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# **windows and doors** specification guide



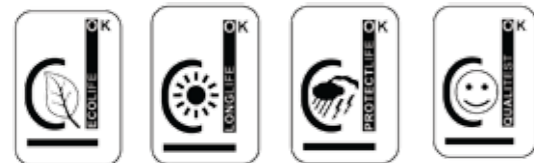
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# Deceuninck

## passion for excellence

Since its humble beginnings producing combs and other small plastic items in 1937, Deceuninck has grown to become one of the world leaders in the design, development, compounding, extrusion, finishing, recycling and injection moulding of PVC-U systems and profiles for the construction industry.

The company is now active in over 75 countries with 35 subsidiaries and 8 manufacturing facilities supported by some 2,800 personnel; the headquarters and coordination centre of the Group is located in Hooglede-Gits (Roeselare), Belgium and is quoted on the Euronext stock exchange.

A strong belief in ongoing investment into research and development, logistics, facilities and staff skills has ensured that Deceuninck leads the way in product design and innovation of its windows & doors, interior, roofline and cladding systems, and outdoor living solutions.

Deceuninck gives priority to innovation in materials, products and applications. These innovations include the patented UV-resistant Decoroc coating system and Twinson that merges the benefits of wood and PVC into a single base material. Deceuninck products combine this ground breaking technology with the absolute best in timeless design, including an accent on natural colours. Deceuninck employs a cradle-to-cradle philosophy in its design and manufacturing. Its products provide years of quality service, after which they can be fully recycled. This policy has led to achieving ISO 9001 (certifications for Deceuninck NV - Corporate, Deceuninck NV - plant Gits (headquarters) and Deceuninck Compound (raw material supplier to the group)).

The UK subsidiary, based in Calne, Wiltshire, was established in 1981. Whilst benefiting from the wide product range, investment potential and research and development that a global group has to offer, it has built its success by developing long-term partnerships with a select group of fabricators that share a desire for quality products and service. Deceuninck Ltd, the UK subsidiary, has also achieved ISO 9001 accreditation along with numerous standards for its products.

In line with its **passion for excellence**, the **Deceuninck** Group wants to project itself as an integrated world-wide group, specialising in the compounding, design, development, extrusion and finishing of PVC systems and profiles for the construction industry and in recycling. Satisfying customers is our ultimate goal at Deceuninck. This is based on a long term win-win situation for both customers and Deceuninck. We must therefore do everything in our power to ensure that customers are more than satisfied with our business partnership. As such, every aspect of our customer service must exceed market expectations.

'Passion For Excellence' encompasses; Financial Excellence – Deceuninck has successfully pursued a long-term policy of controlled growth and is now a world leader in the design, production and distribution of extruded PVC-U profiles.

Market Excellence – Deceuninck takes great pride in the wide range of products, training and expertise that the company offers to its worldwide customer base.

Operational Excellence – Deceuninck strives to maintain and improve upon the outstanding quality of products and logistics which is responsible for much of the company's success.



## environmental statement

The effect that we all have as individuals on the environment and the long term damage that this could do cannot be ignored. Global Warming has the potential to change our lives forever.

Over the years, Deceuninck has developed a strict environmental policy throughout the world. In Belgium this policy is supported by the annual participation in the Environmental Charter of the Province of West Flanders.

Deceuninck Limited recognises, like all organisations, that its business activities, products and services impact on the environment. As a result we are committed to managing any action that could potentially harm the environment in a responsible and effective way.

As a minimum standard, we will:-

- seek to comply with all relevant environmental legislation and other requirements.
- Seek to prevent pollution by proper

treatment and management of wastes arising from our activities and services, whether they are released to air, land or water.

- Manage our resource consumption in such a manner to minimise unnecessary or avoidable use and waste.

### Sustainability

Deceuninck Ltd's obligation towards long-term sustainability can be best summed up through its commitment to the 'Three Pillars' comprising Environment, Economic and Social

### Reduce, Reuse, Recycle

Deceuninck has been recycling its own production waste and the cut-offs of window profiles (post manufacturing waste) for quite some time, but recently found solutions for recycling more difficult post-consumer PVC waste, like broken window frames, old roller shutters, building profiles and drainage pipes. To do this, Deceuninck

developed Cyclefoam®, a foam process in which processed post-consumer waste is extruded using innovative technology to produce high-quality profiles and also TCI (Thermal Chamber Insulator) inserts for Deceuninck PVC-U window frames. PVC-U used in building products or windows have an average life of 35-50 years. PVC can be recycled up to 10 times without a problem. That means that one kilo of raw material has an average life of 350-500 years. As members of the British Plastics Federation, Deceuninck Ltd. support the Recovinyl scheme which is part of Vinyl 2010, a Europe wide initiative by the PVC industry to ensure end of life post consumer PVC waste is collected and recycled. During 2009 almost 200,000 tonnes were collected and recycled throughout Europe which will be put back into numerous high end PVC products including new windows.

### Economic

Plastics also make a major contribution to the UK economy and a healthy manufacturing sector is vital to a sustainable economy. There are approximately 7000 plastics companies in UK with a turnover approaching £17 billion. For many plastics products, especially construction related products, the whole supply chain is situated within the UK.

### Social

Plastics are also socially sustainable. The UK plastics industry is socially inclusive and offers a wide range of worthwhile careers with considerable room for career development, progression and training and provide jobs to some 180,000 people. PVC itself has proven durable, very low maintenance, thermally efficient and therefore a cost effective solution for numerous construction projects. PVC is also safe and is essential in modern day healthcare, in applications including blood bags, catheters and blood transfusion sets.



## thermal chamber insulator (TCI)

As a responsible organisation, Deceuninck Group has been recycling its own production waste and off-cuts of window profiles (post manufacturing waste) for quite some time.

As a supporter of Vinyl 2010, which is a 10 year voluntary commitment by the European PVC industry to enhance sustainability of its products and production over the full lifecycle, Deceuninck has committed to improving production processes and products, investing in technology, minimising emissions and waste and boosting collection and recycling.

As part of this on-going commitment towards sustainability Deceuninck is continually looking at ways of increasing the number of products which are produced from PVC-U waste and recycled into fully fledged products.

Through innovation and product development Deceuninck has found a solution for recycling it's more difficult post industrial PVC-U waste, by inserting recycled PVC-U profiles into their own high quality PVC-U window frames, giving enhanced insulating properties, hence the name Thermal Chamber Insulator (TCI).

### Thermal Performance

By its location inside the window frame, TCI sometimes mistakenly gets called a reinforcement. Steel has many benefits with regard to structural rigidity but by its very nature is a good conductor and therefore has a negative effect on the overall thermal performance

of a window. TCI is not a reinforcement for PVC-U windows but a genuine commitment by Deceuninck to both reduce the carbon footprint of it's manufacturing processes by minimising the amount of waste which potentially may go to landfill but to also make Deceuninck fenestration products more thermally efficient once they reach the 'In-use' phase of the product lifecycle, by reducing the amount of heat loss from inside the building to outside, resulting in reduced heating bills and less carbon emissions. Twice the environmental saving!

Through indicative thermal modelling tests carried out, we have found by using TCI in white windows, Window Energy Rating Bands can be improved and certain framing and glazing products can attain the prestigious 'A' rating band where it was not previously possible.

### Accreditation

TCI was launched with full British Standards Kitemark approval, for weather testing and enhanced security, having been successfully tested to BS 6375-1:2009 (weather testing) and BS 7950:1997 (enhanced security standard for windows).



Contact Deceuninck Technical on: 01249 810415 for Wind loading performance, maximum size criteria and test hardware specification.

### Product Features

TCI also brings a number of benefits to the window manufacturing process through its unique material properties, such as:

- Less risk of weld contamination due to the removal of steel and the grease used to protect it from rust.
- Can be cut with a standard chop saw suitable for PVC-U, reducing the need for using steel saws and the resulting danger of contamination of coolant oils during welding.
- No sharp edges, reducing the risk of injury to operatives
- Can be optionally mitred and welded at corners, reducing the amount of reinforcement retention screws needed bringing associated cost savings.
- Less TCI shapes fit more profiles, reducing stocks.

- TCI weighs less than steel, making windows lighter, giving not only health and safety benefits but importantly making savings on lorry load delivery weights and associated CO<sup>2</sup> savings.

# origins of the replacement window

The relatively recent introduction of the double glazed replacement window has led to an ability to change not just the performance but the character of a building. Of course, beauty is in the eye of the beholder, but what are the rudimentary basics that your fenestration product needs to fulfil? What is a window? Simply, it's a hole in a wall to let light in. The drawback with just a hole is that it does not just let light in, it lets heat out, lets the weather in and may let unwanted visitors in.

We also need to remember that on average, 70-80% of the area of the hole is filled with glass. The use of glass for architectural purposes began at the end of the first century AD when the Romans discovered that adding manganese oxide to the mixture made clear glass, albeit with poor optics. However glass did not really become the mass produced product of consistent quality until the invention of the float process in Britain in the 1950s. This is whereby molten glass is poured across the surface bath of molten tin. The glass spreads and flattens before being drawn off in a continuous ribbon. The process is able to produce very large panes of extremely good quality and remains largely unchanged to the present day.



The development of window glass production methods to produce larger, flatter pieces with better clarity has had an enormous influence on the design of windows through history. It is the limitation of the size of a windowpane that gives us leaded lights and Georgian bars for instance. Early glass production techniques of casting, blowing and spinning were such that only small panes of consistent thickness and clarity could be produced. These then

had to be joined together with lead strips to produce a reasonable area. As glass production technology developed, larger panes could be produced which gave rise to the window designs of the age such as Gothic arches, Victorian vertical sliding windows and Art Deco with metal frames. Replacement of these windows gives an opportunity to install styles of windows which are more sympathetic to the style of the building and more in line with general

aesthetic tastes. Generally, window designs have either openings in the wall which are taller than they are wide or the window is divided up into sections which are taller than they are wide. This is a recognised aesthetic principle which goes back into classical times with a ratio of height to width of 1.618:1, ( $\Phi$  or phi)

Replacement windows that follow the phi principle tend to be more amenable to the

human eye. Symmetry is also important. Those windows which don't follow this ratio or are not symmetrical tend to be less pleasing. However, modern windows are designed not just for aesthetic reasons but also for regulatory compliance. Today's windows can combine good looks, save you money on your heating bills, reduce your carbon footprint and keep unwanted intruders at bay.

The Development of the PVC-U Window and Door Systems began in the UK when they were first introduced from Germany in the late 70s to early 80s and became extremely popular during the 80s. The German profiles were designed for tilt/turn windows and tended to be bulkier than the timber profiles of the casement windows they replaced. However, as the market developed, slimmer profiles specifically for UK style windows were produced which closely emulated existing windows and gave improved performance.

In recent years advances in extrusion technology has enabled even closer matching of windows with shaped and sculptured profiles and glazing beads to match timber mouldings, Georgian and Astragal bars, replica horns on

sliding sashes, etc. In addition, special foils can be laminated on to the surfaces of profiles to give a range of colours and finishes and grains. Long-lasting surface coatings (such as Deceuninck Decoroc) have also been developed to give a wide range of colours.

Extracts of this article were sourced from BPF Windows Group Publication:- A brief history of Windows – Guide to Sympathetic Replacement Design

Since 2002, replacement windows as well as windows in new buildings have come under the remit of Building Regulations, specifying a minimum thermal performance under Approved Document L (Conservation of Fuel and Power). In addition the requirements of Approved Document N (safety glazing) must also be met. Other areas of Building Regulation also need to be considered including Approved Document B (means of escape) and Approved Document M (access) which should not have a worse level of compliance once the installation is completed.

Normally, Building Regulations are overseen by Local Authorities, however, replacement windows in England and Wales, can alternatively be approved by a number of self certification routes including FENSA, CERTASS and BSI. There has been a further amendment to Approved Document L (ADL) in 2006 and again in October 2010.

The traditional method for measuring thermal performance of windows/doors has been via U-Value but since 2006 an alternative method appeared in ADL to measure replacement windows via Window Energy Ratings (WER's). This measurement is supported by an energy labelling format which consumers have been familiar with on white goods (see label below). In addition, installations attaining a Window Energy Rating of Band B or above can carry the Energy Saving Recommended mark, when issued by the Energy Saving Trust.

The following minimum compliance in England and Wales for the thermal performance of windows/doors from October 2010 will be as follows:-

## New Dwellings-Approved Document L1A

There are backstop U-Value values for fenestration products, but in practice the thermal performance requirements for the contract will be specified to meet the Dwellings Emissions Rate calculated by the standard government software, SAP.

## Windows, doors and curtain walling

Whole element U-Value 2.0Wm<sup>2</sup>k.

## Existing Dwellings-Approved Document L1B

### Windows

Window Energy Rating minimum Band C  
Whole element U-Value 1.6Wm<sup>2</sup>k or better

### Doors

Whole element U-Value 1.8Wm<sup>2</sup>k or better

### Conservatories

Exemption for sizes of less than 30m<sup>2</sup> providing certain criteria is met.

### Extensions

No separate requirements for performance but sizes should not exceed 25% of floor area.

## New Buildings Other Than Dwellings-Approved Document L2A

Again there are backstop U-Value values for fenestration products, but in practice the thermal performance requirements for the contract will be specified to meet the Buildings Emissions Rate calculated by the approved Government software, SBEM.

## Windows, doors and curtain walling

Whole element U-Value 2.2Wm<sup>2</sup>k.

## High usage entrance doors

Whole element U-Value 3.5Wm<sup>2</sup>k.

## Existing Buildings other than Dwellings-Approved Document L2B

### Windows

Whole element U-Value 1.8Wm<sup>2</sup>k or better  
Window Energy Rating minimum Band C (windows domestic in character only)

### Doors

Whole element U-Value 1.8Wm<sup>2</sup>k or better (>50% glazed area)  
High usage entrance doors, 3.5Wm<sup>2</sup>k

### Conservatories

Exempt if heating system is separate from main dwelling and thermal separation between the existing building remains.

### Extensions

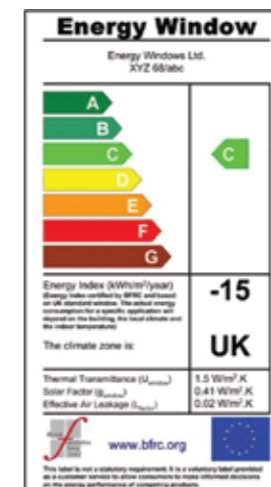
No separate requirements for performance but sizes should not exceed certain area of exposed wall dependant on building type:-

- A centre pane U-Value of 1.2 Wm<sup>2</sup>k can be used to maintain the character and existing façade of a building where the above cannot be met.

This covers only the headline points of changes in legislation. Deceuninck have produced an information document on the changes to 2010 Building Regulations, including a summary of Approved Document F (Ventilation) and changes to The Scottish Building Standards. This can be downloaded free of charge by registering at: <http://www.deceuninck.co.uk/corporate/uk/pressrelease.html> Deceuninck would also encourage stakeholders to read all relevant documentation on this subject and familiarise themselves with it, all of which can be located and read or downloaded from the internet free of charge.

For England and Wales Approved Documents visit :- <http://www.planningportal.gov.uk/england/professionals/buildingregs/technicalguidance/bcapproveddocumentslist/>

And for Scotland, the Technical Handbooks can be found at :- <http://www.scotland.gov.uk/Topics/Built-Environment/Building/Building-standards/publications/pubtech>



# secured by design



Secured by Design (SBD) is an initiative by The Association of Chief Police Officers (ACPO) to design out crime in the layout stages and prior to the construction stage of new home developments and commercial premises. SBD principles are also now regularly used within the refurbishment sector.

Windows and doors are required to meet minimum security standards in accordance with the design guide requirements which include BS 7950 specification for enhanced security performance of windows for domestic applications and PAS 24-1 Enhanced security performance requirements for door assemblies.

Deceuninck are members of The Secured By Design initiative and operate a group scheme in association with ACPO, where

manufacturers of our products are able to gain SBD approval through testing to an agreed specification as part of a certification scheme. Once accepted manufacturers are permitted to market their products using the 'Secured by Design' and 'Police Preferred Specification' logos.

### CE marking



BS EN 14351-1 Windows and doors – Product standard, performance characteristics – Part 1: Windows and external pedestrian doorsets without resistance to fire and/or smoke leakage characteristics is the standard used throughout Europe for manufacturers to demonstrate fitness for purpose and affix the CE Mark to fenestration products. Whilst CE Marking remains voluntary for fenestration products placed on the market

in the UK, Deceuninck have ensured that the characteristics required for application in the UK

- U-Value from a notified body
- Load bearing capacity of safety devices
- Dangerous substances

have been tested on all UK window/door types where applicable along with many of the mandated characteristics covered in Annex ZA of BS EN 14351-1.

Deceuninck are able to cascade these test results to manufacturers in a structured manner which providing that all other criteria is met under BS EN 14351-1, would allow manufacturers to affix the CE Mark.



# security

Safety, security, compliance with regulations and peace of mind are essential if a window is to satisfy modern demands. Deceuninck 70mm platform profiles have numerous security features.

The inclusion of a full depth Eurogroove in sash profiles enables the use of a wide range of standard hardware, especially for multipoint perimeter locking incorporating corner drive components.

The Eurogroove for doors and tilt & turn windows has been moved more centrally to provide optimum protection for components against forced entry. System design ensures that hinges, hinge bolts and lock striker plates can all be secured directly into steel reinforcement or thermal chamber insulators to maximise retention and performance.

The 20mm rebate height which maximises glazing cover, secure 'hook in' bead retention, designated location points for friction hinges and locks, plus the capacity to incorporate high-security glass units up to 42mm thick are further examples of how seriously security was taken during the development of the 70mm platform range.

Deceuninck systems are tested in accordance with the latest recognised security standards BS7950 : windows and PAS24 : doors.

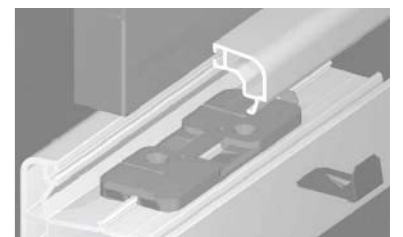
3000 zendow features a central pip which acts as a positive retention point for hardware, lock striker plates and glazing bridges for externally glazed applications, a stainless steel security clip is also available (as shown right).

### high performance door

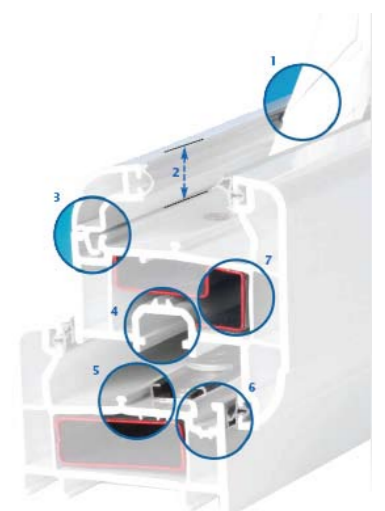
3000 zendow offers a high-specification solution for hinged doors used in high-traffic areas and/or where enhanced security is paramount. Deceuninck have developed a moulded corner insert to further increase the strength of each mitred sash corner resulting in a door with exceptional torsion strength to withstand the effects of dropping or twisting and to enhance the resistance to forced entry.

The core of the system is a galvanized mild steel box reinforcement inserted into the PVC-U profile. Locked into this steel box, at each corner of the sash, are dedicated corner joint pieces which have a sloped face to align with the mitre cut on the PVC-U profiles. During the welding process, these joints are welded simultaneously with the PVC-U profile. The result is a corner of exceptional strength and a reinforcement that retains its integrity even around the corners.

- allows for the reinforcement chamber to be considerably enlarged
- tubular reinforcing standard 45 x 45mm
- door hinges fitted directly into the steel



- 1 laminated or toughened glass up to 42mm thick
- 2 rebate height of 20mm maximises glazing cover
- 3 secure location of the glazing bead
- 4 all standard types of safety hardware can be used
- 5 strikers can be fixed directly into reinforcement which increases the pull-out resistance
- 6 positive location for friction hinges
- 7 choice of reinforcements to suit function required





## quality, recycling and environment

To ensure full control over the quality of our products, Deceuninck produces its own raw material (PVC-U compound) and tooling. By designing and manufacturing our own dies and calibrators, we can also constantly monitor and maintain existing tools to guarantee consistently high-quality products.

For a global company of this scale, efficient logistics are essential. Deceuninck has developed its own computer software to assist in this area;

DEPLIS (Deceuninck Plastics Information System) ensures an optimal order follow-up service and a permanent connection with the other production centres' stock control.

SYNERGEBUILD is a business-to-business package that enables Deceuninck customers to view stock levels, place and track orders and monitor their purchase history.

A perfect window requires good profiles, sound manufacturing processes and excellent installation. To create these conditions, the Deceuninck Technical Team work closely with customers to train staff, commission profile-related tooling and advise on the setting and monitoring of the high standards required. The role played by Deceuninck is not restricted to selling PVC-U profiles but entails passing on detailed technical knowledge gained through years of experience.

Deceuninck gives the same priority to quality, accident prevention, safety, health and environmental protection as it does to production, marketing and performance. This is an "Integrated Prevention Policy" for which the necessary resources are made available.

### Recycling/Environment

Over the years, Deceuninck has developed a strict environmental policy throughout the world. In Belgium, this policy is supported by the annual participation in the Environmental Charter of the province of West Flanders.

Scientific research carried out on an international scale has shown that PVC-U as a material is a sustainable, responsible choice providing comfort, quality and safety. Indeed its cost to performance ratio means that citizens of many income groups can enjoy these benefits. CO<sub>2</sub> is a major contributing factor in global warming but the sustainability of all materials should be judged not only on the embodied CO<sub>2</sub> produced in manufacturing a product but from the whole life cycle including the 'in-use' phase through to disposal. Plastics are often seen as symbols of a throw away society but PVC-U is durable, long lasting, does not corrode and not to mention its excellent thermal efficiency properties. Studies show that double glazed PVC-U windows are twice as energy efficient as double glazed aluminium windows. In fact, ecologically PVC-U fares favourably with all materials used for fenestration. The latest Green Guide to



Specification published by BRE categories PVC-U windows as 'A' rated for use in domestic and 'A+' in Commercial Buildings.

Not only does PVC-U reduce energy costs but, in addition, it is well suited to recycling. During 2009, almost 200,000 tonnes of post consumer PVC-U were collected for recycling under the European PVC industry voluntary commitment, Vinyl 2010 (which is coordinated in the UK by Recovinyl). The industry recognises the importance of recycling to a sustainable future, a recent project undertaken by Recovinyl showed that equivalent emissions of one tonne of recycled PVC versus virgin PVC could reduce manufactured CO<sub>2</sub> by 94%.

The combination of all these factors confirms that PVC-U has a favourable ecological balance sheet.

### Fire behaviour of PVC

It is very difficult to set fire to PVC and, in the absence of an external flame, it will self extinguish.

## technical services and specification support

The prime objective of Deceuninck Specification Support is to help you specify the correct product for your project.

Specification Support also forms an essential link between architects, specifiers and approved Deceuninck fabricators and installers. The team provide informed guidance on the use of products, samples, drawings and specifications with contact maintained throughout each stage of a contract to completion.

Deceuninck can offer a technical and design service for suitable schemes embracing:

- product selection and application
- technical review to confirm compliance with Building Regulations, including Approved Document L
- advice on exposure conditions
- wind load calculations
- framing construction and design solutions
- generation of scheme drawings for tendering purposes
- technical specification
- window samples for client/authority approval

### CPD Provider

A CPD presentation is available which demonstrates the general suitability of PVC-U framed products for incorporating in a wide range of applications.

Areas of doubt or preconceptions are addressed in an informed manner generating confidence for specification. Following the CPD presentation, time is available for questions and answers. Arrangements to discuss specific project needs can be made once the presentation is concluded.

### Training

A great deal of support is provided to fabricators and installers at their own premises to ensure that processes are carried out correctly, efficiently and to the high standards demanded.

An awareness workshop is also available on window thermal performance and Building Regulation compliance. This can take place in-house or as a roadshow as part of customer events.

Deceuninck also offers training at its dedicated Training School covering essential areas of fabrication and installation of products, on a one-to-one or small group basis.

### Sample availability

For full window and cross-section corner samples, simply contact our Specification Team on 01249 816969.



## Joint project by Yulia Chicherina and Deceuninck Russia

Triangular windows and the front door of Yulia Chicherina's house are made from Deceuninck profiles. At the singer's request Deceuninck elaborated and put into practice unique engineering works. The glass door designed specifically for Yulia Chicherina was installed in the triangular opening of her country house.





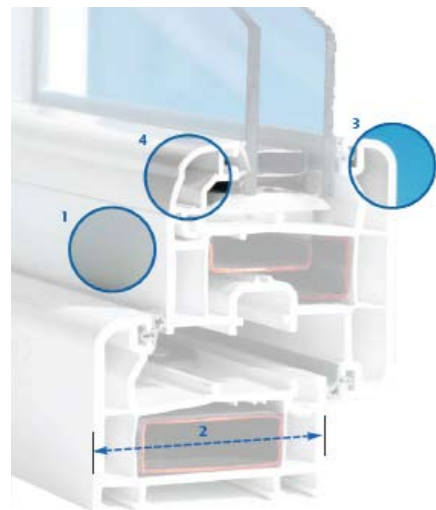
# what's in a window?

It is important to correctly specify a window for the application so that it will continue functioning to a high standard for many years to come. There are often only small cost differences between window systems at the lower end of the market and systems with numerous features and cost-efficient benefits.

A few key areas of choice are:

## 1. Colour

Most PVC-U window framing is white but there are options for coloured surface coatings and wood grain laminated finishes, to blend or contrast with surroundings.



## 2. Profile depth

Many PVC-U window systems were traditionally designed with a front-to-back depth of 60mm. A desire for slimmer sightlines without loss of mechanical strength, has seen a trend towards a 70mm frame width, which the majority of window systems have now adopted. This width is often preferred for refurbishment applications.

## 3. Style

PVC-U window design has gone through four distinct stages of design:

- bevelled – a slightly angled single rebate design
- chamfered – two or three straight edges to provide aesthetic appeal
- decorative – in the early 1990s Deceuninck introduced the first decorative PVC-U profile system to the UK market. This moulded design, replicating traditional joinery, proved to be a huge success and many systems are still designed this way today.
- modern trends in architectural, interior and appliance design now favour clean, uncluttered lines with a contemporary feel.

## 4. Framing options

There are opportunities to personalise a design to suit the project. Window styles are often dictated by current trends but may not be appropriate for refurbishing an older building or

incorporating into a more modern project. Being able to select the sash or bead shape from a number of designs can transform the look of a window.

## 5. Gaskets and seals

The sealed double or triple glazing unit represents the majority surface area of any window, however the frame, particularly the PVC-U can enhance performance. Exceptional seals and gaskets are essential if the window is to function to a high standard particularly with the introduction of pressure testing on new buildings.

Traditionally the appearance of seals and gaskets has been given low priority, with greater emphasis being placed on performance. A thick black rubber gasket protruding between the glass and a white coloured frame or panel might function perfectly well but is likely to spoil the finished effect. Low sightline, high performance integral seals and gaskets in colours harmonious to the framing are available.

## 6. Drainage

A PVC-U profile will retain its integrity for many years but lifetime performance from a window is dependant on sound design principles backed by quality raw materials and workmanship. The correct provision for drainage is crucial to the

performance of a window and important to the life expectancy of glazed units in particular.

## 7. Hardware (selection and attachment)

Where possible, hinges, locks and striker plates are secured to galvanised steel reinforcement or deceuninck exclusive Thermal Chamber Insulator (TCI) recycled material, isolated in the centre chambers of main PVC-U profiles, away from drainage functions. The correct specification and quality of fasteners will ensure retention against day-to-day use. High corrosion resistant hardware and fasteners are available for use in coastal and other vulnerable areas.

## 8. Security

Security is a key issue and must be properly addressed in the design of a window or door system. A well-designed product will permit the inclusion of a range of high-security glazing options and glazing bead integrity. The facility to incorporate a wide choice of proven hardware into dedicated retention areas close to the centre part of the framing will greatly increase resistance to unwanted intrusion. All Deceuninck systems have attained BS7950 and PAS 24 security product standards

## 9. Thermal Performance

With ever more stringent legislation and tightening of UK Building Regulations

aimed at reducing CO<sub>2</sub> emissions and combating climate change, highly insulating profiles are needed.

Deceuninck products with their 70mm depth exceed the requirements of Building Regulations and many Deceuninck customers have attained the highest 'A' rating for refurbishment through the Window Energy Rating Scheme.

## 10. Raw materials

PVC resin in its raw form is not suitable for extrusion but must be mixed with other agents to form a compound suitable for the final product. Deceuninck have many years' experience in this area and produces its own compound to ensure the highest levels of quality and consistency are achieved.

The company is committed to recycling waste, which is used as the base material for a range of attractive internal products and Deceuninck exclusive TCI material (see page 6,7 and 13 for further details)

## 11. Training

It is the system supplier's responsibility to ensure that its fabricators receive thorough and ongoing training to embrace new products and techniques as they evolve.

PVC-U windows and door systems, designed by Deceuninck, are supplied through a national network of fabricators and installers. Deceuninck offer training to all their fabricators and installers, both on site and at their dedicated Training School in Calne, Wiltshire.

## 12. Stronger doors

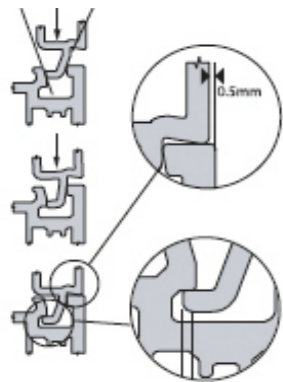
Doors in high traffic or enhanced security areas can be specified to include welded corner inserts to greatly improve the strength of the frame corner joints. This innovation enables the integrity of robust tubular steel reinforcement to be linked securely around the full perimeter of the door sash.



# features and benefits

As one of the world's leading PVC-U system houses, Deceuninck are constantly looking at what can be achieved with modern materials, new engineering techniques and technology?

Every aspect of each profile is analysed to the finest detail and designed for optimum function, to ensure that every feature supports and enhances those around it.



Single leg glazing bead receiver ensures easy insertion and positive location – glazing bead set back 0.5mm

### the right white

The design concept determined that the window complements and improves its surroundings, so the colour must offer the closest match with the widest possible range of hardware and accessories. RAL 9016 was chosen. This soft, welcoming white embraces smooth modern design and tastes.

### modern style

Simple, smooth and stylish: the 3000 Zendow shape is a soft, natural curve which sits easily alongside classical or contemporary, uncomplicated or decorative designs.

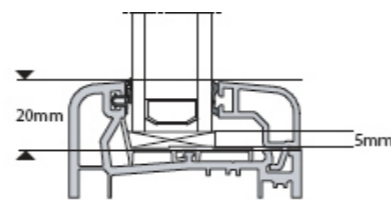
Elegant, without being imposing, the design takes full advantage of modern materials and can be personalised through a choice of two sashes and three beading options.

The 2500 effective, gentle chamfered design looks sharp and stays that way with no nooks or crannies for dirt to collect. Whatever your taste, the look of these windows and doors is easy on the eye without compromising its intelligent design.

The elegant 2800, with its stunning contours and decorative feature complements any shape or size of property. Combining the traditional look with the latest technology, its symmetrical design gives a perfect balance and harmony.

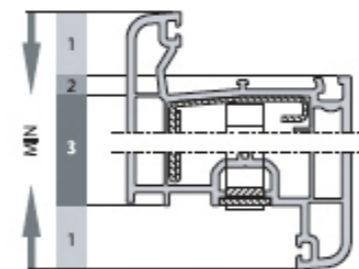


1mm setback on sashes improves opening geometry on smaller windows



Glass rebate height at 20mm ensures symmetry of rebates, protection of sealed unit against UV and easy alignment of sealed unit resulting in improved aesthetics

Enables minimum 5mm clearance recommended for glazing



The objective of creating the small sightlines for sashes is determined by the following criteria:

- glazing and hardware rebate, at 20mm
- optimisation of the drainage area to improve water evacuation
- body of the profile determined by hardware used



3000 zendow standard sash

### sash options

The 3000 zendow and 2500 chamfered standard sashes, when used with the relevant standard bead, ensure a neat, pure symmetry inside and out.

The 2800 decorative, 2500 chamfered and 3000 zendow decorative sash allow a delicate alternative.

### beading options

The 3000 zendow standard bead reproduces the natural curved feature of the framing, while the 2800 decorative bead perfectly matches the sculptured styling of the 2800 decorative sash.

For a slightly retro alternative, the 2500 chamfered sash and standard bead provides a clean, simple and minimalist aesthetic.

The 3000 zendow contemporary and decorative beads offer simple yet effective alternatives to the symmetry of the standard design. The introduction of a sculptured contour or decorative detail can transform the appearance of the window.

### seal/gasket colour

Both technically and aesthetically, seals and gaskets are a vital component. A traditional black gasket on white framing would have broken the smooth lines of the design,

so, as with every aspect of our systems development, the Deceuninck team went back to the drawing board to look at the functional and aesthetic requirements.

A discreet, neutral grey was chosen to harmonise with the standard white framing colour. Black seals and gaskets are retained



2800 decorative decorative sash

### where a bolder colour is better suited – on laminated wood grain effect faces, for example.

The seal/gasket has also been designed with minimal sightlines, especially to the glazing application, further reducing any intrusion with the finished effect.

### 70mm – the optimum size

An increased width of 70mm allows a profile to be narrower (reducing the sightlines) whilst improving on the high levels of structural and insulating performance. Incidentally, a 70mm width also means that paint lines and mastic residue from previous windows can be fully covered.

### colour finishes

Under the global brand of Deuctone, Deceuninck are able to offer their products in a wide range of foils and colour coated finishes that will compliment any installation.

For a more traditional look wood grain foil laminates are available. Whether its vibrant Golden Oak or rich Rosewood, the effect is a solid, satisfying, realistic appearance that belies the technology and performance hidden beneath. However if a wood grain or white window isn't what you desire, the Deceuninck patented Decoroc coating system applies a unique, tough and textured oven cured coating which is incredibly durable, scratch resistant and wonderfully effective.

A range of RAL colours are available and subject to quantity, specific colour matching is available.



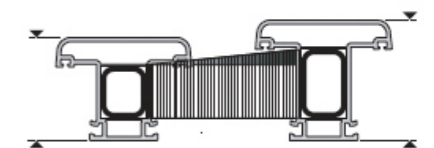
2500 chamfered chamfered sash



Golden Oak



Rosewood



An increase in width from 60mm to 70mm enables an increased width of the reinforcement chamber of 30% resulting in a stronger windows

# features and benefits

## the seal/gasket

Our seals/gaskets fulfils separate important functions fundamental to the outstanding technical pedigree of the product.

