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Ref: Shrink Wrap Machinery & Film 101

SHRINK WRAP MACHINERY

Shrink Wrap Machine Selecting Factors - When choosing shrink wrap systems, some important determining indicators on the level of shrink wrap machine you will need include the dimensions of the largest product to be packaged along with the type of shrink film to be used and the required production speeds.

Straight bar sealers - A straight bar cuts and seals the film manually. For low volume applications.

L-bar sealers - An L-shaped bar used to cut and seal shrink film. Averages between 0-40 packages p/min - depending automation level (ex: manual, semi-automatic, automatic, automatic continuous).AKA: *impulse sealer, sealing system, sealing equipment, L sealer, L bar sealer*

Sleeve wrappers - Designed to wrap trayed or loose collated items. Mainly used in shipping applications. These **Shrink Wrap Systems** often replaces corrugated boxes and other types of packaging that are costly and need more space to use, store & dispose of. AKA: *shrink bundler, Shrink wrapper, heat wrapper, sleeve shrink equipment, sleeving system, etc.*

Form Fill Seal Shrink Wrap Equipment - The ultimate shrink wrapper, designed for high speed shrink packaging applications, averages between 30 -100 packages p/min on a continual basis. Most applications use polyolefin shrink film / industrial shrink wrap film.

Shrink tunnels - The final step in shrink wrapping. Package is passed through the shrink tunnel. Once inside the zone of the tunnel, it is subjected to increased levels of heat and turbulent air flow. A quality tunnel is capable of producing the required amounts of heat and air flow to cause the film to shrink around the introduced package.AKA: *heat tunnel, shrink film tunnel, shrink wrap tunnel and shrink heat tunnel.*

Heat guns - Hand held tools that blow hot air to manually shrink film. Low volume output.

SHRINK WRAP FILM

Which Shrink Wrap Film To Use - Type of shrink film should be considered when sourcing a shrink wrap machine for system compatibility and for application suitability.

There are three shrink wrap film supply categories:

- **PVC shrink film**
- **Polyolefin shrink film**
- **Polyethylene shrink film**

PVC shrink film - PVC offers good optical and shrink characteristics. PVC film is very heat sensitive and requires special handling and storage. The film's plasticizer's which are added during manufacturing migrate with age, this causes the film to become yellowish and brittle. PVC film is very temperature sensitive requiring special handling and storage. Exposure to freezing temperatures tends to cause films to split and shatter.

Polyolefin shrink film - Polyolefins is a generic term used to describe a family of polymers which include Polyethylene and Polypropylene. Our lines of Coextruded Polyolefin shrink film, are FDA approved for direct contact with food.

Polyethylene shrink film - Polyethylene films tend to lack the optical properties and tight shrink characteristics needed for most shrink film applications. Polyethylene is predominantly used in the process of packaging known as bundling. Unlike other shrink films, polyethylene does not shrink at the presence of heat. Rather, it shrinks after exposure.

Shrink Wrap Terms

Centerfold Film (CW) - A centerfolded film is film that has been folded in half, lengthwise.

Form-Fill-Seal Equipment - Shrink wrap systems that produces a tube of film into which packages are introduced.

Impulse Seal - Heat sealing technique where the element is pulsed with voltage during sealing cycle.

Shrink Tubing - Similar to centerfold film, except the non-folded side is sealed to create a tube.

Shrink Bags – A film that is sealed on three sides to form a bag in which to place product.

Singlewound film (SW) - A single layer of shrink film wrapped around a core. Also called flat film and is used in high speed production (ex: automatic form/fill/seal **shrink wrap equipment**).