



Series 463 Double-Hung Window



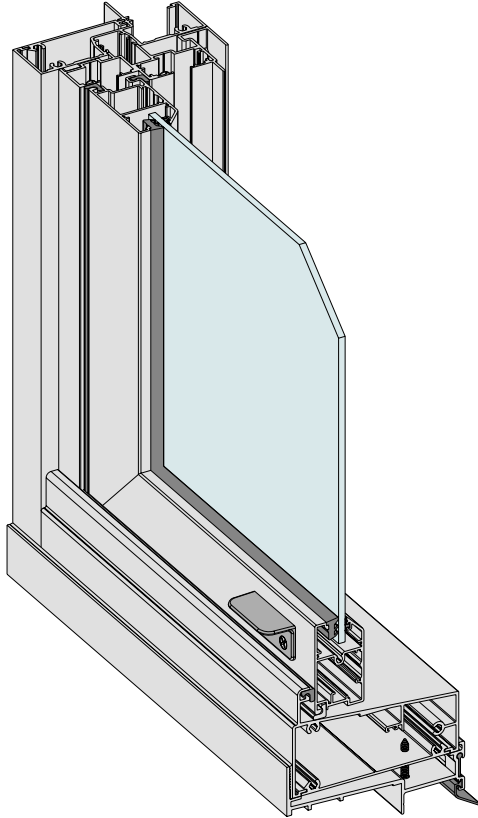
Photo courtesy of Lifestyle Windows



Series 463 DOUBLE-HUNG WINDOW

DATE: MAY 13
REPLACES: JUNE 06
SCALE: NOT TO SCALE

KEY FEATURES/PERFORMANCE CHARACTERISTICS

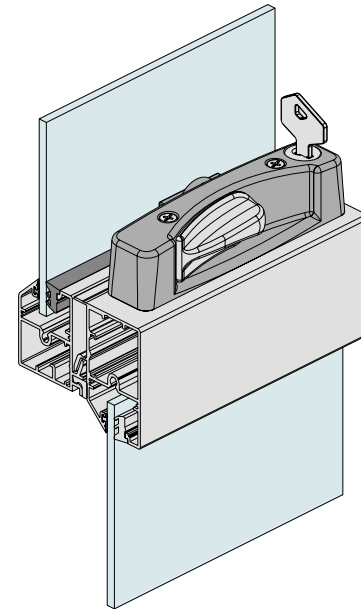


Series 463 Architectural Double-hung window internal view.

Maximum Panel Height*	1010mm
Maximum Panel Width*	1510mm
Maximum Glass Thickness	≤20mm

* Subject to individual site conditions and wind loads. Contact AWS Technical Support for more information, email techsupport@awsaustralia.com.au

- This 102mm thick commercial grade double-hung window has been designed with bold frame lines and 30mm thick (strong) sashes that can carry heavy glass including 20mm IGUs.
- The perimeter frame has been designed to make installation into brick veneer and cavity brick easier with built-in nailing fins (weather bars).
- Extra strong sashes allow large sash windows to be fabricated for high wind load areas.
- Both sashes can be hinged back into the room to allow cleaning of both sides of the glass from inside, without removing the flyscreen.
- Sashes can be secured with custom key or non-key locking cam handle.
- Double-hung windows can be fitted with external flyscreens within the frame line, no turn buckles required.
- Successfully tested for compliance and drainage at 450Pa water resistance



This detail shows the custom ANDO™ cam lock, main features:

- No handle projection back into the room.
- Available in a large range of powder coat finishes to match window metal colour.
- Heavy duty die cast keeper.



2D & 3D CAD FILES AVAILABLE

To access 2D & 3D CAD models visit our online specifier resource centre www.specifyaws.com.au



MORE INFORMATION

For the latest updates regarding this product visit our website www.elevatealuminium.com.au/463

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SOUND REDUCTION

A number of glass combinations have been tested with this system to achieve sound reduction numbers listed below.

Glass Description	Rating
6.38mm Laminated glass	Rw32

NOTE: The actual tests were carried out on a product very similar to this window (Series 613).



WERS RATINGS

Single Glazed

Window ID	Glass Type	Uw	SHGCw	Tvw	Inf
AWS-031-01	5CLR	6.5	0.58	0.60	4.75
AWS-031-02	5SG	6.5	0.40	0.49	4.75
AWS-031-03	5GY	6.5	0.43	0.34	4.75
AWS-031-04	6.38Sct	5.0	0.47	0.54	4.75
AWS-031-05	6.38VLam	6.4	0.57	0.60	4.75
AWS-031-06	4SnClr	5.4	0.43	0.46	4.75
AWS-031-07	6SnClr	5.3	0.42	0.45	4.75
AWS-031-08	6EVanBG	5.4	0.42	0.45	4.75
AWS-031-09	6EVanClr	5.2	0.44	0.45	4.75
AWS-031-10	6EVanGy	5.2	0.29	0.22	4.75
AWS-031-11	6EVanSpB	5.2	0.26	0.26	4.75
AWS-031-12	6EVanSpGn	5.2	0.26	0.32	4.75
AWS-031-13	6.38LamGy	6.4	0.26	0.09	4.75
AWS-031-14	6.38TLam	6.4	0.29	0.22	4.75
AWS-031-15	6.38SnClr	5.3	0.41	0.45	4.75
AWS-031-16	6.38SnGy	5.3	0.31	0.21	4.75
AWS-031-17	6.38CPClr	5.0	0.48	0.55	4.75
AWS-031-18	6.38CPGn	5.0	0.48	0.55	4.75
AWS-031-19	6.38CPGy	5.0	0.35	0.26	4.75
AWS-031-20	10.38GyLam	6.5	0.20	0.08	4.75
AWS-031-21	10.38ClrLam	6.5	0.45	0.45	4.75
AWS-031-22	10.38SnClr	5.4	0.39	0.44	4.75
AWS-031-23	10SnClr	4.9	0.36	0.41	4.75
AWS-031-24	10.38TLam	5.1	0.37	0.41	4.75

HOW TO SPECIFY

SYSTEM NAME

Elevate™ Aluminium Systems
 Series 463 Double-Hung Window

FINISH

Powder Coat
 Anodised

COLOUR

Select from the AWS range of approved powder coat or anodising colours

GLASS

Specify thickness ≤20mm

Specify thermal performance where applicable (Uv & SHGC)

Specify acoustic performance where applicable (RW)



Specification Assistance

Need help specifying this product? Email techsupport@awsaustralia.com.au and our qualified technical advisors will assist you with product selection and specification for your project.

