FIEGER
Louvre Windows

FLW
FIEGER Louvre Windows Thermally broken

FLW SmoTec
FIEGER Louvre Windows NSHEV certified

FGL
FIEGER ALL GLASS Louvre Windows

The next generation

Above: Local government building in Altenkirchen
Contractor: Metallbau Sturm GmbH, Altenkirchen

Fieger Louvre Windows – FLW

... are double-glazed, louvre windows with thermally-broken extruded aluminium frames. The horizontal louvres rotate on pivot bearings, linked to a rack and pinion system, which ensures smooth, synchronized operation.
Visual enhancement: when closed, the glass louvres form a flush surface with the outside of the window frame resulting in a markedly uniform appearance.

Optimal ventilation

With a maximum opening angle of 90 degrees, Fieger louvre windows provide a large free area of ventilation compared to standard window constructions. Their unique design enables them to be used in a variety of applications for the natural ventilation of buildings combined with good insulation qualities and better exploitation of natural light.
Our louvre windows are suitable for a wide range of applications, e.g. facades, conservatories, schools, staircases, production halls, atria and office buildings, to mention only a few.

Natural smoke and heat exhaust vents (NSHEV)

From 31 August 2006, it has been a legal requirement to test and evaluate the functionality of complete units, rather than simply single components, such as drives.
Fieger reacted to these new requirements by introducing "FLW SmoTec" to its existing FLW product range. This system is a certified NSHEV available in a variety of sizes and with different drives. The large free area of opening, combined with the short operating time, make Fieger louvre windows particularly effective for venting smoke and hot gases caused by fire.

No fixed dimensions – available in any size

Fieger louvre windows are manufactured according to your specifications. The number of louvres in any window can be changed based on an optimal louvre height between 170 mm and 300 mm.
If the width of a unit exceeds 1800 mm, we recommend dividing the sections with a centre mullion specially designed for our system. A single motor can be used to simultaneously operate both sides of the window.

A choice of drives

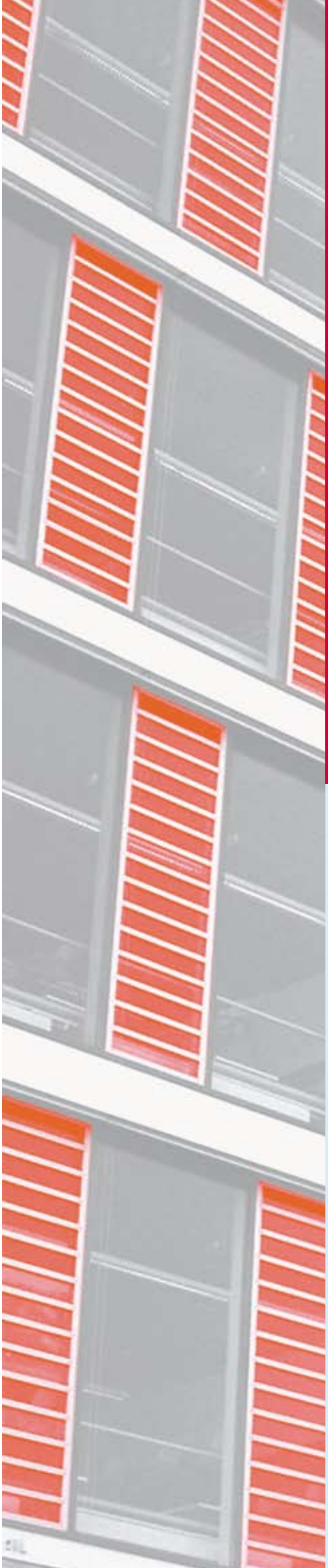
Our louvre windows can be operated in a variety of ways, e.g. directly on the unit by means of a hand lever, an electric motor or pneumatic cylinder. They can also be operated by a remote drive with a traction rod or with a crank handle. Windows which do not exceed 3 square metres usually require only one drive to operate the louvres.

High quality materials – thermally-broken aluminium frames

Fieger louvre windows are produced with thermally-broken aluminium frames, a recent development in window technology. The fact that the extruded frames are a single piece means they are robust and not subject to distortion. The drive mechanism for the louvres consists of glass-fibre reinforced plastic pinions operated by a purpose-built rack made of heavy duty aluminium alloy.

For curtain-walling systems we generally use a continuous aluminium adaptor profile in the same colour as the window, with neoprene insulation in the thickness required for mounting.
For other installation situations, e.g. masonry or different glazing systems, suitable adaptor profiles can be provided.

Below:	Friedrich-List School, Karlsruhe, Germany, 2003
Architect:	Rossmann + Partner, Engineer/Architect BDA, Karlsruhe
Contractor:	Medicke Metallbau GmbH, Glauchau



Thermal protection with double glazing

Our standard double glazing has a total thickness of 24 mm (FLW 24) or 28 mm (FLW 28) and a U-value of 1.1/DIN EN 673. Sheet metal panels of an appropriate thickness can also be used. We can, of course, supply other combinations with sun-screening, sound-proofing, safety glass, etc. The units are sealed with continuous EPDM profiles.

Design and colour – available according to your specifications

Fieger louvre windows can be anodised, powder-coated or spray-painted in all standard RAL colours. Various types of fixed panels are also available. Unusual solutions, such as slanting elements or louvres of different heights in a single unit can also be manufactured. In addition, the position of the louvre blades can be adjusted to suit site conditions: for example, to avoid internal obstructions.

Pre-assembled – ready for installation

Fieger louvre windows are delivered ready for installation. The actuator is installed on the window and has been adjusted and tested. This enables quick and problem-free installation. As a general rule, delivery times are 3 to 6 weeks, depending on type and size of the order.

Maintenance and service from a single source

In addition to our normal guarantee, we can quote you for commissioning and/or maintenance of our louvre windows. We can also arrange delivery and maintenance of your NSHEV System by one of our partner companies. Please do not hesitate to contact us if you have any questions or enquiries regarding this service.

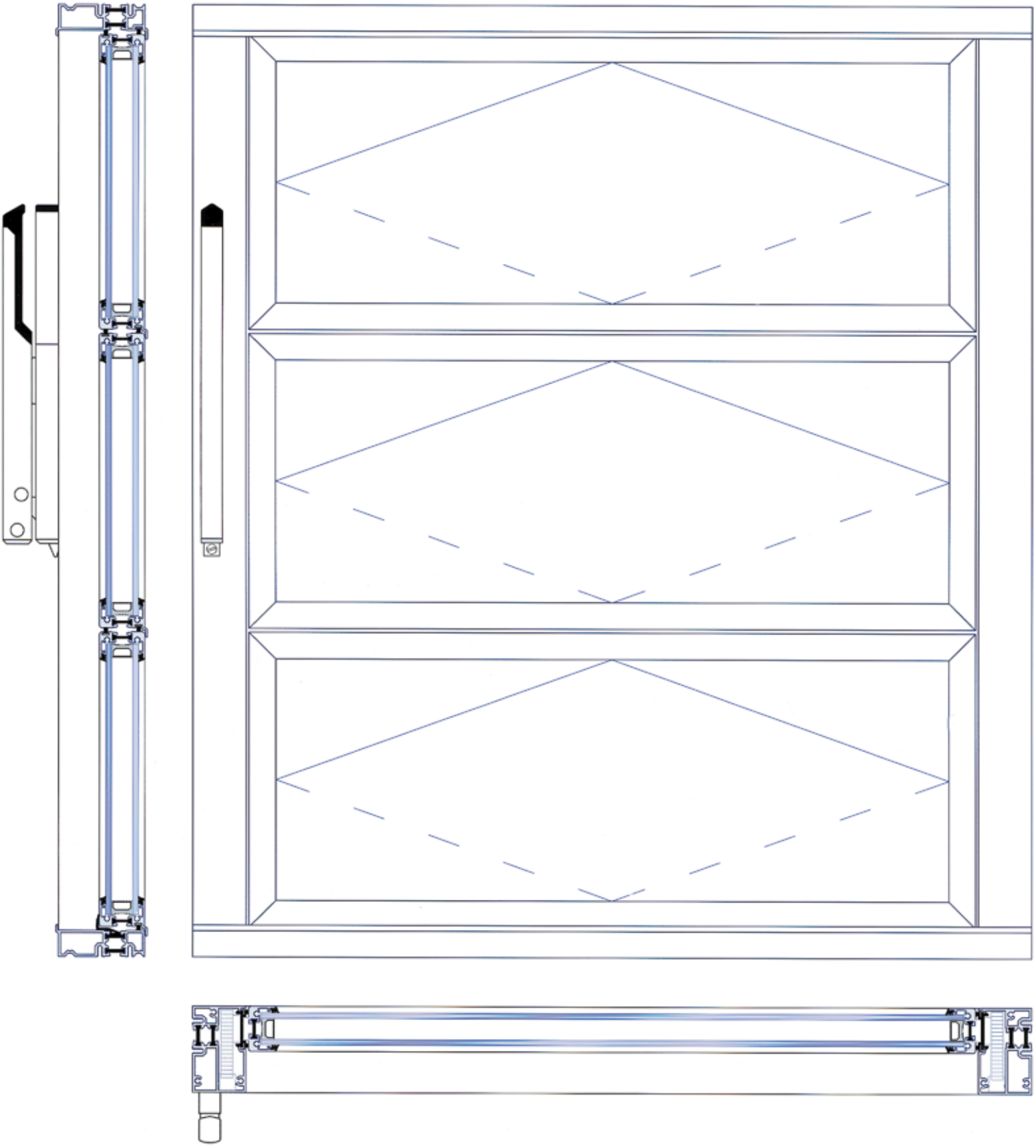
Above: Volkswagen Arena, Wolfsburg
Contractor: BSS Metallbau-Schiffsausbau GMBH & Co. KG, Lemgo

