

## BUILT-ON SECURITY SHUTTERS TECHNICAL GUIDE

**SWS**  **UK**  
PROPERTY PROTECTION SYSTEMS

-     **Commercial**
-  **Retail**
-  **Counter & Cabinet**
-  **Domestic**

# Built-On Security Shutters Technical Guide

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## INTRODUCTION

Our product range has been developed in Britain to provide an architecturally acceptable answer to the growing demand for vandalism and burglary protection on domestic, commercial and retail properties.



The SECEURO range of products are compliant with the latest European product directives and standards including BSEN 13241-1 applicable from the 1st May 2005.

The uniquely neat finish of the Seceuro range of security window shutters is particularly evident when they are built-on to an existing building with compact aluminium boxes, styled to minimise their visual impact.

The slimline finish makes internal fitting of window shutters a frequent choice. Our continuous programme of product development has produced a compact shutter of exceptional strength for small to medium size apertures.

Installations nationally protect windows and doors on city centre, suburban and rural homes, offices, factories, sports centres, medical premises, schools, community centres, computer rooms and golf clubs. In short, any building where security is a concern.

## OPERATION

**Swivel/geared belt** Shutters are raised and lowered from inside by a belt. Depending upon shutter size the belt is operated manually or by geared crank handle. This is a lower security option.

**Rod crank** Shutters are raised and lowered from inside by a geared rod crank winding handle which hangs down vertically underneath the box and secures on a clip when not in use.

**Spring loaded** For external operation on exit doors, shutters can be spring loaded with a transverse key lock in the bottom slat. Also a popular option for bar, servery, counter, cabinet and kiosk applications. (N.B. The bottom slat projects below the shutter when fully raised, check that this will not obstruct outward opening doors)

**Electric** Motors are required on larger shutters and are optional on smaller shutters. Tubular motors fit inside the axle and require a 3 amp fuse. Operation is by rocker switch, key switch or remote control. A manual override can be specified to operate from inside. Where desirable a manual override can also be engaged through the outside of an externally fitted shutter box. Under these circumstances a lockable override cover is available as an optional extra to maximise security. Multi-shutter electric installations can be wired to operate from a central or group switches. Ask for further details. Care should be taken to ensure that such installations are in line with current Health and Safety Legislation.



Users must be instructed to operate electric shutters with care, particularly when lowering. Check that the shutter operates smoothly when lowering, do not leave running unattended. If the shutter does not start to descend immediately or falters during operation, stop at once, reverse the shutter and try again. If the problem persists the shutter must be checked by an engineer. If an electric shutter is left to run unattended and damage occurs to the shutter any guarantee is void. Clear instruction must be given to users on the manual override winding direction to raise the shutter. Winding the shutter downwards beyond the normal stop point will damage the shutter.

### Power Requirement

A Shutter up to 5sqm/50kg typically draws 1.1A/240W

A Shutter up to 10sqm/100kg typically draws 1.5A/320W



**Thermal Cut Out Switch** Tubular motors have a thermal cut out to prevent overheating after approximately four minutes of continuous running. This may cut in while setting limit switches; wait 15-30 minutes then restart the motor.

**CE Marking** All power-operated shutters are supplied with full CE marking documentation to assist in compliance with:

The Supply of Machinery (Safety) Regulations 1992  
The Health and Safety at Work Act 1974



**FINISH** The shutter box, guide rail and bottom slat are typically powder coated in white or dark brown as standard. The shutter slats come in a variety of colours depending on the product. Please refer to the table opposite for more details. Standard R.A.L. or BS colours are also available at a surcharge on most products.

**SIZING** All shutters are individually made to customers sizes and specifications to maximise security. Maximum sizes may alter depending upon the application, wind loading or whether installed as a secondary or sole opening closure.

**MAINTENANCE** Window shutters primarily require keeping clean, particularly on city centre or coastal installations. Commercial installations should have a maintenance check every year. The guarantee period on all shutters is 18 months and covers replacement parts only. External key operated locks require frequent lubrication (light grade SAE oil).

## PERFORMANCE

**Security** A locking device operates automatically when the shutter is fully lowered. Spring assisted shutters are fitted with a key lock fitted centrally in the bottom slat. Burglary resistance can be further enhanced by the use of bullet locks (see page 7). Reinforcing angle on the cill for the shutter to sit down behind is recommended on wide or vulnerable installations. Extruded slats are utilised for optimum security.

**Shading/blackout** Shutters can be stopped at any point to be used for shading (with the exception of spring operated shutters). This is enhanced by the optional light slits on the foam filled CD150 slats. When the shutter is fully closed it is effectively a blackout blind.

**Thermal and acoustic conductivity** The K value of a double glazed window fitted with a foam filled shutter is further improved by 35% from 1.8 to 2.6 w/m<sup>2</sup> K. The improvement is virtually the same with an extruded slat. These products can also be used to reduce unwanted background noise.

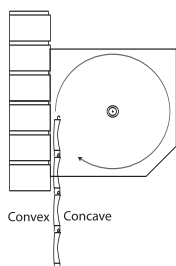
**INSTALLATION/SUPPLY** Detailed installation instructions are available for each shutter type; installation and supply are carried out by approved installers.

**INSTALLATION OPTIONS** The shutter can be installed around the reveal or in the reveal, internally or externally, depending on the window/door configuration and client preference. The following pages detail the sizing and layout options for each type of built-on shutter operation. Each has technical advantages and limitations, particularly on maximum sizes. All shutters require a cill or flat solid floor to close down onto. On new build projects we recommend built-in shutters, details of which are available in a separate brochure.



## At a glance

Shutters coil with the concave side facing the barrel. The fixing position of the shutter box determines the visible external face of the shutter slats. 7500 slats are also able to coil in reverse (convex side facing the barrel) allowing the preferred visible external face to be selected irrespective of shutter fixing position. Reverse coiling increases the coil size - see box size data for a given height.



