

FOLDING SHUTTERS



Baier

Moving light and shadow

FOLDING SHUTTERS — SPACE-SAVING DIVERSITY

Baier means movement. Not only for your facade — Just-in-Time



INDIVIDUAL PROBLEM-SOLVING EXPERTISE — FLEXIBLE AND FAST

Baier means movement. Not only for your facade — Just-in-Time



Folding shutters - completely automated.

Baier means movement. For more than 40 years now Baier has been specialized in the development, production and assembly of moving facade elements all over Germany and Europe. Besides classic light metal engineering, the product range also includes a portfolio of sliding windows, sliding shutters, driving technology, roof window blinds and door technology. Furthermore, Baier is also an acknowledged distributor for other well-known brands.

Baier starts where standard ends. Therefore Baier places significant emphasis on sustainability in function, manufacture as well as design of our products. We consider ourselves to be a reliable partner of developers, architects and craftsmen who provides particularly high demands with regard to individuality and perfection.

Light metal engineering has been our core competence. Ongoing developments and innovation are the philosophy of our company. Together with you, we gladly work out the right solutions for your ideas and guarantee that these are implemented to your entire satisfaction. In this way individual construction projects emerge in private and industrial fields without necessitating any compromises in terms of function, safety and comfort. We work reliably and within the discussed budget in order to give your facade the chance of creating moving moments.

*Sliding folding shutters made of Corten steel.
Slat sun protection for historic buildings.*

*Representative facade.
Round arch sliding windows for sales success.*

*Architectural sun protection.
Sliding shutters at "Alten Hof" in Munich.*



FOLDING SHUTTERS – SPACE-SAVING DIVERSITY

Baier means movement. Just-in-Time.



Baier folding shutters save space. They provide protection and have an eye-catcher function at the same time. Available as motorized version as well. Eye-catchers that create movement.

*Folding shutters made of wood.
System: Premium 70.*

*Creative and lively.
Folding shutters made of perforated Corten steel.*

Baier folding shutters are the perfect

solution when architecture stipulates a

minimum of space for shutters. Therefore Baier is not cutting back anything on function or design.

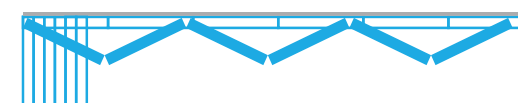
Baier folding shutters are mostly used when architecture is determined by large window fronts. They become a stylistic and a space-saving protective element at the same time. In-house developed fittings guarantee operating reliability.

Sometimes, virtues come out of necessity. But even in these circumstances Baier is well-prepared. Right at the beginning it was mainly a lack of space on facades which were characterized by windows that made folding shutters necessary. However nowadays they are a formative stylistic element that inspires. Baier folding shutters fold themselves together at an angle of 90° to the facade. This happens manually or by clever drive systems. No matter if they are mounted on the facade or the outside of your balcony – fitting and floor guide guarantee safety and the folding shutters provide protection against wind, sun and prying eyes. There are almost no limits for your design requirements for folding shutters. A huge range of material and colour mixes are available. Let us know. We would love to produce an attractive space-saver for you.

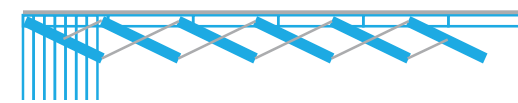
Versions of folding shutters



Folding shutters 4 sashes left, 4 sashes right



Folding shutters 6 sashes left



Pantograph shutters 6 sashes left

- Innovative protection against sun, weather and sight
- Convenient operation, manually, at the push of a button or via radio
- Patented drive system
- Customised production in any desired size
- Large mix of material and color
- Project-related solution development
- Own production and assembly
- Nationwide and international cooperation

FOLDING SHUTTERS — PREMIUM 60

Baier means movement. Just-in-Time.



The folding shutters premium 60 are

particularly suitable for larger folding shutter systems in extravagant projects and housing. They can be operated manually and automatically, in V-position or parallel to the facade.

- Enormous stability through 60 mm deep frame system
- Nearly all fillings and materials are possible
- Fully automatable in V-position or parallel to the facade
- Big system dimensions are feasible
- The bands are integrated into the frame and coated in frame color

FOLDING SHUTTERS — PREMIUM 60

Baier means movement. Just-in-Time.

Carrier profile

- Aluminum anodized E6EV1

Carriage

- Roles of high quality plastic ensure a smooth running

Cover

- Aluminum
- Powder coated, RAL of your choice
- Cover the technology and protect the drive

Engine

- First motor drive drives the first pair of shutters
- Second motor drive drives the second pair of shutters
- The third motor drive drives the retraction mechanism to close the shutters flush with the facade
- An optional actuator operates an in and output mechanism whilst closing parallel to the front

Band

- Integrated in the frame
- Powder coated or anodized at your choice

Filling

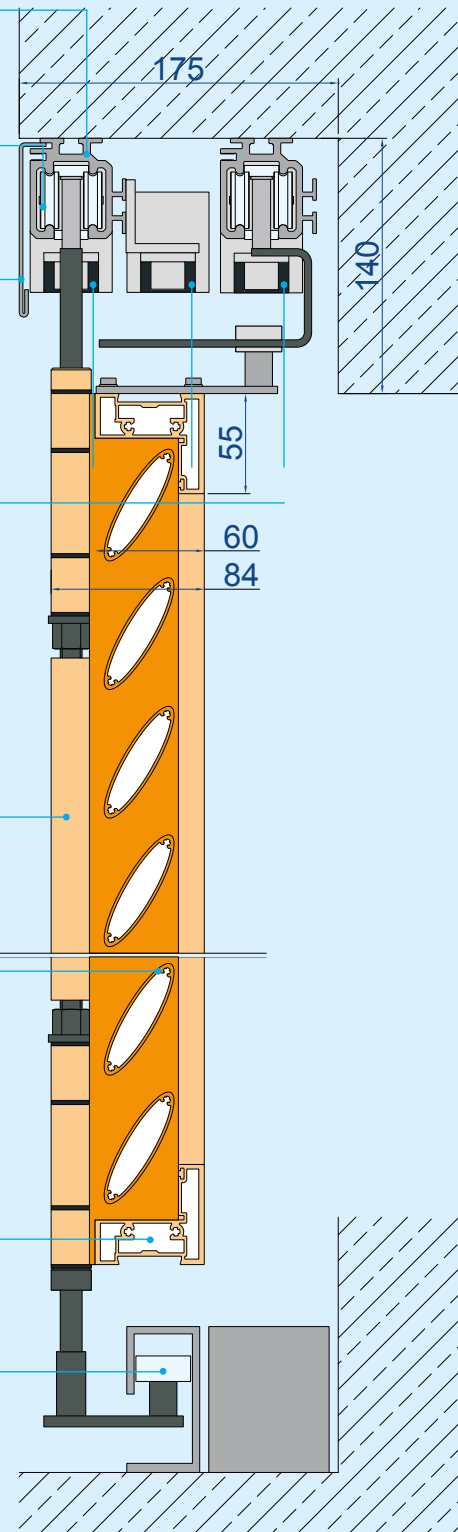
- For example:
 - Ellipse-shaped lamella 70 x 19 mm
 - Dif. lamella made of aluminum or wood
 - Fillings as sheet metal, expanded metal and composite panels.
 - ... and much more!

