

DN9500 SERIES MULTI POINT WINDOW LOCKING SYSTEM



DORIC DN9500 COASTGUARD

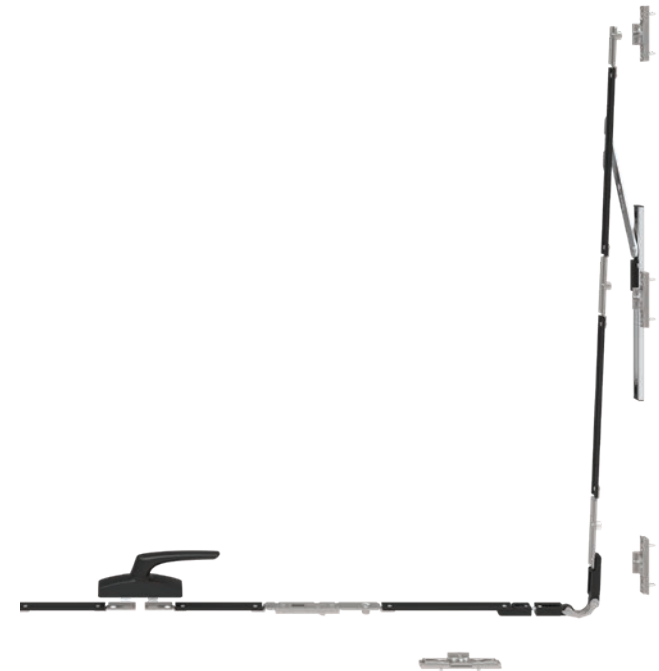
MULTI POINT WINDOW HARDWARE

**HIGH PERFORMANCE HARDWARE
FOR WINDOWS IN HIGH PERFORMANCE BUILDINGS**



CONTENTS

3	INTRODUCTION
5	SPECIFICATIONS & DEVELOPMENT
9	SASH REQUIREMENTS
11	CONFIGURING A COASTGUARD MULTI POINT WINDOW SYSTEM
12	COMPONENTS
23	CONFIGURATION & TESTING
24	TESTING, PERFORMANCE AND VALIDATION
26	CARE & WARRANTY - GENERAL CARE & MAINTENANCE
28	DORIC WARRANTY
31	PREVIOUS PROJECTS
34	CONTACT US
35	ABOUT US



INTRODUCTION

Hi-rise building façades are increasingly incorporating operable sash windows providing a number of benefits for the building and its occupants.

These include:

- Fresh air ventilation
- Amenity for apartment owners
- Smoke attenuation in case of fire
- Thermal control

Australian façade construction and the performance of façades is vitally important and legislation around the application is a key focus. Application variables, such as conditions and potential events are part of the application of National Construction Code requirements that “sets the minimum required level for the safety, health, amenity, accessibility and sustainability of certain buildings” and hardware plays a key role in performing to meet this code.

The challenge for façade designers and engineers is that operable opening windows present complexities for the fabrication and installation team.

When the façade becomes operable the weight and construction of the window design becomes very important, because the requirement is to now move large structurally glazed glass, and if

the sash of a window were to fail it could lead to a catastrophic outcome, with the potential for the sash to leave the building.

The reality for façades with operable opening windows is that the hardware is critical because it provides:

- Maximum resistance to negative pressure events as determined and tested to AS 2047 in Australia
- The ability for the sash to resist water ingress
- The ease of use and the amenity of the operation for the users
- The duty cycle of the sash's especially in highly corrosive environments such as ocean front locations.
- A risk for ongoing future maintenance issues and replacement costs.
- A potential risk for failures if the components deteriorate and fail during operation or during a future adverse environmental event.
- How easily and efficiently a window can be constructed and how it can be adjusted on site if required



Doric has been researching, developing, and testing multipoint hardware for more than 10 years and window & door hardware development since 1972, supported by ISO9001 certification and a NATA accredited testing facility. Doric provides innovative solutions to the industry, always setting a higher standard and providing engineers with optimum solutions.

The Doric DN9500 range of hardware is an evolution of learnings targeted at a very complex set of requirements specifically designed to provide:

- The ability to meet any extreme pressure demands on the largest of windows
- The ability to operate in highly corrosive environments and still perform as designed
- Ease of installation and maintenance for fabricators and maintenance staff
- A system specifically designed for Australian buildings in Australian environments with the backup and support of an Australian business with national representation



"It's the hardware that keeps the sash on the building, and it's the hardware that provides security, safety and amenity that the building designers & architects design into the facility."

Watch the video:

[YouTube - DN9000 High Performance Multi Point Locking System](https://youtu.be/mdq-QSWq0Pw)
<https://youtu.be/mdq-QSWq0Pw>

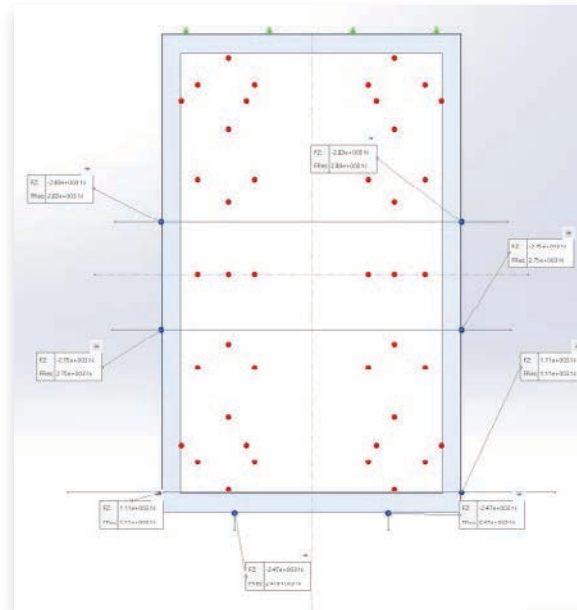


SPECIFICATION & DEVELOPMENT

Doric engineers assess the window drawings, performance requirements and environmental conditions to provide the most appropriate hardware solution for the project.

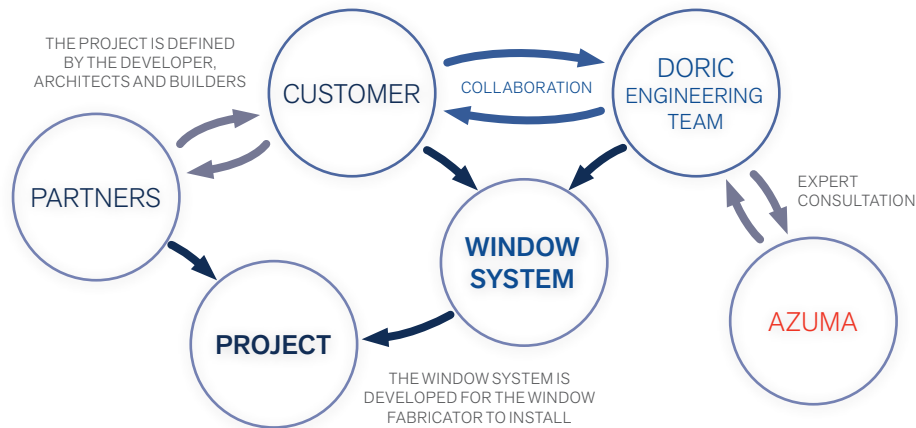
Using modelling software, a simulation of sash operation and window stress analysis is applied to both the window and hardware combined. It is through this process we can evaluate and adjust for stresses under various types of loading, including pressure and force along with fitments and adjustment practices.

The data generated from this analysis will be used to optimise the number of locking points and the positions of where the locking points need to be. All this can be done prior to the actual testing of the window in a pressure chamber, which reduces the chances of unexpected results.



"removes a significant challenge from the fabricators hands resulting in a consistent, scientifically based outcome for our customers and their partners, be they Architects, façade consultants or builders."

Through consultation and collaboration, the DN9500 is a tailored window system for the fabricator to meet the stringent and unique parameters of each project.



This analysis and development provides charts, future reference and specification on what hardware to use, where and how to mount it. This initiative and expertise removes a significant challenge from the fabricators hands resulting in a consistent, scientifically based outcome for our customers and their partners, be they Architects, façade consultants or builders.

All window systems will be a collaboration between the Doric engineering team and the window system supplier.





DN9500 COASTGUARD

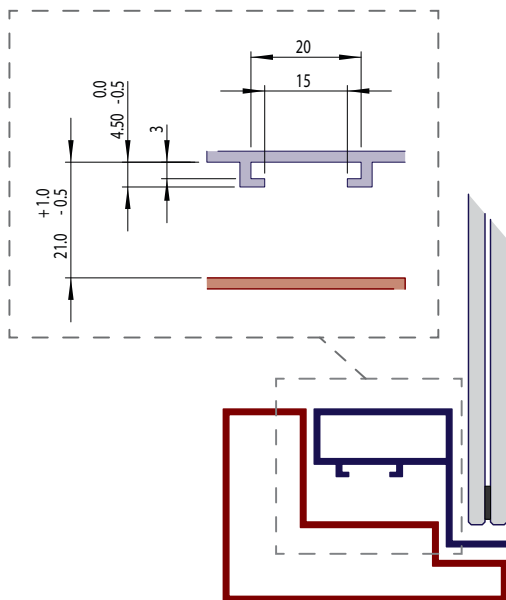
MULTI POINT WINDOW LOCKING SYSTEM



COASTGUARD WINDOW REQUIREMENTS

For a multi point system to fit, the window is required to have a euro-groove design which has the following dimensions for either a single euro-groove or a double euro-groove.

