

Architectural Ironmongery Specification Guide



Why Foris Solutions

Since our inception in 2003 Foris Solutions has evolved to continually meet Construction Industry dynamics, providing Architects, Contractors and Building Owners with fully co-coordinated door opening solutions from a single source.

We assist designers and contractors in all aspects of integrating doorsets with relevant ironmongery. Our core business is the specification of ironmongery and we understand how electronic technologies, ironmongery and the doorset itself are combined to deliver robust and reliable functions at each opening.

Constantly evolving Foris Solutions offer Doorsets, Architectural Ironmongery, Access Control and Washroom solutions. Such products allow us to provide a seamless link through the construction process to ensure the end result complies with the clients requirement.

Each and every piece of the jigsaw!



Doorsets



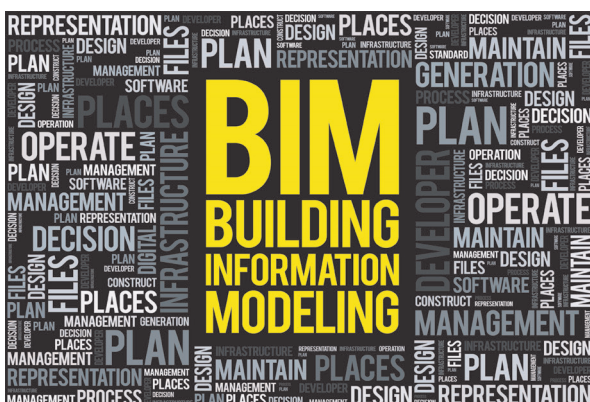
Architectural Ironmongery



Access Control



Cubicles + Washroom Accessories



'mIspec' BIM level 2 models available via our website
www.foris-solutions.co.uk

Intelligent parametrically connected BIM level 2 models with detailed COBie output. Confirming the doorset construction and relevant ironmongery.

PROJECT SPECIFIC BIM MODELS

If required we can produce bespoke project specific BIM models.

Contents

General Specification notes.....	p4 - 6
Door Ironmongery.....	p7 - 15
Door Controls.....	p16 - 23
Locking Devices (Mechanical).....	p24 - 29
SimonsVoss Access Control.....	p30 - 35
Cavere (Anti-bacterial).....	p36 - 41
Hinges.....	p42 - 43
Salus Doorsets.....	p44 - 45
mlspec BIM Models.....	p46 - 47
Foris Washroom Solutions.....	p48 - 49
Geze Automation.....	p50 - 51

Exceeding the highest industry standards



Products which are generically referred to as 'architectural ironmongery' are heavily regulated by European standards requiring mechanical, durability and corrosion testing, and by fire testing requirements. It provides the construction industry with fire safety and security products which have proven and reliable performance, with **Foris products are designed and manufactured to meet, or in many cases, exceed these stringent** Allegion products are designed and manufactured to meet, or in many cases, exceed these stringent requirements. Wherever applicable our products are CE marked, guaranteeing their performance and ensuring they are fit for purpose.



Many architectural ironmongery products are required to be CE marked in accordance with the Construction Products Directive, including panic and emergency exit hardware and door controls.

From July 2013 the introduction of mandatory CE marking under the Construction Products Regulation came into force. For any building product which is covered by a harmonised standard, it will be a legal requirement for that product to be CE marked.

A number of EN standards covering exterior and interior doorsets are at various stages of development. Consequently the mandatory CE marking of doorsets came into force from July 2013 (initially on exterior doors only). The only way to meet this requirement is for all parts of a doorset; the door, frame, any seals, glazing and all the associated ironmongery items required for the doorset to perform its designated function, to be supplied from the same source and be CE marked as a doorset.

This applies even if the individual components are themselves CE marked.

At Foris we work with major timber and steel door manufacturers to ensure

our products can be integrated into fully compliant and CE marked doorset packages wherever applicable. All our CE marked products are available with a Declaration of Performance document which **can be downloaded from the Foris website**

Currently the only completed standard is that for external doors with no fire or smoke resistance. Several of the standards which cover doorsets including internal fire doors have been defined by the European Commission. Publication of the documents has been delayed. From the 1st September 2016 new fire resisting doorsets can be voluntarily CE marked. After September 2019, all fire resisting doorsets supplied in the EU (including the UK) must be CE marked in compliance with the standard.

Foris products are designed to satisfy a comprehensive array of performance requirements including fire testing on timber and steel door applications and durability testing, in some cases beyond 2 million test cycles.



Accessibility Issues

The concept of universal access is not new but it still provides a challenge for the construction industry. To meet obligations under the Equalities Act, Approved Document M of The Building Regulations and BS 8300 continue to be the yardsticks by which conformity is measured.

Foris is able to offer guidance and product solutions to cover the following areas:

- Low energy door controls
- Electromagnetic door controls
- High efficiency mechanical door controls to meet the conflicting requirements of BS 8300 and fire safety requirements of EN 1154
- Colour contrast in ironmongery for visual impairment
- Comprehensive fittings programme for washrooms, showers and WCs
- Ironmongery which conforms to the recommendations of BS 8300



Quality starts with performance and durability

The first point of contact for anyone entering and moving around a building is the door hardware, whether that is a pull handle or a lever handle. In addition to having the right look, the hardware you select must have the right feel and finish and be backed up by a level of performance which will ensure the hardware is suited to the application and the amount of use it will have to endure.

Our proposal for Nuffield in most areas of the hospital is to supply contemporary design satin stainless steel lever and pull handles designs but, in theatre areas, we propose to provide an extra level of hygiene and have offered contact products (levers/pull handles) in an anti microbial finish.

'Cavere' products have antibacterial protection built in, the Microban microbial finish inhibits the growth of harmful micro-organisms.

All products that we propose meet the requirements of BS8300 and have robust methods of installation.

To support the performance characteristics, Foris Specification hardware has the following features:

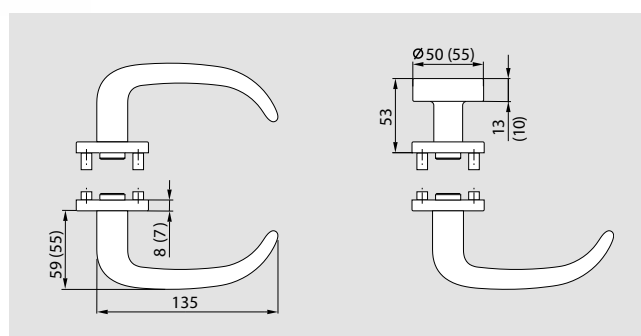
- Back to back fixing bolts and threaded bushes on lever furniture provide a strong through fixing.
- Spindle is fixed to the inside and the outside lever handle by "break thru" grub screws providing greater security and durability.
- All lever handles achieve EN 1906 Grade 4, the highest grade of use within the standard ¹.
- Grub screw fixings on levers concealed from view on the underside.
- Precision engineered levers are prefixed to the rose of plate inner by hi-tensile circlip
- Comprehensively tested to EN 1634 for use in timber fire doors up to 90 minutes and steel doors up to 4 hours (see fire test certificate for further details)
- All stainless steel construction Grade 304 with Grade 4 corrosion resistant to EN 1670
- Single bolt through fixings to suit doors upto 56mm wide
- Spring assisted to provide positive return to the horizontal position.
- EN 1906 specification 4 7 - B 1 4 0 A (stainless steel lever handles)



applicable products only



¹ Grade 4 category of use is defined as suitable for high frequency use on doors which are subject to frequent violent use, e.g football stadiums, oil rigs, barracks, public toilets.



Ref:	33338 - 181
Type:	Return to door, round bar lever Mounted on 52mm dia. concealed fix roses with bolt through fixings
Dimensions:	Ø20 x 135mm
Certification:	EN 1906 Grade 4
	EN 1670 Grade 3
	EN 1634 Up to 90 minutes (timber)
Other:	Approved for use with escape locks to EN 179 for emergency exit applications Supplied as a pair with 8mm spindle and bolt through fixings for 44 - 54mm doors*

* Alternative fixing pack for 55 - 65mm doors (4701.55-65.FS)



Ref:	33338 - 177	33338 - 220	33338 - 139
Description:	Euro profile cylinder escutcheon	Lever key escutcheon	Blank escutcheon
Dimensions:	Ø52 x 8mm	Ø52 x 8mm	Ø52 x 8mm
Other:	Concealed fixings with snap on cover. Supplied as pairs as standard. Bolt through fixings supplied as standard suitable for doors 44mm-54mm		

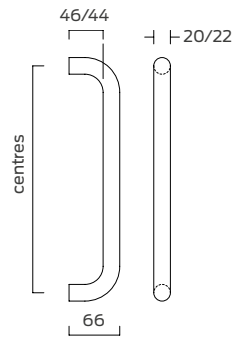


Ref:	33338 - 178	33338 - 179
Description:	Bathroom turn & indicator	Bathroom extended turn & indicator
Dimensions:	Ø52 x 8mm	Ø52 x 8mm
Other:	Supplied with 8mm spindle. Bolt through fixings supplied as standard suitable for doors 38 - 44mm For doors 44 - 54mm thick please specify 4710.XSP (for 4710) or 4711.XSP (for 4711)	



33338 - 137

SSS Grade 316



all dimensions are in mm

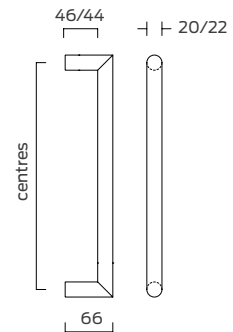
Description: D pull handle - Round bar section - Solid

Diameter: mm	20		20	
Centres:	200	300	400	600

33338 - 302

Please note:

Fixing packs for all pull handles must be ordered separately (see page 25)



Description: Mitred handle - Round bar section

Diameter: mm	20		20	
Centres:	200	300	400	600



Foris - Entrance pull handle options

Bespoke design available




all dimensions are in mm



Please note:
Fixing packs for all pull handles must be ordered separately (see page 25)



Description:	Cranked pull handle - Round bar section	
Diameter: mm	32	32
Centres:	400	600

Description:	Pillar pull handle - Round bar section	
Diameter: mm	32	32
Centres:	200	400

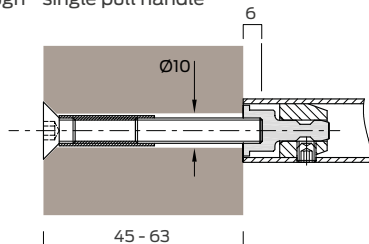


Pull handle fixings

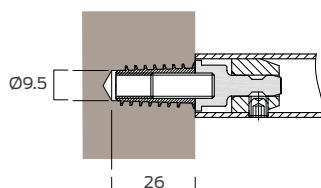
All Foris pull handles can be ordered individually and must be ordered together with a standard fixing pack which contains all the components required to mount the pull handle in any of the 4 applications shown below.

For back to back assembly simply order two individual pull handles plus two standard fixing packs.

