

OPERATOR MANUAL

IMPORTANT INFORMATION, KEEP FOR OPERATOR

This manual provides information for:

CapKold®

***MODELS INA/2-100 TW
CAPKOLD COOK-
CHILL SYSTEM TILTING
DIRECT-STEAM
MIXER KETTLE***

THIS MANUAL MUST BE RETAINED FOR FUTURE REFERENCE. READ, UNDERSTAND AND FOLLOW THE INSTRUCTIONS AND WARNINGS CONTAINED IN THIS MANUAL.

NOTIFY CARRIER OF DAMAGE AT ONCE

It is the responsibility of the consignee to inspect the container upon receipt of same and to determine the possibility of any damage, including concealed damage. Unified Brands suggests that if you are suspicious of damage to make a notation on the delivery receipt. It will be the responsibility of the consignee to file a claim with the carrier. We recommend that you do so at once.

Manufacture Service/Questions 888-994-7636.

Information contained in this document is known to be current and accurate at the time of printing/creation. Unified Brands recommends referencing our product line websites, unifiedbrands.net, for the most updated product information and specifications.

PART NUMBER 171400 REV. B (09/14)



1055 Mendell Davis Drive
Jackson, MS 39272
888-994-7636, fax 888-864-7636
unifiedbrands.net

IMPORTANT - READ FIRST - IMPORTANT

- WARNING:** Do **NOT** attempt to install, set up or operate this machine **BEFORE** you have read and understand this manual and **ALL** accompanying manuals. **KEEP ALL MANUALS FOR FUTURE REFERENCE.**
- WARNING:** Be sure operators read, understand and follow the operating instructions, cautions and safety instructions in this manual. Any potential user of the equipment **MUST** be trained in safe and correct operating procedures.
- WARNING:** When using this machine, **ALL** operating instructions, safety instructions and precautions **MUST** be followed and strictly adhered to.
- WARNING:** This machine is intended for use in the commercial cooking and cooling of food products, per the instructions contained in this manual. Other use could result in personal injury or damage to the equipment and will void **ALL** warranties.
- WARNING:** **AVOID ALL** direct contact with **HOT** equipment surfaces. Direct skin contact could result in severe burns.
- WARNING:** **AVOID ALL** direct contact with **HOT** food. Direct skin contact could result in severe burns.
- WARNING:** Keep water and solutions out of the controls, electrical wiring, and the drive mechanism.
- CAUTION:** When you connect the scraper with the yoke, make sure the scraper is curved the same way as the kettle. A reversed scraper will not scrape and can cause serious damage.
- WARNING:** Use of any replacement parts other than those supplied by Unified Brands or its authorized distributors voids **ALL** warranties and may cause bodily injury or equipment damage. Service performed by other than authorized personnel will void **ALL** warranties.
- WARNING:** Ensure that all service personnel turn the electric power **OFF** at the breaker or owner supplied disconnect **BEFORE** working on internal components.
- WARNING:** Be careful to **AVOID** contact with cleaning products in accordance with the supplier and manufacturer recommendations. Many cleaners are harmful to the skin, eyes, mucous membranes and clothing. Read the warnings and follow directions on the cleaner label.
- CAUTION:** **NEVER** leave a chlorine sanitizer in contact with stainless steel for longer than 30 minutes. Longer contact can cause corrosion.
- WARNING:** Do **NOT** use a fuse with a higher AMP rating than the rating specified for that circuit.
- WARNING:** Do **NOT** spray the CKCP Kettle control panel with water.
- CAUTION:** Do **NOT MIX THE AGITATOR ANCHORS** of different kettles. The agitator anchors are not interchangeable from kettle to kettle. They are custom fitted for the kettle it was shipped with.

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Equipment Description

GROEN MODEL INA/2-100 TW Kettle



The INA/2-100 TW Kettle is a hemispherical bottom, steam jacketed kettle, with an inclined agitator that provides gentle yet thorough mixing of a broad range of products and enhanced suspension of ingredient solids during product transfer. The kettle comes standard with a 90 PSI maximum pressure rating, an air-operated drop-down valve and a variable-speed agitator drive.

The kettle offers the following features:

- Hemispherical bottom jacket designed for up to 100 PSI working pressure, built to ASME Code and National Board registered. Kettle will operate dependably at any steam pressure between 35 PSI and 100 PSI.
- Spiral baffle for efficient cold water jacket cooling.
- Type 316 stainless steel inner hemisphere and all wetted parts. Type 304 stainless steel elsewhere.
- Interior and exterior of kettle finished to a No. 3 Sanitary Finish.
- 3" air operated, flush bottom, drop down, stainless steel product transfer valve.
- Stainless steel stand with adjustable stainless steel floor flanges standard.
- Heavy reinforced bar rim.
- 3/4" swing spout faucet mounted at kettle rim.
- Manufactured to latest sanitary standards and HACCP compliant.
- Inclined, easily removable agitator, with removable nylon edge side scraping blades which scrape entire heat exchange surface below kettle rim.
- Variable speed motor drive with 9-36 rpm operating range.
- Flush mounted temperature sensor.
- Emergency stop switch.
- Vacuum breaker and safety valve supplied and factory mounted.
- Enclosed water and steam piping and solenoid valves.
- Motorized tilt of the kettle body and attached agitator.
- Butterfly-shaped pour lip.
- Safety Guard with integral interlock.
- Compressed air outputs for drop-down valve and pump/fill station.
- 208Vac receptacle for pump/fill station.

