texXtag® Textile Management

Automated, centralised and decentralised textile management

INTELLIGENT CABINET SYSTEMS AND ROOM SOLUTIONS

teXtag®

Efficient laundry management

Managing workwear and pool laundry

For laundries, hospitals and care facilities, as well as throughout industry, supplying employees with workwear, pool laundry and uniforms is often a challenge.

The teXtag textile management solution allows you to automate the issue, return and administration of pool laundry, workwear and uniforms. Providing visibility throughout the entire textile cycle including: Centralised as well as decentralised issue and return of clothing, despatch of used clothing to the laundry and delivery of cleaned and repaired clothing.

Individually planned room solutions work like a walk-in wardrobe. When entering and leaving the stock room, employees' clothing is automatically identified and recorded as they pass through the revolving doors.

Intelligent compartment systems facilitate the decentralised issue and return of textiles and, thus, vastly reduce the time spent by employees in the stock room.
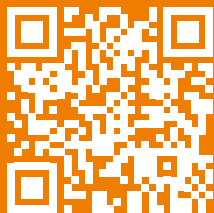
- ✓ Enormous cost savings thanks to inventory optimisation
- ✓ 24/7 availability of laundry items
- ✓ A reduction in the disappearance and loss of garments
- ✓ Permanent inventory and transparency throughout the entire laundry cycle

EFFICIENT ISSUE AND RETURN OF WORKWEAR IN HOSPITALS

YouTube video

This is how efficient textile supply works.

youtu.be/6-TaPS60klg

DECENTRALISED
LAUNDRY
DISTRIBUTION
AND RETURN

textag®

In order to reassure our clients, our texCabinets have been certified as B1 flame retardant by the North-Rhine-Westphalia Materials Testing Institute in accordance with DIN 4102-1 Fire Safety.

Intelligent cabinet systems

Decentralised issue and return

The intelligent textile management system is comprised of dispensing and return cabinets, which manage the issue and return of clothing and provide laundry at the locations where employees actually need it. This reduces the distances covered by employees in order to obtain fresh clothing.

The intelligent textile management system automatically records the user and the garments removed or returned and stores all transactions in a controller, until they are retrieved by the higher-level system.

Each dispensing and return cabinet is a standalone unit. This means that the individual cabinets are extremely flexible in terms of their placement.

Thanks to the compact dimensions of the cabinets, only a small area is required for installation. The dispensing cabinets can be opened simultaneously, allowing several employees to obtain clean laundry at the same time – thereby avoiding long waiting times.

- ✓ The world´s fastest system
- ✓ Automatic recording of wearers and garments
- ✓ Reduction of long distances and prevention of queues
- ✓ Compact and space-saving cabinet design
- ✓ Simultaneous access for users to all dispensing cabinets within the laundry dispensing system

texCabinet (Dispensing)

The compact TCD 200 laundry distribution cabinet is suitable for almost any space due to its dimensions. The TCD 200 can hold around 200 garments.

The laundry distribution cabinets of the TCD series are designed for quick access. Simply hold the ID card in front of the reader integrated into the door handle, and the laundry can be taken out in less than 5 seconds.

Access permissions are easily managed through the Commander Connect software.

TCD 200

texReturn (Return)

To return laundry, the user simply drops the laundry items through the opening in the return cabinet. The laundry is automatically recorded by the cabinet.The laundry bag within the cabinet can be replaced in a few simple steps. Additionally, the TCR 200 model and upwards are suitable for all common mesh Depending on the

texReturn model, between 150 and 300 garments can be returned. The TCR 250 and TCR 300 are equipped with a height-adjustable flap, offering 3 height positions as well as the additional option to lock the flap electronically and release it via ID card and reader.

| TCR 50 | TCR 200 | TCR 250 | TCR 300 |

A SUCCESS STORY - THE WITTEN DENTAL CLINIC

*tex*tag®

PDF download: The complete success story of the Witten Dental Clinic.

Berendsen GmbH West
Pettenkoferstraße 23
58097 Hagen, Germany

BERENDSEN

The goal of the project

Full textile supply for the Dental Clinic at the University of Witten/Herdecke, with an improved overview of the movement of laundry for 130 employees.

The challenge

To have all the necessary items in stock at all times (24/7) & to ensure rapid access, even at peak times.

The solution

RFID-based fully automated textile dispensing, in the form of a self-service solution, to meet the client's requirements.

