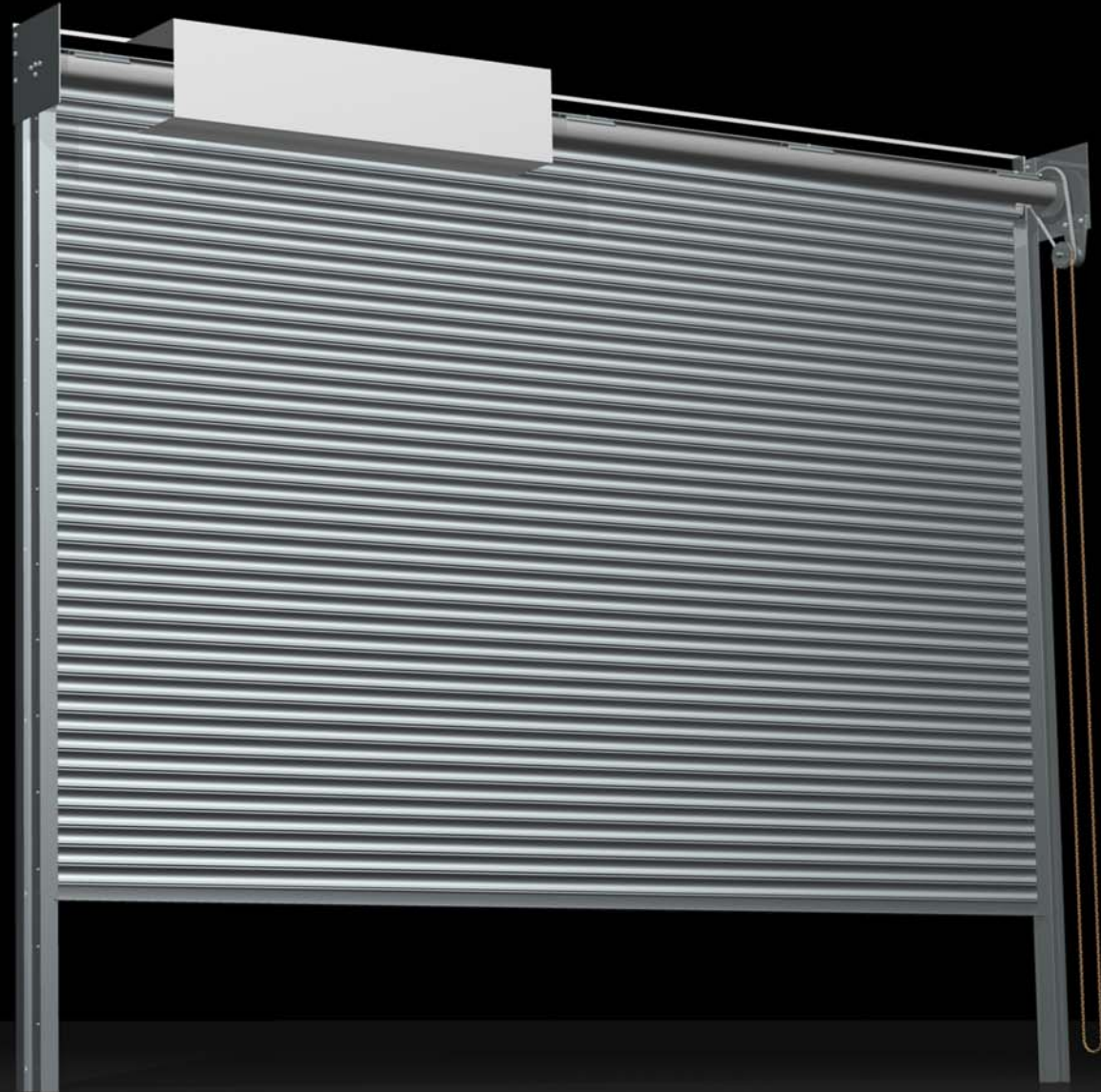


**ECONOMY RANGE**  
INDUSTRIAL ROLLER SHUTTER RANGE



**ECO-HCG**

MAX SIZE OF 4.5M X 4.5M  
EASE OF REPAIR  
COST EFFECTIVE  
RANGE OE OPTIONAL EXTRAS

GUARDIANS ECO-HCG - This range of roller shutter doors are purposely designed for industrial useage where insulation is not a requirement. They are constructed from galvanised steel with a minimum of 22 gauge. They can be manually operated up to a size of 4.5m x 4.5m or electrically operated via single or 3 phase motors

The ECO-HCG is the hand chain gear operated model from the range. As standard it is locked via a chain keep, although additional locking is available.

IMAGE INFORMATION - SHOWN HERE IS THE ECO-HCG MODEL ROLLER SHUTTER

## L20 DOORS / SHUTTERS / HATCHES

### 610 ROLLER SHUTTER

**Product reference:** GUARDIAN ECO RANGE – ECO-HCG MODEL

**Performance:** Not applicable

**Arrangement:** Vertical roller shutter

A multipurpose steel vertically operated roller shutter available with either solid punched or perforated curtain.

#### **Dimensions:**

Opening height up to 4000mm, opening width up to 4000mm.

Shutter weight: 35 kg/m<sup>2</sup> of door opening.

#### **Curtain**

Constructed from 75mm galvanized cold rolled scroll sections of suitable gauge, each alternate lath is fitted with a steel or nylon end lock to prevent lateral movement and wind anchor locks on larger doors.

