

# Brazed tools

Inserts

General turning

Aluminium wheel turning

Automatic lathes

Ceramic tools

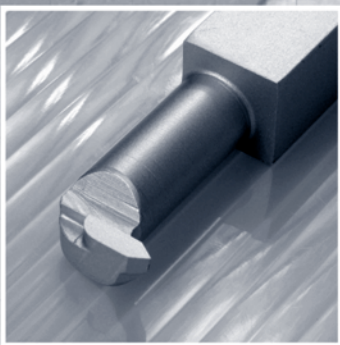
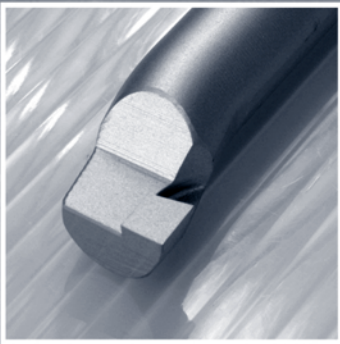
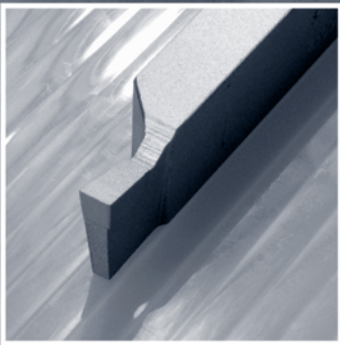
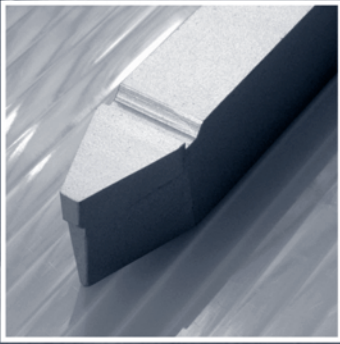
Parting and grooving

Threading

Drills

Cartridges

**Brazed tools**



# Brazed tools

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Applications	K.05
Toolholders	K.06
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## Uncoated inserts

### KM15

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.

### PM25

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.

PM25 provides toughness and resistance to deformation in roughing and semi-finishing operations.

## Grinding

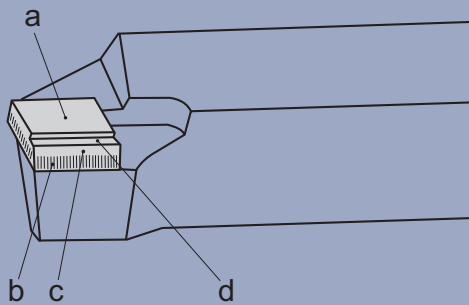
In order to obtain a satisfactory result, it is necessary to have a steady grinding table or holder which can be set to the required angle by means of a graduated scale and by non-vibrating small spindles.

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.













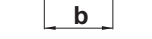



- a.- Top face
- b.- Secondary clearances
- c.- Lapped primary clearances
- d.- Chipbreaker groove

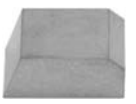



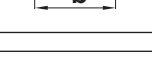








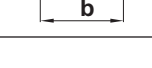



	Normally available for immediate delivery ● Only available in a limited quantity ○														
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	AB 8	8,00	3,00	5,00	3,00	-	●								

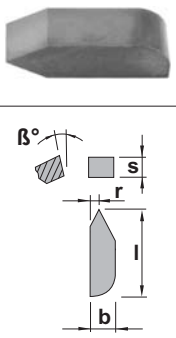
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	ABC	l	s	b	r	β°	KM15	PM25	PM40	TIN16	TIN17	TIN22	TIN25	TIN32	ZR10
     <p>Only for: -ABC 10 -ABC 20 -ABC 25</p> <p>Only for: -ABC 12 -ABC 16</p>	ABC 10	11,00	4,00	6,00	-	16°	●	●							
	ABC 12	13,00	5,00	8,00	-	18°	●	●							
	ABC 16	17,00	6,00	10,00	-	18°	●	●							
	ABC 20	21,00	7,00	12,00	-	16°	●	●							
	ABC 25	26,00	8,00	14,00	-	16°	●	●							

