



**KEEPING YOUR FACILITY UP TO SPEED**  
— EVERY DAY SINCE 1946 —

Motor Shop Repairs

**Job Number 99853**

Prepared for MIDDLETON INCORPORATED

P.O. BOX 506  
BRYANT AR 72089

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Hi-Speed Industrial Service  
7030 Ryburn Dr  
Millington, Tn 38053  
901-873-5300

## AC Recondition As Found

MIDDLETON INCORPORATED

P.O. BOX 506  
BRYANT, AR 72089

FolderID: 99853  
FormID: 13719825

### AC Recondition - Rev. 2

Completed by: Motor Shop LR 3 on 05/31/2022

Location: MOTOR SHOP LR

Serial Number: 894-3520

Description: 30HP CLEAVER BROOK 3600RPM  
284TDZ

Hi-Speed Job Number:	99853
Manufacturer:	Other
Product Number:	8VN284TTDP7304BD
Serial Number:	894-3520
HP/kW:	30 (HP)
RPM:	3535 (RPM)
Frame:	284TDZ
Voltage:	230 / 460
Current:	76/38
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.15
Enclosure:	ODP
J-box Included:	Complete
Coupling/Sheave:	None
Date Received:	05/31/2022
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

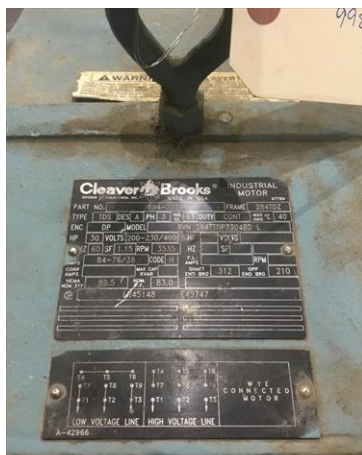
Priorities Found: ● 3 - High ● 4 - Good

### Overall Condition

1. Report Date
2. Nameplate Picture



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Printed on 7/8/2022

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3. Describe the Overall Condition of the Equipment as Received

*Dirty*

#### Initial Mechanical/Electrical

● 4.	Does Shaft Turn Freely?	(Yes) Yes
5.	Does Shaft Have Visible Damage?	(No) No
6.	Assembled Shaft Runout	
7.	Assembled Shaft End Play	
8.	Air Gap Variation <10%	
● 9.	Lead Condition	(P) Pass
10.	Lead Length	8 Inches
11.	Frame Condition	
12.	Fan Condition	(N) NA
13.	Broken or Missing Components	NA

#### Initial Electrical Inspection

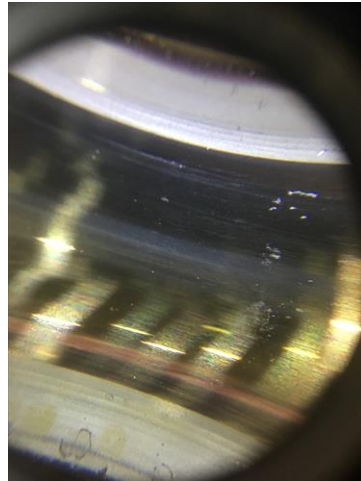
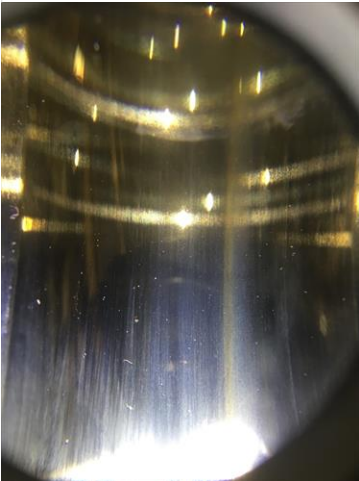
14.	Insulation Resistance/Megger	
15.	Winding Resistance	
1-2	1-3	2-3
● 16.	Perform Surge Test	(F) Fail
17.	Stator Condition	

