

A Case Study of Electro Fan Balancing

Conductor:

Behravesh Vibration
Engineering company



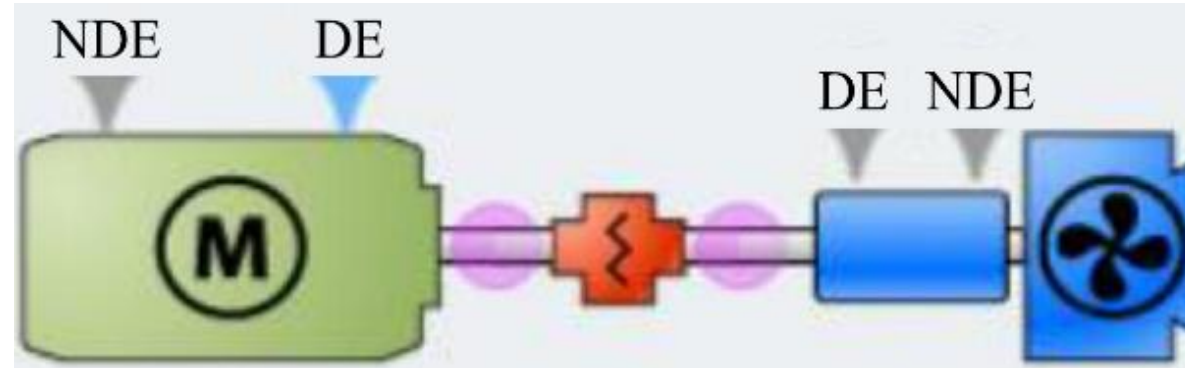
Machine Specification:



Machine Name: Air Grader Fan 1

Power: 250 KW

Schematic:



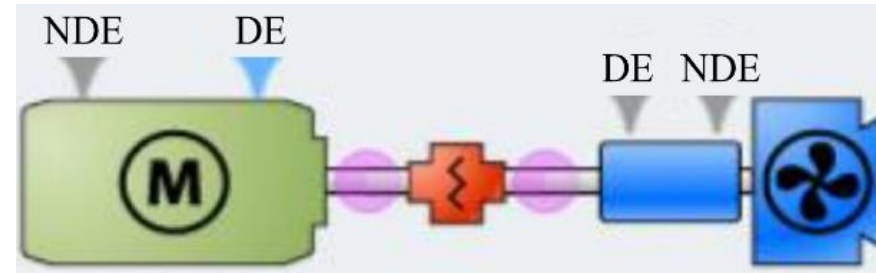
Vibration Standard:

Standard: ISO 14694 (Industrial fans with Power lower than 300 KW)

mm/s, RMS	A/B	B/C	C/D
Rigidly Mounted	4.5	7.1	9.0
Flexibly Mounted	6.3	11.8	12.5

Vibration Measurements:

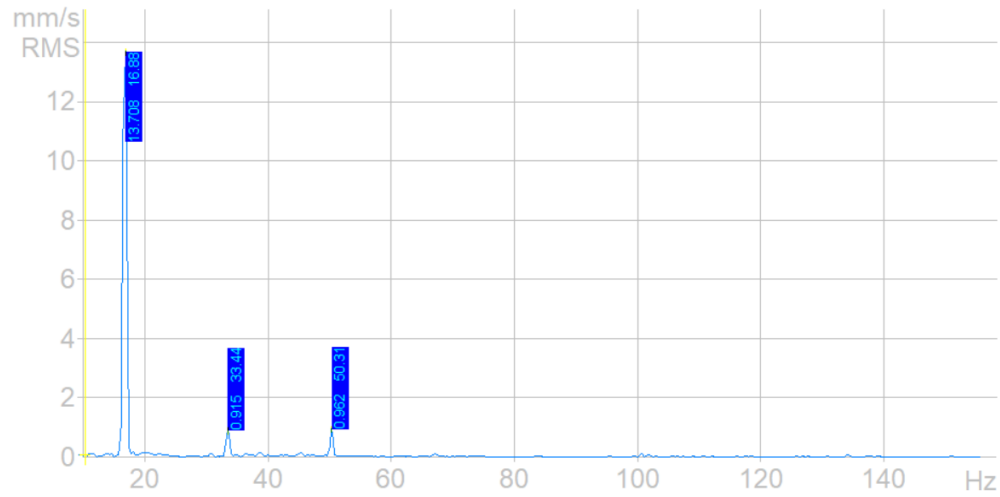
Measuring Instrument: STD 3300
 Balance Information: 1 - Plane
 M = 38.4 g
 On Impeller



