

## Tips worth consideration:

### Economiser

Feedwater is the boiler's lifeblood and provides an excellent heat sink for flue gas. Today's economisers are pretty straightforward affairs which can be retrofitted with ease and get on well with almost every type of fuel and boiler.

However, the right design is important in order to adjust temperatures of different media and avoid (unwanted) condensation.

Preheat Feedwater (steam boiler), increase return temperature (hot water boiler), and reduce flue gas temperature.



### Air preheater

A simple economiser can be pretty useless if the boiler is fed with high pressure condensate or heats thermal oil instead of water.

This is a perfect opportunity for an air to air heat exchanger. These devices extract residual energy out of the stack and pump it into the air used for combustion.

This technology is not that much more complicated than an economiser, but has the same energy saving effect, reducing energy costs by well over **5 %**.

### Condensing technology

If you cool flue gas even further, downstream of the economiser, you get condensation. This is what should happen, if you want to make use of latent heat and enter the realms of exploiting condensing technology. Just like domestic appliances, industrial plant has exceptional savings potential. Even just **50 %** condensation of flue gas means a **5.5 %** energy saving which often pays for itself within a year.

*Potential savings of **3 – 15%***

**Next month** we'll be tackling the issue of surface losses and sharing with you more energy and cost saving strategies. Keep your eyes skinned for our email that will tell you when next month's content is available.

