

KomPass TURNING



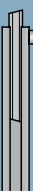
KomPass Turning – BENEFITS for you



Competence in TURNING

Innovative solutions and tooling concepts for bore machining make KOMET a worldwide market leader. Our developments for drilling, reaming, milling and turning make a significant contribution to our customers' success.

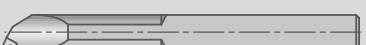
You know us as a manufacturer of premium tools and you are familiar with the ideas behind our solutions. We can also offer you an extensive support network and an enormous range of services.

	Internal machining Tools with indexable inserts	8 – 22	1 
	Internal machining HSS and solid carbide tools UniTurn®	23 – 51	2 
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Programme summary indexable inserts tools

1 Internal machining

Boring bar / turning tool

W01/W29 92°		Ø 6 Ø 8 Ø 10	► 8 – 9
W01/W29 93°		Ø 12 Ø 16 Ø 20 Ø 25 Ø 32	► 10 – 11
W60/W79 93°		Ø 10 Ø 12 Ø 16 Ø 20 Ø 25 Ø 32	► 12 – 13
W60/W79 107°30'		Ø 10 Ø 12 Ø 16 Ø 20 Ø 25 Ø 32	► 14 – 15
W30/W57 92°		Ø 8 Ø 10 Ø 12 Ø 15 Ø 16 Ø 18 Ø 20	► 16 – 17
W30/W57 100°		Ø 8 Ø 10 Ø 12 Ø 16 Ø 20	► 18 – 19
W30/W57 90°		Ø 8 Ø 16	► 20
		Ø 16	► 21
W01/W29 91°		□ 16 □ 20 □ 25 □ 32 □ 40	► 22

3 External machining

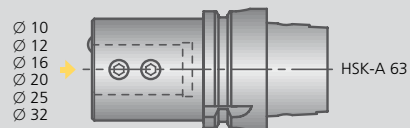
Turning tool

► 52 W01/W29 93°	► 53 W01/W29 90°	► 54 W01/W29 45°
		
□ 10 □ 12 □ 16 □ 20 □ 25	□ 8 □ 10 □ 12 □ 16 □ 20 □ 25 □ 32	□ 8 □ 10 □ 12 □ 16 □ 20 □ 25
► 55 W60/W79 93°	► 56 W04 90°	► 57 W04 90°
		
□ 8 □ 10 □ 12 □ 16 □ 20 □ 25	□ 10	□ 10 □ 12

6 Adaptors

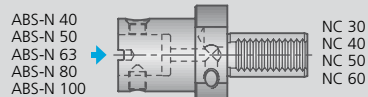
Adaptor

► 210

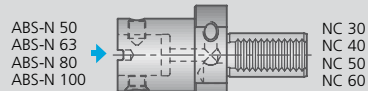


VDI Adaptor DIN 69880

NC..10 ► 212

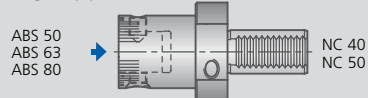


NC..20 ► 213



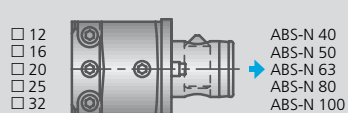
VDI Torsional dampener

NC..20 ► 214



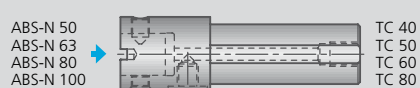
Adaptor

► 211



TC Adaptor

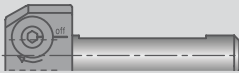
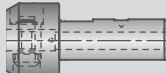
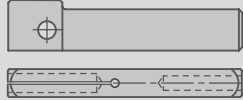
► 215



Key

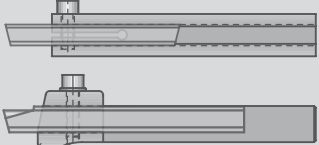
- ABS® connection
- ABS® N connection
- cylindrical connection

2 Internal machining

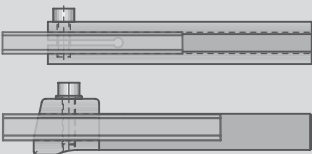
UniTurn® Clamping holder and adaptor ▶ 38									
Copying tool $\varnothing$ 3 – 8 mm ▶ 40	Recessing tool $\varnothing$ 3 – 8 mm ▶ 42	Threading tool $\varnothing$ 5 – 8 mm ▶ 50	Boring tool $\varnothing$ 3 – 8 mm ▶ 44	Boring tool with CBN $\varnothing$ 2,7 – 7,5 mm ▶ 46					
Boring tool $\varnothing$ 1,0 – 1,7 mm ▶ 24									
Boring tool Form F / G $\varnothing$ 2,5 – 14 mm ▶ 25 – 26	Recessing tool Form H $\varnothing$ 3 – 14 mm ▶ 27	Threading tool 60° $\varnothing$ 3 – 14 mm ▶ 28	Threading tool 55° $\varnothing$ 7 – 14 mm ▶ 29	Boring toolholder ▶ 23					
Boring tool Form F / G $\varnothing$ 16 – 30 mm ▶ 30	Recessing tool Form H $\varnothing$ 16 – 30 mm ▶ 30	Threading tool 60° / 55° $\varnothing$ 16 – 30 mm ▶ 31	Threading tool acme thread $\varnothing$ 16 – 30 mm ▶ 31	Boring toolholder and boring bar ▶ 30					

4 External machining

Parting-off
▶ 58 – 59



Grooving
▶ 60



5 ISO Indexable inserts

▶ 104 ISO PCD/CVD-D Indexable inserts

- Counterboring and fine boring tools
- Inside and outside turning tools
- For non-ferrous metals, plastics, CFRP, GFRP, carbide, graphite
- Ultra-hard PCD and CVD-D diamond cutting material
- 3D chip breakers in finishing and roughing design
- Cutting edge and chip breakers manufactured with the latest laser technology

▶ 164 ISO CBN Indexable inserts

- Large selection of cutting materials for cost-effective machining of hardened steels, cast iron, high-temperature alloys and sinter metals
- Diverse portfolio of shapes and sizes
- Double-sided model with up to eight insert corners for high efficiency
- Unique cutting material concept for easy and application-specific process optimisation (for custom solutions)



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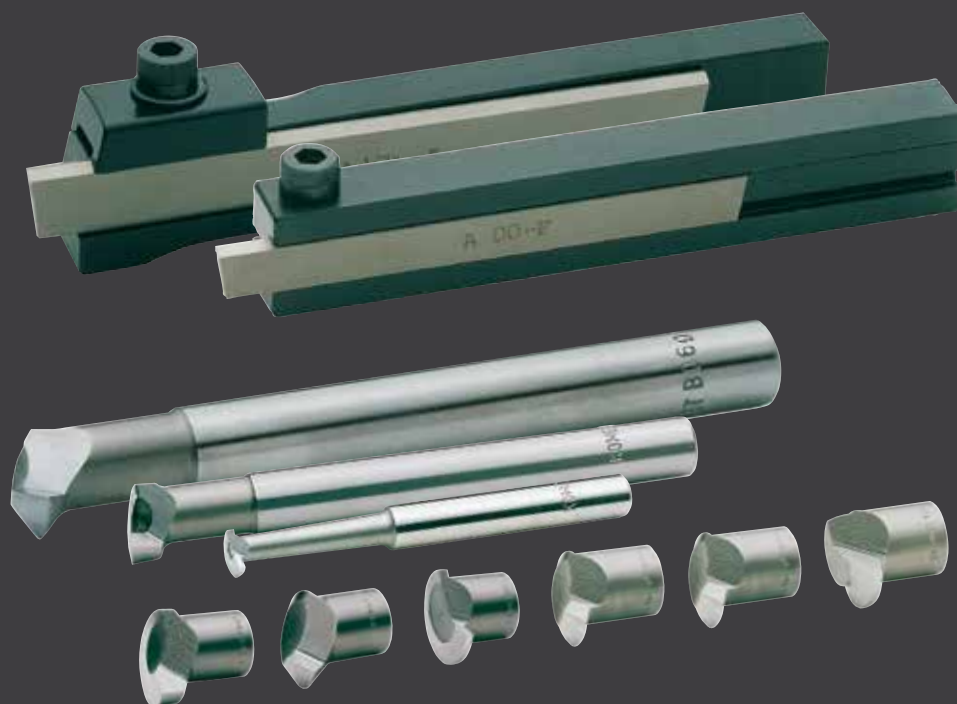
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KOMET® Turning tools for external and internal machining



KOMET® turning tools are extremely versatile.

Not only can our turning tools be used for conventional lathes, turret lathes, automatic lathes and custom machines, they can also be used for boring heads and milling machines.

They are equally at home with both external and internal machining.

Their simple design, combined with ultimate precision, falls into line with KOMET®'s noted tradition of excellence – qualities which have been much sought-after for decades across the globe.

Satisfaction across generations of customers.

KOMET UniTurn®

The main characteristic of the KOMET UniTurn® turning programme is the extremely rigid connection between the turning tool and the clamping holder. An eccentric clamping device in the holder guarantees that tool change times are extremely short and the cutting edge is very accurately positioned.

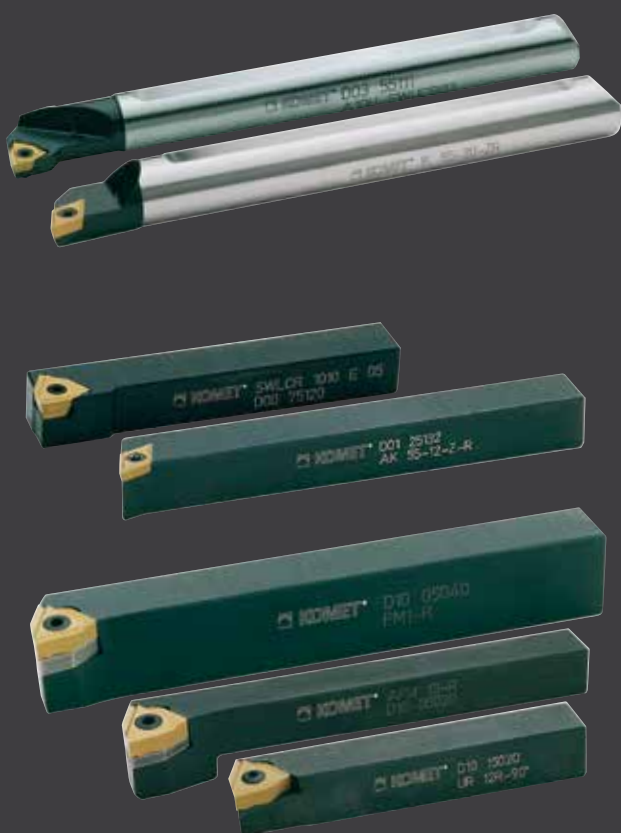
The flat insertion surface on the shaft of the turning tool ensures a correctly insert in the right position.

Two coolant slots located axially in the holder provide the best possible supply of coolant onto the cutting edge both for right-hand and left-hand boring bars. This prevents any weakening of the boring bar caused by notching.



Indexable inserts tools

1 Internal machining	Page
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HSS and solid carbide tools

2 Internal machining	Page
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Boring tool type K-F Ø 0,5 - 2 mm	24
Boring tool form F Ø 2,5 - 14 mm	25
Boring tool form G Ø 2,5 - 14 mm	26
Recessing tool form H Ø 3 - 14 mm	27
Threading tool 60° Ø 3 - 14 mm	28
Threading tool 55° Ø 7 - 14 mm	29
Holder for detachable ...	30
Boring tool form F Ø 16 - 30 mm	30
Boring tool form G Ø 16 - 30 mm	30
Recessing tool form H Ø 16 - 30 mm	30
Threading tool 60° Ø 16 - 30 mm	31
Threading tool 55° Ø 16 - 30 mm	31
Threading tool for acme thread	31

2 KOMET UniTurn®	Page
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Adaptor with cylindrical connection	38
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3 External machining	Page
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KOMET SERVICE® – Chapter 7
The KOMET SERVICE® TOOL lifeBoxicon
describes tools that are available for the
high quality cost-efficient refurbishment
of tools.



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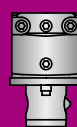
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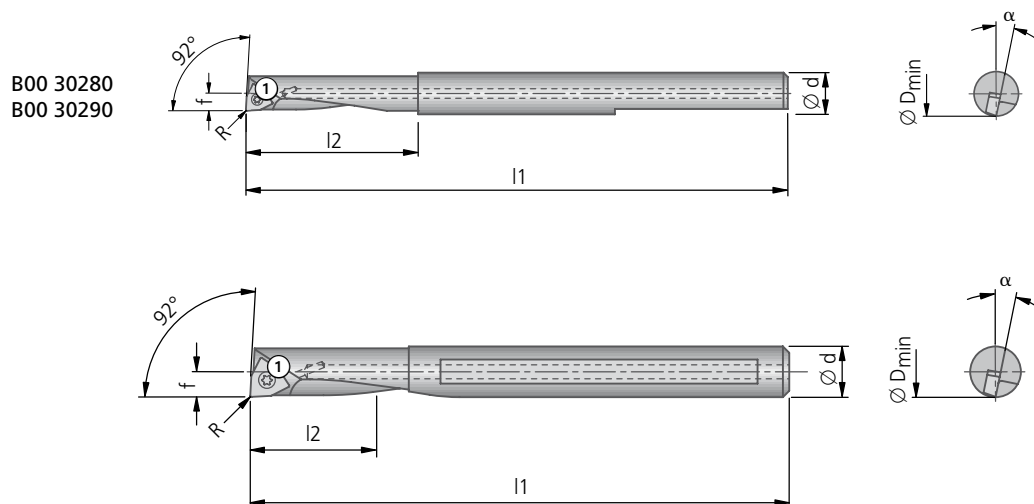
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KOMET® – Internal machining

Boring bar $\kappa = 92^\circ$

- for insert W00, W01 / W29
- R.H. boring bar as shown with left or neutral insert
- L.H. boring bar in mirror image with right or neutral insert



κ = 92°										Insert			
D min	Order No.	Cutting form	d	l1	Working length l2	f	for R	Orien- tation angle α		Clamping screw ①  Order No. Article	W00 W01 L.H.  Size ▼▼	W00 W01 R.H.  Size ▼▼	W29 neutral  Size ▼▼
5,6	B00 30280	R.H.	6	65	22		0,1	10°17'		N00 56011 S/M1,8x2,9-5IP 0,38 Nm	W00 04...		
6,9	B00 30290	R.H.	6	80	24		0,1	10°17'		N00 56011 S/M1,8x2,9-5IP 0,38 Nm	W00 04...		
5,6	B00 30300	L.H.	6	60	15	2,80	0,1	10°15'	0,03	N00 56011 S/M1,8x2,9-5IP 0,38 Nm		W00 04...	
	B00 35300	R.H.									W00 04...		
6,9	B00 30311	L.H.	8	70	20	3,45	0,2	15°	0,06	N00 56041 S/M2x4,3-6IP 0,62 Nm		W01 10...	W29 10...
	B00 35311	R.H.									W01 10...		
7,9	B00 30321	L.H.	8	85	25	3,95	0,2	11°30'	0,06	N00 56041 S/M2x4,3-6IP 0,62 Nm		W01 10...	W29 10...
	B00 35321	R.H.									W01 10...		
9,9	B00 30331	L.H.	10	95	30	4,95	0,2	8°	0,08	N00 56041 S/M2x4,3-6IP 0,62 Nm		W01 10...	W29 10...
	B00 35331	R.H.									W01 10...		

For further details on inserts see chapter 5.

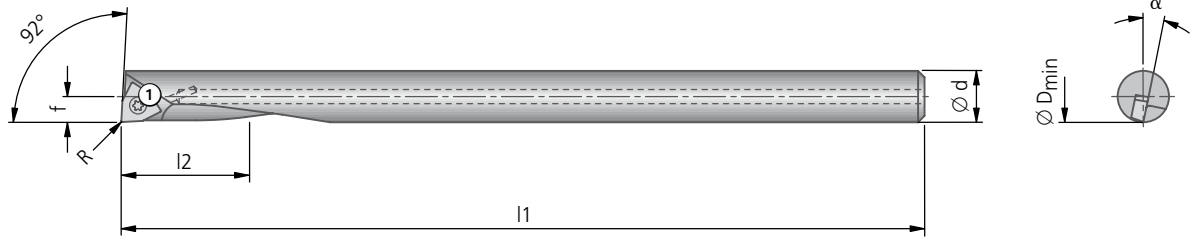
Supply includes: Boring bar with clamping screw ①.

Please order insert separately. Screwdriver see chapter 7.

KOMET® – Internal machining

Boring bar $\alpha = 92^\circ$ for fine machining only

- carbide or heavy-duty metal (5,6 mm dia. and 6,9 mm dia.) ■
- for insert W00, W01 / W29 ■
- R.H. boring bar as shown with left or neutral insert ■
- L.H. boring bar in mirror image with right or neutral insert ■



$\alpha = 92^\circ$										Insert			
$\varnothing$ D min	Order No.	Cutting form	$\varnothing$ d	l1	Working length l2	f	for R	Orien- tation angle α		Clamping screw ①	W00 W01 L.H.	W00 W01 R.H.	W29 neutral
													
										Order No. Article	Size▼▼	Size▼▼	Size▼▼
5,6	B00 35400	R.H.	6	100	50	2,80	0,1	10°15'	0,06	N00 56011 S/M1,8x2,9-5IP 0,38 Nm	W00 04...		
6,9	B00 30411	L.H.	8	125	60	3,45	0,2	15°	0,11	N00 56041		W01 10...	W29 10...
	B00 35411	R.H.								S/M2x4,3-6IP 0,62 Nm	W01 10...		
7,9	B00 30421	L.H.	8	125	–	4,30	0,2	11°30'	0,11	N00 56041		W01 10...	W29 10...
	B00 35421	R.H.								S/M2x4,3-6IP 0,62 Nm	W01 10...		
9,9	B00 30431	L.H.	10	150	–	5,30	0,2	8°	0,19	N00 56041		W01 10...	W29 10...
	B00 35431	R.H.								S/M2x4,3-6IP 0 62 Nm	W01 10...		

For further details on inserts see chapter 5.

Supply includes: Boring bar with clamping screw ①.

Please order insert separately. Screwdriver see chapter 7.

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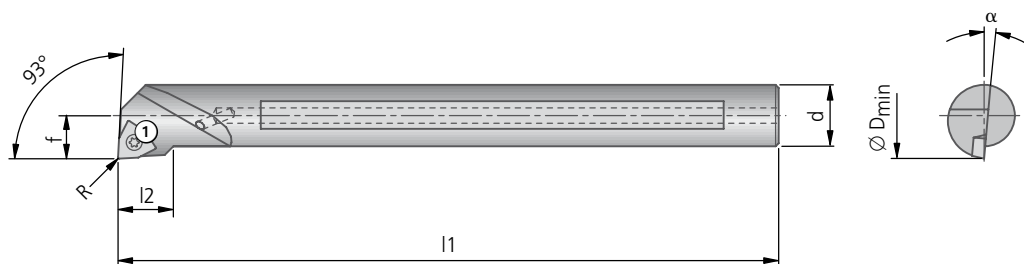
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KOMET® – Internal machining

Turning tool $\kappa = 93^\circ$

- for insert W01 / W29
- R.H. turning tool as shown with left or neutral insert
- L.H. turning tool in mirror image with right or neutral insert



$\kappa = 93^\circ$										Insert		
Ø D min	Order No. Article	Cutting form	Ø d	l1	l2	f	for R	Orien- tation angle α	Clamping screw ① Order No. Article	W01 L.H. Size ▼▼	W01 R.H. Size ▼▼	W01 W29 neutral Size ▼▼
16	D03 50120 A12K-SWUCL-05	L.H.	12	125	14	9	0,4	7°	0,14 S/M2,5x7,2-8IP 1,28 Nm		W01 24...	W01 24... W29 24...
	D03 55120 A12K-SWUCR-05	R.H.								W01 24...		
20	D03 50130 A16M-SWUCL-05	L.H.	16	150	14	11	0,4	5°30'	0,25 S/M2,5x7,2-8IP 1,28 Nm		W01 24...	W01 24... W29 24...
	D03 55130 A16M-SWUCR-05	R.H.								W01 24...		
25	D03 50140 A20Q-SWUCL-06	L.H.	20	180	18	13	0,4	4°	0,46 S/M3,5x7,3-10IP 2,8 Nm		W01 34...	W01 34... W29 34...
	D03 55140 A20Q-SWUCR-06	R.H.								W01 34...		
32	D03 50150 A25R-SWUCL-06	L.H.	25	200	18	17	0,4	2°	0,76 S/M3,5x7,3-10IP 2,8 Nm		W01 34...	W01 34... W29 34...
	D03 55150 A25R-SWUCR-06	R.H.								W01 34...		
40	D03 50160 A32S-SWUCL-07	L.H.	32	250	25	22	0,4	1°30'	1,53 S/M4,5x9-15IP 6,25 Nm		W01 42...	W01 42... W29 42...
	D03 55160 A32S-SWUCR-07	R.H.								W01 42...		

For further details on inserts see chapter 5.

Supply includes: Turning tool with clamping screw ①.
Please order insert separately. Screwdriver see chapter 7.

KOMET® – Internal machining

Turning tool $\kappa = 93^\circ$ for fine machining only

carbide metal ■

for insert W01 / W29 ■

L.H. turning tool in mirror image with right or neutral insert ■

1



2



3



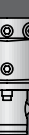
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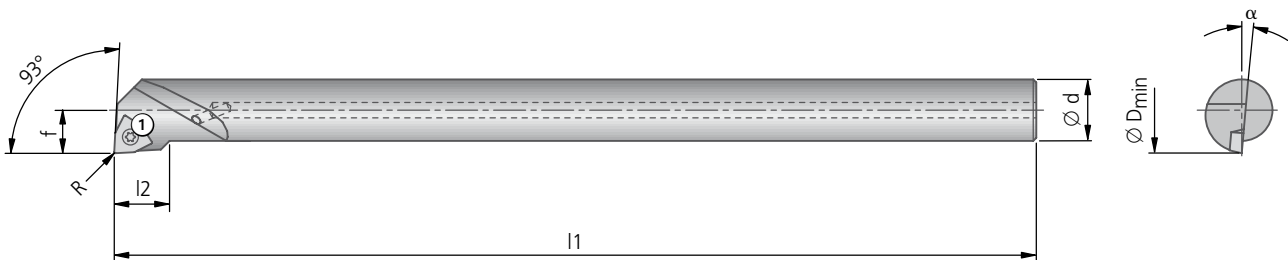
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$\kappa = 93^\circ$										Insert	
$\varnothing D_{min}$	Order No. Article	Cutting form	$\varnothing d$	l_1	l_2	f	for R	Orien- tation angle α	Clamping screw ①  Order No. Article	W01 R.H.  Size ▼▼	W01 W29 neutral  Size ▼▼
20	D03 50030 E16R-SWUCL-05	L.H.	16	200	14	11	0,4	5°30'	0,56 S/M2,5x7,2-8IP 1,28 Nm	W01 24...	W01 24... W29 24...

For further details on inserts see chapter 5.

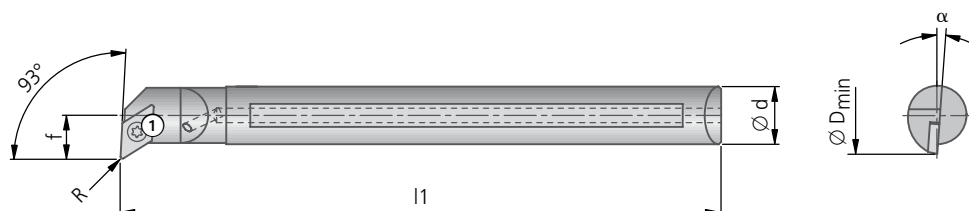
Supply includes: Turning tool with clamping screw ①.

Please order insert separately. Screwdriver see chapter 7.

KOMET® – Internal machining

Turning tool $\kappa = 93^\circ$

- for insert W60 / W79
- R.H. turning tool as shown with left or neutral insert
- L.H. turning tool in mirror image with right or neutral insert



$\kappa = 93^\circ$										Insert		
Ø D min	Order No. Article	Cutting form	Ø d	l1	f	for R	Orien- tation angle α	kg	Clamping screw ① Order No. Article	W60 L.H. Size▼▼	W60 R.H. Size▼▼	W60 W79 neutral Size▼▼
13	D02 10122 IK55-10U L	L.H.	10	100	6,5	0,4	6°	0,09	N00 56651 S2560-8IP 1,28 Nm		W60 18...	W60 18... W79 18...
	D02 15122 IK55-10U R	R.H.								W60 18...		
16	D02 10133 IK55-12U L	L.H.	12	125	9	0,4	5°	0,13	N00 56651 S2560-8IP 1,28 Nm		W60 18...	W60 18... W79 18...
	D02 15133 IK55-12U R	R.H.								W60 18...		
20	D02 10143 IK55-16U L	L.H.	16	150	11	0,4	3°30'	0,25	N00 56651 S2560-8IP 1,28 Nm		W60 18...	W60 18... W79 18...
	D02 15143 IK55-16U R	R.H.								W60 18...		
25	D02 10153 IK55-20U L	L.H.	20	180	13	0,8	4°	0,49	N00 56751 S3574-10IP 2,8 Nm		W60 32...	W60 32... W79 32...
	D02 15153 IK55-20U R	R.H.								W60 32...		
32	D02 10163 IK55-25U L	L.H.	25	200	17	0,8	2°	0,78	N00 56751 S3574-10IP 2,8 Nm		W60 32...	W60 32... W79 32...
	D02 15163 IK55-25U R	R.H.								W60 32...		
40	D02 10173 IK55-32U L	L.H.	32	250	22	0,8	0°	1,51	N00 56751 S3574-10IP 2,8 Nm		W60 32...	W60 32... W79 32...
	D02 15173 IK55-32U R	R.H.								W60 32...		

For further details on inserts see chapter 5.

Supply includes: Turning tool with clamping screw ①.
Please order insert separately. Screwdriver see chapter 7.

KOMET® – Internal machining

Turning tool $\kappa = 93^\circ$ for fine machining only

carbide metal ■

for insert W60 / W79 ■

R.H. turning tool as shown with left or neutral insert ■

L.H. turning tool in mirror image with right or neutral insert ■

1



2



3



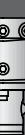
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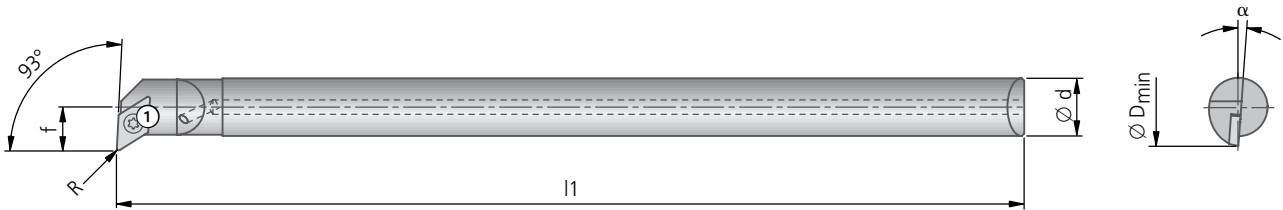
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κ = 93°									Insert			
Ø D min	Order No. Article	Cutting form	Ø d	l1	f	for R	Orien- tation angle α	 Clamping screw ①  Order No. Article	 W60 L.H. Size ▼▼	 W60 R.H. Size ▼▼	 W60 W79 neutral Size ▼▼	
13	D02 10571 E10M-SDUCL-07	L.H.	10	150	6,5	0,4	6°	0,19	N00 56651 S2560-8IP 1,28 Nm		W60 18...	W60 18... W79 18...
	D02 15571 E10M-SDUCR-07	R.H.								W60 18...		
16	D02 10581 E12Q-SDUCL-07	L.H.	12	180	9	0,4	5°	0,30	N00 56651 S2560-8IP 1,28 Nm		W60 18...	W60 18... W79 18...
20	D02 10591 E16R-SDUCL-07	L.H.	16	200	11	0,4	3°30'	0,55	N00 56651 S2560-8IP 1,28 Nm		W60 18...	W60 18... W79 18...
25	D02 10601 E20S-SDUCL-11	L.H.	20	250	13	0,8	4°	1,09	N00 56751 S3574-10IP 2,8 Nm		W60 32...	W60 32... W79 32...

For further details on inserts see chapter 5.

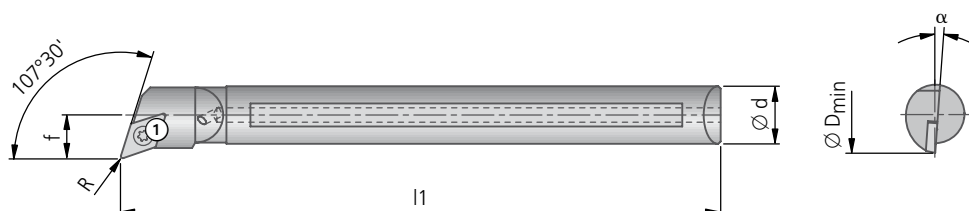
Supply includes: Turning tool with clamping screw ①.

Please order insert separately. Screwdriver see chapter 7.

KOMET® – Internal machining

Turning tool $\kappa = 107^\circ 30'$

- for insert W60 / W79
- R.H. turning tool as shown with left or neutral insert
- L.H. turning tool in mirror image with right or neutral insert



$\kappa = 107^\circ 30'$										Insert		
Ø D min	Order No. Article	Cutting form	Ø d	l1	f	for R	Orien- tation angle α	kg	Clamping screw ① Order No. Article	W60 L.H.  Size▼▼	W60 R.H.  Size▼▼	W60 W79 neutral  Size▼▼
13	D02 10023 IK55-10Z L	L.H.	10	100	6,5	0,4	6°	0,09	N00 56651 S2560-8IP 1,28 Nm		W60 18...	W60 18... W79 18...
	D02 15023 IK55-10Z R	R.H.								W60 18...		
16	D02 10033 IK55-12Z L	L.H.	12	125	9	0,4	5°	0,13	N00 56651 S2560-8IP 1,28 Nm		W60 18...	W60 18... W79 18...
	D02 15033 IK55-12Z R	R.H.								W60 18...		
20	D02 10043 IK55-16Z L	L.H.	16	150	11	0,4	3°30'	0,25	N00 56651 S2560-8IP 1,28 Nm		W60 18...	W60 18... W79 18...
	D02 15043 IK55-16Z R	R.H.								W60 18...		
25	D02 10053 IK55-20Z L	L.H.	20	180	13	0,8	4°	0,49	N00 56751 S3574-10IP 2,8 Nm		W60 32...	W60 32... W79 32...
	D02 15053 IK55-20Z R	R.H.								W60 32...		
32	D02 10063 IK55-25Z L	L.H.	25	200	17	0,8	2°	0,78	N00 56751 S3574-10IP 2,8 Nm		W60 32...	W60 32... W79 32...
	D02 15063 IK55-25Z R	R.H.								W60 32...		
40	D02 15073 IK55-32Z R	R.H.	32	250	22	0,8	0°	1,51	N00 56751 S3574-10IP 2,8 Nm	W60 32...		W60 32... W79 32...

For further details on inserts see chapter 5.

Supply includes: Turning tool with clamping screw ①.
Please order insert separately. Screwdriver see chapter 7.

KOMET® – Internal machining

Turning tool $\kappa = 107^\circ 30'$ for fine machining only

carbide metal ■

for insert W60 / W79 ■

R.H. turning tool as shown with left or neutral insert ■

L.H. turning tool in mirror image with right or neutral insert ■

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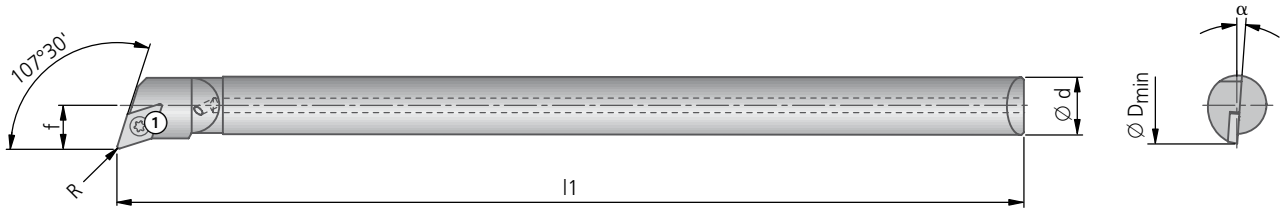
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α = 107°30'										Insert		
Ø D min	Order No. Article	Cutting form	Ø d	l1	f	for R	Orien- tation angle α		Clamping screw ①  Order No. Article	W60 L.H.  Size ▼▼	W60 R.H.  Size ▼▼	W60 W79 neutral  Size ▼▼
13	D02 10671 E10M-SDQCL-07	L.H.	10	150	6,5	0,4	4°	0,19	N00 56651 S2560-8IP 1,28 Nm		W60 18...	W60 18... W79 18...
	D02 15671 E10M-SDQCR-07	R.H.								W60 18...		
16	D02 10681 E12Q-SDQCL-07	L.H.	12	180	9	0,4	5°	0,40	N00 56651 S2560-8IP 1,28 Nm		W60 18...	W60 18... W79 18...
	D02 15681 E12Q-SDQCR-07	R.H.								W60 18...		
20	D02 10691 E16R-SDQCL-07	L.H.	16	200	11	0,4	3°30'	0,80	N00 56651 S2560-8IP 1,28 Nm		W60 18...	W60 18... W79 18...
25	D02 10701 E20S-SDQCL-11	L.H.	20	250	13	0,8	4°	1,09	N00 56751 S3574-10IP 2,8 Nm		W60 32...	W60 32... W79 32...

For further details on inserts see chapter 5.

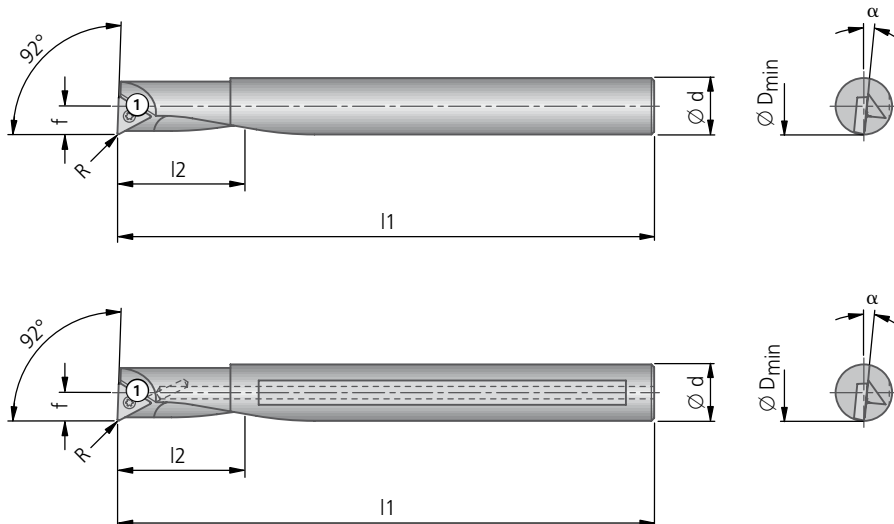
Supply includes: Turning tool with clamping screw ①.

Please order insert separately. Screwdriver see chapter 7.

KOMET® – Internal machining

Boring bar $\kappa = 92^\circ$

- for insert W30 / W57
- R.H. boring bar as shown with left or neutral insert
- L.H. boring bar in mirror image with right or neutral insert



$\kappa = 92^\circ$											Insert		
$\varnothing D_{min}$	Order No.	Order No.	Cutting form	$\varnothing d$	l_1	Working length l_2	f	for R	Orientation angle α	Clamping screw ① Order No. Article	W30 L.H.	W30 R.H.	W30 W57 neutral
											Size ▼▼	Size ▼▼	Size ▼▼
7,9	B00 00010	B00 00410	L.H.	8	85	15	3,95	0,2	8°30'	0,07	N00 56021 S/M2×3,8-6IP 0,62 Nm	W30 04...	W30 04... W57 04...
	B00 05010	B00 05410	R.H.									W30 04...	
9,9	B00 00020	B00 00420	L.H.	10	95	20	4,95	0,2	5°30'	0,08	N00 56021 S/M2×3,8-6IP 0,62 Nm	W30 04...	W30 04... W57 04...
	B00 05020	B00 05420	R.H.									W30 04...	
11,9	B00 00030	B00 00430	L.H.	12	110	25	5,95	0,2	7°30'	0,12	N00 56101 S/M2,6×5,2-8IP 1,28 Nm	W30 14...	W30 14... W57 14...
	B00 05030	B00 05430	R.H.									W30 14...	
14,9	–	B00 05440	R.H.	15	120	30	7,45	0,2	5°	0,18	N00 56101 S/M2,6×5,2-8IP 1,28 Nm	W30 14...	W30 14... W57 14...
15,9	B00 00050	B00 00450	L.H.	16	120	30	7,95	0,2	5°	0,21	N00 56101 S/M2,6×5,2-8IP 1,28 Nm	W30 14...	W30 14... W57 14...
	B00 05050	B00 05450	R.H.									W30 14...	
17,9	B00 05060	B00 05460	R.H.	18	150	40	8,95	0,2	5°30'	0,33	N00 56211 S/M3,5×7,3-10IP 2,8 Nm	W30 26...	W30 26... W57 26...
19,9	B00 00070	–	L.H.	20	150	40	9,95	0,2	4°30'	0,39	N00 56211 S/M3,5×7,3-10IP 2,8 Nm	W30 26...	W30 26... W57 26...
	B00 05070	B00 05470	R.H.									W30 26...	

For further details on inserts see chapter 5.

Supply includes: Boring bar with clamping screw ①.

Please order insert separately. Screwdriver see chapter 7.

KOMET® – Internal machining

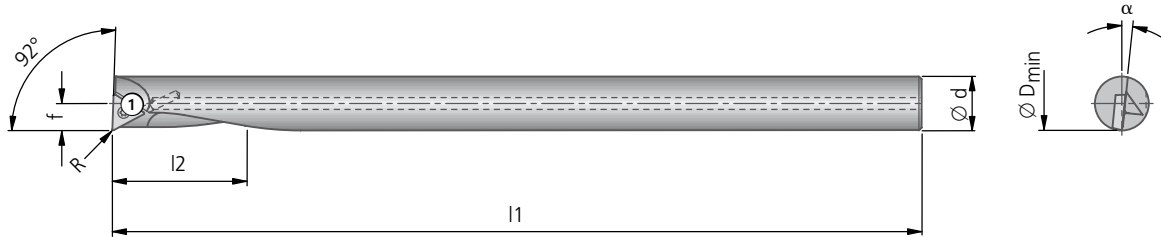
Boring bar $\kappa = 92^\circ$ for fine machining only

carbide or heavy-duty metal (7,9 mm dia.) ■

for insert W30 / W57 ■

R.H. boring bar as shown with left or neutral insert ■

L.H. boring bar in mirror image with right or neutral insert ■



$\kappa = 92^\circ$										Insert		
Ø D min	Order No.	Cutting form	Ø d	l1	Working length l2	f	for R	Orientation angle α	Clamping screw ① Order No. Article kg	W30 L.H. Size ▼▼	W30 R.H. Size ▼▼	W30 W57 neutral Size ▼▼
7,9	B00 00600	L.H.	8	125	65	3,95	0,2	8°30'	0,11	N00 56021 S/M2×3,8-6IP 0,62 Nm	W30 04...	W30 04... W57 04...
	B00 05600	R.H.										
9,2	B00 00610	L.H.	8	125	–	4,60	0,2	8°12'	0,11	N00 56021 S/M2×3,8-6IP 0,62 Nm	W30 04...	W30 04... W57 04...
	B00 05610	R.H.										
11,2	B00 00620	L.H.	10	150	–	5,60	0,2	5°	0,19	N00 56021 S/M2×3,8-6IP 0,62 Nm	W30 04...	W30 04... W57 04...
	B00 05620	R.H.										
13,5	B00 00630	L.H.	12	180	–	6,75	0,2	7°30'	0,30	N00 56101 S/M2,6×5,2-8IP 1,28 Nm	W30 14...	W30 14... W57 14...
	B00 05630	R.H.										
16,5	B00 00640	L.H.	15	180	–	8,25	0,2	5°	0,43	N00 56101 S/M2,6×5,2-8IP 1,28 Nm	W30 14...	W30 14... W57 14...
	B00 05640	R.H.										
17,5	B00 00650	L.H.	16	180	–	8,75	0,2	4°	0,48	N00 56101 S/M2,6×5,2-8IP 1,28 Nm	W30 14...	W30 14... W57 14...
	B00 05650	R.H.										
21,7	B00 05670	R.H.	20	200	–	10,95	0,2	4°15'	0,86	N00 56211 S/M3,5×7,3-10IP 2,8 Nm	W30 26...	W30 26... W57 26...

For further details on inserts see chapter 5.

Supply includes: Boring bar with clamping screw ①.

Please order insert separately. Screwdriver see chapter 7.

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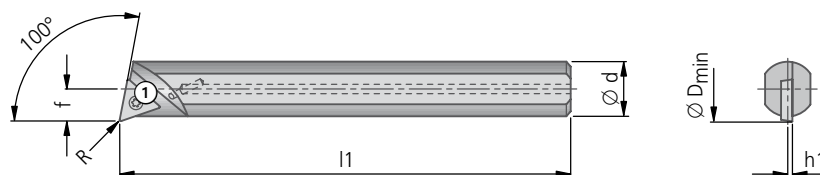
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KOMET® – Internal machining

Turning tool $\kappa = 100^\circ$

- for insert W30 / W57
- R.H. turning tool as shown with left or neutral insert
- L.H. turning tool in mirror image with right or neutral insert



κ = 100°									Insert			
Ø D min	Order No. Article	Cutting form	Ø d	h1	l1	f	for R	Clamping screw ①  Order No. Article	W30 L.H.  Size▼▼	W30 R.H.  Size▼▼	W30 W57 neutral  Size ▼▼	
9,5	D02 20111 Z8L100U3-18	L.H.	8	0,8	100	4,70	0,3	0,06	N00 56031 S/M2×4,9-6IP 0,62 Nm		W30 04...	W30 04... W57 04...
	D02 25111 Z8R100U3-18	R.H.								W30 04...		
11,5	D02 20121 Z10L100U4-25	L.H.	10	0,8	125	5,70	0,4	0,10	N00 56101 S/M2,6×5,2-8IP 1,28 Nm		W30 14...	W30 14... W57 14...
	D02 25121 Z10R100U4-25	R.H.								W30 14...		
14,0	D02 20131 Z12L100U4-25	L.H.	12	0,8	125	6,95	0,4	0,13	N00 56101 S/M2,6×5,2-8IP 1,28 Nm		W30 14...	W30 14... W57 14...
	D02 25131 Z12R100U4-25	R.H.								W30 14...		
19,0	D02 20141 Z16L100U5-30	L.H.	16	0,8	150	9,45	0,5	0,27	N00 56201 S/M3,5×6,2-10IP 2,8 Nm		W30 26...	W30 26... W57 26...
	D02 25141 Z16R100U5-30	R.H.								W30 26...		

For further details on inserts see chapter 5.

Supply includes: Turning tool with clamping screw ①.
Please order insert separately. Screwdriver see chapter 7.

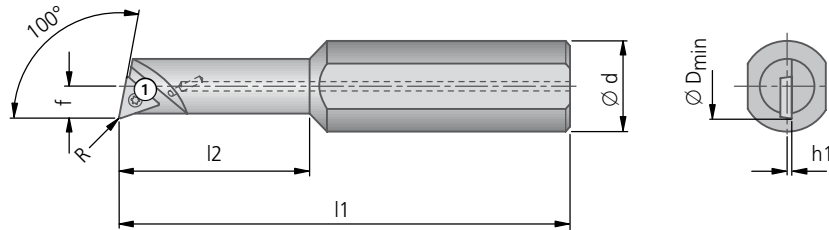
KOMET® – Internal machining

Turning tool $\kappa = 100^\circ$

for insert W30 / W57 ■

R.H. turning tool as shown with left or neutral insert ■

L.H. turning tool in mirror image with right or neutral insert ■



$\kappa = 100^\circ$										Insert		
$\varnothing D_{\min}$	Order No. Article	Cutting form	$\varnothing d$	h_1	l_1	l_2	f	for R	Clamping screw ① Order No. Article	W30 L.H.  Size▼	W30 R.H.  Size▼	W30 W57 neutral  Size▼
8	D02 20001 Z20/7,5L100U3-18	L.H.	20	0,6	100	30	3,95	0,3	0,20	N00 56031 S/M2x4,9-6IP 0,62 Nm		W30 04...
	D02 25001 Z20/7,5R100U3-18	R.H.									W30 04...	W30 04... W57 04...
10	D02 20011 Z20/8,5L100U3-18	L.H.	20	0,8	100	35	4,95	0,3	0,20	N00 56031 S/M2x4,9-6IP 0,62 Nm		W30 04...
	D02 25011 Z20/8,5R100U3-18	R.H.									W30 04...	W30 04... W57 04...
12	D02 20021 Z20/10,5L100U4-25	L.H.	20	0,8	100	40	5,95	0,4	0,20	N00 56101 S/M2,6x5,2-8IP 1,28 Nm		W30 14...
	D02 25021 Z20/10,5R100U4-25	R.H.									W30 14...	W30 14... W57 14...
14	D02 20031 Z20/12L100U4-25	L.H.	20	0,8	105	45	6,95	0,4	0,21	N00 56101 S/M2,6x5,2-8IP 1,28 Nm		W30 14...
	D02 25031 Z20/12R100U4-25	R.H.									W30 14...	W30 14... W57 14...
19	D02 25041 Z20/16R100U5-30	R.H.	20	0,8	105	45	9,45	0,5	0,26	N00 56201 S/M3,5x6,2-10IP 2,8 Nm	W30 26...	W30 26... W57 26...

For further details on inserts see chapter 5.

Supply includes: Turning tool with clamping screw ①.

Please order insert separately. Screwdriver see chapter 7.

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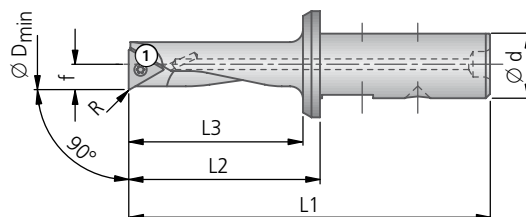
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Boring bar $\kappa = 90^\circ$

- for insert W00, W30 / W57
- with cylindrical shank
- R.H. cutting with left or neutral insert



α = 90°									Insert		
Ø D min	Order No.	Ø d	L1	L2	L3	f	R	 kg	Clamping screw ①   Order No. Article	 W00 W30 L.H. Size ▼▼	 W30 W57 neutral Size▼▼
5,6	B00 37010	8	48	26	22	2,75	0,1	0,04	N00 56011 S/M1,8x2,9-5IP 0,38 Nm	W00 04...	
6,5	B00 37020	8	52	30	26	3,20	0,1	0,03			
8	B00 15510	8	57	35	28	3,95	0,2	0,02	N00 56021 S/M2x3,8-6IP 0,62 Nm	W30 04...	W30 04... W57 04... W57 04180.04..
	B00 15610	16	75	35	30	3,95	0,2	0,08			
10	B00 15620	16	80	40	35	4,95	0,2	0,08	N00 56101 S/M2,6x5,2-8IP 1,28 Nm	W30 14...	W30 14... W57 14... W57 14180.04..
11	B00 15710	16	85	45	40	5,45	0,2	0,09			
12	B00 15530	8	67	45	38	5,95	0,2	0,04			
	B00 15630	16	85	45	40	5,95	0,2	0,09			
13	B00 15720	16	90	50	45	6,45	0,2	0,10			
14	B00 15640	16	90	50	45	6,95	0,2	0,11			
15	B00 15730	16	95	55	50	7,45	0,2	0,12			
16	B00 15650	16	95	55	50	7,95	0,2	0,17			
17	B00 15741	16	100	60	55	8,45	0,2	0,13			
18	B00 15661	16	100	60	55	8,95	0,2	0,14			
19	B00 15751	16	105	65	60	9,45	0,2	0,16			
20	B00 15671	16	105	65	60	9,90	0,2	0,22			
22	B00 15681	16	105	65	60	10,9	0,2	0,19			
24	B00 15691	16	105	65	60	11,9	0,2	0,21			

For further details on inserts see chapter 5.

Further diameters on request.

Supply includes: Boring bar with clamping screw ①.

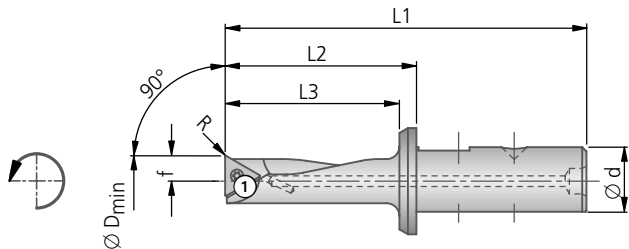
Please order insert separately. Screwdriver see chapter 7.

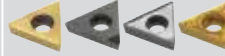
Ø 8 – 14 mm

KOMET® – Internal machining

Boring bar $\kappa = 90^\circ$

- for insert W30 / W57 ■
- with cylindrical shank ■
- L.H. cutting with right or neutral insert ■



κ = 90°										Insert	
Ø D min	Order No.	Ø d	L1	L2	L3	f	R		Clamping screw ①	W30 R.H.	W30 W57 neutral
									 		
									Order No.		
									Article	Size ▼▼	Size ▼▼
8	B00 10610	16	75	35	30	3,95	0,2	0,08	N00 56021 S/M2×3,8-6IP 0,62 Nm	W30 04...	W30 04... W57 04... W57 04180.04..
10	B00 10620	16	80	40	35	4,95	0,2	0,08			
12	B00 10630	16	85	45	40	5,95	0,2	0,09	N00 56101 S/M2,6×5,2-8IP 1,28 Nm	W30 14...	W30 14... W57 14... W57 14180.04..
14	B00 10640	16	90	50	45	6,95	0,2	0,11			

For further details on inserts see chapter 5.

Further diameters on request.

Supply includes: Boring bar with clamping screw ①.
Please order insert separately. Screwdriver see chapter 7.

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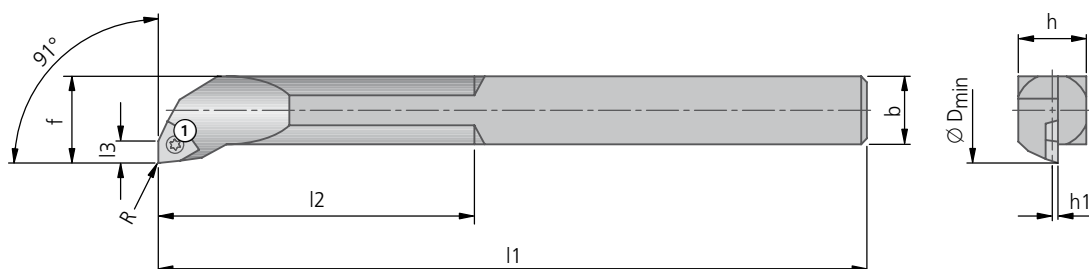
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KOMET® – Internal machining

Turning tool $\kappa = 91^\circ$

- for insert W01 / W29
- R.H. turning tool as shown with left or neutral insert

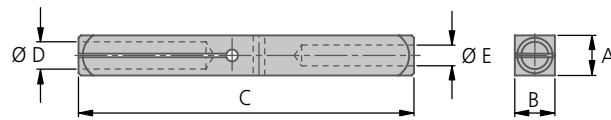


κ = 91°												Insert		
Ø D min	Order No. Article	Cutting form	b	h	h1	l1	l2	l3	f	for R		Clamping screw ① 	 W01 L.H.	 W01 W29 neutral
												Order No. Article	Size▼▼	Size▼▼
25	D03 15011 UBN1-801 FR	R.H.	16	16	0,5	150	70	6,5	21	0,2	0,33	N00 57521 S/M3,5x7,3-10IP 2,8 Nm	W01 34...	W01 34... W29 34...
30	D03 15021 UBN2-810 FR	R.H.	20	20	0,5	200	100	7,5	26	0,2	0,64	N00 57531 S/M4,5x9-15IP 6,25 Nm	W01 42...	W01 42... W29 42...
40	D03 15031 UBN3-820 FR	R.H.	25	25	1,0	245	120	9,5	33	0,4	1,19	N00 57531 S/M4,5x9-15IP 6,25 Nm	W01 50...	W29 50...
50	D03 15041 UBN4-830 FR	R.H.	32	32	1,0	285	160	11,5	43	0,6	2,14	N00 57541 S/M5,5x11-20IP 6,25 Nm	W01 58...	W29 58...
65	D03 15051 UBN5-830 FR	R.H.	40	40	1,0	320	195	11,5	54	0,6	3,60	N00 57541 S/M5,5x11-20IP 6,25 Nm	W01 58...	W29 58...

For further details on inserts see chapter 5.

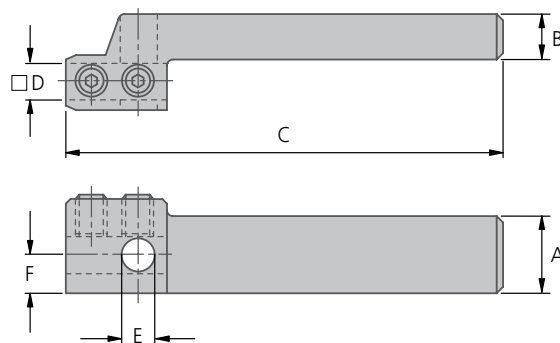
Supply includes: Turning tool with clamping screw ①.
Please order insert separately. Screwdriver see chapter 7.

Boring toolholder
B8, B10



Boring toolholder								
Article	Order No.	A	B	C	D	E	Height of cutting edge	
B8-8	H05 25110	12	12	100	8	8	6,0	0,07
B10-8/10	H05 25120	15	15	125	8	10	7,5	0,16

Boring toolholder
KD8, KD10
for round and square tools



Boring toolholder								
Article	Order No.	A	B	C	 D	E	F	
KD8-8/8	H05 65010	21	12	120	8	8	10,5	0,30
KD10-10/10	H05 65020	21	12	120	10	10	10,5	0,39

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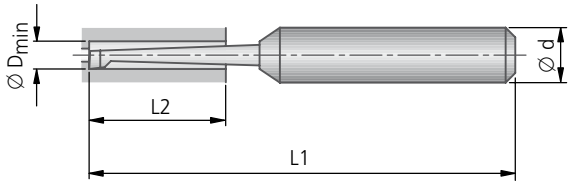


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Boring tool type K-F

Carbide grade K10



Boring tool							Basic recommendation	
Ø D min	Article	Order No.	Ø d	L1	L2	kg	Grade	for workpiece material
1,0	10K-F-K10	H15 11120.21	4	25	4	0,004	K10	P K N S
1,2	12K-F-K10	H15 11130.21	4	25	6	0,004		
1,7	17K-F-K10	H15 11150.21	4	28	7	0,004		

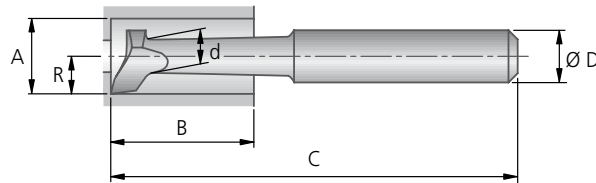
Ø 2,5 – 14 mm

KOMET® – Internal machining

Boring tool form F

HSS grade H

Carbide grade K10 and P20



Boring tool										
for boring Ø A from										for holder
	Article	Order No.	Grade	B	C	D	d	R		
2,5	B00F-H	H15 21100.93	H	10	50	8	1,5	1,2	0,02	B0 B8 B10 KD8
3,0	B01F-H	H15 21110.93	H	20	60	8	2,0	1,6	0,02	
	B01F-P20	H15 21110.02	P20	16						
	B01F-K10	H15 21110.21	K10	16						
5,0	B02F-H	H15 21120.93	H	24	60	8	3,0	2,8	0,02	
	B02F-P20	H15 21120.02	P20	19						
	B02F-K10	H15 21120.21	K10	19						
7,0	B03F-H	H15 21130.93	H	26	65	8	4,0	3,8	0,02	
	B03F-K10	H15 21130.21	K10							
9,0	B04F-H	H15 21140.93	H	30	75	8	5,8	5,0	0,03	
	B04F-K10	H15 21140.21	K10							
12,0	B05F-H	H15 21150.93	H	50	80	8	7,2	6,5	0,03	
	B05F-P20	H15 21150.02	P20							
14,0	B06F-H	H15 21160.93	H	60	95	10	9,2	7,6	0,06	B0 B10 KD10
	B06F-P20	H15 21160.02	P20							
	B06F-K10	H15 21160.21	K10							
strengthened design										
3,0	B01F-D10-H	H15 22110.93	H	20	60	10	2,0	1,6	0,03	B0 B10 KD8
5,0	B02F-D10-K10	H15 22120.21	K10	19	60	10	3,0	2,8	0,03	
7,0	B03F-D10-H	H15 22130.93	H	26	65	10	4,0	3,8	0,03	
9,0	B04F-D10-H	H15 22140.93	H	30	75	10	5,8	5,0	0,04	
12,0	B05F-D10-P20	H15 22150.02	P20	50	80	10	7,2	6,5	0,05	
extra long design										
3,0	B01FLG-H	H15 23110.93	H	20	125	8	2,0	1,6	0,05	B0 B8 B10 KD8
	B01FLG-P20	H15 23110.02	P20	16						
	B01FLG-K10	H15 23110.21	K10	16						
5,0	B02FLG-H	H15 23120.93	H	24	125	8	3,0	2,8	0,05	
	B02FLG-P20	H15 23120.02	P20	19						
	B02FLG-K10	H15 23120.21	K10	19						
7,0	B03FLG-H	H15 23130.93	H	26	125	8	4,0	3,8	0,05	
	B03FLG-K10	H15 23130.21	K10							
9,0	B04FLG-H	H15 23140.93	H	30	125	8	5,8	5,0	0,05	
	B04FLG-K10	H15 23140.21	K10							
12,0	B05FLG-H	H15 23150.93	H	50	125	8	7,2	6,5	0,05	
	B05FLG-P20	H15 23150.02	P20							
14,0	B06FLG-H	H15 23160.93	H	60	125	10	9,2	7,6	0,08	B0 B10 KD10
	B06FLG-K10	H15 23160.21	K10							

For grinding instructions, see page 32.

L.H. corner tool available on request.

Guideline values for internal machining: page 33.

1



2



3



4



5



6



7

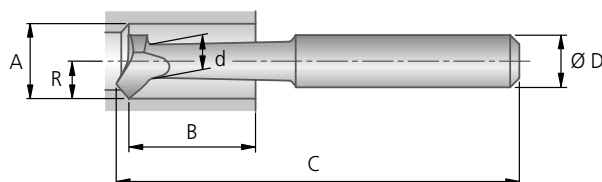


Boring tool form G

For boring through holes from Ø 2,5 mm

HSS grade H

Carbide grade K10 and P20



Boring tool

Boring tool										
for boring Ø A from									 kg	for holder
	Article	Order No.	Grade	B	C	D	d	R		
2,5	B00G-H	H15 21200.93	H	10	50	8	1,5	1,2	0,02	B0 B8 B10 KD8
3,0	B01G-H	H15 21210.93	H	20	60	8	2,0	1,6	0,02	
	B01G-P20	H15 21210.02	P20	16						
5,0	B02G-H	H15 21220.93	H	24	60	8	3,0	2,8	0,02	
7,0	B03G-H	H15 21230.93	H	26	65	8	4,0	3,8	0,02	
	B03G-K10	H15 21230.21	K10							
9,0	B04G-H	H15 21240.93	H	30	75	8	5,8	5,0	0,03	
	B04G-K10	H15 21240.21	K10							
12,0	B05G-H	H15 21250.93	H	50	80	8	7,2	6,5	0,03	B0 B10 KD10
14,0	B06G-H	H15 21260.93	H	60	95	10	9,2	7,6	0,06	
	B06G-P20	H15 21260.02	P20							
	B06G-K10	H15 21260.21	K10							
extra long design										
5,0	B02GLG-H	H15 23220.93	H	24	125	8	3,0	2,8	0,05	B0 B8 B10 KD8
7,0	B03GLG-P20	H15 23230.02	P20	26	125	8	4,0	3,8	0,05	
9,0	B04GLG-H	H15 23240.93	H	30	125	8	5,8	5,0	0,05	
12,0	B05GLG-H	H15 23250.93	H	50	125	8	7,2	6,5	0,05	
	B05GLG-P20	H15 23250.02	P20							
14,0	B06GLG-H	H15 23260.93	H	60	125	10	9,2	7,6	0,08	
	B06GLG-P20	H15 23260.02	P20							

For grinding instructions, see page 32.

L.H. corner tool available on request.

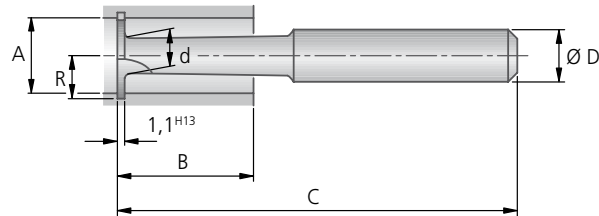
Ø 3 – 14 mm

KOMET® – Internal machining

Recessing tool form H

HSS grade H

Carbide grade K10 and P20



Recessing tool										
for boring Ø A from										for holder
	Article	Order No.	Grade	B	C	D	d	R		
3,0	B01H-H	H15 21310.93	H	20	60	8	2,0	1,6	0,02	B0 B8 B10 KD8
5,0	B02H-H	H15 21320.93	H	24	60	8	3,0	2,8	0,02	
7,0	B03H-H	H15 21330.93	H	26	65	8	4,0	3,8	0,02	
	B03H-P20	H15 21330.02	P20							
9,0	B04H-H	H15 21340.93	H	30	75	8	5,8	5,0	0,03	
	B04H-K10	H15 21340.21	K10							
12,0	B05H-H	H15 21350.93	H	50	80	8	7,2	6,5	0,03	B0 B10 KD10
14,0	B06H-H	H15 21360.93	H	60	95	10	9,2	7,6	0,06	
	B06H-P20	H15 21360.02	P20							
extra long design										
7,0	B03HLG-H	H15 23330.93	H	26	125	8	4,0	3,8	0,05	B0 B8 B10 KD8
9,0	B04HLG-H	H15 23340.93	H	30	125	8	5,8	5,0	0,05	
12,0	B05HLG-H	H15 23350.93	H	50	125	8	7,2	6,5	0,05	
14,0	B06HLG-H	H15 23360.93	H	60	125	10	9,2	7,6	0,08	B0 B10 KD10

For grinding instructions, see page 32.

Special recessing widths in HSS and L.H. cutting tools on request.

1



2



3



4



5



6



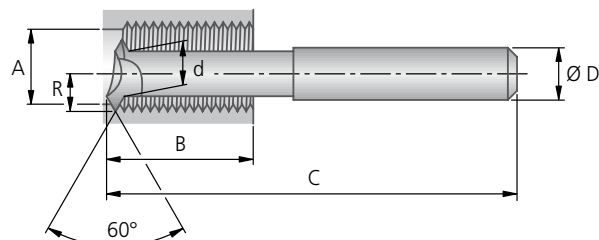
7



Threading tool 60°

HSS grade H

Carbide grade K10 and P20



Threading tool											
for boring Ø A from	max. pitch mm										for holder
		Article	Order No.	Grade	B	C	D	d	R		
3,0	0,18	B01 60-H	H15 21410.93	H	15	60	8	2,0	1,6	0,02	B0 B8 B10 KD8
		B01 60-P20	H15 21410.02	P20	16						
5,0	0,8	B02 60-H	H15 21420.93	H	22	60	8	3,0	2,8	0,02	
		B02 60-P20	H15 21420.02	P20	19						
		B02 60-K10	H15 21420.21	K10	19						
7,0	1,1	B03 60-H	H15 21430.93	H	24	65	8	4,0	3,8	0,02	
		B03 60-P20	H15 21430.02	P20							
9,0	1,5	B04 60-H	H15 21440.93	H	28	75	8	5,8	5,0	0,03	
		B04 60-K10	H15 21440.21	K10							
12,0	2,8	B05 60-H	H15 21450.93	H	50	80	8	7,2	6,5	0,03	
		B05 60-K10	H15 21450.21	K10							
14,0	3,0	B06 60-H	H15 21460.93	H	60	95	10	9,2	7,6	0,06	B0 B10 KD10
		B06 60-P20	H15 21460.02	P20							
		B06 60-K10	H15 21460.21	K10							
extra long design											
12,0	2,8	B05 60LG-H	H15 23450.93	H	50	125	8	7,2	6,5	0,05	B0 B8 B10 KD8

For grinding instructions, see page 32.

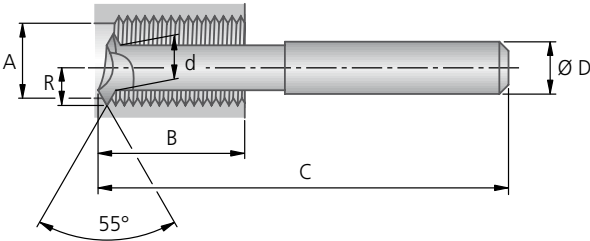
L.H. cutting internal threading tools on request.

Ø 7 – 14 mm

KOMET® – Internal machining

Threading tool 55°

HSS grade H
Carbide grade P20



Threading tool											
for boring Ø A from	max. pitch T.P.I.										for holder
		Article	Order No.	Grade	B	C	D	d	R		
7,0	25-50	B03 55-H	H15 21530.93	H	24	65	8	4,0	3,8	0,02	B0 B8 B10 KD8
		B03 55-P20	H15 21530.02	P20							
9,0	19-50	B04 55-H	H15 21540.93	H	28	75	8	5,8	5,0	0,03	
		B04 55-P20	H15 21540.02	P20							
12,0	11-40	B05 550-H	H15 21550.93	H	50	80	8	7,2	6,5	0,03	B0 B10 KD10
14,0	10-30	B06 55-H	H15 21560.93	H	60	95	10	9,2	7,6	0,06	
		B06 55-P20	H15 21560.02	P20							

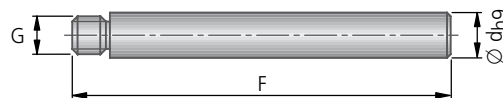
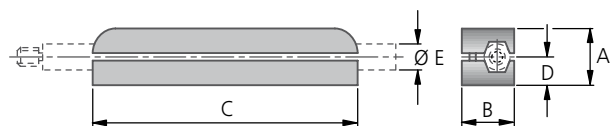
For grinding instructions, see page 32.
L.H. cutting internal threading tools on request.