Above: Pathology Freiburg
Contractor: Fensterbau Anthonj GmbH, Rheingau

Above: A-R-S Vertrieb Neu Anspach
Architect: Hartmann Planung GmbH, Hanau
Contractor: Sommer Fassadensysteme-Stahlbau-Sicherheitstechnik GmbH & Co. KG, Döhlau

Illustrations of
Fieger Louvre Windows

Cross-sections and Elevation



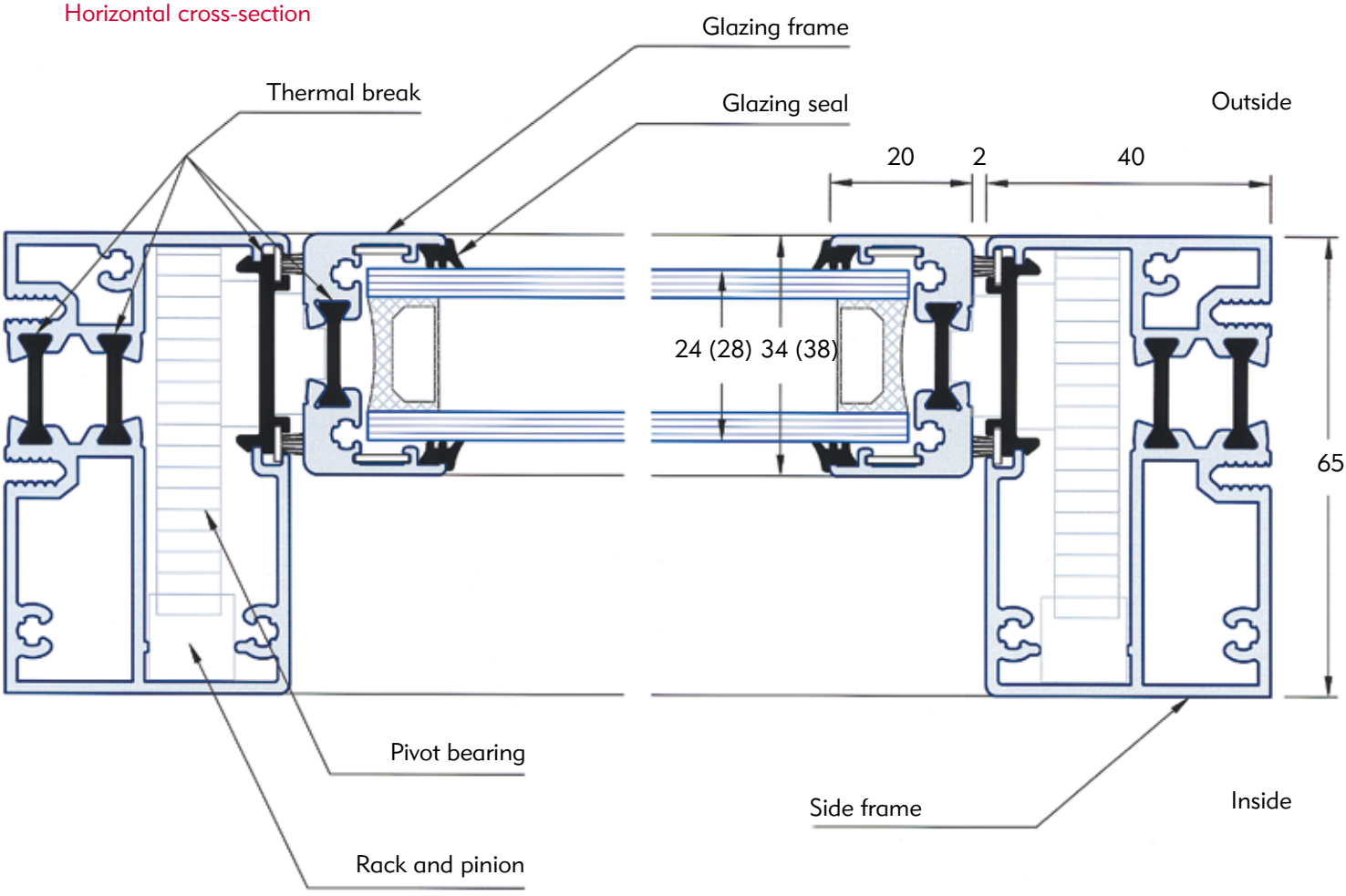
Scale = 1:4

Above: Nurses' Residence, Munich-Grünwald
Architect: BMBW München Architekten BDA + Partner
Contractor: Schneider GmbH & Co. KG, Stimpfach

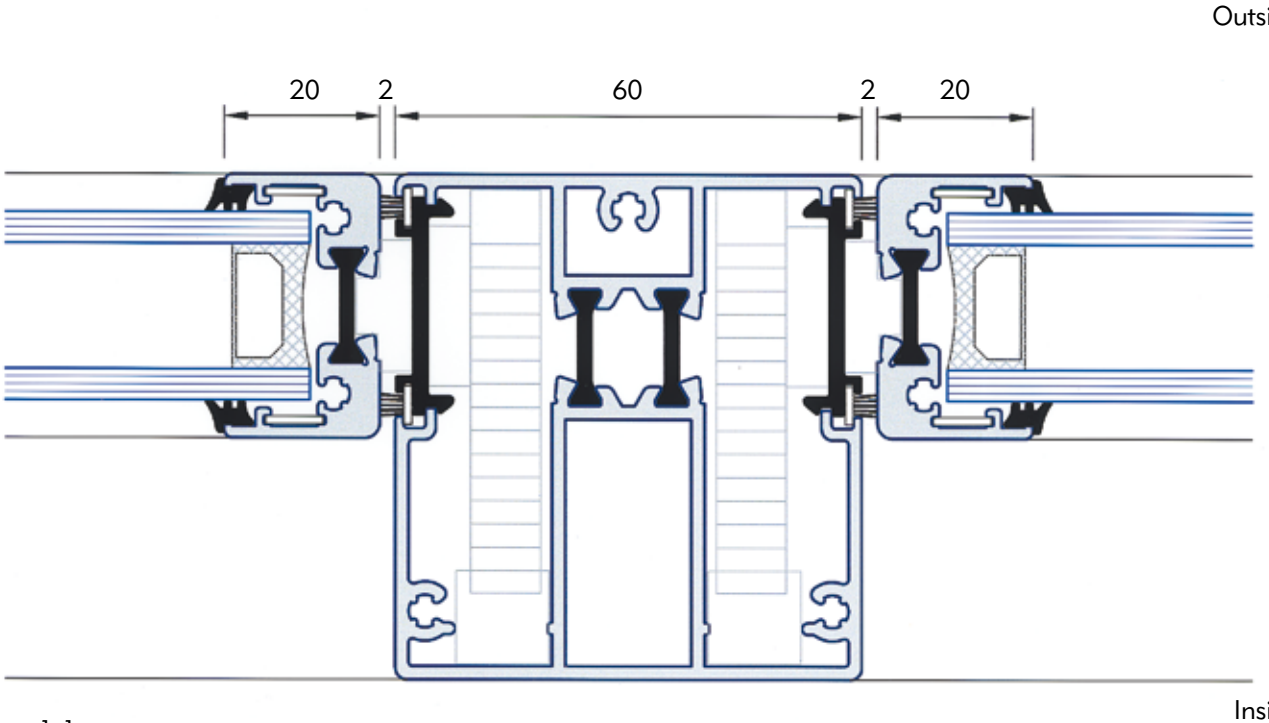
Above: Spreepalais Berlin
Architect: NHT & Partner GbR, Frankfurt
Contractor: High Tech Metallbau GmbH, Berlin

