



WINDOW TECHNOLOGY
DOOR TECHNOLOGY
AUTOMATIC ENTRANCE SYSTEMS
BUILDING MANAGEMENT SYSTEMS



FOR TIMBER, PVC AND ALUMINIUM WINDOWS AND BALCONY-DOORS

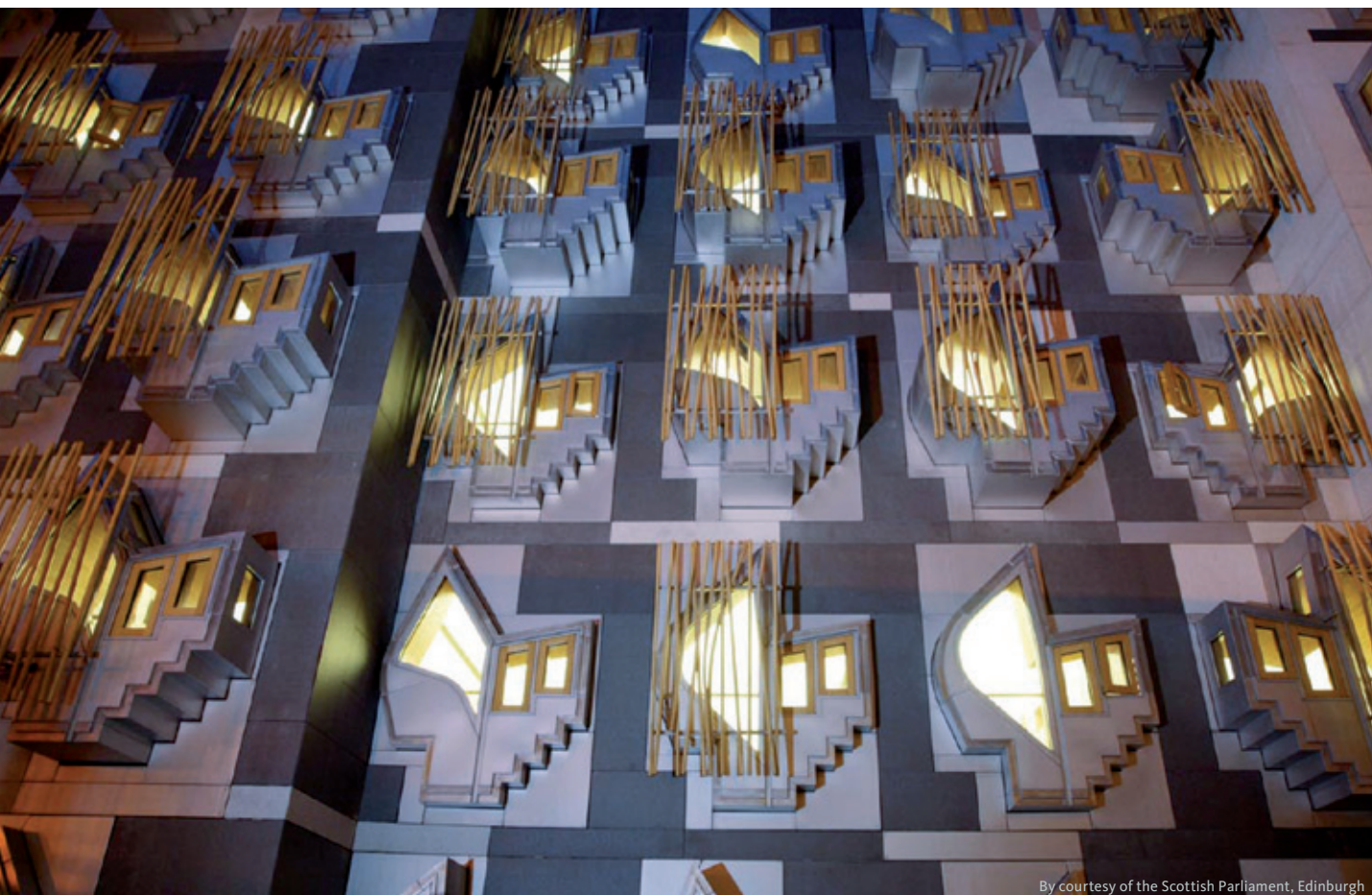
The UNI-JET Tilt&Turn hardware range

Securing technology for you



Moving emotions

The UNI-JET Tilt&Turn hardware range



By courtesy of the Scottish Parliament, Edinburgh

Tradition obliges – setting the highest design and quality standards

Gretsch-Unitas company group

The owner-managed GU group has been preoccupied with the opening and closing of windows and doors since 1907. Since then, the group's technical innovations and continuous development of architectural hardware technology have been shaping the market by setting standards and pioneering trends.

