


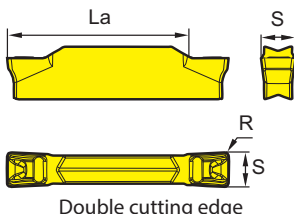


















-  Ideal machining conditions
-  Normal machining conditions
-  Unfavourable machining conditions

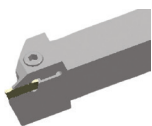
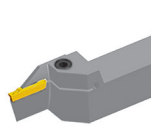
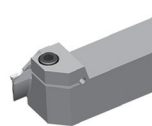
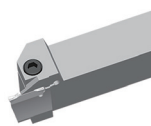
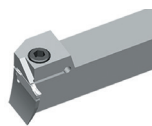


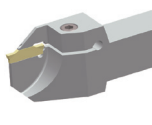
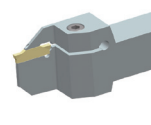
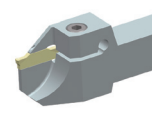
Parting inserts

ZT** parting & grooving insert (double sided)						HC <sup>1</sup> (CVD)		HC <sup>1</sup> (PVD)			HW	
 <p>Double cutting edge</p>	<b>P</b>											
	<b>M</b>											
	<b>K</b>											
	<b>N</b>											
	<b>S</b>											
	<b>H</b>											
ISO	R±0.1	La max	S	f	YBC252 YBC251			YBG105 YBG102 YB9320 YBG205 YBG202 YBG302			YD101 YD201	
	<b>ZTBD02002-MM</b>	0.2	13	2	0,02-0,07							
	<b>ZTED02503-MM</b>	0.3	17	2.5	0,03-0,1							
	<b>ZTFD0303-MM</b>	0.3	17	3	0,04-0,13							
	<b>ZTGD0404-MM</b>	0.4	22	4	0,06-0,18							
	<b>ZTHD0504-MM</b>	0.4	22	5	0,08-0,23							
	<b>ZTKD0608-MM</b>	0.8	22	6	0,12-0,27							
	<b>ZTLD0808-MM</b>	0.8	28	8	0,13-0,29	○						

● Ex stock ○ On demand

HC<sup>1</sup> Coated carbide  
HW Uncoated carbide

Tool holders

QE*D*R/L	QF*D*R/L-H	QF*D*LL-H	QF*D*RR-H	QF*D*R/L-L	*-QBDR/L	C***-Q*DR/L
						
A425	A434	A436	A436	A439	A444	A444
QE*D*R/L-DGC	QE*D*R/L-DGSC	QE*D*R/L-SC				
						
A446	A448	A449				

System code > A398

Grade selection > A394

Technical info > A501

Cutting data > A456



A

Turning

B

Milling

C

Drilling

D

Technical Information

E

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**A**

Turning

Grooving

MM P M K S



Sintered chip breaker with straight cutting edge for general machining of steel, stainless steel, cast iron and difficult-to-machine materials. Can be used for grooving, turning and parting off.

**B**

Milling

MG P M K S



Sintered chip breaker for general machining of steel, stainless steel, cast iron and difficult-to-machine materials. Can be used for grooving, turning and parting off.

**C**

Drilling

MG P M K S



Universal chip breaker with round profile for general machining of steel, stainless steel and cast iron. Suitable for grooving and profiling.

**D**

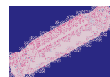
Technical Information

EG M P S



Ground precision chip breaker for grooving and turning applications. Suitable for machining of stainless steel. E-tolerance for high repeatability.

EG M P S

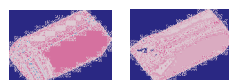


Ground precision chip breaker with round profile for grooving and turning applications. Suitable for machining of stainless steel. E-tolerance for high repeatability.

**E**

Index

NM S



Special chip breaker for machining of heat-resistant materials.

## Grooving

LC

N



Ground chip breaker for profile and turning applications of non-ferrous metals.

LH

N



Ground chip breaker for profile and turning applications of non-ferrous metals.

**A**

Turning

**B**

Milling

**C**

Drilling

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# Parting & grooving Application fields of chip breakers

**A**  
 Turning  
**B**  
 Milling  
**C**  
 Drilling  
**D**  
 Technical Information  
**E**  
 Index

Chip breaker	Application	P	M	K	N	S	H	Feed	Cutting edge design
ZT****-MM	Parting & grooving ✓								
	Turning ✓	✓	✓	✓		✓			
ZP****-MG	Parting & grooving ✓								
	Turning -	✓	✓	✓		✓			
ZT****-MG	Parting & grooving ✓								
	Turning ✓	✓	✓	✓		✓			
ZR****-MG	Parting & grooving ✓								
	Turning ✓	✓	✓	✓		✓			
ZT****-EG	Parting & grooving ✓								
	Turning ✓	✓	✓	✓		✓			
ZR****-EG	Parting & grooving ✓								
	Turning ✓	✓	✓	✓		✓			
ZI****-NM	Parting & grooving ✓								
	Turning ✓		✓		✓	✓			