| <div><div>Convex</div><div>Concave</div></div>                               |  | <div>1</div> <div>2</div> |             | Max/Min Overall Size (wxh)  |  | Applications |  |  |  | Standard |  | Curtain |  | Finish |  | Operation/max.area m <sup>2</sup> |    |     |     |     |
|--|--|---------------------------|-------------|---|--|--------------|--|--|--|----------|--|---------|--|--------|--|-----------------------------------|----|-----|-----|-----|
|  |  | Concave Face              | Convex Face | Max Area in sqm   |  |              |  |  |  |          |  |         |  |        |  |                                   |    |     |     |     |
|  |  |                           |             | Material Type / Curtain weight  |  |              |  |  |  |          |  |         |  |        |  |                                   |    |     |     |     |
| <b>SECEUR SHIELD™</b><br>Insurance Approved 5<br>Security Shutters           |  |                           |             | Min Width 900mm<br>Max 3000mm x 4000mm<br>Max Area 12sqm<br>Extruded Aluminium / 8kgm <sup>2</sup>          |  |              |  |  |  |          |  |         |  |        |  | 12                                |    |     |     |     |
| <b>SECEUR VISION™</b><br>See-Through Shutters<br>Punched/Glazed 45% Vision   |  |                           |             | Min Width 500mm<br>Max 3000mm x 5000mm<br>Max Area 12sqm<br>Extruded Aluminium / 6.5kgm <sup>2</sup>        |  |              |  |  |  |          |  |         |  |        |  | 12                                | 9  | 4.5 | 3.8 | 2.3 |
| <b>SECEUR VISION™</b><br>See-Through Shutters<br>Perforated 17% Vision       |  |                           |             | Min Width 500mm<br>Max 3000mm x 5000mm<br>Max Area 12sqm<br>Extruded Aluminium / 6.5kgm <sup>2</sup>        |  |              |  |  |  |          |  |         |  |        |  | 12                                | 9  | 4.5 | 3.8 | 2.3 |
| <b>SECEUR VISION™</b><br>See-Through Shutters<br>Perforated 25% Vision       |  |                           |             | Min Width 900mm<br>Max 6000mm x 3400mm<br>Max Area 15sqm<br>22 swg Steel / 8kgm <sup>2</sup>                |  |              |  |  |  |          |  |         |  |        |  | 15                                | 10 |     |     |     |
| <b>SECEUR VISION™</b><br>See-Through Shutters<br>Punched & Glazed 62% Vision |  |                           |             | Min Width 900mm<br>Max 6000mm x 5000mm<br>Max Area 20sqm<br>Extruded Aluminium / 7kgm <sup>2</sup>          |  |              |  |  |  |          |  |         |  |        |  | 20                                | 8  |     |     |     |
| <b>SECEUR VISION™</b><br>See-Through Roller Grille<br>55/69% Vision          |  |                           |             | Min Width 900mm<br>Max 5000mm x 4000mm<br>Max Area 13sqm<br>Extruded Aluminium / 7kgm <sup>2</sup>          |  |              |  |  |  |          |  |         |  |        |  | 13                                | 8  |     |     |     |
| <b>SECEUR SCREEN™</b><br>Built-On Security Shutters                          |  |                           |             | Min Width 500mm<br>Max 3400mm x 4000mm<br>Max Area 8sqm<br>Insulated Rolled Aluminium / 4.5kgm <sup>2</sup> |  |              |  |  |  |          |  |         |  |        |  | 8                                 | 6  | 6.5 | 5.5 | 3.3 |
| <b>SECEUR SHIELD™</b><br>Built-On Security Shutters                          |  |                           |             | Min Width 500mm<br>Max 4000mm x 5000mm<br>Max Area 12sqm<br>Extruded Aluminium / 8kgm <sup>2</sup>          |  |              |  |  |  |          |  |         |  |        |  | 12                                | 7  | 3.5 | 3   | 2   |
| <b>SECEUR SHIELD™</b><br>Built-On Security Shutters                          |  |                           |             | Min Width 900mm<br>Max 6000mm x 5000mm<br>Max Area 20sqm<br>Extruded Aluminium / 9kgm <sup>2</sup>          |  |              |  |  |  |          |  |         |  |        |  | 20                                | 8  |     |     |     |
| <b>SECEUR SHIELD™</b><br>Built-On Security Shutters                          |  |                           |             | Min Width 900mm<br>Max 6000mm x 3400mm<br>Max Area 15sqm<br>22swg Steel / 10kgm <sup>2</sup>                |  |              |  |  |  |          |  |         |  |        |  | 15                                | 8  |     |     |     |
| <b>SECEUR SHIELD™</b><br>Built-On Security Shutters                          |  |                           |             | Min Width 900mm<br>Max 5400mm x 4000mm<br>Max Area 16sqm<br>Insulated Rolled Aluminium / 5kgm <sup>2</sup>  |  |              |  |  |  |          |  |         |  |        |  | 16                                | 12 |     |     |     |

- 1 Sizes quoted may not be available with some operation modes (see the data for each operation type for confirmation) and may alter depending upon product application, wind loading or whether installed as a secondary (such as over a window) or sole (such as a garage) closure for an opening.
- 2 9.25kg/m<sup>2</sup> with glazing.
- 3 SeceuroShield 7700 slat standard colour option is light beige in place of cream, and is available in a range of 7 colours. Woodgrain finish also available as an option for SeceuroShield 7700 & SeceuroScreen 1500.
- 4 150mm link spacing 6kg/sqm with 69% vision as standard or optional 75mm link spacing 7kg/sqm with 55% vision (shown).
- 5 The validity of the LPCB certification is contingent upon each security shutter being installed in accordance with the requirements of LPS 1175.
- 6 Please note the maximum sizes quoted for SeceuroVision 7500 and SeceuroShield 7500 are applicable to the continental style shutter with aluminium head box and guide rails. These products are also available with traditional galvanised steel channels and head box. The maximum sizes for the traditional style are as follows: maximum width 6400mm, maximum height 4700mm and maximum area 20sqm.

**NOTE:** The standard colours are for the curtain only. Guides, shutter box and the bottom rail are supplied in white or dark brown as standard. Colour matching to the curtain is an optional extra - please request clarification for the shutter chosen.



# Built-On Shutters - Typical Arrangements

## GENERAL ARRANGEMENT

**Shutter box** The shutter coil is completely encased in a two piece, roll formed aluminium box, available in a range of six sizes according to the shutter height and slat type. The box is styled with a 45° chamfer to minimise the visual impact. On large electric operation shutters which require a manual override the box extends beyond the width of the guides to accommodate the override mechanism on the drive side (see page 4).

Lugs at each end of the box locate into the box section of the guide rail.

**Shutter slats** A range of profiles is available dependent upon the security and/or vision requirement.

**Aluminium shutters** are available in extruded aluminium in single and twin wall profiles and roll formed in twin wall foam insulation filled profiles.

**Steel shutters** The SeceuroShield/Vision 7500 is a single wall profile in 22swg steel. The bottom slat further allows for tailoring of security level.

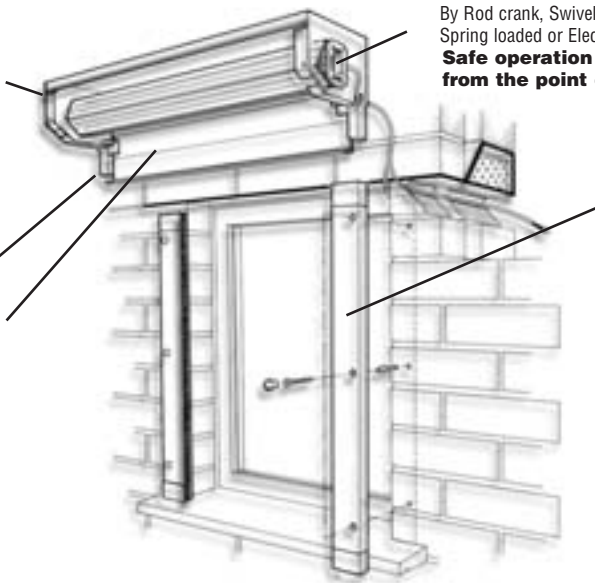
## Operation

By Rod crank, Swivel/geared belt, Spring loaded or Electric (shown)

**Safe operation of shutters which are not visible from the point of operation must be considered.**

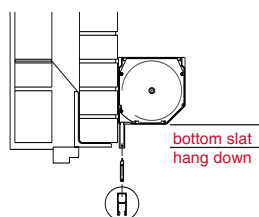
## Guide rails

Constructed from extruded aluminium with a brush pile or neoprene liner for quiet, smooth operation. The guide rail is strengthened by a box section which also provides a separate fixing position and allows the shutter box to locate into. Size varies with slat type, shutter size and level of security. For locations with high security risk areas or high wind loading a windlock guide is available for some slat types.

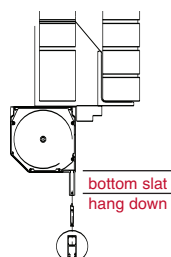
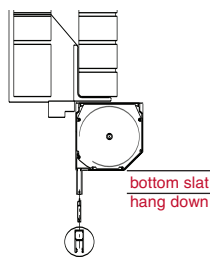


## HEAD DETAILS

### Typical arrangement shown



The bottom slat hangs down from the bottom of the shutter box when the curtain is fully raised. For exact distance, see appropriate bottom slat profile section. In some cases the positioning of the shutter box can be set higher to ensure a clear opening, dependant upon the position of the lintel.

