

Technical information
Information technique
Technische Auskunft

J02

Applications
Applications
Anwendungen

J03

Toolholders
Porte-outils
Drehmeissel

J04

Boring bars
Barres d'alésage
Innendrehmeissel

J07

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lathes

Ceramic
tools

Parting &
grooving

Threading

Drills

Cartridges

Brazed
tools

Milling
cutters

Solid
carbide

Boring
heads

Arbors &
adaptors

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K15K

A finishing grade in the K10 range. This carbide grade is for use on cast iron, aluminium and heat-resistant alloys. This grade works well on cobalt based alloys and synthetic materials and is suitable for finishing on heat-resistant alloys.

Une nuance de finition dans la gamme K10. Cette nuance de carbure s'utilise pour la fonte, l'aluminium et les alliages résistants au chaud. Elle travaille bien dans les alliages avec base de cobalt et les matériaux synthétiques et est appropriée aussi pour la finition en alliages résistants au chaud.

Es ist eine Sorte zum Schlichten, im K10 Bereich. Diese Sorte ist für Guß, Aluminium und hitzebeständige Legierungen geeignet. Es hat gute Bearbeitungseigenschaften für Kobaltlegierungen und synthetische Materialien und ist für Schlichten in hitzebeständigen Legierungen besonders gut geeignet.

P25K

A general purpose uncoated grade in the P30 range. This tough, economical grade is for machining of carbon steels, alloys steels, tool steels and stainless steels. P25K provides toughness and resistance to deformation in roughing and semi-finishing operations.

Une nuance non revêtue d'usage général dans la gamme P30. Cette nuance dure est économique et prévue pour usiner l'acier au carbone, l'acier allié, l'acier à outils et l'acier inoxydable. P25K proportionne dureté et résistance à la déformation dans des opérations d'ébauche et semi-finition.

Eine allgemeine unbeschichtete Sorte im P30 Bereich. Diese zähe und wirtschaftliche Sorte ist zur Bearbeitung von Kohlenstoffstahl, legiertem Stahl, Werkzeugstahl und rostfreiem Stahl gut geeignet. P25K hat eine gute Zähigkeit und Verschleißfestigkeit für Schrupp- und mittlere Schlichtarbeiten.

Grinding / Affûtage / Schleifen

In order to obtain a satisfactory result, it is necessary to have a steady grinding table or holder which can be set to the required angle by means of a graduated scale and by non-vibrating small spindles.

Rough grinding is normally carried out using a silicon carbide grinding wheel. The finish grind or lapping must always be made using a diamond wheel.

Longer life of the cutting edge and less breakage justify the increased cost of correct grinding.

The grinding wheel must be kept clean to ensure that cutting capacity is maintained.

Whenever possible, always grind perpendicular to the cutting edge.

Pour obtenir un résultat satisfaisant, il est nécessaire d'avoir une table d'affûtage ou bien un porte-outils ferme qui puissent être placés à l'angle exigé au moyen d'une échelle graduée et par des petits axes non vibrants. L'affûtage d'ébauche se réalise normalement en utilisant une meule en carbure de silicium. L'affûtage de finition ou rodage doit se faire toujours en utilisant une meule en diamant.

Une vie plus longue de l'arête de coupe et moins casses justifient le haut coût d'un affûtage correcte.

La meule d'affûtage doit être maintenue propre pour garantir que la capacité de coupe est maintenue.

Dans la mesure du possible, affûtez toujours de façon perpendiculaire à l'arête de coupe.

Um ein erfolgreiches Ergebnis zu bekommen, braucht man stabile Auflagetische oder Halter, die man mit Hilfe eines Gradmessers im gewünschten Winkel einstellen kann, sowie schwingungsfreie Spindeln.

Zum Grobschleifen kann man eine Siliziumkarbidscheibe verwenden.