#### **Curtain Modification**

Perforations 2 mm O/D

Punchings 119mm w x 19 mm h Brick bond - Inline

Punchings 152mm w x 25 mm h Brick bond - Inline

Punchings 150mm w x 38 mm h Brick bond - Inline

#### **Bottom Rail**

The base of the curtain is fitted with a steel angle reinforcing rail of adequate size forming an inverted 'T'.

#### **Side Guides**

Formed from cold rolled mild steel channel sections secured to the opening structure by full height mild steel fixing angles.

#### **Roller Assembly**

Constructed from mild steel tube fitted with counterbalance high tensile helical springs, mounted on bright steel shafts running in ball races, reduction drive gearing where applicable is by machine cut steel gears or chain drive to suit the size of the opening.

#### **Endplates**

The roller assembly is supported by mild steel endplates with mounting angles for fixing to the support structure.

#### **Roller Enclosure** (optional extra)

Formed from galvanised pressed sheet metal to enclose the rear of the shutter barrel and curtain assembly.

#### **Operation**

HCG MODEL - Manual Hand chain – connected to reduction gearing system.

#### **Finish**

Galvanised and primed ready to paint, Or powder coated to any standard BS or RAL number

Consult with Guardian Industrial Doors Ltd technical literature for details. Guardian Doors can also provide a design and specification advisory service and it is recommended that they are consulted early in the design process.

**Manufacturer:** GUARDIAN INDUSTRIAL DOORS 45 Progress Road Leigh On Sea Essex, SS9 5PR Tel: 01702 512424. Fax: 01702 510015. Email: [mail@guardiandoors.com](mailto:mail@guardiandoors.com) Web: [www.guardiandoors.com](http://www.guardiandoors.com)

#### **Optional**

#### **Security**

Ground locking units

Bullet locks

1 2 3 4 5 6 7 8

A

B

C

D

E

F

A

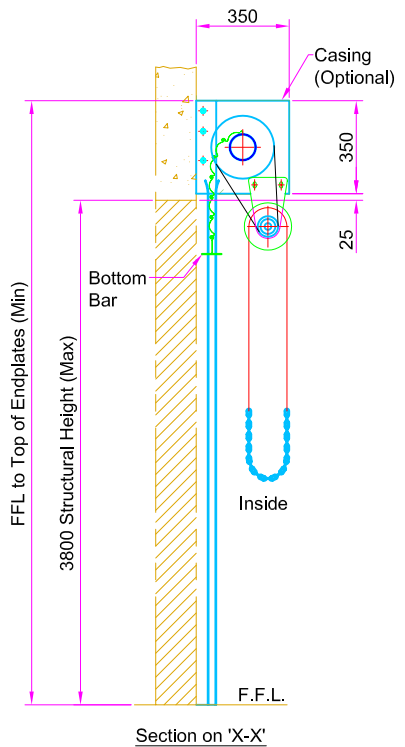
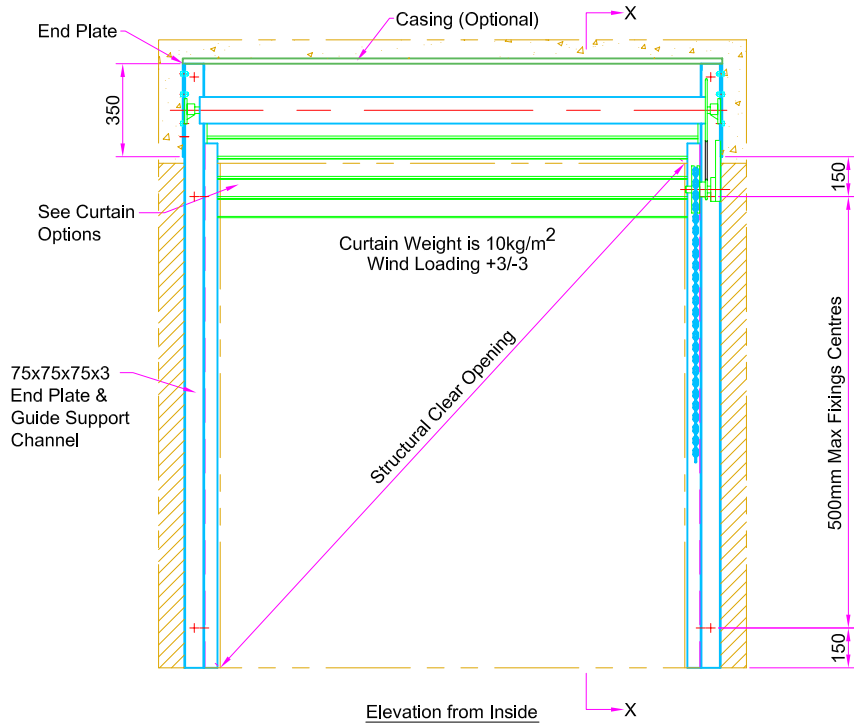
B