NOTES

1. Uw is the whole window U-value
2. SHGCw is the whole window solar heat gain coefficient
3. Tvw is the whole window visible (light) transmittance
4. Maximum air infiltration is 5.0L/s.m² at a positive pressure difference of 75 Pa as measured according to AS 2047
5. Static performance (Uw SHGCw Tvw Tdw) calculated using Window 6.3 and Therm 6.3 software (LBNL), 1999-2010
6. Results disclosed at Australian Fenestration Rating Council (AFRC) regulations.
7. Ratings for use with Section J of the Building Code of Australia - Class 2-9

For the latest WERS data for this system visit www.wers.net

Series 463

DOUBLE-HUNG WINDOW

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WERS RATINGS

Double Glazed

Window ID	Glass Type	Uw	SHGCw	Tvw	Inf
AWS-031-25	4/10/4	4.5	0.52	0.54	4.75
AWS-031-26	5/8/5	4.6	0.51	0.54	4.75
AWS-031-27	4/10/4ET	4.0	0.49	0.50	4.75
AWS-031-28	4/10Ar/4ET	3.8	0.49	0.50	4.75
AWS-031-29	4Az/10/4ET	4.0	0.29	0.42	4.75
AWS-031-30	5SG/8Ar/5ET	4.0	0.29	0.41	4.75
AWS-031-31	4SnClr/10/4	4.2	0.38	0.42	4.75
AWS-031-32	4SnClr/10Ar/4	4.0	0.37	0.42	4.75
AWS-031-33	6.38CPClr/8/4	4.2	0.43	0.50	4.75
AWS-031-34	6.38CPClr/8Ar/4	3.9	0.43	0.50	4.75
AWS-031-35	6.38CPGy/8/4	4.2	0.31	0.24	4.75
AWS-031-36	6.38CPGy/8Ar/4	3.9	0.30	0.24	4.75
AWS-031-37	6SnClr/10/6	4.1	0.36	0.41	4.75
AWS-031-38	6SnClr/10Ar/6	4.0	0.36	0.41	4.75
AWS-031-39	10SnClr/6/6	4.4	0.35	0.40	4.75
AWS-031-40	10SnClr/6Ar/6	4.2	0.35	0.40	4.75

NOTES

1. Uw is the whole window U-value
2. SHGCw is the whole window solar heat gain coefficient
3. Twv is the whole window visible (light) transmittance
4. Maximum air infiltration is 5.0L/s.m² at a positive pressure difference of 75 Pa as measured according to AS 2047
5. Static performance (Uw SHGCw Twv Tdw) calculated using Window 6.3 and Therm 6.3 software (LBNL), 1999-2010
6. Results disclosed at Australian Fenestration Rating Council (AFRC) regulations.
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DESIGN FEATURES

The high performance 30mm thick double-hung sashes can be fitted into 102mm commercial frame using custom head, sill and jamb inlay adaptor.

The extra strong sashes allow large sash windows to be fabricated for high wind load areas.

102mm x 44mm head and sill, 102mm x 30mm jamb, 44mm mullion and matching 44mm transoms.

The wide (102mm x 44mm) jamb can also be used on this window.

Both sashes can be hinged back into the room to allow cleaning of both sides of the glass from inside, without having to remove the flyscreen.

Sashes can be secured with ANDO™ custom key or non-key locking cam handle.

When windows are powder coat finished the lower corners on top sash are fitted with die-cast horns as standard. Horns are not available in anodised finishes.

For more contemporary design homes we can also supply sashes without sash horns, as shown on following page. Clearly nominate your preference when ordering windows.

Double-hung windows can be fitted with external flyscreens within the frame line, no turn buckles required.

