M125ESL SEMI-AUTOMATIC FILLING MACHINE OPERATOR INSTRUCTION MANUAL - PART 2

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OPERATOR PUSH BUTTONS

STAY CLEAR OF MOVING PARTS WHEN PRESSING MASTER START OR RELEASING EMERGENCY STOP SWITCH

1. MASTER START - TURNS ON POWER TO ELECTRICAL AND PNEUMATIC COMPONENTS WHEN EMERGENCY STOP BUTTON IS IN THE "OUT" POSITION. IF EMERGENCY STOP BUTTON IS IN THE "IN" POSITION, MASTER START WILL POWER UP ELECTRICAL COMPONENTS ONLY. PNEUMATIC COMPONENTS WILL ENERGIZE THE MOMENT THE E-STOP IS PULLED OUT.

2. MASTER STOP - TURNS OFF ALL POWER TO ELECTRICAL AND PNEUMATIC COMPONENTS. NOTE: FILL VALVE STEM STAYS CLOSED UNDER PRESSURE WHEN MACHINE IS COMPLETELY OFF. WHEN SERVICING FILL VALVE, CUT OFF MAIN AIR AT AIR REGULATOR WITH THE SAFETY SLIDE VALVE.

3. EMERGENCY STOP - CLOSES FILL VALVE IMMEDIATELY AND TURNS OFF ALL PNEUMATIC COMPONENTS. BEFORE PULLING THE E-STOP OUT, REMOVE BAG AND MANUALLY PUSH THE BAG HOLDER OVER TO THE CAPPER BLOCK. **KEEP HANDS, ADAPTERS, AND TOOLS CLEAR WHEN RELEASING E-STOP. THE BAG HOLDER AND CAPPER WILL JUMP TO HOME POSITION.**

4. CYCLE STOP - IN "BAG MODE", CYCLE STOP WILL CLOSE FILL VALVE IMMEDIATELY, SEND TOOLING BACK TO HOME POSITION, AND COMPLETELY CAP AND EJECT THE BAG AT ANY POINT DURING A FILL CYCLE.
   IN "CIP" AND "PAIL/TOTE" MODES, CYCLE STOP WILL CLOSE FILL VALVE IMMEDIATELY, BAG HOLDER WILL DROP, MOVE OVER AND WAIT FOR ADAPTER TO BE REMOVED. **WHEN SWITCHING BACK TO "BAG MODE", CAPPER BLOCK WILL DROP DOWN TO BAG HOLDER. **KEEP HANDS, ADAPTERS, AND TOOLS CLEAR WHEN CHANGING MODES.**

5. CYCLE START - IN "BAG MODE", CYCLE START INITIATES THE FILL CYCLE BY DECAPPING, MOVING BAG SPOUT OVER AND UP ONTO NOZZLE, AND THEN OPENING THE FILL VALVE. THE BAG WILL FILL UNTIL EITHER THE "PULSE COUNT SET POINT" IS REACHED, CYCLE STOP IS PRESSED, OR E-STOP IS PRESSED.
   IN "CIP" MODE, IT FUNCTIONS THE SAME AS ABOVE EXCEPT A CIP ADAPTER IS LOADED INSTEAD OF A BAG. THE CIP CYCLE CAN ONLY BE STOPPED BY PRESSING CYCLE STOP OR E-STOP.
   IN "PAIL/TOTE MODE", CYCLE START INITIATES THE FILL CYCLE BY FIRST MOVING THE ADAPTER OVER AND UP ONTO THE NOZZLE, THEN WAITS FOR CYCLE START TO BE PRESSED A SECOND TIME TO OPEN THE FILL VALVE. THE PAIL WILL FILL UNTIL EITHER THE "PULSE COUNT SET POINT" IS REACHED, CYCLE STOP IS PRESSED, OR E-STOP IS PRESSED.

THE MACHINE HAS TO BE IN "MANUAL MODE" FOR THE "CIP" AND "PAIL/TOTE" MODES TO FUNCTION

BASIC PROCEDURE FOR OPERATION

1. MAKE SURE AIR IS SET TO 70/80 PSI AND ELECTRIC IS CONNECTED TO APPROPRIATE VOLTAGE.
2. PRESS MASTER START AND WAIT FOR PANELVIEW TO RUN THROUGH THE INITIALIZATION PROCESS (APPROX 45 SEC).
3. ON RUN SCREEN #1, CHOOSE MANUAL, RESET BAG COUNT, AND CHANGE SET POINT TO DESIRED VALUE.
4. ON RUN SCREEN #2, CHOOSE APPROPRIATE MODE. (MAKE SURE METER IS NOT BYPASSED.)
5. PRESS "GO TO RUN SCREEN 1".
6. LOAD BAG INTO CAPPER AND BAG HOLDER. MAKE SURE IT IS LOADED IN STRAIGHT AND SEATED COMPLETELY.
7. PRESS CYCLE START (MACHINE WILL UNCAP, MOVE BAG OVER AND ONTO NOZZLE, DRAW VACUUM AND BEGIN TO FILL).
8. WHEN THE SET POINT IS REACHED, VALVE WILL CLOSE, NITROGEN ENTERS, PLUG WILL MOVE UP, AND BAG WILL BE CAPPED AND EJECTED.
9. REMOVE FILLED BAG, CHECK IT FOR ACCURACY, ADJUST SET POINT AND TIMERS IF NECESSARY, AND FILL ANOTHER BAG.
10. REPEAT STEPS 6 THROUGH 9 AS REQUIRED UNTIL CORRECT VOLUME IS ACHIEVED.
11. DOCUMENT THE SET POINT AND TIMER SETTINGS FOR EACH CONTAINER SIZE AND PRODUCT FILLED.

RUN SCREEN 1

1. PRESS "RESET AUTOMAN MODE".
2. CHOOSE EITHER "MANUAL" OR "AUTO".
3. IN MANUAL MODE, USE START BUTTON TO CYCLE.
4. IN AUTO MODE, WHEN BAG HOLDER JAW IS CLOSED, MACHINE WILL CYCLE.

RUN SCREEN 1

5. PRESS "BAG COUNT RESET" TO "ZERO" BATCH COUNTER.
6. PULSE COUNT FIELD REPRESENTS THE VOLUME OF LIQUID FILLED INTO EACH BAG.
7. PRESS "ENTER PULSE SETPOINT" TO CHANGE THE AMOUNT OF PRODUCT FILLED.

RUN SCREEN 1

"ENTER"

8. AFTER PRESSING "ENTER PULSE SETPOINT", THE SET POINT SCREEN WILL SHOW.
9. ENTER A NUMBER THAT WILL FILL CLOSE TO THE CORRECT VOLUME (FOR MACHINES WITH A 1" TURBINE FLOW METER OR "MAGMETER", USE 800 PULSES/GALLON TO ESTIMATE FILL AMOUNT).
10. PRESS "ENTER" IN LOWER RIGHT CORNER.
11. FILL A BAG AND CHECK IT FOR ACCURACY. ADJUST SET POINT ACCORDINGLY UNTIL APPROPRIATE AMOUNT OF PRODUCT IS FILLED.
12. DOCUMENT SET POINT FOR EACH CONTAINER SIZE AND PRODUCT FILLED.
13. PRESS "GOTO RUN SCREEN 2".

RUN SCREEN 2

STAY CLEAR OF MOVING PARTS WHEN CHANGING MODES

14. PRESS "MODE RESET"
15. CHOOSE APPROPRIATE MODE
16. IN "PAIL/TOTE" OR "CIP", THE CAPPER BLOCK WILL RAISE TO ALLOW AN ADAPTER TO BE LOADED. "PAIL/TOTE AND "CIP" WILL NOT FUNCTION IF MACHINE IS IN "AUTO" MODE.
17. PRESSING "MANUAL NITROGEN PURGE" WILL OPEN A VALVE ALLOWING NITROGEN TO CHASE AIR FROM THE LINES. USE THIS FEATURE AFTER CHANGING NI SUPPLY.

18. MAKE SURE METER IS NOT BYPASSED WHEN RUNNING PRODUCTION. THIS FEATURE SHOULD ONLY BE USED FOR TESTING AND SET UP.
(IF THE FLOW METER QUITS FUNCTIONING, THE METER BYPASS FEATURE CAN BE USED TEMPORARILY TO FILL BY TIME. THIS SHOULD ONLY BE DONE IN AN EMERGENCY AS FILL VOLUMES WILL BE DEPENDENT ON THE FLOW CONSISTENCY AND FLUCTUATIONS COULD OCCUR. THE "METER BYPASS" AND TIMER ARE FOUND ON SET UP SCREEN 1.)

RUN SCREEN 2

PAIL/TOTE SCREEN

PAIL/TOTE AND CIP FUNCTIONS WILL ONLY WORK WHEN MACHINE IS IN "MANUAL MODE"

19. THE "PAIL/TOTE" MODE IS USED WHEN FILLING OPEN TOP CONTAINERS. A SPECIAL ADAPTER OR HOSE IS USED TO DIRECT THE PRODUCT.
20. PRESS "PAIL/TOTE CNT RESET" TO "ZERO" THE BATCH COUNTER.
21. READ AND FOLLOW THE DIRECTIONS ON THE SCREEN CAREFULLY (BAG PLUG HAS TO BE REMOVED WHEN USING THIS MODE).

CIP SCREEN

MANUAL FILL/AIR PURGE MUST BE OFF DURING CIP

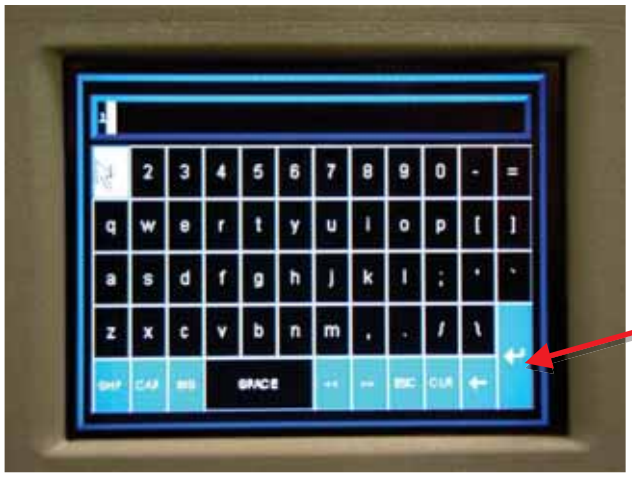
22. DURING NORMAL "CIP" MODE, THE VALVE STEM WILL OSCILLATE PER THE TIMER SETTINGS ON "SET UP UP SCREEN 3". THIS HELPS TO CLEAN O'RINGS & VALVE.
23. WHEN "MANUAL FILL/AIR PURGE" IS ON, THE MACHINE WILL FUNCTION THE SAME AS "PAIL/TOTE" MODE EXCEPT THAT IT WILL NOT SHUT OFF UNTIL THE CYCLE STOP PUSH BUTTON IS PRESSED.
24. READ AND FOLLOW THE DIRECTIONS ON THE SCREEN CAREFULLY.

PASSWORD SCREEN

25. A USER NUMBER AND PASSWORD ARE REQUIRED TO GO BEYOND THIS POINT.
26. PRESS "LOGIN" TO ACCESS PASSWORD SCREEN.

27. PRESS "USER (F2)" TO OPEN KEYPAD SCREEN.
28. TYPE IN USER NUMBER AND PRESS "ENTER" IN THE LOWER RIGHT HAND OF SCREEN.
29. PRESS "PASSWORD (F3) TO OPEN KEYPAD SCREEN.
30. TYPE IN PASSWORD AND PRESS ENTER .
31. PRESS "ENTER" ON LOGIN SCREEN TO ACCESS SET UP SCREENS.