Frame

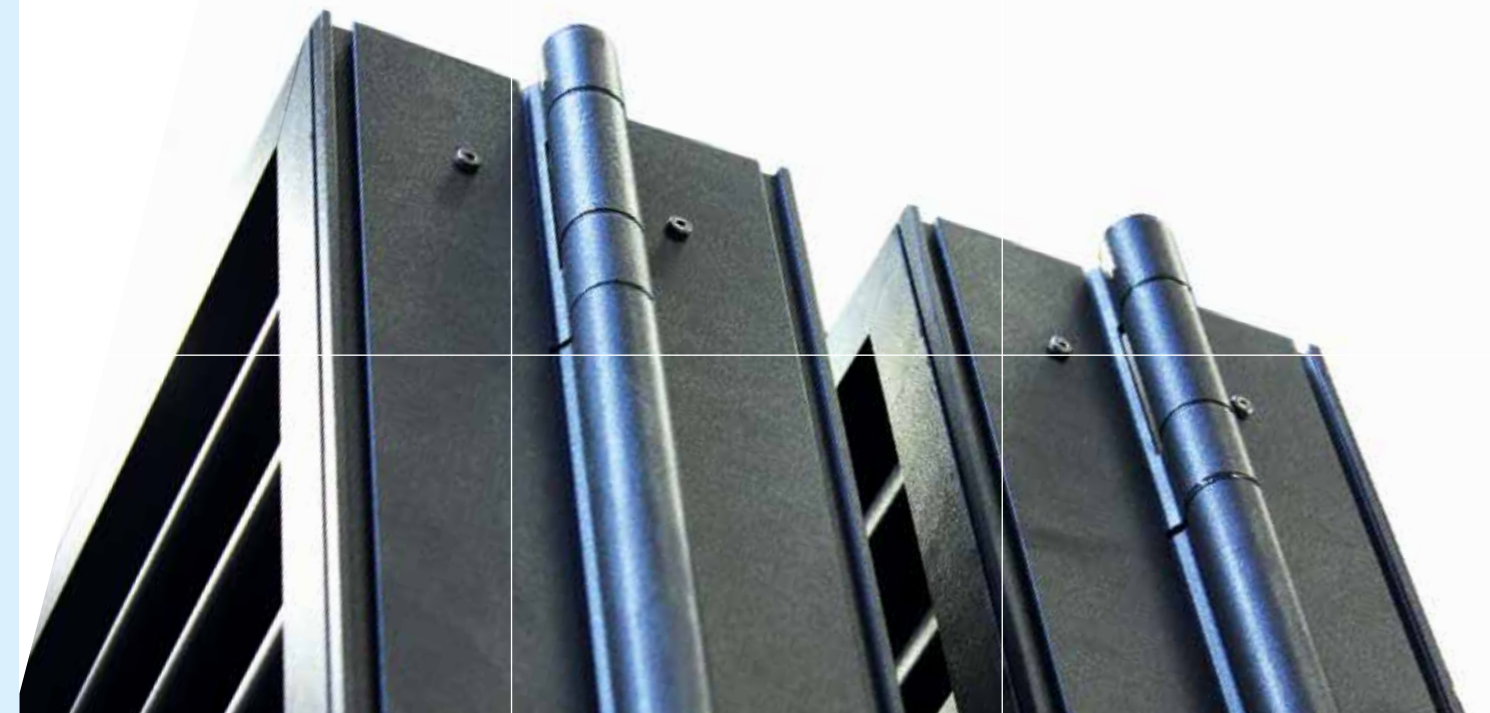
- Circumferential aluminum profile
- Powder coated or anodized at your choice

Guide rail and slider

- Continuous aluminum profile
- Project-related production



Vertical section is not to scale



In the frame integrated ribbons, powder-coated and in the same colour as the blinds.

Lower guide is of high quality that ensures a secure grip.



Facts and figures

Particularly suitable for facilities in sophisticated housing projects. Can be operated manually and automatically, in V-position or parallel to the facade/front.

Generally

- Width and height: customised production
- In the frame integrated fittings
- Sash pairs connected with bands
- Automatable, parallel to the facade or in V- position

Blinds

- Automated: 2, 4 or 6 blinds
- manual: almost unlimited
- Blind system depth 60 mm
- Up to 40 kg per blind
- Up to width of 800 mm
- Up to height 3000 mm

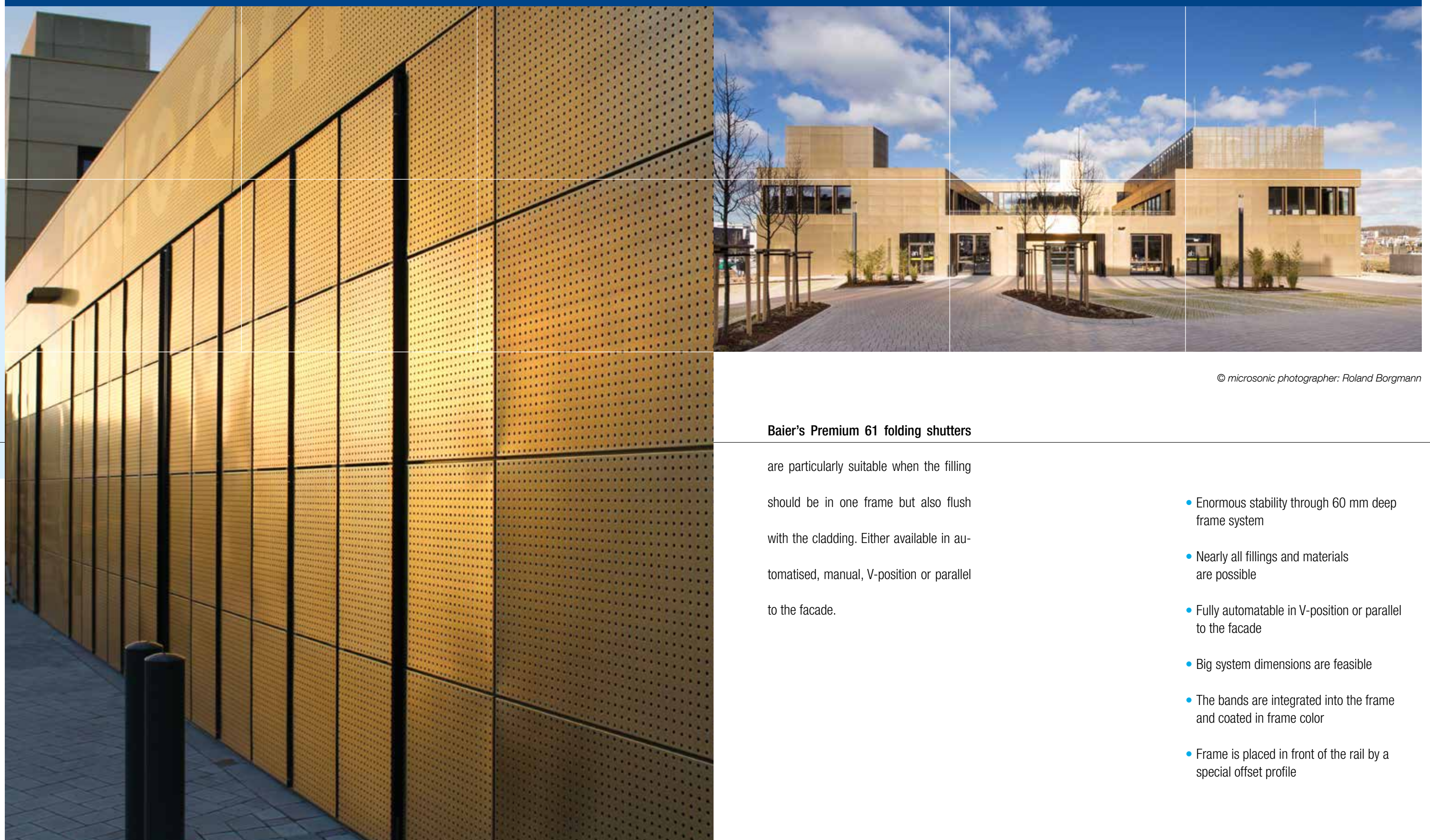
Design

- Frame: circumferential aluminum profile system
- Filling: almost any filling possible for example lamella made of aluminum, wood, perforated metal or expanded metal

The technical specifications, especially the maximum number of shutters, dimensions and weights are guiding values which may have to be checked on a case-by-case basis by taking account of the local conditions. After technical clarification bigger dimensions are possible where appropriate. Possibly not all of the height and width ratios are realizable.

