Design For Product Success

The design phase. It is not an isolated step. It’s the manufacturing process’s moment of truth.

Many factors determine the success or failure of a product. Arguably the most important determinant is also the most controllable—the design phase. Written by international-known expert, Devdas Shetty, Ph.D., P.E., this book shows you how world-class companies are developing high quality products at this critical juncture, in a step-by-step manner using analytical tools.

Some of the topics covered in this book are:
- how to build a product team
- characteristics of self-directed product team
- new product creation strategy and process
- creative design techniques
- principles of design for manufacturing
- design for disassembly
- optimization and ergonomics
- a section on value stream mapping and its influence on product development are included, along with information on creating virtual prototypes with computer-assisted design.

At front and center of this comprehensive book is an integrated strategy that governs the whole process, which is systematic, organized, and “lean” conscious. Learn the procedures necessary in smart product design starting from the concept to production and marketing. Research findings and case studies will help you make decisions with confidence, construct solid business cases, and avoid the repercussions of poor planning and overlooked variables. Your product will meet the needs and expectations of your customers down the road.

Who benefits?

Design Engineers and Product Designers. A step-by-step procedure based on the latest design tools and techniques, used by world-class companies, will increase the likelihood that successful product designs will be created and selected.

Production Managers get a handle on the key components of success or failure of a product and grasp the production team’s role in the design process.

College Professors, Instructors. The book’s emphasis on interdisciplinary integration makes it the only product design book in synch with the current trend in undergraduate curriculums across the country. Its ideal for courses in design related areas in the mechanical, industrial, and manufacturing engineering fields. Its flexible layout allows educators to pick and choose topics for a more customized approach. It contains end-of-chapter questions and end-of-book problems and a solutions manual is available for instructors.

Industrial Engineers, Managers, CEOs. Each member of an integrated team can use this book to determine strategies for a new product launch. They learn to create a self-directed product team “where the right hand knows what the left hand is doing”, and facilitate the interplay between design and production, and design and marketing.
NEW! Handbook of Laser Materials Processing

This 715-page handbook includes the work of more than 170 contributors and provides comprehensive information about laser techniques such as cutting, drilling, welding, brazing, hardening, cleaning, and making of metals, ceramics and other materials. It also includes information about laser-related instruments, safety procedures, as well as laser applications in the aerospace, automotive, computer and electronic industries. An outstanding chapter on rapid prototyping contains a multi-page table relating each RP method to the materials it will process, the application each is best suited for, the process characteristics and post processing requirements.


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Published by Society of Manufacturing Engineers, 1992, By P. Jacobs, Ph.D., ISBN: 0-87263-425-6, 420 pages, hardcover

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Rapid Tooling, Rapid Parts

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Society of Manufacturing Engineers, 1994, 40 min.
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Society of Manufacturing Engineers, 1991, 45 minutes
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