

2

Ergonomics

User

Introduction and Anthropometry



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The variability of human: diversity in race



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The variability of human: diversity in race



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The variability of human: belonging to different socio-cultural background



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Introduction and Anthropometry

The variability of human: The diversity in the people



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The variability of human: growing



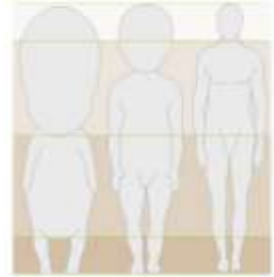
**2** Ergonomics  
**User** Introduction and Anthropometry

The variability of human: growing



**2** Ergonomics  
**User** Introduction and Anthropometry

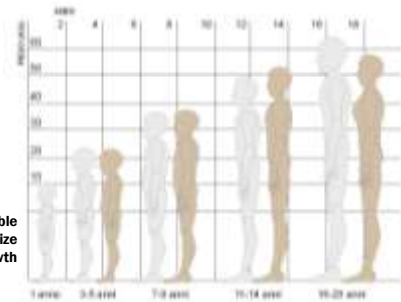
The variability of human: growing



Proportions of the human body at different ages from fetus to adult

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**User** Introduction and Anthropometry

The variability of human: growing



The continuously variable proportions and body size during childhood growth

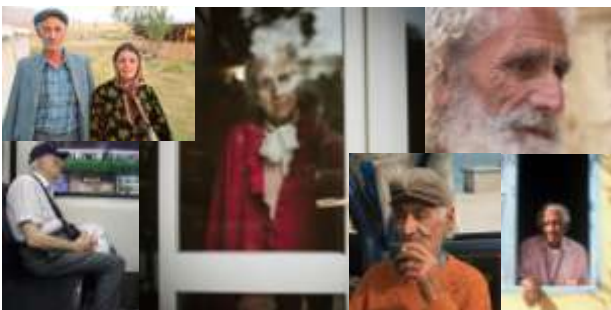
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**User** Introduction and Anthropometry

The variability of human: sex



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The variability of human: age



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The variability of human: disablement



**2** Ergonomics  
**User** Introduction and Anthropometry

The variability of human: characteristics



**2** Ergonomics  
**User** Historical Background

Military researches



US-Marines

**2** Ergonomics  
**User** Historical Background

Military researches

British Army



**2** Ergonomics  
**User** Historical Background

Military researches



Production mass

**2** Ergonomics  
**User** Historical Background

Standardization



Wilhelm Wagenfeld: Tea Service 1932

Peter Behrens: kettle 1909



"Werkbund box": 1958

**2** Ergonomics  
**User** The body measurement

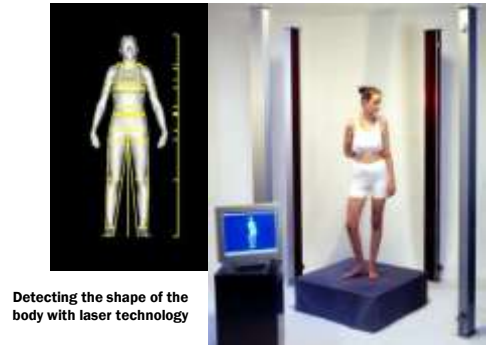
The standardized measurement



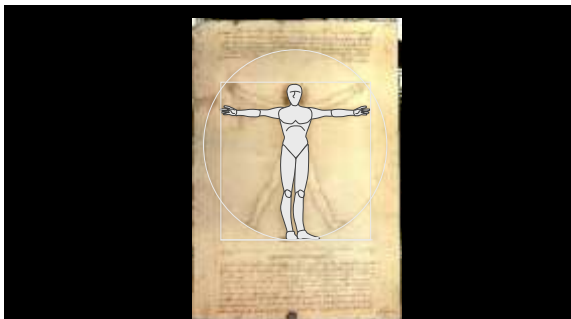
**2** Ergonomics  
**User** **The body measurement**  
 The standardized measurement



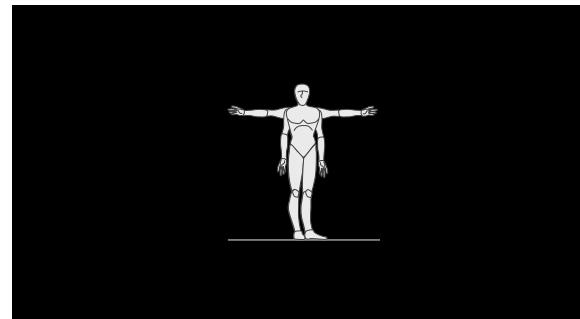
**2** Ergonomics  
**User** **The body measurement**  
 The standardized measurement



