

# Phoenix SH-1,7 Mk

**DRIVERLESS**



## Type of vehicle

- High-lift fork truck
- High-shift stacker**
- Straddle truck
- Telescoping mast stacker**
- Spreader stacker
- Drawbar stacker
- Teleskoping fork stacker
- Side shift stacker
- Narrow-aisle stacker
- High-rack stacker
- Tractor
- Drive-under tractor
- Platform truck
- Four-way stacker**

## Special equipment

- RFID-/barcode reader
- Weighing function
- Metering function
- Roll conveyer
- Belt conveyer
- Chain conveyer**
- Flexible load handling
- Cover lift
- Dual operation
- Stainless steel vehicle
- Clean room vehicle
- Outdoor vehicle
- Heavy-duty vehicle
- Prining cylinders- and rack shelf measurement**

## Application example Surteco

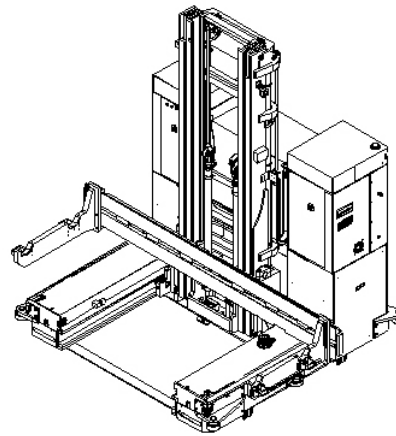
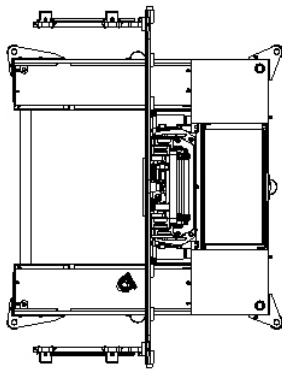
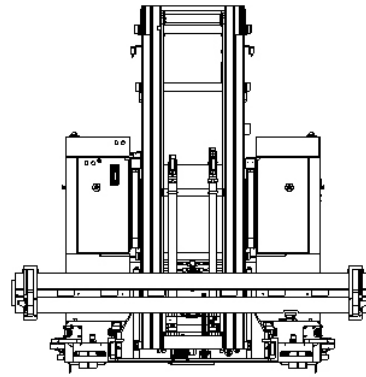
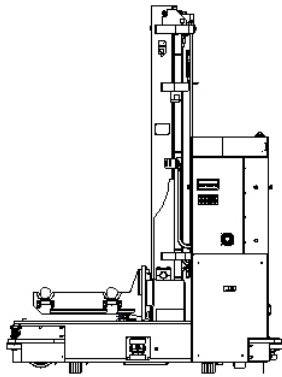
MLR has completed a fully automated warehouse for storing and retrieving around 5,000 printing cylinders at the Surteco Dekor GmbH location in Buttenwiesen, with sliding shelves, warehouse management, and automated guided transport vehicles.

An automated guided four-way stacker with extendible reach mast and lift transports the 3,084 mm wide cylinders, which weigh up to 800 kg. The load is picked up with support arms that can transport two printing cylinders at a time. The automated vehicle is equipped with a triplex full-stroke mast, so its usable stroke is up to 7,800 mm. The maximum load is 2 x 800 kg.

Coordination and control of the automated guided vehicle (AGV) and processing of transport orders are handled by MLR's own control and management system, LogOS, which is connected to the Surteco SAP system via an IDoc interface. LogOS optimizes the warehouse orders so that empty runs are avoided. When cylinders from a pair that were once stored together are requested together as well, LogOS retrieves them as a double load as well.

The system runs five days a week, 24 hours a day, and is able to perform about seven storage and retrieval moves per hour.

# Technical data



## Phoenix SH-1,7 Mk

Length	3,260 mm
Width	2,490 mm
Height	3,265 mm
Weight with battery:	6,380 kg.
Load capacity	2 x 800 kg
Ground clearance	50 mm beneath the vehicle frame
Speed	1.3 m/s forward and backward
Battery	Lead batteries 48 V 5 PzS 775HS
Protective devices	4 x Laser scanner 8 x Emergency button
Appropriate loads	Gravure cylinders Dimensions: 3,084 mm long with a circumference up to 1,550 mm (Ø 500 mm)