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MEDICONNECT® SOFTWARE



FLEISCHHACKER



Who we are

Based in Schwerte in Germany, Fleischhacker GmbH & Co. KG is a company specialising in medical and laboratory technology with substantial experience in international aid. In Germany, we predominantly supply hospitals, GPs' surgeries, emergency services and corporations. Since 2007, Fleischhacker has also been distributing its MediConnect® software – a comprehensive solution for the management of clinical processes in hospitals and in GPs' surgeries.

What makes us different

It comes down to well-grounded know-how and comprehensive expertise within the hospital sector. Having extensive experience in equipping clinics and surgeries coupled with a high capability to streamline structures, we are able to optimise your processes. It is this optimisation that encapsulates the quality of consulting and advice we offer. This extends from our belief that the key to securing substantial progress and quality in health care is achieved through the reorganisation of clinical routines in hospitals through cutting edge processes, intelligent connections and innovative standardisation.

Yet Fleischhacker is more than just a service provider. We are a partner you can trust. Our expertise extends to you by maximising the quality of services you provide. For example, the modular planning of hospitals in developing countries, with its associated infrastructural challenges and medical problems, requires a high degree of structuring complex processes and efficient targeted action. We have the means to contribute substantially to this kind of project planning with our specialised experience, intuition and sensitivity. Imagine what we can do for you.

Key facts: Fleischhacker at a glance

Founded in 1996 founded in 1997 founded in 1996 founded in 1997 founde **8**₉ INTRODUCTION

The many facets of quality management

Quality from the producer all the way to the client. This is particularly important to Fleischhacker. Our service, products and client satisfaction are all held to a high standard.

Qualified colleagues take care of your individual questions and requirements. And it is important that our clients receive exactly the solutions that they need.

Continuous improvements to our workflow guarantee the quality of service we are able to provide. Optimal processes and refined and efficient logistics are the basis for our success. We have achieved following certifications which are continuously audited.

Certificates

Certified QMS: ISO9001:2015 (TüV Rheinland, Germany) Certified QMS: ISO13485:2016 (DGS, Germany) Active Level Membership United Nations Global Compact (UNGC) EcoVadis Certificate CSR Sustainability Rating Certified ISMS ISO27001:2013 (TüV Rheinland) EU-Quality Management Certificate (MDR)



Service spectrum

Medical technology Laboratory technology MediConnect® software International aid Technical service E-procurement **10**₁₁ MEDICAL TECHNOLOGY





 $\mathbf{12}_{13} \text{ MEDICAL TECHNOLOGY}$

ESSENTIAL

Regardless of whether it is about consumables or the most modern high-tech equipment, Fleischhacker adopts a systematic approach. This ranges from an individual analysis of needs through to comprehensive technological advice. In addition to our consultation services and the delivery of our products, Fleischhacker offers efficient solutions for electronic procurement and technical services in accordance with medical product laws and the medical devices operator ordinance.

Product overview

We act as a complete supplier, particularly in our focus areas, and offer all medical products ranging from equipment and consumables to advanced devices. The diagnostic equipment we supply can be integrated into existing software or hospital IT systems (see MediConnect[®] on page 38). We are also able to advise you on installations or conversions. 14 15 LABORATORY TECHNOLOGY





16 17 LABORATORY TECHNOLOGY

DIVERSE

Tailor-made products for the widest variety of requirements in all laboratory applications – from classic lab supplies and life science products through to individual custom-built appliances. We supply all laboratory products in close cooperation with renowned manufacturers. For many years, we have also been optimising electronic order management with our clients.

Individually made logistic concepts can help to reduce inventory on-site or even to completely dissolve it. Our own delivery service will bring products directly to the lab table, if desired. This personal delivery service also provides opportunities for other issues to be addressed. We can cater to the widest variety of needs, from the regeneration of ion exchange cartridges and the performing of repairs to discussing the development of a complex glass apparatus – customised and created to your exact specifications.

