

7500 Series Cylinders



FM 00401



EMS 66705

When specifying a product from Ingersoll Rand Security Technologies you can be assured that an uncompromising attention to detail has been given to every stage of design and manufacture. This ensures that its products and systems meet the highest possible quality and conformity certifications and exceed the requirements of all applicable European Standards.

A global leader in every sense of the word, Ingersoll Rand Security Technologies has an unrivalled track record in satisfying the demands of architects, designers, specifiers and building contractors throughout the world.

Ingersoll Rand Security Technologies manufactures a portfolio of market leading products, including Briton, the UK's number one brand of door controls. The Briton name is synonymous with high quality design, reliability and durability and is at the forefront of supplying products that meet the new European CPD requirements, such as one of the first ranges of CE marked fire exit hardware and door controls.



Briton

Door hardware and security products

Normbau

Coloured nylon design systems

Randi

Scandinavian stainless steel design systems

Schlage

Commercial and domestic security systems

CISA

Hotel locking and security systems

In addition, Ingersoll Rand Security Technologies produces a wide selection of contemporary door hardware, including Randi, an architect-designed suite of stainless steel door furniture and bathroom fittings, manufactured at its factory in Denmark.

An extensive series of coloured nylon and stainless steel products are manufactured in the company's German facility under the Normbau brand. The range incorporates lever and pull handles as well as complementary accessories, a comprehensive railing system and products for people with special needs.

Briton Cylinder Locks & Cylinders

The use of cylinder locks is a very flexible and sophisticated means of providing security at most doors. The two part assembly uses a lockcase, which is either morticed into the door or surface mounted, and a locking cylinder which is used to lock and unlock the lockcase. The cylinder lock has a number of advantages over other methods of door locking

- The ability to select the most appropriate combination of lockcase and cylinder function
- Matching the level of security to the precise needs of each door in the building
- Upgrade security levels as the needs of the building or its occupants change
- Enable sophisticated masterkeying and key control capabilities where access to multiple doors can be allowed or restricted to varying personnel

Briton 7500 Series

The Briton 7500 Series is a high quality, comprehensive cylinder range suitable for medium to high security applications. Its features include:

- Patented 6 pin security until December 2014
- EN 1303:2005 Grade 6 Key Related Security
- EN 1303:2005 Grade 6 Durability
- EN 1303:2005 Grade 2 Attack Resistance (when used with a Security Escutcheon)
- Unique raised plug with slotted face
- Drill & Pick protected
- Multi function options
- Key is 15% thicker than current Primus key for additional strength



Briton Value Series

The Briton Value Series is a compact range of cylinders suitable for applications where cost and convenience are paramount. Its features include:

- 5 pin security
- Unrestricted key blank availability



	Security <i>Forced entry</i>	System Complexity <i>Masterkey system</i>	Key Control Management <i>Security of key cutting</i>
7500 Series	██████████	██████████	██████████
Value Series	██████		██████

Cylinder & lockcase combinations

The Briton range of cylinders is suitable for all cylinder lockcases including the Briton 5500, 5400 and 5200 Series lockcases (see Briton Cylinder Lockcases brochure). Within the Briton Cylinder range are rim cylinders which are fully compatible with Briton Rim Nightlatches (see Briton Lever Locks & Latches brochure)

Selecting the right cylinder system

In selecting the most appropriate cylinder system for any given application, a few simple factors should be considered:

- The need for physical security from forced entry
- The size of the system and the need for complex masterkeying capabilities
- The balance between the convenience of getting duplicate keys cut and the security of strict key control whereby keys can only be obtained from the manufacturer under a letter of authority

High Performance Cylinders

Briton 7500 Series cylinders are designed to meet the highest grades of key related security (grade 6) durability (grade 6) and attack resistance (grade 2), when used with security escutcheons, of the latest European standard, EN 1303:2005. In addition, cylinders are currently undergoing 1hr fire tests for timber doors

Key profile with patented technology which prevents unauthorised key duplication

Key is 15% thicker than current Primus keys providing additional strength

Patented system uses a unique 'undercut' key profile which lifts a special 'check pin' inside the cylinder (see opposite)

6 pin tumbler system with additional 'check pin' for extra security



Raised plug with unique slotted face for improved aesthetics

Plug finish matches the cylinder body which is available in satin nickel, polished chrome and polished brass finishes to match most quality hardware ranges

Thumbturn design provides an easy grip and is compatible with most hardware designs

Other 7500 Series features include:

- Comprehensive range of cylinder lengths in symmetrical and offset cylinder types
- Anti-barricade function (see opposite)
- Construction keying (see opposite)
- Classroom function (see opposite)
- Sophisticated masterkeying capability (see page 4)
- Full range of cylinder types including euro and oval profile, rim and scandinavian style cylinders (see page 4)

Briton 7500 Series Features

Right - Briton 7500 Series single euro profile cylinder used in association with a mortice sashlock. The length of the cylinder is carefully selected to suit the thickness of the door and the Normbau Combi door furniture so that the cylinder projects as little as possible.

