

# Diploma In Packaging Technology

Packaging Machinery

## Overview

- Packaging line machinery:

**Beginning:** Handling, preparation

**Middle:** filling, closing

**End:** labelling, coding, 2<sup>nd</sup> packaging,  
palletising

## Packaging Supply

- Quantity
- Quality
  - Damage & error free
- Traceability

## Handling

- Automatic or manual
  - Consider size weight and uniformity of product
- Damage free
  - Careful handling and storage
  - Environmental, handling, storage,
  - Board, film, containers, closures

## Conveying

- Damage
- Blockage

[138 PHS300 Fully Auto Bulk Depalletizer by www.phsinnovate.com](http://www.phsinnovate.com) (youtube.com)

[Vibratory Bowl & Linear feeder.wmv](#) (youtube.com)

# Inspection & Cleaning

- Cleaning
  - Washing & Drying, air cleaning, sterilization
- Inspection
  - Manual or Automatic

## Filling Equipment

- Product Characteristics
- Metering of product

## Capping & Closing

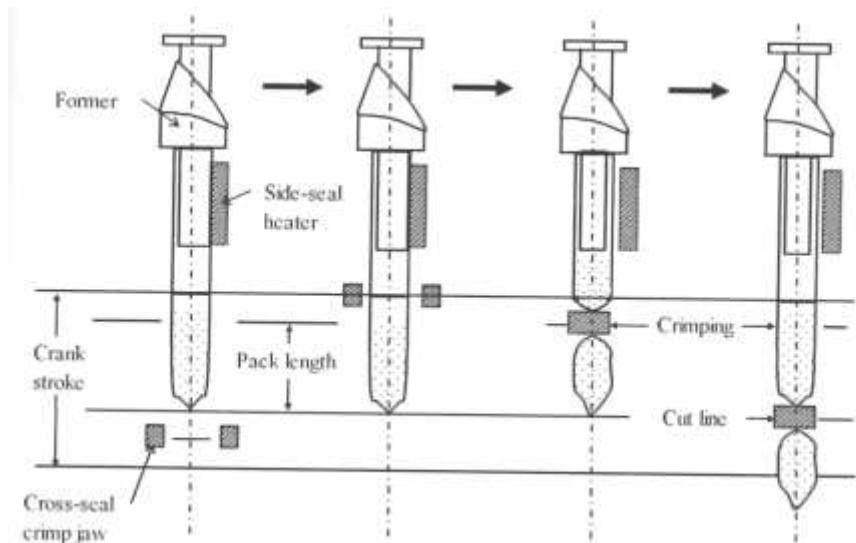
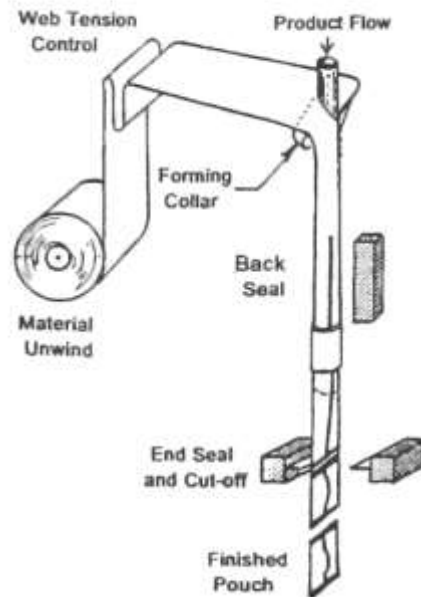
- Capping & Closing
  - Crown cap, screw, induction heat seal, push on, ROPP, can seal
  - Orientation important therefore sorter important
- Heat Sealing
- Adhesive
  - Hot melts, self adhesive, starch, casein cold seal



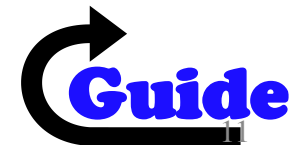
## Form Fill Seal

- Packs formed at point of packaging
  - Vertical form fill seal
  - Horizontal form fill seal (flow wrapper)
  - Sachet forming
  - Thermoforming fill seal