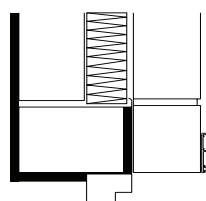


**Detail: Built-On External Face Fix**

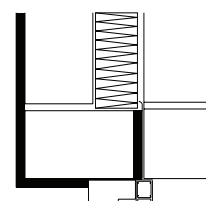
**Detail: Built-On External Reveal Fix**

**Detail: Built-On Internal Reveal Fix**

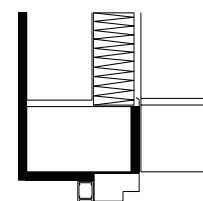
## JAMB DETAILS



**Detail: Built-On External Face Fix**



**Detail: Built-On External Reveal Fix**



**Detail: Built-On Internal Reveal Fix**

## GENERAL DETAILS

### END LOCKS

#### Typical endlock arrangement

Extruded slats

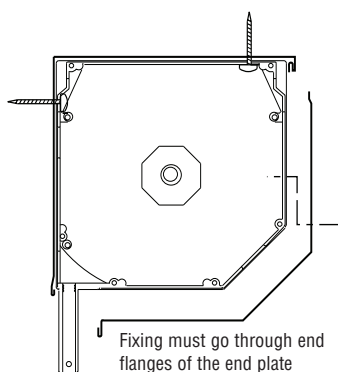
Foam filled slats

Secured by rivets, crimping or staples depending on slat size/type



### SHUTTER BOX & 45° CANOPY

#### Detail: Box fixing showing optional 45° Removable canopy



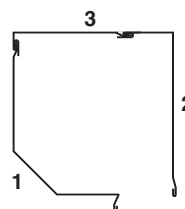
Fixing must go through end flanges of the end plate

### GUIDE FIXING



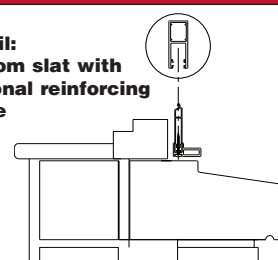
**Detail: Guide reveal fixing** **Detail: Guide Face fixing**

Please note 350mm box will be supplied in three sections rather than two



### BOTTOM SLAT DETAIL

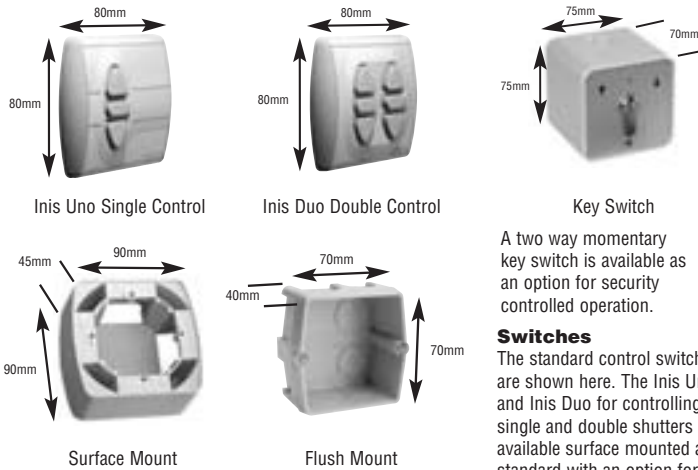
#### Detail: Bottom slat with optional reinforcing angle





## AUTOMATION & CONTROLS

### CONTROL SWITCHES



Key Switch

A two way momentary key switch is available as an option for security controlled operation.

#### Switches

The standard control switches are shown here. The Inis Uno and Inis Duo for controlling single and double shutters are available surface mounted as standard with an option for flush mounting. Switches are supplied "hold to run" for safety, as standard.

#### Group Command

For controlling up to 4 shutters a group command unit is required. The units can be linked together to control any number of shutters from a single master switch, still giving the option of individual switching if required.



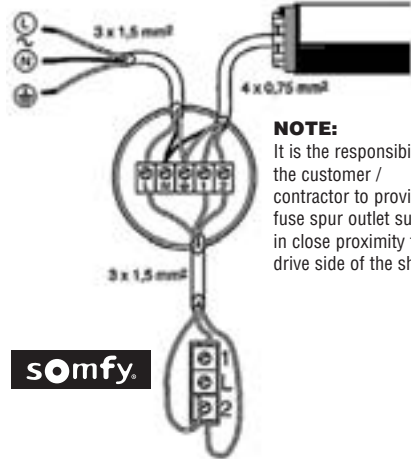
#### Remote Control

The third generation SeceuroSmart (RT) remote control system is fully compliant with all relevant European legislation. Supplied as standard from May 2005, this state-of-the-art unit is bristling with a host of additional features and benefits including:

- A wireless safety edge, which is fully compliant to BS EN 12453, replaces the safety photo-cell and reduces alignment problems and call-backs.
- Individual open, stop and close buttons mounted externally on the receiver for easy operation.
- A three colour LED on the unit indicates the doors current position and direction of travel.
- The remote control receiver monitors the motor's performance enabling it to detect an engaged manual locking device, if an object is jammed in the guide rails or curtain coil or if an individual is being lifted by the door. In these instances the door will automatically be stopped and the three colour LED on the unit will flash the appropriate system status signal.
- The unit can detect when a motor's thermal trip has been activated due to the motor overheating and will flash the appropriate system status signal using the three colour LED.
- If the safety edge is activated during use the door will automatically enter a hold to run mode enabling the door to still be operated whilst ensuring there is no compromise to the customer's safety.

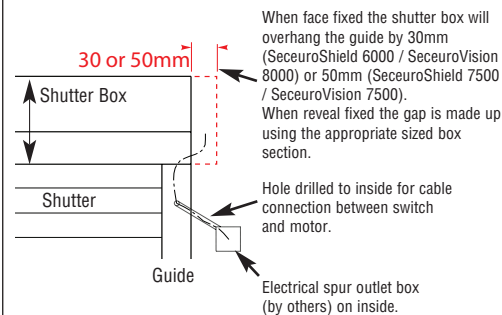


### MOTOR WIRING



### SHUTTER BOX EXTENSIONS

| slat type          | max area before box extension reqd (m²) |
|--------------------|---|
| SeceuroShield 6000 | 19                                      |
| SeceuroVision 8000 | 18                                      |
| SeceuroShield 7500 | 17                                      |
| SeceuroVision 7500 | 21                                      |



### COMPLIANCE WITH EUROPEAN DIRECTIVES AND STANDARDS

SWS UK's products not only comply with all relevant UK & European legislation but have also received 3rd party certification from a UKAS accredited test house. This provides the reassurance that our claims of compliance have been verified by a credible independent organisation.

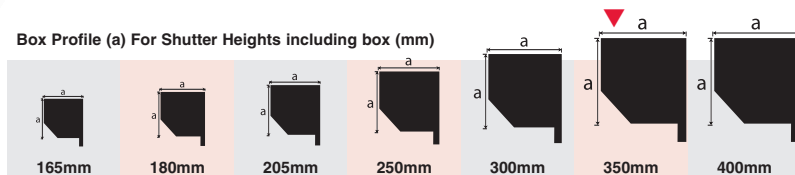
To ensure compliance the Construction Products Directive SWS has undertaken the following work and implemented the following product changes:

- Ensure all externally fitted doors will withstand a minimum windload of Class 2 (Stormforce 10)
- Conduct cyclic durability test for all products to identify wear.
- Our standard remote control operation solution is now a fully compliant safety edge for all roller shutters rather than a photocell.
- Anti drop device on all doors / serveries above approximately 26kg.
- Anti drop spring on SeceuroShield 7700 and built-in electric shutters where applicable.
- Double springing on all spring loaded doorway shutters between approximately 26kg and 53kg.
- If an electric shutter is fitted on a doorway and it is the only point of exit, our low level override has now been adapted so it can also be used internally for escape.

