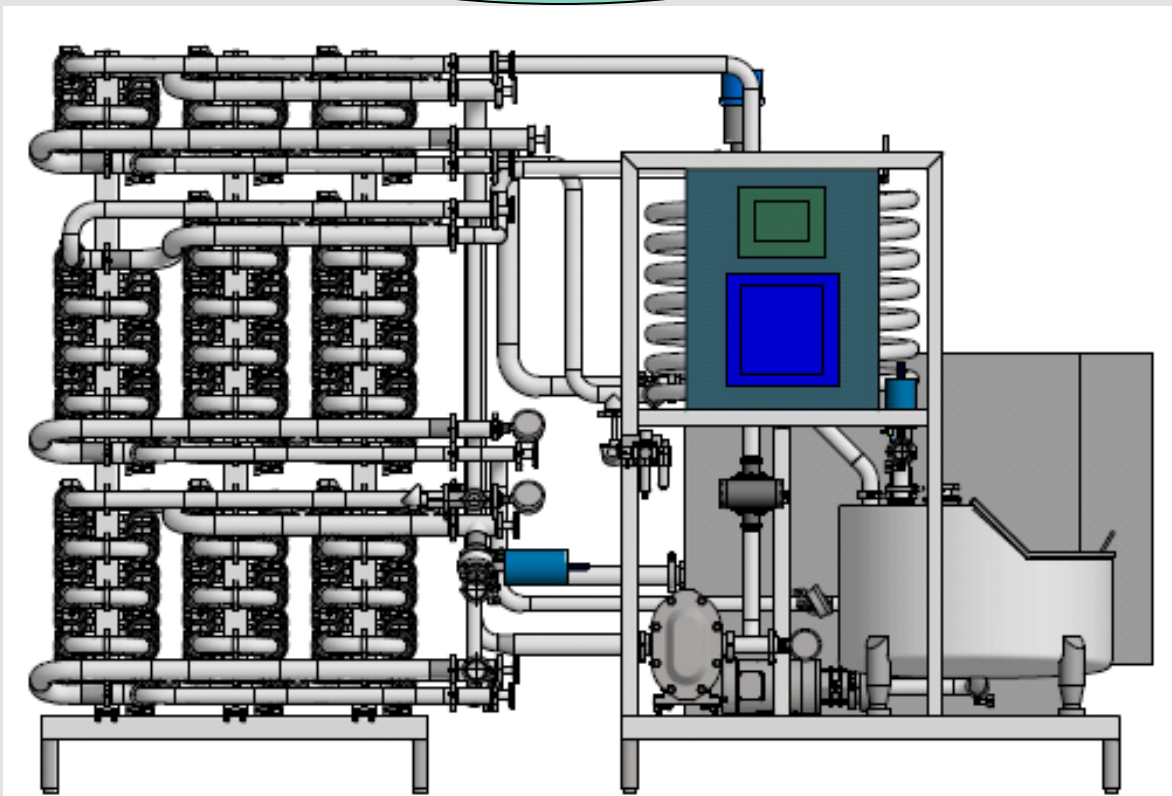




Goodnature



KEVITA FP-XT 1500 TUBULAR

GOODNATURE PRODUCTS
149 BUD MIL DRIVE
BUFFALO, NY 14206
1-800-875-3381
www.goodnature.com



TABLE OF CONTENTS

<i>TABLE OF CONTENTS</i>	
General	1
Installation	2
Operation	3
Reference/Troubleshooting	4
Variable Frequency Drive	5
Heater	6
Drawings	7
PLC Program	8
Parts List	9

ABOUT US

WE WOULD LIKE TO TAKE THIS OPPORTUNITY, TO WELCOME YOU INTO THE GOODNATURE FAMILY. GOODNATURE PRODUCTS INC. WAS STARTED IN 1976 IN EAST AURORA, NY. OUR PRODUCTS ARE ENGINEERED AND MANUFACTURED IN BUFFALO, NY USA AND SOLD WORLDWIDE. ONLY THE HIGHEST QUALITY PARTS AND STANDARDS ARE USED IN OUR EQUIPMENT. WE INVITE YOU VISIT OUR WEBSITE, WWW.GOODNATURE.COM, TO SEE OUR COMPLETE LINE OF PASTEURIZERS AND PRESSES. COMPLETE JUICE FACTORIES CAN ALSO BE DESIGNED AND INSTALLED BY US. CALL OR E-MAIL US TODAY AT THE NUMBER BELOW FOR MORE INFORMATION.

