



**JOSEPH F. GRZETIC**  
**SENIOR STAFF CONSULTANT**  
**FACILITIES MANAGER**

[jfgrzetic@engsys.com](mailto:jfgrzetic@engsys.com)

Mr. Joseph Grzetic is a Senior Staff Consultant with experience in physical, mechanical, and chemical testing of pipe and fitting materials. He performs site investigations, and failure analysis of plastic products. He specializes in machine shop practices, test set-ups, court exhibits, optical microscopy, and photography.

Due to his expertise, Mr. Grzetic has also been given the responsibility of Facilities Manager. In this capacity, he oversees the operations of the Aurora location.

Prior to joining Engineering Systems Inc. (ESi), Mr. Grzetic was employed by Bodycote Broutman/L.J. Broutman & Associates for over eighteen years as a Manager of a Piping Products Laboratory on a variety of new piping projects, as well as used piping products, which included failure analysis. Prior to that, he had over eight additional years of experience in research and development which included closed cell polyimide insulation, non-asbestos clutch plates and brake pads, and plastic food containers.

**Areas of Specialization**

Testing of plastic piping products  
Failure analysis of gas, water, and sewer pipes  
Gas, water, and sewer pipe investigations  
Failure analysis of water inlet valves on appliances  
Research and development of materials

**Education**

St. Rita H.S. Chicago, IL (1975)  
College of DuPage (1979)

**Positions Held**

**Engineering Systems, Inc. (ESi), Aurora, Illinois**

Senior Staff Consultant, Mechanical Engineering, 2015 to Present  
Senior Technologist, Mechanical Engineering, 2003 to 2015

**Bodycote Broutman Inc., Melrose Park, Illinois**

Manager, Piping Products Laboratory, 1999 to 2003

*January 2023*



**L.J. Broutman and Associates, Chicago, Illinois**

Manager, Piping Products Laboratory, 1995 to 1999  
Senior Experimentalist, 1990 to 1995  
Experimentalist, 1984 to 1990

**Imi-Tech Corporation, Elk Grove Village, Illinois**

Foreman, 1983 to 1984

**International Harvester, Hinsdale, Illinois**

Technical Support Engineer, 1980 to 1983

**Resinoid Engineering, Skokie, Illinois**

Manufacturing Engineer Trainee, 1979 to 1980

**Continental Plastics Industries, Lombard, Illinois**

Technician, 1976 to 1979

**Publications**

“Preventing Failures in Elastomeric Resistance Bands,” by Anand R. Shah, Dennis B. Brickman, **Joseph F. Grzetic**, and Joseph T. Eganhouse. Proceedings of the Society of Plastics Engineers Annual Technical Conference, Anaheim, CA, May 8-10, 2017, pp. 1-11

“Crib Tent Safety Analysis,” IMECE2010-38593 by Dennis B. Brickman, and **Joseph F. Grzetic**. Proceedings of the ASME 2010 International Mechanical Engineering Congress & Exposition, Vancouver, British Columbia, Canada, November 13-10, 2010, pp. 1-6

“Safety Analysis and Child Testing of Residential Windows,” IMECE2009-10127 by Dennis B. Brickman, and **Joseph F. Grzetic**. Proceedings of the ASME 2009 International Mechanical Engineering Congress & Exposition, Lake Buena Vista, FL, November 13-19, 2009, pp. 1-7

“Analysis and Testing of Freezing Phenomena in Plastic Piping Systems,” IMECE2009-10071 by Dale B. Edwards, P.E., Kenneth M. Smith, P.E., Donald E. Duvall, Ph.D., P.E., and **Joseph F. Grzetic**. Presented at 2009 ASME International Mechanical Engineering Congress and Exposition Lake Buena Vista, FL

“Analysis and Testing of Freezing Phenomena in Piping Systems,” IMECE2008-69109 by Kenneth M. Smith, Jr., P.E., Michael P. Van Bree and **Joseph F. Grzetic**. Presented at ASME International Mechanical Engineering Congress and Exposition, Boston, MA, November 2008