Below - Euro profile cylinder used in association with Briton 5510 deadlock. Selecting a single, double or single with thumbturn cylinder determines the locking characteristics of the door.



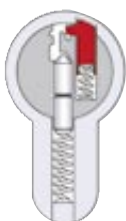
The advantage of a Patented system

The security of any keyed system can quickly be compromised if keys are lost or are not returned by employees when they leave. Controlling who has access to keys can be further compromised if keyblanks are available on any high street. The Briton 7500 Series is protected by patents to December 2014 and the manufacture of keyblanks can therefore be restricted, making the unauthorised copying of such keys virtually impossible.

Duplication of keys can only be carried out by the manufacturer under a letter of authority.

Patented system

In addition to the 6 conventional cylinder pins, the Briton 7500 Series incorporates a unique 'check pin' with a small hook on its tip (see red pin in diagrams below). The tip of the pin corresponds to the special undercut on the key profile. With the correct key inserted, the 'check pin' is lifted clear and the cylinder is free to rotate.



Cylinder locked



Cylinder unlocked

Anti-Barricade Function

In some circumstances, such as secure institutions, care homes and psychiatric facilities it is desirable to prevent the inside thumbturn on the cylinder being used to hold the deadbolt in the locked position, preventing access by key from outside. The Briton 7500 Series is available with a clutch mechanism which 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 however, can never be locked internally, making it ideal for classroom applications.

Construction Keying

During the construction process it is normal practice for the contractors to have control of the keys to each cylinder being fitted to the building. This compromises security as keys can become lost or stolen. With construction keying a special pin is incorporated into the cylinder which allows a single 'construction key' to be issued to the contractors so they can gain full access during the construction period. All the remaining keys are retained to the point of hand-over to the customer/building owner. Any key from the system, when inserted into each cylinder and rotated, will release the special pin in the cylinder which renders the construction key inoperative and allows only the authorised keys to pass.

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 (see overleaf for further information). The masterkey system can comprise any combination of the cylinder types available within the Briton 7500 Series.



The Briton 7500 Series incorporates all the major cylinder types suitable for UK, European and Scandinavian mortice locks. Combinations of different cylinders can be accommodated on the same masterkey system if required.

Euro & Oval Profile Cylinders

A comprehensive range of both euro and oval profile cylinders is available to suit UK and European cylinder mortice locks including the Briton 5500, 5400 and 5200 Series lockcases.

Scandinavian Cylinders

Where Scandinavian locks are used, corresponding cylinders are available to suit internal and external variants.

Rim and Rim Mortice Cylinders

The Briton 7500 Series can accommodate most rim and mortice lock applications (see Briton Digital Locks brochure and Legge Lever Locks & Latches brochure).

Cam Locks

Where a complete masterkeyed system is required, even cupboards or cabinets can be included on the system using Briton 7500 Series cam lock.

Creating a Masterkeyed system

The term masterkeying refers to any organisation of a keyed locking system where one key is required to operate several individual locks, each of which has its own operating key.

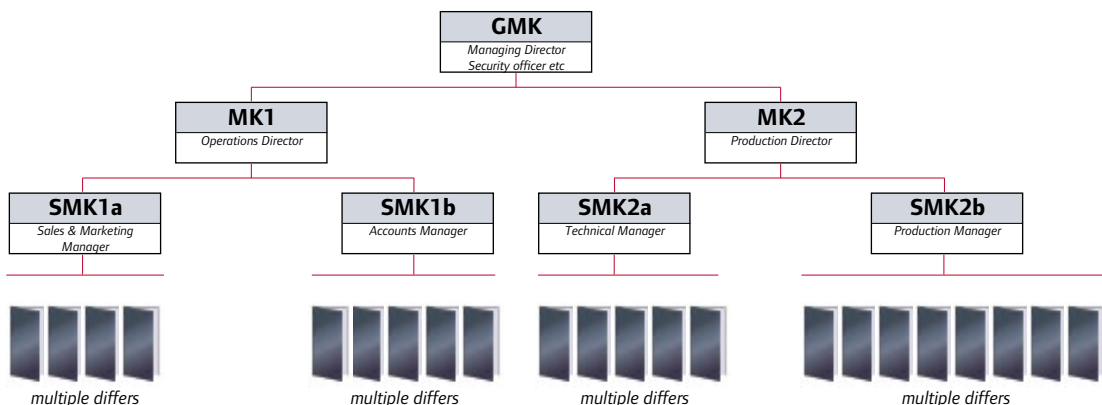
The masterkey system can vary in complexity depending on its application and can involve one or many levels of master key. The Briton Value Series is capable of producing a simple masterkeyed system, but for larger and more complex systems, the Briton 7500 Series is more appropriate. All extensions will be supplied by the originator of the system, unless specifically requested in writing by the end user.