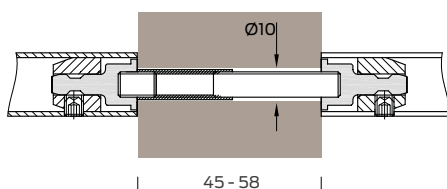
Bolt through - single pull handle



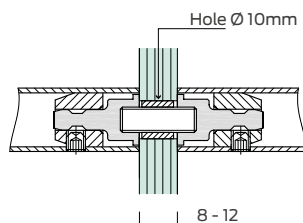
Secret fix - single pull handle



Back to back pair on timber door



Back to back pair on glass door



all dimensions are in mm

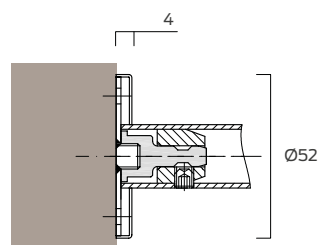
Ref:	Description
	Standard fixing pack for timber, metal or glass doors



Rose mount fixings

Foris pull handles can be ordered with an optional face fixed rose. One fixing pack is required for each pull handle and they must be ordered according to the pull handle diameter (20 or 22mm).

Roses are supplied with stainless steel face fixing screws. Snap fit push on covers conceal all fixings.



Ref:	Description
	Face fixed rose mounting kit for 20mm diameter pull handles.
	Face fixed rose mounting kit for 22mm diameter pull handles.

A range of accessories completes the integrated door hardware package



Accessories

Foris offer a range of accessories that are required to complete a door hardware specification. Generally, we endeavour to match major product finishes which at Nuffield will be satin stainless steel.



Kick plates

Kick plates are available in Grade 304 stainless steel in heights and widths to order. Plates have square corners as standard but are also available with radiused corners (5mmR or 10mmR).

Supplied with face fixings as standard (self adhesive option also available).

Other options and materials are available - please ask for details.

Plates are priced per square metre.

Description:	Push and Pull plates for use with bolt through pull handles	
Options:	Plain or engraved. Radiused corners with face fixing screws. Supplied singly.	
33338 - 151	500 x 100 x 1.5mm	Satin stainless Steel 304 Grade

Ref:	Description
33338 - 182	Kick plate 1.5mm thick. Satin stainless steel Grade 304. Square corners with face fixing screws.



Ref:	Description
33338 - 155	Recessed flush pull 90mm diameter

Symbols & signage

A range of 76mm dia. face fixed stainless steel signs and symbols are available.

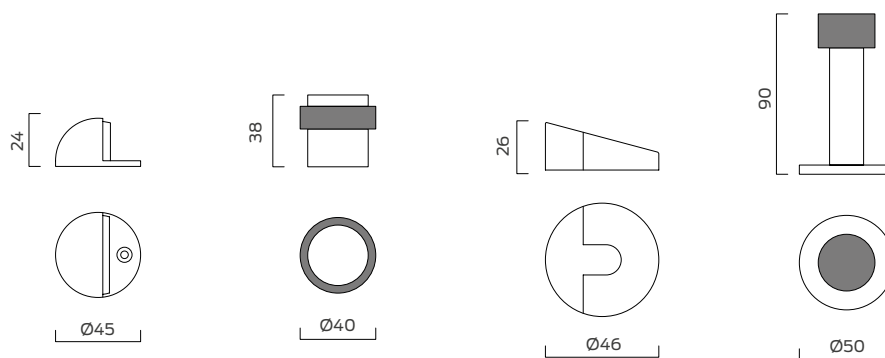


Description:	Signs & symbols
Options:	A range of face fixed signs and symbols. All 76mm Ø x 1.5mm stainless steel. Supplied singly complete with wood screw fixings.
Ref:	Description
33338 - 59	Unisex symbol
33338 - 147	Male symbol
33338 - 130	Female symbol
33338 - 193	Disabled symbol
	WC sign
33338 - 195	Shower symbol
33338 - 194	Baby Change symbol
33338 - 129	Fire door keep shut
33338 - 128	Fire door keep locked
33338 - 185	Automatic fire door keep clear





Ref:	33338 - 142		33338 - 141
Description:	Domed floor mounted door stop	Floor mounted door stop	Wedge shaped floor mounted door stop
Dimensions:	Ø45 x 24mm	Ø40 x 38mm	Ø46 x 26mm
Other:	Supplied with stainless steel fixings		



all dimensions are in mm



Ref:	Description
33338 - 186	Surface mounted knob Slide bolt 202mm

Briton door controls



The Equalities Act - disability legislation

Legislation aimed at providing universal accessibility of buildings requires service providers to make *“reasonable adjustments to the physical features of their premises to overcome barriers to access”*.

Approved Doc M of the Building Regulations and BS 8300 both provide guidance in establishing recommended maximum opening forces for door controls to assist less able users.

High efficiency Briton closers which are capable of meeting the required levels of opening and closing forces are marked with the “Wheelchair Symbol” but accurate installation, hinge friction, door seals and

variable air pressure can all have a bearing on the opening resistance of the final doorset.

For doors which must also meet the stringent closing force requirements of EN 1154 for fire door applications, it may be more appropriate to use electromagnetic hold open or swing free closers or a powered opening solution. These must be CE marked in accordance with the requirements of EN 1155. All these options are available within the Allegion product portfolio.



An essential element in safeguarding lives and property



The principal objective of a door closer is to close a door and in the case of unlatched fire doors in a corridor, to keep the doors closed in the event of a fire. Most applications where the specification of a door closing device is mandatory, must use a product which conforms to the requirements of European Standard EN 1154 (or EN 1155 for electrically controlled units) and be CE marked accordingly.

The standard applies to all surface mounted or concealed overhead door closers, transom mounted closers and floor springs.

A guide to specifying door closers

Easy opening, reliable closing

In contrast to a conventional rack and pinion door closer in a slide channel application, the linear cam action principle of the Briton Cam Action Series of door closers is extremely efficient. The initial opening force decreases very rapidly as the door opens allowing children and the elderly to overcome the closing power without any problem.



During testing, the Briton cam action closers produced opening forces well within the requirements of Approved Doc M and BS 8300.

Selecting the right closer

In most cases selecting the most appropriate door control will be dependent on a number of factors and the priority of each. These will include:

- Frequency of use
- Type of application (e.g school, library, factory)
- User profile - The Equality Act consideration
- Door situation/size/weight/fire resistance
- Budget
- Aesthetics
- Operating characteristics and other features



Series	Briton 2700	Briton 2300
Description	High performance easy opening cam action overhead door closer	Commercial easy opening cam action overhead door closer
Accessibility		
Easy opening cam action	■	■
Slide arm for slimline appearance and to minimise abuse	■	■
Concealed closer for optimum aesthetics and abuse resistance		
Suitable for fire doors to EN 1634	2hr timber/1hr steel	2hr timber
Frequency of use	High	Medium
Electromagnetic hold-open	□	
Cover options	A-line/Softline	Trimplate/Softline
Finish options	SES/SSS/PSS/PBS	SES/SSS/PSS
Budget comparison	££££	£££
Typical applications	High end commercial specifications, leisure centres, care homes, hospitals, schools, nurseries	Internal doors in primary schools, nurseries, care homes, hotels, commercial offices

■ Standard □ Available as an option/variant

Mounting positions and closer power



Slide arm -
Door mounted pull side



Slide arm -
Door mounted push side



Slide arm -
Transom mounted pull side



Slide arm -
Transom mounted push side



Projecting arm -
Regular fixing (door mounted
pull side)



Projecting arm -
Transom fixing (transom
mounted push side)



Projecting arm -
Parallel fixing (door mounted
push side)

Where closer power is stated it will usually apply to a closer fitted either in Regular fixing applications (in the case of projecting arm closers) or in Door mounted pull side applications (for slide arm closers).

The closer power may vary for other mounting applications and consequently we recommend you check with your Allegion Specification Consultant or technical team.

EN Closer power settings

Within EN 1154 seven closer power ratings are identified according to the maximum door leaf weight and width.

These are theoretical figures and the final closing power of any door closing device will be subject to any number of variables such as:

- Accuracy of closer installation
- Accuracy of door installation
- Friction in hinges
- Negative or positive air pressure

Because of such variables, the specification of an adjustable door closer is recommended to allow for site variables.

EN Size	Max. door weight (kg)	Max. door width (mm)
1	20	750
2	40	850
3	60	950
4	80	1100
5	100	1250
6	120	1400
7	160	1600

Briton 2700 Series – offering the benefits of easy opening and reliable closing

The Briton 2700 Series is a precision manufactured cam-action, slide channel door closer, in a compact, overhead, surface fixed unit. Providing exceptional ease of use by reducing the resistance encountered when opening the door, the Briton 2700 Series bridges the gap between the requirements for fire and smoke control and ease of operation required for accessibility.



Features & Benefits

- Cast iron body with a naturally high graphite content is self lubricating, providing high levels of durability and long life performance.
- High performance cam action technology allows reliable closer power setting for fire door applications yet still be easy to open.
- Full complement bearings provide increased bearing load for efficient operation and improved reliability.
- FAST PowerAdjust dial feature allows installers to see the current power setting.
- Silicon chrome alloy steel springs for superior strength and reliability.
- High quality hydraulic fluid with built-in temperature compensation.
- Unique 'Accufit' installation template and mounting plate ensures a quick, simple and accurate installation.
- All-over 'A-line' metal cover in a smooth, contemporary design; secured by simple, unobtrusive spring-clips to conceal the main door closer fixings (A-line cover only).
- Optional 'Softline' cover design to suite with most other Foris closers.
- Co-ordinated track design with concealed fixings.
- A wide range of adjustable functions for easy adaptation to specific door applications - see specification table.
- Optional mechanical hold-open facility (Not to be used on fire door applications) or electromagnetic hold-open option available.

The Briton 2700 Series is CE marked to EN1154 (EN1155 for electronic variants) and fire tested to EN1634 on timber doors to achieve a 2 hour fire rating, and 1 hour for metal doors.

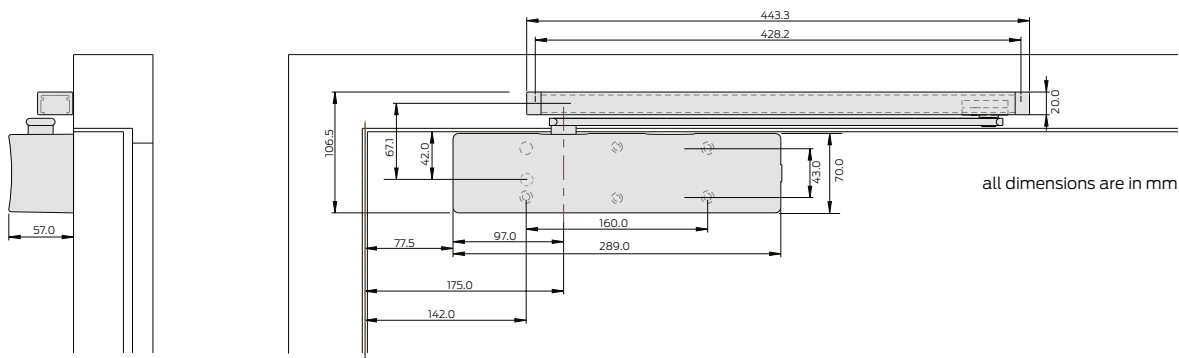




Briton 2700 with standard A-Line cover with matching silver arm and track



Briton 2700 with Softline cover in satin stainless steel with matching arm and slide track



Standard closers with/without mechanical hold open (door mounted - pull side shown).

Product features	Product references			
	33338 - 120	33338 - 118	33338 - 119	
Pull side door / Push side transom mounting	■	door mount only		
Push side door / Pull side transom mounting	■		door mount only	
Variable closing power EN size	2 - 5*	2 - 5	3 - 5	3 - 5
FAST power adjust dial	■	■	■	■
Accufit template & Accufit mounting plate	■	■	■	■
Maximum angle of opening (pull side)	180°	180°	120°	120°
Separate closing speed & latch action adjustment	■	■	■	■
Adjustable backcheck	■	■	■	■
Adjustable delayed action	■	■	■	■
In-built temperature compensation	■	■	■	■
Mechanical hold-open facility	□	□		
Electromagnetic hold-open facility			■	■
Matching slide channel, arm & cover finish	■	■	■	■
Dimensions (body L x D x H mm)	289 x 57 x 70mm	289 x 57 x 70mm	289 x 57 x 70mm	289 x 57 x 70mm
Channel/slide arm	443 x 20mm	443 x 20mm	575 x 26mm	575 x 26mm
Finishes available	SSS; PSS; PBS; SES (for both cover options and matching track)			
Warranty period	10yrs	10yrs	10yrs mechanical / 2yrs electrical	
CE Classification	4 8 2-5 1 1 3		3 8 3-5 1 1 3	

■ Standard □ Available as an option/variant

* EN 2 - 4 when push-side transom mounted

Briton 2300 Series – Easy opening cam action technology in a simple, slimline package



Features & Benefits

The Briton 2300 Series incorporates the same high efficiency cam action as the Foris 2700 Series, providing the same exceptional ease of use by reducing the resistance encountered when initialising the opening of the door.

The Briton 2300 Series is offered as a simplified version of the Foris 2700 and is available with either a slide in trimplate or with a curved 'Softline' all-over cover which will suite with other Briton overhead door controls.

Easy Opening, Reliable Closing

In contrast to a conventional rack and pinion door closer in a slide channel application, the linear cam action principle of the Foris 2300 Series is extremely efficient. The initial opening force decreases very rapidly as the door opens allowing, in particular, children and the elderly to overcome the closing power without any problem.

The Briton 2300 Series is CE marked to EN1154 and fire tested to EN1634 on timber doors to achieve a 2 hour fire rating.

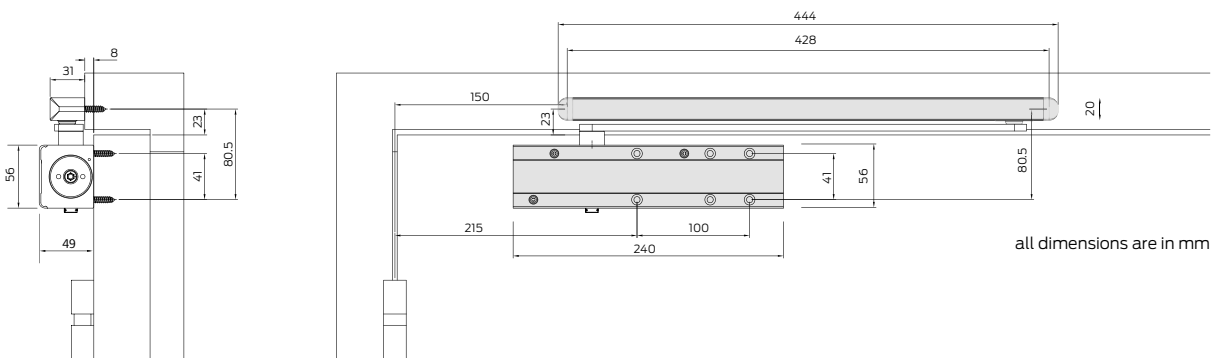
- Extruded aluminium body.
- High performance cam action technology allows reliable closer power setting for fire door applications yet remains easy to open.
- Full complement bearings provide increased bearing load for efficient operation and improved reliability.
- Adjustable power, EN 2-4.
- Silicon chrome alloy steel springs for superior strength and reliability.
- High quality hydraulic fluid with built-in temperature compensation.
- Radiused slide in cover and spindle cap conceals the main door closer fixings and adjustment screws.
- Alternative 'Softline' cover, secured by simple unobtrusive spring clips.
- Co-ordinated track design with concealed fixings.
- Accufit template provides quick and easy installation.
- Optional mechanical hold-open facility (**Not to be used on fire door applications**).





Briton 2300 closer options showing the radiused slide in trimplate which covers all the fixings and adjustment screws or the optional all-over 'Softline' cover which is available in a range of finishes.

This option provides an opportunity to suite the Foris 2300 closer with other Foris closers.



Closers with slide in trimplate

Product features	Product references	
	33338 - 116	33338 - 117
Pull side door / Push side transom mounting	■	
Push side door / Pull side transom mounting		■
Variable closing power EN size	2 - 4	2 - 4
Accufit template	■	■
Maximum angle of opening*	180°	180°
Separate closing speed & latch action adjustment	■	■
Adjustable backcheck	■	■
Adjustable delayed action		
In-built temperature compensation	■	■
Mechanical hold-open	□	□
Matching slide channel, arm & cover finish	■	■
All over metal cover	□	□
Dimensions (with trimplate L x D x H mm)	240 x 56 x 49mm	240 x 56 x 49mm
Dimensions (with cover L x D x H mm)	270 x 68 x 63mm	270 x 68 x 63mm
Channel/slide arm	444 x 20mm	444 x 20mm
Warranty period	10yrs	10yrs
CE Classification 4 8 2-4 1 1 3		

■ Standard

□ Available as an option

* When door mounted.

Transom mounted closers are restricted to 120° opening.

Flexibility and simplicity offered by mortice cylinder locks

For most doors, particularly internal doors, a Foris mechanical lock case represents the most effective and direct means of providing privacy and security for commercial applications.

Foris lock cases have Grade 3 category of use and can be used on internal and external doors.

- Modular dimensions across a range of functions allows for factory preparation of doors and frames
- Allows simple replacement of the cylinder if keys are lost or stolen to quickly reinstate security
- Cylinders available in various functions to fine tune the operating characteristics of the lock
- Cylinders available allow sophisticated multi-level masterkeying for access control
- Modular dimensions allow for lock interchangeability to upgrade security

Escape functions

Where locks are incorporated in doors which are on an escape route in an office suite for example, lock cases should be certified to EN 179 for emergency exit use. Such locks can be operated by a single action on the lever in the direction of the escape route which will withdraw the latchbolt and the deadbolt simultaneously to give immediate escape.



CE marked to EN 12209

Physical characteristics of type, operation and performance of lock cases is tested/assessed in accordance with EN 12209. This produces an 11 digit classification code which describes its type and grading according to various test criteria. The table below gives an outline of the classification and the performance of a typical example.

		Example
3 1-3	Digit 1 - Category of use Three grades are identified Grades 1 - 3	Grade 3 - High frequency of use by public or others with little incentive to take care and with a high chance of misuse - eg. public doors
X A-X	Digit 2 - Durability Twelve grades are identified Grades A - X	Grade X - 200,00 test cycles with 120N side load on latch bolt
8 1-7	Digit 3 - Door mass and closing force Nine grades are identified Grades 1 - 9	Grade 8 - Up to 200kg door mass, 15N maximum closing force.
1 0/1	Digit 4 - Suitability for fire/smoke doors Two grades are identified Grades 0 - 1	Grade 1 - Suitable for use on fire/smoke resisting assemblies subject to satisfactory fire testing or assessment
0 0	Digit 5 - Safety Only Grade 0 is identified	Grade 0 - No safety requirement
G 0-G	Digit 6 - Corrosion resistance Eight grades are identified to EN 1670 Grades 0 - G	Grade G - Very high corrosion resistance 240 hours salt spray at -20 °C to +80 °C
4 1-7	Digit 7 - Security and drill resistance Seven grades are identified Grades 1 - 7	Grade 4 - High security and no drill resistance
B A-R	Digit 8 - Field of door application Eight categories are identified to EN 1670 Grades 0 - G	Category A - Mortice type with unrestricted application
A A-R	Digit 9 - Type of key operation Nine types are identified Type 0 - H	Type A - Cylinder lock or latch, manual locking
2 0-4	Digit 10 - Type of spindle operation Five types are identified Grades 0 - 4	Type 2 - Lock or latch for unsprung lever handle operation
0 0-H	Digit 11 - Key identification requirement Nine categories are identified Grades 0 - H	Category 0 - No requirement for key identification

High performance euro profile lockcase series suitable for all high end specifications

Features & Benefits

- 96 hour corrosion resistance.
- Modular design allowing simplified door preparation and lock interchangeability.
- Grade 316 stainless steel single piece forend. Optional square ended forend is also available.
- Quick reversible latch allows quick and trouble free on-site handing without the need to dismantle the lockcase.
- Profiled latch and forend provides very positive location and a smooth, quiet operation.
- Chrome plated steel latch for corrosion resistance.
- Cast follower with phosphor bronze bushes reduces wear of follower during extended use.
- 8mm follower is designed to grip the spindle to eliminate unwanted tolerance between components.
- 30° follower action with springing suitable for high frequency applications.
- Positive follower angle (1°) reduces the effect of wear which can lead to lever droop.
- Drill resistant heavy duty hardened deadbolt with 22mm throw on a single turn of the cylinder.
- Chrome plated steel bolt for corrosion resistance.
- Bolt through fixing holes to DIN 18251 making the lock compatible with most European hardware ranges.
- Sleeved fixing holes assist in bolt location, provide added strength to the lockcase and help prevent mechanical failure due to ingress of foreign objects.