The benefits

Reduction of circulating quantity for cost savings. Through continuous inventory, logistical processes can be better visualized and planned. This results in increased reliability, leading to cost savings.

A fully automated cabinet system for the Witten Dental Clinic

Case Study - The Witten Dental Clinic

Berendsen GmbH West, based in Hagen, is a full-range textile supplier to the healthcare sector. The company's convenient textile service enables it to provide a complete laundry supply service for hospitals, clinics, nursing homes, etc. Efficiency plays a key role in this, which is why the operator opted for an automated laundry dispensing system from deister electronic. The system simplifies the processing of laundry on customers' premises, provides transparency in relation to the movement of items, and guarantees that sufficient clothing is available for all employees.

The first system installed by Berendsen became part of the network at the Dental Clinic at the University of Witten/Herdecke in December 2016. The clinic's management had insisted on the intelligent cabinet system as a prerequisite for a full textile supply, in order to obtain an improved overview of the movement of laundry for a total of 130 employees. It has been reliably providing its services since commissioning. Every employee has a card, which authorises them to withdraw clothing. All they need to do is identify themselves at the dispensing cabinet using the card. At the end of their working day, the clothing they have worn is dropped into a chute, which automatically registers its return. This system offers numerous benefits, as explained by Peter Kettig, who is in charge of the project at Berendsen: "The system provides a functioning pool of clothing for employees. The registration of garments means that each employee only withdraws the clothing to which they are entitled. Laundry hoarding is a thing of the past. In comparison with a personal facility, we have been able to drastically reduce the volume of laundry provided."

Control function with cost benefits

And what about the client? "Benefiting", says Mr. Kettig. "On the one hand, the number of garments supplied by us is falling, which is reducing the hire costs for the clinic. And, on the other hand, we are already registering a lower number of items disappearing, which needed to be paid for by the client. The fewer items that disappear, the lower the residual value payments. In addition, cases in which clothing is not treated particularly carefully can be identified and kept in check. This also has a positive impact on the client's residual value payment. So, the system is paying off for the client - despite the additional flat hire fee."

Topless? Never again

Are there also benefits of the fully automated solution for the clinic's employees? Mr. Kettig's answer to this question is positive too: "As the system comprises a clothing pool, a new employee is issued with the appropriate garments on their very first day. This is important to ensure employees convey a professional appearance. By contrast, the entire supply process for personalised outfitting lasts far longer. During this phase, new employees need to make use of a stop-gap solution. This can also happen when using systems without a monitoring function: Anyone who makes excessive use of the clothing stock, leaves others without."

Here today, somewhere else tomorrow

The Dental Clinic in Witten is equipped with six dispensing cabinets and a return cabinet from deister electronic. The cabinets are located between the ladies' and men's changing rooms, which has proven practical for employees. "A data cable and a power socket are all that is needed for a system cabinet. These are standard in all modern buildings," explains Mr. Kettig. "This makes it very easy to increase the number of cabinets or to relocate all or part of the system." Mr. Kettig speaks from experience: The original number of dispensing cabinets planned needed to be increased by two at short notice.

Satisfied users

To the question of whether he believed the system would be so simple, Mr. Kettig replies: "I have been putting it through its paces since February 2016. And it has worked almost perfectly from the start. The Dental Clinic at the University of Witten/Herdecke is also absolutely delighted with the system installed by deister electronic. It operates smoothly and reliably and provides the desired overview of the use of clothing."
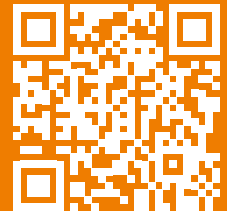
EFFICIENT LAUNDRY ISSUE WITH THE TEXROOM SOLUTION

textag®

texRoom – Room solution

Central stock room for clothing and textiles

The room solution is individually planned and works like a walk-in wardrobe. Users can only pass through the intelligent revolving doors at the entry and exit of the room solution following successful identification.

The removal of fresh clothing takes a maximum of 30 seconds. The wearer identifies themselves at the texCarousel using their ID card and then enters the stock room. The wearer then removes the required garments and leaves the room via the texCarousel at the exit – in doing so, the removed clothing is automatically identified and recorded. Laundry is returned very easily via the return cabinets, which are placed at logistically convenient locations. The wearer simply pushes their laundry through the flap into the cabinet and it is automatically recorded.

