

GUARDIANTM

MACHINE



G

PROTECTION



Your Machinery Upkeep Solution

The Problem

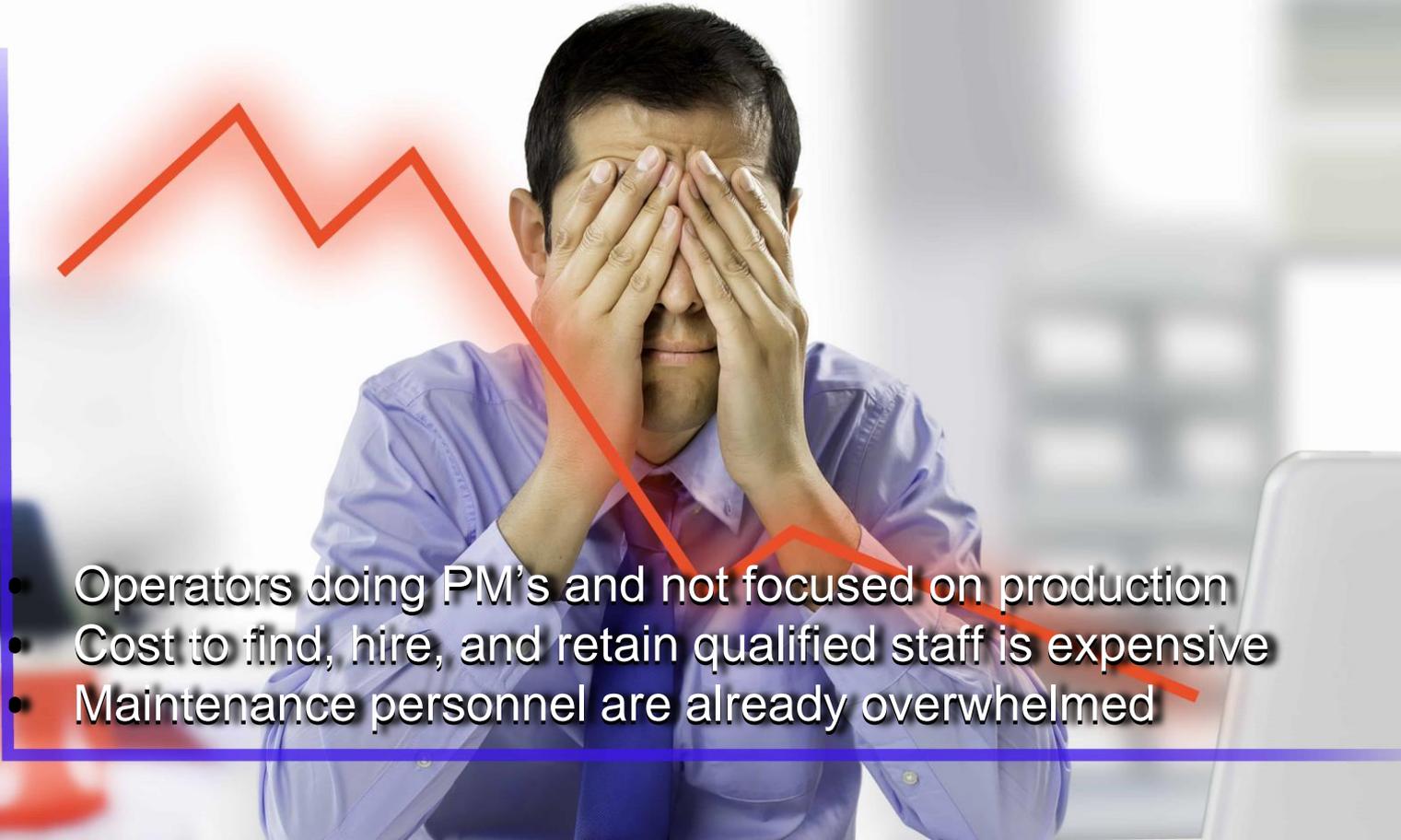


Maintenance management typically takes up at least 40-50% of a business' operational budget. (ReliabilityWeb)



The average cost per hour of equipment downtime is \$260,000 (Aberdeen)

The Problem



- Operators doing PM's and not focused on production
- Cost to find, hire, and retain qualified staff is expensive
- Maintenance personnel are already overwhelmed



The Guardian Solution

We
manage and perform
preventive maintenance
so our customers
can focus
on what's important.

