

High Security Dual Tumbler Lock (HSDT)



Patented security for peace of mind

The most secure lock in our range. Our innovative High Security Dual Tumbler (HSDT) design uses a new patented mechanism that makes it a lock picking nightmare.

As well as boasting more than 380 million lock combinations, the HSDT ensures significantly higher lock picking and torque resistance thanks to the patented number and alignment of tumblers in the cylinder.

For additional security the unique steel key features a QR security code that must be registered to order replacements. The key can also be customised with your logo or bespoke head shape.

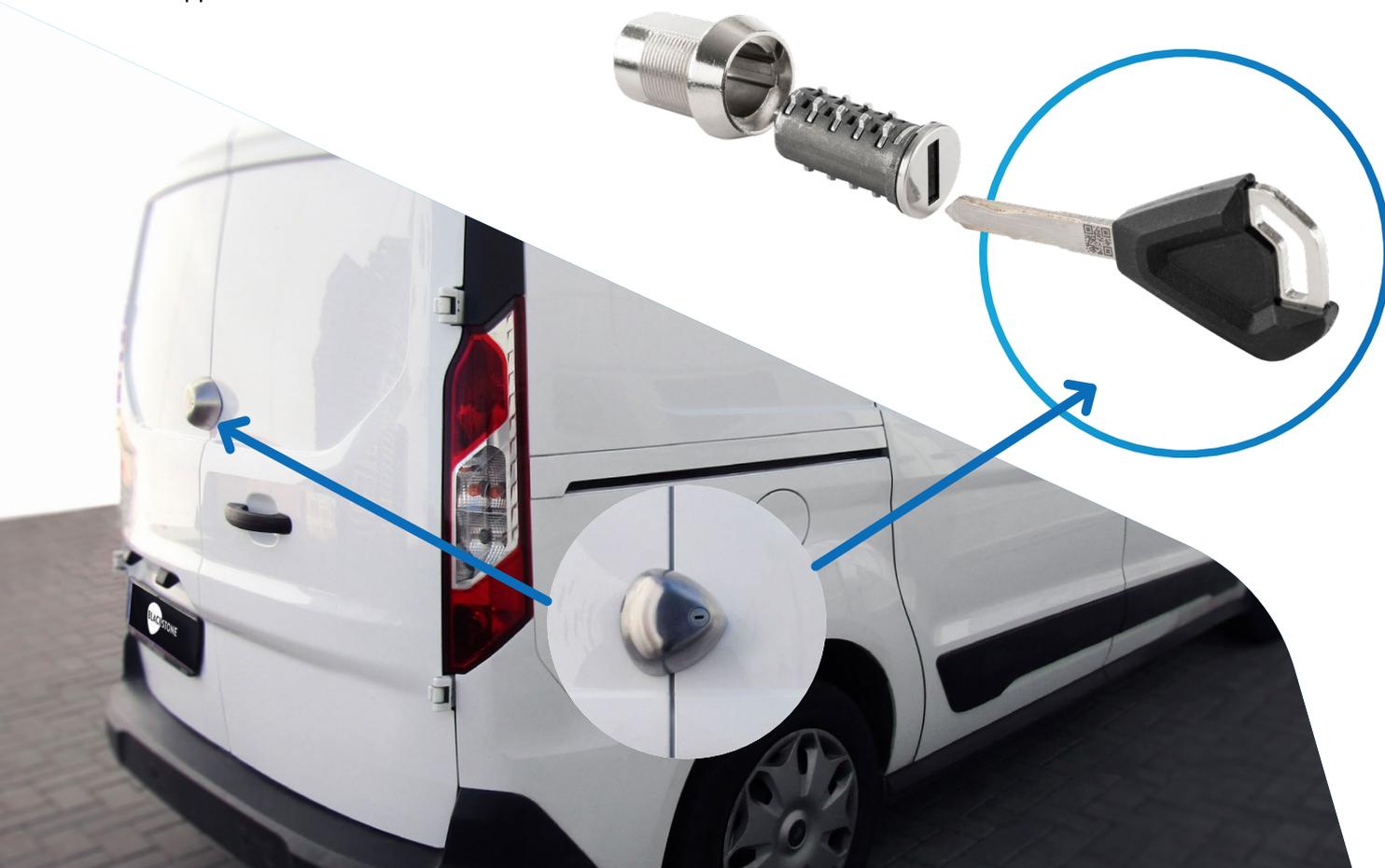
Manufactured to an industry standard footprint, our HSDT lock can be easily used to retrofit existing spaces.

