



**SAVAGE
BROS. CO.**
S I N C E 1 8 5 5

A 21st Century Company . . . with 19th Century Craftsmanship

1125 Lunt Avenue
Elk Grove Village, IL 60007-5023 USA

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Web: www.savagebros.com

NEW!

Full-Automatic Chocolate Temperer with PLC Touch Screen Control

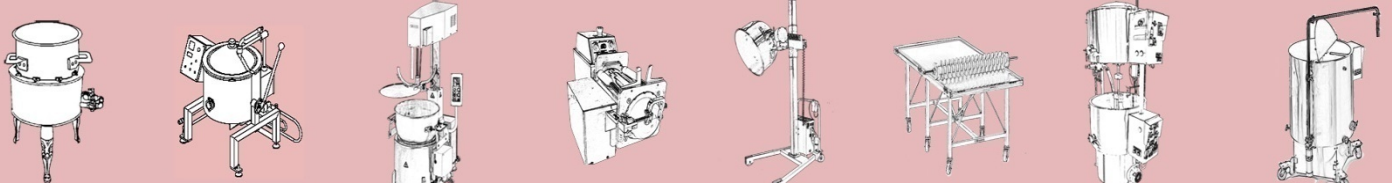


Features

- Tank capacities of 125, 200, 300, 450 & 1,250 LBS
- All stainless steel construction for years of trouble-free use
- Visual touch-screen control of Melting, Cooling & Tempering cycles – perfect repeatable tempering!
- Continually monitor water jacket and chocolate temperatures
- Variable ON/OFF cycles for agitator
- Cooling cycle utilizes external water source, drains heat away from chocolate and out of your chocolate room

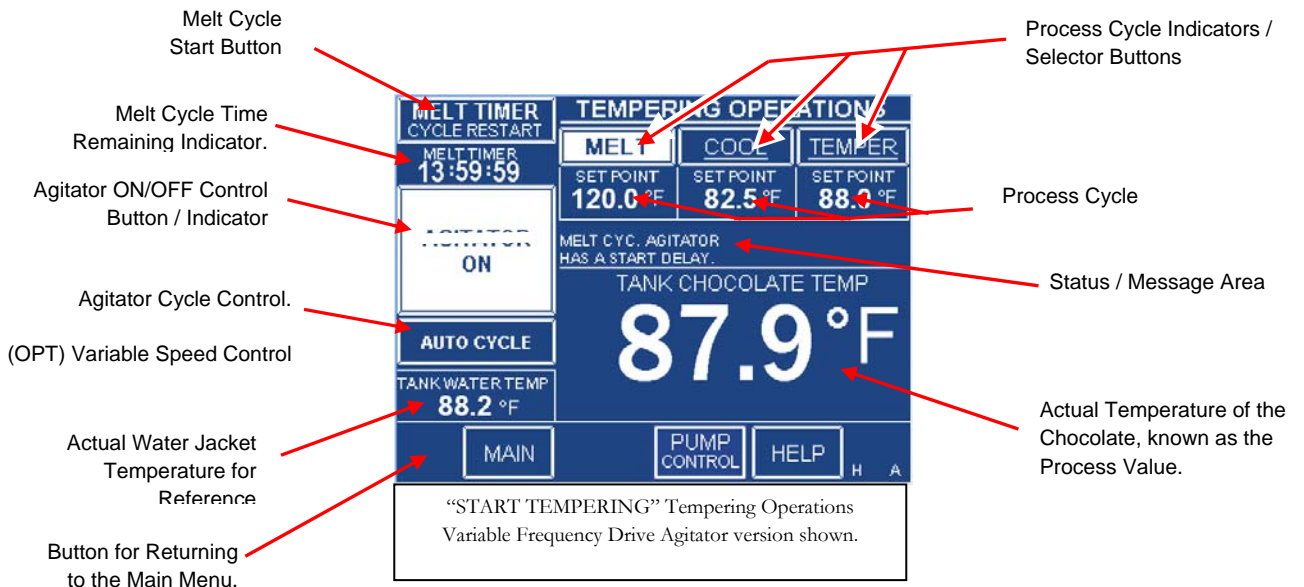
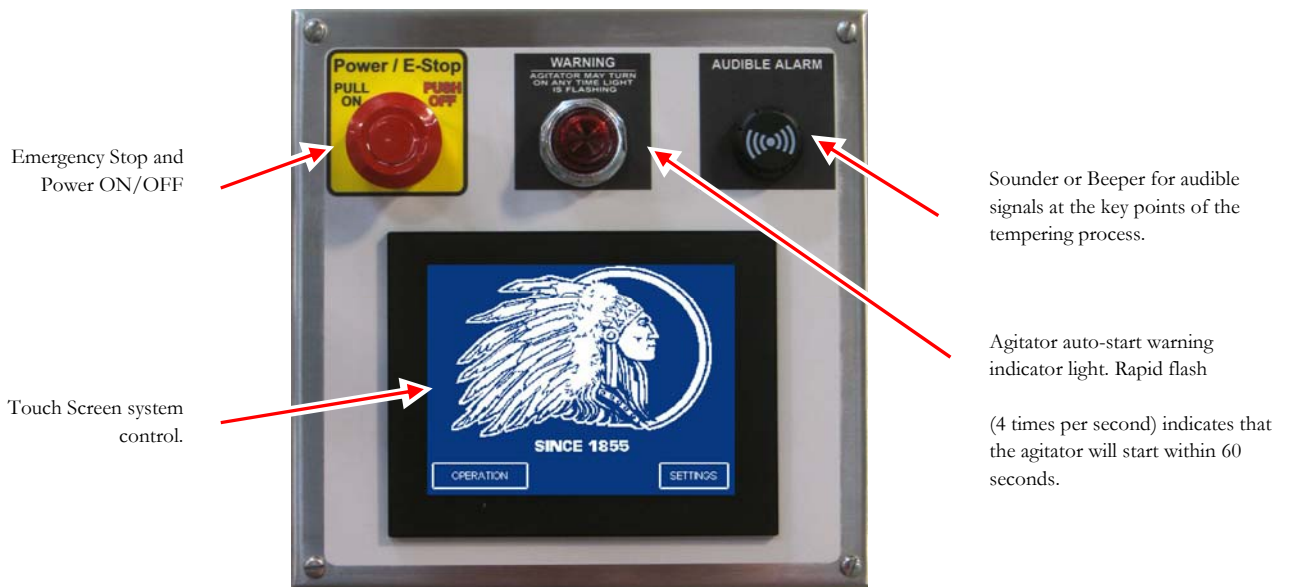
Add-On for Productivity