KEYPAD SCREEN



IF USER OR PASSWORD IS TYPED IN WRONG, THIS WINDOW WILL SHOW. PRESS HERE AND TRY AGAIN.

REMEMBER, AFTER SET UP IS COMPLETE, "LOG OUT" TO SECURE SETTINGS. IF NOT DONE, SET UP SCREENS CAN BE ACCESSED AT ANY TIME DURING OPERATION (ALL PASSWORD PROTECTED SCREENS WILL AUTOMATICALLY "LOG OUT" IF THEY ARE NOT ACCESSED WITHIN 5 MINUTES.)

SET UP SCREEN 1

32. WHEN CORRECT USER AND PASSWORD HAVE BEEN ENTERED, SET UP SCREEN 1 WILL SHOW.
33. "METER BYPASS" IS SHOWN HERE IN THE "ON" POSITION. PRESS TO TURN OFF. FIELD WILL TURN BLACK W/FRAME. "METER BYPASS ON" IS USED ONLY FOR TESTING & SET UP.
34. "VACUUM" IS SHOWN HERE IN THE "ON" POSITION. WHEN IN THE "OFF" POSITION, FIELD WILL BE RED. MAKE SURE THE VACUUM FEATURE IS ON WHEN FILLING PRODUCT.
35. "ENTER METER BYPASS OVERRIDE TIME" SETS THE LENGTH OF TIME THAT THE PRODUCT VALVE REMAINS OPEN AFTER THE FILL CYCLE HAS BEEN STARTED. "METER BYPASS" MUST BE IN THE "ON" (RED) POSITION FOR THIS TIMER TO OPERATE.
36. "ENTER VACUUM CYCLE TIME BEFORE FILL" SETS THE LENGTH OF TIME THE PRODUCT VALVE DRAWS VACUUM ON THE BAG BEFORE OPENING AND RELEASING PRODUCT.
37. "ENTER FILL DELAY TIME AFTER VACUUM CYCLE" SETS THE LENGTH OF TIME BETWEEN VACUUM SHUT-OFF AND THE PRODUCT VALVE OPENING.
38. "ENTER VACUUM SHORT CYCLE TIME" SETS THE LENGTH OF TIME THAT VACUUM IS DRAWN IN THE CLOSED OFF LINE DURING THE FILL. THIS ALLOWS THE NITROGEN TO PURGE THE LINE WHILE PRODUCT IS FILLING.

SET UP SCREEN 1 TIMER RANGES

ENTER METER BYPASS OVERRIDE TIME

TIMER RANGE: 2 SEC - 300 SEC

ENTER FILL DELAY TIME AFTER VACUUM CYCLE

TIMER RANGE: 1/2 SEC - 2 SEC

ENTER VACUUM CYCLE TIME BEFORE FILL

TIMER RANGE: 1/4 SEC - 3 SEC

ENTER VACUUM SHORT CYCLE TIME

TIMER RANGE: 1/4 SEC - 2 SEC

SET UP SCREEN 2

39. "NITROGEN" IS SHOWN HERE IN THE "ON" POSITION. WHEN IN THE "OFF" POSITION, FIELD WILL BE RED. MAKE SURE THE NITROGEN FEATURE IS ON WHEN FILLING PRODUCT.
40. "SANITIZE SPRAY" IS SHOWN HERE IN THE "ON" POSITION. WHEN IN THE "OFF" POSITION, FIELD WILL BE RED. MAKE SURE THE SANITIZING SPRAY FEATURE IS ON WHEN FILLING PRODUCT.
41. "ENTER NITROGEN TOP OFF TIME AFTER FILL" SETS THE LENGTH OF TIME THAT NITROGEN IS PUT INTO BAG AFTER PRODUCT HAS BEEN FILLED.
42. "ENTER DELAY FOR BAG PLUG UP AFTER FILL" SETS THE LENGTH OF TIME THE BAG PLUG WAITS BEFORE GOING UP TO SEAL OFF SPOUT BOTTOM AFTER PRODUCT IS FILLED.
43. "ENTER CAP TIME" SETS THE LENGTH OF TIME THE CAPPER BLOCK STAYS DOWN AND BAG HOLDER WAITS TO EJECT. IF CAP IS NOT FULLY SEATED ON SPOUT, INCREASE CAP TIME.
44. "ENTER SANITIZE SPRAY CYCLE TIME" SETS THE LENGTH OF TIME SPRAYERS MIST THE BAG AFTER CAPPING.

SET UP SCREEN 2 TIMER RANGES

ENTER NITROGEN TOP OFF TIME AFTER FILL

TIMER RANGE: 1/100 SEC - 3 SEC

ENTER CAP TIME

TIMER RANGE: 1/4 SEC - 2 SEC

ENTER DELAY FOR BAG PLUG UP AFTER FILL

TIMER RANGE: 1/100 SEC - 3 SEC

ENTER SANITIZE SPRAY CYCLE TIME

TIMER RANGE: 1/10 SEC - 2 SEC

SET UP SCREEN 3

45. "ENTER CIP VALVE OPEN TIME BETWEEN MODULATIONS" SETS THE LENGTH OF TIME THE PRODUCT VALVE STAYS OPEN BETWEEN STEM OSCILLATIONS.
46. "ENTER CIP STEM OPEN MODULATION TIME" SETS THE LENGTH OF TIME THE VALVE STEM IS IN THE OPEN POSITION DURING OSCILLATIONS.
47. "ENTER CIP STEM CLOSED MODULATION TIME" SETS THE LENGTH OF TIME THE VALVE STEM IS IN THE CLOSED POSITION DURING OSCILLATIONS.

SET UP SCREEN 3 TIMER RANGES

ENTER CIP VALVE OPEN TIME BETWEEN MODULATIONS

TIMER RANGE: 5 SEC - 300 SEC

ENTER CIP STEM CLOSED MODULATION TIME

TIMER RANGE: 4/100 SEC - 15/100 SEC

ENTER CIP STEM OPEN MODULATION TIME

TIMER RANGE: 4/100 SEC - 15/100 SEC

SET UP SCREEN 4

"ACTUAL PULSE COUNT" FIELD WILL SHOW A NUMBER INCREASING TO THE SET POINT WHILE PRODUCT IS FILLING. THIS NUMBER IS NOT A TRUE REPRESENTATION OF THE AMOUNT BEING FILLED, BUT IS USED AS AN INDICATOR THAT THE METER IS FUNCTIONING. THE NUMBER SHOWING AT THE END OF EACH FILL CYCLE WON'T BE THE SET POINT VALUE, BUT IT SHOULD REPEAT CONSISTENTLY.

ALTERNATE SET UP SCREEN 4
FOR MACHINES WITH CHLORINE FLUSH OPTION

"CHLORINE AUTO" IS SHOWN HERE IN THE "ON" POSITION. WHEN IN THE "OFF" POSITION, FIELD WILL BE RED. MAKE SURE CHLORINE FEATURE IS ON WHEN FILLING PRODUCT. PRESSING "MANUAL CHLORINE" WILL OPEN A VALVE ALLOWING CHLORINE TO CHASE AIR FROM THE LINES. USE THIS FEATURE AFTER CHANGING CHLORINE SUPPLY.

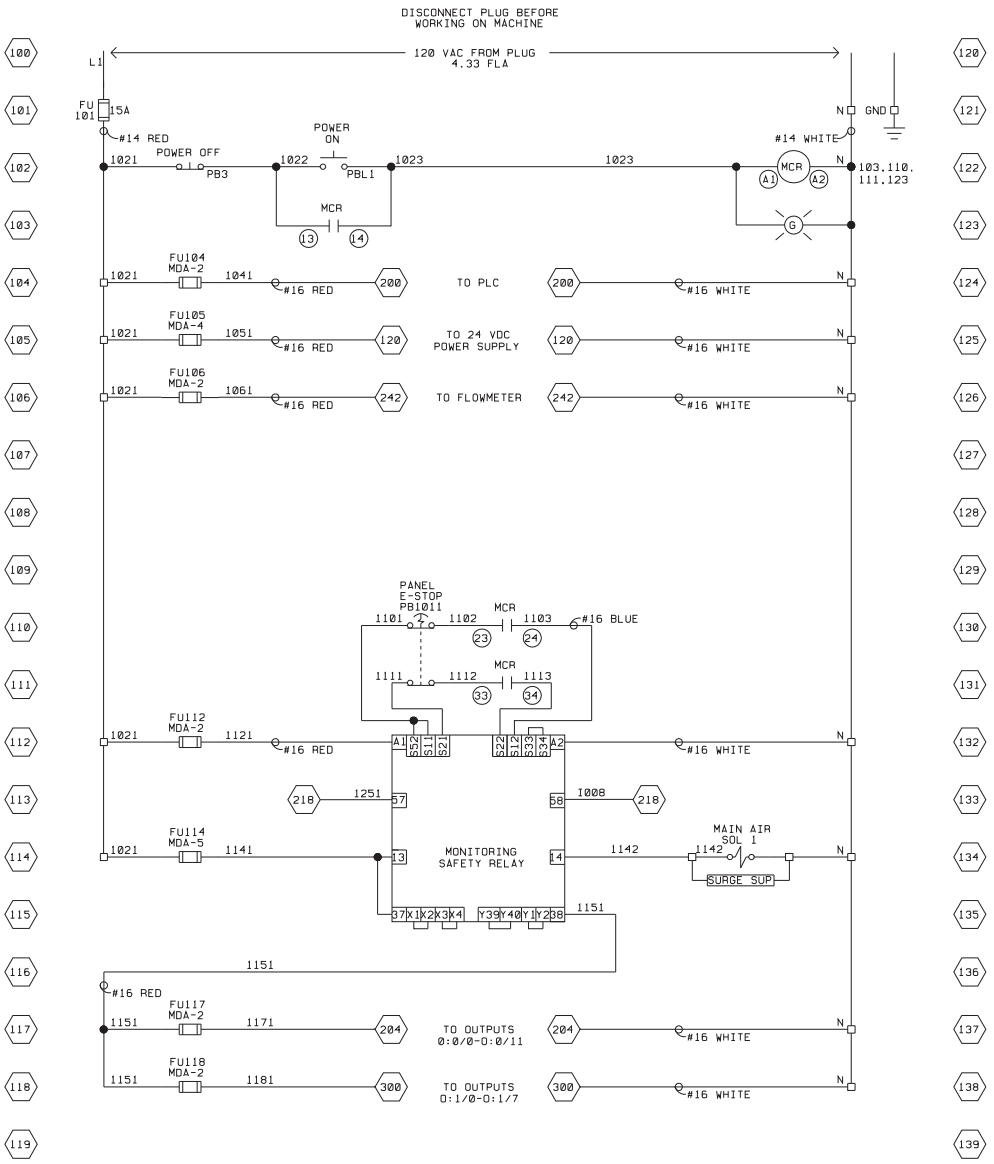
SET UP SCREEN 4

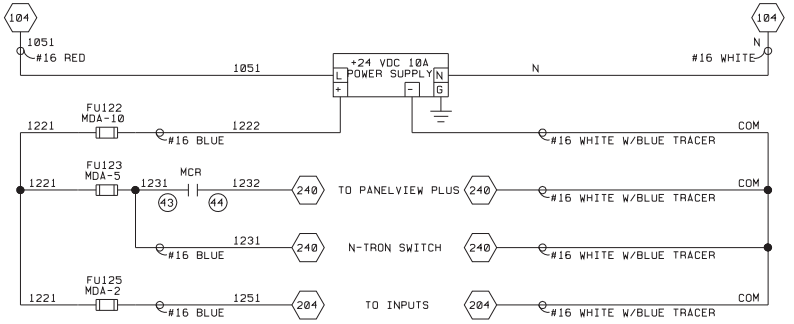
FACTORY USER NUMBERS AND PASSWORDS CAN BE OBTAINED FROM HOLLAND MFG OR THE DISTRIBUTERS AND INSTALLERS OF THE EQUIPMENT. CHANGING PASSWORDS IS NOT RECOMMENDED. IF A PASSWORD IS CHANGED, MAKE SURE IT IS DOCUMENTED AND THAT SEVERAL INDIVIDUALS ARE AWARE OF ITS LOCATION.