NOTE

THE GROEN EQUIPMENT YOU HAVE PURCHASED HAS BEEN CONSTRUCTED FROM QUALITY MATERIALS AND HAS BEEN CAREFULLY INSPECTED AND TESTED TO ENSURE THAT YOU RECEIVE THE BEST POSSIBLE PRODUCT. WITH REASONABLE CARE AND PERIODIC MAINTENANCE, YOUR GROEN UNIT SHOULD PROVIDE YEARS OF PRODUCTIVE SERVICE.

NOTE

PLEASE READ THIS MANUAL CAREFULLY BEFORE YOU INSTALL OR OPERATE YOUR EQUIPMENT. It contains information you will need to install, operate, and maintain the equipment properly.

Installation

UNPACKING AND INSPECTION

WARNING
SOME INA/2 KETTLES MAY BE UNBALANCED. CARE SHOULD BE TAKEN IN HANDLING THEM DURING EQUIPMENT PLACEMENT.

The equipment will arrive in a crate. Immediately upon receipt, carefully inspect the crate for exterior damage. Open the crate and inspect the unit for concealed damage. Carefully read the bill of lading and check that all items shipped are with the unit. Report any shipping damage or missing items to the delivery agent. Record the model number, serial number, and installation date for your unit and file this information for future reference.

To remove the equipment from the crate, pull the side boards loose from the top of the crate, taking care not to damage the unit with tools or nails. Remove first the top, then the sides, and then the cross-piecing that holds the unit down. When installation is to begin, lift the unit straight up off the skid. During the installation process, it is important to properly support the equipment until it is properly anchored in its permanent position.

LOCATING THE KETTLE

Identify the desired location for the kettle. Check its position for operational clearances and line-of sight to the control panel. Consider the movement of the motor on its carriage, room for access for the kettle operator(s), and clearance for the tilting agitator or tilting kettle assembly. If this system has a hoist and rail over the kettle normally the rail is located over the center of the kettle.

LEVEL THE KETTLE

Once the kettle is oriented as the job site dictates, level the kettle by adjusting the flanged feet and using the rim as a reference, leveling from front to back and side to side.

ANCHOR THE KETTLE

Bolt the leg flanges to the floor. **It is crucial that they be anchored securely to the floor.**

UTILITY CONNECTIONS TO THE KETTLE

Use the kettle documentation included in this manual and the layout utility prints to locate where all the necessary utilities need to be connected. Some of the connections are:

- steam in
- chilled water in
- hot and cold potable water in
- air in
- electric power in
- control panel wiring in to the terminal block on the left console of the kettle (for factory terminated wiring of the speed control, temperature sensors, tilt safety switch, emergency stop switch, etc.)
- condensate out
- chilled water out
- kettle jacket drain
- kettle food valve
- etc.

The kettle may or may not have all the above referenced utilities and can be ordered pre-piped and pre-wired. Take the time to lay out all the utilities your kettle requires before you start this installation. Keep in mind the kettle food valve under the kettle will have to be accessed many times a day, and taken off for cleaning every day. The temperature probe also requires removal and cleaning daily.

Installation

STEAM SUPPLY

Connect the steam supply to the steam inlet fitting(s). A strainer, check valve, union, and shut off valve are required to be placed in the kettle's steam supply line near the kettle. The automatic valves that are operated by the kettle control panel are included in the piping provided with the kettle.

Dissimilar piping materials require a dielectric coupling. To obtain the full heating capacity of the kettle use a steam supply line that is at least as large the kettle's steam inlet fitting. The steam line size may need to be enlarged to overcome line losses in longer piping runs or to accommodate other equipment being supplied from the same steam line. Steam pressure must be restricted to the working pressure rating of the kettle. A steam pressure gauge should be installed in the steam system piping in a prominent location and the appropriate safety valves utilized.

Close attention to line sizing, filtration, hydraulic snubber (water hammer eliminators), back flow preventer, length of run, insulation, etc. when you are designing this system. The equipment will not work without the correct amount of steam and proper pressure differential between steam and condensate lines. It is the customer's responsibility to for proper design of this system for the equipment to work correctly. Water treatment, cleaning of strainers, and/or replacement of parts from improper steam treatment and/or design is the customer's responsibility.

SAFETY RELIEF VALVE

A safety relief valve must be utilized that is rated to relieve at a pressure no higher than (the Maximum Allowable Working Pressure, MAWP) stamped on the kettle's National Board nameplate. This part is included in the kettle's scope of supply. The valve will come pre-installed.

SAFETY WARNING

Do not allow the relief valve outlets or levers to be blocked. Route relief valve discharge lines so that personnel cannot be injured when the valve relieves, normally within 6 inches of the floor.

