

## List of 32 ISO Standards on machinery safety adopted as Indian Standards by BIS

SI No.	ISO Standards	Title	Indian Standards adopted by BIS	Month of publication by BIS	Type of Standards (A / B/ C)
1.	ISO 12100:2010	Safety of machinery -- General principles for design -- Risk assessment and risk reduction	IS 16819:2018	Nov 2018	A
2.	ISO 13849-1:2015	Safety of machinery -- Safety-related parts of control systems -- Part 1: General principles for design	IS 16810 (Part 1):2018	Nov 2018	B
3.	ISO 13849-2:2012	Safety of machinery -- Safety-related parts of control systems -- Part 2: Validation	IS 16810 (Part 2):2018	Nov 2018	B
4.	ISO 13850:2015	Safety of machinery -- Emergency stop function -- Principles for design	IS 16818:2018	Nov 2018	B
5.	ISO 13851:2002	Safety of machinery -- Two-hand control devices -- Functional aspects and design principles	IS 16817:2018	Dec 2018	B
6.	ISO 13854:1996	Safety of machinery -- Minimum gaps to avoid crushing of parts of the human body	IS 16816:2019	Feb 2019	B
7.	ISO 13855:2010	Safety of machinery -- Positioning of safeguards with respect to the approach speeds of parts of the human body	IS 16815:2019	Feb 2019	B
8.	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	IS 16835 (Part 1):2018	Nov 2018	B

9.	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	IS 16835 (Part 2): 2018	Nov 2018	B
10.	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.	IS 16835 (Part 3): 2018	Nov 2018	B
11.	ISO 13857:2008	Safety of machinery -- Safety distances to prevent hazard zones being reached by upper and lower limbs	IS 16814: 2018	Nov 2018	B
12.	ISO 14118:2000	Safety of machinery -- Prevention of unexpected start-up	IS 16813: 2019	Feb 2019	B
13.	ISO 14119:2013	Safety of machinery -- Interlocking devices associated with guards -- Principles for design and selection	IS 16812: 2018	Nov 2018	B
14.	ISO 14120:2015	Safety of machinery -- Guards -- General requirements for the design and construction of fixed and movable guards	IS 16811: 2018	Nov 2018	B
15.	ISO 14122-1:2016	Safety of machinery -- Permanent means of access to machinery -- Part 1: Choice of fixed means and general requirements of access	IS 16809 (Part 1): 2018	Nov 2018	B
16.	ISO 14122-2:2016	Safety of machinery -- Permanent means of access to machinery -- Part 2: Working platforms and walkways	IS 16809 (Part 2): 2018	Nov 2018	B
17.	ISO 14122-3:2016	Safety of machinery -- Permanent means of access to machinery -- Part 3: Stairs, stepladders and guard-rails	IS 16809 (Part 3): 2018	Nov 2018	B
18.	ISO 14122-4:2016	Safety of machinery -- Permanent means of access to machinery -- Part 4: Fixed ladders	IS 16809 (Part 4): 2018	Dec 2018	B

19.	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	IS 16834 (Part 1): 2018	Nov 2018	B
20.	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	IS 16834 (Part 2): 2018	Nov 2018	B
21.	ISO 14159: 2002	Safety of machinery -- Hygiene requirements for the design of machinery	IS 16808: 2018	Nov 2018	B
22.	ISO 19353: 2015	Safety of machinery -- Fire prevention and fire protection	IS 16807: 2018	Nov 2018	B
23.	ISO 21469: 2006	Safety of machinery -- Lubricants with incidental product contact -- Hygiene requirements	IS 16912: 2018	May 2018	B
24.	ISO 29042-1:2008	Safety of machinery -- Evaluation of the emission of airborne hazardous substances -- Part 1: Selection of test methods	IS 16806 (Part 1): 2018	Nov 2018	B
25.	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	IS 16806 (Part 2): 2018	Nov 2018	B
26.	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	IS 16806 (Part 3): 2018	Nov 2018	B

27.	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	IS 16806 (Part 4): 2018	Nov 2018	B
28.	ISO 29042-5:2010	Safety of machinery -- Evaluation of the emission of airborne hazardous substances -- Part 5: Test bench method for the measurement of the separation efficiency by mass of air cleaning systems with unducted outlet	IS 16806 (Part 5): 2018	Dec 2018	B
29.	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	IS 16806 (Part 6): 2018	Nov 2018	B
30.	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	IS 16806 (Part-7): 2018	Sept 2018	B
31.	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	IS 16806 (Part 8): 2018	Nov 2018	B
32.	ISO 29042-9:2011	Safety of machinery -- Evaluation of the emission of airborne hazardous substances -- Part 9: Decontamination index	IS 16806 (Part 9): 2018	Nov 2018	B

#### Electrical Machine Safety Standard:

1. Indian Standard (Type - A) for Electrical Machine: 16504 (Part 1): 2017 / IEC 60204 -1: 2008