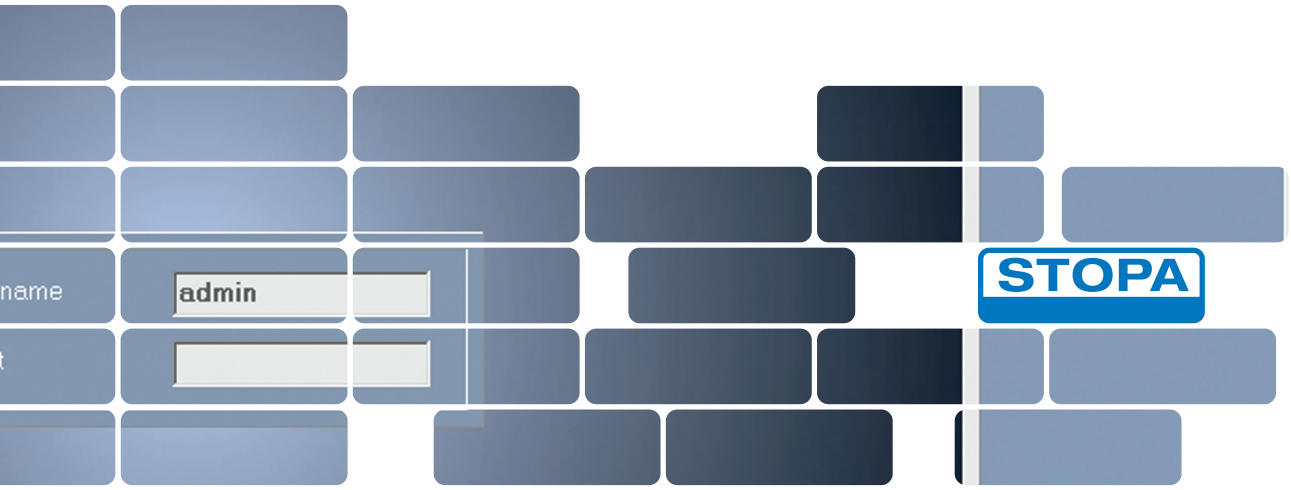


STOPA LVS warehouse management software

An efficient management system for automatic warehouses that is easy to configure and operate, with an attractive price

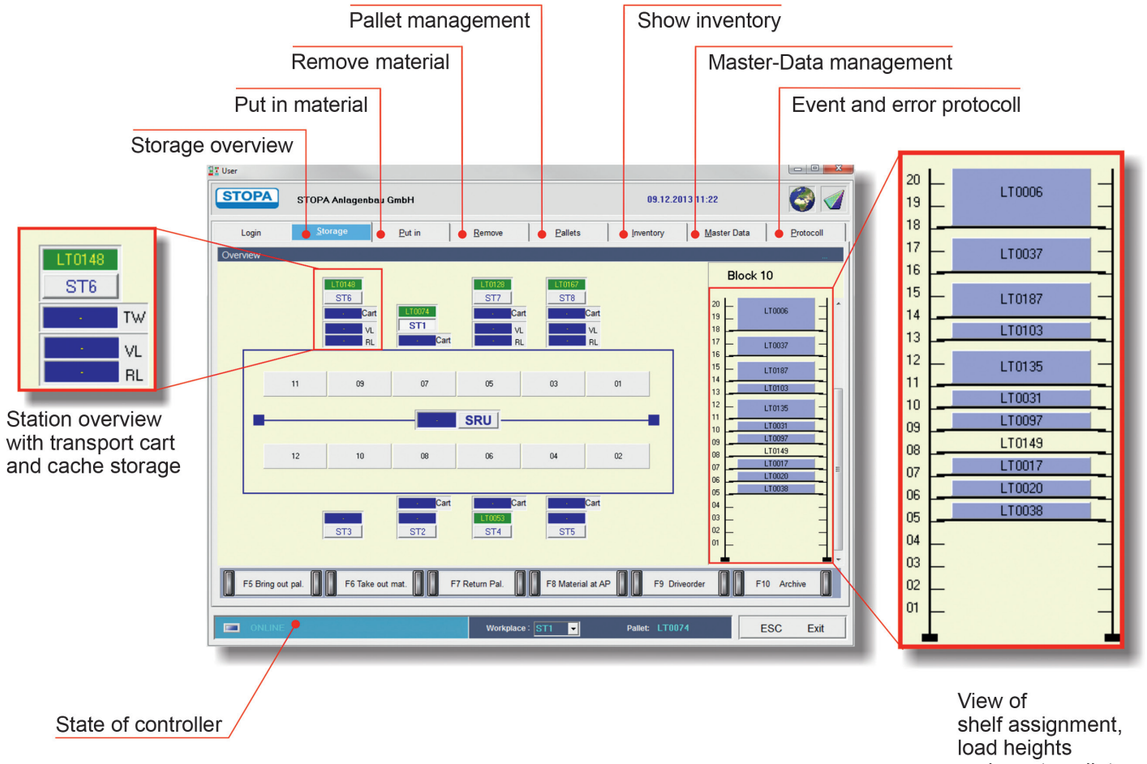
“Make the space you need!”

