



ZCC Cutting Tools  
Europe GmbH



# Main Catalogue

Version 2023

# 2023

– EN –



## Welcome to ZCC Cutting Tools Europe,

and welcome to the latest version of our main catalogue. The entire ZCC Cutting Tools team and I are pleased to present to you our evolving portfolio of products and solutions for optimising the quality and profitability of your production.

In combination with our Product Innovations Catalogues, which are published twice a year, this main catalogue aims at providing you with an optimal overview of our range of services and ZCC-CT's latest innovations.

'Your partner – your value' has been our claim and promise to our customers from the outset, and it's one we will continue to live up to. On this note, our offer goes far beyond the contents of this catalogue. In addition to the development and testing of your customer-specific special solutions in the Test and Demonstration Centre at our European headquarters in Düsseldorf, we also offer comprehensive services such as tool management and tool data provision, tool reconditioning and customer training according to your requirements. Feel free to contact us at any time – we are there for you.

This main catalogue addresses three key application areas. In part A right next, you will find turning tools; part B introduces you to our milling tools; and in part C is all about our drilling tools. ZCC-CT provides a separate catalogue each for tooling systems and boring tools. Please feel free to get in touch with your personal contacts or our internal sales department if you require additional catalogues and supplementary information.

We thank you for your trust and look forward to an excellent partnership.  
Your team at ZCC Cutting Tools Europe is always there to support you in a spirit of collaboration.

Quanliang Zhao

Managing Director  
ZCC Cutting Tools Europe GmbH



ZCC Cutting Tools Headquarters, Zhuzhou, China



ZCC Cutting Tools Europe GmbH Headquarters, Düsseldorf, Germany



European Headquarters

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Member of Minmetals Group

# Special tools – fine-tuned to your specific application

**Special applications call for special solutions optimised to the task. Special tools are able to deliver real benefits from a commercial, technical or process perspective over standard tool solutions in all industry sectors. We work with you to assess the potential in each individual case, taking into account the general conditions available at your company ZCC Cutting Tools Europe's R&D department then develops a custom solution for you at our EU headquarters in Düsseldorf to keep your machining costs as low as possible.**

Why opt for special tools from ZCC Cutting Tools?

We develop customised tool solutions for you for a wide range of machining operations. We work closely with you from day one to design tools optimised to meet your needs and priorities. From design and production to logistics, we draw on many years of experience to offer a full range of expert services. Take advantage of our expertise to ensure the long-term success of your company.



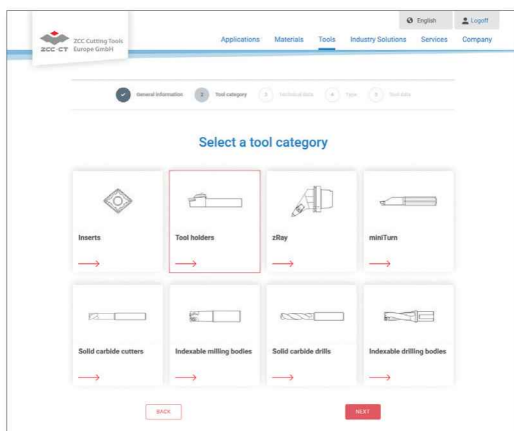
Example: Special tool holder



Example: Special solid carbide step drill

# The easy way to order your custom-made special tool

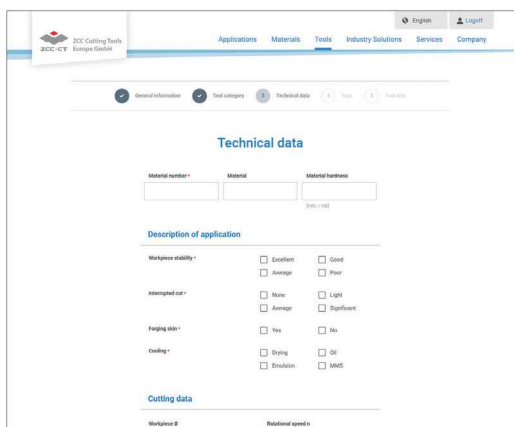
Are there specific applications at your company where having custom tools tailored to your unique needs would deliver real benefits both in terms of logistics and at a technical and commercial level? ZCC Cutting Tools is there to advise and assist you during the planning, development and ordering process. Use our new online tool to request a special tool and get your personal quotation in just a few short steps ([www.zccct-europe.com](http://www.zccct-europe.com)).



'Online tool for special tools' launch page where you can select the tool category

## Selecting the tool category

Scan the QR code on this page to go directly to the launch page of our online tool where you can request the special tool you need. You can begin by selecting the tool category you need. It's that easy.



Define the relevant tool parameters

## Defining the tool parameters

You are now guided step by step through the process. You can also securely upload your drawings, diagrams and 3D models (where available).

The fast and direct way to order your special tool from ZCC Cutting Tools Europe.



Now go directly to the new **special tool form** on our website and get started.



ZCC Cutting Tools Headquarters, Zhuzhou, China



Production of tool holders



Sintering of inserts

**Turning****A**

General turning

A1-A379

Parting &amp; grooving

A380-A457

Threading

A458-A500

**Milling****B**

Indexable milling

B1-B263

Solid carbide milling

B264-B526

**Drilling****C**

Indexable drills

C1-C37

Solid carbide drills

C38-C151

Solid carbide reamers

C152-C171

Solid carbide threading tools

C172-C200

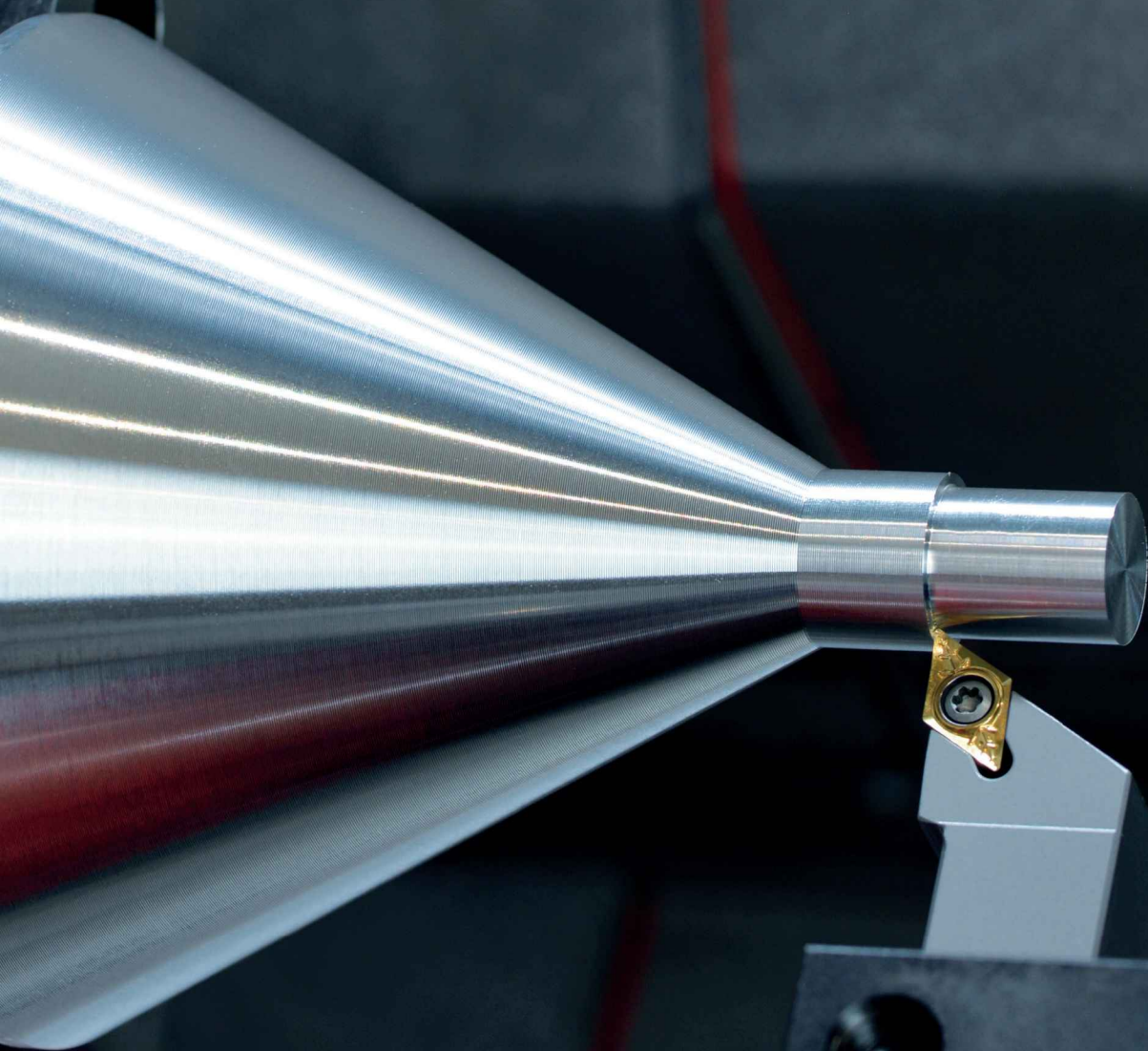
**Technical information****D**

D1-D12

**Index****E**

E1-E10

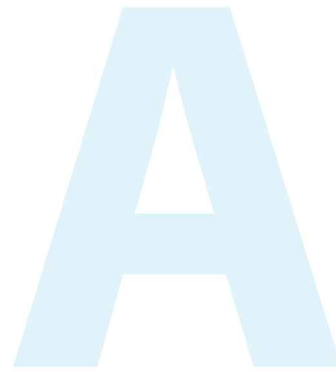
# GENERAL TURNING





## General turning

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**A**

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## Carbide and cermet inserts

### Double sided, negative – Finishing



<b>CNEG-NF</b>	<b>CNMG-ADF</b>	<b>CNMG-DF</b>	<b>CNMG-EF</b>	<b>CNMG-SF</b>	<b>CNMG-XF</b>	Edge length
12	12	09 12	09 12	09 12	12	Page
A52	A51	A51	A51	A51	A52	



<b>DNEG-NF</b>	<b>DNEG-NGF</b>	<b>DNMG-ADF</b>	<b>DNMG-DF</b>	<b>DNMG-EF</b>	<b>DNMG-FM</b>	<b>DNMG-SF</b>	<b>DNMG-XF</b>	Edge length
15	15	15	11 15	11 15	15	11 15	11 15	Page
A66	A66	A62	A62	A66	A66	A62	A63	



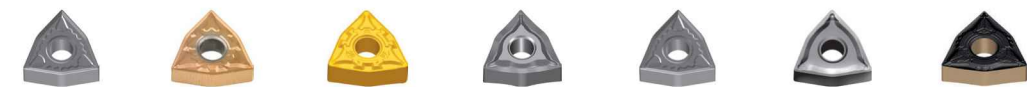
<b>SNMG-ADF</b>	<b>SNMG-DF</b>	<b>SNMG-EF</b>	<b>SNMG-SF</b>	<b>SNMG-XF</b>	Edge length
12	12	09 12 15	09 12	12	Page
A71	A71	A72	A71	A73	



<b>TNMG-ADF</b>	<b>TNMG-DF</b>	<b>TNMG-EF</b>	<b>TNMG-FM</b>	<b>TNMG-SF</b>	Edge length
16	16 22	11 16 22	16	16	Page
A87	A87	A89	A90	A88	



<b>VNEG-NF</b>	<b>VNEG-NGF</b>	<b>VNMG-ADF</b>	<b>VNMG-DF</b>	<b>VNMG-EF</b>	<b>VNMG-SF</b>	<b>VNMG-XF</b>	Edge length
16	16	16	16	16	16	16	Page
A100	A101	A100	A100	A100	A101	A102	



<b>WNEG-NF</b>	<b>WNMG-ADF</b>	<b>WNMG-DF</b>	<b>WNMG-EF</b>	<b>WNMG-NF</b>	<b>WNMG-SF</b>	<b>WNMG-XF</b>	Edge length
08	08	06 08	06 08	06	06 08	06 08	Page
A106	A105	A105	A106	A106	A105	A107	

### Double sided, negative, Wiper – Finishing



<b>CNMG-WG</b>	<b>DNMX-WG</b>	<b>TNMX-WG</b>	<b>WNMG-WG</b>	Edge length
12	11 15	16	08	Page
A51	A62	A87	A106	

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## Carbide and cermet inserts

### Double sided, negative – Medium machining

										
<b>CNMG</b>	<b>CNMG-DM</b>	<b>CNMG-EG</b>	<b>CNMG-EM</b>	<b>CNMG-NM</b>						
12 16 19	09 12 16 19	12	12 16	12						Edge length
A61	A54	A54	A54	A56						Page
										
<b>CNMG-PM</b>	<b>CNMG-TC</b>	<b>CNMG-TK</b>	<b>CNMG-XM</b>	<b>CNMG-ZM</b>						
09 12 16 19	12 16	12	12 16 19	12						Edge length
A53	A56	A56	A53	A55						Page
										
<b>DNMG-DM</b>	<b>DNMG-EG</b>	<b>DNMG-EM</b>	<b>DNMG-NM</b>							
11 15	15	11 15	15							Edge length
A64	A67	A67	A67							Page
										
<b>DNMG-PM</b>	<b>DNMG-TC</b>	<b>DNMG-TK</b>	<b>DNMG-XM</b>	<b>DNMG-ZM</b>						
11 15	15	15	11 15	15						Edge length
A64	A67	A68	A63	A65						Page
										
<b>SNMG</b>	<b>SNMG-DM</b>	<b>SNMG-EG</b>	<b>SNMG-EM</b>	<b>SNMG-NM</b>						
12 25	09 12 15 19	12	12 15	12						Edge length
A83	A75	A75	A76	A77						Page
										
