

Table A.1 — Tolerance grades for long-series production raw castings

Method	Tolerance grade CT								
	Casting material								
	Steel	Grey iron	S. G. iron	Malleable iron	Copper alloys	Zinc alloys	Light-metal alloys	Nickel-based alloys	Cobalt-based alloys
Sand cast, hand-moulded	11 to 14	11 to 14	11 to 14	11 to 14	10 to 13	10 to 13	9 to 12	11 to 14	11 to 14
Sand cast, machine-moulded and shell moulding	8 to 12	8 to 12	8 to 12	8 to 12	8 to 10	8 to 10	7 to 9	8 to 12	8 to 12
Metallic permanent mould (gravity and low-pressure)	Work is proceeding to establish appropriate data. Meanwhile consultation should take place between the foundry and the customer to agree upon values used.								
Pressure die casting									
Investment casting									
NOTES									
1 The tolerance grades indicated are those which can normally be held for castings produced in long series and when production factors influencing the dimensional accuracy of the casting have been fully developed.									
2 This International Standard can also be applied to processes and materials not cited in this table by agreement between the producer and the user of the castings.									

Table A.2 — Tolerance grades for short-series or single-production raw castings

Method	Moulding material	Tolerance grade CT							
		Casting material							
		Steel	Grey iron	S. G. iron	Malleable iron	Copper alloys	Light-metal alloys	Nickel-based alloys	Cobalt-based alloys
Sand cast, hand-moulded	Clay-bonded	13 to 15	13 to 15	13 to 15	13 to 15	13 to 15	11 to 13	13 to 15	13 to 15
	Chemically bonded	12 to 14	11 to 13	11 to 13	11 to 13	10 to 12	10 to 12	12 to 14	12 to 14
NOTES									
1 The tolerance grades indicated are those which can normally be held for sand castings produced in short series or as single castings.									
2 The values in this table apply generally to basic dimensions greater than 25 mm. For smaller dimensions, finer tolerances can normally be economically and practically held as follows:									
a) basic dimension up to 10 mm: three grades finer;									
b) basic dimension 10 mm to 16 mm: two grades finer;									
c) basic dimension 16 mm to 25 mm: one grade finer.									
3 This International Standard can also be applied to processes and materials not cited in this table by agreement between the producer and the user of the castings.									