

JAMES A. BRUSSO, PH.D., P.E.

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SUMMARY

Metallurgical engineer with over 30 years of experience in processing/properties of materials, heat treatment, materials characterization and behavior, materials specifications, mechanical testing, failure analysis, machining of materials, weld qualification testing, and laboratory design and operation.

EXPERIENCE

METALLURGICAL ENGINEER

SEPTEMBER, 2000 TO PRESENT

Engel Metallurgical Ltd.

St. Cloud, MN

Provide metallurgical consulting services to a wide variety of clients in the manufacturing, legal, and insurance industries.

Perform failure analyses of products manufactured from various materials, including metals, cermets, and plastics.

Assist manufacturing clients with materials and process development, selection and problem solving, and preparing material and process specifications.

Develop and review product design, materials, and process specifications.

SPECIALIST/SECTION MANAGER - METALLURGICAL QUALITY ASSURANCE
PROCESS IMPROVEMENT

1998 TO 2000

The Timken Company

Canton, OH

Consulted with customers on machining issues.

Managed the disposition of nonconforming materials.

Reviewed customer specifications.

Responsible for the continuous improvement efforts in thermal treatment of steels.

Provided technical support for steel processing.

Advised on materials selection of mill tooling for seamless tubing production.

Team leader for product response for Department of Energy funded program on the controlled thermal-mechanical processing of steel tubing.

Final technical review of metallurgical processing and production standards to satisfy ISO 9000.

MANAGER - APPLICATIONS METALLURGICAL LABORATORY
The Timken Company

1997 TO 1998
Canton, OH

Managed associates and laboratory operations providing metallurgical expertise to steel and bearing businesses.

Performed and reviewed metallurgical investigations related to steel processing and component performance including failure analysis and mechanical testing.

Established digital microscopy capabilities for electronic investigations reporting.

Consulted with internal/external customers on material processing/performance issues.

Consulted on machining issues.

PRINCIPAL DEVELOPMENT ENGINEER
The Timken Company

1990 TO 1996
Canton, OH

Established a machinability laboratory and test methodology.

Patented a family of steels as alternatives to Pb-containing medium carbon steels and cast iron.

Provided technical support to customers to develop and specify materials and processing for new applications.

EDUCATION

PH.D. METALLURGICAL ENGINEERING
Michigan Technological University

1992
Houghton, MI

MASTER OF SCIENCE, METALLURGICAL ENGINEERING
Michigan Technological University

1986
Houghton, MI

BACHELOR OF SCIENCE, METALLURGICAL ENGINEERING
Michigan Technological University

1983
Houghton, MI

PROFESSIONAL

Registered Professional Engineer (P.E.) in the State of Minnesota

Past Member, External Advisory Board, Materials Science & Engineering, Michigan Technological University

Member ASM International, Heat Treating Society, International Metallographic Society, American Foundry Society, National Association of Subrogation Professionals