



centor

EW bifold window system for panels to 20kg

CONTENTS

EW Bifold Window System	1
Considered Design	2
Architectural Detail	4
Component Selection	11
Panel Layouts	13
Dropbolts	14
Weather Certification	16

FUNCTIONALITY AND STYLE FOR SMALLER SCALE OPENINGS



EW BIFOLD WINDOW SYSTEM

EW brings the functionality and style of bifold technology to smaller-scale external openings. An exciting alternative to conventional window styles in the widest variety of applications.

Centor EW is an external bifolding window hardware system for windows with a maximum sash weight up to 20 kilograms.

EW is suitable for a range of smaller residential and commercial openings including counters and serveries, as an alternative to conventional windows in bedrooms or living areas, or anywhere the larger panel capacity of one of Centor's bifold door systems is not required.

EW comes complete with aluminium and timber lineal kits and can be fully factory assembled prior to installation. The first folding window system to offer a fully integrated retractable insect screen, EW successfully brings the functionality and style of bifold technology to smaller-scale openings.

EW Specifications	
max opening	1500 x 2500mm
max panel weight	20kg
max panel height	1500mm
max panel width	610mm
panel thickness	32-38mm
max number of panels	4





CONSIDERED DESIGN

Weatherproof

Impressive water performance ratings are achievable from outward opening windows with the system achieving its superior rain and wind resistance in part from the way window panel to close snugly against weather seals. Resistance to air infiltration up to fifty times better than a sliding window, and impressive acoustic sealing qualities are additional benefits.

Screening

The EW flyscreen system is fully integrated into the window system and can be fully retracted for unobscured vistas. The chain-operated system can be operated with one hand and provides for easy access over benches or furniture.

Proved Performance

Produced in the architectural grade grade stainless steel, solid brass, aluminium and engineering grade plastics, individual EW components have undergone extensive laboratory testing including cyclic testing to 50,000 cycles as well as corrosion testing, structural testing and finite element analysis. Stainless steel bearings are custom machined individually precision ground to ultra-fine clearances. Unparalleled performance is the result from this top-hung design, with smoothness of function that has to be felt to be believed.

Easy Assembly, Installation & Adjustment

EW has been designed to be fully assembled and fitted in the fabricator's factory allowing simple site installation of the finished unit. Whether assembled in the factory or on site, installation couldn't be easier with complete kits for four popular configurations, comprehensive instructions and drill jigs available for the surface-mounted fittings.

Patented Surelock™ adjustment mechanisms allow vertical and lateral adjustments to be made with a screwdriver, while care has been taken to ensure adjustment is possible from inside the building in elevated applications.

INTEGRATED WITH A CHAIN-OPERATED SCREENING SYSTEM



Finishes

- Carriers, guides, pivots and hinges – architectural grade aluminium in bright gold, satin natural, white powdercoat and mahogany bronze.
- Aluminium lineal kits include head tracks and floor guide channels produced in matching finishes.
- Timber lineal kits are available in New Guinea Rosewood, Western Red Cedar and Surian Cedar.

Dropbolts

Easily installed in timber panels with dedicated router bits, Centor's DM and DS low profile dropbolts avoid the untidy look of bolted on fasteners and come in a range of colours to match with EW hardware.

Warranty

Centor Architectural offers a 10 year warranty on its EW hardware. Please see www.centor.com.au for more details.

Specifying EW

Windowcalc, Centor's free specification and ordering software, simplifies component selection and assists with calculating size and number of window sashes. Windowcalc is downloadable from www.centor.com.au. Alternatively architects and designers can simply specify "Centor EW" and leave detailed component selection to the builder, joiner or fabricator.



ARCHITECTURAL DETAIL

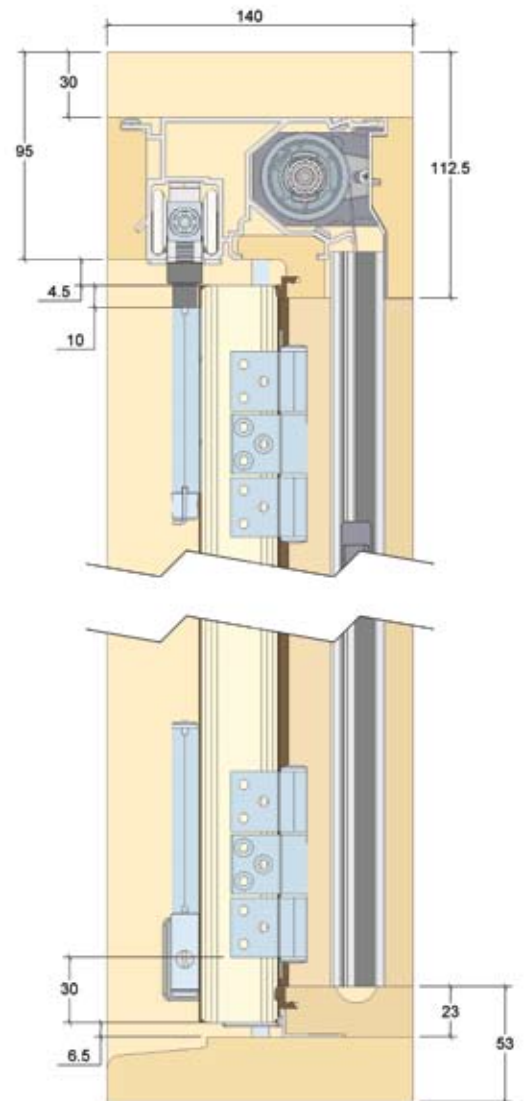
Downloadable DXF or DWG files ready for use in your own documentation are a convenient resource for architects and specifiers wishing to use Centor systems.