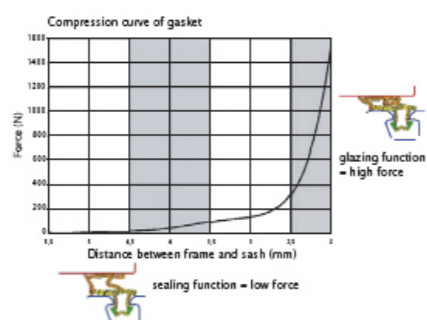
When used as a glazing gasket, it must have the integrity to retain compression against distortion through exposure to high wind loads and to repel water ingress. As a weatherseal, it must be flexible enough to enable even the largest multipoint locked product to perform at the highest exposure level, yet operate without strain to either user or hardware.

Modern TPE (Thermoplastic Elastomer) material technology is utilised to extract the very best from the design and to give the seal/gasket the strength, flexibility and durability Deceuninck demanded.

The seal/gasket is pre-inserted during the extrusion process so in window fabrication it is both cut and welded at the corners with the framing to give an all-round integral seal. This process eliminates the poor performance associated with 'shrink back' on corners that can occur with conventional technology limiting costly call out charges.

All these features ensure that a consistently high level of performance and quality is maintained throughout the service life of the product.

## compression curve

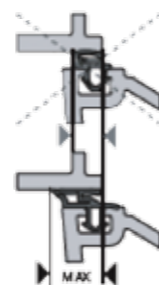
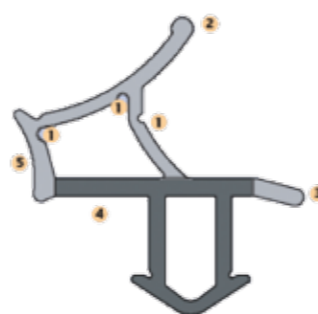


Low sealing force ensures easy handle operation and less strain on strikers and fixing screws, ensuring a long trouble-free life.

## gasket geometry

Different thermoplastic elastomer materials are used according to their function.

- 1 hinge elements determine how the gasket behaves in sealing and glazing functions
- 2 single flap – flexibility of the rebate increases functional range
- 3 extra-hard material prevents shrinkage after online insertion
- 4 hard material for the base maintains structural integrity and positioning after cutting
- 5 high performance softer TPE for the functional elements



Contact surfaces of the gasket redesigned to allow greatest sealing area resulting in higher performance.



Gasket groove optimised to allow excellent retention of gasket during all fabrication processes.

## features and benefits

Performance Thermal and Acoustics

The Deceuninck profile series comply with the Conservation of Fuel and Power requirements as set out in the guidance of Approved Document L (England and Wales). Various enhancements to thermal performance can be made over and above the minimum requirements contained in Document L by incorporating one or more of the following :-

- Deceuninck Thermal Chamber Insulator (TCI)
- low 'E' glass with better emissivity values
- low iron glass for optimum clarity to increase solar gains
- gas filling of IGU's
- warm edge spacer bar technology
- triple glazing

It may not be possible to incorporate all of the above enhancements in 1 window, depending on the specification, location and orientation of the installed product. Contact the Technical Department for further details.

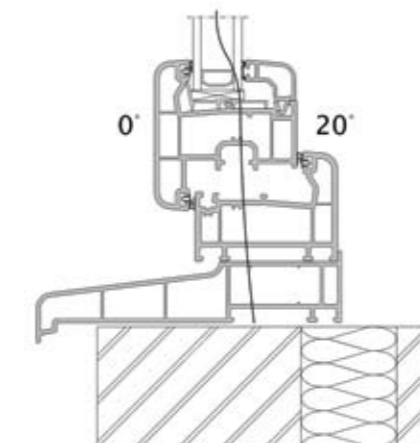
Specific performance is covered in the Building Regulations section elsewhere in this document (P9), but from October 2010 onwards compliance will be achieved by one of two methods :-

## u-value

- Whole element U-Values (including the framing and insulated glazing unit).
- The sole method of measurement for new buildings (windows and doors) or one of two methods for domestic replacement windows.
- Measures heat loss from inside to outside of the building.
- As described in Approved Document L of the Building Regulations (England and Wales) and section 6.0.4.d, Domestic Handbook of the Building Standards (Scotland), U-Values should be calculated using the methods and conventions in BR 443.

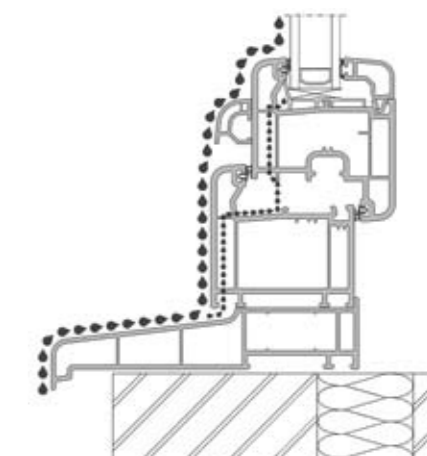
## window energy rating (WER)

- Can be used as alternative method of measurement to U-Values for domestic replacement (windows only).
- Window Energy Ratings use a consumer-friendly traffic-light style A-G ratings labelling system similar to that used on 'white' goods (such as fridges, freezers, washing machines etc...).
- Calculation takes account of 3 measurements, U-Value, Solar Gain and Air leakage.
- Window Energy Ratings can only be used by manufacturers/installers who are part of a recognised Certification Scheme (eg: BFRC, TRR or BSI).
- Windows rated 'B' or above can also display the Energy Saving Recommended swing tag from Energy Savings Trust on application.



- 1 the isotherm of 11°C, perfectly situated in the functional zone shows a consistent insulation throughout the whole window to minimise condensation risk.
- 2 the increased contact area of the weather seal contributes to the effectiveness of the sound reduction.

Acoustic performance can be enhanced by the choice of glass. The system is designed to accommodate glass units or panels up to 42mm.



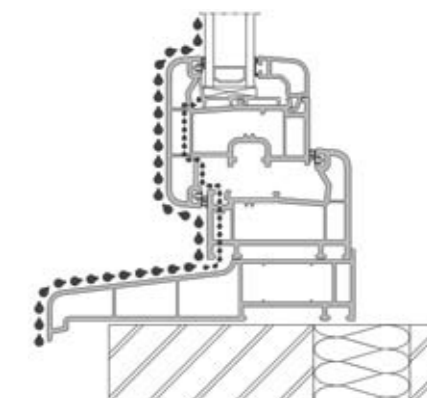
## weather performance

The fluent evacuation of infiltrated water is essential to protect hardware and glazed units against degradation and maintain high-exposure performance throughout the long life of a PVC-U window.

Deceuninck window systems are tested to latest European standards for water ingress, air permeability and wind resistance.

Air Permeability	EN1026
Water Tightness	EN1027
Wind Resistance	EN 12211

BS 6375 Part 1:2009 gives guidance for windows and doors of the classifications for weather tightness in the UK.



- 1 inclined drainage areas on internally beaded products ensure fast and efficient drainage should water infiltration occur.
- 2 the area of surface contact available for the seal has been maximised to provide high performance even at the extremes of fabrication tolerances.
- 3 the central pip creates a drainage area and a dry zone.

## zendow® autentica

[discover today the architectural window of tomorrow](#)

Autentica is a range of insulating decorative cladding profiles in 3 distinctive styles to be sympathetic with Georgian and Gothic style architecture. Aimed at period property restoration and available in 6 distinct Deceuninck Decoroc colours to blend with its surroundings, Autentica is the answer for windows in listed buildings, in heritage and conservation areas with an Article IV direction, where it is not usually permitted to replace windows without the approval of the local planning department.

Whether a countryside cottage, a barn conversion or a spa town house, Autentica style combined with quality is exclusive to Deceuninck and workmanship is guaranteed through our network of approved manufacturers.





# 3000 zendow<sup>®</sup> windows

## casement internally glazed



### features

#### Framing

- choice of two outer frame sizes (54mm and 70mm)
- choice of three transom/mullion sizes (70mm, 94mm and 110mm)
- standard slimline or decorative sash

#### Seals/Gaskets

- main profiles supplied with high-performance integral multifunctional seal/gasket

#### Reinforcing

- galvanised steel profiles optimised for strength and secure hardware attachment
- optional deceuninck thermal chamber insulator (TCI) for enhanced thermal performance in non-structural elements

#### Window styles

- top hung, side hung and fixed light frames
- multilights combining above elements
- 'T' or cruciform transom/mullion joints
- coupled flat and bay/bow window styles

#### Fabrication

- fully welded construction

#### Glazing

- choice of three glazing bead styles
- accepts insulated glazing units up to 42mm thick
- Georgian bar and leaded light options

#### Ancillaries

- frame extensions, cills and weathering trims
- lightweight and structural coupling members
- standard and structural bay corner posts
- window boards, reveal liners and finishing trims
- replica mock cottage horn for decorative sash

#### Hardware

- will accept hardware from most manufacturers
- full depth Eurogroove
- secure location of hardware into reinforcement/thermal chamber insulator

#### Ventilation

- proprietary ventilation devices can be fitted to 3000 zendow casement windows in compliance with Building Regulations

#### Fixing

- fixing can be achieved through the frame or with bespoke fixing lugs or into proprietary cavity closers/sub-frame systems
- fixing methods exist for timber framing, flush or check reveals

## TEST RESULTS

Frame type	Maximum size tested	Air permeability	Water tightness	Exposure category	Accreditation
single top hung light	1200(w) x 1200(h)mm	Class 4 (600Pa achieved)	Class 7A (300Pa achieved)	Class E 2400Pa	BS 7412 BS 6375 BS 7950 & BBA assessed
single side hung light	700(w) x 1400(h)mm	Class 4 (600Pa achieved)	Class 7A (300Pa achieved)	Class E 2400Pa	BS 7412 BS 6375 BS 7950 & BBA assessed
single fixed light	3000(w) x 3000(h)mm max. perimeter = 8000mm	Class 4 (600Pa achieved)	Class E1000 (1000Pa achieved)	Class E 2400Pa	BS 7412 BS 6375 BS 7950 & BBA assessed
multilight windows with reinforced transom/mullion	3000(w) x 3000(h)mm max. perimeter = 9000mm max. transom/mullion span = 1500mm	Class 4 (600Pa achieved)	Class 7A (300Pa achieved)	Class 4A 1600Pa	BS 7412:2007 BS 6375 BS 7950 & BBA assessed

#### Maximum sizes

- maximum sizes must also be within the range recommended by the manufacturer of the hardware selected

#### Accreditation

- 3000 zendow has been independently assessed by a number of national and internationally recognised testing bodies

- all frame members are kitemarked under BS EN 12608:2003
- 3000 zendow casement windows have been assessed to BS 7412 /BS 6375-1 standards and have achieved the results indicated above
- for guidance on high-performance applications, please contact the Deceuninck Technical Department

### PERFORMANCE

#### Security

- the window has been assessed to BS 7950 (specification for enhanced security performance of windows for domestic locations)

#### Thermal insulation

- whole window 'U' values comply with latest Approved Document L of the Building Regulations
- 'U' values below 1.0Wm<sup>2</sup>k can be achieved
- window energy ratings A to E
- for further details contact the Deceuninck Technical Department

#### Acoustic values

- independent acoustic tests have been conducted on 3000 zendow products providing Rw (C;Ctr) results in the range 32 – 43 dB from a variety of framing and glazing selections submitted

### GENERAL FEATURES

For full details of deceuninck window system features and benefits, refer to pages 18-21

#### Simplicity

- fully compatible with all standard hardware
- clip-fit detail ensures positive fixing of accessories

#### Inspired design

- symmetrical profile concept gives balanced aesthetics
- unique modern shape complements classical and contemporary architecture
- personalisation with glazing bead and sash options
- white colour is RAL 9016
- lamination in rosewood and golden oak options available from stock
- Decoroc colours and other foils on request

#### Weather performance

- high-performance sealing concept
- high-performance drainage concept

#### Insulation

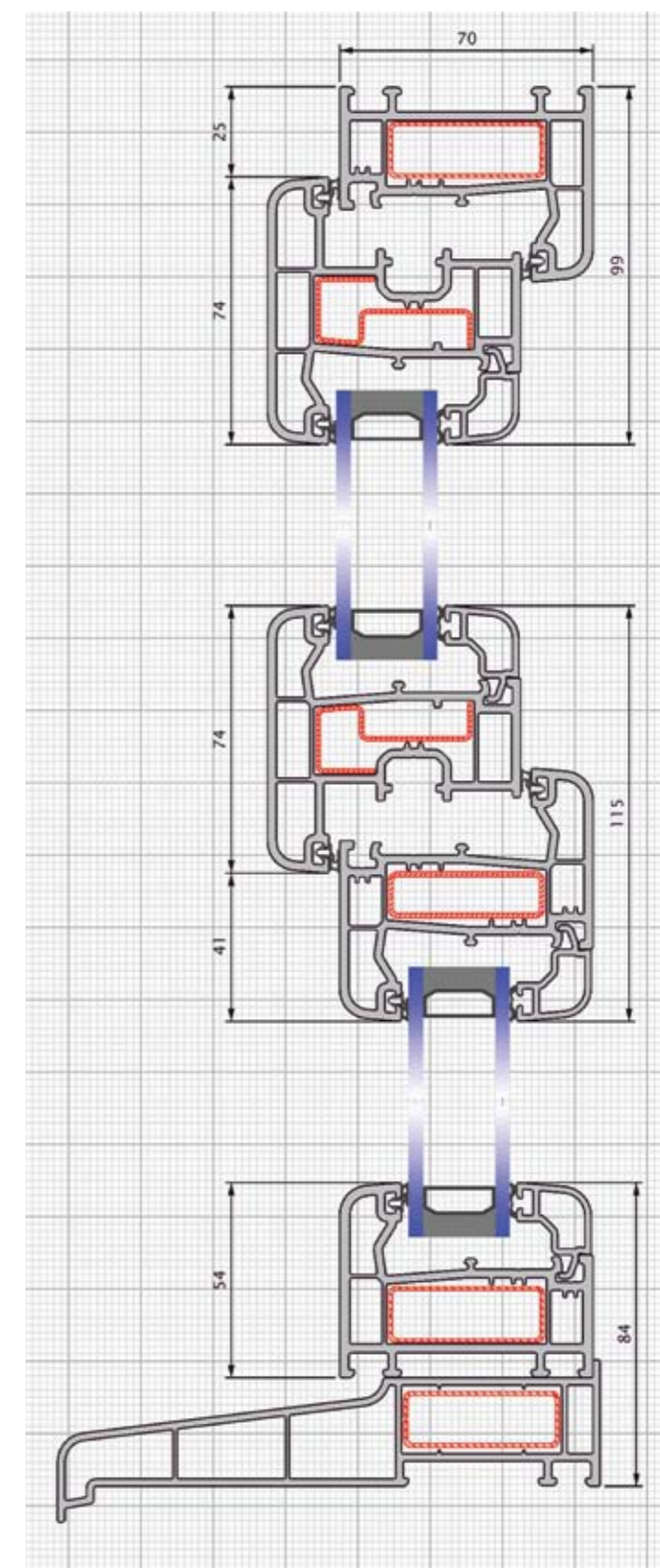
- Exceeds current thermal requirements
- glazing up to 41mm

#### Security

- rebate detail makes striker plates less accessible
- 20mm rebate maximises glazing and sash overlaps
- hardware can fix directly to reinforcement / thermal chamber insulators
- positive location of friction stays

#### Environment

- see environmental policy statement on page 6



scale 1:2 3000 zendow internally glazed casement window profile section

# 3000 zendow<sup>®</sup> windows

## casement externally glazed



### features

#### Framing

- choice of two outer frame sizes (54mm and 70mm)
- choice of three transom/mullion sizes (70mm, 94mm and 110mm)
- standard slimline or decorative sash

#### Seals/Gaskets

- main profiles supplied with high-performance integral multifunctional seal/gasket

#### Reinforcing

- galvanised steel profiles optimised for strength and secure hardware attachment
- optional deceuninck thermal chamber insulator (TCI) for enhanced thermal performance in non-structural elements

#### Window styles

- top hung, side hung and fixed light frames
- multilights combining above elements
- 'T' or cruciform transom/mullion joints
- coupled flat and bay/bow window styles

#### Fabrication

- fully welded construction

#### Glazing

- choice of three glazing bead styles
- accepts insulated glazing units up to 42mm thick
- Georgian bar and leaded light options

#### Ancillaries

- frame extensions, cills and weathering trims
- lightweight and structural coupling members
- standard and structural bay corner posts
- window boards, reveal liners and finishing trims

#### Hardware

- will accept hardware from most manufacturers
- full depth Eurogroove
- secure location of hardware into reinforcement/thermal chamber insulator

#### Ventilation

- proprietary ventilation devices can be fitted to 3000 zendow casement windows in compliance with Building Regulations

#### Fixing

- fixing can be achieved through the frame or with bespoke fixing lugs or into proprietary cavity closers/sub-frame systems
- fixing methods exist for timber framing, flush or check reveals

## TEST RESULTS

Frame type	Maximum size tested	Air permeability	Water tightness	Exposure category	Accreditation
single top hung light	1200(w) x 1200(h)mm	Class 4 (600Pa achieved)	Class 7A (300Pa achieved)	Class E 2400Pa	BS 7412 BS 6375 & BBA assessed
single side hung light	700(w) x 1400(h)mm	Class 4 (600Pa achieved)	Class 7A (300Pa achieved)	Class E 2400Pa	BS 7412 BS 6375 & BBA assessed
single fixed light	3000(w) x 3000(h)mm max. perimeter = 8000mm	Class 4 (600Pa achieved)	Class E1000 (1000Pa achieved)	Class E 2400Pa	BS 7412 BS 6375 & BBA assessed
multilight windows with reinforced transom/mullion	3000(w) x 3000(h)mm max. perimeter = 9000mm max. transom/mullion span = 1500mm	Class 4 (600Pa achieved)	Class 7A (300Pa achieved)	Class E 1600Pa	BS 7412 BS 6375 & BBA assessed

#### Maximum sizes

- maximum sizes must also be within the range recommended by the manufacturer of the hardware selected

#### Accreditation

- 3000 zendow has been independently assessed by a number of national and internationally recognised testing bodies

- all frame members are kitemarked under BS EN 12608:2003
- 3000 zendow casement windows have been assessed to BS 7412 /BS 6375-1 standards and have achieved the results indicated above
- for guidance on high-performance applications, please contact the Deceuninck Technical Department

### PERFORMANCE

#### Security

- the window will accept enhanced security glazing options

#### Thermal insulation

- whole window 'U' values comply with latest Approved Document L of the Building Regulations
- 'U' values below 1.0Wm<sup>2</sup>k can be achieved
- window energy ratings A to E
- for further details contact the Deceuninck Technical Department

#### Acoustic values

- independent acoustic tests have been conducted on 3000 zendow products providing Rw (C;Ctr) results in the range 32 – 43 dB from a variety of framing and glazing selections submitted

### GENERAL FEATURES

For full details of deceuninck window system features and benefits, refer to pages 18-21

#### Simplicity

- fully compatible with all standard hardware
- clip-fit detail ensures positive fixing of accessories

#### Inspired design

- symmetrical profile concept gives balanced aesthetics
- unique modern shape complements classical and contemporary architecture
- personalisation with glazing bead and sash options
- white colour is RAL 9016
- lamination in rosewood and golden oak options available from stock
- Decoroc colours and other foils on request

#### Weather performance

- high-performance sealing concept
- high-performance drainage concept

#### Insulation

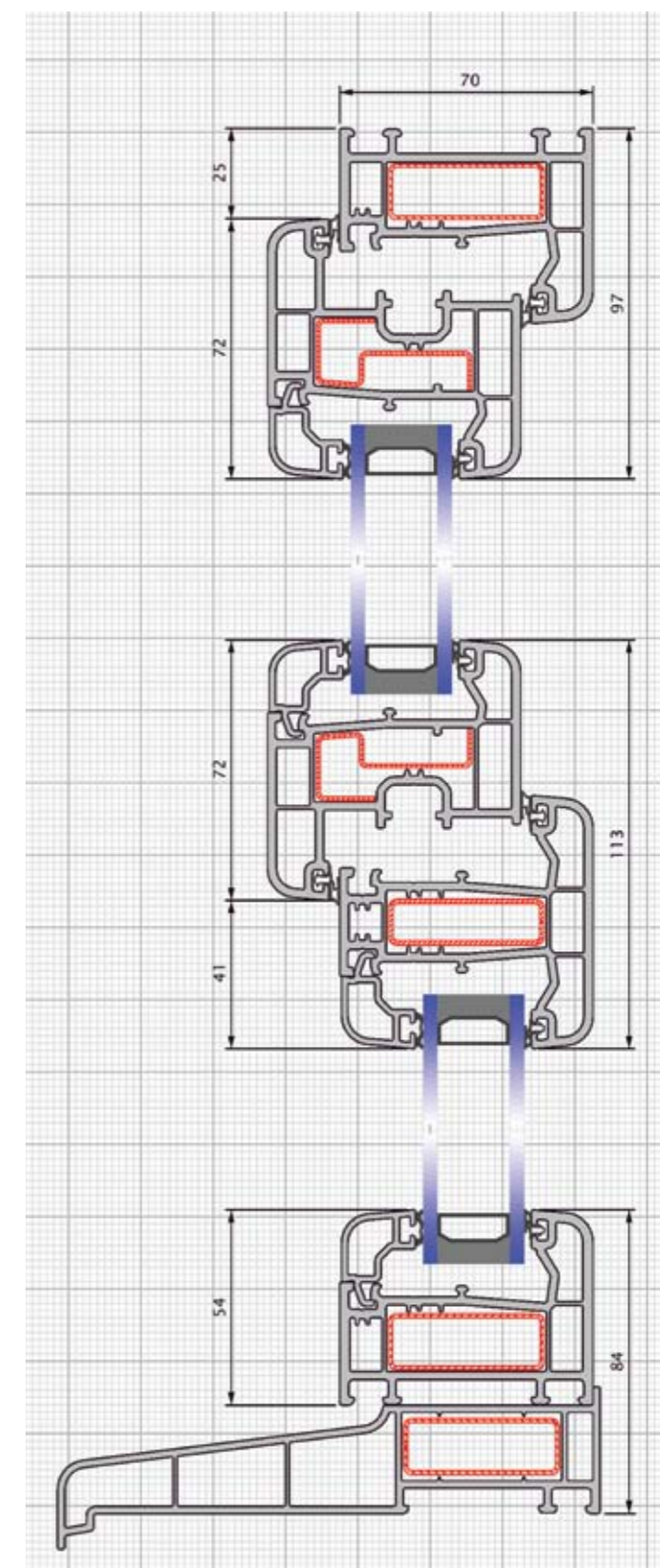
- Exceeds current thermal requirements
- glazing up to 42mm

#### Security

- rebate detail makes striker plates less accessible
- 20mm rebate maximises glazing and sash overlaps
- hardware can fix directly to reinforcement / thermal chamber insulators
- positive location of friction stays

#### Environment

- see environmental policy statement on page 6



scale 1:2 3000 zendow externally glazed casement window profile section

# 3000 zendow® windows tilt and turn



## features

### Framing

- choice of two outer frame sizes (54mm and 70mm)
- choice of three transom/mullion sizes (70mm, 94mm and 110mm)
- standard and heavy duty sash options

### Seals/Gaskets

- main profiles supplied with high-performance integral multifunctional seal/gasket

### Reinforcing

- galvanised steel profiles optimised for strength and secure hardware attachment

### Window styles

- tilt and turn, turn before tilt and fixed light frames
- multilights combining above elements
- 'T' or cruciform transom/mullion joints
- coupled flat and bay/bow window styles

### Fabrication

- fully welded construction

### Glazing

- choice of three glazing bead styles
- accepts insulated glass units up to 42mm thick
- Georgian bar and leaded light options

### Ancillaries

- frame extensions, cills and weathering trims
- lightweight and structural coupling members
- standard and structural bay corner posts
- window boards, reveal liners and finishing trims

### Hardware

- system accepts hardware, including concealed hinge types from most manufacturers
- full depth Eurogroove provides option for full perimeter locking
- secure location of hardware into reinforcement

### Ventilation

- proprietary ventilation devices can be fitted to 3000 zendow tilt and turn windows in compliance with Building Regulations

### Fixing

- fixing can be achieved through the frame or with bespoke fixing lugs or into proprietary cavity closers/sub-frame systems
- fixing methods exist for timber framing, flush or check reveals

## TEST RESULTS

Frame type	Maximum size tested	Air permeability	Water tightness	Exposure category	Accreditation
single tilt and turn	1200(w) x 1350(h)mm	Class 4 (600Pa achieved)	Class 6A (250Pa achieved)	Class 4 1600Pa	BS 7412 BS 6375
single fixed light	3000(w) x 3000(h)mm max. perimeter = 8000mm	Class 4 (600Pa achieved)	Class E1000 (1000Pa achieved)	Class E 2400Pa	BS 7412 BS 6375
multilight windows with reinforced transom/mullion	3000(w) x 3000(h)mm max. perimeter = 9000mm max. transom/mullion span = 1500mm	Class 4 (600Pa achieved)	Class 6A (250Pa achieved)	Class 4 1600Pa	BS 7412 BS 6375

### Maximum sizes

- maximum sizes must also be within the range recommended by the manufacturer of the hardware selected

### Accreditation

- 3000 zendow has been independently assessed by a number of national and internationally recognised testing bodies

- all frame members are kitemarked under BS EN 12608:2003
- 3000 zendow tilt and turn windows have been assessed to BS 7412 /BS 6375-1 standards and have achieved the results indicated above
- for guidance on high-performance applications, please contact the Deceuninck Technical Department

## PERFORMANCE

### Security

- internally glazed as standard, the window will accept enhanced security glazing options
- full perimeter locking options

### Thermal insulation

- whole window 'U' values comply with latest Approved Document L of the Building Regulations
- 'U' values below current minimum requirements can be achieved
- window energy ratings B to E
- for further details contact the Deceuninck Technical Department

### Acoustic values

- independent acoustic tests have been conducted on 3000 zendow products providing Rw (C;Ctr) results in the range 32 – 43 dB from a variety of framing and glazing selections submitted

## GENERAL FEATURES

For full details of deceuninck window system features and benefits, refer to pages 18-21

### Simplicity

- fully compatible with all standard hardware
- clip-fit detail ensures positive fixing of accessories

### Inspired design

- symmetrical profile concept gives balanced aesthetics
- unique modern shape complements classical and contemporary architecture
- personalisation with glazing bead and sash options
- white colour is RAL 9016
- lamination in rosewood and golden oak options available from stock
- Decoroc colours and other foils on request

### Weather performance

- high-performance sealing concept
- high-performance drainage concept

### Insulation

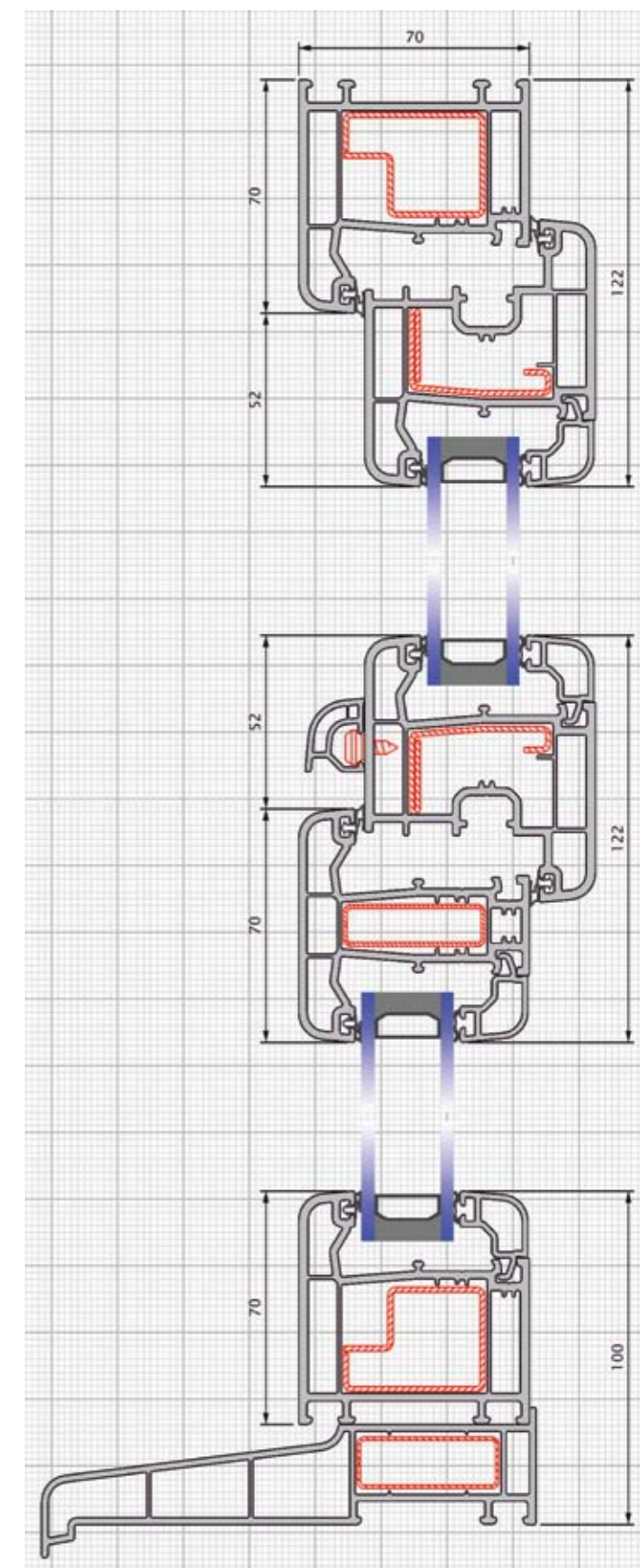
- Exceeds current thermal requirements
- glazing up to 42mm

### Security

- rebate detail makes striker plates less accessible
- 20mm rebate maximises glazing and sash overlaps
- hardware can fix directly to reinforcement / thermal chamber insulators

### Environment

- see environmental policy statement on page 6



scale 1:2 3000 zendow tilt and turn window profile section



# 3000 zendow® windows

## horizontal centre pivot



### features

#### Framing

- choice of two outer frame sizes (54mm and 70mm)
- choice of three transom/mullion sizes (70mm, 94mm and 110mm)

#### Seals/Gaskets

- main profiles supplied with high-performance integral multifunctional seal/gasket

#### Reinforcing

- galvanised steel profiles optimised for strength and secure hardware attachment

#### Window styles

- single pivot frames and fixed lights
- multilights combining above elements
- 'T' or cruciform transom/mullion joints
- coupled flat and bay/bow window styles

#### Fabrication

- fully welded construction

#### Glazing

- choice of three glazing bead styles
- accepts insulated glass units up to 42mm thick
- Georgian bar and leaded light options

#### Ancillaries

- frame extensions, cills and weathering trims
- lightweight and structural coupling members
- standard and structural bay corner posts
- window boards, reveal liners and finishing trims

#### Hardware

- multi-point locking as standard
- full depth Eurogroove provides option for full perimeter locking
- secure location of hardware
- meets operation and strength characteristics to BS 6375:2

#### Ventilation

- proprietary ventilation devices can be fitted to 3000 zendow tilt and turn windows in compliance with Building Regulations

#### Fixing

- fixing can be achieved through the frame or with bespoke fixing lugs or into proprietary cavity closers/sub-frame systems
- fixing methods exist for timber framing, flush or check reveals

## TEST RESULTS

Frame type	Maximum size tested	Air permeability	Water tightness	Exposure category	Accreditation
single pivot sash	1200(w) x 1200(h)mm	Class 3 (600Pa achieved)	Class E750 (750Pa achieved)	Class E 2400Pa	BS 6375

#### Notes

- 1 Coupling details variable - selection made must be able to withstand designated exposure category

NB - The size of individual pivot sashes within a multilight should not exceed 1500(w) x 1500(h)mm or 60kg

#### Maximum sizes

- maximum sizes must also be within the range recommended by the manufacturer of the hardware selected

#### Accreditation

- 3000 zendow has been independently assessed by a number of national and internationally recognised testing bodies
- all frame members are kitemarked under BS EN 12608:2003
- 3000 zendow pivot windows have been assessed to BS 6375-1 parts 1-3 standards and have achieved the results indicated above
- for guidance on high-performance applications, please contact the Deceuninck Technical Department

### PERFORMANCE

#### Security

- internally glazed as standard, the window will accept enhanced security glazing options
- integral caldwell hinge with safety restrictors fitted as standard and tested in accordance with EN14609
- windows open through 180° for safe cleaning from inside
- full perimeter and mushroom locking options

#### Thermal insulation

- whole window 'U' values comply with latest Approved Document L of the Building Regulations
- 'U' values below current minimum can be achieved
- window energy ratings B to E
- for further details contact the Deceuninck Technical Department

#### Acoustic values

- independent acoustic tests have been conducted on 3000 zendow products providing Rw (C;Ctr) results in the range 32 – 43 dB from a variety of framing and glazing selections submitted

### GENERAL FEATURES

For full details of deceuninck window system features and benefits, refer to pages 18-21

#### Simplicity

- fully compatible with all standard hardware
- clip-fit detail ensures positive fixing of accessories

#### Inspired design

- symmetrical profile concept gives balanced aesthetics
- unique modern shape complements classical and contemporary architecture
- personalisation with glazing bead and sash options
- white colour is RAL 9016
- lamination in rosewood and golden oak options available from stock
- Decoroc colours and other foils on request