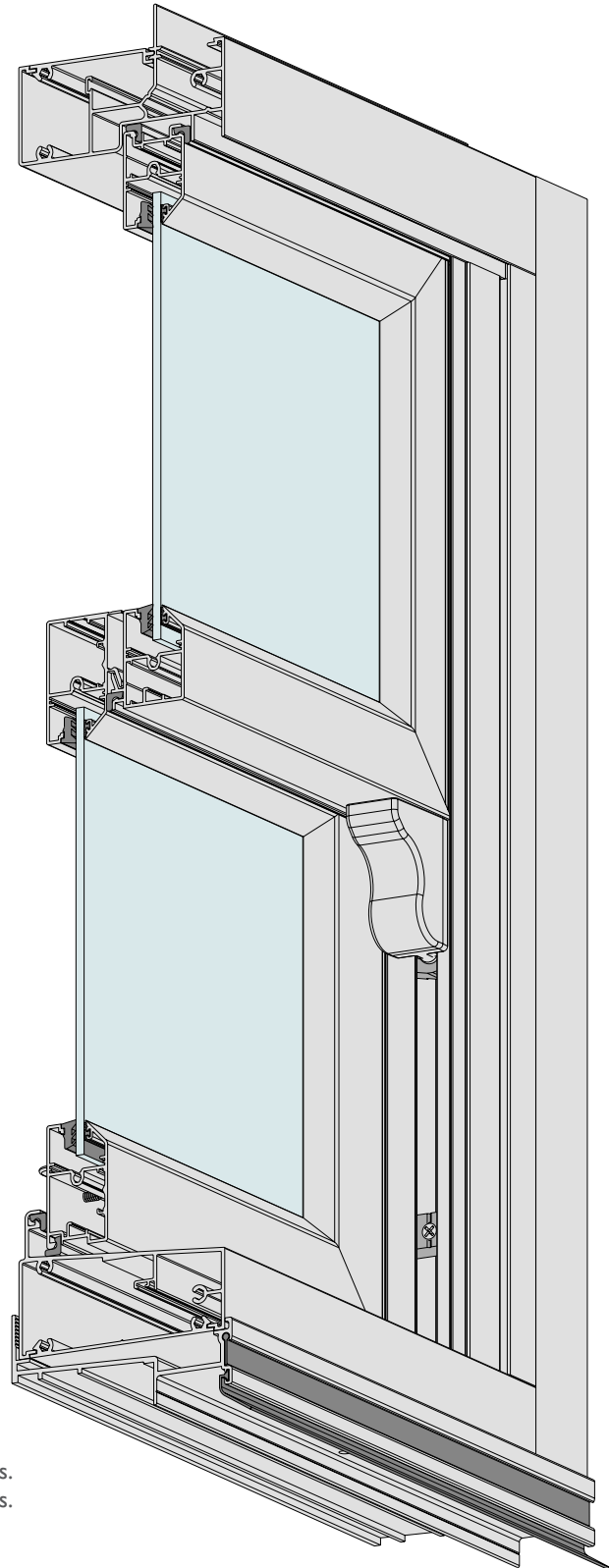
We have 90° and 135° corner mullions for box and bay windows.

Sashes will accept a variety of glass thicknesses from 4mm single panes to 20mm insulating glass units. We have dedicated sashes for 20mm insulating glass units.

Compatibility:

We have designed a number of compatible framing suites that can be coupled or used together:

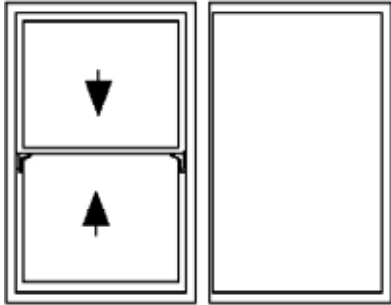
- Series 400 CentreGLAZE™ framing.
- Series 406 SG FrontGLAZE™ framing (102mm wide).
- Series 424 DG CentreGLAZE™ framing.
- Series 426 DG FrontGLAZE™ framing (102mm wide).
- Series 407 FaceLINE™ framing (102mm wide).
- Series 410 FoldMASTER™ Bi-fold doors and windows.
- Series 411 ViewMASTER™ Bi-fold doors.
- Series 412 ViewMASTER™ Bi-fold doors.
- Series 461 Apartment sliding window.
- Series 471 Apartment sliding door.
- Series 702 Performance SlideMASTER™ sliding door (102mm).
- Series 704 Architectural SlideMASTER™ sliding door (102mm).
- Series 462 Architectural commercial sliding window.
- Series 464 Architectural ClearVENT™ commercial sashless double-hung window.
- Series 466 Architectural commercial awning & casement windows.
- Series 467 Architectural commercial awning & casement windows.



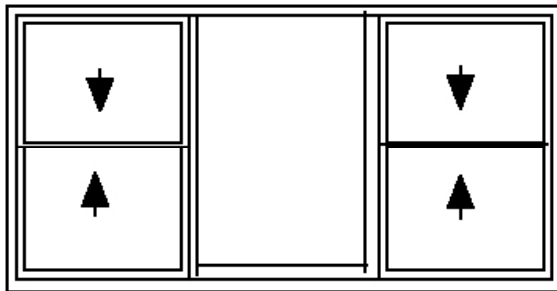
Series 463 DOUBLE-HUNG WINDOW

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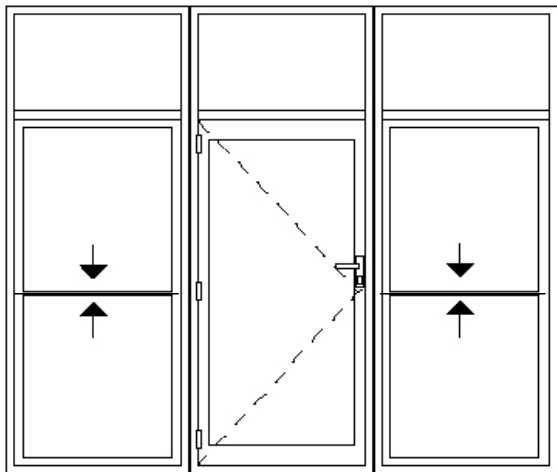
TYPICAL CONFIGURATIONS



The fixed sidelight panel is snapped to double-hung window.

