

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

RCKT	I.C	S	d
10 T3	10	3.97	4.4
12 04	12	4.76	4

Milling inserts

RC** milling insert		HC ¹ (CVD)						HC ¹ (PVD)						HT	HC ²	HW								
	P																							
	M																							
	K																							
	N																							
	S																							
	H																							
ISO		YBC302	YBC301	YBC401	YBM253	YBM251	YBM351	YBD152	YBD252	YBG101	YBG102	YBG202	YBG212	YBS203	YBG205	YB9320	YBG302	YBS303	YBG252	YNG151	YNG151C	YD101	YD201	
	RCKT10T3MO-DM		○									○				●	○							
	RCKT1204MO-DM		○	○	○	●	○					○				●	○							
	RCKT1204MO-DR		○	○	○	●									●									
	RCKT1204MO-ER				●																			
	RCKT1204MO-NM											○												

● Ex stock ○ On demand

HC¹ Coated carbide
 HT Uncoated cermet
 HC² Coated cermet
 HW Uncoated carbide

Milling inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

RCGX	I.C	S	d
12 04	12	4.76	4

RC** positive insert		HC ¹ (CVD)						HC ¹ (PVD)						HT	HC ²	HW								
	P																							
	M																							
	K																							
	N																							
	S																							
	H																							
ISO		YBC302	YBC301	YBC401	YBM253	YBM251	YBM351	YBD152	YBD252	YBG101	YBG102	YBG202	YBG212	YBS203	YBG205	YB9320	YBG302	YBS303	YBG252	YNG151	YNG151C	YD101	YD201	
	RCGX1204MO-LH																						●	

● Ex stock ○ On demand

HC¹ Coated carbide
 HT Uncoated cermet
 HC² Coated cermet
 HW Uncoated carbide

System code > B26

Grade selection > B24

Technical info > B527

Cutting data > B230



S P K N 12 04 ED T21K R – DM

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Insert shape	
A	C
H	L
M	O
P	R
S	T
W	X Special
Z Special	

Clearance angle	
B	C
D	E
F	N
P	

Tolerance class			
Code	I.C [mm]	m [mm]	S [mm]
A	±0,025	±0,005	±0,025
C	±0,025	±0,013	±0,025
E	±0,025	±0,025	±0,025
F	±0,013	±0,005	±0,025
G	±0,025	±0,025	±0,130
H	±0,013	±0,013	±0,025
J	±0,05-0,13	±0,005	±0,025
K	±0,05-0,13	±0,013	±0,025
L	±0,05-0,13	±0,025	±0,025
M	±0,05-0,13	±0,08-0,18	±0,130
N	±0,05-0,13	±0,08-0,18	±0,025
U	±0,08-0,25	±0,13-0,38	±0,130

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Fastening features (metric)	
Insert shape	
A	B
C	F
G	H
J	M
N	Q
R	T
U	W
X Special	

Cutting edge length l [mm]	
Insert shape	
A	C, M
H, O, P	L
R	S
T	W

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Insert thickness S [mm]			
Code	S	Code	S
00	0,79	05	5,56
T0	0,99	T5	5,95
01	1,59	06	6,35
T1	1,98	T6	6,75
02	2,38	07	7,94
T2	2,58	09	9,52
03	3,18	T9	9,72
T3	3,97	11	11,11
04	4,76	12	12,70
T4	4,96		

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Angle			
Code	Kr	Code	an
A	45°	A	3°
D	60°	B	5°
E	75°	C	7°
F	85°	D	15°
P	90°	E	20°
Z	Special	F	25°
		G	30°
		N	0°
		P	11°
		Z	Special

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Chamfer							
Code	Type	Code	Angle	Code	Width [mm]	Code	Position
F		0	5°	0	0,10	K	
E		1	10°	1	0,15	P	
T		2	15°	2	0,20	W	
S		3	20°	3	0,25	-	
		4	25°	4	0,30		
		5	30°	5	0,35		
				6	0,40		
				7	0,45		

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Cutting direction	
Code	Description
R	Right
L	Left
N	Right and left

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Chip breaker overview
(on page B20)

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Chip breaker overview

	Finishing	Medium machining	Roughing			
A Turning	DF	DM	DR			
	APF	APM	-			
	PF	PM	PR			
	GF	GM	GR			
	GL	GM	GH			
	-	HGR	-			
	-	-	ZR			
	-	XR	-			
	-	MM	-			
B Milling	MO-2	MO-1	MO-3			
	P	EF	EM	-		
		APF	APM	-		
		DF	DM	-		
		PF	PM	PR		
		GF	GM	GR		
		GL	GM	GH		
		-	HGR	-		
		E	E	-		
-		-	ZR			
C Drilling	-	XR	-			
	-	MM	-			
	M	CF	CM	CR		
		DF	DM	DR		
		EDFR	DER	DER		
		PF	PM	PR		
		GF	GM	GR		
		GL	GM	GH		
		-	-	ZR		
-		XR	-			
MO-2		MO-1	MO-3			
D Technical Information	K	EF	EM	-		
		NM	NM	-		
		S	LH	LH	LH	
			ALH	ALH	ALH	
			N			