Fresh clothing is conveniently delivered using standard wire container models via the transferGate. The focus of the room solution is efficient and reliable recording of wearers and clothing, as rapid and efficient issue is particularly important for many wearers in order to avoid waiting times and delays.

- ✓ Individual planning of the room solution
- ✓ No waiting times for laundry issue
- ✓ 24 / 7 availability of laundry items
- ✓ Efficient identification and documentation of wearers and garments
- ✓ Maximum time passing through the revolving doors: **5 seconds**

Delivery **transferGate**

Laundry return **texReturn**

Info terminal **texInfo**

Revolving door **texCarousel**

Revolving door **texCarousel**
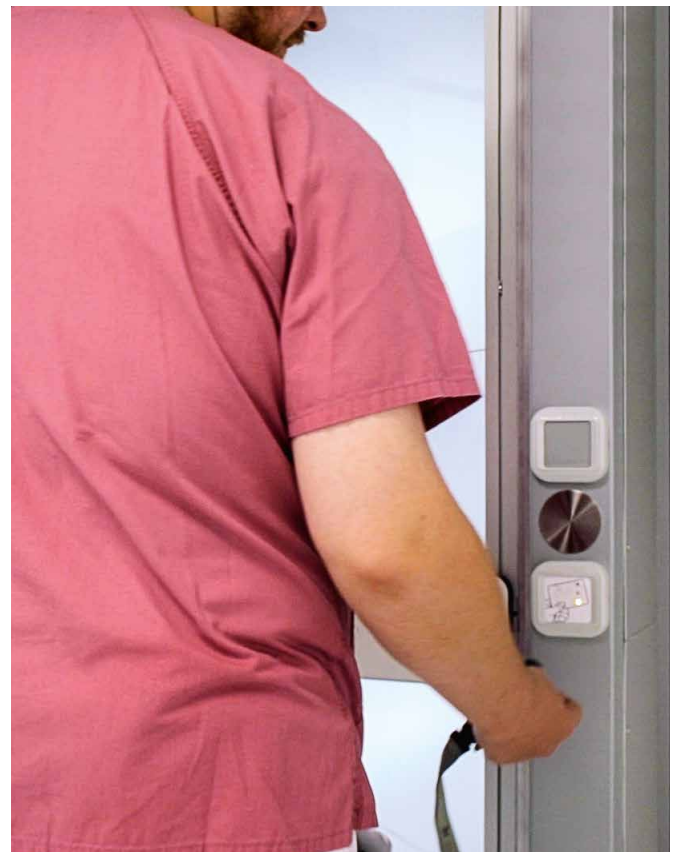
Efficient laundry issue in 20 to 30 seconds

Case Study - Lüneburg Hospital

Lüneburg Hospital has been equipped with the texRoom room solution and is able to manage the entire laundry cycle for more than 1600 staff; from the delivery of clean workwear, removal of it by the hospital's personnel to the return of used garments.

All laundry items are labelled with a durable UHF RFID transponder, which guarantees reliable recording of garments, including within wire laundry containers, piles or bags.

The Commander Connect software automatically manages the entire laundry cycle and makes it possible to accurately monitor all processes. There is no need for employees to confirm the issue or return of garments. All they need to do is identify themselves using their RFID access control credential at the revolving doors.

"A major positive is that, the time taken for the clothing removal process, in comparison with other or even earlier systems, is significantly shorter," says Peter Hübner, The Head of the Transport and Logistics Division of the texRoom solution. "Ultimately, this results in a high degree of employee satisfaction. We are completely happy with this solution, which we developed together with deister electronic."

texCarousel
Revolving door

The tamper-proof revolving door for entering and leaving the texRoom identifies every user by means of their RFID access control credential whilst recording all the textiles removed when the user leaves via the revolving door, in just 5 seconds, automatically posting these events to the employees account. The revolving door has an emergency off switch, which releases the brakes and allows users to leave the texRoom at any time. The same applies in the event of a power cut. Every revolving door has three operating modes: It can be used as an entrance, exit or dually in one direction. If necessary, its operating mode can also be switched during operation. This universal design allows the system to be used flexibly for changing tasks.