CONDENSATE RETURN

Install a condensate return line with a properly sized condensate trap, check valve, shutoff valve, and union from the kettle jacket to the boiler's condensate return system if available. The unit also has automatic valves that are controlled by the kettle control panel. These parts are included in the scope of supply.

Condensate pumped return with condensate lift stations may be required for the equipment to work correctly. System design following national, state, and local codes needs to be taken into account when designing the condensate system. Otherwise, pipe the condensate return line to drain being careful to comply with national, state, and local codes governing discharge temperatures.

Dissimilar piping materials require a dielectric coupling.

COOLING WATER SUPPLY

Install chilled supply line to the kettle inlet fitting(s). A strainer, check valve, union, and shut off valve are included in the kettle's chilled water supply line. The unit also has automatic valves controlled by the kettle control panel. These parts are included in the scope of supply.

Dissimilar piping materials require a dielectric coupling.

To obtain the full cooling capacity of the kettle use a chilled water supply line that is at least as large the kettle chilled water inlet fitting. The chilled water supply line size may need to be enlarged to overcome line losses in longer piping runs or to accommodate other equipment being supplied from the same line. Close attention to line sizing, filtration, hydraulic snubbers (water hammer eliminators), and correct pressure differential between the supply and return lines, and following national and local codes needs to be taken into account when designing this system. It is the customer's responsibility to for proper design of this system for the kettle to work correctly. The water must be kept clean and free foreign materials and properly treated to prevent deposits on the valves and inside the kettle jacket.

Installation

Cleaning of filters and/or strainers, and/or replacement of parts from improper water treatment is the customer's responsibility. Care must be taken to insure the kettle is piped with the supply water entering the chilled water IN port. The chilled water supply line temperature needs to be between 34° - 40°F for the kettle to perform properly and should be well insulated to prevent sweating. Cold clean city water may be used if chilled water is not available.

COOLING WATER SUPPLY

Install chilled return line to the kettle chilled water out fitting(s). A union and shut off valve are included in the kettle's chilled water return line. The unit is also supplied with automatic valves and a check valve that are controlled by the kettle control panel. These parts are included in the scope of supply.

Dissimilar piping materials require a dielectric coupling.

To obtain the full cooling capacity of the kettle use a chilled water return line that is at least as large as the kettle chilled water outlet fitting. The chilled water return line size may need to be enlarged to overcome line losses in longer piping runs or to accommodate other equipment returning from the same line. A pressure differential at least 15 PSI lower than the supply side is required to chill correctly. Some applications are piped to the drain, when cold city water is used.

DRAINS

A drain line needs to be installed from the kettle jacket drain to the floor drain. Adequate drains and drain lines floor drains must be provided to provide for kettle to discharge without flooding. The kettle may discharge cooling water during the cooling cycle. Also, small quantities of water drain when turning the kettle on, switching from heat to cool, and at the end of the cooling period. Cleaning water is discharged from the kettle onto the floor as suits the operation, so convenient drains and proper floor pitch are essential in these areas.

AIR SUPPLY

Dry, clean compressed air at 90 PSI minimum is needed on most kettles and piped to the "AIR-IN" connections at the kettle control valve and/or kettle control piping box. Line sizing, type of materials, vibration absorbers, filtration, driers, etc. need to meet federal state and local codes and adequate to provide clean dry air to the equipment. Cleaning of filters and/or strainers, and/or replacement of parts from improper air treatment is the customer's responsibility.

ELECTRIC SUPPLY

WARNING
ELECTRICAL CONNECTIONS MAY VIBRATE LOOSE DURING SHIPMENT CAUSING INCREASED ELECTRICAL RESISTANCE, HEATING, AND POTENTIAL DANGER. CHECK ALL FACTORY WIRE CONNECTIONS AND TIGHTEN PRIOR TO ENERGIZING ANY CIRCUIT.

Complete all field electrical connections to the kettle and to the kettle control panel using the diagrams at the end of this manual and the electrical schematic found in the control panel section of the system documentation. Take care to comply with all local, state, and national codes, including the National Electric Code. Employ waterproof conduit and fittings between the terminal blocks in the junction box in the left stanchion of the kettle to the control panel. To make all conduit joints waterproof, we suggest use of PTFE tape on threaded connections.

KETTLE CONTROL PANEL

Groen CapKold kettle control panels include proper motor starters, controls and disconnects that must be installed in accordance with NEC and local codes. When connecting power to the agitator drive motor and checking for proper motor rotation, normal direction of rotation of the agitator is in the clockwise direction as viewed from above.

TILT LIMIT

Tilting kettle designs have a tilt limit switch mounted near the kettle pivot point. The kettle installer must confirm that the agitator motor is de-energized when the kettle is tilted.

Installation

AGITATOR CHECKS

Check all bolts to insure they are tight including agitator shaft and gearbox mounting bolts. Check oil level in agitator gear box for proper level. Fill height is described in the gear box manual in this section.

