BOWATER PROJECTS
A COMPANY OF THE VEKA UK GROUP

Specification Guide

Fenestration Solutions for Public Sector & Commercial Applications

The Matrix Solution

Introduction

Matrix provides cost effective, energy efficient fenestration solutions for clients, specifiers, and contractors requiring windows, doors, and curtain walling systems for social housing, health and educational buildings and other commercial applications.

At the heart of the Matrix solution is a tried and tested range of windows and doors, which has been installed in the public sector for over 25 years. Produced by VEKA, Matrix is one of the leading fenestration systems in the UK.

According to internal statistics, Matrix windows are installed in one in every five social housing refurbishment projects, giving the company unrivalled expertise in meeting the demands of procurement efficiency and best value principles.

Matrix windows are complemented by a range of residential door options, including a high performance composite door, and a full curtain walling system, ideal for use in new build and refurbishment projects in the education sector.

Yet today, the Matrix solution goes beyond the quality and range of its products. VEKA has developed Matrix to provide clients, specifiers, and contractors with an integrated but flexible supply chain aligned to the wider driving forces of the market, capable of meeting the project requirements of the largest programmes.

Matrix is the perfect partner, with a sustainable vision for the public sector.

Contents

Sustainable Communities	3
Corporate Social Responsibility	4
Procurement Efficiency & Best Value	5
Integrated Supply	6
Product Innovation	7-8
Investment & Resources	9
Proven Expertise	10
VEKA Recycling	11-12
Towards Sustainability	13
Technical Information	14
Casement Windows	15-16
Fully Reversible Windows	17
Tilt & Turn Windows	18
Vertical Sliding Sash	19-20
Residential Doors	21
Composite Doors	22
Infinity Windows	23
Curtain Walling	24
Colour Options	25
Wallcharts	27

Sustainable Communities

The social housing sector is embracing a wave of change in the provision of decent and affordable housing as a corner stone of the creation of sustainable communities.

Secure and stable communities need decent places to live, good health and educational facilities, spaces to play and zones of economic growth. Levels of investment in housing and stock refurbishment and new build development have increased, yet budgets remain stretched given the scale of the challenge. There are competing priorities for investment and the need to recognise the desires of tenants who want to influence decisions which affect their homes.

Similar challenges exist in the educational sector, where a major programme of refurbishment and the creation of new schools, with the Building Schools for the Future funding stream, is now underway. In the health sector, hospitals and health centres are also being refurbished and replaced as the NHS Estate is improved. To achieve these goals, clients, specifiers, and contractors need to work with supply chain partners who fully understand and have extensive experience in meeting the demands of the public sector.

Matrix windows and doors have been widely specified by Local Authorities, Housing Associations, ALMO's (Arms Length Management Organisations), RSL's (Registered Social Landlords), LSVT's (Large Scale Voluntary Transfers) NHS Trusts and Local Education Authorities for many years. With contractor partners now tasked with delivering the total supply chain, VEKA is ideally placed to meet the requirements of all its clients. The company is experienced in working in consultation with tenant's forums, local housing action groups and other community based housing organisations.

VEKA is committed to helping create the sustainable communities of the future by providing sustainable products delivered by a sustainable supply chain.

Corporate Social Responsibility

As a partner dedicated to serving the public sector, VEKA understands the importance of acting in a socially responsible way, and in contributing to the wider social agenda in all projects.

This includes recognising the needs of all stakeholders including employees, suppliers, customers, the local community and the wider society. The goal is the triple bottom line of sustainability, which consists of social, environmental and economic benefits.

Initiatives include:

Community and Social Inclusion:
Engaging and involving tenants, through formal and informal forums and meetings, to ensure that the choice of products and the manner of installation takes their needs and wishes into account.

Skills and Training:
Training local people can help to overcome short term skill shortages on the project and leave a longer lasting contribution to job creation.

VEKA has established a network of Centres of Excellence with training partners and key clients to provide formal training programmes.

Whether beginners in the construction industry, long term unemployed or employees in need of re-skilling from other trades, tailored courses can be provided in a series of disciplines:

- Tenant Care
- Basic Site Health and Safety
- Surveying of Windows and Doors
- Maintenance of Windows and Doors
- Removal of Existing Windows
- Installation of New Windows and Doors
- Building Regulations Compliance

In addition, the company has extensive experience in working with supported workshops including disabled and non-disabled staff, as well as people with learning difficulties

Environmental Responsibility:
Matrix products are designed with sustainability in mind and the company takes a holistic approach to environmental sustainability. VEKA operates to the ISO 14001 Environmental Management Standard.

All PVC-U waste in the production process is recycled, and increasingly old PVC-U window frames removed from properties are collected and recycled in association with the Recovinyl initiative.

PVC-U windows are also thermally efficient and with the new Window Energy Ratings it is easier than ever to specify Matrix products to help buildings meet the latest building standards.

Health and Safety:
VEKA has a rigorous Health and Safety policy and an excellent safety track record in its own production and distribution facilities. Supply chain partners involved in the public sector are encouraged to operate to the same standards, ensuring a safe working environment for tenants, the local community and workers on site.

Procurement Efficiency & Best Value

With the high levels of investment in the social housing sector, it is important that specifiers achieve value with public funding.

Yet, at the same time, the efficiency agenda, outlined in the Gershon review, needs to be balanced with the fundamental commitment to achieving Best Value, which remains a benchmark in the Re-thinking Construction and Accelerating Change initiatives and the heart of Government procurement, according to the OGC.

VEKA's experience in the sector means that clients are assured of the highest lifetime value for the product installation, providing real long term savings on repair, maintenance and replacement cycles.

This is underpinned by a product development programme and design options which provide the opportunity for value engineering each project, with 'fit for purpose' solutions. These can provide immediate cost savings and tangible "cashable gains", when VEKA is involved in projects at the earliest design stages.

Integrated Supply

VEKA has developed a network of window and door fabricators throughout the UK who are all experienced in the social housing and public sector.

This network means the company has the resources and capabilities to supply the largest window refurbishment projects, combining production from various partners in a well-managed delivery programme.

This gives the best of both worlds: local service supported by nationwide resources.

VEKA and its fabricator partners are also able to offer a "supply only" or a complete "plan, manufacture, supply, install, inspect and maintain" service, in a comprehensive "end to end" supply chain.

Whether supply only or a complete service, all projects have built-in "Just in Time" delivery and planning frameworks to meet site timescales.

All projects are managed through best practice project management techniques, customised to integrate with clients' and major contractors' own programmes.

A full range of Key Performance Indicators is established at the outset and each project is monitored and reviewed to generate improvements and learning for future partnerships.

VEKA can offer integrated supply chain solutions throughout the country.

Whether it is developing bespoke product solutions, or delivering "hands on" supply chain management, VEKA has a wealth of experience from which client and contractor partners can benefit.

Product Innovation

Product innovation is essential to deliver the efficiency gains the public sector demands. As well as its tried and tested comprehensive range of products Matrix recent developments include:

- High performance composite doors and fire doors for flats developments.
- Vertical sliding sash windows that are specified in many conservation areas.
- Curtain walling systems designed for fast fix erection to suit school holiday timescales.
- Participation in post consumer window recycling programmes

VEKA use the principles of Eco Design in its product development:

Reduce

- Removal of heavy meta such as lead from the base compound
- By modifying the design of our current window profile, we have managed to reduce the mass of material used (across the full product range) by 4.21%.
- The design of our new window system with additional screw ports means the amount of reinforcement being used has reduced by 8.5% on the sash and 48% on the outerframe, without compromising the quality and strength of the product.
- By slightly modifying the design of our Post Co-Extruded (PCE) gasket, without compromising on the quality of the product, we have reduced the mass of material used by 17% (grams per meter)
- Packaging - we have reduced cardboard use per stillage of product by 82%

Re-use

- All hardware on a PVC-U window frame can be retro fitted; hence removing the need to replace the frame should the hardware fail.
- All gasket on a PVC-U window can be retro-fitted; hence removing the need to replace the frame should the gasket need replacing
- PVC-U frames are designed so sealed units can be replaced very easily without damaging the frame

Recycle

- Within VEKA we collect 100% of our own post-industrial material
- VEKA incorporates as much post-industrial PVC material into our profile as possible. Our Infinity system and ancillaries are all extruded using recycled PVC-U material.
- Our composite door substrate has been designed to use 100% recycled PVC-U material.
- VEKA PVC-U window frames are designed so there is zero waste to landfill generated.
- All parts of the window are fully recyclable at the end of the window life:
  PVC-U profile, Glass, Hardware, Steel / Aluminium reinforcement, Gasket
- VEKA is also at the forefront of addressing the environmental responsibilities of the wider PVC-U window industry.

Among the first to achieve the ISO 14001 Environmental Management System and develop low carbon window solutions, VEKA has pioneered a unique partnership to recycle post consumer PVC-U windows and doors.

This is in accordance with the PVC-U window industry's voluntary commitment to Europe – Vinyl Plus.

VEKA has been involved in a number of projects to remove and de-manufacture existing PVC-U windows and doors, which have been recycled and the bi-products returned to the wider supply chain.

With pressure on landfill availability in many areas, as well as the increasing costs, this proposition will provide a major benefit to users of Matrix, who now have the means to recycle post consumer windows from their housing stock.

Investment & Resources

In the public sector market, a supplier's corporate and financial pedigree matters.

VEKA has over 25 years track record in supplying public sector purchasers with excellent windows, composite doors and curtain walling systems and has the strength in depth that matters.