EW DXF or DWG files can be downloaded from www.centor.com.au



PATENTS APPLY

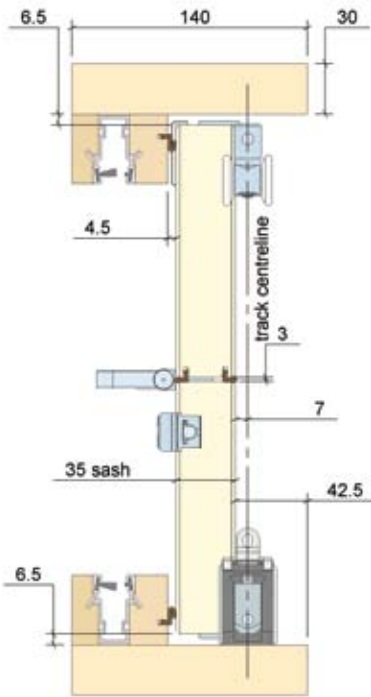
EW PROFILE



EW-005.DXF

ARCHITECTURAL DETAIL

EW2

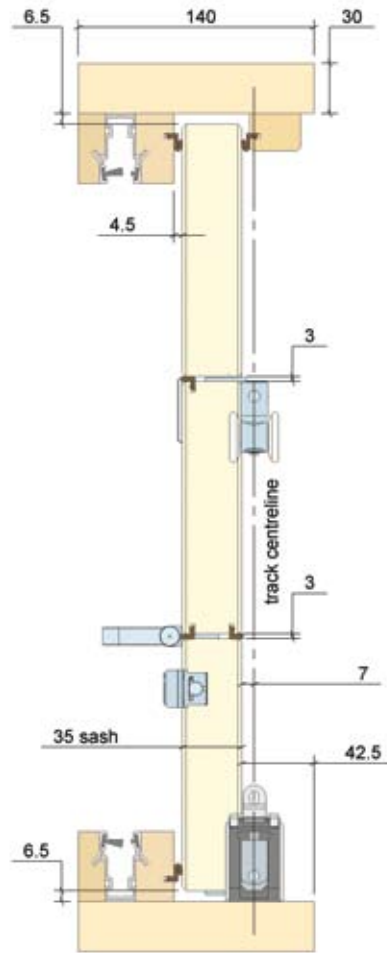


EW-004.DXF



2 sashes opening left (2L – shown above) uses EW2 hardware set
 2 sashes opening right (2R) uses EW2 hardware set

EW3



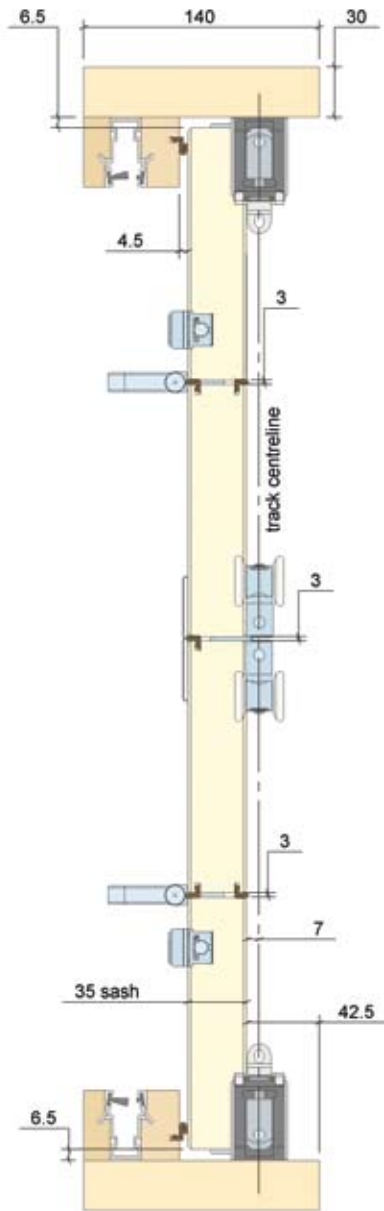
EW-003.DXF



3 sashes opening left (3L – shown above) uses EW3 hardware set
 3 sashes opening right (3R) uses EW3 hardware set

