

AGE



QUA



 JURALCO

**JURALCO KNIGHTGUARD®
ROLLERGRILLE SYSTEM**

ISSUE 10-23 v1

Juralco Knightguard® Rollergrille System

Juralco Aluminium Building Products Ltd designs and distributes specialist aluminium joinery systems through a national network of franchised fabricators and agents.

For more than 25 years we have been at the forefront of specialist aluminium door and window products suitable for New Zealand joinery and building methods. Our comprehensive product range includes security and insect screens, balustrades and gates, shutters and awnings, shower screens, wardrobe doors and organisers and internal doors.

The Knightguard® series of roller grilles are constructed from heavy duty aluminium side guides with strong interlocking curtain profiles or joining components which roll down to protect windows, doors or other types of commercial access ways to resist forced entry by intruders.

Knightguard® Rollergrilles are custom-made in a choice of four main designs - Econolink, Shutter grille, Visionline and Ultra-Security. All grilles are available with either manual spring balanced operation or with high quality tubular motors depending on their size. The standard colour finish is Satin anodised aluminium but some designs can be custom finished a variety of powder-coat colours.



General Description

- The Rollergrille system is designed to fit openings up to 5m wide (Ultra Security 5.5m) and up to 3.25m tall.
- Typical applications include Shopfronts, Light commercial, Bars and Served areas, Garages and Storage areas.
- Typical finishes - Powdercoat or Natural Anodised.

The door is supplied pre assembled, consisting of the Rollergrille curtain package and two side guides.

- **Axle Assembly** - 70mm Octagonal steel axle with 130mm adaptor wheels. Mounting brackets and axle holders.
- **Rollergrille curtain** - Seven styles available - see next page.
- **Drive - Motorised** - An inline tubular motor raises or lowers the curtain automatically. Manual override control available Switch or wireless controls.
- **Side Guides** - A 76mm x 32mm full height extruded aluminium side guide is supplied for each side of the curtain.
- **Bottom/ Mid Rail** - An 85mm x 17mm extruded bottom/mid rail with detachable back plate.
A keyed locking system fits within this rail which can be incorporated at the bottom or mid position of the curtain

Note: Knightguard Rollergrille, Plain and Punched Series have been tested for Impact Resistance by BRANZ.
See test reports STR 340 and STR 343

Index

Type	Pages	Description	Use the Bookmarks List to jump to selected pages
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Important information - Powder Coating systems.

Powdercoat Systems The new standard Dulux powder coating system used by Juralco is Duralloy Plus®. Also Duralloy® and Duratec®. Juralco Powder coated prices are for Duralloy Plus® and Duralloy® (same pricing). Duratec® prices on application. The following specs apply to Building Exteriors.

- Dulux Duralloy Plus® powder coating systems are suitable for properties greater than 10m from high tide level. Residential and Light commercial buildings, 3 levels max. Warranty 15 yrs
- Dulux Duratec® powder coating systems are suitable for properties greater than 10m from high tide level All Residential and Commercial buildings. Warranty 25 yrs.

Attachment to structures A PVC Tape or similar material spacer must be used to separate powder coated aluminium items from all concrete and steel structures. Failure to do so can lead to the chemicals in the structure affecting the powder coating, leading to corrosion.

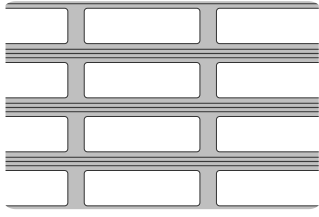
Swimming Pools The chlorinated water in swimming pools can cause the deterioration of powder coated surfaces, leading to corrosion of the underlying surface. It is recommended that Powder coated surfaces be 1200mm min from a pool.

Care The Dulux powder coating warranty period is conditional upon the surface being maintained in accordance with the Dulux 'Care and Maintenance Instructions'. Download from Dulux or refer to the back page of this manual.

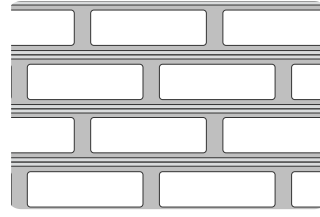
Juralco Knightguard® Rollergrille Systems - Curtain Options

Punched Aluminium Slat

Patterns - Punched as shown. Whole door available as mixture of Punched and Solid Slats
Finishes - Powdercoat only



Rectangular/Square Pattern
Vertical Align



Rectangular/Square Pattern
Brick

Solid Slat

Solid Aluminium slats and rails
Finishes - Powdercoat only



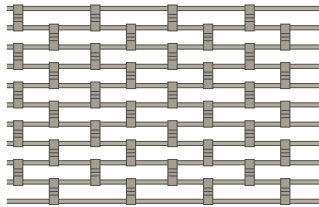
Visionline

Clear Polycarbonate slats, aluminium rails
Finishes - Powdercoat only



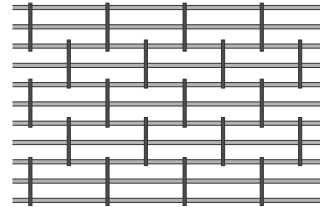
Ultra Security

Heavy duty Aluminium rails and links
Finish - Natural anodised



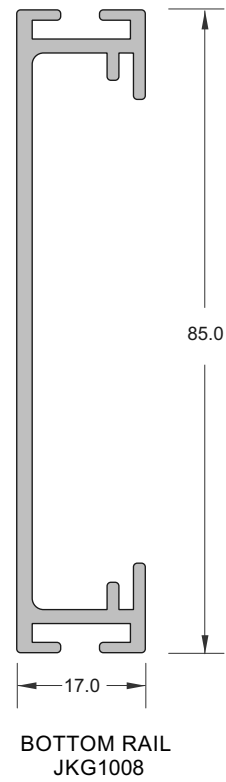
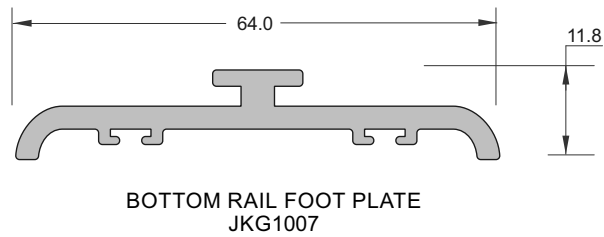
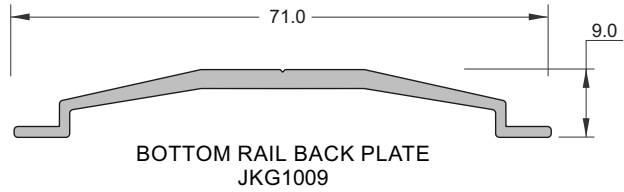
EconoLink