Saving You Time and Money

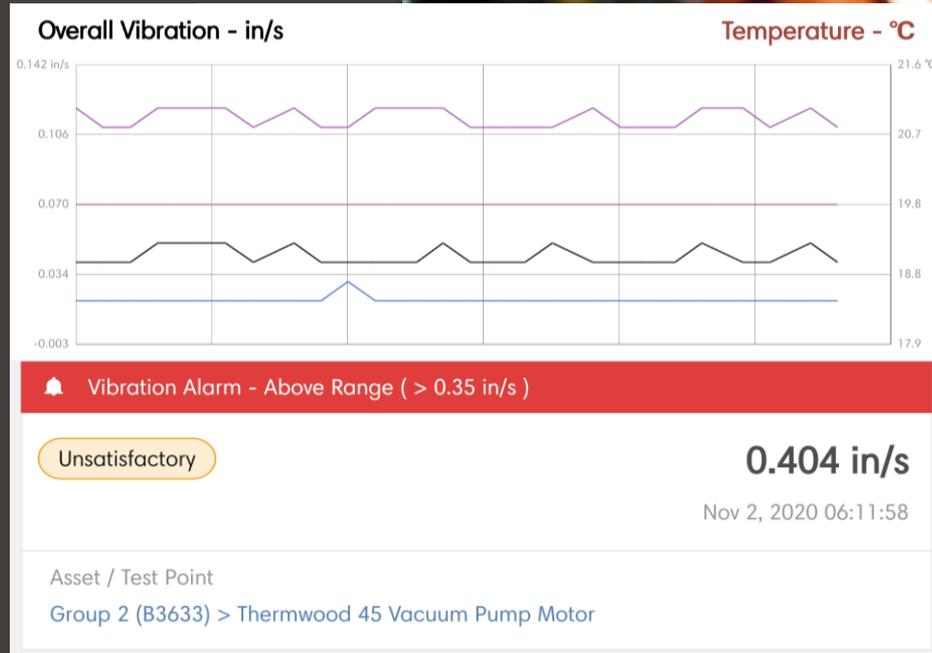
Local

Qualified

Proactive



Leveraging IoT for Machine Maintenance



Gateway and Vibration Sensor



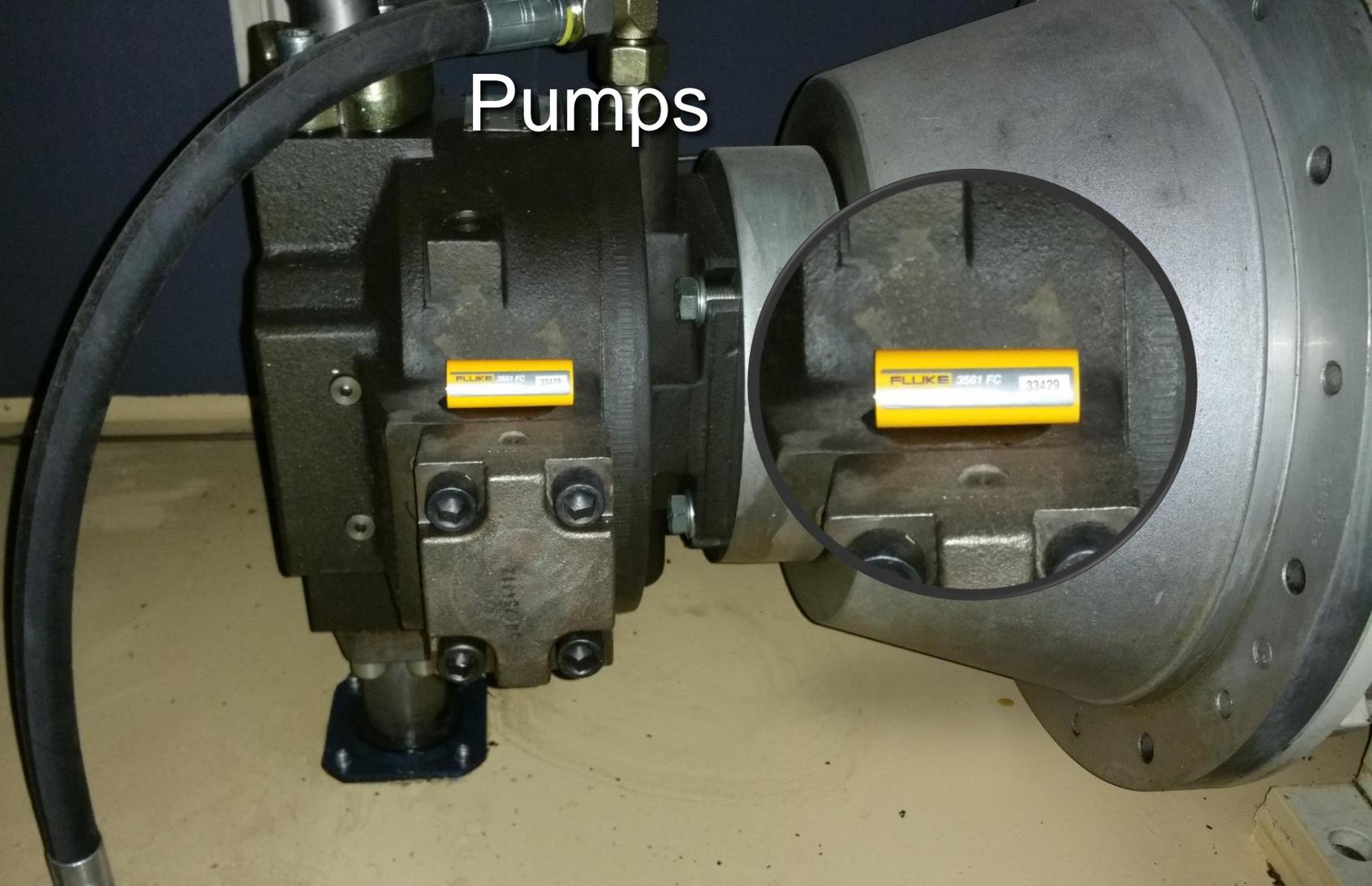
Motor Bearings



Shaft Couplings



Pumps

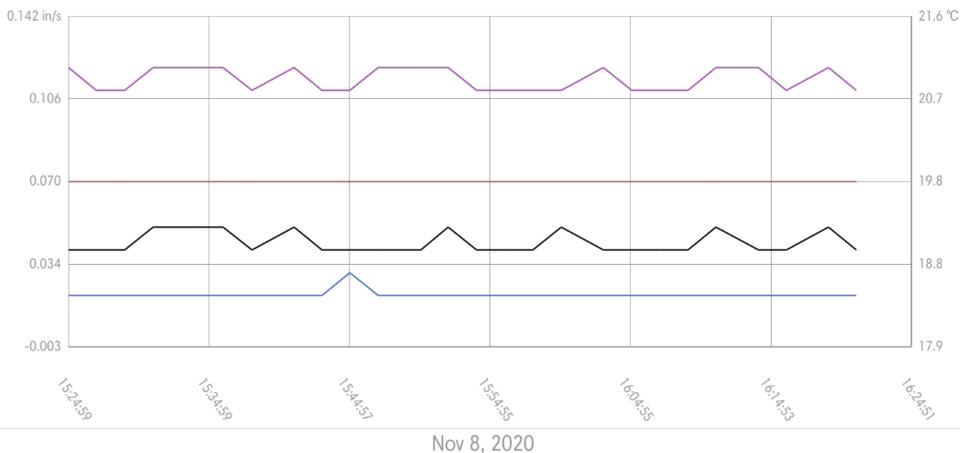


Thermwood 45 Vacuum Pump Tailshaft

1H 8H 1W 3W All

Overall Vibration - in/s

Temperature - °C



MAX MIN

X Axis	0.050 in/s	0.040 in/s	0.040 in/s
	19.8 °C	19.8 °C	19.8 °C
	Nov 8, 2020 15:31:00	Nov 8, 2020 15:25:00	Nov 8, 2020 16:21:00
Y Axis	0.120 in/s	0.110 in/s	0.110 in/s
	19.8 °C	19.8 °C	19.8 °C
	Nov 8, 2020 15:25:00	Nov 8, 2020 15:27:00	Nov 8, 2020 16:21:00

