

Proposed Meeting Agenda
SOUTH DAKOTA ELECTRICAL COMMISSION

Thursday, July 30, 2026, at 1:00 p.m. CDT
217 W Missouri Ave, Pierre, SD 57501

OR

Microsoft Teams: [Join the meeting now](#)

Meeting ID: 233 587 727 829 233 | Passcode: 89yj9xp3
or Call +1 605-679-7263 ID # 967 019 759

- | | |
|--|------------------|
| A. Call to Order | Tor Sorlien |
| B. Approval of Agenda | ACTION |
| C. Approval of April 22 Minutes | ACTION |
| D. Public Comment | |
| E. Continuing Education Class Approval Process | DISCUSSION |
| F. Out of State Travel for NASCLA and NERA Conference Approval | ACTION |
| G. Review Machinery Designation Applications | ACTION |
| H. Disciplinary Hearing Case 2025-04 | |
| I. Executive Session to discuss legal matters pursuant to SDCL 1-25-2(3) | |
| J. Commission Annual Review of Open Meeting Laws | Andrea Rosenberg |
| K. President's Report | Tor Sorlien |
| L. Program Director's Report | Pamela Overweg |
| M. Inspector's Report | Brent Schoulte |
| N. Next Meeting | |
| O. Adjournment | Tor Sorlien |

Meeting Minutes
SOUTH DAKOTA ELECTRICAL COMMISSION
via Microsoft Teams and Conference Call
Wednesday, April 22, 2026, 1:00 p.m. CDT

Director Overweg called the roll. A quorum was present.

Members Present electronically: Dave Eide, Bob Jarding, Doug Fuerst, Carl Odde, Tor Sorlien, Stephen Burgess

Others Present: Pamela Overweg, Program Director, Jodi Aumer, Director of Professional Licensing, Tammi Florentz, Senior Administrative Assistant, Brent Schoulte, Lead Inspector, Jennifer Doubleddee, Attorney, Aaron Dosch, Kim Swift, Kyle Macziewski, Joseph Score, Larry Goldsmith

Sorlien called the meeting to order at 1:00 p.m.

Director Overweg called the roll. A quorum was present.

Eide made a motion to approve the agenda as presented. Burgess seconded the motion.
MOTION PASSED.

Jarding made a motion to approve the January 8 minutes as written. Fuerst seconded the motion. **MOTION PASSED.**

Sorlien asked for Public Comment. Kyle Macziewski commented that the commission's current approval criteria for non-code renewal hours were not meeting South Dakota codified law for continuing education. Larry Goldsmith commented on the state of the commission going downhill and refusing to pay the bill he received. He also stated he is not pulling certificates anymore. Kim Swift made a comment on the continuing education requirements for the commission and whether OSHA courses would work.

Director Overweg provided the commission with information on the undertaking form that was created to allow individuals to petition for reimbursement from the fund. Jarding asked that the form include a comment to provide for a detailed breakdown of labor and materials. Eide made a motion to approve the form with Jarding proposed changes. Fuerst seconded the motion.
MOTION PASSED.

The board discussed the machinery designation applications. Odde made a motion to approve all machinery designation applications in the packet. Jarding seconded the motion. **MOTION PASSED.**

Director Overweg presented the board with the third-party inspector application for Twining Consulting DBA as RADCO. Jarding made a motion to approve the application. Burgess seconded the motion. **MOTION PASSED.**

Director Overweg advised the board that there are no new updates on the fee subcommittee.

President Sorlien asked if the public comment from the January meeting had been addressed. The attorney advised the matter was being addressed and is still pending.

Director Overweg reported to the commission that the office was fully staffed now, and an additional lead inspector position was created and hired. Director Overweg updated the commission that renewals were open now, with an Adobe Sign form and a pay online button available on the electrical website. Director Overweg shared with the commission that a contract has been signed with inLumon, and things are hitting the ground running to get a new online portal up and running. An administrative rule packet will be forthcoming to pave the way for an online process.

Director Overweg thanked Doug Fuerst for his time and service on the board as this was his last meeting due to term limits.

Schoulte shared with the commission that Adam Bouma was hired as the second lead inspector, and all inspectors are busy.

Eide made a motion to adjourn the meeting. Jarding seconded the motion. **MOTION PASSED.**

The commission adjourned the meeting at 1:38 p.m.

NERA Annual Conference

Tuesday, September 8th to September 11th

Flight - \$946

Hotel- \$546 total

Meals – \$224

Total= \$1,716

NASCLA 2026 Annual Conference

Sunday, September 13th to September 18th

Flight - \$874

Hotel - \$249/night= \$1,245 total

Conference Registration - \$895

Meals - \$186

Total= \$3,200

The NASCLA yearly membership cost is due now as our 1-year trial membership has ended. The yearly membership is \$475.

 Membership Renewal State Members			
Item		Amount (USD)	
State Members From Sep 1, 2026 to Aug 31, 2027		\$475	
		Total	\$475
		Amount Paid	0
		Total Due	\$475

SOUTH DAKOTA DEPARTMENT OF LABOR AND REGULATION
SOUTH DAKOTA ELECTRICAL COMMISSION

217 West Missouri Avenue, Pierre, SD 57501
Tel: 605.773.3573 Toll-Free: 1.800.233.7765 Fax: 605.773.6213 dlr.sd.gov/electrical

MACHINERY DESIGNATION APPLICATION

Entity Name: _____ Contact Person: _____

Tel: (____) ____ - ____

Address: _____
STREET CITY STATE ZIP

Installation Address: : _____
STREET CITY ZIP

☐ Yes ☐ No: Entity presents application as official notice that Entity is designating the following equipment at the installation address as machinery.

Description of Machinery:

Name of Professional Engineer involved: _____ License No.: _____

Please answer the following questions:

- ☐ Yes ☐ No: The machinery as a packaged unit is available in a listed form.
- ☐ Yes ☐ No: Has an electrical standard been prepared or adopted to which the machinery should conform. (e.g. NRTL or NFPA 79: Electrical Standard for Industrial Machinery)
- ☐ Yes ☐ No: The machinery is specific electrical equipment for use by the applying entity and not a line as manufactured, stored, sold, installed, or attached.
- ☐ Yes ☐ No: A label indicating the installation complies with nationally recognized standards or tests determining suitable usage for said installation in manner utilized has been adhered to machinery by 3rd party conducting field listing.
- ☐ Yes ☐ No: In the opinion of the Entity the machinery complies with NEC 670.
- ☐ Yes ☐ No: Entity accepts responsibility and liability for the machinery.
- ☐ Yes ☐ No: Entity is of the opinion the machinery is safe for the use intended.

By my signature below, I do solemnly swear the statements made herein are true and correct to the best of my knowledge and belief. Completion of this application does not guarantee approval.

Name: _____

Position: _____

SIGNATURE

DATE

To Submit: Mail or fax to the South Dakota Electrical Commission (contact information at the top of this form).

Ensure your application includes:

- ☐ Signature and Date
☐ Attach Stamped Engineering plans

Field Evaluation of Non-Listed Industrial Machinery

MPS-FEB-060045

Amada/ENSIS Laser Machine (6225)



Spartan Motors
1029 E Birch Street
Minnehaha County, Brandon, SD 57005

Revision	Description	Date
0.0	Initial Release	2026-04-17
1.0	After Corrections - PASSED	2026-06-24

Muth Power Solutions



Summary:

Amada/Ensis Laser Machine (6225) + connected equipment was installed without a recognized listing label. The panel + connected equipment was built solely for **Spartan Motors** and will only be used in their production processes. South Dakota's Electrical Commission requires an application to be submitted when there is **"No Listing on Installation"**. The requirements for the machinery designation & to be approved by the commission and authority having jurisdiction (AHJ) is as follows:

- No Standard has been prepared or adopted
- Owner states machinery is safe for intended use
- The machinery is specific electrical equipment for use by applying entity and not a line as manufactured, stored, sold, installed, or attached
- Comply with Article 670 of NFPA 70
 - Nameplate Information
 - **Provide proof of compliance with NFPA 79 by licensed professional engineer**

The intent of this report is to show the findings of the evaluation by a professional engineer. If anything was discovered to be non-compliant, it'll be listed in the **Observations Log** at the end of the report. Any issues discovered that require corrective actions must be corrected before a final report will be sent to the South Dakota Electrical Commission and the Field Evaluation Body (FEB) label placed on the equipment showing compliance with UL standards, NFPA 79, and NFPA 70 Article 670.

In compliance with NFPA 791, Muth Power Solutions (M.P.S) generated a unique serial number for the FEB label: **MPS-FEB-060045**. This serial number will be referenced on the machine label as well as in this evaluation report once the machinery is compliant with applicable standards.

Any performance testing is outside the scope and was not performed during this evaluation.

The following versions of codes / standards were used for this evaluation

- NFPA 70 National Electrical Code (2023)
- NFPA 79 Electrical Standard for Industrial Machinery (2024)
- NFPA 790 Competency of Third-Party Field Evaluation Bodies (2024)
- NFPA 791 Recommended Practice and Procedures for Unlabeled Electrical Equipment (2024)
- UL 508A, Industrial Control Panels

Overall Result of Evaluation:

☒ PASS

☐ FAIL

☐ Remediation Required (Refer to Observation Log)

Applicable Construction Requirements of NFPA 70, Article 670:

Definition of Industrial Machinery [NFPA 70, Article 670.2]

A power-driven machine (or a group of machines working together in a coordinated manner), not portable by hand while working, that is used to process material by cutting; forming; pressure; electrical, thermal, or optical techniques; lamination; or a combination of these processes. It can include associated equipment used to transfer material or tooling, including fixtures, to assemble/disassemble, to inspect or test, or to package [The associated electrical equipment, including the logic controller(s) and associated software/logic together with the machine actuators and sensors, are considered as part of the industrial machine]

- The machine being evaluated meets the definition of industrial machinery since there are a collective group of machines that are working together to cut the material & transfer it from process to process

Nameplate Data [NFPA 70, Article 670.3(A)]

The nameplate must be attached to the control equipment enclosure or machine with the following information

Chiller (Orion RKE7502B-VA-DIBP)

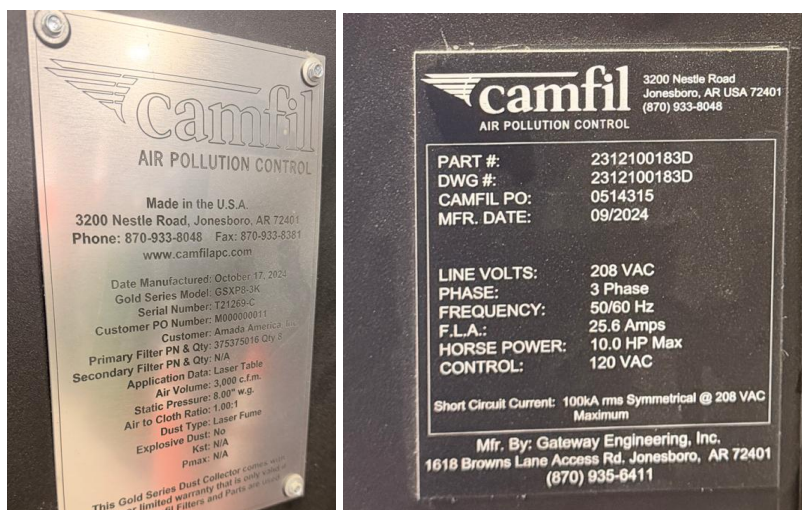
- Supply Voltage: **208V**
- Number of Phases: **3 PHASE**
- Frequency Rating: **60 Hz**
- Full-Load Current: **34A**
- Short Circuit Current Rating: **5 kA**
- Largest Motor or Load: **10.6kW**
- Electrical Drawing Number: **DAE544020A**



- It was observed initially that the nameplate did not list the short circuit current rating on the machine. This is required per NFPA 79 and NEC 670. The manufacturer calculated the SCCR and determined that the machine is rated for 5kA

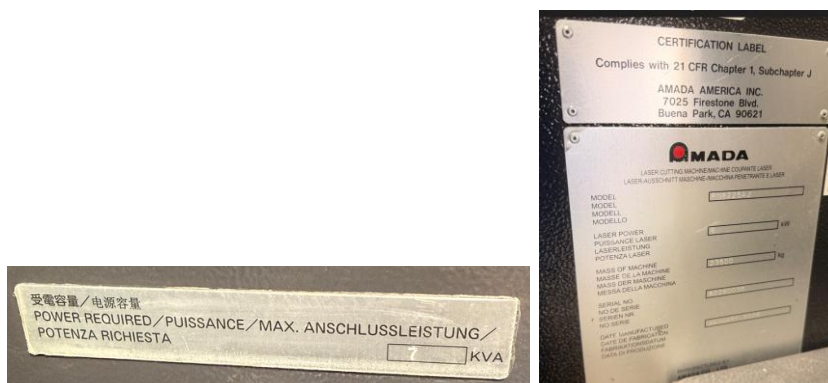
Dust Collector (Camfil GSXP8-3K)

- Supply Voltage: **208V**
- Number of Phases: **3 PHASE**
- Frequency Rating: **60 Hz**
- Full-Load Current: **25.6A**
- Short Circuit Current Rating: **100 kA (RMS Symmetrical)**
- Largest Motor or Load: **10 HP**
- Electrical Drawing Number: **2312100183D**



Laser Machine (Amada EN6225AJ)

- Supply Voltage: **208V**
- Number of Phases: **3 PHASE**
- Frequency Rating: **60 Hz**
- Full-Load Current: **Less than 80A**
- Short Circuit Current Rating: **5 kA**
- Largest Motor or Load: **7kVA**
- Electrical Drawing Number: **EN6225AJ**



- It was observed initially that the nameplate did not list the short circuit current rating on the machine. This is required per NFPA 79 and NEC 670. The manufacturer calculated the SCCR and determined that the machine is rated for 5kA

Shuttle Table (Amada LST6225)

- Supply Voltage: **208V**
- Number of Phases: **3 PHASE**
- Frequency Rating: **50/60 Hz**
- Full-Load Current: **36A**
- Short Circuit Current Rating: **5 kA**
- Largest Motor or Load: -
- Electrical Drawing Number: **8595332**



Oscillator Laser Cutter (Amada ENSI6000)

- Supply Voltage: **208V**
- Number of Phases: **3 PHASE**
- Frequency Rating: **50/60 Hz**
- Full-Load Current: **60A**
- Short Circuit Current Rating: **15 kA**
- Largest Motor or Load: **6.3 kW**
- Electrical Drawing Number: **ENSI6000**





- It was observed initially that the nameplate did not list the short circuit current rating on the machine. This is required per NFPA 79 and NEC 670. The manufacturer calculated the SCCR and determined that the machine is rated for 5kA

Supply Conductors [NFPA 70, Article 670.4(A)]

The supply conductors must have an ampacity rating not less than

$$1.25 * (\text{Heating Loads [Amps]} + \text{Largest Motor FLA [Amps]}) + \text{Other Motors \& Loads [Amps]}$$

- Chiller**
 - The machine is supplied with a 3P/208V breaker that's rated for 50A. The supply conductors are #8 CU from this breaker to the chiller. The nameplate shows the above calculation results in approximately 18 kW for maximum capacity. This results in approximately 49A @ 120/208V 3ph, so the #8 CU wire is sufficient
- Dust Collector**
 - The machine is supplied with a 3P/208V breaker that's rated for 50A. The supply conductors are #8 CU from this breaker to the machine. The below calculation results in approximately 41A @ 120/208V 3ph, so the #8 CU wire is sufficient

Dust Collector							
Heating Loads							
Load	Amps	Voltage	Phases	Power Factor	Efficiency	Apparent Power [kVA]	
-	-	-	-	-	-	0	Supply Conductor Rating @ 75 Deg C
							#8 CU = 50A
Largest Motor							
Load	HP	Amps	Voltage	Phases	Power Factor	Efficiency	Apparent Power [kVA]
Blower Motor	10	24.4	208	3	0.85	0.9	11.49
							Calculated Amps (1.25 (heat + large motor) + Other Loads)
							40.56
Other Loads							
Load	HP	Amps	Voltage	Phases	Power Factor	Efficiency	Apparent Power [kVA]
Control XFMR	-	-	-	-	-	-	0.25

- Laser**
 - The machine is supplied with a 3P/208V breaker 80A. The supply conductors are #3 CU from this breaker to the machine. The below calculation was estimated since load information is not clearly identified. The approximated calculation results in approximately 76A @ 120/208V 3ph, so the #3 CU wire is sufficient
- It was observed initially that the laser machine had a 100A breaker & the machine was supplied with an 80A breaker. If the machine hasn't experienced nuisance trips, the upstream 80A breaker is sufficient. Manufacturer confirmed that this is okay as-is

Laser Machine							
Heating Loads							
Load	Amps	Voltage	Phases	Power Factor	Efficiency	Apparent Power [kVA]	
-	-	-	-	-	-	-	Supply Conductor Rating @ 75 Deg C
							#3 CU = 100A
Largest Motor							
Load	HP	Amps	Voltage	Phases	Power Factor	Efficiency	Apparent Power [kVA]
Laser	-	-	-	-	0.8	0.9	8.33
							Calculated Amps (1.25 (heat + large motor) + Other Loads)
							76.46
Other Loads							
Load	HP	Amps	Voltage	Phases	Power Factor	Efficiency	Apparent Power [kVA]
Power Monitor	-	-	-	-	-	-	0.07
X&Y Conveyors 1	-	-	-	-	0.88	0.9	1.01
X&Y Conveyors 2	-	-	-	-	0.88	0.9	1.01
Y Conveyors 3	-	-	-	-	0.88	0.9	0.51
Y Conveyors 4	-	-	-	-	0.88	0.9	0.51
Y Conveyors 5	-	-	-	-	0.88	0.9	0.51
Y Conveyors 6	-	-	-	-	0.88	0.9	0.51
System Unit Motor	-	-	-	-	0.88	0.9	0.95
DC Power Supply	-	40	24	-	-	-	0.96
Panel Servo Loads	-	-	-	-	0.8	0.9	11.11

• Shuttle Table

- The machine is supplied with a 3P/208V 100A breaker. The supply conductors are #3 CU from this breaker to the machine. The below calculation results in approximately 65A @ 120/208V 3ph, so the #3 CU wire is sufficient

Shuttle Table							
Heating Loads							
Load	Amps	Voltage	Phases	Power Factor	Efficiency	Apparent Power [kVA]	
-	-	-	-	-	-	0	Supply Conductor Rating @ 75 Deg C
							#3 CU = 100A
Largest Motor							
Load	HP	Amps	Voltage	Phases	Power Factor	Efficiency	Apparent Power [kVA]
M2	-	-	-	-	0.79	0.9	5.20
							Calculated Amps (1.25 (heat + large motor) + Other Loads)
							64.86
Other Loads							
Load	HP	Amps	Voltage	Phases	Power Factor	Efficiency	Apparent Power [kVA]
DC Power Supplies	-	7.5	24	-	-	-	0.18
M1	-	-	-	-	0.79	0.9	3.09
M3	-	-	-	-	0.79	0.9	5.20
M4	-	-	-	-	0.79	0.9	5.20
M5	-	-	-	-	0.79	0.9	1.59
M6	-	-	-	-	0.79	0.9	1.59

• Oscillator Laser Cutter

- The machine is supplied with a 3P/208V 100A breaker. The supply conductors are #3 CU from this breaker to the machine. The machine's nameplate lists 20.4 kVA as the max power required to the machine @ 120/208V 3 phase. This results in 56.6A. Because this is a laser & could have large inrush, a 100A breaker + #3 CU conductors is appropriate for this machine.