Single euro-groove



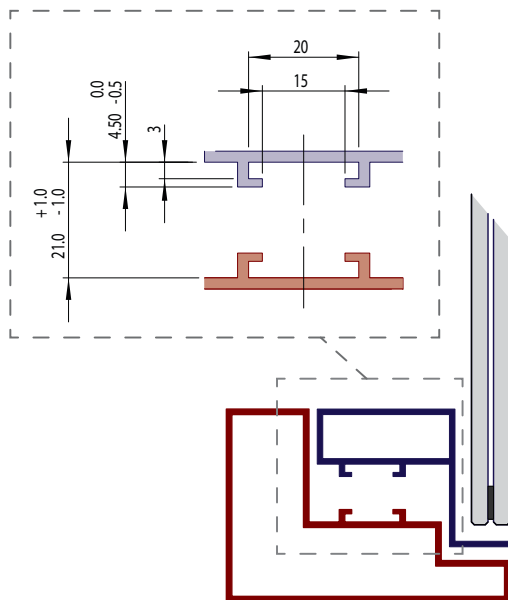
Note: When the window has the euro-groove on the sash only, it is often referred to as a single euro-groove window as shown.



Double Euro-groove

Double Euro-groove is when the window has a Euro-groove on both the sash and frame. Double Euro-groove (or dual fitment windows) require the position of the grooves to align with each other.

The double Euro-groove aligns the multi point system. The components need to be able to slide within the frame and engage with each other connecting the frame and sash.



Frame Construction & Design Elements

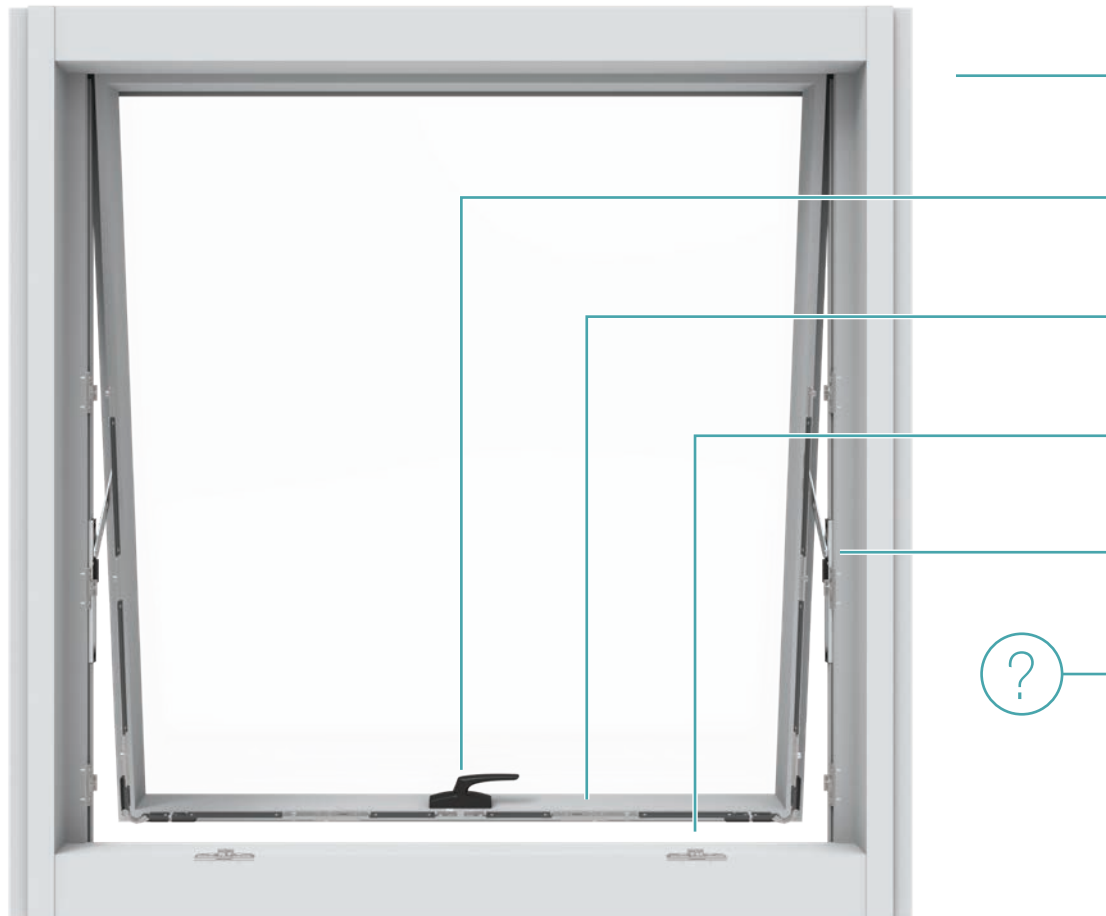
Stay hinges obstruct the operation and effectiveness of the hardware within a double Euro-groove because the stay hinge is present. This reduces the overall window performance.

As a solution to this problem, we usually recommend implementing a continuous hook hinge design to the window. The hook hinge is not only an economical solution it allows a holding force across the entire top member of the sash without occupying the Euro-groove.

The simplicity of the hook hinge design is minimalist and less likely to fail compared to a stay hinge that has separate fixings and componentry.

If there are other requirements of the window, our engineers are more than willing to work with you to tailor a unique specification that suits your needs and application.

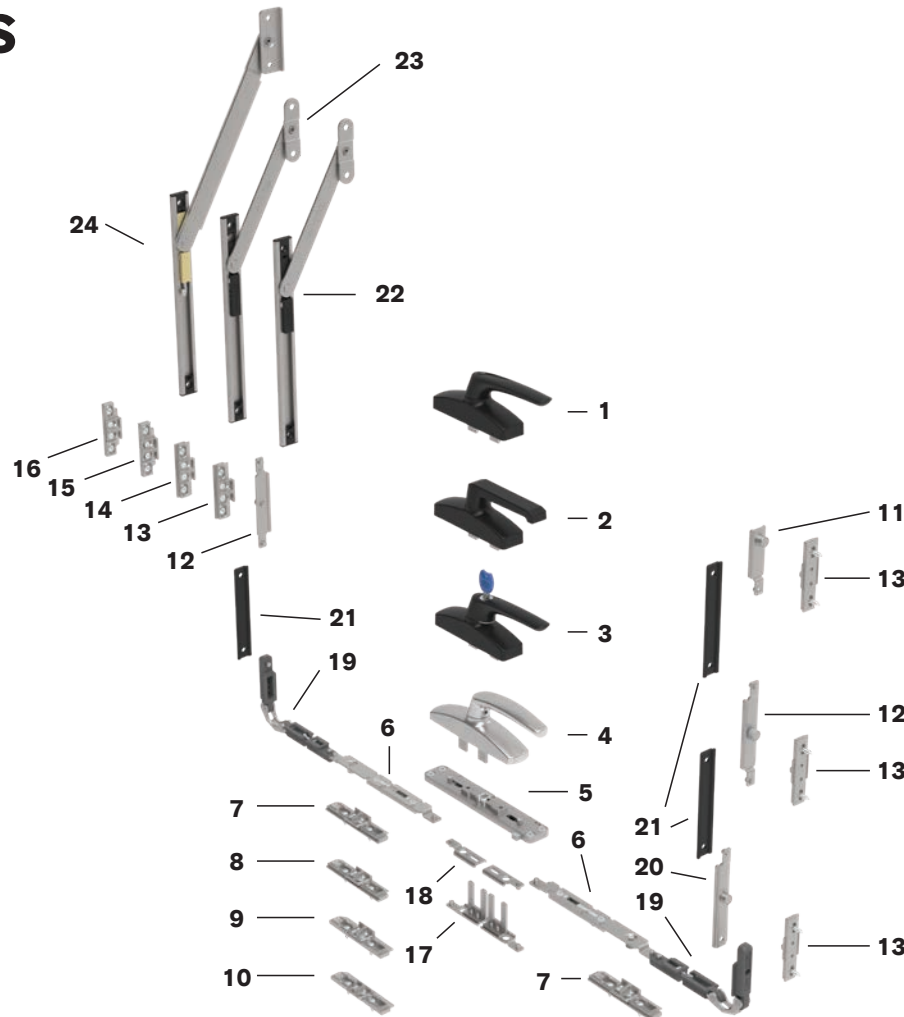
Configuring a Coastguard Multi Point Window System



1. Decide which Euro-groove style your window system will have
2. Select a handle from our range that fits your requirements
3. Choose if Self-Latching Function (also known as snap shut) is required
4. Decide the number of locking points required for your window system. Our engineers can help!
5. Choose the window restrictor stay
6. Let us know your other requirements

COMPONENTS

DN9500 Coastguard Multi Point Window Locking System



HANDLES

- 1 DN9506 Handle
- 2 DN9505 Square Handle
- 3 DN9507 Lockable Handle
- 4 DN9508 SS Handle
- 5 DN9501 Submerged engine

