TECHCODE FURNITURE
with RFID technology

high quality security

We use **RFID**))) frequency

TECHCODE FURNITURE - WHAT IS IT?

TECHCODE furniture is a new group of innovative cabinets provided with RFID technology, which have been developed by Techmark.

Our TECHCODE cabinets have been equipped with electronic systems and sensors using radio signals in order to identify items having RFID tags and individuals using the cabinets.

Thanks to it our smart TECHCODE cabinets perform a number of functions, which improve management of resources and assets.

Another advantage of the TECHCODE cabinets is that all processes are performed automatically with no need to engage additional human resources.

WHICH CABINETS ARE PROVIDED WITH RFID TECHNOLOGY?

RFID technology has been applied in different types of metal cabinets:

TECHCODE compartment cabinets
TECHCODE deposit cabinets
TECHCODE food lockers
TECHCODE lockers for clean clothes

TECHCODE office cabinets
TECHCODE workshop cabinets
TECHCODE industrial cabinets

TECHCODE clothing lockers

TECHCODE lockers for dirty clothes

TECHCODE file cabinets

TECHCODE deposit cabinets

HOW THE TECHCODE CABINETS DIFFER FROM EACH OTHER?

Our TECHCODE cabinets may be operated with different Systems using RFID technology. At present we are using 3 reliable and proven Systems. Still, we are also testing further systems.

Majority of TECHCODE cabinets may be operated by means of all three Systems we use.

Depending on the System, TECHCODE cabinet performs different functions.

WHICH SYSTEMS ARE TECHCODE CABINETS EQUIPPED WITH?

S.1 SYSTEM

This is the simplest System, which may be implemented in each type of TECHCODE cabinets. Access to the cabinets equipped with this System is controlled via RFID cards.

S.2 SYSTEM

Cabinets using S.2 System have more functionalities than the ones using S.1 System, e.g. they provide registration of events. This System may be used in all types of TECHCODE cabinets except for so called "dirty linen closets" with a drop box.

S.3 SYSTEM

This is the most advanced System used in our TECHCODE cabinets. Cabinets using S.3 System can register events, and read RFID labels, with which items stored in the cabinets are marked. Apart from this, they can perform other functions.

Szafa RFID 4.0 — INTERNET OF THINGS

WHAT CAN BE STORED IN TECHCODE FURNITURE?

TECHCODE cabinets can store all resources, access to which shall be limited to authorised persons only, e.g.:

☑ clothes, bags and rucksacks, food, other items deposited in the compartments,

☑ all types of file binders, document cases and other documents, including the ones comprising personal data, sensitive data, etc.,

☑ special tools, computer components and other valuable equipment,

☑ medical apparatuses or other valuable devices, medicines, etc.,

☑ keys, magnetic cards, jewellery and other valuables,

☑ tools, power tools and equipment, etc.

Interior of the TECHCODE cabinets may be customised according to the type of items stored and may be equipped with shelves, mounts (e.g. for keys), or compartments.

WHERE TECHCODE CABINETS MAY BE USED?

OFFICES, DEPARTMENTS, COMPANIES, PRODUCTION HALLS, SERVICE OUTLETS...

SCHOOLS, HIGHER EDUCATION INSTITUTIONS, LIBRARIES AND OTHER EDUCATIONAL INSTITUTIONS...

THEATRES, MUSEUMS, CINEMAS, CONCERT HALLS, PERMANENT AND TEMPORARY EXHIBITIONS...

COURTS, PUBLIC PROSECUTOR'S OFFICES, CUSTOM CLEARANCE AGENCIES, POLICE STATIONS, DETENTION QUARTERS...

HOSPITALS, OUTPATIENT CLINICS, SURGERIES, MEDICAL FACILITIES...

AIRPORTS, RAILWAY STATIONS, DEPOTS...

SPORTS STADIUMS, SWIMMING POOLS, SPORT CLUBS AND FACILITIES...

HOTELS, RECREATION CENTRES, APARTMENT BUILDINGS, SANATORIUMS...

CAR SHOWROOMS AND SERVICE, CAR RENTALS...

TECHCODE CABINETS WITH S.1 SYSTEM

TECHCODE compartment cabinets with S.1 System

TECHCODE lockers for clean clothes and dirty clothes with S.1 System

◤ VERSATILITY OF S.1 SYSTEM

S.1 System is the basic system implemented in our TECHCODE cabinets. It is mainly aimed at controlling and giving access to the resources stored in the cabinet only to persons authorised to open it.

This system is applied in office cabinets, industrial cabinets, clothing lockers, as well as compartment cabinets (deposit cabinets, food lockers, lockers for clean clothes) or so called dirty linen closets (lockers for dirty clothes). TECHCODE compartment cabinets may be configured with up to 30 compartments having different size and configuration, and it is possible to combine them in a series of cabinets.

