



## ELECTRON BEAM IRRADIATION

### What is Electron Beam?

The electron beam process utilizes high energy electrons as its radiation source. The electrons, which are produced by normal electrical current, are accelerated to near the speed of light by means of an accelerator. While the energy and power of electron beam equipment varies, the technology offers the ability to penetrate a range of materials.

### What is Electron Beam Used For?

The electron beam process can produce a variety of effects on products, such as sterilization and polymer modification (cross linking and chain scission). Typical products processed with electron beam include:

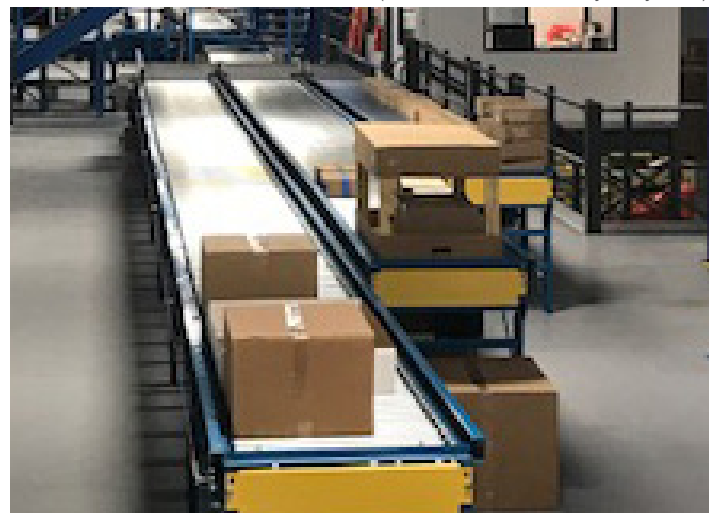
- Medical devices
- Pharmaceuticals
- Packaging
- Cosmetics
- Toiletries
- Tissue products
- Gemstones

### Benefits of Electron Beam Irradiation

E-beam can deliver the irradiating dose in a matter of seconds, meaning the entire process can take place in minutes. As a result of this short exposure period, the following benefits have been found:

- Optimized processing times
- Minimized radiation effects on polymers including oxidation effects
- Flexible processing
- Efficient targeted processing (processing at carton level; targeted beam scan)
- Ability to process tight dose specifications
- Suitable for temperature-controlled processing, such as cold chain applications, where sterilization processing time needs to be minimized

(Electron Beam Conveyor System)



## FOR MORE INFORMATION

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