

## BUREAU OF INDIAN STANDARDS

### Program of Work

#### MED 40 : Safety of Machinery

**Scope:** Standardization of basic concepts and general principles for Mechanical safety of manufacturing machinery incorporating terminology, methodology, guards and safety devices within the framework of IS/ISO/IEC Guide 51 (Safety aspects - Guidelines for their inclusion in standards and in cooperation with other sectional committee). Except: Product safety standards, as defined in IS/ISO/IEC Guide 51, and which are explicitly covered by the work of other ISO or IEC technical committees.

**Liaison:** **TC-199 (P):** *Safety of machinery*

### Published Standards

S.No	IS No.	TITLE	Reaffirm M-Y	No. of Amds	Eqv.
1	IS/ISO/TR 14121-2 : 2012 ISO/TR 14121-2:2012 ISO/TR 14121-2:2012	Safety of machinery - Risk assessment Part 2 Practical guidance and examples of methods		-	Identical under single numbering
2	IS 16806 (Part 1) : 2018 ISO 29042-1 : 2008 Reviewed In : 2023 ISO 29042-1:2008	Safety of machinery - Evaluation of the emission of airborne hazardous substances: Part 1 selection of test methods	August, 2023	-	Identical under dual numbering
3	IS 16806 (Part 2) : 2018 Reviewed In : 2023 ISO 29042-2:2009	Safety of machinery - Evaluation of the emission of airborne hazardous substances: Part 2 tracer gas method for the measurement of the emission rate of a given pollutant	August, 2023	-	Identical under dual numbering
4	IS 16806 (Part 3) : 2018 ISO 29042-3 : 2009 Reviewed In : 2023 ISO 29042-3:2009	Safety of machinery - Evaluation of the emission of airborne hazardous substances: Part 3 test bench method for the measurement of the emission rate of a given pollutant	August, 2023	-	Identical under dual numbering
5	IS 16806 (Part 4) : 2018 ISO 29042-4 : 2009 Reviewed In : 2023 ISO 29042-4:2009	Safety of machinery - Evaluation of the emission of airborne hazardous substances: Part 4 tracer method for the measurement of the capture efficiency of an exhaust system	August, 2023	-	Identical under dual numbering
6	IS 16806 (Part 5) : 2018 ISO 29042-5 : 2010 Reviewed In : 2023	Safety of machinery - Evaluation of the emission of airborne hazardous substances: Part 5 test bench method for the measurement	August, 2023	-	Identical under dual numbering

	ISO 29042-5:2010	of the separation efficiency by mass of air cleaning systems with unducted outlet			
7	IS 16806 (Part 6) : 2018 ISO 29042-6 : 2010 Reviewed In : 2023 ISO 29042-6:2010	Safety of machinery - Evaluation of the emission of airborne hazardous substances: Part 6 test bench method for the measurement of the separation efficiency by mass of air cleaning systems with ducted outlet	August, 2023	-	Identical under dual numbering
8	IS 16806 (Part 7) : 2018 ISO 29042-7 ; 2010 Reviewed In : 2023 ISO 29042-7:2010	Safety of machinery - Evaluation of the emission of airborne hazardous substances: Part 7 test bench method for the measurement of the pollutant concentration parameter	August, 2023	-	Identical under dual numbering
9	IS 16806 (Part 8) : 2018 ISO 29042-8 : 2011 Reviewed In : 2023 ISO 29042-8:2011	Safety of Machinery – Evaluation of the Emission of Airborne Hazardous Substances Part 8 Room Method for the Measurement of the Pollutant Concentration Parameter	August, 2023	-	Identical under dual numbering
10	IS 16806 (Part 9) : 2018 ISO 29042-9 : 2011 Reviewed In : 2023 ISO 29042-9:2011	Safety of machinery - Evaluation of the emission of airborne hazardous substances: Part 9 decontamination index	August, 2023	-	Identical under dual numbering
11	IS 16807 : 2020 ISO 19353 : 2019 Reviewed In : 2024 ISO 19353 : 2019	Safety of Machinery - Fire Prevention and Fire Protection (First Revision)	July, 2024	-	Identical under dual numbering
12	IS 16808 : 2018 ISO 14159 : 2002 Reviewed In : 2023 ISO 14159:2002	Safety of machinery - Hygiene requirements for the design of machinery	August, 2023	-	Identical under dual numbering
13	IS 16809 (Part 1) : 2018 ISO 14122-1 : 2016 Reviewed In : 2023 ISO 14122-1:2016	Safety of machinery - Permanent means of access to machinery: Part 1 choice of fixed means and general requirements of access	August, 2023	-	Identical under dual numbering
14	IS 16809 (Part 2) : 2018 ISO 14122-2 : 2016 Reviewed In : 2023 ISO 14122-2:2016	Safety of machinery - Permanent means of access to machinery: Part 2 working platforms and walkways	August, 2023	-	Identical under dual numbering
15	IS 16809 (Part 3) : 2018 ISO 14122-3 : 2016 Reviewed In : 2023 ISO 14122-3:2016	Safety of machinery - Permanent means of access to machinery: Part 3 stairs, stepladders and guard - Rails	August, 2023	-	Identical under dual numbering
16	IS 16809 (Part 4) : 2018 ISO 14122-4 : 2016 Reviewed In : 2023 ISO 14122-4:2016	Safety of machinery - Permanent means of access to machinery: Part 4 fixed ladders	August, 2023	-	Identical under dual numbering
17	IS 16810 (Part 1) : 2018 ISO 13849-1 : 2015 Reviewed In : 2023	Safety of machinery - Safety related parts of control systems: Part 1 general principles for design	August, 2023	-	Identical under dual numbering

