

# SLOVENSKI STANDARD

## SIST ISO 11926-1:1998

01-december-1998

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Connections for general use and fluid power -- Ports and stud ends with ISO 725 threads and O-ring sealing -- Part 1: Ports with O-ring seal in truncated housing

### iTeh STANDARD PREVIEW

Raccordements pour applications générales et transmissions hydrauliques et pneumatiques -- Orifices et éléments mâles à filetage ISO 725 et joint torique -- Partie 1: Orifices à joint torique dans un logement tronconique

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Ta slovenski standard je istoveten z: **ISO 11926-1:1995**

#### ICS:

23.100.40 Cevna napeljava in sklopke Piping and couplings

**SIST ISO 11926-1:1998**

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INTERNATIONAL  
STANDARDISO  
11926-1First edition  
1995-05-01

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**Connections for general use and fluid  
power — Ports and stud ends with ISO 725  
threads and O-ring sealing —****Part 1:**

Ports with O-ring seal in truncated housing

*Raccordements pour applications générales et transmissions hydrauliques  
et pneumatiques — Orifices et éléments mâles à filetage ISO 725 et joint  
torique —*

*Partie 1: Orifices à joint torique dans un logement tronconique*Reference number  
ISO 11926-1:1995(E)

## ISO 11926-1:1995(E)

## 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.

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.

International Standard ISO 11926-1 was prepared jointly by Technical Committees ISO/TC 131, *Fluid power systems*, Subcommittee SC 4, *Connectors and similar products and components* and ISO/TC 5, *Ferrous metal pipes and metallic fittings*.

ISO 11926 consists of the following parts, under the general title *Connections for general use and fluid power — Ports and stud ends with ISO 725 threads and O-ring sealing*:

- Part 1: *Ports with O-ring seal in truncated housing*
- Part 2: *Heavy-duty (S series) stud ends*
- Part 3: *Light-duty (L series) stud ends*

Annex A of this part of ISO 11926 is for information only.

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International Organization for Standardization  
Case Postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland

## Introduction

In fluid power systems, power is transmitted and controlled through a fluid (liquid or gas) under pressure within an enclosed circuit. In general applications, a fluid may be conveyed under pressure.

Components are connected through their threaded ports by fluid connector fittings to tubes and pipes or to hose fittings and hoses.

Ports are an integral part of fluid power components such as pumps, motors, valves, cylinders, etc.

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# Connections for general use and fluid power — Ports and stud ends with ISO 725 threads and O-ring sealing —

## Part 1:

## Ports with O-ring seal in truncated housing

### 1 Scope

This part of ISO 11926 specifies dimensions for ports with inch threads complying with ISO 725 for use with the adjustable and non-adjustable stud ends detailed in ISO 11926-2 and ISO 11926-3. It also specifies test methods and the designation of these ports.

Ports in accordance with this part of ISO 11926 may be used at working pressures up to 63 MPa (630 bar<sup>1)</sup>) for non-adjustable stud ends, and 40 MPa (400 bar) for adjustable stud ends. The permissible working pressure depends upon the port size, materials, design, working conditions, application, etc.

For threaded ports and stud ends specified in new designs in hydraulic fluid power applications, only ISO 6149 is to be used. Threaded ports and stud ends in accordance with ISO 1179, ISO 9974 and ISO 11926 are not to be used for new designs in hydraulic fluid power applications.

IEC and ISO maintain registers of currently valid International Standards.

ISO 725:1978, *ISO inch screw threads — Basic dimensions*.

ISO 2306:1972, *Drills for use prior to tapping screw threads*.

ISO 5598:1985, *Fluid power systems and components — Vocabulary*.

ISO 11926-2:1995, *Connections for general use and fluid power — Ports and stud ends with ISO 725 threads and O-ring sealing — Part 2: Heavy-duty (S series) stud ends*.

ISO 11926-3:1995, *Connections for general use and fluid power — Ports and stud ends with ISO 725 threads and O-ring sealing — Part 3: Light-duty (L series) stud ends*.

### 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 11926. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 11926 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of

### 3 Definitions

For the purposes of this part of ISO 11926, the definitions given in ISO 5598 apply.

### 4 Dimensions

Ports shall conform to the dimensions shown in figure 1 and given in table 1.

1) 1 bar = 0,1 MPa = 10<sup>5</sup> Pa; 1 MPa = 1 N/mm<sup>2</sup>

## 5 Test methods

Ports shall be tested along with stud ends in accordance with the test methods and requirements given in ISO 11926-2 and ISO 11926-3.

## 6 Designation of ports

The ports shall be designated by

- "Port";
- reference to this part of ISO 11926, i.e. ISO 11926-1;
- thread size ( $d_1$ ) and number of threads per inch ( $n$ ), separated by a hyphen, without indicating the

fine thread series (UNF) or the constant-pitch series (UN) and the thread class symbol (2B).