Certified to BS EN 1303:2015

HSDT has been independently certified to exceed the maximum standards of resistance against attack, picking and corrosion.

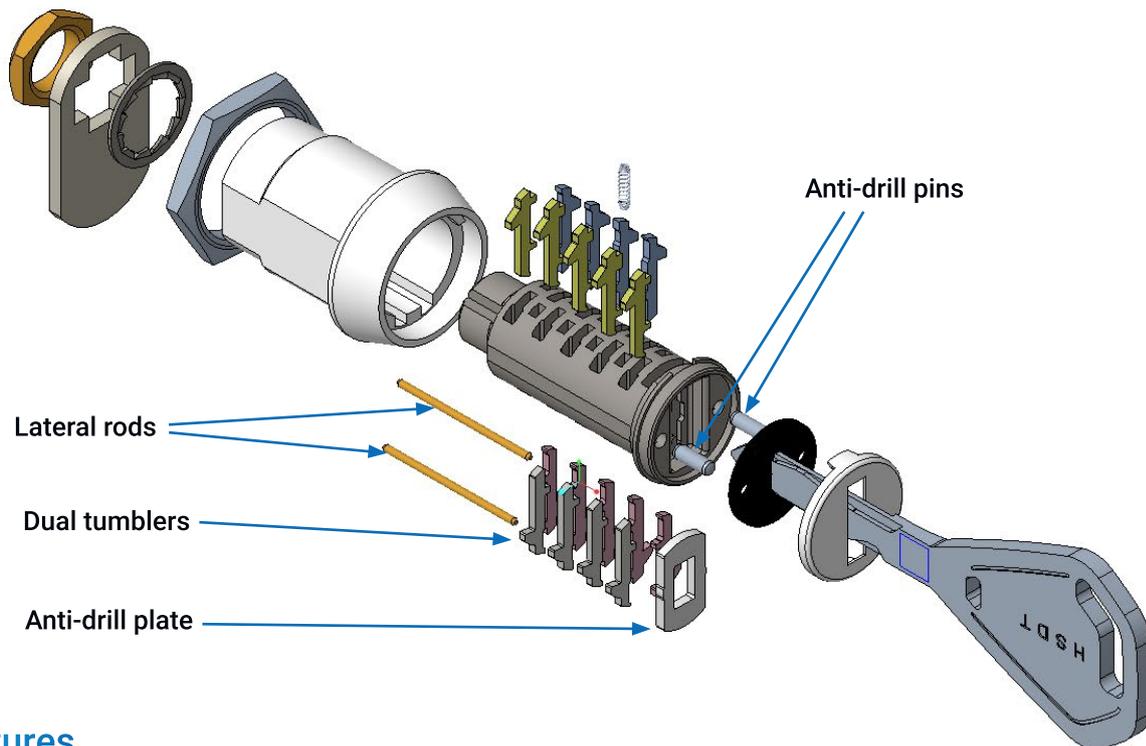
Ideal uses

HSDT is suited to many applications and especially where enhanced security is required over a standard camlock. This includes **vending and gaming machines, lockers, cash registers and boxes, electrical enclosures** and many more applications.



What makes HSDT so secure

HSDT looks and functions like a normal camlock but is significantly more secure than any comparable lock. It is designed to resist picking, drilling, torquing and corrosion far beyond typical capabilities, making it one of the most secure locks in its class.



