



2KG TRAINING

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## PIPING SYSTEMS

**Presenter:** John Tonkin

### ABOUT THE PRESENTER: John Tonkin



2025 sees John's 55<sup>th</sup> year in engineering. Initially he had exposure to plant maintenance (steam, water, pneumatics, ash handling, boilers, turbines and pumping systems) and marine steam plant. A number of years in the selling, commissioning and trouble shooting of pumping systems were followed by nine years in the designing and presenting of training courses which covered the technicalities and marketing of pump sets, pipes, valves, diesel engines and basic electrical systems for pumping plant.

An extended period followed in which John's career was focused on the marketing, selling and trouble shooting of pumping systems and submersible electric motors. Through his exposure to the international arena and the development and marketing of new products, John has gained a unique perspective of the fluid movement and control industry.

A firm believer in the benefits of high-quality training, John has been at the forefront of training initiatives throughout his career. He can now offer your company the knowledge and skills he has gained over the years, presented in an interactive and practical manner. His courses have drawn a multitude of positive comments, many of which allude to his professional presentation style and the practical examples he offers throughout the training session.

**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 Piping Systems 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.

### COURSE OBJECTIVES

Aimed at Engineers, Technicians and Senior Foremen, the course aims to equip delegates with the knowledge and skills necessary to:

- Select the most appropriate pipe specification and material for moderate duties.
- Match the selected pipe with the most appropriate fittings.
- Create a design which represents a cost effective solution to single pipeline systems for moderate duties.
- Design the most cost effective pipe work system for the conveyance of any type of fluid
- Design pipe work systems which have more than one outlet

- Define the causes of water hammer, calculate its transient values and offer appropriate actions which will reduce or eliminate its occurrence
- Define the procedures necessary to install, test and commission a piping system
- Suggest appropriate protective coatings for pipe work systems
- Calculate the life cycle cost for a pipe system

The course is structured around input from the course leader, assessment exercises and case studies drawn from field experiences. Delegates will be expected to bring calculators (preferably scientific), a ruler and a flexible curve to draw system head curves. Feedback for all the assessments is provided during the course so as to maximize the learning experience. The course concludes with a final assessment, with feedback given before delegates depart.

## MAIN TOPICS

- International and national Standards and Specifications
- Pipe manufacturing methods & materials
- Pipe fittings and their application
- Jointing systems
- Pipeline profiling and hydraulic gradient
- Pressure, static, friction and velocity head
- Calculating Total Dynamic Head
- System head curves and their practical application
- Introduction to cost-effective pipe sizing
- System head curves
- Pipeline profiling
- Behavior of liquids other than water
- Compound pipelines
- Designing suction and delivery pipe work systems
- Water hammer: Calculation and prevention
- Installation testing and commissioning of pipelines
- Coatings and other protection procedures
- Life cycle costing for pipe work systems
- Trouble shooting and remedial action

## 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 Chauke: Tel: 011 325 0686 Fax: 011 325 0488 Email: [phindi@2kg.co.za](mailto: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 7 working days before the date of the event, the full fee will be payable and the delegate can attend the next scheduled training course.
- 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:

#### Conventional Classroom

- 7 – 10 July 2025 (4 days)  
Johannesburg  
R14 750.00 (excl VAT)

#### Live Virtual Classroom

- Currently unavailable, a date to be advised (4 Days)  
R11 800.00 (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 Chauke on tel: 011 325 0686 or cell: 071 125 6188 and email: [phindi@2kg.co.za](mailto:phindi@2kg.co.za) or visit [www.2kg.co.za](http://www.2kg.co.za)