LVS warehouse management software

Stopa LVS is a highly efficient management system for automatic warehouses that is easy to configure and operate, with an attractive price.

Besides managing stocks, STOPA LVS transmits orders to the warehouse control system and monitors travel movements.

Workers interact with the system using a clearly organized, self-explanatory interface. The stock overview provides quick, comprehensive information on the state of each workstation. All movement orders and stock movements are recorded in the posting journal. Interfaces are available for integration of existing production machinery.



The benefits at a glance

- ✓ **Clearly organized graphic user interface**
- ✓ **Static and/or chaotic storage, configurable for each shelf and pallet**
- ✓ **Different pallet/cassette types possible**
- ✓ **Management of any required number of shelves and storage areas, e.g. floor stores**
- ✓ **Management of inventories down to batch level**
- ✓ **Blocking of shelves, items or individual batches**
- ✓ **Full withdrawals, partial withdrawals, warehouse admission, relocation of stock**
- ✓ **Automatic determination of part quantities by integrated weighing unit (optional)**
- ✓ **Function scope individually configurable for each user, table view, dialog language**
- ✓ **Management of multiple segments on one pallet/cassette**
- ✓ **Recording of all stock movements**
- ✓ **Traceability, batch tracking**
- ✓ **Observing of minimum stock levels**
- ✓ **Total stocks, partial stocks**
- ✓ **Automatic invertory check of the hole stoarge (in conjunction with an optional weighing unit)**
- ✓ **User management and access control**
- ✓ **Import and export functions via file interface**
- ✓ **Creation of picking lists**
- ✓ **Interfaces to production machinery such as Trumpf, AMADA, Bystronic, Salvagnini (optional)***
- ✓ **Interfaces to ERP systems via CSV/XML, ODBC or ADO (optional)**
- ✓ **Administration of master data, supplier addresses and customer addresses**
- ✓ **Arbitrary number of terminals in the network**
- ✓ **Data kept in MS SQL Server Express database**
- ✓ **Modest training requirements**
- ✓ **Remote support (optional)**

* The costs of providing machine interfaces are not included in STOPA LVS and must be agreed separately with the machine manufacturers.

Modular design

The STOPA warehouse management software has a modular design, with three expansion stages: Tower System, LVS Basic and LVS Extended. The available functions in each stage are described below. The extension stages can be upgraded at any time.

Tower System

The Tower System provides all the functions necessary for operating a single or double storage tower for fixed-position storage. In fixed-position storage each pallet is assigned to a permanent storage location. The loading heights are also fixed and are determined when the warehouse system is configured.

The program package comprises Operation, Administration and Automatic PLC Control. The LVS is optionally designed for host interfaces to higher-level goods management systems and for automatic machine linkups (lasers, punches etc.).