MIXER CHECKS

Before you operate the mixer, make sure that the agitator is firmly connected with the drive shaft and properly positioned in the kettle. The agitator must be positioned so every scraper blade touches the kettle during at least part of each revolution. To connect the agitator Guide the two pins of the drive shaft into the holes in the coupling. With the lobe of the cam pointing up, and while holding the two cam bolts, insert the bolts through the larger holes in the side of the coupling. The bolts must pass the flat part of the shaft and through the smaller holes in the other side of the coupling. Turn the cam bolts toward the shaft 1/8 turn or until the lobe of the cam is snug against the flat side of the shaft. Fasten the bolts in place with the supplied hex nuts, and tighten the nuts.

START-UP TEST

For initial start-up, test the kettles and associated equipment with water in place of the product. Check calibration of the temperature controls with kettle agitation on. If calibration of any control or indicator is not correct, reference the individual control bulletins found in the system documentation for details of adjustment procedures.

AGITATOR GUARD

WARNING
THE GUARD AND INTERLOCKS ARE PROVIDED FOR OPERATOR SAFETY. DO NOT OPERATE THE KETTLE WITH THE GUARD REMOVED OR THE INTERLOCKS BYPASSED.

The kettle is provided with a safety guard that covers the top of the kettle and surrounds the agitator shaft. The front section of the guard can be opened to add ingredients to the kettle. Both the front and rear sections of the guard are removable for cleaning. Interlocks are provided for both sections of the guard. They will shut off the agitator operation if the front cover is lifted or if either section of the guard is removed from the kettle.

CLEANING/SANITIZATION

CAUTION
DO NOT MIX THE AGITATOR ANCHORS OF DIFFERENT KETTLES. THE AGITATOR ANCHORS ARE NOT INTERCHANGEABLE FROM KETTLE TO KETTLE. EACH ANCHOR IS CUSTOM FITTED TO THE KETTLE IT WAS SHIPPED WITH.

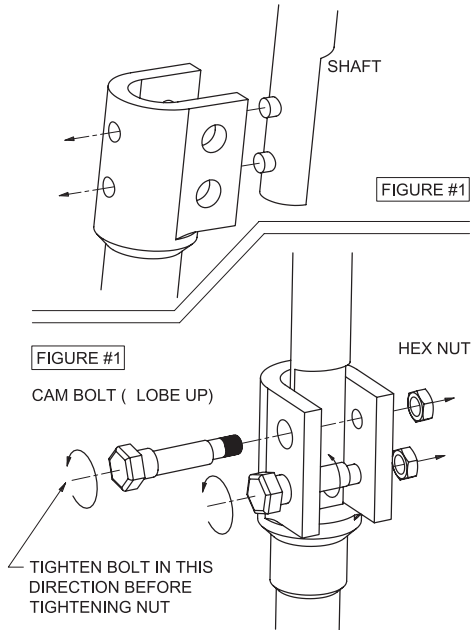
Clean and sanitize kettle before putting into production. See Equipment Cleaning and Sanitization Procedures further in this manual.

Operation

Preparation

CAUTION
AVOID ALL DIRECT CONTACT WITH HOT FOOD. DIRECT SKIN CONTACT COULD RESULT IN SEVERE BURNS.

QUICK DISCONNECT COUPLING



1. Before you operate the mixer, make sure that the agitator is firmly connected with the drive shaft and properly positioned in the kettle. The agitator must be positioned so every scraper blade touches the kettle during at least part of each revolution.

To connect the agitator, guide the two pins of the drive shaft into the holes in the coupling. With the lobe of the cam pointing up, and while holding the two cam bolts, insert the bolts through the larger holes in the side of the coupling. The bolts must pass the flat part of the shaft and through the smaller holes in the other side of the coupling.

Turn the cam bolts toward the shaft 1/8 turn or until the lobe of the cam is snug against the flat side of the shaft. Fasten the bolts in place with the supplied hex nuts, and tighten the nuts. If the kettle has been tilted up, raise it into an upright position.

2. The kettle normally comes with a lower air actuated drop down valve to transfer the product to a pumping station. This valve is opened and closed with an air modulating valve mounted on the kettle leg. This valve has numbers from 0 to 50.

To close the valve turn counter clockwise passed 0 to OFF. To open, turn clockwise to the desired amount. The valve is fully open at 50.

Preparation

1. Check that the kettle is tilted to the fully upright position.
2. Close the bottom valve.
3. Cook and chill using the control method listed below.

Control Panel:

The kettle is supplied with a CapKold Control Panel. The cooking operation of your control panel is explained in the Control Panel portion of the system documentation.

Equipment Cleaning/ Sanitization Procedures

CLEANING/SANITIZING

Suggested Tools:

- Detergents and Sanitizer, or a combination cleaning-sanitizing agent. Contact your local cleaning supply company for compatible products.
- Kettle Soft Bristle Brushes, long handled and short handled. Soft Bristle Brush suitable for cleaning the 3" product outlet. 3/8" O.D. Soft Bristle Brush for cleaning scraper holders.
- Soft Plastic Scraper.

