

Cal Poly, San Luis Obispo Department of Food Science & Nutrition Pilot Plant Capabilities






The Department of Food Science & Nutrition Pilot Plant and Food Laboratories are contained in a building solely dedicated to Food Science and Nutrition research and education. The pilot plant and adjoining laboratories are equipped to handle food product research and development, product formulation, and pilot scale production. The pilot plant is certified by the California Department of Public Health, Food and Drug Branch for processed foods and is a FDA registered food facility. The facilities are used for: Pilot-scale test production of a wide variety of products, product formulation/process development, sensory evaluation of food products, quality control/products evaluation, and food safety research and education.

The capabilities listed below is not a complete list of our analytical, laboratory or pilot scale equipment. Please contact fsn@calpoly.edu for any questions regarding these facilities.

Cal Poly, San Luis Obispo Department of Food Science & Nutrition Pilot Plant Capabilities

Facility Capabilities

Freezer (-15°F)	
Cold Storage: Walk-in cooler (36°F)	
Cold Storage: Walk-in Cooler (36°F)	
Utilities	<ul style="list-style-type: none"> * Steam (60-80psi) * Compressed Air (100psi) * Various Electrical <ul style="list-style-type: none"> -110V -208V→single/3 phase (varying amperages) -480 3phase *Hose Stations

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Blanching

<p>Dixie Blancher</p>	
<p>Steam Jacketed Kettles</p>	
<p>Groen Electric Kettle</p>	

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Concentrate

<p>Falling Film Evaporator</p>	
<p>Steam Jacketed Kettles</p>	
<p>Fire-X Vacuum Kettle</p>	



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Cut/Dice

<p>Hobart VCM</p>	
<p>Cutmato Dicer</p>	



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Milling/Separating/Particle Reduction

<p>Schutte Buffalo Hammer Mill</p>	
<p>Langenskamp Lab Separator (Finisher)</p>	

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Milling/Separating/Particle Reduction- Continued

<p>Grain Mill</p>	
<p>Colloid Mill</p>	

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Mixing

Shear Mixer



Lightning Mixer



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Mixing- Continued

Robot Coupe Immersion Blender



Hobart Legacy



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Deposit/Fill (please see Chocolate equipment for depositor option)

Geyer Piston Filler



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Drying

<p>GEA Freeze Dryer- RAY1C</p>	 <p>A tall, stainless steel industrial freeze dryer with a large circular viewing window in the center of its door. The door is closed. The unit is labeled 'GEA' and 'RAY1C'.</p>
<p>Harvest Right Freeze Dryer</p>	 <p>A smaller, stainless steel industrial freeze dryer with a circular viewing window. The door is open, revealing several horizontal trays inside. The unit is labeled 'HARVEST RIGHT'.</p>

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Drying Continued

Harvest Saver Tray Dehydrator





Spray Dryer



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Packaging/Canning

<p>Dixie Double Seamer (metal cans)</p>	
<p>Resina Steam Capper (glass jars- 38mm and 70mm lids)</p>	

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Packaging/Canning- Continued

Multivac Vacuum Sealer



Packaging Aid Flow Wrapper-
Form, Fill, Seal



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Thermal Processing

Steam Jacketed Kettles



Fire-X Vacuum Kettle



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Jarring Line

Wash Line

Garvey Conveyor with wash line



Air Knives

Blower with air knives to dry jars after wash line



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Pilot Plant Capabilities
Jarring Line

Heating Tunnel

Tamper Evident Sleeves



Labelling

Ketan Labeller



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Jarring Line

Accumulation Table



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Sterilization

FMC/JBT Steritort



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Peeling

Abrasion Peeler	
Pneumatic Peeler (tomato/peaches)	

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Ice Cream Processing/Freezing

Emery Thompson CB 350




Cuisinart Ice Cream Maker



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Ice Cream Processing/Freezing-Continued

