



MAZIAK

COMPRESSED AIR NEWS

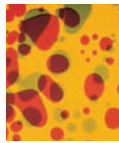
www.maziak.co.uk

Newsletter, Issue 2
MAZIAK COMPRESSOR SERVICES LTD

Top Energy Savings Tips

- Over a 10 year period the total cost of a compressor can be split: 15% Capital Cost, 10% Maintenance Cost, 75% Energy Cost.
- Check pressure drops across filters and replace promptly when the differential becomes excessive.
- Remove or valve off permanently unused pipework.
- Use waste heat from compressors for space or water heating.
- Use Maziaks' datalog service to evaluate the sizing and efficiency of your equipment.
- Ensure compressor air inlets are free from obstruction and allow full air flow. Every 25mbar lost reduces efficiency by 2%.

Oil Contaminated Air Compressor Condensate Solution



All oil lubricated air compressor systems will eject oil contaminated condensate from automatic drains, dryers and filters.

Disposing of the oil contaminated compressed air condensate onto the watercourse or drainage systems is illegal without prior consent and could leave you open to substantial fines. It is also undesirable for the discharges to be piped into foul drains without prior treatment, even if an underground interceptor or effluent treatment plant is in use on the site.

A simple, reliable and cost effective, yet advanced oil contaminated compressed air condensate solution, that Maziaks can supply and fit for you is one of the Sepura range of condensate cleaners.

There is a range of models to suit all sizes of compressor plant installation.

The Sepura design benefits the user over other manufacturers of similar gravity feed separators by having very efficient multi-stage oil removal and no standing water. The running costs for these units are very reasonable and they come with a lifetime guarantee, when correctly sized and installed.



A simple survey of your system by Maziaks could be the answer to your condensate disposal problem.

Improve Food Quality and Extend Shelf-life with Modified Atmosphere Packaging



Maziaks have supplied and installed an increasing number of Modified Atmosphere Packaging (MAP) systems, also known as 'gas flushing'. This process has numerous benefits for those involved in the food packaging industry. The products are of a

higher quality due to the preservation of flavour, aroma, texture and nutritional value, which can in turn lead to increased sales. Also, the shelf-life of products is extended, by weeks and even months, opening up new sales opportunities further afield.

This is a simple process of flushing packaged foods with inert high purity nitrogen in order to reduce the oxygen level below 1%. Aerobic decay and deterioration caused by oxidation slows down and results in fresher food both in terms of taste and appearance. The use of nitrogen as a filler gas also provides a pressurised atmosphere that prevents packages from collapsing, and gives a smoother result than vacuum packaging. Nitrogen flushing is not new to the food industry but the widespread use of mini storage tanks to supply the nitrogen

has been inefficient and expensive. This is due to the need for (and cost of) refills and the possibility of production downtime if the refills are late arriving. There are also safety risks associated with the need to manhandle and store the gas cylinders, plus UK suppliers of liquid nitrogen are extremely limited.

In many cases our installations have involved replacing other nitrogen sources with a generator such as MAXIGAS from Parker donnick hunter. Once installed, this is a cost effective alternative, with excellent pay back, delivering on-demand food grade nitrogen with purity of up to 99.999%.

If you would like to know more about how MAP could enhance your operation, call us on 01933 222000.

Adding Value to a Routine Service by Providing a Long Term Solution

Potter & Moore produce fragrances for both the retail and industrial markets. They are the oldest fragrance producers in England, tracing their Company history back to 1749.



Compressed air for their Peterborough production facility passed through a refrigerant dryer and filtration system before entering the production area, to ensure a constant supply of dry, clean compressed air. For a number of years this had been supplied by three AS35 Compressors – two duty units and one standby unit.

During a routine service visit, Maziaks found that one of the AS35 compressors was in need of a major repair, which meant

that the site had immediately lost its standby capacity. Given the age of the compressed air system and cost of the proposed repair, Maziaks were asked to look for a longer term solution.

As a starting point, Maziaks offered a Seven Day Datalog survey of the system to ascertain exactly how much air was being used, together with how much energy was being consumed to produce it. With these figures we could then calculate a monetary cost based on the Kilowatt/Hour rate paid by Potter & Moore.

The survey also highlighted the fact that both duty unit compressors were running nearly 40% of the time unloaded, making the system very inefficient in terms of wasted energy usage.

Maziaks recommended replacing the AS35 in need of repair, with a 37kW compressor. This unit is sized to run the complete site and with in-built Variable Speed Drive functionality, air capacity is accurately matched to system demand. This means that the compressor will either be producing air or it will be switched off without any costly offload running.