State-of-the-art technology

GU Tilt&Turn hardware enjoys a global reputation second to none; achieved with high and well-tested quality. Even the standard basic hardware version features the modular central locking system suitable for all applications and the internationally recognised fer-**GU**ard surface finish provides a very high level of security and durability. Intelligently engineered components suitable for manual or automated window fabrication save installation time and reduce storage costs.

More than just hardware

With UNI-JET, GU provides a Tilt&Turn hardware system that meets window fabricators' and end users' individual requirements regarding convenience, security, functionality as well as accommodating special solutions. What is more, UNI-JET offers the possibility of retro-fitting existing Tilt&Turn windows with state of the art technology.

System solutions for individual requirements

In accordance with our policy 'The systematic competitive edge', we ensure that an individual, sustainable and market-conform hardware solution can be provided in the form of a complete CE-certified system for each profile system. In its capacity as system supplier for timber elements, Gretsch-Unitas is in a position to pursue completely new paths and meets all market requirements.



The central locking system

The central locking system is UNI-versally suitable for all window frame materials. The central locking system is equipped not only with 'basic security' as a basis, but also enables certified burglar inhibition right through to resistance grades 'BRG2' and 'BRG3' ('WK2' and 'WK3'). Supplementing the central locking system with only a few components is sufficient to enable implementing special fenestration applications as standard.

This concept also results in optimised stock-keeping, as only a few hardware components are required for a multitude of applications.



UNI-JET S-CONCEALED fully concealed!

This fully concealed hardware solution provides individual architectural design possibilities.

There are no face-fixed hardware components to take from the windows aesthetics.



Visible face-fixed hinge-side

GU also have visible Tilt&Turn hardware systems for any window shape and frame material.

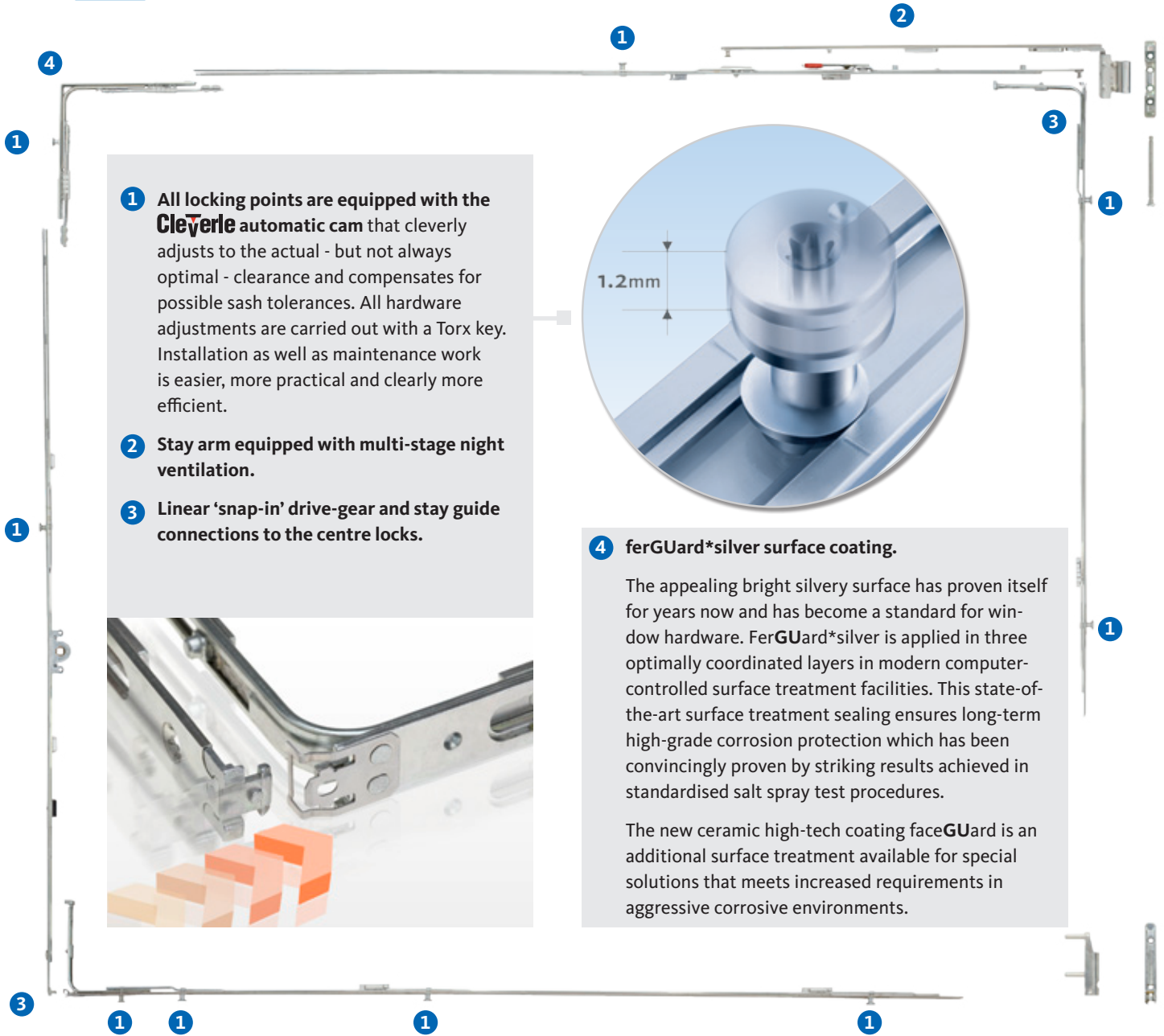
The product range also comprises a large variety of window handles and cover caps to match different frame colours.