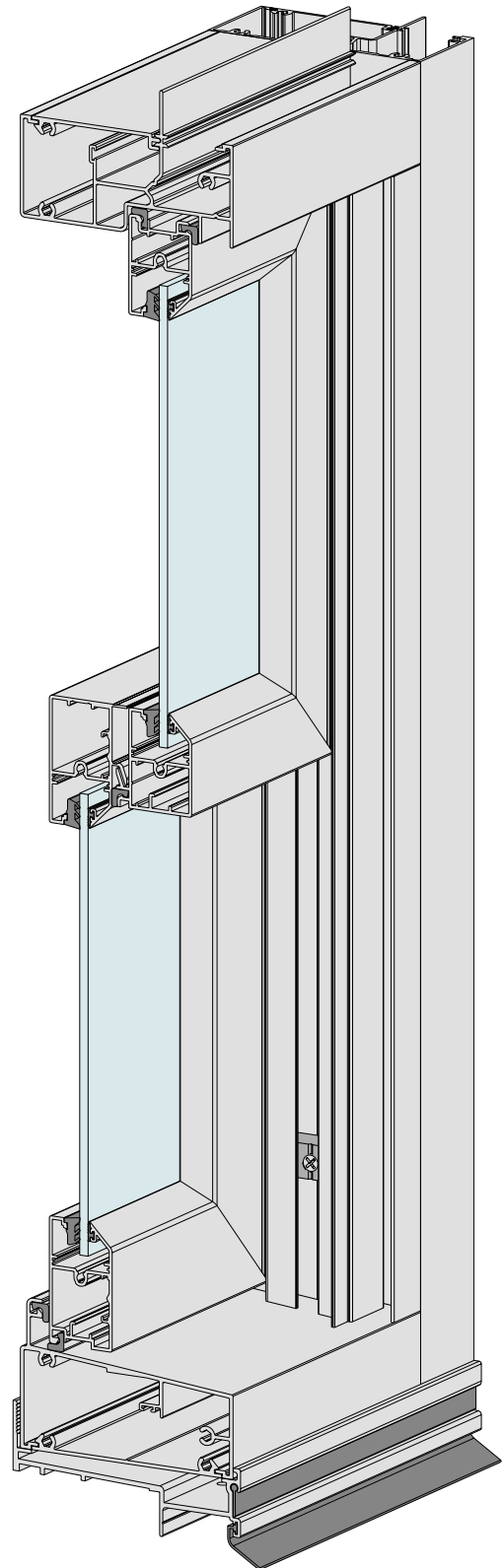


Sash horns are standard on Series 463 top sash as shown on previous page. Windows can be fabricated without horns if required as shown on this page, clearly nominate this (NO SASH HORNS) at the time of ordering.



Safety Glass:
 On the example above, the door panel and the two double-hung sidelights would require grade 'A' safety glass. Refer Australian Standard AS 1288 for more information.

The sub-sill is standard on Series 463 double-hung windows



Series 463 DOUBLE-HUNG WINDOW

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SASH STRENGTH

Rating tables for window meeting rails on this page.

S = Serviceability limit state (deflection = L/180 or deflection L/250).

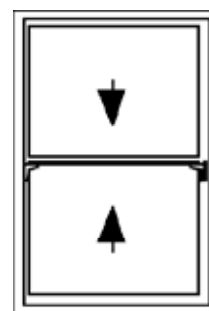
U = Ultimate strength limit state (factored yield strength = 104MPa).

These tables have been calculated using nominal section properties.

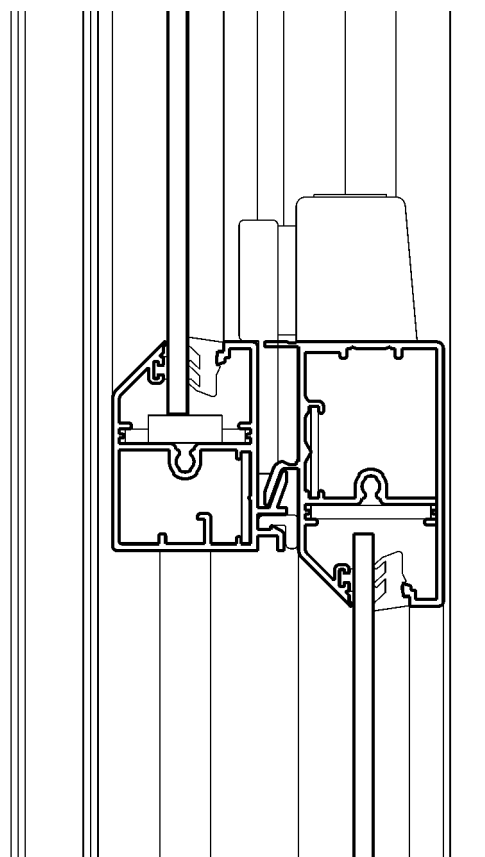
A typical assembly has been tested as per the requirements of AS 2047.

Serviceability rating has been limited to 3333Pa and

Ultimate strength rating has been limited to 5000Pa.



Type 'D' window				
Height mm	Width mm	L/180 S	L/250 S	U
1774	830	3333	3333	5000
1774	930	3333	3333	5000
1774	1030	3333	3333	5000
1774	1130	3333	3333	5000
1774	1230	3324	2376	4986
1774	1330	2402	1729	3985
1774	1430	1809	1302	3270
1774	1530	1399	1008	2738
1874	830	3333	3333	5000
1874	930	3333	3333	5000
1874	1030	3333	3333	5000
1874	1130	3333	3333	5000
1874	1230	3235	2329	4877
1874	1330	2339	1684	3871
1874	1430	1753	1262	3161
1874	1530	1351	973	2637
1974	830	3333	3333	5000
1974	930	3333	3333	5000
1974	1030	3333	3333	5000
1974	1130	3333	3333	5000
1974	1230	3190	2297	4800
1974	1330	2290	1648	3780
1974	1430	1706	1229	3070
1974	1530	1310	943	2551
2074	830	3333	3333	5000
2074	930	3333	3333	5000
2074	1030	3333	3333	5000
2074	1130	3333	3333	5000
2074	1230	3163	2278	4753
2074	1330	2252	1622	3711
2074	1430	1669	1201	2995
2074	1530	1275	918	2478



Water Resistance = 450Pa

AWS always recommend sub-sills under commercial windows

Sound Transmission

Estimated sound reduction based on other similar windows tested.

