



COOK/CHILL HORIZONTAL AGITATOR STATIONARY MIXER KETTLES

MODELS: ☐ HA-MKDL-60-CC ☐ HA-MKDL-200-CC
☐ HA-MKDL-100-CC ☐ HA-MKDL-300-CC
☐ HA-MKDL-150-CC



Cleveland Standard Features

- Full 60, 100, 150, 200 or 300 gallon working capacity
- Electrically driven, Horizontal Agitator Mixer Arm
- Variable mixer speed control
- Spring loaded blades scrape entire heated surface area
- Internal mixing fins for most efficient, uniform mixing, heating and cooling
- Flush mounted, easily removable temperature probe
- Simmer control for cooking delicate products
- 3" diameter air operated, flush mounted piston draw-off valve (requires air compressor)
- Spiral flights for even water cooling
- Easily removable agitator without the use of tools
- Spring assist, one piece cover (bifold cover with counterweight for 300 gallon model)
- Heavy duty rim bar
- 100 psi steam jacket rating and safety valve
- Type 316 stainless steel for all food contact surfaces
- Water fill faucet with swing spout
- Kettle mounted valve box for single point utility connections
- NSF approved
- Accepted for use in USDA inspected facilities

Note: This COOK/CHILL mixer kettle requires a control panel for operation. (Please specify remote mounted control center or kettle mounted control center.)

Standard Features for Kettle Control Center:

- Solid State temperature control with digital read-out
- Time/Temperature Chart Recorder to provide permanent record of Batch Processing
- Automatic and manual steam control
- Automatic and manual jacket water cooling
- Simmer control for delicate products
- Automatic water meter with accumulative "add on" button and digital readout
- U.L. approved

Options & Accessories

- ☐ Single or dual remote control center
- ☐ Kettle mounted control center (100 gal. and larger)
- ☐ Dolly for horizontal agitator
- ☐ Stainless steel bifold hinged cover

ITEM NUMBER _____

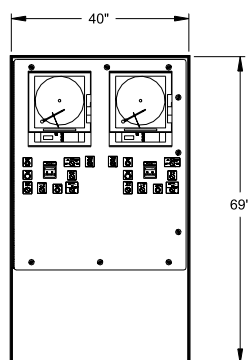
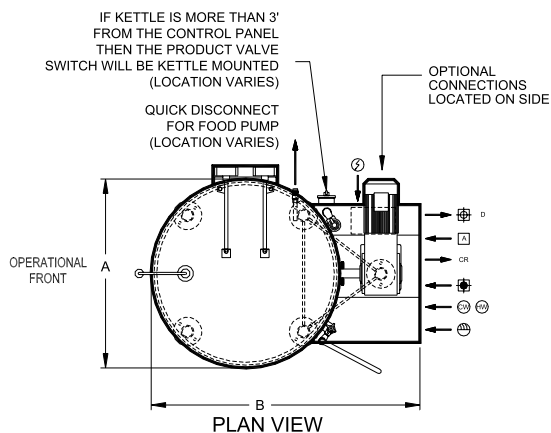
JOB NAME / NUMBER _____



Short Form Specifications

Shall be CLEVELAND Model HA-MKDL-___-CC; COOK/CHILL STATIONARY HORIZONTAL MIXER KETTLE, ___ gallons; leg mounted; 2/3 jacketed, direct steam; 100 psi Steam Jacket Pressure Rating; 316 Stainless Steel Liner; electrically driven Horizontal Agitator; Variable Mixer Speed Control; 3" diameter air operated, flush mounted Piston Draw-Off Valve; spring loaded Scraper Blades; flush mounted Temperature Probe; Automatic Water Meter with Digital Readout; Water Fill Faucet with swing spout; Time/Temperature Chart Recorder (located in Control Center); Spring Assist, one piece Cover (bifold cover with counterweight for 300 gallon model).

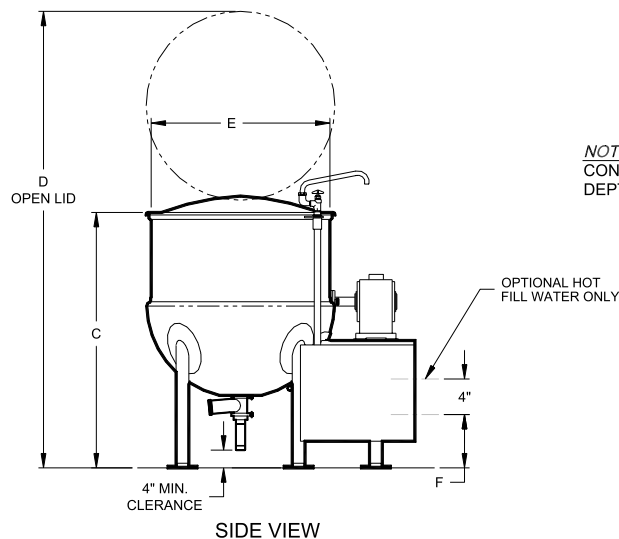
- ☐ Tilting models
- ☐ 3" flush mounted ball valve
- ☐ Loading bucket and dolly
- ☐ Jacket pressure ratings other than standard
- ☐ Electric chain hoist for lifting the product load



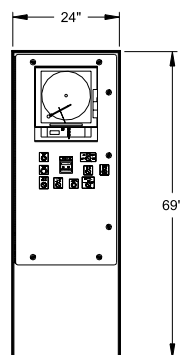
HA-DE-CC2
DUAL CONTROL PANEL

MINIMUM CLEARANCE FOR KETTLES

FRONT	36"
SIDE	12"
REAR	12"



NOTE:
CONTROL PANEL
DEPTH 18 3/4"



HA-SE-CC2
SINGLE CONTROL PANEL

ELECTRICAL POWER TO AND FROM CONTROL PANEL

- CONTRACTOR
MUST CUT ENTRY
HOLE
- TOP OR BOTTOM
POWER ENTRY
RECOMMENDED
- MUST USE PROPER
CONNECTIONS TO
MAINTAIN U.L.
LISTING

DIMENSIONS

MODEL	A	B	C	D	E	F	⚡ ELECTRICAL PER KETTLE - 208V/3PH/60Hz	R.P.M.
HA-MKDL-60-CC	32 1/2"	50 3/4"	47"	83"	29 1/2"	8"	12 AMPS	4-25
HA-MKDL-100-CC	38 5/16"	57"	52"	93"	35"	9"	15 AMPS	3-22
HA-MKDL-150-CC	43"	62"	57 1/2"	101"	40"	9"	25 AMPS	3-20
HA-MKDL-200-CC	48"	65 3/4"	62"	111"	45"	9"	25 AMPS	3-20
HA-MKDL-300-CC	53"	76 3/8"	67 1/2"	100"	50"	11"	30 AMPS	3-17

UTILITY CONNECTIONS

MODEL	CHILLED WATER INLET	CHILLED WATER RETURN	COLD POTABLE WATER	** HOT WATER	CONDENSATE RETURN	DRAIN	AIR INLET	STEAM
HA-MKDL-60-CC	3/4" 15 GPM	3/4"	1/2" 15 GPM	1/2" 15 GPM	1/2"	3/4"	1/2" 1 CFM	3/4" 320 lbs/hr
HA-MKDL-100-CC	1" 20 GPM	1"	3/4" 20 GPM	3/4" 20 GPM	3/4"	1"	1/2" 1 CFM	1" 525 lbs/hr
HA-MKDL-150-CC	1 1/4" 20 GPM	1 1/4"	3/4" 20 GPM	3/4" 20 GPM	1"	1 1/4"	1/2" 1 CFM	1 1/4" 780 lbs/hr
HA-MKDL-200-CC	1 1/4" 25 GPM	1 1/4"	3/4" 20 GPM	3/4" 20 GPM	1"	1 1/4"	1/2" 1 CFM	1 1/4" 1050 lbs/hr
HA-MKDL-300-CC	1 1/2" 30 GPM	1 1/2"	3/4" 20 GPM	3/4" 20 GPM	1"	1 1/2"	1/2" 1 CFM	1 1/2" 1575 lbs/hr

** HOT FILL WATER IS OPTIONAL

65 PSI STEAM OPERATING PRESSURE IS RECOMMENDED

J. C. PARDO & SONS, Inc.

Stainless Steel and Nickel Fabricators



Manufacturers of Steam Jacketed Kettles and Tanks



1250 REAMES ROAD, OFF PULASKI HWY.

TELEPHONE: 391-3600 - 391-3603
(AREA CODE 410)

BALTIMORE, MARYLAND 21220

INSTALLATION INSTRUCTIONS

1. WHEN REMOVING THE KETTLE FROM THE PLATFORM, HANDLE WITH CARE TO PREVENT SCRATCHING OR ANY OTHER DAMAGE. IT IS IMPERATIVE THAT THE KETTLE BE LEVEL BEFORE BOLTING TO THE FLOOR. THIS WILL PREVENT ANY TWIST OR OUT OF ROUNDNESS TO THE KETTLE AND WILL STOP DEFLECTION OF THE AGITATOR. MAKE SURE THE KETTLE IS SECURELY BOLTED TO THE FLOOR AND FOLLOW THE PRECEDURE LISTED BELOW:
 - A. RAISE THE FLANGE ON THE LEG OR LEGS UNDER THE MOTOR SO THAT IT SETS FREELY.
 - B. BECAUSE MOST FLOORS HAVE A PITCH TO ALLOW FOR DRAINING THE FLANGES CAN ONLY BE LOWERED APPROXIMATELY 1" DOWNWARD. IF THERE IS ANY VOID BETWEEN THE FLANGE AND THE FLOOR YOU MUST USE SHIMS TO FILL UP THE SPACE.
 - C. LOWER THE FLANGE OR FLANGES UNDER THE MOTOR CHANNEL. OVER ADJUSTMENT, WHETHER UP OR DOWN, COULD CAUSE MISALIGNMENT AND CAUSE DAMAGE TO THE AGITATOR DRIVE SHAFT AND HUB. WHEN THIS IS COMPLETED YOU ARE THEN READY TO BOLT THE FLANGE OR FLANGES TO THE FLOOR.
2. NEXT YOU MUST CHECK THE ALIGNMENT OF THE DRIVE SHAFT FOR A UNIFORM CLEARANCE BETWEEN THE HUB AND THE SHAFT. IN ORDER

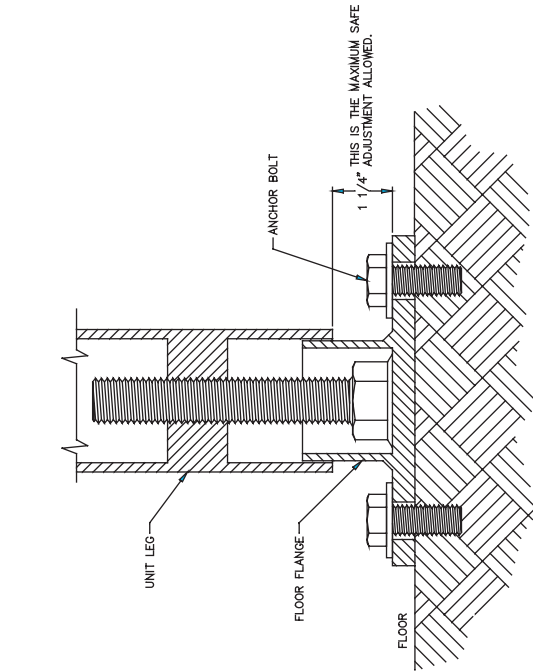
TO CHECK FOR CLEARANCE YOU MUST REMOVE THE SEAL COVER
PLATE AND PULL THE SEAL BACK. YOU CAN CHECK THE DISTANCE
FOR CLEARANCE BY USING A WIRE FEELER GUAGE.

3. IF ADJUSTMENT IS REQUIRED FOR SIDE DIRECTION, LOOSEN THE
MOTOR BOLTS, CENTER THE SHAFT AND RETIGHTEN.

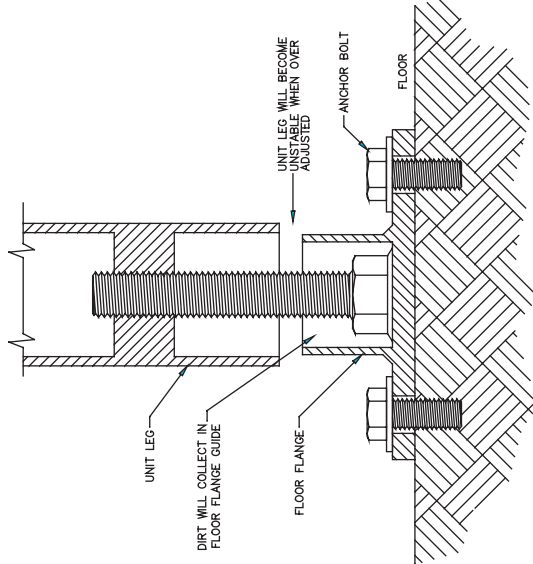
IF VERTICAL ALIGNMENT IS NEEDED, LOOSEN THE MOTOR BOLTS AND
ADD A SHIM TO RAISE OR REMOVE A SHIM TO LOWER. RETIGHTEN
BOLTS. WHEN THIS IS COMPLETE, CHECK TO SEE IF THE AGITATOR
SHAFT COUPLING SLIDES FREELY FOR EASY REMOVAL OF THE AGI-
TATOR.

NOTES:

AFTER UNIT IS LEVEL, ANCHOR ALL FLOOR FLANGES TO THE FLOOR BY USING AN ANCHOR BOLT IN EACH HOLE OF THE FLANGES.



CORRECT ADJUSTMENT
OF FLOOR FLANGE



INCORRECT ADJUSTMENT
OF FLOOR FLANGE

J.C.PARDO & SONS INC.



1250 REAMES RD. BALTO MD. 21220
PHONE (410) 391-3600 FAX (410) 391-9042

CHECKED BY:

APPROVED BY:

DRAWN BY: JAY S.

DATE: 4-27-96

SCALE: NONE

2" TO 2 1/2" FLOOR FLANGE
ADJUSTMENT INSTRUCTIONS

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SIZE:

B

DRAWING NUMBER:

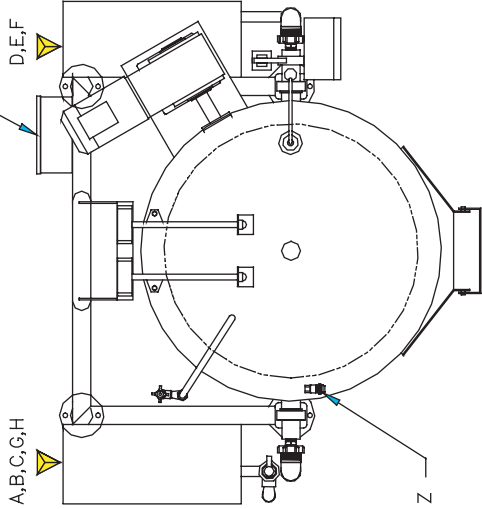
8576

REV.

1 of 1

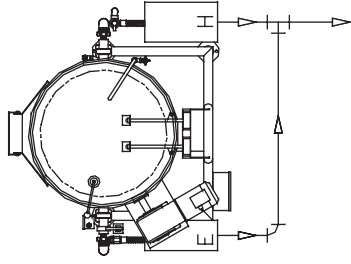
SHEET

MAIN JUNCTION BOX (N)

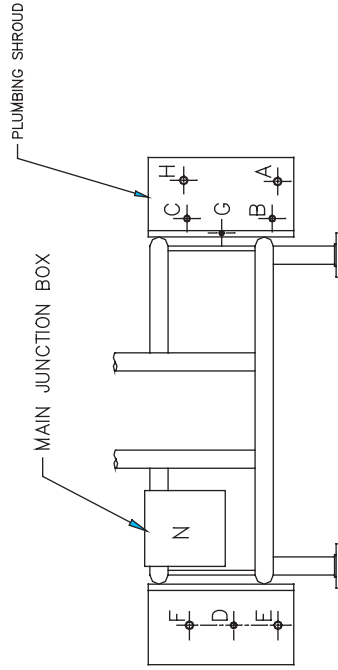
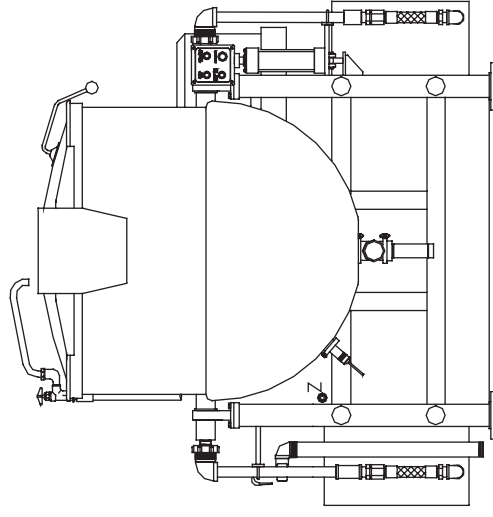


UTILITY CONNECTIONS

- A) 1 1/4" NPT STEAM IN
- B) 3/4" NPT COLD POTABLE WATER
- C) 3/4" NPT HOT POTABLE WATER (OPTIONAL)
- D) 1 1/4" NPT COOLING WATER IN
- E) 1 1/4" NPT JACKET DRAIN
- F) 1" NPT CONDENSATE RETURN
- G) 1/2" NPT AIR IN
- H) 1 1/4" NPT COOLING WATER OUT
- N) MOTOR & CONTROL POWER IN FROM MAIN CONTROL PANEL
- Z) AIR CONNECTION FOR FOOD PUMP

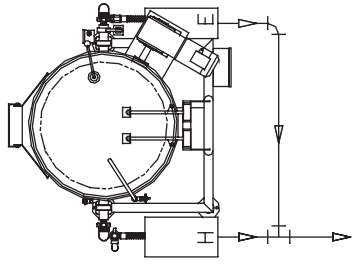


WATER CONSERVATION OPTION:
THE JACKET DRAIN LINE CAN DUMP INTO
THE COOLING WATER OUT LINE AS SHOWN
ABOVE.

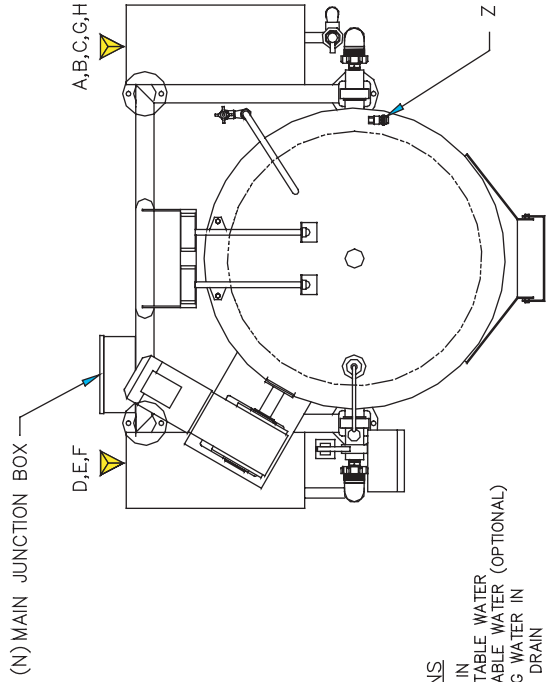


REAR DETAIL WITH UTILITY CONNECTIONS

REV.		DESCRIPTION	BY	DATE	J.C.PARDO & SONS INC. 1250 REAMES RD. BALTO MD. 21220 PHONE (410) 391-9600		CHECKED BY:	DATE: 2/27/03	SCALE: NONE	HA-MKDL-150-CC-T (R.H.) UTILITY CONNECTIONS		SIZE: C	DRAWING NUMBER: 9196-R
REVISIONS						1250 REAMES RD. BALTO MD. 21220 PHONE (410) 391-9600		APPROVED BY:		This drawing and all information contained therein is the property of J.C. Pardo & Sons, Inc. It is loaned subject to return upon demand and is not to be used directly or indirectly in any way detrimental to J.C. Pardo & Sons.		NEW	SHEET 1 of 1

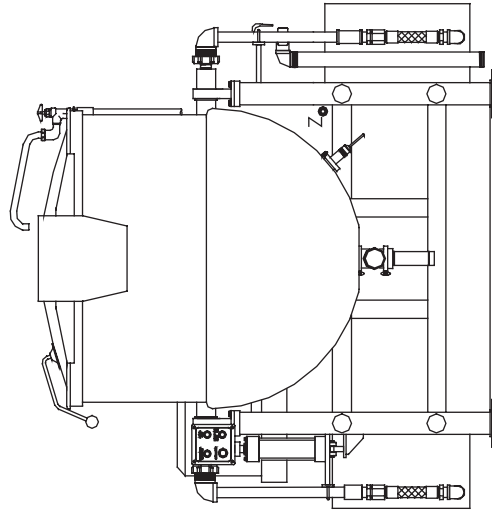
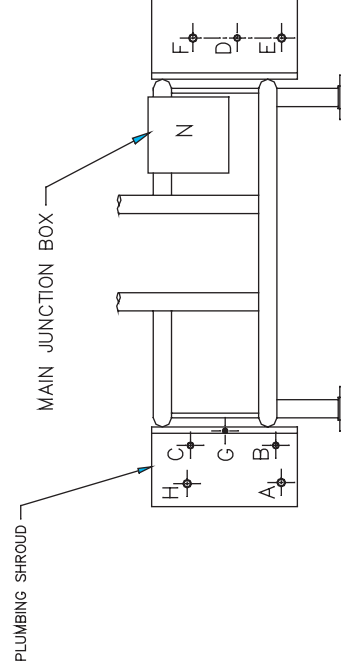


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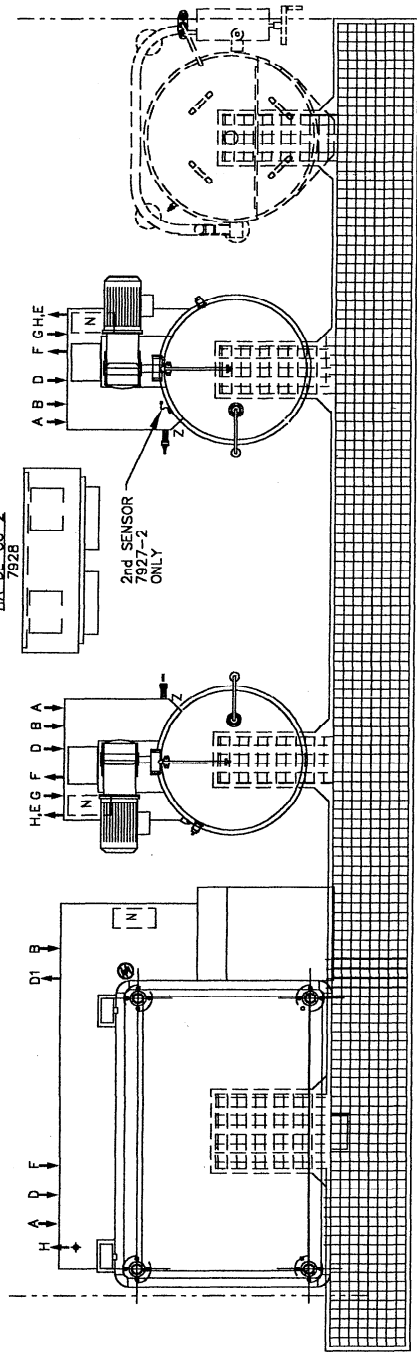


REAR DETAIL WITH UTILITY CONNECTIONS

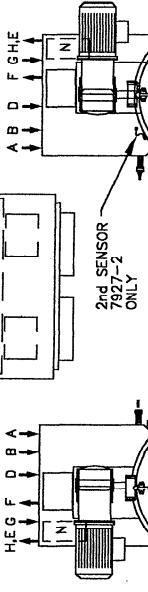
REV.	DESCRIPTION	BY	DATE	CHECKED BY:	DATE	DRAWN BY: JAY S.	SIZE	DRAWING NUMBER:
	REVISIONS						C	9196-L
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1250 REAMES RD. BALTO MD. 21220
PHONE (410) 391-3600 FAX (410) 391-9042

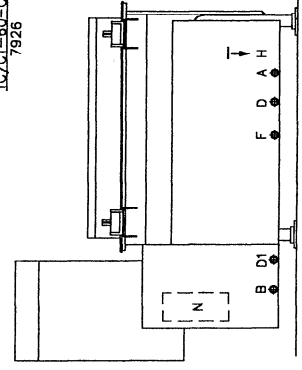
HA-MKDL-150-CC-T (L.H.)
UTILITY CONNECTIONS
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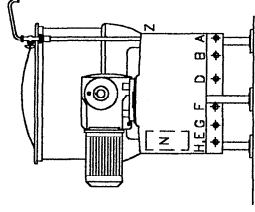
HA-DE-CC-2
7928



IC-CT-60-CC
7926

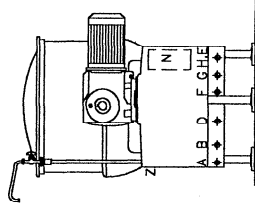


HA-MKDL-60-CC
7927-1



IC-CT-60-CC CONNECTIONS

HA-MKDL-60-CC
7927-2



HA-MKDL-60-CC
7927-1

LEVELING INSTRUCTIONS

DRIVE END OF TANK TO BE 3/4" LOWER THAN IDLER END OF TANK. DO NOT UNSCREW FEET MORE THAN THE MAXIMUM SAFE ADJUSTMENT ALLOWED (REF. DWG. #8576) IF THIS IS NOT ENOUGH THEN USE SHIMS UNDER THE FEET.
TANK MUST BE LEVEL FRONT TO BACK. USE THE LEVELING CENTER POINT ON THE DRIVE SIDE. IF LEVEL IS NOT POSSIBLE THEN BOTH SIDES SHOULD BE OUT OF LEVEL BY THE SAME AMOUNT AND IN THE SAME DIRECTION.

UTILITY CONNECTIONS IC/CT-60-CC

- A) 3/4" NPT STEAM IN
- B) 1/2" COLD POTABLE FILL WATER
- D) 1 1/2" NPT COOLING WATER IN
- F) 3/4" NPT CONDENSATE RETURN
- H) 1 1/4" NPT COOLING WATER OUT
- N) 208V-3PH-60HZ MAIN POWER SUPPLY

CUSTOMER CONNECTIONS

- A) 3/4" NPT STEAM IN
- B) 1/2" COLD POTABLE FILL WATER
- D) 3/4" NPT COOLING WATER IN
- F) 1/2" NPT CONDENSATE RETURN
- G) 1/2" NPT AIR IN
- H,E) 3/4" NPT COOLING WATER OUT
- N) 3/4" NPT JACKET DRAIN
- Z) CONTROL & POWER WIRES FROM MAIN CONTROL PANEL TO KETTLE.
- Z) AIR QUICK DISCONNECT FOR FOOD PUMP.

JOB#: _____ QTY: _____

J.C.PARDO & SONS INC.

**ISR-KENT
UTILITY CONNECTIONS**

SIZE: **B**
DRAWING NUMBER: **8983**

CHECKED BY: _____ APPROVED BY: _____

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REV. _____
SHEET **1** of **1**

UNLESS NOTED OTHERWISE TOLERANCES ARE:
XX = ±
XXX = ±
FRACT. = ±
ANGLE = ±
FINISH = ±
RMS

DRAWN BY: **SME**

DATE: **7/25/00**

SCALE: **NONE**

**Cleveland Range, LLC.**1333 East 179th Street

Cleveland, OH 44110

Phone: (216) 481-4900

Fax: (216) 481-3782

<http://www.clevelandrange.com>**MIXER KETTLES****Kettle Placement**

- ☐ Level
- ☐ Centered on hoist rail
- ☐ All legs bolted to floor
- ☐ Gear box properly supported
- ☐ Proper clearance
- ☐ Pasta basket and batch bucket clearances
- ☐ Floor drains and poor paths

Electrical Requirements

- ☐ Voltage
- ☐ Phase
- ☐ Amp draw
- ☐ Wire Size
- ☐ Check motor rotation

Water requirements**1. Hot and cold water supply (Potable)**

- ☐ Line size
- ☐ Maximum water pressure
- ☐ Line strainers
- ☐ Pressure regulator
- ☐ Water quality

2. Chilled Water

- ☐ Line sizes (in and out)
- ☐ Locate and inspect line strainer
- ☐ Check for leaks

Steam Requirements

- ☐ Locate steam source
- ☐ Line sizes (in and out)
- ☐ Steam pressure
- ☐ Steam gauge
- ☐ Check safety valve operation
- ☐ Check for leaks

Air Requirements

- ☐ Line size
- ☐ Pressures
- ☐ Check lubricator
- ☐ Check for leaks

Model no. _____

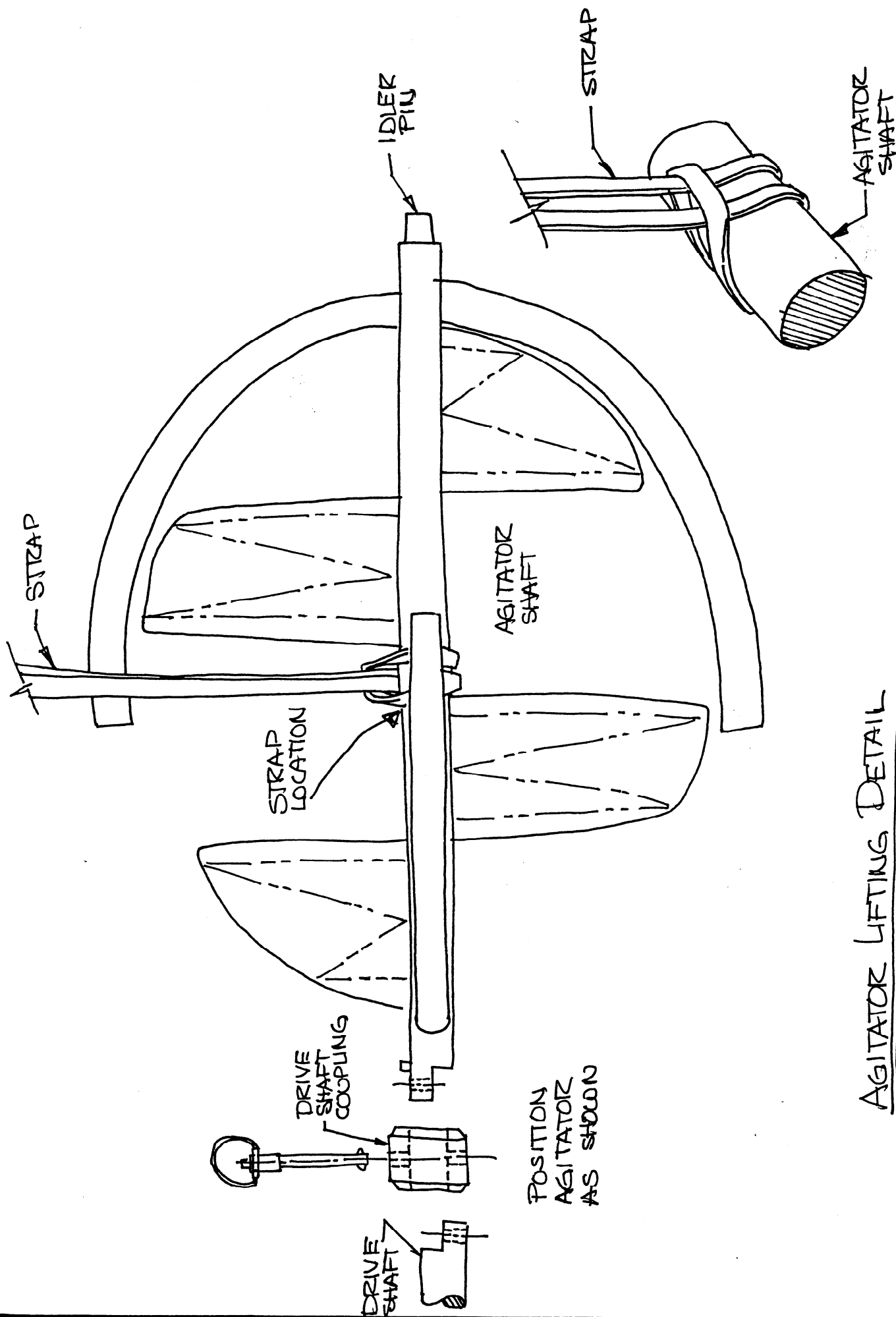
Serial no. _____

Comments:

DAILY CLEANING INSTRUCTIONS OF AGITATOR ASSEMBLY

FOLLOW THE INSTRUCTIONS LISTED BELOW TO REMOVE THE AGITATOR:

- A. ROTATE THE AGITATOR UNTIL THE PULL PIN IS ON THE TOP SIDE.
- B. TURN POWER OFF TO AVOID ACCIDENTS.
- C. PULL PIN OUT. SLIDE COUPLING TOWARD SEAL AND CAREFULLY LIFT AGITATOR AND PULL BACK TO LIFT OUT. BY EXCEEDING TOO MUCH FORCE WHEN LIFTING THE AGITATOR UP, AND WITHOUT PULLING BACK, YOU WILL BEND THE IDLER BEARING SLEEVE WELDED IN THE INTERIOR OF THE KETTLE.



AGITATOR LIFTING DETAIL
 LIFT GENTLY UNTIL IDLER PIN
 COMES FREE FROM SOCKET.

DRAWING NO:

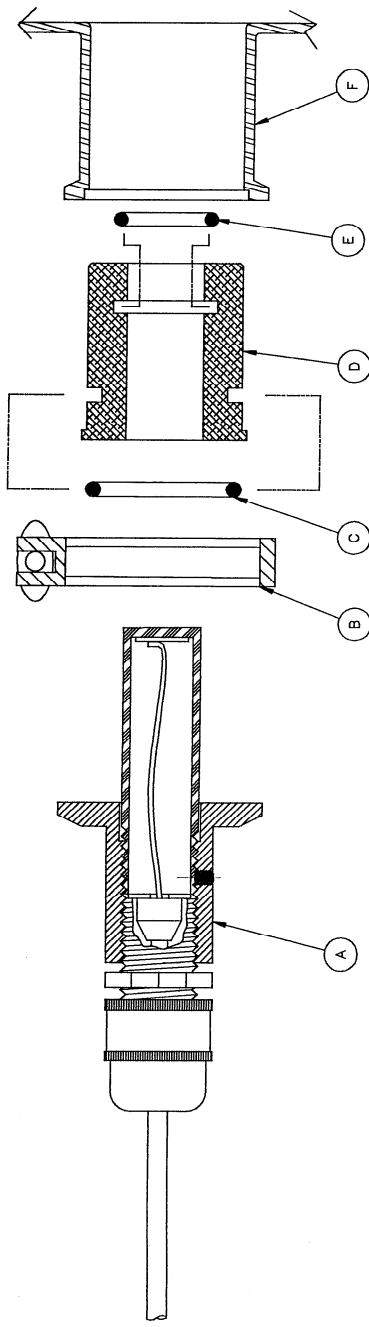
A-SK-0258

12/28/94

DATE:

JAY SCOTT

DRAWN BY:



CLEANING INSTRUCTIONS

1. BE SURE KETTLE IS EMPTY AND MAIN POWER IS DISCONNECTED.
2. REMOVE CLAMP "B" AND SLIDE TEMP. PROBE ASSEMBLY "A" OUT OF THE SEAL HOLDER "D". PLACE PROBE ASSEMBLY IN HOLDER ON KETTLE LEG.
3. SLIDE SEAL HOLDER "D" OUT OF THE FERRULE "E" AND REMOVE INNER AND OUTER O-RINGS "C" AND "E".
4. CLEAN ALL PARTS THOROUGHLY.

REASSEMBLY INSTRUCTIONS

1. LUBRICATE O-RINGS WITH CHESTERTON 622, USDA APPROVED OR EQUIVALENT BEFORE REASSEMBLY.
2. INSTALL LUBRICATED O-RINGS "C" & "E" INTO SEAL HOLDER "D".
3. INSTALL SEAL HOLDER "D" WITH O-RINGS "C" & "E" INTO FERRULE "E".
4. SLIDE TEMP. PROBE ASSEMBLY "A" INTO SEAL HOLDER "D".
5. REPLACE CLAMP "B".

WARNINGS

1. FAILURE TO PLACE PROBE ASSEMBLY IN HOLDER COULD RESULT IN DAMAGE.
2. DO NOT USE CAUSTIC SODA ON PARTS "C", "D", OR "E" AS THIS WILL RESULT IN DAMAGE.

KETTLE LEG

TEMP SENSOR HOLDER

REV	DESCRIPTION	BY	DATE
B	ADDED LINE NOTE 2	TJK	8/10/96
A	REDRAWN FROM HAND AND ADDED NOTES.	LY	4/27/95
REVISIONS			

J.C.PARDO & SONS INC.
 1250 REAMES RD.
 BALTO MD. 21220
 PHONE (410) 391-5800
 FAX (410) 391-9042

DATE 4/27/95
 SCALE NONE

TEMPERATURE SENSOR
 CLEANING INSTRUCTIONS

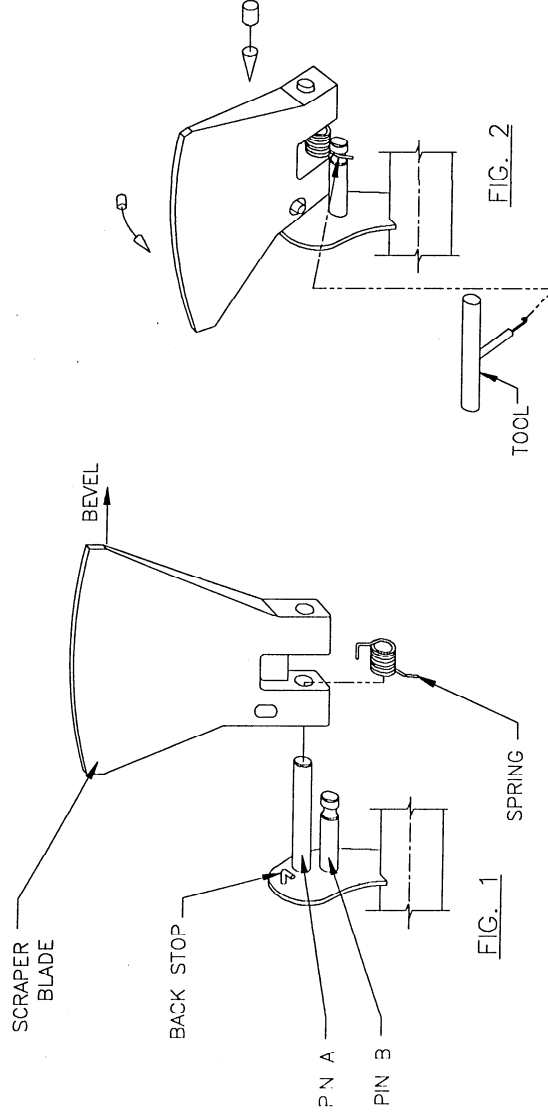
REV C
 SHEET 8322
 1 of 1

TO REMOVE TEFLON SCRAPER BLADE

INSERT TOOL THAT IS PROVIDED IN AREA INDICATED IN FIG. # 2. PULL UP ON SPRING ARM UNTIL SPRING ARM CLEARS GROOVE IN "PIN B." GENTLY RELEASE SPRING. SPRING IS NOW DISENGAGED, REMOVE SCRAPER.

TO INSTALL TEFLON SCRAPER BLADE

SLIDE SCRAPER BLADE AND SPRING ONTO "PIN A" AS SHOWN IN FIG. # 1 & FIG. # 2 USING TOOL THAT IS PROVIDED. HOOK SPRING ARM & PULL UP. SLIDE ASSEMBLY ON AND HOOK SPRING ARM IN GROOVE ON "PIN B" AND RELEASE.



JOB #

J.C.PARDO & SONS INC.



1250 REAMES RD. BALTO. MD. 21220

SCALE: NONE

APPROVED BY:

DATE: 4/25/95

DRAWN BY:

LAURIE YORI

INSTALLATION & REMOVAL OF
SCRAPER BLADE & SPRING

SHEET 1 of 1

SIZE: B

DRAWING NUMBER: 8059

REV. A

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INSTALLATION OF NEW SCRAPER BLADE

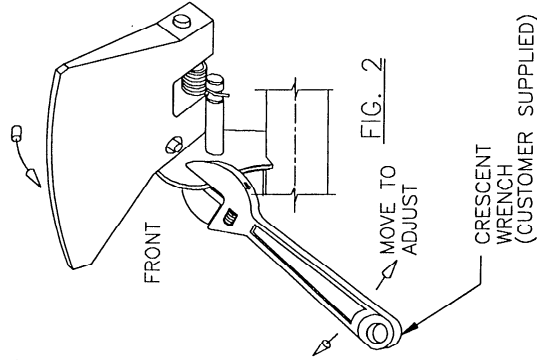
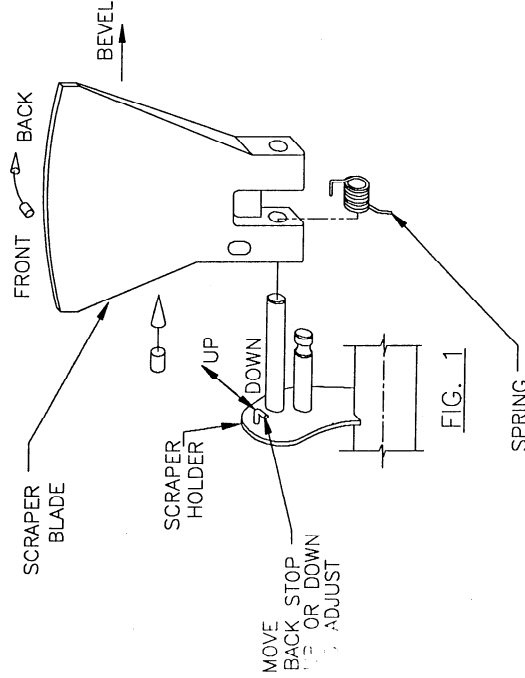
WHEN INSTALLING A NEW SCRAPER BLADE THERE MAY BE SOME ADJUSTMENTS REQUIRED TO MAKE IT LAY FLAT TO FOLLOW THE CONTOUR OF THE KETTLE. IF THE BLADE DOES NOT FIT, YOU MAY HAVE TO GRIND EITHER THE TWO EDGES OF THE BLADE, OR THE CENTER OF THE BLADE (PER. DETAIL A).

NOTE # 1

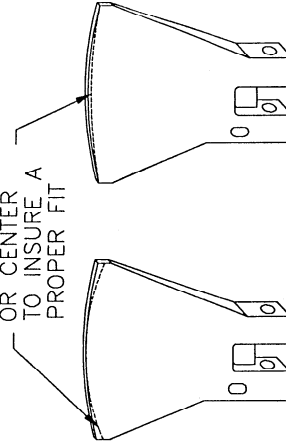
WHEN THERE IS TOO MUCH OR TOO LITTLE PRESSURE ON THE SCRAPER BLADE, BEND THE BACK STOP DOWN TO DECREASE THE PRESSURE OR BEND IT UP TO INCREASE THE PRESSURE ON THE BLADE WHEN SCRAPING THE KETTLE SURFACE (PER. FIG. 1).

NOTE # 2

IF ONLY ONE CORNER OF THE SCRAPER BLADE IS TOUCHING THE KETTLE SURFACE, USE A CRESCENT WRENCH AND SLIGHTLY TWIST THE SCRAPER HOLDER SO THE ENTIRE BLADE SCRAPES THE KETTLE WALL WITH EVEN PRESSURE.



TRIM CORNERS
OR CENTER
TO INSURE A
PROPER FIT



DETAIL A

JOB #

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J.C.PARDO & SONS INC.

1250 REAMES RD. BALTO. MD. 21220

SCALE: NONE APPROVED BY: *Chal G* 4/26/95 DRAWN BY: LAURIE YORI

DATE: 4/25/95 REPLACEMENT AND FITTING

SCRAPER BLADE & SPRING

SHEET 1 of 1 SIZE: B DRAWING NUMBER: 8230 REV. C

INSTRUCTIONS:

1. DISCONNECT THE AIR LINE FROM THE VALVE ACTUATOR AS SHOWN IN FIGURE 1.
2. WHILE SUPPORTING THE VALVE ACTUATOR REMOVE THE BOTTOM CLAMP FROM THE TEE, THEN LOWER THE VALVE ACTUATOR AND SWING IT TO THE SIDE UNTIL THE STEM IS CLEAR OF THE TEE AS SHOWN IN FIGURE 1. GENTLY LOWER VALVE ACTUATOR TO THE FLOOR AS SHOWN IN FIGURE 2.
3. REMOVE THE STEM FROM THE VALVE ACTUATOR BY PULLING UP WHILE HOLDING THE VALVE ACTUATOR IN PLACE AS SHOWN IN FIGURE 2. NEXT REMOVE THE O-RING FROM THE ACTUATOR & STEM AS SHOWN IN FIGURE 2.
4. REMOVE THE TOP CLAMP FROM THE TEE AND THEN REMOVE THE TEE AS SHOWN IN FIGURE 3.
5. REMOVE THE O-RINGS FROM THE TEE AS SHOWN IN FIGURE 4.

SEE DRAWING C-8630 FOR ASSEMBLY INSTRUCTIONS.