CONFIGURE SCREEN

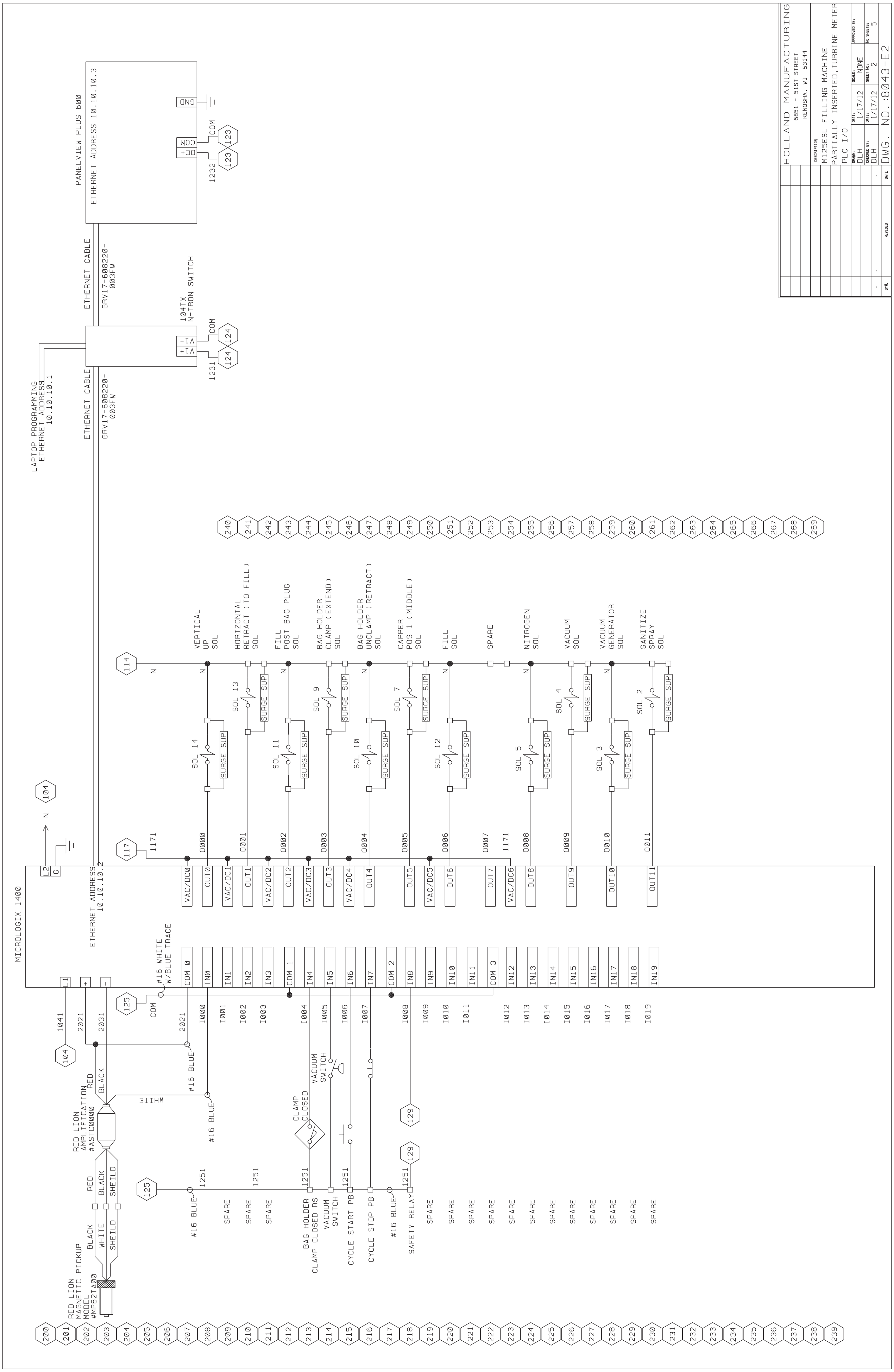
NOTE - CONFIGURE SCREENS SHOULD ONLY BE ACCESSED BY EXPERIENCED PERSONEL, AS PROGRAM COULD BE LOST BY ACCIDENTLY DELETING OR RESETING TERMINAL

REMEMBER, AFTER SET UP IS COMPLETE, "LOG OUT" TO SECURE SETTINGS. IF NOT DONE, SET UP SCREENS CAN BE ACCESSED AT ANY TIME DURING OPERATION (ALL PASSWORD PROTECTED SCREENS WILL AUTOMATICALLY "LOG OUT" IF THEY ARE NOT ACCESSED WITHIN 5 MINUTES.)





			HOLLAND MANUFACTURING 6851 - 51ST STREET KENOSHA, WI 53144
			DESCRIPTION M125ESL FILLING MACHINE PARTIALLY INSERTED,TURBINE METER CONTROL CIRCUITS
			DRAWN: DLH — DATE: 1/17/12 — SCALE: NONE — APPROVED BY:
			CHECKED BY: DLH — DATE: 1/17/12 — SHEET NO: 1 — NO SHEETS: 5
-	-	-	DWG. NO.:8043-E1
SYM.	REVISED	DATE	



HOLLAND MANUFACTURING
6851 - 51ST STREET
KENOSHA, WI 53144
DESCRIPTION
M125ESL FILLING MACHINE
PARTIALLY INSERTED,TURBINE METER
PLC I/O
DRAWN: DLH
DATE: 1/17/12
SCALE: NONE
CHECKED BY: DLH
DATE: 1/17/12
SHEET NO. 2
NO SHEETS: 5
DWG. NO.:8043-E2
REVISED
PANELVIEW PLUS 600
ETHERNET ADDRESS 10.10.10.3
GND
COM
DC+
1232
ETHERNET CABLE
GRV17-608220-003FW
104TX
N-TRON SWITCH
V1-
V1+
1231
LAPTOP PROGRAMMING
ETHERNET ADDRESS
10.10.10.1
MICROLOGIX 1400
ETHERNET ADDRESS
10.10.10.2
VERTICAL UP SOL
HORIZONTAL RETRACT (TO FILL) SOL
FILL POST BAG PLUG SOL
BAG HOLDER CLAMP (EXTEND) SOL
BAG HOLDER UNCLAMP (RETRACT) SOL
CAPPER POS 1 (MIDDLE) SOL
FILL SOL
SPARE
NITROGEN SOL
VACUUM SOL
VACUUM GENERATOR SOL
SANITIZE SPRAY SOL
SURGE SUP
SOL 14
SOL 13
SOL 11
SOL 9
SOL 10
SOL 7
SOL 12
SOL 5
SOL 4
SOL 3
SOL 2
VAC/DC0
OUT0
VAC/DC1
OUT1
VAC/DC2
OUT2
VAC/DC3
OUT3
VAC/DC4
OUT4
OUT5
VAC/DC5
OUT6
OUT7
VAC/DC6
OUT8
OUT9
OUT10
OUT11
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#16 WHITE W/BLUE TRACE
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2021
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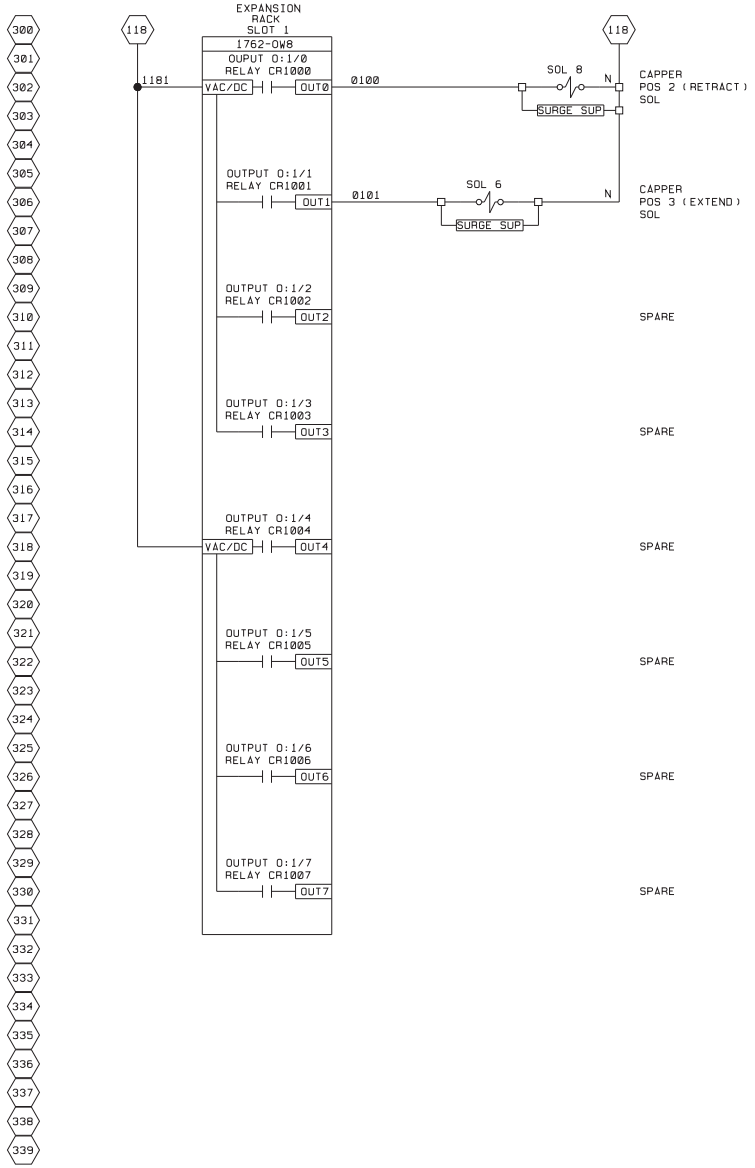
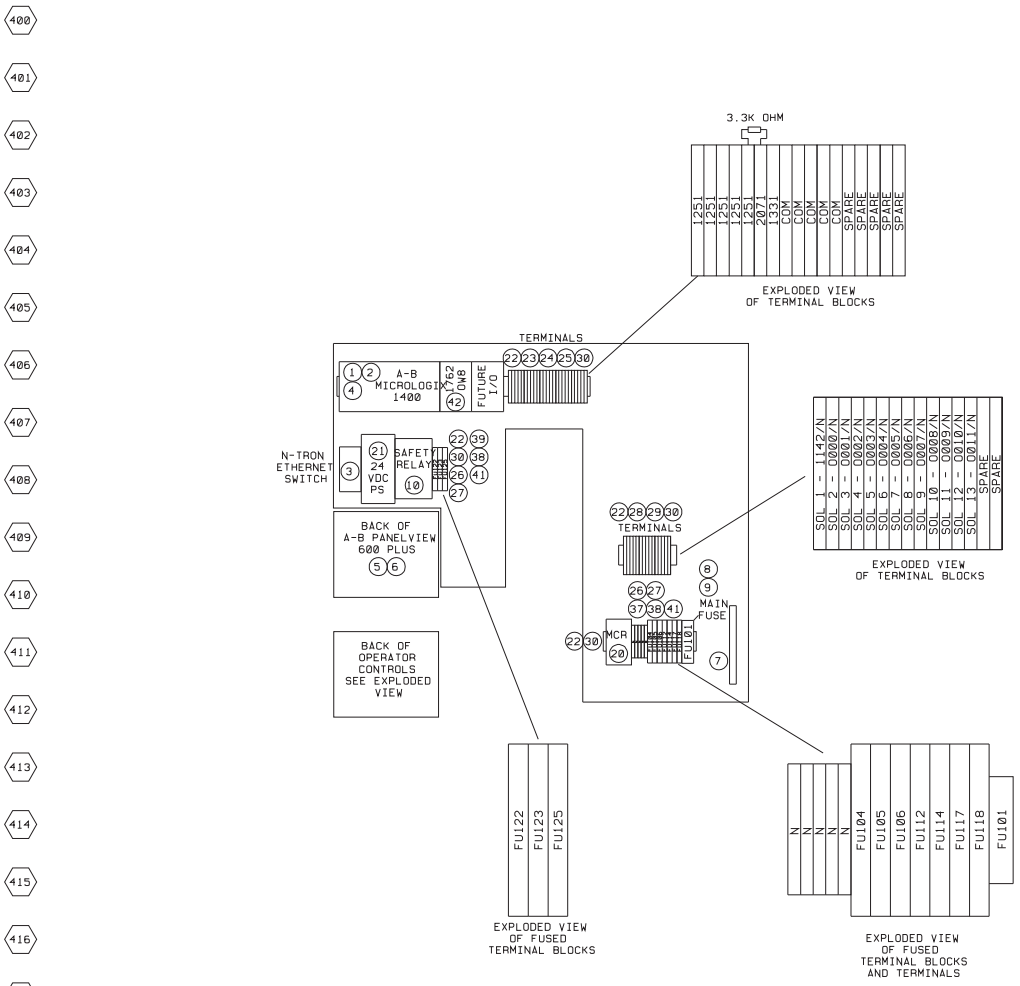
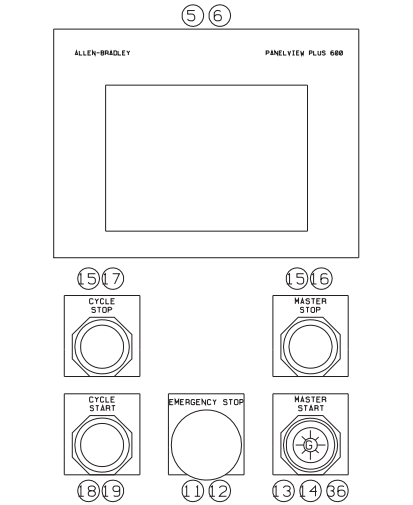
RED LION
AMPLIFICATION
#ASTC0000
RED
BLACK
WHITE
SHEILD
#16 BLUE
VACUUM SWITCH
CLAMP CLOSED
1251
RED LION
MAGNETIC PICKUP
MODEL
#MP62TA00
BAG HOLDER CLAMP CLOSED RS
VACUUM SWITCH
CYCLE START PB
CYCLE STOP PB
SAFETY RELAY
SPARE



			HOLLAND MANUFACTURING 6851 - 51ST STREET KENOSHA, WI 53144
			DESCRIPTION M125ESL FILLING MACHINE PARTIALLY INSERTED,TURBINE METER PLC I/O
			DRAWN: DLH — DATE: 1/17/12 — SCALE: NONE — APPROVED BY:
			CHECKED BY: DLH — DATE: 1/17/12 — SHEET NO: 3 — NO SHEETS: 5
-	-	-	DWG. NO.:8043-E3
SHT.	REVISED	DATE	





EXPLODED VIEW OF PANEL CONTROLS

			HOLLAND MANUFACTURING 6851 - 51ST STREET KENOSHA, WI 53144	
			DESCRIPTION M125ESL FILLING MACHINE PARTIALLY INSERTED,TURBINE METER BACK PANEL LAYOUT	
			DRAWN: DLH DATE: 1/17/12 SCALE: NONE APPROVED BY:	
			CHECKED BY: DLH DATE: 1/17/12 SHEET NO: 4 NO SHEETS: 5	
-	-	-	DWG. NO.:8043-E4	
SYM.	REVISED	DATE		

ITEM	QTY.	MANUFACTURER	DESCRIPTION
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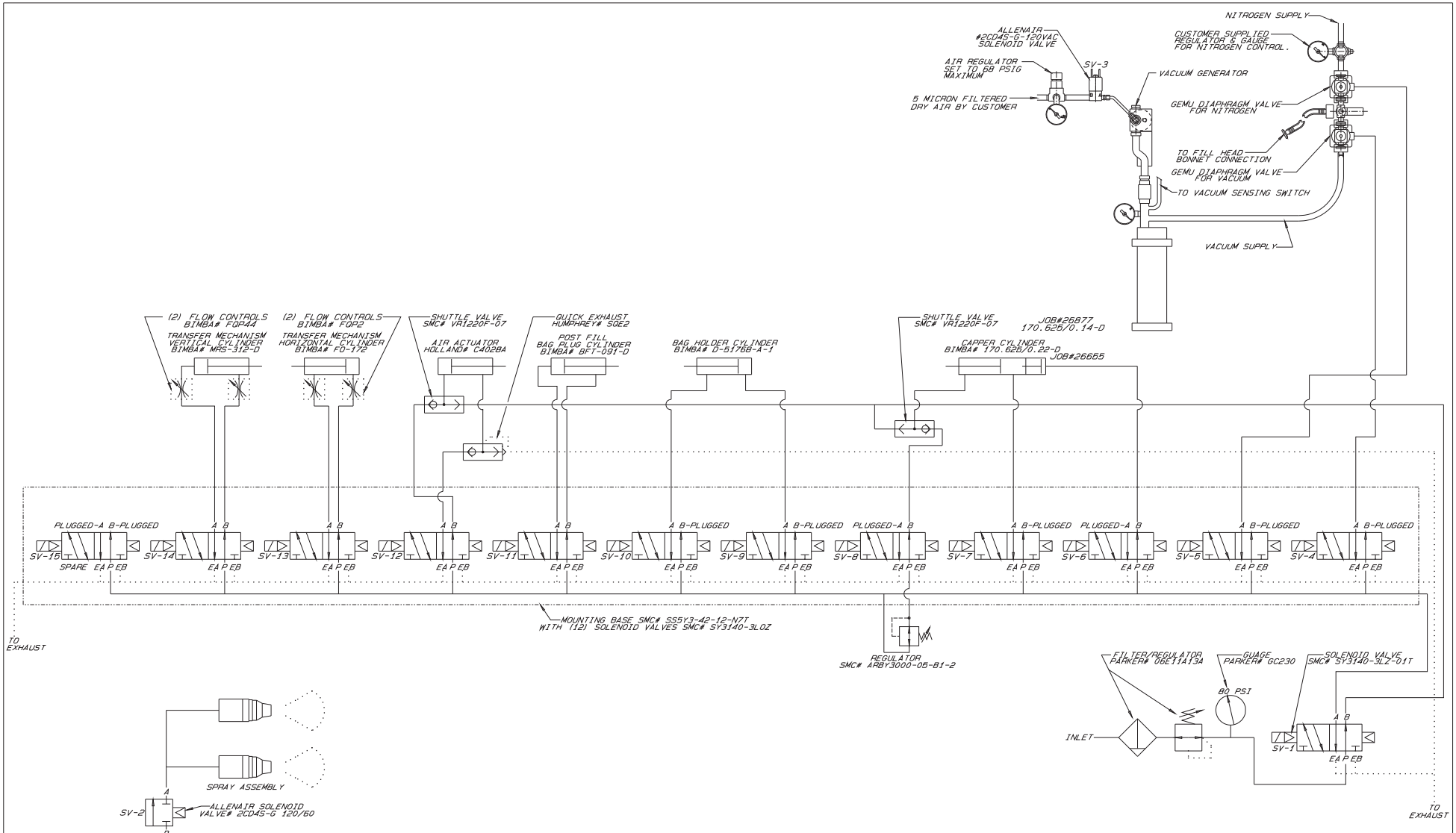
43	-	-	-
42	1	ALLEN-BRADLEY	1762-OW8 8 POINT AC/DC RELAY OUTPUT MODULE
41	2	BUSSMANN	MDA-5 TIME DELAY 1/4" X 1-1/4" FUSE
40	1	-	3.3K OHM, 1/2 WATT RESISTOR
39	1	BUSSMANN	MDA-10 TIME DELAY 1/4" X 1-1/4" FUSE
38	6	BUSSMANN	MDA-2 TIME DELAY 1/4" X 1-1/4" FUSE
37	1	BUSSMANN	MDA-4 TIME DELAY 1/4" X 1-1/4" FUSE
36	1	ALLEN-BRADLEY	800H-152 ILLUMINATED PUSH BUTTON GUARD
35	-	-	-
34	-	-	-
33	-	-	-
32	-	-	-
31	-	-	-
30	10	ALLEN-BRADLEY	1492-EAJ35 END ANCHOR
29	1	ALLEN-BRADLEY	1492-EBJD3 END BARRIER (FOR 1492-JD3SS TERMINALS)
28	15	ALLEN-BRADLEY	1492-JD3SS SURGE SUPPRESSION TERMINAL BLOCKS
27	2	ALLEN-BRADLEY	1492-N37 FUSE END SECTION
26	10	ALLEN-BRADLEY	1492-H6 1/4"X1-1/4" FUSE HOLDER
25	3	ALLEN-BRADLEY	1492-CJJ5-10 10 POLE CENTER JUMPER
24	3	ALLEN-BRADLEY	1492-EBJ3 END BARRIER
23	25	ALLEN-BRADLEY	1492-J3 GREY TERMINAL BLOCKS
22	1	ALLEN-BRADLEY	199-DR1 35mm DIN RAIL
21	1	ALLEN-BRADLEY	1606-XLS240E 10A 24VDC POWER SUPPLY
20	1	ALLEN-BRADLEY	700-K40E-D MINIATURE CONTROL RELAY
19	1	ALLEN-BRADLEY	800H-W406 WHITE "CYCLE START" LEGEND PLATE
18	1	ALLEN-BRADLEY	800H-AR1D1 GREEN FLUSH HEAD PUSH BUTTON
17	1	ALLEN-BRADLEY	800H-W376 RED "CYCLE STOP" LEGEND PLATE
16	1	ALLEN-BRADLEY	800H-W300E RED "MASTER STOP" LEGEND PLATE
15	2	ALLEN-BRADLEY	800H-AR6D2 RED FLUSH HEAD PUSH BUTTON
14	1	ALLEN-BRADLEY	800H-W500E WHITE "MASTER START" LEGEND PLATE
13	1	ALLEN-BRADLEY	800H-PRBH16G GREEN LED ILLUMINATED FLUSH HEAD PUSH BUTTON
12	1	ALLEN-BRADLEY	800H-W700E YELLOW "EMERGENCY STOP" LEGEND PLATE
11	1	ALLEN-BRADLEY	800H-FRXT6A5 PUSH-PULL/TWIST RELEASE EMERGENCY STOP PUSH BUTTON
10	1	ALLEN-BRADLEY	440R-M23141 SAFETY MONITORING RELAY
9	1	BUSSMANN	LP-CC-15 LOW PEAK TIME DELAY CLASS CC FUSE
8	1	ALLEN-BRADLEY	1492-FB1C30 1 POLE CLASS CC FUSE BLOCK
7	1	SIEMENS	1TEECGB14 GROUND BAR
6	1	GRV	GRU17-608220-003FW ETHERNET CABLE (N-TRON TO PANELVIEW PLUS CABLE)
5	1	ALLEN-BRADLEY	2711PC-T6C20D PANELVIEW PLUS 600 COLOR MMI
4	1	GRV	GRU17-608220-003FW ETHERNET CABLE (PLC TO N-TRON)
3	1	N-TRON	104TX 4 PORT ETHERNET SWITCH
2	1	ALLEN-BRADLEY	1766-MM1 MEMORY MODULE
1	1	ALLEN-BRADLEY	1766-L32BWA MICROLOGIX 1400 PLC

			HOLLAND MANUFACTURING
			6851 - 51ST STREET
			KENOSHA, WI 53144
			DESCRIPTION
			M125ESL FILLING MACHINE
			PARTIALLY INSERTED,TURBINE METER
			BILL OF MATERIALS
			DRAWN: DLH — DATE: 1/17/12 — SCALE: NONE — APPROVED BY:
			CHECKED BY: DLH — DATE: 1/17/12 — SHEET NO: 5 — NO SHEETS: 5
-	-	-	DWG. NO.:8043-E5
SYM.	REVISED	DATE	



N O T E
BEFORE DOING ANY SERVICE WORK
DISCONNECT ELECTRICAL & PNEUMATIC SUPPLY

JOB#
REQ'D:

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TOLERANCES UNLESS OTHERWISE SPECIFIED
0.0 ±.1
0.00 ±.03
0.000 ±.005
0.0000 ±.0005
ANGULAR ±1 DEG

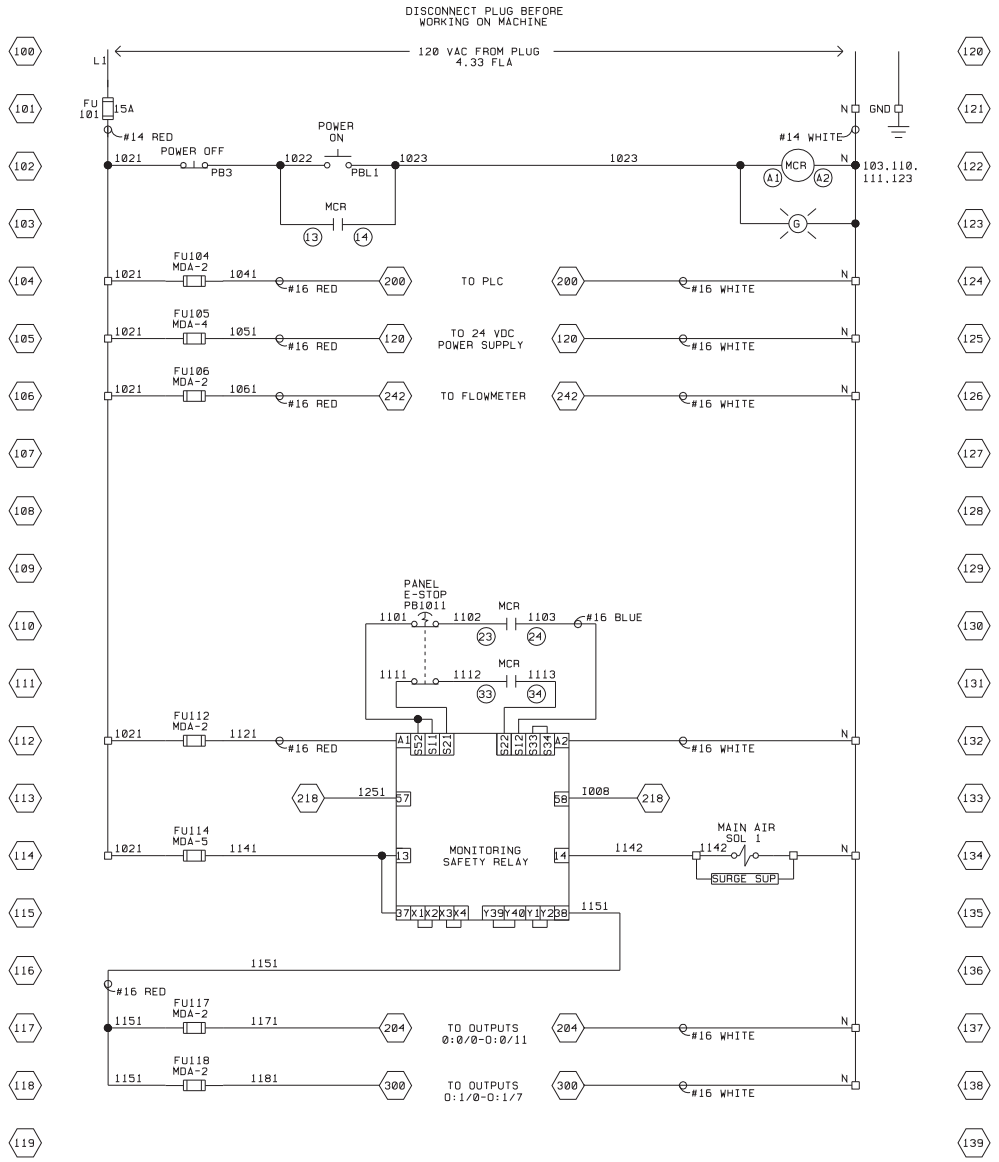
HOLLAND MANUFACTURING, INC.
6851-51 ST. KENOSHA, WI

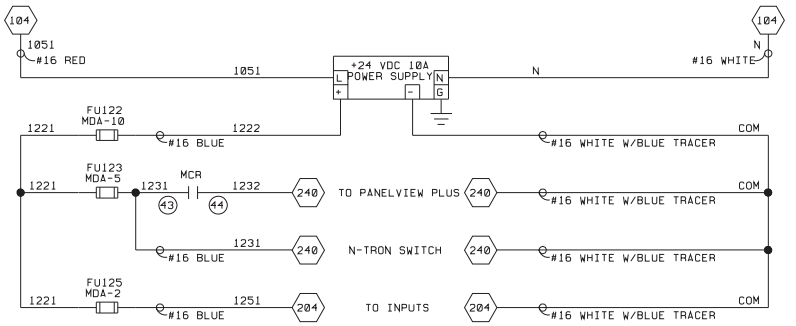
SCALE: NONE
BY: KSH
DATE: 03/02/12

VersaCAD DWG
VOLUME:
FILE #:
CUST:

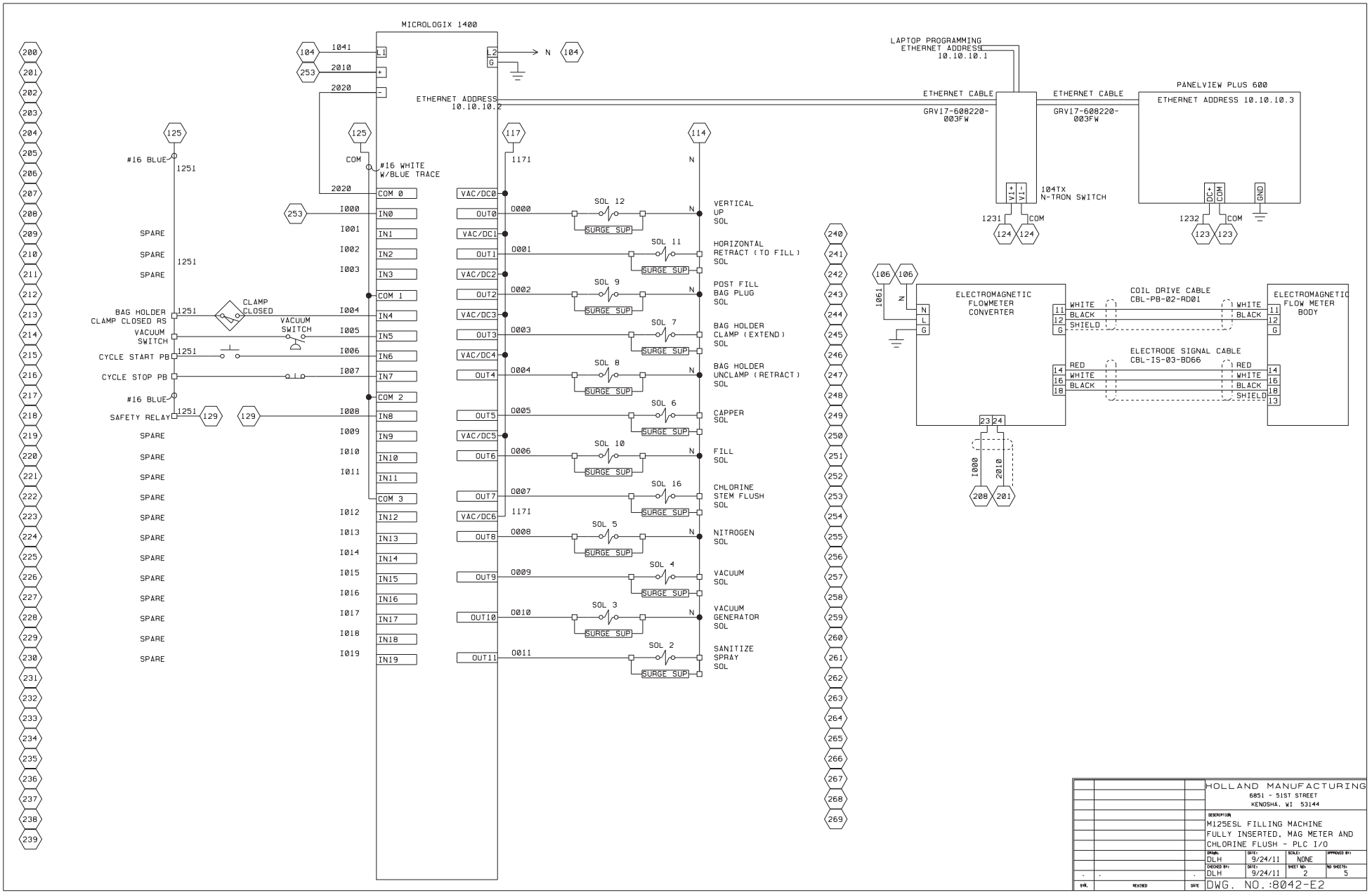
M125ESL PNEUMATIC DIAGRAM PARTIALLY INSERTED

D-8047-P

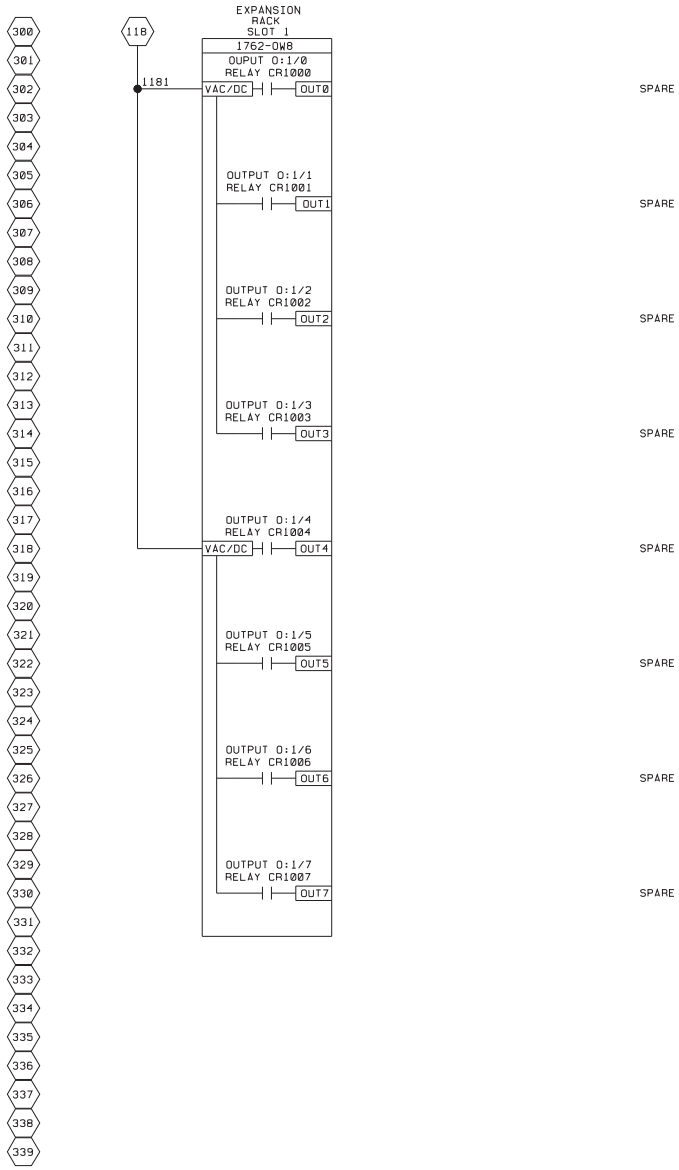




			HOLLAND MANUFACTURING 6851 - 51ST STREET KENOSHA, WI 53144
			DESCRIPTION M125ESL FILLING MACHINE FULLY INSERTED, MAG METER AND CHLORINE FLUSH-CONTROL CIRCUITS
			DRAWN: DLH — DATE: 9/24/11 — SCALE: NONE — APPROVED BY:
			CHECKED BY: DLH — DATE: 9/24/11 — SHEET NO: 1 — NO SHEETS: 5
-	-	-	DWG. NO.:8042-E1
SYM.	REVISED	DATE	