SELF LATCHING SYSTEM

- 6 DN9546 Self-latching Unit
- 7 DN9560 14.5mm SLS Keeper - double euro-groove
- 8 DN9561 12.5mm SLS Keeper - double euro-groove
- 9 DN9565 14mm SLS Keeper - single euro-groove
- 10 DN9566 12mm SLS Keeper - single euro-groove

TRANSMISSIONS

- 11 DN9511 End Transmission
- 12 DN9512 Mid Transmission

STANDARD KEEPERS

- 13 DN9570 14.5mm double euro-groove keeper
- 14 DN9571 12.5mm double euro-groove keeper
- 15 DN9575 14mm single euro-groove keeper
- 16 DN9576 12mm single euro-groove keeper

HANDLE TRANSMISSIONS

- 17 DN9520 Main transmission - Type 1
- 18 DN9523 Main transmission - Type 2

TRANSMISSIONS

- 19 DN9510 Adjustable Corner Transmission
- 20 DN9513 Locking attachment for Corner Transmission
- 21 DN9543 Connecting bar

RESTRICTOR STAYS

- 22 DN9591 Adjustable self-latching restrictor stay
- 23 DN9592 Click-Clack Restrictor stay
- 24 DN9593 Heavy Duty Manual Restrictor Stay

HANDLES



DN9506



DN9505



DN9507



DN9508



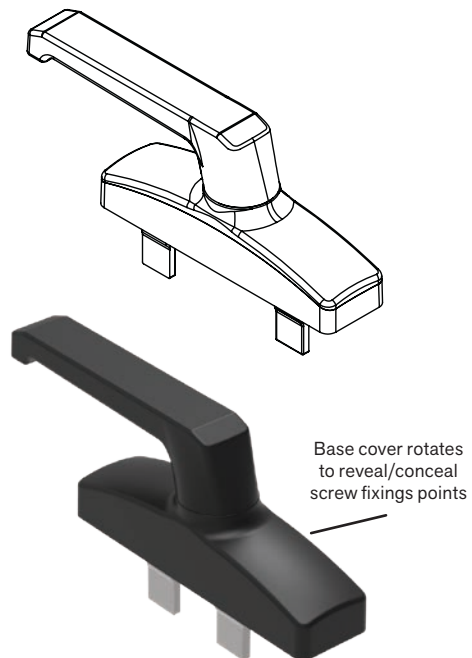
DN9501

	DN9506 Handle	DN9505 Square Handle	DN9507 Lockable Handle	DN9508 Stainless Steel Handle	DN9501 Submerged Engine
Key Features	<ul style="list-style-type: none"> Offset handle design 	<ul style="list-style-type: none"> Square handle design 	<ul style="list-style-type: none"> Offset handle design with key lock 	<ul style="list-style-type: none"> Offset handle design Stainless steel finish Enhanced mechanical performance 	<ul style="list-style-type: none"> Provides clean appearance Drive the multi point system directly Built-in anti-crash system
Customisable powder coat colour	■	■	■		
Key locking			■		
Top mount	■	■	■	■	■
Front mount	■	■	■	■	
Corrosion resistance	■	■	■		
Advanced corrosion resistance				■	■

HANDLES

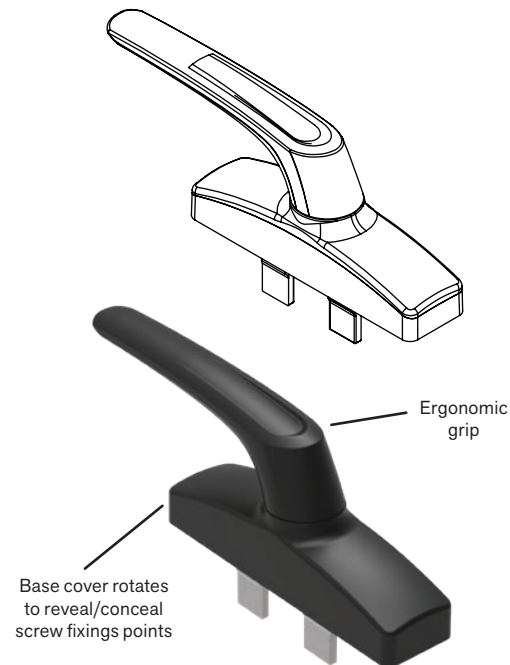
DN9505 | SQUARE HANDLE

- Drive tongue length available in: 20mm, 30mm & 35mm
- Custom powder coat available



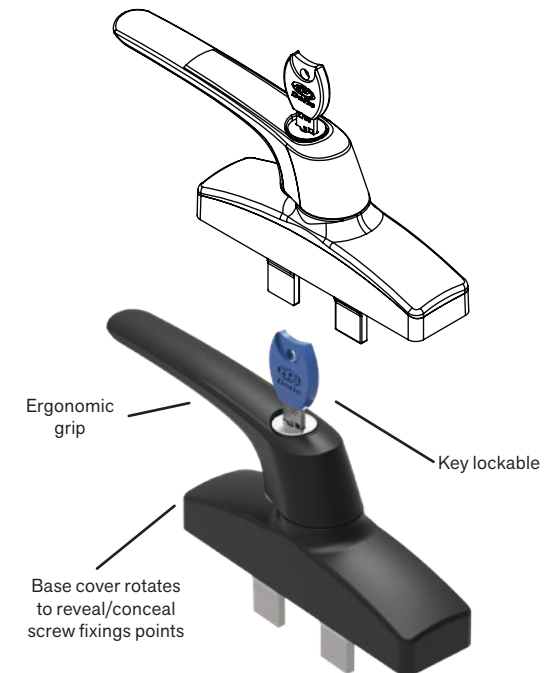
DN9506 | HANDLE

- Drive tongue length available in: 20mm, 30mm & 35mm
- Custom powder coat available



DN9507 | LOCKABLE HANDLE

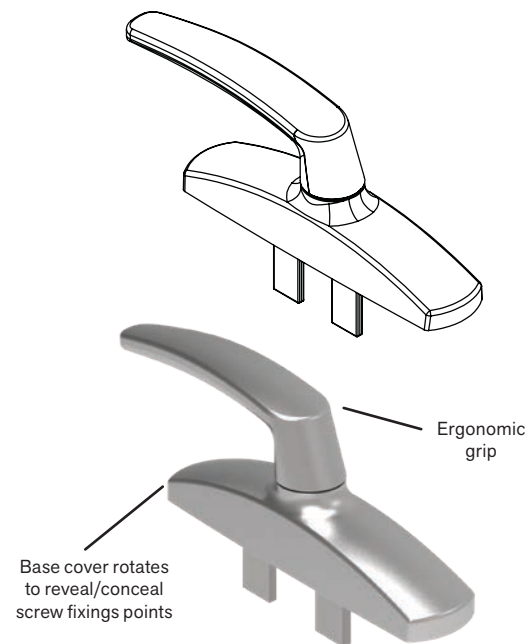
- Drive tongue length available in: 20mm, 30mm & 35mm
- Custom powder coat available



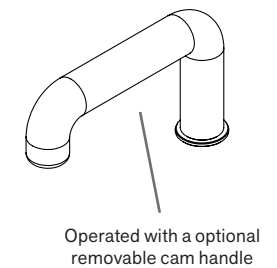
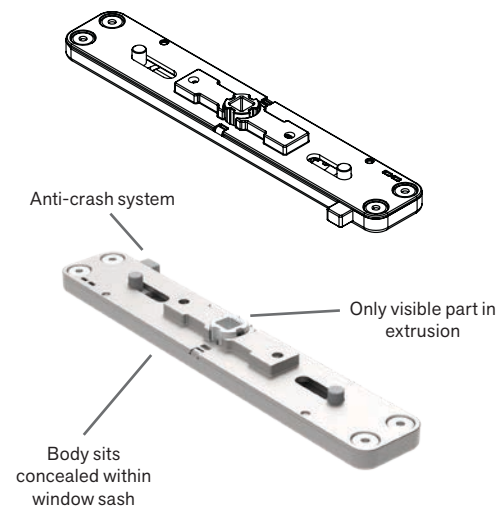
HANDLES

DN9508 | STAINLESS STEEL HANDLE

- Drive tongue length available in: 20mm, 30mm & 35mm
- Marine grade Stainless steel for advance corrosion resistance

**DN9501** | SUBMERGED ENGINE

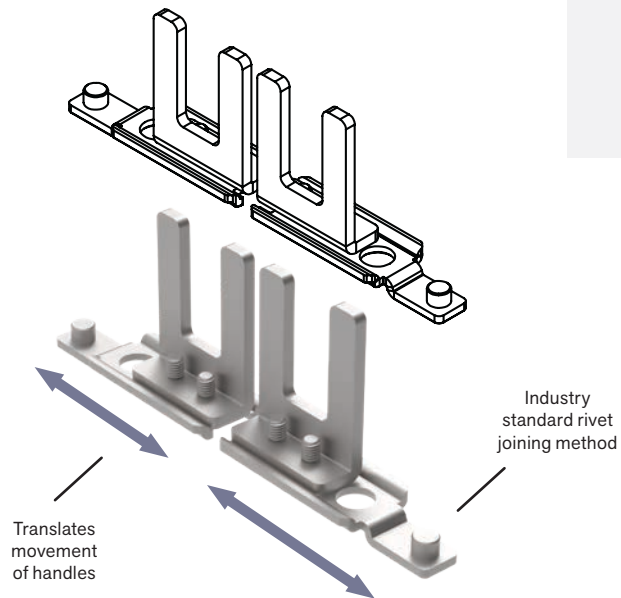
- Provides a clean aesthetic by allowing the lever to be the only visible component
- Ability to drive the multi point system directly
- Built-in anti-crash system
- Optional removable handle ideal for use when a window is not intended for opening except for service work