The UNI-JET system family	Page 04
The basis	
The central locking system for all applications	Page 05
The UNI-JET S-CONCEALED fully concealed hardware system	
For timber and PVC windows and balcony-doors.....	Page 06
The UNI-JET D hardware system	
For PVC windows and balcony-doors	Page 08
The UNI-JET M and UNI-JET S hardware systems	
For timber windows and balcony-doors.....	Page 10
The UNI-JET C and UNI-JET D hardware systems	
For aluminium windows and balcony-doors.....	Page 12
The GU pledge	
Tested security	Page 14
The GU Service	
The Gretsch-Unitas company group – your modern partner	Page 15

The UNI-JET system family



GU



1 All locking points are equipped with the **Cleverte** automatic cam that cleverly adjusts to the actual - but not always optimal - clearance and compensates for possible sash tolerances. All hardware adjustments are carried out with a Torx key. Installation as well as maintenance work is easier, more practical and clearly more efficient.

2 Stay arm equipped with multi-stage night ventilation.

3 Linear 'snap-in' drive-gear and stay guide connections to the centre locks.

4 ferGUard*silver surface coating.

The appealing bright silvery surface has proven itself for years now and has become a standard for window hardware. FerGUard*silver is applied in three optimally coordinated layers in modern computer-controlled surface treatment facilities. This state-of-the-art surface treatment sealing ensures long-term high-grade corrosion protection which has been convincingly proven by striking results achieved in standardised salt spray test procedures.

The new ceramic high-tech coating faceGUard is an additional surface treatment available for special solutions that meets increased requirements in aggressive corrosive environments.



Standard striker



Zamak SSecurity striker



Steel SSecurity striker

Simply practical !

The central locking system is suitable for all security levels from basic security right up to tested burglar inhibition. The classification of the burglar resistance grades is mainly achieved with different types of strikers.

One for all! – a single system with UNiversal application

In the course of time, the locking mechanism requiring two-hand operation evolved into today's central locking system. With the development of the UNI-JET Tilt&Turn hardware system, the GU group perfected the one-hand operation system. With this Gretsch-Unitas provides a one-handed operation Tilt&Turn hardware system for PVC, timber and aluminium windows that with its distinctive advantages, has become the standard in window fabrication. Abundant 'cleverly' implemented and unrivalled ideas can be found in this stylish and highly functional system:

One central locking system for all applications!

- Time-saving window fabrication thanks to the small number of components; from 'basic security' right through to BRG2/BRG3 ('WK2/WK3').
- Very smooth hardware operation - even on large and burglar-inhibiting windows.
- Burglar-inhibiting 'basic security' as standard from GU.
- Suitable for all hardware installation methods: from manual right through to automated.
- The UNI-JET central locking system enables implementing all window formats.
- The **Cleverte** automatic mushroom cam automatically compensates for the clearance tolerances. It can also be adjusted with a Torx key.
- The integrated anti-slam device keeps the sash in the tilt position even in draughty conditions.
- The sash lifter gently lifts the sash when entering into the closed position and enables convenient window operation. In addition, it reliably prevents the sash from being mishandled.
- The night ventilation feature enables moderate, regulated ventilating.
- The flat packaging saves space and rationalises the sash and frame installation by means of time saving in the material supply process.
- An extensive range of electronic open and closed status monitoring components can be integrated in the UNiversal locking system.
- GU provides solutions for radiator and extractor hood controls right through to VdS-certified burglar alarm systems.



