A bright future with Aluminium.

The ALU hardware system: Making light work of comprehensive solutions.
You are our number one priority!
Windows are built for people – not buildings.

Whether you are a window fabricator, building contractor or architect – at SIEGENIA you are always at the forefront of our minds. This way of thinking was not the only factor in us becoming the innovation leader in the window hardware industry. Our developments have time and again allowed us to set global standards. Whether it’s connectable drive rod hardware, clamp-on frame components and hinges that are suitable for every application or the punched profile machining process for the routed-in drive gear: innovation has a long tradition with us. True to our company motto:

We make windows and doors work, give rooms air and find the best solutions together with our partners.

In order to live up to this claim, we invest an above average amount in research, development and process management. In doing so, we guarantee that our customers receive consistently high product quality that far exceeds the legal requirements.

In order to maintain these high standards, all our product ranges have successfully completed the particularly rigorous QM 328 certification programme.

This brochure is designed to present our aluminium products as an example of SIEGENIA’s consistent innovation policy, which in addition to window hardware also offers solutions for sliding door and door hardware, and meets the growing demands of fabricators and architects in every respect. From detailed intelligent solutions to optimisation of the entire production process - potential for reducing time and costs is achievable in every aspect. What’s more, our aluminium range impresses due to the broad product portfolio, with something for virtually every application, and its elegant design. Come and see for yourself!

A/U/F certification for SIEGENIA:

Working ecologically with aluminium

Environmental and social responsibility are top priorities in the SIEGENIA GROUP. With the A/U/F certification, SIEGENIA is setting a further example and is championing the implementation of a recycling and resource-friendly chain for aluminium products.

The objectives of the A/U/F e. V. association are to promote the sustainable use of aluminium and to establish a certified resource chain in Germany and Europe. As part of this, construction elements, profiles and swarf made from aluminium are collected throughout Germany and processed so that the material can be reused in high-quality applications.
ALU modular system.

Hardware ranges

Individual hinges and stays

Universal range of accessories

ALU 5200
(150 kg)

ALU 2200
(80 kg)

ALU DK200
(200 kg)

ALU D300
(300 kg)

ALU axxent
(130 kg)

Hinge and stay
ALU 2200

Hinge and stay
ALU 5200

Hinge and stay
ALU DK200

Hinge
ALU D300

Hinge and stay
ALU axxent

Universal accessories: locking sides, centre locks, additional stays, accessories, handles
Being able to reduce your costs improves your prospects in the market. Although this basic rule is simple, the options offered by the ALU modular system are vast.

For one thing, the ALU 2200, ALU 5200, ALU DK200, ALU D300 and ALU axxent hardware ranges that form part of this system will prove impressive in terms of how the number of individual components is consistently being reduced and the fact that, wherever possible, components come preassembled. This all helps to streamline both the manufacturing and assembly processes.

Yet what really makes the ALU system a real winner in terms of logistics is the fact that the only differences between all the ranges are the various hinges and stays they use. The entire range of accessories – whether locking parts, additional stays, routed in drive gearing, turning locks, etc. – can be combined with every single range. This makes storage and handling much easier and increases flexibility when it comes to putting together the hardware for different types of windows. Efficiency is simply a question of intelligence.

Carefully thought through logistics:
Multi containers from SIEGENIA.

The ALU modular system even extends to its cardboard packaging. The dimensions of the individual cardboard boxes are perfectly matched to the size of the multi containers. Even when different units are combined, the total area of the container or Euro-pallet is always put to optimum use. This enables streamlining processes to be implemented across the entire logistics chain.
Our understanding of innovation.
When our engineers simply make technical improvements to a product, we call this a further development. An improvement can only become an innovation if an economic as well as a technical dimension is added. For us, innovation leadership always means the same: the innovation provides our customers with clear competitive advantages.

