



LOUVRE . VENT . TECHNOLOGY .

A low-angle, upward-looking photograph of a modern building's facade. The facade is composed of numerous vertical, metallic-looking panels that create a strong sense of height and architectural rhythm. The sky is visible through the gaps between the panels, showing a blue sky with scattered white clouds. The lighting suggests a bright, sunny day, with some panels reflecting the light more than others.

PRODUCTS AND TECHNOLOGY

For architects, designers and the curious.



Rheinpark-Shopping-Centre, Neuss, Germany



FIEGER STRIVES TO MAKE THINGS BETTER

Our focus is, of course, on louvre windows and their related technology. In this brochure, you'll find all the information you need about the product range and technology whether you're an architect, planner or other professional or someone who is just curious to know more.

FIEGER ALWAYS STRIVES TO IMPROVE

The questions we keep asking ourselves are also those which motivate us: How can we make our products better? How can we make our products more effective? How can we make our products more attractive?



FIEGER STRIVES TO MAKE BUILDINGS EXTRAORDINARY

The attraction of louvre windows is plain to see: they can be used in a wide variety of applications, such as natural ventilation, smoke & heat venting or controlled air conditioning. Further benefits include thermal performance, security and last, but not least, avoiding the mundane.

FIEGER STRIVES TO MAKE EVERYTHING COMPLETE

Our aim in producing this brochure has been to provide a source for all relevant information about our products, the vents, the accessories, such as the actuators and sensor technology, information about the installation of our products and much more. Compact, complete - typical of FIEGER !



FLW 24/28 FOR THAT EXTRA BIT OF FUNCTIONALITY

Flexibility is the keyword for our entry level FLW 24 model. Whether it's bespoke sizes, glazing specification or thermal performance, the FLW 24 comes with a range of advantages, which only louvre windows can provide.

FLW 24/28
is available with manual,
electric or pneumatic actuators.

As well as the examples illustrated
here, there are a range of applications
and fixing arrangements that can be
provided.





Louvre blade design:

Louvre frames have mitred corners with internal brackets and are screw-fixed. Louvre blades are centre-pivoted and close flush with the external vent frame.




Frame design:

Thermally broken aluminium extrusions. Frame sections are butted together and screw-fixed.

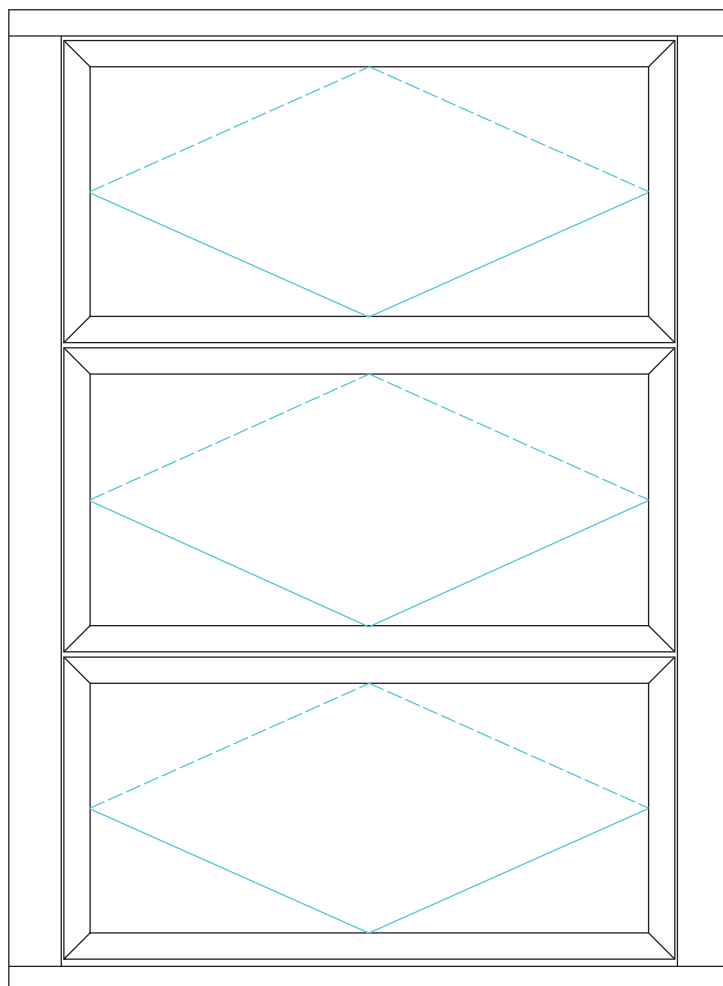
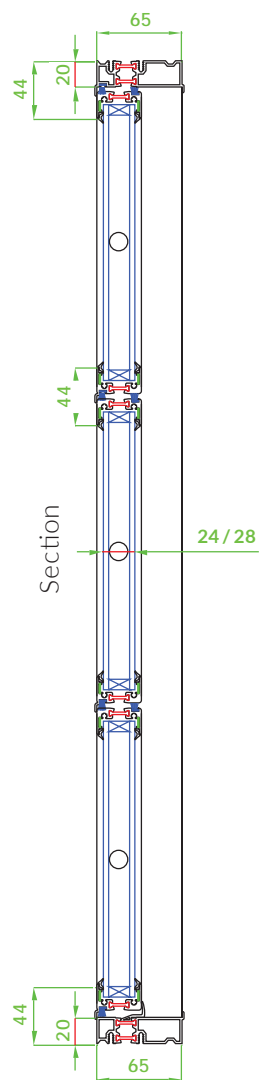


Glazing:

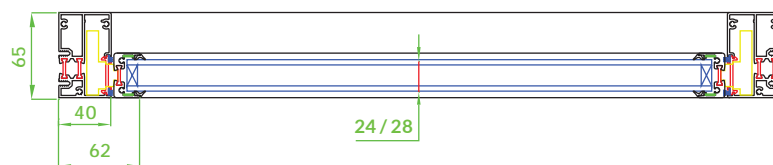
Double-glazed or insulated aluminium panel with a total thickness of 24-28 mm. Including EPDM gaskets.

