Cylinders and Key Systems
Key management systems

- Master key systems designed to order.
- ASSA Keybank software makes system administration simple.
- ASSA key cabinets employ sophisticated technology to preserve the security of your keys.

Electromechanical cylinders

- The ASSA CLIQ system combines the best of electronics and mechanical technology in a single cost-effective package.
- Intelligent key systems provide maximum security, with instant cancellation of lost or stolen keys and full audit trails available.
- All standard cylinder shapes are available and the system may be re-programmed at any time, allowing maximum flexibility and maintaining the level of security over the life of the system.

Cylinders

- Available at six different levels of security.
- Cylinders in the range have been tested and approved for use on the most security-conscious applications in the UK.
- A full range of shapes is available, allowing the cylinders to be used with all common makes of lockcase.

Padlocks

- Tested to the highest levels of BS EN 12320.
- May be master keyed in the same system as ASSA cylinders.
- Available in a range of sizes and shackle types to suit different applications.
A simplified example of a typical ASSA Master Key System. Each person is issued with their own unique key which only opens doors appropriate to their job function. For example, all open door A, but only the Senior Manager can open Door E. ASSA Master Key Systems designed in this way can be extended to satisfy the requirements of large and complex installations without compromising their integrity.

Security and convenience of movement are inevitably in conflict with each other. A master key system is, by its very nature, a compromise between total security and totally free movement which would entail no security. With a little thought and planning a system can be designed to suit the client’s precise operational requirements within each building.

All ASSA locks can be incorporated in a master key system. These are in turn designed around the people who will use them. This has led to systems being designed in a way that is unique to ASSA ABLOY Door Solutions. The number of locks in a building is first established, followed by the people who will use them and the areas they need to enter. Only then are the customer’s particular requirements detailed on a special chart, enabling the system to be made up to suit the specific security requirements of the customer. Users can then be issued with their own unique key which allows them to move freely - but only through areas they need to enter.

ASSA supply special forms for use in recording detailed master key information in an easily intelligible manner.

Key management software

Keybank for Windows™ has been designed to make the process of key management a simple one. It maintains a full record of the master key system, including a graphical door plan, lock chart, and lists of doors, keys and users. All are fully cross-referenced and automatically updated.

The features Keybank offers include:

- Detailed procedures for recording when keys are issued.
- Receipts and reminder notices.
- Key/User access reports.

The system will run on any standard Windows™ PC.
Key cabinets

Application
For use as part of a high security key management system, where keys that are not currently in use must be kept secure. Uses proximity RFID tokens or PINs to identify authorised users.

Made from heavy duty 3mm steel, with steel door.
Require 4 x 1.5 V AA-LR6 battery power supply.
Supplied with built-in RFID proximity reader and keypad, and cylinder key override.

New Proxy Code (NPC)

Key Cabinet
Available in three sizes:
NPC Small: 14 keys
NPC Medium: 58 keys (expandable to 116)
NPC Large: 284 keys (expandable to 852)

May be expanded to the maximum capacity by adding Extension Sheets.
Individual users are given a unique token and PIN to open the cabinet.
Maximum 50 users per cabinet.
Mass of NPC Small is 7kg, Medium is 15kg and Large is 33kg.
High security key cabinets

Application
For use as part of a high security key management system, where keys that are not currently in use must be kept secure. Uses access control tokens or PINs to identify authorised users. KEYsafe Nova is recommended for applications where close monitoring of keys is essential.

KEYsafe Nova 1
Key Cabinet
Capacity 24-48 keys. May be expanded to the maximum capacity by adding 24-key Keystrip Modules.

Individual users are given a unique token and PIN to open the cabinet, and the software then determines which key(s) they are authorised to take out. LEDs above each key hook provide a visual indication of this.

Keys are fitted with keyrings containing an identification chip. Sensors in the key cabinet monitor which keys are removed, and can sound an alarm if a user takes the wrong key.

Five inbuilt alarms and option of linking to external alarm system.

Maximum 1,024 users. 16,000 event audit trail. Mass 29kg.

KEYsafe Nova 2
Key Cabinet
Capacity 24-96 keys. May be expanded to the maximum capacity by adding 24-key Keystrip Modules.

Individual users are given a unique token and PIN to open the cabinet, and the software then determines which key(s) they are authorised to take out. LEDs above each key hook provide a visual indication of this.

Keys are fitted with keyrings containing an identification chip. Sensors in the key cabinet monitor which keys are removed, and can sound an alarm if a user takes the wrong key.

Five inbuilt alarms and option of linking to external alarm system.

Maximum 1,024 users. 16,000 event audit trail. Mass 45kg.
Cylinders & Key Systems

The ASSA CLIQ system

The new CLIQ technology from ASSA combines the best of design and electronics in the smartest possible manner. This intelligent lock system is built into the new generation of ASSA 4400 and 2400 lock cylinders.

CLIQ makes intelligent, flexible and high security lock systems possible. The system’s mechanical design creates the basic foundation, which is made up of different security zones or levels. The electronic programming of the keys gives authorisation to individuals or to groups of individuals, allowing you to manage and control your security electronically.

The key features of CLIQ include the following:

- Off-line system.
- Instant cancellation of lost or stolen keys.
- Full audit trail of all events.
- No wiring: the system is battery-operated.
- Time schedules and restrictions may be created.
- All standard cylinder shapes and padlocks are available.
- Impossible to manipulate the system or copy keys.
- Absolute key control.
- The level of security is maintained over the life of the system.
- Cost efficient.

Both CLIQ and mechanical cylinders and keys may be incorporated in the same system. CLIQ cylinders may be used on perimeter and high security doors – and CLIQ padlocks can be used to secure outbuildings and gates. Mechanical cylinders can be incorporated into the master key suite for those doors not requiring either very high security, timed access or audit trail functions.

ASSA Performer software

ASSA Performer key management software provides a user-friendly yet powerful means to commission, program and administer your system. The software package incorporates the complete system lockchart, including all mechanical and CLIQ cylinders and keys. The software can incorporate an unlimited number of master key systems, and can operate stand-alone or networked.

- Full programming of keys and cylinders.
- Facility to allow or remove accesses for user keys.
- Updating the status of lost or stolen keys.
- Setting time restrictions and schedules for keys.
- Full audit trail for both cylinders and keys.
- Full information on which user has access to which key, in which doors and where these are located.
- May be connected to the address book, email and calendar facilities of Microsoft Outlook® to keep track of users and issue reminders.
- Full reporting and search functions.
- Functions for handing out and returning keys.
- Ordering additional keys from suppliers.
How to specify ASSA CLIQ

A complete specification for a CLIQ system should include the following elements.

Note that CLIQ electronic cylinders may be included into a master key system with mechanical dp4400 and dp2400 cylinders.

<table>
<thead>
<tr>
<th>Per Door</th>
<th>Per system</th>
</tr>
</thead>
<tbody>
<tr>
<td>dp4400 or dp2400 series cylinder (Mechanical function)</td>
<td>ASSA Performer software (Requires PC) May operate stand-alone or networked.</td>
</tr>
<tr>
<td>See pages 2:8-11.</td>
<td></td>
</tr>
</tbody>
</table>

**CLIQ electromechanical element** (Specified as add-on to each cylinder.)

Two elements required on double cylinders if the CLIQ function is required both externally and internally.

**CLIQ user keys** (As required)

These operate both mechanical 4400 and CLIQ electromechanical cylinders. Battery powered (2 year/20,000 operations).

**Mechanical user keys** (If required)

These operate mechanical 4400 and 2400 cylinders but not CLIQ electromechanical cylinders.

**Other door hardware** (As required)

Lockcase, accessories, lever handles, door closers, hinges, etc.

**Programming device** (Linked to PC)

Used to program individual keys and download audit trails.

**Master control key** (One per system)

Responsible for master administration and programming of the system.

**Control keys** (As required)

Allow additional administrators to control sections of the system and facilitate bulk programming.

**Contact key** (One per system)

Allows bulk programming and auditing of the system.

---

**CLIQ Keys**

CLIQ User keys have a unique ID and are impossible to copy for technical reasons. They incorporate an internal quartz clock and record an audit trail of the last 100 accesses, plus the last 10 foreign (non-system) key entries.