Boring head (detachable)

Holder

Boring bar

Boring bar with L.H. thread available on request.



Holder								Boring bar						
Article	Order No.	A	B	C	D	E		Article	Order No.	Ø _{dh9}	F	G		for boring head
B1	H05 25210	20	19	110	10,0	10	0,24	B1	H05 35010	10	180	M6	0,11	B1 ..
B2	H05 25220	27	23	150	14,0	13	0,56	B1A	H05 35020	13	220	M8×20 Gg/"	0,23	B1A ..
								B2	H05 35030	13	250	M10×20 Gg/"	0,27	B2 ..
B3	H05 25230	40	30	180	20,0	20	1,21	B2A	H05 35040	20	275	M12×20 Gg/"	0,67	B2A ..
								B2B	H05 35050	20	300	M14×20 Gg/"	0,74	B2B ..
								B3	H05 35060	20	325	M15×20 Gg/"	0,80	B3 ..

Boring tool (detachable)

Form F

HSS Grade F

Boring tool (detachable)

Form G

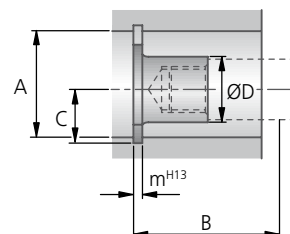
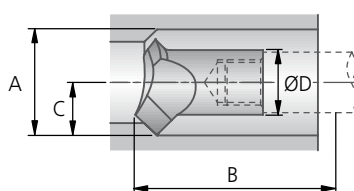
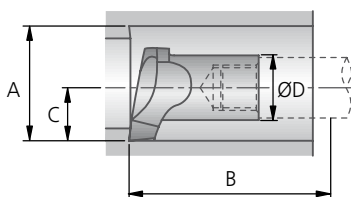
HSS Grade F

Recessing tool (detachable)

Form H

HSS Grade F

Carbide Grade P20



For grinding instructions, see page 32.

Special recessing widths in HSS on request.



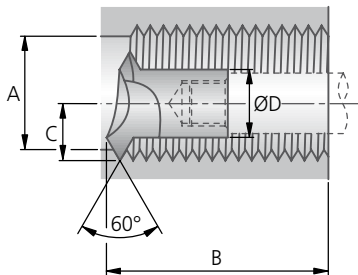
Boring tool Form F			Boring tool Form G			Recessing tool Form H							
A from	Article	Order No.	Article	Order No.	for slot width m	Article	Order No.	Grade	B	C	D	kg	for boring bar
16	B1 F-F	H15 31010.91	B1 G-F	H15 31020.91	1,10	B1 H-F	H15 31030.91	F	80	9,0	11,5	0,02	B1
18	B1A F-F	H15 31110.91	B1A G-F	H15 31120.91	1,30	B1A H-F	H15 31130.91	F	85	10,3	12,5	0,02	B1A
21	B2 F-F	H15 31210.91	B2 G-F	H15 31220.91	1,30	B2 H-F	H15 31230.91	F	115	12,0	16,0	0,03	B2
24	B2A F-F	H15 31310.91	B2A G-F	H15 31320.91	1,60	B2A H-F	H15 31330.91	F	120	13,5	18,0	0,04	B2A
28	B2B F-F	H15 31410.91	–		1,85	B2B H-F	H15 31430.91	F	140	15,5	20,2	0,05	B2B
30	B3 F-F	H15 31510.91	B3 G-F	H15 31520.91	2,15	B3 H-F	H15 31530.91	F	165	16,8	21,5	0,07	B3

Ø 16 – 30 mm

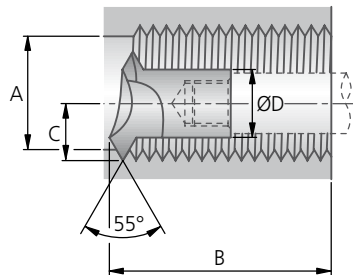
KOMET® – Internal machining

Boring head (detachable)

Threading tool (detachable)
for 60° thread
HSS Grade F



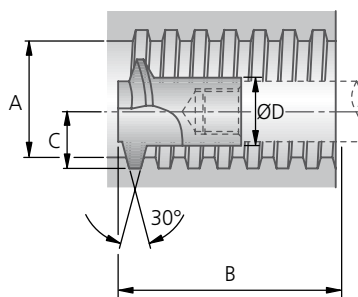
Threading tool (detachable)
for 55° thread
HSS Grade F



For grinding instructions, see page 32.

A for boring-Ø from	Threading tool 60°				Threading tool 55°									
	max. pitch mm	Article	Order No.		max. pitch T.P.I.	Article	Order No.		Grade	B	C	D	kg	for boring bar
16	2,9	B1 60-F	H15 31040.91		8	B1 55-F	H15 31050.91		F	80	9,0	11,5	0,02	B1
18	4,1	B1A 60-F	H15 31140.91		7	B1A 55-F	H15 31150.91		F	85	10,3	12,5	0,02	B1A
21	4,1	B2 60-F	H15 31240.91		6	B2 55-F	H15 31250.91		F	115	12,0	16,0	0,03	B2
24	4,7	B2A 60-F	H15 31340.91		5,5	B2A 55-F	H15 31350.91		F	120	13,5	18,0	0,04	B2A
28	5,9	B2B 60-F	H15 31440.91		–				F	140	15,5	20,2	0,05	B2B
30	6,4	B3 60-F	H15 31540.91		4,5	B3 55-F	H15 31550.91		F	165	16,8	21,5	0,07	B3

Threading tool (detachable)
Acme thread
HSS Grade F



For grinding instructions, see page 32.

Acme thread, pitch in pitch/inch,
carbide tipped acme - threading
tools and other thread forms (HSS
and L.H. cutting tools only) on
request.

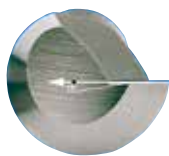
A for boring-Ø from	Threading tool									
	Article	Order No.			Grade	B	C	D	kg	for boring bar
16	B1 TR-3,0-F	H15 32030.91			F	80	9,0	11,5	0,02	B1
	B1 TR-4,0-F	H15 32040.91								
18	B1A TR-4,0-F	H15 32120.91			F	85	10,3	13,5	0,02	B1A
	B1A TR-5,0-F	H15 32130.91								
21	B2 TR-4,0-F	H15 32220.91			F	115	12,0	15,0	0,03	B2
	B2 TR-5,0-F	H15 32230.91								
24	B2 TR-6,0-F	H15 32240.91			F	120	13,5	18,0	0,04	B2A
	B2A TR-6,0-F	H15 32330.91								
30	B3 TR-7,0-F	H15 32540.91			F	165	16,8	21,5	0,08	B3
	B3 TR-8,0-F	H15 32550.91								

Guideline values for internal machining: page 33.

Your local KOMET SERVICE® partner will be happy to do this for you.

Internal machining – Grinding instructions

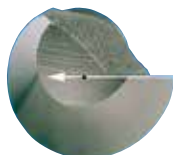
1



Boring tool

The cutting edge overhang shown above runs through the centre point of the boring head. However, the top rake which is to be measured at right angles to the direction of the cutting edge (dotted line), should be ground off obliquely between 10° and 20° acc. to material.

2



Internal threading tool 55° or 60°

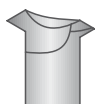
The cutting edge must always run to the centrepoint (see illustration) or the angle will be distorted. When resharpening threading tools, use front edge of chamfered grinding wheel.

3



Threading tool

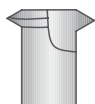
KOMET® internal threading tools, HSS design in particular, are also supplied for L.H. thread cutting. Please note the details given below and state form required.



Threading tool form A

R.H. thread (standard), for forward running, cutting direction from tailstock to headstock.

4



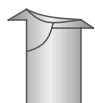
Threading tool form D

R.H. thread, for reverse running, cutting direction from headstock to tailstock.

Please note: When ordering Form D, the required form must be stated.

For acme threads, round threads and buttress threads, the required pitch must also be stated, a special threading tool also being required for each pitch size.

5



Buttress threading tool form 1

R.H. thread, cutting direction for forward running from tailstock to headstock.

When ordering buttress threading tools, please state whether thread is stressed at compression or tension. Form 1 can also be produced as L.H. threading tools with cutting direction from headstock to tailstock for forwards operation.

6



Buttress threading tool form 2

R.H. thread, cutting direction for forward running from tailstock to headstock.

When ordering buttress threading tools, please state whether thread is stressed at compression or tension. Form 2 can also be produced as L.H. threading tools with cutting direction from headstock to tailstock for forwards operation.

7



Form threading tool form 5: Compression



Form threading tool form 6: Tension

A separate blade is required for each pitch for form threading tools. Round Edison threads are three different thread types. For buttress saw threading tools, please state whether the thread is stressed for compression or tension.

Recommended cutting data

Guideline values for internal machining																	
Material group	Strength Rm (N/mm²)	Hardness HB	Material	Material example, material code/DIN	Cutting speed v _C (m/min)												
					Grade F			Grade H			Carbide Roughing			Carbide Finishing			
					min	opt.	max	min	opt.	max	min	opt.	max	min	opt.	max	
P	1.0	≤500	non-alloy steels	1.0037 (S235JR) 1.0715 (11SMn30) 1.0044 (S2575JR)	10	25	40	15	30	45	40	70	100	50	85	120	
	2.0	500-900	non-alloy / low alloy steels	1.0050 (E295) 1.0535 (C55) 1.7131 (16MnCr5)	8	22	35	8	19	30	30	60	90	40	70	100	
	2.1	<500	lead alloys	1.0718 (11SMnPb30)	10	20	30	10	23	35	30	65	100	40	80	120	
	3.0	>900	low alloy steels: heat resistant structural, heat treated, nitride and tools steels	1.7225 (42CrMo4) 1.1221 (C60E)	8	17	25	8	19	30	25	48	70	30	60	90	
	4.0	>900	high alloy steels	1.2341 (6CrMo15-5) 1.2601 (X165Cr- MoV12)	15	20	25	16	23	30	20	40	60	20	45	65	
	4.1		HSS		5	8	10	6	9	12	15	28	40	15	33	50	
S	5.0		250	special alloys: Inconel, Hastelloy, Nimonic, stc.	2.4668 (NiuCr- 19Fe19Nb5Mo3) 2.4631 (Nimonic 80A)	5	7	8	4	7	9	10	15	20	10	18	25
	5.1	400	titanium, titanium alloys	3.7115 (TiAl5Sn2.5)	3	5	6	4	7	9	10	20	30	10	20	30	
M	6.0	≤600	stainless steels	1.4306 (X2Cr- Ni19-11) 1.4401 (X5CrNi- Mo17-12-2)	10	13	15	10	13	15	20	35	50	20	35	50	
	6.1	<900	stainless steels	1.4511 (X3CrNb17) 1.4571 (X10CrNiMo- Ti17-12-2)	8	12	15	8	12	15	20	35	50	20	35	50	
	7.0	>900	stainless / fireproof steels	1.4713 (X10CrAlSi7) 1.4862 (X8NiCr- Si38-18)	6	8	10	6	8	10	15	28	40	15	28	40	
	8.0		180	gray cast iron	0.6025 (EN-GJL-250) 0.6035 (EN-GJL-350)	15	20	25	15	20	25	25	38	50	25	38	50
K	8.1		250	alloy gray cast iron	0.6660 (GGL- NiCr20 2)	15	20	25	15	20	25	30	40	50	30	40	50
	9.0	≤600	130	spheroidal graphite cast iron, ferritic	0.7040 (EN- GJS-400-15)	20	25	30	20	25	30	35	48	60	35	48	60
	9.1		230	spheroidal graphite cast iron, ferritic/ perlitic	0.7050 (EN-GJS-500-7) 0.7055 (GGG-55) 0.8055 (GTW-55)	20	25	30	20	25	30	35	48	60	35	48	60
	10.0	>600	250	spheroidal graphite cast iron, perlitic malleable iron	0.7060 (EN- GJS-600-3) 0.8165 (GTS-65)	15	20	25	15	20	25	25	38	50	25	38	50
	10.1		200	alloyed spheroidal graphite cast iron	0.7661 (EN-GJSA-XNiCr20-2)	12	16	20	12	16	20	25	38	50	25	38	50
	10.2		300	vermicular cast iron	EN-GJV Ti < 0,2 EN-GJV Ti > 0,2	10	15	20	10	15	20	25	38	50	25	38	50
	12.0		90	copper alloy, brass, lead-alloy bronze, lead bronze: good cut	2.0375 (CuZn36Pb3) 2.1182.01 (G- CuPb15Sn)	60	80	100	60	80	100	120	150	180	120	150	180
	12.1		100	copper alloy, brass, bronze: average cut	2.0550 (CuZn40Al2) 2.0060 (E-Cu57)	30	50	70	30	50	70	120	160	200	120	160	200
N	13.0		60	wrought aluminium alloys	3.3315 (AlMg1) 3.0517 (AlMnCu)	40	60	80	40	60	80	140	180	220	140	180	220
	13.1		75	cast alum. alloy: Si-content <10% magnesium alloy	3.3561 (G-AlMg5) 3.2373.61 (G- AlSi9Mg wa)	30	50	70	30	50	70	140	180	220	140	180	220
	14.0		100	cast alum.alloy: Si-content >10%	3.2381.01 (G- AlSi10Mg)	20	40	60	20	40	60	120	160	200	120	160	200
	H	15.0	1400	hardened steels < 45 HRC													
16.0		1800	hardened steels > 45 HRC														

Cutting values shown are values relating to the basic recommendations for cutting materials given.

Important: See chapter 7 for more application details and safety notes!

1



2



3



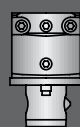
4



5



6



7



KOMET UniTurn®



The KOMET UniTurn® range boasts an extremely rigid union between the turning tool and the clamping holder. An eccentric clamping device in the holder minimises tool change times and ensures that the cutting edge is positioned accurately in the optimum setting. The insertion surface on the shank of the turning tool is foolproof to ensure that, when changing inserts, the new insert is fitted in the correct position every time. At a shank diameter of 4 mm, two coolant slots positioned axially in the holder provide optimal cooling of the cutting edge for both the left and right boring bars.

In all turning tools with a shank size of 8 mm, coolant is fed through the clamping shank.



BENEFITS for you:

- Shorter tool changeover times
- Extremely rigid, accurately positioned union between the turning tool and holder
- UniTurn® turning tool:
Comprehensive standard product range
- UniTurn® Easy Special:
Short delivery time for a wide range of dimensions
- UniTurn® custom turning tool:
Produced in accordance with individual requirements



KOMET UniTurn® Easy Special



Design your own tool!

Is there no solution in the standard range?
Are the dimensions not what you require?

Easy Special makes it possible for you create your own combination of standard modules in the widest variety of dimensions.

We check your specifications for technical feasibility and you receive a prompt reply.

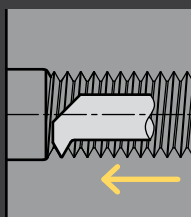
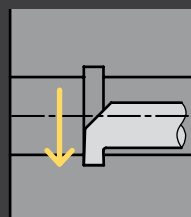
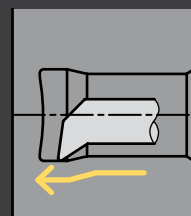


BENEFITS for you:

- Only 3-4 weeks delivery from order being placed (for quantities of up to 50 off/per item for coated tools)
- Only 2 weeks delivery from order being placed (for quantities of up to 50 off/per item for uncoated tools)
- Fixed price subject to quantity and working length
- Easy processing



Machining examples



KOMET UniTurn®

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Programme summary

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Adapters

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Adaptor with ABS® connection
Adaptor with cylindrical connection
Clamping holder for lathe

Copying tool

Ø 3 - 8 mm	40
UniTurn® Easy Special	41

Grooving tool

Ø 3 - 8 mm	42
UniTurn® Easy Special	43

Boring tool

Ø 3 - 8 mm	44
UniTurn® Easy Special	45

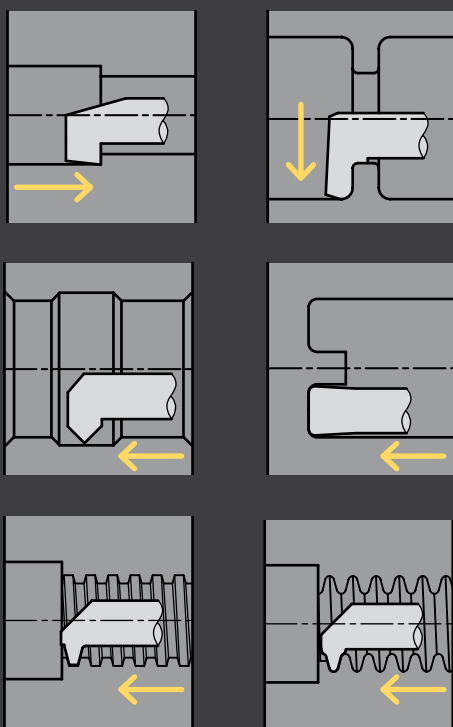
Boring tool with CBN

Ø 2,7 – 7,5 mm	46
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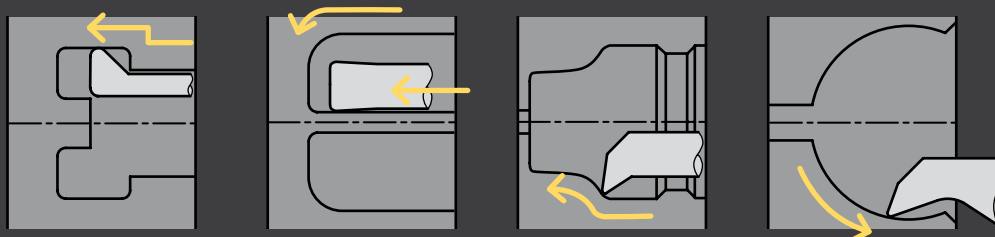
Thread turning tool

Ø 5 - 8 mm	48
UniTurn® Easy Special	50– 51

Machining examples UniTurn® custom turning tool



Machining examples for the UniTurn® custom turning tool On a machining centre with the KomTronic® U-axis tool



1



2



3



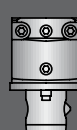
4



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7



Programme summary – UniTurn®

3 Fine boring tools

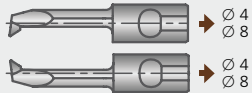
1



UniTurn®

Copying tool

Ø 3 – 8 mm ▶ 40

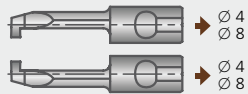


2



Grooving tool

Ø 3 – 8 mm ▶ 42

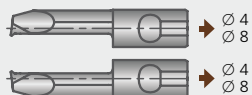


3



Boring tool

Ø 3 – 8 mm ▶ 44

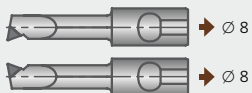


4



Boring tool with CBN

Ø 2,7 – 7,5 mm ▶ 46

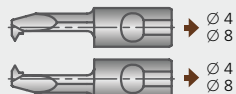


5



Thread turning tool

Ø 5 – 8 mm ▶ 48



6



Key

- ▶ ABS® | ABS® N connection
- ▶ Cylindrical connection
- ▶ UniTurn® connection

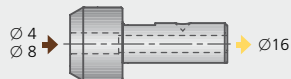
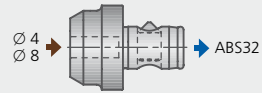
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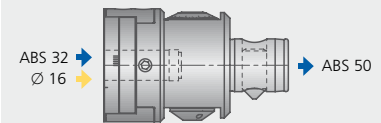
UniTurn®

Adapter

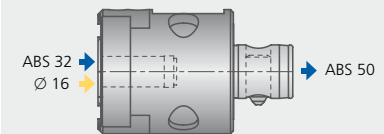
▶ 38



MicroKom® *hi.flex*
Micro-adjustable head



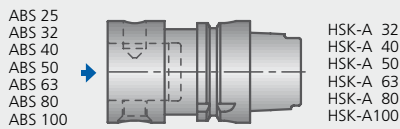
MicroKom *BluFlex*® 2
Micro-adjustable head



5 Adaptors see chapter 5

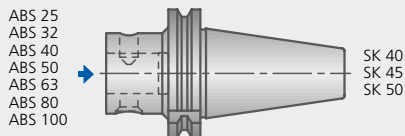
HSK-A Adaptors

with ABS® connection

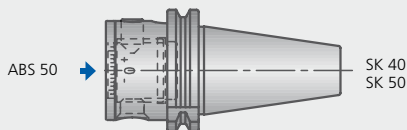


Taper shanks DIN 69871

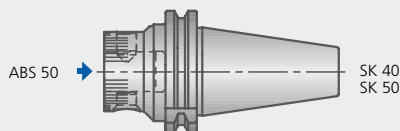
with ABS® connection



Eccentric adjusting device with ABS® connection

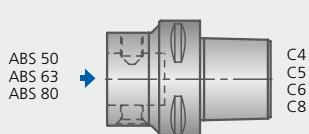


Torsional dampener with ABS® connection



PSC Adaptor

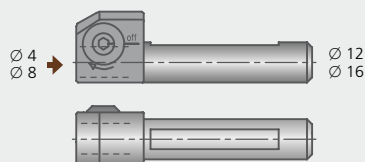
with ABS® connection



UniTurn®

► 38

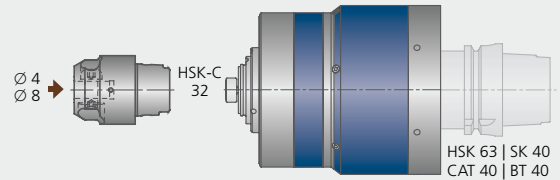
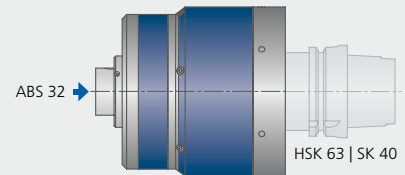
Clamping holder for lathe



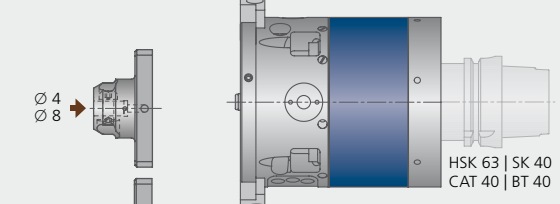
KOMET KomTronic®

Attachment tool range for U-Axis system

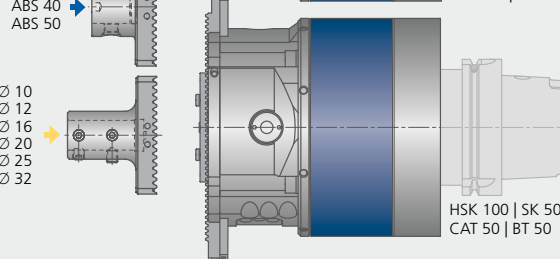
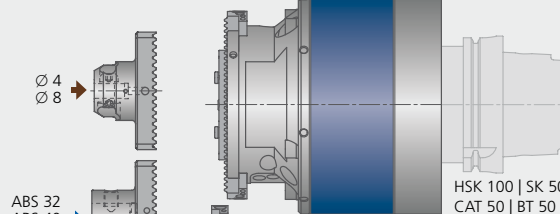
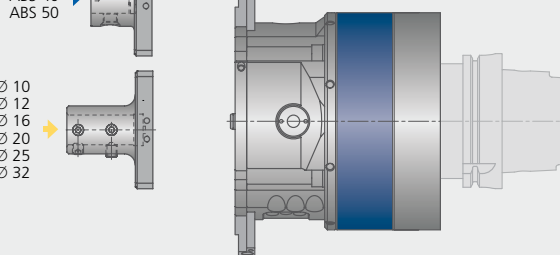
KomTronic® HPS-115



KomTronic® UAS-115



KomTronic® UAS-160



KOMET KomTronic®
Feed-out tools
for machining centres

1



2



3



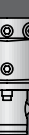
4



5



6



7



1



2



3



4



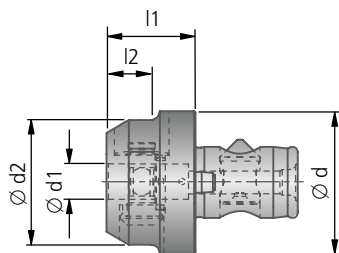
5



6

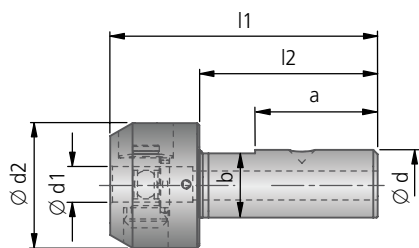


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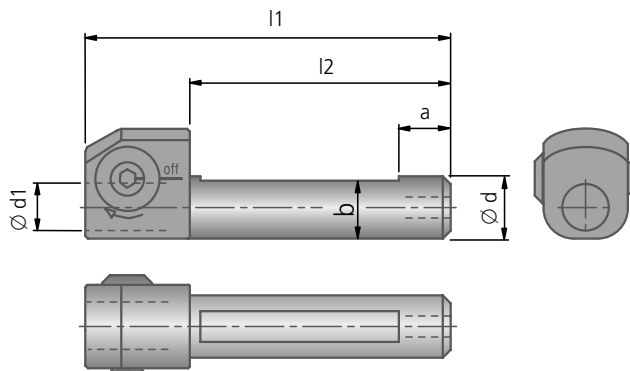
Adaptor with ABS® connection

Order No.	ABS Ø d	Ø d1	Ø d2	l1	l2	
H50 23240	32	4	28	20	12	0,15
H50 23280	32	8	28	20	12	0,12



Adaptor with cylindrical connection

Order No.	Ø dg6	Ø d1	Ø d2	l1	l2	a	b	
H50 21640	16	4	28	60	40	27,5	14,4	0,15
H50 21680	16	8	28	60	40	27,5	14,4	0,13



Clamping holder for lathe

Order No.	Ø dg6	Ø d1	l1	l2	a	b	
H50 01240	12	4	70	50	10	11	0,08
H50 01281	12	8					
H50 01640	16	4	70	50	10	15	0,11
H50 01681	16	8					

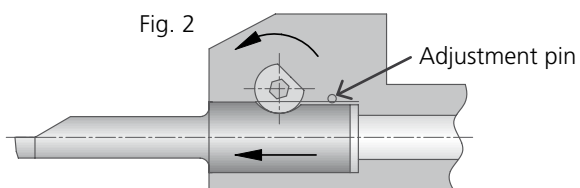
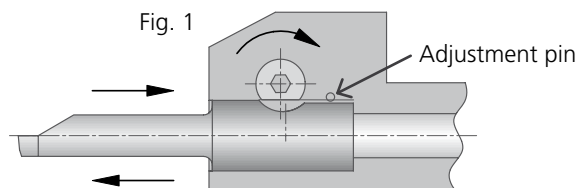
Operating instructions for the clamping mechanism

Set the eccentric clamping element to the "off" position with hexagonal key (as far as the stop). The clamping mechanism is then released and the boring bar can be changed (Fig. 1). Insert the new boring bar into the clamping holder as far as the stop with the flat surface upwards.

Tighten the eccentric clamping element with the key to a maximum of 3 Nm (Fig. 2).

By turning the eccentric clamping element, the boring bar is pushed out of the holder in the axial position (± 0.01) and at the same time moved into the exact centre height (± 0.01).

A click will indicate that the clamping mechanism has been released.



1



2



3



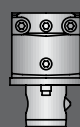
4



5



6



7



Copying tool

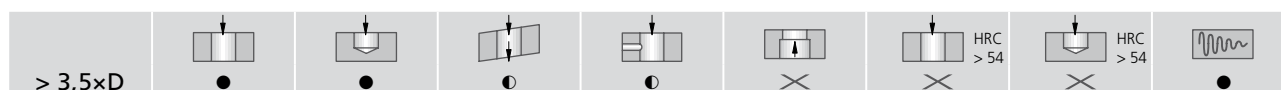
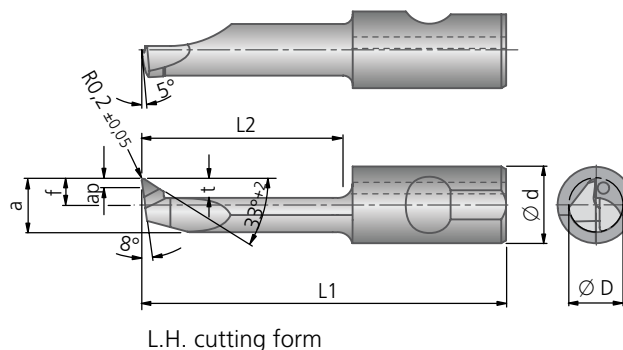
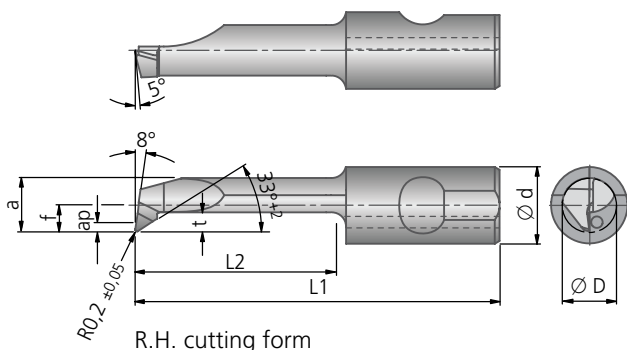
for workpiece material

P K N S

> 3,5xD

$D_{min} \geq 5$

UniTurn®



									Cutting form	
									R.H.	L.H.
Ø D min	a _p max	t max	f	a	Ø d	L1	L2	kg	Order No.	Order No.
3	0,2	0,7	1,25	2,7	4	28	10	0,0032	H51 32100.0182	H51 31100.0182
						33	15	0,0035	H51 32150.0182	H51 31150.0182
						38	20	0,0037	H51 32200.0182	H51 31200.0182
4	0,3	0,8	1,75	3,7	4	28	10	0,0038	H51 42100.0182	H51 41100.0182
						33	15	0,0043	H51 42150.0182	H51 41150.0182
						38	20	0,0047	H51 42200.0182	H51 41200.0182
5	0,5	1,0	2,25	4,7	8	43	25	0,0052	H51 42250.0182	H51 41250.0182
						28	10	0,013	H51 52100.0282	H51 51100.0282
						33	15	0,013	H51 52150.0282	H51 51150.0282
6	0,5	1,8	2,75	5,7	8	38	20	0,014	H51 52200.0282	H51 51200.0282
						43	25	0,015	H51 52250.0282	H51 51250.0282
						48	30	0,016	H51 52300.0282	H51 51300.0282
8	0,6	2,5	3,75	7,7	8	53	35	0,018	H51 62150.0282	H51 61150.0282
						33	15	0,014	H51 62200.0282	H51 61200.0282
						38	20	0,015	H51 62250.0282	H51 61250.0282
						43	25	0,016	H51 62300.0282	H51 61300.0282
						48	30	0,017	H51 62350.0282	H51 61350.0282
						53	35	0,018	H51 62400.0282	H51 61400.0282
						33	15	0,016	H51 82150.0282	H51 81150.0282
						38	20	0,018	H51 82200.0282	H51 81200.0282
						43	25	0,020	H51 82250.0282	H51 81250.0282
						48	30	0,022	H51 82300.0282	H51 81300.0282
						53	35	0,023	H51 82350.0282	H51 81350.0282
						58	40	0,025	H51 82400.0282	H51 81400.0282

Please note:

From D_{min}. 5 mm, copying tools have internal coolant supply; for smaller diameters, coolant is passed over adaptor.

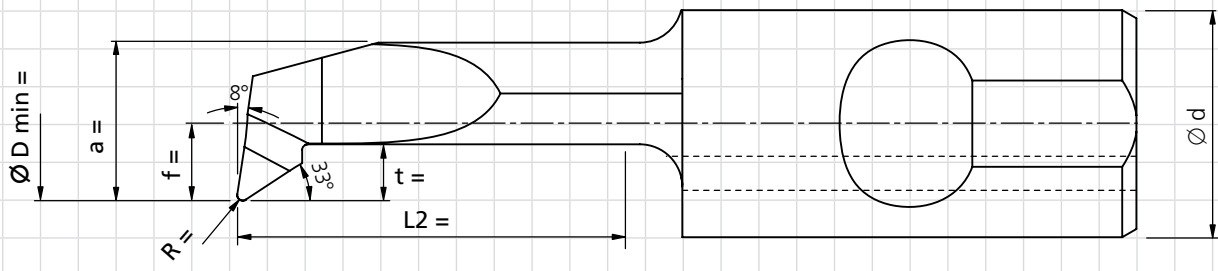
● very good | ● good | ○ possible | ✗ not possible

Recommended guide values for copying: Page 47.

Order No./Order date	Please state Customer No.	Signature	KOMET internal
----------------------	---------------------------	-----------	----------------

☐ Order	Company:
☐ Enquiry	Address:
Quantity: (minimum order 5 off)	Contact Department:
Coating ☐ yes ☐ no	Telephone Fax:
	E-Mail:

Copying tool XH51 ...



Parameter table

Ø D min	t max	a Dmin -0,3	f a/2 -0,1	R	L2	Ø d	
3,00 - 3,99	0,7	2,7...3,7	1,25...1,75	0,1 / 0,2	10 ... 20	4	-
4,00 - 4,99	0,8	3,7...4,7	1,75...2,25	0,1 / 0,2	10 ... 25	4	-
5,00 - 5,99	1,0	4,7...5,7	2,25...2,75	0,1 / 0,2	10 ... 35	8	✓
6,00 - 6,99	1,8	5,7...6,7	2,75...3,25	0,1 / 0,2	10 ... 40	8	✓
7,00 - 8,00	2,5	6,7...7,7	3,25...3,75	0,1 / 0,2	10 ... 45	8	✓

Please provide workpiece sketch!



Grooving tool

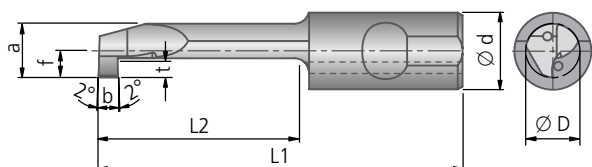
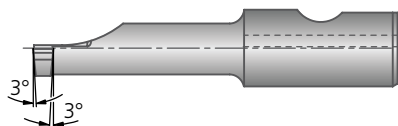
for workpiece material

P K N S

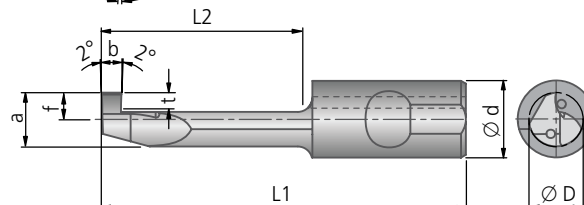
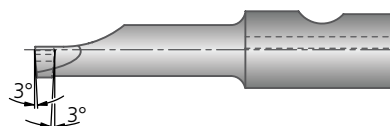
> 3,5xD

$D_{min} \geq 5$

UniTurn®



R.H. cutting form



L.H. cutting form

									Cutting form	
Ø D min	b+0,05	t max	f	a	Ø d	L1	L2	kg	R.H.	L.H.
									Order No.	Order No.
3	1,0	0,7	1,25	2,7	4	28	10	0,0032	H52 32100.1082	H52 31100.1082
						33	15	0,0035	H52 32150.1082	H52 31150.1082
						28	10	0,0038	H52 42100.1082	H52 41100.1082
4	1,0	0,8	1,75	3,7	4	33	15	0,0043	H52 42150.1082	H52 41150.1082
						38	20	0,0047	H52 42200.1082	H52 41200.1082
						43	25	0,0052	H52 42250.1082	—
5	1,0	1,0	2,25	4,7	8	28	10	0,013	H52 52100.1082	—
	1,5								H52 52100.1582	—
	2,0								H52 52100.2082	—
5	1,0	1,0	2,25	4,7	8	33	15	0,013	H52 52150.1082	H52 51150.1082
	1,5								H52 52150.1582	H52 51150.1582
	2,0								H52 52150.2082	H52 51150.2082
5	1,0	1,0	2,25	4,7	8	38	20	0,014	H52 52200.1082	H52 51200.1082
	1,5								H52 52200.1582	H52 51200.1582
	2,0								H52 52200.2082	H52 51200.2082
5	1,0	1,0	2,25	4,7	8	43	25	0,015	H52 52250.1082	—
	1,5								H52 52250.1582	—
	2,0								H52 52250.2082	—
5	1,0	1,0	2,25	4,7	8	48	30	0,016	H52 52300.1082	H52 51300.1082
	1,5								H52 52300.1582	—
	2,0								H52 52300.2082	—
6	1,0	1,8	2,75	5,7	8	33	15	0,014	H52 62150.1082	H52 61150.1082
	1,5								H52 62150.1582	H52 61150.1582
	2,0								H52 62150.2082	H52 61150.2082
6	1,0	1,8	2,75	5,7	8	38	20	0,015	H52 62200.1082	H52 61200.1082
	1,5								H52 62200.1582	H52 61200.1582
	2,0								H52 62200.2082	H52 61200.2082
6	1,0	1,8	2,75	5,7	8	43	25	0,016	H52 62250.1082	—
	1,5								H52 62250.1582	H52 61250.1582
	2,0								H52 62250.2082	H52 61250.2082
6	1,0	1,8	2,75	5,7	8	48	30	0,017	H52 62300.1082	H52 61300.1082
	1,5								H52 62300.1582	—
	2,0								H52 62300.2082	H52 61300.2082
6	1,0	1,8	2,75	5,7	8	53	35	0,018	H52 62350.1082	H52 61350.1082
	1,5								H52 62350.1582	—
	2,0								H52 62350.2082	—
8	1,0	2,5	3,75	7,7	8	33	15	0,016	H52 82150.1082	H52 81150.1082
	1,5								H52 82150.1582	H52 81150.1582
	2,0								H52 82150.2082	H52 81150.2082
8	1,0	2,5	3,75	7,7	8	38	20	0,018	H52 82200.1082	H52 81200.1082
	1,5								H52 82200.1582	H52 81200.1582
	2,0								H52 82200.2082	H52 81200.2082
8	1,0	2,5	3,75	7,7	8	43	25	0,020	H52 82250.1082	H52 81250.1082
	1,5								H52 82250.1582	H52 81250.1582
	2,0								H52 82250.2082	H52 81250.2082
8	1,0	2,5	3,75	7,7	8	48	30	0,022	H52 82300.1082	—
	1,5								H52 82300.1582	—
	2,0								H52 82300.2082	H52 81300.2082
8	1,0	2,5	3,75	7,7	8	53	35	0,023	H52 82350.1082	—
	1,5								H52 82350.1582	—
	2,0								H52 82350.2082	H52 81350.2082
8	1,0	2,5	3,75	7,7	8	58	40	0,025	H52 82400.1082	—
	1,5								H52 82400.1582	H52 81400.1582
	2,0								H52 82400.2082	H52 81400.2082

Please note: From D_{min}. 5 mm, recessing tools have internal coolant supply; for smaller diameters, coolant is passed over adaptor.

● very good | ● good | ○ possible | ✕ not possible

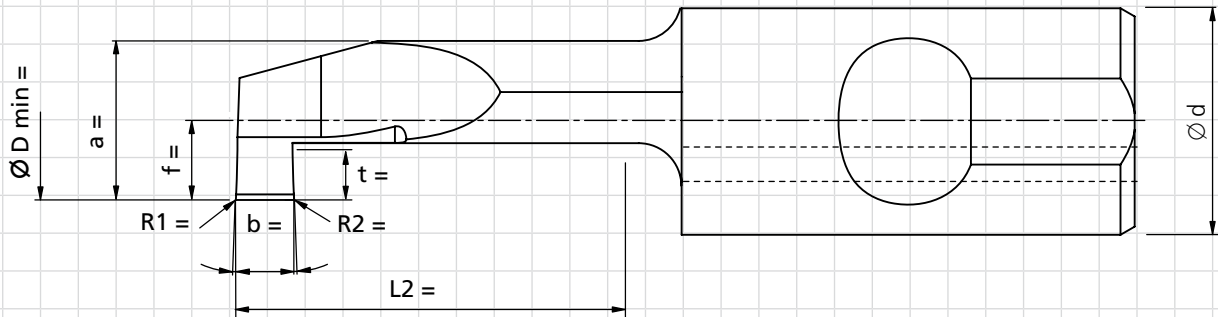
Recommended guide values for recessing: Page 47.

Patent applied for inside and outside Germany

Order No./Order date	Please state Customer No.	Signature	KOMET internal
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☐ Order	Company:
☐ Enquiry	Address:
Quantity: (minimum order 5 off)	Contact Department:
Coating ☐ yes ☐ no	Telephone Fax:
	E-Mail:

Grooving tool XH52 ...



Parameter table

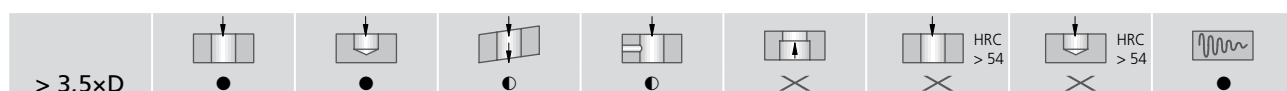
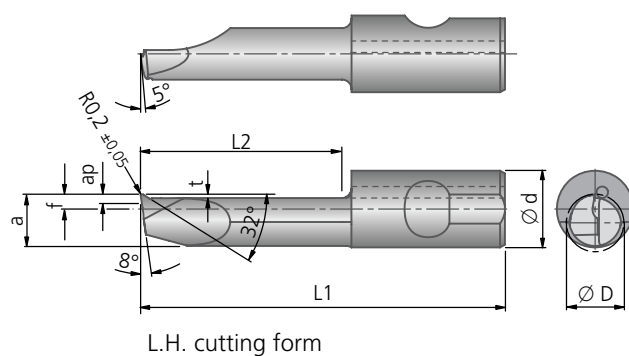
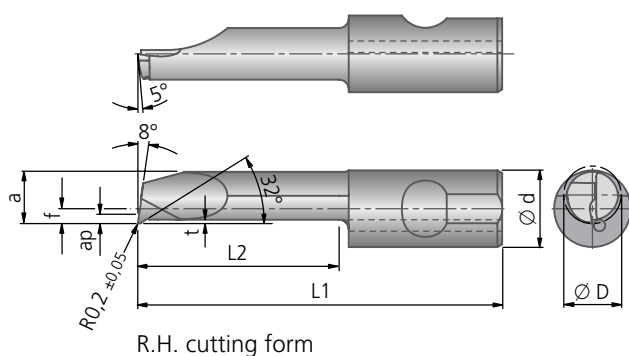
Ø D min	t max	b max	a Dmin -0,3	f a/2 -0,1	R1 / R2 b/2	L2	Ø d	
3,00 - 3,99	1,5	0,7	2,7...3,7	1,25...1,75	0 ... 0,75	10... 20	4	-
4,00 - 4,99	2	0,8	3,7...4,7	1,75...2,25	0 ... 1,00	10... 25	4	-
5,00 - 5,99	2,5	1,2	4,7...5,7	2,25...2,75	0 ... 1,25	10... 30	8	✓
6,00 - 6,99	3	1,8	5,7...6,7	2,75...3,25	0 ... 1,50	10... 35	8	✓
7,00 - 8,00	3,5	2,5	6,7...7,7	3,25...3,75	0 ... 1,75	10... 40	8	✓

Please provide workpiece sketch!

Grid area for workpiece sketch.



Boring tool



									Cutting form	
									R.H.	L.H.
Ø D min	ap max	t max	f	a	Ø d	L1	L2	kg	Order No.	Order No.
3	0,6	0,3	1,25	2,6	4	28	10	0,004	H55 32100.0182	H55 31100.0182
						33	15		H55 32150.0182	–
4	0,8	0,3	1,75	3,6	4	33	15	0,005	H55 42150.0182	–
						38	20		H55 42200.0182	H55 41200.0182
5	1,0	0,4	1,55	4,6	8	33	15	0,016	H55 52150.0282	H55 51150.0282
						38	20	0,018	–	H55 51200.0282
						43	25	0,019	H55 52250.0282	–
6	1,1	0,4	1,55	5,4	8	38	20	0,020	H55 62200.0282	–
						48	30	0,023	H55 62300.0282	H55 61300.0282
8	1,2	0,4	1,5	5,5	8	38	20	0,020	–	H55 81200.0282
						58	40	0,027	H55 82400.0282	–

Please note:

From D_{min}. 5 mm, boring tools have internal coolant supply; for smaller diameters, coolant is passed over adaptor.

Guideline recommendation: feed f = 0.025-0.1 mm

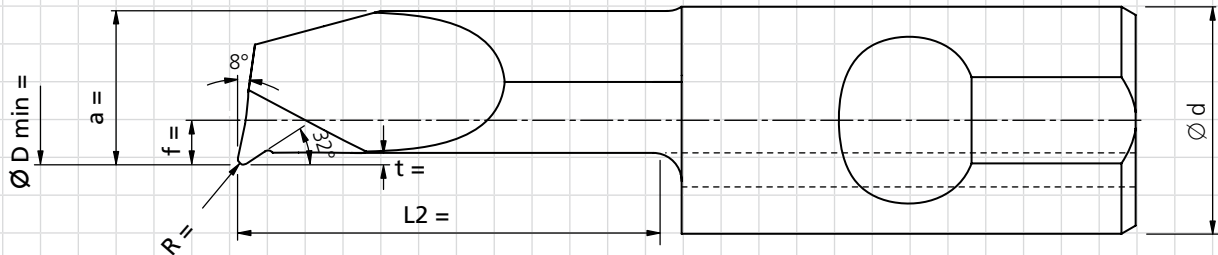
● very good | ● good | ○ possible | ✗ not possible

Recommended guide values for boring: Page 47.

Order No./Order date	Please state Customer No.	Signature	KOMET internal
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☐ Order	Company:
☐ Enquiry	Address:
Quantity: (minimum order 5 off)	Contact Department:
Coating ☐ yes ☐ no	Telephone Fax:
	E-Mail:

Boring tool XH55 ...



Parameter table

Ø D min	t max	a Dmin -0,3	f a/2 -0,1	R	L2	Ø d	
3,00 - 3,99	0,3	2,7...3,7	1,25...1,75	0,1 / 0,2	10 ... 20	4	-
4,00 - 4,99	0,3	3,7...4,7	1,75...2,25	0,1 / 0,2	10 ... 25	4	-
5,00 - 5,99	0,4	4,7...5,7	2,25...2,75	0,1 / 0,2 / 0,3	10 ... 35	8	✓
6,00 - 6,99	0,4	5,7...6,7	2,75...3,25	0,1 / 0,2 / 0,3 / 0,4	10 ... 40	8	✓
7,00 - 8,00	0,4	6,7...7,7	3,25...3,75	0,1 / 0,2 / 0,3 / 0,4	10 ... 45	8	✓

Please provide workpiece sketch!

Grid area for workpiece sketch.

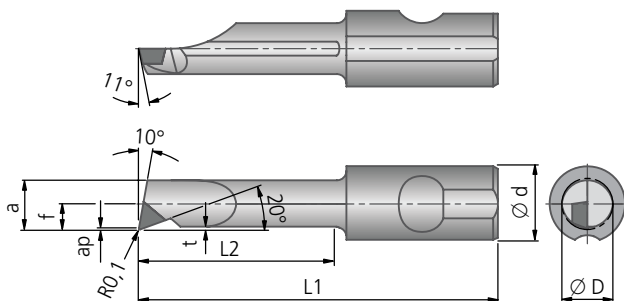


Boring tool with CBN

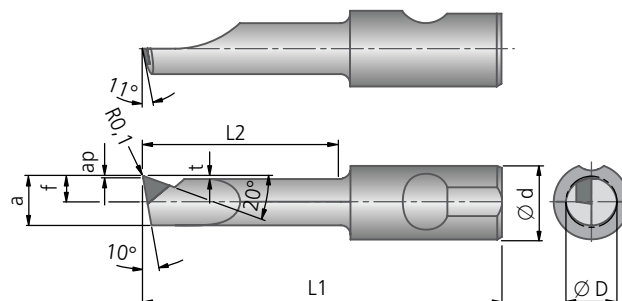
for workpiece material

S H

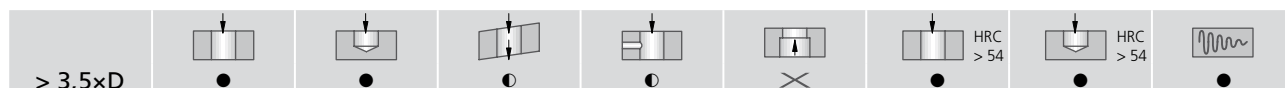
> 3,5xD



R.H. cutting form



L.H. cutting form



								Cutting form	
								R.H.	L.H.
Ø D min	t	f	a	Ø d	L1	L2	kg	Order No.	Order No.
2,7	0,2	1,35	2,5	4	27	9	0,004	H56 32100.0140	H56 31100.0140
3,8	0,2	1,9	3,6	8	30	12	0,015	H56 42121.0140	H56 41121.0140
4,8	0,25	2,4	4,55	8	33	15	0,016	H56 52151.0140	H56 51151.0140
5,6	0,3	2,7	5,2	8	38	20	0,019	H56 62201.0140	H56 61201.0140
7,5	0,5	3,8	7,3	8	43	25	0,024	H56 82251.0140	H56 81251.0140

Please note:

Boring tools have internal coolant supply.

Guideline recommendations: $a_p = 0.05-0.07$ mm; $f = 0.01-0.03$ mm; $v_c = 70-90$ m/min

● very good | ● good | ○ possible | ✕ not possible

Recommended guide values for boring: Page 47.

Recommended cutting data

Recommended guide values for boring, chamfering, copying and recessing																			
Material group	Strength R _m (N/mm²)	Hardness HB	Material	Material example, material code/DIN	Cutting speed			Feed			Cutting depth			Feed			Cutting depth		
					v _c (m/min)			f (mm/rev)			a _p (mm)			f (mm/rev)			a _p (mm)		
					min	opt.	max	min	opt.	max	min	opt.	max	min	opt.	max	min	opt.	max
P	1.0	≤500	non-alloy steels	1.0037 (S235JR) 1.0715 (115Mn30) 1.0044 (S2575JR)	30	100	180	0,010	0,02	0,030	0,02	0,08	0,15	0,010	0,02	0,025	0,02	0,07	0,10
	2.0	500-900	non-alloy / low alloy steels	1.0050 (E295) 1.0535 (C55) 1.7131 (16MnCr5)	30	90	130	0,010	0,02	0,030	0,02	0,08	0,15	0,010	0,02	0,025	0,02	0,07	0,10
	2.1	<500	lead alloys	1.0718 (115MnPb30)	20	80	120	0,010	0,02	0,030	0,02	0,08	0,15	0,010	0,02	0,025	0,02	0,07	0,10
	3.0	>900	non alloy / low alloy steels: heat resistant structural, heat treated, nitride and tools steels	1.7225 (42CrMo4) 1.1221 (C60E)	20	80	120	0,005	0,01	0,025	0,02	0,07	0,10	0,005	0,01	0,020	0,02	0,07	0,10
	4.0	>900	high alloy steels	1.2341 (6CrMo15-5) 1.2601 (X165Cr- MoV12)	15	50	90	0,005	0,01	0,025	0,02	0,08	0,15	0,005	0,01	0,020	0,02	0,07	0,10
	4.1		HSS		10	30	60	0,005	0,01	0,025	0,02	0,08	0,15	0,005	0,01	0,020	0,02	0,07	0,10
S	5.0	250	special alloys: Inconel, Hastelloy, Nimonic, stc.	2.4668 (NiCr- 19Fe19Nb5Mo3) 2.4631 (Nimonic 80A)	5	20	30	0,005	0,01	0,025	0,02	0,05	0,08	0,005	0,01	0,020	0,02	0,06	0,10
	5.1	400	titanium, titanium alloys	3.7115 (TiAl5Sn2.5)	5	30	50	0,005	0,01	0,025	0,02	0,05	0,08	0,005	0,01	0,020	0,02	0,06	0,10
M	6.0	≤600	stainless steels	1.4306 (X2Cr- Ni19-11) 1.4401 (X5CrNi- Mo17-12-2)	10	50	80	0,005	0,01	0,025	0,02	0,07	0,10	0,005	0,01	0,020	0,02	0,07	0,10
	6.1	<900	stainless steels	1.4511 (X3CrNb17) 1.4571 (X10CrNiMo- Ti17-12-2)	10	50	80	0,005	0,01	0,025	0,02	0,07	0,10	0,005	0,01	0,020	0,02	0,07	0,10
	7.0	>900	stainless / fireproof steels	1.4713 (X10CrAlSi7) 1.4862 (X8NiCr- Si38-18)	8	30	60	0,005	0,01	0,025	0,02	0,07	0,10	0,005	0,01	0,020	0,02	0,07	0,10
K	8.0	180	gray cast iron	0.6025 (EN-GJL-250) 0.6035 (EN-GJL-350)	15	55	90	0,010	0,02	0,035	0,05	0,10	0,25	0,010	0,02	0,030	0,03	0,10	0,20
	8.1	250	alloy gray cast iron	0.6660 (GGL- NiCr20 2)	15	55	90	0,010	0,02	0,035	0,05	0,10	0,25	0,010	0,02	0,030	0,03	0,10	0,20
	9.0	≤600	spheroidal graphite cast iron, ferritic	0.7040 (EN- GJS-400-15)	15	55	90	0,010	0,02	0,035	0,05	0,10	0,25	0,010	0,02	0,030	0,03	0,10	0,20
	9.1	230	spheroidal graphite cast iron, ferritic / perlite	0.7050 (EN-GJS-500-7) 0.7055 (GGG-55) 0.8055 (GTW-55)	15	55	90	0,010	0,02	0,035	0,05	0,10	0,25	0,010	0,02	0,030	0,03	0,10	0,20
	10.0	>600	spheroidal graphite cast iron, perlite malleable iron	0.7060 (EN- GJS-600-3) 0.8165 (GTS-65)	15	55	90	0,010	0,02	0,035	0,05	0,10	0,25	0,010	0,02	0,030	0,03	0,10	0,20
	10.1	200	alloyed spheroidal graphite cast iron	0.7661 (EN-GJSA-XNiCr20-2)	15	55	90	0,010	0,02	0,035	0,05	0,10	0,25	0,010	0,02	0,030	0,03	0,10	0,20
	10.2	300	vermicular cast iron	EN-GJV Ti < 0,2 EN-GJV Ti > 0,2	15	55	90	0,010	0,02	0,035	0,05	0,10	0,25	0,010	0,02	0,030	0,03	0,10	0,20
	12.0	90	copper alloy, brass, lead-alloy bronze, lead bronze: good cut	2.0375 (CuZn36Pb3) 2.1182.01 (G- CuPb15Sn)	30	120	200	0,010	0,02	0,040	0,02	0,40	0,50	0,010	0,02	0,040	0,03	0,15	0,30
N	12.1	100	copper alloy, brass, bronze: average cut	2.0550 (CuZn40Al2) 2.0060 (E-Cu57)	30	150	250	0,010	0,02	0,040	0,02	0,40	0,50	0,010	0,02	0,040	0,03	0,15	0,30
	13.0	60	wrought aluminium alloys	3.3315 (AlMg1) 3.0517 (AlMnCu)	30	180	300	0,010	0,02	0,040	0,02	0,40	0,50	0,010	0,02	0,040	0,03	0,15	0,30
	13.1	75	cast alum. alloy: Si-content <10% magnesium alloy	3.3561 (G-AlMg5) 3.2373.61 (G- AlSi9Mg wa)	30	150	250	0,010	0,02	0,040	0,02	0,40	0,50	0,010	0,02	0,040	0,03	0,15	0,30
	14.0	100	cast alum.alloy: Si-content >10%	3.2381.01 (G- AlSi10Mg)	30	120	200	0,010	0,02	0,040	0,02	0,40	0,50	0,010	0,02	0,040	0,03	0,15	0,30
H	15.0	1400	hardened steels > 52 HRC		20	50	80	0,005	0,01	0,020	0,02	0,07	0,12	—	—	—	—	—	—
	16.0	1800	hardened steels > 62 HRC		15	40	65	0,005	0,01	0,020	0,02	0,07	0,12	—	—	—	—	—	—

Cutting values shown are relating to the basic recommendations for cutting materials given.

Important: See chapter 8 for more application details and safety notes!

1



2



3



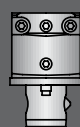
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5



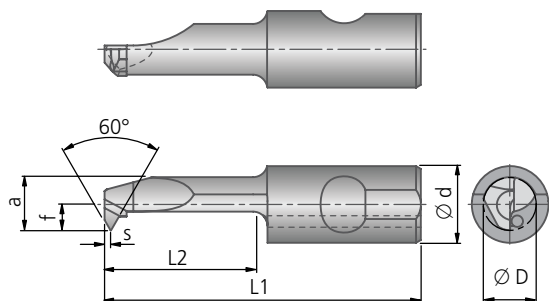
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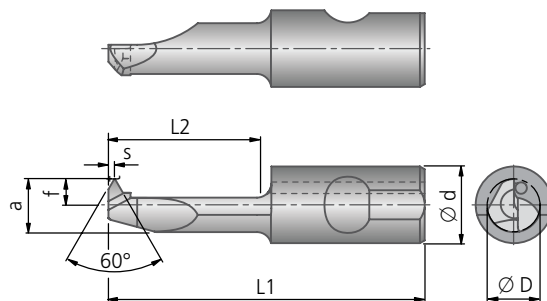
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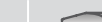
Thread turning tool



R.H. cutting form



L.H. cutting form

										Cutting form											
Ø D min	Control thread	Pitch P	s	f	a	Ø d	L1	L2		R.H.	L.H.										
																					
										Order No.	Order No.										
										5	M6	1	0,55	2,25	4,7	8	33	15	0,014	H54 52150.1082	H54 51150.1082
										6	M8	1,25	0,65	2,75	5,7	8	33	15	0,014	H54 62150.1282	—
8	M10	1,5	0,75	3,75	7,7	8	33	15	0,017	H54 82150.1582	—										
	M12	1,75	0,85							H54 82150.1782	—										

Please note:

From D_{min.} 5 mm, threading tools have internal coolant supply; for smaller diameters, coolant is passed over adaptor.

● very good | ● good | ○ possible | ✗ not possible

Recommended guide values for internal thread cutting: Page 49.

Recommended cutting data

Recommended guide values for internal thread cutting														
Material group	Strength R _m (N/mm²)	Hardness HB	Material	Material example, material code/DIN	Cutting speed v _c (m/min)			No. of cuts						
								Pitch (mm)						
					min	opt.	max	0,50	0,75	1,00	1,25	1,50	1,75	
P	1.0	≤500	non-alloy steels	1.0037 (S235JR) 1.0715 (11SMn30) 1.0044 (S2575JR)	30	100	180	4-6	4-7	4-8	5-9	6-10	7-12	
	2.0	500-900	non-alloy / low alloy steels	1.0050 (E295) 1.0535 (C55) 1.7131 (16MnCr5)	30	90	130							
	2.1	<500	lead alloys	1.0718 (11SMnPb30)	20	80	120							
	3.0	>900	non alloy / low alloy steels: heat resistant structural, heat treated, nitride and tools steels	1.7225 (42CrMo4) 1.1221 (C60E)	20	80	120							
	4.0	>900	high alloy steels	1.2341 (6CrMo15-5) 1.2601 (X165CrMoV12)	15	50	90							
	4.1		HSS		10	30	60							
S	5.0		250	special alloys: Inconel, Hastelloy, Nimonic, stc.	2.4668 (NiuCr19Fe19Nb5Mo3) 2.4631 (Nimonic 80A)	5	20	30	4-6	4-7	4-8	5-9	6-10	7-12
	5.1	400	titanium, titanium alloys	3.7115 (TiAl5Sn2.5)	5	30	50							
M	6.0	≤600		stainless steels	1.4306 (X2CrNi19-11) 1.4401 (X5CrNiMo17-12-2)	10	50	80	4-6	4-7	4-8	5-9	6-10	7-12
	6.1	<900		stainless steels	1.4511 (X3CrNb17) 1.4571 (X10CrNiMoTi17-12-2)	10	50	80						
	7.0	>900		stainless / fireproof steels	1.4713 (X10CrAlSi7) 1.4862 (X8NiCrSi38-18)	8	30	60						
K	8.0		180	gray cast iron	0.6025 (EN-GJL-250) 0.6035 (EN-GJL-350)	15	55	90	4-6	4-7	4-8	5-9	6-10	7-12
	8.1		250	alloy gray cast iron	0.6660 (GGL-NiCr20 2)	15	55	90						
	9.0	≤600	130	spheroidal graphite cast iron, ferritic	0.7040 (EN-GJS-400-15)	15	55	90						
	9.1		230	spheroidal graphite cast iron, ferritic /perlitic	0.7050 (EN-GJS-500-7) 0.7055 (GGG-55) 0.8055 (GTW-55)	15	55	90						
	10.0	>600	250	spheroidal graphite cast iron, perlitic malleable iron	0.7060 (EN-GJS-600-3) 0.8165 (GTS-65)	15	55	90						
	10.1		200	alloyed spheroidal graphite cast iron	0.7661 (EN-GJSA-XNiCr20-2)	15	55	90						
	10.2		300	vermicular cast iron	EN-GJV Ti < 0,2 EN-GJV Ti > 0,2	15	55	90						
N	12.0		90	copper alloy, brass, lead-alloy bronze, lead bronze: good cut	2.0375 (CuZn36Pb3) 2.1182.01 (G-CuPb15Sn)	30	120	200	4-6	4-7	4-8	5-9	6-10	7-12
	12.1		100	copper alloy, brass, bronze: average cut	2.0550 (CuZn40Al2) 2.0060 (E-Cu57)	30	150	250						
	13.0		60	wrought aluminium alloys	3.3315 (AlMg1) 3.0517 (AlMnCu)	30	180	300						
	13.1		75	cast alum. alloy: Si-content <10% magnesium alloy	3.3561 (G-AlMg5) 3.2373.61 (G-AlSi9Mg wa)	30	150	250						
	14.0		100	cast alum.alloy:Si-content >10%	3.2381.01 (G-AlSi10Mg)	30	120	200						
H	15.0	1400		hardened steels > 52 HRC										
	16.0	1800		hardened steels > 62 HRC										

Cutting values shown are relating to the basic recommendations for cutting materials given.

Important: See chapter 8 for more application details and safety notes!

1



2



3



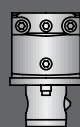
4



5



6



7



Order No./Order date

Please state Customer No.

Signature

KOMET internal

- ☐ Order
☐ Enquiry

Company:

Address:

Quantity:

(minimum order 5 off)

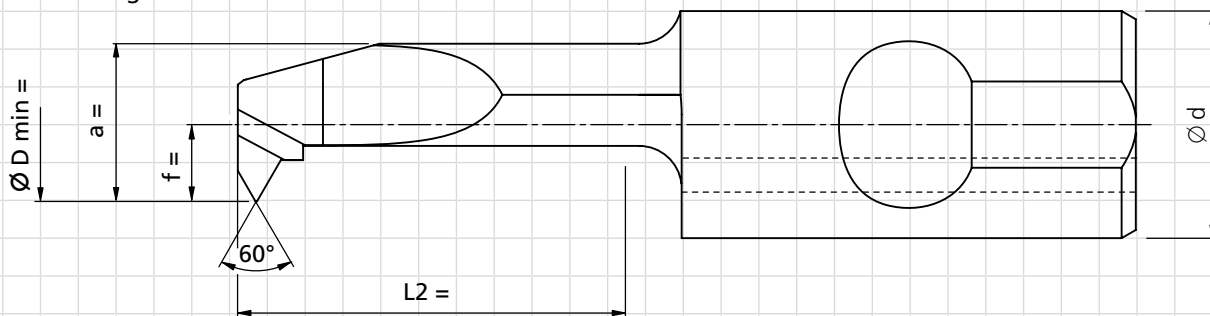
Contact | Department:

Telephone | Fax:

Coating ☐ yes ☐ no

E-Mail:

Thread turning tool XH54 ...



Parameter table
Metric ISO
standard thread

Ø D min	Thread	Pitch	Thread length	a	f	L2	Ø d	
3	M4 ... M8	0,7 ... 1,25	0,38 ... 0,68	2,7	1,25	10 ... 15	4	-
4	M5 ... M10	0,8 ... 1,5	0,43 ... 0,81	3,7	1,75	10 ... 20	4	-
5	M6 ... M16	1 ... 2	0,54 ... 1,08	4,7	2,25	10 ... 30	8	✓
6	M8 ... M24	1,25 ... 3,0	0,68 ... 1,62	5,7	2,75	10 ... 35	8	✓
8	M10 ... M30	1,5 ... 3,5	0,81 ... 1,89	6,7	3,25	10 ... 40	8	✓

Parameter table
Metric ISO
fine thread

Ø D min	Thread	Pitch	Thread length	a	f	L2	Ø d	
3	M4x0,20 ... M8x1	0,2 ... 1,0	0,11 ... 0,54	2,7	1,25	10 ... 15	4	-
4	M5x0,25 ... M10x1	0,25 ... 1,0	0,14 ... 0,54	3,7	1,75	10 ... 20	4	-
5	M6x0,25 ... M16x1,5	0,25 ... 1,5	0,14 ... 0,81	4,7	2,25	10 ... 30	8	✓
6	M8x0,25 ... M24x1,5	0,25 ... 1,5	0,14 ... 0,81	5,7	2,75	10 ... 35	8	✓
8	M10x0,25 ... M30x2	0,25 ... 2,0	0,14 ... 1,08	6,7	3,25	10 ... 40	8	✓

Please provide workpiece sketch!

Order No./Order date	Please state Customer No.	Signature	KOMET internal
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☐ Order
☐ Enquiry

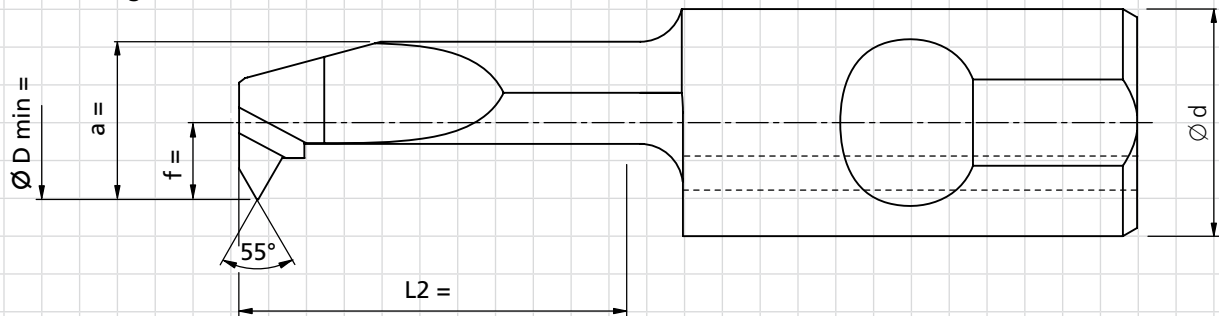
Company:
Address:

Quantity:
(minimum order 5 off)

Contact | Department:
Telephone | Fax:
E-Mail:

Coating ☐ yes ☐ no

Thread turning tool XH54 ...



Parameter table
Witworth thread

Ø D min	Thread	Pitch	Thread length	a	f	L2	Ø d	
4	1/4"	1,27	0,81	3,7	1,75	10 ... 20	4	-
5	5/16" ... 3/8"	1,41 ... 1,59	0,90 ... 1,02	4,7	2,25	10 ... 30	8	✓
6	5/16" ... 7/8"	1,41 ... 2,82	0,90 ... 1,81	5,7	2,75	10 ... 35	8	✓
8	1/2" ... 1"	2,11 ... 3,18	1,36 ... 2,03	6,7	3,25	10 ... 40	8	✓

Parameter table
Pipe thread
EN ISO 228-1

Ø D min	Thread	Pitch	Thread length	a	f	L2	Ø d	
6	G1/16 ... G1 1/2	0,91 ... 2,31	0,58 ... 1,48	5,7	2,75	10 ... 35	8	✓
8	G1/8 ... G1 1/2	0,91 ... 2,31	0,58 ... 1,48	6,7	3,25	10 ... 40	8	✓

Please provide workpiece sketch!

1



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4



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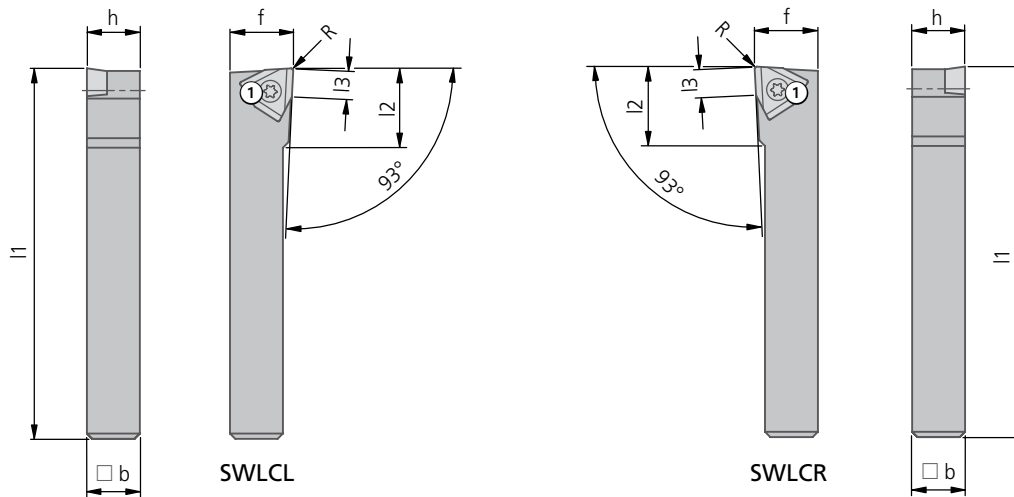
7



KOMET® – External machining

Turning tool $\kappa = 93^\circ$

- for insert W01 / W29
- L.H. turning tool SWLCL with left or neutral insert
- R.H. turning tool SWLCR with right or neutral insert



κ = 93°										Insert			
Order No. Article	Cutting form	h	□ b	l1	l2	l3	f	for R	Clamping screw ①  Order No. Article	W01 L.H.  Size ▼▼	W01 R.H.  Size ▼▼	W01 W29 neutral  Size ▼▼	
D00 75120 SWLCR-1010-E05	R.H.	10	10	70	15	5,3	12	0,2	0,09	N00 57511 S/M2,5×7,2-8IP 1,28 Nm		W01 24...	W01 24... W29 24...
D00 70130 SWLCL-1212-F05	L.H.	12	12	80	18	5,3	16	0,2	0,13	N00 57511 S/M2,5×7,2-8IP 1,28 Nm	W01 24...		W01 24... W29 24...
D00 75130 SWLCR-1212-F05	R.H.											W01 24...	
D00 70140 SWLCL-1616-H06	L.H.	16	16	100	20	6,6	20	0,2	0,27	N00 57521 S/M3,5×7,3-10IP 2,8 Nm	W01 34...		W01 34... W29 34...
D00 75140 SWLCR-1616-H06	R.H.											W01 34...	
D00 70150 SWLCL-2020-K07	L.H.	20	20	125	24	7,9	25	0,2	0,50	N00 57531 S/M4,5×9-15IP 6,25 Nm	W01 42...		W01 42... W29 42...
D00 75150 SWLCR-2020-K07	R.H.											W01 42...	
D00 70160 SWLCL-2525-M09	L.H.	25	25	150	30	9,9	32	0,4	0,84	N00 57531 S/M4,5×9-15IP 6,25 Nm	W01 50...		W29 50...
D00 75160 SWLCR-2525-M09	R.H.											W01 50...	

For further details on inserts see chapter 5.

Supply includes: Turning tool with clamping screw ①.
Please order insert separately. Screwdriver see chapter 7.

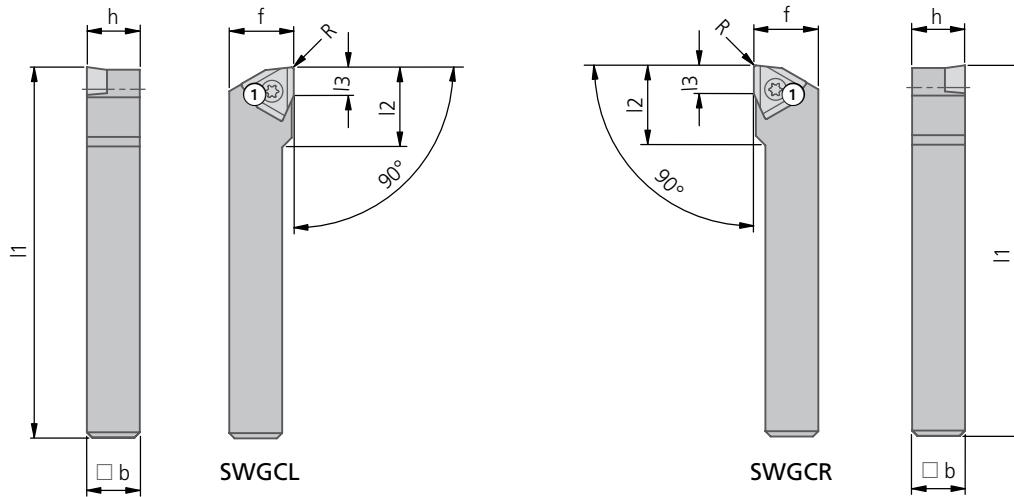
KOMET® – External machining

Turning tool $\kappa = 90^\circ$

for insert W01 / W29 ■

L.H. turning tool SWGCL with left or neutral insert ■

R.H. turning tool SWGCR with right or neutral insert ■



κ = 90°										Insert			
Order No. Article	Cutting form	h	□ b	l1	l2	l3	f	for R	Clamping screw ①  Order No. Article	W01 L.H.  Size ▼▼	W01 R.H.  Size ▼▼	W01 W29 neutral  Size ▼▼	
D00 75010 SWGCR-0808-D05	R.H.	8	8	60	16	5,3	11	0,2	0,06	N00 57511 S/M2,5×7,2-8IP 1,28 Nm		W01 24...	W01 24... W29 24... W29 24160.04..
D00 70020 SWGCL-1010-E05	L.H.	10	10	70	16	5,3	12	0,2	0,09	N00 57511 S/M2,5×7,2-8IP 1,28 Nm	W01 24...		W01 24... W29 24... W29 24160.04..
D00 75020 SWGCR-1010-E05	R.H.				15							W01 24...	
D00 70030 SWGCL-1212-F05	L.H.	12	12	80	20	5,3	16	0,2	0,13	N00 57511 S/M2,5×7,2-8IP 1,28 Nm	W01 24...		W01 24... W29 24... W29 24160.04..
D00 75030 SWGCR-1212-F05	R.H.				19							W01 24...	
D00 70040 SWGCL-1616-H06	L.H.	16	16	100	22	6,6	20	0,2	0,27	N00 57521 S/M3,5×7,3-10IP 2,8 Nm	W01 34...		W01 34... W29 34... W29 34160.04..
D00 75040 SWGCR-1616-H06	R.H.				20							W01 34...	
D00 70050 SWGCL-2020-K07	L.H.	20	20	125	26	7,9	25	0,2	0,50	N00 57531 S/M4,5×9-15IP 6,25 Nm	W01 42...		W01 42... W29 42... W29 42160.04..
D00 75050 SWGCR-2020-K07	R.H.												
D00 70060 SWGCL-2525-M09	L.H.	25	25	150	33	9,9	32	0,4	0,84	N00 57531 S/M4,5×9-15IP 6,25 Nm	W01 50...		W29 50...
D00 75060 SWGCR-2525-M09	R.H.												
D00 70070 SWGCL-3232-P09	L.H.	32	32	170	34	9,9	40	0,4	1,45	N00 57531 S/M4,5×9-15IP 6,25 Nm	W01 50...		W29 50...
D00 75070 SWGCR-3232-P09	R.H.				33							W01 50...	

For further details on inserts see chapter 5.

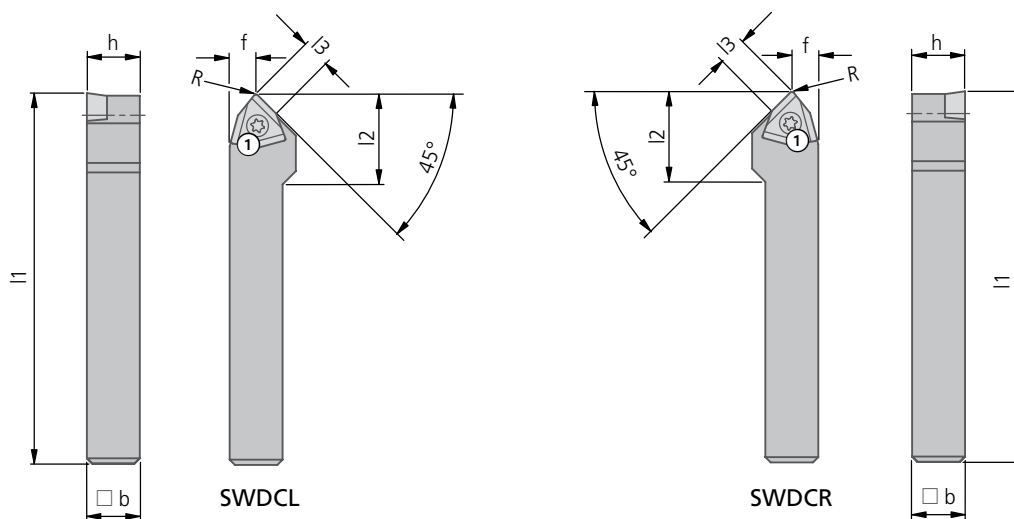
Supply includes: Turning tool with clamping screw ①.

Please order insert separately. Screwdriver see chapter 7.

KOMET® – External machining

Turning tool $\kappa = 45^\circ$

- for insert W01 / W29
- L.H. turning tool SWDCL with left or neutral insert
- R.H. turning tool SWDCR with right or neutral insert



κ = 45°										Insert			
Order No. Article	Cutting form	h	□ b	l1	l2	l3	f	for R	 kg	Clamping screw ①   Order No. Article	W01 L.H.  Size ▼▼	W01 R.H.  Size ▼▼	W01 W29 neutral  Size ▼▼
D00 75410 SWDCR-0808-D05	R.H.	8	8	60	18	5,3	5	0,2	0,06	N00 57511 S/M2,5×7,2-8IP 1,28 Nm		W01 24...	W01 24... W29 24...
D00 75420 SWDCR-1010-E05	R.H.	10	10	70	17	5,3	5	0,2	0,09	N00 57511 S/M2,5×7,2-8IP 1,28 Nm		W01 24...	W01 24... W29 24...
D00 75430 SWDCR-1212-F05	R.H.	12	12	80	18	5,3	6	0,2	0,13	N00 57511 S/M2,5×7,2-8IP 1,28 Nm		W01 24...	W01 24... W29 24...
D00 70440 SWDCL-1616-H06	L.H.	16	16	100	23	6,6	8	0,2	0,27	N00 57521 S/M3,5×7,3-10IP 2,8 Nm	W01 34...		W01 34... W29 34...
D00 75440 SWDCR-1616-H06	R.H.											W01 34...	
D00 70450 SWDCL-2020-K07	L.H.	20	20	125	10	7,9	10	0,2	0,50	N00 57531 S/M4,5×9-15IP 6,25 Nm	W01 42...		W01 42... W29 42...
D00 75450 SWDCR-2020-K07	R.H.											W01 42...	
D00 70460 SWDCL-2525-M09	L.H.	25	25	150	12,5	9,9	12,5	0,4	0,84	N00 57531 S/M4,5×9-15IP 6,25 Nm	W01 50...		W29 50...
D00 75460 SWDCR-2525-M09	R.H.											W01 50...	

For further details on inserts see chapter 5.

Supply includes: Turning tool with clamping screw ①.
Please order insert separately. Screwdriver see chapter 7.

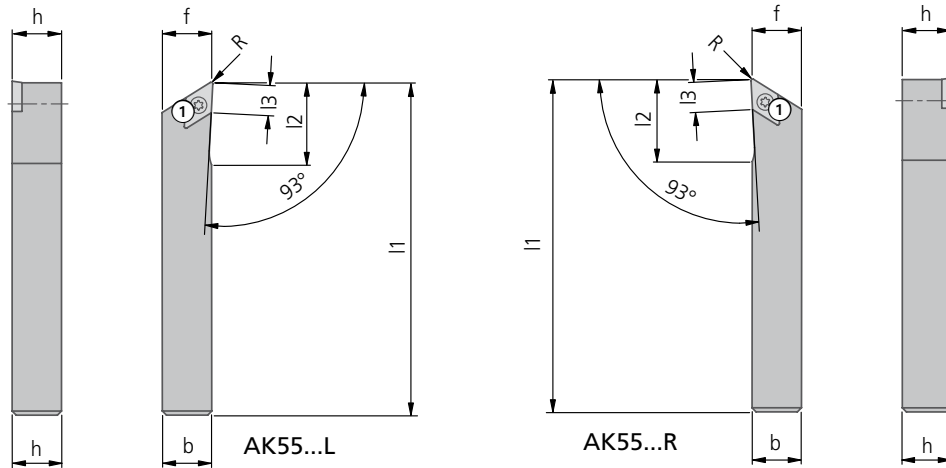
KOMET® – External machining

Turning tool $\kappa = 93^\circ$

for insert W60 / W79 ■

L.H. turning tool AK55...L with left or neutral insert ■

R.H. turning tool AK55...R with right or neutral insert ■



κ = 93°										Insert			
Order No. Article	Cutting form	h	b	l1	l2	l3	f	for R		Clamping screw ①  Order No. Article	 W60 L.H. Size ▼▼	 W60 R.H. Size ▼▼	 W60 W79 neutral Size ▼▼
D01 25012 AK55-8J R	R.H.	8	8	80	20	7	10,3	0,4	0,08	N00 56651 S2560-8IP 1,28 Nm		W60 18...	W60 18... W79 18...
D01 25022 AK55-10J R	R.H.	10	10	90	20	7	10,3	0,4	0,10	N00 56651 S2560-8IP 1,28 Nm		W60 18...	W60 18... W79 18...
D01 25032 AK55-12J R	R.H.	12	12	100	20	7	12,3	0,4	0,14	N00 56651 S2560-8IP 1,28 Nm		W60 18...	W60 18... W79 18...
D01 20042 AK55-16J L	L.H.	16	16	110	20	7	20	0,4	0,25	N00 56651 S2560-8IP 1,28 Nm	W60 18...		W60 18... W79 18...
D01 25042 AK55-16J R	R.H.				24							W60 18...	
D01 20052 AK55-20J L	L.H.	20	20	120	30	11	25	0,8	0,46	N00 56751 S3574-10IP 2,8 Nm	W60 32...		W60 32... W79 32...
D01 25052 AK55-20J R	R.H.											W60 32...	
D01 20062 AK55-25J L	L.H.	25	25	150	30	11	32	0,8	0,82	N00 56751 S3574-10IP 2,8 Nm	W60 32...		W60 32... W79 32...
D01 25062 AK55-25J R	R.H.											W60 32...	

For further details on inserts see chapter 5.

Supply includes: Turning tool with clamping screw ①.

Please order insert separately. Screwdriver see chapter 7.

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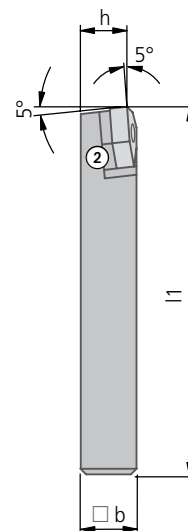
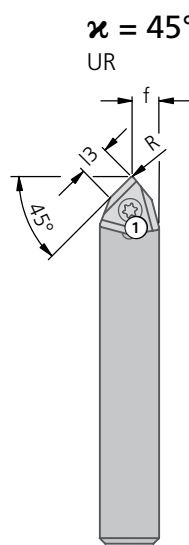
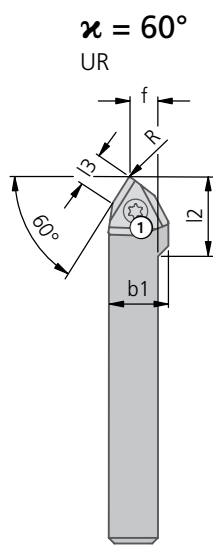
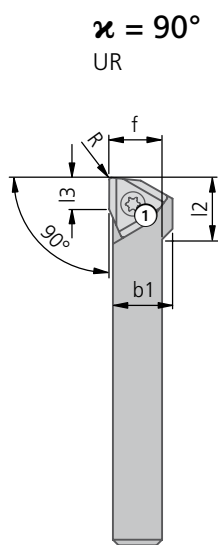
7

KOMET® – External machining

Turning tool $\kappa = 90^\circ$, 60° and 45°

■ for insert W04

■ R.H. turning tool as shown with right insert



UR													Insert	
Order No. Article	Cutting form	 b	b1	h	l1	l2	l3	f	for R	α		Clamping screw ①	Shim plate ②	W04 R.H. 
												 Order No. Article $\odot$ WAF	Order No. Size	
D10 15010 UR10 R 90°	R.H.	10	12,7	8,3	50	12	6,5	10,7	0,2	90°	0,04	N00 55060 M3,5x9,4/60° $\odot$ 1,5 2,8 Nm	–	W04 34480.02..
D10 15110 UR10 R 60°	R.H.	10	12,7	8,3	50	15	6,5	6,0	0,2	60°	0,04	N00 55060 M3,5x9,4/60° $\odot$ 1,5 2,8 Nm	–	W04 34480.02..
D10 15240 UR20 R 45°	R.H.	20	–	17,6	120	–	9,5	9,1	0,4	45°	0,35	N00 55120 M4,5x16,4 $\odot$ 2,5 4,5 Nm	L02 11110 2K	W04 50480.04..

For further details on inserts see chapter 5.

Supply includes: Turning tool with clamping screw ① and shim plate ②.

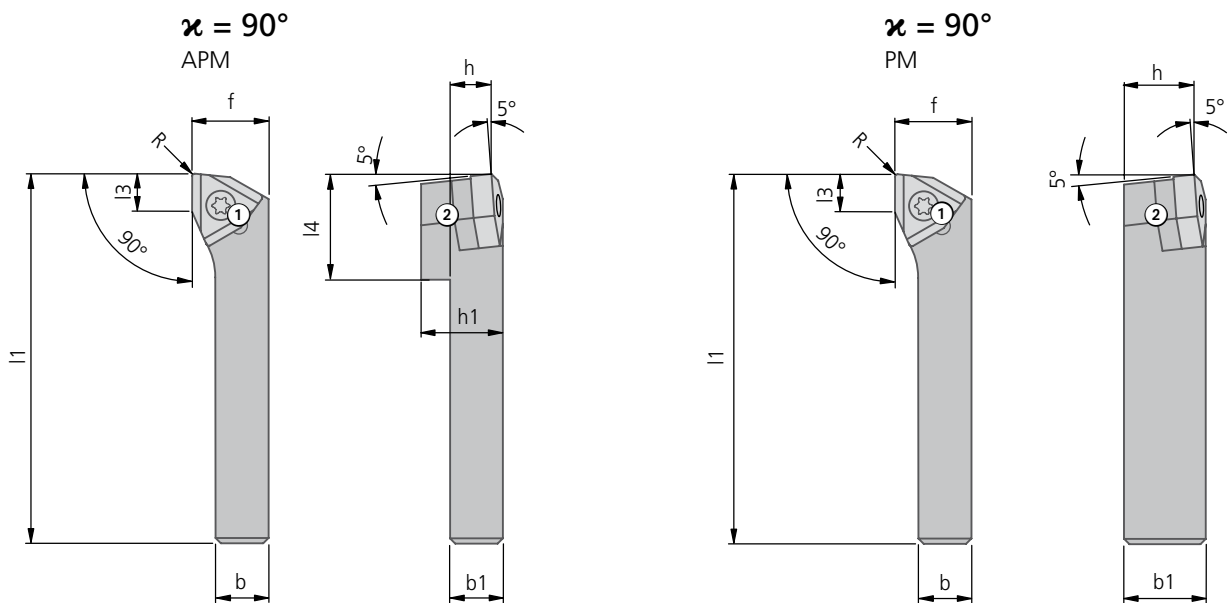
Please order insert separately. Hexagonal key see chapter 7.

Turning tool $\kappa = 90^\circ$

for insert W04 ■

R.H. turning tool as shown with right insert ■

L.H. turning tool in mirror image with left insert ■



APM													Insert	
Order No. Article	Cutting form	b	b1	h	h1	l1	l2	l3	f	for R		Clamping screw ①	Shim plate ②	 W04 R.H.
												 		
												Order No. Article ○WAF	Order No. Size	
D10 05010 APM10R	R.H.	10	10	8	17,7	115	22,5	7,5	16,8	0,2	0,12	N00 55110 M4,5×14,5 ○2,5 4,5 Nm	L02 11040 16	W04 42480.02..
D10 05020 APM12R	R.H.	12	12	10	17,7	115	22,5	7,5	16,8	0,2	0,12	N00 55110 M4,5×14,5 ○2,5 4,5 Nm	L02 11040 16	W04 42480.02..

PM												Insert	
Order No. Article	Cutting form	b	b1	h	l1	l3	f	for R	kg	Clamping screw ① Order No. Article ○WAF	Shim plate ② Order No. Size	W04 L.H. 	W04 R.H. 
D10 00030 PM1/16L	L.H.	16	17,7	15,7	140	7,5	19,8	0,2	0,31	N00 55110 M4,5×14,5 ○2,5 4,5 Nm	L02 11040 16	W04 42180.02..	
D10 05030 PM1/16R	R.H.												W04 42480.02..
D10 00040 PM1L	L.H.	16	21,7	19,7	140	7,5	19,8	0,2	0,39	N00 55130 M4,5×18,7 ○2,5 4,5 Nm	L02 11000 1	W04 42180.02..	
D10 05040 PM1R	R.H.												W04 42480.02..
D10 00050 PM2L	L.H.	20	26,1	23,7	165	9,5	24,0	0,4	0,67	N00 55140 M4,5×22,5 ○2,5 4,5 Nm	L02 11010 2	W04 50180.04..	
D10 05050 PM2R	R.H.												W04 50480.04..

For further details on inserts see chapter 5.

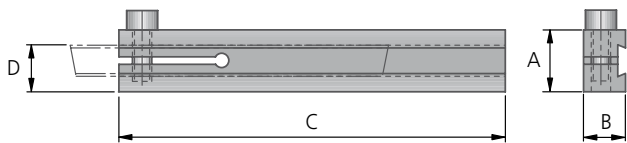
Supply includes: Turning tool with clamping screw ① and shim plate ②.

Please order insert separately. Hexagonal key see chapter 7.

KOMET® – External machining

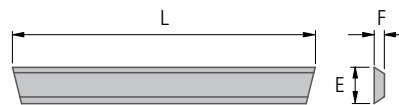
Parting-off

Holder
A00, A0

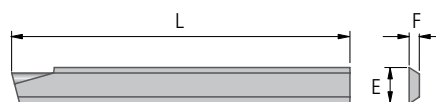


For this design, blades are clamped by pulling the slotted front section of the holder together.

Blade
A00, A0



- HSS grade F
- for L.H. and R.H. use

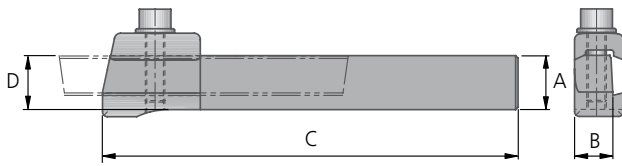


- carbide grade P20
- for R.H. use only
- blade with carbide insert



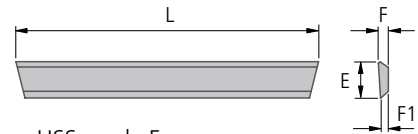
Holder							Blade						
Article	Order No.	A	B	C	D	kg	Article	Order No.	Grade	E	F	L	kg
A00	H01 15010	16	11	100	12	0,15	A00-F	H10 15010.91	F	8	2,2	75	0,010
A0	H01 15020	18	11	125	14	0,23	A0-F	H10 15020.91	F	10	2,7	100	0,019
							A0-R-P20	H10 15020.02	P20				

Holder
A1/2A, A3A

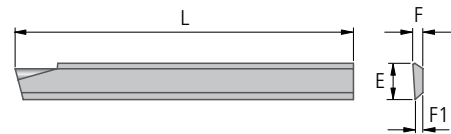


Also available for L.H. use.

Blade
A1/2A, A3A



- HSS grade F
- for L.H. and R.H. use



- carbide grade P20
- for R.H. use only
- blade with carbide insert



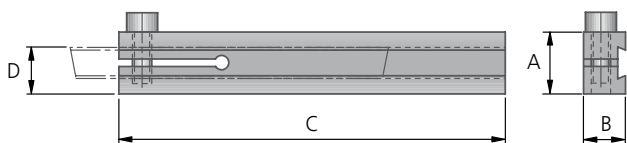
Holder							Blade							
Article	Order No.	A	B	C	D	kg	Article	Order No.	Grade	E	F	F1	L	kg
A1/2A	H01 15110	22	14,5	170	20	0,55	A1/2A-F	H10 15110.91	F	16	4	3	150	0,065
							A1/2A-R-P20	H10 15110.02	P20				100	0,044
A3A	H01 15130	27	18,0	210	25	1,00	A3A-F	H10 15130.91	F	18,5	5	4	150	0,095
							A3A-R-P20	H10 15130.02	P20				100	0,062

KOMET® – External machining

Grooving

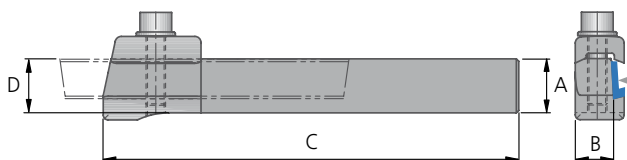
Holder for grooving width 0,8 - 2,0 mm

AE



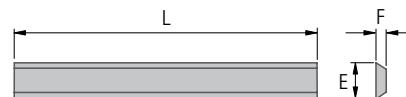
Holder for grooving width 0,8 - 2,0 mm

A1/2A



Blade

A0,9 - A2,15



- HSS grade F
- for L.H. and R.H. use

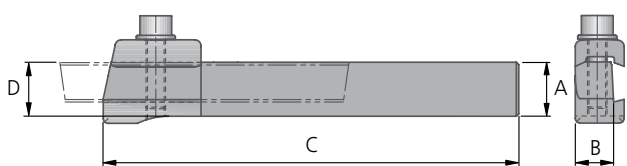


Holder					
Article	Order No.	A	B	C	D
AE	H01 15030	18	11	125	14
A1/2A	H01 15110	22	14,5	170	20

Blade							
Article	Order No.	Grade	for grooving width	E	F	L	kg
A0,9-R-F	H10 15210.91	F	0,8	11	0,9	80	0,006
A1,1-R-F	H10 15220.91	F	1,0	11	1,1	80	0,007
A1,3-R-F	H10 15230.91	F	1,2	11	1,3	80	0,009
A1,6-R-F	H10 15240.91	F	1,5	11	1,6	80	0,010
A1,85-R-F	H10 15250.91	F	1,75	11	1,85	80	0,012
A2,15-R-F	H10 15260.91	F	2,0	11	2,15	80	0,014

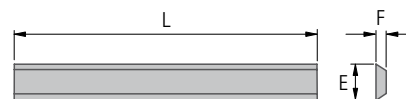
Holder for grooving width 2,5 - 5,0 mm

A1/2A



Blade

A2,65 - A5,15



- HSS grade F
- for L.H. and R.H. use



Holder					
Article	Order No.	A	B	C	D
A1/2A	H01 15110	22	14,5	170	20

Blade							
Article	Order No.	Grade	for grooving width	E	F	L	kg
A2,65-R-F	H10 15270.91	F	2,5	16	2,65	150	0,038
A3,15-R-F	H10 15280.91	F	3,0	16	3,15	150	0,047
A4,15-R-F	H10 15290.91	F	4,0	16	4,15	150	0,066
A5,15-R-F	H10 15300.91	F	5,0	16	5,15	150	0,082

Recommended cutting data

Guideline values for external machining																	
Material group	Strength Rm (N/mm²)	Hardness HB	Material	Material example, material code/DIN	Cutting speed v _C (m/min)												
					Grade F			Grade H			Carbide Roughing			Carbide Finishing			
					min	opt.	max	min	opt.	max	min	opt.	max	min	opt.	max	
P	1.0	≤500	non-alloy steels	1.0037 (S235JR) 1.0715 (11SMn30) 1.0044 (S2575JR)	10	25	40	15	30	45	40	70	100	50	85	120	
	2.0	500-900	non-alloy / low alloy steels	1.0050 (E295) 1.0535 (C55) 1.7131 (16MnCr5)	8	22	35	8	19	30	30	60	90	40	70	100	
	2.1	<500	lead alloys	1.0718 (11SMnPb30)	10	20	30	10	23	35	30	65	100	40	80	120	
	3.0	>900	low alloy steels: heat resistant structural, heat treated, nitride and tools steels	1.7225 (42CrMo4) 1.1221 (C60E)	8	17	25	8	19	30	25	48	70	30	60	90	
	4.0	>900	high alloy steels	1.2341 (6CrMo15-5) 1.2601 (X165Cr- MoV12)	15	20	25	16	23	30	20	40	60	20	45	65	
	4.1		HSS		5	8	10	6	9	12	15	28	40	15	33	50	
S	5.0		250	special alloys: Inconel, Hastelloy, Nimonic, stc.	2.4668 (NiuCr- 19Fe19Nb5Mo3) 2.4631 (Nimonic 80A)	5	7	8	4	7	9	10	15	20	10	18	25
	5.1	400	titanium, titanium alloys	3.7115 (TiAl5Sn2.5)	3	5	6	4	7	9	10	20	30	10	20	30	
M	6.0	≤600	stainless steels	1.4306 (X2Cr- Ni19-11) 1.4401 (X5CrNi- Mo17-12-2)	10	13	15	10	13	15	20	35	50	20	35	50	
	6.1	<900	stainless steels	1.4511 (X3CrNb17) 1.4571 (X10CrNiMo- Ti17-12-2)	8	12	15	8	12	15	20	35	50	20	35	50	
	7.0	>900	stainless / fireproof steels	1.4713 (X10CrAlSi7) 1.4862 (X8NiCr- Si38-18)	6	8	10	6	8	10	15	28	40	15	28	40	
	8.0		180	gray cast iron	0.6025 (EN-GJL-250) 0.6035 (EN-GJL-350)	15	20	25	15	20	25	25	38	50	25	38	50
K	8.1		250	alloy gray cast iron	0.6660 (GGL- NiCr20 2)	15	20	25	15	20	25	30	40	50	30	40	50
	9.0	≤600	130	spheroidal graphite cast iron, ferritic	0.7040 (EN- GJS-400-15)	20	25	30	20	25	30	35	48	60	35	48	60
	9.1		230	spheroidal graphite cast iron, ferritic/ perlitic	0.7050 (EN-GJS-500-7) 0.7055 (GGG-55) 0.8055 (GTW-55)	20	25	30	20	25	30	35	48	60	35	48	60
	10.0	>600	250	spheroidal graphite cast iron, perlitic malleable iron	0.7060 (EN- GJS-600-3) 0.8165 (GTS-65)	15	20	25	15	20	25	25	38	50	25	38	50
	10.1		200	alloyed spheroidal graphite cast iron	0.7661 (EN-GJSA-XNiCr20-2)	12	16	20	12	16	20	25	38	50	25	38	50
	10.2		300	vermicular cast iron	EN-GJV Ti < 0,2 EN-GJV Ti > 0,2	10	15	20	10	15	20	25	38	50	25	38	50
	12.0		90	copper alloy, brass, lead-alloy bronze, lead bronze: good cut	2.0375 (CuZn36Pb3) 2.1182.01 (G- CuPb15Sn)	60	80	100	60	80	100	120	150	180	120	150	180
	12.1		100	copper alloy, brass, bronze: average cut	2.0550 (CuZn40Al2) 2.0060 (E-Cu57)	30	50	70	30	50	70	120	160	200	120	160	200
N	13.0		60	wrought aluminium alloys	3.3315 (AlMg1) 3.0517 (AlMnCu)	40	60	80	40	60	80	140	180	220	140	180	220
	13.1		75	cast alum. alloy: Si-content <10% magnesium alloy	3.3561 (G-AlMg5) 3.2373.61 (G- AlSi9Mg wa)	30	50	70	30	50	70	140	180	220	140	180	220
	14.0		100	cast alum.alloy: Si-content >10%	3.2381.01 (G- AlSi10Mg)	20	40	60	20	40	60	120	160	200	120	160	200
	H	15.0	1400	hardened steels < 45 HRC													
16.0		1800	hardened steels > 45 HRC														

Cutting values shown are values relating to the basic recommendations for cutting materials given.

Important: See chapter 7 for more application details and safety notes!

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KOMET®

Cutting elements

KOMET® inserts and the appropriate tools provide the user with an efficient system for machining any materials.

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KOMET® Cutting elements

Page

Cutting tool materials 64 – 70

Unisix® W00 – WOHX

	W00..12 ▶ 71 L.H. cutting form		W00..42 ▶ 71 R.H. cutting form
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Unisix® W01 – WOHX | WOGX

	W01..72 ▶ 72 L.H. cutting form		W01..73 ▶ 73 R.H. cutting form
	W01..60 ▶ 74 neutral cutting form		W01..94 ▶ 75 PCD / CBN

Unisix® W04 – WNHX

	W04..18 ▶ 76 L.H. cutting form		W04..48 ▶ 77 R.H. cutting form
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Unisix® W29 – WOEX | WOGX

W30 – TOHX | TOGX

W57 – TOGX

		
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W60 – DOHT | DOHW | DOGT | DOGW

W79 – DOHT

	W79..06 ▶ 103
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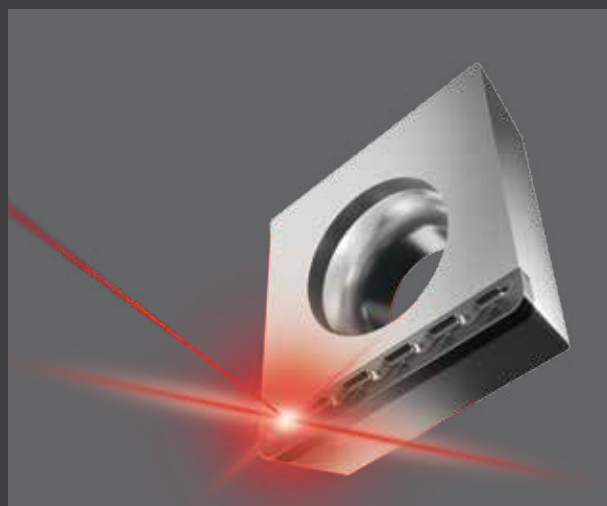
Numerical coding 205

KOMET® ISO Cutting elements

Page

ISO PCD/CVD-D Indexable inserts 104

ISO CBN Indexable inserts 164



ISO PCD/CVD-D Indexable inserts

- Counterboring and fine boring tools
- Inside and outside turning tools
- For non-ferrous metals, plastics, CFRP, GFRP, carbide, graphite
- Ultra-hard PCD and CVD-D diamond cutting material
- 3D chip breakers in finishing and roughing design
- Cutting edge and chip breakers manufactured with the latest laser technology

ISO CBN Indexable inserts

- Large selection of cutting materials for cost-effective machining of hardened steels, cast iron, high-temperature alloys and sinter metals
- Diverse portfolio of shapes and sizes
- Double-sided model with up to eight insert corners for high efficiency
- Unique cutting material concept for easy and application-specific process optimisation (for custom solutions)

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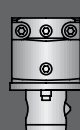
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Summary and list of codes

Guidelines

for selecting inserts

All dimensions shown are subject to tolerance in accordance with the relevant requirement.

Workpiece material	
P	Steel: All types of steel and cast steel, except for stainless steel with an austenitic microstructure
M	Stainless steel: Stainless, austenitic and austenitic-ferritic steel and cast steel
K	Cast iron: Grey cast iron, spheroidal graphite iron, malleable cast iron, compacted graphite iron
N	Non-ferrous metals: Aluminium and other non-ferrous metals, non-metallic materials
S	Superalloys and titanium: Highly heat-resistant iron-, nickel- and cobalt-based alloys, titanium and titanium alloys
H	Hardened materials: Hardened steel, hardened cast iron materials, white cast iron

Key

Abbreviations used

d1	mm	Incirle diameter
s	mm	Indexable insert thickness
l	mm	Theoretical usable length of cutting edge
γ	°	Rake angle
f	mm	Construction auxiliary dimension
R	mm	Corner radius
d2	mm	Hole diameter

4-digit cutting material code e.g.

BK6115	Toughness grade (05...50)
	Coating type (e.g. CVD Al_2O_3)
	Cutting material designation: carbide + coating

Selecting the top rake

Recommendations for using inserts with ground chip grooves

(W00, W01, W04, W30, W32, W34, W37, W60)

	rounded	sharp-edged	chamfered
	E	F	T
	P M K N S H	P M K N S H	P M K N S H
	P M K N S H	P M K N S H	P M K N S H
	P M K N S H	P M K N S H	P M K N S H
	P M K N S H	P M K N S H	P M K N S H

Summary and list of codes

uncoated																	
Cutting material designation	Code	Norm code	Application range												Properties	Cutting element	
			Wear resistance						Toughness factor								
			01	05	10	15	20	25	30	35	40	45	50				
P25	12	HW-P25	P													uncoated: • with excellent wear resistance and good toughness factor • suitable for medium to high cutting speeds for roughing and finishing • for non-alloy steel, malleable cast iron, stainless steel and cast iron	W04..
		M															
		K															
		N															
		S															
P25M	03	HW-P25	P													uncoated: • with excellent wear resistance and good toughness factor • suitable for medium to high cutting speeds for roughing and finishing, also for interrupted cut • for non-alloy steel, malleable cast iron, stainless steel and cast steel	W01 Q09 W27 Q36 W29 W30 W34 W59 W60 W79
		M															
		K															
		N															
		S															
P40	04	HW-P40	P													uncoated: • with medium wear resistance at optimum toughness factor • low to medium cutting speeds for roughing and with heavily interrupted cut • also for unstable working conditions • for non-alloy steel, die steel and stainless steels	W00.. W04.. W27..01 W29..01 W29..13 W30..
		M															
		K															
		N															
		S															
K10	21	HW-K10	P													uncoated: • chamfered and neutral cutter geometry suitable for all grades of cast iron • positively sintered (PD) and ground geometry is used for aluminium e.g.: 12° and 20° top rake, ground sharply and not rounded	W00 W37 W01 W59 W04 W60 W24 W79 W27 W83 W29 W85 W30 Q36 W32 W34
		M															
		K															
		N															
		S															
			01	05	10	15	20	25	30	35	40	45	50	■ main area of application ■ suitable in some cases			

CVD coated																		
Cutting material designation	Code	Norm code	Application range														Properties	Cutting element
			Wear resistance							Toughness factor								
					01	05	10	15	20	25	30	35	40	45	50			
BK50	50	HC-K10	P														diamond coating: • crystalline diamond coating • for cutting aluminium alloys, abrasive materials, graphite, plastics and bonded materials at high cutting speeds	W24..11 W29..11 W32.. W85..
			M															
			K															
			N															
			S															
		H																
BK60	60	HC-M10	P														CVD-TiC-TiCN-TiN: • multiple coating on P25M carbide base • high tool life, even in the higher cutting speed range	W29..15 W29..16 W57..14
			M															
			K															
			N															
			S															
		H																
BK6110	6110	HC-P10	P														CVD-TiCN-TiN-Al₂O₃: • for final machining bores in cast iron and steel materials • excellent dimensional stability due to combination of wear resistant substrate and ceramic, surface treated coating	W30 Q36 W59 Q40 H80 Q43 Q55 Q56 Q63 Q75
			M															
		HC-K10	K															
			N															
			S															
					H													
			< 52 HRC															
			01	05	10	15	20	25	30	35	40	45	50	 main area of application  suitable in some cases				

Summary and list of codes

CVD coated																
Cutting material designation	Code	Norm code	Application range												Properties	Cutting element
			Wear resistance													
			Toughness factor													
			01	05	10	15	20	25	30	35	40	45	50			
BK6110	6110	HC-P10	P												CVD-TiCN-TiN-Al ₂ O ₃ : • for final machining bores in cast iron and steel materials • excellent dimensional stability due to combination of wear resistant substrate and ceramic, surface treated coating	W30 Q36 W59 Q40 H80 Q43 Q55 Q56 Q63 Q75
		M														
		K														
		N														
		S														
H																
BK62	62	HC-K15	P												CVD-TiN-TiCN-Al ₂ O ₃ : • for higher cutting speeds in all types of cast iron materials • only limited suitability for extreme interrupted cut • not suitable for aluminium materials	W29..01 W30..
		M														
		K														
		N														
		S														
H																
BK6420	6420	HC-P20	P												CVD-TiCN-Al ₂ O ₃ -TiN: • considerable level of toughness with extremely high wear resistance • for full cut at high cutting speeds in steel, cast steel and stainless steels	W29..01 W83..01 W83..13
		M														
		K														
		N														
		S														
H																
BK6425	6425	HC-P25	P												MT-CVD-TiCN-Al ₂ O ₃ -TiN: • standard grades (grain) • extremely high wear resistance in all steel and stainless materials	W01 W59 W04 W60 W27 W79 W29 W80 W30 W34
		M														
		K														
		N														
		S														
H																
BK6440	6440		P												MT-CVD-TiCN-Al ₂ O ₃ -TiN: • extremely tough standard grit grade • considerable wear resistance in steel and stainless materials, even under unfavourable cutting conditions	W00.. W01.. W27.. W29.. W30.. W59.. W79..
		M														
		K														
		N														
		S														
H																
BK72	72	HC-P30	P												CVD-TiCN-TiC-Al ₂ O ₃ -TiN: • cutting material with tough substrate • for machining non-alloy and alloy steels, die steels and cast steel • ensures long tool life even at high cutting speeds	W29..01
		M														
		K														
		N														
		S														
H																
BK73	73	HC-M20	P												CVD-TiCN/TiC-TiN-Al ₂ O ₃ -TiN: • tough carbide substrate • for machining rust-resistant and stainless steel materials, plus alloyed steels, even at higher cutting speeds	W29..15 W29..16 C85..
		M														
		K														
		N														
		S														
H																
BK7325	7325		P												CVD-TiCN-TiC-Al ₂ O ₃ -TiN: • ideally matched alloyed carbide in conjunction with modern CVD coating • for high-performance machining of rust and acid-resistant steels, even under difficult conditions	W29..13
		M														
		K														
		N														
		S														
H																
BK7615	7615	HC-K15	P												CVD-TiCN-Al ₂ O ₃ : • main high wear-resistant grade for wet and dry machining of all cast iron materials • extremely good edge stability due to new type of surface finish • can therefore also be used for interrupted cut • highly productive cutting material grade	W01.. W27..01 W29..00 W29..01 W30.. W59.. W79.. W83..01
		M														
		K														
		N														
		S														
H																
			01	05	10	15	20	25	30	35	40	45	50	main area of application suitable in some cases		

Summary and list of codes

PVD coated																		
Cutting material designation	Code	Norm code	Application range														Properties	Cutting element
			Wear resistance															
			Toughness factor															
				01	05	10	15	20	25	30	35	40	45	50				
BK2710	2710	HC-K10	P													PVD-TiAlN: • extremely wear resistant carbide • for bore end machining stainless steels, structural and tool steels and cast materials • excellent dimensional stability due to combination of hard substrate and TiAlN coating with high aluminium content	W00.. W30.. W60.. W79.. H80.. Q55..	
			M															
			K															
			N															
			S															
			H															
BK2730	2730	HC-M25	P												PVD-TiAlN: • extremely fine grades • extremely good edge stability and maximum wear resistance at medium and high speed ranges	W29..20 W82..21 Q80..		
			M															
			K															
			N															
			S															
			H															
BK77	77	HC-K10	P												PVD-TiN: • wear-resistant PVD-coated grade • for cutting aluminium alloys and plastics at medium cutting speeds • sufficient properties of toughness and a high level of resistance against the formation of build-up on the cutting edges	W24..11 W29..11 W30.. W85..		
			M															
			K															
			N															
			S															
			H															
BK7710	7710	HC-K10	P												PVD-TiB ₂ : • coating on extremely high wear resistance K10 carbide • for finish and rough machining aluminium up to approx. 10% Si content and titanium alloys • optimum coating properties to prevent build-up on cutting edges	W29..11 W32.. W57..12 W58..12 W80..01 W80..21 W82..21 W83..21 H62..		
			M															
			K															
			N															
			S															
			H															
BK79	79	HC-M35	P												PVD-TiAlN: • coated carbide on P40 base substrate with very high reserves of toughness • low to medium cutting speed for roughing and finishing and with interrupted cut • for non-alloy steel, cast steel, die steels and rust-proof and stainless steels	W24..13 W27..01 W27..10 W29..13 W59..		
			M															
			K															
			N															
			S															
			H															
BK7935	7935		P												PVD-AlTiN: • coating with high aluminium content on tough substrate for continuous drilling of rust- and acid-resistant steels, and special alloys • Use as continuous drilling inner indexable insert and for difficult conditions recommended	W29..01 W80..01 W80..21 W83..01 W83..13 W83..21 W83..32 Q80..		
			M															
			K															
			N															
			S															
			H															
BK8425	8425	HC-P25	P												PVD-TiAlN/TiN: • universally usable grade with increased wear resistance thanks to innovative multi-layer design of PVD coating	W01 Q15 W29 Q36 W30 Q40 W59 Q43 W80 Q47 W83 Q55 H75 Q56 Q09 Q63 Q12 Q75		
			M															
			K															
			N															
			S															
			H															
BK8430	8430	HC-P30	P												PVD-TiAlN/TiN: • extremely fine grades • extremely good edge stability and maximum wear resistance at medium and high speed ranges	W29..15 W29..16 W29..20 W57..14 W57..18 W80..03 W80..21 W83..03 W83..21		
			M															
			K															
			N															
			S															
			H															
BK8440	8440	HC-P35	P												PVD-TiCN/TiN: • coating on extremely tough substrate • for medium cutting speeds and also suitable for interrupted cut	W00.. H60.. Q15..		
			M															
			K															
			N															
			S															
			H															
				01	05	10	15	20	25	30	35	40	45	50	■ main area of application ■ suitable in some cases			

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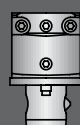
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Summary and list of codes

Cermet uncoated																
Cutting material designation	Code	Norm code	Application range												Properties	Cutting element
			Wear resistance													
			Toughness factor													
			01	05	10	15	20	25	30	35	40	45	50			
CK30	30	HT-P15	P												uncoated: • for fine and finish turning • high toughness factor, low wear and comparatively high cutting speeds produce longer tool life and high surface quality	W30..
			M													
			K													
			N													
			S													
			H													
CK32	32	HT-P15	P											uncoated: • for fine and finish turning • low wear and higher cutting speed producing longer tool life and good surface finish • cutting material for high productivity in the upper cutting speed range	W30.. W57..18 W79..	
			M													
			K													
			N													
			S													
			H													
CK3210	3210	HT-P10	P											uncoated: • for fine and finish turning • low wear and higher cutting speed producing longer tool life and good surface finish • cutting material for high productivity in the upper cutting speed range	W57..14	
			M													
			K													
			N													
			S													
			H													
CK3215	3215	HT-P10	P											uncoated: • wear-resistant grade with the necessary strength for machining steel and stainless steel and for cast iron materials	C86..	
			M													
			K													
			N													
			S													
			H													
CK3230	3230	HT-P20	P											uncoated: • extremely tough behaviour and good wear resistance • also suitable for use in interrupted cut	W57..14	
			M													
			K													
			N													
			S													
			H													
CK37	37	HT-P20	P											uncoated: • good balance of wear resistance and toughness • allows interrupted cuts and light roughing operations	W29..00 W30.. W79.. Q09..	
			M													
			K													
			N													
			S													
			H													
			01	05	10	15	20	25	30	35	40	45	50	main area of application suitable in some cases		

Cermet coated																			
Cutting material designation	Code	Norm code	Application range														Properties	Cutting element	
			Wear resistance																
			Toughness factor																
			01	05	10	15	20	25	30	35	40	45	50						
CK38	38	HC-P10	P												PVD-TiCN/TiN: • high toughness factor and extremely good wear resistance • his cutting material has a wide range of applications in non-alloy and alloy steel, die steel, rust-resistant and stainless steels and cast irons	W30..			
			M																
			K																
			N																
			S																
			H																
			01	05	10	15	20	25	30	35	40	45	50	main area of application suitable in some cases					

Summary and list of codes

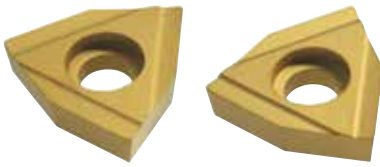
Super-Hard PCD																
Cutting material designation	Code	Norm code	Application range													
			Wear resistance							Toughness factor						
			01	05	10	15	20	25	30	35	40	45	50	Properties		Cutting element
PKD5510	5510	P												uncoated: • polycrystalline diamond cutting tool material with mixed grain micro-structure • extremely good wear resistance, even with an Si content >12% and high proportions of abrasive filler materials • use in fibre-composite materials (GFRP, CFRP), wood and wood composite materials as well as carbide machining		C79 W01 C84 W30 C85 W32 C86 W60 C87 W78 C88 W83 C89 C95 C98
		M														
		K														
		N														
		S														
		H														

Super-Hard CVD-D (thickfilm diamond)																
Cutting material designation	Code	Norm code	Application range													
			Wear resistance							Toughness factor						
			01	05	10	15	20	25	30	35	40	45	50	Properties		Cutting element
DSD5605	5605	P												uncoated: • ultra-hard, polycrystalline, binder-free thickfilm diamond (CVD-D) • superior wear resistance in continuous cutting, under stable conditions, e.g. when turning and counterboring • tool life benefits, especially with extremely abrasive materials such as MMC, carbide, ceramic • ideally suitable for aluminium materials with an Si content >12% or with high proportions of abrasive filler materials (teflon, glass), as well as for use in fibre-composite materials (GFRP, CFRP), as well as wood and electrode materials		C79.. C84.. C85.. C86.. C87.. C88.. C89.. C95.. C98..
		M														
		K														
		N														
		S														
		H														

Super-Hard CBN																
Cutting material designation	Code	Norm code	Application range												Properties	Cutting element
			Wear resistance										Toughness factor			
			01	05	10	15	20	25	30	35	40	45	50			
CBN40	40	BL-H05	P												• Coated cutting material made from polycrystalline cubic boron nitride (PcBN) • Properties: Low CBN content, average grain size approx. 1µm • For turning hardened steels with over 45 HRC, and nickel-based or cobalt-based highly heat-resistant alloys	W30.. W60.. W85..
			M													
			K													
			N													
			S													
			H													
CBN4020	4020	BC-H01	P											• Coated cutting material made from polycrystalline cubic boron nitride (PcBN) • Properties: Low CBN content, average grain size approx. 2µm • For turning hardened materials in a continuous cut	C62/C64 C65/C66 C67/C68 C69/C70 C79/C83 C84/C85 C86/C89	
			M													
			K													
			N													
			S													
			H													
CBN4040	4040	BC-H10	P											• Coated cutting material made from polycrystalline cubic boron nitride (PcBN) • Properties: Medium CBN content, average grain size approx. 4µm • For turning hardened materials with minor interruptions to the cut	C62/C64 C65/C66 C67/C68 C69/C70 C79/C83 C84/C85 C86/C89	
			M													
			K													
			N													
			S													
			H													
CBN4060	4060	BC-H20	P											• Coated cutting material made from polycrystalline cubic boron nitride (PcBN) • Properties: Medium CBN content, average grain size approx. 2µm • For turning hardened materials with moderate interruptions to the cut	C62/C64 C65/C66 C67/C68 C69/C70 C79/C83 C84/C85 C86/C89	
			M													
			K													
			N													
			S													
			H													
CBN4080	4080	BC-H30	P											• Coated cutting material made from polycrystalline cubic boron nitride (PcBN) • Properties: Medium CBN content, average grain size approx. 2µm • For turning hardened materials with major interruptions to the cut	C62/C64 C65/C66 C67/C68 C69/C70 C79/C83 C84/C85 C86/C89	
			M													
			K													
			N													
			S													
			H													
			01	05	10	15	20	25	30	35	40	45	50	■ main area of application ■ suitable in some cases		

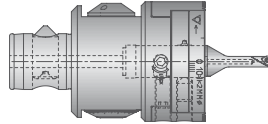
Summary and list of codes

Super-Hard CBN																
Cutting material designation	Code	Norm code	Application range												Properties	Cutting element
			Wear resistance						Toughness factor							
			01	05	10	15	20	25	30	35	40	45	50			
CBN57	57	BH-K05	P												- Coated cutting material made from polycrystalline cubic boron nitride (PcBN) - Properties: High CBN content, average grain size approx. 2µm - For machining cast materials, powder metallurgical materials and high-temperature alloys	W01.. W30.. W60.. W78.. W85..
			M													
			K													
			N													
			S													
			H													
CBN5730	5730	BH-K05	P											- Uncoated cutting material made from polycrystalline cubic boron nitride (PcBN) - Properties: High CBN content, average grain size approx. 5µm - For turning cast iron materials and highly high-resistant alloys in a continuous cut or with minor interruptions to the cut	C62/C64 C65/C66 C67/C68 C69/C70 C79/C83 C84/C85 C86/C89	
			M													
			K													
			N													
			S													
			H													
CBN5750	5750	BH-K20	P											- Uncoated cutting material made from polycrystalline cubic boron nitride (PcBN) - Properties: High CBN content, average grain size approx. 5µm - For turning cast iron materials and highly high-resistant alloys with moderate or major interruptions to the cut	C62/C64 C65/C66 C67/C68 C69/C70 C79/C83 C84/C85 C86/C89	
			M													
			K													
			N													
			S													
			H													
CBN5830	5830	BH-P10	P											- Uncoated cutting material made from polycrystalline cubic boron nitride (PcBN) - Properties: High CBN content, average grain size approx. 3µm - For turning sintered materials produced by powder metallurgy in a continuous cut or with minor interruptions to the cut	C62/C64 C65/C66 C67/C68 C69/C70 C79/C83 C84/C85 C86/C89	
			M													
			K													
			N													
			S													
			H													
CBN5860	5860	BH-P20	P											- Uncoated cutting material made from polycrystalline cubic boron nitride (PcBN) - Properties: High CBN content, average grain size approx. 3µm - For turning sintered materials produced by powder metallurgy with moderate or major interruptions to the cut	C62/C64 C65/C66 C67/C68 C69/C70 C79/C83 C84/C85 C86/C89	
			M													
			K													
			N													
			S													
			H													
			01	05	10	15	20	25	30	35	40	45	50	main area of application	suitable in some cases	



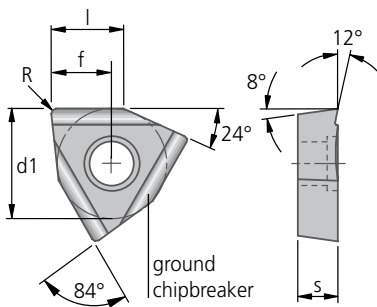
Application range:

- MicroKom *BluFlex*® 2 and MicroKom® *hi.flex* Ø 6-8 mm
- External and internal turning
- Special tools
- positive cutter geometry produces efficient cutting results
- particularly suitable for low output machines and unstable workpieces
- good, controllable chip formation in materials with low tensile strength



Cutter geometry:

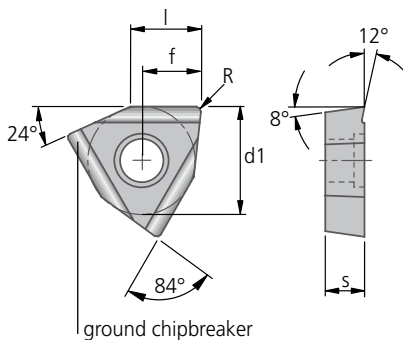
L.H. cutting form „L“



Substrate		Carbide											
Coating type		– –		PVD	PVD	CVD							
Cutting material designation		P40	K10	BK2710	BK8440	BK6440							
Cutting edge design		E	F	E	E	E							
ISO Code	Order No.												
Cutting edge design E = rounded F = sharp ▼	Enter cutting material code ▼	04	21	2710	8440	6440	d1	s	l	γ	f	R	
WOHX 02T001..L-G12	W00 04120.01..	▲	▲	▲	▲	▲	4,0	1,2	2,6	12°	2,20	0,1	
WOHX 02T002..L-G12	W00 04120.02..			▲	▲						2,19	0,2	
Steel	P	●	●	●	●	●	Order example: ISO Code WOHX 02T001 FL-G12 Cutting material K10 Order No. W00 04120.0121						
Stainless steel	M	●	●	●	●	●							
Cast iron	K	●	●	●	●	●							
Non-ferrous metals	N	●	●	●	●	●							
Superalloys and titanium	S	●	●	●	●	●							
Hardened materials	H	●	●	●	●	●							

Cutter geometry:

R.H. cutting form „R“



Substrate		Carbide										
Coating type		–	PVD	PVD	CVD							
Cutting material designation		P40	BK2710	BK8440	BK6440							
Cutting edge design		E	E	E	E							
ISO Code	Order No.					d1	s	l	γ	f	R	
Cutting edge design E = rounded ▼	Enter cutting material code ▼	04	2710	8440	6440							
WOHX 02T001..R-G12	W00 04420.01..	▲	▲	▲	▲	4,0	1,2	2,6	12°	2,20	0,1	
WOHX 02T002..R-G12	W00 04420.02..		▲	▲						2,19	0,2	
Steel		P	●	●	●	Order example: ISO Code WOHX 02T001 ER-G12 Cutting material BK2710 Order No. W00 04420 012710						
Stainless steel		M	●	●	●							
Cast iron		K	●									
Non-ferrous metals		N										
Superalloys and titanium		S										
Hardened materials		H	●									

Inserts

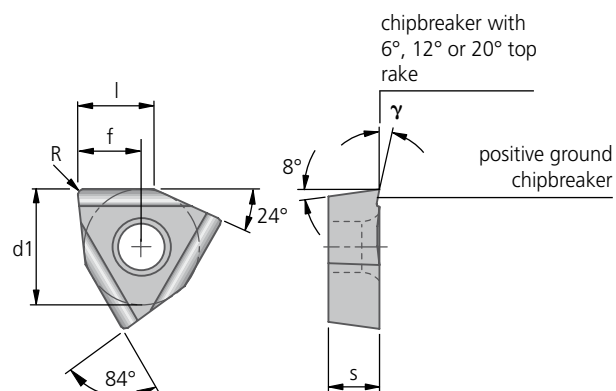
L.H. cutting form „L“



Application range:

- External and internal turning
- TwinKom® Double Insert Tools
- Special tools
- Kometric® mounted seatings
- positive cutter geometry produces efficient cutting results
- particularly suitable for low output machines and unstable workpieces
- good, controllable chip formation in materials with low tensile strength

Cutter geometry:



Substrate		Carbide											
Coating type		–	–	–	CVD	CVD	PVD						
Cutting material designation		P25M	K10	K10	BK6425	BK6115	BK8425						
Cutting edge design		E	E	F	E	E	E						
ISO Code	Order No.							d1	s	l	γ	f	R
Cutting edge design E = rounded F = sharp	Enter cutting material code	03	21	21	6425	6115	8425						
WOHX 030204..L-G06	W01 10060.04..						▲	5,0	2,3	3,2	6°	2,73	0,4
WOHX 030204..L-G12	W01 10120.04..	▲		▲			▲				12°	2,72	0,4
WOHX 040304..L-G12	W01 18120.04..			▲	▲		▲	6,35	3,18	4,1	12°	3,47	0,4
WOHX 05T302..L-G06	W01 24060.02..	▲	▲		▲		▲	8,0	3,8	5,3	6°	4,42	0,2
WOHX 05T304..L-G06	W01 24060.04..					▲						4,40	0,4
WOHX 05T302..L-G12	W01 24120.02..	▲			▲		▲	8,0	3,8	5,3	12°	4,42	0,2
WOHX 05T304..L-G12	W01 24120.04..	▲		▲	▲		▲					4,40	0,4
WOHX 06T302..L-G06	W01 34060.02..	▲	▲		▲		▲	10,0	3,8	6,6	6°	5,53	0,2
WOHX 06T304..L-G06	W01 34060.04..					▲	▲					5,51	0,4
WOHX 06T302..L-G12	W01 34120.02..	▲					▲	10,0	3,8	6,6	12°	5,53	0,2
WOHX 06T304..L-G12	W01 34120.04..	▲		▲	▲		▲					5,51	0,4
WOHX 080402..L-G06	W01 42060.02..	▲			▲		▲	12,0	4,8	7,9	6°	6,64	0,2
WOHX 080404..L-G06	W01 42060.04..		▲			▲						6,62	0,4
WOHX 080402..L-G12	W01 42120.02..				▲		▲	12,0	4,8	7,9	12°	6,64	0,2
WOHX 080404..L-G12	W01 42120.04..	▲		▲	▲		▲					6,62	0,4
WOHX 100504..L-G06	W01 50060.04..	▲	▲		▲		▲	15,0	5,3	9,9	6°	8,29	0,4
WOHX 100504..L-G12	W01 50120.04..			▲			▲					8,29	0,4
WOHX 120606..L-G06	W01 58060.06..						▲	17,6	6,0	11,6	6°	9,71	0,6
WOHX 120606..L-G12	W01 58120.06..						▲				12°	9,71	0,6
Steel	P	●	●	●	●	●	●	Order example: ISO Code WOHX 030204 EL-G06 Cutting material BK8425 Order No. W01 10060.048425					
Stainless steel	M	●			●		●						
Cast iron	K		●	●		●							
Non-ferrous metals	N		●	●									
Superalloys and titanium	S		●	●									
Hardened materials	H			●									

● Main area of application ● Suitable in some cases

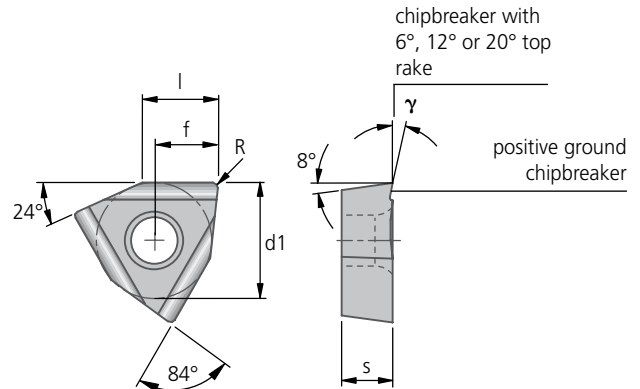
▲ Availability: for delivery see current price and stock list



Application range:

- External and internal turning
- TwinKom® Double Insert Tools
- Special tools
- Kometric® mounted seatings
- positive cutter geometry produces efficient cutting results
- particularly suitable for low output machines and unstable workpieces
- good, controllable chip formation in materials with low tensile strength

Cutter geometry:



Substrate		Carbide										
Coating type		–	–	CVD	CVD	PVD						
Cutting material designation		P25M	K10	BK6425	BK6115	BK8425						
Cutting edge design		E	F	E	E	E						
ISO Code	Order No.						d1	s	l	γ	f	R
Cutting edge design E = rounded F = sharp	Enter cutting material code	03	21	6425	6115	8425						
WOHX 030204..R-G06	W01 10360.04..					▲	5,0	2,3	3,2	6°	2,73	0,4
WOHX 030204..R-G12	W01 10420.04..					▲				12°	2,72	0,4
WOHX 040304..R-G06	W01 18360.04..			▲		▲	6,35	3,18	4,1	6°	3,48	0,4
WOHX 040304..R-G12	W01 18420.04..					▲				12°	3,47	0,4
WOHX 05T304..R-G06	W01 24360.04..				▲		8,0	3,8	5,3	6°	4,40	0,4
WOHX 05T302..R-G12	W01 24420.02..	▲	▲	▲		▲				12°	4,42	0,2
WOHX 06T302..R-G06	W01 34360.02..	▲					10,0	3,8	6,6	6°	5,53	0,2
WOHX 06T304..R-G06	W01 34360.04..				▲						5,51	0,4
WOHX 06T302..R-G12	W01 34420.02..	▲		▲		▲	10,0	3,8	6,6	12°	5,53	0,2
WOHX 080402..R-G06	W01 42360.02..	▲					12,0	4,8	7,9	6°	6,64	0,2
WOHX 080404..R-G06	W01 42360.04..			▲	▲						6,62	0,4
WOHX 080402..R-G12	W01 42420.02..	▲	▲	▲		▲	12,0	4,8	7,9	12°	6,64	0,2
WOHX 080404..R-G12	W01 42420.04..					▲					6,62	0,4
WOHX 100504..R-G06	W01 50360.04..	▲					15,0	5,3	9,9	6°	8,29	0,4
WOHX 100504..R-G12	W01 50420.04..	▲				▲				12°	8,29	0,4
Steel	P	●	●	●	●	●	Order example: ISO Code WOHX 030204 ER-G12 Cutting material BK8425 Order No. W01 10420.048425					
Stainless steel	M	●		●		●						
Cast iron	K		●		●							
Non-ferrous metals	N		●									
Superalloys and titanium	S		●									
Hardened materials	H						Order example: ISO Code WOHX 030204 ER-G12 Cutting material BK8425 Order No. W01 10420.048425					

Inserts

neutral cutting form „N“

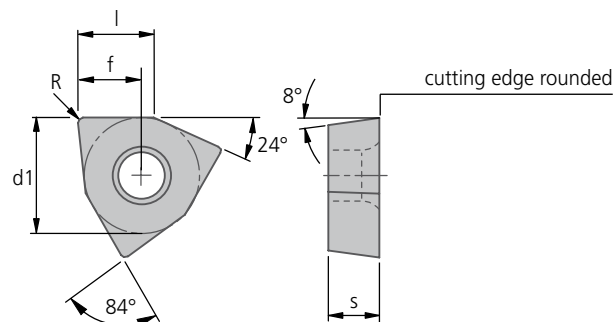


Application range:

Rough boring and turning operations on grey cast iron and SG cast iron materials

- roughing and standard machining under difficult operating conditions (interrupted cut or variations in machining allowances)
- grey cast iron and SG cast iron materials
- can be used on G01 twin cutting tools and on special tools
- extremely efficient because of high cutting speeds

Cutter geometry:



Substrate		Carbide						
Coating type		–		CVD				
Cutting material designation		K10		BK7615				
Cutting edge design		E		E				
ISO Code	Order No.			d1	s	l	f	R
Cutting edge design E = rounded	Enter cutting material code	21	7615					
WOHX 040304 EN	W01 18600.04..	▲	▲	6,35	3,18	4,1	3,48	0,4
WOHX 05T304 EN	W01 24600.04..	▲	▲	8,0	3,8	5,3	4,40	0,4
WOHX 05T308 EN	W01 24600.08..		▲				4,35	0,8
WOHX 06T304 EN	W01 34600.04..	▲	▲	10,0	3,8	6,6	5,51	0,4
WOHX 06T308 EN	W01 34600.08..		▲				5,47	0,8
WOHX 080404 EN	W01 42600.04..		▲	12,0	4,8	7,9	6,62	0,4
WOHX 080408 EN	W01 42600.08..		▲				6,58	0,8
Steel P		●		Order example: ISO Code WOHX 030204 EN Cutting material BK7615 Order No. W01 10600.047615				
Stainless steel M								
Cast iron K		●	●					
Non-ferrous metals N		●						
Superalloys and titanium S		●						
Hardened materials H		●		<52HRC				



Application range:

PCD application range

Machining non-ferrous metals, plastics, composites, rubber, graphite, etc.