GOODNATURE PRODUCTS INC.
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SPECIFICATIONS

RATED CAPACITY: HTST : 1500 GALLONS PER HOUR
40-70 DEG F INCOMING RAW TEMP
195 DEG F PASTEURIZATION TEMP
MAXIMUM 9.2LB PER GALLON PRODUCT WEIGHT

HOLD TIME: 15 SECONDS

ELECTRICAL REQUIREMENT: 480VAC/3PHASE/60HZ

BALANCE TANK VOLUME: 40 GALLONS

SYSTEM VOLUME:
(NOT INCLUDING BALANCE TANK) APPROX 150 GALLONS

MACHINE WEIGHT: APPROXIMATELY 1500 LB

MACHINE DIMENSIONS: SKID: (110" X 66" X 90")
HX : (275" X 60" X 92")

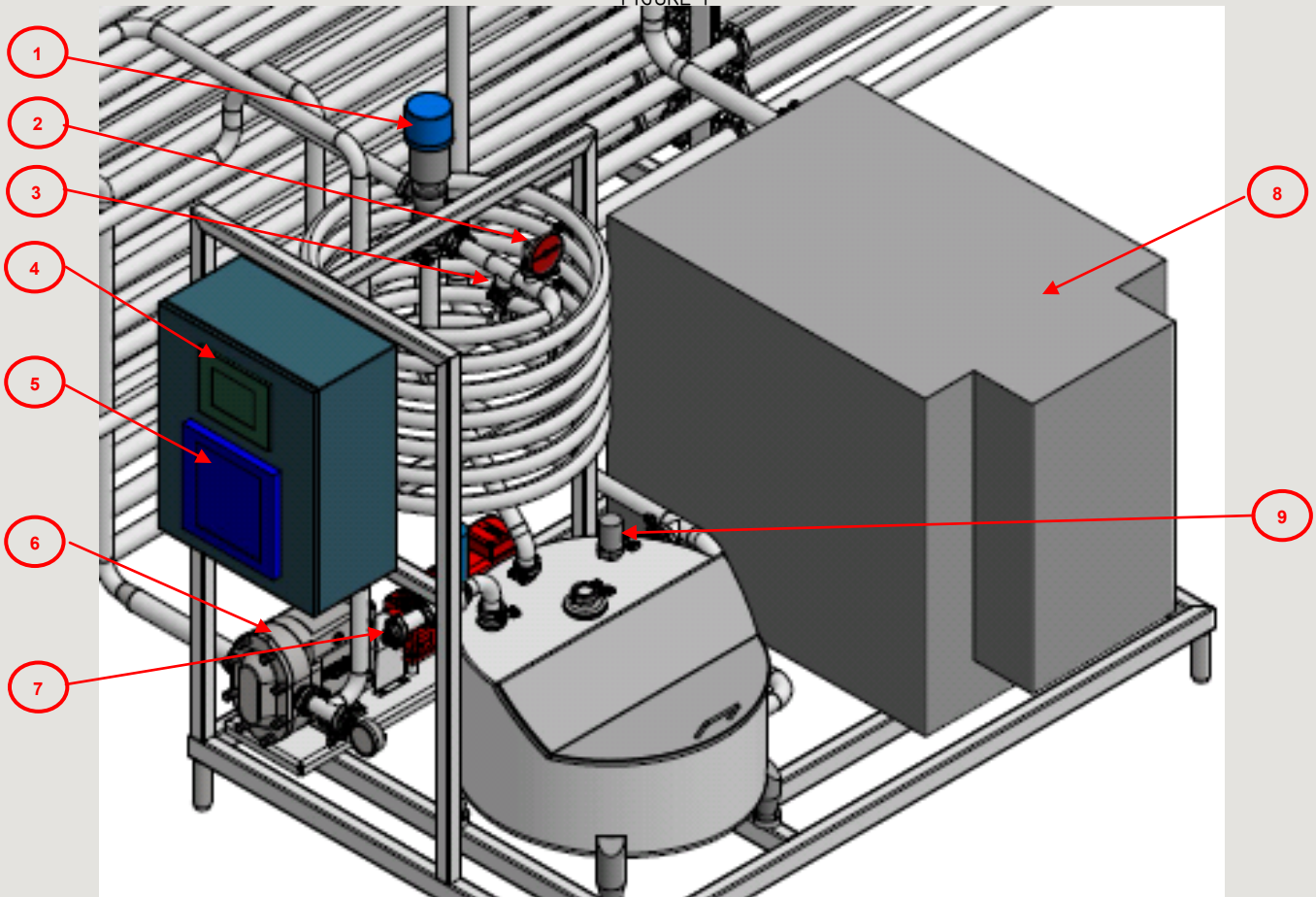
MATERIALS OF CONSTRUCTION: FRAME - 304SS
TANK - 304SS
TUBING - 316SS POLISHED ID/OD
GASKETS - BUNA

PUMP INFORMATION: TIMING PUMP - SPX U2 060 POSITIVE DISPLACEMENT
TIMING PUMP DRIVE - 5 HP NORD GEARMOTOR
513 RPM OUT AT 1800RPM INPUT

BOILER: MOKON DP43144LE03
144 KW
480VAC/3PHASE/60HZ

DESCRIPTION

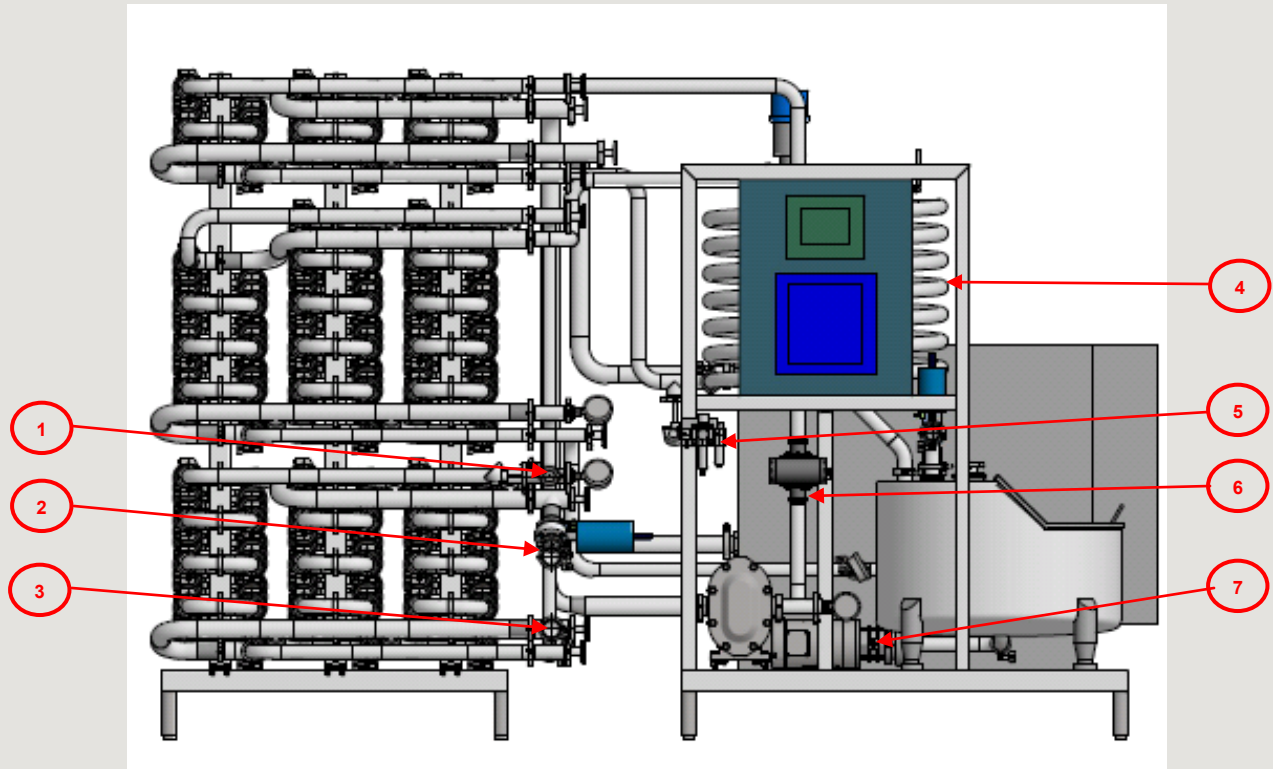
FIGURE 1



1. DIVERT VALVE: AUTOMATICALLY CLOSES AT DESIRED SETPOINT TO SEND PRODUCT TO PROCESS AND AUTOMATICALLY OPENS TO RECYCLE PRODUCT BACK TO BALANCE TANK BELOW SETPOINT.
2. TEMPERATURE INDICATOR: 5" ANALOG THERMOMETER AT HOLD LOOP EXIT
3. TEMPERATURE SENSOR: RTD USED FOR DISPLAYING PASTEURIZATION TEMP ON OPERATOR INTERFACE AND CHART RECORDER
4. OPERATOR INTERFACE: TOUCH PANEL SCREEN USED TO OPERATE MACHINE FUNCTIONS.
5. CHART RECORDER: RECORDS TEMPERATURE OF PRODUCT AS IT EXITS THE HOLD LOOP.
6. TIMING PUMP: SPEED CONTROLLED POSITIVE DISPLACEMENT PUMP
7. PRODUCT INLET VALVE: AUTOMATICALLY ACTUATES TO CONTROL BALANCE TANK LEVEL WHEN PRODUCT VALVE IS ACTIVE FROM HMI.