#### Weather performance

- high-performance sealing concept
- high-performance drainage concept

#### Insulation

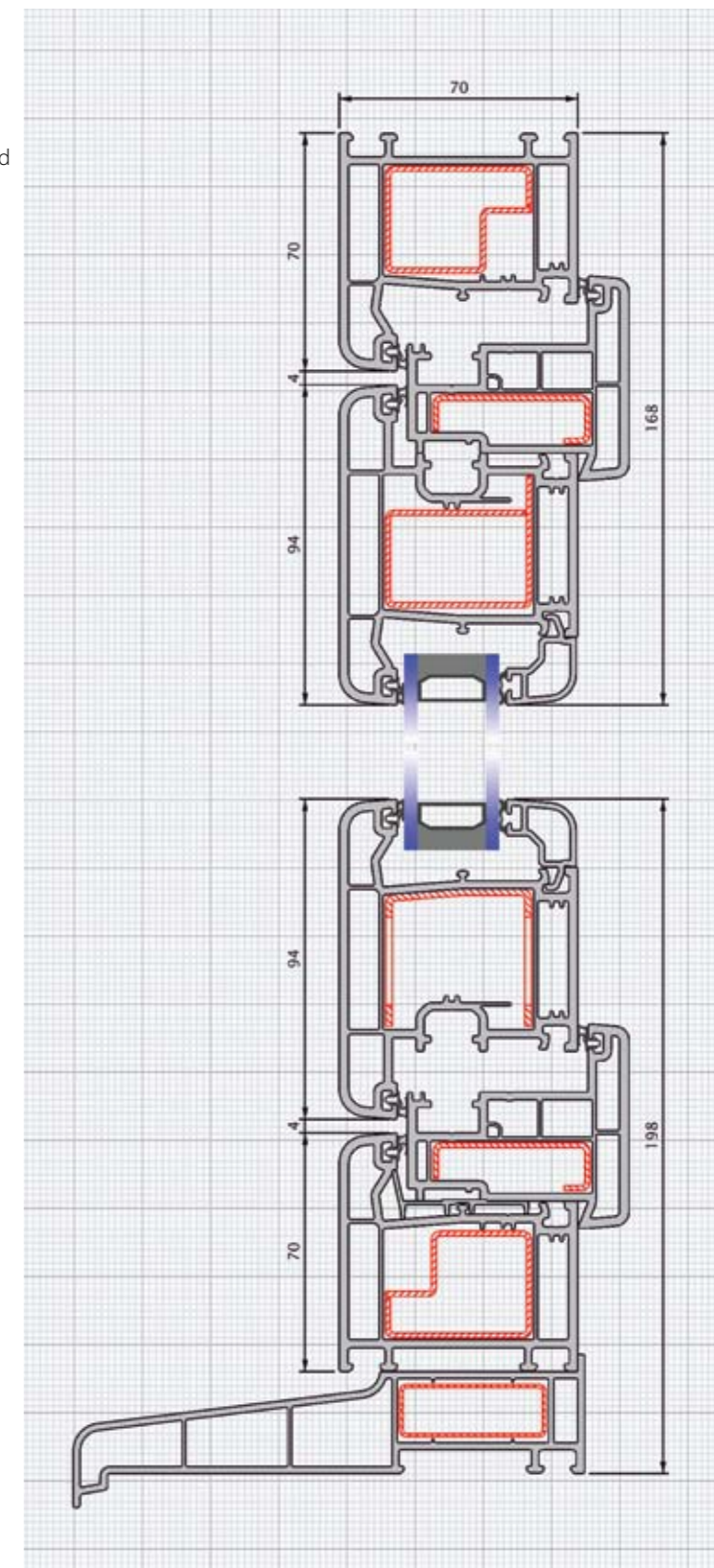
- exceeds current thermal requirements
- glazing up to 42mm

#### Security

- rebate detail makes striker plates less accessible
- 20mm rebate maximises glazing and sash overlaps
- hardware can fix directly to reinforcement

#### Environment

- see environmental policy statement on page 6



scale 1:2 3000 zendow horizontal pivot window profile section

# 3000 zendow® doors residential



## features

### Framing

- standard outerframe, with low threshold option
- dedicated sashes for inward and outward opening doors
- optional heavy-duty sash (see page 19 for more information)
- choice of three transom/mullion sizes (70mm, 94mm and 110mm)
- optional decorative sash for outward opening doors

### Seals/Gaskets

- main profiles supplied with high-performance integral multifunctional seal/gasket

### Reinforcing

- galvanised steel profiles optimised for strength and secure hardware attachment

### Door options

- single doors open in or open out
- fanlights and sidelight frames
- options for transoms and mullions
- designed for use with entrance units and conservatories
- option for heavy-duty door leaf with welded corner inserts (see page 19 for further information)

### Fabrication

- fully welded construction
- option for mechanically jointed transom and mullions

### Glazing

- choice of three glazing bead styles
- accepts insulated glass units up to 42mm thick
- Georgian bar and leaded light options

### Ancillaries

- frame extensions, cills and weathering trims
- lightweight and structural coupling members
- standard and structural bay corner posts
- reveal liners and finishing trims

### Hardware

- will accept hardware from most manufacturers
- full depth Eurogroove
- secure retention of hardware

### Ventilation

- proprietary ventilation devices can be fitted to 3000 zendow doors and sidelights in compliance with Building Regulations

### Fixing

- fixing can be achieved through the frame or with bespoke fixing lugs or into proprietary cavity closers/sub-frame systems
- fixing methods exist for timber framing, flush or check reveals

### Low threshold

- see page 75 for details of the Deceuninck low threshold system

## TEST RESULTS

Frame type	Maximum size tested	Air permeability	Water tightness	Exposure category	Accreditation
single hinged door with midrail (open-in open-out)	1000(w) x 2100(h)mm	Class 4 (600Pa achieved)	Class 9A (600Pa achieved)	1200 Class A3	PAS 23-1
single hinged door with midrail	1000(w) x 2100(h)mm	Class 4 (600Pa achieved)	Class 9A (600Pa achieved)	1200 Class A3	PAS 23-1

### Maximum sizes

- maximum sizes must also be within the range recommended by the manufacturer of the hardware selected

### Accreditation

- 3000 zendow has been independently assessed by a number of national and internationally recognised testing bodies

- all frame members are kitemarked under BS EN 12608:2003
- 3000 zendow single doors and sidelights have been assessed to PAS 23-1 standards and have achieved the results indicated above
- for guidance on high-performance applications, please contact the Deceuninck Technical Department

## PERFORMANCE

### Security

- internally glazed as standard, the door will accept enhanced security glazing options
- single doors and coupled sidelights have been assessed to PAS 24-1 (enhanced security performance requirements for door assemblies)

### Thermal insulation

- whole door 'U' values comply with latest Approved Document L of the Building Regulations
- 'U' values below current minimum can be achieved
- for further details contact the Deceuninck Technical Department

### Acoustic values

- independent acoustic tests have been conducted on 3000 zendow products providing Rw (C,Ctr) results in the range 32 – 43 dB from a variety of framing and glazing selections submitted

## GENERAL FEATURES

For full details of deceuninck window system features and benefits, refer to pages 18-21

### Simplicity

- fully compatible with all standard hardware
- clip-fit detail ensures positive fixing of accessories

### Inspired design

- symmetrical profile concept gives balanced aesthetics
- unique modern shape complements classical and contemporary architecture
- personalisation with glazing bead and sash options
- white colour is RAL 9016
- lamination in rosewood and golden oak options available from stock
- Decoroc colours and other foils on request

### Weather performance

- high-performance sealing concept
- high-performance drainage concept

### Insulation

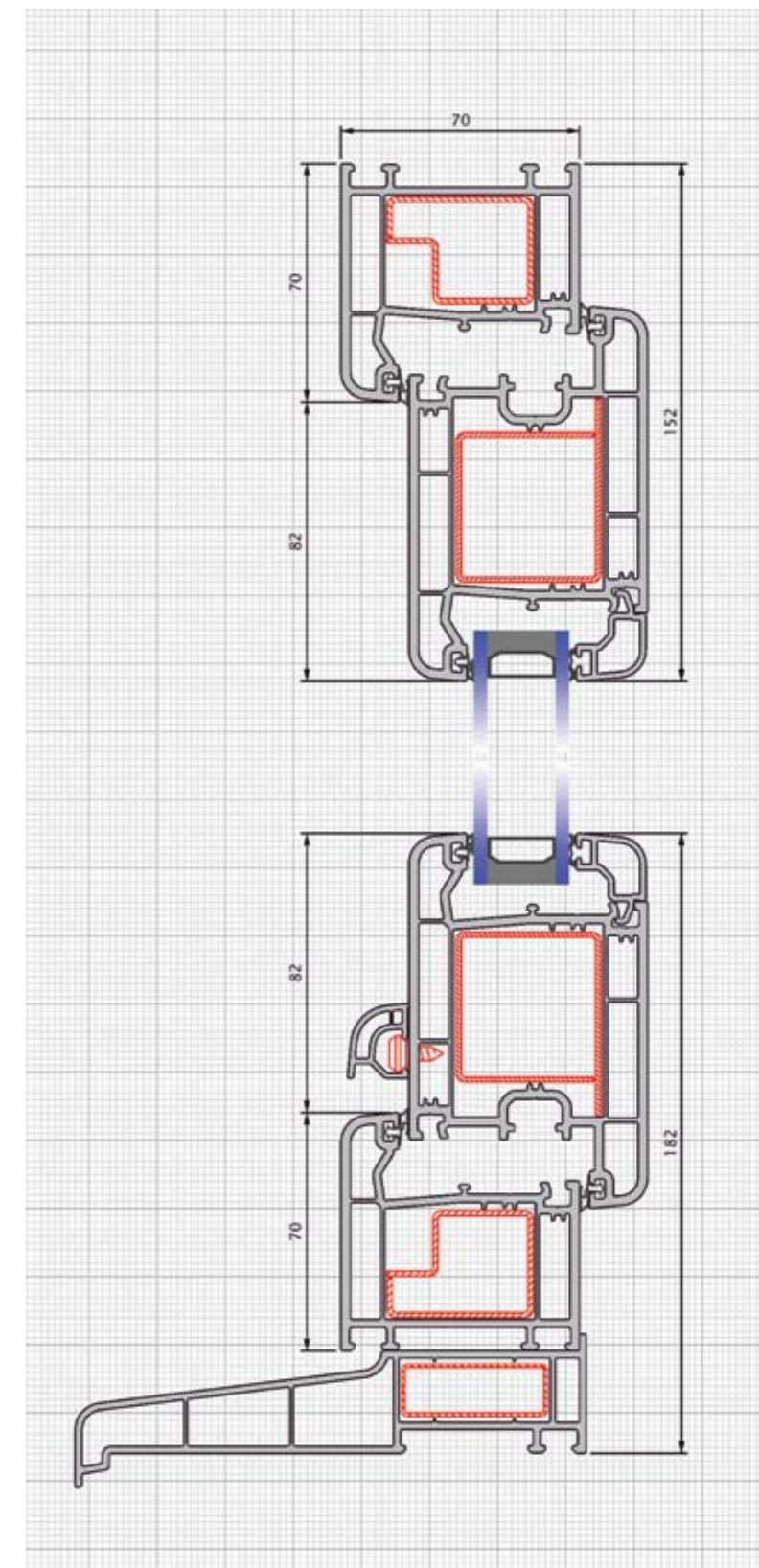
- exceeds current thermal requirements
- glazing up to 42mm

### Security

- rebate detail makes striker plates less accessible
- 20mm rebate maximises glazing and sash overlaps
- hardware can fix directly to reinforcement

### Environment

- see environmental policy statement on page 6



scale 1:2 3000 zendow single hinged residential door profile section

# 3000 zendow® doors French



## features

### Framing

- 70mm outer frame as standard framing
- dedicated sashes for inward and outward opening doors
- choice of two sash sizes (94mm and 110mm)
- choice of three transom/mullion sizes (70mm, 94mm and 110mm)
- optional decorative sash for outward opening doors

### Seals/Gaskets

- main profiles supplied with high-performance integral multifunctional seal/gasket

### Reinforcing

- galvanised steel profiles optimised for strength and secure hardware attachment

### Door options

- pair of doors open in or open out
- fanlights and sidelight frames
- options for transoms and mullions
- designed for use with entrance units and conservatories

### Fabrication

- fully welded construction
- option for mechanically jointed transom and mullions

### Glazing

- choice of three glazing bead styles
- accepts insulated glass units up to 42mm thick
- Georgian bar and leaded light options

### Ancillaries

- frame extensions, cills and weathering trims
- lightweight and structural coupling members
- standard and structural bay corner posts
- window boards, reveal liners and finishing trims

### Hardware

- will accept hardware from most manufacturers
- secure retention of hardware

### Ventilation

- proprietary ventilation devices can be fitted to 3000 zendow doors and sidelights in compliance with Building Regulations

### Fixing

- fixing can be achieved through the frame or with bespoke fixing lugs or into proprietary cavity closers/sub-frame systems
- fixing methods exist for timber framing, flush or check reveals



### Maximum sizes

- maximum sizes must also be within the range recommended by the manufacturer of the hardware selected

### Accreditation

- all frame members are kitemarked under BS EN 12608:2003
- for guidance on high-performance applications, please contact the Deceuninck Technical Department

## PERFORMANCE

### Security

- internally glazed as standard doors and framing will accept enhanced security glazing options

### Thermal insulation

- whole door 'U' values comply with latest Approved Document L of the Building Regulations
- 'U' values below current minimum can be achieved
- for further details contact the Deceuninck Technical Department

### Acoustic values

- independent acoustic tests have been conducted on 3000 zendow products providing Rw (C;Ctr) results in the range 32 – 43 dB from a variety of framing and glazing selections submitted

## GENERAL FEATURES

For full details of deceuninck window system features and benefits, refer to pages 18-21

### Simplicity

- fully compatible with all standard hardware
- clip-fit detail ensures positive fixing of accessories

### Inspired design

- symmetrical profile concept gives balanced aesthetics
- unique modern shape complements classical and contemporary architecture
- personalisation with glazing bead and sash options
- white colour is RAL 9016
- lamination in rosewood and golden oak options available from stock
- Decoroc colours and other foils on request

### Weather performance

- high-performance sealing concept
- high-performance drainage concept

### Insulation

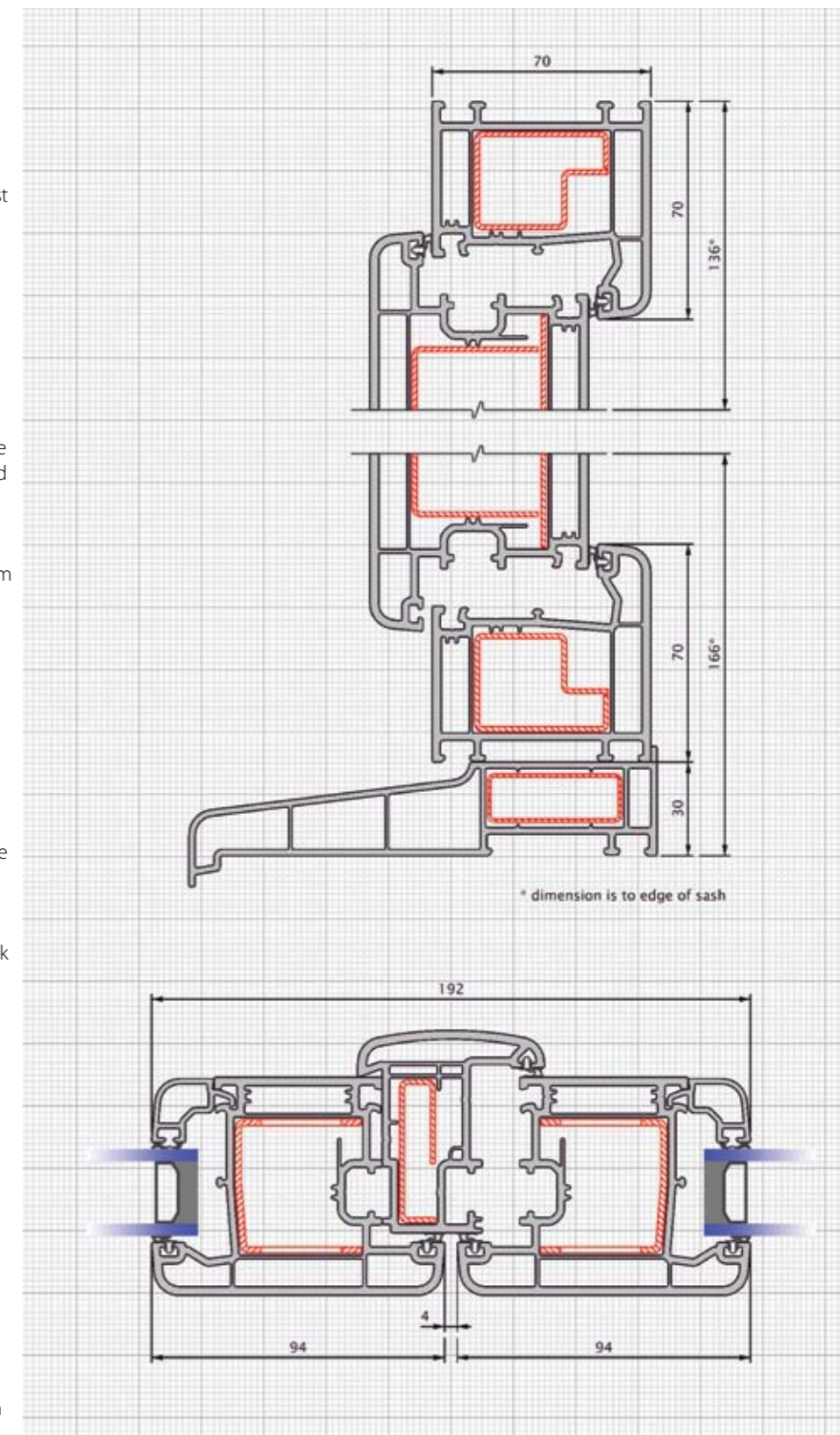
- exceeds current thermal requirements
- glazing up to 42mm

### Security

- rebate detail makes striker plates less accessible
- 20mm rebate maximises glazing and sash overlaps
- hardware can fix directly to reinforcement

### Environment

- see environmental policy statement on page 6



scale 1:2 3000 zendow pair of doors profile section

# 3000 zendow® doors

## tecnocor>2 sliding patio

### features

#### Framing

- 70mm outer frame as standard framing
- dedicated sash
- midrail option

#### Seals/Gaskets

- sash profile supplied with high-performance seals and gaskets

#### Reinforcing

- galvanised steel profiles optimised for strength and secure hardware attachment

#### Door options

- two, three and four panel styles
- options for sliding or part fixed
- options for transoms and mullions
- designed for use with entrance units and conservatories

#### Fabrication

- fully welded construction
- option for mechanically jointed midrail

#### Glazing

- choice of glazing bead styles
- accepts insulated glass units up to 28mm thick

#### Ancillaries

- frame extensions, cills and weathering trims
- lightweight and structural coupling members
- standard and structural bay corner posts
- reveal liners and finishing trims

#### Hardware

- will accept a range of dedicated hardware
- secure retention of hardware

#### Ventilation

- proprietary ventilation devices can be fitted to 3000 zendow patio doors in compliance with Building Regulations

#### Fixing

- fixing can be achieved through the frame or with bespoke fixing lugs or into proprietary cavity closers/sub-frame systems
- fixing methods exist for timber framing, flush or check reveals

## TEST RESULTS

Frame type	Maximum size tested	Air permeability	Water tightness	Exposure category	Accreditation
2 panel sliders xo, ox or xx types	2410(w) x 2200(h)mm	Class C3 600Pa	Class 7B 300Pa	Class C2 800Pa	EN 1026
3 panel sliders xox, xoo or oox types	3615(w) x 2200(h)mm	Class C3 600Pa	Class 7B 300Pa	Class C2 800Pa	EN 1026
4 panel sliders oxxo types	4820(w) x 2200(h)mm				

'o' denotes fixed panel, 'x' denotes sliding when viewed from outside

#### Maximum sizes

- maximum sizes must also be within the range recommended by the manufacturer of the hardware selected

#### Accreditation

- 3000 zendow has been independently assessed by a number of national and internationally recognised testing bodies
- for guidance on high-performance applications, please contact the Deceuninck Technical Department



### PERFORMANCE

#### Security

- internally glazed as standard, patio doors and framing will accept enhanced security glazing options
- sliding panels are designed to operate externally
- aluminium interlocks
- anti-lift / jemmy devices

#### Thermal insulation

- whole door 'U' values comply with latest Approved Document L of the Building Regulations
- 'U' values below current minimum can be achieved

#### Acoustic values

- independent acoustic tests have been conducted on 3000 zendow products providing Rw (C;Ctr) results in the range 32 – 43 dB from a variety of framing and glazing selections submitted

### GENERAL FEATURES

For full details of deceuninck window system features and benefits, refer to pages 18-21

#### Simplicity

- fully compatible with all standard hardware
- clip-fit detail ensures positive fixing of accessories

#### Inspired design

- symmetrical profile concept gives balanced aesthetics
- unique modern shape complements classical and contemporary architecture
- personalisation with glazing bead options
- white colour RAL 9016
- lamination in rosewood and golden oak options available from stock
- Decoroc colours and other foils on request

#### Weather performance

- high-performance sealing concept
- high-performance drainage concept

#### Insulation

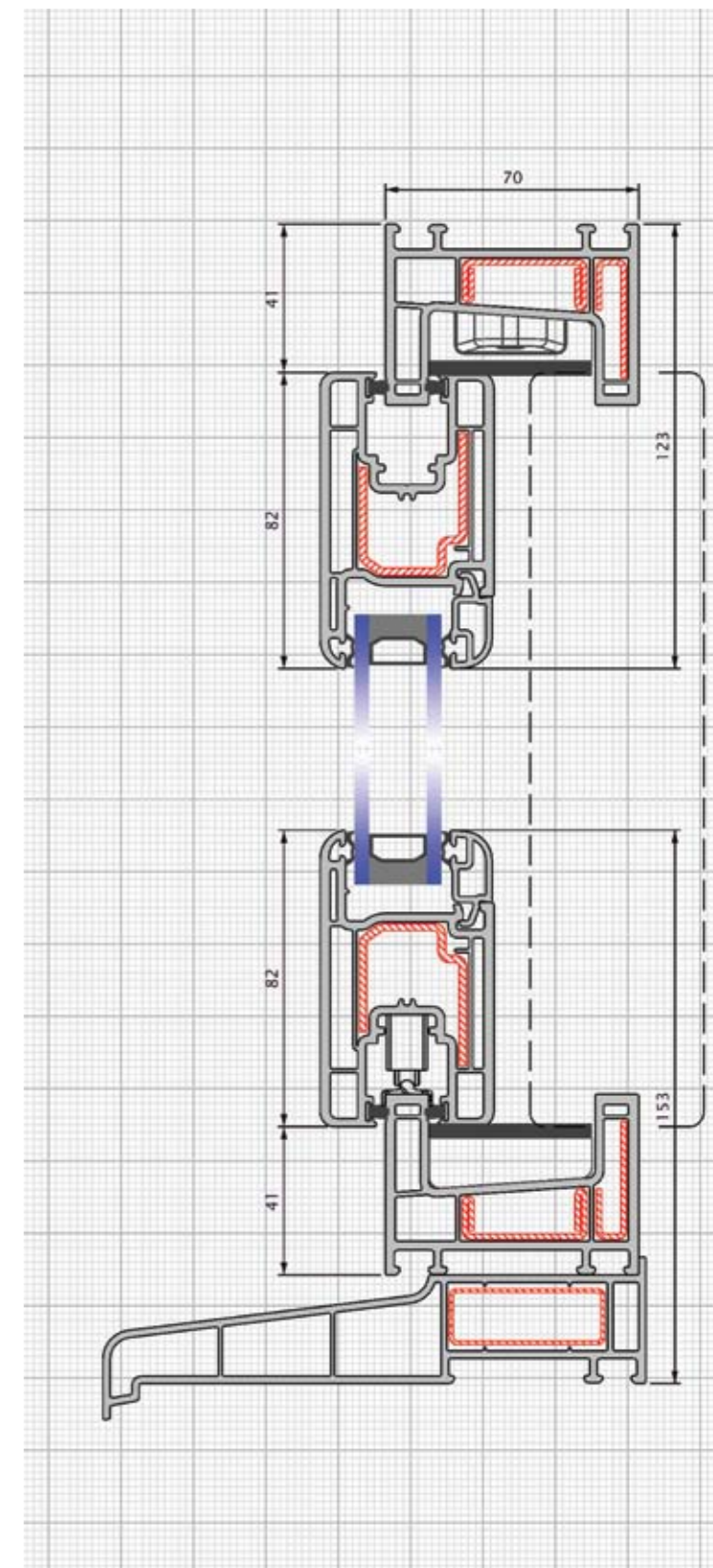
- glazing up to 28mm
- exceeds current thermal requirements

#### Security

- rebate detail makes striker plates less accessible
- 20mm rebate maximises glazing and sash overlaps
- hardware can fix directly to reinforcement

#### Environment

- see environmental policy statement on page 6



scale 1:2 3000 zendow patio door profile section

# 3000 zendow® doors Monorail



## features

### Framing

- 70mm outer frame as standard, (133mm front-to-back)
- welded transom/midrail option

### Seals/Gaskets

- main profiles supplied with high-performance integral multifunctional seal/gasket
- pre-inserted woolpile

### Reinforcing

- galvanised steel profiles optimised for strength and secure hardware attachment

### Door options

- 2, 3 and 4 panel styles
- end or centre sash(es) sliding on 3 or 4 pane options
- aluminium tread cover strips for cill

### Fabrication

- fully welded construction
- mechanical jointed frame option

### Glazing

- choice of 3 glazing bead styles
- accepts insulated glass units up to 42mm thick
- georgian bar and leaded light options

### Ancillaries

- frame extensions, cills and weathering trims
- lightweight and structural coupling members
- standard and structural bay corner posts
- window boards, reveal liners and finishing trims

### Hardware

- high security 6 point lock
- full depth Eurogroove
- secure retention of hardware

### Ventilation

- proprietary ventilation devices can be fitted to 3000 zendow Monorail doors in compliance with Building Regulations

### Fixing

- fixing can be achieved through the frame or with bespoke fixing lugs or into proprietary cavity closers/sub-frame systems
- fixing methods exist for timber framing, flush or check reveals



## TEST RESULTS

Frame type	Maximum size tested	Air permeability	Water tightness	Exposure category	Accreditation
2 pane opening style ox	3070(w) x 2215(h)mm	Class 4 600Pa achieved	Class 8A 450Pa achieved	1200Pa	EN 12207 EN 12208 EN 12210

### Maximum sizes

- maximum sizes must also be within the range recommended by the manufacturer of the hardware selected

### Accreditation

- 3000 zendow has been independently assessed by a number of national and internationally recognised testing bodies
- for guidance on high-performance applications, please contact the Deceuninck Technical Department

## PERFORMANCE

### Security

- internally glazed as standard, patio doors and framing will accept enhanced security glazing options
- sliding panels are designed to operate internally
- aluminium interlocks
- anti-lift / jemmy devices

### Thermal insulation

- whole door 'U' values comply with latest Approved Document L of the Building Regulations
- 'U' values below current minimum can be achieved
- for guidance on high-performance applications please contact the Deceuninck Technical Department

### Acoustic values

- independent acoustic tests have been conducted on 3000 zendow products providing Rw (C;Ctr) results in the range 32 – 43 dB from a variety of framing and glazing selections submitted

## GENERAL FEATURES

For full details of deceuninck window system features and benefits, refer to pages 18-21

### Simplicity

- fully compatible with all standard hardware
- clip-fit detail ensures positive fixing of accessories

### Inspired design

- symmetrical profile concept gives balanced aesthetics
- unique modern shape complements classical and contemporary architecture
- personalisation with glazing bead options
- white colour RAL 9016
- lamination in rosewood and golden oak options available from stock
- Decoroc colours and other foils on request

### Weather performance

- high-performance sealing concept
- high-performance drainage concept

### Insulation

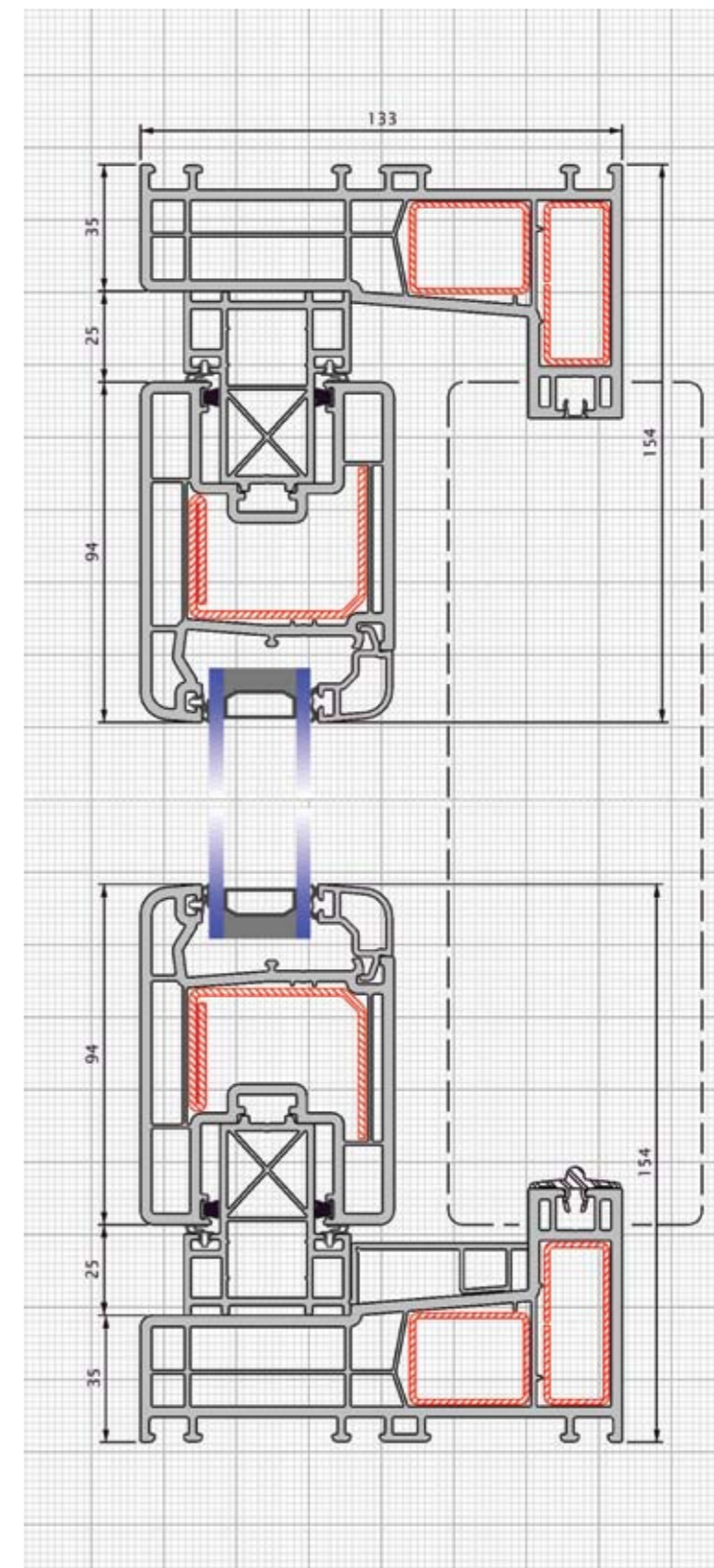
- exceeds current thermal requirements
- glazing up to 42mm

### Security

- rebate detail makes striker plates less accessible
- 20mm rebate maximises glazing and sash overlaps
- hardware can fix directly to reinforcement

### Environment

- see environmental policy statement on page 6



scale 1:2 3000 zendow monorail doors profile section

# 3000 zendow® doors tilt and slide patio

## features

### Framing

- 70mm outer frame as standard framing
- dedicated sash
- transom/mullion and midrail options

### Seals/Gaskets

- sash profile supplied with high-performance seals and gaskets

### Reinforcing

- galvanised steel profiles optimised for strength and secure hardware attachment

### Door options

- two, three and four panel styles
- options for sliding or part fixed
- options for transoms and mullions
- designed for use with entrance units and conservatories

### Fabrication

- fully welded construction
- option for mechanically jointed transom and mullions

### Glazing

- choice of glazing bead styles
- accepts insulated glass units up to 42mm thick

### Ancillaries

- frame extensions, cills and weathering trims
- lightweight and structural coupling members
- standard and structural bay corner posts
- reveal liners and finishing trims

### Hardware

- will accept a range of dedicated hardware
- secure retention of hardware

### Ventilation

- proprietary ventilation devices can be fitted to 3000 zendow patio doors in compliance with Building Regulations

### Fixing

- fixing can be achieved through the frame or with bespoke fixing lugs or into proprietary cavity closers/sub-frame systems
- fixing methods exist for timber framing, flush or check reveals



### Maximum sizes

- maximum sizes must also be within the range recommended by the manufacturer of the hardware selected

### Accreditation

- all frame members are kitemarked under BS EN 12608:2003
- for guidance on high-performance applications, please contact the Deceuninck Technical Department

## PERFORMANCE

### Security

- internally glazed as standard, patio doors and framing will accept enhanced security glazing options
- sliding panels are designed to operate internally or externally
- aluminium interlocks

### Thermal insulation

- whole door 'U' values comply with latest Approved Document L of the Building Regulations
- 'U' values below current minimum can be achieved
- for guidance on high-performance applications please contact the Deceuninck Technical Department

### Acoustic values

- independent acoustic tests have been conducted on 3000 zendow products providing  $R_w$  (C;Ctr) results in the range 32 – 43 dB from a variety of framing and glazing selections submitted

## GENERAL FEATURES

For full details of deceuninck window system features and benefits, refer to pages 18-21

### Simplicity

- fully compatible with all standard hardware
- clip-fit detail ensures positive fixing of accessories

### Inspired design

- symmetrical profile concept gives balanced aesthetics
- unique modern shape complements classical and contemporary architecture
- personalisation with glazing bead options
- white colour RAL 9016
- lamination in rosewood and golden oak options available from stock
- Decoroc colours and other foils on request

### Weather performance

- high-performance sealing concept
- high-performance drainage concept

### Insulation

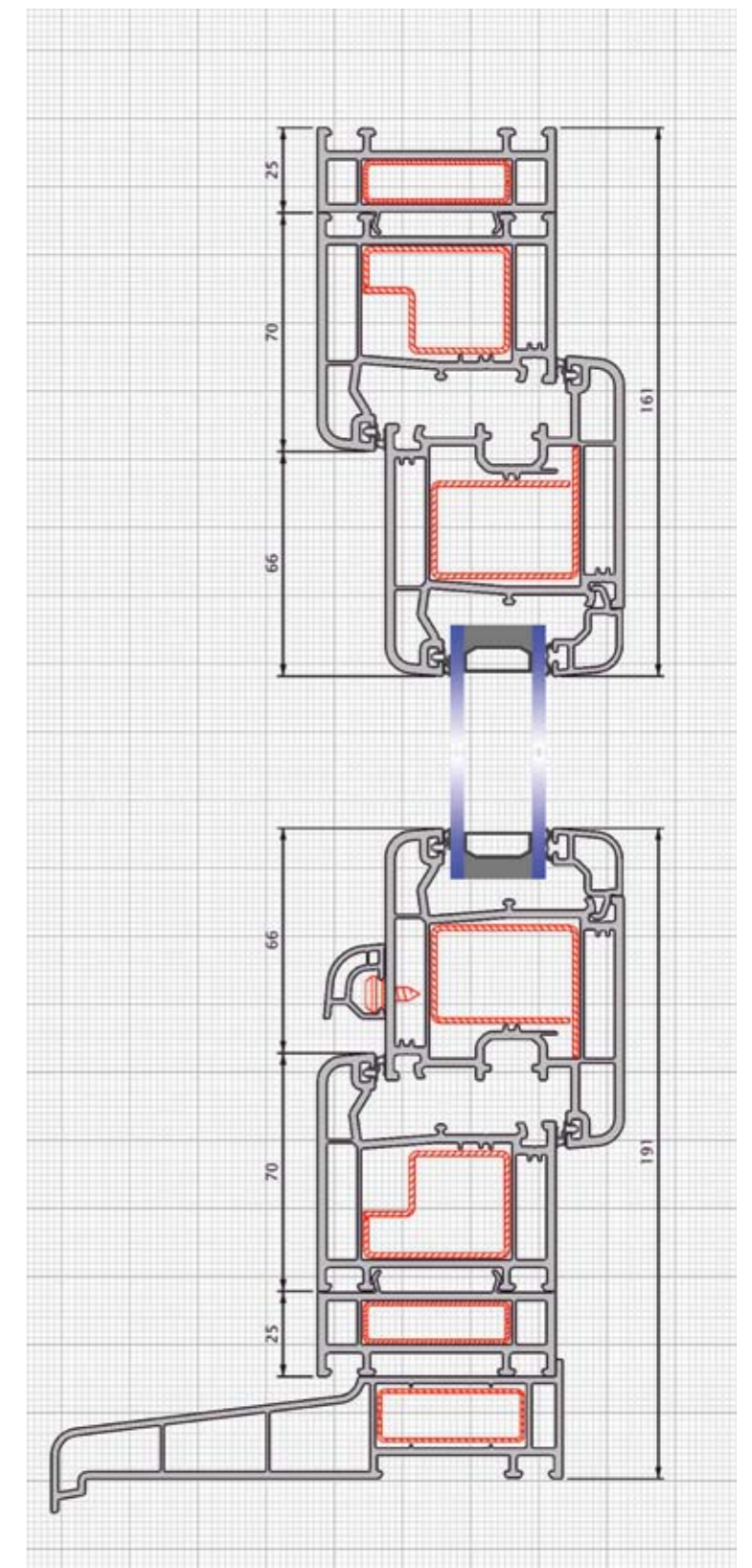
- exceeds current thermal requirements
- glazing up to 42mm