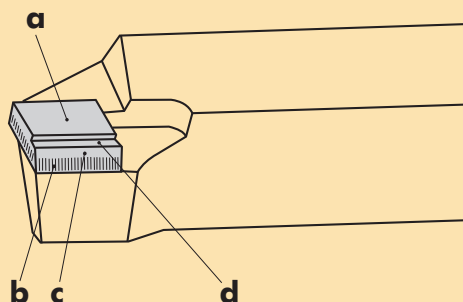
Aber zum Feinschleifen und Lappen muß man immer eine Diamantscheibe verwenden.

Längere Standzeit der Schneiden und wenige Kantenausbrüche gleichen die höheren Kosten von einem korrekten Schleifen aus.

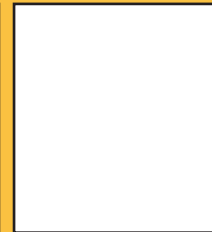
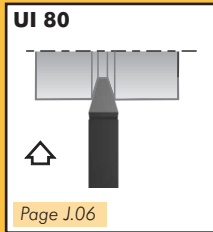
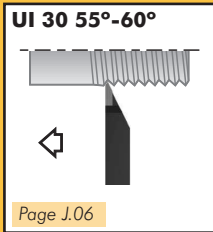
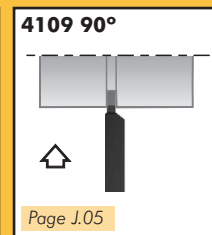
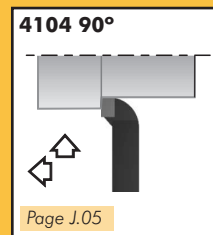
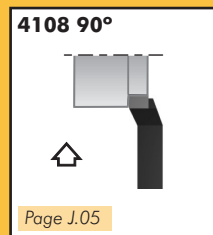
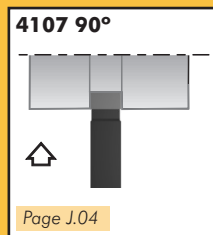
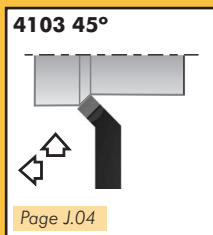
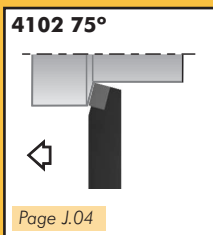
Die Schleifscheibe muß man sauber halten, denn das beeinflusst wesentlich die Schneidleistung.

Wenn möglich, immer gegen die Schneidkante schleifen.

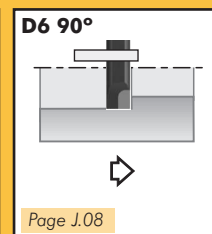
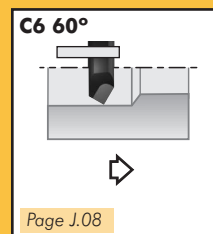
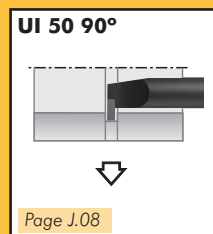
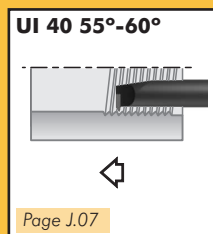
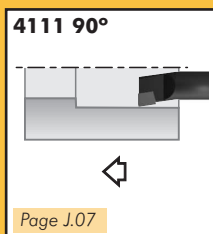
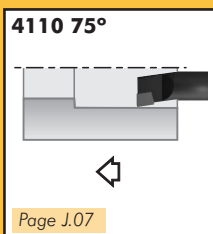
- a.- Top face / Face supérieure / Spanflächen
- b.- Secondary clearances / Dépouilles secondaires / Freiflächen
- c.- Lapped primary clearances / Dépouilles primaires affûtées / Läppfasen
- d.- Chipbreaker groove / Rainure du brise-copeaux / Spanleitstufe



Toolholders - Porte-outils - Drehmeissel



Boring bars - Barres d'alésage - Innendrehmeissel



Inserts

Turning

Automatic lathes

Ceramic tools

Parting & grooving

Threading

Drills

Cartridges

Brazed tools

Milling cutters

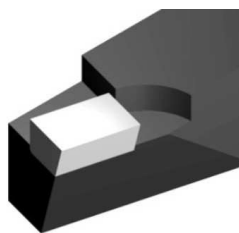
Solid carbide

Boring heads

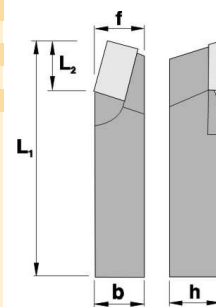
Arbors & adaptors

Inserts

4102 75°



REF.	h	b	L	f	L ₂	ABC	K3	P6
4102 1616 R/L K3	16	16	110	10	11	12	•	
4102 1616 R/L P6	16	16	110	10	11	12		•
4102 2020 R/L K3	20	20	125	12	15	16	•	
4102 2020 R/L P6	20	20	125	12	15	16		•
4102 2525 R/L K3	25	25	140	15	18	20	•	
4102 2525 R/L P6	25	25	140	15	18	20		•



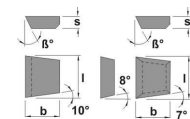
Turning

Automatic lathes

Ceramic tools



REF.	l	b	s
ABC 12	12	8	5
ABC 16	16	10	6
ABC 20	20	12	7

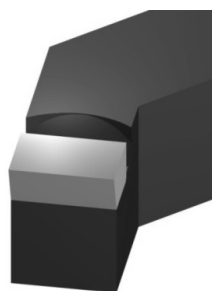


Only for:
-ABC 10
-ABC 20
-ABC 25

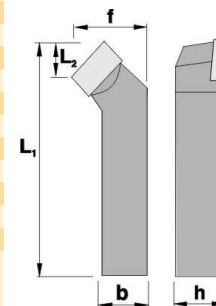
Only for:
-ABC 12
-ABC 16

Parting & grooving

4103 45°



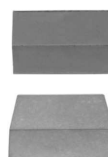
REF.	h	b	L	f	L ₂	..C	K3	P6
4103 1010 R/L K3	10	10	90	14	8	8	○	
4103 1010 R/L P6	10	10	90	14	8	8		○
4103 1212 R/L K3	12	12	100	17	10	10	○	
4103 1212 R/L P6	12	12	100	17	10	10		•
4103 1616 R/L K3	16	16	110	22	12	12	•	
4103 1616 R/L P6	16	16	110	22	12	12		•
4103 2020 R/L K3	20	20	125	28	16	16	•	
4103 2020 R/L P6	20	20	125	28	16	16		•
4103 2525 R/L K3	25	25	140	35	20	20	•	
4103 2525 R/L P6	25	25	140	35	20	20		•
4103 3232 R/L K3	32	32	170	44	25	25	•	
4103 3232 R/L P6	32	32	170	44	25	25		•



