

DIN EN ISO 21204:2020-09 (E)

Geometrical product specifications (GPS) - Transition specification (ISO 21204:2020)

Contents

Page

European foreword	4
Foreword	5
Introduction	6
1 Scope	7
2 Normative references	7
3 Terms and definitions	7
4 Basic concepts	9
5 General indication rules	10
5.1 Symbols	10
5.2 Indications using the transition specification symbol	11
5.2.1 General	11
5.2.2 Indications in face view	12
5.2.3 Indications in 3D	12
5.3 Indication areas around the transition specification symbol	13
6 Circular edge transition feature indications	13
6.1 Fixed radius profile specification	13
6.2 Variable radius profile specification	14
6.3 Consistent radius profile specification	15
6.4 Maximum material radius boundary specification	16
6.5 Least material radius boundary specification	16
6.6 Maximum material radius boundary with profile specification	17
6.7 Least material radius boundary with profile specification	18
6.8 Combined maximum material and least material radius boundary specification	19
7 Chamfer edge transition feature indications	20
7.1 Fixed chamfer profile specification	20
7.2 Variable chamfer profile specification	23
7.3 Consistent chamfer profile specification	24
7.4 Maximum material chamfer boundary specification	25
7.5 Least material chamfer boundary specification	26
7.6 Maximum material chamfer boundary with profile specification	27
7.7 Least material chamfer boundary with profile specification	28
7.8 Combined maximum material and least material chamfer boundary specification	29
8 Elliptical edge transition feature indications	30
8.1 Fixed elliptical profile specification	30
8.2 Variable elliptical profile specification	31
8.3 Consistent elliptical profile specification	32
8.4 Maximum material elliptical boundary specification	32
8.5 Least material elliptical boundary specification	33
8.6 Maximum material elliptical boundary with profile specification	34
8.7 Least material elliptical boundary with profile specification	35
8.8 Combined maximum material and least material elliptical boundary specification	36
9 Edge transition feature defined by CAD	37
9.1 CAD profile specification	37
9.2 Maximum material CAD profile boundary specification	38
9.3 Least material CAD profile boundary specification	39
9.4 Maximum material CAD profile boundary with profile specification	40
9.5 Least material CAD profile boundary with profile specification	41

10	Rules for supplemental indications.....	42
10.1	Symbols.....	42
10.2	Limits of different nominal shapes.....	42
10.3	Extent of the tolerated feature.....	43
10.4	Tolerance zone offset.....	43
10.5	Indication of primary adjacent reference section.....	44
10.6	Indication of several tolerated features.....	44
10.7	Indications using the between symbol.....	44
10.8	Around a feature indications	45
10.9	General transition specifications.....	46
Annex A	(informative) Algorithm for defining extended edge transition sections and adjacent reference sections	47
Annex B	(informative) Example of approximately equivalent specification of extended edge transition features	54
Annex C	(normative) Relations and dimensions of graphical symbols.....	56
Annex D	(informative) Relation to the GPS matrix model.....	57
Bibliography		58