

DIN EN ISO 11553-1:2021-01 (E)

Safety of machinery - Laser processing machines - Part 1: Laser safety requirements (ISO 11553-1:2020)

Contents	Page
European foreword	3
[A1] European foreword to Amendment [A1]	4
[A1] Annex ZA (informative) Relationship between this European Standard and the essential requirements of Directive 2006/42/EC aimed to be covered [A1]	5
Foreword	6
Introduction	7
1 Scope	8
2 Normative references	8
3 Terms and definitions	8
4 Hazards generated by laser radiation	12
4.1 General	12
4.2 Laser radiation hazards/sources of laser radiation emission	13
4.3 Laser radiation hazards induced by external effects (interferences)	14
4.4 Characteristics of laser radiation	14
5 Safety requirements and measures	15
5.1 General requirements	15
5.2 Risk assessment with regard to laser radiation hazards	15
5.3 Implementation of risk reduction measures	16
5.3.1 General	16
5.3.2 Safety measures against laser radiation hazards in dependence of the locations	16
5.3.3 Safety measures against laser radiation hazards	17
5.3.4 Engineering control measures	20
6 Verification of the safety requirements and risk reduction measures	21
7 Information for use	22
8 Labelling	23
Annex A (informative) Potential hazards	25
Bibliography	28