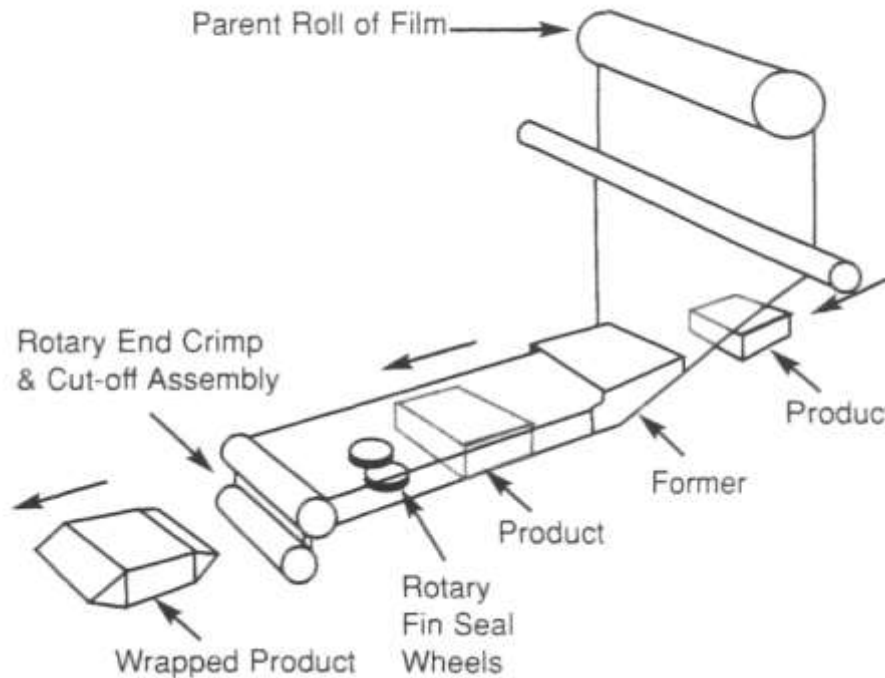
## Vertical Form Fill Seal



[VFFS C95e + Double square bottom/top forming unit \(single fold\) + volumetric cup filler GDV60 - YouTube](#)