ARCHITECTURAL DETAIL

EW2L2R

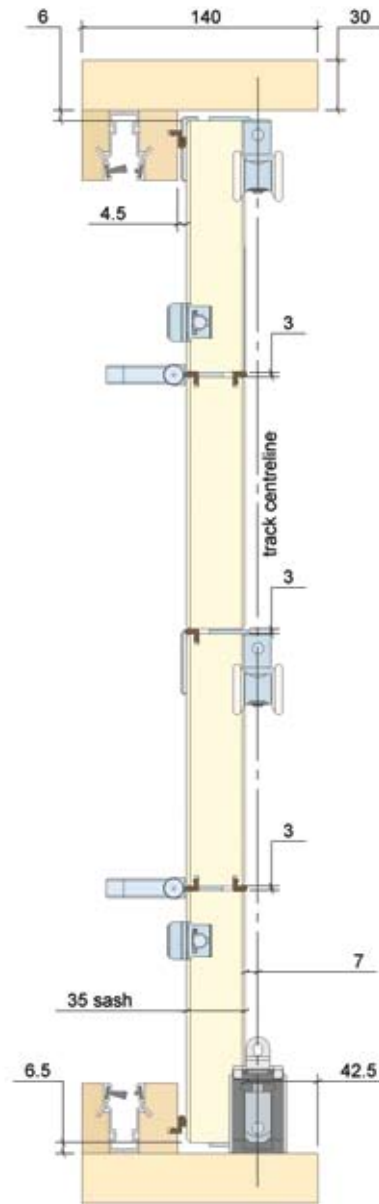


EW-001.DXF



2 sashes opening left and 2 sashes opening right (2L2R)
uses EW2L2R hardware set

EW4



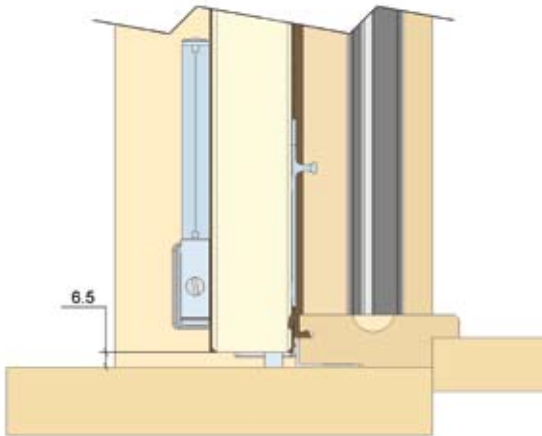
EW-002.DXF



4 sashes opening left (4L – shown above) uses EW4 hardware set
4 sashes opening right (4R) uses EW4 hardware set

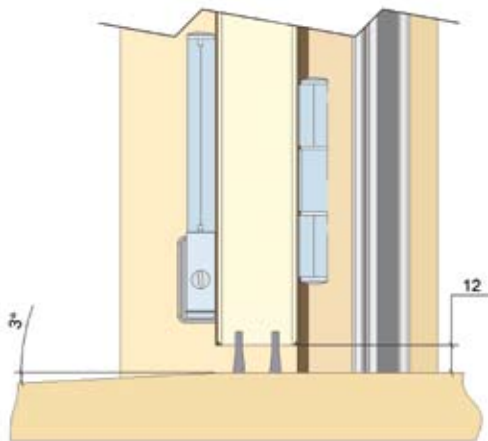
Alternative Servery Sill Detail

Step servery



EW-006.DXF

3° Fall Outside Servery (4l,4r)



EW-007.DXF

Servery Applications

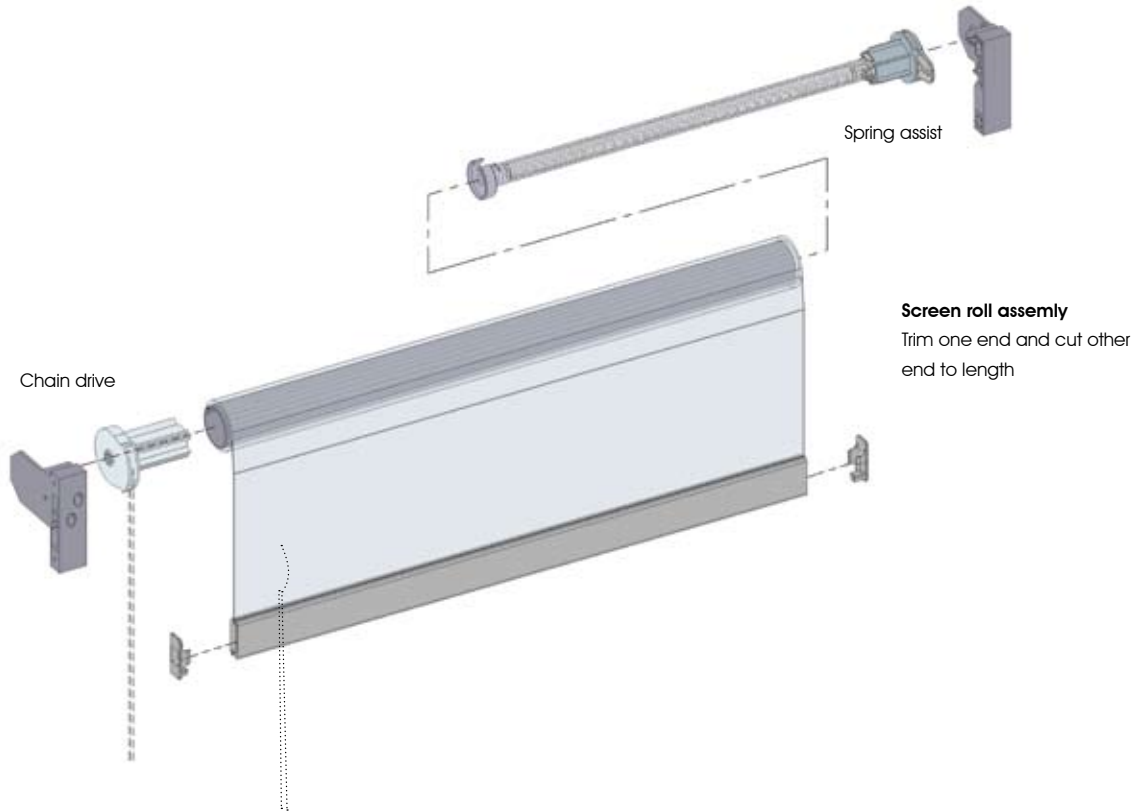
A kitchen opening out onto a deck is the perfect place to install an EW over a flat benchtop (ie with no sill stop and no friction guide). There are a few considerations to take into account to ensure you are delighted with the outcome.