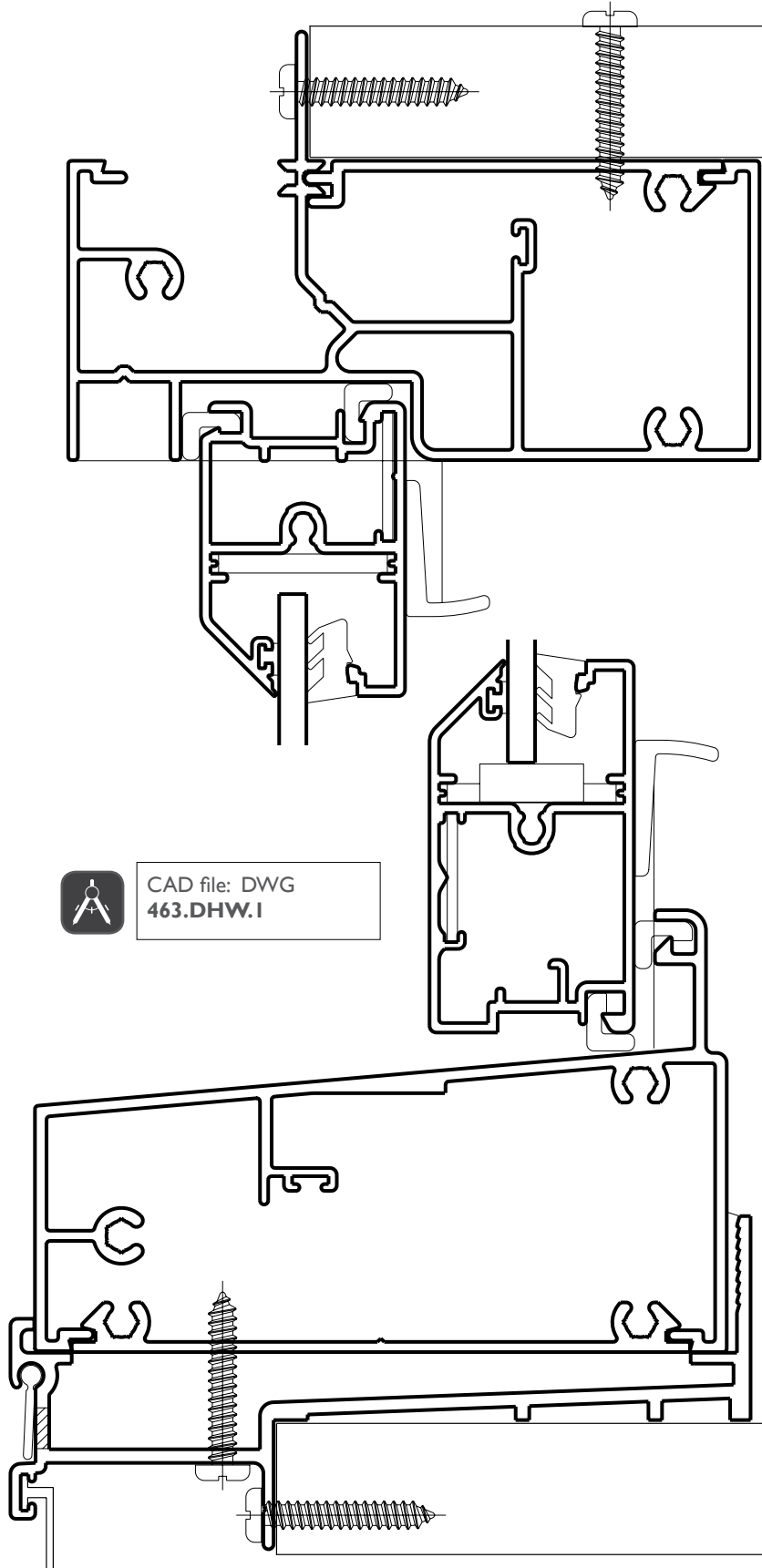
6.38mm Laminated = 27dB(A)

Wind Ratings (Pa) meeting rails.

Series 463
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HEAD AND SILL



Head

We have a dedicated head section to allow the installation of double-hung window sashes into commercial framing.


Built-in nailing fin on head, jambs and sub-sill make this window significantly more water proof and easier to install into brick veneer and cavity brick walls.

Heavy duty 30mm thick double-hung sashes.

Sill

We have a dedicated sill section to allow the installation of double-hung window sashes into commercial framing.

Sub-sill is standard on Series 463 double-hung window as shown left. This sub-sill has custom moulded nylon end stops.