Above: Ticona, Kelsterbach
Architect: Planungsbüro Numrich + Albrecht GmbH, Berlin
Contractor: Trumpf Metallbau GmbH

Horizontal cross-section



Centre mullion (if needed)



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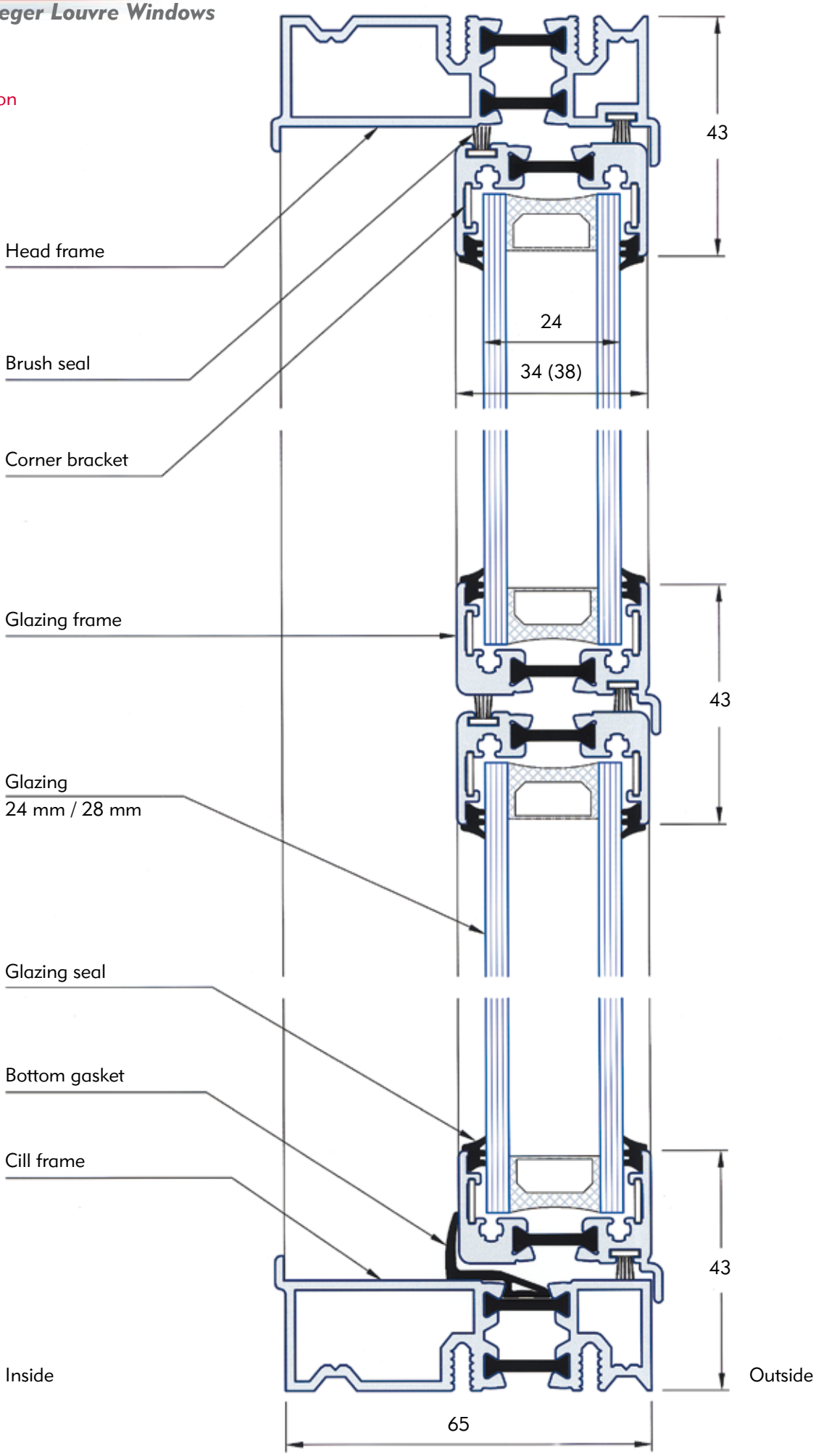
Vertical cross-section



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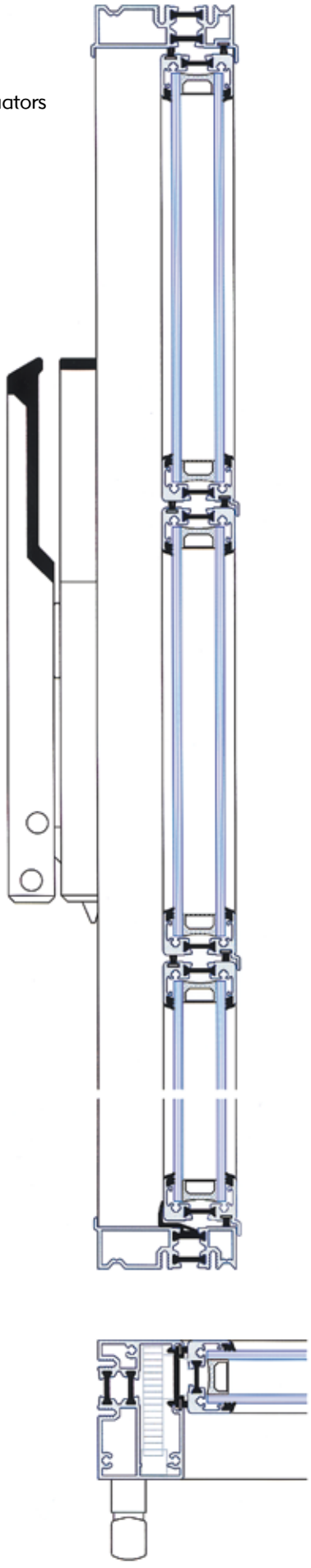
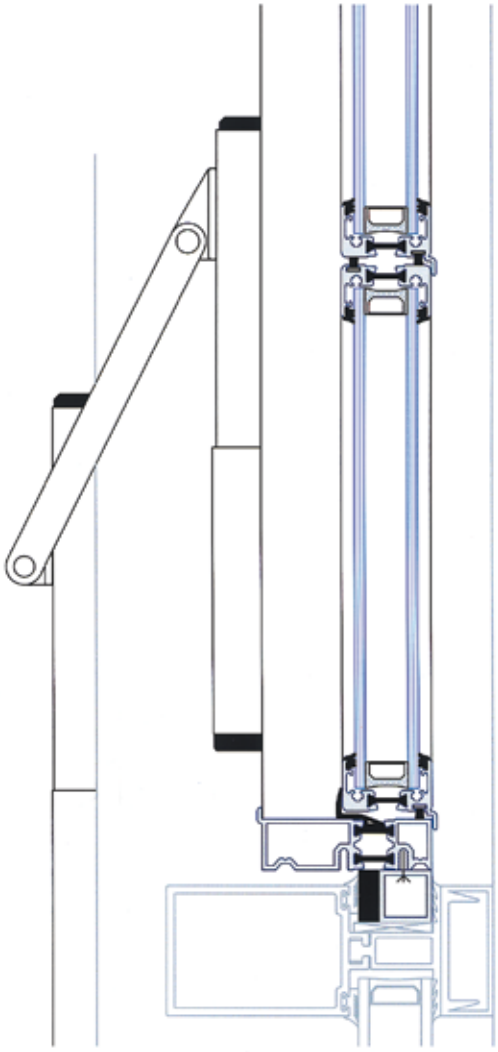
Drive options