# Built-On Shutters - Electric Operation

† The maximum area for a given slat design is NOT a product of maximum width x maximum height. Please check your shutter size against the maximum area limit.

Box Profile (a) For Shutter Heights including box (mm)



|  | Concave Face | Convex Face | Sizing Data †  | 165mm       | 180mm       | 205mm       | 250mm                      | 300mm                      | 350mm                      | 400mm                      |
|--|--------------|-------------|--|-------------|-------------|-------------|----------------------------|----------------------------|----------------------------|----------------------------|
| <b>SECEURO SHIELD™ 3801</b><br>Insurance Approved Security Shutters                |              |             | Min Width 900mm<br>Max Width 3000mm<br>Max Height 4000mm<br>Max Area 12sqm   | 1000 - 1600 | 1601 - 1900 | 1901 - 2800 | 2801 - 4000                |                            |                            |                            |
| <b>SECEURO VISION™ 3800</b><br>See-Through Shutters<br>Punched/Glazed 45% Vision   |              |             | Min Width 750mm<br>Max Width 3000mm<br>Max Height 5000mm<br>Max Area 12sqm   | 1000 - 1600 | 1601 - 1900 | 1901 - 2800 | 2801 - 5000                |                            |                            |                            |
| <b>SECEURO VISION™ 3800</b><br>See-Through Shutters<br>Perforated 17% Vision       |              |             | Min Width 750mm<br>Max Width 3000mm<br>Max Height 5000mm<br>Max Area 12sqm   | 1000 - 1600 | 1601 - 1900 | 1901 - 2800 | 2801 - 5000                |                            |                            |                            |
| <b>SECEURO VISION™ 7500</b><br>See-Through Shutters<br>Perforated 25% Vision       |              |             | Min Width 1000mm<br>Max Width 6000mm<br>Max Height 4700mm<br>Max Area 20sqm  | **          |             | *           | 1000 - 2000<br>1000 - 1250 | 2001 - 2800<br>1251 - 2500 | 2801 - 3800<br>2501 - 3400 | 3801 - 4700<br>3401 - 4700 |
| <b>SECEURO VISION™ 8000</b><br>See-Through Shutters<br>Punched & Glazed 62% Vision |              |             | Min Width 900mm<br>Max Width 6000mm<br>Max Height 5000mm<br>Max Area 20sqm   |             |             |             | 1000 - 1800                | 1801 - 3200                | 3201 - 5000                |                            |
| <b>SECEURO VISION™ 9000</b><br>See-Through Roller Grille<br>55/69% Vision          |              |             | Min width 900mm<br>Max Width 5000mm<br>Max Height 4000mm<br>Max Area 16sqm   |             |             | 1000 - 1600 | 1601 - 2800                | 2801 - 4000                |                            |                            |
| <b>SECEURO SCREEN 1500</b><br>Built-On Security Shutters                           |              |             | Min Width 750mm<br>Max Width 3400mm<br>Max Height 4000mm<br>Max Area 8sqm    | 1000 - 1600 | 1601 - 2000 | 2001 - 2800 | 2801 - 4000                |                            |                            |                            |
| <b>SECEURO SHIELD™ 3800</b><br>Built-On Security Shutters                          |              |             | Min Width 750mm<br>Max Width 4000mm<br>Max Height 5000mm<br>Max Area 12sqm   | 1000 - 1600 | 1601 - 1900 | 1901 - 2800 | 2801 - 5000                |                            |                            |                            |
| <b>SECEURO SHIELD™ 6000</b><br>Built-On Security Shutters                          |              |             | Min Width 900mm<br>Max Width 6000mm<br>Max Height 5000mm<br>Max Area 20sqm   |             |             | 1000 - 1800 | 1801 - 2800                | 2801 - 4200                | 4201 - 5000                |                            |
| <b>SECEURO SHIELD™ 7500</b><br>Built-On Security Shutters                          |              |             | Min Width 1000mm<br>Max Height 6000mm<br>Max Height 4700mm<br>Max Area 20sqm | **          |             | *           | 1000 - 2000<br>1000 - 1250 | 2001 - 2800<br>1251 - 2500 | 2801 - 3800<br>2501 - 3400 | 3801 - 4700<br>3401 - 4700 |
| <b>SECEURO SHIELD™ 7700</b><br>Built-On Security Shutters                          |              |             | Min Width 900mm<br>Max Width 5400mm<br>Max Height 4000mm<br>Max Area 16sqm   |             |             |             | 1000 - 2000                | 2001 - 2800                | 2801 - 4000                |                            |

\* Figures in red denote reverse coil heights for a given box size. 7500 Slat Standard coil Shutters coil with the concave side facing the barrel. 7500 slats are also able to coil in reverse (convex side facing the barrel) allowing the preferred visible external face to be selected irrespective of shutter fixing position. Reverse coiling increases the coil size - see box size data for a given height.

\*\* Please note the maximum sizes quoted for SeceuroVision 7500 and SeceuroShield 7500 are applicable to the traditional design style shutter with galvanised steel channels and head box. These products are also available as Continental design shutters with aluminium head box and guide rails. The maximum sizes for the Continental style are as follows:  
Maximum width 6000mm, maximum height 3400mm and maximum area 15sqm

▼ Please note 350mm box will be supplied in three sections rather than two see page 3 for further details.

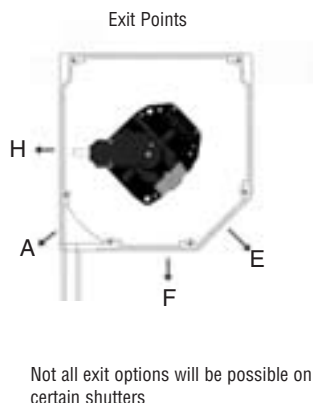
## MANUAL OVERRIDE

### MANUAL OVERRIDE FACILITY

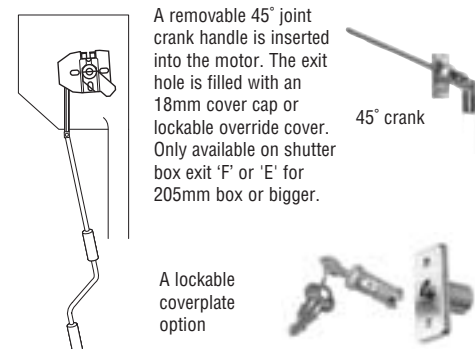
If a manual override is required for use in the event of power failure this must be specified at the time of ordering. There is a choice of technical solutions for the handle mechanism which operates the override, principally dependent upon whether the shutter is installed internally or externally and whether the override is to operate from inside or outside the building. Override locks and the low level external override are available at a surcharge. All specifications refer to a 205mm box or larger. When a shutter is installed over an exit which would be the only means of an escape in an emergency it is a legal requirement to install an override on the inside. The latest generation of low level external overrides can now be operated from both the inside and outside to satisfy this legal requirement.

#### USE OF MANUAL OVERRIDE SHUTTERS:

Clear instruction must be given to users on the manual override winding direction to raise the shutter. Winding the shutter downwards beyond the normal stop point will damage the shutter.



