



DKSH
LOGIMAT

Case Study



Reference DKSH Thailand:
Efficient Storage of Medical Devices
for a Leading Healthcare Distributor

ssi-schaefer.com



SSI SCHÄFER



The comprehensive solution from SSI SCHAEFER took up only 70 m²

The Alliance Between Healthcare and Technology



DKSH Medical Device Distribution Center (MDDC) in Rama III, Bangkok, Thailand

The healthcare industry is one of the most highly regulated markets, driven by global and local regulations and standards to uphold public health and welfare. Thailand, renowned for its world-class healthcare services ^[1], attracts over a million foreign

patients annually, making it a thriving hub for medical tourism ^[2]. In light of this, DKSH, a global player in the healthcare industry, embarked on a project to revamp its Medical Device Distribution Center (MDDC) in Rama III, Bangkok, Thailand.

Achieving Inventory Visibility and Effective Handling with Technology

The medical device industry's products are characterized by their high value, temperature sensitivity, and fragile packaging, often governed by strict regulations on serial and batch numbers and expiration dates. According to the Food and Drug Administration (FDA) Thailand, all pharmaceutical & medical device distributors must adhere to the Goods Distribution Practice (GDP) standards. From goods-in to goods-out, the traceability of each SKU is compulsory. It must be readily available to identify compromised or expired products at every stage within the Distribution Center (DC). Pharmaceutical DC must also ensure safe and efficient inventory storage and handling. Consequently, inventory visibility and effective inventory handling are paramount, and tracking and managing such complex SKUs can pose a challenge to the DC.

SSI SCHAEFER presented a comprehensive solution, occupying a mere 70 m² footprint, encompassing crucial processes, including storage, picking, and sorting for delivery, and intelligent software offering real-time visibility. By combining the SSI LOGIMAT®

solution and a putwall system, MDDC successfully established a robust framework that guarantees a near-perfect level in its picking process. The SPS EasyConnect allows DKSH to manage its master data, order, and inventory under a secure infrastructure.



Small and loose SKUs such as surgical contact lenses are stored in the SSI LOGIMAT®

The tray overview is shown on the 17-inch touch panel

Project Objectives

- Install a suitable storage system that is modular and customizable for its small medical device goods
- Maximize order-picking accuracy through end-to-end internal material flow solutions
- Increase efficiency through the automation of specific workloads
- Reduce travel times during picking and storage



Approximately 3,000 SKUs are stored in the SSI LOGIMAT®

Significant Improvement in Picking Performance by Over 13%

The SSI LOGIMAT® represents a groundbreaking Vertical Lift Module (VLM) that optimizes the storage and retrieval process within the MDDC. Standing at a height of 10 meters, these two vertical lift modules offer a storage capacity of over 3,000 SKUs within a compact 30 m2 footprint. Operating on the efficient goods-to-person principle, the dynamic racking system is ideally suited to store small and medium-sized goods such as surgical contact lenses and accessories.

LogiGate was implemented to prevent unauthorized access and safeguard against deliberate contamination of the high-valued inventories stored in the VLM. The LogiPointer is an invaluable tool, guiding pickers to the precise storage locations for storing or retrieving goods. Pickers can navigate the DC with unparalleled accuracy and improve picking performance by relying on this visual indicator.



LogiPointer guides the picker to the correct SKU

The operational performance of the SSI LOGIMAT® reaches new heights with the LogiDual option. With two trays moving simultaneously within each VLM, DKSH Thailand achieved an impressive average throughput rate of 300 pieces per hour, marking more than 13% improvement from before.

This approach streamlines the storage and picking processes within the VLM, eliminating the need for pickers to traverse multiple aisles, thereby greatly enhancing productivity. To future-proof its operations, DKSH Thailand has the flexibility to scale up its storage capabilities by expanding the VLM unit vertically to reach heights of up to 24 meters or horizontally increasing the number of VLMs.



Approximately 1,200 order lines per day can be achieved with SSI LOGIMAT®

From Picking to Order Packing

A strategically positioned putwall has been deployed to optimize the order fulfillment process, remodeling the standardization of the order consolidation phase. With the putwall opposite each SSI LOGIMAT®, the design aims to minimize travel distances between inventory storage and packing location.