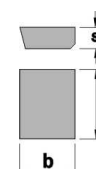
Threading

Drills

Cartridges

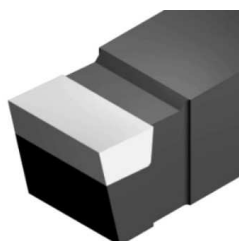


REF.	l	b	s
C 8	8	5	3
ABC 10	10	6	4
ABC 12	12	8	5
ABC 16	16	10	6
ABC 20	20	12	7
ABC 25	25	16	8

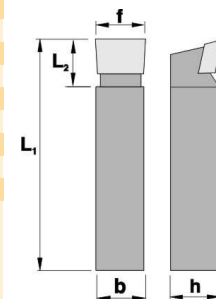


Brazed tools

4107 90°



REF.	h	b	L	f	L ₂	ABC	K3	P6
4107 1010 N K3	10	10	90	10	10	10	○	
4107 1010 N P6	10	10	90	10	10	10		○
4107 1212 N K3	12	12	100	12	12	12	○	
4107 1212 N P6	12	12	100	12	12	12		○
4107 1616 N K3	16	16	110	16	16	16	○	
4107 1616 N P6	16	16	110	16	16	16		○
4107 2020 N K3	20	20	125	20	20	20	○	
4107 2020 N P6	20	20	125	20	20	20		○
4107 2525 N K3	25	25	140	25	25	25	○	
4107 2525 N P6	25	25	140	25	25	25		○



Milling cutters

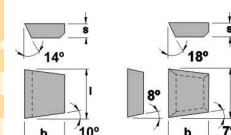
Solid carbide

Boring heads

Arbors & adaptors

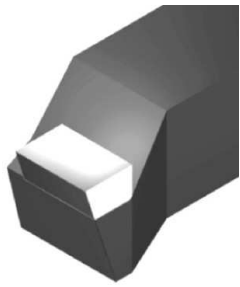


REF.	l	b	s
ABC 10	11	6	4
ABC 12	13	8	5
ABC 16	17	10	6
ABC 20	21	12	7
ABC 25	26	14	8

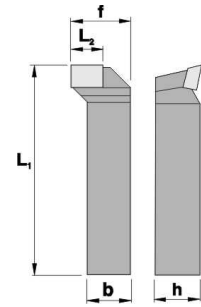


Only for ABC 12, ABC 16

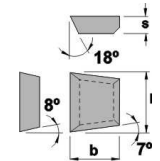
4108 90°



REF.	h	b	L	f	L ₂	ABC	K3	P6
4108 1616 R/L K3	16	16	110	24	12	12	○	
4108 1616 R/L P6	16	16	110	24	12	12		○
4108 2020 R/L K3	20	20	125	30	16	16	○	
4108 2020 R/L P6	20	20	125	30	16	16		○



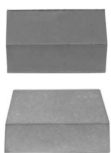
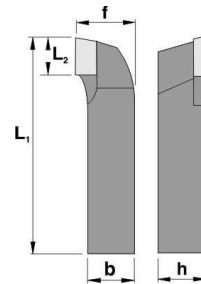
REF.	l	b	s
ABC 12	13	8	5
ABC 16	17	10	6



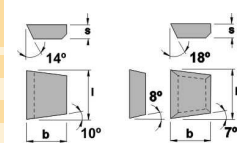
4104 90°



REF.	h	b	L	f	L ₂	..C	K3	P6
4104 1010 R/L K3	10	10	90	14	8	8	○	
4104 1010 R/L P6	10	10	90	14	8	8		○
4104 1212 R/L K3	12	12	100	17	10	10	○	
4104 1212 R/L P6	12	12	100	17	10	10		●
4104 1616 R/L K3	16	16	110	22	12	12	●	
4104 1616 R/L P6	16	16	110	22	12	12		●
4104 2020 R/L K3	20	20	125	28	16	16	●	
4104 2020 R/L P6	20	20	125	28	16	16		●
4104 2525 R/L K3	25	25	140	35	20	20	●	
4104 2525 R/L P6	25	25	140	35	20	20		●
4104 3232 R/L K3	32	32	170	44	25	25	●	
4104 3232 R/L P6	32	32	170	44	25	25		●

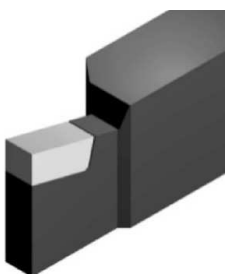


REF.	l	b	s
C 8	8	5	3
ABC 10	11	6	4
ABC 12	13	8	5
ABC 16	17	10	6
ABC 20	21	12	7
ABC 25	26	16	8

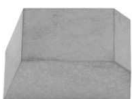
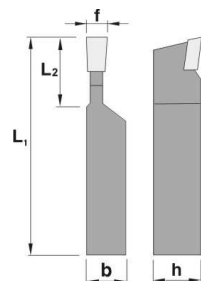