SAFETY		TECHNICAL FEATURES		PROPERTIES	
Impact resistant in accordance with DIN 18032-3	yes	Visible frame width (louvres)	20 mm	Air permeability classification - EN 12207	Class 4
Fall protection in accordance with German TRAV Building Regulations Section A part 2	yes	Visible frame width (vent)	horizontal 20 mm vertical 40 mm centre mullion 60 mm	Watertightness classification - EN 12208	Class 4A/5A
Security in accordance with EN 1627:RC2	npd	Frame depth (louvres)	34 mm / 38 mm	Tested sound reduction (Rw)	up to 39 dB
NSHEV certified in accordance with EN 12101-2	yes 	Frame depth (vent)	65 mm	Thermal performance:	U-value up to 1.8 W/m²K with double glazing
Coefficient of discharge	Cv. Max. 0.61	Key dimensions			
Wind load classification	up to WL 3000	Max. frame width (without centre mullion)	2000 mm		
Resistance to heat classification	B 300-E	Louvre height	varies from 170 to 350 mm		
Reliability classification	Re 1000	Louvre technology (standard)	Concealed rack & pinion mechanism provides easy to use, maintenance free, smooth and synchronized operation of the louvre blades.		
Snow load classification	SL 0				
Low ambient temperature classification	T (-05)				

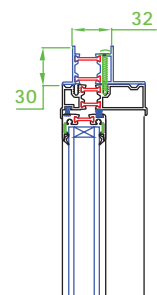
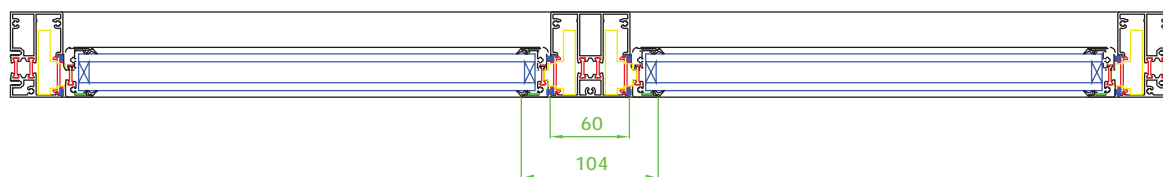




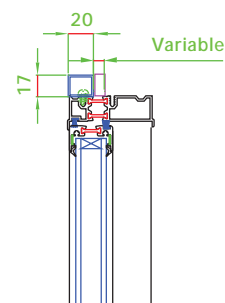
Plan view



Plan view double element



Adapter type B 30/32



Adapter type A 17/20

FLW 32 FOR THAT EXTRA BIT OF VERSATILITY

Louvre windows offer you numerous economical, ecological as well as aesthetic advantages. Last but not least, they offer you a maximum degree of individuality. This, in turn, allows you to give free rein to your creativity. A good example of this is the FLW 32 which sets new standards regarding quality, design and comfort.

FLW 32

is available with manual, electric or pneumatic actuators.

The FLW 32 is available with 17 x 32 mm or 25 x 32 mm integrated glazing adapters, as well as a range of other fixing adapters, which can be provided to suit most applications.





Louvre blade design:

Louvre frames have mitred corners with internal brackets and are screw-fixed. Louvre blades are centre-pivoted and close flush with the external vent frame.




Frame design:

Thermally broken aluminium extrusions. Frame sections have mitred corner with internal brackets and are press-formed.