And this is definitely the case with the ALU iP hardware concept. As a result, potential for streamlining in aluminium window manufacturing is translated into time savings thanks to SIEGENIA’s ALU iP hardware concept. This is helped by the fact that the degree of automation of the hardware can be adapted to meet customer requirements as well as by the high level of preassembled hardware modules.

-40%

- Faster assembly: time savings of up to 40% (sash hardware incl. glazing beads)
- Customary elegant appearance and high level of functionality of the ALU iP

![Diagram showing benefits of ALU iP hardware concept]

- Reliable production thanks to aspects including an improvement in workplace ergonomics and the use of coordinated machine technology
- Streamlining of the individual production stages and an increase in the degree of automation
Time to get a handle on costs.
ALU 2200: The ALU series aims to make life easy for you.

With the preassembled component system of the ALU 2200 hardware, the image of lightness conveyed by new architecture is complemented by the ease with which it can be installed. You need fewer components, fewer packaging units and the turn only sash stay with punching screw means there is also no need for drilling. Whether because of the fact that the width and height can be infinitely adjusted without having to remove the sash, or because standardisation means only having two different stay sizes, tilt-and-turn hardware has never been so quick and efficient to install.

80 kg

ALU 2200:
- All hardware components are made from rustproof materials to ensure a corrosion-resistant and attractive surface that lasts
- Anti-slam device in tilted position ensures safe operation
- Maintenance-free corner bearing provides a long and trouble-free life for your windows
- Free choice of coating provides unlimited and individual design options
- Can be integrated in the aluminium module system allowing all accessories to be used
The demands placed on modern window fabrication and architecture are constantly on the increase. With this in mind, the optimised design of the new ALU 5200 offers 20 kg more load-bearing capacity than its predecessor. And by being hard-wearing and durable, it provides greater design freedom for contemporary room concepts. The hardware also impresses due to the fact that it can be integrated perfectly into individual production processes and because it is also extremely straightforward to assemble. The high number of preassembled and clampable hardware components saves time and lowers costs during the production process.

The ALU 5200 is non-handed, making it suitable for left or right applications and eliminating the possibility of errors when placing orders. What's more, as a result of its clever 3D adjustment mechanism, installation on site is easy and trouble-free.

ALU 5200

- Hardware components can be used for DIN left and right applications – saves logistics costs
- Low frame free size – provides design freedom
- Free choice of colours for visible hardware components
- Non-handed
- Laterally adjustable ± 1.2 mm
- Adjustable compression + 0.5 mm
- All hardware components are made from rustproof materials, ensuring an attractive appearance that lasts

- New bottom hinge design suitable for low-threshold French doors
- Intruder resistance up to RC3
- Snap-in stay locking function in the tilt position ensures safe operation
ALU D300 and ALU DK200: The load-bearing solution for large glazed areas.

Expansive glass facades add lightness to the design, but also increase the weight of the structure. This is an exceptional challenge for the load-bearing capacity of the hardware. With solutions developed specifically for these heavy weights, SIEGENIA is strengthening its dominance in the aluminium sector.

The ALU D300 is designed for turn only sashes weighing up to 300 kg. The ALU DK200 is designed for tilt & turn windows weighing up to 200 kg. Both feature highly flexible adjustment options and an extensive range of accessories.

**ALU D300**
- “Turn only” opening variant
- Hinge-side hardware components connected with screws
- Variable height adjustment
- Additional centre hinge provides high level of stability and compression
- Cross-product modular system ensures efficient logistics
- Comprehensive range of accessories
- Combination with sound-proofing, thermal insulation and anti-intruder protection

**ALU DK200**
- “Tilt & turn” and “tilt-before-turn” opening variants
- Variable height and width adjustment
- Cross-product modular system ensures efficient logistics
- Comprehensive range of accessories
- Combination with sound-proofing, thermal insulation and anti-intruder protection
- Snap-in stay locking function in the tilt position ensures safe operation

300 kg

200 kg
Concealed design axxents.
In the past, the clear design and straight lines of modern glass architecture were often interrupted by the pivots on window frames. Thanks to the fully concealed ALU axxent hinges, these are now invisible. This gives architects attractive design options and provides building contractors with an elegant window design.