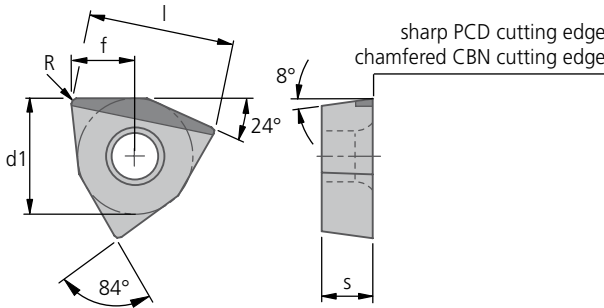
CBN application range

Machining cast iron materials etc.

Inserts with PCD and CBN cutting edges have the following advantages:

- high cutting speeds
- high dimensional consistency
- enormously long tool life
- above-average surface finish

Cutter geometry:



Substrate		PCD	CBN					
Coating type		–	–					
Cutting material designation		PKD5510	CBN57					
Cutting edge design		F	S					
ISO Code	Order No.			d1	s	l	f	R
Cutting edge design S = chamfered+rounded F = sharp	Enter cutting material code	5510	57					
WOEX 05T304 ..	W01 24940.04..	▲	▲	8,0	3,8	10,1	4,40	0,4
WOEX 06T304 ..	W01 34940.04..	▲	▲	10,0	3,8	12,7	5,51	0,4
WOEX 080404 ..	W01 42940.04..	▲		12,0	4,8	15,3	6,62	0,4
Steel P				Order example: ISO Code WOEX 05T304 S Cutting material CBN57 Order No. W01 24940.0457				
Stainless steel M								
Cast iron K								
Non-ferrous metals N		●	●					
Superalloys and titanium S			●					
Hardened materials H								



Inserts

positive ground chipbreaker

L.H. cutting form „L“

P6 cutting edges



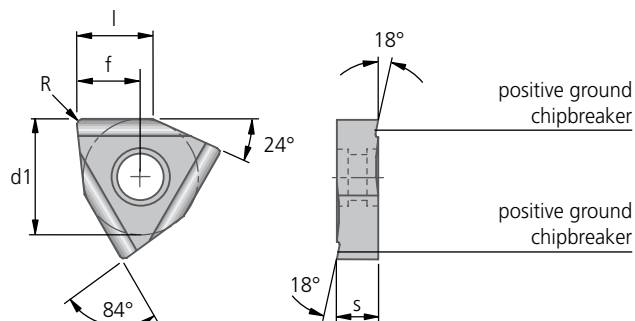
Application range:

Internal and external turning

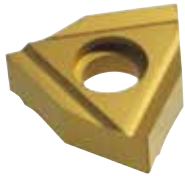
The Unisix® insert with 6 cutting edges is an efficient and economic insert. The six cutting edges can be used because of the negative insert seating.

The positively ground chipbreakers guarantee a good chip form and a soft cut.

Cutter geometry:



Substrate		Carbide								
Coating type		–	–	–	CVD					
Cutting material designation		P25	P40	K10	BK6425					
Cutting edge design		E	E	F	E					
ISO Code	Order No.					d1	s	l	f	R
Cutting edge design E = rounded F = sharp	Enter cutting material code	12	04	21	6425					
WNHX 060302..L-G18	W04 34180.02..	▲				10,0	3,5	6,5	5,53	0,2
WNHX 08T302..L-G18	W04 42180.02..	▲	▲	▲	▲	12,0	4,5	7,5	6,64	0,2
WNHX 100404..L-G18	W04 50180.04..	▲	▲		▲	15,0	5,0	9,5	8,29	0,4
Steel P		●	●	●	●	Order example: ISO Code WNHX 060302 EL-G18 Cutting material P25 Order No. W04 34180.0212				
Stainless steel M		●	●		●					
Cast iron K										
Non-ferrous metals N										
Superalloys and titanium S										
Hardened materials H										



Inserts

positive ground chipbreaker
R.H. cutting form „R“
P6 cutting edges

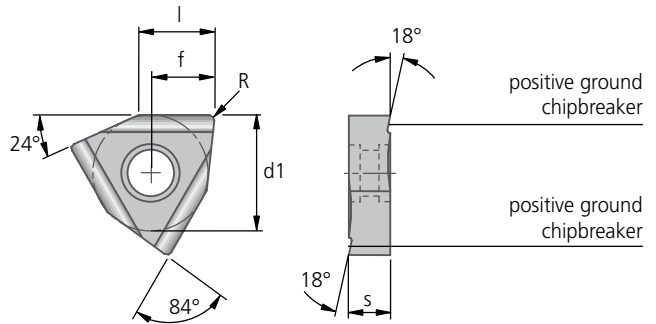
Application range:

Internal and external turning

The Unisix® insert with 6 cutting edges is an efficient and economic insert. The six cutting edges can be used because of the negative insert seating.

The positively ground chipbreakers guarantee a good chip form and a soft cut.

Cutter geometry:



Substrate		Carbide								
Coating type		–	–	–	CVD					
Cutting material designation		P25	P40	K10	BK6425					
Cutting edge design		E	E	F	E					
ISO Code	Order No.					d1	s	l	f	R
Cutting edge design E = rounded F = sharp	Enter cutting material code	12	04	21	6425					
WNHX 060302..R-G18	W04 34480.02..	▲				10,0	3,5	6,5	5,53	0,2
WNHX 08T302..R-G18	W04 42480.02..	▲	▲	▲	▲	12,0	4,5	7,5	6,64	0,2
WNHX 08T304..R-G18	W04 42480.04..	▲							6,62	0,4
WNHX 100404..R-G18	W04 50480.04..	▲	▲	▲	▲	15,0	5,0	9,5	8,29	0,4
WNHX 120606..R-G18	W04 58480.06..	▲				17,6	6,0	11,5	9,71	0,6
Steel	P	●	●	●	●	Order example: ISO Code WNHX 060302ER-G18 Cutting material P25 Order No. W04 34480.0212				
Stainless steel	M	●	●		●					
Cast iron	K									
Non-ferrous metals	N									
Superalloys and titanium	S									
Hardened materials	H									

1



2



3



4



5



6



7



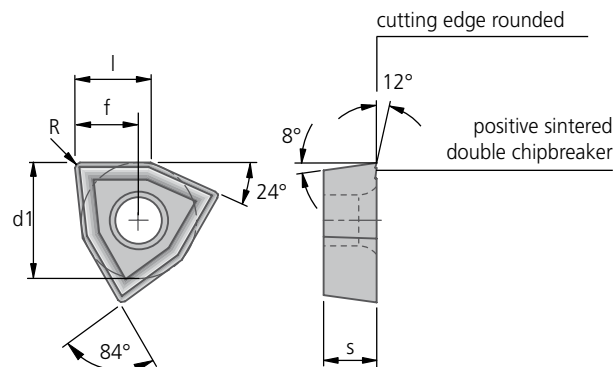
Inserts



Application range:

- External and internal turning
- TwinKom® Double Insert Tools
- Special tools
- Kometric® mounted seatings
- as outer cutter with KUB® solid drill bit
- positive cutter geometry produces efficient cutting results
- particularly suitable for low output machines and unstable workpieces
- good, controllable chip formation in materials with low tensile strength

Cutter geometry:



Substrate		Carbide											
Coating type		–	–	CVD	CVD	CVD	CVD	PVD					
Cutting material designation		P25M	K10	BK6425	BK7615	BK6115	BK6440	BK8425					
ISO Code	Order No. Enter cutting material code								d1	s	l	f	R
WOEX 05T304-00	W29 24000.04..	▲	▲	▲	▲	▲	▲	▲	8,0	3,8	5,3	4,40	0,4
WOEX 06T304-00	W29 34000.04..	▲	▲	▲	▲	▲	▲	▲	10,0	3,8	6,6	5,51	0,4
WOEX 080404-00	W29 42000.04..	▲	▲	▲	▲	▲	▲	▲	12,0	4,8	7,9	6,62	0,4
WOEX 100504-00	W29 50000.04..	▲	▲	▲		▲	▲	▲	15,0	5,3	9,9	8,29	0,4
WOEX 100508-00	W29 50000.08..					▲	▲					8,24	0,8
WOEX 120608-00	W29 58000.08..		▲	▲		▲	▲	▲	17,6	6,0	11,6	9,69	0,8
Steel	P	●	●	●		●	●	●	Order example: ISO Code WOEX 05T304-00 Cutting material P25M Order No. W29 24000.0403				
Stainless steel	M	●		●		●	●	●					
Cast iron	K		●		●	●		●					
Non-ferrous metals	N		●										
Superalloys and titanium	S		●										
Hardened materials	H				●								
External cutting edge		✓	✓	✓	✓	✓	✓	✓					
Internal cutting edge <i>Recommendation</i>		W29..01 – BK8425											

● Main area of application ● Suitable in some cases

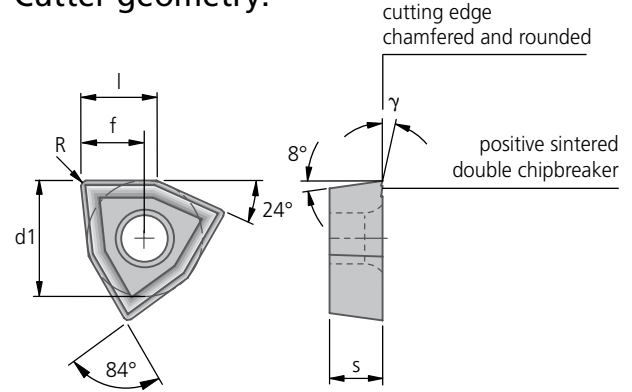
▲ Availability: for delivery see current price and stock list



Application range:

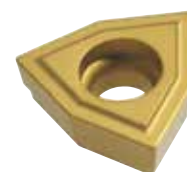
- External and internal turning
- KUB® Centron, KUB® Trigon, KUB® drill
- TwinKom® Double Insert Tools
- Special tools
- Kometric® mounted seatings
- positive cutter geometry produces efficient cutting results
- particularly suitable for low output machines and unstable workpieces
- good, controllable chip formation in materials with low tensile strength

Cutter geometry:



Substrate		Carbide																			
Coating type		—	—	—	CVD	CVD	CVD	CVD	CVD	CVD	CVD	PVD	PVD								
Cutting material designation		P25M	P40	K10	BK 6425	BK 7615	BK 6115	BK 62	BK 6440	BK 6420	BK 72	BK 7935	BK 8425								
ISO Code	Order No.													d1	s	l	γ	f	R		
WOEX 020102-01	W29 04010.02..	03	04	21	6425	7615	6115	62	6440	6420	72	7935	8425	▲	▲	4,0	1,6	2,6	12°	2,19	0,2
WOEX 030204-01	W29 10010.04..		▲	▲		▲	▲	▲			▲	▲	▲	5,0	2,3	3,2	8°	2,73	0,4		
WOEX 040304-01	W29 18010.04..		▲	▲		▲	▲	▲			▲	▲	▲	6,35	3,18	4,1	8°	3,48	0,4		
WOEX 05T304-01	W29 24010.04..	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	8,0	3,8	5,3	12°	4,40	0,4		
WOEX 05T308-01	W29 24010.08..	▲	▲	▲	▲	▲	▲	▲	▲	▲		▲	▲					4,35	0,8		
WOEX 06T304-01	W29 34010.04..	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	10,0	3,8	6,6	12°	5,51	0,4		
WOEX 06T308-01	W29 34010.08..			▲	▲	▲	▲	▲	▲		▲	▲	▲					5,47	0,8		
WOEX 080404-01	W29 42010.04..	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	12,0	4,8	7,9	12°	6,62	0,4		
WOEX 080408-01	W29 42010.08..	▲	▲	▲	▲	▲	▲	▲	▲	▲		▲	▲					6,58	0,8		
WOEX 100504-01	W29 50010.04..	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	15,0	5,3	9,9	12°	8,29	0,4		
WOEX 100508-01	W29 50010.08..	▲	▲	▲	▲	▲	▲	▲	▲	▲			▲					8,24	0,8		
WOEX 120608-01	W29 58010.08..	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	17,6	6,0	11,6	12°	9,69	0,8		
Steel 														Order example: ISO Code WOEX 05T304-01 Cutting material P25M Order No. W29 24010.0403							
Stainless steel 																					
Cast iron 																					
Non-ferrous metals 																					
Superalloys and titanium 																					
Hardened materials 																					
 External cutting edge		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓								
 Internal cutting edge <i>Recommendation</i>		✓	✓	✓	✓	✓		✓	✓		✓	✓	✓								

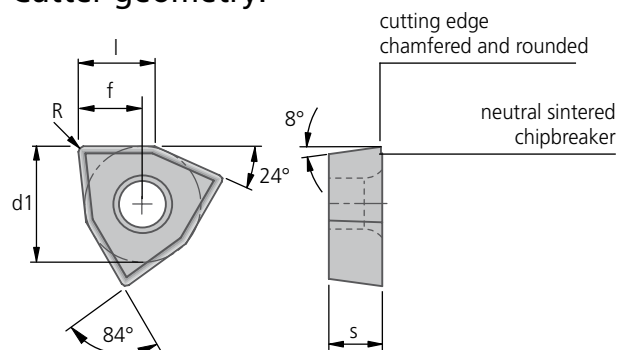
Inserts



Application range:

- TwinKom® Double Insert Tools
- Special tools
- as outer cutter with KUB® solid drill bit
- excellent for interrupted cut because of stable cutting angle (82°) (top rake 0°) and chamfered cutting edge. A first class chipbreaker also produces good chip formation even from difficult materials.
- cutting edge chamfered and rounded.
- for cutting depths of < 1.5 mm

Cutter geometry:



Substrate		Carbide						
Coating type		CVD	CVD					
Cutting material designation		BK6425	BK6440					
ISO Code	Order No.			d1	s	l	f	R
	Enter cutting material code ▼	6425	6440					
WOEX 05T304-02	W29 24020.04..	▲	▲	8,0	3,8	5,3	4,40	0,4
WOEX 05T308-02	W29 24020.08..		▲				4,35	0,8
WOEX 06T304-02	W29 34020.04..	▲	▲	10,0	3,8	6,6	5,51	0,4
WOEX 06T308-02	W29 34020.08..		▲				5,47	0,8
WOEX 080404-02	W29 42020.04..		▲	12,0	4,8	7,9	6,62	0,4
WOEX 080408-02	W29 42020.08..		▲				6,58	0,8
WOEX 100504-02	W29 50020.04..		▲	15,0	5,3	9,9	8,29	0,4
WOEX 100508-02	W29 50020.08..		▲				8,24	0,8
WOEX 120608-02	W29 58020.08..		▲	17,6	6,0	11,6	9,69	0,8
Steel P				Order example: ISO Code WOEX 05T304-02 Cutting material BK6440 Order No. W29 24020.046440				
Stainless steel M								
Cast iron K								
Non-ferrous metals N								
Superalloys and titanium S								
Hardened materials H								
 External cutting edge		✓	✓					
 Internal cutting edge <i>Recommendation</i>		W29..01 – BK8425						

● Main area of application ● Suitable in some cases

▲ Availability: for delivery see current price and stock list



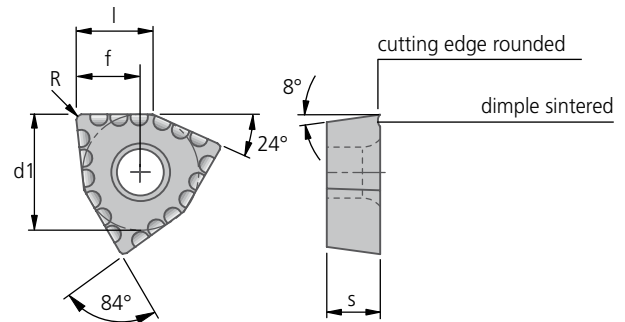
Application range:

- KUB® Centron, KUB® Trigon, KUB® drill
- TwinKom® double insert tools
- Special tools
- Internal and external machining

The dimple shaped chipbreaker causes a different chip flow action.

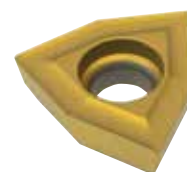
The chip is compressed in cross section and tends to break more rapidly.

Cutter geometry:



Substrate		Carbide							
Coating type		–	CVD	PVD					
Cutting material designation		P25M	BK6425	BK8425					
ISO Code	Order No.				d1	s	l	f	R
WOEX 030204-03	W29 10030.04..	03	6425	8425	5,0	2,3	3,2	2,73	0,4
WOEX 040304-03	W29 18030.04..		▲	▲	6,35	3,18	4,1	3,48	0,4
WOEX 05T304-03	W29 24030.04..		▲	▲	8,0	3,8	5,3	4,40	0,4
WOEX 05T308-03	W29 24030.08..		▲					4,35	0,8
WOEX 06T304-03	W29 34030.04..	▲	▲	▲	10,0	3,8	6,6	5,51	0,4
WOEX 06T308-03	W29 34030.08..		▲	▲				5,47	0,8
WOEX 080404-03	W29 42030.04..	▲	▲	▲	12,0	4,8	7,9	6,62	0,4
WOEX 080408-03	W29 42030.08..		▲	▲				6,58	0,8
WOEX 100504-03	W29 50030.04..	▲	▲	▲	15,0	5,3	9,9	8,29	0,4
WOEX 100508-03	W29 50030.08..		▲	▲				8,24	0,8
WOEX 120608-03	W29 58030.08..		▲	▲	17,6	6,0	11,6	9,69	0,8
Steel P		●	●	●	Order example: ISO Code WOEX 030201-03 Cutting material BK6425 Order No. W29 10030.046425				
Stainless steel M		●	●	●					
Cast iron K									
Non-ferrous metals N									
Superalloys and titanium S									
Hardened materials H									
 External cutting edge		✓	✓	✓					
 Internal cutting edge Recommendation			W29..01 – BK8425						

Inserts

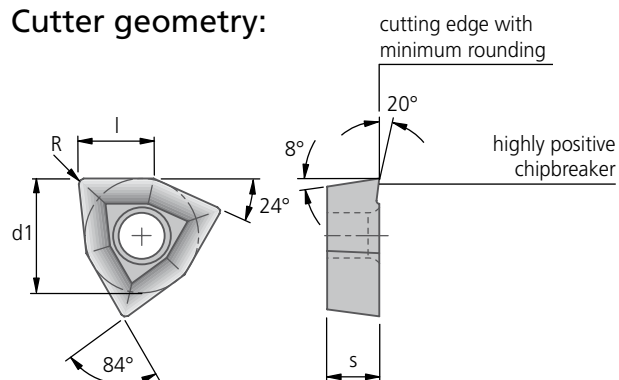


Application range:

- KUB® Centron, KUB® Trigon, KUB® drill
- TwinKom® double insert tools
- Special tools
- Internal and external machining

The highly positive chip groove with minimal chamfer for soft cutting operations, mainly on aluminium

Cutter geometry:



Substrate		Carbide							
Coating type		–	◆	PVD	PVD				
Cutting material designation		K10	BK50	BK77	BK7710				
ISO Code	Order No.					d1	s	l	R
	Enter cutting material code	21	50	77	7710				
WOEX 030204-11	W29 10110.04..	▲	▲	▲	▲	5,0	2,3	3,2	0,4
WOEX 040304-11	W29 18110.04..	▲	▲	▲	▲	6,35	3,18	4,1	0,4
WOEX 05T304-11	W29 24110.04..	▲	▲	▲	▲	8,0	3,8	5,3	0,4
WOEX 06T304-11	W29 34110.04..	▲	▲	▲	▲	10,0	3,8	6,6	0,4
WOEX 080404-11	W29 42110.04..	▲	▲	▲	▲	12,0	4,8	7,9	0,4
WOEX 100504-11	W29 50110.04..	▲	▲	▲	▲	15,0	5,3	9,9	0,4
Steel P		●				Order example: ISO Code WOEX 030204-11 Cutting material K10 Order No. W29 10110.0421			
Stainless steel M									
Cast iron K		●							
Non-ferrous metals N		●	●	●	●				
Superalloys and titanium S		●		●					
Hardened materials H		●							

● Main area of application ● Suitable in some cases

▲ Availability: for delivery see current price and stock list



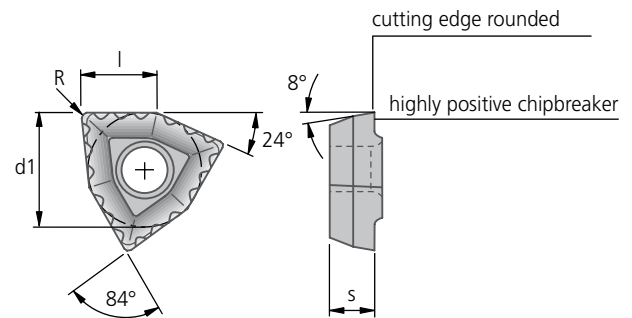
Application range:

- KUB® Centron, KUB® Trigon, KUB® drill
- TwinKom® double insert tools
- Special tools
- Internal and external machining

The dimple shaped chipbreaker causes a different chip flow action.

The chip is compressed in cross section and tends to break more rapidly.

Cutter geometry:



Substrate		Carbide							
Coating type		–	CVD	PVD	PVD	d1	s	l	R
Cutting material designation		P40	BK7325	BK79	BK8425				
ISO Code	Order No. Enter cutting material code								
WOEX 030204-13	W29 10130.04..	▲	▲	▲	▲	5,0	2,3	3,2	0,4
WOEX 040304-13	W29 18130.04..	▲	▲	▲	▲	6,35	3,18	4,1	0,4
WOEX 05T304-13	W29 24130.04..	▲	▲	▲	▲	8,0	3,8	5,3	0,4
WOEX 06T304-13	W29 34130.04..		▲	▲	▲	10,0	3,8	6,6	0,4
WOEX 080404-13	W29 42130.04..	▲	▲	▲	▲	12,0	4,8	7,9	0,4
WOEX 100504-13	W29 50130.04..	▲	▲	▲	▲	15,0	5,3	9,9	0,4
WOEX 120608-13	W29 58130.08..	▲	▲	▲	▲	17,6	6,0	11,6	0,8
Steel P		●	●	●	●	Order example: ISO Code WOEX 030204-13 Cutting material P40 Order No. W29 10130.0404			
Stainless steel M		●	●	●	●				
Cast iron K					●				
Non-ferrous metals N									
Superalloys and titanium S				●					
Hardened materials H									

EP 0 792 201 and other patents (geometry)

Inserts

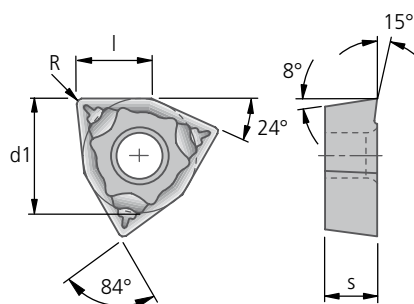


Application range:

- TwinKom® double insert tools
- Special tools
- Internal and external machining

Optimum chip formation for cutting depths from 0.25 mm.

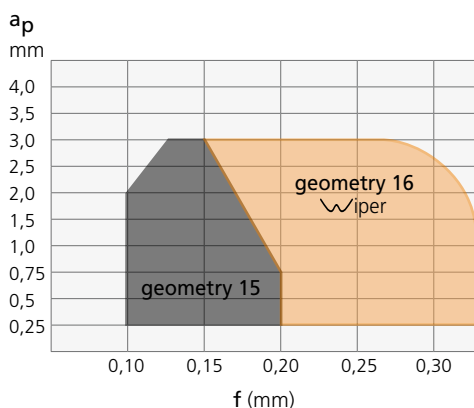
Cutter geometry:



Substrate		Carbide						
Coating type		CVD	CVD	PVD	d1	s	l	R
Cutting material designation		BK60	BK73	BK8430				
ISO Code	Order No. Enter cutting material code							
WOGX 030204-15	W29 10150.04..	60	73	8430	5,0	2,3	3,2	0,4
WOGX 040304-15	W29 18150.04..	▲		▲	6,35	3,18	4,1	0,4
WOGX 05T304-15	W29 24150.04..	▲	▲	▲	8,0	3,8	5,3	0,4
WOGX 06T304-15	W29 34150.04..	▲		▲	10,0	3,8	6,6	0,4
WOGX 080404-15	W29 42150.04..	▲	▲	▲	12,0	4,8	7,9	0,4
Steel	P	●	●	●	Order example: ISO Code WOGX 030204-15 Cutting material BK60 Order No. W29 10150.0460			
Stainless steel	M		●	●				
Cast iron	K	●		●				
Non-ferrous metals	N							
Superalloys and titanium	S							
Hardened materials	H							

Application area

Semi-finishing



● Main area of application ● Suitable in some cases

▲ Availability: for delivery see current price and stock list



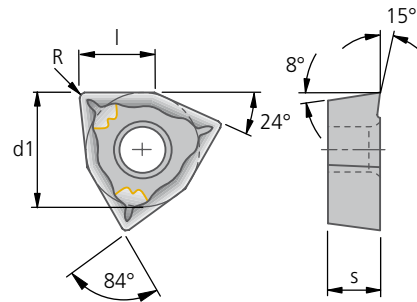
Application range:

Wiper

- TwinKom® double insert tools
- Special tools
- Internal and external machining

Optimum chip formation for cutting depths from 0.25 mm.

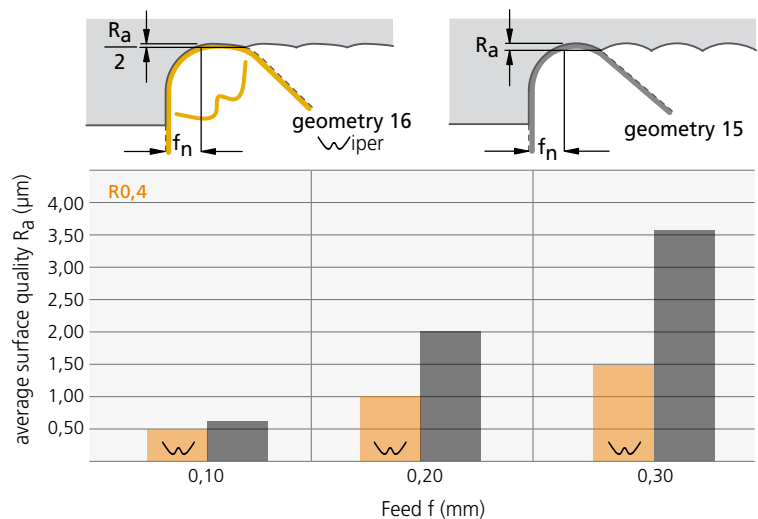
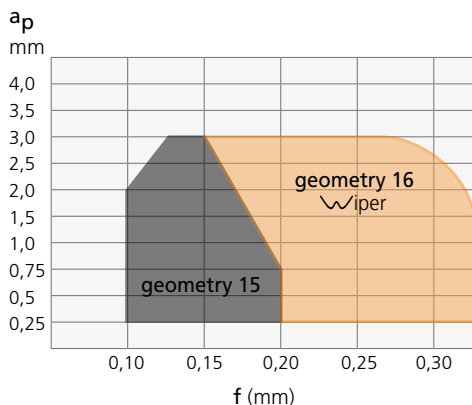
Cutter geometry:



Substrate		Carbide						
Coating type		CVD	CVD	PVD				
Cutting material designation		BK60	BK73	BK8430				
ISO Code	Order No.				d1	s	l	R
	Enter cutting material code ▼	60	73	8430				
WOGX 030204-16	W29 10160.04..	▲		▲	5,0	2,3	3,2	0,4
WOGX 040304-16	W29 18160.04..		▲	▲	6,35	3,18	4,1	0,4
WOGX 05T304-16	W29 24160.04..	▲		▲	8,0	3,8	5,3	0,4
WOGX 06T304-16	W29 34160.04..	▲	▲	▲	10,0	3,8	6,6	0,4
WOGX 080404-16	W29 42160.04..	▲		▲	12,0	4,8	7,9	0,4
Steel P		●	●	●	Order example: ISO Code WOGX 030204-16 Cutting material BK60 Order No. W29 10160.0460			
Stainless steel M			●	●				
Cast iron K		●		●				
Non-ferrous metals N				●				
Superalloys and titanium S				●				
Hardened materials H								

Surface quality results: Comparison of surface quality results for "Wiper" – R0,4 for $\alpha = 90^\circ$ in X40Cr13 / 1.4034

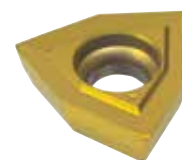
Application area



● Main area of application ● Suitable in some cases

Important: See chapter 7 for more application details and safety notes!

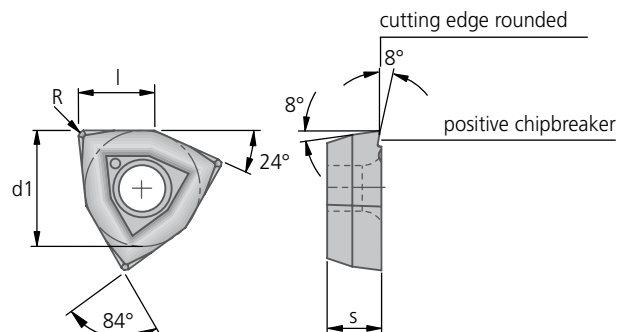
Inserts



Application range:

- External and internal turning
- KUB® solid drill
- TwinKom® double insert tools
- Kometric® mounted seatings

Cutter geometry:



Substrate		Carbide					
Coating type		PVD	PVD				
Cutting material designation		BK2730	BK8430				
ISO Code	Order No.			d1	s	l	R
	Enter cutting material code	2730	8430				
WOEX 030204-20	W29 10200.04..	▲	▲	5,0	2,3	3,2	0,4
WOEX 040304-20	W29 18200.04..	▲	▲	6,35	3,18	4,1	0,4
WOEX 05T304-20	W29 24200.04..	▲	▲	8,0	3,8	5,3	0,4
WOEX 06T304-20	W29 34200.04..	▲	▲	10,0	3,8	6,6	0,4
WOEX 080404-20	W29 42200.04..	▲	▲	12,0	4,8	7,9	0,4
WOEX 100504-20	W29 50200.04..	▲	▲	15,0	5,3	9,9	0,4
Steel P				Order example: ISO Code WOEX 030204-20 Cutting material BK2730 Order No. W29 10200.042730			
Stainless steel M							
Cast iron K							
Non-ferrous metals N							
Superalloys and titanium S							
Hardened materials H							

● Main area of application ○ Suitable in some cases

▲ Availability: for delivery see current price and stock list



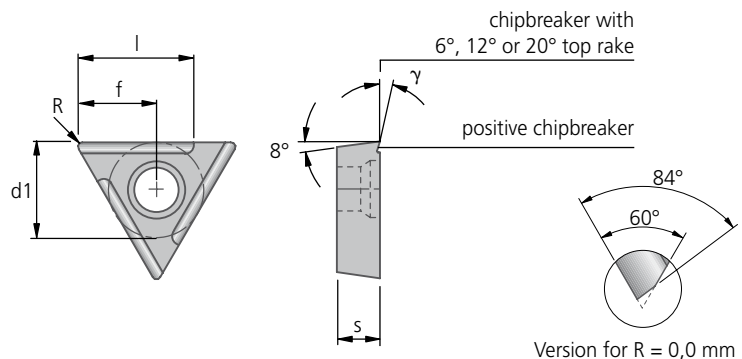
Application range:

- Internal and external turning
- Small boring bars
- Fine machining, internal and external
- Countersink tools, end mill cutters

Precision indexable insert ground around the circumference. Can be turned over with high changeover accuracy because of precision 2-sided contact. Large selection of chipbreakers and carbides suitable for almost any materials.

Important note! The cutting edge on Cermet inserts is rounded.

Cutter geometry:



Substrate		Carbide								Cermet									
Coating type		–	–	CVD	CVD	CVD	CVD	PVD	PVD	–	–	–	PVD						
Cutting material designation		P25M	K10	BK 6425	BK 7615	BK 6110	BK 6440	BK 2710	BK 8425	CK 30	CK 32	CK 37	CK 38						
Cutting edge design		E	E F	E	E	E	E	E	E	E	E	E	E						
ISO Code	Order No.													d1	s	l	γ	f	R
Cutting edge design E = rounded F = sharp	Enter cutting material code	03	21	6425	7615	6110	6440	2710	8425	30	32	37	38						
TOHX 06T100EL-G06	W30 04060.30..		▲	▲					▲									3,25	0,0
TOHX 06T102..L-G06	W30 04060.02..	▲	▲	▲	▲	▲	▲	▲	▲					4,0	1,8	1	6°	3,32	0,2
TOHX 06T103..L-G06	W30 04060.03..	▲	▲	▲	▲	▲	▲	▲	▲									3,25	0,3
TOHX 06T104..L-G06	W30 04060.04..	▲	▲	▲			▲											3,17	0,4
TOHX 06T100EL-G12	W30 04120.30..			▲					▲									3,25	0,0
TOHX 06T102..L-G12	W30 04120.02..	▲	▲	▲			▲		▲	▲	▲	▲	▲	4,0	1,8	1	12°	3,32	0,2
TOHX 06T103..L-G12	W30 04120.03..	▲	▲	▲			▲		▲		▲	▲						3,25	0,3
TOHX 06T104..L-G12	W30 04120.04..	▲	▲	▲			▲		▲	▲			▲					3,17	0,4
TOHX 06T102..L-G20	W30 04200.02..		▲	▲					▲					4,0	1,8	1	20°	3,32	0,2
TOHX 06T103..L-G20	W30 04200.03..		▲	▲														3,25	0,3
TOHX 090200EL-G06	W30 14060.30..		▲	▲					▲									4,55	0,0
TOHX 090202EL-G06	W30 14060.02..	▲	▲	▲	▲	▲	▲	▲	▲					5,6	2,5	2,5	6°	4,70	0,2
TOHX 090204EL-G06	W30 14060.04..	▲	▲	▲	▲	▲	▲	▲	▲									4,56	0,4
TOHX 090208EL-G06	W30 14060.08..				▲	▲		▲	▲									4,26	0,8
TOHX 090200EL-G12	W30 14120.30..		▲	▲					▲									4,55	0,0
TOHX 090202..L-G12	W30 14120.02..	▲	▲	▲			▲		▲	▲	▲	▲	▲	5,6	2,5	2,5	12°	4,70	0,2
TOHX 090204EL-G12	W30 14120.04..	▲	▲	▲			▲		▲	▲	▲	▲	▲					4,56	0,4
TOHX 090208..L-G12	W30 14120.08..		▲	▲					▲									4,26	0,8
TOHX 090202..L-G20	W30 14200.02..	▲	▲	▲					▲					5,6	2,5	2,5	20°	4,70	0,2
TOHX 090204..L-G20	W30 14200.04..		▲	▲														4,56	0,4
TOHX 140302EL-G06	W30 26060.02..	▲	▲	▲	▲	▲		▲	▲									6,96	0,2
TOHX 140304EL-G06	W30 26060.04..	▲	▲	▲	▲	▲	▲	▲	▲					8,2	3,0	4,5	6°	6,81	0,4
TOHX 140305EL-G06	W30 26060.05..	▲	▲	▲	▲	▲	▲	▲	▲									6,74	0,5
TOHX 140308EL-G06	W30 26060.08..			▲	▲	▲		▲	▲									6,52	0,8
TOHX 140300EL-G12	W30 26120.30..			▲														6,28	0,0
TOHX 140302..L-G12	W30 26120.02..	▲	▲	▲			▲		▲		▲	▲	▲	8,2	3,0	4,5	12°	6,96	0,2
TOHX 140304..L-G12	W30 26120.04..	▲	▲	▲				▲	▲	▲			▲					6,81	0,4
TOHX 140305..L-G12	W30 26120.05..	▲	▲	▲				▲	▲		▲	▲						6,74	0,5
TOHX 140308EL-G12	W30 26120.08..			▲					▲									6,52	0,8
TOHX 140302FL-G20	W30 26200.02..		▲															6,96	0,2
TOHX 140304FL-G20	W30 26200.04..		▲											8,2	3,0	4,5	20°	6,81	0,4
TOHX 140305FL-G20	W30 26200.05..		▲															6,74	0,5
TOHX 22T308EL-G06	W30 44060.08..								▲					12,7	4,3	10,5	6°	10,41	0,8
Steel		P	●	●		●	●	●	●	●	●	●	●	Order example: ISO Code TOHX 06T100 EL-G06 Cutting material BK6425 Order No. W30 04060.306425					
Stainless steel		M	●	●		●	●	●	●	●	●	●	●						
Cast iron		K	●	●	●	●		●	●	●	●	●	●						
Non-ferrous metals		N	●	●						●	●	●	●						
Superalloys and titanium		S	●	●															
Hardened materials		H				●	●		●										

● Main area of application ● Suitable in some cases

Important: See chapter 7 for more application details and safety notes!

Inserts

R.H. cutting form „R“



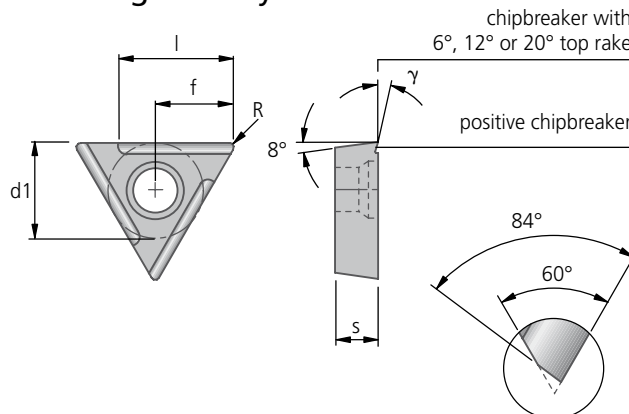
Application range:

- Internal and external turning
- Small boring bars
- Fine machining, internal and external
- Countersink tools, end mill cutters

Precision indexable insert ground around the circumference. Can be turned over with high changeover accuracy because of precision 2-sided contact. Large selection of chipbreakers and carbides suitable for almost any materials.

Important note! The cutting edge on Cermet inserts is rounded.

Cutter geometry:



Version for R = 0,0 mm

Substrate		Carbide						Cermet									
Coating type		—		CVD	CVD	CVD	PVD	—		—	PVD						
Cutting material designation		P25M	K10	BK6425	BK7615	BK6440	BK8425	CK30	CK32	CK37	CK38						
Cutting edge design		E	E F	E	E	E	E	E	E	E	E						
ISO Code	Order No.											d1	s	l	γ	f	R
Cutting edge design E = rounded F = sharp	Enter cutting material code	03	21	6425	7615	6440	8425	30	32	37	38						
TOHX 06T102ER-G06	W30 04360.02..	▲	▲	▲			▲									3,32	0,2
TOHX 06T103ER-G06	W30 04360.03..	▲	▲	▲		▲	▲					4,0	1,8	1	6°	3,25	0,3
TOHX 06T104ER-G06	W30 04360.04..			▲			▲									3,17	0,4
TOHX 06T102..R-G12	W30 04420.02..	▲	▲	▲			▲	▲	▲	▲	▲					3,32	0,2
TOHX 06T103..R-G12	W30 04420.03..	▲	▲	▲		▲	▲			▲		4,0	1,8	1	12°	3,25	0,3
TOHX 06T104ER-G12	W30 04420.04..			▲			▲	▲			▲					3,17	0,4
TOHX 06T102..R-G20	W30 04500.02..		▲													3,32	0,2
TOHX 06T103..R-G20	W30 04500.03..		▲									4,0	1,8	1	20°	3,25	0,3
TOHX 090200ER-G06	W30 14360.30..	▲														4,55	0,0
TOHX 090202ER-G06	W30 14360.02..	▲	▲	▲			▲					5,6	2,5	2,5	6°	4,70	0,2
TOHX 090204ER-G06	W30 14360.04..	▲	▲	▲	▲	▲	▲									4,56	0,4
TOHX 090208ER-G06	W30 14360.08..						▲									4,25	0,8
TOHX 090202..R-G12	W30 14420.30..		▲													4,55	0,0
TOHX 090202..R-G12	W30 14420.02..	▲	▲	▲			▲		▲	▲	▲	5,6	2,5	2,5	12°	4,70	0,2
TOHX 090204..R-G12	W30 14420.04..	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲					4,56	0,4
TOHX 090202..R-G20	W30 14500.02..		▲									5,6	2,5	2,5	20°	4,70	0,2
TOHX 090204..R-G20	W30 14500.04..		▲	▲												4,56	0,4
TOHX 140302ER-G06	W30 26360.02..		▲				▲									6,96	0,2
TOHX 140304ER-G06	W30 26360.04..			▲								8,2	3,0	4,5	6°	6,81	0,4
TOHX 140305ER-G06	W30 26360.05..	▲	▲	▲		▲	▲									6,74	0,5
TOHX 140302..R-G12	W30 26420.02..		▲	▲												6,96	0,2
TOHX 140304ER-G12	W30 26420.04..										▲	8,2	3,0	4,5	12°	6,81	0,4
TOHX 140305..R-G12	W30 26420.05..	▲	▲	▲			▲			▲						6,74	0,5
TOHX 140305ER-G20	W30 26500.05..						▲					8,2	3,0	4,5	20°	6,74	0,5
TOHX 22T308ER-G06	W30 44360.08..	▲					▲					12,7	4,3	10,5	6°	10,41	0,8
TOHX 22T308ER-G12	W30 44420.08..						▲					12,7	4,3	10,5	12°	10,41	0,8
Steel	P	●	●	●		●	●	●	●	●	●	Order example: ISO Code TOHX 06T102 ER-G06 Cutting material P25M Order No. W30 04360.0203					
Stainless steel	M	●	●	●		●	●	●	●	●	●						
Cast iron	K		●		●		●	●	●	●	●						
Non-ferrous metals	N		●				●	●	●	●	●						
Superalloys and titanium	S		●														
Hardened materials	H				●												

● Main area of application ● Suitable in some cases

▲ Availability: for delivery see current price and stock list

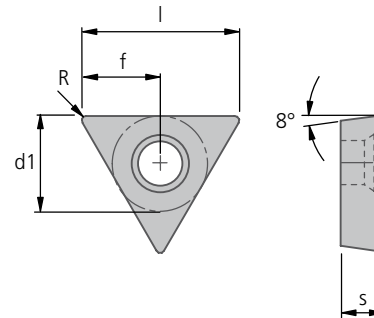


Application range:

- Internal and external turning
- Small boring bars
- Fine machining, internal and external
- Countersink tools, end mill cutters

Precision indexable insert ground around the circumference. Can be turned over with high changeover accuracy because of precision 2-sided contact.

Cutter geometry:



Substrate		Carbide										
Coating type		–	–	CVD	CVD	CVD	PVD					
Cutting material designation		P25M	K10	BK6425	BK7615	BK62	BK8425					
Cutting edge design		E	E	E	E	E	E					
ISO Code	Order No.							d1	s	l	f	R
Cutting edge design E = rounded ▼	Enter cutting material code ▼	03	21	6425	7615	62	8425					
TOHX 06T102 EN	W30 04600.02..		▲					4,0	1,8	6,5	3,32	0,2
TOHX 06T103 EN	W30 04600.03..	▲	▲	▲	▲		▲			6,5	3,25	0,3
TOHX 090202 EN	W30 14600.02..		▲							9,4	4,70	0,2
TOHX 090204 EN	W30 14600.04..	▲	▲	▲	▲	▲	▲	5,6	2,5	9,1	4,56	0,4
TOHX 090208 EN	W30 14600.08..				▲					8,5	4,26	0,8
TOHX 140304 EN	W30 26600.04..				▲					13,6	6,81	0,4
TOHX 140305 EN	W30 26600.05..	▲	▲		▲		▲	8,2	3,0	13,5	6,74	0,5
TOHX 140308 EN	W30 26600.08..		▲	▲	▲					13,0	6,52	0,8
TOHX 22T308 EN	W30 44600.08..		▲		▲			12,7	4,3	20,8	10,41	0,8
Steel	P	●	●	●			●	Order example: ISO Code TOHX 06T103 EN Cutting material K10 Order No. W30 04600.0321				
Stainless steel	M	●	●	●			●					
Cast iron	K		●		●	●	●					
Non-ferrous metals	N		●									
Superalloys and titanium	S		●									
Hardened materials	H				●	●	●					

Inserts

L.H. cutting form „L“

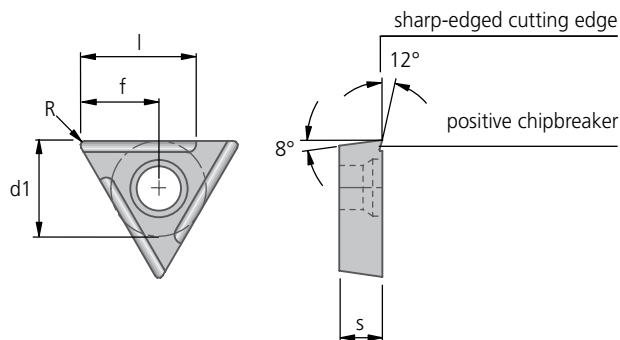


Application range:

- Internal and external turning
- Small boring bars
- Fine machining, internal and external
- Countersink tools, end mill cutters

Precision indexable insert ground around the circumference. Can be turned over with high changeover accuracy because of precision 2-sided contact. Large selection of chipbreakers and carbides suitable for almost any materials.

Cutter geometry:



Substrate		Cermet							
Coating type		–	–	PVD					
Cutting material designation		CK30	CK32	CK38					
Cutting edge design		F	F	F					
ISO Code	Order No.				d1	s	l	f	R
Cutting edge design F = sharp	Enter cutting material code	30	32	38					
TOHX 06T102 FL-G12	W30 04820.02..	▲	▲	▲	4,0	1,8	1	3,32	0,2
TOHX 06T103 FL-G12	W30 04820.03..		▲					3,25	0,3
TOHX 06T104 FL-G12	W30 04820.04..	▲		▲				3,17	0,4
TOHX 090202 FL-G12	W30 14820.02..	▲	▲	▲	5,6	2,5	2,5	4,70	0,2
TOHX 090204 FL-G12	W30 14820.04..	▲	▲	▲				4,56	0,4
TOHX 140302 FL-G12	W30 26820.02..		▲	▲	8,2	3,0	4,5	6,96	0,2
TOHX 140304 FL-G12	W30 26820.04..			▲				6,81	0,4
TOHX 140305 FL-G12	W30 26820.05..		▲					6,74	0,5
Steel	P	●	●	●	Order example: ISO Code TOHX 06T102 FL-G12 Cutting material CK30 Order No. W30 04820.0230				
Stainless steel	M	●	●	●					
Cast iron	K	●	●	●					
Non-ferrous metals	N								
Superalloys and titanium	S								
Hardened materials	H								

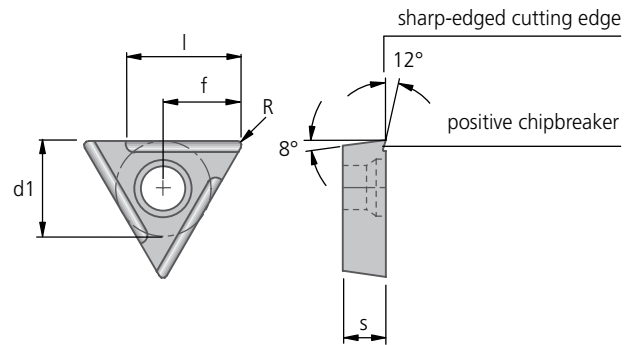


Application range:

- Internal and external turning
- Small boring bars
- Fine machining, internal and external
- Countersink tools, end mill cutters

Precision indexable insert ground around the circumference. Can be turned over with high changeover accuracy because of precision 2-sided contact. Large selection of chipbreakers and carbides suitable for almost any materials.

Cutter geometry:



Substrate		Cermet						
Coating type		—						
Cutting material designation		CK32						
Cutting edge design		F						
ISO Code	Order No.			d1	s	l	f	R
Cutting edge design F = sharp	Enter cutting material code	32						
TOHX 06T102 FR-G12	W30 04830.02..	▲		4,0	1,8	1	3,32	0,2
TOHX 090202 FR-G12	W30 14830.02..	▲		5,6	2,5	2,5	4,70	0,2
Steel	P	●		Order example: ISO Code TOHX 06T102 FR-G12 Cutting material CK32 Order No. W30 04830.0232				
Stainless steel	M	●						
Cast iron	K	●						
Non-ferrous metals	N	●						
Superalloys and titanium	S	●						
Hardened materials	H	●						

Inserts

PCD or CBN cutting edge



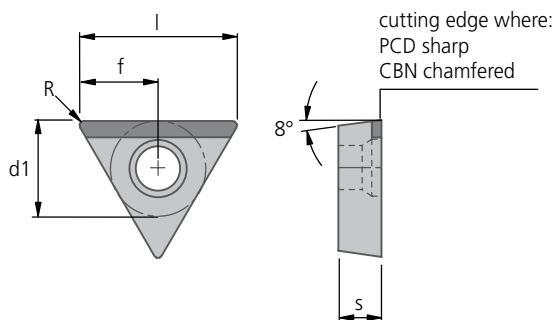
Application range:

PCD: Turning and for processing with very high cutting parameters and with interrupted cuts and for other non-ferrous metal materials.

CBN: Internal and external machining, fine turning. Inserts with cutting edges have the following advantages: high cutting speeds, high dimensional consistency, extremely long tool life and above-average surface finish.

CBN 57: Preferably for cast materials and alloys on a nickel cobalt base.

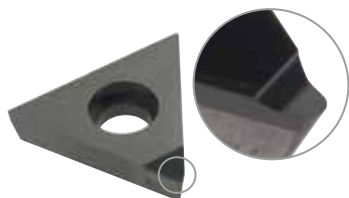
Cutter geometry:



Substrate		PCD	CBN					
Coating type		—	—	d1	s	l	f	R
Cutting material designation		PKD5510	CBN57					
Cutting edge design		F	T					
ISO Code	Order No.							
Cutting edge design F = sharp T = chamfered ▼	Enter cutting material code ▼	5510	57					
TOEX 090204 ..	W30 14940.04..	▲	▲	5,6	2,5	9,12	4,56	0,4
TOEX 140305 ..	W30 26940.05..	▲	▲	8,2	3,0	13,5	6,74	0,5
Steel P				Order example: ISO Code TOEX 090204 F Cutting material PKD5510 Order No. W30 14940.045510				
Stainless steel M								
Cast iron K								
Non-ferrous metals N								
Superalloys and titanium S								
Hardened materials H			< 52 HRC					

● Main area of application ○ Suitable in some cases

▲ Availability: for delivery see current price and stock list

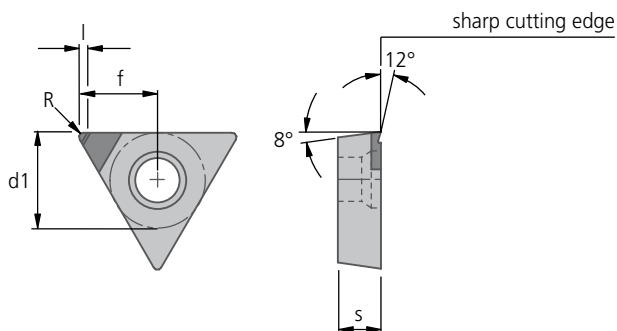


Application range:

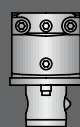
Version with chip breaker for optimum chip control. Particularly well-suited for long-chipping non-ferrous metals, mainly aluminium, wrought alloys and die casting alloys.

PCD: Internal and external machining, fine turning of non-ferrous metals, plastics, composites, rubber, graphites, etc. High cutting speeds, good dimensional accuracy, above-average surface finish and extremely good tool life are all features of these PCD tipped inserts.

Cutter geometry:



Substrate		PCD					
Coating type		—					
Cutting material designation		PKD5510					
Cutting edge design		F					
ISO Code	Order No.						
Cutting edge design F = sharp	Enter cutting material code	5510	d1	s	l	f	R
TOEX 06T103 FN-G12	W30 04980.03..	▲	4,0	1,8	0,6	3,25	0,3
TOEX 090204 FN-G12	W30 14980.04..	▲	5,6	2,5	0,6	4,56	0,4
TOEX 140305 FN-G12	W30 26980.05..	▲	8,2	3,0	0,6	6,74	0,5
Steel	P		Order example: ISO Code TOEX 06T103 FN Cutting material PKD5510 Order No. W30 04980.035510				
Stainless steel	M						
Cast iron	K						
Non-ferrous metals	N						
Superalloys and titanium	S						
Hardened materials	H						



Inserts

PCD or CBN cutting edge



Application range:

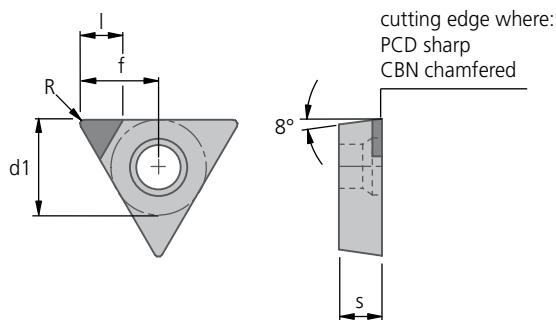
PCD: Internal and external machining, fine turning of non-ferrous metals, plastics, composites, rubber, graphites, etc. High cutting speeds, good dimensional accuracy, above-average surface finish and extremely good tool life are all features of these PCD tipped inserts.

CBN: Internal and external machining, fine turning. Inserts with cutting edges have the following advantages: high cutting speeds, high dimensional consistency, extremely long tool life and above-average surface finish.

CBN 57: Preferably for cast materials and alloys on a nickel cobalt base.

CBN 40: For machining hardened steels (harder than 45 HRC)

Cutter geometry:



Substrate		PCD	CBN						
Coating type		—	—	—					
Cutting material designation		PKD5510	CBN57	CBN40					
Cutting edge design		F	T	T					
ISO Code	Order No.				d1	s	l	f	R
Cutting edge design F = sharp T = chamfered ▼	Enter cutting material code ▼	5510	57	40					
TOEX 06T102 ..N	W30 04990.02..	▲	▲	▲					
TOEX 06T103 ..N	W30 04990.03..	▲	▲		4,0	1,8	1,8	3,32	0,2
TOEX 06T104 ..N	W30 04990.04..	▲						3,25	0,3
								3,17	0,4
TOEX 090202 ..N	W30 14990.02..	▲	▲	▲	5,6	2,5	2,7	4,70	0,2
TOEX 090204 ..N	W30 14990.04..	▲	▲	▲				4,56	0,4
TOEX 090208 ..N	W30 14990.08..	▲	▲					4,26	0,8
TOEX 140302 ..N	W30 26990.02..	▲	▲		8,2	3,0	2,7	6,96	0,2
TOEX 140304 ..N	W30 26990.04..	▲	▲	▲				6,81	0,4
TOEX 140305 ..N	W30 26990.05..	▲	▲					6,74	0,5
Steel P					Order example: ISO Code TOEX 06T102 TN Cutting material CBN57 Order No. W30 04990.0257				
Stainless steel M									
Cast iron K									
Non-ferrous metals N									
Superalloys and titanium S									
Hardened materials H									
					○ ≥ 52 HRC				



Inserts

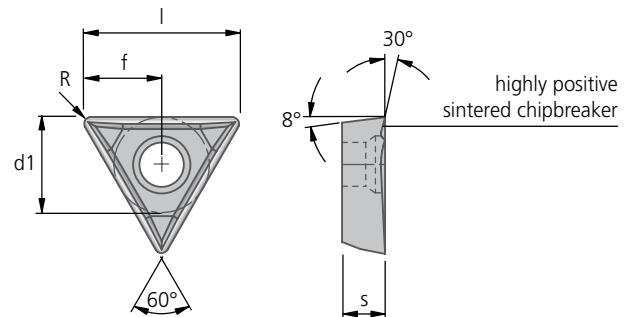
for machining aluminium

Application range:

- Internal and external turning
- Fine finish turning for aluminium machining
- Aluminium materials, in particular soft wrought alloys

The highly positive cutting edge geometry and the peripheral ground clearance faces guarantee controlled chip formation and the best surface quality with low cutting forces.

Cutter geometry:



Substrate		Carbide						
Coating type		–	PVD					
Cutting material designation		K10	BK7710					
Cutting edge design		F	F					
ISO Code	Order No.			d1	s	l	f	R
Cutting edge design F = sharp ▼	Enter cutting material code ▼	23	7710					
TOGX 06T102 FN-12	W57 04120.02..	▲	▲					
TOGX 090204 FN-12	W57 14120.04..	▲	▲					
TOGX 140304 FN-12	W57 26120.04..	▲	▲					
Steel	P			Order example: ISO Code TOGX 06T102 FN-12 Cutting material K10 Order No. W57 04120.0223				
Stainless steel	M							
Cast iron	K							
Non-ferrous metals	N							
Superalloys and titanium	S							
Hardened materials	H							

Indexable inserts

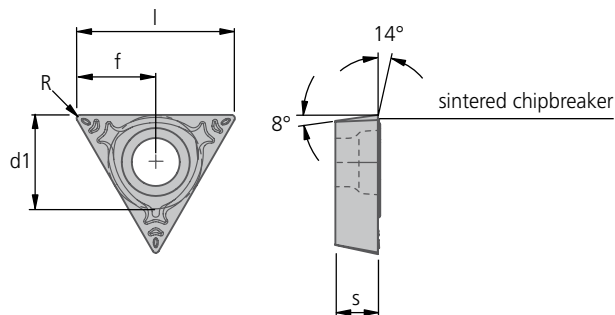


Application range:

- Internal and external machining
- Special tools
- Fine boring

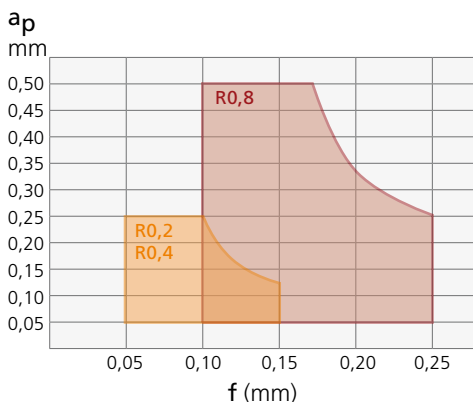
Controlled chip formation for fine and high precision machining. Wear resistant grades: CVD and PVD coated and uncoated Cermet.
 CK3210: Extremely high resistance to wear
 CK3230: Optimum toughness, suitable for interrupted cutting

Cutter geometry:



Substrate		Carbide		Cermet						
Coating type		CVD	PVD	—	—	d1	s	l	f	R
Cutting material designation		BK60	BK8430	CK3210	CK3230					
Cutting edge design		E	E	E	E					
ISO Code	Order No.									
Cutting edge design E = rounded ▼	Enter cutting material code ▼	60	8430	3210	3230					
TOGX 06T102 EN-14	W57 04140.02..	▲	▲	▲	▲	4,0	1,8	6,64	3,32	0,2
TOGX 06T104 EN-14	W57 04140.04..	▲	▲	▲	▲			6,35	3,17	0,4
TOGX 090202 EN-14	W57 14140.02..	▲	▲	▲	▲	5,6	2,5	9,41	4,70	0,2
TOGX 090204 EN-14	W57 14140.04..	▲	▲	▲	▲			9,12	4,56	0,4
TOGX 090208 EN-14	W57 14140.08..	▲	▲	▲	▲	8,2	3,0	8,53	4,26	0,8
TOGX 140302 EN-14	W57 26140.02..	▲	▲	▲	▲			13,91	6,96	0,2
TOGX 140304 EN-14	W57 26140.04..	▲	▲	▲	▲			13,62	6,81	0,4
TOGX 140308 EN-14	W57 26140.08..	▲	▲	▲	▲			13,03	6,52	0,8
Steel	P	●	●	●	●	Order example: ISO Code TOGX 06T102 EN-14 Cutting material BK60 Order No. W57 04140.0260				
Stainless steel	M		●	●	●					
Cast iron	K	●	●	●	●					
Non-ferrous metals	N			●	●					
Superalloys and titanium	S			●	●					
Hardened materials	H									

Application area





Indexable inserts

approach angle $\alpha = 90^\circ$

Application range:

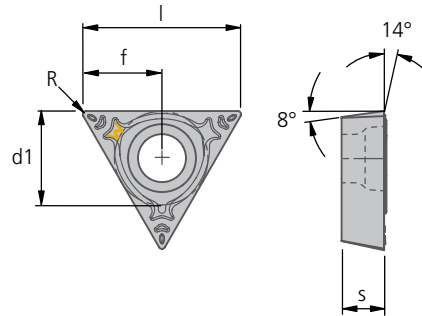


- Internal and external machining
- Special tools
- Fine boring

Controlled chip formation for fine and high precision machining with optimised feed:surface ratio for best surface finish.

Wear resistant grades: Finest grade carbide + PVD coating and uncoated Cermet.

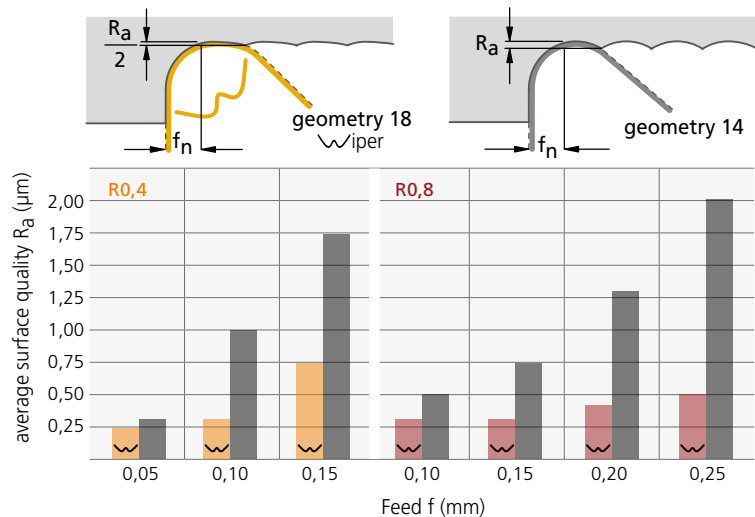
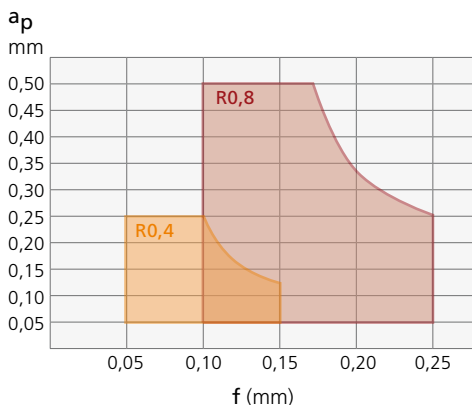
Cutter geometry:



Substrate		Carbide	Cermet					
Coating type		PVD	–					
Cutting material designation		BK8430	CK32					
Cutting edge design		E	E					
ISO Code	Order No.			d1	s	l	f	R
Cutting edge design E = rounded	Enter cutting material code	8430	32					
TOGX 060104 EN-18	W57 04180.04..	▲	▲	4,0	1,8	6,3	3,17	0,4
TOGX 090204 EN-18	W57 14180.04..	▲	▲	5,6	2,5	9,1	4,56	0,4
TOGX 090208 EN-18	W57 14180.08..	▲	▲			8,52	4,26	0,8
TOGX 140304 EN-18	W57 26180.04..	▲	▲	8,2	3,0	13,6	6,81	0,4
TOGX 140308 EN-18	W57 26180.08..	▲	▲			13,01	6,51	0,8
Steel	P			Order example: ISO Code TOGX 060104 EN-18 Cutting material BK8430 Order No. W57 04180.048430				
Stainless steel	M							
Cast iron	K							
Non-ferrous metals	N							
Superalloys and titanium	S							
Hardened materials	H							

Surface quality results: Comparison of surface quality results for "Wiper" – R0,4 / R0,8 for $\alpha = 90^\circ$ in X40Cr13 / 1.4034

Application area



● Main area of application ● Suitable in some cases

Important: See chapter 7 for more application details and safety notes!