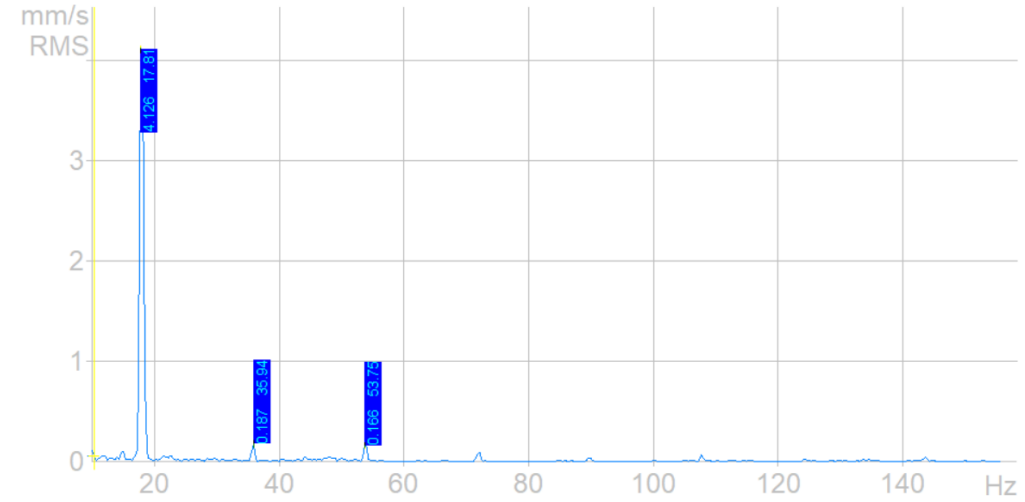
	Measuring Date	Motor – NDE			Motor - DE			Fan-DE			Fan-NDE		
		V	H	A	V	H	A	V	H	A	V	H	A
Before Balance	2023/09/08	17.9	3.09	-	7.1	4.1	17.4	14.2	6.4	-	17.1	7.8	5.7
After Balance	2023/10/23	5.8	0.83	-	1.9	2.6	6,8	6.1	3.9	-	6.9	4.5	5.7



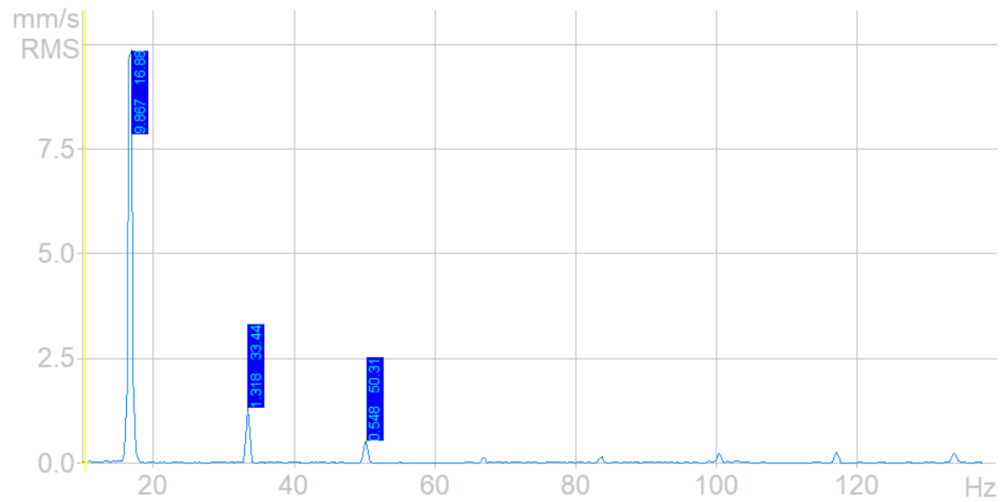
Frequency Spectrum:



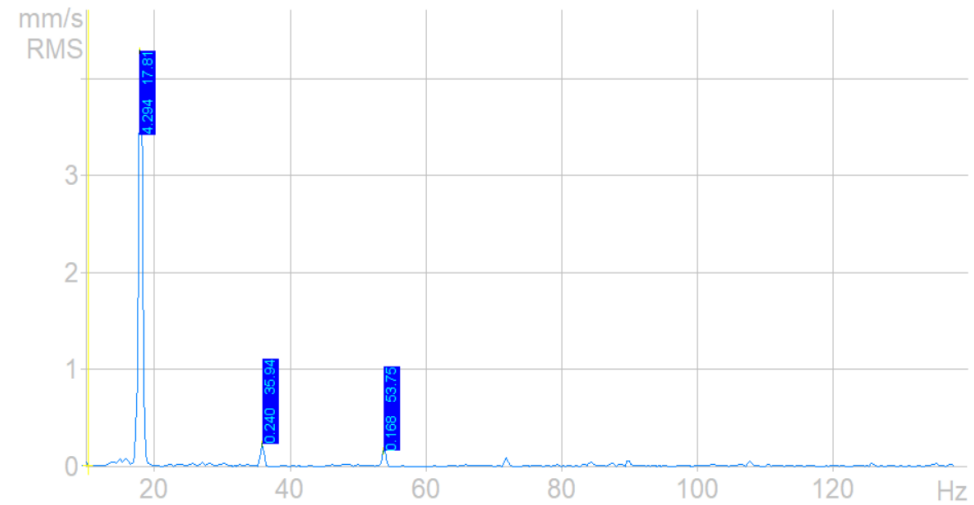
Motor Non Drive End Vertical
Before Balance