Example 1

An apartment block can be set up so that each occupant has a key which passes the main entrance door and their own apartment door. Other communal areas such as bin stores and laundry can be organised onto the same key if desired.

Example 2 (see diagram below)

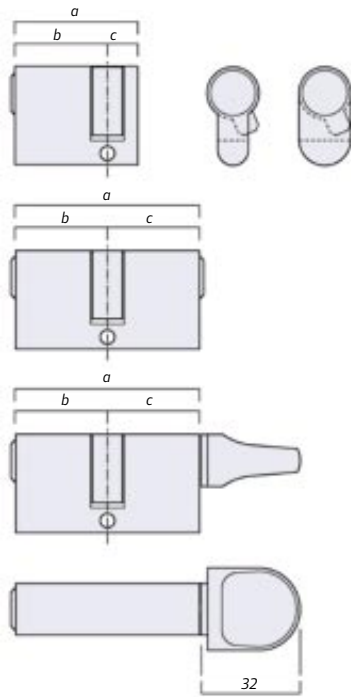
A more complex example could be a commercial application where individual departments might be controlled by sub master keys, with levels above them of master keys and grand master keys held, for example, by the security officer, the managing director and the company secretary.



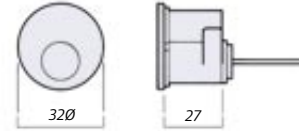
Briton Cylinder Dimensions

Please refer to Cylinder Selector overleaf for dimensions a, b and c

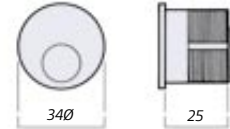
Euro profile and Oval profile cylinders



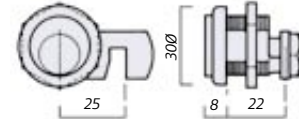
Rim cylinders



Rim mortice cylinders



Cam cylinders



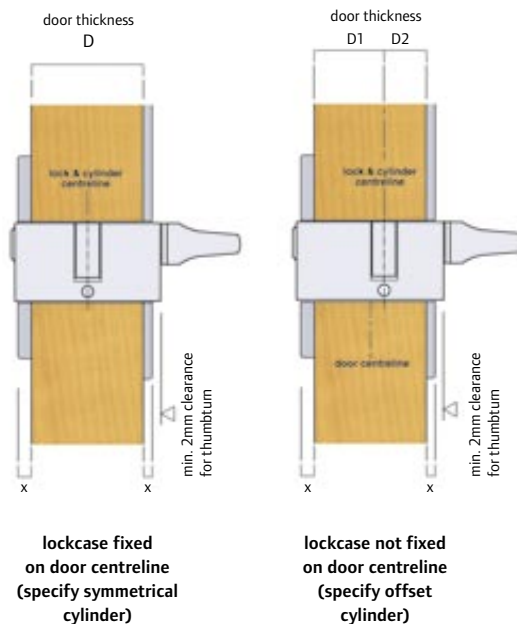
Cylinder Length

Selecting the correct length of cylinder (euro profile and oval profile) is important not only visually, but to increase security from forcibly twisting the cylinder with a wrench.

The overall length of the cylinder should be just larger than the combined thickness of the door (D) and the backplates or escutcheons which are being used (X).

Note, when a thumbturn is being used a minimum 2mm clearance is recommended from the face of the cylinder to the face of the escutcheon or backplate.

Please note, the cylinder dimensions shown are nominal.



Briton Value Series

Value double euro profile cylinder with slimline Briton Contract escutcheon and Briton 5410 deadlock.
The length of the cylinder is carefully chosen to suit the door thickness to minimise the cylinder projection.



