The Automated Material Handling System (AMHS) is built from modules, each having a different function in the system. By choosing the right modules, the AMHS system can be designed to fill the exact needs of a library. The modular structure also allows the system to be reconfigured at a later time, for example by adding sorting modules or inlets.

**Inlet Module**

The Inlet Module is the core module of an AMHS system. This module automatically returns the material that the patron feeds into the AMHS so that the material is registered as returned to the library system’s database. Normally the Inlet Module is the only part of the AMHS system that is visible to the patron. Patrons use the Inlet Module from a touch screen that guides the patron as the check-in event progresses.

The Inlet can be integrated into an outer wall with a 24h-hatch system. With this option the AMHS can be used outside the library’s opening hours. The Inlet Module is also available as a specialized staff inlet version or as a smaller staff version, the Staff Compact.

**Staff Feed Module - Staff Compact**

The Staff Compact is a new option for the traditional staff inlet module. This Staff Compact is extremely compact in size and is electrically height adjustable, making it very space-efficient in the library and much more pleasant and ergonomic for the library staff to use.

**Sorting Module**

A Sorting Module moves the material through the system to either ergo trolleys, sort bins or totes. A Sorting Module has two conveyor systems, conveyor bands to move the material forward in the AMHS system and conveyor rollers to drop the material to the sorting position on either side of the sort module.
**Turning Table**

The Turning Table is a unit placed before the sorting modules in the AMHS system. The purpose of the turning table is to turn the books right way around so that they can be sorted back up to ergo-trolleys. Back of the book needs to be in correct direction because it usually contains the books name and library specific department and shelf codes that help the library staff in recognizing the material.

**Conveyor Module**

A Conveyor Module is used to move material from the inlet module to the sorting modules. Conveyors are used in multi-inlet setups for spacing the inlets, as well as managing the device footprint in a library. Shortest conveyor module can be 19.7 inches long and longest 47.24 inches.

**Feed Module:**
Dimensions: (WxHxL)
23.6 x 39.3 x 53.15 inches
Feed modules in take height: 34.05 or 39.37 inches
Feed modules output height: 39.38 inches
Material identification: RFID or barcode
Color: Any from RAL-color chart Certificates:
Staff feed Module - Staff Compact:
Dimensions: (WxH)
20.27 x 19.68 x 45.27 inches
Color: Any from RAL-color chart Certificates:

**Sorting Module:**
Dimensions: (WxHxL)
20.27 x 23.62 x 45.27 inches
Color: Any from RAL-color chart Certificates:

**Turning Table:**
Dimensions: (WxHxL)
20.27 x 20.27 x 45.28 inches
Color: Any from RAL-color chart Certificates:

**Curve Conveyer**

Curve Conveyer can be used when there is a need for an angle of a certain degree, typically when the AMHS system needs to be adjusted to a wall or just to make turning a 90-degree corner easier. The main function of a Curve Conveyer is to move material to sorting modules. The smallest angle for a curve conveyer is 5 degrees.

**Conveyor Module:**
Dimensions: (WxHxL)
20.27 x 19.68 x 47.24 x 45.27 inches
Color: Any from RAL-color chart Certificates:

**Curve Conveyer:**
Dimensions: (WxHxL)
20.27 x 19.68 — 47.24 x 45.27 inches
Color: Any from RAL-color chart Certificates:
All P.V. Supa AMHS system can sort books and other material to different types of containers. These include a normal Sorting Bin, Ergo Trolley or an Index Tote system. The Sorting Bin is the most commonly used container and is easy to use with all kinds of material. Ergo trolleys are best when used with material that has a fast circulation time and items are of similar size. Index Tote, with its totes/crates, is the best solution for material that is to be transferred to another library.

**Sorting Bin**

The sorting bin can hold about 200 items at once (based on an average item size of 6.3x8.3x1 inches). The capacity varies depending on the size of the material. If the AMHS system is 3-way sorting and the return frequency is about 600 items per hour, then the changing frequency for the bins is roughly one hour. Sorting bins can be changed without stopping the machine. When there is no sorting bin in a sorting position, the material that is supposed to go to the bin will be diverted to the overflow bin. Sorting bins can be used with all kinds of material.

**Smart Trolley**

The new generation Smart Trolley is designed to improve library staff ergonomics, workflow and the material handling process. The Smart Trolley is used in conjunction with the P.V. Supa Libretto material handling system or can be used as a stand-alone product.

Smart Trolley is ergonomic to handle and maneuver with an easy to use height adjustable handlebar and large lockable rubber castors.
Index Tote

The Index Tote is a small lift for a Sorting module. It is used to fill transportation crates used by a library. The automation implemented in the Index tote helps library staff in handling the crates. Normally an Index tote can stack three crates on top of each other next to the sorting module from where they are easy to move aside to wait for transportation. This system improves the logistics between libraries as the library staff does not need to touch the material at all. Index tote with its crates is fit for all kind material.

### Sorting Bin:
- Lockable wheels
- Spring loaded bottom with bearings
- Large capacity
- Easy to move
- Color: Can be chosen from RAL-colors
- Dimensions (WxLxH): 22.23 x 22.23 x 33 inches
- Inside height of the box with the bottom down: 17.71 inches
- Certificates: €

### Smart Trolley:
- Capacity: 30-60 items.
- Max load: 60 kg
- Item maximum size (WxLxH): 12.6 x 13.8 x 4.8 inches
- Dimensions (LxWxH): 33.1 x 17.8 x 35.6 inches
- Color can be chosen from RAL colors
- Input voltage for charger: 100-240V
- Weight when empty: 29 kg (66 lbs.)
- Certificates: €

### Index Tote:
- Index tote can be used with a variety of crates
- The crates can be removed from Index tote by Tote Lifter, hand truck or other similar equipment similar equipment
- Color: can be chosen from RAL-colors
- Certificates: €