KASO®

Kaso is made in Finland. We offer internationally certified products and services for property and information protection. For over a century private citizens, banks, institutions and companies around the world have relied on the high Kaso-quality products and services. We combine our professional knowledge in security products with new and innovative technological solutions and modern designs.

ECB•S
MEMBER OF ESSA

ISO 9001
DNV
CERTIFIED
ORGANISATION

MADE IN
FINLAND

EcoStart

CATALOGUE
2019

KASO®
SECURITY - 24 HOURS A DAY

Catalogue content

More information about Kaso security solutions. Please contact sales@kaso.fi or visit www.kasosafes.com.

Safe game.
And staying on
top of it.

Selling safes to households is a game changer. You need to take the end user into account – something that the industry hasn't done before Kaso.

Kaso has been the pinnacle of development for more than 100 years. Unlike many of its competitors, Kaso has been listening to the needs of their customers from the day one. That's not something you can take for granted in the conservative safe manufacturing business.

According to **Jari Bachmann**, the Chairman of The Board of Kaso, the market changed substantially during early 1990ies.

"It was a surprise to many of our competitors. The banking sector had been an easy customer for safe manufacturers. Every time a bank opened a new branch, they needed a lot of hardware – the average deal was always big. When banks started cutting their branches, the sales of safes went down. Many of our competitors were caught cold," said Jari Bachmann.

The change hit Central Europe first and the Nordic countries followed suit. This lead to a fierce price competition.

"During this era many large manufacturers went out of business, particularly in UK. It's no wonder as the industry in general hadn't paid attention to customer needs at all. Or even pricing for that matter," Bachmann added.

It was customary to over-engineer products, which lead to unnecessary high prices. In 1990ies companies started to take the costs into consideration for the first time.

"To put things in perspective, a new

bank branch could easily bring a deal of 100 000 dollars, while retailers only bought for 5000 dollars. Before you could survive with a few banking customers. But now you need plenty of different customers," Bachmann pointed out.

Varying standards posed another problem.

"In Europe, the testing wasn't harmonised at all. Every country had their own testing standards. Luckily the Euro standards were developed around 1995 to open up the market place for competition. They are also updated every 5 years, which makes Euro standards superior to UL standards used in the US," said Bachmann.

E-300 and the revolutionary BFP-Construction®

To stay on top of their game, Kaso has always looked for ways to develop their products. A major breakthrough was made with the E-300 series.

"The traditional way to build burglary protection is concrete as it's easy and cheap. But the downsides are obvious. Concrete means heavy weight and thick walls," said Managing Director **Risto Palkama**.

From the quality control point of view, concrete can also be problematic.

"There may be voids in the pour. They are difficult to

detect and translate into lower burglary resistance."

Risto Palkama has been working with Kaso R&D since 1999.

"The market was ready for something else. With the E-300 series, we wanted to cut weight while keeping the same resistance against burglary and fire. We were also looking for ways to shorten lead time. Concrete has to cure for such a long time," Palkama explained.

Kaso came up with BFP Construction® to combine different materials to form a strong composite structure. It can't be penetrated with a single tool – there

may be up to 10 different surfaces that need to be cut to get in.

"We use different steel grades, fire resisting materials and other special materials. The end result is up to 50% lighter with much thinner walls. It's easy to optimise for different levels of burglary and fire security," Risto Palkama noted.

Aiming even higher with E-500

These days also households need a safe place for valuables. According to Jari Bachmann, there is a place for a classy, good looking and easy to use safe on the market.

"With the E-500, we have taken the game even higher," Jari Bachmann said.

The new safes are easy for the user and eye alike.

"We located the lock higher up so

that it's easier to reach. To open it, just enter the code. Push the door back and the safe is closed again. It's that simple to use," said Palkama.

Contemporary looks round up the package – users can fine tune the appearance to match their home decoration. Optional colours, front panels and accessories ensure that the E-500 meets every need.

"Our Scandinavian roots are evident in the design. The aim was to make the most elegant mass produced safe ever. We succeeded by taking into account everything we had learned from E-300 series," Bachmann concluded.

Now this novelty is ready to grace any home.

"Our customers appreciate comprehensive service"

A high-quality security unit, expertly designed and manufactured, offers excellent protection against burglary, fire and other threats. However, it first needs to be delivered and correctly placed, balanced and anchored.

"Our personnel inspects the location before delivery to determine issues such as how much weight the floor can bear and what the best route is. Then we install the safe, train the users and provide product manuals that are actually helpful. Our customer satisfaction surveys show that this kind of comprehensive service is much appreciated," Kaso's Sales Director **Jussi Lehtonen** says.

Kaso's professionals, with their experience and know-how, can also help customers make the right decisions when planning how to protect their valuables. For example, Jussi Lehtonen has a good tip on how to avoid having to upgrade your purchase in a few years.

"The size does not affect the price of a safe nearly as much as the resistance grade. That is why it makes sense to consider spending just a little bit more on a safe with some room for growth in anticipation of future needs. As the difference is in height, a bigger safe doesn't even take up more floor space."

ECB•S certification according to European standards is a proof of quality

Dr. Heering, could you please introduce the European Certification Body?

European Certification Body (ECB) is a neutral and accredited certification body for physical security products like e.g. safes, high security locks and strongrooms. It issues the international recognized ECB•S certificate. ECB has almost 50 years experience in the field of testing and assessing security products. It was emanated from the international security association ESSA.

On which standards the ECB•S certification is based on and how they are working?

The ECB•S certification is based on European standards. The EN requirements are based on identifying a security product's weakest point, and the stresses that point can withstand then sets the product's overall security level. European standards describe how the tests are carried out and which requirements apply for various security levels. A standard only defining a specific construction would not be that flexible. If the products fulfill the high requirements of the ECB, the manufacturer can label them with the ECB•S certification mark.

Who is the author of the European standards?

The European standards are developed by a technical committee consisting of experts from the security industry from the different member countries. Manufacturers, scientists, users and laboratories come regularly together to advance the standards and make them fitting to new requirements of the market. Every 4 years the standards are checked completely. This is a very transparent process and ensures that the standard lives up to its promise.

Why there is a need for such standards in the market?

The advantage of the European standardization is that it is continuously worked on. Therefore new burglary methods and new tools can be integrated into the standard and the standard is state of the art. There are other standards in the market that have not been changed for decades.

Do you think that it was a good decision to establish European Standards?

The European standards, existing almost 20 years, are a great success. Before establishing them the market was dominated by many national

standards. This was a very unclear situation, because it was not easy to compare the different standards to each other. Today the ECB•S certification according to European standards is not only recognized in Europe, but also far beyond the European borders. And the positive trend is still going on.

What are important requirements of the ECB•S certification?

As the first step the product is tested by a laboratory. On the basis of this test and the assessment, the ECB issues the ECB•S certificate. The certificate holders must have a quality management system. Besides the ECB carries out regularly quality surveillance audits at the manufacturing plants of the certificate holders to ensure a constantly high quality level of the production.

Which benefit offers the ECB•S certification?

The ECB•S certification is a proof of quality for banks and other customers. It gives orientation as it is recognized in the global security market. The ECB•S certification formulates an important basis for the risk calculating of insurance companies. The higher the security level of the ECB•S certified security product, the higher is the worth that may be stored in it.

Profile / Dr. Markus Heering

Managing Director of European Certification Body

Education
Doctorate in process engineering at RWTH Aachen University

Professional Background
Junior researcher at the Department of Ferrous Metallurgy (IEHK), Engineer and project leader at the environmental protection technology specialist Herhof before joining the VDMA (Geraman association of machine manufacturing companies).

Managing Director of the VDMA association Printing and Paper Technology and Security Systems since January 2008.

Managing Director of the European Security Systems Association (ESSA).

Acceptance of certified security solutions developed well in emerging markets

"Customers are getting aware of the importance of certification. Earlier, no one was asking for it. But now it's becoming a real competitive advantage."

Tarek Noureldin, the Managing Director of Techno Egypt Integrated Solutions (TEIS), is an experienced security professional. Having worked with Kaso since 1990, he has had an unique vantage point to see how the Egypt market have evolved. Earlier, the market was dominated with untested and uncertified products, but times have luckily changed.

Uncertified products losing ground

In the Egyptian banking sector, there are typically three stakeholders in the buying process. Engineers, hired consultants and the purchasing department all need to be convinced.

"But whatever their position in the process may be, people are always astonished to see real-life pictures of uncertified vault doors, safety doors or safety deposit boxes, all of which have been broken in with ease," Noureldin says. "The photos really open up their eyes."

TEIS has supplied Kaso vault doors for many leading banks across Egypt. As a sign of trust, nowadays many security consultants ask Noureldin and TEIS for advice on how to make a good request for tender.

"By choosing ECB·S certified products, our customers always know exactly what they are paying for. There are no hidden surprises in the construction of the vault doors or other items as might be the case with uncertified products," Tarek Noureldin claims. "The Egyptian market is on the rise as there are not enough bank branches in relation to population. And we have had two revolutions in near past, so there is no question whether security is an issue or not."

According to Noureldin, the cooperation with Kaso has been very flexible. "Kaso has offered us excellent support with a swift response, whether it's a technical or a pricing-related question. And what's most important, they have also been able to fine tune the products to meet the customers' exact needs."

Focus on educating the customers

For the businesses considering of becoming a Kaso dealer, Noureldin has a sound piece of advice.

"You need to be willing to educate your potential customers on the value of the European standards and testing procedures. You really have to make sure that they understand the difference between certified and uncertified products. Once the common understanding and mutual trust is gained, business will be so much easier."

Specializing in physical security solutions

TEIS is a privately owned business specializing in physical security solutions for the banking and IT sector. Around half of the TEIS business comes from Kaso vault doors, safety doors and safety deposit boxes. TEIS was the first company in the Egypt market to offer products that have been certified by the neutral European Certification Body (ECB). ECB·S certification mark guarantees that the product has been tested according to the strict European standards.

"By choosing ECB·S certified products, our customers always know exactly what they are paying for."

Kaso products are always put through the toughest, most demanding tests available

How do you know if a safe will actually stand up to a burglary attempt or a fire? The easiest way to find out is to look for a blue label with "ECB•S" on it.

A certification by ECB•S (European Certification Board – Security Systems) means that the product has passed a resistance test according to the European Standards, which are widely recognised around the world and approved by insurance companies.

"In a way, the ECB•S certification label is the most important part of the product. The certification guarantees a comparable and universal level of protection," Kaso's Managing Director **Risto Palkama** says.

Kaso products are type tested and certified by ECB•S. What's more, the tests are only performed by the industry's leading testing laboratories in Germany, Sweden and Finland. These are established high-class facilities that can ensure testing in true accordance with the latest European Standards.

"Kaso products are always put through the toughest, most demanding tests available. We don't take any shortcuts or easy options to get certifications," Risto Palkama assures.

Burglary resistance testing

A safe has to pass attack tests by highly-trained professionals using the latest and most effective burglary tools to receive a burglary resistance grade, which run from EURO 0 to EURO V.

Before the test, the testing laboratory is supplied with complete technical drawings to help it plan in advance how to break into the safe. In the actual burglary testing procedure, preselected tools and methods are used in order to find the easiest access into the safe being tested. This is because the resistance grade level is based on the easiest access point – all other points are at least equally resistant.

Insurance companies recommend the maximum value for the content stored in the safe according to the certified burglary resistance grade. Certification by ECB•S guarantees insurance coverage and more favourable premiums.

Fire resistance testing (NT Fire 017)

Kaso fire safes have been type tested and certified for fire resistance according to the Nordic NT Fire 017 standard in the fire laboratories of VTT Technical Research Centre of Finland or SP Technical Research Institute of Sweden.

The safe is placed inside a furnace, where all the vertical sides and the top are exposed to fire. For a safe to pass the test for the protection of paper material, the maximum temperature inside the safe must not increase by more than 150 °C. In the Diskette test for the protection of data material, the temperature increase limit is 30 °C.

The different protection classes signify the material and the length of time the safe offers protection for it. The NT Fire 017–120 Paper classification, for example, means that the safe has fulfilled the requirements of the test for 120 minutes for paper.

Fire resistance testing (DIS)

In the NT Fire 017 tests, the recording of temperatures inside the safe is terminated at the same time as the test, whereas safes carrying the S 120 DIS certification provide the highest class of fire protection.

In the DIS test (EN 1047–1), the safe is not only placed in a + 1090 °C furnace but left there for the duration of the cooling period, with the inside temperature reaching its highest level several hours after the fire has been switched off. This means DIS-certified safes can actually protect the contents for up to ten hours.