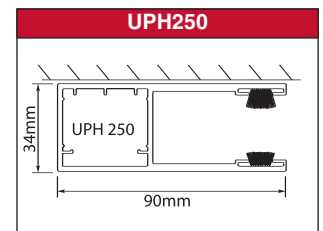
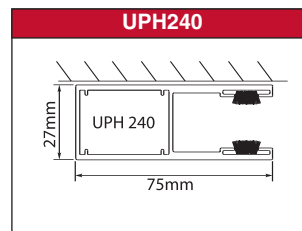
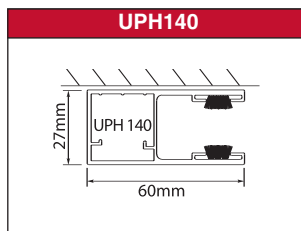
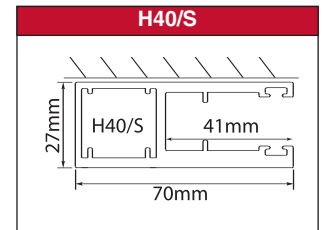
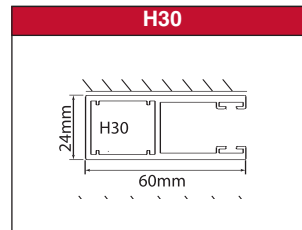
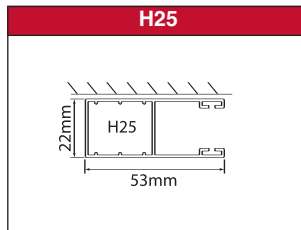
### Externally fitted shutter with external override



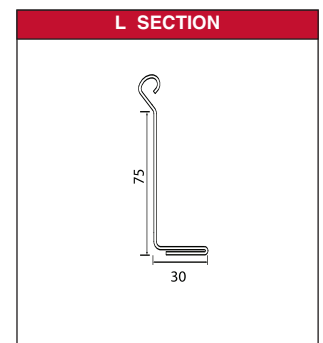
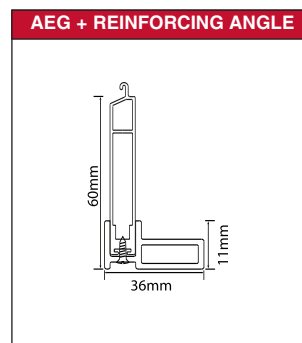
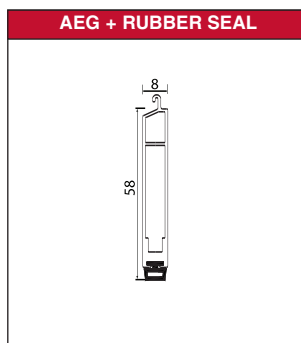
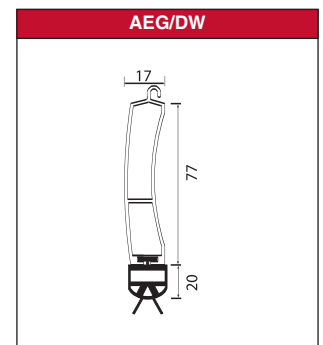
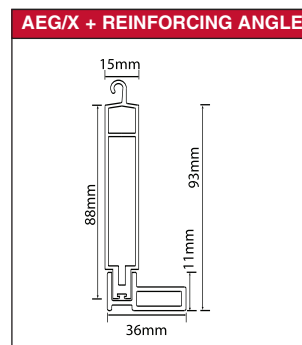
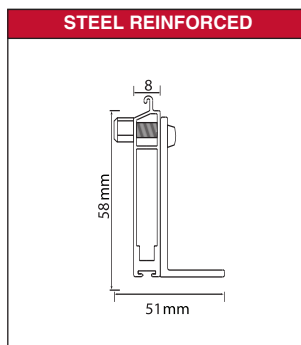


| HIGH SECURITY |     |       |           |                   |                   | Bottom Slat               |
|---------------|-----|-------|-----------|-------------------|-------------------|---------------------------|
| H25           | H30 | H40/S | UPH140    | UPH240            | UPH250            | Standard                  |
|               |     | S     |           |                   |                   | Steel Reinforced          |
| O             | S   | O     |           |                   |                   | AEG + Reinforcing Angle   |
| O             | S   | O     |           |                   |                   | AEG + Reinforcing Angle   |
|               |     |       |           |                   | S                 | L Section                 |
|               |     |       |           |                   | S                 | AEG/DW                    |
|               |     |       | S 205 box | S 250/300/350 box | O 250/300/350 box | AEG/X + Reinforcing Angle |
| S             | O   | O     |           |                   |                   | AEG                       |
| O             | S   | O     |           |                   |                   | AEG + Reinforcing Angle   |
|               |     |       | S 205 box | S 250/300/350 box | O 250/300/350 box | AEG/X + Reinforcing Angle |
|               |     |       |           |                   |                   | L Section                 |
|               |     |       |           |                   | S                 | AEG/DW                    |

## GUIDE PROFILES



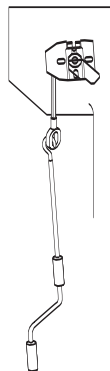
## BOTTOM SLAT PROFILES



### Externally fitted shutter with internal override

A permanently installed internal handle can often be specified subject to final survey and dependent on the construction of the building specification. Specification and installation details are the same as for rod crank operation on page 9 figure '2' or '3'.

### Internally fitted shutter with internal override



A fixed eye can be supplied at shutter box exit 'F' with a removable hooked handle of 1100mm as standard - see section on Crank Operation (page 9) for detail.

Alternatively a fixed 45° joint crank handle can be supplied at box exit 'E' or 'F' (similar to figure '1' page 9).

### Internally fitted shutter with external override



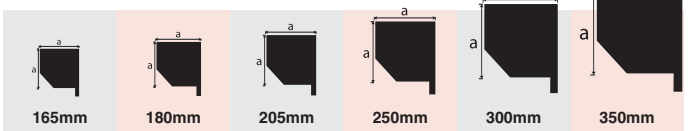
The low level external override (exit F) is operated by unlocking the override cover plate and inserting the winding handle.

# Built-On Shutters - Spring Assisted

2800 mm is our maximum recommended height for spring assisted shutters to ensure safe and appropriate operation.

† The maximum area for a given slat design is NOT a product of maximum width x maximum height. Please check your shutter size against the maximum area limit.

Box Profile (a) For Shutter Heights including box (mm)



|   | Concave Face | Convex Face | Sizing Data †   | 165mm       | 180mm       | 205mm       | 250mm                        | 300mm                      | 350mm         |
|---|--------------|-------------|---|-------------|-------------|-------------|------------------------------|----------------------------|---------------|
| <b>SECEUROVISION™ 3800</b><br>See-Through Shutters<br>Punched/Glazed 45% Vision   |              |             | Min Width 755mm<br>Max Width 3000mm<br>Max Area 9sqm  | 1000 - 1600 | 1601 - 1900 | 1901 - 2800 |                              |                            |               |
| <b>SECEUROVISION™ 3800</b><br>See-Through Shutters<br>Perforated 17% Vision       |              |             | Min Width 755mm<br>Max Width 3000mm<br>Max Area 9sqm  | 1000 - 1600 | 1601 - 1900 | 1901 - 2800 |                              |                            |               |
| <b>SECEUROVISION™ 7500</b><br>See-Through Shutters<br>Perforated 25% Vision       |              |             | Min Width 900mm<br>Max Width 4000mm<br>Max Area 10sqm |             |             |             | ★ 1000 - 2000<br>1000 - 1200 | 2001 - 2800<br>1201 - 2500 | 2501 - 2800 ● |
| <b>SECEUROVISION™ 8000</b><br>See-Through Shutters<br>Punched & Glazed 62% Vision |              |             | Min Width 755mm<br>Max Width 4000mm<br>Max Area 8sqm  |             |             |             | 1000 - 1800                  | 1810 - 2800                |               |
| <b>SECEUROVISION™ 9000</b><br>See-Through Roller Grille<br>55/69% Vision          |              |             | Min Width 755mm<br>Max Width 4600mm<br>Max Area 8sqm  |             |             | 1000 - 1600 | 1610 - 2800                  |                            |               |
| <b>SECEUROSCREEN™ 1500</b><br>Built-On Security Shutters                          |              |             | Min Width 755mm<br>Max Width 3400mm<br>Max Area 6sqm  | 800 - 1600  | 1601 - 2000 | 2001 - 2800 |                              |                            |               |
| <b>SECEUROSHIELD™ 3800</b><br>Built-On Security Shutters                          |              |             | Min Width 755mm<br>Max Width 4000mm<br>Max Area 7sqm  | 1000 - 1600 | 1601 - 1900 | 1901 - 2800 |                              |                            |               |
| <b>SECEUROSHIELD™ 6000</b><br>Built-On Security Shutters                          |              |             | Min Width 755mm<br>Max Width 4000mm<br>Max Area 8sqm  |             |             | 1000 - 1800 | 1801 - 2800                  |                            |               |
| <b>SECEUROSHIELD™ 7500</b><br>Built-On Security Shutters                          |              |             | Min Width 900mm<br>Max Width 4000mm<br>Max Area 12sqm |             |             |             | ★ 1000 - 2000<br>1000 - 1200 | 2001 - 2800<br>1201 - 2500 | 2501 - 2800 ● |
| <b>SECEUROSHIELD™ 7700</b><br>Built-On Security Shutters                          |              |             | Min Width 755mm<br>Max Width 4000mm<br>Max Area 12sqm |             |             |             | 1000 - 2000                  | 2001 - 2800                |               |