Disconnecting Means [NFPA 70, Article 670.4(B)]

The electrical enclosure must have a disconnecting means since the machine is considered an individual unit. It is not required to have integral overcurrent protection.

• Chiller

- The chiller machine has a single disconnecting switch & is compliant with NEC 670



• Dust Collector

- The machine has a single disconnecting switch & is compliant with NEC 670



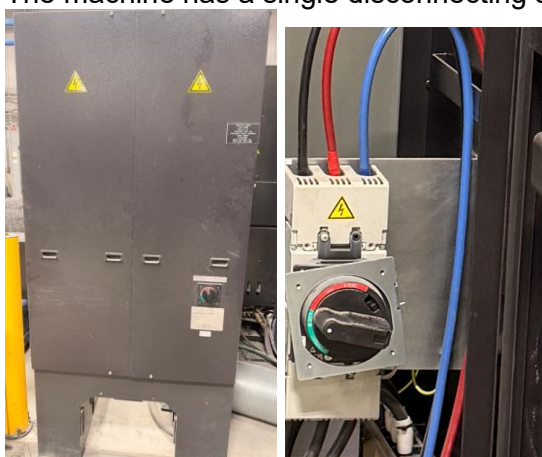
- **Laser**

- The machine has a single disconnecting switch & is compliant with NEC 670



- **Shuttle Table**

- The machine has a single disconnecting switch & is compliant with NEC 670



- **Oscillator Laser Cutter**

- The machine has a single disconnecting switch & is compliant with NEC 670



Overcurrent Protection [NFPA 70, Article 670.4(C)]

The electrical enclosure must have a single feeder circuit breaker or fuses when furnished as part of an industrial machine. The rating of the overcurrent device shall be sized on sum of

$$1.25 * (\text{Heating Loads [Amps]} + \text{Largest Motor FLA [Amps]}) + \text{Other Motors \& Loads [Amps]}$$

- **Chiller**

- The machine is supplied with a 3P/208V breaker that's rated for 50A. The nameplate shows the above calculation results in approximately 18 kW for maximum capacity. This results in approximately 49A @ 120/208V 3ph, so the 50A breaker is sufficient



- **Dust Collector**

- The machine is supplied with a 3P/208V breaker that's rated for 50A. The machine has a fused disconnect with 50A fuses. This is compliant since the above calculation results in ~ 41A for the machine



- **Laser**

- The machine is supplied with a 3P/208V 80A breaker. The machine has a 100A breaker. The supply conductors are #3 CU from this breaker to the machine. The above calculation results in approximately 76A @ 120/208V 3ph, so the 80A breaker is sufficient



- **Shuttle Table**

- The machine is supplied with a 3P/208V 100A breaker. The machine has a 100A breaker. The supply conductors are #3 CU from this breaker to the machine. The above calculation results in approximately 65A @ 120/208V 3ph, so the 100A breaker is sufficient with all of the motor loads



- **Oscillator Laser Cutter**

- The machine is supplied with a 3P/208V 100A breaker. The supply conductors are #3 CU from this breaker to the machine. The machine's nameplate lists 20.4 kVA as the max power required to the machine @ 120/208V 3 phase. This results in 56.6A. Because this is a laser & could have large inrush, a 100A breaker + #3 CU conductors is appropriate for this machine.





Short Circuit Current Rating [NFPA 70, Article 670.5]

The electrical enclosure must not be installed in a location where the maximum available fault current exceeds the nameplate rating.

FAULT CURRENT CALCULATION																
Utility XFMR Rating:	500 KVA	Transformer Phase:	3	Impedance (%Z):	2.60%	Fault Current (Inf. Bus):	23131.02 A	Utility XFMR Secondary Voltage	480							
Panel or Transformer Name	Feeder Length in Feet "L"	Upstream Available Fault Current "I"	Wire Material	Wire Size	Conduit Type	(Based on Wire and Conduit) "C"	Line-to-Line Voltage "E"	Number of Conductors "n"	$f = \frac{\sqrt{3} \times L \times I}{n \times C \times E}$	Total Available Fault Current Itot = Isc + Isy m(not cont.)	Transformer KVA	Transformer %Z	Transformer Phase	Transformer Primary Voltage	Transformer Secondary Voltage	Transformer Secondary Available Fault Current $f = \frac{Isc \times Vprim \times \sqrt{3} \times (\%Z)}{100,000 \times KVAtrans}$ $M = \frac{1}{1 + f}$ Isc(secondary) = (Vprim/Vsecondary) x M x Isc(primary)
Service #2 Main Disco	35	23,131	COPPER	350 MCM	NON-MAGNETIC	22736	480	2	0.08	21735						
SVC-2 HI Panel	25	21,735	COPPER	350 MCM	STEEL	19703	480	2	0.05	20704						
XFMR SVC-2	45	20,704	COPPER	2/0 AWG	STEEL	10755	480	1	0.31		150	4.90	3	480	208	4.28 0.19 6889
SVC-2 LV1 Panel	50	6,889	COPPER	2/0 AWG	STEEL	10755	208	2	0.13	6078						
Chiller Panel	50	6,078	COPPER	8 AWG	STEEL	1557	208	1	1.63	2315						
Oscillator Laser Cutter	60	6,078	COPPER	3 AWG	STEEL	4760	208	1	0.64	3711						
Shuttle Table	60	6,078	COPPER	3 AWG	STEEL	4760	208	1	0.64	3711						
Laser Machine	50	6,078	COPPER	3 AWG	STEEL	4760	208	1	0.53	3968						
Dust Collector	80	6,078	COPPER	8 AWG	STEEL	1557	208	1	2.60	1688						

- **Chiller**
 - The panel's SCCR is not published, but based on the components that are installed within the machine, it'd be appropriate to list the SCCR at 5 kA. The maximum fault current was calculated from the utility XFMR down the panel & the max is less than 5 kA, so it's compliant. Manufacturer confirmed 5kA is appropriate
- **Dust Collector**
 - The panel's SCCR is published at 100 kA. The maximum fault current was calculated from the utility XFMR down the panel & the max is less than 5 kA, so it's compliant
- **Laser**
 - The panel's SCCR is not published, but based on the components that are installed within the machine, it'd be appropriate to list the SCCR at 5 kA. The maximum fault current was calculated from the utility XFMR down the panel & the max is less than 5 kA, so it's compliant. Manufacturer confirmed 5kA is appropriate
- **Shuttle Table**
 - The panel's SCCR is listed as SCCR at 15 kA. The maximum fault current was calculated from the utility XFMR down the panel & the max is less than 15 kA, so it's compliant

Surge Protection [NFPA 70, Article 670.6]

The electrical enclosure shall have proper surge protection if the upstream supply circuit does not protect the enclosure

- **Chiller**

- The chiller machine has appropriate surge protection on the incoming 208V/3ph circuit & protects the safety circuits from overvoltage / surges



- **Dust Collector**

- The dust collector machine's safety circuits are 120VAC / derived from a control XFMR. Surge protection was not observed initially with the machine or at the upstream 208VAC panelboard & it's required per NFPA 79 for safety devices. A proper surge protector was installed on the dust collector and it's compliant now



- **Laser**

- The machine has appropriate surge protection on the incoming 208V/3ph circuit & protects the safety circuits from overvoltage / surges



- **Shuttle Table**

- The machine's safety circuits are 24VDC and power supplies have integral surge protection / overload protection that protects the safety circuits from overvoltage / surges. This is compliant.

- **Oscillator Laser Cutter**

- This is compliant.



NFPA 70, Article 670 Compliance Result:

☒ PASS

☐ FAIL

☐ Remediation Required (Refer to Observation Log)

Applicable Construction Requirements of UL508A:

Part 2 Enclosures

The enclosure shall have the proper rating for the environment it is installed in. It shall be constructed to support the weight within as well as the environmental forces such as wind & snow. It shall have appropriate markings to indicate manufacturer's intent.

Part 2 Industrial Machinery

Shall comply with NFPA 79 and other standards listed in sections 65 to 67

UL508A Compliance Result:

☒ PASS

☐ FAIL

☐ Remediation Required (Refer to Observation Log)

Construction Requirements of NFPA 79:

System must comply with sections 4 – 17 of NFPA 79. Some of the higher priority requirements are summarized below that are accompanied with onsite pictures of the actual gear. Other specific sections/requirements will be called out as needed, if it's applicable to the equipment being evaluated.

Electrical Supply

The system shall be able to operate within 90%-110% of voltage rating, 99%-101% frequency rating, and harmonic THD of 0%-10% for short periods of time.

- The power supply was measured & it's within these tolerances listed, so it's compliant with NFPA 79

Environmental

The system shall be protected from the environment it is installed within.

- It was observed that the control panels have an enclosure rating that's suitable for the environment

Available Fault Current

The system shall have a larger withstand short circuit rating than the maximum available fault current on the line terminals of the system's disconnecting means.

- See the response above in NEC 670



Disconnecting Means

The system shall have a single disconnecting means from the single supply circuit wherever possible. The line side must be protected from unintentional direct contact by users when the enclosure door is opened. A disconnecting means is not required for circuits less than 50VAC RMS or 60VDC.

- See the response above in NEC 670

Protection from Electrical Hazards

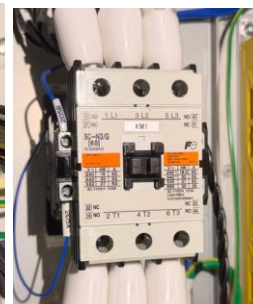
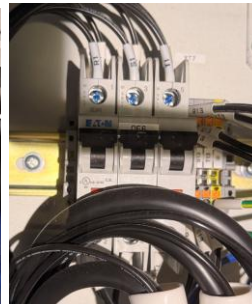
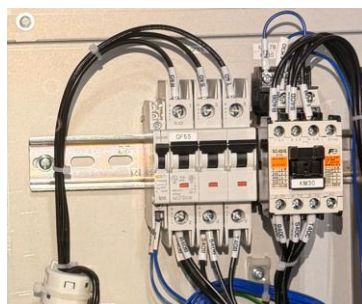
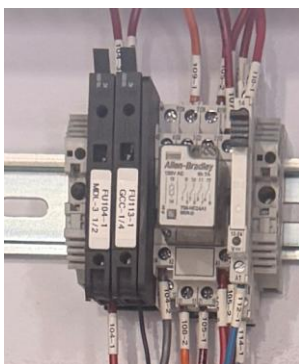
The system shall have live parts insulated from users and openings/windows must meet UL requirements. It must have integral fault protection for accidental connections to live parts. Any interlocked electrical supply circuits must be indicated on the enclosure with a warning placard. An arc flash hazard warning placard must be placed on the enclosures with live electrical present.

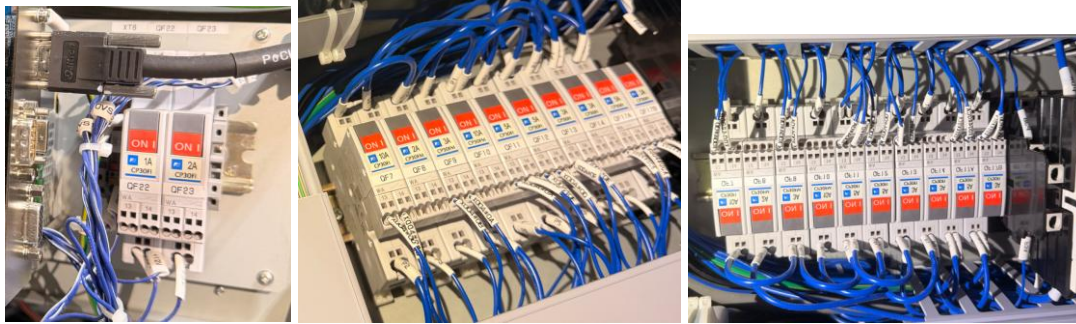
- The machines are protected & have integral fault protection. The electrical panels have appropriate warning placards

Protection of Equipment

The system may have some of the following protection in order to protect the equipment

- Overcurrent
- Overloads for motors
- Ground fault
- Overvoltage
- Abnormal temperature
- Incorrect phases or loss of phases
- Overspeed of machines
- The machines have appropriate protection
 - Overcurrent protection





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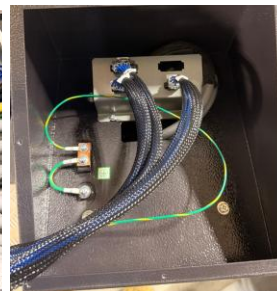
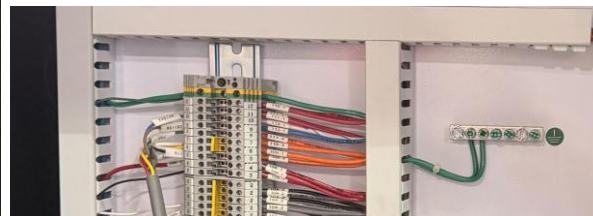
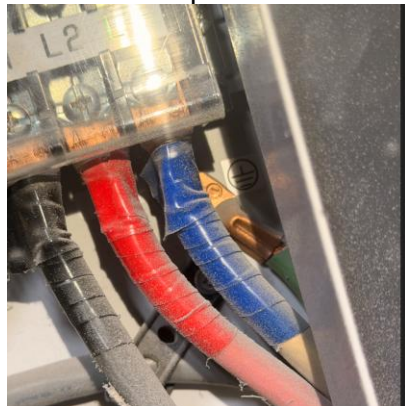
- VFDs have integral protection for the motors

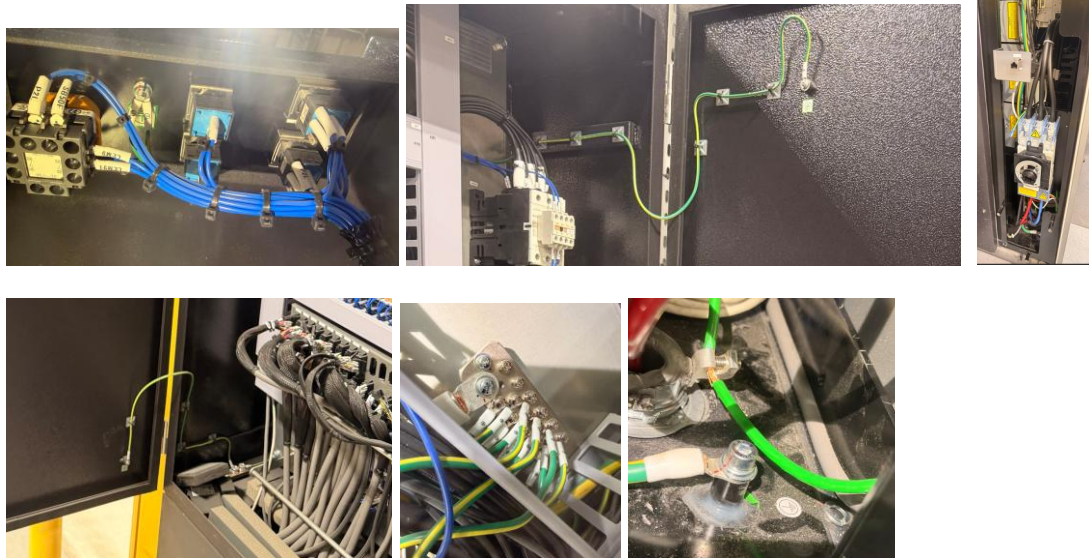
Grounding & Bonding

The system shall be installed in accordance with NFPA 70, Article 250 for grounding & bonding. The equipment grounding conductor must be identified with the word "GROUND" or be identified with the GND symbol.



- The electrical panels are bonded appropriately & are compliant with NFPA 79





Control Circuits & Control Functions

The AC control circuit must come from a control transformer must not exceed 120VAC & maximum 1kA available fault current. Any DC control circuit must be less than 250 VDC. All control circuits must have overcurrent protection. All safety/start/stop functions must work as intended. Interlocks shall be in place to ensure machine fails safely. Emergency stops shall keep the machinery de-energized until safety conditions are reset (shouldn't restart, but act as a permissive to the machinery).

- The machine's safety circuits were all tested & are in working order / function as intended. 24VDC was observed in some of the panels for control circuits. Others had 120VAC derived from a control XFMR that is within the specs listed above for NFPA 79. The machine is compliant with NFPA 79

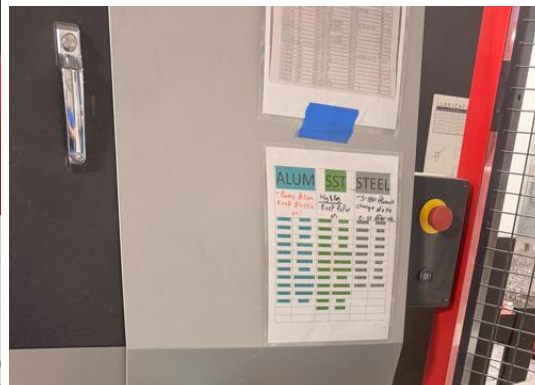
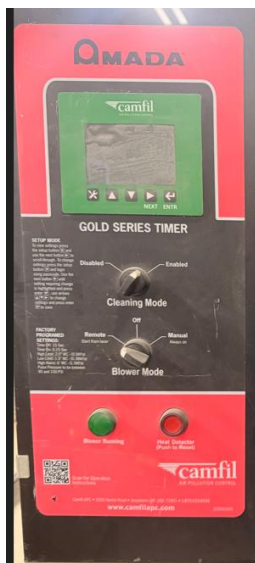


Operator Interface and Control Devices

The operator interface must be readily accessible to the machine. Control devices must be mounted securely / installed in compliance with the manufacturer and they must be protected from accidental operation / false signal to the machine. Color indicators shall be the following colors for each function:

- **Start or Normal Conditions** (Green but Black, White, or Gray)
- **Stop** (Red but Black, White, or Gray is permitted for non-emergencies)
- **Emergency Stop or Emergency Conditions** (Red)
 - Must be RED with Mushroom-head Type & yellow background for pushbutton-operated switches. Pull-cord operated switches are also valid.
- **Abnormal Conditions** (Yellow or Amber)
- **Push-Button that Causes Movement** (Black, but White, Gray, Blue is permitted)
- **Push-Button for Resets** (Blue, but Black, White, Gray, and RED if stop/emergency reset)
- **Mandatory Conditions** (Blue)
- **Neutral Conditions** (White)

- The control devices /interfaces are compliant with NFPA 79





Control Equipment: Location, Mounting, and Enclosures

All enclosures must be mounted so it allows maintenance, protection against environmental influences, and allows normal operation of the machinery. Exposed, live electrical terminations must be protected. Mechanical tubing, piping, valves, etc to handle gas, liquid, or air must not be located within the enclosure. Electrical working spaces defined in NFPA 70, Article 110 shall be followed for the enclosure and its doors.

- The enclosures are installed in a professional manner and the instances listed initially were corrected to be compliant
- It was observed initially that the dust collector system has automatic sprinkler water piping connection & has warning labels that indicate that the 1" pipe shall be connected to prevent catastrophic damage / fire. The manufacturer confirmed that the sprinkler was an option & not required. Spartan Motors is handling with their current fire protection at the facility.
- It was observed initially that the various liquid hoses did not appear to have lockable isolation valves. NFPA 79 requires the machine to have the ability to LOTO all energy sources to each machine. Spartan Motors confirmed that they are installing appropriate valves, so they have the ability to lock out the process when needed.