✓ Very suitable    ✓ Suitable

Parting & grooving  
 Turning

Chip breaker	Application	P	M	K	N	S	H	Feed	Cutting edge design
ZR****-LH	Parting & grooving ✓				✓	✓			Round profile 
	Turning ✓								
ZI****-LC	Parting & grooving ✓				✓	✓			Round profile 
	Turning ✓								

✓ Very suitable

✓ Suitable

■ Parting & grooving

■ Turning

**A**

Turning

**B**

Milling

**C**

Drilling

**D**

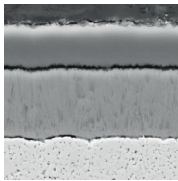
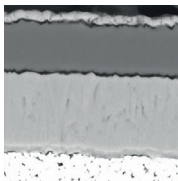
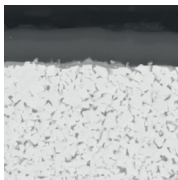
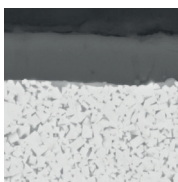
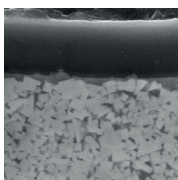
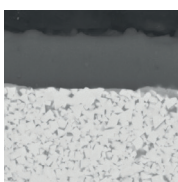
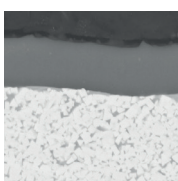
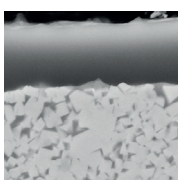
Technical Information

**E**

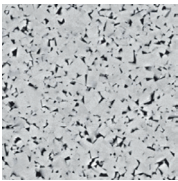
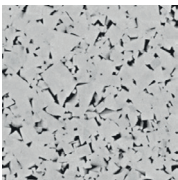
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A	Turning	Parting & grooving
B	Milling	Parting & grooving
C	Drilling	Parting & grooving
D	Technical Information	Parting & grooving
E	Index	Parting & grooving

## Parting & grooving

Grade	ISO	Micro structure	Grade description
<b>YBC252</b>	P20 - P35		CVD coated P20–P35 carbide grade for medium operation to roughing of steel and casting steel. Optimal performance of wear resistance and toughness for a wide application field.
<b>YBC251</b>	P20 - P35		CVD coated P20–P35 carbide grade for medium operation to roughing of steel and casting steel in lower cutting speed.
<b>YBG105</b>	S05 - S20		PVD multilayer coated S05–S20 carbide substrate for finishing to medium application of super alloy material but also stainless steel. Good wear resistance and thermal stability in a wide application field.
<b>YBG102</b>	S05 - S15		PVD coated S05–S15 carbide substrate for finishing to medium application of super alloy material, stainless steel and aluminum. Good wear resistance in a wide application field.
<b>YB9320</b>	P10 - P30 M10 - M25		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.
<b>YBG205</b>	P10 - P30 M20 - M40 S15-S25		PVD multilayer coated P10–P30/M20–M40/S15–S25 carbide substrate for finishing to medium machining of stainless steel, super alloys and steel (milling). Excellent wear resistance and thermal stability in a wide range of applications.
<b>YBG202</b>	P10 - P30 M10 - M25		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.
<b>YBG302</b>	P15 - P30 M25 - M40		PVD coated P15–P30/M25–M40 carbide substrate for medium roughing application of stainless steel and steel (milling). Good wear resistance and toughness.