### Security

- rebate detail makes striker plates less accessible
- 20mm rebate maximises glazing and sash overlaps
- hardware can fix directly to reinforcement

### Environment

- see environmental policy statement on page 6



scale 1:2 3000 zendow tilt and slide door profile section

# 3000 zendow® doors bi-folding



## features

### Framing

- 70mm outer frame as standard, choice of frame extensions when required
- dedicated sash, dummy mullion and sealing trim

### Seals/Gaskets

- main profiles supplied with high-performance integral multifunctional seal/gasket

### Reinforcing

- galvanised steel profiles optimised for strength and secure hardware attachment

### Door styles

- all popular styles up to 7 panes
- top or bottom hung
- open-in or open-out

### Fabrication

- fully welded construction

### Glazing

- choice of 3 glazing bead styles
- accepts insulated glass units up to 42mm thick
- georgian bar and leaded light options
- security clip for open out doors

### Ancillaries

- frame extensions, cills and weathering trims
- lightweight and structural coupling members
- standard and structural bay corner posts
- window boards, reveal liners and finishing trims

### Hardware

- will accept hardware from Roto and Siegenia
- full depth Eurogroove
- secure retention of hardware

### Ventilation

- proprietary ventilation devices can be fitted to 3000 zendow bi-folding doors in compliance with Building Regulations

### Fixing

- fixing can be achieved through the frame or with bespoke fixing lugs or into proprietary cavity closers/sub-frame systems
- fixing methods exist for timber framing, flush or check reveals



## TEST RESULTS

Frame type	Maximum size tested	Air permeability	Water tightness	Exposure category	Accreditation
3:2:1 style open-in	2150(w) x 2250(h)mm	Class 4 600Pa achieved	Class 8A 600Pa achieved	1200Pa	BS 6375-1

### Maximum sizes

- maximum sizes must also be within the range recommended by the manufacturer of the hardware selected

### Accreditation

- 3000 zendow has been independently assessed by a number of national and internationally recognised testing bodies
- for guidance on high-performance applications, please contact the Deceuninck Technical Department

## PERFORMANCE

### Security

- internally glazed as standard, patio doors and framing will accept enhanced security glazing options
- sliding panels are designed to operate internally or externally
- aluminium interlocks

### Thermal insulation

- whole door 'U' values comply with latest Approved Document L of the Building Regulations
- 'U' values below current minimum can be achieved
- for guidance on high-performance applications please contact the Deceuninck Technical Department

### Acoustic values

- independent acoustic tests have been conducted on 3000 zendow products providing Rw (C;Ctr) results in the range 32 – 43 dB from a variety of framing and glazing selections submitted

## GENERAL FEATURES

For full details of deceuninck window system features and benefits, refer to pages 18-21

### Simplicity

- fully compatible with all standard hardware
- clip-fit detail ensures positive fixing of accessories

### Inspired design

- symmetrical profile concept gives balanced aesthetics
- unique modern shape complements classical and contemporary architecture
- personalisation with glazing bead options
- white colour RAL 9016
- lamination in rosewood and golden oak options available from stock
- Decoroc colours and other foils on request

### Weather performance

- high-performance sealing concept
- high-performance drainage concept

### Insulation

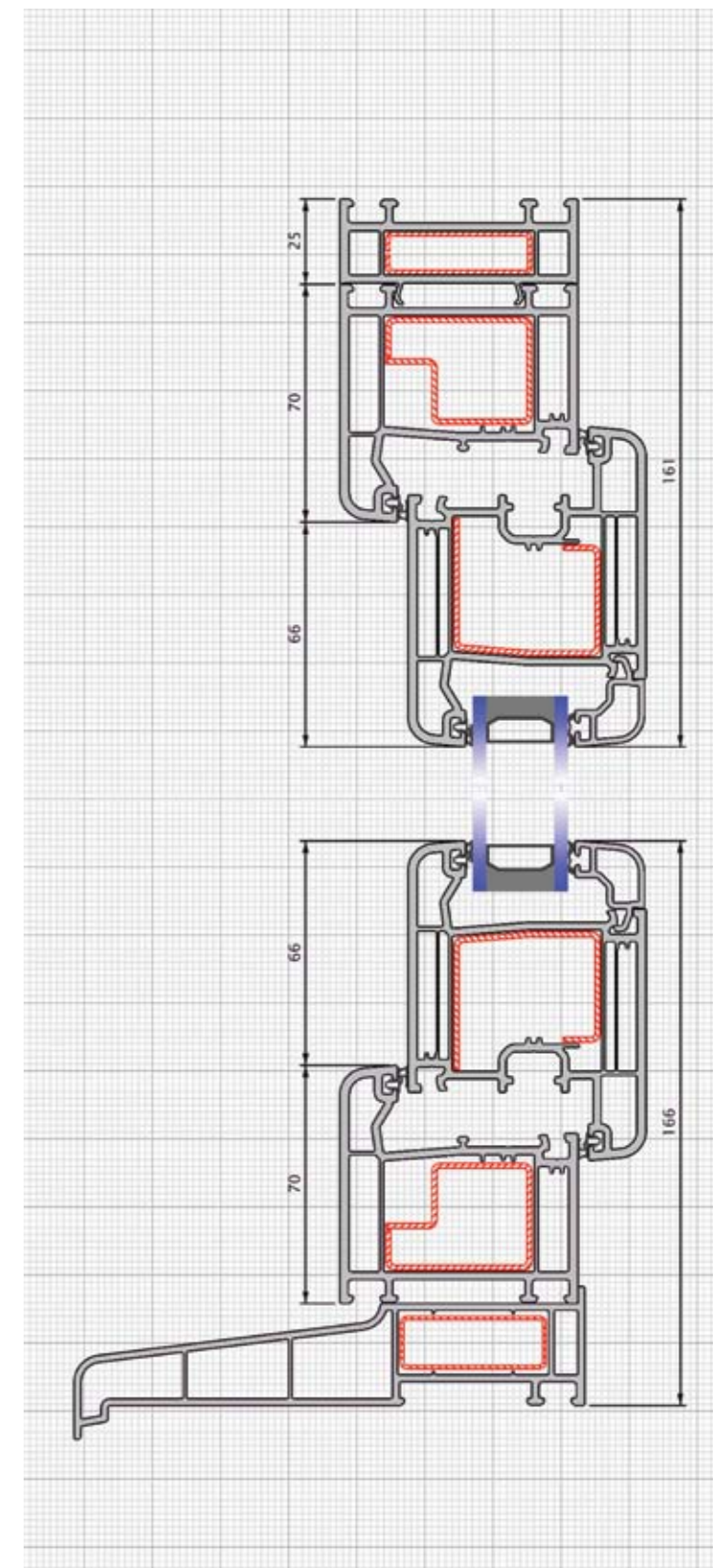
- exceeds current thermal requirements
- glazing up to 42mm

### Security

- rebate detail makes striker plates less accessible
- 20mm rebate maximises glazing and sash overlaps
- hardware can fix directly to reinforcement

### Environment

- see environmental policy statement on page 6



scale 1:2 3000 zendow bi-folding doors profile section





# 2800 decorative windows

## casement **internally** glazed



### features

#### Framing

- choice of three outer frame sizes (55mm 70mm and 85mm)
- choice of three transom/mullion sizes (70mm, 85mm and 110mm)
- standard decorative sash

#### Seals/Gaskets

- main profiles supplied with high-performance integral multifunctional seal/gasket

#### Reinforcing

- galvanised steel profiles optimised for strength and secure hardware attachment
- optional deceuninck thermal chamber insulator (TCI) for enhanced thermal performance in non-structural elements

#### Window styles

- top hung, side hung and fixed light frames
- multilights combining above elements
- 'T' or cruciform transom/mullion joints
- coupled flat and bay/bow window styles

#### Fabrication

- fully welded construction

#### Glazing

- Georgian bar and leaded light options
- accepts insulated glass units up to 40mm thick

#### Ancillaries

- frame extensions, cills and weathering trims
- lightweight and structural coupling members
- standard and structural bay corner posts
- window boards, reveal liners and finishing trims

#### Hardware

- will accept hardware from most manufacturers
- secure location of hardware
- full depth Eurogroove

#### Ventilation

- proprietary ventilation devices can be fitted to 2800 decorative casement windows in compliance with Building Regulations

#### Fixing

- fixing can be achieved through the frame or with bespoke fixing lugs or into proprietary cavity closers/sub-frame systems
- fixing methods exist for timber framing, flush or check reveals

## TEST RESULTS

Frame type	Maximum size tested	Air permeability	Water tightness	Exposure category	Accreditation
single top hung light	1200(w) x 1200(h)mm	Class 4 (600Pa achieved)	Class 7A (300Pa achieved)	Class E 2400Pa	BS 7412 BS 6375 BS 7950 & BBA assessed
single side hung light	700(w) x 1400(h)mm	Class 4 (600Pa achieved)	Class 7A (300Pa achieved)	Class E 2400Pa	BS 7412 BS 6375 BS 7950 & BBA assessed
single fixed light	2000(w) x 2000(h)mm max. perimeter = 8000mm	Class 4 (600Pa achieved)	Class E1000 (1000Pa achieved)	Class E 2400Pa	BS 7412 BS 6375 BS 7950 & BBA assessed
multilight windows with reinforced transom/mullion	2400(w) x 2400(h)mm max. perimeter = 7600mm max. transom/mullion span = 1450mm	Class 4 (600Pa achieved)	Class 7A (300Pa achieved)	Class 4A 1600Pa	BS 7412:2007 BS 6375 BS 7950 & BBA assessed

#### Maximum sizes

- maximum sizes must also be within the range recommended by the manufacturer of the hardware selected

#### Accreditation

- framing members are kitemarked under BS EN 12608:2003

- 2800 decorative casement windows have been assessed to BS 7412/BS 6375-1 standards and have achieved the results indicated above

- for guidance on high-performance applications, please contact the Deceuninck Technical Department

### PERFORMANCE

#### Security

- the window has been assessed to BS 7950 (specification for enhanced security performance of windows for domestic locations)

#### Thermal insulation

- whole window 'U' values comply with latest Approved Document L of the Building Regulations
- 'U' values below 1.0Wm<sup>2</sup>k can be achieved
- window energy ratings A to E
- for further details contact the Deceuninck Technical Department

#### Acoustic values

- independent acoustic tests have been conducted on 2800 decorative products providing Rw (C;Ctr) results in the range 32 – 43 dB from a variety of framing and glazing selections submitted

### GENERAL FEATURES

For full details of deceuninck window system features and benefits, refer to pages 18-21

#### Simplicity

- fully compatible with all standard hardware
- clip-fit detail ensures positive fixing of accessories

#### Inspired design

- symmetrical profile concept gives balanced aesthetics
- unique modern shape complements classical and contemporary architecture
- white colour RAL 9016
- lamination in rosewood and golden oak options available from stock
- Decoroc colours and other foils on request

#### Weather performance

- high-performance sealing concept

#### Insulation

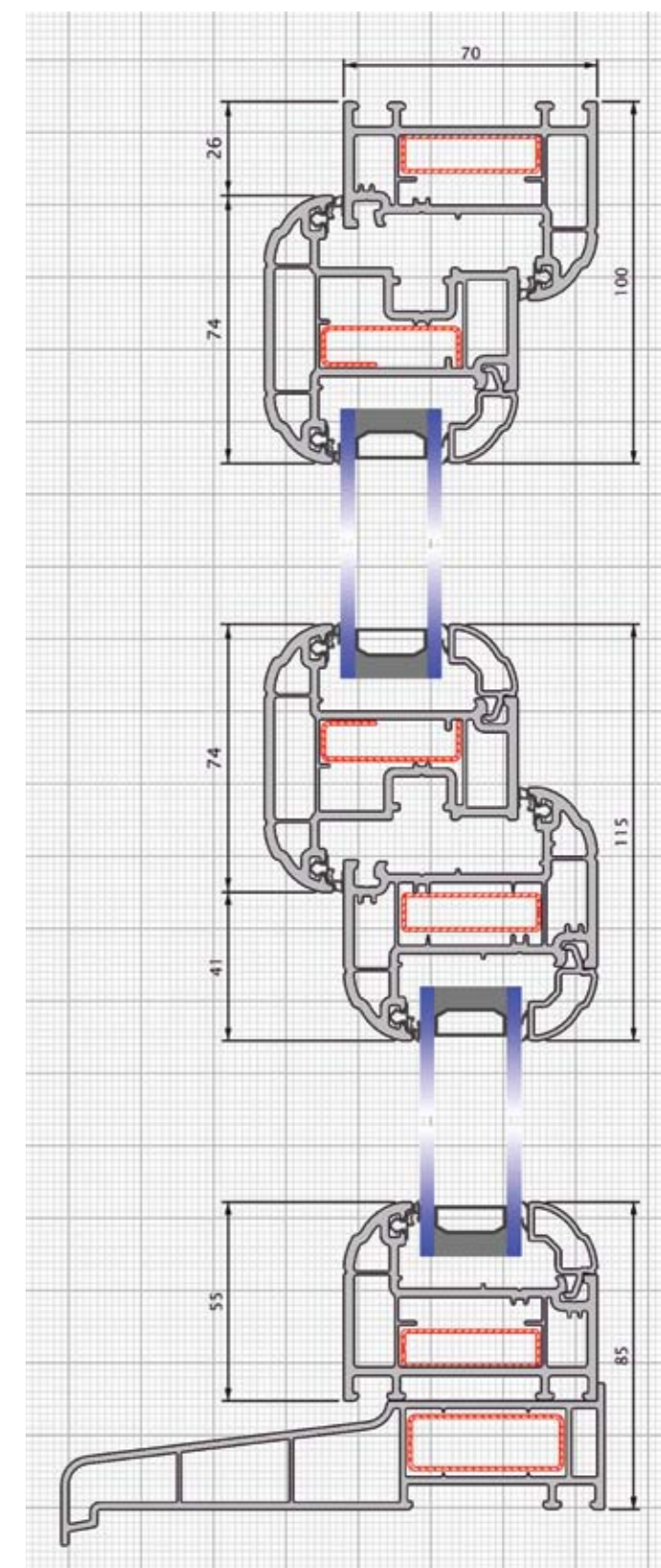
- exceeds current thermal requirements
- glazing up to 40mm

#### Security

- rebate detail makes striker plates less accessible
- 20mm rebate maximises glazing and sash overlaps
- hardware can fix directly to reinforcement / thermal chamber insulators
- positive location of friction stays

#### Environment

- see environmental policy statement on page 6



scale 1:2 2800 decorative internally glazed casement window profile section

# 2800 decorative windows

## casement **externally** glazed



### features

#### Framing

- choice of three outer frame sizes (55mm 70mm and 85mm)
- choice of three transom/mullion sizes (70mm, 85mm and 110mm)
- standard slimline sash

#### Seals/Gaskets

- main profiles supplied with high-performance integral multifunctional seal/gasket

#### Reinforcing

- galvanised steel profiles optimised for strength and secure hardware attachment
- optional deceuninck thermal chamber insulator (TCI) for enhanced thermal performance in non-structural elements

#### Window styles

- top hung, side hung and fixed light frames
- multilights combining above elements
- 'T' or cruciform transom/mullion joints
- coupled flat and bay/bow window styles

#### Fabrication

- fully welded construction

#### Glazing

- Georgian bar and leaded light options
- accepts insulated glass units up to 40mm thick

#### Ancillaries

- frame extensions, cills and weathering trims
- lightweight and structural coupling members
- standard and structural bay corner posts
- window boards, reveal liners and finishing trims

#### Hardware

- will accept hardware from most manufacturers
- secure location of hardware into reinforcement / thermal chamber insulator

#### Ventilation

- proprietary ventilation devices can be fitted to 2800 decorative casement windows in compliance with Building Regulations

#### Fixing

- fixing can be achieved through the frame or with bespoke fixing lugs or into proprietary cavity closers/sub-frame systems
- fixing methods exist for timber framing, flush or check reveals

## TEST RESULTS

Frame type	Maximum size tested	Air permeability	Water tightness	Exposure category	Accreditation
single top hung light	1200(w) x 1200(h)mm	Class 4 (600Pa achieved)	Class 7A (300Pa achieved)	Class E 2400Pa	BS 7412 BS 6375 & BBA assessed
single side hung light with local reinforcement to outer frame and reinforced sash verticals	700(w) x 1400(h)mm	Class 4 (600Pa achieved)	Class 7A (300Pa achieved)	Class E 2400Pa	BS 7412 BS 6375 & BBA assessed
single fixed light	2000(w) x 2000(h)mm max. perimeter = 8000mm	Class 4 (600Pa achieved)	Class E1000 (1000Pa achieved)	Class E 2400Pa	BS 7412 BS 6375 & BBA assessed
multilight windows with reinforced transom/mullion	2400(w) x 2400(h)mm max. perimeter = 7600mm max. transom/mullion span = 1450mm	Class 4 (600Pa achieved)	Class 7A (300Pa achieved)	Class 4A 1600Pa	BS 7412 BS 6375 & BBA assessed

#### Maximum sizes

- maximum sizes must also be within the range recommended by the manufacturer of the hardware selected

#### Accreditation

- framing members are kitemarked under BS EN 12608:2003

- 2800 decorative casement windows have been assessed to BS 7412/BS 6375-1 standards and have achieved the results indicated above

- for guidance on high-performance applications, please contact the Deceuninck Technical Department

### PERFORMANCE

#### Security

- the window will accept enhanced security test contained in BS 7412:2007

#### Thermal insulation

- whole window 'U' values comply with latest Approved Document L of the Building Regulations
- 'U' values below 1.0Wm<sup>2</sup>k can be achieved
- window energy ratings A to E can easily be achieved
- for further details contact the Deceuninck Technical Department

#### Acoustic values

- independent acoustic tests have been conducted on 2800 decorative products providing Rw (C;Ctr) results in the range 32 – 43 dB from a variety of framing and glazing selections submitted

### GENERAL FEATURES

For full details of deceuninck window system features and benefits, refer to pages 18-21

#### Simplicity

- fully compatible with all standard hardware
- clip-fit detail ensures positive fixing of accessories

#### Inspired design

- symmetrical profile concept gives balanced aesthetics
- unique modern shape complements classical and contemporary architecture
- white colour RAL 9016
- lamination in rosewood and golden oak options available from stock
- Decoroc colours and other foils on request

#### Weather performance

- high-performance sealing concept

#### Insulation

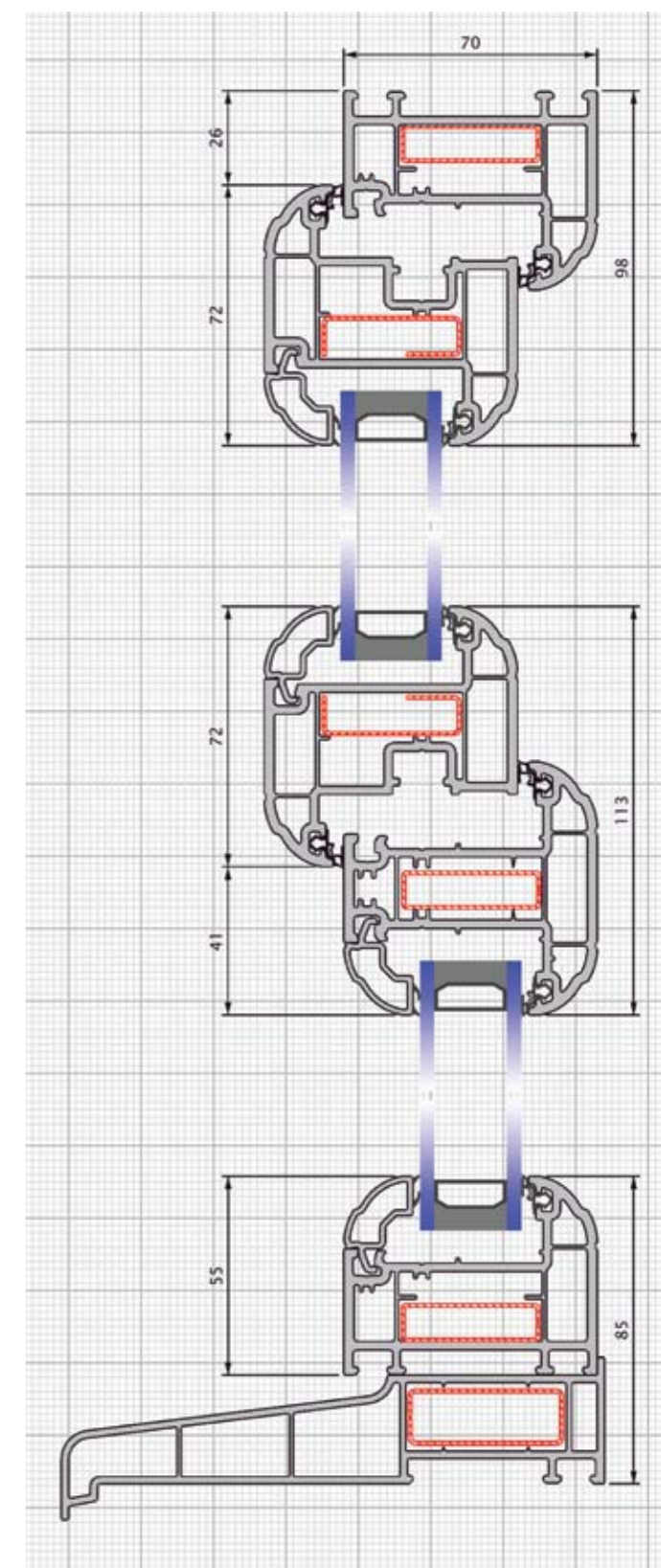
- exceeds current thermal requirements
- glazing up to 40mm

#### Security

- rebate detail makes striker plates less accessible
- 20mm rebate maximises glazing and sash overlaps
- hardware can fix directly to reinforcement / thermal chamber insulator
- positive location of friction stays

#### Environment

- see environmental policy statement on page 6



scale 1:2 2800 decorative externally glazed casement window profile section



# 2800 decorative windows tilt and turn

## features

### Framing

- choice of three outer frame sizes (55mm 70mm and 85mm)
- choice of three transom/mullion sizes (70mm, 85mm and 110mm)
- standard and heavy duty sash options

### Seals/Gaskets

- main profiles supplied with high-performance integral multifunctional seal/gasket

### Reinforcing

- galvanised steel profiles optimised for strength and secure hardware attachment

### Window styles

- tilt before turn, turn before tilt and fixed light frames
- multilights combining above elements
- 'T' or cruciform transom/mullion joints
- coupled flat and bay/bow window styles

### Fabrication

- fully welded construction

### Glazing

- Georgian bar and leaded light options
- accepts insulated glass units up to 40mm thick

### Ancillaries

- frame extensions, cills and weathering trims
- lightweight and structural coupling members
- standard and structural bay corner posts
- window boards, reveal liners and finishing trims

### Hardware

- will accept hardware, including concealed hinge types from most manufacturers
- full depth Eurogroove provides option for full perimeter locking
- secure location of hardware into steel reinforcement

### Ventilation

- proprietary ventilation devices can be fitted to 2800 decorative tilt and turn windows in compliance with Building Regulations

### Fixing

- fixing can be achieved through the frame or with bespoke fixing lugs or into proprietary cavity closers/sub-frame systems
- fixing methods exist for timber framing, flush or check reveals

## TEST RESULTS

Frame type	Maximum size tested	Air permeability	Water tightness	Exposure category	Accreditation
single tilt and turn	1200(w) x 1350(h)mm	Class 4 (600Pa achieved)	Class 6A (250Pa achieved)	Class 4 1600Pa	BS 7412 BS 6375 & BBA assessments
single fixed light	2000(w) x 2000(h)mm max. perimeter = 8000mm	Class 4 (600Pa achieved)	Class E1000 (1000Pa achieved)	Class E 1600Pa	BS 7412 BS 6375 & BBA assessments
multi-light windows with reinforced transom/mullion	2400(w) x 2400(h)mm max. perimeter = 7000mm max. transom/mullion span = 1450mm	Class 4 (600Pa achieved)	Class 6A (250Pa achieved)	Class 4 1600Pa	BS 7412 BS 6375 & BBA assessments

### Maximum sizes

- maximum sizes must also be within the range recommended by the manufacturer of the hardware selected

### Accreditation

- framing members are kitemarked under BS EN 12608:2003
- 2800 decorative tilt and turn windows have been assessed to BS 7412 /BS 6375-1 standards and have achieved the results indicated above
- for guidance on high-performance applications, please contact the Deceuninck Technical Department

## PERFORMANCE

### Security

- internally glazed as standard, the window will accept enhanced security glazing options
- full perimeter locking options

### Thermal insulation

- whole window 'U' values comply with latest Approved Document L of the Building Regulations
- 'U' values can be achieved below current minimum requirements
- window energy ratings from B to E
- for further details contact the Deceuninck Technical Department

### Acoustic values

- independent acoustic tests have been conducted on 2800 decorative products providing Rw (C;Ctr) results in the range 32 – 43 dB from a variety of framing and glazing selections submitted

## GENERAL FEATURES

For full details of deceuninck window system features and benefits, refer to pages 18-21

### Simplicity

- fully compatible with all standard hardware
- clip-fit detail ensures positive fixing of accessories

### Inspired design

- symmetrical profile concept gives balanced aesthetics
- unique modern shape complements classical and contemporary architecture
- white colour RAL 9016
- lamination in rosewood and golden oak options available from stock
- Decoroc colours and other foils on request

### Weather performance

- high-performance sealing concept
- glazing up to 40mm

### Insulation

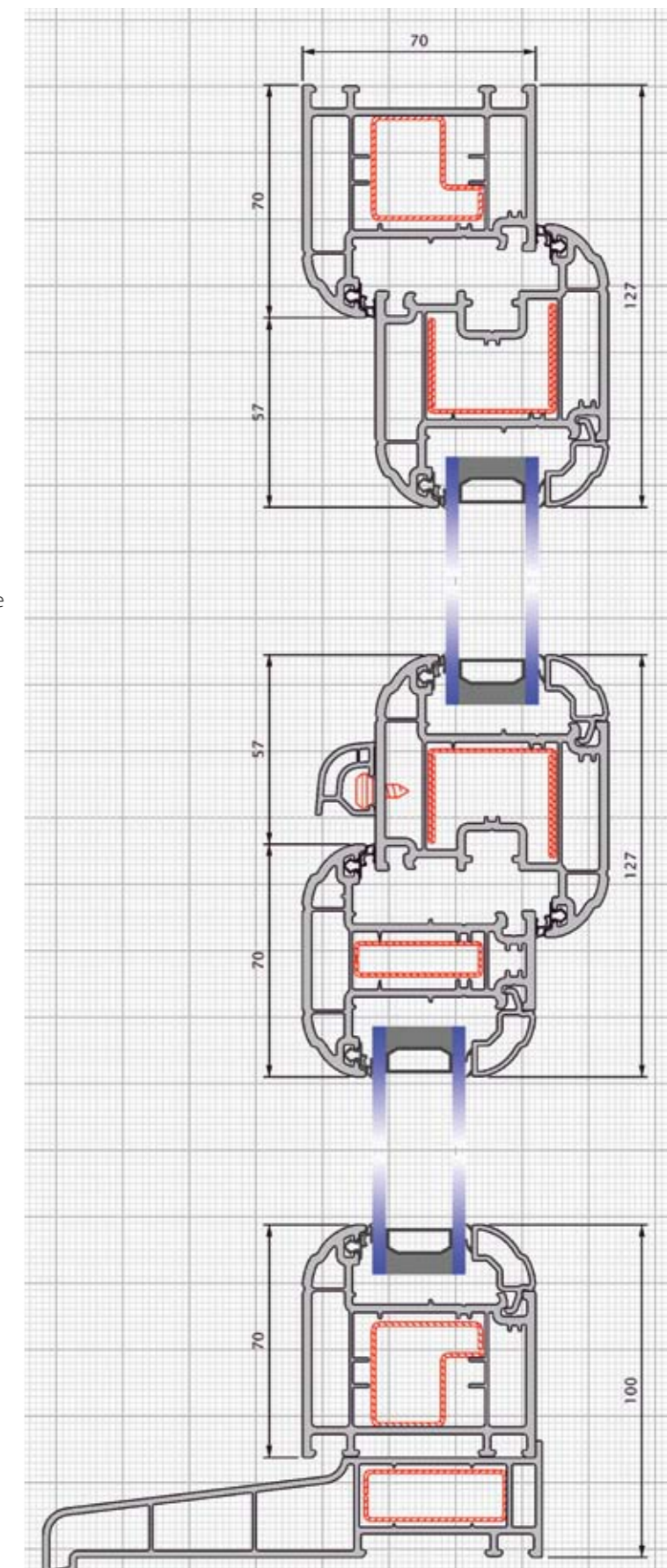
- exceeds current thermal requirements
- glazing up to 40mm

### Security

- rebate detail makes striker plates less accessible
- 20mm rebate maximises glazing and sash overlaps
- hardware can fix directly to reinforcement

### Environment

- see environmental policy statement on page 6



scale 1:2 2800 decorative tilt and turn window profile section

# 2800 decorative doors residential

## features

### Framing

- choice of two outer frame sizes (70mm and 85mm)
- low threshold option
- dedicated sashes for inward and outward opening doors
- choice of three transom/mullion and midrail sizes (70mm, 85mm and 110mm)

### Seals/Gaskets

- main profiles supplied with high-performance integral multifunctional seal/gasket

### Reinforcing

- galvanised steel profiles optimised for strength and secure hardware attachment

### Door options

- single doors open in or open out
- fanlights and sidelight frames
- options for transoms and mullions
- designed for use with entrance units and conservatories

### Fabrication

- fully welded construction

### Glazing

- Georgian bar and leaded light options
- accepts insulated glass units up to 40mm thick

### Ancillaries

- frame extensions, cills and weathering trims
- lightweight and structural coupling members
- standard and structural bay corner posts
- reveal liners and finishing trims

### Hardware

- will accept hardware from most manufacturers
- secure retention of hardware

### Ventilation

- proprietary ventilation devices can be fitted to 2800 decorative doors and sidelights in compliance with Building Regulations

### Fixing

- fixing can be achieved through the frame or with bespoke fixing lugs or into proprietary cavity closers/sub-frame systems
- fixing methods exist for timber framing, flush or check reveals

### Low threshold

- see page 75 for details of the Deceuninck low threshold system

## TEST RESULTS

Frame type	Maximum size tested	Air permeability	Water tightness	Exposure category	Accreditation
single hinged door with midrail (open-in or open-out)	1000(w) x 2100(h)mm	Class 3 (600Pa achieved)	Class 7A (300Pa achieved)	1200 Class A3	PAS 23-1
single fixed light with midrail	1000(w) x 2100(h)mm	Class 3 (600Pa achieved)	Class 7A (300Pa achieved)	1200 Class A3	PAS 23-1

### Maximum sizes

- maximum sizes must also be within the range recommended by the manufacturer of the hardware selected

### Accreditation

- framing members are kitemarked under BS EN 12608:2003
- 2800 decorative single doors and sidelights have been assessed to PAS 23-1 standards and have achieved the results indicated above for guidance on high-performance applications, please contact the Deceuninck Technical Department

## PERFORMANCE

### Security

- internally glazed as standard, the door will accept enhanced security glazing options
- single doors and coupled sidelights have been assessed to PAS 24-1 (enhanced security performance requirements for door assemblies)

### Thermal insulation

- whole door 'U' values comply with latest Approved Document L of the Building Regulations
- 'U' values can be achieved below current minimum requirements
- for further details contact the Deceuninck Technical Department

### Acoustic values

- independent acoustic tests have been conducted on 2800 decorative products providing Rw (C;Ctr) results in the range 32 – 43 dB from a variety of framing and glazing selections submitted

## GENERAL FEATURES

For full details of deceuninck window system features and benefits, refer to pages 18-21

### Simplicity

- fully compatible with all standard hardware
- clip-fit detail ensures positive fixing of accessories

### Inspired design

- symmetrical profile concept gives balanced aesthetics
- unique modern shape complements classical and contemporary architecture
- white colour RAL 9016
- lamination in rosewood and golden oak options available from stock
- Decoroc colours and other foils on request