8. WATER HEATER: 144 KW HEATER USED FOR HEAT EXCHANGE
9. LEVEL CONTROL PROBES: SENDS SIGNAL FOR BOTH LOW LEVEL SHUT OFF, AND DUAL PROBE CONTROL

DESCRIPTION

FIGURE 2



1. FINISHED PRODUCT OUTLET: PASTEURIZED PRODUCT EXITS AT THIS POINT
2. GLYCOL INLET: CONNECT GLYCOL SUPPLY TO THIS POINT
3. GLYCOL OUTLET: CONNECT GLYCOL RETURN TO THIS POINT
4. HOLD MANIFOLD: LENGTH OF TUBE DESIGNED TO HOLD PRODUCT AT TEMP FOR A SPECIFIC AMOUNT OF TIME.
5. FILTER REGULATOR LUBRICATOR: CONNECT COMPRESSED AIR SUPPLY AT THIS POINT
6. FLOW METER: READS CURRENT FLOW RATE AND SENDS SIGNAL TO HMI FOR FLOW RATE DISPLAY
7. BOOSTER PUMP: SPEED CONTROLLED CENTRIFUGAL PUMP

INSTALLATION



WARNING:

ALL ELECTRICAL, GAS, STEAM AND VENTING CONNECTIONS SHOULD BE MADE BY QUALIFIED TECHNICIANS IN ACCORDANCE WITH STATE AND LOCAL CODES.



UNPACKING EQUIPMENT

GOODNATURE'S RESPONSIBILITY FOR THIS SHIPMENT ENDED WHEN THE CARRIER SIGNED THE BILL OF LADING.