Linear snap-in connection



Combined sash lifter and mishandling device



Smart, ergonomically designed packaging

Product overview

Version	PVC and timber			Aluminium	
Tilt&Turn hardware type	UNI-JET S		UNI-JET D	UNI-JET M	UNI-JET C UNI-JET D
Legend	S = screwed		D = drilled	M = milled	C = clamped D = drilled
Sash rebate width (mm)	390 – 1400	280 – 1600	280 – 1600	280 – 1600	280 – 1600
Sash rebate height (mm)	280 – 2800		280 – 2800	280 – 2800	280 – 2800
Maximum sash weight (kg)	130		130	150	130
Page	6	10	8	10	12

UNI-JET S-CONCEALED - The fully concealed Tilt&Turn system

For PVC and timber windows and balcony-doors



Photo archive: shotshop



UNI-JET S-CONCEALED

The UNI-JET S-CONCEALED hardware system is designed for enhanced requirements in PVC and timber windows and balcony-doors. Individual window design possibilities are possible with UNI-JET S-CONCEALED. The UNI-JET S-CONCEALED hardware was successfully subjected to a durability test with 15,000 total cycles in accordance with EN 13126-8 and with this, fulfils the requirements specified in the European Standard.

Design and functionality

- Plenty of scope for design creativity thanks to the floor-to-ceiling sash rebate heights of up to 2800 mm currently in fashion.
- Your field of vision is not distracted by hinges but rather by the window's handle and design.
- Barrier-free balcony and patio-door designs are possible.
- Thanks to the continuous interior rebate gasket, the formation of condensation in the window's rebate is successfully prevented and its sound-proof characteristics are enhanced.
- Improved window tightness with the continuous interior rebate gasket plane; a decisive factor when it comes to implementing energy saving measures.
- A technically and aesthetically perfected hardware system with well-proven quality and performance characteristics from Gretsch-Unitas.
- The window profile colours can be selected completely independent of the hardware component's surface-finish.



A newly defined standard

Fully concealed, stylish, safe



Design advantages

- UNiversally applicable as the hardware can be used as standard for all window series.
- The hardware components are not damaged or soiled on the building site as these are protected in the rebate. Cumbersome and time-consuming taping work is no longer necessary.
- Suitable for sash weights up to 130 kg without any additional machining.
- A wide opening angle of up to 100° provides an unrestricted view.
- Certified burglar inhibition up to Burglary Resistance Grade 2 ('WK2') in accordance with ENV 1627-1630.
- Possible opening types: Tilt&Turn, Tilt-First, Tilt-Only, Turn-Only and 2-sashed windows with dummy mullion.
- 3-sashed 'Swiss' windows without fixed mullions can be carried out easily with this hardware system.

Technical advantages

- One-man window installation on site possible! Sashes can be hinged and unhinged parallel to the frame without the use of any tools.
- All hardware adjustments can be carried out with a single system tool.
- Reduced stock levels and increased cost-effectiveness as there is no need to colour-match the window hinge-side components with the window.
- UNI-JET hardware is subject to the QM 328 Quality Management programme ('tested product quality') by the Rosenheimer IFT institute.
- Reassuring 10 year functional guarantee.
- No drilling or milling work necessary on the window.
- The "Cleverle" locking cam ensures that your window functions correctly by automatically compensating for clearance tolerances.
- The robust design is reflected in the material thickness and workmanship.
- Elegant hardware adaptations by means of profile-specific packers.



