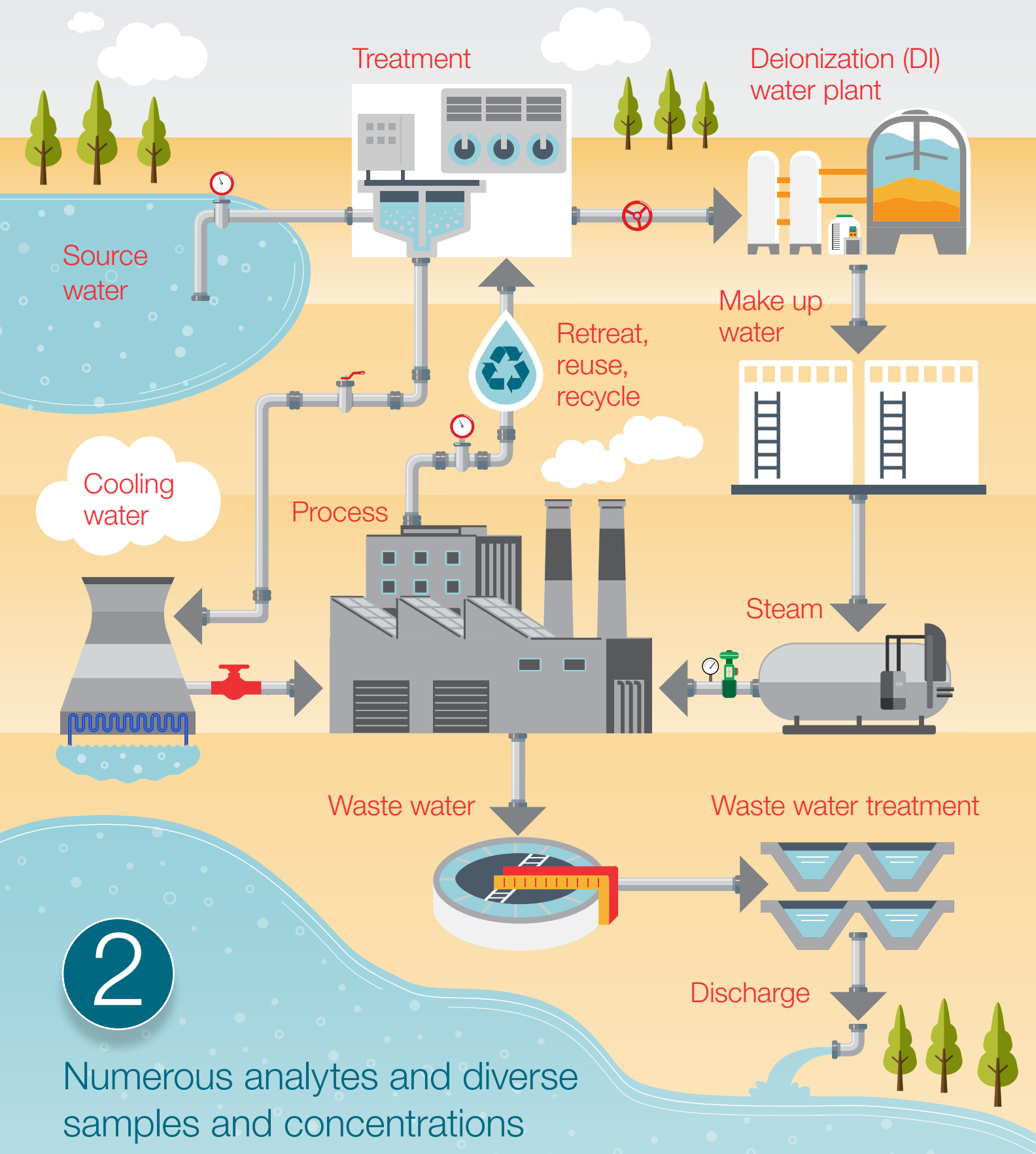
thermo scientific

A solution to the top three analytical challenges in industrial water and waste water processing

To eliminate **corrosion** and **scaling** that can damage valuable industrial components and to ensure **regulatory compliance**, you must perform reliable water analysis.

1 Process complexity

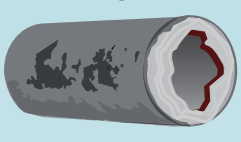
Maintaining a sustainable water program is essential for all major water consuming industries. Routine water testing and monitoring—from source water to waste water discharge—is critical for safe and profitable operation.



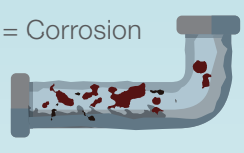
2 Numerous analytes and diverse samples and concentrations

Daily testing of multiple analytes from diverse water samples and varying concentrations is critical to maintain production performance, but it puts a heavy burden on your lab resources.

= Scaling

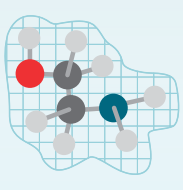


= Corrosion

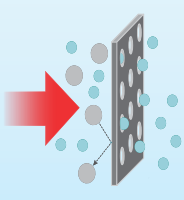


= Regulatory compliance

= Corrosion inhibitors



= Resin/Reverse Osmosis (RO) membrane break through indicators



Parameters	Why	Where
pH Conductivity Alkalinity Total hardness	● ● ●	Source water DI water Make up water Cooling water Waste water
Silica Calcium Magnesium	●	DI water Make up water Cooling water
Fluoride Chloride Sulfate Sulfide	● ●	Source water DI water Make up water Cooling water Waste water
Nitrite Ammonia Alkyl amines Alkanol amines Azole derivatives Zinc Molybdenum Hydrazine Poly acrylic acid (PAA) Morpholine	●	Cooling water Make up water Steam condensate
Iron Copper Hexavalent chromium Zinc	●	Steam condensate Make up water Cooling water
Acetic acid Formic acid Glycolic acid	●	DI water Make up water Steam condensate
Total Kjeldahl Nitrogen (TKN) Total phosphate Total phenol Total Oxidizable Nitrogen (TON) Cyanide Total cyanide Boron Hexavalent chromium Total iron, etc.	●	Waste water

3 Limited lab resources

Testing many samples for diverse parameters and concentrations can create a bottleneck with limited lab resources. Traditional analytical methods are slow, require large volumes of reagents and only process one parameter at a time—resulting in low throughput.

The Solution

Consolidated and comprehensive water analysis

The key to improved productivity is processing many parameters simultaneously with high-throughput analysis and walkaway operation. The combined power of a discrete analyzer and ion chromatography—Thermo Scientific™ Disc-IC™ System—offers a comprehensive solution for consolidated industrial process and waste water analysis.

Thermo Scientific discrete analyzer

The Thermo Scientific™ Gallery™ platform integrates multi-parameter testing for routine high-throughput water analysis, offering a true walkaway solution.

Thermo Scientific Dionex ion chromatograph

The Thermo Scientific™ Dionex™ Reagent-Free™ ion chromatography (RFIC™) system offers an easy-to-use, comprehensive ion analysis solution for routine and complex water samples.

Disc-IC System

The Disc-IC System delivers consolidated analysis of many parameters per sample, covering a wide concentration range—all while offering unattended operation for walkaway efficiency.

Find out more at **thermofisher.com/discreteanalysis** and **thermofisher.com/ic**

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