Examples of available actuators

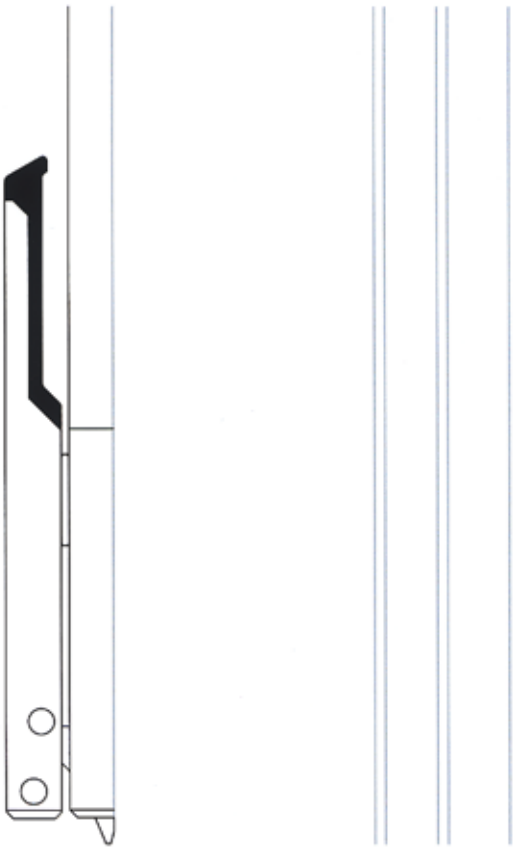
Hand lever



Traction rod
with cover



Hand lever



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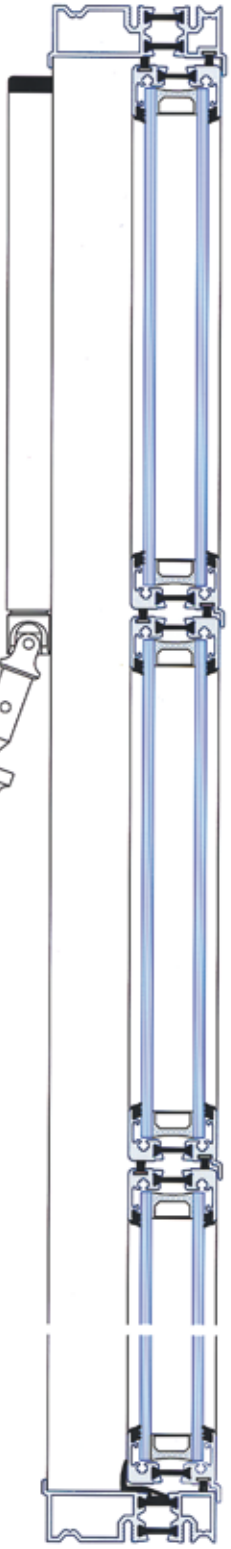
Above: Nursery Augsburg

Above: Conservatory

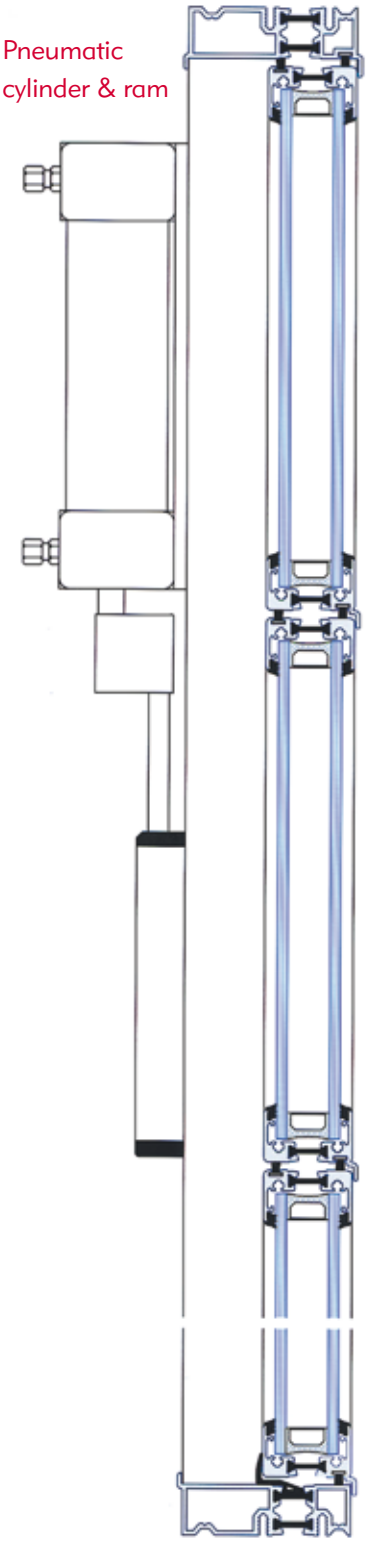
Above: Altötting
Contractor: Delta Immo Tec

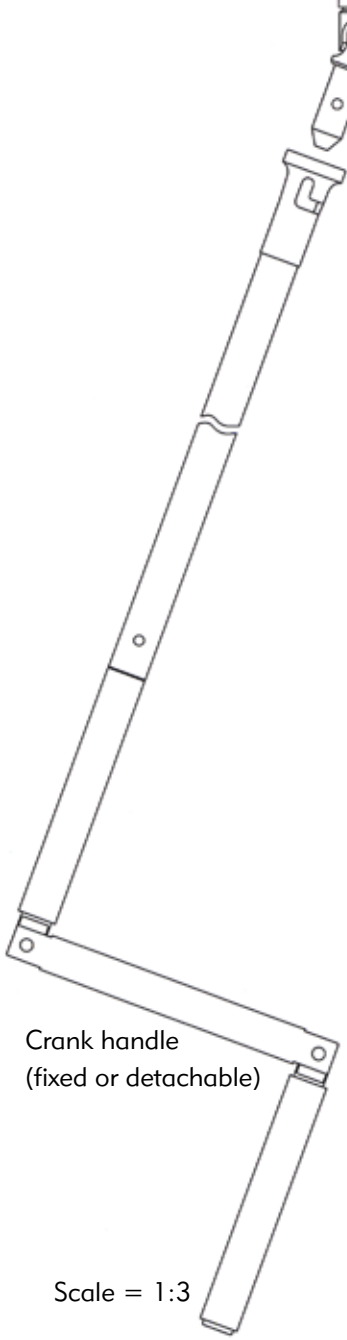
Gear mechanism



Electric drive

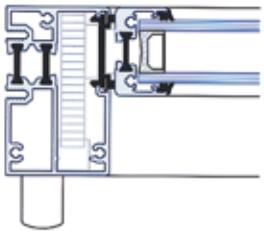
Pneumatic cylinder & ram

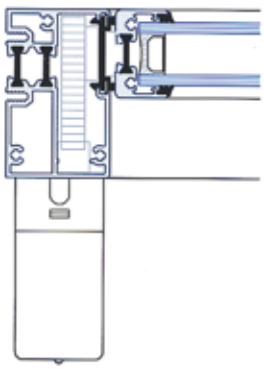


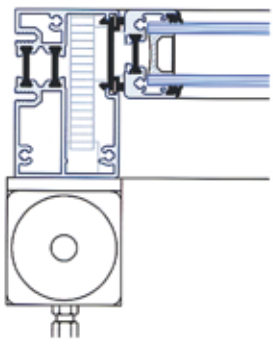


Crank handle
(fixed or detachable)

