

This is a preview of "ISO 19879:2021". [Click here to purchase the full version from the ANSI store.](#)

Third edition
2021-03

Metallic tube connections for fluid power and general use — Test methods for hydraulic fluid power connections

Raccords de tubes métalliques pour transmissions hydrauliques et pneumatiques et applications générales — Méthodes d'essai pour raccords pour transmissions hydrauliques



Reference number
ISO 19879:2021(E)

© ISO 2021

This is a preview of "ISO 19879:2021". [Click here to purchase the full version from the ANSI store.](#)



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
Website: www.iso.org

Published in Switzerland

This is a preview of "ISO 19879:2021". [Click here to purchase the full version from the ANSI store.](#)

Contents

	Page
Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 General requirements	2
4.1 Test assemblies.....	2
4.2 Test equipment.....	5
4.2.1 Test block.....	5
4.2.2 Test seals.....	5
4.3 Procedure.....	5
4.3.1 Thread lubrication.....	5
4.3.2 Torque.....	6
4.3.3 Temperature.....	6
4.4 Test report.....	6
5 Repeated assembly test	6
5.1 Principle.....	6
5.2 Procedure.....	6
5.3 Re-use of components.....	6
6 Leakage test	7
6.1 Principle.....	7
6.2 Procedure.....	7
6.3 Re-use of components.....	7
7 Proof test	8
7.1 Principle.....	8
7.2 Procedure.....	8
7.3 Re-use of components.....	8
8 Burst test	9
8.1 Principle.....	9
8.2 Procedure.....	9
8.3 Re-use of components.....	9
9 Cyclic endurance test	9
9.1 Principle.....	9
9.2 Procedure.....	9
9.3 Re-use of components.....	9
10 Vacuum test	10
10.1 Principle.....	10
10.2 Procedure.....	10
10.3 Re-use of components.....	10
11 Overtightening test	10
11.1 Principle.....	10
11.2 Test equipment.....	11
11.3 Procedure.....	11
11.4 Re-use of components.....	11
12 Vibration test	11
12.1 Principle.....	11
12.2 Procedure.....	11
12.3 Re-use of components.....	14
13 Cyclic endurance (impulse) test with vibration	14

This is a preview of "ISO 19879:2021". [Click here to purchase the full version from the ANSI store.](#)

13.1	Principle.....	14
13.2	Procedure.....	14
13.3	Re-use of components	15
14	Identification statement (Reference to this document).....	15
	Annex A (informative) Typical test data form	16
	Bibliography	19

This is a preview of "ISO 19879:2021". [Click here to purchase the full version from the ANSI store.](#)

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).

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).

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.

This document was prepared by Technical Committee ISO/TC 131, *Fluid power systems*, Subcommittee SC 4, *Connectors and similar products and components*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 459/SC 10, *Steel tubes, and iron and steel fittings*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 19879:2010), which has been technically revised.

The main changes compared to the previous edition are as follows:

- clarification of the language used to describe the connector end, and of the proper method for selecting tubes for test assemblies;
- minor changes to [10.1](#), [10.2](#) ([Table 7](#)) and [12.2.2](#).

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.

This is a preview of "ISO 19879:2021". [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. It is suggested that components be designed to meet these requirements under varying conditions. Testing of components to meet performance requirements provides a basis of assurance for determining design application and for checking component conformance with the stated requirements.