Aluminium rails and nylon links
Aluminium Finish - Natural anodised

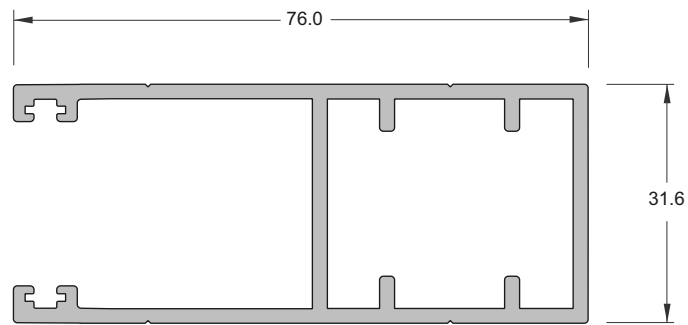


Juralco Knightguard® Rollergrille Systems - Extrusions

Curtain Bottom Extrusions 1:1



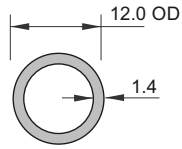
Side Guide Extrusions 1:1



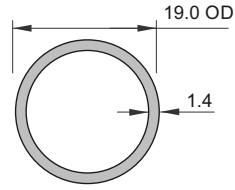
76MM SIDE GUIDE - STANDARD
JKG1006

Juralco Knightguard® Rollergrille Systems - Extrusions

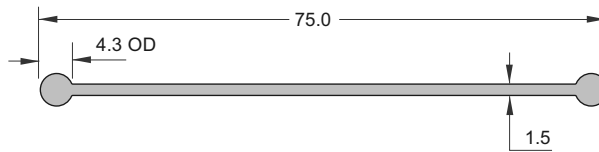
Curtain Extrusions 1:1



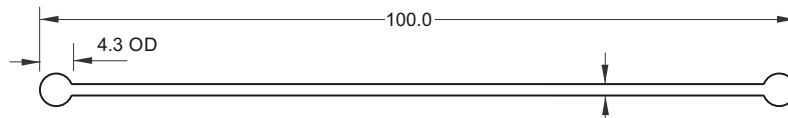
ECONOLINK TUBE
JKG2006



ULTRA SECURITY TUBE
JKGS2013

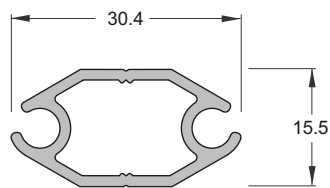


PLAIN SLAT
JKGS2007

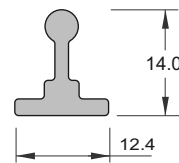


KGS CLEAR POLYCARBONATE SLAT
KGV4005

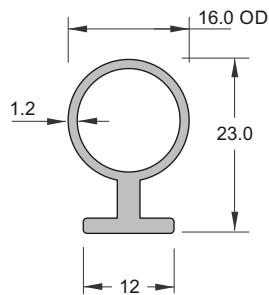
Curtain Connector Extrusions 1:1



HOLLOW SLAT CONNECTOR
JKGV4002



BOTTOM RAIL ADAPTOR
(Punched Slat and VisionLine)
JKGV4001



BOTTOM RAIL ADAPTER
(Ultra Security and Econolink)
JKG1010

Juralco Knightguard® Rollergrille Systems - Components

Ultra Security 35mm Link
Part No JKGS2009/NAT



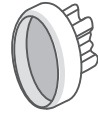
Econolink Link
Part No JKGE3004



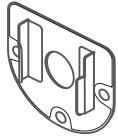
Base End Cap (LH and RH)
Part No JKG1017



Plastic End Plugs
Part No JKGV4003



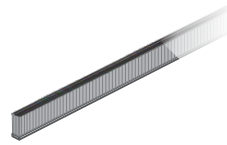
Bearing Holder
Part No JKGL2/02



Bearing
Part No JKG6C35802



Wool Pile
Part No JRF98/10mm



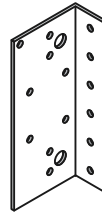
19mm Saddle Clamp
(Ultra Security)
Part No JKGS2015



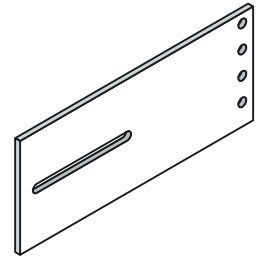
12mm Saddle Clamp
Part No JKGE125C



Steel Mounting Bracket
Part No JKG1001/A



Steel Mounting Arm
Part No JKG1001/D



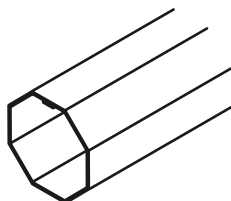
Centre Mullion,
Black Nylon
Part No JKG1004



