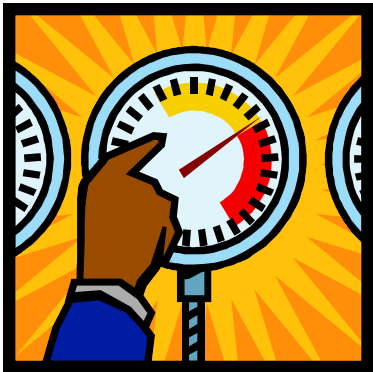


# HOW TO OPTIMIZE



## COMPRESSED AIR SYSTEMS

### *A One Day Workshop*

**Sheraton Hotel**  
189 Front St.  
Cuyahoga Falls, OH

**October 12<sup>th</sup>, 2010**

***Sponsored By APO Pumps &  
Compressors, Inc.***



### **Workshop Overview**

Known as the fourth utility, compressed air is an essential element in a wide variety of operations found in the manufacturing and process industries. Compressed air production is often one of the primary energy expenses in an industrial plant. In a typical industrial plant, 8-25% of the total electricity they consume is used by their compressors. It is estimated that energy costs of an average compressed air system could be reduced by 20 to 35%. For many companies, this represents tens of thousands of dollars of potential savings every year. The main source of compressed air energy losses are leaks, equipment inefficiencies, and production and distribution inefficiencies. Vigilant maintenance, more efficient equipment and advanced control methods will all contribute to a less expensive compressed air system.

A plant that implements a management program for its compressed air system can reduce operating costs while improving the system's performance. A good compressor system will provide air that is clean, dry and free of pressure fluctuations, resulting in reduced equipment maintenance costs, and increased performance throughout the entire system. Improved air management also will reduce production losses due to unreliable air supplies (resulting from insufficient maintenance and poor compressor control).

The purpose of this workshop is to present the fundamentals of compressed air systems, typical areas of inefficiencies, and potential opportunities for improvements. You will learn how to reduce operating costs of your compressed air system, fundamental considerations regarding piping systems, capacitance and storage, how to identify pressure issues and the basics of designing a reliable and efficient system.

This workshop is structured to include both classroom instruction and small team problem solving but will be flexible to meet the needs and capabilities of the participants. There will be many examples, case studies, and working exercises. The instructors will be available for specific problem solving and questions after each session.

### **Who Should Attend**

**Plant Managers**  
**Production Managers**  
**Plant Engineers**  
**Manufacturing Engineers**  
**Energy Engineers**  
**Maintenance Supervisors**  
**Maintenance Personnel**

### **Why Attend**

- *To gain better understanding of the influence of compressed air on the price and quality of producing goods and services.*
- *To learn how to break down the demand into constituents to evaluate the potential for savings.*
- *To learn the practical and efficient application of compressed air, including sizing components, differential pressure and dedicated storage.*
- *To learn about the fundamentals of the various types of compressors and compressor controls.*
- *To Learn the principles of automation of the system and how to develop the totally integrated system.*

**Instructor**

John Lyons is one of most diverse compressed air system detectives (auditor) within the Industrial Technologies Group of Ingersoll Rand. In this role, John provides technical expertise and development, compressed air workshops and business alignment, for the audit program to all sales/service channels throughout the Americas. John has been involved in the compressed air industry for over 27 years. His experience in the industry is diverse ranging from compressor service technician, service manager, application engineering, sales, and product management. John has worked in the field as a compressed air system auditor for over nine years and has audited over 280 systems of various complexities and sizes up to 5,000 hp. John speaks regularly at compressed air workshops and training events across the Americas.

**Sponsor**

At APO Pumps & Compressors, we continually seek innovative ways to assist our customers in using energy to its fullest. You won't want to miss this opportunity to gain more knowledge of compressed air systems – and apply it to achieve a financial and competitive edge on your industry.

**The Cost**

The workshop registration fee is \$ **99.00** which includes lunch and workshop materials. Please complete the registration form in this brochure and make your check or purchase order to APO Pumps & Compressors. (See registration form for details) Visa or Master Card may also be used.

**Agenda****Compressed Air Systems Workshop****Day One:**

<b>7:45 a.m.</b>	Registration
<b>8:00</b>	The Business of Compressed Air
<b>9:00</b>	Piping Systems
<b>10:00</b>	Break (Provided)
<b>10:15</b>	Capacitance and Storage
<b>12:00</b>	LUNCH (Provided)
<b>12:45 p.m.</b>	Identifying Pressure Issues
<b>2:30</b>	Break
<b>2:45</b>	Designing a Reliable and Efficient System (Accounting for Risk)
<b>4:55</b>	Adjourn for the Day

**Cancellation Policy:** *Cancellations received 7 working days before the seminar will receive a full refund.*

**Registration Form**

To register for a seminar offered by Ingersoll-Rand, please complete the form below and mail in or Fax to:

**APO Pumps & Compressors**  
**6607 Chittenden Rd**  
**Hudson, OH 44236**

Sara.wilson@apopc.com

Name of Seminar: How to Optimize Compressed Air Systems

**Date of Seminar: October 12<sup>th</sup>, 2010**  
**Sheraton Hotel – Cuyahoga Falls**

Name:  
 Position / Title:

Company Name:

Address:  
 City:  
 State:            Zip Code  
 Phone:  
 Fax:  
 Email Address:

Fax registration to **330-650-1440**