



2KG TRAINING

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COMPRESSORS: DESIGN, OPERATION AND MAINTENANCE

Enhancing compressor uptime and reducing operating costs through best practices and effective maintenance

Presenter: Fred Geitner

ABOUT THE PRESENTER: FRED GEITNER P.ENG



Mr. Geitner is presently the principal engineer of PMES (Process Machinery Engineering Services), an independent consultant and expert litigation witness in the area of process machinery reliability. He has over 40 years experience in the design, operation, maintenance and troubleshooting of compressors used in process plant and transmission pipeline applications. He is a registered professional engineer in the Province of Ontario, Canada.

He has given depositions as an expert witness, has conducted plant site reliability audits and also presented courses and seminars covering process machinery design, operation, maintenance and reliability issues in Canada, United States, South America, Europe, Pakistan and the Middle East.

Together with H.P. Bloch he co-authored several books on process machinery management and reliability assurance.

Co-author:

- Machinery Failure Analysis and Troubleshooting (4th Ed., 2012)
- Machinery Component Maintenance and Repair (2nd Ed., 2001)
- Maximizing Machinery Uptime (2nd Ed., 2006)

Number of days: 4

CPD Points: 4

Live Virtual Classroom

2KG Training Live Virtual Courses offer participants the same instructors, training systems, course materials, personal support, and face-to-face engagement with instructors and other participants that they would expect to find in a conventional classroom.

The Advanced Pumps Live Virtual Course brings participants together in a virtual classroom, where they receive training from an expert via a live video link. Participants are interconnected via audio and video, enabling them to interact both with the instructor and with their classmates. Learners can speak to their instructor at any time to ask questions, request assistance, and instructors can provide hands-on support.

WHY YOU CANNOT MISS THIS COURSE

Compressors can be one of the most mechanically complex pieces of machinery. The industry is currently struggling with various issues, ranging from selection, operation, and high maintenance expenditures to production stoppages caused by compressor downtime. In addition, due to the rising energy costs, there is an increased demand to reduce energy wastage and greenhouse emission in compressor operation.

The experience gained from compressor maintenance and troubleshooting will help you select the right compressor based on your operating or design conditions. It will also enhance the life cycle of your compressors, increase energy efficiency, reduce ongoing maintenance costs and prevent failures. The practical insights delivered at this training will assist in troubleshooting issues and challenges in compressor operation and maintenance along with exposure to key techniques and predictive maintenance tools that will help you significantly increase its performance, reliability and availability.

Compressor failures can cause significant problems from delays in production to the possible shutdown of the whole plant. However, good compressor operation and maintenance can cost-effectively maximise compressor life expectancy; while improving its reliability and availability to meet output requirements

This hands-on course will give a practical introduction to control, operation, maintenance and troubleshooting of centrifugal and positive

displacement compressors.

The key issues which will be addressed in this training are: How to maximize compressor output, increase its life cycle and minimise downtime.

WHO MUST ATTEND

Mechanical Engineers, Maintenance Engineers, Reliability Engineers, Electrical Engineers, Professional Engineers, Operations Managers, Maintenance Managers, Project Managers, Contract Managers, Asset Managers, Technical Managers

From Industries such as:

Oil & Gas, Mining, Energy & Utilities, Chemicals & Petrochemicals, Food & Beverage Manufacturing, Agriculture

AIM OF THE COURSE

- Evaluating and augmenting the efficiency of compressor operation resulting in reduced energy consumption
- Improving the knowledge of best practices and troubleshooting techniques to avoid and mitigate compressor failures
- Defining the technical features and vulnerabilities of dynamic and positive displacement compressors
- Identifying the criteria that can assist in cost-effective compressor selection
- Using appropriate maintenance technologies to maximize compressor reliability and availability
- Benchmarking compressor performance against industry standards

COURSE OUTLINE

DAY 1	<p>Introduction to Compressors</p> <p>Mechanical Design of Centrifugal Compressors</p> <p>Review</p>
DAY 2	<p>Design and Materials of Reciprocating Compressor Components</p> <p>Compressor Characteristics and Selection Criteria</p> <p>Skill test and assessment</p>
DAY 3	<p>Compressor Maintenance Strategies, Tactics and Procedures</p> <p>Applying and determining the frequency of condition based</p> <p>Operation and Maintenance – Turbo compressors</p> <p>Operation and Maintenance - Reciprocating Compressors</p>
DAY 4	<p>Operation and Maintenance - Displacement Compressors</p> <p>Implementing Root Cause Failure Analysis (RCFA) to Prevent Recurrence of Compressor Problems</p> <p>Repairs and Spares Assessment</p> <p>Skill test & assessment</p>



Registration Form

Number of days: 4

CPD Points: 4

How to register for the course:

1. Complete this registration form and fax it to Phindi Mbedzi: Tel: 011 325 0686 Fax: 011 325 0488 Email: Phindi@2kg.co.za
2. Acknowledgement will be emailed to you.
3. Final confirmation and details will be faxed or emailed to you approximately 7 days before the commencement of the seminar.

Cancellation Policy:

By signing and returning the registration form, the authorizing signatory on behalf of the stated company is subject to the following terms and conditions.

- All cancellations must be received in writing
- Any cancellations received less than 3 working days before the date of the event, the full fee will be payable and no refunds or credit notes will be given.
- If a registered delegate does not cancel and fails to attend the Workshop, this will be treated as a cancellation and no refund or credit note will be issued.
- In case of insufficient applications for the workshop 2KG reserves the right to cancel the seminar. Applicants will be informed and all fees will be refunded immediately.

Delegate information:

Title: _____ Surname: _____ Name: _____

Full Company name: _____ Job Title: _____

Postal Address (to which invoice must be sent): _____

Code: _____ VAT number: _____

Tel: () _____ fax: () _____

Cell: _____ Email: _____

Contact/ Accounts information:

Title: _____ Surname: _____ Name: _____

Tel: () _____ fax: () _____

Cell: _____ Email: _____

Please tick the course that you would like to attend:

Currently Unavailable a Date to be Advised
Live Virtual Classroom
R12 520.00 (excl VAT)

Currently Unavailable a Date to be Advised
CedarWoods of Sandton
R15 650.00 (excl VAT)

I have read and agreed to all the conditions of registration as stipulated in this brochure.

Signature

Date

For more info and to register contact Phindi Mbedzi on tel: 011 325 0686 or cell: 071 125 6188 and email: phindi@2kg.co.za or visit www.2kg.co.za