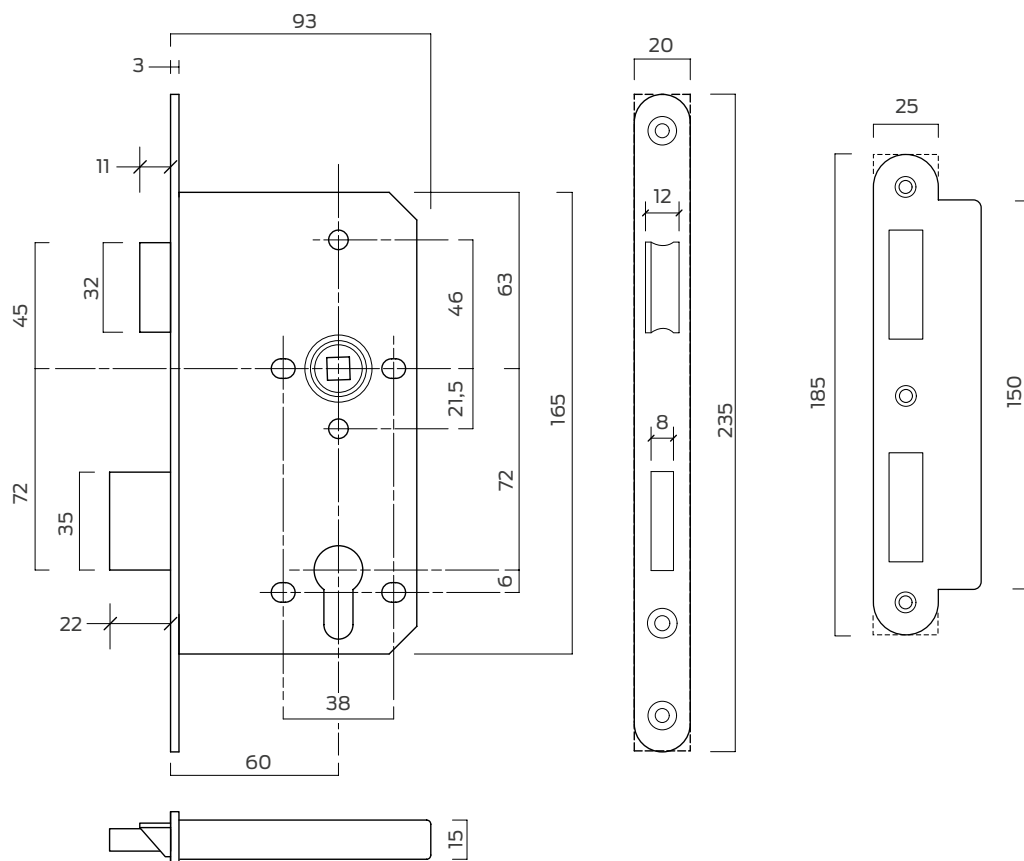


Conforms to European Standards
EN 12209 and EN 179 and carries
the CE mark. Tested to EN 1634.



Product ref.	Function/description	Centres	CE Classification
33338 - 122	Deadlock - cylinder operates deadbolt only	72mm	3X810G4BA00
33338 - 125	Sashlock - lever operation of latchbolt, cylinder operation of deadbolt. Cylinder to latch function.	72mm	3X810G4BA20
33338 - 126	Bathroom lock - lever operation of latchbolt, 8mm bathroom turn follower to operate deadbolt	78mm	3X810G-B020
33338 - 189	Bathroom deadbolt - 8mm bathroom turn follower to operate deadbolt only	n/a	3X810G-B000
33338 - 127	Latch - lever operation of latchbolt only	n/a	3X810G-B020
33338 - 197	Nightlatch - lever operation from inside to withdraw the latchbolt, cylinder from outside. No hold-back function.	72mm	3X8100G-B020

Radiused and square forends are available with matching strikes. Add suffix .R or .S to product code:



all dimensions are in mm

Nuffield Trademark Locking



Product description

Conventional profile cylinder key system with trademark protected key section for industrial buildings

- Conforming to DIN 18252/2006 class = 80
(with anti-drilling and anti-pulling protection: class =82)
- Key-related security grade = 6 (according to DIN EN 1303/2005)
- Attack resistance grade = 0 (according to DIN EN 1303/2005)
(with anti-drilling and anti-pulling protection: grade = 2)
- Fire protection rating according to MPA materials testing institute certificate no. 120002883 = 1
- Suitable for master key and general/grand master key systems according to VdS guideline 2386/2007 class BZ under approval no. M103370
- Indefinite trademark protection, German trademark DE 398 28 612, German trademark DE 301 73 480, international trademark IR 707 697
- 6 spring-loaded pin tumblers, driver pins with protection against break-open tools on each cylinder side
- Basic anti-drilling protection by 6 hardened steel key pins and at least 1 hardened driver pin
- Brass cylinder body and brass plug, oil impregnated sintered cam, nickel-silver key according to DIN 12163
- Plug head with guiding groove for positive transfer of the key torque
- Satin nickel-plated brass surface
- Fastening with M5 x 80 fixing screw

Options

- Double cylinder, turn cylinder, single cylinder, padlock, furniture cylinder, cam cylinder, turn cylinder with classroom function, turn cylinder with anti-barricade other profiles upon request
- Modular design
- Emergency function, freewheel function for gearbox-operated multipoint locks
- Anti-drilling and anti-pulling protection
- Bump proof design
- Wear resistant version
- Special finishes upon request
- Compatibility with CESTronics product lines



Manufacturer's Declaration

Protection of the CES profile cylinder KM against unauthorized duplication of keys

The KM system is subject to an indefinite trademark protection (as opposed to a patent protection that has a maximum term of twenty years). This means:

The key section is protected by industrial property rights under the registered CES trademark. Cylinders and keys of this key section system show the trademark as a negative and positive shape, respectively.

CES has registered the "Carl-Eduard-Schulte" (= CES) company logo, created more than 150 years ago, as a combined mark with the German Patent Office and a large number of foreign patent offices. This registered trademark appears in the cross section of the keys for master key systems.

For the user, this means an indefinite protection against unauthorized duplication of the original key, superior protection of the investment, and maximum security of the locking system.

CES will never supply original key blanks to the trade. Combined with the statutory trademark protection, this fact makes it impossible for any manufacturer to legally produce blanks and finished keys.

Most of the locking system key sections currently on the market are subject to patent protection. For some of these key sections, this protection has already expired and for the others it will terminate sooner or later. After the expiry of the patent period, it is no longer illegal to produce key blanks and duplicate keys.

While trademark protection is legally equivalent to patent protection, it offers a number of benefits as outlined above.



Anti-barricade function

In some circumstances, such as secure institutions, care homes and psychiatric facilities it is desirable to prevent the inside thumbturn being used to forcibly hold the deadbolt in the locked position. A clutch mechanism within the cylinder isolates the thumbturn from the keyway so that in an emergency the key will override the thumbturn if it is being held.

Classroom function

If a teacher needs to leave a room full of pupils for a short while, they can lock the door from the outside to prevent unauthorised personnel from entering whilst being reassured the door can always be opened from the inside, even when locked. The cylinder can never be locked by the thumbturn from the inside.

Construction Keying

During the construction process, keys can easily become lost or stolen which can lead to loss of security. If Construction Keying is specified the building contractor will be issued with specific contractors keys for each of the cylinders. At the point of 'hand-over' the building owner/occupier inserts the proper 'system' keys into each cylinder and in the process renders the contractors keys inoperative.

Masterkeying

Masterkeying is the organisation of a keyed locking system where a hierarchy of access is produced. As the level of authority rises, so the ability to access cylinders in the system increases until access to all the cylinders in a system is available to a single Grand Masterkey.

SYSTEM 3060

DISCOVER OUR KEYLESS WORLD.



Simons  Voss
technologies

Award winning electronic locking solutions


Access control gives you the power to decide who has access into and around your building. Conventional lock and key systems are a very basic form of access control and offer little protection if a key is copied, lost or stolen. Changing locks and replacing keys can be a very costly ongoing issue, which makes these systems very difficult to manage. Electronic access control simply replaces mechanical locks and keys with a fully managed secure system, eliminating the mentioned risks.

If a person's access card or transponder is lost, stolen or simply no longer required, it can easily be deleted from use without compromising any other people's access rights.

Foris develops and produces award winning electronic locking solutions that seamlessly integrate into new and existing building infrastructures.

Product Features & Benefits

- Easy installation
- Enhanced security; products operating in conjunction with the physical door lock, the most secure part of the door
- Battery operated; wireless and extremely efficient with very low maintenance
- Simple programming; in order to replace a lost or stolen card or transponder
- Audit Trail and Time Zone Management of all products
- Discreet and sympathetic design; in order to blend into any environment
- Modular and scalable, products can be upgraded at any time
- Wireless technology; all products are capable of being managed in an IT based wireless managed system



SYSTEM3060 MANAGE ACCESS AUTHORISATIONS SECURELY ON AN INDIVIDUAL BASIS.

Systematic protection

Hospitals, clinics and rehabilitation centres are often spread over numerous buildings with different uses. However, System 3060 can be managed from a control centre to regulate and manage which particular users may be in a particular place on different sites at any given time.

Access rules are often not fixed, but are changed on a continuous basis.

No problem for System 3060. It combines keyless locking with the functions of a modern access control system. All users are given a digital ID medium, on which their personal authorisation profile is stored. A smart card, a PinCode keypad or a special MobileKey app for smart phones is used for access. These digital media communicate with digital locking cylinders, fittings or the System 3060 SmartRelays via a wireless link. If authorisations change, the new rights are automatically transmitted to locking media by WaveNet wireless communication.

Digital Locking and Access Control System 3060 – Overview of advantages

- ⌘ World-leading solution based on state-of-the-art technology
- ⌘ Highly future-proof investment and excellent cost effectiveness
- ⌘ Robust & low maintenance
- ⌘ Easy to use
- ⌘ Retrofit additions possible while system is in operation
- ⌘ Flexible key administration:
add, modify or withdraw rights at any time
- ⌘ Restrict user rights in terms of place and time
- ⌘ Lost transponders or smart cards are deactivated at the click of a mouse`
- ⌘ Existing smart cards, such as employee IDs, can be used as 'digital keys.'

Digital Locking and Access Control
System 3060 shows its strengths to very
good effect in the health care system.

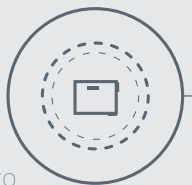
LIFTS

You can determine which floors can be accessed by lift. Is there a floor where only operating theatres are located? If so, access to the floor in question can only be activated using an authorised ID medium.



TRANSPONDER TERMINAL OUTDOORS

Obtain new or modified access authorisations from special terminals. The system administrator and users do not need to waste time contacting one another to make such changes.



MAIN ENTRANCE

Programme your system to ensure that the main entrance is automatically open for everyone during visiting hours. It can only be opened using an authorised ID medium at any other time.