"The variable drive system has proved to be extremely effective. It has provided electrical cost savings of over £2,000 within the first three months from installation, which is essential in the current climate." **Steve Williams, Operations Director**

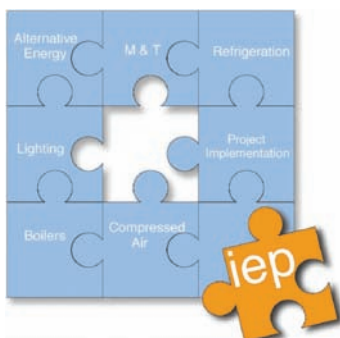
For Potter & Moore, this translates into an estimated energy saving of over £5,000 per annum and qualified for funding via The Carbon Trust, in the shape of an Interest Free Energy Efficiency Loan, which is a cost effective way to replace or upgrade existing equipment and systems (see our website).



The new compressor was installed in June 2008 and now runs the whole system, with two of the original units reverting to standby duty only.

Cross-Industry, Cross-Functional Energy Specialist Could Help You SAVE Energy and Money

Two years ago, Maziaks helped launch Integrated Energy Partnership Ltd (IEP), a group of industry specialists, whose combined expertise provides innovative, energy-saving solutions for our customers. IEP offers a comprehensive service to help companies across all industry sectors, save ENERGY and MONEY by reducing the consumption of utilities such as electricity, gas, compressed air, refrigeration, steam and hot water.



INTEGRATED ENERGY PARTNERSHIP LIMITED

As a partnership, we recognise that not all organisations have sufficient need to employ a dedicated energy management team and that they may simply require occasional extra resources. With IEP's experience in Utilities and Energy Management for major manufacturers, coupled with our Engineering and Process Management experience, collectively we are able to offer a service that is based on a sound understanding of customers' needs.

How could this partnership help you?

- Services include energy auditing, project management, project implementation, training, procurement, metering services, alternative energy and continuing client support.
- Flexible approach to energy conservation and understand the need to take into account how your business operates.
- IEP takes responsibility for reducing your energy, allowing you to concentrate on your core business.
- Delivers maximum benefit by incorporating all utilities into the term "energy".
- Strategy developed to ensure all opportunities for saving energy are achievable, costed, and tested prior to implementation.

Working with IEP, one company has recently achieved savings of approximately £1.1 million, with a payback of just over a year. If you think IEP could help you, please call 01933 221000.



Confidence in Our Health and Safety Credentials

We place enormous emphasis on health and safety in the workplace and recognise that these are 'must have' skills in order to meet our own and our customers' standards. We are always looking for ways to improve our health and safety credentials and to stay abreast of any legal requirements relating to the work we do. The following are just some examples of formal accreditation within Maziaks:

- The **Safety Pass Alliance** (SPA) provides a nationally recognised standard of health and safety training and assurance which caters for each industry sector. All of our engineers have undergone refresher training this year and have standard SPA passports plus the 'Food and Drink' module.
- **Construction Skills Certificate Scheme** (CSCS) was set up to help the construction industry to improve quality and reduce accidents. CSCS cards are increasingly demanded as proof of occupational competence by customers. The compressed air module was only recently added and Maziaks was one of the first companies to sign up to this. All of our engineers are qualified.
- **Engineering Services SKILLcard** registers the skills and competence of people working throughout the mechanical services sector of the building services engineering industry. All of our engineers are qualified.
- **SAFEcontractor** is an accreditation scheme that assesses the health and safety competency and audit trail of contractors and service providers. Maziaks are accredited and are currently waiting for their updated certificate.



A number of our staff are also trained in the following:

City and Guild 2381 – electrical	IPAF MEWP	First Aiders
City and Guild 2078 – gas handling	Fire Officers	

Cost Effective and Compliant

In the current climate of energy savings, cost efficiency and carbon footprint, it is hard for food companies to maintain and reduce their costs while conforming to ever increasing food quality legislation.

Nampak Plastics Europe, one of Europe's largest manufacturers of rigid plastic containers for the food and drink industry have been making improvements to their compressed air efficiency and quality over the past 3 years. In partnership with Maziaks they have managed not only to increase their air efficiency but have also improved their air quality to back up their Hazard Analysis and Critical Control Points (HACCP) criteria*.