ALU axxent also achieves top marks when it comes to assembly, as it strips the process down to the bare essentials: with its clamping compact components, the system is exceptionally efficient and can also be combined with the universal range of accessories across the entire ALU system.

- Fully concealed corner and stay bearing allow for an elegant window design
- Quick assembly using clamping compact components
- Intruder resistance up to RC2 provides security in the home
- Large opening angle of 110° in turn position
- Snap-in stay locking function in the tilt position ensures safe operation

130 kg
If you select the right technology, you don't have to choose between optimum comfort and convenience, top-quality fabrication and stylish design. The adaptable, stylish motion chain drives in our DRIVE axxent product range not only let you easily open and close windows and skylights that would otherwise be difficult to reach, but also fit easily into any production process. DRIVE axxent DK is an easy-to-install motion chain drive for timber, PVC and aluminium tilt & turn windows that works like a dream, but also looks great. Completely integrated into the frame profile, it enables fully automated, controlled window ventilation. DRIVE axxent DK is easy to control using a push button, wireless connection or infrared remote control. It can also be integrated seamlessly into the building control technology and operated and monitored using iWindow, the clever app-based solution for secure windows.

**DRIVE axxent DK:**
- For aluminium tilt & turn windows
- Easy to install and can be adjusted after installation
- An unlimited number of drives can be connected to each other simultaneously
- Fully concealed technology combines perfect design with maximum convenience
- Power-operated locking, unlocking and tilting at the press of a button on an infrared remote control, or via building control technology
- Can be controlled and monitored via the iWindow app
- Can be operated manually even if it has been tilted or locked automatically
- Opening width: 120 or 150 mm
With its large opening width of 350 mm, DRIVE axxent allows convenient, effective ventilation by tilting hard-to-reach skylights by as much as 350 mm. Like DRIVE axxent DK, it can be controlled in a variety of ways – from push button to wireless and infrared remote control. And it can even be integrated easily into building control technology and iWindow if desired. With DRIVE axxent, only an unobtrusive cover hints at the possibilities that lie beneath. Otherwise DRIVE axxent is fully concealed, making it a highly effective solution not just technically, but aesthetically as well. A solution carefully designed for compatibility with diverse window systems and profiles, to maximise creative freedom for architects and designers in the long term. DRIVE axxent is great for installers, too, thanks to its ease of handling.

**DRIVE axxent:**
- Integrates easily into building control technology and iWindow
- Up to eight drives can be connected to each other simultaneously
- Casing depth of just 34 mm permits integration in standard profiles
- Skylights can be tilted, either at the press of a button or via building control technology
- Mechanism is entirely concealed apart from an unobtrusive cover
- Large opening width: 350 mm
- Ideal for sophisticated building facades where a high level of convenience is required
With its elegant appearance, the GLOBE handle range creates new design freedom for contemporary architectural concepts. The ergonomic design features rounded off contours and the drop-shaped end. Millions of people all over the world grasp the Si-line handle every day and, in doing so, also grasp the basic principle of modern architecture: “Less is more”. The design is functional and clear. The technology is designed based on both durability and functional reliability.

Our ALU handles for drive gears are not just available for all conceivable opening variants – including the outward opening window variant: Apart from the standard colours ranging from classic silver right up to Design-INOX, they are also obtainable in any RAL colour. So there is no limit to the individual colour schemes achievable, depending on architectural requirements. A tilt-before-turn function is integrated in the lockable version as standard.
Our range of accessories really gets a handle on cost effectiveness.