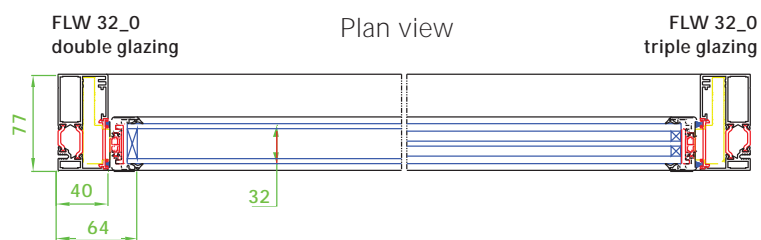
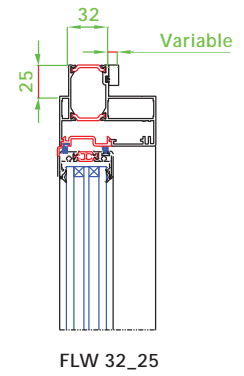
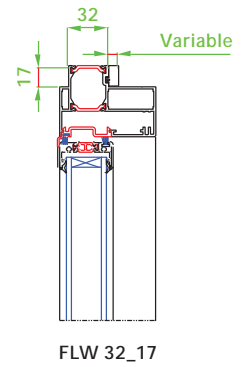
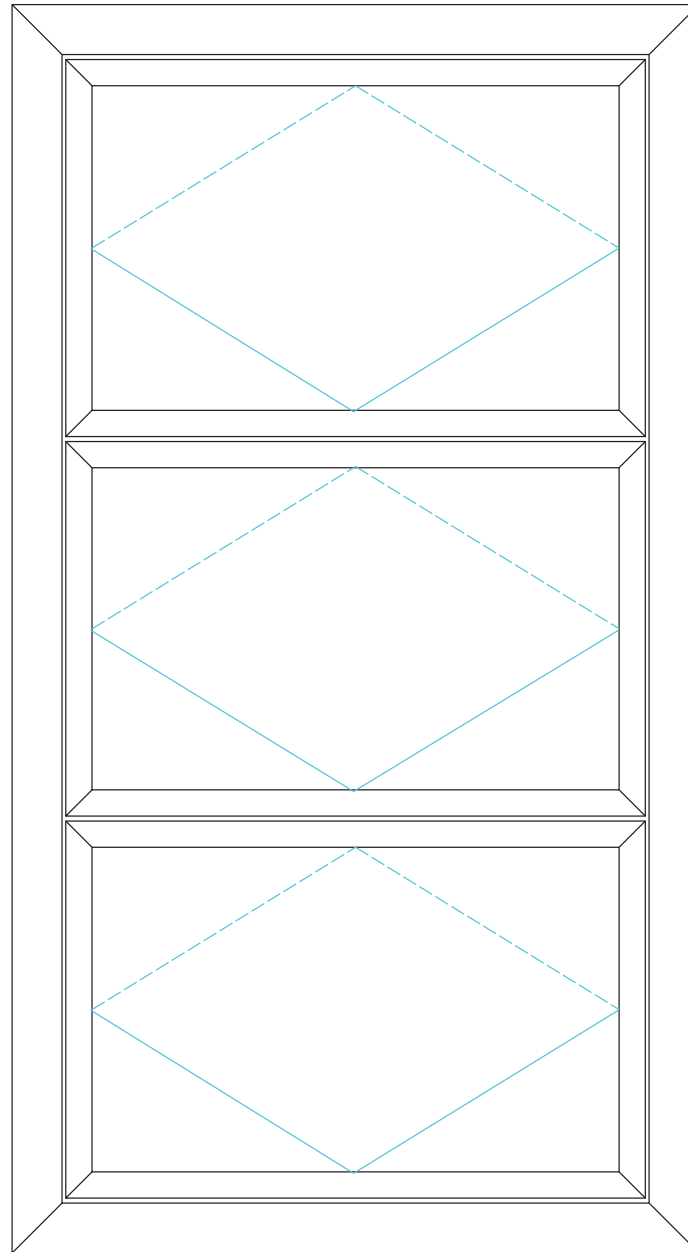
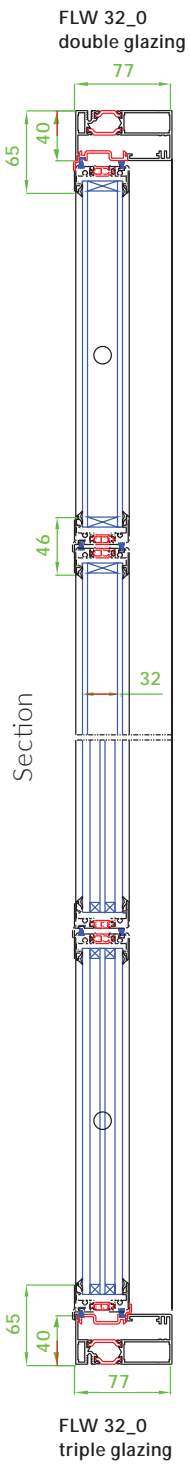


Glazing:

Double or triple-glazed or insulated aluminium panel with a total thickness of 28-32 mm. Including EPDM gaskets

SAFETY		TECHNICAL FEATURES		PROPERTIES	
Impact resistant in accordance with DIN 18032-3	yes	Visible frame width (louvres)	21 mm	Air permeability classification - EN 12207	Class 4
Fall protection in accordance with German TRAV Building Regulations Section A part 2	yes	Visible frame width (vent)	horizontal & vertical 40 mm	Watertightness classification - EN 12208	Class 5a
Security in accordance with EN 1627:RC2	npd	Frame depth (louvres)	49 mm	Tested sound reduction (Rw)	up to 40 dB
NSHEV certified in accordance with EN 12101-2	yes 	Frame depth (vent)	77 mm	Thermal performance:	U-value up to 1.1 W/m²K with triple glazing; up to 1.5 W/m²K with double glazing
Coefficient of discharge	Cv. Max. 0.57	Key dimensions			
Wind load classification	up to WL 3000	Max. frame width	2500 mm		
Resistance to heat classification	B 300-E	Louvre height	varies from 200 to 450 mm		
Reliability classification	Re 1000	Louvre technology (standard)	Concealed rack & pinion mechanism provides easy to use, maintenance free, smooth and synchronized operation of the louvre blades.		
Snow load classification	SL 0				
Low ambient temperature classification	T (-05)				





FLW 40 FOR THAT EXTRA BIT OF CLIMATE PROTECTION

Details always make a big difference. Visually the FLW 40 has a slightly deeper frame, but this of course means much better thermal insulation. Which is also why the FLW 40 provides double the value. On the one hand, it's architecturally good-looking and on the other it reduces energy costs.

FLW 40
is available with manual,
electric and pneumatic actuators.

The FLW 40 is available with
17 x 40 mm or 25 x 40 mm integrated
glazing adapters, as well as a
range of other fixing adapters,
which can be provided to suit
most applications.