● Heights marked with a red dot are for boxes able to accommodate larger heights but are purposely restricted by our recommendation.

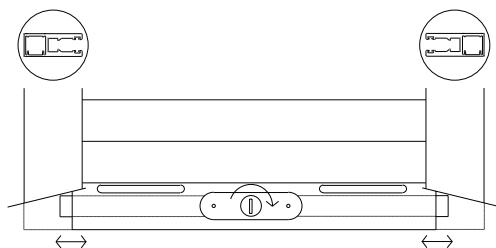
★ Figures in red denote reverse coil heights for a given box size. 7500 Slat Standard coil Shutters coil with the concave side facing the barrel. 7500 slats are also able to coil in reverse (convex side facing the barrel) allowing the preferred visible external face to be selected irrespective of shutter fixing position. Reverse coiling increases the coil size - see box size data for a given height.

▼ Please note 350mm box will be supplied in three sections rather than two see page 3 for further details.

## LOCKING

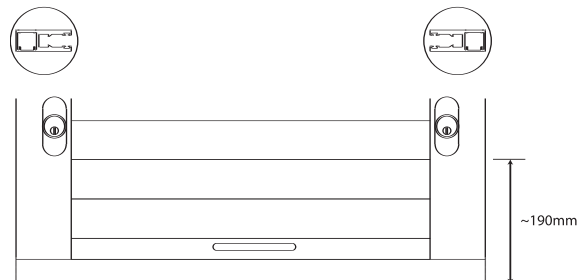
### Bottom slat key lock

Spring loaded shutters include a transverse lock which is operable from both sides, fitted into the bottom slat as standard. The central key throws out locking bars which locate into the box section of the guide rail at each side. The shutter must be held in the closed position against the springing to engage the locks. Handles are supplied to assist operation - one or two are supplied dependent upon shutter size. Non locking shoot bolts are available as an option.



### Bullet locks

Bullet locks are available. The locks go through the the guide and slat. Shown is an elevation from outside with the shutter closing down behind optional angle. Bullet locks are only available with H40S, UPH 240 and UPH 250 guide profiles.

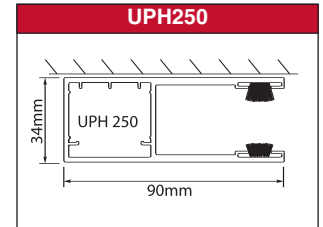
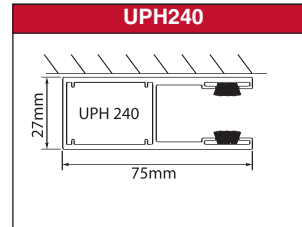
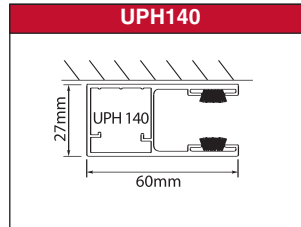
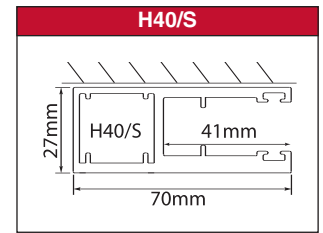
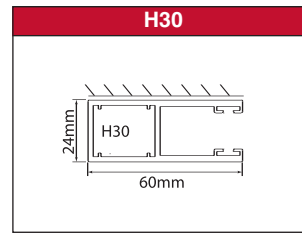
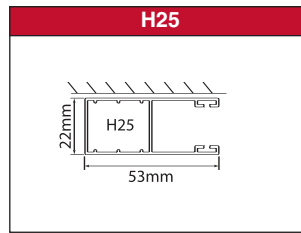




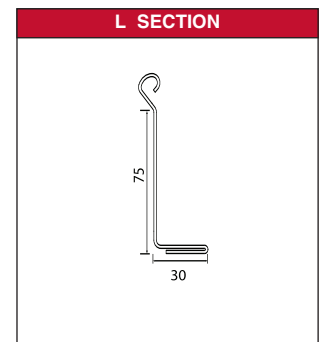
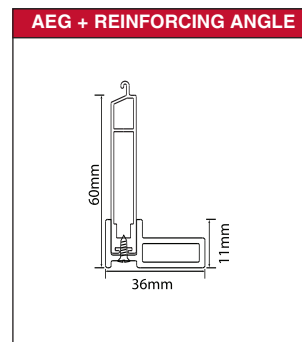
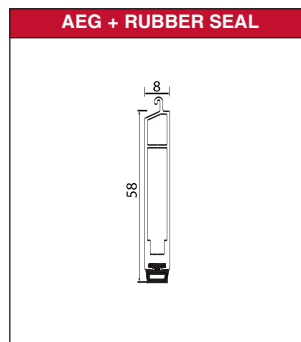
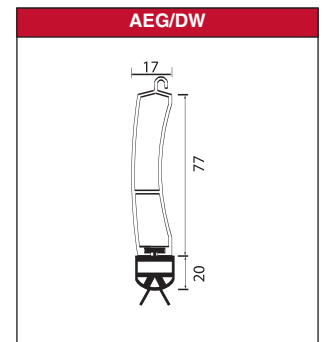
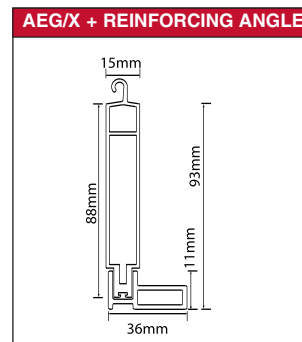
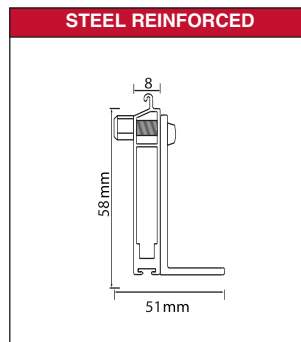
Guide Profiles S = Standard O = Option

| HIGH SECURITY |     |       |           |                   |                   | Bottom Slat               |
|---------------|-----|-------|-----------|-------------------|-------------------|---------------------------|
| H25           | H30 | H40/S | UPH140    | UPH240            | UPH250            | Standard                  |
| O             | S   | O     |           |                   |                   | AEG + Reinforcing Angle   |
| O             | S   | O     |           |                   |                   | AEG + Reinforcing Angle   |
|               |     |       |           |                   | S                 | L Section                 |
|               |     |       |           |                   | S                 | AEG/DW                    |
|               |     |       | S 205 box | S 250/300/350 box | O 250/300/350 box | AEG/X + Reinforcing Angle |
| S             | O   | O     |           |                   |                   | AEG                       |
| S             | O   | O     |           |                   |                   | AEG + Reinforcing Angle   |
|               |     |       | S 205 box | S 250/300/350 box | O 250/300/350 box | AEG/X + Reinforcing Angle |
|               |     |       |           |                   | S                 | L Section                 |
|               |     |       |           |                   | S                 | AEG/DW                    |

