Locking Devices

Lockcases | Cylinders | Standards

















Technical Details

BS EN 12209: 2003 Mechanically operated locks, latches and locking plates.

Products tested to British and European standards provide greater durability, longer warranty periods, peace of mind and evidence of professional specification.

Under the standard each product is tested and classified accordingly to show its compliance.

The identification of an 11-digit code is visible on the individual product. Each digit represents a category and how it measured against the standard to which it was tested.

Digit 1: Category of use

1 = Light use. For use by people with a high incentive to exercise care and with a small chance of misuse.

2 = Normal use. For use by people with some incentive to exercise care but where there is some chance of misuse.

3 = Extreme use. For use by people where there is little incentive to exercise care and where there is a high chance of misuse.

Digit 2: Durability

A = 50,000 test cycles; no load on latch bolt.

B = 100,000 test cycles; no load on latch bolt.

C = 200,000 test cycles; no load on latch bolt.

F = 50,000 test cycles; 10 N load on latch bolt.

G = 100,000 test cycles; 10 N load on latch bolt.

H = 200,000 test cycles; 10 N load on latch bolt.

L = 100,000 test cycles; 25 N load on latch bolt.

M = 200,000 test cycles; 25 N load on latch bolt.

R = 100,000 test cycles; 50 N load on latch bolt.

S = 200,000 test cycles; 50 N load on latch bolt.

W = 100,000 test cycles; 120 N load on latch bolt.

X = 200,000 test cycles; 120 N load on latch bolt.

Digit 3: Door mass and closing force

1 = up to 100kg door mass; 50 N maximum closing force.

2 = up to 200kg door mass; 50 N maximum closing force.

3 = above 200kg door mass or specified by the manufacturer; 50 N maximum closing force.

4 = up to 100kg door mass; 25 N maximum closing force.

5 = up to 200kg door mass; 25 N maximum closing force.

6 = above 200kg door mass or specified by the manufacturer; 25 N maximum closing force.

7 = up to 100kg door mass; 15 N maximum closing force.

8 = up to 200kg door mass; 15 N maximum closing force.

 $9 = above\ 200kg\ door\ mass\ or\ specified\ by\ the\ manufacturer;\ 15\ N\ maximum\ closing\ force.$

Digit 4: Suitability for use on fire/smoke doors

0 = not approved for use on fire/smoke resisting door assemblies.

1 = suitable for use on fire/smoke resisting assemblies, subject to satisfactory assessment of the contribution of the lock or latch to the fire resistance of specified fire/smoke resisting door assemblies.

Digit 5: Safety

Only 1 grade of safety is identified.

0 =no safety requirement.

Digit 6: Corrosion resistance and temperature

0 = no defined corrosion resistance, no temperature requirement.

A = low corrosion resistance, no temperature requirement.

B = moderate corrosion resistance, no temperature requirement.

C = high corrosion resistance, no temperature requirement.

D = very high corrosion resistance, no temperature requirement.

E = moderate corrosion resistance, temperature requirement from

-20°C to +18°C.

F = high corrosion resistance, temperature requirement from -20°C

G = very high corrosion resistance, temperature requirement from -20°C to $+18^{\circ}\text{C}$.

Digit 7: Security and drill resistance

1 = minimum security and no drill resistance.

2 = low security and no drill resistance.

3 = medium security and no drill resistance.

4 = high security and no drill resistance.

5 = high security with drill resistance.

6 = very high security and no drill resistance.

7 = very high security with drill resistance.

Digit 8: Field of door application

15 grades of door application are identified and summarised in the table below:

Grade	Type	Application 1	Application 2	Application 3
Α	Mortice	Unrestricted application		
В	Mortice	Hinged door		
C	Mortice	Sliding door		
D	Rim	Unrestricted application		
E	Rim	Hinged door		
F	Rim	Sliding door		
G	Bored lock	Unrestricted application		
Н	Mortice	Hinged door	Supported	
J	Rim	Hinged door	Inwards	
K	Mortice	Hinged door		Locked from inside
L	Mortice	Sliding door		Locked from inside
M	Rim	Hinged door		Locked from inside
N	Rim	Sliding door		Locked from inside
Р	Mortice	Hinged door	Supported	Locked from inside
R	Rim	Hinged door	Inwards	Locked from inside









Technical Details

BS EN 12209: 2003 Mechanically operated locks, latches and locking plates.

