

Thomas J. Dunn Managing Director, Flexpacknology, LLC

Flexibility & Value

Tom Dunn helped make flexible packaging what it is today —the second-largest packaging segment in the United States.

A key player at Printpack, Inc., from 1981–2010, Dunn was involved in the Stage-Gate decisions that drove the company’s successful technologies to market. They include nitrogen gas flushing of form-fill-seal snack food packaging, extrusion laminated metallized oriented polypropylene film pouch packaging, high-barrier materials for use in stand-up flexible pouches for beverages, and modified atmosphere packaging (MAP) for fresh and fresh cut vegetables.

These technologies, as well as the many others he brought to market, did as much for the consumer marketplace as they did for customers’ packaging operations. Because of his work, the products and packaging provided found at the supermarket, convenience store or snack bar are greater and more varied than they were 10 years ago.

- Dunn was a primary force behind nitrogen gas flushing of form-fill-seal snack food packaging and extrusion laminated metallized oriented polypropylene film pouch packaging. These developments revolutionized distribution, reduced costs and enhanced the shelf life and appeal of salty snacks.
- He was also instrumental in developing high-barrier materials for use in stand-up flexible pouches for beverages, a development that has driven the packaging structure to a near-ubiquitous presence
- Dunn’s work with modified atmosphere packaging (MAP) for fresh and fresh cut vegetables significantly expanded the ability of produce providers to get their vegetables to market, and as a result gave consumers a wider range of healthy food choices.

Dunn was the principal investigator for a research & development initiative to develop packaging systems for advanced food processes, working closely with the U.S. Department of Defense Combat Feeding Directorate to develop microwave assisted thermal sterilization (MATS). This group, a component of the Natick Solider Research, Development & Engineering Center (NSRDEC) in Natick, MA, is responsible for the research and development behind rations for U.S. military personnel.

In 2011, Dunn founded Flexpacknology LLC. As this consulting firm’s managing director, he’s still making an impact on the flexible packaging sector, working with clients on questions of product, process and platform development, intellectual property management and food safety compliance. His clients include the International Atomic Energy Agency, for which he has researched prepackaged food irradiation safety.

Dunn’s greater industry involvement includes speaking for flexible packaging years earlier from 1979–1981, as the technical director for the Flexible Packaging Association (FPA); representing FPA to committees of government agencies and trade group alliances, and preparing and delivering testimony on government regulatory proposals. He has since chaired the FPA Technical Committee and served on its Solid Waste Task Force. He is also an active member of the Society of Plastics Engineers (SPE), ASTM International (formerly the American Society of Testing and Materials), and TAPPI, a leading nonprofit association for the worldwide pulp, paper, packaging and converting industries.

His papers, articles and book chapters have been published by Woodhead Publishing, RadTech Report, Technomic, Wiley, the Journal of Plastic Film and Sheeting and ASTM. A 2010 article for SPE, “Non-Foil High Barrier Laminations” discussed research and findings from his work with NSRDEC, and was named the best paper at FlexPackCon 2010.