Inserts

L.H. cutting form „L”

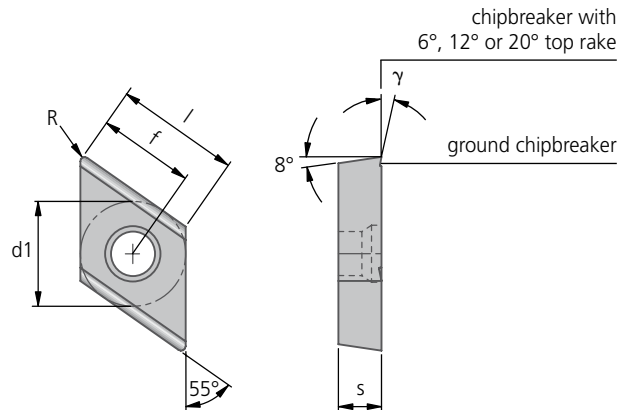


Application range:

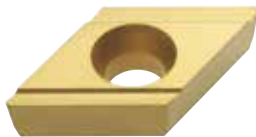
- External and internal copy turning

Because of the positive cutting edge geometry, cutting is very efficient. Particularly suitable for long overhang and for thin-walled materials. The large selection of ground chipbreakers and carbides will suit almost any materials.

Cutter geometry:



Substrate		Carbide									
Coating type		—	—	CVD	PVD						
Cutting material designation		P25M	K10	BK6425	BK2710						
Cutting edge design		E	F	E	E						
ISO Code	Order No.					d1	s	l	γ	f	R
Cutting edge design E = rounded F = sharp	Enter cutting material code	03	21	6425	2710						
DOHT 070202..L-G06	W60 18060.02..	▲				6,35	2,4	7,4	6°	5,92	0,2
DOHT 070204..L-G06	W60 18060.04..			▲						5,73	0,4
DOHT 070202..L-G12	W60 18120.02..	▲	▲	▲	▲	6,35	2,4	7,4	12°	5,92	0,2
DOHT 070204..L-G12	W60 18120.04..	▲	▲	▲	▲					5,73	0,4
DOHT 070202..L-G20	W60 18200.02..		▲			6,35	2,4	7,4	20°	5,92	0,2
DOHT 11T302..L-G12	W60 32120.02..	▲	▲	▲						8,96	0,2
DOHT 11T304..L-G12	W60 32120.04..	▲	▲	▲	▲	9,52	4,0	11,2	12°	8,78	0,4
DOHT 11T308..L-G12	W60 32120.08..			▲	▲					8,41	0,8
Steel P		●	●	●	●	Order example: ISO Code DOHT 070202 EL-G06 Cutting material P25M Order No. W60 18060.0203					
Stainless steel M		●	●	●	●						
Cast iron K			●		●						
Non-ferrous metals N			●		●						
Superalloys and titanium S			●		●						
Hardened materials H					●						

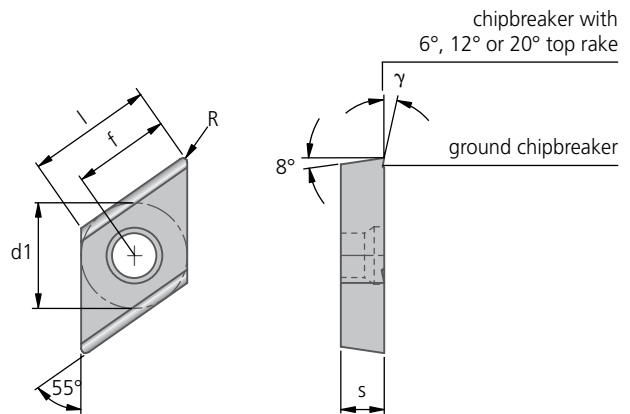


Application range:

- External and internal copy turning

Because of the positive cutting edge geometry, cutting is very efficient. Particularly suitable for long overhang and for thin-walled materials. The large selection of ground chipbreakers and carbides will suit almost any materials.

Cutter geometry:



Substrate		Carbide								
Coating type		—	—	CVD						
Cutting material designation		P25M	K10	BK6425						
Cutting edge design		E	F	E						
ISO Code	Order No.				d1	s	l	γ	f	R
Cutting edge design E = rounded F = sharp	Enter cutting material code	03	21	6425						
DOHT 070202..R-G06	W60 18360.02..	▲		▲	6,35	2,4	7,4	6°	5,92	0,2
DOHT 070204..R-G06	W60 18360.04..			▲					5,73	0,4
DOHT 070202..R-G12	W60 18420.02..	▲	▲	▲	6,35	2,4	7,4	12°	5,92	0,2
DOHT 070204..R-G12	W60 18420.04..	▲	▲	▲					5,73	0,4
DOHT 070202..R-G20	W60 18500.02..		▲		6,35	2,4	7,4	20°	5,92	0,2
DOHT 070204..R-G20	W60 18500.04..		▲						5,73	0,4
DOHT 11T308..R-G06	W60 32360.08..			▲	9,52	4,0	11,2	6°	8,41	0,8
DOHT 11T302..R-G12	W60 32420.02..	▲	▲	▲					8,96	0,2
DOHT 11T304..R-G12	W60 32420.04..	▲	▲	▲	9,52	4,0	11,2	12°	8,78	0,4
DOHT 11T308..R-G12	W60 32420.08..			▲					8,41	0,8
Steel	P	●	●	●	Order example: ISO Code DOHT 070202 ER-G06 Cutting material P25M Order No. W60 18360.0203					
Stainless steel	M	●	●	●						
Cast iron	K		●							
Non-ferrous metals	N		●							
Superalloys and titanium	S		●							
Hardened materials	H		●							

Inserts

neutral cutting form „N“

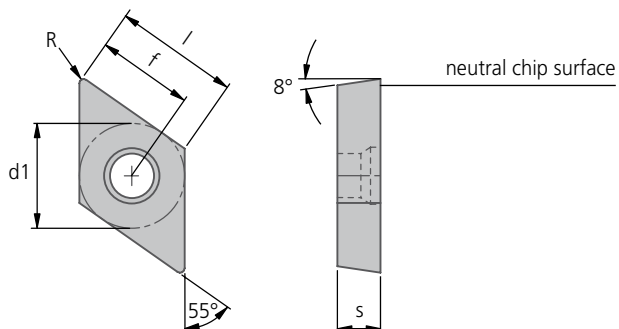


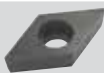
Application range:

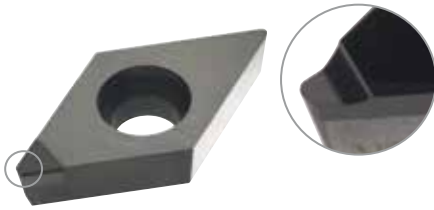
- External and internal copy turning

Because of the positive cutting edge geometry, cutting is very efficient. Particularly suitable for long overhang and for thin-walled materials.

Cutter geometry:



Substrate		Carbide							
Coating type		—			d1	s	l	f	R
Cutting material designation		K10							
Cutting edge design		E							
ISO Code	Order No.								
Cutting edge design E = rounded ▼	Enter cutting material code ▼	21							
DOHW 070202 EN	W60 18600.02..	▲		6,35	2,4	7,4	5,20	0,2	
DOHW 070204 EN	W60 18600.04..	▲					5,73	0,4	
DOHW 11T304 EN	W60 32600.04..	▲		9,52	4,0	11,2	8,78	0,4	
Steel P				Order example: ISO Code DOHW 070202 EN Cutting material K10 Order No. W60 18600.0221					
Stainless steel M									
Cast iron K									
Non-ferrous metals N									
Superalloys and titanium S									
Hardened materials H									

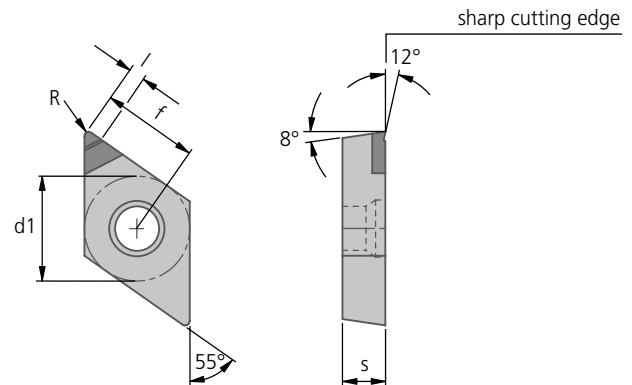


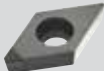
Application range:

Version with chip breaker for optimum chip control. Particularly well-suited for long-chipping non-ferrous metals, mainly aluminium, wrought alloys and die casting alloys.

PCD: Internal and external machining, fine turning of non-ferrous metals, plastics, composites, rubber, graphites, etc. High cutting speeds, good dimensional accuracy, above-average surface finish and extremely good tool life are all features of these PCD tipped inserts.

Cutter geometry:



Substrate		PCD					
Coating type		–					
Cutting material designation		PKD5510					
Cutting edge design		F					
ISO Code	Order No.		d1	s	l	f	R
Cutting edge design F = sharp ▼	Enter cutting material code ▼	5510					
DOET 070204 FN-G12	W60 18980.04..	▲					
DOET 11T304 FN-G10	W60 32980.04..	▲	6,35	2,4	0,6	5,73	0,4
			9,52	4,0	0,6	8,78	0,4
Steel P			Order example: ISO Code DOET 070204 FN-G12 Cutting material PKD5510 Order No. W60 18980.045510				
Stainless steel M							
Cast iron K							
Non-ferrous metals N							
Superalloys and titanium S							
Hardened materials H							

Inserts

PCD or CBN cutting edge



Application range:

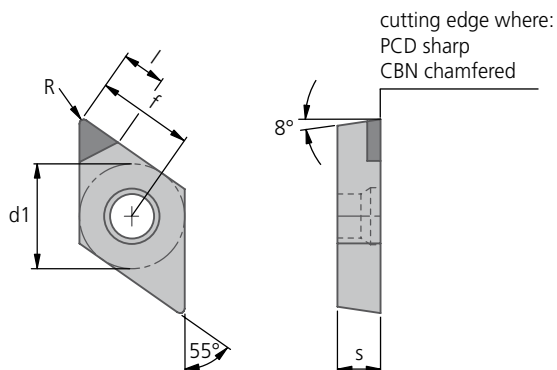
PCD: Internal and external machining, fine turning of non-ferrous metals, plastics, composites, rubber, graphites, etc. High cutting speeds, good dimensional accuracy, above-average surface finish and extremely good tool life are all features of these PCD tipped inserts.

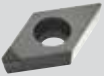
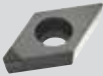
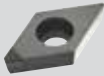
CBN: Internal and external machining, fine turning. Inserts with cutting edges have the following advantages: high cutting speeds, high dimensional consistency, extremely long tool life and above-average surface finish.

CBN 57: Preferably for cast materials and alloys on a nickel cobalt base.

CBN 40: For machining hardened steels (over 52 HRC).

Cutter geometry:



Substrate		PCD	CBN						
Coating type		—	—	—					
Cutting material designation		PKD5510	CBN57	CBN40					
Cutting edge design		F	T	T					
ISO Code	Order No.				d1	s	l	f	R
Cutting edge design F = sharp T = chamfered ▼	Enter cutting material code ▼	5510	57	40					
DOEW 070202 ..N	W60 18990.02..	▲		▲	6,35	2,4	3,0	5,92	0,2
DOEW 070204 ..N	W60 18990.04..	▲	▲	▲				5,73	0,4
DOEW 11T302 ..N	W60 32990.02..	▲		▲	9,52	4,0	3,0	8,96	0,2
DOEW 11T304 ..N	W60 32990.04..	▲	▲	▲				8,78	0,4
Steel P					Order example: ISO Code DOEW 070202 FN Cutting material PKD5510 Order No. W60 18990.025510				
Stainless steel M									
Cast iron K			●						
Non-ferrous metals N		●							
Superalloys and titanium S			●						
Hardened materials H				● ≥ 52 HRC					

● Main area of application ● Suitable in some cases

▲ Availability: for delivery see current price and stock list

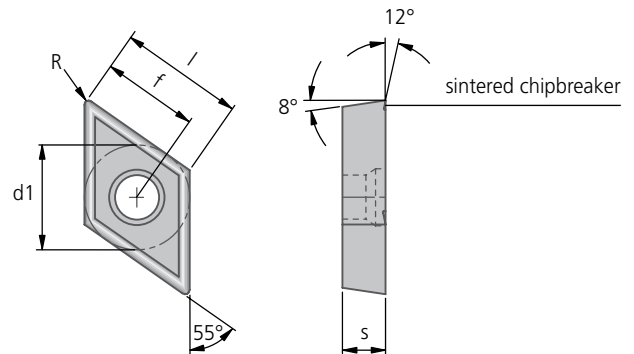


Application range:

- External and internal copy turning

The sintered chipbreaker allows universal use.
The positive cutter geometry and peripheral ground clearance faces produce low cutting forces with high changeover accuracy.

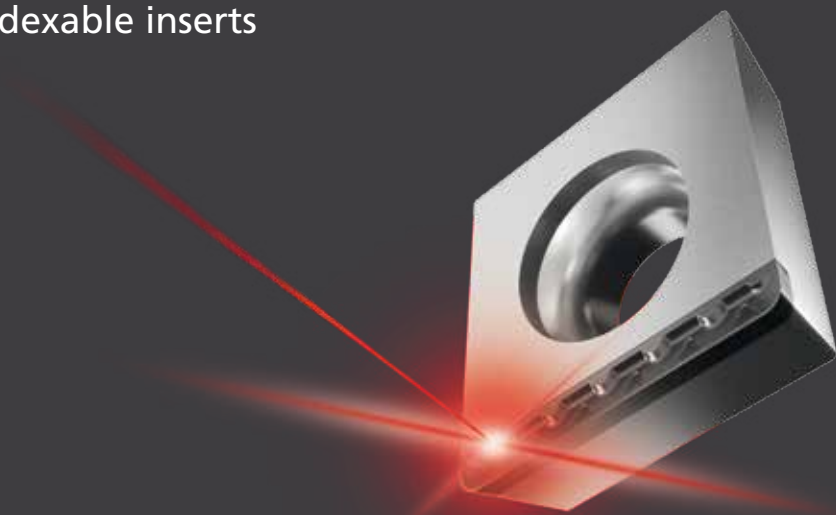
Cutter geometry:



Substrate		Carbide										
Coating type		–	–	CVD	CVD	CVD	PVD					
Cutting material designation		P25M	K10	BK6425	BK7615	BK6440	BK2710					
ISO Code	Order No. Enter cutting material code							d1	s	l	f	R
DOHT 070202-06	W79 18060.02..	▲	▲	▲		▲	▲				5,92	0,2
DOHT 070204-06	W79 18060.04..	▲	▲	▲	▲	▲	▲	6,35	2,4	7,4	5,73	0,4
DOHT 070208-06	W79 18060.08..			▲		▲					5,36	0,8
DOHT 11T302-06	W79 32060.02..		▲	▲							8,96	0,2
DOHT 11T304-06	W79 32060.04..	▲	▲	▲		▲	▲	9,52	4,0	11,2	8,78	0,4
DOHT 11T308-06	W79 32060.08..		▲	▲		▲	▲				8,41	0,8
Steel P		●	●	●		●	●	Order example: ISO Code DOHT 070202-06 Cutting material P25M Order No. W79 18060.0203				
Stainless steel M		●	●	●		●	●					
Cast iron K			●		●		●					
Non-ferrous metals N			●									
Superalloys and titanium S			●				●					
Hardened materials H												

KOMET® ISO Diamond indexable inserts

With super-hard PCD / CVD-D diamond cutting tool materials. Superior performance at the cutting edge thanks to the use of state-of-the-art laser technology.



Laser technology and the benefit for YOU

The EXTRA FEATURE in the cutting tool material

- PCD mixed grain with bimodal microstructure By using large and small grains, the microstructure guarantees an increase in packing density and, consequently, a uniform diamond cutting edge with no gaps. As a result, the efficient machining of abrasive materials is guaranteed and the material can be used with interrupted cuts.
- CVD-D thickfilm diamond is pure polycrystalline diamond and, unlike PCD, is binder-free. That makes it the hardest and most wear-resistant cutting tool material for machining non-ferrous metals, composite materials, carbide, ceramic, plastic with fillers and MMC (metal matrix composite). This cutting tool material can only be machined with laser technology and its superior performance can be used to its full potential when maximum wear resistance is demanded.
- In addition to innovative laser technology, KOMET opts for high-vacuum soldering when fitting the diamond cutting edges. The high-strength solder used in this process wins favour in machining due to its higher temperature resistance, process reliability and service life.

The EXTRA FEATURE at the cutting edge

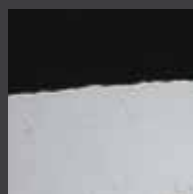
- Despite the use of larger-sized diamond grains in the PCD mixed grain, the chipping of the cutting edge is significantly reduced and, as a result, a good surface quality is assured with simultaneously prolonged service life of the cutting edge.
- Due to the laser technology, the diamond grains are cut apart and not torn out of the microstructure, as is the case with conventional grinding operations. Even damage to the PCD microstructure caused by grinding pressure can be avoided in this way. In addition to the lower level of chipping, laser machining allows extremely good accuracy in terms of shape to be achieved in the cutting edge contour.
- Regardless of the size of the diamond grain, an extremely sharp cutting edge is created as a result of the diamond grains splitting apart. The benefit for you is a soft cutting action with low shearing forces and an excellent surface quality.
- The wiper geometries provide a further possibility of significantly improving the surface quality.

The EXTRA FEATURE in chip control

- The laser technology enables the inclusion of 3D chip breakers and their arrangement in whatever formation may be desired. KOMET has optimised chip control and developed two outstanding chip breakers for finishing and roughing operations. As a result, excellent chip breaking properties are created in a wide application field of materials and cutting parameters.



Ground PCD cutting edge
Diamond grains that are torn out leave gaps in the microstructure and produce chipping. Microstructure close to cutting edges is also damaged by grinding pressure.



Laser-machined PCD cutting edge
The mixture of grain used and laser machining guarantee a uniform and undamaged cutting edge, with no gaps. Benefits for YOU in terms of service life, surface quality and accuracy of shape.

Portfolio overview – ISO PCD/CVD-D Indexable inserts

CCGT										CCGW			
													
C85..98	C85..97 ▽	C85..93 ▽ Wiper	C85..96 ▽▽▽	C85..92 ▽▽▽ Wiper	C85..86 ▽ L.H.	C85..87 ▽ R.H.	C85..84 ▽▽▽ L.H.	C85..85 ▽▽▽ R.H.	C85..99	C85..91 Wiper	C85..94 L.H.	C85..95 R.H.	
► 107	► 108	► 109	► 110	► 111	► 112	► 113	► 114	► 115	► 116	► 117	► 118	► 119	
CPGT						CPGW							
													
C95..97 ▽	C95..96 ▽▽▽	C95..86 ▽ L.H.	C95..87 ▽ R.H.	C95..84 ▽▽▽ L.H.	C95..85 ▽▽▽ R.H.	C95..94 L.H.	C95..95 R.H.	C95..99					
► 120	► 121	► 122	► 123	► 124	► 125	► 126	► 127	► 128					
DCGT					DCGW								
													
C86..98	C86..97 ▽	C86..93 ▽ Wiper	C86..96 ▽▽▽	C86..92 ▽▽▽ Wiper	C86..99	C86..91 Wiper							
► 129	► 130	► 131	► 132	► 133	► 134	► 135							
RCGT				RCGW		RDHX							
													
C87..90 ▽ standard	C88..90 ▽ strengthened	C87..89 ▽▽▽ standard	C88..89 ▽▽▽ strengthened	C87..88 standard	C88..88 strengthened	C98..90 ▽	C98..89 ▽▽▽	C98..88					
► 136	► 137	► 138	► 139	► 140	► 141	► 142	► 143	► 144					
TCGT								TCGW					
													
C84..98	C84..97 ▽	C84..96 ▽▽▽	C84..81	C84..86 ▽	C84..84 ▽▽▽	C84..90 ▽	C84..89 ▽▽▽	C84..99	C84..94	C84..88			
► 145	► 146	► 147	► 148	► 149	► 150	► 151	► 152	► 153	► 154	► 155			
VBGT			VBGW	VCGT			VCGW						
													
C79..98	C79..97 ▽	C79..96 ▽▽▽	C79..99	C89..98	C89..97 ▽	C89..96 ▽▽▽	C89..99						
► 156	► 157	► 158	► 159	► 160	► 161	► 162	► 163						

PCD



PKD5510: Polycrystalline diamond cutting tool material for machining aluminium materials, abrasive materials, plastics and composite materials with high cutting speeds.

CVD-D



DSD5605: CVD-D thick layer diamond is the latest generation of diamond cutting materials. The most wear-resistant cutting material for non-ferrous metals and non-metallic materials. Superior performance over PCD, particularly in applications requiring the greatest abrasion resistance.



Laser-machined cutting edges, chip breakers, chamfers and rounding



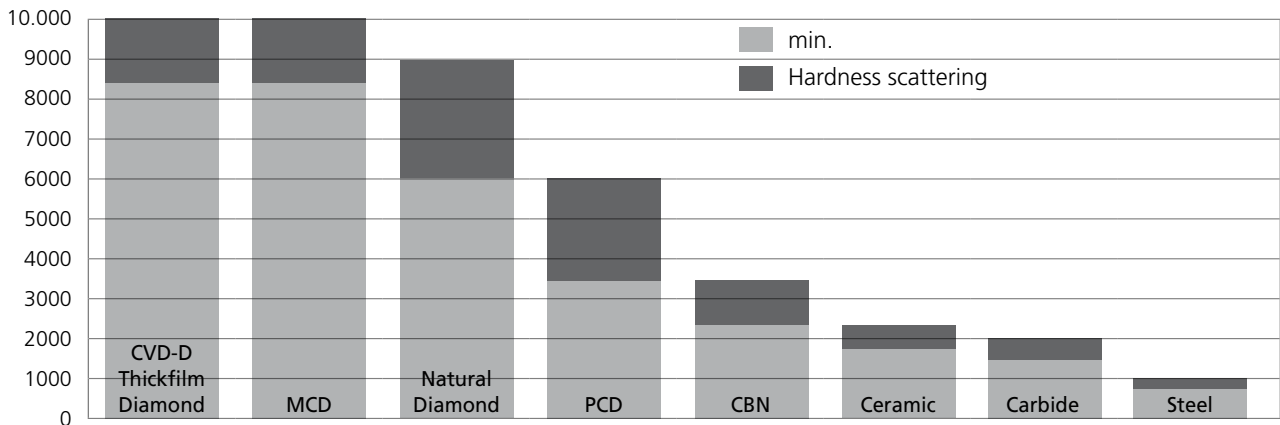
3-D chip breaker for roughing



3-D chip breaker for finishing

Hardness

Vickers hardness [kg/mm²]



Recommended cutting data

		Cutting depth a_p (mm)			Feed f (mm/rev)		
		without chip breaker	3-D chip breaker for finishing ▽▽▽	3-D chip breaker for roughing ▽	without chip breaker	3-D chip breaker for finishing ▽▽▽	3-D chip breaker for roughing ▽
Long blank	R	0,1	0,01 - $\frac{2}{3} \times L^*$		0,01 - 0,05		
		0,2	0,01 - $\frac{2}{3} \times L^*$	0,08 - $\frac{2}{3} \times L^*$	0,01 - 0,10	0,02 - 0,10	0,80 - 0,15
		0,4	0,01 - $\frac{2}{3} \times L^*$	0,10 - $\frac{2}{3} \times L^*$	0,01 - 0,20	0,04 - 0,20	0,12 - 0,25
		0,8	0,01 - $\frac{2}{3} \times L^*$	0,15 - $\frac{2}{3} \times L^*$	0,01 - 0,40	0,08 - 0,40	0,25 - 0,45
		1,2	0,01 - $\frac{2}{3} \times L^*$	0,20 - $\frac{2}{3} \times L^*$	0,01 - 0,60	0,12 - 0,60	0,30 - 0,65
Triangular blank		0,1	0,01 - 2,80		0,01 - 0,05		
		0,2	0,01 - 2,80	0,08 - 1,50	0,01 - 0,10	0,02 - 0,10	0,80 - 0,15
		0,4	0,01 - 2,80	0,10 - 2,00	0,01 - 0,20	0,04 - 0,20	0,12 - 0,25
		0,8	0,01 - 2,80	0,15 - 2,40	0,01 - 0,40	0,08 - 0,40	0,25 - 0,45
		1,2	0,01 - 2,80	0,20 - 2,85	0,01 - 0,60	0,12 - 0,60	0,30 - 0,65
Round insert	d1						
	5	0,05 - 1,25	0,20 - 1,25	0,80 - 1,25	0,05 - 0,40	0,08 - 0,40	0,15 - 0,50
	7	0,05 - 1,75	0,20 - 1,75	0,80 - 1,75	0,05 - 0,40	0,08 - 0,40	0,15 - 0,50
	10	0,05 - 2,50	0,20 - 2,50	0,80 - 2,50	0,05 - 0,60	0,08 - 0,60	0,15 - 0,70
	12	0,05 - 3,00	0,20 - 3,00	0,80 - 3,00	0,05 - 0,60	0,08 - 0,60	0,15 - 0,70

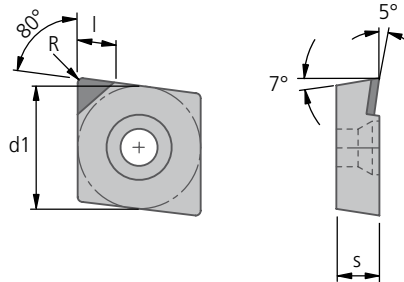
*When machining using large cutting depths, low feed values must generally be selected

Cutting speed v_c (m/min)			
N	Aluminium alloys Si < 1%	300 - 6000	Glass, quartz glass
	Aluminium alloys Si < 12%	300 - 4000	sintered carbides (G10-G60)
	Aluminium alloys Si > 12%	300 - 2000	non-sintered carbides (green carbide)
	CFRP, GFRP	100 - 4000	Metal Matrix Composites (MMC)
	Plastics, composites	300 - 1000	Graphite
	Ceramics	12 - 55	other non-ferrous metals (copper / bronze / brass / magnesium)
			140 - 200
			12 - 55
			20 - 70
			200 - 800
			100 - 3000
			300 - 3000



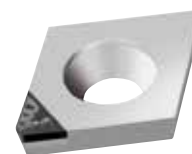
Cutter geometry:

positive rake angle
sharp cutting edge



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
CCGT 060202 FN-98	C85 18980.02..	▲	▲				0,2
CCGT 060204 FN-98	C85 18980.04..	▲	▲	6,35	2,38	3,0	0,4
CCGT 060208 FN-98	C85 18980.08..	▲	▲				0,8
CCGT 09T302 FN-98	C85 32980.02..	▲	▲				0,2
CCGT 09T304 FN-98	C85 32980.04..	▲	▲				0,4
CCGT 09T308 FN-98	C85 32980.08..	▲	▲	9,52	3,97	3,0	0,8
CCGT 09T312 FN-98	C85 32980.12..	▲	▲				1,2
CCGT 120402 FN-98	C85 44980.02..	▲	▲				0,2
CCGT 120404 FN-98	C85 44980.04..	▲	▲	12,7	4,76	3,0	0,4
CCGT 120408 FN-98	C85 44980.08..	▲	▲				0,8
Aluminium alloys Si < 12%		●	●	Order example: ISO Code CCGT 060202 FN-98 Cutting material PKD5510 Order No. C85 18980.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		◐	●				
Ceramics		◐	●				
Glass, quartz glass	N	◐	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	◐				
Graphite		◐	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

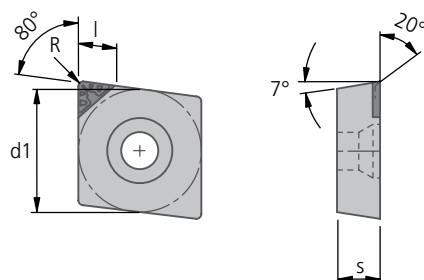
C85..97



Cutter geometry:



3-D chip breaker for roughing
With stabilised cutting edge for
 $a_p > 0,2 \text{ mm}$



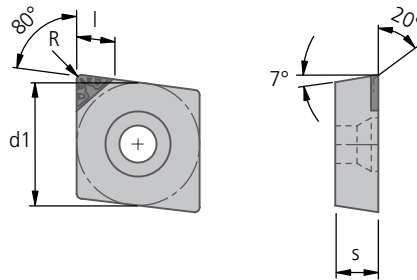
Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
CCGT 060202 FN-97	C85 18970.02..	▲	▲				0,2
CCGT 060204 FN-97	C85 18970.04..	▲	▲	6,35	2,38	3,0	0,4
CCGT 060208 FN-97	C85 18970.08..	▲	▲				0,8
CCGT 09T302 FN-97	C85 32970.02..	▲	▲				0,2
CCGT 09T304 FN-97	C85 32970.04..	▲	▲				0,4
CCGT 09T308 FN-97	C85 32970.08..	▲	▲	9,52	3,97	3,0	0,8
CCGT 09T312 FN-97	C85 32970.12..	▲	▲				1,2
CCGT 120402 FN-97	C85 44970.02..	▲	▲				0,2
CCGT 120404 FN-97	C85 44970.04..	▲	▲				0,4
CCGT 120408 FN-97	C85 44970.08..	▲	▲	12,7	4,76	3,0	0,8
CCGT 120412 FN-97	C85 44970.12..	▲	▲				1,2
Aluminium alloys Si < 12%		●	●	Order example: ISO Code CCGT 060202 FN-97 Cutting material PKD5510 Order No. C85 18970.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		●	●				
Ceramics		●	●				
Glass, quartz glass	N	●	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	●				
Graphite		●	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				



Cutter geometry:

▽ Wiper

3-D chip breaker for roughing
with Wiper geometry for
setting angle $\alpha = 95^\circ$
With stabilised cutting edge for
 $a_p > 0,2 \text{ mm}$



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
CCGT 060202 FN-93W	C85 18930.02..	▲	▲				0,2
CCGT 060204 FN-93W	C85 18930.04..	▲	▲	6,35	2,38	3,0	0,4
CCGT 060208 FN-93W	C85 18930.08..	▲	▲				0,8
CCGT 09T302 FN-93W	C85 32930.02..	▲	▲				0,2
CCGT 09T304 FN-93W	C85 32930.04..	▲	▲				0,4
CCGT 09T308 FN-93W	C85 32930.08..	▲	▲	9,52	3,97	3,0	0,8
CCGT 09T312 FN-93W	C85 32930.12..	▲	▲				1,2
CCGT 120402 FN-93W	C85 44930.02..	▲	▲				0,2
CCGT 120404 FN-93W	C85 44930.04..	▲	▲				0,4
CCGT 120408 FN-93W	C85 44930.08..	▲	▲	12,7	4,76	3,0	0,8
CCGT 120412 FN-93W	C85 44930.12..	▲	▲				1,2
Aluminium alloys Si < 12%		●	●	Order example: ISO Code CCGT 060202 FN-93W Cutting material PKD5510 Order No. C85 18930.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		●	●				
Ceramics		●	●				
Glass, quartz glass	N	●	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	●				
Graphite		●	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

Surface comparison

■ R0,4

■ R0,8

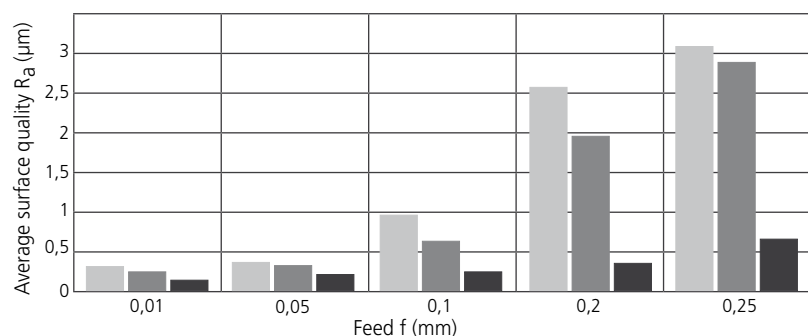
■ R0,4 Wiper $\alpha = 95^\circ$

Average surface quality R_a

Material: G-AlSi9Cu4Mg (~ 3.2573)

Cutting speed: $v_c = 1000 \text{ m/min}$

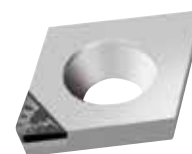
Cutting depth: $a_p = 0,5 \text{ mm}$



● Main area of application ● Suitable in some cases

Important: See chapter 8 for more application details and safety notes !

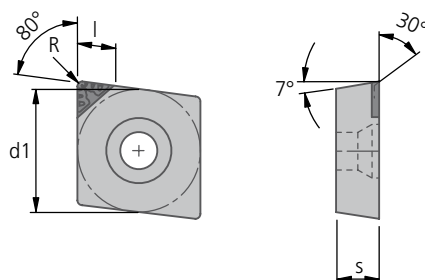
C85..96



Cutter geometry:



3-D chip breaker for finishing
With stabilised cutting edge for
 $a_p > 0,08 \text{ mm}$



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
CCGT 060202 FN-96	C85 18960.02..	▲	▲				0,2
CCGT 060204 FN-96	C85 18960.04..	▲	▲	6,35	2,38	3,0	0,4
CCGT 060208 FN-96	C85 18960.08..	▲	▲				0,8
CCGT 09T302 FN-96	C85 32960.02..	▲	▲				0,2
CCGT 09T304 FN-96	C85 32960.04..	▲	▲				0,4
CCGT 09T308 FN-96	C85 32960.08..	▲	▲	9,52	3,97	3,0	0,8
CCGT 09T312 FN-96	C85 32960.12..	▲	▲				1,2
CCGT 120402 FN-96	C85 44960.02..	▲	▲				0,2
CCGT 120404 FN-96	C85 44960.04..	▲	▲				0,4
CCGT 120408 FN-96	C85 44960.08..	▲	▲	12,7	4,76	3,0	0,8
CCGT 120412 FN-96	C85 44960.12..	▲	▲				1,2
Aluminium alloys Si < 12%		●	●	Order example: ISO Code CCGT 060202 FN-96 Cutting material PKD5510 Order No. C85 18960.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		◐	●				
Ceramics		◐	●				
Glass, quartz glass		◐	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	◐				
Graphite		◐	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				



Cutter geometry:

Wiper

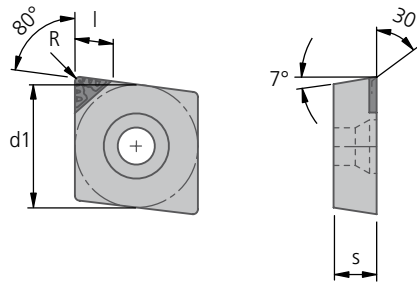
3-D chip breaker for finishing

with Wiper geometry for

setting angle $\alpha = 95^\circ$

With stabilised cutting edge for

$a_p > 0,08 \text{ mm}$



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
CCGT 060202 FN-92W	C85 18920.02..	▲	▲				0,2
CCGT 060204 FN-92W	C85 18920.04..	▲	▲	6,35	2,38	3,0	0,4
CCGT 060208 FN-92W	C85 18920.08..	▲	▲				0,8
CCGT 09T302 FN-92W	C85 32920.02..	▲	▲				0,2
CCGT 09T304 FN-92W	C85 32920.04..	▲	▲				0,4
CCGT 09T308 FN-92W	C85 32920.08..	▲	▲	9,52	3,97	3,0	0,8
CCGT 09T312 FN-92W	C85 32920.12..	▲	▲				1,2
CCGT 120402 FN-92W	C85 44920.02..	▲	▲				0,2
CCGT 120404 FN-92W	C85 44920.04..	▲	▲				0,4
CCGT 120408 FN-92W	C85 44920.08..	▲	▲	12,7	4,76	3,0	0,8
CCGT 120412 FN-92W	C85 44920.12..	▲	▲				1,2
Aluminium alloys Si < 12%		●	●	Order example: ISO Code CCGT 060202 FN-92W Cutting material PKD5510 Order No. C85 18920.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		●	●				
Ceramics		●	●				
Glass, quartz glass		●	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	●				
Graphite		●	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

Surface comparison

R0,4

R0,8

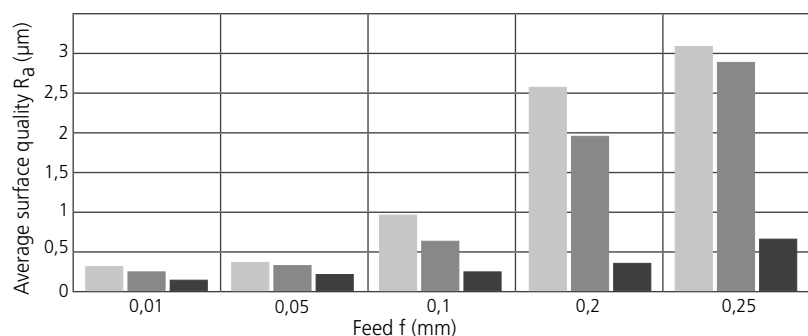
R0,4 Wiper $\alpha = 95^\circ$

Average surface quality R_a

Material: G-AlSi9Cu4Mg (~ 3.2573)

Cutting speed: $v_c = 1000 \text{ m/min}$

Cutting depth: $a_p = 0,5 \text{ mm}$



● Main area of application ● Suitable in some cases

Important: See chapter 8 for more application details and safety notes !

C85..86



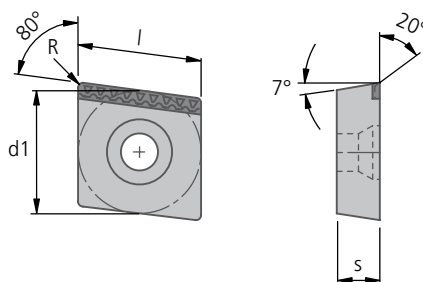
Cutter geometry:



L.H. cutting form „L“

3-D chip breaker for roughing

With stabilised cutting edge for
ap > 0,2 mm



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
CCGT 060202 FL-86	C85 18860.02..	▲	▲				0,2
CCGT 060204 FL-86	C85 18860.04..	▲	▲	6,35	2,38	6,5	0,4
CCGT 060208 FL-86	C85 18860.08..	▲	▲				0,8
CCGT 09T304 FL-86	C85 32860.04..	▲	▲				0,4
CCGT 09T308 FL-86	C85 32860.08..	▲	▲	9,52	3,97	9,7	0,8
CCGT 09T312 FL-86	C85 32860.12..	▲	▲				1,2
CCGT 120404 FL-86	C85 44860.04..	▲	▲	12,7	4,76	12,9	0,4
CCGT 120408 FL-86	C85 44860.08..	▲	▲				0,8
Aluminium alloys Si < 12%		●	●	Order example: ISO Code CCGT 060202 FL-86 Cutting material PKD5510 Order No. C85 18860.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		●	●				
Ceramics		●	●				
Glass, quartz glass	N	●	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	●				
Graphite		●	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				



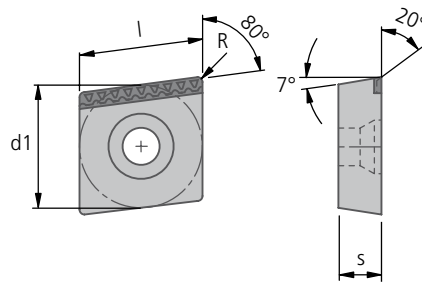
Cutter geometry:



R.H. cutting form „R“

3-D chip breaker for roughing

With stabilised cutting edge for
ap > 0,2 mm



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
CCGT 060202 FR-87	C85 18870.02..	▲	▲				0,2
CCGT 060204 FR-87	C85 18870.04..	▲	▲	6,35	2,38	6,5	0,4
CCGT 060208 FR-87	C85 18870.08..	▲	▲				0,8
CCGT 09T304 FR-87	C85 32870.04..	▲	▲				0,4
CCGT 09T308 FR-87	C85 32870.08..	▲	▲	9,52	3,97	9,7	0,8
CCGT 09T312 FR-87	C85 32870.12..	▲	▲				1,2
CCGT 120404 FR-87	C85 44870.04..	▲	▲	12,7	4,76	12,9	0,4
CCGT 120408 FR-87	C85 44870.08..	▲	▲				0,8
Aluminium alloys Si < 12%		●	●	Order example: ISO Code CCGT 060202 FR-87 Cutting material PKD5510 Order No. C85 18870.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		●	●				
Ceramics		●	●				
Glass, quartz glass	N	●	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	●				
Graphite		●	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

C85..84



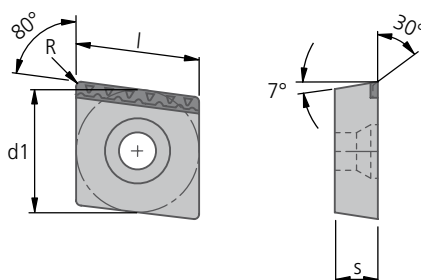
Cutter geometry:



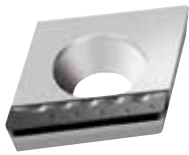
L.H. cutting form „L“

3-D chip breaker for finishing

With stabilised cutting edge for
ap > 0,08 mm



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
CCGT 060202 FL-84	C85 18840.02..	▲	▲				0,2
CCGT 060204 FL-84	C85 18840.04..	▲	▲	6,35	2,38	6,5	0,4
CCGT 060208 FL-84	C85 18840.08..	▲	▲				0,8
CCGT 09T304 FL-84	C85 32840.04..	▲	▲				0,4
CCGT 09T308 FL-84	C85 32840.08..	▲	▲	9,52	3,97	9,7	0,8
CCGT 09T312 FL-84	C85 32840.12..	▲	▲				1,2
CCGT 120404 FL-84	C85 44840.04..	▲	▲	12,7	4,76	12,9	0,4
CCGT 120408 FL-84	C85 44840.08..	▲	▲				0,8
Aluminium alloys Si < 12%		●	●	Order example: ISO Code CCGT 060202 FL-84 Cutting material PKD5510 Order No. C85 18840.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		●	●				
Ceramics		●	●				
Glass, quartz glass	N	●	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	●				
Graphite		●	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				



C85..85



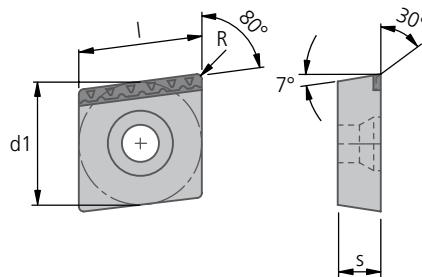
Cutter geometry:



R.H. cutting form „R“

3-D chip breaker for finishing

With stabilised cutting edge for

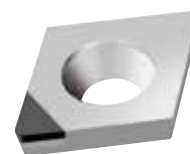
 $a_p > 0,08 \text{ mm}$ 

Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
CCGT 060202 FR-85	C85 18850.02..	▲	▲				0,2
CCGT 060204 FR-85	C85 18850.04..	▲	▲	6,35	2,38	6,5	0,4
CCGT 060208 FR-85	C85 18850.08..	▲	▲				0,8
CCGT 09T304 FR-85	C85 32850.04..	▲	▲				0,4
CCGT 09T308 FR-85	C85 32850.08..	▲	▲	9,52	3,97	9,7	0,8
CCGT 09T312 FR-85	C85 32850.12..	▲	▲				1,2
CCGT 120404 FR-85	C85 44850.04..	▲	▲	12,7	4,76	12,9	0,4
CCGT 120408 FR-85	C85 44850.08..	▲	▲				0,8
Aluminium alloys Si < 12%		●	●	Order example: ISO Code CCGT 060202 FR-85 Cutting material PKD5510 Order No. C85 18850.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		●	●				
Ceramics		●	●				
Glass, quartz glass	N	●	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	●				
Graphite		●	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

KOMET® ISO PCD/CVD-D Indexable inserts

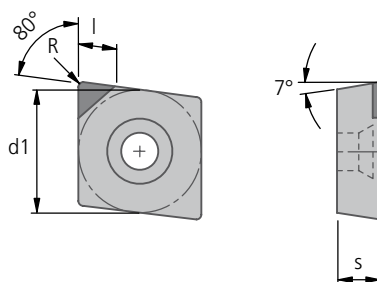
CCGW

C85..99



Cutter geometry:

sharp cutting edge



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
CCGW 060202 FN-99	C85 18990.02..	▲	▲				0,2
CCGW 060204 FN-99	C85 18990.04..	▲	▲	6,35	2,38	3,0	0,4
CCGW 060208 FN-99	C85 18990.08..	▲	▲				0,8
CCGW 09T302 FN-99	C85 32990.02..	▲	▲				0,2
CCGW 09T304 FN-99	C85 32990.04..	▲	▲				0,4
CCGW 09T308 FN-99	C85 32990.08..	▲	▲	9,52	3,97	3,0	0,8
CCGW 09T312 FN-99	C85 32990.12..	▲	▲				1,2
CCGW 120402 FN-99	C85 44990.02..	▲	▲				0,2
CCGW 120404 FN-99	C85 44990.04..	▲	▲				0,4
CCGW 120408 FN-99	C85 44990.08..	▲	▲	12,7	4,76	3,0	0,8
CCGW 120412 FN-99	C85 44990.12..	▲	▲				1,2
Aluminium alloys Si < 12%		●	●	Order example: ISO Code CCGW 060202 FN-99 Cutting material PKD5510 Order No. C85 18990.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		◐	●				
Ceramics		◐	●				
Glass, quartz glass	N	◐	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	◐				
Graphite		◐	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

Recommended cutting data: page 106.

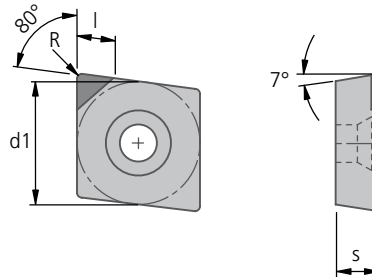
▲ Availability: for delivery see current price and stock list



Cutter geometry:

Wiper

sharp cutting edge
with Wiper geometry for
setting angle $\alpha = 95^\circ$



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 5510	CVD-D 5605	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code						
CCGW 060202 FN-91W	C85 18910.02..	▲	▲				0,2
CCGW 060204 FN-91W	C85 18910.04..	▲	▲	6,35	2,38	3,0	0,4
CCGW 060208 FN-91W	C85 18910.08..	▲	▲				0,8
CCGW 09T302 FN-91W	C85 32910.02..	▲	▲				0,2
CCGW 09T304 FN-91W	C85 32910.04..	▲	▲				0,4
CCGW 09T308 FN-91W	C85 32910.08..	▲	▲	9,52	3,97	3,0	0,8
CCGW 09T312 FN-91W	C85 32910.12..	▲	▲				1,2
CCGW 120402 FN-91W	C85 44910.02..	▲	▲				0,2
CCGW 120404 FN-91W	C85 44910.04..	▲	▲				0,4
CCGW 120408 FN-91W	C85 44910.08..	▲	▲	12,7	4,76	3,0	0,8
CCGW 120412 FN-91W	C85 44910.12..	▲	▲				1,2
Aluminium alloys Si < 12%		●	●	Order example: ISO Code CCGW 060202 FN-91W Cutting material PKD5510 Order No. C85 18910.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		●	●				
Ceramics		●	●				
Glass, quartz glass	N	●	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	●				
Graphite		●	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

Surface comparison

■ R0,4

■ R0,8

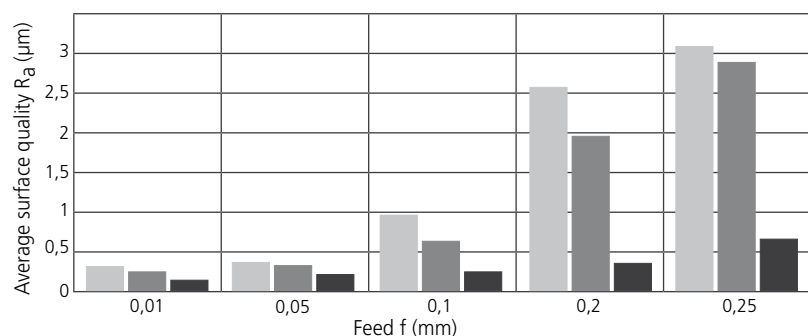
■ R0,4 Wiper $\alpha = 95^\circ$

Average surface quality R_a

Material: G-AlSi9Cu4Mg (~ 3.2573)

Cutting speed: $v_c = 1000$ m/min

Cutting depth: $a_p = 0,5$ mm



● Main area of application ● Suitable in some cases

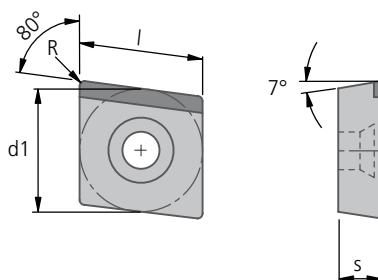
Important: See chapter 8 for more application details and safety notes !

C85..94



Cutter geometry:

L.H. cutting form „L“
sharp cutting edge

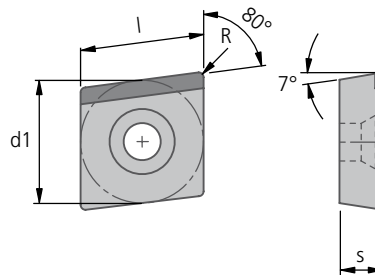


Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
CCGW 060202 FL-94	C85 18940.02..	▲	▲				0,2
CCGW 060204 FL-94	C85 18940.04..	▲	▲	6,35	2,38	6,5	0,4
CCGW 060208 FL-94	C85 18940.08..	▲	▲				0,8
CCGW 09T304 FL-94	C85 32940.04..	▲	▲				0,4
CCGW 09T308 FL-94	C85 32940.08..	▲	▲	9,52	3,97	9,7	0,8
CCGW 09T312 FL-94	C85 32940.12..	▲	▲				1,2
CCGW 120404 FL-94	C85 44940.04..	▲	▲	12,7	4,76	12,9	0,4
CCGW 120408 FL-94	C85 44940.08..	▲	▲				0,8
Aluminium alloys Si < 12%		●	●	Order example: ISO Code CCGW 060202 FL-94 Cutting material PKD5510 Order No. C85 18940.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		●	●				
Ceramics		●	●				
Glass, quartz glass		●	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	●				
Graphite		●	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				



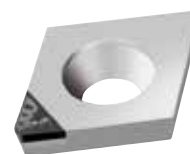
Cutter geometry:

R.H. cutting form „R“
sharp cutting edge



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
CCGW 060202 FR-95	C85 18950.02..	▲	▲				0,2
CCGW 060204 FR-95	C85 18950.04..	▲	▲	6,35	2,38	6,5	0,4
CCGW 060208 FR-95	C85 18950.08..	▲	▲				0,8
CCGW 09T304 FR-95	C85 32950.04..	▲	▲				0,4
CCGW 09T308 FR-95	C85 32950.08..	▲	▲	9,52	3,97	9,7	0,8
CCGW 09T312 FR-95	C85 32950.12..	▲	▲				1,2
CCGW 120404 FR-95	C85 44950.04..	▲	▲	12,7	4,76	12,9	0,4
CCGW 120408 FR-95	C85 44950.08..	▲	▲				0,8
Aluminium alloys Si < 12%		●	●	Order example: ISO Code CCGW 060202 FR-95 Cutting material PKD5510 Order No. C85 18950.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		●	●				
Ceramics		●	●				
Glass, quartz glass	N	●	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	●				
Graphite		●	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

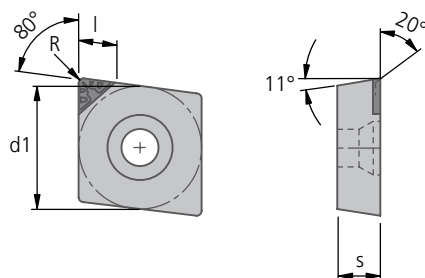
C95..97



Cutter geometry:



3-D chip breaker for roughing
With stabilised cutting edge for
 $a_p > 0,2 \text{ mm}$



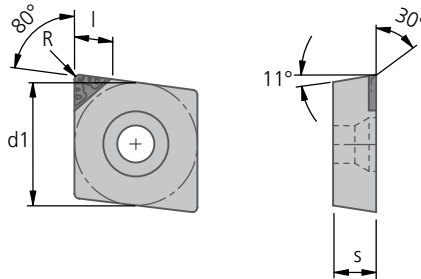
Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD	CVD-D	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	 5510	 5605				
CPGT 04T102 FN-97	C95 09970.02..	▲	▲	4,76	1,98	2,0	0,2
CPGT 060201 FN-97	C95 18970.01..	▲	▲				0,1
CPGT 060202 FN-97	C95 18970.02..	▲	▲				0,2
CPGT 060204 FN-97	C95 18970.04..	▲	▲	6,35	2,38	3,0	0,4
CPGT 060208 FN-97	C95 18970.08..	▲	▲				0,8
CPGT 09T302 FN-97	C95 32970.02..	▲	▲				0,2
CPGT 09T304 FN-97	C95 32970.04..	▲	▲				0,4
CPGT 09T308 FN-97	C95 32970.08..	▲	▲	9,52	3,97	3,0	0,8
CPGT 120404 FN-97	C95 44970.04..	▲	▲				0,4
CPGT 120408 FN-97	C95 44970.08..	▲	▲	12,7	4,76	3,0	0,8
CPGT 120412 FN-97	C95 44970.12..	▲	▲				1,2
Aluminium alloys Si < 12%		●	●	Order example: ISO Code CPGT 04T102 FN-97 Cutting material PKD5510 Order No. C95 09970.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		●	●				
Ceramics		●	●				
Glass, quartz glass	N	●	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	●				
Graphite		●	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				



Cutter geometry:



3-D chip breaker for finishing
With stabilised cutting edge for
 $a_p > 0,08 \text{ mm}$



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp ▼	Enter cutting material code ▼	5510	5605				
CPGT 04T102 FN-96	C95 09960.02..	▲	▲	4,76	1,98	2,0	0,2
CPGT 060201 FN-96	C95 18960.01..	▲	▲	6,35	2,38	3,0	0,1
CPGT 060202 FN-96	C95 18960.02..	▲	▲				0,2
CPGT 060204 FN-96	C95 18960.04..	▲	▲				0,4
CPGT 060208 FN-96	C95 18960.08..	▲	▲				0,8
CPGT 09T302 FN-96	C95 32960.02..	▲	▲	9,52	3,97	3,0	0,2
CPGT 09T304 FN-96	C95 32960.04..	▲	▲				0,4
CPGT 09T308 FN-96	C95 32960.08..	▲	▲				0,8
CPGT 120404 FN-96	C95 44960.04..	▲	▲	12,7	4,76	3,0	0,4
CPGT 120408 FN-96	C95 44960.08..	▲	▲				0,8
CPGT 120412 FN-96	C95 44960.12..	▲	▲				1,2
Aluminium alloys Si < 12%		●	●	Order example: ISO Code CPGT 04T102 FN-96 Cutting material PKD5510 Order No. C95 09960.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		◐	●				
Ceramics		◐	●				
Glass, quartz glass		◐	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	◐				
Graphite		◐	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

C95..86



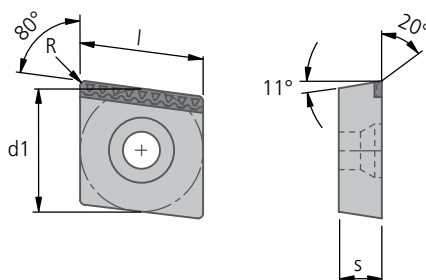
Cutter geometry:



L.H. cutting form „L“

3-D chip breaker for roughing

With stabilised cutting edge for
ap > 0,2 mm



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
CPGT 04T102 FL-86	C95 09860.02..	▲	▲	4,76	1,98	4,8	0,2
CPGT 060202 FL-86	C95 18860.02..	▲	▲	6,35	2,38	6,5	0,2
CPGT 060204 FL-86	C95 18860.04..	▲	▲				0,4
CPGT 080304 FL-86	C95 23860.04..	▲	▲	7,94	3,18	8,1	0,4
CPGT 09T304 FL-86	C95 32860.04..	▲	▲				0,4
CPGT 09T308 FL-86	C95 32860.08..	▲	▲	9,52	3,97	9,7	0,8
CPGT 120404 FL-86	C95 44860.04..	▲	▲				0,4
CPGT 120408 FL-86	C95 44860.08..	▲	▲	12,7	4,76	12,9	0,8
Aluminium alloys Si < 12%		●	●	Order example: ISO Code CPGT 04T102 FL-86 Cutting material PKD5510 Order No. C95 09860.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		●	●				
Ceramics		●	●				
Glass, quartz glass	N	●	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	●				
Graphite		●	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				



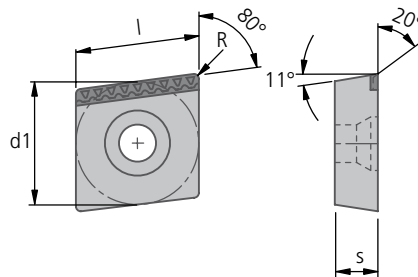
Cutter geometry:



R.H. cutting form „R“

3-D chip breaker for roughing

With stabilised cutting edge for

 $a_p > 0,2 \text{ mm}$ 

Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
CPGT 04T102 FR-87	C95 09870.02..	▲	▲	4,76	1,98	4,8	0,2
CPGT 060202 FR-87	C95 18870.02..	▲	▲	6,35	2,38	6,5	0,2
CPGT 060204 FR-87	C95 18870.04..	▲	▲				0,4
CPGT 080304 FR-87	C95 23870.04..	▲	▲	7,94	3,18	8,1	0,4
CPGT 09T304 FR-87	C95 32870.04..	▲	▲				0,4
CPGT 09T308 FR-87	C95 32870.08..	▲	▲	9,52	3,97	9,7	0,8
CPGT 120404 FR-87	C95 44870.04..	▲	▲				0,4
CPGT 120408 FR-87	C95 44870.08..	▲	▲	12,7	4,76	12,9	0,8
Aluminium alloys Si < 12%		●	●	Order example: ISO Code CPGT 04T102 FR-87 Cutting material PKD5510 Order No. C95 09870.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		●	●				
Ceramics		●	●				
Glass, quartz glass	N	●	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	●				
Graphite		●	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

C95..84



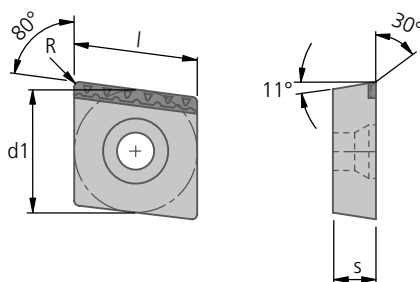
Cutter geometry:



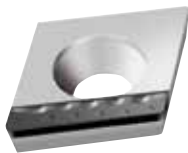
L.H. cutting form „L“

3-D chip breaker for finishing

With stabilised cutting edge for
ap > 0,08 mm



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
CPGT 04T102 FL-84	C95 09840.02..	▲	▲	4,76	1,98	4,8	0,2
CPGT 060202 FL-84	C95 18840.02..	▲	▲	6,35	2,38	6,5	0,2
CPGT 060204 FL-84	C95 18840.04..	▲	▲				0,4
CPGT 080304 FL-84	C95 23840.04..	▲	▲	7,94	3,18	8,1	0,4
CPGT 09T304 FL-84	C95 32840.04..	▲	▲				0,4
CPGT 09T308 FL-84	C95 32840.08..	▲	▲	9,52	3,97	9,7	0,8
CPGT 120404 FL-84	C95 44840.04..	▲	▲				0,4
CPGT 120408 FL-84	C95 44840.08..	▲	▲	12,7	4,76	12,9	0,8
Aluminium alloys Si < 12%		●	●	Order example: ISO Code CPGT 04T102 FL-84 Cutting material PKD5510 Order No. C95 09840.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		●	●				
Ceramics		●	●				
Glass, quartz glass	N	●	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	●				
Graphite		●	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				



Cutter geometry:

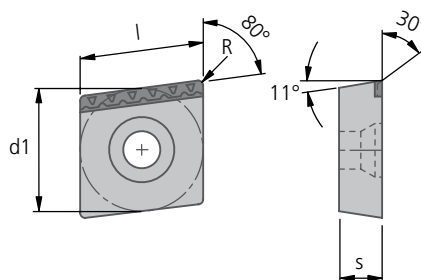


R.H. cutting form „R“

3-D chip breaker for finishing

With stabilised cutting edge for

ap > 0,08 mm



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
CPGT 04T102 FR-85	C95 09850.02..	▲	▲	4,76	1,98	4,8	0,2
CPGT 060202 FR-85	C95 18850.02..	▲	▲	6,35	2,38	6,5	0,2
CPGT 060204 FR-85	C95 18850.04..	▲	▲				0,4
CPGT 080304 FR-85	C95 23850.04..	▲	▲	7,94	3,18	8,1	0,4
CPGT 09T304 FR-85	C95 32850.04..	▲	▲				0,4
CPGT 09T308 FR-85	C95 32850.08..	▲	▲	9,52	3,97	9,7	0,8
CPGT 120404 FR-85	C95 44850.04..	▲	▲	12,7	4,76	12,9	0,4
CPGT 120408 FR-85	C95 44850.08..	▲	▲				0,8
Aluminium alloys Si < 12%		●	●	Order example: ISO Code CPGT 04T102 FR-85 Cutting material PKD5510 Order No. C95 09850.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		●	●				
Ceramics		●	●				
Glass, quartz glass	N	●	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	●				
Graphite		●	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

KOMET® ISO PCD/CVD-D Indexable inserts

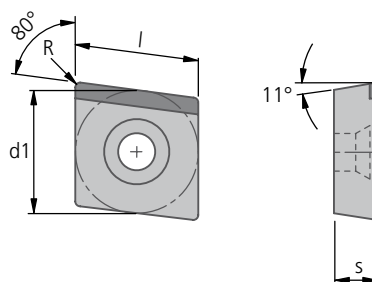
CPGW

C95..94



Cutter geometry:

L.H. cutting form „L”
sharp cutting edge



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
CPGW 04T102 FL-94	C95 09940.02..	▲	▲	4,76	1,98	4,8	0,2
CPGW 060202 FL-94	C95 18940.02..	▲	▲	6,35	2,38	6,5	0,2
CPGW 060204 FL-94	C95 18940.04..	▲	▲				0,4
CPGW 080302 FL-94	C95 23940.02..	▲	▲	7,94	3,18	8,1	0,2
CPGW 080304 FL-94	C95 23940.04..	▲	▲				0,4
CPGW 09T304 FL-94	C95 32940.04..	▲	▲	9,52	3,97	9,7	0,4
CPGW 09T308 FL-94	C95 32940.08..	▲	▲				0,8
CPGW 120404 FL-94	C95 44940.04..	▲	▲	12,7	4,76	12,9	0,4
CPGW 120408 FL-94	C95 44940.08..	▲	▲				0,8
Aluminium alloys Si < 12%		●	●	Order example: ISO Code CPGW 04T102 FL-94 Cutting material PKD5510 Order No. C95 09940.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		●	●				
Ceramics		●	●				
Glass, quartz glass	N	●	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	●				
Graphite		●	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

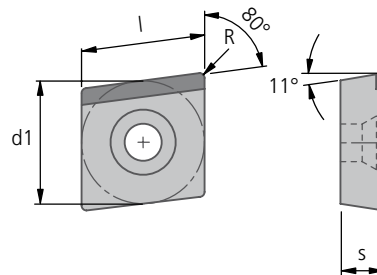
Recommended cutting data: page 106.