<b>SNMG-PM</b>	<b>SNMG-TC</b>	<b>SNMG-TK</b>	<b>SNMG-XM</b>							
09 12 15 19	12 15	12	12 15 19							Edge length
A74	A76	A76	A73							Page
										
<b>TNMG</b>	<b>TNMG-DM</b>	<b>TNMG-EG</b>	<b>TNMG-EM</b>	<b>TNMG-PM</b>	<b>TNMG-TC</b>	<b>TNMG-XM</b>	<b>TNMG-ZM</b>			
16 22 27 33	11 16 22	16	16 22	11 16 22	16 22	16 22	16			Edge length
A98	A91	A93	A93	A91	A93	A90	A92			Page

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## Carbide and cermet inserts

### Double sided, negative – Medium machining



**VNMG**      **VNMG-DM**      **VNMG-EM**      **VNMG-NM**

16	16	16	16
A103	A103	A103	A103

Edge length  
Page



**VNMG-PM**      **VNMG-SNR**      **VNMG-TC**      **VNMG-XM**      **VNMG-ZM**

16	16	16	16	16
A104	A104	A104	A102	A104

Edge length  
Page



**WNMG-DM**      **WNMG-EG**      **WNMG-EM**      **WNMG-NM**

06 08	08	06 08	08
A108	A108	A108	A110

Edge length  
Page



**WNMG-PM**      **WNMG-TC**      **WNMG-TK**      **WNMG-XM**      **WNMG-ZM**

06 08	08	08	06 08	08
A109	A110	A110	A107	A109

Edge length  
Page



**RNMG**

12
A112

Edge length  
Page

### Double sided, negative – Medium machining to roughing



**CNMA**      **DNMA**      **SNMA**      **SNUN**      **TNMA**      **WNMA**

12 16 19	15	12 15 19	12 19	16 22	06 08
A61	A69	A84	A86	A99	A111

Edge length  
Page

### Double sided, negative – Roughing






**CNMG-DR**      **CNMG-ER**      **CNMG-SNR**      **DNMG-DR**      **DNMG-ER**      **DNMG-SNR**

12 16 19 25	12 16 19	12 16 19	15	15	15
A57	A58	A57	A68	A69	A68

Edge length  
Page







## Carbide and cermet inserts

### Double sided, negative – Roughing







					
<b>SNMG-DR</b>	<b>SNMG-ER</b>	<b>SNMG-SNR</b>	<b>TNMG-DR</b>	<b>TNMG-ER</b>	<b>TNMG-SNR</b>
12 15 19 25	12 15 19	12	16 22 27	16 22	16
A77	A78	A78	A94	A95	A92
					Edge length
					Page

		
<b>WNMG-DR</b>	<b>WNMG-SNR</b>	
06 08	08	
A111	A109	
		Edge length
		Page

### Single sided, negative – Roughing

					
<b>CNMM</b>	<b>CNMM-DR</b>	<b>CNMM-ER</b>	<b>CNMM-HDR</b>	<b>CNMM-HPR</b>	<b>CNMM-LR</b>
12 19	12 16 19 25	25	12 16 19 25	19 25	12 16 19 25
A60	A58	A58	A60	A60	A59
					Edge length
					Page

			
<b>DNMM-DR</b>	<b>DNMM-ER</b>	<b>DNMM-HDR</b>	<b>DNMM-LR</b>
15	15	15	15
A70	A70	A70	A70
			Edge length
			Page

					
<b>SNMM</b>	<b>SNMM-DR</b>	<b>SNMM-ER</b>	<b>SNMM-HDR</b>	<b>SNMM-HPR</b>	<b>SNMM-LR</b>
19 25	15 19 25	25	12 15 19 25	19 25	12 15 19 25
A85	A79	A79	A81	A82	A80
					Edge length
					Page

			
<b>TNMM</b>	<b>TNMM-DR</b>	<b>TNMM-HDR</b>	<b>TNMM-LR</b>
16 22 27	16 22 27	22 27	16
A99	A95	A97	A95
			Edge length
			Page

### Special form – Finishing

					
<b>CNMG-RF</b>	<b>CNMM-RF</b>	<b>CNMM-RH</b>	<b>KNUX</b>	<b>LNUX-RF</b>	<b>LNUX-RH</b>
19	19	19	16	19 30	19 30
A114	A114	A114	A113	A115	A115
					Edge length
					Page

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## Carbide and cermet inserts

### Positive – Fine-finishing



<b>CCGT-SF</b>	<b>CCGT-USF</b>	<b>CPGT-SF</b>	<b>DCGT-SF</b>	<b>DPGT-SF</b>
06 09	06 09	06 09	07 11	07 11
A116	A116	A124	A125	A131

Edge length  
Page



<b>TBGH</b>	<b>TCGT-SF</b>	<b>TPGH</b>	<b>TPGT-SF</b>
06	06 09 11	09 11	09 11
A139	A140	A146	A147

Edge length  
Page



<b>VBGT-SF</b>	<b>VCGT-SF</b>
11	11 16
A150	A153

Edge length  
Page

### Positive – Finishing



<b>CCMT-AHF</b>	<b>CCMT-EF</b>	<b>CCMT-HF</b>	<b>CCMT-XF</b>	<b>CPMT-HF</b>
06 09 12	06 09 12	06 09 12	06 09	06
A117	A118	A117	A118	A124

Edge length  
Page



<b>DCMT-AHF</b>	<b>DCMT-EF</b>	<b>DCMT-HF</b>	<b>DCMT-XF</b>	<b>SCMT-AHF</b>	<b>SCMT-EF</b>	<b>SCMT-HF</b>	<b>SCMT-XF</b>
07 11	07 11	07 11	07 11	09	09	09	09
A125	A126	A126	A126	A134	A134	A135	A134

Edge length  
Page



<b>TCMT-AHF</b>	<b>TCMT-EF</b>	<b>TCMT-HF</b>	<b>TCMT-XF</b>
11 16	09 11 16	09 11 16	09 11 16
A141	A142	A141	A141

Edge length  
Page

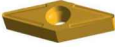






<b>VBET-NF</b>	<b>VBET-NGF</b>	<b>VBMT-AHF</b>	<b>VBMT-EF</b>	<b>VBMT-HF</b>	<b>VBMT-XF</b>
16	16	16	11 16	11	11 16
A149	A151	A148	A148	A149	A148

Edge length  
Page

## Carbide and cermet inserts

### Positive – Finishing

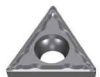

					
<b>VCGT</b>	<b>VCGT-HF</b>	<b>VCGT-NF</b>	<b>VCMT-EF</b>	<b>VCMT-XF</b>	
13	11	16	16	11 16	Edge length
A153	A153	A153	A156	A156	Page

### Positive – Medium machining

					
<b>CCMT-EM</b>	<b>CCMT-HM</b>	<b>CCMT-XM</b>	<b>CCMW</b>	<b>CPGW</b>	<b>CPMT-HM</b>
06 09 12	06 09 12	09 12	09 12	06	09
A119	A120	A119	A121	A124	A124
					Edge length
					Page









					
<b>DCMT-EM</b>	<b>DCMT-HM</b>	<b>DCMT-XM</b>	<b>DCMW</b>		
07 11	07 11	11	11		Edge length
A127	A128	A127	A129		Page

					
<b>SCMT-EM</b>	<b>SCMT-HM</b>	<b>SPMW</b>	<b>SCMT-XM</b>		
09 12	09 12	09 12	09 12		Edge length
A134	A135	A138	A135		Page

					
<b>TCMT</b>	<b>TCMT-EM</b>	<b>TCMT-HM</b>	<b>TCMW</b>	<b>TCMT-XM</b>	
22	09 11 16	09 11 16	16	16	Edge length
A144	A142	A143	A143	A142	Page

					
<b>VBMT-EM</b>	<b>VBMT-HM</b>	<b>VBMT-XM</b>	<b>VCMT-EM</b>	<b>VCMT-XM</b>	
11 16	16	16	16	16	Edge length
A151	A151	A151	A156	A156	Page

### Positive – Roughing

								
<b>CCMT-HR</b>	<b>CCMT-TC</b>	<b>DCMT-HR</b>	<b>RCMT · RCGT</b>	<b>RCMX</b>	<b>RCMX-PV</b>	<b>SCMT-HR</b>	<b>TCMT-HR</b>	
06 09 12	06 09 12	11	08 10 12 16 20 25	08 10 12 16 20 25 32	32	09 12	09 11 16 22	Edge length
A121	A121	A129	A132	A133	A133	A136	A143	Page

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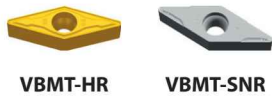
Index

**A**

Turning

## Carbide and cermet inserts

### Positive – Roughing



**VBMT-HR**      **VBMT-SNR**

16	16
A152	A152

Edge length  
Page

**B**

Milling

### Positive – Aluminium machining



**CCGX-LC**      **CCGX-LH**      **DCGX-LC**      **DCGX-LH**      **RCGX-LH**

06 09 12	06 09 12	07 11	07 11	08 12
A122	A122	A129	A130	A132

Edge length  
Page



**SCGX-LC**      **SCGX-LH**      **TCGX-LC**      **TCGX-LH**      **VCGX-LC**      **VCGX-LH**

09 12	09 12	09 11 16	09 11 16	11 16 22	11 16 22
A136	A137	A145	A145	A154	A155

Edge length  
Page

**C**

Drilling

## PCBN & PCD

### Negative



**CNGA-2**      **CNGA-2W**      **DNGA-2**      **SNGA-4**      **TNGA-3**

12	12	15	12	16
A160	A160	A161	A162	A163

Edge length  
Page



**VNGA-2**      **WNGA-3**      **ZNEX**

16	08	04
A164	A165	A166

Edge length  
Page



**CNGN**      **CNGN-M**      **RNGN**      **SNGN**      **SNGN-M**      **WNGN**      **WNGN-M**

09 12	12	09 12	12	12	08	08
A173	A173	A174	A175	A175	A176	A176

Edge length  
Page

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## PCBN & PCD

### Negative

				
<b>CNGA</b>	<b>DNGA</b>	<b>VNGA</b>		
12	15	16		Edge length
A177	A178	A179		Page



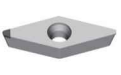


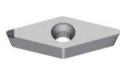
### Positive

					
<b>CCGW-2</b>	<b>DCGW-2</b>	<b>TCGW-3</b>	<b>VBGW-2</b>	<b>VCGW-2</b>	
06 09 12	07 11	11 16	16	11 16	Edge length
A167	A169	A170	A171	A172	Page

					
<b>CCGT</b>	<b>CCGT-1MED</b>	<b>CCGT-L</b>	<b>CCGW</b>	<b>CCGW-L</b>	
06 09 12	06 09	09 12	06 09 12	06 09 12	Edge length
A180	A180	A181	A182	A183	Page







				
<b>DCGT</b>	<b>DCGT-1MED</b>	<b>DCGW</b>		
07 11	07 11	07 11		Edge length
A184	A185	A186		Page

					
<b>TCGT</b>	<b>TCGT-1MED</b>	<b>TCGT-L</b>	<b>TCGW</b>	<b>TCGW-L</b>	
11 16	11 16	11 16	11 16	11 16	Edge length
A187	A187	A188	A189	A190	Page

						
<b>VBGT</b>	<b>VBGT-1MED</b>	<b>VBGW</b>	<b>VCGT</b>	<b>VCGT-1MED</b>	<b>VCGW</b>	
11 16	16	11 16	11 16	11 16	11 16 22	Edge length
A191	A191	A192	A193	A194	A195	Page

## Ceramic inserts

### Negative

						
<b>CNGA</b>	<b>CNGN</b>	<b>CNGX</b>	<b>DNGA</b>	<b>DNGN</b>	<b>DNGX</b>	
12 16	12 16	12	15	15	15	Edge length
A200	A201	A203	A204	A205	A206	Page

**A**

Turning

## Ceramic inserts

### Negative



**RNGA**

12

A207



**RNGN**

06 09 12 15 19 25

A208



**SNGA**

12

A210



**SNGN**

12 15 19

A211



**SNGX**

12

A213



**TNGA**

16 22

A214



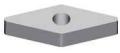
**TNGN**

16 22

A215

Edge length

Page



**VNGA**

16

A216



**WNGA**

08

A217

Edge length

Page

**B**

Milling

### Positive



**RCGX**

06 09 12 19

A218



**RPGN**

12

A219



**RPGX**

09

A220



**TPGN**

11 16

A221

Edge length

Page

**C**

Drilling

**D**

Technical Information

**E**

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## External tool holders

### Holder with double clamping

							
<b>DCLNR/L</b>	<b>DDJNR/L</b>	<b>DSBNR/L</b>	<b>DTGNR/L</b>	<b>DVJNR/L</b>	<b>DVVNN</b>	<b>DWLNR/L</b>	
95°	93°	75°	90°	93°	72.5°	95°	Angle
A230	A231	A232	A233	A235	A234	A236	Page

### Holder with knee lever clamping

								
<b>PCBNR/L</b>	<b>PCLNR/L</b>	<b>PDJNR/L</b>	<b>PDNNR/L</b>	<b>PSBNR/L</b>	<b>PSDNN</b>	<b>PSKNR/L</b>	<b>PSSNR/L</b>	
75°	95°	93°	63°	75°	45°	75°	45°	Angle
A237	A238	A240	A241	A242	A244	A245	A246	Page

				
<b>PTFNR/L</b>	<b>PTGNR/L</b>	<b>PTTNR/L</b>	<b>PWLNR/L</b>	
91°	90°	60°	95°	Angle
A247	A249	A248	A251	Page

