

## BUREAU OF INDIAN STANDARDS

### Program of Work

#### PGD 15 : Ergonomics

**Scope:** Standardization is the field of ergonomics including terminology, technology, methodology and human and other factors related to ergonomics common to all the spheres of life.

**Liaison:** **ISO TC-159 (P): Ergonomics ISO TC-159 SC-1 (P): General ergonomics principles ISO TC-159 SC-3 (P): Anthropometry and biomechanics ISO TC-159 SC-4 (P): Ergonomics of human-system interaction ISO TC-159 SC-5 (P): Ergonomics of the physical environment**

### Published Standards

S.No	IS No.	TITLE	Reaffirm M-Y	No. of Amds	Eqv.
1	IS 13214 (Part 1) : 2020 ISO 7250-1 : 2017 <b>ISO 7250-1 : 2008</b>	Basic Human Body Measurements for Technological Design Part 1 Body Measurement Definitions and Landmarks ( Second Revision )		-	Identical under dual numbering
2	IS 13214 (Part 3) : 2019 ISO 7250-3 : 2016 <b>ISO 7250-3:2015</b>	Basic human body measurements for technological design: Part 3 worldwide and regional design ranges for use in product standards		-	Identical under dual numbering
3	IS 15257 : 2018 ISO 1503 : 2008 <b>ISO 1503 : 2008</b>	Spatial orientation and direction of movement - Ergonomics requirements (First Revision)	-	-	Identical under dual numbering
4	IS 15836 (Part 1) : 2008 ISO 15534-1 <b>Reviewed In : 2023 ISO 15534-1 : 2000</b>	Ergonomic design for the safety of machinery: Part 1 principles for determining the dimensions required for openings for whole - Body access into machinery	June, 2023	-	Identical under dual numbering
5	IS 15836 (Part 2) : 2008 ISO 15534-2 <b>Reviewed In : 2021 ISO 15534-2 : 2000</b>	Ergonomic design for the safety of machinery: Part 2 principles for determining the dimensions required for access openings	May, 2021	-	Identical under dual numbering
6	IS 15836 (Part 3) : 2008 15534-3 <b>Reviewed In : 2021 ISO 15534-3 ; 2000</b>	Ergonomic design for the safety of machinery: Part 3 anthropometric data	May, 2021	-	Identical under dual numbering
7	IS 16559 : 2019 ISO 7243 : 2017 <b>ISO 7243 : 2017</b>	Ergonomics of the Thermal Environment — Assessment of Heat Stress Using the WBGT ( Wet Bulb Globe Temperature ) Index ( First Revision )		-	Identical under dual numbering
8	IS 16560 : 2017 ISO 7726 : 1998 <b>Reviewed In : 2022 ISO 7726 : 1998</b>	Ergonomics of the Thermal Environment — Instruments for Measuring Physical Quantities	November, 2022	-	Identical under dual numbering

