

ICS 13.110
CCS J 09



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

GB/T 18717.2-2002

**Ergonomic design for the safety of machinery -- Part 2:
Principles for determining the dimensions required for
openings for access of parts of the body into machinery
(English Translation)**

Issued on: May 17, 2002

Implemented on: December 1, 2002

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China**

Table of Contents

Foreword...	3
1 Scope...	5
2 Normative References...	5
3 General Requirements...	6
4 Access Openings...	7
Appendix A (Normative) Application of Anthropometric Data in Practice...	14
Appendix B (Informative) Configuration of Access Openings...	19

Foreword

GB/T 18717 Ergonomic Design for the Safety of Machinery is divided into three parts.

---Part 1. Principles for Determining the Dimensions Required for Openings for Whole-body Access into Machinery;

---Part 2. Principles for Determining the Dimensions Required for Openings for Access of Parts of the Body into Machinery;

---Part 3. Anthropometric Data.

This Part is the second part of GB/T 18717; it is corresponding to ISO 15534-2. 2000 Ergonomic Design for the Safety of Machinery - Part 2. Principles for Determining the Dimensions Required for Access Openings (English version). The degree of consistency between this Part and Part 2 in ISO 15534-2. Ergonomic Design for the Safety of Machinery is non-equivalent. Please see the main differences below.

---The Introduction part and the involved Bibliography [3] in the previous international standard are deleted;

---Three reference standards in the previous international standard are modified into corresponding national standards;

---In the previous international standard, 12 of the 25 opening dimensions (unit. mm) of B2 ~ B16 are modified.

In Figure B.4 and Figure B.14 in this Part, " $\leq 1,190$ " is " $\leq 1,220$ " before

modification;

In Figure B.5 in this Part, "900" is "920" before modification;

In Figure B.6 in this Part, "1,190 ~ 1,560" is "1,230 ~ 1,680" before modification;

In Figure B.8 in this Part, "1,560 ~ 1,190" is "1,560 ~ 1,230" before modification;

In Figure B.11 in this Part, "900 ~ 1,240" is "920 ~ 1,240" before modification;

"1,190 ~ 1,560" is "1,230 ~ 1,560" before modification;

In Figure B.12 in this Part, "1,190" is "1,230" before modification;

In Figure B.13 in this Part, "1,190 ~ 1,560" is "1,230 ~ 1,560" before modification;

In Figure B.15 in this Part, "900 ~ 1,230" is "920 ~ 1,230" before modification;

In Figure B.16 in this Part, " $\leq 1,480$ " is " $\leq 1,520$ " before modification.

---On the premise of the same conditions for the measurement of human body

Ergonomic Design for the Safety of Machinery - Part 2.

Principles for Determining the Dimensions Required

for Openings for Access of Parts of the Body into

Machinery

1 Scope

This Part specifies the minimum functional dimensions (opening dimensions, please refer to Bibliography [2]) for 12 types of opening for access of parts of the body into machinery (please refer to 3.1 in GB/T 15706.1-1995) and the configuration requirements for 22 types of opening, as well as 26 formulas for the calculation of opening dimensions, which combine anthropometric data (anthropometric measurements) and additional space (allowances).

Please refer to Table 1 in GB/T 18717.3-2002 for anthropometric data. Please refer to the stipulation in Appendix A for the numerical value of additional space.

Opening dimensions are based on the numerical value of the 95th percentile (please refer to Bibliography [2]) of the expected user population, whereas reach distances are based on the numerical value of the 5th percentile. Under each circumstance, the least favorable body dimension of the expected user population shall be considered as the

basis. The same consideration also applies to the configuration of openings. Please refer to Appendix B.

This Part is applicable to non-mobile machinery. In terms of mobile machinery, there may be additional specific requirements.

Situations where people are to be prevented from reaching a hazard are elaborated in GB 12265.1.

2 Normative References

Through the quotation in this Part of GB/T 18717, clauses in the following documents become clauses in this Part. In terms of references with a specific date, all the subsequent modification sheets (excluding corrected content) or revised versions are not applicable to this Standard. However, all parties that reach an agreement in accordance with this Standard are encouraged to explore the possibility of adopting the latest versions of these documents. In terms of references without a specific date, the latest versions are applicable to this Standard.

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