	ISO 13849-1:2015				
18	IS 16810 (Part 2) : 2018 ISO 13849-2 : 2012 Reviewed In : 2023 ISO 13849-2:2012	Safety of machinery - Safety related parts of control systems: Part 2 validation	August, 2023	-	Identical under dual numbering
19	IS 16811 : 2018 14210 : 2015 Reviewed In : 2023 ISO 14120:2015	Safety of machinery - Guards - General requirements for the design and construction of fixed and movable guards	August, 2023	-	Identical under dual numbering
20	IS 16812 : 2018 ISO 14119 : 2013 Reviewed In : 2023 ISO 14119:2013	Safety of machinery - Interlocking devices associated with guards - Principles for design and selection	August, 2023	-	Identical under dual numbering
21	IS 16813 : 2019 ISO 14118 : 2017 Reviewed In : 2023 ISO 14118:2017	Safety of machinery - Prevention of unexpected start - Up	August, 2023	-	Identical under dual numbering
22	IS 16814 : 2021 ISO 13857:2019 ISO 13857:2019	SAFETY OF MACHINERY SAFETY DISTANCES TO PREVENT HAZARD ZONES BEING REACHED BY UPPER AND LOWER LIMBS		-	Identical under dual numbering
23	IS 16815 : 2019 ISO 13855 : 2010 Reviewed In : 2023 ISO 13855:2010	Safety of machinery - Positioning of safeguards with respect to the approach speeds of parts of the human body	August, 2023	-	Identical under dual numbering
24	IS 16816 : 2019 ISO 13854 : 2017 Reviewed In : 2023 ISO 13854:2017	Safety of machinery - Minimum gaps to avoid crushing of parts of the human body	August, 2023	-	Identical under dual numbering
25	IS 16817 : 2020 ISO 13851 : 2019 Reviewed In : 2024 ISO 13851:2019	Safety of Machinery - Two-Hand Control Devices - Principles for Design and Selection (First Revision)	July, 2024	-	Identical under dual numbering
26	IS 16818 : 2018 ISO 13850 : 2015 Reviewed In : 2023 ISO 13850:2015	Safety of machinery - Emergency stop function - Principles for design	August, 2023	-	Identical under dual numbering
27	IS 16819 : 2018 ISO 12100 : 2010 Reviewed In : 2023 ISO 12100:2010	Safety of machinery - General principles for design - Risk assessment and risk reduction	August, 2023	-	Identical under dual numbering
28	IS 16834 (Part 1) : 2018 ISO14123-1 : 2015 Reviewed In : 2023 ISO 14123-1:2015	Safety of machinery - Reduction of risks to health resulting from hazardous substances emitted by machinery: Part 1 principles and specifications for machinery manufacturers	August, 2023	-	Identical under dual numbering
29	IS 16834 (Part 2) : 2018 ISO 14123-2 : 2015 Reviewed In : 2023 ISO 14123-2:2015	Safety of machinery - Reduction of risks to health resulting from hazardous substances emitted by machinery: Part 2 methodology leading to verification procedures	August, 2023	-	Identical under dual numbering
30	IS 16835 (Part 1) : 2018 ISO 13856-1 : 2013 Reviewed In : 2023 ISO 13856-1:2013	Safety of machinery - Pressure - Sensitive protective devices: Part 1 general principles for design and testing of pressure - Sensitive mats and pressure - Sensitive floors	August, 2023	-	Identical under dual numbering

