Aseptic Process

In 1865, Nicolas Appert discovered canning by putting food in an earthen jar and heating it so it would not spoil and 150 years later, aseptic processing was discovered. Unlike traditional canning, rather that heating the food product in a closed container, the food is heated outside the container in a continuous, closed system, cooled and then place into a previously sterilized container.

Commercial Sterilization of Foods (closed system)

Sterilization of container

Cooled to Ambient Temp.

Packaged in Sterile Environment

Because of the shortened heat exposure, aseptic processing can produce products with higher nutritional retention and excellent sensory qualities. Since the food is filled at ambient
temperatures, containers can be made of different materials i.e. films, paperboard, etc. Being able to use films like those used in bag-in-box containers replaces cans, jars and metal drums. These lower cost and lighter weight packages have allowed developing countries to preserve foods for distribution. Aseptic containers come in all sizes and shapes, from the small consumer packages i.e. puddings to large two million gallon tanks holding sterile orange juice. Also, these packages do not require refrigeration.

Small Bag-in-box
Bag-in-box equals 5 metal drums

Aseptic milk needing no refrigeration