The faster you work, the faster you will be finished.
Recognising time as an expense factor in production and assembly shows that SIEGENIA innovations are specifically designed with the needs of window fabricators and architects in mind. This not only applies to our hardware systems, but also to the entire range of accessories. This is demonstrated, for example, by the ALU GLOBE RR handles. The fact that the handles can be installed without the need for tools and in a time-saving manner once all construction work has been completed ensures that the commissioning process for the windows runs smoothly.

More design, more efficiency.
The lockable GLOBE RR version impresses not only with its design but also with the exceptional anti-intruder protection it offers. The GLOBE RR handle from SIEGENIA offers countless benefits starting from its assembly right up to the final insertion.

Handle colours

Silver
White
Black
INOX
Punchable profile machining.

- Routing-free profile preparation
- No more time-intensive milling and drilling operations
- Only two work processes: punching the profile chamber and rebate
- Enables efficient and cost-effective installation of routed-in drive gearing
- Makes eurogroove profiles more than competitive

ALU routed-in drive gearing.

- Integrated tilt only safety stay and locking function for the centre lock
- Ideal for very slim profiles
- Compatible with the ALU GLOBE RR handle, the TITAN handle and all commercially available handles with a 7-mm square
- Extended design and colour options

Secondary sash gear and shoot bolt.

- Universal solution for profile systems with different secondary sash profiles
- Locking technology: manually via the shoot bolt or via a central secondary sash gear
- Shoot bolt for 10 or 14 mm secondary sash versions, can be connected to additional components and can withstand wind loads up to 3000 pascal
- Efficient and cost-effective installation thanks to clampable components
- Individually variable handle operating height enables convenient operation
- All hinges are preassembled with clamping pieces
- Quick and simple installation in the frame groove
- Tilted fixing axis makes screwing the components in place easier

- Quick to install as component is automatically secured in the sash groove
- No additional screwing required
- Frame component has integrated locking and stop function
- Non-handed tilt only safety stay

- Additional support for the sash rebate
- User-friendly and reliable operation
- Easy to assemble by screwing it to the handle
Intruder resistance. AEROCONTROL magnetic switch.

Solutions up to RC3 in accordance with EN 1627-1630

Just four locking pieces for RC2 made from a special alloy ensure quick and efficient assembly

Locking parts that can be retrofitted further reduce assembly effort

Opening and locking monitoring
Can be fitted in a wide range of windows and French doors
Also suitable for retrofitting
Integrates into frame rebate, independently of profile
BUS-compatible for integration in building control technology
Extensive accessories for alarm glazing and activation of fume extraction hoods
VdS tested and certified to the maximum protection class (C), depending on switch type
Surface-mounted magnetic switch with VdS and EN approval also available

The continuous action of the opening restrictor increases the operating convenience and operational reliability of the window
To enable fast and easy assembly, the restrictors are clamped in the sash and frame groove
Maintenance-free design allows you to rest assured that the window will be fully operational for a long time to come
All components are manufactured from rustproof materials, ensuring a surface finish that lasts

Opening restrictor with end position cushioning
Increases operating convenience for aluminium sashes weighing up to 300 kg
Also suitable for double-sash elements
Non-handed and easy to retrofit
Can also be fitted to bottom-hung sashes

Easy to retrofit on existing elements
Tilt opening in winter ventilation mode approx. 35 mm, and approx. 170 mm, as usual, in summer ventilation mode
Reduction of energy loss and outside noise pollution
No tools required to change over from summer to winter mode
Integrated anti-slam device in the tilt position to protect against draughts

For single and double-sash elements
Can be integrated economically and efficiently during production: components are clampable and no additional profile machining is required
No horizontal frame components mean that the solution fits perfectly with the low thresholds specified in DIN 18040
Can be fitted for all types of opening
No additional profile machining ensures efficient installation
Can be combined with all hardware from the ALU range
Glass is right on trend.
Large sliding elements offer the architect more design freedom and give the customer more options when it comes to furnishing the room. They let more light into the rooms and offer an enhanced view from the interior. Although sliding elements give an overall impression of space and light, they do add rather a lot of weight to the window or door structure. To prevent this these aspects from being overshadowed by difficult handling, we have developed the exceptionally smooth PORTAL hardware system, which enables glazed areas weighing up to 400 kg to be opened and closed effortlessly either by hand or with the aid of a motor. Yet since even our engineers cannot defy gravity, we had to develop a number of different innovations in order to achieve the goal for our PORTAL product range – heavy made light.