- CASTERS available for mobility
- Add TRANSFER PUMP to automatically meter & move tempered chocolate to enrober or depositor
- Add DEPOSITING PUMP to fill moulds or shells – multiple nozzle heads available
- Add PRE-TEMPER MELT TANK to increase tempered through-put



Gas & Electric Stoves ♦ Copper & Stainless Kettles ♦ Fire Mixer Cooker-Mixers ♦ Carousel Line ♦ Bowl & Kettle Lift/Trucks ♦ Cooling Tables ♦ Chocolate Tempering ♦ Depositing & Transfer Systems

COMPONENTS & FUNCTIONS OF THE SAVAGE TOUCH-SCREEN PLC CONTROL





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MAIN MENU

START TEMPERING

CHANGE SETTINGS

MAINTENANCE

ADVANCE SETTINGS

INFORMATION

Machine Name : Full Temper Chocolate Melter
Model Number : 09**60
Control p/n: 0911-11-660
Software Number : FTPLC_2007-12-21

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MAIN

Enter Software Code *****
For Additional Features:

MELT TIMER
CYCLE RESTART
MELT TIMER
00:00:00

AGITATOR ON

AUTO CYCLE

TANK WATER TEMP
88.2 °F

TEMPERING OPERATIONS

MELT	COOL	TEMPER
SET POINT 120.0 °F	SET POINT 82.5 °F	SET POINT 88.0 °F

TANK CHOCOLATE TEMP
87.9 °F

MAIN HELP_H

Tempering Operations Screen Help

- The agitator must turn during the cool and rewarm portion of the temper cycle for the process to work.
- The tank heating and cooling are controlled by the chocolate temperature set-points. The water is heated and cooled to maintain the chocolate temp.
- The process involves first melting chocolate to break down the fat crystals, then cooling the chocolate to auto-seed the desirable crystals, and third, to warm the chocolate up to the desired working temperature.

RETURN

CHANGE SETTINGS (1 of 2)

MELT	COOL	TEMPER
CHOC SET 120.0 °F	CHOC SET 82.5 °F	CHOC SET 88.0 °F
MELT DURATION 2 h 00 m	WATER COOL LIMIT 73.0 °F	CHOC AT TEMPER ALARM OFFSET -0.5 °F
AGTR START DELAY 0 h 30 m	HOLD COLD 0 m 30 s	RELATIVE TO CHOC TEMPER SET POINT

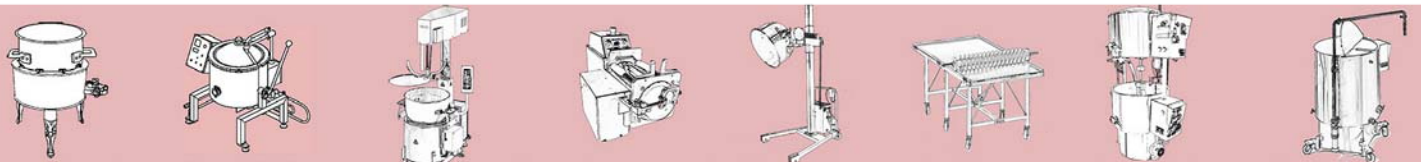
COOL ALM OFF TEMPER ALM ON

MAIN PREV NEXT HELP

Change Settings Screen (1) Help

- The tank heating and cooling is controlled by the chocolate temperature setpoint.
- The agitator start delay works at the beginning of the melt cycle to allow for sufficient time for solid pieces of chocolate to soften.
- The water cool limit prevents the water jacket temperature from cooling too low and over seeding.
- AtTemper alarm (if selected) sounds when chocolate temp. reaches the offset amount below the set-point.
- Cool alarm (if selected) will sound when the actual chocolate temperature reaches the cool set-point. It will also sound after the hold cold timer is finished.