C

D

E

F



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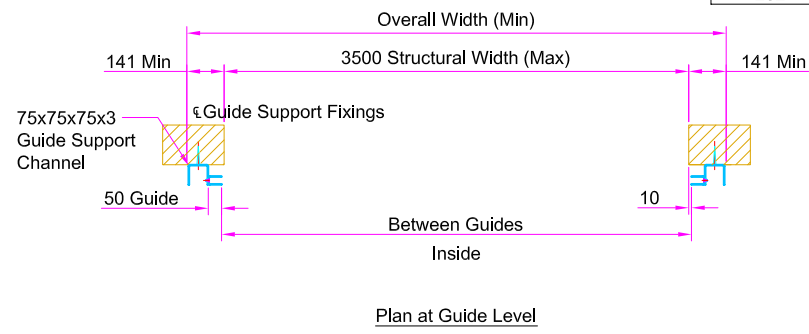
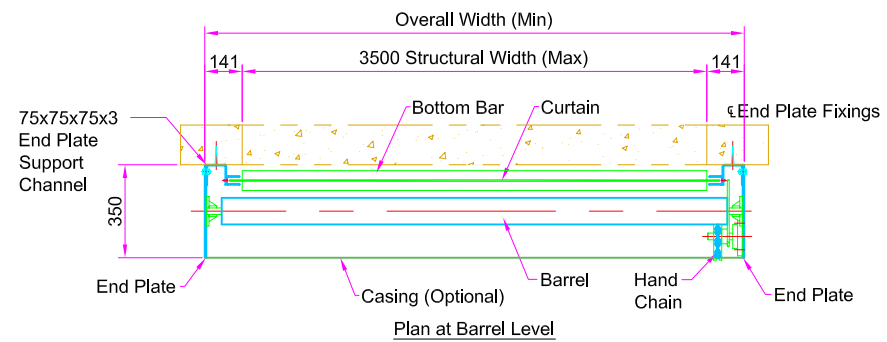
If the End Plates and Barrel are within a False Ceiling or Soffit a Full Width Access Panel is required. (by others)

Fixing To:-	
Steel	M8/M10 Set Screws
Brick	M8/M10 Rawbolts/Sleeve Anchors
Blockwork	M8/M10 Rawbolts/Sleeve Anchors
Timber	M8/M10 Coach Screws
Concrete	M8/M10 Rawbolts

The Client is responsible for making sure that the structure is capable of withstanding the weight of the shutter and suitable fixing points are available for the End Plate and Guide support channel.

The chart below shows the weight for a shutter with a maximum structural clear opening of 3500mmW x 3800mm H

	Weights (kg)
Barrel	34
Curtain	133
End Plates	12
Guides	24
Angles/Channels	45
Motor/HCG	34
Safety Brake	0
	282



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AND ALL TOLERANCES ±1.0

DRAWN	CHK'D	APP'D	DATE	SCALE	Drwg No:	ECO HCG-1	ISSUE	DATE	APP'D
MB				NTS	Guardian maintains a policy of progressive design and we reserve the right to modify specifications without prior notice or alteration to this drawing				
TITLE					ECO HAND CHAIN GEAR FACE FIX. 3500mm W x 3800mm H Max.				
							1	04/07	PN

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

A

B

C

D

E

F

A

B

C

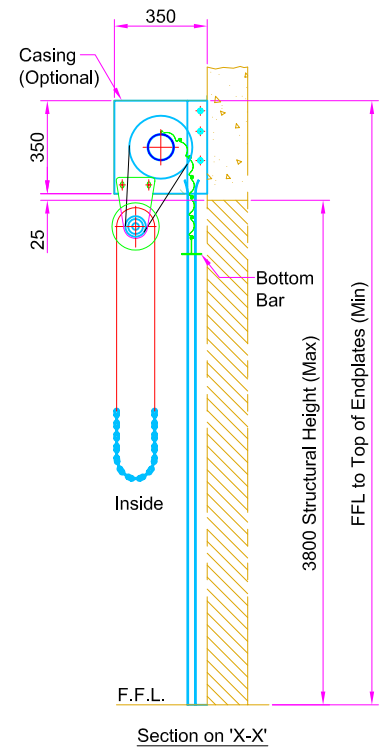
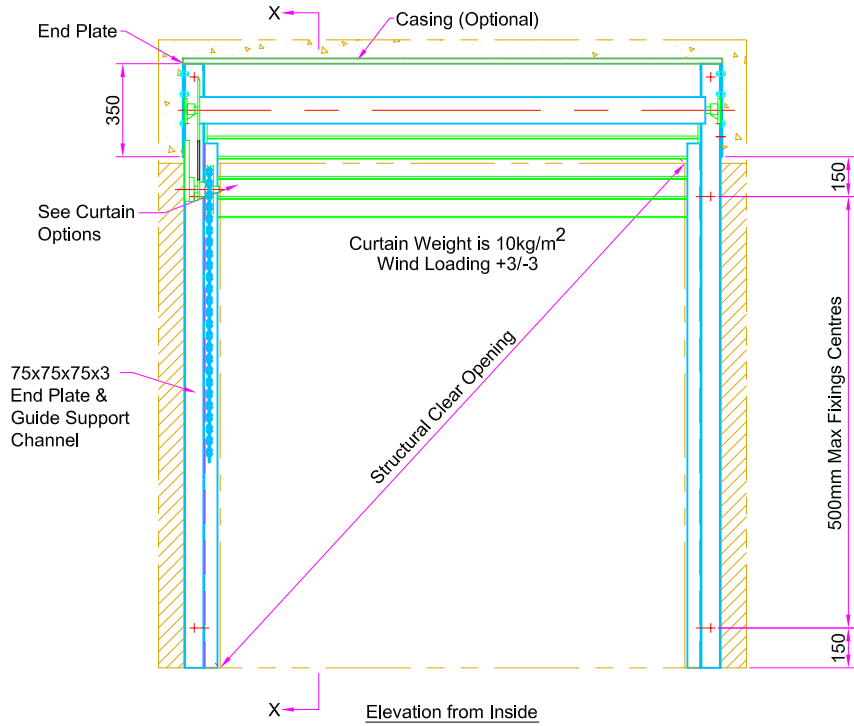
D

