



**Industry: Pulp & Paper**  
**Production-integrated  
environmental protection**

**Waldkirch, Tour Stop No 17 2010 - The simplicity of the measurement solution as well as the economic and time-saving advantages for the user are in the focus of the emission measurement for the production of pulp and paper.**

**Challenge: Process engineering and control**

Worldwide, each year vast amounts of paper (approx. 400 million tons) are consumed which certainly have to be produced first. The pulp and paper industry naturally takes care of sustainability and environmentally friendly production techniques, namely the efficient use of resources and energy and the avoidance and reduction of waste and emissions.

Emissions have continuously to be measured and controlled – at the recovery boiler, the lime kiln, at the combustors for non-condensing gases (NCG) and at the bio fuel boiler. The exact recording of gas and dust emissions is complex. That is the reason why the pulp and paper industry is always looking for modern measurement systems which offer precise results and are easily to be operated, to be maintained and affordable at the same time. SICK offers a large solution portfolio for these requirements.

**Solution: Gas, dust, flow and TOC: bundled solution concepts from SICK**

With its sampling, gas-conditioning and automatic adjustment procedures, the measurement concept MKAS is specially designed for the measurement of gas emissions. The analyzer modules are optimally chosen for the special measurement tasks – the stable zero point and the automatic change of ranges allow a low maintenance operation. The gas calibration is only necessary every 6 months.



DUSTHUNTER SP100 measures dust precisely according to the scattered light principle with tested measurement ranges of 5 to 200 mg/m<sup>3</sup>. The measurement device tests itself automatically: contamination control, function control, zero/reference point control every 8 hours. With in-situ monitors even less maintenance can be realized.

The ultrasonic gas flow measurement device FLOWSIC100 allows the legally prescribed recording of mass emissions of the monitored pollutants. The paper industry has a very intense water consumption. The observation of limits for harmful substances in the industrial water released into the environment is monitored in a precise and low maintenance way by TOCOR700 and its TOC measurement.

**SICK emission measurement systems give you a good feeling of safety**

- Experience in the emission measurement technique for decades
- Measurement devices with high availability, low maintenance requirements and easy handling
- Comprehensive service from conception over installation and commissioning to operation
- SICK is one of the leading producers of sensors in the factory, logistics and process automation