RECP Best Practice Catalogue

Efficient wrapping of the final products

Developed within the framework of MED TEST II

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switchmed

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Best Practice - Efficient wrapping of the final products

SECTOR:	**Chemical and Pharmaceutical**
SUBSECTOR:	Manufacture of soap and detergents
PRODUCTS	Household detergents and bleach
CATEGORY	Technology upgrade/Eco-innovation
APPLICABILITY	Utilities

COMPANY NAME	---
COMPANY SIZE	Medium

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Description of the problem (Base scenario):	All pallets with the finished goods produced in the factory are stretch wrapped using an automatic wrapping machine before storage in the warehouse. The stretch wrapping machines used were old machines utilizing an outdated technology in applying the stretch wrapping film causing high losses of packaging materials. The stretch wrapping film used to suite these machines had a thickness of 23 microns and film with lower thickness could not be used.
Description of the solution	The company purchased and installed new machines equipped with a pre-stretching mechanism where they can better stretch the film before applying it to the pallet. The new wrapping machines can utilize shrink wrap film of 17 microns thickness instead of 23 microns leading to additional reduction of use of wrapping film within packaging.

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Economic Benefits	Average weight of stretch wrap film used per pallet using the old machine and the old film was 550g and the daily cost was 297 Euros. Average weight of stretch wrap film used per pallet using the new machine and the new film is 337g and the daily cost became 211 Euros. The new machines have the same power rating of the old machines and thus there is no added cost for energy consumption. Daily saving is 86 Euros. Total annual saving is 26,894 Euros/y.
Environmental Benefits	Reduction of waste film consumption by 40% (213 g per pallet daily and 156 pallet/day) Reduction in waste film is 10 ton/year.

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Capital investments & financial indicators	The capital investment of installing three wrapping machines is 12,000 Euro. Payback: 0.5 year.

Suppliers	
Other aspects	The measure was identified and implemented by the company TEST team following the identification of non-product output (NPO) cost of the packaging materials.
Implementation	This action has been implemented by the company and the reported figures are the real numbers achieved after implementing this measure.

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Replicability sectors	**The same concept can be replicated in:** Any company that needs to wrap its final products.
Aspects to investigate for replicability	Amount lost in the packaging process. Number of pallets per day. Amount needed to wrap one pallet.
Useful resources	