### Holder with multi clamping

								
<b>MCBNR/L</b>	<b>MCLNR/L</b>	<b>MDJNR/L</b>	<b>MDPNN</b>	<b>MRDNN</b>	<b>MRGNR/L</b>	<b>MSBNR/L</b>	<b>MSDNN</b>	
75°	95°	93°	62.5°	45°	90°	75°	45°	Angle
A252	A253	A254	A255	A267	A268	A256	A259	Page

								
<b>MSKNR/L</b>	<b>MSRNR/L</b>	<b>MTFNR/L</b>	<b>MTGNR/L</b>	<b>MTJNR/L</b>	<b>MTJNR/L-Z</b>	<b>MVJNR/L</b>	<b>MVVNN</b>	
75°	75°	90°	90°	93°	93°	93°	72.5°	Angle
A258	A257	A263	A260	A261	A262	A265	A264	Page

	
<b>MWLNR/L</b>	
95°	Angle
A266	Page

A

Turning

B

Milling

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**A**

Turning

## External tool holders

### Holder with screw clamping

								
<b>SCACR/L</b>	<b>SCLCR/L</b>	<b>SDACR/L</b>	<b>SDJCR/L</b>	<b>SDNCN</b>	<b>SRDCN</b>	<b>SRGCR/L</b>	<b>SSBCR/L</b>	
90°	95°	90°	93°	63°	45°	90°	75°	Angle
A269	A270	A271	A272	A273	A288	A289	A279	Page

**B**

Milling

								
<b>SSDCN</b>	<b>SSKCR/L</b>	<b>SSSCR/L</b>	<b>STACR/L</b>	<b>STFCR/L</b>	<b>STGCR/L</b>	<b>STTCR/L</b>	<b>SVABR/L</b>	
45°	75°	45°	90°	90°	90°	60°	90°	Angle
A280	A281	A282	A283	A284	A285	A286	A275	Page

					
<b>SVJBR/L</b>	<b>SVJCR/L</b>	<b>SVVBN</b>	<b>SVVCN</b>	<b>SWACR/L</b>	
93°	93°	72.5°	72.5°	90°	
A274	A278	A276	A277	A287	
					Angle
					Page

**C**

Drilling

### Holder with top clamping




		
<b>CKJNR/L</b>	<b>CKNNR/L</b>	
93°	63°	Angle
A290	A291	Page

**D**

Technical Information

### Tool holder for ceramic inserts and solid CBN inserts

								
<b>CCLNR/L</b>	<b>CDJNR/L</b>	<b>CRDNN</b>	<b>CSDNN</b>	<b>CSKNR/L</b>	<b>CSRNR/L</b>	<b>CTJNR/L</b>	<b>CTUNR/L</b>	
95°	93°	45°	45°	75°	75°	93°	93°	Angle
A292	A294	A298	A299	A296	A297	A293	A295	Page

			
<b>JCLNR/L</b>	<b>JDJNR/L</b>	<b>JSDNN</b>	
95°	93°	45°	
A300	A301	A302	
			Angle
			Page

**E**

Index

## External tool holders

### Swiss turning

								
<b>SCACR/L-SC</b>	<b>SCLCR/L-SC</b>	<b>SDACR/L-SC</b>	<b>SDHCR/L-SC</b>	<b>SDJCR/L-SC</b>	<b>SDNCN-SC</b>	<b>SVACR/L-SC</b>	<b>SVJCR/L-SC</b>	
90°	95°	90°	107.5°	93°	63°	90°	93°	Angle
A306	A307	A308	A309	A310	A311	A312	A313	Page

### Rail applications

			
<b>RW-PCLNR/L</b>	<b>RW-PLANR/L</b>	<b>RW-PLFNR/L</b>	
90°	90°	90°	Angle
A318	A316	A317	Page

### Boring bars






#### Steel boring bars with knee lever clamping –

					
<b>A***-PCLNR/L</b>	<b>A***-PDSNR/L</b>	<b>A***-PDUNR/L</b>	<b>A***-PSKNR/L</b>	<b>A***-PTFNR/L</b>	
95°	45°	93°	75°	90°	Angle
A324	A326	A327	A329	A330	Page

						
<b>S***-PCLNR/L</b>	<b>S***-PDSNR/L</b>	<b>S***-PDUNR/L</b>	<b>S***-PSKNR/L</b>	<b>S***-PTFNR/L</b>	<b>S***-PWLNR/L</b>	
95°	45°	93°	75°	90°	95°	Angle
A324	A326	A327	A329	A330	A332	Page

#### Steel boring bars with screw clamping –

				
<b>A***-SCLCR/L</b>	<b>A***-SDQCR/L</b>	<b>A***-SDUCR/L</b>	<b>A***-SDZCR/L</b>	
95°	107.5°	93°	95°	Angle
A334	A336	A337	A338	Page

								
<b>S***-SCFCR/L</b>	<b>S***-SCLCR/L</b>	<b>S***-SCLPR/L</b>	<b>S***-SDQCR/L</b>	<b>S***-SDQPR/L</b>	<b>S***-SDUCR/L</b>	<b>S***-SDUPR/L</b>	<b>S***-SDZCR/L</b>	
90°	95°	95°	107.5°	107.5°	93°	93°	95°	Angle
A352	A334	A348	A336	A349	A337	A350	A338	Page

A

Turning

B

Milling

C

Drilling

D

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**A**

Turning

## Boring bars

Steel boring bars with screw clamping –

				
<b>A***-SSKCR/L</b>	<b>A***-STFCR/L</b>	<b>A***-SVQBR/L</b>	<b>A***-SVUBR/L</b>	
75°	90°	107.5°	93°	Angle
A339	A341	A345	A346	Page

**B**

Milling

							
<b>S***-SSKCR/L</b>	<b>S***-STFCR/L</b>	<b>S***-STUPR/L</b>	<b>S***-SVQBR/L</b>	<b>S***-SVQCR/L</b>	<b>S***-SVUBR/L</b>	<b>S***-SVUCR/L</b>	
75°	90°	93°	107.5°	107.5°	93°	93°	Angle
A339	A341	A351	A345	A343	A346	A344	Page

**C**

Drilling

Solid carbide boring bars with screw clamping –

							
<b>C***-SCLPR/L</b>	<b>C***-SDQPR/L</b>	<b>C***-SDUPR/L</b>	<b>C***-STUPR/L</b>	<b>C***-SVQCR/L</b>	<b>C***-SVUCR/L</b>	<b>C***-SZLNR/L</b>	
A354	A356	A358	A360	A363	A364	A365	Page

							
<b>E***-SCLCR/L</b>	<b>E***-SCLPR/L</b>	<b>E***-SDQCR/L</b>	<b>E***-SDUCR/L</b>	<b>E***-STFCR/L</b>	<b>E***-STFPR/L</b>	<b>E***-SVUCR/L</b>	
95°	95°	107.5°	93°	90°	90°	93°	Angle
A355	A354	A357	A359	A361	A362	A364	Page

**D**

Technical Information

**E**

Index



**A**

Turning

## Negative inserts

Finishing

XF

P



Double-sided chip breaker for finishing operations in the P application field. Superb chip control with low cutting forces.

**B**

Milling

RF

P



Double-sided chip breaker for applications from finishing to medium machining.

**C**

Drilling

SF

P

M

K



Double sided chip breaker in combination with cermet grades. Geometry with high sharpness for improved chip control and great surface quality. Ideal for machining with small cutting depths and feed rates.

**D**

Technical Information

DF

P

K



Double sided chip breaker with good chip control. Suitable for finishing and medium machining of steel and cast iron.

ADF

P

M



Ground, double sided chip breaker with good chip control. Wide range of application due to excellent balance of sharpness and cutting edge stability.

**E**

Index



Negative inserts

Finishing



Double sided chip breaker with sharp cutting edge and large rake angle for finishing of stainless steel.



Double sided chip breaker with ground cutting edge and large rake angle for finishing. E-tolerance for high repeatability.



Double sided chip breaker with ground cutting edge and large rake angle for finishing. E-tolerance for high repeatability.

Wiper



Double sided chip breaker with wiper geometry. Allows to double the feed rate and improves the surface quality.

Medium machining



Double-sided chip breaker for medium machining operations in the P application field. Superb chip control at high and low feed rates.

A

Turning

B

Milling

C

Drilling

D

Technical Information

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**A**

Turning

## Negative inserts

Medium machining

DM P K



Double sided chip breaker for medium machining. Wide range of application due to excellent balance of sharpness and cutting edge stability.

**B**

Milling

ZM P



Double sided chip breaker for medium machining. Wide range of application due to stable cutting edge and large rake angle. Very suitable for machining of steel.

**C**

Drilling

PM P K



Double sided chip breaker for medium machining. Wide range of application in steel and cast iron.

**D**

Technical Information

TC K P



Double sided chip breaker with surrounding cutting edge. Process reliable machining due to highest cutting edge stability.

TK K



Double-sided chip breaker for medium machining operations in the K application field. Optimum combination of impact resistance and cutting edge sharpness.

**E**

Index

Negative inserts

Medium machining



Double sided chip breaker with ground cutting edge and large rake angle for medium machining of heat-resistant materials.



Double sided chip breaker with sharp cutting edge and large rake angle. Process reliable medium machining of stainless steel.

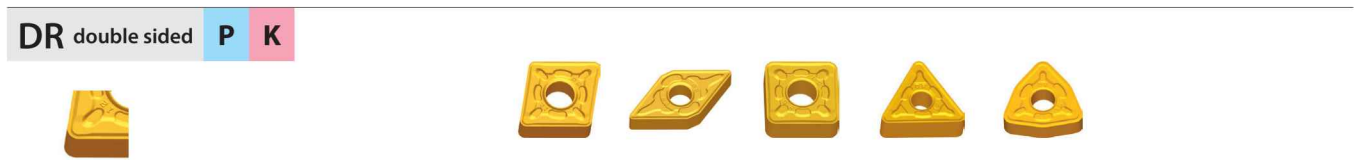


Double sided chip breaker with grinded cutting edge and large rake angle. Wide range of application for medium machining of stainless steel.



Double sided chip breaker with surrounding cutting edge for universal machining of steel and cast iron.

Roughing



Double sided chip breaker with positive rake angle and stable cutting edge for light to medium roughing of steel and cast iron.

A

Turning

B

Milling

C

Drilling

D

Technical Information

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A

## Negative inserts

### Roughing

**DR** single sided **P** **K**



Single sided chipbreaker with positive rake angle and stable cutting edge for light to medium roughing of steel and cast iron.

Turning

B

**RH** **P**



Double-sided chip breaker for applications from medium machining to roughing.

Milling

C

**LR** **P** **M**



Single sided chip breaker with curved cutting edge and unique bumpy geometry. Low cutting pressure for process reliable machining. Light roughing of steel and stainless steel.

Drilling

D

**ER** double sided **M** **S**



Double sided chip breaker with large rake angle for low cutting forces. Suitable for roughing of stainless steel.

Technical Information

E

**ER** single sided **M** **S**



Single sided chip breaker with large rake angle for low cutting forces. Suitable for roughing of stainless steel.

Index

Negative inserts

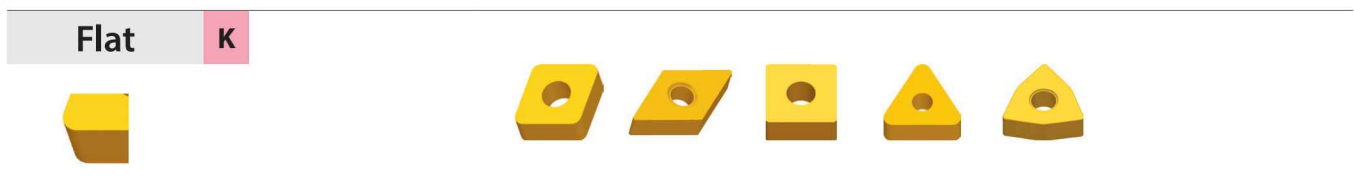
Roughing



Single sided chip breaker with high cutting edge stability and deformation resistance. Excellent for roughing with high cutting depths in steel and stainless steel.



Single sided chip breaker with high cutting edge stability and large chip space. Excellent for heavy roughing in steel and cast iron.

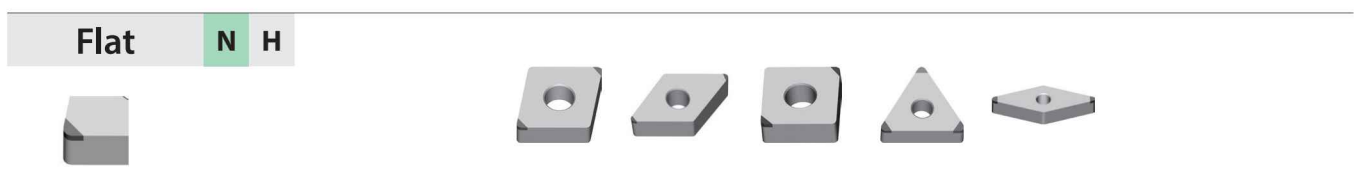


Double sided insert without chip breaker. Stable cutting edge design, due to missing microgeometry. Excellent for roughing in cast iron.



Double sided chip breaker for roughing. Wide range of application due to excellent balance of sharpness and cutting edge stability.

PCBN & PCD inserts



With brazed CBN or PCD cutting edge. For machining of hardened steel (CBN) or non-ferrous metals (PCD).

A

Turning

B

Milling

C

Drilling

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**A**

Turning

## Negative inserts

PCBN & PCD inserts

Flat H K



Solid CBN insert for machining of steel and cast iron.

**B**

Milling

## Ceramic inserts

Flat K H



Ceramic inserts for machining of low hardened steel and cast iron.

**C**

Drilling

## Positive inserts

Fine-finishing

USF P M



Single sided chip breaker for fine finishing. Sharp cutting edge with large hollow flute, excellently suitable for machining small work pieces. G-tolerance for high repeatability.