The test also includes dropping the safe from the height of 9.15 m to a hard surface after it has been heated to the maximum temperature. This is to simulate floors or other structural units collapsing in a burning building. After the drop test, the product is returned to the furnace for further fire testing.

Kaso product development

In 2018 Kaso R&D new product development was productive and launched several new products.

New security cabinet with burglary classification S2 (EN 14450) and fire classification 120 Paper (NT Fire 017) was launched. Security door range was complemented with an additional security classification. New sound absorption doors were developed for clothes cabinets product family. New security cabinet for cash in transit cars was developed.

Fireproofed in real life building fires

At Kaso we often open safes damaged in fires around the world. Recently we opened a Kaso safe that had suffered in the forest fires in Greece. The house was burnt down to the stone wall. Opening is always a thrilling and emotional event – we cannot guarantee the state of the contents, if the conditions have exceeded what the safe is designed to withstand. This particular safe model was tested to withstand a heat of 1 000 degrees for one hour, but according to the owner, the safe had been at least 4-5 hours in above 700 degrees. This time the result made everyone happy: our customer was delighted with the good condition of stationery and keepsakes.

> "Kaso products are type tested and certified by ECB•S"
>
> **Risto Palkama,** Managing Director, Kaso

Modern design meets certified safety

Openness towards all that is new is written down as one of Kaso's values. Over the years this principle has led the company to boldly question some of the traditions of the industry it operates in.

For example: do safes really have to be heavy and ugly?

Innovative technological solutions and design sensibility have enabled Kaso to reduce the weight of safes without compromising security and to introduce products that are easy to use but also easy on the eye.

"Our R&D efforts are based on the feedback we get from customers. We also seek input from international security associations, security testing laboratories, law enforcement agencies, insurance companies and financial institutions, technological institutes and top design companies," Kaso's R&D Director Risto Palkama says.

As a member of the EURO-SAFE association and ESSA (European Security Systems Association) Kaso stays among the frontrunners of the industry. The company's active participation in the latest developments of the field drives the ongoing product development.

"Even though we pay a lot of attention to how our products look, the protection they offer is the number one priority. That is why we are closely involved in the continuous updating of security standards. If the bad guys come up with new tricks, we have to keep up with them."

BFP® construction – light weight, heavy security

Kaso was the first to crack the age-old problem with safes: their prohibitive weight. The company developed its own multi-layer BFP® construction, which makes it possible to reach the security level of a three-ton concrete safe with only a third of the weight.

The lighter weight means that customers can now place safes where they couldn't before, such as buildings with floors capable of handling only a limited load. As it requires less raw material and reduces waste, a safe with BFP® construction is also a sustainable choice.

E-500 echoes your style

Gone are the days when a safe had to be hidden from sight. Today, a new E-500 series safe can be an integral part of your home decoration. You can fine tune our contemporary Scandinavian design with changeable front panels and choose a body colour to match.

E-500 truly brings the design, safety and functionality to the next level. Your style is unique – now your safe is too.

Kaso accessories are designed for enabling flexible and convenient use of the safes for various storage requirements

All Kaso safes have one thing in common: they have been designed to protect their contents. However, their interiors can be totally customised and fine-tuned with inside fittings for any kinds of valuables the users might want to store.

Kaso's wide range of inside fittings includes adjustable shelves, pull-out elements – such as shelves, different key storage solutions and suspension file frames – and lockable inner boxes for data and other materials. The fittings are easy to install without tools and compatible with any Kaso safe regardless of size or model.

"With inside fittings, the space in the safe can be optimally utilised and organised. They also make work easier, safer and more efficient. For example, you don't need to take materials away from the safe when you inspect them on a pull-out worktop," Kaso's Sales Director **Jussi Lehtonen** says.

Individual security with compartments

When several persons need individually secured storage space, purchasing a whole row of safes is not the only option. Kaso safes can be tailored so that each authorised user has their own lockable compartment that only he or she can access.

"A safe can even be equipped with an electronic access control system. Having a digital record of who has accessed the safe and when improves security and also protects the users in possible dispute situations," Jussi Lehtonen points out.

Protecting and safekeeping:

- Bookkeeping
- CDs, DVDs and other Certificates
- Business records and plans
- Credit cards
- Drawings
- Firearms
- Insurance documents
- Jewellery and watches
- Laptops
- Legal agreements
- Money
- Ownership certificates
- Passports and IDs
- PIN and security codes
- Spare keys
- Tax reports
- Tickets
- Valuables

The cornerstones of Kaso production – top quality and customer satisfaction

Keeping the customer satisfaction high is a prerequisite for success in any business. And it's even more so, when the business is all about trust and security.

"We have fine-tuned our production processes to ensure that every customer gets exactly what he needs and when we have agreed to deliver," Production Manager **Pekka Wilkman** says. "Over 95% of our orders are delivered right on time," adds Wilkman.

Using top-notch machinery, most of the 2000 different components needed for the Kaso products are made in-house in the 12 000m² factory in Finland. The bar code system allows Kaso to follow the production status of each order.

The bulk of the products are made to order as there are a lot of variations in terms of protection level, colours and lock technologies and many product families such as safes, vault doors and safety deposit boxes. "It has never been a problem as our typical lead time is as short as two to three weeks.

We stock only a few products," Wilkman explains.

Kaso works according the principles of cellular manufacturing. The teams are based on the production phases, but most of the Kaso craftsmen are multi-talented and can effortlessly move between roles and cells – a definite advantage for the times of high order load. Each self-guided production team has flexible workhours and workers themselves have the responsibility to meet both the production times and quality criteria. Their wages also have a component that is tied to the performance of production.

"In addition to our own highly skilled labour, we use several select subcontractors, who meet our high requirements," says Wilkman.

Documentation vital for quality

Third party organisations inspect the operations several times a year. With an ISO 9001:2015 certified production and constant development in terms of quality, defects are rare.

"Every order is accompanied with a production sheet, which gets signed for a proof of quality after a task has been completed. If there is a defect, the documentation helps us to pinpoint where the error has been made – whether it's a question of materials or quality of work. What's most important however, is that we aim to make sure that such mistakes won't happen again," Wilkman points out.

Pekka Wilkman has been with Kaso since 1985. "It's a great place to work and as a clear evidence, most of my colleagues have been here for a long time, too. We are proud of what we do and also have a heritage to treasure."

With over 100 years of experience, Kaso is investing on continuous development in order to be a trustworthy partner also in future.

> *"Over 95% of our orders are delivered right on time,"*
> Production Manager Pekka Wilkman says.
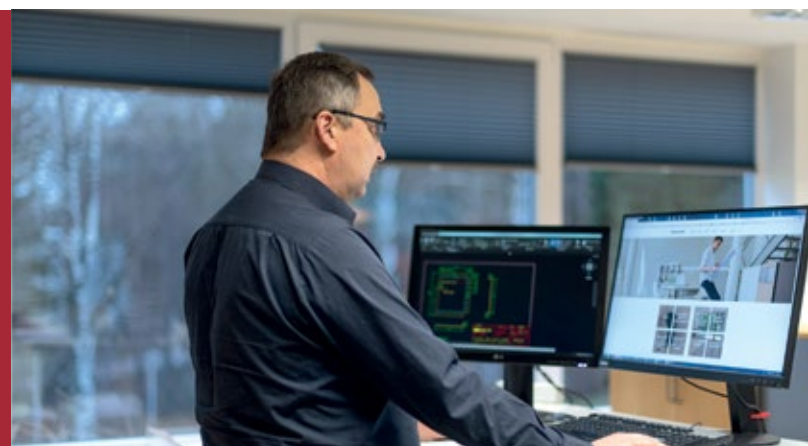
We are responsible for exceptionally confidential materials

"I believe our archiving practices are among the most strictly controlled in Finland. They must be consistent with both domestic archiving laws and international standards as we also manage plenty of classified EU and NATO material," says Ministry of Defence's Head Attendant **Paavo Halonen.**

In order to make the work process as smooth as possible, the officials also have their own fire and burglary protected safes for the documents related to ongoing projects and investigations. When the materials are no longer needed, they are returned to the archive.

"Three of our attendants have rights to handle classified material.

Their responsibility is to know where the documents taken out of the archive are and to what purpose they are used. Even one misplaced paper is enough to cause at least an image problem."

Although all Ministry of Defence materials are required to be archived on paper, digital archiving is gaining ground. Accordingly, the strict operating guidelines cover more than just paper documents. Devices such as memory sticks and portable computers are always stored in classified safes when not in use.

Kaso has delivered a comprehensive archiving solution for Finland's Ministry of Defence with clear instructions for the handling of documents.

Kaso products protect your confidential information against fire and burglary

Our service portfolio related to safe and systematic storage includes:

- Security design services
- Security audits and consultations
- Delivery and installation services
- Maintenance and 24-hour telephone service
- Kaso Rent financing services

" *Even one misplaced paper is enough to cause at least an image problem.*"

Paavo Halonen, Head Attendant, Ministry of Defence

PUOLUSTUSMINISTERIÖ
FÖRSVARSMINISTERIET
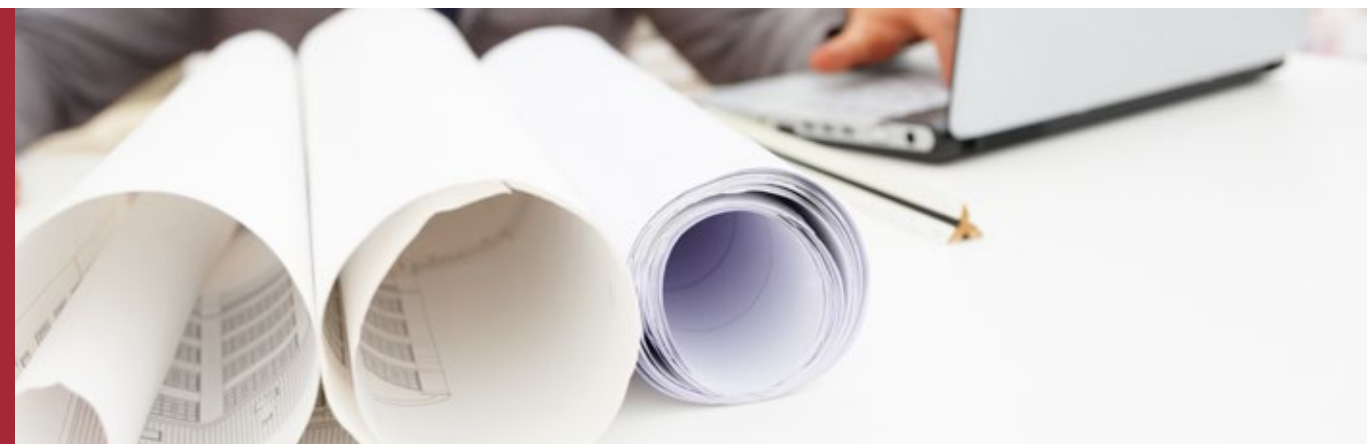
Fire protection for documents and data

Organisations across businesses as well as the public sector need to protect valuable data against fire, unauthorised access and other hazards. With more than half a century of experience in fire security for data and media records Kaso can offer several tested solutions to meet these needs effectively, efficiently – and stylishly.

Fireproof data protection for homes and small offices

The Kaso PK-45 media safe series for protection of data material has been designed for homes and small offices. The safes provide a compact, fireproof storage solution for documents, small items and data media. Safes can be placed on tables or shelves, or hidden inside other furniture.

Fireproof data protection for organisations

Suitable for larger organisations, the six safe sizes in the Kaso PK-400 Media Fire Safe series cover a wide range of needs for data and media storage, with tested fire protection for 120 minutes at temperatures of over 1045 °C. Four-way locking and a fixed back bolt bank protect the contents from unauthorised access and ensure tight closure for fire protection.

A fire could paralyse a company

Despite prevention by modern alarm systems, nobody can fully avert this danger.

The economic loss of data destroyed by flames could represent enormous capital value.

Their loss could ruin a company, not only a big industrial company, but also trading and craft enterprises and service providers.

Also know-how, customer data, figures and facts cannot be replaced or reproduced so easily and could be very expensive and take long time to recover.

IT security is also an operational risk. Production stops, development stagnates, sales and marketing personnel are unable to work. Business interruption insurance covers all current costs and lost sales at the beginning – but how many customers will wait for the end of an extended interruption without going to a competitor?

Qualified staff, as well, will look for new chances quickly.

Another problem is the retention period fixed by law for files, documents and data media.

Insurance coverage may be also at risk if no preventive measures have been taken.

Filing cabinets

Good filing and storage can improve productivity and comfort at work as well as the quality of service for customers and shareholders. As for safety, adequate measures to protect documentation against hazards ensure ease of mind.

