Daniel Herzog

Materials Engineer

Media, PA - Email me on Indeed: indeed.com/r/Daniel-Herzog/d77f66a6113bf2af

Nineteen years hands-on experience solving problems as a Materials Design, Process and Technical Engineer. Two years experience as a Project Engineer for refractories manufacturers. Four years experience as a nuclear power plant operator, Machinist Mate and Laboratory Technician.

WORK EXPERIENCE

Applications Engineer III, PC&P

GREENE, TWEED & CO - Kulpsville, PA - 2011 to 2013

Greene, Tweed manufactures elastomeric and thermoplastic sealing systems for large commercial companies.

Lead the testing and qualification of CeraComp®, a novel new polymer derived ceramic matrix composite.

• Anecdotal dimensional measurements of cylindrical shapes indicated that dimensional changes of components could occur beyond tolerance allowances. Developed, authored and implemented testing to verify the existence of dimensional stability of the material. After verification of the problem, devised a method to eliminate the change, verifying the technique with additional testing.

• Coordinated internal bearing, chemical and mechanical testing and external mechanical and thermal testing. This testing developed an understanding of the properties of CeraComp that previously were unknown.

• Authored pre and post test procedural documentation.

• Analyzed internal laboratory test data and external field and laboratory test data, including authoring and publishing final test reports.

Project Engineer (Temp.)

SIEMENS WATER TECHNOLOGIES, INC - Vineland, NJ - 2010 to 2011

Siemens Water Technologies manufactures water treatment equipment for municipalities, commercial entities and residential use.

• Developed a document merge system for creating customer Operation and Maintenance Manuals.

Administration Clerk

UNITED STATES CENSUS - Folcroft, PA - 2010 to 2010

Performed routine tasks required in the collection, control, review, processing, and reporting of personnel and payroll data for employees.

Process Engineer

M CUBED TECHNOLOGIES, INC - Newark, DE - 2001 to 2009

M Cubed is a manufacturer and developer of composite body and vehicle armor, industrial component structures and wear resistant materials.

Maintained, developed and troubleshooted composite production processes. Designed and installed custom fixtures and processing equipment for manufacturing. Developed procedures and documentation systems for manufacturing and trained plant personnel on their implementation and use. Designed, developed and manufactured custom mold tooling for large monolithic composite bodies and smaller ballistic armor applications. Developed composite materials for wear applications.

• Along with the rest of the Engineering Group improved the overall yield of the ESAPI production process by 15% using Statistical Process Control (SPC) methods.

• Designed, specified, sourced and installed a water delivery system for large ball mill batches that eliminated 100% of the production losses from inaccurate water additions.
• Developed, coordinated and controlled a production process to make up to 40 rubber molds per day for the casting of the composite ESAPI green bodies which accelerated composite production by up to two months ensuring a quicker delivery of ballistic armor to field troops.
• Developed the initial composite materials used for the production of wear resistant ceramic composite materials. This material in a revised form is used for 100% of the products produced for the wear market.
• Designed and sourced the manufacture of a drilling jig used to accurately position green machined holes in a seat form green body. The jig eliminated an approximate 25% reject rate of seat forms due to hole placement and improved the overall delivery rate and quality of the finished seat parts.
• Developed a mechanical method of preparing a multi mold tooling setup for casting ballistic armor tiles. This production tool was developed as a completely new method of safely and efficiently handling mold tools. No previous process method existed for this process step.
• Maintained relationships with tooling suppliers to improve the on-time-delivery and quality of incoming tooling systems and patterns.

Technical Service Engineer

RESCO PRODUCTS, INC - Norristown, PA - 2000 to 2001

Resco Products is a designer and manufacturer of monolithic and brick refractories.
Designed, recommended and coordinated refractory placement in Industrial applications utilizing refractory monolithic and brick materials. Provided sales, field and customer technical support.
• Developed a computerized sales customer database system in Microsoft Excel which enabled the sales force to coordinate the material needs and supplies to customers.

Project Engineer

PREMIER REFRACTORIES - King of Prussia, PA - 1998 to 2000

Premier Refractories was a manufacturer and designer of monolithic, brick and fibrous refractories.
Designed, recommended, coordinated and tracked refractory placement in Industrial applications utilizing refractory monolithic, brick and ceramic fiber materials. Prepared detailed quotation proposals including material pricing, shipment costs and material data for customers. Engineered and recommended the placement of fire protective Pyroscat® FP Duct Wrap systems. Provided sales, field and customer technical support.

Applications Engineer

ALANX WEAR SOLUTIONS, INC - Newark, DE - 1988 to 1997

Alanx Wear Solutions was a manufacturer and material designer of wear resistant materials.
Supervised up to four Technical Engineers, two Technicians and one Draftsperson in the application and design of Lanxide DIMOX® materials for use in industrial wear applications. Managed process control, process development, process improvement and product development.
Transferred the Lanxide DIMOX® technology from the laboratory to a production setting. Improved and developed new materials and processes for the Alanx line of wear resistant ceramic composites. Provided technical expertise and support to the Marketing and Sales Department, including field calls and training, especially in the areas of pumps and valves.
• Established a computerized drawing, revision, OEM drawing control, and cross reference database system, which previously did not exist, that supplied a controlled means of creating and tracking drawings generated for customers.
• Designed, developed and manufactured multi-component silicone rubber molds for the composite green bodies which increased production availability by 50%.
• Developed Alanx 2K+ Ceramic/Metal Composite material that was used for 75% of the product manufactured for the wear market.

Nuclear Machinist Mate First Class, Engineering Laboratory Technician

UNITED STATES NAVY - New London, CT - 1978 to 1984

SSN 650 (decommissioned), New London, Connecticut
Nuclear Machinist Mate First Class, Engineering Laboratory Technician - 1978 to 1984
Maintained and monitored the chemistry and radiology of the Primary and Secondary Plants. Operated and maintained the primary nuclear, secondary steam propulsion systems and auxiliary systems.
• Qualified up to the Engine Room Supervisor watch station, supervising three subordinate watch stations and directed the operation of the propulsion systems.
• My maintenance of the Primary Discharge Log, the Radiac Calibration Program and the Personal Dosimetry system resulted in grades of "above average" in separate ship ORSE's (Operational Reactor Safeguard Exams).
• Awards and Commendations include a Meritorious Unit Commendation from the Secretary of the Navy, two awards of the Engineering Red "E", a Letter of Commendation from the Commanding Officer of the U.S.S. Pargo, one award of the Good Conduct Medal, a Sea Service Deployment Ribbon, and a Navy Expeditionary Medal.

EDUCATION

BS in Ceramic Engineering

Rutgers College of Engineering - Piscataway, NJ

SKILLS

Kubotek KeyCreator CAD Software, Dassault Systemes Solidworks CAD Software

LINKS

http://www.linkedin.com/in/danielherzog