#### Mechanical Inspection

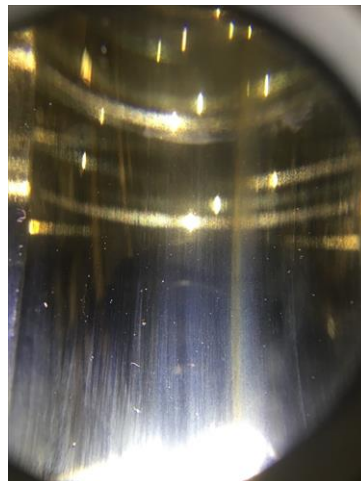
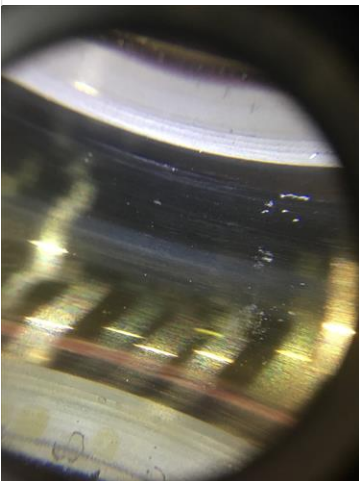
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18. Drive End Bearing Number-

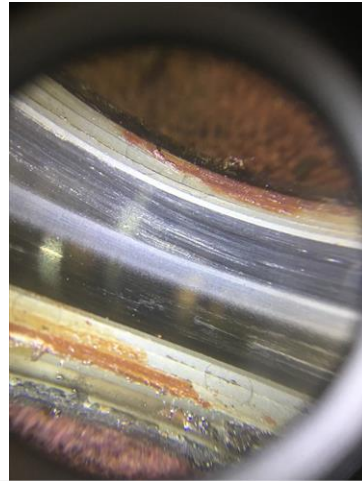
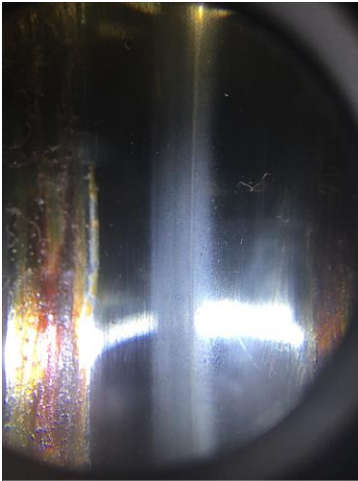
6312-2RS



19. Drive End Bearing Qty.	1
20. Drive End Bearing Type	(Ball) Ball Bearing
21. Drive End Lubrication Type	(Grease) Grease Lubricated
22. Drive End Bearing Insulation or Grounding Device?	NA
23. Drive End Wavy Washer/Snap-Ring Other Retention Device?	NA
24. Drive End Bearing Condition	



25. Opposite Drive End Bearing Number-	6210-Z
26. Opposite Drive End Bearing Qty.	1
27. Opposite Drive End Bearing Type	(Ball) Ball Bearing
28. Opposite Drive End Lubrication Type	(Grease) Grease Lubricated
29. Opposite Drive End Bearing Insulation or Grounding Device?	NA
30. Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	wavy washer
31. Opposite Drive End Bearing Condition	



- |                             |    |
|-----------------------------|----|
| 32. Drive End Seal          | na |
| 33. Opposite Drive End Seal | na |

### Rotor Inspection

- |  |  |
|--|--|
| 34. Rotor Type/Material  | (Squirrel Aluminum) Squirrel<br>Cage Aluminum Die Cast |
| 35. Growler Test   | (Pass) Pass  |
| 36. Number of Rotor Bars   | 38   |
| 37. Rotor Condition  | pass   |
| 38. List the Parts needed for the Repair Below<br><i>Rewind and bearings</i> |  |
| 39. Signature of Technician that Disassembled Motor                          | Crw  |

*[Handwritten Signature]*

### Mechanical Fits- Rotor

- |  |                            |
|--|----------------------------|
| 40. Shaft Runout                                 |                            |
| 41. Rotor Runout                                 |                            |
| Drive End Bearing Fit                            | Rotor Body                 |
| 42. Coupling Fit Closest to Bearing Housing      | Opposite Drive End Bearing |
| 0 Degrees  | 120 Degrees                |
| 90 Degrees                                       |                            |
| 43. Coupling Fit Closest to the end of the Shaft |                            |
| 0 Degrees  | 120 Degrees                |
| 60 Degrees                                       |                            |
| 44. Drive End Bearing Shaft Fit                  |                            |
| 0 Degrees  | 120 Degrees                |
| 60 Degrees                                       |                            |
| 45. Drive End Bearing Shaft Fit Condition        | (P) Pass                   |
| 46. Opposite Drive End Bearing Shaft Fit         |                            |
| 0 Degrees  | 120 Degrees                |
| 60 Degrees                                       |                            |

Pass



Pass

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47.	Opposite Drive End Bearing Shaft Fit Condition	(P) Pass	
48.	Shaft Air Seal Fits		
	Drive End Air Seal	Opposite Drive End Air Seal	
Mechanical Fits- Bearing Housings			
49.	Drive End - Endbell Bearing Fit		
	0 Degrees	60 Degrees	120 Degrees
	Pitted		
50.	Drive End - Endbell Bearing Fit Condition	(F) Fail	
51.	Opposite Drive End - Endbell Bearing Fit		
	0 Degrees	60 Degrees	120 Degrees
	Pitted		




	52. Opposite Drive End - Endbell Bearing Fit Condition	(F) Fail
	53. Bearing Cap Condition	
	Drive End Bearing Cap	Opposite Drive End Bearing Cap
	Pass	



54. End Bell Air Seal Fits			
Drive End Air Seal	Opposite Drive End Air Seal		

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55. List Machine Work Needed Below <i>Both end bell bearing fits</i>			
56. Technician 			Crw
<b>Dynamic Balance Report</b>			
57. Rotor Weight and Balance Grade			
Rotor Weight		Balance Grade	
58. Initial Balance Readings			
Drive End		Opposite Drive End	
59. Final Balance Readings			
Drive End		Opposite Drive End	
60. Technician			
<b>Rewind</b>			
61. Core Test Results - Watts loss per Pound			
Pre-Burnout		Post Burnout	
62. Core Hot Spot Test			
Pre-Burnout		Post-Burnout	
63. Post Rewind Electrical Test- Insulation Resistance			
64. Post Rewind Polarization Index			
65. Post Rewind Winding Resistance			
1-2	1-3	2-3	
66. Post Rewind Surge Test			
67. Post Rewind Hi-Pot			
68. Technician			
<b>Root Cause of Failure</b>			
69. Failure locations <i>Bearing fits in both end bells and winding insulation</i>			
70. Root cause of failure <i>Mixed grease, wear</i>			
<b>Mechanical Fits- Rotor - Post Repair</b>			
71. Shaft Runout Post Repair			
72. Rotor Runout Post Repair			
Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing	
73. Coupling Fit Closest to Bearing Housing Post Repair			
0 Degrees	90 Degrees	120 Degrees	

74.	Coupling Fit Closest to the end of the Shaft Post Repair		
	0 Degrees	60 Degrees	120 Degrees
75.	Drive End Bearing Shaft Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
76.	Opposite Drive End Bearing Shaft Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
77.	Shaft Air Seal Fits Post Repair		
	Drive End Air Seal	Opposite Drive End Air Seal	
78.	Shaft Repair Sign-off		
Mechanical Fits- Bearing Housings - Post Repair			
79.	Drive End - Endbell Bearing Fit Post Repair		
	0 Degrees	60 Degrees	120 Degrees
	5.1189	5.1189	5.1189



80. Opposite Drive End - Endbell Bearing Fit Post Repair		
0 Degrees	60 Degrees	120 Degrees
<b>3.5438</b>	<b>3.5438</b>	<b>4.5438</b>



81. Bearing Cap Condition Post Repair		
Drive End Bearing Cap	Opposite Drive End Bearing Cap	

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82. End Bell Air Seal Fits Post Repair		
Drive End Air Seal	Opposite Drive End Air Seal	
83. End Bell Repair Sign-off		
<b>Assembly</b>		
84. Photograph All Major Components prior to assembly		
85. Final Insulation Resistance Test		
86. Assembled Shaft Endplay		
87. Assembled Shaft Runout		
88. Test Run Voltage		
Volts	Volts	Volts
89. Test Run Amperage		
Amps	Amps	Amps
90. Drive End Vibration Readings - Inches Per Second		
Horizontal	Vertical	Axial
91. Opposite Drive End Vibration Readings - Inches Per Second		
Horizontal	Vertical	Axial
92. Ambient Temperature - Fahrenheit		
93. Drive End Bearing Temps - Fahrenheit		
5 Minutes	10 Minutes	15 Minutes
94. Opposite Drive End Bearing Temps - Fahrenheit		
5 Minutes	10 Minutes	15 Minutes
95. Final Test Run Sign-off		
96. Document Final Condition with Pictures after paint		



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97. Final Pics and QC Review



Hi-Speed Industrial Service  
7030 Ryburn Dr  
Millington, Tn 38053  
901-873-5300