Procedure:

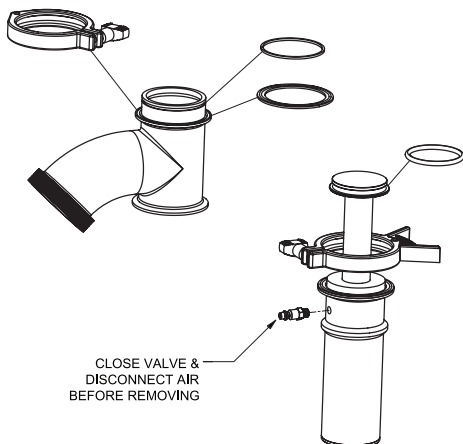
1. Turn off kettle including heating, chilling and mixer.
2. Clean all food contact surfaces as soon as possible after use, preferably right after the kettle is unloaded. If the kettle is in continuous use, thoroughly clean and sanitize the interior and exterior at least once for every twelve (12) hours of use.
3. Open the kettle drop down valve. Scrape and flush out large food residues using a soft plastic scraper and brush. After flushing the kettle, close the valve.
4. Prepare a hot solution of detergent/cleaning compound as instructed by the supplier.
5. Clean the inside the kettle thoroughly. A cloth moistened with cleaning solution can be used to clean the exterior.
6. Open the kettle drop down valve and rinse. Scrape and flush out any food residues using a soft plastic scraper and brush.
7. To remove materials stuck to the equipment, use a brush, sponge, cloth, plastic or rubber scraper, or soft plastic wool along with the detergent solution. To minimize the effort required in washing, let the detergent solution sit in the unit and soak into the residue, or heat the detergent solution briefly.
8. Disassemble the drop down valve. Clean the valve port and each valve part with a soft brush.
9. Rinse the kettle and valve parts thoroughly with hot water, and then drain completely.
10. When cleaning the agitator, disassemble and wash the agitator blades. When the blades are reassembled, always insert the wire clip with the loop end on the back side (the side of the blade toward the kettle wall).
11. Disassemble the scrapers and clean them along with the rest of the agitator, then reassemble them. To disassemble a scraper:
 - a) Pull the hairpin clip out of the yoke. To make this easier, squeeze the ends of the clip closer together.
 - b) Remove the locking clip, and then pull the plastic scraper blade out of its holder.
12. As part of the daily cleaning program, clean all external and internal surfaces that have been soiled.
13. Exterior surface of the unit may be polished with a recognized stainless steel cleaner .

WARNING
ALWAYS HAVE THE EMERGENCY STOP SWITCH IN THE PUSHED-IN POSITION DURING CLEANING. THIS WILL PREVENT ACCIDENTAL START OF THE AGITATOR.

WARNING
DO NOT USE ANY ABRASIVE MATERIALS OR METAL IMPLEMENT THAT MIGHT SCRATCH THE SURFACE, BECAUSE SCRATCHES MAKE THE SURFACE HARD TO CLEAN AND PROVIDE PLACES FOR BACTERIA TO GROW.

NEVER USE A CARBON STEEL METAL BRUSH TO CLEAN THE SURFACE. SCRATCHES AND RUSTING MAY OCCUR.

DO NOT USE STEEL WOOL. THIS WILL SCRATCH THE KETTLE SURFACE AND LEAVE PARTICLES IMBEDDED IN THE SURFACE CAUSING RUST AND EVENTUAL CORROSION AND PITTING.



Equipment Cleaning/ Sanitization Procedures

CAUTION
NEVER LEAVE A SANITIZER IN CONTACT WITH STAINLESS STEEL OR RUBBER SURFACES LONGER THAN THIRTY (30) MINUTES. LONGER CONTACT CAN CAUSE CORROSION OR DEGRADATION.

WARNING
MAKE SURE THE SCRAPER IS CURVED THE SAME WAY AS THE KETTLE. A REVERSED SCRAPER WILL NOT SCRAPE AND CAN CAUSE SERIOUS DAMAGE.

CAUTION
DO NOT MIX THE AGITATOR ANCHORS OF DIFFERENT KETTLES. THE AGITATOR ANCHORS ARE NOT INTERCHANGEABLE KETTLE TO KETTLE AND ARE CUSTOM FITTED AT THE FACTORY.

14. When the equipment needs to be sanitized, use a sanitizing solution equivalent to one that supplies 200 parts-per-million available chlorine. Obtain advice on the best sanitizing agent from your supplier of sanitizing products. Following the supplier's instructions, apply the sanitizing agent after the unit has been cleaned and drained and reassembled. Rinse off the sanitizer thoroughly.
15. If especially difficult cleaning problems persist, contact your cleaning product representative for assistance. These suppliers typically have trained technical staff and laboratory facilities to serve you.
16. To reassemble the scraper:
 - a) Push the blade as far as it will go into the holder.
 - b) From the back or convex side of the holder (the side that will be facing the kettle wall), hook the locking clip through the slot in the blade. Position the loop of the locking clip, so the hairpin clip will pass through it, when the hairpin clip is inserted.
 - c) Connect the scraper with the yoke making sure the scraper is curved the same way as the kettle.
17. If mixer shaft with anchor was removed for cleaning, make sure it is placed on the same mixer it came from.

