



QualiTest® Diagnostics

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December 6, 2021

St. Jude Research Hospital
Memphis, TN

The following is a summary of findings from the annual AHU SF/RF vibration survey for K-Mart Center (TTU).

QualiTest® uses a four step rating system for defects.

Class I: Defect is present, but effect on reliability is not clear; no immediate action is required. Continue to normally monitor.

Class II: Defect (s) present that may cause problem in long term (2-6 months). Repair during normal maintenance scheduling. Continue to monitor.

Class III: Defect (s) present that may cause failure in short term (less than 2 months). This should be addressed as soon as practical, with a high maintenance priority. Increase monitoring frequency.

Class IV: Defect (s) present that makes continued reliability unpredictable, and possibility of secondary damage is high. Repairs should be made ASAP. An unscheduled shutdown should be considered for repairs

Hi-Speed Industrial Service tests and inspects industrial machinery and equipment and makes recommendations concerning maintenance and repairs based on its experience in the field of industrial repair and maintenance. The information contained herein is provided as an opinion only, not as a guaranty or warranty of the matters discussed herein.

K-Mart Center (TTU)

AHU 1

Motor is indicating a possible belt/sheave issue. Check sheaves for misalignment/wear and ensure belts are in good shape and tightened properly. Rated as a **CLASS II** defect.

RF 1

Motor appears to have a bearing issue. Inspect motor bearings as scheduling allows. Rated as a **CLASS II** defect.

RF 2

All vibration data is within acceptable limits. No action recommended at this time.

AHU 2

Motor vibration data is showing signs of bearing defects/wear likely caused by electrical fluting. Motor may need attention soon. Motor base may also have issues which is creating misalignment and other possible issues. Motor base may need to be changed out to a two-bolt adjustable base in the near future. Because of the increased acceleration this is rated as a **CLASS III** defect.

Abbreviated Last Measurement Summary

Database: stjude~1.rbm

Station: KMART

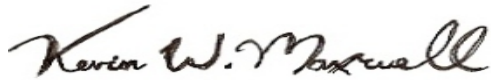
MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD
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AHU 1 - AHU 1 29888	(06-Dec-21)	
	OVERALL LEVEL	1 - 20 KHz
MOH	.379 In/Sec	.296 G-s
MIH	.254 In/Sec	.441 G-s
MIA	.191 In/Sec	.192 G-s
FIH	.281 In/Sec	.383 G-s
FOH	.386 In/Sec	.328 G-s
RF1 - RETURN FAN 1 29888	(06-Dec-21)	
	OVERALL LEVEL	1 - 20 KHz
MOH	.239 In/Sec	.249 G-s
MIH	.239 In/Sec	.679 G-s
MIA	.188 In/Sec	.306 G-s
RF 2 - RETURN FAN 2 29888	(06-Dec-21)	
	OVERALL LEVEL	1 - 20 KHz
MOH	.079 In/Sec	.377 G-s
MIH	.084 In/Sec	.265 G-s
MIA	.082 In/Sec	.801 G-s
AHU 2 - AHU 2 29889	(06-Dec-21)	
	OVERALL LEVEL	1 - 20 KHz
MOH	.258 In/Sec	.785 G-s
MIH	.366 In/Sec	3.287 G-s
MIA	.206 In/Sec	1.216 G-s
FIH	.197 In/Sec	.186 G-s
FOH	.452 In/Sec	.138 G-s

Clarification Of Vibration Units:

Acc --> G-s RMS
Vel --> In/Sec PK

As always, it has been a pleasure to serve St. Jude Research Hospital. If there are any comments or questions, do not hesitate to contact us.

Sincerely,

A handwritten signature in black ink that reads "Kevin W. Maxwell". The signature is fluid and cursive, with the first name "Kevin" and last name "Maxwell" clearly legible.

ISO Certified Vibration Analyst, Category III



QualiTest® *Diagnostics*

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