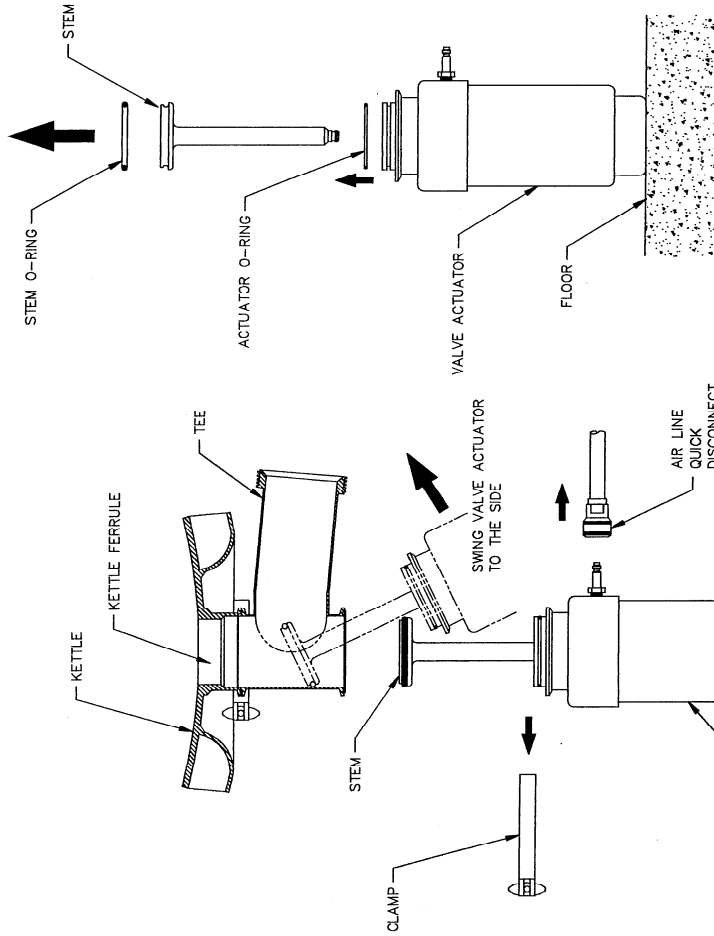


FIGURE 1

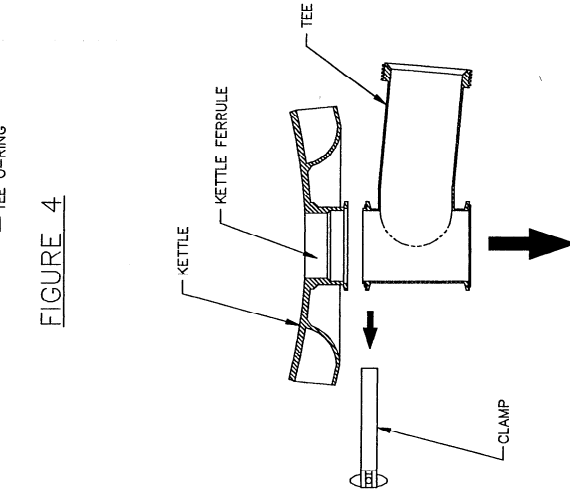


FIGURE 2

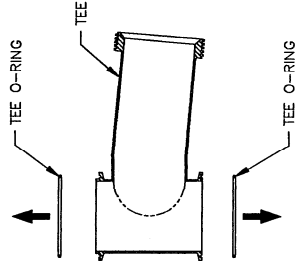


FIGURE 3

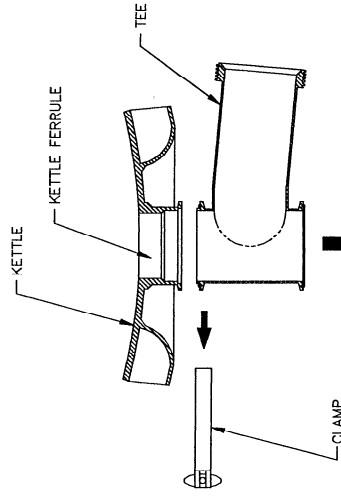


FIGURE 4

REV.	DESCRIPTION	DATE
A	7" CONN WAS 45"	JES 4-27-96

J.C. PARDO & SONS INC.
 1250 REAMES RD.
 BALTO MD. 21220
 PHONE (410) 391-3800
 FAX (410) 391-9042

CHANGED BY: JES
 DATE: 4-19-96
 APPROVED BY: [Signature]
 DATE: 4/29/96

INSTRUCTIONS TO DISASSEMBLE
 3" PRODUCT VALVE W/NEW STEM

REV: A
 1 of 1

INSTRUCTIONS:

1. MAKE SURE CONTROL POWER IS ON.
2. CLEAN AND GREASE STEM AND O-RINGS. USE CHESTERION 622 OR EQUAL FOOD GRADE GREASE.
3. TO ASSEMBLE VALVE ACTUATOR AND STEM:
 - A) PLACE VALVE ACTUATOR ON THE FLOOR AND RECONNECT THE AIR LINE.
 - B) PLACE STEM IN THE VALVE ACTUATOR AS SHOWN IN FIGURE 1.
 - C) APPLY PRESSURE TO THE TOP OF THE STEM AS SHOWN IN FIGURE 1.

CAUTION: USE THE FLAT OF THE HAND AS SHOWN IN FIGURE 1. FAILURE TO FOLLOW THIS MAY RESULT IN PERSONAL INJURY.

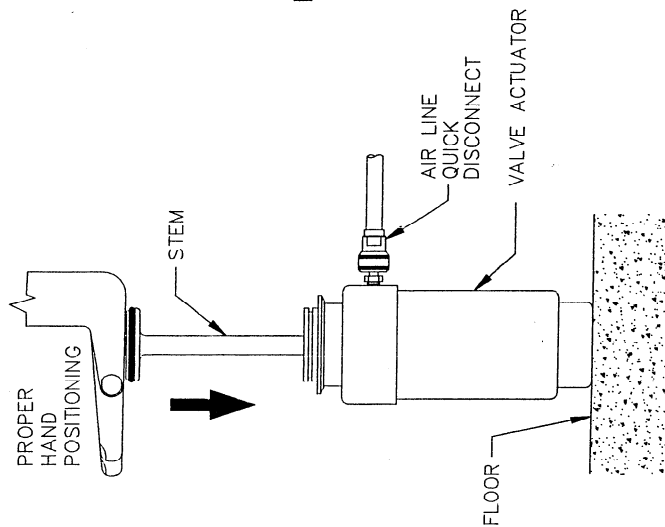


FIGURE 1

INSTRUCTIONS (CONT):

- D) WHILE APPLYING PRESSURE TO THE STEM TURN THE PRODUCT VALVE SWITCH TO THE OPEN POSITION. THE STEM SHOULD LOWER.
- NOTE: IF THE STEM FAILS TO LOWER MAKE SURE THE STEM IS INSERTED CORRECTLY INTO THE VALVE ACTUATOR THEN REPEAT STEPS 3B THRU 3D.
4. ATTACH THE TEE TO THE KETTLE FERRULE WITH CLAMP AS SHOWN IN FIGURE 2.
5. ATTACH THE VALVE ACTUATOR TO THE TEE WITH CLAMP AS SHOWN IN FIGURE 3.
6. TURN THE PRODUCT VALVE SWITCH TO THE CLOSED POSITION AND THE KETTLE VALVE WILL CLOSE.

NOTE:

- A. FOR INSTRUCTIONS TO DISASSEMBLE VALVE SEE DRAWING C-8629.

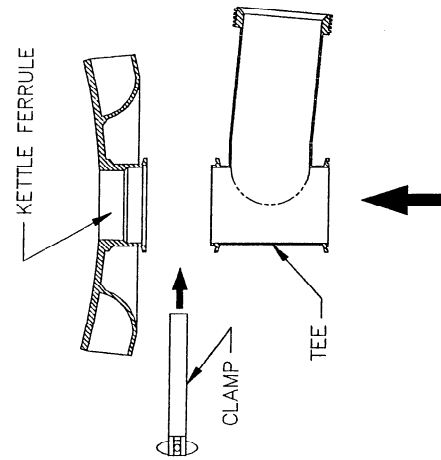


FIGURE 2

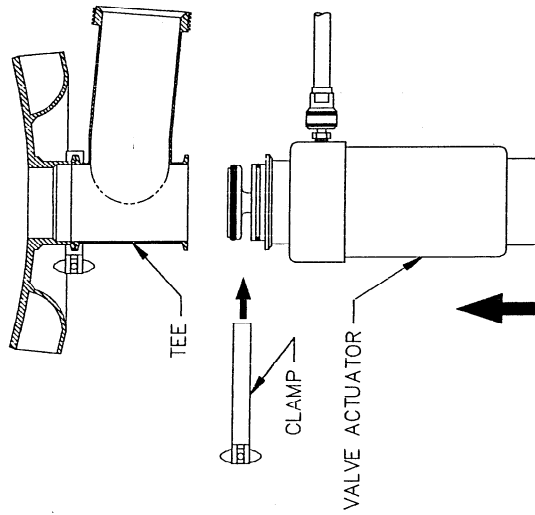


FIGURE 3

REV.	DESCRIPTION	BY	DATE
A	7" TEE CONN WAS 45°	JES	4-27-96

REVISIONS

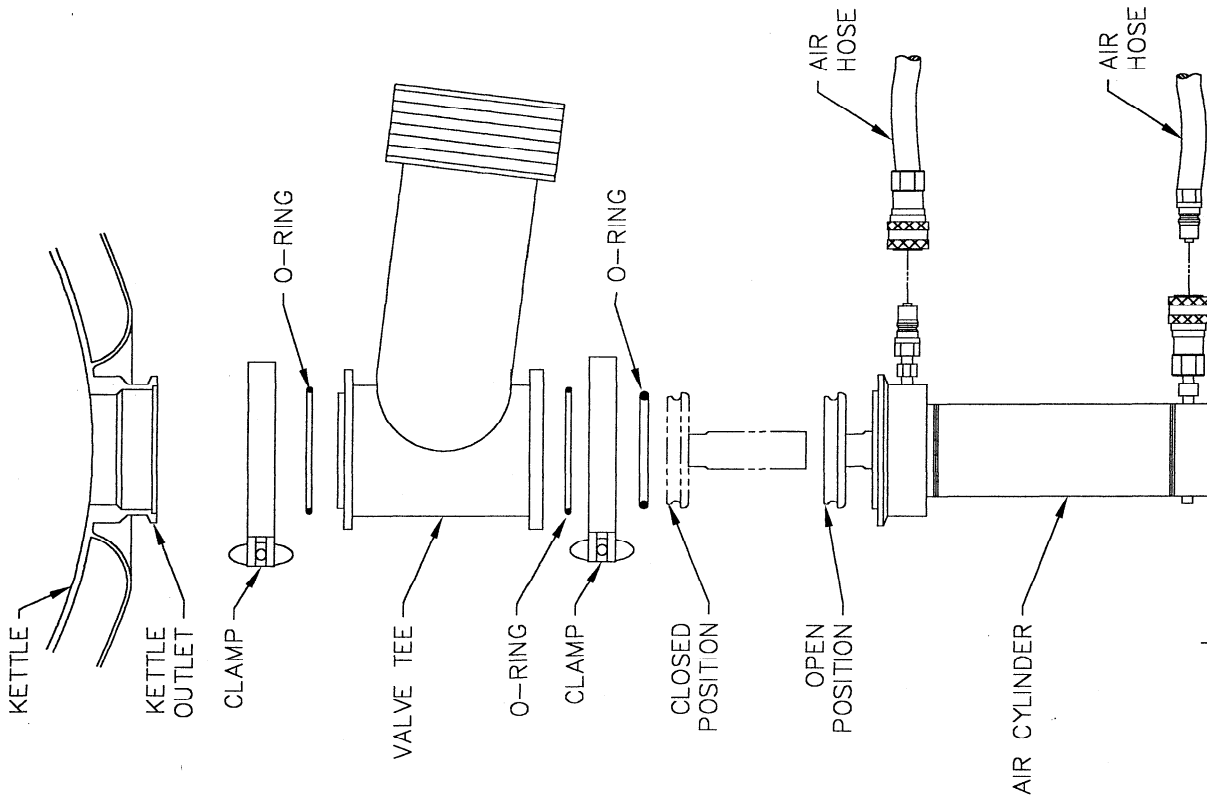
J.C.PARDO & SONS INC.
1250 REAMES RD.
BALTO MD. 21220
PHONE (410) 391-9600
FAX (410) 391-6042

DESIGNED BY
APPROVED BY
DATE 4/19/96
SCALE NONE

DRAWN BY TIM K.
DATE 4/19/96
SCALE NONE

INSTRUCTIONS TO REASSEMBLE
3" PRODUCT VALVE W/NEW STEM

SIZE C
REV A
DRAWING NUMBER 8630
PAGE 1 of 1



J.C. PARDO INSTALLATION & CLEANING INSTRUCTION FOR PRODUCT VALVE

- 1.) OPEN PRODUCT VALVE.
- 2.) DISCONNECT AIR HOSES.
- 3.) REMOVE AIR CYLINDER.
- 4.) REMOVE VALVE TEE.
- 5.) REMOVE ALL O-RINGS.
- 6.) CLEAN AIR CYLINDER, DO NOT SUBMERGE IN WATER. WIPE CLEAN AND SANITIZE.
- 7.) CLEAN AND SANITIZE TEE AND O-RINGS.
- 8.) GREASE AND REINSTALL O-RINGS.
- 9.) REINSTALL TEE TO KETTLE OUTLET.
- 10.) REINSTALL AIR CYLINDER TO BOTTOM OF TEE.
- 11.) RECONNECT AIR HOSES.
- 12.) O.K. TO CLOSE VALVE AND CHECK FOR ALIGNMENT.

REV	DESCRIPTION	BY	DATE
1	REVISIONS		

J.C. PARDO & SONS INC.
 1250 BEAVERS RD.
 PEARRE (410) 261-3000
 BALTO MD. 21220
 FAX (410) 261-3000

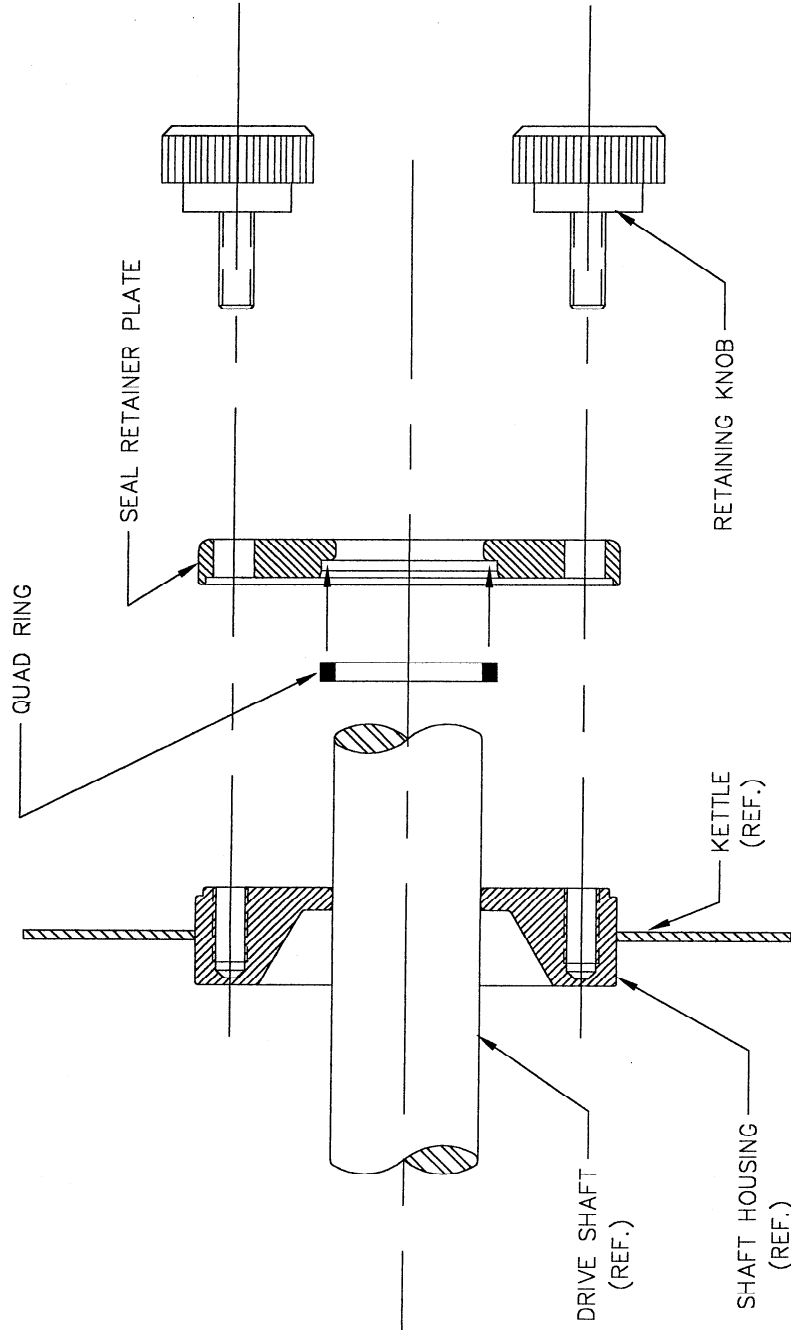
DESIGNED BY
 DRAWN BY
 CHECKED BY
 APPROVED BY
 DATE 01/09/01
 PAGE-NONE

3" J.C. PARDO PRODUCT VALVE
 CLEANING INSTRUCTION
 THE USER SHALL BE RESPONSIBLE FOR THE PROPER USE OF THIS INSTRUCTION. IT IS THE USER'S RESPONSIBILITY TO OBTAIN THE NECESSARY TRAINING AND TO FOLLOW THE INSTRUCTIONS OF THE TRAINING COURSE.

REVISIONS
 D 9027
 1 of 1

DAILY CLEANING :

1. REMOVE RETAINING KNOBS.
 2. SLIDE SHAFT SEAL RETAINER PLATE AWAY FROM SHAFT HOUSING.
 3. SLIDE QUAD RING AWAY FROM SHAFT HOUSING.
 4. CLEAN QUAD RING AND APPLY A LIGHT COAT OF 622 CHESTERTON WHITE FOOD GRADE GREASE OR EQUIVALENT.
 5. SLIDE QUAD RING TOWARDS SHAFT HOUSING MAKING SURE THE QUAD RING DOES NOT TWIST.
 6. SLIDE PLATE TOWARDS SHAFT HOUSING.
 7. REPLACE RETAINING KNOBS.
- HAND TIGHTEN ONLY.



J.C.PARDO & SONS INC.



1250 REAMES RD. BALTO. MD. 21220

SCALE: NONE	APPROVED BY:	DRAWN BY:
DATE: 3-23-94		TIM KAHL
SHAFT SEAL AND RETAINER PLATE		
DAILY CLEANING PROCEDURE		
SIZE: B	DRAWING NUMBER: 8516	REV.

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ASSEMBLY AND REMOVAL OF 300 GALLON HORIZONTAL AGITATOR KETTLE

CLEANING OR MAINTENANCE

1. ROTATE AGITATOR UNTIL PULL PIN IS ON THE TOP SIDE.
2. TURN POWER **OFF** TO AVOID ACCIDENTS.
3. REMOVE KETTLE COVER.
4. SECURE LIFTING STRAP TO THE CENTER OF AGITATOR SHAFT AS SHOWN ON DWG. #8680 HOLD SO IT DOES NOT DROP.
5. REMOVE PULL PIN #8, SLIDE COUPLING ALL THE WAY TOWARD SEAL TO CLEAR AGITATOR SHAFT.
6. REMOVE BOLTS #12. GENTLY PULL BACK ON BEARING BLOCK #3 BY HOLDING THE HANDLE ON TOP SIDE OF BEARING BLOCK. **DO NOT DROP**
7. WITH ONE HAND OPERATE HOIST SWITCH, USING OTHER HAND TO GUIDE AGITATOR OUT OF THE KETTLE AND SET IT ON THE AGITATOR DOLLY.

REINSTALL THE AGITATOR

1. LOWER THE AGITATOR WITH A HOIST, GENTLY SET BUSHING SIDE ON THE AGITATOR REST AND THE OTHER END ON THE DRIVE SHAFT, SIDE WITH COUPLING.
2. SLIDE COUPLING IN PLACE THEN INSERT PULL PIN.
3. GENTLY SLIDE IDLER BEARING BLOCK INTO KETTLE HUB. SECURE WITH THE (4) BOLTS, GREASE BUSHING, REMOVE STRAP, AND REPLACE KETTLE COVER.
(ASSEMBLY IS COMPLETE)

CLEANING OF A 300 GALLON HORIZONTAL AGITATOR IDLER END BEARING

HERE ARE TWO WAYS OF CLEANING A 300 GAL. HORIZ. AGI. IDLER END BEARING:

1. THE FIRST WAY IS TO FLUSH IT OUT WITH HOT WATER OR STEAM.
2. THE SECOND WAY IS TO REMOVE THE IDLER BEARING SECTIONS COMPLETELY.

TO CLEAN WITH HOT WATER OR STEAM

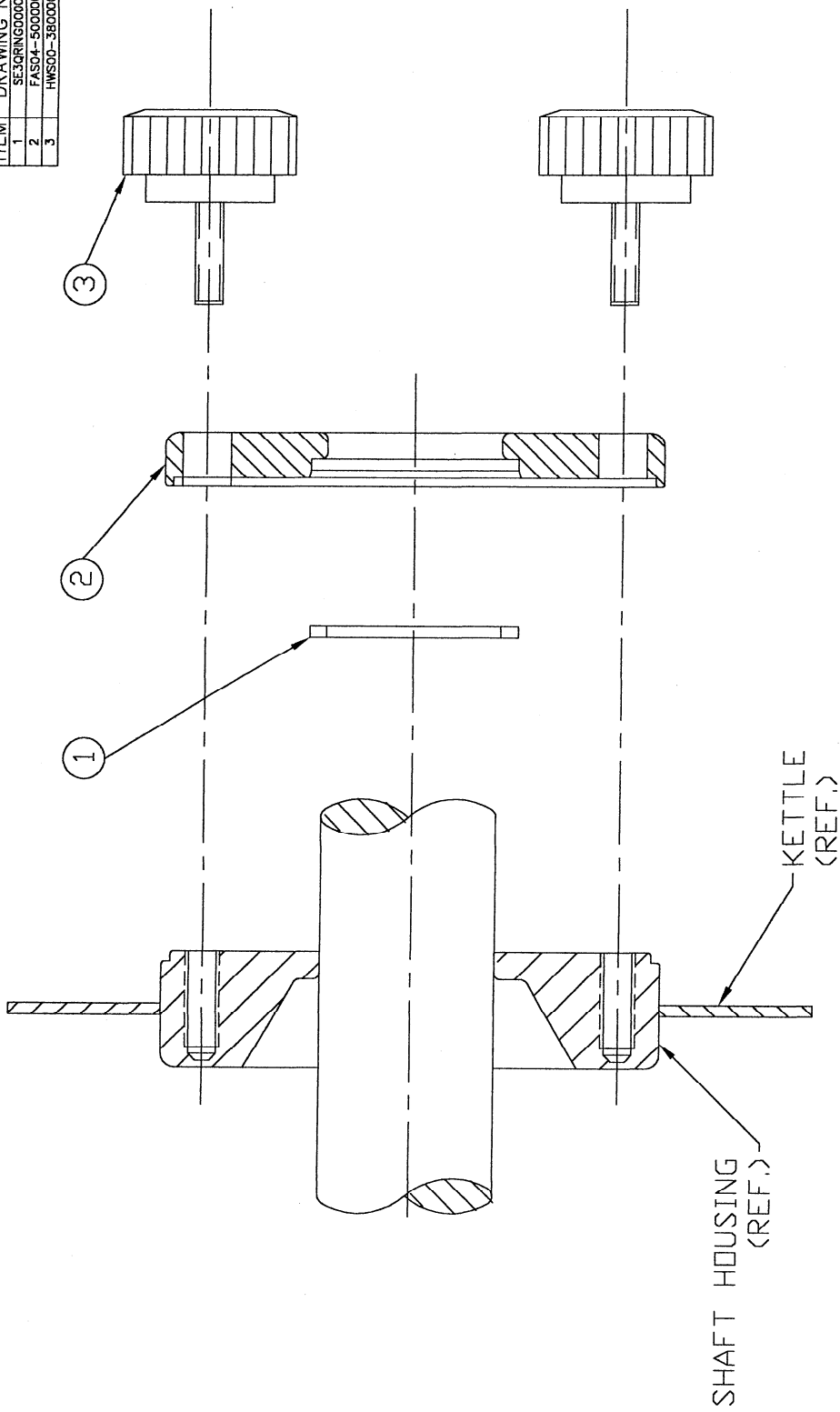
1. SET AGITATOR SPEED TO LOWEST SETTING THEN TURN ON AGITATOR.
(MAKE SURE KETTLE COVER IS CLOSED)
2. TURN ON VALVE TO STEAM OR HOT WATER THAT GOES TO THE CONNECTION OF AGITATOR IDLER BEARING MARKED **FLUSH CONNECTION** ON DWG. #8680. LEAVE ON FOR 5 TO 10 MINUTES THEN TURN OFF HOT WATER OR STEAM VALVE.
3. STOP AGITATOR, OPEN KETTLE COVER, AND RINSE INSIDE OF KETTLE WITH HOT WATER HOSE.
4. USING A GREASE GUN, GREASE IDLER BEARING WITH A CHESTERTON FOOD GREASE 622 OR EQUAL.
5. CLEAN DRIVE SIDE SHAFT SEAL. FOLLOW INSTRUCTIONS ON DWG. #8516.

TO CLEAN BY REMOVING THE BEARING SECTIONS

1. TURN POWER OFF TO THE KETTLE.
2. REMOVE BOLTS #13.
3. REMOVE BEARING END CAP, PART #1.
4. REMOVE BOLTS #12.
5. REMOVE BEARING BLOCK, PART #3 (**DO NOT DROP**). THE AGITATOR SHAFT WILL REST ON THE AGITATOR REST INSIDE THE KETTLE, AS ALL OF THIS IS SHOWN ON DWG. #8680.
6. REMOVE O-RING #2 AND #4 FROM PART #1 AND 3.
7. CLEAN THE END OF THE AGITATOR SHAFT AND ALL OTHER PARTS OF SEAL HOUSING WITH ANY ACCEPTABLE CLEANING SOLUTION, USING A CLOTH OR BRUSH.
8. APPLY A THIN COAT OF CHESTERTON 622 FOOD GREASE OR EQUAL TO THE OUTSIDE OF THE AGITATOR SLEEVE AND INSIDE THE BEARING HOUSING.
9. APPLY A THIN COAT OF GREASE ON O-RING #4 AND SLIDE BACK ONTO PART #3.

10. GENTLY SLIDE BEARING BLOCK BACK INTO KETTLE HUB TO START BOLTS.
START BOLTS AND TIGHTEN SUFFICIENTLY TO HOLD THE AGITATOR BEARING
BLOCK FROM MOVING AND LEAKING.
11. GREASE O-RING #1 THEN INSERT ONTO END CAP, PART #1.
12. INSERT CAP #1 INTO BEARING BLOCK AND BOLT IN PLACE SO IT DOESN'T LEAK.
13. FOLLOW DWG. #8516, AND CLEAN DRIVE SIDE SHAFT SEAL.

DRAWINGS FOR REPLACEMENT PARTS		
ITEM	DRAWING NO.	DESCRIPTION
1	SE30000005	QUAD RING
2	FAS04-5000001	SEAL RETAINER PLATE
3	HWS00-3800003	RETAINING KNOBS



A	REDRAWN IN ACAD	SME	8-27-99
REV	DESCRIPTION	BY	DATE

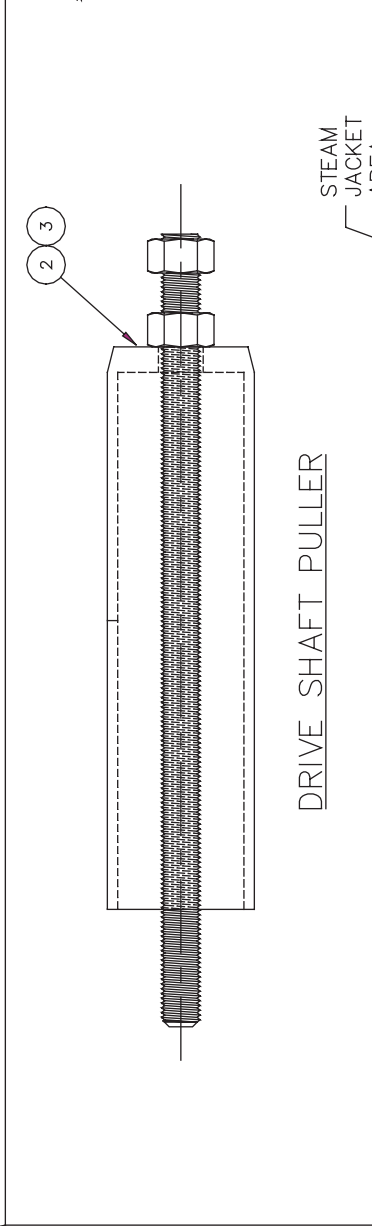
J.C.PARDO & SONS INC.

CHECKED BY:	APPROVED BY:
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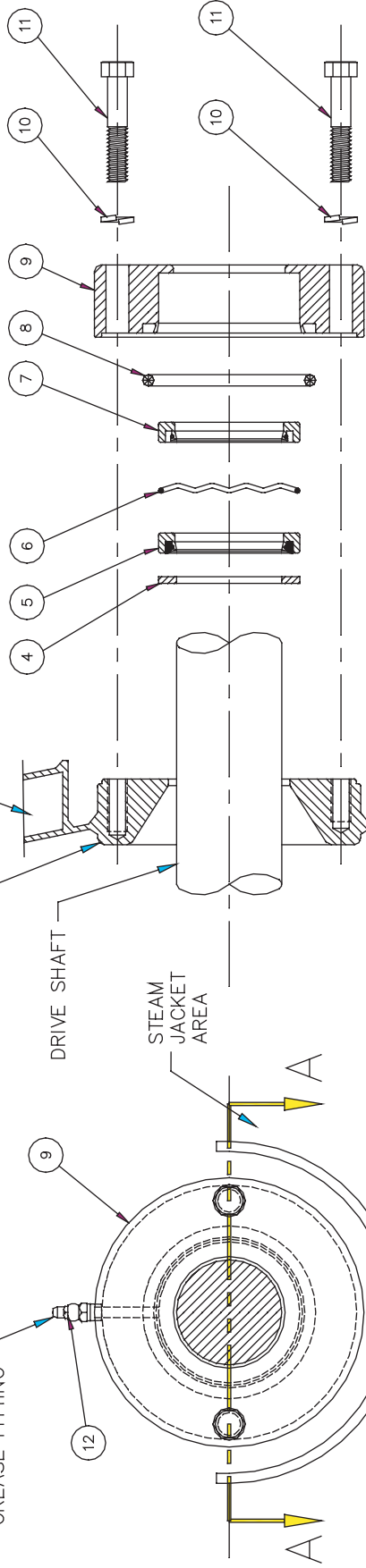
JOB #: _____ QTY: _____

DRAWN BY: SME	DATE: 8-27-99	SCALE: NONE
UNLESS NOTED OTHERWISE TOLERANCES ARE: XX = ± XXX XXX = ± XXXX FRACT. = ± XXXX ANGLE = ± XXXX FINISH = 64 RMS		
SHAFT SEAL AND RETAINER PLATE PARTS FOR 60 GAL		
SIZE: B	REV: A	DRAWING NUMBER: 11023
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SHEET 1 of 1		

REPLACEMENT PARTS LIST	
ITEM	PART NO. DESCRIPTION
1	1H800-0000007 HAK-100-200 SEALS & COVER PLATE ASSY
2	1FS02-0000023 HAK-100 DRIVE SHAFT PULLER
3	1FS02-3800010 HAK-150-200 DRIVE SHAFT PULLER
4	1FF02-0000001 SEALING RING
5	1FD02-0000001 SILICONE FILLED SEAL
6	1FS02-0000022 SST SPACING RING
7	SEDSEALS00001 SEAL
8	SE3ORING00007 O-RING
9	1FS05-0000005 COVER PLATE
10	HWS00-3800011 SST LOCK WASHER
11	HWS00-3800016 SST BOLT
12	HWS00-1300001 SST GREASE FITTING
13	MSFLUIDS00001 TUBE OF FOOD GRADE GREASE(NOT SHOWN)
14	1H800-0000005 GREASE GUN (NOT SHOWN)



* ITEM #1 CONSISTS OF ITEMS #4-13



EXPLODED SECTION A-A

REV.	DESCRIPTION	BY	DATE
B	DEL HEX PLUG & PORT	JES	7/03
A	ADDED HEX PLUG	JES	2/10/03

REVISIONS

J.C.PARDO & SONS INC.
 1250 REAMES RD. BALTO MD. 21220
 PHONE (410) 391-3600 FAX (410) 391-9042

CHECKED BY: DATE 8/29/02
 APPROVED BY: SCALE: NONE

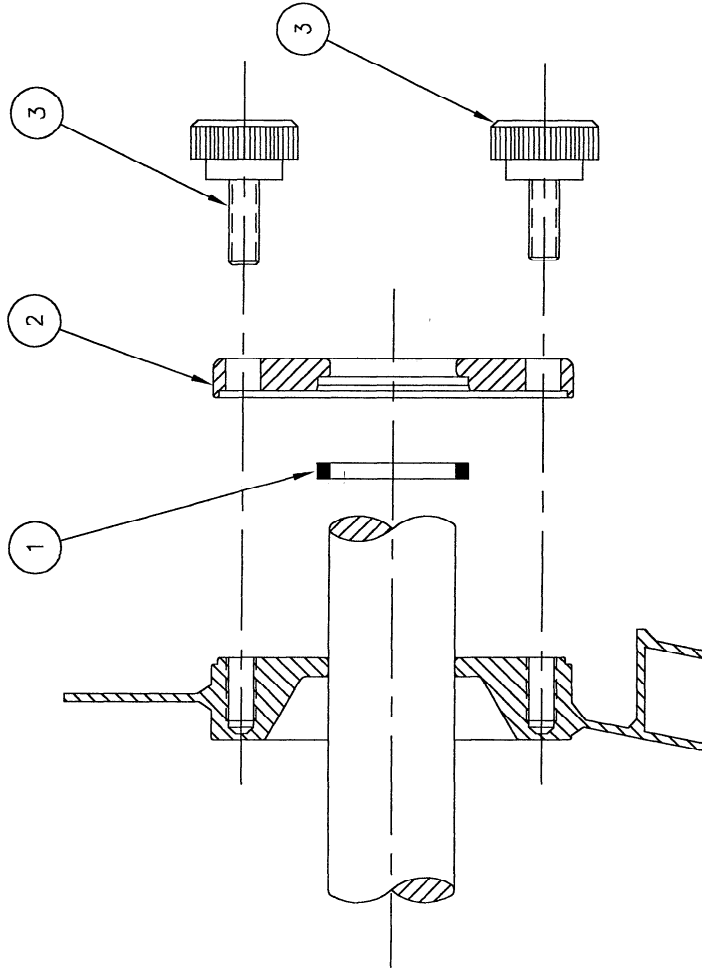
SHAFT SEALS & COVER PLATE
 HAK-100-200 REPL. PARTS

DRAWING NUMBER: B 11676
 REV. B 1 of 1

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REPLACEMENT PARTS LIST

ITEM	PART NO.	DESCRIPTION
1	SE3QRING00001	QUAD RING
2	1FS05-0000002	COVER PLATE
3	1HS00-3800001	RETAINING KNOB



J.C.PARDO & SONS INC.
 1250 REAMES RD.
 PHONE (410) 391-3600



BALTO MD. 21220
 FAX (410) 391-9042

CHECKED BY:
JES

APPROVED BY:

DRAWN BY: JAY S.

DATE: 2-23-94

SCALE: NONE

SHAFT SEAL AND RETAINER PLATE
 100,150 & 200 GAL REPL. PARTS

SIZE: B

REV. A

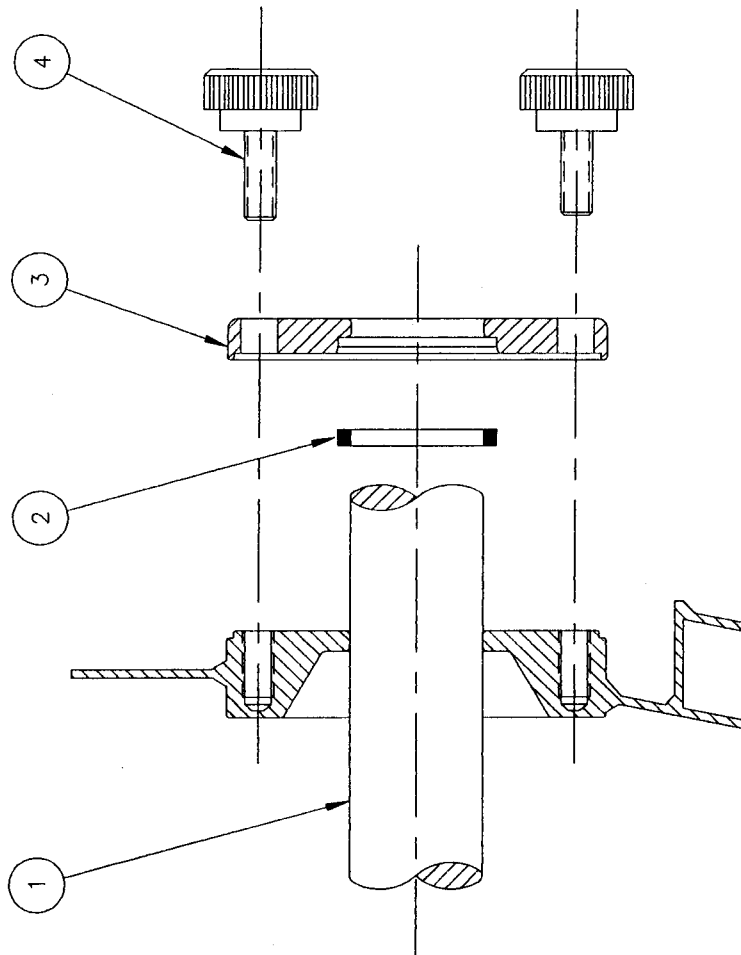
DRAWING NUMBER:
 8518

SHEET
 1 of 1

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REPLACEMENT PARTS LIST

ITEM	PART NO.	DESCRIPTION
1	1FS02-7500005	DRIVE SHAFT
2	SE3QRING00002	QUAD RING
3	1FS05-7500001	COVER PLATE
4	HWS00-3800003	RETAINING KNOB



J.C.PARDO & SONS INC.

1250 REAMES RD. BALTO MD. 21220
 PHONE (410) 391-3600 FAX (410) 391-9042



CHECKED BY:

APPROVED BY:

V6 4/8/96

DRAWN BY: JAY S.

DATE: 4-3-96

SCALE: NONE

SHAFT SEAL AND RETAINER PLATE
 300 GAL REPLACEMENT PARTS

SIZE:

B

DRAWING NUMBER:

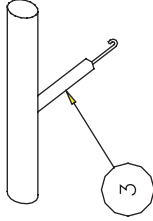
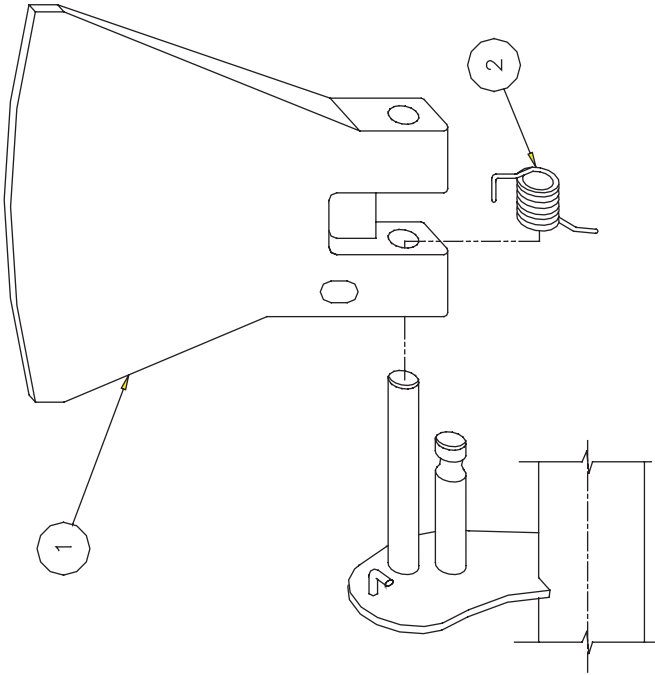
11185

REV.