**D**

Technical Information

R/L P M

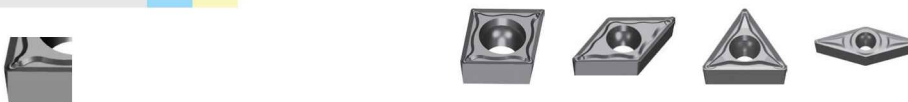


Single sided chip breaker for fine finishing. Excellent for high surface quality. G-tolerance for high repeatability.

**E**

Index

SF P M



Single sided chip breaker in combination with cermet grades. Geometry with high sharpness for improved chip control and great surface quality. Ideal for machining with small cutting depths and feed rates.

**Positive inserts**

Finishing



Single-sided chip breaker for finishing operations in the P application field. Superb chip control with low cutting forces.



Single sided chip breaker with good chip control. Suitable for finishing to medium machining of steel and cast iron.



Ground, single sided chip breaker with good chip control. Wide range of application due to excellent balance of sharpness and cutting edge stability.



Single sided chip breaker with sharp cutting edge and large rake angle for finishing of stainless steel.



Single sided chip breaker with ground cutting edge and large rake angle for finishing. E-tolerance for high repeatability.

**A**

Turning

**B**

Milling

**C**

Drilling

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**A**

Turning

## Positive inserts

Finishing

NGF M S



Single sided chip breaker with ground cutting edge and large rake angle for finishing. E-tolerance for high repeatability.

**B**

Milling

## Medium machining

XM P



Single-sided chip breaker for medium machining operations in the P application field. Superb chip control at high and low feed rates.

**C**

Drilling

TC K P



Single sided chip breaker with encircling cutting edge. Process reliable machining due to highest cutting edge stability.

**D**

Technical Information

HM P K

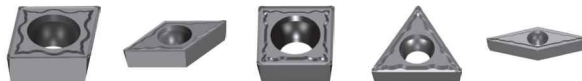


Single sided chip breaker for medium machining. Wide range of application due to excellent balance of sharpness and cutting edge stability.

**E**

Index

EM M S



Single sided chip breaker with sharp cutting edge and large rake angle. Process reliable medium machining of stainless steel.



**Positive inserts**

Medium machining

**Basic** P K



Single sided chip breaker with encircling cutting edge for universal machining of steel and cast iron.

Roughing

**Flat** K



Single sided insert without chip breaker. Stable cutting edge design due to missing microgeometry. Excellent for roughing in cast iron.

**HR** P K



Single sided chip breaker with positive rake angle and stable cutting edge for light to medium roughing of steel and cast iron.

**SNR** S M



Single sided chip breaker for roughing. Wide range of application due to excellent balance of sharpness and cutting edge stability.

**Basic** P K



Single sided chip breaker with encircling cutting edge for universal machining of steel and cast iron.

**A**

Turning

**B**

Milling

**C**

Drilling

**D**

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**A**

Turning

## Positive inserts

Aluminium machining

LC N



Single sided chip breaker with excellent cutting edge design. Sharp cutting edge with positive rake angle. G-tolerance for high repeatability.

**B**

Milling

LH N



Single sided chipbreaker for machining of cast aluminium alloys. Sharp cutting edge with positive rake angle. G-tolerance for high repeatability.

## PCBN & PCD inserts

**C**

Drilling

Flat N H



With brazed CBN or PCD cutting edge. For machining of hardened steel (CBN) or non-ferrous metals (PCD).

**D**

Technical Information

MED N



Laser-cut chip breaker for finishing and medium machining operations.

**E**

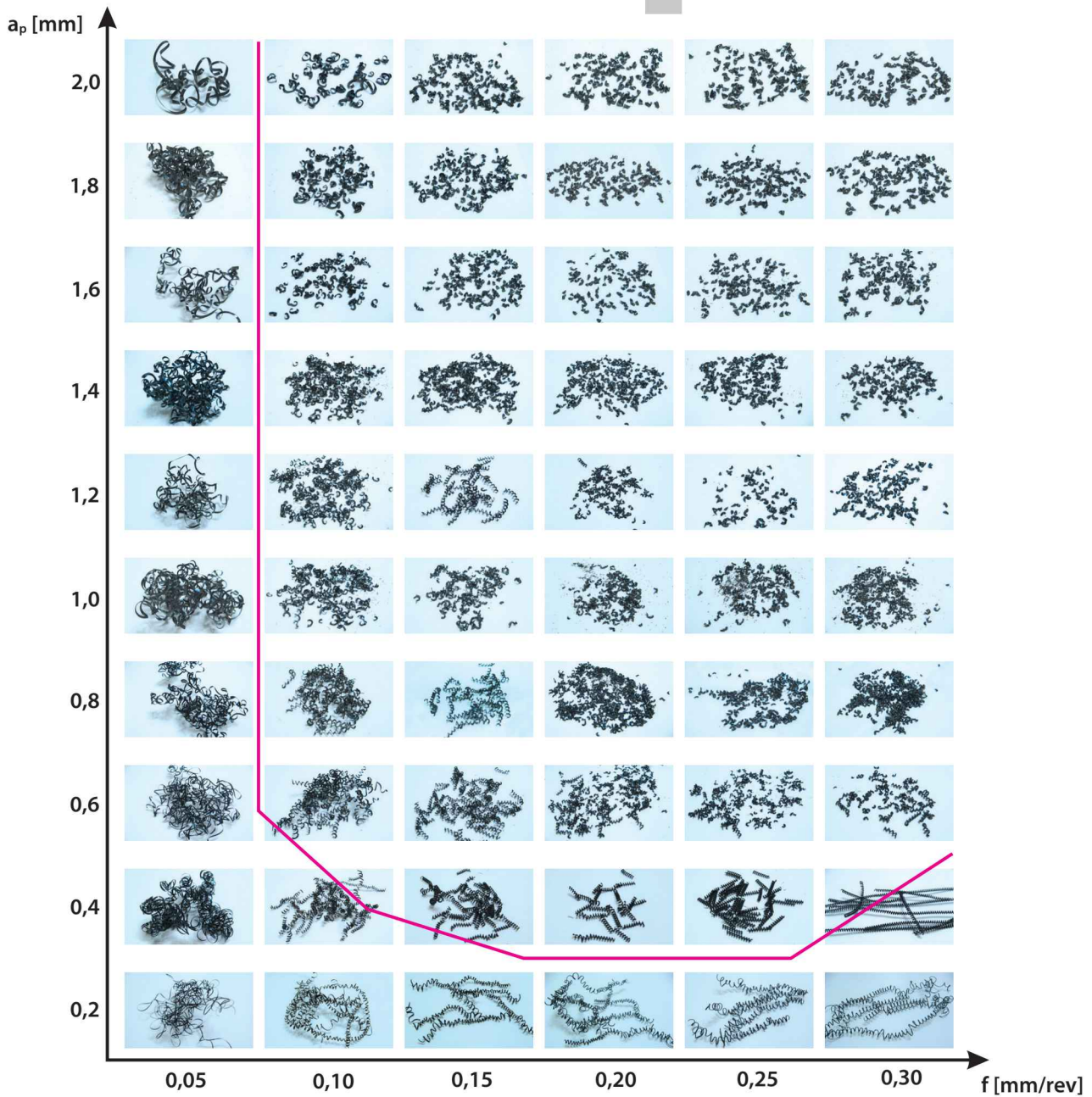
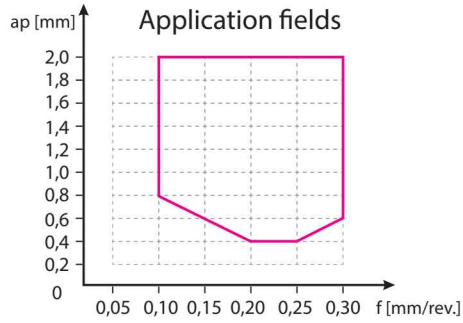
Index

## General turning

### Application fields of chip breakers

**Example**

Insert: CNMG120408-DF  
 Holder: PCLNL2525M12  
 Material: C45 steel  
 $V_C$ : 200 m/min



**A**

Turning

**B**

Milling

**C**

Drilling


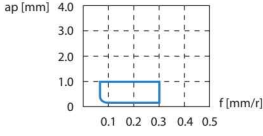
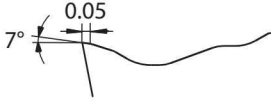

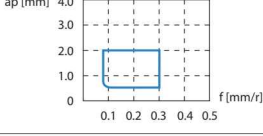
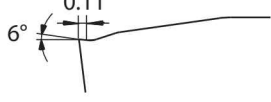

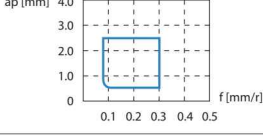
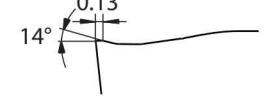

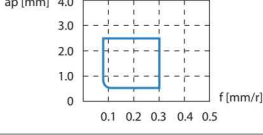
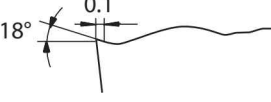

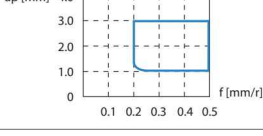
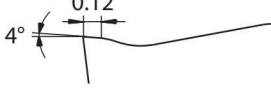

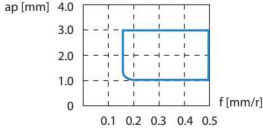
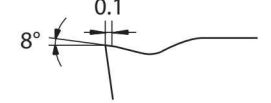

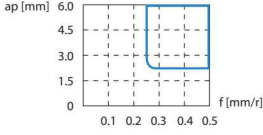

**D**

Technical Information

**E**

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**P Positive inserts**

Chip breaker	Application		Application fields	Cutting edge design
SF	Fine-finishing			
HF	Finishing			
AHF	Finishing			
XF	Finishing			
HM	Medium machining			
XM	Medium machining			
HR	Roughing			

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**P Negative inserts**

Chip breaker	Application	Application fields	Cutting edge design
SF	Fine-finishing		
DF	Finishing		
XF	Finishing		
ADF	Finishing		
DM	Medium machining		
PM	Medium machining		
ZM	Medium machining		
XM	Medium machining		
WG	Medium machining		
Basic	Medium machining		
DR	Roughing		

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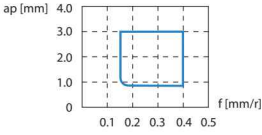
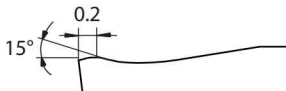

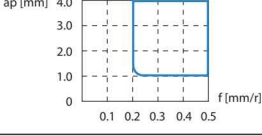
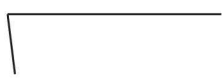
**P Negative inserts**

Chip breaker	Application		Application fields	Cutting edge design
DR (single sided)	Roughing			
LR (single sided)	Roughing			
HDR (single sided)	Roughing			
HPR (single sided)	Roughing			


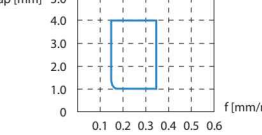
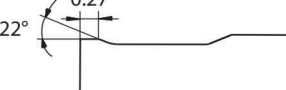

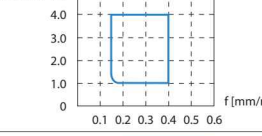
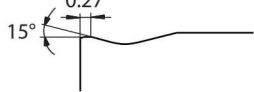

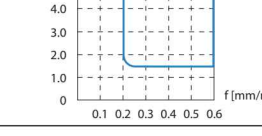

**P Negative inserts (rail technology)**

Chip breaker	Application		Application fields	Cutting edge design
RF	Finishing			
RH	Roughing			

**K Positive inserts**

Chip breaker	Application		Application fields	Cutting edge design
TC	Medium machining			
Flat	Roughing			

**K Negative inserts**

Chip breaker	Application		Application fields	Cutting edge design
TK	Medium machining			
TC	Medium machining			
Flat	Roughing			

**A**

Turning

**B**

Milling

**C**

Drilling


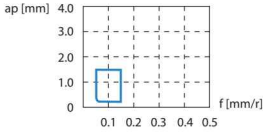
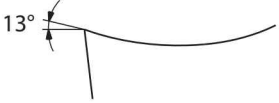


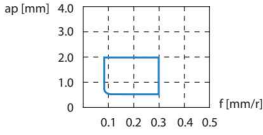
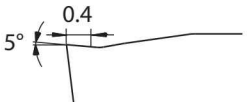



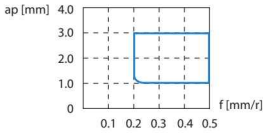
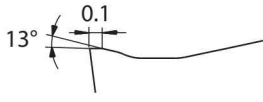
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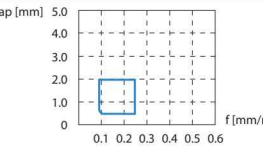
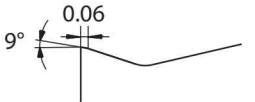


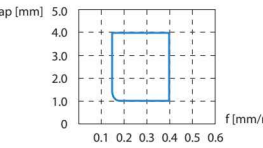
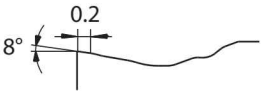


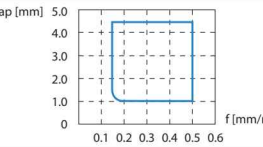
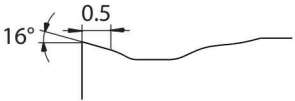



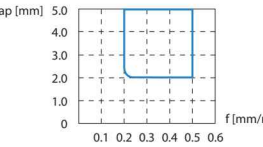
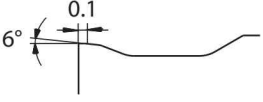