Product selection

- More than 100,000 items in our classic lab supply electronic catalogue
- Products for molecular stem cell research, pure air, cold and deep cold technology
- Packing materials
- Individual manufacture of glass apparatuses
- Installation and renovation
- Chromatography







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COMPRE HENSIVE

Our service spectrum complements our broad range of products and helps with the selection of the most suitable product to comfortably design the procurement process or to estimate the total costs for running equipment throughout its entire life cycle.

PRODUCT SELECTION

Investment planning Installation Price optimisation

E-PROCUREMENT

Needs assessment Electronic catalogues Connection of materials management systems TECHNICAL SERVICE

Installation Introduction and training Maintenancee and repairs Documentation







Product selection

We recommend the medical or laboratory products and manufacturers best suited to our client's needs.

Investment planning

We consider not only the acquisition costs and potential usage possibilities of new equipment but also factor in lifespan, compatibility and maintenance costs as well.

Project planning

Our work starts with an analysis of the circumstances and conditions on-site. We define goals and outline requirements together, consider room layouts and any equipment that may already be in place. On this basis, we put together a concept with suggestions for equipment, cost implications and an implementation plan. 24 25 SERVICE

Web shop

With more than 135,000 items, Fleischhacker provides a comprehensive range of products available to order at your convenience.

Browse through our extensive catalogue of supplies, furniture, and medical and laboratory equipment. For each item we provide useful information at your fingertips, such as embedded product videos, safety data sheets, the right accessories, instruction guides and much more.

Simple user interface

A clear navigation, a detailed product search function and a customisable quick order list facilitate the ordering process.

Order tracking

Additionally, our clients have the option to benefit from the Fleischhacker order-tracing system, giving them access to their order statistics for the last 12 months. Thus, they can always keep an eye on their budget.

The delivery status of purchase orders is also easy to monitor. Parcel numbers are available to check the current delivery status with the delivery service.

Attractive conditions

On a regular basis, Fleischhacker provides special online offers and coupon promotions. Our email newsletter keeps our clients updated and ensures that they never miss a deal.



Electronic procurement

Especially when it comes to consumables, procurement costs often exceed the value of the purchased product. Even simply delivering these materials can lead to vastly increased administrative burdens. With the help of our e-procurement approach, we can eliminate annoying tasks and help to greatly increase the efficiency of procurement in general.

Connection with materials management systems (B2B)

With larger procurement volumes, it could make sense to connect to the materials management systems of our clients. In these cases, the user chooses the product in our web shop, for example, and then places his order. At the same time, this order is transferred in the form of an electronic message to the material management system of our clients and into our own system. As soon as the item is ready for despatch at our logistics centre, we update the order status to the client system. The receipt of goods, invoicing and payment processing happens electronically.

Needs analysis

We often support our clients in choosing the right selection of products with an analysis of demand on-site. Normally, we are able to achieve cost reductions of 25% and more with consumables.

Optimisation of the procurement process

To realise cost saving potential, conditions need to be met: The ordering system has to not just be secure, but also user-friendly and easy to understand. It must adapt to the requirements to the needs of the user flexibly, conform to the newest legal regulations and be dynamic enough to support current demands at any time. In several of the business units, 50% of all orders are placed electronically. Surveys have shown that this leads to extremely high levels of client satisfaction, with very low levels of returns and complaints.



		.	
USER	LEADING DEPT.	PURCHASING	SUPPLIER
Request			Order entry filter (budget, product range)
End of contract of	- No ← Approval ← ↓ ↓ Yes ──		No ← OK ? →
Receiving ←			Goods and shipping documents
		> Payment	
			End of process

Technical service

We inspect over 50,000 devices per year at over 1,000 locations. Inspections are carried out with the help of IT-controlled test profiles at the highest technical level. All measurement data is transferred electronically. Each of our technicians is qualified over and above the applicable legal requirements, receives regular training from the manufacturers and carries over € 100,000 worth of diagnostic equipment on their person. Generally speaking, our technicians can inspect all devices at each location. This translates into a substantial cost advantage, since multiple trips by different technicians are not necessary.

