



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

GB/T 8100.2-2021

**Mounting surfaces of hydraulic valves - Part 2: Compensated
flow-control valves**

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foreword

This document is in accordance with the provisions of GB/T 1:1-2020 "Guidelines for Standardization Work Part 1: Structure and Drafting Rules of Standardization Documents"

drafted:

This document is part 2 of GB/T 8100 "Hydraulic Valve Mounting Surface": GB/T 8100 has released the following parts:

--- Part 2: Speed control valve;

--- Part 3: Pressure reducing valves, sequence valves, unloading valves, throttle valves and check valves:

This document replaces GB/T 8098-2003 "Hydraulic Transmission Belt Compensated Flow Control Valve Mounting Surface", which is the same as GB/T 8098-2003

Compared to this, the main technical changes are as follows:

--- Changed normative references (see Chapter 2, Chapter 2 of the:2003 edition);

--- Delete the mounting surface with the main port diameter of 28:4mm (see 6:10, 6:11, 7:10, 7:11, Figure 9, Figure 10, Table:2003

17~Table 20);

--- Changed the graphic symbols of the speed control valve (see Table 2, Table 4, Table 6, Table 8, Table 10, Table 12, Table 14, Table 16);

--- Deleted Appendix A (see Appendix A of the:2003 edition):

This document is modified to adopt ISO 6263:2013 "Hydraulic Transmission Belt Compensated Flow Control Valve Mounting Surface":

The technical differences between this document and ISO 6263:2013 and their reasons are as follows:

--- Regarding normative reference documents, this document has made adjustments with technical differences to adapt to the technical conditions of our country and the circumstances of the adjustment:

The situation is reflected in Chapter 2 "Normative References", and the specific adjustments are as follows:

- * Replace ISO 1219-1 (see 4:2) with GB/T 786:1 which is equivalent to adopting international standards;
- * Replace ISO 4401 with GB/T 2514 modified to adopt international standards (see Chapter 8);
- * Replace ISO 5783 with GB/T 14043 which is equivalent to adopting international standards (see 4:3);
- * Replace ISO 5598 with GB/T 17446 which is equivalent to adopting international standards (see Chapter 3);
- * Removed ISO 3601-2:2008 (see ISO 6263:2013, Chapters 2 and 5:1):

The following editorial changes have also been made to this document:

--- Modify the installation surface code "6263-x-x-x-13" to "GB/T 8100:2-x-x-x-2021":

Please note that some content of this document may be patented: The issuing agency of this document assumes no responsibility for identifying patents:

Introduction

In a hydraulic transmission system, power is transmitted and controlled by pressurized fluid in a closed circuit: The hydraulic valve is the most typical in the system

A type of element that controls the flow direction, pressure or flow of a fluid in a closed loop:

GB/T 8100 specifies the dimensions of the installation surface of hydraulic valves, which are to be composed of 5 parts:

--- Part 1: Four-port directional valve: The purpose is to determine the size of the installation surface of the four-port directional valve (temporarily GB/T 2514-2008):

--- Part 2: Speed control valve: The purpose is to determine the size of the mounting surface of the speed control valve:

--- Part 3: Pressure reducing valves, sequence valves, unloading valves, throttle valves and check valves: The purpose is to determine the pressure reducing valve, sequence valve, unloading valve, joint

Dimensions of the mounting surface for flow valves and check valves:

--- Part 4: Relief valve: The purpose is to determine the size of the mounting surface of the relief valve (temporarily GB/T 8101-2002):

--- Part 5: Four-port and five-port servo valves: The purpose is to determine the size of the installation surface of the four-port and five-port servo valves (temporarily for GB/T 17487-1998):

The five parts of GB/T 8100 are formulated by ISO 's independent standards: In order to facilitate the systematic management and implementation of the standards, the independent standards are

The quasi-combination is a sub-section standard:

Hydraulic valve mounting surface part 2: speed regulating valve

1 Scope

This document specifies the dimensions and related data of the speed control valve mounting surface to ensure the interchangeability of use:

This document applies to the speed control valve mounting surface commonly used in industrial equipment:

2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text: Among them, the dated reference documents, only

The version corresponding to this date applies to this document; for undated references, the latest edition (including all amendments) applies to this document:

GB/T 786:1 Graphical symbols and circuit diagrams of fluid transmission systems and components - Part 1: Graphical symbols (GB/T 786:1-2021, ISO 1219-1:2012, IDT)

GB/T 2514 Hydraulic transmission four-port directional control valve mounting surface (GB/T 2514-2008, ISO 4401:2005, MOD)

GB/T 14043 Identification code of hydraulic transmission valve mounting surface and valve hole of cartridge valve (GB/T 14043-2005, ISO 5783:1995, IDT)

GB/T 17446 Vocabulary of Fluid Transmission Systems and Components (GB/T 17446-2012, ISO 5598:2008, IDT)

3 Terms and Definitions

Terms and definitions defined in GB/T 17446 apply to this document:

4 symbols

4:1 The following symbols apply to this document:

- a) A, B, L, P, T and V indicate ports;
- b) F1, F2, F3 and F4 indicate threaded holes for fixing screws;
- c) G, G1 and G2 indicate positioning pin holes;
- d) D represents the diameter of the fixing screw;
- e) r_{max} represents the edge fillet radius of the mounting surface:

4:2 The graphic symbols used in this document shall comply with the provisions of GB/T 786:1:

4:3 The codes in this document shall comply with the provisions of GB/T 14043:

5 Tolerance

5:1 The mounting surface (that is, the area within the double-dotted line) should adopt the following tolerances:

- Surface roughness: $Ra \leq 0.8 \mu m$;
- Surface flatness: no more than 0.01mm per 100mm;
- Locating pin hole diameter tolerance: H12: