



PULP & PAPER

EMISSIONS MONITORING AND HOTSPOT DETECTION

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AMETEK, INC. IS A LEADING GLOBAL MANUFACTURER OF ELECTRONIC INSTRUMENTS AND ELECTROMECHANICAL DEVICES, WITH ANNUAL SALES OF APPROXIMATELY \$4 BILLION.

AMETEK HAS MORE THAN 15,000 COLLEAGUES AT MORE THAN 150 MANUFACTURING LOCATIONS AROUND THE WORLD. THESE OPERATIONS ARE SUPPORTED BY MORE THAN 100 SALES AND SERVICE LOCATIONS ACROSS THE UNITED STATES AND IN 30 OTHER COUNTRIES AROUND THE WORLD.

LAND
AMETEK

AMETEK Land has been manufacturing precision measuring equipment since 1947.

We are specialists in non-contact temperature measurement and combustion monitoring, with applications across such diverse industries as steel, glass-making, power generation and cement manufacture.

Our success rests on award-winning technologies that push the limits demanded by the ever increasing technical demands of global industry. Aligned with our expert knowledge, we meet the challenges of a wide range of applications, delivering process safety, process control, and product quality our customers depend on.

AMETEK[®]
PROCESS INSTRUMENTS

AMETEK Process Instruments is a worldwide manufacturer of process analysers and instrumentation. We focus our experience on designing new, innovative analysers that help our customers achieve the highest levels of productivity and quality.

Through this focus, we have created some of the most capable technologies in the world. Our primary emphasis in analyser design is reliability. We understand that you must have complete confidence that the analyser will provide the information you need, when you need it.

Pulp and paper are manufactured from cellulose fibres which usually come from chipped wood, recycled paper or agricultural products.

The production of pulp and paper is usually carried out by the kraft process, involving a lime kiln, recovery boiler and power boiler, all of which generate emissions. These emissions must be monitored to control combustion and pollution, and for safety purposes.

Temperature measurements also play a vital part during the later stages of paper production. Super calender rolls are used to ensure a uniform surface finish for fine papers, but a single hotspot can cause expensive damage to equipment and product if it remains undetected.

In addition, when producing tissue paper, the Yankee dryer requires the product temperature to be monitored for quality control.

AMETEK Process & Analytical Instruments offers a comprehensive range of detection options for key stages of the pulp and paper manufacturing process. Our specialised advanced solutions monitor flue gases to prevent harmful emissions and ensure efficient combustion.

