

# Mechanical Engineer: Principal Mechanical Engineer

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Performs research, design, and development in such areas as mechanical, thermal, hydraulic, thermodynamic, or heat transfer for production, transmission, measurement, and use of energy. Applies research to the planning, design, development, and testing of mechanical and/or electromechanical systems, instruments, controls, engines, and/or machines.

## **Discretion/Latitude**

Works under consultative direction toward predetermined long-range goals and objectives. Determines and pursues courses of action necessary to obtain desired results. Completed work is reviewed from a relatively long-term perspective for desired results.

## **Knowledge, Skills and Abilities**

Applies advanced technical principles, theories, and concepts. Contributes to the development of new principles and concepts. Identify, analyze and develop new business opportunities. Answers unusually complex technical questions regarding products and services, and takes part in putting together proposals, configurations, and product offerings.

## **Problem Solving**

Works on unusually complex technical problems and provide solutions that are highly innovative and ingenious.

## **Impact**

Develops technological ideas and guides their development into a final product. Erroneous decisions or recommendations would typically result in failure to achieve critical project objectives. Leads the planning and implementation of large projects/ programs. Contributes to department goals and planning efforts.

## **Liaison**

Serves as organization spokesperson on projects and/or programs. Acts as advisor to management and customers on advanced technical research studies and applications.

## **Minimum Education and Experience**

12+ years with BS in designated Engineering or related field. Employees usually have advanced degree in field of specialization.