- ◇ THE UNIT WAS PACKAGED TO REDUCE DAMAGE DURING SHIPMENT.
- ◇ YOU MUST SIGN YOUR BILL OF LADING "SUBJECT TO CONCEALED DAMAGE" OR ANY DAMAGE DISCOVERED AFTER OPENING THE CRATE WILL NOT BE COVERED.
- ◇ REMOVE THE CRATE, ANY BANDING AND SHRINK WRAP; INSPECT MACHINE.
- ◇ CERTAIN PARTS OF YOUR PASTEURIZER WERE REMOVED TO DIMINISH POSSIBLE VIBRATION DAMAGE DUE TO SHIPPING. MAKE SURE YOU HAVE ALL THE PARTS YOU ORDERED. OPEN ANY BOXES AND INSPECT THEIR CONTENTS.
- ◇ IF CONCEALED DAMAGE IS FOUND, IMMEDIATELY NOTIFY THE CARRIER AND REQUEST AN INSPECTION. THIS MUST BE DONE WITHIN 15 DAYS OF DELIVERY.
- ◇ WE ARE WILLING TO ASSIST YOU IN THE COLLECTING OF CLAIMS FOR LOSS OR DAMAGE, BUT BY DOING THIS, WE ARE NOT ACCEPTING RESPONSIBILITY FOR CLAIMS. THE FILING OF CLAIMS RESTS WITH YOU.

LOCATING THE PASTEURIZER

- ◇ IF YOU HAVE NOT ALREADY DONE SO, SELECT AN AREA WHICH WILL PROVIDE AMPLE ROOM TO WORK AROUND ALL FOUR SIDES OF THE MACHINE.
- ◇ THE AREA SELECTED MUST BE WARM ENOUGH TO PREVENT FREEZING FROM OCCURRING DURING TIMES THE PASTEURIZER IS IDLE.
- ◇ UNIT SHOULD ALSO BE IN CLOSE PROXIMITY TO THE TANK HOLDING YOUR RAW PRODUCT AND THE TANK RECEIVING PASTEURIZED PRODUCT.
- ◇ PROPER ELECTRICAL SUPPLY, CLEAN FRESH WATER, FUEL SOURCE FOR BOILER AND COMPRESSED AIR SHOULD BE NEARBY.
- ◇ A FLOOR DRAIN IN THE SAME ROOM AS THE MACHINE WILL PROVIDE AN OUTLET FOR WATER USED TO RINSE AND CLEAN THIS EQUIPMENT.

ASSEMBLY

- ◇ FAMILIARIZE YOURSELF WITH THE MACHINE BY GOING OVER THE DESCRIPTION PAGES AT THE FRONT OF THIS MANUAL.
- ◇ AS PREVIOUSLY MENTIONED, SOME COMPONENTS OF YOUR MACHINE WERE REMOVED AT THE FACTORY TO PREVENT DAMAGE DURING TRANSPORT. REMOVE THESE PARTS FROM THE BOXES THEY WERE SENT IN. IF YOU BELIEVE THERE ARE PARTS MISSING, IMMEDIATELY CONTACT OUR CUSTOMER SERVICE DEPARTMENT (800-875-3381).
- ◇ EACH PART WILL HAVE A LETTERED-RED TAG ATTACHED TO IT.
- ◇ MATCH THE LETTERS TO EACH OTHER, OR IN OTHER WORDS CONNECT PIPE END MARKED "A" TO PIPE END MARKED "A".
- ◇ LEAVE EACH CONNECTION LOOSE UNTIL ALL PARTS ARE CONNECTED, THEN GO BACK AND TIGHTEN EACH ONE.

INSTALLATION



CAUTION: ELECTRICAL CONNECTIONS TO THIS UNIT MUST BE MADE IN ACCORDANCE WITH ALL APPLICABLE LOCAL CODES AND THE LATEST REVISION OF THE NATIONAL ELECTRIC CODE.



CAUTION: WHEN WORKING INSIDE ELECTRICAL PANELS DISCONNECT POWER TO PREVENT SERIOUS PERSONAL INJURY.