Only for ABC 12, ABC 16

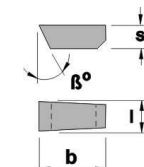
4109 90°



REF.	h	b	L	f	L ₂	D	K3	P6
4109 1208 R/L K3	12	8	100	3	12	3	○	
4109 1208 R/L P6	12	8	100	3	12	3		●
4109 1610 R/L K3	16	10	110	4	14	4	●	
4109 1610 R/L P6	16	10	110	4	14	4		●
4109 2012 R/L K3	20	12	125	5	16	5	●	
4109 2012 R/L P6	20	12	125	5	16	5		●
4109 2516 R/L K3	25	16	140	6	20	6	●	
4109 2516 R/L P6	25	16	140	6	20	6		●
4109 3220 R/L K3	32	20	170	8	25	8	●	
4109 3220 R/L P6	32	20	170	8	25	8		●
4109 4025 R/L K3	40	25	200	10	32	10	●	
4109 4025 R/L P6	40	25	200	10	32	10		●



REF.	l	b	s
D 3	3	8	3
D 4	4	10	4
D 5	5	12	5
D 6	6	14	6
D 8	8	16	8
D 10	10	18	10



● Normally available for immediate delivery

○ Only available in a limited quantity

Inserts

Turning

Automatic lathes

Ceramic tools

Parting & grooving

Threading

Drills

Cartridges

Brazed tools

Milling cutters

Solid carbide

Boring heads

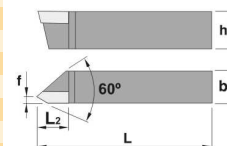
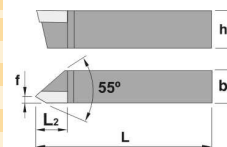
Arbors & adaptors

Inserts

UI 30
^{55°}
^{60°}



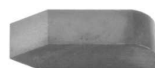
REF.	h	b	L	f	L2	FIL	K3	P6
UI 30 55° 1212 R K3	12	12	100	1,8	12	3,5	○	
UI 30 55° 1212 R P6	12	12	100	1,8	12	3,5		○
UI 30 55° 1616 R K3	16	16	110	2,0	14	4	○	
UI 30 55° 1616 R P6	16	16	110	2,0	14	4		●
UI 30 55° 2020 R K3	20	20	125	2,5	16	5	○	
UI 30 55° 2020 R P6	20	20	125	2,5	16	5		●
UI 30 55° 2525 R K3	25	25	140	3,0	18	6	○	
UI 30 55° 2525 R P6	25	25	140	3,0	18	6		●
UI 30 60° 1212 R K3	12	12	100	1,8	12	3,5	●	
UI 30 60° 1212 R P6	12	12	100	1,8	12	3,5		●
UI 30 60° 1616 R K3	16	16	110	2,0	14	4	●	
UI 30 60° 1616 R P6	16	16	110	2,0	14	4		●
UI 30 60° 2020 R K3	20	20	125	2,5	16	5	●	
UI 30 60° 2020 R P6	20	20	125	2,5	16	5		●
UI 30 60° 2525 R K3	25	25	140	3,0	18	6	●	
UI 30 60° 2525 R P6	25	25	140	3,0	18	6		●



