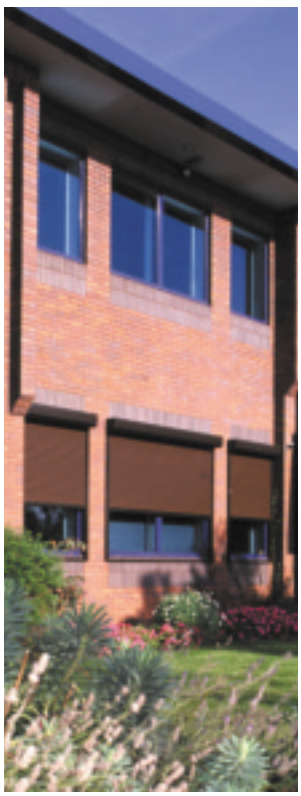
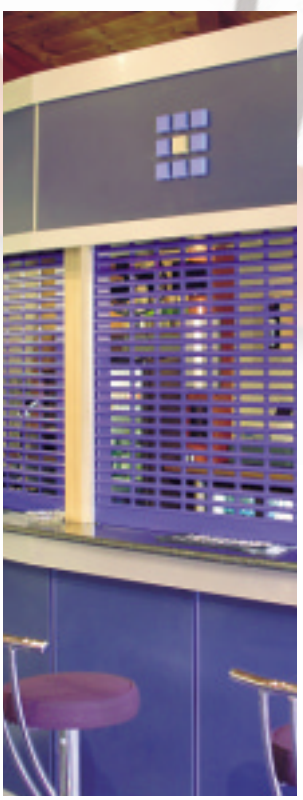
CI/SfB (31.5)
September 2002






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 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/m2 K. The improvement is virtually the same with an extruded slat. These products can also be used to reduce unwanted background noise.

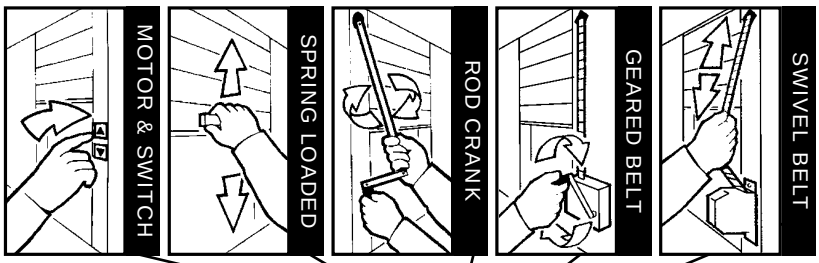
INSTALLATION/SUPPLY Detailed installation instructions are available for each shutter type; installation and supply are carried out by approved installers.

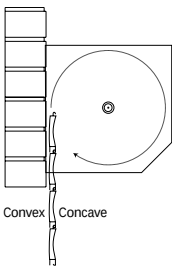
INSTALLATION OPTIONS The shutter can be installed around the reveal or in the reveal, internally or externally, depending on the window/door configuration and client preference. The following pages detail the sizing and layout options for each type of built-on shutter operation. Each has technical advantages 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.

MAXIMUM/MINIMUM DIMENSIONS, WEIGHTS, APPLICATIONS, FINISHES & OPERATION

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.





POLICE PREFERRED SPECIFICATION

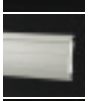
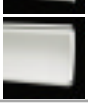
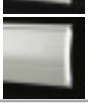
[1] Max/Min Overall Size (wxh)
Max Area in sqm
Material Type / Curtain weight

Concave Face | Convex Face

Applications: Insurance Approved | Domestic | Retail | Commercial | Bar / Servery / Kiosk / Cabinet

Standard Curtain Finish: White/Brown | White/Brown/Cream | Satin Silver Anodised | Galvanised | RAL/BS Powder Coat Option

Operation/max.area m²: Single Phase Electric operation | Manual spring/hand assisted | Rod crank | Geared Belt ** this is a low security option | Swivel Belt ** this is a low security option