ENTRANCE HALLWAYS WITH PROTECTION FUNCTION

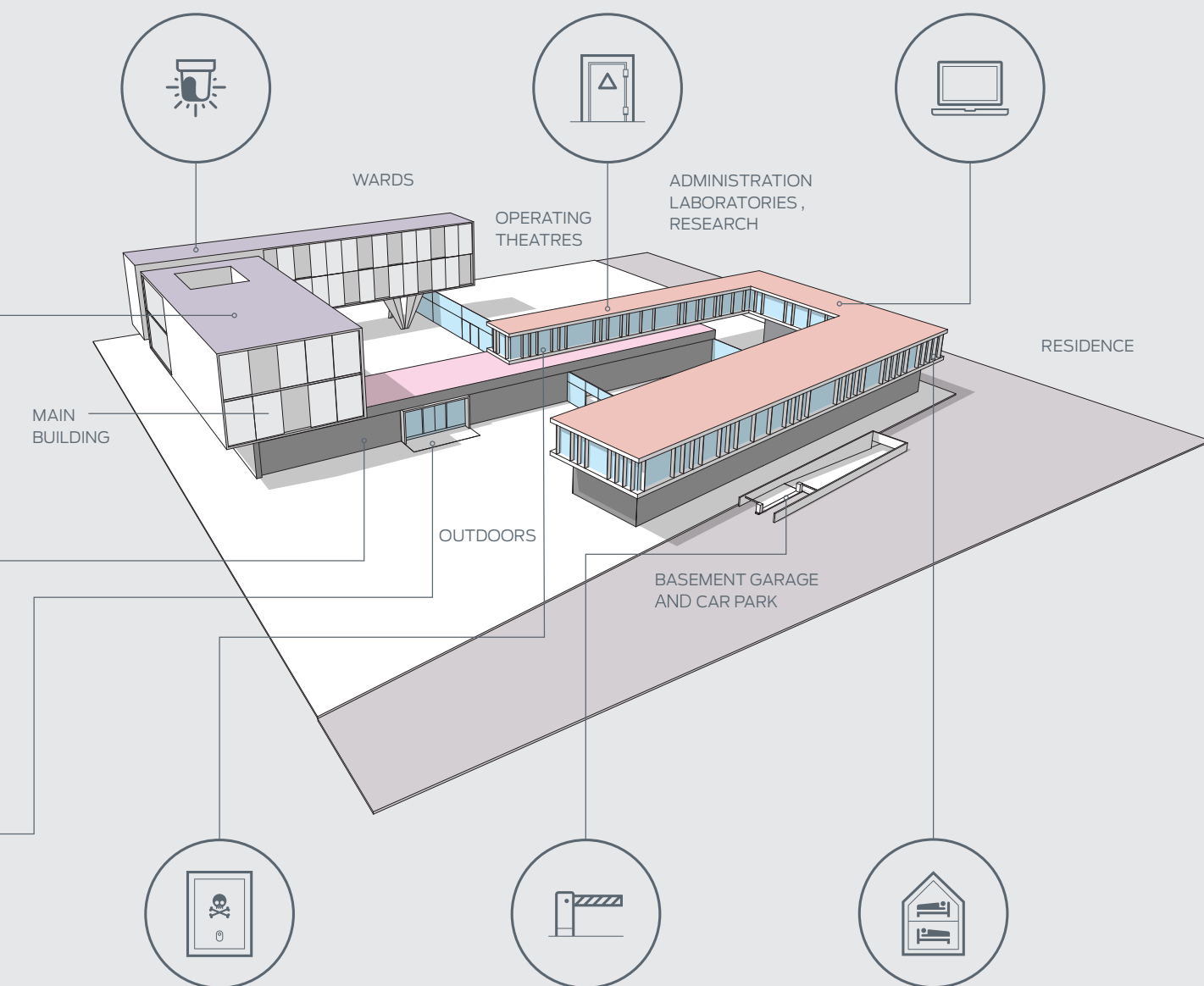
You can lock or open all doors at the press of a button in an emergency such as an attack or fire situation.

DOOR WITH DOOR MONITORING

Use locking cylinders 3061 with wireless integrated door monitoring in sensitive areas. This solution will not only indicate when a door is open for too long, but also if the door is locked and how often it is locked.

FACILITY MANAGEMENT

The Locking System Management software application allows operators to set up, operate and manage all System 3060 components. The software is available in different editions, from the basic Starter version through to LSM Professional.



HIGH AND LOW DEPENDANCY DRUG CABINETS AND LOCKERS

Fit a digital half cylinder to drug cabinets and staff and patient lockers, so that they can only be opened with an authorised ID medium. All locking transactions are fully logged.

BARRIERS

Control vehicle access authorisations to car parks and garages with a click of your mouse. You can also combine System 3060 with parking fee ticket systems for public areas.

NURSES AND DOCTORS RESIDENCES

Add access authorisations for residences to the same ID media used for the hospital.



Digital Smart Handle - 3062.SC

The Foris digital door fitting combines intelligent access control with elegant and ergonomic design. Behind its slim, flat exterior lines highly innovative technology.

- Can be used with existing Mifare SmartCards
- Battery life up to 130,000 actuations or 10 years on stand-by
- Up to 64,000 SmartCards per Smart Handle
- NFC compatible and networkable



Digital Smart Relay - 3063

The digital Smart Relay can serve as an access control reader or key switch for electrically actuated doors, gates, barriers and lifts for example.

- Winner of the Red Dot design award 2010
- NFC compatible and networkable



PIN Code Terminal - 3068

Battery operated Pin Code Terminal, integrated wirelessly in the 3060 System.

- 500 PINs
- Dual verification for use in conjunction with SmartHandle, SmartRelay or Digital Cylinder
- Time zoned PINs
- Typical read range up to 40cm (SmartHandle) or 120cm (SmartRelay)



Digital Locking Cylinder - 3061.SC

Digital locking cylinder with integrated RFID reader.

- Can be used with existing Mifare SmartCards
- Up to 64,000 SmartCards or transponders per cylinder
- Can be used with any Euro profile cylinder lock
- NFC compatible and networkable



Smart Card

Mifare Classic and Mifare DESFire standard cards.

- ISO 7816 format

Transponder 3064

Used for identification purposes in the 3060 System.

- IP65 with bonded housing IP66
- Push button activation
- Battery life of 400,000 actuations



Digital Padlocks - 3061.SC

Digital padlock with cylinder thumbturn.

- Shackle diameter 11mm
- Self-locking and Non self-locking options
- Battery life up to 65,000 operations
- Operating temp; -25°C to +55°C
- Up to 64,000 Smart Cards per padlock
- Network ready with integrated Lock Node

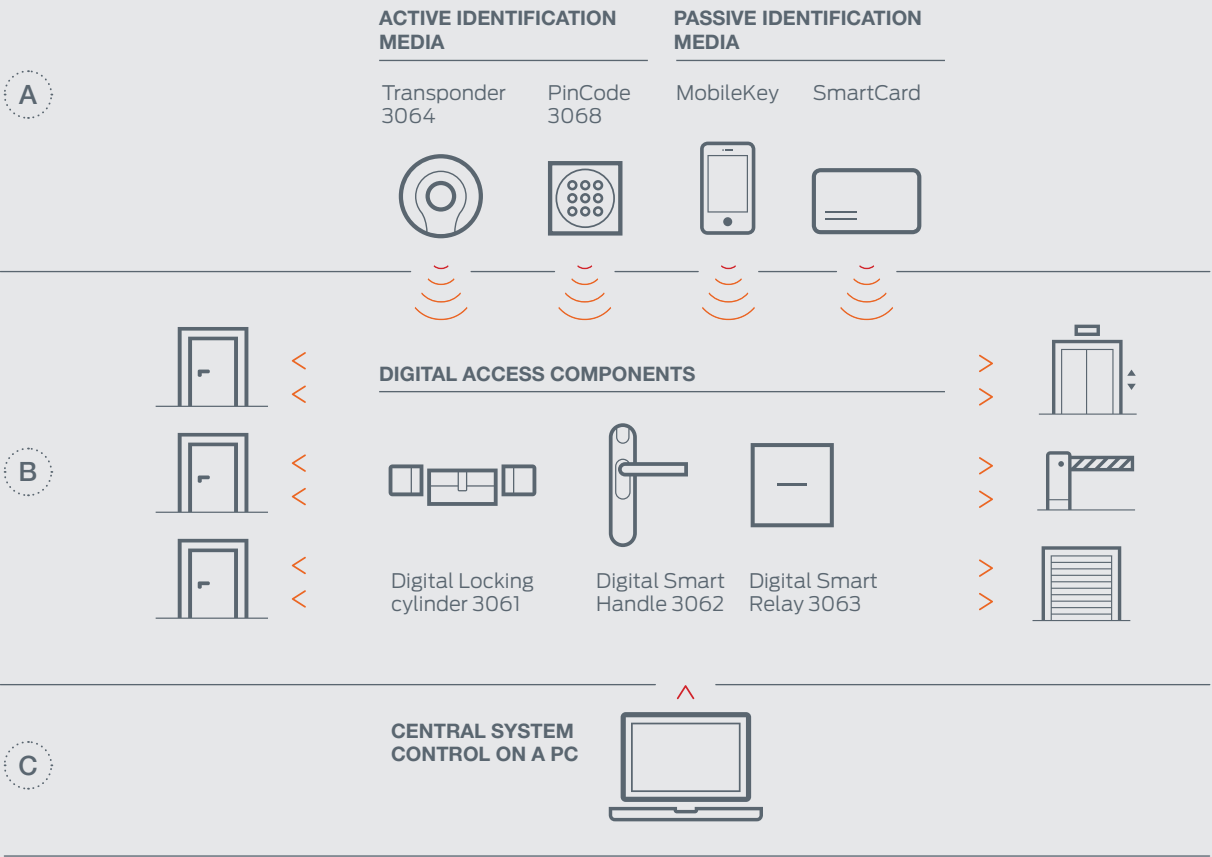
DISCOVER THE KEYLESS WORLD OF SIMONS VOSS.

SYSTEM 3060:
FLEXIBLE. EXTENDIBLE IN MODULES.
Digital locking and Access Control Systems 3060 offers customised access, protocol, control and monitoring functions which meet the needs of hospitals and rehabilitation centres perfectly. Existing employee IDs can be used for access control, for example.

KEYLESS LOCKING AND UNLOCKING
Instead of conventional keys, users receive a digital ID medium, such as a transponder or a smart card (A), on which personal access authorisations are stored

IN FULLCONTROL
The authorised ID medium opens doors, entrance ways, lifts, turnstiles and barriers. (B) The fully network-ready system captures and logs each access event fully automatically and manages everything with an easy-to-use software application (C). All building doors can be opened or closed centrally in life-threatening situations.

SYSTEM 3060

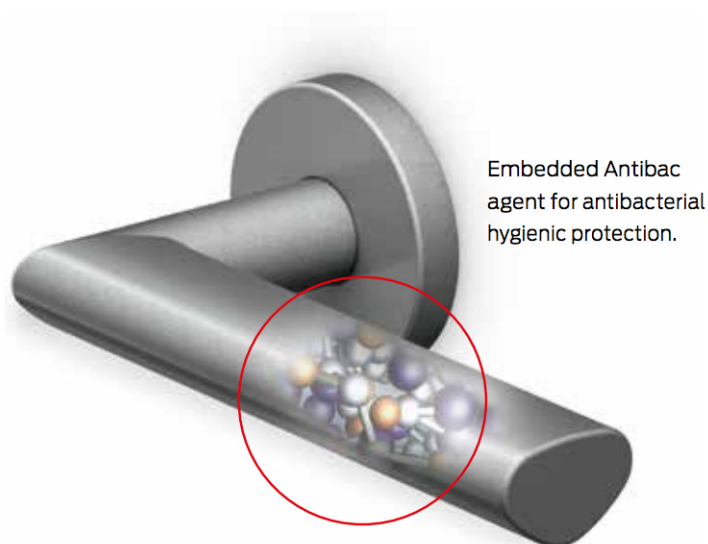


Interaction between the identification medium (A), intelligent locking cylinder or relay circuits (B) and the Locking System Management software (C) for systems configuration provides optimum access management for hospitals, rehabilitation centres and similar institutions.

