

Oxysteam – Exhaust Steam Savings

Steam Generation - saving up to 95% on steam losses

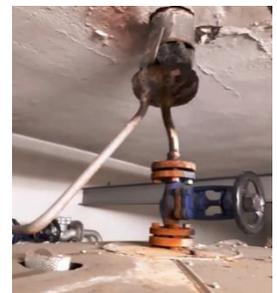
The blow off of exhaust steam vapor in the degassing process causes a continuous steam loss of 0.2-0.5%. For more than 50 year there has been no good solution in place. The OxySteam Regulation System from Centec monitors and controls the steam exhaust by an Oxygen sensor connected to an automated shut-off valve:

- **savings up to 95% of steam loss**
- **easy installation**
- **ROI less than 1 year for 10ton+ boilers**



The Problem in Steam Generation

To generate steam, water is heated in a steam boiler. Oxygen contained in the water can lead to dangerous corrosion. The steam generator feed water has to be degassed, usually by thermal boiling. The oxygen dissolves in the steam vapours and is continuously blown off via a valve as so-called "Fegeedampf" (exhaust vapor) into the free environment and causes a loss of steam of 0.2 to 0.5 % of the boiler steam output.



The OXYTRANS Solution in the Steam - Water Degassing Process

With OXYTRANS TR, the degassed O2 content in the vapour phase can be measured in the dome head space of the steam boiler, which is related to the O2 content in the liquid water according to Henry`s law. Within this new measurement process a valve for venting the vapour flow can be precisely controlled. The remaining opening time of the valve is a measure of the steam savings. Steam losses can be reduced by up to 95%.



Return on Investment ROI in less than 1 year

Parameters:

Boiler with 10t/h, assumed steam loss 0.3%, 8760 h/year (365d x24h), ton of steam in Germany 40 €	
Calculated steam loss (0.3%)	263 tons
Saved steam loss with Oxytrans TR	250 tons
Annual savings (steam x cost/ton)	10.000 €
Investment (Sensor, Shut Off valve, Install.)	8.000 - 10.000 €

ROI: less than 1 year (much less time for 20t, 30t, 40t steam generator)

3 months free testing with sensor return option

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