RETURN



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CHANGE SETTINGS (2 of 2)

AGITATOR CONTROL
-CYCLE SELECTED-
DUTY CYCLE TIME
ON: 0 m15s
(4 sec minimum)
OFF: 0 m45s

When Not Operating
-HOLD WARM-
Water Jacket Temp
95.0 °F

**EXTERNAL WATER
RECIRCULATION
DISABLED**

**CHANGE
TO °C**

MAIN PREV NEXT HELP

Change Settings Screen (2) Help

- The agitator's duty cycle timer will not function in the cooling cycle or the rewarm portion of the temper cycle. During this time the agitator must operate non-stop.
- Hold warm controls the water jacket temperature.

RETURN

ADVANCED SETTINGS (1 of 2)

Chocolate Temp Calibration
88.2 °F **0.1 °F**
ACTUAL CALIBRATION OFFSET

Water Jacket Temp Calibration
88.2 °F **-0.9 °F**
ACTUAL CALIBRATION OFFSET

AGITATOR CONTROL
MELT CYCLE AUTO
START MINIMUM
WATER TEMP.
95.0 °F

**CHANGE
TO °C**

**COOLING CYCLE
2-POINT COOLING
ENABLED**

TRIGGER POINT
CHOCOLATE TEMP
84.5 °F

2nd TEMP POINT
WATER COOL MIN.
80.0 °F

**POWER LOSS
RESUME OPERATION**

SET TIME

MAIN PREV NEXT HELP

Advanced Screen (1) Help

- Do not adjust the calibration offset without your supervisor's authorization.
- The purpose of the calibration offset is to compensate for the signal from the respective temperature sensor to provide an accurate display of the "actual" temperature as compared against your trusted hand held thermometer.
- 2-Point cooling allows for a faster cool down with a longer residence at the crystallization temperature.
- Agitator start minimum water jacket temperature allows for a solid mass to be agitated sooner.

RETURN

ADVANCED SETTINGS (2 of 2)

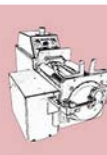
MELT WATER UPPER LIMIT TEMP OFFSET 3.0 °F RELATIVE TO CHOC	COOL WATER UPPER LIMIT TEMP OFFSET 1.0 °F RELATIVE TO CHOC	TEMPER WATER UPPER LIMIT TEMP OFFSET 0.2 °F RELATIVE TO CHOC
MELT WATER LOWER LIMIT TEMP OFFSET -0.5 °F RELATIVE TO CHOC	COOL WATER LOW LIMIT 73.0 °F WATER COOL MIN.	TEMPER WATER LOWER LIMIT TEMP OFFSET -2.5 °F RELATIVE TO CHOC

MAIN PREV NEXT HELP

Advanced Screen (2) Help

- The tank heating and cooling is controlled by the chocolate temperature setpoint.
- The tank water jacket temperature offsets limit how far above (when heating) or below (when cooling) the water jacket will get away from the chocolate temperature setpoint.
- The cool water low limit temperature is absolute and not relative to the chocolate temperature.

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89.5

7	8	9	ESC
4	5	6	DEL
1	2	3	.
0	BS	CLR	ENT

← Press ESC to return without changes.

Press ENT to accept new value.

MAINTENANCE

Status

LID OPEN

TANK HEATER TEST	AUDIBLE ALARM TEST	AGITATOR LIGHT TEST
TANK WATER FLUSH OFF	External Water Recirculation Valve TEST	AGITATOR TEST

CHOC TFMP **88.2 °F** WATER TFMP **88.2 °F**

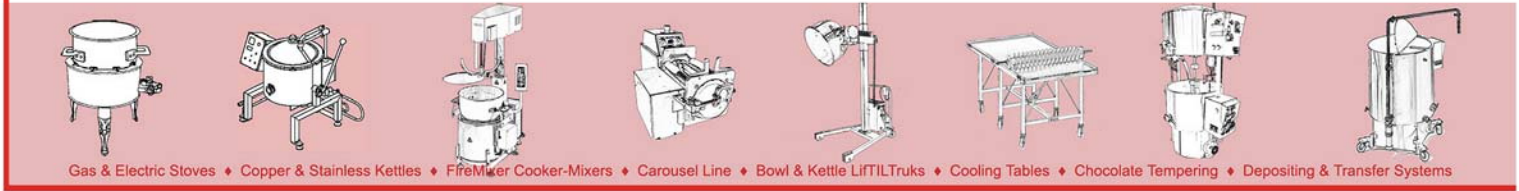
MAIN

HELP

Maintenance Screen Help

- Do not start agitator if chocolate is solid in the tank. Wait until the tank water temperature is above 95°F.
- If lid switch is installed, agitator will not start if lid is open.
- Tank water flush valve control allows you to toggle on to facilitate the initial filling of the water jacket.
- Do not operate heaters without water in the tank. Damage to the heaters will occur.

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