Antibac with antibacterial protection actively prev

cavere®

NORMBAU produces a range of improved hygiene products with integrated Antibac antibacterial protection.

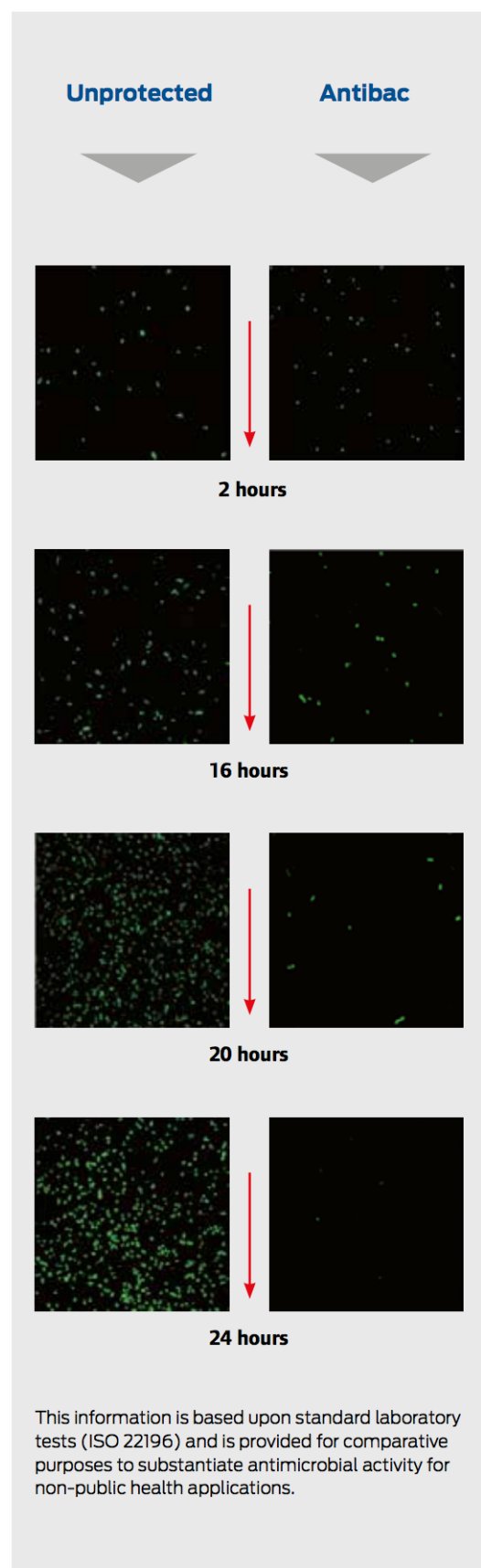


What is antibacterial protection?

Antibac is built-in to Cavere® products in scratch-resistant powder coating and to solid products during manufacture to provide an extra level of hygiene. This provides added antibacterial protection for the products, preventing the growth of harmful micro-organisms such as bacteria, mould and mildew. Antibac technology combined with conventional cleaning methods helps to improve standards of hygiene and offers added protection wherever it is used.

How does antibacterial protection in NORMBAU products actually work?

Antibac is incorporated into the scratch-resistant powder coating / polymer structure of the material during the manufacturing process and is thus evenly distributed throughout the product. Once bacteria come into contact with the Antibac surface, the technology works by disrupting its biological functioning, the lifecycle cannot proceed and the bacteria then die. NORMBAU products featuring Anntibac offer targeted product protection.



Prevents bacterial growth



cavere®

For how long does antibacterial protection remain effective?

Since Antibac protection is built into the product during manufacture, it cannot be washed or wiped off. Antibac protects the products over their entire lifetime. The antibacterial properties of silver have been known for centuries.



Testing by independent laboratories

Antibac technology has been proven to be safe and effective in extensive testing by independent laboratories and has an excellent track record of success over many years in use.

Within Europe, it is registered for all intended applications in accordance with the BPD (Biocidal Products Directive) and with the FDA (Food and Drug Administration) in the US.

IMSL INDUSTRIAL MICROBIOLOGICAL SERVICES LTD

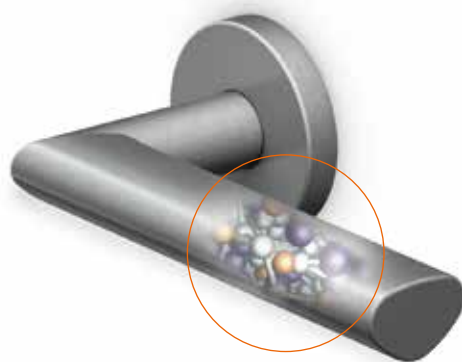
CERTIFICATE OF ANALYSIS Page 1 of 1

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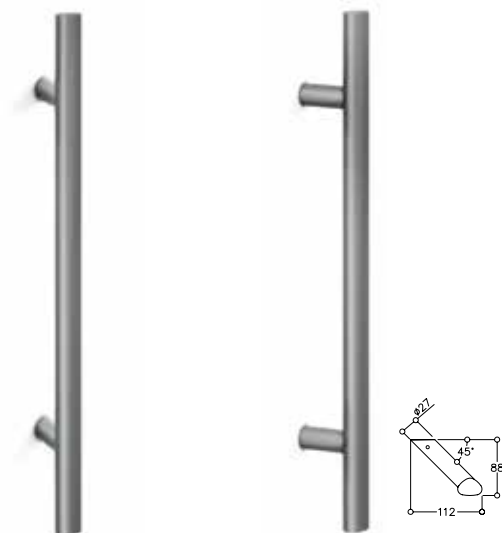
Cavere architectural hardware is part of Normbau's range of ironmongery which has the added protection of an antibacterial coating. The antibacterial coating is applied to all products to provide an extra level of hygiene. Manufactured from Aluminum it is both light, durable, environmentally friendly and easily recyclable.

Suitable for use in hospitals, care homes and other types of public access buildings, the **Foris** range has been designed with sheer simplicity and a unique design in mind.

A small selection is shown here. Please contact us for details of the full range.



Ref:	700.791	700.181	700.291	700.491
Type:	Cavere formed lever Mounted on 55mm dia. concealed fix roses with bolt through fixings	Cavere return to door lever Mounted on 55mm dia. concealed fix roses with bolt through fixings	Cavere mitred lever Mounted on 55mm dia. concealed fix roses with bolt through fixings	Cavere curved lever Mounted on 55mm dia. concealed fix roses with bolt through fixings
Dimensions:	67 x 135mm	200 x 60 x 140mm	200 x 55 x 140mm	65 x 141mm
Certification:	EN 1906 Grade 4	EN 1906 Grade 4	EN 1906 Grade 4	EN 1906 Grade 4



Ref:	33338 - 97	33338 - 297
Type:	Cavere pillar fixed pull handles - straight	Cavere pillar fixed pull handles - cranked
Dimensions:	Multiple pull handle lengths/centres 350/150 up to 1600/1400 Projection 79mm straight / 88mm cranked	



Ref:	7500.110	7500.120	7500.130
Type:	Single hook	Double hook	Double hook
Dimensions:	18 x 60mm	54 x 60mm	40 x 60mm

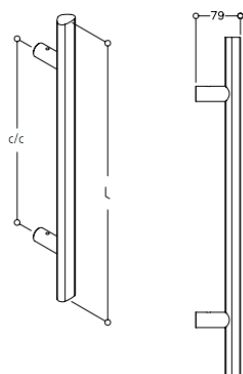


Ref:	7500.100
Type:	Single hook - rose mounted
Dimensions:	400 x 40mm



length mm	c/c mm
350	150
400	200
500	300
600	400
700	500
800	600
1000	800
1200	1000
1400	1200
1600	1400

Antibac, antibacterial protection



Pull handle 33338 ..., Antibac

Made of aluminium, scratch-resistant powder coating with antibacterial protection, colour metallic anthracite (095), with trigonometric contour for ergonomic reach, tighten and press on. With supports 26mm diameter, in standard lengths 350, 400, 500, 600, 700, 800, 1000, 1200, 1400 and 1600mm.

Order details:

- type
- product code
- fixing set **MU...** (per fixing point)
- door thickness

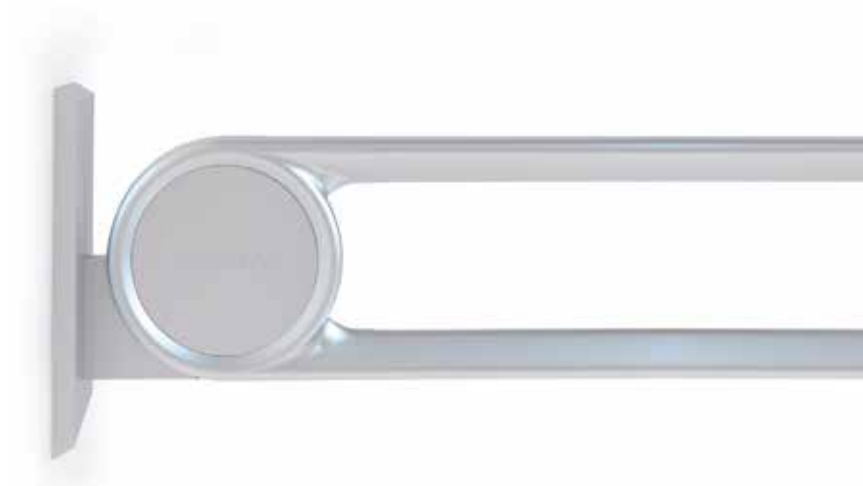
Fixing sets see pages 22 - 25

Supporting people with physical disabilities

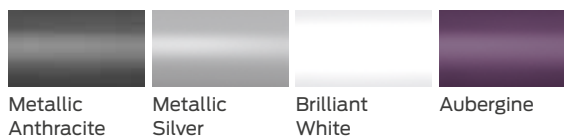
The Cavere range provides support for people with physical disabilities in their daily life so that they live in a comfortable environment. Designed by Danish architects C.F. Møller, cavere provides a unique combination of design simplicity whilst achieving strength and robustness without becoming a dominating presence.



Clear and elegant in design the range of bathroom fittings have been designed so that they are simple and universally attractive, without compromising safety. The key element is the ergonomic triangular gripping profile with semi-circular edges which ensures secure grab and support.



Foris bathroom fittings are available in a variety of finishes.



Antibacterial protection is built into each Cavere product, inhibiting the growth of harmful micro-organisms such as bacteria and mould.