Corner bearing



Stay arm



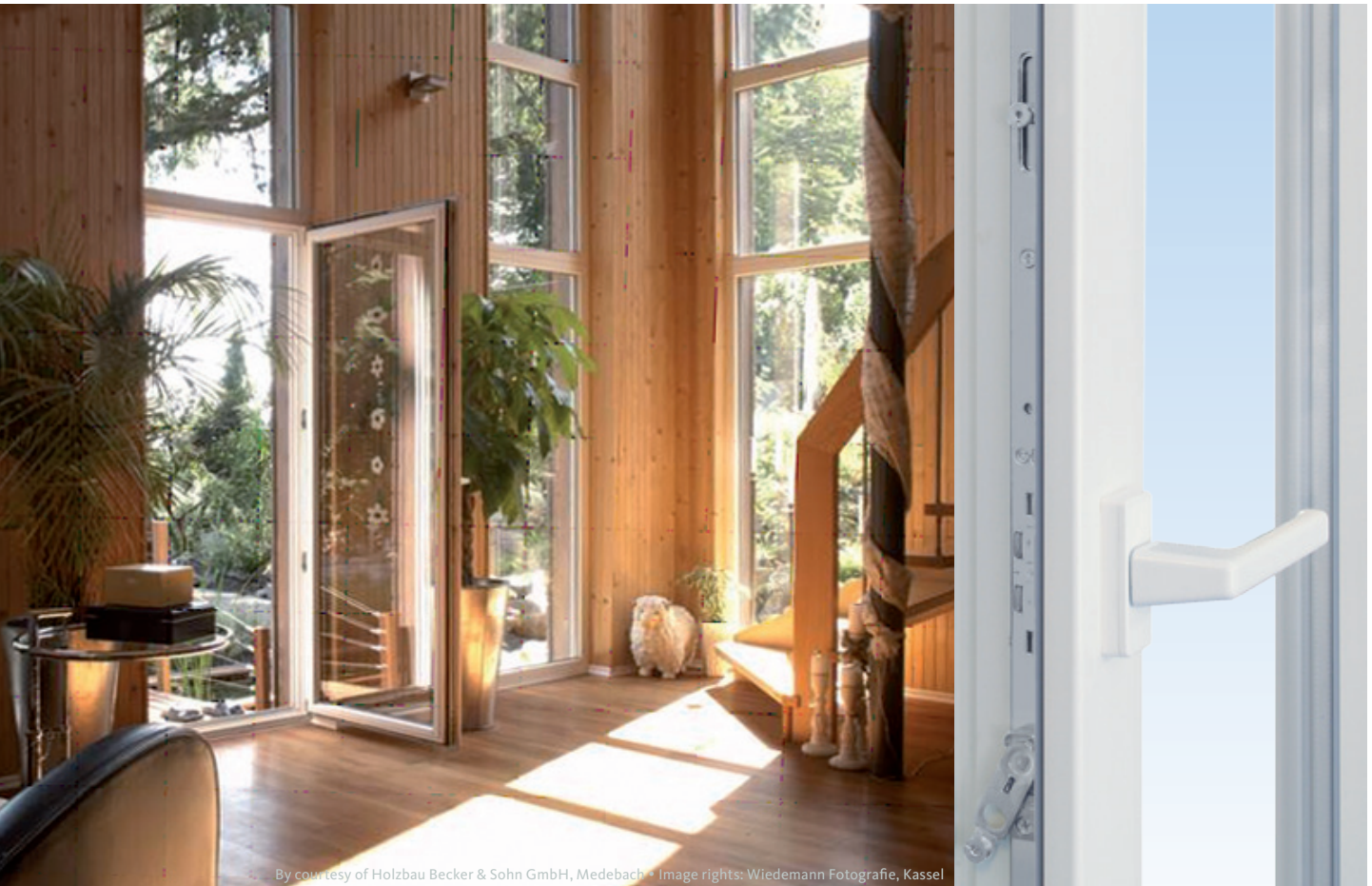
Tilt sash hinge

Product overview

Description	Clearance (mm)	Hardware axis (mm)	Sash overlap (mm)	Maximum sash weight (kg)	Max. sash rebate width (mm)	Max. sash rebate height (mm)
UNI-JET S-CONCEALED	12	9 / 13	max. 22	130	1400	2800

The UNI-JET D hardware system

For PVC windows and balcony-doors



By courtesy of Holzbau Becker & Sohn GmbH, Medebach • Image rights: Wiedemann Fotografie, Kassel

UNI-JET D

The high-quality UNI-JET D Tilt&Turn system is designed for PVC windows with drill-in or rebate corner hinges. With UNI-JET D, we provide a high-quality and very practical system that has been perfected by means of the central locking system concept (refer to page 4 for more details). In this case the hinge-side is also supplemented with the standard UNI-JET product range; resulting in optimised stock keeping and reduced costs.

Design and functionality

- The hinge-side's slimline aesthetics harmonises with the slimline profile design and with it enables a maximum glass surface.
- The simple elegance of the UNI-JET D hinge-side emphasises the window's aesthetics.
- Stylish cover caps can be colour-matched to suit the window's profile colour. Window handles are available in a choice of colours to complete the colour harmony.
- The hardware system enables easy and convenient window operation.
- The face-fixed UNI-JET D hinge-side is flush with the sash overlap. The window retains its line management and high-quality appearance.
- The integrated hardware enables easy and time-saving window cleaning.

The basis; the central locking system

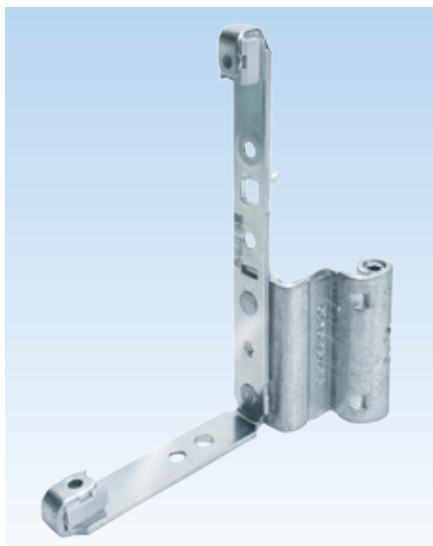
- Optimised stock keeping: the hinge-side hardware versions are based on the UNI-JET central locking system equipped with the self-adjusting locking cam “Cleverle”.
- The self-adjusting mushroom cam “Cleverle” provides enhanced security and automatically adjusts clearance tolerances.
- Certified burglary resistance security right up to Burglary Resistance Grade 2 (“WK2”) is determined by means of selecting the appropriate strikers for the central locking system.

