INVERTER
SPINDLE MOTOR
SPINDLE BRAKE RELEASE
HIGH-LOW RANGE SWITCH
SPINDLE COOLING FAN
WORK LIGHT
FLOOD PUMP MOTOR
MIST
LUBE PUMP
LIMIT SWITCHES
MAXIMUM 40A 3 PHASE
MAXIMUM 16A
ROTARY DISCONNECT
GND LUG
PROBE CABLE PN:11211
PROBE CONNECTOR
ALLIN1DC PROBE CONNECTOR
CNT1
CNT2
OCR2
TB1
T1
PS1
PS2
BRAKE RELEASE POWER SUPPLY
LOCATED UNDER ALLIN1DC
CAPBRD LOW PN:10766
ALLIN1DC REV 140527 PN:11144
DC1 REV 090402 PN:11112
ROTARY TABLE CONNECTOR PN:10346
DC ROTARY TABLE
DC SERVO MOTOR WITH ENCODER
COMPLETE CABLE PN:10694
ENCODER CABLE PN:10830
ENCODER CABLE MALE END
ENCODERS
AXIS ENCODER CABLES PN:10830
SPINDLE ENCODER CABLE PN:14355
RELAYS RATED FOR 5A (NO) /3A (NC) AT 30 VDC/277VAC
DRIVE CURRENT SETTING

NOTE 1

110VAC SPINDLE COOLING FAN
110H-122 BLK connects from CNT1/L3 to TB1/3A.
Wire 110H-123 BLK connects to CNT1/T3.
Wire 110N-124 WHT connects to TB1/7A.
Wires are 18 AWG

220VAC SPINDLE COOLING FAN
220-297 BLK connects from F3/LOAD to CNT1/L3. Wire 220-298 BLK connects to CNT1/T3. Wire 220-299 WHT connects to F4/LOAD.
Wires are 14 AWG

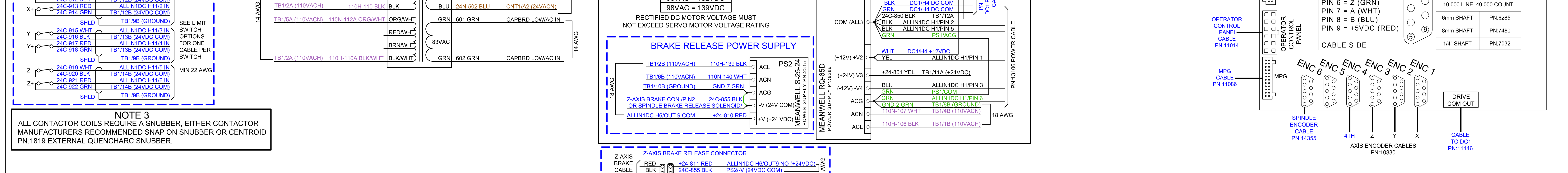
NOTE 2

110VAC LUBE PUMP
Wire 110H-126 BLK connects from TB1/2B to ALLIN1DC H6/OUT 2 COM.
Wire 110H-127 BLK connects to ALLIN1DC H6/OUT 2.
Wire 110N-128 WHT connects to TB1/5B.
Wire GND-3 GRN connects to TB1/8B.
Wires are 18 AWG

220VAC LUBE PUMP
220-226 BLK connects from F3/LOAD to ALLIN1DC H6/OUT 2 COM
Wire 220-227 BLK connects to ALLIN1DC H6/OUT 2.
Wire 220-228 WHT connects to F4/LOAD.
Wire GND-3 GRN connects to TB1/8B.
Wires are 14 AWG

IF USING CIRCUIT BREAKERS INSTEAD OF FUSES, SEPARATE DEVICE SUPPLY CIRCUITS AND USE D CURVE CIRCUIT BREAKERS.
WE RECOMMEND THE FOLLOWING BREAKERS.

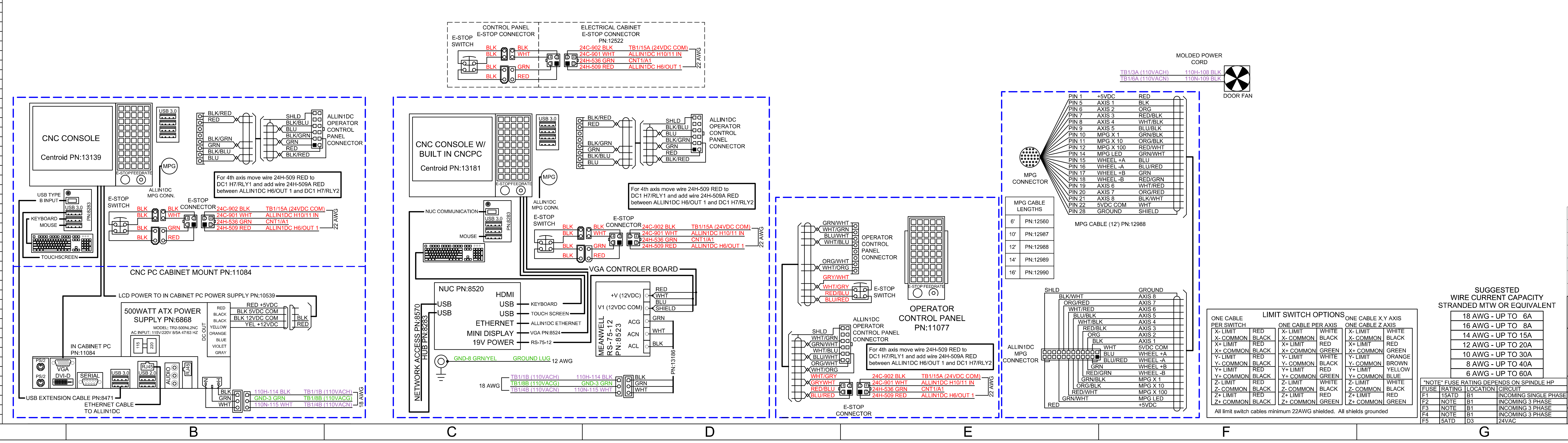
AMPERAGE	POLES	PART NUMBER (EATON)
5	1	FAZ-D5-1-NA-SP
15	1	FAZ-D15/1-NA-SP
2	2	FAZ-D2-2-NA
6	2	FAZ-D6-2-NA
10	2	FAZ-D10-2-NA
16	2	FAZ-D16-2-NA
30	2	FAZ-D30-2-NA
16	3	FAZ-D16-3-NA
32	3	FAZ-D30-3-NA
63	3	FAZ-D63-3-NA


LIMIT SWITCHES
SEE LIMIT SWITCH OPTIONS FOR ONE CABLE PER SWITCH
ENCODER CABLE MALE END
CABLE SIDE
OPERATOR CONTROL PANEL CABLE PN:11014
MPG CABLE PN:11086
DRIVE COM OUT
CABLE TO DC1 PN:11146
Z-AXIS BRAKE RELEASE CONNECTOR

NOTE 3

ALL CONTACTOR COILS REQUIRE A SNUBBER, EITHER CONTACTOR MANUFACTURERS RECOMMENDED SNAP ON SNUBBER OR CENTROID PN:1819 EXTERNAL QUENCHARC SNUBBER.

PART (MFG PN:)		LOCATION
ALLIN1DC	(PN:11144)	E2-F4
CAPBRD LOW	(PN:10766)	D3,D4
CNT1	(PN:14374)	B2
CNT2	(PN:14377)	B3
DC1	(PN:11112)	G1-H2
CONSOLE OPTIONS		C5-D6
DISCONNECT	(OT40F3)	B1
DISCONNECT, AUX	(OA1G10)	B1
DOOR FAN		F5
E-STOP CON.		D5
E-STOP CON. CONSOLE		D6
E-STOP CON. PENDANT		E6
E-STOP SWITCH		D5
E-STOP SWITCH CONSOLE		D6
E-STOP SWITCH PENDANT		E6
F1,F2,F3,F4		B1
F5		D3
FLOOD PUMP MOTOR		A3
FUSE TABLE		G6
GROUND LUG		B1
HIGH-LOW RANGE SWITCH		A2
INVERTER		A1
LIMIT SWITCHES		A3
LIMIT SWITCH OPTIONS		F6,G6
LUBE PUMP		A3
MIST		A3
MPG CABLE		E5-F6
NOTE 1		A2
NOTE 2		A3
NOTE 3		A4
NUC	(PN:8520)	C6
OCR2	(LR2K0310)	B3
OPERATOR CONTROL PANEL		E6
PC	(PN:11084)	B6
PROBE CABLE	(PN:11211)	C1
PS1	(RQ-65D)	D4
PS2	(S-25-24)	C4
SPINDLE BRAKE RELEASE		A2
SPINDLE COOLING FAN		A2
SPINDLE MOTOR		A1
T1		B4
TB1		D2,D3
WORK LIGHT		A2
Z-AXIS BRAKE CONNECTOR		C4,D4


CNC CONSOLE
Centroid PN:13139
CNC CONSOLE W/ BUILT IN CNCPC
Centroid PN:13181
CNC PC CABINET MOUNT PN:11084
500WATT ATX POWER SUPPLY PN:6868
NUC PN:8520
VGA CONTROLER BOARD
OPERATOR CONTROL PANEL PN:11077
MPG CONNECTOR
MPG CABLE (12') PN:12988
MPG CABLE LENGTHS
CONTROL PANEL E-STOP CONNECTOR
ELECTRICAL CABINET E-STOP CONNECTOR PN:12522
MOLDED POWER CORD
DOOR FAN
LIMIT SWITCH OPTIONS
SUGGESTED WIRE CURRENT CAPACITY STRANDED MTW OR EQUIVALENT
18 AWG - UP TO 6A
16 AWG - UP TO 8A
14 AWG - UP TO 15A
12 AWG - UP TO 20A
10 AWG - UP TO 30A
8 AWG - UP TO 40A
6 AWG - UP TO 60A
"NOTE" FUSE RATING DEPENDS ON SPINDLE HP

E-STOP CONNECTIONS ARE SHOWN IN RED
OPTIONAL CONNECTIONS ARE SHOWN IN BLUE
GROUND CONNECTIONS ARE SHOWN IN GREEN
110VAC CONNECTIONS ARE SHOWN IN VIOLET
3 PHASE CONNECTIONS ARE SHOWN IN ORANGE
24VAC CONNECTIONS ARE SHOWN IN BROWN

REVISION	DATE	DESCRIPTION	BY
1	4-15-2016	INITIAL RELEASE	SPM
2	4-15-2016	DRAFTING CORRECTIONS PER REVIEW	SPM
3	4-18-2016	CHANGES PER REVIEW	SPM
4	5-13-2016	CHANGES TO STANDARD	SPM
5,6	5-16-2016	ADDED GAUGE TO BRAKE CONNECTOR FOR REDUNDANCY	SPM
7	6-20-2016	CHANGES TO STANDARD AND PART NUMBERS	SPM

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Title Mill, 220/110VAC, ALLIN1DC, 83VAC
Stepdown Transformer, Inverter (VFD)
Size D
Number
Rev 7
Date 160414
Drawn by SPM
Filename S14746.DWG
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