

DIN ISO 10816-3:2018-01 (E)

Mechanical vibration - Evaluation of machine vibration by measurements on non-rotating parts - Part 3: Industrial machines with nominal power above 15 kW and nominal speeds between 120 r/min and 15000 r/min when measured in situ (ISO 10816-3:2009 + Amd .1:2017)

Contents		Page
National foreword		3
National Annex NA (informative) Bibliography		4
Foreword		6
Introduction		7
1	Scope	8
2	Normative references	9
3	Measurement procedures and operational conditions	9
3.1	General	9
3.2	Measurement equipment	9
3.3	Measurement locations	9
3.4	Continuous and non-continuous monitoring	10
3.5	Operational conditions	10
4	Machine classification	12
4.1	General	12
4.2	Classification according to machine type, rated power or shaft height	12
4.3	Classification according to support flexibility	13
5	Evaluation	13
5.1	General	13
5.2	Criterion I: Vibration magnitude	13
5.2.1	General	13
5.2.2	Evaluation zones	13
5.2.3	Evaluation zone limits	14
5.2.4	Axial vibration	14
5.3	Criterion II: Change in vibration magnitude	14
5.4	Operational limits	15
5.4.1	Setting of ALARMS	15
5.4.2	Setting of TRIPS	15
5.5	Supplementary procedures/criteria	15
5.6	Evaluation based on vibration vector information	16
Annex A (normative) Evaluation zone boundaries		17
Bibliography		19