Louvre blade design:

Louvre frames have mitred corners with internal brackets and are screw-fixed. Louvre blades are centre-pivoted and close flush with the external vent frame.




Frame design:

Thermally broken aluminium extrusions. Frame sections have mitred corner with internal brackets and are press-formed.

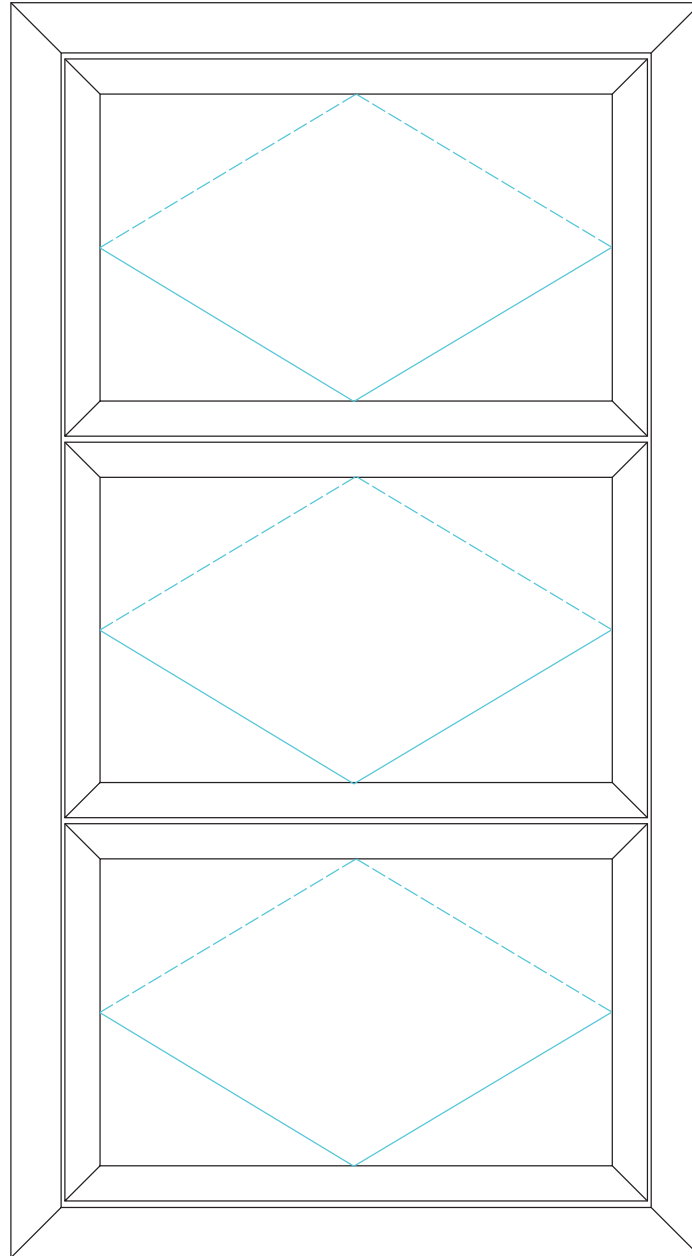
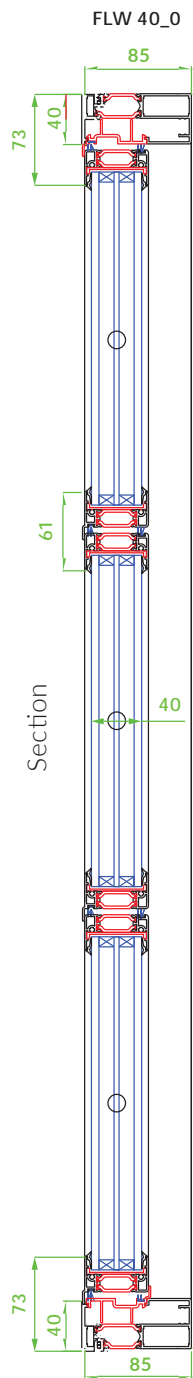


Glazing:

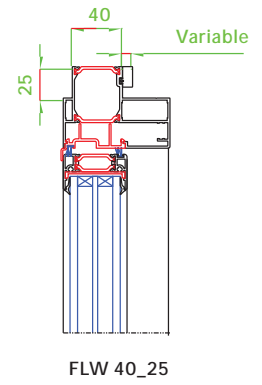
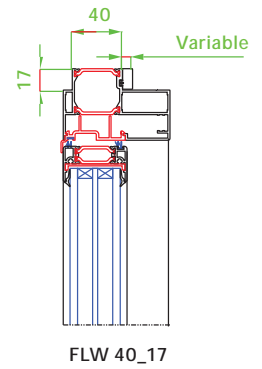
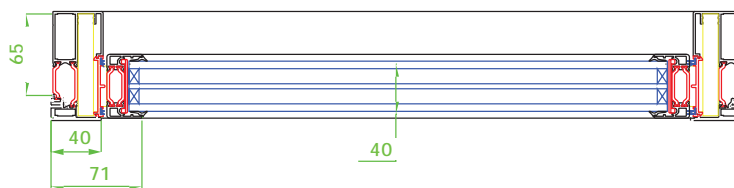
Triple-glazed or insulated aluminium panel with a total thickness of 36-40 mm. Including EPDM gaskets.