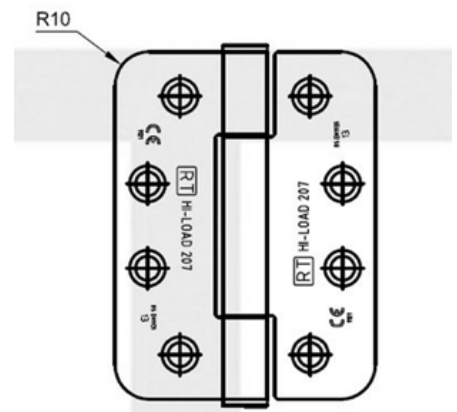
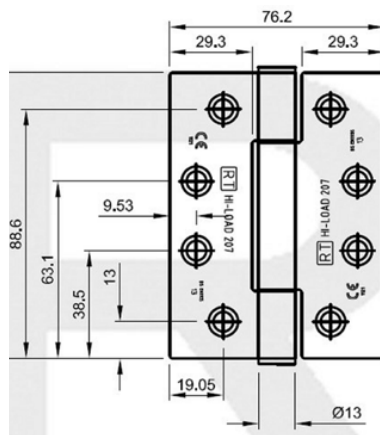
High performance stainless steel hinges for commercial applications

The first step in specifying hardware for any door is the method of hanging. Unless the door is to be fitted with a floor spring the door will be fitted with hinges, normally with 3 hinges per leaf (or more for larger or heavier doors, fitted in a pattern in accordance with BS EN 1935). The use of high quality hinges which are accurately fitted can have a significant bearing on the operating characteristics of the door which in turn will affect the efficiency of other hardware items, notably door closers and mortice locks.

33338 - 199 SSS Grade 14



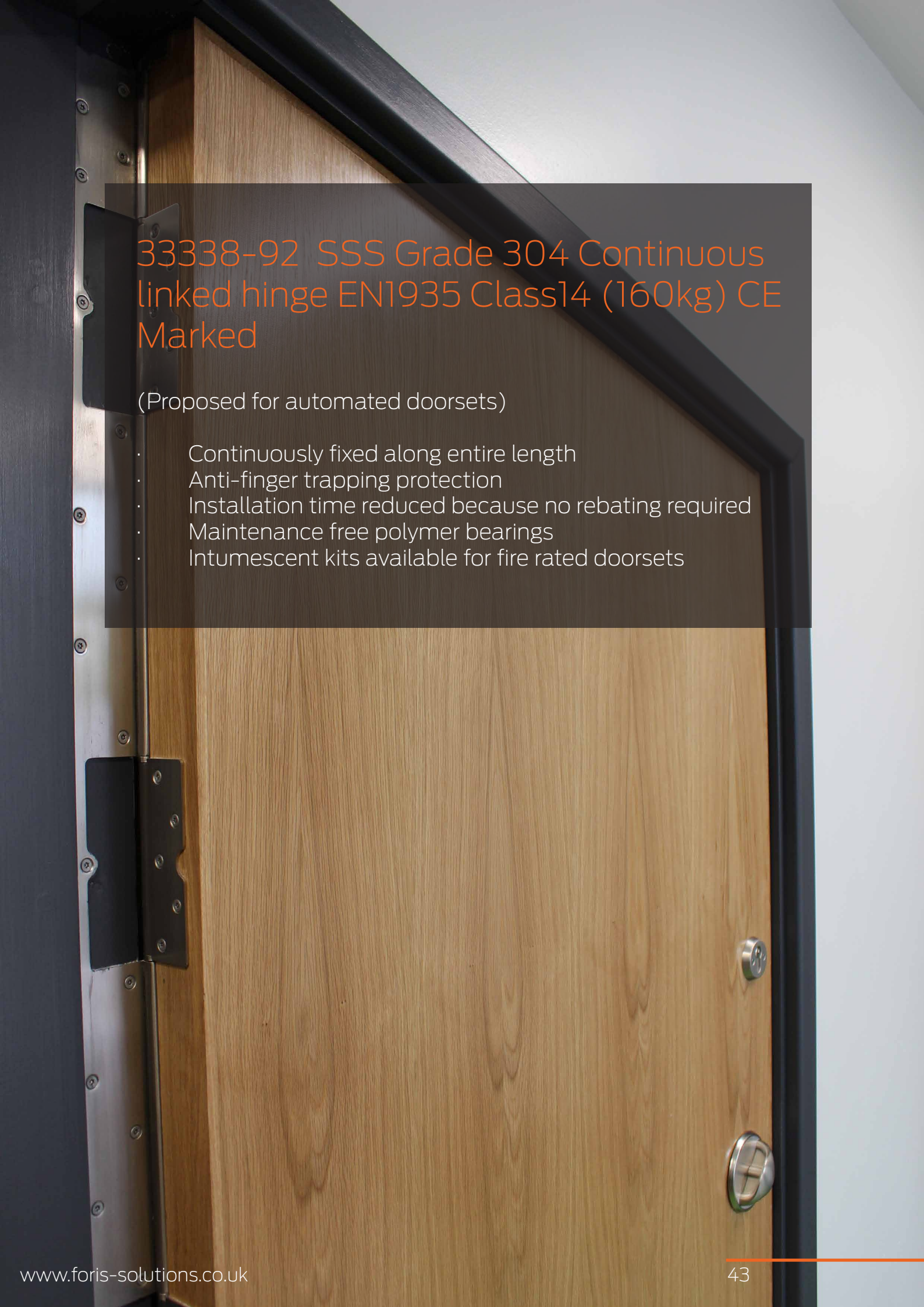
33338 - 100



Features & Benefits

- Three knuckle ball bearing hinges
- CE marked to EN 1935:2002 Grade 13.
- Suitable for timber and metal doors up to 120kgs.
- Template drilled for consistency and accuracy.
- Available in Grade 316 or Grade 304 stainless steel and in satin or polished finish.
- Also available with machine screws for use with metal doorsets.
- Options for security dog bolt.
- Maintenance free
- Certifire approved CF215



The image shows a close-up of a wooden door with a continuous hinge system. The hinge is a dark metal strip with multiple circular mounting points, running vertically along the left edge of the door. The door itself is made of light-colored wood with a visible grain. A dark metal frame is visible around the top and right edges of the door. A semi-transparent dark grey box with orange text is overlaid on the upper left portion of the door.

33338-92 SSS Grade 304 Continuous linked hinge EN1935 Class14 (160kg) CE Marked

(Proposed for automated doorsets)

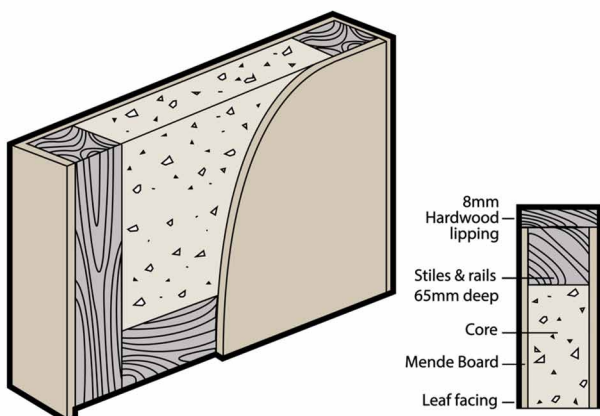
- Continuously fixed along entire length
- Anti-finger trapping protection
- Installation time reduced because no rebating required
- Maintenance free polymer bearings
- Intumescent kits available for fire rated doorsets

SALUS Doorsets

SALUS doorsets from Foris Solutions offer a range of door openings solutions built on a robust door leaf construction and solid rebated softwood and hardwood frames - **We do not use MDF in frames or architraves.**



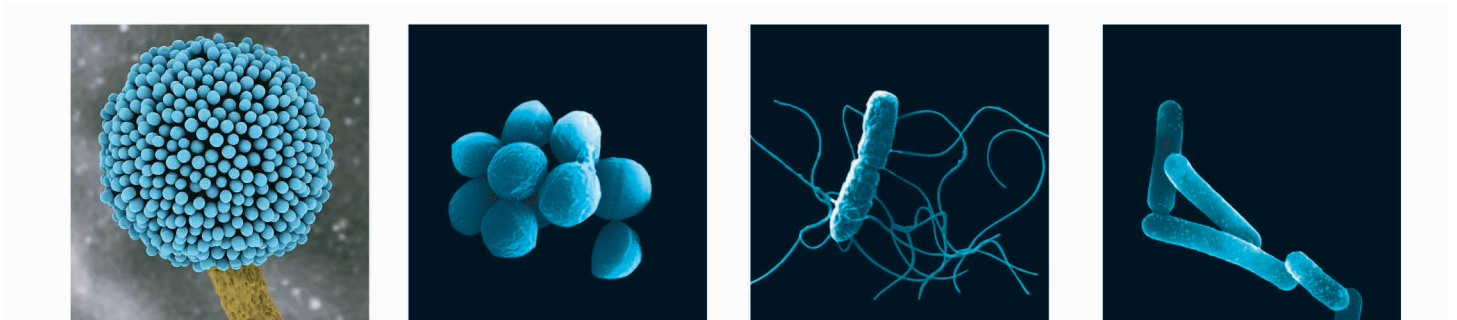
A SALUS door leaf is constructed from relevant FLAXCORE fire rated cores, 44mm for NFR and FD30S and 54mm thick for FD60S with client selected final finishes. The door leaf includes a perimeter softwood frame that is 65mm deep ensuring ironmongery components fixed to the edge of the leaf are installed to a positive and robust base material.



SALUS doorsets are available in various veneered finishes, high impact facings or 100% encapsulated in the high impact PVC for maximum hygiene and practical day to day maintenance in areas that require frequent and intensive cleaning.

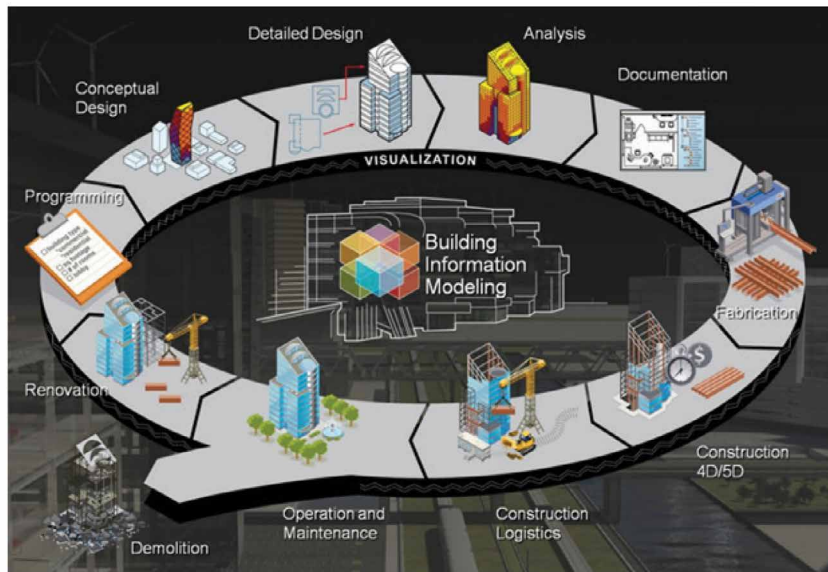


SALUS doorset finishes all include antimicrobial protection to reduce the risk of cross contamination when touched. Veneers and paint grade doors include Hgienenilac protection in the lacquer and primed paint finish. Hygienilac is an element added to the high impact resistant PVC material used to protect the face of doors or when moulded to encapsulate the door leaf, frame and architrave.