- 1 The best window combinations to use on a flat servery bench application are pairs of sashes – that is 2L or 2R, or a 2L2R (all with 12mm clearance).
- 2 With a 2L2R combination, Centor Architectural recommends the use of 2 additional DM dropbolts at the bottom of the 2 meeting stiles.
- 3 With a 4L or 4R combination you will need to make an allowance for the sashes dropping when being opened. This is a popular solution in some house designs, and to make it work well, the benchtop will need to have 12mm clearance and a 3° fall on the benchtop outside of the window line. This will ensure that there is adequate clearance between the sash and the benchtop.
- 4 We do not recommend the use of a 3L or 3R combination without a friction guide.

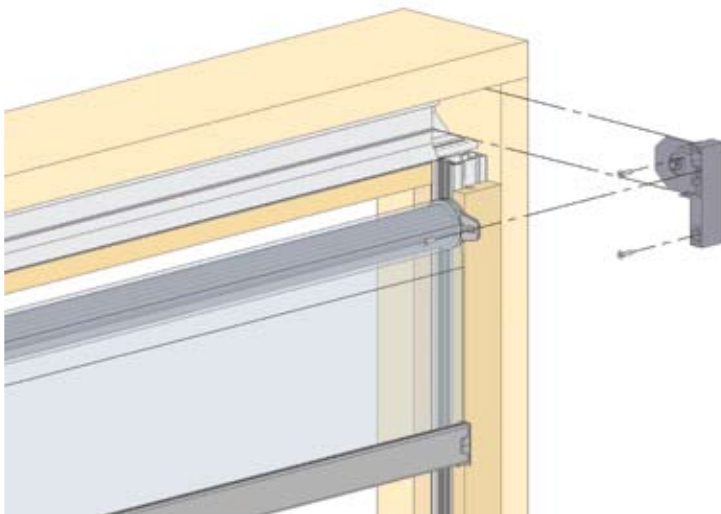
It is not feasible to make this style of window weatherproof, and therefore water proofing needs to be assured by other means – such as a wide verandah (also perfect over the deck).

ARCHITECTURAL DETAIL

Screen Kit Contents

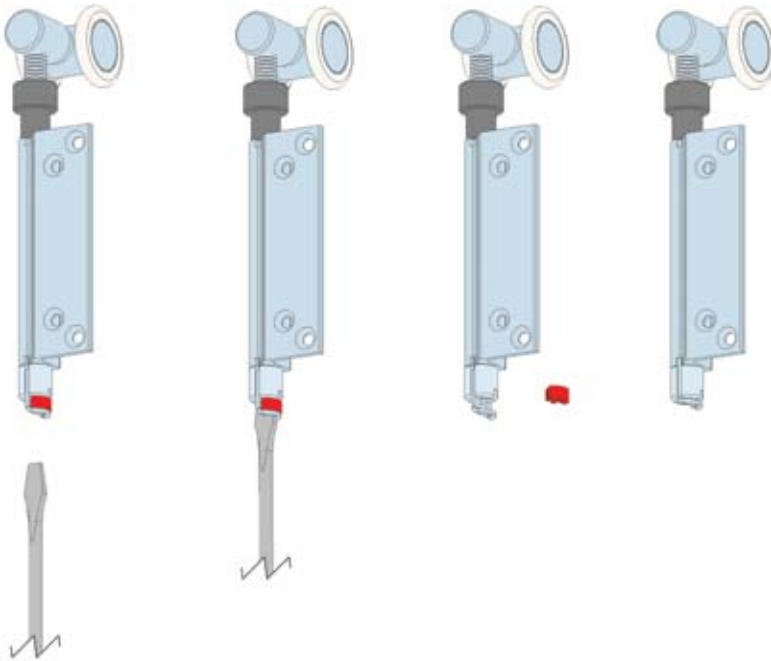


Lock Off Spring Assist.



