

# Rotary shaft lip-type seals incorporating thermoplastic sealing elements —

## Part 4: Performance test procedures

ICS 23.040.80

# National foreword

This British Standard reproduces verbatim ISO 16589-4:2001 and implements it as the UK national standard.

The UK participation in its preparation was entrusted to Technical Committee MCE/11, Fluid seals and their housings, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this committee can be obtained on request to its secretary.

## Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the BSI Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue.

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This British Standard, having been prepared under the direction of the Engineering Sector Policy and Strategy Committee, was published under the authority of the Standards Policy and Strategy Committee on 21 March 2002

## Summary of pages

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**Rotary shaft lip-type seals incorporating  
thermoplastic sealing elements —**

**Part 4:  
Performance test procedures**

*Bagues d'étanchéité à lèvres pour arbres tournants incorporant des  
éléments d'étanchéité thermoplastiques —*

*Partie 4: Méthodes d'essai de performance*



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# Contents

Page

|                                                                                                   |    |
|---------------------------------------------------------------------------------------------------|----|
| Foreword.....                                                                                     | iv |
| Introduction .....                                                                                | v  |
| 1 Scope .....                                                                                     | 1  |
| 2 Normative references .....                                                                      | 1  |
| 3 Terms and definitions .....                                                                     | 1  |
| 4 Pre-test procedure.....                                                                         | 1  |
| 5 Dynamic test .....                                                                              | 2  |
| 5.1 Test apparatus .....                                                                          | 2  |
| 5.2 Installation .....                                                                            | 3  |
| 5.3 Test conditions .....                                                                         | 4  |
| 5.4 Test procedure .....                                                                          | 4  |
| 5.5 Post-test measurements .....                                                                  | 4  |
| 5.6 Recording .....                                                                               | 4  |
| 5.7 Acceptance criteria.....                                                                      | 4  |
| 6 Dynamic low temperature test .....                                                              | 4  |
| 6.1 General.....                                                                                  | 4  |
| 6.2 Test apparatus .....                                                                          | 4  |
| 6.3 Installation .....                                                                            | 5  |
| 6.4 Test procedure .....                                                                          | 5  |
| 6.5 Post-test measurements .....                                                                  | 6  |
| 6.6 Recording .....                                                                               | 6  |
| 6.7 Acceptance criteria.....                                                                      | 6  |
| 7 Material testing of the rotary shaft seal components .....                                      | 6  |
| 7.1 General.....                                                                                  | 6  |
| 7.2 Metallic components (cases).....                                                              | 6  |
| 7.3 Non-metallic components.....                                                                  | 6  |
| 8 Identification statement (Reference to this part of ISO 16589) .....                            | 6  |
| Annex A (informative) An example of seal test report for the dynamic test .....                   | 7  |
| Annex B (informative) An example of a seal test report for the dynamic low temperature test ..... | 9  |
| Annex C (informative) An example of a material test report (thermoplastic) .....                  | 11 |
| Annex D (informative) An example of a material test report (elastomer) .....                      | 12 |
| Bibliography .....                                                                                | 14 |

## 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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

The main task of technical committees is to prepare International Standards. 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.

Attention is drawn to the possibility that some of the elements of this part of ISO 16589 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 16589-4 was prepared by Technical Committee ISO/TC 131, *Fluid power systems*, Subcommittee SC 7, *Sealing devices*.

ISO 16589 consists of the following parts, under the general title *Rotary shaft lip-type seals incorporating thermoplastic sealing elements*:

- *Part 1: Nominal dimensions and tolerances*
- *Part 2: Vocabulary*
- *Part 3: Storage, handling and installation*
- *Part 4: Performance test procedures*
- *Part 5: Identification of visual imperfections*

Annexes A, B, C and D of this part of ISO 16589 are for information only.

## Introduction

Rotary shaft lip-type seals are used to retain fluid in equipment where the differential pressure is relatively low. Typically, the shaft rotates and the housing is stationary although in some applications the shaft is stationary and the housing rotates.

Dynamic sealing is normally the result of a designed interference fit between the shaft and a flexible element incorporated in the seal.

Similarly, a designed interference fit between the outside diameter of the seal and the diameter of the housing bore retains the seal and prevents static leakage.

Careful storage, handling and proper installation of all seals are necessary to avoid hazards, both prior to and during installation, which would adversely affect service life.