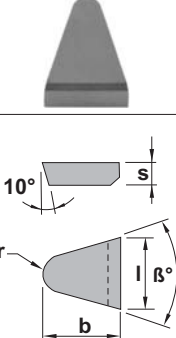
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      	C 7	7,00	2,50	5,00	-	0°	●	●							
	C 8	8,00	3,25	5,00	-	0°	●	●							
	C 10	10,00	4,00	6,00	-	18°	●	●							
	C 12	12,00	5,00	8,00	-	18°	●	●							
	C 16	16,00	6,00	10,00	-	18°	●	●							
	C 20	20,00	7,00	12,00	-	18°	●	●							
C 25	25,00	8,00	14,00	-	18°	●	●								

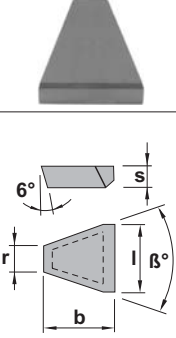
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	D	l	s	b	r	β°	KM15	PM25	PM40	TIN16	TIN17	TIN22	TIN25	TIN32	ZR10
     	D 3	3,00	3,00	8,00	-	0°	●	●							
	D 4	4,00	4,00	10,00	-	14°	●	●							
	D 5	5,00	5,00	12,00	-	14°	●	●							
	D 6	6,00	6,00	14,00	-	14°	●	●							
	D 8	8,00	8,00	16,00	-	14°	●	●							
	D 10	10,00	10,00	18,00	-	14°	●	●							

	Normally available for immediate delivery ● Only available in a limited quantity ○														
	E	l	s	b	r	β°	KM15	PM25	PM40	TIN16	TIN17	TIN22	TIN25	TIN32	ZR10
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	E 6	6,00	4,00	14,00	-	9°	●	●							
	E 8	8,00	4,00	16,00	-	9°	●	●							
	E 10	10,00	5,00	18,00	-	9°	●	●							
	E 12	12,00	6,00	20,00	-	9°	●	●							

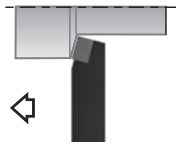
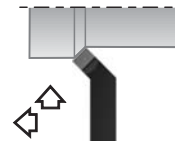
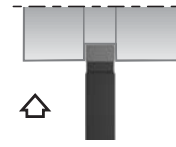
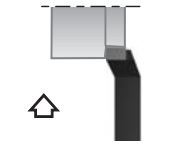
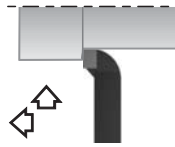
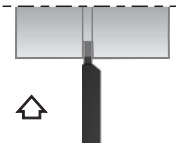
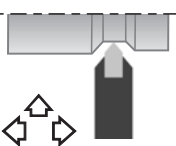
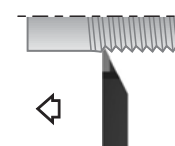
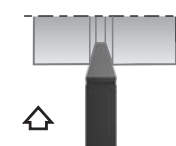
- Inserts
- General turning
- Aluminium wheel turning
- Automatic lathes
- Ceramic tools
- Parting and grooving
- Threading
- Drills
- Cartridges
- Brazed tools

	Normally available for immediate delivery ● Only available in a limited quantity ○														
	<b>FIL</b>						KM15	PM25	PM40	TIN16	TIN17	TIN22	TIN25	TIN32	ZR10
	l	s	b	r	$\beta^\circ$										
FIL 3,5	12,00	3,50	3,50	1,00	5°	●	●								
FIL 4	14,00	4,00	4,00	1,20	5°	●	●								
FIL 5	16,00	5,00	5,00	1,50	5°	●	●								
FIL 6	18,00	6,00	6,00	1,80	5°	●	●								

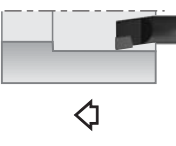
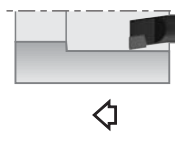
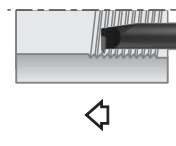
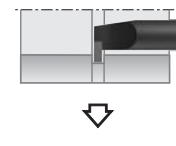
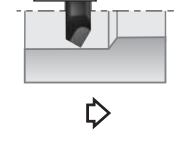
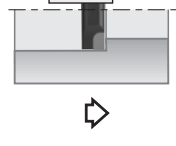
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	<b>PR</b>						KM15	PM25	PM40	TIN16	TIN17	TIN22	TIN25	TIN32	ZR10
	l	s	b	r	$\beta^\circ$										
PR 8	8,00	4,00	12,00	1,00	30°	●									
PR 10	10,00	4,00	14,00	1,50	30°	●									
PR 12	12,00	5,00	17,00	2,50	30°	●									