31	IS 16835 (Part 2) : 2018 ISO 13856-2 : 2013 Reviewed In : 2023 ISO 13856-2:2013	Safety of machinery - Pressure - Sensitive protective devices: Part 2 general principles for design and testing of pressure - Sensitive edges and pressure - Sensitive bars	August, 2023	-	Identical under dual numbering
32	IS 16835 (Part 3) : 2018 ISO 13856-3 : 2013 Reviewed In : 2023 ISO 13856-3:2013	Safety of machinery - Pressure - Sensitive protective devices: Part 3 general principles for design and testing of pressure - Sensitive bumpers, plates, wires and similar devices	August, 2023	-	Identical under dual numbering
33	IS 16912 : 2018 ISO 21469 : 2006 Reviewed In : 2023 ISO 21469:2006	Safety of machinery — Lubricants with incidental product contact — Hygiene requirements	August, 2023	-	Identical under dual numbering
34	IS 18982 : 2024 ISO/TR 24119:2015 ISO/TR 24119:2015	Safety of machinery - Evaluation of fault masking serial connection of interlocking devices associated with guards with potential free contacts		-	Identical under dual numbering
35	IS/ISO/TS 19837 : 2018 ISO/TS 19837:2018 ISO/TS 19837:2018	Safety of machinery - Trapped key interlocking devices - Principles for design and selection		-	Identical under single numbering
36	IS/ISO/TR 22100-2 : 2013 ISO TR 22100-2:2013 ISO TR 22100-2:2013	Safety of machinery Relationship with ISO 12100 Part 2: How ISO 12100 relates to ISO 13849-1 Adoption of ISOTR 22100-2 : 2013		-	Identical under single numbering
37	IS/ISO/TR 22100-3 : 2013 ISO TR 22100-3 : 201 ISO TR 22100-3 : 201	Safety of machinery Relationship with ISO 12100 Part 3: Implementation of ergonomic principles in safety standards Adoption of ISOTR 22100-3 : 2016		-	Identical under single numbering

### 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
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No Records Found

### Finalized Draft Indian Standard

Sl. No.	Doc No.	Title
1	MED 40 (24373) Revision of: IS/ISO/TR 22100:2013	Safety of machinery Relationship with ISO 12100 Part 3 Implementation of ergonomic principles in safety standards

### Finalized Draft Indian Standards under Print

Sl. No.	Doc No.	Title
1	MED 40 (24375)	Safety of machinery - Rules for drafting and presentation of safety standards
2	MED 40 (24376)	Safety of machinery - Integrated manufacturing systems - Basic requirements
3	MED 40 (24381)	Safety of machinery - Instruction handbook - General drafting principles
4	MED 40 (24382)	Safety of machinery - Safeguarding supportive system
5	MED 40 (24384)	Safety of machinery - Relationship with ISO 12100 Part 1 How ISO 12100 relates to type-B and type-C standards
6	MED 40 (24386)	Safety of machinery - Relationship with ISO 12100 Part 4 Guidance to machinery manufacturers for consideration of related IT-security cyber security aspects
7	MED 40 (24388)	Safety of machinery - Relationship with ISO 12100 Part 5 Implications of artificial intelligence machine learning

Total Published Standards:34 Total Standards Under development:8

### Aspect Wise Report

Product : 0  
Code of Practices : 0  
Methods of Test : 0  
Terminology : 0  
Dimensions : 0  
System Standard : 2  
Safety Standard : 35  
Others : 0  
Service Specification : 0  
Process Specification : 0  
Unclassified : 0

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

Sl. No.	IS No. & Year	Title
1	IS 16810 : 2018 ISO 13849-2 : 2012	Safety of Machinery Safety Related Parts of Control Systems Part 2 Validation

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

Sl. No.	IS No. & Year	Title
No Records Found		