JURALCO KNIGHTGUARD® ROLLERGRILLE SYSTEM

ISSUE 5-24 v1

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 Serverys, 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

Cover. Juralco Econolink Roller Grille

Index

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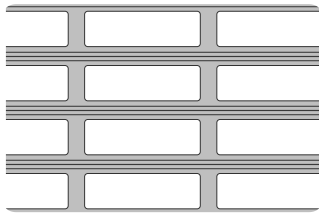
Care The Dulux powder coating warranty period is conditional upon the surface being maintained
 in accordance with the Dulux 'Care and Maintenance Instructions'. Download from Dulux or refer to the back page of this manual.
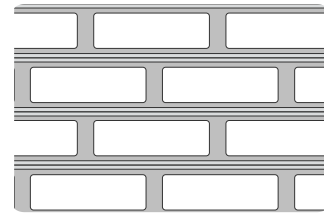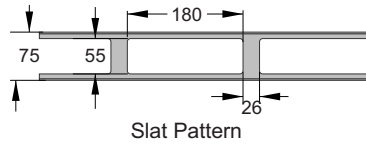
Punched Aluminium Slat

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

Rectangular/Square Pattern
Vertical Align

Slat Pattern

Rectangular/Square Pattern
Brick

Solid Slat

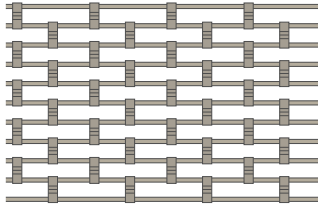Solid Aluminium slats and rails
Finishes - Powdercoat only

Visionline

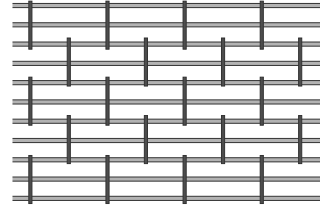Clear Polycarbonate slats, aluminium rails
Finishes - Powdercoat only

Ultra Security

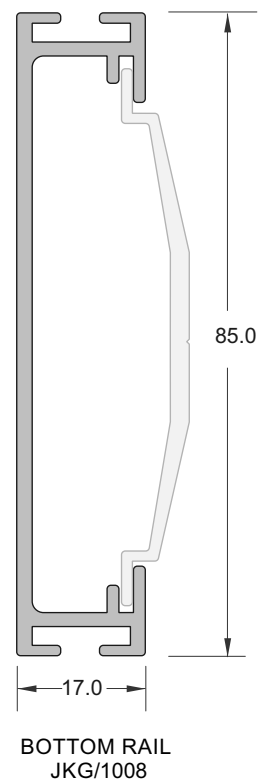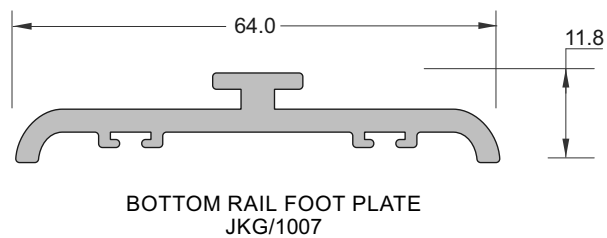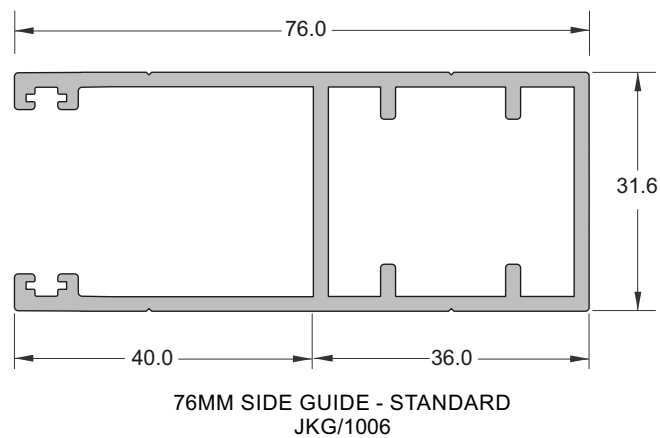Heavy duty Aluminium rails and links
Finish - Natural anodised

EconoLink

Aluminium rails and nylon links
Aluminium Finish - Natural anodised

Curtain Bottom Extrusions

71.0

9.0

BOTTOM RAIL BACK PLATE
JKG/1009

64.0

11.8

BOTTOM RAIL FOOT PLATE
JKG/1007

85.0

17.0

BOTTOM RAIL
JKG/1008

Side Guide Extrusion

76.0

31.6

40.0

36.0

76MM SIDE GUIDE - STANDARD
JKG/1006

Curtain Extrusions 1:1

12.0 OD
1.4
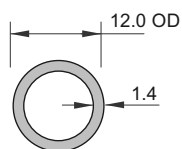
ECONOLINK TUBE
JKG/2006

19.0 OD
1.4

ULTRA SECURITY TUBE
JKGS/2013

75.0
4.3 OD
1.5
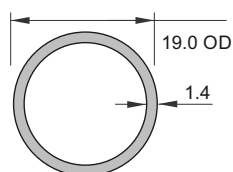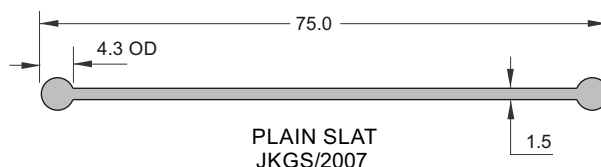
PLAIN SLAT
JKGS/2007

