The Complete Book on Printing Technology with Process Flow Diagrams, Plant Layouts and Machinery Details (Offset, Gravure, Flexographic, Security, Web Offset and Pad Printing) 2nd Revised Edition

Author: NIIR Board of Consultants & Engineers

Format: Paperback **ISBN**: 9788194099512

Code: NI111 Pages: 624

Price: Rs. 1,695.00 **US\$** 44.95

Publisher: Asia Pacific Business Press Inc.

Usually ships within 5 days

Printing is a process for reproducing text and image, typically with ink on paper using a printing press. It is often carried out as a large-scale industrial process, and is an essential part of publishing and transaction printing. Printing technology market is growing, due to technological proliferation along with increasing applications of commercial printing across end users.

In India, the market for printing technology is at its nascent stage; however offers huge growth opportunities in the coming years. The major factors boosting the growth of offset printing press market are the growth of packaging industry across the globe, increasing demand in graphic applications, the wide range of application in various industry, and industrialization. The offset printing press market is projected to register healthy growth due to new and advanced technologies are driving the introduction of new product lined of offset printing press from large and medium manufacturers which responsible to register high productivity of offset printing press, and offers better user experience to the end-users and also reduce operational costs. This book is dedicated to the Printing Industry. In this book, the details of printing methods and applications are given. The book throws light on the materials required for the same and the various processes involved. This popular book has been organized to provide readers with a firmer grasp of how printing technologies are revolutionizing the industry.

The major content of the book are the beginning of printing, the printing industry, sheet-fed offset printing, printing processing, offset press, modern printing process, pad printing application, gravure printing, web offset printing, the flexographic printing, security printing, process flow diagrams, layouts and photographs of machinery with supplier's contact details.

A total guide to manufacturing and entrepreneurial success in one of today's most printing industry. This book is one-stop guide to one of the fastest growing sectors of the printing industry, where opportunities abound for manufacturers, retailers, and entrepreneurs. This is the only complete handbook on the commercial production of printing products. It serves up a feast of how-to information, from concept to purchasing equipment.

Contents

1. THE BEGINNING OF PRINTING 1

Typographic Technology

Hand composition

Linotype

Monotype

Ludlow

Photo-scanning systems

Systems components

Digital typesetting

Scanning and laser systems

Basic classification of typefaces

Planning a Page

Type Measurement

2. THE PRINTING INDUSTRY 41

Introduction

Development of Ideographs

Development of Phonetic Symbols

Printing Technology

Sequence of Steps in the Printing Processes

Size and Scope of the Printing Industry

Commercial Printing

Special Purpose Printing

In-Plant Printing

Preparing for a Career in Printing

Career Advancement

3. SHEET-FED OFFSET PRINTING 63

Names of the machines

Mechanical features

Functions of the blower foot

Sheet insertion and transfer

Gripper designs

Inking system

Distribution system

Wash-up device

Adjustment of rollers

Maintenance of rollers

Different dampening systems

Conventional dampening system

Cleaning of dampeners

Brush feed dampening system

Plate cylinder

Blanket cylinder

Impression cylinder

Adjustment of cylinders

Delivery mechanism

Qualities of a good delivery system

Attachments on the delivery part (board)

Miscellaneous operations

4. PRINTING PROCESSING 140

Printing Exposing

5. OFFSET PRESS 169

Dampening Solutions

Feeding & Registering system

The delivery system

Mabeg feeder

Sheet Detection

Press Make ready, and Operation

Feedboard setting

Setting the sheet path

Fitting the plate

Ink preparation

Multicolour printing

The multicolour press

The Perfector Press

Infra-Red Drying on Web-Offset

Offset printing Machines

Business Form Production

6. MODERN PRINTING PROCESS 307

Ink Zet

Film Plotting Machine

Computer to Plate Technology (CTP)

Computer To Plate

Scanners

Digital Colour Presses & Computer to Press

Making digital plate production cheaper

The Digital Offset Colotr Revolution: E-Print 1000

Market forces

Quality & Productivity

Anilox Offset

More Economical For Frequent Partial

Editions with high Colour Content

Waterless Anilox Offset

Produce a complete newspaper by computer software

7. PAD PRINTING APPLICATION 410

8. GRAVURE PRINTING 417

The Gravure Industry

Basic Gravure Concepts

Cylinder Construction and Preparation

Copper Plating and Polishing

Gravure Presswork

Cylinder and Doctor Blade Considerations

Impression Rollers

Trends in Gravure

9. WEB OFFSET PRINTING 449

Design of web machines

Reel stand unit

Main parts of printing unit

Sequence of colours in printing

Quality Control in Printing

Dampening solution

10. THE FLEXOGRAPHIC PRINTING 502

11. SECURITY PRINTING 528

Credit cards

Caliper and dimensions

Hologram

Numbering with Micr Ink on Rotary Presses

12. PROCESS FLOW DIAGRAMS & LAYOUTS 540
13. PHOTOGRAPHS OF MACHINERY WITH
SUPPLIER'S CONTACT DETAILS 562

About NIIR

NIIR PROJECT CONSULTANCY SERVICES (NPCS) is a reliable name in the industrial world for offering integrated technical consultancy services. NPCS is manned by engineers, planners, specialists, financial experts, economic analysts and design specialists with extensive experience in the related industries.

Our various services are: Detailed Project Report, Business Plan for Manufacturing Plant, Start-up Ideas, Business Ideas for Entrepreneurs, Start up Business Opportunities, entrepreneurship projects, Successful Business Plan, Industry Trends, Market Research, Manufacturing Process, Machinery, Raw Materials, project report, Cost and Revenue, Pre-feasibility study for Profitable Manufacturing Business, Project Identification, Project Feasibility and Market Study, Identification of Profitable Industrial Project Opportunities, Business Opportunities, Investment Opportunities for Most Profitable Business in India, Manufacturing Business Ideas, Preparation of Project Profile, Pre-Investment and Pre-Feasibility Study, Market Research Study, Preparation of Techno-Economic Feasibility Report, Identification and Section of Plant, Process, Equipment, General Guidance, Startup Help, Technical and Commercial Counseling for setting up new industrial project and Most Profitable Small Scale Business.

NPCS also publishes varies process technology, technical, reference, self employment and startup books, directory, business and industry database, bankable detailed project report, market research report on various industries, small scale industry and profit making business. Besides being used by manufacturers, industrialists and entrepreneurs, our publications are also used by professionals including project engineers, information services bureau, consultants and project consultancy firms as one of the input in their research.

Our Detailed Project report aims at providing all the critical data required by any entrepreneur vying to venture into Project. While expanding a current business or while venturing into new business, entrepreneurs are often faced with the dilemma of zeroing in on a suitable product/line.

NIIR PROJECT CONSULTANCY SERVICES, 106-E, Kamla Nagar, New Delhi-110007, India. Email: npcs.india@gmail.com Website: NIIR.org

Sat, 27 Apr 2024 18:04:50 +0530