Duration
All

Filter : All

Vibration Alarm - Above Range (> 0.35 in/s)

Unsatisfactory

0.404 in/s

Nov 2, 2020 06:11:58

Asset / Test Point

Group 2 (B3633) > Thermwood 45 Vacuum Pump Motor

Vibration Alarm - Above Range (> 0.35 in/s)

Unsatisfactory

0.612 in/s

Oct 22, 2020 06:12:40

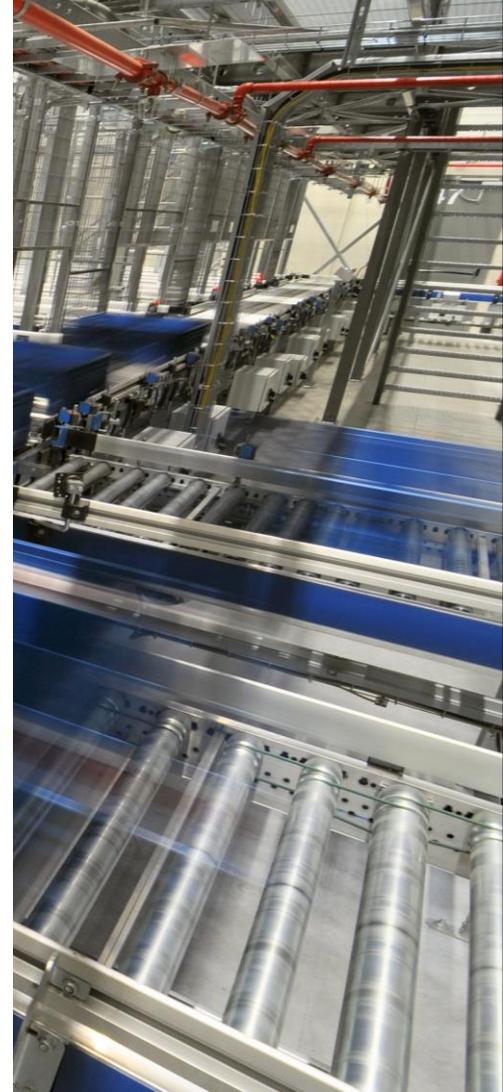
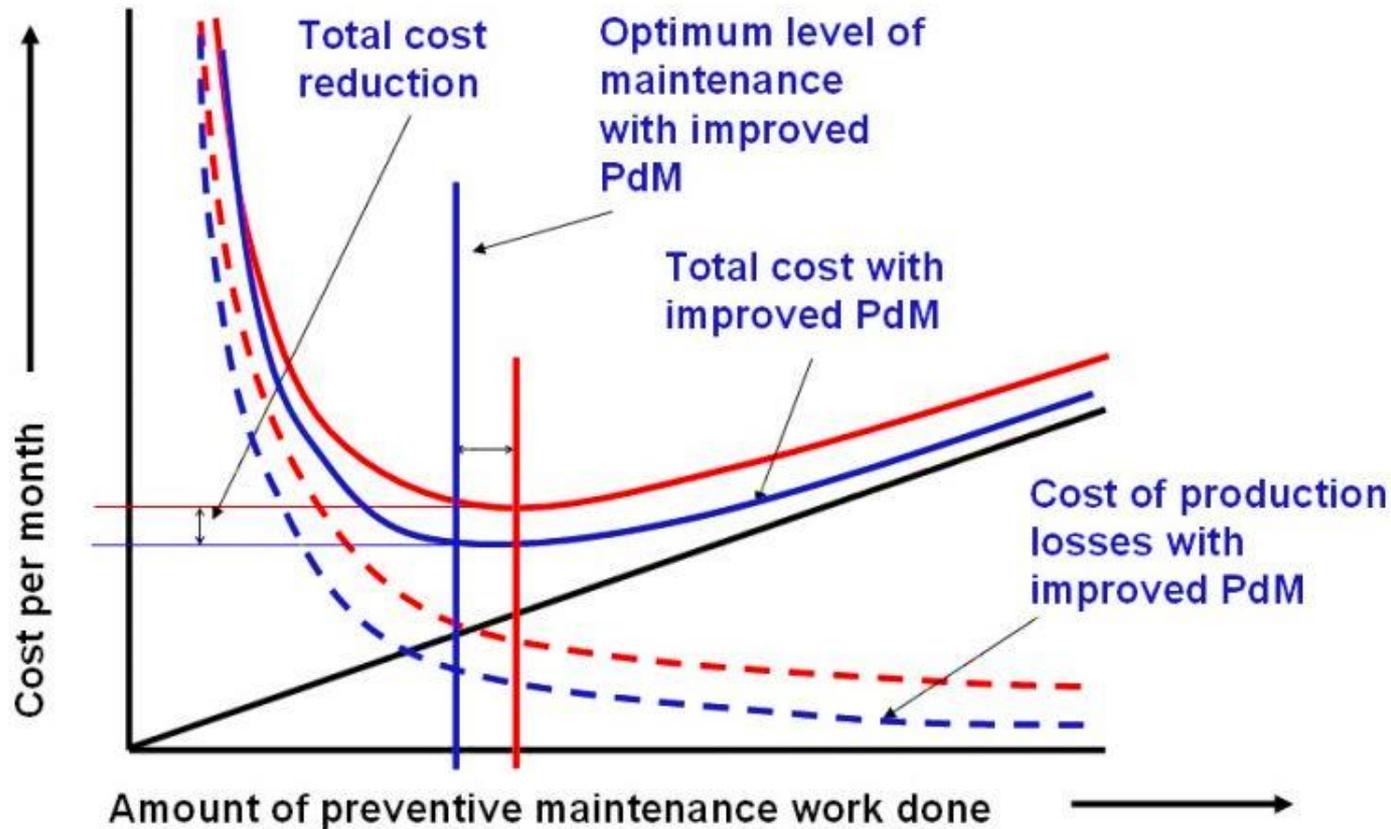
Asset / Test Point

