

James Wood

Senior Technical Specialist - inTEST Corporation

Voorhees, NJ - Email me on Indeed: indeed.com/r/James-Wood/feae0f2580cfd1b6

Authorized to work in the US for any employer

WORK EXPERIENCE

Senior Mechanical Design Engineer

inTEST Corp - Mount Laurel, NJ - April 2000 to Present

Performing detailed equipment and machine designs of mechanical interface hardware and manipulators used by semiconductor manufacturers (i.e. Texas Instruments, Freescale) in the testing of integrated circuits. Tasks performed: intensive interfacing and communications with customers and suppliers; SolidWorks and AUTOCAD proficiency; knowledge of machined parts, procedures and materials; design calculations, stress analysis (COSMOS) and geometric tolerances ANSI Y14.5; ISO 9000 compliance; and coordination with machine shop, manufacturing, sales, field service, customers and shipping departments.

Senior Mechanical Equipment Engineer

Fluor Daniel - Marlton, NJ - 1994 to 2000

Lead Equipment Engineer: provided engineering support during conceptual design phases of multiple pharmaceutical bulk tablet facilities. Developed estimates, project scopes, preliminary equipment lists, specifications, bid reviews and purchase orders for facility equipment.

Senior Mechanical Equipment Engineer: provided engineering services for new Eastman Kodak Co. paper, film and chemical manufacturing facility (\$1.1 billion) in Haicang, China. Services performed: engineering, design, specification, supplier coordination and installation of chemical preparation, process and utility equipment and systems; which includes tanks, kettles, pressure vessels, filters, heat exchangers, pumps, agitators, and high purity water, utilities (steam, air, water, waste, etc.), material handling, sterilization, heat transfer, filtration and other specialty equipment.

Junior Mechanical Equipment Engineer: provided engineering services on multiple capitol improvement projects (\$180 million) for expansion and modernization of stainless steel manufacturing facilities at Carpenter Technology, Reading, PA. Services performed: engineering, design, specification, procurement and installation of non-core process equipment, compressed gas piping systems (air, natural gas, argon, nitrogen, helium) and cooling water systems at vacuum induction melting, vacuum arc remelting and annealing furnace facilities.

Mechanical Equipment Engineer: supported proposal and cost estimate of mechanical equipment and systems for a \$1 billion electrical power plant in El Zara, Saudi Arabia. Tasks performed: Preliminary design, specification and estimates for boiler feedwater pumps, groundwater supply turbine pumps, compressed air system, fuel oil storage and distribution system and other equipment.

As a GroundWater Technology, Inc. (GTI), employee, Lead Project Engineer: coordinated engineers and designers, and provided mechanical engineering oversight for the design, construction and operation of groundwater and soil remediation systems and facilities for many Superfund, government (DOD) and other environmental clean-up projects.

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Lead Mechanical Engineer

Raytheon Engineers and Constructors - Philadelphia, PA - 1989 to 1993

Tasks performed included design and drafting supervision for new Chemical Sewer and Spill Collection Basin Projects (\$28 million) at Merck & Co., Rahway, NJ. Systems collect chemical wastewater from pharmaceutical manufacturing facilities, and divert and collect storm water in case of emergency spills for treatment. Major components include double-wall overhead and underground piping, lift stations, pumps, tanks and auxiliary equipment.

Mechanical Engineer: provided design engineering services during renovation and upgrade of demineralized water system at Megan-Racine Cogeneration Power Facility, Canton, NY.

Mechanical Engineer, Tasks performed: design, specification, procurement, construction and project closeout activities during the construction of new steel plating facility (\$585 million) at I/N Kote, New Carlisle, IN. Provided technical support for the installation of core and non-core mechanical equipment and systems for continuous and electroplating galvanizing lines. Engineering and design of hydraulic, compressed air, lubrication, steam, cooling water, wastewater and other piping systems. Provided technical support to plant personnel during initial start-up phases of both galvanizing lines. During project construction, relocated to job site as Field Engineer. Provided technical support and subcontractor supervision for the installation of continuous galvanizing line core equipment (coil handling, pickling, annealing furnace, galvanizing furnace, rolling mill, electroplating cells, strip inspection, coil processing and coil delivery) and non-core equipment (scrap handling, electric overhead traveling cranes, fume exhaust, metallurgical laboratory, roll maintenance and automatic guided vehicles). Tasks also included resolving technical problems encountered during field installation of equipment, and ensuring the equipment was installed and aligned to the original equipment manufacturer's specifications

Plant Engineer: provided engineering services (calculations, specifications and cost estimates) in response to requests from operations and maintenance personnel at National Steel continuous caster, Granite City, IL.

Project/Application Engineer

PSI Division, Warner Electric Clutch & Brake Co - Pitman, NJ - 1988 to 1989

Provided engineering and design for the development of new and existing product lines of spring wrapped clutches and brakes for various customer applications.

Test Engineer

Philadelphia Naval Shipyard - Philadelphia, PA - 1987 to 1988

Developed and evaluated performance tests of new and overhauled equipment, components and piping of compressed gas systems for U.S. Naval vessels. Systems included compressed air, liquid oxygen and nitrogen production and distribution, ballast and deballast air, refrigeration and air-conditioning.

Cooperative Student Engineer

RCA Missile and Surface Radar - Moorestown, NJ - 1984 to 1986

Provided technical support to civil, mechanical, and electrical engineer in monitoring and inspection services during construction of Production Test Center for AEGIS radar system.

Assisted mechanical engineer in supervising and coordinating draftsmen preparing equipment installation and arrangement drawings of U.S. Navy Combat Systems equipment for AEGIS cruisers and destroyers.

EDUCATION

P.E. in mechanical and materials and ethics related subjects

2017

B.S. in Mechanical Engineering

Drexel University - Philadelphia, PA

1987

M.S. in Environmental Engineering

Drexel University

SKILLS

Solidworks (10+ years), Microsoft Office (10+ years), Autocad (3 years)

CERTIFICATIONS

Professional Engineer

November 2017

ADDITIONAL INFORMATION

Nearly thirty years of mechanical project, design and professional engineering experiences. Wide range of manufacturing, field and construction engineering experiences ranging from project conception to completion including scope of works, design basis, calculations, design and installation drawings, P&IDs, specifications, flow analysis, field surveys, cost and bid analysis, budget and manpower estimates, equipment selection and procurement, installation and commissioning, and vendor and contractor surveillance for semiconductor industry, steel, chemical, pharmaceutical, manufacturing, environmental and power projects.

Equipment Design ● Project Engineer ● Construction Support ● Procurement Specifications
Design and Analysis ● Installation Specifications ● System Commissioning ● Project Schedules
Cost Estimates ● Scope of Work ● Quality Assurance

ADDITIONAL SKILLS

Proficient in use of personal computer including excellent knowledge of SolidWorks 2013, AutoCAD 2002, Microsoft Office (Excel, Word, Access, PowerPoint), Internet services, and other PC based software.