Resources include:

- System design and development using the latest CAD technology
- In-house mixing plant
- 35 extrusion lines
- State of the art test laboratory
- Purpose built world class distribution centre providing over 99% 'on time in full' delivery performance

The key to the ongoing appeal of Matrix Windows and Doors is the fact that they are continually reviewed against existing, as well as proposed legislation.

VEKA designers ensure that product development addresses the technical needs of the products in line with the Building Regulations, the need to meet Best Value criteria and specific client requirements.

Product Accreditation

- Matrix meets all current accreditation standards required in the UK
- BSEN12608: 2003 Design and Extrusion of PVC-U Window and Door Profiles
- BS7412 – Manufacture of Windows and Doors
- BS7950 – Protection from forced entry
- PAS23/24 for Residential Doors

Matrix windows comply fully with building regulations in England, Wales and Scotland.

- Part A - Structure (for bay windows)
- Part B - Egress
- Part E - Passage of Sound
- Part F - Ventilation
- Part K - Protection from collision
- Part L - Conservation of fuel and power
- Part M - Disabled access
- Part N - Safety glazing

and for Scotland

- Part J - Conservation of fuel and power
- Part K - Ventilation of buildings

Proven Expertise

With over 25 years proven track record and a dedication to working in the public sector, VEKA has the proven expertise you need in a window, door, and curtain walling systems partner.

Matrix is the public sector brand for VEKA, the largest window system extruder in the UK. VEKA operates in all areas of the public sector market, new build housing (using traditional and modern methods of construction), and in the wider commercial construction market.

The extensive product range of Matrix windows and doors has been specified for a wide range of applications including:

- High rise regeneration, supplying products which are safe to use, easy to clean and are practical for residents
- Traditional low rise refurbishment, including single family homes, multi-occupancy, hostel, community and sheltered housing
- New build social housing, including key worker and affordable homes
- Schools, including refurbishment of 1960s/1970s school facades with a cost effective, versatile curtain walling system
- Health sector including nursing accommodation and hospital/health centre refurbishment
- M.O.D. accommodation
- MMC, Off site and Advanced Panel construction projects

The depth of the Matrix product range means that VEKA is able to offer 'fit for purpose' solutions for all applications.

VEKA Recycling

RECYCLING

For over 30 years, VEKA has led the world in the environmentally responsible use of PVC-U in building products. A commitment nearly as old as the industry itself has seen VEKA leading the way in minimising the environmental impact at every stage of a product's life, including manufacture, fabrication, energy efficiency in use and eventually recycling. Worldwide, VEKA was the first PVC-U system supplier ever to invest in a purpose-built recycling plant – the VEKA Umwelttechnik factory at Behringen in Germany.

A major feature of the facility is VEKA's 'closed-loop' technology – recycling to a suitable grade to make new window frames rather than lower-grade products such as underground drain/sewage pipes. We believe that it can only be true recycling when a window can be made into a window, thus extending the life of a specific product towards a theoretical infinity.

Recently, the company launched VEKA Recycling, the biggest initiative of its kind in the UK, aimed at collecting and pre-processing post-consumer frames for recycling at VEKA Umwelttechnik. Also, in the last few years, VEKA has:

- Supported the design of the UK's first BFRC 'A' Rated window and the first fully reinforced, double-glazed window to gain the 'A' Rating*
- Actively encouraged its fabricators to retain all off-cuts for recycling
- Trained all of its personnel in environmental issues
- Gained accreditation to ISO 14001 (Environmental Management Systems Licence No EMS 59308).

*The BFRC (British Fenestration Ratings Council) labelling system is aimed at quantifying a window's thermal efficiency on a scale from 'A' – the most efficient – to 'G', clearly displayed on a colour coded label. The inclusion of factors such as solar gain means that the 'A' rated window is energy-positive, that is it can take in more energy from outside than it lets out.

VEKA Recycling
our 'grave to cradle' policy

Early in 2007, VEKA Umwelttechnik initiated what is thought to be the biggest-ever recycling initiative of its kind by any UK system supplier with the launch of VEKA Recycling.

Based on the significant investment of a primary processing facility in Kent and a collection hub in Northern England, the initiative links major refurbishment sites all over the UK, collecting complete post-consumer windows* – from any original manufacturer's profile, for reprocessing. Its purpose is not only to collate the entire operation but also to process the material into a form that can be transported more fuel-efficiently to VEKA Umwelttechnik – avoiding the irony of wasting natural resources in order to save them. As demand increases, it is planned to create a full recycling facility in the UK.

Many installation companies have not been slow to note that removal and recycling this way offers real cost benefits over landfill as well as the obvious reduction in environmental impact. VEKA Recycling is equally capable of reprocessing any PVC-U window, irrespective of the original system manufacturer, eliminating any need for recognition or selection.

environmentally rewarding, it also makes good financial sense. Saving the substantial cost of landfill, it also generates revenue for fabricators and installers by enabling them to attract greater numbers of eco-minded customers.

VEKA Recycling in the UK is only one part of a growing global commitment by VEKA Worldwide

Quality windows needn't cost the earth

VEKA Recycling was launched in 2007 and is part of the prestigious, global VEKA Recycling Group.

The VEKA Recycling primary processing facility in Kent collects off-cuts and post-consumer frames from all over the UK - whether or not they were originally produced by VEKA.

The purpose of this facility is to collate the national recycling operation and process the material into a form that can be transported fuel-efficiently to VEKA Umwelttechnik in Germany, which has the capacity to process 50,000t pa. Recycling with VEKA is not only environmentally rewarding, it also makes good financial sense. Saving the substantial cost of landfill, it also generates revenue for fabricators and installers by enabling them to attract greater numbers of eco-minded customers.

VEKA Recycling in the UK is only one part of a growing global commitment by VEKA Worldwide

Towards Sustainability

VEKA has a sustainable vision for working with public sector partners.

At the heart, sustainability is all about meeting the needs of the present without compromising the ability of future generations to meet their own needs.

This applies globally, with issues such as climate change, but it also applies locally, where every project can be built with sustainable products by organisations who act responsibly.

The goal is the triple bottom line of sustainability, minimising environmental impacts, optimising economic impacts, and maximising social returns.

VEKA is committed to this agenda in its own organisation and with its suppliers, its fabricator network and its installer partners. It is also committed to bringing these principles to its partnerships with clients, specifiers, and major contractors, who are meeting these challenges in their own way.

By working together, sharing resources and strategies, we have the potential to create truly sustainable supply chains which make a real difference to local communities.

PVC-U and the Environment

There is much said about the impact of PVC-U on the environment, embracing many opinions and much debate. The recent Life Cycle Assessment of PVC-U and Competing Materials, commissioned by the European Commission, provides a balanced and impartial view.

"For windows, the available studies conclude that there is no 'winner' in terms of a preferable material since none of the materials has an overall advantage for the standard impact categories. The most promising potential for lowering environmental impacts of windows is expected through the optimisation of the design."

Recently the BRE has endorsed a 35 year life expectancy for PVC-U windows and doors after looking into the evidence supporting the long term sustainability of PVC-U.

Technical Information

Casement Windows

The Matrix Casement window range is designed to provide the maximum flexibility for fabricators and clients alike.

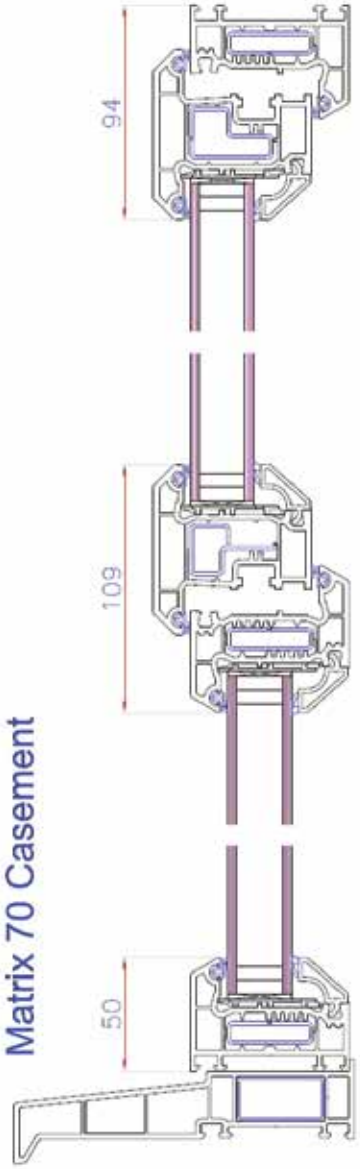
It provides the ideal range of products to suit any window replacement programme or building construction type within the social housing market.

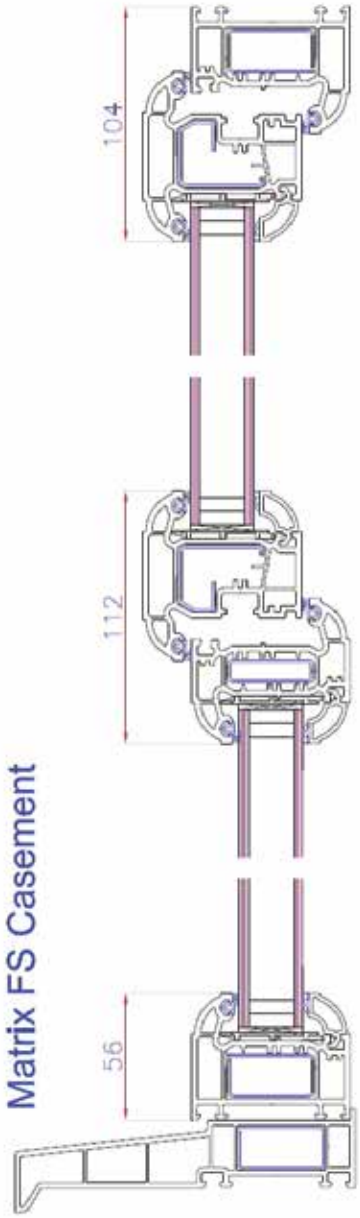
The suite allows for the production of top hung and side hung casements to accept a full range of hardware, allowing full compliance with all the latest building regulations, and meeting all the latest product testing standards.

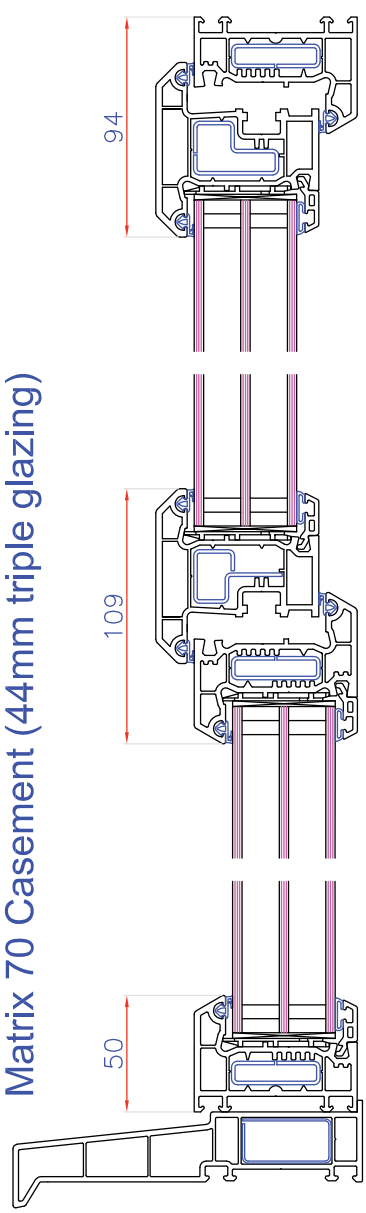
Matrix Casement Windows – Key Features

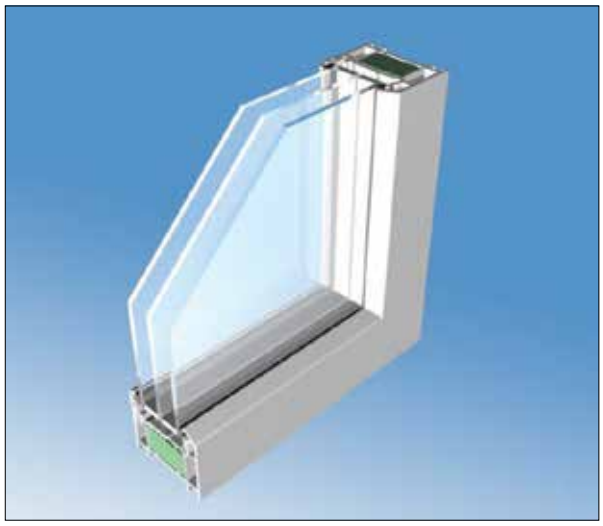
- Internally beaded and externally beaded options
- PVC-U screw ports allow secure fixing of hardware
- Products designed to accept the latest hardware types
- Products enable compliance with latest building regulations
- Glazing options up to 44mm sealed unit depth
- Products tested to meet the performance requirements of BS6375 wind and water testing
- Products tested to meet latest security standards of BS7950*
- Achieves U-values as low as 0.8 W/m^{2}K using triple glazing
- Achieves U-values as low as 1.4 W/m^{2}K using double glazing
- Noise reduction up to 40dB (RW)

U section design allows standard to be achieved using minimal reinforcing









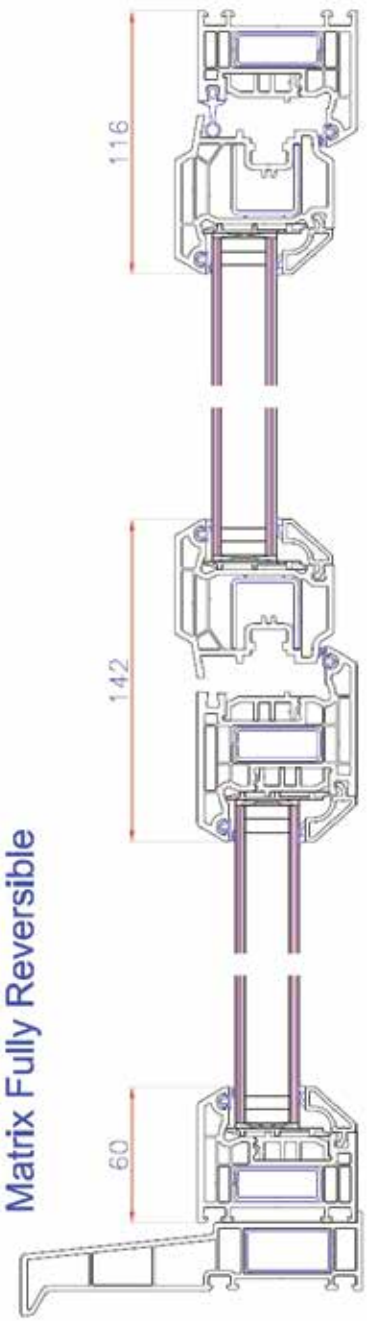
Full specifications for Matrix Casement Windows can be downloaded from the NBS Plus web site at www.thenbs.com

Fully Reversible Windows

Fully Reversible Windows are often used in new build or refurbishment projects where there is a high rise element, or where there is a requirement for cleaning to be carried out safely from the inside of the building.

Fully Reversible Windows - Key Features

- Unique 5 chamber profile system for enhanced thermal performance
- Multi position child restrictors
- Window restricted in reversed position for safety in use and cleaning
- Window reverses within the axis of its own hinge and does not come into the room
- Windows tested to BS7950
- Achieves U-values as low as 1.4 W/m²K using double glazing and 1.0 W/m²K using triple glazing
- Noise reduction up to 40dB (RW)



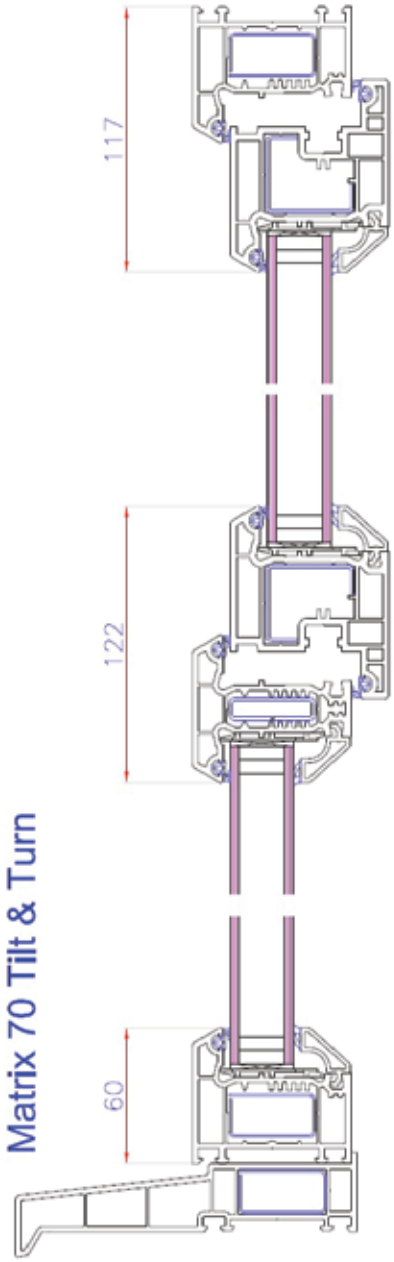
Full specifications for Matrix Top Swing Windows can be downloaded from the NBS Plus web site at www.thenbs.com

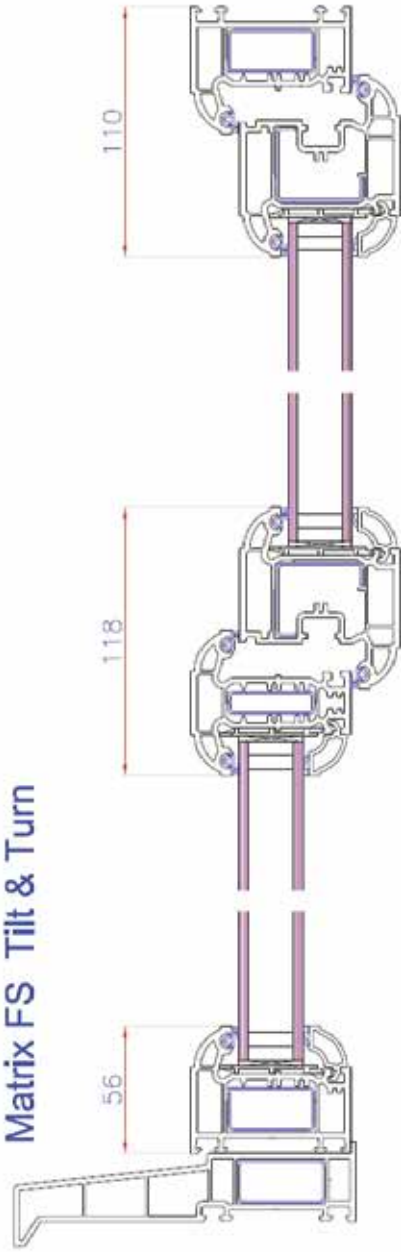
Tilt and Turn Windows

Like Top Swing Windows, Tilt and Turn Windows are often used where there is a high rise element, or a requirement for cleaning to be carried out from the inside of the building.