### Weather performance

- high-performance sealing concept

### Insulation

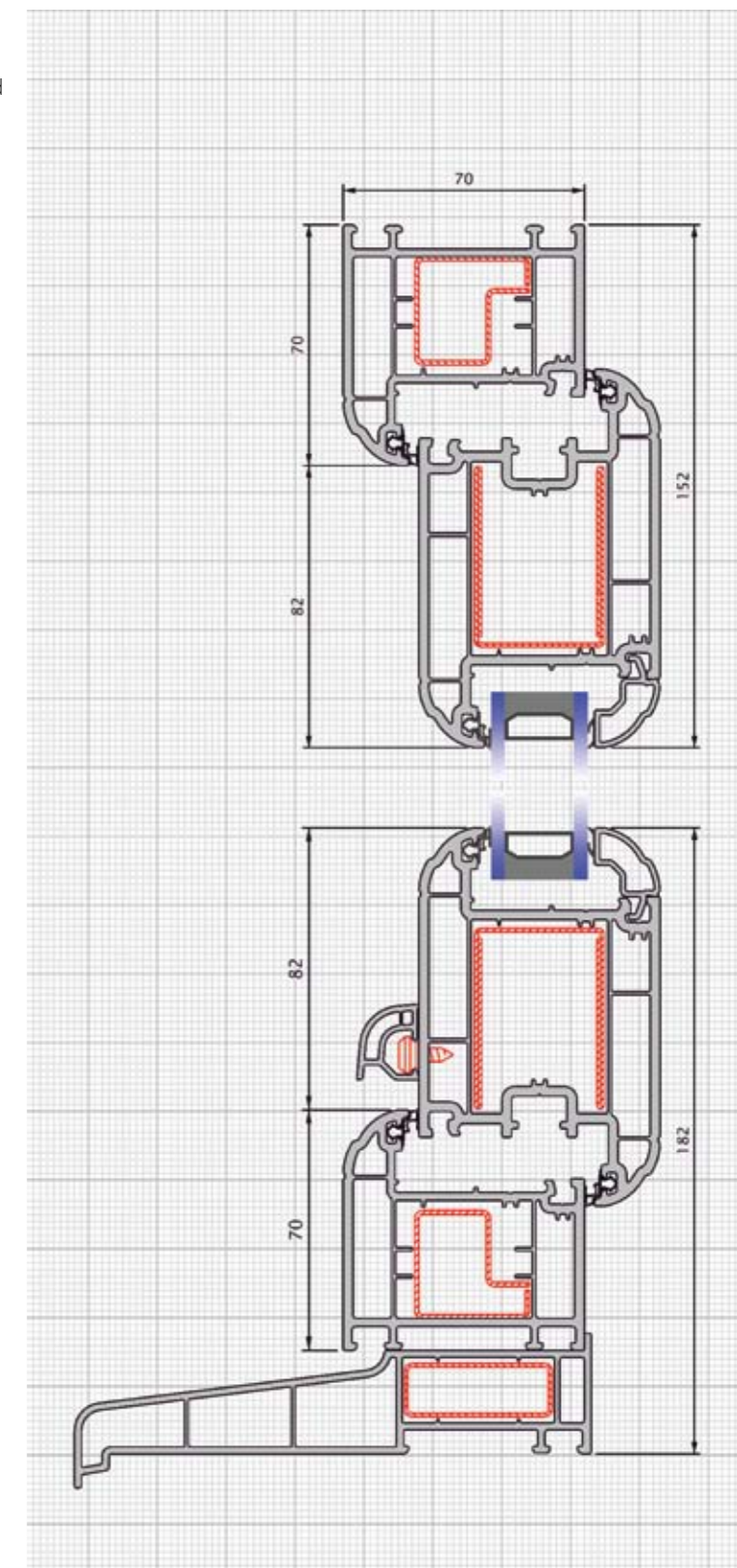
- exceeds current thermal requirements
- glazing up to 40mm

### Security

- rebate detail makes striker plates less accessible
- 20mm rebate maximises glazing and sash overlaps
- hardware can fix directly to reinforcement

### Environment

- see environmental policy statement on page 6



scale 1:2 2800 decorative residential doors profile section

# 2800 decorative doors French



**features**

**Framing**

- choice of two outer frame sizes (70mm and 85mm)
- dedicated sashes for inward and outward opening doors
- choice of three transom/mullion sizes (70mm, 85mm and 110mm)

**Seals/Gaskets**

- main profiles supplied with high-performance integral multifunctional seal/gasket

**Reinforcing**

- galvanised steel profiles optimised for strength and secure hardware attachment

**Door options**

- single doors open in or open out
- fanlights and sidelight frames
- options for transoms and mullions
- designed for use with entrance units and conservatories

**Fabrication**

- fully welded construction

**Glazing**

- Georgian bar and leaded light options
- accepts insulated glass units up to 40mm thick

**Ancillaries**

- frame extensions, cills and weathering trims
- lightweight and structural coupling members
- standard and structural bay corner posts
- reveal liners and finishing trims

**Hardware**

- will accept hardware from most manufacturers
- secure retention of hardware

**Ventilation**

- proprietary ventilation devices can be fitted to 2800 decorative doors and sidelights in compliance with Building Regulations

**Fixing**

- fixing can be achieved through the frame or with bespoke fixing lugs or into proprietary cavity closers/sub-frame systems
- fixing methods exist for timber framing, flush or check reveals

**Low threshold**

- see page 75 for details of the Deceuninck low threshold system



**Maximum sizes**

- maximum sizes must also be within the range recommended by the manufacturer of the hardware selected

**Accreditation**

- framing members are kitemarked under BS EN 12608:2003
- for guidance on high-performance applications, please contact the Deceuninck Technical Department

**PERFORMANCE**

**Security**

- internally glazed as standard, the door will accept enhanced security glazing options

**Thermal insulation**

- whole door 'U' values comply with latest Approved Document L of the Building Regulations
- 'U' values can be achieved below current minimum requirements
- for further details contact the Deceuninck Technical Department

**Acoustic values**

- independent acoustic tests have been conducted on 2800 decorative products providing Rw (C;Ctr) results in the range 32 – 43 dB from a variety of framing and glazing selections submitted

**GENERAL FEATURES**

For full details of deceuninck window system features and benefits, refer to pages 18-21

**Simplicity**

- fully compatible with all standard hardware
- clip-fit detail ensures positive fixing of accessories

**Inspired design**

- symmetrical profile concept gives balanced aesthetics
- unique modern shape complements classical and contemporary architecture
- white colour RAL 9016
- lamination in rosewood and golden oak options available from stock
- Decoroc colours and other foils on request

**Weather performance**

- high-performance sealing concept

**Insulation**

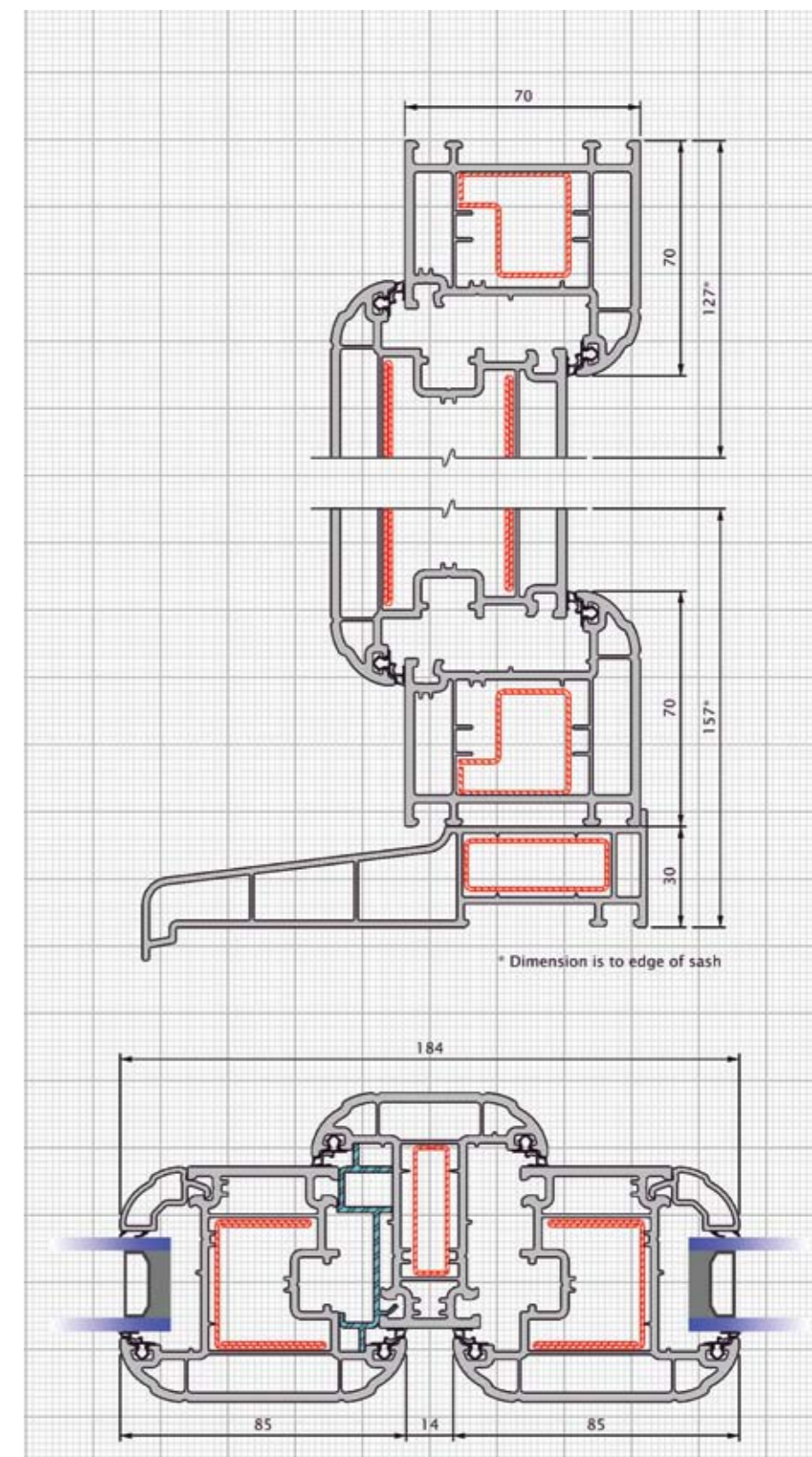
- exceeds current thermal requirements
- glazing up to 40mm

**Security**

- rebate detail makes striker plates less accessible
- 20mm rebate maximises glazing and sash overlaps
- hardware can fix directly to reinforcement

**Environment**

- see environmental policy statement on page 6



scale 1:2 2800 decorative pair of doors profile section

# 2800 decorative doors tilt and slide patio

## features

### Framing

- choice of two outer frame sizes (70mm and 85mm)
- choice of two sash sizes (85mm and 110mm)
- choice of three transom, mullion and midrail sizes (70mm, 85mm and 110mm)

### Seals/Gaskets

- main profiles supplied with high-performance integral multifunctional seal/gasket

### Reinforcing

- galvanised steel profiles optimised for strength and secure hardware attachment

### Door options

- options for transoms and mullions
- designed for use with entrance units and conservatories

### Fabrication

- fully welded construction

### Glazing

- Georgian bar and leaded light options
- accepts insulated glazing units up to 40mm thick

### Ancillaries

- frame extensions, cills and weathering trims
- lightweight and structural coupling members
- standard and structural bay corner posts
- reveal liners and finishing trims

### Hardware

- designed to accept a range of dedicated hardware
- full depth Eurogroove provides option for full perimeter locking
- secure retention of hardware

### Ventilation

- proprietary ventilation devices can be fitted to 2800 decorative tilt and slide patio doors in compliance with Building Regulations

### Fixing

- fixing can be achieved through the frame or with bespoke fixing lugs or into proprietary cavity closers/sub-frame systems
- fixing methods exist for timber framing, flush or check reveals



## Maximum sizes

- maximum sizes must also be within the range recommended by the manufacturer of the hardware selected

## Accreditation

- framing members are kitemarked under BS EN 12608:2003
- for guidance on high-performance applications, please contact the Deceuninck Technical Department

## 2800 decorative

## PERFORMANCE

### Security

- internally glazed as standard, tilt and slide doors and framing will accept enhanced security glazing options
- sliding panels operate internally or externally to enhance security
- full perimeter locking options

### Thermal insulation

- whole door 'U' values comply with latest Approved Document L of the Building Regulations
- 'U' values can be achieved below current minimum requirements
- for further details contact the Deceuninck Technical Department

### Acoustic values

- independent acoustic tests have been conducted on 2800 decorative products providing Rw (C;Ctr) results in the range 32 – 43 dB from a variety of framing and glazing selections submitted

## GENERAL FEATURES

For full details of deceuninck window system features and benefits, refer to pages 18-21

### Simplicity

- fully compatible with all standard hardware
- clip-fit detail ensures positive fixing of accessories

### Inspired design

- symmetrical profile concept gives balanced aesthetics
- unique modern shape complements classical and contemporary architecture
- white colour RAL 9016
- lamination in rosewood and golden oak options available from stock
- Decoroc colours and other foils on request

### Weather performance

- high-performance sealing concept

### Insulation

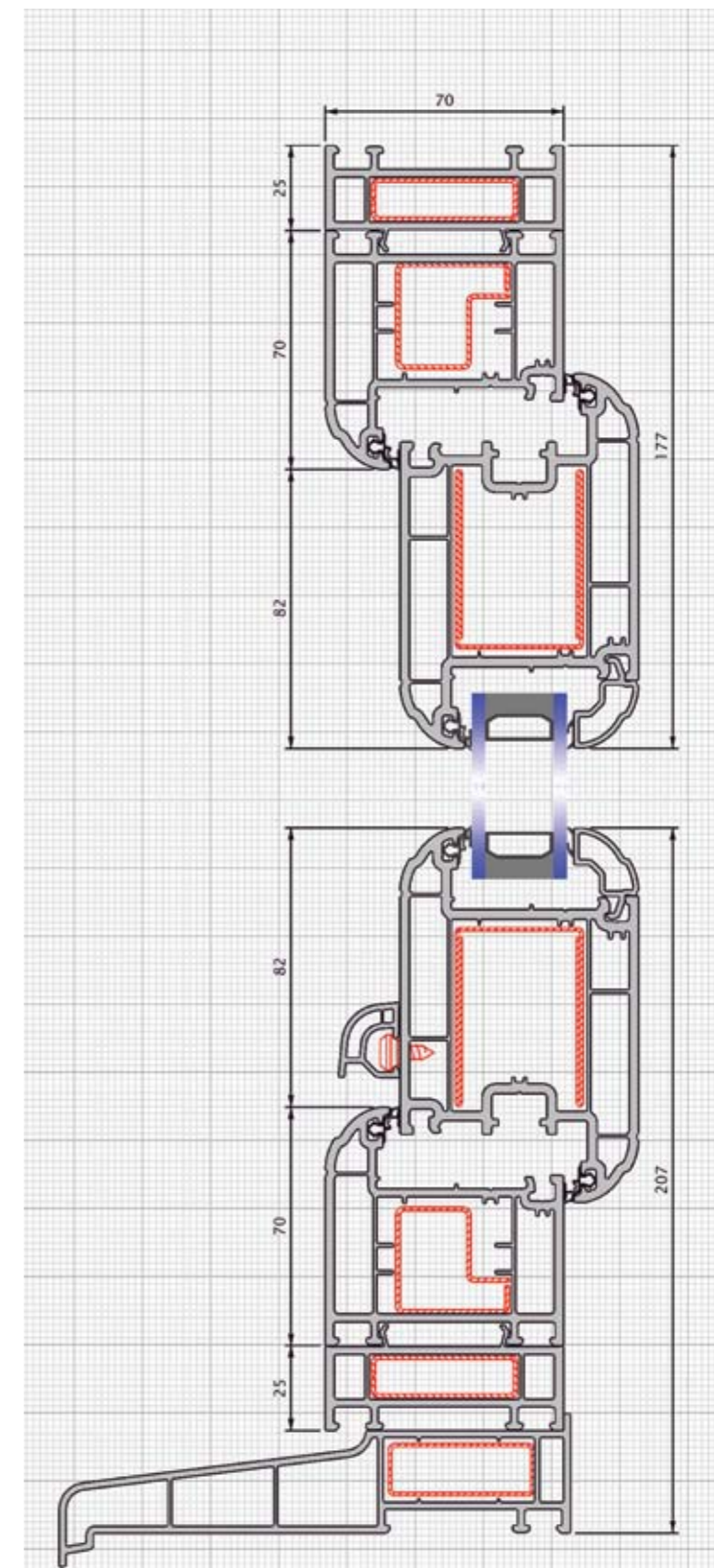
- exceeds current thermal requirements
- glazing up to 40mm

### Security

- rebate detail makes striker plates less accessible
- 20mm rebate maximises glazing and sash overlaps
- hardware can fix directly to reinforcement

### Environment

- see environmental policy statement on page 6

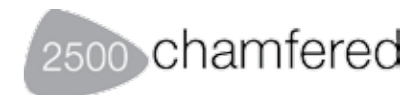


scale 1:2 2800 decorative tilt and slide patio profile section



# 2500 chamfered windows

## casement **internally** glazed



### features

#### Framing

- choice of two outer frame sizes (52mm and 70mm)
- choice of three transom/mullion sizes (68mm, 88mm and 110mm)
- standard chamfered sash

#### Seals/Gaskets

- main profiles supplied with high-performance integral multifunctional seal/gasket

#### Reinforcing

- galvanised steel profiles optimised for strength and secure hardware attachment
- optional deceuninck thermal chamber insulator (TCI) for enhanced thermal performance in non-structural elements

#### Window styles

- top hung, side hung and fixed light frames
- multilights combining above elements
- 'T' or cruciform transom/mullion joints
- coupled flat and bay/bow window styles

#### Fabrication

- fully welded construction

#### Glazing

- choice of four glazing bead styles
- accepts insulated glazing units up to 42mm thick
- Georgian bar and leaded light options

#### Ancillaries

- frame extensions, cills and weathering trims
- lightweight and structural coupling members
- standard and structural bay corner posts
- window boards, reveal liners and finishing trims

#### Hardware

- will accept hardware from most manufacturers
- full depth Eurogroove
- secure location of hardware

#### Ventilation

- proprietary ventilation devices can be fitted to 2500 chamfered casement windows in compliance with Building Regulations

#### Fixing

- fixing can be achieved through the frame or with bespoke fixing lugs or into proprietary cavity closers/sub-frame systems
- fixing methods exist for timber framing, flush or check reveals

## TEST RESULTS

Frame type	Maximum size tested	Air permeability	Water tightness	Exposure category	Accreditation
single top hung light	1200(w) x 1200(h)mm	Class 4 (600Pa achieved)	Class 7A (300Pa achieved)	Class E 2400Pa	BS 7412 BS 6375 BS 7950 & BBA assessed
single side hung light	700(w) x 1400(h)mm	Class 4 (600Pa achieved)	Class 7A (300Pa achieved)	Class E 2400Pa	BS 7412 BS 6375 BS 7950 & BBA assessed
single fixed light	2000(w) x 2000(h)mm max. perimeter = 8000mm	Class 4 (600Pa achieved)	Class E1000 (1000Pa achieved)	Class E 2400Pa	BS 7412 BS 6375 BS 7950 & BBA assessed
multilight windows with reinforced transom/mullion	2400(w) x 2400(h)mm max. perimeter = 7600mm max. transom/mullion span = 1450mm	Class 4 (600Pa achieved)	Class 7A (300Pa achieved)	Class 4A 1600Pa	BS 7412 BS 6375 BS 7950 & BBA assessed

#### Maximum sizes

- maximum sizes must also be within the range recommended by the manufacturer of the hardware selected

#### Accreditation

- 2500 chamfered has been independently assessed by a number of national and internationally recognised testing bodies

- all frame members are kitemarked under BS EN 12608:2003

- 2500 chamfered casement windows have been assessed to BS 7412/BS 6375-1 standards and have achieved the results indicated above

- for guidance on high-performance applications, please contact the Deceuninck Technical Department

### PERFORMANCE

#### Security

- the window has been assessed to BS 7950:1997 (specification for enhanced security performance of windows for domestic locations)

#### Thermal insulation

- whole window 'U' values comply with latest Approved Document L of the Building Regulations
- 'U' values below 1.0Wm<sup>2</sup>k can be achieved
- window energy ratings A to E
- for further details contact the Deceuninck Technical Department

#### Acoustic values

- independent acoustic tests have been conducted on 2500 chamfered products providing Rw (C;Ctr) results in the range 32 – 43 dB from a variety of framing and glazing selections submitted

### GENERAL FEATURES

For full details of deceuninck window system features and benefits, refer to pages 18-21

#### Simplicity

- fully compatible with all standard hardware
- clip-fit detail ensures positive fixing of accessories

#### Inspired design

- symmetrical profile concept gives balanced aesthetics
- unique modern shape complements classical and contemporary architecture
- personalisation with glazing bead and sash options
- white colour RAL 9016
- lamination in rosewood and golden oak options available from stock
- Decoroc colours and other foils on request

#### Weather performance

- high-performance sealing concept

#### Insulation

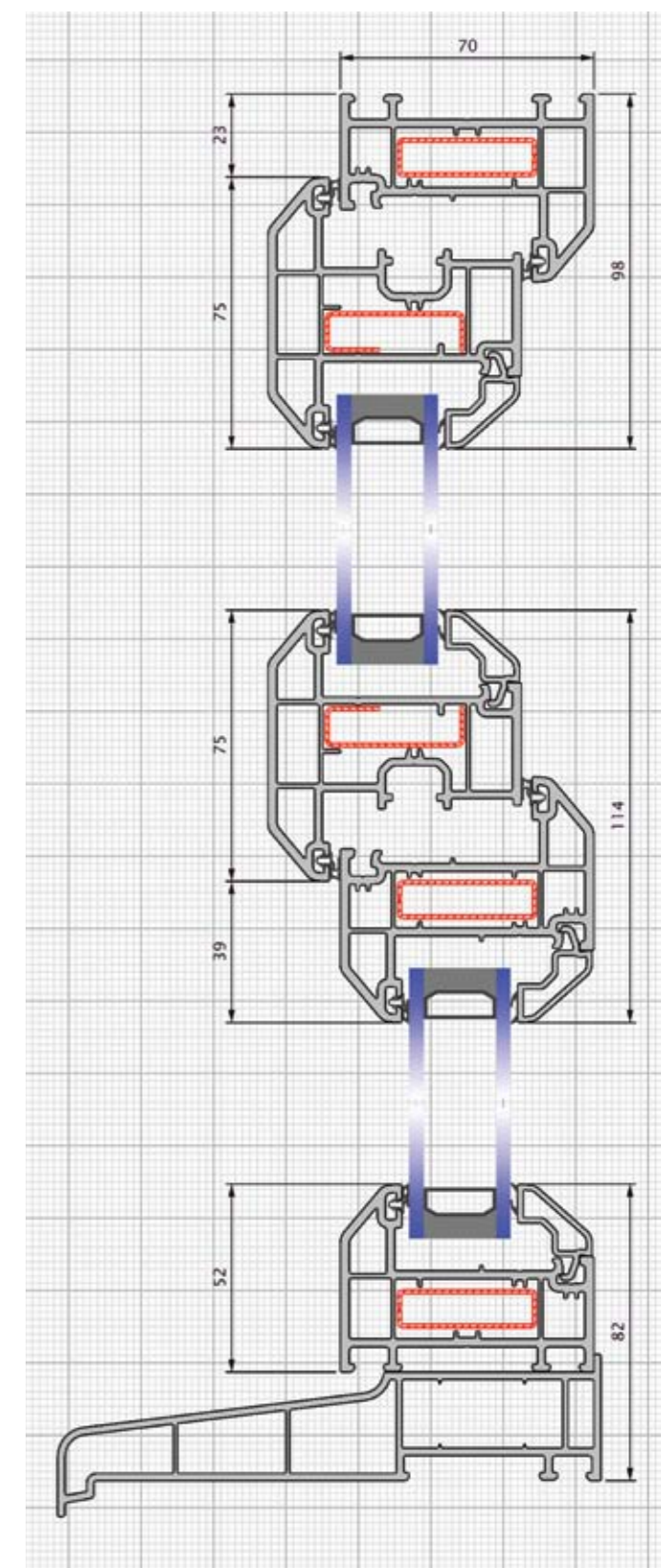
- exceeds current thermal requirements
- glazing up to 42mm

#### Security

- rebate detail makes striker plates less accessible
- 20mm rebate maximises glazing and sash overlaps
- hardware can fix directly to reinforcement / thermal chamber insulators
- positive location of friction stays

#### Environment

- see environmental policy statement on page 6



scale 1:2 2500 chamfered internally glazed casement window profile section



# 2500 chamfered windows tilt and turn

## features

### Framing

- choice of two outer frame sizes (52mm and 70mm)
- choice of three transom/mullion sizes (68mm, 88mm and 110mm)
- standard and heavy duty sash options

### Seals/Gaskets

- main profiles supplied with high-performance integral multifunctional seal/gasket

### Reinforcing

- galvanised steel profiles optimised for strength and secure hardware attachment

### Window styles

- tilt before turn, turn before tilt and fixed light frames
- multilights combining above elements
- 'T' or cruciform transom/mullion joints
- coupled flat and bay/bow window styles

### Fabrication

- fully welded construction

### Glazing

- choice of four glazing bead styles
- accepts insulated glass units up to 42mm thick
- Georgian bar and leaded light options

### Ancillaries

- frame extensions, cills and weathering trims
- lightweight and structural coupling members
- standard and structural bay corner posts
- window boards, reveal liners and finishing trims

### Hardware

- systems accepts hardware, including concealed hinge types from most manufacturers
- full depth Eurogroove provides option for full perimeter locking
- secure location of hardware into steel reinforcement

### Ventilation

- proprietary ventilation devices can be fitted to 2500 chamfered tilt and turn windows in compliance with Building Regulations

### Fixing

- fixing can be achieved through the frame or with bespoke fixing lugs or into proprietary cavity closers/sub-frame systems
- fixing methods exist for timber framing, flush or check reveals

## TEST RESULTS

Frame type	Maximum size tested	Air permeability	Water tightness	Exposure category	Accreditation
single tilt and turn	1200(w) x 1350(h)mm	Class 4 (600Pa achieved)	Class 6A (250Pa achieved)	Class 4 1600Pa	BS 7412 BS 6375
single fixed light	2000(w) x 2000(h)mm max. perimeter = 8000mm	Class 4 (600Pa achieved)	Class E1000 (1000Pa achieved)	Class E 1600Pa	BS 7412 BS 6375
multi-light windows with reinforced transom/mullion	2400(w) x 2400(h)mm max. perimeter = 7600mm max. transom/mullion span = 1450mm	Class 4 (600Pa achieved)	Class 6A (250Pa achieved)	Class 4 1600Pa	BS 7412 BS 6375

### Maximum sizes

- maximum sizes must also be within the range recommended by the manufacturer of the hardware selected

### Accreditation

- 2500 chamfered has been independently assessed by a number of national and internationally recognised testing bodies

- all frame members are kitemarked under BS EN 12608:2003

- 2500 chamfered casement windows have been assessed to BS 7412/BS 6375-1 standards and have achieved the results indicated above

- for guidance on high-performance applications, please contact the Deceuninck Technical Department

## PERFORMANCE

### Security

- internally glazed as standard, the window will accept enhanced security glazing options
- full perimeter locking options

### Thermal insulation

- whole window 'U' values comply with latest Approved Document L of the Building Regulations
- 'U' values can be achieved below current minimum requirements
- window energy ratings B to E
- for further details contact the Deceuninck Technical Department

### Acoustic values

- independent acoustic tests have been conducted on 2500 chamfered products providing Rw (C;Ctr) results in the range 32 – 43 dB from a variety of framing and glazing selections submitted

## GENERAL FEATURES

For full details of deceuninck window system features and benefits, refer to pages 18-21

### Simplicity

- fully compatible with all standard hardware
- clip-fit detail ensures positive fixing of accessories

### Inspired design

- symmetrical profile concept gives balanced aesthetics
- unique modern shape complements classical and contemporary architecture
- personalisation with glazing bead and sash options
- white colour RAL 9016
- lamination in rosewood and golden oak options available from stock
- Decoroc colours and other foils on request

### Weather performance

- high-performance sealing concept

### Insulation

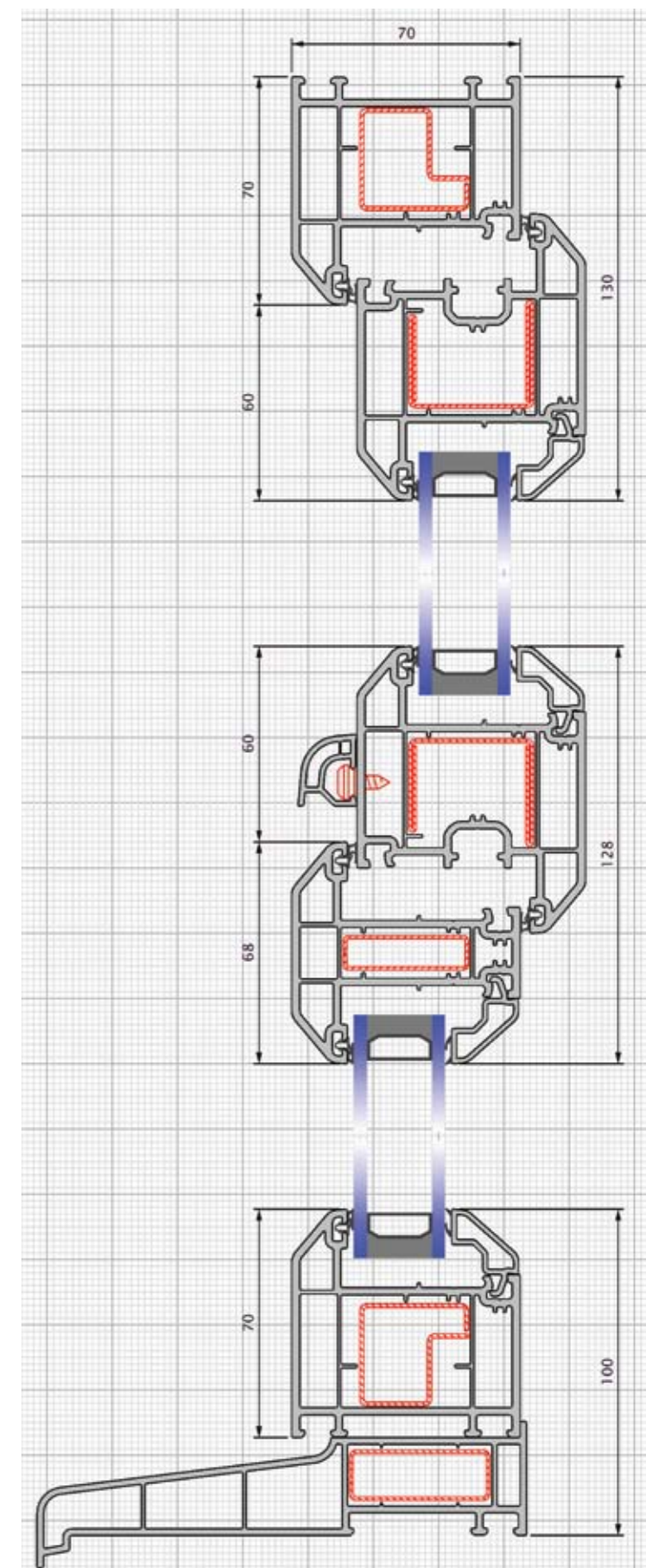
- exceeds current thermal requirements
- glazing up to 42mm

### Security

- rebate detail makes striker plates less accessible
- 20mm rebate maximises glazing and sash overlaps
- hardware can fix directly to reinforcement

### Environment

- see environmental policy statement on page 6



scale 1:2 2500 chamfered tilt and turn window profile section

# 2500 chamfered doors residential

## features

### Framing

- standard outer frame with low threshold option
- dedicated sashes for inward and outward opening doors
- choice of three transom/mullion/midrail sizes (68mm, 88mm and 110mm)

### Seals/Gaskets

- main profiles supplied with high-performance integral multifunctional seal/gasket

### Reinforcing

- galvanised steel profiles optimised for strength and secure hardware attachment

### Door options

- single doors open in or open out
- fanlights and sidelight frames
- options for transoms and mullions
- designed for use with entrance units and conservatories

### Fabrication

- fully welded construction
- option for mechanically jointed transom and mullions

### Glazing

- choice of four glazing beads
- accepts insulated glass units up to 42mm thick
- Georgian bar and leaded light options

### Ancillaries

- frame extensions, cills and weathering trims
- lightweight and structural coupling members
- standard and structural bay corner posts
- reveal liners and finishing trims

### Hardware

- will accept hardware from most manufacturers
- full depth Eurogroove
- secure retention of hardware

### Ventilation

- proprietary ventilation devices can be fitted to 2500 chamfered doors and sidelights in compliance with Building Regulations

### Fixing

- fixing can be achieved through the frame or with bespoke fixing lugs or into proprietary cavity closers/sub-frame systems
- fixing methods exist for timber framing, flush or check reveals

### Low threshold

- see page 75 for details of the Deceuninck low threshold system

## TEST RESULTS

Frame type	Maximum size tested	Air permeability	Water tightness	Exposure category	Accreditation
single hinged door with midrail (open-in or open-out)	1000(w) x 2100(h)mm	Class 3 (600Pa achieved)	Class 7A (300Pa achieved)	1200 Class A3	PAS 23-1
single hinged door with midrail	1000(w) x 2100(h)mm	Class 3 (600Pa achieved)	Class 7A (300Pa achieved)	1200 Class A3	PAS 23-1

### Maximum sizes

- maximum sizes must also be within the range recommended by the manufacturer of the hardware selected

### Accreditation

- 2500 chamfered has been independently assessed by a number of national and internationally recognised testing bodies

- all frame members are kitemarked under BS EN 12608:2003

- 2500 chamfered single doors and sidelights have been assessed to PAS 23-1 standards and have achieved the results indicated above
- for guidance on high-performance applications, please contact the Deceuninck Technical Department

## PERFORMANCE

### Security

- internally glazed as standard, the door will accept enhanced security glazing options
- single doors and coupled sidelights have been assessed to PAS 24-1 (enhanced security performance requirements for doors assemblies)

### Thermal insulation

- whole door 'U' values comply with Approved Document L of the Building Regulations
- 'U' values can be achieved below current minimum requirements
- for further details contact the Deceuninck Technical Department

### Acoustic values

- independent acoustic tests have been conducted on 2500 chamfered products providing Rw (C;Ctr) results in the range 32 – 43 dB from a variety of framing and glazing selections submitted

## GENERAL FEATURES

For full details of deceuninck window system features and benefits, refer to pages 18-21

### Simplicity

- fully compatible with all standard hardware
- clip-fit detail ensures positive fixing of accessories

### Inspired design

- symmetrical profile concept gives balanced aesthetics
- unique modern shape complements classical and contemporary architecture
- personalisation with glazing bead and sash options
- white colour RAL 9016
- lamination in rosewood and golden oak options available from stock
- Decoroc colours and other foils on request