1 of 1

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REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
1	MSW00-7500001	SCRAPER BLADE
2	MSSPRING000002	SCRAPER BLADE SPRING
3	TOSPRING000001	SPRING REMOVAL TOOL



D	#1 WAS MSW00-8800001	JES	4-24-98
C	#1 WAS 1PW00-7500001	JES	1-6-98
B	REDRAWN FROM PAPER	LY	4/25/95
A	ITEM #1 WAS PART NO. MSFBLADE00001 WAS TEFLON NOW UHMP.	LY	3/22/95
REV.	DESCRIPTION	BY	DATE

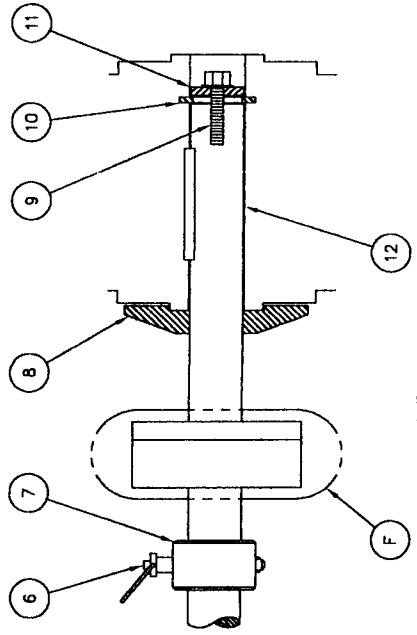
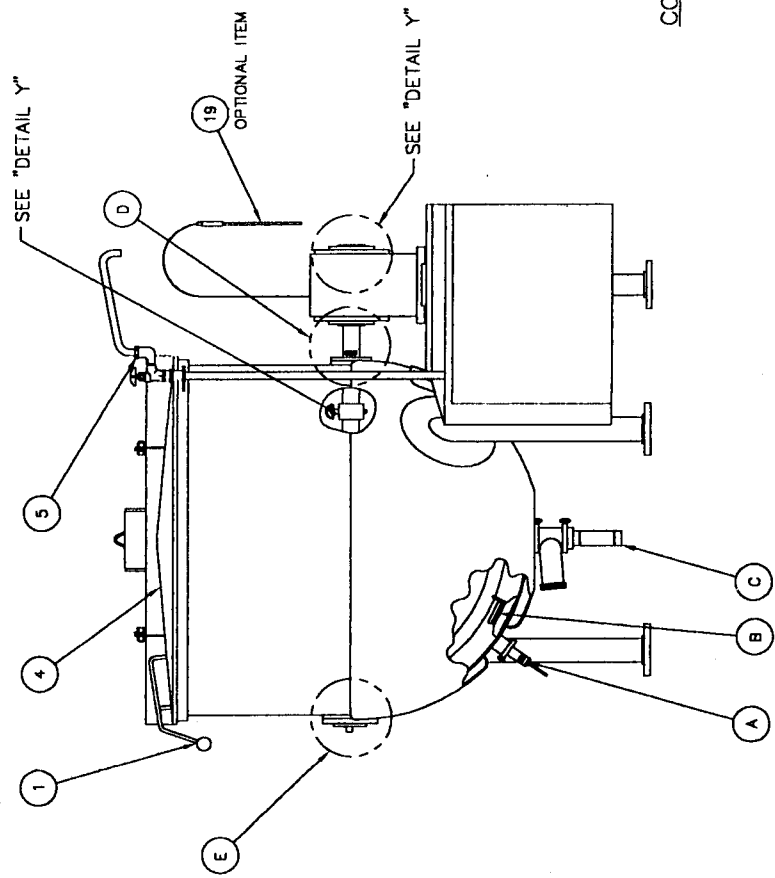
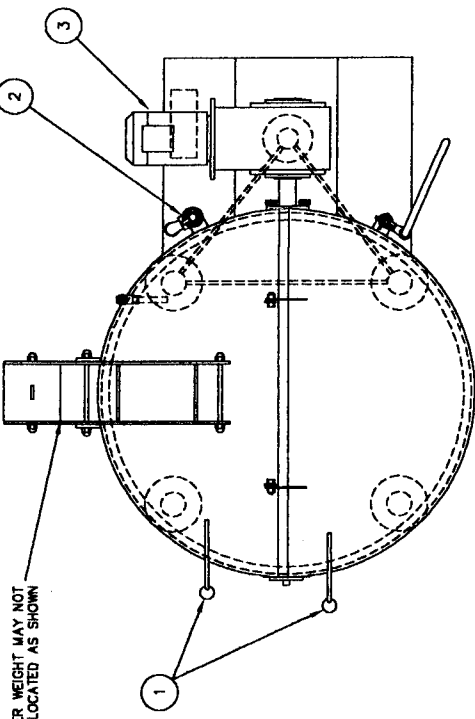
REVISIONS

SCRAPER BLADE ASSEMBLY REPLACEMENT PARTS		SIZE	B	DRAWING NUMBER	8412
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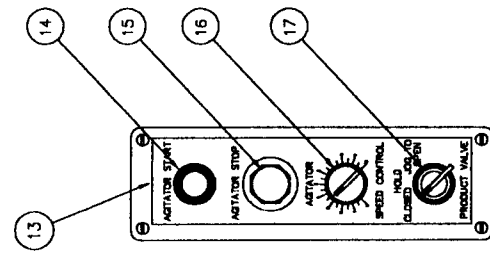
J.C.PARDO & SONS INC. 1250 REAMES RD. PHONE (410) 391-3600	CHECKED BY:	DRAWN BY: L. YORI
	APPROVED BY:	DATE: 4/25/95
		SCALE: NONE



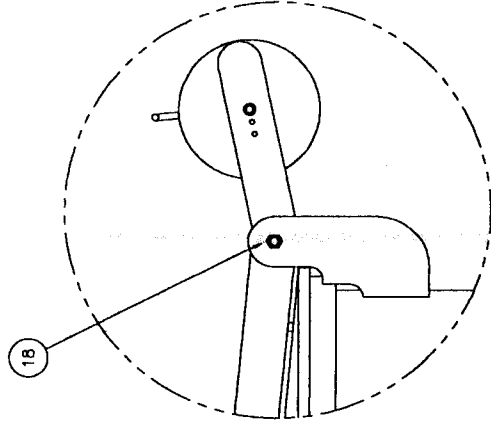
BALTO MD. 21220
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DETAIL Y



CONTROL STATION DETAIL



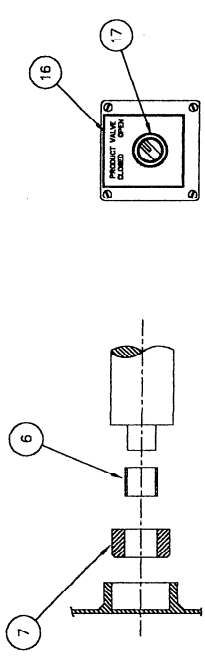
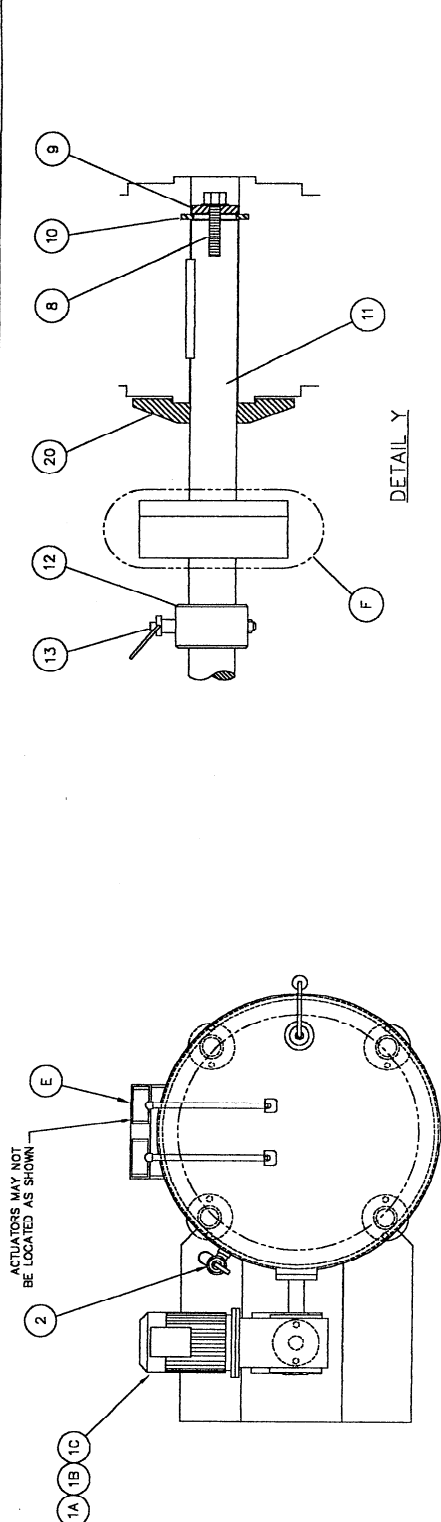
COUNTER WEIGHT DETAIL

REV. DESCRIPTION		BY	DATE	J.C. PARDO & SONS INC.		ORDER IN	DATE IN JES	HA-MKDL-300-CC		REV	REVISION NUMBER
1250 REAMES RD. BALTO MD. 21220				PHONE (410) 381-3800				REPLACEMENT PARTS		C	11657
REVISIONS											1 of 2

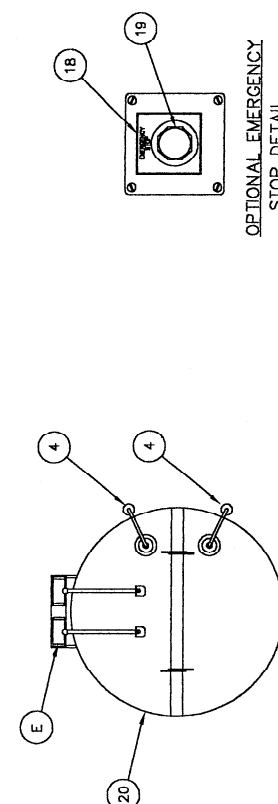
REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
1	MSP02-0000001	RED BALL
2	VAB01-2500001	100 PSI SAFETY VALVE
3	DUH05-0000009	5 HP DRIVE UNIT 208 VOLTS
-	DU905-0000005	ELECTRIC MOTOR 208 VOLTS
-	DU902-7500003	GEAR BOX
4	1V300GAL00004	SPLIT COVER W/COUNTER WEIGHT MNTS
5	PBB00-7500018	FILL FAUCET
6	MSS00-5000002	QUICK RELEASE PIN
7	1FS03-5000001	SHAFT COUPLING
8	1FW05-5000003	WATER SEAL DEFLECTOR
9	HWS02-7500001	RETAINING BOLT
10	HWS02-7500002	RETAINING WASHER
11	HWS02-7500003	RETAINING SNAP RING
12	1FS02-7500005	DRIVE SHAFT
13	NPYELLOW00258	NAMEPLATE

REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
14	2EP01-25A0012	GREEN LIGHTED PUSH BUTTON
-	ELV00-1200001	REPLACEMENT BULB FOR ITEM #15
15	2EP01-25A0016	RED MUSHROOM PUSH BUTTON
16	ELP01-2500002	SPEED CONTROL DIAL
17	2EP01-25A0022	3 POSITION TURN SWITCH
18	BGZ00-7500002	COVER BUSHING
19	TSSENSOR00012	TOP TEMPERATURE SENSOR
DRAWINGS LIST		
ITEM	DRAWING NO.	DESCRIPTION
A	C-11039	TEMPERATURE SENSOR ASSEMBLY
B	B-8412	SCRAPER BLADE ASSEMBLY
C	C-11549	PRODUCT OUTLET VALVE
D	B-11185	SHAFT SEAL ASSEMBLY
E	C-11221	IDLER BEARING & SEAL ASSEMBLY

REV.	DESCRIPTION	BY	DATE	J.C.PARDO & SONS INC. 1250 REAKES RD. BALTO MD. 21220 PHONE (410) 391-3600 FAX (410) 391-9042		DATED BY APPROVED BY	DATED BY JES DATE 4/1/02 REASON NONE	HA-MKDL-300-CC REPLACEMENT PARTS	SIZE C	DRAWING NUMBER 11657
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										SHEET 2 of 2



OPTIONAL PRODUCT VALVE DETAIL



OPTIONAL EMERGENCY STOP DETAIL

OPTIONAL SPLIT COVER DETAIL

REV	DESCRIPTION	BY	DATE	REVISIONS
1	HA-MKDL-100-CC ALL VOLTAGES REPLACEMENT PARTS			
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J.C. PARDO & SONS INC.
 1250 REAMES RD.
 BALTO MD. 21220
 PHONE (410) 381-3800 FAX (410) 381-9048

REV	DESCRIPTION	BY	DATE	REVISIONS
1	HA-MKDL-100-CC ALL VOLTAGES REPLACEMENT PARTS			
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J.C. PARDO & SONS INC.
 1250 REAMES RD.
 BALTO MD. 21220
 PHONE (410) 381-3800 FAX (410) 381-9048

REV	DESCRIPTION	BY	DATE	REVISIONS
1	HA-MKDL-100-CC ALL VOLTAGES REPLACEMENT PARTS			
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REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
1A	DUH03-000007	3 HP DRIVE UNIT 208 VOLTS
-	DUH03-000010	ELECTRIC MOTOR 208 VOLTS
-	DU902-000027	GEAR BOX
1B	DUH03-000015	3 HP DRIVE UNIT 380 VOLTS
-	DUH03-000009	ELECTRIC MOTOR 380 VOLTS
-	DU902-000029	GEAR BOX
1C	DUH03-000011	3 HP DRIVE UNIT 230/460 VOLTS
-	DUH03-000011	ELECTRIC MOTOR 230/460 VOLTS
-	DU902-000028	GEAR BOX
2	VAB01-000007	100 PSI SAFETY VALVE
3	PBB00-7500018	FILL FAUCET
4	MSP02-000001	RED BALL
5	1FS18-GA00002	COVER
6	1FS01-5000004	IDLER END SLEEVE
7	1FK02-2500002	IDLER BUSHING
8	HWS02-0000002	RETAINING BOLT
9	HWS02-0000003	RETAINING WASHER
10	HWS02-0000004	RETAINING SNAP RING

REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
11	FAS02-0000003	DRIVE SHAFT
12	FAS02-7500004	SHAFT COUPLING
13	MSS00-5000001	QUICK RELEASE PIN
14	1FW05-5000001	WATER SEAL DEFLECTOR
15	TSSSENSOR00012	TOP TEMPERATURE PROBE (OPTIONAL)
16	NPYELLOW00241	NAMEPLATE (OPTIONAL)
17	2EP01-25A0044	3 POSITION TURN SWITCH (OPTIONAL)
18	NPRED0000025	NAMEPLATE (OPTIONAL)
19	2EP01-25A0016	RED MUSHROOM P.B. (OPTIONAL)
20	1V100GAL00003	SPLIT COVER (OPTIONAL)
DRAWINGS LIST		
ITEM	DRAWING NO.	DESCRIPTION
A	C-11039	TEMPERATURE SENSOR ASSEMBLY
B	B-8412	SCRAPER BLADE ASSEMBLY
C	C-11549	PRODUCT OUTLET VALVE
D	B-8518	SHAFT SEAL ASSEMBLY
E	B-8539	HINGE ACTUATOR ASSEMBLY

J.C.PARDO & SONS INC.
 1250 REAMES RD. BALTO MD. 21220
 PHONE (410) 381-9800 FAX (410) 381-9042

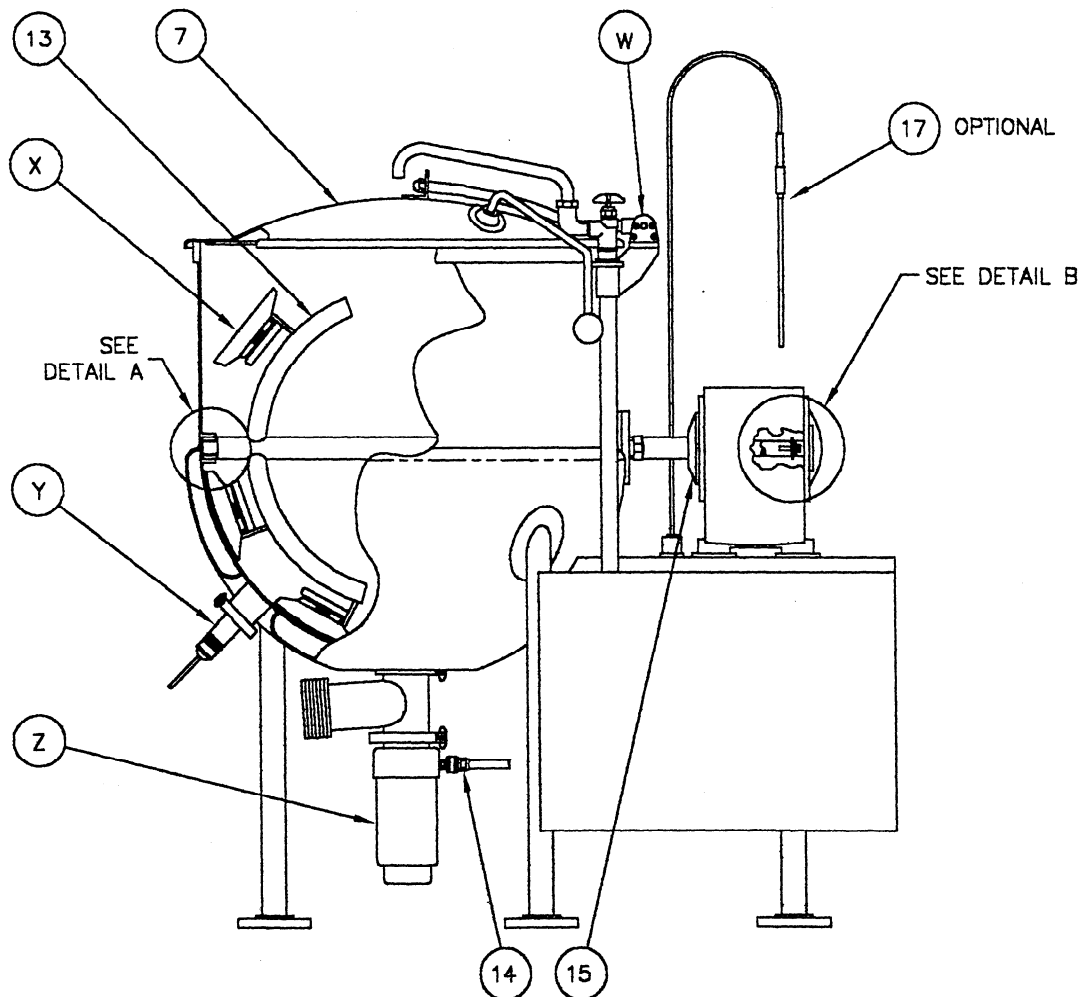
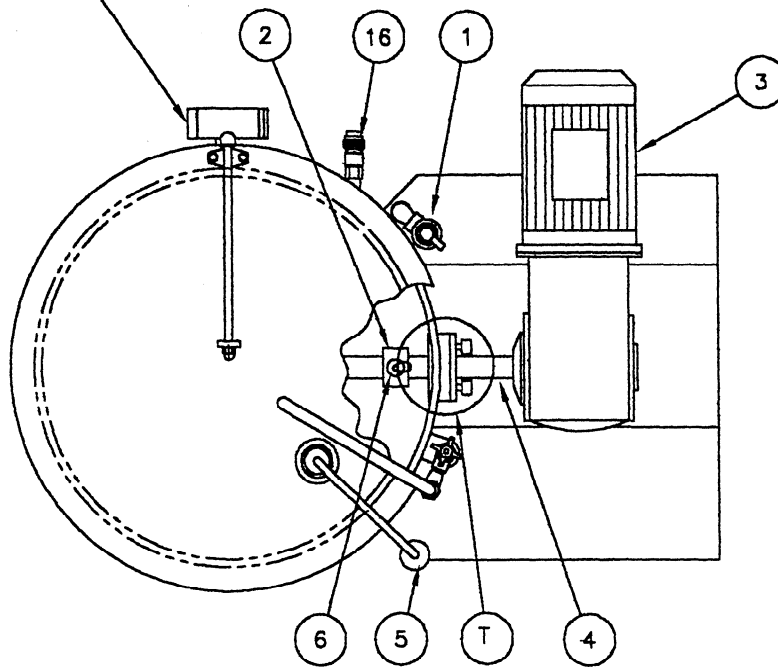
REV.	DESCRIPTION	BY	DATE
REVISIONS			

DESIGNED BY
 DATE 3/29/01
 SCALE NONE

HA-MKDL-100-CC ALL VOLTAGES
 REPLACEMENT PARTS
 THIS DRAWING IS THE PROPERTY OF J.C. PARDO & SONS INC. IT IS TO BE USED FOR THE PURPOSES OF CONSULTING AND ONLY. IT IS NOT TO BE REPRODUCED OR USED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF J.C. PARDO & SONS INC.

DATE MADE
 C 11609
 2 of 2

ACTUATOR LOCATION
MAY NOT BE AS SHOWN



J.C.PARDO & SONS INC.

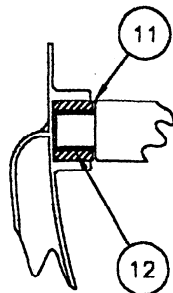
1250 REAMES RD.
PHONE (410) 391-3600

BALTO MD. 21220
FAX (410) 391-9042

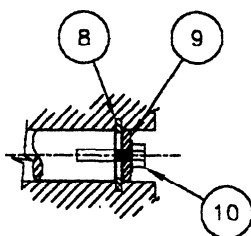
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REV.	DESCRIPTION	BY	DATE
	REVISIONS		



DETAIL A



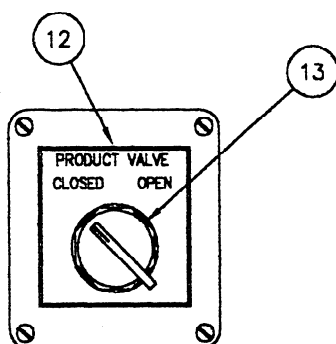
DETAIL B

REPLACEMENT PARTS LIST

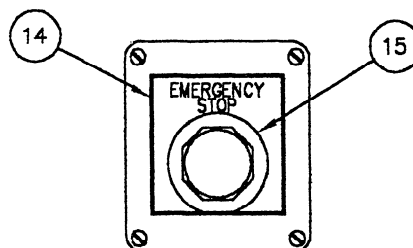
ITEM	PART NO.	DESCRIPTION
1	VAB00-7500005	SAFETY VALVE
2	FAS02-5000003	SHAFT COUPLING
3	DUH02-0000005	208 VOLT DRIVE UNIT
-	DU902-0000003	208 VOLT ELECTRIC MOTOR
-	DU901-5000004	GEARBOX
4	FAS01-5000004	DRIVE SHAFT
5	MSP02-0000001	RED BALL
6	MSS00-3700003	QUICK RELEASE PIN
7	1FS18-GA00003	KETTLE COVER
8	HWS01-5000003	RETAINING RING
9	HWS01-5000001	RETAINING WASHER
10	HWS01-5000002	RETAINING BOLT
11	1FK02-0000004	IDLER BUSHING
12	1FS01-2500003	IDLER END SLEEVE
13	1G050GAL00005	AGITATOR
14	ARB00-2500017	AIR QUICK DISCONNECT
15	1FW03-5000001	MOTOR SEAL WATER DEFLECTOR
16	ABR00-5000001	AIR QUICK DISCONNECT
17	TSSENSOR00012	TOP SENSOR (OPTIONAL)

DRAWINGS FOR REPLACEMENT PARTS

ITEM	DRAWING NO.	DESCRIPTION
T	B-11023	SHAFT SEAL & RETAINER PLATE
W	B-8539	HINGE ACTUATOR ASSEMBLY
X	B-8412 REV. B	SCRAPER BLADE ASSEMBLY
Y	C-11039 REV. A	TEMPERATURE SENSOR
Z	C-11200	PRODUCT OUTLET VALVE

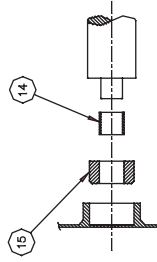
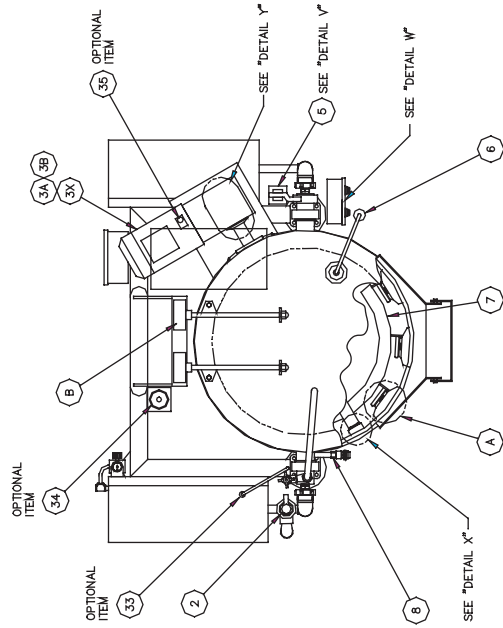


OPTIONAL
PRODUCT VALVE
SWITCH DETAIL

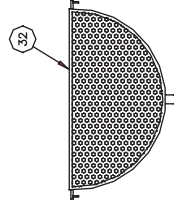


OPTIONAL
E-STOP DETAIL

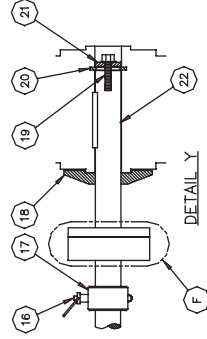
DESIGNED BY:	DRAWN BY: JAY S.	HA-MKDL-60-CC 208V REPLACEMENT PARTS	SIZE:	DRAWING NUMBER:
PROVED BY:	DATE: 2-4-00		C	11522
SCALE: NONE	This drawing and all information contained therein is the property of J.C.Pardo & Sons Inc. Balto MD. The drawing and all information is confidential and must not be made public or copied. It is loaned subject to return upon demand and is not to be used directly or indirectly in any way detrimental to J.C.Pardo & Sons.		REV.	SHEET
				1 of 1



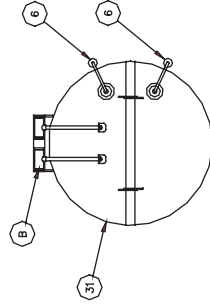
DETAIL X



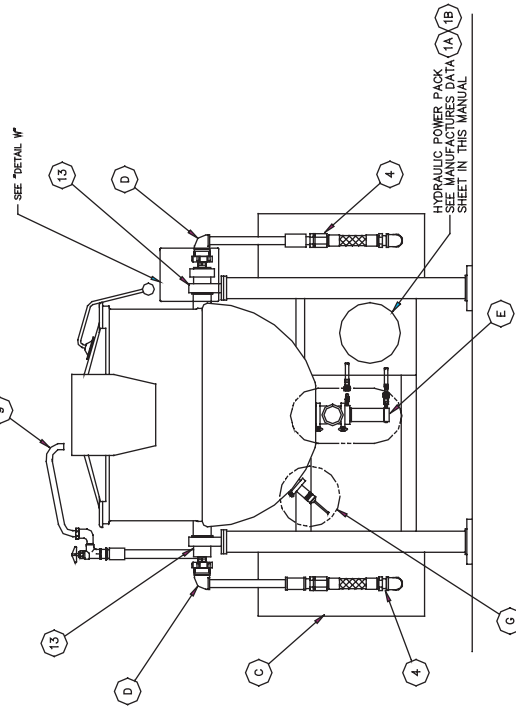
OPTIONAL HALF STRAINER



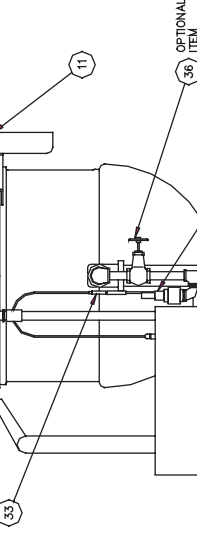
DETAIL Y



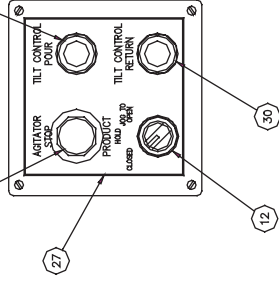
OPTIMAL SPLIT COVER DETAIL



OPTIONAL ITEM



OPTIONAL ITEM



DETAIL W

ALL COMPONENTS AND FEATURES SHOWN DO NOT APPEAR ON ALL KETTLES
IGNORE ALL COMPONENTS AND FEATURES NOT APPEARING ON YOUR KETTLE

REV	DESCRIPTION	DATE
A	ADD 15, 38 & SWING SPOUT	7/03
B	REVISIONS	BT

J.C. PARDO & SONS INC.
1260 REARDE RD. BALTO MD. 21220
PHONE (410) 381-5800 FAX (410) 381-5800

HA-MKDL-150-200-T
REPLACEMENT PARTS
THIS KETTLE IS A REPLACEMENT PART FOR THE HA-MKDL-150-200-T KETTLE. IT IS NOT A COMPLETE KETTLE. IT IS NOT TO BE USED AS A COMPLETE KETTLE. IT IS NOT TO BE USED AS A COMPLETE KETTLE.

REV	DESCRIPTION	DATE
D	11675	11/75
A	1 of 2	

ALL COMPONENTS AND FEATURES SHOWN DO NOT APPEAR ON ALL KETTLES
IGNORE ALL COMPONENTS AND FEATURES NOT APPEARING ON YOUR KETTLE

REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
1A	HY800-0000014	HYDRAULIC POWER PACK 208/230/460 V
-	HY8VA-0000032	REPLACEMENT SOLENOID FOR ITEM #1A
-	SP988-8800034	REPLACEMENT COIL FOR ITEM #1A
1B	HY800-0000016	HYDRAULIC POWER PACK 380 V
-	HY8VA-0000032	REPLACEMENT SOLENOID FOR ITEM #1B
-	SP988-8800034	REPLACEMENT COIL FOR ITEM #1B
2	VAB01-2500001	SAFETY VALVE, 100 PSI
3	-----	SEE DRIVE UNIT LIST
4	PBS01-2500031	STAINLESS STEEL FLEX HOSE
5	HYS02-5000002	HYDRAULIC TILT CYLINDER
6	MSP02-0000001	RED BALL
7	1G200GAL00005	AGITATOR
8	ARB00-5000001	AIR QUICK DISCONNECT
9	PBB00-7500018	FILL FAUCET
-	PBB00-7500021	REPLACEMENT SWING SPOUT FOR ITEM #9
10	-----	KETTLE COVER
-	1FS18-GA00005	150-GAL KETTLE COVER
-	1FS18-GA00001	200-GAL KETTLE COVER
11	1FS00-0000002	FLOW DIVERTER
12	2EP01-25A0022	3 POSITION SWITCH
13	BGZ03-5000001	PILLOW BLOCK
14	1FS01-7500030	IDLER SLEEVE
15	1FK02-5000002	IDLER BEARING
16	MS00-5000001	QUICK RELEASE PIN
17	1FS02-7500012	SHAFT COUPLING
18	1FW05-5000002	MOTOR SEAL WATER DEFLECTOR
19	HWS02-3800002	RETAINING BOLT
20	HWS02-3800003	RETAINING SNAP RING
21	HWS02-3800001	RETAINING WASHER
22	1FS02-3800006	DRIVE SHAFT
23	1YD00-3700001	3/8" HYDRAULIC HOSE ASSY.*
24	HWS01-0000003	TOP PIN
25	HWS00-7500013	BOTTOM PIN
26	HY8VA-0000007	OVER CENTER VALVE
27	NPYELLOW00216	FUNCTION TAG
28	2EP01-25A0014	RED MUSHROOM PUSH BUTTON
29	2EP01-25A0001	YELLOW PUSH BUTTON

REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
30	2EP01-25A0002	BLUE PUSH BUTTON
31	-----	2 PIECE SPLIT COVER (OPTIONAL)
-	1Y150GAL00001	150 GAL SPLIT COVER
-	1Y200GAL00003	200 GAL SPLIT COVER
32	-----	HALF SCREEN (OPTIONAL)
-	2BSCREEN00017	150 GAL HALF SCREEN
-	2BSCREEN00016	200 GAL HALF SCREEN
33	TSENSOR00012	TOP TEMP. PROBE (OPTIONAL)
34	ELV01-1500018	STROBE LIGHT (OPTIONAL)
35	ELV00-0000014	MOTOR KILL SWITCH (OPTIONAL)
36	PBB01-2500023	MANUAL GLOVE VALVE (OPTIONAL)

DRAWING LIST

ITEM	DRAWING NO.	DESCRIPTION
A	B-8412	SCRAPER BLADE
B	B-8415	LID ACTUATOR
C	C-11576	PLUMBING
D	C-11079	BARGO JOINT
E	D-11642	PRODUCT VALVE
F	B-11676	SHAFT SEAL
G	C-11077	TEMPERATURE SENSOR

DRIVE UNIT LIST		
ITEM	PART NO.	DESCRIPTION
---	-----	150 GAL. DRIVE UNIT BY VOLTAGE
3A	DUH03-0000019	DRIVE UNIT, 3 HP 208V
-	DU903-0000013	3 HP ELECTRIC MOTOR, 208V
-	DU902-3800017	GEAR BOX
3B	DUH03-0000021	DRIVE UNIT, 3 HP 380V
-	DU903-0000034	3 HP ELECTRIC MOTOR, 380V
-	DU902-3800018	GEAR BOX
---	-----	200 GAL. DRIVE UNIT BY VOLTAGE
3X	DUH05-0000015	DRIVE UNIT, 5 HP 208V
-	DU905-0000005	5 HP ELECTRIC MOTOR, 208V
-	DU902-3800013	GEAR BOX

MOTOR HP FOR THIS JOB IS



: 3 HP.

VOLTAGE FOR THIS JOB IS

: 380 V- 3 PH- 50 HZ.

* CUSTOMER TO SPECIFY HOSE ASSEMBLY LENGTH.

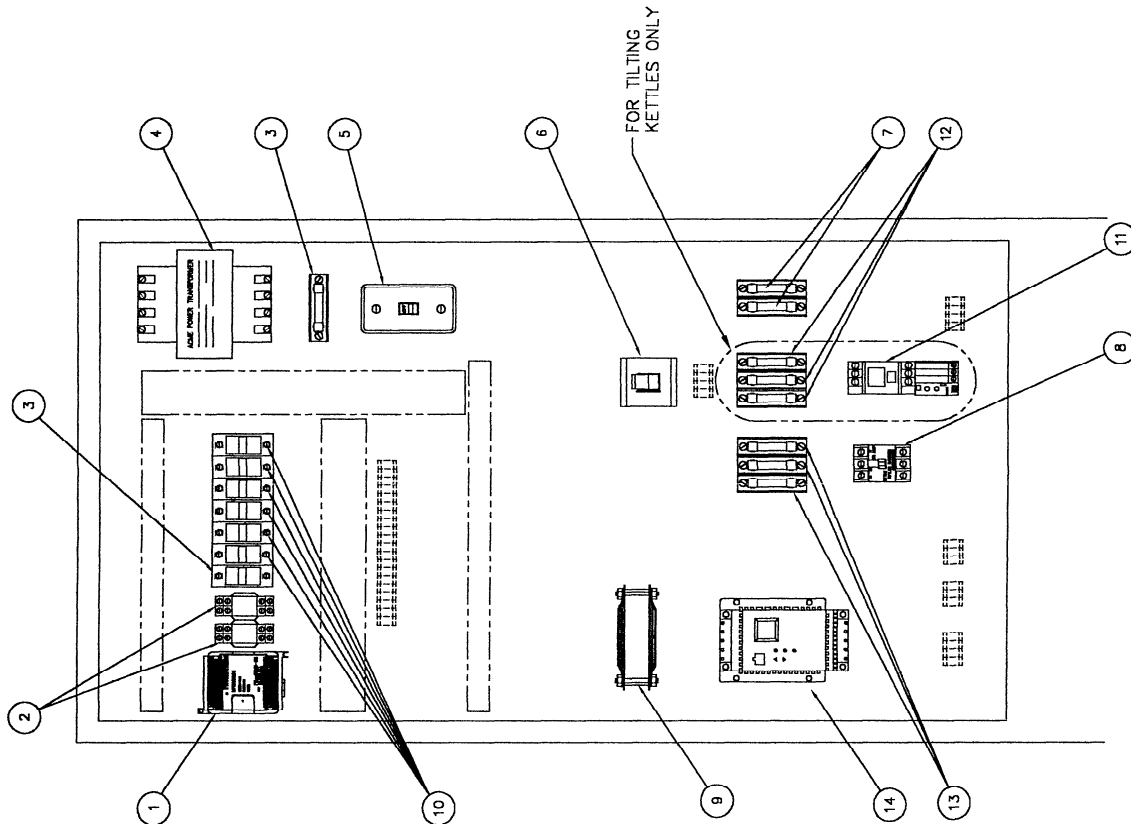
A ADD 1B,3B & SWING SPOUT		REV	DATE
REV	DESCRIPTION	BY	DATE
REVISIONS			

J.C.PARDO & SONS INC.
1260 REAMERS RD. BALITO MD. 21220
PHONE (410) 381-3600 FAX (410) 381-3600

ORDER BY
DATE 8/28/02
APPROVED BY
NAME NONE

HA-MKDL-150-200-T
REPLACEMENT PARTS
REPLACEMENT PARTS LIST
REPLACEMENT PARTS LIST
REPLACEMENT PARTS LIST

11675
2 of 2



REV.	DESCRIPTION	BY	DATE	J.C. PARDO & SONS INC. 1250 REAMES RD. BALTO MD. 21220 PHONE (410) 381-3600	CREATED BY JES	DATE 3/25/01	APPROVED BY NONE	SINGLE CONTROL PANEL ALL VOLTAGES INTERNAL REPLACEMENT PARTS	REV C	DRAWING NUMBER 11608	SHEET 1 of 2
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UNIVERSAL REPLACEMENT PARTS		
ITEM	PART NO.	DESCRIPTION
1	ELBCO-0000046	PROGRAMMABLE CONTROLLER
2	ELPSW-0000002	RELAY
-	ELPSW-0000003	REPLACEMENT BASE FOR ITEM #2
3	ELV02-5000001	5 AMP FUSE
4	----	TRANSFORMER BY VOLTAGE
-	ELV05-0000003	TRANSFORMER 208/230V
-	ELV05-0000004	TRANSFORMER 380/460V
5	ELPSW-0000007	LOW VOLTAGE DISCONNECT
6	ELPSW-0000001	HIGH VOLTAGE DISCONNECT
7	ELV06-0000008	4 AMP FUSE
8	ELPSW-0000004	MOTOR CONTACTOR
9	2EP00-0000001	FAN WITH SHROUDS
10	ELV02-5000002	FNM 1 AMP FUSE

OPTIONAL TILTING KETTLE PARTS		
ITEM	PART NO.	DESCRIPTION
11	ELPSW-0000005	HYDRAULIC MOTOR STARTER
-	ELV00-0000013	HEATER PACK FOR ITEM #9 208/230V
-	ELV00-0000023	HEATER PACK FOR ITEM #9 380/460V
12	ELV06-0000015	3 AMP FUSE

60 GAL. REPLACEMENT PARTS		
ITEM	PART NO.	DESCRIPTION
13	----	FUSES BY VOLTAGE
-	ELV06-0000007	20 AMP FUSE 208/230V
-	ELV06-0000010	10 AMP FUSE 380/460V
14	----	INVERTER BY VOLTAGE
-	ELH02-0000008	2 HP INVERTER, 208/230V
-	ELH02-0000009	2 HP INVERTER, 380/460V

100 GAL. REPLACEMENT PARTS		
ITEM	PART NO.	DESCRIPTION
13	----	FUSES BY VOLTAGE
-	ELV06-0000007	20 AMP FUSE 208/230V
-	ELV06-0000010	10 AMP FUSE 380/460V
14	----	INVERTER BY VOLTAGE
-	ELH03-0000010	3 HP INVERTER, 208/230V
-	ELH03-0000011	3 HP INVERTER, 380/460V

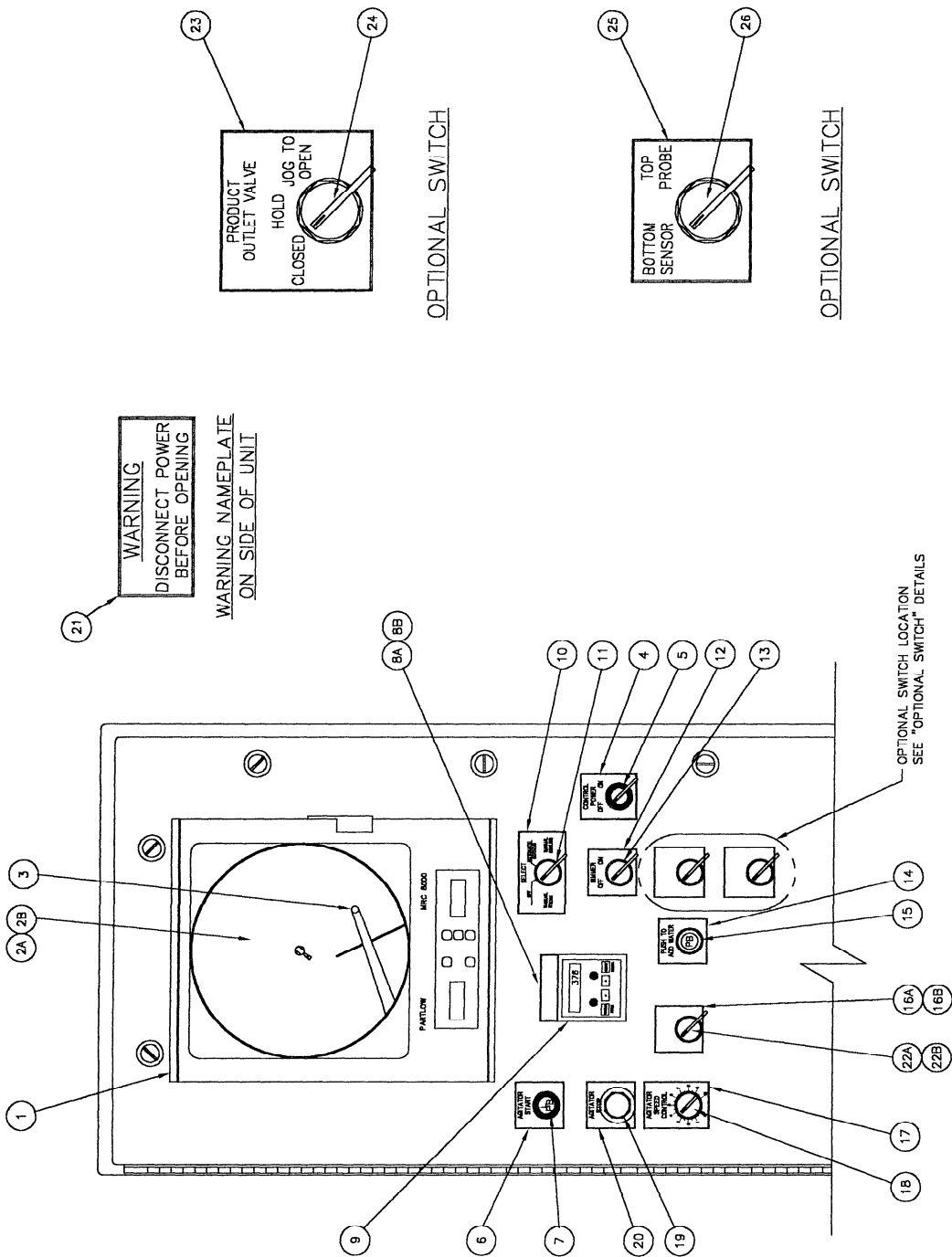
150/200 GAL. REPLACEMENT PARTS		
ITEM	PART NO.	DESCRIPTION
13	----	FUSES BY VOLTAGE
-	ELV06-0000018	30 AMP FUSE 208/230V
-	ELV06-0000004	15 AMP FUSE 380/460V
14	----	INVERTER BY VOLTAGE
-	ELH05-0000013	5 HP INVERTER, 208/230V
-	ELH05-0000014	5 HP INVERTER, 380/460V

J.C.PARDO & SONS INC.
 1250 REAMERS RD. BALTO MD. 21220
 PHONE (410) 981-9800 FAX (410) 981-9042

REV.	DESCRIPTION	BY	DATE
	REVISIONS		

CHECKED BY		DATE	
JES		3/29/01	
APPROVED BY		NONE	

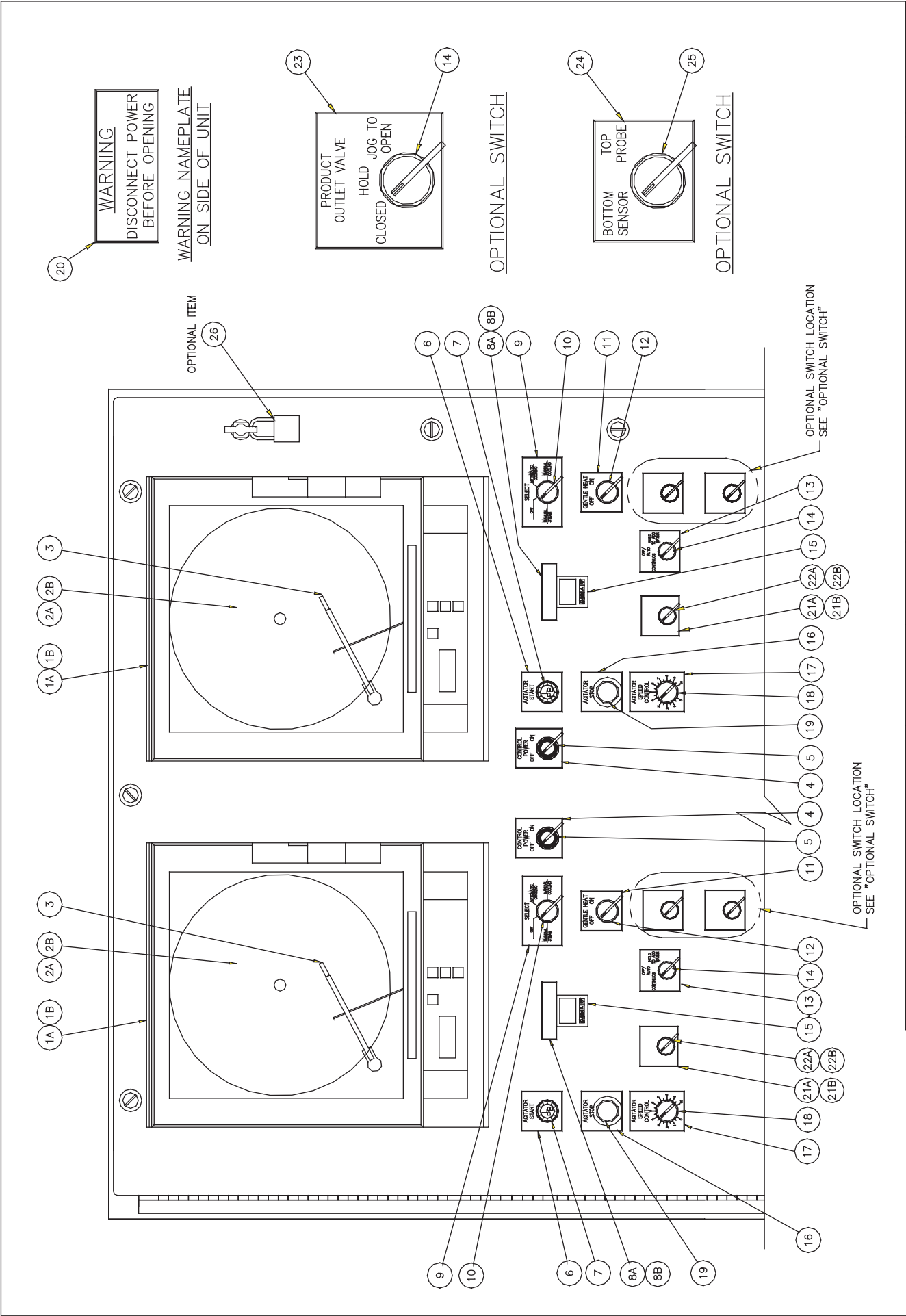
SINGLE CONTROL PANEL ALL VOLTAGES		SHEET	
INTERNAL REPLACEMENT PARTS		11608	
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REV.	DESCRIPTION	BY	DATE	REVISIONS
C	SINGLE KETTLE FLOOR MOUNTED CONTROL PANEL REPLACEMENT PARTS	JAY S.	DATE 1-13-99	1 of 2
REV.	DATE 1-13-99	DATE 1-13-99	DATE 1-13-99	1 of 2
J.C.PARDO & SONS INC. 1250 REAMES RD. BALITO MD. 21220 PHONE (410) 381-9600 FAX (410) 381-9042				
It is the policy of J.C. Pardo & Sons, Inc. to provide the best possible product and service to our customers. We warrant our products to be free from defects in material and workmanship for a period of one year from the date of purchase. If a defect is found within this period, we will replace the product or repair it at no charge. This warranty does not cover products that have been modified, misused, or abused. For more information, please contact J.C. Pardo & Sons, Inc. directly or through your distributor.				

