

This is a preview of "ISO 6626-3:2019". [Click here to purchase the full version from the ANSI store.](#)

Second edition  
2019-09

---

---

## **Internal combustion engines — Piston rings —**

### **Part 3: Coil-spring-loaded oil control rings made of steel**

*Moteurs à combustion interne — Segments de piston —*

*Partie 3: Segments racleurs régulateurs d'huile, en acier, mis en charge par ressort hélicoïdal*



Reference number  
ISO 6626-3:2019(E)

© ISO 2019



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2019

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
CP 401 • Ch. de Blandonnet 8  
CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Fax: +41 22 749 09 47  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

This is a preview of "ISO 6626-3:2019". Click here to purchase the full version from the ANSI store.

## Contents

	Page
Foreword .....	iv
Introduction .....	v
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms, definitions and symbols</b> .....	<b>1</b>
3.1 Symbols .....	1
<b>4 Piston ring types and designation examples</b> .....	<b>2</b>
4.1 Type SOR — Steel oil control rings with R-shaped groove .....	2
4.1.1 General features and dimensions .....	2
4.1.2 Designation .....	3
4.2 Type SOV — Steel oil control rings with V-shaped groove .....	3
4.2.1 General features and dimensions .....	3
4.2.2 Designation .....	4
<b>5 Common features</b> .....	<b>4</b>
5.1 Ring width $h_1$ and radial wall thickness $a_1$ .....	4
5.2 Land width $h_5$ .....	5
5.3 Land angle $\alpha, \beta$ .....	5
5.4 Land spacing $B_3$ .....	5
5.5 Slot sizes .....	6
5.6 Nitrided surface .....	6
5.7 PVD coating thickness of peripheral surface .....	7
5.8 Nominal contact pressure and tangential force .....	7
5.8.1 Nominal contact pressure .....	7
5.8.2 Actual tangential force, $F_t$ , and tolerance .....	8
5.8.3 Normalized tangential force, $F_N$ .....	8
5.9 Tolerance of tangential force $F_t$ .....	8
<b>6 Coil springs</b> .....	<b>8</b>
6.1 Types of coil spring .....	8
6.2 Coil-spring excursion (extended gap) .....	10
6.3 Position of coil spring gap and fixing .....	11
6.4 Material .....	11
<b>7 Type SOR</b> .....	<b>11</b>
<b>8 Type SOV</b> .....	<b>11</b>
<b>9 Dimensions</b> .....	<b>12</b>
Bibliography .....	26

## 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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 34, *Propulsion, powertrain and powertrain fluids*.

This second edition cancels and replaces the first edition (ISO 6266-3:2008), which has been technically revised. The main changes compared to the previous edition are as follows:

- added subclause 5.8.2, Actual tangential force,  $F_t$  and tolerance;
- added subclause 5.8.3, Normalized tangential force,  $F_N$ ;
- added Table 9, Normalized tangential forces,  $F_N$ ;
- raised table numbers by one from Table 9 onward;
- made editorial changes to Table 16.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

This is a preview of "ISO 6626-3:2019". [Click here to purchase the full version from the ANSI store.](#)

## Introduction

ISO 6626 (all parts) is one of a series of International Standards dealing with piston rings for reciprocating internal combustion engines. Others are ISO 6621 (all parts), ISO 6622 (all parts), ISO 6623, ISO 6624 (all parts), ISO 6625 and ISO 6627 (see [Clause 2](#) and Bibliography).

The common features and dimensional tables presented in this document constitute a broad range of variables and, in selecting a particular ring type, the designer will bear in mind the conditions under which it will be required to operate.