The Value Series of cylinders is a compact range of euro profile, rim and rim mortice cylinders suitable for use with mortice cylinder locks and rim nightlatches. Value Series cylinders are an ideal choice where cost is an important consideration. The range of sizes available includes the most common cylinder types and sizes.



Briton Value Series features include:

- 5 pin security
- Unrestricted key blank availability allows key cutting convenience
- Plug is finished to match the cylinder body
- Supplied with brass nickel plated keys
- Compact range of euro profile cylinder lengths in symmetrical and offset cylinder types
- Available in euro profile, rim and rim mortice cylinder types
- Available in satin nickel and polished brass finishes

Cylinder Selector

	No. of pins	Patented system	Keyblanks restricted	CEN Key related security level	CEN Durability level	CEN Attack resistance	Drill protected	Pick protected	MasterKeying
Briton 7500 Series	6	●	●	6	6	2*	●	●	●
Briton Value Series	5							●	

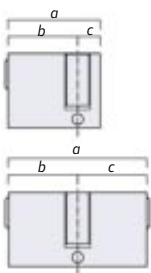


Euro profile Symmetrical	Size a (b-c)	7500 Series ref:	Value Series ref:
	40 (30-10)	7510.ME40	
	45 (35-10)	7510.ME45	VES45
	50 (40-10)	7510.ME50	VES50
	55 (45-10)	7510.ME55	
	75 (65-10)	7510.ME75	
	60 (30-30)	7520.ME3030	
	70 (35-35)	7520.ME3535	VED3535
	80 (40-40)	7520.ME4040	VED4040
	90 (45-45)	7520.ME4545	VED4545
	100 (50-50)	7520.ME5050	
	60 (30-30)	7530.ME3030T	
	70 (35-35)	7530.ME3535T	VEK3535T
	80 (40-40)	7530.ME4040T	VEK4040T

Euro profile Offset	Size a (b-c)	7500 Series ref:	Value Series ref:
	65 (30-35)	7520.ME3035	
	70 (30-40)	7520.ME3040	
	75 (30-45)	7520.ME3045	
	75 (35-40)	7520.ME3540	
	80 (30-50)	7520.ME3050	
	80 (35-45)	7520.ME3545	VED3545
	85 (30-55)	7520.ME3055	
	85 (35-50)	7520.ME3550	
	85 (40-45)	7520.ME4045	
	90 (35-55)	7520.ME3555	
	90 (40-50)	7520.ME4050	VED4050
	95 (40-55)	7520.ME4055	
	100 (45-55)	7520.ME4555	
	65 (30-35)	7530.ME3035T	
	65 (35-30)	7530.ME3530T	
	70 (30-40)	7530.ME3040T	
	70 (40-30)	7530.ME4030T	
	75 (35-40)	7530.ME3540T	
	75 (40-35)	7530.ME4035T	

Oval profile Symmetrical	Size a (b-c)	7500 Series ref:	Value Series ref:
	40 (30-10)	7510.MO40	
	45 (35-10)	7510.MO45	
	60 (30-30)	7520.MO3030	
	70 (35-35)	7520.MO3535	
	80 (40-40)	7520.MO4040	
	60 (30-30)	7530.MO3030T	
	70 (35-35)	7530.MO3535T	
	80 (40-40)	7530.MO4040T	

Cylinder dimensions
(see overleaf for full details)
Please note, all dimensions shown are nominal



Cylinder & Lockcase Combinations

The selection of different cylinder functions, even in conjunction with the same lockcase, can have a significant effect on how the combination will operate. Selecting the most appropriate cylinder and lockcase combination will be determined by considering levels of access, privacy and security required on each side of the door.



Other Cylinders		7500 Series ref:	Value Series ref:
	Scandinavian	double	7570.MSD
		external	7570.MSE
		internal	7570.MSI
	Rim Mortice	7550.MM	VRMC
	Rim	7540.MR	VRC
	Cam Lock	7560.MC	



* When used with 7000.002.E security escutcheons, euro profile cylinders can achieve attack resistance Grade 2 of the latest European standard, EN1303:2005



55 Clifton Road • Cambridge CB1 7EF
Telephone 01223 414121 • **Fax** 01223 411002 • **Email** sales@acornironmongery.com
Website www.acornironmongery.com

Whilst Acorn Architectural Ironmongery Limited has taken every care to ensure the accuracy of information, data or advice contained in this literature, no liability in respect of such information or advice, whether given negligently or not, can be accepted by the company. Acorn Architectural Ironmongery Limited retains the right to amend the technical specification of any range of equipment shown without notice.

Produced by Refresh Media Design Limited.