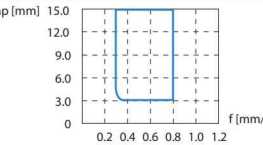
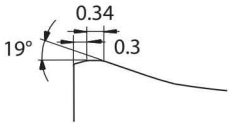
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## M Positive inserts


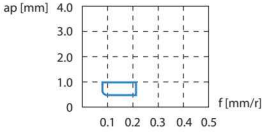
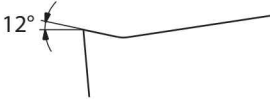

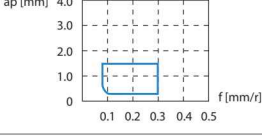


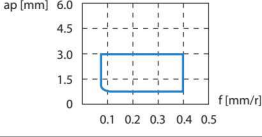
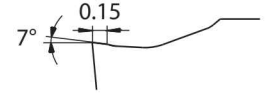
Chip breaker	Application		Application fields	Cutting edge design
USF	Fine-finishing			
EF	Finishing	 		
EM	Medium machining	  		

## M Negative inserts


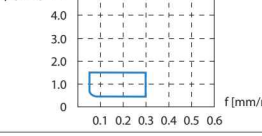
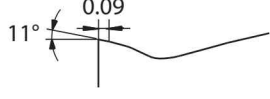

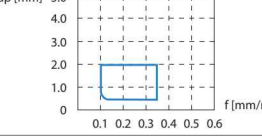


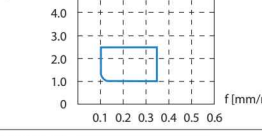
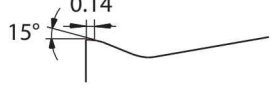

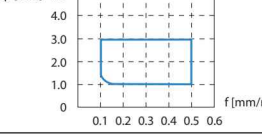
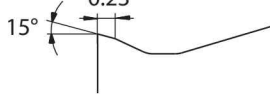
Chip breaker	Application		Application fields	Cutting edge design
EF	Finishing			
EM	Medium machining	 		
EG	Medium machining	 		
ER	Roughing	  		
ER (single sided)	Roughing	  		



**S** Positive inserts

Chip breaker	Application		Application fields	Cutting edge design
NF	Finishing			
NGF	Finishing			
SNR	Roughing			

**S** Negative inserts

Chip breaker	Application		Application fields	Cutting edge design
NF	Finishing			
NGF	Medium machining			
NM	Medium machining			
SNR	Roughing			

**A**

Turning

**B**

Milling

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Drilling


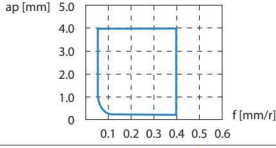
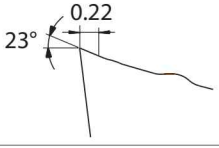

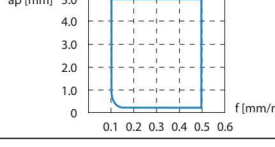
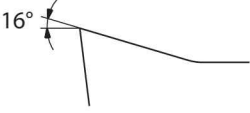
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## N Positive inserts

Chip breaker	Application		Application fields	Cutting edge design
LC	Finishing			
LH	Finishing			

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Milling

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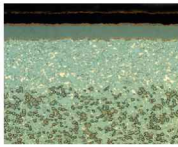
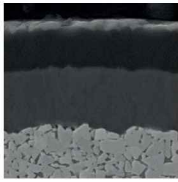
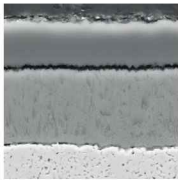
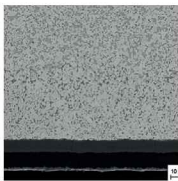
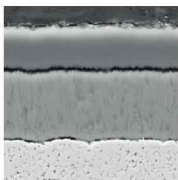
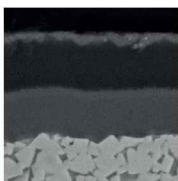

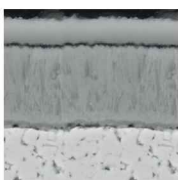
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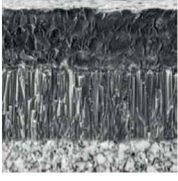
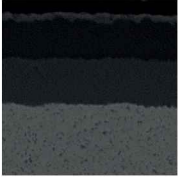
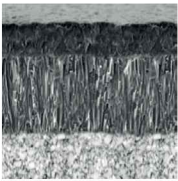
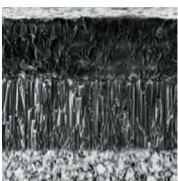
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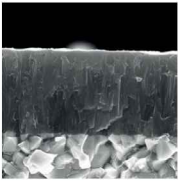
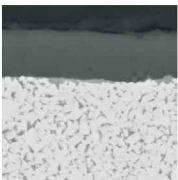

## Coated cemented carbide CVD

Grade	ISO	Micro structure	Grade description
<b>A</b>	Turning		P10 grade with excellent wear resistance at higher cutting speeds. Latest sinter processes and CVD coating technologies enable a wide range of applications in the P material range.
<b>B</b>	Milling		CVD coated P10–P20 carbide grade for finishing to medium operation of steel, casting steel and high chrome material. Outstanding performance under high cutting speed and temperature with excellent wear resistance.
<b>C</b>	Drilling		CVD coated P10–P20 carbide grade for finishing to medium operation of steel and casting steel. Outstanding performance under higher cutting speed and temperature with excellent wear resistance.
<b>D</b>	Technical Information		P20 grade with exceptional wear resistance and toughness for reliable machining operations. Ultra-modern sintering technique and CVD coating technologies allow for a wide range of applications in the P material range.
<b>E</b>	Index		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>F</b>	Index		CVD coated P20–P40 carbide grade for roughing operation of steel and casting steel. Optimal performance of wear resistance and toughness for a wide application field.
<b>G</b>	Index		CVD coated M10–M25 carbide grade for finishing to medium application in stainless steel. High wear resistance and capability against plastic deformation at higher cutting speed.
<b>H</b>	Index		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.

**Coated cemented carbide CVD**

Grade	ISO	Micro structure	Grade description
<b>YBD102</b>	K05 - K20		CVD coated K05-K20 carbide substrate. Optimized for medium operation of cast iron, special nodular cast iron and hard steel at high cutting speed.
<b>YB7315</b>	K10 - K25		CVD coated K10-K25 carbide substrate. Optimized for medium to roughing operation of cast iron. Improved wear resistance and toughness at high cutting speed.
<b>YBD152</b>	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.
<b>YBD152C</b>	K10 - K25		Thick Al <sub>2</sub> O <sub>3</sub> CVD coated K05-K25 carbide substrate. Optimized for medium to roughing operation of cast iron. Higher wear resistance and toughness at higher cutting speed in combination with TC chip breaker.

**Coated cemented carbide PVD**

Grade	ISO	Micro structure	Grade description
<b>YBG101</b>	N05 - N20		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.
<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>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.

**A**

Turning

**B**

Milling

**C**

Drilling

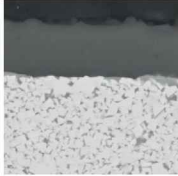
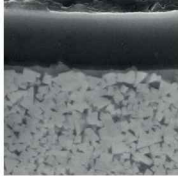
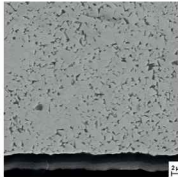
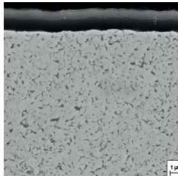
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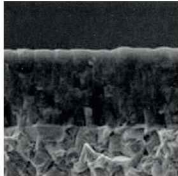
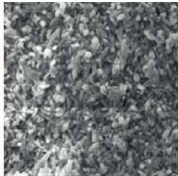
## Coated cemented carbide PVD

Grade	ISO	Micro structure	Grade description
<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>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>YPD201</b>	S20 - S30		Carbide grade for semi-roughing to chip breaking of high-strength and high-alloy materials. High-performance grade with high wear resistance. Balanced hardness and internal stress ratio provide a wide range of applications.
<b>YBS103</b>	S10 - S20		Turning grade for processing nickel-base materials. A special carbide substrate and the latest PVD coating technology enable a very good wear behaviour and high thermal stability.

**C**

Drilling

## Ceramic

Grade	ISO	Micro structure	Grade description
<b>CA1000</b>	K10 - K25 H10 - H25		Uncoated H10–H25/K10–K25 mixed ceramic grade for finishing to medium operation in hardened steel and nodular cast iron. Good wear resistance and toughness.
<b>CM1000</b>	K10 - K25 H10 - H25		Coated H1–H25/K10–K25 mixed ceramic grade for finishing to medium operations in hardened steel, tool steel, HSS material and nodular cast iron. Good wear resistance and toughness.
<b>CN1000</b>	K05 - K15		Uncoated K05–K15 Si <sub>3</sub> N <sub>4</sub> ceramic grade for finishing to medium operation in grey cast iron. Good wear resistance and thermal stability.

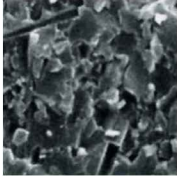
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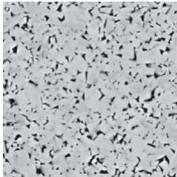

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**Ceramic**

Grade	ISO	Micro structure	Grade description
<b>CS1000</b>	S05 – S20		Uncoated SiAlON ceramic grade for medium machining to roughing of nickel- and cobalt-based alloys at medium to low cutting speeds.
<b>CW1400</b>	S10 – S20 H10-H20		Uncoated whisker ceramic grade for medium and low speed cutting in HSS steel, high chrome steel and cobalt-base alloy also with interrupted cut. Good wear resistance, notch wear resistance and thermal stability.
<b>CW1800</b>	S10 – S25		Uncoated whisker ceramic grade for finishing to rough operations in Ni-base alloy material like Inconel, Nimonic or Hastelloy. Good wear resistance, notch wear resistance and thermal stability.

**Uncoated cemented carbide**

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

**CBN**

Grade	ISO	Micro structure	Grade description
<b>YCB112</b>	S10 – S20		Uncoated, brazed S10–S20 CBN grade for fine finishing operations on hardened steel and super alloys. Excellent wear resistance and thermal stability.

**A**

Turning

**B**

Milling

**C**

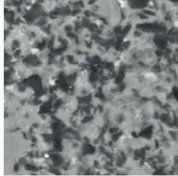
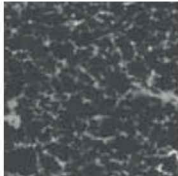
Drilling

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## CBN

Grade	ISO	Micro structure	Grade description
<b>YCB113</b>	H01 - H10		Uncoated, brazed H01–H10 CBN grade for fine finishing operation in hardened steel with continuous cut. High wear resistance and productivity at higher cutting speed.
<b>YCB121</b>	H10 - H25		Uncoated, brazed H10–H25 CBN grade for fine to medium application in hardened steel from continuous to light interrupted cut. Good wear resistance and toughness for universal use.
<b>YCB131</b>	H20 - H35		Uncoated, brazed H20–H35 CBN grade for fine to medium application in hardened steel with interrupted cut. Good wear resistance and optimized toughness for safe process.
<b>YCB113C</b>	H01 - H10		Coated, brazed H01–H10 CBN grade for fine finishing operations on hardened steel with a continuous cut. High wear resistance and productivity at higher cutting speeds
<b>YCB121C</b>	H10 - H25		Coated, brazed H10–H25 CBN grade for fine to medium machining operations on hardened steel with a continuous to partially interrupted cut. Good wear resistance and toughness for universal application.
<b>YCB131C</b>	H20 - H25		Coated, brazed H20–H35 CBN grade for fine to medium machining operations on hardened steel with an interrupted cut. Good wear resistance and optimum toughness for reliable operations.
<b>YCB215</b>	K10 - K20		Uncoated, brazed K10–K20 CBN grade for fine to medium machining operations on cast iron. Excellent wear resistance and thermal conductivity.
<b>YZB630</b>	H20 - H30		Uncoated H20–H30 solid CBN grade for medium machining operations on hardened steel with a slight to medium interrupted cut. Excellent combination of wear resistance and thermal stability.

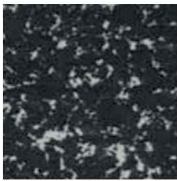


**CBN**

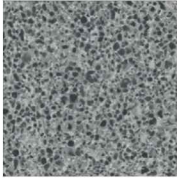
Grade	ISO	Micro structure	Grade description
<b>YZB630C</b>	H20 - H30		Coated H20–H30 solid CBN grade for medium machining operations on hardened steel with a slight to medium interrupted cut. Excellent combination of wear resistance and thermal stability.

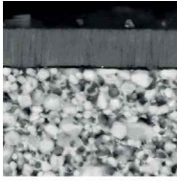
<b>YZB223</b>	K10 - K25		Uncoated H10–H25/K10–K25 mixed ceramic grade for finishing to medium operation in hardened steel and nodular cast iron. Good wear resistance and toughness.
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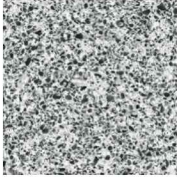
**PCD**

Grade	ISO	Micro structure	Grade description
<b>YCD421</b>	N01 - N10		Uncoated, brazed N01–N10 PCD grade for fine finishing operation of aluminum alloys less than 12 % Si, composites, copper/magnesium and other alloys. Medium grain size grade with good wear resistance for a wide application field.

**Cermet**

Grade	ISO	Micro structure	Grade description
<b>YNG151</b>	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.