SECEUROSHIELD™ 3801 **Insurance Approved** [5] **Security Shutters**			Min Width 900mm Max 3000mm x 4000mm Max Area 12sqm Extruded Aluminium / 8kgm²	●	●	●	●		●			●	12				
SECEUROVISION™ 3800 **See-Through Shutters** **Punched/Glazed 45% Vision**			Min Width 500mm Max 3500mm x 5000mm Max Area 10sqm Extruded Aluminium / 6.5kgm²	●	●	●	●		●			●	10	9	4.5	3.8	2.3
SECEUROVISION™ 3800 **See-Through Shutters** **Perforated 17% Vision**			Min Width 500mm Max 3500mm x 5000mm Max Area 10sqm Extruded Aluminium / 6.5kgm²	●	●	●	●		●			●	10	9	4.5	3.8	2.3
SECEUROVISION™ 7500 **See-Through Shutters** **Perforated 25% Vision**			Min Width 900mm Max 5000mm x 4700mm Max Area 15sqm 22 swg Steel / 8kgm²		●	●	●				●	●	15	10			
SECEUROVISION™ 8000 **See-Through Shutters** **Punched & Glazed 62% Vision**			Min Width 900mm Max 6000mm x 5000mm Max Area 20sqm Extruded Aluminium / 7kgm² [2]		●	●	●	●				●	20	8			
SECEUROVISION™ 9000 **See-Through Roller Grille** [4] **55/69% Vision**			Min Width 900mm Max 5500mm x 5000mm Max Area 16sqm Extruded Aluminium / 7kgm² [4]		●	●	●			●		●	16	8			
SECEUROSCREEN™ 1500 **Built-On Security Shutters**			Min Width 500mm Max 3500mm x 4000mm Max Area 8sqm Insulated Rolled Aluminium / 4.5kgm²	●			●		●[3]				8	6	6.5	5.5	3.3
SECEUROSHIELD™ 3800 **Built-On Security Shutters**			Min Width 500mm Max 4000mm x 5000mm Max Area 12sqm Extruded Aluminium / 8kgm²	●	●	●	●		●			●	12	7	3.5	3	2
SECEUROSHIELD™ 4000 **Built-On Security Shutters**			Min Width 500mm Max 3500mm x 3500mm Max Area 8sqm Insulated Rolled Steel / 10kgm²	●	●	●	●	●					8	6	3	2.5	1.5
SECEUROSHIELD™ 5500 **Built-On Security Shutters**			Min Width 900mm Max 5000mm x 4000mm Max Area 12sqm Insulated Rolled Steel / 10kgm²		●	●	●	●					12	6			
SECEUROSHIELD™ 6000 **Built-On Security Shutters**			Min Width 900mm Max 6000mm x 5000mm Max Area 20sqm Extruded Aluminium / 9kgm²		●	●	●		●			●	20	7			
SECEUROSHIELD™ 7500 **Built-On Security Shutters**			Min Width 900mm Max 5000mm x 4700mm Max Area 15sqm 22swg Steel / 10kgm²		●	●	●				●	●	15	8			
SECEUROSHIELD™ 7700 **Built-On Security Shutters**			Min Width 900mm Max 5000mm x 3000mm Max Area 15sqm Insulated Rolled Aluminium / 5kgm²	●	●	●	●		●[3]				15	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] 9.25kgm² 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.

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).

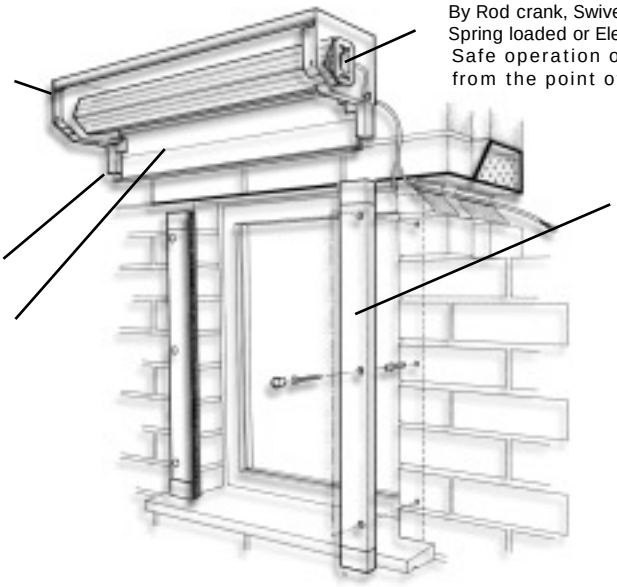
Lugs at each end of the box locate into the box section of the guide rail.

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 SeceuroShield 4000 and 5500 are roll formed twin wall foam insulation filled profiles.

The bottom slat further allows for tailoring of security level.



Operation

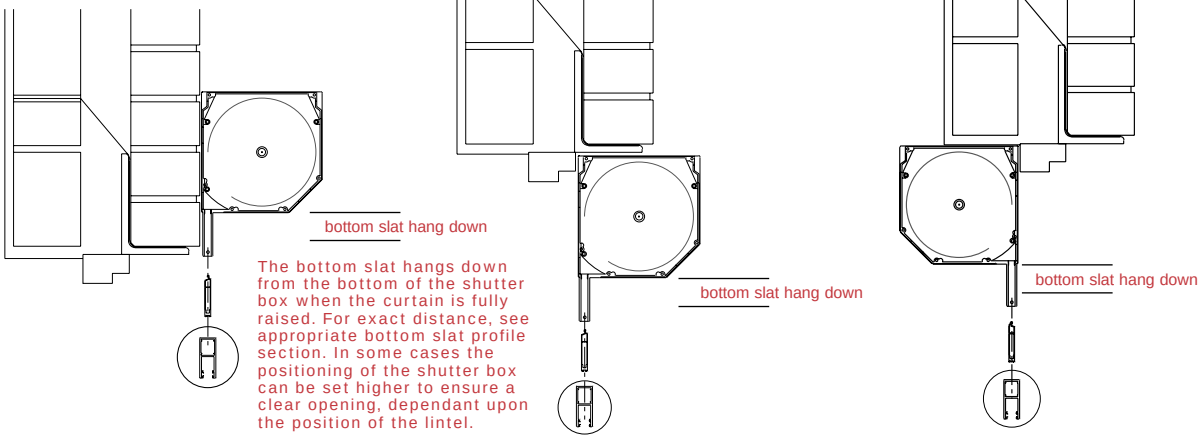
By Rod crank, Swivel/geared belt,
Spring loaded or Electric (Shown)
Safe operation of shutters which are not visible from the point of operation must be considered.

