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**Hydraulic fluid power — Filter  
elements — Method for end load test**

*Transmissions hydrauliques — Éléments filtrants — Méthode de  
détermination de la résistance à la déformation axiale*

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## Foreword

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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 on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 131, *Fluid power systems*, Subcommittee SC 6,

This second edition cancels and replaces the first edition (ISO 3723:1976), of which it constitutes a minor revision to update the format of this International Standard and to editorially improve [Clause 4](#) and [Clause 5](#).

## Introduction

In hydraulic fluid power systems, power is transmitted and controlled through a fluid under pressure within an enclosed circuit. Filters maintain fluid cleanliness by removing insoluble contaminants.

The filter element is the porous device which performs the actual process of filtration.

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# Hydraulic fluid power — Filter elements — Method for end load test

## 1 Scope

This International Standard specifies a method for verifying the end load rating of a hydraulic fluid power filter element. It also verifies the ability of a hydraulic fluid power filter element to withstand the designated axial loading imposed by installation and use.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 2941, *Hydraulic fluid power — Filter elements — Verification of collapse/burst pressure rating*

ISO 2943, *Hydraulic fluid power — Filter elements — Verification of material compatibility with fluids*

ISO 5598, *Fluid power systems and components — Vocabulary*

## 3 Terms and definitions

For purposes of this document, the terms and definitions in ISO 5598 and the following apply.

### 3.1 end load

axial force applied to the end of a filter element which can cause permanent deformation or seal failure

### 3.2 rated end load

maximum specified axial force which can be applied to a filter element without permanent deformation or seal failure

## 4 Test equipment

Suitable weights or mounting fixtures for applying the designated axial loads to simulate the installation and usage requirements of the filter element undergoing evaluation.

## 5 Test procedure

5.1 Subject the filter element to the material compatibility test according to ISO 2943.

5.2 After the 72 h hot soak portion of ISO 2943, cool the filter element to room temperature and subject it for 5 min to the axial load designated by the filter manufacturer.

## 6 Criteria for acceptance

6.1 There shall be no visual evidence of structural, seal, or filter medium failure.

6.2 The filter element shall successfully complete the collapse/burst test in accordance with ISO 2941.

## 7 Identification statement

Use the following statement in test reports, catalogues, and sales literature when electing to comply with this International Standard:

“Method of verifying filter element end load rating conforms to ISO 3723, *Hydraulic fluid power — Filter elements — Method for end load test.*”

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