E

F

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If the End Plates and Barrel are within a False Ceiling or Soffit a Full Width Access Panel is required. (by others)

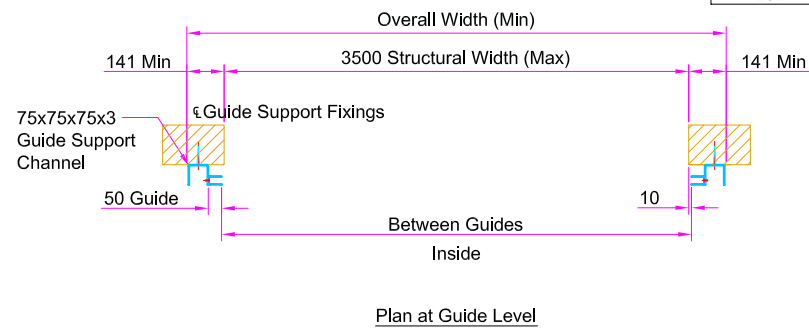
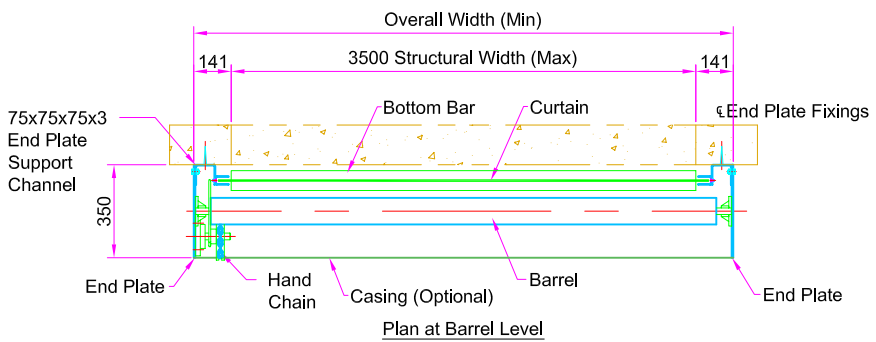


Fixing To:-	
Steel	M8/M10 Set Screws
Brick	M8/M10 Rawbolts/Sleeve Anchors
Blockwork	M8/M10 Rawbolts/Sleeve Anchors
Timber	M8/M10 Coach Screws
Concrete	M8/M10 Rawbolts

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The chart below shows the weight for a shutter with a maximum structural clear opening of 3500mmW x 3800mm H

	Weights (kg)
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Curtain	133
End Plates	12
Guides	24
Angles/Channels	45
Motor/HCG	34
Safety Brake	0
	282



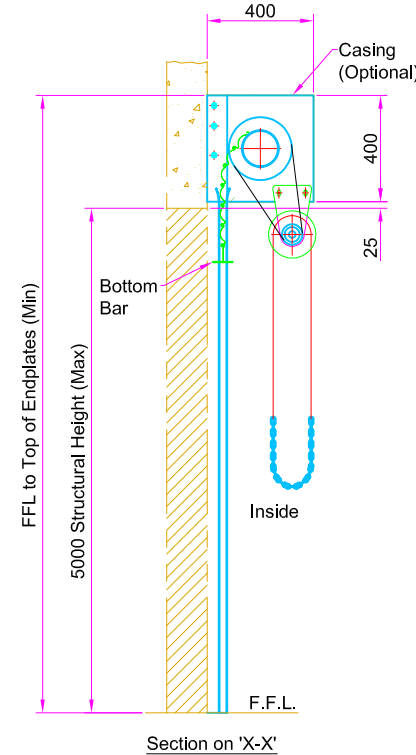
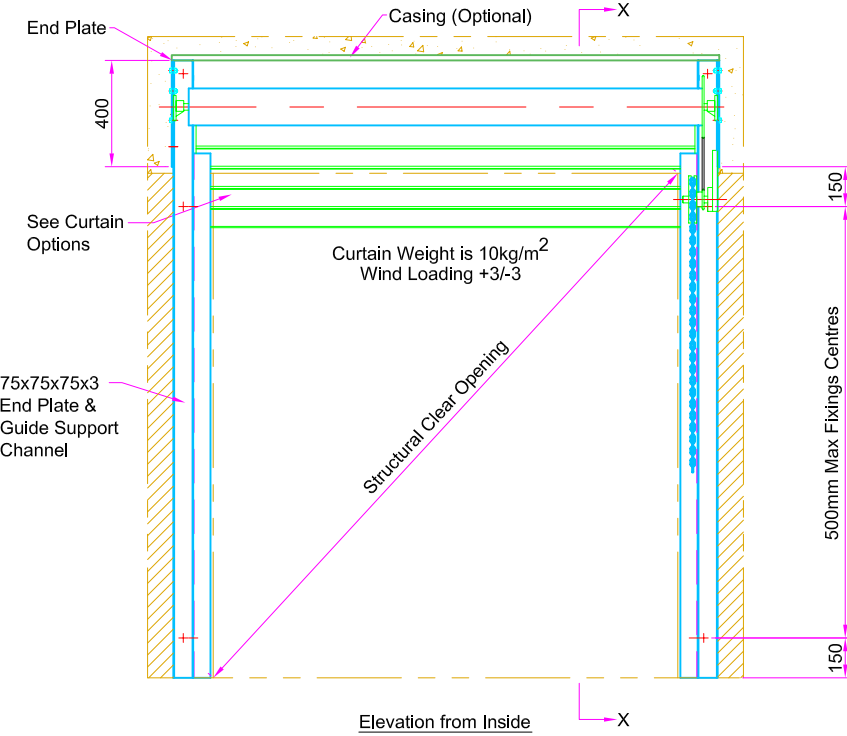
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DRAWN	CHK'D	APP'D	DATE	SCALE	Drwg No:	ECO HCG-1-LH	ISSUE	DATE	APP'D
MB				NTS	Guardian maintains a policy of progressive design and we reserve the right to modify specifications without prior notice or alteration to this drawing				
TITLE					ECO HAND CHAIN GEAR FACE FIX. 3500mm W x 3800mm H Max.				
							1	04/07	PN