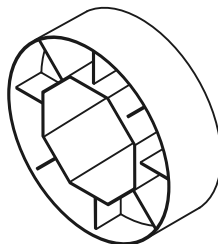
Patio Bolt
Part No JJH22063B



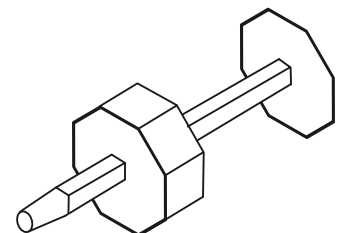
Octagonal Axle 70mm
Part No JKGV6B4470



Nylon Adapter Wheel 70/130mm
Part No JKGK2/06

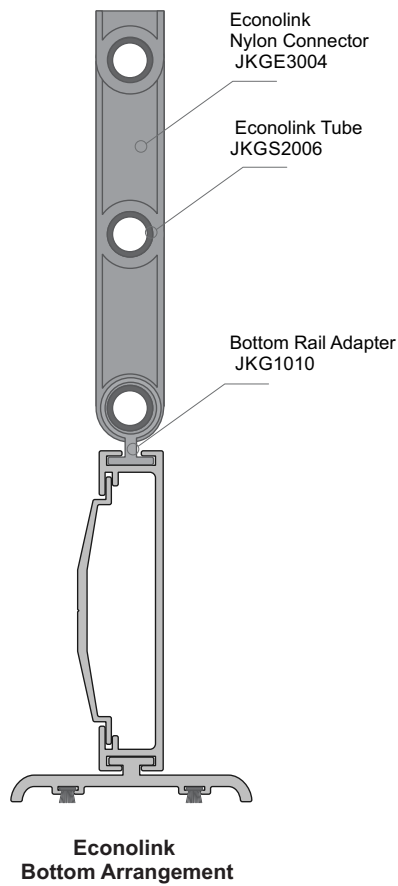
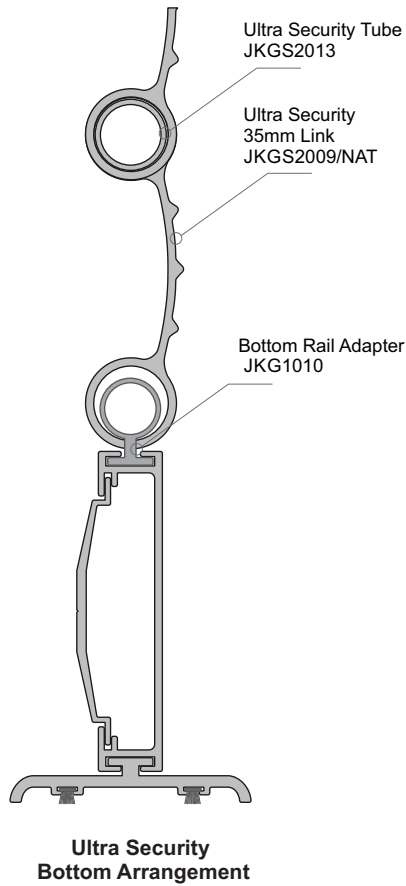
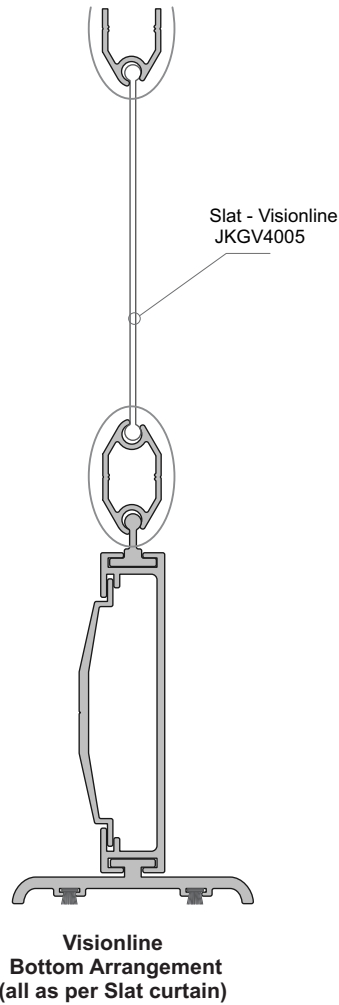
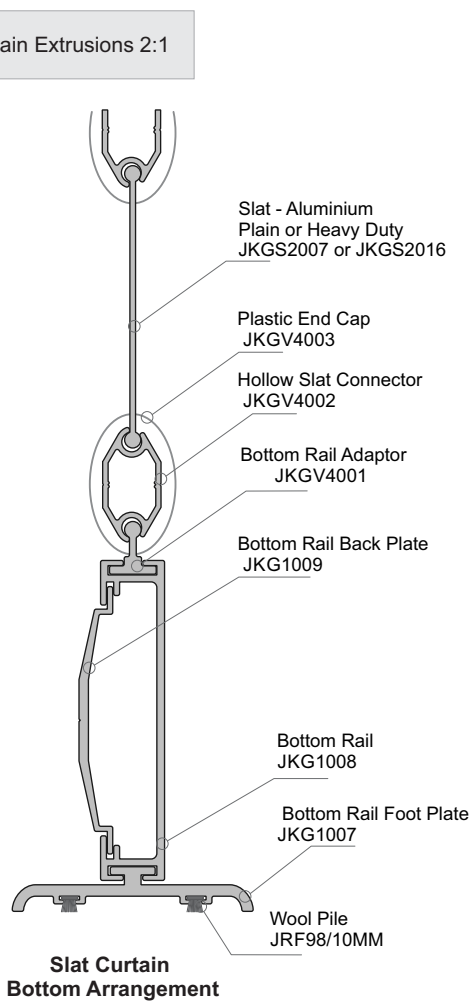