Conductors, Cables, and Flexible Cords

All cabling/conductors shall be identified and installed in accordance with their intended use. Conductors must be copper with appropriate insulation and ampacity rating not less than 125% of the full load current

$$1.25 * (\text{Heating Loads [Amps]} + \text{Largest Motor FLA [Amps]}) + \text{Other Motors \& Loads [Amps]}$$

The ampacity rating must take into account deration factors such as more than three current-carrying conductors in raceway, temperature, buried, etc. The wire's insulation shall be rated for all voltage levels present within the raceway.

- Wires are installed in compliance with NFPA 79

Wiring Practices

All connections must be installed so it prevents accidental loosening. Terminals must be rated for the wire and labeled clearly. In no instance shall the wire cross over the terminals for panel/field wiring. Wires shall be run from source to destination without splices or joints within the enclosure. If an enclosure is supplied from more than one power source, the power wiring must be run in separate raceways for each disconnecting means. Exposed cables are permitted along machinery supports, but care should be taken to ensure the cabling doesn't inhibit maintenance (machine guards, grease ports, gauges, etc). Cabling must be supported adequately so sagging or damage doesn't occur. Cables subjected to damage must be protected and installed in compliance with NFPA 70. Grounding conductors must be identified by color green with or without yellow stripes.

- The machine is installed in a professional manner & cables / raceways / equipment is secured properly

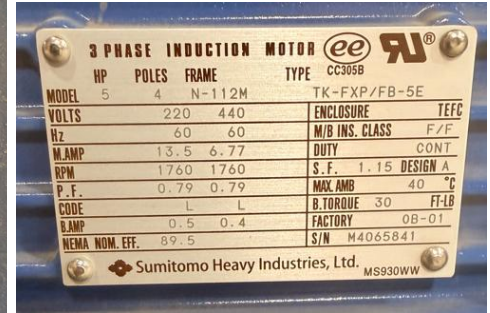
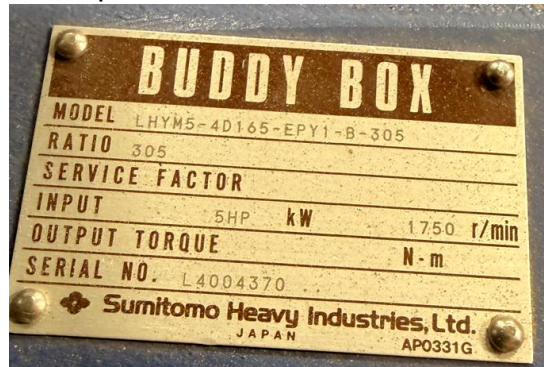




Electric Motors and Associated Equipment

All motors shall be mounted so they are adequately protected from damage, accessible for maintenance, have proper cooling, and can be easily replaced. Motors shall be selected to match the connected process conditions. Motors must have nameplate data marked in compliance with NFPA 70, Article 430, and they must have appropriate motor controllers and protection.

- Motors are installed in compliance with NFPA 79



Receptacles and Lighting

Receptacles for machinery must be GFCI-protected, supplied from grounded 120V source, have proper overcurrent protection, and be rated to withstand the environment it is installed in. Only lighting systems designed for use greater than 150V may be permitted; otherwise, lighting systems should be 120V for machinery. Lighting must have overcurrent protection, must not exceed 15 Amps, and must be rated for the physical environment.

- Not applicable – receptacles / lights derived from the control panels was not observed on this machine

Marking and Safety Signs

The equipment must be marked with supplier's name, trademark, and identifying symbol. Safety placards and markings must be permanent.

- Warning Label – *Potential Electric Shock and Arc Flash Hazard*
 - Place visibly on Enclosure when Voltage is greater than 50VAC or 60VDC
- Warning Label – *Does Not De-Energize All Exposed Parts When Disconnecting Means in (off) Position*
 - Place visibly on Enclosure next to disconnect when multiple sources are present
- Warning Label – *Power Shall Be Disconnected from Equipment Prior to Opening Enclosure Door*
 - Place visibly on Enclosure when an attachment plug is used as disconnecting means
- The machine has appropriate warning labels on the machine





- Nameplate
 - Required by manufacturer
 - Name of Supplier
 - Model, Serial Number, etc
 - Rated voltage, phase, frequency, and full-load current for each supply
 - Largest Motor or Load
 - Max Protective Device Threshold
 - Short Circuit Current Rating
 - Electrical Diagram Number(s) or Drawing Index
- See the response above in NEC 670

Technical Documentation

The machinery must have necessary information present for installation, operation, maintenance, and storage of the machine. This can be in the form of drawings, diagrams, charts, tables, etc. It must be stored onsite with the machine.

- Dust Collector



- It was observed initially that the technical documentation was not stored in some of the machine's control panels. All connected machines must have their technical documentation stored with it per NFPA 79. Technical documents were located & stored in a central location by Spartan Motors.

NFPA 79 Compliance Result:

☒ PASS

☐ FAIL

☐ Remediation Required (Refer to Observation Log)



I hereby certify that I am a professional engineer, registered in the State of South Dakota and I do not benefit financially by the sale/manufacturing of the equipment evaluated within this report, I did not impose excessive financial preconditions to evaluate the equipment, and there were not any conflicts of interests in performing the evaluation. I attest that the evaluation and report was performed by me personally and is to the best of my knowledge complete and accurate.

Joshua J. Knighton
Professional Engineer

June 24, 2026

Date:

Observation Log:

During the evaluation, differences between the observed installation and the governing standards are logged here with recommended actions to correct the issue (if required).

Any issue discovered that requires corrected actions must be corrected and re-evaluated before a final report will be sent to the Electrical Commission and the FEB label placed on the equipment showing compliance with UL standards, NFPA 79, and NFPA 70 Article 670.

Observation Log			
Non-Compliance Issue No.	Standard/Code Reference	Issue	Corrective Action Required
1	NFPA 79 & NEC 670	It was observed initially that the nameplate did not list the short circuit current rating on the machine. This is required per NFPA 79 and NEC 670.	YES - It's recommended to consult with the manufacturer to see if the max SCCR can be identified / published on the machine's nameplate. Corrected / Consulted June 2026
2	NFPA 79	It was observed initially that the technical documentation was not stored in some of the machine's control panels. All connected machines must have their technical documentation stored with it per NFPA 79.	YES - It is recommended to locate the documents & store in their respective electrical panels. Corrected June 2026
3	NFPA 79	It was observed initially that the dust collector system has automatic sprinkler water piping connection & has warning labels that indicate that the 1" pipe shall be connected to prevent catastrophic damage / fire.	Verification ONLY It is recommended to consult with the manufacturer & determine if this connection is necessary for the process application at Spartan Motors. Sometimes there are exceptions on why this isn't connected (ex: water can react with certain materials & cause additional combustion). Please have the manufacturer provide a response on why these are not connected. Consulted June 2026 & It's Okay As-Is
4	NFPA 79 & NEC 670	Surge protection was not observed initially with the machine or at the upstream 208VAC panelboard & it's required per NFPA 79 for safety devices.	YES - It is recommended to install a 208VAC/3ph Surge Protector at the upstream 208V/3ph panel, so all devices are protected. It's also acceptable to install a SPD directly at the machine too. Corrected June 2026
5	NFPA 79 & NEC 670	It was observed initially that the laser machine had a 100A breaker & the machine was supplied with an 80A breaker. If the machine hasn't experienced nuisance trips, the upstream 80A breaker is sufficient.	Verification ONLY Consult with the manufacturer if 80A is okay, or if it should be replaced with a 100A breaker. Consulted June 2026 & It's Okay

Observation Log			
Non-Compliance Issue No.	Standard/Code Reference	Issue	Corrective Action Required
6	NFPA 79	It was observed initially that the various liquid hoses did not appear to have lockable isolation valves or a way to LOTO the pressurized liquid for maintenance / work	Verification ONLY Consult with the manufacturer or provide a process on how these machines would be locked out / tagged out to isolate the liquid energy within the various interconnections. NFPA 79 requires the machine to have the ability to LOTO all energy sources to each machine & remove the exposure of stored energy from the operator. It doesn't appear this is possible & pressurized hoses could still exist in the machines, if the electrical is shut off. Corrected / Consulted June 2026

SOUTH DAKOTA DEPARTMENT OF LABOR AND REGULATION
SOUTH DAKOTA ELECTRICAL COMMISSION

217 West Missouri Avenue, Pierre, SD 57501
Tel: 605.773.3573 Toll-Free: 1.800.233.7765 Fax: 605.773.6213 dlr.sd.gov/electrical

MACHINERY DESIGNATION APPLICATION

Entity Name: Tooling Solutions Worldwide Contact Person: Ron Barse
Tel: (605) 886 - 1436
Address: 1625 12th Ave SE Watertown SD 57201
STREET CITY STATE ZIP
Installation Address: : 1625 12th Ave SE Watertown 57201
STREET CITY ZIP

☒ Yes ☐ No: Entity presents application as official notice that Entity is designating the following equipment at the installation address as machinery.

Description of Machinery:

The BE20-V (#1) Machine is used for a unique manufacturing process at entity's location above. 3rd Party Evaluation for UL508a, NFPA 79, and NEC 670 Compliance by Muth Power Solutions (Joshua Jay Knighton). Field Evaluation Label (FEB) with unique identifier placed on the machinery. Specific labels for this machine include - (MPS-FEB-060042)

Name of Professional Engineer involved: Joshua Knighton License No.: 16721

Please answer the following questions:

- ☒ Yes ☐ No: The machinery as a packaged unit is available in a listed form.
- ☐ Yes ☒ No: Has an electrical standard been prepared or adopted to which the machinery should conform. (e.g. NRTL or NFPA 79: Electrical Standard for Industrial Machinery)
- ☒ Yes ☐ No: The machinery is specific electrical equipment for use by the applying entity and not a line as manufactured, stored, sold, installed, or attached.
- ☒ Yes ☐ No: A label indicating the installation complies with nationally recognized standards or tests determining suitable usage for said installation in manner utilized has been adhered to machinery by 3rd party conducting field listing.
- ☒ Yes ☐ No: In the opinion of the Entity the machinery complies with NEC 670.
- ☒ Yes ☐ No: Entity accepts responsibility and liability for the machinery.
- ☒ Yes ☐ No: Entity is of the opinion the machinery is safe for the use intended.

By my signature below, I do solemnly swear the statements made herein are true and correct to the best of my knowledge and belief. Completion of this application does not guarantee approval.

Name: Rick Schaff

Position: Manager

SIGNATURE



07 / 07 / 2026
DATE

To Submit: Mail or fax to the South Dakota Electrical Commission (contact information at the top of this form).

Ensure your application includes:

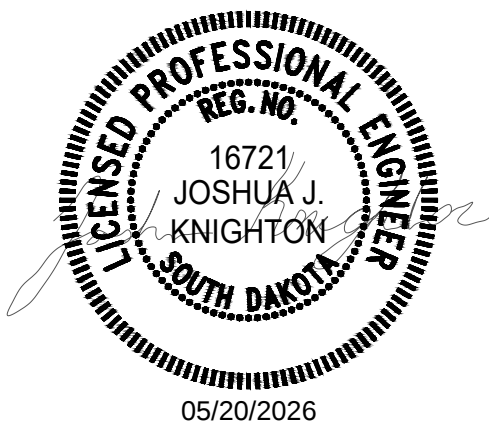
- ☒ Signature and Date
☒ Attach Stamped Engineering plans

Clear Form

Field Evaluation of Non-Listed Industrial Machinery

MPS-FEB-060042

TSUGAMI CORP, BE20-V



Tooling Solutions Worldwide
1625 12th Ave SE, Watertown, SD 57201
Codington County

Revision	Description	Date
0.0	Initial Release - FAILED	2026-04-05
1.0	After Corrections - PASSED	2026-05-20

Muth Power Solutions



Summary:

TSUGAMI CORP, BE20-V panel + connected equipment was installed without a recognized listing label. The panel + connected equipment was built solely for **Tooling Solutions Worldwide** and will only be used in their production processes. South Dakota's Electrical Commission requires an application to be submitted when there is **"No Listing on Installation"**. The requirements for the machinery designation & to be approved by the commission and authority having jurisdiction (AHJ) is as follows:

- No Standard has been prepared or adopted
- Owner states machinery is safe for intended use
- The machinery is specific electrical equipment for use by applying entity and not a line as manufactured, stored, sold, installed, or attached
- Comply with Article 670 of NFPA 70
 - Nameplate Information
 - **Provide proof of compliance with NFPA 79 by licensed professional engineer**

The intent of this report is to show the findings of the evaluation by a professional engineer. If anything was discovered to be non-compliant, it'll be listed in the **Observations Log** at the end of the report. Any issues discovered that require corrective actions must be corrected before a final report will be sent to the South Dakota Electrical Commission and the Field Evaluation Body (FEB) label placed on the equipment showing compliance with UL standards, NFPA 79, and NFPA 70 Article 670.

In compliance with NFPA 791, Muth Power Solutions (M.P.S) generated a unique serial number for the FEB label: **MPS-FEB-060042**. This serial number will be referenced on the machine label as well as in this evaluation report once the machinery is compliant with applicable standards.

Any performance testing is outside the scope and was not performed during this evaluation.

The following versions of codes / standards were used for this evaluation

- NFPA 70 National Electrical Code (2020)
- NFPA 79 Electrical Standard for Industrial Machinery (2024)
- NFPA 790 Competency of Third-Party Field Evaluation Bodies (2024)
- NFPA 791 Recommended Practice and Procedures for Unlabeled Electrical Equipment (2024)

Overall Result of Evaluation:

☒ **PASS**

☐ **FAIL**

☐ Remediation Required (Refer to Observation Log)

Applicable Construction Requirements of NFPA 70, Article 670:

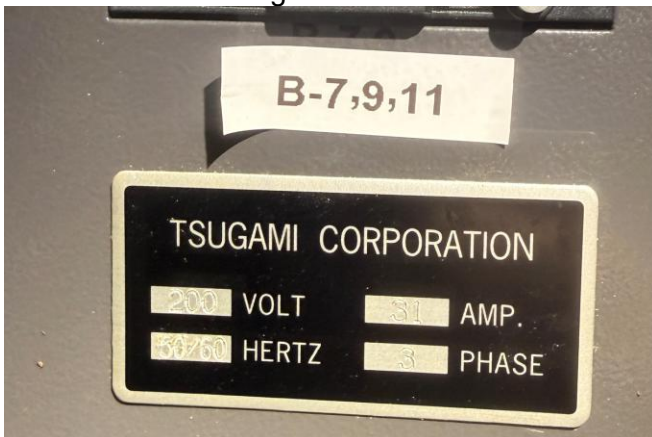
Definition of Industrial Machinery [NFPA 70, Article 670.2]

A power-driven machine (or a group of machines working together in a coordinated manner), not portable by hand while working, that is used to process material by cutting; forming; pressure; electrical, thermal, or optical techniques; lamination; or a combination of these processes. It can include associated equipment used to transfer material or tooling, including fixtures, to assemble/disassemble, to inspect or test, or to package [The associated electrical equipment, including the logic controller(s) and associated software/logic together with the machine actuators and sensors, are considered as part of the industrial machine]

Nameplate Data [NFPA 70, Article 670.3(A)]

The nameplate must be attached to the control equipment enclosure or machine with the following information

- Supply Voltage: **208 VOLT**
- Number of Phases: **3 PHASE**
- Frequency Rating: **50/60 Hz**
- Full-Load Current: **31A**
- Short Circuit Current Rating: **5 kAIC**
- Largest Motor or Load:
- Electrical Drawing Number:



- The SCCR was not initially published on the nameplate/drawings or listed on the machine anywhere. The manufacturer agreed with MPS that the main breaker is rated for 5kA @ 200V/100V, so it would be appropriate to rate the machine at 5 kA. Muth Electric added to the nameplate on the machine, so it's compliant now.

Supply Conductors [NFPA 70, Article 670.4(A)]

The supply conductors must have an ampacity rating not less than

$$1.25 * (\text{Heating Loads [Amps]} + \text{Largest Motor FLA [Amps]}) + \text{Other Motors \& Loads [Amps]}$$

- The machine is fed with #8 CU conductors, which are rated for 50A in table 310.16 NEC. This is compliant to NEC 670 via the calculation above.

Heating Loads							
Load	Amps	Voltage	Phases	Power Factor	Efficiency	Apparent Power [kVA]	
Largest Motor							
Load	HP	Amps	Voltage	Phases	Power Factor	Efficiency	Apparent Power [kVA]
FANUC Servo/Drive	-	-	-	-	0.9	0.9	8.15
Other Loads							
Load	HP	Amps	Voltage	Phases	Power Factor	Efficiency	Apparent Power [kVA]
FANUC Servo/Drive	-	-	-	-	0.9	0.9	1.67
FANUC Servo/Drive	-	-	-	-	0.9	0.9	4.20
FANUC Servo/Drive	-	-	-	-	0.9	0.9	4.63
FANUC Servo/Drive	-	-	-	-	0.9	0.9	4.63
FANUC Servo/Drive	-	-	-	-	0.9	0.9	4.20
Mitsubishi Servo/Drive	-	-	-	-	0.9	0.9	0.25
control XFMR #1							0.07
control XFMR #2							0.50
High Press Coolant Pump (M6)	-	2.8	208	3	0.9	0.9	1.25
Bag Filter Pump (M12)	-	0.8	208	3	0.9	0.9	0.36
Coolant Motor (M1)	-	-	-	-	0.9	0.9	0.22
Spindle Cooling Pump (M3)	-	-	-	-	0.9	0.9	0.11
Lubrication Motor (M2)	-	-	208	3	0.9	0.9	0.01
Work Conveyor (M5)	-	0.15	208	3	0.9	0.9	0.07
Power Panel P.C.B.	-	-	-	-	0.9	0.9	3.50
Convertor Control Power Supply	-	-	-	-	0.9	0.9	0.01
Spindle Cooling Fan Unit Power Supply	-	-	-	-	0.9	0.9	0.19
Receptacle	-	-	-	-	0.9	0.9	0.19
DC Power Supply	-	1.5	208	3	1	1	0.54

Calculated Amps (1.25 (heat + large motor) + Other Loads)	
46.12	

Calculated Amps (1.25 (heat + large motor) + Other Loads)
46.12

Disconnecting Means [NFPA 70, Article 670.4(B)]

The electrical enclosure must have a disconnecting means since the machine is considered an individual unit. It is not required to have integral overcurrent protection.

- The machine has a single disconnecting means via a 50A/3phase breaker. This is compliant with NFPA 79 & NEC 670



Overcurrent Protection [NFPA 70, Article 670.4(C)]

The electrical enclosure must have a single feeder circuit breaker or fuses when furnished as part of an industrial machine. The rating of the overcurrent device shall be sized on sum of

$$1.25 * (\text{Heating Loads [Amps]} + \text{Largest Motor FLA [Amps]}) + \text{Other Motors \& Loads [Amps]}$$

- Per the calculation above, the feeder breaker should be 50A.
- It was observed initially to be a 40A breaker. The company has historical records that show that they haven't had any issues with 40A over the last 3 years, so it was agreed upon to keep it at 40A. This is okay since it's more conservative / allows the machine to trip earlier



Short Circuit Current Rating [NFPA 70, Article 670.5]

The electrical enclosure must not be installed in a location where the maximum available fault current exceeds the nameplate rating.

- The fault current was calculated from the utility TX down to the BE20-V Machine's main breaker. The fault current from the utility was approximately 6940A @ the utility TX's secondary terminals. With the various connections down the BE20-V Machine main breaker, the available fault current is approximately 1.4 kA. This is compliant with NEC since the machine was agreed upon to be rated at 5 kAIC.

