

Pump Basics for Plant Operators

An on-site 3 hour seminar (or customised to suit your duration and content requirements)



KASA Redberg
Engineers & Technical Trainers

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Pump Basics for Plant Operators

Introduction

Pumps are found in all industries yet too little time is spent training those who use this type of equipment the most – the Plant Operator and the Maintenance Technician. The purpose of this seminar is to teach your Plant Operators and Maintenance Personnel the basics of successful pump operation, trouble-shooting and maintenance.

Our standard seminar is three hours in duration. However, a completely customised seminar can be presented depending on your specific needs for a duration of your choosing. We cover all the major types of centrifugal and positive displacement pumps. The presentation contains many photographs, drawings and schematics and is free of technical calculations. All material is presented in “layman’s terms”. For complete customisation, we can photograph equipment in your plant and incorporate it in to our presentation... the options are endless.

Who Should Attend?

This seminar is primarily designed for Plant Operators and Maintenance Technicians. However, there is no reason why Plant Engineers and Plant Managers shouldn’t attend to refresh their memory or learn something new about their own plant.

Seminar Objectives

At the completion of this seminar, each delegate should be able to:

- Identify common pump types and their components
- Understand pump, associated component, hydraulics and slurry terminology
- Be competent in reading and using pump performance curves
- Understand cavitation and how to prevent it from occurring
- Recognise the correct installation configuration for a particular pump type
- Operate and maintain common pump types
- Troubleshoot pump problems

Training Seminar Materials

All delegates receive:

- **Seminar Notes** – Detailed notes which comprise the text and graphics from the actual seminar as well as ancillary information for future reference.
- **Certificate of Attendance** – which states the number of hours of training and serves as documentary proof of attendance.

Scope of Work

The following items shall be provided by KASA Redberg:

- Provision of a three hour (nominal) training session as outlined.
- Hardcopy supply of seminar notes for each attendee.
- Certificate of Attendance for each attendee.

The following items shall be supplied by The Client:

- A minimum of one and a maximum of thirty attendees.
- A suitable meeting room complete with projection screen (or white painted wall).
- At least one large (i.e. 6’ x 4’) white-board.
- Any refreshments (if required).

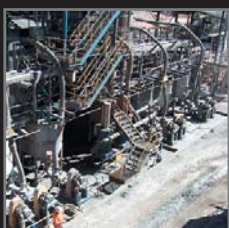
The date, place and time for the provision of this training seminar shall be by as mutually agreed between KASA Redberg and The Client. KASA Redberg require a minimum of 5 working days notice for organisation of the seminar.

Higher Level Training

“Pump Basics for Plant Operators” is a stand-alone training seminar. KASA Redberg also provides other pump and piping seminars designed for Engineers and Technicians. For example, “Pump Fundamentals” is the first in a series of three pump and hydraulics training seminars. It provides a practical introduction to the world of pumps and their applications. The two companion seminars to “Pump Fundamentals” deal with higher level pumping equipment and system issues.

Please contact KASA Redberg for more information on this series of seminars as well as others on offer.

Email: info@kasa.com.au





Typical Agenda

ITEM	TOPIC	TIME
1	BACKGROUND INFORMATION Common Pump Terms and Definitions Fluid properties (Viscosity, Temperature, Density etc) Pressure-Head Relationships Basic Theory of Friction Losses in Pipes Pump Classification	40 mins
2	CENTRIFUGAL PUMPS Principle of Operation Components, Types and Examples Introduction to Characteristic Curves Introduction to Viscosity Effects Cavitation – Reasons, Symptoms and Remedies	50 mins
	TEA BREAK	15 mins
3	POSITIVE DISPLACEMENT (PD) PUMPS Principle of Operation Comparison to Centrifugal Pumps Typical Characteristic Curves Brief outline of common PD Pumps – (Gear, Lobe, Progressive Cavity, Piston, Diaphragm, Peristaltic)	40 mins
4	MISCELLANEOUS Seals and Packing Operational Issues Common Pump Problems Routine Monitoring and Preventative Maintenance	20 mins
5	ASSESSMENT Multiple Choice Assessment	15 mins

Note: This agenda can be customised to include topics of your choosing (e.g. centrifugal slurry pumps, piston/diaphragm slurry pumps) and a duration of your choosing (e.g. 3 hours, 6 hours or 1 day).

About KASA Redberg

KASA Redberg is a technical training and engineering consulting group.

Our engineers have core competencies in pumping systems and fluid centric processes and equipment. Our portfolio of services includes:

- Tank and vessel design
- Pumping and piping systems design
- Chemicals plant design
- Water treatment plant design
- Project management
- On-site troubleshooting
- Plant cost analysis
- Feasibility studies
- Operator training seminars

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UNITED KINGDOM

Office Opening in March 2007



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