SAFETY		TECHNICAL FEATURES		PROPERTIES	
Impact resistant in accordance with DIN 18032-3	yes	Visible frame width (louvres)	28 mm	Air permeability classification - EN 12207	Class 4
Fall protection in accordance with German TRAV Building Regulations Section A part 2	yes	Visible frame width (vent)	horizontal & vertical 40 mm	Watertightness classification - EN 12208	up to Class 8A
Security in accordance with EN 1627:RC2	yes	Frame depth (louvres)	51 mm	Tested sound reduction (Rw)	up to 41 dB
NSHEV certified in accordance with EN 12101-2	yes 	Frame depth (vent)	85 mm	Thermal performance:	U-value up to 0.8 W/m²K with triple glazing
Coefficient of discharge	Cv. Max. 0.57	Key dimensions			
Wind load classification	up to WL 3000	Max. frame width	2500 mm		
Resistance to heat classification	B 300-E	Louvre height	varies from 250 to 500 mm		
Reliability classification	Re 1000	Louvre technology (standard)	Concealed rack & pinion mechanism provides easy to use, maintenance free, smooth and synchronized operation of the louvre blades.		
Snow load classification	SL 0				
Low ambient temperature classification	T (-05)				





Plan view



FLM PG AND FLM LG FOR THAT EXTRA BIT OF TRANSPARENCY

Having a clear view in life is something you can never get enough of – and with Fieger you have a choice. Our single-glazed FLM range offers you bolted (PG) or linear (LG) glazing brackets. In addition, the non-thermally broken frames are ideal as secondary facades, for internal applications as well as unheated spaces.



FLM PG/FLM LG
is available with manual,
electric or pneumatic actuators.

As well as the examples illustrated
here, there are a range of applications
and fixing arrangements that can be
provided.

Lohmayer Patio: Stepped single glazed louvres and bolted brackets acting as a windbreak on the patio.



Louvre blade design:

All louvres are single-glazed using toughened or laminated glass, secured by stainless steel glazing brackets. Bolted (PG type) or linear (LG type).



Frame design:


Non-thermally broken extruded aluminium
Frame extrusions butted together and screw-fixed



Glazing:

8-12 mm single glazing (toughened or laminated) in an overlapping or stepped arrangement.

SAFETY

NSHEV certified in accordance with EN 12101-2	yes 
Coefficient of discharge	Cv. Max. 0.6
Wind load classification	up to WL 2400
Resistance to heat classification	B 300-E
Reliability classification	Re 1000
Snow load classification	SL 0
Low ambient temperature classification	T (-05)

