

BS ISO 12151-1:2010+A1:2017



BSI Standards Publication

Connections for hydraulic fluid power and general use — Hose fittings

Part 1: Hose fittings with ISO 8434-3 O-ring face seal ends



National foreword

This British Standard is the UK implementation of ISO 12151-1:2010+A1:2017. It supersedes BS ISO 12151-1:2010 which is withdrawn.

The UK participation in its preparation was entrusted by Technical Committee MCE/18, Fluid power systems and components, to Subcommittee MCE/18/-/4, Connectors and associated components.

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

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Amendments/corrigenda issued since publication

Date	Text affected
30 April 2017	Implementation of ISO amendment 1:2017: Figure 3 amended

**Connections for hydraulic fluid power
and general use — Hose fittings —**

**Part 1:
Hose fittings with ISO 8434-3 O-ring
face seal ends**

AMENDMENT 1

*Raccordements pour transmissions hydrauliques et applications
générales — Raccords de flexible —*

*Partie 1: Raccords de flexible avec embouts à joints faciaux toriques
conformes à l'ISO 8434-3*

AMENDEMENT 1



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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 2.

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 document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 12151-1 was prepared by Technical Committee ISO/TC 131, *Fluid power systems*, Subcommittee SC 4, *Connectors and similar products and components*.

This second edition cancels and replaces the first edition (ISO 12151-1:1999), which has been technically revised.

ISO 12151 consists of the following parts, under the general title *Connections for hydraulic fluid power and general use — Hose fittings*:

- *Part 1: Hose fittings with ISO 8434-3 O-ring face seal ends*
- *Part 2: Hose fittings with ISO 8434-1 and ISO 8434-4 24° cone connector ends with O-rings*
- *Part 3: Hose fittings with ISO 6162-1 or ISO 6162-2 flange ends*
- *Part 4: Hose fittings with ISO 6149 metric stud ends*
- *Part 5: Hose fittings with ISO 8434-2 37° flared ends*
- *Part 6: Hose fittings with ISO 8434-6 60° cone ends*

Introduction

In hydraulic fluid power systems, power is transmitted and controlled through a liquid under pressure within an enclosed circuit. In general applications, the fluid can be conveyed under pressure.

Components are connected through their ports by stud ends on fluid conductor connectors to tubes/pipes or to hose fittings and hoses.

Connections for hydraulic fluid power and general use — Hose fittings —

Part 1: Hose fittings with ISO 8434-3 O-ring face seal ends

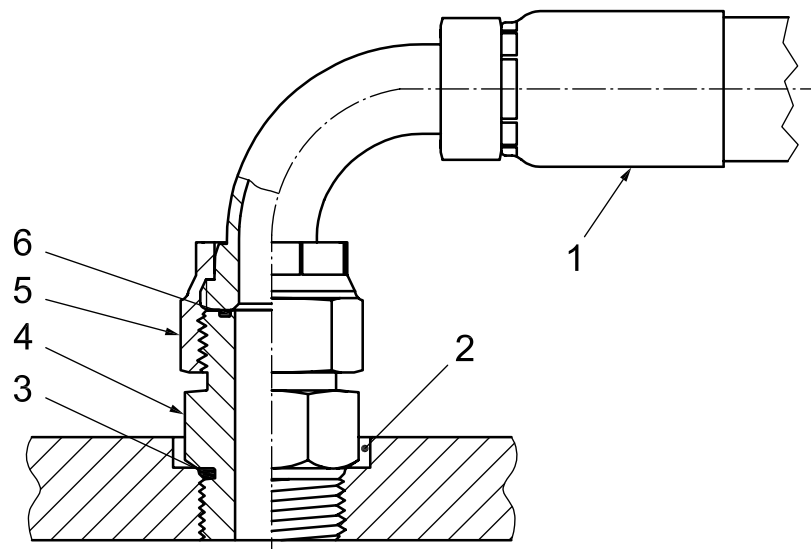
1 Scope

This part of ISO 12151 specifies the general and dimensional requirements for the design and performance of hose fittings with O-ring face seal ends in accordance with ISO 8434-3, made of carbon steel, for nominal hose inside diameters of 6,3 mm to 38 mm, inclusive, in accordance with ISO 4397.

NOTE 1 Materials other than carbon steel can be supplied as agreed between the manufacturer and user.

NOTE 2 For hose fittings used in hydraulic and pneumatic braking systems on road vehicles (as defined in the scope of ISO/TC 22, *Road vehicles*), see ISO 4038, ISO 4039-1 and ISO 4039-2.

These hose fittings (see Figure 1 for a typical example) are for use in hydraulic fluid power systems with hose that meets the requirements of the respective hose standards and in general applications with suitable hose.



Key

- | | |
|--------------------------------------|---|
| 1 hose fitting | 4 adapter in accordance with ISO 8434-3 |
| 2 port in accordance with ISO 6149-1 | 5 nut |
| 3 O-ring seal | 6 O-ring seal |

Figure 1 — Typical example of a hose-fitting connection with O-ring face seal end