Kaso FC filing cabinets, tested NT Fire 017 according to 60 Paper, protect your files against fire at the office. Featuring adjustable filing rail width, the cabinets are suitable for most of the common office paper formats such as A4, legal, letter, foolscap folio etc. The central key lock on the top drawer enables easy locking for all drawers at once.

Burglary- and fireproof filing

The PK-400 four-way locking mechanism consists of sliding locking bolts on three sides and a fixed full-length back bolt on the back panel of the door. The series provides 120 minutes fire protection for paper and can be customised with a wide array of optional fittings and locking options.

Images from a Central Bank building fire

Fireproof FC filing cabinets

NT Fire 017 – 60 Paper

FC-40E with four drawers, with panel

FC-40C, compact, with four drawers, without panel

Key features

- Modern design
- Lightweight filing series
- Fire protection 60 minutes (NT Fire 017 – 60 Paper)
- Two to four drawers
- Adjustable filing rail width

Design

- Adjustable filing rail width – suitable for A4, legal, letter, foolscap folio paper sizes
- Supplied with one central keylock on the top drawer – all drawers can be locked and opened with a single lock
- Colour light grey, RAL 7035
- Two series available:
  – FC E series with wooden drawer panels
  – FC C series with traditional painted drawers

Data insert
NT Fire 017 – 60 Diskette
(option)

Specifications			
Model	**FC-20E** **FC-20C**	**FC-30E** **FC-30C**	**FC-40E** **FC-40C**
Height (mm)	785	1125	1470
Width (mm)	530	530	530
Depth (mm)	700	700	700
Weight (kg) E	150	210	270
Weight (kg) C	146	202	260
Number of drawers	2	3	4

Burglaryproof PK-400 fire safes

EN 14450 Grade S1 (ECB-S)
NT Fire 017 – 120 Paper

Key features

- Over half a century of experience in tested fire security products
- Lightweight and modern fireproof storage solution for offices
- Modern design and wide range of models for a variety of storage needs
- 120 minutes fire protection according to NT Fire 017 – 120 Paper (120 minutes of fire testing at temperatures over 1045 °C)
- Burglary protection S1 according to European Standard EN 14450 (ECB-S)
- Security locking system against burglary, theft and unauthorised access

Locking and security

- Four-way locking mechanism consists of sliding locking bolts on three sides and a locking frame structure on the back panel of the door
- PK-400 data safes are supplied with ECB-S certified Mauer keylock as standard – also available with various electronic code or combination lock models
- Option for two locks
- Floor anchoring

Optional fittings

- Adjustable shelves
- Adjustable shelves with filing rails
- Lockable compartments – external height 150 mm or 350 mm
- Pull-out multipurpose drawers and filing rails
- Data Insert MI-400
- Gun accessories

Burglaryproof PK-400 fire safes

EN 14450 Grade S1 (ECB-S)
NT Fire 017 – 120 Paper
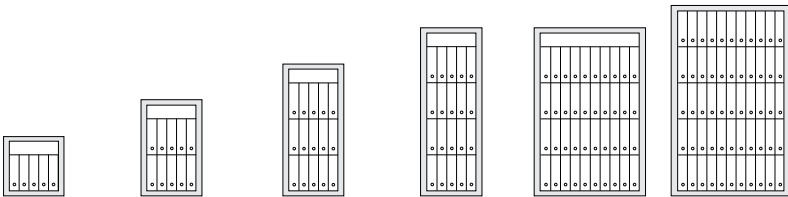
Specifications						
Model	PK-410	PK-420	PK-430	PK-440	PK-480	PK-490
External						
Height (mm)	680	1030	1380	1730	1730	1980
Width (mm)	670	670	670	670	1160	1220
Depth (mm)	580	580	580	580	580	580
Internal						
Height (mm)	490	840	1190	1540	1540	1790
Width (mm)	485	485	485	485	970	1040
Depth (mm)	360	360	360	360	360	360
Volume (l)	87	149	211	273	546	679
Weight (kg)	150	205	260	315	495	565
A4 file capacity (pcs)	6–9	12–18	18–27	24–36	48–76	65–100

Burglaryproof PK-400 data safes

EN 14450 Grade S1 (ECB-S)
NT Fire 017 – 120 Diskette

Locking and security

- Four-way locking mechanism consists of sliding locking bolts on three sides and a locking frame structure on the back panel of the door
- PK-400 data safes are supplied with ECB-S certified Mauer keylock as standard
  – also available with various other electronic code or combination lock models
- Option for two locks
- Floor anchoring

Tested protection

- Fire protection for data and media records according to NT Fire 017 – 120 Diskette (fire protection for 120 minutes at temperatures of over 1045 °C), (PK-410 Data Safe NT Fire 017 – 90 Diskette)
- Burglary protection S1 according to European Standard EN 14450 (ECB-S)
- Manufactured in accordance with the ISO 9001:2000 quality management system

Design

- Wide range of models and flexible adjustment of the inside fittings allows a variety of uses
- Sealed double door structure for maximum security against fire, heat, magnetism and water
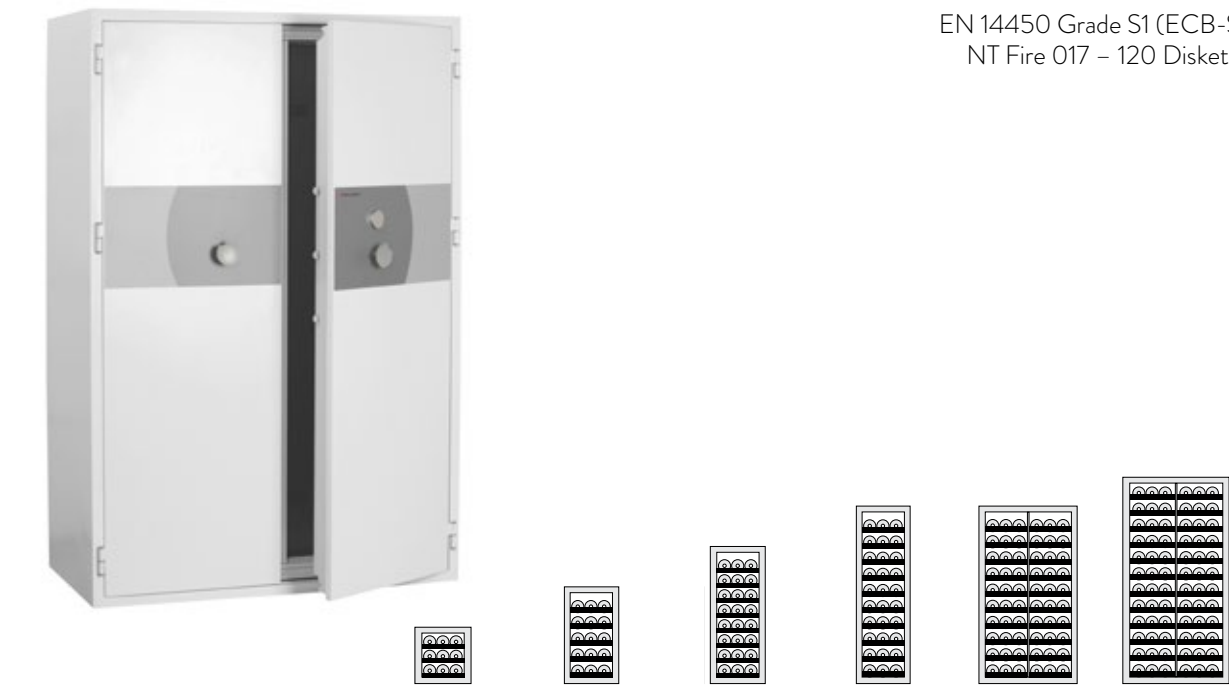- Standard colour light grey, RAL 7035

Optional inside fittings

- Adjustable shelves
- Pull-out multi-purpose drawers with dividers

Internal dimensions of a multipurpose pull-out shelf: PK-490 data safe 377 mm x 251 mm x 60 mm. Other models 344 mm x 251 mm x 60 mm.

Burglaryproof PK-400 data safes

Specifications						
Model	**PK-410 DATA SAFE**	**PK-420 DATA SAFE**	**PK-430 DATA SAFE**	**PK-440 DATA SAFE**	**PK-480 DATA SAFE**	**PK-490 DATA SAFE**
External						
Height (mm)	680	1030	1380	1730	1730	1980
Width (mm)	670	670	670	670	1160	1220
Depth (mm)	580	580	580	580	580	580
Internal						
Height (mm)	390	740	1090	1440	1440	1690
Width (mm)	375	375	375	375	755	815
Depth (mm)	260	260	260	260	260	260
Volume (l)	39	73	108	142	284	361
Weight (kg)	170	230	300	380	625	725
Capacity (estimate), discs						
5.25" magneto-optical disc	95	185	280	415	830	920
CD/DVD	160	315	470	705	1405	1640
Zip drives	190	380	570	760	1515	2355
3.5" magneto-optical disc	390	905	1290	1810	3615	5505
Capacity (estimate), cartridges						
DLT	90	180	270	360	720	900
LTO, LTO Ultruim	110	220	325	435	865	1345
Exabyte 8 mm, Travan TR-4	195	390	585	780	1560	1820
AIT	310	615	920	1225	2450	3025
DAT	310	715	1020	1430	2860	3810
DDS	435	1010	1440	2020	4035	4995

Pull-out multipurpose drawer inner dimensions (mm): width 340 x depth 250 (models PK-410 – PK-480), width 375 x depth 250 (model PK-490).

Data safe capacity estimates are assuming adjustable shelves as internal accessories.
Individual data cartridge package sizes are manufacturer specific. More information from sales@kaso.fi.

Burglary protection

More and more mobile employees, temporary personnel and visitors pass through office environments and shops. The increase in traffic calls for improved document protection.

Eurosafes

The multi-layer BFP® construction, developed by Kaso, provides invaluable benefits for the construction of safes. Thanks to the innovation, the Kaso E-400 Eurosafe series offers significant weight savings without compromising the security level. The locking mechanism of the E-400 series safes consists of sliding locking bolts on three sides and a locking frame structure on the back panel of the door. The safes are supplied with a floor-anchoring hole and bolt as standard to prevent easy removal of the safe.

Fire- and burglaryproof Eurosafes

The Kaso E-300 series provides strong burglary protection and tested fire protection for 60 minutes. The variety of safe sizes, with container volumes ranging from 87 to 635 litres, ensures a precise match for customer-specific needs. Door panel, colouring and inside fitting options further add to the versatility of the series.

Office safes

Kaso office safes of the PTK-300 series are available in six sizes. The light and slender construction allows for flexible placement in the office – the smallest of the series can even be placed under a desk. Sliding bolts on all four sides of the door protect the contents against unauthorised access and keep the door tightly closed against fire. All safes in the series can be floor-anchored and equipped with a variety of locking options and inside fittings.

Eurosafes E-100 series

EN 1143-1 Grade I (ECB-S)

ECB-S certified and practical Eurosafe for small shops, restaurants, kiosks, offices and homes.

