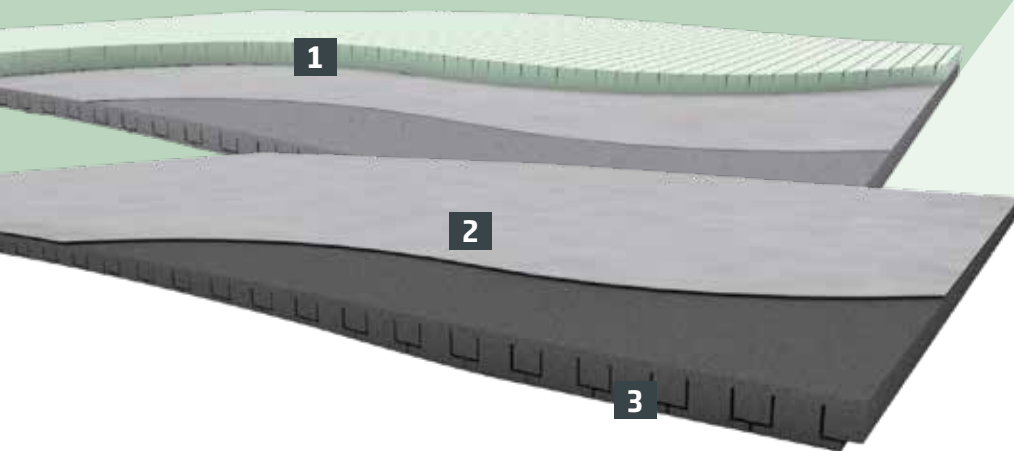
\*Dimension information without consideration of interior plastering and exterior plastering

For research  
and development  
in all aspects  
of the window



# THERMO-FLEX (NEOLINE)

The flexible classic



## EASILY RENOVATED, EFFECTIVELY INSULATED.

The system THERMO-FLEX (NEOLINE) has been developed especially for retroactive renovation of existing shutter boxes. It is characterised by outstanding installation properties and can be quickly adapted on-site to the specific conditions. This is particularly important when you do not know what to expect. The entire plate is easy to bend and after being precisely cut to size it can be optimally placed in the box. Thus the box interior is perfectly filled out, sealed and efficiently insulated.

### **1 THERMO-FLEX**

The material combination of Polystyrene® and Neopor® with an interior diffusion separating layer ensures optimal insulating values.

### **2 THERMO-FLEX (NEOLINE)**

The material combination of Neopor® and a cover fleece affixed on the surface ensures unbeatable insulating properties.

### **3 T-CONTOUR CUT IN THE MATERIAL**

Due to the T-contour cut, the system adapts individually to the respective box shape and fills out the interior space that must be insulated in the best manner possible. It can be easily cut to the desired dimension with a cutter knife.

# The easiest way to save energy



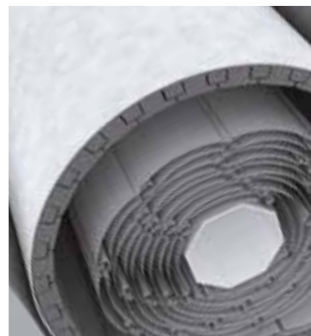
## HIGH ENERGY-EFFICIENCY

Since introduction of the EnEV, at sale or rental it is required to submit an energy certificate. Through use of the Beck+Heun renovation systems, energy losses and draught-air occurrences are minimised. The increased surface temperatures, ensure improved home comfort and avoid mould formation<sup>1)</sup>.



## STRONG INSULATION

For optimal implementation of the German energy saving requirements (EnEV), the renovation systems are available either in Neopor® [ $\lambda = 0.032 \text{ W/(mK)}$ ] or Polystyrene® [ $\lambda = 0.035 \text{ W/(mK)}$ ].



## FLEXIBLE USE

The renovation systems from Beck+Heun are designed in such a manner that they can be easily adapted to the structural requirements, such as dimensions and shape. Depending on the scope of renovation there are systems for single box renovation.