The light indicator on the putwall directs the picker to place the picked SKUs in the right put location

Within the putwall system, each put location represents an individual customer's order. To facilitate efficient sorting, each put location has a light indicator that guides the picker to the correct destination while picking each SKU. Once the order consolidation is successfully completed, the reverse side of the putwall illuminates, signaling that the customer's order is prepared for packing. This meticulous identification process, ensuring

accurate storage, picking, and sorting at every stage of the order fulfillment process, guarantees that the correct SKUs are promptly delivered to each customer. As a result, the MDDC minimizes the percentage of return logistics, ultimately improving overall operational costs and reinforcing the center's commitment to excellence in customer satisfaction.

Intelligent Software for Inventory and Order Management

Managing the complex SKUs no longer poses a challenge with SPS EasyConnect. An intuitive and user-friendly application, it seamlessly integrates with the existing SAP WMS, enabling real-time data synchronization. DKSH can neatly manage its order, inventory, and master data in one complete secure infrastructure.

The intelligent software is S/4 HANA ready and can smoothly control and communicate with all logistics systems in MDDC, including the newly installed SSI LOGIMAT® and the putwall solution. It can also interface with more systems if DKSH chooses to scale up its automation capability in the future.



Mr. Poonperm Jarupongsa, Director, Distribution Center Operations, Healthcare, DKSH (Thailand) Limited, added: "The comprehensive solutions from SSI SCHAEFER significantly improved our operating performance. With the SSI LOGIMAT® and SPS EasyConnect, we are able to stay agile and competitive while improving our customer satisfaction"

Reference:

^[1] www.bangkokpost.com

^[2] www.tica.or.th



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Facts and Figures

Scope of Supply and Services

System Key Figures

Picking and packing zone area	70 m ²
Stock keeping units (SKUs)	Approximate 3,000 SKUs
Activity peaks	1,200 order lines per day, 2,800 pieces per day
Peak picking hour	08:00 - 10:00, 13:00 - 15:00
Working hours	08:00 - 17:00 hrs/day
Shifts/day	1
Number of staff required for each vertical lift module	1
Number of staff required for each putwall	1

SSI LOGIMAT® Vertical Lift Modules

Units: 2
3.092 m x 4.57 m x 10.05 m (L x W x H)
Number of trays: 88 / vertical lift module

Storage and Picking System

Add-On Options

LogiGate	Protects the stored goods against unauthorized access and soiling
LogiPointer	Optical indication of the storage position through a laser pointer
LogiDual	Alternating provision of trays on two operating levels per access opening
LogiCircle	Warranty extension by additional 12 months
LogiDriver	Standardized PLC interface for connecting to customer warehouse management systems
LogiRemote	Remote access to increase availability
17-inch Touch Panel	Large, clearly structured touch surface for high operating comfort within the access opening

Software Solution

Logistics Software


SPS EasyConnect

Customer Service

SPS EasyConnect Maintenance

1 year





Six reasons for choosing SSI SCHAEFER

■ **Stability**

As a financially independent family business, SSI SCHAEFER is committed to long-term solutions. You can trust that our team of experts will be there for you today, tomorrow and in years to come.

■ **Efficiency**

SSI SCHAEFER solutions are scalable and able to grow with your business. You can always upgrade or retrofit.

■ **Quality**

As a systems specialist and original equipment manufacturer, SSI SCHAEFER provides tailor-made and high-quality solutions from a single source, specifically designed to meet your challenges.

■ **Reliability**

Thanks to our worldwide Customer Service & Support network, SSI SCHAEFER ensures smooth operation of your system, both during and after installation.

■ **Know-how**

SSI SCHAEFER solutions are always up-to-date with the latest technological standards and can be easily integrated into an existing (IT) landscape.

■ **Internationality**

As a global organization, SSI SCHAEFER has local offices worldwide. With over 70 operative subsidiaries, our team of experts speak your language.

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