



ALTUM[™]
FASHION

THE RETAIL LOGISTICS CONCEPT OF ALTUM FASHION

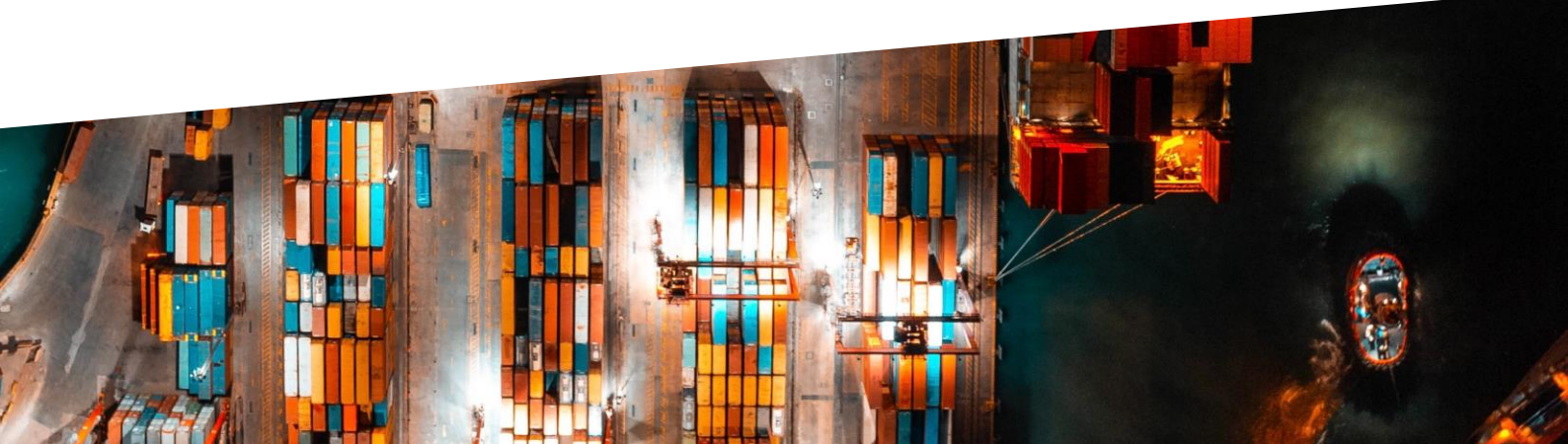


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INTRODUCTION

Altum Fashion strives to run an efficient and sustainable logistics network to stores and customers. That is why this reader was created.

We strive to explain, to the fullest extent possible, how we plan to run logistics for the retail side of Altum Fashion, along with the reasoning behind our decisions.

PRODUCTION AND WAREHOUSING

With a market with a small coverage area, it does not make sense to have production and warehousing be in separate buildings, or even in separate cities.

Because we want to keep producing apparel by order, and not in bulk, efficiency would be greatly improved if we did not have any warehousing whatsoever.

However, this is a necessary and important piece of the logistics operation. This is why we want to integrate our warehousing into the production facilities. This not only saves space, but it also simplifies and streamlines the logistical pipeline.

The process from production to shipping would look as follows:

1. The items are produced in the production facility.
2. After quality control, the items are transferred to the warehousing department, close to the loading area.
3. The items are conglomerated into pallets, based on their destination.
4. The pallets are loaded and shipped off.

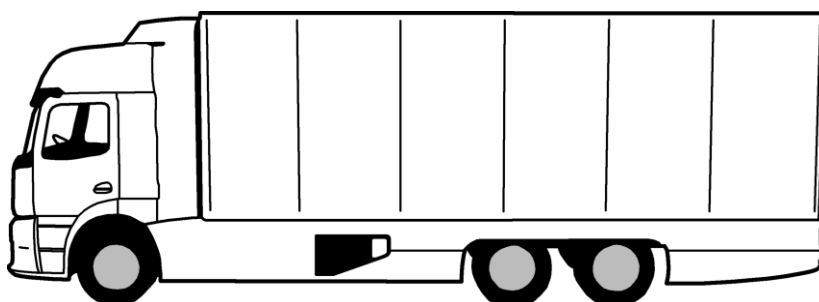
ROLLING STOCK

Altum Company strives to be as environmentally friendly as possible. That is why we want to use vehicles that are as friendly for the environment as possible.