Digit 9: Type of key operation and locking

0 = not applicable.

A = cylinder lock or latch, manually locking.

B = cylinder lock or latch, automatically locking.

C = cylinder lock or latch, manually locking with intermediate locking.

D = lever lock or latch, manually locking.

E = lever lock or latch, automatically locking.

F = lever lock or latch, manually locking with intermediate locking.

G = lock or latch without key operation, manually locking.

H = lock without key operation, automatically locking.

Digit 10: Type of spindle operation

0 = lock or latch without follower.

1 = lock or latch for knob or sprung lever handle operation.

2 = lock or latch for unsprung lever handle operation.

3 = lock or latch for heavy duty unsprung lever handle operation.

4 = lock or latch for heavy duty unsprung lever handle operation specified by the manufacturer.

Digit 11: Key identification requirement

0 = no requirements.

A = minimum three detaining elements.

B = minimum five detaining elements.

C = minimum five detaining elements, extended number of differs.

D = minimum six detaining elements.

E = minimum six detaining elements, extended number of effective differs.

F = minimum seven detaining elements.

G = minimum seven detaining elements extended number of effective differs.

H = minimum eight detaining elements, extended number of effective differs.

Example:

2 H 5 1 0 E 5 A F 2 C

The above code signifies a mechanically operated lock and locking plate for use in an application where people have an incentive to exercise care, able to withstand a durability of 200,000 cycles with a 10 N load on the latch bolt, on a door with a mass of up to 200kg and a maximum closing force of 25N, suitable for use on a fire/smoke resisting door assembly, no safety requirement, moderate corrosion resistance in temperatures ranging from -20°C to +18°C, with high security and drill resistance for any use in any mortice application, with a manual locking lever lock or latch unsprung lever handle operation, a minimum of five deadlocking elements and an extended number of effective differs.

Marking:

The standard requires the following additional information to accompany the CE Marking required for locks and latches intended for use on fire resisting doors and smoke control doors.

- a) The identification number of the notified certification body.
- b) The name or identifying mark of the manufacturer.
- c) The registered address of the manufacturer.
- d) The last two digits of the year in which the marking was applied.
- e) The number of the EC certificate of conformity, reference to EN 12209:2003.
- f) The classification code of the product.









Euro Locks



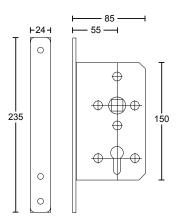
European lock case range produced to DIN standards and dimensions, offering reliable heavy duty locks in standard applications.

All 55mm backset only.

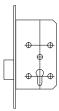
Single throw deadbolt locks are suitable for use with unsprung lever handles.

Investment casting of the followers and guided deadbolt mechanism make this a severe duty range.

Available radius and square.

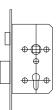


Deadlock



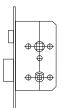
IL001

Sashlock



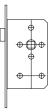
IL002

Bathroom Lock



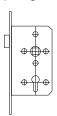
IL003

Latch



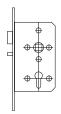
IL004

Escape Nightlatch



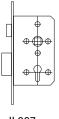
IL005

Anti-thrust Escape Nightlatch



IL006

Anti-panic Sashlock



IL007



S t andards



Reb ate Sets

12mm and 25mm rebate sets are available.

Ø

Finishes

Satin stainless steel Polished brass (A)

BS EN 12209 Certifire Approved Produced to DIN Standards and dimensions









Versatile Locks

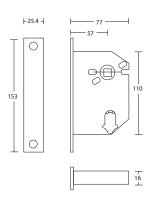


A comprehensive series of locks giving standard and special applications.

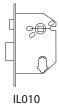
Heavy duty high security locking options.

