

ISO/TS 13399-314:2018-08 (E)

Cutting tool data representation and exchange - Part 314: Creation and exchange of 3D models - Cartridges for indexable inserts

Contents	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Starting elements, coordinate systems, planes	2
4.1 General	2
4.2 Reference system (PCS -- Primary coordinate system)	2
4.3 Tool item position	2
4.3.1 General	2
4.3.2 Prismatic tool position	3
4.4 Planes	3
4.5 Cutting reference point (CRP)	4
4.6 Adjustment coordinate system on workpiece side	8
4.6.1 General	8
4.6.2 Designation of the coordinate system workpiece side	8
5 Design of the model	10
5.1 General	10
5.2 Necessary properties for insert and pocket seat	10
5.2.1 General	10
5.2.2 Properties for equilateral, equiangular and equilateral, non-equiangular inserts	10
5.2.3 Properties for non-equilateral, equiangular and non-equilateral, non-equiangular inserts	10
5.2.4 Properties for round inserts	11
5.2.5 Design of the pocket seat feature	11
6 ISO-cartridge, type A (ISO 5611 series)	11
6.1 General	11
6.2 Necessary properties	12
6.3 Design of the shank	13
6.4 Design of the basic model	16
6.4.1 General	16
6.4.2 Models with "P"-clamping system for inserts	17
6.4.3 Models with other clamping systems for inserts	18
7 Design of details	18
7.1 Basics for modelling	18
7.2 Fixing threads for inserts and radial adjustment	19
7.3 Contact surfaces/drive keys -- Orientation	19
7.4 Chamfers, roundings	19
8 Data exchange model	19
Annex A (informative) Mirror planes for left-handed tools	20
Annex B (informative) Information about nominal dimensions	21
Bibliography	22