FOLDING SHUTTERS — PREMIUM 61

Baier means movement. Just-in-Time.



© microsonic photographer: Roland Borgmann

Baier's Premium 61 folding shutters

are particularly suitable when the filling should be in one frame but also flush with the cladding. Either available in automated, manual, V-position or parallel to the facade.

- Enormous stability through 60 mm deep frame system
- Nearly all fillings and materials are possible
- Fully automatable in V-position or parallel to the facade
- Big system dimensions are feasible
- The bands are integrated into the frame and coated in frame color
- Frame is placed in front of the rail by a special offset profile

FOLDING SHUTTERS — PREMIUM 61

Baier means movement. Just-in-Time.

Carrier profile

- Aluminium anodised E6EV1 or as required

Cover

- The Cover is hiding the mechanics
- Uniform and homogeneous facade image
- Diverse variations are possible

Carriage

- Ball-bearing rollers made of high-quality plastic ensure a smooth run

Engine

- First, second and third drive motor powers each of the first, second and third pair of shutters
- An additional actuator powers the retracting and pull-out mechanism parallel to the facade while closing

Fitting and band technology

- Integrated in the frame
- Special offset profile: frame is placed in front of the rail
- Powder coated or anodized at your choice

Filling

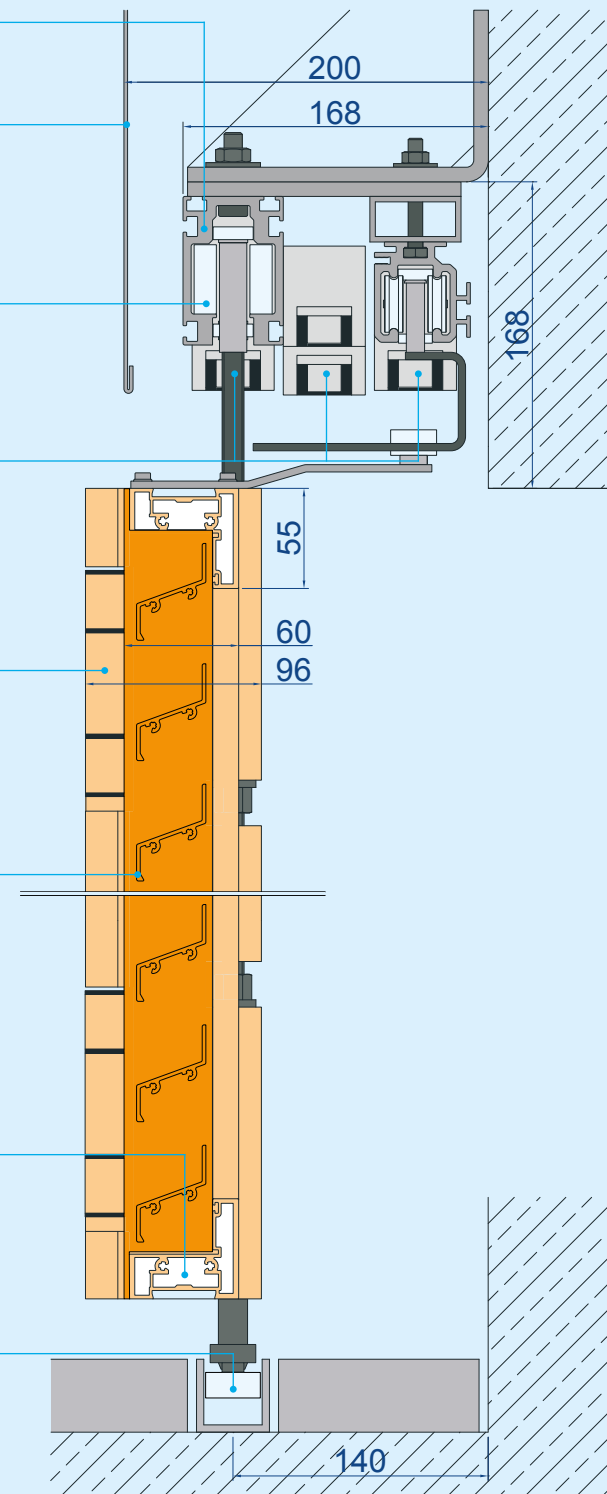
- In this example:
 - Z-shaped slat 38x53mm
- Dif. lamella made of aluminum or wood
- Extensive filling with perforated plate, expanded metal, plates or fabric
- ... and much more!

Frame

- Circumferential aluminum profile
- According to the filling with vertical or horizontal holding rail for the filling
- Powder coated or anodized at your choice

Guide rail and slider

- Continuous aluminum profile
- Project-related production



Vertical section is not to scale



Extensive filling with powder-coated metal sheets appears as a plaster facade in closed state.

Continuous band profiles and a uniform colour concept guarantee harmonious optics



Facts and figures

Particularly suitable for facilities in sophisticated housing projects. Can be operated manually and automatically, in V-position or parallel to the facade/front.

Generally

- Width and height: customised production
- In the frame integrated fittings
- Sash pairs connected with bands
- Special offset profile, frame is placed in front of the rail
- Automatable, parallel to the facade or in V-position

Blinds

- Only an even number of shutters is possible
 - automatised: 2, 4 or 6 shutters; manual: nearly unlimited
- Blind system depth 60 mm
- Up to 50 kg per blind
- Up to width of 800 mm
- Up to height 3000 mm

Design

- Frame: circumferential aluminum profile system
- Filling: almost any filling possible
 - for example lamella made of aluminum, wood, perforated metal or expanded metal

The technical specifications, especially the maximum number of shutters, dimensions and weights are guiding values which may have to be checked on a case-by-case basis by taking account of the local conditions. After technical clarification bigger dimensions are possible where appropriate. Possibly not all of the height and width ratios are realizable.

FOLDING SHUTTERS — PREMIUM 70

Baier means movement. Just-in-Time.



Baier's folding shutters Premium 70

work well when narrow joint patterns

and a homogenous cladding are desired.

Automatised, parallel to the facade.

- Special frame profile, which is placed behind the filling, with vertical or horizontal holding rail - as needed
- Almost any filling possible
- From the outside drive and fitting technology is covered behind the filling in closed state
- A continuous cladding is possible as a shutter on top and at the bottom

FOLDING SHUTTERS — PREMIUM 70

Baier means movement. Just-in-Time.

Rail

- Aluminium anodized E6EV1 or as required

Carriage

- Ball-bearing rollers made of high-quality plastic ensure a smooth run

Cladding

- The cladding is hiding the mechanics
- Uniform and homogeneous facade image
- Diverse variations are possible

Drives

- First, second and third drive motor powers each of the first, second and third pair of shutters
- An additional actuator powers the retracting and pull-out mechanism parallel to the facade while closing

Fitting and band technology

- From the outside covered behind the filling in closed state
- Powder-coated or anodised at your choice