Standard options

- Unpickable keylock,
  EN 1300 Class A (2 keys)
- Standard colour Dusty Grey,
  RAL 7037
- Back wall and floor anchoring
  (1 anchoring bolt)
- Adjustable shelf

Locking options
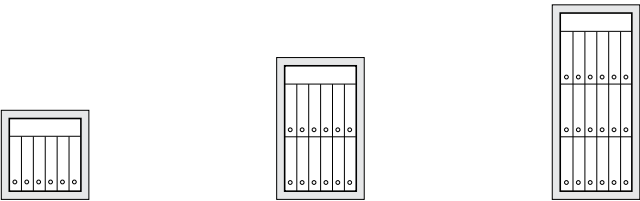
- Digital codelock

Eurosafes E-400 series

EN 1143-1 Grades I to II (ECB-S)

Key features

- Burglary protection according to
  EN 1143-1 Grade I and II (ECB-S)
- Modern design and lightweight
- Multi-layer BFP® construction
- Low weight-to-security-level ratio
- Sliding locking bolts on three sides
  and locking frame structure on the
  back panel of the door
- Floor-anchoring hole and
  bolt as standard
- Colour light grey, RAL 7035

Options and fittings

- Keylock, electronic codelock
  or combination lock
- Option for two locks
- Optional lockable compartment
  alternatives: external height 150 mm
  or 350 mm (suitable for A4 file)
- Right- or left-handed opening

Specifications				
Model	E1-102	E1-103	E1-104	E1-106
External				
Height (mm)	280	280	395	565
Width (mm)	400	450	450	450
Depth (mm)	312	442	442	442
Internal				
Height (mm)	230	230	345	515
Width (mm)	350	400	400	400
Depth (mm)	180	310	310	310
Volume (l)	14	29	43	64
Weight (kg)	60	85	100	130

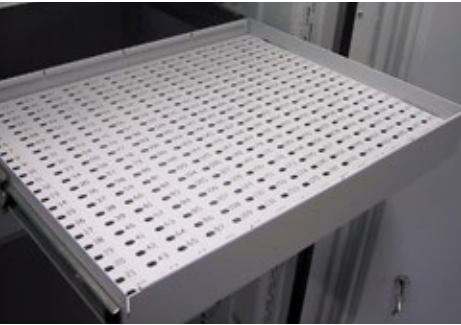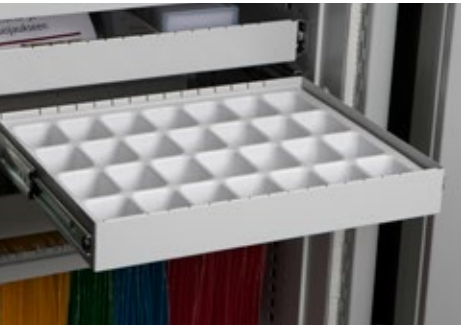| Specifications			
Model	E1-410 E2-410	E1-420 E2-420	E1-430 E2-430
External			
Height (mm)	595	945	1295
Width (mm)	585	585	585
Depth (mm)	530	530	530
Internal			
Height (mm)	493	843	1193
Width (mm)	486	486	486
Depth (mm)	364	364	364
Volume (l)	87	149	211
A4 file capacity (pcs)	6–9	12–18	18–27
Weight (kg) E1	150	180	210
Weight (kg) E2	180	230	280

Eurosafes PTK E-300 series

EN 1143-1 Grade 0 to IV (ECB-S)
NT Fire 017 – 60 Paper (Grade 0 to III)
EN 15659 – LFS 30 P (Grade IV)

Key features

- Designed for offices
- Burglary tested and certified according to Euronorm EN 1143-1 Grade 0 to IV (ECB-S)
- Fire protection for 60 minutes according to NT Fire 017 – 60 Paper (Grade 0 to III)
- Fire protection for 30 minutes according to EN 15659 – LFS 30 P (Grade IV)
- Unpickable keylock with two changeable keys as standard (E4 grade with two locks)
- Wide range of locking options and accessories
- Standard colour light grey, RAL 7035
- Easily installed – the smallest size can even be placed under a desk
- Sliding bolts on all four sides of the door protect against burglary attack and keep the door tightly closed in case of fire
- Floor anchoring as standard
- Internal fittings adjustable at 25 mm pitch
- Light weight, all under 1000 kg

Options and fittings

- Combination lock or electronic codelock
- Option for two locks
- Adjustable plain shelf
- Pull-out multi-purpose shelf
- Pull-out suspension file frame
- Pull-out worktop
- Lockable inner box
- Data Insert MI-400
- Pull-out keyrack
- Pull-out key compartment shelf
- Pull-out key shelf
- Full RAL range available for colouring
- Right or left handed opening
- Safety deposit lockers

Specifications						
Model **PTK-SERIES**	**E-310** **E1-310** **E2-310** **E3-310** **E4-310**	**E-320** **E1-320** **E2-320** **E3-320** **E4-320**	**E-330** **E1-330** **E2-330** **E3-330** **E4-330**	**E-340** **E1-340** **E2-340** **E3-340** **E4-340**	**E-350** **E1-350** **E2-350** **E3-350** **E4-350**	**E-370** **E1-370** **E2-370** **E3-370** **E4-370**
External						
Height (mm)	612	962	1312	1662	1912	1912
Width (mm)	634	634	634	634	634	848
Depth (mm)	550	550	550	550	550	692
Internal						
Height (mm)	493	843	1193	1543	1793	1793
Width (mm)	486	486	486	486	486	700
Depth (mm)	364	364	364	364	364	506
Volume (l)	87	149	211	273	317	635
A4 file capacity (pcs)	6–9	12–18	18–27	24–36	30–45	40–70
Weight (kg) E/E1	180	260	340	420	470	650
Weight (kg) E2	220	300	390	470	500	750
Weight (kg) E3	250	340	430	530	580	850
Weight (kg) E4	280	380	490	610	670	970

Eurosafes PTK E-300 series

EN 1143-1 Grade II to III (ECB-S)
NT Fire 017 – 60 Paper

Key features

- Burglary tested and certified according to Euronorm EN 1143-1 Grade II to III (ECB-S)
- Fire protection for 60 minutes according to NT FIRE 017 – 60 Paper
- Wide range of locking options and accessories
- Standard colour light grey, RAL 7035

Options and fittings

- Combination lock or electronic lock
- Two locks
- Adjustable plain shelf
- Pull-out multi-purpose shelf
- Pull-out suspension file frame, size A4
- Lockable inner box
- Other RAL colours

Specifications

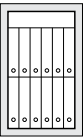| Model PTK-SERIES	E2-308 E3-308	E2-309 E3-309
External		
Height (mm)	612	789
Width (mm)	570	570
Depth (mm)	500	500
Internal		
Height (mm)	493	670
Width (mm)	444	444
Depth (mm)	344	344
Volume (l)	75	102
A4 file capacity (pcs)	5–8	10–16
Weight (kg) E2	190	260
Weight (kg) E3	210	290

Eurosafes E-300 series

EN 1143-1 Grade II to III (ECB-S)
NT Fire 017 – 60 Paper

Key features

- Burglary tested and certified according to Euronorm EN 1143-1 Grade II to III (ECB-S)
- Fire protection for 60 minutes according to NT FIRE 017 – 60 Paper
- Wide range of locking options and accessories
- Standard colour light grey, RAL 7035

Options and fittings

- Combination lock or electronic lock
- Two locks
- Adjustable plain shelf
- Pull-out multi-purpose shelf
- Pull-out suspension file frame, size A4
- Lockable inner box
- Other RAL colours

Specifications

Model E-300-SERIES	E2-308 E3-308	E2-309 E3-309
External		
Height (mm)	612	789
Width (mm)	570	570
Depth (mm)	560	560
Internal		
Height (mm)	493	670
Width (mm)	444	444
Depth (mm)	344	344
Volume (l)	75	102
A4 file capacity (pcs)	5–8	10–16
Weight (kg) E2	210	260
Weight (kg) E3	220	300

Eurosafes E-300 series

EN 1143-1 Grade 0 to IV (ECB-S)
NT Fire 017 – 60 Paper (Grade 0 to III)
EN 15659 – LFS 30 P (Grade IV)

Key features

- Burglary tested and certified according to Euronorm EN 1143-1 Grade 0 to IV (ECB-S)
- Fire protection for 60 minutes according to NT Fire 017 – 60 Paper (Grade 0 to III)
- Fire protection for 30 minutes according to EN 15659 – LFS 30 P (Grade IV)
- Standard colour light grey, RAL 7035
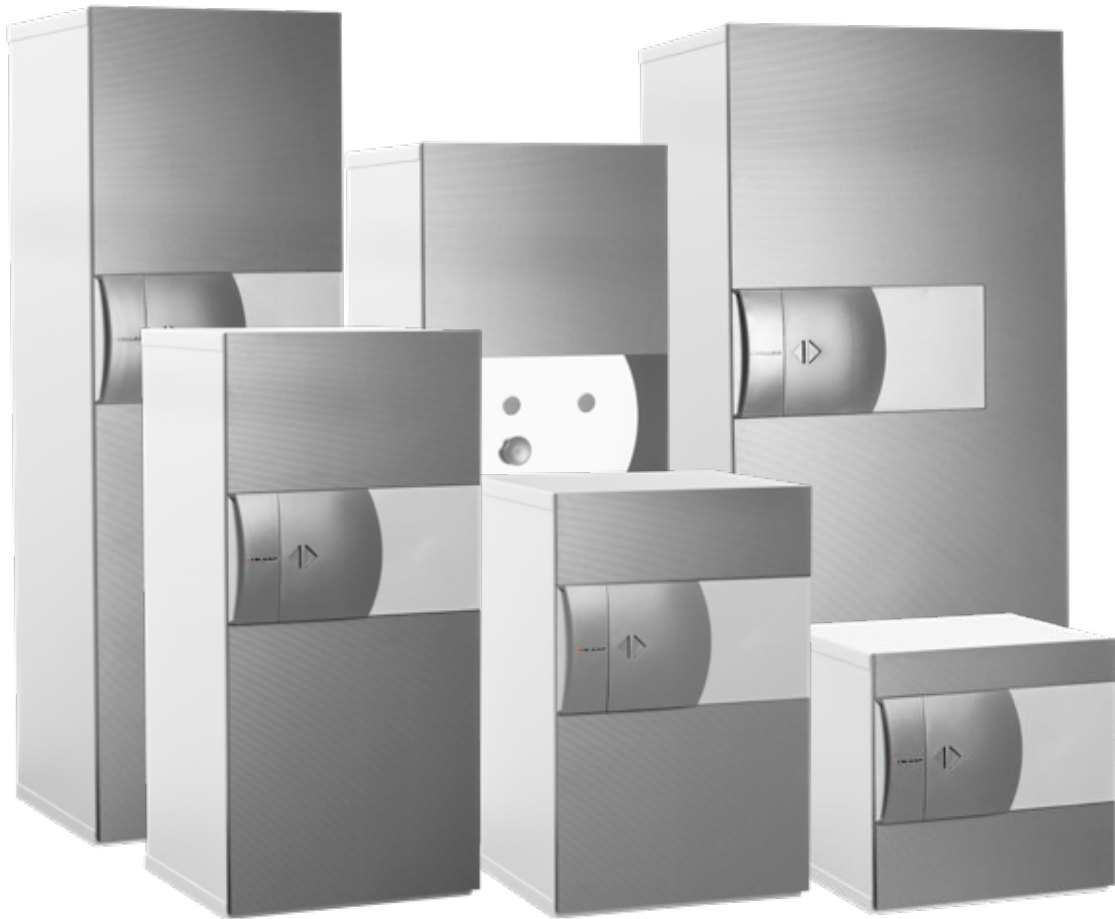
Eurosafes E-300 series

EN 1143-1 Grade 0 to IV (ECB-S)
NT Fire 017 – 60 Paper (Grade 0 to III)
EN 15659 – LFS 30 P (Grade IV)

Options and fittings

- Varos keylock with changeable keys
- Electronic codelock
- Mechanical combination lock
- Panel options and special colours
- Adjustable plain shelves
- Pull-out multi-purpose shelves
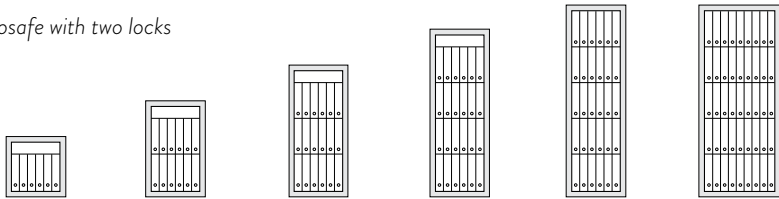- Pull-out worktop
- Lockable inner boxes
- Data Insert MI-400
- Pull-out keyrack
- Pull-out key compartment shelf
- Pull-out key shelf
- Pull-out suspension file frame
- Tested deposit solution
- Safety deposit lockers

E-300 Eurosafe with one lock   *E-300 Eurosafe with two locks*

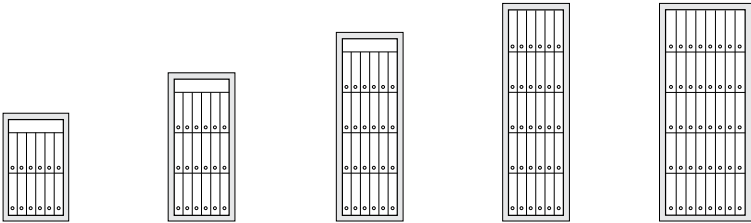| Specifications						
Model **E-300-SERIES**	**E-310** **E1-310** **E2-310** **E3-310** **E4-310**	**E-320** **E1-320** **E2-320** **E3-320** **E4-320**	**E-330** **E1-330** **E2-330** **E3-330** **E4-330**	**E-340** **E1-340** **E2-340** **E3-340** **E4-340**	**E-350** **E1-350** **E2-350** **E3-350** **E4-350**	**E-370** **E1-370** **E2-370** **E3-370** **E4-370**
External						
Height (mm)	612	962	1312	1662	1912	1912
Width (mm)	634	634	634	634	634	848
Depth (mm)	610	610	610	610	610	752
Internal						
Height (mm)	493	843	1193	1543	1793	1793
Width (mm)	486	486	486	486	486	700
Depth (mm)	364	364	364	364	364	506
Volume (l)	87	149	211	273	317	635
A4 file capacity (pcs)	6–9	12–18	18–27	24–36	30–45	40–70
Weight (kg) E0/E1	190	270	360	440	490	680
Weight (kg) E2	230	310	400	480	520	780
Weight (kg) E3	260	350	450	550	600	880
Weight (kg) E4	290	390	510	630	690	1000

