

Business case – RotoShelf 1250/2 for dairy.

Summary:

This business case is built on a 26-week long trial of RotoShelf 1250/2 shelving solution in two grocery supermarkets and the trial was carried out using dairy products in Multideck display cases and the results are outstanding;

- **Reduced the time for refilling the shelves by 50%**
- **Reduced the waste by expired products by a massive 40%**
 - *For the region the waste caused by expired products **increased** by 18% in the same period)*
- **Increased the sales by 7,4%**
- **Return of Investment in less than one year**

Also the whole cold logistic chain is improved as the user tracked replenishment rates per day and could set up the flexible shelf configuration to suit the actual sales need to meet shelf requirement. This means that the staff only bring as much products to the shelf as needed, almost nothing goes back into storage. This also affects product purchases as the store do not have to keep as much stock locally but can plan deliveries in an improved fashion.

The case background

By request from the supermarket chain their name and location is undisclosed.

In early spring 2015 the reseller of EasyFill ABs (the reseller) products approached the major supermarket chains in the territory to start to introduce the RotoShelf shelving solution to the local market.

RotoShelf

RotoShelf is a patented innovation made by EasyFill AB (publ.) www.easyfill.se in Sweden. RotoShelf for glass door beverage coolers have become a market standard in supermarkets in Sweden and around 95% of all 90 cm wide beverage cabinets are now equipped with the clever rotating shelving solution.

The function of a RotoShelf is simple while the whole shelf interior is rotated to give access to the back of the shelf to offer instant First in – First out.

Gravity feed shelves minimizes the product handling to a minimum and gives a better product display for the consumer.

RotoShelf is tailor made to fit a specific cabinet or display case and all design work and development are done in-house at EasyFill in Scandinavia.

Following on the success from beverage coolers EasyFill soon found other applications for RotoShelf; Multideck display cases, for various types of products, not only beverages. Also shallow cold rooms are highly suitable for RotoShelf.

Supermarket trail

After some initial discussions with various Supermarket chains and display case manufacturers (OEMs) in the region, the reseller made a first agreement for a trail installation.

The first, two section install, was made in cooperation with the OEM and the process monitored by the reseller and EasyFill Staff. The case with the two sections was placed in a refurbished store in a densely populated area just outside a major city.

Products on the shelves were; Yoghurts, milk based drinks, as well as smaller packs of cream etc. See image.



First store with two RotoShelf 1250/2 sections

The flexibility of having 10 individually adjustable shelves per 1250mm section instead of the usual five 1250mm long shelves became instantly obvious as the supermarket could increase the number of shelves in one of the rotating units where small products were placed while keeping five shelves where the products were larger in size. Having individually adjustable shelves may also offer the opportunity to place the shelves close to each other in height and in that way limit the opportunity for the customer to “dig” in the shelf to get to the newer products in the back.

The fact that the shelves are smaller than a traditional shelf was initially a concern to the managers, but it proved to be an advantage as the whole cold chain was improved, along with purchases and the replenishment rates.

Having smaller, but more shelves for the dairy products was an advantage that no one had calculated with, but has proven very important.

The trail was monitored by the management of the Supermarket and shortly after the trail was commenced they started to report undisputable data. All data collected has been shared with EasyFill, but needs to remain undisclosed as it contains sales numbers and actual values and margins of the stores.

To further assess and evaluate the RotoShelf product, the Supermarket decided on setting up one more case in a different store and collect data from that store as well.



Second store with three RotoShelf 1250/2 units

Apart from tracking sales and waste numbers the stores also tracked refilling time rates and shelf replenish rates per day to map out the number of shelves required for each product and the staff needed. Interestingly enough not many of the shelves needed daily restocking. On average the shelves were refilled every other day.

Some data

The two stores reduced the time for refilling by 50% and on average the shelves are restocked every other day. The “extra” time can now be used to help consumers and/or reduce the labour force in the store over time. Also worth mentioning is the fact that the packers are blocking the shelves from customers at least 50% less of the time.

Before the installation of RotoShelf the waste percentage of the sales was 5,5%. Measuring halfway through the 26-week trial period the waste percentage had dropped to 3,2% - a waste reduction of more than 40%. This drop shows directly on the profit of the store as the value of the waste from expired products are split by the producer and the store.

Waste from expired products in supermarkets are one of the worst sources of waste, so bad that it has become illegal in some places. In France the stores can suffer from huge fines if the new waste reduction law is broken. Store are not allowed to throw away anything, if not sold, if needs to be given away for free. Over production and food that is thrown away are a major concern all over the world.

In addition to reduced waste, the stores experienced a measured increase in sales numbers by 7,4%. Meaning that the turnover for the store is improved. This increase is likely to come from the always full product fronts that gravity feed shelves offer.

So in short; installing the RotoShelf units have given the Supermarket chain:

- Reduced refilling times by 50%
- increased sales by 7,4%
- an improved bottom line result thanks to a reduction of expired products. +40% reduction
- a better control of the cold chain and the purchasing
- This department went from the worst performer in the store from packing and waste point of view, to the best.

Based on the collected data, an average labor cost and the customer price of a RotoShelf the Return of investment has been calculated and are presented below:

Return On Investment looking only at labor cost savings:

ROI calculation based on labor cost savings using RotoShelf		
Cost refilling a cooler using : (All prices in EUR)	Standard Shelves	RotoShelf 1250/2
Labor cost per hour inc social cost (Euro)		25
Number of 1250 sections in this calculation		1
Number of restockings per week on average		3,5
Time to refill 50% (minutes)	35	17,5
Cost of one refilling	14,6	7,3
Cost per week for refilling	51,0	25,5
Cost for refilling one section/year (52 weeks)	2 654,2	1 327,1
Saved money refilling one section/year		1 327,1
Customer price per RotoShelf (example)		1 000
ROI (weeks per cooler)		39,2

Return On Investment looking at waste reduction:

ROI calculation based on waste reduction value using RotoShelf		
<i>Benefits from using RotoShelf:</i> <i>(All prices in EUR)</i>	<i>Standard Shelves</i>	<i>RotoShelf 1250/2</i>
Yearly waste value	14 700	11 300
Waste reduction using RotoShelf (value per 1250/2 section)		1 133
Annual total benefit from using RotoShelf		1 133
Customer price per RotoShelf section (example)		1 000
ROI (weeks per section)		46

* NB: only for the seven products placed on the RotoShelf units

The table might require some explanation:

- *The numbers come from measured waste data on seven products that were placed on the RotoShelf units.*
- *Yearly waste value: the data given was divided by the actual number of weeks the data was collected and then multiplied by 52 to give a full year.*
- *Waste reduction using RotoShelf: the difference between the two values given as the Yearly estimated sales turnover and divided into three to get the sales value per section (there were three sections installed)*

Worth noting is that despite a price for the store of 1000 euro, the ROI is very short short. And combining both labor cost savings with waste reduction makes the ROI even shorter

ROI summary:

- *Labor cost savings 39 weeks ROI*
- *Waste reduction 46 weeks ROI*

What store would not want these advantages and benefits at such a quick return of investment?