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.

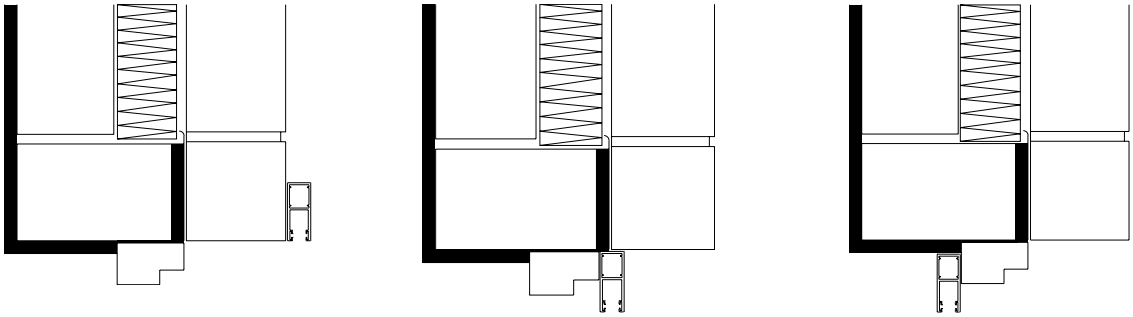
HEAD DETAILS

Typical arrangement shown



Detail: Built-On External Face Fix | Detail: Built-On External Reveal Fix | Detail: Built-On Internal Reveal Fix

JAMB DETAILS

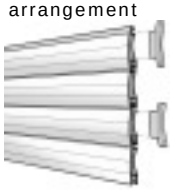


Detail: Built-On External Face Fix | Detail: Built-On External Reveal Fix | Detail: Built-On Internal Reveal Fix

GENERAL DETAILS

END LOCKS

Typical endlock arrangement



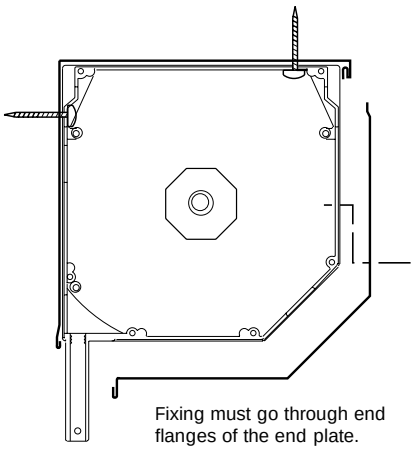
Extruded slats

Foam filled slats

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

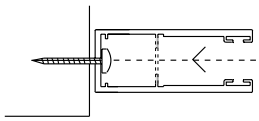
SHUTTER BOX & 45° CANOPY

Detail: Box Fixing showing optional 45° Removable canopy

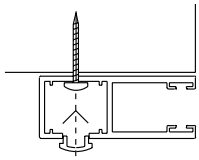


Fixing must go through end flanges of the end plate.

GUIDE FIXING



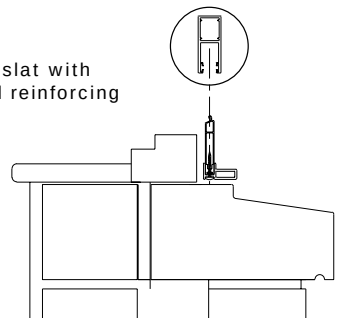
Detail: Guide reveal fixing



Detail: Guide Face fixing

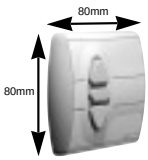
BOTTOM SLAT DETAIL

Detail: Bottom slat with optional reinforcing angle

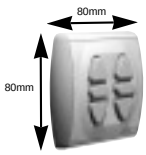


AUTOMATION & CONTROLS

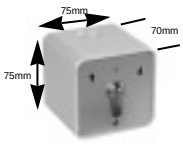
CONTROL SWITCHES



Inis Uno Single Control

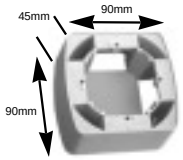


Inis Duo Double Control

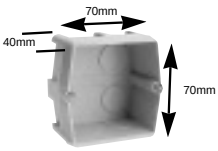


Geba Key Switch

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



Surface mount



Flush mount

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.

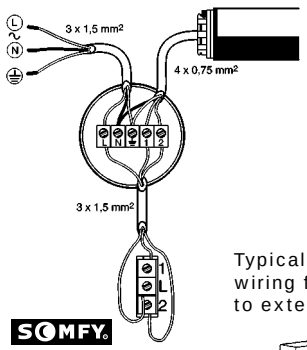
Group Command

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

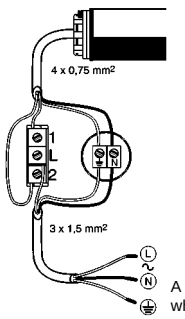
Remote control operation is available as an option. Single and multi-channel rolling code transmitters can be used to control up to four shutters. Safe operation of shutters which are not visible from the point of operation must be considered. Remote control units are not recommended on open roller grilles for safety reasons. Photocell detectors are available as an option and are fixed internally at the sides of a doorway (cannot be fitted externally) within protective housings to limit accidental damage. LEDs provide a continuous visible status indication. The compact wall mounted receiver unit incorporates a courtesy light.