Entrance   Exit   Dually in
                                one direction

YouTube video

Pass through the tamper-proof
revolving door
in under 5 seconds
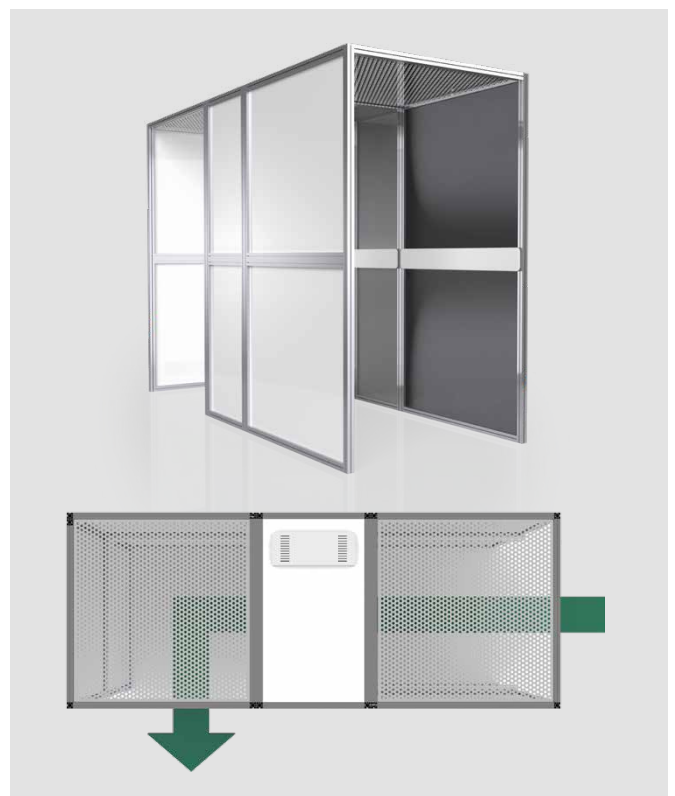
https://youtu.be/zK7a80Ln1jQ

transferGate
Delivery of fresh clothing

The transferGate is an access tunnel to the texRoom, in which all textiles labelled with a transponder are automatically identified and added to the stock.

The transferGate is activated by a motion sensor or an access control reader, when a person approaches the tunnel with a laundry container. A green LED strip indicates that the tunnel is active and can be entered. This ensures that all textiles are recorded.

The transferGate is compatible with all standard wire container models, comes without doors and other components requiring servicing and is, therefore, maintenance-free. An air-permeable roof guarantees consistently good air quality inside the transferGate.
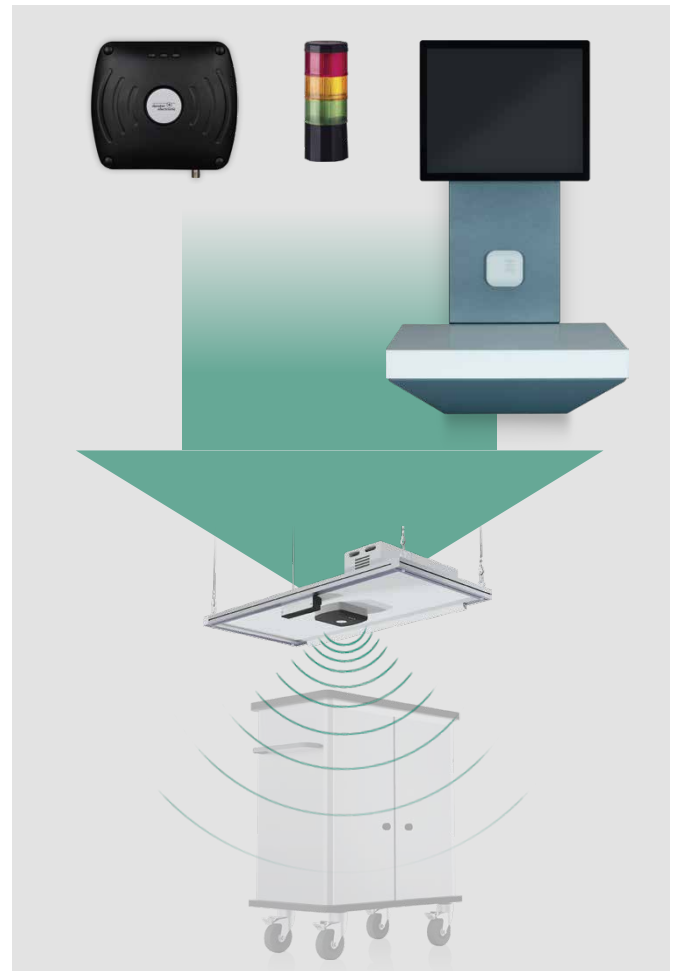
texLoad and trolleyScan