The same case accepts British oval and European profile cylinders. Available with square or radius forend.

All locks come with boxed keeps.



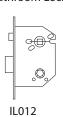
Sashlock



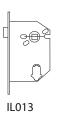
Deadlock



Bathroom Lock



Latch



Deadbolt 30 x 11mm 20 mm throw

Latchbolt 11.5mm throw

HEAVY DUTY AUTO DEADLOCKING

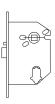
Nightlatch Snib Holdback



Nightlatch No Holdback

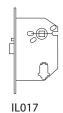


Escape Nightlatch No Holdback



IL016

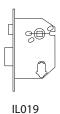
Escape Nightlatch Snib Holdback



Escape nightlatch non deadlocking version IL018

HEAVY DUTY HIGH SECURITY SPECIAL APPLICATION LO

Escape Sashlock



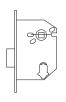
Internal –

lift lever to lock depress lever to withdraw latch and deadbolt simultaneously

External –

lever operates latch bolt only, cylinder operates deadbolt

Escape Deadlock



IL020

Internal – lift lever to lock depress lever to unlock

External – cylinder operates deadbolt

Both locks must use single cylinders only







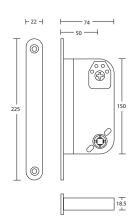


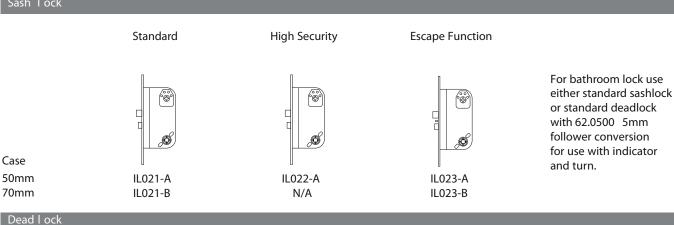
Modular Lockcases



This severe duty range of locks offer a vast array of interchangeable applications. Using a symmetrical modular system gives the ability to change the function of the door easily. Compatible with Scandinavian oval cylinders only. The cylinder follower is above the handle line. Supplied with radius forends, ideal for factory prepared doors. Lockcases have a substantial 21mm throw deadbolt and 14mm projecting latchbolt. Uses unsprung lever handles only.

For BS EN179 escape functions, refer to Escape Hardware brochure.





Dead I ock				
	Standard	High Security	Sliding Door (hookbolt)	
Case				
50mm 70mm	IL024-A IL024-B	IL025-A IL025-B	IL026-A N/A	

Nightlatch (Auto-Dead Locking)

Nigiti at Cii	(Auto-Deau Tocking)			
	With Snib Holdback	With Faceplate Key Holdback	No Holdback	Non Auto- Deadlocking
Case				
50mm 70mm	IL027-A IL027-B	IL028-A IL028-B	IL029-A IL029-B	IL030-A IL030-B







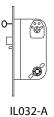


Modular Lockcases

Escape Nightlatch – Auto Deadlocking



50mm 70mm IL031-B **Heavy Sprung** Faceplate Key Holdback



IL032-B

N/A IL032-B

Heavy Sprung

No Hold Open

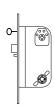
Non Deadlocking

Light Sprung No Hold Open



IL033-A IL033-B

Light Sprung Faceplate Key Holdback



IL034-A IL034-B

Double Latch Lock (Auto-Deadlocking)

With Snib Holdback

IL036-A

IL037-B





IL037-A IL037-B

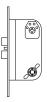
No Holdback



IL038-A IL038-B

Escape Function

Latch



IL039-A IL039-B





IL040-A IL040-B



Finishes

SCP – Satin chrome plated PB - Polished brass plated

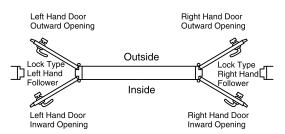
50 mm

70 mm

PCP - Polished chrome plated



Handing Details





Standards

BS EN 12209



REB ATE SETS

13mm, 19mm and 25mm rebate sets are available.