 CAD file: DWG
 463.DHW.1

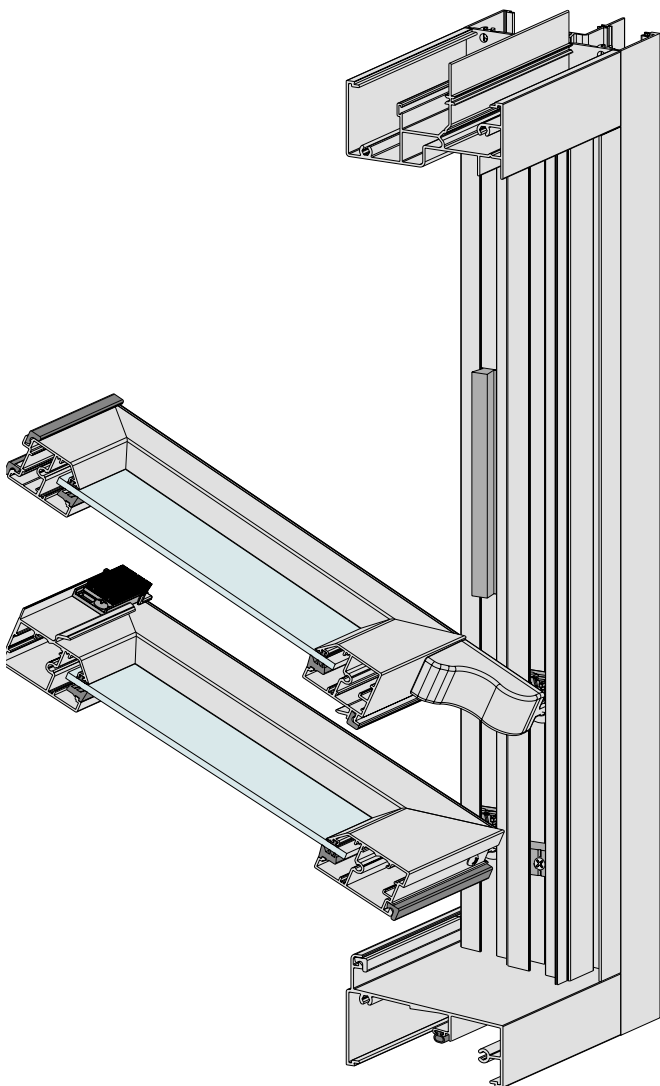
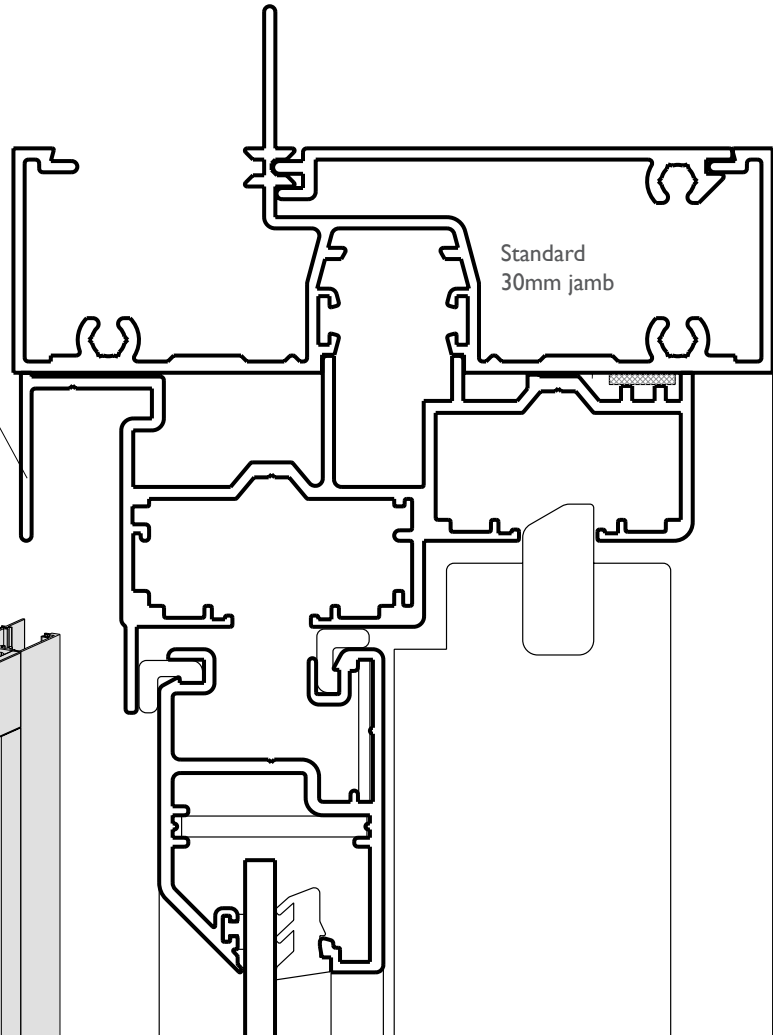
Series 463 DOUBLE-HUNG WINDOW

DATE: MAY 13
REPLACES: JUNE 06
SCALE: FULL SIZE & NTS

JAMB

Flyscreens when required nest into the jamb adaptor and are secured with custom nylon clips that snap into the adaptor and keep the tension on the screen.

For the best results specify extruded aluminium Elevate flyscreen frames to match Series 463 window.



CAD file: DWG
463.DHW.I

Both of the Series 463 double-hung sashes can be tilted back into the room to allow cleaning of glass from inside.

Series 463

DOUBLE-HUNG WINDOW

DATE: MAY 13
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DOUBLE GLAZED WRAP AROUND DOUBLE-HUNG SASH - WITH 20mm IGU AND 24mm IGU IN THE DOUBLE GLAZED FIXED LOWLIGHT

This detail is created with run through double glazed jambs.

The jamb runs through to ensure overall frame strength and weather resistance.