Maintenance

1. Periodically inspect all fittings and valves for signs of damage or wear.
2. Look for steam and water leaks. When the surrounding area is quiet, listen for air leaks.
3. As the valves in the system operate, listen for positive shifting of the valve and/or solenoids.
4. As the system operates, look for unusual movement and jerking of cylinders and actuators.
5. Periodically check all mounting bolts to insure they are tight including agitator shaft and gearbox mounting bolts.
6. Electrical wiring should be routinely inspected for secure connections and for good condition. Such inspection should be performed by an authorized and trained technician.
7. Regular service of the mixer by an authorized service technician should include cleaning the motor and checking the reducer gear case. Gear case lubricant should be changed after the first 500 hours of operation and then every 6 months or 2000 hours of operation. Refill the gear case with food grade gear oil number 144045 or equivalent lubricant.

Troubleshooting

Your CapKold Mixer Kettle will operate smoothly and efficiently if properly maintained. However, the following is a list of checks to make in the event of a problem. If the actions suggested do not solve the problem, call your Authorized Service Agent (ASA). For the phone number of the nearest agency, check the front page of this manual. Or call the Unified Brands Technical Service Department at (888) 994-7636. If an item on the list is followed by an X, the work should only be performed by a qualified service representative.

WARNING
USE OF ANY REPLACEMENT PARTS OTHER THAN THOSE SUPPLIED BY UNIFIED BRANDS OR THEIR AUTHORIZED DISTRIBUTORS CAN CAUSE INJURY TO THE OPERATOR AND DAMAGE TO THE EQUIPMENT AND WILL VOID ALL WARRANTIES.

SERVICE PERFORMED BY OTHER THAN FACTORY-AUTHORIZED PERSONNEL WILL VOID ALL WARRANTIES.

SYMPTOM	WHO	WHAT TO CHECK
Motor will not run.	User	a. Power supply to unit. b. Mechanical overload. c. Circuit breaker or fuse
	ASA only	d. Tilt switch is open. X e. Ground or short in motor. X f. Overload heaters. X g. Control switch. X
Motor runs slowly.	User	a. Mechanical overload.
	ASA only	b. Speed control not properly set or programmed. X c. Motor/gear box bearings worn. X
Unit will not heat.	User	a. Steam supply off. b. Air supply off. c. Dirty strainer—steam and/or condensate. d. Dirty valve—steam and/or condensate e. Circuit breaker or fuse.
	ASA only	f. Control breaker or fuse. X g. Power to valve solenoid. X h. Control relay. X i. Time delay relay. X j. Control switch. X k. Temperature controller. X l. Bad valve. X
Unit will not cool.	User	a. Chilled water supply off. b. Air supply off. c. Strainer dirty. d. Valve dirty. e. Circuit breaker or fuse.
	ASA only	f. Control breaker or fuse. X g. Power to solenoid valve. X h. Control relay. X i. Time delay relay. X j. Control switch. X k. Temperature controller. X l. Bad valve. X

Troubleshooting

SYMPTOM	WHO	WHAT TO CHECK
Unit will not add water.	User	<ul style="list-style-type: none"> a. Potable water supply off. b. Air supply off. c. Strainer dirty. d. Valve dirty. e. Circuit breaker or fuse.
	ASA only	<ul style="list-style-type: none"> f. Control breaker or fuse. X g. Power to valve solenoid. X h. Control relay. X i. Water meter. X j. Bad valve. X k. Counter program. X l. Bad counter. X

Suggested Spare Parts List

To obtain CapKold parts contact your local Authorized Service Agency (ASA) or contact the Unified Brands Technical Service (TS) department at 888-994-7636. The TS department can advise you on the contact for the nearest ASA, and also determine if you are eligible for the CapKold Parts Direct program.

When requesting parts, please supply the model designation, serial number, voltage and phase information from the product label on your unit and the part number, part description and quantity from the table below.