75.0
4.3 OD
1.5
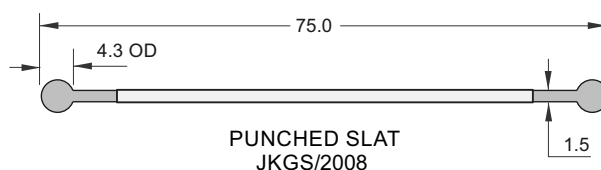
PUNCHED SLAT
JKGS/2008

100.0
4.3 OD
1.5
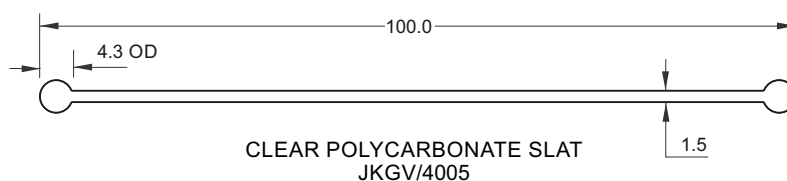
CLEAR POLYCARBONATE SLAT
JKGV/4005

Curtain Connector Extrusions 1:1

30.4
15.5

HOLLOW SLAT CONNECTOR
JKGV/4002

14.0
12.4
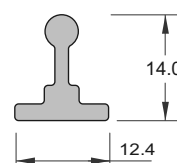
BOTTOM RAIL ADAPTOR
(Punched Slat and VisionLine)
JKGV/4001

16.0 OD
1.2
23.0
12
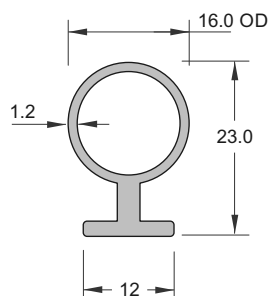
BOTTOM RAIL ADAPTER
(Ultra Security and Econolink)
JKG/1010

Juralco Knightguard® Rollergrille Systems - Components
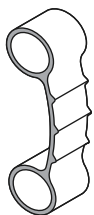
Ultra Security 35mm Link JKGS2009/NAT	Econolink Link JKGE3004	Base End Cap (LH and RH) JKG1017	Plastic End Plugs JKGV4003
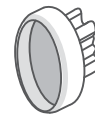
Slat and Visionline

Bearing Holder JKGL2/02	Bearing JKG6C35802	Wool Pile JRF98/10mm
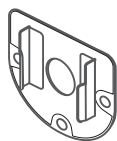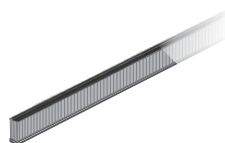
19mm Saddle Clamp (Ultra Security) JKGS2015	12mm Saddle Clamp JKGE125C	Steel Mounting Bracket JKG1001/A	Steel Mounting Arm JKG1001/D
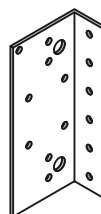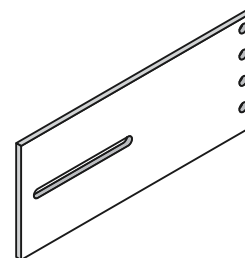
Centre Mullion, Black Nylon JKG1004	Patio Bolt JJH22063B	Motor Manual O/Ride JNICE/MOEYE/350
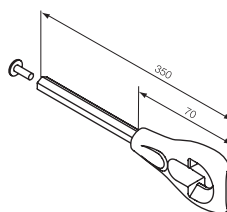
Eyebolt with 7 mm handcrank

Octagonal Axle 70mm JKGV6B4470	Nylon Adapter Wheel 70/130mm JKGK2/06	Adjustable End Cap 70mm JKGK1/19
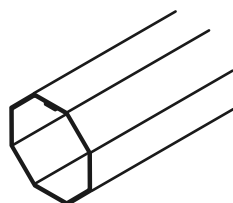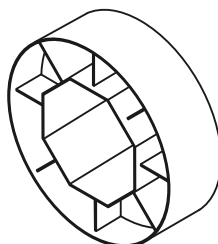
Bottom and Curtain Extrusions 2:1

