

Energy Savings Sheet: Compressed Air

2EA have produced this sheet to identify areas of potential energy savings. It consists of notes and checkpoints that can be used by managers to help reduce overall energy consumption.

Notes

- Compressed air should only be used where necessary. Frequently it is used because it's convenient, rather than there being no alternative. Compressed air should not be misused, for example for cleaning or cooling.
- Up to 30% savings are possible by some simple good housekeeping measures, often achievable at no or low cost.
- Compressors are frequently left running when not required – even when idling some compressors draw up to 60% of their full load power.
- The typical level of leaks on a site is 40%, yet they are often ignored as a source of waste.
- Poor maintenance is one of the largest causes of poor system performance and wasted energy.
- Producing compressed air at a pressure greater than required, or filtered and dried to unnecessarily high levels, is wasteful. Higher pressure means greater losses through leaks and higher power requirement for the same delivered air volume.

Checkpoints

Check for connectors, flanges and flexible hoses

- ✓ Listen for leaks during quiet periods.

Are there more units running than necessary?

- ✓ If the compressors have hours-run meters, read them at intervals through the day.
- ✓ Compare on-load hours against total run hours for idle running.
- ✓ Reduce unnecessary running by using or installing controls.

Are air inlets to compressors taken from the coldest source?

- ✓ This is usually outside. Reducing air inlet take by 6°C increases output by 2%.

Is your equipment properly maintained?

- ✓ Equipment such as filters should be changed regularly.

Are you using compressed air unnecessarily?

- ✓ Use low-pressure blowers for applications such as air knives, air lances, air agitation, blowguns etc.
- ✓ Never use compressed air for cleaning workbenches and floors.

Have you fitted zone-isolation valves?

- ✓ These can be under time control, or interlocked to the packing/production line (served), to enable parts of the site to operate out of hours without air going through the whole works.



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