American Gear Manufacturers Association

ANSI/AGMA 9009-E20
(Revision of ANSI/AGMA 9009-D02)

American National Standard

Flexible Couplings – Nomenclature for Flexible Couplings

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Approved June 8, 2020

ABSTRACT

This standard presents the nomenclature common to flexible couplings as used in mechanical power transmission drives. It does not address nomenclature for flexible shafts, quill shafts, universal joints or devices that exhibit slip such as clutches, fluid couplings, magnetic couplings or torque converters. The standard was prepared to reduce the language barriers that arise between designers, manufacturers and users when attempting to designate or describe various types of flexible couplings and their elements.

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Foreword

[The foreword, footnotes and annexes, if any, in this document are provided for informational purposes - only and are not to be construed as a part of ANSI/AGMA 9009-E20, *Flexible Couplings – Nomenclature for Flexible Couplings*.]

This Standard was prepared to reduce the language barriers that arise between designers, manufacturers, and users when attempting to designate or describe various types of flexible couplings and their elements.

The first draft copy of AGMA 510.01 was prepared by the Flexible Coupling Nomenclature Committee in October, 1963. It was accepted as an AGMA Standard on July 9, 1965. AGMA 510.01 was editorially changed and approved as AGMA 510.02 in August 1969.

AGMA 510.03 was approved in October, 1983. The revised standard contained an improved clarity in definitions, simplification of nomenclature, addition of coupling physical property terms and units including SI Units, and introduction of an axial travel term for couplings.

ANSI/AGMA 9009-D02 is a revision of AGMA 510.03, and was approved by the AGMA membership in May 2001. It was approved as an American National Standard on June 27, 2002. This revision includes additional nomenclature from standards developed since the previous revision.

ANSI/AGMA 9009-E20 replaces ANSI/AGMA 9009-D02. This revision includes additional nomenclature from standards developed since the previous revision and only has metric units. It aligns and updates definitions from all of the other AGMA flexible couplings standards.

The first draft of ANSI/AGMA 9009-E20 was created in October 2013. It was approved by the AGMA membership in April 2020. It was approved as an American National Standard on June 8, 2020.

Suggestions for improvement of this standard will be welcome. They should be sent to tech@agma.org.

PERSONNEL of the AGMA Flexible Couplings Committee

Chairperson: Todd Schatzka.....Rexnord Industries

Vice Chairperson: Lisa Riggs.....Regal – Power Transmission Solutions

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T. Kuckhoff .....ABB Motors and Mechanical Inc.

C. Scholz .....KTR Corporation

American National Standard –

Flexible Couplings – Nomenclature for Flexible Couplings

1 Scope

1.1 Applicability

This standard provides nomenclature common to flexible couplings and their application as used in mechanical power transmission drives.

1.2 Exceptions

The following coupling types are not included in this standard:

- flexible shaft;
- quill shaft;
- universal joint;
- devices that exhibit slip such as clutches, fluid couplings, magnetic couplings and torque converters.

2 Normative references

The following documents contain provisions that, through reference in this text, constitute provisions of the standard. At the time of publication, the editions were valid. All publications are subject to revision, and the users of this manual are encouraged to investigate the possibility of applying the most recent editions of the publications listed.

ANSI/AGMA 9002-C14, *Bores and Keyways for Flexible Couplings (Inch Series)*

ANSI/AGMA 9112-B15, *Bores and Keyways for Flexible Couplings (Metric Series)*

3 Symbols

The purpose of standard symbols for engineering is to establish a uniform practice in mathematical notation for equations and formulas dealing with couplings. Such equations and corresponding calculations may be used in connection with design, application, manufacturing and inspection.

NOTE: The symbols and terms contained in this document may vary from those used in other AGMA standards. Users of this standard should assure themselves that they are using these symbols and terms in the manner indicated herein.

Symbols	Definition	Units	First used
A_D	Damping energy during one cycle	N•m	Eq 1
A_E	Elastic deformation energy	N•m	Eq 1
F	Force	N	Eq 2
n	Rotational speed	RPM	Eq 2
P	Power	kW	Eq 2
T	Torque	N•m	Eq 2
ψ	Damping coefficient	--	8.7.2