## AC Random Coil Rewind Report

FolderID: 99853  
FormID: 13944751

MIDDLETON INCORPORATED

Additional Notes: 99853

P.O. BOX 506  
BRYANT, AR 72089

MOTOR SHOP LR

Priorities Found:

### General

1. Job Number	99853
2. Report Date	
3. Customer	



### Name Plate Information

4. Manufacturer	
5. Model	
6. Serial Number	
7. Horsepower	
8. KW	
9. Volts	
10. Amps	
11. RPM	
12. Frame	
13. Enclosure	
14. Cycles	HZ
15. Phase	
16. Service Factor	
17. Motor Mount Position	

### Initial Inspection

18. Number of Leads	9
19. Lead Length	Inches
20. Lead Size	12
21. Lead Condition	

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22. Lead Markings
23. Lug Size, Condition, and Type
24. Winding RTD's
25. Winding Rtd's Condition
26. Shaft Run Out
27. Does Shaft Turn Freely
28. Does Shaft Have Visible Damage
29. Bearing Rtd's
30. Bearing Rtd's Condition
31. Contamination
32. Frame Condition
33. Fan Condition
34. Broken or missing components
<b>Initial Electric Test</b>
35. Resistance to Ground
36. Winding Resistance 1-2
37. Winding Resistance 2-3
38. Winding Resistance 1-3
39. Resistive Imbalance
40. Hi-Pot
41. Surge Test
42. Stator Condition
43. Failure Location
<b>Initial Rotor Inspection</b>
44. Rotor Type
45. Air Gap <10% Variation
46. Number of Rotor Bars
47. Number of Broken Rotor Bars
48. Growler Test
49. Rotor Condition
<b>Mechanical Inspection</b>
50. Bearing Manufacture
51. Bearing DE Size
52. Bearing DE Type
53. DE Bearing Qty.
54. Bearing ODE Size
55. Bearing ODE Type
56. ODE Bearing Qty.
57. Insulated Bearing
58. Lubrication Type
59. Grease Condition
60. Bearing Retainers
61. Shaft Grounding Device
62. DE Seal
63. DE Seal Type/Size
64. ODE Seal
65. ODE Seal Type/Size

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Root Cause of Failure		
66.	Component Failure	
67.	Cause of Failure	
68.	Comments	
69.	Service Technician	
Stator Winding		
70.	Core Length	4.875 "
71.	Core ID	5.75 "
72.	Back Iron Depth	1.375 "
73.	Slot Depth	1.125 "
74.	Tooth Width	0.245 "
75.	Number of Vents	
76.	Vent Width	
77.	Before Burnout Core loss	
78.	Flux Before Burnout	
79.	Watts before burnout	
80.	Watts loss per lb. before burnout	
81.	After Burnout Core Loss	
82.	Flux After burnout	
83.	Watts After Burnout	
84.	Watts loss per lb After Burnout	
85.	Core Iron Condition	
86.	RTD's	
87.	RTD's Reading	
88.	Motor Heaters	
89.	Heater Qty.	
90.	Heater Voltage	
91.	Heater Wattage	
92.	Thermistors	
93.	Number of Poles	
94.	Slots	36
95.	Number of Coils	18
96.	Coil Weight	24 Lbs.
97.	Lead Markings 1-9	
98.	Grouping 6of3	
99.	Multiple Wires 2	
100.	Wire Size 6-19 6-19	
101.	Turns per coil	11
102.	Pitch 1 to:	141618
103.	Connection 1-2wye	

