Norma ISO, para vibraciones
ISO 10816

Se compone de los siguiente:

ISO 10816-1
-Evaluation Of Machine Vibration by Measurements on non-rotating parts -
General Guidelines.

ISO 10816-2
-Evaluation Of Machine Vibration by Measurements on non-rotating parts -
Land-based steam turbines and generators in excess of 50MW with normalo operating speeds of 1500 rpm., 1800 rpm., 3000 rmp. y 3600 rmp.

ISO 10816-3
-Evaluation Of Machine Vibration by Measurements on non-rotating parts -
Industrial machines with nominal power above 15 kW and nominal speeds between 120 rpm and 15 rpm when measured in situ.

ISO 10816-4
-Evaluation Of Machine Vibration by Measurements on non-rotating parts -
Gas turbine driven sets excluding aircraft derivatives.

ISO 10816-5
-Evaluation Of Machine Vibration by Measurements on non-rotating parts -
Machine sets in hydraulic power generating and pumping plants.

ISO 10816-6
Reciprocating machines with power rating abeve 100 kW.

Ademas de todos los anexos y correcciones que existen.

Estas son las nuevas normas, que sustituyen a la anterior ISO 2372

ISO 10816-3

Evaluation standard for vibration monitoring

The effective value of the vibration velocity is used for assessing the machine condition. This value can be determined by almost all conventional vibration measurement devices.

DIN ISO 10816-3 separates the machines into different groups and takes the type of installation into account.

Green: Zone A
Vibration values from machines just put into operation.

Yellow: Zone B
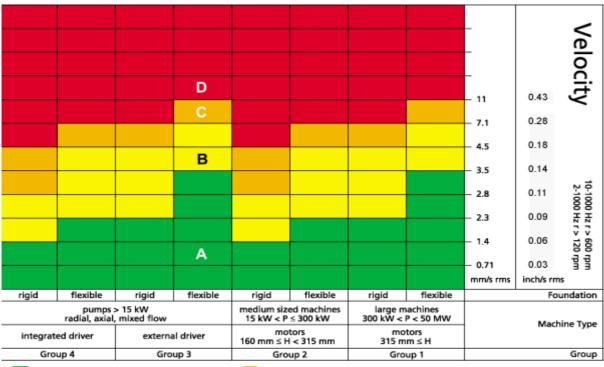Machines can run in continuous operation without any restrictions

Orange: Zone C
Vibration values in yellow indicate that the machine condition is not suitable for continuous operation, only for a limited period of time. Corrective measures should be taken at the next opportunity.

Red: Zone D
Dangerous vibration values – damage could occur to the machine.

								Velocity		
D								11	0.43	
C								7.1	0.28	
								4.5	0.18	
B								3.5	0.14	
								2.8	0.11	
								2.3	0.09	
								1.4	0.06	
A								0.71	0.03	
								mm/s rms	inch/s rms	10-1000 Hz r > 600 rpm / 2-1000 Hz r > 120 rpm
rigid	flexible	rigid	flexible	rigid	flexible	rigid	flexible			Foundation
pumps > 15 kW radial, axial, mixed flow				medium sized machines 15 kW < P ≤ 300 kW		large machines 300 kW < P < 50 MW				Machine Type
integrated driver		external driver		motors 160 mm ≤ H < 315 mm		motors 315 mm ≤ H				
Group 4		Group 3		Group 2		Group 1				Group

A New machine condition

B Unlimited long-term operation allowable

C Short-term operation allowable

D Vibration causes damage