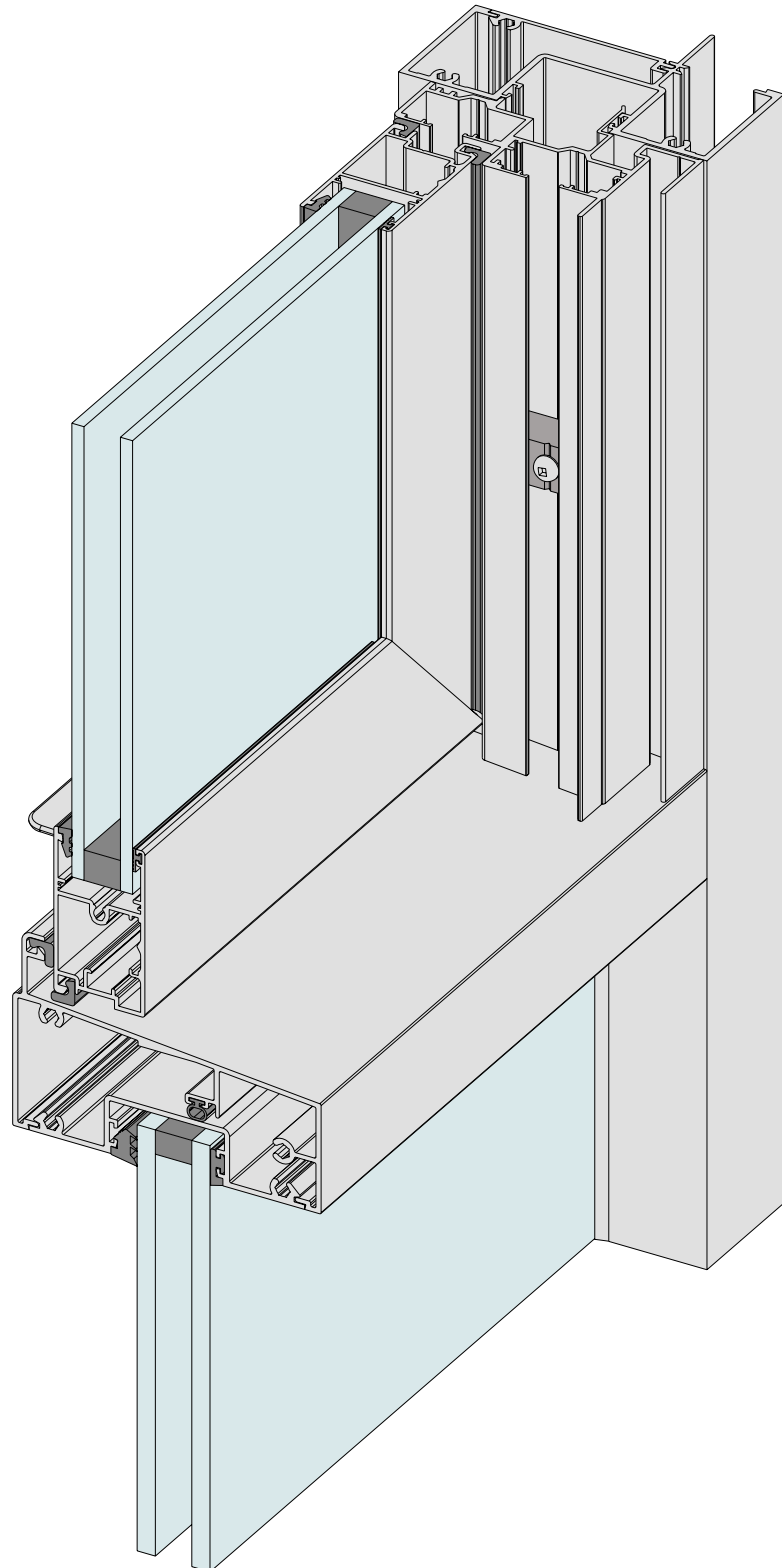
In the lowlight area the wide glazing pocket will accept 24mm IGU's with co-extruded Santoprene captive and roll-in glazing wedges.

In double-hung sash area we use a dedicated jamb adaptor, to snap / screw into the double glazed frame pocket.

Series 462 transom (sill) accept the double glazed CentreGLAZE™ pocketed filler. To achieve a wide double glazed pocket in the fixed area we snap the double glazed channel adaptor as detailed below.

Water resistance 450Pa.

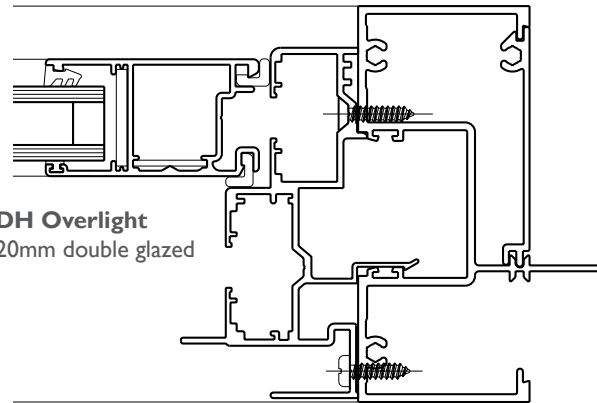
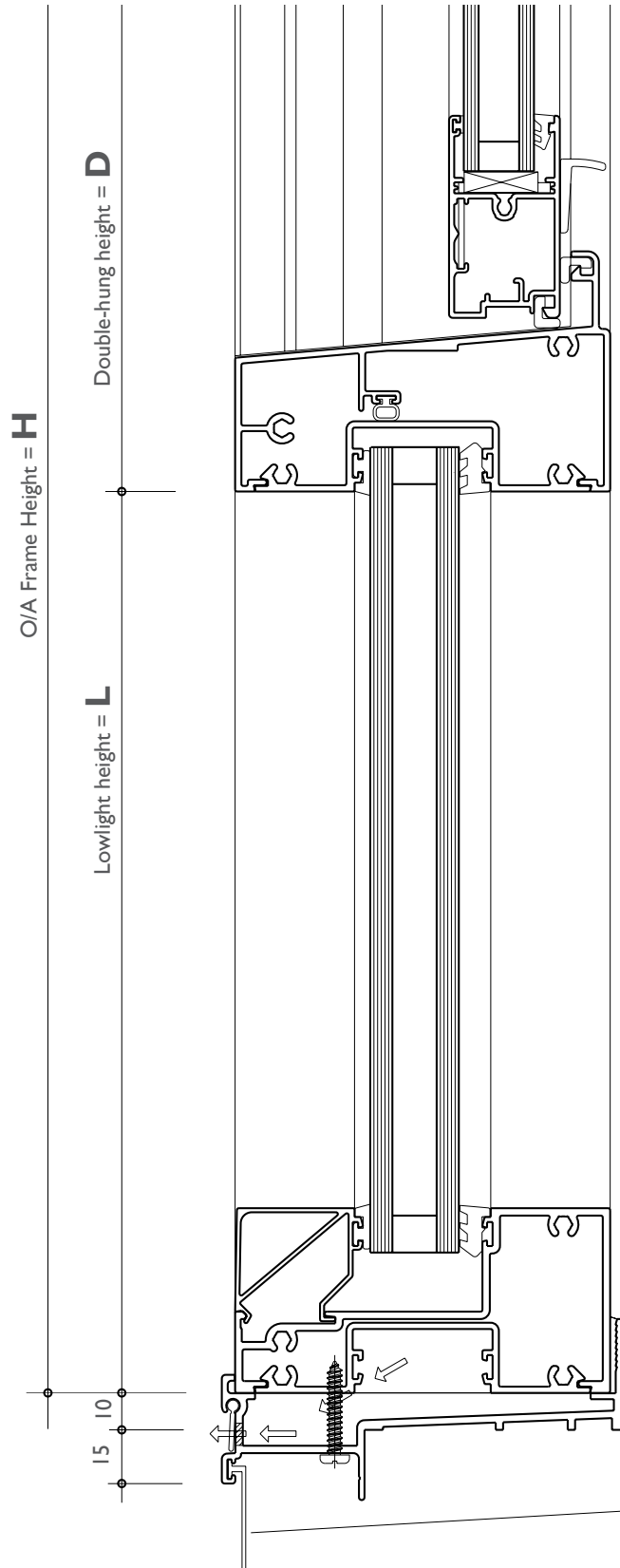
The double glazed unit nests neatly into transom, jambs and sill, giving a clean professional finish.



