

Basic Pneumatics

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**An Introduction to
Industrial Compressed Air
Systems and Components**

Revised Printing

Jay F. Hooper

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Preface

This book is intended for the instruction of people who are studying to be maintenance mechanics on production machinery. The material may also be used for upgrading the knowledge of technicians who are already working as machine operators and line mechanics.

The material in this book assumes no prior knowledge of pneumatics and could be used by anyone who has an interest in this particular area of fluid power. This book does not cover compressors and the rebuilding of pneumatic components.

In order to clearly present topics in pneumatics, a hands-on approach is used. This book is not developed for engineers, but is directed at the hourly worker on the factory floor and therefore uses some generalizations and approximations.

This book grew out of a course that prepares students to display a working knowledge of pneumatic systems and to troubleshoot pneumatic problems. Upon successful completion of this course the student should be able to:

- Read schematic prints
- Understand the components of pneumatic systems
- Recognize the names of pneumatic components and fittings
- Determine probable causes and solutions of water problems
- Troubleshoot regular pneumatic circuits
- Work in standard and [metric] units

As I tell my Basic Pneumatics class, the objective of the course is to present to the current or prospective maintenance mechanic or industrial systems technician the basic building blocks needed to effectively work on 90% or more of all the problems that may be encountered in pneumatic systems.

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