As a starting point, Maziaks removed old fixed speed compressors and replaced them with state of the art hybrid drive variable speed units. These machines are the most productive within their class, offering 96%

efficiency throughout their speed and delivery range. This is not available with oil free air compressors which are the industry standard.

This choice of a high efficiency oil flooded compressor was possible due to the installation of the X-Tend® Food Grade Coolant System. This coolant is designed to meet all food industry requirements for oil flooded compressors. This replaced the normal hazardous standard mineral oil coolant with the X-Tend® alternative.

Finally, we addressed the absolute requirement for clean air. Despite filtration and dryers, air quality is only as good as at the point at which it leaves the final filter. Compressed air picks up contaminants as it passes throughout the pipe work system, so by the time it gets to point of use, the purity has decreased dramatically. We embarked on the installation of point of use filtration on every production

machine. This would normally be associated with the inside of a compressor house rather than at the end of the line. The result is clean and particle-free compressed air at point of use. This has been validated through monthly air testing which is included in Nampak's service contract.

"Maziak's state of the art system has delivered significant energy savings. It has also greatly improved air quality, delivery and stable output, ensuring we continue to achieve compliance with our stringent industry regulations."

Tony Oyakhire, Engineering Manager

These changes have not only delivered significant cost savings to Nampak, but they have also given peace of mind that the process, start to finish, is as clean as possible and in no way harmful to their customers' product.

* HACCP is used in the food industry to identify potential food safety hazards. The system is used at all stages of food production and preparation processes including packaging, distribution, etc.



Independently Managed Customer Feedback

"The Trusted Trader scheme is the latest step in the British Compressed Air Society's commitment to promoting high standards in the industry:

- **2006:** BCAS launched a new Code of Practice, clarifying the standards that BCAS members engaged in Sales and Service must meet.

"Always on the ball. Never been let down."

- **2007:** BCAS worked with Referenceline and a pilot group of BCAS members,

including Maziaks, to develop a system of customer feedback to be used by engineers. The results of this survey are available online at www.referenceline.com showing that **90% of customers recommend these BCAS members.**

- **2008:** The Trusted Trader scheme was formally launched in April at the NEC and with effect from June, all members were encouraged to take part in an annual survey of 100 customers.
- **2009:** With effect from June 2009, this annual survey will be mandatory, giving BCAS the opportunity to monitor

members' compliance with the Code." (Source www.referenceline.com)

"Pleased with the response and aptitude of the engineer."

Maziaks has participated in this scheme from the very beginning at pilot stage and has continued to request feedback from customers via the Referenceline questionnaires. We see this as a way for us to continuously improve the service we offer to our customers and **are delighted to have achieved 95% customer recommendation, 5% above the industry average.**

Air Losses Increase Operating Costs

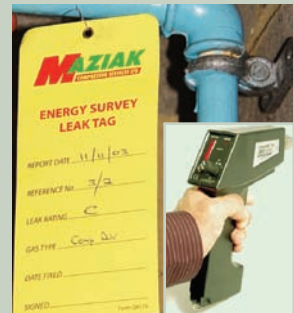
- **Compressed air can represent up to 15% of energy costs and a 1mm leak costs between £250 and £900 a year.***
- **On average 25-30% of the compressed air will be lost through leaks in your distribution system.**

You can help reduce air consumption by reducing the biggest air leaks on your supply lines and production machines, resulting in major costs savings and reduction in CO₂ emissions. We can carry out surveys to identify these leaks very easily during normal working hours without interrupting production time.

Using state of the art Ultrasonic leak detection equipment we can find air leaks from the audible to the inaudible. Every leak we detect is tagged with a highly visible coloured secure label and given a unique reference number. This is then recorded and graded for priority.

At the completion of the survey a report is compiled that estimates total site leakage losses, energy cost of leaks, identification of priority leaks to fix, estimated cost of repairs and bill of materials to fix leaks.

Once leaks are fixed, we recommend the survey be done again to review successes and find any outstanding leaks until the situation is under control. Many larger sites have been able to switch off compressors by fixing leaks in this way.



* Source legris transair case study – ADEME (French environmental and energy management agency)

Maziaks are offering the first five callers a free one-day leak survey. Please quote ref. Mazleaksurvey when calling 01933 222000.



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Awards News

Chris Lyles, Sales Director of Maziaks, was delighted to receive the **2008 Parker domnick hunter (Pdh) N2 award** from Tony Brown, Pdh's Area Sales Manager, in recognition of the work Maziaks completed at Rohm and Haas (UK) Ltd and Plastic Logic, in conjunction with Pdh.