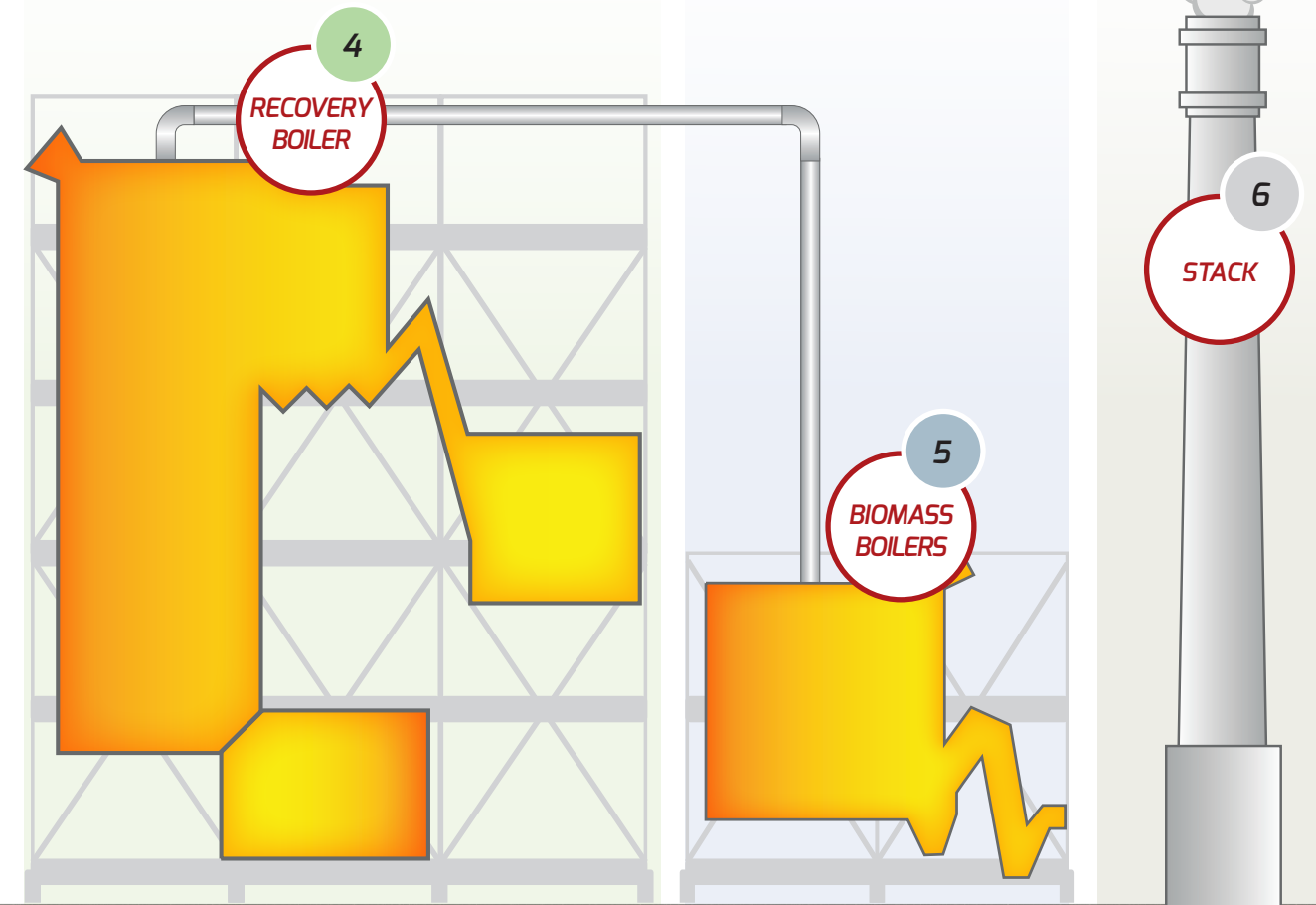
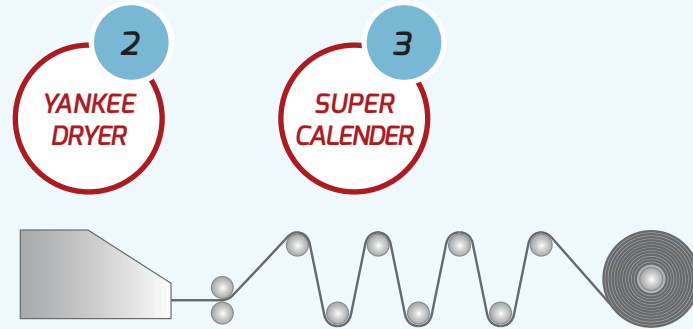
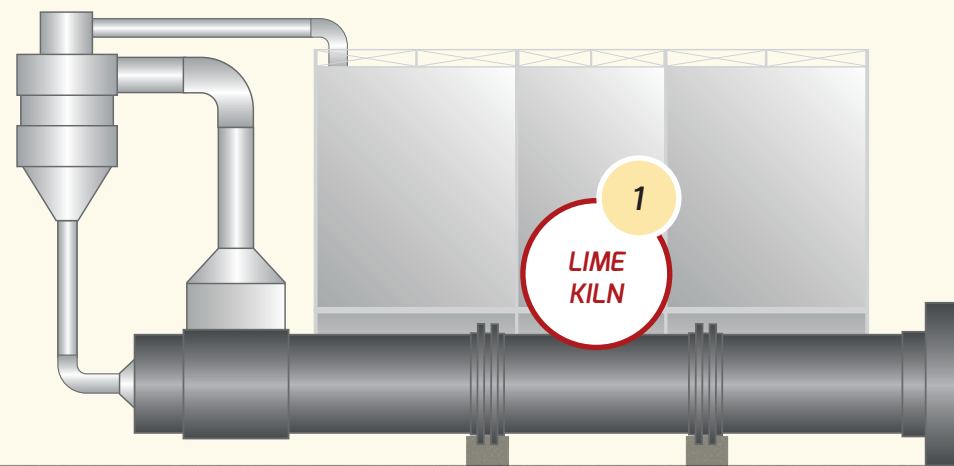
We also provide high-resolution non-contact scanning devices for accurate temperature monitoring and reliable detection of hotspots.

