



# High Security Locking Systems



# **High Security Locks**

Innovation is at the core of everything we do at Lowe & Fletcher and Euro-Locks.

With over 100 years experience manufacturing industry-leading locking solutions, we continue to provide enhanced security and protection for our customers with the introduction of our latest range of high security locking systems.

## What are High Security Locks?

High security locks are specifically designed and manufactured with advanced security features that provide enhanced levels of protection from unauthorised access, picking and manipulation in applications where heightened security is essential.

Standard features of high security locks include:

- ⊘ Attack resistance
- ⊘ Picking resistance
- ⊘ Environmental resistance

## Why choose a High Security Lock?

The unique physical design and strengthened materials used in the manufacturing process are aimed explicitly at preventing compromise or tampering.

The Lowe & Fletcher and Euro-Locks range of high security locks are able to offer a high level of security against picking resistance thanks to the use of sophisticated disc or dual tumbler technology within the locking cylinder.

High-quality materials for the discs and tumblers, and for the key, are vital elements to ensure the locks mechanical resistance whilst high drilling protection is achieved by hardened steel elements within the cylinder.

The Lowe & Fletcher and Euro-Locks range of High Security locks have been tested and exceed industry standards for:

- ⊘ Performance
- ⊘ Durability
- ⊘ Strength
- Security
- Corrosion Resistance



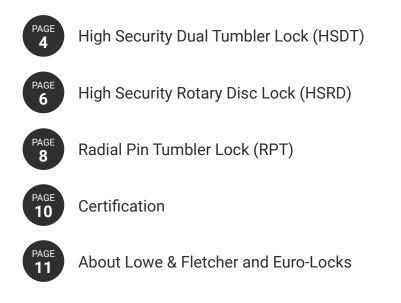




Part of the Lowe & Fletcher Group, we have been designing, manufacturing and supplying locking systems for commercial and industrial applications since 1889.



## Contents



For information on high security locks or our range of locking solutions, please contact our expert sales team.



# High Security Dual Tumbler Lock (HSDT)

The innovative High Security Dual Tumbler (HSDT) lock is the most secure lock in our range thanks to its new, patented locking system. With more than 380 million combinations, this lock has a significantly higher picking and higher torque resistance due to the patented number and alignment of tumblers in the cylinder.

Certified to BS EN 1303:2015, the HSDT lock meets the standards which specify performance and other requirements for the strength, security, durability and corrosion resistance of the lock cylinders and their keys.

The lock is operated by use of an exclusive, secure, high quality key system made from steel. For additional security, each key is supplied with a security card that must be registered in order to obtain replacement keys. The key can also be customised with the addition of a sticker or overmoulded head shape.

Designed and manufactured in our European facilities, the HSDT lock provides the highest level of security for your asset management applications including 'pay-at-pump' and electric car charging stations, ATM's and cash registers.

## High Security Dual Tumbler Lock (HSDT)

## **Standard Features**

- ⊘ More than 380 million combinations
- ⊘ Patented disc tumbler technology
- ⊘ Triple protected drilling resistance
- ⊘ Chrome or bright nickel finish
- ⊘ Supplied complete with 2-asymmetrical keys
- ⊘ Keys paired with a security tag to order replacements
- ⊘ Manufactured to industry standard footprint for retro-fit options

1 6 0 0 0 B 5 C



	HSDT	Explanation of the test
Attack Resistance	••••	
Drilling resistance		Tested with 3 drills of a maximum diameter of 12mm
Chisel resistance	••••	Tested with a chisel to cut in the lock
Twisting resistance		Tested with a grip to force a rotation clockwise and anticlockwise
Extraction		Tested with a screw drilled in the lock and pulled to remove the cylinder
Torque resistance	••••	Tested with a torque wrench to measure the maximum torque the lock can sustain
Picking Resistance	••••	
Combinations	••••	The total number of secured combinations (200,000 secured)
Manual picking	••••	Picked by hand with various blades and hooks
Gun picking	••••	Picked with a pick gun with various blades and hooks
Electric picking	••••	Picked with an electrical tool with various blades and hooks
Durability test	••••	
Cycles	••••	Tested to measure the number of insertion of keys before wearing the lock and prevent rotation
Environmental resistance	••••	
Corrosion Resistance		Tested with salt spray test that accelerates corrosion effect
High temperature resistance	••••	Tested at a tempereture up to +65°C
Low temperature resistance		Tested at a temperature up to -25°C

#### Certification as per EN1303:2015



# High Security Rotary Disc Lock (HSRD)

The High Security Rotary Disc (HSRD) lock is a high security lock with high corrosion resistance and a smooth, easy operation in an aesthetically pleasing design.

Manufactured from 100% stainless steel components the lock offers our highest level of corrosion resistance across the entire range. Stainless steel anti-drill discs ensure a high mechanical attack resistance whilst the alignment of the tumblers gives the lock a high torque resistance.

The HSRD lock offers true levels of high security! With more than 9 million key combinations, the lock is operated by use of an exclusive, secure high quality key made from brass (nickel plated).

Designed and manufactured in our European facilities the HSRD lock provides a high level of security for applications including ticketing machines, gaming machines and vending machines.



## High Security Rotary Disc Lock (HSRD)

## **Standard Features**

- ⊘ High picking resistance: 9 million key combinations
- ⊘ 10-disc mechanism for high picking resistance
- ⊘ Stainless steel finish
- ⊘ High corrosion resistance: 100% stainless steel components
- ⊘ Anti-drill disc provides high mechanical attack resistance
- ⊘ Manufactured to industry standard footprint for retro-fit options
- Comprehensive range of cam options available including straight, notched and cranked



### TYPICAL APPLICATIONS



# **Radial Pin Tumbler Locks (RPT)**

## The Radial Pin Tumbler (RPT) range of locks are manufactured to the highest standards for maximum security and reliability.

The RPT locks use pins in place of disc tumblers, with the pins arranged radially and opened using a round key. This range of locks are all available with an anti-drill feature to provide greater protection and a 10-pin mechanism which increases pick resistance when compared to a standard 6 or 8-pin mechanism.

This secure system has an extended key range of up to 10,000 differs so these locks are commonly used in applications where security is vital. Typical applications include gaming and vending machines, car parking posts, jukeboxes, elevators and lifts or anywhere valuable assets need to be secured.



## Radial Pin Tumbler Locks (RPT)

## **Standard Features**

- ⊘ 10,000 possible key codes
- ⊘ 7 or 10-pin mechanism available
- ⊘ Anti-drill feature available
- O Bright chrome finish
- ⊘ Available in various sizes to fit any application
- $\oslash$  Available with a wide range of lock movements to suit any application
- ⊘ Supplied complete with 2-keys
- ⊘ Comprehensive range of cam options available including straight, notched and cranked



Product ID: 4302

Product ID: 4339





Product ID: 4333

Product ID: 4376

### TYPICAL APPLICATIONS



# Certification

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:



#### Category of Use

1

6

The key shall not break under the applied torque of 2,5 Nm. After the test, the key shall be capable of being removed from the cylinder and re-used to operate the same cylinder with a torque not exceeding 1,5 Nm.

#### Durability

Three grades are indentified according to the number of test cycles achieved: **Grade 4:** 25,000 Cycles **Grade 5:** 50,000 Cycles

Grade 6: 100,000 Cycles

### 0 Door Mass

No Requirement.

0

### Fire Resistance

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

Grade 0: Not approved for use on fire resistant/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.

#### 0 Safety

No Requirement.

#### B Corrosion and Temperature Resistance

Four grades of corrosion resistance and temperature requirement are identified:

 Grade 0: No corrosion requirement; no temperature requirement;
Grade A: High corrosion resistance; no temperature requirement;
Grade B: No corrosion requirement; temperature requirement: from -25°C to + 65°C;

**Grade C:** High corrosion resistance; temperature requirement: from -25°C to + 65°C.

#### 5 Key Related Security

Six grades are identified in accordance with table 2. (See next page)

#### C Attack Resistance

Five grades of resistance against drilling and mechanical attack are identified in accordance with Table 3 (See next page)



## About Lowe & Fletcher and Euro-Locks

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

We supply over 80 million products annually, from precision mechanical locks to the latest digital and electronic locks with many different solutions, enabling us to meet diverse locking requirements.



### Design

We work closely with all our customers to ensure they have the right locks and locking systems for their requirements. Using computer-aided design and rapid prototyping we are able to produce a 3D solid model of the lock for customer approval within 24 hours if required.



### **Precision Manufacturing**

All our locking systems are manufactured in one of our six facilities. Utilising advanced primary and secondary manufacturing processes, we can ensure our production is efficient, flexible and driven by quality.

Automation plays a critical role in our precision manufacturing and a highly skilled workforce provides many years of experience in the final assembly of our products. This combined approach ensures quality is maintained throughout the process.



### Supply

Whatever the solution we can supply in small or large volumes from our own operations. From initial order enquiry through to despatch we are here to help.



### Heritage

Since our foundation in 1889 the business has grown from its origins as a small family lock maker into a diversified international group. We have gone from making handmade products to our highly flexible precision manufacturing expertise of today. The spirit of John Lowe and Thomas Fletcher carries on today as we continue to make well engineered and innovative products that meet the needs of our customers around the world.

# We're here and ready to help

As a specialist manufacturer of locking systems, Lowe & Fletcher and Euro-Locks supply a wide variety of locks and locking systems for any application.

Visit our websites for more information:

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



Euro-Locks www.euro-locks.com



Lowe & Fletcher www.loweandfletcherinc.com



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