

# Manufacturing Engineer: Sr. Principal Manufacturing Engineer

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Designs and plans layout for such activities as machining, metal forming, plastics processing, welding and brazing, assembly, and materials handling. Adapts machine or equipment design to factory and production conditions. Plans for the arrangement of machines within plant facilities to ensure most efficient and productive layout. Plans sequence of operations and specifies procedures for the fabrication of tools and equipment and other functions that affect product performance. May incorporate inspection and test requirements into the production plan. Inspects performance of machinery, equipment, and tools to verify their efficiency, and investigates and initiates corrective action of problems and deficiencies to ensure product quality. Develops manufacturing processes that are applicable to statistical process control, and may develop those techniques. Provides guidance to Engineering regarding design concepts and specification requirements to best utilize equipment and manufacturing techniques.

## **Discretion/Latitude**

Works under consultative direction toward predetermined long-range goals and objectives. Assignments are often self-initiated. Determines and pursues courses of action necessary to obtain desired results. Work checked through consultation and agreement with others rather than by formal review of superior.

## **Knowledge, Skills and Abilities**

Applies advanced technical principles, theories and concepts. Contributes to the development of new principles and concepts. Widely recognized for achievements, technical expertise and meritorious standing within professional field. Identifies, analyzes and develops new business opportunities. Establishes customer contacts, conducts research and analysis into their future plans and needs, assists with the development of their specifications, develops proposals, and delivers marketing presentations.

## **Problem Solving**

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

## **Impact**

Develops advanced technological ideas and guides their development into a final product. Erroneous decisions or recommendations would typically result in failure to achieve critical organizational objectives and affect the image of the organization's technological capability. Functions in a program leadership role. Plays a key role in implementing programs/projects and makes significant contributions to department goals and overall functional strategic planning efforts.

## **Liaison**

Serves as organization spokesperson on advanced projects and/or programs. Acts as advisor to management and customers on advanced technical research studies and applications. Often instrumental in attracting and obtaining major new company business.

## **Minimum Education and Experience**

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