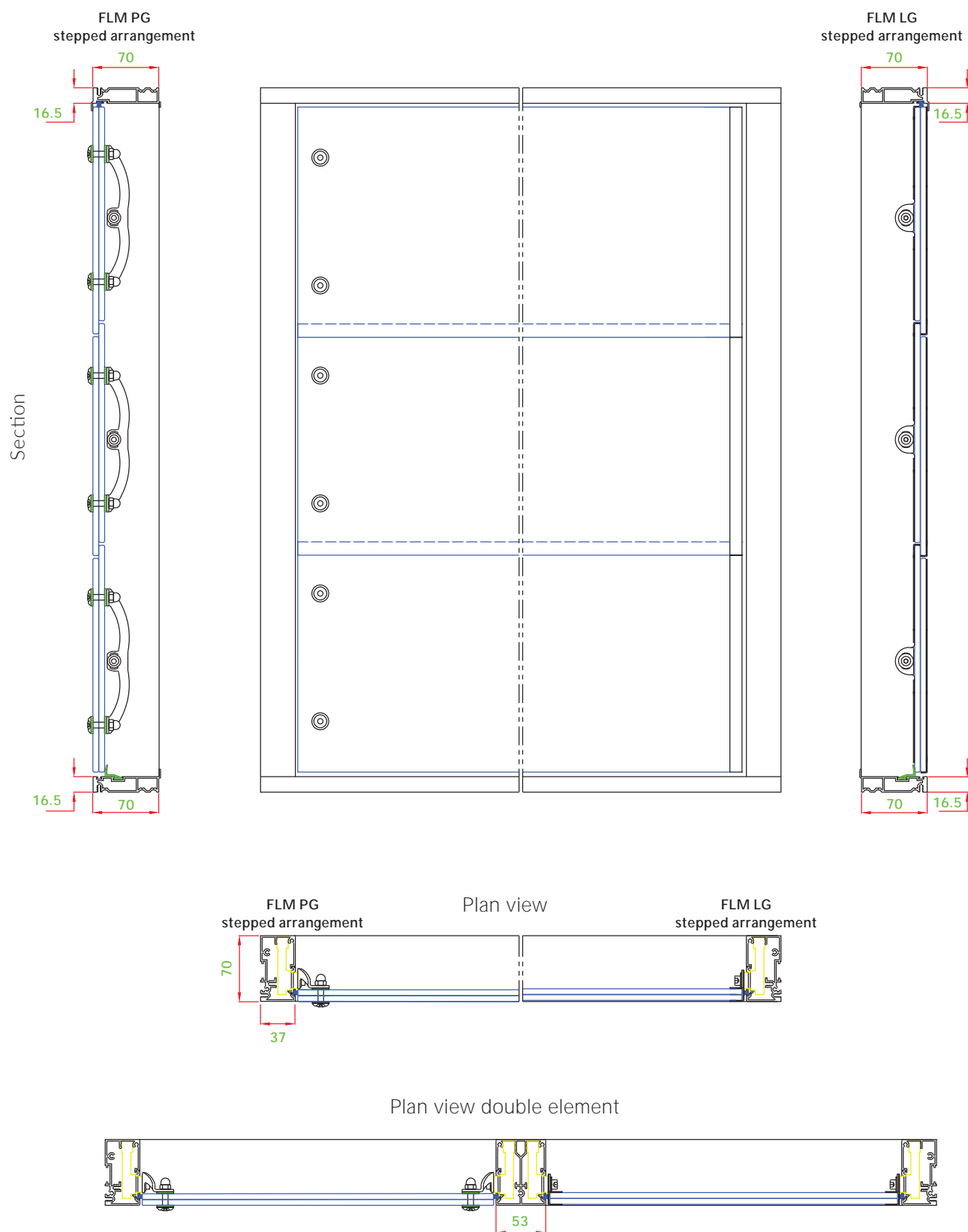
TECHNICAL FEATURES

Visible frame width (vent)	horizontal 17 mm vertical 37 mm centre mullion 53 mm
Frame depth (vent)	70 mm
Key dimensions	
Max. frame width (without centre mullion)	1600 mm
Louvre height	varies from 150 to 350 mm
Louvre technology (standard)	Concealed rack & pinion mechanism provides easy to use, maintenance free, smooth and synchronized operation of the louvre blades.

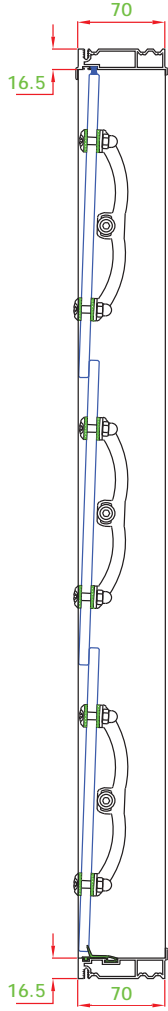
PROPERTIES

Air permeability classification - EN 12207	npd
Watertightness classification - EN 12208	npd
Tested sound reduction (Rw)	up to 25 dB
Thermal performance:	npd

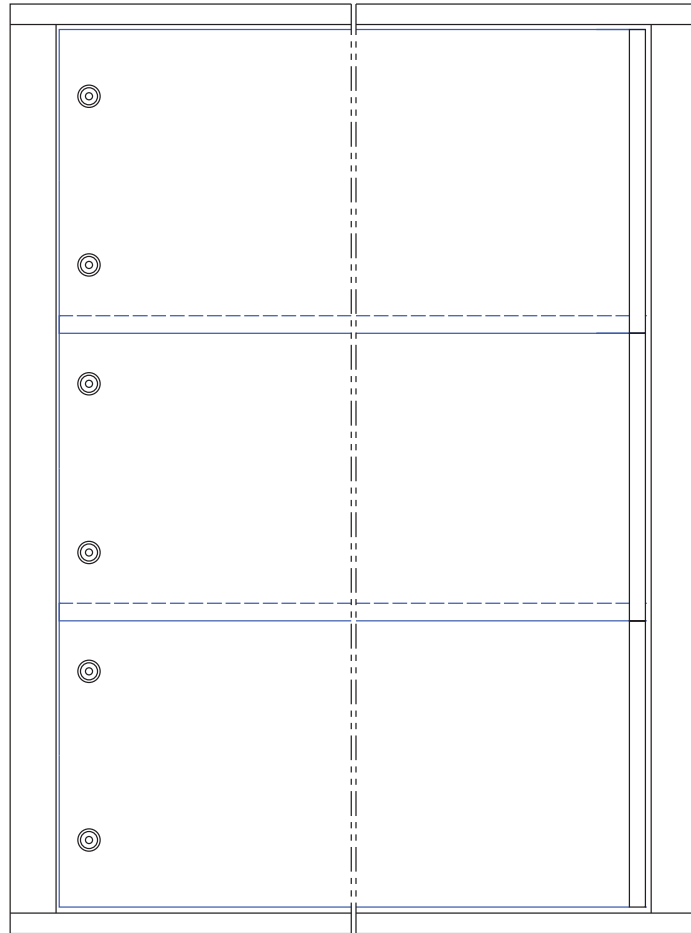




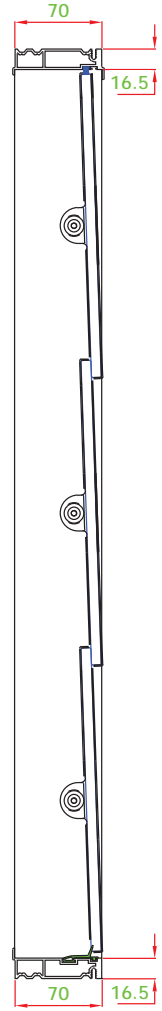
FLM PG
overlapping arrangement



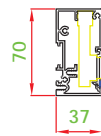
Section



FLM PG
overlapping arrangement



FLM PG
overlapping arrangement

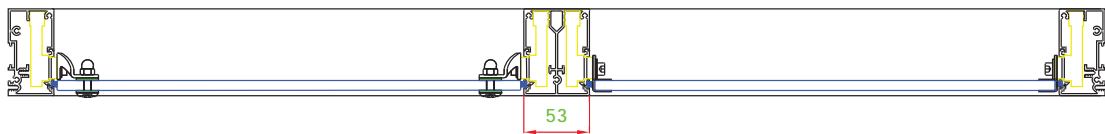


Plan view

FLM LG
overlapping arrangement



Plan view double element



FLL 131 FOR THAT EXTRA BIT OF TECHNOLOGY

It always depends upon the idea. If you're looking for a glass-free louvre vent, then we can supply one. It's not only possible, but can be advantageous: for example for internal applications such as smoke shafts.