Installation and familiarisation

It is often the case that the potential of technical equipment is only used partially. The reasons for this are in insufficient installation and a lack of technical familiarisation on the part of the users concerned. Our specially trained technicians install the devices on-site and familiarise the users with their operation.

Maintenance

Conservation of equipment means a conservation of value and higher quality and safety. Saving at the wrong end can quickly become expensive – and dangerous. The regular inspection of medical devices for the purposes of safety and metrological controls is regulated by law. Our services in relation to maintenance contracts gives legal peace of mind: we perform various controls according to the requirements of manufacturers and relevant legal frameworks.

Repairs

We perform repairs in our workshop or coordinate repairs by the manufacturer if necessary.

Documentation

All described activities, from installation and user training through to test protocols, are documented in medical product books. These are available electronically, as are inventory lists and user manuals.



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ALL ENCOM PASSING

Over the years we have become one of the largest suppliers of medical and laboratory products to NGOs and bank-financed aid projects. Day-to-day working relationships under long-term agreements or system contracts exist with almost all UN organisations, the Red Cross and many other institutions.

Our strengths lie in the handling of complex projects under difficult circumstances:

- Turnkey solutions
- Restructuring of departments or complete hospitals
- Deliveries in emergency situations
- Kit packing
- Project development/consulting
- Installation and training components
- Technical service
- Electronic procurement

The international projects we supply are quite different in nature and can vary from the provision of medical and lab equipment to more than 1,200 primary health care facilities in remote destinations to the supply, installation, training and maintenance of highly sophisticated solutions including MRIs, CTs, central monitoring systems and endoscopic operating theatres.

It is one of our competitive advantages that we conduct 50% of our business in our domestic market. This direct and close relationship with our German clients has familiarised us with the needs of our clients on a day-to-day basis. At the same time, we find that most of our international clients have quite similar requirements. Another positive effect is that we stock more than 12,000 items in our logistics centre in Schwerte. This gives us a lot of experience which we can use for international projects but also helps us to respond quickly to emergencies.

Clients

Every year, we deliver to more than 80 countries in all regions around the world and therefore we believe that we have gained great insights into the requirements of the recipients on-site. For example, the infrastructural conditions in terms of medical problems can already vary quite substantially in neighbouring provinces of the same country.



Product overview

We work with the largest and most renowned manufacturers around the globe. In cases where brand recognition is not critical we can offer first-class products from cost-efficient manufacturers. For these lesser-known suppliers we have implemented rigorous quality management, which is supported by our subsidiaries in India, Vietnam and Singapore. Each company has to go through the following phases:

- Prequalification/accreditation of suppliers
- Quality control during procurement phase
- Continuous monitoring

The modular hospital

Furthermore, we combine items into fully functional solutions. These modules contain item sets, which in turn consist of individual articles. A provincial hospital will include an operating theatre module, which will contain an anaesthesia machine set. which in turn will consist of 15 individual items including sufficient accessories and consumables for three months of operation. Initially we created 35 modules, consisting of an operating theatre, intensive care unit, lab, sterilisation facilities, etc. as an emergency response solution for the United Nations. We have developed this approach into many other areas and now offer more than 100 modules upon which we can further customise solutions. For example, we have implemented the following turnkey solutions over the years:

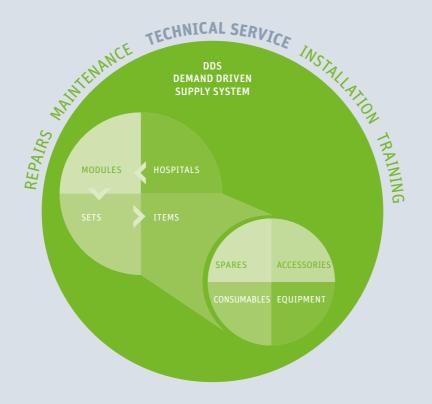
- Mother and child units
- Burn units
- TB laboratories
- Blood banks
- Cardiology-departments
- Emergency treatment centres
- Operating theatres
- Intensive care
- Sterilisation
- Imaging