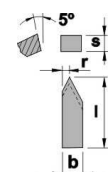
Turning

Automatic lathes

Ceramic tools

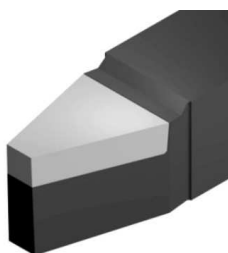


REF.	l	b	s
FIL 3,5	12	1,0	3,5
FIL 4	14	1,2	4,0
FIL 5	16	1,5	5,0
FIL 6	18	1,8	6,0

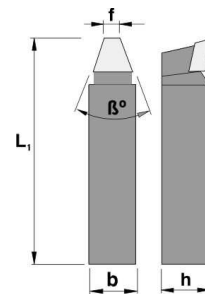


Parting & grooving

UI 80



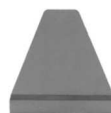
REF.	h	b	L	f	β°	TR	K3	P6
UI 80 34° 2516 K3	25	16	170	4,2	34°	16-3..	○	
UI 80 36° 2516 K3	25	16	170	3,7	36°	16-3..	○	
UI 80 38° 2516 K3	25	16	170	3,1	38°	16-3..	○	
UI 80 34° 3220 K3	32	20	200	6,2	34°	20-3..	○	
UI 80 36° 3220 K3	32	20	200	5,5	36°	20-3..	○	
UI 80 38° 3220 K3	32	20	200	4,9	38°	20-3..	○	



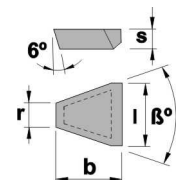
Threading

Drills

Cartridges



REF.	l	b	s
TR 16-34	21	16	6
TR 16-36	21	16	6
TR 16-38	21	16	6
TR 20-34	25	20	6
TR 20-36	25	20	6
TR 20-38	25	20	6



Brazed tools

Milling cutters

Solid carbide

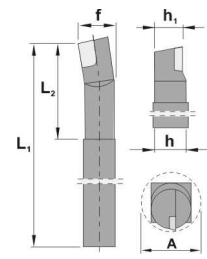
Boring heads

Arbors & adaptors

4110 75°



REF.	h=b	h1	L	b2	L2	f	A	..C	K3	P6
4110 1010 R K3	10	8,0	150	3,8	50	14	18	7	○	
4110 1010 R P6	10	8,0	150	3,8	50	14	18	7		○
4110 1212 R K3	12	9,6	180	4,8	63	17	21	8	○	
4110 1212 R P6	12	9,6	180	4,8	63	17	21	8		○
4110 1616 R K3	16	12,8	210	5,7	80	22	27	10	○	
4110 1616 R P6	16	12,8	210	5,7	80	22	27	10		○
4110 2020 R K3	20	16,0	250	7,6	100	28	34	12	○	
4110 2020 R P6	20	16,0	250	7,6	100	28	34	12		○
4110 2525 R K3	25	20,0	300	9,5	125	35	43	16	○	
4110 2525 R P6	25	20,0	300	9,5	125	35	43	16		○

