



American
Gear Manufacturers
Association

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

American National Standard

Flexible Couplings – Nomenclature for Flexible Couplings

**American
National
Standard**

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ANSI/AGMA 9009-E20

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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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Contents

1 Scope	1
1.1 Applicability	1
1.2 Exceptions.....	1
2 Normative references	1
3 Symbols	1
4 Coupling definitions.....	2
4.1 Rigid coupling.....	2
4.2 Flexible coupling	2
4.3 Single engagement	2
4.4 Double engagement.....	2
4.5 Half coupling.....	2
4.6 Backlash.....	2
4.7 Batch-lube coupling.....	2
4.8 Continuous-lube coupling.....	2
4.8.1 Continuous flow.....	2
4.8.2 Anti-sludge design.....	2
4.8.3 Flooded mesh coupling	2
4.8.4 Dip Lubrication	3
4.8.5 Submerged Lubrication	3
4.9 Crown diameter	3
4.10 Diametral clearance	3
4.11 Electrically insulated coupling	3
4.12 Limited-end-float coupling	3
4.13 Coupling designs.....	3
4.13.1 Standard couplings	3
4.13.2 Modified standard couplings	3
4.13.3 Special couplings	3
4.14 Types of flexible couplings	3
4.14.1 Chain coupling.....	3
4.14.2 Compression elastomeric coupling	3
4.14.3 Shear elastomeric coupling.....	4
4.14.4 Diaphragm coupling	4
4.14.5 Disc coupling	4
4.14.6 Gear coupling	4
4.14.7 Marine style coupling	4
4.14.8 Reduced moment coupling	4
4.14.9 Floating shaft coupling	4
4.14.10 Grid coupling	4
4.14.11 Pin and bushing coupling	4
4.14.12 Sliding block coupling.....	4
4.14.13 Spring coupling.....	4
4.14.14 Bellows coupling.....	4
4.14.15 Beam coupling.....	4
4.14.16 Composite coupling.....	5
4.15 Coupling components	5
4.15.1 Hub	5
4.15.2 Solid hub	5
4.15.3 Sleeve	5
4.15.4 Spacer	5
4.15.5 Floating shaft center assembly	5

4.15.6	Flexible element	5
4.15.7	Adapter plate	6
4.15.8	Moment simulator.....	6
4.15.9	Hardware.....	6
4.15.10	Pilots.....	6
4.16	Gap.....	6
5	Bores in hubs	6
5.1	Hub bore.....	6
5.1.1	Nominal bore	6
5.1.2	Maximum bore.....	6
5.1.3	Minimum Bore	7
5.1.4	Finished bore.....	7
5.1.5	Straight bore.....	7
5.1.6	Tapered bore.....	7
5.1.7	Rough bore.....	7
5.1.8	Mandrel bore	7
5.1.9	Spline bore	7
5.2	Hub bore to shaft fits	7
5.2.1	Clearance fit	7
5.2.2	Interference fit	7
5.2.3	Transitional fit	7
5.2.4	Advance	7
5.2.5	Contact pattern.....	8
5.2.6	Contact pressure	8
5.2.7	Interference rate	8
5.3	Hub installation.....	8
5.3.1	Oil distribution groove	8
5.3.2	O-ring groove	8
5.3.3	Oil port.....	8
5.3.4	Hydraulic hub mounting	8
5.3.5	Hydraulic hub removal	8
5.3.6	Heat mounting	8
6	Keys, keyways and keyseats	8
6.1	Key	8
6.2	Keyway	8
6.3	Keyseat	8
6.4	Standard keyways	8
6.5	Non-standard keyways.....	8
7	Shaft relationships	9
7.1	Aligned shafts.....	9
7.2	Misaligned shafts	9
7.2.1	Parallel offset misalignment	9
7.2.2	Angular misalignment.....	9
7.3	Axial relationships	10
7.3.1	Distance between shaft ends	10
7.3.2	Axial displacement	10
8	Coupling physical properties and other characteristics	10
8.1	Mass.....	10
8.2	Weight	10
8.3	Polar weight moment of inertia.....	10