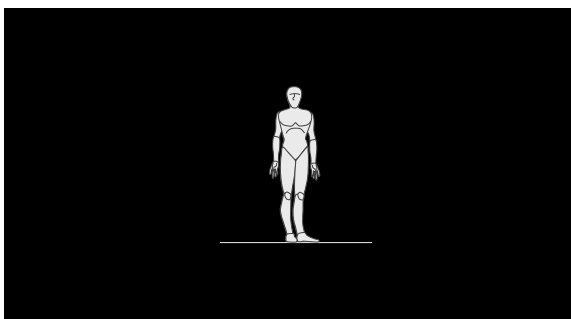
**2** Ergonomics  
**User** **Percentiles**



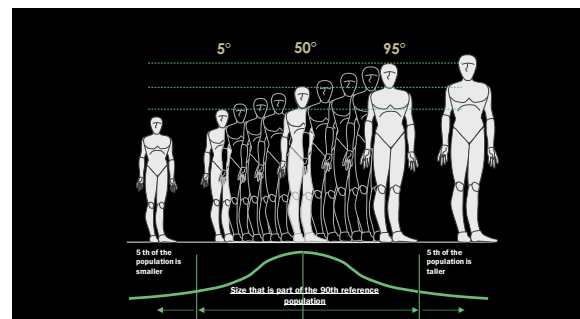
**2** Ergonomics  
**User** **Percentiles**



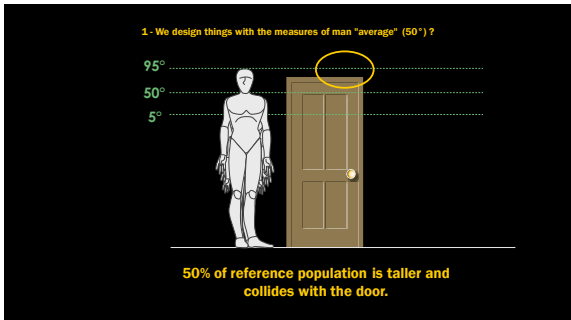
**2** Ergonomics  
**User** **Percentiles**



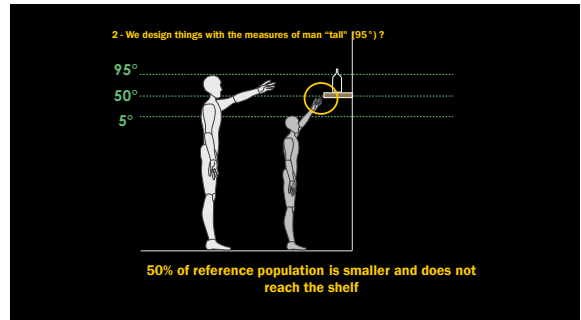
**2** Ergonomics  
**User** **Percentiles**



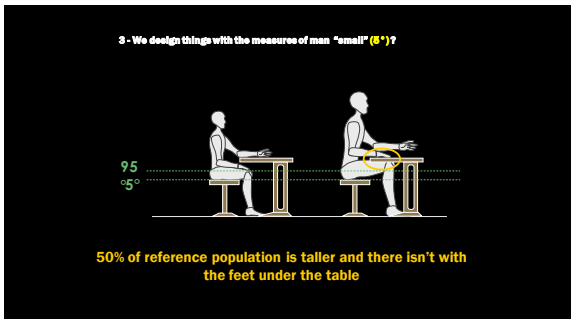
**2** Ergonomics Percentiles  
 User



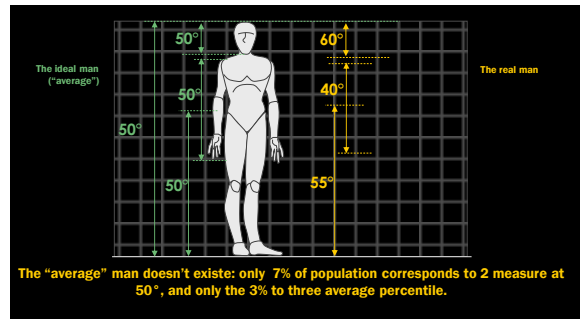
**2** Ergonomics Percentiles  
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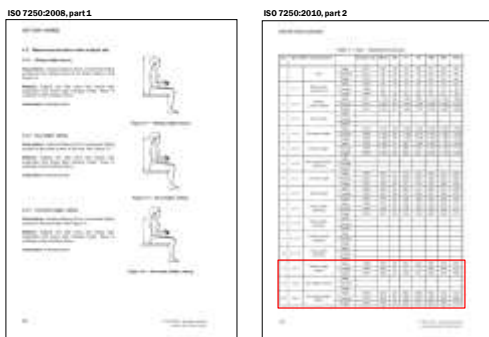
**2** Ergonomics Percentiles  
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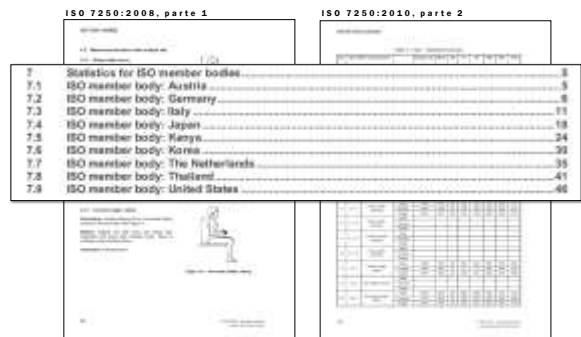
**2** Ergonomics methodology - 1st year Percentiles  
 User