ELECTRICAL CONNECTIONS

PASTEURIZER

- ◇ CHECK SERIAL NUMBER NAMEPLATE LOCATED ON THE SIDE OF THE ELECTRICAL ENCLOSURE FOR CORRECT LINE VOLTAGE REQUIRED. REFER TO WIRING DIAGRAM LOCATED IN SECTION 7 OF THIS MANUAL FOR PROPER CONNECTION LOCATIONS.
- ◇ RUN WIRE FROM APPROPRIATE POWER SOURCE THROUGH A STRAIN RELIEF CONNECTOR IN THE SIDE OF THE ELECTRICAL ENCLOSURE ON THE PASTEURIZER AND INTO THE DISCONNECT SWITCH IN THE TOP RIGHT HAND CORNER INSIDE THE ENCLOSURE.
- ◇ CONNECT NEUTRAL WIRE (IF APPLICABLE) TO TERMINAL BLOCK WITH SYSTEM NEUTRALS LANDED IN IT.
- ◇ AFFIX GROUND WIRE TO LUG. FAILURE TO PROPERLY GROUND MACHINE MAY CAUSE DAMAGE TO ELECTRICAL COMPONENTS VOIDING WARRANTY AND POSSIBLY CAUSING PERSONAL INJURY. USE APPROPRIATE WIRING MATERIAL FOR UNITS INSTALLED OUTDOORS.

BOILER

- ◇ CHECK SERIAL NUMBER NAMEPLATE LOCATED ON THE SIDE OF THE ELECTRICAL ENCLOSURE FOR CORRECT LINE VOLTAGE REQUIRED.
- ◇ RUN WIRE FROM APPROPRIATE POWER SOURCE THROUGH A STRAIN RELIEF CONNECTOR IN THE SIDE OF THE ELECTRICAL ENCLOSURE ON THE WATER HEATER AND INTO THE DISCONNECT SWITCH IN THE TOP RIGHT HAND CORNER INSIDE THE ENCLOSURE.

COMPRESSED AIR CONNECTION

- ◇ ATTACH AIR LINE FROM COMPRESSOR TO THE FILTER/REGULATOR/LUBRICATOR LOCATED NEAR THE ELECTRICAL ENCLOSURE ON THE PASTEURIZER.(FIGURE 1, ITEM 6)
- ◇ THE REGULATOR WAS SET AT THE FACTORY FOR 80PSI. IF ADJUSTMENT IS NECESSARY, SIMPLY PULL UP ON THE KNOB ON TOP OF THE REGULATOR AND TURN CLOCKWISE TO INCREASE OR COUNTER-CLOCKWISE TO DECREASE PRESSURE. PUSH KNOB BACK DOWN TO LOCK INTO POSITION.
- ◇ TO FILL LUBRICATOR BOWL, SHUT OFF AIR SUPPLY, UN-SCREW PLASTIC BOWL, FILL TO LINE WITH LIGHT AIR TOOL OIL, REPLACE BOWL AND TURN AIR SUPPLY BACK ON. A 5/32" HEX HEAD SCREW IS LOCATED ON TOP OF THE SIGHT FEED DOME OF THIS LUBRICATOR TO ADJUST AMOUNT OF OIL DELIVERY. TURN SCREW CLOCKWISE TO DECREASE AND COUNTER-CLOCKWISE TO INCREASE. MONITOR DIVERT VALVE AND READJUST OIL DELIVERY IF NECESSARY.
- ◇ SUPPLY COMPRESSED AIR TO THE TEMPERATURE CONTROLLER ASSEMBLY ON THE STEAM INJECTOR HEATER. PROVIDE A SHUTOFF VALVE IN THE AIR SUPPLY LINE, JUST UPSTREAM OF THE CONNECTION TO THE FILTER REGULATOR.THE STANDARD TEMPERATURE CONTROLLER REQUIRES APPROXIMATELY ½ SCFM AT 20 PSI. THE TEMPERATURE CONTROLLER ASSEMBLY IS SUPPLIED WITH AN AIR FILTER/REGULATOR THAT HAS BEEN FACTORY-SET AT 20 PSI.

CITY WATER CONNECTIONS

BOILER

- ◇ CONNECT A COLD WATER SUPPLY LINE TO THE PRESSURE REDUCING VALVE LOCATED ON THE BACK OF THE WATER HEATER

PASTEURIZER

- ◇ IT IS RECOMMENDED THAT A COLD WATER SUPPLY LINE BE INSTALLED OVER THE BALANCE TANK ON THE PASTEURIZER WITH A VALVE ON THE END OF IT TO ADD WATER FOR FLUSHING AND CLEANING THE MACHINE. THE FLOW RATE THROUGH THIS LINE SHOULD BE EQUAL TO OR GREATER THAN THE FLOW RATE OF YOUR PASTEURIZER WITH THE PUMP SPEED SWITCH IN THE CLEAN POSITION. IF INSTALLING A WATER LINE IS NOT PRACTICAL, THEN A NEARBY HOSE WILL SUFFICE.

INSTALLATION

PROCESS CONNECTIONS

RAW PRODUCT

- ◇ IT IS NECESSARY TO PUMP RAW PRODUCT FROM YOUR TANK INTO THE BALANCE TANK ON THE UNIT.
- ◇ INSTALL SANITARY TUBING FROM YOUR RAW PRODUCT FEED PUMP TO THE IN—FEED CONTROL VALVE LOCATED ON THE FRONT OF THE BALANCE TANK.
- ◇ IT IS IMPORTANT TO NOTE THAT THE IN—FEED LEVEL CONTROL ON THE PASTEURIZER IS FACTORY WIRED TO CONTROL ONLY THE AIR ACTUATED BUTTERFLY VALVE. THE 110VAC SIGNAL SENT TO THE AIR CONTROL VALVE CAN BE USED TO OPERATE THE COIL ON A CONTACTOR TO CONTROL YOUR PUMP AS WELL. CONSULT WITH CUSTOMER SERVICE FOR MORE DETAILS.

PASTEURIZED PRODUCT

- ◇ FINISHED PASTEURIZED PRODUCT WILL EXIT THE UNIT AT THE DIVERT VALVE (*FIGURE 1, ITEM 2*)
- ◇ RUN SANITARY TUBING FROM THIS POINT TO A COLLECTION TANK OR RESERVOIR ON FILLING MACHINE. THIS TUBING SHOULD BE THE SAME DIAMETER AS THE TUBING ON THE PASTEURIZER.
- ◇ THREE IMPORTANT NOTES REGARDING THIS CONNECTION—
 1. SINCE THE MACHINE IS WARMED UP ON WATER AND THIS WATER IS PUSHED OUT OF THE MACHINE WITH INCOMING RAW PRODUCT, THE WATER NEEDS TO BE DIRECTED TO DRAIN UNTIL THE DISCHARGE TURNS TO PRODUCT.
 2. THE CLEANING PROCESS OF THE MACHINE REQUIRES THE OUTLET OF THE UNIT TO BE CONNECTED TO THE INLET TO CREATE AN INTERNAL CLOSED LOOP. SANITARY TUBING CAN BE RUN THAT CONNECTS THE OUTLET OF THE MACHINE TO THE INLET OF YOUR RAW PRODUCT FEED PUMP TO WASH ALL PROCESS PIPING ALONG WITH THE MACHINE.
 3. A MANUALLY OPERATED THREE WAY VALVE LOCATED ON THE FINISHED PRODUCT OUTLET PIPING WILL ALLOW YOU TO DIRECT START--UP WATER, RINSE WATER AND CLEANING SOLUTION TO DRAIN.
- ◇ IF YOU ARE SENDING FINISHED PRODUCT TO A FILLER RESERVOIR THEN AN AUTOMATIC THREE--WAY FILLER RECYCLE VALVE MUST BE INSTALLED. THIS VALVE SHOULD OPERATE OFF A LEVEL SENSOR IN THE FILLER RESERVOIR SO THAT WHEN THE RESERVOIR IS FULL THE VALVE WILL ACTUATE AND SEND PRODUCT BACK TO THE BALANCE TANK.
- ◇ RUN SANITARY TUBING FROM YOUR FILLER RECYCLE VALVE TO THE OPEN PORT IN THE TOP OF THE BALANCE TANK, OR PLACE A SANITARY TEE BETWEEN THE IN—FEED VALVE AND THE TANK TO CONNECT THIS LINE.

CLEANING LINES

- ◇ A CLOSED LOOP FROM THE PASTEURIZER OUTLET (HTST OR HOTFILL LOCATION) TO THE IN—FEED VALVE ON THE BALANCE TANK SHOULD BE CREATED TO PROPERLY CLEAN THE UNIT. THIS CAN SIMPLY BE A HOSE FROM THE OUTLET TEE TO THE VALVE OR A PIPE FROM THE FILLER RECYCLE VALVE BACK TO THE BALANCE TANK IN—FEED VALVE, OR YOU MAY CONNECT A LINE FROM FILLER RECYCLE TO INLET OF RAW PRODUCT PUMP, THEN TO THE IN—FEED VALVE.