### Weather performance

- high-performance sealing concept

### Insulation

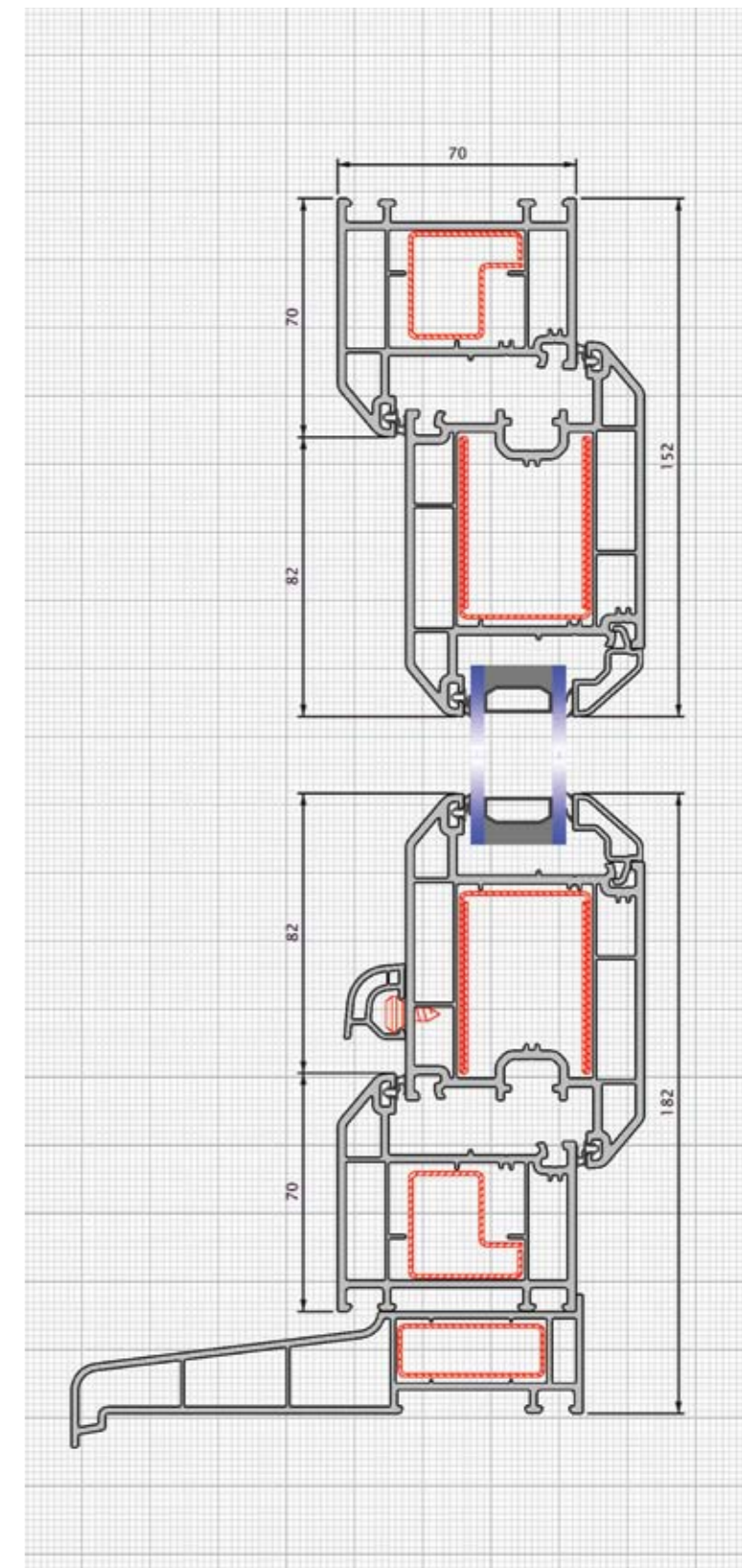
- exceeds current thermal requirements
- glazing up to 42mm

### Security

- rebate detail makes striker plates less accessible
- 20mm rebate maximises glazing and sash overlaps
- hardware can fix directly to reinforcement

### Environment

- see environmental policy statement on page 6



scale 1:2 2500 chamfered single hinged residential door profile section

# 2500 chamfered doors French



## features

### Framing

- 70mm outer frame as standard framing
- dedicated sashes for inward and outward opening doors
- choice of two sash sizes for inward opening doors / one for outward opening
- choice of three transom/mullion/midrail sizes (68mm, 88mm and 110mm)

### Seals/Gaskets

- main profiles supplied with high-performance integral multifunctional seal/gasket

### Reinforcing

- galvanised steel profiles optimised for strength and secure hardware attachment

### Door options

- single doors open in or open out
- fanlights and sidelight frames
- options for transoms and mullions
- designed for use with entrance units and conservatories

### Fabrication

- fully welded construction
- option for mechanically jointed transom/mullions

### Glazing

- Choice of four glazing bead styles
- accepts insulated glass units up to 41mm thick
- Georgian bar and leaded light options

### Ancillaries

- frame extensions, cills and weathering trims
- lightweight and structural coupling members
- standard and structural bay corner posts
- window boards, reveal liners and finishing trims

### Hardware

- will accept hardware from most manufacturers
- secure retention of hardware

### Ventilation

- proprietary ventilation devices can be fitted to 2500 chamfered doors and sidelights in compliance with Building Regulations

### Fixing

- fixing can be achieved through the frame or with bespoke fixing lugs or into proprietary cavity closers/sub-frame systems
- fixing methods exist for timber framing, flush or check reveals



### Maximum sizes

- maximum sizes must also be within the range recommended by the manufacturer of the hardware selected

### Accreditation

- all frame members are kitemarked under BS EN 12608:2003
- for guidance on high-performance applications, please contact the Deceuninck Technical Department

## PERFORMANCE

### Security

- internally glazed as standard, the door will accept enhanced security glazing options

### Thermal insulation

- whole door 'U' values comply with latest Approved Document L of the Building Regulations
- 'U' values can be achieved below current minimum requirements
- for further details contact the Deceuninck Technical Department

### Acoustic values

- independent acoustic tests have been conducted on 2500 chamfered products providing  $R_w$  (C;Ctr) results in the range 32 – 43 dB from a variety of framing and glazing selections submitted

## GENERAL FEATURES

For full details of deceuninck window system features and benefits, refer to pages 18-21

### Simplicity

- fully compatible with all standard hardware
- clip-fit detail ensures positive fixing of accessories

### Inspired design

- symmetrical profile concept gives balanced aesthetics
- unique modern shape complements classical and contemporary architecture
- personalisation with glazing bead and sash options
- white colour RAL 9016
- lamination in rosewood and golden oak options available from stock
- Decoroc colours and other foils on request

### Weather performance

- high-performance sealing concept

### Insulation

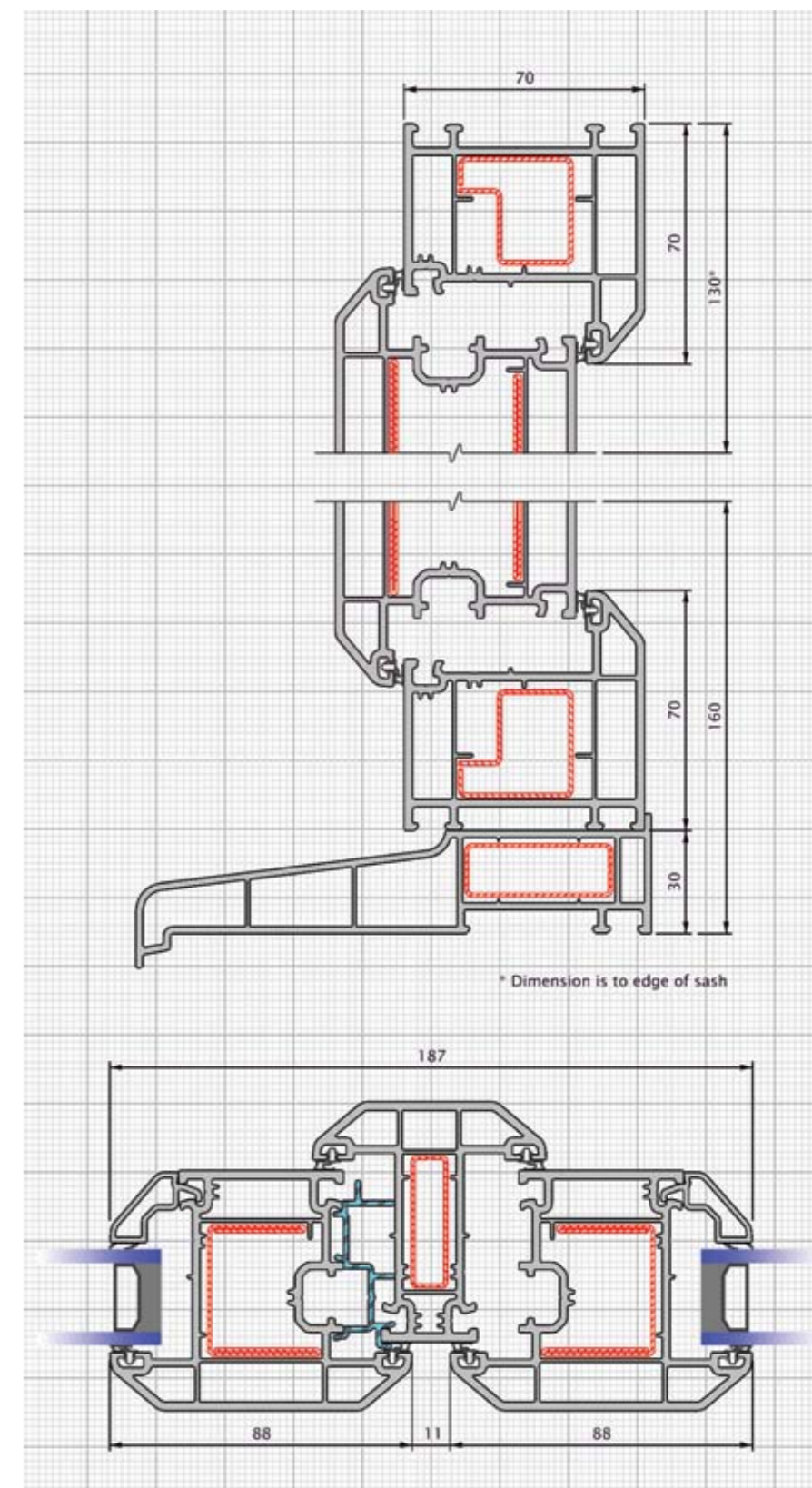
- exceeds current thermal requirements
- glazing up to 42mm

### Security

- rebate detail makes striker plates less accessible
- 20mm rebate maximises glazing and sash overlaps
- hardware can fix directly to reinforcement

### Environment

- see environmental policy statement on page 6



scale 1:2 2500 chamfered pair of doors profile section

# 2500 chamfered doors tilt and slide patio

## features

### Framing

- 70mm outer frame as standard framing
- choice of two sash sizes (85mm and 110mm)
- choice of three transom/mullion/midrail sizes (68mm, 88mm and 110mm)

### Seals/Gaskets

- main profiles supplied with high-performance integral multifunctional seal/gasket

### Reinforcing

- galvanised steel profiles optimised for strength and secure hardware attachment

### Door options

- options for transoms and mullions
- designed for use with entrance units and conservatories

### Fabrication

- fully welded construction

### Glazing

- choice of four glazing bead styles
- accepts insulated glass units up to 41mm thick

### Ancillaries

- frame extensions, cills and weathering trims
- lightweight and structural coupling members
- standard and structural bay corner posts
- reveal liners and finishing trims

### Hardware

- designed to accept a range of dedicated hardware
- full depth Eurogroove provides option for full perimeter locking
- secure retention of hardware

### Ventilation

- proprietary ventilation devices can be fitted to 2500 chamfered tilt and slide patio doors in compliance with Building Regulations

### Fixing

- fixing can be achieved through the frame or with bespoke fixing lugs or into proprietary cavity closers/sub-frame systems
- fixing methods exist for timber framing, flush or check reveals



### Maximum sizes

- maximum sizes must also be within the range recommended by the manufacturer of the hardware selected

### Accreditation

- all frame members are kitemarked under BS EN 12608:2003
- for guidance on high-performance applications, please contact the Deceuninck Technical Department

## PERFORMANCE

### Security

- internally glazed as standard, tilt and slide doors and framing will accept enhanced security glazing options
- sliding panels operate internally or externally to enhance security
- option for internal only handle/lock position
- full perimeter locking options

### Thermal insulation

- whole door 'U' values comply with latest Approved Document L of the Building Regulations
- 'U' values can be achieved below current minimum requirements
- for further details contact the Deceuninck Technical Department

### Acoustic values

- independent acoustic tests have been conducted on 2500 chamfered products providing  $R_w$  (C;Ctr) results in the range 32 – 43 dB from a variety of framing and glazing selections submitted

## GENERAL FEATURES

For full details of deceuninck window system features and benefits, refer to pages 18-21

### Simplicity

- fully compatible with all standard hardware
- clip-fit detail ensures positive fixing of accessories

### Inspired design

- symmetrical profile concept gives balanced aesthetics
- unique modern shape complements classical and contemporary architecture
- personalisation with glazing bead options
- white colour RAL 9016
- lamination in rosewood and golden oak options available from stock
- Decoroc colours and other foils on request

### Weather performance

- high-performance sealing concept

### Insulation

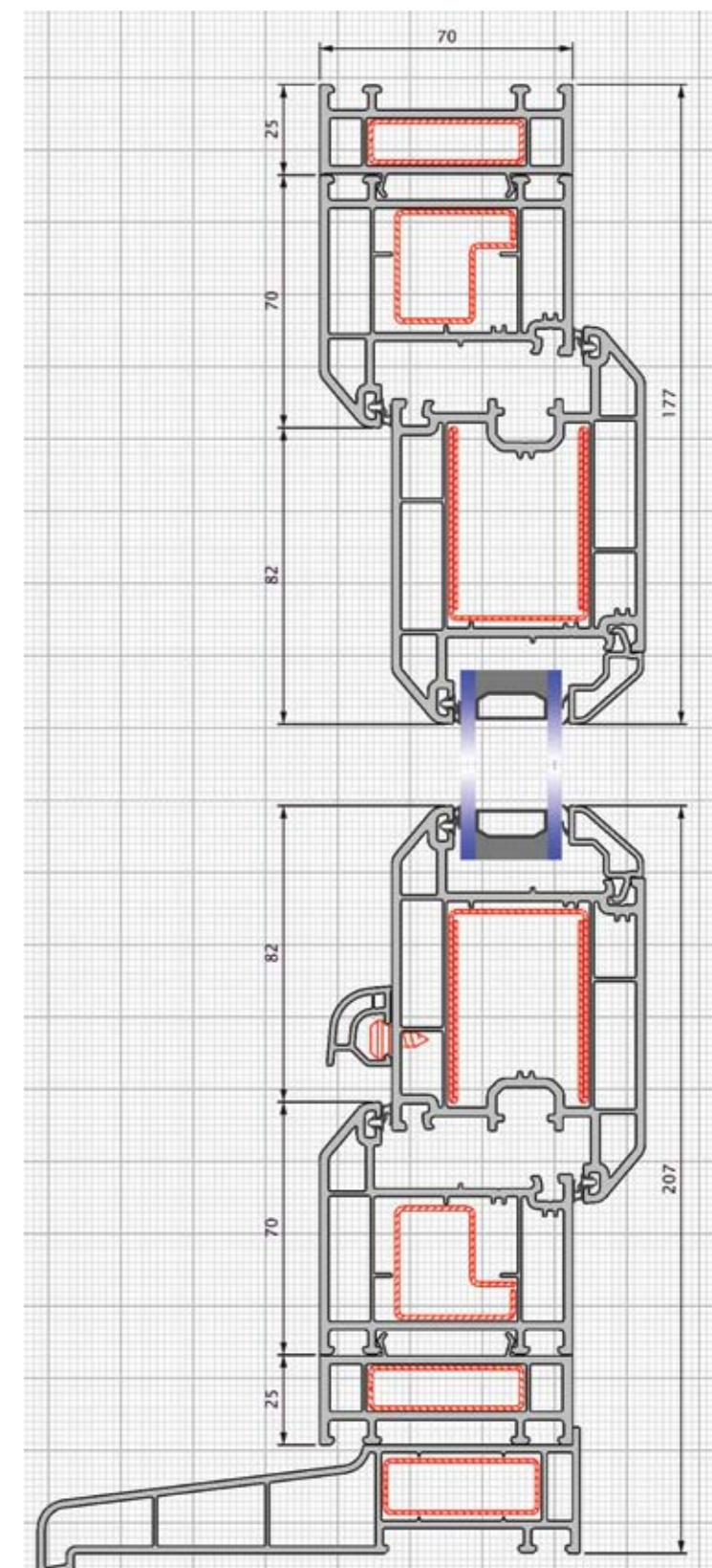
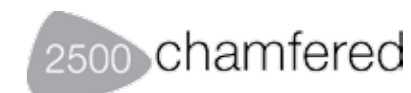
- exceeds current thermal requirements
- glazing up to 42mm

### Security

- rebate detail makes striker plates less accessible
- 20mm rebate maximises glazing and sash overlaps
- hardware can fix directly to reinforcement

### Environment

- see environmental policy statement on page 6



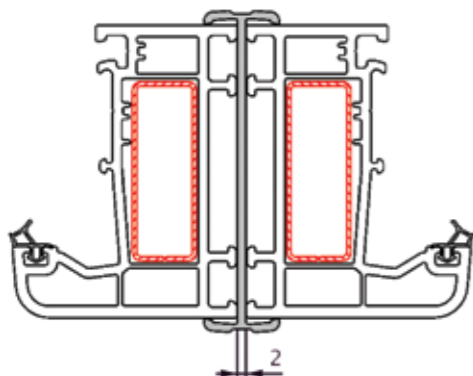
scale 1:2 2500 chamfered tilt and slide door profile section

# ancillaries

## Slimline Couplings

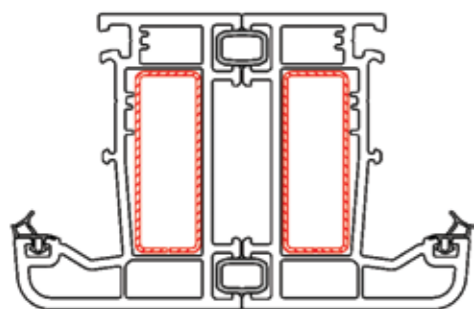
for short-span applications with low wind load requirements

### 3197 Coupler



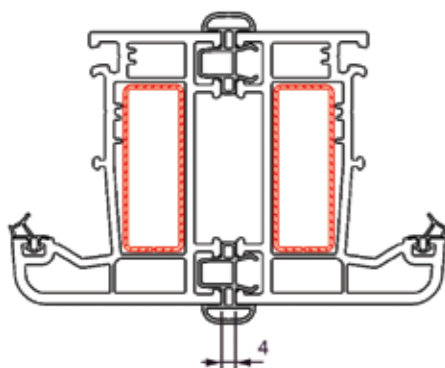
- overlap frame-to-frame coupling
- neat internal finish with sub-cills

### 3312 Coupler



- fully concealed coupling
- flush frame finish

### 3310 Coupler

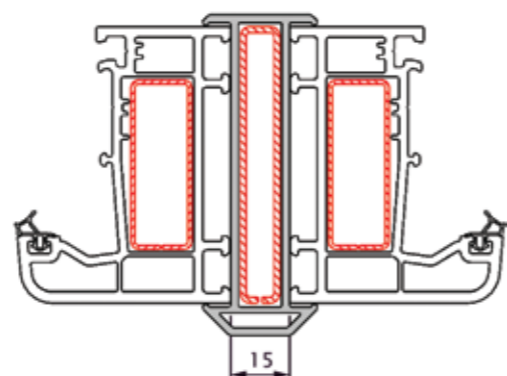


- feature overlap moulding
- clip-fit location
- ideal to break up wide coupled faces

## Reinforced Couplings

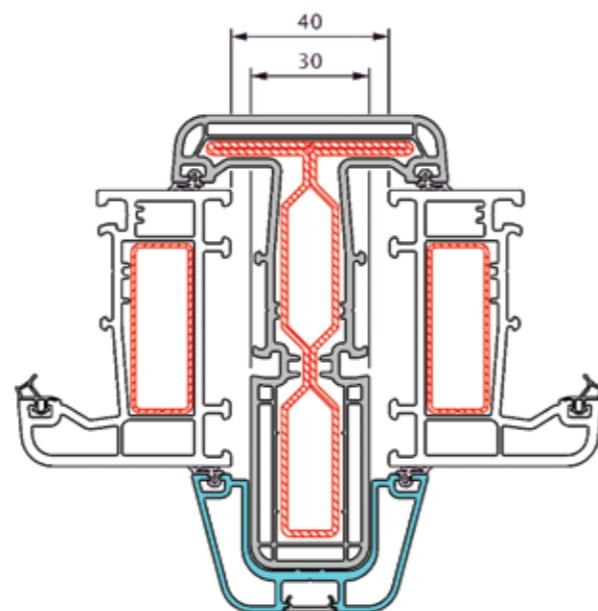
for longer span applications with higher wind load requirements

### 6960 Coupler



- compact coupling for medium loads
- feature overlap face

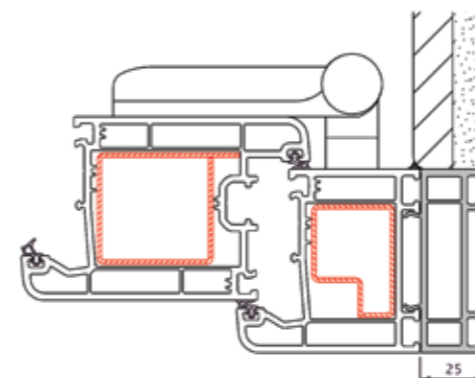
### 3705 Coupler



- heavy-duty coupling for exposed loads
- expansion / contraction capacity
- optional face capping 3706
- to be used where frames exceed 3m (2m for dark colours / foils)

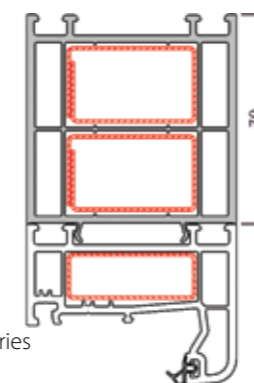
## Add-Ons

### 3300 Add-On



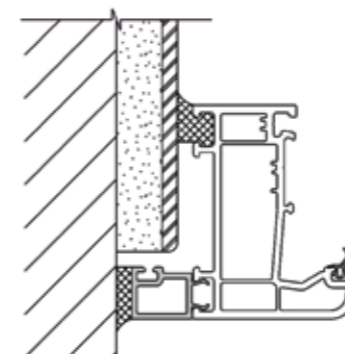
- additional clearance for hinges (as shown)
- enables outward opening sashes to clear thick rendering
- packs out reveals

### 3302 Add-On



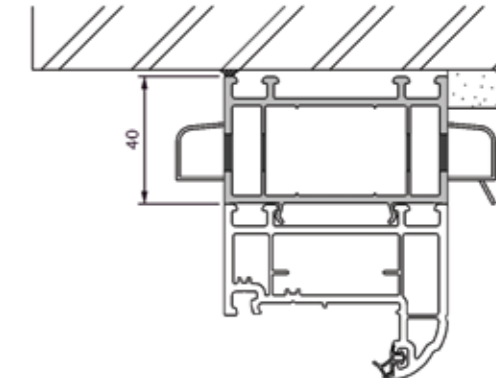
- frame build up for conservatories

### 3340 Add-On



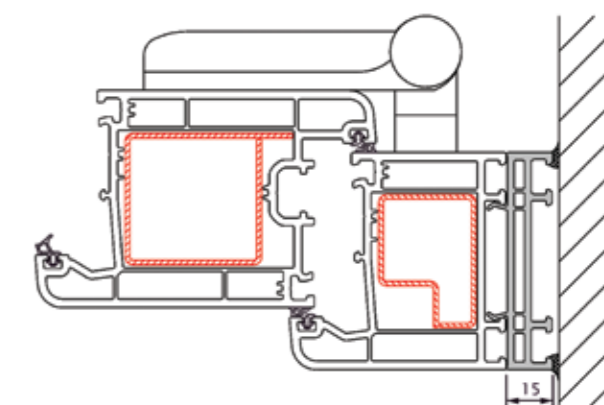
- to provide clearance over existing plaster or tiling
- rebate with stone or concrete cill detail
- weather strip groove is designed to accept seal/gasket 3299

### 3301 Add-On



- designed to accommodate proprietary trickle ventilators in compliance with Building Regulations
- window integrity not compromised

### 3302 Add-On

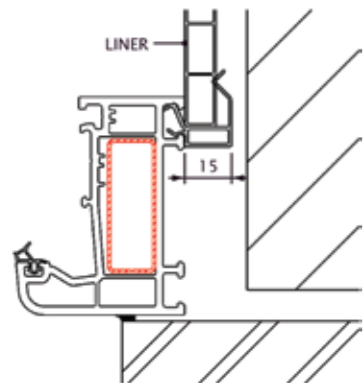


- provides additional clearance around tight reveal situations whilst limiting sightlines to a minimum

# ancillaries

## Reveal Liners

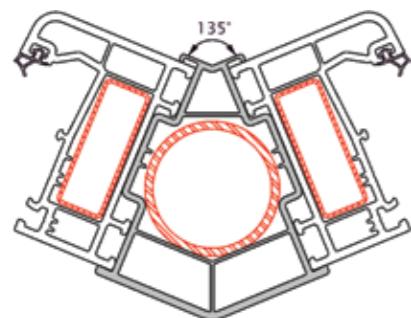
### 3340 Add-On



- trim for reveal lining
- ideal for sash box refurbishment
- designed to take 10mm infill/liner

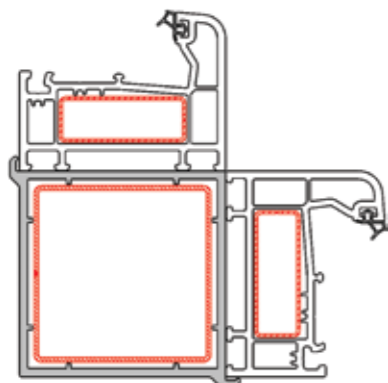
## Bay Windows fixed angle 135° bay posts

### 3196 Bay Post



- minimum sightlines
- aluminium reinforcing standard for non-load bearing conditions

### 6920 90° Square Corner Post



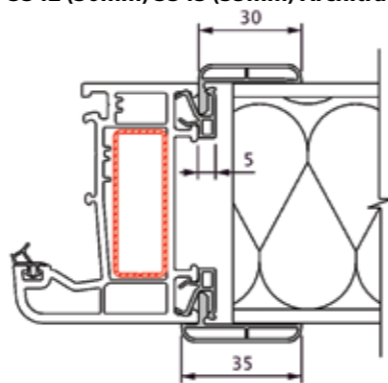
- minimum sightlines
- aluminium reinforcing standard for non-load bearing conditions

### Structural Bay Windows

- alternative structural load bearing system available
- consult Technical Department for details

## Architraves

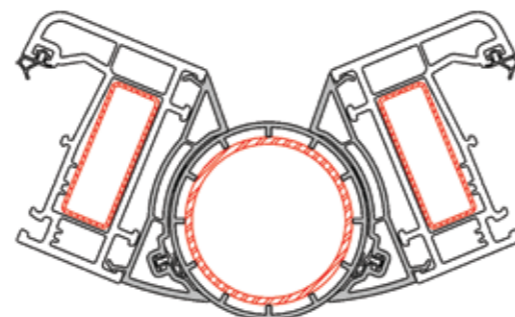
### 3341 Add-On / 3342 (30mm) 3343 (35mm) Architraves



- 2 part system (adaptor + architrave)
- can be fitted internally or externally

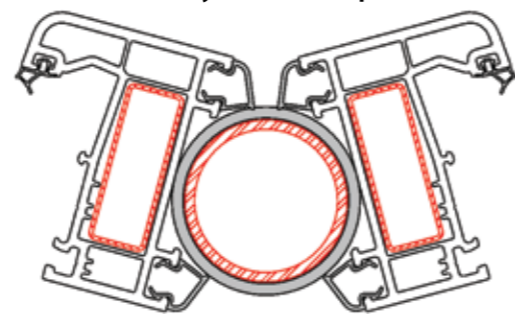
## Bay Windows visible angle corner posts

### 6916 / 3311 Bay Pole and Adaptor



- standard bay pole with adaptors
- angles from 90° - 270°
- aluminium tube reinforcing standard for non-load bearing bay windows

### 3313 / 3327 Slimline Bay Pole and Adaptor

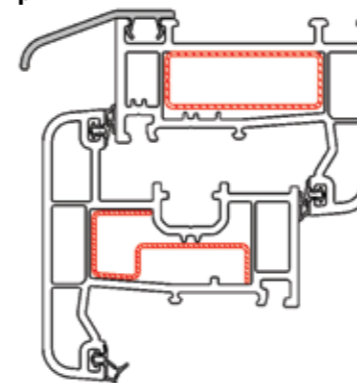


- angles from 138° - 222°
- ideal for bow windows
- aluminium tube reinforcing standard for non-load bearing bay windows
- only available in white, due to restrictions in foiling

- robust galvanised steel tubes available to fit inside above PVC-U sections
- system includes adjustable jacking and head fixing plate assemblies

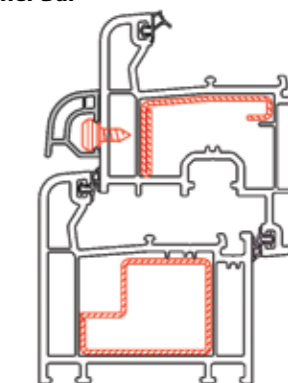
## Weather Bars

### 3303 Head Drip



- clip-on head drip

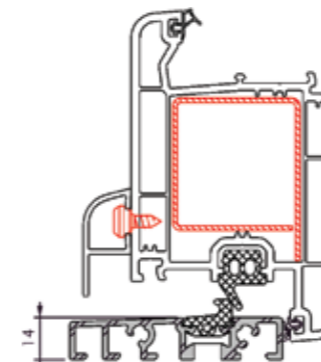
### 3306 Weather Bar



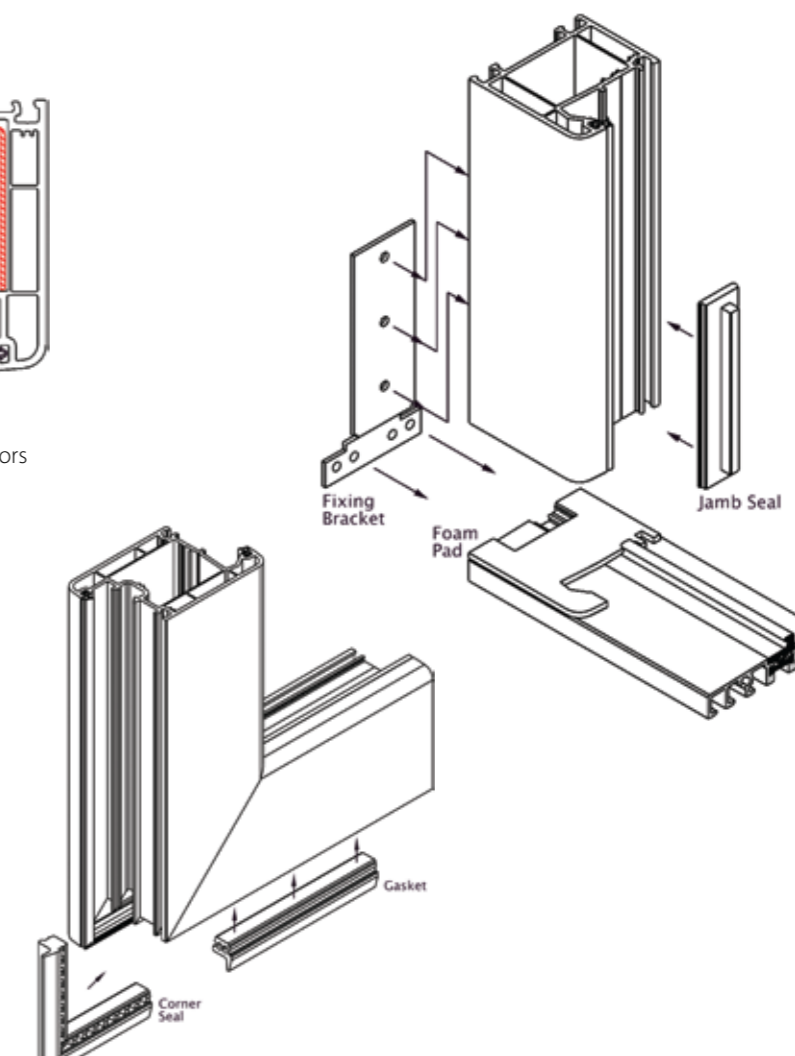
- clip-on weather bars
- push-fit end caps
- standard item for inward opening products

## Low Threshold

### 14647 Low Threshold

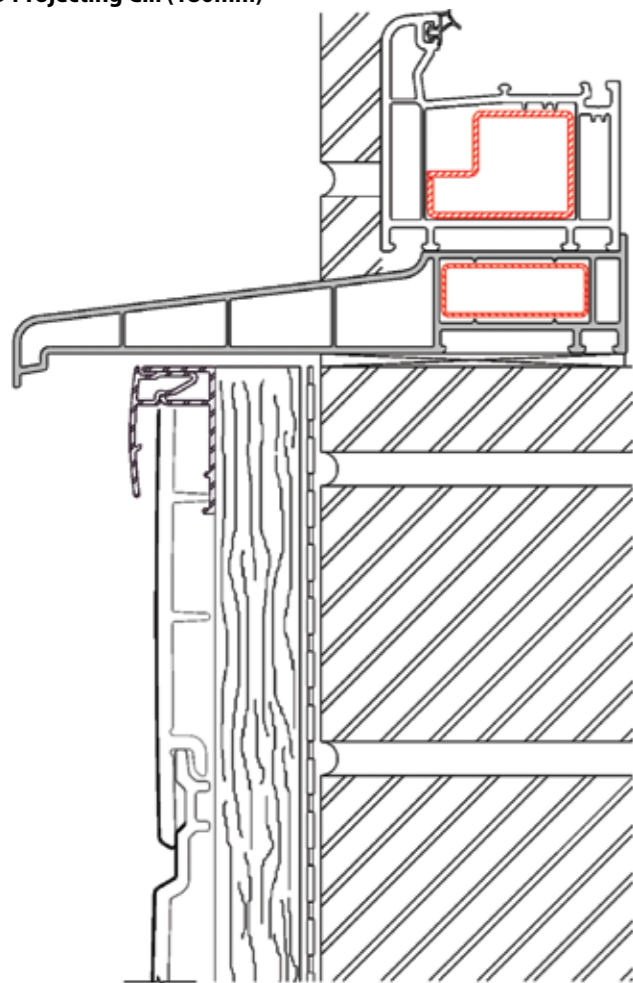


- low threshold
- to suit inward and outward opening doors
- improve access for entrance doors



# cills

**3339 Projecting Cill (180mm)**



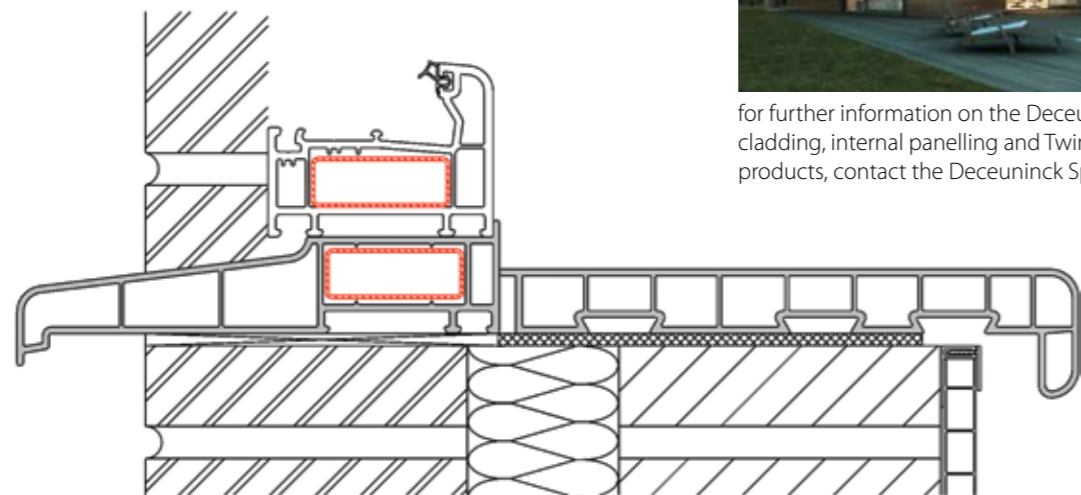
**Projecting Cills**

- choice of 3 sizes  
150mm, 180mm and 250mm overall
- meets 'Robust Detailing' standards in Building Regulations
- standard concealed drainage
- end caps and butt joint inserts available



for further information on the Deceuninck range of cladding, internal panelling and Twinson® wood composite products, contact the Deceuninck Specification Team.