Features

- ✓ **Dual Tumblers:** Two parallel lines of nine alternating-direction tumblers make it extremely difficult to pick with currently known methods. Conventional locks have only one line of five or seven tumblers.
- ✓ **Anti-Drill Plate:** Behind the shutter there is a hardened steel anti-drill plate designed to make the lock extremely resistant to drilling.
- ✓ **Lateral Rods:** Hardened lateral rods further reinforce the lock against all forcing and drilling.

Benefits

- ✓ **Security:** HSDT's high-resistance to picking, drilling and torquing makes it very difficult to breach.
- ✓ **Versatility:** The HSDT is discreet, adaptable to specific security needs, and easy to fit and retrofit in existing locking devices across many different applications.
- ✓ **Traceability:** Each HSDT key is printed with an encrypted QR code. This allows the factory to verify the key and produce an authorised replacement when required.



Certification EN 1303

BS EN 1303:2015 is the European Standard which establishes assessment and test criteria for a cylinder to quantify its resistance to physical attack, durability and key security. BS EN 1303:2015 classifies cylinders for locks using an 8-digit coding system. Features assessed include durability, fire resistance, key related security and attack resistance. The resulting 8-digit code can be used to directly compare the performance of one cylinder range against another.

Our HSDT lock has been classified as:

1	6	0	0	0	C	6	D
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1 Category of Use

Grade 1: Used by careful people with low risk of misuse. The key does not break under the applied torque of 2,5 Nm. After the test, the key can be removed from the cylinder and re-used to operate the same cylinder with a torque not exceeding 1,5 Nm.

HSDT result: **Grade 1**

2 Durability

Durability guarantees safety over time. It is measured by the number of cycles the key can endure. The test is performed as follows:

- key entry, 360° rotation, key removal
- key entry, 360° rotation in the opposite direction and key removal.

Grade 4: 25,000 Cycles

Grade 5: 50,000 Cycles

Grade 6: 100,000 Cycles

HSDT result: **Grade 6**

3 Door Mass

No requirements applicable for door mass.

HSDT result: **Grade 0**

4 Fire Resistance

Three grades of suitability for use on fire resistant/smoke-controlled doors:

Grade 0: Not approved for use on fire resistant and/or smoke control door assemblies

Grade A: Suitable for use on smoke control door assemblies

Grade B: Suitable for use on fire resistant and smoke control doors.

No requirements applicable for fire resistance.

HSDT result: **Grade 0**

5 Personal Safety

No requirements applicable for personal safety.

HSDT result: **Grade 0**

6 Corrosion and Temperature Resistance

Four grades of corrosion resistance and temperature requirements:

Grade 0: No corrosion resistance requirements - no temperature requirements.

Grade A: High corrosion resistance 96h - no temperature requirements.

Grade B: No corrosion resistance requirement - temperature requirement between -25°C to +65°C.

Grade C: High corrosion resistance 96h - temperature requirement between -25°C and +65°C.

The lock is subjected to a salt spray test to determine its ability to function after exposure to a corrosive environment. The test is carried out in different temperature conditions, and the degree of corrosion resistance is rated (low, high) according to the number of hours.

HSDT result: **Grade C**

7 Key-Related Property Safety

Grade 1: 100 (Min. number of effective variations) / 2 (Min. number of movable blocking parts).

Grade 2: 300 (Min. number of effective variations) / 3 (Min. number of movable blocking parts).

Grade 3: 15,000 (Min. number of effective variations) / 5 (Min. number of movable blocking parts).

Grade 4: 30,000 (Min. number of effective variations) / 5 (Min. number of movable blocking parts).

Grade 5: 30,000 (Min. number of effective variations) / 6 (Min. number of movable blocking parts).

Grade 6: 100,000 (Min. number of effective variations) / 6 (Min. number of movable blocking parts).

Key security is determined by the cylinder or key patent, the number of different keys possible, key duplication protection and the number of pins in the cylinder. Grade 6 ensures the highest level of property security.

HSDT result: **Grade 6**

8 Attack Resistance

Grade 0: no resistance to drilling - no resistance to mechanical attack.

Grade A: 3 to 5 min resistance to drilling - resistance to mechanical attack (except when extracting rotor and/or cylinder).

Grade B: 5 to 10 min resistance to drilling - resistance to mechanical attack (except when extracting rotor and/or cylinder).

Grade C: 3 to 5 min resistance to drilling - resistance to mechanical attack.

Grade D: 5 to 10 min resistance to drilling - resistance to mechanical attack.

These measures reflect the level of resistance to drilling, hooking, breaking, tearing, twisting and forcible rotation. Grade D ensures the highest possible resistance.

HSDT result: **Grade D**



Typical Applications



Asset Security

Picking and attack resistance makes HSDT especially suitable for asset security and protection applications including vending machines, gaming machines, ATM/cash machines, cash registers and safes.



Automotive Aftermarket

The increasing value of items stored on bike racks and roof boxes means customers demand more security in the applications. Our engineering teams are able to adapt HSDTs designs to bespoke applications geometries.



Electronic and Mechanical Enclosures

HSDT ensures that electronic and mechanical components are kept safe from unwanted or careless hands and are compatible with our extensive range of Enclosure locking systems.



Lockers and Furniture

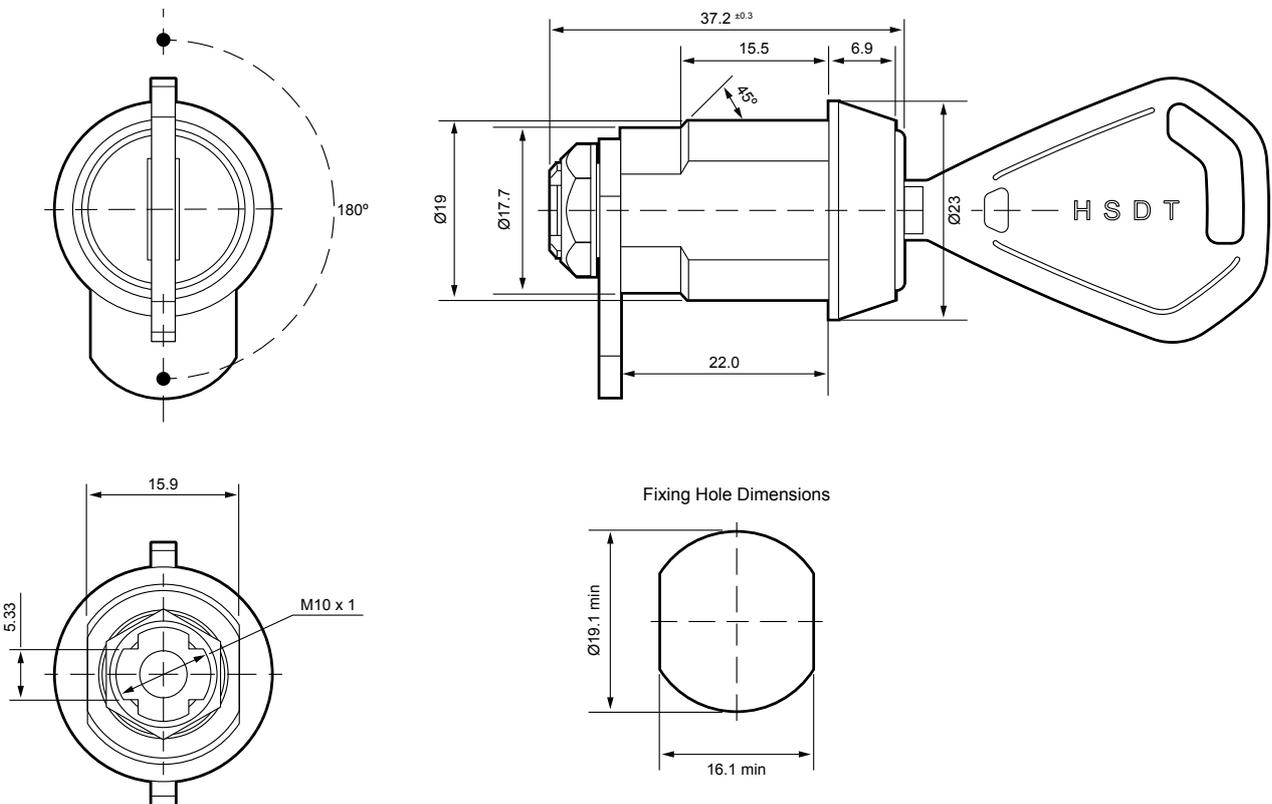
As well as increased security HSDT provides a premium key feel and user experience, raising the perception of quality in furniture and cabinetry applications.



Technical Details

The HSDT lock is specified with many special features which enhance its security.

- ✓ Combinations: more than 380 million
- ✓ Ultra-secure combinations: 200,000
- ✓ High resistance to picking, drilling, torquing, and corrosion
- ✓ Lock combinations encoded to provide extra layer of security
- ✓ Lock paired with encrypted QR code printed on keys and additional security tag to order replacement keys
- ✓ Standard finish: Chrome or bright nickel
- ✓ Patented dual tumbler technology number EP19 020 358.8 – 1005
- ✓ Tested under SSF 1090 and EN 1303 (Certification standard 16000C6D)
- ✓ Customisation: Customisable logo area for customer logo application on key and security tag
- ✓ Fitting: 16:19 mm “double D” cutout
- ✓ Environmental Protection: IP55 rated
- ✓ Temperature Rating: -8°C to +50 °C
- ✓ Declaration of Conformity: CE Marked
- ✓ Retrofit: Meeting industry standard footprint
- ✓ Key: Overmoulded and metal key available
- ✓ Diameter: 13,5 mm
- ✓ Length: 22 mm



Customer Applications



The Background: This Paris-based customer designs and manufactures dynamic touch terminals and digital kiosks for banks including **cash withdrawal and deposit machines**.

With very high requirements for secure locks, they were able to convince an established bank to trust their machines equipped with HSDT locks.

The Difference: The lock comes with an individual encrypted QR code printed on keys and additional security tag to order replacement keys directly from Euro-Locks.

That really made the difference as it adds a layer of security and digital identification to the otherwise mechanical lock.



The Background: A Milan-based company has been specializing in hydraulic mechanical anti-theft systems for **heavy vehicles** since 1993.

For over 20 years, they've partnered with Euro-Locks, previously incorporating our trusted UGL cylinders into their systems to deliver reliable, robust security.

This collaboration has been central in designing a unique security system.

The Upgrade: Now, they are taking security to the next level with by upgrading to the HSDT lock. This advanced locking system offers premium protection for high-value machinery in demanding environments.

About Us

Euro-Locks and Lowe & Fletcher design and manufacture locking systems for a broad range of industrial and commercial customers worldwide.

We supply over 80 million products a year, from precision mechanical locks to the latest digital and electronic systems. This breadth of delivery means we can always tailor a system to your exact needs.

Specialist Design: Using computer-aided design and rapid prototyping, we are able to produce a 3D solid model of a lock for customer approval within 24 hours, if required. Whatever you need, our design specialists can make it happen.

Precision Manufacturing: Using advanced primary and secondary manufacturing processes, we ensure our production is efficient, flexible and driven by quality. Automation plays a critical role in manufacturing, while our highly skilled workforce ensures the final quality and assembly of our locks is flawless.

Efficient Supply: Whatever system you need, we can supply it in small or large volumes from our own operations. From initial order enquiry through to dispatch, we are here to help.

Proud Heritage: Since our foundation in 1889, we have gone from making handmade products to becoming the highly flexible, precision manufacturing experts of today. However, that same spirit of John Lowe and Thomas Fletcher still lives on – in our commitment to creating well engineered, innovative products that meet the needs of today's customers, wherever in the world they live.



Always ready to help

As a specialist manufacturer, we're not just lock suppliers, we're industry innovators. Whatever application you have in mind, our expert teams can make it happen. Let's talk.

Visit our websites for more information:

Lowe & Fletcher
www.lowe-and-fletcher.co.uk



Lowe & Fletcher Inc
www.loweandfletcherinc.com



Euro-Locks
www.euro-locks.com



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