Power is supplied by an easily replaced battery within the key, reducing installation and maintenance costs. The battery supplies power for two years or 20,000 operations.

The key is water resistant and rated to IP55.

An LED on the key flashes green or red to show if access is allowed or denied. Audio feedback is also given: the key beeps once to show access is allowed or three times to show access is denied.

Note that User keys may be supplied as differ keys or master keys within a master key system.

Mechanical keys operate mechanical 4400 cylinders in the same master key system.

The MC (Master Control) key is used for central control, programming and administration of the system. A unique password is required for its use. One is supplied per system.

C (Control) keys allow multiple administrators to take responsibility for certain sections of the system. A Contact key may be linked by cable to the programming device to allow bulk commissioning of large quantities of cylinders.
An ASSA CLIQ cylinder combines a CLIQ electromechanical element with an ASSA dp4400 (or dp2400) cylinder mechanism. Any of the cylinder shapes on the following pages may be fitted with the CLIQ function; please see the next section (pages 2.14-19) for compatible dp4400 and dp2400 mechanical cylinders that may also be incorporated into a master key system with CLIQ.

The ASSA dp4400 cylinder offers extremely high security and full resistance to any currently known method of picking.

The dp2400 range offers a lower-cost option within an overall 4400 master key system on doors where higher security is not required.

All shapes of ASSA CLIQ cylinders and padlocks can be put in the same master key system. CLIQ keys can operate both electromechanical and mechanical cylinders in the same system, but mechanical keys will only operate the mechanical cylinders.

Dual security levels: may be combined with dp2400 cylinders in the same master key system.

Protected by worldwide patents.

Eligible for inclusion in an Option 10 Complete Package Guarantee.

BS EN 1303 : 2005
SG 6

Finishes

In the increasingly polluted atmosphere in which we live, the demands on products to resist corrosion are particularly high. ASSA products have the benefit of the latest automatic plating equipment, which incorporates the best of modern plating processes.

Satın chrome, polished chrome and black chrome give extremely good weather resistance whilst polished brass is offered as a decorative finish.

In addition our products are suitable for replating, on occasions when it is important to match the finish of other ironmongery on a project.
Scandinavian oval

For use with ASSA Modular, Connect and Narrow Profile lockcases. The cylinder is fixed to the lockcase with two hardened steel screws, supplied with the accessory set.

ASSA accessories must be used; see page 2:38.

Scandinavian round

For use with ASSA Modular and Connect lockcases. The cylinder is fixed with four high security hardened steel screws, supplied with the accessory set.

ASSA accessories must be used; see page 2:38.

Round threaded

For use with locking devices accepting screw-in cylinders.

State lock type when ordering to ensure that correct cam is supplied.

4451 Round Threaded cylinders are also available with microswitch for use as a momentary action keyswitch. See Electric Locking section for further information.

For use with rim locks and other locking devices accepting rim cylinders. Supplied with 5mm Spacer Ring and fixing screws.

4451* Single mortice cylinder

4457* Rim cylinder

* With CLIQ function
**Euro profile - M20 high security**

For use with locks accepting Euro profile cylinders. Cylinders are supplied with fixing screw.

* Standard lengths are:
  - Single 40mm and 45mm
  - Double 61mm and 71mm

W/Turn 61mm and 71mm

Extended length cylinders are also available: see page 2:38.

Decorative and security accessories are available: see Door Furniture section.

The M20 high security Euro cylinder range offers high resistance to snapping.

| 44M22* | Double cylinder |
| 44M23* | Single cylinder |
| 44M27* | Single cylinder with Distinction oval turn |
| 44M24* | Single cylinder with small round turn |

**Oval profile**

For use with locks accepting Oval profile cylinders. Cylinders are supplied with fixing screw.

CLIQ function is not available on extended cylinders (+5mm/+5+5mm).

Decorative and security accessories are available: see Door Furniture section.

| 4432* | Double cylinder |
| 4433* | Single cylinder |
| 4437* | Single cylinder with Distinction oval turn |
| 4434* | Single cylinder with small round turn |

**Master keyed cam lock**

For use on cabinet doors and similar applications. Can easily be adjusted for door thicknesses up to 23mm.

Catches should be specified separately. Standard catch reference 05 is shown; please contact us for details of other options.

| 2471* | Cam lock |

* With CLIQ function
Padlocks

Class 2
Padlock body of extruded brass, black chrome plated.
Shackle of rustproofed hardened steel, 8mm or 10mm diameter.
Drainage holes in the padlock body prevent freezing. No external screws or rivets.
Tensile strength over 1½ tons.
Green stripes indicate Security Grade 3 to BS EN 12320.

Class 3
Padlock body of hardened steel, black chrome plated.
Shackle of rustproofed hardened steel, 10mm diameter.
Drainage holes in the padlock body prevent freezing. No external screws or rivets.
Tensile strength: over 4½ tons.
Blue stripes indicate Security Grade 4 to BS EN 12320.

Class 4 / Class 5
Padlock body of hardened steel, black chrome plated.
Shackle of rustproofed hardened steel, 13mm diameter.
Drainage holes in the padlock body prevent freezing. No external screws or rivets.
Tensile strength: over 10 tons.
Red stripes indicate Security Grade 5 (open shackle) or Grade 6 (close shackle) to BS EN 12320.
ASSA mechanical cylinder series

ASSA mechanical cylinders and padlocks are available in five series, allowing the level of security to be customised for each application.

ASSA dp4400
- Patented keys and mechanism for maximum protection against unauthorised duplication.
- Six pin tumblers plus force-controlled sidebar with false gate positions giving full resistance against all known methods of picking.
- High physical security: hardened steel inserts for drill resistance.
- Heavy duty 2.8mm thick keys made from hard-wearing nickel silver.
- Dual security level option using lower-cost dp2400 cylinders.

ASSA Twin Combi 5800
- Patented keys and mechanism with Code Level 7 function giving maximum protection against unauthorised duplication.
- Six pin tumblers plus sidebar mechanism giving full resistance against all known methods of picking.
- High physical security: hardened steel inserts for drill resistance.
- Heavy duty 2.8mm thick keys made from hard-wearing nickel silver.
- Worldwide exclusive sidecodes available for end users.

ASSA 4800
- Patented keys and mechanism for maximum protection against unauthorised duplication.
- Six pin tumblers incorporating anti-picking features.
- High physical security: hardened steel inserts for drill resistance.
- Heavy duty 2.8mm thick keys made from hard-wearing nickel silver.

ASSA Flexcore Plus
- Patented keys and mechanism for maximum protection against unauthorised duplication.
- Five pin tumblers incorporating anti-picking features.
- Medium physical security.
- Heavy duty keys made from hard-wearing nickel silver.

ASSA 5-Pin
- Five pin tumblers incorporating anti-picking features.
- Medium physical security.
- Heavy duty keys made from hard-wearing nickel silver.
## Cylinders & Key Systems