FAULT CURRENT CALCULATION																			
Utility XFMR Rating:	300 kVA	Transformer Phase:	3	Impedance (%Z):	5.20%	Fault Current (Inf. Bus):	6939.31 A	Utility XFMR Secondary Voltage	480										
Panel or Transformer Name	Feeder Length in Feet "L"	Upstream Available Fault Current "I _a "	Wire Material	Wire Size	Conduit Type	(Based on Wire and Conduit) "C"	Line-to-Line Voltage "V"	Number of Conductors "n"	$f = \frac{\sqrt{3} \times L \times I_a}{n \times C \times E}$	$M = \frac{1}{1 + f}$	Total Available Fault Current Tot=Isc x (1+M) n (not cont.)	Transformer KVA	Transformer %z	Transformer Phase	Primary Voltage	Secondary Voltage	$f = \frac{I_{sc} \times V_{prim} \times \sqrt{3} \times (\%Z)}{100,000 \times kVA_{trans}}$	$M = \frac{1}{1 + f}$	Transformer Secondary Available Fault Current Isc(secondary)= (Vprim/Vsecondary) x M x Isc(primary)
CT Cabinet	10	6,939	ALUMINUM	250 MCM	NON-MAGNETIC	12862	480	4	0.00	1.00	6906								
HSSB	30	6,906	COPPER	3/0 AWG	STEEL	12843	480	4	0.01	0.99	6807								
XFHR "B"	8	6,807	COPPER	3/0 AWG	STEEL	12843	480	1	0.02	0.98	6704	150	5.80	3	480	208	2.16	0.32	4903
Panel "B"	8	4,903	COPPER	3/0 AWG	STEEL	12843	208	2	0.01	0.99	4842								
BE20-V Machine	95	4,842	COPPER	8 AWG	STEEL	1557	208	1	2.46	0.29	1399								

Surge Protection [NFPA 70, Article 670.6]

The electrical enclosure shall have proper surge protection if the upstream supply circuit does not protect the enclosure

- The upstream panels do not have surge protection, but the machine has 24VDC power supplies that protect the safety signals from overvoltage, surge, and short circuits. This is compliant with NEC 670.



NFPA 70, Article 670 Compliance Result:

☒ PASS

☐ FAIL

☐ Remediation Required (Refer to Observation Log)

Applicable Construction Requirements of UL508A:

Part 2 Enclosures

The enclosure shall have the proper rating for the environment it is installed in. It shall be constructed to support the weight within as well as the environmental forces such as wind & snow. It shall have appropriate markings to indicate manufacturer's intent.

Part 2 Industrial Machinery

Shall comply with NFPA 79 and other standards listed in sections 65 to 67

UL508A Compliance Result:

☒ PASS

☐ FAIL

☐ Remediation Required (Refer to Observation Log)

Construction Requirements of NFPA 79:

System must comply with sections 4 – 17 of NFPA 79. Some of the higher priority requirements are summarized below that are accompanied with onsite pictures of the actual gear. Other specific sections/requirements will be called out as needed, if it's applicable to the equipment being evaluated.

Electrical Supply

The system shall be able to operate within 90%-110% of voltage rating, 99%-101% frequency rating, and harmonic THD of 0%-10% for short periods of time.

Environmental

The system shall be protected from the environment it is installed within.

Available Fault Current

The system shall have a larger withstand short circuit rating than the maximum available fault current on the line terminals of the system's disconnecting means.

- See NEC 670 Section Above for more information



Disconnecting Means

The system shall have a single disconnecting means from the single supply circuit wherever possible. The line side must be protected from unintentional direct contact by users when the enclosure door is opened. A disconnecting means is not required for circuits less than 50VAC RMS or 60VDC.

- See NEC 670 Section Above for more information

Protection from Electrical Hazards

The system shall have live parts insulated from users and openings/windows must meet UL requirements. It must have integral fault protection for accidental connections to live parts. Any interlocked electrical supply circuits must be indicated on the enclosure with a warning placard. An arc flash hazard warning placard must be placed on the enclosures with live electrical present.

- The machine is installed with live parts insulated from the user. There are not any interlocked power supplies. The machine has the appropriate warning placards.

Protection of Equipment

The system may have some of the following protection in order to protect the equipment

- Overcurrent
- Overloads for motors
- Ground fault
- Overvoltage
- Abnormal temperature
- Incorrect phases or loss of phases
- Overspeed of machines
- The machine has appropriate protection

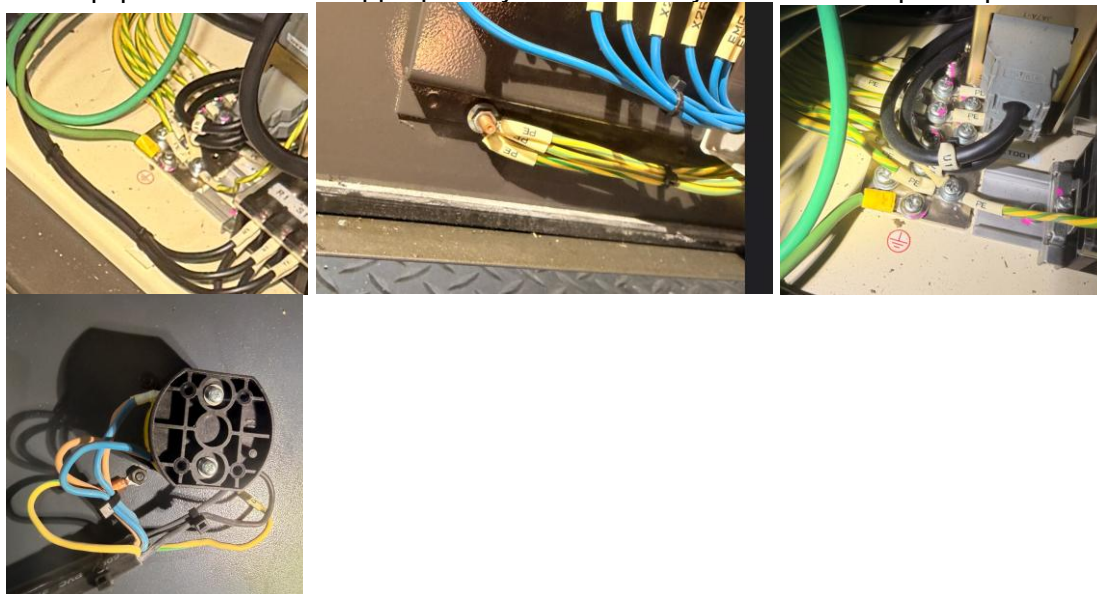


Grounding & Bonding

The system shall be installed in accordance with NFPA 70, Article 250 for grounding & bonding. The equipment grounding conductor must be identified with the word "GROUND" or be identified with the GND symbol.



- The equipment is bonded appropriately & there are symbols at bond points per NFPA 79



Control Circuits & Control Functions

The AC control circuit must come from a control transformer must not exceed 120VAC & maximum 1kA available fault current. Any DC control circuit must be less than 250 VDC. All control circuits must have overcurrent protection. All safety/start/stop functions must work as intended. Interlocks shall be in place to ensure machine fails safely. Emergency stops shall keep the machinery de-energized until safety conditions are reset (shouldn't restart, but act as a permissive to the machinery).

- The safety circuits were all tested & the safeties work as intended. The device has an integral 24VDC power supply that protects against surges / overvoltages



- Features :
 - AC input range selectable by switch
 - **Protections: Short circuit / Overload / Over voltage**
 - Cooling by free air convection
 - 100% full load burn-in test
 - Fixed switching frequency at 83KHz
 - 2 years warranty

- It was observed initially that the safety device to notice when material feed lid is open was zip tied to itself & was not sending proper indication to the controller. This device was corrected by and was installed in accordance to the manufacturer's instructions & re-verified that it functions as intended

Operator Interface and Control Devices

The operator interface must be readily accessible to the machine. Control devices must be mounted securely / installed in compliance with the manufacturer and they must be protected from accidental operation / false signal to the machine. Color indicators shall be the following colors for each function:

- Start or Normal Conditions** (Green but Black, White, or Gray)
 - Stop** (Red but Black, White, or Gray is permitted for non-emergencies)
 - Emergency Stop or Emergency Conditions** (Red)
 - Must be RED with Mushroom-head Type & yellow background for pushbutton-operated switches. Pull-cord operated switches are also valid.
 - Abnormal Conditions** (Yellow or Amber)
 - Push-Button that Causes Movement** (Black, but White, Gray, Blue is permitted)
 - Push-Button for Resets** (Blue, but Black, White, Gray, and RED if stop/emergency reset)
 - Mandatory Conditions** (Blue)
 - Neutral Conditions** (White)
- The control devices / buttons are compliant with NFPA 79

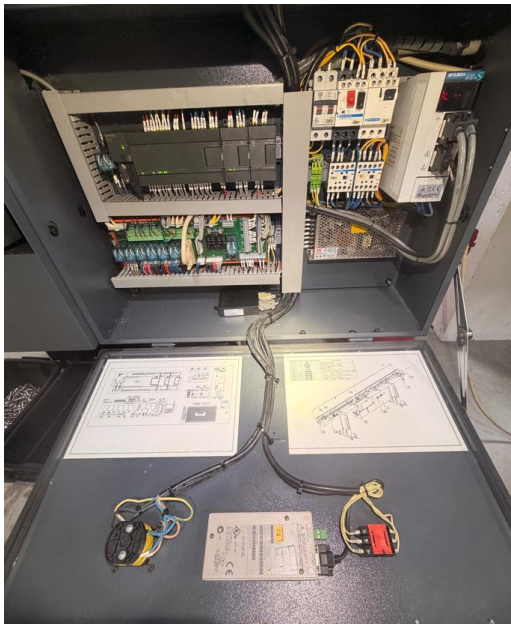
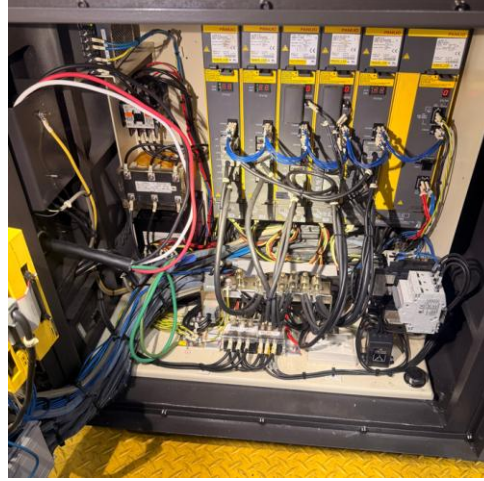
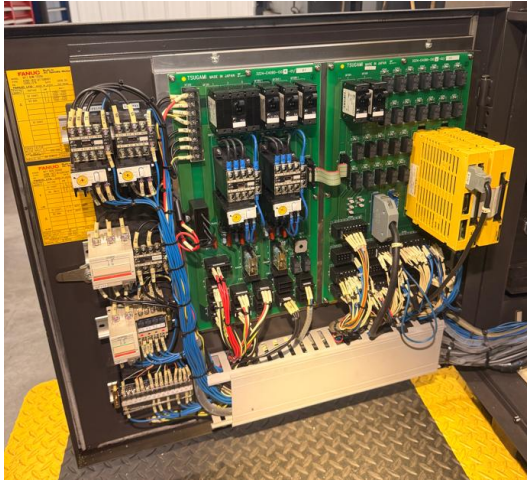




Control Equipment: Location, Mounting, and Enclosures

All enclosures must be mounted so it allows maintenance, protection against environmental influences, and allows normal operation of the machinery. Exposed, live electrical terminations must be protected. Mechanical tubing, piping, valves, etc to handle gas, liquid, or air must not be located within the enclosure. Electrical working spaces defined in NFPA 70, Article 110 shall be followed for the enclosure and its doors.

- The enclosures are installed in compliance with NFPA 79





Conductors, Cables, and Flexible Cords

All cabling/conductors shall be identified and installed in accordance with their intended use. Conductors must be copper with appropriate insulation and ampacity rating not less than 125% of the full load current

$$1.25 * (\text{Heating Loads [Amps]} + \text{Largest Motor FLA [Amps]}) + \text{Other Motors \& Loads [Amps]}$$

The ampacity rating must take into account deration factors such as more than three current-carrying conductors in raceway, temperature, buried, etc. The wire's insulation shall be rated for all voltage levels present within the raceway.

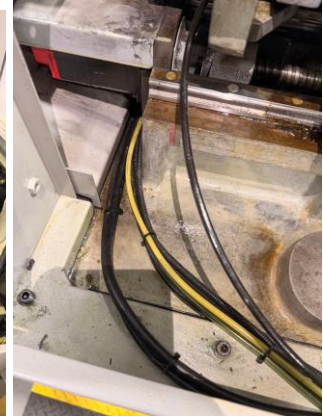
- Wires are installed & rated for their intended use

Wiring Practices

All connections must be installed so it prevents accidental loosening. Terminals must be rated for the wire and labeled clearly. In no instance shall the wire cross over the terminals for panel/field wiring. Wires shall be run from source to destination without splices or joints within the enclosure. If an enclosure is supplied from more than one power source, the power wiring must be run in separate raceways for each disconnecting means. Exposed cables are permitted along machinery supports, but care should be taken to ensure the cabling doesn't inhibit maintenance (machine guards, grease ports, gauges, etc). Cabling must be supported adequately so sagging or damage doesn't occur. Cables subjected to damage must be protected and installed in compliance with NFPA 70. Grounding conductors must be identified by color green with or without yellow stripes.

- Most of the raceways/wires and hoses are routed in a secured manner & are compliant with NFPA 79





- It was observed initially that some of the braided cables were terminated on lugs that did not appear to be rated for that many terminations. The manufacturer confirmed that these lugs were rated for this application & it is compliant with NFPA 79



- It was observed initially that the white SO cord is a current carrying conductor & it isn't re-identified properly. It was taped/re-identified to indicate it's current carrying in accordance with the NEC and is compliant with NFPA 79 now
- It was observed initially that there was not a lockable valve for the main pneumatics coming into the machine, or the water/oil lines. NFPA 79 requires a lockable valve to isolate the energy source for safety during maintenance or emergency situations. A compliant valve was added, so the machine can be locked out now if required. It is compliant with NFPA 79 now.
- It was observed initially that there appeared to be damaged insulation within the machine on a wire. An electrician verified that the insulation was not damaged & it was just stained from a foreign substance. It is compliant with NFPA 79

Electric Motors and Associated Equipment

All motors shall be mounted so they are adequately protected from damage, accessible for maintenance, have proper cooling, and can be easily replaced. Motors shall be selected to match the connected process conditions. Motors must have nameplate data marked in compliance with NFPA 70, Article 430, and they must have appropriate motor controllers and protection.

- Motors were installed in compliance with NFPA 79

Receptacles and Lighting

Receptacles for machinery must be GFCI-protected, supplied from grounded 120V source, have proper overcurrent protection, and be rated to withstand the environment it is installed in. Only lighting systems designed for use greater than 150V may be permitted; otherwise, lighting systems should be 120V for machinery. Lighting must have overcurrent protection, must not exceed 15 Amps, and must be rated for the physical environment.

- It was initially observed that there was a receptacle installed in the upright position. This machine has stored oil / other liquids & NFPA 79 requires that machine receptacles must be GFCI-protected. The receptacle was replaced with a GFCI receptacle to ensure a ground fault will be interrupted. It is compliant with NFPA 79 now.

Marking and Safety Signs

The equipment must be marked with supplier's name, trademark, and identifying symbol. Safety placards and markings must be permanent.

- Warning Label – *Potential Electric Shock and Arc Flash Hazard*
 - Place visibly on Enclosure when Voltage is greater than 50VAC or 60VDC
- Warning Label – *Does Not De-Energize All Exposed Parts When Disconnecting Means in (off) Position*
 - Place visibly on Enclosure next to disconnect when multiple sources are present
- Warning Label – *Power Shall Be Disconnected from Equipment Prior to Opening Enclosure Door*
 - Place visibly on Enclosure when an attachment plug is used as disconnecting means
- The machine has appropriate warning labels per NFPA 79



- Nameplate
 - Required by manufacturer
 - Name of Supplier
 - Model, Serial Number, etc
 - Rated voltage, phase, frequency, and full-load current for each supply
 - Largest Motor or Load
 - Max Protective Device Threshold
 - Short Circuit Current Rating
 - Electrical Diagram Number(s) or Drawing Index
 - See NEC 670 Section Above for more information



Technical Documentation

The machinery must have necessary information present for installation, operation, maintenance, and storage of the machine. This can be in the form of drawings, diagrams, charts, tables, etc. It must be stored onsite with the machine.

- It was initially observed that there were not any technical documentation stored with the machine. All technical documentation was printed off & located with the machine. It is compliant now.

NFPA 79 Compliance Result:

☒ PASS

☐ FAIL

☐ Remediation Required (Refer to Observation Log)

I hereby certify that I am a professional engineer, registered in the State of South Dakota and I do not benefit financially by the sale/manufacturing of the equipment evaluated within this report, I did not impose excessive financial preconditions to evaluate the equipment, and there were not any conflicts of interests in performing the evaluation. I attest that the evaluation and report was performed by me personally and is to the best of my knowledge complete and accurate.

Joshua J. Knighton
Professional Engineer

May 20, 2026

Date:



Observation Log:

During the evaluation, differences between the observed installation and the governing standards are logged here with recommended actions to correct the issue (if required).

Any issue discovered that requires corrected actions must be corrected and re-evaluated before a final report will be sent to the Electrical Commission and the FEB label placed on the equipment showing compliance with UL standards, NFPA 79, and NFPA 70 Article 670.

Observation Log			
Non-Compliance Issue No.	Standard/Code Reference	Issue	Corrective Action Required
1	NEC & NFPA 79	The machine does not have the short circuit current rating posted on the machine or in the schematics anywhere	YES – consult with the manufacturer to determine what the machine's SCCR shall be & whether it's able to fully withstand 1.4 kA fault current Corrected May 2026
2	NFPA 79	It was initially observed that there was a receptacle installed in the upright position / isn't GFCI protected. This machine has stored oil / other liquids & NFPA 79 requires that machine receptacles must be GFCI-protected.	YES - The receptacle is susceptible to ground faults since it's installed horizontally / allows liquid to enter the energized holes easily. It shall be replaced with a GFCI receptacle to ensure a ground fault will be interrupted. Corrected May 2026
3	NFPA 79 & NEC	It was observed initially that some of the braided cables were terminated on lugs that did not appear to be rated for that many terminations.	YES - Additional lugs shall be installed on the bar, or UL listed splice connectors installed, so the terminations are rated for the amount of cables terminated Verified it is okay as-is May 2026
4	NFPA 79	It was initially observed that there were not any technical documentation stored with the machine.	YES - All technical documentation shall be located & stored with the machine Corrected May 2026
5	NEC 670	It was observed initially to be a 40A breaker. This is not compliant with NEC 670	YES – the upstream 3P/40A breaker should be replaced with a 3P/50A breaker. Verified it is okay as-is May 2026
6	NFPA 79	It was observed initially that the white SO cord is a current carrying conductor & it isn't re-identified properly.	YES - It should be taped/re-identified to indicate it's current carrying in accordance with the NEC Corrected May 2026
7	NFPA 79	It was observed initially that there did not appear to be a lockable valve for the main pneumatics coming into the machine. NFPA 79 requires a lockable valve to isolate the pneumatic energy for	YES - . A compliant valve should be added, if there isn't one there already that can be used to remove the pneumatic energy from the system Corrected May 2026

Observation Log			
Non-Compliance Issue No.	Standard/Code Reference	Issue	Corrective Action Required
		safety during maintenance or emergency situations	
8	NFPA 79	It was observed initially that there appeared to be damaged insulation within the machine on a wire.	NO – Verification Only Verify that this is just oil residue / dirt on the wire, and not damaged insulation. If the insulation is damaged, the wire shall be replaced with insulation that's more suitable to direct exposure to this type of oil. Verified it is okay as-is May 2026
9	NFPA 79	It was observed initially that the safety device to notice when material feed lid is open is zip tied to itself & is not sending proper indication to the controller.	YES - This device shall be installed in accordance to the manufacturer's instructions & re-verified that it functions as intended when it's re-installed. Corrected May 2026

SOUTH DAKOTA DEPARTMENT OF LABOR AND REGULATION
SOUTH DAKOTA ELECTRICAL COMMISSION

217 West Missouri Avenue, Pierre, SD 57501
Tel: 605.773.3573 Toll-Free: 1.800.233.7765 Fax: 605.773.6213 dlr.sd.gov/electrical

MACHINERY DESIGNATION APPLICATION

Entity Name: Tooling Solutions Worldwide Contact Person: Ron Barse
Tel: (605) 886 - 1436
Address: 1625 12th Ave SE Watertown SD 57201
STREET CITY STATE ZIP
Installation Address: : 1625 12th Ave SE Watertown 57201
STREET CITY ZIP

☒ Yes ☐ No: Entity presents application as official notice that Entity is designating the following equipment at the installation address as machinery.