## EASY INSTALLATION

The materials used, Neopor® and Polystyrene® are characterised by their simple further processing. They are lightweight and can be cut to size with the cutter-knife. Thus, in most cases shutter box renovation can be accomplished by a single person.



## AVOIDANCE OF DRAUGHT AIR

Cold rooms and in some cases even a cold draught. Those who have experienced this know how uncomfortable it is. Renovation systems from Beck+Heun ideally seal old shutter boxes and prevent unpleasant thermal bridges, which can even cause mould formation.

<sup>1)</sup> The possibility of mould hazard can only be excluded with the prerequisite that the boundary conditions for such exclusion have been complied with. On request Beck+Heun will draw up the mathematical verification for this. Please contact the Construction Physics Department (T. +49 (0) 361 74056-53, email: bauphysik@beck-heun.de).

# DIMENSIONS AND INSULATING VALUES

## THERMO-FLEX (NEOLINE)

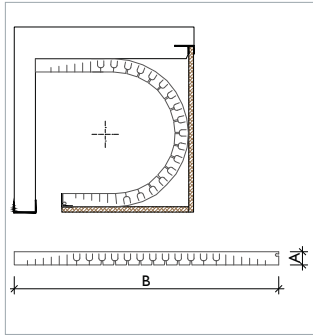
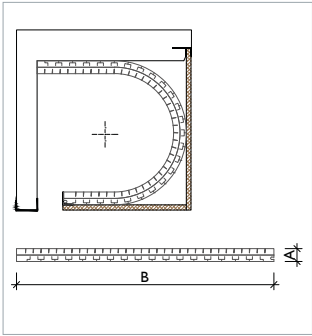
### THERMO-FLEX



### THERMO-FLEX (NEOLINE)



Window and shutter – exemplary presentation



THERMAL INSULATION VALUES	PLASTER (MONOLITHIC)
using box width as the example	365 mm
Material	Neopor® / Polystyrene® and Neopor®
$\Psi$ (Psi) in [W/(mK)]	Due to the special geometry of the shutter box renovation insulation, an individual case calculation is necessary.
$f_{Rsi}$ [-]	
$U_{sb}$ in [W/(m²K)]	

### Dimensions

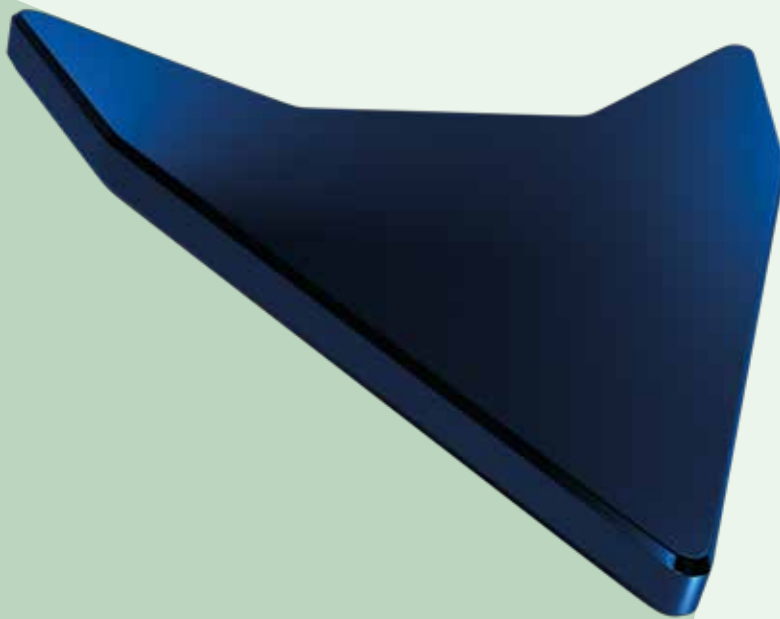
THERMO-FLEX (NEOLINE) <sup>2)</sup>	PLASTER TYPE		
<b>A</b> Insulation thickness	13	25	30
<b>B</b> Winding length	500 / 790	500 / 790	500 / 790

Dimension information  
in mm

<sup>2)</sup> Other sizes and thicknesses on request.