A Microsoft SQL Server Express database is used as standard for data management. The SQL database is backed up automatically each day.

The administration software, control software and database are preinstalled on the machine control panel. Additional operating stations can be set up on request.

LVS-Basic

LVS Basic provides all the functions of the Tower System, plus the ability to manage additional storage blocks. Fixed-position storage is used. That is, the pallets are assigned to permanent locations and loading heights are determined when the warehouse system is set up.

LVS Basic can also manage up to 99 different soil camps. These soil camps cannot be operated automatically, but the stocks and locations are managed by the software.

The program package comprises Operation, Administration and Automatic PLC Control. The LVS is optionally designed for host interfaces to higher-level goods management systems and for automatic machine linkups (lasers, punches etc.).

The hardware and operating system for the server and the PCs for the workstations are normally supplied by the customer.

We recommend installing the administration software on a virtual server.

The offer includes installation of 1 server and 1 operating station. Additional operating stations can be set up on request.

A Microsoft SQL Server Express database is used as standard for data management. The SQL database is backed up automatically each day.

LVS-Extended

LVS Extended is the highest extension stage. It includes all the functions necessary for operating and managing one or more high-rack warehouses. In addition, the Extended version can manage what is called a chaotic storage system.

In a dynamic (chaotic) storage system each pallet and storage location can be configured for fixed-position storage or dynamic storage. In a chaotic storage system the loading heights of the pallets are variable. The software automatically adjusts the shelves to make optimum use of space in the high-bay warehouse. Dynamic (chaotic) storage also often optimizes travel distances by placing pallets near the stations that are most frequently used.

LVS Extended can also manage up to 99 different soil camps.

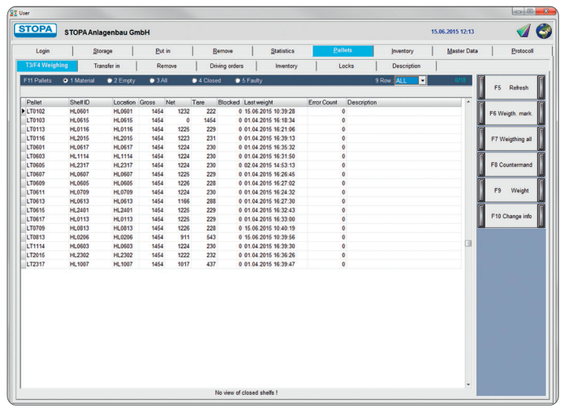
In addition, it can operate multiple pallet picker cranes automatically, allowing throughput to be increased by up to 100 percent.

The program package comprises Operation, Administration and Automatic HBW Control. The LVS is optionally designed for host interfaces to higher-level goods management systems and for automatic machine linkups (lasers, punches etc.).

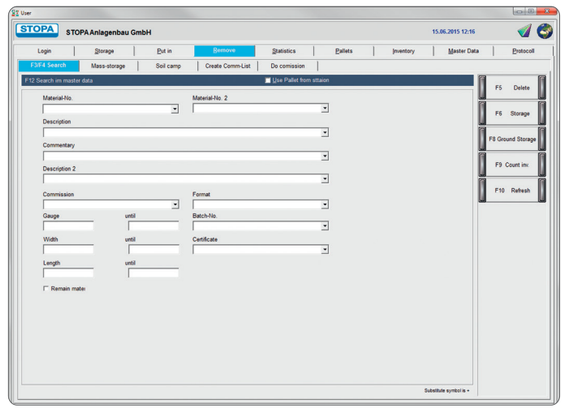
The hardware and operating system for the server and the PCs for the workstations must be supplied by the customer. We recommend installing the administration software on a virtual server.

The offer includes installation of 1 server and 1 operating station. Additional operating stations can be set up on request.

A Microsoft SQL Server Express database is used as standard for data management. The SQL database is backed up automatically each day.



Information on the weighed pallets is stored in STOPA LVS and can be sorted according to different characteristics.