Filling

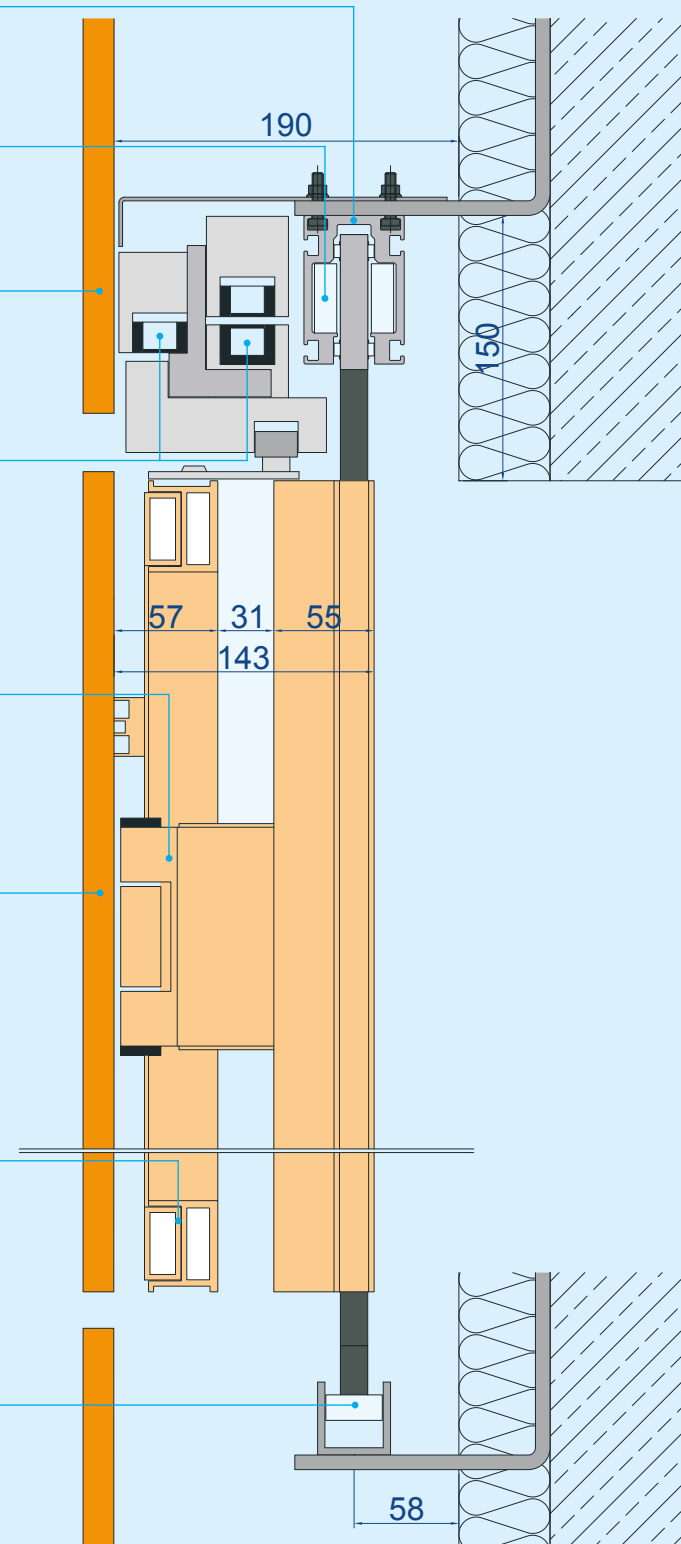
- Diverse fillings are possible, e.g. made of wood, aluminium, perforated plate, expanded metal, plates or fabric etc.
- Especially suitable for extensive fillings and vertical or horizontal rails which should be on one level with the cladding

Frame

- Circumferential frame profile made of aluminium
- According to the filling with vertical or horizontal holding rail for the filling
- Powder-coated or anodised at your choice

Lower guidance

- Continuous aluminium profile
- Project-related manufacture



Vertical section is not to scale



Baier's folding shutters Premium 70 work well when narrow joint patterns and a homogenous cladding are desired.

Facts and figures

Especially suitable for larger systems of upscale project and housing constructions, automatised, parallel to the facade.

General

- Width and height: customised production
- From the outside drive and fitting technology is covered behind the filling in closed state
- Each pair of shutters is connected with bands
- Automatised, parallel to the facade.

Shutters

- Only an even number of shutters is possible automated: 2, 4 or 6 shutters, manual nearly unlimited
- Up to 50kg weight per shutter
- Up to a width of 750mm and a height of 3000mm

Design

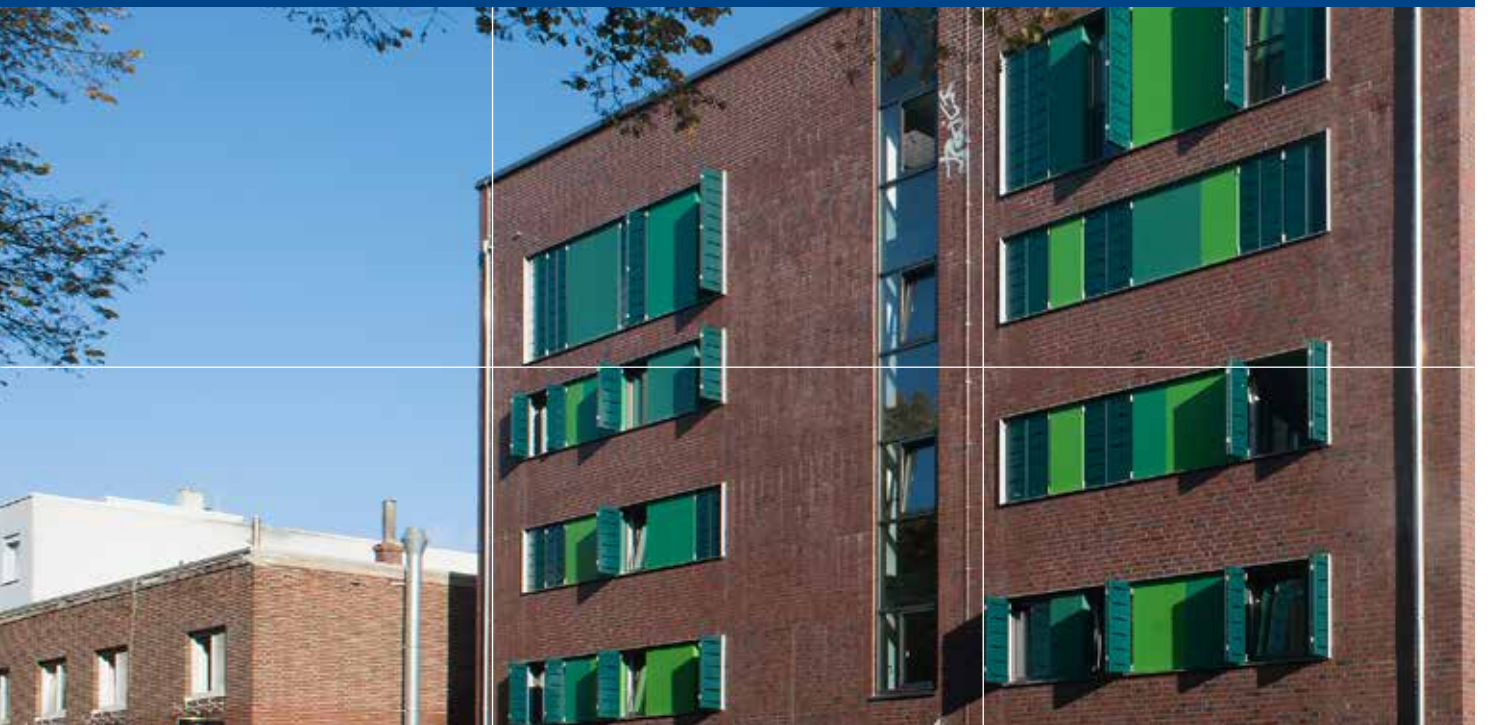
- Frame: circumferential aluminium system profile
- Filling: almost any filling possible, for example slats made of aluminium or wood, extensive fillings like perforated plate, expanded metal, fabric, plates etc.

- The smallest joint patterns are possible
- Aesthetic, almost closed center shot
- Proven drive technology also controls two, four- and six-shutter systems without problems
- Fully automatised, parallel to the facade
- In escape routes, the controller can open battery-backed

The technical specifications, especially the maximum number of shutters, dimensions and weights are guiding values which may have to be checked on a case-by-case basis by taking account of the local conditions. After technical clarification bigger dimensions are possible where appropriate. Possibly not all of the height and width ratios are realizable.

FOLDING SHUTTERS — STANDARD 30

Baier means movement. Just-in-Time.



The folding shutter standard 30

is particularly suitable for smaller installations in upscale projects and housing.

- Smaller frame system depth of 30 mm
- Smaller size of the complete package
- Almost all fillings are possible
- Automatable in V-position
- Bands are put on the frame

FOLDING SHUTTERS – STANDARD 30

Baier means movement. Just-in-Time.