The most environmentally friendly means of transport would be by rail. Unfortunately, this does not cover the last mile, which would make this method both economically and practically unviable. This is why we opt for small trucks, so we can cover one hundred percent of the journey with one vehicle.

The vehicle selected for the job is a Mercedes-Benz eActros truck. This vehicle is small, light, and fully electric, and has the following key specifications:

- Dimensions: LxW 9.600 x 2.500 millimetres
- Estimated range: up to 400 kilometres
- Charge time: 20 to 80 percent in 1 hour and 40 minutes
- Power: 400 kilowatts
- Top speed: 89 kilometres per hour
- Vehicle weight: 27 metric tonnes
- Loading capacity: 16,6 metric tonnes



ROUTING

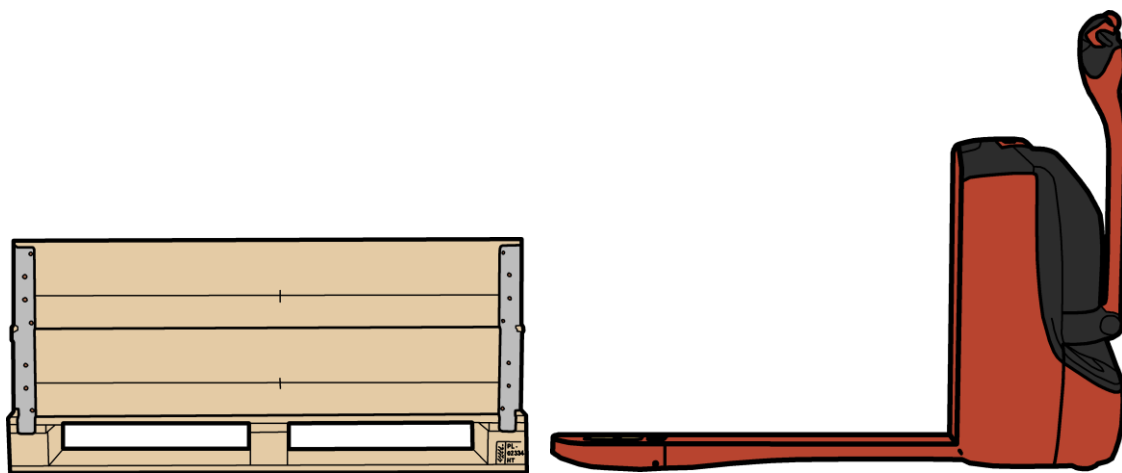
A truck's route will be determined using multiple factors, to maximise route efficiency, charge usage and load capacity. The demo shown below illustrates what a route might look like.

SHIP TO STORE

Shipments to stores are delivered two times per week, as to cut down on restocking time, and possibly reduce customer dissatisfaction when items are out of stock. These items are shipped per configurable pallets, as shown in the illustration below.

Stores that regularly receive heavier loaded pallets (on the order of 250 kilograms or more) will be equipped with electric pallet jacks, to make the process of loading and unloading easier for both the in-store crew and truck drivers.

We want to make use of configurable pallets, because this gives us greater flexibility in space management in the trucks, and the back of the store.



SHIP TO CUSTOMER

Shipments made to the customer will be delivered by the postal service that can make the delivery with the least time and emissions. In case of smaller packages that are eligible for mailbox delivery, our preferred partner at the moment would be PostNL, for they provide a timely and cost-effective delivery, whilst the last mile of the delivery is made via bicycle.

For larger packages, DHL is our best contender. We won't choose PostNL for these kinds of deliveries at the moment, because the delivery of larger items takes place via (mostly diesel-fueled) vans. DHL, however, makes these deliveries with either hybrid or fully electric vehicles.

As for the packaging material, we have opted for cardboard boxes made with at least 50% recycled materials, and no added composite finish, both inside and out. Of course, there will be printed information, logo's et cetera on the box, but we will try to keep that to a minimum.

FLOWCHART

The following is a demonstration of each of the supply chains, showing the entire path the product takes to get from the production facilities to the consumer.