## GUIDE PROFILES



## BOTTOM SLAT PROFILES



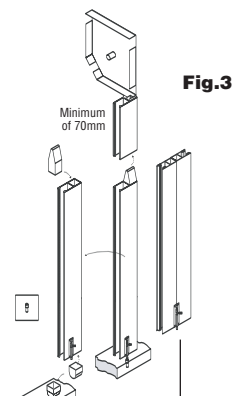
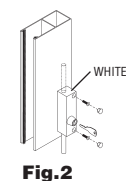
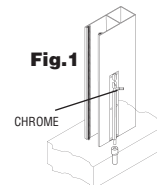
## REMOVABLE GUIDES

For large spans and corners typically found on bars and counters



### Removable Centre Rails

Appropriate on bar and server applications with 2+ shutters where the opening needs to be clear. The top of each removable guide rail locates into a matching 70mm length which is permanently fixed to its end plate during manufacture (Fig.3). The bottom of each rail is secured using a chrome bolt which is supplied loose along with a recessed 40mm socket and dust cap (fig.1) or by using a white lockable bolt (fig.2). One bolt per pair of removable guide rails. Shutters with removable guide rails and a curtain weight of 40kg or more will be supplied with steel end plates.



**Please Note:** when a pair of removable centre rails are required they will be fastened together by SWS during manufacture and supplied with one loose bolt to be attached on site.

See previous section for guide and bottom slat details

† The maximum area for a given slat design is NOT a product of maximum width x maximum height. Please check your shutter size against the maximum area limit.

Concave Face      Convex Face      Sizing Data  $\pm$

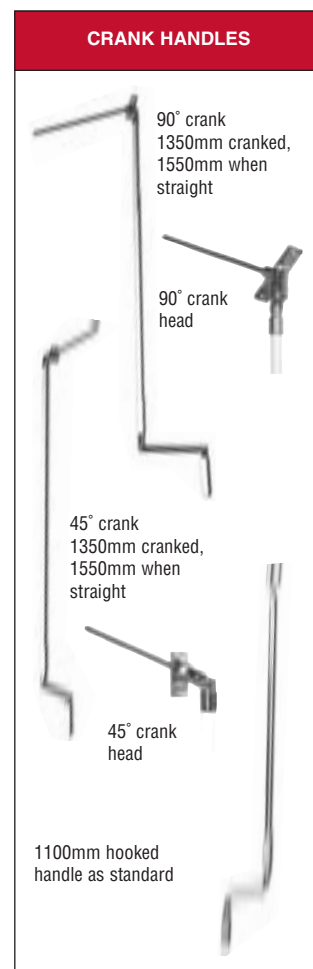
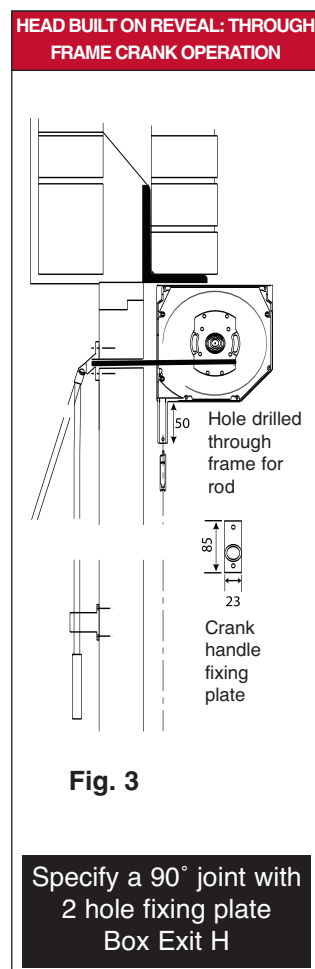
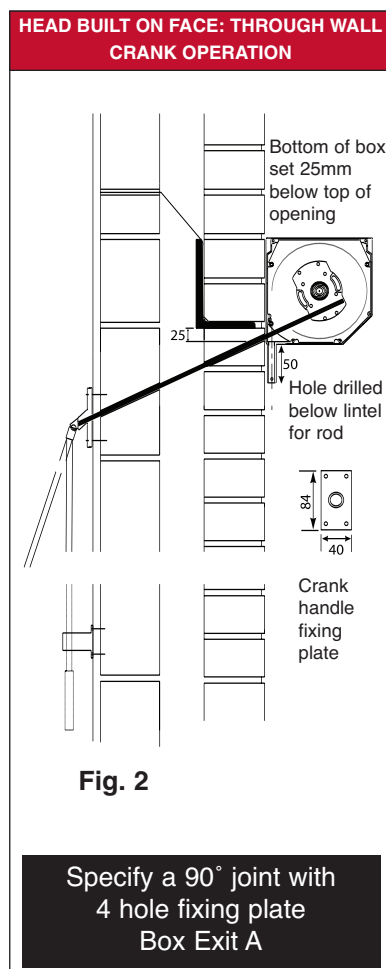
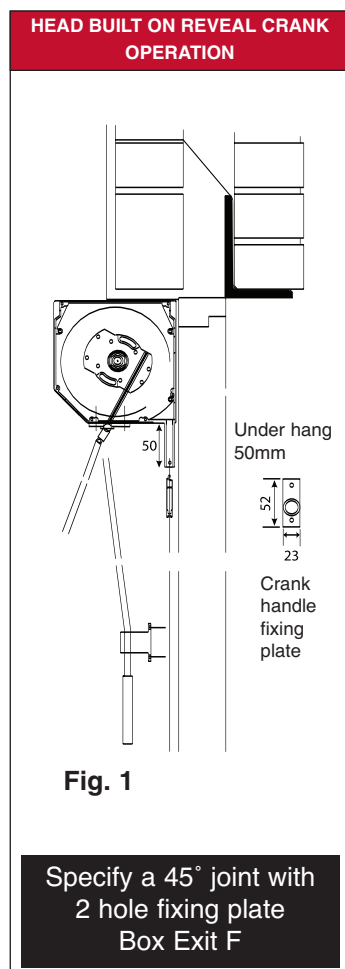
### Box Profile For Shutter Heights including box (mm)

**S = Standard O = Option**

### Bottom Slat

|  |                 |                |   |  |             |             |             |       |          |          |          |          |
|--|-----------------|----------------|---|--|-------------|-------------|-------------|-------|----------|----------|----------|----------|
| Recommended height for<br>od crank shutters due to<br>the length of time taken to<br>wind up and down. |                 |                | The maximum area for a given slat design is NOT a product of maximum width x maximum height. Please check your shutter size against the maximum area limit. |  |             |             |             |       |          |          |          |          |
|  | Concave<br>Face | Convex<br>Face | Sizing Data   |  | 165mm       | 180mm       | 205mm       | 250mm | H25      | H30      | H40/S    | Standard |
| <b>SECEUROVISION™ 3800</b><br>See-Through Shutters<br>Punched/Glazed 45% Vision                        |                 |                | Min Width 500mm<br>Max Width 3000mm<br>Max Area 4.5sqm  |  | 1000 - 1600 | 1601 - 1900 | 1901 - 2800 |       | <b>O</b> | <b>S</b> | <b>O</b> | AEG      |
| <b>SECEUROVISION™ 3800</b><br>See-Through Shutters<br>Perforated 17% Vision                            |                 |                | Min Width 500mm<br>Max Width 3000mm<br>Max Area 4.5sqm  |  | 1000 - 1600 | 1601 - 1900 | 1901 - 2800 |       | <b>O</b> | <b>S</b> | <b>O</b> | AEG      |
| <b>SECEUROSCREEN™ 1500</b><br>Built-On Security Shutters   |                 |                | Min Width 500mm<br>Max Width 3400mm<br>Max Area 6.5sqm  |  | 800 - 1600  | 1601 - 2000 | 2001 - 2800 |       | <b>S</b> | <b>O</b> |          | AEG      |
| <b>SECEUROSHIELD™ 3800</b><br>Built-On Security Shutters   |                 |                | Min Width 500mm<br>Max Width 4000mm<br>Max Area 3.5sqm  |  | 1000 - 1600 | 1601 - 1900 | 1901 - 2800 |       | <b>O</b> | <b>S</b> | <b>O</b> | AEG      |

● Heights marked with a red dot are for boxes able to accommodate larger heights but are restricted by the operating speed of the gearing to 2800mm.