Adjustable End Cap 70mm
Part No JKGK1/19



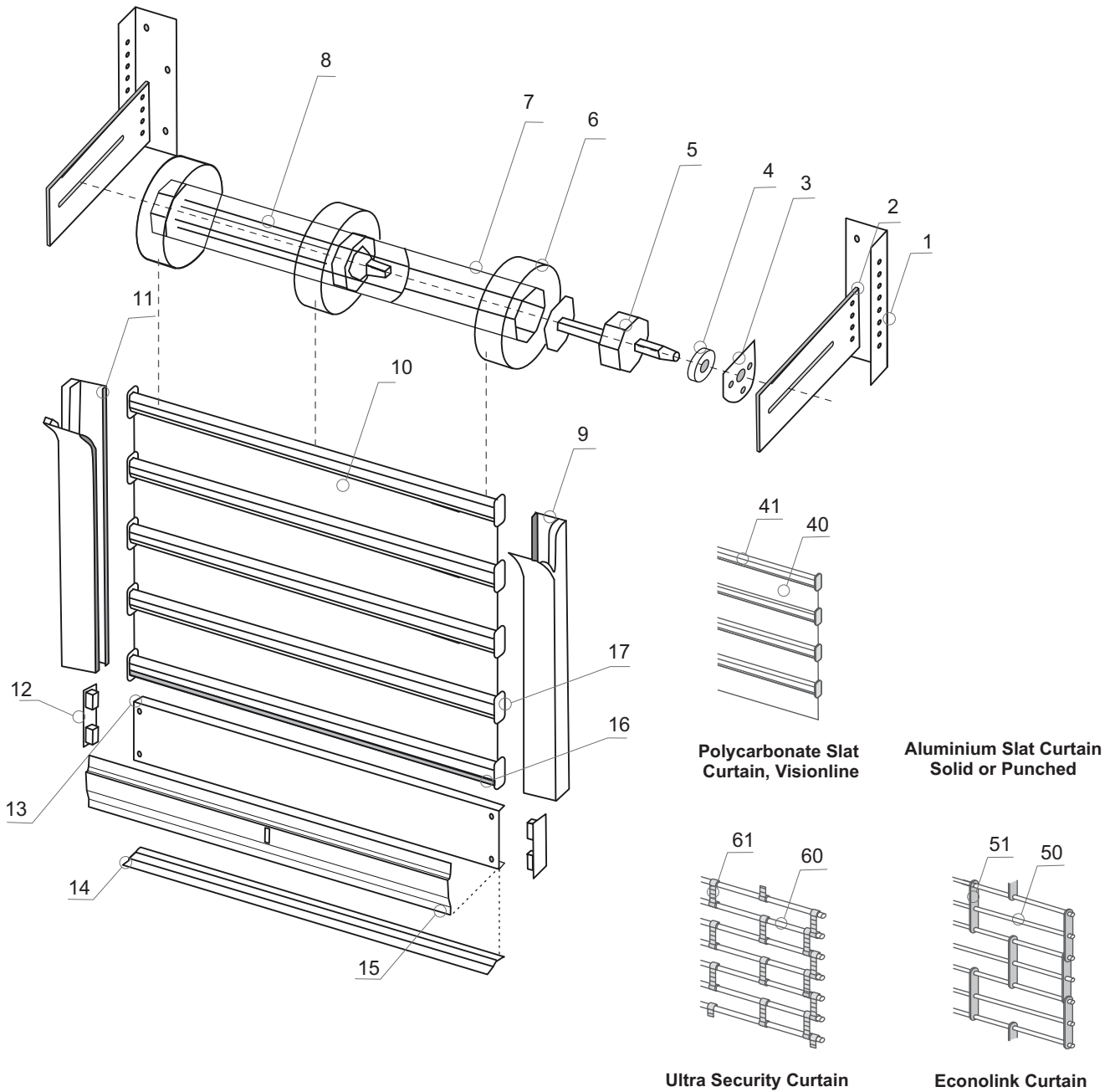
Juralco Knightguard® Rollergrille Systems - Component Layouts

Bottom and Curtain Extrusions 2:1



Juralco Knightguard® Rollergrille Systems - Component Layouts

Typical Component Layout



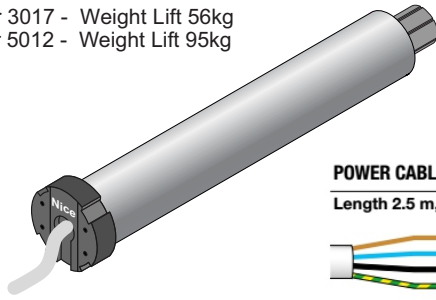
ROLLERGRILLE			
	ITEM		ITEM
1	Steel Angle Mounting Bracket	10	Selected Curtain
2	Steel Mounting Arm	11	Wool Pile
3	Bearing Holder	12	Base End Caps
4	Bearing, 42mm	13	Bottom Rail 85mm x 17mm
5	Octagonal Adjustable End Caps	14	Bottom Rail Footplate
6	Nylon Adaptor Wheel, 130mm dia	15	Front Cover Plate for Bottom Rail
7	Octagonal Hollow Steel Axle, 70mm dia	16	Bottom Rail Adaptor
8	Selected Tubular Motor	17	Nylon Plug , Fits into Slat Connecting Bar
9	Side Guide, 76 x 32mm		
		50	Aluminium Tube 12mm dia
31	Aluminium Slat Connecting Bar	51	Nylon Reinforced Links , 3 x hole
40	Polycarbonate Clear Slat 100mm x 1.6mm	60	Aluminium Tube 19mm dia
41	Aluminium Slat Connecting Bar	61	Aluminium Link 35mm x 2mm

Juralco Knightguard® Rollergrille Systems - Motors and Controls

Tubular Motors 45mm dia
JNICE ERA M

Tubular Motor 45mm dia
Mechanical Limit switches

Motor 3017 - Weight Lift 56kg
Motor 5012 - Weight Lift 95kg



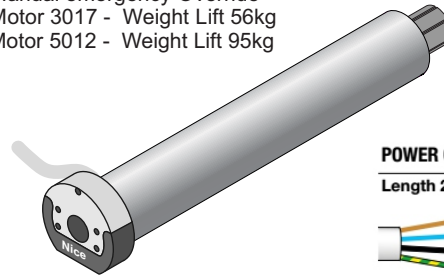
POWER CABLE
Length 2.5 m, 4 wires in cable



Tubular Motors 45mm dia
JNICE ERA MH

Tubular Motor 45mm dia
Mechanical Limit switches
Manual emergency Override

Manual emergency Override
Motor 3017 - Weight Lift 56kg
Motor 5012 - Weight Lift 95kg



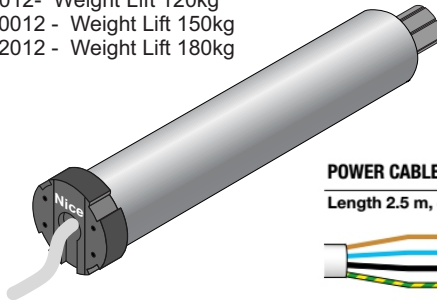
POWER CABLE
Length 2.5 m, 4 wires in cable



Tubular Motors 58mm dia
JNICE ERA L

Tubular Motor 58mm dia
Mechanical Limit switches

Motor 8012- Weight Lift 120kg
Motor 10012 - Weight Lift 150kg
Motor 12012 - Weight Lift 180kg



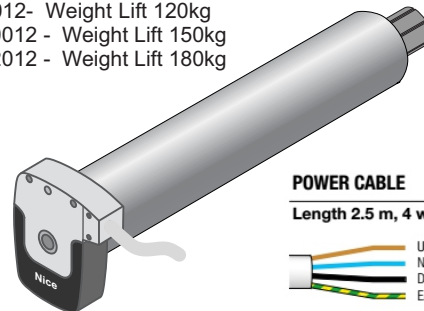
POWER CABLE
Length 2.5 m, 4 wires in cable



Tubular Motors 58mm dia
JNICE ERA LH

Tubular Motor 58mm dia
Mechanical Limit switches
Manual emergency Override

Motor 8012- Weight Lift 120kg
Motor 10012 - Weight Lift 150kg
Motor 12012 - Weight Lift 180kg

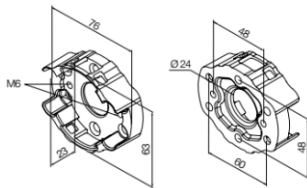


POWER CABLE
Length 2.5 m, 4 wires in cable



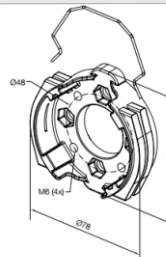
Motor Mount Brackets
JNICE/BRKT/ERAM

For 45mm dia Motors
Compact aluminium
support. 2 x holes M6 at
48 and 60mm CL



Motor Mount Brackets
JNICE/BRKT/ERAL

For 58mm dia Motors
Compact aluminium
support. 4 x holes M6
& 4 x Hex seats for M6 nuts.
For ERA L 12012 motor use
all 8 x Fastening points



Drive Wheel and Crown
JNICE/45OCT60



Drive Wheel and Crown
JNICE/58OCT70



Manual Controls
Switch Controls

Wall Controls



3 position Rotary Wall Switch
Up - Off - Close
Cover Plate - SSW 770 CPSM
Switch - SSW 770 RSB

Wireless
Remote Controls

Wireless Receiver



JNICE/BIDIAWNING. Nice controller for
Wireless operation. Can be added to
Switch operation and Manual override
Motors to make for wireless control

Wireless
Remote Controls

Portable Wireless
Transmitters



P1 P6 P18

P1 Portable transmitter to control 1 electrical load system
or automation group
P6 Portable transmitter to control 6 electrical load systems or
automation groups for activation in single or multigroup mode
P18 Portable transmitter to control 18 electrical load systems or
automation groups for activation in single or multigroup mode

Juralco Knightguard® Rollergrille Systems - Motors and Controls

Manual Control

HPM Rotary
Switch Controls

One switch per Single Motor only.
Use relays if more than single Motor
Motor fully tested
and Limits set at factory

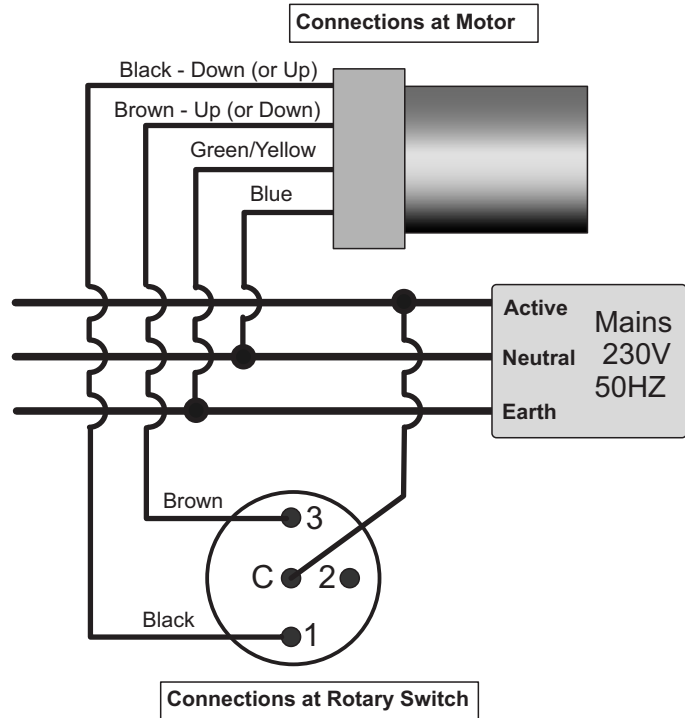


Tubular Motors 45mm dia
JNICE ERA M 3017 and 5012
JNICE ERA MH 3017 and 5012

Tubular Motors 58mm dia
JNICE ERA L 8012, 10012 and 12012
JNICE ERA LH 8012, 10012 and 12012

Motor Power Cable

Length 2.5 m, 4 wires in cable



Remote Control

Wireless Controls BiDi

Motor fully tested
and Limits set at factory

Wireless Remote control using
Portable Wireless Transmitters



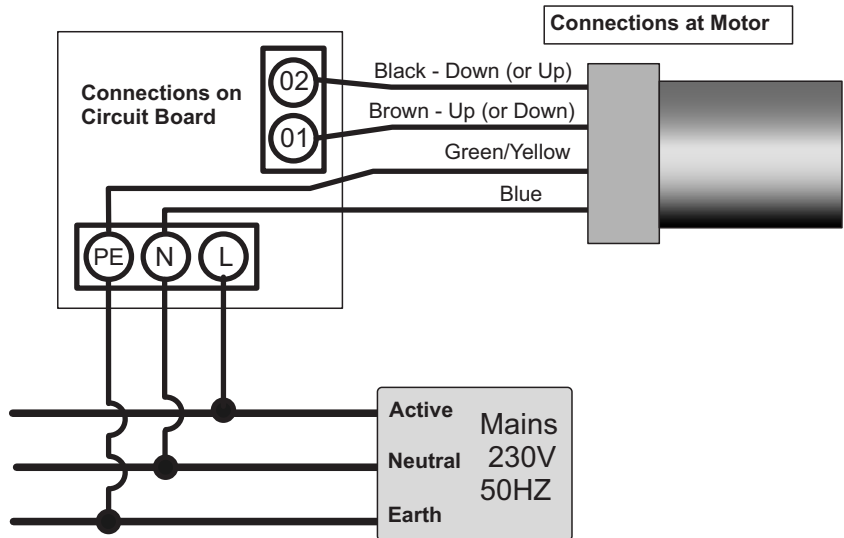
P1 P6 P18

Tubular Motors 45mm dia
JNICE ERA M 3017 and 5012
JNICE ERA MH 3017 and 5012

Tubular Motors 58mm dia
JNICE ERA L 8012, 10012 and 12012
JNICE ERA LH 8012, 10012 and 12012

Motor Power Cable

Length 2.5 m, 4 wires in cable



KNIGHTGUARD ROLLER GRILLE		Order Form	RG #
Customer		Contact	
Order No		Date	

WO Juralco

SO Juralco

\$ Juralco

Enter Dimensions Enter details/selections into all boxes. Then scan and send to sales@juralco.co.nz

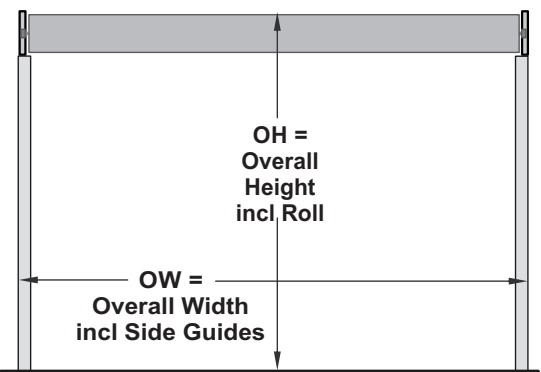
1 Enter Overall Measurements

Overall Height

Overall Height, incl Roll

Overall width

Overall Width, to outside of Side guides



OH = Overall Height incl Roll

OW = Overall Width incl Side Guides

Knightguard Roller Grille (Viewed from Inside)
 Any combination of dimensions.
 Overall Height 1000min - 3250max,
 Overall Width 1000min - 5000max (UltraSecurity 5500max)

2 Select Curtain Type

EconoLink <input style="width: 40px;" type="checkbox"/>	VisionLine <input style="width: 40px;" type="checkbox"/>
Solid <input style="width: 40px;" type="checkbox"/>	Ultra Security <input style="width: 40px;" type="checkbox"/>

Solid, Punched. Rectangular Square, Vertical

Solid, Punched. Rectangular Square, Brick

3 FYI - Roll diameters at 3250 max H
 EconoLink - 300mm dia VisionLine - 340mm dia UltraSecurity - 325mm dia Shutter Grille, Plain, Punched - 300mm dia

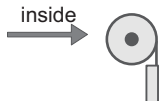
4 Tick box to select

Rollershutter Operation	Select
Motor, Switched operation	<input type="checkbox"/>
Motor, Remote operation	<input type="checkbox"/>
Motor, Switch+ M/Override	<input type="checkbox"/>

5 Tick box to select

Motor Wireless Control	No
JNICE/Bidi Awning. Switch to Wireless	<input type="checkbox"/>
P Portable Transmitters. P1, P6, P18	<input type="checkbox"/>

6 Tick box to select - one only

Motor Position	Select	Motor Position Viewed from
Motor at Right End	<input type="checkbox"/>	inside 
Motor at Left End	<input type="checkbox"/>	

7 Select Powder Coat Type and Colour

Duralloy Plus <input style="width: 40px;" type="checkbox"/>	Specify PC Colour and Code
Duratec <input style="width: 40px;" type="checkbox"/>	

Powder Coating not an Option for Econolink or Ultra Security. Both supplied as Natural Anodised

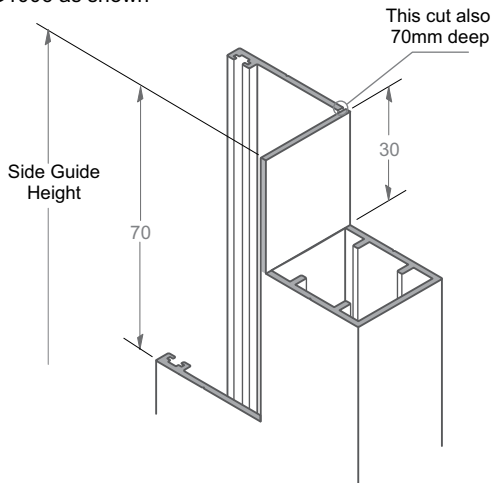
8 Notes

Juralco Knightguard® Rollergrille Systems - Machining

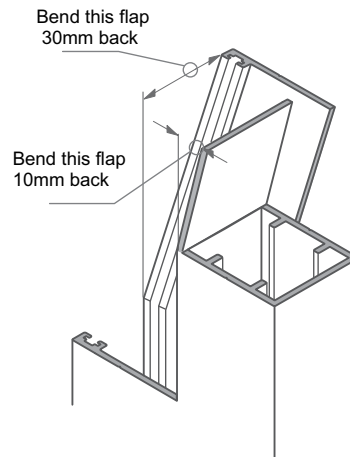
Flare for Side Guides

Right and Left hand pairs

1 - Cut 76mm side guide KG1006 as shown



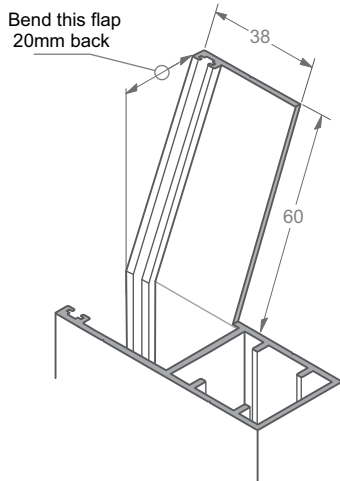
2 - Bend 76mm side guide KG1006 as shown



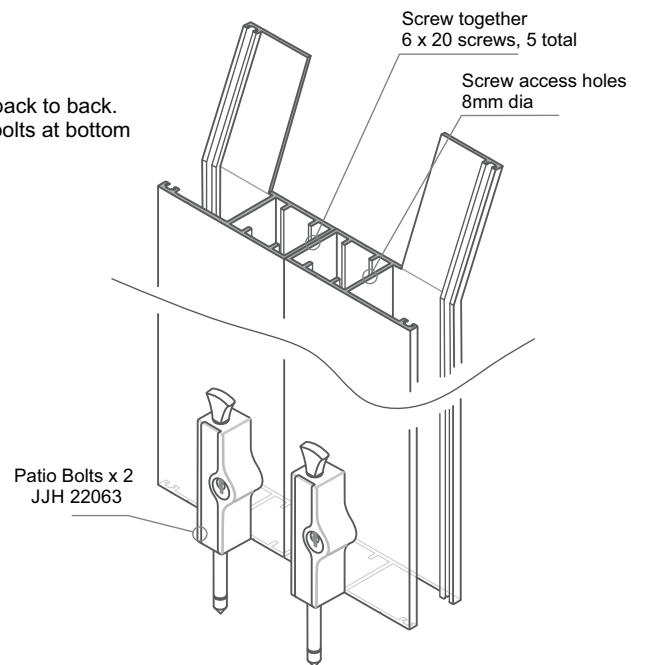
Removable Twin Mullions

Right and Left hand pairs

1 - Cut, Bend 76mm side guide KG1006 as shown



2 - Attach together back to back.
- Attach 2 x Patio bolts at bottom



Juralco Knightguard® Rollergrille Systems - Installation

Note: Prior to delivering to site, unpack and check all items

INSTALLATION HINTS

1 - RULE NO 1 - THINK, carefully before commencing the work. Carefully plan your work before commencing.

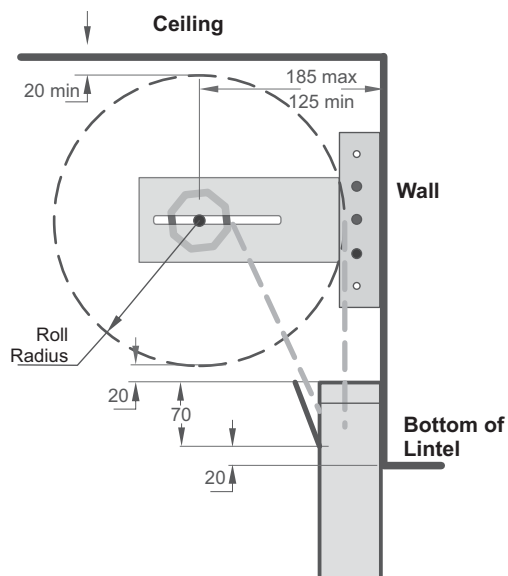
The installer should carefully inspect each opening and make certain where and how the shutter is to be fixed.

2 - RULE NO 2 - THINK, safety first.

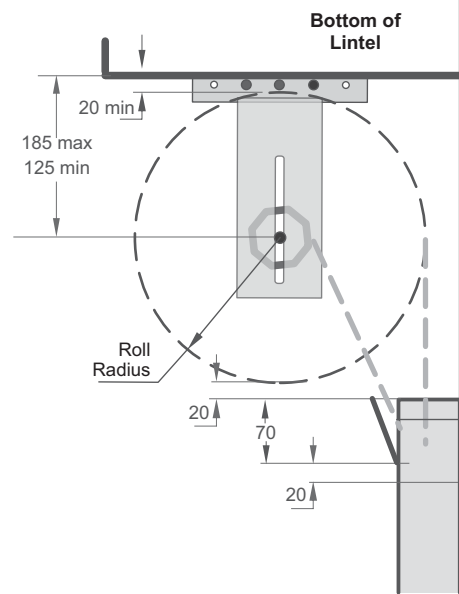
3 - HANDY HINTS

- a - Always keep some spare drill bits.
 - b - Have all drill bits ready sharpened before commencing work.
 - c - Have some touch-up paint with you.
 - d - Have a piece of flat aluminium sheet of 2mm to 3mm thickness. You may need to improvise on site.
 - e - Have a piece of side guide handy to help you space out and mark where to drill fixing holes.
 - f - Upon arrival at the work site, assign all the numbered componentry to each shutter and to each opening.
 - g - After installing, test the Rollergrille to your satisfaction, adjust top and bottom limits, silicone spray inside the side guides.
- Test all controls and locks, that they work cleanly and smoothly.
- h - Attach company labels and maintenance phone contacts in an obvious place.
 - i - Hand the customer any operating Manuals.
 - j - Always leave the installation (and site) in a clean and tidy condition.

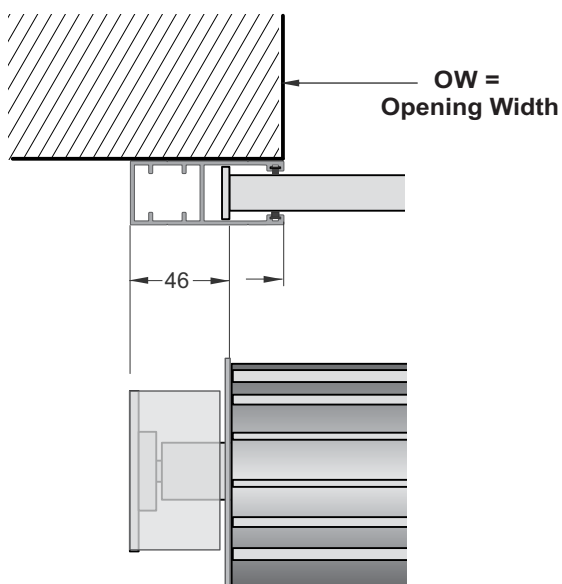
Face Mount
Cross Section



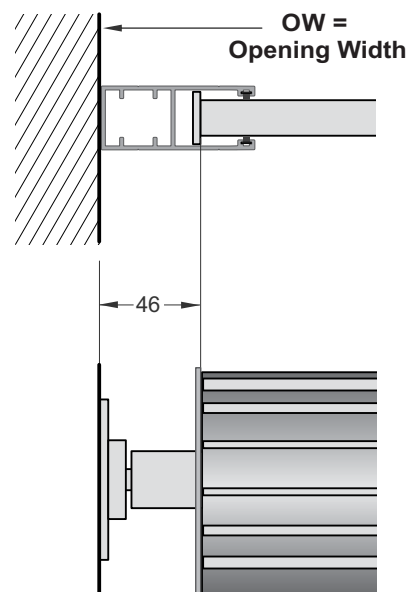
Reveal Mount
Cross Section



Plan View - Face Mount



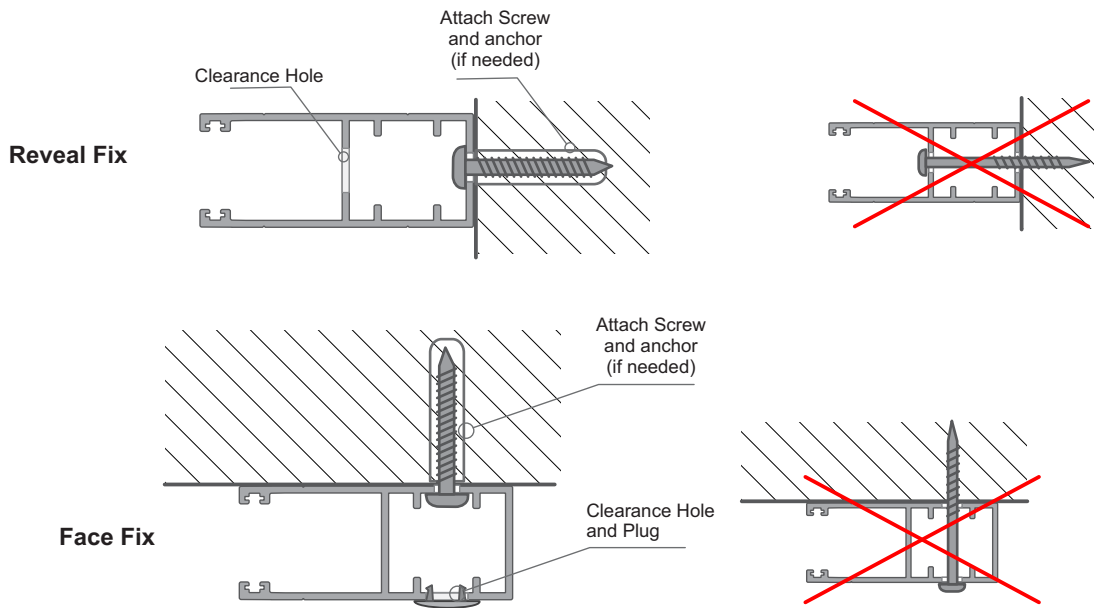
Plan View - Reveal Mount



Juralco Knightguard® Rollergrille Systems - Installation

Attach Side Guides

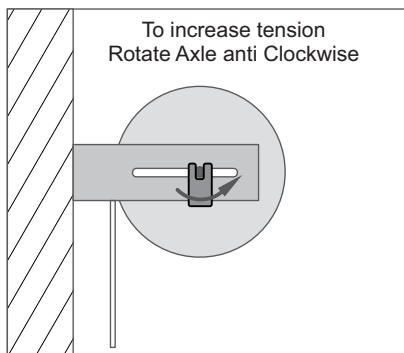
- a - If not drilling into timber, be sure to fix into full bricks or blocks and not into mortar joints.
 b - Use galvanised 10 gauge x 35mm screws as a minimum standard for fixing.
 For maximum security alternative security anchors should be used.



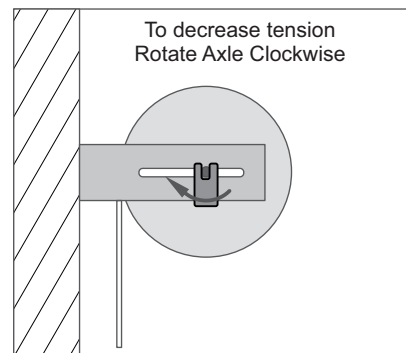
Side Guides should be square and parallel after fixing - pack out if necessary

Recommended Installation Procedure

- 1 - Unpack and check components.
- 2 - Measure roll diameter to establish the radius.
- 3 - Mark, and fix in place angle support brackets as per drawing on next page
 Note: Brackets must be level.
 Bracket fastening recommendation.
 Masonary M10 x 60mm Dynabolts. (2 per bracket, not supplied)
 Timber M10 x 50mm Coachscrews. (3 per bracket, supplied)
- 4 - Lift rollergrille onto brackets, spring end first. Position the roll so that the spring tension key is easily removable
- 5 - Adjust pin at other end of axle to fully engage into 42mm bearing. Apply Loctite, then tighten the allen screw.
- 6 - Fit tek screw through spring support bracket and spring axle.
- 7 - Position side guides, plumb and fix in place using 40 x 8g screws (supplied).
- 8 - With 1 person holding the roll firmly, tap out the tension key. Introduce the curtain into the side guides and pull down.
- 9 - All units are tested and pre-tensioned at Juralco, and should require no further adjustment. However, if tension adjustment is required, rotate the axle roll as shown below to increase or decrease the tension.



Remove Tension Before Rotating Axle, or trying to pull down door



Remove Tension Before Rotating Axle, or trying to pull down door

- 10 - To stop the roll at the correct height when lifted. Fix 120 x 50 x 3mm flat bar to the side guides with Monel rivets (supplied). As the curtain is raised, the bottom rail footplate will catch the flat bar

Powder Coating Installation Care

Warning re use of solvents:

- In some cases strong solvents are recommended for thinning various types of paints and also for cleaning up mastics and sealants.
- These can be harmful to the extended life of the powder coated surface, and must not be used for cleaning purposes.
- It is important to note that the damage will not be visible immediately and may take up to 12 months to develop.

If paint splashes or sealants and mastics need to be removed then the following may be safely used:
Methylated Spirits, Ethyl Alcohol, Isopropanol or preferably a mild detergent in warm water.

Joinery Protection during Installation:

All the activity on a construction site means that your powder coated items may get knocked or scratched, splattered with mortar, plaster, textured coating or paint during the later stages of construction.

Please ensure that all powder coated articles are masked or covered at this time. It is far easier to prevent accidents than to try and correct them. Should your joinery receive mortar or paint splashes see that these are removed before cure and follow the instructions contained in this brochure.

Typical sticker used to warn other trades of the need to protect and mask off powder coated joinery (applies to anodised joinery also)

"IMPORTANT ALL TRADES"
This valuable aluminium joinery will suffer permanent damage from: plaster, mortar and paint splashes - Protect if splashes occur - Immediately wash down joinery with water or meths - Do not allow splashes to harden! - Do not use solvents! - Do not remove this label until final clean completed.

This photograph displays damage that has occurred on site, post installation. The photo of the masked joinery displays clear signs of damage that could have occurred were it not masked. Please ensure that your joinery is protected right through the entire construction process.



Powder Coating Maintenance

External - Maintenance Program:

To extend the life of external powder coated articles and to comply with warranty requirements for powder coated aluminium joinery, a simple, regular maintenance program must be implemented.

The effects of ultra violet light, atmospheric pollution, dirt, grime and airborne salt deposits will all accumulate over time and must be removed or surface staining and weathering will occur, leading to an unsightly appearance.

For external coatings, cleaning should take place every six months. In areas where pollutants are more prevalent, such as beachfront houses and industrial or geothermal areas, then a cleaning program should be carried out on a more frequent basis ie. every one to three months.

Cleaning your powder coating:

1. Carefully remove any loose surface deposits with a wet sponge.
2. Use a soft brush (non abrasive) and a mild household detergent (do not use solvents) in warm water, remove dust, salt and other deposits.
3. Rinse off with clean fresh water.



Restoring weathered or scratched surfaces:

Repair of Scuffed or Scratched surfaces
Dulux Spray Cans are available in all colour card colours.

Repair of Small Scratches or Chips.
Dulux Dabsticks are ideally suited for the repair of small scratches.
Dabsticks may not be available in all colour card colours.

Repair of Weathered areas .
Dulux Gloss Up is a light to medium cutting cream ideally suited for gloss restoration and has been specifically designed for this purpose.
Gloss Up contains no waxes or silicone and is a one step system.



Contact Dulux Powder Coatings , ph 0064 9 441 8244

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