Series 463 DOUBLE-HUNG WINDOW

DATE: MAY 13
REPLACES: JUNE 06
SCALE: HALF FULL SIZE

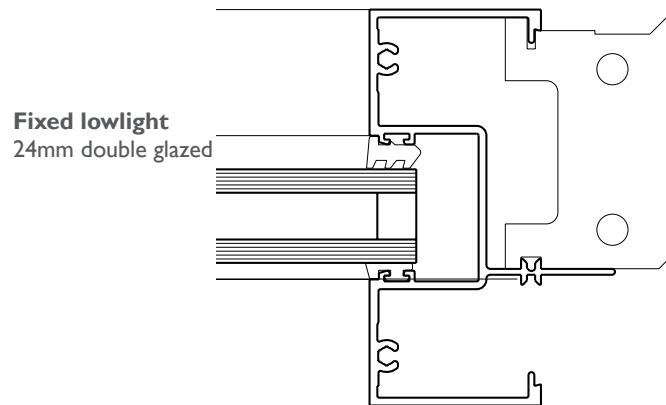
DOUBLE GLAZED WRAP AROUND DOUBLE-HUNG SASH - WITH 20mm IGU AND 24mm IGU IN THE DOUBLE GLAZED FIXED LOWLIGHT



The double glazed unit nests neatly into transom, jambs and sill, giving a clean professional finish.



CAD file: DWG
463.DHW.8



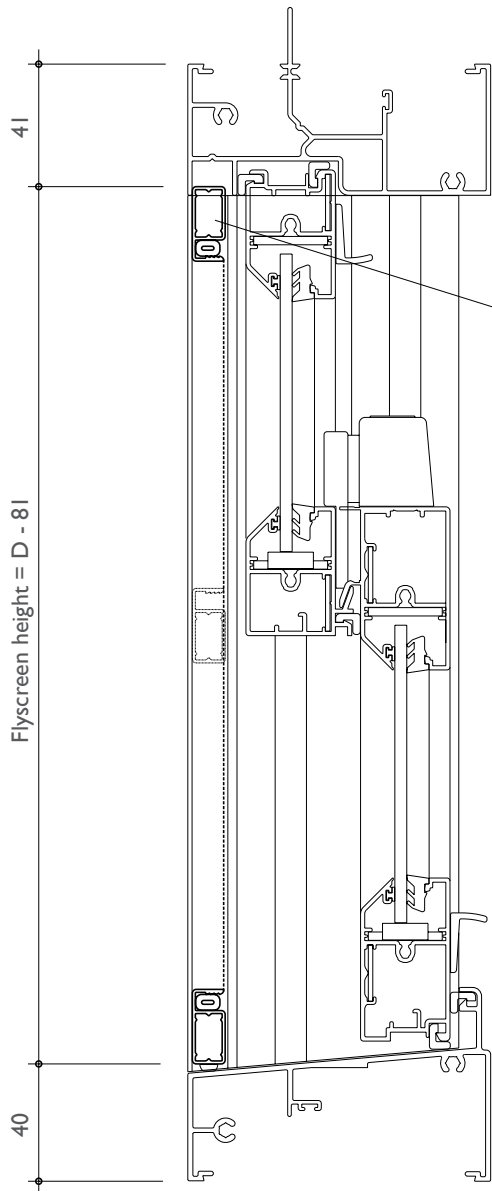
Sub-sills are standard on Series 463 windows and are fitted with custom moulded nylon end caps.

Flexible PVC sill flap caters for sill brick variations.

Series 463 DOUBLE-HUNG WINDOW

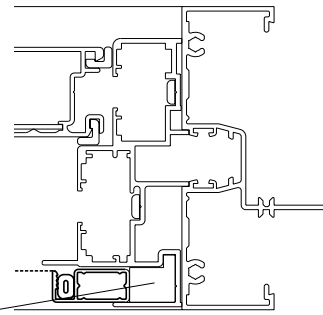
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FLYSCREENING



Custom extruded aluminium flyscreen frame designed to match the window system.

Elevate flyscreen frame - illustrated alternative
Elevate barrier flyscreen frame available.



Nylon flyscreen clip keeps tension on screen and reduces the chance of a rattling screen

Flyscreen width = $W - 94$
(based on standard 30mm jambs)

47