1 2 3 4 5 6 7 8



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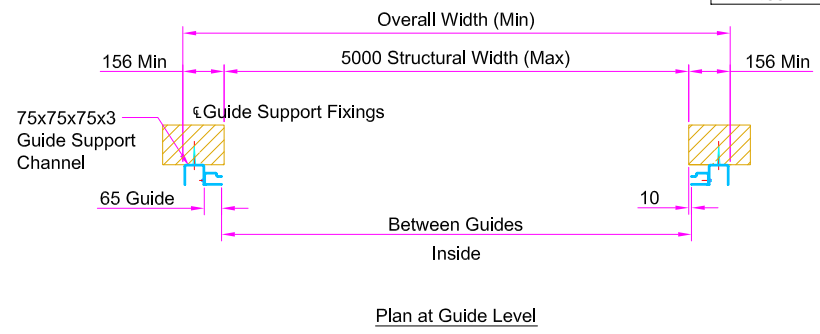
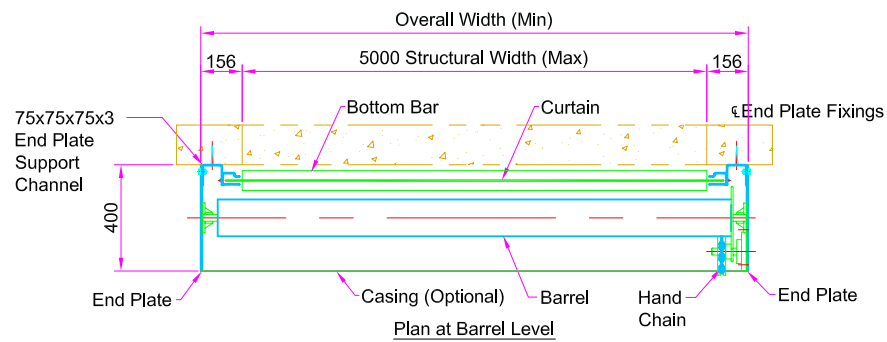
If the End Plates and Barrel are within a False Ceiling or Soffit a Full Width Access Panel is required. (by others)

Fixing To:-	
Steel	M8/M10 Set Screws
Brick	M8/M10 Rawbolts/Sleeve Anchors
Blockwork	M8/M10 Rawbolts/Sleeve Anchors
Timber	M8/M10 Coach Screws
Concrete	M8/M10 Rawbolts

The Client is responsible for making sure that the structure is capable of withstanding the weight of the shutter and suitable fixing points are available for the End Plate and Guide support channel.

The chart below shows the weight for a shutter with a maximum structural clear opening of 5000mmW x 5000mm H

	Weights (kg)
Barrel	49
Curtain	250
End Plates	16
Guides	38
Angles/Channels	58
Motor/HCG	49
Safety Brake	0
	460