**PORTAL FS PLUS ALU**
- Fold & slide hardware for large opening widths
- Top or bottom running with the same profile set
- Low threshold of 26 mm
- Smooth running
- Efficient installation thanks to few, pre-assembled components
- For profiles with ALU eurogroove

**PORTAL PSK 160 PLUS ALU**
- Parallel-sliding-tilting hardware for aluminium windows and doors with a 21-mm cavity
- Running track height of only 29 mm
- High level of stability with sash weights up to 160 kg
- Compact stay component
- Jigs for installing pre-assembled components efficiently
The new development from the PORTAL product group is extremely simple to operate and offers a level of sealing that is unparalleled for sliding doors. All this is made possible through its unique design, which combines an uninterrupted, continuous seal with special bogie wheels and innovative guide and locking elements.

A total of four of these elements guide the sash precisely into its final locked position. Further comfort is provided by the night ventilation, which comes as standard and is easy to control using the operating lever.

ECO SLIDE:
- Extremely waterproof thanks to continuous seal
- Simple and intuitive operation
- Low threshold according to DIN 18040
- Narrow face widths = large glazed areas
- Quick and simple installation
- Night vent as standard
Our particularly smooth PORTAL sliding door systems prove day after day how heavy weights can be moved easily. The systems are not based on a one-size-fits-all approach, but deliver an uncompromised blend of design freedom, convenience and security for all weight classes. Decades of development expertise have made SIEGENIA lift & slide technology so sophisticated that even a sash weighing up to 400 kg can be operated safely and effortlessly.

The PORTAL HS ALU system allows opening widths of up to 12 metres with a total width of over 19 metres to be achieved. In conjunction with the power-operated MHS400 lift & slide system, large glazed areas of up to 13 metres in width can also be powered. The power-operated drive system automatically opens and closes doors and windows weighing up to 400 kg and reliably locks and unlocks them.

PORTAL HS ALU
- Lift & slide hardware for sash weights up to 400 kg
- Smooth, safe operation
- Handle-controlled night vent as standard
- Sash height up to 3300 mm and sash width of 3335 mm
- Intruder resistance up to RC3

MHS400
- Automatic locking/unlocking and movement of the lift & slide sash
- Suitable for all applications irrespective of hardware manufacturer
- Easy to retrofit to for almost all profile types and systems, hardware does not have to be changed, no complicated profile milling required
The efficient system for better metal doors.
KFV products for metal doors:
Security by design.

To combine strength, cost-effectiveness and styling into one piece of hardware, we have developed the axxent door hinge specifically for aluminium doors. The fully concealed hinge turns doors into discreet design elements complementing any elegant interior. The two-piece hinge with frame and sash part is designed for sash weights of up to 120 kg. It requires only minor profile milling and offers many benefits in terms of installation: to connect the sash, simply push it in and then use the convenient 3D adjustment mechanism providing maximum scope for lateral, height and compression adjustment.

axxent door hinge

- Fully concealed hinge for aluminium doors
- Easy installation and removal of sash
- Simple 3D adjustment and large adjustment range
- Durable hardware, load-bearing capacity for sash weights of up to 120 kg
Our multi-point locks with clever variable pocket positions offer the ideal solution for every aspect, whether that be watertightness, security or fire protection. Standardised routing template for sashes and frames offer key advantages for fabrication, warehousing and assembly. Whether for timber, PVC or aluminium profiles, key-operated or handle-operated, for single or double-leaf doors or even for oversized doors, our wide range of variants provides reliable and logical solutions. An attractive, easy-to-operate drive gear and a long service life ensure customer satisfaction. Thanks to continuous development, we manage to retain our quality and innovative edge when it comes to multi-point locks.