◤ NON-CONTACT OPENING OF THE CABINETS I.E. ACCESS TO RESOURCES REMAINS UNDER CONTROL WITH NO NEED TO ENGAGE INTERMEDIATE PARTY

TECHCODE cabinets are opened without physical contact using RFID proximity identifiers. Thanks to it, potential spread of viruses and bacteria between users of the cabinets may be limited.

RFID identifiers can take the form of cards, pendants, or even stickers. TECHCODE cabinets can be also opened by means of other identifiers already used in a company e.g. in Time and Attendance Systems (TnA) The cabinets are a perfect solution for enterprises where HACCP system have already been implemented and where employees must not bring keys in the production floor area, still where RFID cards are permissible.

◤ UNLIMITED GRANTING AND WITHDRAWING AUTHORISATION TO USE TECHCODE CABINETS

Thanks to RFID technology any number of identification cards may be coded for a given cabinet. Moreover, each card may be coded and decoded numerous times. Hence, there is no need to perform costly exchange of locks in a cabinet or in a compartment when the users change.

If a user loses their identifier, it is not a problem as well. Administrator of the TECHCODE cabinet can easily and quickly block access to all identifiers or some of them, add new cards or recode cards, which were used previously.

Therefore, TECHCODE cabinets are much more user-friendly and cheaper than conventional cabinets with keys.

Opening TECHCODE cabinets by means of RFID cards

Different sizes of compartments in a TECHCODE compartment and clothing cabinet

TECHCODE S.1 clothing locker

TECHCODE S.1 locker for clean clothes

TECHCODE S.1 office cabinet

TECHCODE S.1 food locker

TECHCODE S.1 compartment cabinet

TECHCODE CABINETS WITH S.2 SYSTEM

TECHCODE compartment cabinets with S.2 System

TECHCODE office cabinets with S.2 System

ADDITIONAL FUNCTIONALITIES IN TECHCODE CABINETS EQUIPPED WITH S.2 SYSTEM

Apart from functionalities provided by S.1 System, TECHCODE cabinets equipped with S.2 System can additionally:

- ☑ create a simple list of users with characteristics assigned to them (like a photo, post, etc.),
- ☑ give users authorisation e.g. to temporarily open cabinets/certain compartments*,
- ☑ grant access to a number of compartments to one user*,
- ☑ code a number of access cards to one compartment*,
- ☑ register events (who opened the cabinet and when), including events relating to particular compartments (who opened which compartment and when it happened)*,
- ☑ code a number of access cards to one compartment*,
- ☑ activate alarm signal, when the cabinet/compartment is opened without authorisation*,
- ☑ inform about cabinets/compartments, which were left open*,
- ☑ keep record of hours worked,
- ☑ integrate with other systems implemented in the company to register resources,
- ☑ give access to the cabinet by means of generated code or identification card,
- ☑ open compartments using access cards, code or special application, which can be installed e.g. on a mobile phone*,
- ☑ allow installation of readers suitable for different types of proximity identifiers i.e. Unique 125 kHz, Mifare 13,56 MHz or HID Crescendo iClass SE.

Operation of the TECHCODE S.2 food locker by means of smartphone application

TECHCODE S.2deposit cabinet

TECHCODE S.2 office cabinet

TECHCODE S.2 compartment cabinet

TECHCODE S.2 locker for clean clothes

TECHCODE S.2 food locker

TECHCODE S.2 file cabinet for maps and drawings

TECHCODE CABINETS WITH S.3 SYSTEM

TECHCODE S.3 office cabinet

TECHCODE S.3 deposit cabinet
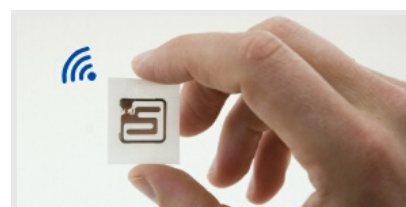
SMART CABINETS READING RFID TAGS

TECHCODE cabinets equipped with S.3 System are the most advanced cabinets, which apart from control over physical access, perform other functions as well. Thanks to mechanisms applied in these smart cabinets, they are able to read information concerning the tagged items.

RFID tags are different types of labels attached to the items stored in the cabinet. Such labels can be in the form of stickers, pins, badges, or other types of special tags designed for marking items, which are used in special conditions, e.g. laundry tags, tags for metal surfaces, etc.

Each tag can be associated with relevant information concerning the item it is attached to, such as name, SKU, expiry date, inspection date, etc. This allows TECHCODE S.3 cabinet to identify each tagged item.

Each time the cabinet is closed, special antennas scan the interior of the cabinet, read information on the tags and register it in the System.