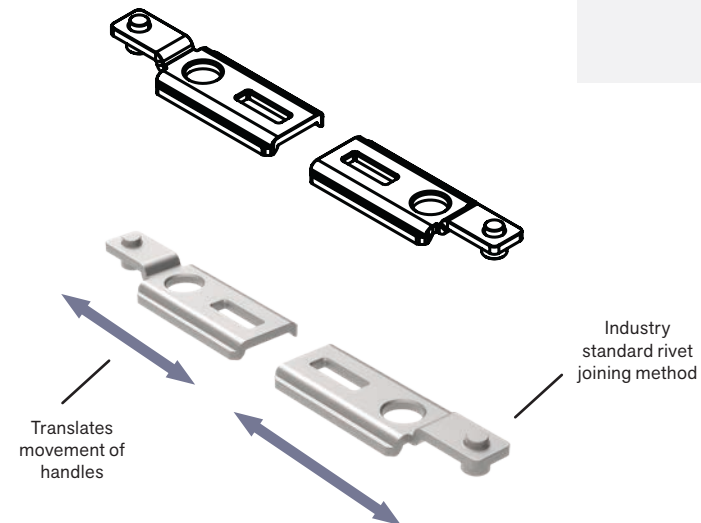
FUNCTIONAL PARTS

DN9520 | MAIN TRANSMISSION TYPE 1

- Suit front-mounted handles
- Transferring movement from the handle
- Marine grade stainless steel componentry

**DN9523** | MAIN TRANSMISSION TYPE 2

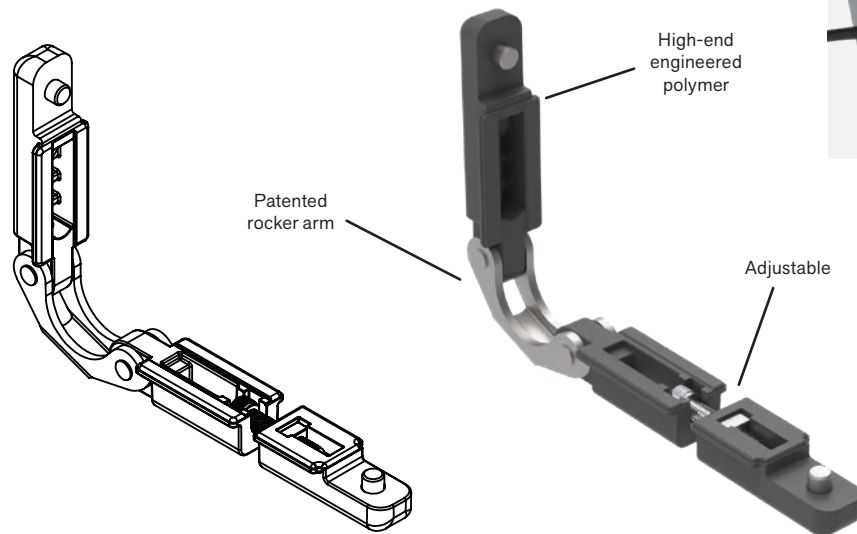
- Suit top-mounted handles
- Transferring movement from the handle
- Marine grade stainless steel componentry



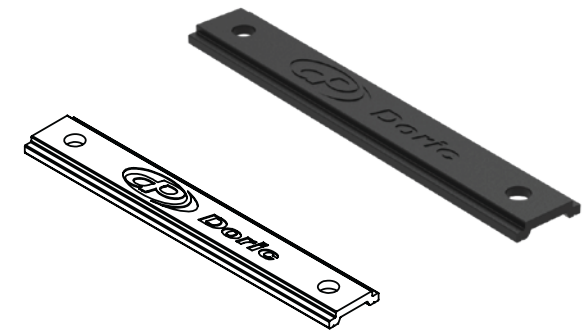
FUNCTIONAL PARTS

DN9510 | ADJUSTABLE CORNER TRANSMISSION

- Transferring sliding movement of the components around the sash corners
- Adjustable arm length to compensate the cutting length of the connecting bar
- High-end engineered polymer for enhanced mechanical, acoustic and corrosion-resistance performance
- Consisted of all non elastic components for enhanced durability
- Designed for super easy installation
- Patented design - PTC & Australian Patent Registered

**DN9543** | CONNECTING BAR

- Connecting components in the system
- High-end engineered polymer for enhanced mechanical, acoustic and corrosion-resistance performance



SELF-LATCHING SYSTEM



DN9546
SELF-LATCHING UNIT



DN9560
14.5mm SLS KEEPER
- DOUBLE EURO-GROOVE



DN9561
12.5mm SLS KEEPER
- DOUBLE EURO-GROOVE



DN9565
14mm SLS KEEPER
- SINGLE EURO-GROOVE



DN9566
12mm SLS KEEPER
- SINGLE EURO-GROOVE

SELF-LATCHING SYSTEM

The self-latching system offered in the Doric DN9500 multi point provides a fundamentally important role in the operation and safety of the fabricator window when installed at heights and where stronger weather conditions exists.

Designed to work as part of the multi point system, the patented designs have been engineered to fit, work and move using the euro-groove profile, not require any additional space or extrusion cut-outs to be made, and still function under the extreme stress loads and corrosion environment as the rest of the multi point offers.

Also known as "snap shut", the self-latching system allows the window to close, latch and be held closed during a high wind event. This provides a level of protection of the facade, sash and hardware, reducing if not removing the possibility of the window sash smashing into the window frame over and over again with wind gusts.

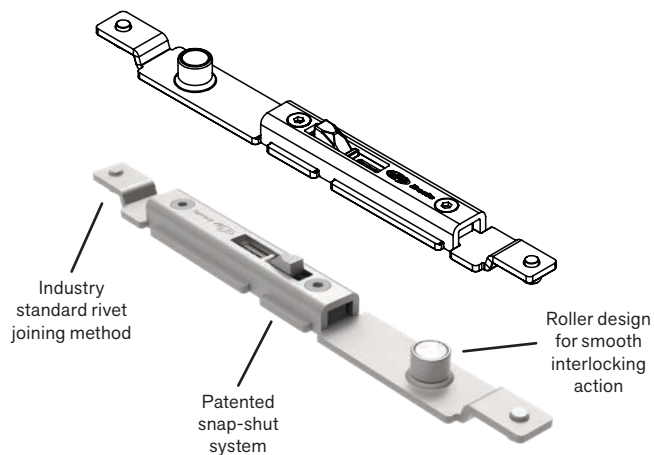
As part of the self-latching system, the self-latching restrictor stay design allows the window to close during a high wind event. The resistance provided by the stay against the wind load is adjustable to suit different applications. Built with high-end stainless steel, the restrictor stays provide outstanding mechanical performance and corrosion resistance.

Not all situations require the self-latching system and standard keepers can be utilised. The standard locking points and keepers also feature the high quality, stainless steel

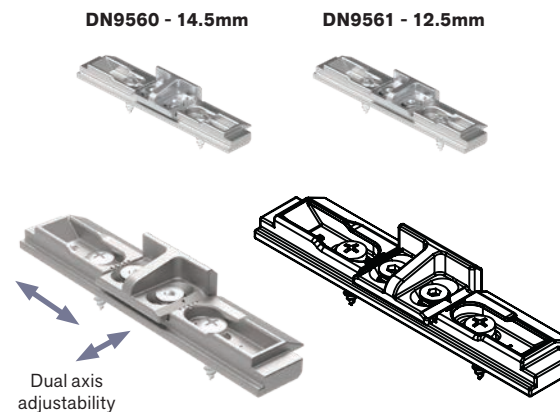
SELF-LATCHING SYSTEM (SLS)**DN9546 | SELF-LATCHING UNIT**

Self-latching functionality known as "snap shut" allows the window to be held closed if excessive wind force is experienced. This feature greatly improves the safety by engaging the sash to the frame

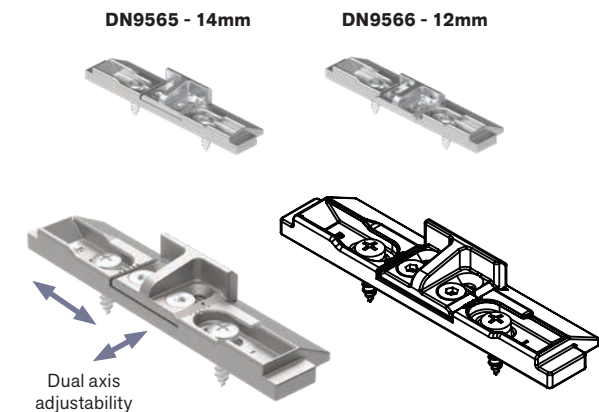
- Providing CLEAN finish on the window sash meaning no visible components will be seen on the window for this feature
- Marine grade stainless steel componentry
- High mechanical performance
- Patented snap-shut system

