

ENERGY EFFICIENCY—PUMP AUDIT CALCULATORS

HOW MUCH ARE YOUR PUMPS COSTING YOU?

Over 20% of the world's energy is consumed by pumping equipment.

At typical 2009 UK industrial electricity prices a pump absorbing 15kw running 24 hours/day will cost approximately £11,400 in one year. (2009 tariff—medium size company).

This equates to over 70 tonnes of carbon/year using grid electricity.

Typically 90% of a pump's life costs will be energy

50% of all pumps supplied and already installed are either oversized or incorrectly applied leading to excessive energy consumption (British Pump Manufacturers Association)

WHY AREN'T SAVINGS BEING MADE ALREADY?

There is little awareness of how much a pump costs to run. Pumps are not regularly monitored for energy consumption.

If a pump is delivering liquid to a process, even if it is 50% too much, it is considered to be OK.

Production concerns outweigh pumping concerns – there is a reluctance to change anything that might affect output.

Contractors and buyers will consider least capital cost – not the most efficient or lowest life costs. They ignore the total life cycle cost.

Pump users concentrate on other, more obvious methods of energy

reduction — for example heat and lighting or insulation.

Energy Audits will save you running costs and are usually self financing with payback in a very short time.

They can also help with extending pump life by identifying incorrect operation and system problems.

Epump calculators give you the opportunity to realise considerable savings, some with minimal cost or interruption.

Following several requests, Epump calculators are now available for purchase

WHO WILL BE ABLE TO USE THIS ?

The calculators are Microsoft Office Excel format which is well known to most organisations and have a friendly, easy to use interface.

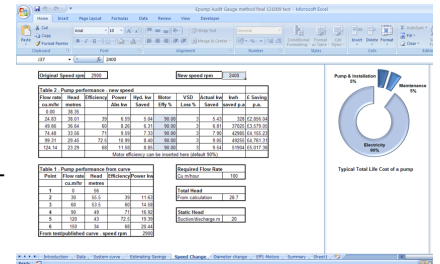
Unlike some programs available, they are designed with the novice and experienced pump professionals in mind.

The publication "A Simple Guide to Energy Saving Audits for Centrifugal Pumps" is provided.

Easy to understand, this helps the user with the principles of pump power conservation, gives guidance questions and instructions for the calculators.

The calculators are provided on a Quality leather cased 2 GB memory stick.

The guide is printed on quality 120gsm paper, bound in a Professional ring binder with dividers for each step of the audit process.



The Calculators

Epump Audit Gauge method

This provides an estimate of energy savings where there are pressure gauges fitted to the pumps. The readings are compared to the pump performance curve and proposed modifications are made.

Epump Audit System Calculation method

Where pressure gauges are not available, an estimate of pump generated head is made from physical measurements of the pipework system. For single diameter, single pipe systems only.

Epump Audit Variable Demand

Where demand for liquid is variable – for instance heating or cooling installations or water supply with several draw off points.

Epump System Curve and NPSH Calculator

Generates a system curve from pipework measurement and allows a quick calculation of Nett Positive Suction Head Available. This will confirm correct operation and help eliminate troublesome pump applications.

Epump Laminar Flow System Curve and NPSH

As above system curve calculator, but for laminar (streamlined) flow for more viscous applications.

Epump Life Cycle Costing - Simplified Version

A simple life cycle cost spreadsheet which will allow comparison of three pumps. Costs included are Initial capital cost, Installation, Maintenance, Energy and Decommissioning. An example is included in the workbook.

All spreadsheets are Microsoft Office Excel 2007 format and graphics may be different if using earlier versions of Office. They should be used in conjunction with "A Simple Guide to Energy Saving Audits for Centrifugal Pumps" which is supplied in Adobe Acrobat Reader (PDF) format.

Prices:

1) Complete Package - Printed and bound guide, 2GB leather sleeved memory stick containing all the above calculators and pdf of the guide

£125.00 + V.A.T.

2) As above but without the printed guide - memory stick only

£115.00 + V.A.T.

3) Complete package with printed guide and CD instead of memory stick

£115.00 + V.A.T.

4) Complete package but without printed guide - CD only

£105.00 + V.A.T.

5) Branding with your company logo replacing Epump Ltd. (on the calculators only - plain memory sticks can be provided)

£35.00 + V.A.T.

Full guarantee - if you are not convinced this will help to save energy, and days of work, return everything in as new condition within 10 days for full refund.

All calculators are in SI units and GB £'s for use in UK.



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