CHILLER LINES

- ◇ CONNECT SUPPLY LINE FROM CHILLER TO THE INLET OF COOLING SECTION. CONNECT RETURN TO CHILLER SYSTEM TO THE OUTLET OF COOLING SECTION. FOLLOW CHILLER MANUFACTURER'S COMPLETE INSTALLATION INSTRUCTIONS. **NOTE:** THE FLOW DIRECTION OF THE COOLING WATER THROUGH THE COOLING SECTION MUST BE OPPOSITE THAT OF THE PRODUCT.

DRAIN LINE

- ◇ CONNECT DRAIN LINE FROM THE WATER HEATER DRAIN PORT TO FLOOR DRAIN. WATER HEATER WILL DISCHARGE WATER FROM THIS POINT DURING STARTUP AIR PURGE AND PERIODICALLY DURING OPERATION.

OPERATION

IMPORTANT NOTES AND SUGGESTIONS

- ◇ PROPERLY CLEANING YOUR PASTEURIZER AFTER EACH USE IS THE MOST IMPORTANT THING YOU CAN DO TO AVOID FREQUENT DIVERTING AND OTHER PROBLEMS.
- ◇ GOODNATURE RECOMMENDS A SODIUM HYDROXIDE BASED DETERGENT AND A PHOSPHORIC ACID BASED RINSE FOR YOUR UNIT. FOLLOW MANUFACTURER'S CLEANING LABEL TO DETERMINE THE PROPER AMOUNT TO ADD. **NOTE: IF YOU HAVE EXCESSIVELY HARD WATER, INCREASE THE AMOUNT OF DETERGENT YOU ADD.**
- ◇ NEVER USE POWDERED CLEANERS AS THIS WILL VOID THE WARRANTY OF THE PUMP.
- ◇ DO NOT ALLOW THE MACHINE TO SIT IDLE WITH PRODUCT IN IT FOR ANY LENGTH OF TIME, AS FOULING OF HEAT EXCHANGER WILL OCCUR.
- ◇ CLEANING TEMPERATURES OVER 220°F WILL VOID WARRANTY OF THE PUMP.
- ◇ LEAVING CLEANING SOLUTION IN YOUR PASTEURIZER FOR AN EXTENDED PERIOD OF TIME WILL NOT MAKE YOUR MACHINE EXTRA CLEAN, IN FACT, DOING SO MAY CAUSE DAMAGE. THIS IS ESPECIALLY TRUE WITH CHLORINATED CLEANERS, AS CHLORINE WILL PIT STAINLESS STEEL.
- ◇ PRODUCT CONTAINING LARGE AMOUNTS OF SEDIMENT OR PULP HAS TO BE ALLOWED TO SETTLE OUT OR BE FILTERED BEFORE GOING THROUGH A PASTEURIZER WITH A PLATE HEAT EXCHANGER.
- ◇ IF YOUR UNIT IS EQUIPPED WITH A COOLING SECTION, NEVER ADJUST CHILLER UNIT TEMPERATURE BELOW 33°F WITHOUT INSTALLING AN INTERLOCK TO SHUT CHILLER FLOW OFF IF PRODUCT FLOW STOPS, OR FREEZING OF THE PRODUCT IN THE HEAT EXCHANGER WILL OCCUR.
- ◇ IF WHILE PASTEURIZING YOU EXPERIENCE LARGE TEMPERATURE FLUCTUATIONS OR UNIT IS DIVERTING, ADJUST PUMP SPEED OR ADJUST BOILER TARGET TEMPERATURE. **NEVER** ADJUST PUMP SPEED ABOVE OR BELOW THE RATED CAPACITY OF YOUR MACHINE DURING PASTEURIZATION. THE MODEL NUMBER OF YOUR MACHINE REPRESENTS THE RATED CAPACITY IN GALLONS PER HOUR.