94

Slat - Aluminium
Plain or Punched
JKGS2007 or JKGS2008

Plastic End Cap
JKGV4003

Hollow Slat Connector
JKGV4002

Bottom Rail Adaptor
JKGV4001

Bottom Rail Back Plate
JKG1009

Front side

Bottom Rail
JKG1008

Bottom Rail Foot Plate
JKG1007

Wool Pile
JRF98/10MM
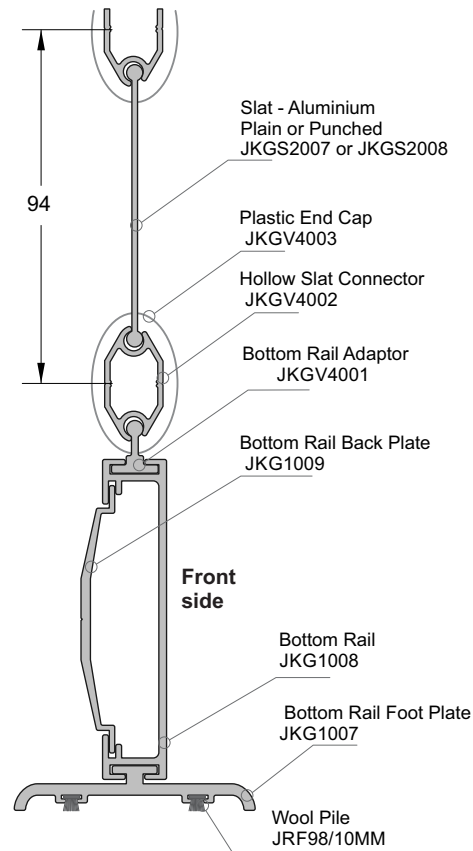
**Slat Curtain
Bottom Arrangement**

118

Slat - Visionline
JKGV4005

Front side

114
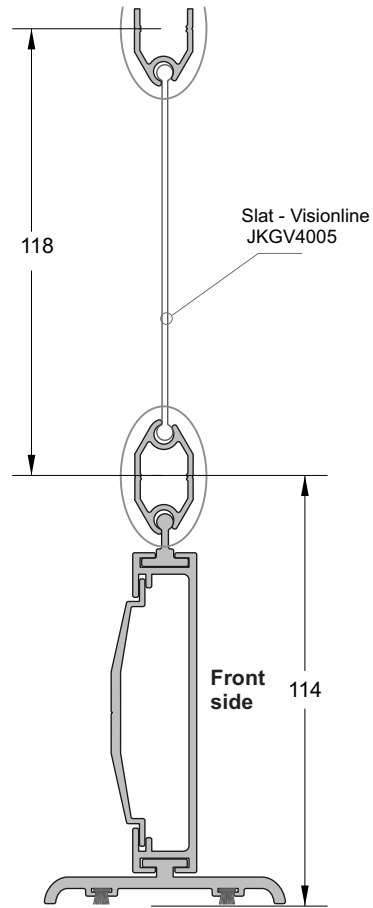
**Visionline
Bottom Arrangement
(all as per Slat curtain)**

Ultra Security Tube
JKGS2013

Ultra Security
35mm Link
JKGS2009/NAT

71

Bottom Rail Adapter
JKG1010

Front side

106
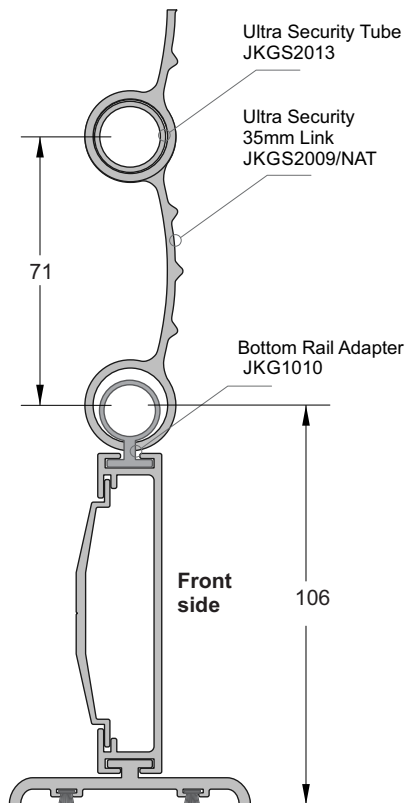
**Ultra Security
Bottom Arrangement**