**DN9560 | 14.5mm SLS KEEPER**
- DOUBLE EURO-GROOVE**DN9561 | 12.5mm SLS KEEPER**
- DOUBLE EURO-GROOVE

- Suits double euro-groove windows
- Works with DN9546 self-latching unit
- Marine grade stainless steel componentry
- High mechanical performance
- Dual axis adjustability
- Available in 14.5mm and 12.5mm heights

**DN9565 | 14mm SLS KEEPER**
- SINGLE EURO-GROOVE**DN9566 | 12mm SLS KEEPER**
- SINGLE EURO-GROOVE

- Suits single euro-groove windows
- Works with DN9546 self-latching unit
- Marine grade stainless steel componentry
- High mechanical performance
- Dual axis adjustability
- Available in 14mm and 12mm heights

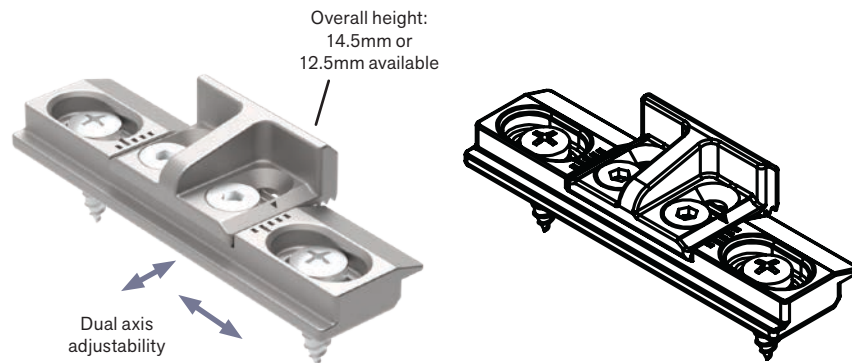


LOCKING POINTS AND KEEPERS

DN9570 | 14.5mm DOUBLE EURO-GROOVE KEEPER

DN9571 | 12.5mm DOUBLE EURO-GROOVE KEEPER

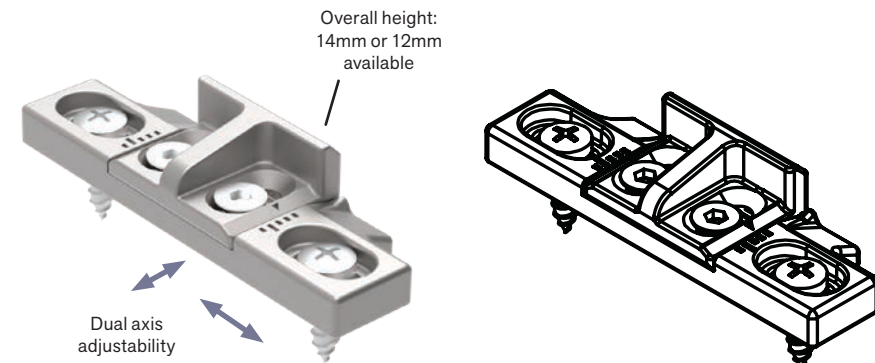
- Designed to suit double euro-groove windows
- Marine grade stainless steel componentry
- Dual axis adjustability
- Available in 14.5mm and 12.5mm heights



DN9575 | 14mm SINGLE EURO-GROOVE KEEPER

DN9576 | 12mm SINGLE EURO-GROOVE KEEPER

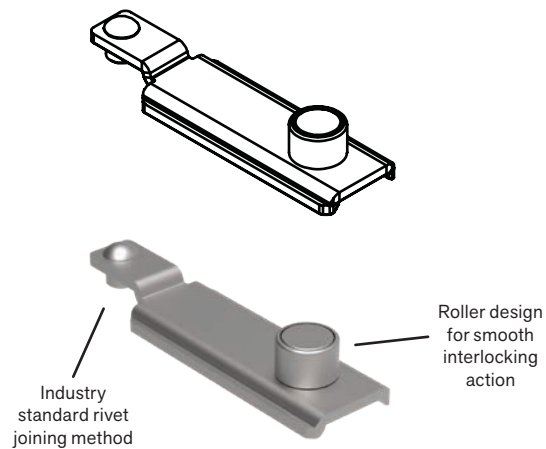
- Designed to suit single euro-groove windows
- Marine grade stainless steel componentry
- Dual axis adjustability
- Available in 14mm and 12mm heights



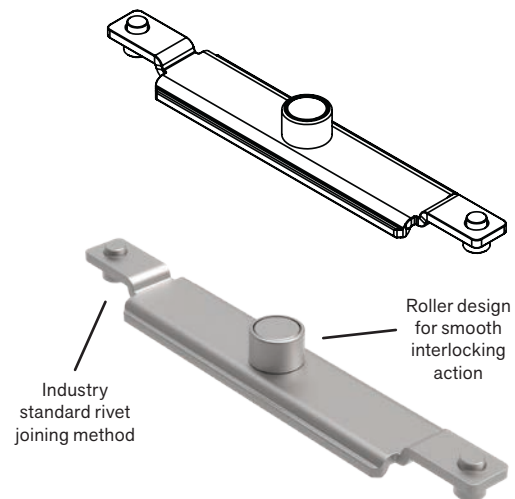
LOCKING POINTS

DN9511 | END TRANSMISSION

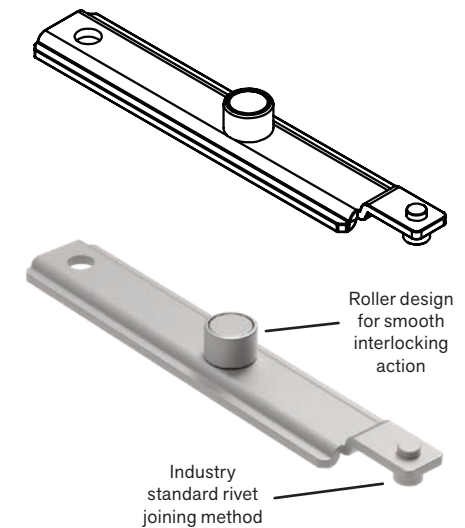
- Marine grade stainless steel componentry
- Roller design for smooth interlocking action
- High mechanical performance

**DN9512** | MID TRANSMISSION

- Marine grade stainless steel componentry
- Roller design for smooth interlocking action
- High mechanical performance

**DN9513** | LOCKING ATTACHMENT FOR CORNER TRANSMISSION

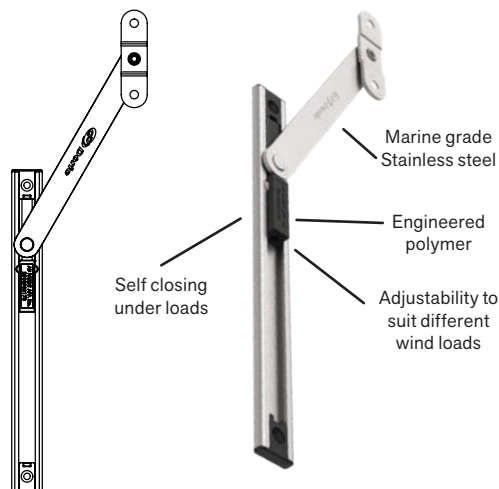
- Providing window holding force to the DN9510 corner transmission
- All the features of the standard locking points



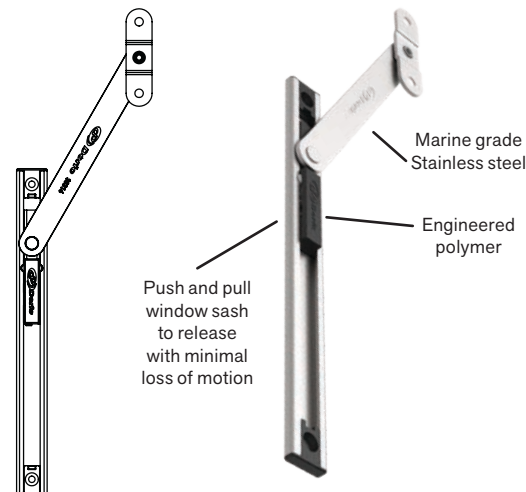
WINDOW STAYS

DN9591 | ADJUSTABLE SELF-LATCHING RESTRICTOR STAY

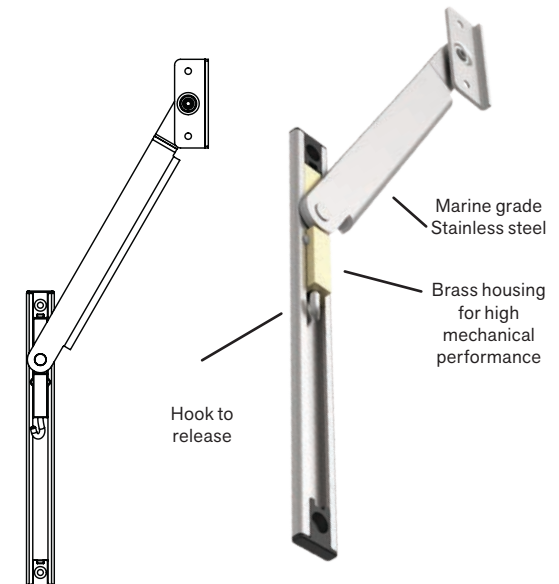
- Ability to allow window to close under wind load
- Marine grade Stainless steel and high-end engineered polymer
- Adjustability to suit different wind loads
- Structurally designed for high mechanical performance
- PTC & Australian Patent Registered
- Required in Self Latching System
- Non-handed design