<b>YNG151C</b>	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.
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<b>YNT251</b>	P10 - P25		Uncoated P10–P25 cermet grade for fine finishing to medium operation of steel and stainless steel. Good wear resistance and toughness. Suitable also in light interrupted cut.
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Turning

**B**

Milling

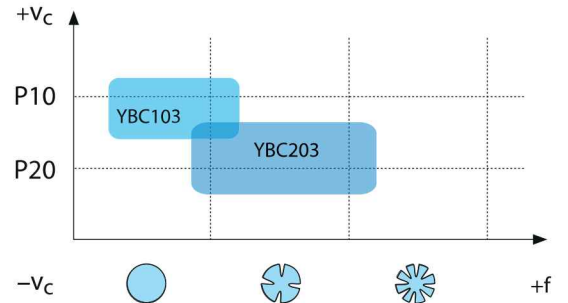
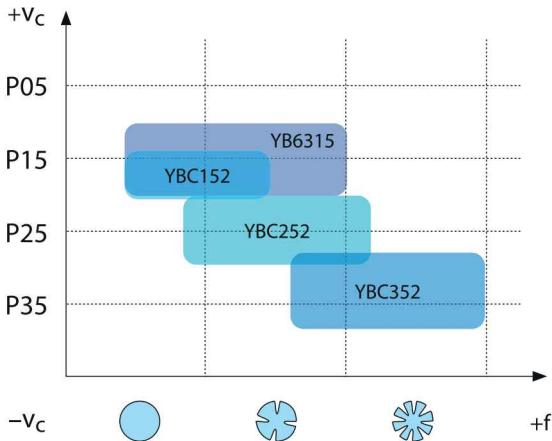
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Drilling

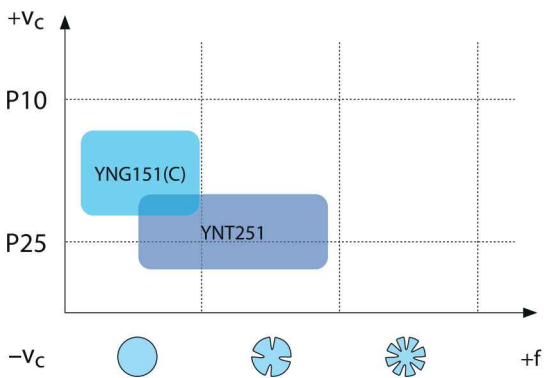
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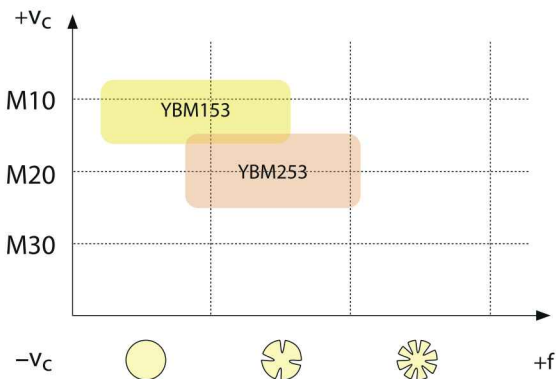
## CVD coated carbide grades for steel



## Cermet grades for steel



## CVD coated carbide grades for stainless steel



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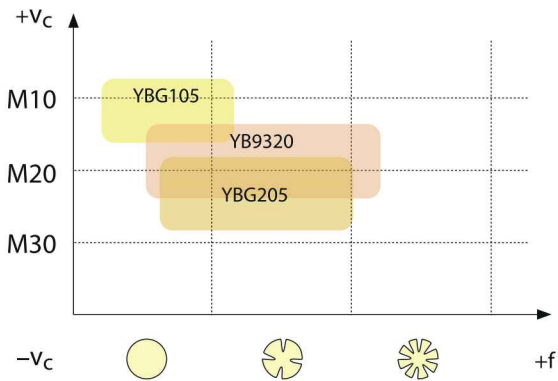
D

Technical Information

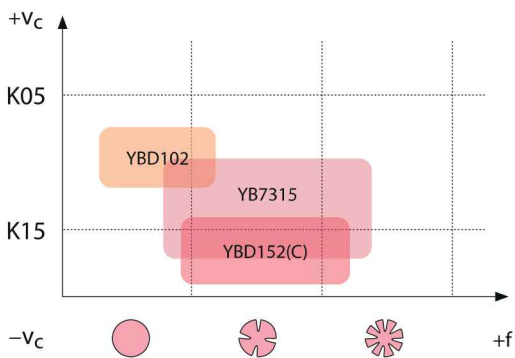
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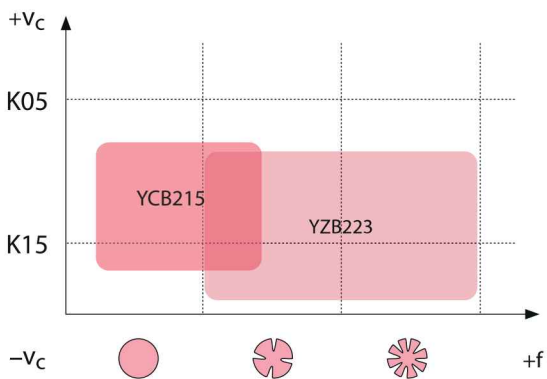
**PVD coated carbide grades for stainless steel**



**CVD coated carbide grades for cast iron**



**CBN grades for cast iron**



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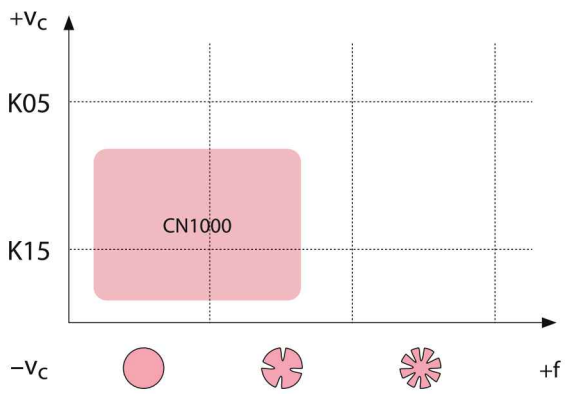
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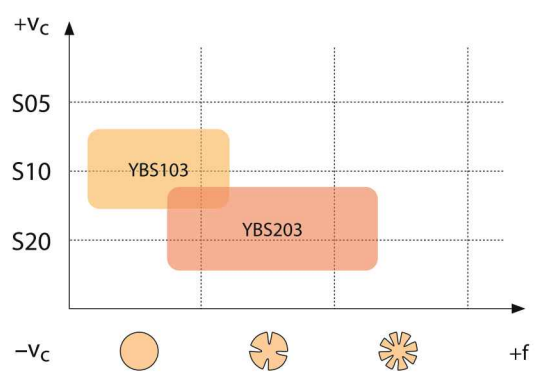
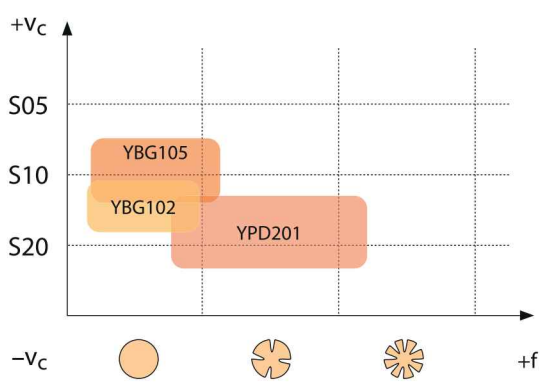
## Ceramic grades for cast iron



**B**

Milling

## PVD coated carbide grades for superalloys



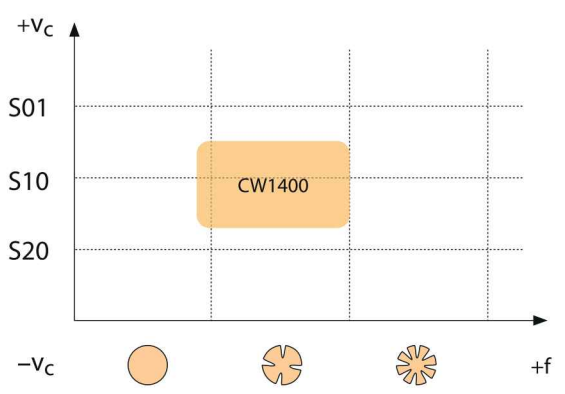
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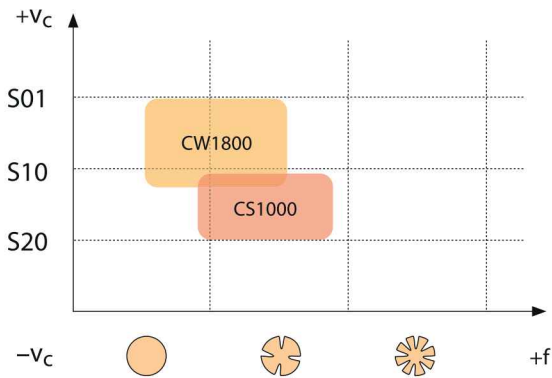
## Ceramic grades for cobalt base alloys/HSS



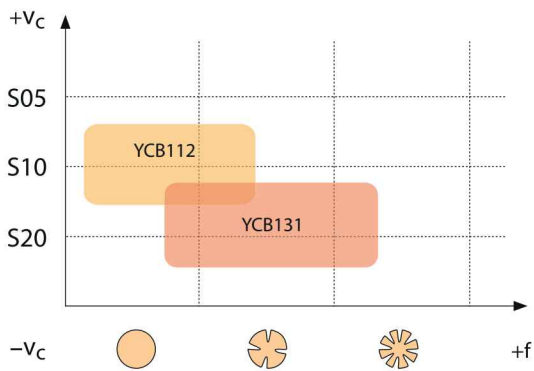
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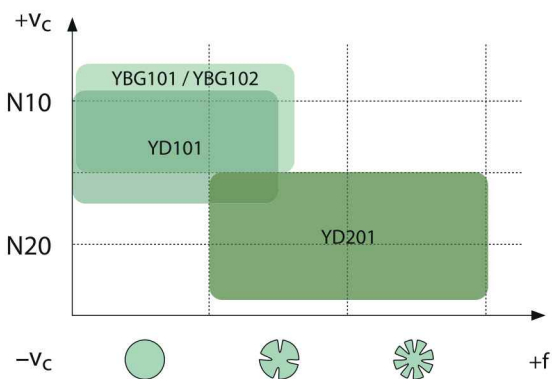
**Ceramic grades for nickel base alloys**



**CBN grades for superalloys**



**Carbide grades for non-ferrous metals**



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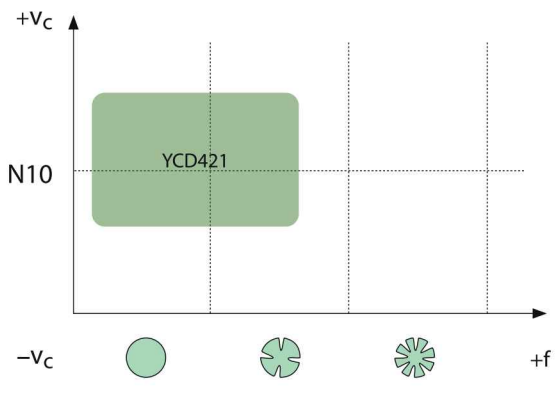
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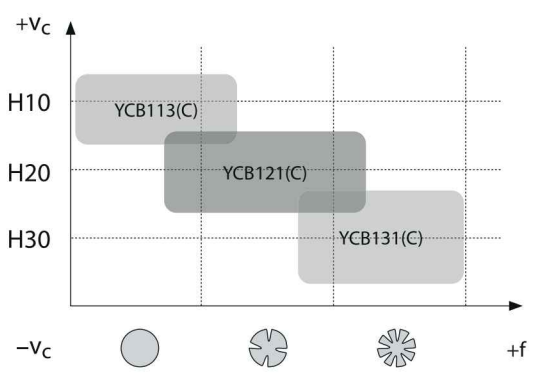
## PCD grades for non-ferrous metals



**B**

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## CBN grades for hardened steel



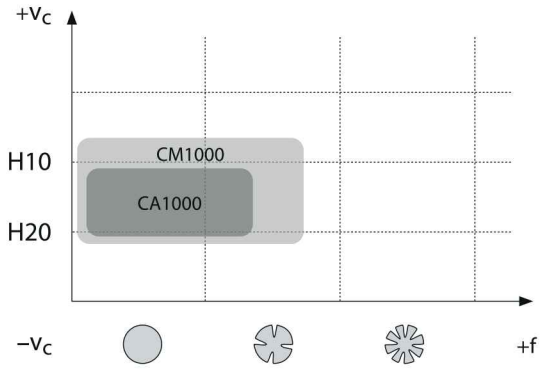
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## Ceramic grades for hardened steel



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Application fields of grades – general turning

	ISO	HC <sup>1</sup> (CVD)	HC <sup>1</sup> (PVD)	HT	HC <sup>2</sup>	Ceramic	HW	CBN	PCD
<b>P</b>	P01	YBC103		YNG151	YNG151C				
	P10	YB6315		YNT251					
	P20	YBC152							
	P30	YBC203							
	P40	YBC252							
		YBC352							
<b>M</b>	M01		YBG105	YNG151	YNG151C				
	M10	YBM153	YB9320						
	M20		YBG205						
	M30	YBM253							
	M40								
<b>K</b>	K01	YBD102				CN1000		YCB215	YZB223
	K10	YBD152					YD201		
	K20	YB7315							
	K30	YBD152C							
<b>N</b>	N01								
	N10		YBG101				YD101		YCD421
	N20		YBG102				YD201		
	N30								
<b>S</b>	S01		YBS103			CS1000		YCB112	
	S10		YBG102			CW1400		YCB131	
	S20		YBG105			CW1800			
	S30		YB9320	YPD201					
<b>H</b>	H01							YCB113(C)	
	H10							YCB121(C)	
	H20								YCB131(C)
	H30								