Additional hinge-side advantages

- The 3D adjustment in the pivot rest and stay bearing compensates for installation tolerances and warrants long term operation and tightness.
- The stay arm hinge is equipped with an integrated sash brake that compensates for installation and glazing tolerances. As a result, the sash does not close over on its own - even in draughty conditions.
- An optional adjustable sash brake is also available.
- The symmetrical drilling and screw-fixing pattern for both the stay bearing and pivot rest is designed in such a way as to ensure that the screw connection always reaches into the profile’s steel reinforcement.
- Specially adapted hinge-side solutions are available for balcony and terrace doors with barrier-free thresholds.
- Rugged rebate corner hinges made of steel support even sashes with the heaviest of special glazing.



Stay bearing



Rebate corner hinge



Drill-in hinge

Product overview

Description	Clearance (mm)	Hardware axis (mm)	Sash overlap (mm)	Maximum sash weight (kg)	Max. sash rebate width (mm)	Max. sash rebate height (mm)
UNI-JET D	12	9/13	18/20/22	130	1600	2800

UNI-JET M and UNI-JET S hardware systems

For timber windows and balcony-doors



Photo archive: panthermedia

UNI-JET M and UNI-JET S

Different hinge side versions are available for timber windows and balcony-doors that ideally compliment the central locking system. Everything is ideally matched to suit the window design: from UNI-JET M single and double Ø 34 mm drill-hole bearings right through to UNI-JET S screw-on pivot rest and stay bearings. Robust steel hinges enable extra large windows to be implemented; for example floor-to-ceiling windows.

Design and functionality

- The slimline hinge-side aesthetics enable the use of slimline timber profiles.
- The resulting larger glazed surface provides the window with a greater incidence of light and therefore more living comfort.
- The simple elegance of UNI-JET M and UNI-JET S hinge-sides emphasises the window's aesthetics. The UNI-JET S-CONTURA hinge-side hardware is concealed in the designer window profile and captivates with its peripheral shadow joint between the flush frame and sash profile.
- The high-quality ferGUard*silver surface treatment colour of the hinge-side harmonises both with light and dark timber finishes.
- Stylish cover caps and handles are available in a choice of colours to match the window's colours.
- The hardware system provides maximum window tightness as well as smooth and easy operation.

UNI-JET M and UNI-JET S advantages

- With its UNiVersal application possibilities, the UNI-JET central locking system provides the basis for windows, balcony doors and special window designs.
- The self-adjusting “Cleverle” locking cam automatically compensates for clearance tolerances, thus providing smooth and easy hardware operation.
- GU hardware is equipped with the “Cleverle” mushroom-shaped locking cam as standard. The hardware’s security level is determined by the type of striker used. Increased burglar inhibition can also be retro-fitted on windows already installed by simply exchanging the strikers.
- Pivot rests and stay bearings from GU are as a rule 3D adjustable; with this, any fabrication or installation tolerances can be compensated for.
- The diverse range of hinge-side hardware for timber windows always provides the right solution and can be ideally integrated into the fabrication process.
- The stay arm hinge is equipped with an integrated sash brake preventing the sash from closing over by itself in draughty conditions. An optional adjustable sash brake is also available.
- Specially adapted, particularly easy and fast to install hinge-side solutions are available for balcony and terrace doors with barrier-free thresholds.
- The GU group’s product portfolio is rounded off with special rebate corner hinges with enhanced load transfer technology that ensures reliable function also in soft timber windows.



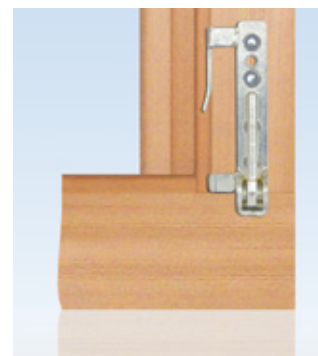
Milling pattern UNI-JET M20/12



Milling pattern UNI-JET M6/12



Milling pattern UNI-JET M6/4 (M6/4i)



UNI-JET S installed

Product overview

Description	Clearance (mm)	Hardware axis (mm)	Sash overlap (mm)	Maximum sash weight (kg)	Max. sash rebate width (mm)	Max. sash rebate height (mm)
UNI-JET M 20/12	12	9	18/20	130	1600	2800
UNI-JET M 6/12	12	9/13	18/20	150	1600	2800
UNI-JET M 6/4	4	9/13	15/18/20	130	1600	2800
UNI-JET M 6/4 i	4	9	15/18	130	1600	2800
UNI-JET S	12	9/13	18/20	130	1600	2800
UNI-JET S-CONTURA	12	-	-	130	1600	2800