# Beck+Heun – Beste Werte fürs Haus



# NOTICES

## Please note

### General information

The written, as well as graphic content of this document was prepared with particular care. Nevertheless no liability can be accepted for errors that may be present and their effects. Moreover, we reserve the right to make changes to the products, as well as the accessories.

For the components to be installed, only products from the Beck+Heun product line must be procured. If components from other manufacturers are used Beck+Heun cannot guarantee the stability, functionality or the values of the products specified in the documents.

With publication of this catalogue all previous editions become invalid. The Terms and Conditions (T&Cs) can be viewed on-line at [www.beck-heun.de](http://www.beck-heun.de).

### Safety instructions

In addition, the detailed information in the installation and operating manuals and/or the technical documents must also be complied with.

All installation situations and design presentations depicted in this document are general, non-binding planning recommendations that only present the designs schematically. Applicability and completeness must be checked for the respective construction project on your own responsibility. Adjacent works are also only presented schematically. All specifications and assumptions must be adjusted and adapted to the local conditions. The respective technical specifications in the data sheets, processing guidelines and system approvals must be complied with.

All dimension information consists of approximate dimensions and is subject to the tolerances that natural materials such as polystyrene or brick products exhibit due to different cooling/curing behaviour. The actual dimensions (roller space, etc.) must be taken on site. For the roller shutter, sufficient winding space ("air") must be provided.

The European REACH Ordinance (EC no. 1907/2006) and the worldwide POP Ordinance have classified the flame retardant HBCD (or HBCDD) formerly used in EPS, for example, as a "Substance of Very High Concern (SVHC)". It has been prohibited since 21 August 2015. Our EPS suppliers were in compliance with the statutory regulations early-on and have changed their raw materials over to the polymeric flame retardant (PolyFR) which is classified as harmless. Consequently, since 1 April 2015 we have been able to confirm that our EPS production is HBCD-free.

### List of abbreviations

EPS = Expanded Polystyrene

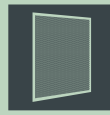
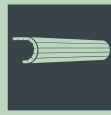
REACH = Registration, Evaluation, Authorisation of Chemicals

POP = Persistent Organic Pollutants (Stockholm Convention)

PolyFR = Polymeric Flame Retardant

SVHC = Substance of very high Concern





## Beck+Heun GmbH

### Head Quarter

Reinhold-Beck-Straße 2  
D-35794 Mengerskirchen

☎ +49(0)6476 9132-0  
☎ +49(0)6476 9132-1052  
@ info@beck-heun.de

### South Branch

Industriestraße 2  
D-86450 Altenmünster

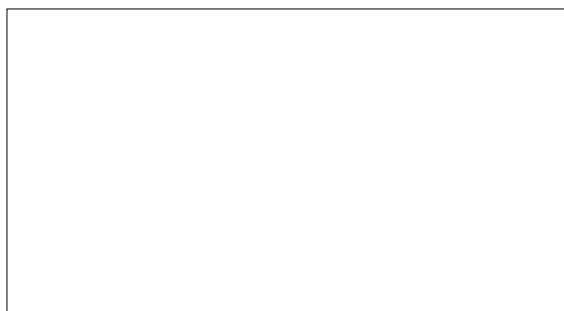
☎ +49(0)8295 9695-0  
☎ +49(0)8295 9695-2150  
@ altenmuenster@beck-heun.de

### Erfurt Branch

Stotternheimer Straße 10  
D-99086 Erfurt

☎ +49(0)361 74056-0  
☎ +49(0)361 74056-3050  
@ info.erfurt@beck-heun.de

### Your contact person



beck-heun.de