- P** Steel
- M** Stainless steel
- K** Cast iron

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

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

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## ISO standard

**T N M G 22 04 08 (N) – DM**

**1 2 3 4 5 6 7 8 9**

**Insert shape**

**1**

**Clearance angle**

**2**

**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	±0,05–0,15	±0,005	±0,025
K	±0,05–0,15	±0,013	±0,025
L	±0,05–0,15	±0,025	±0,025
M	±0,05–0,15	±0,08–0,20	±0,130
N	±0,05–0,15	±0,08–0,20	±0,025
U	±0,08–0,25	±0,13–0,38	±0,130

**3**

**Fastening features (metric)**

**Insert shape**

**4**

**Cutting edge length l [mm]**

I.C [mm]	Insert shape							
	C	D	R	S	T	V	W	K
3,97	06							
5,0	05							
5,56	09							
6,0	06							
6,35	06	07			11	11		
8,0	08							
9,525	09	11	09	09	16	16	06	16
10,0	10							
12,0	12							
12,7	12	15	12	12	22	22	08	
15,875	16		15	15	27			
16,0		19	16					
19,05	19		19	19	33			
20,0	20							
25,0	25	25	25					
25,4	25							
31,75	31							
32	32							

**5**

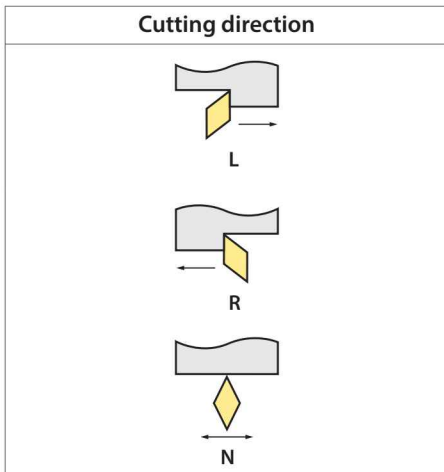


Insert thickness S [mm]			
Code	S	Code	S
00	0,79	T5	5,95
T0	0,99	06	6,35
01	1,59	T6	6,75
T1	1,98	07	7,94
02	2,38	09	9,52
T2	2,58	T9	9,72
03	3,18	11	11,11
T3	3,97	12	12,70
04	4,76		
T4	4,96		
05	5,56		

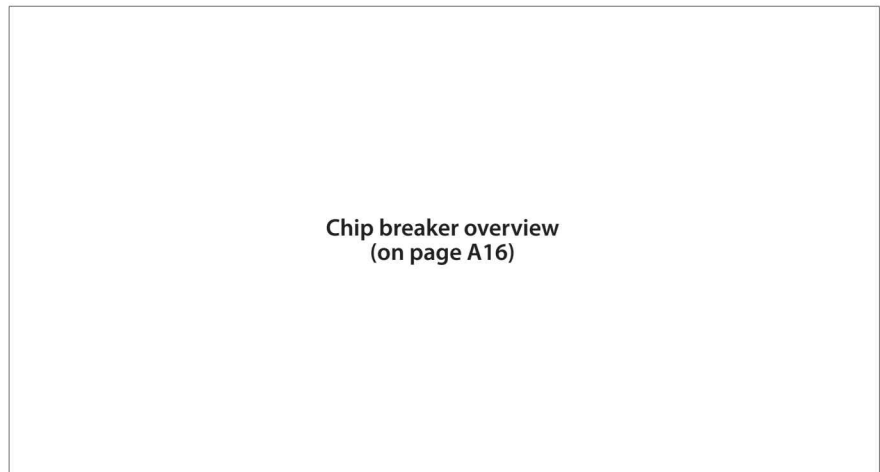
**6**

Nose radius r [mm]	
Code	r
00	–
02	0,2
04	0,4
08	0,8
12	1,2
16	1,6
20	2,0
24	2,4
32	3,2
X	Special
MO	Round inserts

**7**



**8**



**9**

**ANSI standard**



Inner circle		
Code	[mm]	Pouce
2	6.35	0.250
3	9.525	0.375
4	12.7	0.500
5	15.875	0.625
6	19.05	0.750
8	25.4	1.000

**5**

Insert thickness		
Code	[mm]	Pouce
2	3.18	0.125
3	4.76	0.187
4	6.35	0.250
5	7.94	0.313
6	9.52	0.375





**6**

Nose radius		
Code	[mm]	Pouce
0	0.2	0.008
1	0.4	0.016
2	0.8	0.031
3	1.2	0.047
4	1.6	0.063
5	2.0	0.079
6	2.4	0.094


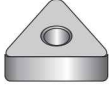

**7**



## Conversion table for general turning inserts (metric/imperial system)




Negative angle/insert

	ISO	Inch
Insert shape C 	090304	321
	090308	322
	120404	431
	120408	432
	120412	433
	120416	434
	160608	542
	160612	543
	160616	544
	190608	642
	190612	643
	190616	644
	190624	646
	250724	856
	250732	858
	250924	866
250932	868	
Insert shape D 	110404	331
	110408	332
	110412	333
	150404	431
	150408	432
	150412	433
	150604	441
	150608	442
	150612	443
	190608	542
190612	543	
Insert shape V 	160404	331
	160408	332
	160412	333
Insert shape R 	0903MO	32
	1204MO	43

Positive angle/insert

	ISO	Inch
Insert shape W 	06T304	3(2.5)1
	06T308	3(2.5)2
	06T312	3(2.5)3
	060404	331
	060408	332
	060412	333
	080404	431
	080408	432
	080412	433
	Insert shape T 	113304
110308		222
160404		331
160408		332
160412		333
220404		431
220408		432
220412		433
220416		434
270608		542
270612	543	
270616	544	
Insert shape S 	090304	321
	090308	322
	090312	323
	120404	431
	120408	432
	120412	433
	120416	434
	150608	542
	150612	543
	150616	544
	190412	633
	190424	636
	190612	643
	190616	644
	250724	856
	250732	858
250924	866	
250932	868	

	ISO	Inch
Insert shape C 	060202	2(1.5)0
	060204	2(1.5)1
	060208	2(1.5)2
	09T302	3(2.5)0
	09T304	3(2.5)1
	09T308	3(2.5)2
	120404	431
	120408	432
	120412	433
	Inserts shape T 	06T102
06T104		1.2(1.2)1
06T108		1.2(1.2)2
090202		1.8(1.5)0
090204		1.8(1.5)1
090208		1.8(1.5)2
110202		2(1.5)0
110204		2(1.5)1
110208		2(1.5)2
110302		220
110304	221	
110308	222	
16T302	30	
16T304	31	
16T308	32	
16T312	33	
160400	330	
220408	432	
220412	433	
220416	434	
270408	532	
270412	533	
330612	643	
330616	644	

	ISO	Inch
Insert shape D 	070202	2(1.5)0
	070204	2(1.5)1
	070208	2(1.5)2
	11T302	3(2.5)0
	11T304	3(2.5)1
	11T308	3(2.5)2
	11T312	3(2.5)3
Insert shape S 	060204	2(1.5)1
	09T302	3(2.5)0
	09T304	3(2.5)1
	09T308	3(2.5)2
	120404	431
	120408	432
	120412	433
	150404	531
150408	532	
150412	533	
190408	632	
190412	633	
190416	634	
Inserts shape V 	110202	2(1.5)0
	110204	2(1.5)1
	110208	2(1.5)2
	110302	220
	110304	221
	110308	222
	160402	330
160404	331	
160408	332	
160412	333	

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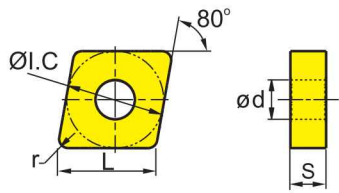
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- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

CNMG	L	I.C	S	d
09 03	9.7	9.525	3.18	3.81
12 04	12.9	12.7	4.76	5.16

**Turning inserts**



CN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)				HT	HC <sup>2</sup>	HW										
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
<b>WG</b>  Wiper	<b>CNMG120404-WG</b>	0.4	0.25-3.00	0.05-0.25	○																							
	<b>CNMG120408-WG</b>	0.8	0.5-5.0	0.15-0.70	●	●						○																
	<b>CNMG120412-WG</b>	1.2	0.8-6.0	0.20-0.75	●																							
<b>ADF</b>  Finishing	<b>CNMG120404-ADF</b>	0.4	0.5-3.0	0.05-0.30	●													●	●									
	<b>CNMG120408-ADF</b>	0.8	0.5-3.0	0.1-0.4	●													○	●					●				
	<b>CNMG120412-ADF</b>	1.2	0.8-3.0	0.15-0.50	○															●				●				
<b>DF</b>  Finishing	<b>CNMG090304-DF</b>	0.4	0.25-1.50	0.07-0.30	●	●																						
	<b>CNMG090308-DF</b>	0.8	0.3-1.5	0.1-0.3	●	○																						
	<b>CNMG120404-DF</b>	0.4	0.25-1.50	0.07-0.30	●	●																						
	<b>CNMG120408-DF</b>	0.8	0.3-1.5	0.1-0.4	●	●																						
	<b>CNMG120412-DF</b>	1.2	0.35-1.50	0.10-0.35	●	●																						
<b>EF</b>  Finishing	<b>CNMG090304-EF</b>	0.4	0.5-2.0	0.05-0.20						○								●										
	<b>CNMG090308-EF</b>	0.8	0.5-2.0	0.05-0.25						○								●										
	<b>CNMG120404-EF</b>	0.4	0.5-2.5	0.05-0.20						●								●										
	<b>CNMG120408-EF</b>	0.8	0.5-2.5	0.05-0.25						●								●										
	<b>CNMG120412-EF</b>	1.2	0.5-2.5	0.10-0.35						○								○										
<b>SF</b>  Finishing	<b>CNMG090304-SF</b>	0.4	0.05-0.50	0.05-0.30																					●			
	<b>CNMG120404-SF</b>	0.4	0.1-1.5	0.05-0.30																					●			
	<b>CNMG120408-SF</b>	0.8	0.1-1.5	0.10-0.35																					●			

● Ex stock ○ On demand  
YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder					
DCLNR/L	PCBNR/L	PCLNR/L	MCBNR/L	MCLNR/L	A***-PCLNR/L
Kr: 95°	Kr: 75°	Kr: 95°	Kr: 75°	Kr: 95°	Kr: 95°
A230	A237	A238	A252	A253	A324

System code > A48    Grade selection > A42    Technical info > A501    Cutting data > A366



**A** Turning  
**B** Milling  
**C** Drilling  
**D** Technical Information  
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# General turning Negative inserts

**A**

Turning

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

CN**	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16

## Turning inserts

CN** negative insert					HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)		HT	HC <sup>2</sup>	HW													
					P	●	●	●	⊗	⊗	⊗	●	●	●	●	●	●													
					M					●	●	●	●	●	●	●	●	●	●											
					K									●	●	●	●	●	●											
					N										●	●				●	●									
					S												●	●	●	●	●									
					H																									
ISO	r	a <sub>p</sub>	f		YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201		
NF 	<b>CNEG120404-NF</b>	0.4	0.2-2.5	0.05-0.30													○	●										○		
	<b>CNEG120408-NF</b>	0.8	0.2-2.5	0.10-0.35														○	●									○		
	<b>CNEG120412-NF</b>	1.2	0.2-2.5	0.13-0.40														○	●									○		
XF 	<b>CNMG120404-XF</b>	0.4	0.5-2.5	0.1-0.25	●			●																						
	<b>CNMG120408-XF</b>	0.8	0.5-2.5	0.1-0.30	●			●																						
	<b>CNMG120412-XF</b>	1.2	0.5-2.5	0.1-0.35	●			●																						

● Ex stock    ○ On demand

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

**B**

Milling

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Tool holder					
DCLNR/L	PCBNR/L	PCLNR/L	MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 95°	Kr: 75°	Kr: 95°	Kr: 75°	Kr: 95°	Kr: 95°
A230	A237	A238	A252	A253	A324

System code > A48

Grade selection > A42

Technical info > A501

Cutting data > A366

CNMG	L	I.C	S	d
09 03	9.7	9.525	3.18	3.81
12 04	12.9	12.7	4.76	5.16
16 06	16.1	15.875	6.35	6.35
19 06	19.3	19.05	6.35	7.94

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

**Turning inserts**

CN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)		HT	HC <sup>2</sup>	HW													
				P	M	K	N	S	H																				
	ISO	r	a <sub>p</sub>	f	YBC103	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YBD7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201		
	<b>PM</b>  Medium Cut	CNMG090304-PM	0.4	0.4-4.0	0.1-0.3				●																				
		CNMG090308-PM	0.8	0.5-4.0	0.15-0.50				●																				
		CNMG120404-PM	0.4	0.4-5.5	0.1-0.3		●	●					●	●															
		CNMG120408-PM	0.8	0.5-5.5	0.15-0.50		●	●	●				●	●															
		CNMG120412-PM	1.2	0.8-5.5	0.18-0.60		●	●					●	●															
		CNMG120416-PM	1.6	1.0-5.5	0.23-0.65		●	●					●	●															
		CNMG160608-PM	0.8	0.5-7.2	0.15-0.50		○	●					○	○															
		CNMG160612-PM	1.2	0.8-7.2	0.18-0.60		●	●					●	●															
		CNMG160616-PM	1.6	1.0-7.2	0.23-0.65			●					●	○															
		CNMG190608-PM	0.8	0.5-8.6	0.15-0.50			●																					
		CNMG190612-PM	1.2	0.8-8.6	0.18-0.60			●					○	●															
		CNMG190616-PM	1.6	1.0-8.6	0.23-0.65				○					○															
	<b>XM</b>  Medium Cut	CNMG120404-XM	0.4	1-4.2	0.2-0.3	●		○																					
		CNMG120408-XM	0.8	1-4.2	0.2-0.4	●		●																					
		CNMG120412-XM	1.2	1-4.2	0.2-0.6	●		●																					
		CNMG120416-XM	1.6	1-4.2	0.2-0.65	●		●																					
		CNMG160608-XM	0.8	1-5.6	0.2-0.4	●		●																					
		CNMG160612-XM	1.2	1-5.6	0.2-0.6	●		●																					
CNMG160616-XM		1.6	1-5.6	0.2-0.65	○		●																						
CNMG190608-XM		0.8	1-6.65	0.2-0.4	●		●																						
CNMG190612-XM	1.2	1-6.65	0.2-0.6	○		●																							
CNMG190616-XM	1.6	1-6.65	0.2-0.65	○		●																							

