INTERNATIONAL STANDARD

ISO 5610-1

Second edition 2014-09-01

Tool holders with rectangular shank for indexable inserts —

Part 1: **General survey, correlation and**

iTeh STPorte-plaquette à queue rectangulaire pour plaquettes amovibles —
Partie 1: Vue d'ensemble, corrélation et détermination des dimensions

determination of dimensions

ISO 5610-1:2014 https://standards.iteh.ai/catalog/standards/sist/1811f99b-49c2-4e98-9723-1192610de6c4/iso-5610-1-2014



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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 WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 29, *Small tools*, Subcommittee SC 9, *Tools with defined cutting edges, cutting items*.

ISO 5610-1:2014

This second edition of ISO\\(^5610\) \(^1\)

ISO 5610 consists of the following parts, under the general title *Tool holders with rectangular shank for indexable inserts*:

- Part 1: General survey, correlation and determination of dimensions
- Part 2: Style A
- Part 3: Style B
- Part 4: Style D
- Part 5: Style F
- Part 6: Style G
- Part 7: Style I
- Part 8: Style K
- Part 9: Style L
- Part 10: Style N
- Part 11: Style R
- Part 12: Style S
- Part 13: Style T

- Part 14: Style H
- Part 15: Style V

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Tool holders with rectangular shank for indexable inserts —

Part 1:

General survey, correlation and determination of dimensions

1 Scope

This part of ISO 5610 specifies tool holders with rectangular shank for indexable inserts and specifies their styles in relation to their dimensions according to ISO 5610-2, ISO 5610-3, ISO 5610-4, ISO 5610-5, ISO 5610-6, ISO 5610-7, ISO 5610-8, ISO 5610-9, ISO 5610-10, ISO 5610-11, ISO 5610-12, ISO 5610-13, ISO 5610-14, and ISO 5610-15.

These tool holders are primarily intended for indexable inserts made of hard metal, ceramic, or other cutting materials intended to be mounted by clamping and used for turning operations. This part of ISO 5610 is general and is intended to be used with ISO 5610-2, ISO 5610-3, ISO 5610-4, ISO 5610-1, ISO 5610-1, ISO 5610-11, ISO 5610-12, ISO 5610-13, ISO 5610-14, and ISO 5610-15.

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2 Normative references

The following documents in whole or in part are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3002-1, Basic quantities in cutting and grinding — Part 1: Geometry of the active part of cutting tools — General terms, reference systems, tool and working angles, chip breakers

ISO 5608, Turning and copying tool holders and cartridges for indexable inserts — Designation

ISO 5610-2, Tool holders with rectangular shank for indexable inserts — Part 2: Style A

ISO 5610-3, Tool holders with rectangular shank for indexable inserts — Part 3: Style B

ISO 5610-4, Tool holders with rectangular shank for indexable inserts — Part 4: Style D

ISO 5610-5, Tool holders with rectangular shank for indexable inserts — Part 5: Style F

ISO 5610-6, Tool holders with rectangular shank for indexable inserts — Part 6: Style G

ISO 5610-7, Tool holders with rectangular shank for indexable inserts — Part 7: Style J

ISO 5610-8, Tool holders with rectangular shank for indexable inserts — Part 8: Style K

ISO 5610-9, Tool holders with rectangular shank for indexable inserts — Part 9: Style L

ISO 5610-10, Tool holders with rectangular shank for indexable inserts — Part 10: Style N

ISO 5610-11, Tool holders with rectangular shank for indexable inserts — Part 11: Style R

ISO 5610-12, Tool holders with rectangular shank for indexable inserts — Part 12: Style S

ISO 5610-13, Tool holders with rectangular shank for indexable inserts — Part 13: Style T

ISO 5610-14, Tool holders with rectangular shank for indexable inserts — Part 14: Style H ISO 5610-15, Tool holders with rectangular shank for indexable inserts — Part 15: Style V

3 Survey

The survey of the tool holders with rectangular shank cross section shall be as given in <u>Table 1</u>. The tool holders with rectangular shank cross section and their corresponding letter symbols and shank sizes shall be in accordance with ISO 5610-2, ISO 5610-3, ISO 5610-4, ISO 5610-5, ISO 5610-6, ISO 5610-7, ISO 5610-8, ISO 5610-9, ISO 5610-10, ISO 5610-11, ISO 5610-12, ISO 5610-13, ISO 5610-14, and ISO 5610-15.

