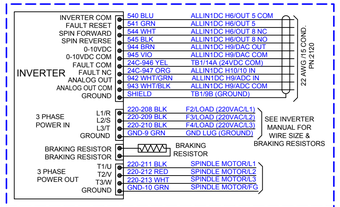
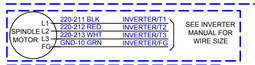
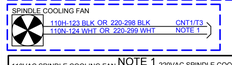


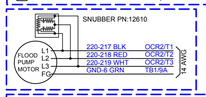


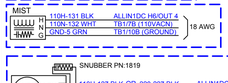


NOTE 1

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

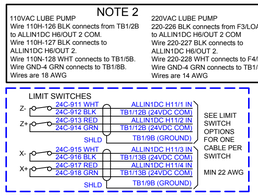




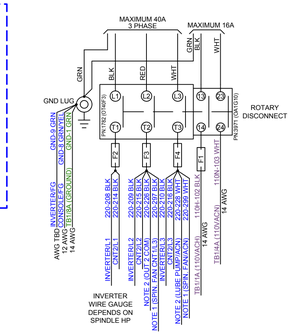
NOTE 2

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-4 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-4 GRN connects to TB1/8B.
Wires are 14 AWG

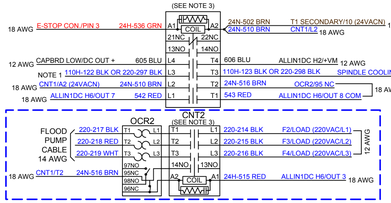


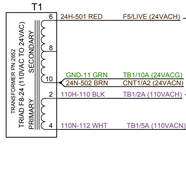
PART	(MFG PN:)	LOCATION
ALLIN1DC	(PN:11144)	E2-F4
CAPBRD LOW	(PN:10766)	D3,D4
CNT1	(PN:14374)	B2
CNT2	(PN:14377)	B3
CONSOLE OPTIONS		B5-D6
DISCONNECT	(DT40F3)	B1
DISCONNECT, AUX	(DA1G10)	B1
DOOR CLOSED SWITCH		A4
DOOR FAN		G5
E-STOP CONNECTOR		D5
E-STOP CON. CONSOLE		D6
E-STOP CON. PENDANT		E6
E-STOP 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
GEAR RANGE SWITCHES		A2
GROUND LUG		B1
INVERTER		A1
LIMIT SWITCHES		A4
LIMIT SWITCH OPTIONS		F6,G6
LUBE PUMP		A3
MIST		A3
MPG CABLE		E5-F6
NOTE 1		A2
NOTE 2		A3
NOTE 3		B2
NUC	(PN:8520)	B6
OCR2	(LR2K0310)	B3
OPERATOR CONTROL PANEL		E6
PC	(PN:11084)	C6
PROBE CABLE	(PN:11211)	C1
PS1	(RQ-65D)	D4
PS2	(S-25-24)	C4
SPINDLE COOLING FAN		A2
SPINDLE MOTOR		A1
T1		B3
TB1		D2,D3
WORK LIGHT		A2
X-AXIS BRAKE RELEASE		C4,D4
Z HOME SWITCH		A4

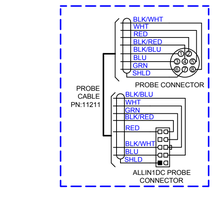


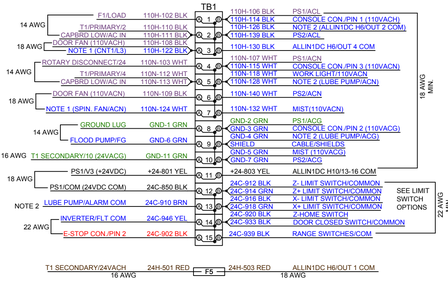
NOTE 3

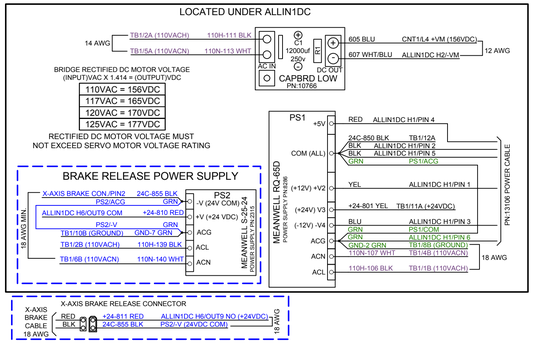
ALL CONTACTOR COILS REQUIRE A SNUBBER, EITHER CONTACTOR MANUFACTURERS RECOMMENDED SNAP ON SNUBBER OR CENTROID PN:1819 EXTERNAL QUENCHARC SNUBBER.