Delivery and filling

texLoad

texLoad is a station for manually recording textiles and loading a laundry trolley. With the incorporated texCheck terminal, up to 10 textiles can be recorded simultaneously. Textile service employees fill a trolley/wire container with the aid of the texLoad. The textiles, as well as the laundry trolley, are equipped with UHF transponders. Once the container has been filled, the employee finishes the recording process and all the laundry items are then linked to the trolley by a special transponder. The user can see the status of the filling process at all times by looking at the clearly visible signal lights.

trolleyScan

trolleyScan is the perfect companion to texLoad. A trolleyScan can be installed in the texRoom's entrance area below the ceiling. The UHF reader identifies the special transponder on the trolley/wire container and prompts the garments, which are in the trolley/wire container, to be added to the texRoom stock. An LED strip shows the loader that the recording process has been successfully completed.
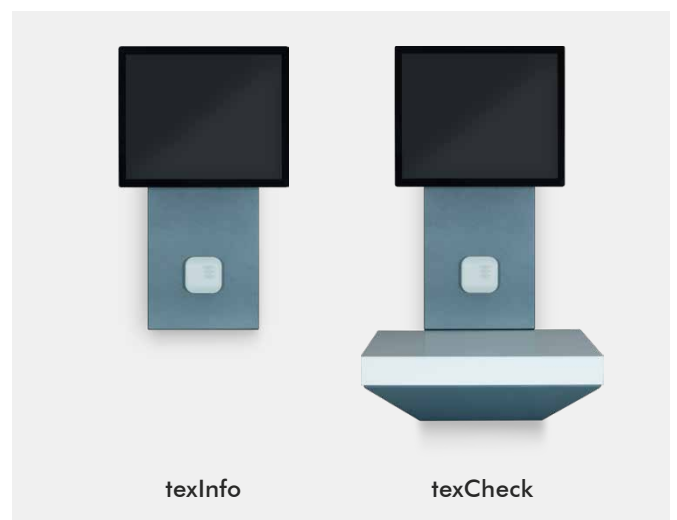

texInfo and texCheck

Individual transactions and information

The texInfo terminal provides a user account overview. The user simply identifies themselves using their RFID access control credential to receive an overview of their available allocation and the clothing, which is currently posted to their account.

texCheck is an additional terminal for the manual entry and removal of garments. texCheck allows up to 10 textiles to be manually entered into or removed from the system.

texInfo   texCheck

THE LAUNDRY KNOWS WHERE IT BELONGS!

teXtag®

and much more…

Washing cycles

Serial number

Scrubs or sheets

Purchase date

Washing temperature

Size Colour

1

deister electronic developed the world's first textile transponder, which is washable and can be incorporated into all current textiles.

Intelligent UHF transponders

Automatic management of clothing

Every garment is labelled with a UHF transponder. This electronic identification facilitates the automatic management of clothing and documentation of its life cycle.

You can program our teXtag UHF transponders yourself with information that suits your individual requirements such as colour, size, washing temperature, purchase date, etc. This way, your garments can be identified and managed even more precisely and can also be identified independently of the central system. All the data stored in the teXtag transponder is encrypted and, therefore, tamper-proof. The 128-bit EPC data set ensures maximum performance when scanning containers.
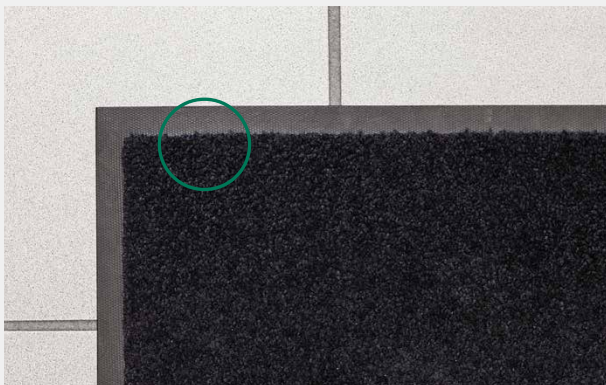
We have developed powerful types of transponders for various textile industry applications, which can withstand water, heat, steam and pressure, as well as all the chemicals used in commercial laundries' washing processes.