REPLACEMENT PARTS		
ITEM	PART NO.	DESCRIPTION
1	EL8C0-0000042	PARTLOW 8000
-	EL977-7700019	REPLACEMENT PEN MOTOR ITEM #1
-	EL977-7700018	REPLACEMENT CHART MOTOR ITEM #1
-	EL977-7700020	REPLACEMENT TOUCH PAD COVER
2A	MSJ00-0000005	24 HOUR CHART PAPER 'F'
2B	MSJ00-0000006	24 HOUR CHART PAPER 'C'
3	MSP00-0000002	RED REPLACEMENT PEN
4	NPYELLOW000110	NAMEPLATE
5	2EP00-8800038	RED LIGHTED TURN SWITCH
-	ELV00-6000001	REPLACEMENT BULB FOR ITEM #5
6	NPYELLOW000103	NAMEPLATE
7	2EP00-8800047	GREEN LIGHTED PUSH BUTTON
-	ELV00-1200001	REPLACEMENT BULB FOR ITEM #7
8A	NPYELLOW000116	NAMEPLATE IN GALLONS
8B	NPYELLOW000155	NAMEPLATE IN LITERS
9	EL8C0-0000045	DIGITAL ATC WATER METER
10	NPYELLOW000111	NAMEPLATE
11	ELP00-8800001	FOUR POSITION SWITCH
12	NPYELLOW000107	NAMEPLATE
13	2EP00-8800006	TWO POSITION SWITCH
14	NPYELLOW000106	NAMEPLATE
15	2EP00-8800007	BLACK PUSH BUTTON
16A	NPYELLOW000119	NAMEPLATE COLD POTABLE WATER
16B	NPYELLOW000109	NAMEPLATE HOT/COLD POTABLE WATER
17	NPYELLOW000115	NAMEPLATE
18	ELP00-8800003	SPEED POT
19	2EP00-8800019	RED MUSHROOM PUSH BUTTON
20	NPYELLOW000104	NAMEPLATE
21	NPRED00000019	NAMEPLATE WARNING
22A	2EP00-8800009	TWO POSITION SWITCH
22B	2EP00-8800022	THREE POSITION SWITCH
23	NPYELLOW000241	NAMEPLATE (OPTIONAL)
24	2EP00-8800044	THREE POSITION SWITCH (OPTIONAL)
25	NPYELLOW000194	NAMEPLATE (OPTIONAL)
26	2EP00-8800043	TWO POSITION SWITCH (OPTIONAL)

REV. DESCRIPTION		BY	DATE
REVISIONS			
J.C.PARDO & SONS INC. 1250 REAMES RD. BALTO MD. 21220 PHONE (410) 581-5800 FAX (410) 581-8042			
ORDER BY APPROVED BY		DATE IN JAY S. DATE 1-13-99 SIGNATURE	SINGLE KETTLE FLOOR MOUNTED CONTROL PANEL REPLACEMENT PARTS
PARTIAL NAME C		PARTIAL NAME C	PARTIAL NAME 11601
PARTIAL NAME 2 of 2		PARTIAL NAME 2 of 2	

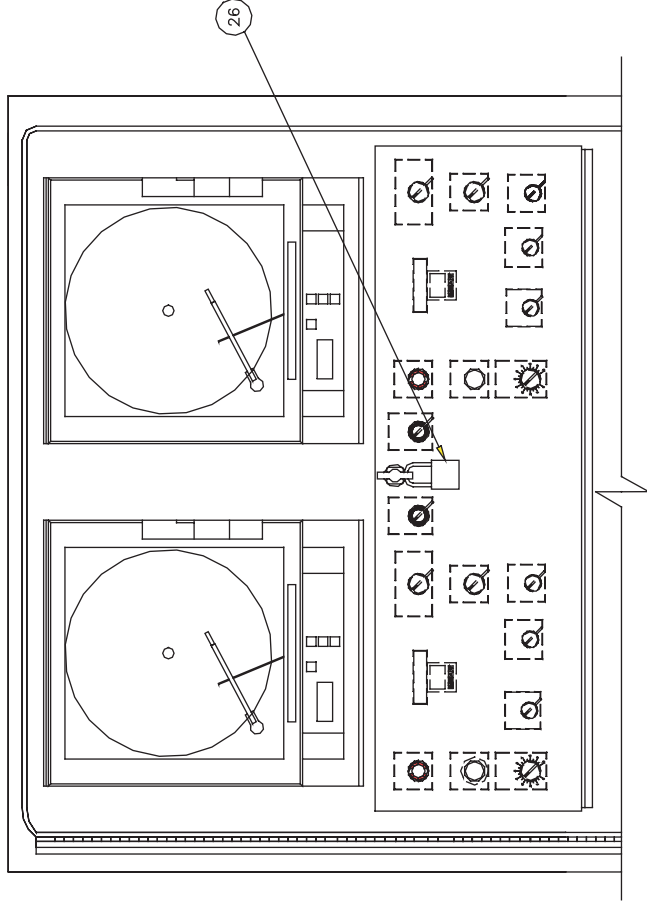


B		ADD PARTLOW W/INTERLINK	JES	7/03	J.C.PARDO & SONS INC.		DUAL KETTLE FLOOR MNTD. CONTROL PANEL		SIZE	C	DRAWING NUMBER	11678
A		ADD LOCKS	JES	3/03	1250 REAMES RD.		REPLACEMENT PARTS		REV.	B	1 of 2	
REV.		DESCRIPTION	BY	DATE	BALTO MD. 21220		DATE 4/2/02		APPROVED BY	SHEET		
		REVISIONS			PHONE (410) 391-3600		SCALE:NONE		this drawing and all information contained therein is the property of J.C.Pardo & Sons, Inc. and must not be made public or collected in any way detrimental to J.C.Pardo & Sons.			
					FAX (410) 391-9042		APPROVED BY					

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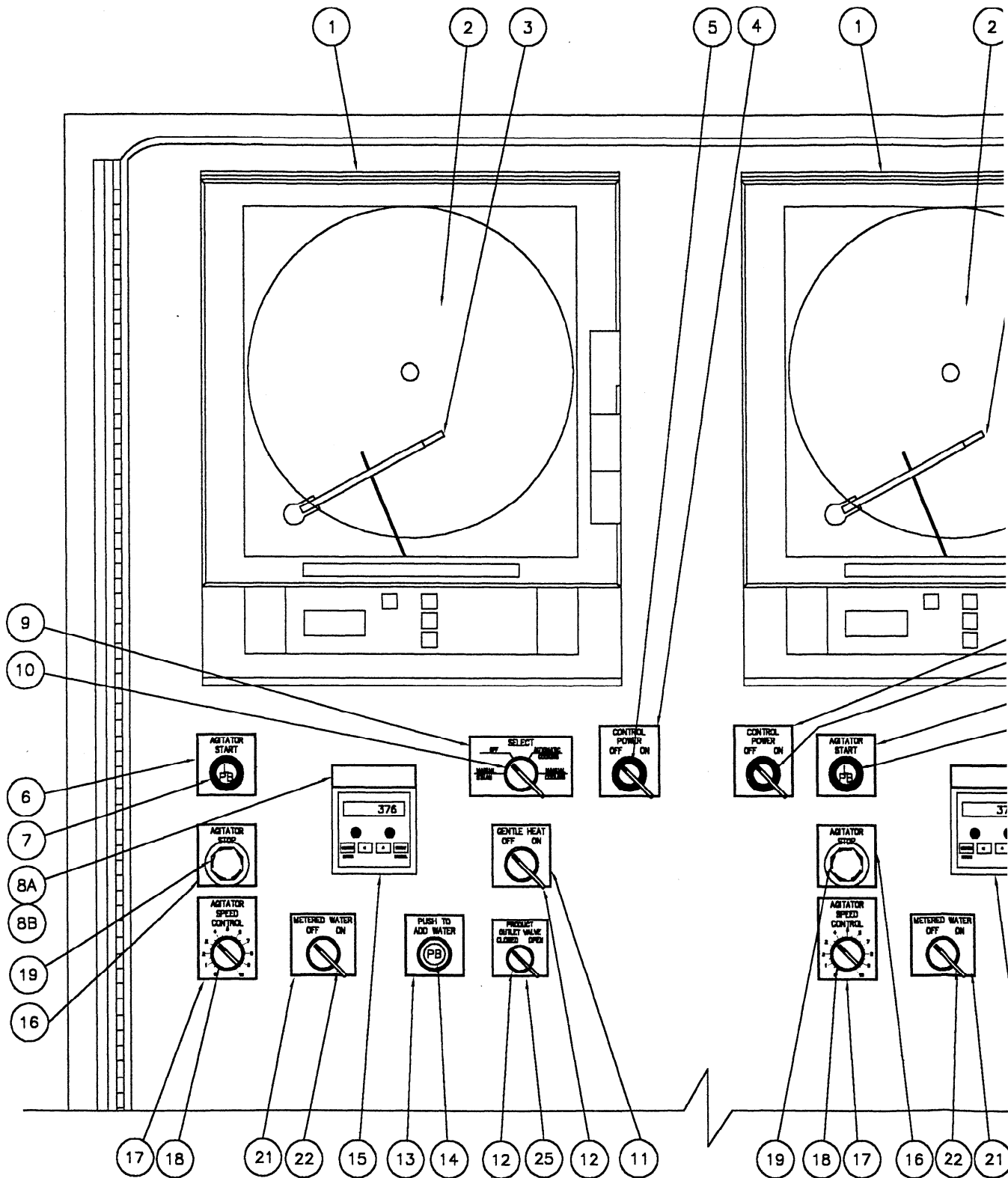
REPLACEMENT PARTS

ITEM	PART NO.	DESCRIPTION
1A	EL8C0-0000042	PARTLOW 8000
1B	EL8C0-0000070	PARTLOW 8000 W/INTERLINK(OPTIONAL)
-	EL977-7700019	REPLACEMENT PEN MOTOR: #1A,1B
-	EL977-7700018	REPLACEMENT CHART MOTOR: #1A,1B
-	EL977-7700020	REPLACEMENT TOUCH PAD: 1A,1B
-	ELP00-0000037	REPLACEMENT DOOR: #1A,1B
-	ELP00-0000036	REPLACEMENT DOOR WINDOW: #1A,1B
2A	MSJ00-0000005	24 HOUR CHART PAPER °F
2B	MSJ00-0000006	24 HOUR CHART PAPER °C
3	MSP00-0000002	RED REPLACEMENT PEN
4	NPYELLOW00110	NAMEPLATE
5	2EP00-8800025	RED LIGHTED TURN SWITCH
-	ELV00-6000001	REPLACEMENT BULB FOR ITEM #5
6	NPYELLOW00103	NAMEPLATE
7	2EP00-8800047	GREEN LIGHTED PUSH BUTTON
-	ELV00-1200001	REPLACEMENT BULB FOR ITEM #7
8A	NPYELLOW00116	NAMEPLATE IN GALLONS
8B	NPYELLOW00155	NAMEPLATE IN LITERS
9	NPYELLOW00111	NAMEPLATE
10	ELP00-8800001	FOUR POSITION SWITCH
11	NPYELLOW00107	NAMEPLATE
12	2EP00-8800006	TWO POSITION SWITCH
13	NPYELLOW00260	NAMEPLATE
14	2EP00-8800044	THREE POSITION SWITCH
15	EL8C0-0000067	DIGITAL REDLION WATER COUNTER
-	ELV02-5000019	REPLACEMENT .315A FUSE ITEM #15
16	NPYELLOW00104	NAMEPLATE
17	NPYELLOW00115	NAMEPLATE
18	ELP00-8800003	SPEED POT
19	2EP00-8800019	RED MUSHROOM PUSH BUTTON
20	NPRED00000019	NAMEPLATE WARNING
21A	NPYELLOW00119	NAMEPLATE
21B	NPYELLOW00109	NAMEPLATE (OPTIONAL)
22A	2EP00-8800009	TWO POSITION SWITCH
22B	2EP00-8800022	THREE POSITION SWITCH (OPTIONAL)
23	NPYELLOW00241	NAMEPLATE (OPTIONAL)
24	NPYELLOW00194	NAMEPLATE (OPTIONAL)
25	2EP00-8800043	TWO POSITION SWITCH (OPTIONAL)
26	HWLOCKS00001	PADLOCK AND KEY SET



OPTIONAL SWITCH COVER

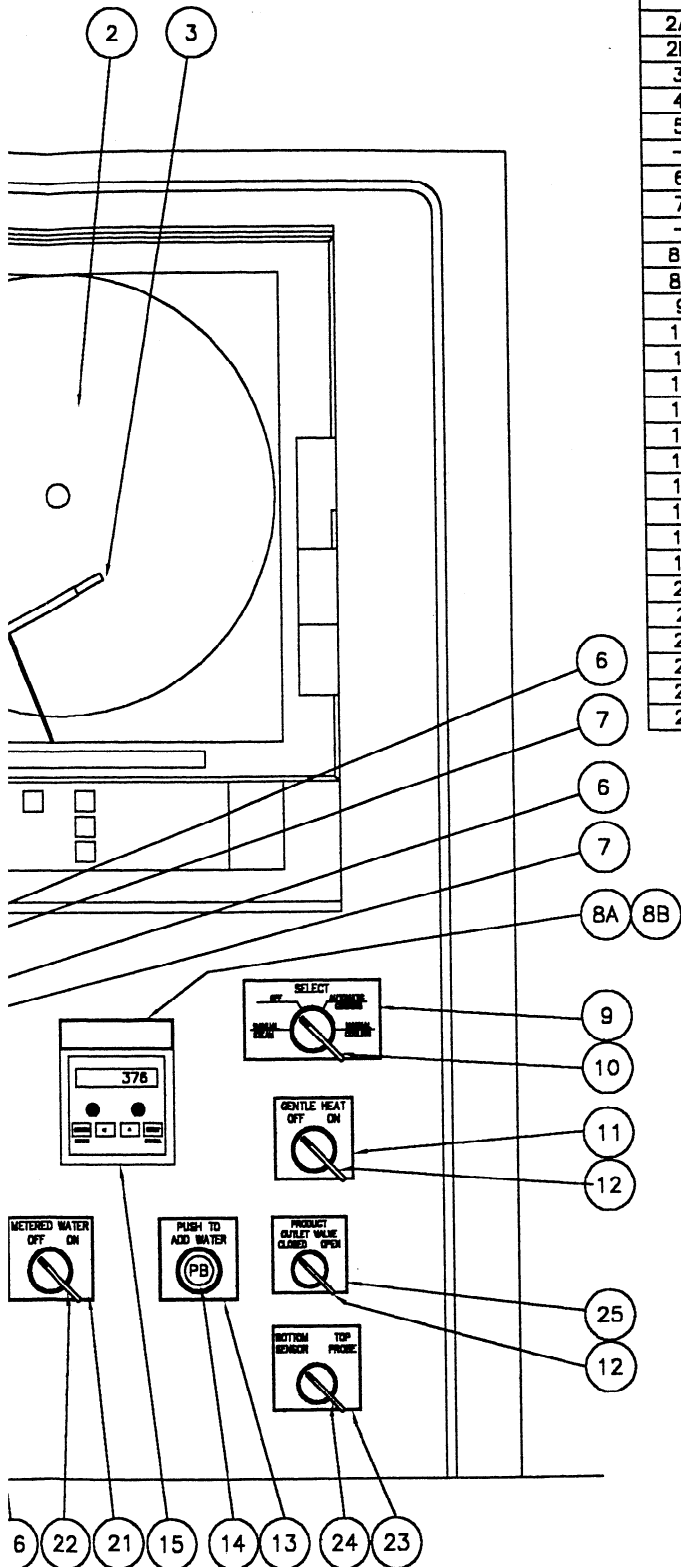
B		ADD PARTLOW W/INTERLINK		JES	7/03	J.C.PARDO & SONS INC.		CHECKED BY:		DRAWN BY: JES		DUAL KETTLE FLOOR MNTD. CONTROL PANEL		SIZE:	C	DRAWING NUMBER:	
A		ADD LOCKS		JES	3/03	 1250 REAMES RD. BALTO MD. 21220 PHONE (410) 391-0600 FAX (410) 391-9042		APPROVED BY:		DATE: 4/2/02		REPLACEMENT PARTS		REV:	B	2 of 2	
REV.		DESCRIPTION		BY	DATE			SOMEONE		This drawing and all information contained therein is the property of J.C. Pardo & Sons, Inc. It is to be used for the drawing of and construction of equipment only. It is loaned subject to return upon demand and is not to be used freely or in whole or in part without the written consent of J.C. Pardo & Sons, Inc.		SHEET					
REVISIONS																	



J.C.PARDO & SONS INC. 1250 REAMES RD. BALTO MD. 21220 PHONE (410) 391-3600 FAX (410) 391-9042				CHECKED BY: APPROVED BY:	
REV.	DESCRIPTION	BY	DATE		
REVISIONS					

REPLACEMENT PARTS

ITEM	PART NO.	DESCRIPTION
1	EL8CO-0000042	PARTLOW 8000
-	EL977-7700018	CHART MOTOR FOR ITEM #1
-	EL977-7700019	PEN MOTOR FOR ITEM #1
-	EL977-7700020	TOUCH PAD FOR ITEM #1
2A	MSJ00-0000005	CHART PAPER IN °F
2B	MSJ00-0000006	CHART PAPER IN °C
3	MSP00-0000002	RED REPLACEMENT PEN
4	NPYELLOW00110	FUNCTION TAG
5	2EP00-8800025	RED LIGHTED TURN SWITCH
-	ELV00-6000001	REPLACEMENT BULB FOR SWITCH #5
6	NPYELLOW00103	FUNCTION TAG
7	2EP00-8800008	GREEN LIGHTED PUSH BUTTON
-	ELV00-2400001	REPLACEMENT BULB FOR SWITCH #7
8A	NPYELLOW00116	FUNCTION TAG FOR GALLONS
8B	NPYELLOW00155	FUNCTION TAG FOR LITERS
9	NPYELLOW00111	FUNCTION TAG
10	ELP00-8800001	FOUR POSITION SWITCH
11	NPYELLOW00107	FUNCTION TAG
12	2EP00-8800006	TWO POSITION TURN SWITCH
13	NPYELLOW00106	FUNCTION TAG
14	2EP00-8800007	BLACK PUSH BUTTON
15	EL8CO-0000045	DIGITAL ATC WATER COUNTER
16	NPYELLOW00104	FUNCTION TAG
17	NPYELLOW00115	FUNCTION TAG
18	ELP00-8800003	SPEED POT
19	2EP00-8800019	RED MUSHROOM PUSH BUTTON
20	NPRED0000019	WARNING TAG
21	NPYELLOW00119	FUNCTION TAG
22	2EP00-8800009	2 POSITION TURN SWITCH
23	NPYELLOW00194	FUNCTION TAG
24	2EP00-8800043	2 POSITION TURN SWITCH
25	NPYELLOW00118	FUNCTION TAG



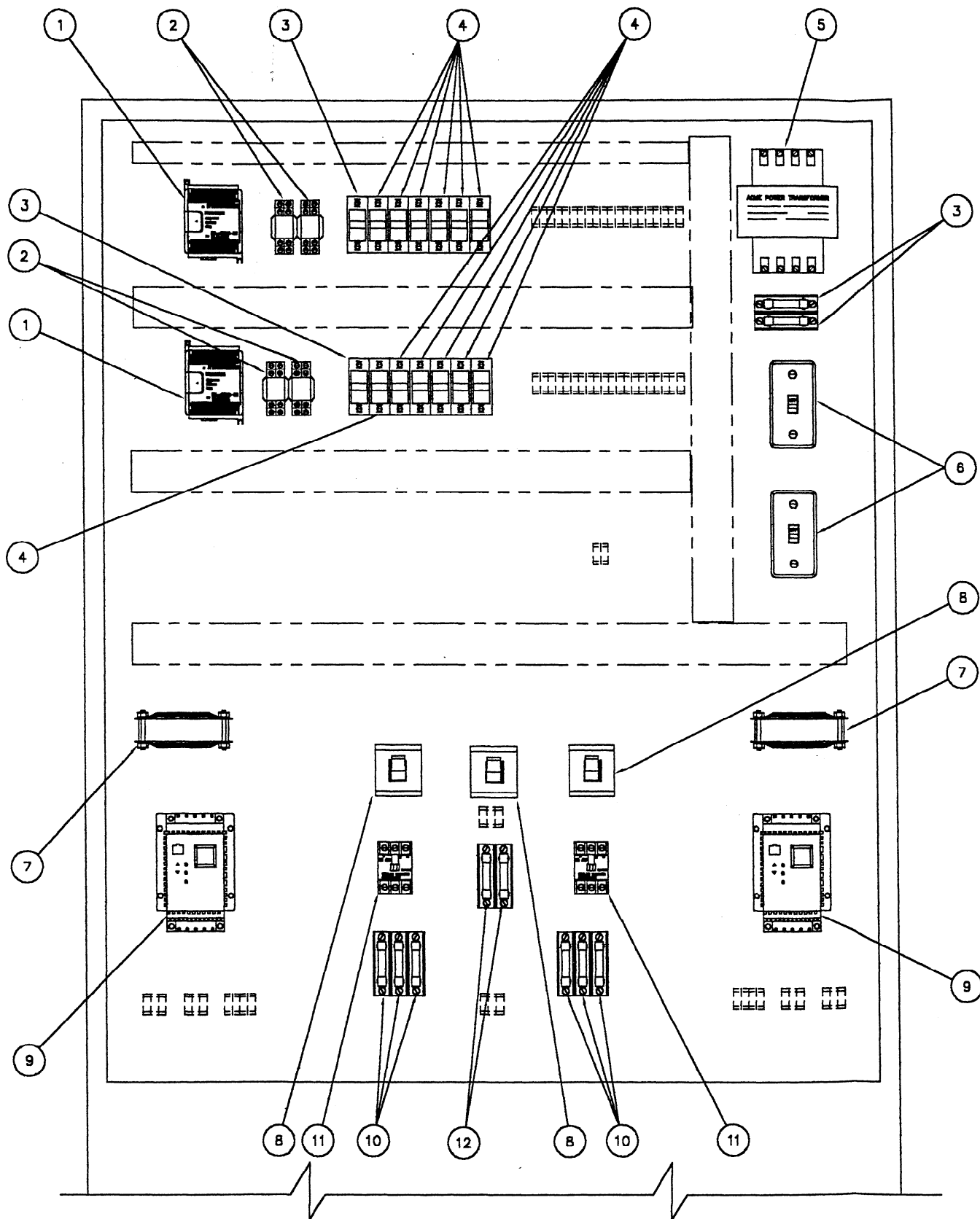
8A
POTABLE WATER
METER IN GALLONS

8B
POTABLE WATER
METER IN LITERS

20
WARNING
DISCONNECT POWER
BEFORE OPENING

CHECKED BY:	DRAWN BY: JES	DUAL CONTROL PANEL REPLACEMENT PARTS	SIZE:	DRAWING NUMBER:
APPROVED BY:	DATE: 2/1/00		C	11533
	SCALE: NONE		REV.	SHEET
				1 of 1

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REV.	DESCRIPTION	BY	DATE
	REVISIONS		

J.C.PARDO & SONS INC.

1250 REAMES RD.
PHONE (410) 391-3600



BALTO MD. 21220
FAX (410) 391-9042

CHECKED BY

DRAWN BY: JES

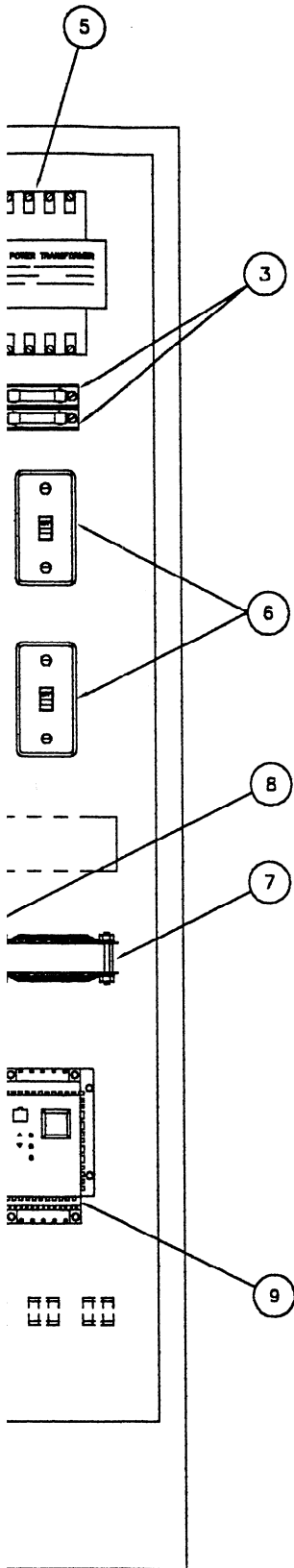
APPROVED BY

DATE: 8-24-

SCALE: NONE

REPLACEMENT PARTS

ITEM	PART NO.	DESCRIPTION
1	EL8CO-0000046	mitsubishi controller
2	ELPSW-0000002	RELAY
-	ELPSW-0000003	RELAY MODULE BASE
3	ELV02-5000001	5 AMP FUSE
4	ELV02-5000002	1 AMP FUSE
5	ELV10-0000001	TRANSFORMER 1000VA
6	ELPSW-0000007	DUAL POLE SWITCH
7	2EP00-0000001	FAN W/ SHROUDING
8	ELPSW-0000001	3 POLE SWITCH
9	ELH02-0000008	2 H.P. INVERTER 208V
10	ELV06-0000004	15 AMP FUSE
11	ELPSW-0000004	MOTOR CONTACTOR
12	ELV06-0000002	8 AMP FUSE



CHECKED BY:	DRAWN BY: JES	DUAL CONTROL PANEL INTERIOR 2HP-208v REPLACEMENT PARTS	SIZE: C	DRAWING NUMBER: 11550
APPROVED BY:	DATE: 8-24-00		REV.	SHEET
	SCALE: NONE			1 of 1

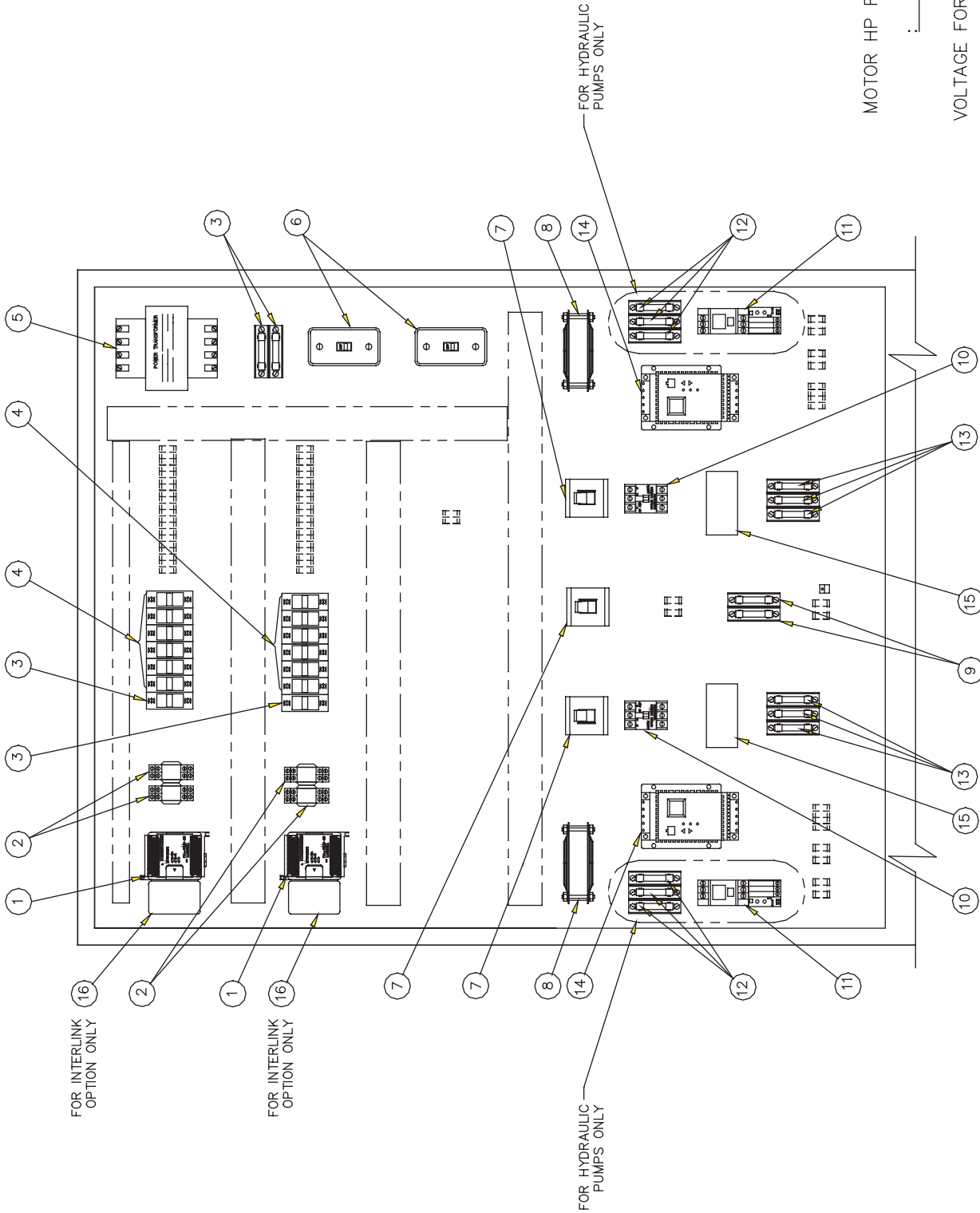
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REV.	DESCRIPTION	BY	DATE
	REVISIONS		
J.C.PARDO & SONS INC. 1250 REAMES RD. BALTO MD. 21220 PHONE (410) 391-3800 FAX (410) 391-9042			
DUAL KETTLE FLOOR MNTD. CONTROL PANEL REPLACEMENT PARTS (MARACOPA ONLY)		ORDERED BY APPROVED BY	DRAWN BY JES DATE 3/27/02 SCALE NONE
THE PROPERTY OF J.C. PARDO & SONS INC. IS HEREBY CERTIFIED TO BE THE PROPERTY OF J.C. PARDO & SONS INC. FACTS AND FIGURES CONTAINED HEREIN ARE THE PROPERTY OF J.C. PARDO & SONS INC. AND ARE NOT TO BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF J.C. PARDO & SONS INC. THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE AND IS NOT TO BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO J.C. PARDO & SONS INC.		SIZE SHEET	11656 1 of 2

REPLACEMENT PARTS		
ITEM	PART NO.	DESCRIPTION
1	EL8C0-0000042	PARTLOW 8000
-	EL977-7700019	REPLACEMENT PEN MOTOR ITEM #1
-	EL977-7700018	REPLACEMENT CHART MOTOR ITEM #1
-	EL977-7700020	REPLACEMENT TOUCH PAD COVER
-	ELP00-0000037	REPLACEMENT DOOR FOR ITEM #1
-	ELP00-0000036	REPLACEMENT DOOR WINDOW ITEM #1
2	MSJ00-0000005	24 HOUR CHART PAPER 'F'
3	MSP00-0000002	RED REPLACEMENT PEN
4	NPYELLOW00110	NAMEPLATE
5	2EP00-8800025	RED LIGHTED TURN SWITCH
-	ELV00-6000001	REPLACEMENT BULB FOR ITEM #5
6	NPYELLOW00109	NAMEPLATE
7	2EP00-8800022	THREE POSITION SWITCH
8	NPYELLOW00257	NAMEPLATE
9	NPYELLOW00111	NAMEPLATE
10	ELP00-8800001	FOUR POSITION SWITCH
11	NPYELLOW00107	NAMEPLATE
12	2EP00-8800006	TWO POSITION SWITCH
13	NPYELLOW00106	NAMEPLATE
14	2EP00-8800007	BLACK PUSH BUTTON
15	EL8C0-0000067	DIGITAL REDUION WATER COUNTER
-	ELV02-5000019	REPLACEMENT .315A FUSE ITEM #15
16	NPRED00000019	NAMEPLATE WARNING
17	HWLOCK0000001	PADLOCK WITH KEYS
18	NPYELLOW00194	NAMEPLATE (OPTIONAL)
19	2EP00-8800043	TWO POSITION SWITCH (OPTIONAL)

J.C.PARDO & SONS INC. 1250 REAMES RD. PHONE (410) 391-3600		BALTO MD. 21220 FAX (410) 391-9042		DUAL KETTLE FLOOR MNTD. CONTROL PANEL REPLACEMENT PARTS (MARACOPA ONLY)		DATE BY JES DATE 3/27/02 SIGNATURE	DRAWING NUMBER 11656
REV. DESCRIPTION BY DATE REVISIONS		APPROVED BY		THE DRAWING IS THE PROPERTY OF J.C.PARDO & SONS INC. NO PART OF THIS DRAWING IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF J.C.PARDO & SONS.		SIZE C	SHEET 2 of 2



#15 IS ONLY FOR 2-3 HP MOTORS ONLY.

MOTOR HP FOR THIS JOB IS
: 3 HP.

VOLTAGE FOR THIS JOB IS
: 380 V- 3 PH- 50 HZ.

REV.	ADDED #15	JES	6/01
REV.	DESCRIPTION	BY	DATE
REVISIONS			

J.C.PARDO & SONS INC.
1250 REAMES RD. BALTO MD. 21220
PHONE (410) 391-3800 FAX (410) 391-0042

CREATED BY:	DATE:
JES	4-9-01
APPROVED BY:	SCALE:
	NONE

INTERNAL DUAL CONTROL PANEL 2, 3 & 5HP
KETTLES 208/230/380/460V
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SIZE	DRAWING NUMBER
C	11614
REV.	SHEET
A	1 of 2

UNIVERSAL REPLACEMENT PARTS		
ITEM	PART NO.	DESCRIPTION
1	EL8CO-0000046	PROGRAMMABLE CONTROLLER
2	ELPSW-0000002	RELAY
-	ELPSW-0000003	REPLACEMENT BASE FOR ITEM #2
3	ELV02-5000001	5 AMP FUSE
4	ELV02-5000002	1 AMP FUSE
5	----	TRANSFORMER BY SYSTEM VOLTAGE
-	ELV10-0000001	TRANSFORMER - 208/380V SYSTEM
-	ELV10-0000002	TRANSFORMER - 230/460V SYSTEM
6	ELPSW-0000007	LOW VOLTAGE DISCONNECT
7	ELPSW-0000001	HIGH VOLTAGE DISCONNECT
8	2EP00-0000001	FAN WITH SHROUDS
9	----	FUSES BY SYSTEM VOLTAGE
-	ELV06-0000002	8 AMP FUSE - 208V SYSTEM
-	ELV06-0000042	7 AMP FUSE - 230V SYSTEM
-	ELV06-0000019	5 AMP FUSE - 380V SYSTEM
-	ELV06-0000008	4 AMP FUSE - 460V SYSTEM
10	ELPSW-0000004	MOTOR CONTACTOR

OPTIONAL HYDRAULIC PUMP STARTER PARTS		
ITEM	PART NO.	DESCRIPTION
11	ELPSW-0000005	HYDRAULIC MOTOR STARTER
-	ELV00-0000013	HEATER PACK FOR ITEM #9 208/230V
-	ELV00-0000023	HEATER PACK FOR ITEM #9 380/460V
12	ELV06-0000015	3 AMP FUSE

2 HP MOTOR REPLACEMENT PARTS		
ITEM	PART NO.	DESCRIPTION
13	----	FUSES BY VOLTAGE
-	ELV06-0000007	20 AMP FUSE 208/230V
-	ELV06-0000010	10 AMP FUSE 380/460V
14	----	INVERTER BY VOLTAGE
-	ELH02-0000008	2 HP INVERTER, 208/230V
-	ELH02-0000009	2 HP INVERTER, 380/460V
15	----	LINE REACTORS BY VOLTAGE & HP
-	ELV00-0000024	LINE REACTOR 2HP 208/230/460V

3 HP MOTOR REPLACEMENT PARTS		
ITEM	PART NO.	DESCRIPTION
13	----	FUSES BY VOLTAGE
-	ELV06-0000007	20 AMP FUSE 208/230V
-	ELV06-0000010	10 AMP FUSE 380/460V
14	----	INVERTER BY VOLTAGE
-	ELH03-0000010	3 HP INVERTER, 208/230V
-	ELH03-0000011	3 HP INVERTER, 380/460V
15	----	LINE REACTORS BY VOLTAGE & HP
-	ELV00-0000024	LINE REACTOR 3HP 208/230/460V

5 HP MOTOR REPLACEMENT PARTS		
ITEM	PART NO.	DESCRIPTION
13	----	FUSES BY VOLTAGE
-	ELV06-0000018	30 AMP FUSE 208/230V
-	ELV06-0000004	15 AMP FUSE 380/460V
14	----	INVERTER BY VOLTAGE
-	ELH05-0000013	5 HP INVERTER, 208/230V
-	ELH05-0000014	5 HP INVERTER, 380/460V

OPTIONAL INTERLINK REPLACEMENT PARTS		
ITEM	PART NO.	DESCRIPTION
16	EL8CO-0000057	COMMUNICATIONS MODULE FOR CONTROLLER

MOTOR HP FOR THIS JOB IS
: 3 HP.

VOLTAGE FOR THIS JOB IS
: 380 V- 3 PH- 50HZ.

B	ADDED 1A SPECS	JES	3/02
A	ADDED #15	JES	6/01
REV.	DESCRIPTION	BY	DATE
REVISIONS			

J.C.PARDO & SONS INC.

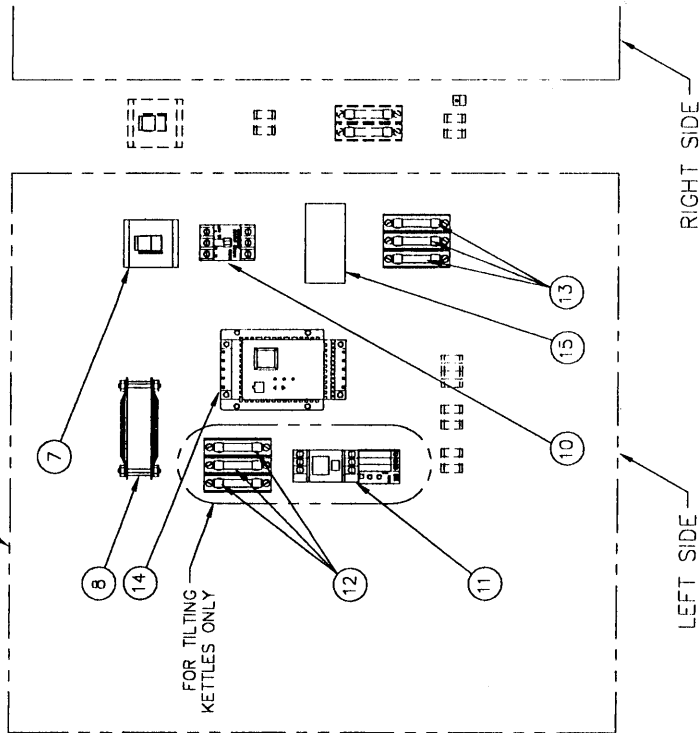
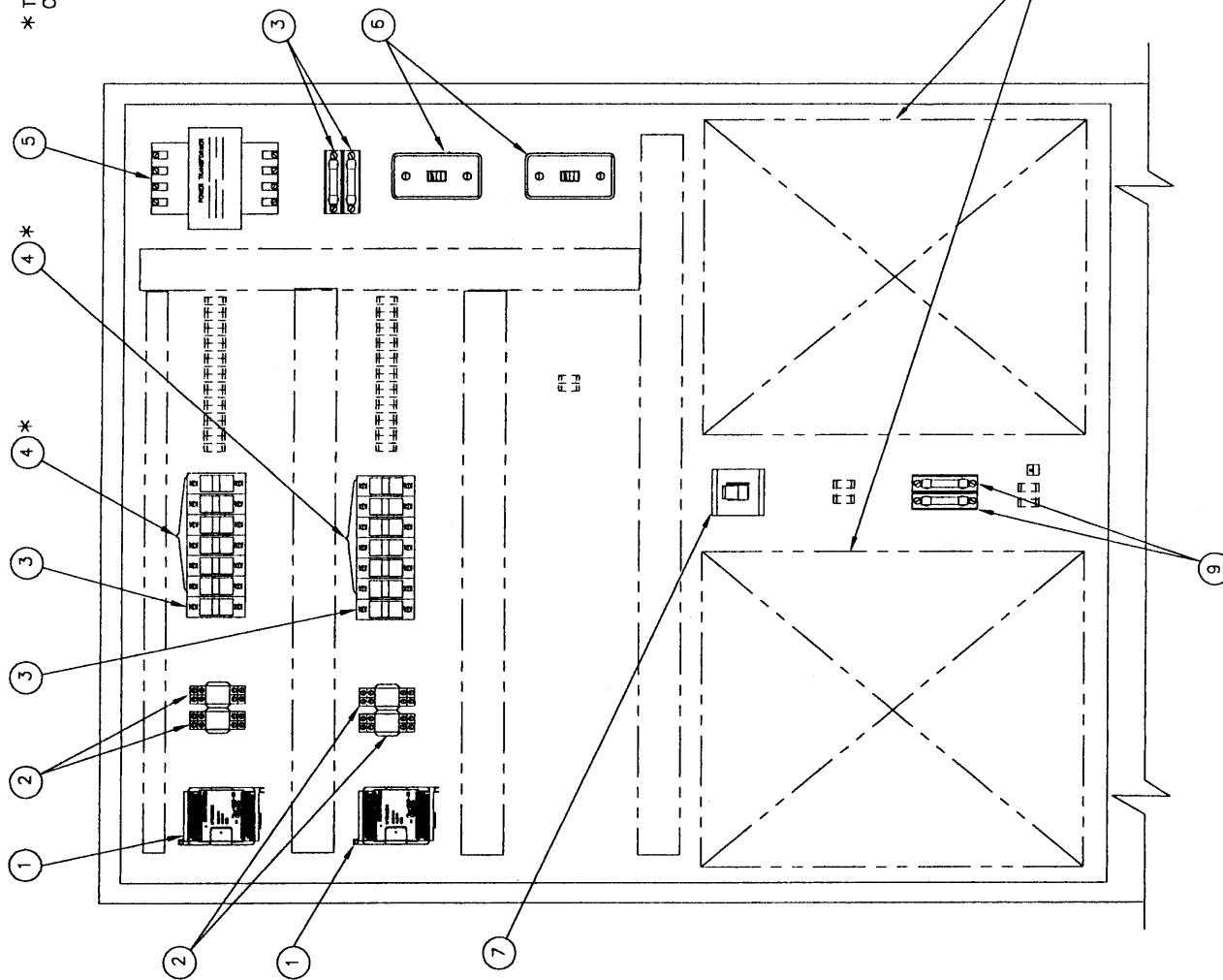
 1250 REAMES RD. BALTO MD. 21220
 PHONE (410) 391-3800 FAX (410) 391-8042

CHECKED BY:	DRAWN BY: JES
APPROVED BY:	DATE: 4-9-01
	SCALE: NONE

INTERNAL DUAL CONTROL PANEL 2, 3 & 5HP KETTLES 208/230/380/460V		SIZE	C
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		SHEET	2 of 2

FOR MOTOR HOOKUPS ON THE RIGHT SIDE MIRROR THIS LAYOUT

* THE PASTA KETTLE HAS ONLY FIVE 1 AMP FUSES



MOTOR HOOKUP DETAIL
FOR MIXER KETTLES ONLY

FOR MIXER KETTLES SEE MOTOR HOOKUP DETAIL AND FOR PASTA KETTLE THERE IS NOTHING REQUIRED IN THIS AREA.