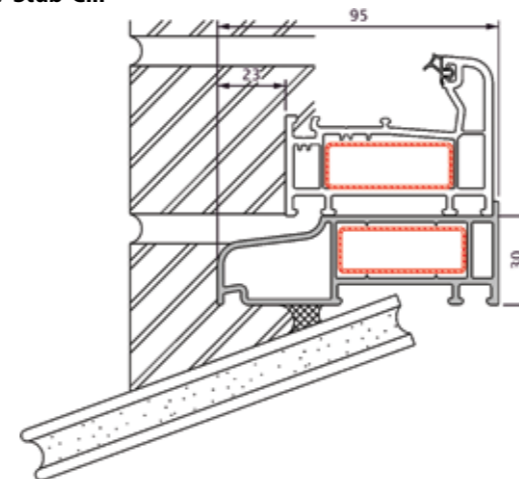
**3338 Projecting Cill (150mm), Novasil Interior Window Board (180-600mm) & Decor Internal Panelling**



- optional melamine laminated window boards available with a wide range of finishes

## Stub Cills

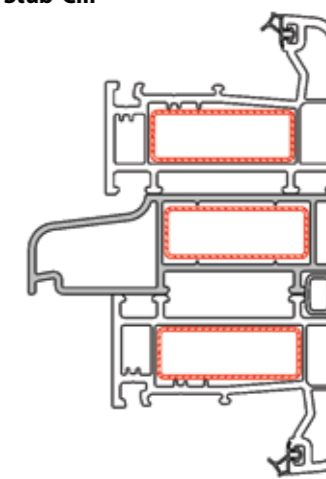
**3337 Stub-Cill**



**95mm Stub-Cill**

- ideal for tiled or stone cill detailing
- standard concealed drainage
- end caps

**3337 Stub-Cill**

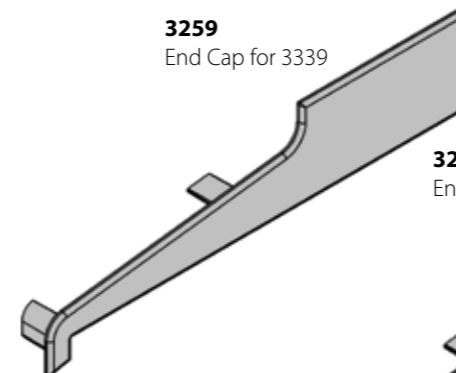


**Coupling Transoms**

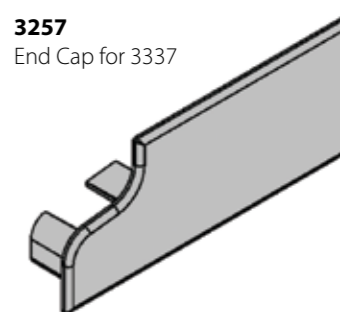
- stub-cills used as coupling transoms

## Cill End Caps

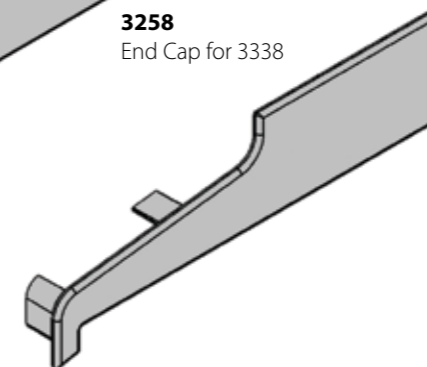
**3259**  
End Cap for 3339



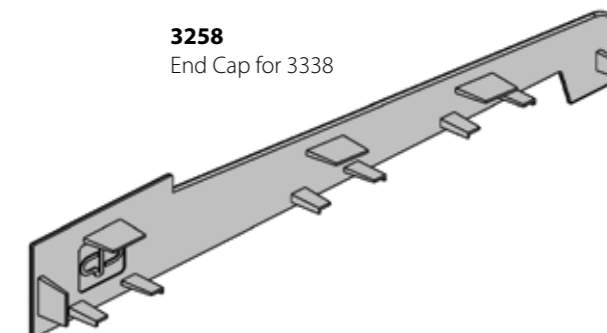
**3257**  
End Cap for 3337



**3258**  
End Cap for 3338



**3258**  
End Cap for 3338



# survey and installation

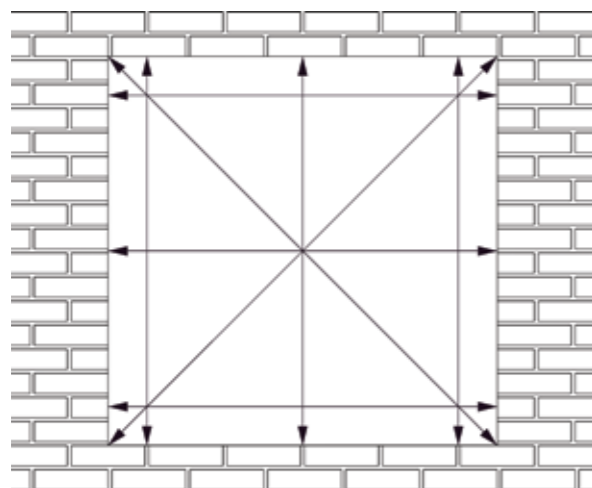


fig.1 Measurement of openings

During the survey stage, it is the responsibility of the installer to take into account the implications of all statutory regulations and health and safety issues.

## 1 Survey

- a check should be made to confirm there are no structural defects to the aperture. Openings are measured in line with the pattern shown in Fig.1
- the smallest width and height dimensions taken become the 'tight' sizes to be used
- a check across the diagonals is also made to confirm the square shape of the opening
- the preferred method of fixing is determined during the survey, usually in discussion with the client, along with any other issues affecting installation
- ensure installation can satisfy Part B of the Building Regulations (Fire Safety) for egress.

## 2 Fitting Tolerances

- fitting tolerances, or clearances, are made from the 'tight' sizes recorded above. These tolerances are essential to permit expansion and contraction of the PVC-U framing
- the table shown in Fig.2 is used to determine the tolerances normally applicable
- it will be noted that wider tolerances are necessary for larger frames and particularly for non-white colours
- once the tolerances are deducted and allowances made for, such as stub-cills, the remaining sizes are the frame 'manufacturing' sizes

## 3 Frame Positioning

- care should be taken to ensure that new frames are correctly positioned in the opening and are located with horizontal members level and vertical members plumb
- temporary packers/wedges should be used to position and retain framing ahead of fixing

## 4 Fixing Methods

A number of industry-approved methods are adopted. Fasteners and lugs used are suitably protected against corrosion in accordance with industry standards:

### A Through frame fixing

Into brickwork, blockwork or other structure with expanding anchors (Fischer or similar) – the minimum penetration into the structure is 40mm. At each point of attachment, anchors should pass through non-degradable packers to retain the fit tolerance and ensure a secure attachment between frame and structure. Care should be taken to avoid distortion through over tightening to retain correct functioning and designed performance of the finished unit. Where appropriate, self drilling and tapping screws (min. 5mm diameter) can be used to attach frames to thin-gauge steelwork, such as metal lintels. A minimum of two mechanical fixings per jamb are required.

### B With fixing lugs

Alternative means of mechanical fixing to (a) above – most commonly used on new build applications to enable factory glazed frames to be used. The requirements for anchor penetration, use of frame packers and quantity of fixing points is as (a) above.

### C With polyurethane foam

Typically used at the head where mechanical fixing is inappropriate and with prior agreement with the client. The foam supplier's guidelines should be followed in respect of tolerances and method of use. Foam fixings should only be used where a minimum of two mechanical fixings per jamb are provided.

### D Other fixing methods

Other fixing methods should be carefully assessed for suitability and supported by appropriate professional advice.

fig.2

### Normal fitting tolerance#

Frame Size	Up to 3.0M	>3.0m to 4.5M*
White PVC-U	5.0M	7.5M
Non-White PVC-U	7.5M	11.0M

### Notes

The tolerances shown are per side of the frame. The thickness of any mortar bed should also be allowed.

#Tolerances for polyurethane foam fixing at the head are typically 10-15mm to be effective.

\*Frames over 3.0M wide should be made as coupled units with expansion provision.

## 5 Fixing Locations

Mechanical frame fixings should be positioned in accordance with the details shown in Fig.3

- fixings are not less than 150mm and no greater than 250mm at corner joints
- fixings are no closer than 150mm to transom/mullion centre lines
- intermediate fixings are at max. 600mm centres
- a minimum of two mechanical fixings per jamb should be provided
- frames over 1800mm wide should receive a minimum central fixing point at head and cill
- coupled frames should be carefully aligned during fixing and secured close to the coupling bar ends
- fixings through the cill area should be sealed over against the ingress of water
- polyurethane foam fixing may be used by agreement with client for applications where the presence of steel or concrete lintels makes the achievement of secure mechanical fixing difficult

Foam fixing should not be used as the sole means of fixing. A minimum of two mechanical fixings per jamb should also be provided.

## 6 Glazing

- glazing should comply with BS 6262 and BS 8000-Part 7 and additionally satisfy the requirements of Approved Document L of the Building Regulations (conservation of energy) and Document N (Safety Glazing)
- glass units and/or panels should be installed in accordance with Deceuninck and the glass supplier's recommendations. Care should be taken to correctly position glazing packers to ensure integrity and prevent opening lights from sagging

## 7 Finishing and Cleaning

- the making good of reveals should be undertaken to the level agreed at the outset of the contract
- the removal of finishing lines (paint marks etc) of old frames from the structure should be achieved as far as practicable
- following making good, the protective tape on the framing should be removed
- any finishing trims used should be supplied by Deceuninck to ensure a colour match is achieved
- following installation and making good, frames should be cleaned and drainage paths cleared of debris

## 8 Sealing of Frames

- the fitting tolerance between the frame and structure should be sealed against the ingress of water, and to prevent air leakage, with a sealant appropriate to the application. Low modulus silicone sealants are commonly used with PVC-U framing as they permit differential movement without loss of performance
- on new build applications an internal seal should also be provided in accordance with 'Robust Detailing', referred to in Building Regulations
- frame to structure gaps in excess of 6mm should have a firm closed cell backing strip supplied to avoid the use of excessive sealant and possible 'sinking' during curing

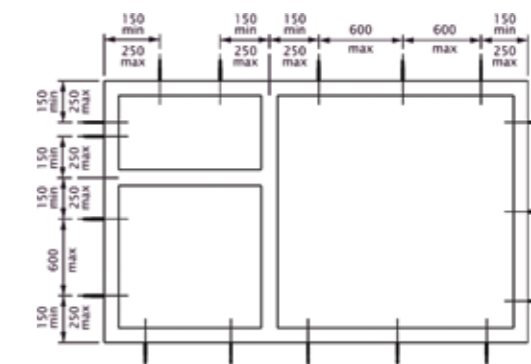


fig.3 Fixing Centres

## 9 Bay Window

- bay windows require special consideration
- it is important to determine from the survey if the bay is load bearing or not
- corner post arrangements are available to suit both load bearing and non-load bearing bay windows - the correct product should be used
- where any doubt exists, suitable professional advice should be sought (e.g. structural engineer)
- suitable propping (e.g. Acrow props) should be employed during removal and replacement of bay windows
- fixing centres into corner posts and structure generally as flat windows/doors

## 10 Final Inspection

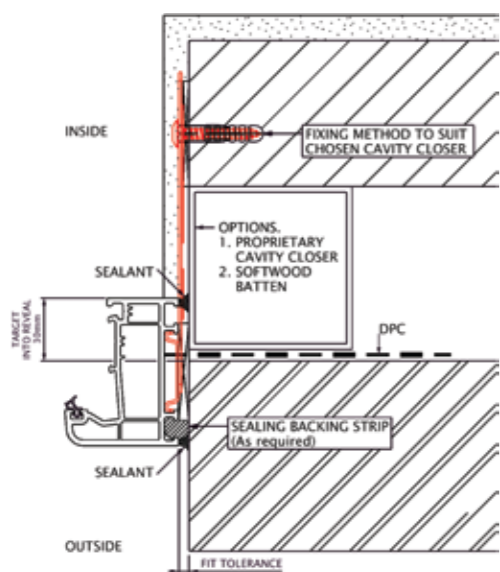
- following practical completion, the installation should receive a final inspection for function, glazing correctness, seal quality and visual appearance
- the final inspection should be conducted with the client/clients agent



# survey and installation new build applications

## 1 Typical flush jamb condition

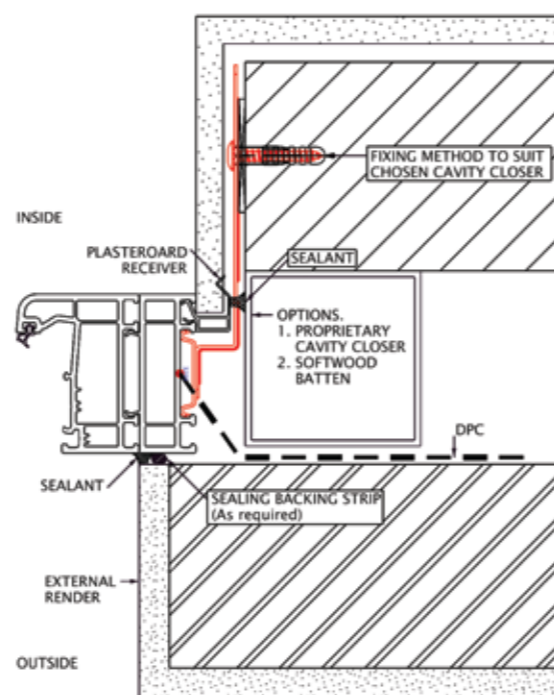
To comply with the requirements of 'Robust Detailing' in the Building Regulations, fixing for new build will incorporate the following detailing:



- fixing to be achieved with a proprietary cavity closer in accordance with latest Building Regulations
- treated softwood battens
- framing should be set back a minimum of 30mm into the cavity for sheltered or exposed zones, and fully into check for very severe zones
- a seal should be applied to both inside and outside
- minimum anchor penetration details are in accordance with industry guidelines

## 2 Typical stepped reveal condition

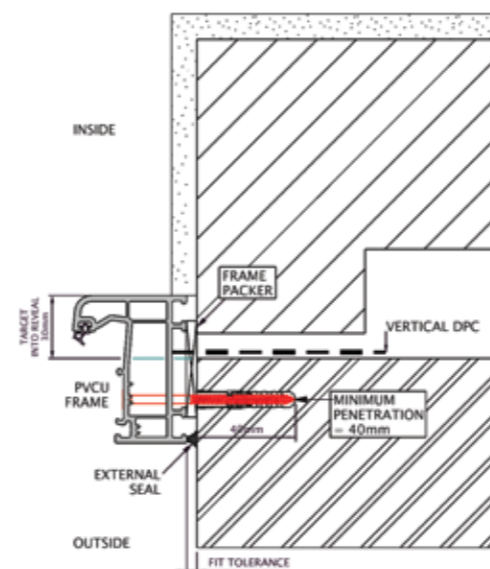
- framing should be set back fully into reveal for very severe exposure zones in accordance with 'Robust Detailing' requirements
- dual seal positions to both inside and outside
- detail shows use of cranked fixing lug and frame packer
- where external rendering or other impervious cladding is used, wider PVC-U profiles, or 'add-ons,' may be needed to enable outward opening sashes etc. to function



# refurbishment applications

## 1 Typical flush jamb condition

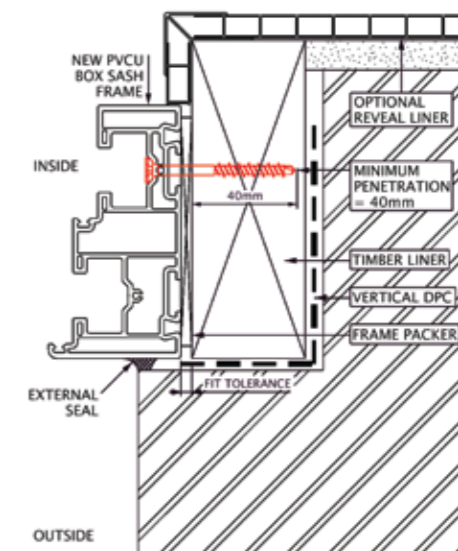
- new PVC-U frames are usually fitted back to the old internal plaster line to minimise making good and the need for redecoration
- matching internal trims can be used to finish internally
- care should be taken to ensure vertical DPC's are correctly repositioned and renewed where necessary
- fixing should be normally achieved with through frame anchors, penetrating the structure by a minimum of 40mm
- fixing is through non-degradable frame packers to ensure the fit tolerance should be maintained and the fixing is secure
- an external seal is applied using an approved sealant



For further information on the Deceuninck range of cladding, internal panelling and Twinson wood composite products, contact the Deceuninck Specification Team

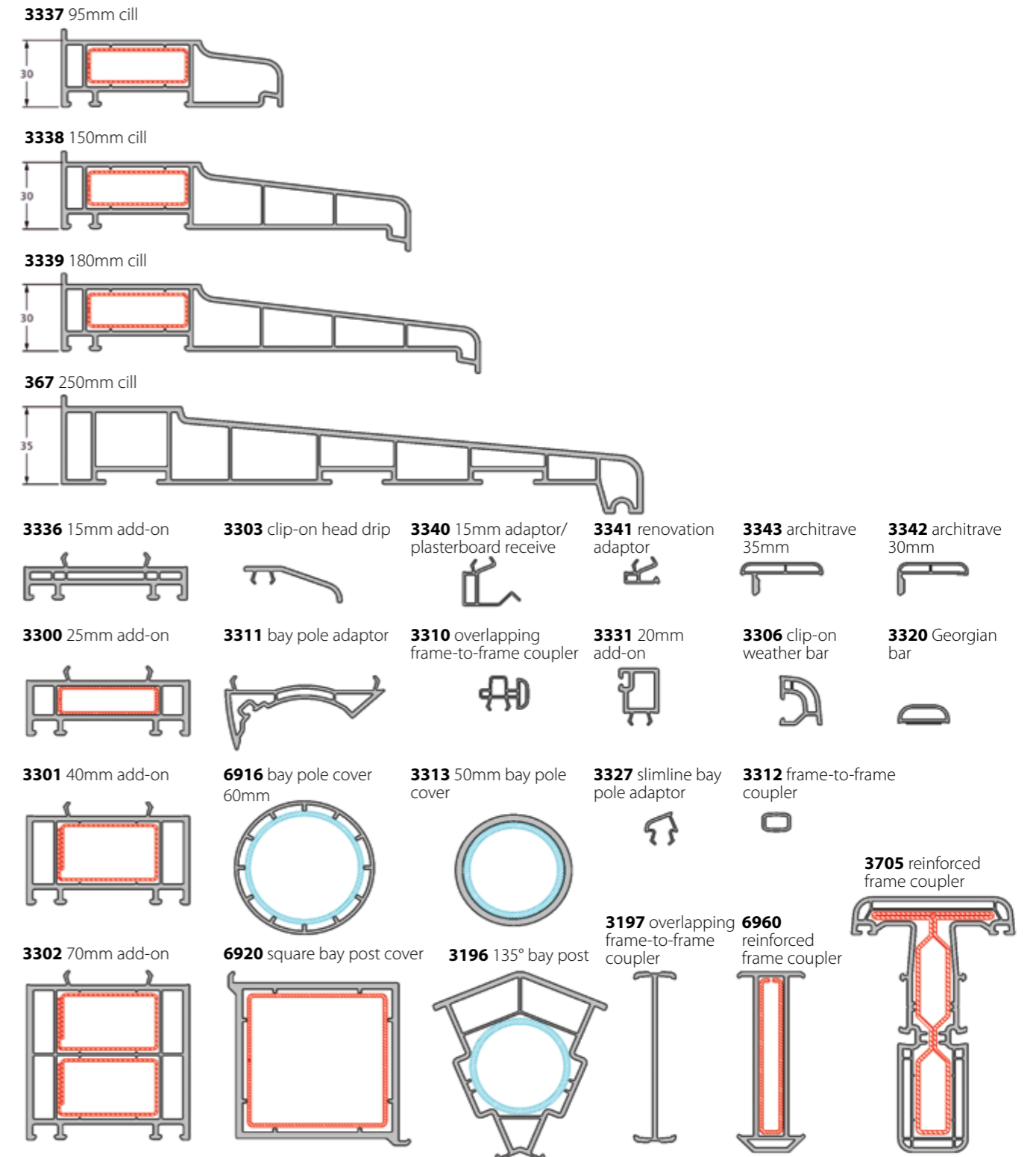
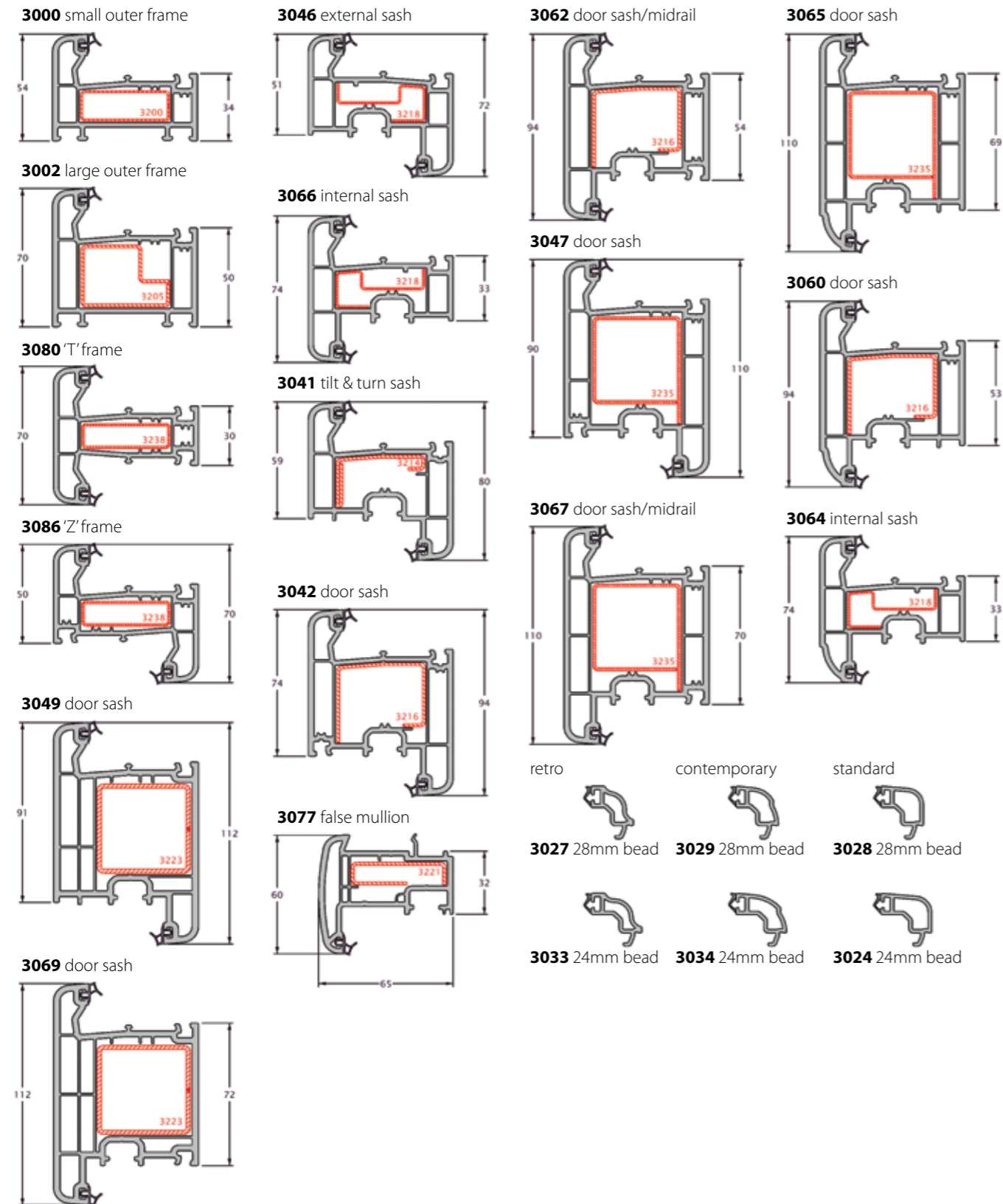
## 2 Sash box replacement

- where old sash box frames are removed and new frames fitted, it is normal to pack out the internal reveal with a timber liner
- new PVC-U frames can match the old (as shown) or suitable alternative styles can be selected
- making good internally can re-use existing mouldings, have colour matching PVC-U liners and architraves fitted by bonding (as shown) or simply be plastered
- fixing is achieved through the frame with non-degradable packers to retain the fit tolerance
- anchors should penetrate the structure by a minimum of 40mm
- an external seal should be applied using an approved sealant

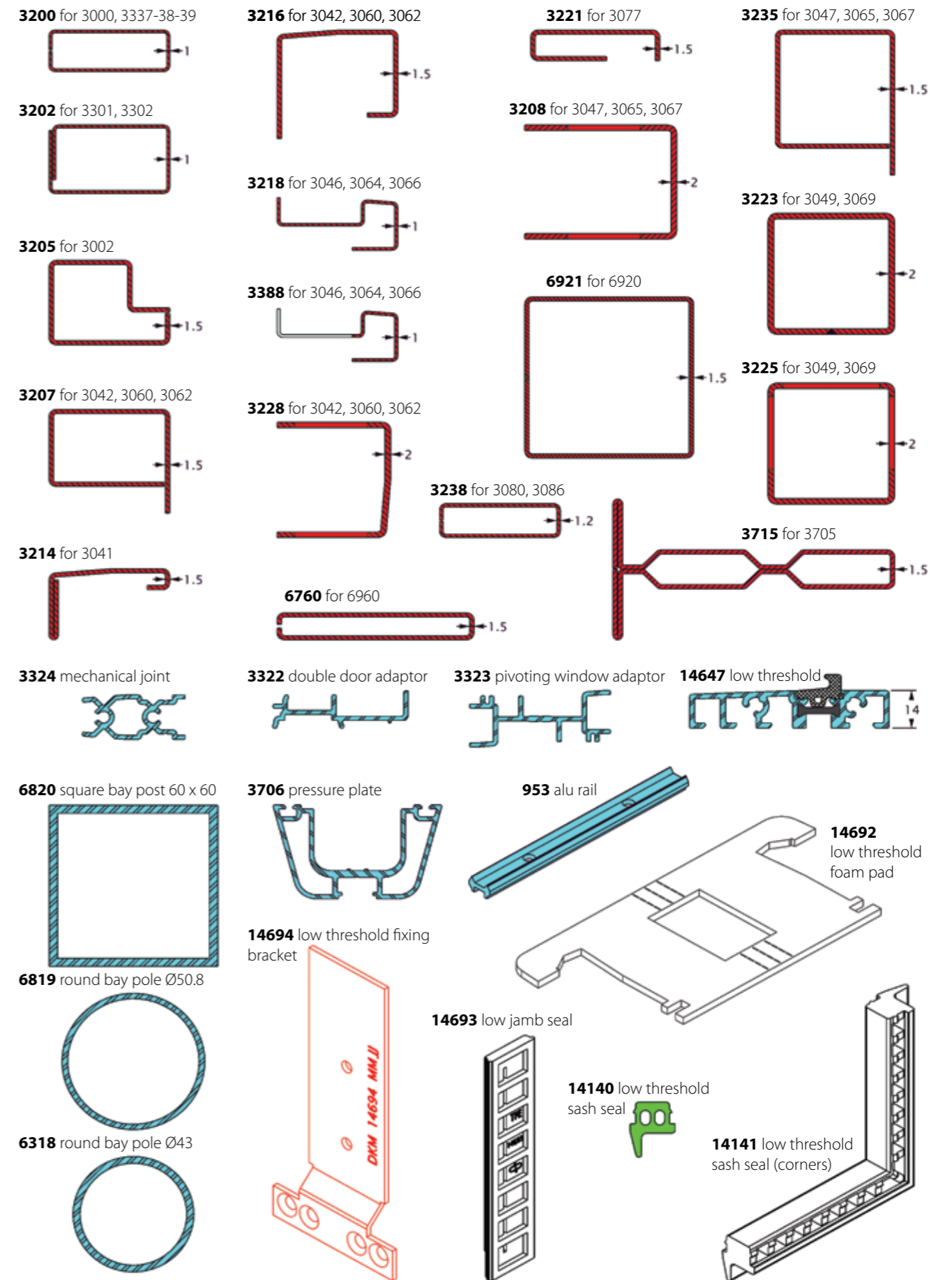
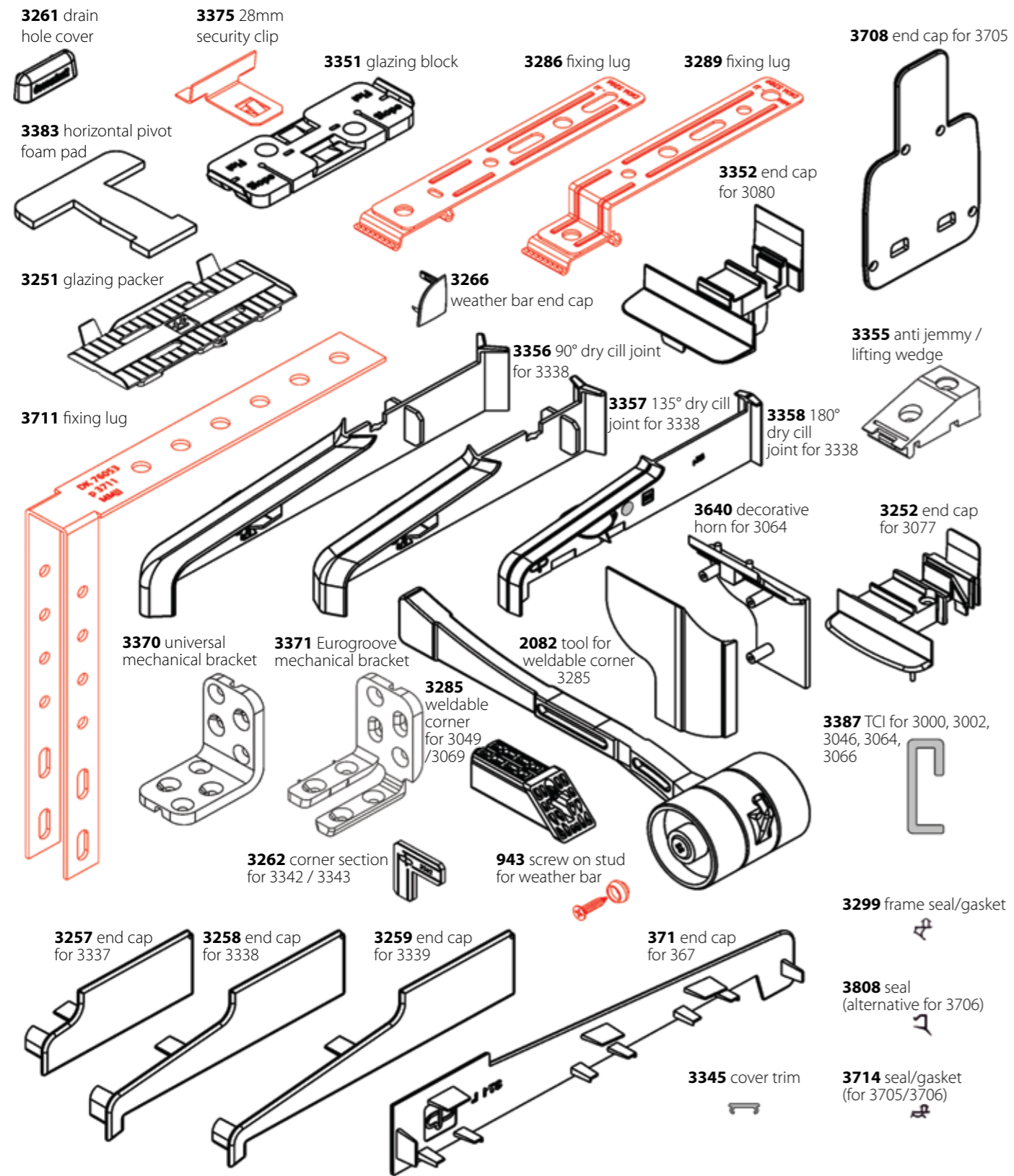


The above represents typical solutions for refurbishment work among the many available

