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

AC Inspection as Found

Sage V Foods
5901 SLOAN DRIVE
LITTLE ROCK, AR 72206

FolderID: 104742
FormID: 24764926

AC Inspection - Rev. 2

Location:	MOTOR SHOP LR
Serial Number:	CAT#UJ20P2DM
Description:	60 HP NIDEC MR W PUMP

Hi-Speed Job Number:	104742
Manufacturer:	Other
Product Number:	FK51
Spec/ID #:	B087745544-0056M0004
Serial Number:	CAT#UJ20P2DM
HP/kW:	60 (HP)
RPM:	1770 (RPM)
Frame:	256JM
Voltage:	208-230/460
Current:	47/23 (Amps)
Phase:	Three
Hz:	60 (Hz)
Service Factor:	1.25
Enclosure:	TEFC
# of Leads:	12
J-box Included:	Complete
Coupling/Sheave:	Propeller
Bearing RTDs:	No
Stator RTDs:	No
Repair Stage:	Final
Rewind:	No
Shaft Machined Fit Repairs Required:	No
Bearing Housing Machined Fit Repairs Required:	No
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **16 - Good**

Overall Condition

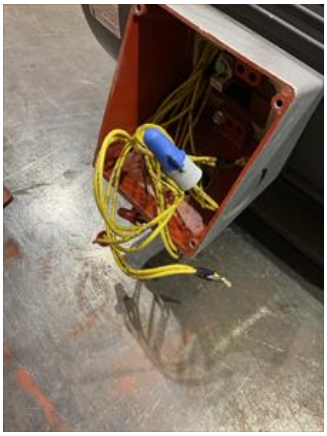
1.	Report Date	**06/17/2025**

2. Nameplate Picture P37

3. Photos of all six sides of the machine. P45

	4.	Describe the Overall Condition of the Equipment as Received ***Serviceable***	
●	5.	Is this a UL Listed Motor	**(No) No**
●	6.	Is the motor water cooled or can be pressure checked before teardown	**(No) No**
Initial Mechanical/Electrical			
●	7.	Does Shaft Turn Freely?	**(Y) Yes**
●	8.	Does the shaft require T.I.R in Lathe to identify additional repairs?	**(No) No**
	9.	Does Shaft Have Visible Damage?	**(No) No**
	10.	Assembled Shaft Runout	**Inches**
	11.	Distance from the end of the shaft to the Coupling/Sheave	**inches**
	12.	Assembled Shaft End Play	**inches**

	13.	Air Gap Variation <10%		
●	14.	Lead Condition	**(P) Pass**	
	15.	Lead Length	**16 Inches**	P88



●	16.	Does it have Lugs?, If so what is the Stud Size?	**(No) No**	
	17.	Lead Numbers	**1-12**	
●	18.	Are the Leads insulated with Chico or other material	**(No) No**	
	19.	Frame Condition	**pass**	
●	20.	Fan Condition	**(P) Pass**	P119

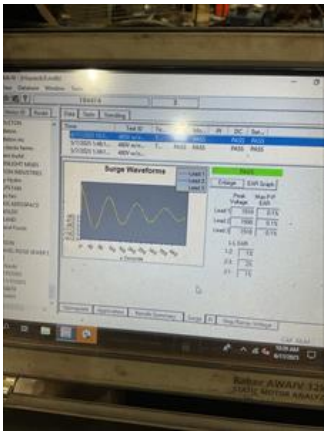
●	21.	Does motor have internal fan?	**(No) No**
	22.	Broken or Missing Components	**NA**

Initial Electrical Inspection

	23.	Insulation Resistance/Megger	**3238 Megohms**
	24.	Winding Resistance	

1-2	1-3	2-3
0.451	**0.451**	**0.453**

25.	Perform Surge Test	**(P) Pass**	P57



26.	Number of Stator Slots	**48**	
27.	Stator Condition	**wash and dry**	P85

28.	Stator Thermistors/Ohms	**na**	
29.	Stator Overloads/Ohms	**na**	

Mechanical Inspection

30.	Drive End Bearing Brand	**FAG**	
31.	Drive End Bearing Number-	**6310 ZZ C3**	P32

32.	Drive End Bearing Qty.	**1**	
33.	Drive End Bearing Type	**(Ball) Ball Bearing**	
34.	Drive End Lubrication Type	**(Grease) Grease Lubricated**	

35.	Drive End Bearing Insulation or Grounding Device?	**Na**	
36.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**NA**	
37.	Drive End Bearing Condition	**water contamination and metal fatigue**	P83

38.	Opposite Drive End Bearing Brand	**FAG**	
39.	Opposite Drive End Bearing Number-	**6207 ZZ C3**	P101

40.	Opposite Drive End Bearing Qty.	**1**	
41.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**	
42.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**	
43.	Opposite Drive End Bearing Insulation or Grounding Device?	**NA**	
44.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**Wavy washer**	
45.	Opposite Drive End Bearing Condition	**the start of frosting**	P120

46.	Drive End Seal	**carbon ceramic**	P123
	Shaft 1.500 seat 2.136		

47.	Opposite Drive End Seal	**NA**	

Rotor Inspection

48.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**	P3

49.	Growler Test	**(Pass) Pass**	
50.	Number of Rotor Bars	**40**	
51.	Rotor Condition	**pass**	

52. List the Parts needed for the Repair Below

1-6310ZZ C3 BEARING
2-6207ZZ C3 BEARING

53. Signature of Technician that Disassembled Motor **RW**

Mechanical Fits- Rotor

54. Shaft Runout **0 inches**

55. Rotor Runout

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing

56. Coupling Fit Closest to Bearing Housing

0 Degrees	90 Degrees	120 Degrees

57. Coupling Fit Closest to the end of the Shaft

0 Degrees	60 Degrees	120 Degrees

58. Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
1.9688	**1.9688**	**1.9688**

59. Drive End Bearing Shaft Fit Condition **(P) Pass** P81

60. Opposite Drive End Bearing Shaft Fit

0 Degrees	60 Degrees	120 Degrees
1.3785	**1.3785**	**1.3785**

61. Opposite Drive End Bearing Shaft Fit Condition **(P) Pass** P97

62. Shaft Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal

Pass

Mechanical Fits- Bearing Housings

63. Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
4.3311	**4.3311**	**4.3311**

64. Drive End - Endbell Bearing Fit Condition **(P) Pass** P15

65. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
2.8353	**2.8353**	**2.8353**

66. Opposite Drive End - Endbell Bearing Fit Condition **(P) Pass** P39

67. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap
pass	

68. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal
pass	

69. List Machine Work Needed Below

None

70. Technician **RW**

Co sign: CRW

Root Cause of Failure

71. Failure locations

Pump seal failed and leaked water in to the motor and bearings

72. Root cause of failure

Seal leaking causing bearing failure

Dynamic Balance Report

73. Rotor Weight and Balance Grade P0

Rotor Weight	Balance Grade

74. Initial Balance Readings

Drive End	Opposite Drive End
.28	**.54**

75. Final Balance Readings

Drive End	Opposite Drive End
.28	**.54**

76. Technician **RW**

Assembly

77. QC Check All Parts for Cleanliness Prior to Assembly **RW**

78. Photograph All Major Components prior to assembly **(Complete) Complete** P100

Start *after 15 minutes*

79.	Final Insulation Resistance Test	**Megohms**	P200

	80.	Assembled Shaft Endplay		**0 inches**	
●	81.	Assembled Shaft Runout		**0.002 inches**	
	82.	Test Run Voltage			P500
		Volts	Volts	Volts	

	83.	Test Run Amperage			
		Amps	Amps	Amps	
		7.1	**6.6**	**6.9**	
●	84.	Motor RPM		**(YES) YES**	
		1,800			
	85.	Drive End Vibration Readings - Inches Per Second			
		Horizontal	Vertical	Axial	
		0.02	**0.01**	**0.02**	
	86.	Opposite Drive End Vibration Readings - Inches Per Second			
		Horizontal	Vertical	Axial	
		0.03	**0.05**	**0.04**	
	87.	Ambient Temperature - Fahrenheit			
	88.	Drive End Bearing Temps - Fahrenheit			
		5 Minutes	10 Minutes	15 Minutes	
	89.	Opposite Drive End Bearing Temps - Fahrenheit			
		5 Minutes	10 Minutes	15 Minutes	

90.	Document Final Condition with Pictures after paint	**see below**	
91.	Final Pics and QC Review	**Terrence Holland**	P2500

Co sign RRW