



# 2KG Training



Larry Bachus "The Pump Guy"

## A Practical Guide to Pump Operation & Maintenance

4 Days

R9 500 excl VAT

3 CPD points

### Take the mystery out of industrial pump applications

#### Learn why improper pump specification results in:

- Unnecessary capital costs
- Large long-term energy losses
- Reduced pump reliability
- Elevated maintenance costs
- Reduced operation time
- Poor hydraulic performance
- Discover the key elements necessary to avoid these negative effects.

Learn a troubleshooting approach that avoids **TRIAL AND ERROR**

### ABOUT THE PRESENTER

**Larry Bachus** has over 30 years experience working with industrial pumps. His areas of expertise include diagnosing pump problems and seal failures. Larry is highly regarded for his 'hands on' personalised consulting and actively pursues pump-upgrading projects all over the world. He has been instrumental in improving the operating time of industrial pumps at many major plants and industries.

Larry is known by thousands of industry professionals by his alter ego "**The Pump Guy**". Larry writes the popular Pump Guy column that appears in Energy Tech Magazine, World Pumps Magazine, and Flow Control Magazine and to some 40,000 monthly Internet subscribers.

Having functioned as an apprentice, mechanic, technician and design engineer, Larry relates easily with the engineers, artisans and equipment operators who attend his classes. Larry's relationship with the South African pump community started with his delivering the keynote address and one-day workshop at the International Pump User Conference in Johannesburg in 2005. Delegates from Sasol Synfuels, Engen and SAPREF were so impressed by his skill in sharing his comprehensive knowledge and experience in an easily digested way that they have requested that he return to South Africa to present his courses to their staff. Since then has delivered 24 weeks of courses, both in-house and general, during his visits to South Africa.

Larry has many years of experience in a number of major industries represented in South Africa; particularly petrochemical, pulp and paper, water and waste water, mining, and food and beverage.

### WHO CAN BENEFIT FROM THIS TRAINING COURSE?

Plant Engineers, Consulting Engineers, Maintenance Managers, Instrumentation Technicians, Pump Operators, Mechanical Foremen and Process Engineers.



**Find out how to:**

- Focus on the real problem
- Save wasted effort on unnecessary pump & motor repairs
- Quickly determine a pump's performance
- Differentiate pump problems from system problems
- Correlate pump reliability and hydraulic performance
- Visually assess bearing & seal service
- Predict time to probable component failure
- How to properly install and commission a pump
- Optimize mechanical seal service life
- Optimize bearing life
- Improve power train (motor, coupling, pump) efficiency
- Predict pump performance changes with variable speed motors

**Main Topics:**

- Basic pump Principles
- NPSH
- Cavitation
- Affinity Laws
- Work & Efficiency
- Pump Classification
- Pump Curves
- System Curves
- Shaft Deflection
- Pump – Motor Alignment
- Bearings
- Pump Packing
- Mechanical Seals
- Seal Failure Analysis
- Pump Piping

**NOTES:**

- The precise content may change on the day depending on the specific needs of the delegates
- All delegates will receive a copy of 'Centrifugal Pumps and Everything You Need to Know About Pumps' by Larry Bachus and Angel Custodio

**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](mailto:phindi@2kg.co.za). Or visit [www.2kg.co.za](http://www.2kg.co.za)**

**Registration Form**  
**A Practical Guide to Pump Operation & Maintenance**  
**Larry Bachus "The Pump Guy"**



**4 Days**  
**R9 500** excl VAT  
**3 CPD points**

**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.

**Conditions of entry:**

- 1) Cancellations are accepted in writing and without penalty, up to 7 working days prior to commencement of the seminar.
- 2) Cancellations in writing less than 7 working days prior to the seminar will be liable to pay 20% cancellation fee.
- 3) If prior written notification of cancellation is not received, defaulter will be liable to pay 50% cancellation fee.
- 4) 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): ..... VAT number: .....

..... Code: .....

Tel: ( )..... Fax: ( ).....

Cell: ..... Email: .....

**Contact / Accounts Information**

Title: ..... Surname: ..... Name: .....

Tel: ( )..... Fax: ( ).....

Cell: ..... Email: .....

**Dietary Requirements:**  Normal  Vegetarian  Halaal

Please tick the course that you would like to attend:

- 30 Jan-2 February 2012**  
**Secunda, Graceland**  **6-9 February 2012**  
**Cape Town, Cape Town**  **16-19 July 2012**  
**Joburg, Diaz on Surrey**  **23-26 July 2012**  
**Secunda, Graceland**

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](mailto:phindi@2kg.co.za). Or visit [www.2kg.co.za](http://www.2kg.co.za)**