UNI-JET C and UNI-JET D hardware systems

For aluminium windows and balcony-doors



By courtesy of Tepasse Fenster GmbH, D-Bocholt

UNI-JET C and UNI-JET D

Aluminium windows make up a representative part of interior decoration in both modern homes and high-quality building projects. In order to achieve harmonious aesthetics of the window and hardware as a unit, GU provides an extensive range of innovative hardware systems. The UNI-JET concept with the fully concealed UNI-JET C-CONCEALED system as well as the visible UNI-JET C and UNI-JET D systems enable a high degree of design freedom. These hardware systems are perfectly suited to aluminium window profiles with a 16 mm hardware groove.

Design and functionality

- The hinge-side of the face-fixed UNI-JET C and D versions are flush with the sash overlap. With this, the window retains its line management and high-quality aesthetics.
- The slimline aesthetics of the hinge-side harmonises perfectly with the slimline profile design and thus creates maximum glass surfaces.
- The hinge-side's simple elegance emphasises the window's aesthetics.
- The hinge-side has been designed in such a manner as to accommodate project-related customised colour requirements.
- The UNI-JET C-CONCEALED concept captivates with its increased window tightness as the rebate gasket is not interrupted; a decisive factor when it comes to implementing energy saving measures.
- The high-quality surface treatment ferGUard*silver ideally complements the durability of aluminium windows. The faceGUard surface treatment is available for extreme surface requirements in highly corrosive environments.

UNI-JET C and UNI-JET D advantages

- Regardless of whether a fabricator makes aluminium, PVC or timber windows, the UNI-JET central locking system can be used on each material.
- The UNI-JET C hinge-side is an aluminium profile hinge both in design and aesthetics and with this meets project and architects requirements.
- The UNI-JET C and UNI-JET C-CONCEALED stay arms and pivot rests are clampable and with this, warrant efficient hardware installation.
- The UNI-JET hardware system enables easy and comfortable window operation without the typical sliding noise otherwise characteristic of connecting-rod hardware.
- The self-adjusting “Cleverle” locking cam automatically compensates for clearance tolerances, thus providing smooth and easy hardware operation.
- GU hardware is equipped with the “Cleverle” mushroom-shaped locking cam as standard. The hardware’s security level is determined by the type of striker used. Increased burglar inhibition can also be retro-fitted on windows already installed by simply exchanging the strikers.
- Pivot rests and stay bearings from GU are as a rule 3D adjustable; with this, any fabrication or installation tolerances can be compensated for.
- Specially adapted, particularly easy and fast to install hinge-side solutions are available for balcony and terrace doors with barrier-free thresholds.
- Stylish cover caps can be colour-matched to suit the window’s profile colour in the UNI-JET D hardware system. Window handles are available in a choice of colours to complete the colour harmony.
- The UNI-JET D stay arm hinge is equipped with an integrated sash brake preventing the sash from closing over by itself in draughty conditions. An optional adjustable sash brake is also available.
- A sash opening angle of up to 180° warrants unobstructed use of a room.



UNI-JET C-CONCEALED – hinge side



UNI-JET C – hinge side



UNI-JET D – hinge side

Product overview

Description	Clearance (mm)	Hardware axis (mm)	Sash overlap (mm)	Max. sash weight (kg)	Max. sash rebate width (mm)	Max. sash rebate height (mm)
UNI-JET C-CONCEALED	12	9/13	18/20/22	130	1400	2800
UNI-JET C	12	9/13	18/20	130	1600	2800
UNI-JET D	12	9/13	18/20/22	130	1600	2800

The GU pledge

Tested security

Successfully certified quality



EN ISO 9001 defines a company's structural, operational and quality management requirements.

In 1995, the accreditation association 'AGQS e.V.' certified the successful implementation of a quality control system in compliance with ISO 9001 in the Gretsch-Unitas GmbH Baubeschläge company. The manufacturing of high-quality hardware is a matter of corporate concern for the whole company group. The certification programme also confirms that the internal company processes – from development right through to sales and customer service – coincide with this concern.

Successfully tested BRG2 ('WK2') approval for our customers:

The following window types with hardware systems from the Gretsch-Unitas group have been successfully tested and approved for burglary resistance grade BRG2 ('WK2') at the ift institute, Rosenheim: 1 and 2-sashed Tilt&Turn windows, 1-sashed special windows such as arched and pitched windows, 1 and 2-sashed Tilt&Slide doors, Lift&Slide doors as well as fanlights.