Econolink
Nylon Connector
JKGE3004

Econolink Tube
JKGS2006

92

Bottom Rail Adapter
JKG1010

Front side

104
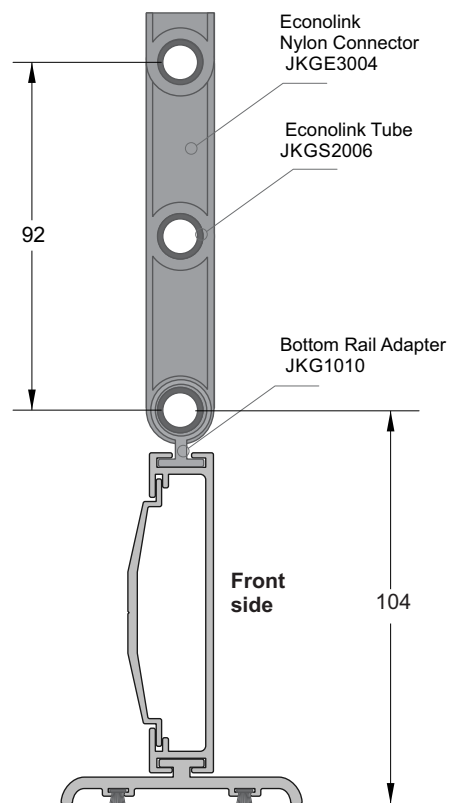
**Econolink
Bottom Arrangement**

Typical Component Layout

Polycarbonate Slat Curtain, Visionline

Aluminium Slat Curtain Solid or Punched

Ultra Security Curtain

Econolink Curtain
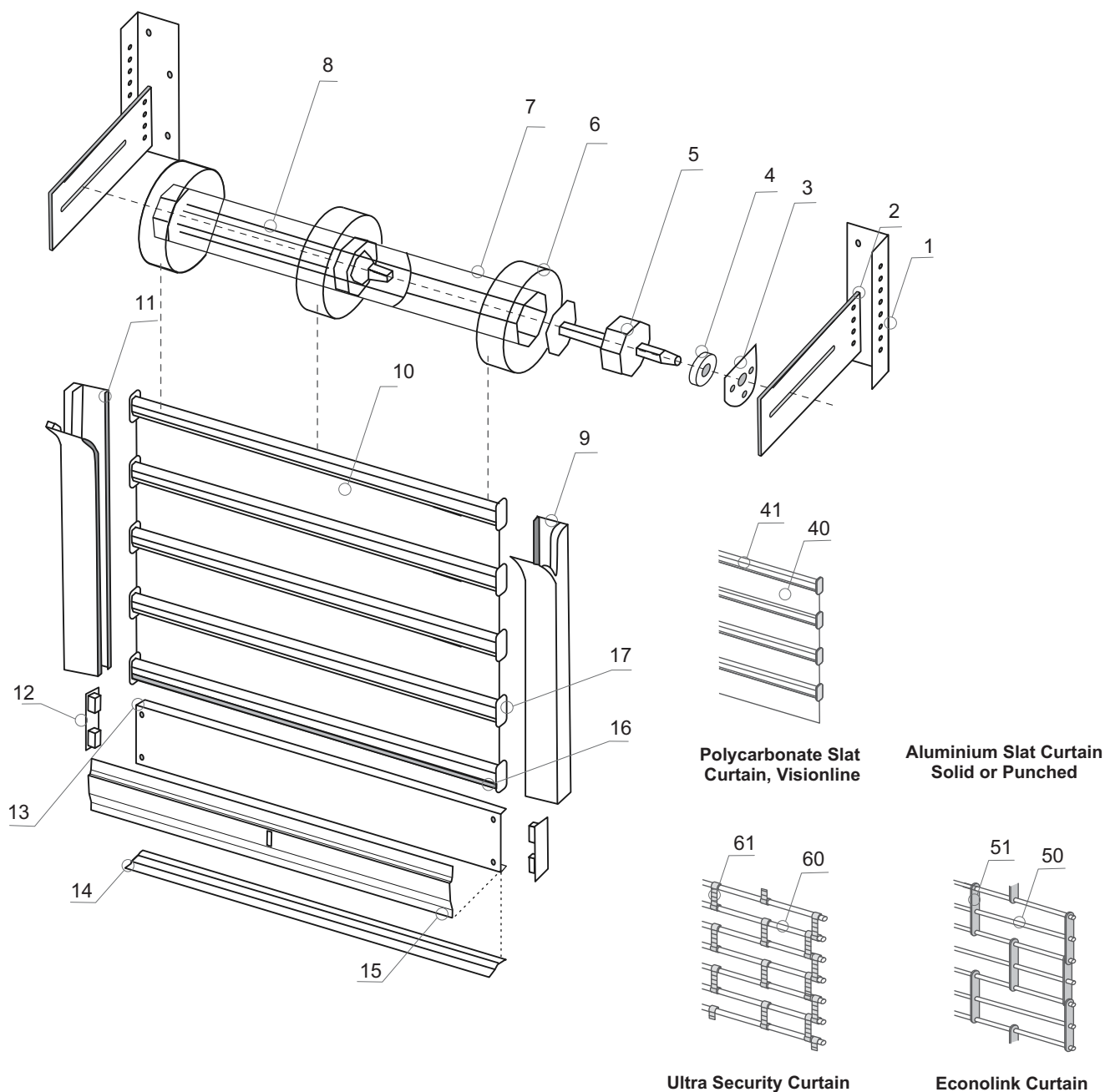
ROLLERGRILLE

	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

Tubular Motors 45mm dia — JNICE ERA M

Tubular Motor 45mm dia
Mechanical Limit switches

POWER CABLE
Length 2.5 m, 4 wires in cable
- UP/DOWN PHASE
- NEUTRAL
- DOWN/UP PHASE
- EARTH
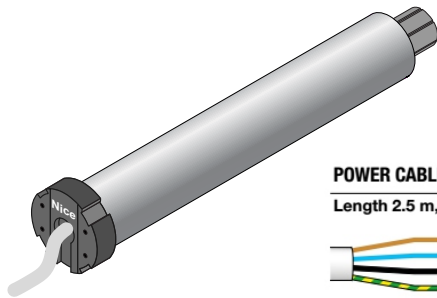
Tubular Motors 45mm dia — JNICE ERA MH

