



Babcock Hall / Department of Food Science
University of Wisconsin-Madison
1605 Linden Drive, Madison, WI, 53706

Equipment

Mix Making

Vat pasteurizer

- Stephan mixer
- Steam jacketed
- Batch size: 5-7.5 gals
- Mixes are heated to 85°C (185°F) and held for 2 seconds

Homogenizer

- Gaulin type 125E two stage homogenizer
- Gaulin Piloted Valve Assembly (HVA style)
- Variable pressure control
 - Typical pressures (ice cream):
 - 1st stage: 2000 psi
 - 2nd stage: 500 psi
 - Maximum working pressure: 5000 PSI
- Minimum batch size: 5 gals



Batch Freezers

ColdElite / Carpigiani LB-502G

- 3.75 hp beater drive motor
- 20Qt cylinder capacity
- Water cooled
- Estimated overruns:
 - Premium mixes – 30% to 50%
 - Custard mixes - 35% to 40%
 - Sorbet mixes - 25%
- Minimum batch size: 1-2 gallons liquid mix





Emery Thompson 1-ICC

- Two speed machine
- Natural air incorporation
- Overrun 45-100%
- Can add inclusions right into the machine (nuts, cookies, whole fruit)
- Minimum batch size: 1-2 gallons of liquid mix
- <https://www.emerythompson.com/>





Stoelting VB35:

- 2.7 hp motor
- 1.8 hp compressor
- 8.25 gal/hr
- Air cooled
- Estimated overruns:
 - Premium mixes – 30% to 50%
 - Custard mixes - 35% to 40%
 - Sorbet mixes - 25%
- Minimum batch size: 1-2 gallons of liquid mix
- <https://stoeltingfoodservice.com/>





Taylor C117:

- Serve homemade, low and medium overrun gourmet ice cream, custard, gelato, sorbet, Italian ice and slush. Mix and liquid flavorings may be poured into the convenient fill chute on the door. Fruits, candies and nuts can be folded in as product is being drawn into your container.
- One 18.6 quart (17.6 L) freezing cylinder
- Completely automatic or semi-automatic capability
- Two speed beater leaves very little residue in freezing cylinder
- One two speed beater mode 3.9 HP at low speed and 7.2 HP at high speed
- Refrigeration: One, approximately 29,500 BTU/hr. R404A.
- Air cooling- 6" min on both sides and 12" at rear
- Two flight beaters for overrun
- <https://www.taylorfreezer.com/>





Soft Serve Machines

Taylor Crown Soft Serve C712:

- Can handle many soft serve variations from low or non-fat ice creams to custards, yogurt and sorbet. Serve two separate soft serve flavors, or an equal combination of both in a twist.
- Two 3.4 quart (3.2 L) freezing cylinders
- Two 20 quart (18.9 L) mix hoppers. Separate hopper refrigeration (SHR) maintains mix below 41°F (5°C) during Auto and Standby modes.
- Beater motor- Two, 1.5 HP
- Refrigeration system- Two, 9,500 BTU/hr. R404A. Separate Hopper Refrigeration (SHR), One, 400 BTU/hr. R134a.





Continuous Freezers

Tetra Pak S700 A2

- 150L/hr
- 0-175%+ Overrun
- Multiple dasher and beater configurations available available
- Minimum batch size: 30 gals liquid mix





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Tetra Hoyer Frigus KF 80

- Output of 80L/hr
- 0-175%+ Overrun
- Minimum batch size: 5 gals liquid mix
- <https://www.tetrapak.com/>