Flat textiles & workwear

Dry and wet cleaning

Vulcanising

Containers

POWERFUL SOFTWARE FOR CENTRAL MANAGEMENT & CONTROL

texᵗag®

Commander Connect

A permanent overview of the entire system

Commander Connect allows you to easily and centrally manage centralised and decentralised laundry supplies and to combine them intelligently. Daily administration, monitoring and management of all systems is performed via a browser interface.

Commander Connect can be appropriately scaled for the entire system with various software modules and expanded at any time.

The user-definable report generator allows analysis and alarm notifications to be individually generated, in order to fully satisfy various requirements. Data backups, detailed rights assignments and logging of software activities provide the assurance that you are always in control of all your system's processes. Other programs are able to trigger Commander Connect's functions and retrieve event data, such as master data imports or event readouts, via a web service. This allows Commander Connect to be seamlessly integrated into other systems.
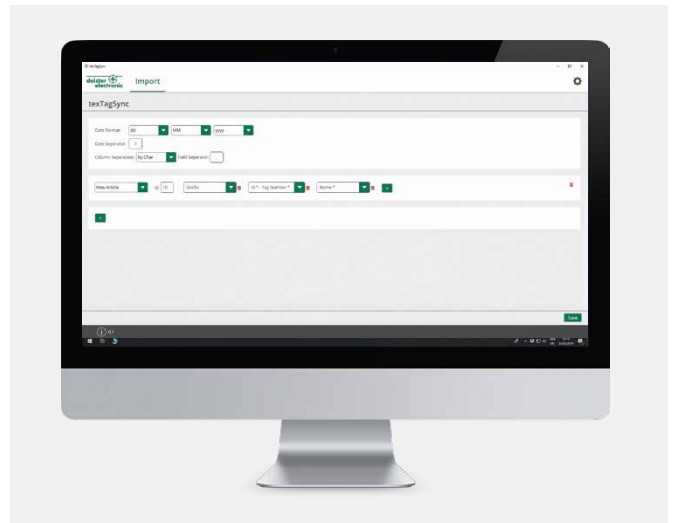

✓ One software for all systems

✓ A uniform, intuitive user interface

✓ Scalable and expandable at any time

✓ Customisable reports

syncTool

Easily exchange data

Various data such as user information, textile data, and allocation assignments can be fully configurable and imported into or exported from the Commander Connect software.

The syncTool supports a wide range of protocols used by textile service providers, building automation systems, and security systems available on the market. An intuitive interface simplifies the process of data synchronization with other systems. The syncTool can perform its tasks completely automated in the background.

deisterGo

Stay informed at all times

From the administrator to the end-user, everyone receives the relevant information directly on their smartphone in real-time. You can customize the texTag system to send specific information to each user or user group according to their preferences.

For administrators

Where is stock running out? — Location, article name, size and current stock sent directly to your smartphone. No connection to a device often means there are network issues — You will be informed immediately via your smartphone. Where is too much clothing being removed without authorisation? — An alert on your smartphone tells you where. deisterGo allows you not just to respond, but to act proactively and to optimise availability and stock.

For users

Am I changing my clothing often enough? — You can see your allocation and consumption on your smartphone. Has my clothing been correctly recorded? — Returns and removals are sent to your smartphone in real time. Can I check availability, so that I can go straight to the right clothing dispenser? — You can check availability at any time on your smartphone. deisterGo provides users with a transparent view of their consumption and issues automatic reminders, it also allows them to check whether their clothing is available at any time.

A CLEAR VIEW
OF EVERYTHING
AT ALL TIMES

deisterCockpit

Big Data Analytics

The deisterCockpit enables the analysis of data generated within the system and presents it through widgets. By using targeted analysis algorithms and intelligent data processing, you can obtain statistics, overviews, and key performance indicators to optimize your business processes.

You can identify patterns, analyze consumption data, and review process outcomes through clear and customizable dashboards.