**DN9592** | CLICK-CLACK SEQUENCING RESTRICTOR STAY

- Used to restrict the window in an open position, but by a simple push then pull action, the window can be closed
- Ability to allow window to be manually operated
- Patented design to provide easy actuation of the stay mechanism
- Marine grade Stainless steel and engineered polymer
- Structurally designed for high mechanical performance
- PTC & Australian Patent Registered
- Non-handed design

**DN9593** | HEAVY DUTY MANUAL RESTRICTOR STAY

- Used in high wind environments with ability to lock window in an open position
- Marine grade Stainless steel and brass
- Structurally designed for high mechanical performance
- Suits commercial projects

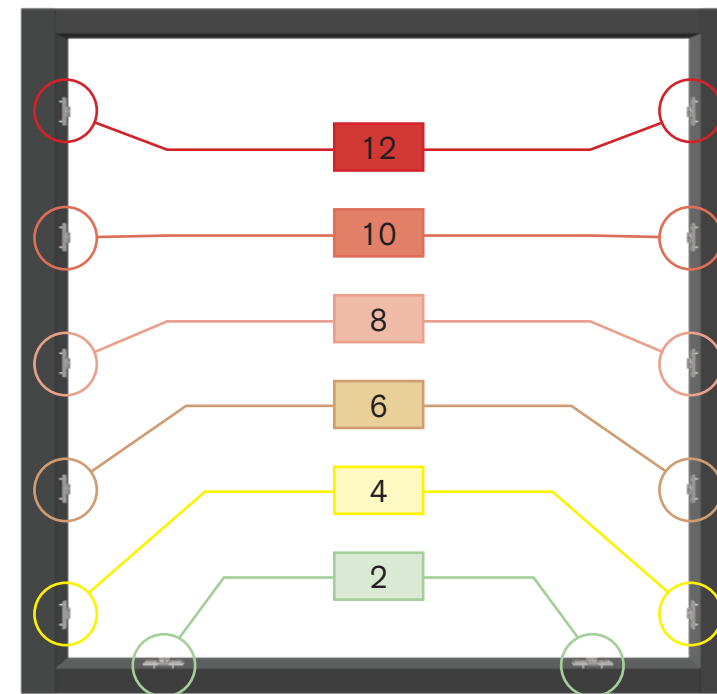


CONFIGURATION AND TESTING

A Guide to Locking Points Vs Wind Load

Different wind loads and the size/area of the window impact both the number and the location of locking points required. Quite simply, greater wind loads and areas of windows require additional locking points in order to compete with excessive loads applied to the window system during the course of its life. Failure to apply relative to windows application can lead to catastrophic failure. This is a guide which gets tested on each window system.

NO. OF POINTS		Wind Load (Pa)										
		2000	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000
Window Sash Area (m ²)	6.5	4	4	6	6	6	8	8	8	10	10	12
	6.0	4	4	4	6	6	6	8	8	8	10	10
	4.5	4	4	4	6	6	6	8	8	8	8	10
	5.0	4	4	4	4	6	6	6	8	8	8	8
	4.5	2	4	4	4	4	6	6	6	6	8	8
	4.0	2	4	4	4	4	4	6	6	6	6	8
	3.5	2	2	4	4	4	4	4	6	6	6	6
	3.0	2	2	2	4	4	4	4	4	4	6	6
	2.5	2	2	2	2	4	4	4	4	4	4	4
	2.0	2	2	2	2	2	2	4	4	4	4	4
	1.5	2	2	2	2	2	2	2	2	2	4	4
	1.0	2	2	2	2	2	2	2	2	2	2	2
	0.5	2	2	2	2	2	2	2	2	2	2	2



Note: Locking point locations vary with the height/width ratio of the window. The image is for illustrative purposes only.

Testing, Performance and Validation

Doric uses Azuma, a NATA accredited facility, for performance and quality testing. Azuma is a fully independent compliance testing and engineering company with ISO accreditation.

Hardware developed is put through rigorous tests used to validate the performance, ensuring standards are met and expectations are over achieved. Some of these tests include:

- Torque and driving force testing
- Load testing
- Neutral salt spray testing
- Cycle testing

For application specific hardware such as the DN9500, the capability to complete AS2047 Wind & Water Pressure test (System and hardware integration performance testing) is an additional option available for clients and their projects.



AUSTRALIAN OFFICE & TEST FACILITY

A: 38 Redfern Street,
Wetherill Park NSW 2164,
Australia

P: +61 (02) 9604 0255

E: contact@azumadesign.com.au



HONG KONG TEST FACILITY

A: Workshop 6, World-wide Industrial Centre,
43-47 Shan Mei St, Fo Tan,
Hong Kong

P: +852 2494 7370

E: testing@azumatesting.com

View our testing results

Visit our product information page
doric.com.au/product/dn9500



Testing, Performance and Validation



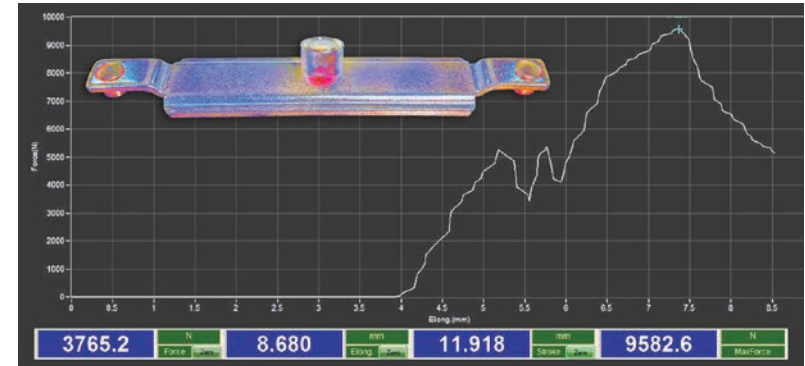
Cycle Testing

Runs the hardware through repeated actions testing its life time wear



Tensile Testing

Some hardware can be checked for strength limits through a Tensile Test



Ultimate Test

Hardware torture to find any possible failure points



Salt Bath

Neutral salt spray reveals corrosion resistance capabilities



Wind Water Rig

Tests hardware under hostile weather environments



CARE & WARRANTY

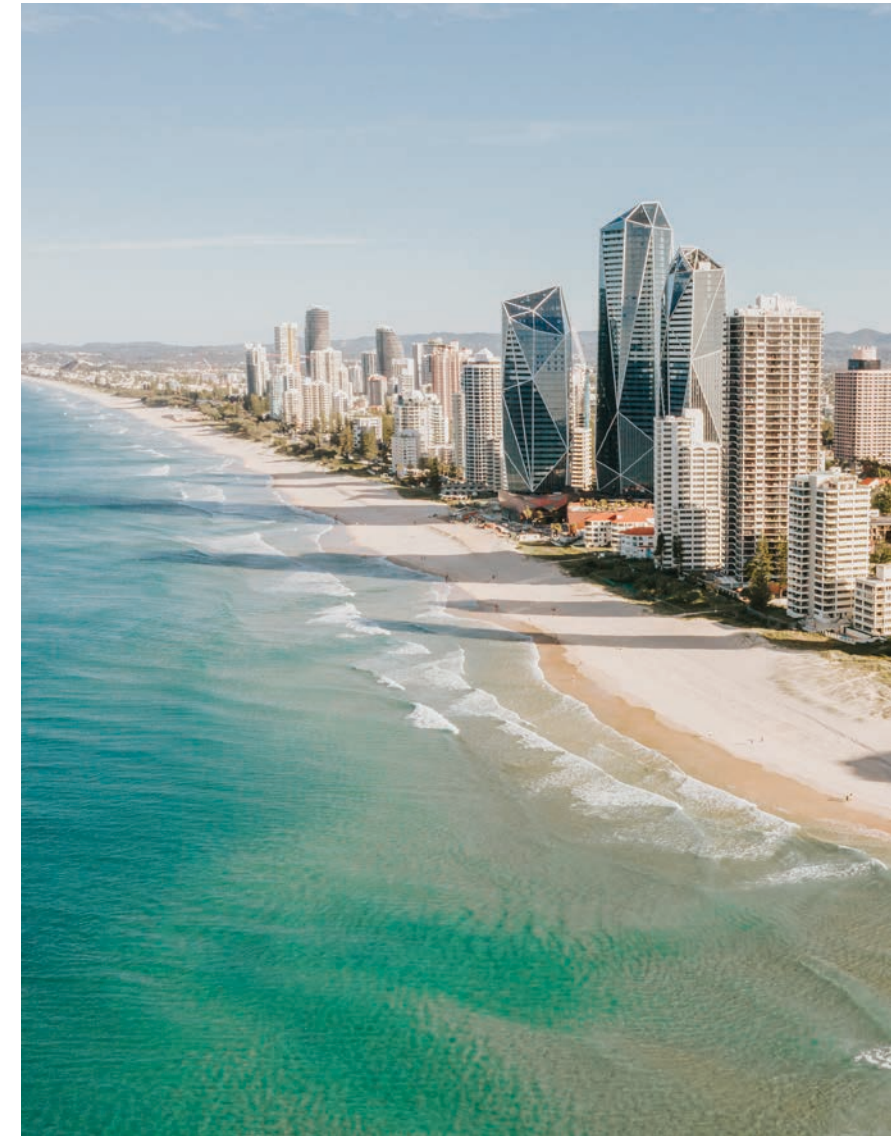
CARE & MAINTENANCE OF HARDWARE

In order to gain the maximum life from your Doric product, correct maintenance procedures should be followed.