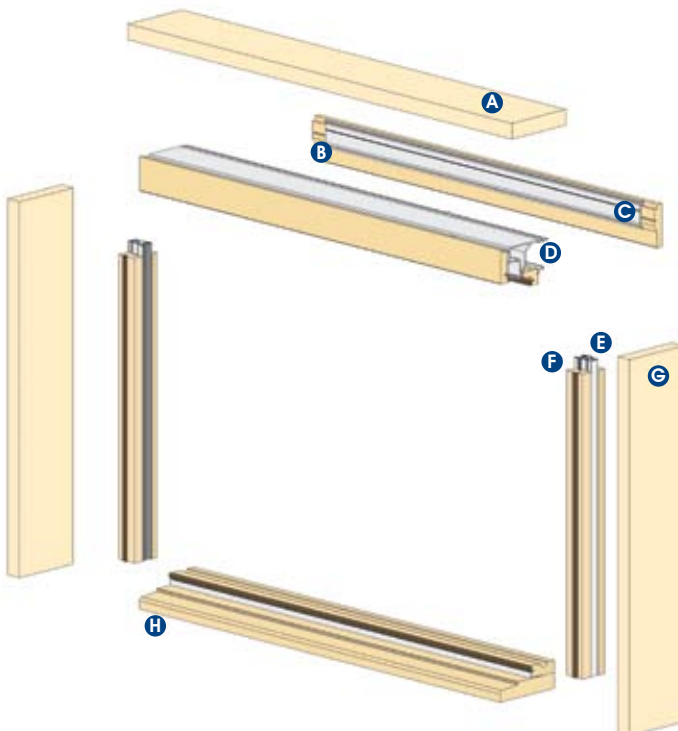
ARCHITECTURAL DETAIL

Surelock™



PATENTS APPLY

Windowcalc™



The Centor WindowCalc XL™ package calculates exact panel and cutting sizes and also specifies the required hardware for the EW.

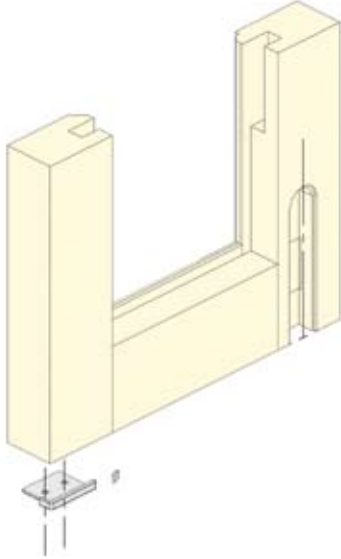
With WindowCalc™ you have several choices to obtain the desired window configuration.

Your choices include: the number of sashes; window material (wood or aluminium); rollscreen; timber species; hardware and extrusion finishes; sill option (flat servey or not); seal colour; keying and dropbolt style.

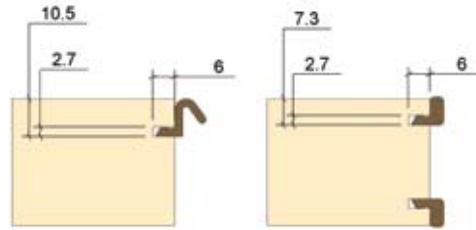
WindowCalc™ will calculate all lengths and list all hardware and components required. Input either a rough opening size or a panel size and making the choices available, WindowCalc™ will calculate all the other details. Go to www.centor.com.au to download WindowCalc™ or if you would like it sent to you on a CD please email help@centor.com.au

- A Head
- B Pelmet
- C Pelmet aluminium backing
- D Track assembly
- E Vertical screen guide
- F Vertical stops
- G Jamb
- H Sill assembly

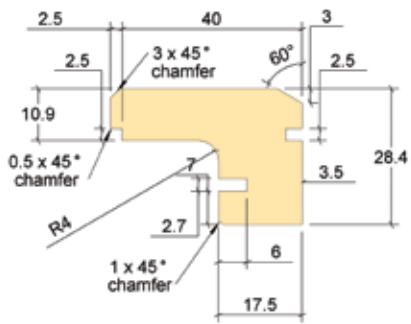
Sash Joinery Detail



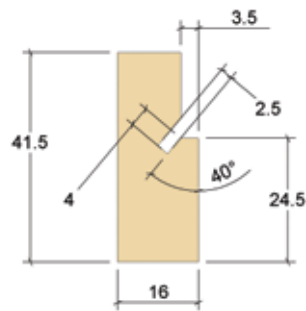
Seal Preparation Detail



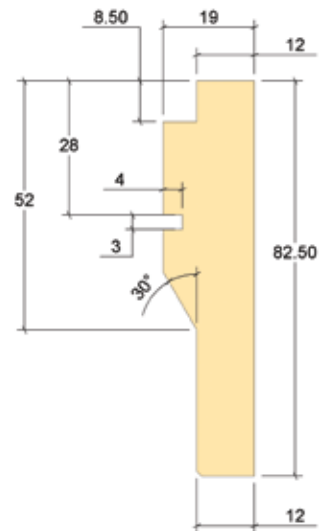
Head Stop



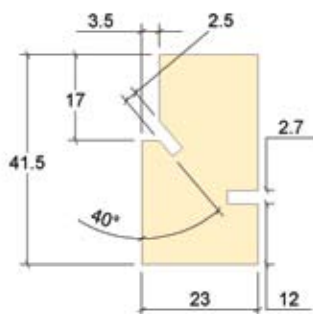
Vertical Stop (inside)



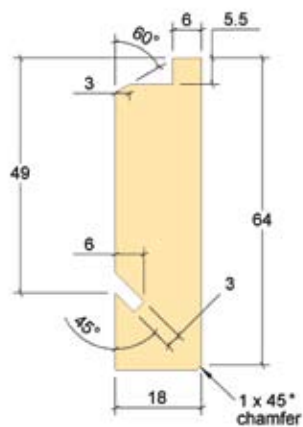
Pelmet



Vertical Stop (outside)



Face board



COMPONENT SELECTION

A screened* EW system is specified with 6 separate groups of components. Components are required from each group to build a screened EW folding window system.