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104. Lead Length	12 "
105. Lead Size	12
106. Number of Leads	9
107. Megger Reading After Rewind	
108. Coil Machine Slot	
109. Coil Machine Tip	
110. Coil Machine Pitch	
111. Hi Pot Reading After Rewind	
112. Surge Pattern After Rewind	
113. Service Technician	
<b>Machine Fit Inspection Report</b>	
114. Shaft Run Out	
115. Initial Shaft Run Out	
116. Final Shaft Run Out	
117. DE Bearing Shaft Fit	
118. DE Initial Shaft Bearing Fit 1	
119. DE Initial Shaft Fit	
120. DE Finial Shaft Bearing Fit 1	
121. DE Initial Shaft Bearing Fit 2	
122. DE Finial Shaft Bearing Fit 2	
123. DE Initial Shaft Bearing Fit 3	
124. DE Finial Shaft Bearing Fit 3	
125. ODE Bearing Shaft Fit	
126. ODE Initial Shaft Bearing Fit 1	
127. ODE Finial Shaft Bearing Fit 1	
128. ODE Initial Shaft Bearing Fit 2	
129. ODE Finial Shaft Bearing Fit 2	
130. ODE Initial Shaft Bearing Fit 3	
131. ODE Finial Shaft Bearing Fit 3	
132. DE Air Seal Shaft Fit	
133. DE Initial Air Seal Shaft Size	
134. DE Final Air Seal Shaft Size	
135. ODE Air Seal Shaft Fit	
136. ODE Initial Air Seal Shaft Size	
137. ODE Final Air Seal Shaft Size	
138. DE Endbell Fit	
139. DE Initial Endbell Fit Size 1	
140. DE Final Endbell Fit Size 1	
141. DE Initial Endbell Fit Size 2	
142. DE Finial Endbell Fit Size 2	
143. DE Initial Endbell Fit Size 3	
144. DE Final Endbell Fit Size 3	
145. DE Endbell Fit Insulated	
146. DE Endbell Air Seal Fit	
147. Initial Endbell Air Seal Fit Size	
148. Finial Endbell Air Seal Fit Size	
149. ODE Endbell Fit	

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150. ODE Endbell Fit Insulated
151. ODE Endbell Air Seal Fit
152. ODE Initial Endbell Seal Fit Size
153. ODE Finial Endbell Seal Fit Size
154. Foot Flatness
155. Foot Condition
156. Flange Condition
157. Service Technician
<b>Balancing Report</b>
158. Balance Type
159. Balance Operating Speed
160. Start Left End
161. Start Right End
162. Balancing Specification
163. Finish Left End
164. Finish Right End
165. Service Technician
<b>Assembly and Final Test</b>
166. Meggar Testing Reading
167. Surge Test
168. Hi-Pot
169. Winding Resistance 1-2
170. Winding Resistance 2-3
171. Winding Resistance 1-3
172. Test Run Voltage Phase A
173. Test Run Amps A
174. Test Run Voltage Phase B
175. Test Run Amps B
176. Test Run Voltage Phase C
177. Test Run Amps C
178. DE Horizontal Vibration Reading
179. DE Vertical Vibration Reading
180. DE Axial Vibration Reading
181. ODE Horizontal Vibration Reading
182. ODE Vertical Vibration Reading
183. ODE Axial Vibration Reading
184. Ambient Temp at start of Test Run
185. Temp at 5 minutes
186. Temp at 10 minutes
187. Temp at 15 minutes
188. Temp at 20 minutes
189. Temp at 25 minutes
190. Temp at 30 minutes
191. Temp at 35 minutes
192. Temp at 40 minutes
193. Temp at 45 minutes
194. Temp at 50 minutes

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195. Temp at 55 minutes
196. Temp at 60 minutes
197. Motor Paint
198. Service Technician