Group 2 (B3633) > Thermwood 45 Vacuum Pump Motor



9/7/2020 - 9/13/2020		SIGNAL DROPS		
	STATUS	NONE	MINOR	MAJOR
CHAMFER MACHNE MAIN MOTOR	GOOD		X	
END FORMER HYDRAULIC PUMP MOTOR	GOOD	X		
TUBE BENDER HYDRAULIC PUMP MOTOR	GOOD		X	
MAXIUM WATERJET PUMP MOTOR	UNSATISFACTORY	X		
MAXIUM WATERJET PUMP	UNSATISFACTORY	X		
THERMWOOD 42 VACUUM PUMP MOTOR	GOOD	X		
THERMWOOD 45 VACUUM PUMP HEAD	GOOD	X		
THERMWOOD 45 VACUUM PUMP MOTOR	GOOD	X		
THERMWOOD 45 VACUUM PUMP TAILSHAFT	GOOD	X		
FLATTENER AUX HYDRAULIC PUMP	GOOD	X		
FLATTENER AUX HYDRAULIC PUMP MOTOR	GOOD	X		
FLATTENER MAIN HYDRAULIC PUMP	GOOD	X		
FLATTENER MAIN HYDRAULIC PUMP MOTOR	UNSATISFACTORY	X		
LASER 1 DUST COLLECTOR FAN MOTOR	GOOD	X		
PRESS BRAKE 4 HYDRAULIC PUMP MOTOR	GOOD	X		

Effect of improved predictive maintenance





Visit our website at www.GuardianMP.com

Contact David Wall at **260-450-6411**

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