HotSpotIR

DETECT EMERGING HOTSPOTS WITH HIGH-SPEED SCANNING THAT IS EASY TO INSTALL AND MAINTAIN AND CONNECTS TO RAPID-RESPONSE ALARM SYSTEMS.

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LOCATION	APPLICATION	MEASUREMENT	SOLUTION	
			Paper	Pulp
1	Lime kiln	Flue gas oxygen, combustibles and hydrocarbon		WDG-1200/1210
				WDG-HPIIC
				WDG-VC w/ Blowback
				WDG-VCM w/Blowback
2	Yankee dryer	Product temperature	LSP-HD 7	
3	Super calender	Hotspot detection	HotSpotIR	
4	Recovery boiler			WDG-HPIIC
				WDG-VC w/ Blowback

LOCATION	APPLICATION	MEASUREMENT	SOLUTION	
			Paper	Pulp
5	Biomass boiler (hog fuel)	Control		WDG-HPIIC
		Combustion safety monitoring		WDG-VCM w/Blowback
6	Stack	Emissions monitoring	4500 MkIII	
			4200+	
		CO monitoring	Model 9100	
		Oxygen (CEM)	WDG-VRM	
		Flue gas moisture	CEM/O2 HUMOX	

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AMETEK LAND NON-CONTACT TEMPERATURE MEASUREMENT

LSP-HD

Compact infrared linescanner, designed to produce advanced thermal imaging in moving processes and Yankee dryer drums.



LINESCANNING

HotSpotIR

Continuous infrared thermal line scanning detects small, hot spots on a calender roll cover. High speed alarms prevent these from developing into blisters.



LINESCANNING



AMETEK LAND

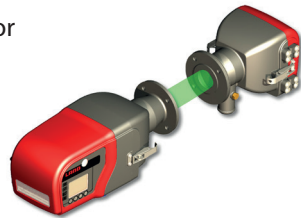
We are specialists in non-contact temperature measurement and combustion monitoring with applications across diverse industries such as steel and glassmaking, electricity generation and cement manufacture.

As part of AMETEK Process & Analytical Instruments Division since 2006, our customers benefit from the worldwide AMETEK sales and service team.

AMETEK LAND COMBUSTION AND EMISSIONS MONITORING

4500 MKIII

Industry-leading opacity monitor for PS-1 and ASTM D6216 compliance measurements. Installed on the stack or ducts leading to the stack.



COMBUSTION & EMISSION MONITORING

4200+

Accurate, stable opacity monitor for non-compliance applications. Designed for measuring dust concentrations in stack gas emissions.



COMBUSTION & EMISSION MONITORING

WDG 1200/1210

In situ oxygen probe for combustion optimization, featuring integrated control and display electronics. Mounted on the stack or downstream of particulate control equipment.



COMBUSTION & EMISSION MONITORING

MODEL 9100

Cross-stack, in-situ carbon monoxide monitor for direct continuous measurement, to provide efficient combustion control of any boiler system.



COMBUSTION & EMISSION MONITORING



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AMETEK PROCESS INSTRUMENTS ANALYSERS

WDG-HPIIC

A direct-mounted combustion analyser providing a continuous measurement of combustibles in applications with high particulate levels in the gas stream.



COMBUSTION & EMISSION MONITORING

WDG-VC w/blowback

Fully field-serviceable oxygen and combustibles analyser with a close-coupled extractive design for a fast response in a wide range of flue gas applications.



COMBUSTION & EMISSION MONITORING

WDG-VRM

Rack-mounted oxygen analyser that can be used alone or an integrated part of a continuous emissions monitoring system.



COMBUSTION & EMISSION MONITORING

WDG-VCM w/blowback

Adds methane detection to the WDG-VC to ensure a gas fired boiler has been purged before initial light off.



COMBUSTION & EMISSION MONITORING

CEM/O₂ HUMOX

Designed to measure net oxygen and moisture content in flue gas and process applications, to correct emissions, ensure product quality or minimise stack corrosion.



COMBUSTION & EMISSION MONITORING

SERVICES

Our in-house service centres provide after-sales services to ensure you get the best performance from your system. This includes technical support, certification, calibration, commissioning, repairs, servicing, preventative maintenance and training. Our highly trained technicians can also attend your site to cover planned maintenance schedules and repair emergency breakdowns.

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DISCOVER HOW OUR BROAD
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FOR YOUR PROCESS

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