8.4	Polar mass moment of inertia	10
8.5	Torsional stiffness	10
8.6	Shaft penetration factor.....	10
8.7	Damping	10
8.7.1	Damping ratio.....	10
8.7.2	Damping coefficient.....	10
8.8	Angular stiffness.....	11
8.9	Axial stiffness	11
8.10	Radial or lateral stiffness	11
8.11	Coupling reaction force	11
8.12	Coupling half weight.....	11
8.13	Half coupling effective center of gravity	11
8.14	Axial natural frequency.....	11
8.15	Coupling lateral natural frequency	11
9	Terms used in coupling selection	11
9.1	Torque rating terms	12
9.1.1	Coupling torque rating	12
9.1.2	Peak torque rating	12
9.1.3	Momentary torque limit.....	12
9.1.4	Vibratory torque rating	12
9.2	Misalignment terms	12
9.2.1	Maximum continuous misalignment.....	12
9.2.2	Coupling rated no load misalignment.....	12
9.2.3	Transient misalignment limit.....	12
9.2.4	Coupling installation alignment recommendation	12
9.3	Operating torque terms	13
9.3.1	Normal operating torque	13
9.3.2	Transient torque	13
9.4	Low cycle fatigue	14
9.5	High cycle fatigue	14
9.6	Factor of safety.....	14
9.7	Service factors.....	14
9.8	Allowable temperature	14
9.8.1	Maximum allowable temperature	14
9.8.2	Minimum allowable temperature	14
9.9	Transmitted axial force.....	14
9.10	Speed considerations.....	14
9.10.1	Rated speed	14
9.10.2	Maximum operating speed.....	14
9.10.3	Trip speed	15
9.11	Balance considerations	15
9.11.1	Balancing.....	15
9.11.2	Potential unbalance.....	15
9.11.3	Residual unbalance.....	15
9.11.4	Inherent unbalance	15
9.11.5	Repeatability of unbalance	15
9.11.6	Static unbalance.....	15
9.11.7	Couple unbalance	15
9.11.8	Dynamic unbalance	16
9.11.9	Axis of rotation.....	16
9.11.10	rss.....	17

9.11.11	Unbalance expression terms.....	17
9.12	Balance correction methods.....	17
9.12.1	Single plane.....	17
9.12.2	Two plane.....	17
9.12.3	Component balance	17
9.12.4	Assembly balance	17
9.12.5	Assembly check balance.....	17
9.12.6	Mandrel	17
9.12.7	Mounting fixtures	17
9.12.8	Bushing	17
9.12.9	Mandrel assembly	18
9.12.10	Mounting surface	18
9.12.11	Rigidifying hardware.....	18
9.12.12	Running surface	18
9.12.13	Unbalance correction	18
9.12.14	Balancing without a mandrel (mandrelless balancing).....	18
9.12.15	Indicating surface	18
9.12.16	Aligning surface.....	18
9.12.17	Balance tolerance.....	18
10	System terms	18
10.1	Torque	18
10.2	Power	18
10.3	Natural frequency	19
10.4	Resonance	19
10.5	Critical speed.....	19
10.6	Lateral critical speed	19
10.7	Torsional natural frequency.....	19
10.7.1	Torsional critical speed	19
10.8	Torsional vibration	19
10.9	Order number	19
10.10	Torsional tuning.....	19
11	General terms	19
11.1	Total indicator reading.....	19
11.2	Surface finish.....	19
Annexes		
Annex A (informative)	Index of terms.....	20
Annex B	Bibliography.....	26
Figures		
Figure 1	- Shaft relationships	9
Figure 2	- Damping coefficient	11
Figure 3	- Example of pulsating torque	13
Figure 4	- Example of reversing torque.....	13
Figure 5	- Static unbalance	16
Figure 6	- Couple unbalance	16
Figure 7	- Dynamic unbalance	16

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.

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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