

## Video description – What the video tells about?

Video explains in which manner the following features of Delivery trailer concept are implemented and how they enhance the work productivity compared to prior art solutions.

**Automated bar code reading** is a basic feature in a sorter system, or shortly, in a sorter. The sorter reads the bar codes of parcels so that the parcels can be guided from the sorter line to correct take-away lines.

In one known solution a trolley is placed onto the end of a take-away line so that parcels drop into the trolley. Then the trolley is transported by a van or a light truck. Next, the trolley is moved from the trunk to a packet automaton and the parcels are handled one by one. The handling includes reading by scanner the bar code of a parcel, opening a locker hatch in the packet automaton, placing the parcel into the locker, and closing the locker hatch. Most of these tasks are omitted in Delivery trailer concept.

At 01.05 (one minute and five seconds) the animation video shows operation in a sortation hub. The video pictures include the sorter (main line and a take-away line), an employee at work, a rack, and a blue put-to-light device on front of the rack.

The sorter has automatically scanned the bar codes of parcels and indicates by the put-to-light device to which repository of the rack a parcel should be placed. Each repository turns into a locker when the rack is placed inside Delivery trailer at which time a locked hatch in Delivery trailer covers the repository opening.

The put-to-light device indicates with a red light beam a correct repository for a parcel. When the employee places the parcel into that repository the red light beam is cut. After that, the put-to-light device will indicate with another red light beam some other repository that is intended for the next parcel on the take-away line. "Automated bar code reading" feature results in that the manual bar code reading is omitted.

**Fast filling/load by AGVs** is the second Delivery trailer feature.

At 01.18 in the video an AGV takes the rack away. Usually, none employee needs to touch a parcel when the packet is in the rack, and none employee needs to propel the parcels by a trolley or a corresponsive tool.

At 01.32 in the video the AGV is propelling the rack into Delivery trailer. Instead of AGVs, e.g. a roller conveyor can be utilized to propel the rack.

"Fast filling" feature means omitting unnecessary tasks. Those tasks concern the handling of the trolley in the trunk, propelling the trolley to the packet automaton, and the handling of the parcels included the trolley, as explained in the above.

**One-stop transportation** feature concerns the parcels to be delivered by Delivery trailer.

At 02.00 in the video, the driver of a delivery vehicle parks Delivery trailer.

"One-stop transportation" feature means that the transportation is not performed trolley-by-trolley but trailer-by-trailer. The large unit size (i.e. one Delivery trailer) boosts the delivery.