Carrier profile

- Aluminum anodized E6EV1

Carriage

- Roles of high quality plastic ensure a smooth running
- With cranked belt holder
- Clip mechanism on the carriage locks the blinds in the open state

Spring catch

- Locks the blinds in the closed position

Band

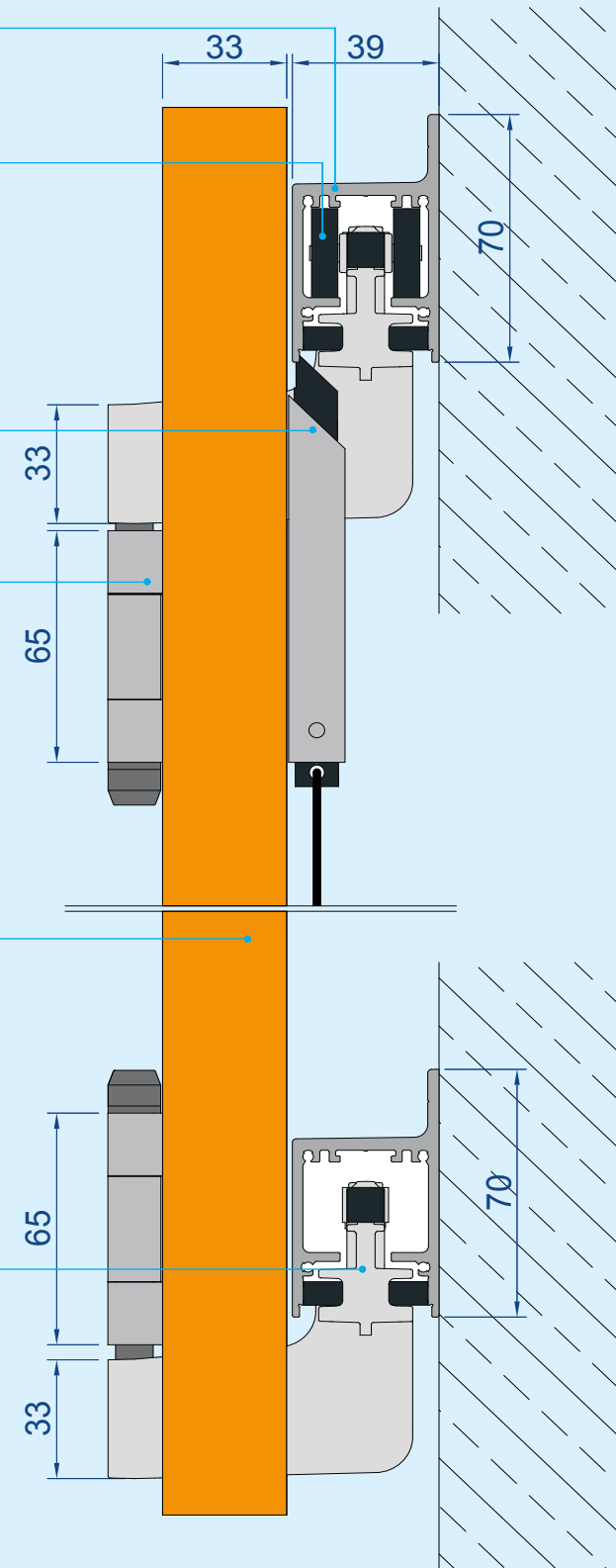
- Screwed on the frame
- Stainless steel

Filling

- Dif. Lamellas made of aluminum or wood
- Fillings as sheet metal, expanded metal or composite panels.
- Optionally able to stick out of the guide rail as you can see here.
- ... and much more!

Guide rail and slider

- Circumferential aluminum profile
- Project-related production



Vertical section is not to scale



High quality running carriage with plastic rollers for smooth running.

Ribbon made of aluminum.

Facts and figures

- Sun protection
- Pleasant lighting atmosphere
- Adjustable light
- Architectural design
- Latest control
- Wind and sight protection
- Wall mounting or in the reveal

Particularly suitable for smaller facilities in upscale projects and housing which are not or only automated in V-position.

Generally

- Width and height: customised production
- Fittings are screwed on the blinds/hangings
- Sash pairs are connected with bands
- Running and guide track behind the blinds
- Automated: 2 or 4 blinds
- Manual: almost unlimited
- Blind system depth about 30 mm (30 to 34 mm)
- Automatable in a V-position

Blinds version 20 kg

- Up to 20 kg per blind
- Up to 1.5 m² per blind
- Up to a width of 500 mm and a wind permeability of at least 50%

Blinds version 40 kg

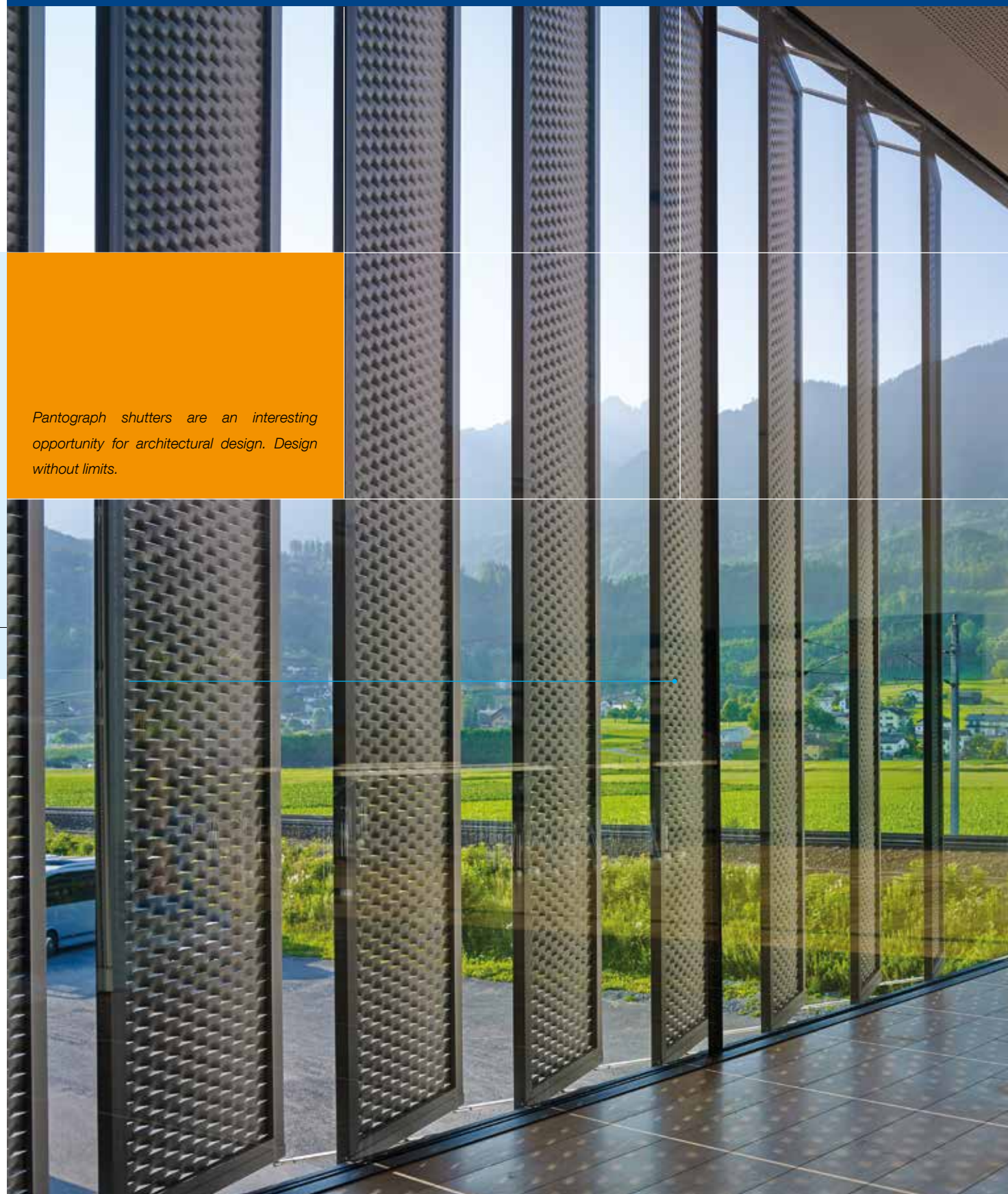
- Up to 40 kg per blind
- Up to 1.8 m² per blind
- Up to a width of 600 mm and a wind permeability of at least 50%

The technical specifications, especially the maximum number of shutters, dimensions and weights are guiding values which may have to be checked on a case-by-case basis by taking account of the local conditions. After technical clarification bigger dimensions are possible where appropriate. Possibly not all of the height and width ratios are realizable.