The designation code shall be as given in ISO 5608.

Table 1 — Tool holders with rectangular shanks

Dimensions in millimetres

Style													
of tool	Illustration			Dimensions in									
holder		0808	1010	1212	1616	2020	2525	3225	3232	4032	4040	5050	
	iT	eh	ST	A N	DA	рг) D	D IT	VII				
A					DA				V III				ISO 5610-2
	https://sta	andard		• <u>I</u> Vcatalo	SO• 56 g/stand	<u>10-1:20</u> ards/si	<u>)14</u> • st/1811	• f99b-4	• 19c2-4	e98-97	• 23-		20 0010 2
			11	92610	de6c4	iso-56	10-1-2	.014					
В	100. a	•	•										ISO 5610-3
	30. 15.			•	•	•	•	•	•		•	•	
D	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		•	•	•	•	•	•					ISO 5610-4
	4	•	•	•	•	•	•	•	•		•		

Table 1 — (continued)

Dimensions in millimetres

Style			D										
of tool							$h_2 \times b$						Dimensions in
holder		0808	1010	1212	1616	2020	2525	3225	3232	4032	4040	5050	
F	oo a	•	•										ISO 5610-5
	a			•	•	•	•	•	•		•		
G	a a v	•	•	•	•	•	•	•	•		•	•	ISO 5610-6
	iTeh S	TA	NI	AI	RD	PR	EV		W				
	https://standards.it	eh.ai/ca	<u>ISC</u> atalog/s	ard 5610- standar 66c4/iso	-1: <u>2</u> 014 ds/sist/	<u>4</u> • 1811f9	• 9b-490	• 2-4e9	8-9723	-			· ISO 5610-14
Н	107,5° ±1°			•	•	•	•	•					

Table 1 — (continued)

Dimensions in millimetres

Style			Dimensions										
of tool	Illustration						$h_2 \times b$		1			r	Dimensions in
holder		0808	1010	1212	1616	2020	2525	3225	3232	4032	4040	5050	
	33	•	•	•	•	•	•	•		•			
J	33					•	•	•		•			ISO 5610-7
	SS	eh	ST	·	DA	· RI) P]	RÆ	VII	c w			
	100°	•	(șt	and	lar 80 56			.ai)					ISO 5610-8
К	https://st	andard		/catalo 192610 •					•	e98-97	•		
	\$500	•	•	•	•	•	•	•	•		•		
L	\$5°	•	•	•	•	•	•	•	•				ISO 5610-9

Table 1 — *(continued)*

Dimensions in millimetres

Style of			Dimensions										
tool	Illustration						$h_2 \times b$						in
holder		0808	1010	1212	1616	2020	2525	3225	3232	4032	4040	5050	
N	35.	•	•	•	•	•	•	•		•			ISO 5610-10
	63°						•	•		•			
R	in the second se			•	•	•	•	•	•		•	•	ISO 5610-11
	80° iTeh-	T.A sta	NE nda			P.R eh.	EV ai)	(IE)	W				ISO 5610-12
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		•	•	•	•	•	•	•	•		•		
Т	600			•	•	•	•	•	•		•		ISO 5610-13
v	25 S			•	•	•	•	•					ISO 5610-15

NOTE "•" represents standardized letter symbols and shank sizes. Cells left blank represent non-standardized letter symbols and shank sizes.

4 Dimensions

4.1 Cross section and length, l_1

The dimensions of the cross section, depending on the length, l_1 , and height, h_1 , of the cutting edge shall be in accordance with Figure 1 and Table 2.

a Primary direction of feed.