9	IS 16561 (Part 1) : 2017 ISO 11604-1 : 2000 Reviewed In : 2022 ISO 11064-1 : 2000	Ergonomic design of control centres: Part 1 principles for the design of control centres	November, 2022	-	Identical under dual numbering
10	IS 16561 (Part 2) : 2017 ISO 11064-2 : 2000 Reviewed In : 2022 ISO 11064-2 : 2000	Ergonomic design of control centres Part 2 Principles for the Arrangement of Control Suites	November, 2022	-	Identical under dual numbering
11	IS 16561 (Part 4) : 2017 ISO 11064-4 : 2013 Reviewed In : 2022 ISO 11064-4 : 2013	Ergonomic design of control centres: Part 4 layout and dimensions of workstations	November, 2022	-	Identical under dual numbering
12	IS 16561 (Part 5) : 2018 ISO 11064-5 : 2008 Reviewed In : 2023 ISO 11064-5 : 2008	Ergonomic design of control centres: Part 5 displays and controls	June, 2023	-	Identical under dual numbering
13	IS 16561 (Part 6) : 2022 ISO 11604-6 ISO 11604-6	ERGONOMIC DESIGN OF CONTROL CENTRES " PART 6: ENVIRONMENTAL REQUIREMENTS FOR CONTROL ROOMS		-	Identical under dual numbering
14	IS 16562 (Part 1) : 2017 ISO 15536-1 : 2005 Reviewed In : 2022 ISO 15536-1 : 2005	Ergonomics - Computer manikins and body templates: Part 1 general requirements	November, 2022	-	Identical under dual numbering
15	IS 16562 (Part 2) : 2018 ISO 15536 (Part 2) : 2007 Reviewed In : 2023 ISO 15536 (Part 2) : 2007	Ergonomics - Computer manikins and body templates: Part 2 verification of functions and validation of dimensions for computer manikin systems	June, 2023	-	Identical under dual numbering
16	IS 16563 (Part 2) : 2017 ISO 9355-2 : 1999 Reviewed In : 2022 ISO 9355-2 : 1999	Ergonomic requirements for the design of displays and control actuators: Part 2 displays	November, 2022	-	Identical under dual numbering
17	IS 16563 (Part 3) : 2017 ISO 9355-3 : 2006 Reviewed In : 2022 ISO 9355-3 : 2006	Ergonomic requirements for the design of displays and control actuators: Part 3 control actuators	November, 2022	-	Identical under dual numbering
18	IS 16564 : 2018 ISO 24504 : 2014 Reviewed In : 2023 ISO 24504 : 2014	Ergonomics - Accessible design - Sound pressure levels of spoken announcements for products and public address systems	June, 2023	-	Identical under dual numbering
19	IS 16565 : 2018 ISO 24503 : 2011 ISO 24503 : 2011	Ergonomics - Accessible design - Tactile dots and bars on consumer products		-	Identical under dual numbering
20	IS 16566 : 2017 ISO 24502 : 2010 Reviewed In : 2022 ISO 24502	Ergonomics-Accessible Design- Specification of Age Related Luminance Contrast for Coloured Light	November, 2022	-	Identical under dual numbering
21	IS 16567 : 2018	Ergonomics - Accessible design -	June, 2023	-	Identical under dual

	ISO 24501 : 2010 Reviewed In : 2023 ISO 24501 : 2010	Sound pressure levels of auditory signals for consumer products			numbering
22	IS 16568 : 2017 ISO 24500 : 2010 Reviewed In : 2022 ISO 24500 : 2010	Ergonomics - Accessible design - Auditory signals for consumer products	November, 2022	-	Identical under dual numbering
23	IS 16569 : 2018 ISO 11429 : 1996 Reviewed In : 2023 ISO 11429 : 1996	Ergonomics - System of auditory and visual danger and information signals	June, 2023	-	Identical under dual numbering
24	IS 16570 : 2017 ISO 11428 : 1996 Reviewed In : 2022 ISO 11428 : 1996	Ergonomics - Visual danger signals - General requirements, design and testing	November, 2022	-	Identical under dual numbering
25	IS 16572 : 2017 ISO 14738 : 2002 Reviewed In : 2022 ISO 14738 : 2002	Safety of machinery - Anthropometric requirements for the design of workstations at machinery	November, 2022	-	Identical under dual numbering
26	IS 16573 : 2017 ISO 15535 : 2012 Reviewed In : 2022 ISO 15535 : 2012	General requirements for establishing anthropometric databases	November, 2022	-	Identical under dual numbering
27	IS 16574 : 2017 ISO 15537 : 2004 ISO 15537:2022	Principles for selecting and using test persons for testing anthropometric aspects of industrial products and designs		-	Identical under dual numbering
28	IS 16574 : 2024 ISO 15537:2022 ISO 15537:2022	Principles for Selecting and Using Test Persons for Testing Anthropometric Aspects of Industrial Products and Designs		-	Identical under dual numbering
29	IS 16595 (Part 5) : 2018 9241-5 : 1998 ISO 9241-5 : 1998	Ergonomic Requirements for Office Work With Visual Display Terminals (VDTs) Part 5 Workstation Layout and Postural Requirements		-	Identical under dual numbering
30	IS 16595 (Part 11) : 2020 ISO 9241-11 : 1998 ISO 9241-11 : 2018	Ergonomics of Human-System Interaction Part 11 Usability: Definitions and Concepts ( First Revision )		-	Identical under dual numbering
31	IS 16595 (Part 20) : 2018 ISO 9241-20 : 2008 ISO 9241-20:2021	Ergonomics of Human - System Interaction Part 20 Accessibility Guidelines for Information/ Communication Technology (ICT) Equipment and Services		-	Identical under dual numbering
32	IS 16595 (Part 20) : 2024 ISO 9241-20:2021 ISO 9241-20:2021	Ergonomics of Human System Interaction Part 20 An ergonomic approach to accessibility within the ISO 9241 series		-	Identical under dual numbering
33	IS 16595 (Part 110) : 2023 ISO 9241-110:2020 ISO 9241-110:2020	Ergonomics of human-system Interaction Part 110 : Interaction principles ISO 9241-110		-	Identical under dual numbering
34	IS 16595 (Part 154) : 2018 ISO 9241-154 : 2013 Reviewed In : 2023 ISO 9241-154 : 2013	Ergonomics of human - System interaction: Part 154 interactive voice response (IVR) applications	June, 2023	-	Identical under dual numbering
35	IS 16595 (Part 171) :	Ergonomics of human-system		-	Identical under dual

