



Perkin Elmer Inductively Coupled Plasma-Optical Emission Spectrometer (ICP-OES)

- Mineral and element analysis
- Can handle liquid, solid, and semi-solid samples



HunterLab Colorimeter

- Spectral reflection and transmission of colors
- Ability to analyze opaque and transparent solids, liquids, films, and powders
- Measure color change of samples over time



Agilent Technologies Tandem GC/MS/MS

- Increased selectivity and sensitivity
- Reduces interference from background ions enabling lower limits of detection
- Sulfur detector
- Gerstel sniffer port - determine the aroma character of compounds simultaneously with MS/MS detection



Agilent Technologies GC/MS

- Four GC/MS systems equipped for solid phase microextraction (SPME) and direct injection
- One system equipped with Gerstel Twister Technology for sorptive stir bar extraction (SBSE)
- Volatile compound analysis across a wide range of volatilities and polarities
- Suited for liquid, gaseous, and solid samples



Agilent Technologies GC/O

- Two gas chromatography-olfactometry systems
- Highly trained sniffers make the human nose the most sensitive detector available
- Used in conjunction with GC/MS to identify aroma-active compounds



Dionex ICS-5000 Ion

- Conductivity and electrochemical detectors
- Efficiently and selectively separate food components based on charge
- High sensitivity for salts, sugars, peptides, ammonia, and urea

Waters HPLC

- Separation of nonvolatile compounds
- Photodiode Array (PDA), Refractive Index (RI) detectors



Waters Acquity UPLC/MS

- Separation of nonvolatile compounds
- Higher pressure allows for shorter run times and better resolution over traditional HPLC
- Photodiode Array (PDA), Evaporative Light Scattering (ELS), Fluorescence (FLR), and Mass Spectrometry (MS) detectors
- Previous applications include carotenoid, norbixin, organic acid, and amino acid analysis



Waters Acquity UPLC/QToF

- Hybrid quadrupole time of flight mass spectrometer with MS/MS capability
- Greater sensitivity for more accurate quantitation
- Allows for protein characterization and peptide mapping



Delta Instruments Lactoscope FTIR

- Rapidly analyzes milk and dairy product fat, protein, lactose, solids, casein, true protein, NPN/calculated urea, density, and pH
- Allows for tracking of these factors during pilot plant runs, giving you confidence your samples have been processed correctly



Malvern Particle Size Analyzer

- Particle size measurement of fragile and cohesive dry powders
- Wet dispersion for particle size analysis in liquids



Formulation Turbiscan

- Analysis of particles in liquid suspensions, including complex mixtures with multiple dispersed components
- Measure the mean particle size of concentrated media with no dilution or sample stress required



Small in scale, big in capability. Our pilot plant can prototype and batch a range of products in house, allowing seamless transition to further sensory and instrumental testing.

Spray Dryers

- Buchi Mini Spray Dryer (batches as small as 200 mL)
- Pilot scale spray dryer (5 kg/h capacity)



Pasteurizer with Inline Separator

- 120 gal/h capacity



MicroThermics HTST/UHT and Clean Fill Hood

- Direct or Indirect heating with homogenization
- Completely customizable to your specific pasteurization requirements
- Hold time can be extended up to 14 minutes with extended hold cabinet



Membrane Filtration Units

- Millipore UF and MF (pore size of 0.5-5.0 μm^2)
- Polymeric UF/MF: 1-4 elements
- Polymeric RO/NF: 1-2 elements
- Two UTP Ceramic MF units: 0.1 and 1.4 μm
- GP Ceramic MF: 0.1 μm



Evaporator

- Highly customizable
- Batch sizes as small as 10 gal



Tanks and Vats

- Three 80 gal jacketed tanks on wheels
- One 200 gal jacketed tank
- One 500 gallon jacketed tank
- Cheese vats with 50, 60, and 400 gal capacities



Contact us for any analytical or pilot plant needs



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