
**Hydraulic fluid power — Hose
assemblies —**

**Part 2:
Practices for hydraulic hose
assemblies**

Transmissions hydrauliques — Flexibles de raccordement —

Partie 2: Pratiques pour les flexibles de raccordement hydrauliques

*iTeh Standards
(<https://standards.itih.ai>)
Document Preview*

ISO/TS 17165-2:2018

<https://standards.itih.ai/catalog/standards/iso/0f00dfd3-46af-44f4-95c0-3c4d5680559e/iso-ts-17165-2-2018>



iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[ISO/TS 17165-2:2018](https://standards.iteh.ai/catalog/standards/iso/0f00dfd3-46af-44f4-95c0-3c4d5680559e/iso-ts-17165-2-2018)

<https://standards.iteh.ai/catalog/standards/iso/0f00dfd3-46af-44f4-95c0-3c4d5680559e/iso-ts-17165-2-2018>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2018

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
Website: www.iso.org

Published in Switzerland

Contents

	Page
Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Safety considerations	2
4.1 General.....	2
4.2 Fluid injections.....	2
4.3 Whipping hoses.....	2
4.4 Burns from conveyed fluids.....	2
4.5 Fire and explosions from conveyed fluids.....	2
4.6 Fire and explosions from static-electric discharge.....	2
4.7 Electrical shock.....	3
4.8 Mechanisms controlled by fluid power.....	3
5 Hose selection and routing	3
5.1 General.....	3
5.2 System pressures.....	3
5.3 Suction.....	3
5.4 External pressure.....	3
5.5 Temperature.....	3
5.6 Permeation.....	4
5.7 Compatibility between hose materials and system fluids.....	4
5.8 Environment.....	4
5.9 Static-electric discharge.....	5
5.10 Sizing.....	5
5.11 Unintended uses.....	5
5.12 Specifications and standards.....	5
5.13 Unusual applications.....	5
5.14 Hose assembly cleanliness.....	5
5.15 Hose fittings.....	5
5.16 Vibration.....	5
5.17 Hose cover protection.....	5
5.18 External physical abuse.....	6
5.19 Swivel hose fittings and connectors.....	6
5.20 Rotary connectors.....	6
5.21 Slings and clamps.....	6
5.22 Minimum bend radius.....	7
5.23 Elbows and connectors.....	7
5.24 Lengths.....	7
5.24.1 General.....	7
5.24.2 Motion absorption.....	8
5.24.3 Tolerances and machine motion.....	8
5.24.4 Change in hose length due to changes in pressure.....	8
5.25 Hose movement and bending.....	9
6 Hose assembly fabrication	10
6.1 General.....	10
6.2 Component inspection.....	10
6.3 Hose fitting parts.....	11
6.4 Compatibility between hose and hose fittings.....	11
6.5 Hose assembly equipment.....	11
6.6 Safety equipment.....	11
6.7 Condition of hose assembly parts.....	11

6.8	Cleanliness of hoses and hose assemblies.....	11
6.9	Temperature.....	11
6.10	Assembly inspection.....	11
6.11	Marking.....	12
7	Hose installation and replacement.....	12
7.1	General.....	12
7.2	Pre-installation inspection.....	12
7.3	Handling during installation.....	12
7.4	Twist angle and orientation.....	12
7.5	Securing and protection.....	13
7.6	Routing.....	13
7.7	Assembly torque.....	13
7.8	System checkouts.....	13
8	Maintenance inspection.....	13
8.1	General.....	13
8.2	Inspection frequency.....	13
8.3	Visual inspection (hose and hose fittings).....	13
8.4	Visual inspection (all other components in the system).....	14
8.5	Functional tests.....	15
9	Storage.....	15
9.1	General.....	15
9.2	Age control.....	15
9.2.1	Shelf life.....	15
9.2.2	Storage period.....	15
9.3	Storage conditions.....	15
10	Identification statement (reference to this document).....	17
Annex A (informative) Examples of actual failure resulting from improper use.....		18
Bibliography.....		20

ISO/TS 17165-2:2018

<https://standards.iteh.ai/catalog/standards/iso/0f00dfd3-46af-44f4-95c0-3c4d5680559e/iso-ts-17165-2-2018>