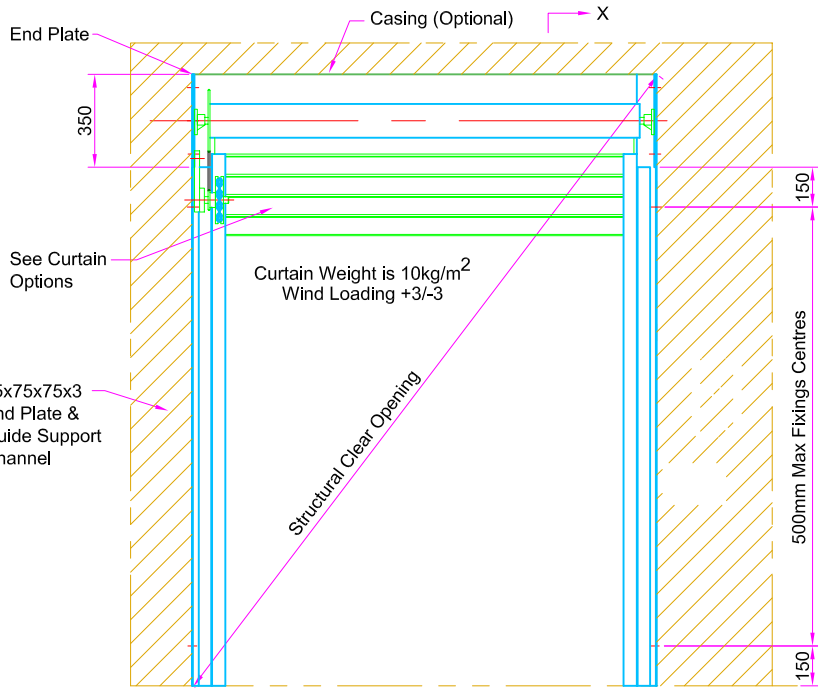
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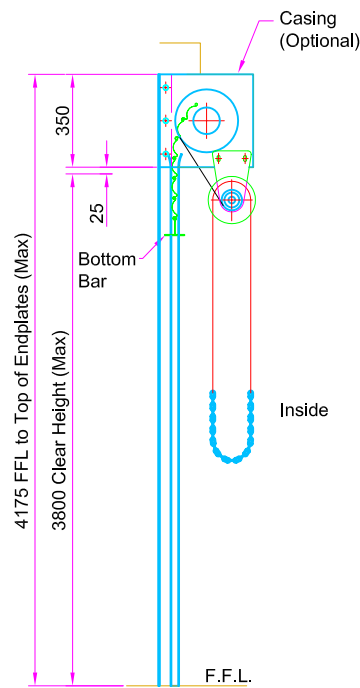
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AND ALL TOLERANCES ±1.0

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MB				NTS	Guardian maintains a policy of progressive design and we reserve the right to modify specifications without prior notice or alteration to this drawing				
TITLE					ECO HAND CHAIN GEAR FACE FIX. 5000mm W x 5000mm H Max.		1	04/07	PN

DRAWN	CHK'D	APP'D	DATE	SCALE	Drwg No:	ECO HCG-2	ISSUE	DATE	APP'D
MB				NTS	Guardian maintains a policy of progressive design and we reserve the right to modify specifications without prior notice or alteration to this drawing				
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Elevation from Inside



View on 'X-X'

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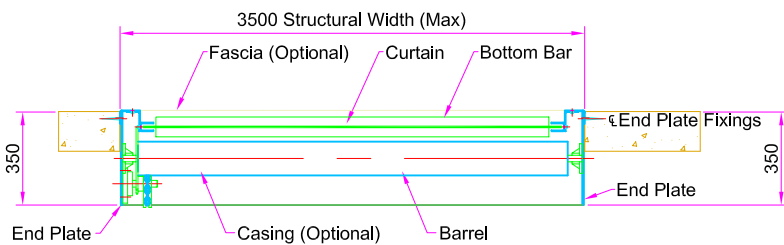
If the End Plates and Barrel are within a False Ceiling or Soffit a Full Width Access Panel is required. (by others)

Fixing To:-	
Steel	M8/M10 Set Screws
Brick	M8/M10 Rawbolts/Sleeve Anchors
Blockwork	M8/M10 Rawbolts/Sleeve Anchors
Timber	M8/M10 Coach Screws
Concrete	M8/M10 Rawbolts

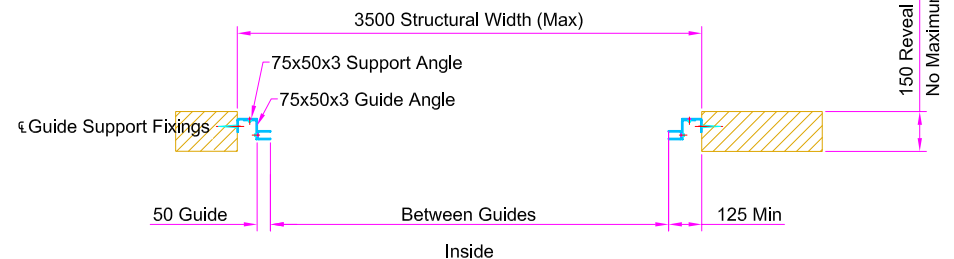
The Client is responsible for making sure that the structure is capable of withstanding the weight of the shutter and suitable fixing points are available for the End Plate and Guide support channel.

The chart below shows the weight for a shutter with a maximum structural clear opening of 3500mmW x 4175mm H

	Weights (kg)
Barrel	47
Curtain	147
End Plates	12
Guides	26
Angles/Channels	27
Motor/HCG	35
Safety Brake	0
	294



Plan at Barrel Level



Plan at Guide Level

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DRAWN  
MB

CHK'D

APP'D

DATE

SCALE  
NTS

TITLE  
**ECO HAND CHAIN GEAR  
REVEAL FIX.**  
3500mm W x 4175mm H Max.

Drwg No: ECO HCG-3-LH  
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ISSUE	DATE	APP'D
1	04/07	PN

# AESTHETIC UPGRADES

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Various aesthetic upgrades are available for this model. This photograph shows a combination roller curtain. Due to its modular design different cutains can be mixed together.

