



Biographical Sketch

James Stevenson

Jim Stevenson has more than 35 years of experience in processing rubber and plastics. His work on rubber extrusion includes extruder operation, die design, feeding and takeaway operations, instrumentation and process control. He has experience with equipment ranging from 2-inch extruders for vinyl gaskets, to 3.5-inch extruders for industrial rubber products, to dual hot feed and triplex cold feed pin barrel extruders for tire components. His work on dynamic head technology resulted in a head capable of forming curved weatherstrip and of quick die changes. Other areas of expertise include process simulation, injection (polymers and metals), transfer, compression molding, modeling reaction kinetics, measurement of flow properties, and foam technology.

His work at GenCorp formed the basis for the three-day Rubber Extrusion Technology short course which he and co-workers have presented more than 40 times to at companies, university and technical symposia.

Stevenson has written book chapters on extrusion of rubber and plastic and of composite materials. His edited book, *Innovation in Polymer Processing: Molding*, was published in 1996. He has published more than 60 papers on polymer processing and flow, and holds more than 20 patents.

Jim retired in 2011 as a Fellow (Senior Scientist) at Honeywell Aerospace where he worked on composite materials and novel processes and applications for polymers and metal powder compounds. He then founded a consulting company, Stevenson PolyTech LLC, which specializes in plastics and rubber processing.

Prior to joining Honeywell in 1996, he was director of research at Trexel, a start-up company, where he initiated work on microcellular injection molding. For the previous 18 years, Stevenson held several technical and management positions and headed the Rubber Extrusion Laboratory at GenCorp (previously General Tire) in Akron, Ohio. Before joining GenCorp, he was an associate professor in the Chemical Engineering Department at Cornell University where he was a founding member of the Cornell Injection Molding Project and conducted research on polymer flow.

Stevenson earned his B.S. in chemical engineering from Rensselaer Polytechnic Institute and M.S. and Ph.D. degrees from the University of Wisconsin, Madison. His graduate work was on stretching flow of polymers.

Stevenson is a member of the ACS Rubber Division and serves on the boards of the Undergraduate Research and Innovation program at the New Jersey Institute of Technology and the Honeywell Retiree's Association. Stevenson received the NJIT Special Friend of the University Award in 2017.

A more detailed bio of Jim Stevenson is available [here](#)