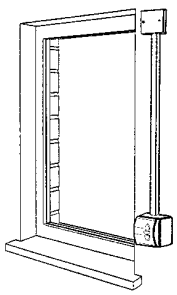
MOTOR WIRING



NOTE:
It is the responsibility of the customer/contractor to provide fuse spur outlet supplies in close proximity to the drive side of the shutter.

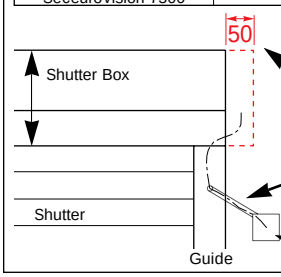
Typical arrangement for wiring from a fuse spur to external shutter





A motor overhang is required on all shutters when the curtain weight exceeds 172kg.

slat type	max area before motor required (m²)
SeceuroShield 6000	19
SeceuroShield 5500	17
SeceuroVision 8000	18
SeceuroShield 7500	17
SeceuroVision 7500	21



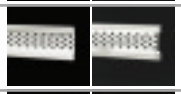
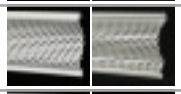
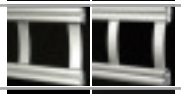
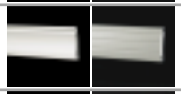
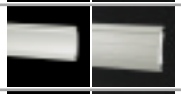
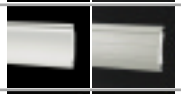
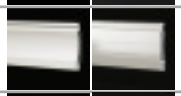
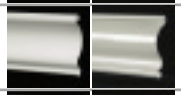
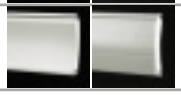
Shutter Box overhangs guide (aluminium and steel) by 50mm on very large shutters with manual override (at motor side only).

Hole drilled to inside for cable connection between switch and motor.

Electrical spur outlet box (by others) on inside.

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.

	Concave Face	Convex Face	Sizing Data ‡	Box Profile (a) For Shutter Heights including box (mm) 165mm	180mm	205mm	250mm	300mm	350mm	400mm
SECEUROSHIELD™ 3801 Insurance Approved Security Shutters			Min Width 900mm Max Width 3000mm Max Height 4000mm Max Area 12sqm	1000 - 1600	1601 - 1900	1901 - 2800	2801 - 3800	3801 - 4000		
SECEUROVISION™ 3800 See-Through Shutters Punched/Glazed 45% Vision			Min Width 750mm Max Width3500mm Max Height 5000mm Max Area 10sqm	1000 - 1600	1601 - 1900	1901 - 2800	2801 - 3800	3801 - 5000		
SECEUROVISION™ 3800 See-Through Shutters Perforated 17% Vision			Min Width 750mm Max Width 3500mm Max Height 5000mm Max Area 10sqm	1000 - 1600	1601 - 1900	1901 - 2800	2801 - 3800	3801 - 5000		
SECEUROVISION™ 7500 See-Through Shutters Perforated 25% Vision			Min Width 1000mm Max Width 5000mm Max Height 4700mm Max Area 15sqm			*	1000 - 2000 1000 - 1250	2001 - 2800 1251 - 2500	2801 - 3800 2501 - 3450	3801 - 4700 3451 - 4700
SECEUROVISION™ 8000 See-Through Shutters Punched & Glazed 62% Vision			Min Width 1000mm Max Width 6000mm Max Height 5000mm Max Area 20sqm			1000 - 1200	1201 - 1800	1801 - 3200	3201 - 4400	4401 - 5000
SECEUROVISION™ 9000 See-Through Roller Grille 55/69% Vision			Min width 1000mm Max Width 5000mm Max Height 5000mm Max Area 16sqm			1000 - 1600	1601 - 2800	2801 - 4800	4801 - 5000	
SECEUROSCREEN 1500 Built-On Security Shutters			Min Width 750mm Max Width 3500mm Max Height 4000mm Max Area 8sqm	800 - 1600	1601 - 2000	2001 - 2800	2801 - 4000			
SECEUROSHIELD™ 3800 Built-On Security Shutters			Min Width 750mm Max Width 4000mm Max Height 5000mm Max Area 12sqm	1000 - 1600	1601 - 1900	1901 - 2800	2801 - 3800	3801 - 5000		
SECEUROSHIELD™ 4000 Built-On Security Shutters			Min Width 750mm Max Width 3500mm Max Height 3500mm Max Area 8sqm	1000 - 1400	1401 - 1800	1801 - 2400	2401 - 3500			
SECEUROSHIELD™ 5500 Built-On Security Shutters			Min Width 1000mm Max Width 5000mm Max Height 4000mm Max Area 12sqm			1000 - 1600	1601 - 2800	2801 - 4000		
SECEUROSHIELD™ 6000 Built-On Security Shutters			Min Width 1000mm Max Width 6000mm Max Height 5000mm Max Area 20sqm			1000 - 1800	1801 - 2800	2801 - 4200	4201 - 5000	
SECEUROSHIELD™ 7500 Built-On Security Shutters			Min Width 1000mm Max Height 5000mm Max Height 4700mm Max Area 15sqm			*	1000 - 2000 1000 - 1250	2001 - 2800 1251 - 2500	2801 - 3800 2501 - 3450	3801 - 4700 3451 - 4700
SECEUROSHIELD™ 7700 Built-On Security Shutters			Min Width 1000mm Max Width 5000mm Max Height 3000mm Max Area 15sqm				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.