Eurosafes E5-300 series

EN 1143-1 Grade V (ECB-S)
NT Fire 017 – 60 Paper

Key features

- Certified according to Euronorm EN 1143-1 Grade V (ECB-S)
- Fire protection for 60 minutes according to NT Fire 017 – 60 Paper
- Equipped with two Class B (ECB-S) Varos keylocks as standard
- Wide range of locking options and accessories
- Standard colour light grey, RAL 7035

Options and fittings

- Adjustable plain shelf
- Pull-out multi-purpose shelf
- Pull-out worktop
- Lockable inner boxes
- Pull-out keyrack
- Pull-out key shelf
- Pull-out suspension file frame
- Safety deposit lockers
- Right- or left-handed opening

Specifications

Model	E5-320	E5-330	E5-340	E5-350	E5-370
External					
Height (mm)	1017	1367	1717	1970	1970
Width (mm)	710	710	710	710	920
Depth (mm)	630	630	630	630	770
Internal					
Height (mm)	840	1190	1540	1790	1790
Width (mm)	486	486	486	486	700
Depth (mm)	364	364	364	364	506
Volume (l)	149	211	273	317	635
A4 file capacity (pcs)	12–18	18–27	24–36	30–45	40–70
Weight (kg)	650	850	1040	1200	1440

Adjustable plain shelf

Pull-out drawer

Pull-out worktop

Data Insert MI-400

Key insert 350 mm

Pull-out key compartment drawer

Pull-out key drawer

Pull-out filing frame

Tested deposit system

Lockable inner cabinet 350 mm

Gun accessories

Keeps design safes

MADE IN FINLAND

DESIGN FROM FINLAND

EN 1143-1 grade EURO II and III (ECB-S)
NT Fire 017 – 60 Paper

Our new E-500 series safes combine contemporary Scandinavian design – simplicity, minimalism and functionality – with cutting-edge technology.

In addition to great looks, we also wanted the new E-500 range of safes to be as easy to use as possible. Just enter the code and open the door. To lock the door, you don't need to touch the handle. Push the door closed and the safe is locked.

It takes more than welding sheets together

Kaso's innovative, lightweight multi-layer BFP-Construction® enables manufacturing of light-weight safes without compromising the security level. Weight range of 200 to 340 kilograms means that E-500 series safe can be placed practically anywhere. Safes can be anchored either to the floor or to the wall. Three sizes and two levels of burglary protection meet every need.

Tailormade to your requirements

Standard front panels are smoky brown pear and maple, but other options are available upon request. Should you wish to fine tune the style even further from the stock colours black or white, you can order the safe body painted any RAL colour you desire. Also a variety of optional accessories is available to meet your storage requirements.

Strength with beauty
- Scandinavian design with bank security

Light weight
- Possible to install to every office and home

Easy to use
- Enter the code and open the door. To lock the door, just push the door closed and the safe is locked.

Optional accessories
- Watch winders
- Lockable inner cabinet
- Pull out drawer
- Hideaway shelf for secret papers
- Adjustable metal or glass shelf
- Glass plate on top of the safe
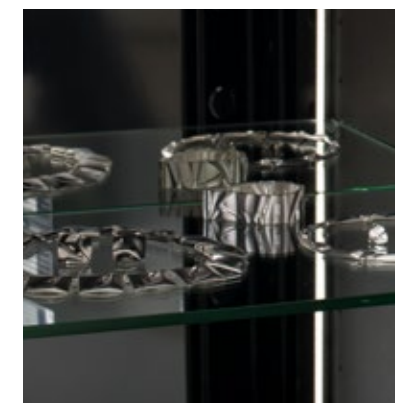
Standard panels

- Smoky brown pear
- Maple

Examples of other panel options

- Wenge panel
- Aluminium panel
- Colour painted RAL 9006
- Colour painted RAL 9003

Smoky brown pear   Maple

Wenge panel   Aluminium panel   Colour painted   Colour painted
                                            RAL 9006   RAL 9003

Specifications						
Model	**E2-507**	**E3-507**	**E2-508**	**E3-508**	**E2-509**	**E3-509**
External						
Height (mm)	610	610	790	790	940	940
Width (mm)	560	560	560	560	560	560
Depth (mm)	565	565	565	565	565	565
Internal						
Height (mm)	490	490	670	670	820	820
Width (mm)	440	440	440	440	440	440
Depth (mm)	310	310	310	310	310	310
Volume (l)	68	68	94	94	114	114
Weight (kg)	200	230	240	280	300	340

For an extra clean look, hinges are hidden from sight

There is plenty of space for your valuables

Electronic lock is standard

Examples of design options

Colour painted
RAL 6026

Colour painted
RAL 8025

Colour painted
RAL 3003

Colour painted
RAL 5005

Black smoky brown pear

Black ferro graphite

Blackened legno

Black natural teak

White rural oak

White redwood

White maple

Calamatta marple

Cashier lockers PKL series

Standard options

- 8, 12 or 16 pcs 100 mm lockers, (inc. bottom plate 200 mm and top plate 35 mm)
- Wall thickness 1.5 mm
- Abloy Sentry keylocks
- Locker numbering
- Colour light grey, RAL 7035

Available options

- Lockable rear-door
- Special locker sizes
- Special finishing of the lockers

Specifications			
Model	PKL-8	PKL-12	PKL-16
Height (mm)	1035	1435	1835
Width (mm)	453	453	453
Depth (mm)	450	450	450

Cash handling solutions

Large volumes of notes, coins and receipts as well as other valuable assets such as keys are handled in shops, service points, offices and banks every day. Securing their safety calls for robust yet functional transit and storage applications.

Temporary cash storage

For cash handling and temporary storage, Kaso KLE-40 cashier boxes offer a convenient yet secure solution. The handles make it easy to move the box into a storage safe when not in use. Alternatively, it can be securely anchored on a desk.

Drop and deposit safes

Adjustable for a range of deposit requirements, Kaso E-400 series drop safes offer a flexible deposit solution for shops, restaurants, banks and cash-service companies. The solution allows for multiple-size deposit packages and variable security levels. A number of locking, compartment and internal fittings are available for customisation according to customer-specific needs.

Kaso PTK-E300 deposit safes are specially designed for use in retail outlets and other environments where money should be stored at all times in a tested safe. With Kaso PTK-E300,

the amount of cash at cashier's desks and service points can be kept to a minimum, which significantly lowers the risks for robbery or hold-ups. The system is designed so that service personnel will not need keys or codes using the deposit. The solution offers a variety of optional features and inside fittings.

Kaso Cinema, a tailor-made surveillance and alarm system, is available for drop and deposit safe solutions for usage monitoring and documentation. The success of the drop is verified by cameras recording every step of the deposit.

Cash deposit locker VL-3000

Cash deposit locker VL-3000

- For temporary cash, credit card, cheque and document storage
- Top drawer with a plastic cash tray for coins and notes
- Multipurpose drawer
- Deposit drawer with four insertions for deposits. The width of individual deposit slots is 85 mm

Specifications	
Model	VL-3000
Height (mm)	602
Width (mm)	500
Depth (mm)	525
Weight (kg)	68

Cash deposit box VL-180

Cash deposit box VL-180

- For temporary surplus cash deposit
- Fishing prevention
- Keylock or electronic codelock with time-delay
- Guiding plate
- Installation plate

Specifications	
Model	VL-180
Height (mm)	300
Width (mm)	180
Depth (mm)	310
Weight (kg)	8.5

Deposit cabinet S2-450 series

Key features

- Burglary protection S2 according to European Standard EN 14450 (ECB-S)
- Security locking system and floor anchoring against burglary, theft and unauthorized access.
- Electronic codelock, EN 1300 Class A
- Lockable deposit compartment
- Standard colour light grey, RAL 7035
- Floor anchoring

Specifications	
Model	S2-450
Height (mm)	450
Width (mm)	445
Depth (mm)	400
Weight (kg)	40

Drop safes E-400 series

Key features

- Adjustable security solution for shops, restaurants, banks and cash service companies
- Manufactured according to European Standard EN 1143-1 to Grades I and II
- Adjustable deposit slot size: 0–70 mm (H) x 350 mm (W) x 400 mm (D)
- Safes are equipped with unpickable keylocks including two keys
- Manipulation prevention mechanism
- Lightweight – easy to install
- Floor-anchoring
- Standard colour light grey, RAL 7035
- Right- or left-handed opening

Options and fittings

- Combination lock or electronic codelock
- Option for two locks
- Lockable deposit gate
- Lockable compartments
- Shelves and other internal fittings

Deposit safes E-400 series

EN 1143-2 Grades D-I and D-II

Key features

- Designed for daily cash depositing
- Certified according to European Standard EN 1143-2 to Grades D-I and D-II
- Specially designed against manipulation
- Floor anchoring for additional security against removal of the safe
- Limited access to contents of the safe – deposit customers have no access into the safe
- Supplied with Varos keylocks
- Standard colour light grey, RAL 7035
- Maximum deposit bag size 45 (H) x 235 (W) x 155 (D)
- Rear- or front-facing drawer
- Right- or left-handed opening

Options and fittings

- The safes can be equipped with electronic code locks or combination locks – option for two locks
- Deposit drawer keylock
- Kaso Cinema, camera monitoring solution for user and deposit process verification
- Lockable compartments, shelves and other internal fittings
- Seismic detectors, micro switches and other security solutions
- Connections to external alarm systems

Specifications			
Model	E1-410, E2-410	E1-420, E2-420	E1-430, E2-430
External			
Height (mm)	595	945	1295
Width (mm)	585	585	585
Depth (mm)	530	530	530
Internal			
Height (mm)	493	843	1193
Width (mm)	486	486	486
Depth (mm)	364	364	364
Volume (l)	87	149	211
Weight (kg) E1	150	180	210
Weight (kg) E2	180	230	280

Specifications			
Model	E2-410 DP	E2-420 DP	E2-430 DP
External			
Height (mm)	915	1265	1615
Width (mm)	585	585	585
Depth (mm)	530	530	530
Internal			
Height (mm)	493	843	1193
Width (mm)	486	486	486
Depth (mm)	364	364	364
Volume (l)	87	149	211
Weight (kg) Euro D-II	410	460	510
Deposit drawer height (from bottom)	762	1112	1462

Deposit safes PTK E-300 series

EN 1143-2 Grade III

Key features

- Designed to provide high-security deposit safety in retail outlets and service points
- Certified according to European Standard EN 1143-2 to Grade III
- Specially designed against manipulation
- Floor-anchoring for additional security against removal of the safe
- Limited access to contents of the safe – deposit customers have no access into the safe
- Standard colour light grey, RAL 7035
- Maximum deposit bag size: 45 mm (H) x 235 mm (W) x 155 mm (D)
- Right- or left-handed opening
- Rear- or front-facing deposit

Options and fittings

- The safes can be equipped with electronic code locks or combination locks
- Option for two locks
- Deposit drawer keylock
- Kaso Cinema, camera-monitoring solution for user and deposit process verification
- Lockable compartments, shelves and other internal fittings

Night deposit safes PTK E-300 series

EN 1143-2 to Grade N-IV (ECB-S)

Key features

- Specially designed for banks
- 24-hour surplus cash depositing
- Night deposit safes are tested according to European Standard EN 1143-2 to Grade N-IV (ECB-S)
- Also security grade V available
- The safe has two Varos keylocks
- Floor-anchoring
- Armoured installation frame for easy mounting, wall thickness up to 350 mm
- Lightweight solution thanks to Kaso's BFP® construction
- Easy and fast assembly to the outside wall with stainless steel faceplate
- Stainless steel faceplate
- Deposit cover lock Abloy Classic with 10 keys for deposit customers
- Anti-fishing mechanism
- Standard colour, RAL 7035
- Deposit trap 70 mm (H) x 180 mm (W) x 100 mm (D)

Options and fittings

- The safes can be equipped with electronic codelocks, combination locks or keylocks
- Special grill gate for explosion protection
- Kaso Cinema, camera-monitoring solution for user and deposit process verification
- Optional solutions for deposit verification and security
- Lockable compartments
- Internal fittings and accessories

Specifications

Model	PTK E3-310 DP	PTK E3-320 DP	PTK E3-330 DP
External			
Height (mm)	912	1262	1612
Width (mm)	634	634	634
Depth (mm)	550	550	550
Internal			
Height (mm)	493	843	1193
Width (mm)	486	486	486
Depth (mm)	364	364	364
Volume (l)	87	149	211
Weight (kg) Grade III	490	580	670
Deposit drawer height (from bottom)	762	1112	1462

Specifications

Model	E4-320N	E4-330N	E4-340N
External			
Height (mm)	962	1312	1662
Width (mm)	634	634	634
Depth (mm)	550	550	550
Internal			
Height (mm)	843	1193	1543
Width (mm)	486	486	486
Depth (mm)	364	364	364
Volume (l)	149	211	273
Weight (kg)	500	610	730
Deposit trap height mm (from bottom)	720	1070	1420

Strongrooms and vaults

EN 1143-1 Grades I and II
EI 60 Fire Resistance

Demand for secure storage and archiving of documents, data, and valuables is on the rise due to new legislation as well as distributed and more sophisticated archiving needs. Not only financial institutions but also other organisations and businesses are increasingly required to store material securely – sometimes for days, sometimes for decades.