**Multi-point locks:**
- Adjustable DIN direction
- Smooth-running gear
- Versions for Swiss round cylinder
- Variety of distances and backsets available
- With optional soft-lock latch
- With optional automatic function

**Multi-point locks:**

**KEY-OPERATED**

- Locking and unlocking via double-turn of key

**HANDLE-OPERATED**

- Locking and unlocking from inside using the handle; key can be used for deadlock
KFV offers an extensive selection of high-quality latch and deadbolt locks, and therefore versatile solutions for many profile situations. They are suitable for both original door fittings and for simple retrofitting. Whether single or double turn, with a different deadbolt throw, various backsets and a range of faceplate variants, our locks offer optimum quality in terms of fabrication quality and the perfect DIN or custom solutions for every application based on aspects such as frequency of use and safety requirements.

Latch and deadbolt locks:
- Certified latch and deadbolt locks according to EN 12209
- Available with saw protection
- Single or double turn
- With various deadbolt throws
- Various backsets from 18 to 65 mm
- Numerous faceplate variants and surfaces
GENIUS — convenience and security at the press of a button.

GENIUS is our mechatronic locking and unlocking system. It combines the locking properties of a mechatronic multi-point lock with the convenient features of state-of-the-art electronics. GENIUS can be combined with access control systems and many other applications, which makes many custom solutions possible. Depending on the version, it is suitable for use in private homes and in commercial or industrial buildings.

Convenient and accessible. With GENIUS, you can say goodbye to hauling around jingling bunches of keys. GENIUS offers a new level of convenience for your home particularly for apartment buildings with front doors that are locked in the evening. If you’re coming home late, the front door can be conveniently unlocked using the intercom – and then locked immediately when it closes.

GENIUS upgrades any door. Doors open and close completely at the touch of a button in combination with swing door drives.

Trust is good, access control is better. For use in office buildings, GENIUS can be controlled using access control systems that assign employees defined access rights for all rooms. Using the day/night mode you can synchronise the system exactly with working hours. It is also possible to combine it with time switches, alarm systems or swing door drives.

NEW: We offer a wide range of access control systems for use in private residences – from radio transponders to fingerprint recognition or the new KFVkeyless system which can be controlled by a smartphone app.
Emergency exit and panic locks.
The turning point in an emergency.

In an emergency, every second counts. This is why the KFV product group offers a full range of locks and multi-point locks that are characterised by maximum security, simple handling and powerful innovation.

Whether you require emergency exit locks in accordance with EN 179 or panic door locks in accordance with EN 1125, you can rely on the many product advantages of KFV. For example, the 20-mm deadbolt throw with only one half turn of the key or the availability of mortise door locks, latch and deadbolt locks and multi-point locks.

We have revolutionised the manufacturing processes for double-sash panic exit doors. The easy-to-install, three-part solution minimises milling costs and enormously reduces the time required to produce an emergency secondary sash. The hardware in the side part accommodates the locking elements of the active sash. If the operating unit on the inactive sash is activated, the main sash automatically unlocks and the element can be used as an emergency escape with its full opening width. The inactive sash hardware locks automatically on closing. Available for all current metal secondary sash profiles.

Further product advantages in detail:

Cylinder with and without free-running cam.
- Cylinders with fixed or free-running cams as well as mechatronic cylinders with cross sections to DIN 18252 can be installed
- The maximum permissible position of the cam in the key removal position is 30°

Adjustable escape direction and DIN direction.
- Right, left and escape sides are individually adjustable thanks to the simple latch switch
- All locks and multi-point locks are universally suitable for EN 179 and EN 1125 applications

All locking functions are possible.
- All locks and multi-point locks are available with three locking functions (B, C or E)
- Keyless opening in the escape direction is always possible