Motor Non Drive End Vertical
After Balance

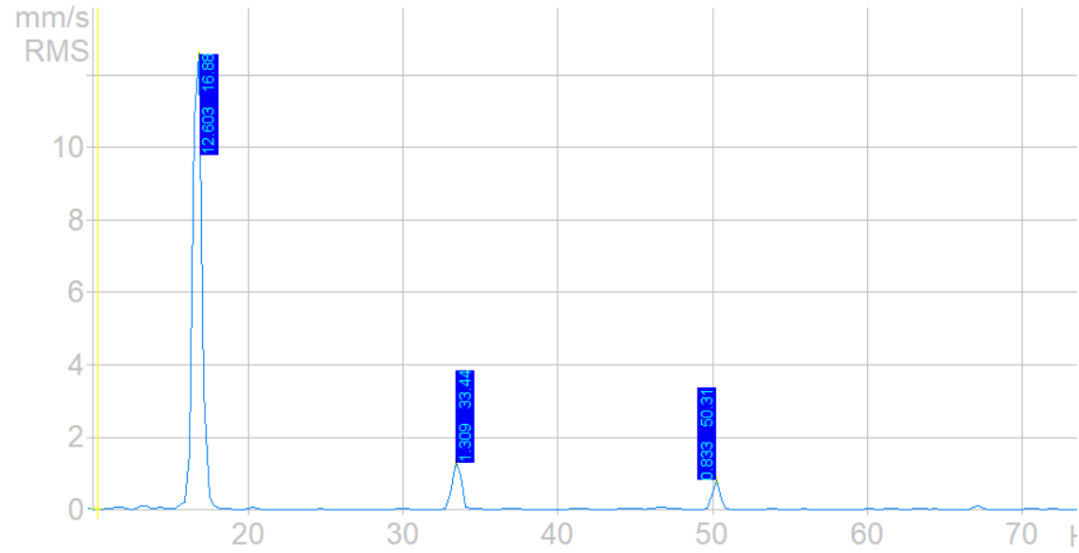


Fan Drive End Vertical
Before Balance

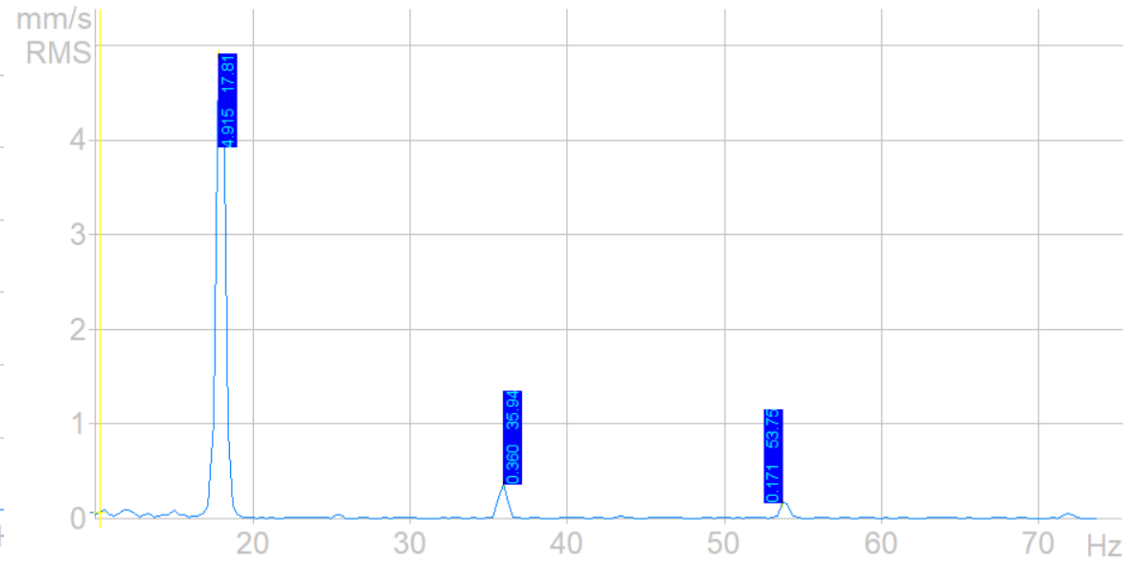


Fan Drive End Vertical
After Balance

Frequency Spectrum:

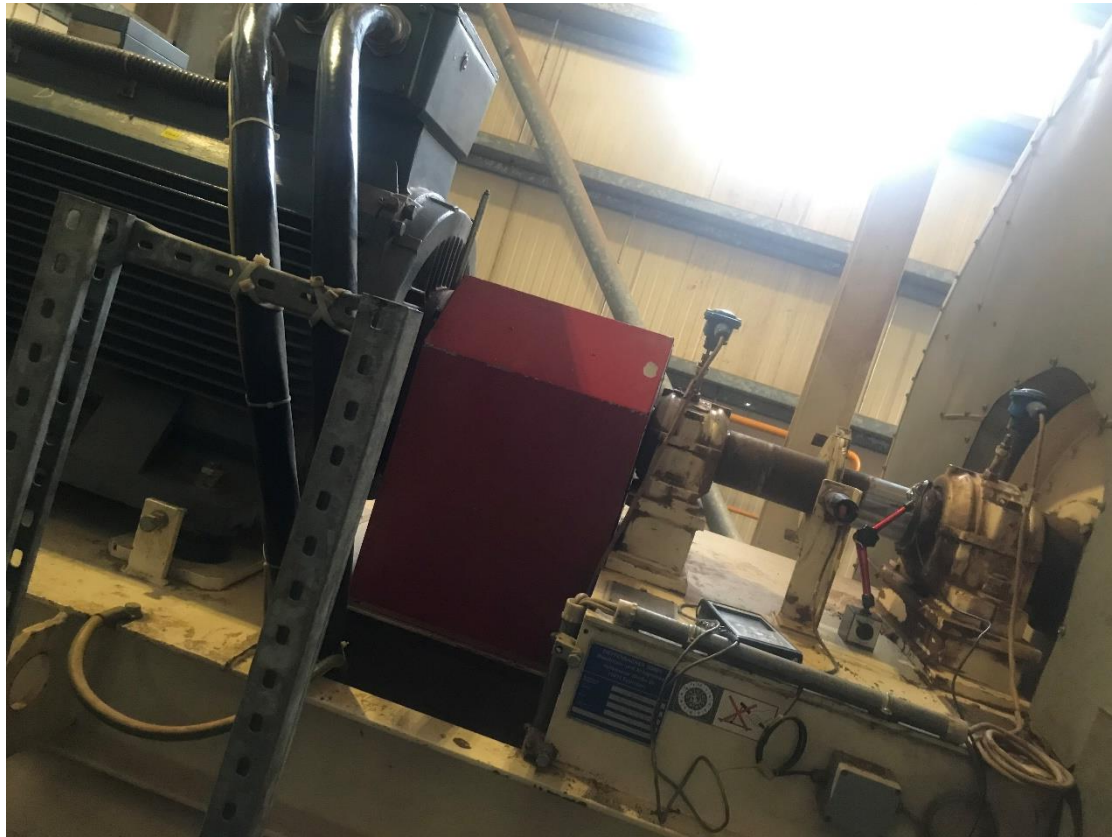


Fan Non Drive End Vertical
Before Balance



Fan Non Drive End Vertical
After Balance

Pictures of Fan and Motor:



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