Tilt and Turn – Key Features

- Two operation windows, first or tilt position offers ventilation, second or turn position offers cleaning and egress
- Child restrictors and 'safe' locking handles provide safety in use features
- High security locking mechanisms
- Windows tested to BS7950
- Windows open inwards into the room
- Achieves U-values as low as 1.4 W/m²K
- Noise reduction up to 40dB (RW)
- SmartSash Tilt and Turn Window also available (see page 23 for details)





Full specifications for Matrix Tilt and Turn Windows can be downloaded from the NBS Plus web site at www.thenbs.com

Vertical Sliding Sash

The Matrix traditional sliding sash window is designed to offer clients the potential to perfectly match the existing timber product in their housing stock.

Taking all the finest points of the traditional design, the Matrix PVC-U version matches the aesthetic appeal while offering superior performance and maintenance benefits. Weights and pulleys are replaced by reliable spring and spiral balances, and a unique tilt facility to enable cleaning of sashes safely from the inside.

Matrix Vertical Sliders – Key Features

- Traditional front to back profile dimension to match existing box arrangements
- Sections designed to match traditional aesthetic appeal
- Deep bottom rail option
- Upper and lower sashes tilt inwards for ease of cleaning
- Traditional astragal Georgian bar arrangements
- Traditional hardware design and functionality
- Full range of style options and sizes to enable replacement of traditional products
- Achieves U-values as low as 1.4 W/m^{2}K

Conservation Option

VEKA has also developed a bespoke version of its Vertical Slider specifically for conservation areas.

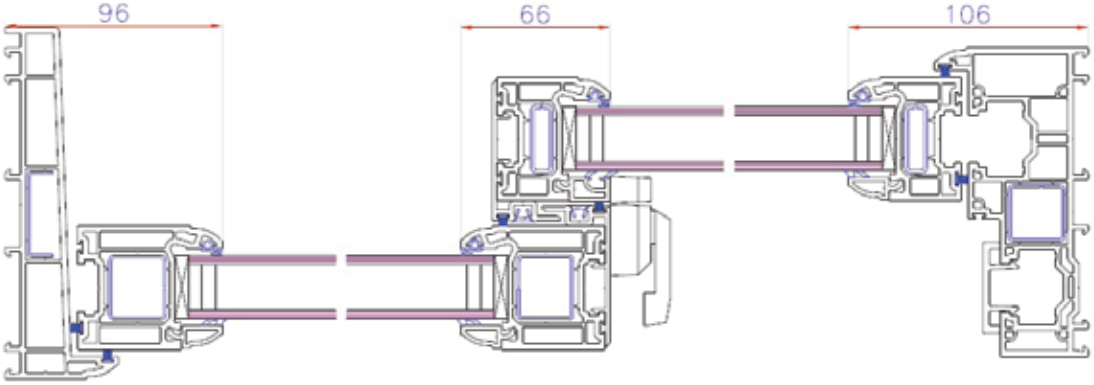
Working with key clients and local planning departments to meet their specific design requirements, the new conservation version combines all the benefits of a PVC-U window, with very detailed design features.

Conservation Vertical Slider - Key Features

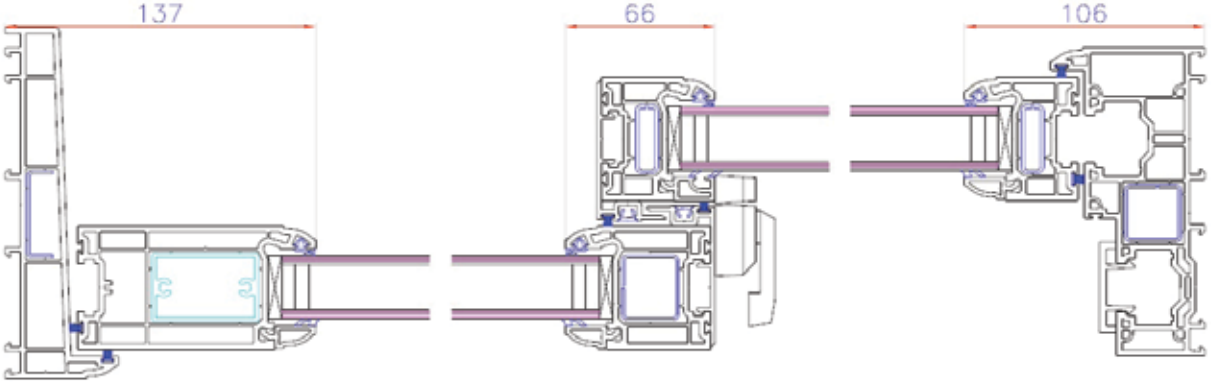
- 'Mortice and Tenon' appearance in key joints
- Sculptured sashes
- Period Georgian bar
- Period Georgian bar Traditional travel stops
- Traditional run through horn detail
- Traditional hardware design

Full specifications for Matrix Vertical Sliding Sash windows can be downloaded from the NBS Plus web site at www.thenbs.com

Matrix Vertical Slider (64mm Bottom Rail)



Matrix Vertical Slider (105mm Bottom Rail)

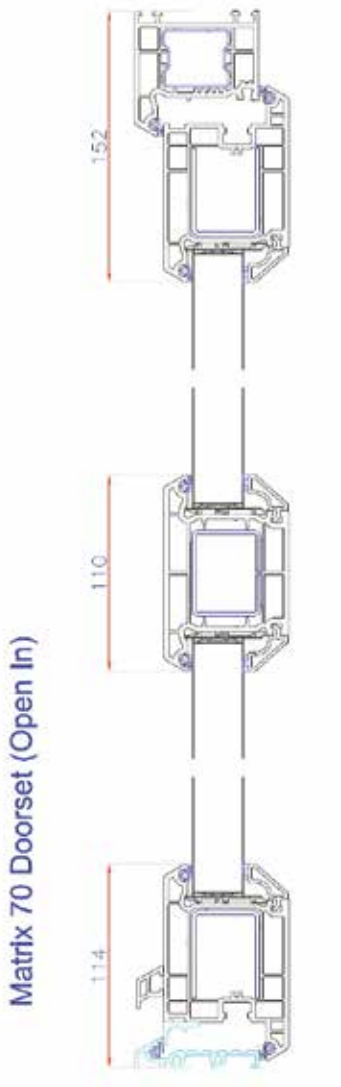


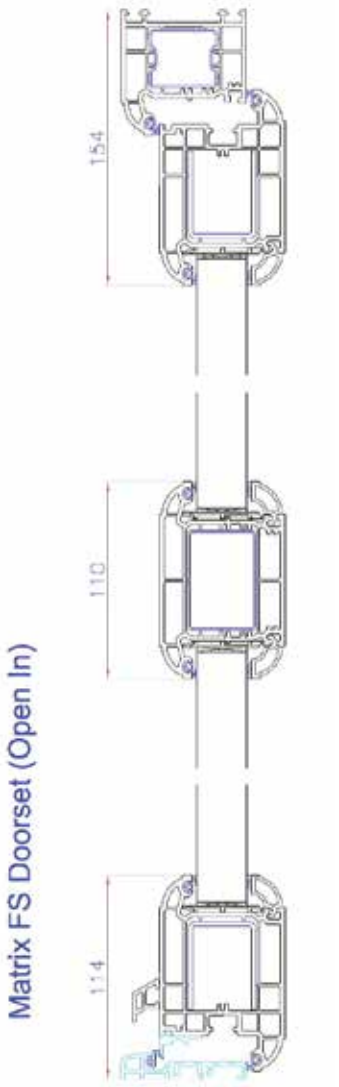
Residential Doors

The Matrix range incorporates four door types, standard PVC-U Residential Doors, Composite Doors, French Doors and Patio Doors. All products are designed to provide the highest standards of aesthetic appearance, durability, and security by incorporating the latest standards in hardware design.

