INTERNATIONAL STANDARD

ISO 4205

Third edition
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Countersinks, 90°, with parallel shanks and solid pilots

Outils à chanfreiner à 90°, à queue cylindrique et pilote fixe

Reference number
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ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

Page

Foreword

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is ISO/TC 29, *Small tools*, Subcommittee SC 2, *Holding tools, adaptive items and interfaces*.

This third edition cancels and replaces the second edition (ISO 4205:1991), of which it constitutes a minor revision, notably with the addition of Annex A, which gives the relationship between the designations of this International Standard and the ISO 13399 series.

Countersinks, 90°, with parallel shanks and solid pilots

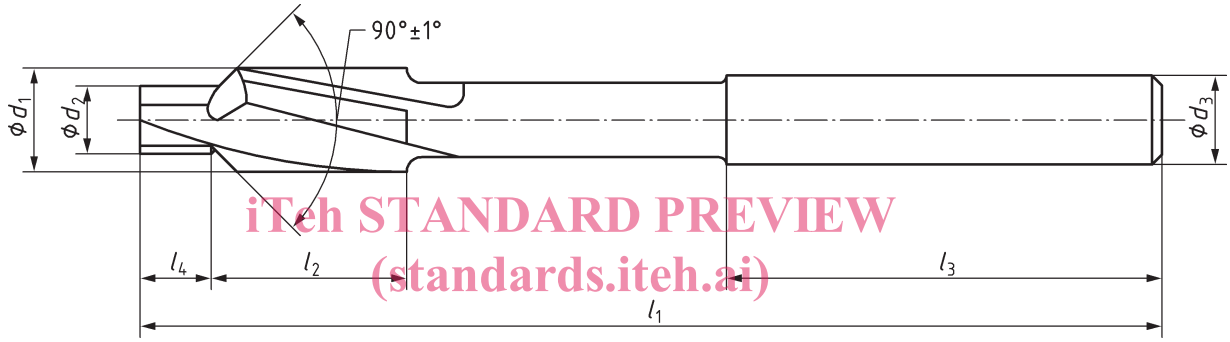
1 Scope

This International Standard specifies the dimensions, in millimetres, and the tolerances of 90° countersinks with parallel shanks and solid pilots for general use.

2 Dimensions

The dimensions and tolerances are shown in Figure 1 and given in Table 1.

NOTE Figure 1 illustrating this International Standard is diagrammatic only. It is not intended to show details of design.



NOTE This figure shows a countersink with cutting diameter d_1 greater than 5 mm.

Figure 1

Table 1

Cutting diameter d_1 z9[a]	Pilot diameter d_2 e8[a]	Shank diameter d_3 h9[a]	l_1	l_2	l_3	l_4
$2 \leq d_1 \leq 3{,}15$	Diameter to be specified to suit pilot hole diameter, when ordering (minimum possible diameter is $d_2 = 1/3\ d_1$)	d_1	45	7	—	$\approx d_2$
$3{,}15 < d_1 \leq 5$			56	10		
$5 < d_1 \leq 8$			71	14	31,5	
$8 < d_1 \leq 10$			80	18	35,5	
$10 < d_1 \leq 12{,}5$		10				
$12{,}5 < d_1 \leq 20$		12,5	100	22	40	

[a] See ISO 286-2.

Annex A
(informative)

Relationship between designations in this International Standard and ISO 13399 (all parts)

For relationship between designations in this International Standard and preferred symbols according to ISO 13399 (all parts), see Table A.1.

Table A.1 — Relationship between designations in this International Standard and ISO 13399 (all parts)

Symbol in ISO 4205	Reference in ISO 4205	Property name in ISO 13399 (all parts)	Symbol in ISO 13399 (all parts)	Reference in ISO 13399 (all parts)
d_1	Figure 1 Table 1	cutting diameter	DC	71D084653E57F
d_2	Figure 1 Table 1	guide pilot diameter	GPD	71ED6A7A6E6A2
d_3	Figure 1 Table 1	connection diameter machine side	DCONMS	71EBDBF5060E6
l_1	Figure 1 Table 1	overall length	OAL	71D078EB7C086
l_3	Figure 1 Table 1	shank length	LS	71CF298870946
l_4	Figure 1 Table 1	guide pilot length	GPL	72724DE9E999D
90°	Figure 1	point angle	SIG	71DCCC4FEF366
d_3 h9	Table 1	tolerance class connection diameter machine side	TCDCONMS	72719B2BD8041

Bibliography

[1] ISO 286-2, *Geometrical product specifications (GPS) — ISO code system for tolerances on linear sizes — Part 2: Tables of standard tolerance classes and limit deviations for holes and shafts*

[2] ISO 4206, *Counterbores with parallel shanks and solid pilots*

[3] ISO 13399 (all parts), *Cutting tool data representation and exchange*

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