PANTOGRAPH SHUTTERS – ARCHITECTURAL HIGHLIGHT

Baier means movement. Just-in-Time.

Pantograph shutters are an interesting opportunity for architectural design. Design without limits.



*Optical and design-oriented possibilities.
Numerous combinations and special solutions.*

Pantograph shutters are an attractive alternative to sliding, fold & slide shutters and offer interesting opportunities for architectural design. There are no limits set to design. Thanks to various opening angles Baier Pantograph shutters allow special lighting and shadowing effects in any room.

The Pantograph shutters are rectangular to the facade while opened and provide wind and sight protection in half opened position. The latest electrical drive technologies and controls ensure a high level of comfort.

Individual elements or entire groups can be moved with buttons, bus, or radio controls – without opening windows or doors. Additionally, radio systems have the advantage that they are mounted quickly, both in new buildings as well as in retrofitting of existing automations. By default, the control is integrated in the control cabinet.

PANTOGRAPH SHUTTERS – AN ATTRACTIVE ALTERNATIVE

Baier means movement. Just-in-Time.

Carrier profile

- Aluminum anodized E6EV1
- With special hook-on profile for easy installations

Cover

- Aluminum
- Powder coated or anodized
- Clipped into the track

Drive

- Motor integrated in the running track
- First wing is driven, the other wings will be taken on the scissor mechanism

Carriage

- Running and cross rolls of high quality plastic ensure a smooth running

Scissor mechanism

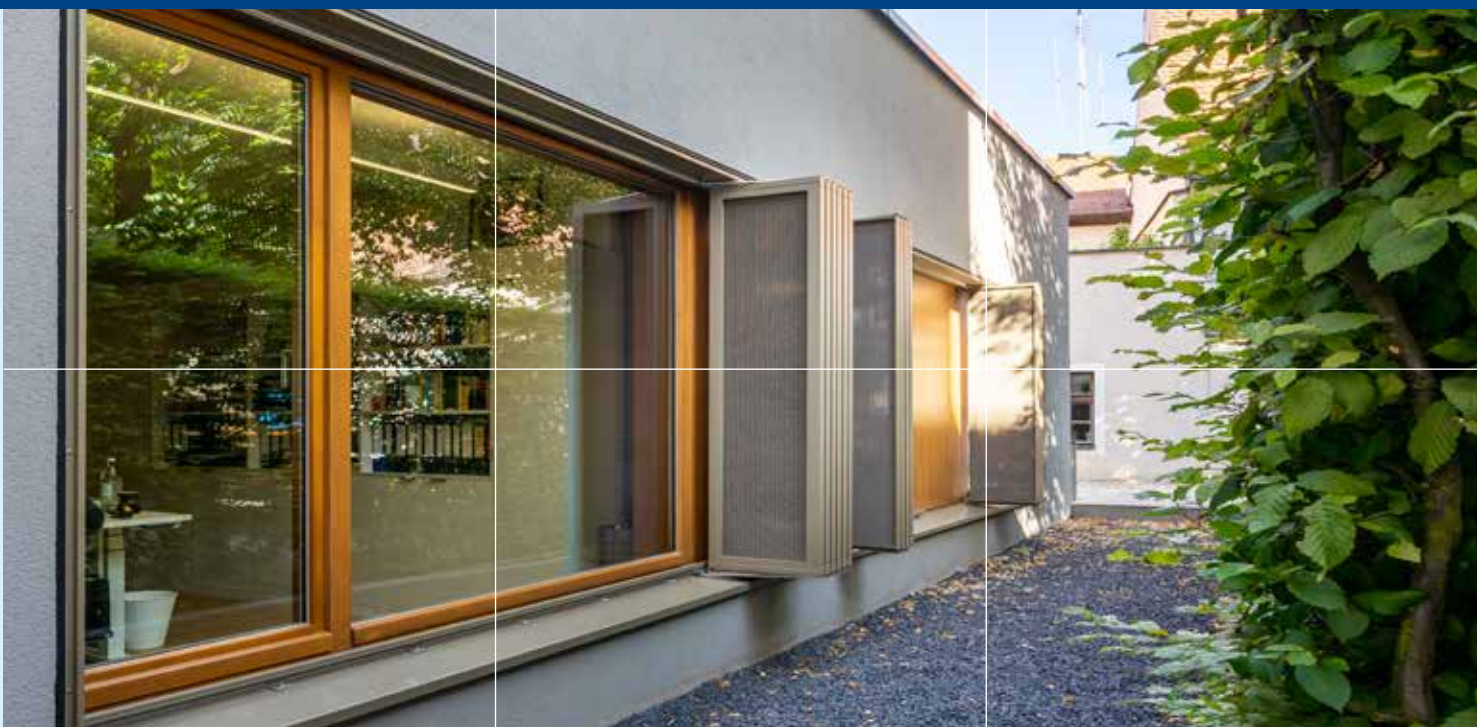
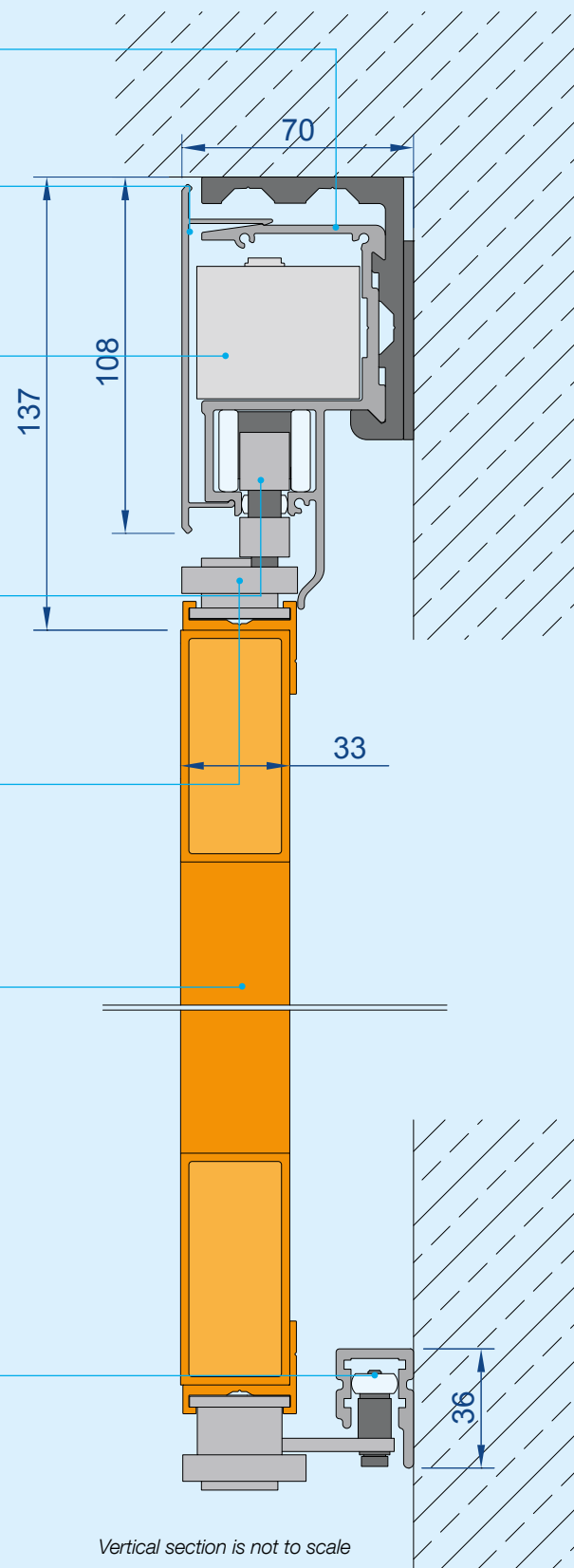
- Scissor mechanism
- Connects the blinds together
- Ensures synchronous movement and stability

Filling

- Applicable for various lamella and fillings through installation strip

Guide rail and slider

- Continuous aluminum profile
- Opened up or downwards available



Your choice in material, colour and design. An individual shadowing concept.