Archive and vault doors

Kaso archive and vault doors can be installed to a wall of reinforced concrete construction or as part of a prefabricated strongroom. They protect valuable assets against a wide variety of hazards including fire, unauthorised access and forced attacks. The range covers doors tested for varying grades of protection and provides an array of options in terms of emergency exits, locking, alarm sensors and exterior design.

Strongroom elements

Officially tested prefabricated strongrooms have replaced traditional concrete vaults in many banks, companies and institutions. Prefabricated strongrooms are also used in private panic room installations. The increase in their popularity is based on high security, consistent quality and certified burglary resistance. The strongroom scope of supply can also be customised to meet individual project requirements.

Safety deposit lockers

Kaso offers the widest range of standard safety deposit boxes in the market, with two series, SLK-70 and SLK-90, of which the latter has passed tests by the Bankers Association. Both series offer several standard width options and standard lockers. Thanks to a variety of locking options, design alternatives and additional monitoring and deposit management solutions, the deposit locker solution can be fully customised to meet specific needs.

Prefabricated light weight security and archive rooms are modern physical security solutions especially designed to office and public building installations. Light weight security panels are easily assembled by welding or bolting the elements for example if welding is not allowed. The loadbearing capacities of the building floors are also better utilized leaving more storing capacity to the security room. Prefabricated security and archive rooms are suitable for banks, companies and institutions. Prefabricated security rooms are even popular for private panic room installations.

Light weight security room panels are available with break-in resistance Grade I and II according to EN 1143-1 by ECB•S. The fire protection classification of the security room panels is 60 minutes. The fire protection level could be optionally increased with additional fire protection panels. Security rooms can be supplied with element floors or the elements could be also installed directly on top of existing floor. Surface finishing like painting or installation of decorative panels can be finalized by local contractors enabling the integration of the security room to the surroundings.

Security rooms are customized according to individual project requirements including for example:
- alarm, CCTV and access control systems
- mobile and fixed shelving systems
- additional fire insulation panels
- fire prevention and fighting systems
- bulletproof windows, elements or doors

Strongroom elements EH series

Strongroom elements EH series

Supply options

Strongroom scope of supply is customised for meeting individual project requirements including for example:
- internal steel support structures for large/high or two-floor strongrooms
- alarm, CCTV and entrance control solutions
- safe deposit lockers
- emergency doors
- mobile and fixed shelves
- surface finishing options
- fire protection panels
- fire prevention and fire alarm solutions

Planning service

Kaso offers through international distributor network following services to customers, engineering offices and contractors:
- on-site estimates of prefabricated strongroom installation possibilities
- estimates of structural load bearing capacities
- strongroom planning assistance
- strongroom weight estimates
- cost estimates

The exterior measurements of Kaso prefabricated strongrooms can be entirely adjusted according to the customer and installation site requirements.

Installation

The prefabricated strongroom elements are delivered to the installation site where they are quickly assembled for immediate use. It is also possible to relocate a prefabricated strongroom if needed. In addition, the strongroom can be expanded and the vault door position can be moved.

Kaso strongroom advantages

The reason for high success for Kaso prefabricated strongrooms is based on:
- tested, comparable and certified burglary resistance
- high, stabile and monitored quality
- relocation possibility of the strongroom
- quality steel finishing on all sides of the elements
- flexible dimensioning
- possibility for reinforcing of existing security rooms
- quick and easy installation
- over 40 years experience with over 1000 strongrooms supplied internationally

Prefabricated strongroom elements

Officially tested prefabricated strongrooms have replaced traditional concrete vaults in many banks, companies and institutions. Prefabricated strongrooms are even popular for private panic rooms installations. The reason for high success for prefabricated strongrooms is based on high security, stabile quality and evaluated burglary resistance proofed by the certification.

Kaso offers wide range of prefabricated strongrooms and archive rooms tested and certified according to European Standard EN 1143-1.

Prefabricated elements are finished with high quality steel panels constituting of different barrier materials depending on the grade of burglary protection and optional explosion or fire protection resistance. Prefabricated elements are attached with indentations, making it extremely difficult to break the structure. The panels are secured by welding or by bolting where welding is not possible nor allowed. Strongrooms can be supplied with prefabricated element or steel plate floors. Surface finishing like painting or cladding can be finalised by local contractors.

Safe or panic rooms

A safe room or panic room is a fortified security room usually installed in private residences and business or public administration buildings.

The main object for security rooms is protecting the people of the premises against break in, home invasion and other threats.

Security room includes minimum prefabricated walls and door against break in, fire and even explosions. Optionally safety rooms could additionally include prefabricated ceiling and floor. Kaso safety room elements are available to break in classes I to XII according to European Standard EN 1143-1.

Security rooms can be hidden behind many household features, such as mirrors, wardrobes, bookcases, sliding bookcases.

Very often break in resistance of the building is simultaneously complemented with tested security doors (EN 1627) visually matching usual outside and entrance doors.

Security rooms usually contain communications equipment for emergency situations. Some safe rooms may also have externally vented ventilation systems.

There may also be able to monitor external security cameras and alarm systems. In basic safe rooms, a peephole in the door may be used for a similar purpose.

Safe rooms are typically equipped with basic emergency and survival items such as a flashlight, blankets, a first-aid kit, water, packaged food, self-defense tools, a gas mask, and a simple portable toilet.

Room view with entrance to the panic room behind the mirror

Panic room integration into the apartment.

Specifications									
	Prefabricated strongroom elements with fire protection				Prefabricated high security strongroom elements with fire protection		Prefabricated high-security strongroom elements		
Model	EH-1L	EH-2L	EH-20L	EH-30L	EH-50L	EH-60L	EH-90L	EH-100L	EH-120L
Grade EN 1143-1	I	II	II	III	V	VI EX	IX EX CD	X EX CD	XII EX CD
Fire protection	EI60	EI60	EI120	EI60	EI60	EI60	-	-	-
Thickness (mm)	76	76	120	120	120	120	125	150	250
Weight (kg/m²)	90	120	185	335	345	350	405	480	780

Vault doors VD series

EN 1143-1 Grades I and II
EI 60 Fire Resistance

Security room doors

Break-in classification of standard security room doors is I or II according to EN 1143-1 by ECB·S. Fire classification of standard security room doors is 60 minutes.

Kaso security room doors are offering premium break-in resistance compared to standard industrial fire doors – four sided security construction including locking bolts on four sides and a dedicated, composite security barrier against multiple and modern forms of attack.

Security room doors are also supplied with high security locking mechanism including burglary certified high security locks. Security room doors are available with various locking and accessory options for specific security and operational requirements.

Optionally the security rooms could be supplied with standard industrial fire doors or bulletproof doors. Private panic rooms could be also supplied with decorated, conventional security doors enabling integration of the security room to the surroundings

Kaso Archive doors

VD-A is an archive door with 120 minutes fire protection (EI 120 fire rating). VD-A archive door offers premium burglary resistance compared to standard industrial fire doors – four sided security construction including locking bolts on three sides and fixed back bolt bank. Archive doors are also supplied with high security locking mechanisms including burglary certified locks. VD-A archive door is intended to be used with EH-20L and EH-30L archive rooms. Due to modern design, the archive door can be also installed to modern office environment.

Archive and Vault, strongroom door options

- lock-, bolt-, door micro switches
- preparation for alarm connection
- motor lock for entrance control
- electronic Paxos compact locking system
- mechanical combination or electronic code lock
- day gate
- door stopper
- seismic detector
- re-locking solution
- stainless steel design

Vault doors VD series

EN 1143-1 Grades II to XII
EI 120/ EI 60 Fire Resistance
(EH-20L to EH-60L models)

Kaso Vault doors

Kaso vault doors are burglary certified to gradesIII, V, VI, IX, X and XII according to European Standard EN 1143-1. Vault doors VD-3, VD-5 and VD-6 are also offering 120 minutes fire protection according to EI 120.

The doors can be used on their own, installed to the concrete wall or as part of prefabricated strongrooms. Vault doors can be also installed to offices where the look of a fire door does not match the rest of furnishings. Wide range of options are also available for Kaso vault doors for meeting the specific design and security requirements of the installations.

Standard equipment								
Model	VD-A	VD-2	VD-3	VD-5	VD-6	VD-9	VD-10	VD-12
Number of movable locking bolts	7	8	7	7	7	12	5 (large)	6 (large)
Fixed back bolt bank	yes	-	yes	yes	yes	yes	yes	yes
Number of keylocks (Class)	1 (A)	1 (A)	1 (B)	2 (B)	2 (C)	2 (C)	2 (C)	3 (C)
Maximum number of locks	3	3	3	3	3	3	3	3
Burglary resistance	-	II	III	V	VI EX	IX EX CD	X EX CD	XII EX CD
Fire resistance (min)	120	60	120	120	120	-	-	-
Barrier/door thickness (mm)	120/193	62/124	120/193	120/193	120/193	154/224	220/285	300/365
Entrance W x H (mm)	898x1940	900x1940	898x1940	898x1940	898x1940	910x1960	910x1960	910x1960
Installation clearance W x H (mm)	1200x2150	1200x2150	1200x2150	1200x2150	1200x2150	1310x2170	1430x2220	1430x2220
Weight (kg)	320	320	450	700	800	1400	2000	2800
Colour light grey, RAL 7035	yes	yes	yes	yes	yes	yes	yes	yes

Vault doors with emergency doors

EN 1143-1 Grades III to VII

Emergency vault doors

EN 1143-1 Grades II to VIII

Kaso Emergency Doors

Emergency doors are installed as a secondary entrance to the vault. The emergency door enables strongroom access in case of operating failure of the main vault door and the vault operation can be continued until the main vault door has been repaired. Emergency Doors are manufactured to Grades III, V, VI and IX according to European Standard EN 1143-1 and are offering comparable security level as the main vault doors. Emergency door could be supplied with similar options as the vault doors for conveniency of operation.

The emergency doors can be used on their own, installed to concrete wall or as part of prefabricated strong-rooms as a secondary access. They can be also integrated to the main vault door for optimising the installation area of the door on the walls and then maximising the storage capacity inside the vault. The outside entrance is also more conveniently arranged. The vault doors with integrated emergency doors are manufactured according to EN 1143-1. The external dimensions and passage/clearance of the vault doors with integrated emergency doors are the same as the standard vault doors without emergency doors.

Grill Gate with Integrated Emergency Grill Gate

VD-3 Vault Door with Integrated Emergency Door

Kaso emergency doors

- supplied with certified high security bank level locks and locking systems
- protection against latest and most advanced testing methods and tools
- specific protection for critical parts of the doors, locks and locking systems

Standard equipment				
Model	VD-3E	VD-5E	VD-6E	VD-7E
Movable locking bolts (pcs)	7	7	7	7
Fixed back bolt bank	yes	yes	yes	yes
Number of keylocks (pcs) (Class)	1+1 (B)	2+2 (B)	2+2 (C)	2+2 (C)
Maximum number of locks (pcs)	3	3	3	3
Manufactured to EN1143-1	Grade III	Grade V	Grade VI EX	Grade VII EX
Barrier/door thickness (mm)	120/193	120/193	120/193	120/193
Entrance W x H (mm)	898x1940	898x1940	898x1940	898x1940
Installation clearance W x H (mm)	1200x2150	1200x2150	1200x2150	1200x2150
Weight (kg)	450	700	800	850
Colour light grey, RAL 7035	yes	yes	yes	yes

Standard equipment						
Model	VDE-3	VDE-4	VDE-5	VDE-6	VDE-7	VDE-8
Movable locking bolts (pcs)	8	8	8	7	7	6
Fixed back bolt bank	-	-	-	yes	yes	yes
Number of keylocks (pcs) (Class)	1 (A)	1 (B)	2 (B)	2 (C)	2 (C)	2 (C)
Maximum number of locks (pcs)	3	3	3	3	3	3
Manufactured to EN1143-1	Grade II	Grade III	Grade V	Grade VI EX	Grade VII EX	Grade VIII CD
Barrier/door thickness (mm)	62/125	62/125	94/156	120/193	120/193	155/225
Entrance W x H (mm)	502x852	502x852	502x852	600x1040	600x1040	650x1090
Installation clearance W x H (mm)	850x1090	850x1090	850x1090	910x1210	910x1210	1060x1310
Weight (kg)	120	120	170	340	340	700
Colour light grey, RAL 7035	yes	yes	yes	yes	yes	yes

Safe deposit lockers SLK series

Safety deposit lockers SLK series

Widest range of standard safe deposit lockers

- Two safety deposit locker models SLK-70 and SLK-90
- Three standard widths are available in both models
- Wide selection of standard locker heights
- Available with mechanical keylocks or electronic locking

Flexible customer specific solutions

- Special locker and column sizes
- Special colours and finishing

Quality and security

- Manufactured in accordance with ISO 9001:2000 in Helsinki, Finland
- SLK-90 Safety Deposit Lockers tested by Bankers Association

Key features

- Abloy Sentry keylocks
- Designded for individual storage of personal valuables
- Available in three standard widths
- Wide selection of standard lockers
- SLK-90 Safety Deposit Lockers tested by Bankers Association
- Total door thickness
  – SLK 70 series 11 mm
  – SLK 90 series 16 mm

Options and fittings

- A variety of locking options
- Options for camera-monitoring (CCTV) and deposit management solutions
- Electronic deposit management solution
- Inner boxes for SLK-70 and SLK-90 models
- Padlocks for inner boxes
- Pull-out trays for SLK-70 and SLK-90 lockers
- Stainless steel-plate doors
- Customer-specific locker and column sizes
- Customer-specific colours and finishing

Electronic locking

- All doors supplied with an electronic lock and a mechanical Abloy Sentry keylock
- Operation of the lockers either by self-service mode or by traditional bank assisted opening
- Identification with PIN, ID cards or biometric readers
- Deposit management with audit trail

Electronic deposit system advantages

- All safety deposit boxes are equipped with one keylock and one electronic lock
- Opening of the electronic lock by the bank operator or by the customer in self service system
- Opening of the keylock by customer's personal key
- Proximity card, personal pin code or biometric indentification options
- Unique biometric identification requires both the registered customer and the key for opening the safety deposit box
- Safety deposit boxes and entrance to the safety deposit room can be operated by the bank operator or alternatively as a self service system
- In self service system bank operators are not needed for opening the doors or opening the electronic locks of the safety deposit boxes
- Only one customer allowed to enter the safety deposit room at once
- Comprehensive reporting including safety deposit box renting status, useractivities and system information

| Standard equipment			
Model	SLK-70 SLK-90	SLK-75 SLK-95	SLK-79 SLK-99
External			
Height, mm	2000	2000	2000
Width, mm (Mechanical keylocks)	303	453	603
Width, mm (Electronic locking)	330	480	630
Depth, mm	460	460	460

Security doors

KasoGuard security doors are designed for private houses, apartments and offices. They are designed for entrance and inside installations and are suitable both for renovation and new buildings.

The look of KasoGuard security doors is similar to other entrance and inside doors, the inside of the door is what makes it unique.

KasoGuard security doors and frames are steel reinforced offering real protection for what and whom you are valuing the most. The security doors are burglary tested and certified to class 3 (EN1627/ SSF-Sweden). They are also offering protection against fire (class EI45). Additionally the security doors provide tested sound and temperature insulation for additional comfort.

KasoGuard security doors are made to order. The doors can be also tailor made to meet specific size, furnishing, locking and surface requirements.

KasoGuard security doors are often recommended by insurance companies.
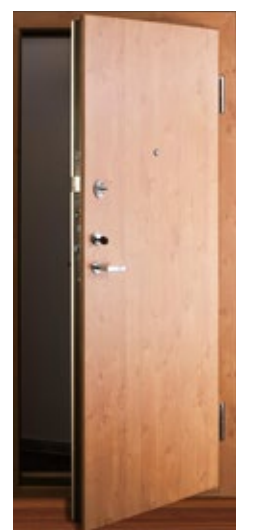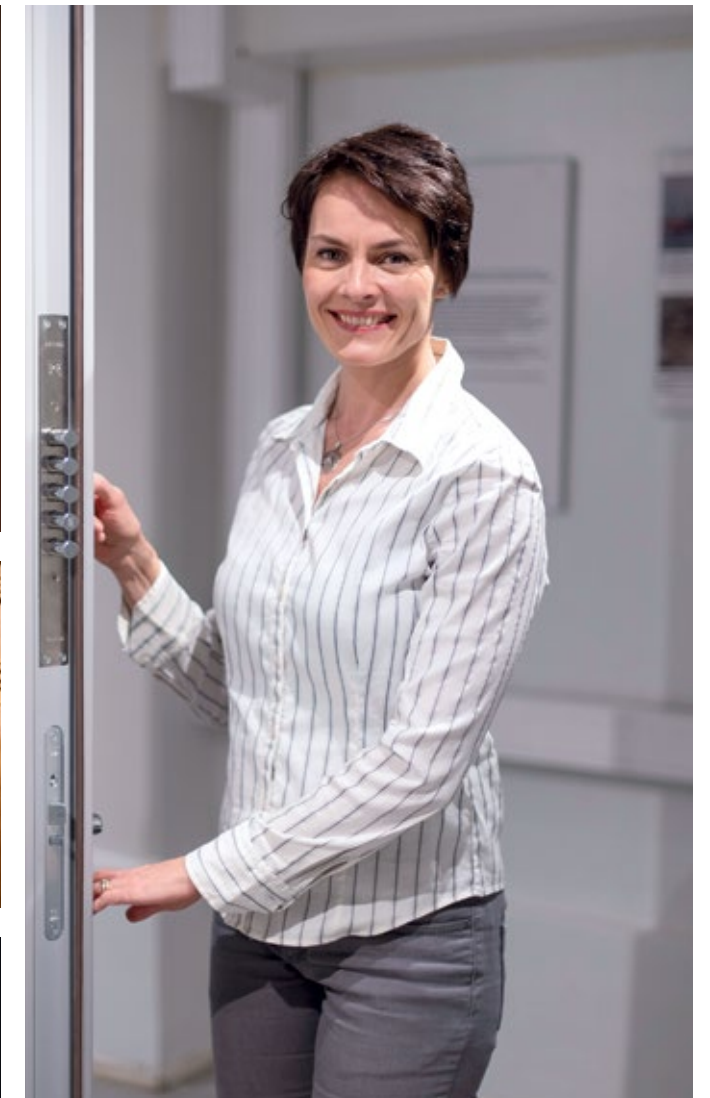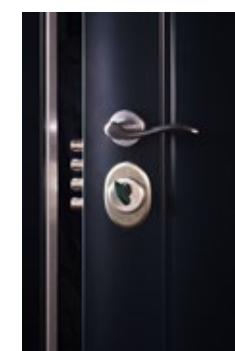
Against burglary and fire

Helsinki housing co-operative chose security doors

Security doors are gaining popularity in apartments, but also in detached houses. In Scandinavia, 70% of the new buildings are equipped with security doors.

Emilia Larke, the Chairman of Pyynikintie 1 housing co-operative in Helsinki, is more than happy with their decision. In addition to safety, the new doors also raise the comfort of living. "Security doors are now in," she says.

Built in 1975, the house has 91 apartments which originally had wooden doors. In many cases, the doors were in poor shape and approximately 20 doors required instant attention.

"Doors were twisted and difficult to close. Especially the corners were so deformed that you could see through them. We had changed already a couple of doors and some had been temporarily fixed," Emilia Larke says.

However, the biggest concern was safety.

"Renewal of doors was first discussed a couple of years ago. Because there were so many doors to repair, we concluded that it's better to change all the doors in one go, rather than fix them one at a time. In the annual general meeting 2014 we decided to change all the old doors to security doors," Larke says.

During the process, many options were considered. Ordinary wooden doors were one of them, although it was quickly evident that they didn't meet the needs of tenants. The benefits of security doors were what they were looking for.

"The process opened up our eyes on what could have happened. The feeling of safety has increased," Larke adds.

Luckily there haven't been burglaries in Pyynikintie 1 so far.

"An ordinary wooden door with a safety lock can be breaked with a crow bar in less than 30 seconds. The Kaso steel frame and door leaf are tested according to EN-1627 standard," Kaso's Sales Manager **Teija Paakkari** claims. Thanks to its structure and locking, crow bars are useless against a Kaso security door.

The feedback has been positive. One of the tenants said that she now feels safe. And another can stay at his summer cottage for a longer period of time without worry.

The Chairman Larke considers that the price difference between an ordinary door and a security door is only modest. "They are totally different doors. You really get what you pay for."

Enhanced fire safety

Thanks to fire seals, fire certified security doors offer better protection when compared to ordinary wooden doors.

"Our security doors resist fire for 45 minutes, while the minimum requirement is 30 minutes," Paakkari argues.

Also the 35 year old locks were changed.

"The keys were from the last century and we had lost track on who has them," Emilia Larke says.

The new doors are equipped with mechanical locks, while electronic locking systems are also available.

Strong steel frame and bolts

Insulated with rock wool, the frame of the door and door leaf are steel reinforced. In addition to steel frame, the door is protected against burglary with bolts on all four sides of the door. Door panels fine-tune the appearance.

According to Teija Paakkari, a security door can be installed into an old door opening, even though a reinforcement might be needed. And if there are separate frames for inner and outer doors, the old inner door can be left in place. However, with a security door there is no need for inner door.

Better sound insulation

Emilia Larke says that although the doors are robust, they are easy to use.

"From users' point of view, it's just like an ordinary wooden door. The sounds from the stairway are effectively muted. Because the inside of the door is light coloured, it lightens up the hallway. The colour also fits perfectly to most decoration styles," Larke says.

Interest is on the rise

According to Teija Paakkari, security doors have been gaining popularity not only in apartments, but also in detached houses.

"There is a lot of interest and it's just a matter of time when we'll see a breakthrough," Paakkari says.

In Scandinavia, security doors are a standard solution and 70% of new buildings are equipped with one.

"Thanks to its structure and locking, crow bars are useless against a Kaso security door."

Security doors

Burglary protection EN 1627 Grade 3
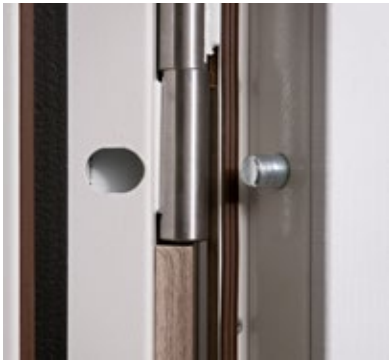Fire protection EI45
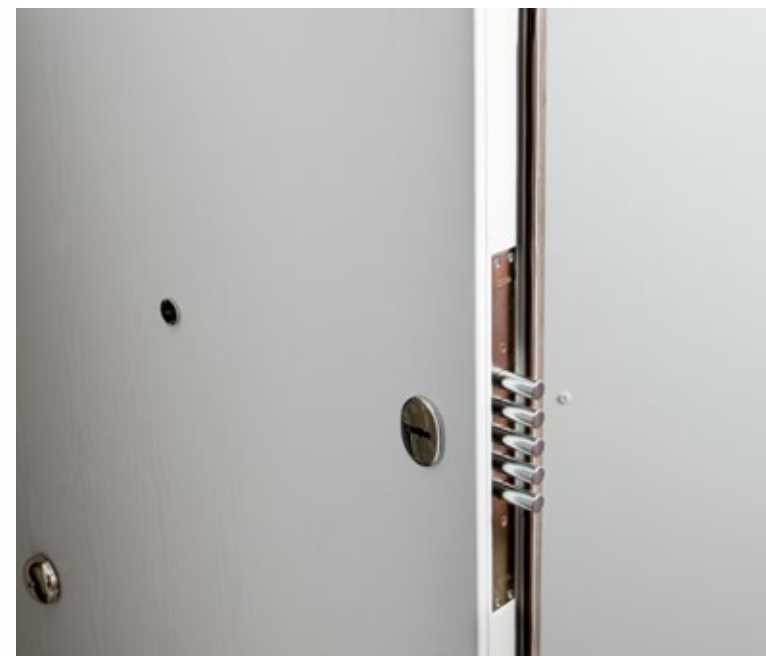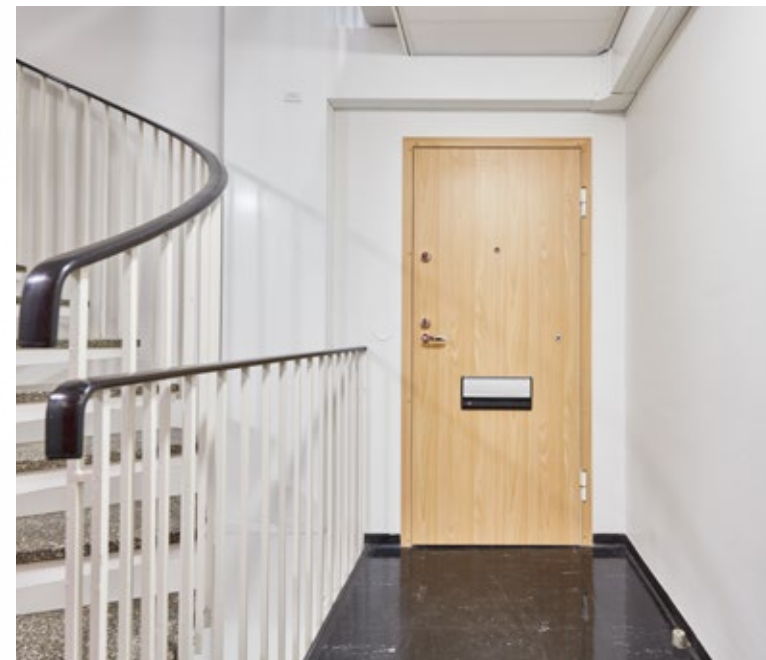
Security doors

Burglary protection EN 1627 Grade 3
Fire protection EI45

Key features

- Private houses, apartments and offices
- Inside and entrance installations
- New and renovation buildings
- Steel reinforced door and frame
- Outwards or inwards opening ("push" or "pull")
- Right or left handed opening
- Bolting on four sides
- Integral locking system with drill protection
- Standard locking options Mottura and Abloy

Options and fittings

- Door bell
- Letter box
- Viewing spot
- Access control
- Electronic locking
- Integrated door opening limiter
- Colour, panel and furnishing options
- Tailor made size and design options

Watch the video about security doors at www.kasosafes.com

Fixed rear bolting

Mottura keylock

Top locking bolt

Stainless steel threshold

Classifications	
Certified burglary protection	Grade 3 (EN 1627)
Fire protection	EI 45
Sound insulation	41dB
Resistance to wind load	Class C3
Air permeability	Class 3
Water tightness	Class 2A

Specifications		
Size	9x21	10x21
Installation clearing W x H (mm)	910x2110	1010x2110
Frame W x H (mm)	890x2095	990x2095
Entrance W x H (mm)	780x2005	880x2005
Weight (kg)	90	95
Burglary resistance class (EN 1627)	3	3

Clothes and locker cabinets

Clothes and locker cabinets can be used anywhere where lockable storage space is needed. They are suitable, for example, for industrial facilities, companies, shops, bureaus, hospitals, schools, gyms, sports halls, swim halls and health clubs. Kaso has manufactured clothes cabinets for over 50 years.

Clothes and locker cabinets

Durable and good-looking, Clothes and locker cabinets combine ease of use with safety and stylish design. The cabinets are available with a flat or sloping roof. Air-conditioning and double doors are available on request.

Choose your design

- **Pro**
  Economical and robust steel Pro doors are stronger and more bending-resistant than traditional flat steel doors.
- **Classic**
  Durable and solid steel doors equipped with a three-point locking system (top, bottom and side).
- **Green**
  MDF doors available with various colours and a one-point locking system.
- **Trend**
  Laminated door with a choice of colours and a one-point locking system.
- **Solid**
  Prestige doors made of massive Karelian pine boards with lacquered, stained or painted surface.

Model Z clothes cabinets

Kaso Model Z clothes cabinets are a space-saving solution for locations where limited space prevents the installation of regular-sized cabinets. A wide selection of door materials, including steel plate and laminate, is available as well as several options for customisation.

Locker cabinets

Locker cabinets are suitable for shops, schools and other spaces, where personal items such as laptops, mobile phones and purchases need to be safely stored for a while.

As an example about locker cabinets, the Kaso Laptop locker with eight lockers, features recharging for devices such as mobile phones, personal computers and cameras in individual lockers.

Key features

- ISO 9001:2008 certificate
- SFS 5340 standard
- Awarded design
- Designed to be used anywhere where lockable storage space is needed

All compartments of clothes and locker cabinets include

- Hat shelf
- Clothes rail with three movable hooks
- Two towel hooks on the steel door
- Ventilation
- Padlock mechanism for users' personal locks, or a permanent lock

Options and fittings

- Wall mounting for the cabinet and the bench
- Abloy serial lock
- Eurolock serial lock
- Deposit/coin-operated lock
- Master key
- Bench constructed from laminated board, steel or lacquered pine boards
- Removable spacing plate
- Ventilation duct
- Sloping roof
- Adjustable feet

Accessories

- Mirror
- Accessory pocket
- Frame for a name plate
- Key diecutting for department numbering
- Shoe rack

Specifications				
Cabinets	1	2	3	4
Cabinet depth (mm)	525	525	525	525
Cabinet height (mm)	1900/2050	1900/2050	1900/2050	1900/2050
Unit width (mm)	300	600	900	1200
Number of doors/users				
Clothes cabinets	1	2	3	4
Z cabinets	2	4	6	8
Locker cabinets	2–8	4–16	6–24	8–32
Unit width (mm)	400	800	1200	-
Number of doors/users				
Clothes cabinets	1	2	3	-
Z cabinets	2	4	6	-
Locker cabinets	2–8	4–16	6–24	-

Improve the security of your safe with an Electronic locking system

Locking system is one of the most important choices you will make regarding your safe – an electronic locking system will remarkably lower the possibility for misuse.

If there is only one user, a locking system can be simple. And in most cases, just one opening code will be sufficient. But with more locations and users, you will need more features to safeguard your valuables.

Basic locking systems for one user

A basic locking system is suitable for trade shops, small business and private use – in other words, it's great when there is only one location. Typically, there is also only one user and no need to record locking activities to lock memory. And thanks to the electronic lock, you don't have to hide the key or to keep it on your person.

Enhanced locking systems for multiple users in one location

When there is one location and multiple users, enhanced level of security is called for.

All users will get personal codes and most recent safe openings will be stored in the memory of the system. This not only improves security, but also legal protection of the users. You can also define that two users are required to open the safe. An opening delay will further improve safety.

Security or armoured transports can also use the system with their own codes and electronic identification keys. As an option you can choose an optional extension unit, which let's you remotely control the use of the safe – for example, you can see if the lock is open or closed.

High level locking systems for multiple users in multiple locations

A high level electronic locking system is the answer to the needs of retail chains, banks, large companies and security transports. The system may entail a number of locations and hundreds of users.

The administrators can add new users and remove those with expired access rights. The timed functions are also admin's responsibility.

All users have personal codes, which are changed at least once a year or even on a monthly basis if needed.

Time locks will prevent opening the safe outside the office hours. You can also make an exception to the rule for example for the security transport, even if the regular users cannot access the safe at a given time. In addition to the opening code, the security transport may also have an electronic identification key or one time codes (OTC) which will expire after opening the safe.

Optional easy to use management software can be used to remotely control the user rights or timed functions. Extra safety can be built in the system with opening delays and silent alarms.

The locking system can be controlled through your access control or alarm system. When the alarm is active, the locking system will not open until the alarm is deactivated. There is no need to change batteries as the system will get its power from the alarm system or from AC power supply.

An access control system lets you control the use of the safe and see whether the lock is open or closed.

All high level locking systems have a display integrated to the keypads for extra ease of use.

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Components and terminology

1

2

3

4

Keypad (1)

Keypad is the user interface of the locking system. You either type in a 6 to 8 digit code or enter it with a rotating dial. The batteries are usually inside the keypad. In the enhanced and high level locking systems there is also a LCD display to help the users.

Lock (2)

The part of the system behind the security barriers that bolts the vault or safe. When closed, the lock in inaccessible from the outside and manipulation of the system is impossible as the code information and memory are inside the lock.

Extension unit (3)

An extension unit with additional features for everyday use and safety.

Locking system

A locking system consists of a keypad, lock and an extension unit.

Alarm and access control system

Used for controlling electronic locking systems. Fixed alarm and access control systems are located in the client's premises.

USERS

Administrator (4)

The Administrator's responsibility is to control the locking system and to update time-related functions such as delays and timed functions. Administrator has no access to the safe.

Manager

Manager can open the safe with his own code. He can also add and remove users.

User

A user can open the safe and change his personal code.

Dual user

Two codes are needed in order to open the system. A single user cannot open it.

Override (OVR) user

Typically an OVR user is a security transport crew, who do not need to wait for the delay before opening.

One time code (OTC) user

An OTC user is often a security transport crew who uses disposable opening codes. The code expires after use and a new code is needed for re-opening.

User code and electronic key

In addition to the code, a user needs an electronic key to open the safe. There is a dedicated reader for the electronic key.

User groups

You can define different level of opening rights for each user group. For example, a representative from two user groups may be needed in order to open the safe. A user may also have a predetermined pair from another user group for opening the system.

High level locking systems have a dedicated ID number for each user. Leaving an audit trail of the event, the ID is always entered in simultaneously with the opening code.

Memory

Depending on the model, a trace is left of each opening (100 to 10,000). High level locking systems will also store the date and time.

TIMED FUNCTIONS

Opening delay and opening time after delay

Opening delay means a pre-programmed time after which the safe can be opened. You can choose whether to show the time left until the safe can be opened, or the elapsed time after starting the delay. Only an OVR user can pass the delay. You can also specify for how long time the safe can be opened after the delay.

Variable delay

A delay of varying length can be set for different times of day. For example, the delay can be longer in mornings and evenings.

Delay after entering a wrong code

If you try to open the system for four times with a wrong code, you will need to wait for 5 to 20 minutes (depending on the model) before next try.

Expiry of code

The system forces you to change the codes periodically, typically between 1 to 12 months.

ALARM, CONTROL AND EXTRA FUNCTIONS

Status report of the system

When your electronic locking system is integrated to the alarm or access control system, you will know whether the locks are open or closed. If the locking system or the safe door is open, the alarm cannot be activated. When the safe is in the count room, the system can be configured so that the count room door cannot be opened when the safe is open.

Preventing opening

The opening of the system can be prevented with an alarm or access control system. When the alarm is active, the safe cannot be opened.

External power supply

Power is supplied to the extension unit from the alarm system or from an AC power supply.

Silent alarm

In case of robbery, a silent alarm can be activated when opening the safe door. An extra opening delay can be specified with this function.

Remote use

Every locking system has its own IP address, which allows for using the system remotely over the net. The system is integrated to your own safe network. Note that the system cannot be opened remotely.

One time code (OTC)

The OTC function is designed for the use of security transports. The code expires every time it is used. The transport crew will get the new code from the system administrator, who can be placed for example in the count centre.

Please note

Even if the batteries run out, lock settings and locking details are retained undamaged in lock memory.

Locks recommended by Kaso

Key locks

Kaba Mauer Varos 70040
- 9 levers, tubular-shaped key
- Serialization to new keys
- EN 1300 Class B (ECB-S), VdS Class 2

Varos with mini bit key

Electronic combination locks

LaGard Basic
- One administrator code, one user code
- EN 1300 Class A, B (ECB-S), VdS Class 1, 2

LaGard electronic codelock

Pulse
- 1 Manager,1 - 8 user codes
- 0 - 1 time delay override users
- Time delay 1–99 minutes
- Dual code option
- E-key option
- Audit trail without date and time (up to 100 events)
- EN 1300 Class B, VdS Class 2

Pulse electronic codelock

Keypad for Techmaster

Techmaster
- Master, manager & override manager, users & override users
- Time delay and open window
- Variable time delay
- Codes expiry
- Dual mode
- Time lock
- Immediate & temporary time lock
- Special events and opening periods
- Audit (900 events)
- Dynamic codes
- Alarm interface (silent alarm and remote disable input)
- Input/output interface option with TCP/IP module

Paxos Advance
- Electric components of all-redundant design
- Motor lock
- One administrator code, up to 100 total codes
- Opening by means of 1- or 2-person control
- Opening duress delay
- Logging of up to 10 000 recent entries
- EN 1300 Class B, C, D (ECB-S), VdS Class 2, 3, 4

Paxos Advance electronic codelock

Paxos Advance electronic codelock with IP option