	Normally available for immediate delivery ● Only available in a limited quantity ○														
	<b>TR</b>						KM15	PM25	PM40	TIN16	TIN17	TIN22	TIN25	TIN32	ZR10
	l	s	b	r	$\beta^\circ$										
TR 16-32	16,00	6,00	21,00	5,00	32°	●									
TR 16-36	16,00	6,00	21,00	4,00	36°	●									
TR 20-32	20,00	6,00	25,00	7,50	32°	●									
TR 20-36	20,00	6,00	25,00	5,80	36°	●									

Toolholders

<p><b>ISO 1 75°</b></p>  <p>Page K.06</p>	<p><b>ISO 2 45°</b></p>  <p>Page K.06</p>	<p><b>ISO 4 90°</b></p>  <p>Page K.07</p>	<p><b>ISO 5 90°</b></p>  <p>Page K.07</p>	<p><b>ISO 6 90°</b></p>  <p>Page K.08</p>	<p><b>ISO 7 90°</b></p>  <p>Page K.08</p>
<p><b>ISO 351 80°</b></p>  <p>Page K.09</p>	<p><b>UI 30 55° - 60°</b></p>  <p>Page K.09</p>	<p><b>UI 80</b></p>  <p>Page K.10</p>			

Boring bars

<p><b>ISO 8 75°</b></p>  <p>Page K.11</p>	<p><b>ISO 9 90°</b></p>  <p>Page K.11</p>	<p><b>UI 40 55° - 60°</b></p>  <p>Page K.12</p>	<p><b>UI 50 90°</b></p>  <p>Page K.12</p>	<p><b>C6 60°</b></p>  <p>Page K.13</p>	<p><b>D6 90°</b></p>  <p>Page K.13</p>
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Inserts

General turning

Aluminium wheel turning

Automatic lathes

Ceramic tools

Parting and grooving

Threading

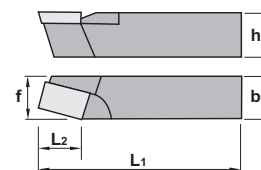
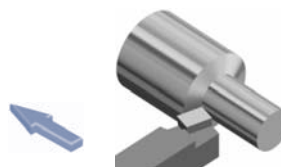
Drills

Cartridges

Brazed tools



**Characteristics:**  
Brazed toolholder  
DIN 4971



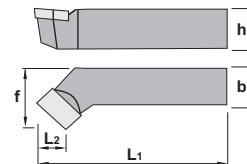
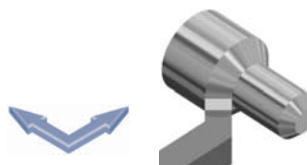
## ISO 1 75°

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

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ISO1 1616 R	16	16	110	11	10	ABC 12	0,200	●	●
ISO1 1616 L	16	16	110	11	10	ABC 12	0,200	●	●
ISO1 2020 R	20	20	125	15	12	ABC 16	0,350	●	●
ISO1 2020 L	20	20	125	15	12	ABC 16	0,350	●	●
ISO1 2525 R	25	25	140	18	15	ABC 20	0,650	●	●
ISO1 2525 L	25	25	140	18	15	ABC 20	0,650	●	●



**Characteristics:**  
Brazed toolholder  
DIN 4972



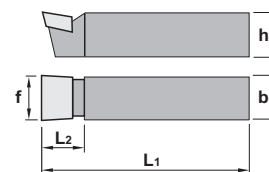
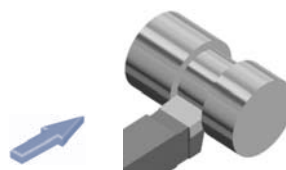
## ISO 2 45°

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

Ref.	h	b	L	L2	f	Insert size	Kg	KM15	PM25
ISO2 1010 R	10	10	90	8	14	C8	0,070	○	○
ISO2 1010 L	10	10	90	8	14	C8	0,070	○	○
ISO2 1212 R	12	12	100	10	17	ABC10	0,100	○	●
ISO2 1212 L	12	12	100	10	17	ABC10	0,100	○	●
ISO2 1616 R	16	16	110	12	22	ABC12	0,200	●	●
ISO2 1616 L	16	16	110	12	22	ABC12	0,200	●	●
ISO2 2020 R	20	20	125	16	28	ABC16	0,400	●	●
ISO2 2020 L	20	20	125	16	28	ABC16	0,400	●	●
ISO2 2525 R	25	25	140	20	35	ABC20	0,650	●	●
ISO2 2525 L	25	25	140	20	35	ABC20	0,650	●	●
ISO2 3232 R	32	32	170	25	44	ABC25	1,300	●	●
ISO2 3232 L	32	32	170	25	44	ABC25	1,300	●	●



**Characteristics:**  
Brazed toolholder  
DIN 4976



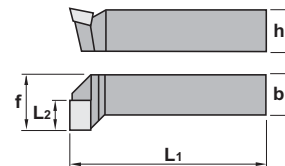
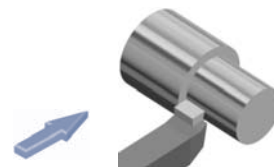
## ISO 4 90°

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

Ref.		h	b	L	L2	f	Insert size	Kg	KM15	PM25
	ISO4 1010 N	10	10	90	10	10	ABC10	0,070	○	○
	ISO4 1212 N	12	12	100	12	12	ABC12	0,100	○	○
	ISO4 1616 N	16	16	110	16	16	ABC16	0,250	○	○
	ISO4 2020 N	20	20	125	20	20	ABC20	0,400	○	○
	ISO4 2525 N	25	25	140	25	25	ABC25	0,650	○	○



**Characteristics:**  
Brazed toolholder  
DIN 4977



## ISO 5 90°

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

Ref.		h	b	L	L2	f	Insert size	Kg	KM15	PM25
	ISO5 1616 R	16	16	110	12	24	ABC12	0,200	○	○
	ISO5 1616 L	16	16	110	12	24	ABC12	0,200	○	○
	ISO5 2020 R	20	20	125	16	30	ABC16	0,400	○	○
	ISO5 2020 L	20	20	125	16	30	ABC16	0,400	○	○



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Threading

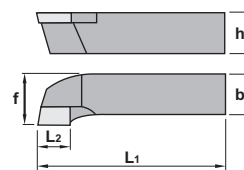
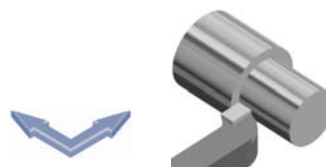
Drills

Cartridges

Brazed tools



**Characteristics:**  
Brazed toolholder  
DIN 4980



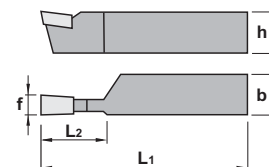
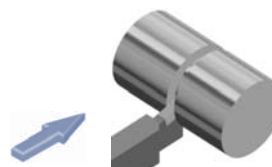
## ISO 6 90°

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

Ref.		h	b	L	L2	f	Insert size	Kg	KM15	PM25
ISO6 1010 R	ISO6 1010 R	10	10	90	8	14	C8	0,070	○	○
	ISO6 1010 L	10	10	90	8	14	C8	0,070	○	○
ISO6 1212 R	ISO6 1212 R	12	12	100	10	17	ABC10	0,100	○	●
	ISO6 1212 L	12	12	100	10	17	ABC10	0,100	○	●
ISO6 1616 R	ISO6 1616 R	16	16	110	12	22	ABC12	0,200	●	●
	ISO6 1616 L	16	16	110	12	22	ABC12	0,200	●	●
ISO6 2020 R	ISO6 2020 R	20	20	125	16	28	ABC16	0,400	●	●
	ISO6 2020 L	20	20	125	16	28	ABC16	0,400	●	●
ISO6 2525 R	ISO6 2525 R	25	25	140	20	35	ABC20	0,650	●	●
	ISO6 2525 L	25	25	140	20	35	ABC20	0,650	●	●
ISO6 3232 R	ISO6 3232 R	32	32	170	25	44	ABC25	1,250	●	●
	ISO6 3232 L	32	32	170	25	44	ABC25	1,250	●	●



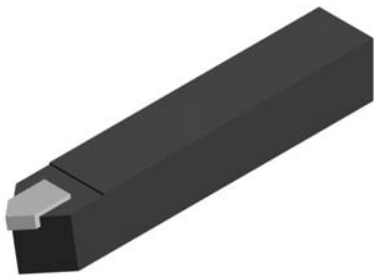
**Characteristics:**  
Brazed toolholder  
DIN 4981



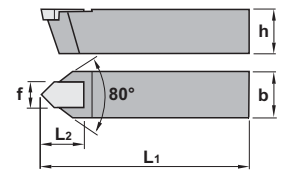
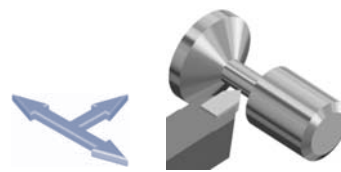
## ISO 7 90°

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

Ref.		h	b	L	L2	f	Insert size	Kg	KM15	PM25
ISO7 1208 R	ISO7 1208 R	12	08	100	12	3	D3	0,070	○	●
	ISO7 1208 L	12	08	100	12	3	D3	0,070	○	●
ISO7 1610 R	ISO7 1610 R	16	10	110	14	4	D4	0,150	●	●
	ISO7 1610 L	16	10	110	14	4	D4	0,150	●	●
ISO7 2012 R	ISO7 2012 R	20	12	125	16	5	D5	0,200	●	●
	ISO7 2012 L	20	12	125	16	5	D5	0,200	●	●
ISO7 2516 R	ISO7 2516 R	25	16	140	20	6	D6	0,400	●	●
	ISO7 2516 L	25	16	140	20	6	D6	0,400	●	●
ISO7 3220 R	ISO7 3220 R	32	20	170	25	8	D8	0,750	●	●
	ISO7 3220 L	32	20	170	25	8	D8	0,750	●	●
ISO7 4025 R	ISO7 4025 R	40	25	200	32	10	D10	1,350	●	●
	ISO7 4025 L	40	25	200	32	10	D10	1,350	●	●



**Characteristics:**  
Brazed toolholder  
DIN 4975



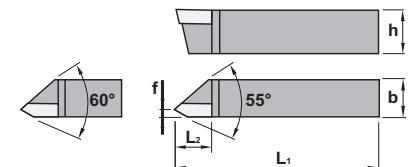
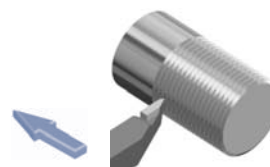
Normally available for immediate delivery ●  
Only available in a limited quantity ○

## ISO 351 80°

Ref.		h	b	L	L2	f	Insert size	Kg	KM15	PM25
ISO351	ISO351 1212 N	12	12	100	10	5	E5	0,100	○	○
	ISO351 1616 N	16	16	110	12	6	E6	0,200	○	○
	ISO351 2012 N	20	12	125	12	6	E6	0,200	○	○
	ISO351 2020 N	20	20	125	16	8	E8	0,400	○	○
	ISO351 2516 N	25	16	140	16	8	E8	0,400	○	○
	ISO351 2525 N	25	25	140	18	10	E10	0,650	○	○



**Characteristics:**  
Brazed toolholder  
ISO 352



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

## UI 30 <sup>55°</sup>/<sub>60°</sub>

Ref.		h	b	L	L2	f	Insert size	Kg	KM15	PM25
UI 30 55°	UI 30 55° 1212 R	12	12	100	12	1,8	FIL 3,5	0,100	○	○
	UI 30 55° 1616 R	16	16	110	14	2,0	FIL 4	0,200	○	●
	UI 30 55° 2020 R	20	20	125	16	2,5	FIL 5	0,350	○	●
	UI 30 55° 2525 R	25	25	140	18	3,0	FIL 6	0,600	○	●
UI 30 60°	UI 30 60° 1212 R	12	12	100	12	1,8	FIL 3,5	0,100	●	●
	UI 30 60° 1616 R	16	16	110	14	2,0	FIL 4	0,200	●	●
	UI 30 60° 2020 R	20	20	125	16	2,5	FIL 5	0,350	●	●
	UI 30 60° 2525 R	25	25	140	18	3,0	FIL 6	0,600	●	●

Inserts

General turning

Aluminium wheel turning

Automatic lathes

Ceramic tools

Parting and grooving

Threading

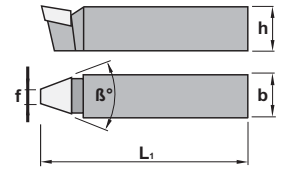
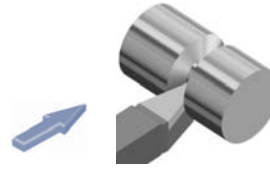
Drills

Cartridges

Brazed tools



**Characteristics:**  
Brazed toolholder  
DIN 2217



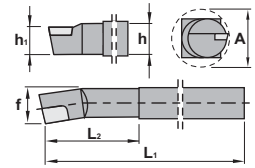
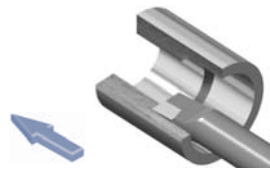
# UI 80

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

Ref.		h	b	L	L2	β°	Insert size	Kg	KM15	PM25
	<b>UI 80 34° 2516</b>	25	16	170	34°	4,2	TR16-3..	0,500		○
	<b>UI 80 36° 2516</b>	25	16	170	36°	3,7	TR16-3..	0,500		○
	<b>UI 80 38° 2516</b>	25	16	170	38°	3,1	TR16-3..	0,500	○	○
	<b>UI 80 34° 3220</b>	32	20	200	34°	6,2	TR20-3..	0,950	○	○
	<b>UI 80 36° 3220</b>	32	20	200	36°	5,5	TR20-3..	0,950	○	○
	<b>UI 80 38° 3220</b>	32	20	200	38°	4,9	TR20-3..	0,950	○	○



**Characteristics:**  
Brazed boring bar  
UNI 4110



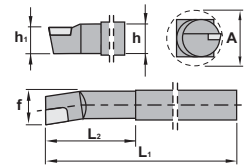
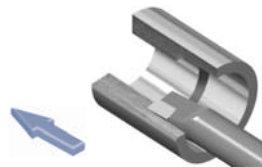
Normally available for immediate delivery ●  
Only available in a limited quantity ○

## ISO 8 75°

Ref.		h=b	h1	L	b2	L2	f	A	Insert size	Kg	KM15	PM25
ISO8 1010 R		10	8,0	150	3,8	50	14	18	C7	0,100	○	○
ISO8 1212 R		12	9,6	180	4,8	63	17	21	C8	0,200	○	○
ISO8 1616 R		16	12,8	210	5,7	80	22	27	ABC 10	0,400	○	○
ISO8 2020 R		20	16,0	250	7,6	100	28	34	ABC 12	0,700	○	○
ISO8 2525 R		25	20,0	300	9,5	125	35	43	ABC 16	1,300	○	○



**Characteristics:**  
Brazed boring bar  
UNI 4111



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

## ISO 9 90°

Ref.		h=b	h1	L	b2	L2	f	A	Insert size	Kg	KM15	PM25
ISO9 0808 R		8	6,4	125	3,1	40	11	14	C7	0,060	●	●
ISO9 1010 R		10	8,0	150	4,0	50	14	18	C7	0,100	●	●
ISO9 1212 R		12	9,6	180	5,1	63	17	21	C8	0,250	●	●
ISO9 1616 R		16	12,8	210	6,2	80	22	27	ABC 10	0,400	●	●
ISO9 2020 R		20	16,0	250	8,3	100	28	34	ABC 12	0,700	●	●
ISO9 2525 R		25	20,0	300	10,0	125	35	43	ABC 16	1,300	●	●
ISO9 3232 R		32	25,6	355	12,0	160	44	52	ABC 20	2,500	●	●

Inserts

General turning

Aluminium wheel turning

Automatic lathes

Ceramic tools

Parting and grooving

Threading

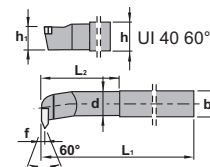
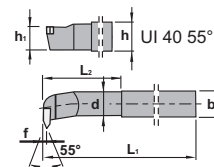
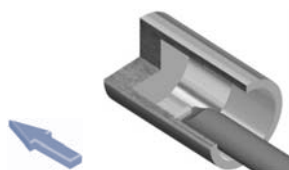
Drills

Cartridges

Brazed tools



**Characteristics:**  
Brazed boring bar  
ISO 353



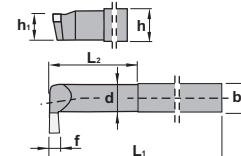
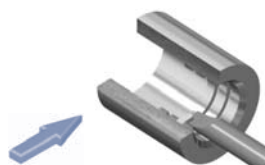
## UI 40 55°/60°

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

Ref.	d	h=b	L	L2	f	Insert size	Kg	KM15	PM25
UI 40 55° 1010 R	10	10	140	52	1,8	FIL 3,5	0,070	○	○
UI 40 55° 1212 R	12	12	160	56	1,8	FIL 3,5	0,200	○	○
UI 40 55° 1616 R	16	16	180	63	2,0	FIL 4	0,250	○	○
UI 40 55° 2020 R	20	20	210	80	2,0	FIL 4	0,450	○	○
UI 40 60° 1010 R	10	10	140	52	1,8	FIL 3,5	0,070	●	●
UI 40 60° 1212 R	12	12	160	56	1,8	FIL 3,5	0,200	●	●
UI 40 60° 1616 R	16	16	180	63	2,0	FIL 4	0,250	●	●
UI 40 60° 2020 R	20	20	210	80	2,0	FIL 4	0,450	●	●
UI 40 60° 2525 R	25	25	250	100	2,5	FIL 5	0,750	●	●



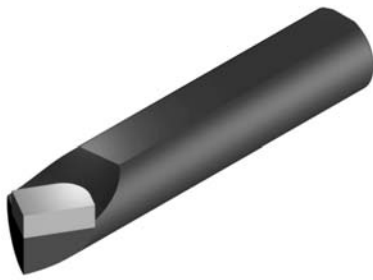
**Characteristics:**  
Brazed boring bar  
ISO 354



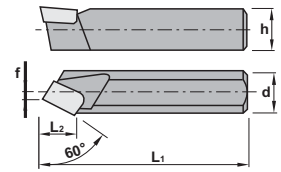
## UI 50 90°

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

Ref.	d	h=b	L	L2	f	Insert size	Kg	KM15	PM25
UI 50 90° 1010 R	10	10	140	52	3	D3	0,100	●	●
UI 50 90° 1212 R	12	12	160	56	4	D4	0,200	●	●
UI 50 90° 1616 R	16	16	180	63	5	D5	0,350	●	●
UI 50 90° 2020 R	20	20	210	80	6	D6	0,700	●	●
UI 50 90° 2525 R	25	25	250	100	8	D8	1,250	●	●



**Characteristics:**  
Brazed boring bar

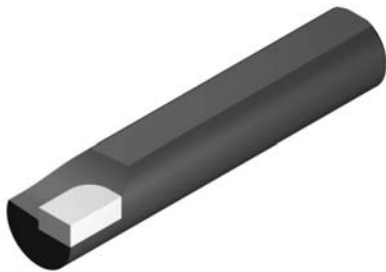


## C6 60°

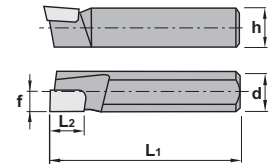
Normally available for immediate delivery ●

Only available in a limited quantity ○

Ref.	d	h=b	L	L2	f	Insert size	Kg	KM15	PM25
C6-08	8	7,5	30	6,5	0	C7	0,010		●
C6-10	10	9,0	50	6,5	0	C8	0,025		●



**Characteristics:**  
Brazed boring bar



## D6 90°

Normally available for immediate delivery ●

Only available in a limited quantity ○

Ref.	d	h	L	L2	f	Insert size	Kg	KM15	PM25
D6-08	8	7,0	30	7,0	1,9	C7	0,010		●
D6-10	10	8,5	50	8,0	4,6	C8	0,025		●
D6-12	12	10,5	60	10,0	5,6	ABC10	0,045		●
D6-16	16	14,0	90	12,0	7,6	ABC12	0,150		●