PVC-U Residential & French Doors – Key Features

- Open in and open out options
- Aluminium low level threshold
- Part M wheelchair access threshold option - single doors
- Products accept latest range of hardware for high security
- Residential doors tested to PAS 23/24
- Accepts full range of safety glazing or door panel systems
- French door overlap includes standard euro groove
- Achieves U-values as low as 1.4 W/m²K
- Noise reduction up to 40dB (RW)

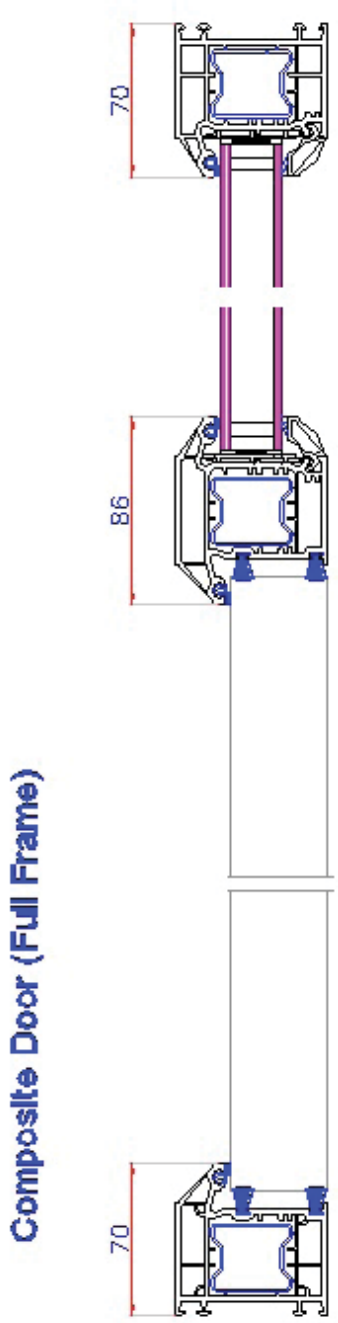




Full specifications for Matrix Residential Doors can be downloaded from the NBS Plus web site at www.thenbs.com

Composite Doors

- Delivered within seven working days from placing orders
- Comes ready to fit, fully framed with glazing and hardware
- Fully sculptured, triple seal door frame styling to match the popular fully sculptured window frame designs
- Available in choice of five colours and two woodgrains
- Woodgrain doors are available with woodgrain on both sides
- Woodgrain doors come with matching frame if desired
- 24 door designs to choose from
- Wide range of glass designs to choose from
- Entire range is approved by the Police initiative, Secured By Design
- Ten year performance guarantee on all doors and glazing
- Fiveyear performance guarantee on hardware
- High-spec weatherproofing and energy efficiency with three weatherseals
- Energy efficient low threshold available for easy access
- Many styles available with matching side panels
- Achieves U-valves as low as 1.0 W/m^{2}K



Full specifications for Composite Doors can be downloaded from the NBS Plus web site at www.thenbs.com

Infinity Windows

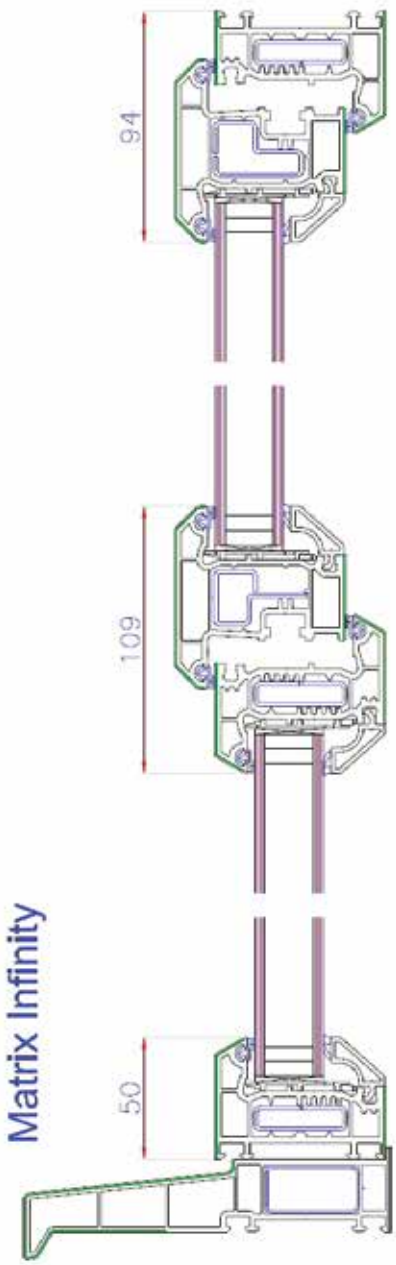
Sustainability with performance & style

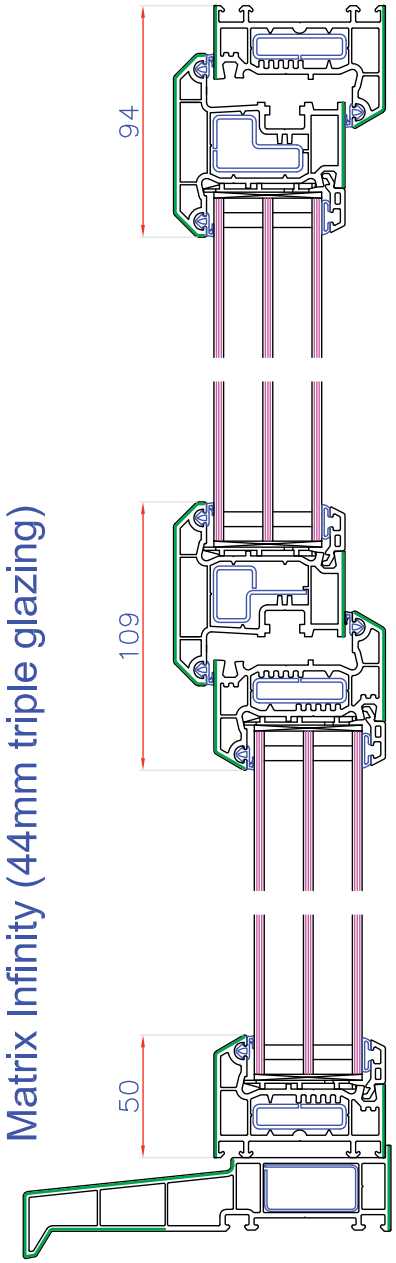
The VEKA Infinity System combines the highest levels of technology and style that you would expect from a VEKA window system, coupled with an environmental conscience, as Infinity profiles contain up to 80% recycled content, dependent on window style. Extruded to BS EN12608 extrusionperformance standards, Infinity maintains UV stability, cold impact classification and heat reversion to provide the performance of virgin profile, with the social benefits of a recycled product – a must for many projects in the commercial marketplace, and brought to you by the first windows systems company to establish a PVC-U recycling plant.

The Infinity System features classic bevelled good looks to suit any style of property and is available in white. The virgin top skin ensures a perfect exterior finish which is 100% quality and colour compatible with the Matrix 70 suite of profiles.

Recycled Specification
The Infinity system is designed in such a way that all recycled material is totally encapsulated within virgin raw material, ensuring the perfect surface finish that all VEKA window system are renowned for.

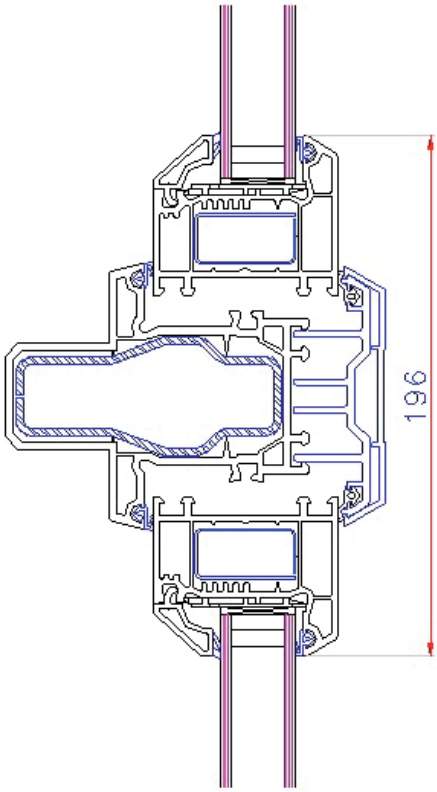
- All profiles are extruded to BS EN12608
- Recycled profiles containing up to 80% recycled content.
- Perfect quality and colour match for Matrix 70 system, allowing full integration of the 2 systems
- All Infinity recycled profiles are guaranteed for 10 years

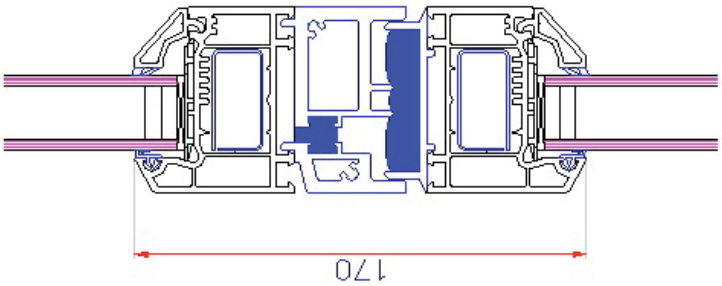




Full specifications for Infinity Windows can be downloaded from the NBS Plus web site at www.thenbs.com

- The Screen Walling System is centred around a mulitchambered PVC-U mullion capable of large spans, but maintaining narrow sightlines and thermal efficiency.
- All VEKA windows and residential doors may be used in conjunction with the mllion to produce a screen wall
- Insert windows and doors are secured to mullions with external aluminium pressure plates finished with aluminium cover caps (ployester powder coated)
- Stick system, drained and ventilated. The system has built-in-thermal breaks and expansion / contraction elements.





Matrix Screen Walling

Full specifications for Curtain Walling can be downloaded from the NBS Plus web site at www.thenbs.com

Colour Options

An increasing number of specifiers and developers are seeking an alternative approach to fenestration aesthetics by choosing coloured frames. This has long been an option with steel/aluminium frames, but now a similar choice of colour finish is available through Matrix PVC-U windows.

The high quality foils carry extensive guarantees and are well proven for high performance in all types of weather conditions including bright sunlight and high rainfall without any colour deterioration or fade.

For contemporary buildings many architects are now adopting a black/grey palette as well as using the more established blue/red/green colourways.

For both refurbishment and new build projects, the choice of a distinctive colour for the window frame exteriors can have an immediate impact on the building's presence.

Coloured foils can be added to the full range of Matrix products including Casements, Tilt Turns, Top Swings, Doors, Sliding Sash windows and Curtain Walling.