Users can apply the search function to find stored material matching certain criteria.

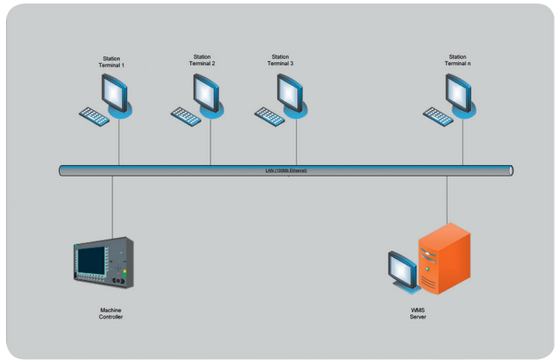
Hardware requirements

Terminal PC

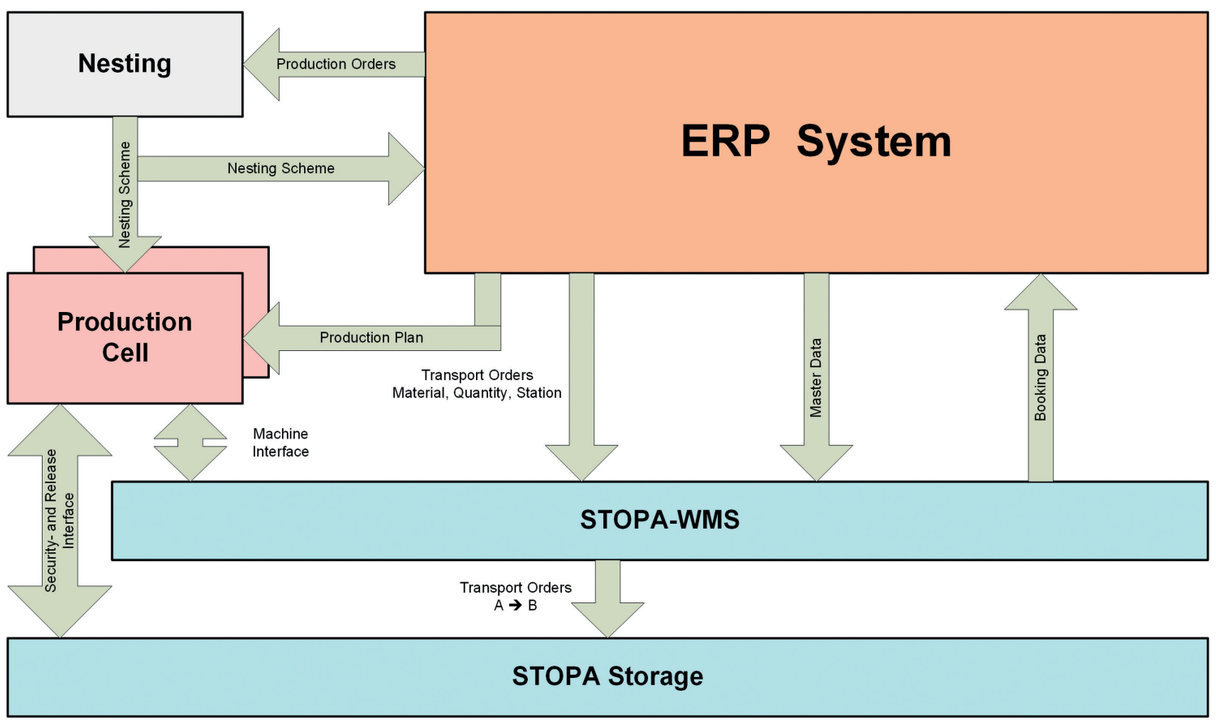
Intel i3, ≥ 2 GHz, 4 GB RAM, 10 GB of free hard drive space
Windows Win7 32/64 bit
Keyboard, mouse

Server PC

Intel i3, ≥ 2GHz, 8 GB RAM, 50 GB of free hard drive space
Windows Win7 32/64 bit, Windows Server 2003 or higher
Keyboard, mouse