#15 IS ONLY FOR 60 & 100 GAL. KETTLES

J.C.PARDO & SONS INC.		INTERNAL DUAL CONTROL PANEL 2, 3 & 5HP		DRAWING NUMBER	
1250 REAMES RD. BALTO MD. 21220		208/230/380/460V HAK or TILT W/PASTA		11632	
PHONE (410) 391-3600		DATE 10/23/01		REV	
FAX (410) 391-9042		SCALE NONE		1 of 2	
REV. #15		JES 6/01		SIZE C	
DESCRIPTION		BY DATE		SHEET	
REVISIONS					

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UNIVERSAL REPLACEMENT PARTS		
ITEM	PART NO.	DESCRIPTION
1	ELBCO-0000046	PROGRAMMABLE CONTROLLER
2	ELPSW-0000002	RELAY
3	ELPSW-0000003	REPLACEMENT BASE FOR ITEM #2
4	ELV02-5000001	5 AMP FUSE
5	ELV02-5000002	1 AMP FUSE
6	ELV10-0000001	TRANSFORMER BY SYSTEM VOLTAGE
7	ELV10-0000002	TRANSFORMER - 208/380V SYSTEM
8	ELV10-0000003	TRANSFORMER - 230/460V SYSTEM
9	ELPSW-0000007	LOW VOLTAGE DISCONNECT
10	ELPSW-0000001	HIGH VOLTAGE DISCONNECT
11	2EP00-0000001	FAN WITH SHROUDS
12	ELV06-0000001	FUSES BY SYSTEM VOLTAGE
13	ELV06-0000002	8 AMP FUSE - 208V SYSTEM
14	ELV06-0000003	7 AMP FUSE - 230V SYSTEM
15	ELV06-0000004	5 AMP FUSE - 380V SYSTEM
16	ELV06-0000005	4 AMP FUSE - 460V SYSTEM
17	ELPSW-0000004	MOTOR CONTACTOR

OPTIONAL TILTING KETTLE PARTS		
ITEM	PART NO.	DESCRIPTION
11	ELPSW-0000005	HYDRAULIC MOTOR STARTER
12	ELV00-0000013	HEATER PACK FOR ITEM #9 208/230V
13	ELV00-0000023	HEATER PACK FOR ITEM #9 380/460V
14	ELV06-0000015	3 AMP FUSE

60 GAL. REPLACEMENT PARTS		
ITEM	PART NO.	DESCRIPTION
13	---	FUSES BY VOLTAGE
14	ELV06-0000007	20 AMP FUSE 208/230V
15	ELV06-0000010	10 AMP FUSE 380/460V
16	---	INVERTER BY VOLTAGE
17	ELH02-0000008	2 HP INVERTER, 208/230V
18	ELH02-0000009	2 HP INVERTER, 380/460V

100 GAL. REPLACEMENT PARTS		
ITEM	PART NO.	DESCRIPTION
13	---	FUSES BY VOLTAGE
14	ELV06-0000007	20 AMP FUSE 208/230V
15	ELV06-0000010	10 AMP FUSE 380/460V
16	---	INVERTER BY VOLTAGE
17	ELH03-0000010	3 HP INVERTER, 208/230V
18	ELH03-0000011	3 HP INVERTER, 380/460V

150/200 GAL. REPLACEMENT PARTS		
ITEM	PART NO.	DESCRIPTION
13	---	FUSES BY VOLTAGE
14	ELV06-0000018	30 AMP FUSE 208/230V
15	ELV06-0000004	15 AMP FUSE 380/460V
16	---	INVERTER BY VOLTAGE
17	ELH05-0000013	5 HP INVERTER, 208/230V
18	ELH05-0000014	5 HP INVERTER, 380/460V

60/100 GAL. REPLACEMENT PARTS		
ITEM	PART NO.	DESCRIPTION
15	---	LINE REACTORS BY VOLTAGE & HP
16	ELV00-0000024	LINE REACTOR 1-3HP 208/230/460V

A	ADDED #15	JES	6/01
REV.	DESCRIPTION	BY	DATE
REVISIONS			

J.C. PARDO & SONS INC.

 1250 REAMES RD. BALTO MD. 21220
 PHONE (410) 381-3800 FAX (410) 381-9042

DESIGNED BY:	DATE: 10/23/01
APPROVED BY:	SCALE: NONE

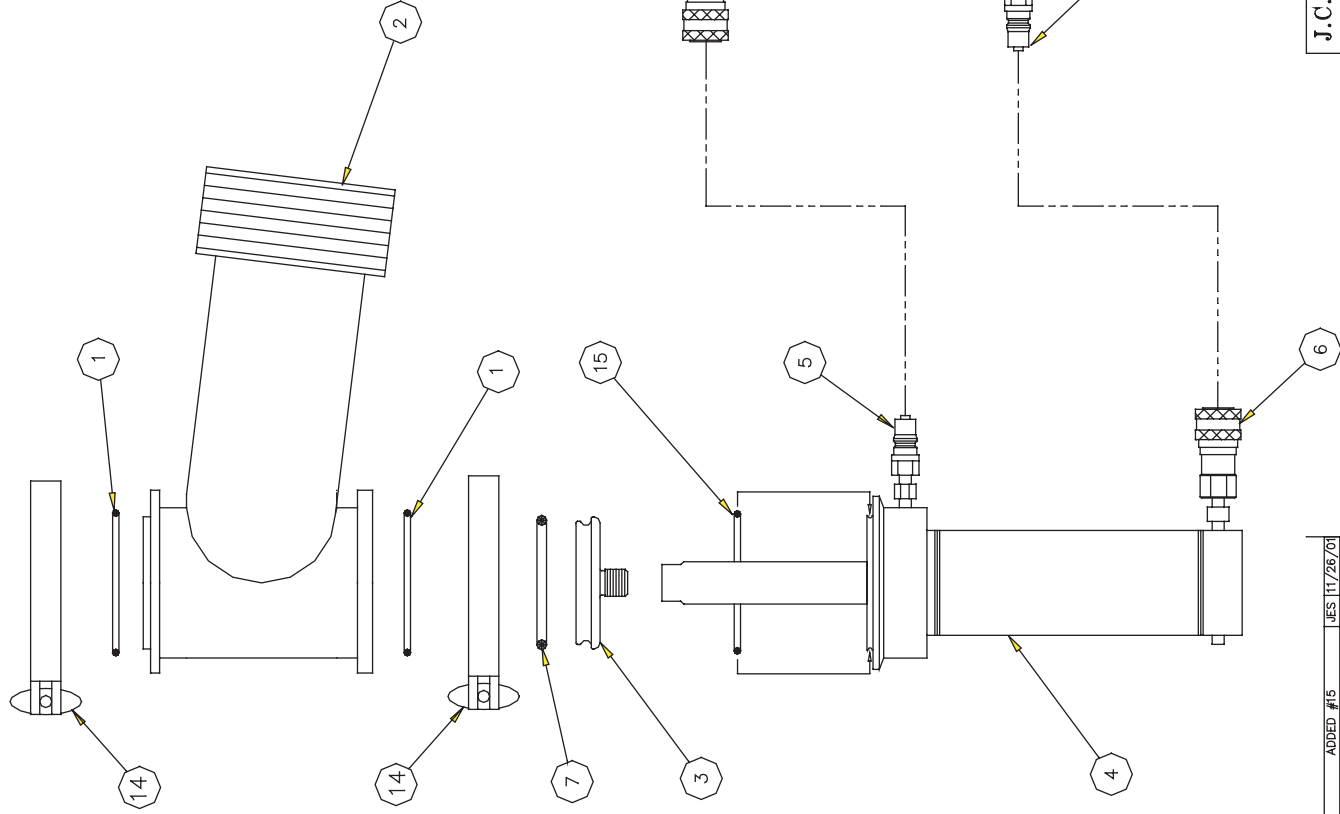
INTERNAL DUAL CONTROL PANEL 2, 3 & 5HP
 208/230/380/460V HAK or TILT W/PASTA

SIZE	C
DRAWING NUMBER	11632
SHEET	2 of 2

REPLACEMENT PARTS

ITEM	DESCRIPTION	PART NUMBER
1	TEE O-RING	SE3ORING00011
2	TEE	1FS03-0000006
3	PLUNGER HEAD	1FS02-7500014
4	ACTUATOR BODY	ARS03-0000001
5	MALE QUICK DISCONNECT SST	ARS00-1200002
6	FEMALE QUICK DISCONNECT SST	ARS00-1200003
7	PLUNGER O-RING	SE3ORING00012
8	FEMALE QUICK DISCONNECT BRASS	1HB00-1200002
9	AIR HOSE	AR700-2500002
10	MALE QUICK DISCONNECT BRASS	1HB00-1200001
11A	AIR SOLENOID 115 VOLT	AR800-2500013
-	REPLACEMENT COIL FOR ITEM #11A	SP988-8800027
11B	AIR SOLENOID 220 VOLT	AR800-2500014
-	REPLACEMENT COIL FOR ITEM #11B	SP988-9900028
-	REPAIR KIT FOR ITEM #11A & 11B	SP999-9900074
-	REPL. DINN CONN. FOR ITEM #11A & 11B	ELP00-0000032
12	AIR MUFFLER	ARP00-2500001
13	FLOW CONTROL AIR MUFFLER	ARB00-2500028
14	CLAMP	DFS03-0000001
15	O-RING	SE3ORING00042

* CUSTOMER TO SPECIFY LENGTH.



REV	ADDED #/5	DESCRIPTION	BY	DATE
A				

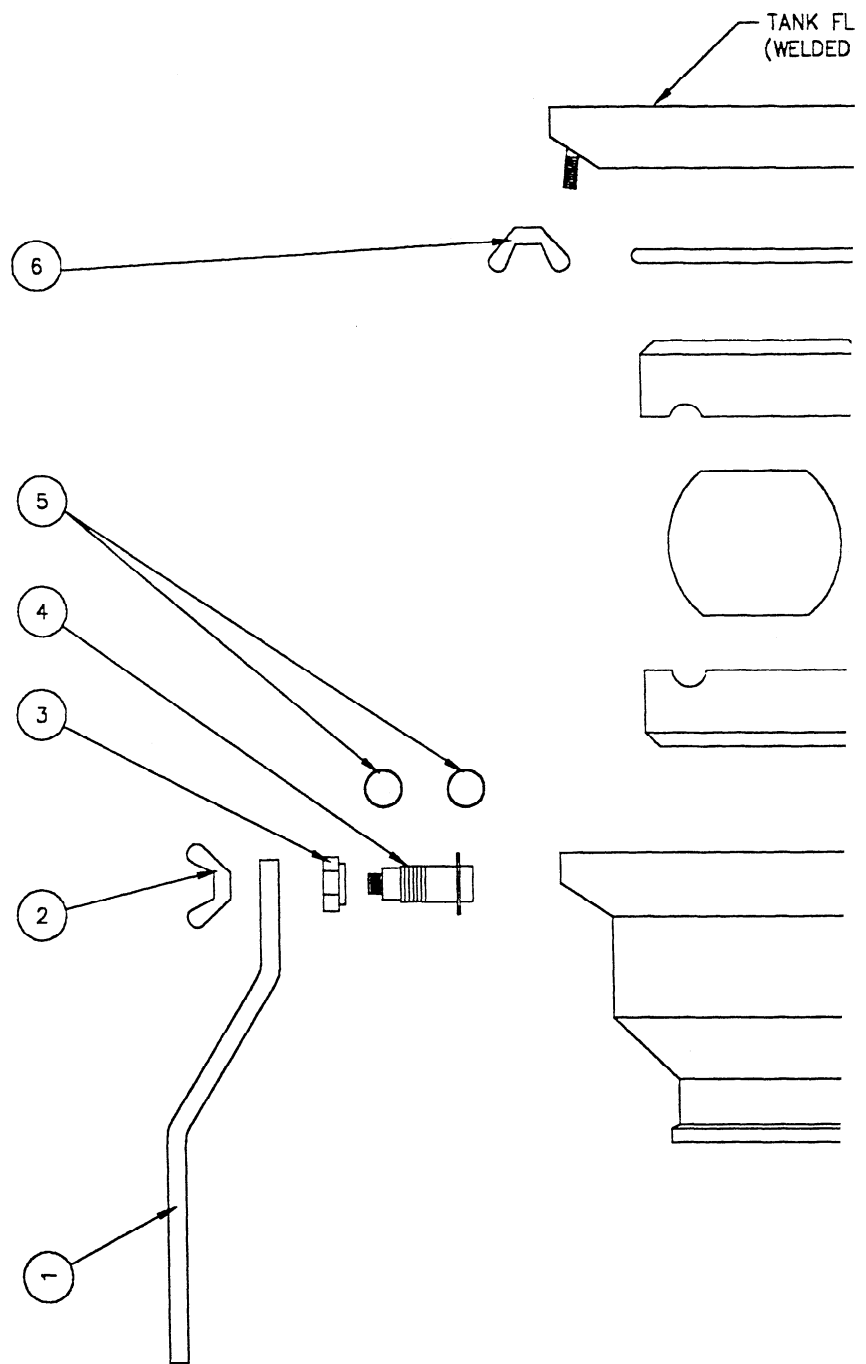
REVISIONS

J.C. PARDO & SONS INC.
 1250 PRINCE RD. BALTO MD. 21220
 PHONE (410) 391-3000 FAX (410) 391-3000

DESIGNED BY	JCS
DRAWN BY	12/5/00
APPROVED BY	NONE

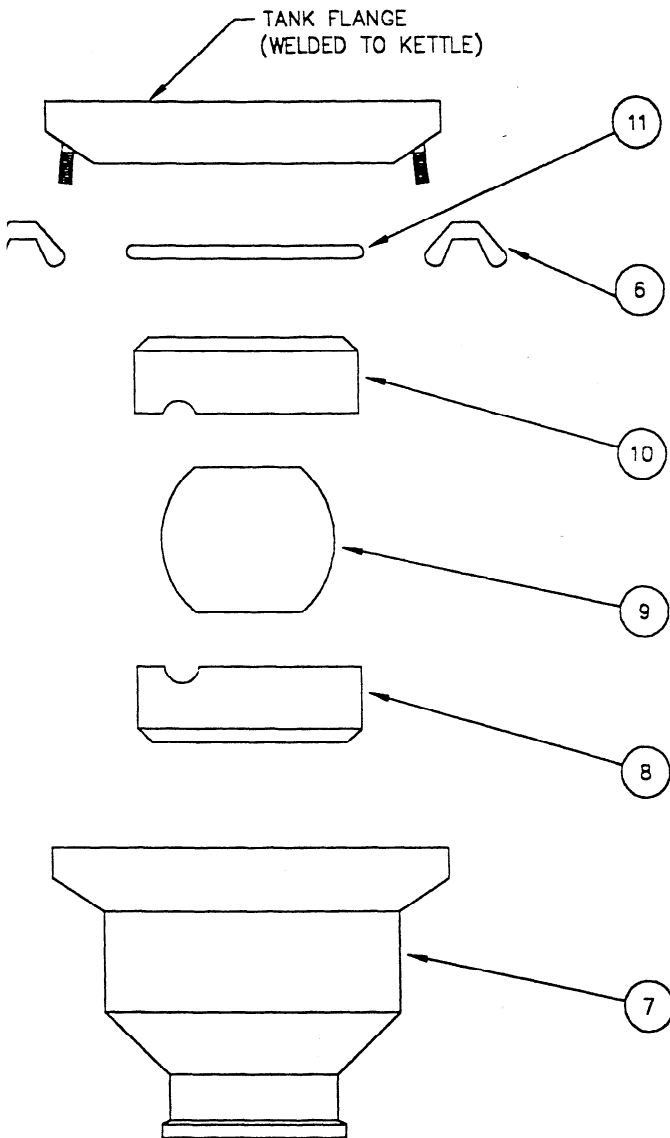
**J.C. PARDO PRODUCT VALVE
 REPLACEMENT PARTS DRAWING**

DATE	D
REV	A
1 OF 1	



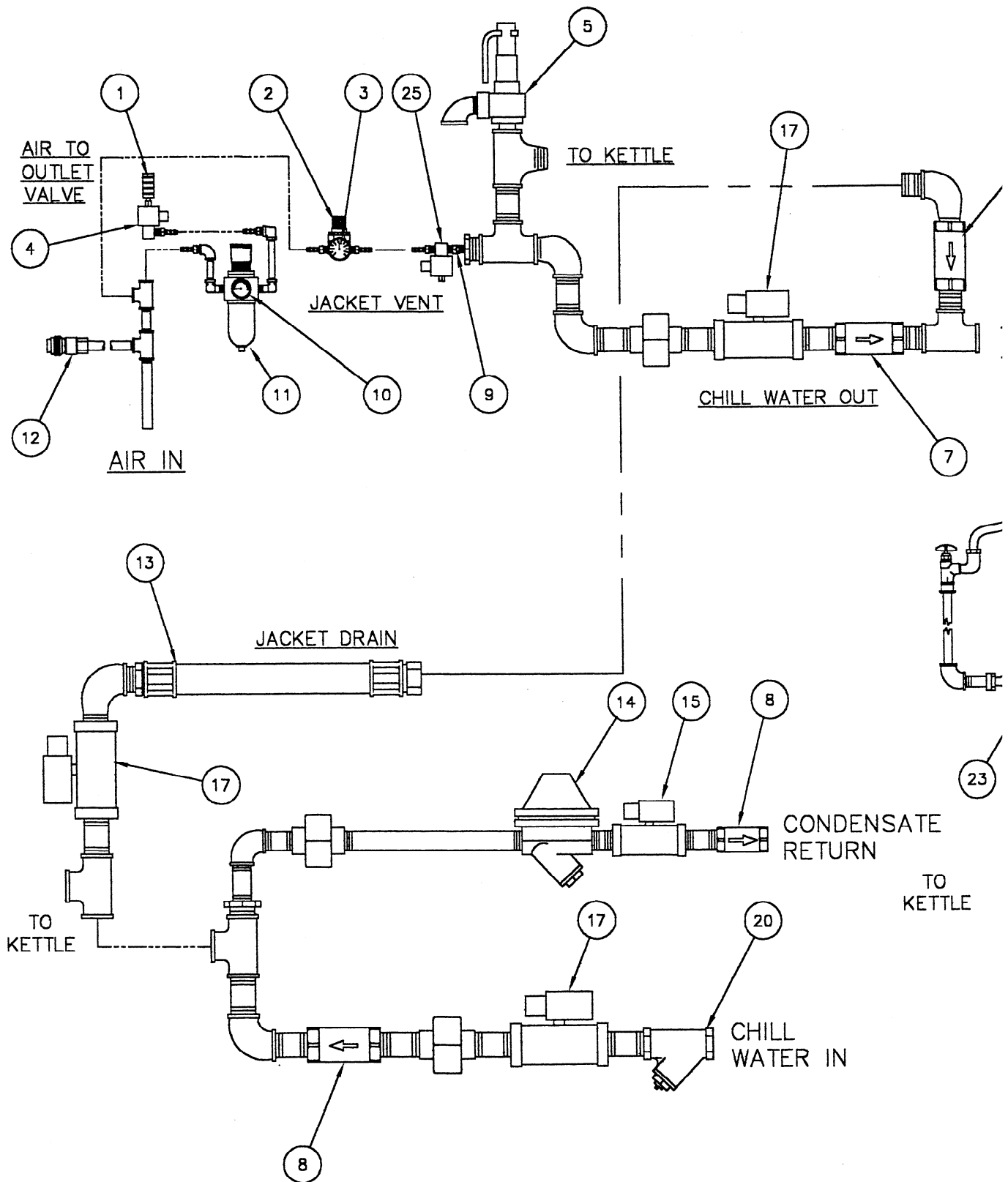
REPLACEMENT PARTS

ITEM	PART NO.	DESCRIPTION
1	SPS03-0000005	HANDLE
2	HWS00-5000005	WING NUT 1/2-13
3	HWS00-0000002	PACKING NUT
4	SPS00-0000003	STEM
5	SPF00-0000001	STEM SEAL
6	HWS00-3800005	WING NUT 3/8-16
7	SPS03-0000004	VALVE BODY
8	SPF03-0000005	DISCHARGE SEAL
9	SPS03-0000006	BALL
10	SPF03-0000004	INTAKE SEAL
11	SE3ORING00008	O-RING



JOB #

J.C.PARDO & SONS INC.			
1250 REAMES RD.		BALTO. MD. 21220	
SCALE: NONE	APPROVED BY:	DRAWN BY: LAURIE YORI	
DATE: 7/21/95			
3" LEE FLUSH TANK BALL VALVE REPLACEMENT PARTS			
SHEET 1 of 1	SIZE: C	DRAWING NUMBER: 11115	REV.



REV.	DESCRIPTION	BY	DATE
REVISIONS			

J.C.PARDO & SONS INC.

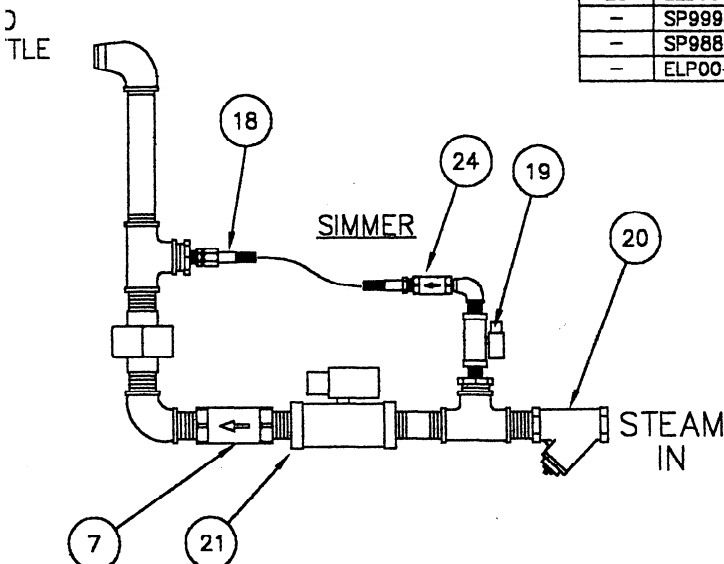
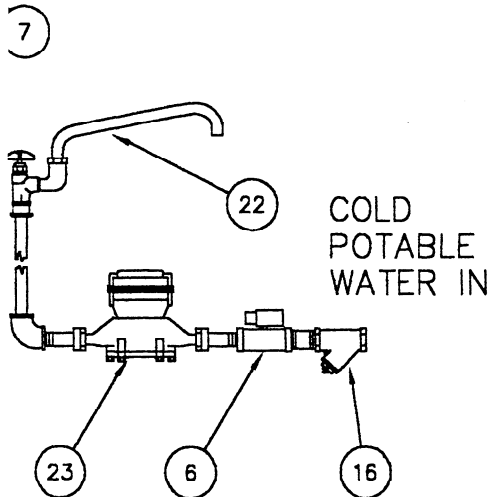
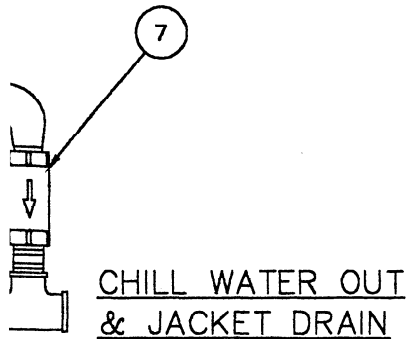
1250 REAMES RD.
PHONE (410) 391-3600



BALTO MD. 21220
FAX (410) 391-9042

CHECKED BY:

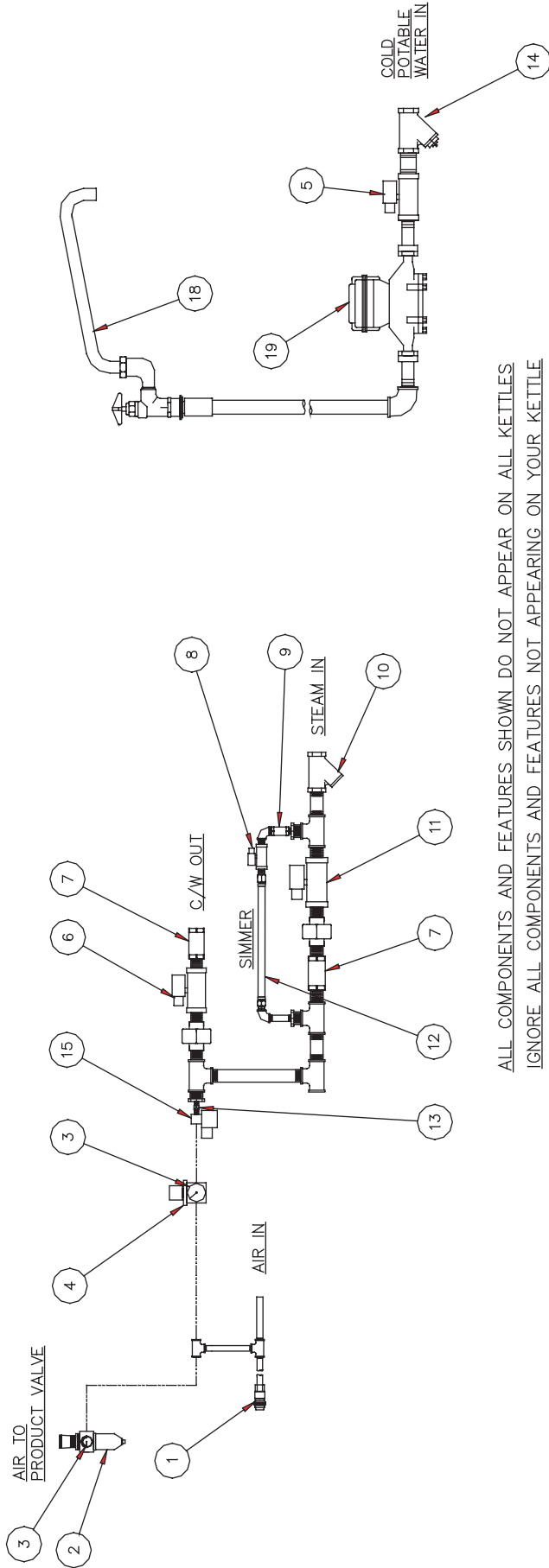
APPROVED BY:



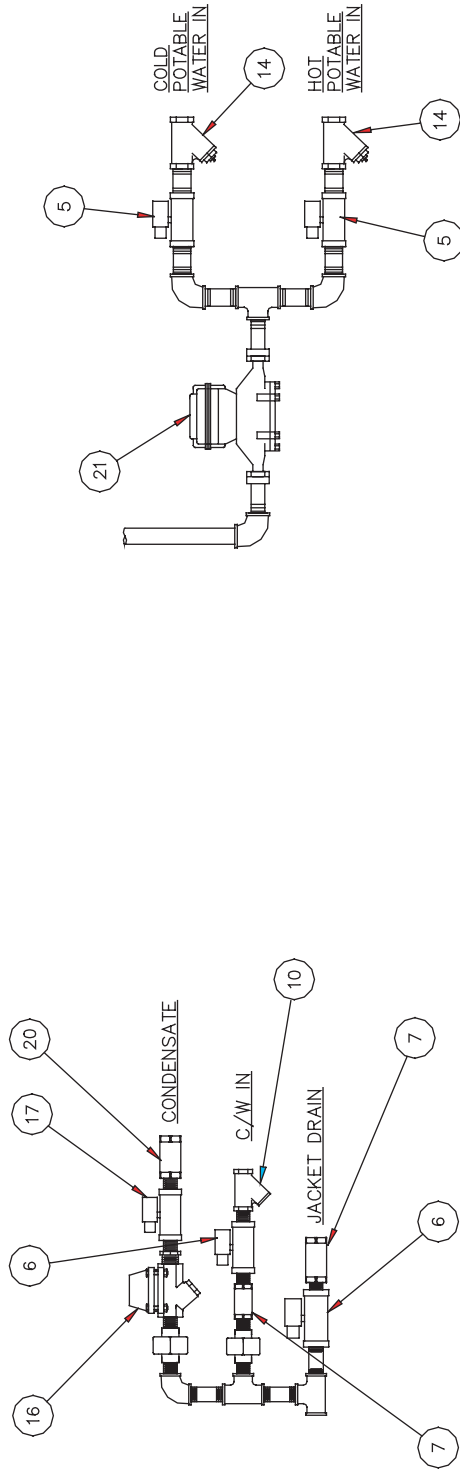
REPLACEMENT PARTS LIST

ITEM	PART NO.	DESCRIPTION
1	ARP00-2500001	AIR MUFFLER
2	AR800-3700002	MINI AIR REGULATOR
3	AR800-2500002	REPLACEMENT GAUGE
4	ELB00-2500011	OUTLET VALVE SOLENOID
-	SP999-9900010	REPLACEMENT KIT FOR ITEM #4
-	SP988-8800004	REPLACEMENT COIL FOR ITEM #4
-	ELP00-0000000	REPLACEMENT DINN CONN. FOR ITEM #4
5	VAB00-7500005	50 PSI SAFETY VALVE
6	ELB00-5000015	POTABLE WATER IN SOLENOID
-	SP999-9900002	REPLACEMENT KIT FOR ITEM #6
-	SP988-8800002	REPLACEMENT COIL FOR ITEM #6
-	ELP00-0000000	REPLACEMENT DINN CONN. FOR ITEM #6
7	MSB00-7500004	BALL CONE CHECK VALVE
8	MSB00-5000005	BALL CONE CHECK VALVE
9	VAB00-2500001	NO LEAK CHECK VALVE
10	AR800-2500002	REPLACEMENT GAUGE
11	AR800-2500001	AIR REGULATOR
12	ARB00-5000001	AIR QUICK DISCONNECT
13	PBD00-7500001	JACKET DRAIN HOSE
14	MSC00-5000002	STEAM TRAP
-	SP999-9900017	REPAIR KIT FOR ITEM #14
15	ELB00-5000016	CONDENSATE SOLENOID
-	SP999-9900006	REPLACEMENT KIT FOR ITEM #15
-	SP988-8800003	REPLACEMENT COIL FOR ITEM #15
-	ELP00-0000000	REPLACEMENT DINN CONN. FOR ITEM #15
16	MSB00-5000001	50 MESH STRAINER
-	MSB00-5000006	REPLACEMENT SCREEN FOR ITEM #16
17	ELB00-7500015	JACKET DRAIN SOLENOID
-	SP999-9900004	REPLACEMENT KIT FOR ITEM #17
-	SP988-8800002	REPLACEMENT COIL FOR ITEM #17
-	ELP00-0000000	REPLACEMENT DINN CONN. FOR ITEM #17
18	PBS00-3800001	FLEXIBLE SIMMER LINE
19	ELB00-2500012	SIMMER SOLENOID
-	SP999-9900009	REPLACEMENT KIT FOR ITEM #19
-	SP988-8800003	REPLACEMENT COIL FOR ITEM #19
-	ELP00-0000000	REPLACEMENT DINN CONN. FOR ITEM #19
20	MSB00-7500001	50 MESH STRAINER
-	MSB00-7500006	REPLACEMENT SCREEN FOR ITEM #20
21	ELB00-7500016	STEAM IN SOLENOID
-	SP999-9900007	REPLACEMENT KIT FOR SOLENOID #21
-	SP988-8800003	REPLACEMENT COIL FOR SOLENOID #21
-	ELP00-0000000	REPLACEMENT DINN CONN. FOR ITEM #21
22	PBB00-5000024	FILL FAUCET
23	ELB00-5000002	WATER METER UNIT
-	EL977-7700001	REPLACEMENT RESISTOR FOR ITEM #23
-	EL977-7700011	REPLACEMENT REED SWITCH FOR ITEM #23
24	MSB00-3800001	BALL CONE CHECK VALVE
25	ELB00-2500013	JACKET VENT SOLENOID
-	SP999-9900064	REPLACEMENT KIT FOR ITEM #25
-	SP988-8800002	REPLACEMENT COIL FOR ITEM #25
-	ELP00-0000000	REPLACEMENT DINN CONN. FOR ITEM #25

BY:	DRAWN BY: JAY S.	60-HAK PLUMBING W/DINN CONN. REPLACEMENT PARTS	SIZE:	DRAWING NUMBER:
	DATE: 2/4/00		C	11524
SCALE: NONE			REV.	SHEET
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ALL COMPONENTS AND FEATURES SHOWN DO NOT APPEAR ON ALL KETTLES
 IGNORE ALL COMPONENTS AND FEATURES NOT APPEARING ON YOUR KETTLE



OPTIONAL HOT/COLD POTABLE WATER

REV.	DESCRIPTION	BY	DATE
REVISIONS			

J.C.PARDO & SONS INC.
 1250 REAMES RD.
 BALTO MD. 21220
 PHONE (410) 381-3600
 FAX (410) 381-3600

ORDER #	JDS	HAMK-DL-150-200-T PLUMBING W/DINN
DATE	6-29-01	CONNECTORS REPLACEMENT PARTS
APPROVED BY	NONE	

REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
1	VAB01-2500001	100 PSI SAFETY VALVE
2	ARB00-3700002	MINI AIR REGULATOR
3	ARB00-2500004	REPLACEMENT GAUGE
4	ELB00-2500013	JACKET VENT SOLENOID
-	ELP00-0000000	REPLACEMENT DINN CONN. FOR ITEM #4
-	SP999-9900064	REPLACEMENT KIT FOR ITEM #4
-	SP988-8800002	REPLACEMENT COIL FOR ITEM #4
5	ELB01-5000006	CHILL WATER IN/OUT & JACKET DRAIN SOL.
-	ELP00-0000000	REPLACEMENT DINN CONN. FOR ITEM #5
-	SP999-9900014	REPLACEMENT KIT FOR ITEM #5
-	SP988-8800002	REPLACEMENT COIL FOR ITEM #5
6	MSB01-5000004	BALL CONE CHECK VALVE
7	ARB00-5000001	AIR QUICK DISCONNECT
8	MSB00-7500001	50 MESH STRAINER
-	MSB00-7500006	REPLACEMENT SCREEN FOR ITEM #8
9	ARB00-2500015	AIR REGULATOR
10	VAB00-2500001	NO LEAK CHECK VALVE
11	PBD01-5000006	JACKET DRAIN HOSE
12	MSC00-7500007	STEAM TRAP
-	SP999-9900018	REPAIR KIT FOR ITEM #12
13	ELB01-0000014	CONDENSATE SOLENOID
-	ELP00-0000000	REPLACEMENT DINN CONN. FOR ITEM #13
-	SP999-9900008	REPLACEMENT KIT FOR ITEM #13
-	SP988-8800003	REPLACEMENT COIL FOR ITEM #13

REPLACEMENT PARTS LIST		
ITEM	PART NO.	DESCRIPTION
14	MSB01-0000003	BALL CONE CHECK VALVE
15	MSB01-5000001	50 MESH STRAINER
-	MSB01-5000003	REPLACEMENT SCREEN FOR ITEM #15
16	PBF00-7500001	SIMMER FLEX LINE
17	MSB00-7500005	BALL CONE CHECK VALVE
18	ELB00-7500016	SIMMER SOLENOID
-	ELP00-0000000	REPLACEMENT DINN CONN. FOR ITEM #18
-	SP999-9900007	REPLACEMENT KIT FOR ITEM #18
-	SP988-8800003	REPLACEMENT COIL FOR ITEM #18
19	ELB01-5000007	STEAM IN SOLENOID
-	ELP00-0000000	REPLACEMENT DINN CONN. FOR ITEM #19
-	SP999-9900013	REPLACEMENT KIT FOR ITEM #19
-	SP988-8800003	REPLACEMENT COIL FOR ITEM #19
20	PBB00-7500018	FILL FAUCET
21	ELB00-7500017	DIGITAL COLD WATER METER
22	ELB00-7500015	POTABLE WATER IN SOLENOID
-	ELP00-0000000	REPLACEMENT DINN CONN. FOR ITEM #22
-	SP999-9900004	REPLACEMENT KIT FOR SOLENOID #22
-	SP988-8800002	REPLACEMENT COIL FOR SOLENOID #22
23	ELB00-7500018	DIGITAL HOT WATER METER (OPTIONAL)

J.C.PARDO & SONS INC.
 1250 REAMES RD. BALTO MD. 21220
 PHONE (410) 381-3600 FAX (410) 381-9042

REV.	DESCRIPTION	BY	DATE
REVISIONS			

MDL-300-CC PLUMBING W/DINN
 CONNECTORS REPLACEMENT PARTS

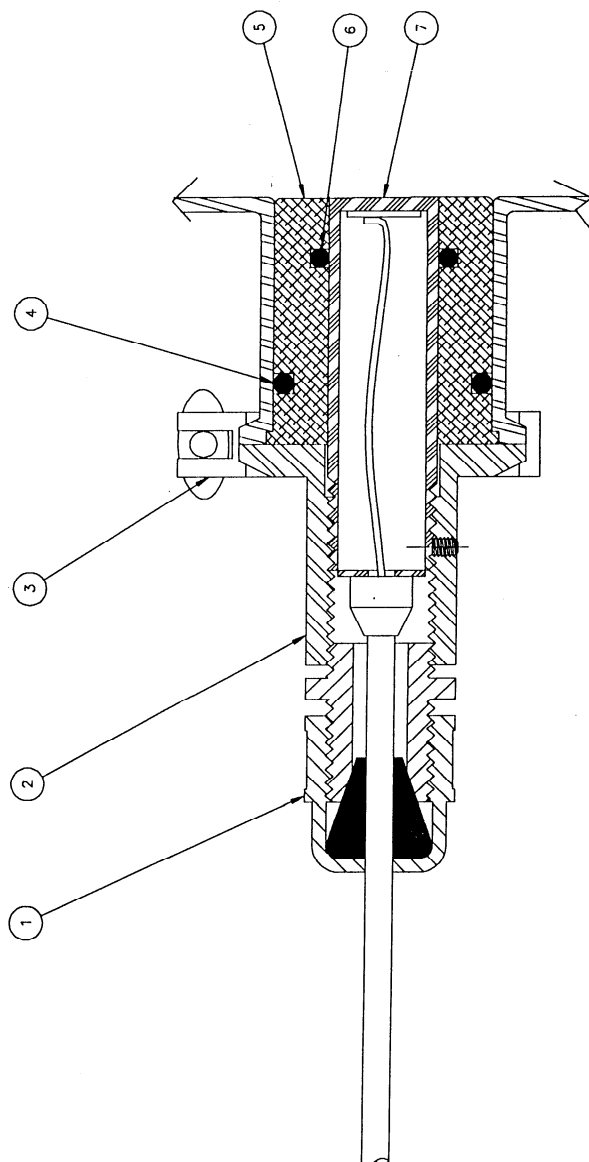
ISSUED BY	DATE
JES	4/1/02
APPROVED BY	SCALE
NONE	NONE

REV.	11658
REV.	2 of 2

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REPLACEMENT PARTS

ITEM	PART NO.	DESCRIPTION
1	ELC00-0003011	WIRE RESTRAINT
2	TSSENSOR00001	CAP ASSEMBLY
3	DFS02-0000002	2" TRI CLAMP
4	SEJ0RING00004	OUTER O-RING
5	SRSENSOR00001	SEAL RETAINER
6	TSSENSOR00005	INNER O-RING
7	TSSENSOR00002	TEMPERATURE SENSOR



J.C. PARDO & SONS INC.

1250 REAMES RD. BALTO. MD. 21220

SCALE	NONE	APPROVED BY:	PLANNING DIV.
-------	------	--------------	---------------

DATE	9-15-94	APPROVED BY:	US 11/5/94	DRAWN BY:	T.M. KAHL
SCALE	NONE				

9-15-94	06	11/13/94	TM KAHL
TEMPERATURE/SENISOP WITH			

TEMPERATURE SENSOR WITH DABT-NON-SENSITIVE

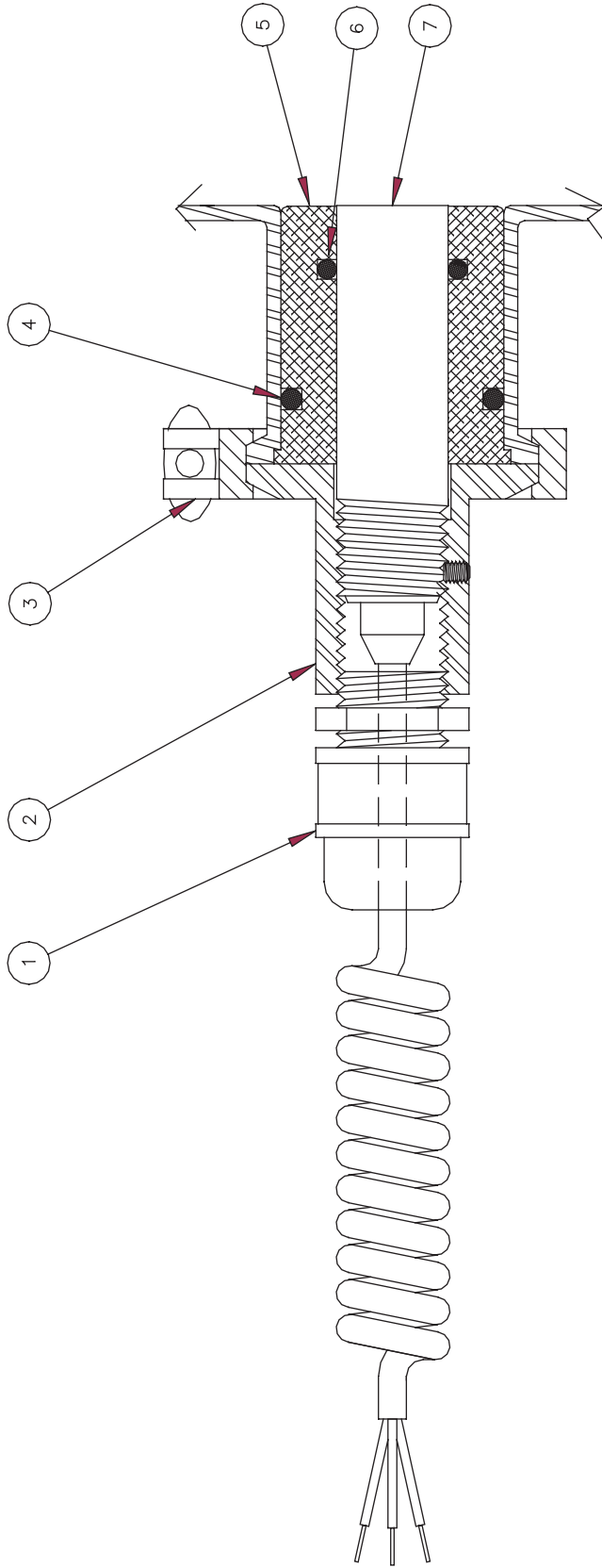
PART NO#	RTD SENSOR
----------	------------

SHEET 1 OF 1
 DATE: 11/03/99
 DRAWN BY: JRS
 CHECKED BY: JRS
 APPR: A

SHEET 1 OF 1 K:\TIM39\Δ

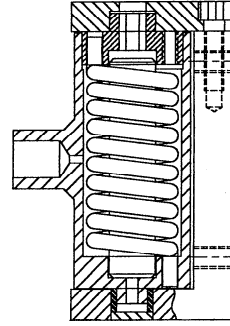
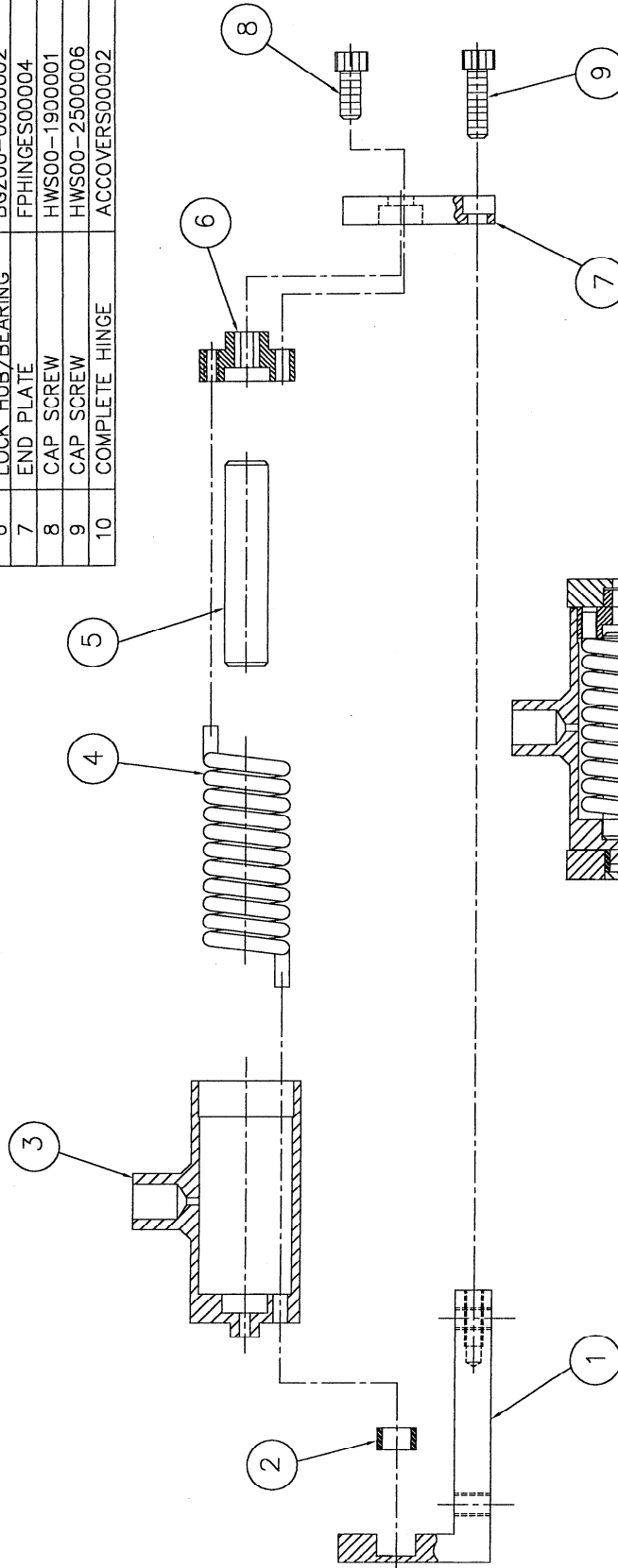
REPLACEMENT PARTS

ITEM	PART NO.	DESCRIPTION
1	ELC00-0000011	WIRE RESTRAINT
2	TSENSOR000001	CAP ASSEMBLY
3	DFS02-0000002	2" TRI CLAMP
4	SE3ORING00004	OUTER O-RING
5	SRSENSOR00001	SEAL RETAINER
6	SE3ORING00005	INNER O-RING
7	TSENSOR000007	TEMPERATURE SENSOR



REV.	DESCRIPTION	BY	DATE	J.C.PARDO & SONS INC.				CHECKED BY	DRAWN BY LY	TEMPERATURE SENSOR W/RETRACTABLE CABLE		SIZE: C	DRAWING NUMBER: 11077		
				1250 REAMES RD. PHONE (410) 391-3600						BALTO MD. 21220 FAX (410) 391-0042				REPLACEMENT PARTS	
				REVISIONS				DATE: 2/13/95		SCALE: NONE		REV.		1 of 1	SHEET
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ITEM	DESCRIPTION	PART NO.
1	HINGE BASE	FPHINGS00002
2	BRONZE BEARING	BGZ00-0000001
3	HINGE BODY	FPHINGS00001
4	SPRING	MSSPRING00004
5	CENTERING ROD	FPHINGS00003
6	LOCK HUB/BEARING	BGZ00-0000002
7	END PLATE	FPHINGS00004
8	CAP SCREW	HWS00-1900001
9	CAP SCREW	HWS00-2500006
10	COMPLETE HINGE	ACCOVERS00002



A	REDRAWN IN ACAD	SME 4/24/00
REV.	DESCRIPTION	BY DATE

REVISIONS

J.C.PARDO & SONS INC.

CHECKED BY: _____ APPROVED BY: _____

DRAWN BY: JS
DATE: 8-21-94
SCALE: NONE

UNLESS NOTED OTHERWISE
TOLERANCES ARE:
.XX = ±
.XXX = ±
FRACT. = ±
ANGLE = ±
FINISH = ±
RMS

HINGE/ACTUATOR ASSEMBLY & REPLACEMENT PARTS DETAIL

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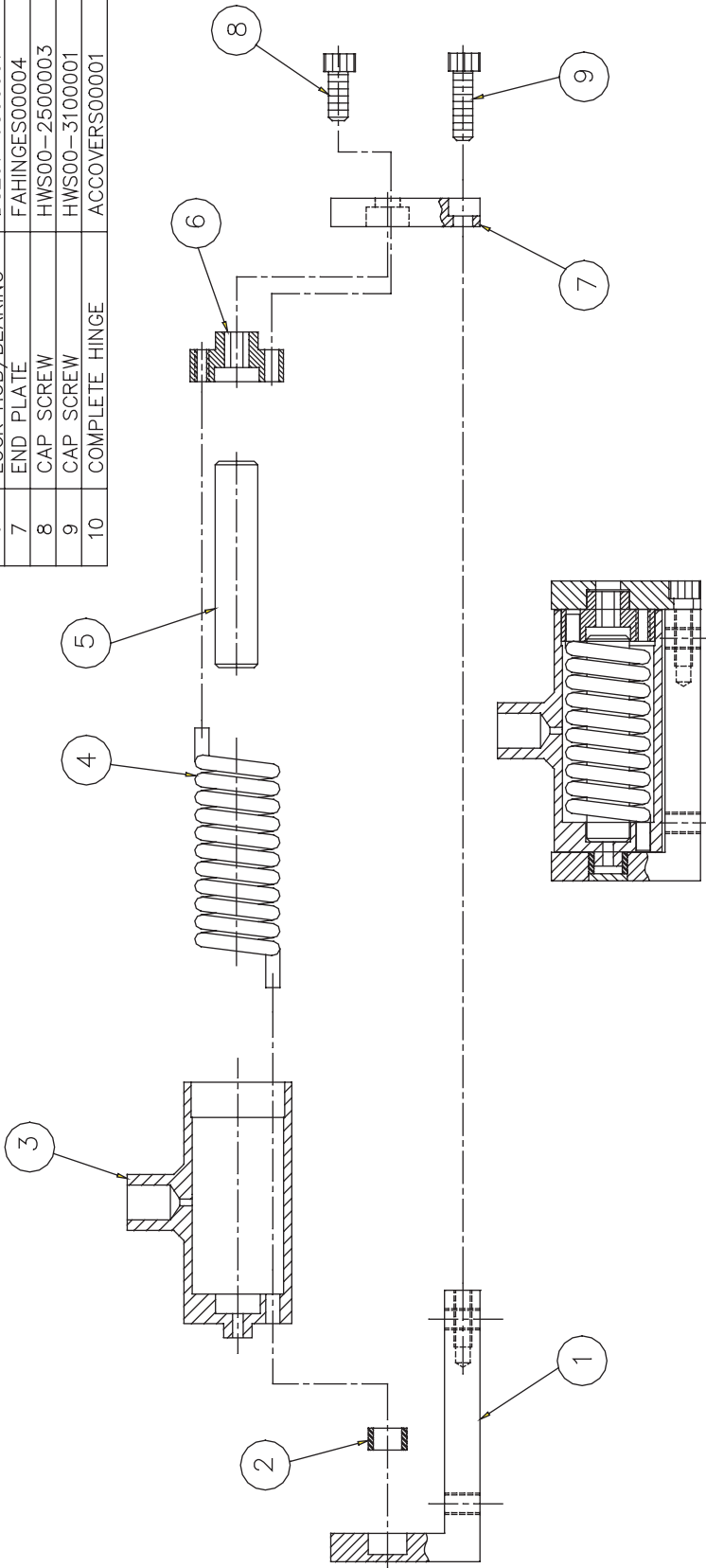
SIZE: B
REV: A

DRAWING NUMBER:
8539

SHEET
1 of 1

JOB#: _____ QTY: _____

ITEM	DESCRIPTION	PART NO.
1	HINGE BASE	FAHINGS00001
2	BRONZE BEARING	BGZ00-7500001
3	HINGE BODY	FAHINGS00002
4	SPRING	MSSPRING00001
5	CENTERING ROD	FAHINGS00003
6	LOCK HUB/BEARING	BGZ01-6500001
7	END PLATE	FAHINGS00004
8	CAP SCREW	HWS00-2500003
9	CAP SCREW	HWS00-3100001
10	COMPLETE HINGE	ACCOVERS00001



A	REDAWN IN ACAD	JES	4/3/01
REV.	DESCRIPTION	BY	DATE
REVISIONS			

J.C.PARDO & SONS INC.
 1250 REAMES RD. BALTO MD. 21220
 PHONE (410) 391-3600 FAX (410) 391-9042

CHECKED BY:

DRAWN BY: JES

DATE: 7-30-93

SCALE: NONE

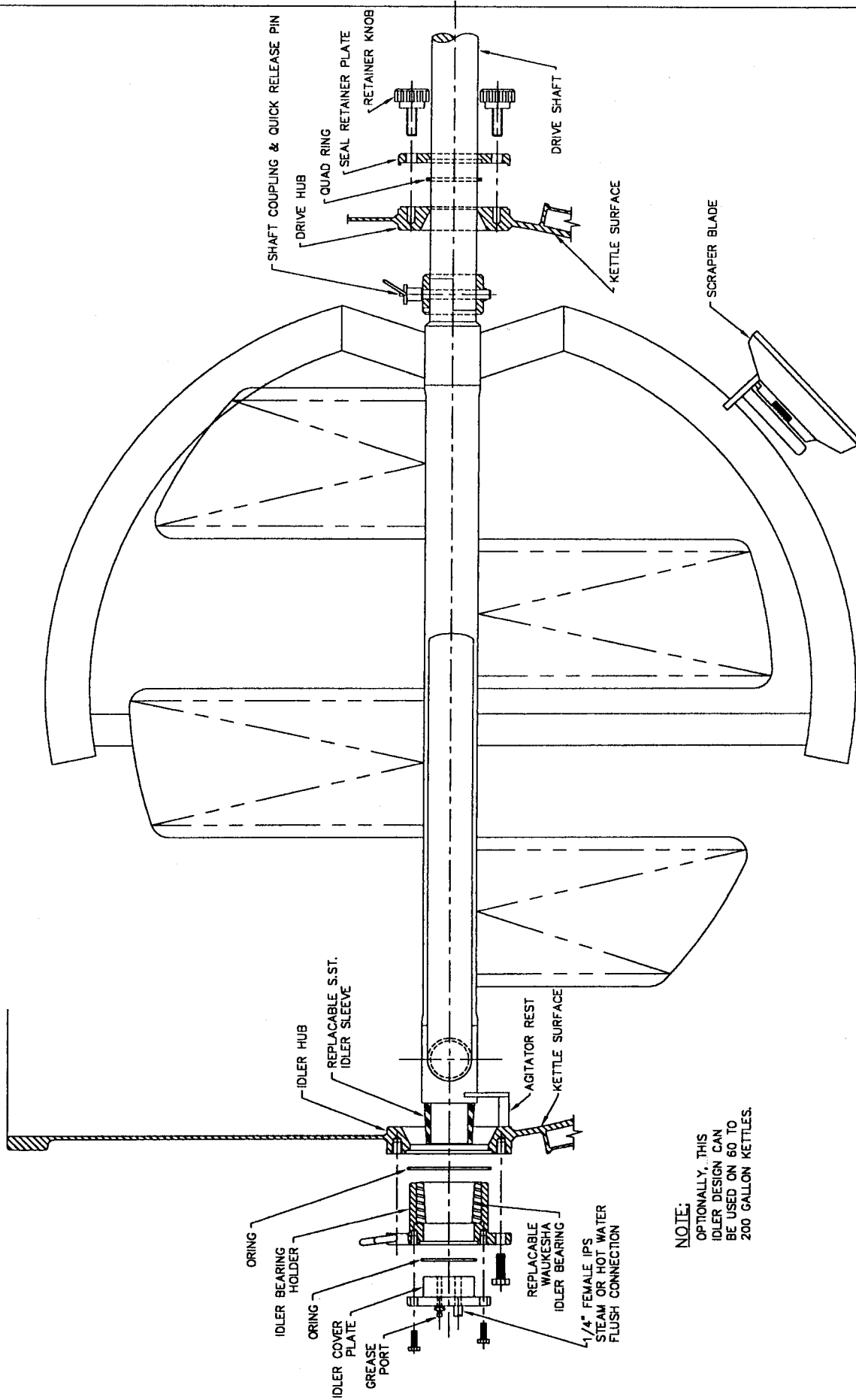
150-200 GAL HINGE/ACTUATOR
 REPLACEMENT PARTS

SIZE: B
 DRAWING NUMBER: 8415

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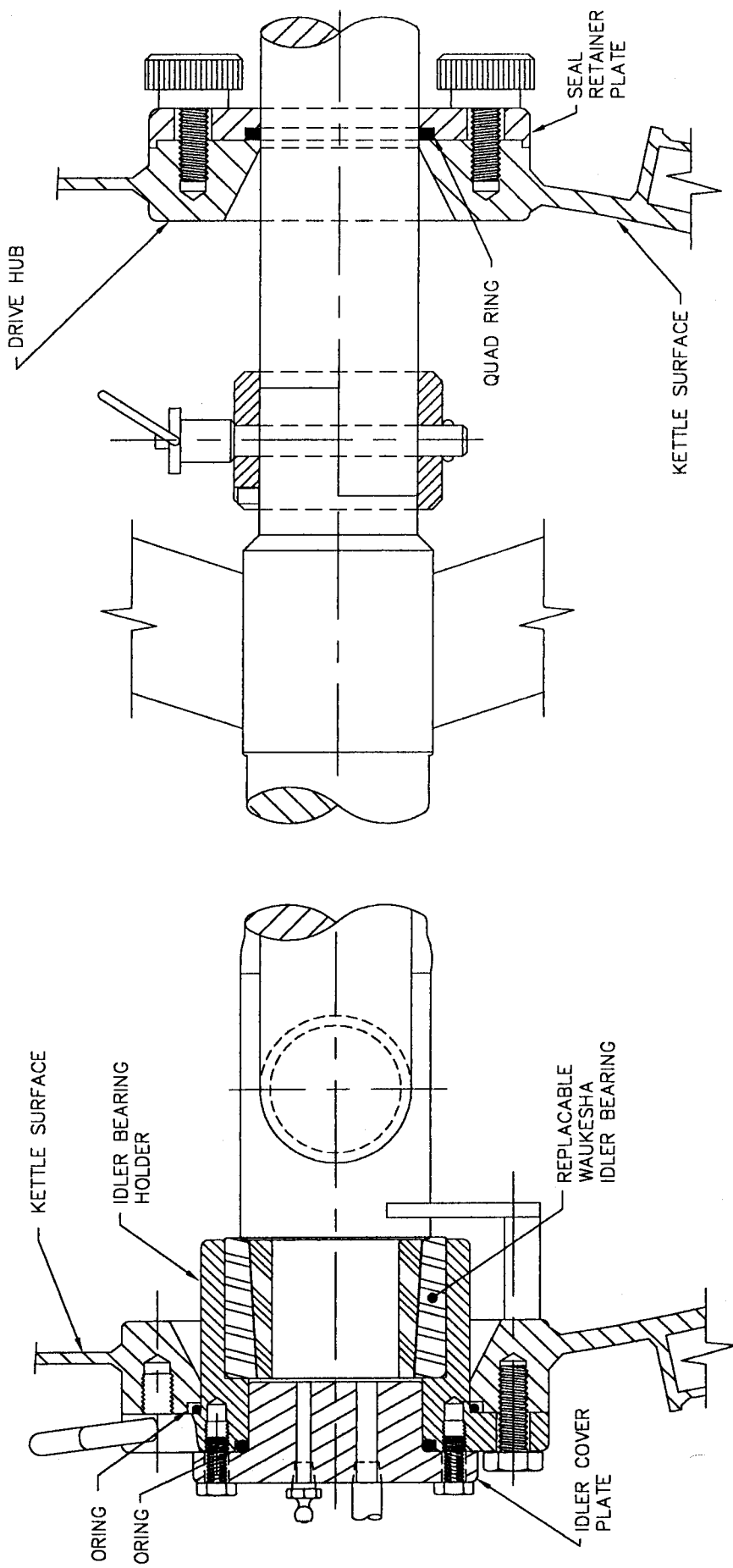
REV. A

SHEET
 1 of 1



NOTE:
OPTIONALLY, THIS
IDLER DESIGN CAN
BE USED ON 60 TO
200 GALLON KETTLES.

REV.		DESCRIPTION		BY	DATE	REVISIONS	
J.C.PARDO & SONS INC.						300-HAK CLEANING DETAIL	
1250 REAMES RD.						IDLER AND DRIVE HUB	
BALTO MD. 21220						C	
PHONE (410) 381-3800						8990	
FAX (410) 381-9042						SHEET	
ORDER NO.						DATE BY JAY S.	
APPROVED BY						DATE 9/21/00	
NAME NONE						1 of 2	
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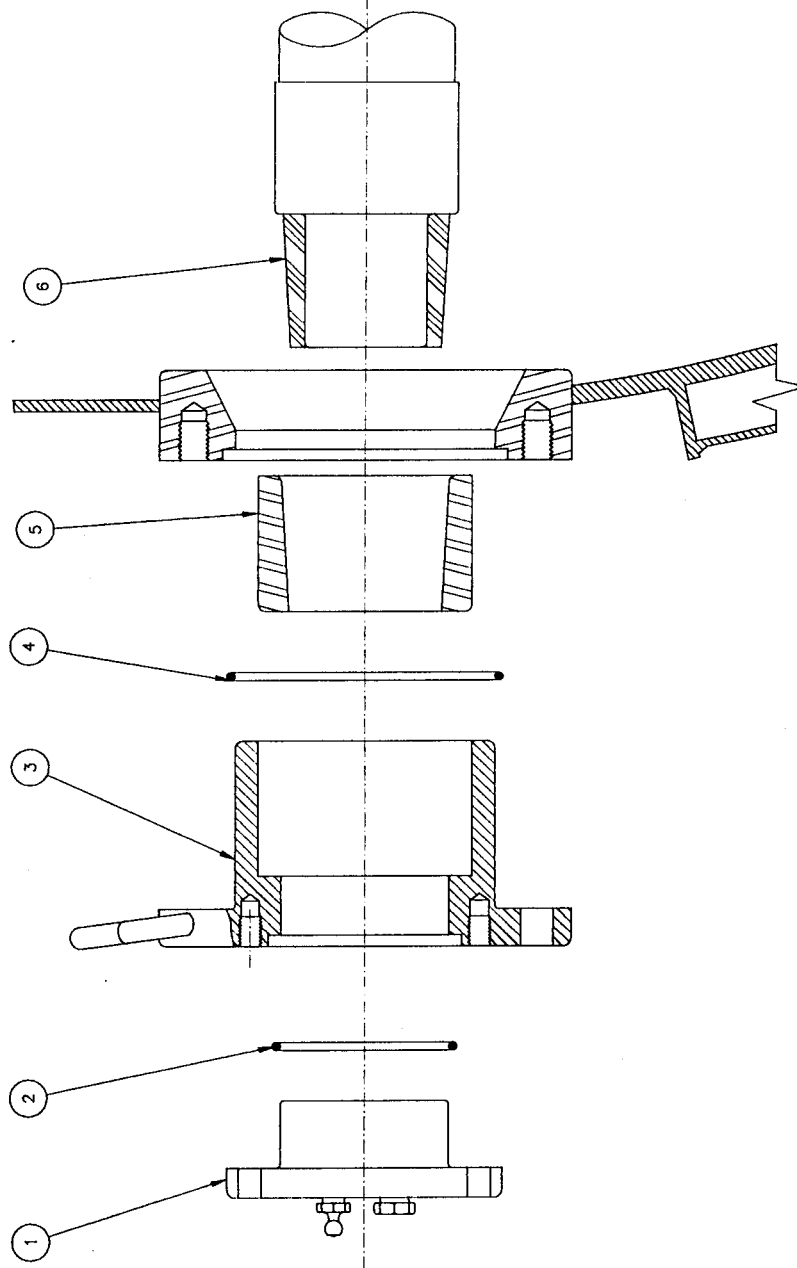
DRIVE END

IDLER END

J.C.PARDO & SONS INC.		300-HAK CLEANING DETAIL IDLER & DRIVE HUB ASSEMBLY		SIZE: B	DRAWING NUMBER: 8990
1250 REAMES RD. PHONE (410) 391-3600		This drawing and all information contained therein is the property of J.C.Pardo & Sons Inc. Balto. MD. The drawing and all information is confidential and must not be made public or copied, in whole or in part, for any purpose without the written consent of J.C.Pardo & Sons Inc. It is to be used directly or indirectly in any way detrimental to J.C.Pardo & Sons.		REV.	SHEET 2 of 2
CHECKED BY:		DRAWN BY: SE		DATE: 9/21/00	
APPROVED BY:		SCALE: NONE			

REPLACEMENT PARTS

ITEM	PART NO.	DESCRIPTION
1	1FS04-5000001	COVER PLATE
2	SE30RING00016	O-RING
3	1FS07-0000001	IDLER END BEARING HOLDER
4	SE30RING00017	O-RING
5	1FK03-5000001	IDLER END BEARING
6	1FS02-7500007	IDLER END SLEEVE

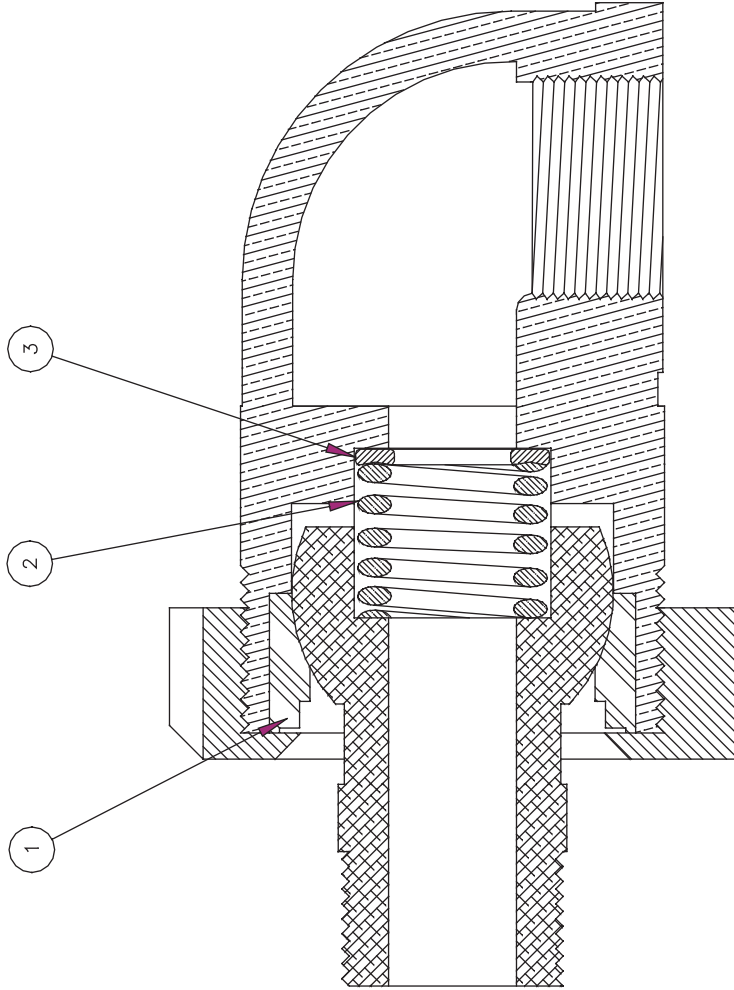


REV. DESCRIPTION		BY	DATE	J.C. PARDO & SONS INC.		ORDER IN	DATE IN TTM K	300 GALLON IDLER END REPLACEMENT PARTS		SIZE	DRAWING NUMBER
REVISIONS				1250 REAMES RD. BALTO MD. 21220 PHONE (410) 391-3600		APPROVED IN V6 10/13/96	DATE 9/16/96			C	11221
				FAX (410) 391-9042		NONE					SHEET
											1 of 1

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REPLACEMENT PARTS LIST

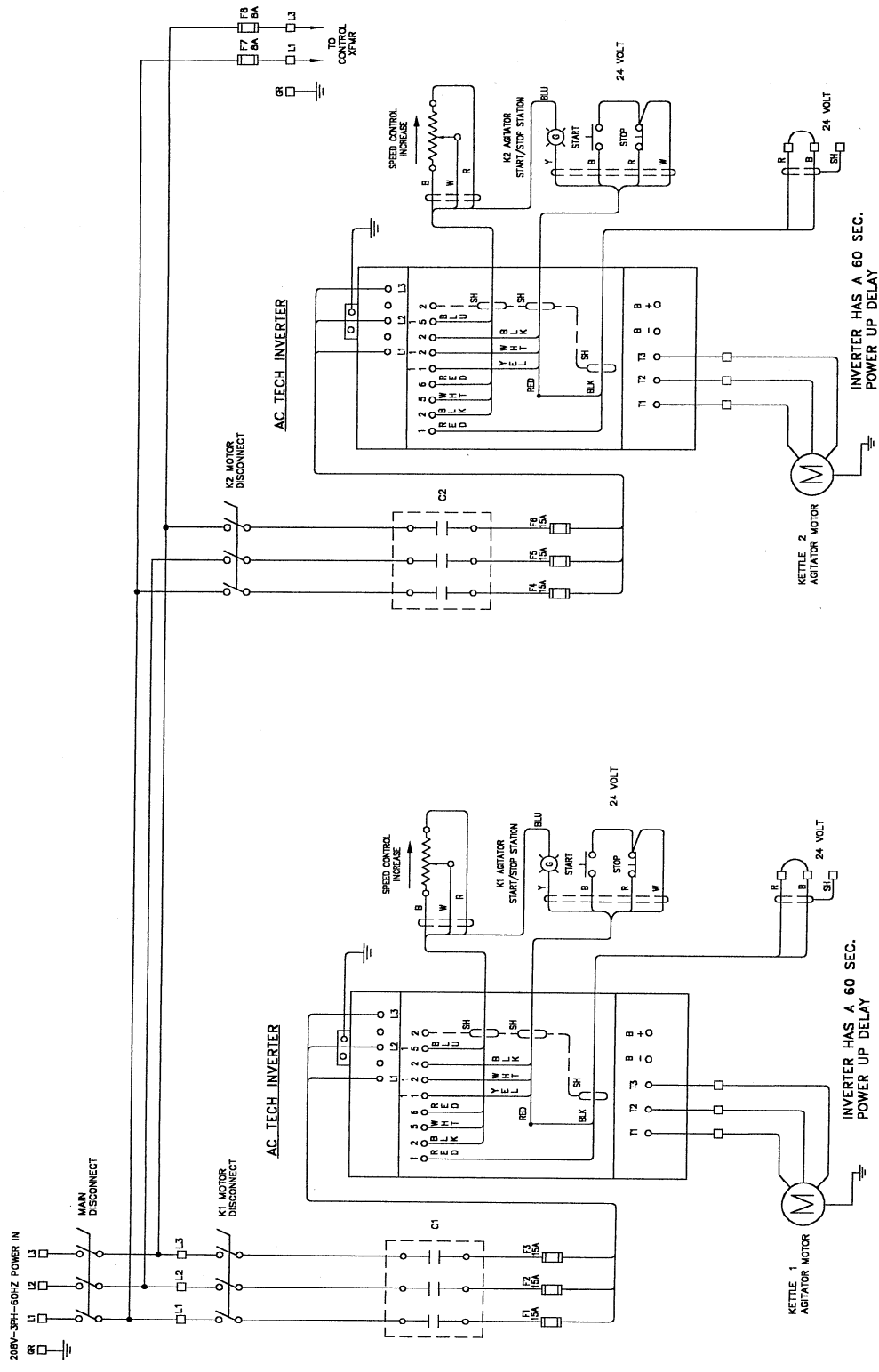
ITEM	PART NO.	DESCRIPTION
1	SETSEALS00002	TEFLON SEAL
2	MSSPRING00006	SPRING
3	MSSPRING00011	SPRING SEAT
4	MSC01-2500001	1 1/4" BARCO JOINT



4 COMPLETE UNIT

REV. DESCRIPTION		BY	DATE	J.C.PARDO & SONS INC.		CHECKED BY:	DRAWN BY: JES	1 1/4" NPT BARCO JOINT		SIZE	DRAWING NUMBER
REVISIONS				1250 REAMES RD. PHONE (410) 391-3600	BALTO MD. 21220 FAX (410) 391-9042	APPROVED BY:	DATE: 2/20/95	REPLACEMENT PARTS		C	11079
							SCALE: NONE			REV.	SHEET
										C	1 of 1

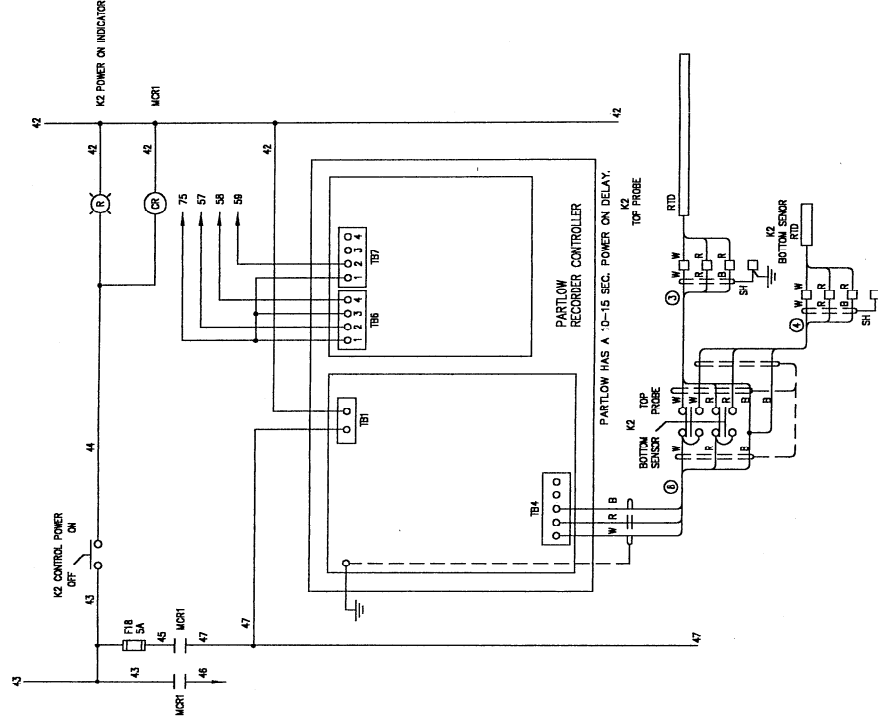
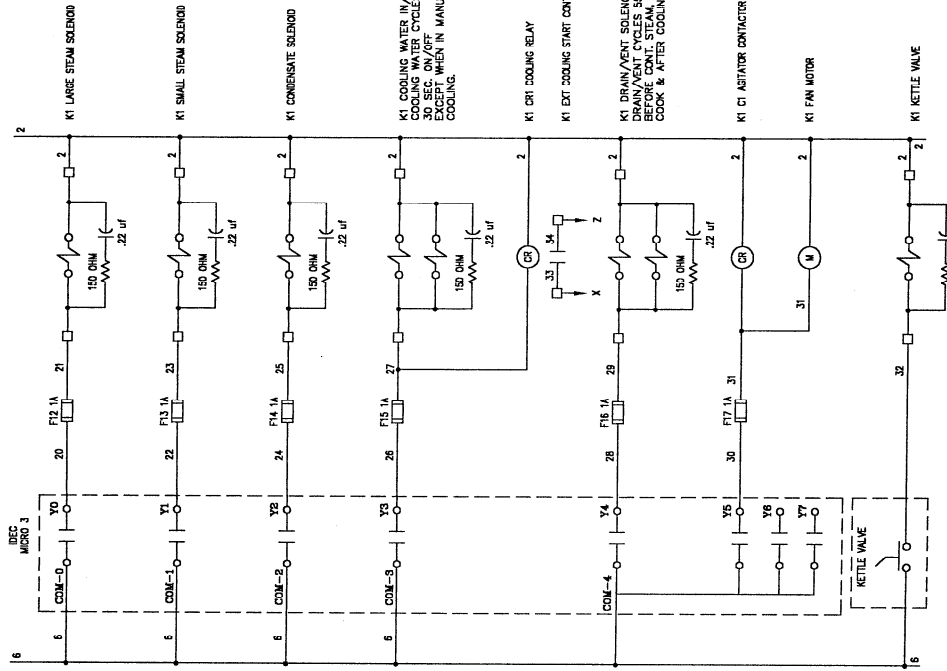
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FUSE NOTES:
F1-F6 FUSES KTK-R RATED 600 VOLTS.
F7 & F8 FUSES FNO-R RATED 600 VOLTS.
F9-F24 FUSES FNM RATED 250 VOLTS.
F25 & F26 FUSES GMA RATED 250 VOLTS.

J.C.PARDO & SONS INC.		ELECTRICAL SCHEMATIC 208V-3PH-60HZ		DRAWING NUMBER	
1250 REAMES RD.		BALTO MD. 21220		C ES-0204	
PHONE (410) 391-3600		FAX (410) 391-9048		SIZE	
DESCRIPTION		BY		DATE	
REV		DATE		BY	
REVISIONS		DATE		BY	
				1 of 5	

CONTROLLER HAS A 30 SEC. POWER ON DELAY.



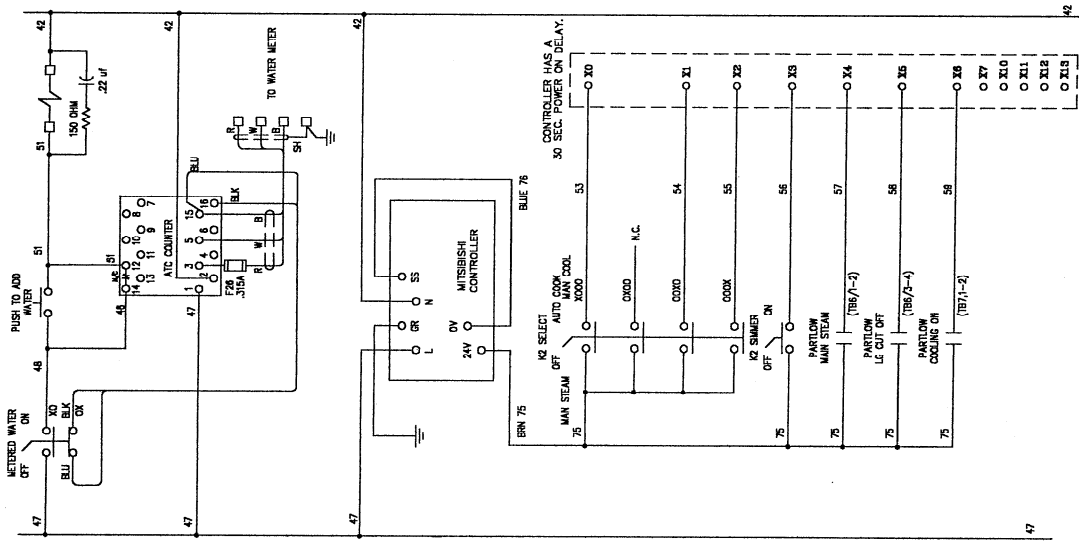
FUSE NOTES:
F1-F6 FUSES KTK-R RATED 600 VOLTS.
F7 & F8 FUSES FNG-R RATED 600 VOLTS.
F9-F24 FUSES FNM RATED 250 VOLTS.
F25 & F26 FUSES GMA RATED 250 VOLTS.

J.C. PARDO & SONS INC.
1250 REAMES RD.
BALTO MD. 21220
PHONE (410) 381-3600
FAX (410) 381-9042

REV.	DESCRIPTION	BY	DATE
1	REVISIONS		

DATE: 7/12/2000	SCALE: NONE	ORDER BY: JAY S.	APPROVED BY:
ELECTRICAL SCHEMATIC 208V-3PH-60HZ DUAL C/P K-2 W/ DUAL SENSORS		REV: 3 of 5	

1 2 3 4 5 6 7 8

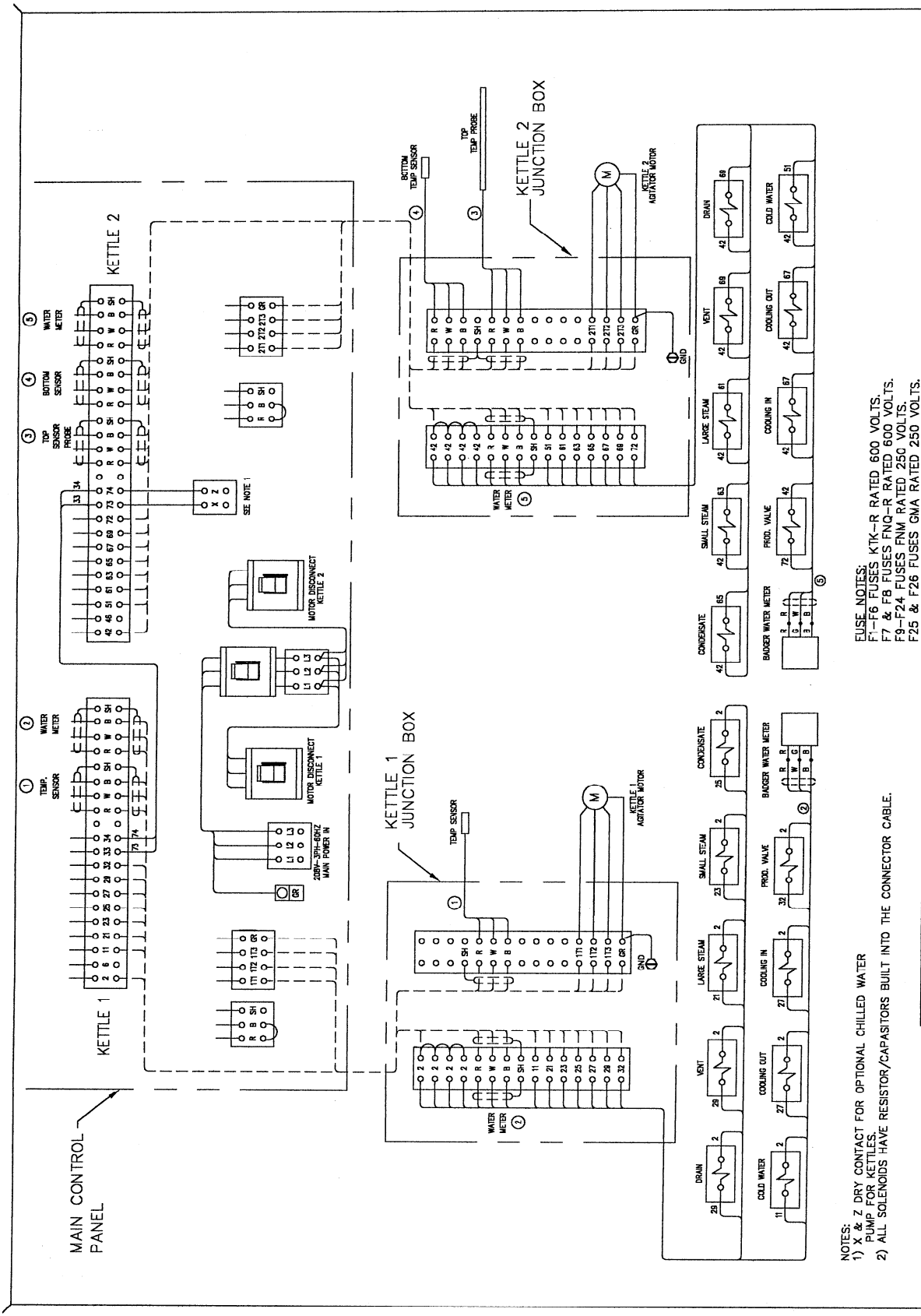


DIP SWITCH SETTINGS #6 DOWN TO PROGRAM COUNTER & UP TO LOCKOUT COUNTER.

CONTROLLER HAS A 30 SEC. POWER ON DELAY.

FUSE NOTES:
F1-F6 FUSES KTK-R RATED 600 VOLTS.
F7 & F8 FUSES FNM-Q RATED 600 VOLTS.
F9-F24 FUSES FNM RATED 250 VOLTS.
F25 & F26 FUSES GMA RATED 250 VOLTS.

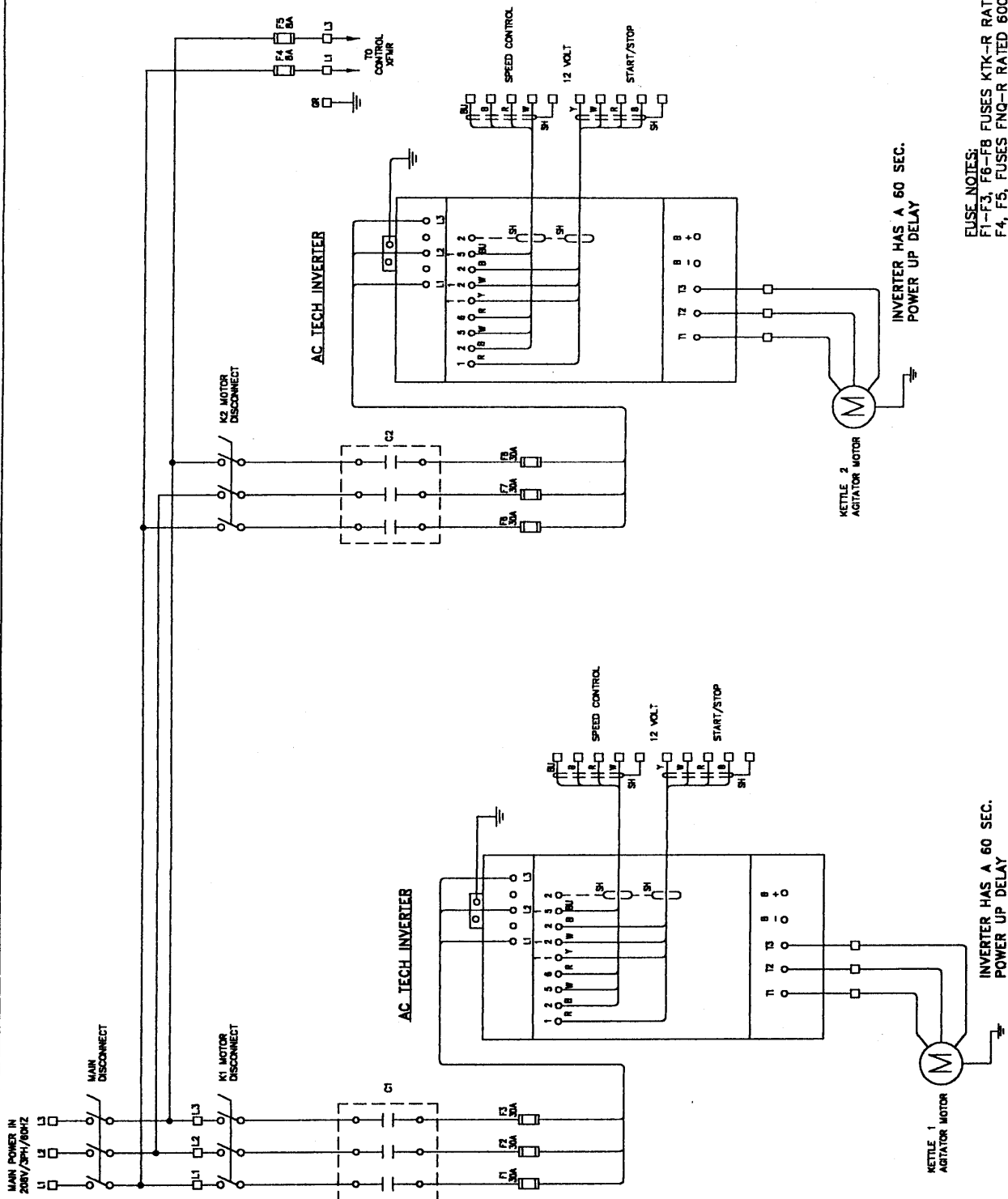
REV.	DESCRIPTION	BY	DATE
1	REVISIONS		
J.C. PARDO & SONS INC.			
1250 REAMES RD. BALTO MD. 21220			
PHONE (410) 391-3800 FAX (410) 391-8042			
DRAWN BY JAY S. DATE 7/12/2000			
APPROVED BY			
ELECTRICAL SCHEMATIC 208V-3PH-60HZ			
DUAL C/P K-2 W/DUAL SENSORS			
NOT TO BE USED FOR ANY OTHER PURPOSES WITHOUT THE WRITTEN PERMISSION OF J.C. PARDO & SONS. ANY VIOLATION OF THIS WARNING WILL BE PROSECUTED TO THE FULL EXTENT OF THE LAW.			
REV.	DESCRIPTION	BY	DATE
ES-0204	C	ES	4 of 5



NOTES:
 1) X & Z DRY CONTACT FOR OPTIONAL CHILLED WATER PUMP FOR KETTLES.
 2) ALL SOLENOIDS HAVE RESISTOR/CAPACITORS BUILT INTO THE CONNECTOR CABLE.

FUSE NOTES:
 F1-F6 FUSES KTK-R RATED 600 VOLTS.
 F7 & F8 FUSES FNC-R RATED 600 VOLTS.
 F9-F24 FUSES FNM RATED 250 VOLTS.
 F25 & F26 FUSES GMA RATED 250 VOLTS.

REV. _____		DESCRIPTION _____	BY _____	DATE _____	REVISIONS _____	
J.C.PARDO & SONS INC. 1250 REAMES RD. BALTO MD. 21220 PHONE (410) 361-9800					DESIGNED BY: _____ DATE: 7/12/2000 APPROVED BY: _____ SCALE: NONE	DRAWING NUMBER: ES-0204 SHEET: 5 of 5



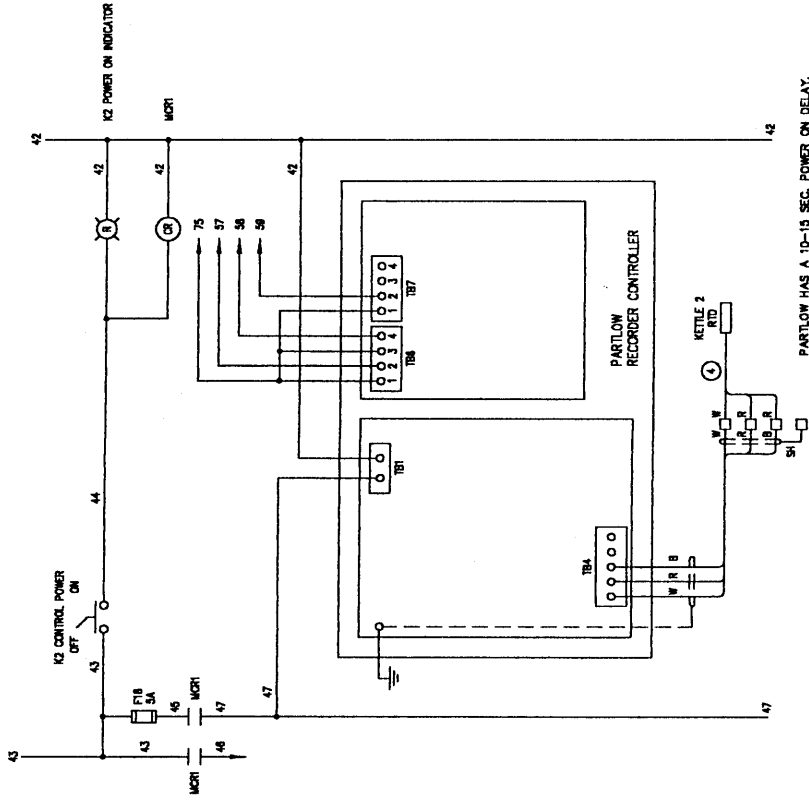
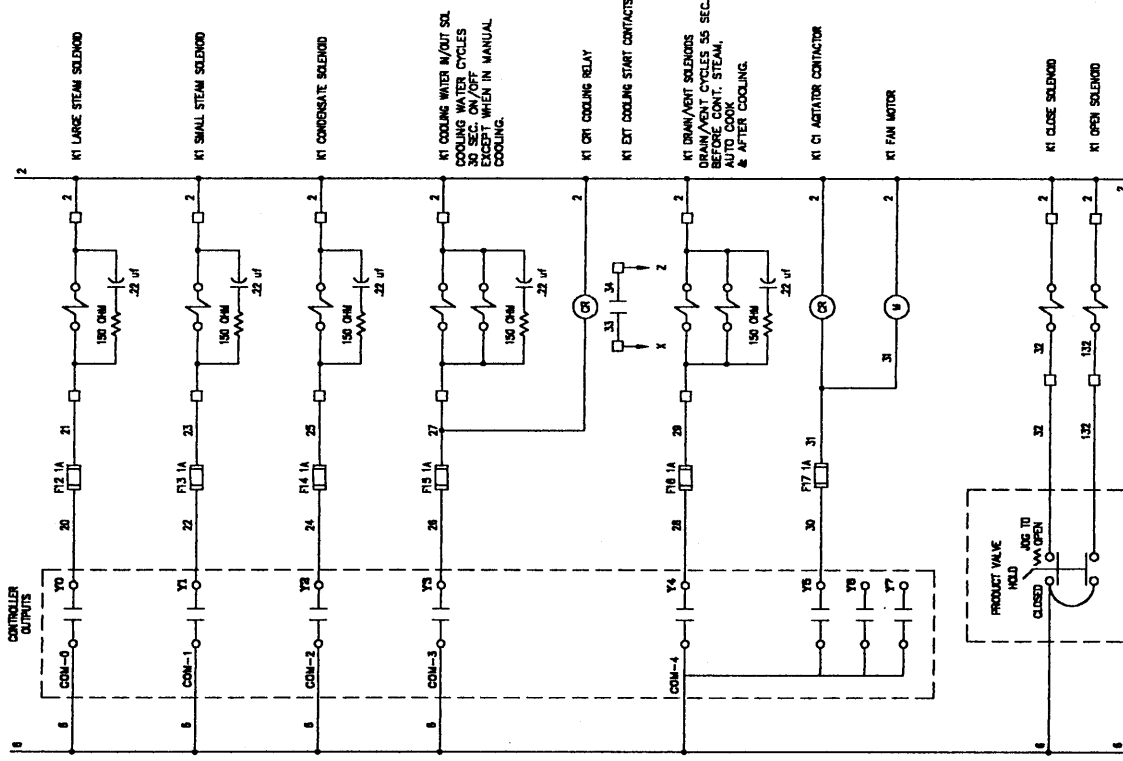
FUSE NOTES:
 F1-F3, F6-F8 FUSES KTK-R RATED 600 VOLTS.
 F4, F5, FUSES FNG-R RATED 600 VOLTS.
 F9-F24 FUSES FNM RATED 250 VOLTS.
 F25 & F26 FUSES GMA RATED 250 VOLTS.

REVISIONS		J.C. PARDO & SONS INC.		ELECTRICAL SCHEMATIC 208V 5HP DUAL CONTROL PANEL HOT/COLD		DESIGN NUMBER	
REV.	DESCRIPTION	BY	DATE	DESIGNED BY	APPROVED BY	DATE	REV.
A	460V/5HP WAS 15 AMP	JES	6/01				C
						DATE 1/28/02	ES-0301
						SCALE NONE	1 of 5

J.C. PARDO & SONS INC.
 1260 REAMES RD.
 BALTO MD. 21220
 PHONE (410) 361-3600 FAX (410) 361-9043

THIS SCHEMATIC IS THE PROPERTY OF J.C. PARDO & SONS INC. IT IS TO BE USED FOR THE PURPOSES SPECIFIED AND NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.

CONTROLLER HAS A 30 SEC. POWER ON DELAY.



PARTLOW HAS A 10-15 SEC. POWER ON DELAY.

REV.	DESCRIPTION	BY	DATE	REVISIONS
1	DESCRIPTION			
2				
3				
4				
5				

J.C. PARDO & SONS INC.		BALTO MD. 21220	
1250 REAMES RD.		PHONE (410) 381-3600	
FAX (410) 381-9048			

DESIGNED BY	DATE	1/28/02
APPROVED BY	DATE	1/28/02
SCALE	NONE	

DRIVE SH-15	DATE	1/28/02
SCALE	NONE	

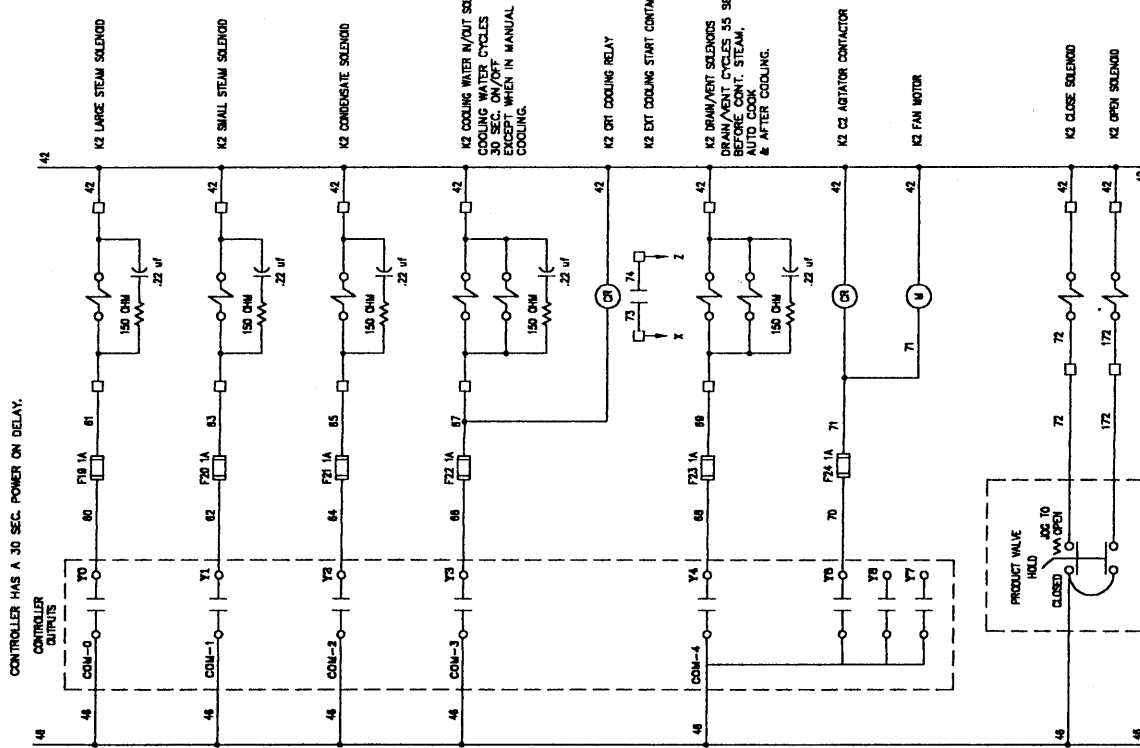
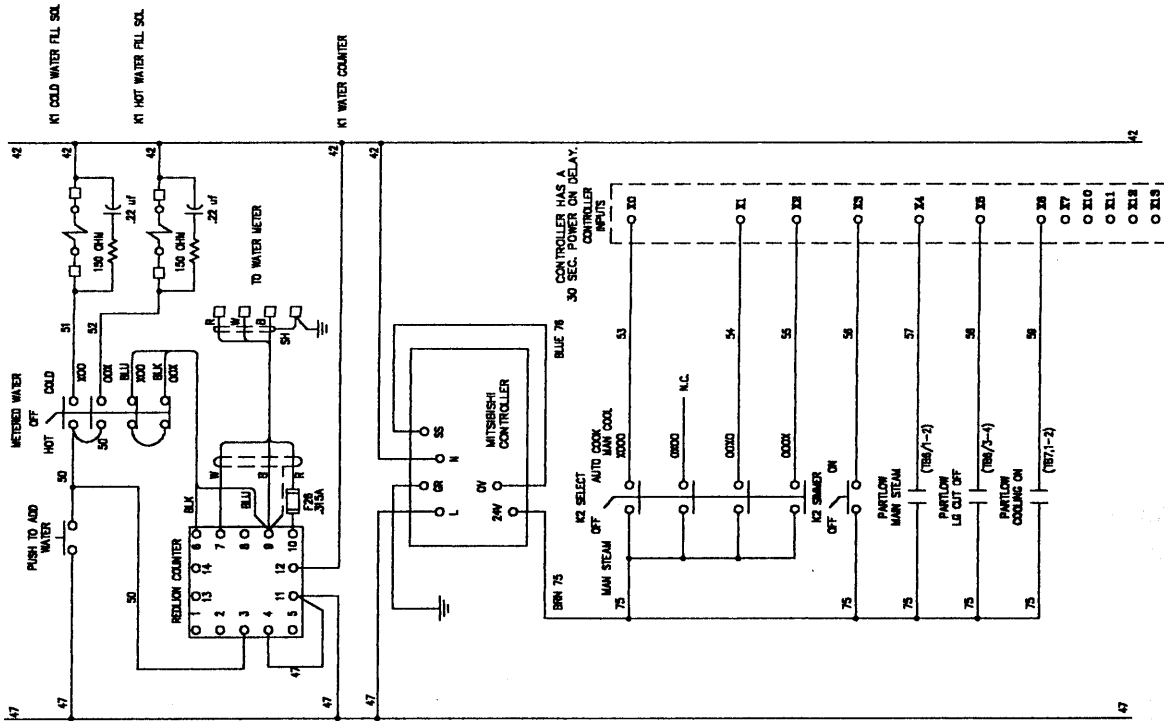
REVISIONS	DATE	1/28/02
DESCRIPTION		

REVISIONS	DATE	1/28/02
DESCRIPTION		

REDLION WATER COUNTER DIPP SWITCH SETTINGS



DIPP SWITCH #7 DOWN TO PROGRAM COUNTER & UP TO LOCKOUT COUNTER.



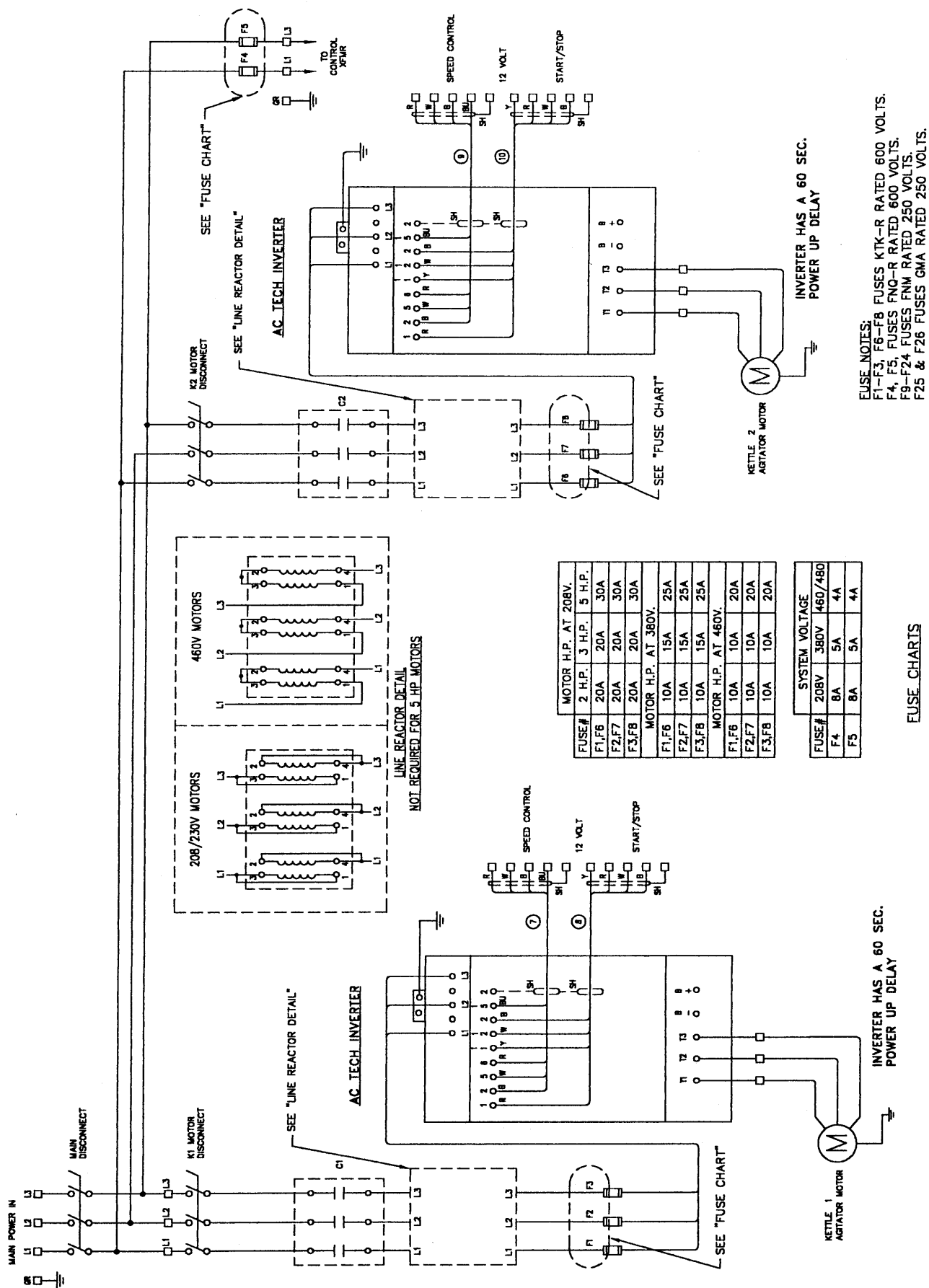
J.C. PARDO & SONS INC.
 1250 REAMES RD. BALTO MD. 21220
 PHONE (410) 381-3600 FAX (410) 381-9042

REV.	DESCRIPTION	BY	DATE
1	REVISIONS		

DESIGNED BY	DATE
APPROVED BY	DATE

**ELECTRICAL SCHEMATIC 208V, 5HP
 DUAL CONTROL PANEL HOT/COLD**

REV.	DATE
1	4 of 5



FUSE CHARTS

FUSE#	MOTOR H.P. AT 208V.				
	2 H.P.	3 H.P.	5 H.P.	7 H.P.	10 H.P.
F1,F6	20A	20A	30A	30A	30A
F2,F7	20A	20A	30A	30A	30A
F3,F8	20A	20A	30A	30A	30A

**INVERTER HAS A 60 SEC.
POWER UP DELAY**

J.C.PARDO & SONS INC.

 1250 REAMES RD. BALTO MD. 21220
 PHONE (410) 391-3600 FAX (410) 391-9042

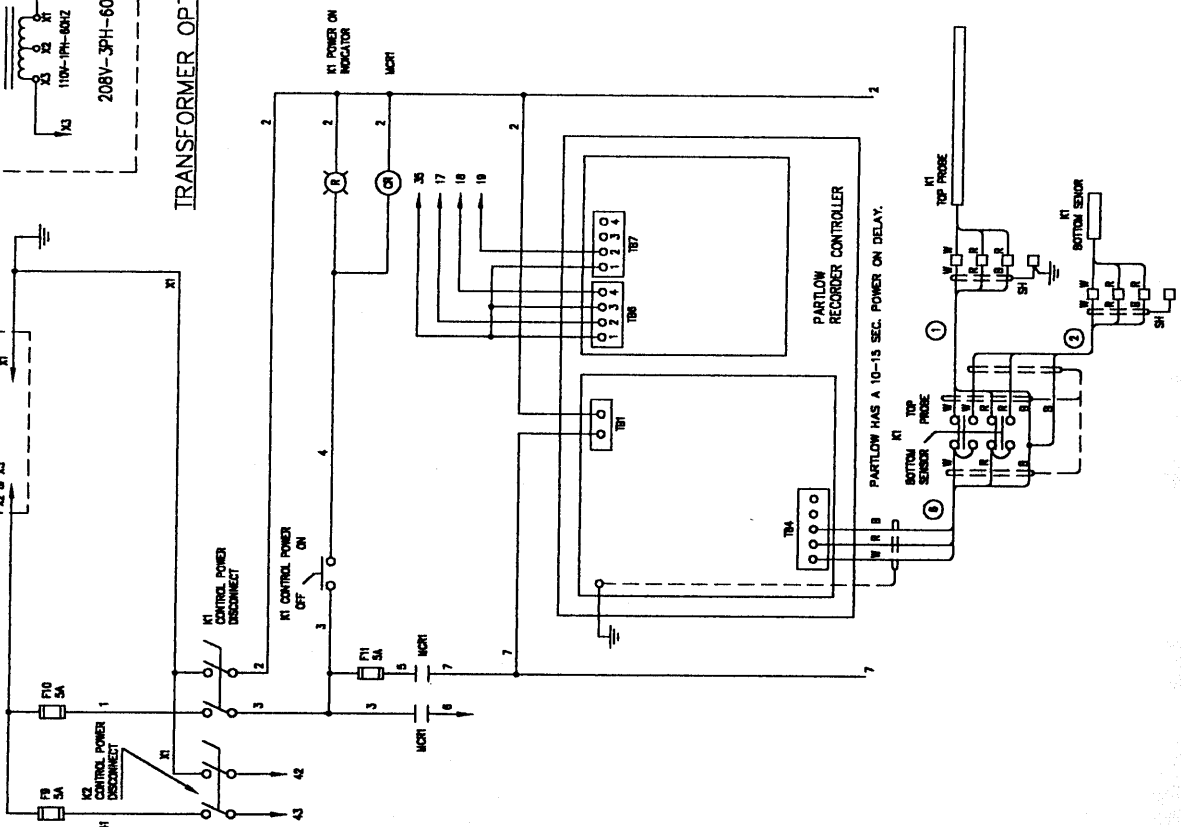
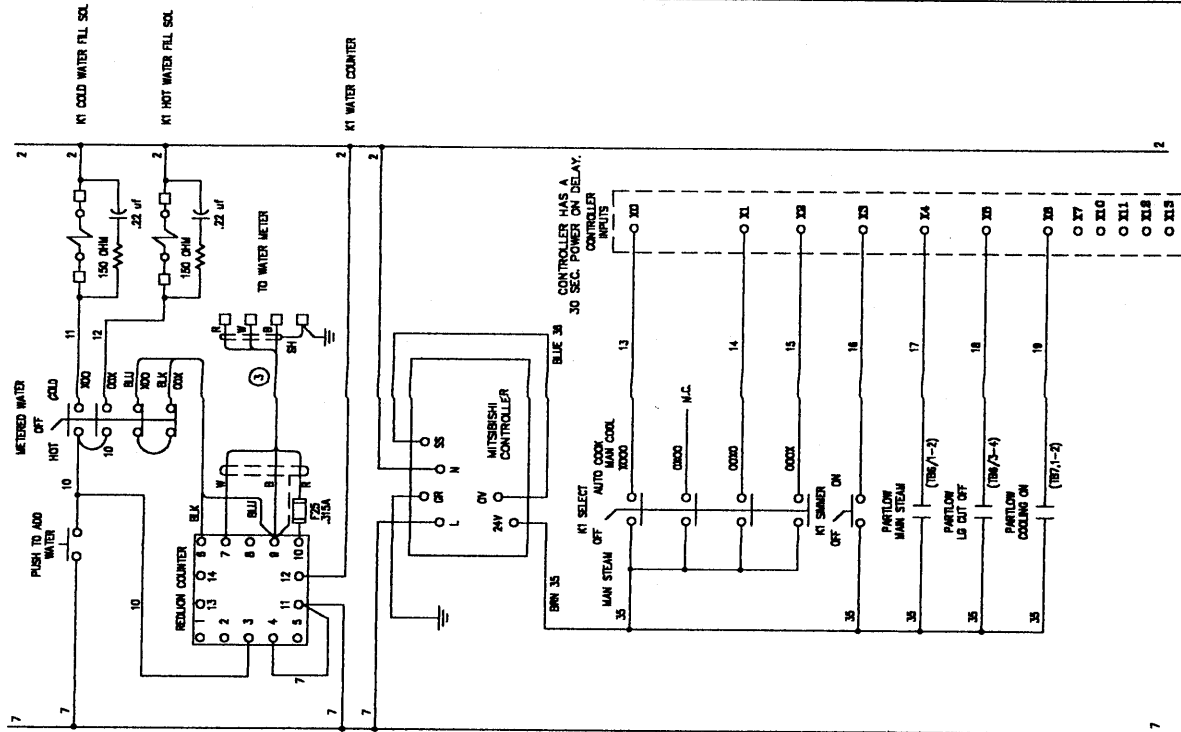
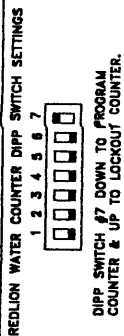
REV.	DESCRIPTION	BY	DATE
A	460V/5HP WAS 15 AMP	JES	6/01

REVISIONS

CHECKED BY DRAMM RM JS	DATE: 1/28/02
APPROVED BY	SCALE NONE

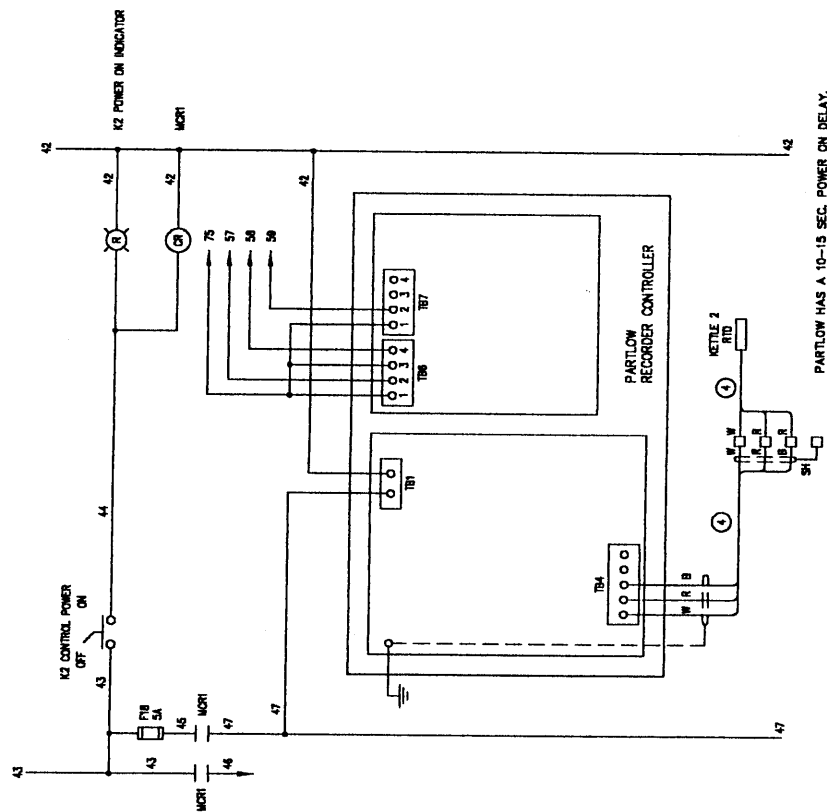
**ELECTRICAL SCHEMATIC 208/230/380/460V
DUAL CONTROL PANEL K-1 W/DUAL SENSORS**

CRIMING NUMBER
ES-0300



TRANSFORMER OPTIONS

REV.	DESCRIPTION	BY	DATE	J.C.PARDO & SONS INC. 12650 REAMES RD. BALTO MD. 21220 PHONE (410) 391-3600 FAX (410) 391-9042	ORDERED BY	NAME PR JS	ELECTRICAL SCHEMATIC 208/230/380/460V DUAL CONTROL PANEL K-1 W/DUAL SENSORS	REV	ISSUING NUMBER
	REVISIONS				APPROVED BY	DATE 1/28/02		DATE	2 of 5

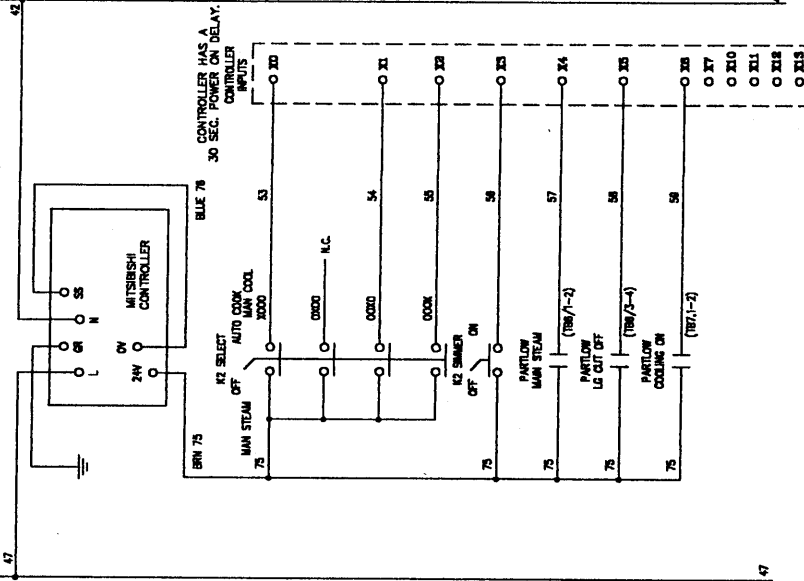
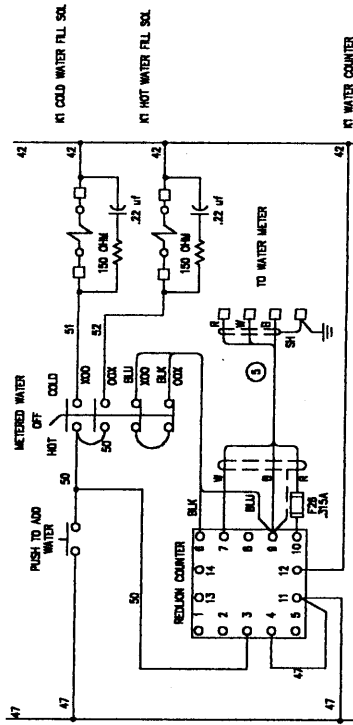


REV.	DESCRIPTION	BY	DATE
	REVISIONS		
J.C.PARDO & SONS INC. 1250 REAMES RD. BALTO MD. 21220 PHONE (410) 591-3600 FAX (410) 591-9043 CHECKED BY APPROVED BY DRAWN BY JS DATE 1/28/02 SCALE NONE ELECTRICAL SCHEMATIC 208/230/380/460V DUAL CONTROL PANEL K-1 W/DUAL SENSORS SIZE SHEET DRAWING NUMBER ES-0300 3 of 5			

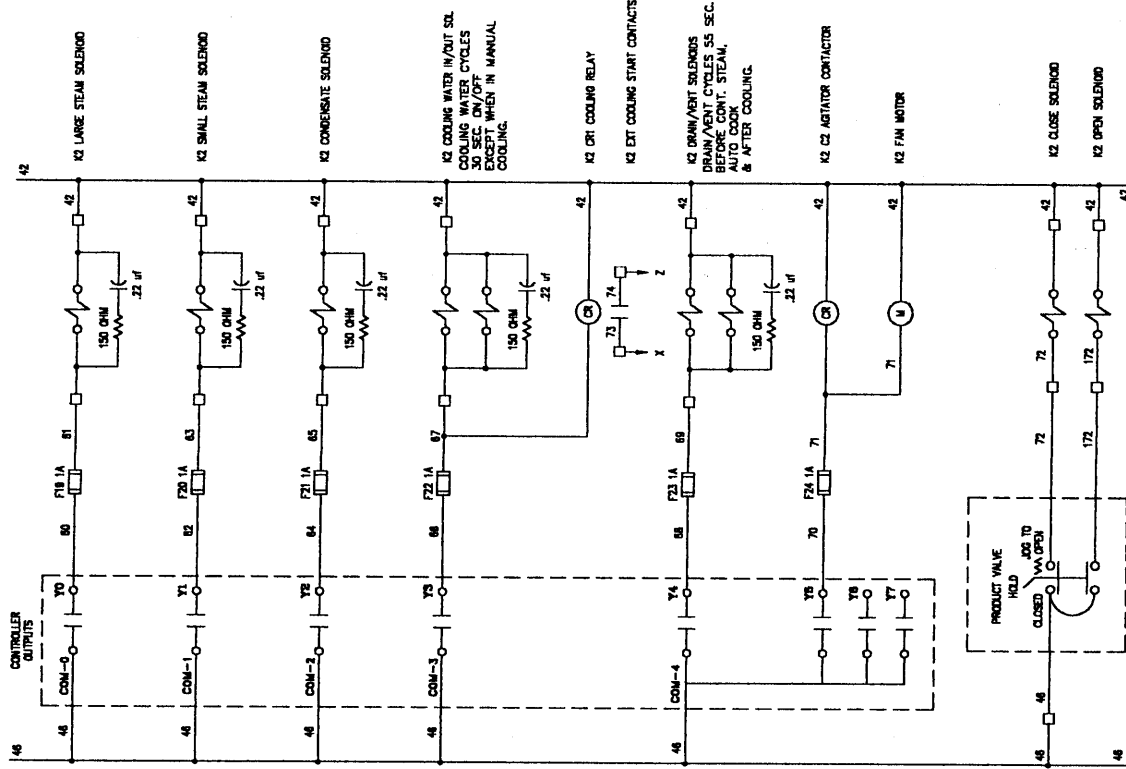
REDUON WATER COUNTER DIPP SWITCH SETTINGS



DIPP SWITCH #7 DOWN TO PROGRAM COUNTER & UP TO LOCKOUT COUNTER.



CONTROLLER HAS A 30 SEC. POWER ON DELAY.



J.C.PARDO & SONS INC.
1250 REAMES RD.
BALTO MD. 21220
PHONE (410) 361-9600
FAX (410) 361-8048

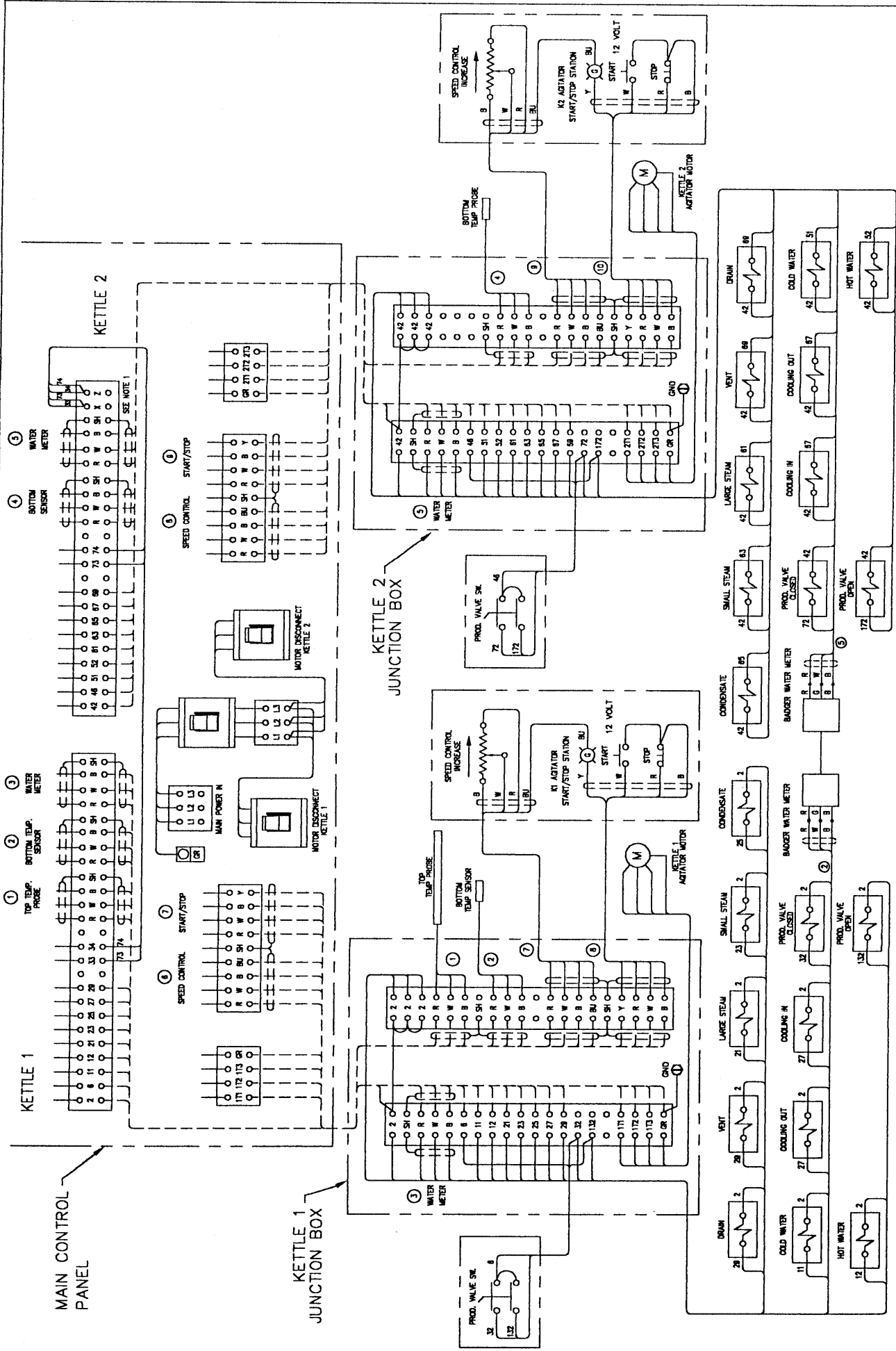
REV.	DESCRIPTION	BY	DATE
1	REVISIONS		

DESIGNED BY	DATE
APPROVED BY	DATE

ELECTRICAL SCHEMATIC 208/230/380/460V
DUAL CONTROL PANEL K-1 W/DUAL SENSORS

REV.	DATE
1	1/28/02

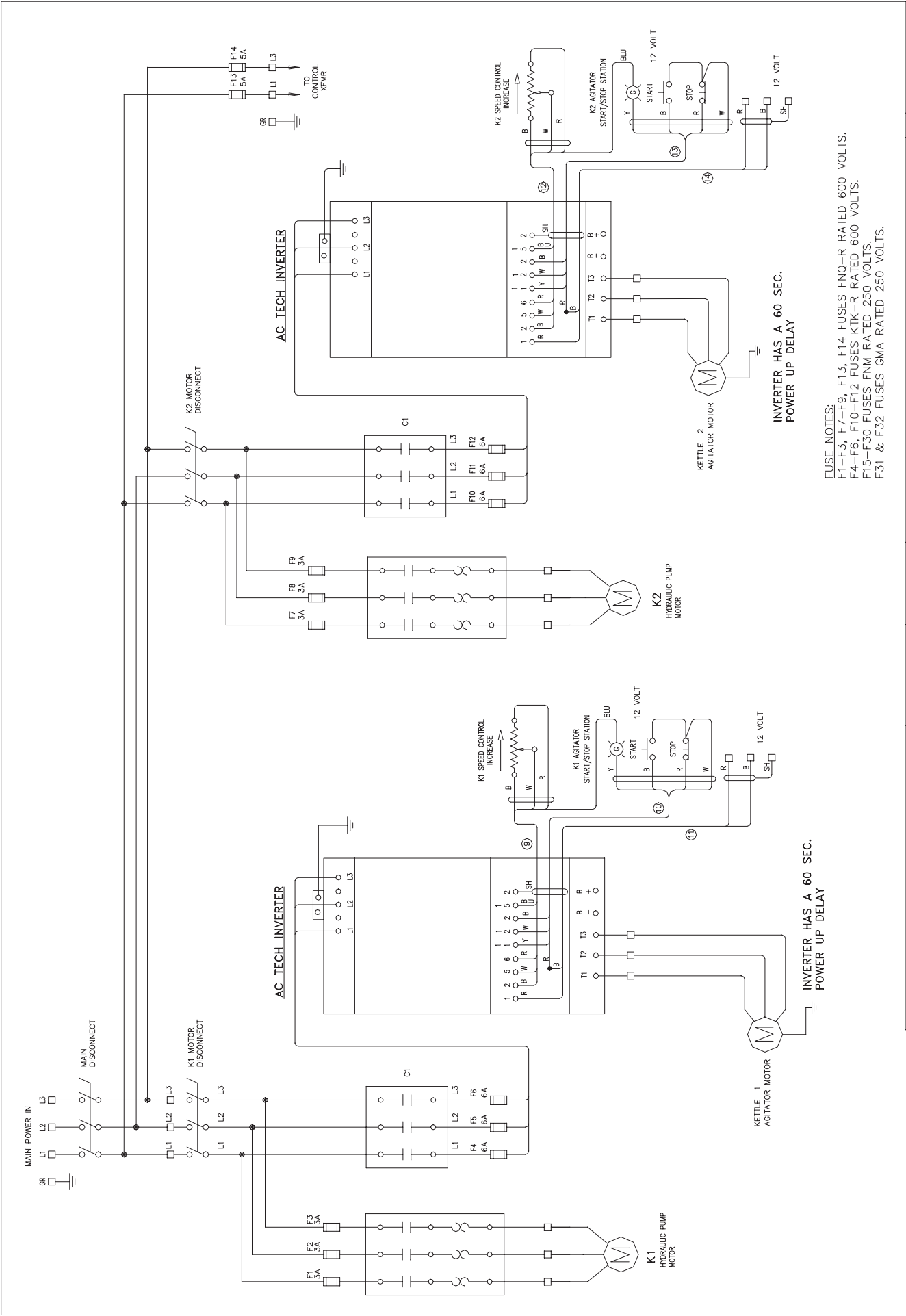
ES-0300
4 of 5



NOTES:
 1) X & Z DRY CONTACT FOR OPTIONAL CHILLED WATER PUMP FOR KETTLES.
 2) ALL SOLENOIDS HAVE RESISTOR/CAPACITORS BUILT INTO THE CONNECTOR CABLE.

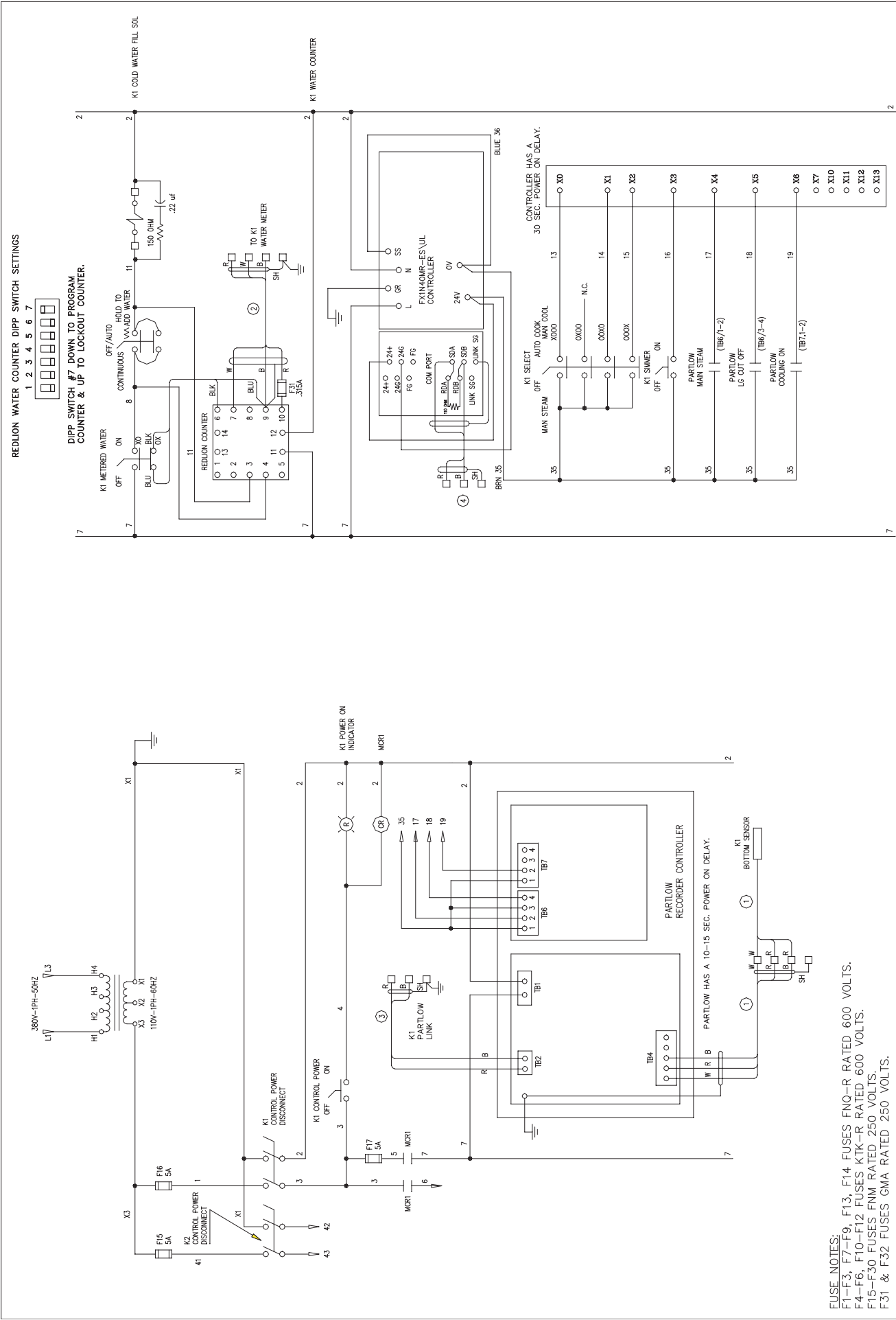
REV.	DESCRIPTION	BY	DATE	REVISIONS
DRAWING NUMBER:	ES-0300	SHEET	5 of 5	
DRAWING NUMBER:	ES-0300	SHEET	5 of 5	

J.C. PARDO & SONS INC.
 1250 REAMES RD. BALTO MD. 21220
 PHONE (410) 391-3600 FAX (410) 391-9043

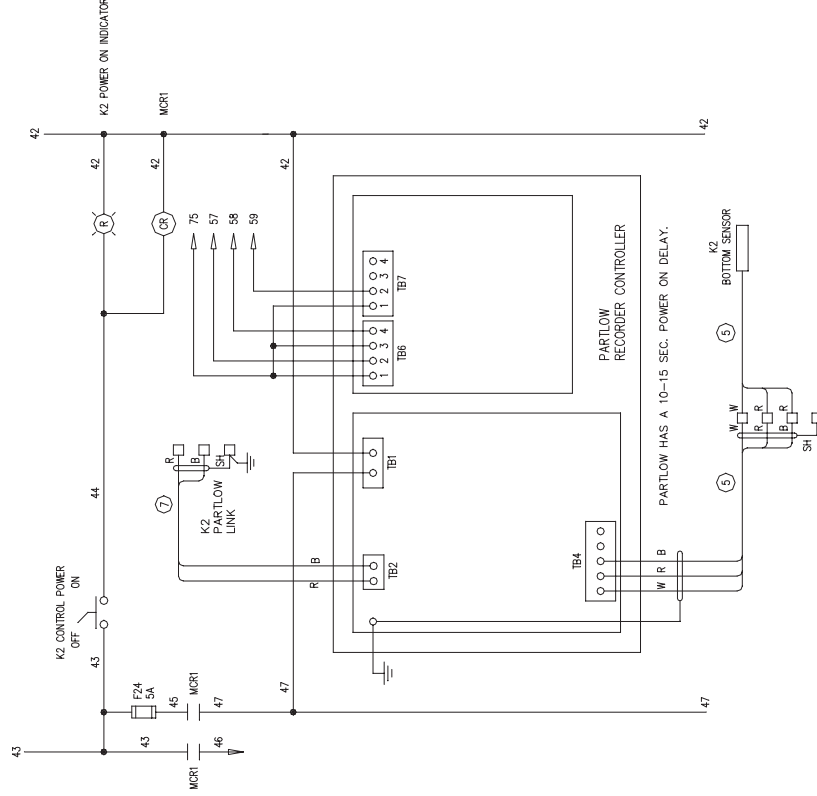
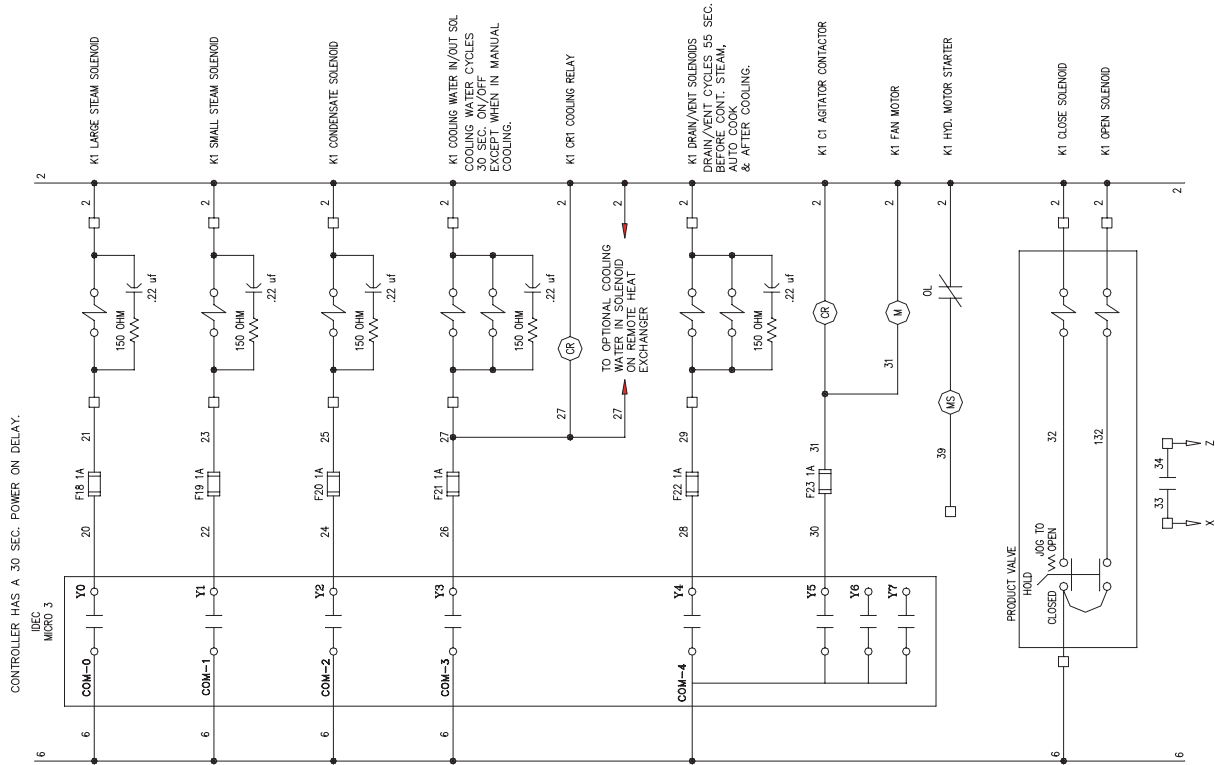


A		460V/5HP WAS 15 AMP	JES	6/01
REV.		DESCRIPTION	BY	DATE
REVISIONS				
J.C.PARDO & SONS INC.			DRAWN BY: JES	
1250 REAMES RD.			DATE: 2/26/03	
BALTO MD. 21220			SCALE: NONE	
PHONE (410) 391-3600			ELECTRICAL SCHEMATIC 380V DUAL CONTROL PANEL	
FAX (410) 391-9042			SIZE: C	
			DRAWING NUMBER: ES-0323	
			SHEET: 1 of 6	

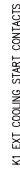
FUSE NOTES:
F1-F3, F7-F9, F13, F14 FUSES FNQ-R RATED 600 VOLTS.
F4-F6, F10-F12 FUSES KTK-R RATED 600 VOLTS.
F15-F30 FUSES FNM RATED 250 VOLTS.
F31 & F32 FUSES GMA RATED 250 VOLTS.



A		ADD K1 PARTLOW LINK		JES	7/03	J.C.PARDO & SONS INC.		CHECKED BY:		DRAWN BY: JES		ELECTRICAL SCHEMATIC 380V DUAL CONTROL PANEL		SIZE: C		DRAWING NUMBER: ES-0323	
REV.		DESCRIPTION		BY	DATE	1250 REAMES RD. BALTO MD. 21220 PHONE (410) 391-3600 FAX (410) 391-9042		APPROVED BY:		DATE: 2/26/03		THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN IS THE PROPERTY OF J.C. PARDO & SONS INC. IT IS NOT TO BE USED FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF J.C. PARDO & SONS INC. IT IS LOANED SUBJECT TO RETURN UPON DEMAND AND IS NOT TO BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO J.C. PARDO & SONS INC.		REV. A		SHEET 2 of 6	
REV.		REVISIONS								SCALE: NONE							



FUSE NOTES:
F1-F3, F7-F9, F13, F14 FUSES FNQ-R RATED 600 VOLTS.
F4-F6, F10-F12 FUSES KTK-R RATED 600 VOLTS.
F15-F30 FUSES FNM RATED 250 VOLTS.
F31 & F32 FUSES GMA RATED 250 VOLTS.

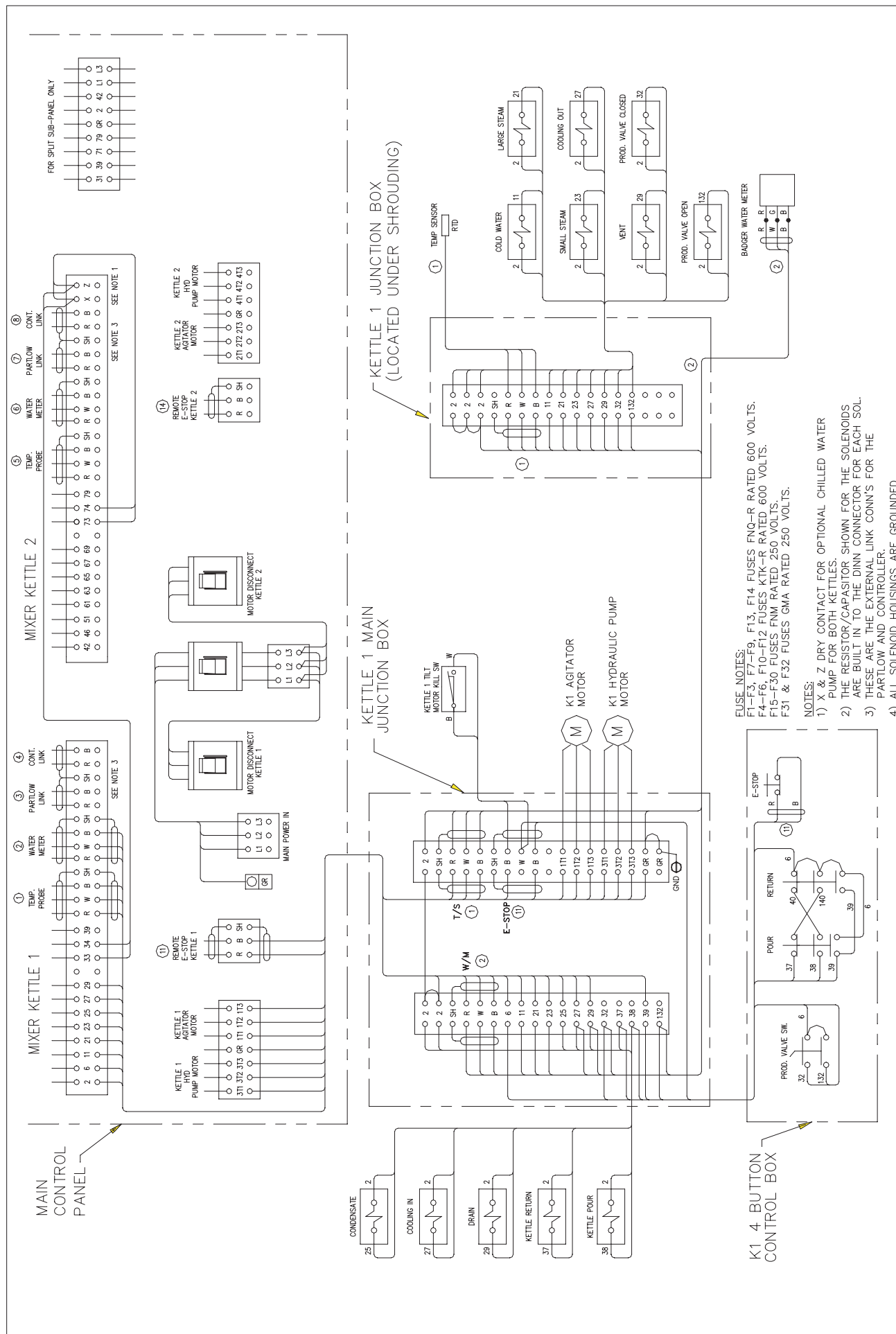


A	ADD K2 PARTLOW LINK	JES	7/03
REV.	DESCRIPTION	BY	DATE
J.C.PARDO & SONS INC.  1250 REAMES RD. BALTO MD. 21220 PHONE (410) 391-3600 FAX (410) 391-9042			
CHECKED BY: APPROVED BY: DRAWN BY: JES DATE: 2/26/03 SCALE: NONE		ELECTRICAL SCHEMATIC 380V DUAL CONTROL PANEL	
		SIZE: C REV. A	DRAWING NUMBER: ES-0323 SHEET 3 of 6
This drawing and all information contained therein is the property of J.C.Pardo & Sons Inc. Balto MD. The drawing and all information contained herein is loaned to the customer and it is loaned subject to return upon demand and is not to be used directly or indirectly in any way detrimental to J.C.Pardo & Sons Inc.			

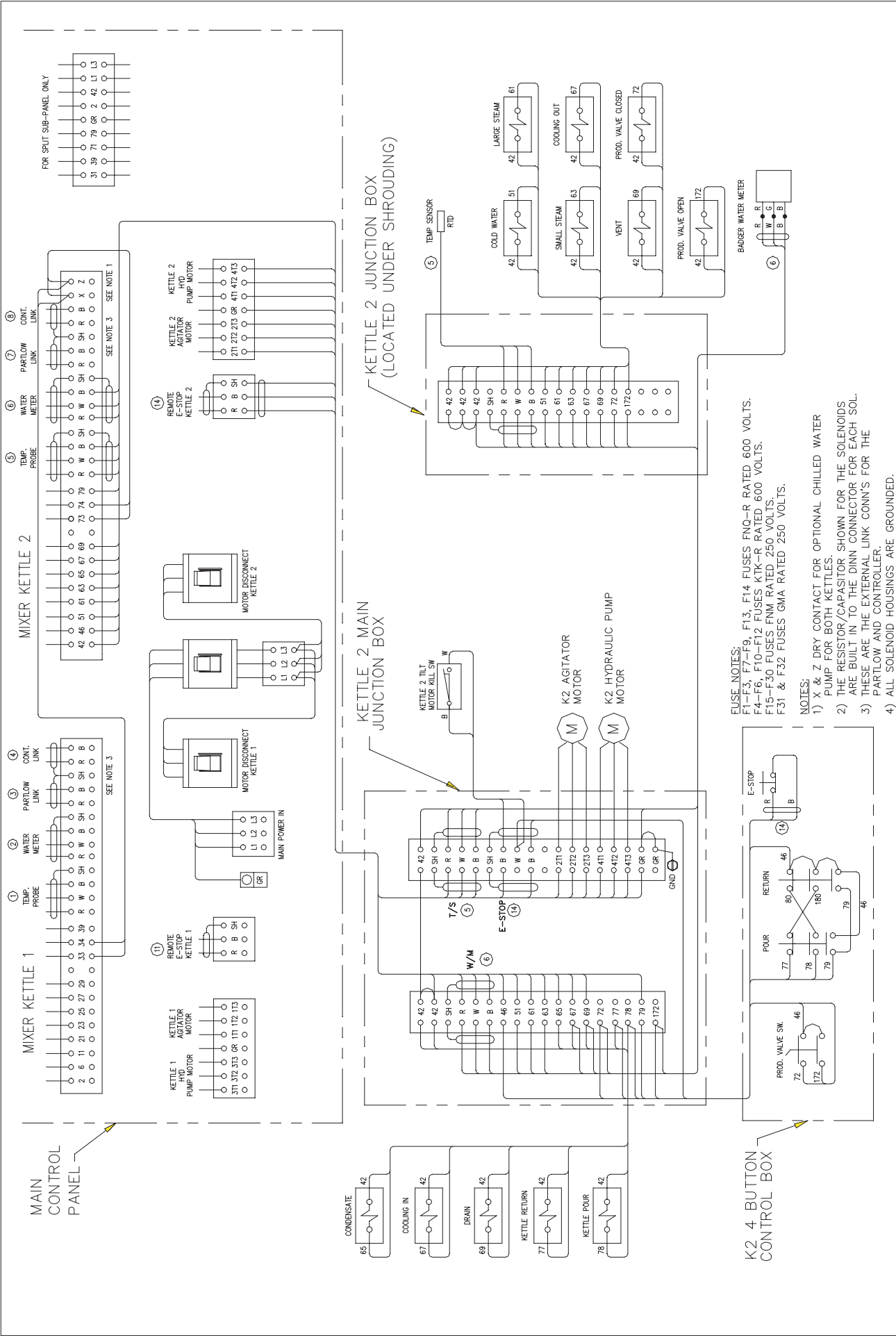
ELECTRICAL SCHEMATIC 380V DUAL CONTROL PANEL	SIZE: C	DRAWING NUMBER: ES-0323
This drawing and all information contained therein is the property of J.C.Pardo & Sons Inc. Bello MD. The drawing and all information contained herein is the property of J.C.Pardo & Sons Inc. Bello MD. It is loaned subject to return upon demand and is not to be used directly or indirectly in any way detrimental to J.C.Pardo & Sons.	REV. A	SHEET 3 of 6

CHECKED BY:	DRAWN BY: JES
APPROVED BY:	DATE: 2/26/03
	SCALE: NONE

A	ADD K2 PARTLOW LINK	JES	7/03
REV.	DESCRIPTION	BY	DATE
REVISIONS			



REV.	DESCRIPTION	BY	DATE
REVISIONS			
J.C.PARDO & SONS INC. 1250 REAMES RD. BALITO MD. 21220 PHONE (410) 391-3600 FAX (410) 391-9042			
CHECKED BY:		DRAWN BY: JES	
APPROVED BY:		DATE: 2/26/03	
		ELECTRICAL SCHEMATIC 380V DUAL CONTROL PANEL	
This drawing and all information contained therein is the property of J.C. Pardo & Sons Inc. and is not to be distributed, copied, or reproduction is confidential and must not be made public or copied. It is loaned subject to return upon demand and is not to be used		SIZE: C	DRAWING NUMBER: ES-0323
		REV.	SHEET 5 of 6



FUSE NOTES:
F1-F3, F7-F9, F13, F14 FUSES FNO-R RATED 600 VOLTS.
F4-F6, F10-F12 FUSES KTK-R RATED 600 VOLTS.
F15-F30 FUSES FNM RATED 250 VOLTS.
F31 & F32 FUSES GMA RATED 250 VOLTS.

- NOTES:
- 1) X & Z DRY CONTACT FOR OPTIONAL CHILLED WATER PUMP FOR BOTH KETTLES.
 - 2) THE RESISTOR/CAPACITOR SHOWN FOR THE SOLENOIDS ARE BUILT IN TO THE DINN CONNECTOR FOR EACH SOL.
 - 3) THESE ARE THE EXTERNAL LINK CONN'S FOR THE PARTLOW AND CONTROLLER.
 - 4) ALL SOLENOID HOUSINGS ARE GROUNDED.

REVISIONS		DESCRIPTION	BY	DATE
REV. 1				
J.C.PARDO & SONS INC.				
1250 REAMES RD. BALTO MD. 21220				
PHONE (410) 391-3600 FAX (410) 391-9042				
CHECKED BY: DRAWN BY: JES DATE: 2/26/03				
APPROVED BY: SCHEMATIC				
ELECTRICAL SCHEMATIC 380V DUAL CONTROL PANEL			SIZE: C	DRAWING NUMBER: ES-0323
THIS DRAWING AND ALL INFORMATION CONTAINED THEREIN IS THE PROPERTY OF J.C.PARDO & SONS INC. BALTO MD. 21220. NO PART OF THIS DRAWING IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF J.C.PARDO & SONS INC. IT IS LOANED SUBJECT TO RETURN UPON DEMAND AND IS NOT TO BE USED OUTSIDE THE PROJECT FOR WHICH IT WAS PREPARED.			REV. 1	6 of 6

FUSE CHART			
FUSE NO	TYPE	VOLT	AMP
F1	FNQ-R	600	3 AMP
F2	FNQ-R	600	3 AMP
F3	FNQ-R	600	3 AMP
F4	KTK-R	600	15 AMP
F5	KTK-R	600	15 AMP
F6	KTK-R	600	15 AMP
F7	FNQ-R	600	3 AMP
F8	FNQ-R	600	3 AMP
F9	FNQ-R	600	3 AMP
F10	KTK-R	600	15 AMP
F11	KTK-R	600	15 AMP
F12	KTK-R	600	15 AMP
F13	FNQ-R	600	5 AMP
F14	FNQ-R	600	5 AMP
F15	FNM	250	5 AMP
F16	FNM	250	5 AMP
F17	FNM	250	5 AMP
F18	FNM	250	1 AMP
F19	FNM	250	1 AMP
F20	FNM	250	1 AMP
F21	FNM	250	1 AMP
F22	FNM	250	1 AMP
F23	FNM	250	1 AMP
F24	FNM	250	5 AMP
F25	FNM	250	1 AMP
F26	FNM	250	1 AMP
F27	FNM	250	1 AMP
F28	FNM	250	1 AMP
F29	FNM	250	1 AMP
F30	FNM	250	1 AMP
F31	GMA	250	.315 AMP
F32	GMA	250	.315 AMP
FIELD WIRING MUST ENTER/EXIT BOTTOM OF ENCLOSURE OR THROUGH APPROVED FITTING.			
J.C. PARDO AND SONS INC. C.R. MODEL NO.: HA-DE-CC-2 J.C.P. MODEL NO.: FMCC-D2-K SERIAL NO.: 8226 LARGEST MOTOR RATING: 3 H.P. RATED VOLTAGE: 380 V.A.C. PHASE: 3 PH CYCLES: 50 HZ FULL LOAD CURRENT: 18 AMPS MINIMUM CIR. AMPACITY: 19 AMPS MAXIMUM OVERCURRENT DEVICE: 25 AMPS			

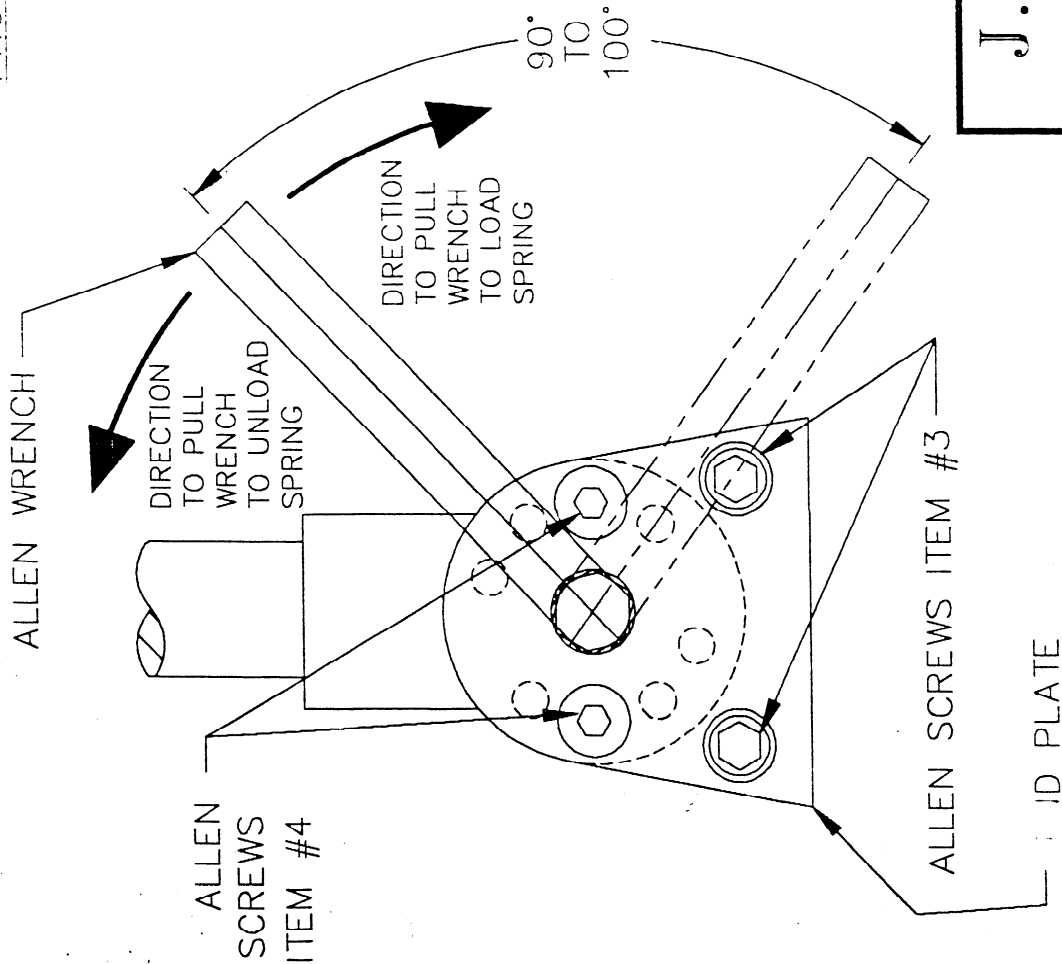
380V 3HP

PROCEDURE TO TIGHTEN SPRING IN LID ACTUATOR

1. MAKE SURE KETTLE LID IS IN THE UP POSITION
2. HOLD TENSION ON THE ALLEN WRENCH REMOVE THE ALLEN SCREWS ITEM #4.
3. PULL DOWN ON ALLEN WRENCH UNTIL THE 2nd SET OF HOLES APPEAR IN LINE. REINSTALL ALLEN SCREWS NOTE THE ALLEN WRENCH SHOULD TRAVEL 1/4 TURN (90° TO 100°)

PROCEDURE FOR REPLACING SPRING IN LID ACTUATOR

- A. MAKE SURE THE KETTLE LID IS IN THE UP POSITION AND PROPERLY SUPPORTED BEFORE REMOVING ANY ALLEN SCREWS.
- B. USING THE ALLEN WRENCH HOLD TENSION ON THE SPRING WHEN REMOVING THE ALLEN SCREWS ITEM #4 USING THE ALLEN WRENCH UNLOAD THE SPRING.
- C. CAREFULLY REMOVE THE ALLEN SCREWS ITEM #3 AND REMOVE THE END PLATE.
- D. REMOVE THE OLD SPRING AND CENTERING ROD
- E. GREASE NEW SPRING AND CENTERING ROD BEFORE INSTALLING THEM INTO HOUSING. NOTE USE CHESTERTON 622, USDA APPROVED, OR EQUIVALENT GREASE.
- F. REPLACE THE END PLATE AND REPLACE THE ALLEN SCREWS ITEM #3.
- G. USING THE ALLEN WRENCH TIGHTEN THE SPRING AND ALIGN THE HOLES REPLACE THE ALLEN SCREWS ITEM #4.



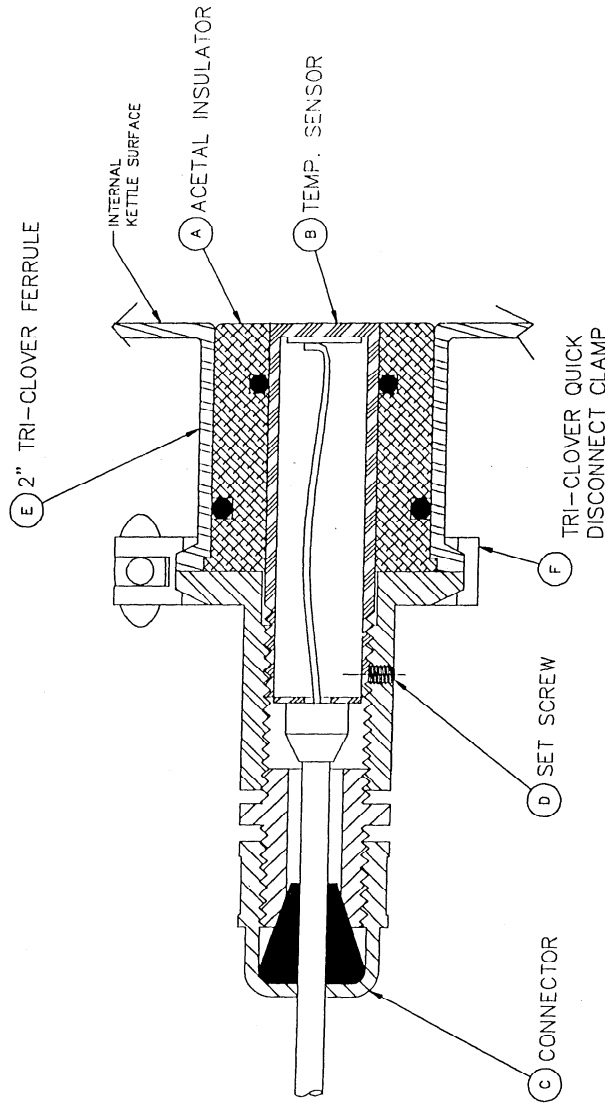
J.C.PARDO & SONS INC.

1250 REAMES RD.  BALTO. MD. 21220

SCALE: NONE	APPROVED BY:	DRAWN BY:	REV:
DATE: 5-16-94		TIM KAHL	B
ACTUATOR SPRING ADJUSTMENT AND REPLACEMENT DETAIL			
SMALL ACTUATOR UP TO 100 GALLON KETTLES	SIZE: A	DRAWING NUMBER: 8545	

INSTALLATION INSTRUCTIONS

1. INSERT PART "A" INTO KETTLE FERRULE PART "E" SO PART "A" IS FLUSH WITH INTERNAL KETTLE SURFACE $\pm .002$ TO AVOID SCRAPER BLADE FROM INTERFERING WITH TEMPERATURE PROBE.
2. INSERT PART "B" ASSEMBLY INTO PART "A" AND ADJUST UNTIL SURFACE OF PART IS FLUSH WITH INTERNAL KETTLE SURFACE, SO THAT THE SCRAPER BLADE WILL WIPE THE SURFACE CLEAN. THIS MUST OCCUR TO OBTAIN AN ACCURATE TEMPERATURE READING FROM THE PROBE. FOR EASIER ADJUSTMENT OF PROBE, INSTALL O-RINGS AFTER ALL ADJUSTMENTS HAVE BEEN MADE.
3. AFTER STEPS 1 AND 2, INSTALL CLAMP "F" AND CHECK INTERNAL SURFACE WITH PROBE TO FIT THE ABOVE REQUIREMENTS. ADJUST, IF REQUIRED.
4. TIGHTEN BOTH SET SCREWS "D".
5. TIGHTEN CONNECTOR "C".
6. RUN WIRE TO JUNCTION BOX AND ATTACH TO BOX.
7. TEST TEMPERATURE PROBE TO SEE IF TEMPERATURE READING IS ACCURATE.



NOTE:

USE CHESTERTON 622, USDA APPROVED OR EQUIVALENT ON O-RINGS BEFORE INSTALLATION.

JOB #

QTY:

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J.C. PARDO & SONS INC.	
1250 REAVES RD.	BALTO. MD. 21220
DATE 4/27/95	REV 2/21/97
TEMPERATURE SENSOR INSTALLATION	
SHEET 1 OF 1	8007

INSTALLATION OF NEW SCRAPER BLADE

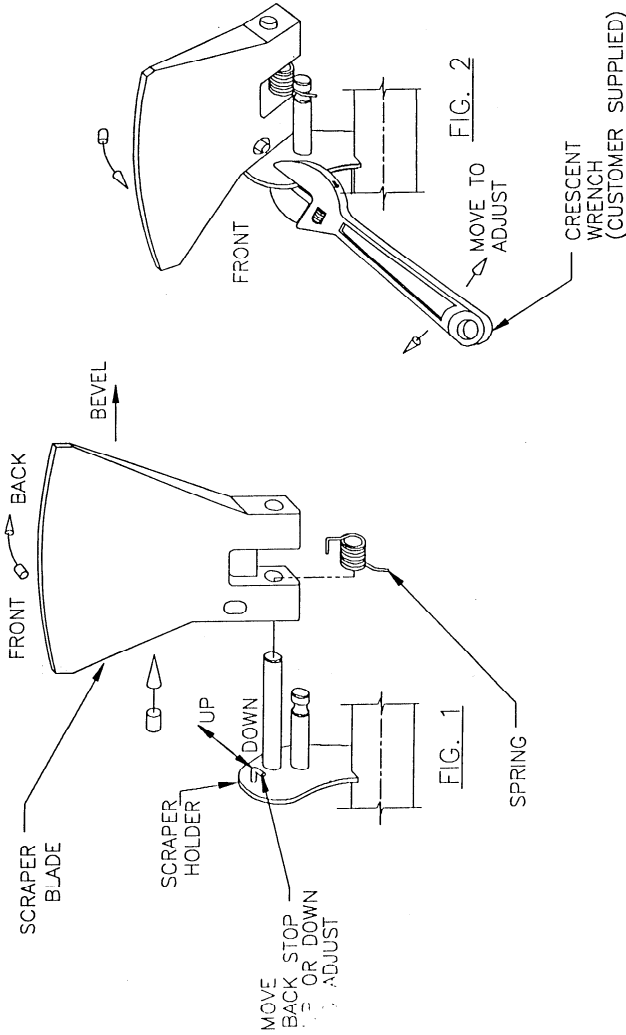
WHEN INSTALLING A NEW SCRAPER BLADE THERE MAY BE SOME ADJUSTMENTS REQUIRED TO MAKE IT LAY FLAT TO FOLLOW THE CONTOUR OF THE KETTLE. IF THE BLADE DOES NOT FIT, YOU MAY HAVE TO GRIND EITHER THE TWO EDGES OF THE BLADE, OR THE CENTER OF THE BLADE (PER. DETAIL A).

NOTE # 1

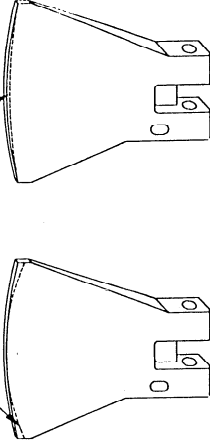
WHEN THERE IS TOO MUCH OR TOO LITTLE PRESSURE ON THE SCRAPER BLADE, BEND THE BACK STOP DOWN TO DECREASE THE PRESSURE OR BEND IT UP TO INCREASE THE PRESSURE ON THE BLADE WHEN SCRAPING THE KETTLE SURFACE (PER. FIG. 1).

NOTE # 2

IF ONLY ONE CORNER OF THE SCRAPER BLADE IS TOUCHING THE KETTLE SURFACE, USE A CRESCENT WRENCH AND SLIGHTLY TWIST THE SCRAPER HOLDER SO THE ENTIRE BLADE SCRAPES THE KETTLE WALL WITH EVEN PRESSURE.



TRIM CORNERS OR CENTER TO INSURE A PROPER FIT



DETAIL A

JOB #

J.C.PARDO & SONS INC.		BALTO. MD. 21220	
1250 REAMES RD.		BALTO. MD. 21220	
SCALE NONE	APPROVED BY: <i>dal G</i> 4/25/95	DRAWN BY: LAURIE YORI	
DATE: 4/25/95		REPLACEMENT AND FITTING SCRAPER BLADE & SPRING	
SHEET 1 of 1		SIZE B	REV. 8230

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HORIZONTAL AGITATOR KETTLE OPERATIONS AND CLEANING INSTRUCTIONS

CLEANING INSTRUCTIONS

As with all equipment that has electrical components, care must be exercised when using water and chemicals to clean food service equipment. Use a mild detergent following instructions of the chemical manufacturer. Do not spray water on electrical control panel or components. Do not use harsh or caustic chemicals, especially on o-rings and gaskets.

1. Rinse out food debris from the kettle and flush through the metering filling station (MFS or food pump) if they are still connected. If the kettle is not connected to the food pump, open the valve and allow rinse water to flush into the floor drain.
2. Remove agitator arm:
 - a. Rotate the agitator until the quick release pull pin is on the top.
 - b. Turn power to OFF as a safety precaution.
 - c. Pull pin out.
 - d. Slide coupling toward side of kettle.
 - e. Carefully lift end of agitator, pull back and lift out.
 - f. Remove bushing from shaft holder.
 - g. Remove scraper blades from agitator by using the spring removal tool provided with the kettle.
 - h. Wash agitator arm, scraper blades, and springs with mild dish detergent or in dish machine. Air dry.
3. Wash the inside of the kettle with a mild dish detergent as you would any pot or pan. Flush liquid through MFS or by opening the valve. Rinse thoroughly.
4. Remove the valve and tee from the bottom of the kettle by removing the clamp. Remove o-rings. Wash and dry thoroughly. When re-installing the valve, apply USDA approved food grade grease (Chesterton 622 or equal) to o-rings. Gently push tee and valve body in place and secure with clamps.
5. Clean outer drive shaft seal on the side of the kettle by removing thumb screws. Slide seal retainer plate and quad ring away from the kettle or shaft housing. Clean the shaft, seal and quad ring. Before re-installing, apply a liberal amount of USDA approved food grade grease to the opening around the shaft and slide quad ring back in place. Push the seal retainer plate back in place and tighten with thumb screws.
6. Remove temperature sensor probe by removing clamp. Slide sensor out of seal holder. Remove o-rings. Clean sensor, seal and o-rings. Before re-installing, apply a liberal amount of USDA approved food grade grease on o-rings.

DAILY PRE-START UP

1. The operator must check the kettle, springs and scraper blades for proper installation before turning kettle on.
2. Make sure the connecting coupling from the drive shaft to the agitator is properly installed with the quick release pin fully engaged.
3. Label and place clean chart on chart recorder.

If the above cannot be achieved, call your maintenance supervisor or service contractor before proceeding.

OPERATING INSTRUCTIONS HORIZONTAL MIXER KETTLE

Your kettle has been equipped with a control panel that has some or all of the following functions:

1. Main POWER switch
2. Temperature control
3. 24 hour chart recorder
4. KETTLE RUN push button
5. Agitator speed control with variable settings
6. Agitator STOP/START
7. Potable water meter with OFF/ON switch and push button to add water
8. Manual COOL water switch
9. Kettle selector switch for CONTINUOUS, OFF, COOK
10. SIMMER switch
11. Product VALVE OPEN/CLOSED

Operating the Kettle

1. To operate the system the main power switch on the control panel must be turned on. The temperature control computer will run through its diagnostics for about one minute.
2. To set desired temperature, turn switch to COOK. This activates the temperature controller. The temperature displayer and the actual temperature will appear. To change the temperature set point, press the push button with “+” to raise or increase the temperature or press the button with “-” to decrease or lower the temperature.
3. Push the button marked KETTLE RUN and the steam will come on to heat the kettle and its contents until the set point temperature is reached. It will cycle off and on to maintain the set point temperature.
4. To start the agitator, press the button marked AGITATOR START and a green light will indicate the agitator is on.
5. To stop the agitator, press the red AGITATOR STOP mushroom button.
6. To change the speed of the agitator, turn the SPEED CONTROL knob to the right to increase the speed or to the left to decrease the speed. As a safety precaution, always turn the speed to “0” when kettle is not in use and before use.

7. To add ingredients to the kettle, push AGITATOR STOP button. Steam heating will continue in the jacket and the agitator must be started again as soon as possible or product might burn on the surface of the kettle.
8. CONTINUOUS STEAM is a manual override allowing steam into the kettle but with no temperature control.
9. SIMMER allows maintenance to the set point temperature but gently introduces heat into the kettle.

Ready to pump food out of kettle

1. Foods must be cooked to a minimum of 165°F to kill dangerous pathogens and must be at least this temperature when it casings are filled. Set temperature on the control panel to at least 165°F before pumping.
2. Pump food through MFS to heat hoses and MFS parts until at least 165°F can be maintained when product exits the MFS. Product may be poured back into the kettle for reheating before pumping.
3. Put down cover of kettle to maintain heat and to maintain a moist atmosphere in the kettle which will make cleaning easier.
4. Empty the kettle as quickly as possible to prevent over-cooking of product and to maintain quality, consistency and temperature.
5. Temperature may be turned OFF or placed on SIMMER when kettle product reaches the steam jacketed area to reduce chances of burning while pumping.

To cool and blend products without heat

1. Turn the main power switch to ON.
2. Turn the MANUAL WATER COOLING switch to ON. This will start the flow of cold water from the ice builder into the jacket of the kettle. When in this mode the temperature controller will read the temperature of the product only and serve no other function.
3. When cooking a product that is too hot, MANUAL COOLING can be used. Turn on MANUAL COOLING. When sufficient cooling has been achieved, turn the switch off. The kettle jacket will drain and steam will automatically come on to continue cooking if the set point has not been lowered.

To add Potable water to the kettle

1. Faucet handle must be completely open and the main power must be on.
2. Set point the volume of water needed by changing the digits on the meter.
3. Turn METERED WATER switch to ON. Water will begin filling the desired number of gallons and stop automatically. The amount of water that has been metered can be read above the set point.
4. Additional water may be metered by resetting meter and will accumulate on the meter as long as it is not turned off.
5. Additional water may be added by pressing the black button marked PUSH TO ADD MORE WATER.

PREVENTIVE MAINTENANCE

COOK/CHILL MIXER & PASTA KETTLES

A. AUTOMATIC DUMP VALVE

Weekly

- Check air collector regulator for moisture, dirt, and proper pressure
- Check all orings and seals and gaskets
- Check valve operation
- Lubricate with light oil when needed
- Check air hose for leaks or signs of wear

B. TILT MECHANISM (Hydraulic Tilt)

Weekly

- Check for leaks
- Check for smooth operation
- Check switches

Yearly

- Change hydraulic fluid every two years. (1 1/2 gallons of **FOOD GRADE** hydraulic fluid) (Shell Telis #5)

(Electric Tilt)

Weekly

- Check for smooth operation
- Check switches

Monthly

- Check for movement in mechanism
- Grease trunnions monthly (**Food Grade Grease**)

C. AIR PRESSURE

Weekly

- 45 psi dump valve - 15 psi for jacket purge
- Air must be clean and dry
- Check all air lines & fittings for leaks

D. STEAM TRAP

Monthly

- Check proper operation

**PREVENTIVE
MAINTENANCE**

COOK/CHILL MIXER & PASTA KETTLES (continued)

E. SAFETY VALVE

Weekly

- Check for leakage
- Steam pressure 65 psi. max.
- Safety set at 100 psi.

F. LEAKS

Weekly

- Check for leaks of any type (water - steam - hydraulic)
(**Leaks take away from performance and will lead to costly repair**)

G. Control Panels

Weekly

- Signs of water damage
- Check operation of all controls
- Water meter operation
- Temp read outs
- Temp charting
- Temp controlling
- RTD adjustments
- Mixer operation & speed control
- Gentle heat operation
- product valve operation

HAMKDL- 60 – CC-T

- Make sure kettle is level, equipment can move as floors settle
- Make sure kettle is bolted securely to floor, bolts may loosen after time
- Check the incoming power and amp draws (per rating plate)
- Check incoming air pressure (1" line 1cfm @ 90psi.)
- Check air pressure regulator/collector for draw off valve (45psi.)
- Check air pressure regulator for kettle jacket purge (15psi.)
- Check air collector regulator for moisture, dirt (Must be clean & dry)
- Check all o-rings and shaft seal for wear and proper lubrication
- Check the installation 3" Flush Piston Draw Off Valve
- Check all air hoses for leaks and signs of wear
- Check incoming steam pressure (3/4"line / 320PPM / 65psi.)
- Check the steam trap for proper operation (clean or replace if needed)
- Check the operation of safety valve 100psi. rating
- Check for steam leaks (Inlets and Returns)
- Check for the proper clearance where drive shaft penetrates the kettle
- Make sure temperature sensor is properly installed
- Check chill water supply and return lines for leaks.
- Check the control panel for any signs of corrosion moisture
- Check the complete operation of all kettle controls
- Check the mixer operation (Speed control, Emergency stop)
- Check the idler bearing and idler busing for wear
- Check the kettle tilt (up and down)
- Check hydraulic fluid level
- Check hydraulic lines for leaks and signs of wear
- Change hydraulic fluid yearly (ISO 46 20 weight Food Grade)
- Grease tilt mechanism monthly (Food grade grease)
- Check the operation of 3" Flush Piston Draw Off Valve
- Check water meter operation
- Make sure the Partlow chart recorder/controller is controlling, reading, and charting correctly
- Check the cooking operation in both automatic and in manual modes
- Check the operation of gentle heat mode
- Check the operation of the chill mode
- Check kettle cover hinge tension and fasteners

HA-MKDL-100-CC-T

- Make sure kettle is level, equipment can move as floors settle
- Make sure kettle is bolted securely to floor, bolts may loosen after time
- Check the incoming power and amp draws (per rating plate)
- Check incoming air pressure (1" line 1cfm @ 90psi.)
- Check air pressure regulator/collector for draw off valve (45psi.)
- Check air pressure regulator for kettle jacket purge (15psi.)
- Check air collector regulator for moisture, dirt (Must be clean & dry)
- Check all o-rings and shaft seal for wear and proper lubrication
- Check the installation 3" Flush Piston Draw Off Valve
- Check all air hoses for leaks and signs of wear
- Check incoming steam pressure (3/4" line / 320PPM / 65psi.)
- Check the steam trap for proper operation (clean or replace if needed)
- Check the operation of safety valve 100psi. rating
- Check for steam leaks (Inlets and Returns)
- Check for the proper clearance where drive shaft penetrates the kettle
- Make sure temperature sensor is properly installed
- Check chill water supply and return lines for leaks.
- Check the control panel for any signs of corrosion moisture
- Check the complete operation of all kettle controls
- Check the mixer operation (Speed control, Emergency stop)
- Check the idler bearing and idler busing for wear
- Check the kettle tilt (up and down)
- Check hydraulic fluid level
- Check hydraulic lines for leaks and signs of wear
- Change hydraulic fluid yearly (ISO 46 20 weight Food Grade)
- Grease tilt mechanism monthly (Food grade grease)
- Check the operation of 3" Flush Piston Draw Off Valve
- Check water meter operation
- Make sure the Partlow chart recorder/controller is (controlling, reading, and charting correctly)
- Check the cooking operation in both automatic and in manual modes
- Check the operation of gentle heat mode
- Check the operation of the chill mode
- Check kettle cover hinge tension and fasteners

HA-MKDL-200-CC-T

- Make sure kettle is level, equipment can move as floors settle
- Make sure kettle is bolted securely to floor, bolts may loosen after time
- Check the incoming power and amp draws (per rating plate)
- Check incoming air pressure (1" line 1cfm @ 90psi.)
- Check air pressure regulator/collector for draw off valve (45psi.)
- Check air pressure regulator for kettle jacket purge (15psi.)
- Check air collector regulator for moisture, dirt (Must be clean & dry)
- Check all o-rings and shaft seal for wear and proper lubrication
- Check the installation 3" Flush Piston Draw Off Valve
- Check all air hoses for leaks and signs of wear
- Check incoming steam pressure (3/4"line / 320PPM / 65psi.)
- Check the steam trap for proper operation (clean or replace if needed)
- Check the operation of safety valve 100psi. rating
- Check for steam leaks (Inlets and Returns)
- Check for the proper clearance where drive shaft penetrates the kettle
- Make sure temperature sensor is properly installed
- Check chill water supply and return lines for leaks.
- Check the control panel for any signs of corrosion moisture
- Check the complete operation of all kettle controls
- Check the mixer operation (Speed control, Emergency stop)
- Check the idler bearing and idler busing for wear
- Check the kettle tilt (up and down)
- Check hydraulic fluid level
- Check hydraulic lines for leaks and signs of wear
- Change hydraulic fluid yearly (ISO 46 20 weight Food Grade)
- Grease tilt mechanism monthly (Food grade grease)
- Check the operation of 3" Flush Piston Draw Off Valve
- Check water meter operation
- Make sure the Partlow chart recorder/controller is (controlling, reading, and charting correctly)
- Check the cooking operation in both automatic and in manual modes
- Check the operation of gentle heat mode
- Check the operation of the chill mode
- Check kettle cover hinge tension and fasteners

HA-MKDL-300-CC-T

- Make sure kettle is level, equipment can move as floors settle
- Make sure kettle is bolted securely to floor, bolts may loosen after time
- Check the incoming power and amp draws (per rating plate)
- Check incoming air pressure (1" line 1cfm @ 90psi.)
- Check air pressure regulator/collector for draw off valve (45psi.)
- Check air pressure regulator for kettle jacket purge (15psi.)
- Check air collector regulator for moisture, dirt (Must be clean & dry)
- Check all o-rings and shaft seal for wear and proper lubrication
- Check the installation 3" Flush Piston Draw Off Valve
- Check all air hoses for leaks and signs of wear
- Check incoming steam pressure (3/4"line / 320PPM / 65psi.)
- Check the steam trap for proper operation (clean or replace if needed)
- Check the operation of safety valve 100psi. rating
- Check for steam leaks (Inlets and Returns)
- Check for the proper clearance where drive shaft penetrates the kettle
- Make sure temperature sensor is properly installed
- Check chill water supply and return lines for leaks.
- Check the control panel for any signs of corrosion moisture
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- Check water meter operation
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- Check the cooking operation in both automatic and in manual modes
- Check the operation of gentle heat mode
- Check the operation of the chill mode
- Check kettle cover hinge tension and fasteners