▲ Availability: for delivery see current price and stock list



Cutter geometry:

R.H. cutting form „R“
sharp cutting edge

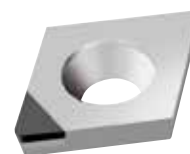


Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
CPGW 04T102 FR-95	C95 09950.02..	▲	▲	4,76	1,98	4,8	0,2
CPGW 060202 FR-95	C95 18950.02..	▲	▲	6,35	2,38	6,5	0,2
CPGW 060204 FR-95	C95 18950.04..	▲	▲				0,4
CPGW 080304 FR-95	C95 23950.04..	▲	▲	7,94	3,18	8,1	0,4
CPGW 09T304 FR-95	C95 32950.04..	▲	▲				0,4
CPGW 09T308 FR-95	C95 32950.08..	▲	▲	9,52	3,97	9,7	0,8
CPGW 120404 FR-95	C95 44950.04..	▲	▲				0,4
CPGW 120408 FR-95	C95 44950.08..	▲	▲	12,7	4,76	12,9	0,8
Aluminium alloys Si < 12%		●	●	Order example: ISO Code CPGW 04T102 FR-95 Cutting material PKD5510 Order No. C95 09950.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		●	●				
Ceramics		●	●				
Glass, quartz glass	N	●	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	●				
Graphite		●	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

KOMET® ISO PCD/CVD-D Indexable inserts

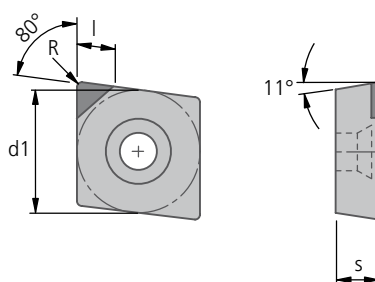
CPGW

C95..99



Cutter geometry:

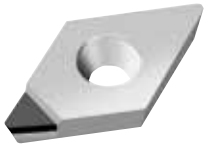
sharp cutting edge



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605	d1	s	l	R
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 99,9%				
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
CPGW 04T102 FN-99	C95 09990.02..	▲	▲	4,76	1,98	2,0	0,2
CPGW 060201 FN-99	C95 18990.01..	▲	▲	6,35	2,38	3,0	0,1
CPGW 060202 FN-99	C95 18990.02..	▲	▲				0,2
CPGW 060204 FN-99	C95 18990.04..	▲	▲				0,4
CPGW 060208 FN-99	C95 18990.08..	▲	▲				0,8
CPGW 09T302 FN-99	C95 32990.02..	▲	▲	9,52	3,97	3,0	0,2
CPGW 09T304 FN-99	C95 32990.04..	▲	▲				0,4
CPGW 09T308 FN-99	C95 32990.08..	▲	▲				0,8
CPGW 120404 FN-99	C95 44990.04..	▲	▲	12,7	4,76	3,0	0,4
CPGW 120408 FN-99	C95 44990.08..	▲	▲				0,8
CPGW 120412 FN-99	C95 44990.12..	▲	▲				1,2
Aluminium alloys Si < 12%		●	●	Order example: ISO Code CPGW 04T102 FN-99 Cutting material PKD5510 Order No. C95 09990.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		◐	●				
Ceramics		◐	●				
Glass, quartz glass		◐	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	◐				
Graphite		◐	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

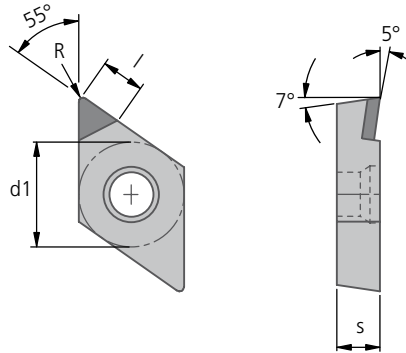
Recommended cutting data: page 106.

▲ Availability: for delivery see current price and stock list



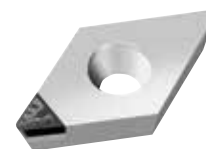
Cutter geometry:

positive rake angle
sharp cutting edge



Substrate		PCD	CVD-D								
Cutting material designation		PKD5510	DSD5605								
Cutting edge design		F	F								
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R				
Cutting edge design F = sharp ▼	Enter cutting material code ▼	5510	5605								
DCGT 070201 FN-98	C86 18980.01..	▲	▲					6,35	2,38	3,0	0,1
DCGT 070202 FN-98	C86 18980.02..	▲	▲								0,2
DCGT 070204 FN-98	C86 18980.04..	▲	▲								0,4
DCGT 070208 FN-98	C86 18980.08..	▲	▲	0,8							
DCGT 11T301 FN-98	C86 32980.01..	▲	▲	9,52	3,97	3,0	0,1				
DCGT 11T302 FN-98	C86 32980.02..	▲	▲				0,2				
DCGT 11T304 FN-98	C86 32980.04..	▲	▲				0,4				
DCGT 11T308 FN-98	C86 32980.08..	▲	▲				0,8				
DCGT 11T312 FN-98	C86 32980.12..	▲	▲				1,2				
Aluminium alloys Si < 12%		●	●	Order example: ISO Code DCGT 070201 FN-98 Cutting material PKD5510 Order No. C86 18980.015510							
Aluminium alloys Si > 12%		●	●								
CFRP, GFRP, plastics, composites		🟡	●								
Ceramics		🟡	●								
Glass, quartz glass N		🟡	●								
sintered carbides (G10-G60)		●	●								
Metal Matrix Composites (MMC)		●	🟡								
Graphite		🟡	●								
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●								

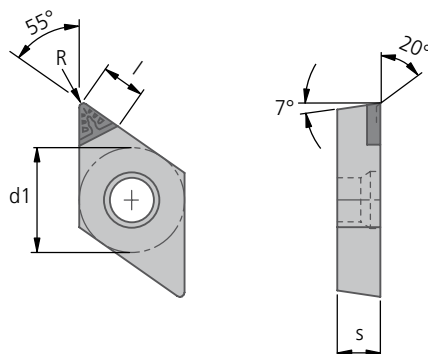
C86..97



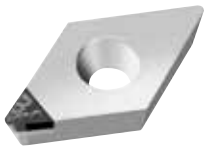
Cutter geometry:



3-D chip breaker for roughing
With stabilised cutting edge for
 $a_p > 0,2 \text{ mm}$



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
DCGT 070202 FN-97	C86 18970.02..	▲	▲				0,2
DCGT 070204 FN-97	C86 18970.04..	▲	▲	6,35	2,38	3,0	0,4
DCGT 070208 FN-97	C86 18970.08..	▲	▲				0,8
DCGT 11T302 FN-97	C86 32970.02..	▲	▲				0,2
DCGT 11T304 FN-97	C86 32970.04..	▲	▲				0,4
DCGT 11T308 FN-97	C86 32970.08..	▲	▲	9,52	3,97	3,0	0,8
DCGT 11T312 FN-97	C86 32970.12..	▲	▲				1,2
Aluminium alloys Si < 12%		●	●	Order example: ISO Code DCGT 070202 FN-97 Cutting material PKD5510 Order No. C86 18970.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		●	●				
Ceramics		●	●				
Glass, quartz glass	N	●	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	●				
Graphite		●	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				



Cutter geometry:

▽ Wiper

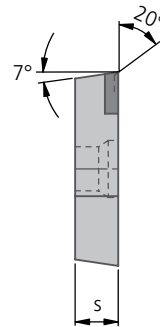
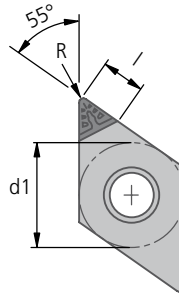
3-D chip breaker for roughing

with Wiper geometry for

setting angle $\alpha = 93^\circ$

With stabilised cutting edge for

$a_p > 0,2 \text{ mm}$



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
DCGT 070202 FN-93W	C86 18930.02..	▲	▲				0,2
DCGT 070204 FN-93W	C86 18930.04..	▲	▲	6,35	2,38	3,0	0,4
DCGT 070208 FN-93W	C86 18930.08..	▲	▲				0,8
DCGT 11T302 FN-93W	C86 32930.02..	▲	▲				0,2
DCGT 11T304 FN-93W	C86 32930.04..	▲	▲	9,52	3,97	3,0	0,4
DCGT 11T308 FN-93W	C86 32930.08..	▲	▲				0,8
Aluminium alloys Si < 12%		●	●	Order example: ISO Code DCGT 070202 FN-93W Cutting material PKD5510 Order No. C86 18930.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		●	●				
Ceramics		●	●				
Glass, quartz glass		●	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	●				
Graphite		●	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

Surface comparison

■ R0,4

■ R0,8

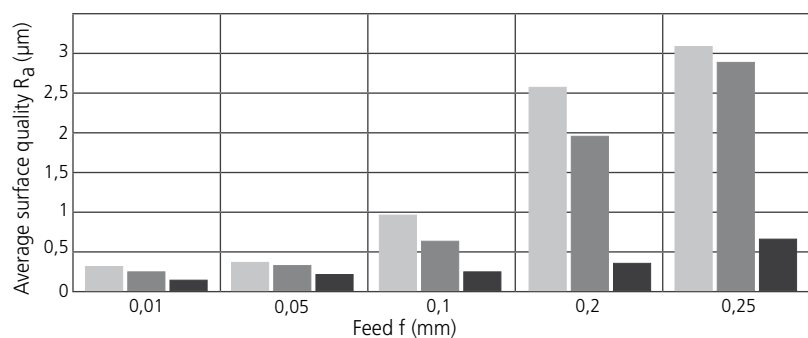
■ R0,4 Wiper $\alpha = 93^\circ$

Average surface quality R_a

Material: G-AlSi9Cu4Mg (~ 3.2573)

Cutting speed: $v_c = 1000 \text{ m/min}$

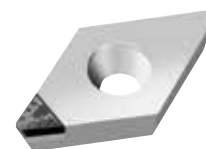
Cutting depth: $a_p = 0,5 \text{ mm}$



● Main area of application ● Suitable in some cases

Important: See chapter 8 for more application details and safety notes !

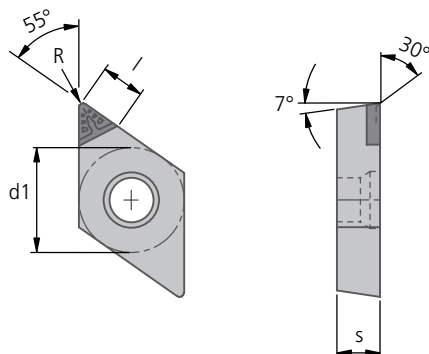
C86..96



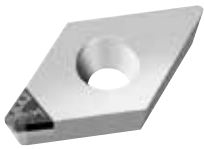
Cutter geometry:



3-D chip breaker for finishing
With stabilised cutting edge for
 $a_p > 0,08 \text{ mm}$



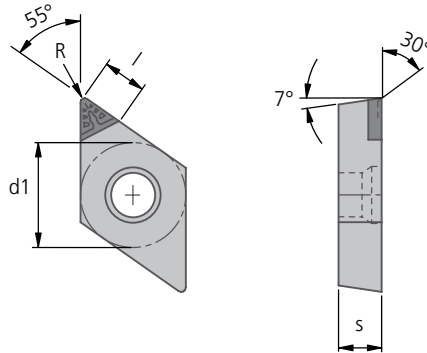
Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605	d1	s	l	R
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 				
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
DCGT 070202 FN-96	C86 18960.02..	▲	▲	6,35	2,38	3,0	0,2
DCGT 070204 FN-96	C86 18960.04..	▲	▲				0,4
DCGT 070208 FN-96	C86 18960.08..	▲	▲				0,8
DCGT 11T302 FN-96	C86 32960.02..	▲	▲	9,52	3,97	3,0	0,2
DCGT 11T304 FN-96	C86 32960.04..	▲	▲				0,4
DCGT 11T308 FN-96	C86 32960.08..	▲	▲				0,8
DCGT 11T312 FN-96	C86 32960.12..	▲	▲				1,2
Aluminium alloys Si < 12%	N	●	●	Order example: ISO Code DCGT 070202 FN-96 Cutting material PKD5510 Order No. C86 18960.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		◐	●				
Ceramics		◐	●				
Glass, quartz glass		◐	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	◐				
Graphite		◐	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				



Cutter geometry:



3-D chip breaker for finishing with Wiper geometry for setting angle $\kappa = 93^\circ$
With stabilised cutting edge for $a_p > 0,08 \text{ mm}$



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
DCGT 070202 FN-92W	C86 18920.02..	▲	▲				0,2
DCGT 070204 FN-92W	C86 18920.04..	▲	▲	6,35	2,38	3,0	0,4
DCGT 070208 FN-92W	C86 18920.08..	▲	▲				0,8
DCGT 11T302 FN-92W	C86 32920.02..	▲	▲				0,2
DCGT 11T304 FN-92W	C86 32920.04..	▲	▲	9,52	3,97	3,0	0,4
DCGT 11T308 FN-92W	C86 32920.08..	▲	▲				0,8
Aluminium alloys Si < 12%		●	●	Order example: ISO Code DCGT 070202 FN-92W Cutting material PKD5510 Order No. C86 18920.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		◐	●				
Ceramics		◐	●				
Glass, quartz glass		◐	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	◐				
Graphite		◐	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

Surface comparison

■ R0,4

■ R0,8

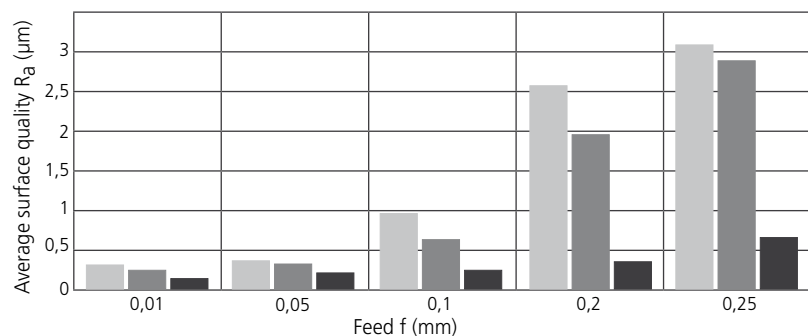
■ R0,4 Wiper $\kappa = 93^\circ$

Average surface quality R_a

Material: G-AlSi9Cu4Mg (~ 3.2573)

Cutting speed: $v_c = 1000 \text{ m/min}$

Cutting depth: $a_p = 0,5 \text{ mm}$



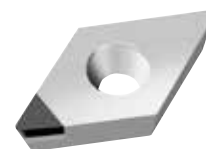
● Main area of application ◐ Suitable in some cases

Important: See chapter 8 for more application details and safety notes !

KOMET® ISO PCD/CVD-D Indexable inserts

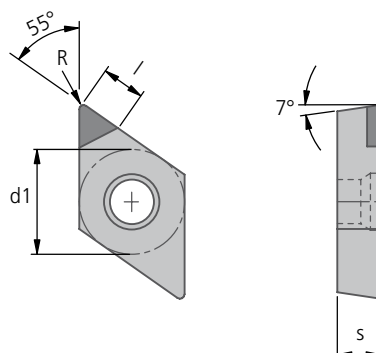
DCGW

C86..99



Cutter geometry:

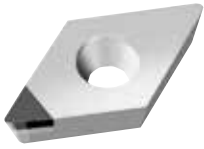
sharp cutting edge



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605	d1	s	l	R
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D  99,9%				
Cutting edge design F = sharp ▼	Enter cutting material code ▼	5510	5605				
DCGW 070201 FN-99	C86 18990.01..	▲	▲	6,35	2,38	3,0	0,1
DCGW 070202 FN-99	C86 18990.02..	▲	▲				0,2
DCGW 070204 FN-99	C86 18990.04..	▲	▲				0,4
DCGW 070208 FN-99	C86 18990.08..	▲	▲				0,8
DCGW 11T301 FN-99	C86 32990.01..	▲	▲	9,52	3,97	3,0	0,1
DCGW 11T302 FN-99	C86 32990.02..	▲	▲				0,2
DCGW 11T304 FN-99	C86 32990.04..	▲	▲				0,4
DCGW 11T308 FN-99	C86 32990.08..	▲	▲				0,8
DCGW 11T312 FN-99	C86 32990.12..	▲	▲				1,2
Aluminium alloys Si < 12%	N	●	●	Order example: ISO Code DCGW 070204 FN-99 Cutting material PKD5510 Order No. C86 18990.015510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		◐	●				
Ceramics		◐	●				
Glass, quartz glass		◐	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	◐				
Graphite		◐	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

Recommended cutting data: page 106.

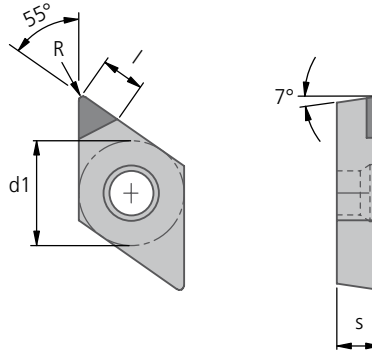
▲ Availability: for delivery see current price and stock list



Cutter geometry:



sharp cutting edge
with Wiper geometry for
setting angle $\alpha = 93^\circ$



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
DCGW 070202 FN-91W	C86 18910.02..	▲	▲				0,2
DCGW 070204 FN-91W	C86 18910.04..	▲	▲	6,35	2,38	3,0	0,4
DCGW 070208 FN-91W	C86 18910.08..	▲	▲				0,8
DCGW 11T302 FN-91W	C86 32910.02..	▲	▲				0,2
DCGW 11T304 FN-91W	C86 32910.04..	▲	▲	9,52	3,97	3,0	0,4
DCGW 11T308 FN-91W	C86 32910.08..	▲	▲				0,8
Aluminium alloys Si < 12%		●	●	Order example: ISO Code DCGW 070202 FN-91W Cutting material PKD5510 Order No. C86 18910.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		●	●				
Ceramics		●	●				
Glass, quartz glass		●	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	●				
Graphite		●	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

Surface comparison

■ R0,4

■ R0,8

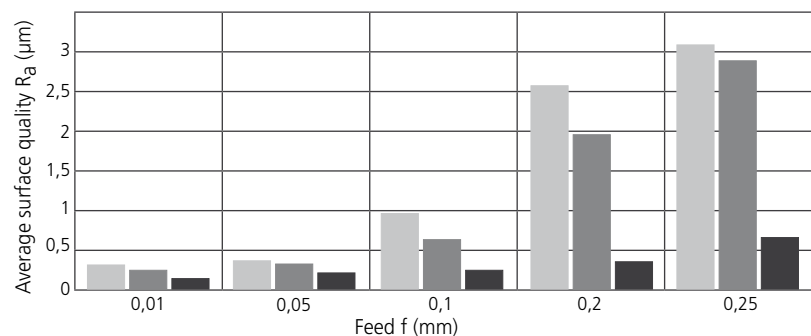
■ R0,4 Wiper $\alpha = 93^\circ$

Average surface quality R_a

Material: G-AlSi9Cu4Mg (~ 3.2573)

Cutting speed: $v_c = 1000$ m/min

Cutting depth: $a_p = 0,5$ mm



● Main area of application ● Suitable in some cases

Important: See chapter 8 for more application details and safety notes !

KOMET® ISO PCD/CVD-D Indexable inserts

RCGT

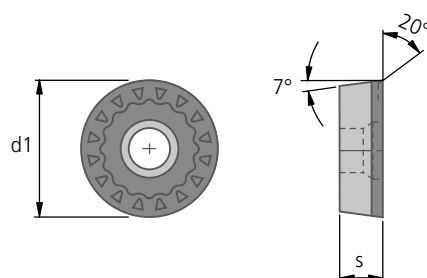
C87..90



Cutter geometry:



3-D chip breaker for roughing
With stabilised cutting edge for
 $a_p > 0,2 \text{ mm}$



Substrate		PCD	CVD-D		
Cutting material designation		PKD5510	DSD5605		
Cutting edge design		F	F		
ISO Code	Order No.	PCD 	CVD-D 	d1	s
Cutting edge design F = sharp	Enter cutting material code	5510	5605		
RCGT 1003M0 FN-90F	C87 34900.00..	▲	▲	10,0	3,18
Aluminium alloys Si < 12%		●	●	Order example: ISO Code RCGT 1003M0 FN-90F Cutting material PKD5510 Order No. C87 34900.005510	
Aluminium alloys Si > 12%		●	●		
CFRP, GFRP, plastics, composites		◐	●		
Ceramics		◐	●		
Glass, quartz glass	N	◐	●		
sintered carbides (G10-G60)		●	●		
Metal Matrix Composites (MMC)		●	◐		
Graphite		◐	●		
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●		

Recommended cutting data: page 106.

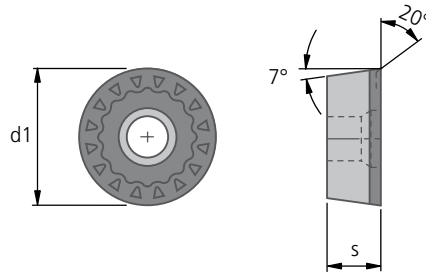
▲ Availability: for delivery see current price and stock list



Cutter geometry:



3-D chip breaker for roughing
With stabilised cutting edge for
 $a_p > 0,2 \text{ mm}$



Substrate		PCD	CVD-D		
Cutting material designation		PKD5510	DSD5605		
Cutting edge design		F	F		
ISO Code	Order No.	PCD 	CVD-D 	d1	s
Cutting edge design F = sharp	Enter cutting material code	5510	5605		
RCGT 0602M0 FN-90F	C88 17900.00..	▲	▲	6,0	2,38
RCGT 0803M0 FN-90F	C88 24900.00..	▲	▲	8,0	3,18
RCGT 10T3M0 FN-90F	C88 34900.00..	▲	▲	10,0	3,97
RCGT 1204M0 FN-90F	C88 42900.00..	▲	▲	12,0	4,76
Aluminium alloys Si < 12%		●	●	Order example: ISO Code RCGT 0602M0 FN-90F Cutting material PKD5510 Order No. C88 17900.005510	
Aluminium alloys Si > 12%		●	●		
CFRP, GFRP, plastics, composites		●	●		
Ceramics		●	●		
Glass, quartz glass	N	●	●		
sintered carbides (G10-G60)		●	●		
Metal Matrix Composites (MMC)		●	●		
Graphite		●	●		
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●		

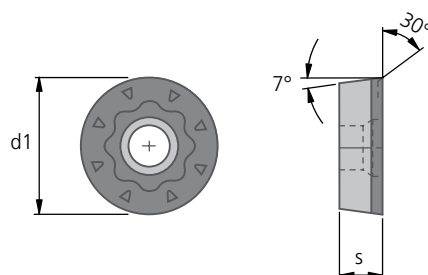
C87..89



Cutter geometry:



3-D chip breaker for finishing
With stabilised cutting edge for
 $a_p > 0,08 \text{ mm}$



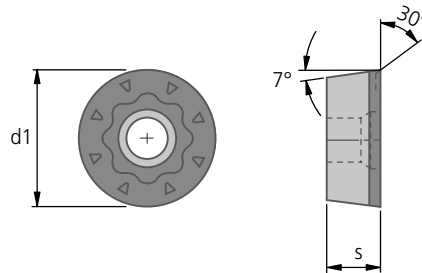
Substrate		PCD	CVD-D		
Cutting material designation		PKD5510	DSD5605		
Cutting edge design		F	F		
ISO Code	Order No.	PCD 	CVD-D 	d1	s
Cutting edge design F = sharp	Enter cutting material code	5510	5605		
RCGT 1003M0 FN-89F	C87 34890.00..	▲	▲	10,0	3,18
Aluminium alloys Si < 12%		●	●	Order example: ISO Code RCGT 1003M0 FN-89F Cutting material PKD5510 Order No. C87 34890.005510	
Aluminium alloys Si > 12%		●	●		
CFRP, GFRP, plastics, composites		●	●		
Ceramics		●	●		
Glass, quartz glass	N	●	●		
sintered carbides (G10-G60)		●	●		
Metal Matrix Composites (MMC)		●	●		
Graphite		●	●		
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●		



Cutter geometry:



3-D chip breaker for finishing
With stabilised cutting edge for
 $a_p > 0,08 \text{ mm}$



Substrate		PCD	CVD-D		
Cutting material designation		PKD5510	DSD5605		
Cutting edge design		F	F		
ISO Code	Order No.	PCD 	CVD-D 	d1	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605		
RCGT 0602M0 FN-89F	C88 17890.00..	▲	▲	6,0	2,38
RCGT 0803M0 FN-89F	C88 24890.00..	▲	▲	8,0	3,18
RCGT 10T3M0 FN-89F	C88 34890.00..	▲	▲	10,0	3,97
RCGT 1204M0 FN-89F	C88 42890.00..	▲	▲	12,0	4,76
Aluminium alloys Si < 12%		●	●	Order example: ISO Code RCGT 0602M0 FN-89F Cutting material PKD5510 Order No. C88 17890.005510	
Aluminium alloys Si > 12%		●	●		
CFRP, GFRP, plastics, composites		◐	●		
Ceramics		◐	●		
Glass, quartz glass	N	◐	●		
sintered carbides (G10-G60)		●	●		
Metal Matrix Composites (MMC)		●	◐		
Graphite		◐	●		
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●		

KOMET® ISO PCD/CVD-D Indexable inserts

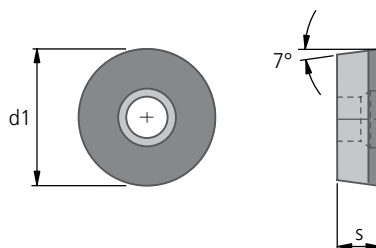
RCGW

C87..88



Cutter geometry:

sharp cutting edge



Substrate		PCD	CVD-D		
Cutting material designation		PKD5510	DSD5605		
Cutting edge design		F	F		
ISO Code	Order No.	PCD 	CVD-D 	d1	s
Cutting edge design F = sharp	Enter cutting material code	5510	5605		
RCGW 1003M0 FN-88F	C87 34880.00..	▲	▲	10,0	3,18
Aluminium alloys Si < 12%		●	●	Order example: ISO Code RCGW 1003M0 FN-88F Cutting material PKD5510 Order No. C87 34880.005510	
Aluminium alloys Si > 12%		●	●		
CFRP, GFRP, plastics, composites		◐	●		
Ceramics		◐	●		
Glass, quartz glass	N	◐	●		
sintered carbides (G10-G60)		●	●		
Metal Matrix Composites (MMC)		●	◐		
Graphite		◐	●		
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●		

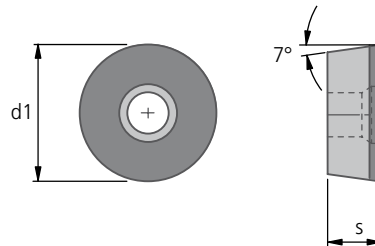
Recommended cutting data: page 106.

▲ Availability: for delivery see current price and stock list



Cutter geometry:

sharp cutting edge



Substrate		PCD	CVD-D		
Cutting material designation		PKD5510	DSD5605		
Cutting edge design		F	F		
ISO Code	Order No.	PCD 	CVD-D 	d1	s
Cutting edge design F = sharp	Enter cutting material code	5510	5605		
RCGW 0602M0 FN-88F	C88 17880.00..	▲	▲	6,0	2,38
RCGW 0803M0 FN-88F	C88 24880.00..	▲	▲	8,0	3,18
RCGW 10T3M0 FN-88F	C88 34880.00..	▲	▲	10,0	3,97
RCGW 1204M0 FN-88F	C88 42880.00..	▲	▲	12,0	4,76
Aluminium alloys Si < 12%		●	●	Order example: ISO Code RCGW 0602M0 FN-88F Cutting material PKD5510 Order No. C88 17880.005510	
Aluminium alloys Si > 12%		●	●		
CFRP, GFRP, plastics, composites		◐	●		
Ceramics		◐	●		
Glass, quartz glass	N	◐	●		
sintered carbides (G10-G60)		●	●		
Metal Matrix Composites (MMC)		●	◐		
Graphite		◐	●		
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●		

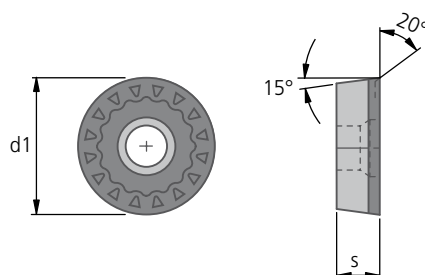
C98..90



Cutter geometry:



3-D chip breaker for roughing
With stabilised cutting edge for
 $a_p > 0,2 \text{ mm}$



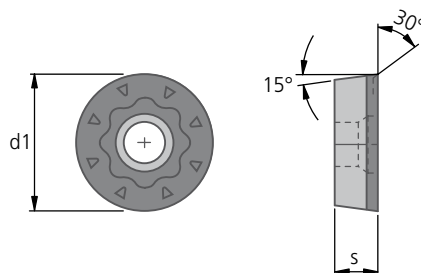
Substrate		PCD	CVD-D		
Cutting material designation		PKD5510	DSD5605		
Cutting edge design		F	F		
ISO Code	Order No.	PCD 	CVD-D 	d1	s
Cutting edge design F = sharp	Enter cutting material code	5510	5605		
RDHX 0501M0 FN-90F	C98 10900.00..	▲	▲	5,0	1,59
RDHX 0702M0 FN-90F	C98 20900.00..	▲	▲	7,0	2,38
RDHX 1003M0 FN-90F	C98 34900.00..	▲	▲	10,0	3,18
RDHX 12T3M0 FN-90F	C98 42900.00..	▲	▲	12,0	3,97
Aluminium alloys Si < 12%		●	●	Order example: ISO Code RDHX 0501M0 FN-90F Cutting material PKD5510 Order No. C98 10900.005510	
Aluminium alloys Si > 12%		●	●		
CFRP, GFRP, plastics, composites		●	●		
Ceramics		●	●		
Glass, quartz glass	N	●	●		
sintered carbides (G10-G60)		●	●		
Metal Matrix Composites (MMC)		●	●		
Graphite		●	●		
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●		



Cutter geometry:



3-D chip breaker for finishing
With stabilised cutting edge for
 $a_p > 0,08 \text{ mm}$



Substrate		PCD	CVD-D		
Cutting material designation		PKD5510	DSD5605		
Cutting edge design		F	F		
ISO Code	Order No.	PCD 	CVD-D 	d1	s
Cutting edge design F = sharp	Enter cutting material code	5510	5605		
RDHX 0501M0 FN-89F	C98 10890.00..	▲	▲	5,0	1,59
RDHX 0702M0 FN-89F	C98 20890.00..	▲	▲	7,0	2,38
RDHX 1003M0 FN-89F	C98 34890.00..	▲	▲	10,0	3,18
RDHX 12T3M0 FN-89F	C98 42890.00..	▲	▲	12,0	3,97
Aluminium alloys Si < 12%		●	●	Order example: ISO Code RDHX 0501M0 FN-89F Cutting material PKD5510 Order No. C98 10890.005510	
Aluminium alloys Si > 12%		●	●		
CFRP, GFRP, plastics, composites		◐	●		
Ceramics		◐	●		
Glass, quartz glass	N	◐	●		
sintered carbides (G10-G60)		●	●		
Metal Matrix Composites (MMC)		●	◐		
Graphite		◐	●		
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●		

KOMET® ISO PCD/CVD-D Indexable inserts

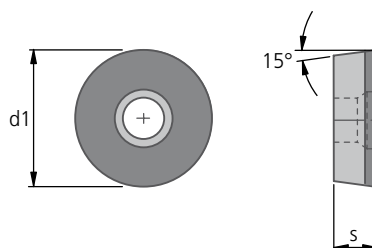
RDHX

C98..88



Cutter geometry:

sharp cutting edge



Substrate		PCD	CVD-D		
Cutting material designation		PKD5510	DSD5605		
Cutting edge design		F	F		
ISO Code	Order No.	PCD 	CVD-D 	d1	s
Cutting edge design F = sharp	Enter cutting material code	5510	5605		
RDHX 0501M0 FN-88F	C98 10880.00..	▲	▲	5,0	1,59
RDHX 0702M0 FN-88F	C98 20880.00..	▲	▲	7,0	2,38
RDHX 1003M0 FN-88F	C98 34880.00..	▲	▲	10,0	3,18
RDHX 12T3M0 FN-88F	C98 42880.00..	▲	▲	12,0	3,97
Aluminium alloys Si < 12%		●	●	Order example: ISO Code RDHX 0501M0 FN-88F Cutting material PKD5510 Order No. C98 10880.005510	
Aluminium alloys Si > 12%		●	●		
CFRP, GFRP, plastics, composites		●	●		
Ceramics		●	●		
Glass, quartz glass	N	●	●		
sintered carbides (G10-G60)		●	●		
Metal Matrix Composites (MMC)		●	●		
Graphite		●	●		
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●		

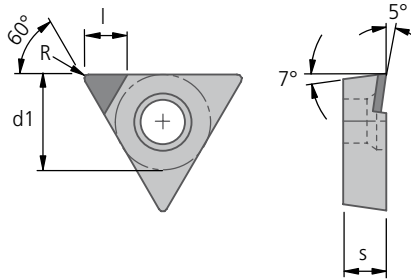
Recommended cutting data: page 106.

▲ Availability: for delivery see current price and stock list



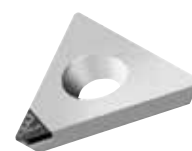
Cutter geometry:

positive rake angle
sharp cutting edge



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
TCGT 090202 FN-98	C84 13980.02..	▲	▲				0,2
TCGT 090204 FN-98	C84 13980.04..	▲	▲	5,56	2,38	3,0	0,4
TCGT 090208 FN-98	C84 13980.08..	▲	▲				0,8
TCGT 110202 FN-98	C84 18980.02..	▲	▲				0,2
TCGT 110204 FN-98	C84 18980.04..	▲	▲	6,35	2,38	3,0	0,4
TCGT 110208 FN-98	C84 18980.08..	▲	▲				0,8
TCGT 16T302 FN-98	C84 32980.02..	▲	▲				0,2
TCGT 16T304 FN-98	C84 32980.04..	▲	▲				0,4
TCGT 16T308 FN-98	C84 32980.08..	▲	▲	9,52	3,97	3,0	0,8
TCGT 16T312 FN-98	C84 32980.12..	▲	▲				1,2
Aluminium alloys Si < 12%		●	●	Order example: ISO Code TCGT 090202 FN-98 Cutting material PKD5510 Order No. C84 13980.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		◐	●				
Ceramics		◐	●				
Glass, quartz glass	N	◐	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	◐				
Graphite		◐	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

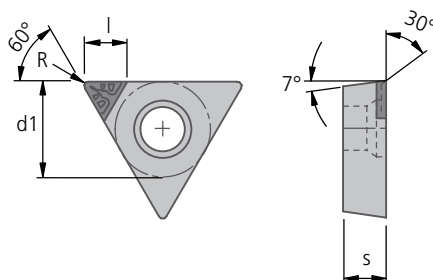
C84..97



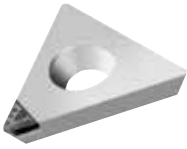
Cutter geometry:



3-D chip breaker for roughing
With stabilised cutting edge for
 $a_p > 0,2 \text{ mm}$



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD	CVD-D	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	 5510	 5605				
TCGT 090202 FN-97	C84 13970.02..	▲	▲				0,2
TCGT 090204 FN-97	C84 13970.04..	▲	▲	5,56	2,38	3,0	0,4
TCGT 090208 FN-97	C84 13970.08..	▲	▲				0,8
TCGT 110202 FN-97	C84 18970.02..	▲	▲				0,2
TCGT 110204 FN-97	C84 18970.04..	▲	▲	6,35	2,38	3,0	0,4
TCGT 110208 FN-97	C84 18970.08..	▲	▲				0,8
TCGT 16T302 FN-97	C84 32970.02..	▲	▲				0,2
TCGT 16T304 FN-97	C84 32970.04..	▲	▲				0,4
TCGT 16T308 FN-97	C84 32970.08..	▲	▲	9,52	3,97	3,0	0,8
TCGT 16T312 FN-97	C84 32970.12..	▲	▲				1,2
Aluminium alloys Si < 12%		●	●	Order example: ISO Code TCGT 090202 FN-97 Cutting material PKD5510 Order No. C84 13970.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		●	●				
Ceramics		●	●				
Glass, quartz glass		●	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	●				
Graphite		●	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

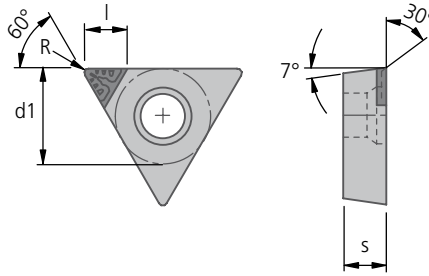


Cutter geometry:



3-D chip breaker for finishing

With stabilised cutting edge for

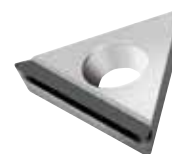
 $a_p > 0,08 \text{ mm}$ 

Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
TCGT 090202 FN-96	C84 13960.02..	▲	▲				0,2
TCGT 090204 FN-96	C84 13960.04..	▲	▲	5,56	2,38	3,0	0,4
TCGT 090208 FN-96	C84 13960.08..	▲	▲				0,8
TCGT 110202 FN-96	C84 18960.02..	▲	▲				0,2
TCGT 110204 FN-96	C84 18960.04..	▲	▲	6,35	2,38	3,0	0,4
TCGT 110208 FN-96	C84 18960.08..	▲	▲				0,8
TCGT 16T302 FN-96	C84 32960.02..	▲	▲				0,2
TCGT 16T304 FN-96	C84 32960.04..	▲	▲				0,4
TCGT 16T308 FN-96	C84 32960.08..	▲	▲	9,52	3,97	3,0	0,8
TCGT 16T312 FN-96	C84 32960.12..	▲	▲				1,2
Aluminium alloys Si < 12%		●	●	Order example: ISO Code TCGT 090202 FN-96 Cutting material PKD5510 Order No. C84 13960.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		◐	●				
Ceramics		◐	●				
Glass, quartz glass	N	◐	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	◐				
Graphite		◐	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

● Main area of application ◐ Suitable in some cases

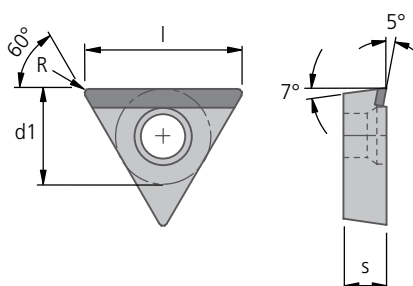
Important: See chapter 8 for more application details and safety notes !

C84..81

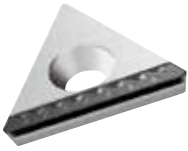


Cutter geometry:

positive rake angle
sharp cutting edge



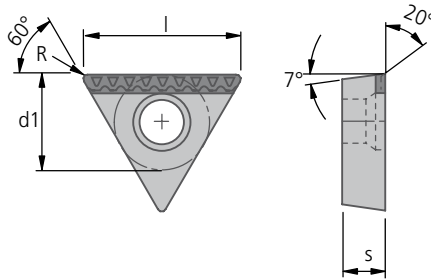
Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
TCGT 090202 F-81	C84 13810.02..	▲	▲	5,56	2,38	9,34	0,2
TCGT 090204 F-81	C84 13810.04..	▲	▲			9,04	0,4
TCGT 090208 F-81	C84 13810.08..	▲	▲			8,46	0,8
TCGT 110202 F-81	C84 18810.02..	▲	▲	6,35	2,38	10,71	0,2
TCGT 110204 F-81	C84 18810.04..	▲	▲			10,41	0,4
TCGT 110208 F-81	C84 18810.08..	▲	▲			9,83	0,8
TCGT 110212 F-81	C84 18810.12..	▲	▲			9,24	1,2
TCGT 16T302 F-81	C84 32810.02..	▲	▲	9,52	3,97	16,20	0,2
TCGT 16T304 F-81	C84 32810.04..	▲	▲			15,90	0,4
TCGT 16T308 F-81	C84 32810.08..	▲	▲			15,32	0,8
TCGT 16T312 F-81	C84 32810.12..	▲	▲			14,73	1,2
Aluminium alloys Si < 12%		●	●	Order example: ISO Code TCGT 090202 F-81 Cutting material PKD5510 Order No. C84 13810.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		●	●				
Ceramics		●	●				
Glass, quartz glass	N	●	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	●				
Graphite		●	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				



Cutter geometry:

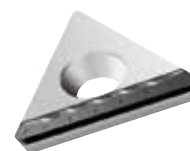


3-D chip breaker for roughing
With stabilised cutting edge for
 $a_p > 0,2 \text{ mm}$



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
TCGT 090202 F-86	C84 13860.02..	▲	▲	5,56	2,38	9,34	0,2
TCGT 090204 F-86	C84 13860.04..	▲	▲			9,04	0,4
TCGT 090208 F-86	C84 13860.08..	▲	▲			8,46	0,8
TCGT 110202 F-86	C84 18860.02..	▲	▲	6,35	2,38	10,71	0,2
TCGT 110204 F-86	C84 18860.04..	▲	▲			10,41	0,4
TCGT 110208 F-86	C84 18860.08..	▲	▲			9,83	0,8
TCGT 110212 F-86	C84 18860.12..	▲	▲			9,24	1,2
TCGT 16T302 F-86	C84 32860.02..	▲	▲	9,52	3,97	16,20	0,2
TCGT 16T304 F-86	C84 32860.04..	▲	▲			15,90	0,4
TCGT 16T308 F-86	C84 32860.08..	▲	▲			15,32	0,8
TCGT 16T312 F-86	C84 32860.12..	▲	▲			14,73	1,2
Aluminium alloys Si < 12%		●	●	Order example: ISO Code TCGT 090202 F-86 Cutting material PKD5510 Order No. C84 13860.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		◐	●				
Ceramics		◐	●				
Glass, quartz glass		◐	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	◐				
Graphite		◐	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

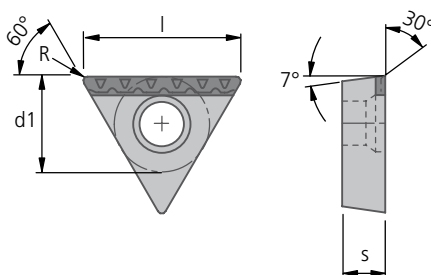
C84..84



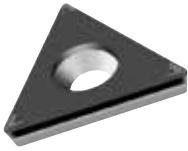
Cutter geometry:



3-D chip breaker for finishing
With stabilised cutting edge for
 $a_p > 0,08 \text{ mm}$



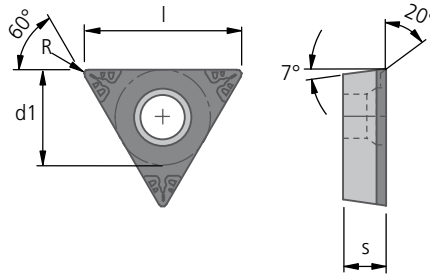
Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
TCGT 090202 F-84	C84 13840.02..	▲	▲	5,56	2,38	9,34	0,2
TCGT 090204 F-84	C84 13840.04..	▲	▲			9,04	0,4
TCGT 090208 F-84	C84 13840.08..	▲	▲			8,46	0,8
TCGT 110202 F-84	C84 18840.02..	▲	▲	6,35	2,38	10,71	0,2
TCGT 110204 F-84	C84 18840.04..	▲	▲			10,41	0,4
TCGT 110208 F-84	C84 18840.08..	▲	▲			9,83	0,8
TCGT 110212 F-84	C84 18840.12..	▲	▲			9,24	1,2
TCGT 16T302 F-84	C84 32840.02..	▲	▲	9,52	3,97	16,20	0,2
TCGT 16T304 F-84	C84 32840.04..	▲	▲			15,90	0,4
TCGT 16T308 F-84	C84 32840.08..	▲	▲			15,32	0,8
TCGT 16T312 F-84	C84 32840.12..	▲	▲			14,73	1,2
Aluminium alloys Si < 12%		●	●	Order example: ISO Code TCGT 090202 F-84 Cutting material PKD5510 Order No. C84 13840.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		◐	●				
Ceramics		◐	●				
Glass, quartz glass	N	◐	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	◐				
Graphite		◐	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				



Cutter geometry:

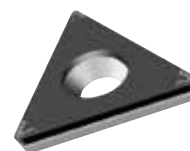


3-D chip breaker for roughing
With stabilised cutting edge for
 $a_p > 0,2 \text{ mm}$



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
TCGT 110202 FN-90F	C84 18900.02..	▲	▲			10,71	0,2
TCGT 110204 FN-90F	C84 18900.04..	▲	▲	6,35	2,38	10,41	0,4
TCGT 110208 FN-90F	C84 18900.08..	▲	▲			9,83	0,8
Aluminium alloys Si < 12%		●	●	Order example: ISO Code TCGT 110202 FN-90F Cutting material PKD5510 Order No. C84 18890.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		◐	●				
Ceramics		◐	●				
Glass, quartz glass	N	◐	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	◐				
Graphite		◐	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

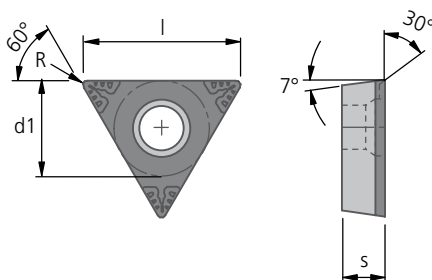
C84..89



Cutter geometry:



3-D chip breaker for finishing
With stabilised cutting edge for
 $a_p > 0,08 \text{ mm}$

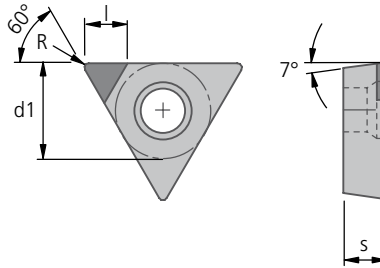


Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
TCGT 110202 FN-89F	C84 18890.02..	▲	▲			10,71	0,2
TCGT 110204 FN-89F	C84 18890.04..	▲	▲	6,35	2,38	10,41	0,4
TCGT 110208 FN-89F	C84 18890.08..	▲	▲			9,83	0,8
Aluminium alloys Si < 12%		●	●	Order example: ISO Code TCGT 110202 FN-89F Cutting material PKD5510 Order No. C84 18890.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		◐	●				
Ceramics		◐	●				
Glass, quartz glass	N	◐	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	◐				
Graphite		◐	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				



Cutter geometry:

sharp cutting edge



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
TCGW 090202 FN-99	C84 13990.02..	▲	▲				0,2
TCGW 090204 FN-99	C84 13990.04..	▲	▲	5,56	2,38	3,0	0,4
TCGW 090208 FN-99	C84 13990.08..	▲	▲				0,8
TCGW 110202 FN-99	C84 18990.02..	▲	▲				0,2
TCGW 110204 FN-99	C84 18990.04..	▲	▲	6,35	2,38	3,0	0,4
TCGW 110208 FN-99	C84 18990.08..	▲	▲				0,8
TCGW 16T302 FN-99	C84 32990.02..	▲	▲				0,2
TCGW 16T304 FN-99	C84 32990.04..	▲	▲				0,4
TCGW 16T308 FN-99	C84 32990.08..	▲	▲	9,52	3,97	3,0	0,8
TCGW 16T312 FN-99	C84 32990.12..	▲	▲				1,2
Aluminium alloys Si < 12%		●	●	Order example: ISO Code TCGW 090202 FN-99 Cutting material PKD5510 Order No. C84 13990.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		◐	●				
Ceramics		◐	●				
Glass, quartz glass	N	◐	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	◐				
Graphite		◐	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

● Main area of application ◐ Suitable in some cases

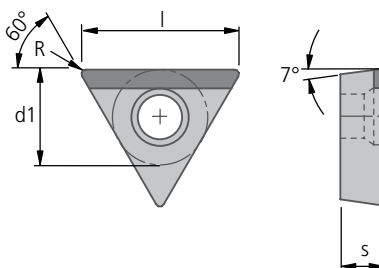
Important: See chapter 8 for more application details and safety notes !

C84..94

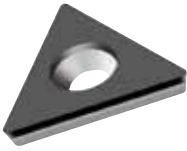


Cutter geometry:

sharp cutting edge

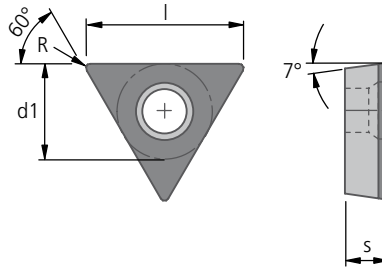


Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
TCGW 090202 F-94	C84 13940.02..	▲	▲	5,56	2,38	9,34	0,2
TCGW 090204 F-94	C84 13940.04..	▲	▲			9,04	0,4
TCGW 090208 F-94	C84 13940.08..	▲	▲			8,46	0,8
TCGW 110202 F-94	C84 18940.02..	▲	▲	6,35	2,38	10,71	0,2
TCGW 110204 F-94	C84 18940.04..	▲	▲			10,41	0,4
TCGW 110208 F-94	C84 18940.08..	▲	▲			9,83	0,8
TCGW 110212 F-94	C84 18940.12..	▲	▲			9,24	1,2
TCGW 16T302 F-94	C84 32940.02..	▲	▲	9,52	3,97	16,20	0,2
TCGW 16T304 F-94	C84 32940.04..	▲	▲			15,90	0,4
TCGW 16T308 F-94	C84 32940.08..	▲	▲			15,32	0,8
TCGW 16T312 F-94	C84 32940.12..	▲	▲			14,73	1,2
Aluminium alloys Si < 12%		●	●	Order example: ISO Code TCGW 090202 F-94 Cutting material PKD5510 Order No. C84 13940.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		◐	●				
Ceramics		◐	●				
Glass, quartz glass	N	◐	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	◐				
Graphite		◐	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				



Cutter geometry:

sharp cutting edge



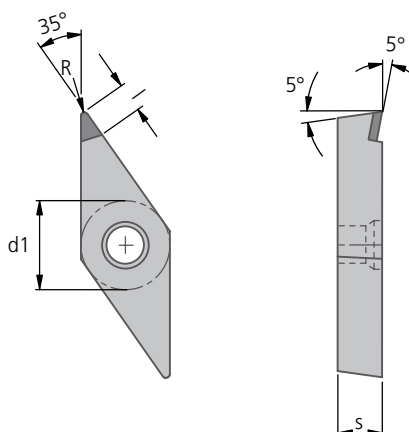
Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
TCGW 110202 FN-88F	C84 18880.02..	▲	▲			10,71	0,2
TCGW 110204 FN-88F	C84 18880.04..	▲	▲	6,35	2,38	10,41	0,4
TCGW 110208 FN-88F	C84 18880.08..	▲	▲			9,83	0,8
Aluminium alloys Si < 12%		●	●	Order example: ISO Code TCGW 110202 FN-88F Cutting material PKD5510 Order No. C84 18880.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		◐	●				
Ceramics		◐	●				
Glass, quartz glass	N	◐	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	◐				
Graphite		◐	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

C79..98

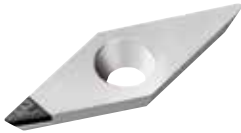


Cutter geometry:

positive rake angle
sharp cutting edge



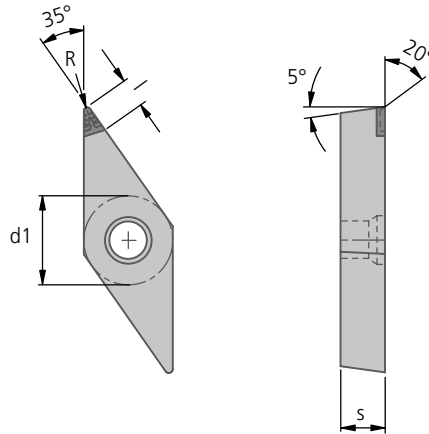
Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605	d1	s	l	R
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 				
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
VBGT 110201 FN-98	C79 18980.01..	▲	▲	6,35	2,38	3,0	0,1
VBGT 110202 FN-98	C79 18980.02..	▲	▲				0,2
VBGT 110204 FN-98	C79 18980.04..	▲	▲				0,4
VBGT 110208 FN-98	C79 18980.08..	▲	▲				0,8
VBGT 160401 FN-98	C79 32980.01..	▲	▲	9,52	4,76	3,0	0,1
VBGT 160402 FN-98	C79 32980.02..	▲	▲				0,2
VBGT 160404 FN-98	C79 32980.04..	▲	▲				0,4
VBGT 160408 FN-98	C79 32980.08..	▲	▲				0,8
VBGT 160412 FN-98	C79 32980.12..	▲	▲				1,2
Aluminium alloys Si < 12%	N	●	●	Order example: ISO Code VBGT 110201 FN-98 Cutting material PKD5510 Order No. C79 18980.015510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		◐	●				
Ceramics		◐	●				
Glass, quartz glass		◐	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	◐				
Graphite		◐	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				



Cutter geometry:



3-D chip breaker for roughing
With stabilised cutting edge for
 $a_p > 0,2 \text{ mm}$



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
VBGT 110202 FN-97	C79 18970.02..	▲	▲				0,2
VBGT 110204 FN-97	C79 18970.04..	▲	▲	6,35	2,38	3,0	0,4
VBGT 110208 FN-97	C79 18970.08..	▲	▲				0,8
VBGT 160402 FN-97	C79 32970.02..	▲	▲				0,2
VBGT 160404 FN-97	C79 32970.04..	▲	▲				0,4
VBGT 160408 FN-97	C79 32970.08..	▲	▲	9,52	4,76	3,0	0,8
VBGT 160412 FN-97	C79 32970.12..	▲	▲				1,2
Aluminium alloys Si < 12%		●	●	Order example: ISO Code VBGT 110202 FN-97 Cutting material PKD5510 Order No. C79 18970.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		●	●				
Ceramics		●	●				
Glass, quartz glass	N	●	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	●				
Graphite		●	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

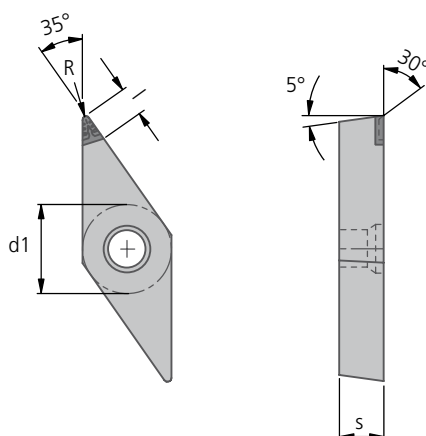
C79..96



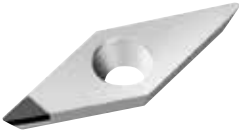
Cutter geometry:



3-D chip breaker for finishing
With stabilised cutting edge for
 $a_p > 0,08 \text{ mm}$

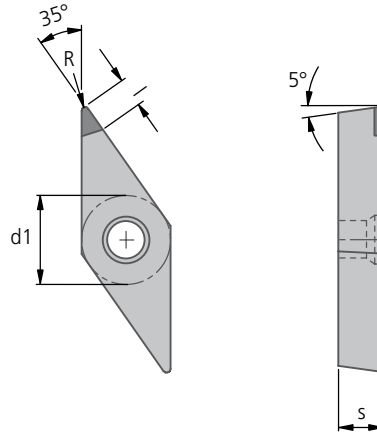


Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
VBGT 110202 FN-96	C79 18960.02..	▲	▲				0,2
VBGT 110204 FN-96	C79 18960.04..	▲	▲	6,35	2,38	3,0	0,4
VBGT 110208 FN-96	C79 18960.08..	▲	▲				0,8
VBGT 160402 FN-96	C79 32960.02..	▲	▲				0,2
VBGT 160404 FN-96	C79 32960.04..	▲	▲				0,4
VBGT 160408 FN-96	C79 32960.08..	▲	▲	9,52	4,76	3,0	0,8
VBGT 160412 FN-96	C79 32960.12..	▲	▲				1,2
Aluminium alloys Si < 12%		●	●	Order example: ISO Code VBGT 110202 FN-96 Cutting material PKD5510 Order No. C79 18960.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		◐	●				
Ceramics		◐	●				
Glass, quartz glass	N	◐	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	◐				
Graphite		◐	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				



Cutter geometry:

sharp cutting edge



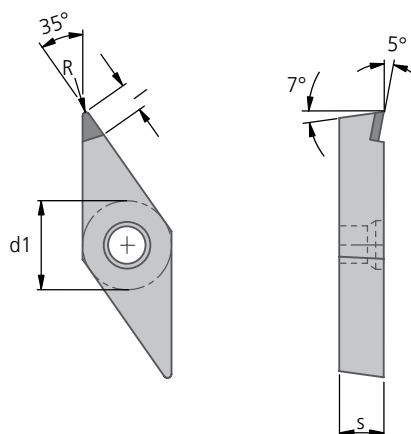
Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
VBGW 110201 FN-99	C79 18990.01..	▲	▲	6,35	2,38	3,0	0,1
VBGW 110202 FN-99	C79 18990.02..	▲	▲				0,2
VBGW 110204 FN-99	C79 18990.04..	▲	▲				0,4
VBGW 110208 FN-99	C79 18990.08..	▲	▲				0,8
VBGW 160401 FN-99	C79 32990.01..	▲	▲	9,52	4,76	3,0	0,1
VBGW 160402 FN-99	C79 32990.02..	▲	▲				0,2
VBGW 160404 FN-99	C79 32990.04..	▲	▲				0,4
VBGW 160408 FN-99	C79 32990.08..	▲	▲				0,8
VBGW 160412 FN-99	C79 32990.12..	▲	▲				1,2
Aluminium alloys Si < 12%	N	●	●	Order example: ISO Code VBGW 110201 FN-99 Cutting material PKD5510 Order No. C79 18990.015510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		●	●				
Ceramics		●	●				
Glass, quartz glass		●	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	●				
Graphite		●	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

C89..98

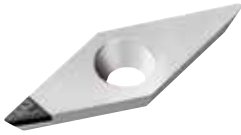


Cutter geometry:

positive rake angle
sharp cutting edge



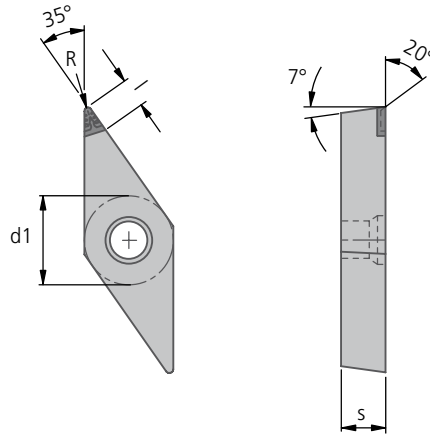
Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD Diamond	CVD-D Diamond 99,9%	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
VCGT 070201 FN-98	C89 03980.01..	▲	▲	3,97	2,38	3,0	0,1
VCGT 070202 FN-98	C89 03980.02..	▲	▲				0,2
VCGT 070204 FN-98	C89 03980.04..	▲	▲				0,4
VCGT 070208 FN-98	C89 03980.08..	▲	▲				0,8
VCGT 110301 FN-98	C89 18980.01..	▲	▲	6,35	3,18	3,0	0,1
VCGT 110302 FN-98	C89 18980.02..	▲	▲				0,2
VCGT 110304 FN-98	C89 18980.04..	▲	▲				0,4
VCGT 110308 FN-98	C89 18980.08..	▲	▲				0,8
VCGT 160401 FN-98	C89 32980.01..	▲	▲	9,52	4,76	3,0	0,1
VCGT 160402 FN-98	C89 32980.02..	▲	▲				0,2
VCGT 160404 FN-98	C89 32980.04..	▲	▲				0,4
VCGT 160408 FN-98	C89 32980.08..	▲	▲				0,8
VCGT 160412 FN-98	C89 32980.12..	▲	▲				1,2
Aluminium alloys Si < 12%		●	●	Order example: ISO Code VCGT 070201 FN-98 Cutting material PKD5510 Order No. C89 03980.015510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		●	●				
Ceramics		●	●				
Glass, quartz glass		●	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	●				
Graphite		●	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				



Cutter geometry:



3-D chip breaker for roughing
With stabilised cutting edge for
 $a_p > 0,2 \text{ mm}$



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 5510	CVD-D 5605	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code						
VCGT 070202 FN-97	C89 03970.02..	▲	▲				0,2
VCGT 070204 FN-97	C89 03970.04..	▲	▲	3,97	2,38	3,0	0,4
VCGT 070208 FN-97	C89 03970.08..	▲	▲				0,8
VCGT 110302 FN-97	C89 18970.02..	▲	▲				0,2
VCGT 110304 FN-97	C89 18970.04..	▲	▲	6,35	3,18	3,0	0,4
VCGT 110308 FN-97	C89 18970.08..	▲	▲				0,8
VCGT 160402 FN-97	C89 32970.02..	▲	▲				0,2
VCGT 160404 FN-97	C89 32970.04..	▲	▲				0,4
VCGT 160408 FN-97	C89 32970.08..	▲	▲	9,52	4,76	3,0	0,8
VCGT 160412 FN-97	C89 32970.12..	▲	▲				1,2
Aluminium alloys Si < 12%		●	●	Order example: ISO Code VCGT 070202 FN-97 Cutting material PKD5510 Order No. C89 03970.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		◐	●				
Ceramics		◐	●				
Glass, quartz glass	N	◐	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	◐				
Graphite		◐	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

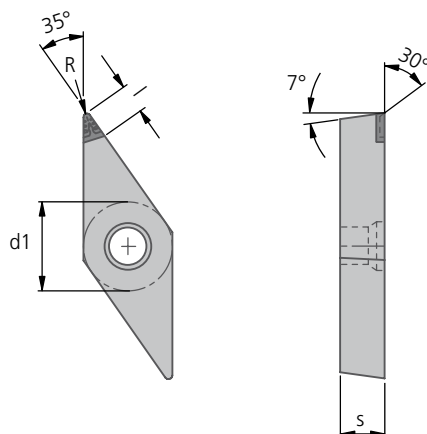
C89..96



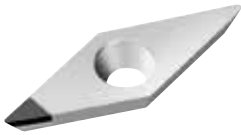
Cutter geometry:



3-D chip breaker for finishing
With stabilised cutting edge for
 $a_p > 0,08 \text{ mm}$

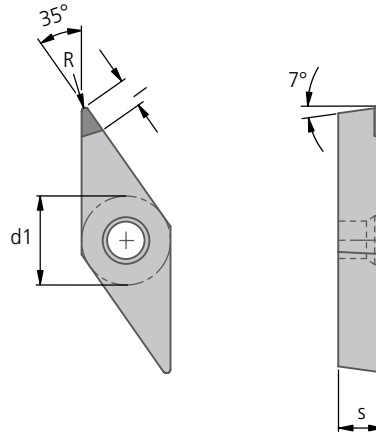


Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
VCGT 070202 FN-96	C89 03960.02..	▲	▲				0,2
VCGT 070204 FN-96	C89 03960.04..	▲	▲	3,97	2,38	3,0	0,4
VCGT 070208 FN-96	C89 03960.08..	▲	▲				0,8
VCGT 110302 FN-96	C89 18960.02..	▲	▲				0,2
VCGT 110304 FN-96	C89 18960.04..	▲	▲	6,35	3,18	3,0	0,4
VCGT 110308 FN-96	C89 18960.08..	▲	▲				0,8
VCGT 160402 FN-96	C89 32960.02..	▲	▲				0,2
VCGT 160404 FN-96	C89 32960.04..	▲	▲	9,52	4,76	3,0	0,4
VCGT 160408 FN-96	C89 32960.08..	▲	▲				0,8
VCGT 160412 FN-96	C89 32960.12..	▲	▲				1,2
Aluminium alloys Si < 12%		●	●	Order example: ISO Code VCGT 070202 FN-96 Cutting material PKD5510 Order No. C89 03960.025510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		◐	●				
Ceramics		◐	●				
Glass, quartz glass		◐	●				
sintered carbides (G10-G60)		◐	●				
Metal Matrix Composites (MMC)		●	◐				
Graphite		◐	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				



Cutter geometry:

sharp cutting edge



Substrate		PCD	CVD-D				
Cutting material designation		PKD5510	DSD5605				
Cutting edge design		F	F				
ISO Code	Order No.	PCD 	CVD-D 	d1	s	l	R
Cutting edge design F = sharp	Enter cutting material code	5510	5605				
VCGW 070201 FN-99	C89 03990.01..	▲	▲	3,97	2,38	3,0	0,1
VCGW 070202 FN-99	C89 03990.02..	▲	▲				0,2
VCGW 070204 FN-99	C89 03990.04..	▲	▲				0,4
VCGW 070208 FN-99	C89 03990.08..	▲	▲				0,8
VCGW 110301 FN-99	C89 18990.01..	▲	▲	6,35	3,18	3,0	0,1
VCGW 110302 FN-99	C89 18990.02..	▲	▲				0,2
VCGW 110304 FN-99	C89 18990.04..	▲	▲				0,4
VCGW 110308 FN-99	C89 18990.08..	▲	▲				0,8
VCGW 160401 FN-99	C89 32990.01..	▲	▲	9,52	4,76	3,0	0,1
VCGW 160402 FN-99	C89 32990.02..	▲	▲				0,2
VCGW 160404 FN-99	C89 32990.04..	▲	▲				0,4
VCGW 160408 FN-99	C89 32990.08..	▲	▲				0,8
VCGW 160412 FN-99	C89 32990.12..	▲	▲				1,2
Aluminium alloys Si < 12%		●	●	Order example: ISO Code VCGW 070201 FN-99 Cutting material PKD5510 Order No. C89 03990.015510			
Aluminium alloys Si > 12%		●	●				
CFRP, GFRP, plastics, composites		◐	●				
Ceramics		◐	●				
Glass, quartz glass	N	◐	●				
sintered carbides (G10-G60)		●	●				
Metal Matrix Composites (MMC)		●	◐				
Graphite		◐	●				
other non-ferrous metals (Cu / bronze / brass / Mg)		●	●				

● Main area of application ◐ Suitable in some cases

Important: See chapter 8 for more application details and safety notes !