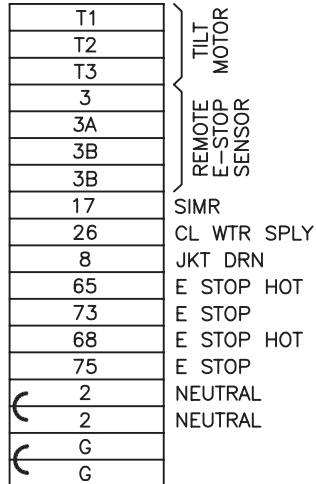
<i>Part Description</i>	<i>CapKold P/N</i>	<i>Quantity</i>
Drive, 2HP, SEW, 25 RPM	128972	1
STEAM COMPONENTS		
Solenoid Valve, Steam, 1-1/4 NPT	N61534	2
Strainer, Y, 1 NPT	N79675	2
Valve, Gate, 3/4 NPT	009513	2
Valve, Gate, 1 NPT	010035	2
Solenoid Valve, Steam, 3/4 NPT	056532	2
Valve, Check, In-Line, 1 NPT	132805	2
Valve, Globe, 3/4 NPT	004222	1
Steam Trap, Bucket Type, 3/4 NPT	N69835	1
Valve, Safety, 100 PSI	N69805	1
Breaker, Vacuum, 1/2 NPT	005101	1
WATER COMPONENTS		
Valve, Gate 3/4 NPT	009513	4
Solenoid Valve, 3/4 NPT	056532	2
Water Meter, 3/4 NPT	055211	1
Valve, Check, In-Line, 3/4 NPT	132804	1
Solenoid Valve, Cold Water	141238	1
Solenoid Valve, Hot Water	141258	1
AIR COMPONENTS		
Valve, Regulating	050119	1
Filter, In-Line	069038	1
Faucet, Swing, 3/4	049701	1
208VAC RECEPTACLE		
Receptacle	132456	1
Lift Cover, Weatherproof	132457	1
Terminal Block, 2-Pole	003887	1
Fuse Block, 2-Pole	096809	1
Lug, Ground	119829	1
Fuse, 15A, 600V, Class CC	172042	2
ELECTRICAL COMPONENTS		
Switch, Push-Pull, NEMA	N87527	1
RTD, Flush Bulb, 100 Ohm	N88779	1
Gasket, RTD	N88779	1
Nut, Slotted, RTD	N88777	1
Switch, Limit	149592	1

Suggested Spare Parts List

<i>Part Description</i>	<i>CapKold P/N</i>	<i>Quantity</i>
KETTLE TILT MECHANISM		
Shaft, Drive	115242	1
Coupling, Shaft	115276	1
Switch Assembly, Tilt	115338	1
Gear Motor, 208/240v, Helical	140388	1
Switch, Limit, Lever Type	140524	1
Starter, Motor	141371	1
Overloads, Motor	141372	1
Bearing, Roller	120036	2
Gear, Worm, 72 Tooth	120503	1
Gear, Worm, 1-inch Bore	012053	1
Casting, Trunnion Gear	012222	1
GUARD COMPONENTS		
Switch, Limit, Plunger-Type	171434	2
Lanyard, 26-Inch	171463	1
Lanyard, 12-Inch	171464	1
AGITATOR COMPONENTS		
Bolt, Eccentric	009372	2
Stud, Agitator Coupling	012090	2
Nut, Hex, Agitator Bolt, ½	002218	2
Washer, Lock, Agitator Bolt, ½	005657	2
Blade, Scraper, Large	005098	5
Holder, Scraper Blade	123270	5
Clip, Scraper, Locking	N59854	5
Clip, Hairpin, Retaining	003652	5
Valve Assembly, Drop-Down	154391	1
<i>O-Ring, 2.8 ID x 3 OD</i>	010365	1
<i>O-Ring, 3/16 W x 2-3/8 ID x 2-3/4 OD</i>	150268	1
<i>O-Ring, Piston</i>	150269	1
<i>O-Ring, 1/8 W x 1-5/16 ID x 1-9/16 OD</i>	150270	2
Strainer, Kettle	171429	1

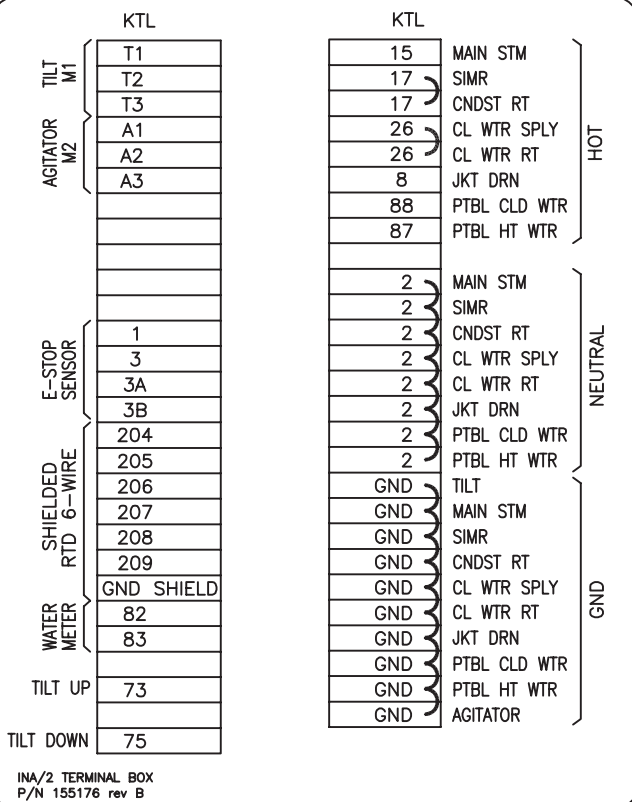
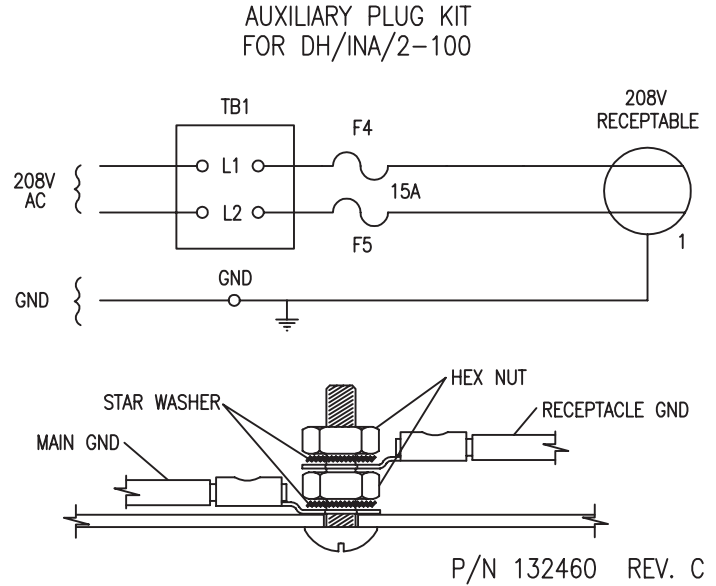
Wiring Schematic