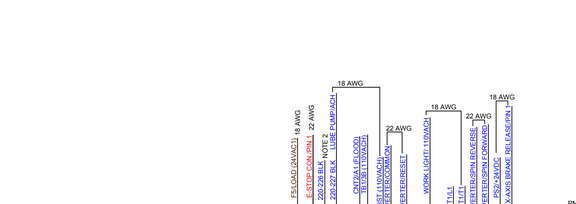


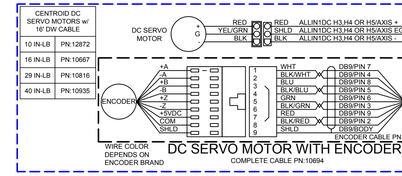






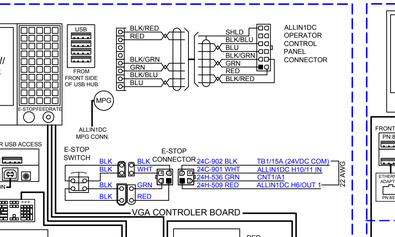


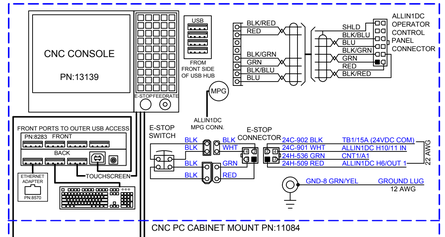


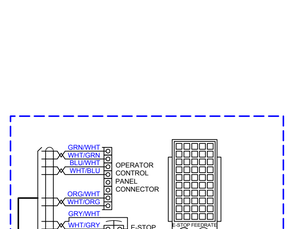


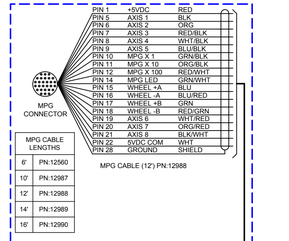
IF USING CIRCUIT BREAKERS INSTEAD OF FUSES, SEPARATE DEVICE SUPPLY CIRCUITS AND USE D CURVE CIRCUIT BREAKERS.
WE RECOMMEND THE FOLLOWING BREAKERS.

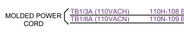
AMPERAGE	POLES	PART NUMBER (EATON)
5	1	FAZ-D5-1-NA-SP
15	1	FAZ-D15/1-NA-SP
2	2	FAZ-D2-2-NA
6	2	FAZ-D6-2-NA
10	2	FAZ-D10-2-NA
16	2	FAZ-D16-2-NA
30	2	FAZ-D30-2-NA
16	3	FAZ-D16-3-NA
32	3	FAZ-D30-3-NA
63	3	FAZ-D63-3-NA











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

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

LIMIT SWITCH OPTIONS

ONE CABLE PER SWITCH		ONE CABLE PER AXIS	
X- LIMIT	RED	X- LIMIT	WHITE
X- COMMON	BLACK	X- COMMON	BLACK
X+ LIMIT	RED	X+ LIMIT	RED
X+ COMMON	BLACK	X+ COMMON	GREEN
Z- LIMIT	RED	Z- LIMIT	WHITE
Z- COMMON	BLACK	Z- COMMON	BLACK
Z+ LIMIT	RED	Z+ LIMIT	RED
Z+ COMMON	BLACK	Z+ COMMON	GREEN

All limit switch cables minimum 22AWG shielded.
All shields grounded

NOTE FUSE RATING DEPENDS ON SPINDLE HP

FUSE	RATING	LOCATION	CIRCUIT
F1	15ATD	B1	INCOMING SINGLE PHASE
F2	NOTE	B1	INCOMING 3 PHASE
F3	NOTE	B1	INCOMING 3 PHASE
F4	NOTE	B1	INCOMING 3 PHASE
F5	5ATD	D3	24VAC

REV	DATE	DESCRIPTION	BY
1	4-18-2016	INITIAL RELEASE	SPM
2	6-20-2016	CORRECTIONS, CHANGES TO STANDARD, PART NUMBERS, ADDED DOOR CLOSED SWITCH	SPM
3	9-13-2016	Corrected component depictions. Updated probe cable.	CEM

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Title Lathe, 220/110VAC, ALLIN1DC, Direct 110VAC Rectification, Inverter (VFD)

Size D | Number | Rev 3
Date 160418 | Drawn by SPM
Filename S14757.DWG | Sheet 1 of 1