

xylem



# Food Safety & Quality

SOLUTIONS FOR ANALYSIS, MEASUREMENT & MONITORING



# Open Your Lab to the

Food safety and quality are primary drivers behind consumer decisions, determining the overall success of food and beverage suppliers. At Xylem Analytics, our goal is to support you with innovative laboratory instrumentation that will help deliver safe and high-quality products every time. From sugar to sulfur, and everything in between, we have solutions to meet your analysis needs. And, with more than a century of providing proven lab instrumentation to the food and beverage industry, you can rest assured knowing you have a team of experts supporting your analyses.

## What do you want to analyze today?



### Brix

Bellingham + Stanley's experience in brix analysis is evident in their high-quality refractometer (laboratory and handheld) and polarimeter selection.

Refractometers, such as the RFM-T Series, incorporate a full-color 7" high definition touchscreen and Peltier temperature control for measurement up to 6 decimal places RI. These models are robust, simple to use, easy to clean, and offer a wide refractive index range.

The ADP 400 Series Polarimeter offers patented XPC Technology, up to 3.0 OD measurement, a high definition 4" full-color display, and is both US/EP/BP/JP and FDA 21 CFR Part 11 compliant.

### Glucose, Lactate & Other Analytes

Controlling near real-time measurement of key ingredients or unwanted byproducts during processing is essential to food quality and safety. Traditional methods such as HPLC and GC/MS require expert operators, have higher maintenance costs and longer analysis times. YSI's 2500 Biochemistry Analyzer makes it practical to measure glucose and lactate, providing an accurate result in about one minute with little or no sample prep. This model is a cost-effective alternative to the 2900D Analyzer, which also analyzes sucrose, ethanol and a number of other analytes.



# Possibilities...



## Fat, Protein & Nitrogen

C. Gerhardt offers a wide range of food and beverage solutions such as the DUMATHERM N' PRO® rapid nitrogen analysis according to Dumas; SOXTHERM® extraction system for fat determination; VAPODEST 500® for Kjeldahl nitrogen determination; HYDROTHERM for classic fat determination according to Weibull-Stoldt; FIBRETherm® fiber analysis; and more. These automated and easy-to-operate instruments provide a safe and time-efficient alternative to manual processes, and improve analyses by removing human error.

## pH, Sodium, Total Acidity & More

YSI's MultiLab is an easy-to-use benchtop instrument measuring up to 25 different parameters and simultaneously connecting to up to three sensors, increasing sample throughput. Wireless sensors for pH, FDO, conductivity and ORP, allow operators freedom to move around the lab.

The YSI TitroLine family of automated titrators is ideal for food and beverage applications, featuring IDS® sensor recognition and analog input of pH, ORP and DO for regular coulometric, potentiometric and Karl Fischer titrations.



## Sulfur Compounds & Pesticides

Sulfur compounds uniquely contribute to the overall taste and aroma in complex flavor mixtures. However, its presence in edible oils, flavors and fragrances can cause undesirable odors and tastes. Gas chromatography (GC) detectors like OI Analytical's 5383 Pulsed Flame Photometric Detector (PFPD) provides the sensitivity and accuracy to selectively detect trace levels of sulfur compounds.

Key to food safety, OI Analytical's 5360 XSD™, offers selective detection of halogenated compounds such as chlorinated pesticides, chlorinated and non-chlorinated volatile organic compounds (VOCs), herbicides and PCBs.



## Nitrate & Nitrite in Milk & Milk Products














The possibility of nitrate and nitrite being introduced to milk and milk products during processing, makes testing for these contaminants crucial from a QA/QC standpoint and for reporting values for exported products. OI Analytical's Flow Solution 3700 automates this labor-intensive chemistry and provides significantly higher sample throughput with the ease of its intuitive, plug-and-play design.



# Applications Overview

## Raw Materials

## Processing and Packing

													
<b>Optical Analysis</b>													
Refractometers		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Polarimeters			✓	✓			✓			✓		✓	✓
Spectrophotometers	✓		✓	✓	✓	✓	✓				✓		✓
Photometers	✓		✓	✓	✓	✓	✓		✓				
Dissolved Oxygen	✓					✓	✓	✓					
Turbidity	✓			✓		✓	✓	✓					
<b>Chemical Analysis</b>													
Titration	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Karl Fischer Titrators			✓	✓	✓			✓	✓			✓	✓
pH Electrodes	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Conductivity Electrodes	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Biochemistry Analyzer		✓		✓	✓		✓	✓	✓	✓	✓	✓	✓
GC Detectors		✓	✓		✓	✓	✓	✓					
Purge & Trap	✓	✓	✓		✓	✓	✓	✓					
TOC Analyzer	✓				✓	✓	✓	✓	✓				
VOC Analyzer		✓				✓	✓	✓					
<b>Physical Measurement</b>													
Precision Thermometers	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
Temperature Data Logger	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Humidity Data Logger										✓	✓		✓
Pressure Data Logger	✓						✓	✓	✓		✓		
Oil Quality					✓						✓		✓
Viscometers			✓	✓	✓		✓	✓					



Water



Sugar



Bottled Water



Dairy



Fruit & Vegetables



Edible Oils



Soft Drinks



Meat & Fish



Flavors & Essences



Wines & Beers



Bakery



Canning



Confectionery



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