

This is a preview of "ISO 4406:2021". [Click here to purchase the full version from the ANSI store.](#)

Fourth edition  
2021-01

---

---

## Hydraulic fluid power — Fluids — Method for coding the level of contamination by solid particles

*Transmissions hydrauliques — Fluides — Méthode de codification du  
niveau de pollution particulaire solide*



Reference number  
ISO 4406:2021(E)

© ISO 2021



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2021

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  
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 4406:2021". [Click here to purchase the full version from the ANSI store.](#)

## Contents

	Page
<b>Foreword</b> .....	<b>iv</b>
<b>Introduction</b> .....	<b>v</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Code definitions</b> .....	<b>1</b>
4.1 General.....	1
4.2 Basis of code.....	2
4.3 Allocation of scale numbers.....	2
4.4 Determination of code using automatic particle counter analysis.....	3
4.5 Determination of code using microscope sizing.....	4
<b>5 Identification statement (reference to this document)</b> .....	<b>4</b>
<b>Annex A (normative) Graphical presentation of the code number</b> .....	<b>5</b>

## 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 131, *Fluid power systems*, Subcommittee SC 6, *Contamination control*.

This fourth edition cancels and replaces the third edition (ISO 4406:2017), which has been technically revised.

The main change compared to the previous edition is as follows:

- the use of Particle Contamination Monitors (PCMs) can also be utilized for the determination of the ISO 4406 contamination code (see [subclause 4.4.1](#)) and PCM is referenced throughout this document.

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 4406:2021". [Click here to purchase the full version from the ANSI store.](#)

## Introduction

In hydraulic fluid power systems, power is transmitted and controlled through a liquid under pressure within an enclosed circuit. Solid particle contaminant is always present in the hydraulic fluid and the amount needs to be determined because the contaminant can cause serious problems.

The ISO 4406 cleanliness code has gained world-wide acceptance as a means of communicating the cleanliness of a hydraulic fluid. Most hydraulic component manufacturers require a certain ISO cleanliness level for warranty purposes, to ensure proper function and for a long, trouble-free life.