Scale = 1:3

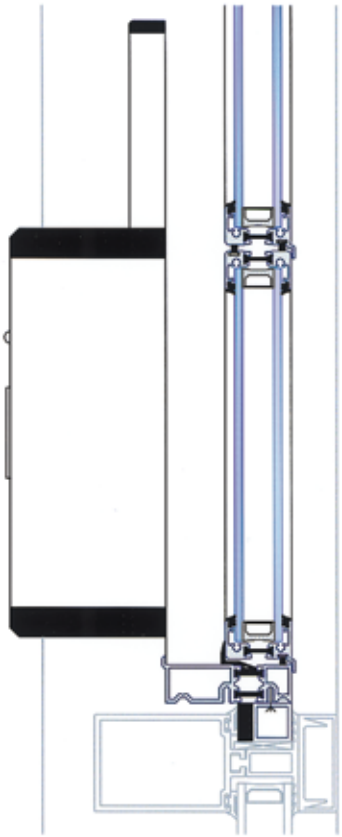


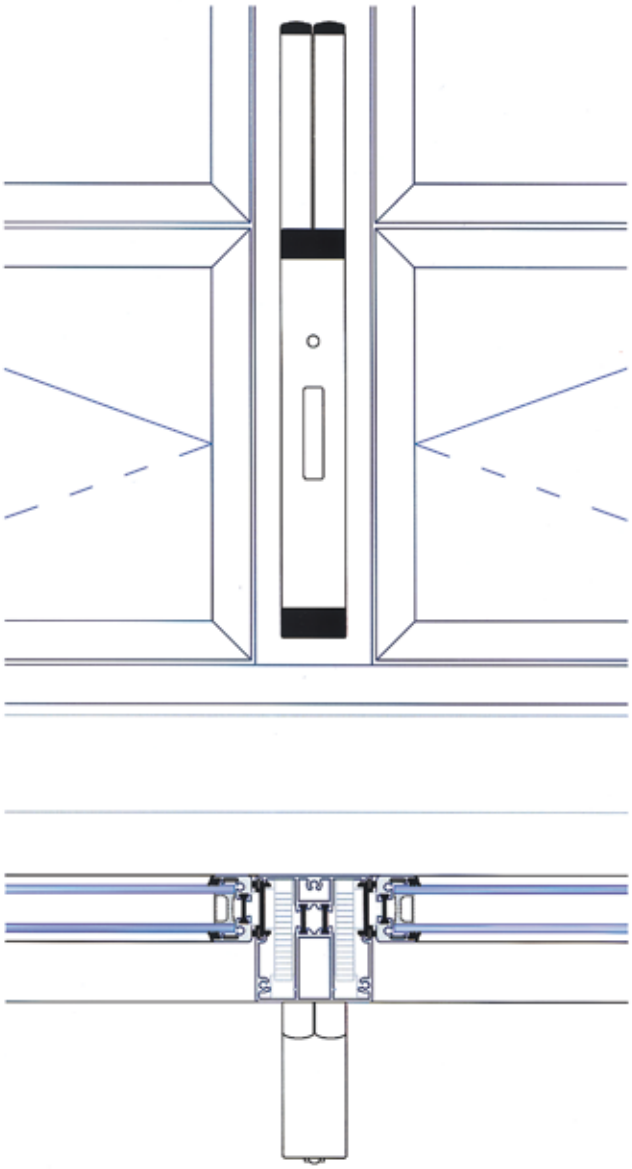




Above: Airport Münster-Osnabrück
Architect: Planungsgemeinschaft Schulze-Wörmann-Spiekermann, Ostbevern
Contractor: Feldhaus Fenster + Fassaden GmbH & Co., Emsdetten
Scheffer Fassadentechnik GmbH & Co. KG, Sassenberg

Drive options



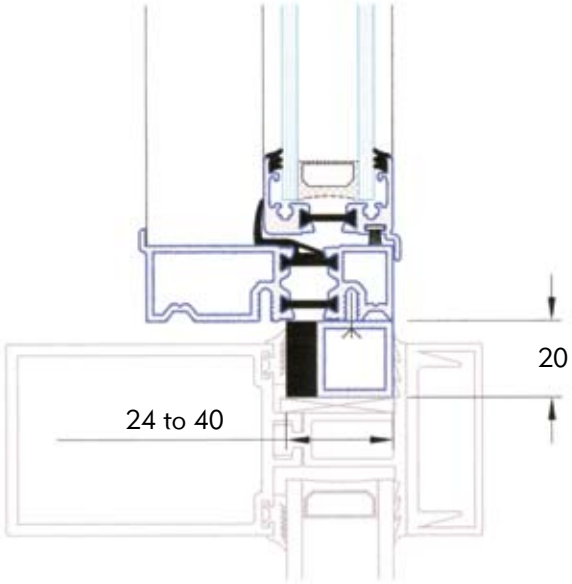


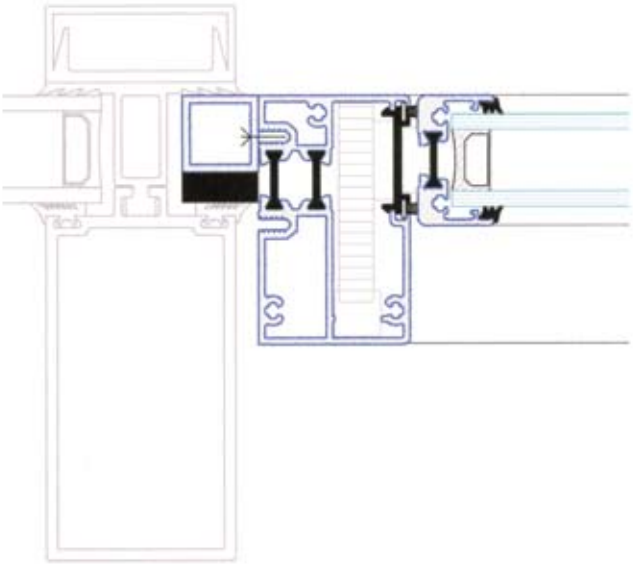
Motor drive for a double unit.

Scale = 1:4

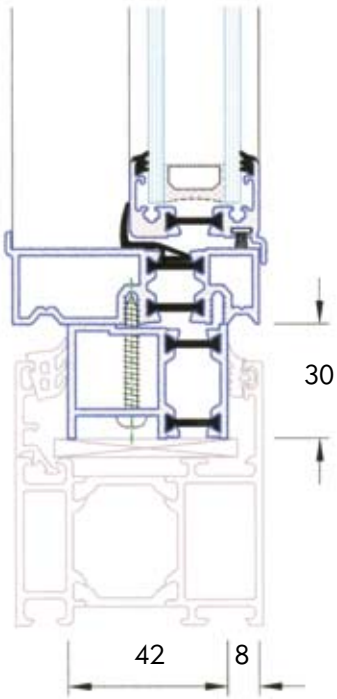
Fieger Louvre Windows
- always pre-assembled and ready for installation

Installation into curtain-walling system:
Standard adaptor: aluminium square section
20 x 20 mm in the same colour as window + neoprene insulation
(available for all mounting thicknesses from 24 to 40 mm)





Installation in window frame and other glazing systems
Adaptor profile 30 x 42 mm
(also available in 30 x 44 and 30 x 48)



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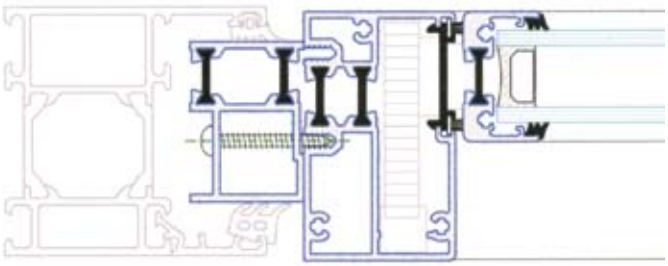
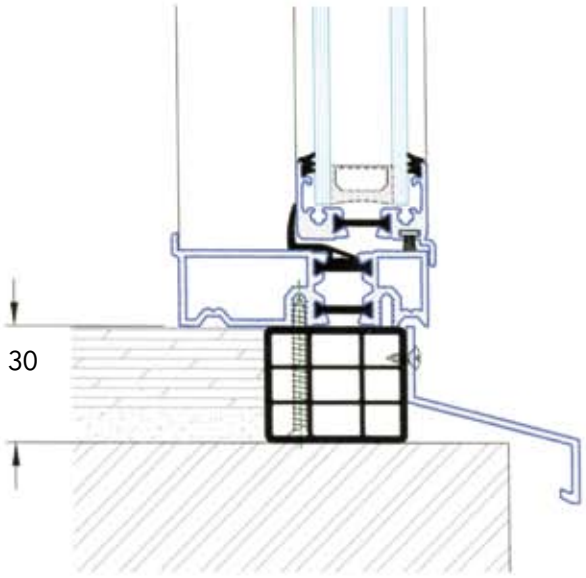


Above: Apart Hirschberg
Contractor: Goldbeck Bau GmbH

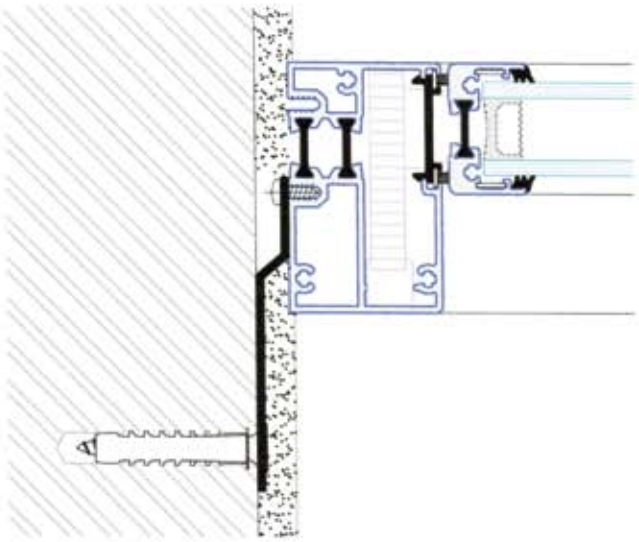
Below: Festo AG Esslingen
Architect: Architekturbüro Jaschek, Stuttgart
Contractor: Helmut Fischer GmbH, Talheim