- 1 **Aluminium Lineal Kit** – choose surface finish and size required to suit opening
- 2 **Timber Lineal Kit** – choose timber species and size required to suit opening
- 3 **Rollscreen Kit** – choose left or right handed operation and size required to suit opening
- 4 **Window Hardware Kits** – choose surface finish and hardware kits required to suit panel layout
- 5 **Dropbolts** – choose surface finish, type, size and number required to suit panel layout
- 6 **Weather Seals** – choose colour, type and amount of each seal required to suit opening size and panel layout

* For non-screened please select a top track and proceed with steps 4, 5 and 6.






ALUMINIUM LINEAL KIT*

KIT CONTAINS THESE PARTS		SELECT KIT SIZE	SELECT FINISH	KIT CODE
	track x 1	1200 H x 1900 W	satın natural	EWALK1219N
		1200 H x 1900 W	bright gold	EWALK1219G
	vertical screen guide x 2	1200 H x 1900 W	white powdercoat	EWALK1219W
		1200 H x 1900 W	mahogany	EWALK1219M
	pelmet backing x 1 mill finish only	1500 H x 2500 W	satın natural	EWALK1525N
		1500 H x 2500 W	bright gold	EWALK1525G
		1500 H x 2500 W	white powdercoat	EWALK1525W
	sill guide x 1	1500 H x 2500 W	mahogany	EWALK1525M

* Aluminium lineal kits contain the required head seal and vertical guide seals

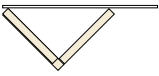
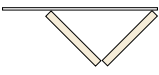
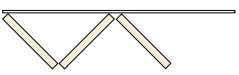
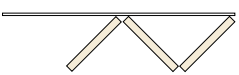
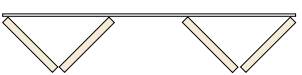
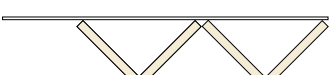
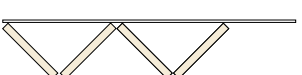
COMPONENT SELECTION

TIMBER LINEAL KIT

KIT CONTAINS THESE PARTS		SELECT KIT SIZE	SELECT FINISH	KIT CODE
	head stop x 1	1200 H x 1900 W	new guinea rosewood	EWTLK1219NRG
		1200 H x 1900 W	western red cedar	EWTLK1219WRC
	face board x 1	1200 H x 1900 W	surian cedar	EWTLK1219SRC
		1500 H x 2500 W	new guinea rosewood	EWTLK1525NRG
	vertical stop (inside) x 2	1500 H x 2500 W	western red cedar	EWTLK1525WRC
		1500 H x 2500 W	surian cedar	EWTLK1525SRC
	pelmet x 1	1500 H x 2500 W	surian cedar	EWTLK1525SRC
		1500 H x 2500 W	new guinea rosewood	EWTLK1525NRG
	vertical stop (outside) x 2			

Timber kits supplied are for 35mm sashes. Sashes of other thickness (say 32mm or 38mm) will require the customer to mill their own profiles to suit their sashes. Consult Centor Architectural for details.

PANEL LAYOUTS

CODE	OPENING CONFIGURATION	HARDWARE		KEY* (SEE BELOW)
2L		Hardware Aluminium Lineal Kit Timber Lineal Kit Flyscreen Dropbolts	EW2 EWALK EWTLK EWR5 1 x DBSO300KR 1 x DBMI100KR	1 1 2 2 3 4 5 1 1
2R		Hardware Aluminium Lineal Kit Timber Lineal Kit Flyscreen Dropbolts	EW2 EWALK EWTLK EWR5 1 x DBSO300KR 1 x DBMI100KR	1 1 2 2 3 4 5 1 1
3L		Hardware Aluminium Lineal Kit Timber Lineal Kit Flyscreen Dropbolts	EW3 EWALK EWTLK EWR5 2 x DBSO300KR 2 x DBMI100KR	1 1 2 2 3 4 5 1 1
3R		Hardware Aluminium Lineal Kit Timber Lineal Kit Flyscreen Dropbolts	EW3 EWALK EWTLK EWR5 2 x DBSO300KR 2 x DBMI100KR	1 1 2 2 3 4 5 1 1
2L2R		Hardware Aluminium Lineal Kit Timber Lineal Kit Flyscreen Dropbolts	EW2L2R EWALK EWTLK EWR5 2 x DBSO300KR 2 x DBMI100KR	1 1 2 2 3 4 5 1 1
4R		Hardware Aluminium Lineal Kit Timber Lineal Kit Flyscreen Dropbolts	EW4 EWALK EWTLK EWR5 2 x DBSO300KR 2 x DBMI100KR	1 1 2 2 3 4 5 1 1
4L		Hardware Aluminium Lineal Kit Timber Lineal Kit Flyscreen Dropbolts	EW4 EWALK EWTLK EWR5 2 x DBSO300KR 2 x DBMI100KR	1 1 2 2 3 4 5 1 1