Baier pantograph shutters offer a wide

range of models. Select the hangings made of wood, fabric, mesh or metal fillings and give your object that special touch.

Facts and figures

Particularly suitable for automated plants in small and medium size version for sophisticated projects and housing - parallel to the facade.

Generally

- Width and height: customised production
- Maximum height see below
- Shutter width: min. 250 mm, max. 550 mm
- Shutter height: min. 800 mm, max. 3000 mm
- Shutter weight: max. 20 kg
- Fittings only screwed onto the hangings/blinds on top and bottom
- Blinds interconnected by scissor mechanism
- Guide rail over the blinds
- Up to 6 blinds to one side, so up to 12 blinds per building, even odd numbers are possible
- System depth of the blinds max. 45 mm
- Automation: parallel to the facade

Version pantograph shutters	Height*
2-sash	max. 3000 mm
3-sash	max. 3000 mm
4-sash	max. 3000 mm
5-sash	max. 2800 mm
6-sash	max. 2600 mm

*Height measurement depends on the number of blinds of the building

The technical specifications, especially the maximum number of shutters, dimensions and weights are guiding values which may have to be checked on a case-by-case basis by taking account of the local conditions. After technical clarification bigger dimensions are possible where appropriate. Possibly not all of the height and width ratios are realizable.

VERTICAL FOLDING SHUTTERS — „FOLDING“ UPWARDS

Baier means movement. Just-in-Time.

Baier Vertical-Folding-shutters enriches the world of modern and flush facade design. As a „compact package“, the vertical lift frames meet the requirements for functional visibility and sun protection.



The facade can be opened by the push of a button. The sun protection „folds“ upwards.

Lifting shutters close the facade and reflect a uniform „building envelope“.

The opened Vertical-Foldingshutters offer pleasant sunprotection like a canopy.

Baier Vertical Folding Shutters com-

plete the renowned product variety of the company Baier. Folding upwards or downwards, protruding from the wall in a V-position, the folding shutters ensure a flush finish – both on external facades and in the interior.

Modern architecture likes to work with flush, flat and homogeneous facades. The movable sashes of the lifting and folding system can be planked with a wide variety of materials and adapted to the condition of the building envelope.

When the vertical folding shutter is closed, the flush effect of the facade is maintained - the sashes are optimally integrated and the continuous and small gap dimensions ensure a uniform front. When open, the vertical folding shutter system stands at the upper end of the system in a V-position in front of the facade. This position ensures a stable position, even in strong winds. Similar to a canopy, the covering „V“ offers effective sun protection.

Lifting shutter systems are planned project-related and individually, since the size and filling of the wings, the installation situation and the concrete dimensions are included in the planning and design.

VERTICAL FOLDING SHUTTERS — „FOLDING“ UPWARDS

Baier means movement. Just-in-Time.

Drive

- Drive motor system dependent
Usually executed with counterweights

Fitting and band technology

- From the outside covered behind the filling in closed state

Rail

- Aluminium anodized
E6/EV1 (silver), E6/EV6 (black)
or as required

Frame

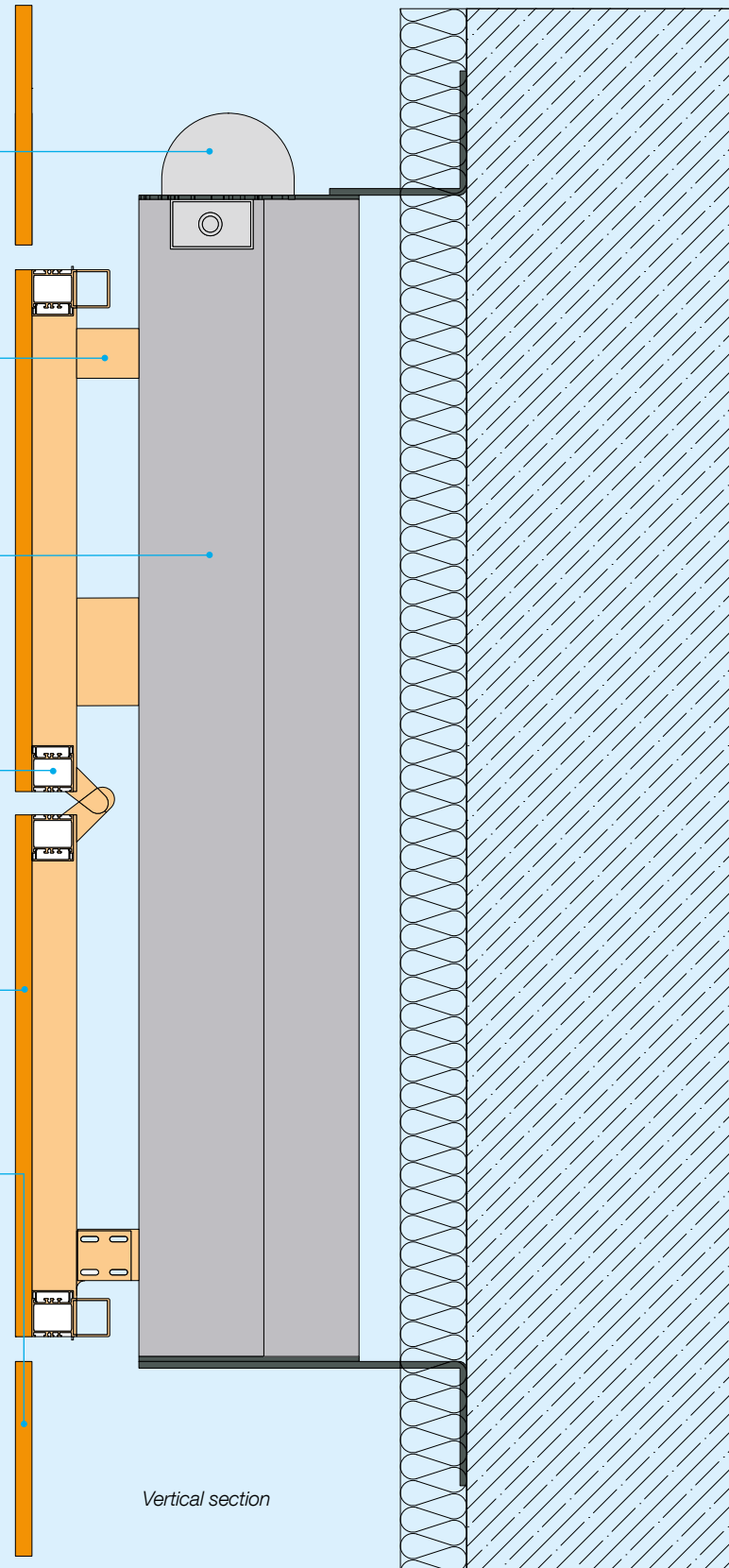
- Modular build up aluminium profiles
including revision profile
- Powder-coated or anodized of your choice

Filling

- Diverse fillings are possible,
e.g. wood, glass, metal, HPL-plates

Cladding

- Blinds the mechanics
- Various variants possible
- Uniform facade appearance, since
the movable facade elements are
„integrated“ into the facade



Perfectly supplied – the vertical folding shutter functions can be used as a functional and practical solution for the modern counter closure.