Application

Installation into masonry

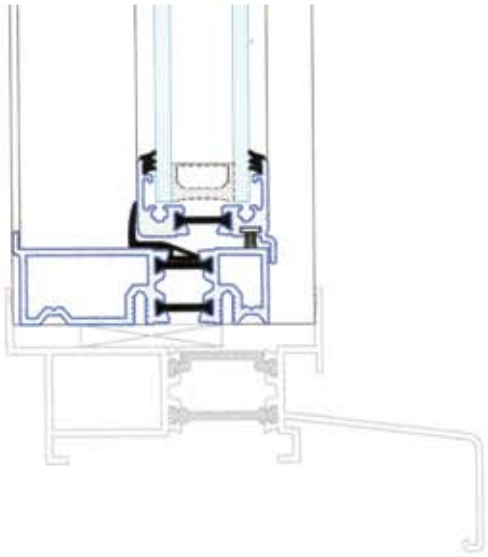


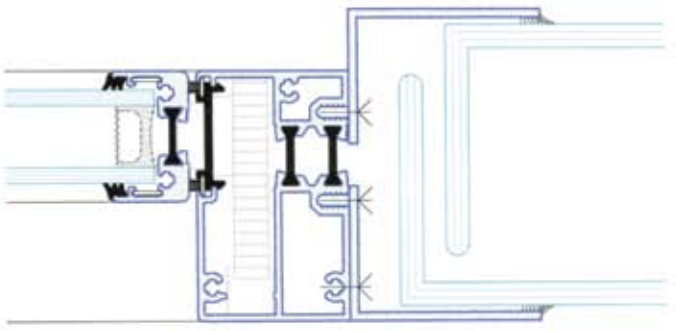
Window cill connector profile 30 x 37
made of white plastic



Assembly with masonry clip

Installation into a Profilit system





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Suggested text for a tender:

Fieger Louvre Windows – FLW 24 and FLW 28 Systems

Thermally broken aluminium frames. Flush-fitting frame and louvres on the outside. Frame depth is 65 mm, visible frame width is 40 mm vertically and 20 mm horizontally. Visible width of glazing frame is 20 mm. Louvres are fully adjustable by means of a maintenance free rack and pinion drive. Mechanical parts are concealed. Units are glazed, adjusted, tested for function and ready for installation.

Items:

Frame dimensions: width height

Colour: (optional)

Anodised E6-EV1

Powder-coated in RAL colour, or specified colour

Number of louvres: (optional)

Double-glazing depth:
24 mm 28 mm

Curtain-walling adaptor

Operation: (optional)

Hand lever – pre-assembled on side of unit (location optional)
Gear mechanism with crank handle – pre-assembled on side of unit (location optional)
Electric drive 230 V – pre-assembled on side of unit (location optional)
Electric drive 24 V – pre-assembled on side of unit (location optional)
Pneumatic cylinder – pre-assembled on side of unit (location optional)

Accessories: (optional)

Centre mullion with coupled drive
(recommended for louvres wider than 1800 mm)
Continuous adaptor suitable for application
Stainless steel cross bars for additional safety and security

Fieger Ltd.
Tel.: 0044 (0) 1409 261 883
Fax: 0044 (0) 1409 261 884
E-mail: bernt@louvrewindow.co.uk
Web: www.louvrewindow.co.uk

Fieger SmoTec Louvre Windows – FLW SmoTec

Certified in accordance with EN 12101-2.
For natural smoke and heat exhaust ventilation Systems, NSHEVs.

In addition to general ventilation applications we can also supply units for specialist smoke control use. The new SmoTec System has been fully tested and certified to EN 12101-2.

System FLW SmoTec
with electric motor 24V Model STG Beikirch FLA 1200

Dimensions: (L x W x D) 393 x 33 x 35 mm
Shear force: approx. 1200 N
Power consumption: approx. 0.75 A
Housing: RAL 9006
(other colours avail. on request)

System FLW SmoTec
with electric motor 24V Model GU Eltral S 24 LAM

Dimensions: (L x W x D) 210 x 36 x 75 mm
Shear force: approx. 1200 N
Power consumption: approx. 0.7 A
Housing: anodised
(other colours avail. on request)

System FLW SmoTec
with electric motor 24V Model D + H LDF 100/60

Dimensions: (L x W x D) 425 x 26 x 25 mm
Shear force: approx. 800 N
Power consumption: approx. 0.85 A
Housing: stainless steel
(other colours avail. on request)

System FLW SmoTec
with electric motor 24V Model WSS 6000

Dimensions: (L x W x D) 195 x 34 x 70 mm
Shear force: approx. 1200 N
Power consumption: approx. 0.65 A
Housing: anodised (other colours avail. on request)

Tests covering a broad range of criteria were carried out by the Institute of Materials Testing in North-Rhine-Westphalia and those of the Institute of Industrial Aerodynamics in Aachen. This included testing the performance of the louvre windows and their structural integrity in response to fire, as well as determining the aerodynamic ventilation characteristics for units of different sizes.

The test results with different sizes, systems and four different drives enable our customers to choose from an exceptionally wide range of NSHEV`s for their required application.

Naturally, the tried-and-tested qualities of our FLW louvre windows remain unchanged. With the rack and pinion mechanism only a low stroke is required to completely open the units. As a result, our units provide the maximum ventilation free area in the shortest possible time. A perfect synthesis of visual and functional features, combined with the safety qualities of a certified system.

As an additional service, we can quote you for commissioning your SmoTec louvre windows. Maintenance contracts for routine inspections of the installations are available at all times.

Suggested text for a tender:

Fieger Louvre Windows – FLW System – SmoTec (NSHEV)

Certified according to EN 12101-2.

Thermally broken aluminium frames. Flush-fitting frame and louvres on the outside. Frame depth is 65 mm, visible frame width is 40 mm vertically and 20 mm horizontally. Visible width of glazing frame is 20 mm. Louvres are fully adjustable by means of a maintenance free rack and pinion drive. Mechanical parts are concealed. Units are glazed, adjusted, tested for function and ready for installation.

Items:

Frame dimensions: width height

Colour: (optional)

Anodised E6-EV1

Powder-coated in RAL colour, or specified colour

Number of louvres: (optional)

Double-glazing depth:

24 mm 28 mm

Curtain-walling adaptor

Operation with electric drive 24 V system as NSHEV:

- ☐ D + H type LDF 100/60
- ☐ GU Eltral S 24 LAM
- ☐ STG Beikirch FLA 1200
- ☐ WSS type 6000 (Schlechtendahl)

Service:

- ☐ Commissioning requested
- ☐ Offer for maintenance contract requested:

Accessories: (optional)

Centre mullion with coupled drive (recommended for units which exceed 1800 mm)

Continuous adaptor suitable for application

Stainless steel cross bars for additional safety and security

Fieger Ltd.
Tel.: 0044 (0) 1409 261 883
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E-mail: bernt@louvrewindow.co.uk
Web: www.louvrewindow.co.uk

Above: Civil Justice Centre, Manchester, England
Contractor: Josef Gartner GmbH, Gundelfingen

For this project the architects required a special solution which we realized with the louvre windows depicted above. We developed profiles with an extremely narrow width specially for this project, the elements of which provide for a regular air exchange in between the strucural glazing facade which was put up in front of the original facade. The louvre windows were also engineered so as to be hardly distinguishable from the rest of the glass facade.

Above: A special solution to prevent break-ins and falling – the addition of stainless steel crossbars which do not impair the functionality of the window.

A clever solution for two problems.

The construction characteristics of louvre windows make them an effective obstacle for burglars. The stainless steel crossbars shown above further enhance this deterrent without affecting the functionality of the louvre windows in any way. At the same time the bars provide a safeguard against fall hazards.

A perfect solution in every respect.

