

Where, Why, What, and How to Analyze

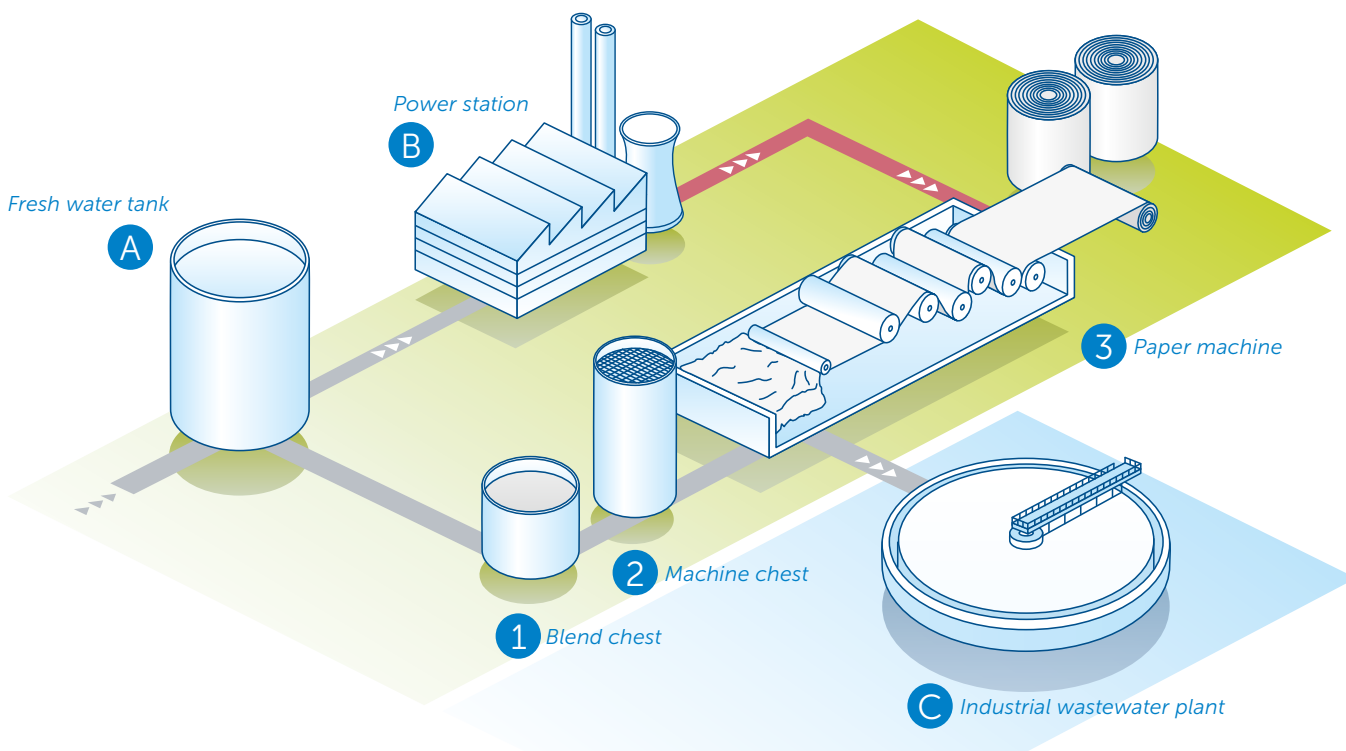
You need to be sure:

- That your products comply to your high-quality standards
- That your production runs efficiently without unplanned interruptions
- That you do not suffer unnecessary product loss
- That your wastewater complies to regulatory requirements.

This means that the analytics processes and products you rely on to make informed decisions must be accurate, reliable, and informative all the time.

The Hach® analytics portfolio is designed to give you confidence. From a simple, dedicated meter to on-line measurement or wastewater treatment optimization, our solutions are based on years of innovation and a desire to provide the simplest way to results you can trust. Our products, application support, and local service help you achieve:

- Maximized uptime of equipment and production
- Consistent, high-quality finished products
- Analytics solutions that give a real return on your investment.



Where	Why	What*	How
A Water conditioning and treatment	Process efficiency, control biocide dosing and cost	Chlorine total, free	▶ ●
	Quality control, simple check on incoming water quality	Conductivity	▶ ●
	Production performance, check impact on pre-treatment costs or potential for in-plant scale/deposits	Hardness	▶ ●
	Plant life/efficiency, check potential for in-plant corrosion	pH value	▶ ●
	Production performance, check potential for non-ionic inorganics to cause deposits	TOC	▶ ●
	Quality control, check effectiveness of filtration and microbiological quality	Turbidity	▶ ●

▶ Lab analysis ● On-line analysis

Where	Why	What*	How		
B Steam / power generation	Monitoring avoids overdosing of oxygen scavengers	Hydrazine	▶ ●		
	Plant life/efficiency, control oxygen scavenger dosing that reduces corrosion	Oxygen	▶ ●		
	Plant life/efficiency, control phosphate addition that reduces corrosion and deposits	Phosphate	▶ ●		
	Silica precipitates damage to turbines and tubes	Silica	▶ ●		
	Plant life/efficiency, an indicator of efficiency loss in ion exchangers or membrane systems used for pre-treatment	Sodium	●		
C Biological wastewater treatment	Regulatory compliance, monitor and optimize treatment process performance, and ensure compliance with legal limit values	Conductivity	▶ ●		
		Flow	●		
		Nutrients	▶ ●		
		Oxygen	▶ ●		
		pH value	▶ ●		
		Sludge level	●		
		Solids	▶ ●		
		TOC	▶ ●		
1 Blend chest 2 Machine chest	Quality control, to ensure optimum concentration of additives and fillers to meet quality requirements regarding strength, whiteness, opacity, resistance to grease, and yellowing	Oxygen	▶ ●		
		Starch	▶		
		Sulfate	▶		
		COD / TOC	▶ ●		
		Conductivity	▶ ●		
	Production performance, prevent the screen from plugging	Solids	▶ ●		
		Plant life/efficiency, monitor white water quality to improve flocculation and reduce production costs	pH value	▶ ●	
		Regulatory compliance, monitor concentration of organic halogenides in discharged water	AOX	▶	
		3 Paper machine	Quality control to ensure products comply to specifications	Gloss	▶

▶ Lab analysis ● On-line analysis

* For additional parameters and solutions please contact your local Hach representative, or visit our website.



Benchtop and portable instruments for lab analysis
Inspection, maintenance, and equipment qualification services available

Controllers and sensors for on-line analysis and cost-saving process optimization

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