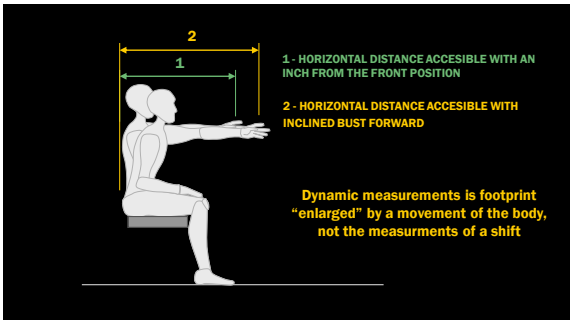
**2** Ergonomics Statistics / Rules  
 User



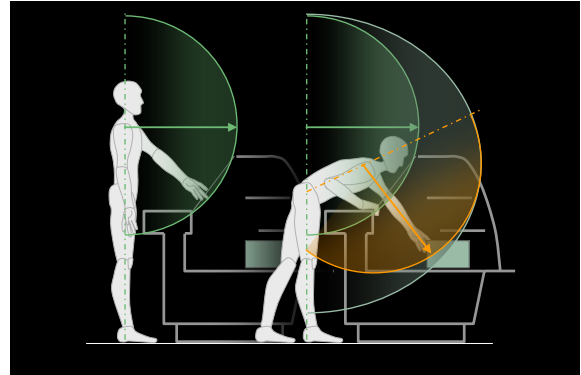
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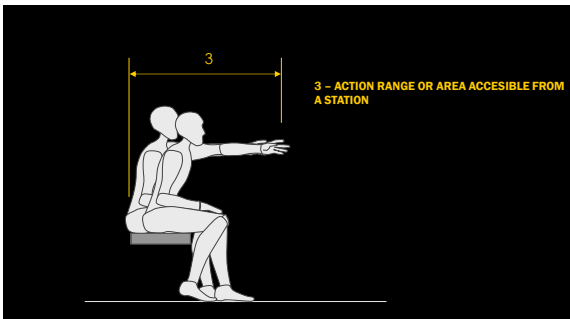
**2** Ergonomics  
User **Static and Dynamic measurements**



**2** Ergonomics  
User **Static and Dynamic measurements**



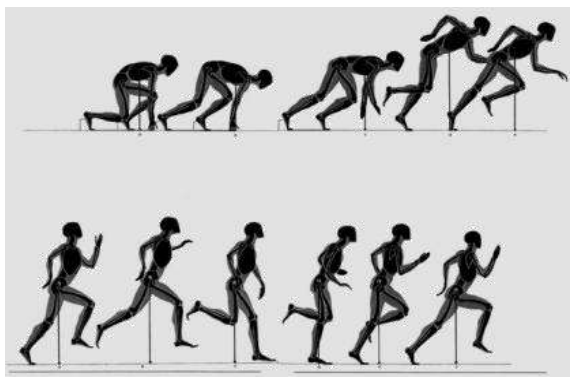
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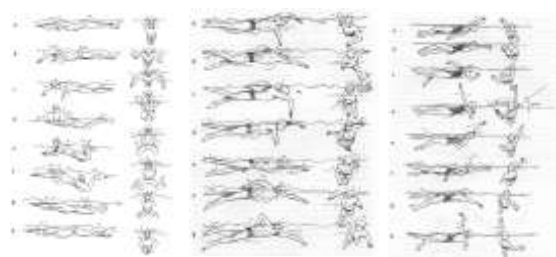
**2** Ergonomics  
User **Static and Dynamic measurements**



**2** Ergonomics  
User **From anthropometry to the movement**



**2** Ergonomics  
User **From anthropometry to the movement**



**2** Ergonomics  
User **From anthropometry to the movement**



**2** Ergonomics  
User **Weight**

The weight is independent of limb length or height of the body. However, it can greatly affect the design.



**2** Ergonomics  
User **Anthropometric Variables**



**Intra-individual variation** of the dimensional changes concern the same person over a period of time, more or less long, sometimes also refer to the entire life span.

**2** Ergonomics  
User **Anthropometric Variables**



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**2** Ergonomics  
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intra-individual variation



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User **Anthropometric Variables**

intra-individual variation



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User **Anthropometric Variables**

intra-individual variation



**2** Ergonomics  
User **Anthropometric Variables**

intra-individual variation



**2** Ergonomics  
User **Anthropometric Variables**

inter-individual variations



**2** Ergonomics  
User **Anthropometric Variables**

inter-individual variations