Tubular Motor 45mm dia
Mechanical Limit switches
Manual emergency Override

POWER CABLE
Length 2.5 m, 4 wires in cable
- UP/DOWN PHASE
- NEUTRAL
- DOWN/UP PHASE
- EARTH
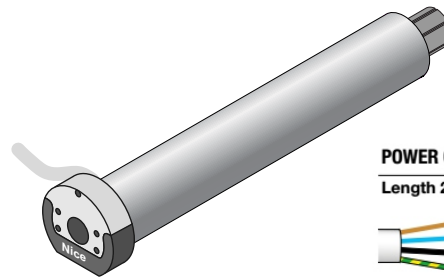
Tubular Motors 58mm dia — JNICE ERA L

Tubular Motor 58mm dia
Mechanical Limit switches

POWER CABLE
Length 2.5 m, 4 wires in cable
- UP/DOWN PHASE
- NEUTRAL
- DOWN/UP PHASE
- EARTH
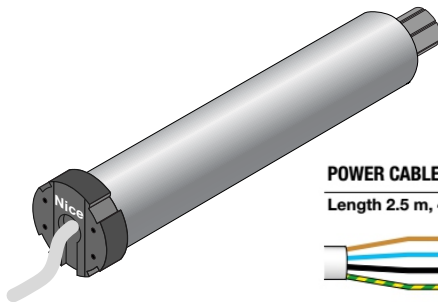
Tubular Motors 58mm dia — JNICE ERA LH

Tubular Motor 58mm dia
Mechanical Limit switches
Manual emergency Override

POWER CABLE
Length 2.5 m, 4 wires in cable
- UP/DOWN PHASE
- NEUTRAL
- DOWN/UP PHASE
- EARTH
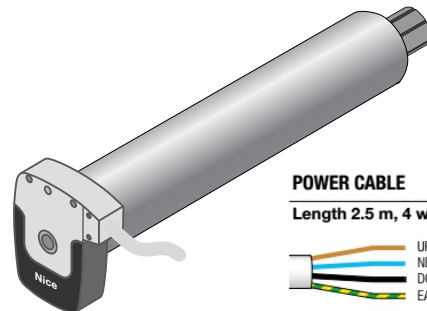
Motor Mount Brackets — JNICE/BRKT/ERAM
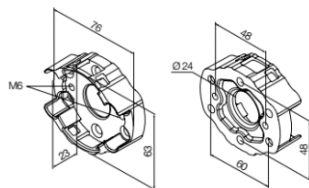
For 45mm dia Motors
Compact aluminium support. 2 x holes M6 at 48 and 60mm CL

Motor Mount Brackets — JNICE/BRKT/ERAL
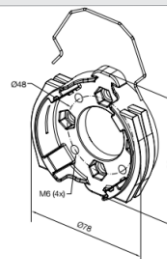
For 58mm dia Motors
Compact aluminium support. 4 x holes M6 & 4 x Hex seats for M6 nuts.
For ERA L 12012 motor use all 8 x Fastening points

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

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

UP/DOWN PHASE
NEUTRAL
DOWN/UP PHASE
EARTH

Connections at Motor

Black - Down (or Up)
Brown - Up (or Down)
Green/Yellow
Blue

Active — Mains
Neutral — 230V
Earth — 50HZ

Brown
Black

3
C 2
1

Connections at Rotary Switch

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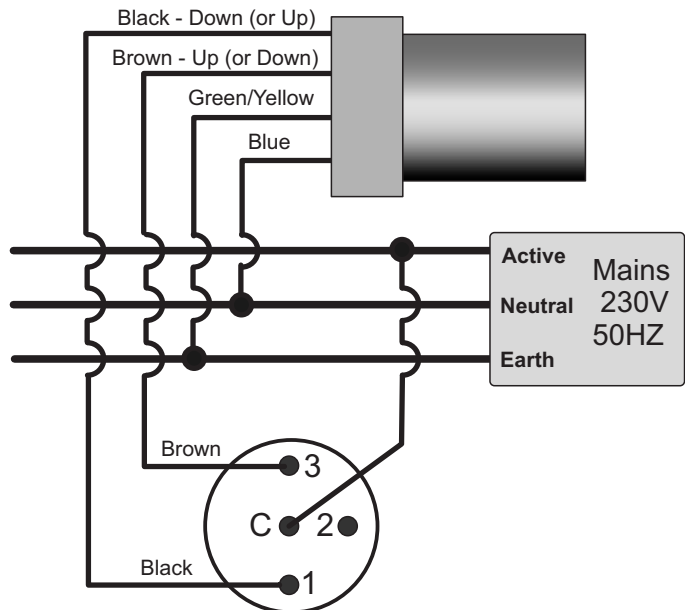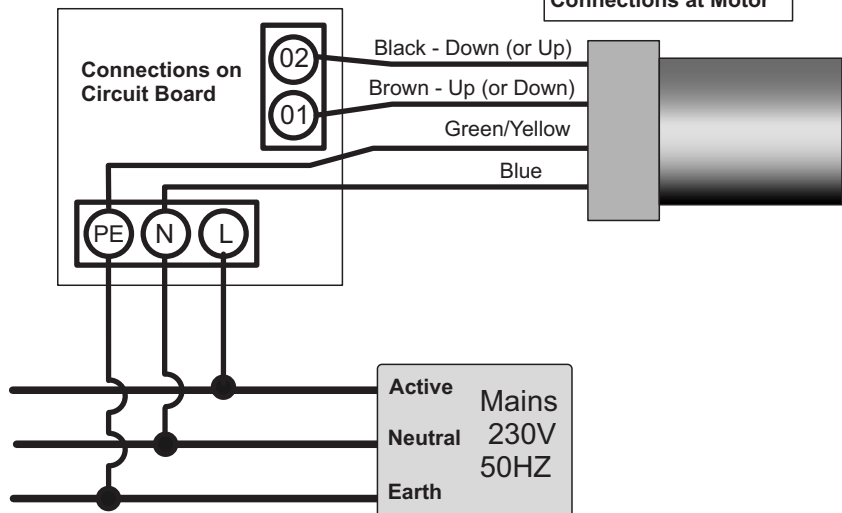
Tubular Motors 58mm dia
JNICE ERA L 8012, 10012 and 12012
JNICE ERA LH 8012, 10012 and 12012