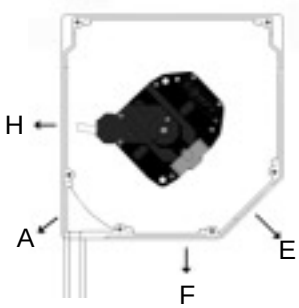
MANUAL OVERRIDE

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.

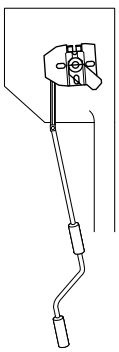
USE OF MANUAL OVERRIDE SHUTTERS:
Clear instruction must be given to users on the manual override winding direction to raise the shutter. Winding the shutter downwards beyond the normal stop point will damage the shutter.

Exit Points



Not all exit options will be possible on certain shutters.

Externally fitted shutter with external override



A removable 45˚ joint crank handle is inserted into the motor. The exit hole is filled with an 18mm cover cap or lockable override cover. Only available on shutter box exit 'F'.

45˚ crank

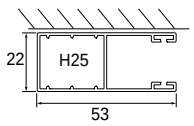
A lockable coverplate option.

Guide Profiles S = Standard O = Option

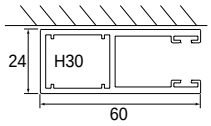
HIGH SECURITY						Bottom Slat
H25	H30	H40S	UPH140	UPH240	UPH250	Standard
		S				Steel Reinforced
O	S	O				AEG + Reinforcing Angle
O	S	O				AEG + Reinforcing Angle
					S	L Section
					S	AEG/DW
			S 205 box	S 250/ 300/ 350 box	O 250/ 300/ 350 box	AEG/X + Reinforcing Angle
S	O	O				AEG
O	S	O				AEG + Reinforcing Angle
O	S	O				AEG + Reinforcing Angle
			S 205 box	S 250/ 300/ 350 box	O 250/ 300/ 350 box	AEG/X + 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

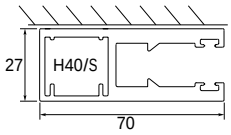
H25



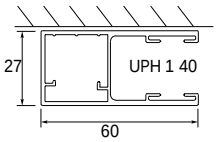
H30



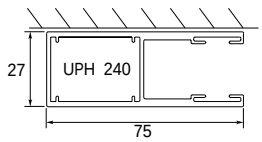
H40S



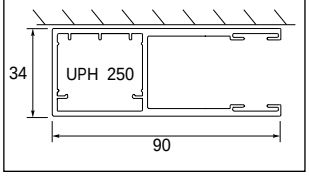
UPH140



UPH240

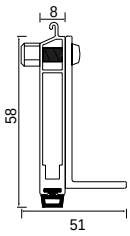


UPH250

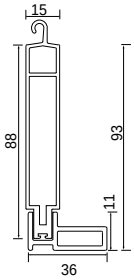


BOTTOM SLAT PROFILES

STEEL REINFORCED



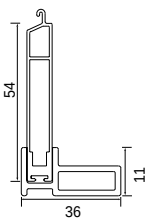
AEG/X + REINFORCING ANGLE



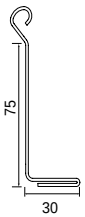
AEG/DW

AEG + RUBBER SEAL

AEG + REINFORCING ANGLE



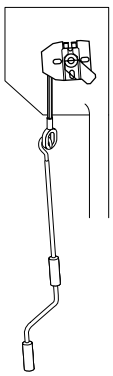
L SECTION



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.