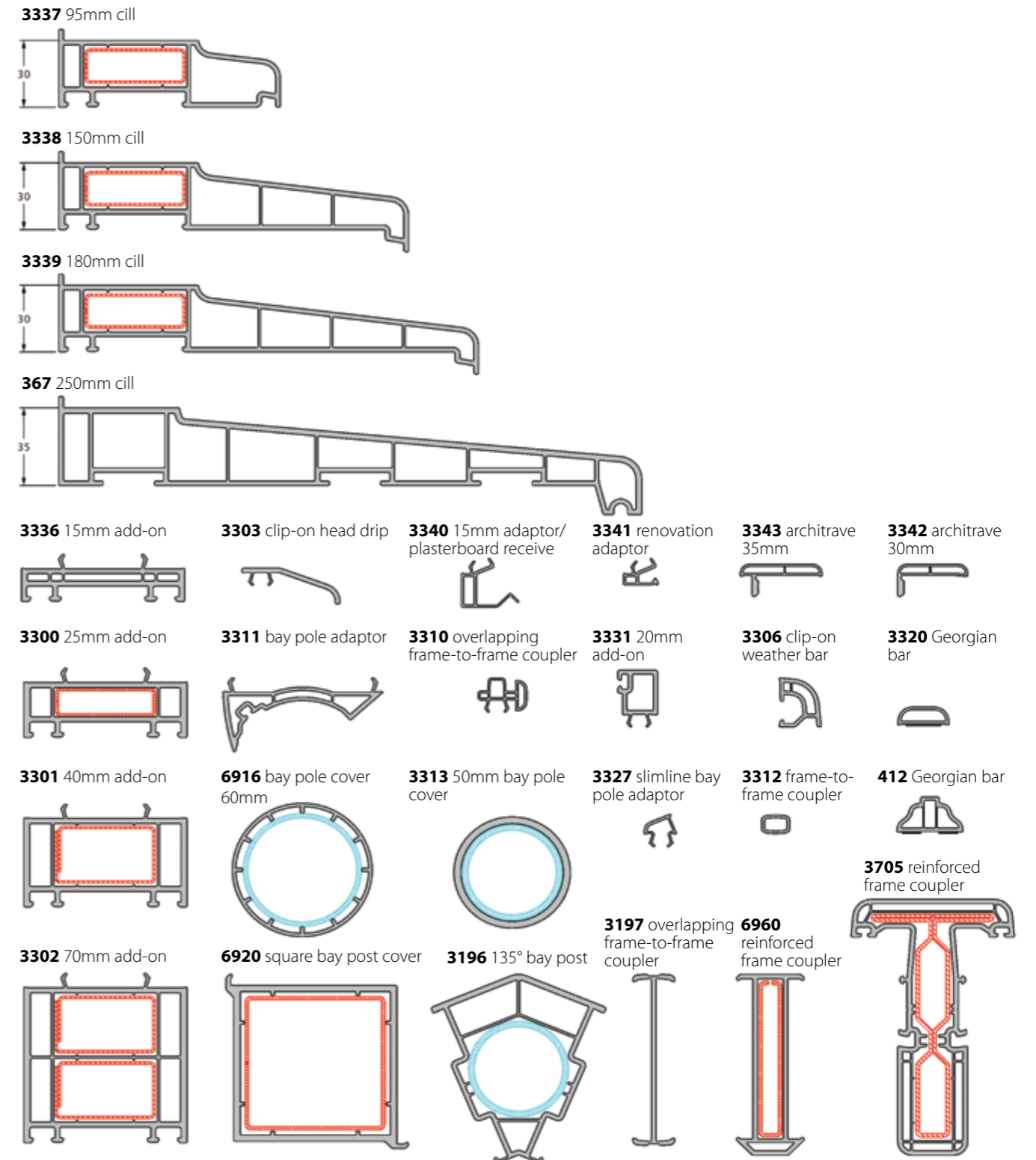
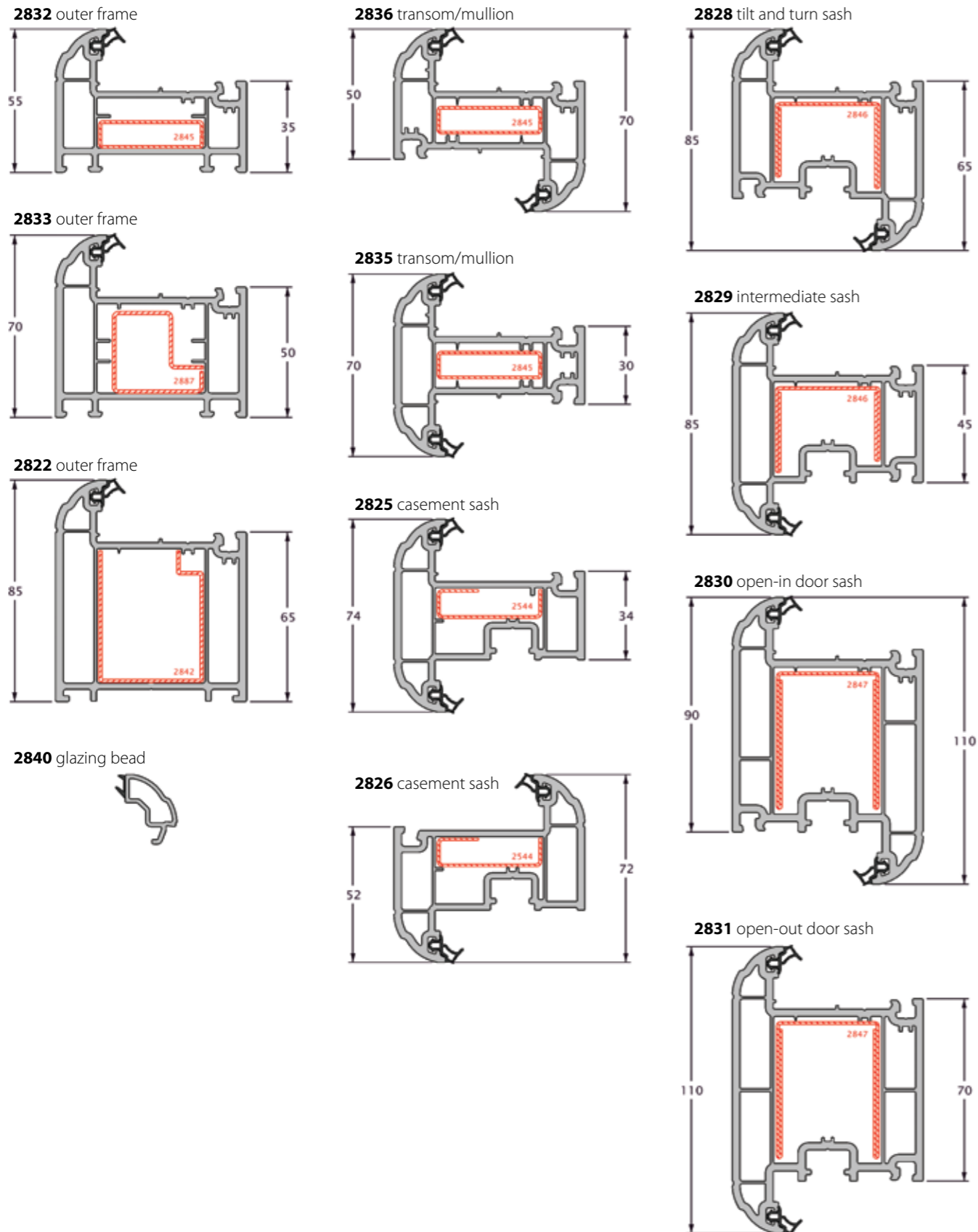
# 3000 zendow® full product range



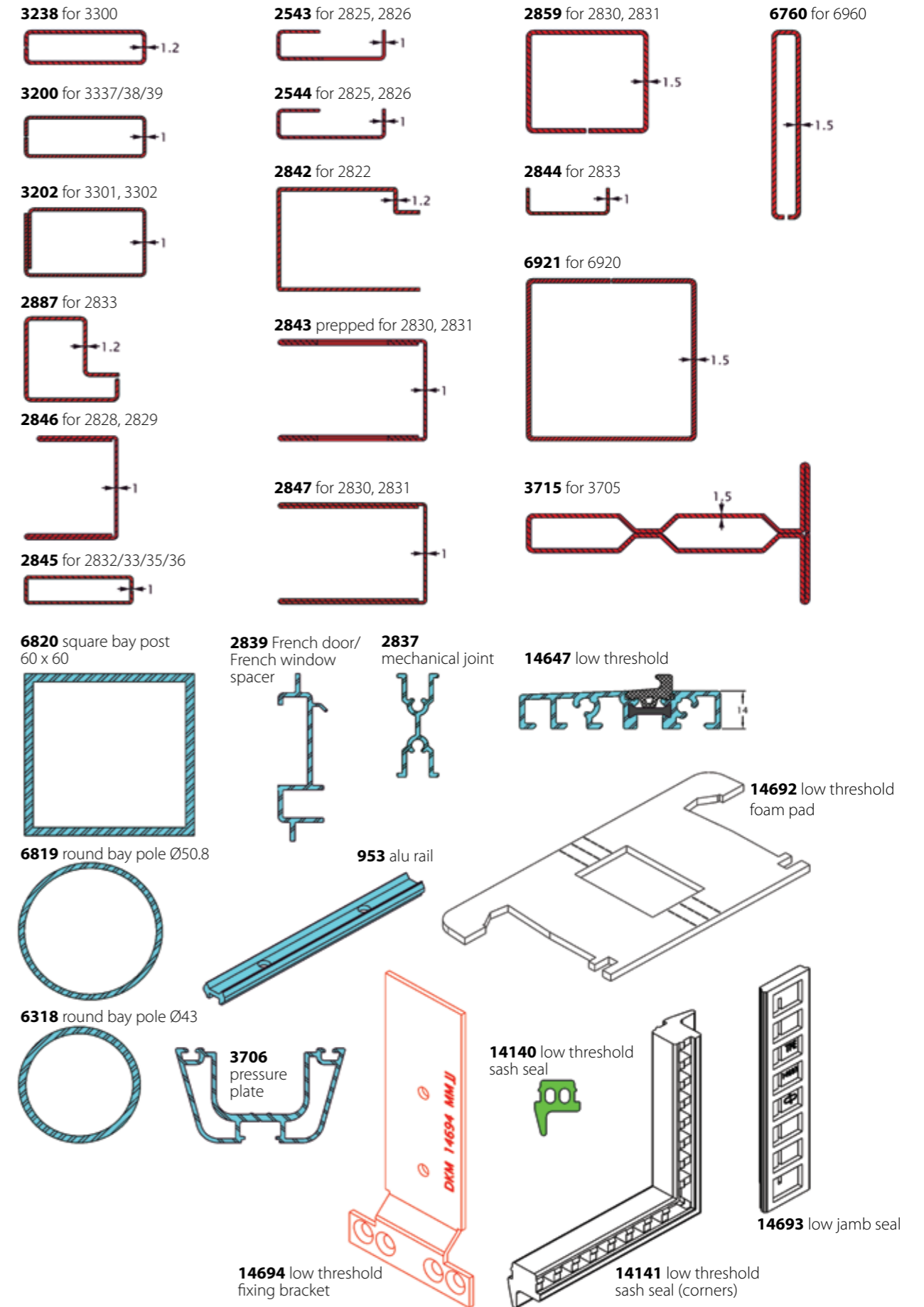
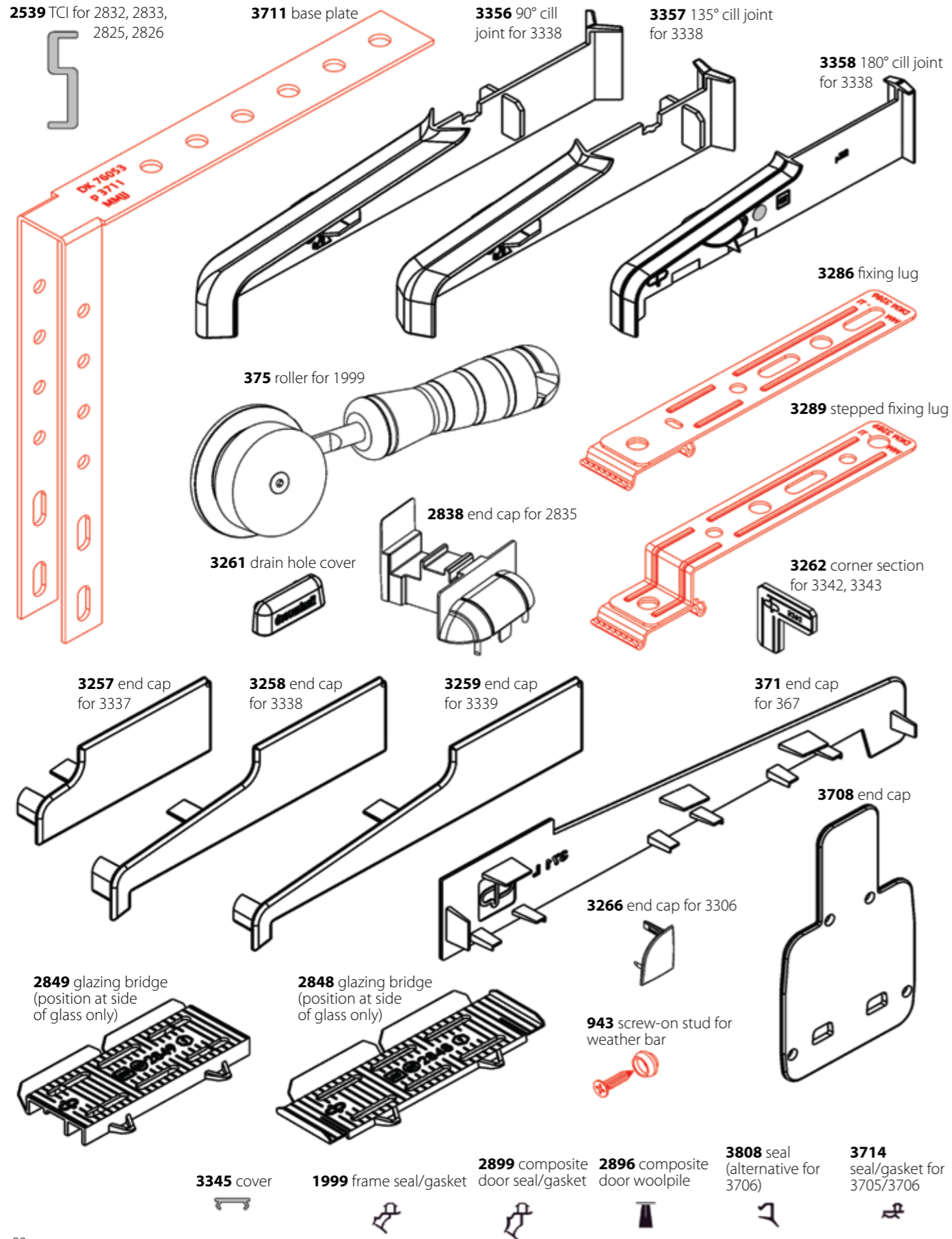
# 3000 zendow® full product range



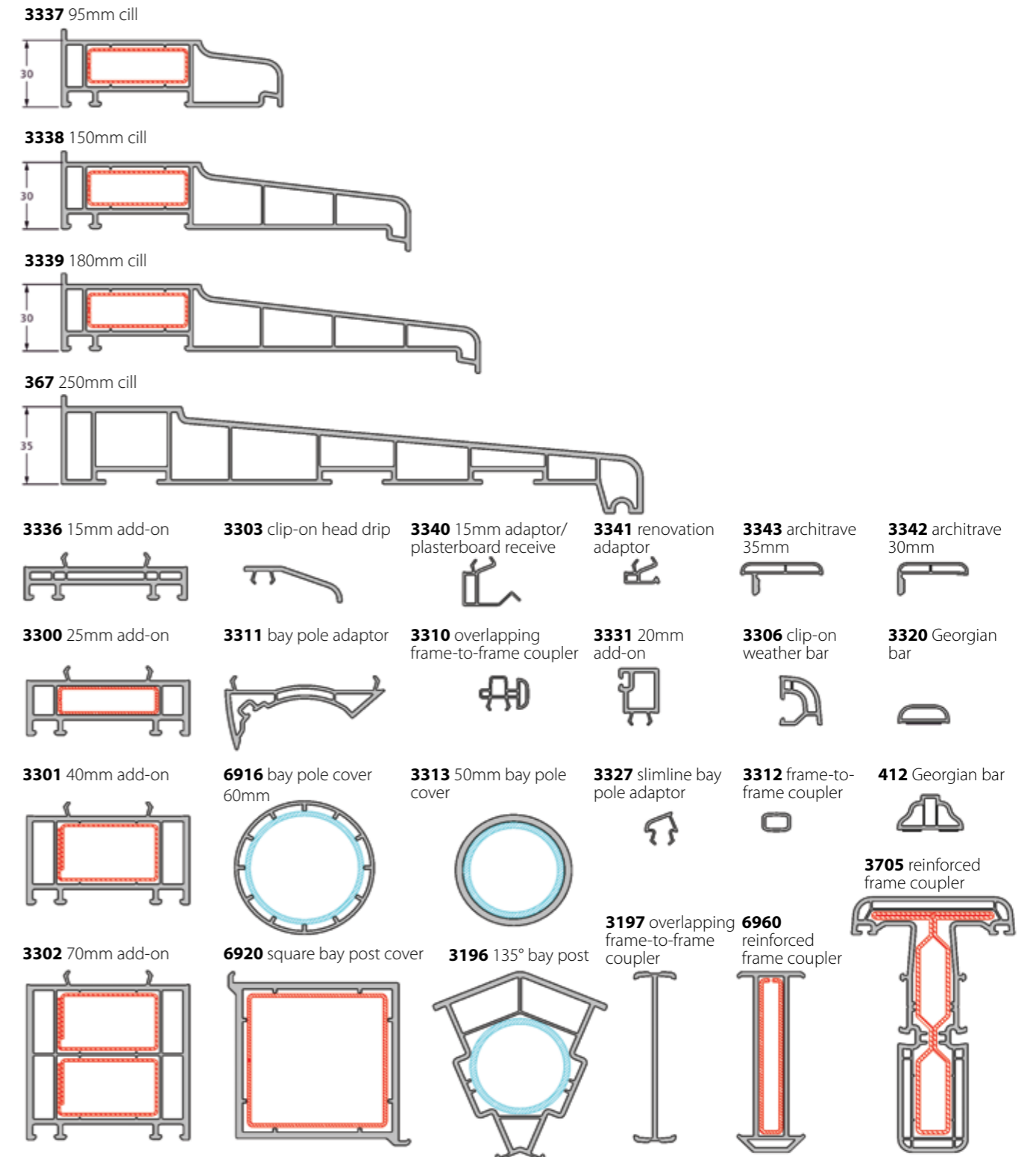
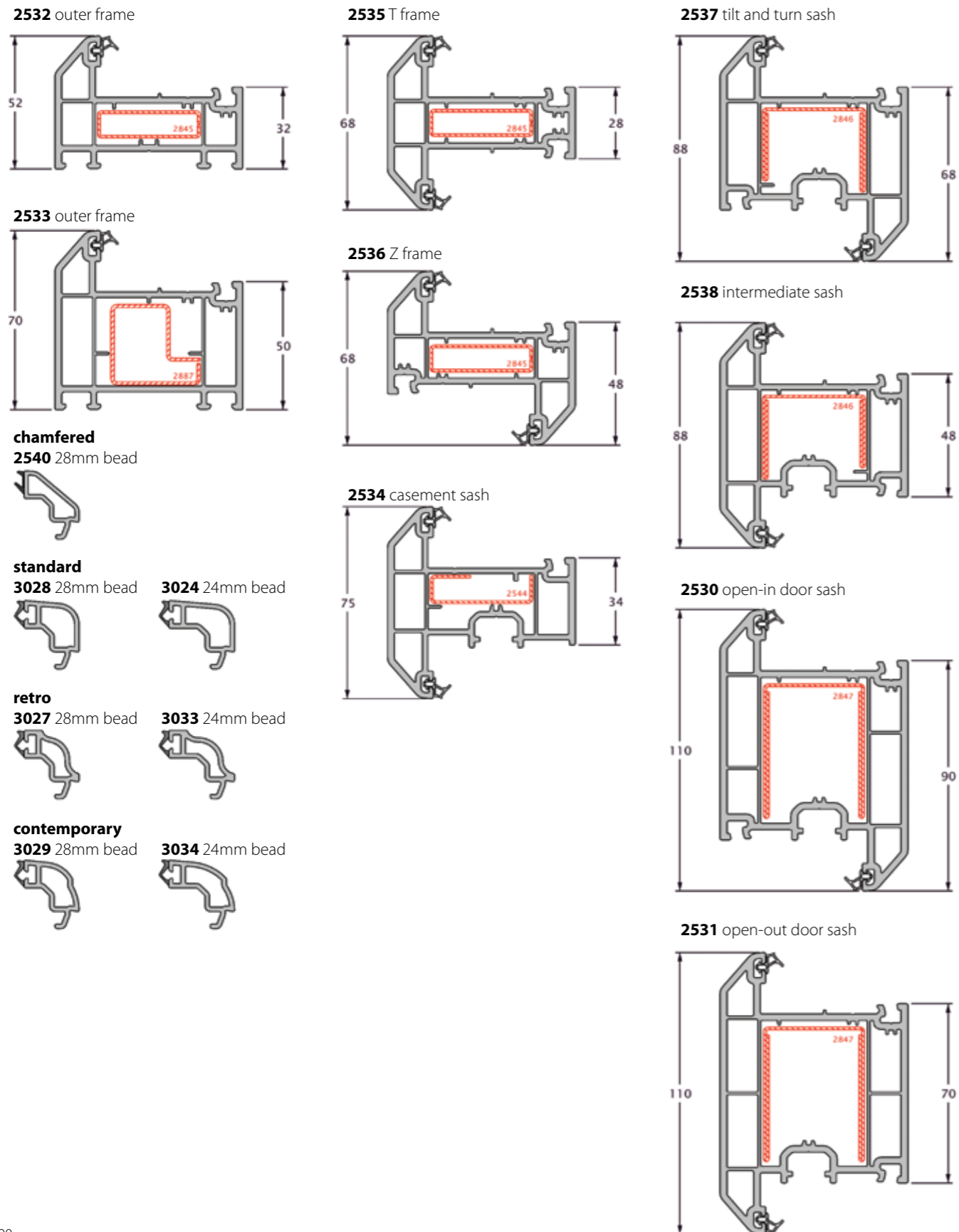
# 2800 decorative full product range



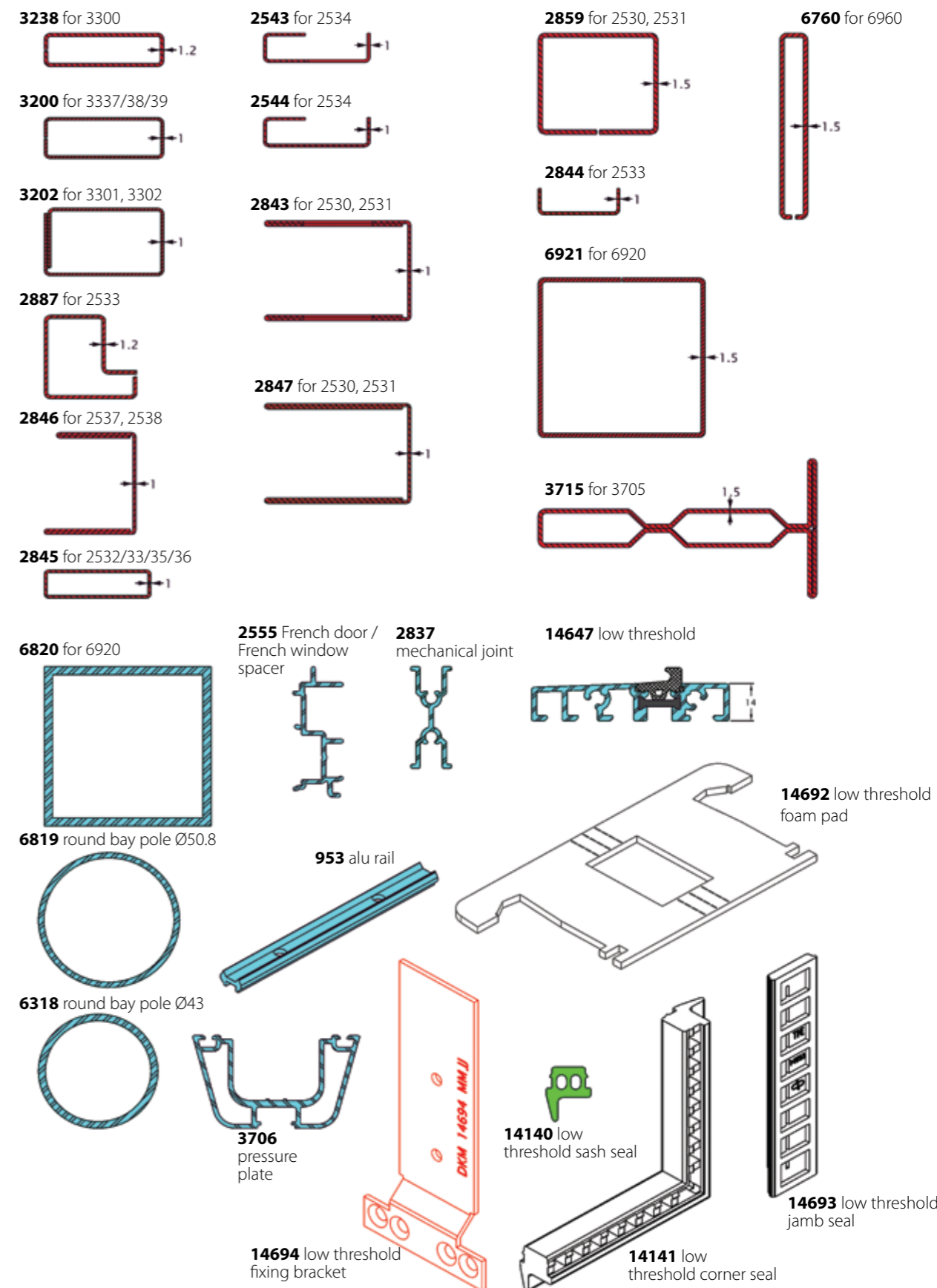
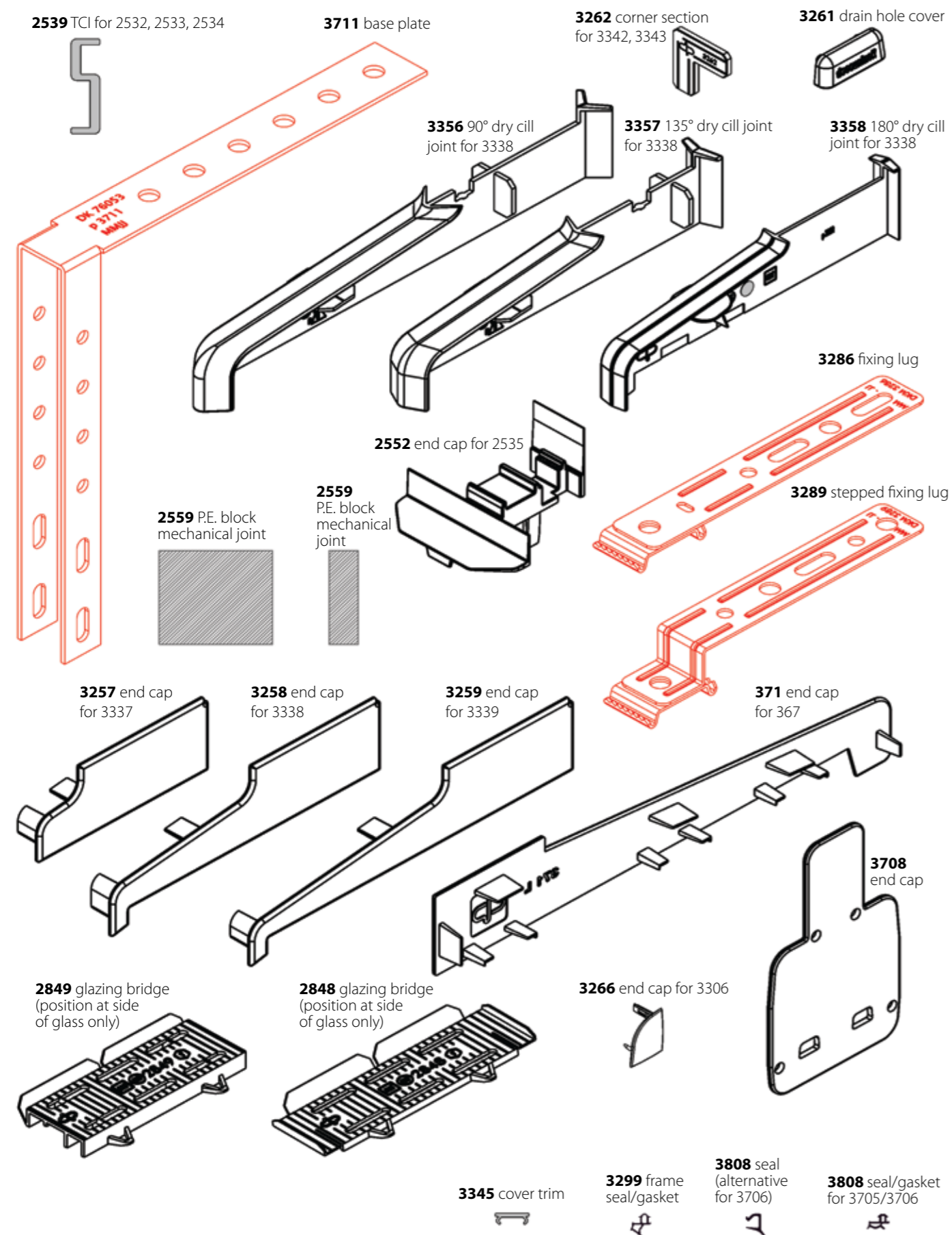
# 2800 decorative full product range

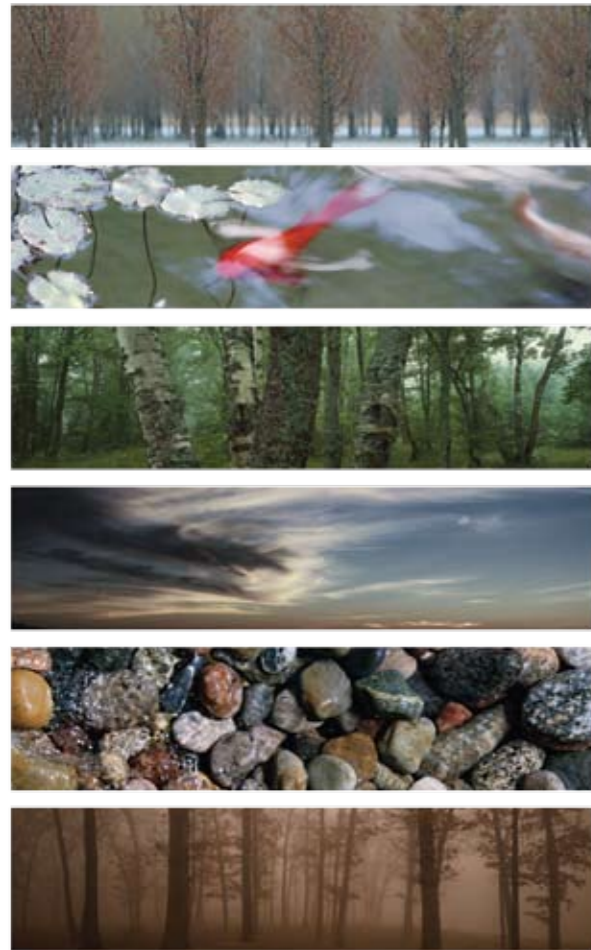


# 2500 chamfered full product range



# 2500 chamfered full product range





Deuctone® process colours are more than a range of beautiful colours. They also represent a technology, an industrial process, and an expertise that guarantee a high-quality finish and unrivalled durability.

Each colour from the collection has undergone a number of quality tests – and has been awarded the necessary technical approvals - so you can always rely on its performance. We've paid particular attention to UV resistance. This means that, even after several years, your colours will be as fresh as when they were first installed.

5 different structures  
You've discovered the Deuctone® colours. But that's not all Deceuninck has to offer. With the Deuctone® process colours, we also offer you a selection of 5 different structures that will give definition and texture to your colours - a pleasure to the touch and a delight to behold!

- **Decoroc structure**  
The ultimate softness of a matt satin finish. A process for which Deceuninck holds the exclusive patent. Durable and easy to clean.
- **Coloured wood grain structure**  
The look and feel of painted wood, with all the benefits of a topcoat of paint.
- **Mass coloured structure**  
Two classic colours - RAL 9016 white and RAL 1013 pearl white - coloured right through the PVC material itself.
- **Original wood grain structure**  
The look and feel of natural wood, with all the benefits of PVC.
- **Metallic structure**  
A metallic look that is obtained by means of a metallic pigmentation. A process for which Deceuninck holds an exclusive patent.

**deuctone**®  
PROCESSCOLORS BY DECEUNINCK

## windows and doors



Low maintenance PVC-U windows, doors, sliding doors, patio doors and conservatories provide the best possible insulation for your home.

## interior



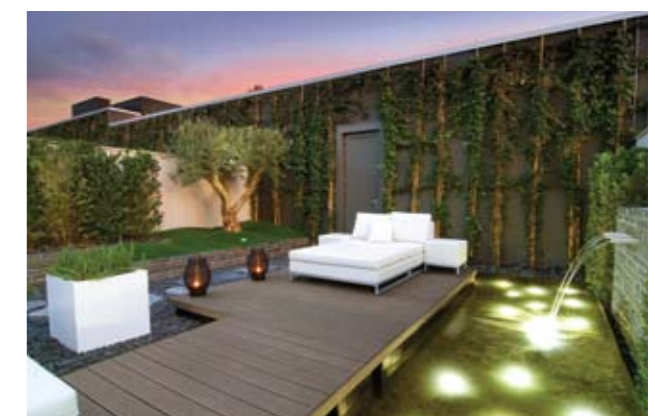
Deceuninck produces a wide range of wall panels, ceiling panels and window boards to beautify your interior.

## cladding



Deceuninck cladding solutions in PVC and our unique Twinson material give the outside of your home an exquisite look that will retain its beauty for years with a minimum of maintenance.

## outdoor living



Our innovative, PEFC-certified Twinson O-Terrace decking combines the best of both worlds: the warm feeling of wood with the low maintenance of PVC. And it is highly slip resistant, even when wet.



## Windows and Doors Specification Guide



**WINDOWS & DOORS**  
**INTERIOR**  
**CLADDING**  
**OUTDOOR LIVING**



**ACCREDITATIONS**  
 All Deceuninck products have been tested by a number of national and international testing bodies.  
 Certificates including: BS EN 12608, BS 7412, BS 7950, BBA, PAS23 and CE Marking accreditations can be provided upon request.



**SECURITY**  
 Our range of window and door systems have been designed with security in mind, providing you with complete peace of mind. Many of our systems meet the Secured by Design requirements and are fully tested by recognised bodies.



**WHO WE ARE**  
 Deceuninck is a leading designer and manufacturer of high quality systems for windows & doors, interior, cladding and outdoor living (terrace/fencing).  
 The worldwide Deceuninck group is active in more than 75 countries, with manufacturing, sales and distribution facilities throughout Europe, North America and Asia.

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