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1. **APPLICABILITY.** The sale of any and all goods and/or services by Mock, Inc. d/b/a Hi-Speed Industrial Service ("Hi-Speed") shall be specifically conditioned upon and subject to the following terms and conditions which are incorporated by reference into any contracts and purchase orders with Hi-Speed, and which shall form and become a part of any agreement related thereto. Buyer's acceptance of any offer or quotation made by Hi-Speed for sale of any goods or services is expressly made subject to the terms and conditions set forth herein and to be so effective, Buyer need not sign or approve these Terms and Conditions to be bound hereunder provided a copy of same is provided to Buyer through any means. None of the terms and conditions contained herein may be added to, expanded, changed, modified, superseded or otherwise altered except as revised in writing and duly executed by Hi-Speed, and all orders received by Hi-Speed shall be governed only by the terms and conditions contained herein, notwithstanding any terms, conditions or provisions of any purchase order, release order, authorization or any other form issued by the Buyer. Hi-Speed hereby objects to any additional, modified, changed, deleted, altered or other terms and conditions not contained herein and notifies Buyer that any such terms or provisions are expressly rejected by Hi-Speed.
2. **PRICE.** All quoted prices shall remain firm and binding for a period of thirty (30) days from the date of quotation or for the period specifically stated in the quotation. The price for any and all goods and/or services ordered or approved by Buyer after thirty (30) days from the date of any quotation are subject to any increase in price that may occur after the expiration of thirty (30) days from the issuance of the quotation and the date the Buyer releases any shipment.
3. **SCOPE OF GOODS AND/OR SERVICES.** The goods and/or services provided by Hi-Speed pursuant to any quotation shall be limited exclusively to those goods and/or services expressly identified therein. Hi-Speed does not assume any responsibility and/or liability for the failure to provide any other goods and/or services not identified in any quotation. Modifications, additions or deletions to or from the scope referenced in any quotation shall only be effective if evidenced in writing and signed by Hi-Speed. The sale of any of all goods and/or services affected by such modification, addition or deletion shall be subject to these same Standard Terms and Conditions whether or not referenced therein.
4. **BILLING AND PAYMENT TERMS.** Hi-Speed shall invoice Buyer for all goods and/or services as same are rendered at the address listed on the quotation. Payments for all goods and/or services shall be due thirty (30) days from the date of the current invoice or as otherwise set forth in the quotation. Late payments are subject to a late fee of 5% of the total invoice amount. Recurring late payments may lead to a deposit requirement on future services or sale of goods. Buyer shall be liable to Hi-Speed for any and all fees and expenses incurred by Hi-Speed to collect any invoices or to enforce these Standard Terms and Conditions, including but not limited to, attorney's fees.
5. **DELIVERY OF GOODS AND/OR SERVICES.** Unless otherwise identified in the quotation, all shipments are F.O.B. Hi-Speed's warehouse and the title to and all risk of loss with respect to any goods shipped shall pass to Buyer when such goods are delivered to the carrier at Hi-Speed's warehouse. Hi-Speed will use its best efforts to affect delivery by the date or dates specified in the quotation. However, Hi-Speed shall not be liable for delay in or failure to make shipment, or to perform services, by any identified date for any reason whatsoever, including but not limited to, causes beyond its reasonable control, such as strikes, fires, floods, epidemics, quarantines, restrictions, severe weather, embargos, acts of God, or public enemy, war, riot, delays in transportation or the inability to obtain necessary labor, materials or manufacturing facilities.
6. **DELIVERY SITE AND TIME FOR PERFORMANCE.** Hi-Speed and Buyer agree that time is of the essence for the purchase order and that Buyer shall fully cooperate with Hi-Speed in order to allow Hi-Speed full access to prosecute its work diligently and in an orderly manner. Buyer shall assist Hi-Speed in every way possible to avoid delaying, disrupting or interfering with the progress of Hi-Speed's work at the project site. In the event Hi-Speed's work is delayed, hindered, suspended, disrupted, re-sequenced or interfered with or rendered less efficient or more costly or adversely affected in any way as a result of acts or omissions of Buyer or other contractors or employees of Buyer or by any other reason beyond Hi-Speed's control and without the fault of Hi-Speed, then, in such event, Buyer shall be liable to Hi-Speed for any damages, additional costs, expenses, labor, materials, man hours, acceleration costs, overtime, additional jobsite overhead, extended home office overhead, and any and all other direct and indirect expenses of whatsoever nature or kind, caused in whole or in part, as a result of any of the above-referenced occurrences. Hi-Speed's project records will be the basis for computing the additional costs and damages of Hi-Speed's labor, materials, expenses and overhead related to such changes. BUYER WARRANTS THAT THE SITE FOR DELIVERY OR INSTALLATION OF ANY GOODS AND/OR FOR THE PERFORMANCE OF ANY SERVICES SHALL BE READY AND ADEQUATE FOR HI-SPEED'S DELIVERY OF GOODS AND/OR PERFORMANCE OF SERVICES AND THAT HI-SPEED SHALL HAVE FULL ACCESS THERETO, FREE OF ALL OBSTRUCTIONS. BUYER SHALL ASSUME ALL EXTRA COSTS ASSOCIATED WITH HI-SPEED'S INABILITY TO INSTALL ANY GOODS OR PERFORM ANY SERVICES AS A RESULT OF BUYER'S FAILURE TO COMPLY WITH THIS PROVISION. HI-SPEED MAY NOT INSPECT THE SITE PRIOR TO DELIVERY AND/OR INSTALLATION OF GOODS AND/OR PERFORMANCE OF SERVICES AND MAKES NO WARRANTY AS TO THE SUFFICIENCY OF THE SITE FOR THE DELIVERY AND/OR INSTALLATION OF GOODS AND/OR THE PERFORMANCE OF SERVICES AT SUCH SITE.
7. **INSPECTION/ACCEPTANCE.** All goods and services ordered pursuant to any quotation shall be subject to inspection by Buyer after delivery or performance to determine conformity with the quotation and/or purchase order and Hi-Speed's advertised or published specifications. Buyer shall have a period of thirty (30) days from shipment of goods at the delivery destination specified in the quotation within which to inspect the goods for conformity with the quotation, order and/or Hi-Speed's advertised and published specifications and to provide Hi-Speed with written notice of any discrepancy or rejection. Buyer shall have a period of thirty (30) days following completion of any services within which to inspect the services for conformity with the quotation, purchase order and/or Hi-Speed's advertised and published specifications and to provide Hi-Speed with written notice of any discrepancy or rejection. If the goods delivered or services performed do not so conform, upon delivery of notice to Hi-Speed of any discrepancy, nonconformance or rejection, Hi-Speed shall have sixty (60) days to cure the alleged discrepancy and/or nonconformance. If Hi-Speed fails to cure in this time period, Buyer shall have the right to reject such goods or services. After the cure period, goods that have been delivered and rejected, in whole or in part, shall be returned to Hi-Speed. Buyer shall notify Hi-Speed and arrange for the return of the goods as required. Should such non-conforming services be rejected Hi-Speed shall, at its sole cost, re-perform the non-conforming services. Inspection or failure to inspect on any occasion shall not affect Buyer's rights under the warranty provisions herein.
8. **WARRANTIES.** Hi-Speed warrants that all goods shall conform in all material aspects to the goods identified in the quotation to Buyer and/or purchase order, and Hi-Speed makes to Buyer the manufacturer's express warranty for any goods sold to Buyer, which is offered by the manufacturer at the time of acceptance of any quotation by Buyer. This warranty is conditioned upon the installation, operation, and maintenance of the goods in accordance with the manufacturer's recommendations and/or standard industry practice and the goods at all times being operated or used under normal operating conditions for which they were designed. Hi-Speed, at its sole option, will repair or