**Parting & grooving**

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

**A**

Turning

**B**

Milling

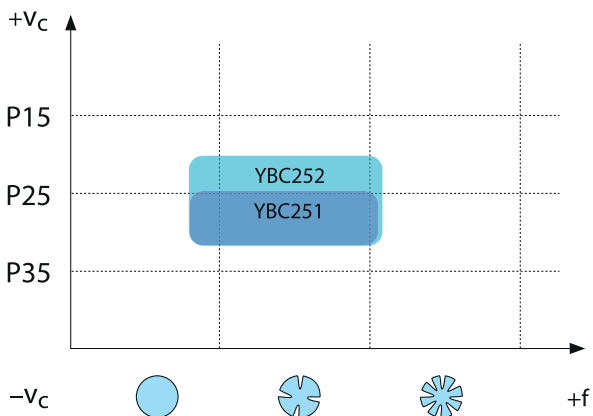
**C**

Drilling

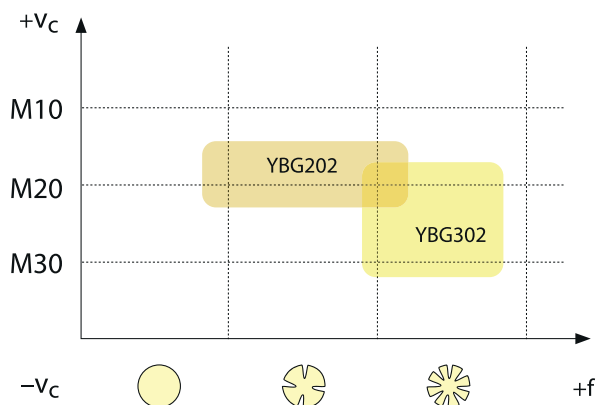
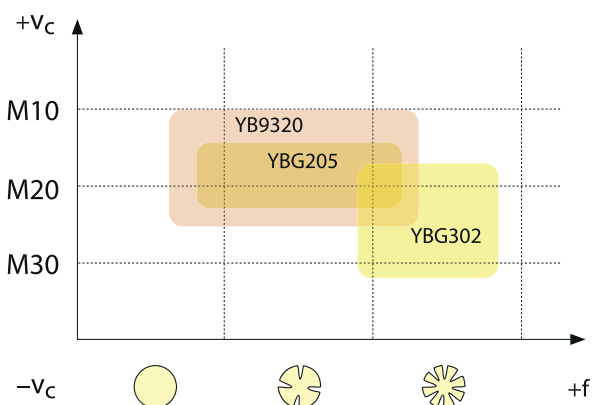
**D**Technical  
Information**E**

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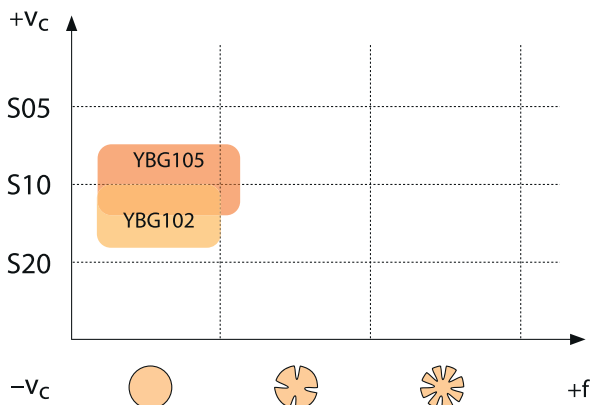
## CVD coated carbide grades for steel



## PVD coated carbide grades for stainless steel



## PVD coated carbide grades for superalloys



A

Turning

B

Milling

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Drilling

D

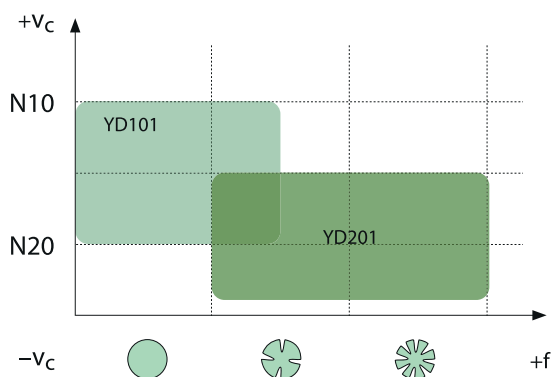
Technical Information

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**Carbide grades for non-ferrous metals**



**A**

Turning

**B**

Milling

**C**

Drilling

**D**

Technical  
Information

**E**

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## Application fields of grades – parting & grooving

	ISO	HC <sup>1</sup> (CVD)	HC <sup>1</sup> (PVD)	HT	HC <sup>2</sup>	Ceramic	HW	CBN	PCD
<b>A</b> Turning	P01								
	P10	YBC251 YBC252							
	P20								
	P30								
	P40								
<b>B</b> Milling	M01								
	M10		YBG202 YBG205 YB9320 YBG302						
	M20								
	M30								
	M40								
<b>C</b> Drilling	K01								
	K10								
	K20								
	K30								
<b>D</b> Technical Information	N01						YD101 YD102		
	N10								
	N20								
	N30								
<b>E</b> Index	S01								
	S10		YBG102 YBG105						
	S20								
	S30								
H01									
	H10								
	H20								
	H30								

<b>P</b>	Steel
<b>M</b>	Stainless steel
<b>K</b>	Cast iron

<b>N</b>	Non-ferrous metals
<b>S</b>	Heat-resistant alloys
<b>H</b>	Hardened materials

HC<sup>1</sup> Coated carbide  
 HT Uncoated cermet  
 HC<sup>2</sup> Coated cermet  
 HW Uncoated carbide

## ZP G D 04 04 – M G

1 2 3 4 5 6 7

**A**

Turning

Application	
Code	Description
ZP	Parting
ZT	Grooving & turning
ZR	Form turning

Insert seat size [mm]	
Groove width	
Code	Description
B	2,0
E	2,5
F	3,0
G	4,0
H	5,0
K	6,0
L	8,0

**B**

Milling

**1**

**2**

**C**

Drilling

No. of cutting edges	
Code	Description
S	Single
D	Double

Insert thickness S [mm]	
Code	S
02	2,0
025	2,5
03	3,0
04	4,0
05	5,0
06	6,0
08	8,0

**3**

**4**

**D**

Technical Information

Nose radius r [mm]	
Code	r
02	0,2
03	0,3
04	0,4
08	0,8

Tolerance class [mm]	
Code	Description
M	±0,13
E	±0,025

**5**

**6**

**E**

Index

Chip breaker	
Code	Description
G	General chip breaker
F	Special chip breaker
M	Straight edge

**7**