	2023 ISO 9241-171 : 2008 ISO 9241-171 : 2008	interaction Part 171: Guidance on software accessibility ISO 9241-171			numbering
36	IS 16595 (Part 210) : 2023 ISO 9241-210:2019 ISO 9241-210:2019	Ergonomics of human-system interaction Part 210: Human- centred design for interactive systems ISO 9241-210		-	Identical under dual numbering
37	IS 16595 (Part 300) : 2023 ISO 9241-300:2008 ISO 9241-300:2008	Ergonomics of human-system Interaction Part 300: Introduction to electronic visual display requirements ISO 9241-300		-	Identical under dual numbering
38	IS 16595 (Part 302) : 2023 ISO 9241-302:2008 ISO 9241-302:2008	Ergonomics of human-system Interaction Part 302: Terminology for electronic visual displays ISO 9241-302		-	Identical under dual numbering
39	IS 16595 (Part 410) : 2023 ISO 9241-410 : 2008 ISO 9241-410 : 2008	Ergonomics of human-system interaction part 410: design criteria for physical input devices ISO 9241-410		-	Identical under dual numbering
40	IS 16595 (Part 411) : 2023 ISO/TS 9241-411 : 2012 ISO/TS 9241-411 : 2012	Ergonomics of human-system Interaction Part 411: Evaluation method for the design of physical input devices ISO 9241-411		-	Identical under dual numbering
41	IS 16595 (Part 971) : 2023 ISO 9241-971:2020 ISO 9241-971:2020	Ergonomics of human-system Interaction Part 971: Accessibility of tactilehaptic interactive systems ISO 9241-971		-	Identical under dual numbering
42	IS 17009 : 2018 ISO 11226 : 2000 ISO 11226 : 2000	Ergonomics - Evaluation of static working postures		-	Identical under dual numbering
43	IS 17030 (Part 1) : 2024 ISO 20685-1:2018 ISO 20685-1:2018	3-D Scanning Methodologies for Internationally Compatible Anthropometric Databases Part 1 Evaluation Protocol for Body Dimensions Extracted From 3-D Body Scans		-	Identical under dual numbering
44	IS 17030 (Part 2) : 2019 ISO 20685-2 : 2015 ISO 20685-2 : 2015	Ergonomics 3 - D scanning methodologies for internationally compatible anthropometric databases: Part 2 evaluation protocol of surface shape and repeatability of relative landmark positions		-	Identical under dual numbering
45	IS 17031 (Part 1) : 2024 ISO 11228-1:2021 ISO 11228-1:2021	Ergonomics – Manual handling Part 1 Lifting lowering and carrying		-	Identical under dual numbering
46	IS 17031 (Part 2) : 2019 ISO 11228-2 : 2007 ISO 11228-2:2007	Ergonomics – Manual Handling Part 2 Pushing and Pulling		-	Identical under dual numbering
47	IS 17031 (Part 3) : 2018 ISO 11228-3 : 2003	Ergonomics – Manual Handling Part 3 Handling of Low Loads at High Frequency		-	Identical under dual numbering