The deisterCockpit can be configured to align directly with your company's processes, allowing you to derive the most important information tailored to your needs.
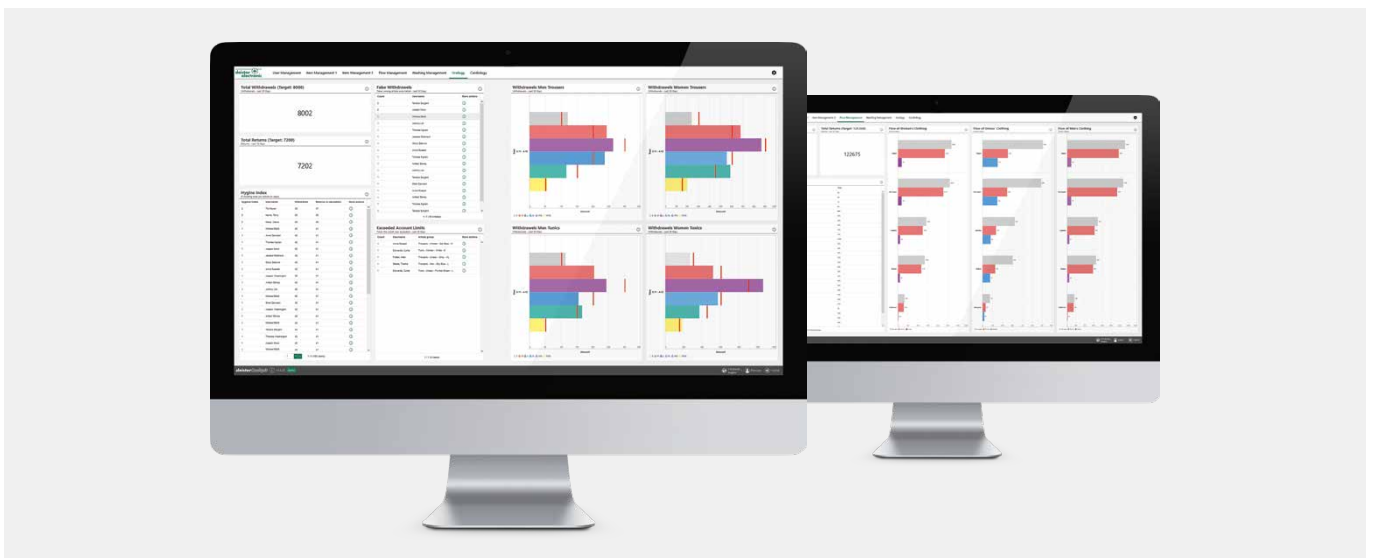
✓ Early identification and correction of negative trends

✓ Display of new trends and developments

✓ Optimal, figure-based support for decisions

✓ Time savings compared to conventional individual reports

✓ Clear and easy-to-understand presentation of all key figures

Individual cockpits

deisterCockpit offers the option of configuring a number of cockpits and assigning individual access rights to each of them. This allows you to process specific data for certain user groups and present it using an individual cockpit. In this case, everyone sees what they need and should see. deisterCockpit is a server-based application, which is installed centrally and can then be used via the browser by each PC within the same network. Each department or individual can configure their own cockpits and have them displayed on their own PC or to everyone on public monitors.

Widgets for even more individuality

A comprehensive range of different widgets offers you every possible opportunity to re-process your data. Every widget can use various presentation formats, e.g. bar charts, figures, tables or pie charts. Data sources and intelligent analyses can be individually configured – exactly as you need them.

Consumption analysis

Define individual time frames during which you specifically analyse the consumption of certain clothing. In doing so, you can define specific periods, or selective ongoing units of time, such as e.g. consumption on every Monday and Wednesday of the week.

Consumption statistics

Create absolute transparency and greater availability. Establish periods and precisely monitor the individual consumption of your clothing. Filter by type of clothing, user, division or condition of clothing, allowing you to specifically optimise your stock on the basis of real consumption data.