## Built-On Shutters - Belt Operation

See previous section for guide and bottom slat details

† The maximum area for a given slat design is NOT a product of maximum width x maximum height. Please check your shutter size against the maximum area limit.

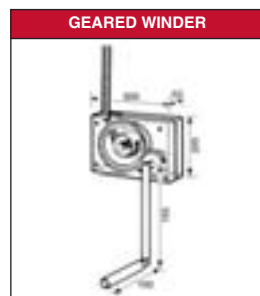
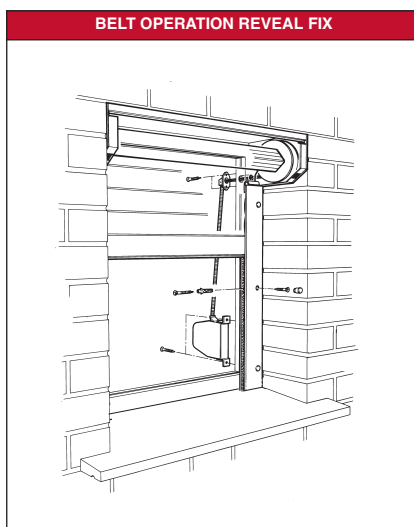
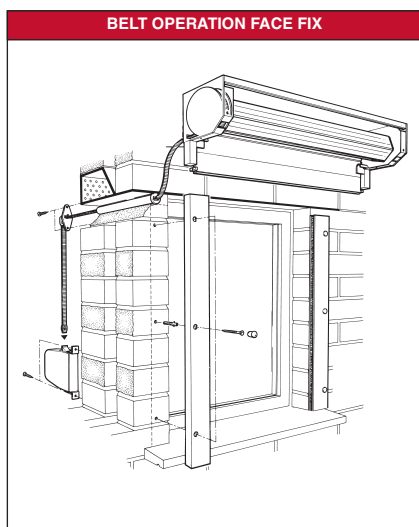
### SWIVEL WINDER

|  | Concave Face | Convex Face | Sizing Data †   | Box Profile For Shutter Heights including box (mm) |               |             | Guide Profiles |     |       |          | Bottom Slat |
|--|--------------|-------------|---|--|---------------|-------------|----------------|-----|-------|----------|-------------|
|  |              |             |   | 165mm  | 180mm         | 205mm       | H25            | H30 | H40/S | Standard |             |
| <b>SECEURO VISION™ 3800</b><br>See-Through Shutters<br>Punched/Glazed 45% Vision |              |             | Min width 500mm<br>Max width 1900mm<br>Max height 1800mm<br>Max Area 2.3sqm | 1000 - 1600  | 1601 - 1800 ● |             | O              | S   | O     |          | AEG         |
| <b>SECEURO VISION™ 3800</b><br>See-Through Shutters<br>Perforated 17% Vision     |              |             | Min width 500mm<br>Max width 1900mm<br>Max height 1800mm<br>Max Area 2.3sqm | 1000 - 1600  | 1601 - 1800 ● |             | O              | S   | O     |          | AEG         |
| <b>SECEURO SCREEN™ 1500</b><br>Built-On Security Shutters                        |              |             | Min width 500mm<br>Max width 3400mm<br>Max height 2800mm<br>Max Area 3.3sqm | 1000 - 1600  | 1001 - 2000   | 2001 - 2800 | S              | O   |       |          | AEG         |
| <b>SECEURO SHIELD™ 3800</b><br>Built-On Security Shutters                        |              |             | Min width 500mm<br>Max width 1900mm<br>Max height 1800mm<br>Max Area 2sqm   | 1000 - 1600  | 1601 - 1800 ● |             | O              | S   | O     |          | AEG         |

### GEARED WINDER

|  |  |  |   |             |             |             |   |   |   |  |     |
|--|--|--|---|-------------|-------------|-------------|---|---|---|--|-----|
| <b>SECEURO VISION™ 3800</b><br>See-Through Shutters<br>Punched/Glazed 45% Vision |  |  | Min width 500mm<br>Max width 2800mm<br>Max height 2800mm<br>Max Area 3.8sqm | 1000 - 1600 | 1601 - 1900 | 1901 - 2800 | O | S | O |  | AEG |
| <b>SECEURO VISION™ 3800</b><br>See-Through Shutters<br>Perforated 17% Vision     |  |  | Min width 500mm<br>Max width 2800mm<br>Max height 2800mm<br>Max Area 3.8sqm | 1000 - 1600 | 1601 - 1900 | 1901 - 2800 | O | S | O |  | AEG |
| <b>SECEURO SCREEN™ 1500</b><br>Built-On Security Shutters                        |  |  | Min width 500mm<br>Max width 3400mm<br>Max height 2800mm<br>Max Area 5.5sqm | 800 - 1600  | 1601 - 2000 | 2010 - 2800 | S | O |   |  | AEG |
| <b>SECEURO SHIELD™ 3800</b><br>Built-On Security Shutters                        |  |  | Min Width 500mm<br>Max Width 2800mm<br>Max Height 2800mm<br>Max Area 3sqm   | 1000 - 1600 | 1601 - 1900 | 1901 - 2800 | O | S | O |  | AEG |

● Heights marked with a red dot are for boxes able to accommodate larger heights but are restricted by shutter weight.





SWS UK is a leading manufacturer of physical security products and has developed the comprehensive Seceuro range of shutters, see-through shutters, retractable gates and removable bars to offer more effective protection for businesses and homes.

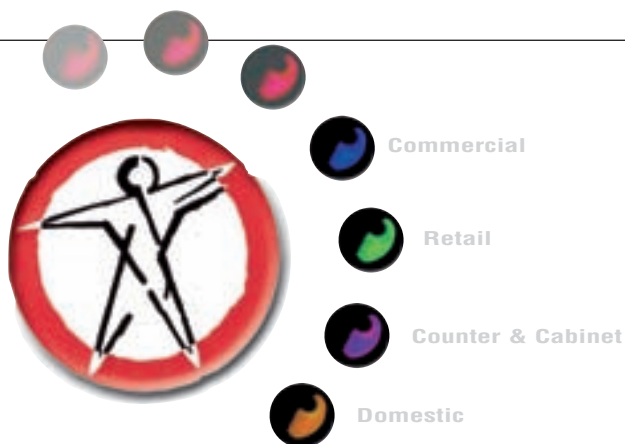
Established in 1985 and with a wealth of experience, SWS UK is based in modern, purpose-built premises located near Lancaster and employs more than 170 people.

A cornerstone of SWS's reputation is its national network of specialist distributors. Working in partnership to promote, supply, install and support, distributors provide a trusted, experienced and local source for the SWS product range.

SWS UK is registered to ISO 9002 by the Loss Prevention Certification Board and operates a programme of continuous improvement to its products. The company continues to invest in research and development with the consistent aim of producing physical security products which offer uncompromising protection designed to meet the demands of the modern lifestyle and workplace.



**SWS**  **UK**  
**PROPERTY PROTECTION SYSTEMS**



Your Specialist Distributor: