INTERNATIONAL STANDARD

ISO 5610-5

First edition
2010-08-01

Tool holders with rectangular shank for indexable inserts —

Part 5: **Style F**

Porte-plaquette à queue rectangulaire pour plaquettes amovibles —

Partie 5: Forme F

Reference number
ISO 5610-5:2010(E)

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 5610-5 was prepared by Technical Committee ISO/TC 29, *Small tools*, Subcommittee SC 9, *Tools with cutting edges made of hard cutting materials*.

This first edition of ISO 5610-5, together with ISO 5610-1, ISO 5610-2, ISO 5610-3, ISO 5610-4, 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, cancels and replaces ISO 5610:1998.

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 J*

— *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*

Tool holders with rectangular shank for indexable inserts —

Part 5:
Style F

1 Scope

This part of ISO 5610 specifies tool holders with rectangular shank, style F, i.e. with straight shank and cutting edge angle $\kappa_r = 90°$ for side cutting.

These tool holders are primarily intended for indexable inserts made of hardmetal or other cutting materials to be mounted by clamping and to be used for turning operations.

NOTE The symbols for the dimensions shown in the tables of this part of ISO 5610 and the corresponding preferred symbols of properties defined in ISO/TS 13399-2 and ISO/TS 13399-3 are given in ISO 5610-1:2010, Table A.1.

2 Normative references

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

ISO 5608:1995, *Turning and copying tool holders and cartridges for indexable inserts — Designation*

ISO 5610-1:2010, *Tool holders with rectangular shank for indexable inserts — Part 1: General survey, correlation and determination of dimensions*

3 Dimensions

3.1 General

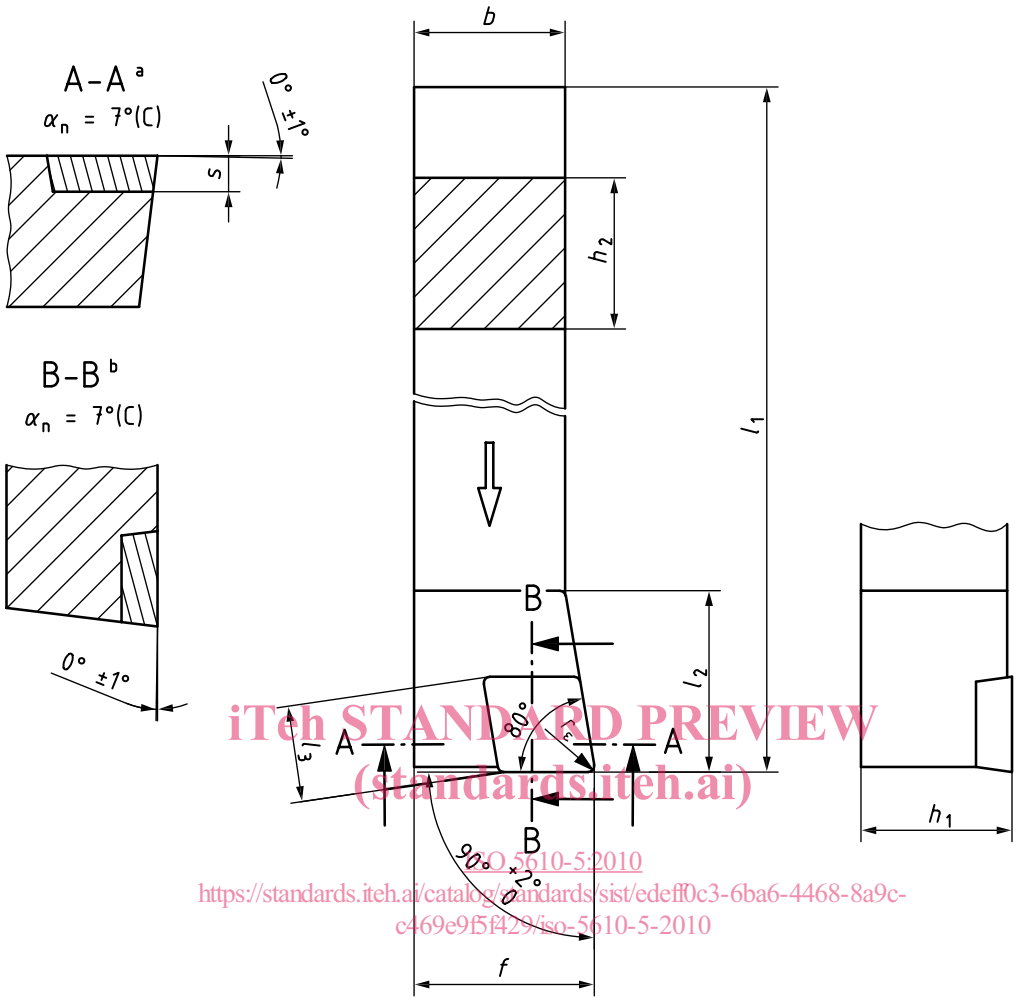
It is not necessary for tool holders to comply with the pictorial representation; only the dimensions given shall be observed.

For determination of dimensions h_1, f and l_1, see ISO 5610-1.

For explanation of the designation code for tool holders, see ISO 5608.

NOTE The values of rake angles and inclination angles shown in the figures are recommended values; they can vary according to the application.

3.2 Tool holder style F for rhombic indexable insert shape C



NOTE The figure shows a right-hand tool holder (R); left-hand tool holder (L) laterally reversed.

[a] Inclination angle λ_n.

[b] Rake angle γ_n.

Figure 1 — Tool holder style F for rhombic indexable insert — C

Table 1

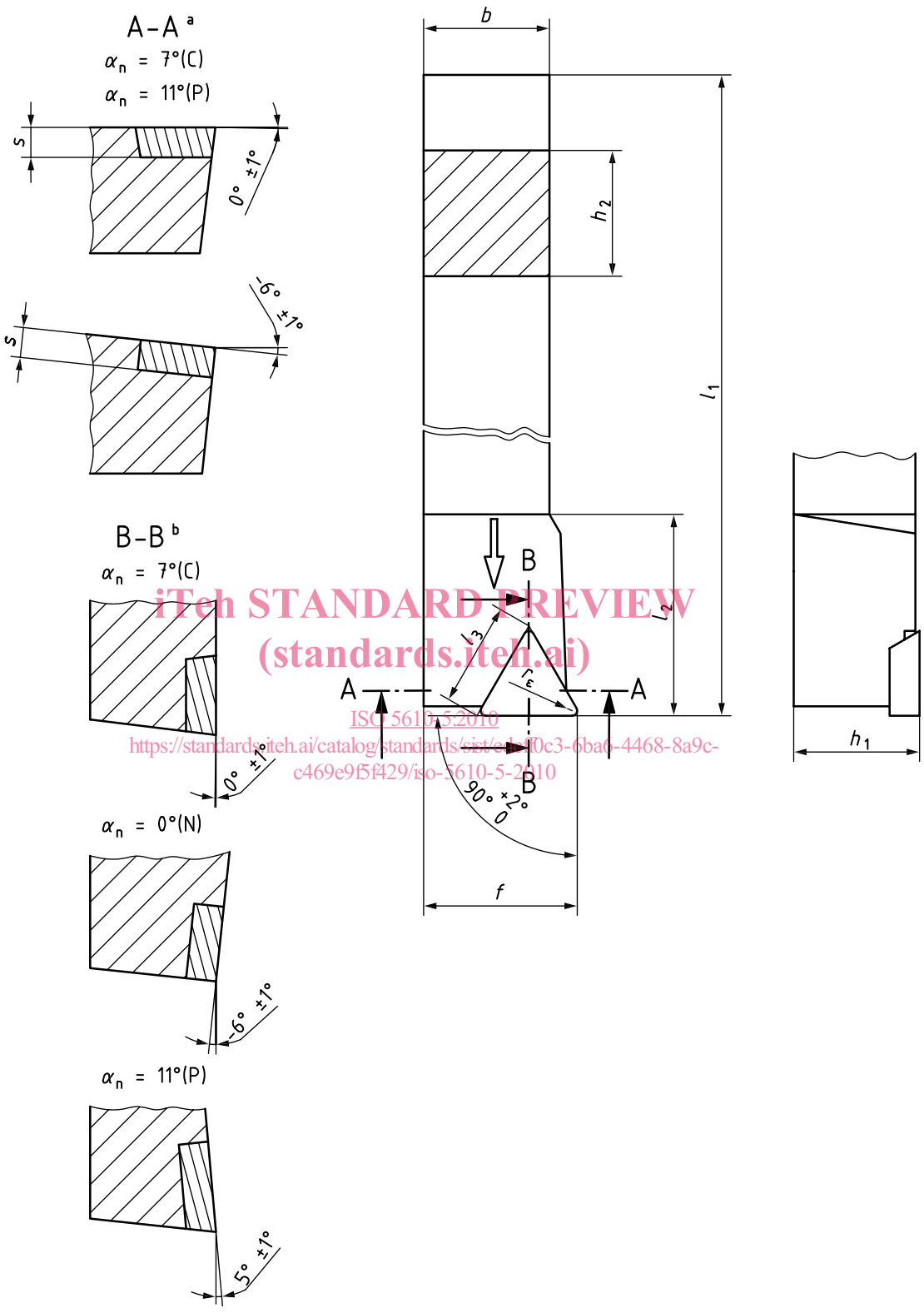
Dimensions in millimetres

Symbol[a]	h_1 js13	b h13	l_3 ≈	f $^{+0,5}_{0}$	h_2 h13	l_1[a] k16	l_2 max.	s[b]
SCFCR 0808 — 06	8	8	6,4	10	8	—	12	2,38
SCFCL 0808 — 06								
SCFCR 1010 — 06	10	10	6,4	12	10	—	12	2,38
SCFCL 1010 — 06								

[a] For the selection of length, l_1, the en-dash may be replaced by the dimensions of ISO 5610-1:2010, Table 2. For letter symbols identifying the tool length, see ISO 5608:1995, Table 6.

[b] Insert thickness without shim, if any.

3.3 Tool holder style F for triangular indexable insert shape T



NOTE The figure shows a right-hand tool holder (R); left-hand tool holder (L) laterally reversed.

[a] Inclination angle λ_n.

[b] Rake angle γ_n.

Figure 2 — Tool holder style F for triangular indexable insert — T

Table 2

Dimensions in millimetres

Symbol[a]	h_1 js13	b h13	l_3 ≈	f $^{+0,5}_{0}$	h_2 h13	l_1[a] k16	l_2 max.	s[b]
STFCR 1212 — 11	12	12	11	16	12	—	25	2,38
STFCL 1212 — 11								
PTFNR 1212 — 11								3,18
PTFNL 1212 — 11								
CTFPR 1212 — 11								
CTFPL 1212 — 11								
STFCR 1616 — 11	16	16	11	20	16	—	25	2,38
STFCL 1616 — 11								
PTFNR 1616 — 11								3,18
PTFNL 1616 — 11								
CTFPR 1616 — 11								
CTFPL 1616 — 11								
STFCR 1616 — 16	16	16	16,5	20	16	—	32	3,97
STFCL 1616 — 16								
PTFNR 1616 — 16								4,76
PTFNL 1616 — 16								
CTFPR 1616 — 16								3,18
CTFPL 1616 — 16								
STFCR 2020 — 16	20	20	16,5	25	20	—	32	3,97
STFCL 2020 — 16								
PTFNR 2020 — 16								4,76
PTFNL 2020 — 16								
CTFPR 2020 — 16								3,18
CTFPL 2020 — 16								
STFCR 2525 — 16	25	25	16,5	32	25	—	32	3,97
STFCL 2525 — 16								
PTFNR 2525 — 16								4,76
PTFNL 2525 — 16								
CTFPR 2525 — 16								3,18
CTFPL 2525 — 16								
STFCR 2525 — 22	25	25	22	32	25	—	36	4,76
STFCL 2525 — 22								
PTFNR 2525 — 22								
PTFNL 2525 — 22								
CTFPR 2525 — 22								
CTFPL 2525 — 22								

Table 2 (*continued*)

Dimensions in millimetres

Symbol[a]	h_1 js13	b h13	l_3 ≈	f $^{+0,5}_{0}$	h_2 h13	l_1[a] k16	l_2 max.	s[b]
STFCR 3225 — 16	32	25	16,5	32	32	—	32	3,97
STFCL 3225 — 16								
PTFNR 3225 — 16								4,76
PTFNL 3225 — 16								
CTFPR 3225 — 16								3,18
CTFPL 3225 — 16								
STFCR 3225 — 22	32	25	22	32	32	—	36	4,76
STFCL 3225 — 22								
PTFNR 3225 — 22								
PTFNL 3225 — 22								
CTFPR 3225 — 22								
CTFPL 3225 — 22								
STFCR 3232 — 22	32	32	22	40	32	—	36	4,76
STFCL 3232 — 22								
PTFNR 3232 — 22								
PTFNL 3232 — 22								
CTFPR 3232 — 22								
CTFPL 3232 — 22								
STFCR 4040 — 22	40	40	22	50	40	—	36	4,76
STFCL 4040 — 22								
PTFNR 4040 — 22								
PTFNL 4040 — 22								
CTFPR 4040 — 22								
CTFPL 4040 — 22								
PTFNR 4040 — 27	40	40	27,5	50	40	—	40	6,35
PTFNL 4040 — 27								

[a] See Table 1.

[b] See Table 1.