### EXAMPLE

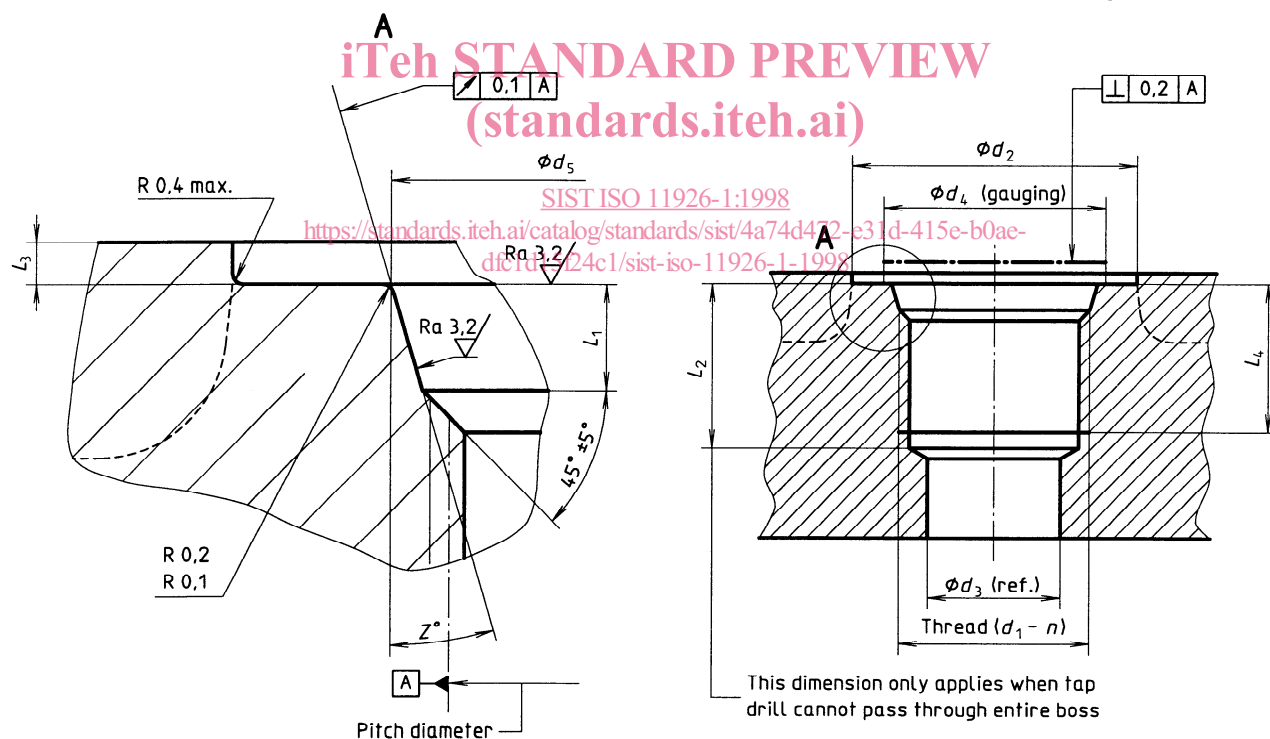
**Port ISO 11926-1 - 1/2 - 20**

## 7 Identification statement (Reference to this part of ISO 11926)

Use the following statement in test reports, catalogues and sales literature when electing to comply with this part of ISO 11926:

"Ports conform to ISO 11926-1:1995, *Connections for general use and fluid power — Ports and stud ends with ISO 725 threads and O-ring sealing — Part 1: Ports with O-ring seal in truncated housing.*"

Dimensions in millimetres,  
surface roughness in micrometres



**Figure 1 — Port**



Table 1 — Port dimensions

Dimensions in millimetres

Thread <sup>1)</sup> ( $d_1 - n$ )	$d_2$ <sup>2)</sup> min.	$d_3$ <sup>3)</sup> ref.	$d_4$ min.	$d_5$ $\pm 0,05$	$L_1$ $+0,4$ 0	$L_2$ <sup>4)</sup> min.	$L_3$ <sup>5)</sup> max.	$L_4$ min.	$Z^\circ$ $\pm 1^\circ$
3/8-24 UNF-2B	19	3,5	13	10,75	1,9	12	1,6	10	12
7/16-20 UNF-2B	21	4,5	15	12,45	2,4	14	1,6	11,5	12
1/2-20 UNF-2B	23	6	16	14,05	2,4	14	1,6	11,5	12
9/16-18 UNF-2B	25	7,5	18	15,7	2,5	15,5	1,6	12,7	12
3/4-16 UNF-2B	30	10	22	20,65	2,5	17,5	2,4	14,3	15
7/8-14 UNF-2B	34	12,5	26	24	2,5	20	2,4	16,7	15
1 1/16-12 UN-2B	41	16	32	29,2	3,3	23	2,4	19	15
1 3/16-12 UN-2B	45	18	35	32,4	3,3	23	2,4	19	15
1 5/16-12 UN-2B	49	21	38	35,55	3,3	23	3,2	19	15
1 5/8-12 UN-2B	58	27	48	43,55	3,3	23	3,2	19	15
1 7/8-12 UN-2B	65	33	54	49,9	3,3	23	3,2	19	15
2 1/2-12 UN-2B	88	45	70	65,75	3,3	23	3,2	19	15

1) Conforming to ISO 725. Tap drills in accordance with ISO 2306.

2) Minimum recommended spotface diameter. If the face of the port is on a machined surface, dimensions  $d_2$  and  $L_3$  need not apply as long as radius  $R_{0,2}$  is maintained to avoid damage to the O-ring during installation.

3) For reference only. Connecting hole application may require a different size.

4) The tap drill depths given require the use of a bottoming tap to produce the specified full thread lengths. Where standard taps are used, the tap drill depths shall be increased accordingly.

5) Maximum recommended spotface depth to permit sufficient wrench grip for proper tightening of the fitting or locknut.