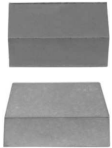


Inserts

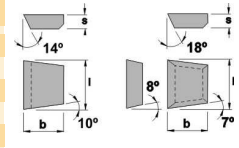
Turning

Automatic lathes

Ceramic tools



REF.	l	b	s
C 7	6	4,0	2,5
C 8	8	5,0	3,0
ABC 10	11	6,0	4,0
ABC 12	13	8,0	5,0
ABC 16	17	10,0	6,0

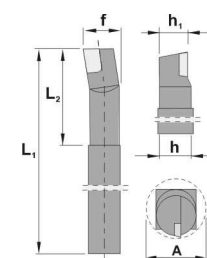


Only for ABC 12, ABC 16

4111 90°



REF.	h=b	h1	L	b2	L2	f	A	..C	K3	P6
4111 0808 R K3	8	6,4	125	3,1	40	11	14	7	●	
4111 0808 R P6	8	6,4	125	3,1	40	11	14	7		●
4111 1010 R K3	10	8,0	150	4,0	50	14	18	7	●	
4111 1010 R P6	10	8,0	150	4,0	50	14	18	7		●
4111 1212 R K3	12	9,6	180	5,1	63	17	21	8	●	
4111 1212 R P6	12	9,6	180	5,1	63	17	21	8		●
4111 1616 R K3	16	12,8	210	6,2	80	22	27	10	●	
4111 1616 R P6	16	12,8	210	6,2	80	22	27	10		●
4111 2020 R K3	20	16,0	250	8,3	100	28	34	12	●	
4111 2020 R P6	20	16,0	250	8,3	100	28	34	12		●
4111 2525 R K3	25	20,0	300	10,0	125	35	43	16	●	
4111 2525 R P6	25	20,0	300	10,0	125	35	43	16		●
4111 3232 R K3	32	25,6	355	12,0	160	44	52	20	●	
4111 3232 R P6	32	25,6	355	12,0	160	44	52	20		●



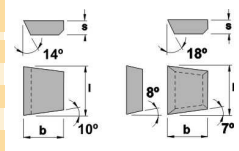
Parting & grooving

Threading

Drills



REF.	l	b	s
C 6	6	4,0	2,5
C 8	8	5,0	3,0
ABC 10	11	6,0	4,0
ABC 12	13	8,0	5,0
ABC 16	17	10,0	6,0
ABC 20	21	12,0	7,0



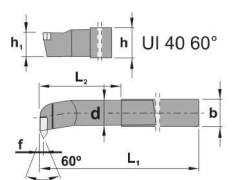
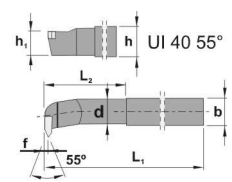
Only for ABC 12, ABC 16

Cartridges

UI 40 55°/60°



REF.	d	h=b	L	L2	f	FIL	K3	P6
UI 40 55° 1010 R K3	10	10	100	26	1,8	3,5	○	
UI 40 55° 1010 R P6	10	10	100	26	1,8	3,5		○
UI 40 55° 1212 R K3	12	12	110	26	1,8	3,5	○	
UI 40 55° 1212 R P6	12	12	110	26	1,8	3,5		○
UI 40 55° 1616 R K3	16	16	140	33	2,0	4	○	
UI 40 55° 1616 R P6	16	16	140	33	2,0	4		○
UI 40 55° 2020 R K3	20	20	160	41	2,0	4	○	
UI 40 55° 2020 R P6	20	20	160	41	2,0	4		○
UI 40 60° 1010 R K3	10	10	100	26	1,8	3,5	●	
UI 40 60° 1010 R P6	10	10	100	26	1,8	3,5		●
UI 40 60° 1212 R K3	12	12	110	26	1,8	3,5	●	
UI 40 60° 1212 R P6	12	12	110	26	1,8	3,5		●
UI 40 60° 1616 R K3	16	16	140	33	2,0	4	●	
UI 40 60° 1616 R P6	16	16	140	33	2,0	4		●
UI 40 60° 2020 R K3	20	20	160	41	2,0	4	●	
UI 40 60° 2020 R P6	20	20	160	41	2,0	4		●
UI 40 60° 2525 R K3	25	25	180	49	2,5	5	●	
UI 40 60° 2525 R P6	25	25	180	49	2,5	5		●



Brazed tools

Milling cutters

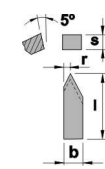
Solid carbide

Boring heads

Arbors & adaptors



REF.	l	b	s
FIL 3,5	12	3,5	3,5
FIL 4	14	4,0	4,0
FIL 5	16	5,0	5,0



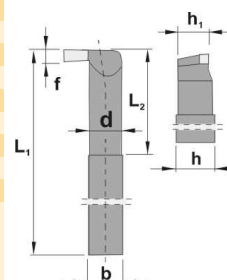
● Normally available for immediate delivery ○ Only available in a limited quantity