FLL 131
is available with manual,
electric or pneumatic actuators.

As well as the examples illustrated
here, there are a range of applications
and fixing arrangements that can be
provided.



Louvre blade design:

Louvres are frameless, manufactured from thermally broken extruded aluminium. The blades are centre-pivoted and close flush with the external vent frame.




Frame design:

Thermally broken aluminium extrusions. Frame sections are butted together and screw-fixed

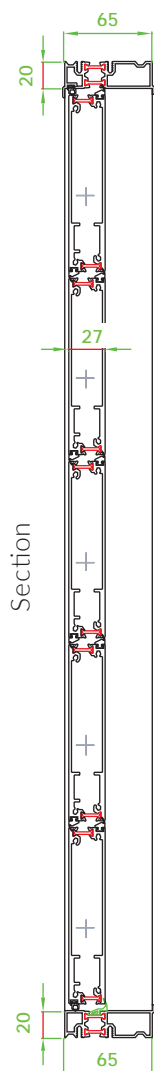


Glazing:

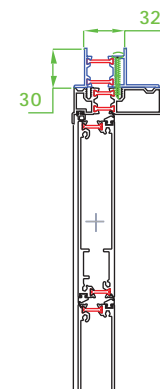
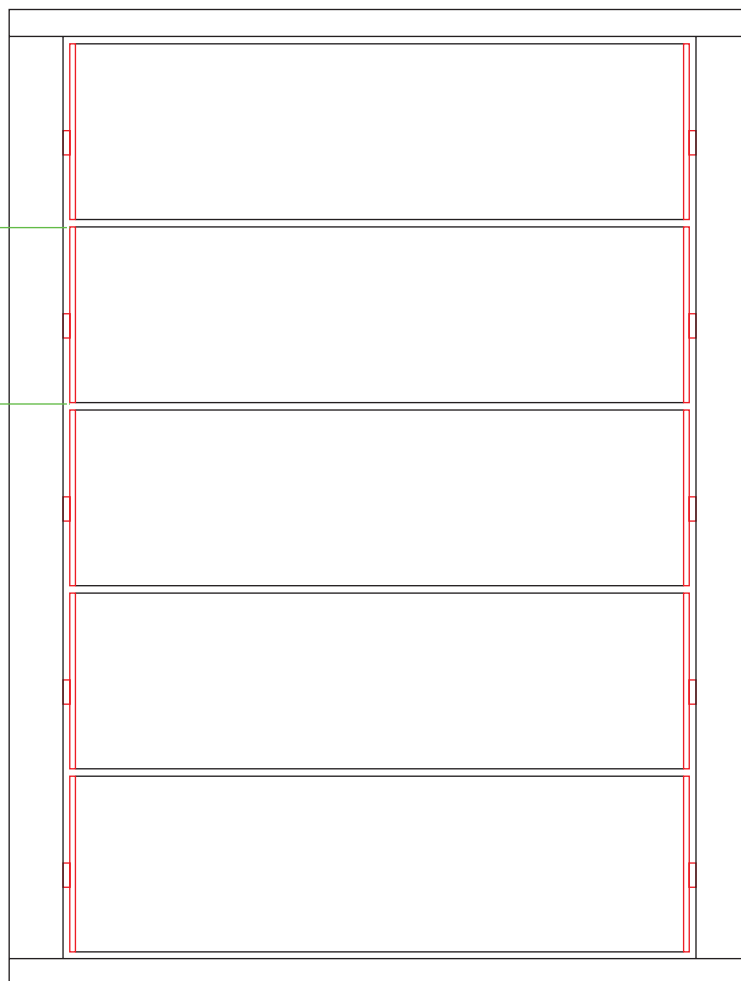
Frameless thermally broken composite aluminium. Supplied with a fixed height of 131 mm.

SAFETY		TECHNICAL FEATURES		PROPERTIES	
NSHEV certified in accordance with EN 12101-2	yes 	Visible frame width (vent)	horizontal 20 mm vertical 40 mm centre mullion 60 mm	Air permeability classification - EN 12207	npd
Coefficient of discharge	Cv. Max. 0.57	Frame depth (louvres)	27 mm	Watertightness classification - EN 12208	npd
Wind load classification	up to WL 3000	Frame depth (vent)	65 mm	Tested sound reduction (Rw)	npd
Resistance to heat classification	B 300-E	Key dimensions		Thermal performance:	U-value up to 2.2 W/m²K
Reliability classification	Re 1000	Max. frame width (without centre mullion)	1.300 mm		
Snow load classification	SL 0	Louvre height	131 mm (fixed); vent height based on multiples of louvres; vent width is variable.		
Low ambient temperature classification	T (-05)	Louvre technology (standard)	Concealed rack & pinion mechanism provides easy to use, maintenance free, smooth and synchronized operation of the louvre blades.		