Coated cemented carbide CVD

Grade	ISO	Micro structure	Grade description
YBC302	P20 - P35		CVD coated P20-P35 carbide grade for medium operation to roughing of steel at higher cutting speed. Optimal performance of wear resistance and toughness for a wide application field.
YBC301	P20 - P35		CVD coated P20-P35 carbide grade for medium operation to roughing of steel at lower cutting speed.
YBC401	P30 - P50 M30 - M40		CVD coated P30-P50/M30-M40 carbide grade for roughing operation of steel at lower cutting speed and unstable condition.
YBM251	P20 - P30 M15 - M35		CVD coated P20-P30/M15-M35 carbide grade for medium to roughing operation in stainless steel and steel with wide application field. Good wear resistance and capability against plastic deformation at normal cutting speed.
YBM253	M15 - M35		CVD coated M15-M35 carbide grade for medium to roughing operation in stainless steel with wide application field. High wear resistance and capability against plastic deformation at higher cutting speed.
YBM351	P25 - P40 M20 - M40		CVD coated P25-P40/M25-M40 carbide grade for roughing operation in stainless steel and steel. Good wear resistance and edge stability at normal cutting speed.
YBD152	K10 - K25		CVD coated K10-K25 carbide substrate. Optimized for medium to roughing operation of cast iron. Good wear resistance and toughness at higher cutting speed.
YBD252	K20 - K35		CVD coated K20-K35 carbide substrate. Optimized for medium to roughing operation of cast iron and Steel. Good wear resistance and toughness at higher cutting speed.

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Coated cemented carbide PVD

Grade	ISO	Micro structure	Grade description
A Turning	YBG101	N05–N20	 <p>PVD coated N05–N20 carbide substrate for finishing to semi-finishing in aluminium materials. Coating only on the top face, in combination with the aluminium chip breakers, prevents built-up edges and gives a smooth cut.</p>
B Milling	YBG202	P10 - P30 M10-M25	 <p>PVD coated P10–P30/M10–M25 carbide substrate for finishing to medium application of stainless steel and steel (milling). Good wear resistance in a wide application field.</p>
D Technical Information	YBS203	S15 – S25	 <p>Turning and milling grades for processing heat-resistant materials. A special carbon substrate and the latest PVD coating technology enable a very good wear behaviour, high fracture toughness and high thermal stability.</p>
YBG302	P15 - P30 M25 - M40	 <p>PVD multilayer coated P10–P30/M10–M25 carbide substrate for finishing to medium machining of stainless steel, super alloys and steel (grooving/milling). Optimised coating stability for higher wear resistance and thermal stability in a wide range of applications.</p>	
			YBG302

Coated cemented carbide PVD

Grade	ISO	Micro structure	Grade description
YBS303	S25 - S35		Milling grade for machining titanium alloys. A tough carbide substrate and the latest PVD coating technology with increased impact resistance and high thermal stability.

Cermet

Grade	ISO	Micro structure	Grade description
YNG151	P05 - P15		Uncoated P05-P15 cermet grade for fine finishing operation of steel and stainless steel. Good resistance against plastic deformation for good surface finishing.
YNG151C	P05 - P15		PVD coated P05-P15 cermet grade for fine finishing operation of steel and stainless steel. Good wear resistance and capability against plastic deformation for good surface roughness.

Uncoated cemented carbide

Grade	ISO	Micro structure	Grade description
YD101	N05 - N25 K05 - K20		Uncoated K05-K20/N05-N20 carbide substrate for fine to medium application in aluminum and other material.
YD201	K10 - K30 N10 - N30		Uncoated K10-K30/N10-N30 carbide substrate for medium application in aluminum and other material.

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Application fields of grades – indexable milling

	ISO	HC ¹ (CVD)	HC ¹ (PVD)	HT	HC ²	HW	PCBN/PCD	
A Turning	P	P01						
		P10		YBG102				
		P20	YBC301	YBG202	YNG151	YNG151C		
		P30	YBC302	YBG205				
		P40	YBC401	YBG302			YC305	
		YBM351	YB9320					
		YBM253						
B Milling	M	M01						
		M10		YBG102				
		M20	YBM251	YBG202	YNG151	YNG151C		
		M30	YBM253	YBG205				
		M40	YBM351	YBG302			YC305	
		YBC401	YB9320					
C Drilling	K	K01						
		K10	YBD152	YBG102				
		K20	YBD252	YBG152				
		K30		YBG202				
		K40					YD201	
D Technical Information	N	N01				YD051		
		N10		YBG101			YD101	
		N20		YBG202				YD201
		N30						
E Index	S	S01		YBG102				
		S10		YBG202				
		S20		YBG205				
		S30		YBS203				
				YBS303				
F	H	H01						
		H10		YBG102				
		H20						
		H30						

P	Steel
M	Stainless steel
K	Cast iron

N	Non-ferrous metals
S	Heat-resistant alloys
H	Hardened materials

HC ¹	Coated carbide
HT	Uncoated cermet
HC ²	Coated carbide
HW	Uncoated carbide