	Concave Face	Convex Face	Sizing Data ‡	Box Profile (a) For Shutter Heights including box (mm) 165mm	180mm	205mm	250mm	300mm	350mm
SECEUROVISION™ 3800 See-Through Shutters Punched/Glazed 45% Vision			Min Width 600mm Max Width 3500mm Max Area 9sqm	1000 - 1800	1801 - 1900	1901 - 2800			
SECEUROVISION™ 3800 See-Through Shutters Perforated 17% Vision			Min Width 600mm Max Width 3500mm Max Area 9sqm	1000 - 1800	1801 - 1900	1901 - 2800			
SECEUROVISION™ 7500 See-Through Shutters Perforated 25% Vision			Min Width 900mm Max Width 4000mm Max Area 10sqm				* 1000 - 2000 1000 - 1250	2001 - 2800 1251 - 2500	2501 - 2800 ●
SECEUROVISION™ 8000 See-Through Shutters Punched & Glazed 62% Vision			Min Width 900mm Max Width 4000mm Max Area 8sqm			1000 - 1200	1201 - 1800	1810 - 2800	
SECEUROVISION™ 9000 See-Through Roller Grille 55/69% Vision			Min Width 900mm Max Width 4600mm Max Area 8sqm			1000 - 1600	1610 - 2800		
SECEUROSCREEN 1500 Built-On Security Shutters			Min Width 600mm Max Width 3400mm Max Area 6sqm	800 - 1600	1601 - 2000	2001 - 2800			
SECEUROSHIELD™ 3800 Built-On Security Shutters			Min Width 600mm Max Width 4000mm Max Area 7sqm	1000 - 1800	1801 - 1900	1901 - 2800			
SECEUROSHIELD™ 4000 Built-On Security Shutters			Min Width 600mm Max 3400mm x 2800mm Max Area 6sqm	1000 - 1400	1401 - 1800	1801 - 2400	2401 - 2800 ●		
SECEUROSHIELD™ 5500 Built-On Security Shutters			Min Width 900mm Max Width 3600mm Max Area 6sqm			1000 - 1600	1601 - 2800		
SECEUROSHIELD™ 6000 Built-On Security Shutters			Min Width 900mm Max Width 4000mm Max Area 8sqm			1000 - 1800	1801 - 2800		
SECEUROSHIELD™ 7500 Built-On Security Shutters			Min Width 900mm Max Width 4000mm Max Area 12sqm				* 1000 - 2000 1000 - 1250	2001 - 2800 1251 - 2500	2501 - 2800 ●
SECEUROSHIELD™ 7700 Built-On Security Shutters			Min Width 900mm Max Width 4600mm Max Area 12sqm				1000 - 2000	2001 - 2800	

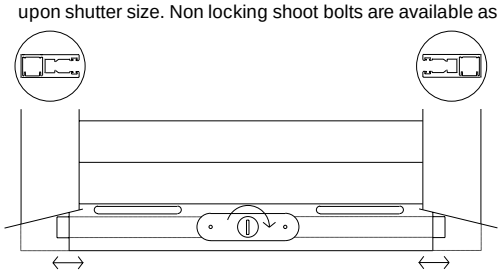
● Heights marked with a red dot are for boxes able to accommodate larger heights but are purposely restricted by our recommendation.

* 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.

LOCKING

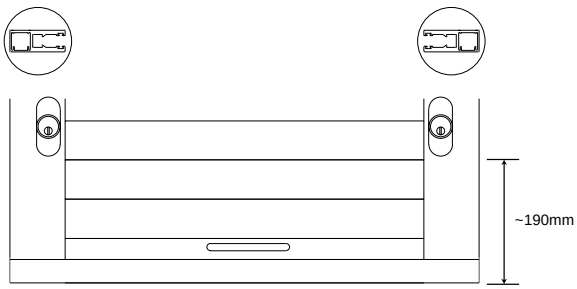
Bottom slat key lock

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.

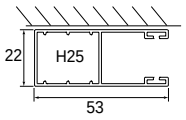


Guide Profiles S = Standard O = Option

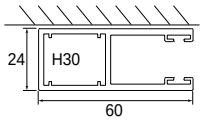
HIGH SECURITY						Bottom Slat
H25	H30	H40S	UPH140	UPH240	UPH250	Standard
O	S	O				AEG + Reinforcing Angle
O	S	O				AEG + Reinforcing Angle
					S	L Section
					S	AEG/DW
			S 205 box	S 250/ 300/ 350 box	O 250/ 300/ 350 box	AEG/X + Reinforcing Angle
S	O	O				AEG
S	O	O				AEG + Reinforcing Angle
O	S	O				AEG + Reinforcing Angle
			S 205 box	S 250/ 300/ 350 box	O 250/ 300/ 350 box	AEG/X + 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

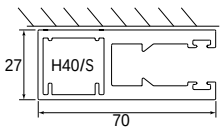
H25



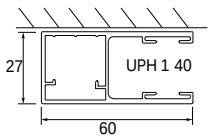
H30



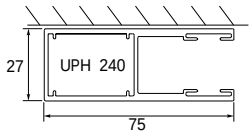
H40S



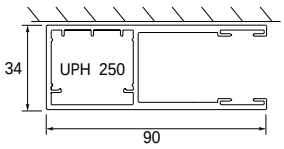
UPH140



UPH240

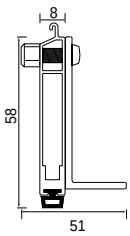


UPH250

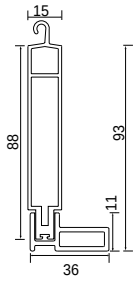


BOTTOM SLAT PROFILES

STEEL REINFORCED



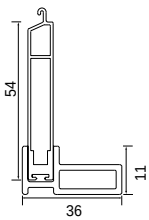
AEG/X + REINFORCING ANGLE



AEG/DW

AEG + RUBBER SEAL

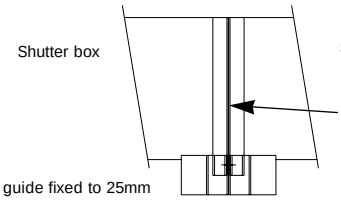
AEG + REINFORCING ANGLE



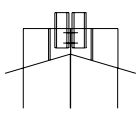
L SECTION

REMOVABLE GUIDES

For large spans and corners typically found on bars and counters

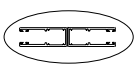


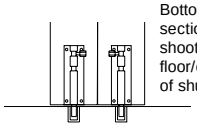
70mm section of guide fixed to 25mm length of locating lug on underside of headplate.