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Shown in the main photograph is a combination of our 75mm perforated steel and tube and link grille in a brick bond pattern ( inline also available )



Perforations

**Perforations**  
2 mm punched holes. Used in retail situations to create translucent shutters at night Also used in carpark situations where airflow is needed through the shutter



Punchings

**Punched slots**  
Various sizes available, dependant on shutter width.

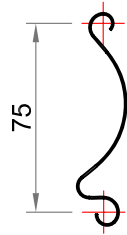


Polycarbonate glazing

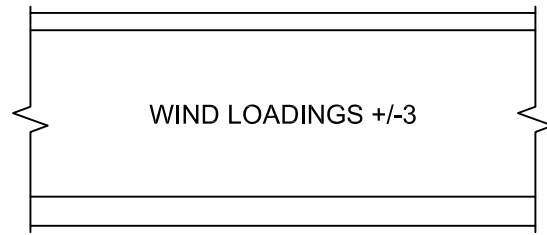
**Polycarbonate glazing**  
Solid translucent glazing which is UV resistant and impact resistant. Offered in various shades.

**Tube and link grille**  
As shown in the main photograph, various sizes of tube and link available.

**CURTAIN WEIGHTS**  
 75mm x 20g = 10kg/M<sup>2</sup>  
 75mm x 22g = 12kg/M<sup>2</sup>  
 75mm x 18g = 16.50kg/M<sup>2</sup>



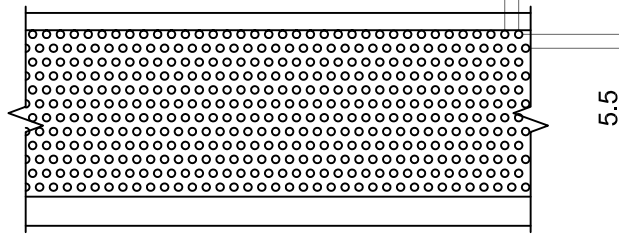
**75mm SOLID STEEL CURVED LATH**



WIND LOADINGS +/-3

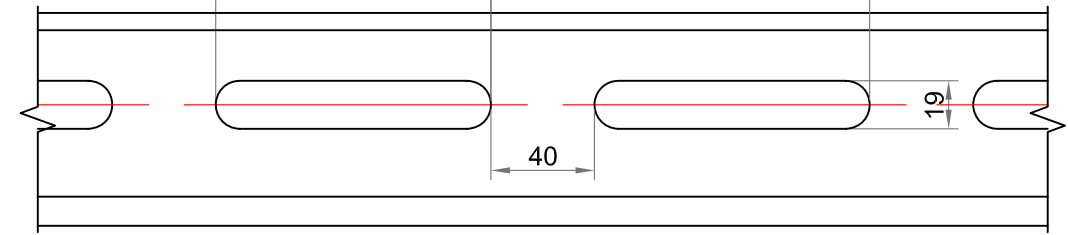
Air Flow 0%

**75mm PERFORATED STEEL CURVED LATH Ø3mm Holes**



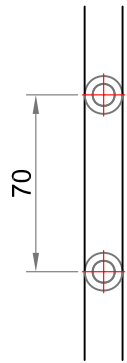
Air Flow 14.6%

**75mm PUNCHED STEEL CURVED LATH 109 lg Slots**

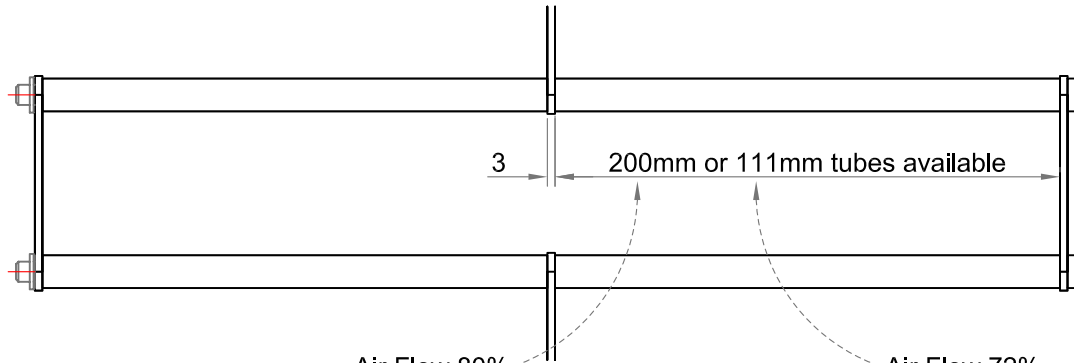


Air Flow 18.15%

**CURTAIN WEIGHTS**  
 Tube & Link = 13kg/M<sup>2</sup>



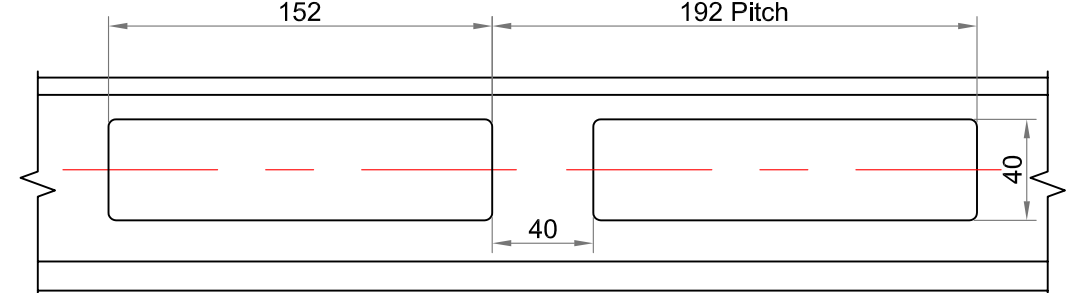
**TUBE & LINK GRILLE**  
 (available in Brick Bond or Inline Pattern)



