



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 39949.1-2021

**Hydraulic fluid power - Mounting dimensions for accessories of
single rod cylinder - Part 1: 16 MPa medium and 25 MPa series**

Issued on: March 9, 2021

Implemented on: October 1, 2021

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

Table of Contents

Foreword

1 Scope

2 Normative references

3 Terms and definitions

4 Installation size

5 Tolerance

Foreword

GB/T 39949 "Installation Dimensions of Hydraulic Transmission Single Rod Cylinder Accessories" is divided into 3 parts.

---Part 1.16MPa medium-sized series and 25MPa series;

---Part 2.16MPa cylinder diameter 25mm~220mm compact series;

---Part 3.16MPa cylinder diameter 250mm~500mm compact series.

This part is Part 1 of GB/T 39949.

This section was drafted in accordance with the rules given in GB/T 1.1-2009.

This part uses the redrafting method to modify and adopt ISO 8132.2014 "Hydraulic Transmission 16MPa (160bar) Medium Series and 25MPa

(250bar) series of single-rod cylinder accessories installation dimensions".

Compared with ISO 8132.2014, there are structural differences in this part, and the appendix type of Chapter 6 is added.

The technical differences between this part and ISO 8132.2014 and the reasons are as follows.

---Regarding normative reference documents, this section has made adjustments with technical differences to adapt to my country's technical conditions and adjustments.

The situation is collectively reflected in Chapter 2 "Normative Reference Documents", and the specific adjustments are as follows.

* Replace ISO 2768-2 with non-equivalent adopting international standard GB/T 1184 (see 5.3);

* Replace ISO 286-2 (see 7.1.1) with GB/T 1800.2 modified to adopt international

standards;

* Replace ISO 2768-1 with non-equivalent adopting international standard GB/T 1804 (see 5.2);

* Replace ISO 6099 with GB/T 9094 equivalent to the international standard (see Chapter 6);

* Replace ISO 5598 with GB/T 17446, which is equivalent to the international standard (see Chapter 3).

---"Double earring bracket, symmetrical type" in accessory type AB4 is modified to "double earring bracket, through hole, symmetrical type"; accessory type AB3

"Double earring bracket, oblique type" is revised to "double earring bracket, through hole, oblique type" (see Chapter 6, Figure 3, Table 3, Example 3, Figure 4, Table 4,

Example 4, Chapter 1, Figure 3, Table 3, Example 3, Figure 4, Table 4, Example 4 of ISO 8132.2014).

---The tolerance zone of size CL in accessory types AP2, AB4, AB3 is changed from "h16" to "max", accessory types AA4-R/S,

The tolerance zone of dimension ES and EL in AA6-R/S is changed from "H16" to "min" (see Table 1, Table 3, Table 4, Table 6, Table 7,

Table 1, Table 3, Table 4, Table 6, Table 7 of ISO 8132.2014).

--- The footnote b of the dimension EK in the accessory type AA4-R/S is deleted (see Table 6 and Table 7 of ISO 8132.2014).

--- The user's requirements for use have been added to the swing angle. "(When used by the user, the swing angle should not exceed $\pm 4^\circ$)" (see 7.1.2).

---Added the "piston rod with a single earring, internal thread (AP4)" requirements (see 7.1.3).

This part was proposed by China Machinery Industry Federation.

This part is under the jurisdiction of the National Hydraulic and Pneumatic Standardization Technical Committee (SAC/TC3).

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1 Scope

This part of GB/T 39949 specifies the installation of accessories for 16MPa medium-sized series single-rod hydraulic cylinders and 25MPa series single-rod hydraulic cylinders.

Install size.

This section applies to hydraulic cylinders specified in JB/T 12706.1 and JB/T 13291.

Note. The hydraulic cylinder attachment transmits the load mechanically, and its design is based on the maximum load of the hydraulic cylinder, which is in accordance with the requirements of GB/T 2348 and GB/T 2346

The cylinder diameter of the hydraulic cylinder is related to the nominal pressure.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article

Pieces. For undated reference documents, the latest version (including all amendments) is applicable to this document.

GB/T 1184 shape and position tolerance without tolerance value (GB/T 1184-1996, eqvISO 2768-2.1989)

GB/T 1800.2 Product Geometric Technical Specification (GPS) Linear Dimension Tolerance ISO Code System Part 2. Standard Tolerance Zone

Code and limit deviation table of hole and shaft (GB/T 1800.2-2020, ISO 286-2.2010, MOD)

GB/T 1804 General tolerance The tolerance of linear and angular dimensions without tolerance (GB/T 1804-2000, eqvISO 2768-1.

1989)

GB/T 9094 fluid transmission system and component cylinder installation size and installation type code (GB/T 9094-2020, ISO 6099.

2018, IDT)

GB/T 17446 Vocabulary of fluid transmission systems and components (GB/T 17446-2012, ISO 5598.2008, IDT)

3 Terms and definitions

The terms and definitions defined in GB/T 17446 apply to this document.

4 Installation size

The installation dimensions of the accessories should be selected from Figure 1 to Figure 9 and the corresponding Table 1 to Table 9.

5 Tolerance

5.1 The installation dimensional tolerances of the accessories should meet the requirements of Figure 1~Figure 9 and the corresponding Table 1~Table 9.

5.2 All linear and angular dimension tolerance grades not marked in this part should be grade m, marked as. "GB/T 1804-m", which should conform to

The provisions of GB/T 1804.

5.3 All unmarked geometric tolerance grades in this part should be K grade, marked as. "GB/T 1184-K", which should comply with GB/T 1184

Regulations.