Draft for Public Comment

Form 36

DPC: 25/30480590 DC

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Date: 30 June 2025
Origin: International

Latest date for receipt of comments: 23 August 2025

Project No. 2023/02239

Responsible committee: PH/9/-/4 Ergonomics - Anthropometry and Biomechanics

Interested committees:

Title: Draft BS ISO 22567 General requirements for establishing muscular strength databases.

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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

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Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx

1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex **(e.g. 3.1)**	Paragraph/ Figure/Table/Note	**Type of comment**	**Commend (justification for change) by the MB**	**Proposed change by the MB**	**Secretariat observations on each comment submitted**
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	

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DRAFT International Standard

ISO/DIS 22567

General requirements for establishing muscular strength databases

ICS: 13.180; 03.120.30

ISO/TC **159**/SC **3**

Secretariat: **JISC**

Voting begins on:
2025-06-30

Voting terminates on:
2025-09-22

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Foreword

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This document was prepared by Technical Committee *[or Project Committee]* ISO/TC159, *Ergonomics*, Subcommittee SC 3, *Anthropometry and Biomechanics*

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Introduction

Human muscular strength, also called as muscular strength, is the force which the muscles can develop during their contraction. Muscular strength refers to the amount of force a human can produce via muscle or muscle group activation with a single maximal effort, depending on posture and direction of force transferred to the environment. Muscular strength measurement is of two types - static (isometric) and dynamic (isotonic). Static muscular force is usually larger than dynamic force. The dynamic force, depending on the velocity of the shortening muscles, amounts to about 50 to 90 % of the maximal static force. Generally, it is a common practice to measure the static strength to compare different populations or to set the limits for force application. Muscular strength depends not only on the muscle mass, but also on health and training, technique and experience, and motivation. The personal and task factors that influence muscular strength are age, gender, posture, reach distance, arm and wrist orientations, speed of exertion, and duration and frequency of efforts. This strength is maximum at a young age, and it goes on decreasing with age.

Muscular strength databases of different populations help in formulating design criteria/safe limits. However, one of the major difficulties in generating international databases on strength parameters of various populations is that the available studies may not be comparable with each other. Because either the definitions of parameters differ, or/and the methods used for measurement may also be different. It is important to mention here that muscular strength is a vector quantity, and therefore, in strength measurement, magnitude as well as direction of application of force are important parameters.

This International standard will help different researchers/national standard bodies in generating internationally compatible muscular strength databases.

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