Services for international projects

When it comes to international projects, the modular hospital approach is supported by the same services we offer to our German clients. The Demand Driven Supply System (»DDSS«) supports users in ordering accessories, spares and consumables when they are needed through our electronic procurement platform. Technicians in our subsidiaries work with the same technical service concept that we have established successfully in our domestic market, including the testing equipment and documentation of services provided in product books.

Logistics

We operate our own logistic structures (6,500 sq. m) in Schwerte in Germany. With more than 12,000 items in stock we have the flexibility to manage large projects and to respond to emergency requirements at short notice. We can directly apply our approved supply chain management to all processes involved to ensure the high-quality provision of goods and services to our clients worldwide; this involves operation of cold-chain facilities and capacities and qualification of handling hazardous goods. With more than 20 full-time employees in our logistics centre, we are able to handle large projects in-house.



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INNOVATIVE

MediConnect[®] manages the clinical processes: this includes preparation, presentation, communication and archiving of patient and study data, as well as appointment planning. It is a modern, flexible, adaptable and future-oriented system.



MediConnect[®] offers mobile usability for iOS and Android.







MediConnect[®] and the management of clinical processes

MediConnect[®] was developed from the ground up without preconceived ideas. Hospital information systems generally focus on administrative aspects of patient files. MediConnect[®] manages the clinical process.

Insular IT solutions in hospitals

In the last few years we have visited many institutions across Europe and have found that more than 20 IT subsystems in cardiology departments are the rule and not the exception. It is obvious that often poorly interfaced IT-islands cannot be the basis of easy-to-use and well-organised processes.

Holistic approach

We aim to simplify the lives of doctors and nurses with a fully integrated solution, which takes a holistic approach to the delivery of health care. MediConnect® covers all aspects of clinical work with patients. This holistic approach also shows that we have designed the software entirely without buying any existing modules from third parties. The benefit is that we do not have to concern ourselves with black boxes, but are able to rather develop and control processes on the basis of uniform standards.



Normalisation

One of the foundations of MediConnect[®] is that all data elements are normalised – this means that the same information is always stored in the same place. In terms of process optimisation, quality management or the exchange of patient data, it is vital that information is recorded and stored in the same place. For example, the recording of a report with QRS Complexes is simply not possible if the data needs to come from various databases because different ECG devices were used.



Client-specific adaptations through application specialists

Each hospital takes a somewhat individual approach to the organisation of their work, their documentation or their information exchange with other hospitals. Therefore, processes need to be able to be altered easily, which also means that client-specific programming should be avoided at all costs. Instead, application specialists combine elements from normalised databases and adapt them into workflows.

Trained users have the ability to define processes, letters or reports using drag-and-drop in a familiar way, such as when creating spreadsheets or documents with Microsoft Excel or other end user tools. MediConnect® is first and foremost the engine to process these functionalities. However, with 200 cardiology workflows we also provide well-tested examples for applications ranging from the creation of findings from an echo examination to complex processes for diagnoses and treatment of heart failure or a Cath Lab examination.



Scalability

MediConnect[®] is based on a combination of the Microsoft .Net framework[®] and the Microsoft SQL Server[®]. Installation options range from single mobile workstations to complex client server environments with several thousand workstations.



