

# Vacuum Packaging

Vacuum packaging draws a slight vacuum prior to sealing the bag, thereby reducing the headspace in the bag, and accelerating the process of achieving an equilibrium atmosphere. Exposure to air causes food to spoil quicker, causes freezer burn, mold, staleness, and rancidity. The vacuum packaging system removes air and seals in flavor and quality.



It is a superior alternative to traditional food storage methods because it removes the oxygen that causes foods to spoil.

## Types of Vacuum Packaging Systems

- **Manually Operated Vacuum Pumps-** These systems consist of a small manually operated pump which can be used to extract air from canisters and bottles only. They do not usually indicate when a vacuum has been achieved.
- **Bag Sealer With a Fan-** This system utilizes small rotary fans to extract some air out of plastic bags before they are sealed. Some systems include polyethylene bags. Others provide sheets of plastic from which bags of different lengths can be made by welding the seams with a heated wire bag-sealing machine.
- **Electric Pump System-** These are the only system that eliminates exposure to oxygen. They are also the most expensive. They utilize electric powered piston pumps to extract air from the container, and seal with container to prevent air from re-entering. They indicate when a vacuum has been achieved.

## Benefits of Vacuum Packaging

In vacuum packaging, foods keep their freshness up to five times longer. Foods don't get freezer burn for several years because they don't come in contact with cold, dry air. Buying lower priced bulk quantities and re-package at home to store for long can save money. Leftovers stay fresh for several months. This method of packaging enables to enjoy out season food. Non-food items are protected from corrosion and moisture damage. There are fewer trips to the grocery shop because foods last longer.

Meat and fish marinate in minutes. Insect manifestation is eliminated, because insects require oxygen to survive and hatch. Foods maintain their texture and appearance because microorganisms such as bacteria mold and yeast cannot grow in a vacuum. Aids in controlling oxidative rancidity.