GENERAL

The following guidelines provide recommendations for your maintenance program. It is important that maintenance be done on a regular basis, in line with the below suggested general cleaning and maintenance schedule, as well as any specific cleaning requirements in the specific cleaning process portion of this document.

Hardware is a component of the window or door system and so the cleaning schedule and guidance in this document is not a substitute for the maintenance required by the system, but is in addition.





The following table outlines the approximate environmental conditions (due to salinity or other corrosive environmental factors) and the respective maximum cleaning interval.

GENERAL CLEANING AND MAINTENANCE SCHEDULE	
Environmental Conditions	Recommended Maximum Cleaning Interval
Mild <ul style="list-style-type: none"> Greater than 10km radius of an oceanfront or saline bay Rural/Suburban 	Every 6 Months
Moderate <ul style="list-style-type: none"> Within 5km to 10km radius of an oceanfront or saline bay Coastal, River, Pool 	Every 2 to 3 Months
Marine <ul style="list-style-type: none"> Within 500m to 5 km radius of an oceanfront or saline bay Industrial 	Every 2 to 4 Weeks
Severe Marine <ul style="list-style-type: none"> Within 500m radius of an oceanfront or saline bay Heavy Industrial, Quarries etc. 	Every 1 to 2 Weeks

Please refer to and follow the specific cleaning advice guide below to ensure your Doric product warranty is not voided.

Regular inspection of the complete window or door system should be undertaken to ensure it is still in good working order, and not causing excessive loads on other components due to issues such as distorted frames, faulty hinges etc.

Check all fixing bolts and screws, and tight or replace as required.

A products surface and mechanism can be damaged by dirt, grime and salt and so must be regularly removed. The general cleaning process should be as follows (except where advised otherwise in the specific cleaning processes portion of this document):

- Wash with diluted mild liquid detergent in warm water
- Use a microfibre cloth, soft bristle brush or similar to clean the surface. Do not use abrasive tools
- Rinse surfaces thoroughly with fresh water
- Do not use strong solvent type cleaners on surfaces
- Do not use bore water for cleaning as its mineral content can bring stain the protective coating and lead to long term coating failure.
- Ensure cleaning fluids do not penetrate into the lock mechanism or cylinder.
- Some change in colour, gloss or chalking may be expected.

- Exposed mechanisms and parts should be cleaned with a non-metallic brush, and a small amount of Teflon based lubricant should be applied to prevent corrosion and lubricate moving parts. Be sure not to apply too much lubricant or it will adhere dust.

The following specific cleaning processes are recommended:

KEYED CYLINDERS OR BARRELS

Clean and lubricate once a year or more frequently in harsh environments proportional to the environmental conditions laid out in the General Cleaning and Maintenance Schedule or when inserting the key becomes rough.

Apply a small puff of graphite powder onto the key and insert into the lock barrel to maintain a smooth action.

Mechanisms and parts should be cleaned by applying a small amount of Teflon based lubricant on a soft bristle brush. This will prevent corrosion of exposed metal surfaces. Be sure not to apply too much lubricant or it will adhere dust.



POWDER COAT FINISHES

Clean every 3 months or more frequently in harsh environments proportional to the environmental conditions laid out in the General Cleaning and Maintenance Schedule.

Cleaning should be undertaken with diluted mild detergent in warm water with a soft rag. After cleaning, wipe down with fresh water. Do not use abrasive aids.

STAINLESS STEEL HARDWARE

Clean every 6 months or more frequently in harsh environments proportional to the environmental conditions laid out in the General Cleaning and Maintenance Schedule.

Stainless steel is generally low in maintenance and with proper care it will ensure you achieve maximum corrosion resistance and maintain its appearance. With appropriate cleaning discolouration can be easily removed and the product will generally return to its "new" state.

Most discolouration can be removed with a dedicated stainless steel cleaning solution, and a microfibre cloth. Refer to supplier guidelines.

Avoid Chlorine based products and cleaners, hydrochloric acid, cement dust, soap concentrates, water with high iron content and steel wool.

MESH

Clean every month or more frequently in harsh environments proportional to the environmental conditions laid out in the General Cleaning and Maintenance Schedule.

The mesh types available are:

- C Mesh - 316 Stainless Steel: Mesh manufactured from this material will provide a superior resistance to corrosion in all climatic conditions.
- Galvanised steel: Mesh manufactured from this material is not suited to highly acidic or salty environments such as beachside or industrial areas. This mesh provides a very good mechanical solution and meets all Australian standards.
- Perforated aluminium: Mesh manufactured from this material will provide very good resistance to corrosion in moderate climatic conditions.
- 'One way' mesh in perforated aluminium: Mesh manufactured from this material will provide very good resistance to corrosion in moderate climatic conditions.

In order to optimise the life span for these products the following regime must be observed:

1. Wash the mesh down with a neutral pH washing detergent (such as good quality car wash) and water. This will remove built up salt or acidic contaminants. These build ups, if allowed to sit for more than this period have the ability to destroy the barrier of powder coat.
2. Use a soft brush to gently and carefully remove any build-up of contaminants including dust and salt and then wash off with gentle pressure hose water. Salt build up will typically look like a grey/white coloured powder that tends to sit in the mesh holes. Failure to remove this build up quickly will lead to unsightly stains and eventually failure of the finish on the mesh.

Never use steel wool cleaning pads on stainless steel wire mesh. Cross contamination of the unalloyed "free iron" can result in brown rust stains on the stainless steel wire mesh.

We strongly recommend always using deionized/distilled water when cleaning stainless steel to prevent water spots.

ROLLERS

Clean roller tracks monthly or more frequently in harsh environments proportional to the environmental conditions laid out in the General Cleaning and Maintenance Schedule.

Remove all contaminants.

Every 6 months inspect roller tyres for wear or damage, clean roller tyres and remove all contaminants. Clean with weak detergent and warm water, rinse with cold water and wipe dry. Replace when necessary; it is always recommended to change rollers in pairs to minimise additional failure.

TRACKS, GUIDES, AND EXTRUSION

Clean every 12 months or more frequently in harsh environments proportional to the environmental conditions laid out in the General Cleaning and Maintenance Schedule.

- Keep free of dust and debris.
- Anodised Aluminium, Mill Finish - Wash with weak detergent and warm water, rinse with clean cold water.
- Powder Coat, Bronze, Brass - Keep free of dust and debris. Wash with weak detergent and warm water, rinse with clean cold water. Can be treated with minimal amount of wax polish.

ELECTROMECHANICAL

Clean electromechanical product monthly or more frequently in harsh environments proportional to the environmental conditions laid out in the General Cleaning and Maintenance Schedule.

- Do not use liquids or lubrication on electromechanical products.
- Use a microfibre cloth, soft bristle brush or similar to clean the surfaces. Do not use abrasive tools.
- Maintain and inspect for correct operation.
- Replace batteries where applicable according to the specification of the product or as batteries are drained.

LOUVRES

Clean and inspect every 6 months or more frequently in harsh environments proportional to the environmental conditions laid out in the General Cleaning and Maintenance Schedule.

- Check that the blade is seated firmly in position in the clips.
- Ensure all louvre blades and handles operate freely.
- Ensure that seals are in place, clean, and undamaged.



- **LOCAL SUPPORT**
- **NATIONAL BUSINESS**
- **INTERNATIONAL REACH**

Doric is one of the few Australian owned and operated businesses operating at this level.

For client projects, Doric's deal local approach means one-on-one support is there when you need it.



DORIC WARRANTY

Doric Products warrants its products to be free from defects in material and workmanship for a period of six (6) years and two (2) years for moving parts from the date of purchase and in-line with the Australian Window Association.

This warranty is limited to Doric's option to the repair, or at Doric's option, the replacement of any products proven to be faulty in manufacture or materials, with the same or equivalent product free of charge. Labour charges, transportation and other costs associated with the replacement or re-installation of the parts or product are excluded from this warranty and will not be paid by Doric Products.

Doric Products assumes no liability under the warranty for the following:

- Misuse, abuse, accidental or intentional damage, improper or negligent adjustment or operation by the purchaser,
- Improper or negligent maintenance or installation,
- Inaccurate or incorrect site or operational specifications,
- Repair or modification other than as authorised by Doric Products,
- Use contrary to the instructions furnished by Doric Products,
- Use of replacement parts other than authorised parts,
- 'Tea Staining' on stainless steel,
- Corrosion related damage when used in a corrosive environment,
- Tarnish or excessive wear on soft finishes such as brass or bronze as deterioration is possible under some climatic conditions, frequency of use or other factors.

Soft Finishes:

1. It is important to note that soft finishes will age (deteriorate). The speed of aging will depend on the climatic location and the amount of use.
2. Tarnishing is a fact of soft finishes. The speed of tarnishing will depend on the climatic location and the amount of use.
3. All soft finishes are easily damaged by chemicals such as cleaning solvents, glass clears, brick acid and many other chemicals. Use of these chemicals will damage the finish.
4. Due to the above points Doric Products assumes no liability under this warranty for aging or damage to soft finishes.

To the extent permitted by law, this warranty is the only warranty granted by Doric Products and is in lieu of all other express or implied warranties or guarantees. There are no implied warranties or as to the merchantability, quality or fitness for purpose other than for the purpose they were designed for.

In all other respects the standard terms and conditions of Doric Products apply.

The customer expressly acknowledges and agrees that it has not relied upon, and the company is not liable for any advice given by the Company, its servants, agents, representatives or employees in relation to the suitability for any purpose of the Goods.

The provisions of any act of law (including but not limited to the trade practices Act 1974) implying terms, conditions and warranties, or any other terms, which might otherwise apply to arise out of the agreement between the company and the customer in relation to

the goods (the "Agreement"), are hereby expressly negated and excluded to the full extent permitted by law.

Selected Doric hardware items are available in a range of durable quality finishes obtained by careful processing and rigid specifications and standards.

When selecting a finish, it is important that climatic conditions and frequency of usage be taken into consideration, as some finishes are more susceptible to deterioration than others.

This warranty shall be interpreted in accordance with and governed by the laws of New South Wales, Australia.

Important Coastal Information

Coastal environment is extremely harsh on finish and materials. Doric Products strongly recommends that any building situated within 5 kilometres of the coast or affected by direct coastal breeze, should only use Polesium™, aluminium or 316 grade stainless steel hardware. Doric Products recommends that all its products exposed to harsh climatic conditions should be washed and cleaned every month with a mild detergent to stop salt build up and all cylinders should be lubricated with a suitable graphite powder as Doric Products will not replace hardware that is in a corrosive environment which has not been maintained.

On discovery of any defect in goods, the customer must immediately notify Doric Products in writing of such defect. The customer must not carry out any remedial work to allegedly defective goods without first obtaining the written consent of the company to do so.

PREVIOUS PROJECTS



Chep Lap Kok - Hong Kong **11 SKIES Skycity, HKIA**

11 Skies is expected to be Hong Kong's largest Hub for retail dining and entertainment. The commercial development will feature a total gross floor of 3.8 Million square feet and three Grade-A office towers operated under K11 Atelier.

Builder & Developer

Hip Seng Facade Construction & Eng Co., Ltd

Products Used

- DN9000** | Multi-Point Locking System
- DN9001A** | Automatic Yielding Stay
- DN9001M** | HD Heavy Duty Automatic Yielding Stay
- DN9104 & DN9105** | Window Indicator
- DN9101** | Concealed Engine & Safety Removable Handle

Kowloon - Hong Kong

888 LAI CHI KOK ROAD

888 Lai Chi Kok Road is an exquisite Grade-A office landmark located in Kowloon West. The commercial development will feature a total gross floor of 580,6000 square feet.

Builder & Developer

Hip Seng Facade Construction & Eng Co., Ltd

Products Used

- DN9000** | Multi-Point Locking System
- DN9001A** | Automatic Yielding Stay
- DN9104** | Window Indicator
- DN9101** | Concealed Engine & Safety Removable Handle



PREVIOUS PROJECTS

Australia - VIC

Melbourne Square

Melbourne Square is a building complex of residential, hotel and commercial towers in the Southbank precinct of Melbourne. The site location has ready access to a variety of public amenities: Crown Casino, the Southbank Arts and Entertainment precincts, Royal Botanic Gardens, Queen Victoria Park, Melbourne Cricket Ground, Australian Open tennis centre, major employment precincts and internationally renowned retail shopping as well as a myriad of bars and cafes.

Builder & Developer

OSK Property & Multiplex

Products Used

DN8000 | Multi-Point Locking System

DN9000 | Multi Point Locking System

DN9001 | Heavy Duty Adjustable Restrictor Stay



Surfers Paradise - QLD

Jewel Tower

The Jewel Tower will be Australia's largest beach front mixed-use development located on the Gold Coast. The luxury development will include a three-level podium, a 6-star hotel comprising 169 suites and 512 one, two and three-bedroom luxury apartments and premium residences.

Architect

Wanda

Builder & Developer

Wanda Ridong Development Pty Ltd / Multiplex

Products Used

DN8000 | Multi-Point Locking System

DN400 | Twin Chainwinder for awning windows

DS920 | Waikato Sliding Patio Door Lock

DR4021 | Sliding Door Quad-wheel Roller

PREVIOUS PROJECTS



Broadbeach - QLD

Elysian Broadbeach

Spread across 825m² of land, the Elysian Broadbeach Apartments features beach front and hinterland views from each of its 59 apartments, maximum to 4 per floor. Elysian is a luxury property for those who appreciate the very best in boutique-urban design, residential innovation in the way of home connectivity and uninterrupted views that overlook one of the most desirable destinations on the Gold Coast.

Builder & Developer

Hutchinson Builders / Spyre Group

Products Used

- DN9010 | L-Corner Trans
- DN9011 | End Trans
- DN9021 | Main Trans
- DN9038/DN8038 | Adjustable Euro Groove Keeper
- DN8006 | Handle Black
- DN9001 | Adjustable Holding Restrictor Stays



Melbourne - VIC

COLLINS ARCH

Builder & Developer

Yuanda / Multiplex

Products Used

- DN8000 | Multi-Point Locking System
- DN165 | Heavy Duty Adjustable Restrictor

Collins Arch located on Collins Street in Melbourne CBD includes 200 luxury residential apartments, occupying occupy components in both the East and West Towers. The East Tower comprises of 139 apartments commencing from level 16 up to level 33. The West Tower comprises of 61 apartments between levels 34 and 39 including 4 penthouse apartments.

INNOVATORS

OF HARDWARE FOR WINDOWS AND DOORS

CONTACT US

Doric has the most comprehensive range of awning window hardware solutions of any manufacturer. Choosing the right product can greatly improve the function of the windows and quality of the project.

If you have any questions or just want to know more, we can be conveniently reached:



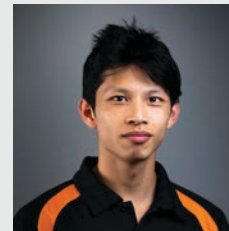
Magda Kurtyka

SUPPLY CHAIN EXPORT COORDINATOR

ALCHIN LONG GROUP | DORIC AUSTRALIA

Tel: +61 449 904 611

Email: magda.kurtyka@doric.com.au



Jango Tsang

GRADUATE MECHANICAL ENGINEER

ALCHIN LONG GROUP | AZUMA

Tel: +61 2 9604 0255

Email: jango.tsang@azumadesign.com.au

SYDNEY

38 Redfern St,
Wetherill Park
Sydney, NSW 2164
Australia
Ph: +61 2 9609 2555
www.doric.com.au

AUCKLAND

26/C Triton Drive,
Albany, North Shore,
Auckland 0632
New Zealand
Ph: +64 9 415 5535
www.doric.co.nz

KUALA LUMPUR

Unit 6, Level 4, SetiaWalk Mall (Block K),
SetiaWalk, Persiaran Wawasan,
Pusat Bandar Puchong,
47160 Puchong, Selangor, Malaysia
Ph: +603 8602 2100
www.doric.com.my





The Alchin Long Group story began in Sydney, 1969. As a family owned and operated company, ALG strive to create innovative door & window hardware solutions through a culture of empowerment and develop a customer focused family culture.



Doric began in Sydney, Australia in 1972 manufacturing brass window and door hardware for commercial buildings. Doric has evolved to become the largest privately-owned brand in Australia and has won multiple Innovative Component Design Awards. Today, Doric is the #1 supplier to the OEM market in Australia, is expanding further into New Zealand and Malaysia markets, and aims to become the hardware partner of choice for fabricators across the globe.



Azuma is an independent NATA accredited mechanical testing facility that sets the standard for industry testing compliance. It has become one of Australia's largest privately-owned compliance and testing company with their services extending internationally. Azuma performs mechanical testing for various building products & structures, as well as destructive testing that sets the standard for industry testing compliance.

INNOVATORS

OF HARDWARE FOR WINDOWS AND DOORS

SYDNEY

38 Redfern St,
Wetherill Park
Sydney, NSW 2164
Australia
Ph: +61 2 9609 2555
www.doric.com.au

AUCKLAND

26/C Triton Drive,
Albany, North Shore,
Auckland 0632
New Zealand
Ph: +64 9 415 5535
www.doric.co.nz

KUALA LUMPUR

Unit 6, Level 4, SetiaWalk Mall (*Block K*),
SetiaWalk, Persiaran Wawasan,
Pusat Bandar Puchong,
47160 Puchong, Selangor, Malaysia
Ph: +603 8602 2100
www.doric.com.my