Inserts

UI 50 90°



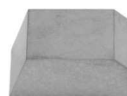
REF.	d	h=b	L	L2	f	D	K3	P6
UI 50 90° 1010 R K3	10	10	140	52	3	3	•	
UI 50 90° 1010 R P6	10	10	140	52	3	3		•
UI 50 90° 1212 R K3	12	12	160	56	4	4	•	
UI 50 90° 1212 R P6	12	12	160	56	4	4		•
UI 50 90° 1616 R K3	16	16	180	63	5	5	•	
UI 50 90° 1616 R P6	16	16	180	63	5	5		•
UI 50 90° 2020 R K3	20	20	210	80	6	6	•	
UI 50 90° 2020 R P6	20	20	210	80	6	6		•
UI 50 90° 2525 R K3	25	25	250	100	8	8	•	
UI 50 90° 2525 R P6	25	25	250	100	8	8		•



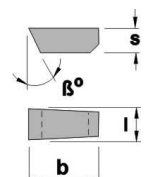
Turning

Automatic lathes

Ceramic tools

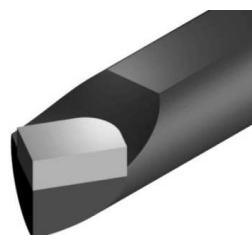


REF.	l	b	s
D 3	3	8	3
D 4	4	10	4
D 5	5	12	5
D 6	6	14	6
D 8	8	16	8

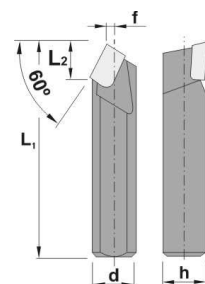


Parting & grooving

C6 60°



REF.	d	h	L	L2	f	C	K3	P6
C 6-08	8	7,0	24	6,5	0	7		•
C 6-10	10	8,5	50	6,5	0	8		•



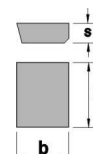
Threading

Drills

Cartridges

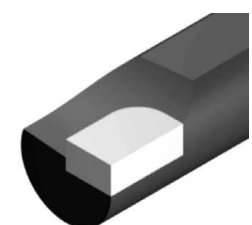


REF.	l	b	s
C 7	6	4	2,5
C 8	8	5	3,0

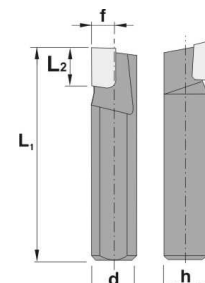


Brazed tools

D6 90°



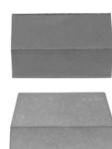
REF.	d	h	L	L2	f	..C	K3	P6
D 6-8	8	7,0	24	7,0	1,9	7		•
D 6-10	10	8,5	50	8,0	4,6	8		•
D 6-12	12	10,5	60	10,0	5,6	10		•
D 6-16	16	14,0	90	12,0	7,6	12		•



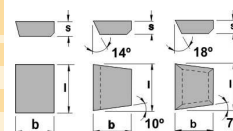
Solid carbide

Boring heads

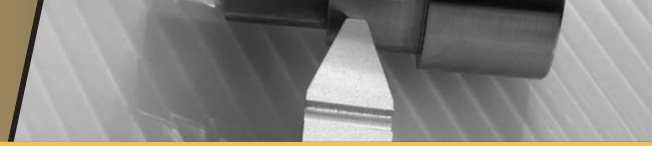
Arbors & adaptors



REF.	l	b	s
C 7	6	4,0	2,5
C 8	8	5,0	3,0
ABC 10	11	6,0	4,0
ABC 12	13	8,0	5,0



Only for ABC 12, ABC 16



A large, empty rectangular area with horizontal lines, intended for writing or drawing.

Inserts

Turning

Automatic lathes

Ceramic tools

Parting & grooving

Threading

Drills

Cartridges

Brazed tools

Milling cutters

Solid carbide

Boring heads

Arbors & adaptors