

# ISO 20816-8:2018 (E)

## Mechanical vibration — Measurement and evaluation of machine vibration — Part 8: Reciprocating compressor systems

---

### Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms and definitions
4	Measurements
4.1	Measurement procedure
4.2	Measuring instrumentation and measured quantities
4.3	Locations and direction of measurements
4.3.1	Locations
4.3.2	Direction of measurements
4.4	Operating conditions
4.5	Record of measured results
5	Vibration criteria
5.1	Measuring quantities
5.2	Evaluation zones
5.2.1	General
5.2.2	Acceptance criteria
5.3	Guidance values for acceptable overall vibration values (2 Hz to 1 000 Hz)
5.3.1	Guidance value tables for displacement, velocity and acceleration
5.3.2	Vibration values and the effect of mountings and foundations
5.3.3	Vibration values for horizontal compressors
5.3.4	Vibration values for vertical compressors
Annex A	(normative) Measurement information requirements
A.1	Compressor details
A.2	Measurements
A.3	Other information
Annex B	(informative) Curves with overall limits of vibration velocity values
B.1	General
B.2	Curves with overall limits of vibration velocity values
Annex C	(informative) Measurement of vibration values on the crosshead guide
C.1	General
C.2	Locations and direction of measurements
C.2.1	Location
C.2.2	Direction of measurements
C.3	Guidance values for acceptable overall vibrations on the crosshead guide
Annex D	(informative) Root-mean-square value, peak value and crest factor
D.1	General
D.2	Root-mean-square value, peak value and crest factor
D.2.1	Root-mean-square value
D.2.2	Peak value
D.2.3	Crest factor

**Annex E (normative) Small bore connections (SBC)**

- E.1 General**
- E.2 Locations and directions of measurements**
  - E.2.1 Location**
  - E.2.2 Direction of measurements**
- E.3 Guidance values for acceptable overall relative vibration for small bore connections**
- E.4 Curves with overall limits of relative vibration velocity values**

**Page count: 34**