Motor Power Cable

Length 2.5 m, 4 wires in cable

UP/DOWN PHASE
NEUTRAL
DOWN/UP PHASE
EARTH

Connections at Motor

**Connections on
Circuit Board**

02
01

Black - Down (or Up)
Brown - Up (or Down)
Green/Yellow
Blue

PE N L

Active — Mains
Neutral — 230V
Earth — 50HZ

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	
	1000	10	13	18	23	26	30	35	39	41	240
	1500	12	16	21	27	32	37	43	48	53	290
	2000	13	19	25	32	37	43	50	56	61	320
	2500	15	21	28	36	42	49	56	63	70	335
	3000	17	24	31	40	47	55	63	71	78	350
	3250	18	25	33	42	50	58	67	75	83	360

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	
	1000	12	17	22	28	33	38	44	49	54	200
	1500	15	21	28	35	42	48	65	62	69	240
	2000	17	25	33	41	49	57	66	71	81	270
	2500	20	29	38	48	57	66	76	85	94	295
	3000	22	32	43	54	64	74	86	96	106	325
	3250	24	35	46	58	69	80	92	103	114	340

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	
	1000	11	16	21	27	31	36	42	47	52	57	240
	1500	14	20	26	34	40	46	53	60	62	72	255
	2000	16	24	31	40	47	54	63	70	78	85	270
	2500	19	27	36	45	54	63	72	81	89	98	300
	3000	21	31	41	51	61	71	81	91	101	111	315
	3250	23	33	43	55	65	76	87	98	108	119	325

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	
	1000	14	21	27	34	41	47	55	61	67	185
	1500	19	27	36	45	54	62	72	81	89	225
	2000	22	33	43	54	65	75	87	97	107	250
	2500	26	38	50	64	76	88	101	113	126	270
	3000	30	44	58	73	87	101	116	130	144	285
	3250	32	47	62	78	93	108	125	140	155	300

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	
	1000	11	14	20	26	31	35	41	46	51	185
	1500	14	18	26	33	39	45	52	58	64	225
	2000	16	21	30	38	46	53	61	68	75	250
	2500	18	24	35	44	52	61	70	78	87	270
	3000	20	28	39	50	59	68	79	88	98	285
	3250	22	30	42	53	63	73	84	94	105	300

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

All for Motor Operation only

1 Select Curtain Type

EconoLink		VisionLine		Solid Slat, Punched. Rectangular Square, Vertical	
Solid Slat		Ultra Security		Solid Slat , 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**

ROLL FACE FIX [ ]

Curtain Roll and Axle

Side Guides   Side Guides

Daylight Opening, mm
Height =
Width =

ROLL REVEAL FIX [ ]

Curtain Roll and Axle

Side Guides   Side Guides

Daylight Opening, mm
Height =
Width =

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

Reveal   Face

76mm   76mm

Left Side	Select
Reveal	
Face	

Right Side	Select
Reveal	
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, Switch + M/Overide	
Motor, Wireless operation	