Colour Options

Ice Cream RAL9001

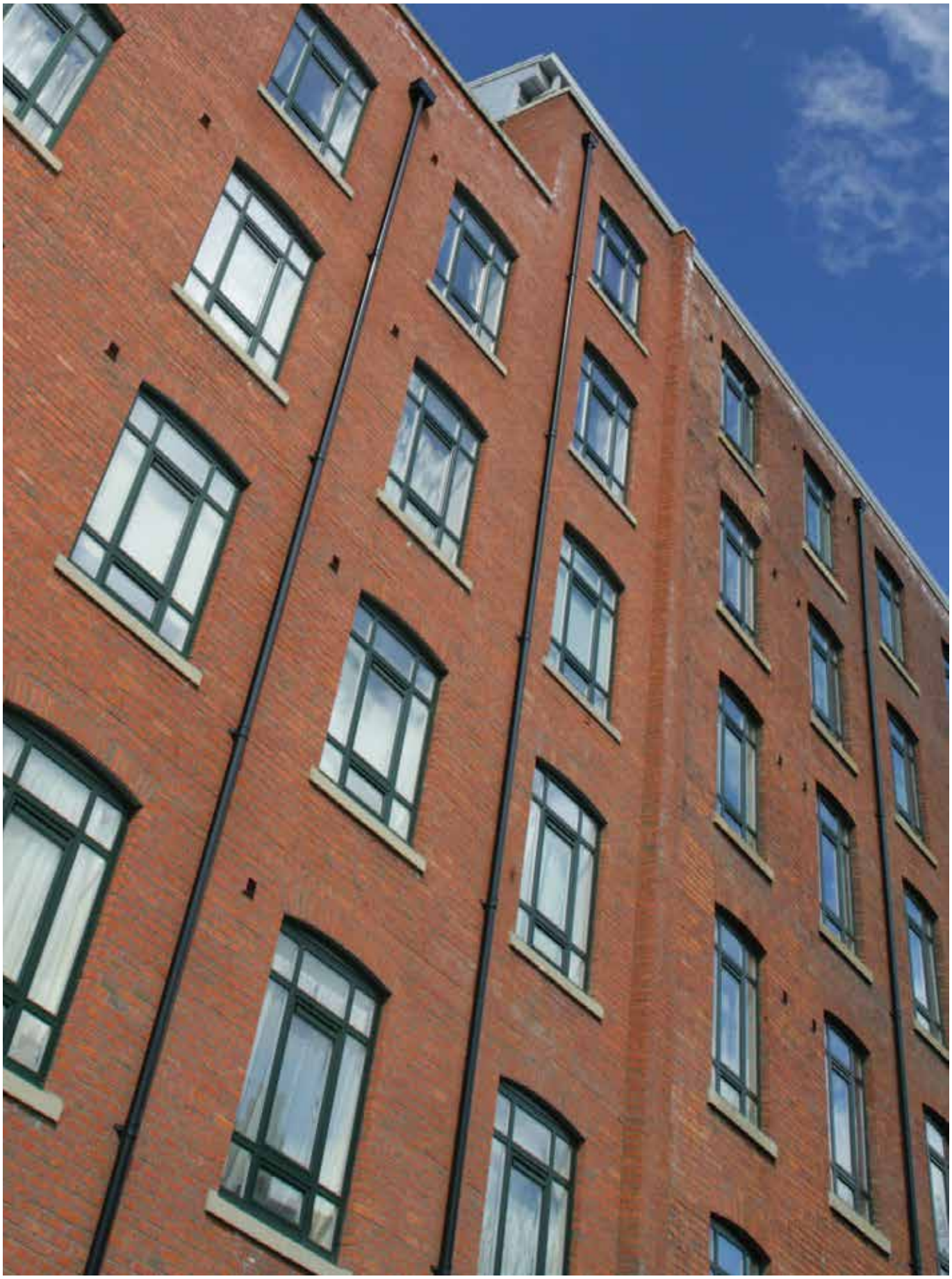
Hazy Grey RAL7001

Gale Grey RAL7016

Beck Brown RAL8022

Rioja Red RAL3005

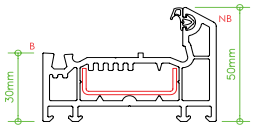
Midnight Blue RAL5011



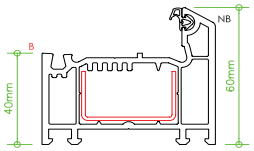
System:	Matrix 70
Section:	06
Page:	00:03
Date:	August 09
Revision:	00:02

23/02/2012

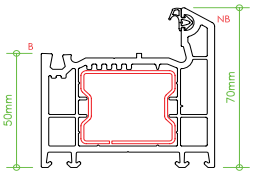
outer frame



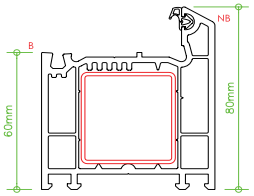
50mm outer frame - 101146
reinforcement - 113321
box reinforcement - 113041



60mm outer frame - 101144
reinforcement - 113317
box reinforcement - 113245
crank reinforcment - 113316

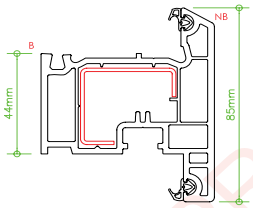


70mm outer frame - 101163
reinforcement - 113378
crank reinforcement - 113371

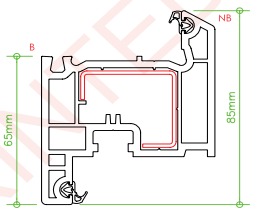


80mm outer frame - 101147
Reinforcement - 113088
L shape reinforcement - 113095

tilt & turn

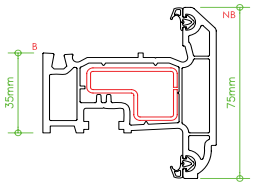


85mm tilt turn sash - 103259
Reinforcement - 113230

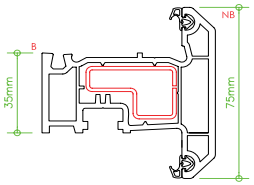


85mm tilt turn sash - 103134
Reinforcement - 113230

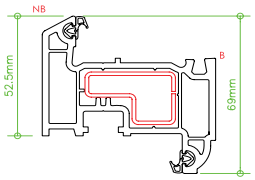
window sash



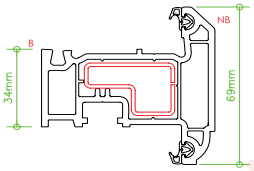
75mm espagnolette sash - 103149
reinforcement - 113345
prep reinforcement - 113168



75mm espagnolette sash - 103150
reinforcement - 113345
prep reinforcement - 113168

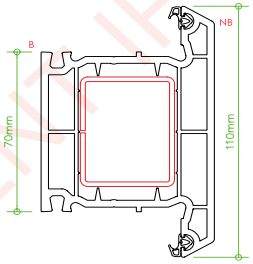


69mm espagnolette sash - 103257
reinforcement - 113345
prep reinforcement - 113168

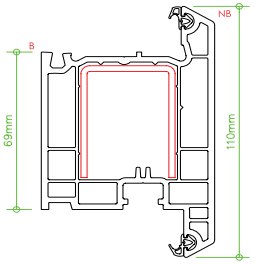


69mm espagnolette sash - 103258
reinforcement - 113345
prep reinforcement - 113168

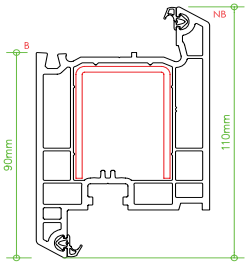
door sash



110mm mullion - 102146
Reinforcement - 113228

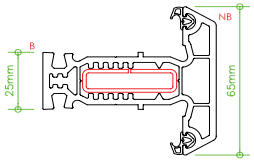


110mm door sash - 105126
Reinforcement - 113320
Reinforcement - 113318 (prepped)

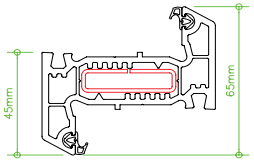


110mm door sash - 105170
Reinforcement - 113320
Reinforcement - 113318 (prepped)

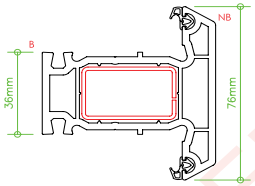
mullion / transom



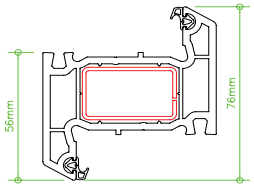
65mm mullion - 102177
box reinforcement - 113041



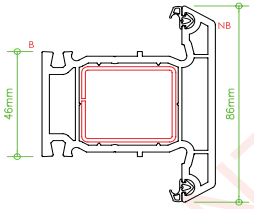
65mm combi-mullion - 102176
box reinforcement - 113041



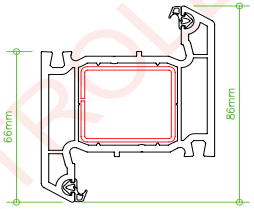
76mm mullion - 102124
box reinforcement - 113164