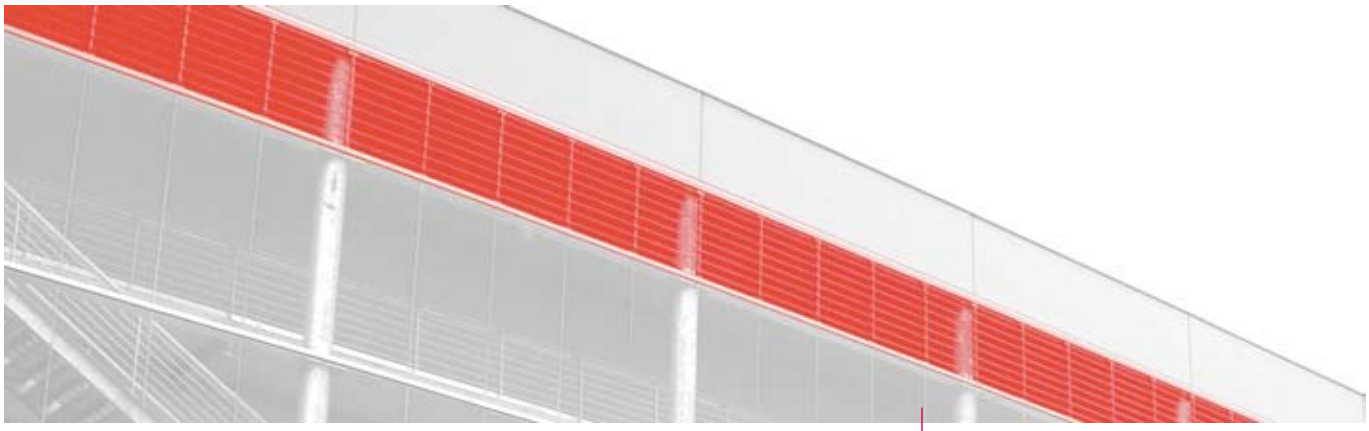
In cooperation with our supplier, we developed a special hand lever for a new school building. It reduces the risk of injuries resulting from the lever in contrast to conventional levers. The length of the lever has been reduced by adding a handle with a 90 degree angle. There is a round plastic knob at the end of the handle.

Above: "24 Hour Library" Karlsruhe
Contractor: Rupert App GmbH & Co., Leutkirch

For the "24 Hour Library" project in Karlsruhe we developed a special solution – in effect a competely new louvre window – for the outer facade of the building. The single elements consisting of three parts with a total size of 4.8 x 2.9 m were equipped with cascading "all glass" louvres made of laminated safety glass/ tempered glass. This creates a completely flush, transparent surface when the windows are closed.

The actuators are concealed in the frame. In addition to its extraordinary appearance, this louvre window provides ventilation, sound-proofing, sun screening and thermal protection. In the event of fire, the units provide an effective air supply for the NSHEV installation.

Above: The angled hand lever significantly reduces the risk of injury in contrast to conventional hand levers.



Above: ADAC Düsseldorf
Contractor: F.T.F. Sander GmbH, Büren

Fieger Louvre Windows – FGL System

A new system from Fieger Louvre Windows – Fieger "all glass" Louvre Windows. Our goal in developing this system was to reinvent the conventional louvre window and give it a "new face". In the design process we placed great emphasis on harmonising the well-proven elements of our FLW System with the newly developed components. The result is that we can now offer you a system which combines the functional advantages and the high quality of Fieger louvre windows with the optical advantages of a frameless louvre window.

Applications

Installed in double-skin facades, louvre windows are the ideal solution for modern ventilation designs, reducing energy requirements in winter, supplying fresh air in summer and ensuring a comfortable atmosphere at all times. Smoke control is frequently a key issue in modern buildings and controllable ventilation is the preferred approach. A maximum ventilation free area combined with the short time required to open them make Fieger louvre windows particularly effective for the removal of smoke and gases in the event of fire.

Appearance

The individual, frameless louvres in the FGL system create a homogeneous glass surface which sets benchmarks in respect of transparency and light transmission. The window frame is set flush with the "all glass" louvres which blend harmoniously into the appearance of the facade.

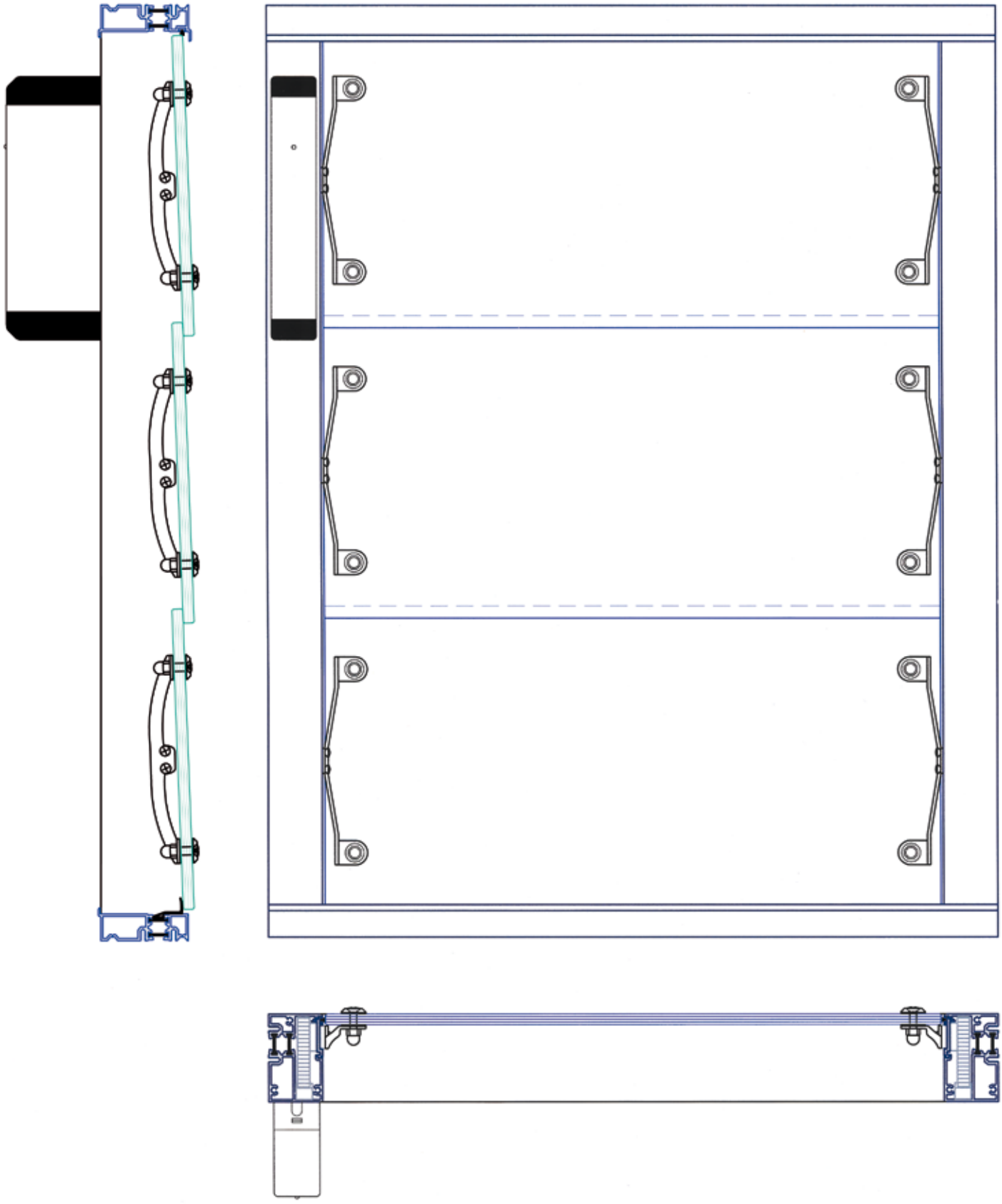
Drives and mechanics

The centre pivoted louvres rotate horizontally and are simultaneously controlled by an actuator. The integrated rack and pinion drive provides direct linear power transmission to the pivot bearings, ensuring the necessary synchronisation of the louvres. Fieger louvre windows can be operated with all conventional actuators, e.g. an electric motor, a hand lever or an actuator with folding crank handle to mention just a few.

>For further product information please refer to page 23.

Illustrations of Fieger Louvre Windows

Cross-sections and Elevation



Scale = 1:4

Design

Fieger louvre windows are manufactured according to specification. The number of louvres in any window can be changed based on an optimum louvre height between 170 mm and 300 mm. They can be glazed with single glazed safety glass or laminated safety glass. Each louvre has 2 holes on each side to fix the stainless steel brackets. Overlapping louvres are standard for the FLG system.

