

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 15 000 r/min when
measured *in situ* (ISO 10816-3 : 1998)

DIN
ISO 10816-3

ICS 17.160

Descriptors: Machinery, non-rotating parts, vibration, measurements.

Mechanische Schwingungen – Bewertung der Schwingungen von Maschinen durch Messungen an nicht-rotierenden Teilen – Teil 3: Industrielle Maschinen mit Nennleistungen über 15 kW und Nenndrehzahlen zwischen 120 min⁻¹ und 15 000 min⁻¹ bei Messungen am Aufstellungsort (ISO 10816-3 : 1998)

This standard incorporates International Standard

ISO 10816-3 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 15 000 r/min when measured *in situ*.

A comma is used as the decimal marker.

National foreword

This standard has been prepared by ISO/TC 108.

The responsible German body involved in its preparation was the *Normenausschuß Akustik, Lärminderung und Schwingungstechnik* (Acoustics, Noise Control and Vibration Engineering Standards Committee).

The DIN Standards corresponding to the International Standards referred to in clause 2 and Annex B of the ISO Standard are as follows:

ISO Standard	DIN Standard
ISO 496	DIN 747
ISO 2954	DIN 45666
ISO 7919-1	DIN ISO 7919-1
ISO 7919-3	DIN ISO 7919-3
ISO 10816-1	DIN ISO 10816-1
ISO 10816-2	DIN ISO 10816-2
ISO 10816-4	DIN ISO 10816-4
ISO 10816-6	DIN ISO 10816-6

Continued overleaf.
ISO Standard comprises 13 pages.

National Annex NA

Standards referred to

(and not included in **Normative references** and **Annex B**)

DIN 747	Shaft height for driving and driven machines
DIN 45666	Instruments for measuring vibration severity – Requirements
DIN ISO 7919-1	Mechanical vibration of non-reciprocating machines – Measurements on rotating shafts and evaluation criteria – Part 1: General guidelines (ISO 7919-1 : 1996)
DIN ISO 7919-3	Mechanical vibration of non-reciprocating machines – Measurements on rotating shafts and evaluation criteria – Part 3: Coupled industrial machines (ISO 7919-3 : 1996)
DIN ISO 10816-1	Evaluation of machine vibration by measurements on non-rotating parts – Part 1: General guidelines (ISO 10816-1 : 1995)
DIN ISO 10816-2	Evaluation of machine vibration by measurements on non-rotating parts – Part 2: Large land-based steam turbine generator sets in excess of 50 MW (ISO 10816-2 : 1996)
DIN ISO 10816-4	Evaluation of machine vibration by measurements on non-rotating parts – Part 4: Gas turbine driven sets excluding aircraft derivatives (ISO 10816-4 : 1998)
DIN ISO 10816-6	Evaluation of machine vibration by measurements on non-rotating parts – Part 6: Reciprocating machines with power ratings above 100 kW (ISO 10816-6 : 1995)

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 15 000 r/min when measured *in situ*

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 10816-3 was prepared by Technical Committee ISO/TC 108, *Mechanical vibration and shock*, Subcommittee SC 2, *Measurement and evaluation of mechanical vibration and shock as applied to machines, vehicles and structures*.

ISO 10816 consists of the following parts, under the general title *Mechanical vibration — Evaluation of machine vibration by measurements on non-rotating parts*:

- *Part 1: General guidelines*
- *Part 2: Large land-based steam turbine generator sets in excess of 50 MW*
- *Part 3: Industrial machines with nominal power above 15 kW and nominal speeds between 120 r/min and 15 000 r/min when measured in situ*
- *Part 4: Gas turbine driven sets excluding aircraft derivatives*
- *Part 5: Machine sets in hydraulic power generating and pumping plants*
- *Part 6: Reciprocating machines with power ratings above 100 kW*

Annex A forms an integral part of this part of ISO 10816. Annex B is for information only.