Kettle Terminal Blocks



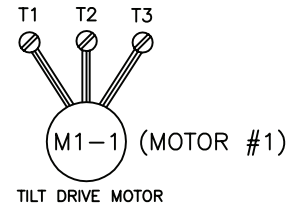
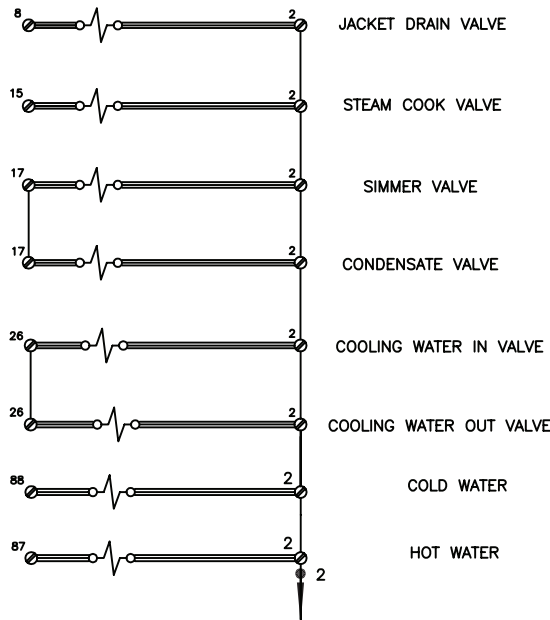
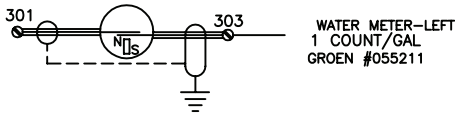
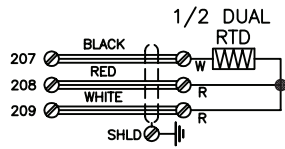
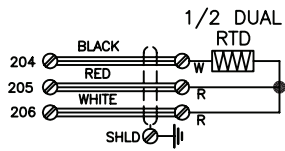
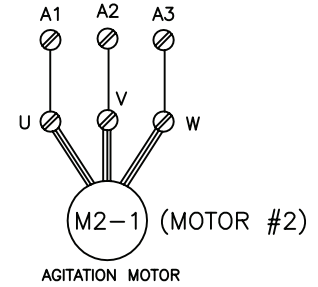
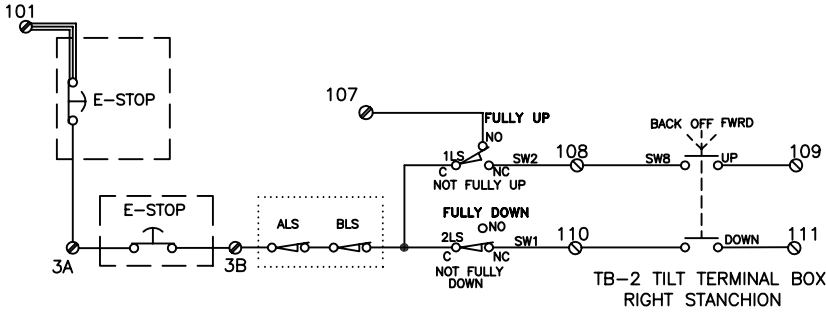
INA/2 TERMINAL BOX
P/N 135443 rev D

Auxiliary Receptacle



INA/2 TERMINAL BOX
P/N 155176 rev B

Wiring Schematic



NOTES:

1. REPRESENTS REMOTE WIRING BETWEEN KETTLE CONTROL PANEL AND KETTLE COMPONENTS OR ICE WATER CONTROL PANEL.
2. () TERMINAL NUMBERS FOR RIGHT HAND KETTLE.
3. REMOTE. LOCATED IN E-STOP/AGITATOR TILT STATION.
4. ALL EXTERNAL VALVES DRAW .5 AMP OR LESS
5. OPTIONAL SAFETY GUARD COMPONENTS



1055 Mendell Davis Drive • Jackson MS 39272
888-994-7636 • 601-372-3903 • Fax 888-864-7636
unifiedbrands.net