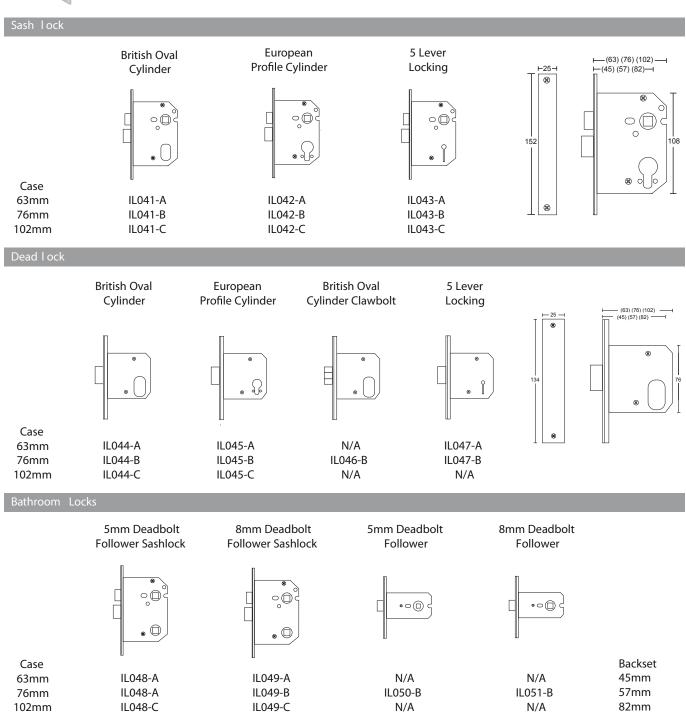


British Locks



A traditional range of locks to typical British dimensions, giving standard locking functions applicable to most common uses. Available pierced to take British Oval and Euro cylinders or 5 lever, where applicable. Light sprung (LS) or heavy sprung (HS) dependent on furniture selected. Brass latch and deadbolt with hardened steel rollers.

Detailed here are just a few functions. There are many special applications and non-standard locking solutions. Please contact Lloyd Worrall for further information.





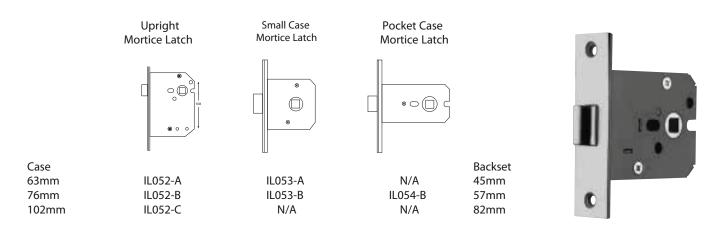




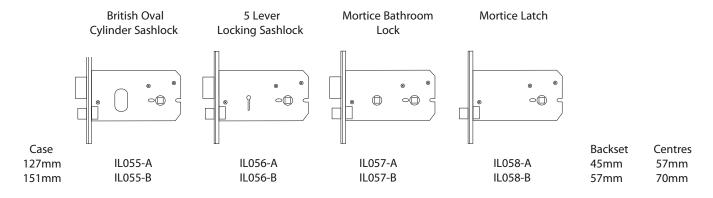


British Locks

Lat ch



Horizon tal



Indicator bolts

Suitable for 13mm and 20mm board. Concealed bolt through fixings. Satin stainless steel. Keep sold separately.





Reb ate Sets

13mm, 19mm and 25mm rebate sets are available.



OPTIONS

5 lever locks available master keyed or keyed alike.



Finishes

Satin stainless steel, brass, bronze metal, antique, polished chrome.









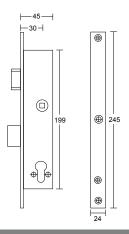
Narrow Style Locks



A narrow style range of locks for the fabrication market.

Covering all the popular functions this is an ideal accompaniment to the other ranges.

Standard stock backset of 30mm.



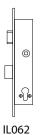
Sashlock



Rollerbolt Sashlock



Anti-panic Lock





Sliding Door Lock

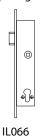




Small Case Deadlock

IL065

Escape Nightlatch



Latch



IL067



Finishes



Options



Standards

SSS – Satin stainless steel.

Also available in 25mm, 35mm, 40mm and 45mm backset.



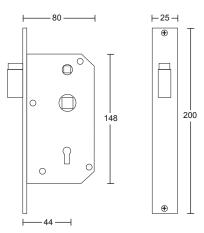








Detainer Locks



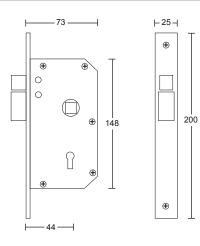
Internal handle, external key, with snib holdback facility.

IL070-LH Lockable Internal Handle LH IL070-RH Lockable Internal Handle RH

IL071-LH Non-lockable Internal Handle LH IL071-RH Non-lockable Internal Handle RH

13mm, 19mm and 25mm rebate sets are available.

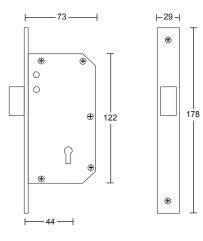
Most door furniture can be used with this lock with minor adjustment. Please indicate which door furniture is to be used with these locks.



IL072 Standard Sashlock Function

13mm, 19mm and 25mm rebate sets are available.

Most door furniture can be used with this lock with minor adjustment. Please indicate which door furniture is to be used with these locks.



IL073 Standard Deadlock Function

13mm, 19mm and 25mm rebate sets are available.



BRS - Brass.

Finishes



Standards



Options

SSS - Satin stainless steel. CE Marked. BS3621-1997 (IL073)



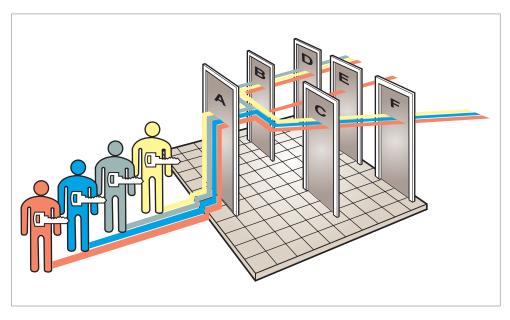








Cylinders















Technical Details

BS EN 1303: 2005 Revision 1 Cylinders for Locks Requirements and Test Methods

Products tested to British and European standards provide greater durability, longer warranty periods, peace of mind and evidence of professional specification.

Under the standard each product is tested and classified accordingly to show its compliance. The identification of an 8-digit code is visible on the individual product. Each digit represents a category and how it measured against the standard to which it was tested.

Digit 1: Category of use

Only one category is identified.

1 = keys shall resist a torque of 2.5Nm and still be usable.

Digit 2: Durability

Three grade of durability will classify cylinders as either grade 4,5 or 6 based on the number of test cycles achieved.

4 = 25,000 cycles.

5 = 50,000 cycles.

6 = 100,000 cycles.

Key strength is also tested to ensure there is no failure of the key within the durability test.

Digit 3: Door mass

No requirement.

Digit 4: Fire resistance

0 = no requirement.

1 = cylinders shall be fire tested in accordance with current fire test requirements or BS EN 1634-1.

Digit 5: Safety

No requirement.

Digit 6: Corrosion resistance

0 = no requirement.

A = conforms to grade 3 of BS EN 1670 as a minimum.

B = will resist temperature extremes of -20/+80°C

C = conforms to grade 3 of BS EN 1670 as a minimum and will resist temperature extremes of $-20/+80^{\circ}$ C.

Digit 7: Key security

Cylinders are classified in grades 1 to 6, where 6 is the highest. The grade can differ from one side of a double cylinder to the other. The table below provides a summary of the main security criteria:

Requirement	Unit			G	rades		
Requirement	Offic	1	2	3	4	5	6
Min number of effective differs	Number	100	300	15,000	30,000	30,000	100,000
Min number of movable detainers	Number	3	3	5	5	6	6
Max number of steps	-	100	70	60	60	60	50
Direct coding on key	%	Yes	Yes	No	No	No	No
Torque resistance of plug/cylinder	Nm	2.5	5	15	15	15	15

Digit 8: Attack resistance

Cylinders are classified in grades 0, 1 and 2, where 2 is the highest. The table below provides a summary of the main requirements:

		Grade	
	0	1	2
Resistance to drilling (nett drilling time)	-	3 mins	5 mins
Resistance to chisel attack (number of defined blows)	-	30	40
Resistance to twisting attack (number of defined twists)	-	20	30
Resistance to plug/cylinder extraction (pull load)	-	15 kN	15 kN

Example:

1 6 - 0 - B 3 1

The above code signifies a cylinder meeting the required category of use, durability grade 6 with no fire resistant requirement, will resist temperature extremes of -20/+80 °C, has a grade 3 key security and grade 1 attack resistance.

Marking:

This standard requires that the classification relevant to the cylinder shall be quoted in the accompanying documentation, on its labelling or packing and/ or by marking the product itself or by more than one of these methods.

The marking/labelling shall include the following:

a: manufacturer's name or trademark, or other means of identification,

b: product model identification,

c: the 8 digit classification listed above,

d: number of this European standard.









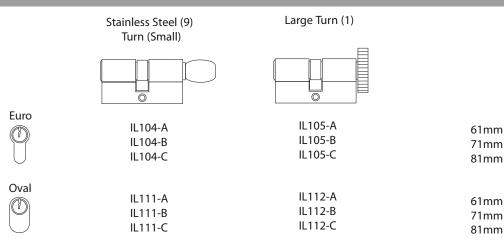
LOCKCHART	System no.	2000 2000 5000	9000 5000 7000	8000 2000	0010 0013	9100 5100 †100	000 8100 8100	0023 1200	9700 \$700 \$700	6Z00 8Z00 ZZ00	0800 0032	0033 0033	8£00 2£00 9£00	0040	0043	5+00 5+00 8+00	0500 6 0 00	\$00 \$00 \$00	2500 9500 5500	0900 6500 8500
>	OFFCOIL Architectural from mongeny Access Control Door Automation	Cylinder name																		
Project:		Cylinder Marking																		
Client:	- H O O O O O O O O O O O O O O O O O O	Total Cyl Key																		
Brand:		ylinder Type																		
Notes:		Des																		
Date: Signature:	ture:	Length Int. Ext								-										
Pos Key name Marking	Alt. Mark Total																			
0001			+	+																
0003																				
0004				+		+				1		+								
9000			H						H											
0008			+						+			+								+
0000																				
0011																				
0012										1										
0013																				
0015			H	H		H				Ħ										
0016																				\exists
0017			+	+	-	+	+		+	+					+			+		
0019																				
00020			+	+			\downarrow			7	-	1	1					1	1	1
0021										-										
0023			+	+		+	+			F		F		+	+			+		
0024																				
0025			\exists				\exists			7			\exists					7	\exists	\exists

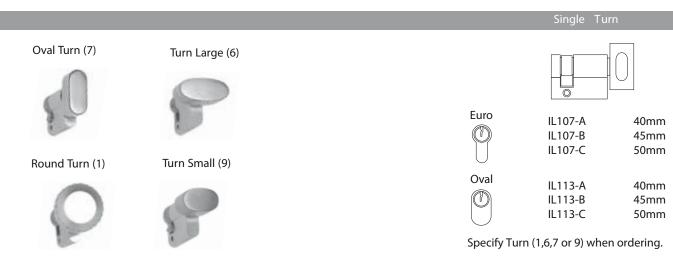


Six pin tumblers plus sidebar mechanism with five sidepins. Mechanism and keyblanks are protected by worldwide patents. Incorporates anti-drill and anti-pick protection. 1.9 billion usable combinations. Dual security levels may be combined with lower cost medium security cylinders in the same system. Designed for large or complex master key systems. Assembled in our workshop facility.

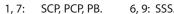
There is a strict registration procedure and all keys are uniquely marked for greater key control.

Stainless Steel (6) Oval Turn (7) Turn (Large) Furo IL102-A 61mm IL103-A 71mm IL102-B IL103-B IL102-C 81mm IL103-C IL109-A 61mm IL110-A IL109-B IL110-B 71mm IL109-C 81mm IL110-C







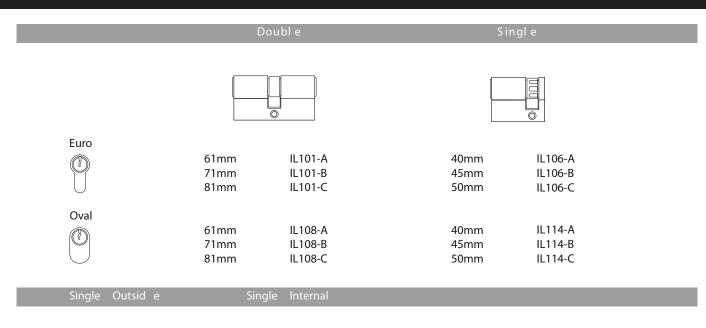




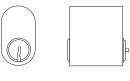








Scandinavian Oval



IL115







IL117

Scandinavian double cylinder consists of 1 each of IL115 and IL116.

IL116

Round



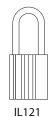


IL118

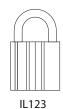


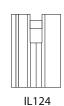
IL119

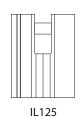












Finishes

Satin chrome plated, polished chrome plated, polished brass, black chrome (padlocks).



Standards

International Patent protected. BS EN 1303 grade 5 cylinder. BS EN 12320 grade 3 to 6 padlocks.











A medium security five pin tumbler with longitudinal pin. Mechanism and key blanks are protected by international patents.

29,000 - usable differs for small to medium size master key systems.

Assembled in our own workshops.

Stainless Steel (6) Oval Turn (7) Turn (Large) Euro IL130-A 61mm IL131-A IL131-B 71mm IL130-B IL130-C 81mm IL131-C 61mm IL134-A IL135-A IL134-B 71mm IL135-B IL134-C 81mm IL135-C Large Turn (1) Stainless Steel (9) Turn (Small) Euro IL133-A IL132-A 61mm IL133-B IL132-B 71mm IL133-C IL132-C 81mm IL137-A IL136-A 61mm IL137-B IL136-B 71mm IL137-C IL136-C 81mm Oval Turn (7) Turn Large (6) Euro IL138-A 40mm IL138-B 45mm IL138-C 50mm Round Turn (1) Turn Small (9)











Oval

IL139-A

IL139-B

IL139-C

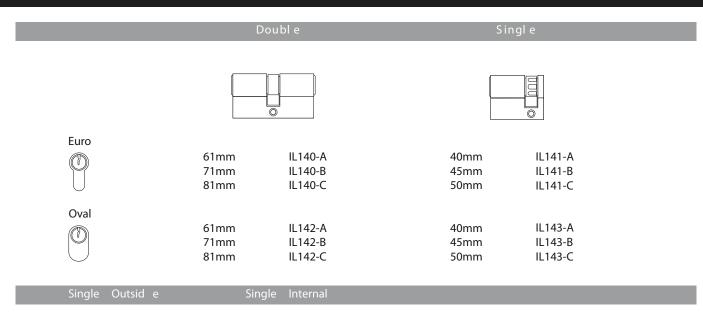
Specify Turn (1,6,7 or 9) when ordering.



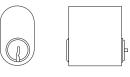
40mm

45mm

50mm



Scandinavian Oval



IL144







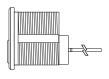
IL117

Scandinavian double cylinder consists of 1 each of IL144 and IL145.

IL145

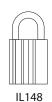
Round

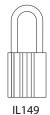






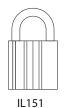
IL147





IL146







Finishes

Satin chrome plated, polished chrome plated, polished brass, black chrome (padlocks).



Standards

International Patent protected. BS EN 1303 grade 4. BS EN 12320 grade 3.











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