KOMET® ISO CBN Indexable inserts

1



BENEFITS for you – KOMET® CBN indexable inserts:

- Large selection of cutting materials for cost-effective machining of hardened steels, cast iron, high-temperature alloys and sinter metals
- Diverse portfolio of shapes and sizes
- Double-sided model with up to eight insert corners for high efficiency
- Unique cutting material concept for easy and application-specific process optimisation (for custom solutions, see pages 168-169)

2



BENEFITS for you – machining hardened steels with CBN indexable inserts instead of grinding:

- Full machining flexibility with geometrically defined cutting edge
- Reduced machine times and higher removal rates
- Rotary machines typically less cost-intensive than grinding machines
- Also successful with interrupted cuts
- Lower energy consumption and power requirements than grinding equipment
- Save up to 15% in costs thanks to dry machining
- Easy chip disposal (recycling), reduced disposal costs compared with grinding sludge

3



BENEFITS for you – machining cast iron and sinter metal with CBN instead of carbide indexable inserts:

- Potentially massive increase in productivity
- Significant reduction in the number of tool changes
- Significantly higher metal removal rate per cutting edge

4



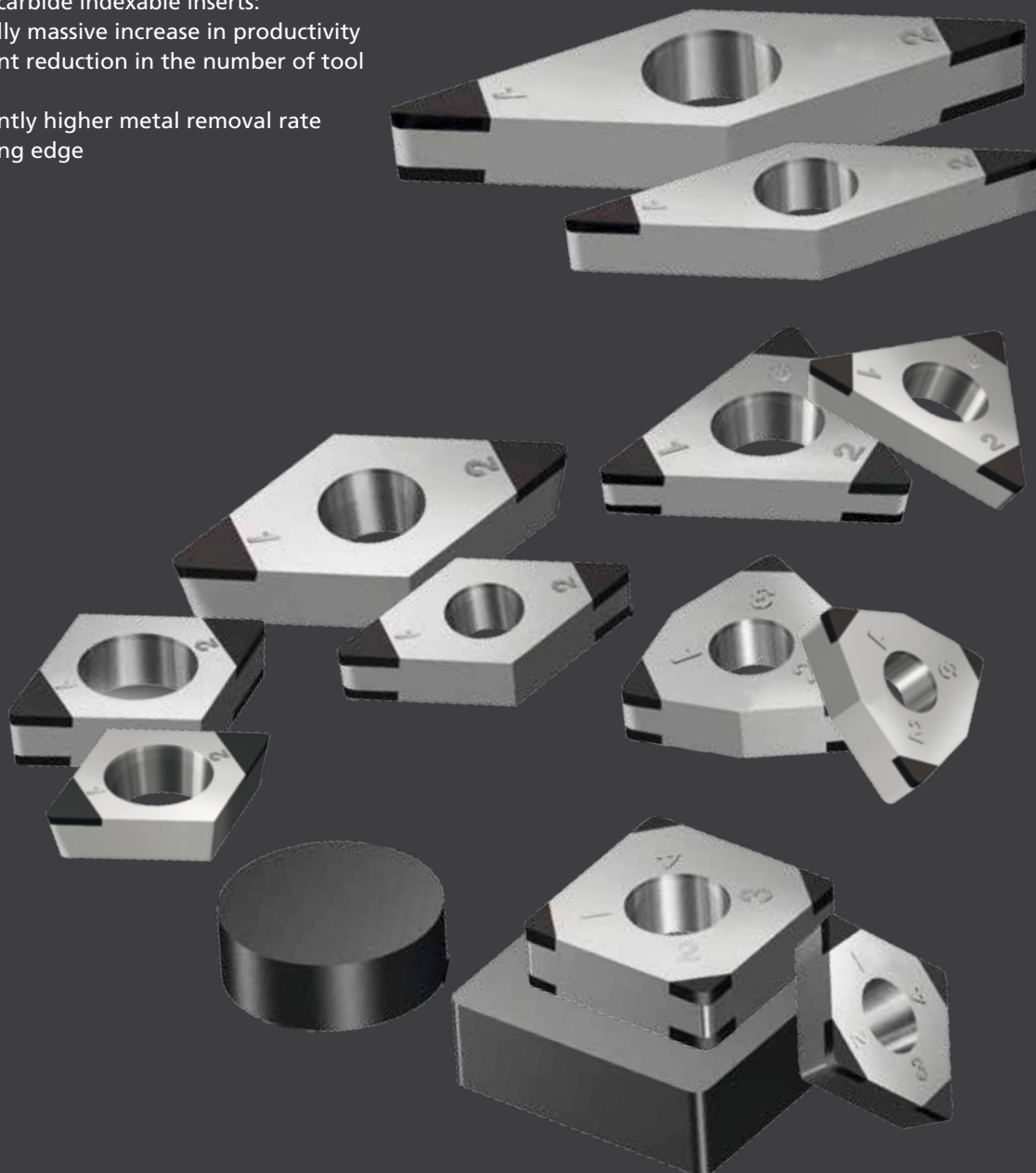
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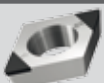
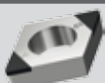
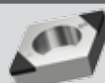
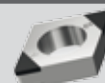
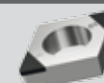
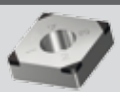
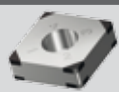
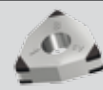
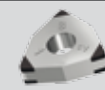
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7



Portfolio overview – ISO CBN Indexable inserts

CCGW		CNGA			
					
C85..69 ▶ 172	C85..75 Wiper ▶ 173	C64..69 ▶ 174	C64..75 Wiper ▶ 175	C64..70 ▶ 176	C64..76 Wiper ▶ 177
DCGW		DNGA			
					
C86..69 ▶ 178		C65..69 standard ▶ 180	C66..69 strengthened ▶ 182	C65..70 standard ▶ 184	C66..70 strengthened ▶ 186
					
C86..75 Wiper ▶ 179		C65..75 standard Wiper ▶ 181	C66..75 strengthened Wiper ▶ 183	C65..76 standard Wiper ▶ 185	C66..76 strengthened Wiper ▶ 187
RNGN					
					
C67..60 standard ▶ 188	C68..60 strengthened ▶ 189				
SCGW		SNGA		SNGN	
					
C83..69 ▶ 190		C62..69 ▶ 191	C62..70 ▶ 192	C62..60 ▶ 193	
TCGW		TNGA			
					
C84..69 ▶ 194		C63..69 ▶ 195	C63..70 ▶ 196		
VBGW		VCGW		VNGA	
					
C79..69 ▶ 197		C89..69 ▶ 198	C69..69 ▶ 199	C69..70 ▶ 200	
WNGA					
					
C70..69 ▶ 201	C70..75 Wiper ▶ 202	C70..70 ▶ 203	C70..76 Wiper ▶ 204		



CBN: Polycrystalline cubic boron nitride, particularly suitable for machining hardened steels, as well as cast iron and many other hard and abrasive materials with very efficient machining parameters. After diamond, CBN is the second hardest material in the world.



Laser-machined chip breakers

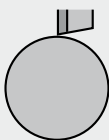
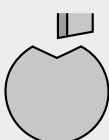
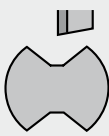
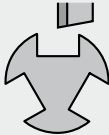


CS stands for custom solution. The CS cutting materials from KOMET facilitate easy and application-specific process optimisation thanks to a wide range of slightly modified standard cutting materials. This guarantees a significant and welcome productivity boost when using the most extreme cutting forces and temperatures – which are typical of CBN applications.

Guidelines on selecting the right indexable insert/cutting material

Selection of a basic recommendation based on workpiece material and degree of cut interruption

Workpiece material	
P	Sintered materials: Iron-based alloys produced by powder metallurgy, sinter steels, valve seat materials
K	Cast iron: Grey cast iron, spheroidal graphite iron, malleable cast iron, compacted graphite iron
S	Highly heat-resistant iron-, nickel- and cobalt-based alloys
H	Hardened materials (45-70 HRC): Hardened steel (> 52 HRC), hardened cast iron materials, white cast iron

Degree of cut interruption			
Symbol	Machining		
	Continuous		All non-interrupted surfaces
	Slight cut interruption, continuous with vibrations		All surfaces with flat entry and exit angle in the cut interruption (10° - 30°) - Boreholes and longitudinal grooves with slight chamfers - Non-round shafts - Finishing threads/transverse grooves - Slight vibrations (otherwise HM)
	Medium cut interruption		All surfaces with medium entry and exit angle in the cut interruption (30° - 60°) - Chamfered boreholes and longitudinal grooves - Gear flanks
	Heavy cut interruption		All surfaces with steep entry and exit angle in the cut interruption from 60° to more than 90° - Non-chamfered boreholes and longitudinal grooves

As a general rule, machining of hardened materials can always be performed dry and is therefore both more affordable and more environmentally friendly than using cooling lubricant.

With continuous cutting, the use of cooling does not have any significant influence on the development of tool wear.

However, the use of cooling lubricant is necessary:

- To improve the chip shape
- To remove the chips from the machine area or the component
- To check the temperature balance throughout the entire machining area (component, clamping device, machine spindle and other components)
- When machining heat-resistant special alloys or carbide



Guidelines on selecting the right indexable insert/cutting material

Selection of a basic recommendation based on workpiece material and degree of cut interruption

Basic cutting data recommendation for internal and external turning											
	Cutting tool material designation	Degree of cut interruption	Cutting speed v_c (m/min) min ... optimum ... max			Feed f (mm/rev) min ... optimum ... max			Cutting depth a_p (mm) min ... optimum ... max		
P	CBN 5830		160	300	400	0,02	0,12	0,30	0,05	0,12	2,5
			130	240	320						
	CBN 5860		120	200	300	0,02	0,10	0,30	0,05	0,12	2,0
			100	160	240						
K	CBN 5730		400	800	1600	0,05	0,20	0,60	0,05	0,20	2,5
			320	640	1280						
	CBN 5750		400	600	1400	0,05	0,16	0,60	0,05	0,20	2,5
			320	480	1120						
S	CBN 5730		120	160	600	0,05	0,10	0,35	0,05	0,14	0,5
			100	130	480						
	CBN 5750		120	160	600	0,05	0,08	0,35	0,05	0,12	0,5
			100	130	480						
H	CBN 4020		100	200	400	0,05	0,18	0,30	0,05	0,20	2,5
	CBN 4040		100	180	300	0,05	0,16	0,30	0,05	0,20	2,5
	CBN 4060		80	140	220	0,05	0,14	0,30	0,05	0,18	2,5
	CBN 4080		80	120	180	0,05	0,12	0,30	0,05	0,18	2,5

Max. L/D ratio as a function of indexable insert radius						
L/D	0,5xD	1xD	1,5xD	2xD	2,5xD	3xD
 R0,8	Steel bracket					
	Solid carbide boring bar					
 R0,4	Steel bracket					
	Solid carbide boring bar					
 R0,2	Steel bracket					
	Solid carbide boring bar					

For wear or defect problems, please refer to page 108-111 for a detailed description of the application-based or cutting material-based optimisation.

1



2



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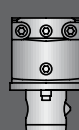
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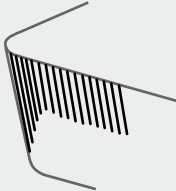
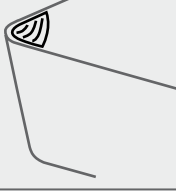
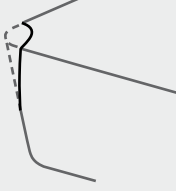
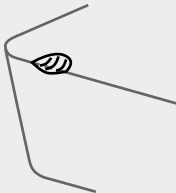
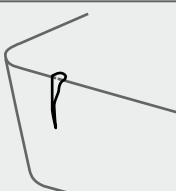
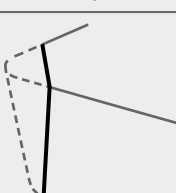
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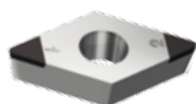
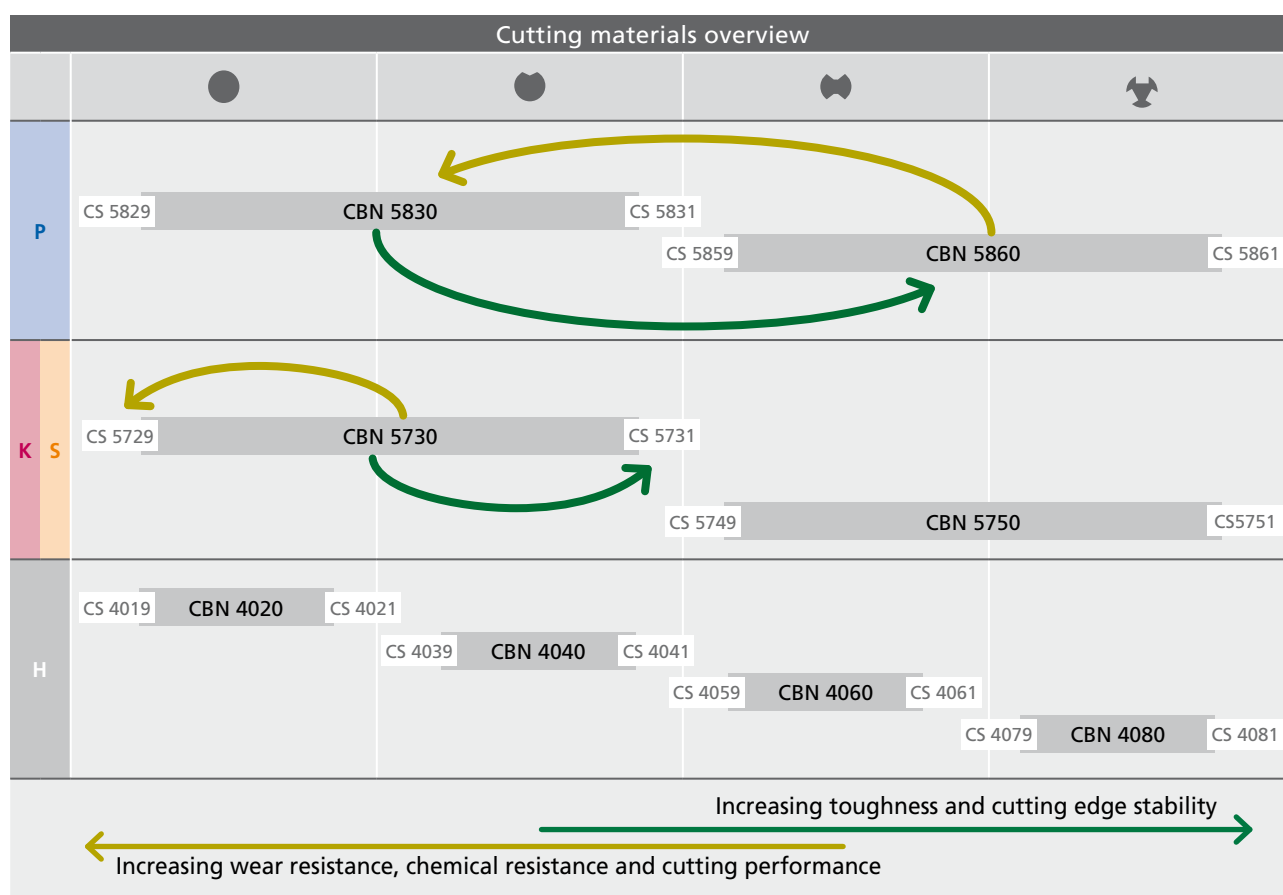
Optimisation of application/cutting material selection

		Application-based optimisation	Cutting-material based optimisation
Types of wear			
	Flank wear on cutting edge Abrasion on the flank due to friction between cutting wedge and workpiece	· Increase the feed rate · Increase the cutting speed · Check the cutting edge height	 In the first step, select the next-most wear resistant CBN main cutting material and then the more wear resistant CS cutting material as the second step. Info: The lower the cutting material code, the greater the cutting performance.
	Crater wear Crater-shaped erosion on the rake face due to chips being removed	· Reduce the cutting speed · Reduce the feed rate · Only with continuous cutting: Cooling	
Defect shapes			
	Micro-blowouts on the cutting edge Chipping of the cutting material due to mechanical overloading	· Avoid vibrations · Thermal fluctuations	 In the first step, select the next toughest CBN main cutting material and then use the tougher CS cutting material as the second step. Info: The higher the cutting material code, the greater the cutting edge stability (chamfer+rounding).
	Corner breakage Fatal break of the insert corner due to mechanical overloading	· Reduce the feed rate · Reduce the cutting depth · Check the cutting edge height · Select a larger corner radius	
	Spalling on the rake face Large-scale spalling on the rake face due to mechanical overloading	· Reduce the feed rate · Select a flatter setting angle · Check the cutting edge height	
	Notch formation on the cutting edge Typically occurs at cutting depth level	· Select a flatter setting angle · Increase the cutting speed · Reduce the feed rate · Increase the corner radius or use a round insert	
	Insert breakage Break across the entire cross section	· Select the next largest or more stable indexable insert model · Check the insert seat for cleanness and correct contact · Check the cutting edge height	

Component-based optimisation

- Use wiper geometries for poor surfaces (part of the catalogue program)
- In the event of chip break issues, laser-cut 3D chip breakers are available on request by stating the material, vc, fz and ap.

Optimised cutting material selection



ISO Code
DCGW 070204 TN-69

Ordering example of a standard CBN indexable insert:

Cutting material CBN 5830 | Order no. C86 18690.045830

Ordering example of an indexable insert with CS cutting material (available on request):

Cutting material CS **5829** | Order no. C86 18690.04**5829**



CS (custom solution) cutting materials are slightly modified standard cutting materials that are somewhat sharper, softer cutting and more wear resistant in use or display greater stability, toughness and predictability in the other direction.

This can be achieved via the CBN substrate or the design of the cutting edge.

In the CBN4040 example, CS4039 is then the predefined type for somewhat better wear resistance and CS4041 for slightly greater toughness.

CS cutting materials are used when the step to the next standard type (in either direction) is too large and will not benefit the application in question.

Recommended cutting data (highlighted in colour = basic recommendation)

			Cutting speed v_c Feed rate f Cutting depth a_p						
Cutting material: Standard = CBN Custom solution = CS			●			●			
			v_c m/min	f mm/rev	a_p mm	v_c m/min	f mm/rev	a_p mm	
			min...opt...max	min...opt...max	min...opt...max	min...opt...max	min...opt...max	min...opt...max	
P	Sintered materials: Iron-based alloys produced by powder metallurgy, sinter steels, valve seat materials	CS 5829 CBN 5830 CS 5831	160 300 400	0,02 0,12 0,30	0,05 0,12 2,5	130 240 320	0,02 0,12 0,30	0,05 0,12 2,5	
		CS 5859 CBN 5860 CS 5861				130 240 320	0,02 0,12 0,3	0,05 0,12 2,5	
K	Cast iron: Grey cast iron, spheroidal graphite iron, malleable cast iron, compacted graphite iron	CS 5729 CBN 5730 CS 5731	400 800 1600	0,05 0,20 0,60	0,05 0,2 2,5	320 640 1280	0,05 0,20 0,60	0,05 0,20 2,5	
		CS 5749 CBN 5750 CS 5751				320 640 1280	0,05 0,20 0,60	0,05 0,20 2,5	
S	Highly heat-resistant iron-, nickel- and cobalt-based alloys	CS 5729 CBN 5730 CS 5731	120 160 600	0,05 0,10 0,35	0,05 0,14 0,5	100 130 480	0,05 0,10 0,35	0,05 0,14 0,5	
		CS 5749 CBN 5750 CS 5751				100 130 480	0,05 0,10 0,35	0,05 0,14 0,5	
H	Hardened materials (45-70 HRC): Hardened steel (> 52 HRC), hardened cast iron materials, white cast iron	CS 4019 CBN 4020 CS 4021	100 200 400	0,05 0,18 0,30	0,05 0,20 2,5	100 180 300	0,05 0,16 0,30	0,05 0,2 2,5	
		CS 4039 CBN 4040 CS 4041	100 200 400	0,05 0,18 0,30	0,05 0,20 2,5	100 180 300	0,05 0,16 0,30	0,05 0,2 2,5	
		CS 4059 CBN 4060 CS 4061				100 180 300	0,05 0,16 0,30	0,05 0,2 2,5	
		CS 4079 CBN 4080 CS 4081							
	Hardened tool steels (> 52 HRC): e.g. 1.2379, 1.2550, ...	CS 5729 CBN 5730 CS 5731	100 200 400	0,05 0,18 0,30	0,05 0,20 2,5	100 180 300	0,05 0,16 0,30	0,05 0,2 2,5	
		CS 5749 CBN 5750 CS 5751	100 200 400	0,05 0,18 0,30	0,05 0,20 2,5	100 180 300	0,05 0,16 0,30	0,05 0,2 2,5	

Recommended cutting data (highlighted in colour = basic recommendation)

Cutting speed v_c Feed rate f Cutting depth a_p							Cutting material: Standard = CBN Custom solution = CS		
v_c m/min min...opt...max	f mm/rev min...opt...max	a_p mm min...opt...max	v_c m/min min...opt...max	f mm/rev min...opt...max	a_p mm min...opt...max				
120 200 300	0,02 0,10 0,30	0,05 0,12 2,0					CS 5829 CBN 5830 CS 5831	Sintered materials: Iron-based alloys produced by powder metallurgy, sinter steels, valve seat materials	P
120 200 300	0,02 0,10 0,30	0,05 0,12 2,0	100 160 240	0,02 0,1 0,3	0,05 0,12 2,0		CS 5859 CBN 5860 CS 5861		
400 600 1400	0,05 0,12 0,35	0,05 0,2 2,5					CS 5729 CBN 5730 CS 5731	Cast iron: Grey cast iron, spheroidal graphite iron, malleable cast iron, compacted graphite iron	K
400 600 1400	0,05 0,12 0,35	0,05 0,2 2,5	320 480 1120	0,05 0,12 0,35	0,05 0,2 2,5		CS 5749 CBN 5750 CS 5751		
120 160 600	0,05 0,08 0,35	0,05 0,12 2,5					CS 5729 CBN 5730 CS 5731	Highly heat-resistant iron-, nickel- and cobalt-based alloys	S
120 160 600	0,05 0,08 0,35	0,05 0,12 0,5	100 130 480	0,05 0,08 0,35	0,05 0,12 0,5		CS 5749 CBN 5750 CS 5751		
							CS 4019 CBN 4020 CS 4021	Hardened materials (45-70 HRC): Hardened steel (> 52 HRC), hardened cast iron materials, white cast iron	H
80 140 220	0,05 0,14 0,30	0,05 0,18 2,5					CS 4039 CBN 4040 CS 4041		
80 140 220	0,05 0,14 0,30	0,05 0,18 2,5	80 120 180	0,05 0,12 0,30	0,05 0,18 2,5		CS 4059 CBN 4060 CS 4061		
80 140 220	0,05 0,14 0,30	0,05 0,18 2,5	80 120 180	0,05 0,12 0,30	0,05 0,18 2,5		CS 4079 CBN 4080 CS 4081		
80 140 220	0,05 0,14 0,30	0,05 0,18 2,5	80 120 180	0,05 0,12 0,30	0,05 0,18 2,5		CS 5729 CBN 5730 CS 5731	Hardened tool steels (> 52 HRC): e.g. 1.2379, 1.2550, ...	
80 140 220	0,05 0,14 0,30	0,05 0,18 2,5	80 120 180	0,05 0,12 0,30	0,05 0,18 2,5		CS 5749 CBN 5750 CS 5751		

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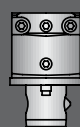
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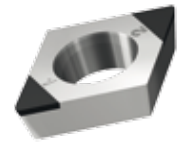
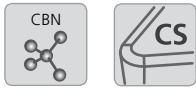
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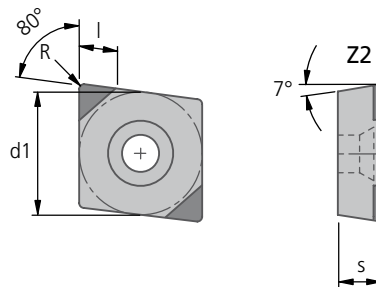
KOMET® ISO CBN Indexable inserts

CCGW

C85..69



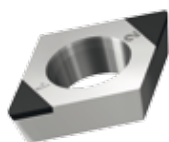
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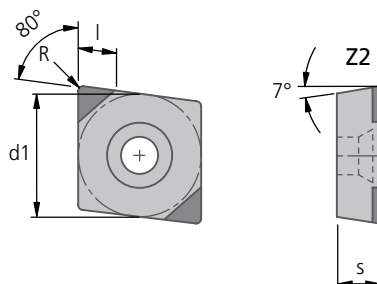
Substrate		CBN											
Coating type		—	—	—	—	PVD	PVD	PVD	PVD	Order example: ISO Code CCGW060202TN-69 Cutting material CBN5830 Order No. C85 18690.025830			
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080				
Cutting edge design		T	T	T	S	T	T	T	S				
Sintered steel P													
Cast iron K													
Highly heat-resistant alloys S													
Hardened materials H										For cutting conditions, see page 166			
ISO Code	Order No.												
Cutting edge design S = chamfered+rounded T = chamfered ▼	Enter cutting material code ▼	5830	5860	5730	5750	4020	4040	4060	4080	d1	s	l	R
CCGW060202..N-69	C85 18690.02..	▲	▲	▲	▲	▲	▲	▲	▲	6,35	2,38	2,8	0,2
CCGW060204..N-69	C85 18690.04..	▲	▲	▲	▲	▲	▲	▲	▲				0,4
CCGW060208..N-69	C85 18690.08..	▲	▲	▲	▲	▲	▲	▲	▲				0,8
CCGW09T302..N-69	C85 32690.02..	▲	▲	▲	▲	▲	▲	▲	▲	9,525	3,97	2,8	0,2
CCGW09T304..N-69	C85 32690.04..	▲	▲	▲	▲	▲	▲	▲	▲				0,4
CCGW09T308..N-69	C85 32690.08..	▲	▲	▲	▲	▲	▲	▲	▲				0,8
CCGW120402..N-69	C85 44690.02..	▲	▲	▲	▲	▲	▲	▲	▲	12,7	4,76	2,8	0,2
CCGW120404..N-69	C85 44690.04..	▲	▲	▲	▲	▲	▲	▲	▲				0,4
CCGW120408..N-69	C85 44690.08..	▲	▲	▲	▲	▲	▲	▲	▲				0,8
CCGW120412..N-69	C85 44690.12..	▲	▲	▲	▲	▲	▲	▲	▲				1,2
 More wear resistant ▲		5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials			
	More stable	5831	5861	5731	5751	4021	4041	4061	4081				

Recommended cutting data: page 167.

▲ Availability: for delivery see current price and stock list



Cutter geometry:



Substrate		CBN															
Coating type		—	—	—	—	PVD	PVD	PVD	PVD	Order example: ISO Code CCGW060202TN-75W Cutting material CBN5830 Order No. C85 18750.025830							
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080								
Cutting edge design		T	T	T	S	T	T	T	S								
Sintered steel																	
Cast iron																	
Highly heat-resistant alloys																	
Hardened materials										For cutting conditions, see page 166							
ISO Code	Order No.																
Cutting edge design S = chamfered+rounded T = chamfered	Enter cutting material code	5830	5860	5730	5750	4020	4040	4060	4080					d1	s	l	R
CCGW09T302..N-75W	C85 32750.02..	▲	▲	▲	▲									9,525	3,97	2,8	0,2
CCGW09T304..N-75W	C85 32750.04..	▲	▲	▲	▲	▲	▲	▲	▲								0,4
CCGW09T308..N-75W	C85 32750.08..	▲	▲	▲	▲	▲	▲	▲	▲	0,8							
CCGW120404..N-75W	C85 44750.04..	▲	▲	▲	▲	▲	▲	▲	▲	12,7	4,76	2,8	0,4				
CCGW120408..N-75W	C85 44750.08..	▲	▲	▲	▲	▲	▲	▲	▲				0,8				
CCGW120412..N-75W	C85 44750.12..	▲	▲	▲	▲	▲	▲	▲	▲				1,2				
 More wear resistant	▲	5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials							
	More stable	5831	5861	5731	5751	4021	4041	4061	4081								

● continuous ● slight cut interruption, continuous with vibrations

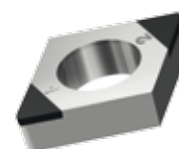
● medium cut interruption ● heavy cut interruption

Important: See chapter 8 for more application details and safety notes !

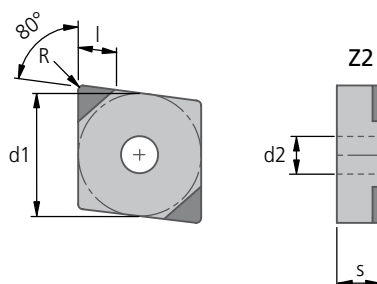
KOMET® ISO CBN Indexable inserts

CNGA

C64..69



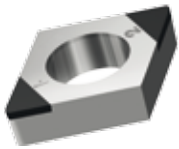
Cutter geometry:



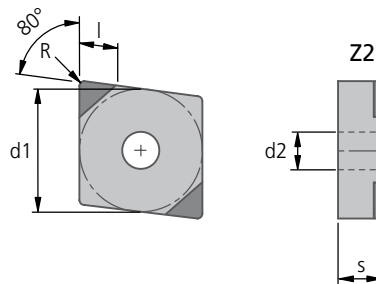
Substrate		CBN																		
Coating type		—	—	—	—	PVD	PVD	PVD	PVD	Order example: ISO Code CNGA120402TN-69 Cutting material CBN5830 Order No. C64 44690.025830										
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080											
Cutting edge design		T	T	T	S	T	T	T	S											
Sintered steel		P																		
Cast iron		K																		
Highly heat-resistant alloys		S																		
Hardened materials		H																		
ISO Code	Order No.									For cutting conditions, see page 166										
Cutting edge design S = chamfered+rounded T = chamfered ▼	Enter cutting material code ▼	5830	5860	5730	5750	4020	4040	4060	4080											
CNGA120402..N-69	C64 44690.02..	▲	▲	▲	▲	▲	▲	▲	▲	12,7	5,16	4,76	2,8	0,2						
CNGA120404..N-69	C64 44690.04..	▲	▲	▲	▲	▲	▲	▲	▲					0,4						
CNGA120408..N-69	C64 44690.08..	▲	▲	▲	▲	▲	▲	▲	▲					0,8						
CNGA120412..N-69	C64 44690.12..	▲	▲	▲	▲	▲	▲	▲	▲					1,2						
More wear resistant ▲		5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials										
More stable		5831	5861	5731	5751	4021	4041	4061	4081											

Recommended cutting data: page 167.

▲ Availability: for delivery see current price and stock list



Cutter geometry:



Substrate		CBN													
Coating type		—	—	—	—	PVD	PVD	PVD	PVD	Order example: ISO Code CNGA120402TN-75W Cutting material CBN5830 Order No. C64 44750.025830					
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080						
Cutting edge design		T	T	T	S	T	T	T	S						
Sintered steel 															
Cast iron 															
Highly heat-resistant alloys 															
Hardened materials 										For cutting conditions, see page 166					
ISO Code	Order No.	 	 	 	 										
Cutting edge design S = chamfered+rounded T = chamfered 	Enter cutting material code 	5830	5860	5730	5750	4020	4040	4060	4080						
CNGA120402..N-75W	C64 44750.02..									12,7	5,16	4,76	2,8	0,2	
CNGA120404..N-75W	C64 44750.04..													0,4	
CNGA120408..N-75W	C64 44750.08..													0,8	
CNGA120412..N-75W	C64 44750.12..													1,2	
 More wear resistant 	More stable	5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials					
		5831	5861	5731	5751	4021	4041	4061	4081						

● continuous ● slight cut interruption, continuous with vibrations

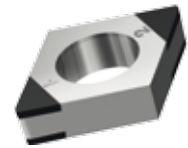
● medium cut interruption ● heavy cut interruption

Important: See chapter 8 for more application details and safety notes !

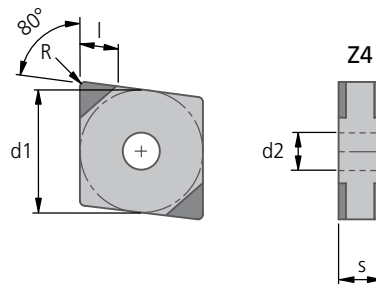
KOMET® ISO CBN Indexable inserts

CNGA

C64..70



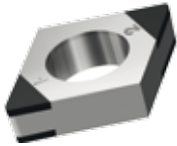
Cutter geometry:



Substrate		CBN													
Coating type		—	—	—	—	PVD	PVD	PVD	PVD	Order example: ISO Code CNGA120402TN-70 Cutting material CBN5830 Order No. C64 44700.025830					
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080						
Cutting edge design		T	T	T	S	T	T	T	S						
Sintered steel 															
Cast iron 															
Highly heat-resistant alloys 															
Hardened materials 															
ISO Code	Order No.	 	 	 	 					For cutting conditions, see page 166					
Cutting edge design S = chamfered+rounded T = chamfered 	Enter cutting material code 	5830	5860	5730	5750	4020	4040	4060	4080						
CNGA120402..N-70	C64 44700.02..									12,7	5,16	4,76	2,8	0,2	
CNGA120404..N-70	C64 44700.04..													0,4	
CNGA120408..N-70	C64 44700.08..													0,8	
CNGA120412..N-70	C64 44700.12..													1,2	
	More wear resistant 	5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials					
	More stable	5831	5861	5731	5751	4021	4041	4061	4081						

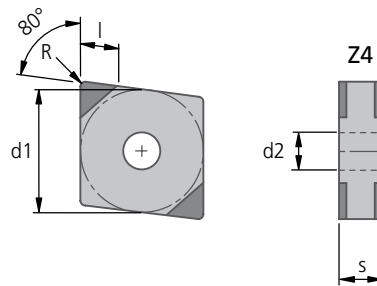
Recommended cutting data: page 167.

▲ Availability: for delivery see current price and stock list



Cutter geometry:

Wiper



Substrate		CBN													
Coating type		—	—	—	—	PVD	PVD	PVD	PVD	Order example: ISO Code CNGA120402TN-76W Cutting material CBN5830 Order No. C64 44760.025830					
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080						
Cutting edge design		T	T	T	S	T	T	T	S						
Sintered steel 															
Cast iron 															
Highly heat-resistant alloys 															
Hardened materials 										For cutting conditions, see page 166					
ISO Code	Order No.	 	 	 	 										
Cutting edge design S = chamfered+rounded T = chamfered 	Enter cutting material code 	5830	5860	5730	5750	4020	4040	4060	4080						
CNGA120402..N-76W	C64 44760.02..									12,7	5,16	4,76	2,8	0,2	
CNGA120404..N-76W	C64 44760.04..													0,4	
CNGA120408..N-76W	C64 44760.08..													0,8	
CNGA120412..N-76W	C64 44760.12..													1,2	
	More wear resistant 	5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials					
	More stable	5831	5861	5731	5751	4021	4041	4061	4081						

● continuous ● slight cut interruption, continuous with vibrations

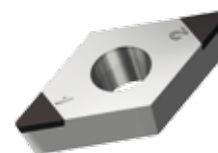
⚙ medium cut interruption ⚙ heavy cut interruption

Important: See chapter 8 for more application details and safety notes !

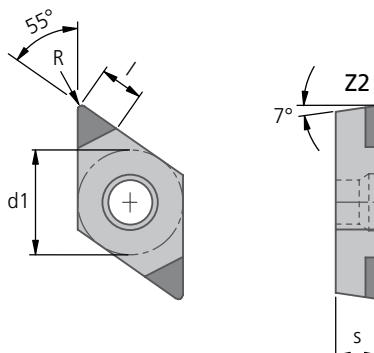
KOMET® ISO CBN Indexable inserts

DCGW

C86..69



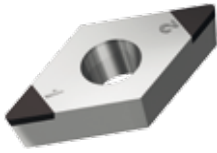
Cutter geometry:



Substrate		CBN											
Coating type		—	—	—	—	PVD	PVD	PVD	PVD	Order example: ISO Code DCGW070202TN-69 Cutting material CBN5830 Order No. C86 18690.025830			
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080				
Cutting edge design		T	T	T	S	T	T	T	S				
Sintered steel													
Cast iron													
Highly heat-resistant alloys													
Hardened materials													
ISO Code	Order No.	 	 	 	 					For cutting conditions, see page 166			
Cutting edge design S = chamfered+rounded T = chamfered	Enter cutting material code	5830	5860	5730	5750	4020	4040	4060	4080				
DCGW070202..N-69	C86 18690.02..	▲	▲	▲	▲	▲	▲	▲	▲	6,35	2,38	2,8	0,2
DCGW070204..N-69	C86 18690.04..	▲	▲	▲	▲	▲	▲	▲	▲				0,4
DCGW070208..N-69	C86 18690.08..	▲	▲	▲	▲	▲	▲	▲	▲				0,8
DCGW11T302..N-69	C86 32690.02..	▲	▲	▲	▲	▲	▲	▲	▲	9,525	3,97	2,8	0,2
DCGW11T304..N-69	C86 32690.04..	▲	▲	▲	▲	▲	▲	▲	▲				0,4
DCGW11T308..N-69	C86 32690.08..	▲	▲	▲	▲	▲	▲	▲	▲				0,8
	More wear resistant	5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials			
	More stable	5831	5861	5731	5751	4021	4041	4061	4081				

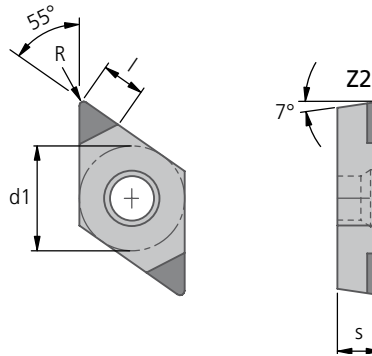
Recommended cutting data: page 167.

▲ Availability: for delivery see current price and stock list



Cutter geometry:

Wiper



Substrate		CBN											
Coating type		–	–	–	–	PVD	PVD	PVD	PVD	Order example: ISO Code DCGW070204TN-75W Cutting material CBN5830 Order No. C86 18750.045830			
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080				
Cutting edge design		T	T	T	S	T	T	T	S				
Sintered steel		P											
Cast iron		K											
Highly heat-resistant alloys		S											
Hardened materials		H											
ISO Code	Order No.	●	●	●	●	●	●	●	●	For cutting conditions, see page 166			
Cutting edge design S = chamfered+rounded T = chamfered	Enter cutting material code	5830	5860	5730	5750	4020	4040	4060	4080				
DCGW070204..N-75W	C86 18750.04..	▲	▲	▲	▲	▲	▲	▲	▲	6,35	2,38	2,8	0,4
DCGW070208..N-75W	C86 18750.08..	▲	▲	▲	▲	▲	▲	▲	▲				0,8
DCGW11T304..N-75W	C86 32750.04..	▲	▲	▲	▲	▲	▲	▲	▲	9,525	3,97	2,8	0,4
DCGW11T308..N-75W	C86 32750.08..	▲	▲	▲	▲	▲	▲	▲	▲				0,8
More wear resistant More stable	More wear resistant	▲								See pages 168-171 for a selection of CS cutting materials			
	More stable												
		5829	5859	5729	5749	4019	4039	4059	4079				
		5831	5861	5731	5751	4021	4041	4061	4081				

● continuous ● slight cut interruption, continuous with vibrations

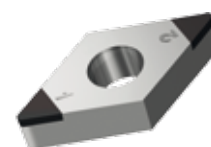
● medium cut interruption ● heavy cut interruption

Important: See chapter 8 for more application details and safety notes !

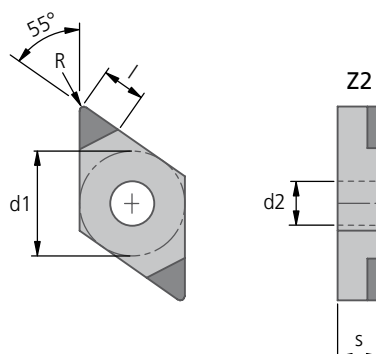
KOMET® ISO CBN Indexable inserts

DNGA

C65..69



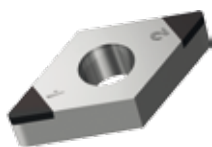
Cutter geometry:



Substrate		CBN													
Coating type		–	–	–	–	PVD	PVD	PVD	PVD	Order example: ISO Code DNGA110402TN-69 Cutting material CBN5830 Order No. C65 32690.025830					
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080						
Cutting edge design		T	T	T	S	T	T	T	S						
Sintered steel		P													
Cast iron		K													
Highly heat-resistant alloys		S													
Hardened materials		H													
ISO Code	Order No.									For cutting conditions, see page 166					
Cutting edge design S = chamfered+rounded T = chamfered	Enter cutting material code	5830	5860	5730	5750	4020	4040	4060	4080						
DNGA110402..N-69	C65 32690.02..	▲	▲	▲	▲										0,2
DNGA110404..N-69	C65 32690.04..	▲	▲	▲	▲					9,525	3,81	4,76	2,8		0,4
DNGA110408..N-69	C65 32690.08..	▲	▲	▲	▲										0,8
DNGA150402..N-69	C65 44690.02..	▲	▲	▲	▲	▲	▲	▲	▲						0,2
DNGA150404..N-69	C65 44690.04..	▲	▲	▲	▲	▲	▲	▲	▲						0,4
DNGA150408..N-69	C65 44690.08..	▲	▲	▲	▲	▲	▲	▲	▲	12,7	5,16	4,76	2,8		0,8
DNGA150412..N-69	C65 44690.12..	▲	▲	▲	▲	▲	▲	▲	▲						1,2
More wear resistant		5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials					
	More stable	5831	5861	5731	5751	4021	4041	4061	4081						

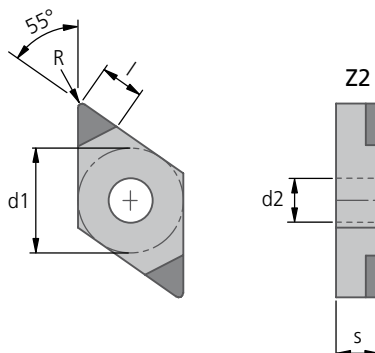
Recommended cutting data: page 167.

▲ Availability: for delivery see current price and stock list



Cutter geometry:

Wiper



Substrate		CBN												
Coating type		—	—	—	—	PVD	PVD	PVD	PVD	Order example: ISO Code DNGA150404TN-75W Cutting material CBN5830 Order No. C65 44750.045830				
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080					
Cutting edge design		T	T	T	S	T	T	T	S					
Sintered steel		P	●	●	●									
Cast iron		K		●	●									
Highly heat-resistant alloys		S		●	●	●	●	●	●					
Hardened materials		H				●	●	●	●					
ISO Code Cutting edge design S = chamfered+rounded T = chamfered	Order No. Enter cutting material code	●	●	●	●	●	●	●	●	For cutting conditions, see page 166				
		5830	5860	5730	5750	4020	4040	4060	4080					
DNGA150404..N-75W	C65 44750.04..	▲	▲	▲	▲	▲	▲	▲	▲	12,7	5,16	4,76	2,8	0,4
DNGA150408..N-75W	C65 44750.08..	▲	▲	▲	▲	▲	▲	▲	▲					0,8
More wear resistant	▲	5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials				
	More stable	5831	5861	5731	5751	4021	4041	4061	4081					

● continuous ● slight cut interruption, continuous with vibrations

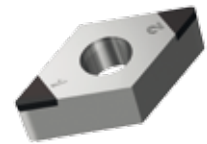
● medium cut interruption ● heavy cut interruption

Important: See chapter 8 for more application details and safety notes !

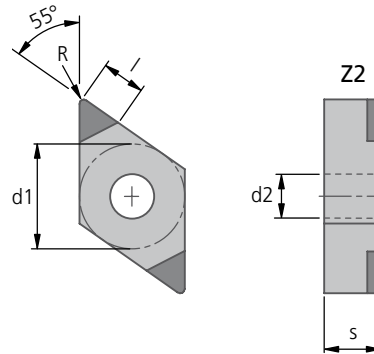
KOMET® ISO CBN Indexable inserts

DNGA

C66..69



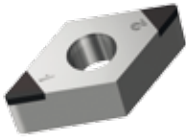
Cutter geometry:



Substrate		CBN													
Coating type		—	—	—	—	PVD	PVD	PVD	PVD	Order example: ISO Code DNGA150602TN-69 Cutting material CBN5830 Order No. C66 44690.025830					
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080						
Cutting edge design		T	T	T	S	T	T	T	S						
Sintered steel 															
Cast iron 															
Highly heat-resistant alloys 															
Hardened materials 															
ISO Code	Order No.	 	 	 	 					For cutting conditions, see page 166					
Cutting edge design S = chamfered+rounded T = chamfered 	Enter cutting material code 	5830	5860	5730	5750	4020	4040	4060	4080						
DNGA150602..N-69	C66 44690.02..									12,7	5,16	6,35	2,8	0,2	
DNGA150604..N-69	C66 44690.04..													0,4	
DNGA150608..N-69	C66 44690.08..													0,8	
DNGA150612..N-69	C66 44690.12..													1,2	
	More wear resistant 	5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials					
	More stable	5831	5861	5731	5751	4021	4041	4061	4081						

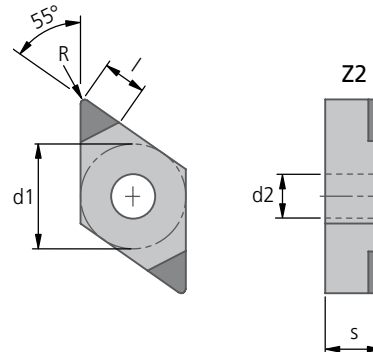
Recommended cutting data: page 167.

▲ Availability: for delivery see current price and stock list



Cutter geometry:

Wiper



Substrate		CBN													
Coating type		—	—	—	—	PVD	PVD	PVD	PVD	Order example: ISO Code DNGA150604TN-75W Cutting material CBN5830 Order No. C66 44750.045830					
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080						
Cutting edge design		T	T	T	S	T	T	T	S						
Sintered steel		P	●	●	●										
Cast iron		K		●	●										
Highly heat-resistant alloys		S		●	●										
Hardened materials		H				●	●	●	●						
ISO Code Cutting edge design S = chamfered+rounded T = chamfered	Order No. Enter cutting material code	●	●	●	●	●	●	●	●	For cutting conditions, see page 166					
		5830	5860	5730	5750	4020	4040	4060	4080						
DNGA150604..N-75W	C66 44750.04..	▲	▲	▲	▲	▲	▲	▲	▲	12,7	5,16	6,35	2,8	0,4	0,8
DNGA150608..N-75W	C66 44750.08..	▲	▲	▲	▲	▲	▲	▲	▲						
CS More wear resistant More stable	▲	5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials					
		5831	5861	5731	5751	4021	4041	4061	4081						

● continuous ● slight cut interruption, continuous with vibrations

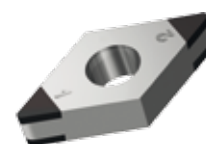
● medium cut interruption ● heavy cut interruption

Important: See chapter 8 for more application details and safety notes !

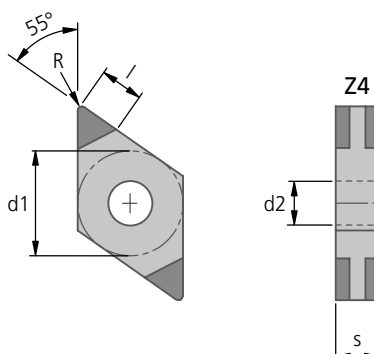
KOMET® ISO CBN Indexable inserts

DNGA

C65..70



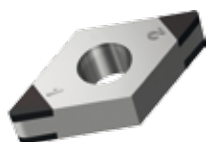
Cutter geometry:



Substrate		CBN													
Coating type		—	—	—	—	PVD	PVD	PVD	PVD	Order example: ISO Code DNGA110402TN-70 Cutting material CBN5830 Order No. C65 32700.025830					
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080						
Cutting edge design		T	T	T	S	T	T	T	S						
Sintered steel		P													
Cast iron		K													
Highly heat-resistant alloys		S													
Hardened materials		H													
ISO Code	Order No.									For cutting conditions, see page 166					
Cutting edge design S = chamfered+rounded T = chamfered	Enter cutting material code	5830	5860	5730	5750	4020	4040	4060	4080						
DNGA110402..N-70	C65 32700.02..	▲	▲	▲	▲										0,2
DNGA110404..N-70	C65 32700.04..	▲	▲	▲	▲					9,525	3,81	4,76	2,8		0,4
DNGA110408..N-70	C65 32700.08..	▲	▲	▲	▲										0,8
DNGA150402..N-70	C65 44700.02..	▲	▲	▲	▲	▲	▲	▲	▲						0,2
DNGA150404..N-70	C65 44700.04..	▲	▲	▲	▲	▲	▲	▲	▲						0,4
DNGA150408..N-70	C65 44700.08..	▲	▲	▲	▲	▲	▲	▲	▲	12,7	5,16	4,76	2,8		0,8
DNGA150412..N-70	C65 44700.12..	▲	▲	▲	▲	▲	▲	▲	▲						1,2
	More wear resistant	5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials					
	More stable	5831	5861	5731	5751	4021	4041	4061	4081						

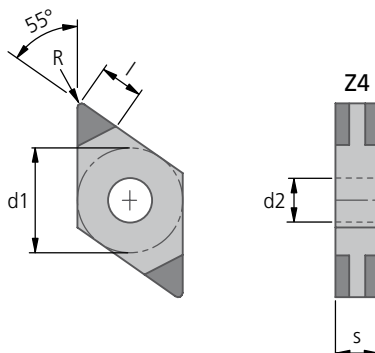
Recommended cutting data: page 167.

▲ Availability: for delivery see current price and stock list



Cutter geometry:

Wiper



Substrate		CBN													
Coating type		—	—	—	—	PVD	PVD	PVD	PVD	Order example: ISO Code DNGA150404TN-76W Cutting material CBN5830 Order No. C65 44760.045830					
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080						
Cutting edge design		T	T	T	S	T	T	T	S						
Sintered steel		P	●	●	●										
Cast iron		K		●	●										
Highly heat-resistant alloys		S		●	●	●	●	●	●						
Hardened materials		H				●	●	●	●						
ISO Code Cutting edge design S = chamfered+rounded T = chamfered	Order No. Enter cutting material code	●	●	●	●	●	●	●	●	For cutting conditions, see page 166					
		5830	5860	5730	5750	4020	4040	4060	4080						
DNGA150404..N-76W	C65 44760.04..	▲	▲	▲	▲	▲	▲	▲	▲	12,7	5,16	4,76	2,8	0,4	0,8
DNGA150408..N-76W	C65 44760.08..	▲	▲	▲	▲	▲	▲	▲	▲						
More wear resistant	▲	5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials					
	More stable	5831	5861	5731	5751	4021	4041	4061	4081						

● continuous ● slight cut interruption, continuous with vibrations

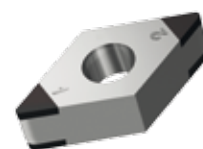
● medium cut interruption ● heavy cut interruption

Important: See chapter 8 for more application details and safety notes !

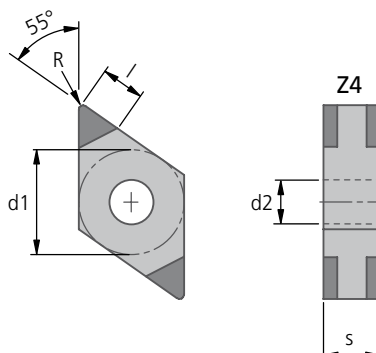
KOMET® ISO CBN Indexable inserts

DNGA

C66..70



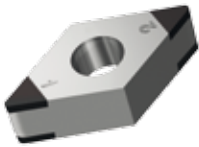
Cutter geometry:



Substrate		CBN																
Coating type		—	—	—	—	PVD	PVD	PVD	PVD	Order example: ISO Code DNGA150602TN-70 Cutting material CBN5830 Order No. C66 44700.025830								
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080									
Cutting edge design		T	T	T	S	T	T	T	S									
Sintered steel		P																
Cast iron		K																
Highly heat-resistant alloys		S																
Hardened materials		H																
ISO Code	Order No.									For cutting conditions, see page 166								
Cutting edge design S = chamfered+rounded T = chamfered ▼	Enter cutting material code ▼	5830	5860	5730	5750	4020	4040	4060	4080									
DNGA150602..N-70	C66 44700.02..	▲	▲	▲	▲	▲	▲	▲	▲	12,7	5,16	6,35	2,8	0,2				
DNGA150604..N-70	C66 44700.04..	▲	▲	▲	▲	▲	▲	▲	▲					0,4				
DNGA150608..N-70	C66 44700.08..	▲	▲	▲	▲	▲	▲	▲	▲					0,8				
DNGA150612..N-70	C66 44700.12..	▲	▲	▲	▲	▲	▲	▲	▲					1,2				
	More wear resistant ▲	5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials								
	More stable	5831	5861	5731	5751	4021	4041	4061	4081									

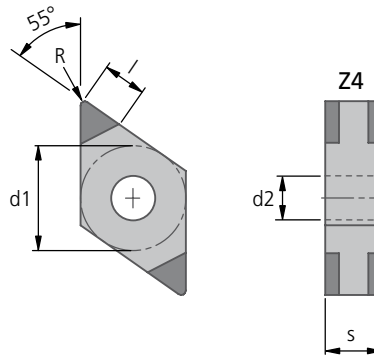
Recommended cutting data: page 167.

▲ Availability: for delivery see current price and stock list



Cutter geometry:

Wiper



Substrate		CBN													
Coating type		—	—	—	—	PVD	PVD	PVD	PVD	Order example: ISO Code DNGA150604TN-76W Cutting material CBN5830 Order No. C66 44760.045830					
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080						
Cutting edge design		T	T	T	S	T	T	T	S						
Sintered steel		P	●	●	●										
Cast iron		K		●	●										
Highly heat-resistant alloys		S		●	●	●	●	●	●						
Hardened materials		H				●	●	●	●						
ISO Code Cutting edge design S = chamfered+rounded T = chamfered	Order No. Enter cutting material code	●	●	●	●	●	●	●	●	For cutting conditions, see page 166					
		5830	5860	5730	5750	4020	4040	4060	4080						
DNGA150604..N-76W	C66 44760.04..	▲	▲	▲	▲	▲	▲	▲	▲	12,7	5,16	6,35	2,8	0,4	
DNGA150608..N-76W	C66 44760.08..	▲	▲	▲	▲	▲	▲	▲	▲					0,8	
More wear resistant	▲	5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials					
	More stable	5831	5861	5731	5751	4021	4041	4061	4081						

● continuous ● slight cut interruption, continuous with vibrations

● medium cut interruption ● heavy cut interruption

Important: See chapter 8 for more application details and safety notes !

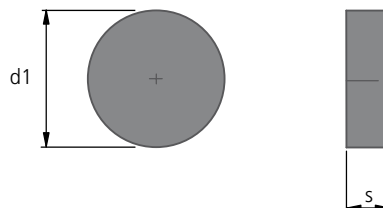
KOMET® ISO CBN Indexable inserts

RNGN

C67..60



Cutter geometry:



Substrate		CBN			
Coating type		–	PVD	Order example: ISO Code RNGN060300SN-60 Cutting material CBN5750 Order No. C67 17600.005750	
Cutting material designation		CBN5750	CBN4060		
Cutting edge design		S	T		
Sintered steel P					
Cast iron K					
Highly heat-resistant alloys S					
Hardened materials H					
ISO Code	Order No.			For cutting conditions, see page 166	
Cutting edge design S = chamfered+rounded T = chamfered	Enter cutting material code	5750	4060	d1	s
RNGN060300..N-60	C67 17600.00..	▲	▲	6,0	3,18
RNGN090300..N-60	C67 28600.00..	▲	▲	9,0	3,18
RNGN120300..N-60	C67 42600.00..	▲	▲	12,0	3,18
	More wear resistant	5749	4059	See pages 168-171 for a selection of CS cutting materials	
	More stable	5751	4061		

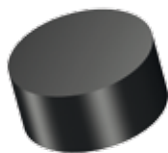
Recommended cutting data: page 167.

▲ Availability: for delivery see current price and stock list

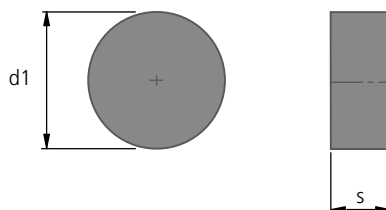
RNGN

KOMET® ISO CBN Indexable inserts

C68..60



Cutter geometry:



Substrate		CBN			
Coating type		—	PVD	Order example: ISO Code RNGN060400SN-60 Cutting material CBN5750 Order No. C68 17600.005750	
Cutting material designation		CBN5750	CBN4060		
Cutting edge design		S	T		
Sintered steel P					
Cast iron K					
Highly heat-resistant alloys S					
Hardened materials H					
ISO Code	Order No.			For cutting conditions, see page 166	
Cutting edge design S = chamfered+rounded T = chamfered ▼	Enter cutting material code ▼	5750	4060		
RNGN060400..N-60	C68 17600.00..	▲	▲	d1	s
RNGN090400..N-60	C68 28600.00..	▲	▲	6,0	4,76
RNGN120400..N-60	C68 42600.00..	▲	▲	9,0	4,76
				12,0	4,76
	More wear resistant ▲	5749	4059	See pages 168-171 for a selection of CS cutting materials	
	More stable	5751	4061		

- continuous ● slight cut interruption, continuous with vibrations
- ⚙ medium cut interruption ⚙ heavy cut interruption

Important: See chapter 8 for more application details and safety notes !

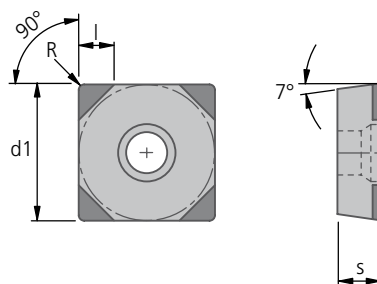
KOMET® ISO CBN Indexable inserts

SCGW

C83..69



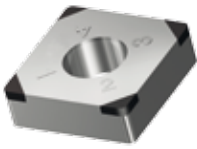
Cutter geometry:



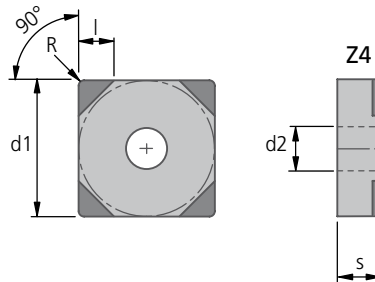
Substrate		CBN											
Coating type		—	—	—	—	PVD	PVD	PVD	PVD	Order example: ISO Code SCGW09T302TN-69 Cutting material CBN5830 Order No. C83 32690.025830			
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080				
Cutting edge design		T	T	T	S	T	T	T	S				
Sintered steel													
Cast iron													
Highly heat-resistant alloys													
Hardened materials													
ISO Code	Order No.	 	 	 	 					For cutting conditions, see page 166			
Cutting edge design S = chamfered+rounded T = chamfered	Enter cutting material code	5830	5860	5730	5750	4020	4040	4060	4080				
SCGW09T302..N-69	C83 32690.02..	▲	▲	▲	▲	▲	▲	▲	▲	9,525	3,97	2,8	0,2
SCGW09T304..N-69	C83 32690.04..	▲	▲	▲	▲	▲	▲	▲	▲				0,4
SCGW09T308..N-69	C83 32690.08..	▲	▲	▲	▲	▲	▲	▲	▲				0,8
SCGW120402..N-69	C83 44690.02..	▲	▲	▲	▲	▲	▲	▲	▲	12,7	4,76	2,8	0,2
SCGW120404..N-69	C83 44690.04..	▲	▲	▲	▲	▲	▲	▲	▲				0,4
SCGW120408..N-69	C83 44690.08..	▲	▲	▲	▲	▲	▲	▲	▲				0,8
SCGW120412..N-69	C83 44690.12..	▲	▲	▲	▲	▲	▲	▲	▲				1,2
	More wear resistant	▲	5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials		
	More stable		5831	5861	5731	5751	4021	4041	4061	4081			

Recommended cutting data: page 167.

▲ Availability: for delivery see current price and stock list



Cutter geometry:



Substrate		CBN													
Coating type		–	–	–	–	PVD	PVD	PVD	PVD	Order example: ISO Code SNGA120404TN-69 Cutting material CBN5830 Order No. C62 44690.045830					
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080						
Cutting edge design		T	T	T	S	T	T	T	S						
Sintered steel		P	●	●	●										
Cast iron		K		●	●										
Highly heat-resistant alloys		S		●	●										
Hardened materials		H				●	●	●	●						
ISO Code	Order No.	●	●	●	●	●	●	●	●	For cutting conditions, see page 166					
Cutting edge design S = chamfered+rounded T = chamfered	Enter cutting material code	5830	5860	5730	5750	4020	4040	4060	4080						
SNGA120404..N-69	C62 44690.04..	▲	▲	▲	▲	▲	▲	▲	▲						0,4
SNGA120408..N-69	C62 44690.08..	▲	▲	▲	▲	▲	▲	▲	▲	12,7	5,16	4,76	2,8		0,8
SNGA120412..N-69	C62 44690.12..	▲	▲	▲	▲	▲	▲	▲	▲						1,2
More wear resistant More stable	▲	5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials					
		5831	5861	5731	5751	4021	4041	4061	4081						

● continuous ● slight cut interruption, continuous with vibrations

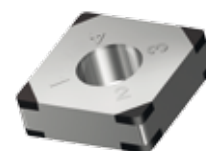
● medium cut interruption ● heavy cut interruption

Important: See chapter 8 for more application details and safety notes !

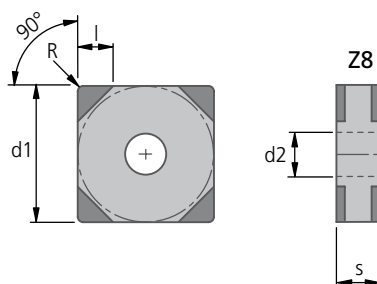
KOMET® ISO CBN Indexable inserts

SNGA

C62..70



Cutter geometry:



Substrate		CBN													
Coating type		–	–	–	–	PVD	PVD	PVD	PVD	Order example: ISO Code SNGA120404TN-70 Cutting material CBN5830 Order No. C62 44700.045830					
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080						
Cutting edge design		T	T	T	S	T	T	T	S						
Sintered steel		P													
Cast iron		K													
Highly heat-resistant alloys		S													
Hardened materials		H													
ISO Code	Order No.									For cutting conditions, see page 166					
Cutting edge design S = chamfered+rounded T = chamfered	Enter cutting material code	5830	5860	5730	5750	4020	4040	4060	4080						
SNGA120404..N-70	C62 44700.04..	▲	▲	▲	▲	▲	▲	▲	▲						0,4
SNGA120408..N-70	C62 44700.08..	▲	▲	▲	▲	▲	▲	▲	▲	12,7	5,16	4,76	2,8		0,8
SNGA120412..N-70	C62 44700.12..	▲	▲	▲	▲	▲	▲	▲	▲						1,2
More wear resistant		5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials					
	More stable	5831	5861	5731	5751	4021	4041	4061	4081						

Recommended cutting data: page 167.

▲ Availability: for delivery see current price and stock list

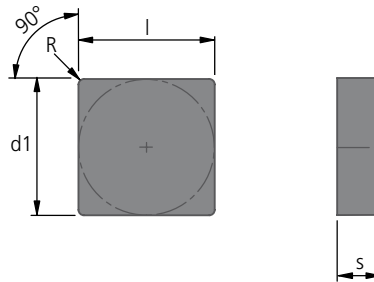
SNGN

KOMET® ISO CBN Indexable inserts

C62..60



Cutter geometry:



Substrate		CBN					
Coating type		—	PVD	Order example: ISO Code SNGN090304SN-60 Cutting material CBN5750 Order No. C62 32600.045750			
Cutting material designation		CBN5750	CBN4060				
Cutting edge design		S	T				
Sintered steel P							
Cast iron K							
Highly heat-resistant alloys S							
Hardened materials H							
ISO Code	Order No.			For cutting conditions, see page 166			
Cutting edge design S = chamfered+rounded T = chamfered ▼	Enter cutting material code ▼	5750	4060	d1	s	l	R
SNGN090304..N-60	C62 32600.04..	▲	▲	9,525	3,18	9,52	0,4
SNGN090308..N-60	C62 32600.08..	▲	▲				0,8
SNGN090312..N-60	C62 32600.12..	▲	▲				1,2
SNGN120404..N-60	C62 44600.04..	▲	▲	12,7	4,76	12,7	0,4
SNGN120408..N-60	C62 44600.08..	▲	▲				0,8
SNGN120412..N-60	C62 44600.12..	▲	▲				1,2
SNGN120416TN-60	C62 44600.16..	▲	▲				1,6
	More wear resistant ▲	5749	4059	See pages 168-171 for a selection of CS cutting materials			
	More stable	5751	4061				

● continuous ● slight cut interruption, continuous with vibrations

⚙ medium cut interruption ⚙ heavy cut interruption

Important: See chapter 8 for more application details and safety notes !

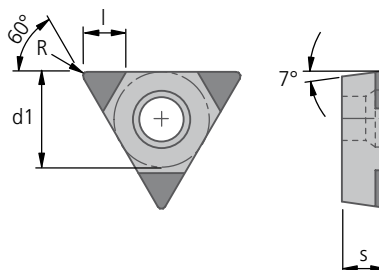
KOMET® ISO CBN Indexable inserts

TCGW

C84..69



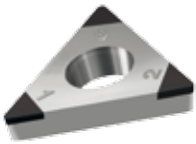
Cutter geometry:



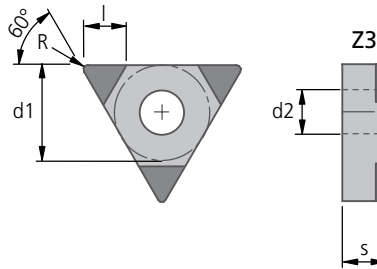
Substrate		CBN											
Coating type		—	—	—	—	PVD	PVD	PVD	PVD	Order example: ISO Code TCGW090202TN-69 Cutting material CBN5830 Order No. C84 13690.025830			
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080				
Cutting edge design		T	T	T	S	T	T	T	S				
Sintered steel		P											
Cast iron		K											
Highly heat-resistant alloys		S											
Hardened materials		H											
ISO Code	Order No.	5830	5860	5730	5750	4020	4040	4060	4080	For cutting conditions, see page 166			
Cutting edge design S = chamfered+rounded T = chamfered	Enter cutting material code	5830	5860	5730	5750	4020	4040	4060	4080				
TCGW090202..N-69	C84 13690.02..	▲	▲	▲	▲	▲	▲	▲	▲				0,2
TCGW090204..N-69	C84 13690.04..	▲	▲	▲	▲	▲	▲	▲	▲	5,56	2,38	2,8	0,4
TCGW090208..N-69	C84 13690.08..	▲	▲	▲	▲	▲	▲	▲	▲				0,8
TCGW110202..N-69	C84 18690.02..	▲	▲	▲	▲	▲	▲	▲	▲				0,2
TCGW110204..N-69	C84 18690.04..	▲	▲	▲	▲	▲	▲	▲	▲	6,35	2,38	2,8	0,4
TCGW110208..N-69	C84 18690.08..	▲	▲	▲	▲	▲	▲	▲	▲				0,8
TCGW16T302..N-69	C84 32690.02..	▲	▲	▲	▲	▲	▲	▲	▲				0,2
TCGW16T304..N-69	C84 32690.04..	▲	▲	▲	▲	▲	▲	▲	▲	9,525	3,97	2,8	0,4
TCGW16T308..N-69	C84 32690.08..	▲	▲	▲	▲	▲	▲	▲	▲				0,8
More wear resistant		5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials			
	More stable	5831	5861	5731	5751	4021	4041	4061	4081				

Recommended cutting data: page 167.

