COUGAR
PUMPS

# PUMP COSTS

## 8 Tips to Reduce Pumping Costs

Your very own definitive guide on how to significantly reduce pump related costs…

# 1. Install energy saving device

10% of the worlds' electricity is used to turn pumps, and 50% of this is wasted!

Set pump performance to suit system & prevent energy wastage.


Installing a variable speed drive motor/ inverter to an existing pump system will allow you to vary the speed of the motor to suit your process requirement better.

This will consequently optimise energy usage, although only if currently applied.

Variable Speed Drive Sensors can react to the following factors:

- Pressure
- Temperature
- Tank levels

Selecting an efficient pump of the right style for the required duty prior to installation, will also ensure that your pump systems only use as much energy as necessary.

Getting advice from a pump specialist prior to purchasing is paramount. They will select the most appropriate product and will have access to technical data, ensuring the selected product is matched to your application.

85% of pump-life cycle cost is related to the daily operation of the pump

# 2. Have preventative maintenance in place

**Production downtime costs your business time, money and stress**

Avoid costly and major breakdowns, with routine checks on your system condition.

The key to good pump performance for the long-term is preventative maintenance.

This includes adjusting and tuning equipment, detecting and correcting minor problems before they become major ones.

Routine pump maintenance not only maximises a pump's lifespan, but it also saves money with increased pump availability, improved productivity and decreased repair costs.

1. Safety first : Isolate anything you are working on
2. Keep a maintenance log
3. Plan ahead to avoid emergency repairs
4. Keep a clean and tidy plantroom
5. Ensure the root cause of any problems are fixed and not the symptoms
6. Only use genuine OEM parts wherever possible
7. Commit to routine maintenance by outsourcing to pump professionals

# 3. Persistently log condition of pump population

Monitoring and logging pump condition, allows decisions and evaluations to be made effectively, ensuring the system is always operating at its most efficient condition

## Monitor and manage what is being spent


During a Cougar service, our engineers complete the same report for each pump. Back at our Head Office, the findings are logged and compared with previous service report(s).

The following factors are noted and compared to allow us to alert clients on their critical pump condition and life expectancy.

- Deterioration in motor
- Condition and insulation
- Increase in running amps
- Consideration towards noise levels and vibration
- Any leaks
- Safety checks
- Controls inspection
- Pipework and valve inspection
- Overview of the whole system

# 4. Cure all leaks

If a leak occurs, this generally means a failure of a component which could lead to the entire system failing, resulting in a costly repair…

Things that leak:

- Mechanical seals
- Valve Stems
- Pipe joints
- Perished flexible joints
- Case gaskets
- Corroded pumps or pipes

In short, anywhere a liquid can escape it will!

If you see any kind of leak from your system, it will only get worse unless you get it fixed!

Leaks are costly in terms of loss of product, allowing ingress of contaminants and possible escape of dangerous or corrosive fluids.

## A word of advice…

Walk your plant room or production area regularly.

If you see any kind of leak or liquid where they shouldn't be, stop it if you can safely do so, immediately.

And if not, isolate the leak until a permanent remedy can be effected.

With persistent or recurring leaks, get an expert in as there is something else going on.

Leaks can occur from the outset even during construction or initial manufacture/ assembly of fluid systems.

# 5. Remedy all bearing noise

Condition monitoring of bearings prevents a costly major failure.

Particle contamination and corrosion-related failures account for 52% of all bearing failures.

If a pump or its driver is making more noise than usual, it is likely that one or more bearings are worn. A squeaking or clicking sound coming from the bearing is a warning sign that they are wearing out and are in danger of breaking.

The second leading cause of pump breakdowns is bearing failures. Most bearings fail at an early age because of static overload, wear, corrosion, lubricant failure, contamination or overheating and lack of good maintenance.

The primary function of bearings is to keep the shaft or rotor in correct alignment with the stationary parts under the action of radial and transverse loads.

Bearing considerations:

- Oversized and poorly fitted shafts increase bearing pre-load, which consequently shortens the bearing life. Following manufacturers shaft and bearing specifications will avoid this
- If bearings need to be removed for inspection, handle them carefully, Clean them thoroughly When reinstalling bearings, follow the correct lubrication and installation methods
- Consider routine sampling of the lubricant
- Make sure filtration is changed regularly and never rely on filters alone to prevent contamination

# 6. Invest in rolling stock

A 24 hour repair comes at a premium. Having rolling stock means all repairs are at a standard rate.

When replacing a pump, always consider refurbishing the redundant unit.

Once repaired and put into your storage, it will then be available to cure any future vulnerability at a fraction of a major failure cost or process downtime cost.

All equipment requires maintenance or repair at some point. Being prepared reduces the chances of major production downtime.

# 7. Entertain alternative manufacturers

Sometimes, the pump type is wrong as you may be restricted by your supplier. Entertain alternatives that may be better suited.

**90% of all pumps today work inefficiently, due to being incorrectly sized, applied or installed.**

There are over 71 Pump Manufacturers in the UK alone, all specialising in pumps for different applications for different industries.

Moving abrasive substances, sewage and wastewater handling, surface cleaning and commercial heating to name a few.

Different manufacturers will specialise in different applications so will naturally suit your systems needs better than others.

It is important to understand what is required from your pump system:

- What duty do you need it to do?
- What electrical requirements do you have?
- Does the pump need to be a certain size to fit in the space available?

Speaking to an independent pump specialist company rather than the manufacturer directly, will ensure you get advice that isn't biased and will receive the best product to suit. Not what is just available from a catalogue

# 8. Convert service remedy proposals

Following a pump service, you need to take action. Problems do not go away!

After a service visit, if you are offered a recommendation for remedial work, we encourage you to take action on the advice as a preventative measure.

This will reduce the likelihood of equipment breaking down and costs spiralling.

All remedial work is recommended as a solution to stop your pump from failing prior to the next service.

Maintenance to a pump system is critical for longevity and reliability

# GET

Implementing just ONE of these could save you a small fortune

# SAVING

Be sure to consult with a pump specialist before adjusting elements of your pump system.

# About Cougar

Supplying pumping solutions that meet some of the most demanding, rigorous and extreme jobs on the planet!

**From pump supply, fully specified solutions** and exports, through to repairs and installations, you can always rely on Cougar Pumps.

With decades of experience, we know a thing or two about  pumps!

www.cougar-global.com  Call us on + 44 (0) 1442 860000