	ISO 11228-3:2007				
48	IS 17032 : 2018 ISO/TS 20646 : 2014 ISO/TS 20646 : 2014	Ergonomics Guidelines for the Optimization of Musculoskeletal Workload		-	Identical under dual numbering
49	IS 17033 : 2018 ISO/TR 12296:2012	Ergonomics - Manual handling of people in the healthcare sector		-	Identical under dual numbering
50	IS 17102 : 2019 ISO 7731 : 2003 ISO 7731 : 2003	Ergonomics - Danger signals for public and work areas - Auditory danger signals		-	Identical under dual numbering
51	IS 17103 : 2019 ISO 9886 : 2004 ISO 9886 : 2004	Ergonomics - Evaluation of thermal strain by physiological measurements		-	Identical under dual numbering
52	IS 17104 : 2024 ISO 10551:2019 ISO 10551:2019	Ergonomics of the Physical Environment Subjective Judgement Scales for Assessing Physical Environments (first revision)		-	Identical under dual numbering
53	IS 17105 : 2019 ISO 28802 : 2012 ISO 28802 : 2012	Ergonomics of the physical environment - Assessment of environments by means of an environmental survey involving physical measurements of the environment and subjective responses of people		-	Identical under dual numbering
54	IS 18232 : 2023 ISO 24508 : 2019 ISO 24508 : 2019	Ergonomics Accessible design Guidelines for designing tactile symbols and characters ISO 24508-2019		-	Identical under dual numbering
55	IS 18254 : 2023 ISO 28803 : 2012 ISO 28803 : 2012	Ergonomics of the physical environment Application of International Standards to people with special requirements Adoption of ISO 28803: 2012		-	Identical under dual numbering
56	IS 18259 : 2023 ISO 24505 : 2016 ISO 24505 : 2016	Ergonomics Accessible design Method for creating colour combinations taking account of age-related changes in human colour vision ISO 24505		-	Identical under dual numbering
57	IS 18263 (Part 1) : 2023 ISO 10075-1 : 2017 ISO 10075-1 : 2017	Ergonomic principles related to mental workload Part 1: General issues and concepts terms and definitions		-	Identical under dual numbering
58	IS 18263 (Part 3) : 2023 ISO 10075-3 : 2004 ISO 10075-3 : 2004	Ergonomic principles related to mental workload Part 3: Principles and requirements concerning methods for measuring and assessing mental workload		-	Identical under dual numbering
59	IS/ISO 26800 : 2011 ISO 26800 : 2011 Reviewed In : 2023 ISO 26800 : 2011	Ergonomics " General Approach, Principles and Concepts	June, 2023	-	Identical under dual numbering
60	IS/ISO 27500 : 2016 ISO 27500 : 2016 Reviewed In : 2023 ISO 27500 : 2016	The Human - Centered Organization - Rationale and General Principles	June, 2023	-	Identical under single numbering
61	IS 4838 : 1990 Reviewed In : 2020	Anthropometric dimensions for school children age group 5 - 17	May, 2020	-	Indigenous

### Standards under Development

#### Projects Approved

SI. No.	Doc No.	Title
<i>No Records Found</i>		

#### Preliminary Draft Standards

SI. No.	Doc No.	Title
<i>No Records Found</i>		

#### Drafts Standards in WC Stage

SI. No.	Doc No.	Title
<i>No Records Found</i>		

#### Draft Standards Completed WC Stage

SI. No.	Doc No.	Title
<i>No Records Found</i>		

#### Finalized Draft Indian Standard

SI. No.	Doc No.	Title
1	PGD 15 (24452) <b>Revision of: IS 15836:2008</b>	Ergonomic Design for the Safety of Machinery Part 3 Anthropometric Data
2	PGD 15 (25333) <b>Revision of: IS 17030:2019</b>	Ergonomics 3-D scanning methodologies for internationally compatible anthropometric databases Part 2 Evaluation protocol of surface shape and repeatability of relative landmark positions
3	PGD 15 (25336) <b>Revision of: IS 16573:2017</b>	General requirements for establishing anthropometric databases

#### Finalized Draft Indian Standards under Print

SI. No.	Doc No.	Title
<i>No Records Found</i>		

**Total Published Standards:59 Total Standards Under development:3**

### Aspect Wise Report

Product : 16  
 Code of Practices : 26  
 Methods of Test : 6  
 Terminology : 3  
 Dimensions : 4  
 System Standard : 1  
 Safety Standard : 1  
 Others : 2  
 Service Specification : 0  
 Process Specification : 0  
 Unclassified : 0