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

Flare for Side Guides

Right and Left hand pairs

1 - Cut 76mm side guide KG1006 as shown

This cut also 70mm deep

Side Guide Height

30

70

2 - Bend 76mm side guide KG1006 as shown

Bend this flap 30mm back

Bend this flap 10mm back
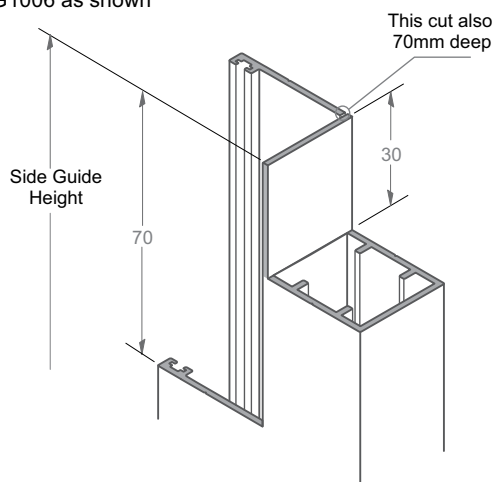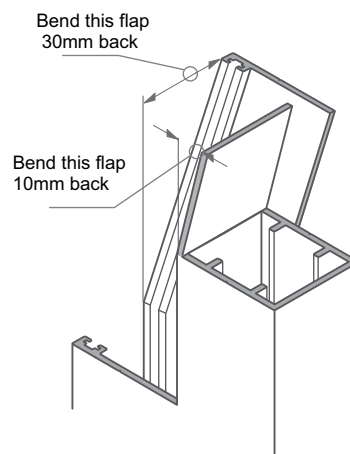
Removable Twin Mullions

Right and Left hand pairs

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

Bend this flap 20mm back

38

60
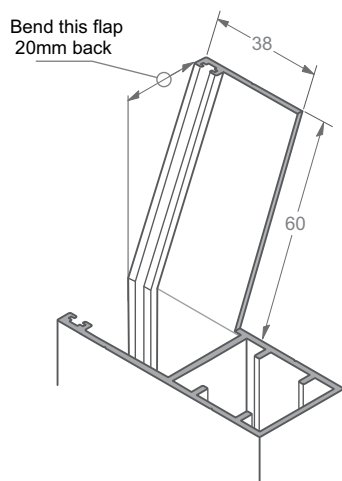
2 - Attach together back to back.
- Attach 2 x Patio bolts at bottom

Screw together
6 x 20 screws, 5 total

Screw access holes
8mm dia

Patio Bolts x 2
JJH 22063

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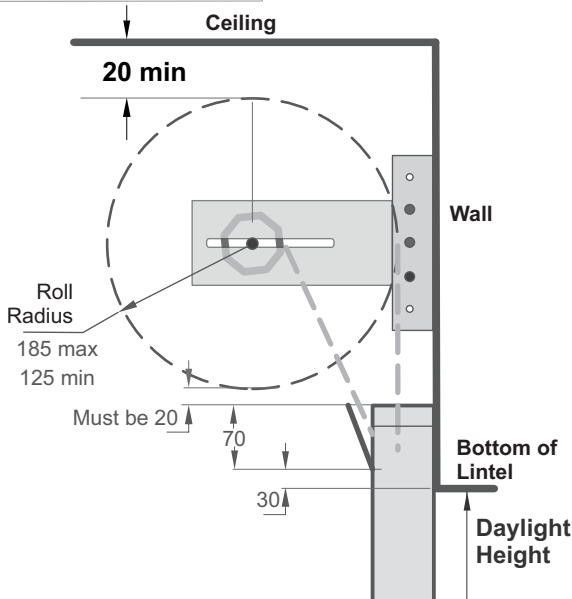Test all controls and locks, that they work cleanly and smoothly.

    h - Attach company labels and maintenance phone contacts in an obvious place.
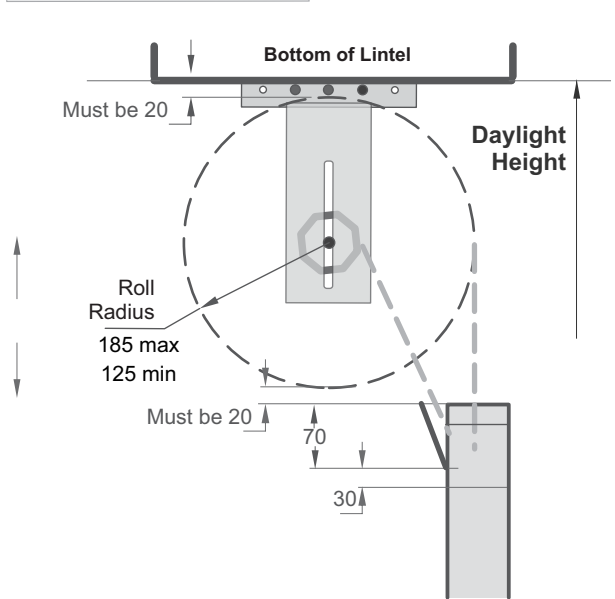
    i - Hand the customer any operating Manuals.

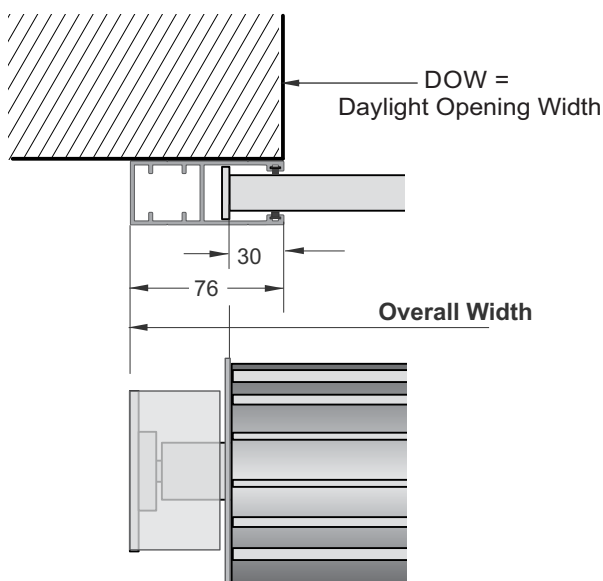   j - Always leave the installation (and site) in a clean and tidy condition.
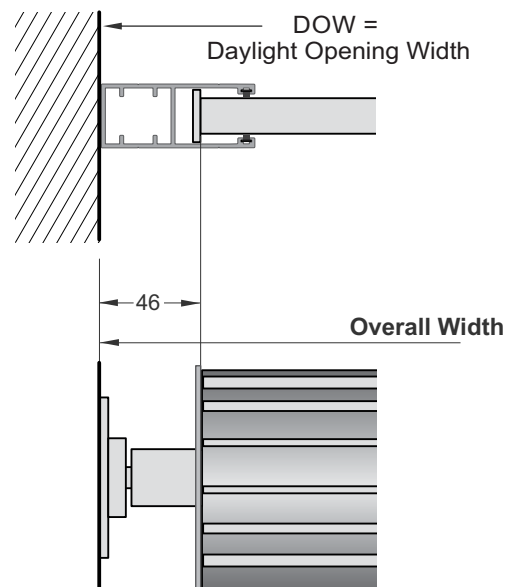

Face Mount Cross Section

Reveal Mount Cross Section

Plan View - Face Mount

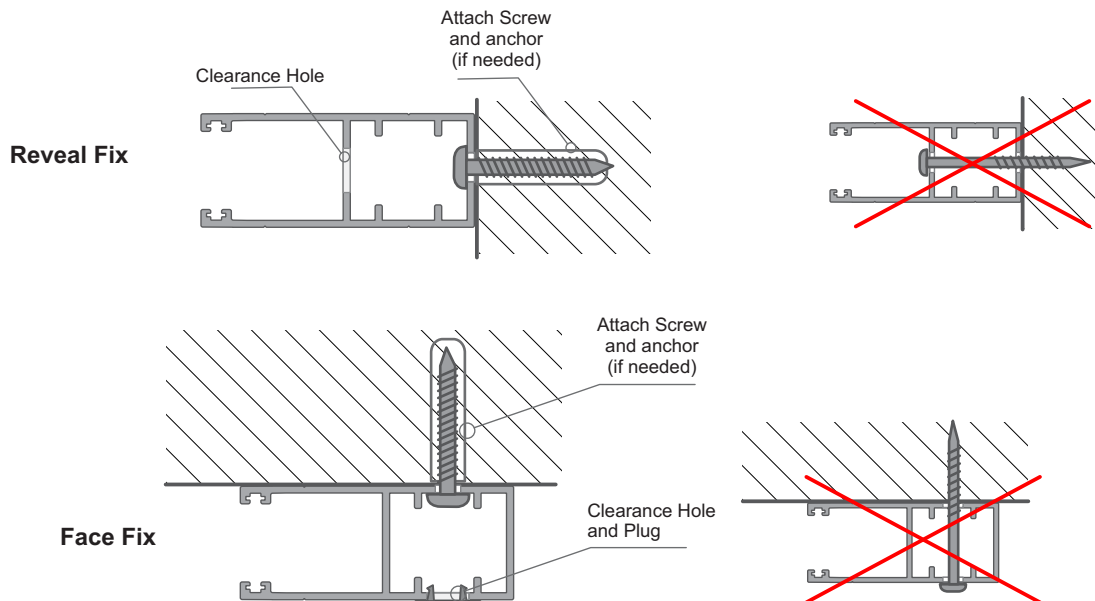Plan View - Reveal Mount

# 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. |

Clearance Hole

Attach Screw and anchor (if needed)

Reveal Fix

Attach Screw and anchor (if needed)

Face Fix

Clearance Hole and Plug

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.

To increase tension
Rotate Axle anti Clockwise

To decrease tension
Rotate Axle Clockwise
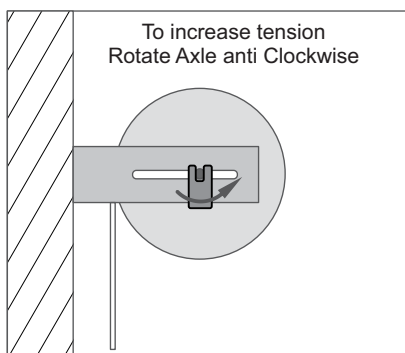
Remove Tension Before Rotating Axle,
or trying to pull down door
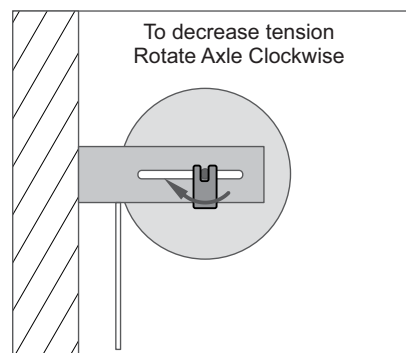
Remove Tension Before Rotating Axle,
or trying to pull down door

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 l2 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 display 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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