Communication capabilities

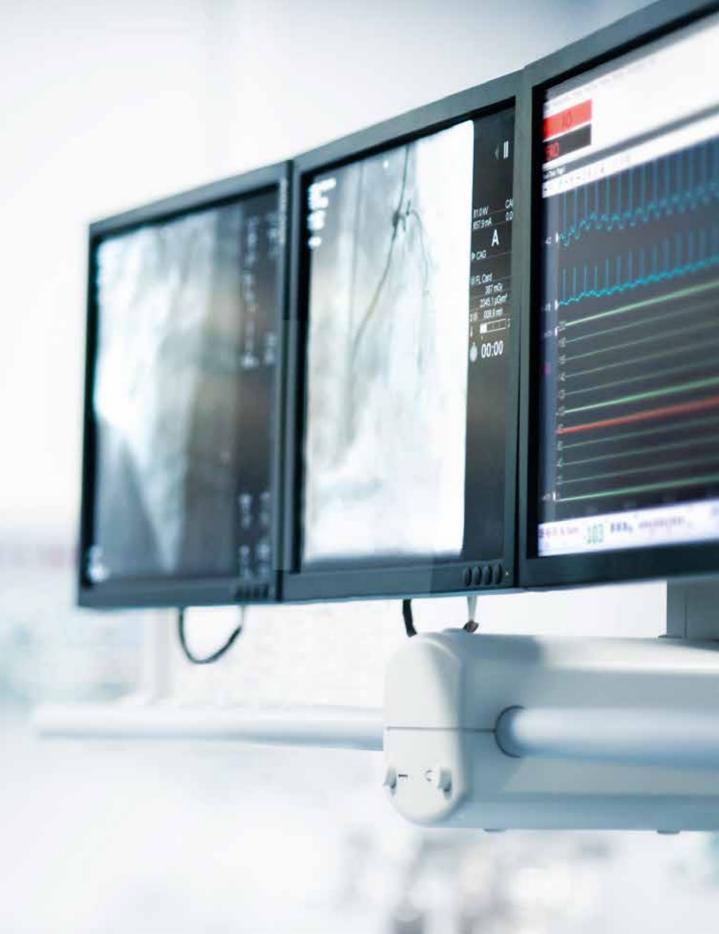
The MediConnect[®] integrated HL7 server supports all current message types. MediConnect[®] also supports the exchange of information over GDT (1.1, 2.0 and 2.1), CSV, EDI and XML.

Structured exchange of patient files

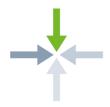
MediConnect[®] supports the exchange of partial or complete patient records in a structured format between institutions. All or selected parts of information previously recorded can be imported or exported. Patient history, laboratory values, technical examinations or ICD-10 codes are available for use as if a patient had been treated in their own hospital. Consequently, workflows may be defined across institutions assigning specific tasks to each party.

It is a clear advantage for the exchange of partial or complete patient records that a single viewer presents examinations recorded with different devices, as referrals and hospitals usually do not work with devices from the same manufacturers. Multiple repetitions of the same examination can thus be eliminated.

Decisions are consequently based on a far better understanding of the patient's history.



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Interface for modalities

We developed MediConnect[®] because we recognised how time-consuming and inefficient the connection was between our clients' devices and software. Nowadays, the installation of interfaces is as easy as the installation of a printer. With hundreds of modality interfaces for a wide spectrum of applications, MediConnect[®] has become a market leader for the connection of medical devices and laboratory equipment. Where possible, medical devices are connected through bidirectional interfaces.

MediConnect[®] supports the data exchange with modalities that use the DICOM standard and the connection of devices that provide raw data.

MediConnect[®] allows the administration and display of medical examinations regardless of which manufacturer has created them. One single user interface administers all applications of a certain type: since the database is normalised, one viewer can show results and tests from devices from various manufacturers – like in ECGs, for example.

Various remote monitoring solutions are integrated into devices, like pacemakers and ICDs, blood pressure monitors, event ECGs, etc.



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Cardiology modules

PULMONOLOGY

ENDOSCOPY

CATHLAB

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Functionality

- Test results from a variety of manufacturers are shown on a standardised screen with uniform viewers.
- Electronic transfer of measurements and graphics or images and video sequences.
- Adaptable findings and workflows including a syntax generator for the automatic creation of result texts, automatic embedding of images and parameter tables.
- Automatic creation of documents, like referral letters.



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