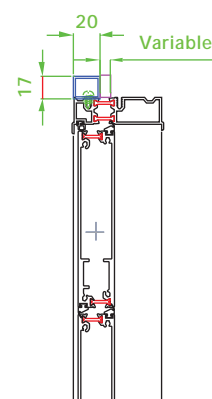




blade height 131 mm

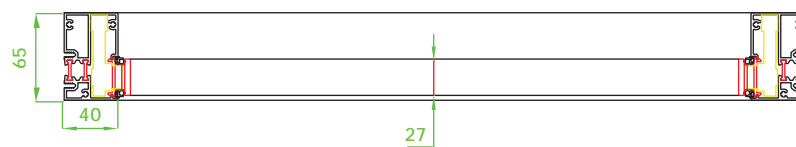


Adapter type B 30/32

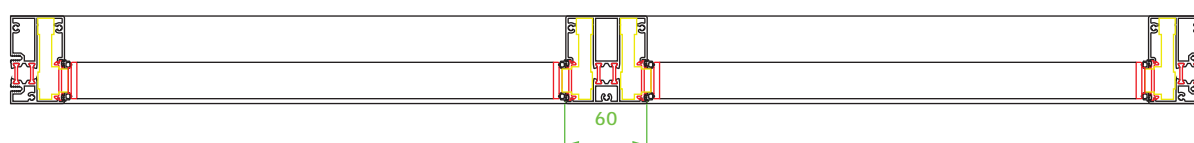


Adapter type A 17/20

Plan view



Plan view (double element)



FIEGER MAKES THE EXTRAORDINARY STANDARD



BMW World Munich: Louvre windows comprising a total of 1,025 louvre blades and covering an area of 400 m² were installed on the roof. The vents were fitted behind a façade of perforated steel plates and ensure day-to-day ventilation and natural heat and smoke release in the event of fire.

You have the ideas, we have the know-how. Our Design Department will evaluate the feasibility of your ideas and help you turn them into reality.

Our services range from modifying existing systems to designing completely new window systems, specially tailored to your requirements.

Our main activities cover the following:

- Development of systems with moveable and/or fixed blades made from aluminium or glass with bespoke extrusions
- Description, building of prototypes and testing of new systems according to your requirements.
- Development of new actuation technologies, control and sensor technologies related to louvre vents

There are only two obstacles to overcome: cost effectiveness and physics. Provided that the former applies and the laws of physics don't interfere, we're confident that we can put into practice what you're planning.

In our company, innovation is a matter for the boss, which is why our R&D Department is led by the company owner, Thomas Fieger himself.

FIEGER IMPROVES COMFORT LEVELS

The name FIEGER doesn't only stand for high quality louvre vents but also for the related technology. This way you benefit from the numerous advantages of our products.

All our louvre vents can be operated manually, electrically or pneumatically.

Our patented rack-and-pinion drive ensures the long-term operation of our vents as well as their quiet and smooth action. Up to 3 m² of window area can be operated using just one motor.

As a rule, all vents are delivered with the actuators fitted, adjusted and tested prior to despatch.

Subject to requirements, we can also offer more sophisticated controls, such as:

- Smoke Ventilation control consoles
- Day-to-day Ventilation panels
- Smoke detectors
- Fire alarm and ventilation push-buttons
- Wind and rain sensors

A standard option on all of our vents is stainless steel crossbars, mounted on the inside of the louvre vent frame to provide increased security and safety. The bars are screwed into the side frames and are concealed from outside when the louvres are closed. Moreover, they can be equipped with pre-wired alarm cables to enable remote monitoring of an attempted break-in.

In those applications where status feedback is a requirement, we recommend use of the FIEGER switching contact, which was developed by us specifically for use with our vents. It enables information about the vent status to be retrieved: i.e. whether the louvres are open or closed (100% open vs. 100% closed) via volt-free auxiliary contacts.



Centre Hospitalier Bretagne Atlantique,
Vannes, France: NSHEV air inlet vents
with fall protection.

FIEGER MAKES IT SO EASY FOR YOU

To conclude we'd like to share some pointers about getting the best out of our louvre windows.



College Library, Marburg, Germany

Installation

Whatever the application, we can provide a compatible fixing adapter to facilitate installation of our units. For curtain walling and glazing systems, box-section adapters with EPDM packing strips are normally supplied, ready-mounted on the vent frames. For toggle systems, we provide routed slots in the sides of the adapters to match the toggle centres. Our new FLW 32 and the FLW 40 both have adapters as an integral part of the vent frame.

For masonry, cladding or timber framing, we can offer a range of possibilities from extruded angle adapters to pre-drilled side frame fixing holes.

Installation notes

There are a number of points, which must be observed when installing our vents:

1. The vents must be installed true and square. The louvres & frames are engineered to close tolerances in order to minimize heat loss in winter. Consequently, if the units are fitted slightly out of square the louvre blades will catch the side frames & won't close correctly.
2. Packers must only be located beneath the side frames and centre mullions.
3. Fixing screws must not be fitted into the back of the side frames. This will almost certainly damage the operating mechanism. Only the dedicated pre-drilled holes should be used.

4. Care should be taken not to over-tighten the side fixings, as this can distort the vent frame and inhibit the operation of the louvres.
5. For hoisting, either slings can be used around the top & bottom frames or lifting hooks can be provided on request at the order stage.
6. Following installation each vent should be checked for correct operation and that the louvres open fully and close flush.

Delivery

We can either deliver to your premises or direct to a construction site. Standard deliveries are arranged on a part load basis and take around 5 to 6 days. Dedicated deliveries can be arranged for specific dates, but are more expensive.



FIEGER MAKES MORE OF IT

Would you like to know more? Do you have a specific query? A particular idea? Well, fire away! We are happy to answer all of your questions about our louvre vents and the technology involved. Moreover, we can show you the countless versatile possibilities which only Fieger louvre windows can offer you.



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