Description of Machinery:

The BE20-V (#2) Machine is used for a unique manufacturing process at entity's location above. 3rd Party Evaluation for UL508a, NFPA 79, and NEC 670 Compliance by Muth Power Solutions (Joshua Jay Knighton). Field Evaluation Label (FEB) with unique identifier placed on the machinery. Specific labels for this machine include - (MPS-FEB-060043)

Name of Professional Engineer involved: Joshua Knighton License No.: 16721

Please answer the following questions:

- ☐ Yes ☒ No: The machinery as a packaged unit is available in a listed form.
- ☐ Yes ☒ No: Has an electrical standard been prepared or adopted to which the machinery should conform. (e.g. NRTL or NFPA 79: Electrical Standard for Industrial Machinery)
- ☒ Yes ☐ No: The machinery is specific electrical equipment for use by the applying entity and not a line as manufactured, stored, sold, installed, or attached.
- ☒ Yes ☐ No: A label indicating the installation complies with nationally recognized standards or tests determining suitable usage for said installation in manner utilized has been adhered to machinery by 3rd party conducting field listing.
- ☒ Yes ☐ No: In the opinion of the Entity the machinery complies with NEC 670.
- ☒ Yes ☐ No: Entity accepts responsibility and liability for the machinery.
- ☒ Yes ☐ No: Entity is of the opinion the machinery is safe for the use intended.

By my signature below, I do solemnly swear the statements made herein are true and correct to the best of my knowledge and belief. Completion of this application does not guarantee approval.

Name: Rick Schaff

SIGNATURE

Position: Manager
07 / 07 / 2026
DATE

To Submit: Mail or fax to the South Dakota Electrical Commission (contact information at the top of this form).

Ensure your application includes:

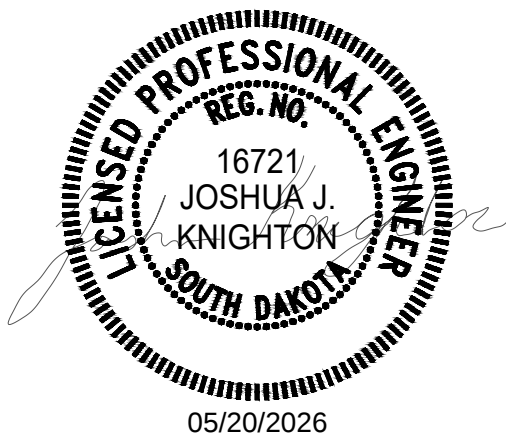
- ☒ Signature and Date
☒ Attach Stamped Engineering plans

Clear Form

Field Evaluation of Non-Listed Industrial Machinery

MPS-FEB-060043

TSUGAMI CORP, BE20-V



Tooling Solutions Worldwide
1625 12th Ave SE, Watertown, SD 57201
Codington County

Revision	Description	Date
0.0	Initial Release - FAILED	2026-04-05
1.0	After Corrections - PASSED	2026-05-20

Muth Power Solutions



Summary:

TSUGAMI CORP, BE20-V panel + connected equipment was installed without a recognized listing label. The panel + connected equipment was built solely for **Tooling Solutions Worldwide** and will only be used in their production processes. South Dakota's Electrical Commission requires an application to be submitted when there is **"No Listing on Installation"**. The requirements for the machinery designation & to be approved by the commission and authority having jurisdiction (AHJ) is as follows:

- No Standard has been prepared or adopted
- Owner states machinery is safe for intended use
- The machinery is specific electrical equipment for use by applying entity and not a line as manufactured, stored, sold, installed, or attached
- Comply with Article 670 of NFPA 70
 - Nameplate Information
 - **Provide proof of compliance with NFPA 79 by licensed professional engineer**

The intent of this report is to show the findings of the evaluation by a professional engineer. If anything was discovered to be non-compliant, it'll be listed in the **Observations Log** at the end of the report. Any issues discovered that require corrective actions must be corrected before a final report will be sent to the South Dakota Electrical Commission and the Field Evaluation Body (FEB) label placed on the equipment showing compliance with UL standards, NFPA 79, and NFPA 70 Article 670.

In compliance with NFPA 791, Muth Power Solutions (M.P.S) generated a unique serial number for the FEB label: **MPS-FEB-060043**. This serial number will be referenced on the machine label as well as in this evaluation report once the machinery is compliant with applicable standards.

Any performance testing is outside the scope and was not performed during this evaluation.

The following versions of codes / standards were used for this evaluation

- NFPA 70 National Electrical Code (2020)
- NFPA 79 Electrical Standard for Industrial Machinery (2024)
- NFPA 790 Competency of Third-Party Field Evaluation Bodies (2024)
- NFPA 791 Recommended Practice and Procedures for Unlabeled Electrical Equipment (2024)

Overall Result of Evaluation:

☒ **PASS**

☐ **FAIL**

☐ Remediation Required (Refer to Observation Log)

Applicable Construction Requirements of NFPA 70, Article 670:

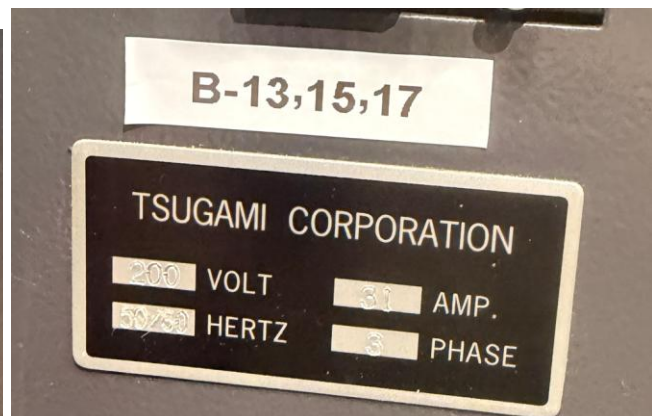
Definition of Industrial Machinery [NFPA 70, Article 670.2]

A power-driven machine (or a group of machines working together in a coordinated manner), not portable by hand while working, that is used to process material by cutting; forming; pressure; electrical, thermal, or optical techniques; lamination; or a combination of these processes. It can include associated equipment used to transfer material or tooling, including fixtures, to assemble/disassemble, to inspect or test, or to package [The associated electrical equipment, including the logic controller(s) and associated software/logic together with the machine actuators and sensors, are considered as part of the industrial machine]

Nameplate Data [NFPA 70, Article 670.3(A)]

The nameplate must be attached to the control equipment enclosure or machine with the following information

- Supply Voltage: **208 VOLT**
- Number of Phases: **3 PHASE**
- Frequency Rating: **50/60 Hz**
- Full-Load Current: **31A**
- Short Circuit Current Rating: **5 kAIC**
- Largest Motor or Load:
- Electrical Drawing Number:



- The SCCR was not published on the nameplate/drawings or listed on the machine anywhere. The main breaker is rated for 5kA @ 200V/100V, so the manufacturer confirmed that it would be appropriate to rate the machine at 5 kA. This was added to the nameplate on the machine, so it's more clear what the machine is rated for. It is compliant now

Supply Conductors [NFPA 70, Article 670.4(A)]

The supply conductors must have an ampacity rating not less than

$$1.25 * (\text{Heating Loads [Amps]} + \text{Largest Motor FLA [Amps]}) + \text{Other Motors \& Loads [Amps]}$$

- The machine is fed with #8 CU conductors, which are rated for 50A in table 310.16 NEC. This is compliant to NEC 670 via the calculation above.

Heating Loads							
Load	Amps	Voltage	Phases	Power Factor	Efficiency	Apparent Power [kVA]	
Largest Motor							
Load	HP	Amps	Voltage	Phases	Power Factor	Efficiency	Apparent Power [kVA]
FANUC Servo/Drive	-	-	-	-	0.9	0.9	8.15
Other Loads							
Load	HP	Amps	Voltage	Phases	Power Factor	Efficiency	Apparent Power [kVA]
FANUC Servo/Drive	-	-	-	-	0.9	0.9	1.67
FANUC Servo/Drive	-	-	-	-	0.9	0.9	4.20
FANUC Servo/Drive	-	-	-	-	0.9	0.9	4.63
FANUC Servo/Drive	-	-	-	-	0.9	0.9	4.63
FANUC Servo/Drive	-	-	-	-	0.9	0.9	4.20
Mitsubishi Servo/Drive	-	-	-	-	0.9	0.9	0.25
control XFMR #1							0.07
control XFMR #2							0.50
High Press Coolant Pump (M6)	-	2.8	208	3	0.9	0.9	1.25
Bag Filter Pump (M12)	-	0.8	208	3	0.9	0.9	0.36
Coolant Motor (M1)	-	-	-	-	0.9	0.9	0.22
Spindle Cooling Pump (M3)	-	-	-	-	0.9	0.9	0.11
Lubrication Motor (M2)	-	-	208	3	0.9	0.9	0.01
Work Conveyor (M5)	-	0.15	208	3	0.9	0.9	0.07
Power Panel P.C.B.	-	-	-	-	0.9	0.9	3.50
Convertor Control Power Supply	-	-	-	-	0.9	0.9	0.01
Spindle Cooling Fan Unit Power Supply	-	-	-	-	0.9	0.9	0.19
Receptacle	-	-	-	-	0.9	0.9	0.19
DC Power Supply	-	1.5	208	3	1	1	0.54

Calculated Amps (1.25 (heat + large motor) + Other Loads)	
46.12	

Calculated Amps (1.25 (heat + large motor) + Other Loads)
46.12

Disconnecting Means [NFPA 70, Article 670.4(B)]

The electrical enclosure must have a disconnecting means since the machine is considered an individual unit. It is not required to have integral overcurrent protection.

- The machine has a single disconnecting means via a 50A/3phase breaker. This is compliant with NFPA 79 & NEC 670



Overcurrent Protection [NFPA 70, Article 670.4(C)]

The electrical enclosure must have a single feeder circuit breaker or fuses when furnished as part of an industrial machine. The rating of the overcurrent device shall be sized on sum of

$$1.25 * (\text{Heating Loads [Amps]} + \text{Largest Motor FLA [Amps]}) + \text{Other Motors \& Loads [Amps]}$$

- Per the calculation above, the feeder breaker should be 50A.
- It was observed initially to be a 40A breaker. This is technically less than what is required, but it results in a more conservative tripping. The owner has historical data for the last 3 years that it hasn't had any nuisance tripping, so it was agreed upon to leave it as-is. This is compliant.



Short Circuit Current Rating [NFPA 70, Article 670.5]

The electrical enclosure must not be installed in a location where the maximum available fault current exceeds the nameplate rating.

- The fault current was calculated from the utility TX down to the BE20-V Machine's main breaker. The fault current from the utility was approximately 6940A @ the utility TX's secondary terminals. With the various connections down the BE20-V Machine main breaker, the available fault current is approximately 1.4 kA. The main breaker is listed at 5kA @ 100V/200V, so it was appropriate to rate the machine at 5 kA. This was added to the nameplate & is compliant now.

FAULT CURRENT CALCULATION																			
Utility XFMR Rating:	300 kVA	Transformer Phase:	3	Impedance (%Z):	5.20%	Fault Current (Inf. Bus):	6939.31 A	Utility XFMR Secondary Voltage	480										
Panel or Transformer Location	Feeder Length in Feet	Upstream Available Fault Current	Wire Material	Wire Size	Conduit Type	(Based on Wire and Conduit)	Line-to-Line Voltage "V"	Number of Conductors "n"	$f = \frac{\sqrt{3} \times L \times I}{n \times C \times E}$	$M = \frac{1}{1+f}$	Total Available Fault Current I _{tot} =I _{sc} x I _{sy} mi(mol.con.)	Transformer KVA	Transformer %Z	Transformer Phase	Transformer Primary Voltage	Transformer Secondary Voltage	$f = \frac{I_{sc} \times V_{prim}}{100,000 \times kVA_{trans}}$	$M = \frac{1}{1+f}$	Transformer Secondary Available Fault Current I _{sc} (secondary)= (V _{prim} /V _{secondary}) M x I _{sc} (primary)
Cabinet	10	6.939	ALUMINUM	250 MCM	NON-MAGNETIC	"E"	480	4	0.00	1.00	6906								
H5B	30	6.966	COPPER	3/0 AWG	STEEL	12843	480	4	0.01	0.99	6807								
XFMR "B"	8	6.907	COPPER	3/0 AWG	STEEL	12843	480	4	0.02	0.98	6704	150	5.80	3	480	208	2.16	0.32	4903
Panel "B"	8	4.963	COPPER	3/0 AWG	STEEL	12843	208	2	0.01	0.99	4842								
BE20-V Machine	95	4.842	COPPER	8 AWG	STEEL	1557	208	1	2.46	0.29	1399								

Surge Protection [NFPA 70, Article 670.6]

The electrical enclosure shall have proper surge protection if the upstream supply circuit does not protect the enclosure

- The upstream panels do not have surge protection, but the machine has 24VDC power supplies that protect the safety signals from overvoltage, surge, and short circuits. This is compliant with NEC 670.



NFPA 70, Article 670 Compliance Result:

☒ PASS

☐ FAIL

☐ Remediation Required (Refer to Observation Log)

Applicable Construction Requirements of UL508A:

Part 2 Enclosures

The enclosure shall have the proper rating for the environment it is installed in. It shall be constructed to support the weight within as well as the environmental forces such as wind & snow. It shall have appropriate markings to indicate manufacturer's intent.

Part 2 Industrial Machinery

Shall comply with NFPA 79 and other standards listed in sections 65 to 67

UL508A Compliance Result:

☒ PASS

☐ FAIL

☐ Remediation Required (Refer to Observation Log)

Construction Requirements of NFPA 79:

System must comply with sections 4 – 17 of NFPA 79. Some of the higher priority requirements are summarized below that are accompanied with onsite pictures of the actual gear. Other specific sections/requirements will be called out as needed, if it's applicable to the equipment being evaluated.

Electrical Supply

The system shall be able to operate within 90%-110% of voltage rating, 99%-101% frequency rating, and harmonic THD of 0%-10% for short periods of time.

- The electrical supply was measured & it's within the machine's tolerances

Environmental

The system shall be protected from the environment it is installed within.

- The machine's enclosures are rated appropriately for the environment

Available Fault Current

The system shall have a larger withstand short circuit rating than the maximum available fault current on the line terminals of the system's disconnecting means.

- See NEC 670 Section Above for more information

Disconnecting Means

The system shall have a single disconnecting means from the single supply circuit wherever possible. The line side must be protected from unintentional direct contact by users when the enclosure door is opened. A disconnecting means is not required for circuits less than 50VAC RMS or 60VDC.

- See NEC 670 Section Above for more information

Protection from Electrical Hazards

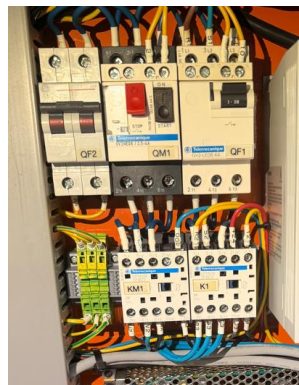
The system shall have live parts insulated from users and openings/windows must meet UL requirements. It must have integral fault protection for accidental connections to live parts. Any interlocked electrical supply circuits must be indicated on the enclosure with a warning placard. An arc flash hazard warning placard must be placed on the enclosures with live electrical present.

- The machine is installed with live parts insulated from the user. There are not any interlocked power supplies. The machine has the appropriate warning placards.

Protection of Equipment

The system may have some of the following protection in order to protect the equipment

- Overcurrent
 - Overloads for motors
 - Ground fault
 - Overvoltage
 - Abnormal temperature
 - Incorrect phases or loss of phases
 - Overspeed of machines
- The machine has appropriate protection

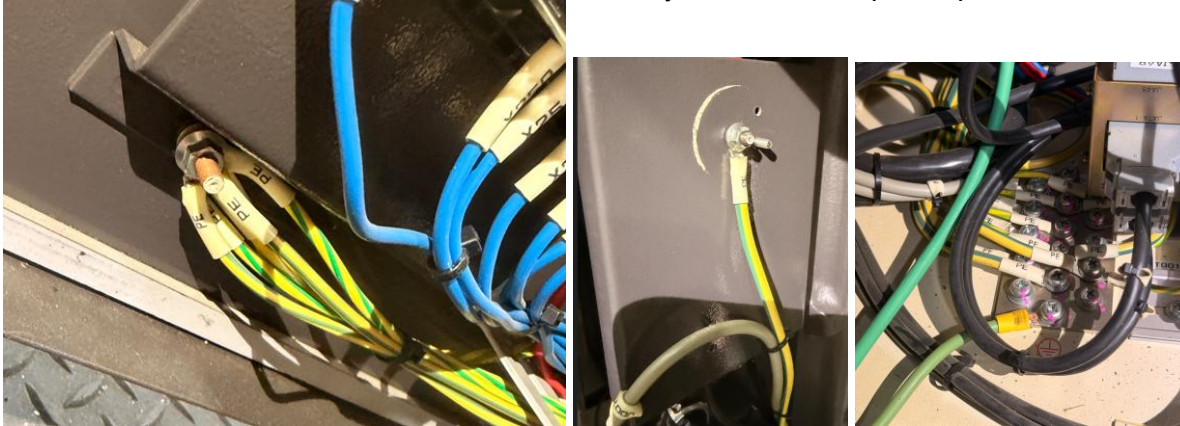


Grounding & Bonding

The system shall be installed in accordance with NFPA 70, Article 250 for grounding & bonding. The equipment grounding conductor must be identified with the word "GROUND" or be identified with the GND symbol.



- The equipment is bonded appropriately & there are symbols at bond points per NFPA 79



Control Circuits & Control Functions

The AC control circuit must come from a control transformer must not exceed 120VAC & maximum 1kA available fault current. Any DC control circuit must be less than 250 VDC. All control circuits must have overcurrent protection. All safety/start/stop functions must work as intended. Interlocks shall be in place to ensure machine fails safely. Emergency stops shall keep the machinery de-energized until safety conditions are reset (shouldn't restart, but act as a permissive to the machinery).

- The safety circuits were all tested & the safeties work as intended. The device has an integral 24VDC power supply that protects against surges / overvoltages



- Features :
 - AC input range selectable by switch
 - Protections: Short circuit / Overload / Over voltage
 - Cooling by free air convection
 - 100% full load burn-in test
 - Fixed switching frequency at 83KHz
 - 2 years warranty

- It was observed initially that the safety device to notice when material feed lid is open was zip tied to itself & was not sending proper indication to the controller. This device was re-installed in accordance to the manufacturer's instructions & re-verified that it functioned as intended. It is compliant now.



Operator Interface and Control Devices

The operator interface must be readily accessible to the machine. Control devices must be mounted securely / installed in compliance with the manufacturer and they must be protected from accidental operation / false signal to the machine. Color indicators shall be the following colors for each function:

- **Start or Normal Conditions** (Green but Black, White, or Gray)
- **Stop** (Red but Black, White, or Gray is permitted for non-emergencies)
- **Emergency Stop or Emergency Conditions** (Red)
 - Must be RED with Mushroom-head Type & yellow background for pushbutton-operated switches. Pull-cord operated switches are also valid.
- **Abnormal Conditions** (Yellow or Amber)
- **Push-Button that Causes Movement** (Black, but White, Gray, Blue is permitted)
- **Push-Button for Resets** (Blue, but Black, White, Gray, and RED if stop/emergency reset)
- **Mandatory Conditions** (Blue)
- **Neutral Conditions** (White)

- The control devices / buttons are compliant with NFPA 79

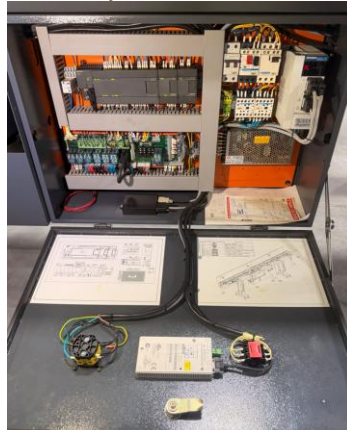


Control Equipment: Location, Mounting, and Enclosures

All enclosures must be mounted so it allows maintenance, protection against environmental influences, and allows normal operation of the machinery. Exposed, live electrical terminations must be protected.

Mechanical tubing, piping, valves, etc to handle gas, liquid, or air must not be located within the enclosure. Electrical working spaces defined in NFPA 70, Article 110 shall be followed for the enclosure and its doors.

- The enclosures are installed in compliance with NFPA 79



Conductors, Cables, and Flexible Cords

All cabling/conductors shall be identified and installed in accordance with their intended use. Conductors must be copper with appropriate insulation and ampacity rating not less than 125% of the full load current

$$1.25 * (\text{Heating Loads [Amps]} + \text{Largest Motor FLA [Amps]}) + \text{Other Motors \& Loads [Amps]}$$

The ampacity rating must take into account deration factors such as more than three current-carrying conductors in raceway, temperature, buried, etc. The wire's insulation shall be rated for all voltage levels present within the raceway.

- Wires are installed & rated for their intended use

Wiring Practices

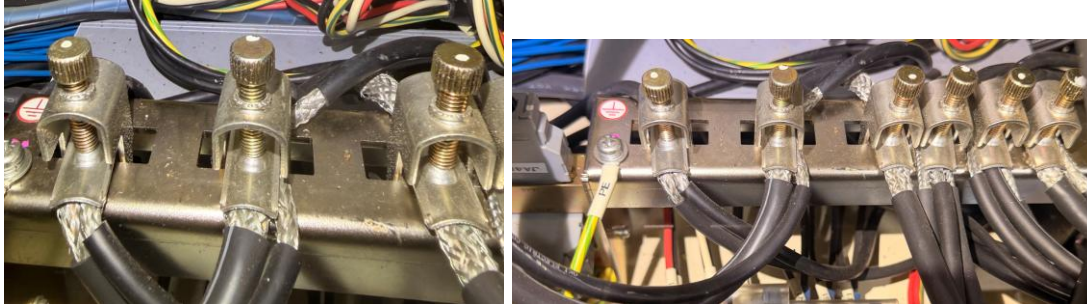
All connections must be installed so it prevents accidental loosening. Terminals must be rated for the wire and labeled clearly. In no instance shall the wire cross over the terminals for panel/field wiring. Wires shall be run from source to destination without splices or joints within the enclosure. If an enclosure is supplied from more than one power source, the power wiring must be run in separate raceways for each disconnecting means. Exposed cables are permitted along machinery supports, but care should be taken to ensure the cabling doesn't inhibit maintenance (machine guards, grease ports, gauges, etc). Cabling must be supported adequately so sagging or damage doesn't occur. Cables subjected to damage must be protected and installed in compliance with NFPA 70. Grounding conductors must be identified by color green with or without yellow stripes.

- Most of the raceways/wires and hoses are routed in a secured manner & are compliant with NFPA 79





- It was observed initially that some of the braided cables were terminated on lugs that did not appear to be rated for that many terminations. The manufacturer confirmed that these lugs are rated for this application & it's compliant with NFPA 79.



- It was observed initially that the white SO cord is a current carrying conductor & it wasn't re-identified properly. It was taped/re-identified to indicate it's current carrying in accordance with the NEC & is compliant now.
- It was observed initially that there did not appear to be a lockable valve for the main pneumatics coming into the machine, or the water/oil lines. NFPA 79 requires a lockable valve to isolate the energy source for safety during maintenance or emergency situations. A compliant valve was added, so it can be used to remove the pneumatic/water/oil energy from the system when locked out / tagged out.
- It was observed initially that the fan filter on the electrical enclosure was saturated with oil / dirt. The owner cleaned the filter fan & verified it was functioning as intended now. It is compliant with NFPA 79.

Electric Motors and Associated Equipment

All motors shall be mounted so they are adequately protected from damage, accessible for maintenance, have proper cooling, and can be easily replaced. Motors shall be selected to match the connected process conditions. Motors must have nameplate data marked in compliance with NFPA 70, Article 430, and they must have appropriate motor controllers and protection.

- Motors were installed in compliance with NFPA 79



Receptacles and Lighting

Receptacles for machinery must be GFCI-protected, supplied from grounded 120V source, have proper overcurrent protection, and be rated to withstand the environment it is installed in. Only lighting systems designed for use greater than 150V may be permitted; otherwise, lighting systems should be 120V for machinery. Lighting must have overcurrent protection, must not exceed 15 Amps, and must be rated for the physical environment.

- It was initially observed that there was a receptacle installed in the upright position. This machine has stored oil / other liquids & NFPA 79 requires that machine receptacles must be GFCI-protected. The receptacle below was susceptible to ground faults since was installed horizontally / allowed liquid to enter the energized holes easily. It was replaced with a GFCI receptacle to ensure a ground fault will be interrupted. It is compliant with NFPA 79 now.

Marking and Safety Signs

The equipment must be marked with supplier's name, trademark, and identifying symbol. Safety placards and markings must be permanent.

- Warning Label – *Potential Electric Shock and Arc Flash Hazard*
 - Place visibly on Enclosure when Voltage is greater than 50VAC or 60VDC
- Warning Label – *Does Not De-Energize All Exposed Parts When Disconnecting Means in (off) Position*
 - Place visibly on Enclosure next to disconnect when multiple sources are present
- Warning Label – *Power Shall Be Disconnected from Equipment Prior to Opening Enclosure Door*
 - Place visibly on Enclosure when an attachment plug is used as disconnecting means
- The machine has appropriate warning labels per NFPA 79



- Nameplate
 - Required by manufacturer
 - Name of Supplier
 - Model, Serial Number, etc
 - Rated voltage, phase, frequency, and full-load current for each supply
 - Largest Motor or Load
 - Max Protective Device Threshold
 - Short Circuit Current Rating
 - Electrical Diagram Number(s) or Drawing Index
 - See NEC 670 Section Above for more information



Technical Documentation

The machinery must have necessary information present for installation, operation, maintenance, and storage of the machine. This can be in the form of drawings, diagrams, charts, tables, etc. It must be stored onsite with the machine.

- It was initially observed that there were not any technical documentation stored with the machine. All technical documentation was located & it is stored with the machine now

NFPA 79 Compliance Result:

☒ PASS

☐ FAIL

☐ Remediation Required (Refer to Observation Log)

I hereby certify that I am a professional engineer, registered in the State of South Dakota and I do not benefit financially by the sale/manufacturing of the equipment evaluated within this report, I did not impose excessive financial preconditions to evaluate the equipment, and there were not any conflicts of interests in performing the evaluation. I attest that the evaluation and report was performed by me personally and is to the best of my knowledge complete and accurate.

Joshua J. Knighton
Professional Engineer

May 20, 2026

Date:

Observation Log:

During the evaluation, differences between the observed installation and the governing standards are logged here with recommended actions to correct the issue (if required).

Any issue discovered that requires corrected actions must be corrected and re-evaluated before a final report will be sent to the Electrical Commission and the FEB label placed on the equipment showing compliance with UL standards, NFPA 79, and NFPA 70 Article 670.

Observation Log			
Non-Compliance Issue No.	Standard/Code Reference	Issue	Corrective Action Required
1	NEC & NFPA 79	The machine does not have the short circuit current rating posted on the machine or in the schematics anywhere	YES – consult with the manufacturer to determine what the machine's SCCR shall be & whether it's able to fully withstand 1.4 kA fault current Corrected May 2026
2	NFPA 79	It was initially observed that there was a receptacle installed in the upright position / isn't GFCI protected. This machine has stored oil / other liquids & NFPA 79 requires that machine receptacles must be GFCI-protected.	YES - The receptacle is susceptible to ground faults since it's installed horizontally / allows liquid to enter the energized holes easily. It shall be replaced with a GFCI receptacle to ensure a ground fault will be interrupted. Corrected May 2026
3	NFPA 79 & NEC	It was observed initially that some of the braided cables were terminated on lugs that did not appear to be rated for that many terminations.	YES - Additional lugs shall be installed on the bar, or UL listed splice connectors installed, so the terminations are rated for the amount of cables terminated Verified it was okay May 2026
4	NFPA 79	It was initially observed that there were not any technical documentation stored with the machine.	YES - All technical documentation shall be located & stored with the machine Corrected May 2026
5	NEC 670	It was observed initially to be a 40A breaker. This is not compliant with NEC 670	YES – the upstream 3P/40A breaker should be replaced with a 3P/50A breaker. Verified it was okay May 2026
6	NFPA 79	It was observed initially that the white SO cord is a current carrying conductor & it isn't re-identified properly.	YES - It should be taped/re-identified to indicate it's current carrying in accordance with the NEC Corrected May 2026
7	NFPA 79	It was observed initially that there did not appear to be a lockable valve for the main pneumatics coming into the machine. NFPA 79 requires a lockable valve to isolate the pneumatic energy for	YES - . A compliant valve should be added, if there isn't one there already that can be used to remove the pneumatic energy from the system Corrected May 2026



Observation Log			
Non-Compliance Issue No.	Standard/Code Reference	Issue	Corrective Action Required
		safety during maintenance or emergency situations	
8	NFPA 79	It was observed initially that the safety device to notice when material feed lid is open is zip tied to itself & is not sending proper indication to the controller.	YES - This device shall be installed in accordance to the manufacturer's instructions & re-verified that it functions as intended when it's re-installed. Corrected May 2026
9	NFPA 79	It was observed initially that the fan filter on the electrical enclosure was saturated with oil / dirt.	NO – Verification Only Verify that this won't cause any damage / electrical fault. If could be a problem down the road, it's recommended to operate without a filter fan since the oil build up is more harmful than potentially overheating within the panel. Consult with the manufacturer on how to proceed. Corrected May 2026

SOUTH DAKOTA DEPARTMENT OF LABOR AND REGULATION
SOUTH DAKOTA ELECTRICAL COMMISSION

217 West Missouri Avenue, Pierre, SD 57501
Tel: 605.773.3573 Toll-Free: 1.800.233.7765 Fax: 605.773.6213 dlr.sd.gov/electrical

MACHINERY DESIGNATION APPLICATION

Entity Name: Tooling Solutions Worldwide Contact Person: Ron Barse
Tel: (605) 886 - 1436
Address: 1625 12th Ave SE Watertown SD 57201
STREET CITY STATE ZIP
Installation Address: : 1625 12th Ave SE Watertown 57201
STREET CITY ZIP

☒ Yes ☐ No: Entity presents application as official notice that Entity is designating the following equipment at the installation address as machinery.

Description of Machinery:

The BO205-III Machine is used for a unique manufacturing process at entity's location above.
3rd Party Evaluation for UL508a, NFPA 79, and NEC 670 Compliance by Muth Power Solutions (Joshua Jay Knighton). Field Evaluation Label (FEB) with unique identifier placed on the machinery.
Specific labels for this machine include - (MPS-FEB-060044)

Name of Professional Engineer involved: Joshua Knighton License No.: 16721

Please answer the following questions:

- ☒ Yes ☐ No: The machinery as a packaged unit is available in a listed form.
- ☐ Yes ☒ No: Has an electrical standard been prepared or adopted to which the machinery should conform. (e.g. NRTL or NFPA 79: Electrical Standard for Industrial Machinery)
- ☒ Yes ☐ No: The machinery is specific electrical equipment for use by the applying entity and not a line as manufactured, stored, sold, installed, or attached.
- ☒ Yes ☐ No: A label indicating the installation complies with nationally recognized standards or tests determining suitable usage for said installation in manner utilized has been adhered to machinery by 3rd party conducting field listing.
- ☒ Yes ☐ No: In the opinion of the Entity the machinery complies with NEC 670.
- ☒ Yes ☐ No: Entity accepts responsibility and liability for the machinery.
- ☒ Yes ☐ No: Entity is of the opinion the machinery is safe for the use intended.

By my signature below, I do solemnly swear the statements made herein are true and correct to the best of my knowledge and belief. Completion of this application does not guarantee approval.

Name: Rick Schaff

Position: Manager

SIGNATURE



07 / 07 / 2026
DATE

To Submit: Mail or fax to the South Dakota Electrical Commission (contact information at the top of this form).

Ensure your application includes:

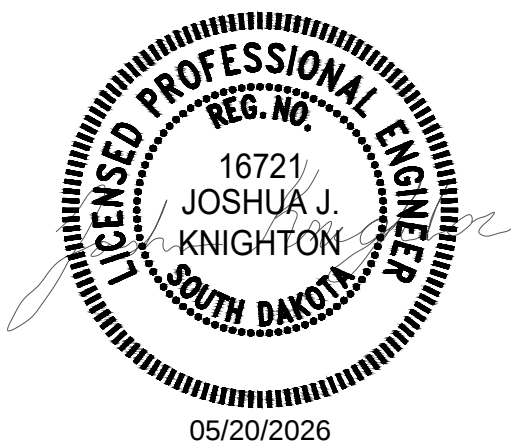
- ☒ Signature and Date
☒ Attach Stamped Engineering plans

Clear Form

Field Evaluation of Non-Listed Industrial Machinery

MPS-FEB-060044

TSUGAMI CORP, B0205-III - No. 2A919BA



Tooling Solutions Worldwide
1625 12th Ave SE, Watertown, SD 57201
Codington County

Revision	Description	Date
0.0	Initial Release - FAILED	2026-04-05
1.0	After Corrections – PASSED	2026-05-20

Muth Power Solutions



Summary:

TSUGAMI CORP, B0205-III - No. 2A919BA panels + connected equipment was installed without a recognized listing label. The panel + connected equipment was built solely for **Tooling Solutions Worldwide** and will only be used in their production processes. South Dakota's Electrical Commission requires an application to be submitted when there is **"No Listing on Installation"**. The requirements for the machinery designation & to be approved by the commission and authority having jurisdiction (AHJ) is as follows:

- No Standard has been prepared or adopted
- Owner states machinery is safe for intended use
- The machinery is specific electrical equipment for use by applying entity and not a line as manufactured, stored, sold, installed, or attached
- Comply with Article 670 of NFPA 70
 - Nameplate Information
 - **Provide proof of compliance with NFPA 79 by licensed professional engineer**

The intent of this report is to show the findings of the evaluation by a professional engineer. If anything was discovered to be non-compliant, it'll be listed in the **Observations Log** at the end of the report. Any issues discovered that require corrective actions must be corrected before a final report will be sent to the South Dakota Electrical Commission and the Field Evaluation Body (FEB) label placed on the equipment showing compliance with UL standards, NFPA 79, and NFPA 70 Article 670.

In compliance with NFPA 791, Muth Power Solutions (M.P.S) generated a unique serial number for the FEB label: **MPS-FEB-060044**. This serial number will be referenced on the machine label as well as in this evaluation report once the machinery is compliant with applicable standards.

Any performance testing is outside the scope and was not performed during this evaluation.

The following versions of codes / standards were used for this evaluation

- NFPA 70 National Electrical Code (2020)
- NFPA 79 Electrical Standard for Industrial Machinery (2024)
- NFPA 790 Competency of Third-Party Field Evaluation Bodies (2024)
- NFPA 791 Recommended Practice and Procedures for Unlabeled Electrical Equipment (2024)

Overall Result of Evaluation:

☒ **PASS**

☐ **FAIL**

☐ Remediation Required (Refer to Observation Log)

Applicable Construction Requirements of NFPA 70, Article 670:

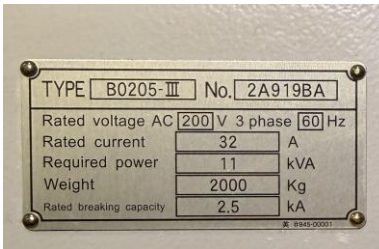
Definition of Industrial Machinery [NFPA 70, Article 670.2]

A power-driven machine (or a group of machines working together in a coordinated manner), not portable by hand while working, that is used to process material by cutting; forming; pressure; electrical, thermal, or optical techniques; lamination; or a combination of these processes. It can include associated equipment used to transfer material or tooling, including fixtures, to assemble/disassemble, to inspect or test, or to package [The associated electrical equipment, including the logic controller(s) and associated software/logic together with the machine actuators and sensors, are considered as part of the industrial machine]

Nameplate Data [NFPA 70, Article 670.3(A)]

The nameplate must be attached to the control equipment enclosure or machine with the following information

- Supply Voltage: **200 V**
- Number of Phases: **3 PHASE**
- Frequency Rating: **60 Hz**
- Full-Load Current: **32 A**
- Short Circuit Current Rating: **5 kAIC**
- Largest Motor or Load:
- Electrical Drawing Number:



- The SCCR was not published on the nameplate/drawings or listed on the machine anywhere. The main breaker is rated for 5kA @ 200V/100V, so the manufacturer agreed that it would be appropriate to rate the machine at 5 kA. This was added to the nameplate on the machine, so it's more clear what the machine is rated for and is compliant now

Supply Conductors [NFPA 70, Article 670.4(A)]

The supply conductors must have an ampacity rating not less than

$$1.25 * (\text{Heating Loads [Amps]} + \text{Largest Motor FLA [Amps]}) + \text{Other Motors \& Loads [Amps]}$$

- The above calculation resulted in approximately 46A. The supply conductors are #8 CU, which are rated for 50A @ 75 Deg C in conduit. This is compliant for this installation.

Heating Loads							
Load		Amps	Voltage	Phases	Power Factor	Efficiency	Apparent Power [kVA]
Largest Motor							
Load	HP	Amps	Voltage	Phases	Power Factor	Efficiency	Apparent Power [kVA]
FANUC Servo/Drive	-	-	-	-	0.9	0.9	8.15
Other Loads							
Load	HP	Amps	Voltage	Phases	Power Factor	Efficiency	Apparent Power [kVA]
FANUC Servo/Drive	-	-	-	-	0.9	0.9	1.67
FANUC Servo/Drive	-	-	-	-	0.9	0.9	4.20
FANUC Servo/Drive	-	-	-	-	0.9	0.9	4.63
FANUC Servo/Drive	-	-	-	-	0.9	0.9	4.63
FANUC Servo/Drive	-	-	-	-	0.9	0.9	4.20
Mitsubishi Servo/Drive	-	-	-	-	0.9	0.9	0.25
control XFMR #1							0.07
control XFMR #2							0.50
High Press Coolant Pump (M6)	-	2.8	208	3	0.9	0.9	1.25
Bag Filter Pump (M12)	-	0.8	208	3	0.9	0.9	0.36
Coolant Motor (M1)	-	-	-	-	0.9	0.9	0.22
Spindle Cooling Pump (M3)	-	-	-	-	0.9	0.9	0.11
Lubrication Motor (M2)	-	-	208	3	0.9	0.9	0.01
Work Conveyor (M5)	-	0.15	208	3	0.9	0.9	0.07
Power Panel P.C.B.	-	-	-	-	0.9	0.9	3.50
Converter Control Power Supply	-	-	-	-	0.9	0.9	0.01
Spindle Cooling Fan Unit Power Supply	-	-	-	-	0.9	0.9	0.19
Receptacle	-	-	-	-	0.9	0.9	0.19
DC Power Supply	-	1.5	208	3	1	1	0.54

Supply Conductor Rating @ 75 Deg C	
#8 CU is rated for 50A	
Calculated Amps (1.25 (heat + large motor) + Other Loads)	
46.12	

Supply Conductor Rating @ 75 Deg C
#8 CU is rated for 50A
Calculated Amps (1.25 (heat + large motor) + Other Loads)
46.12

Disconnecting Means [NFPA 70, Article 670.4(B)]

The electrical enclosure must have a disconnecting means since the machine is considered an individual unit. It is not required to have integral overcurrent protection.

- The machine has a single disconnecting means that's local to the machine. This is compliant



Overcurrent Protection [NFPA 70, Article 670.4(C)]

The electrical enclosure must have a single feeder circuit breaker or fuses when furnished as part of an industrial machine. The rating of the overcurrent device shall be sized on sum of

$$1.25 * (\text{Heating Loads [Amps]} + \text{Largest Motor FLA [Amps]}) + \text{Other Motors \& Loads [Amps]}$$

- The machine has a 50A / 3P breaker installed in the machine. This is compliant with the above calculation.



- The machine was observed initially to be fed from a 40A breaker. This is undersized / could cause nuisance tripping, but the owner confirmed that nuisance tripping has not occurred on this machine, so it was agreed to leave it as-is. This is compliant since it results in a more conservative protection.



Short Circuit Current Rating [NFPA 70, Article 670.5]

The electrical enclosure must not be installed in a location where the maximum available fault current exceeds the nameplate rating.

- The fault current was calculated from the utility TX down to the BO205-III Machine's main breaker. The fault current from the utility was approximately 6940A @ the utility TX's secondary terminals. With the various connections down the Machine's main breaker, the available fault current is approximately 1.4 kA. The main breaker was listed at 5kA @ 100V/200V, so the manufacturer agreed that it was appropriate to rate the machine at 5 kA. This is above the maximum available fault current, so it's compliant with NFPA 79

FAULT CURRENT CALCULATION																
Utility XFMR Rating:	300 kVA	Transformer Phase:	3	Impedance (%Z):	5.20%	Fault Current (Inf. Bus):	6939.31 A	Utility XFMR Secondary Voltage	480							
Panel or Transformer Name	Feeder Length in Feet "L"	Upstream Available Fault Current "I"	Wire Material	Wire Size	Conduit Type	(Based on Wire and Conduit) "C"	Line-to-Line Voltage "E"	Number of Conductors "n"	$f = \frac{\sqrt{3} \times L \times I}{n \times C \times E}$	Total Available Fault Current I _{tot} =I _{sc} +I _{sym} (mot.cont.)	Transformer KVA	Transformer %Z	Transformer Phase	Transformer Primary Voltage	Transformer Secondary Voltage	$f = \frac{I_{sc} \times V}{\frac{\sqrt{3} \times L \times I}{100,000} \times KVA_{tr}}$
CT Cabinet	10	6,939	ALUMINUM	250 MCM	NON-MAGNETIC	12862	480	4	0.00	6906						
MSB	30	6,906	COPPER	3/0 AWG	STEEL	12843	480	4	0.01	6807						
XFMR "B"	8	6,807	COPPER	3/0 AWG	STEEL	12843	480	1	0.02	6704	150	5.80	3	480	208	2.16
Panel "B"	8	4,903	COPPER	3/0 AWG	STEEL	12843	208	2	0.01	4842						
BO205-III Machine	95	4,842	COPPER	8 AWG	STEEL	1557	208	1	2.46	1399						

Surge Protection [NFPA 70, Article 670.6]

The electrical enclosure shall have proper surge protection if the upstream supply circuit does not protect the enclosure

- The safety circuits are on 24VDC. These power supplies are protected from overvoltage, short circuit, and surges, so this is compliant.



NFPA 70, Article 670 Compliance Result:

☒ PASS

☐ FAIL

☐ Remediation Required (Refer to Observation Log)



Applicable Construction Requirements of UL508A:

Part 2 Enclosures

The enclosure shall have the proper rating for the environment it is installed in. It shall be constructed to support the weight within as well as the environmental forces such as wind & snow. It shall have appropriate markings to indicate manufacturer's intent.

Part 2 Industrial Machinery

Shall comply with NFPA 79 and other standards listed in sections 65 to 67

UL508A Compliance Result:

☒ PASS

☐ FAIL

☐ Remediation Required (Refer to Observation Log)

Construction Requirements of NFPA 79:

System must comply with sections 4 – 17 of NFPA 79. Some of the higher priority requirements are summarized below that are accompanied with onsite pictures of the actual gear. Other specific sections/requirements will be called out as needed, if it's applicable to the equipment being evaluated.

Electrical Supply

The system shall be able to operate within 90%-110% of voltage rating, 99%-101% frequency rating, and harmonic THD of 0%-10% for short periods of time.

- The electrical supply was measured and it is within the tolerances listed above for the machine

Environmental

The system shall be protected from the environment it is installed within.

- The machine's enclosures are rated appropriately for the environment

Available Fault Current

The system shall have a larger withstand short circuit rating than the maximum available fault current on the line terminals of the system's disconnecting means.

- See NEC 670 Section Above for more information

Disconnecting Means

The system shall have a single disconnecting means from the single supply circuit wherever possible. The line side must be protected from unintentional direct contact by users when the enclosure door is opened. A disconnecting means is not required for circuits less than 50VAC RMS or 60VDC.

- See NEC 670 Section Above for more information

Protection from Electrical Hazards

The system shall have live parts insulated from users and openings/windows must meet UL requirements. It must have integral fault protection for accidental connections to live parts. Any interlocked electrical supply circuits must be indicated on the enclosure with a warning placard. An arc flash hazard warning placard must be placed on the enclosures with live electrical present.

- The machine has live parts insulated & appropriate warning placards installed. The machine is compliant with NFPA 79

Protection of Equipment

The system may have some of the following protection in order to protect the equipment

- Overcurrent
- Overloads for motors
- Ground fault
- Overvoltage
- Abnormal temperature
- Incorrect phases or loss of phases
- Overspeed of machines
 - The machine has appropriate protection for the various connected devices



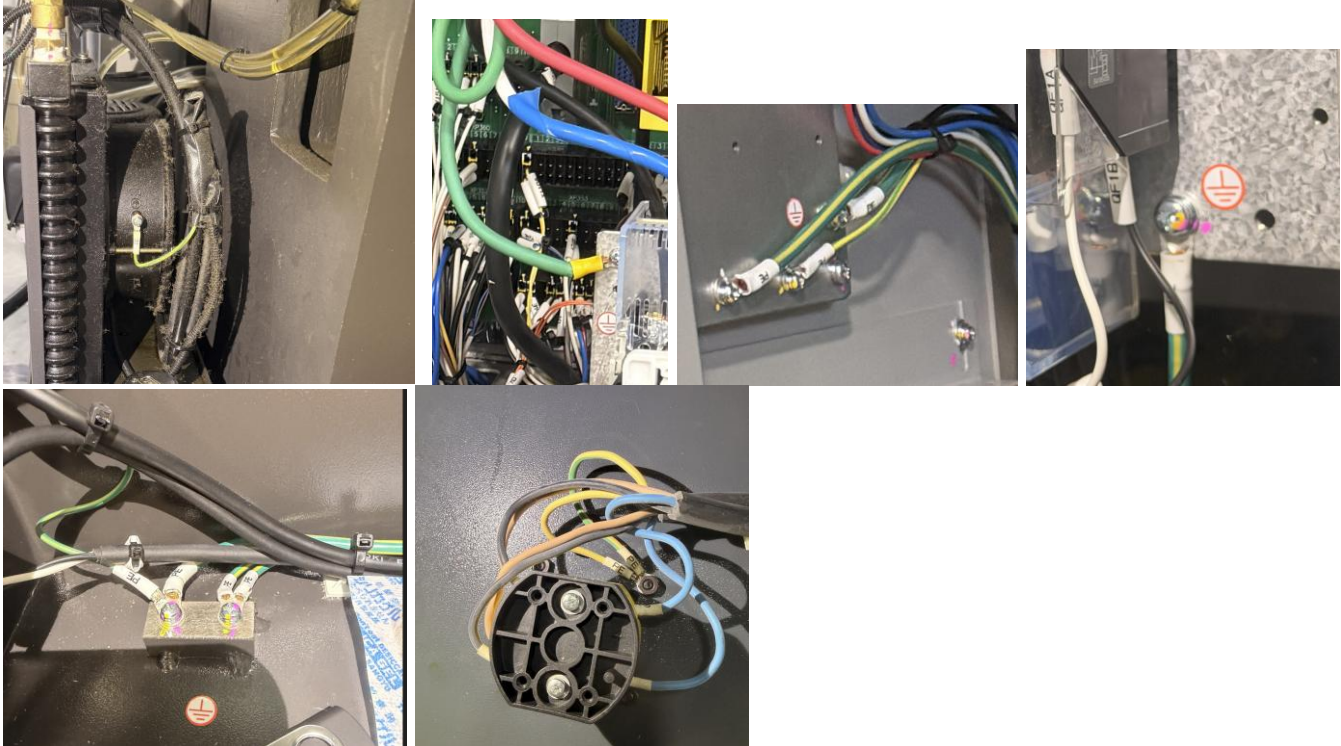


Grounding & Bonding

The system shall be installed in accordance with NFPA 70, Article 250 for grounding & bonding. The equipment grounding conductor must be identified with the word "GROUND" or be identified with the GND symbol.



- The machine is bonded in compliance with NFPA 79



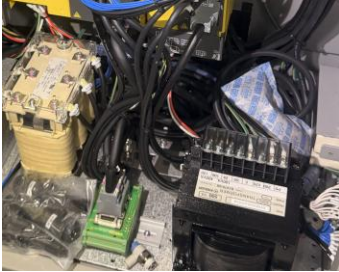
It was observed that the door bonding strap was connected on the door, but the bolt on the enclosure was missing, so the bonding connection was not being made. A proper bolt was installed / torqued properly, and the bonding connection is made between the door & the enclosure. It is compliant now.



Control Circuits & Control Functions

The AC control circuit must come from a control transformer must not exceed 120VAC & maximum 1kA available fault current. Any DC control circuit must be less than 250 VDC. All control circuits must have overcurrent protection. All safety/start/stop functions must work as intended. Interlocks shall be in place to ensure machine fails safely. Emergency stops shall keep the machinery de-energized until safety conditions are reset (shouldn't restart, but act as a permissive to the machinery).

- The control XFMRs and DC circuits are compliant with NFPA 79. All safety circuits were tested & they're in working order



- The safety door switch on the feed lid was zip tied together and was not interrupting the signal as intended when the lid was opened / closed. This was corrected so the safety circuit functions as intended. It is compliant now.

Operator Interface and Control Devices

The operator interface must be readily accessible to the machine. Control devices must be mounted securely / installed in compliance with the manufacturer and they must be protected from accidental operation / false signal to the machine. Color indicators shall be the following colors for each function:

- Start or Normal Conditions** (Green but Black, White, or Gray)
 - Stop** (Red but Black, White, or Gray is permitted for non-emergencies)
 - Emergency Stop or Emergency Conditions** (Red)
 - Must be RED with Mushroom-head Type & yellow background for pushbutton-operated switches. Pull-cord operated switches are also valid.
 - Abnormal Conditions** (Yellow or Amber)
 - Push-Button that Causes Movement** (Black, but White, Gray, Blue is permitted)
 - Push-Button for Resets** (Blue, but Black, White, Gray, and RED if stop/emergency reset)
 - Mandatory Conditions** (Blue)
 - Neutral Conditions** (White)
- The buttons / control devices are compliant with NFPA 79



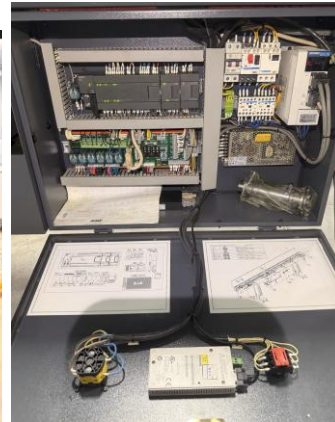


Control Equipment: Location, Mounting, and Enclosures

All enclosures must be mounted so it allows maintenance, protection against environmental influences, and allows normal operation of the machinery. Exposed, live electrical terminations must be protected.

Mechanical tubing, piping, valves, etc to handle gas, liquid, or air must not be located within the enclosure. Electrical working spaces defined in NFPA 70, Article 110 shall be followed for the enclosure and its doors.

- The control enclosures are installed in compliance with NFPA 79



Conductors, Cables, and Flexible Cords

All cabling/conductors shall be identified and installed in accordance with their intended use. Conductors must be copper with appropriate insulation and ampacity rating not less than 125% of the full load current

$$1.25 * (\text{Heating Loads [Amps]} + \text{Largest Motor FLA [Amps]}) + \text{Other Motors \& Loads [Amps]}$$

The ampacity rating must take into account deration factors such as more than three current-carrying conductors in raceway, temperature, buried, etc. The wire's insulation shall be rated for all voltage levels present within the raceway.

- The conductors / cables are installed in compliance with NFPA 79

Wiring Practices

All connections must be installed so it prevents accidental loosening. Terminals must be rated for the wire and labeled clearly. In no instance shall the wire cross over the terminals for panel/field wiring. Wires shall be run from source to destination without splices or joints within the enclosure. If an enclosure is supplied from more than one power source, the power wiring must be run in separate raceways for each disconnecting means. Exposed cables are permitted along machinery supports, but care should be taken to ensure the cabling doesn't inhibit maintenance (machine guards, grease ports, gauges, etc). Cabling must be supported adequately so sagging or damage doesn't occur. Cables subjected to damage must be protected and installed in compliance with NFPA 70. Grounding conductors must be identified by color green with or without yellow stripes.

- The raceways / hoses are installed in a professional manner and most have been zip tied to prevent accidental snagging / improper support

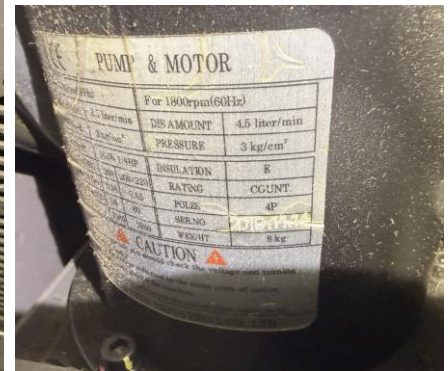


- It was observed initially that wires were entering a motor housing without proper insulation / was stripped before the cord grip. The multi-conductor cable was re-installed so the insulation was properly inserted into the cord grip before it was stripped. It is compliant now.
- It was observed initially that there was not a lockable valve for the main pneumatics coming into the machine, or the water/oil lines. NFPA 79 requires a lockable valve to isolate the energy source for safety during maintenance or emergency situations. A compliant valve was added, so it can be used to remove the pneumatic/water/oil energy from the system when locked out / tagged out. It is compliant now

Electric Motors and Associated Equipment

All motors shall be mounted so they are adequately protected from damage, accessible for maintenance, have proper cooling, and can be easily replaced. Motors shall be selected to match the connected process conditions. Motors must have nameplate data marked in compliance with NFPA 70, Article 430, and they must have appropriate motor controllers and protection.

- The motors were installed in compliance with NFPA 79



Receptacles and Lighting

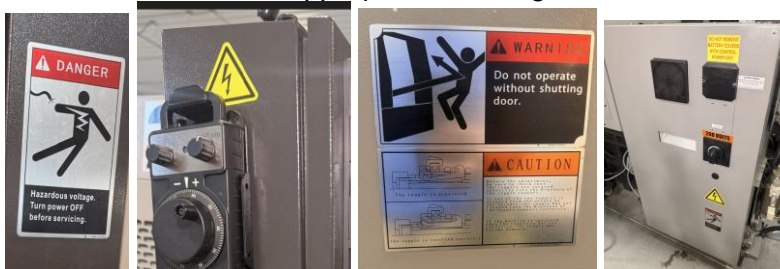
Receptacles for machinery must be GFCI-protected, supplied from grounded 120V source, have proper overcurrent protection, and be rated to withstand the environment it is installed in. Only lighting systems designed for use greater than 150V may be permitted; otherwise, lighting systems should be 120V for machinery. Lighting must have overcurrent protection, must not exceed 15 Amps, and must be rated for the physical environment.

- There were not any receptacles or lights observed on the machine, so this is not applicable

Marking and Safety Signs

The equipment must be marked with supplier's name, trademark, and identifying symbol. Safety placards and markings must be permanent.

- Warning Label – *Potential Electric Shock and Arc Flash Hazard*
 - Place visibly on Enclosure when Voltage is greater than 50VAC or 60VDC
- Warning Label – *Does Not De-Energize All Exposed Parts When Disconnecting Means in (off) Position*
 - Place visibly on Enclosure next to disconnect when multiple sources are present
- Warning Label – *Power Shall Be Disconnected from Equipment Prior to Opening Enclosure Door*
 - Place visibly on Enclosure when an attachment plug is used as disconnecting means
- The machine has the appropriate warning labels on the machine & is compliant with NFPA 79



- Nameplate
 - Required by manufacturer
 - Name of Supplier
 - Model, Serial Number, etc
 - Rated voltage, phase, frequency, and full-load current for each supply
 - Largest Motor or Load
 - Max Protective Device Threshold
 - Short Circuit Current Rating
 - Electrical Diagram Number(s) or Drawing Index
- See NEC 670 Section Above for more information



Technical Documentation

The machinery must have necessary information present for installation, operation, maintenance, and storage of the machine. This can be in the form of drawings, diagrams, charts, tables, etc. It must be stored onsite with the machine.

- The technical documentation was observed to be stored with the machine



NFPA 79 Compliance Result:

☒ PASS

☐ FAIL

☐ Remediation Required (Refer to Observation Log)

I hereby certify that I am a professional engineer, registered in the State of South Dakota and I do not benefit financially by the sale/manufacturing of the equipment evaluated within this report, I did not impose excessive financial preconditions to evaluate the equipment, and there were not any conflicts of interests in performing the evaluation. I attest that the evaluation and report was performed by me personally and is to the best of my knowledge complete and accurate.

Joshua J. Knighton
Professional Engineer

May 20, 2026

Date:

Observation Log:

During the evaluation, differences between the observed installation and the governing standards are logged here with recommended actions to correct the issue (if required).

Any issue discovered that requires corrected actions must be corrected and re-evaluated before a final report will be sent to the Electrical Commission and the FEB label placed on the equipment showing compliance with UL standards, NFPA 79, and NFPA 70 Article 670.

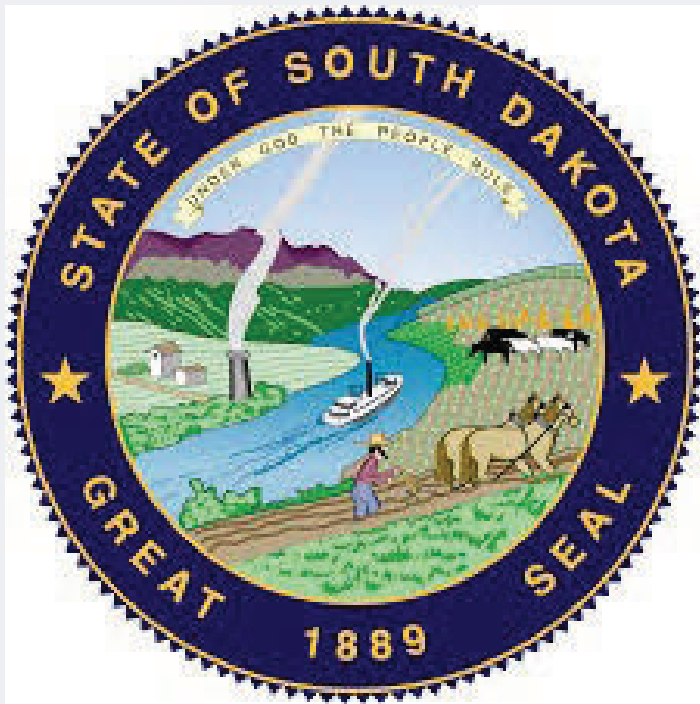
Observation Log			
Non-Compliance Issue No.	Standard/Code Reference	Issue	Corrective Action Required
1	NFPA 79	The safety door switch on the feed lid is zip tied together and is not interrupting the signal as intended when the lid is opened / closed.	YES - This shall be corrected so the safety circuit functions as intended Corrected May 2026
2	NEC & NFPA 79	It was observed initially that wires were entering a motor housing without proper insulation / was stripped before the cord grip	YES - The multi-conductor cable should not be exposed/insulation stripped until it's inside the device. The wire shall be re-installed so the insulation is properly inserted into the cord grip before it's stripped. Corrected May 2026
3	NFPA 79	It was observed initially that there did not appear to be a lockable valve for the main pneumatics coming into the machine, or the water/oil lines. NFPA 79 requires a lockable valve to isolate the energy source for safety during maintenance or emergency situations.	YES - A compliant valve should be added, if there isn't one there already that can be used to remove the pneumatic/water/oil energy from the system Corrected May 2026
4	NEC & NFPA 79	It was observed that the door bonding strap was connected on the door, but the bolt on the enclosure was missing, so the bonding connection is not being made.	YES - The bolt shall be installed / torqued properly, so the bonding connection is made between the door & the enclosure. Corrected May 2026



South Dakota Open Meeting Laws Annual Review

Boards & Commissions Training

Open meeting laws and your service



- What are open meeting laws, generally?
- What are the specific requirements ?
- What do the open meetings laws mean for my service on the Commission?

Open meetings laws generally

- SDCL 1-25
- SDCL 1-27
- Senate Bill 74
- SDCL 1-25-13: Any agency, as defined in § 1-26-1, or political subdivision of this state, that is required to provide public notice of its meetings pursuant to § 1-25-1.1 or 1-25-1.3 must annually review the following, during an official meeting of the agency or subdivision: (1) The explanation of the open meeting laws of this state published by the attorney general, pursuant to § 1-11-1; and (2) Any other material pertaining to the open meeting laws of this state **provided by the attorney general**. The agency or subdivision must include in the minutes of the official meeting an acknowledgement that the review was completed.



PURPOSE OF THE LAW



PROMOTES
TRANSPARENCY AND
ACCOUNTABILITY



BUILDS PUBLIC TRUST



ENCOURAGES CIVIC
ENGAGEMENT

- “to foster the public’s access to the greatest possible amount of information about the affairs of public bodies as can be provided.”
- *In the Matter of Open Meetings Complaint Against Martin City Council – Bennett County, OMC 2024-01*

BASIC RULE

- SDCL 1-25-1
- An official meeting of a public body is open to the public unless a specific law is cited by the public body to close the official meeting to the public.
- 1-25 applies to:
 - Public body: any political subdivision or the state
 - State: each agency, board, commission, or department of the State of South Dakota, not including the legislature
 - Political subdivision: any association, authority, board, municipality, commission, committee, council, county, school district, task force, town, township, or other local governmental entity created by statute, ordinance, or resolution, and is vested with the authority to exercise any sovereign power derived from state law

WHAT COUNTS AS A MEETING?

An official meeting is: “Any meeting of a quorum of a public body at which official business or public policy of that body is discussed or decided ... whether in person or by means of teleconference or electronic means.” SDCL 1-25-12(1).

IS IT AN OFFICIAL MEETING?

Would the following be considered an official meeting under South Dakota law

- A quorum of the commissioners attend a community lunch and discusses financial reports.
- Two commissioners attend a high school football game and casually talk about upcoming agenda items.
- Three commissioners email back and forth about a date for the next commission meeting



An “official meeting” CAN BE:

- In person
- Email
- Instant messaging
- Social media
- Text messages
- Virtual meetings

An “official meeting” is NOT:

- Communications solely to schedule a meeting
- Communications solely to confirm attendance availability

Requirements



The Board/Commission “shall provide

1. Public notice of a meeting,
 2. That includes the date, time, and location of the meeting;
 3. That is visible, readable, and accessible to the public; and
 4. At least seventy-two hours before the meeting is scheduled to start, not including Saturday, Sunday, or any legal holiday,
 5. by posting a copy of the proposed agenda at the principal office of the board, commission, or department holding the meeting;
 6. by posting a copy of the proposed agenda on a state website, designated by the commissioner of the Bureau of Finance and Management.
 7. For any special or rescheduled meeting, the information in the notice must be delivered in person, or by mail, email, or telephone, to members of the local news media who have requested notice.
 8. The state shall also comply with all other requirements of this section, for a special or rescheduled meeting, as circumstances permit.
- A violation of this section is a Class 2 misdemeanor.

Public Participation

The public body shall reserve at every official meeting a period for public comment, limited at the public body's discretion as to the time allowed for each topic and the total time allowed for public comment, but not so limited as to provide for no public comment.
SDCL 1-25-1

At any official meeting conducted by teleconference, there shall be provided one or more places at which the public may listen to and participate in the teleconference meeting.





Exceptions to public meetings rules

SDCL 1-25-2

An executive session or closed meeting may be held only for the purposes of:

1. Personnel matters
2. Student issues
3. Legal consultations
4. Contract negotiations
5. Public safety
6. Emergency response planning

REMEMBER:

- Entering executive session requires a motion that states the applicable grounds for entering executive session and a majority vote.
- If the vote to enter executive session is not unanimous, the vote to enter executive session must be taken by roll call.
- Discussion during executive session is restricted to the purpose specified in the motion to enter executive session.
- The motion and vote to enter executive session must be reflected in the minutes
- No official action can be taken in executive session.

Meeting Materials and Minutes

- Materials must be posted or available 24 hours in advance or when the materials are made available to the members of the public body, whichever is later. See SDCL 1-27-1.16
- Draft minutes must be available within 10 business days unless an audio or video recording is made available to the public within 5 business days.
- Rules related to public access “shall be liberally construed ... in order that the citizens of this state shall have the full right to know of and have full access to information on the public finances of the government and the public bodies and entities created to serve them.” SDCL 1-27-1.3

AGENDAS:

- A proposed agenda must list all items to be considered by a public body during any official meeting.
- The proposed agenda items must be described in sufficient detail to reasonably inform the public of any official business or public policy intended to be considered at the meeting.

However, based upon the foregoing, the South Dakota Open Meetings Commission hereby **REPRIMANDS** the Pennington County Board of Commissioners for violating the South Dakota Open Meetings Laws on November 7, 2023, by discussing wages or compensation in executive session, and by taking official action on an item not included on the November 7 meeting agenda.

Violations and Enforcement

Violations can result in:

- A Class 2 misdemeanor (up to 30 days in jail, a \$500 fine, or both such fine and imprisonment)
- A public reprimand by the Open Meetings Commission

Improperly closed meetings or unposted agendas can also render decisions made during those meetings null and void.

PRIOR EXAMPLES

- A quorum of the commissioners attend a community lunch and discusses the treasurer's report.
 - Open meeting rules apply – quorum is present, public business is being discussed
- Two commissioners attend a high school football game and casually talk about upcoming agenda items.
 - Open meetings does not apply as quorum is not present
- Three commissioners email back and forth about a date for the next commission meeting
 - Open meetings does not apply because, while three is a quorum, there is an exemption for mere scheduling purposes

Consider whether there is an official meeting

- In simple terms: (1) a quorum is present, public business is discussed or decided, whether that is in person or electronic

HAVE YOU PUBLISHED NOTICE OF THESE MEETINGS?

HAS AN OPPORTUNITY FOR PUBLIC COMMENT BEEN PROVIDED?

HAVE YOU PUBLISHED AN AGENDA THAT MEANINGFULLY INFORMS THE PUBLIC?

IF YOU ARE LOOKING OVER MATERIALS, HAVE THEY BEEN PROVIDED TO THE PUBLIC?

Key takeaways

Transparency protects you and builds trust.

- ✓ When in doubt, open the meeting up
- ✓ Post notices and materials on time
- ✓ Use executive sessions properly
- ✓ Document everything in your minutes

Links and Resources

Open meetings commission:

<https://atg.sd.gov/legal/opengovernment/MeetingCommission.aspx#gsc.tab=0>

Open meetings brochure:

https://atg.sd.gov/docs/OpenMeetingsLaw_2026_PRINTABLE.pdf

AGO's open government resources:

<https://atg.sd.gov/Legal/OpenGovernment/default.aspx#gsc.tab=0>

Open SD:

<https://open.sd.gov/>

AVAILABLE FUNDS
AS OF: 06/30/2026
FY YEAR REMAINING: 0.0%
PAY DAYS REMAINING: 0

FINAL MONTHLY

PAGE 199

BUDGET UNIT 1036

DATE 07/10/2026

CENTER NAME ELECTRICAL COMMISSION - INFO

COMP	ORIGINAL APPROPRIATION	APPROPRIATION TRANSFERS	YEAR-TO-DATE COMMITMENTS	YEAR-TO-DATE ENCUMBRANCES	YEAR-TO-DATE EXPENDITURES	AVAILABLE APPROPRIATIONS	CASH BALANCE
6503-I	2,831,137.00	5,858.00	0.00	0.00	2,682,850.57	154,144.43	1,669,720.73
BUDGETED TOT	2,831,137.00	5,858.00	0.00	0.00	2,682,850.57	154,144.43	
ALL COMP TOT	2,831,137.00	5,858.00	0.00	0.00	2,682,850.57	154,144.43	

TOTAL BUDGETED:

	OBJECT OF EXPENDITURE	AMOUNT BUDGETED	COMMITMENTS YEAR-TO-DATE	ENCUMBRANCES YEAR-TO-DATE	EXPENDITURES MONTHLY	EXPENDITURES YEAR-TO-DATE	BUDGET AVAILABLE	PCT AVL
5101	EMPLOYEE SALARIES	1,600,773.00	0.00	0.00	130,198.29	1,580,743.74	20,029.26	1.3
5102	EMPLOYEE BENEFITS	510,699.00	0.00	0.00	40,147.74	472,407.89	38,291.11	7.5
5203	TRAVEL	307,010.00	0.00	0.00	20,700.52	257,274.84	49,735.16	16.2
5204	CONTRACTUAL SVCS	348,591.00	0.00	0.00	17,911.02	242,175.46	106,415.54	30.5
5205	SUPPLIES & MATRLS	51,922.00	0.00	0.00	9,042.07	95,146.92	43,224.92-	0.0
5207	CAPITAL OUTLAY	18,000.00	0.00	0.00	0.00	35,101.72	17,101.72-	0.0
	TOTALS	2,836,995.00	0.00	0.00	217,999.64	2,682,850.57	154,144.43	5.4

BREAKOUT BY COMPANY:

COMPANY 6503-I PROFESSIONAL & LICENSING BOARDS

5101000	EMPLOYEE SALARIES	1,600,773.00	0.00	0.00	130,198.29	1,580,743.74	20,029.26	1.3
5102000	EMPLOYEE BENEFITS	510,699.00	0.00	0.00	40,147.74	472,407.89	38,291.11	7.5
5203000	TRAVEL	307,010.00	0.00	0.00	20,700.52	257,274.84	49,735.16	16.2
5204000	CONTRACTUAL SVCS	348,591.00	0.00	0.00	17,911.02	242,175.46	106,415.54	30.5
5205000	SUPPLIES & MATRLS	51,922.00	0.00	0.00	9,042.07	95,146.92	43,224.92-	0.0
5207000	CAPITAL OUTLAY	18,000.00	0.00	0.00	0.00	35,101.72	17,101.72-	0.0
	PS SUBTOTALS	2,111,472.00	0.00	0.00	170,346.03	2,053,151.63	58,320.37	2.8
	OE SUBTOTALS	725,523.00	0.00	0.00	47,653.61	629,698.94	95,824.06	13.2
	COMPANY 6503-I TOT	2,836,995.00	0.00	0.00	217,999.64	2,682,850.57	154,144.43	5.4

**STATE OF SOUTH DAKOTA
DEPARTMENT OF LABOR AND REGULATION
ELECTRICAL COMMISSION**

In the Matter of:

CONSENT AGREEMENT

Colby Hodo,
Licensee.

Case Nos. 2025-03 and 2025-04

License No. EC 4048

Pursuant to South Dakota Codified Laws (SDCL) 36-1C-6 and 1-26-20, in consideration of the above-captioned matter, and as the full and final resolution of this matter, the undersigned parties do hereby consent and agree to the following:

JURISDICTION AND APPLICABLE LAW

1. The South Dakota Department of Labor and Regulation, Electrical Commission (Commission) has jurisdiction over this matter pursuant to SDCL Chapter 36-16.
2. The Commission may take disciplinary action against a licensee based upon any of the grounds listed in SDCL 36-16-33.
3. Disciplinary action may include refusal to issue, suspension, or revocation of a license, or limit the scope of practice pursuant to SDCL 36-16-33.
4. Pursuant to SDCL 36-1C-3, failure to respond to the complaint is grounds for disciplinary action.
5. SDCL 36-16-27 requires all electrical wiring, apparatus, or equipment to comply with the rules adopted by the Commission.
6. SDCL 36-16-33 provides the Commission with the authority to discipline licensees for: (1) Failure to comply with any law, or any rule or order of the commission; or (2) Failure to comply with the National Electric Code as adopted by rule of the commission or local ordinance.
7. ARSD 20:44:23:01 requires that the installation of electrical wiring, materials, and equipment in modular homes and modular structures must comply with this article and the National Electrical Code before power may be supplied to them

FACTS
Case No. 2025-03

1. Colby Hodo (Licensee) is licensed by the Commission as an electrical contractor and most recently on May 14, 2024.
2. The Complainant alleged Licensee did not comply with rules promulgated by the commission and the National Electrical Code adopted by the commission resulting in damage to residential property.
3. Licensee did not respond to a complaint against him sent via email to the email licensee provided to the commission on September 30, 2025.
4. Licensee did not respond to the formal complaint against him sent via email on to the email licensee provided to the commission on March 5, 2026.

Case No. 2025-04

1. The Complainant alleged Licensee did not comply with rules promulgated by the commission and the National Electrical Code adopted by the commission resulting in damage to a residential property.
2. Licensee did not respond to the complaint against him sent via email to the email licensee provided to the commission on September 30, 2025.
3. Licensee did not respond to the formal complaint against him sent via email on to the email licensee provided to the commission on March 5, 2026.

CONCLUSIONS OF LAW

1. The above-described conduct constitutes grounds for discipline pursuant to SDCL 36-1C-3 and 36-16-33.

ORDER

1. Licensee agrees, in lieu of further contesting this matter, that his contractor's license will be revoked for a period of nine months. Licensee may renew as an inactive journeyman during the 2026 licensing cycle.

2. Licensee may reapply for a contractor's electrical license nine months after the date this Consent Agreement is executed by Board Chair. Licensee will be required to fulfill all applicable statutory requirements.

ACKNOWLEDGMENT AND WAIVER

1. Licensee understands the nature of this matter.
2. Licensee has been informed of his rights in this matter including his right to:
 - a. retain legal representation;
 - b. receive notice of any hearing;
 - c. request a contested case hearing, as defined in SDCL 1-26-1(2). A contested case hearing includes the right of the licensee to be present at the hearing, be represented by legal counsel, introduce evidence, present testimony, call witnesses to testify, cross-examine all witnesses present, and submit argument on his behalf; and
 - d. appeal any decision based on the contested case hearing to circuit court and the South Dakota Supreme Court, as provided by law.
3. Licensee is not represented by an attorney in this matter, is waiving his right to an attorney, and is representing himself in this matter.
4. Licensee understands that by signing this document he is agreeing that this Consent Agreement:
 - a. includes the Commission making a finding that Licensee violated license law;
 - b. represents the Commission taking disciplinary action against Licensee;
 - c. serves as the final resolution of this matter, including any appeal;
 - d. contains the entire agreement between the parties relating to the matters referenced in the Consent Agreement. Licensee is not relying on any other representations of any kind, verbal or otherwise;
 - e. shall be a public record, as defined by SDCL 1-27-1.1, and may be published publicly by the Commission;

- f. must be submitted to the Commission at a public meeting for acceptance or rejection;
 - g. shall not restrict the Commission from raising facts in reference to the Licensee outside of those set forth in this Consent Agreement if other material facts have not been set forth or disclosed herein;
 - h. may be considered in any future licensing matters with Commission and for the purposes of determining appropriate sanctions in future actions by Commission for any violations of laws or regulations of the State of South Dakota or for failing to abide by any order or decision of Commission; and
 - i. is effective on the date it is signed by a Commission representative.
- 5. Licensee has read, understands, and agrees to this Consent Agreement.
- 6. Licensee affirms that he is freely and voluntarily signing this Consent Agreement.
- 7. If this Consent Agreement is approved by the Commission, Licensee agrees to waive any rights and procedures related to this matter under SDCL Chapters 1-26, 36-16, 36-1C, or any other state or federal law.
- 8. If this Consent Agreement is approved by the Commission, a copy of the executed Consent Agreement shall be served electronically upon Licensee at their email address on file with the Agency.
- 9. If the Commission rejects this Consent Agreement, the following terms and conditions apply:
 - a. Licensee waives any right to claim prejudice or to request recusal of any Commission member based on any factual basis submitted to the Commission in an effort to resolve this matter by Consent Agreement rather than by formal proceeding.
 - b. Licensee's right to a contested case hearing is reinstated, including all the substantive and procedural protections afforded a licensee related to such a hearing under SDCL chapter 1-26.

- c. This Consent Agreement cannot be used as evidence of guilt or as an admission of wrongdoing by Licensee at any subsequent hearing.

Dated this 29th day of July, 2026.

Colby Hodo

Colby Hodo
Licensee

Dated this ____ day of _____, 20__.

Authorized Board Member