### Table of references

<table>
<thead>
<tr>
<th>Cylinders &amp; padlocks</th>
<th>ASSA dp4400</th>
<th>ASSA dp2400</th>
<th>ASSA Twin Combi 5800</th>
<th>ASSA 4800</th>
<th>ASSA Flexcore Plus</th>
<th>ASSA S-pin</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scandinavian oval cylinders</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single cylinder (outside)</td>
<td>4401</td>
<td>2401</td>
<td>CS801</td>
<td>4801</td>
<td>FP501</td>
<td>R501</td>
</tr>
<tr>
<td>Single cylinder (inside)</td>
<td>4403</td>
<td>2403</td>
<td>CS803</td>
<td>4803</td>
<td>FP503</td>
<td>R503</td>
</tr>
<tr>
<td>Double cylinder</td>
<td>4402</td>
<td>2402</td>
<td>CS802</td>
<td>4802</td>
<td>FP502</td>
<td>R502</td>
</tr>
<tr>
<td>Rim single cylinder (outside)</td>
<td>4407</td>
<td>2407</td>
<td>CS807</td>
<td>4807</td>
<td>FP507</td>
<td>R507</td>
</tr>
<tr>
<td>Rim single cylinder (inside)</td>
<td>4409</td>
<td>2409</td>
<td>CS807</td>
<td>34807</td>
<td>FP3507</td>
<td>R3507</td>
</tr>
<tr>
<td>Rim double cylinder</td>
<td>4408</td>
<td>2408</td>
<td>C135807</td>
<td>134807</td>
<td>FP13507</td>
<td>R13507</td>
</tr>
<tr>
<td><strong>Scandinavian round cylinders</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single cylinder (outside)</td>
<td>4411</td>
<td>n/a</td>
<td>CS811</td>
<td>4811</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Single cylinder (inside)</td>
<td>4413</td>
<td>n/a</td>
<td>CS813</td>
<td>4813</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Double cylinder</td>
<td>4412</td>
<td>n/a</td>
<td>CS812</td>
<td>4812</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Round threaded cylinders</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mortice single cylinder</td>
<td>4451</td>
<td>2451</td>
<td>CS851</td>
<td>4851</td>
<td>FP551</td>
<td>R551</td>
</tr>
<tr>
<td>Mortice double cylinder</td>
<td>4452</td>
<td>2452</td>
<td>CS852</td>
<td>4852</td>
<td>FP552</td>
<td>R552</td>
</tr>
<tr>
<td>Rim single cylinder</td>
<td>4457</td>
<td>2457</td>
<td>CS857</td>
<td>4857</td>
<td>FP557</td>
<td>R557</td>
</tr>
<tr>
<td><strong>Euro profile cylinders</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single cylinder</td>
<td>4423</td>
<td>2423</td>
<td>CS823</td>
<td>4823</td>
<td>FP523</td>
<td>R523</td>
</tr>
<tr>
<td>Double cylinder</td>
<td>4422</td>
<td>2422</td>
<td>CS822</td>
<td>4822</td>
<td>FP522</td>
<td>R522</td>
</tr>
<tr>
<td>Single cyl with large round turn</td>
<td>n/a</td>
<td>n/a</td>
<td>CS821</td>
<td>4821</td>
<td>FP521</td>
<td>R521</td>
</tr>
<tr>
<td>Single cyl with small round turn</td>
<td>4424</td>
<td>2424</td>
<td>CS824</td>
<td>4824</td>
<td>FP524</td>
<td>R524</td>
</tr>
<tr>
<td>Single cylinder with oval turn</td>
<td>4427</td>
<td>2427</td>
<td>CS827</td>
<td>4827</td>
<td>FP527</td>
<td>R527</td>
</tr>
<tr>
<td><strong>UK oval profile cylinders</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single cylinder</td>
<td>4433</td>
<td>2433</td>
<td>CS833</td>
<td>4833</td>
<td>FP533</td>
<td>R533</td>
</tr>
<tr>
<td>Double cylinder</td>
<td>4432</td>
<td>2432</td>
<td>CS832</td>
<td>4832</td>
<td>FP532</td>
<td>R532</td>
</tr>
<tr>
<td>Single cyl with large round turn</td>
<td>n/a</td>
<td>n/a</td>
<td>CS831</td>
<td>4831</td>
<td>FP531</td>
<td>R531</td>
</tr>
<tr>
<td>Single cyl with small round turn</td>
<td>4434</td>
<td>2434</td>
<td>CS834</td>
<td>4834</td>
<td>FP534</td>
<td>R534</td>
</tr>
<tr>
<td>Single cylinder with oval turn</td>
<td>4437</td>
<td>2437</td>
<td>CS837</td>
<td>4837</td>
<td>FP537</td>
<td>R537</td>
</tr>
<tr>
<td><strong>Cam and furniture locks</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cam lock</td>
<td>n/a</td>
<td>2471</td>
<td>CS870</td>
<td>4870</td>
<td>n/a</td>
<td>R5207</td>
</tr>
<tr>
<td>Furniture lock</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>R5208</td>
</tr>
<tr>
<td><strong>Padlocks</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class Two snap locking</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>24840</td>
<td>FP2540</td>
<td>R2540</td>
</tr>
<tr>
<td>Class Two open shackle</td>
<td>44241</td>
<td>24241</td>
<td>C25841</td>
<td>24841</td>
<td>FP2541</td>
<td>R2541</td>
</tr>
<tr>
<td>Class Two extended shackle</td>
<td>44243</td>
<td>24243</td>
<td>C25843</td>
<td>24843</td>
<td>FP2543</td>
<td>R2543</td>
</tr>
<tr>
<td>Class Two 10mm shackle</td>
<td>44246</td>
<td>24246</td>
<td>C25846</td>
<td>24846</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Class Two close shackle</td>
<td>44249</td>
<td>24249</td>
<td>C25849</td>
<td>24849</td>
<td>FP2549</td>
<td>R2549</td>
</tr>
<tr>
<td>Class Three open shackle</td>
<td>44341</td>
<td>n/a</td>
<td>C35841</td>
<td>34841</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Class Three close shackle</td>
<td>44349</td>
<td>n/a</td>
<td>C35849</td>
<td>34849</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Class FPour open shackle</td>
<td>44441</td>
<td>n/a</td>
<td>C45841</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Class FPour close shackle</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>54849</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Class FPive close shackle</td>
<td>44549</td>
<td>n/a</td>
<td>C55849</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

The ASSA dp4400 cylinder offers extremely high security and full resistance to any currently known method of picking. It includes case-hardened drill-resistant inserts, false gate positions for increased anti-picking protection, a unique patented sidebar mechanism with force-controlled sidecode function, and patented keys. Billions of usable differs are available worldwide. ASSA dp4400 keys are fully protected by new international patents against unauthorised duplication. Every key combination is unique; we undertake not to repeat one anywhere in the world.

See page 2:6 for details of ASSA Performer key management software.

All shapes of ASSA dp4400 (and dp2400 and ASSA CLIQ) cylinders and padlocks can be put in the same master key system.

Dual security levels: may be combined with ASSA CLIQ electronic cylinders (see page 2:6) or dp2400 cylinders (see page 2:18) in the same master key system.

Protected by worldwide patents.

Eligible for inclusion in an Option 10 Complete Package Guarantee.

In the increasingly polluted atmosphere in which we live, the demands on products to resist corrosion are particularly high. ASSA products have the benefit of the latest automatic plating equipment, which incorporates the best of modern plating processes.

Satin chrome, polished chrome and black chrome give extremely good weather resistance whilst polished brass is offered as a decorative finish.

In addition our products are suitable for replating, on occasions when it is important to match the finish of other ironmongery on a project.

The ASSA dp4400 cylinder offers extremely high security and full resistance to any currently known method of picking. It includes case-hardened drill-resistant inserts, false gate positions for increased anti-picking protection, a unique patented sidebar mechanism with force-controlled sidecode function, and patented keys. Billions of usable differs are available worldwide. ASSA dp4400 keys are fully protected by new international patents against unauthorised duplication. Every key combination is unique; we undertake not to repeat one anywhere in the world.

See page 2:6 for details of ASSA Performer key management software.

All shapes of ASSA dp4400 (and dp2400 and ASSA CLIQ) cylinders and padlocks can be put in the same master key system.

Dual security levels: may be combined with ASSA CLIQ electronic cylinders (see page 2:6) or dp2400 cylinders (see page 2:18) in the same master key system.

Protected by worldwide patents.

Eligible for inclusion in an Option 10 Complete Package Guarantee.

In the increasingly polluted atmosphere in which we live, the demands on products to resist corrosion are particularly high. ASSA products have the benefit of the latest automatic plating equipment, which incorporates the best of modern plating processes.

Satin chrome, polished chrome and black chrome give extremely good weather resistance whilst polished brass is offered as a decorative finish.

In addition our products are suitable for replating, on occasions when it is important to match the finish of other ironmongery on a project.

The ASSA dp4400 cylinder offers extremely high security and full resistance to any currently known method of picking. It includes case-hardened drill-resistant inserts, false gate positions for increased anti-picking protection, a unique patented sidebar mechanism with force-controlled sidecode function, and patented keys. Billions of usable differs are available worldwide. ASSA dp4400 keys are fully protected by new international patents against unauthorised duplication. Every key combination is unique; we undertake not to repeat one anywhere in the world.

See page 2:6 for details of ASSA Performer key management software.

All shapes of ASSA dp4400 (and dp2400 and ASSA CLIQ) cylinders and padlocks can be put in the same master key system.

Dual security levels: may be combined with ASSA CLIQ electronic cylinders (see page 2:6) or dp2400 cylinders (see page 2:18) in the same master key system.

Protected by worldwide patents.

Eligible for inclusion in an Option 10 Complete Package Guarantee.

In the increasingly polluted atmosphere in which we live, the demands on products to resist corrosion are particularly high. ASSA products have the benefit of the latest automatic plating equipment, which incorporates the best of modern plating processes.

Satin chrome, polished chrome and black chrome give extremely good weather resistance whilst polished brass is offered as a decorative finish.

In addition our products are suitable for replating, on occasions when it is important to match the finish of other ironmongery on a project.

The ASSA dp4400 cylinder offers extremely high security and full resistance to any currently known method of picking. It includes case-hardened drill-resistant inserts, false gate positions for increased anti-picking protection, a unique patented sidebar mechanism with force-controlled sidecode function, and patented keys. Billions of usable differs are available worldwide. ASSA dp4400 keys are fully protected by new international patents against unauthorised duplication. Every key combination is unique; we undertake not to repeat one anywhere in the world.

See page 2:6 for details of ASSA Performer key management software.

All shapes of ASSA dp4400 (and dp2400 and ASSA CLIQ) cylinders and padlocks can be put in the same master key system.

Dual security levels: may be combined with ASSA CLIQ electronic cylinders (see page 2:6) or dp2400 cylinders (see page 2:18) in the same master key system.

Protected by worldwide patents.

Eligible for inclusion in an Option 10 Complete Package Guarantee.

In the increasingly polluted atmosphere in which we live, the demands on products to resist corrosion are particularly high. ASSA products have the benefit of the latest automatic plating equipment, which incorporates the best of modern plating processes.

Satin chrome, polished chrome and black chrome give extremely good weather resistance whilst polished brass is offered as a decorative finish.

In addition our products are suitable for replating, on occasions when it is important to match the finish of other ironmongery on a project.
### Scandinavian oval

For use with ASSA Modular, Connect and Narrow Profile lockcases. The cylinder is fixed to the lockcase with two hardened steel screws, supplied with the accessory set.

ASSA accessories must be used: see page 2:38.

Sleeve is not required when used with Connect 35mm backset lockcases and Narrow Profile accessories. When using S4 narrow profile double accessories (only) specify two 4407 single outside cylinders rather than a double cylinder.

### Scandinavian round

For use with ASSA Modular and Connect lockcases. The cylinder is fixed with four high security hardened steel screws, supplied with the accessory set.

ASSA accessories must be used: see page 2:38.

### Round threaded

For use with locking devices accepting screw-in cylinders.

State lock type when ordering to ensure that correct cam is supplied.

4451 Round Threaded cylinders are also available with microswitch for use as a momentary action keyswitch. See Electric Locking section for further information.

For use with rim locks and other locking devices accepting rim cylinders. Supplied with 5mm Spacer Ring and fixing screws.
Cylinders & Key Systems

ASSA dp4400

Euro profile

For use with locks accepting Euro profile cylinders. Cylinders are supplied with fixing screw.

* Standard lengths are:
  Single 40mm and 45mm
  Double 61mm and 71mm
  W/Turn 61mm and 71mm

Extended length cylinders are also available: see page 2.38. Decorative and security accessories are available: see Door Furniture section.

Optional functions
  A1 - Classroom, clockwise
  B1 - Classroom, anticlockwise
  C1 - Clutch
  DA1 - Dual action

The M20 high security Euro cylinder range is also available offering high resistance to snapping.

Assa Euro Profile Cylinder Range

4422
Double cylinder

4423
Single cylinder

4427
Single cylinder with Distinction oval turn

4424
Single cylinder with small round turn

Oval profile

For use with locks accepting Oval profile cylinders. Cylinders are supplied with fixing screw.

* Standard lengths are:
  Single 40mm and 45mm
  Double 61mm and 71mm
  W/Turn 61mm and 71mm

Also available in:
  Single 50mm (+10)
  Double 81mm (+10+10)
  W/Turn 81mm (+10+10)

Decorative and security accessories are available: see Door Furniture section.

Optional functions
  A1 - Classroom, clockwise
  B1 - Classroom, anticlockwise
  C1 - Clutch
  DA1 - Dual action

Optional functions - Euro and UK Oval turn cylinders

Classroom: turn can only be rotated in one direction. This ensures that the door can be unlocked from either side, but only locked from the outside by using the key. Incorporates clutch function in addition. Example: 4427A1.

Clutch: inserting a key disengages the turn. This ensures that a keyholder can always gain access even if someone inside the room is gripping the turn to prevent it from moving. Example: 4437C1.

Optional function - Euro and UK Oval double cylinders

Dual action: external key will operate the cylinder even if another key has been left in the cylinder on the inside. Example: 4422DA1.

Reference: 2:16 - 10A
www.assa.co.uk  020 8688 5191
Cylinders & Key Systems

ASSA dp4400

Padlocks

Class 2
Padlock body of extruded brass, black chrome plated. Shackle of rustproofed hardened steel, 8mm or 10mm diameter. Drainage holes in the padlock body prevent freezing. No external screws or rivets. Tensile strength over 3½ tons. Green stripes indicate Security Grade 3 to BS EN 12320.

Class 3
Padlock body of hardened steel, black chrome plated. Shackle of rustproofed hardened steel, 10mm diameter. Drainage holes in the padlock body prevent freezing. No external screws or rivets. Tensile strength: over 4½ tons. Blue stripes indicate Security Grade 4 to BS EN 12320.

Class 4 / Class 5
Padlock body of hardened steel, black chrome plated. Shackle of rustproofed hardened steel, 13mm diameter. Drainage holes in the padlock body prevent freezing. No external screws or rivets. Tensile strength: over 10 tons. Red stripes indicate Security Grade 5 (open shackle) or Grade 6 (close shackle) to BS EN 12320.

BS EN 12320

SG 3

44241
Key locking

44243
Key locking extended shackle

44246
Key locking 10mm ø shackle

44249
Key locking close shackle

BS EN 12320

SG 4

44341
Key locking

44349
Key locking close shackle

BS EN 12320

SG 5 / 6

44441
Key locking

44549
Key locking close shackle
ASSA dual systems

The ASSA dp4400 / dp2400 dual system is ideal for situations where very high security is required on certain doors, such as perimeter doors and places where high value equipment is kept. At the same time it eliminates over-specifying on doors where such a high level of security is not required. As a result it becomes both convenient and cost-effective where a high security master key system is required.

A dp dual system can also incorporate ASSA CLIQ electronic cylinders (see page 2:6).

The ASSA dp2400 system is fully compatible with dp4400 very high security cylinders. This allows the creation of dual security master key systems, with ASSA dp4400 cylinders on sensitive doors and lower-cost dp2400 cylinders on other doors. The range features a 6-pin tumbler mechanism plus a patented sidebar mechanism and case-hardened drill-resistant inserts.

ASSA dp keys are fully protected by international patents against unauthorised duplication. All ASSA dp key profiles are restricted.

All shapes of ASSA dp2400 (and dp4400 and ASSA CLIQ) cylinders and padlocks can be placed in the same master key system.

Dual security levels: may be combined with ASSA dp4400 and ASSA CLIQ cylinders in the same master key system (see page 2:18).

Protected by worldwide patents.

Eligible for inclusion in an Option 10 Complete Package Guarantee.
Cylinders & Key Systems

**Scandinavian oval**

2401 Single cylinder (outside)  
2402 Double cylinder  
2403 Single cylinder (inside)  
2407 Rim cylinder (outside) & sleeve  
2409 Rim cylinder (inside) & sleeve  
2408 Rim cylinder (double) & sleeve

**Round threaded**

2451 Single cylinder  
2452 Double cylinder  
2457 Rim cylinder

**Euro profile**

2424 Single cylinder with small turn  
2427 Single cylinder with oval turn  
2423 Single cylinder  
2422 Double cylinder  
Also available in 71mm and 81mm sizes  
(single cylinder 45mm and 50mm). Extended length cylinders also available: see page 2:38.  
M20 high security version also available.

**Oval profile**

2434 Single cylinder with small turn  
2437 Single cylinder with oval turn  
2433 Single cylinder  
2432 Double cylinder  
Also available in 71mm and 81mm sizes  
(single cylinder 45mm and 50mm).

**Padlocks**

Class Two  
24241 Key locking  
24243 Key locking, ext. shackle  
24246 Key locking, 10mm shackle  
24249 Key locking, close shackle

**Master keyed cam locks**

2471 Cam lock  
Dimensions shown on page 2:10.

Reference: 2:19 - 10A

www.assa.co.uk  020 8688 5191
The ASSA Twin Combi 5800 cylinder offers extremely high security and full resistance to any currently known method of picking. It includes case-hardened drill-resistant inserts, a patented sidebar mechanism incorporating the Code Level 7 security function, and patented keys. Well over 1,900,000,000 usable differs are available per key profile worldwide. Twin Combi 5800 keys are fully protected by new international patents against unauthorised duplication. All ASSA Twin Combi key profiles are restricted.

All shapes of ASSA Twin Combi 5800 cylinders and padlocks can be put in the same master key system. Protected by worldwide patents. Eligible for inclusion in an Option 10 Complete Package Guarantee.

Finishes

In the increasingly polluted atmosphere in which we live, the demands on products to resist corrosion are particularly high. ASSA products have the benefit of the latest automatic plating equipment, which incorporates the best of modern plating processes.

Satin chrome, stainless steel effect, polished chrome and black chrome give extremely good weather resistance whilst polished brass is offered as a decorative finish.

In addition our products are suitable for replating, on occasions when it is important to match the finish of other ironmongery on a project.

<table>
<thead>
<tr>
<th>Cylinders</th>
<th>Accessories</th>
<th>Padlocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finishes</td>
<td>Standard finish</td>
<td>Special finish</td>
</tr>
<tr>
<td>Scandinavian oval &amp; round</td>
<td>✓</td>
<td>●</td>
</tr>
<tr>
<td>Round threaded</td>
<td>✓</td>
<td>●</td>
</tr>
<tr>
<td>Euro profile</td>
<td>✓</td>
<td>●</td>
</tr>
<tr>
<td>Oval profile</td>
<td>✓</td>
<td>●</td>
</tr>
<tr>
<td>Padlocks</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

BS EN 1303 : 2005 SG 6
Cylinders & Key Systems

Twin Combi 5800

Scandinavian oval

For use with ASSA Modular, Connect and Narrow Profile lockcases. The cylinder is fixed to the lockcase with two hardened steel screws, supplied with the accessory set.

ASSA accessories must be used; see page 2:38.

Scandinavian round

For use with ASSA Modular and Connect lockcases. The cylinder is fixed with four high security hardened steel screws, supplied with the accessory set.

ASSA accessories must be used; see page 2:38.

Round threaded

For use with locking devices accepting screw-in cylinders.

State lock type when ordering to ensure that correct cam is supplied.

C5851 Round Threaded cylinders are also available with microswitch for use as a momentary action keyswitch. See Electric Locking section for further information.

For use with rim locks and other locking devices accepting rim cylinders. Supplied with 5mm Spacer Ring and fixing screws.

C5801
Single cylinder (outside)

C5803
Single cylinder (inside)

C5802
Double cylinder

C5807
Single rim cylinder (outside)

C35807
Single rim cylinder (inside)

C135807
Double rim cylinder

C5811
Single cylinder (outside)

C5813
Single cylinder (inside)

C5812
Double cylinder

C5851
Single mortice cylinder

C5852
Double mortice cylinder

C5857
Rim cylinder
Cylinders & Key Systems

Euro profile

For use with locks accepting Euro profile cylinders. Cylinders are supplied with fixing screw.

* Standard lengths are:
  Single 40mm and 45mm
  Double 61mm and 71mm
W/hunt 61mm and 71mm

Extended length cylinders are also available: see page 2:38.

Decorative and security accessories are available: see Door Furniture section.

Optional functions
A1 - Classroom, clockwise
B1 - Classroom, anticlockwise
C1 - Clutch
DA1 - Dual action

For further details see information box on page 2:16.

Oval profile

For use with locks accepting Oval profile cylinders. Cylinders are supplied with fixing screw.

* Standard lengths are:
  Single 40mm and 45mm
  Double 61mm and 71mm
W/hunt 61mm and 71mm

Also available in:
  Single 50mm (+10)
  Double 81mm (+10+10)
W/hunt 81mm (+10+10)

Decorative and security accessories are available: see Door Furniture section.

Optional functions
A1 - Classroom, clockwise
B1 - Classroom, anticlockwise
C1 - Clutch
DA1 - Dual action

For further details see information box on page 2:16.
Cylinders & Key Systems

**Master keyed cam lock**

For use on cabinet doors and similar applications. Can easily be adjusted for door thicknesses up to 23mm. Master keyed only; not available standard differ. Catches should be specified separately. Standard catch reference 05 is shown; please contact us for details of other options.

**Padlocks**

**Class 2**

Padlock body of extruded brass, black chrome plated. Shackle of rustproofed hardened steel, 8mm diameter (10mm on C25846). Drainage holes in the padlock body prevent freezing. No external screws or rivets. Tensile strength over 1½ tons. Green stripes indicate Security Grade 3 to BS EN 12320.

![C25841] Key locking

![C25843] Key locking extended shackle

![C25846] Key locking 10mm dia. shackle

![C25849] Key locking close shackle

**Class 3 / Class 4 & 5**

Padlock body of hardened steel, black chrome plated. Shackle of rustproofed hardened steel: 10mm diameter on Class 3, 14mm diameter on Class 4 & 5. Drainage holes in the padlock body prevent freezing. No external screws or rivets. Tensile strength: over 4½ tons on Class 3, over 10 tons on Class 4 & 5. Blue stripes indicate Security Grade 4 to BS EN 12320. Red stripes indicate Security Grade 5 (open shackle) or Grade 6 (close shackle) to BS EN 12320.

![C35841] Key locking

![C35849] Key locking close shackle

![C45841] Key locking

![C55849] Key locking close shackle

---

Reference: 2:23 - 10A

www.assa.co.uk  020 8688 5191
The ASSA 4800 cylinder series features a high security pin tumbler mechanism, a patented sidebar and patented keys. It incorporates the latest technology to ensure maximum pick resistance and trouble-free performance. 250,000 usable differs are available per key profile, ensuring that large and complex master key systems can be catered for with ease.

All 4800 series cylinders incorporate hardened steel inserts for drill resistance. All key profiles are restricted.

All shapes of ASSA 4800 cylinders and padlocks can be put in the same master key system. Protected by worldwide patents.

Eligible for inclusion in an Option 10 Complete Package Guarantee.

---

**BS EN 1303 : 2005 SG 6**

---

### Finishes

In the increasingly polluted atmosphere in which we live, the demands on products to resist corrosion are particularly high. ASSA products have the benefit of the latest automatic plating equipment, which incorporates the best of modern plating processes.

Satin chrome, stainless steel effect, polished chrome and black chrome give extremely good weather resistance whilst polished brass is offered as a decorative finish.

In addition our products are suitable for replating, on occasions when it is important to match the finish of other ironmongery on a project.

<table>
<thead>
<tr>
<th>Cylinders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satin chrome Fin 13</td>
</tr>
<tr>
<td>Scandanavian oval &amp; round</td>
</tr>
<tr>
<td>Round threaded</td>
</tr>
<tr>
<td>Euro profile</td>
</tr>
<tr>
<td>Oval profile</td>
</tr>
<tr>
<td>Padlocks</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satin chrome Fin 13</td>
</tr>
<tr>
<td>Padlocks</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Padlocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black chrome Fin 18</td>
</tr>
</tbody>
</table>

✓ Standard finish
● Special finish

---

Reference: 2.24 - 10A

2.24  www.assa.co.uk  020 8688 5191
Scandinavian oval
For use with ASSA Modular, Connect and Narrow Profile lockcases. The cylinder is fixed to the lockcase with two hardened steel screws, supplied with the accessory set.
ASSA accessories must be used: see page 2:38.

Scandinavian round
For use with ASSA Modular and Connect lockcases. The cylinder is fixed with four high security hardened steel screws, supplied with the accessory set.
ASSA accessories must be used: see page 2:38.

Round threaded
For use with locking devices accepting screw-in cylinders. State lock type when ordering to ensure that correct cam is supplied.
4851 Round Threaded cylinders are also available with microswitch for use as a momentary action keyswitch. See Electric Locking section for further information.
For use with rim locks and other locking devices accepting rim cylinders. Supplied with 5mm Spacer Ring and fixing screws.
**Cylinders & Key Systems**

**Euro profile**

For use with locks accepting Euro profile cylinders. Cylinders are supplied with fixing screw.

* Standard lengths are:
  - Single 40mm and 45mm
  - Double 61mm and 71mm
  - W/turn 61mm and 71mm

Extended length cylinders are also available, see page 2:38.

Decorative and security accessories are available, see Door Furniture section.

**Optional functions**

A1 - Classroom, clockwise
B1 - Classroom, anticlockwise
C1 - Clutch
DA1 - Dual action

For further details see information box on page 2:16.

---

**Oval profile**

For use with locks accepting Oval profile cylinders. Cylinders are supplied with fixing screw.

* Standard lengths are:
  - Single 40mm and 45mm
  - Double 61mm and 71mm
  - W/turn 61mm and 71mm

Also available in:
  - Single 50mm (+10)
  - Double 81mm (+10+10)
  - W/turn 81mm (+10+10)

Decorative and security accessories are available, see Door Furniture section.

**Optional functions**

A1 - Classroom, clockwise
B1 - Classroom, anticlockwise
C1 - Clutch
DA1 - Dual action

For further details see information box on page 2:16.
**Cylinders & Key Systems**

**Master keyed cam lock**

For use on cabinet doors and similar applications. Can easily be adjusted for door thicknesses up to 23mm. Master keyed only; not available standard differ. Catches should be specified separately. Standard catch reference 05 is shown; please contact us for details of other options.

**Padlocks**

**Class 2**

Padlock body of extruded brass, black chrome plated. Shackle of rustproofed hardened steel, 8mm diameter (10mm on 24846). Drainage holes in the padlock body prevent freezing. No external screws or rivets. Tensile strength over 1½ tons. Green stripes indicate Security Grade 3 to BS EN 12320.

BS EN 12320
SG 3

- 24840 Snap locking
- 24841 Key locking extended shackle

**Class 3 / Class 4**

Padlock body of hardened steel, black chrome plated. Shackle of rustproofed hardened steel: 10mm diameter on Class 3, 14mm diameter on Class 4. Drainage holes in the padlock body prevent freezing. No external screws or rivets. Tensile strength: over 4½ tons on Class 3, over 10 tons on Class 4. Blue stripes indicate Security Grade 4 to BS EN 12320. Red stripes indicate Security Grade 5 to BS EN 12320.

BS EN 12320
SG 4

- 34841 Key locking
- 34849 Key locking close shackle

BS EN 12320
SG 5

- 54849 Key locking close shackle

**ASSA 4800**
ASSA Flexcore

The ASSA Flexcore Plus cylinder series features a 5 pin tumbler mechanism plus a patented front profile and key. It achieves a significant level of pick resistance. 29,000 usable differs are available per key profile, allowing the creation of medium sized master key systems.

All components are manufactured from quality material ensuring a high degree of reliability. ASSA Flexcore Plus keys are fully protected by new international patents against unauthorised duplication. All ASSA Flexcore Plus key profiles are restricted.

All shapes of ASSA Flexcore Plus cylinders and padlocks can be placed in the same master key system. Protected by international patents.

Eligible for inclusion in an Option 10 Complete Package Guarantee.

BS EN 1303 : 2005 SG 3

Finishes

In the increasingly polluted atmosphere in which we live, the demands on products to resist corrosion are particularly high. ASSA products have the benefit of the latest automatic plating equipment, which incorporates the best of modern plating processes.

Satin chrome, stainless steel effect, polished chrome and black chrome give extremely good weather resistance whilst polished brass is offered as a decorative finish.

In addition our products are suitable for replating, on occasions when it is important to match the finish of other ironmongery on a project.

<table>
<thead>
<tr>
<th>Cylinders</th>
<th>Accessories</th>
<th>Padlocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satin chrome Fin 13</td>
<td>Satin chrome Fin 13</td>
<td>Black chrome Fin 18</td>
</tr>
<tr>
<td>Polished chrome Fin 11</td>
<td>Polished chrome Fin 11</td>
<td>Special finish</td>
</tr>
<tr>
<td>Polished brass Fin 20</td>
<td>Polished brass Fin 20</td>
<td></td>
</tr>
<tr>
<td>S/S Steel effect Fin 34</td>
<td>S/S Steel effect Fin 34</td>
<td></td>
</tr>
</tbody>
</table>

Scandinavian oval & round ✓ ● ● ● □ □ □ □
Round threaded ✓ ● ● ● □ □ □ □
Euro profile ✓ ● ● □ □ □ □
Oval profile ✓ ● ● □ □ □ □
Padlocks

✓ Standard finish
● Special finish
Scandinavian oval

For use with ASSA Modular, Connect and Narrow Profile lockcases. The cylinder is fixed to the lockcase with two hardened steel screws, supplied with the accessory set.

ASSA accessories must be used: see page 2:38.

FP501
Single cylinder (outside)

FP503
Single cylinder (inside)

FP502
Double cylinder

Round threaded

For use with locking devices accepting screw-in cylinders.
State lock type when ordering to ensure that correct cam is supplied.

FP551 Round Threaded cylinders are also available with microswitch for use as a momentary action keyswitch. See Electric Locking section for further information.

For use with rim locks and other locking devices accepting rim cylinders. Supplied with 5mm Spacer Ring and fixing screws.

FP551
Single mortice cylinder

FP552
Double mortice cylinder

FP557
Rim cylinder
Cylinders & Key Systems

ASSA Flexcore Plus

Euro profile

For use with locks accepting Euro profile cylinders. Cylinders are supplied with fixing screw.

* Standard lengths are:
  - Single 40mm and 45mm
  - Double 61mm and 71mm
  - W/Turn 61mm and 71mm

Extended length cylinders are also available: see page 2:38.

Decorative and security accessories are available: see Door Furniture section.

Optional functions
- A1 - Classroom, clockwise
- B1 - Classroom, anticlockwise
- C1 - Clutch
- DA1 - Dual action

For further details see information box on page 2:16.

FP522
Double cylinder

FP523
Single cylinder

FP527
Single cylinder with Distinction oval turn

FP524
Single cylinder with small round turn

FP521
Single cylinder with large round turn

Oval profile

For use with locks accepting Oval profile cylinders. Cylinders are supplied with fixing screw.

* Standard lengths are:
  - Single 40mm and 45mm
  - Double 61mm and 71mm
  - W/Turn 61mm and 71mm

Also available in:
  - Single 50mm (+10)
  - Double 81mm (+10+10)
  - W/Turn 81mm (+10+10)

Decorative and security accessories are available: see Door Furniture section.

Optional functions
- A1 - Classroom, clockwise
- B1 - Classroom, anticlockwise
- C1 - Clutch
- DA1 - Dual action

For further details see information box on page 2:16.

FP532
Double cylinder

FP533
Single cylinder

FP537
Single cylinder with Distinction oval turn

FP534
Single cylinder with small round turn

FP531
Single cylinder with large round turn
Padlocks

Class 2
Padlock body of extruded brass, black chrome plated.
Shackle of rustproofed hardened steel, 8mm diameter.
Drainage holes in the padlock body prevent freezing. No external screws or rivets.
Tensile strength over 1½ tons.
Green stripes indicate Security Grade 3 to BS EN 12320.

BS EN 12320
SG 3

FP2540
Snap locking
FP2541
Key locking
FP2543
Key locking extended shackle
FP2549
Key locking close shackle
The ASSA 5-pin cylinder series features a 5 pin tumbler mechanism, and achieves a significant level of pick resistance. 29,000 usable differs are available per key profile, allowing the creation of medium sized master key systems.

All components are manufactured from quality material ensuring a high degree of reliability and durability.

All shapes of ASSA 5-pin cylinders and padlocks can be placed in the same master key system.

Eligible for inclusion in an Option 10 Complete Package Guarantee.

BS EN 1303 : 2005
SG 3

Finishes

In the increasingly polluted atmosphere in which we live, the demands on products to resist corrosion are particularly high. ASSA products have the benefit of the latest automatic plating equipment, which incorporates the best of modern plating processes. Satin chrome, polished chrome and black chrome give extremely good weather resistance whilst polished brass is offered as a decorative finish.

In addition our products are suitable for replating, on occasions when it is important to match the finish of other ironmongery on a project.
Scandinavian oval

For use with ASSA Modular, Connect and Narrow Profile lockcases. The cylinder is fixed to the lockcase with two hardened steel screws, supplied with the accessory set.

ASSA accessories must be used; see page 2:38.

Round threaded

For use with locking devices accepting screw-in cylinders.

State lock type when ordering to ensure that correct cam is supplied.

R551 Round Threaded cylinders are also available with microswitch for use as a momentary action keyswitch. See Electric Locking section for further information.

For use with rim locks and other locking devices accepting rim cylinders. Supplied with 5mm Spacer Ring and fixing screws.
Cylinders & Key Systems

Euro profile

For use with locks accepting Euro profile cylinders. Cylinders are supplied with fixing screw.

* Standard lengths are:
  - Single 40mm and 45mm
  - Double 61mm and 71mm
  - W/furn 61mm and 71mm

Extended length cylinders are also available: see page 2:38.

Decorative and security accessories are available: see Door Furniture section.

Optional functions
- A1 - Classroom, clockwise
- B1 - Classroom, anticlockwise
- C1 - Clutch
- DA1 - Dual action

For further details see information box on page 2:16.

Oval profile

For use with locks accepting Oval profile cylinders. Cylinders are supplied with fixing screw.

* Standard lengths are:
  - Single 40mm and 45mm
  - Double 61mm and 71mm
  - W/furn 61mm and 71mm

Also available in:
  - Single 50mm (+10)
  - Double 81mm (+10+10)
  - W/furn 81mm (+10+10)

Decorative and security accessories are available: see Door Furniture section.

Optional functions
- A1 - Classroom, clockwise
- B1 - Classroom, anticlockwise
- C1 - Clutch
- DA1 - Dual action

For further details see information box on page 2:16.
Cam and furniture locks

For use on cabinet doors and similar applications. Can easily be adjusted for door thicknesses up to 23mm. Supplied with integral catch. Standard differ only. Handing must be specified when ordering.

- **R5207** Cam lock
- **R5208** Furniture lock

Padlocks

- **Class 2**
  Padlock body of extruded brass, black chrome plated.
  Shackle of rustproofed hardened steel, 8mm diameter.
  Drainage holes in the padlock body prevent freezing. No external screws or rivets.
  Tensile strength over 1 1/2 tons.
  Green stripes indicate Security Grade 3 to BS EN 12320.

- **R2540** Snap locking
- **R2541** Key locking
- **R2543** Key locking extended shackle
- **R2549** Key locking close shackle

BS EN 12320 SG 3
ASSA cylinders are designed to meet the demands and requirements of the modern age. Their distinctive pin-tumbler mechanism with extremely tight tolerances offers a flexibility in master keying that meets any end-user need, without compromising security. ASSA cylinders offer three complementary types of protection:

**Physical Security**

Physical security guards against direct attack, whether using brute force or more subtle methods of cylinder manipulation. ASSA cylinders are offered at five different levels of security, from Medium to Extremely High. The following security measures are present on some or all cylinder series:

- **Pick-resistant pins:** All cylinder series
- **Hardened steel drill-resistant inserts:** ASSA 4800, Twin Combi 5800, dp4400, CLIQ
- **Patented sidebar mechanism to resist picking**
  - (Additional blocking element): ASSA 4800: 3 sidepins
  - ASSA Twin Combi 5800: 5 sidepins
  - ASSA dp4400 and dp2400: 10 handed sidepins and force-controlled sidebar
  - ASSA CLIQ: force-controlled sidebar
- **Electromechanical blocking element:** ASSA CLIQ

The combination of lockcase, cylinder accessories, fixing method and shape of the cylinder also affect the level of physical security. ASSA cylinders are available in a wide variety of shapes ranging from the medium security profile cylinders (Euro and UK Oval) to the extremely high security Scandinavian Round cylinder.

**Key Protection**

Key protection defends against the more insidious threat of intruders using unauthorised copies of keys to gain access. For ASSA ABLOY Door Solutions the protection and safeguarding of the end user is essential. Our concept of key control is unique and is part of our commitment to our customers and protection of their assets, buildings and staff. Effective security requires effective control and management of keys. This is true both for a single lock on a door and a large and complex master-key system.

If it is possible for anybody to obtain a key, the premises become vulnerable to unauthorised or criminal intruders. On the other hand, if it is too difficult to obtain spare keys, legitimate users will be inconvenienced. To balance this problem, ASSA ABLOY Door Solutions offers five graded levels of key protection. Each step provides a different balance between convenience and security, enabling us to meet the customer’s precise requirements.

**Patent Protection**

Effective key control systems rely on the fact that keys are only available from specific, authorised security centres. Unfortunately, the abolition of copyright protection on keys from August 1999 has made it possible for anybody to produce and sell most types of keys, thus bypassing this protection.

The only exception to this is key systems which are protected by up-to-date patents. Manufacturers are still able to take legal action against unauthorised third parties distributing copies of patented keys without permission. All registered key systems (Steps 2-6) from ASSA ABLOY Door Solutions are protected by new international patents. We are committed to vigorously defending our patents whenever necessary to ensure the continued security of our customers.

Patented cylinder series include ASSA Flexcore Plus, ASSA 4800, ASSA Twin Combi 5800, ASSA dp4400 (and dp2400) and ASSA CLIQ.
## Cylinders & Key Systems

### British & European standards

#### Cylinders

Cylinders are rated according to the British and European standard BS EN 1303, which was revised in 2005. The new version of the standard rates cylinders into six grades of security, of which Grade 6 is the highest. In addition, the standard now includes a separate Attack Resistance classification, which is graded from 0 to 2.

The full CEN classification is a 8-digit code, broken down as shown in the table opposite.

#### Padlocks

Padlocks are rated according to the British and European standard BS EN 12320.

The full CEN classification is a 7-digit code, of which the first 5 digits are not applicable. The sixth digit classifies corrosion resistance, which is either 1 (internal applications) or 2 (external applications).

The seventh digit classifies security, and is graded from 1 to 6 as shown in the table opposite.

### CLASSIFICATION

<table>
<thead>
<tr>
<th>Category of Use</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>For use by people with a high incentive to exercise care, and with a small chance of misuse.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### GRADES

<table>
<thead>
<tr>
<th>Durability</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>25,000 cycles</td>
<td>50,000 cycles</td>
<td>100,000 cycles</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Door Mass</th>
<th>0</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fire Resistance</th>
<th>0</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not suitable for fire doors</td>
<td>Suitable for fire/smoke resistant doors</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Safety</th>
<th>0</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Corrosion Resistance

<table>
<thead>
<tr>
<th>0</th>
<th>No requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>High resistance</td>
</tr>
<tr>
<td>B</td>
<td>Temperature -20°C to +80°C</td>
</tr>
<tr>
<td>C</td>
<td>High resistance &amp; temp -20°–80°C</td>
</tr>
</tbody>
</table>

### Security

| Six grades: see below |

### Attack Resistance

| Three grades: see below |

### SECURITY RATING

<table>
<thead>
<tr>
<th>GRADE 1</th>
<th>GRADE 2</th>
<th>GRADE 3</th>
<th>GRADE 4</th>
<th>GRADE 5</th>
<th>GRADE 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum number of effective differs</td>
<td>100</td>
<td>300</td>
<td>15,000</td>
<td>30,000</td>
<td>30,000</td>
</tr>
<tr>
<td>Minimum number of movable detainers</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Maximum number of identical steps</td>
<td>100</td>
<td>70</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Direct coding on key</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Operation of security mechanism</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Torque resistance of cylinder/plug (Nm)</td>
<td>2.5</td>
<td>5</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
</tbody>
</table>

### ATTACK RESISTANCE RATING

<table>
<thead>
<tr>
<th>GRADE 0</th>
<th>GRADE 1</th>
<th>GRADE 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drilling attack (minutes)</td>
<td>-</td>
<td>3/5</td>
</tr>
<tr>
<td>Chisel attack (blows)</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>Twisting attack (twists)</td>
<td>-</td>
<td>20</td>
</tr>
<tr>
<td>Plug extraction, 15kN (mins)</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Torque resistance (Nm)</td>
<td>-</td>
<td>20</td>
</tr>
</tbody>
</table>

### PADLOCK SECURITY RATING

<table>
<thead>
<tr>
<th>GRADE 1</th>
<th>GRADE 2</th>
<th>GRADE 3</th>
<th>GRADE 4</th>
<th>GRADE 5</th>
<th>GRADE 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum number of effective key differs</td>
<td>300</td>
<td>1000</td>
<td>2,500</td>
<td>5,000</td>
<td>10,000</td>
</tr>
<tr>
<td>Non-interpassing of keys - 1 interval (Nm)</td>
<td>1</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Force on cylinder plug (kN)</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Torque on cylinder plug (Nm)</td>
<td>-</td>
<td>2.5</td>
<td>5</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>Pulling of shackle and staple (kN)</td>
<td>3</td>
<td>5</td>
<td>15</td>
<td>30</td>
<td>70</td>
</tr>
<tr>
<td>Twisting of shackle and staple (Nm)</td>
<td>40</td>
<td>100</td>
<td>200</td>
<td>450</td>
<td>1200</td>
</tr>
<tr>
<td>Cutting of shackle and staple (kN)</td>
<td>6</td>
<td>15</td>
<td>25</td>
<td>35</td>
<td>70</td>
</tr>
<tr>
<td>Impact on padlock body, shackle &amp; staple</td>
<td>-</td>
<td>-</td>
<td>1.25kg 800mm -20°C</td>
<td>3.05kg 1000mm -20°C</td>
<td>6.5kg 1400mm -40°C</td>
</tr>
<tr>
<td>Drilling on body, shackle &amp; staple (min)</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Sawing on body, shackle &amp; staple (min)</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>4</td>
<td>8</td>
</tr>
</tbody>
</table>
Extended length Euro cylinders

Euro profile cylinders are frequently required in non-standard lengths to suit special locking applications such as extra-thick doors or asymmetrical lock fittings. For these purposes we can supply cylinders in lengths up to 141mm (80mm on single cylinders), as shown in the chart opposite. These are readily available in all ASSA cylinder series, including 5-pin, Flexcore Plus, 4800, Twin Combi 5800, dp4400 and ASSA CLIQ.

Accessory sets

Standard accessory sets for Scandinavian Oval cylinders used with Modular and Connect locks are available in four sizes. These are designed to be fitted to a standard 44mm or 45mm door. For security reasons it is imperative that the cylinder does not protrude more than 2mm from the face of the cylinder ring.

If it is necessary to fit a cylinder to a door of unusual thickness, we can supply different sizes of screws and cylinder rings. Extension pieces, which bring the cylinder further out from the centreline of the door, are also available. Please contact your stockist for further details.

Accessory sets for Scandinavian Round cylinders used with Modular and Connect locks are available in two sizes. Combined with extension pieces and longer screws they are suitable for door thicknesses up to 100mm.

High security cylinder escutcheons for Euro Profile cylinders used with Compact locks are available in two sizes: 6mm and 8mm. As these cylinders can be ordered in size increments of 5mm, the correct size of cylinder should be specified to suit the door thickness and escutcheon size selected. A full range of decorative accessory sets for Euro and UK Oval Profile cylinders is also available.

ASSA accessories are available in a wide variety of designs and finishes to suit different applications. For further information please see the Door Furniture section.
Care of ASSA cylinders

ASSA cylinders and padlocks are made to extremely accurate tolerances. Like any mechanical device used on a daily basis, certain preventive maintenance measures are essential to ensure trouble-free operation and longevity of the products.

1) At installation and at least every six months thereafter, cylinders and padlocks should be lubricated using ASSA Lockspray. More frequent lubrication may be required on doors in constant use or harsh environmental conditions.

2) ASSA Lockspray is specially formulated to avoid clogging or damage to the cylinder mechanism, especially on ASSA CLIQ electronic cylinders. It is therefore recommended instead of conventional lubricant sprays.

3) Spray for approximately one second into the cylinder, then insert and turn the key two times. Wipe away any excess lubricant.

4) Graphite is not recommended for use with cylinders, and oil should NEVER be used.

5) Do not paint cylinders and keep metal filings away from them, as these can both clog the mechanism.

6) The use of ASSA Lockspray is also recommended before winter on products fitted in an external environment. This will overcome problems with frost and condensation.

7) If a cylinder has become clogged with dirt or has been over-lubricated, the use of ASSA Lock Cleaner is recommended to clean it. Afterwards, re-lubricate the cylinder using ASSA Lockspray.

8) If a cylinder is frozen, ASSA Lock Cleaner may be used to de-ice it. Afterwards, re-lubricate the cylinder using ASSA Lockspray.

9) Keys, although made of nickel silver, can become worn with very frequent use and should be replaced when necessary.

10) To ensure correct tolerances are maintained, only original ASSA keyblanks should be used, and these should be cut by an approved ASSA stockist.

11) The functions of ASSA CLIQ electronic cylinders should be tested at least once per year, or in accordance with the building’s maintenance schedule.

12) The battery level of ASSA CLIQ keys should be checked once per year and new batteries fitted if necessary.

ASSA Lockspray

An efficient and rapid-drying lubricant, now with an improved formula that makes it ideal for both mechanical and electronic cylinders. Regular use improves reliability and prevents wear. ASSA Lockspray is water-resistant and does not bind salt, thus also protecting against corrosion.

Lubrication instructions

Shake before use. Insert the spray nozzle into the keyway of the cylinder and spray for one second. Insert the key and turn it a couple of times, then wipe off any excess lubricant.

Safety instructions

Pressurised can with highly flammable contents. Avoid inhalation, eye contact or prolonged skin contact. Full materials safety data sheet available on request.

ASSA Lock Cleaner

Used to clean and de-ice cylinders. Rapidly dissolves dirt and particles and melts ice. Contains anti-freeze agent to inhibit further icing of the cylinder. Used together with ASSA Lockspray.

Cleaning instructions

Shake before use. Insert the spray nozzle into the keyway of the cylinder and spray for one second. Insert the key and turn it a couple of times, then wipe off any excess cleaner. Re-lubricate the cylinder using ASSA Lockspray.

De-icing instructions

Shake before use. Insert the spray nozzle into the keyway of the cylinder and spray for one to two seconds. Wait 30 seconds, insert the key and turn it a couple of times, then wipe off any excess cleaner. Repeat if necessary, then re-lubricate the cylinder using ASSA Lockspray.

Accessories

<table>
<thead>
<tr>
<th>Product</th>
<th>Reference</th>
<th>Description</th>
<th>For use with</th>
</tr>
</thead>
<tbody>
<tr>
<td>Climate protection cover</td>
<td>88 02 64</td>
<td>Stainless steel with rubber flap</td>
<td>Scandinavian Oval and Round cylinders</td>
</tr>
<tr>
<td>Protective covers for padlocks</td>
<td>10 28 34</td>
<td>Sizes available: Class Two Class Three Class Four/Five</td>
<td>ASSA padlocks</td>
</tr>
<tr>
<td>Key identity band</td>
<td>37 40 63</td>
<td>Black</td>
<td>ASSA Flexcore Plus keys</td>
</tr>
<tr>
<td>Colours available: Yellow, black, blue, green, red</td>
<td>37 40 57</td>
<td>Blue</td>
<td></td>
</tr>
<tr>
<td></td>
<td>37 40 58</td>
<td>Green</td>
<td></td>
</tr>
<tr>
<td></td>
<td>37 40 62</td>
<td>Red</td>
<td></td>
</tr>
<tr>
<td></td>
<td>37 40 59</td>
<td>Yellow</td>
<td></td>
</tr>
<tr>
<td>Key cassette</td>
<td>80 41 85</td>
<td>Black plastic key grip.</td>
<td>ASSA keys</td>
</tr>
</tbody>
</table>