- Flush solar shading integrated into the facade
- Drive and fitting technology is covered behind the filling in closed state
- Vertical opening direction
- The opening from the outside is prevented by a special lock
- Different fillings possible
- Own production and assembly
- Individual planning and made-to-measure

Facts and figures

Generally

- Drive and fitting technology is covered behind the filling in closed state
- Each pair of sashes is connected with special hinges
- Automated: 2 Shutters
- Fittings and band technology covered with panels
- Integrated fall protection

Construction

- Shutters: extruded aluminium profiles
- Diverse fillings are possible i.e. wood, glass, metal, HPL-plates
- Rail: aluminium anodized E6/EV1 (silver), E6/EV6 (black)
- Carriage with ball-bearing rollers made of high-quality plastic
- Counterweight and release system
- locked in closed position

Antrieb

- Electrically, 24 volt
depending on installation situation:
dead man control or automatic mode
- System control can be connected to on-site building services engineering

FOLDING SHUTTERS — BAIER SPECIAL SOLUTIONS

Baier means movement. Just-in-Time

Baier folding shutters have a connective character between your facade and sun protection. The optimal combination of natural materials creates the "perfect link" to historical surroundings.



Harmony in material and appearance. Externally suspended wooden facade with integrated folding shutters.

The complete project management is

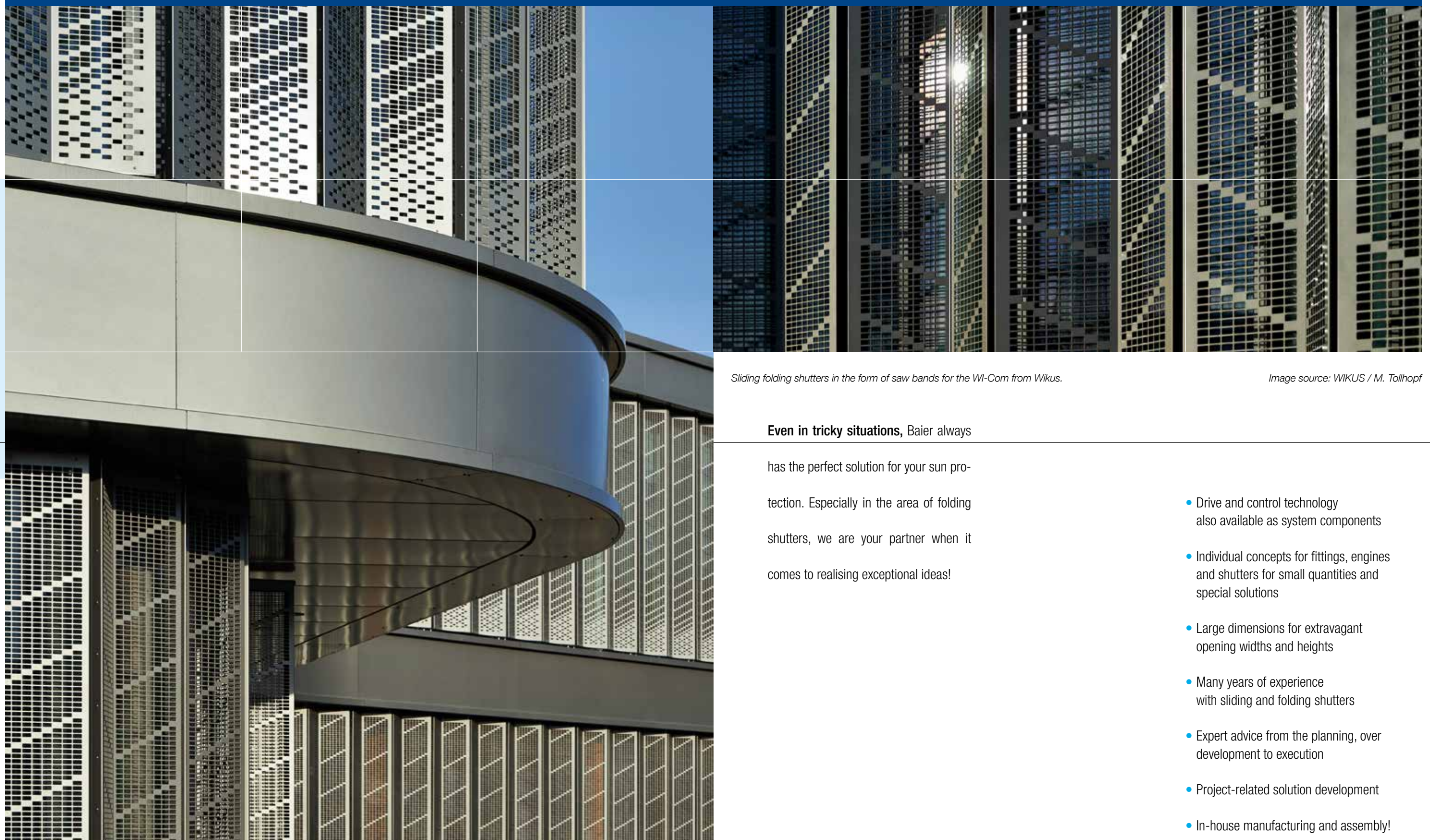
organized by our Baier team. Starting with planning, over manufacture to assembly.

Complex details can be worked out and implemented together with our architects and developers. Baier fulfills almost every thing "in time" and "in budget".

- Continuous facade - continuous design
- Wooden facade and sun protection flows seamlessly into other parts of the facade
- Closes parallel to the facade
- Drive and mechanics are also hidden behind the wooden facade
- Complete project management of planning, production and assembly

SLIDING AND FOLDING SHUTTERS – SPECIAL SOLUTIONS

Baier means movement. Just-in-Time



Sliding folding shutters in the form of saw bands for the WI-Com from Wikus.

Image source: WIKUS / M. Tollhopf

Even in tricky situations, Baier always

has the perfect solution for your sun protection. Especially in the area of folding shutters, we are your partner when it comes to realising exceptional ideas!

- Drive and control technology also available as system components
- Individual concepts for fittings, engines and shutters for small quantities and special solutions
- Large dimensions for extravagant opening widths and heights
- Many years of experience with sliding and folding shutters
- Expert advice from the planning, over development to execution
- Project-related solution development
- In-house manufacturing and assembly!

SERVICE AND FOLLOW-UP SUPPORT – FROM ONE SINGLE SOURCE

Baier means movement. Just-in-Time



Baier service. Our family-oriented way of thinking is reflected clearly in our customer service. Friendly, fast and reliable. Service throughout Germany and Europe. Service that creates movement.



- Competent advice
- Flexible through lean structures
- Solution development
- Large stocks – fast delivery
- Deposition of drawings through in-house design office
- Assembly, maintenance and aftercare throughout Germany and Europe
- Basic and further training

Our Baier customer service is a special philosophy that we apply every day. Because only a product which is a clear and visible realisation of a customer's specific wishes, delivered and assembled reliably, can guarantee long-term pleasure and provide those moving moments which Baier customers appreciate so much.

Baier guides you in your desires and ideas to fulfill all aims in the implementation. Smart project-managements, flat and flexible structures, a safe warehousing and ongoing trainings secure the reliability of our products. Baier is your guide – starting with the consulting, continued with production and assembly to end up with our aftercare operations and maintenance.

Welcome to our family: +49 (0) 78 43 / 94 76-0

Baier: Where our established quality is made:

BAIER GmbH

Reiersbacher Straße 28
D-77871 Renchen-Ulm

Tel. +49 (0) 78 43/94 76-0
Fax +49 (0) 78 43/94 76-33
www.baier-gmbh.de
info@baier-gmbh.de