Removable section of guide locates on upper fixed section by means of 40mm long section of locating lug fixed to removable guide, projecting 20mm.

Guides may be fixed back to back at intermediate positions.





Bottom of removable guide section located by means of shoot bolts into brass inserts to floor/counter top on secure side of shutter.

Built-On Shutters - Rod Crank Operation

See previous section for guide and bottom slat details

2800 mm is our maximum recommended height for rod crank shutters due to the length of time taken to 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 Face	Convex Face	Sizing Data ‡	Box Profile For Shutter Heights including box (mm) 165mm	180mm	205mm	250mm	Guide Profiles S = Standard O = Option H25	H30	HIGH SECURITY H40S	Bottom Slat Standard
SECEURO VISION™ 3800 See-Through Shutters Punched/Glazed 45% Vision			Min Width 500mm Max Width 3500mm Max Area 4.5sqm	1000 - 1800	1801 - 1900	1901 - 2800		O	S	O	AEG
SECEURO VISION™ 3800 See-Through Shutters Perforated 17% Vision			Min Width 500mm Max Width 3500mm Max Area 4.5sqm	1000 - 1800	1801 - 1900	1901 - 2800		O	S	O	AEG
SECEURO SCREEN™ 1500 Built-On Security Shutters			Min Width 750mm Max Width 3400mm Max Area 6.5sqm	800 - 1600	1601 - 2000	2001 - 2800		S	O		AEG
SECEURO SHIELD™ 3800 Built-On Security Shutters			Min Width 500mm Max Width 4000mm Max Area 3.5sqm	1000 - 1800	1801 - 1900	1901 - 2800		O	S	O	AEG
SECEURO SHIELD™ 4000 Built-On Security Shutters			Min Width 500mm Max Width 3200mm Max Area 3sqm	1000 - 1400	1401 - 1800	1801 - 2400	2401 - 2800 ●	O	S	O	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.

HEAD BUILT ON REVEAL CRANK OPERATION

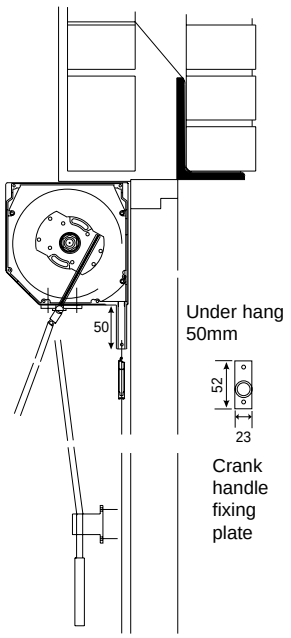


Fig. 1

Specify a 45˚ joint with 2 hole fixing plate
Box Exit F

HEAD BUILT ON FACE: THROUGH WALL CRANK OPERATION

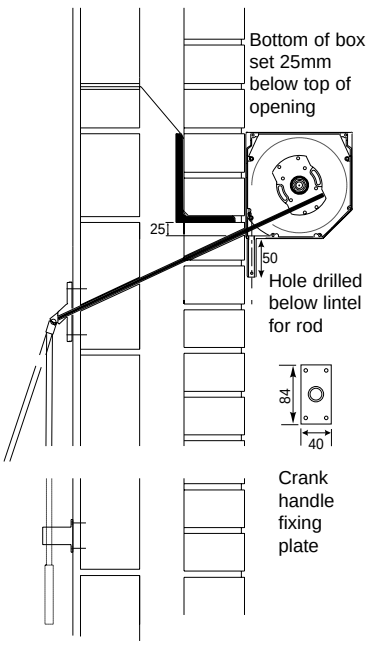


Fig. 2

Specify a 90˚ joint with 4 hole fixing plate
Box Exit A

HEAD BUILT ON REVEAL: THROUGH FRAME CRANK OPERATION

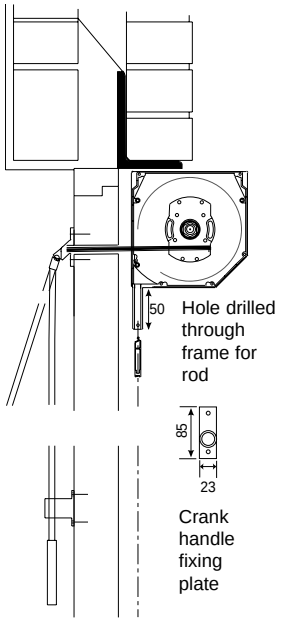
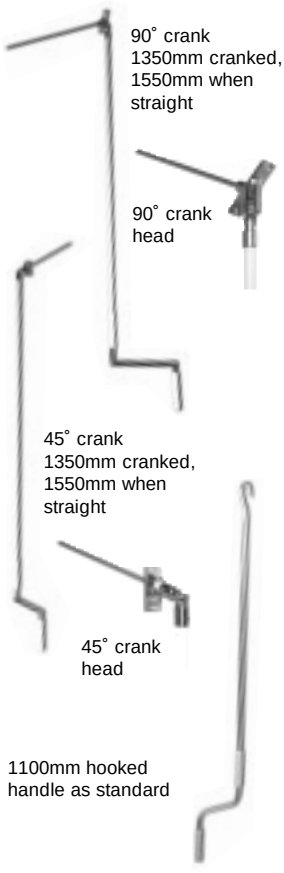