replace any defective or non-conforming goods in accordance with the applicable manufacturer's warranty. Warranty for any defective or incorrect parts is limited to the repair or replacement of those parts. Hi-Speed warrants that all services will conform in all material respects to the description of services identified in the quotation and will be performed in a good and workmanlike manner in accordance with industry practices and standards. Should the services be reasonably rejected or not conform with the foregoing warranties, Hi-Speed shall, at its sole cost, re-perform the defective or nonconforming services. Notwithstanding the foregoing, these warranties do not extend to goods or services to the extent that such goods have been subject to misuse, neglect or abuse not caused by Hi-Speed or have been used in violation of the approved written instructions furnished to Buyer. THE FOREGOING REPRESENTS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY HI-SPEED WITH RESPECT TO ALL GOODS SOLD AND IS IN LIEU OF ALL OTHER WARRANTIES EITHER EXPRESS OR IMPLIED. HI-SPEED EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR USE OR PURPOSE. BUYER WAIVES ANY CLAIM THAT THESE EXCLUSIONS OR LIMITATIONS DEPRIVE IT OF AN ADEQUATE REMEDY AT EQUITY OR LAW OR CAUSE THIS AGREEMENT TO FAIL IN ITS ESSENTIAL PURPOSE. BUYER SHALL BE ENTITLED TO NO OTHER REMEDY OTHER THAN AS SET FORTH HEREIN, REGARDLESS OF THE CLAIM OR CAUSE OF ACTION, WHETHER BASED IN CONTRACT, TORT, NEGLIGENCE, GOODS LIABILITY, STRICT LIABILITY OR OTHERWISE.