Air Flow 80%

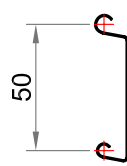
Air Flow 72%

**75mm PUNCHED STEEL CURVED LATH 152 lg Slots**

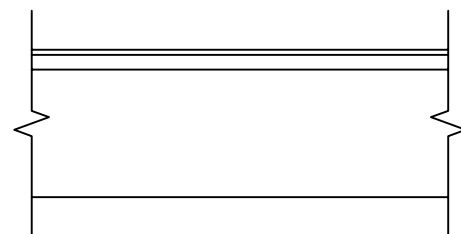


Air Flow 36%

**CURTAIN WEIGHTS**  
 50mm x 22g = 8kg/M<sup>2</sup>

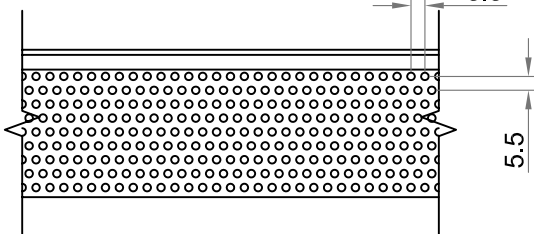


**50mm STEEL FLAT LATH Ø3mm Holes**



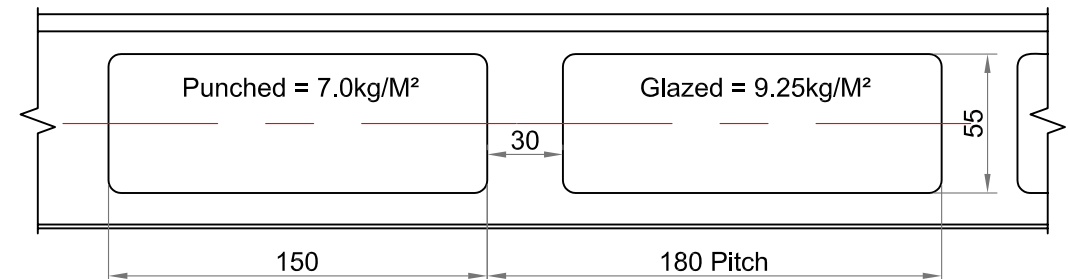
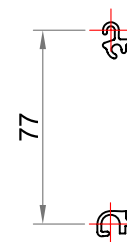
Air Flow 0%

**50mm PERFORATED STEEL FLAT LATH Ø3mm Holes**



Air Flow 14.6%

**77mm EXTRUDED AND PUNCHED ALUMINIUM LATH (also available as a Solid Lath)**



Punched = 7.0kg/M<sup>2</sup>

Glazed = 9.25kg/M<sup>2</sup>

(available Punched or Glazed)

Air Flow 75%

NOTE:- 50mm Flat Laths are only available on 3m<sup>2</sup> Max openings

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Drwg No: Curtain Options 01

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CURTAIN OPTIONS

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# GUARDIAN

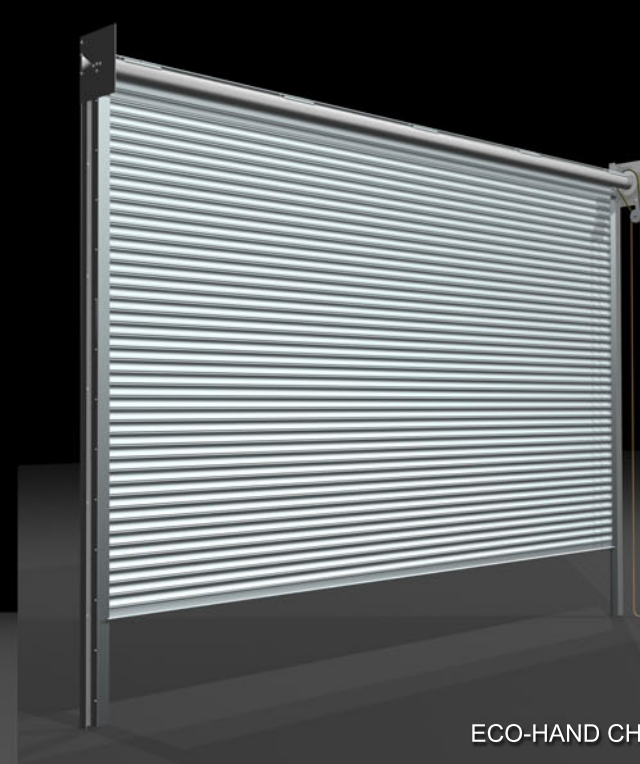
## ECONOMY RANGE

### OVERVIEW

- MAX SIZE OF 12m x 12m
- RANGE OF ACTIVATION OPTIONS
- RANGE OF FITTING CONFIGURATIONS
- 3 OR SINGLE PHASE OPERATION
- SOLID STEEL CONSTRUCTION
- COST EFFECTIVE



ECO ELECTRIC INDUSTRIAL



ECO-HAND CHAIN



ECO-ELECTRIC COMMERCIAL



ECO-MANUAL



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GUARDIANS ECO RANGE - This range of roller shutter doors are purposely designed for industrial useage where insulation is not a requirement. They are constructed from galvanised steel with a minimum of 22 gauge. They can be manually operated up to a size of 4m x 4m or electrically operated via single or 3 phase motors dependant on application

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