Stock overview

Define the divisions of your company and view the status of your stock in each division in an easy-to-read diagram in real time. How many Size M tops are at the laundry, how many are in stock and how many are being worn? The stock overview shows you the current stock at any time.
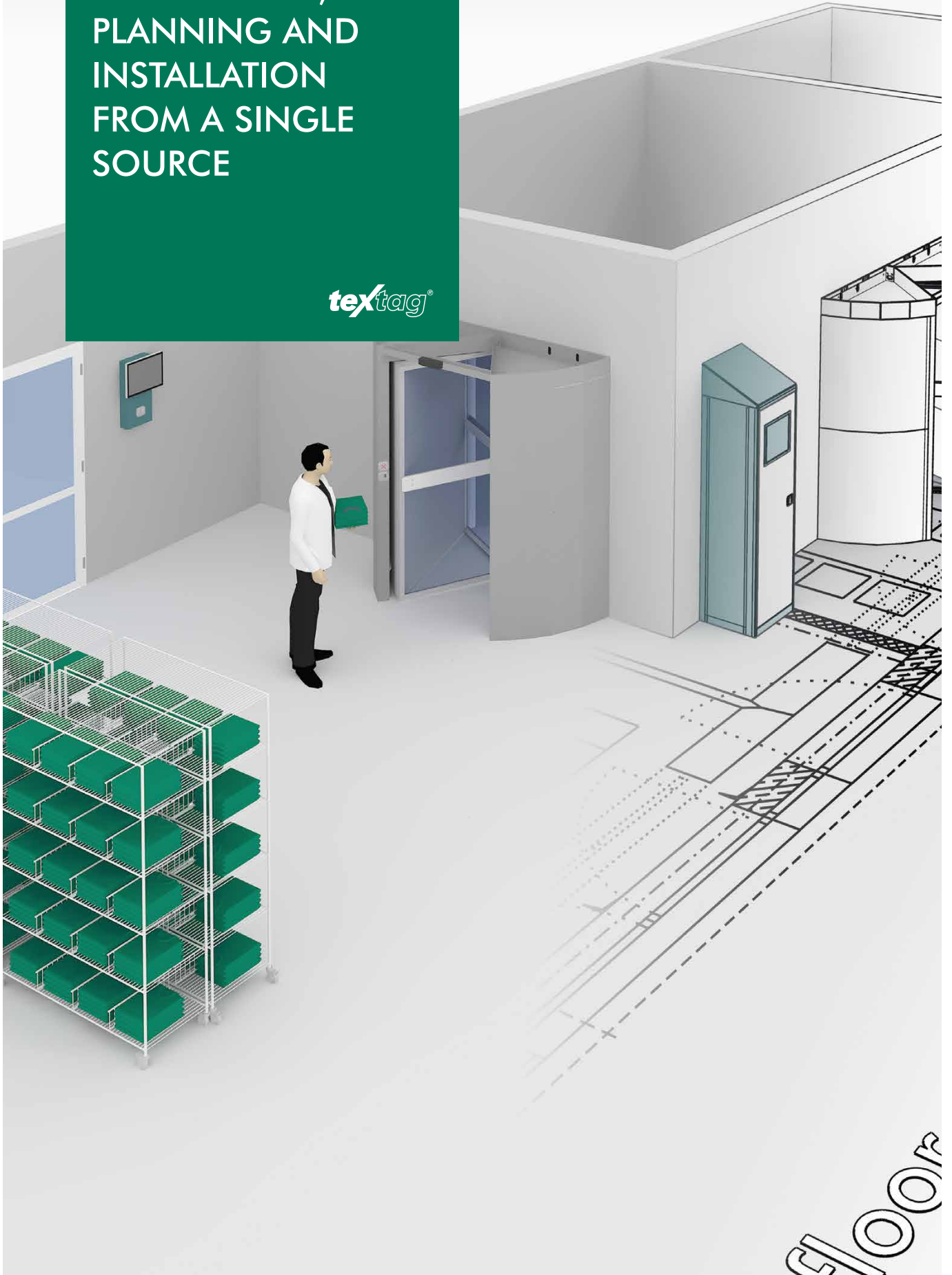
Individual analysis

Do you have special processes or do you want to visualise and verify new procedures? Do you want to expand an analysis with a parameter or a figure? You know exactly what you need and we can assist you, with our wealth of experience, to further develop and adapt the cockpit specifically for you.

CONSULTING, PLANNING AND INSTALLATION FROM A SINGLE SOURCE

textag®

With advice and assistance at your side

We support you right from the beginning

You have certain ideas, concepts or specifications and we have the relevant know-how to fulfil your individual wishes.

From feasibility studies and layout planning, including visualisation, to installation of the laundry dispensing system, we are here to assist and advise you from start to finish, in order to facilitate the best possible and transparent management of the entire laundry cycle.

We focus on maximum user-friendliness, a very rapid issue and return process, reliable identification of employees and clothing within these processes, as well as low space requirements.

- ✓ Individual room solution project and requirements planning
- ✓ Implementation of tailor-made 3-D visualisations
- ✓ Installation & commissioning of teXtag room solutions
- ✓ Service & support services
- ✓ Training and instruction for technicians and personnel

About deister electronic

For over 40 years, deister electronic has been operating as an international, modern and sustainably managed family business, which stands for innovative products and solutions in the field of identification and security for people, equipment and buildings. Our product portfolio is, in that respect, utilised for managing keys and valuables, identifying vehicles, and for access control, as well as in logistics and automation technology.

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