KEY*

1 finish G = Gold N = Satin W = White M = Mahogany Bronze	3 timber finish NGR = New Guinea Rosewood SRC = Surian Cedar WRC = Western Red Cedar	5 flyscreen handing L = left hand R = right hand
2 kit size 1219 = 1200 High x 1900 Wide 1525 = 1500 High x 2500 Wide	4 flyscreen length 19 = 1900 long 25 = 2500 long	




DROPBOLTS / DM

Half the length (100mm) of the smallest door dropbolt system and correspondingly narrow, Centor DM is designed to flush-mount into window frames with minimal visual impact.

DM Dropbolt is suitable for locking casement, awning, sliding and bifold windows. At 100mm long, it is half the size of the DM bolt and is designed to flush-mount into the window frame with minimal visual impact. DM can be supplied keyed alike to your DF or DH locks and can be re-keyed to other window locks in the house by any professional locksmith.



DM – KEYED

PART	PRODUCT CODE	DESCRIPTION
	DBMI100KRC	100mm dropbolt, keyed, chrome
	DBMI100KRG	100mm dropbolt, keyed, gold anodised
	DBMI100KRL	100mm dropbolt, keyed, black powdercoat
	DBMI100KRN	100mm dropbolt, keyed, natural anodised
	DBMI100KRPC	100mm dropbolt, keyed, custom powdercoat
	DBMI100KRW	100mm dropbolt, keyed, white powdercoat
	DBMI100KRX	100mm dropbolt, keyed, brushed metallic
	DBMIRB	router bit
	DBMICL	moulded plastic cup

DROPBOLTS AVAILABLE IN COLOURS TO MATCH WINDOW HARDWARE




DROPBOLTS / DS

Only 36mm in width, Centor DS is the ideal dropbolt for tall timber windows with narrow framing. The extended 300mm barrel means the hand-grip is within reach whether placed at the top of tall windows or behind furniture.

The 300mm length of the DS Dropbolt makes it an ideal bolt to install in tall windows, or in windows where furniture such as benches restrict accessibility. The slim profile of the DS makes it ideal for timber windows with narrow framing. The cylinder can be re-keyed to other window locks in the house by a professional locksmith.



DS – KEYED

PART	PRODUCT CODE	DESCRIPTION
	DBSO300KRG	300mm dropbolt, keyed, gold anodised
	DBSO300KRN	300mm dropbolt, keyed, natural anodised
	DBSO300KRX	300mm dropbolt, keyed, brushed metallic
	DBSO300KRPC	300mm dropbolt, keyed, custom powdercoat
	DBSO300KRW	300mm dropbolt, keyed, white powdercoat
	DBMIRB	router bit
	DBMICL	moulded plastic cup

WEATHER CERTIFICATION

Test Results

A window was tested and certified by a NATA accredited testing facility (laboratory 14093 Wintec) for a window 1500 x 2500mm in Western Red Cedar. This test certificate is valid for any stonger species of wood at the ratings listed here. For higher ratings using stronger species, retesting will be required. Contact Centor Architectural for full manufacturing details and NATA accredited test report for maximum size window (1500mm high x 2500mm wide) in Western Red Cedar.

Weathersealing

The Centor EW folding system was designed specifically for use in external environments, typically where a sliding glass window would previously be used. The system allows folding window panels to close tightly against weatherseals to effectively resist water penetration and air infiltration.

The system is the first tracked folding window system to be successfully certified against Australian Standard AS2047 "Windows in Buildings Specification for materials and performance" and AS4420.1-6 "Methods of Test" by a Testing Laboratory accredited by the National Association of Testing Authorities, Australia (N.A.T.A.)

The EW was tested at Wintec Aluminium, Andrews, QLD, using Schlegel Pty Limited Aquamac™ Kerf Seals and has been certified to meet the 150Pa water rating and 1 l/sec commercial air infiltration rating.

A Guide to AS2047

- 1 Deflection/Span Ratio does not apply to folding windows, however this was also tested.
- 2 Air Infiltration Test specifies the maximum air infiltration allowed at a given pressure. As a guide, at 75Pa pressure, a rating of less than 5.0 litres/second/sqm is required for non-airconditioned buildings or 1.0 litres/second/sqm for air-conditioned.
- 3 Water Penetration specifies the maximum pressure at which there shall be no penetration of uncontrolled water beyond any internal surface of the door. The minimum rated pressure specified by the standard is 150Pa.
- 4 Ultimate Strength specifies that the windows and hardware shall not collapse when subjected to positive (inwards) or negative (outwards) pressure. As a guide, the minimum rated load is 700Pa.