Fig. 3

Specify a 90˚ joint with 2 hole fixing plate
Box Exit H

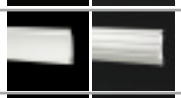
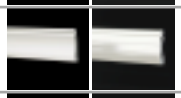
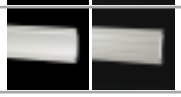
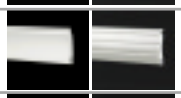
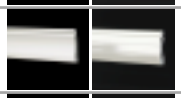
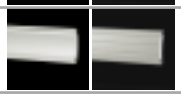
CRANK HANDLES



Built-On Shutters - Belt Operation

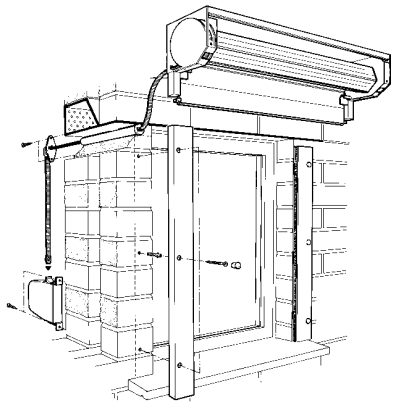
See previous section for guide and bottom slat details

‡ 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.

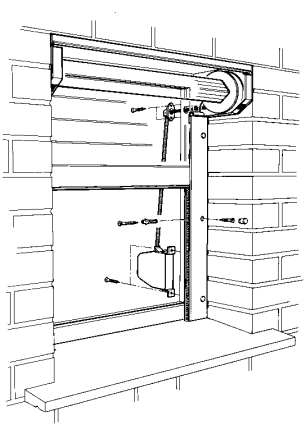
	Concave Face	Convex Face	Sizing Data ‡	Box Profile For Shutter Heights including box (mm)			Guide Profiles S = Standard O = Option			Bottom Slat
				165mm	180mm	205mm	H25	H30	HIGH SECURITY H40S	Standard
SWIVEL WINDER										
SECEURVISION™ 3800 See-Through Shutters Punched/Glazed 45% Vision			Min width 500mm Max width 1800mm Max height1800mm Max Area 2.3sqm	1000 - 1600	1601 - 1800 ●		O	S	O	AEG
SECEURVISION™ 3800 See-Through Shutters Perforated 17% Vision			Min width 500mm Max width 1800mm Max height 1800mm Max Area 2.3sqm	1000 - 1600	1601 - 1800 ●		O	S	O	AEG
SECEURSCREEN™ 1500 Built-On Security Shutters			Min width 500mm Max width 3400mm Max height 1800mm Max Area 3.3sqm	800 - 1600	1001 - 2000	2001 - 2800	S	O		AEG
SECEURSHIELD™ 3800 Built-On Security Shutters			Min width 500mm Max width 1800mm Max height 1800mm Max Area 2sqm	1000 - 1600	1601 - 1800 ●		O	S	O	AEG
SECEURSHIELD™ 4000 Built-On Security Shutters			Min width 500mm Max width 1400mm Max height 1400mm Max Area 1.5sqm	1000 - 1400			O	S	O	AEG
GEARED WINDER										
SECEURVISION™ 3800 See-Through Shutters Punched/Glazed 45% Vision			Min width 500mm Max width 2800mm Max height 2800mm Max Area 3.8sqm	1000 - 1600	1601 - 1900	1901 - 2800	O	S	O	AEG
SECEURVISION™ 3800 See-Through Shutters Perforated 17% Vision			Min width 500mm Max width 2800mm Max height 2800mm Max Area 3.8sqm	1000 - 1600	1601 - 1900	1901 - 2800	O	S	O	AEG
SECEURSCREEN™ 1500 Built-On Security Shutters			Min width 500mm Max width 3400mm Max height 2800mm Max Area 5.5sqm	800 - 1600	1601 - 2000	2010 - 2800	S	O		AEG
SECEURSHIELD™ 3800 Built-On Security Shutters			Min Width 500mm Max Width 2800mm Max Height 2800mm Max Area 3sqm	1000 - 1600	1601 - 1900	1901 - 2800	O	S	O	AEG
SECEURSHIELD™ 4000 Built-On Security Shutters			Min width 500mm Max Width 2400mm Max Height 2400mm Max Area 2.5sqm	1000 - 1400	1401 - 1800	1801 - 2400	O	S	O	AEG

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

BELT OPERATION FACE FIX



BELT OPERATION REVEAL FIX



SWIVEL WINDER

GEARED WINDER

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 for more than 17 years and with a wealth of experience, SWS UK is based in modern, purpose-built premises located near Lancaster and employs more than 100 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 9001 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

Commercial

Domestic

Retail

Bar & Servery

Your Specialist Distributor: