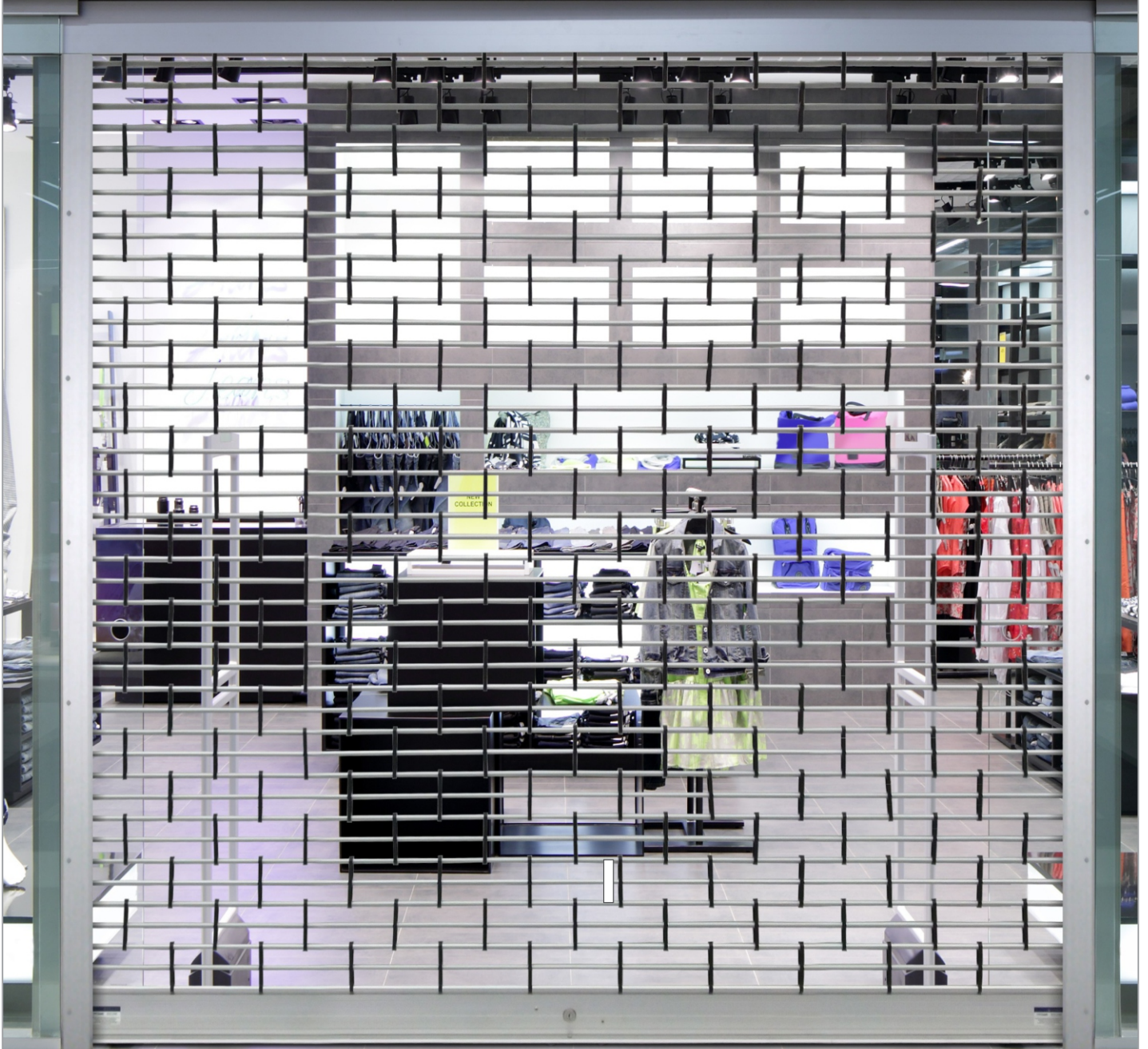


AGE



QUA



 JURALCO

**JURALCO KNIGHTGUARD®  
ROLLERGRILLE SYSTEM**

ISSUE 4-24 v2

## 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
Curtains	4	Shows the differing types of curtains
Materials	5 - 8	Shows all Extrusions and Components
Door	9	Shows typical Door components and layout
Motors, controls	10 - 11	Shows Motors, Wiring Diagrams and Switch and Wireless controls
Roll Dimensions	12	Rollergrille Roll dimensions
Order Form	13	Rollergrille Door Order Form
Installation	14 - 16	Machining, Installation hints and cutting tables
Powder coat	17	Instructions for the care of Powder coated surfaces

### **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.

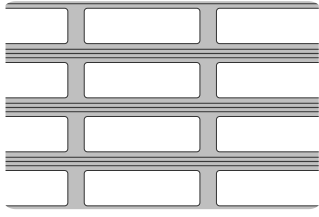
**Swimming Pools** The chlorinated water in swimming pools can cause the deterioration of powder coated surfaces, leading to corrosion of the underlying surface. It is recommended that Powder coated surfaces be 1200mm min from a pool.

**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.

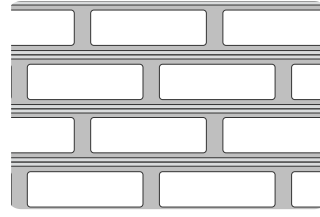
# Juralco Knightguard® Rollergrille Systems - Curtain Options

## 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



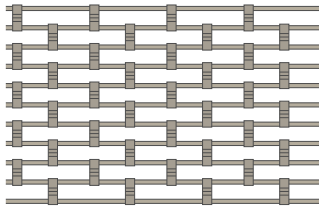
## Visionline

Clear Polycarbonate slats, aluminium rails  
 Finishes - Powdercoat only



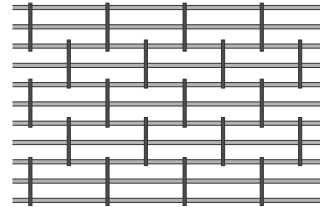
## Ultra Security

Heavy duty Aluminium rails and links  
 Finish - Natural anodised



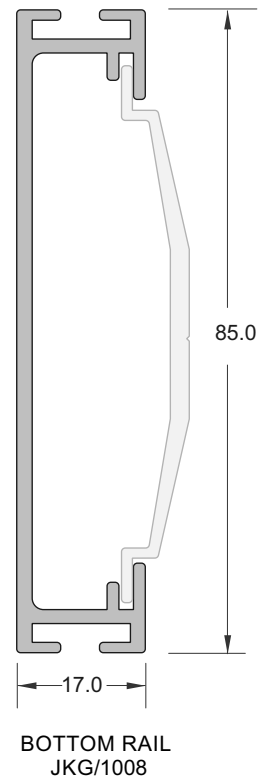
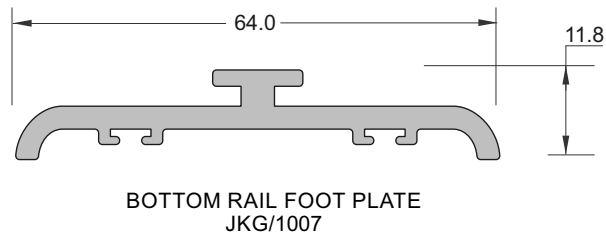
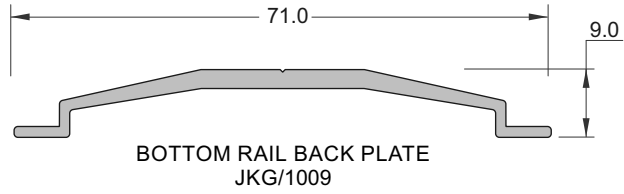
## EconoLink

Aluminium rails and nylon links  
 Aluminium Finish - Natural anodised

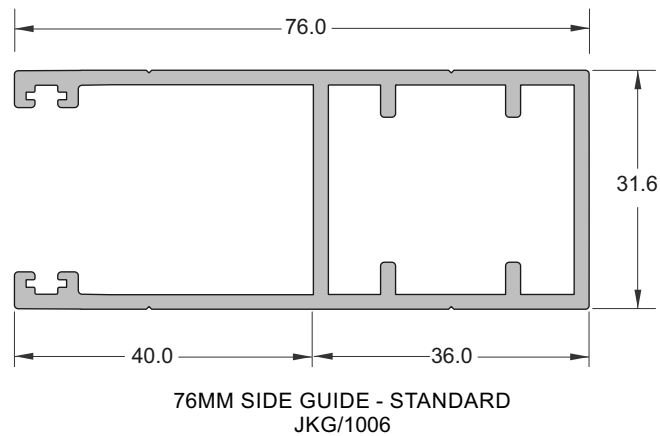


# Juralco Knightguard® Rollergrille Systems - Extrusions

## Curtain Bottom Extrusions 1:1

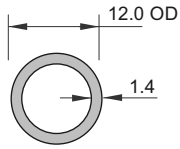


## Side Guide Extrusions 1:1

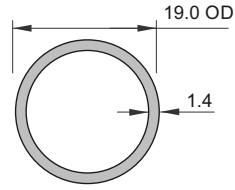


# Juralco Knightguard® Rollergrille Systems - Extrusions

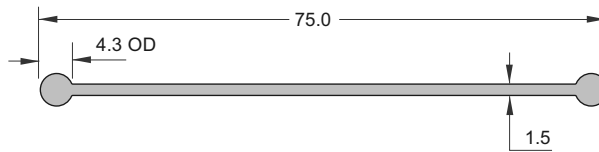
## Curtain Extrusions 1:1



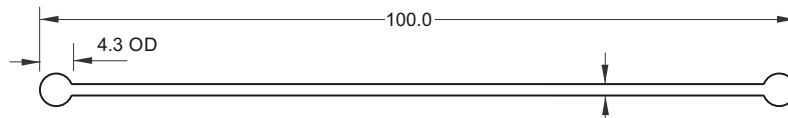
ECONOLINK TUBE  
JKG/2006



ULTRA SECURITY TUBE  
JKGS/2013

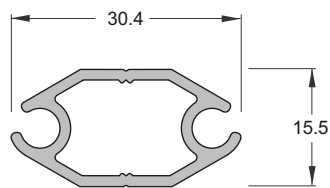


PLAIN SLAT  
JKGS/2007

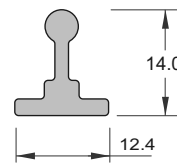


KGS CLEAR POLYCARBONATE SLAT  
KGV/4005

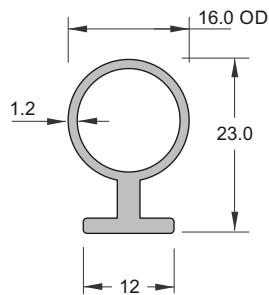
## Curtain Connector Extrusions 1:1



HOLLOW SLAT CONNECTOR  
JKGV/4002



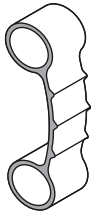
BOTTOM RAIL ADAPTOR  
(Punched Slat and VisionLine)  
JKGV/4001



BOTTOM RAIL ADAPTER  
(Ultra Security and Econolink)  
JKG/1010

# Juralco Knightguard® Rollergrille Systems - Components

Ultra Security 35mm Link  
Part No JKGS2009/NAT



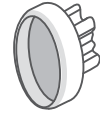
Econolink Link  
Part No JKGE3004



Base End Cap (LH and RH)  
Part No JKG1017

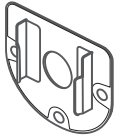


Plastic End Plugs  
Part No JKGV4003



Slat and Visionline

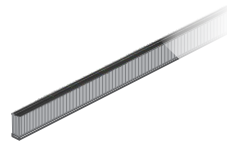
Bearing Holder  
Part No JKGL2/02



Bearing  
Part No JKG6C35802



Wool Pile  
Part No JRF98/10mm



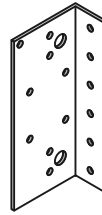
19mm Saddle Clamp  
(Ultra Security)  
Part No JKGS2015



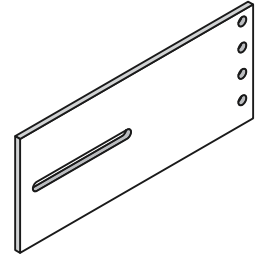
12mm Saddle Clamp  
Part No JKGE125C



Steel Mounting Bracket  
Part No JKG1001/A



Steel Mounting Arm  
Part No JKG1001/D



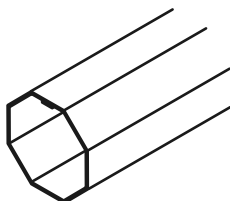
Centre Mullion,  
Black Nylon  
Part No JKG1004



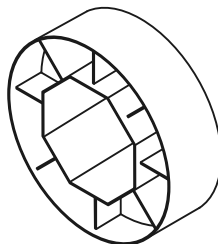
Patio Bolt  
Part No JJH22063B



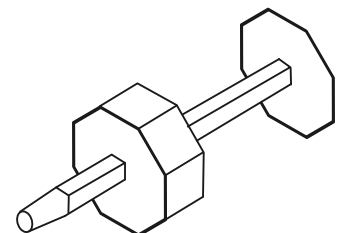
Octagonal Axle 70mm  
Part No JKGV6B4470



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

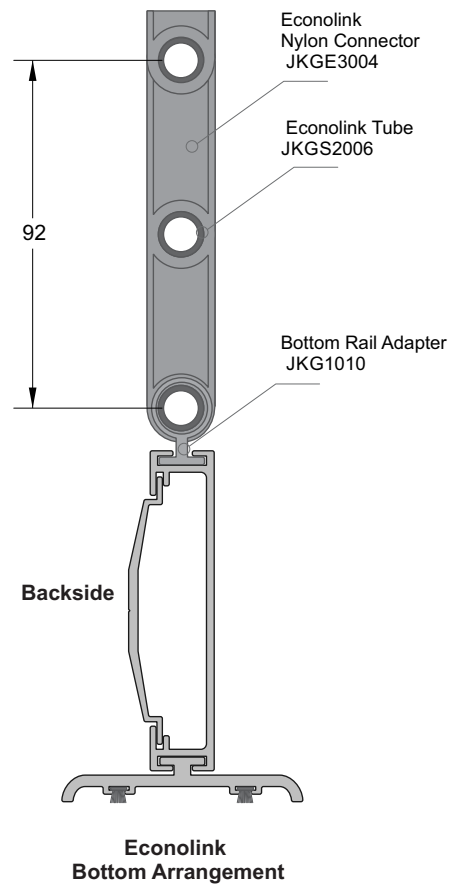
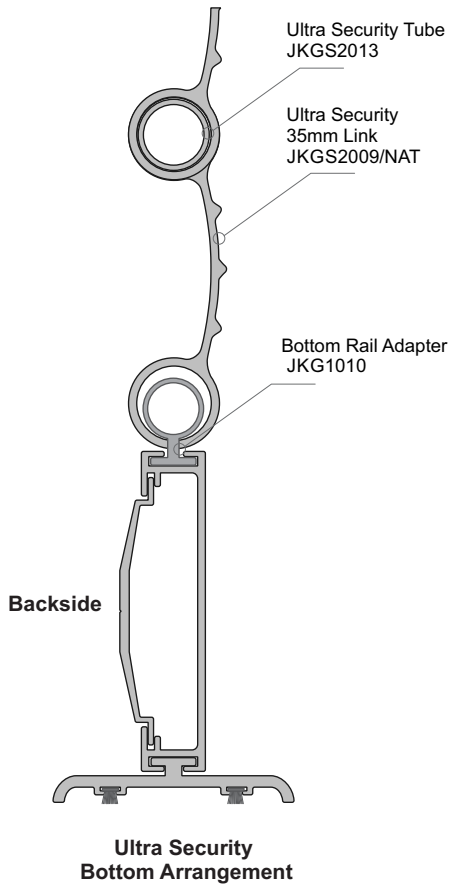
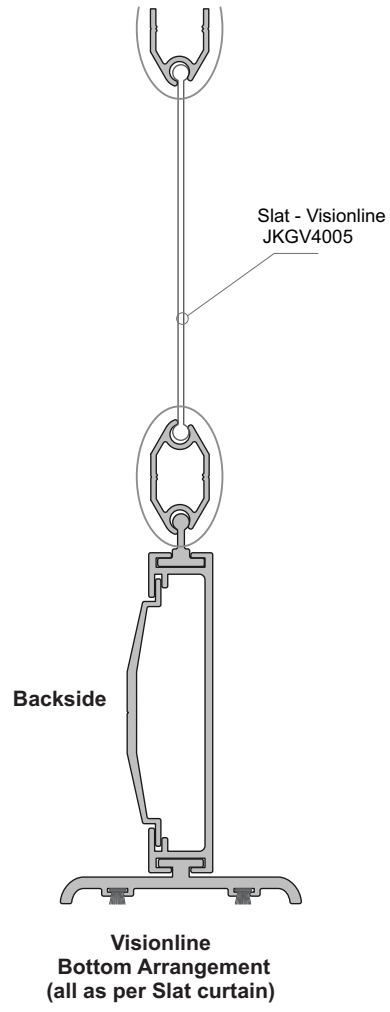
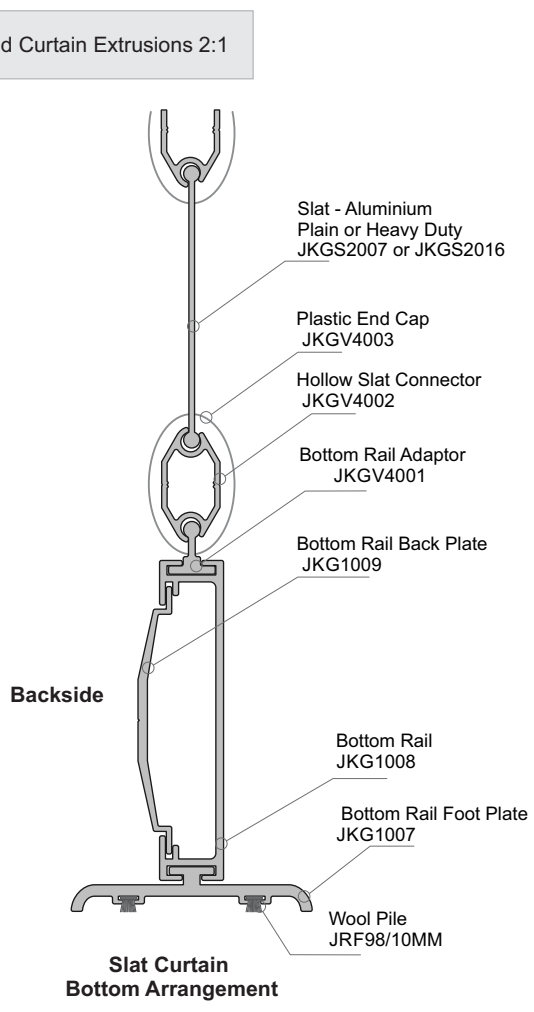


Adjustable End Cap 70mm  
Part No JKGK1/19



# Juralco Knightguard® Rollergrille Systems - Component Layouts

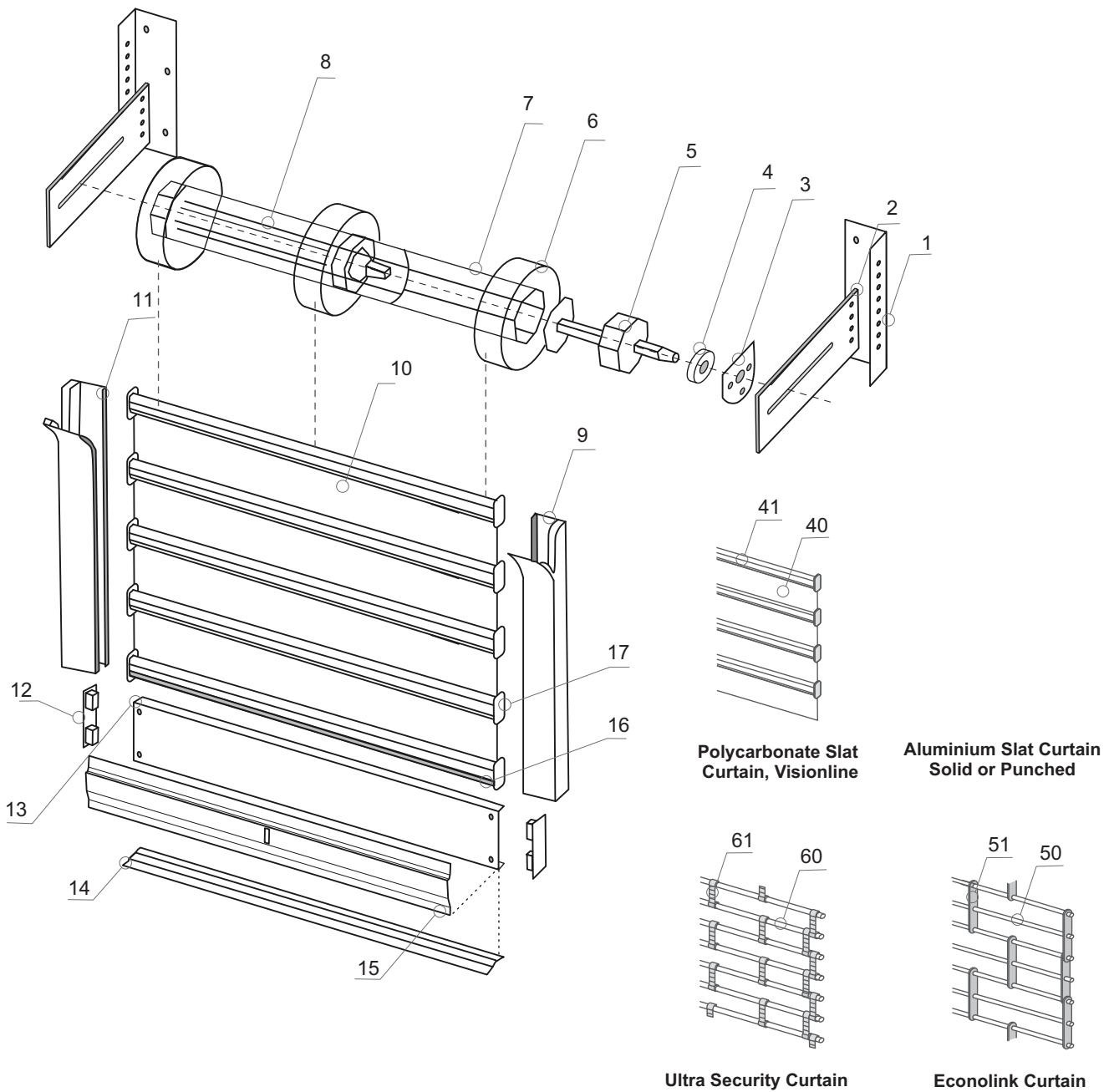
Bottom and Curtain Extrusions 2:1





# Juralco Knightguard® Rollergrille Systems - Component Layouts

## Typical Component Layout

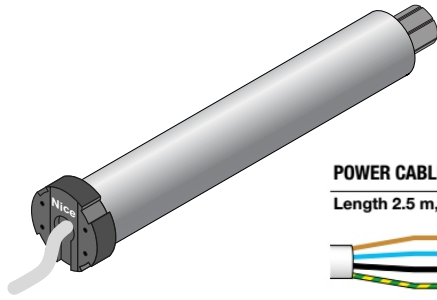


ROLLERGRILLE			
	ITEM		ITEM
1	Steel Angle Mounting Bracket	10	Selected Curtain
2	Steel Mounting Arm	11	Wool Pile
3	Bearing Holder	12	Base End Caps
4	Bearing, 42mm	13	Bottom Rail 85mm x 17mm
5	Octagonal Adjustable End Caps	14	Bottom Rail Footplate
6	Nylon Adaptor Wheel, 130mm dia	15	Front Cover Plate 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

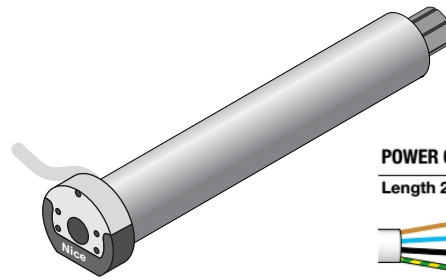


**POWER CABLE**  
Length 2.5 m, 4 wires in cable



Tubular Motors 45mm dia  
JNICE ERA MH

Tubular Motor 45mm dia  
Mechanical Limit switches  
Manual emergency Override

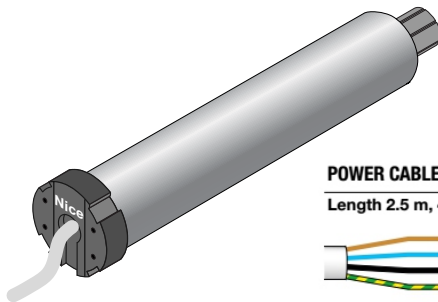


**POWER CABLE**  
Length 2.5 m, 4 wires in cable



Tubular Motors 58mm dia  
JNICE ERA L

Tubular Motor 58mm dia  
Mechanical Limit switches

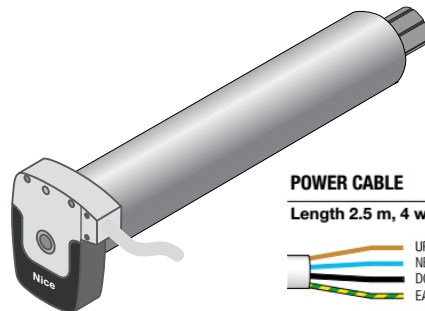


**POWER CABLE**  
Length 2.5 m, 4 wires in cable



Tubular Motors 58mm dia  
JNICE ERA LH

Tubular Motor 58mm dia  
Mechanical Limit switches  
Manual emergency Override

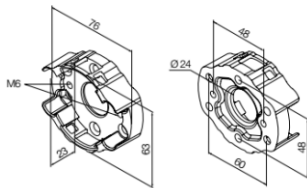


**POWER CABLE**  
Length 2.5 m, 4 wires in cable



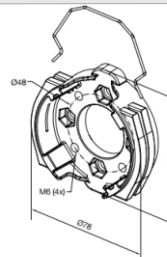
Motor Mount Brackets  
JNICE/BRKT/ERAM

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/45OCT70



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

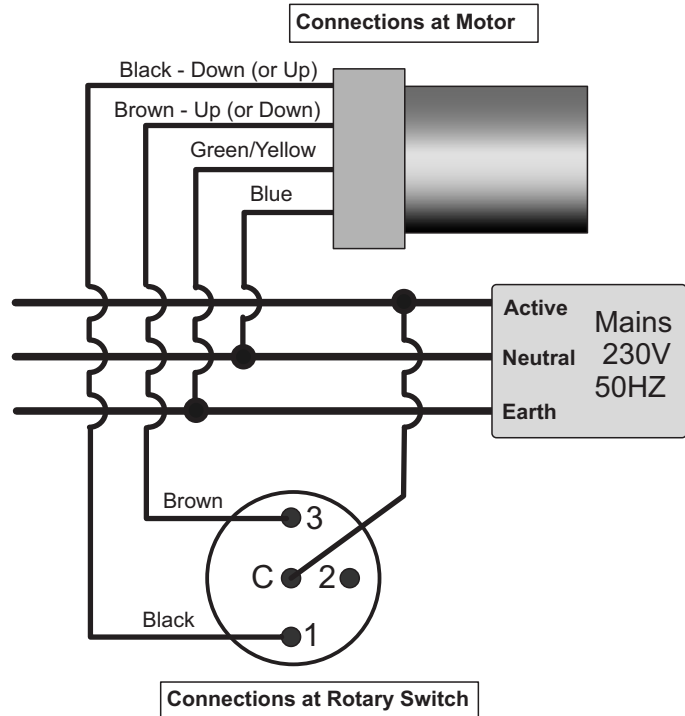


Tubular Motors 45mm dia  
JNICE ERA M 3017 and 5012  
JNICE ERA MH 3017 and 5012

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



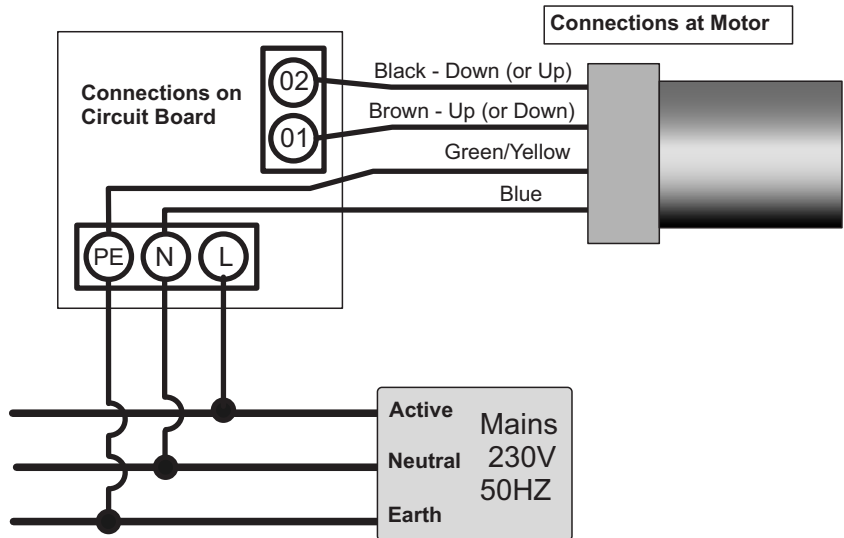
P1 P6 P18

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



These all for Motor Operation only. Switch or Remote control

Econolink Curtain Weights kg	Widths	1000	1500	2000	2500	3000	3500	4000	4500	5000	Roll Dia	
	Heights	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	
	1000	10	13	18	23	26	30	35	39	41	<b>240</b>	
	1500	12	16	21	27	32	37	43	48	53	<b>290</b>	
	2000	13	19	25	32	37	43	50	56	61	<b>320</b>	
	2500	15	21	28	36	42	49	56	63	70	<b>335</b>	
	3000	17	24	31	40	47	55	63	71	78	<b>350</b>	
	3250	18	25	33	42	50	58	67	75	83	<b>360</b>	

Visionline Clear Polycarbonate See Through Curtain Weights kg	Widths	1000	1500	2000	2500	3000	3500	4000	4500	5000	Roll Dia	
	Heights	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	
	1000	12	17	22	28	33	38	44	49	54	<b>200</b>	
	1500	15	21	28	35	42	48	65	62	69	<b>240</b>	
	2000	17	25	33	41	49	57	66	71	81	<b>270</b>	
	2500	20	29	38	48	57	66	76	85	94	<b>295</b>	
	3000	22	32	43	54	64	74	86	96	106	<b>325</b>	
3250	24	35	46	58	69	80	92	103	114	<b>340</b>		

Ultra Security Curtain Weights kg	Widths	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	Roll Dia	
	Heights	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	
	1000	11	16	21	27	31	36	42	47	52	57	<b>240</b>	
	1500	14	20	26	34	40	46	53	60	62	72	<b>255</b>	
	2000	16	24	31	40	47	54	63	70	78	85	<b>270</b>	
	2500	19	27	36	45	54	63	72	81	89	98	<b>300</b>	
	3000	21	31	41	51	61	71	81	91	101	111	<b>315</b>	
3250	23	33	43	55	65	76	87	98	108	119	<b>325</b>		

Shuttergrille Solid Slat Curtain Weights kg	Widths	1000	1500	2000	2500	3000	3500	4000	4500	5000	Roll Dia	
	Heights	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	
	1000	14	21	27	34	41	47	55	61	67	<b>185</b>	
	1500	19	27	36	45	54	62	72	81	89	<b>225</b>	
	2000	22	33	43	54	65	75	87	97	107	<b>250</b>	
	2500	26	38	50	64	76	88	101	113	126	<b>270</b>	
	3000	30	44	58	73	87	101	116	130	144	<b>285</b>	
3250	32	47	62	78	93	108	125	140	155	<b>300</b>		

Shutter grille Punched Rectangular or Brick Pattern Curtain Weights kg	Widths	1000	1500	2000	2500	3000	3500	4000	4500	5000	Roll Dia	
	Heights	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	
	1000	11	14	20	26	31	35	41	46	51	<b>185</b>	
	1500	14	18	26	33	39	45	52	58	64	<b>225</b>	
	2000	16	21	30	38	46	53	61	68	75	<b>250</b>	
	2500	18	24	35	44	52	61	70	78	87	<b>270</b>	
	3000	20	28	39	50	59	68	79	88	98	<b>285</b>	
3250	22	30	42	53	63	73	84	94	105	<b>300</b>		

# KNIGHTGUARD ROLLERGRILLE

Order Form

RG #

Customer

Contact

Order No

Date

WO Juralco

SO Juralco

\$ Juralco

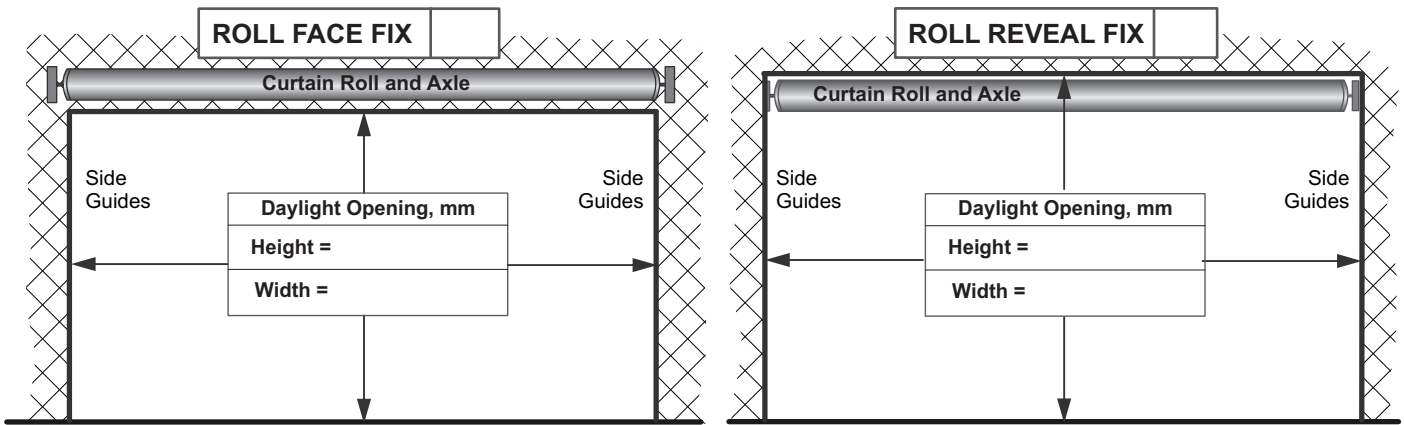
Enter Dimensions Enter details/selections into all boxes. Then scan and send to [sales@juralco.co.nz](mailto:sales@juralco.co.nz)

## All for Motor Operation only

1 Select Curtain Type

EconoLink	VisionLine	Solid, Punched. Rectangular Square, Vertical
Solid	Ultra Security	Solid, Punched. Rectangular Square, Brick

2 Enter Height and Width for chosen configuration. Check Roll max dia and desired clearances above and below Rolled up door



3 Side Guides Face or Reveal Fix (viewed from Inside)

Reveal	Face	Left Side	Select	Right Side	Select
		Reveal		Reveal	
		Face		Face	

4 FYI - Roll diameters at 3250 H  
EconoLink - 360mm dia VisionLine - 340mm dia UltraSecurity - 325mm dia Shutter Grille, Plain, Punched - 300mm dia

5 Tick box to select

Rollershutter Operation	Select
Motor, Switched operation	
Motor, Remote operation	
Motor, Switch+ M/Override	

6 Tick box to select, enter P no

Motor Wireless Control	No
P Portable Transmitters. P1, P6, P18	P.....
JNICE/Bidi Awning.	

7 Tick to select

Motor End	Select
Right End	
Left End	

Motor Position Viewed from

8 Select Powder Coat Type and Colour

Duralloy Plus	
Duratec	

Specify PC Colour and Code

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

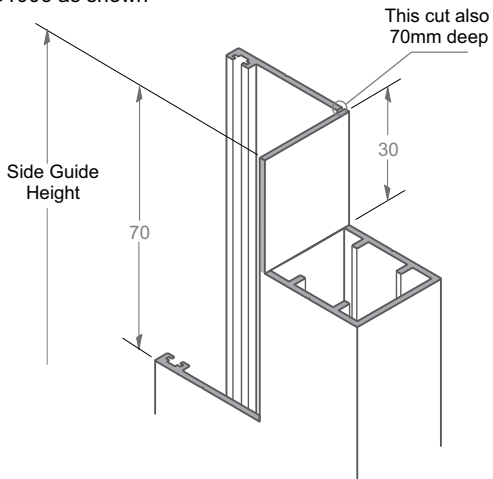
9 Notes

# Juralco Knightguard® Rollergrille Systems - Machining

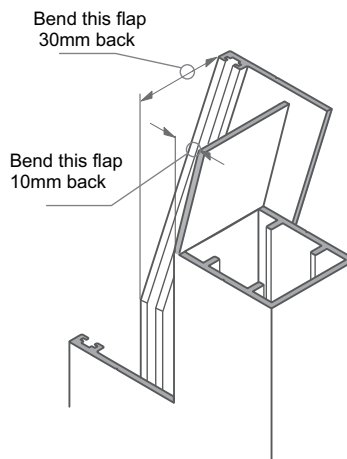
## Flare for Side Guides

Right and Left hand pairs

1 - Cut 76mm side guide KG1006 as shown



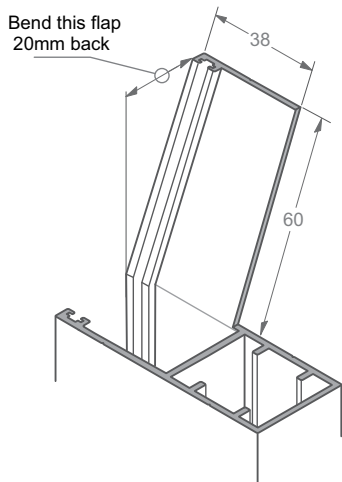
2 - Bend 76mm side guide KG1006 as shown



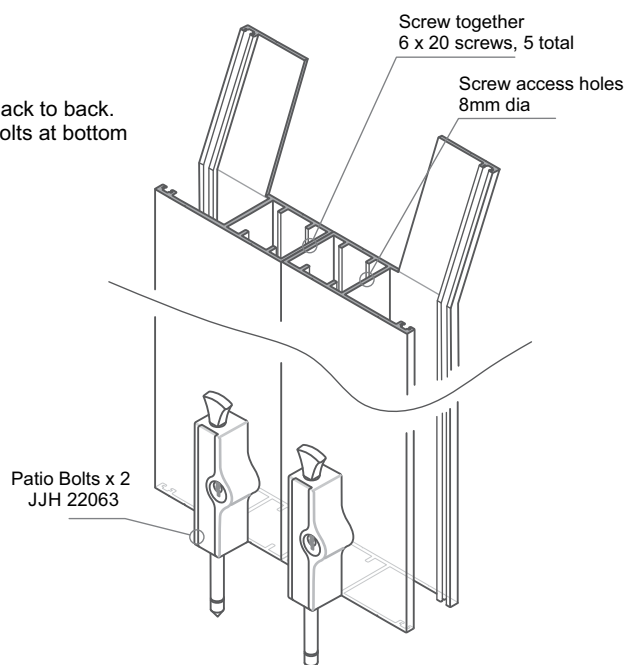
## Removable Twin Mullions

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.

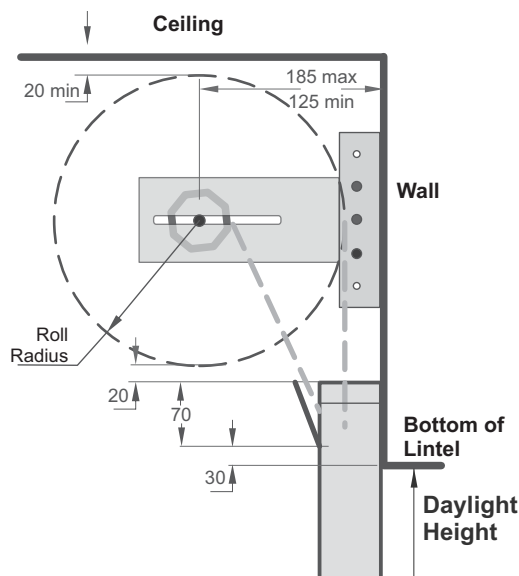
Test all controls and locks, that they work cleanly and smoothly.

h - Attach company labels and maintenance phone contacts in an obvious place.

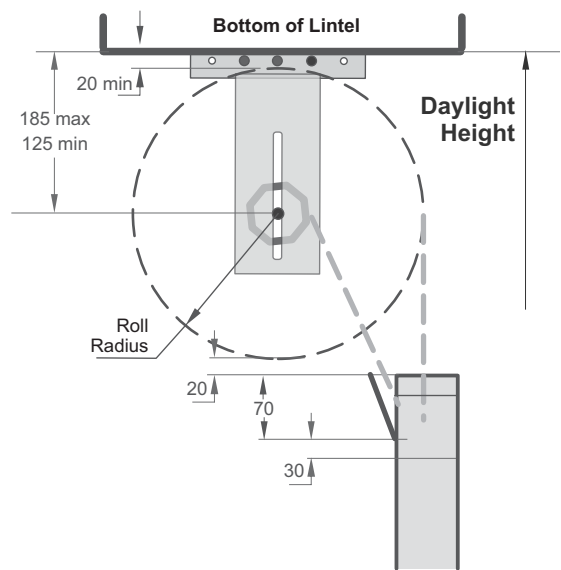
i - Hand the customer any operating Manuals.

j - Always leave the installation (and site) in a clean and tidy condition.

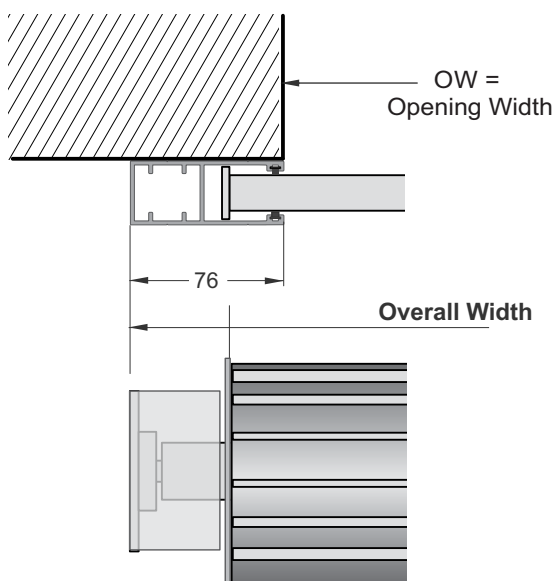
Face Mount  
Cross Section



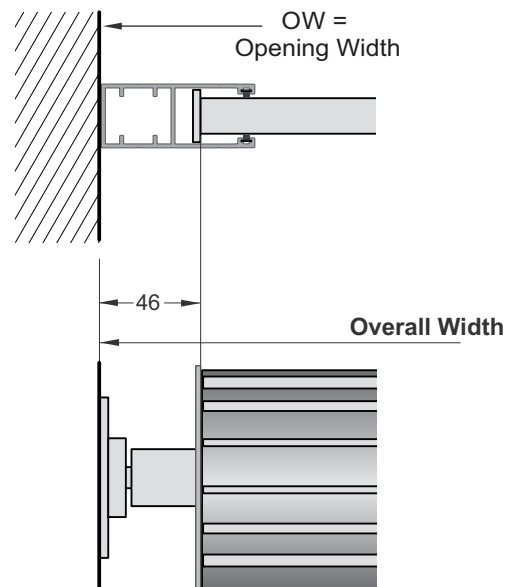
Reveal Mount  
Cross Section



Plan View - Face Mount



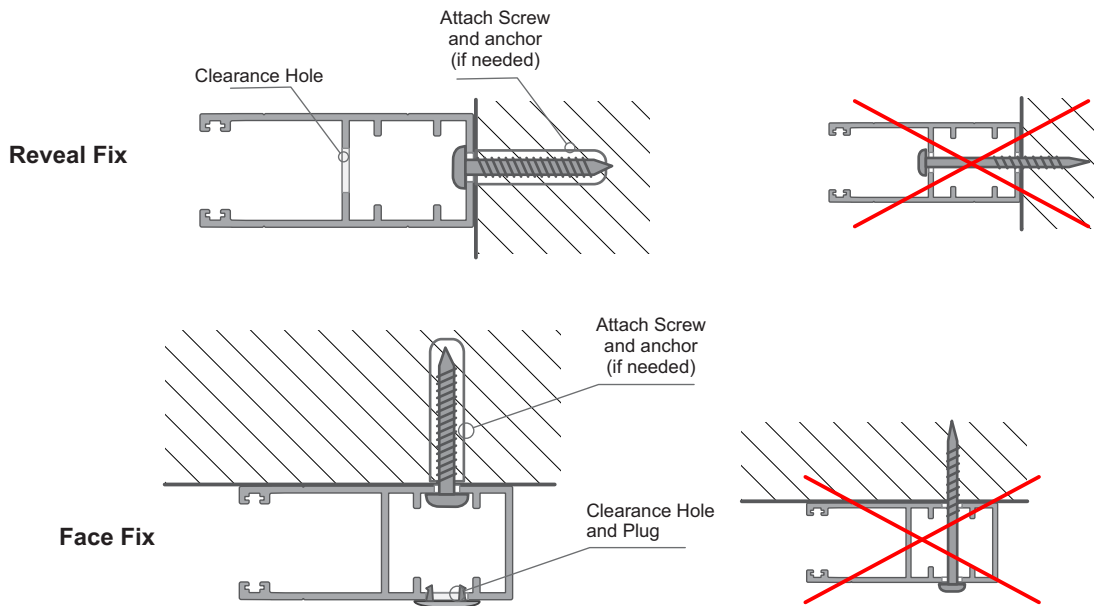
Plan View - Reveal Mount



## Juralco Knightguard® Rollergrille Systems - Installation

### Attach Side Guides

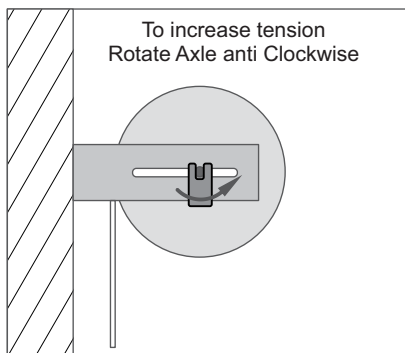
- a - If not drilling into timber, be sure to fix into full bricks or blocks and not into mortar joints.  
 b - Use galvanised 10 gauge x 35mm screws as a minimum standard for fixing.  
 For maximum security alternative security anchors should be used.



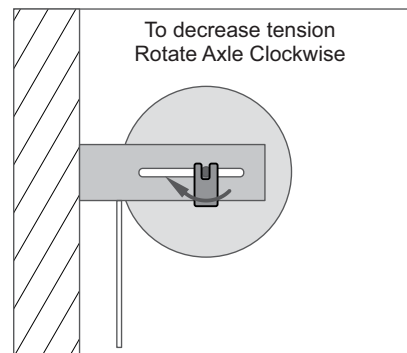
Side Guides should be square and parallel after fixing - pack out if necessary

### 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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