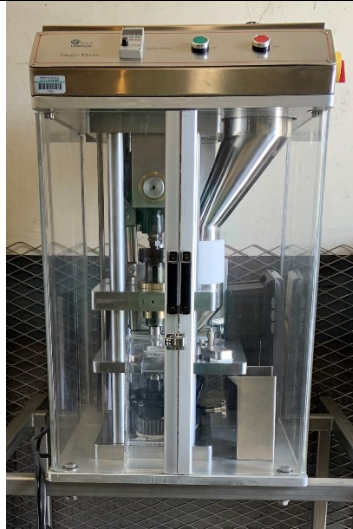
Taylor Soft Serve Machine	
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Extrusion


TBD	
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Tableting

Single Press Tableter	
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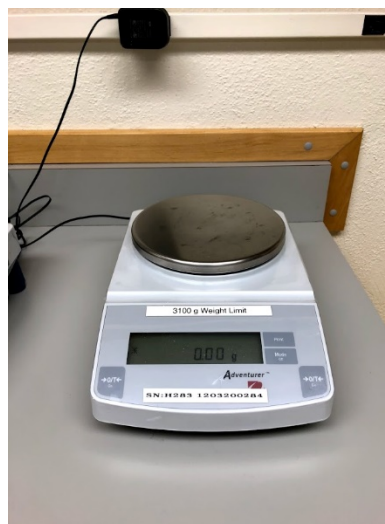
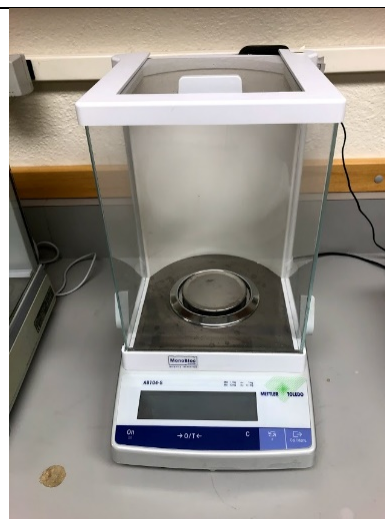
Pumping

Various Pumps (PD, centrifugal, eccentric)	
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Weighing

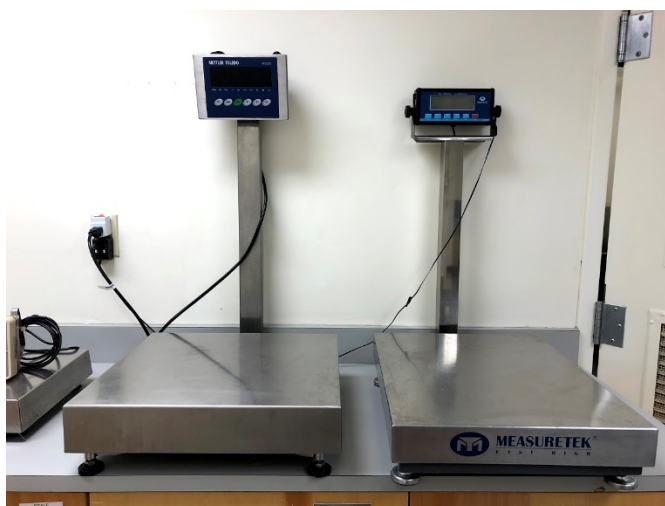
Analytical Balance



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Weighing Continued

Platform Scales



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Washing

2 and 4 Compartment Sinks



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Chocolate Technology Equipment

Temper

Perfect Equipment Tempering Units
with Heating Cabinets (2)



Deposit

Egan Depositor

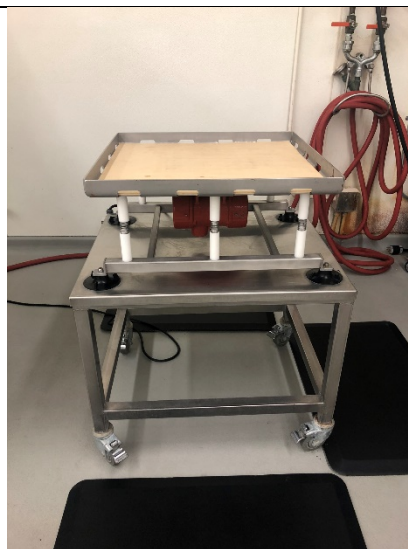


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Chocolate Technology Equipment

Vibrating

Perfect Equipment Vibrating Table



Packaging

PAC Aids- Form, Fill, Seal