On request, alternatives are available, e.g. interlocking louvres with stepped-edge LSG made of tempered glass. Our FLG system is also available with fixed louvres.

Feasible designs depend directly on the location in which they will be installed and the related demands on the performance of the louvre windows and glazing.

Fieger louvre windows can be anodised, powder-coated or spray-painted in all standard RAL colours. Special colours are also available.

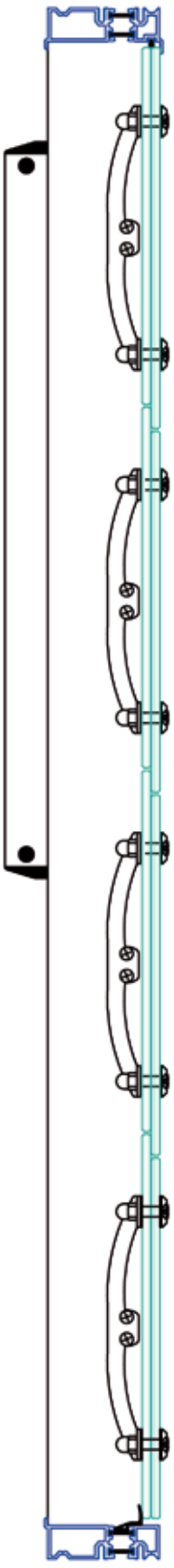
Delivery and Installation

Fieger louvre windows are normally delivered ready for installation. The actuator is installed on the window and has been adjusted and tested. This enables quick and problem-free installation. Adaptors suitable for the installation situation and of the correct thickness are available.

Below: "24 Hour Library", Karlsruhe
Contractor: Rupert App GmbH & Co., Leutkirch

Vertical cross section

Glazing with interlocking louvres



Scale = 1:4

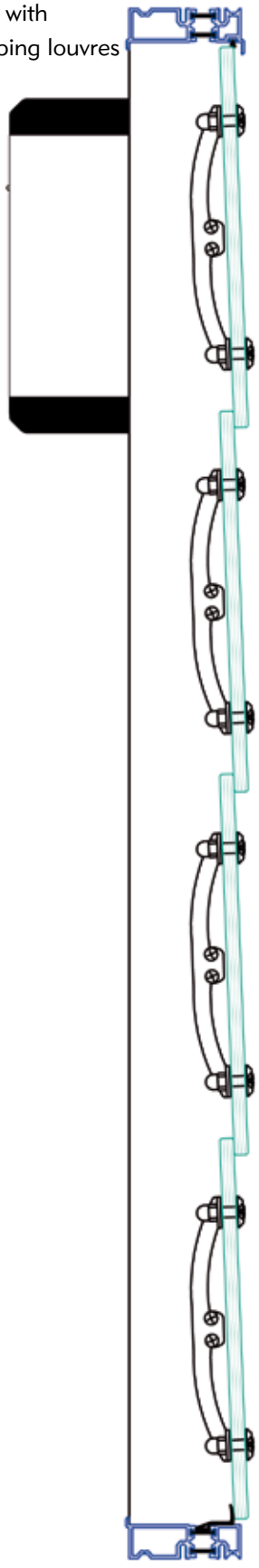
Above: Each louvre has 2 holes on each side to fix the stainless steel brackets.

Above: Fieger louvre windows can be operated with all conventional drives, e.g. the electric motor shown above.

Above: The rack and pinion drive integrated in the window frame ensures smooth and synchronized operation.

Vertical cross section

Glazing with overlapping louvres



Scale = 1:4

Suggested text for a tender:

Fieger Louvre Windows – FGL System

Thermally broken aluminium frames. Flush-fitting frame and louvres on the outside. Frame depth is 65 mm, visible frame width is 40 mm vertically and 20 mm horizontally. Louvres are fully adjustable by means of a maintenance free rack and pinion drive. Mechanical parts are concealed. Units are glazed, adjusted, tested for function and ready for installation. Stainless steel brackets are fixed to the louvres through holes on each side.

Units:

Frame dimensions: width height

Colour: (optional)

Anodised E6-EV1

Powder-coated in RAL colour or specified colour

Number of louvres: (optional)

Glazed with single glazed safety glass:

8 mm 10 mm

Louvres with stepped edge glass (LSG)

Operation:

Hand lever – pre-assembled on side of unit (location optional)

Gear mech. with crank handle – pre-assembled on side of unit (location optional)

Electric drive 230 V – pre-assembled on side of unit (location optional)

Electric drive 24 V – pre-assembled on side of unit (location optional)

Pneumatic cylinder – pre-assembled on side of unit (location optional)

Accessories: (optional)

Centre mullion with coupled drive
(recommended for louvres more than 1500 mm wide)

Curtain-walling adaptor

Fieger Ltd.
Tel.: 0044 (0) 1409 261 883
Fax: 0044 (0) 1409 261 884
E-mail: bernt@louvrewindow.co.uk
Web: www.louvrewindow.co.uk

Above: Sydney
Contractor: Fieger Louvre Australia

Below: Fieger Lamellenfenster GmbH, Germany

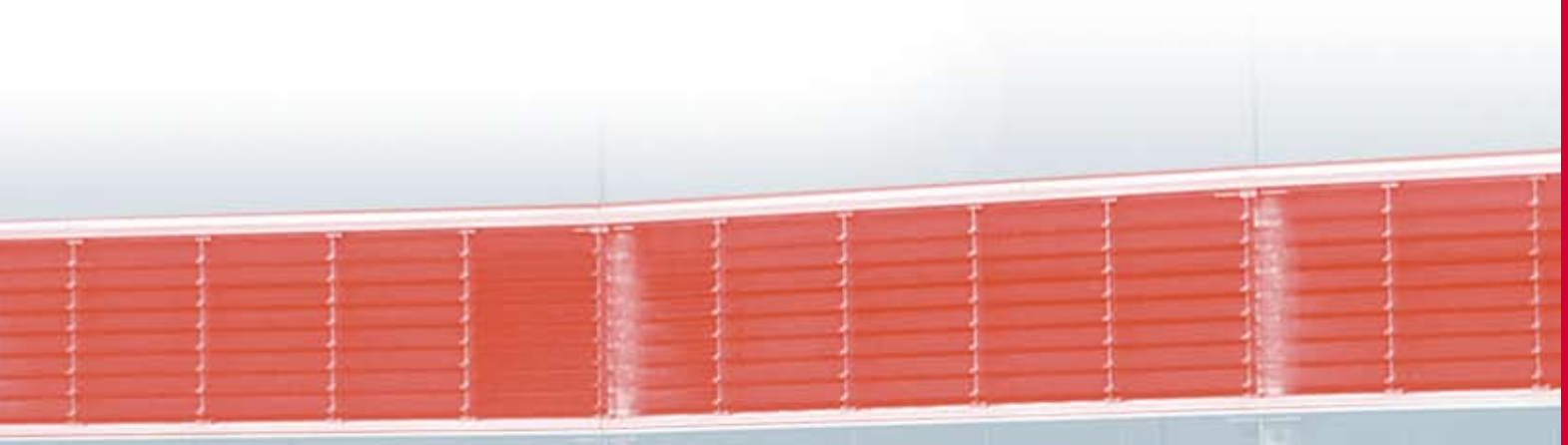
www.louvrewindow.co.uk

The Fieger Louvre Windows webpage offers visitors a wide variety of further information and, in particular, numerous downloads. The window drawings depicted there, as well as the tender and enquiry forms can be downloaded directly to your system.

You can also use the webpage for enquiries. There is an electronic enquiry form which indicates the details which are necessary for an estimate or for processing your order directly.

www.louvrewindow.co.uk
More information, downloads of drawings, etc. etc. etc.

FIEGER
Louvre Windows



FLW
FIEGER Louvre Windows Thermally broken

FLW SmoTec
FIEGER Louvre Windows NSHEV certified

FGL
FIEGER ALL GLASS Louvre Windows

The next generation

Fieger Lamellenfenster GmbH
Auf der Aue 10
D-69488 Birkenau i. Odw.
Tel.: + 49 (0) 62 01 / 844 34 -0
Fax: + 49 (0) 62 01 / 844 34 -19
E-mail: info@fieger-lamellenfenster.de
www.fieger-lamellenfenster.de