### Annexure-I :List of Indian Standards Withdrawn/Superseded

SI. No.	IS No. & Year	Title
1	IS 13214 : 1991 Reviewed In : 2014	Machine Tools - Ergonomics Anthropometric Terminology
2	IS 16563 (Part 1) : 2017 ISO 9355-1 Reviewed In : 2022 EN 301 549	ERGONOMIC REQUIREMENTS FOR THE DESIGN OF DISPLAYS AND CONTROL ACTUATORS PART 1 HUMAN INTERACTIONS WITH DISPLAYS AND CONTROL ACTUATORS
3	IS 5533 : 1969 Reviewed In : 2014	Recommendation for dimensions of spaces for human activities

### Annexure-II :List of Indian Product Standards

SI. No.	IS No. & Year	Title
1	IS 15257 : 2018 ISO 1503 : 2008 ISO 1503 : 2008	Spatial orientation and direction of movement - Ergonomics requirements First Revision
2	IS 16561 (Part 1) : 2017 ISO 11604-1 : 2000 Reviewed In : 2022 ISO 11064-1 : 2000	Ergonomic design of control centres Part 1 principles for the design of control centres
3	IS 16561 (Part 4) : 2017 ISO 11064-4 : 2013 Reviewed In : 2022 ISO 11064-4 : 2013	Ergonomic design of control centres Part 4 layout and dimensions of workstations
4	IS 16561 (Part 5) : 2018 ISO 11064-5 : 2008 Reviewed In : 2023 ISO 11064-5 : 2008	Ergonomic design of control centres Part 5 displays and controls
5	IS 16561 (Part 6) : 2022 ISO 11604-6 ISO/TS 17863:2013	ERGONOMIC DESIGN OF CONTROL CENTRES PART 6 ENVIRONMENTAL REQUIREMENTS FOR CONTROL ROOMS
6	IS 16562 (Part 1) : 2017 ISO 15536-1 : 2005 Reviewed In : 2022 ISO 15536-1 : 2005	Ergonomics - Computer manikins and body templates Part 1 general requirements
7	IS 16562 (Part 2) : 2018 ISO 15536 (Part 2) : 2007 Reviewed In : 2023 ISO 15536 (Part 2) : 2007	Ergonomics - Computer manikins and body templates Part 2 verification of functions and validation of dimensions for computer manikin systems
8	IS 16563 (Part 2) : 2017 ISO 9355-2 : 1999 Reviewed In : 2022 ISO 9355-2 : 1999	Ergonomic requirements for the design of displays and control actuators Part 2 displays
9	IS 16563 (Part 3) : 2017 ISO 9355-3 : 2006 Reviewed In : 2022 ISO 9355-3 : 2006	Ergonomic requirements for the design of displays and control actuators Part 3 control actuators
10	IS 16566 : 2017 ISO 24502 : 2010 Reviewed In : 2022 ISO 24502	Ergonomics-Accessible Design-Specification of Age Related Luminance Contrast for Coloured Light
11	IS 16569 : 2018 ISO 11429 : 1996 Reviewed In : 2023 ISO 11429 : 1996	Ergonomics - System of auditory and visual danger and information signals
12	IS 16570 : 2017 ISO 11428 : 1996 Reviewed In : 2022 ISO 11428 : 1996	Ergonomics - Visual danger signals - General requirements design and testing

13	IS 16595 (Part 5) : 2018 9241-5 : 1998 ISO 9241-5 : 1998	Ergonomic Requirements for Office Work With Visual Display Terminals VDTs Part 5 Workstation Layout and Postural Requirements
14	IS 16595 (Part 154) : 2018 ISO 9241-154 : 2013 Reviewed In : 2023 ISO 9241-154 : 2013	Ergonomics of human - System interaction Part 154 interactive voice response IVR applications
15	IS 17102 : 2019 ISO 7731 : 2003 ISO 7731 : 2003	Ergonomics - Danger signals for public and work areas - Auditory danger signals
16	IS 18254 : 2023 ISO 28803 : 2012	Ergonomics of the physical environment Application of International Standards to people with special requirements Adoption of ISO 28803 2012