9. **LIMITATION OF DAMAGES.** HI-SPEED SHALL HAVE NO LIABILITY TO BUYER WITH RESPECT TO THE SALE OR DELIVERY OF ANY GOODS OR THE REPAIR THEREOF OR WITH RESPECT TO THE SALE OR PERFORMANCE OF ANY SERVICES, FOR LOST PROFITS, SPECIAL, CONSEQUENTIAL, EXEMPLARY, PUNITIVE OR INCIDENTAL DAMAGES OF ANY KIND OR NATURE WHETHER ARISING IN CONTRACT, TORT, GOODS LIABILITY OR OTHERWISE, EVEN IF HI-SPEED WAS ADVISED OF THE POSSIBILITY OF SUCH LOSS OR DAMAGES. HI-SPEED SHALL NOT BE LIABLE FOR ANY DAMAGES OR DELAYS CAUSED BY ANY FAILURE TO MAKE ANY DELIVERY OF GOODS BY ANY EXPECTED TIME OR DATE OR THE FAILURE TO PROVIDE OR COMPLETE ANY SERVICES BY ANY EXPECTED DATE OR TIME. IN NO EVENT SHALL HI-SPEED BE LIABLE TO BUYER FOR ANY DAMAGES WHATSOEVER IN EXCESS OF THE TOTAL PRICE PAID FOR ALL GOODS AND/OR SERVICES HEREUNDER OR REFERENCED IN ANY QUOTATION OR THE PURCHASE ORDER.
10. **SEVERABILITY.** The partial or complete invalidity of any provision of these Standard Terms and Conditions shall not affect the enforceability of the remainder of these Standard Terms and Conditions. If any provision is found to be invalid or unenforceable, that portion shall be modified to make it enforceable or shall be stricken and the remainder of these Standard Terms and Conditions shall enforced.
11. **GOVERNING LAW AND JURISDICTION.** Any controversy arising out of any quotation, the purchase order, the goods sold or delivered, repair or replacement thereof, or any services provided pursuant to any quotation or any purchase order, or these Standard Terms and Conditions shall be governed by the laws of the state of Tennessee without regard to any choice of law provisions and any cause of action related in any manner thereto shall be brought only in the state or federal courts of Shelby County, Tennessee.
12. **ABANDONED EQUIPMENT.** Hi-Speed requires that Buyer promptly pick up or provide shipment instructions for Buyer equipment or other Buyer property in Hi-Speed's possession. If equipment or other Buyer property is left with Hi-Speed and not picked up within six (6) months after Hi-Speed's final action related to the applicable property (e.g. evaluation, teardown, estimate, completion of services), Hi-Speed will consider such property abandoned and may dispose of it in accordance with applicable law. Buyer agrees to hold Hi-Speed harmless for any damage or claim for such abandoned property and acknowledges that Hi-Speed may discard or recycle it at Hi-Speed's sole and absolute discretion. Specifically, Hi-Speed may sell Buyer's abandoned property at a private or public sale and retain the proceeds to offset Hi-Speed's storage, inspection and servicing costs. For the avoidance of doubt, Hi-Speed reserves its statutory and other lawful liens for unpaid charges related to abandoned property.
13. **FORCE MAJEURE.** Neither party shall be responsible for any delay or failure in performance of any party of the quotation, purchase order or these Standard Terms and Conditions to the extent that such delays or failures are caused by fire, flood, earthquake, explosion, war, embargo, government requirement, civil or military authority, acts of God, or any other circumstances beyond its reasonable control and not involving any fault or negligence on the party affected ("Condition"). If any such Condition occurs, the party delayed or unable to perform shall promptly give written notice to the other party and, if such Condition remains at the end of thirty (30) days, the party affected by the other party's delay and inability to perform may elect to (i) terminate such order or part thereof, or (ii) suspend the order for the duration of the Condition, if the Buyer is the suspending party, buy elsewhere comparable material to be sold under the order and apply to any commitment the purchase price of such purchase, and resume performance of the order once the Condition ceases, with an option in the affected party to extend the period of this order up to the length of the time the Condition endures.
14. **NONWAIVER.** No course of dealing or failure of either party to strictly enforce any term, right, or condition of these Standard Terms and Conditions will be construed as a waiver of such term, right or condition. Any waiver by Hi-Speed will only be in writing and will waive no succeeding breach of a term, right or condition.
15. **ASSIGNMENT.** The rights and obligations of the parties shall neither be assigned nor delegated without the prior written consent of the other party. However, any party may assign or delegate its respective rights and obligations, in whole or in part, (i) to any subsidiary, (ii) pursuant to other financing, merger or reorganization or (iii) pursuant to any sale or transfer of substantially all of the assets of the assigning party. These Standard Terms and Conditions shall bind the heirs, successors and assigns of the parties hereto.
16. **NO INDIVIDUAL LIABILITY.** Notwithstanding any other agreement to the contrary, the Buyer agrees that in no event will the Buyer hold and Hi-Speed owner, director, officer or employee personally liable for unintentional tortious conduct or conduct that constitutes the breach of any contract between Hi-Speed and the Buyer, even if the Hi-Speed owner, director, officer or employee is or could be construed to be a party to such contract.