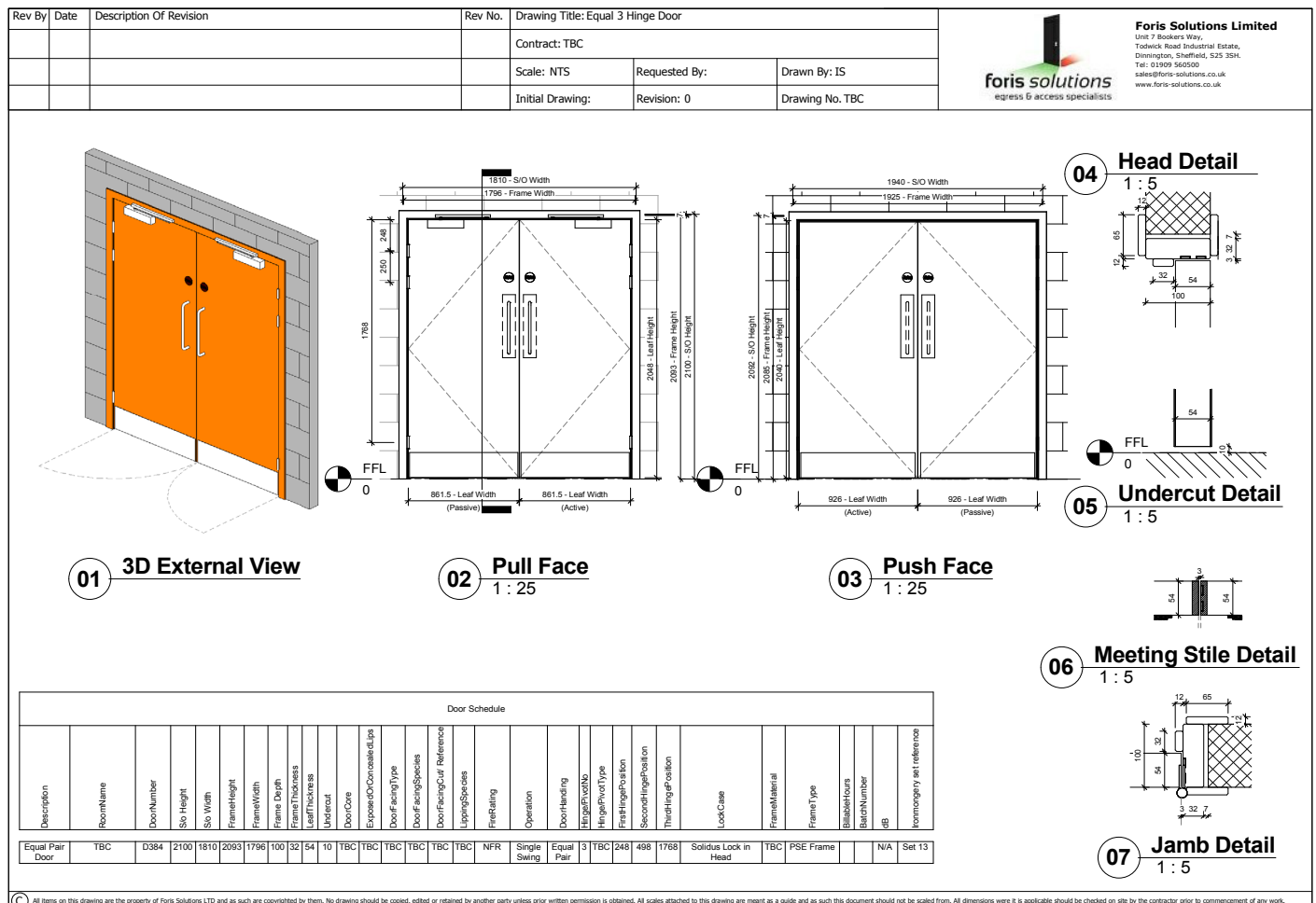


BIM Models

To compete for government centrally funded projects we've developed a range of BIM models for our prehung doorsets complete with ironmongery which can be edited in Revit by designers at any stage of the design and construction process.



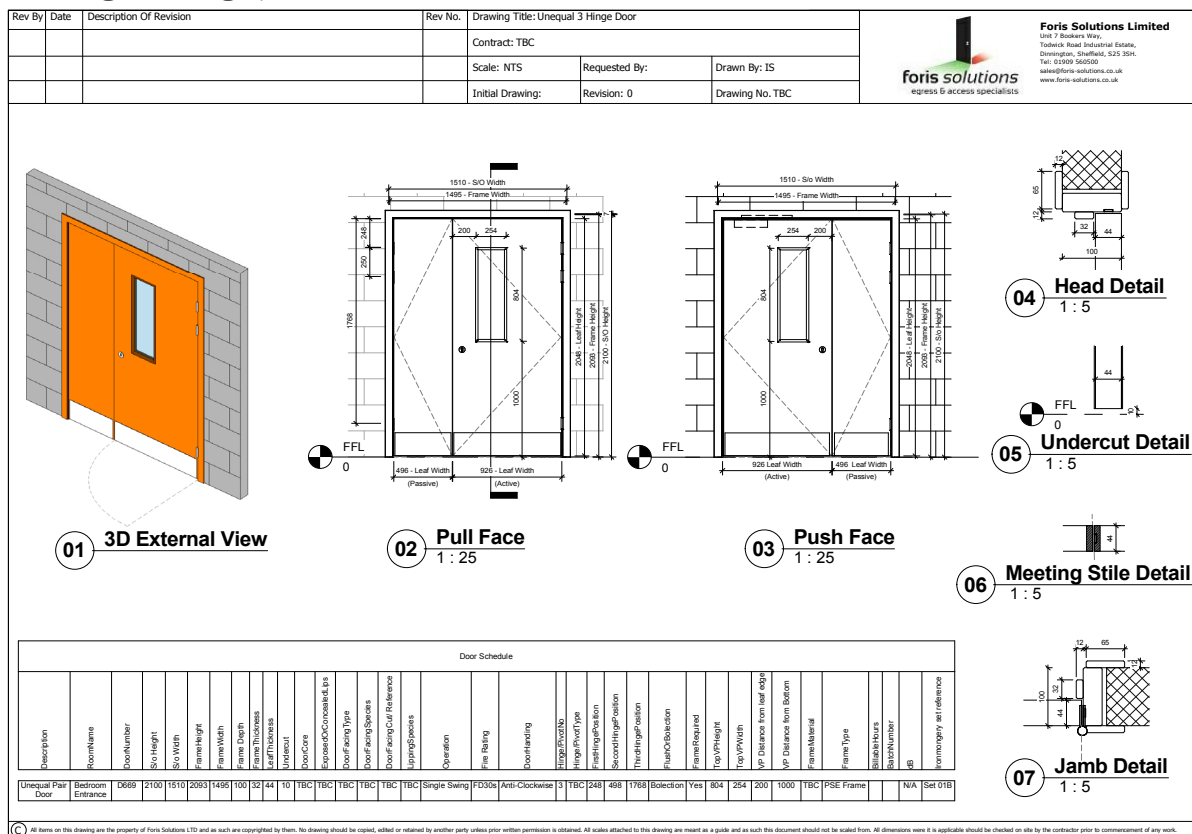
'mIspec' parametrically connected data attached to each drawing can be edited in Revit – for example if a structural opening is changed then automatically the software will amend the frame and leaf size and even the kicking plate size. Our drawings will detail the push and pull face of the doorset and also includes a 3D image that can be viewed in software.



BIM Models

Attached to each MODEL is a COBie output which is a detailed record (essentially an excel spreadsheet) of what was installed in a particular door opening.

This information will ensure any remedial repair in the future is completed using a like for like product to maintain the original design performance and certification.



We are able to offer a PROJECT SPECIFIC service. From floor plans and a design briefing we will provide a detailed ironmongery specification, a door schedule, L20 and P21 information and 'mlspec' BIM models for each door opening.

The designer merely populated the Revit model with the 'mlspec' BIM model for each relevant opening.



Foris 'mlspec' BIM Models
 available through our website
www.foris-solutions.co.uk

Foris Washroom Solutions

In partnership with ASI Group, Foris Solutions have handpicked an encompassing range of Washroom products, integrating both cubicles and accessories to enable the seamless specification of washroom areas.

Our unique flush profile cubicles ensure complete privacy. Manufactured in Solid Grade Laminate they provide a durable water and scratch resistant solution to any cubicle needs.

Whilst our comprehensive range of stainless steel Washroom Accessories including Hand Dryers, Combination Units, Baby Changing Stations, Dispensers and Waste Bins allow you to enhance the washroom experience.

Foris Solutions
Solid Grade Laminate
Lockers

**Wide Selection Of
Mirrors**

**Award Winning Hand
Dryers**

**Recessed Washroom
Accessories**

Foris Solutions
Solid Grade Laminate
Vanity Units - Can be
supplied with Corian
Tops

Cutting Edge
Soap Dispensers +
Matching Taps

A Wide Variety Of Baby Change Solutions

Tested up to 350lbs load capacity, the highest in the industry

From Towel Dispensers

To Hand Dryers and much more



A wide selection of shower seats

Foris Solutions

Solid Grade Laminate Benches

Foris Solutions

Ultimate Privacy Cubicle Collections
Manufactured in 13mm Solid Grade Laminate

Foris can also supply and install a range of lockers to match the finish of our cubicles and IPS panels.

Lockers can be built in any configuration matrix with multiple base options, tiers and styles to choose from. Door features include concealed self-closing hinges and cushioned bumpers to prolong operation and with multiple lock options end users can choose to lock using key or combination locking devices.

Within our Washroom range we can also provide benches to complement the locker room design. All benches are available with or without clothes hooks and shoe and hat shelves and can be applied to the wall.

Salus fully encapsulated doorset with GEZE automation.

No contact activation buttons to operate doorset

Continuous geared hinge

'Lockdown' interface with concealed electronic locking

Flush or standard bolection beading
EN16005 Compliance advice must be taken



Our preferred partner to automate doors is Geze UK Ltd. Our offer includes for geze engineers to install and commission automation where scheduled.



Core to our business is the specification and supply of door ironmongery, but we continue to evolve and develop complimentary skillsets and product solutions.

We now offer high performance pre-hung internal timber doorsets, external steel security doorsets, electronic security systems and washroom solutions including cubicles, lockers, hand driers and accessories.

At every stage of the build process Foris Solutions can assist architects, contractors and building owners to deliver safe egress and controlled access through any door opening.



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Also at Harrogate, Warrington, Bury St Edmunds and Kettering