AUTOMATIC CONTROL OF RESOURCES AND REGISTRATION OF EVENTS

TECHCODE S.3 cabinets are central elements of the IT System developed by our company to manage inventory of resources.

The System comprises a touch screen operated application installed in the TECHCODE cabinet and ZASOBNIK software, with which the said application links via LAN or WiFi.

TECHCODE 3.0 cabinets register each attempt of logging in or opening the doors. When a tagged item is taken from the cabinet or returned to it, all events are automatically registered, which renders it possible to track who performed which action (of taking the item or returning it) and when it happened.

Exemplary RFID tag for items

Exemplary screen shot form Zasobnik software

Exemplary screen shot from application in the TECHCODE cabinet

TECHCODE S.3 industrial cabinet

TECHCODE S.3 locker for dirty clothes

TECHCODE S.3 deposit cabinet

TECHCODE CABINETS WITH S.3 SYSTEM

TECHCODE S.3 deposit cabinet

TECHCODE S.3 industrial cabinets

▰ PATENTED SOLUTIONS

TECHCODE S.3 cabinets with automatic registration of events are provided with patented solutions we have developed to read RFID tags. Techmark's patent application with the application number P.422041 has been filed and registered in the Polish Patent Office.

Thanks to our solutions we have been able to achieve the highest efficiency in reading the tags. This makes identification of tagged items, access to which is controlled by our TECHCODE S.3 cabinets, as well as accuracy of collected data and registered events, highly reliable.

▰ REDUCED OVERHEAD COSTS AND EXPENSES AND IMPROVED PROCESSES

Thanks to well-developed functionalities, TECHCODE S.3 cabinets can perform a number of tasks which were previously performed by a man (e.g. a warehouseman), such as:

☑ automatic registration of all events,

☑ making lists and reports required for analyses,

☑ giving (through a granted code) or limiting (through withdrawal of authorisation to log in) access to the cabinet 24 hours a day after logging in Zasobnik software,

☑ exporting data to CSV file, and others.

It is all aimed at reducing costs related with the remuneration payable to an employee responsible for these tasks and at improving processes connected with the resources (taking and returning).

▰ SAFE STORAGE

Our TECHCODE S.3 cabinets address strict requirements concerning safe storage and access control in relation to public documents and other carriers which store personal data. TECHCODE cabinets can store documents, as well as other items, which must be registered and access to which needs to be controlled (e.g. keys).

The cabinets comply in full with the requirements provided for in the Act on General Data Protection Regulation and the Act on Public Documents (Journal of Laws of 2019, item 53 as amended). The cabinets are user-friendly, thanks to which one can take and return the items on their own 24 hours a day.

THE ACT ON PUBLIC DOCUMENTS

GDPR THE ACT ON GENERAL DATA PROTECTION REGULATION

TECHCODE S.3 office and storage cabinet

TECHCODE S.3 deposit cabinet

TECHCODE S.3 deposit cabinet

TECHCODE CABINETS WITH S.3 SYSTEM

TECHCODE S.3 deposit cabinet

TECHCODE S.3 industrial cabinets

STORAGE, DATA ANALYSIS AND OPTIMISING THE PROCESSES

After logging in the Zasobnik software from any device, all data registered in the System are real-time evidenced and made available.

ZASOBNIK software renders it possible to create large databases according to one's preferences, export data to ERP system used in the company and use said data to perform analyses. This improves automation and optimises management processes related to tagged items, taking the resources, etc.

Tagging of resources and registering information on events is a part of data analysis, which modern companies around the world use more and more often. Our cabinets prove, that RFID technology may be used in a variety of fields.

FULFILMENT OF THE PRINCIPLES OF INDUSTRY 4.0 AND INTERNET OF THINGS CONCEPTS

TECHCOCE S.3 cabinets are innovative, next-generation products which meet the principles of Industry 4.0 and Internet of Things concepts. As both concepts assume, real world unifies with the virtual reality of the Internet and IT, as a result of which increasing amount of data is stored and analysed in order to optimise processes performed in a company.

TECHCODE S.3 cabinets render it possible to collect data and non-financial performance indicators, which are useful in the analyses, integrated reporting or optimising processes related with the use of resources. Our IT System can be integrated with other systems used by the customer, which actually fulfils the principles of IoT and Industry 4.0 concepts.

Block of TECHCODE S.3 cabinets

BLOCK OF CABINETS

Each TECHCODE S.3 cabinet equipped with the application and a display may be operated separately. It is also possible to form a block of cabinets (which may be also located in different places) and connect them to a single System. All TECHCODE furniture can be coupled with each other within one System.

Thanks to this solution, the content of all cabinets combined in one block can be verified, and the administrator can easily manage all cabinets connected to the System.

TECHCODE S.3 office and storage cabinet

TECHCODE S.3 locker for dirty clothes with a drop box

TECHCODE S.3 deposit cabinet

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