AS2047 CERTIFICATE NO. 0038

1000 Structural Pa **N3**
Water Penetration 150

Suitable for airconditioned applications.
Suitable N2 housing

LABORATORY TESTING

	AS2047.1	EW	
min water penetration	150Pa	150Pa	✓
max air infiltration (per sq.m.)	5.0 litres/sec	0.2 litres/sec	✓
deflection test	500Pa	1000Pa	✓
min ultimate strength	700Pa	1500Pa	✓
non-cyclonic rating	N1	N3	✓

Tested in N.A.T.A. Registered Laboratories on timber windows and framing

While every effort has been made to ensure the accuracy of the information in this publication, Centor Architectural assume no responsibility for errors or omissions or any consequences of reliance solely on this publication.



Centor Australia Pty Ltd

ABN 96 009 716 189
telephone 1300 CENTOR
1300 236 867
facsimile 1300 CENFAX
1300 236 329
mail@centor.com.au
www.centor.com.au

BRISBANE

Centor Australia Pty Ltd
Head Office & Factory
997 Kingsford Smith Drive
PO Box 1550
Eagle Farm QLD 4009
telephone +61 7 3868 5777
facsimile +61 7 3868 1201

SYDNEY

Centor Australia Pty Ltd
12/9 Killo Crescent
Glendenning NSW 2761
telephone +61 2 9208 3200
facsimile +61 2 9625 2399

MELBOURNE

Centor Australia Pty Ltd
28 Keysborough Close
Keysborough VIC 3173
telephone +61 3 9709 0300
facsimile +61 3 9798 1645

ADELAIDE

Centor Australia Pty Ltd
Unit 4, 2 Endeavour Drive
PO Box 285
Port Adelaide SA 5015
telephone +61 8 8304 2577
facsimile +61 8 8304 2599

PERTH

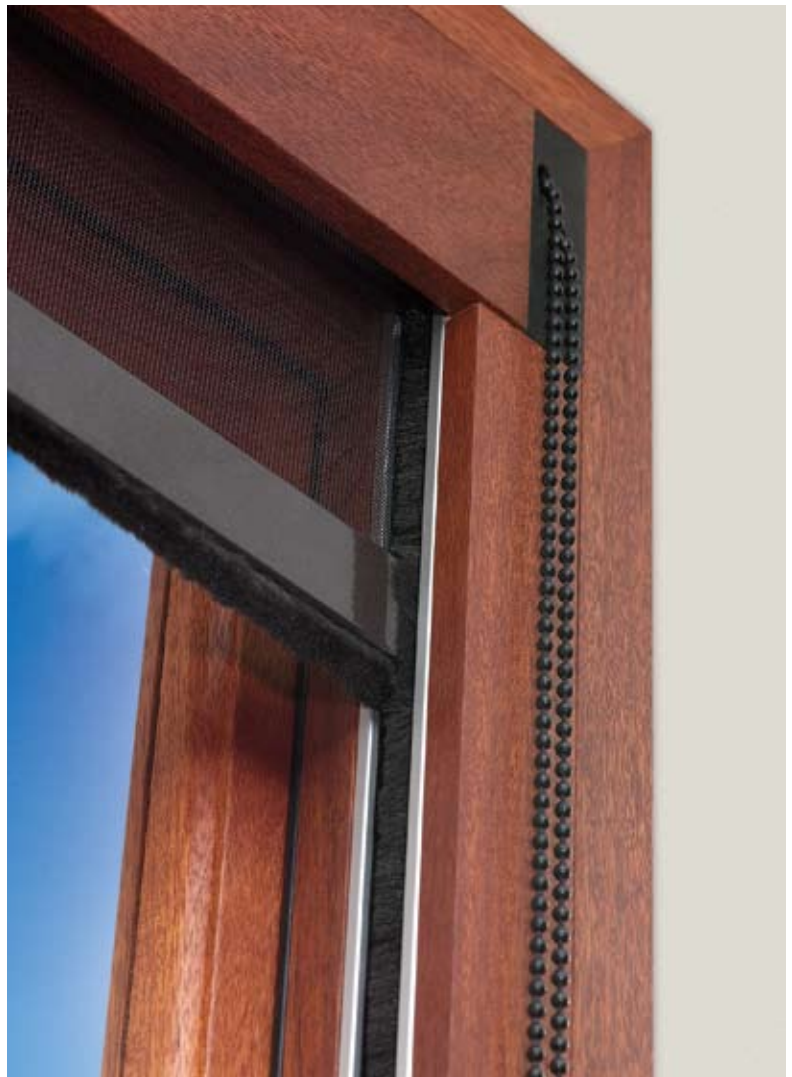
Notchka Pty Ltd
45 Colray Avenue
Osborne Park WA 6017
telephone +61 8 9443 3266
facsimile +61 8 9443 3250
notchka@norcom.net.au

TASMANIA

Launceston
Access Hardware Pty Ltd
42 Invermay Road
Mowbray Heights TAS 7248
telephone +61 3 6331 2533
facsimile +61 3 6331 2733
accessshw@bigpond.net.au

Hobart

Access Hardware Pty Ltd
21 Brisbane Street
Hobart TAS 7000
telephone +61 3 6231 9926
facsimile +61 3 6231 9927



216-100-030-001