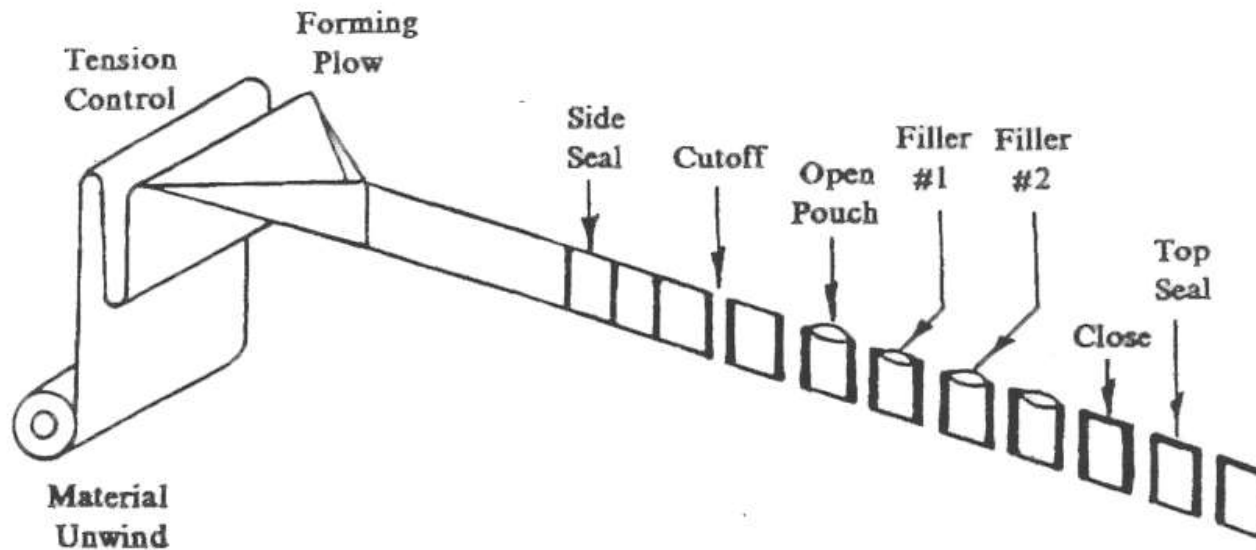


## Horizontal Form Fill Seal

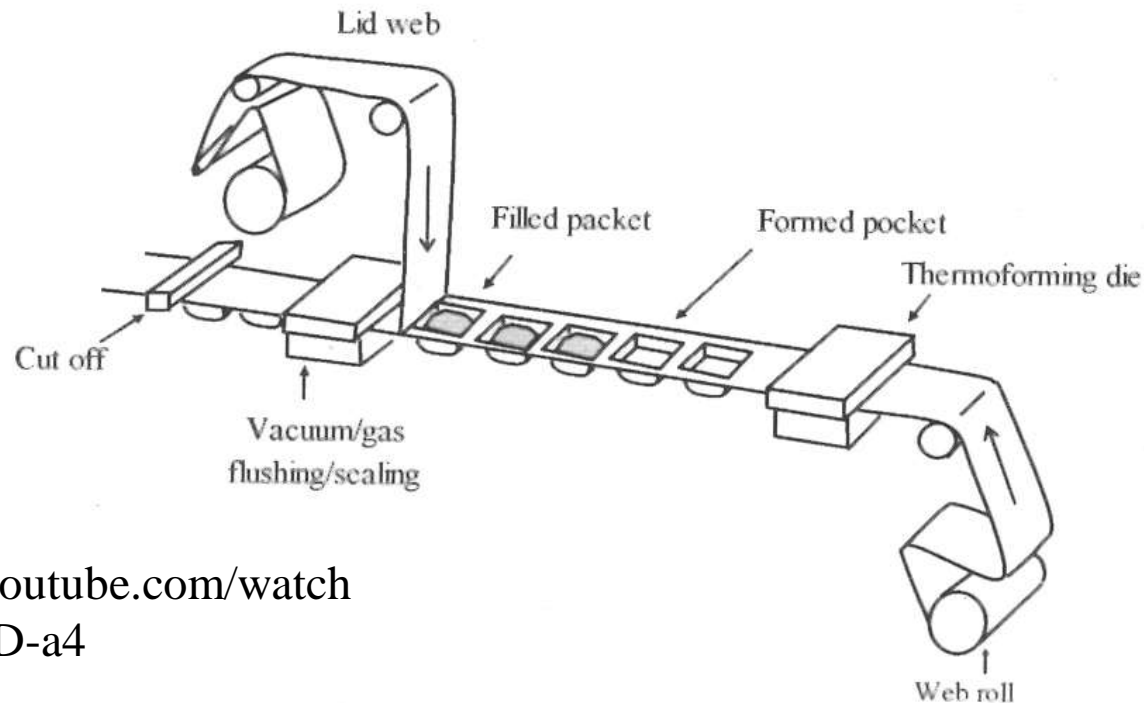


<https://www.youtube.com/watch?v=1jnKSzZRaxc>

## Sachet Forming



## Thermoform Fill Seal – Tray Seal

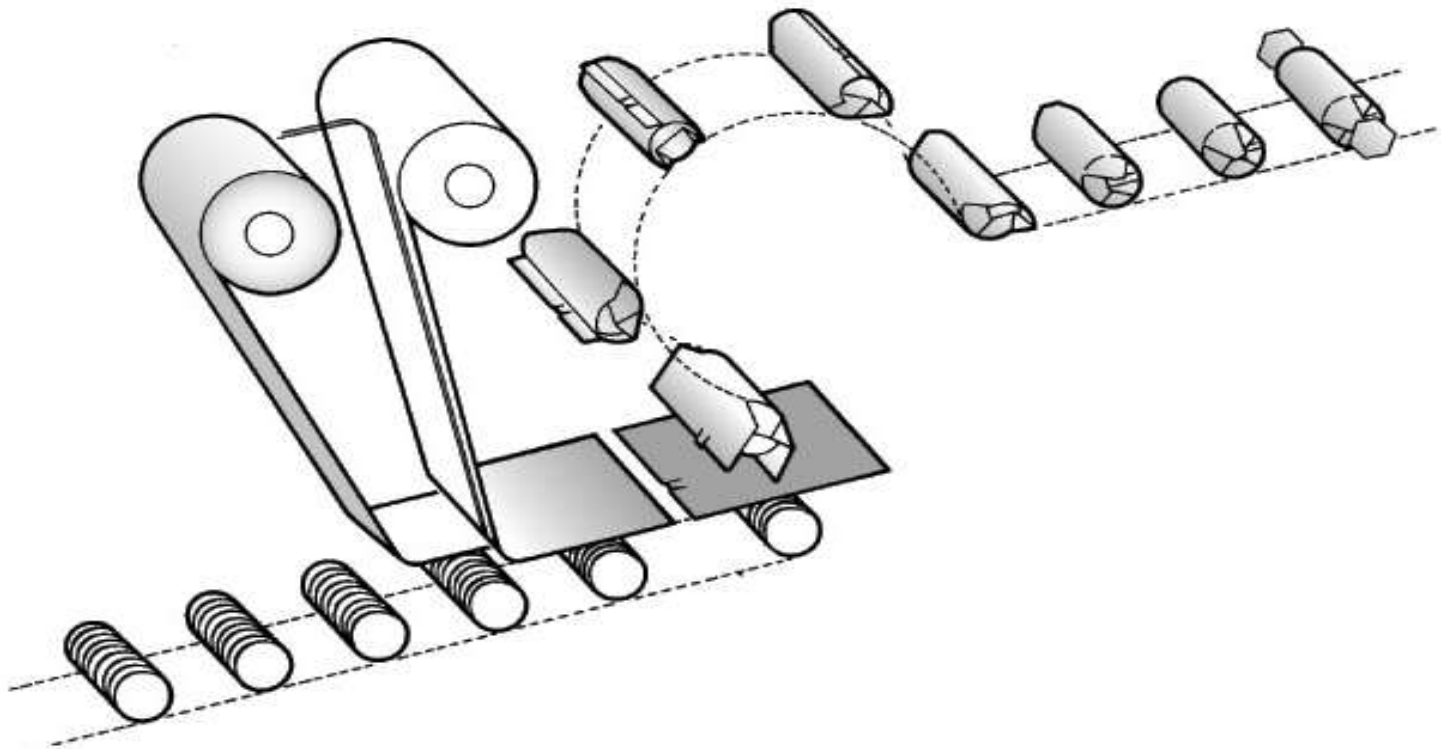


<https://www.youtube.com/watch?v=O7bkAlAD-a4>

## Form Fill Seal

- Heat Seals : Triangle
- Material properties : Tensile, COEF

## Roll Wrap





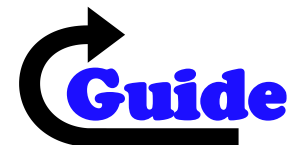
## Carton Filling

- Automatic / manual erection
- Horizontal or vertical filling
- Carton sealing

[Cartoning machine: automatic box packing machine, carton erecting, filling and sealing machine \(youtube.com\)](#)

[Glass bottles case packer Cermex FlexiPack | Sidel \(youtube.com\)](#)

[WRAPAROUND CASE PACKER - 2021 - YouTube](#)



# Post Filling Operations