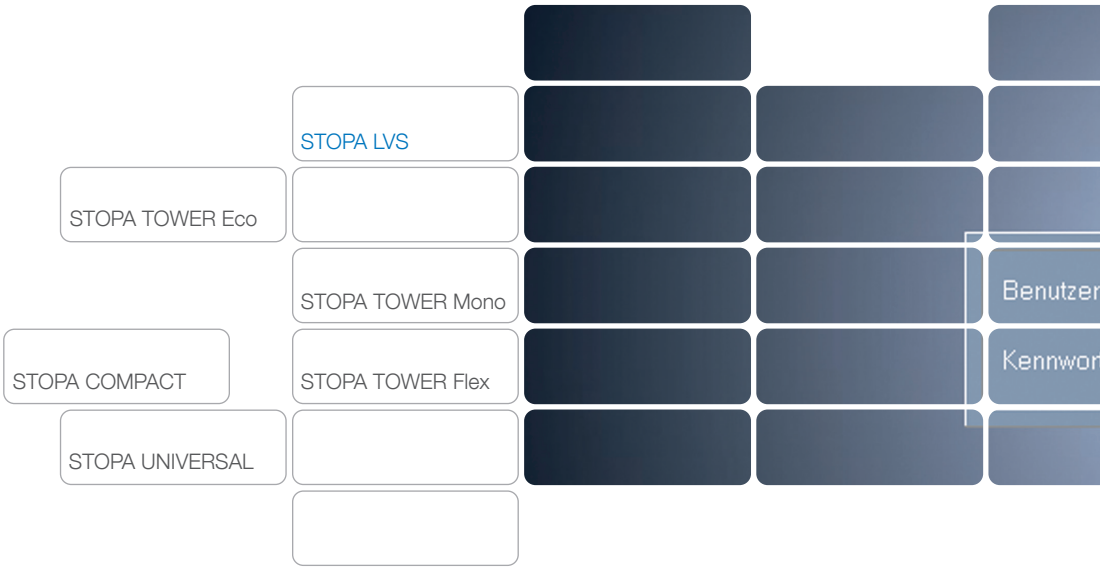


Workflow STOPA Warehouse Management System



Product comparison

	Tower	Basic	Extended
Clearly organized graphic user interface	✓	✓	✓
Static and/or chaotic storage, configurable for each shelf and pallet			✓
Management of multiple pallet picker cranes			✓
Different pallet/cassette types possible		✓	✓
Management of any required number of shelves and storage areas, e.g. floor stores		✓	✓
Management of inventories down to batch level	✓	✓	✓
Blocking of shelves, items or individual batches	✓	✓	✓
Full withdrawals, partial withdrawals, warehouse admission, relocation of stock	✓	✓	✓
Automatic determination of part quantities by integrated weighing unit	✓	✓	✓
Tandem stations	✓	✓	✓
Function scope individually configurable for each user, table view, interface language	✓	✓	✓
Management of multiple segments on one pallet/cassette	✓	✓	✓
Recording of all stock movements	✓	✓	✓
Traceability, batch tracking	✓	✓	✓
Observing of minimum stock levels	✓	✓	✓
Total stocks, partial stocks	✓	✓	✓
Automatic invertory check of the hole stoarge (in conjunction with an optional weighing unit)	✓	✓	✓
User management and access control	✓	✓	✓
Import and export functions via file interface	✓	✓	✓
Creation of picking lists		✓	✓
Interfaces to production machinery such as Trumpf, AMADA, Bystronic, Salvagnini	✓	✓	✓
Interfaces to ERP systems via CSV/XML, ODBC or ADO	✓	✓	✓
Master data administration	✓	✓	✓
Administration of supplier addresses and customer addresses	✓	✓	✓
Arbitrary number of terminals in the network	✓	✓	✓
Data kept in MS SQL Server Express database	✓	✓	✓
Modest training requirements	✓	✓	✓
Remote access	✓	✓	✓



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