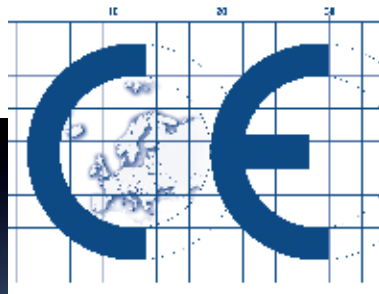
We now provide you with the service of using these BRG2 ('WK2') test results without you yourself having to carry out tests. The only requirement is that you participate in a one-day fee-based training session at our premises in Ditzingen/Stuttgart. This training authorises you to fabricate and distribute burglar-inhibiting and ift-tested windows and balcony-doors. You will receive a license agreement, a certificate, and the system folder "Burglar-inhibiting windows and balcony-doors in accordance with ENV 1627-1630". These documents help you to fabricate your window systems in such a way that they meet the European Standard's requirements for burglar-inhibiting construction units.

Our modular system provides you with all window systems, opening types, glazing systems as well as installation systems that are common on the market without having to greatly deviate from standard systems.

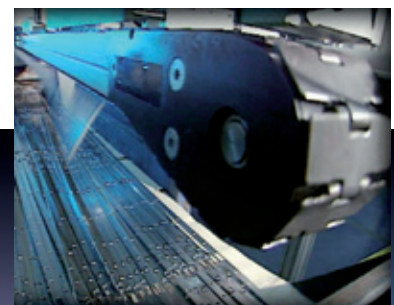
For more information: www.g-u.com



Advice right from the planning stage



System provider for CE and BRG2 ('WK2')



Security through quality manufacturing

More than 100 years experience

Global presence

System solutions for projects

CE certification system supplier

The Gretsch-Unitas group commissioned the German test institute for construction elements 'Pfb' Rosenheim to carry out Initial Type Testing (ITT) on timber windows and balcony-doors equipped with GU hardware; this was successfully completed in accordance with the product standard EN 14351-1.

Since February 2010, only CE-marked windows and balcony-doors may be placed on the market. In our capacity as system supplier, it is our pleasure to provide the service of transferring to you the right to use our test results in accordance with the ITT Cascading procedures. This procedure enables you to CE mark your windows and balcony-doors in accordance with the product standard EN 14351-1, without having to have your own elements tested.

We support you in implementing your Factory Production Control system (FPC), and also instruct you in CE Marking and Declaration of Conformity in a one-day fee-based training session at our premises in Ditzingen/Stuttgart. All participating companies have the opportunity of acquiring the license upon completing the training session.

The license consists of the system folder "CE marking for timber windows and balcony-doors" enabling you to fabricate window systems in accordance with the performance characteristics required by the product standard EN 14351-1.

Electronic ordering systems

Planning – ordering – information – administration

Online order processing guarantees you errorless data transmission, reduced material disposition, shorter procurement periods, and current prices and terms **around the clock 7 days a week**.

confiGurator with the main focus on windows

Product configurator for windows and balcony-doors for determining, quoting, and ordering hardware sets and parts lists.

■ Contact: configurator@g-u.de

Hardware Data Service

Compilation of individual hardware solutions and provision of CNC data for automated window fabrication.

■ Contact: beschlagdatenservice@g-u.de

Customer Information System (CIS)

Ordering and customer information system for all components with an assigned part number.

■ Contact: cis@g-u.de

Obs – Order by Scanning

Barcode scanner ordering system for production, warehouse and/or administration to record material order requirements by means of scanning barcode labels.

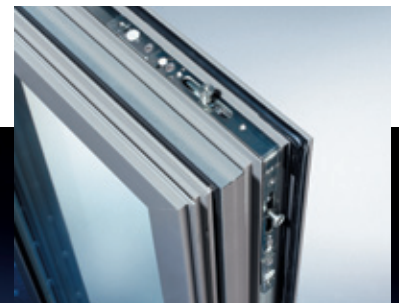
■ Contact: transfermanager@g-u.de



Future-proofed with patent protection



Logistics – just-in-time wherever you are



Guarantee and aftersales service

Special solutions development

Modular system technology

Product lines in stock around the globe



WINDOW TECHNOLOGY
DOOR TECHNOLOGY
AUTOMATIC ENTRANCE SYSTEMS
BUILDING MANAGEMENT SYSTEMS

Gretsch-Unitas GmbH
Baubeschlage
Johann-Maus-Str. 3
D-71254 Ditzingen
Tel. + 49 (0) 71 56 3 01-0
Fax + 49 (0) 71 56 3 01-293

BKS GmbH
Heidestr. 71
D-42549 Velbert
Tel. + 49 (0) 20 51 2 01-0
Fax + 49 (0) 20 51 2 01-431

www.g-u.com

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