			HOLLAND MANUFACTURING 6851 - 51ST STREET KENOSHA, WI 53144
			DESCRIPTION M125ESL FILLING MACHINE FULLY INSERTED, MAG METER AND CHLORINE FLUSH - PLC I/O
			DRAWN: DLH — DATE: 9/24/11 — SCALE: NONE — APPROVED BY:
			CHECKED BY: DLH — DATE: 9/24/11 — SHEET NO: 2 — NO SHEETS: 5
-	-	-	DWG. NO.:8042-E2
SHT.	REVISED	DATE	



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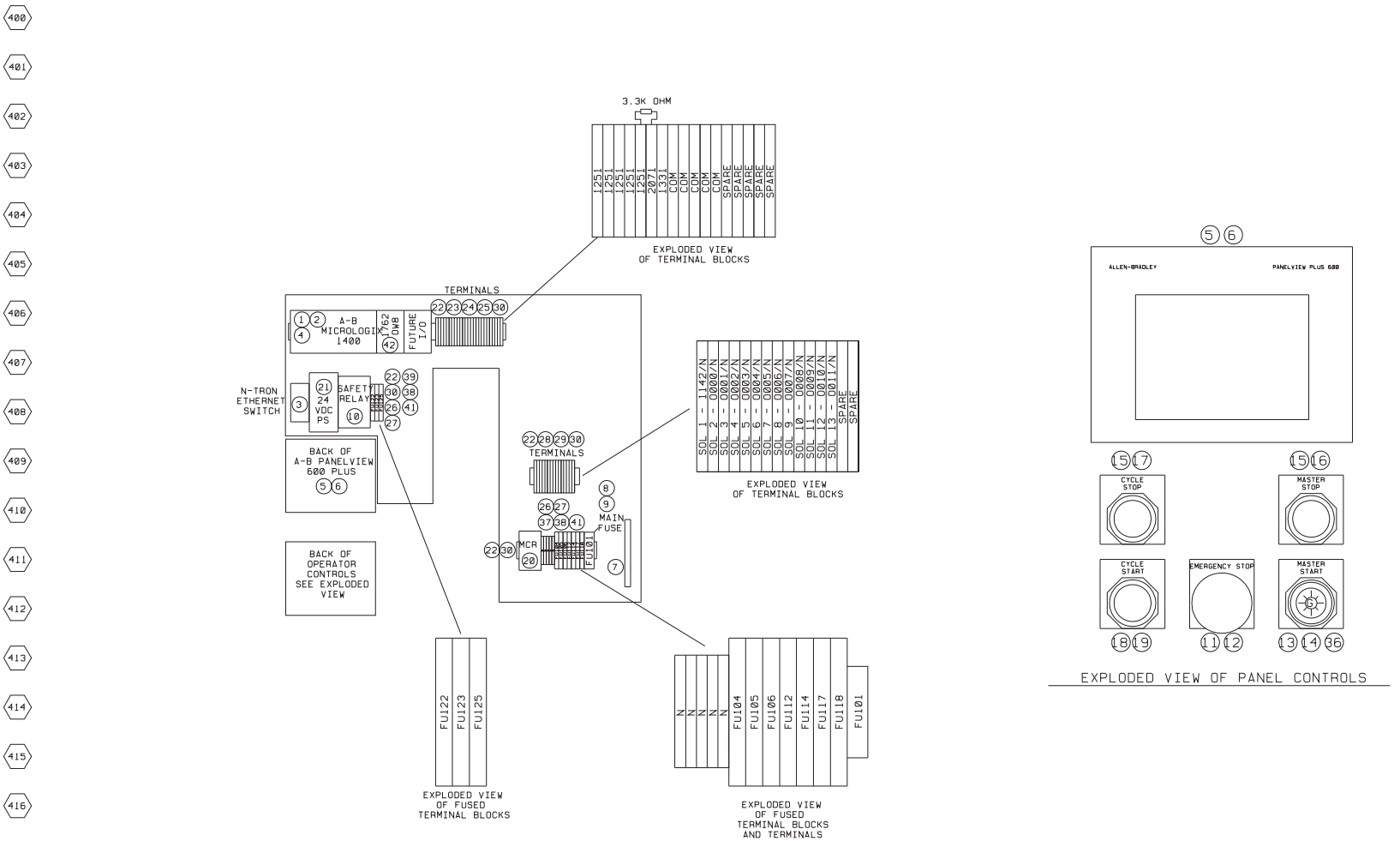
			HOLLAND MANUFACTURING 6851 - 51ST STREET KENOSHA, WI 53144
			DESCRIPTION M125ESL FILLING MACHINE FULLY INSERTED, MAG METER AND CHLORINE FLUSH - PLC I/O
			DRAWN: DLH — DATE: 9/24/11 — SCALE: NONE — APPROVED BY:
			CHECKED BY: DLH — DATE: 9/24/11 — SHEET NO: 3 — NO SHEETS: 5
-	-	-	DWG. NO.:8042-E3
SHT.	REVISED	DATE	



			HOLLAND MANUFACTURING 6851 - 51ST STREET KENOSHA, WI 53144
			DESCRIPTION M125ESL FILLING MACHINE FULLY INSERTED, MAG METER AND CHLORINE FLUSH-BACK PANEL LAYOUT
			DRAWN: DLH · DATE: 9/24/11 · SCALE: NONE · APPROVED BY:
			CHECKED BY: DLH · DATE: 9/24/11 · SHEET NO: 4 · NO SHEETS: 5
-	-	-	DWG. NO.:8042-E4
SYM.	REVISED	DATE	

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ITEM	QTY.	MANUFACTURER	DESCRIPTION
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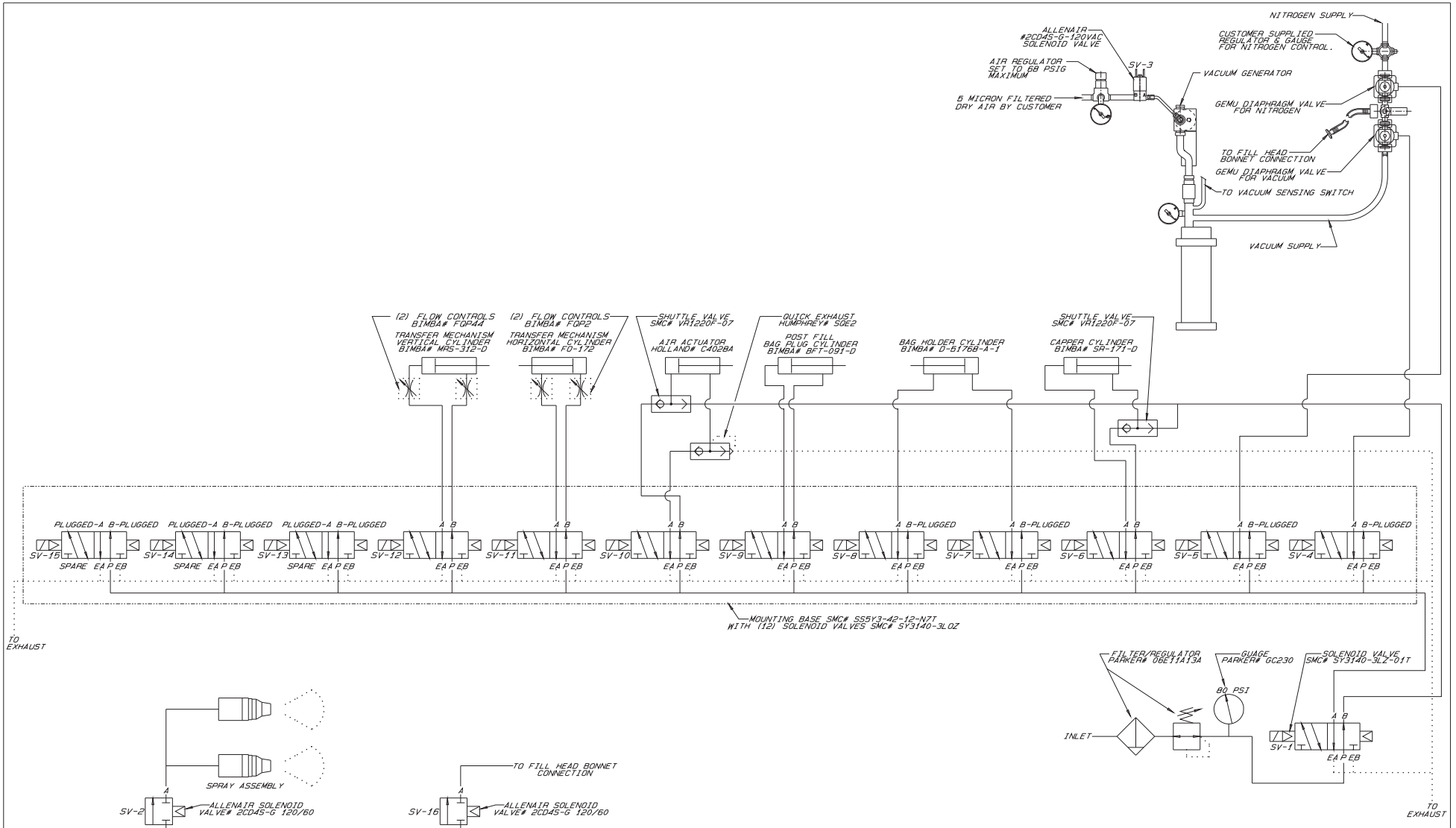
43	-	-	-
42	1	ALLEN-BRADLEY	1762-OW8 8 POINT AC/DC RELAY OUTPUT MODULE
41	2	BUSSMANN	MDA-5 TIME DELAY 1/4" X 1-1/4" FUSE
40	1	-	3.3K OHM, 1/2 WATT RESISTOR
39	1	BUSSMANN	MDA-10 TIME DELAY 1/4" X 1-1/4" FUSE
38	6	BUSSMANN	MDA-2 TIME DELAY 1/4" X 1-1/4" FUSE
37	1	BUSSMANN	MDA-4 TIME DELAY 1/4" X 1-1/4" FUSE
36	1	ALLEN-BRADLEY	800H-152 ILLUMINATED PUSH BUTTON GUARD
35	-	-	-
34	-	-	-
33	-	-	-
32	-	-	-
31	-	-	-
30	10	ALLEN-BRADLEY	1492-EAJ35 END ANCHOR
29	1	ALLEN-BRADLEY	1492-EBJD3 END BARRIER (FOR 1492-JD3SS TERMINALS)
28	15	ALLEN-BRADLEY	1492-JD3SS SURGE SUPPRESSION TERMINAL BLOCKS
27	2	ALLEN-BRADLEY	1492-N37 FUSE END SECTION
26	10	ALLEN-BRADLEY	1492-H6 1/4"X1-1/4" FUSE HOLDER
25	3	ALLEN-BRADLEY	1492-CJJ5-10 10 POLE CENTER JUMPER
24	3	ALLEN-BRADLEY	1492-EBJ3 END BARRIER
23	25	ALLEN-BRADLEY	1492-J3 GREY TERMINAL BLOCKS
22	1	ALLEN-BRADLEY	199-DR1 35mm DIN RAIL
21	1	ALLEN-BRADLEY	1606-XLS240E 10A 24VDC POWER SUPPLY
20	1	ALLEN-BRADLEY	700-K40E-D MINIATURE CONTROL RELAY
19	1	ALLEN-BRADLEY	800H-W406 WHITE "CYCLE START" LEGEND PLATE
18	1	ALLEN-BRADLEY	800H-AR1D1 GREEN FLUSH HEAD PUSH BUTTON
17	1	ALLEN-BRADLEY	800H-W376 RED "CYCLE STOP" LEGEND PLATE
16	1	ALLEN-BRADLEY	800H-W300E RED "MASTER STOP" LEGEND PLATE
15	2	ALLEN-BRADLEY	800H-AR6D2 RED FLUSH HEAD PUSH BUTTON
14	1	ALLEN-BRADLEY	800H-W500E WHITE "MASTER START" LEGEND PLATE
13	1	ALLEN-BRADLEY	800H-PRBH16G GREEN LED ILLUMINATED FLUSH HEAD PUSH BUTTON
12	1	ALLEN-BRADLEY	800H-W700E YELLOW "EMERGENCY STOP" LEGEND PLATE
11	1	ALLEN-BRADLEY	800H-FRXT6A5 PUSH-PULL/TWIST RELEASE EMERGENCY STOP PUSH BUTTON
10	1	ALLEN-BRADLEY	440R-M23141 SAFETY MONITORING RELAY
9	1	BUSSMANN	LP-CC-15 LOW PEAK TIME DELAY CLASS CC FUSE
8	1	ALLEN-BRADLEY	1492-FB1C30 1 POLE CLASS CC FUSE BLOCK
7	1	SIEMENS	1TEECGB14 GROUND BAR
6	1	GRV	GRU17-608220-003FW ETHERNET CABLE (N-TRON TO PANELVIEW PLUS CABLE)
5	1	ALLEN-BRADLEY	2711PC-T6C20D PANELVIEW PLUS 600 COLOR MMI
4	1	GRV	GRU17-608220-003FW ETHERNET CABLE (PLC TO N-TRON)
3	1	N-TRON	104TX 4 PORT ETHERNET SWITCH
2	1	ALLEN-BRADLEY	1766-MM1 MEMORY MODULE
1	1	ALLEN-BRADLEY	1766-L32BWA MICROLOGIX 1400 PLC

			HOLLAND MANUFACTURING 6851 - 51ST STREET KENOSHA, WI 53144
			DESCRIPTION M125ESL FILLING MACHINE FULLY INSERTED, MAG METER AND CHLORINE FLUSH-BILL OF MATERIALS
			DRAWN: DLH — DATE: 9/24/11 — SCALE: NONE — APPROVED BY:
			CHECKED BY: DLH — DATE: 9/24/11 — SHEET NO: 5 — NO SHEETS: 5
-	-	-	DWG. NO.:8042-E5
SYM.	REVISED	DATE	



N O T E

BEFORE DOING ANY SERVICE WORK DISCONNECT ELECTRICAL & PNEUMATIC SUPPLY

JOB#
REQ'D:

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TOLERANCES UNLESS OTHERWISE SPECIFIED
X.X ±.1
X.XX ±.03
X.XXX ±.005
ANGULAR ±1 DEG

HOLLAND MANUFACTURING, INC.
6851-51 ST. KENOSHA, WI

SCALE: NONE
BY: KSH
DATE: 03/02/12

VersaCAD DWG
VOLUME:
FILE #:

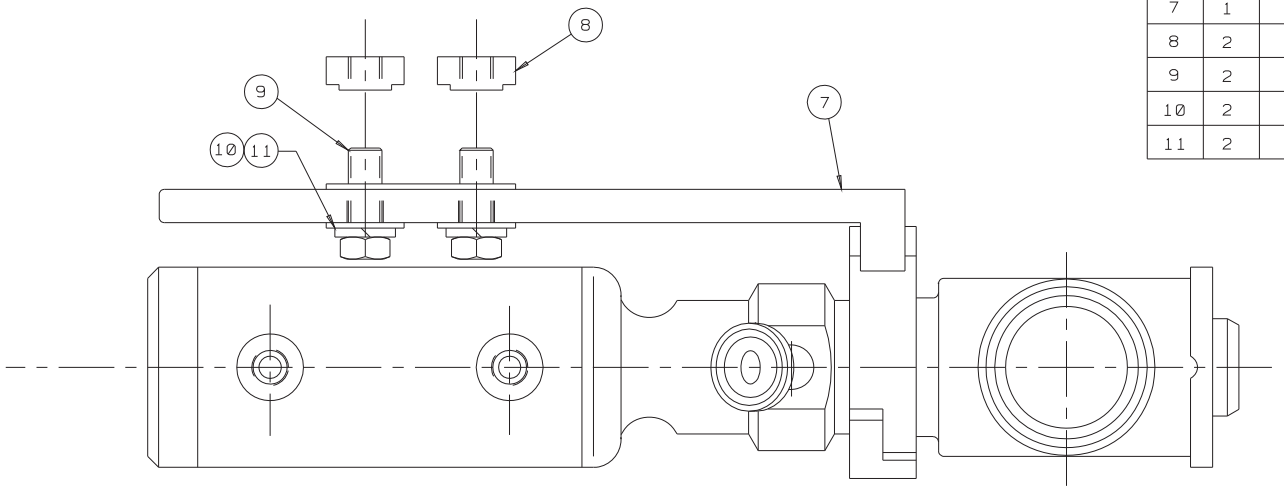
CUST:

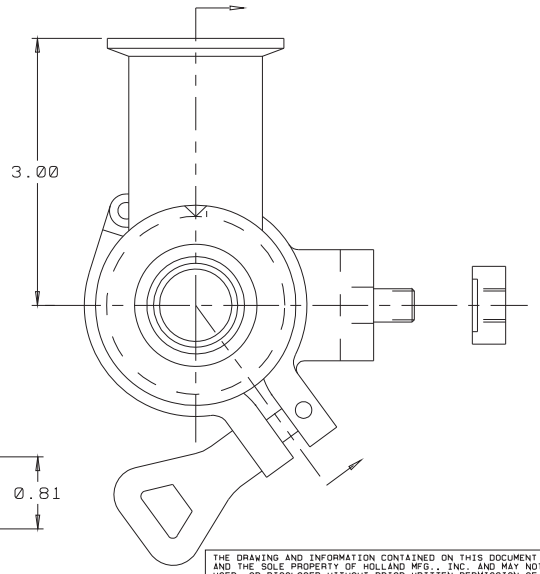
M125ESL PNEUMATIC DIAGRAM FULLY INSERTED, CHLORINE

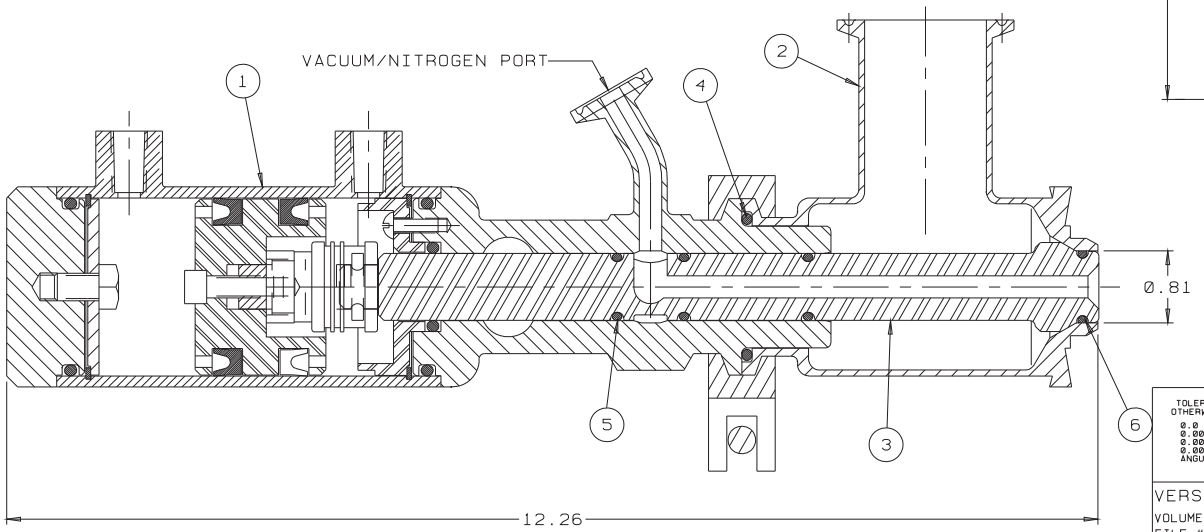
D-8046-P

C-6566-A

ITEM	REQD	PART NO.	DESCRIPTION	REMARKS
1	1	C-6565-A	AIR ACTUATOR	
2	1	SPECIFY	FILLER HEAD	T-304SS
3	1	B-6562-D	FILL HEAD STEM	T-304SS
4	1	-220	"O" RING	VITON (70 DURO)
5	3	-113	"O" RING	VITON (70 DURO)
6	1	-114	"O" RING	VITON (90 DURO)
7	1	C-4104-D	MOUNTING BRACKET	T-304SS
8	2	A-4118-D	TEE NUT	T-304SS
9	2		3/8-16 x 1.00 LG	HEX HEAD CAP SCREW SS
10	2		3/8 FLAT WASHER	T-304SS
11	2		3/8 LOCK WASHER	T-304SS







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TOLERANCES UNLESS OTHERWISE SPECIFIED
0.0 +-.1
0.00 +-.015
0.000 +-.005
0.0000 +-.0005
ANGULAR +-1 DEG

HOLLAND MANUFACTURING, INC.
6851-51 ST. KENOSHA, WIS

SCALE: NONE
DATE: 8-8-03
BY: WDH

VERSACAD DWG
VOLUME:
FILE #:

CUST:

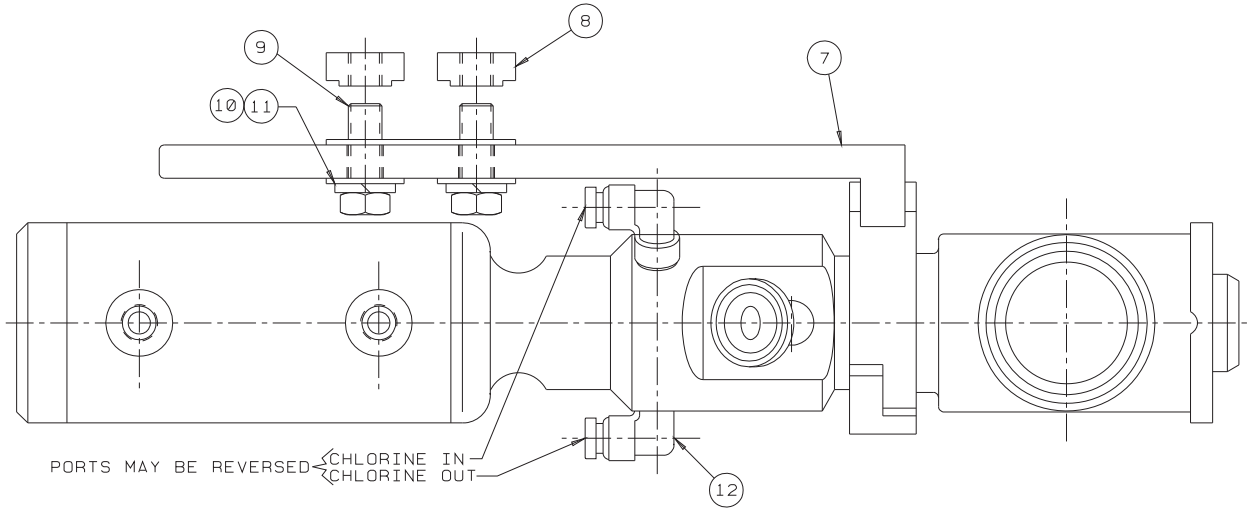
FILLER HEAD ASSEMBLY
VACUUM/N1 PURGE

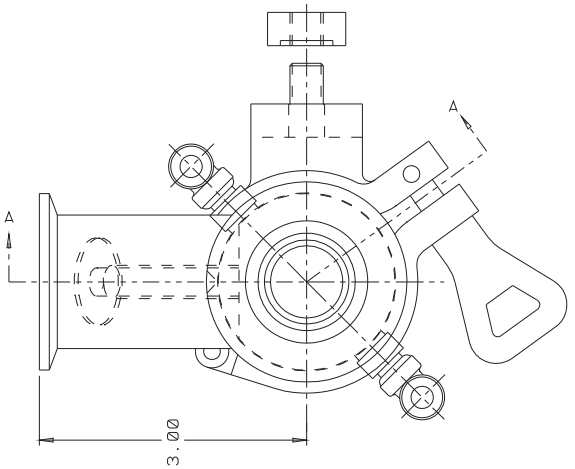
C-6566-A

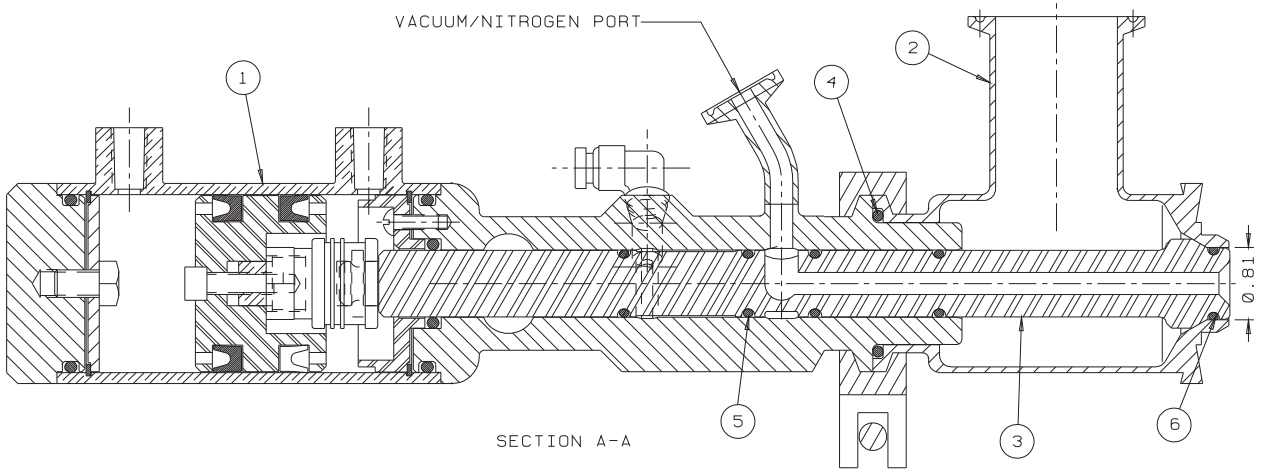
-3

ITEM	REQD	PART NO.	DESCRIPTION	REMARKS
10	2		3/8 FLAT WASHER	T-304SS
11	2		3/8 LOCK WASHER	T-304SS
12	2	38895611	1/8 X 1/4 ELBOW	T-316SS, LEGRIS

ITEM	REQD	PART NO.	DESCRIPTION	REMARKS
1	1	C-7972-A	AIR ACTUATOR	
2	1	TBD	FILLER HEAD	T-304SS
3	1	C-7969-D	FILL HEAD STEM	T-304SS
4	1	-220	"O" RING	VITON (70 DURO)
5	4	-113	"O" RING	VITON (70 DURO)
6	1	-114	"O" RING	VITON (90 DURO)
7	1	C-4104-D	MOUNTING BRACKET	T-304SS
8	2	A-4118-D	TEE NUT	T-304SS
9	2		3/8-16 x 1.00 LG	HEX HEAD CAP SCREW SS







SECTION A-A

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TOLERANCES UNLESS OTHERWISE SPECIFIED
0.0 +-.1
0.00 +-.015
0.000 +-.005
0.0000 +-.0005
ANGULAR +-1 DEG

HOLLAND MANUFACTURING, INC.
6851-51 ST. KENOSHA, WIS

SCALE: NONE
DATE: 9-23-11
BY: WDH

VERSACAD DWG
VOLUME:
FILE #:

CUST:

FILLER HEAD ASSEMBLY
VACUUM/N1 PURGE & CHLORINE

C-7971-A

RECOMMENDED SPARE PARTS LIST

QTY	DESCRIPTION	LOCATION	MANUFACTURER & PART#
1	AIR CYLINDER	TRANSFER MECHANISM	BIMBA #MRS-312-D
1	AIR CYLINDER	TRANSFER MECHANISM	BIMBA #FO-172
1	AIR CYLINDER	BAG HOLDER	BIMBA #D-51768-A-1
1	AIR CYLINDER	BAG PLUG	BIMBA #BFT-091-D
1	AIR CYLINDER	CAPPER BLOCK, FI	BIMBA #SR-171
1	AIR CYLINDER	CAPPER BLOCK, PI (blue "bibar")	BIMBA #170.625/0.22-D
1	AIR CYLINDER	CAPPER BLOCK, PI (yellow pour)	BIMBA #170.625/0.14-D
1	REED SWITCH	BAG HOLDER	BIMBA #MRS.087
2	FLOW CONTROL	TRANSFER MECH & BAG PLUG	BIMBA #FQP2
2	FLOW CONTROL	TRANSFER MECHANISM	BIMBA #FQP44
2	SOLENOID VALVE	INSIDE CABINET	SMC #SY3140-3LOZ
1	CAPPER BLOCK	CAPPER ASSY	HOLLAND #TBD
1	AIR ACTUATOR ASSY	FILL VALVE	HOLLAND #C6565A
1	FILL HEAD TEE	FILL VALVE	HOLLAND #TBD
1	VALVE STEM	FILL VALVE	HOLLAND #B6562D
2	BODY BUSHING	BAG HOLDER	HOLLAND #C4649D
2	JAW BUSHING	BAG HOLDER	HOLLAND #C4649D
1	COUPLER STUD	AIR ACTUATOR ASSY	HOLLAND #A4019D
1	BRASS SPACER	AIR ACTUATOR ASSY	MCMASTER #92678A518
1	COUPLER	AIR ACTUATOR ASSY	HANSEN #GR-600
1	SPHERICAL ROD END	TRANSFER MECHANISM	MCMASTER #60645K14
1	LONG ROLLER	ROLLER TABLE	INTERROLL #1.101.S19.S03 RL=20.62
1	MAGNETIC PICK-UP	ATTACHED TO FLOW METER	RED LION #MP62TA00
1	PREAMPLIFIER	INSIDE CABINET	RED LION #ASTC0000
2	15 AMP MAIN FUSE	MAIN FUSE HOLDER	BUSSMAN #LP-CC-15
2	10 AMP FUSE	FUSE HOLDER #122	BUSSMAN #MDA-10-R
2	5 AMP FUSE	FUSE HOLDER #114 & #123	BUSSMAN #MDA-5-R
2	4 AMP FUSE	FUSE HOLDER #105	BUSSMAN #MDA-4-R
5	2 AMP FUSE	FS HLDR #106,112,117,118, & 125	BUSSMAN #MDA-2-R
2	1/4-20NC X .75"LG FHCS	BAG HOLDER	GENERIC
2	1/2" TRI-CLAMP	VACUUM & NITROGEN LINES	GENERIC
2	1 1/2" TRI-CLAMP	PRODUCT PIPING	GENERIC
5	1/2" CLAMP GASKET	VACUUM & NITROGEN LINES	GENERIC
5	1 1/2" CLAMP GASKET	PRODUCT PIPING	GENERIC
2	3" CLAMP GASKET	VACUUM CANISTER	GENERIC
15	113 VITON 75 DURO O'RING	VALVE STEM MIDDLE	GENERIC
5	114 VITON 90 DURO O'RING	VALVE STEM TIP	GENERIC
2	#210 BUNA O'RING	INSIDE AIR ACTUATOR	GENERIC
5	#220 BUNA O'RING	AIR ACTUATOR BONNET	GENERIC
4	#224 BUNA O'RING	INSIDE AIR ACTUATOR	GENERIC
4	S6-26 BUNA U-CUP SEAL	INSIDE AIR ACTUATOR	GENERIC

FOR MORE ASSISTANCE AND INFORMATION ON COMPONENTS, REFER TO THE FOLLOWING WEB SITES:

www.ab.com
www.rockwellautomation.com
www.redlion.net
www.smcusa.com
www.bimba.com
www.parker.com
www.interroll.com

M125 SEMI-AUTOMATIC FILLING MACHINE

The M125 is a machine that combines both versatility and reliability. It has become well known in the field for its adaptability and low maintenance features. These aspects along with operator friendly controls and simplicity of design have allowed it to develop a solid reputation with many credible establishments.

It was specially designed to fill non-particulate products for the dairy and food industries. Typically filled items include milk, ice cream mix, edible oils, flavorings, syrups, mustards and sauces. Products can be filled into a variety of container shapes and sizes. Originally designed to fill bags, it can accomodate over twenty five different cap/spout configurations made by the leading bag manufacturers. An adapter can also be used to fill pails, totes, drums, and other open top containers.

On standard machines, product volume is controlled by a turbine flow meter. When product with particulate is to be filled or a higher rate of accuracy is required, the M125 can be equipped with an electromagnetic flow meter, coriolis meter, or load cell. Other options available for special requirements include a chopping type fill valve assembly for particulates, centrifugal, PD, or diaphram pump mounted with product piping, shock tube with bleed valve, sanitizing spray assembly, post fill bag plug for reduced air intake, pre-fill vacuum, post fill nitrogen and casters for mobility.

Materials used for construction are all industry approved. Cabinet, stand, roller table, and brackets are all made of type 304 stainless steel. All product contact surfaces are made of either 304 or 316 stainless with sanitary welds and #4 polish all over. Turbine flow meter is made of 316 and 17/4ph stainless. Product contact gaskets and seals are made of Buna-n and Viton. Bearings and bushings are made from Delrin, uhmw, and Rulon 641. Machine logic and operator interface are field proven Allen-Bradley components and pneumatics are controlled through SMC valves and Bimba air cylinders.

The M125 is available in several configurations, the Single head filler, either left hand (standard) or right hand, the Twin head filler with one left and one right mounted to a single frame, and the single cabinet Dual head filler (M225) sharing common product piping and operator interface controls.

The M125 has been used in applications for filling test samples of prototype product, increasing productivity for small businesses, and complimenting existing equipment in large scale operations.

For more information, please contact:
Holland Manufacturing, Inc.
Kenosha, Wi
Ph: 262-654-5300
Fax: 262-654-6449
Email: info@holland-mfg.com

Specifications:

Electrical requirements - 120 vac, 50/60 Hz, 5 amp
Compressed air supply - 70 to 80 psi
Dry cycle time (uncap to recap) - approx 3 sec
Accuracy - Dependant on product, pump, meter, & other variables
Fill capacity - 1 gallon to 1200 gallons
Filling speed - minimum 10 gpm to maximum 70 gpm
Volume control - 1" or 1 1/2" turbine flow meter