▲ Availability: for delivery see current price and stock list



Cutter geometry:



Substrate		CBN													
Coating type		—	—	—	—	PVD	PVD	PVD	PVD	Order example: ISO Code TNGA160402TN-69 Cutting material CBN5830 Order No. C63 32690.025830					
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080						
Cutting edge design		T	T	T	S	T	T	T	S						
Sintered steel 															
Cast iron 															
Highly heat-resistant alloys 															
Hardened materials 															
ISO Code	Order No.	 	 	 	 					For cutting conditions, see page 166					
Cutting edge design S = chamfered+rounded T = chamfered 	Enter cutting material code 	5830	5860	5730	5750	4020	4040	4060	4080						
TNGA160402..N-69	C63 32690.02..									9,525	3,81	4,76	2,8	0,2	
TNGA160404..N-69	C63 32690.04..													0,4	
TNGA160408..N-69	C63 32690.08..													0,8	
TNGA160412..N-69	C63 32690.12..													1,2	
	More wear resistant 	5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials					
	More stable	5831	5861	5731	5751	4021	4041	4061	4081						

● continuous ● slight cut interruption, continuous with vibrations

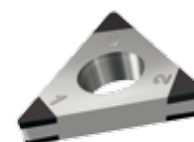
● medium cut interruption ● heavy cut interruption

Important: See chapter 8 for more application details and safety notes !

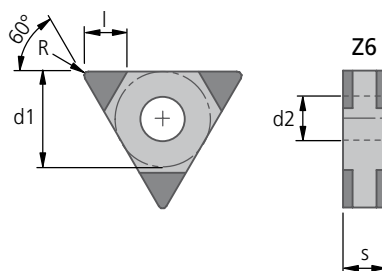
KOMET® ISO CBN Indexable inserts

TNGA

C63..70



Cutter geometry:



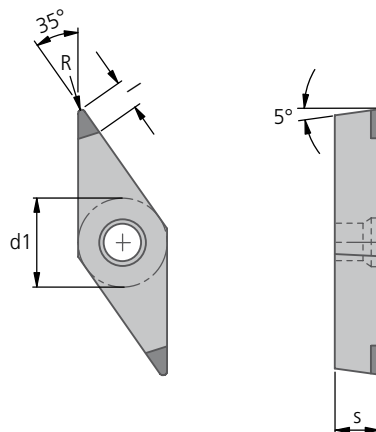
Substrate		CBN													
Coating type		–	–	–	–	PVD	PVD	PVD	PVD	Order example: ISO Code TNGA160402TN-70 Cutting material CBN5830 Order No. C63 32700.025830					
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080						
Cutting edge design		T	T	T	S	T	T	T	S						
Sintered steel		P													
Cast iron		K													
Highly heat-resistant alloys		S								For cutting conditions, see page 166					
Hardened materials		H													
ISO Code	Order No.									d1	d2	s	l	R	
Cutting edge design S = chamfered+rounded T = chamfered	Enter cutting material code	5830	5860	5730	5750	4020	4040	4060	4080	9,525	3,81	4,76	2,8	0,2	
TNGA160402..N-70	C63 32700.02..	▲	▲	▲	▲	▲	▲	▲	▲					0,4	
TNGA160404..N-70	C63 32700.04..	▲	▲	▲	▲	▲	▲	▲	▲					0,8	
TNGA160408..N-70	C63 32700.08..	▲	▲	▲	▲	▲	▲	▲	▲					1,2	
TNGA160412..N-70	C63 32700.12..	▲	▲	▲	▲	▲	▲	▲	▲						
	More wear resistant	5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials					
	More stable	5831	5861	5731	5751	4021	4041	4061	4081						

Recommended cutting data: page 167.

▲ Availability: for delivery see current price and stock list



Cutter geometry:



Substrate		CBN											
Coating type		—	—	—	—	PVD	PVD	PVD	PVD	Order example: ISO Code VBGW070202TN-69 Cutting material CBN5830 Order No. C79 03690.025830			
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080				
Cutting edge design		T	T	T	S	T	T	T	S				
Sintered steel		P											
Cast iron		K											
Highly heat-resistant alloys		S											
Hardened materials		H											
ISO Code	Order No.	●	●	●	●	●	●	●	●	For cutting conditions, see page 166			
Cutting edge design S = chamfered+rounded T = chamfered	Enter cutting material code	5830	5860	5730	5750	4020	4040	4060	4080				
VBGW070202..N-69	C79 03690.02..	▲	▲	▲	▲					3,97	2,38	2,8	0,2
VBGW070204..N-69	C79 03690.04..	▲	▲	▲	▲								0,4
VBGW110202..N-69	C79 18690.02..	▲	▲	▲	▲	▲	▲	▲	▲				0,2
VBGW110204..N-69	C79 18690.04..	▲	▲	▲	▲	▲	▲	▲	▲	6,35	2,38	2,8	0,4
VBGW110208..N-69	C79 18690.08..	▲	▲	▲	▲	▲	▲	▲	▲				0,8
VBGW160402..N-69	C79 32690.02..	▲	▲	▲	▲	▲	▲	▲	▲				0,2
VBGW160404..N-69	C79 32690.04..	▲	▲	▲	▲	▲	▲	▲	▲				0,4
VBGW160408..N-69	C79 32690.08..	▲	▲	▲	▲	▲	▲	▲	▲	9,525	4,76	2,8	0,8
VBGW160412..N-69	C79 32690.12..	▲	▲	▲	▲	▲	▲	▲	▲				1,2
More wear resistant		5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials			
	More stable	5831	5861	5731	5751	4021	4041	4061	4081				

● continuous ● slight cut interruption, continuous with vibrations

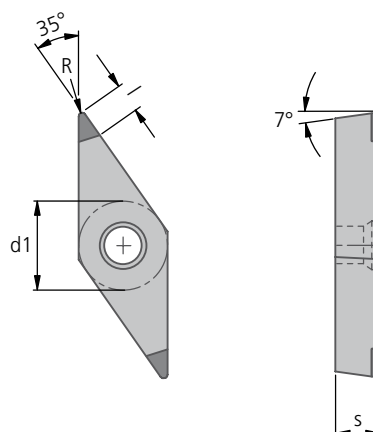
● medium cut interruption ● heavy cut interruption

Important: See chapter 8 for more application details and safety notes !

C89..69



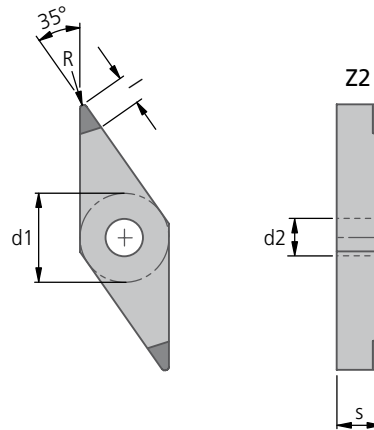
Cutter geometry:



Substrate		CBN											
Coating type		—	—	—	—	PVD	PVD	PVD	PVD	Order example: ISO Code VCGW070202TN-69 Cutting material CBN5830 Order No. C89 03690.025830			
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080				
Cutting edge design		T	T	T	S	T	T	T	S				
Sintered steel		P											
Cast iron		K											
Highly heat-resistant alloys		S								For cutting conditions, see page 166			
Hardened materials		H											
ISO Code	Order No.									d1	s	l	R
Cutting edge design S = chamfered+rounded T = chamfered	Enter cutting material code	5830	5860	5730	5750	4020	4040	4060	4080				
VCGW070202..N-69	C89 03690.02..	▲	▲	▲	▲	▲	▲	▲	▲	3,97	2,38	2,8	0,2
VCGW070204..N-69	C89 03690.04..	▲	▲	▲	▲	▲	▲	▲	▲				0,4
VCGW110202..N-69	C89 18690.02..	▲	▲	▲	▲	▲	▲	▲	▲	6,35	2,38	2,8	0,2
VCGW110204..N-69	C89 18690.04..	▲	▲	▲	▲	▲	▲	▲	▲				0,4
VCGW110208..N-69	C89 18690.08..	▲	▲	▲	▲	▲	▲	▲	▲	9,525	4,76	2,8	0,8
VCGW160402..N-69	C89 32690.02..	▲	▲	▲	▲	▲	▲	▲	▲				0,2
VCGW160404..N-69	C89 32690.04..	▲	▲	▲	▲	▲	▲	▲	▲				0,4
VCGW160408..N-69	C89 32690.08..	▲	▲	▲	▲	▲	▲	▲	▲				0,8
VCGW160412..N-69	C89 32690.12..	▲	▲	▲	▲	▲	▲	▲	▲				1,2
	More wear resistant	5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials			
	More stable	5831	5861	5731	5751	4021	4041	4061	4081				



Cutter geometry:



Substrate		CBN													
Coating type		—	—	—	—	PVD	PVD	PVD	PVD	Order example: ISO Code VNGA160402TN-69 Cutting material CBN5830 Order No. C69 32690.025830					
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080						
Cutting edge design		T	T	T	S	T	T	T	S						
Sintered steel 															
Cast iron 															
Highly heat-resistant alloys 															
Hardened materials 															
ISO Code	Order No.	 	 	 	 					For cutting conditions, see page 166					
Cutting edge design S = chamfered+rounded T = chamfered 	Enter cutting material code 	5830	5860	5730	5750	4020	4040	4060	4080						
VNGA160402..N-69	C69 32690.02..									9,525	3,81	4,76	2,8	0,2	
VNGA160404..N-69	C69 32690.04..													0,4	
VNGA160408..N-69	C69 32690.08..													0,8	
VNGA160412..N-69	C69 32690.12..													1,2	
	More wear resistant 	5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials					
	More stable	5831	5861	5731	5751	4021	4041	4061	4081						

● continuous ● slight cut interruption, continuous with vibrations

⚙ medium cut interruption ⚙ heavy cut interruption

Important: See chapter 8 for more application details and safety notes !

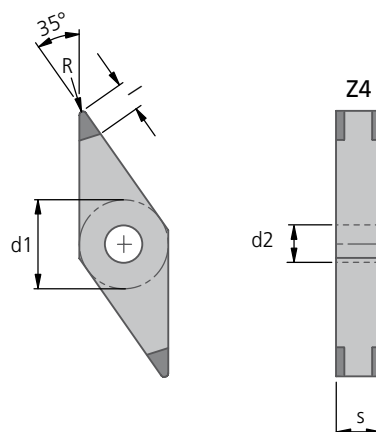
KOMET® ISO CBN Indexable inserts

VNGA

C69..70



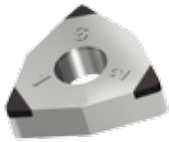
Cutter geometry:



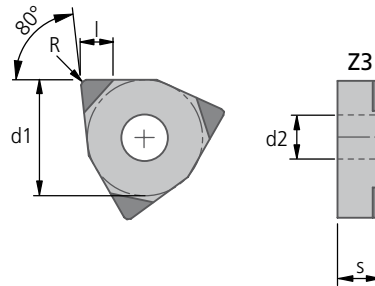
Substrate		CBN													
Coating type		—	—	—	—	PVD	PVD	PVD	PVD	Order example: ISO Code VNGA160402TN-70 Cutting material CBN5830 Order No. C69 32700.025830					
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080						
Cutting edge design		T	T	T	S	T	T	T	S						
Sintered steel		P	●	●	●										
Cast iron		K		●	●										
Highly heat-resistant alloys		S		●	●										
Hardened materials		H				●	●	●	●						
ISO Code	Order No.									For cutting conditions, see page 166					
Cutting edge design S = chamfered+rounded T = chamfered ▼	Enter cutting material code ▼	5830	5860	5730	5750	4020	4040	4060	4080						
VNGA160402..N-70	C69 32700.02..	▲	▲	▲	▲	▲	▲	▲	▲	9,525	3,81	4,76	2,8	0,2	
VNGA160404..N-70	C69 32700.04..	▲	▲	▲	▲	▲	▲	▲	▲					0,4	
VNGA160408..N-70	C69 32700.08..	▲	▲	▲	▲	▲	▲	▲	▲					0,8	
VNGA160412..N-70	C69 32700.12..	▲	▲	▲	▲	▲	▲	▲	▲					1,2	
	More wear resistant ▲	5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials					
	More stable	5831	5861	5731	5751	4021	4041	4061	4081						

Recommended cutting data: page 167.

▲ Availability: for delivery see current price and stock list



Cutter geometry:



Substrate		CBN													
Coating type		—	—	—	—	PVD	PVD	PVD	PVD	Order example: ISO Code WNGA080402TN-69 Cutting material CBN5830 Order No. C70 44690.025830					
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080						
Cutting edge design		T	T	T	S	T	T	T	S						
Sintered steel P		●	●												
Cast iron K				●	●										
Highly heat-resistant alloys S				●	●										
Hardened materials H						●	●	●	●	For cutting conditions, see page 166					
ISO Code	Order No.														
Cutting edge design S = chamfered+rounded T = chamfered	Enter cutting material code	5830	5860	5730	5750	4020	4040	4060	4080	d1	d2	s	l	R	
WNGA080402..N-69	C70 44690.02..	▲	▲	▲	▲	▲	▲	▲	▲	12,7	5,16	4,76	2,8	0,2	
WNGA080404..N-69	C70 44690.04..	▲	▲	▲	▲	▲	▲	▲	▲					0,4	
WNGA080408..N-69	C70 44690.08..	▲	▲	▲	▲	▲	▲	▲	▲					0,8	
WNGA080412..N-69	C70 44690.12..	▲	▲	▲	▲	▲	▲	▲	▲					1,2	
	More wear resistant	5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials					
	More stable	5831	5861	5731	5751	4021	4041	4061	4081						

● continuous ● slight cut interruption, continuous with vibrations

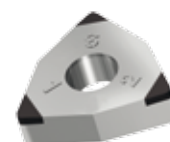
● medium cut interruption ● heavy cut interruption

Important: See chapter 8 for more application details and safety notes !

KOMET® ISO CBN Indexable inserts

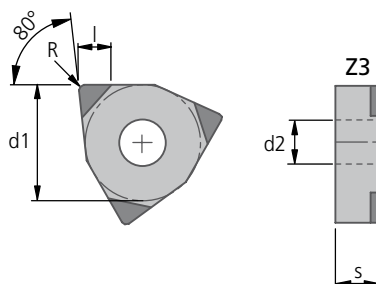
WNGA

C70..75



Cutter geometry:

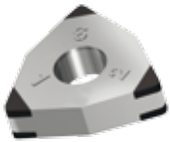
Wiper



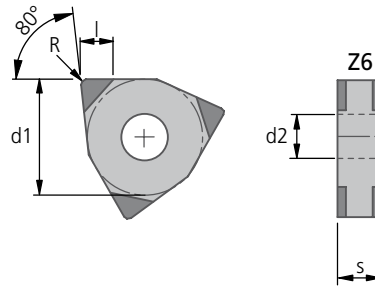
Substrate		CBN													
Coating type		–	–	–	–	PVD	PVD	PVD	PVD	Order example: ISO Code WNGA080404TN-75W Cutting material CBN5830 Order No. C70 44750.045830					
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080						
Cutting edge design		T	T	T	S	T	T	T	S						
Sintered steel		P	●	●	●										
Cast iron		K		●	●										
Highly heat-resistant alloys		S		●	●										
Hardened materials		H				●	●	●	●						
ISO Code	Order No.	●	●	●	●	●	●	●	●	For cutting conditions, see page 166					
Cutting edge design S = chamfered+rounded T = chamfered	Enter cutting material code	5830	5860	5730	5750	4020	4040	4060	4080						
WNGA080404..N-75W	C70 44750.04..	▲	▲	▲	▲	▲	▲	▲	▲						0,4
WNGA080408..N-75W	C70 44750.08..	▲	▲	▲	▲	▲	▲	▲	▲	12,7	5,16	4,76	2,8		0,8
WNGA080412..N-75W	C70 44750.12..	▲	▲	▲	▲	▲	▲	▲	▲						1,2
More wear resistant	▲	5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials					
	More stable	5831	5861	5731	5751	4021	4041	4061	4081						

Recommended cutting data: page 167.

▲ Availability: for delivery see current price and stock list



Cutter geometry:



Substrate		CBN													
Coating type		—	—	—	—	PVD	PVD	PVD	PVD	Order example: ISO Code WNGA080402TN-70 Cutting material CBN5830 Order No. C70 44700.025830					
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080						
Cutting edge design		T	T	T	S	T	T	T	S						
Sintered steel P															
Cast iron K															
Highly heat-resistant alloys S										For cutting conditions, see page 166					
Hardened materials H															
ISO Code	Order No.	 	 	 	 										
Cutting edge design S = chamfered+rounded T = chamfered ▼	Enter cutting material code ▼	5830	5860	5730	5750	4020	4040	4060	4080	d1	d2	s	l	R	
WNGA080402..N-70	C70 44700.02..	▲	▲	▲	▲	▲	▲	▲	▲	12,7	5,16	4,76	2,8	0,2	
WNGA080404..N-70	C70 44700.04..	▲	▲	▲	▲	▲	▲	▲	▲					0,4	
WNGA080408..N-70	C70 44700.08..	▲	▲	▲	▲	▲	▲	▲	▲					0,8	
WNGA080412..N-70	C70 44700.12..	▲	▲	▲	▲	▲	▲	▲	▲					1,2	
	More wear resistant ▲	5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials					
	More stable	5831	5861	5731	5751	4021	4041	4061	4081						

● continuous ● slight cut interruption, continuous with vibrations

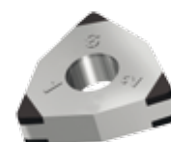
● medium cut interruption ● heavy cut interruption

Important: See chapter 8 for more application details and safety notes !

KOMET® ISO CBN Indexable inserts

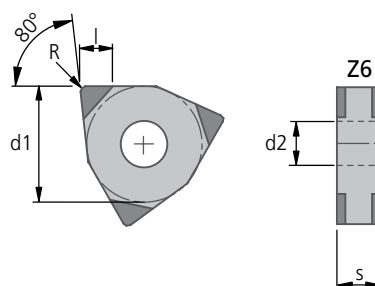
WNGA

C70..76



Cutter geometry:

Wiper



Substrate		CBN													
Coating type		–	–	–	–	PVD	PVD	PVD	PVD	Order example: ISO Code WNGA080404TN-76W Cutting material CBN5830 Order No. C70 44760.045830					
Cutting material designation		CBN5830	CBN5860	CBN5730	CBN5750	CBN4020	CBN4040	CBN4060	CBN4080						
Cutting edge design		T	T	T	S	T	T	T	S						
Sintered steel		P	●	●	●										
Cast iron		K		●	●										
Highly heat-resistant alloys		S		●	●										
Hardened materials		H				●	●	●	●						
ISO Code	Order No.	●	●	●	●	●	●	●	●	For cutting conditions, see page 166					
Cutting edge design S = chamfered+rounded T = chamfered	Enter cutting material code	5830	5860	5730	5750	4020	4040	4060	4080						
WNGA080404..N-76W	C70 44760.04..	▲	▲	▲	▲	▲	▲	▲	▲						0,4
WNGA080408..N-76W	C70 44760.08..	▲	▲	▲	▲	▲	▲	▲	▲	12,7	5,16	4,76	2,8		0,8
WNGA080412..N-76W	C70 44760.12..	▲	▲	▲	▲	▲	▲	▲	▲						1,2
More wear resistant	▲	5829	5859	5729	5749	4019	4039	4059	4079	See pages 168-171 for a selection of CS cutting materials					
	More stable	5831	5861	5731	5751	4021	4041	4061	4081						

Recommended cutting data: page 167.

▲ Availability: for delivery see current price and stock list

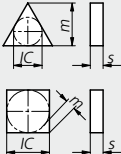
ISO Codes for inserts

W	N	M	G	0	8	0	4	0	8	F	L	–	0	1
1	2	3	4	5	6	7	8	9	10	11	12		13	14
Form	Clearance angle	Tolerance	Type	Cutting edge length		Thickness		Corner radius		Cutting edge	Cutting direction		Topography	

Form		
1		
A		85°
C		80° / 100°
D		55°
E		75°
H		120°
L		90°
O		135°
R		90°
S		90°
T		60°
V		35°
W		80°
X	special design	

Clearance angle	
2	
B	 5°
C	 7°
D	 15°
E	 20°
N	 0°
O	 according to manufacturer specification
P	 11°

Tolerance			
3			
	<i>m</i>	<i>s</i>	<i>IC</i>
A	±0,005	±0,025	±0,025
C	±0,013	±0,025	±0,025
E	±0,025	±0,025	±0,025
G	±0,025	±0,13	±0,025
H	±0,013	±0,025	±0,013
K	±0,013	±0,025	±0,05...±0,15
L	±0,025	±0,025	±0,05...±0,15
M	±0,08...±0,18 ¹⁾	±0,13	±0,05...±0,13 ¹⁾
U	±0,13...±0,38 ¹⁾	±0,13	±0,08...±0,25 ¹⁾



¹⁾ Tolerance in mm: class M / U

Ø <i>IC</i>	at <i>m</i> Class M	at <i>m</i> Class U	at <i>IC</i> Class M	at <i>IC</i> Class U
6,35	±0,08	±0,13	d±0,05	±0,08
9,52	±0,08	±0,13	d±0,05	±0,08
12,70	±0,13	±0,20	±0,08	±0,13
15,87	±0,15	±0,27	±0,10	±0,18
19,05	±0,15	±0,27	±0,10	±0,18
25,40	±0,18	±0,38	±0,13	±0,25

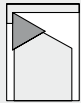
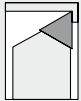
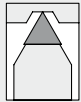
Type	
4	
A	 no chipformer, with hole
B	 no chipformer, countersunk hole 70-90°
G	 chipformer both sides, with hole
H	 chipformer on one side, countersunk hole 70-90°
M	 chipformer on one side, with hole
N	 no chipformer, no hole
P	 neg/pos. one or two sides, with hole
R	 chipformer on one side, no hole
T	 chipformer on one side, countersunk hole 40-60°
U	 chipformer both sides, with countersunk hole
W	 no chipformer, countersunk hole 40-60°
X	special design, drawing required

Cutting edge length										
5 - 6										
IC mm	A	C	D	E	H	L	R	S	T	V
3,97									06	07
4,76		04								
4,80						06				03
5,00							05			
5,56		05						05	09	
6,00							06			
6,35	10	06	07					06	11	11
7,00							07			
7,25						09				
7,94		08						07	13	13
8,00	12						08	08	14	
9,00							09			05
9,52		09	11			12		09	16	16
10,00							10			06
11,10	16									
11,40								11		
12,00				12			12			08
12,70		12	15					12	22	08
15,00										10
15,88								15	27	
16,00							16			
16,30					06					
17,60										12
19,05		19						19	33	13
20,00							20			
25,00							25			
25,40								25		

Thickness	
7 - 8	
T0	1,20 mm
01	1,59 mm
T1	1,80 / 1,98 mm
02	2,38 mm
T2	2,97 mm 
03	3,18 mm 
T3	3,97 mm 
04	4,76 mm
05	5,56 mm
06	6,35 mm
07	7,94 mm

Corner radius	
9 - 10	
00	0,0 mm
01	0,1 mm
02	0,2 mm
03	0,3 mm
04	0,4 mm
05	0,5 mm
06	0,6 mm
08	0,8 mm
10	1,0 mm
12	1,2 mm
16	1,6 mm
20	2,0 mm
24	2,4 mm
MO	IC for round insert
ZZ	Face cutting edge

Cutting edge	
11	
E	 rounded
F	 sharp
S	 chamfered and rounded
T	 chamfered (negative)

Cutting direction	
12	
R	 R.H.
L	 L.H.
N	 R.H. and L.H.

Topography	
13 - 14	
-01	
-05	
-11	
-13	
-14	
-15	
-21	
...	

Numerical coding for W... inserts

W	2	9	2	4	0	1	0	.	0	4	8	4	2	5
1	2	3	4	5	6	7	8		9	10	11	12	13	14
Main group	Type Form		Size IC		Topography		Index		Corner radius		Cutting material code			

Type Form						
2 - 3						
				Version	peripheral	Clearance angle, other
00	W... Unisix®		84°	standard	ground	
01	W... Unisix®		84°	strengthened	ground	
04	W... Unisix®		84°	6 edged	ground	0°
05	W... Unisix®		84°	6 edged	ground	0°, wide flute
24	W... Unisix®		95°	strengthened	sintered	
25	W... Unisix®		84°	standard	sintered	
27	W... Unisix®		95°	strengthened	ground	
28	W... Unisix®		84°	standard	ground	
29	W... Unisix®		84°	strengthened		
30	T...		60°		ground	8°
32	T...		60°		ground	11°
34	T...		60°	strengthened	ground	
36	T...		60°	6 edged	ground	0°
37	T...		60°		ground	20°
57	T...		60°		ground	11°
58	T...		60°		ground	IC tolerance ±0,025
59	T...		60°	strengthened	ground	
60	D...		55°		ground	
78	V...		35°		ground	
79	D...		55°		ground	
80	S...		90°		sintered	
82	S...		90°		ground	
83	S...		90°		sintered	

Size IC			
4 - 5			
			
03	3,97 mm	26	8,2 mm
04	4,0 mm	28	8,9 mm
10	4,8 mm 5,0 mm	32	9,52 mm 9,8 mm
12	5,5 mm	34	10,0 mm
13	5,56 mm	38	10,9 mm 11,1 mm
14	5,6 mm	42	12,0 mm
17	6,0 mm	44	12,7 mm
18	6,2 mm 6,35 mm	46	13,2 mm
20	7,0 mm 7,1 mm	50	15,0 mm
22	7,7 mm	53	15,88 mm
23	7,94 mm	58	17,6 mm
24	8,0 mm	62	19,05 mm

Topography	
6 - 7	
Code ground	Code sintered
00 L.H. cutting, neutral	00 Double chip groove (PD), cutting edge rounded
06 L.H. cutting, 6°	01 Double chip groove (K), cutting edge chamfered and rounded
12 L.H. cutting, 12°	02 Step geometry (KS), cutting edge chamfered and rounded
15 L.H. cutting, 15°	03 Dimple geometry (KX), cutting edge rounded
18 L.H. cutting, 18°	04 Finished geometry
20 L.H. cutting, 20°	05 10° chip groove (T), cutting edge rounded
30 R.H. cutting, neutral	06 12° chip groove (C), cutting edge rounded
36 R.H. cutting, 6°	07 Finished geometry
42 R.H. cutting, 12°	10 Shank geometry, cutting edge chamfered and rounded
45 R.H. cutting, 15°	11 20° chip groove, cutting edge rounded
48 R.H. cutting, 18°	12 AI / finished geometry
50 R.H. cutting, 20°	13 Shank geometry, cutting edge rounded
60 neutral	14 Finishing-Topographie
66 3x ground, 6°	15 Semi-finishing Topographie
70 3x ground, 10°	16 Semi-finishing Topographie with "Wiper" corner
72 3x ground, 12°	17 22° Topographie / tangential insert
80 3x ground, 20°	18 Finishing-Topographie with "Wiper" corner
82 L.H. cutting, 12°, sharp-edged	20 Universal topography 8° top rake
83 R.H. cutting, 12°, sharp-edged	21 20° Highly positive "Technology 21"
94 neutral, bright complete, L.H. + R.H. cutting	32 peripheral ground with minimal burring
98 bright with flute on corner, L.H. + R.H. cutting	33 peripheral sintered with minimal burring
99 neutral, bright on corner, L.H. + R.H. cutting	

Corner radius			
9 - 10			
			
01	R 0,1	06	R 0,6
02	R 0,2	08	R 0,8
03	R 0,3	10	R 1,0
04	R 0,4	12	R 1,2
05	R 0,5	16	R 1,6
30	U8.00 R 0		
31	UF		
32	US		
33	U8.77 15° clearance angle additional cutting edge form for Unisix® milling cutter inserts		
34	F / KUF 90°		
35	F / KUF 75°		
36	F / KUF 60°		
39	R 0,05		
40	45° corner for chamfering cartridge		
75	Support chamfer 75° L.H.		
90	Support chamfer 90° L.H.		

Numerical coding for C... inserts

C	8	6	3	2	9	9	0	.	0	4	5	6	0	5
1	2	3	4	5	6	7	8		9	10	11	12	13	14
Main group	Type Form		Size IC		Topography		Index		Corner radius		Cutting material code			

Type Form				
2 - 3				
53	S...		90°	0°
54	R...			0°
55	R...			0°
62	S...		90°	0°
63	T...		60°	0°
64	C...		80°	0°
65	D...		55°	0°
66	D...		55°	0°
67	R...			0°
68	R...			0°
69	V...		35°	0°
70	W...		80°	0°
79	V...		35°	5°
83	S...		90°	7°
84	T...		60°	7°
85	C...		80°	7°
86	D...		55°	7°
87	R...			7°
88	R...			7°
89	V...		35°	7°
90	W...		80°	7°
93	S...		90°	11°
94	T...		60°	11°
95	C...		80°	11°
96	D...		55°	11°
98	R...			15°
00	W...		80°	11°

Size IC			
4 - 5			
03	3,97 mm	28	8,9 mm
13	5,56 mm	32	9,52 / 9,8 mm
17	6,0 mm	42	12,0 mm
18	6,2 / 6,35 mm	44	12,7 mm

Corner radius			
9 - 10			
01	R 0,1	06	R 0,6
02	R 0,2	08	R 0,8
03	R 0,3	10	R 1,0
04	R 0,4	12	R 1,2
05	R 0,5	16	R 1,6

Topography	
6 - 7	
01	Roughing operations Universal
05	Iron casting roughing and semi-machining operations
12	Semi-machining operations Highly positive (NF metal)
14	Finishing operations Chip control
15	Semi-finishing Chip control
60	Solid CBN
63	Triangular blank L+R (tipped), double sided, only 1 edge tipped
64	Triangular blank L+R (tipped), double sided, only 1 edge tipped; chip breaker for finishing
65	Triangular blank L+R (tipped), double sided, only 1 edge tipped; chip breaker for roughing
66	Triangular blank L+R (tipped), double sided, only 1 edge tipped; Wiper
67	Triangular blank L+R (tipped), double sided, only 1 edge tipped; Wiper + chip breaker for finishing
68	Triangular blank L+R (tipped), double sided, only 1 edge tipped; Wiper + chip breaker for roughing
69	Triangular blank L+R (tipped), single-sided, all edges tipped
70	Triangular blank L+R (tipped), double-sided, all edges tipped
71	Triangular blank L+R (tipped), single-sided, all edges tipped; chip breaker for finishing
72	Triangular blank L+R (tipped), double-sided, all edges tipped; chip breaker for finishing
73	Triangular blank L+R (tipped), single-sided, all edges tipped; chip breaker for roughing
74	Triangular blank L+R (tipped), double-sided, all edges tipped; chip breaker for roughing
75	Triangular blank L+R (tipped), single-sided, all edges tipped; Wiper
76	Triangular blank L+R (tipped), double-sided, all edges tipped; Wiper
77	Triangular blank L+R (tipped), single-sided, all edges tipped; Wiper + chip breaker for finishing
78	Triangular blank L+R (tipped), double-sided, all edges tipped; Wiper + chip breaker for finishing
79	Triangular blank L+R (tipped), single-sided, all edges tipped; Wiper + chip breaker for roughing
80	Triangular blank L+R (tipped), double-sided, all edges tipped; Wiper + chip breaker for roughing
81	Long blank L and R/L, full cutting edge (full edge) positive rake angle
84	Long blank L and R/L + 3D chip breaker for finishing
85	Long blank R + 3D chip breaker for finishing
86	Long blank L and R/L + 3D chip breaker for roughing
87	Long blank R + 3D chip breaker for roughing
88	Complete rake face R/L (full face)
89	Complete rake face R/L (full face) + 3D chip breaker for finishing
90	Complete rake face R/L (full face) + 3D chip breaker for roughing
91	Triangular blank L+R (tipped) Wiper
92	Triangular blank L+R (tipped) Wiper + 3D chip breaker for finishing
93	Triangular blank L+R (tipped) Wiper + 3D chip breaker for roughing
94	Long blank L and R/L, full cutting edge (full edge)
95	Long blank R, full cutting edge (full edge)
96	Triangular blank L+R (tipped) 3D chip breaker for finishing
97	Triangular blank L+R (tipped) 3D chip breaker for roughing
98	Triangular blank L+R (tipped) positive rake angle
99	Triangular blank L+R (tipped)

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KOMET® Adaptors

Perfecting the connection

1



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With our comprehension programme of tool adaptors we have the right answer for every requirement. Adaptors with connections specified by manufacturers available on request.

BENEFITS for you:

- Maximum tool change accuracy
- Perfect static rigidity
- High radial rigidity
- Short tool change times
- Ideal dimensions
- Low weight



KOMET® Adaptor

Page

HSK-A Adaptor ISO 12164-1

Boring bar holder 210

ABS® Adaptor

Adaptor for turning tool 211

VDI Adaptor

Adaptor NC..10 212

Adaptor NC..20 213

Torsional dampener NC..20 214

Cylindrical adaptor

Adaptor ABS® N 215


Symbols

Machine adaptor
Connection on machine side

Balancing note (chapter 7)
Balance as despatched

Coolant supply

Concentricity

Lightweight

Vibration dampening
torsion damping | bending vibration

adjustable
radially | axially

Tool holder
Connection on tool side

1



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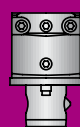
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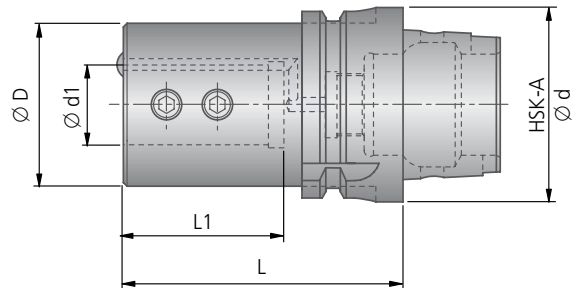


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KOMET® ISO 12164-1

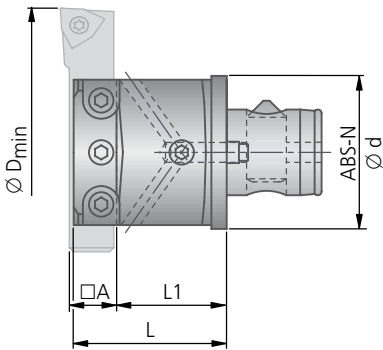
HSK-A Boring bar holder



HSK-A DIN 69893 T1 BA							
Article	Order No.	HSK-A Ø d	Ø d1	Ø D	L	L1	kg
HSK-A63-BA10	A06 34610	63	10	38	51	22	0,84
HSK-A63-BA12	A06 34620	63	12	40	56	27	0,90
HSK-A63-BA16	A06 34630	63	16	44	64	35	1,03
HSK-A63-BA20	A06 34640	63	20	53	71	41	1,30
HSK-A63-BA25	A06 34650	63	25	57	81	50	1,48
HSK-A63-BA32	A06 34660	63	32	70	96	66	2,10

Supply includes:
Boring bar holder mounted complete. Please order coolant supply connection and key separately (chapter 7).

Adaptor with ABS® N connection

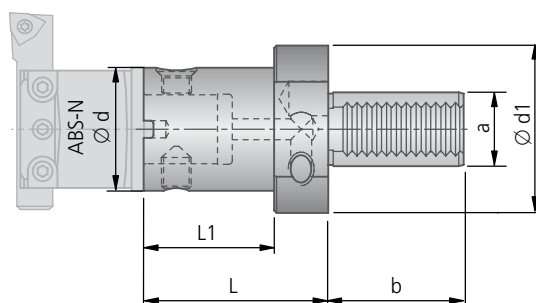


ABS® N								
Order No.	ABS-N Ø d	Ø D min.	L	L1	□ A		Threaded pin DIN 915	
							Article	Order No.
A36 33050	40	60	40	29	12		M6x12	55053 06012
A36 34050	50	75	50	36	16		M8x20	55053 08020
A36 35050	63	95	63	45	20		M10x20	55053 10020
A36 36050	80	120	80	58	25		M12x25	55053 12025
A36 37050	100	150	100	72	32		M16x30	55053 16030

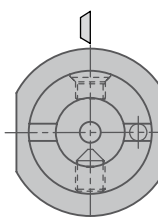
Supply includes: Adaptor fitted complete, inclusive threaded pin.

KOMET ABS® N NC..10

VDI Adaptor with ABS® N connection



Cutter position for
L. H. cutting turning tools

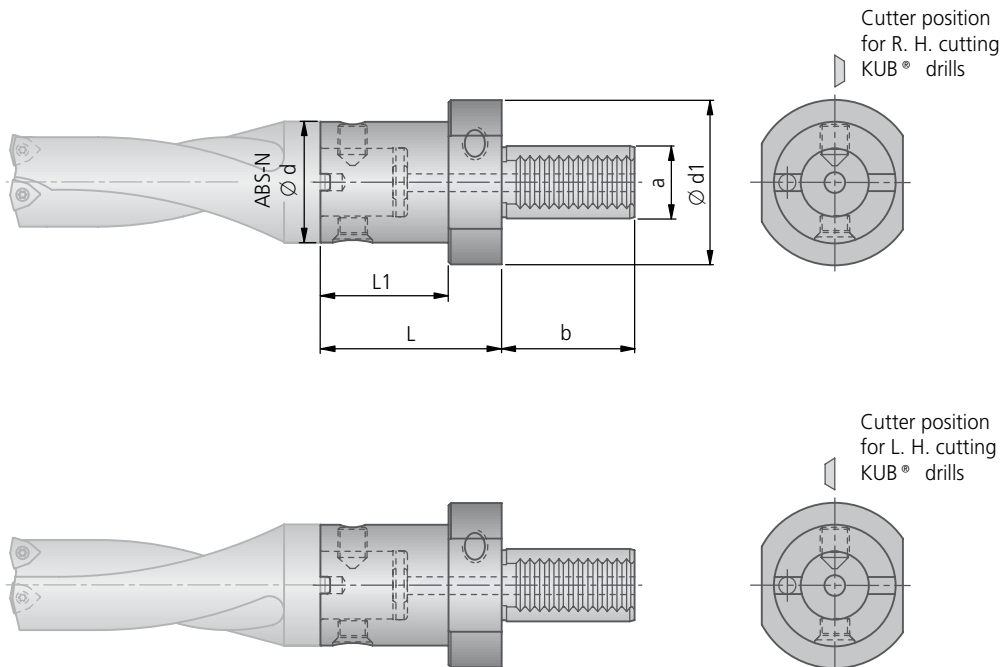
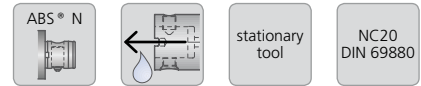


For using KUB® drills
we recommend the adaptor NC..20.

ABS® N NC..10

Article	Order No.	ABS-N Ø d	L	L1	a	b	Ø d1	kg
ABS50N-NC3010	A01 10151	50	60	38	30	55	68	1,33
ABS40N-NC4010	A01 10241	40	50	25	40	63	83	1,67
ABS50N-NC4010	A01 10251	50	60	38	40	63	83	1,90
ABS63N-NC4010	A01 10261	63	70	48	40	63	83	2,40
ABS80N-NC4010	A01 10271	80	75	53	40	63	83	2,98
ABS50N-NC5010	A01 10351	50	65	35	50	78	98	3,06
ABS63N-NC5010	A01 10361	63	75	45	50	78	98	3,06
ABS80N-NC5010	A01 10371	80	75	45	50	78	98	3,87
ABS50N-NC6010	A01 10451	50	65	35	60	94	123	4,80
ABS63N-NC6010	A01 10461	63	75	45	60	94	123	5,24
ABS80N-NC6010	A01 10471	80	75	45	60	94	123	5,63

VDI Adaptor with ABS® N connection



NC..20 ABS® N								
Article	Order No.	ABS-N Ø d	L	L1	a	b	Ø d1	kg
ABS50N-NC3020	A01 11152	50	60	38	30	55	68	1,33
ABS50N-NC4020	A01 11252	50	60	38	40	63	83	1,89
ABS63N-NC4020	A01 11262	63	70	48	40	63	83	2,35
ABS80N-NC4020	A01 11271	80	75	53	40	63	83	2,97
ABS50N-NC5020	A01 11352	50	65	35	50	78	98	3,06
ABS63N-NC5020	A01 11362	63	75	45	50	78	98	3,51
ABS80N-NC5020	A01 11372	80	75	45	50	78	98	3,86
ABS50N-NC6020	A01 11452	50	65	35	60	94	123	4,82
ABS63N-NC6020	A01 11462	63	75	45	60	94	123	5,24
ABS80N-NC6020	A01 11472	80	75	45	60	94	123	5,61
ABS100N-NC6020	A01 11482	100	90	60	60	94	123	7,00

Note:

When adjusting the KUB® drill in + X direction, use this adaptor.

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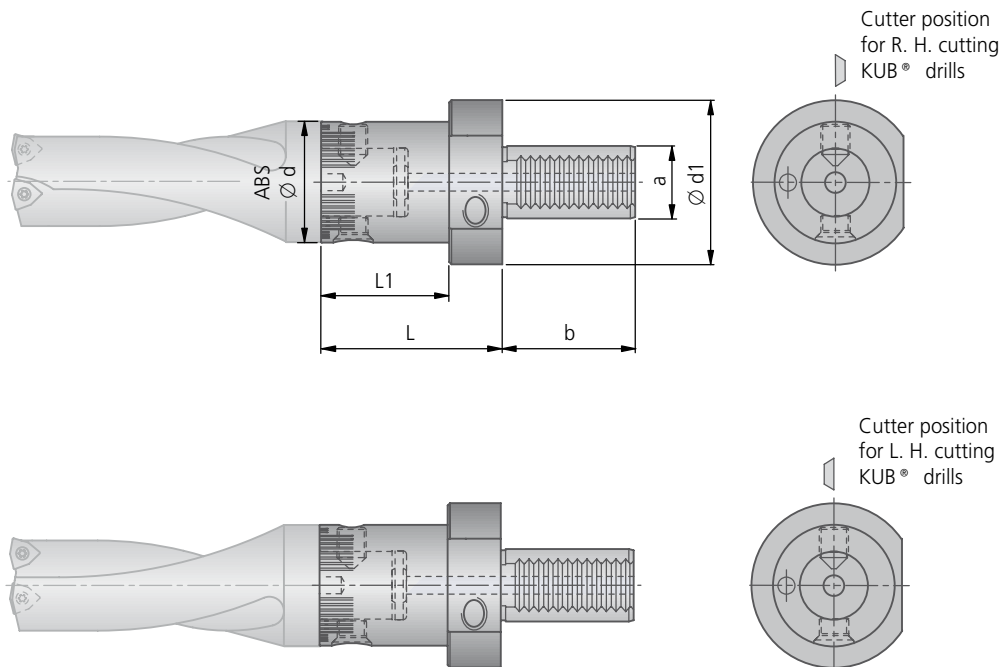
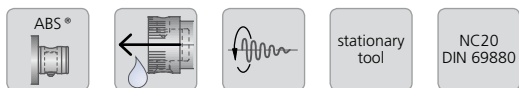
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KOMET ABS® NC..20 TSD

VDI Torsional dampener with ABS® connection



NC..20 ABS® TSD								
Article	Order No.	ABS Ø d	L	L1	a	b	Ø d1	kg
NC4020 ABS50-TSD	A01 14251	50	60	38	40	63	83	1,89
NC4020 ABS63-TSD	A01 14261	63	70	48	40	63	83	2,35
NC5020 ABS50-TSD	A01 14351	50	65	35	50	78	98	3,06
NC5020 ABS63-TSD	A01 14361	63	75	45	50	78	98	3,51
NC5020 ABS80-TSD	A01 14370	80	75	45	50	78	98	3,86

The torsional dampeners are designed for solid drills in line with the torque which is produced.

Recommended use:

...-ABS50-TSD for drill Ø 14 - 44 mm

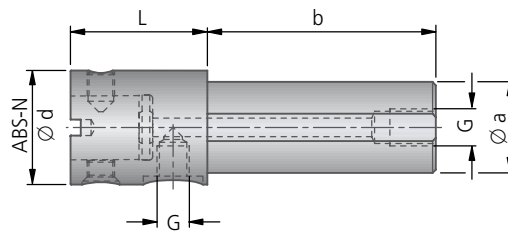
...-ABS63-TSD for drill Ø 45 - 54 mm

...-ABS80-TSD for drill Ø 55 - 81 mm

For drill heads V464 with larger diameters we recommend the use of appropriate reducers (available on request).

KOMET ABS® N TC

Adaptor with ABS® N connection



ABS® N TC							
Article	Order No.	ABS-N Ø d	L	Ø a	b	G	kg
ABS50N-TC40	A01 15450	50	60	40	100	G3/8"	1,67
ABS63N-TC40	A01 15460	63	65	40	100	G3/8"	2,25
ABS50N-TC50	A01 15550	50	60	50	120	G3/8"	2,50
ABS63N-TC50	A01 15560	63	65	50	120	G3/8"	3,10
ABS80N-TC50	A01 15570	80	70	50	120	G3/8"	3,94
ABS50N-TC60	A01 15650	50	60	60	120	G3/8"	3,35
ABS63N-TC60	A01 15660	63	65	60	120	G3/8"	3,87
ABS80N-TC60	A01 15670	80	70	60	120	G3/8"	4,84
ABS50N-TC80	A01 15750	50	60	80	160	G3/8"	6,87
ABS63N-TC80	A01 15760	63	65	80	160	G3/8"	7,41
ABS80N-TC80	A01 15770	80	70	80	160	G3/8"	8,25
ABS100N-TC80	A01 15780	100	90	80	160	G3/8"	10,38

We supply other shank versions on request.

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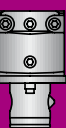
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The ideas factory

The IDEEN-FABRIK reflects the evolution of KOMET from a tool manufacturer into a creative expert for solutions covering all aspects of boring, reaming, thread milling and mechatronic tools.

The central objective is to offer our customers and employees scope for creative working and learning.

On a total area of 2,500 m², we have created a modern, multi-storey factory environment. The IDEEN-FABRIK was deliberately not constructed as a separate, detached training building, but integrated directly above a manufacturing business.

While the metal swarf flies down below, ideas are exchanged above. By this, we aim to demonstrate that the work here is always associated with new ideas and creative ambition.



Informations	Page
Usage and safety notes	218
Coolant transfer	219
Screwdriver Key	220
KOMET® Company concept	222
Numerical index	223

1



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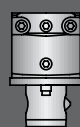
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7



KOMET SERVICE® – Page 230 – 233

A network of local partners that provide professional tool refurbishment, trade tools and manufacture customized solid carbide special tools

Usage and safety notes

1

The application details given depend on the environmental and application conditions (e.g. machine, ambient temperature, lubricant/coolant used and machining result required): they are based on the correct application conditions, correct use and compliance with the spindle speed limits given for the tools.

All measurement specifications stated in the catalogue apply to the metric unit system, unless they are expressly identified using another unit of measurement.

2

Hazard warning:

If using tungsten carbide-based hard metal products together with cobalt as a binder metal, please read our safety data sheets, which are available for you to download from our website.

(<http://www.kometgroup.com/navigation-top/download/service/datenblaetter.html>)

3

Balancing note:

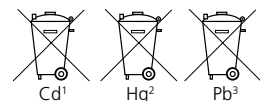
Tool holders or adaptors are only balanced as supplied, i.e. no allowance has been made for items which can alter this, such as boring tools, milling cutters, inserts, etc. When used at high speeds, we recommend precision balancing be carried out when the tool is fitted ready for use.

4

In accordance with German battery legislation, we are required to state the following:

Do not dispose of old batteries along with household waste. You can return used batteries free of charge to our shipping depot. As a consumer, you are legally obliged to return old batteries.

Batteries containing hazardous substances are marked with a crossed-out wheelie bin and the chemical symbol (Cd, Hg or Pb) that determines its classification as a hazardous-substance-containing heavy metal:



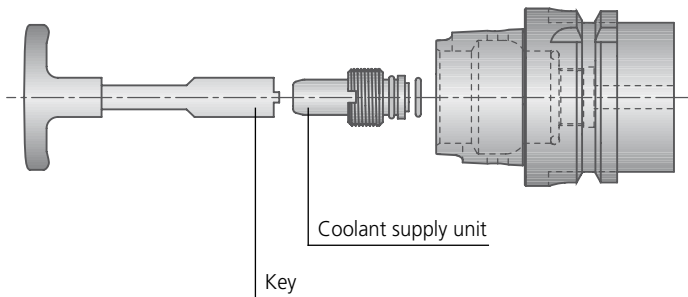
¹ „Cd“ stands for cadmium

² „Hg“ stands for mercury

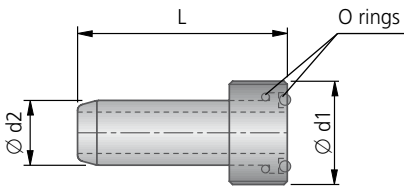
³ „Pb“ stands for lead

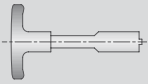
5**6****7**

Mounting of the coolant supply unit



Note:
 The coolant supply unit should be fitted in the tool with the key, to ensure a seal is produced.
 A coolant supply unit specifically for the machine can also be fitted, if required, using the thread in the tool.



HSK-A size	Key	Coolant supply unit						
		Order No.	Order No.	Ø d1	Ø d2	L	O ring face side and over tube	
							Article	Order No.
32		18021 01032	51391 00032	M10×1,0	6	26	5×1,2 2×	52914 00512
40		18021 01040	51391 00040	M12×1,0	8	29,1	7,5×1,5 2×	52914 00751
50		18021 01050	51391 00050	M16×1,0	10	32,7	9×2 2×	52914 00920
63		18021 01063	51391 00063	M18×1,0	12	36,2	10×2,5 10×2 1× 1×	52914 01025 52914 01020
80		18021 01080	51391 00080	M20×1,5	14	39,7	13×2 2×	52914 01320
100		18021 01100	51391 00100	M24×1,5	16	43,6	14×3 2×	52914 01430

Supply coolant supply unit includes:
 Coolant tube, locking collar and two O rings.

Note re. supply:
 The coolant supply connection for the tool adaptors must be ordered separately.
 Only use the keys listed for assembly.
 This will prevent coolant flowing back into the machine spindle/clamping system.
 A specific coolant hose for the machine can also be fitted on all HSK adaptors.



Torque tools | Screwdriver | Key

1



Reduce your costs: The correct torque protects you from warranty claims.

Protect your health: With a patented SoftFinish® handle design to protect your hands and muscles while you work. Recommended by German doctors and therapists from the AGR (German Campaign for Healthier Backs).

Increase your efficiency: The correct torque protects you from material damage and needing to perform rework.

Increase your process reliability: Preset torque for repetitive processes.

To ensure the correct starting torque on screws, the torque key from the TORX® and TORX PLUS® system has. Complies with the following requirements: EN ISO 6789, BS EN 26789, ASME B107.14M (with certificate).

2



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7



Preset torque tools

- For controlled screwdriving work, for example in series production or in applications that are frequently repeated.
- Click signal which can be heard and felt clearly when the set torque value is reached.
- Each rotary screwdriver handle provides a ratio between guidance, speed and torque that is perfectly adapted to the screwdriving task at hand.
- Logged inspection of individual parts immediately after manufacture in the plant.

TorqueFix® torque tool

with fixed preset torque
accuracy: $\pm 6\%$
release torque: + 30%

TorqueFix®	
	
Torque	Order No.
0,38 Nm	L05 00901
0,62 Nm	L05 00911
0,90 Nm	L05 00921
1,01 Nm	L05 03301
1,28 Nm	L05 00931
2,25 Nm	L05 03311
2,50 Nm	L05 00941
2,80 Nm	L05 00951
4,30 Nm	L05 00961
6,25 Nm	L05 00971
8 Nm	L05 03400

easyTorque torque tool

with fixed preset torque
accuracy: $\pm 10\%$
release torque: unbounded

easyTorque	
	
Torque	Order No.
0,38 Nm	L05 00902
0,62 Nm	L05 00912
1,01 Nm	L05 00922
1,28 Nm	L05 00932
1,8 Nm	L05 03320
2,25 Nm	L05 00942
2,50 Nm	L05 00952
2,80 Nm	L05 00962
4,30 Nm	L05 00972

Replaceable blade

Replaceable blade		
		
Size	Order No.	Torque max.
5IP	L05 00700	0,5 Nm
6IP	L05 00710	1,01 Nm
7IP	L05 00720	1,3 Nm
8IP	L05 00730	2,25 Nm
9IP	L05 00740	3,0 Nm
10IP	L05 00750	4,5 Nm
15IP	L05 00760	6,6 Nm
20IP	L05 00770	8,0 Nm
SW4	L05 03410	8,0 Nm

TORX PLUS®

	
Size	Order No.
5IP	L05 00800
6IP	L05 00810
7IP	L05 00820
8IP	L05 00830
9IP	L05 00840
10IP	L05 00850
15IP	L05 00860
20IP	L05 00870

TORX PLUS®

	
Size	Order No.
5IP	L05 01110
6IP	L05 01120
8IP	L05 01240

TORX®

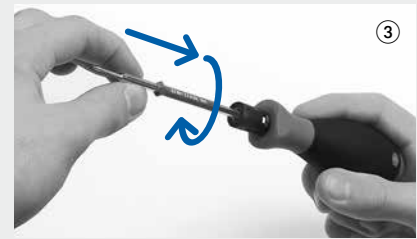
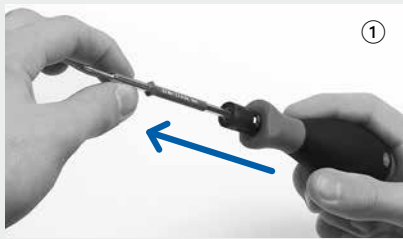
	
Size	Order No.
T15	L05 00607
T20	L05 00608

TORX®

	
Size	Order No.
T8	L05 00605

The TORX® keys do fit the new TORX PLUS® shape but we recommend only TORX PLUS® keys be used for tightening screws.

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TorqueFix®, TorqueVario® and SoftFinish® are registered trademarks for the Wiha Werkzeuge GmbH, Schonach

**Changing the torque**

- ① Remove blade
- ② Insert adjusting key in variable torque key handle and turn to set the required torque. The appropriate IP size can be read from the graduated scale.
- ③ Push blade in again

TorqueVario® torque tool

Variable adjustment

TorqueVario®					
Size	Torque	Order No.	Adjusting key	Replaceable blades	
5IP – 7IP	0,38 – 1,01 Nm	L05 00781	L05 00990	5IP	L05 00700
				6IP	L05 00710
				7IP	L05 00720
				9IP	L05 00740
9IP – 20IP	2,25 – 6,25 Nm	L05 00791	L05 00990	10IP	L05 00750
				15IP	L05 00760
				20IP	L05 00770

Supply includes:

Torque wrench with adjusting key and replaceable blades.

TorqueVario®-S torque tool

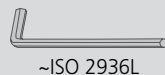
Variable adjustment

TorqueVario®-S			appropriate replaceable blade	
Size	Torque	Order No.	Size	Order No.
T8 – T20	0,8 – 5 Nm (0,2 Nm)	L05 00600	T8	L05 00601
			T15	L05 00603
			T20	L05 00604

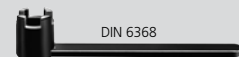
Supply includes: Torque wrench with adjusting key without replaceable blade.

Allen key

Size	Order No.
SW1,5	18591 10015
SW2,5	18591 10025
SW3	18591 10030
SW4	18591 10040
SW5	18591 10050
SW6	18591 10060
SW10	18591 10100

Allen key

Size	Order No.
SW4	18591 10041

Key

Size	Order No.
16	18701 80016
22	18701 80022
27	18701 80027
32	18701 80032
40	18701 80040
50	18701 80050

A PLUS for our customers and the environment

The company targets

KOMET pursues a consistent policy of investments and achieves long-term and profitable growth via continuous improvement of products and processes as well as via consistent qualification of employees. This increases the value of the company. KOMET consistently increases its innovation quota via research and development, offering the market new products every year. KOMET is a premium quality manufacturer and motivates employee qualification and customers in their IDEAS FACTORY. The training quota of vocational beginners is exemplary for the entire field of business.

The products and services

KOMET products and services offer the customer incomparable added value. KOMET develops, manufactures and sells the comprehensive, modular portfolio on bore machining as full-range suppliers. KOMET offers the innovative technologies, thereby taking the high economic viability, best quality and most attractive designs into account. KOMET sees itself not purely as a tool manufacturer, but rather as suppliers of innovative solutions and ideas for the benefit of the customer: **TOOLS+IDEAS®**.

The customer

KOMET places value on long-term, binding customer relations, seeing itself as a partner of the customer in a balance of benefit supplies and benefit harvests.

KOMET records customers' demands and then produces the most effective ideas and tool solutions for their machining tasks. KOMET offers the customer information and collaboration via their worldwide presence in local Service Centres. The IDEAS FACTORY supports vocation-related training and further qualifications for customers.

The environment / surroundings

KOMET feels itself obliged to avoid any wastage, and therefore commits itself to responsible usage of raw materials and careful utilisation of remaining materials.

KOMET management is well aware of its responsibilities towards society, and creates the foundations for modern working environments and working conditions. The specifications on ergonomics and work safety are taken into account. Beholden to the founder, Robert Breuning, KOMET supports the site at Besigheim, maintaining direct contact to schools and social facilities in the region.

With these claims in mind, KOMET has introduced a modern, integrated management system, known as KMS (KOMET Management System), which is certified in accordance with ISO 9001:2008, ISO 14001:2009 and the German „Akkreditierungs-und Zulassungsverordnung Arbeitsförderung – AZAV“.

Certification

<http://www.kometgroup.com/navigation-top/download/service/zertifikate.html>



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C65 44760.085730	185	C67 17600.005750	188	C70 44690.124040	201	C79 18690.025860	197	C79 32990.015510	159
C65 44760.085760	185	C67 28600.004060	188	C70 44690.124060	201	C79 18690.044020	197	C79 32990.015605	159
C65 44760.085830	185	C67 28600.005750	188	C70 44690.124080	201	C79 18690.044040	197	C79 32990.025510	159
C65 44760.085860	185	C67 42600.004060	188	C70 44690.125730	201	C79 18690.044060	197	C79 32990.025605	159
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C66 44690.024060	182	C68 17600.005750	189	C70 44700.024020	203	C79 18690.045830	197	C79 32990.085605	159
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C66 44690.025860	182			C70 44700.025750	203	C79 18690.084080	197	C83 32690.024040	190
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C66 44690.085750	182	C69 32690.045750	199	C70 44700.084080	203	C79 18970.045605	157	C83 32690.045860	190
C66 44690.085830	182	C69 32690.045830	199	C70 44700.085730	203	C79 18970.085510	157	C83 32690.084020	190
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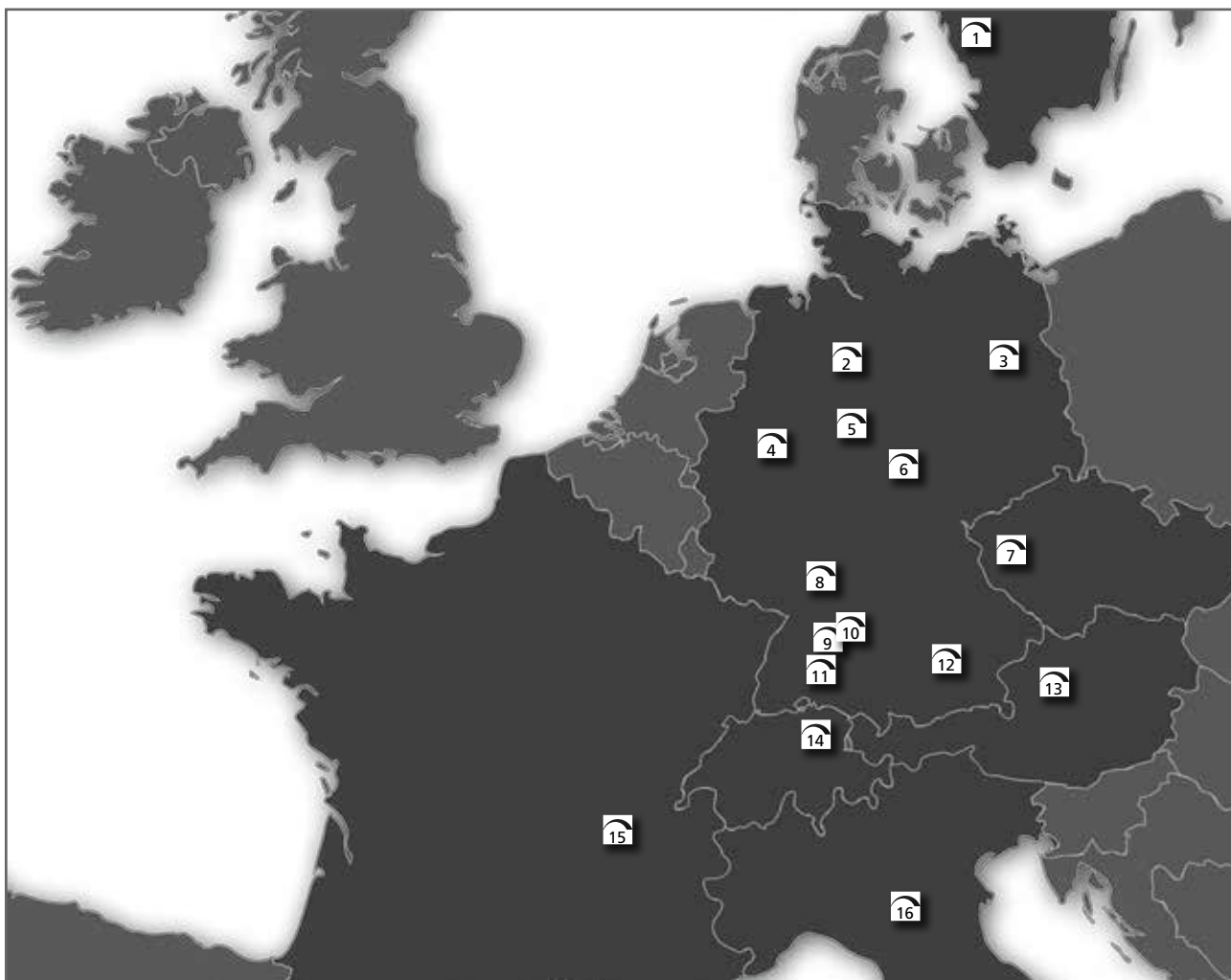
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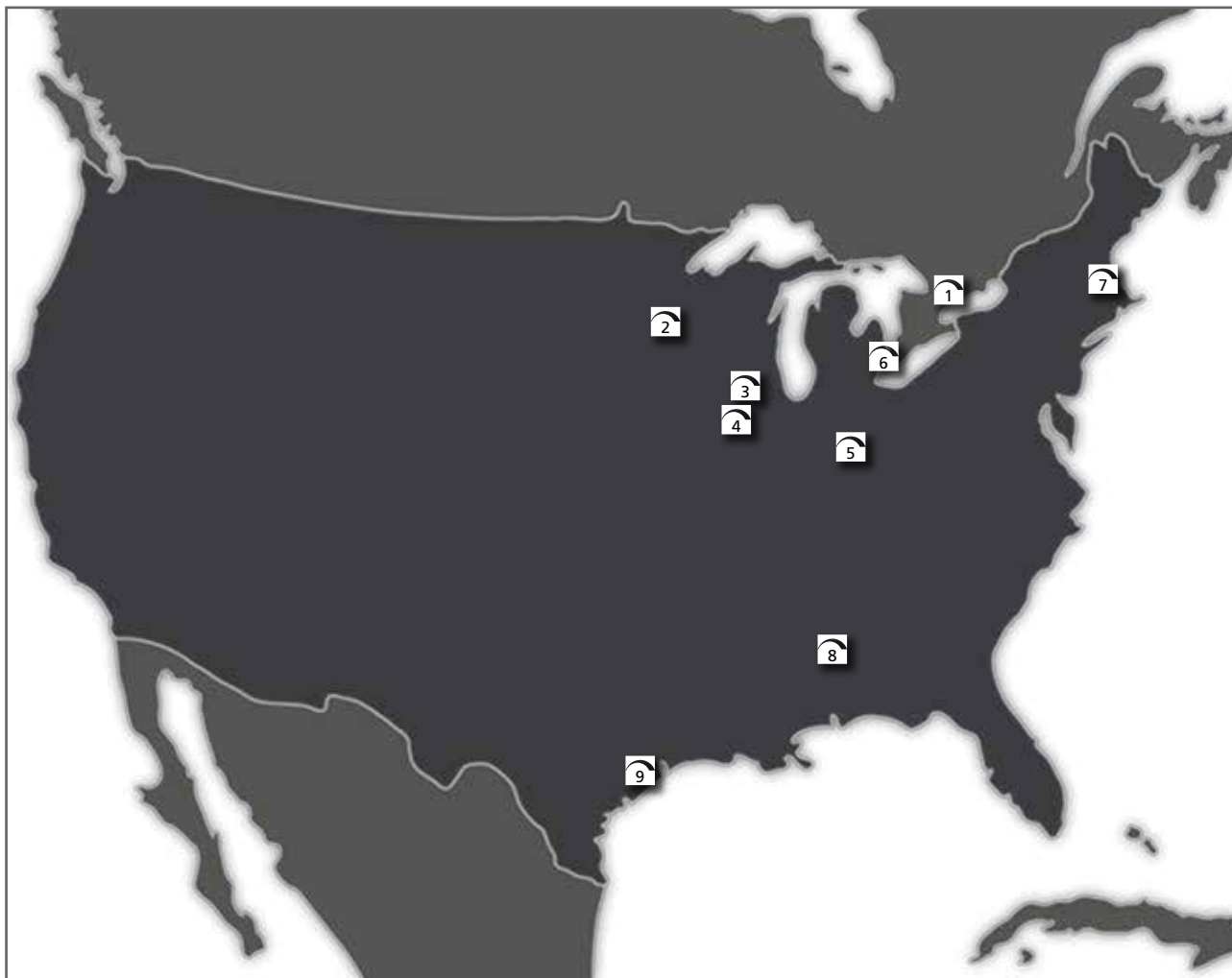
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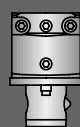
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