76mm combi-mullion - 102125
box reinforcement - 113164

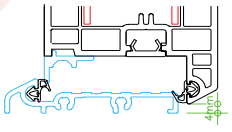


86mm mullion - 102143
box reinforcement - 113231

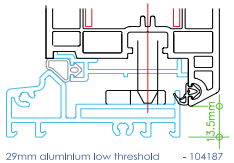


86mm combi-mullion - 102148
box reinforcement - 113231

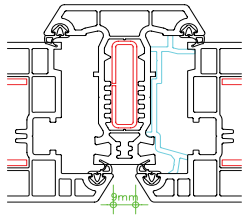
ancillaries



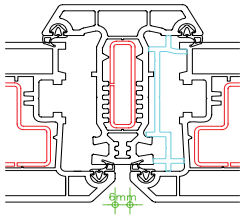
15mm aluminium low threshold - 104216
sealing strip - 104214
fold gasket - 112072



29mm aluminium low threshold - 104187
gasket carrier - 104188
gasket - 112112
universal shootbolt keep - 141126



aluminium french door coupling - 104245
false mullion end cap - 109568



aluminium french casement coupling - 104243
false mullion end cap - 109568

bead / gasket

22mm sculptured glazing bead for
28mm glazing - 107167

22mm sloped glazing bead for 28mm
glazing - 107168

27mm sloped glazing bead for 20/24mm
glazing - 107100/G (white only)

5mm glazing gasket - 112131

3mm glazing gasket - 112132

3 - 5mm glazing gasket - 112133

2.5mm fold gasket - 112135

3.5mm fold gasket - 112072

7mm glazing gasket - 112154

3.5mm weldable gasket - 112279

4mm weldable gasket - 112384
weatherseal to doors & tilt/turn

VEKA

matrix 70 profile chart

inf

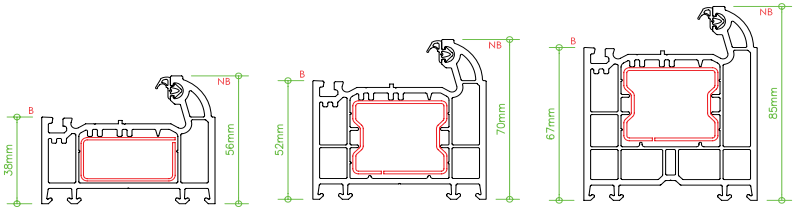
note:
'B' and 'NB' denote beaded and non beaded faces for the ordering of folled profiles.

UNCONTROLLED DOCUMENT IF PRINTED

System:	Fully Sculptured
Section:	07
Page:	00:03
Date:	March 09
Revision:	00:01

23/02/2012

outer frame

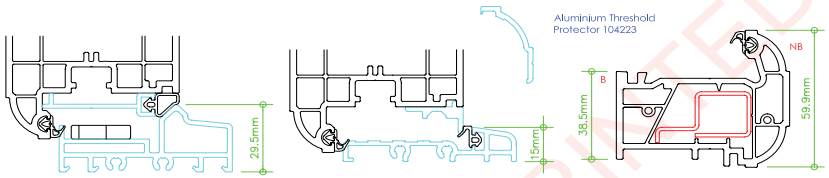


56mm outer frame 101160
box reinforcement 113245
channel reinforcement 113317

70mm outer frame 101161
box reinforcement 113378
cranked reinforcement 113371

85mm outer frame 101162
box reinforcement 113378
cranked reinforcement 113371

ancillaries

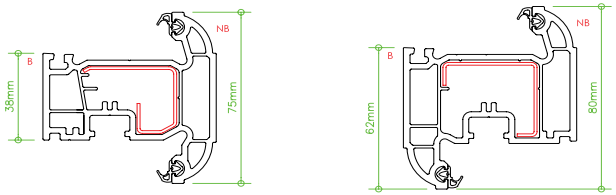


29mm Aluminium Low Threshold 104232
Gasket Carter 104233
Threshold Gasket 112112
Threshold Keep Plate 141126

15mm Aluminium Low Threshold 104224
Sash Sealing Strip 104225
Threshold Gasket 112072

60mm False Mullion 102265
Box Reinforcement 113019
Cranked Reinforcement 113316

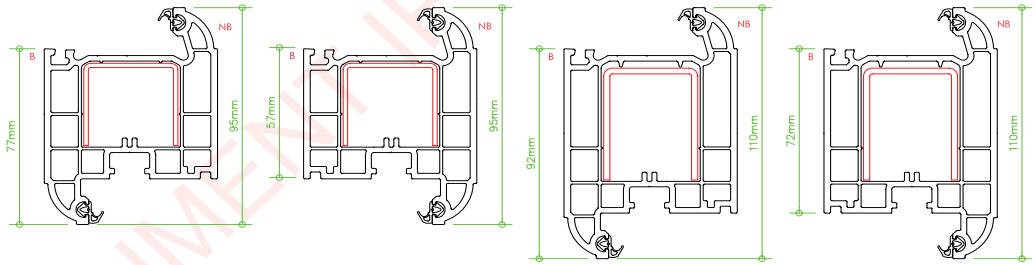
window sash



75mm casement sash 103264
reinforcement 113372
reinforcement 113039

80mm tilt & turn sash 103267
reinforcement 113373

door sash



95mm z door sash 103265
reinforcement 113375
prepared reinforcement 113374

95mm t door sash 103266
reinforcement 113375
prepared reinforcement 113374

110mm z door sash 105168
box reinforcement 113231
channel reinforcement 113320
prepared reinforcement 113318

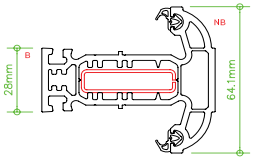
110mm t door sash 105169
box reinforcement 113231
channel reinforcement 113320
prepared reinforcement 113318

bead / gasket

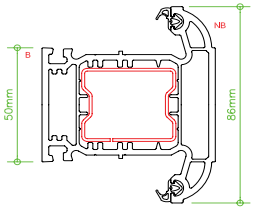
28mm Glazing Bead 107155

3.5mm Fold Gasket 112072

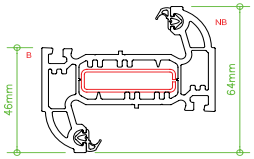
4mm Fold Gasket 112384



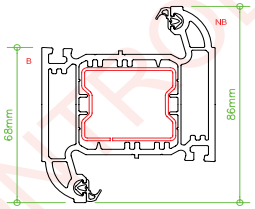
64mm t mullion 102261
reinforcement 113041
channel reinforcement 113321



86mm t mullion 102263
reinforcement 113041
channel reinforcement 113321
box reinforcement 113378
cranked reinforcement 113371

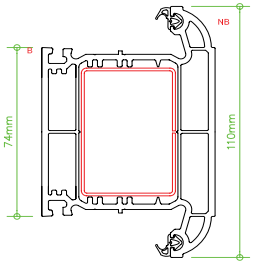


64mm z mullion 102260
reinforcement 113041
channel reinforcement 113321



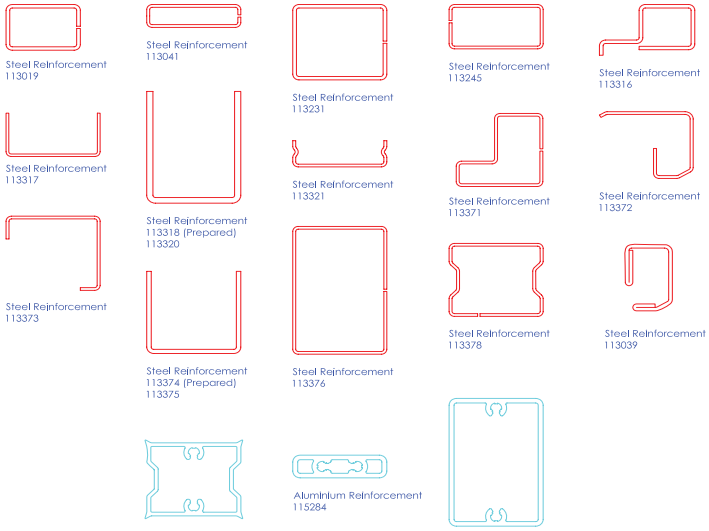
86mm z mullion 102262
reinforcement 113041
channel reinforcement 113321
box reinforcement 113378
cranked reinforcement 113371

mullion / transom



110mm midrail 102264
reinforcement 113376

reinforcement



Steel Reinforcement 113019

Steel Reinforcement 113041

Steel Reinforcement 113231

Steel Reinforcement 113245

Steel Reinforcement 113316

Steel Reinforcement 113317

Steel Reinforcement 113318 (Prepared) 113320

Steel Reinforcement 113321

Steel Reinforcement 113371

Steel Reinforcement 113372

Steel Reinforcement 113373

Steel Reinforcement 113374 (Prepared) 113375

Steel Reinforcement 113376

Steel Reinforcement 113378

Steel Reinforcement 113039

Aluminium Reinforcement 115108

Aluminium Reinforcement 115284

Aluminium Reinforcement 115286

VEKA

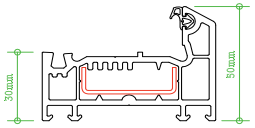
matrix FS 70 profile chart

inf

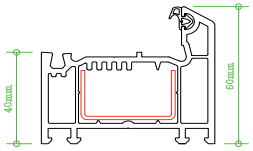
note:
'B' and 'NB' denote beaded and non beaded faces for the ordering of folled profiles.

UNCONTROLLED DOCUMENT IF PRINTED

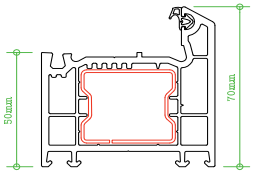
outer frame



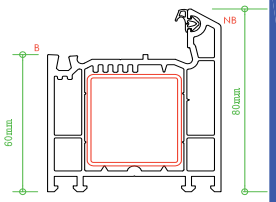
50mm outer frame - 101146
reinforcement - 113321
box reinforcement - 113041



60mm outer frame - 101144
reinforcement - 113317
box reinforcement - 113245
crank reinforcment - 113316

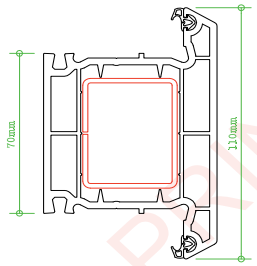


70mm outer frame - 101163
reinforcement - 113378
crank reinforcement - 113371



80mm outer frame - 101147
Reinforcement - 113088
L shape reinforcement - 113095

mid rail

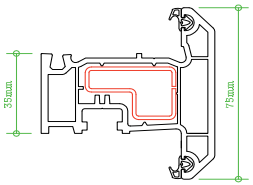


110mm mullion - 102146
Reinforcement - 113228

System:	Infinity
Section:	06
Page:	00:03
Date:	Nov 2010
Revision:	00:02

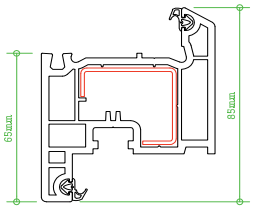
23/02/2012

Casement sash



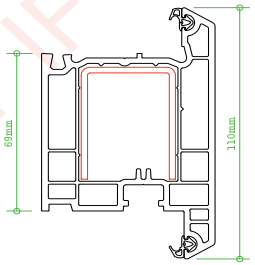
75mm espagnolette sash - 103150
reinforcement - 113345
prep reinforcement - 113168

tilt & turn sash

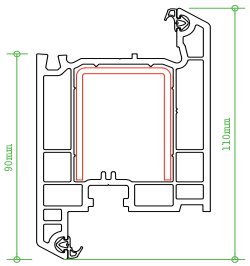


85mm tilt turn sash - 103134
Reinforcement - 113230

door sash

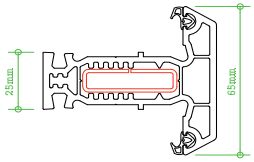


110mm door sash - 105126
Reinforcement - 113320
Reinforcement - 113318 (prepped)

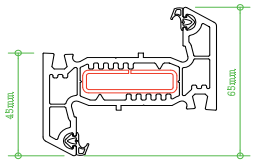


110mm door sash - 105170
Reinforcement - 113320
Reinforcement - 113318 (prepped)

mullion / transom

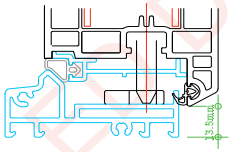


65mm mullion - 102177
box reinforcement - 113041

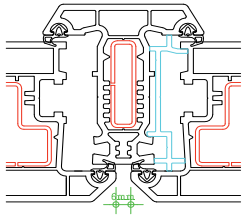


65mm combi-mullion - 102176
box reinforcement - 113041

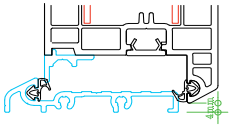
aluminium door parts



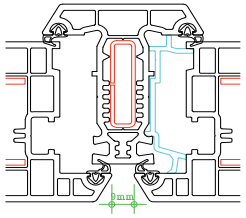
29mm aluminium low threshold - 104187
gasket carrier - 104188
gasket - 112112
universal shootbolt keep - 141126



aluminium french casement coupling - 104243
false mullion end cap - 109568

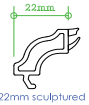


15mm aluminium low threshold - 104216
sealing strip - 104214
fold gasket - 112072



aluminium french door coupling - 104245
false mullion end cap - 109568

bead / gasket



22mm sculptured glazing bead for 28mm glazing - 107167

22mm sloped glazing bead for 28mm glazing - 107168

3.5mm weldable gasket - 112279

4mm weldable gasket - 112384
weatherseal to doors & tilt/turn

VEKA Infinity

Infinity profile chart

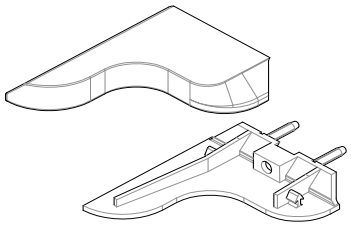
Infinity

UNCONTROLLED DOCUMENT IF PRINTED

System:	Matrix 70
Section:	06
Page:	00:04
Date:	Jan 2010
Revision:	00:04

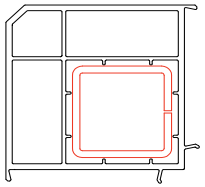
23/02/2012

casement horns

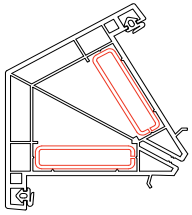


casement horn cover -109995
casement horn base -109994
jig -146043.5

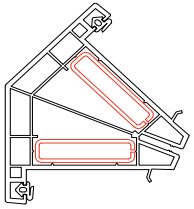
bay poles



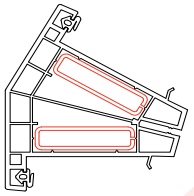
90deg Corner post 116200
Steel reinforcement 113128
adjustment nut 141444
LOAD BEARING



120° corner post 116016
reinforcement 113028
aluminium reinf 115015
gasket 112003

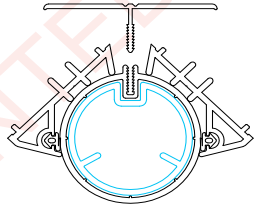


135° corner post 116015
reinforcement 113028
aluminium reinf 115015
gasket 112003



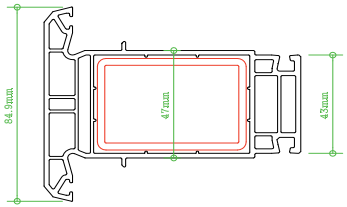
150° corner post 116017
reinforcement 113028
aluminium reinf 115015
gasket 112003

'T piece' for fixed angle
bay poles 116033



Bay pole cover 116047
Aluminium bay pole 104157
Bay pole shoe 116049
Gasket 112003
Cover piece 116048
adjustment nut 141437.2
LOAD BEARING

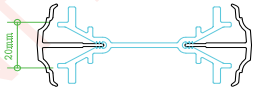
couplers



Coupling profile 116202
Steel reinforcement 113011
adjustment nut 141439

dogbone coupling 113112
covers 116012

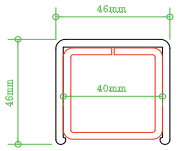
small H coupling 116058



cover profile 116060
aluminium reinforcement 104210

coupling 116030

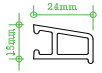
coupling 116005.2



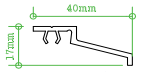
cover profile 109195
Steel reinforcement 113128

drips & beads

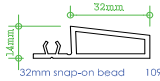
Eurogroove Infill 109045



drip mould 109122
end cap 109141

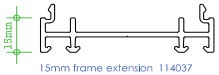


snap-on head drip 109230

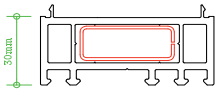


32mm snap-on bead 109231

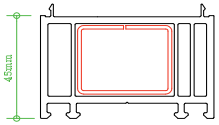
frame extensions



15mm frame extension 114037

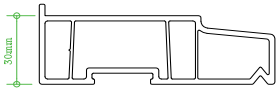


30mm frame extension 114014
Reinforcement 113073

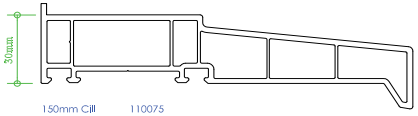


45mm frame extension 114202
Reinforcement 113271

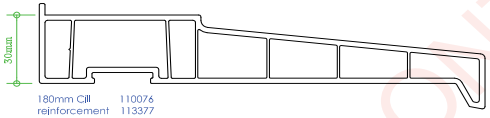
cills



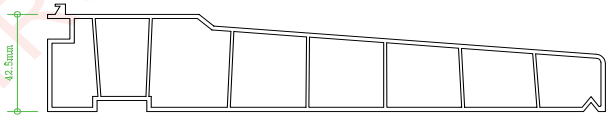
95mm Cill 110074
reinforcement 113377
end cap 109074



150mm Cill 110075
reinforcement 113317
reinforcement 113245
Straight Cill joint 109085
135° Cill joint 109084
90° Cill joint 109089
end cap 109075



180mm Cill 110076
reinforcement 113377
end cap 109090



225mm Cill 110106
reinforcement 113048 & 113345
end cap 109647

cill extensions

cill frame
extension 110104

matrix 70 ancillary chart

inf

note:
'B' and ' NB
and non
the ordering of foiled profiles.

UNCONTROLLED DOCUMENT IF PRINTED

BOWATER
PROJECTS
A COMPANY OF THE VEKA UK GROUP

To find out more, call

01282 620 119

bowatersales@veka.com

BS EN 12608 KM12892
BS7619 KM41048
BS 7950 KM33520 / KM34443
PAS 23-1 KM61039
PAS 24-1 KM61039 / KM60985
BS EN ISO 14001
ISO 9001 FM10198 / FM11414
ISO 14001 EMS56667
ISO 18001 OHS82581

INVESTOR IN PEOPLE

BOWATER PROJECTS Curdworth House, Kingsbury Road, Curdworth, Sutton Coldfield, West Midlands B76 9EE.
Tel: 01282 620 119 | Fax: 01282 725 257
bowatersales@veka.com