● Ex stock ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder					
DCLNR/L	PCBNR/L	PCLNR/L	MCBNR/L	MCLNR/L	A***-PCLNR/L
Kr: 95°	Kr: 75°	Kr: 95°	Kr: 75°	Kr: 95°	Kr: 95°
A230	A237	A238	A252	A253	A324

**A**

Turning

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CNMG	L	I.C	S	d
09 03	9.7	9.525	3.18	3.81
12 04	12.9	12.7	4.76	5.16
16 06	16.1	15.875	6.35	6.35
19 06	19.3	19.05	6.35	7.94



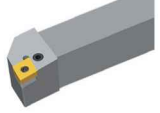


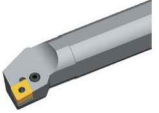
- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

### Turning inserts

CN** negative insert				HC <sup>1</sup> (CVD)										HC <sup>1</sup> (PVD)		HT	HC <sup>2</sup>	HW										
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
<b>DM</b> 																												
<b>EG</b> 																												
<b>EM</b> 																												

● Ex stock    ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder					
DCLNR/L	PCBNR/L	PCLNR/L	MCBNR/L	MCLNR/L	A***-PCLNR/L
Kr: 95°	Kr: 75°	Kr: 95°	Kr: 75°	Kr: 95°	Kr: 95°
					
A230	A237	A238	A252	A253	A324

System code > A48    Grade selection > A42    Technical info > A501    Cutting data > A366



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

CNMG	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16

**Turning inserts**

CN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW										
				<b>P</b>	●	●	●	●	●	●	●	●	●	●	●	●											
				<b>M</b>						●	⊗			●	●	●	●	●	●								
				<b>K</b>								●	●	●	●	●	●	●									
				<b>N</b>										●	●				●	●							
				<b>S</b>											●	●	●	●		●	●						
				<b>H</b>																							
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
ZM	<b>CNMG120404-ZM</b>	0.4	0.5-3.0	0.05-0.30	●																						
	<b>CNMG120408-ZM</b>	0.8	0.5-4.0	0.1-0.5	○																						
Medium Cut																											

● Ex stock ○ On demand

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

Tool holder					
DCLNR/L	PCBNR/L	PCLNR/L	MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 95°	Kr: 75°	Kr: 95°	Kr: 75°	Kr: 95°	Kr: 95°
A230	A237	A238	A252	A253	A324

System code > A48

Grade selection > A42

Technical info > A501

Cutting data > A366



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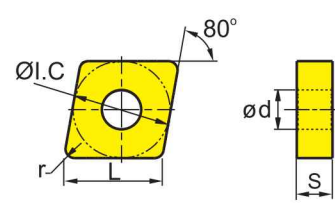



**A**

Turning

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

CNMG	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16
16 06	16.1	15.875	6.35	6.35

## Turning inserts

CN** negative insert					HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)		HT	HC <sup>2</sup>	HW															
					P	●	●	●	⊗	⊗	⊗	●	●	●	●	●	●	●	●													
					M	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●											
					K	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●										
					N	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●										
					S	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●										
					H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●										
ISO	r	a <sub>p</sub>	f		YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201				
<b>NM</b>  Medium Cut	<b>CNMG120404-NM</b>	0.4	0.2-3.0	0.05-0.30													○	●														
	<b>CNMG120408-NM</b>	0.8	0.2-4.0	0.1-0.5														○	●	●	●							○				
	<b>CNMG120412-NM</b>	1.2	0.2-4.0	0.2-0.6														○	●													
<b>TC</b>  Medium Cut	<b>CNMG120404-TC</b>	0.4	0.5-5.0	0.08-0.40									●	●																		
	<b>CNMG120408-TC</b>	0.8	0.5-5.0	0.15-0.50									●	●																		
	<b>CNMG120412-TC</b>	1.2	0.5-5.0	0.2-0.6									●	●																		
	<b>CNMG120416-TC</b>	1.6	0.5-5.0	0.20-0.65									●	○																		
	<b>CNMG160608-TC</b>	0.8	1-7	0.15-0.50									●	●																		
	<b>CNMG160612-TC</b>	1.2	1-7	0.2-0.6									●	●																		
	<b>CNMG160616-TC</b>	1.6	1-7	0.20-0.65									●	○																		
<b>TK</b>  Medium Cut	<b>CNMG120408-TK</b>	0.8	0.2-0.4	0.2-0.4									○																			
	<b>CNMG120412-TK</b>	1.2	0.2-0.4	0.2-0.45									○																			
	<b>CNMG120416-TK</b>	1.6	0.2-0.4	0.2-0.5									●																			

● Ex stock    ○ On demand

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

**B**

Milling

**C**

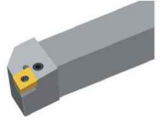
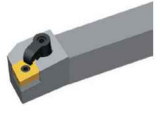
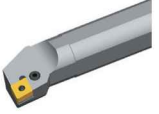
Drilling

**D**

Technical Information

**E**

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Tool holder					
DCLNR/L	PCBNR/L	PCLNR/L	MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 95°	Kr: 75°	Kr: 95°	Kr: 75°	Kr: 95°	Kr: 95°
					
A230	A237	A238	A252	A253	A324





CNMG	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16
16 06	16.1	15.875	6.35	6.35
19 06	19.3	19.05	6.35	7.94
25 09	25.79	25.4	9.525	9.12

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

**Turning inserts**

CN** negative insert					HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW											
					P	M	K	N	S	H																			
					ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251
<b>DR</b>  Roughing	CNMG120408-DR	0.8	0.7-7.0	0.2-0.5	○	●	●	●	●	●	●	●	●	●	●	●													
	CNMG120412-DR	1.2	1-7	0.25-0.70	○	●	●	●	●	●	●	●	●	●	●	●													
	CNMG120416-DR	1.6	1.5-7.0	0.32-0.75	○	●	●	●	●	●	●	●	●	●	●	●													
	CNMG160608-DR	0.8	0.7-8.0	0.2-0.5					●	●	●	●	●	●	●	●													
	CNMG160612-DR	1.2	1-8	0.25-0.70	○	●	●	●	●	●	●	●	●	●	●	●													
	CNMG160616-DR	1.6	1.5-8.0	0.3-0.8	○	●	●	●	●	●	●	●	●	●	●	●													
	CNMG190608-DR	0.8	0.7-10.0	0.2-0.5			●	●	●	●	●	●	●	●	●	●													
	CNMG190612-DR	1.2	1-10	0.25-0.70	○	●	●	●	●	●	●	●	●	●	●	●													
	CNMG190616-DR	1.6	1.5-10.0	0.3-0.8			●	●	●	●	●	●	●	●	●	●													
	CNMG190624-DR	2.4	2-10	0.32-0.90	○				●	●	●	●	●	●	●	●													
CNMG250924-DR	2.4	2-15	0.4-1.0						●	●	●	●	●	●	●														
<b>SNR</b>  Roughing	CNMG120408-SNR	0.8	1-3	0.1-0.4													●			●	●								
	CNMG120412-SNR	1.2	1-3	0.2-0.6														●			●	●							
	CNMG160608-SNR	0.8	2-6	0.1-0.4														●			●	●						○	
	CNMG190616-SNR	1.6	2-7	0.2-0.6														○			●	●						○	

● Ex stock ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder					
DCLNR/L	PCBNR/L	PCLNR/L	MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 95°	Kr: 75°	Kr: 95°	Kr: 75°	Kr: 95°	Kr: 95°
A230	A237	A238	A252	A253	A324

**A**

Turning

**B**

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Drilling

**D**

Technical Information

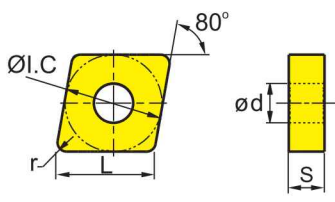
**E**

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CN**	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16
16 06	16.1	15.875	6.35	6.35
19 06	19.3	19.05	6.35	7.94
25 07	25.79	25.4	7.94	9.12
25 09	25.79	25.4	9.525	9.12

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

### Turning inserts



CN** negative insert				HC <sup>1</sup> (CVD)										HC <sup>1</sup> (PVD)		HT	HC <sup>2</sup>	HW										
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
<b>DR</b>	<b>CNMM120412-DR</b>	1.2	1.0-7.5	0.25-0.70	○	●	●	●	○	○																		
	<b>CNMM160612-DR</b>	1.2	1.0-9.5	0.25-0.70		●	●																					
	<b>CNMM160616-DR</b>	1.6	1.5-9.5	0.32-0.90		●	●	○																				
	<b>CNMM190612-DR</b>	1.2	1-12	0.25-0.70	○	●	●	●	●			●																
<b>Roughing</b>	<b>CNMM190616-DR</b>	1.6	1.5-12.0	0.32-0.90		●	●	●																				
	<b>CNMM190624-DR</b>	2.4	2-12	0.35-1.20	○	●	●																					
	<b>CNMM250924-DR</b>	2.4	2.0-12.5	0.2-1.2		●	●	○																				
<b>ER</b>	<b>CNMG120408-ER</b>	0.8	2.0-7.6	0.15-0.55								○																
	<b>CNMG120412-ER</b>	1.2	2.0-7.6	0.25-0.80								○																
	<b>CNMG160612-ER</b>	1.2	2-10	0.35-0.80								○																
	<b>CNMG160616-ER</b>	1.6	2-10	0.45-1.00								○																
<b>Roughing</b>	<b>CNMG190612-ER</b>	1.2	2.0-11.4	0.35-1.00				○			○								○									
	<b>CNMG190616-ER</b>	1.6	2.0-11.4	0.45-1.10							○																	
<b>ER</b>	<b>CNMM250724-ER</b>	2.4	2.0-12.5	0.3-1.4					●																			
	<b>CNMM250732-ER</b>	3.2	2.0-12.5	0.45-1.80					○																			
	<b>CNMM250924-ER</b>	2.4	2.0-12.5	0.3-1.4					●			○																
<b>Roughing</b>	<b>CNMM250932-ER</b>	3.2	2.0-12.5	0.45-1.80					●																			

● Ex stock   ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder					
DCLNR/L	PCBNR/L	PCLNR/L	MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 95°	Kr: 75°	Kr: 95°	Kr: 75°	Kr: 95°	Kr: 95°
A230	A237	A238	A252	A253	A324



CNMM	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16
16 06	16.1	15.875	6.35	6.35
19 06	19.3	19.05	6.35	7.94
25 09	25.79	25.4	9.525	9.12

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

**Turning inserts**

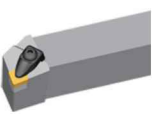

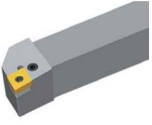



CN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)		HT	HC <sup>2</sup>	HW	
ISO	r	a <sub>p</sub>	f	P	M	K	N	S	H								

LR	ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	

● Ex stock ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder					
DCLNR/L	PCBNR/L	PCLNR/L	MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 95°	Kr: 75°	Kr: 95°	Kr: 75°	Kr: 95°	Kr: 95°
					
A230	A237	A238	A252	A253	A324

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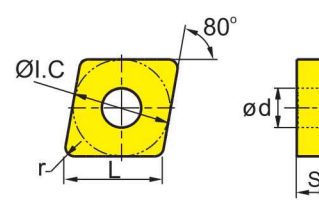

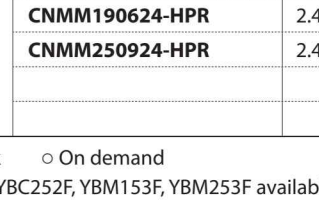
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CNMM	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16
16 06	16.1	15.875	6.35	6.35
19 06	19.3	19.05	6.35	7.94
25 09	25.79	25.4	9.525	9.12

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

## Turning inserts

CN** negative insert					HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)		HT	HC <sup>2</sup>	HW											
					P	M	K	N	S	H	YBC103	YBC152	YBM153	YBM253	YBD102	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
ISO	r	a <sub>p</sub>	f																									
Basic 	CNMM120404	0.4	0.5-7.0	0.1-0.5	●	●	●	●	●	●																		
	CNMM190612	1.2	0.5-10.5	0.1-0.8																								
	CNMM190616	1.6	0.5-10.5	0.1-1.0																								
HDR 	CNMM120408-HDR	0.8	1-7	0.2-0.6							●	●																
	CNMM120412-HDR	1.2	1-7	0.3-0.8							○	●																
	CNMM120416-HDR	1.6	1-7	0.4-1.0							●	●																
	CNMM160612-HDR	1.2	1.5-7.5	0.3-0.8							●	●																
	CNMM160616-HDR	1.6	1.5-8.5	0.4-1.0							○	●																
	CNMM160624-HDR	2.4	1.5-10.5	0.8-1.2							○	○																
	CNMM190608-HDR	0.8	2.0-12.5	0.3-0.7							○																	
	CNMM190612-HDR	1.2	2.0-12.5	0.35-0.80							○	●																
	CNMM190616-HDR	1.6	2.0-12.5	0.5-1.1							○	●	●			○												
	CNMM190624-HDR	2.4	2.0-12.5	0.8-1.2							●	●																
CNMM250924-HDR	2.4	2.0-12.5	0.8-1.4							○	●																	
HPR 	CNMM190616-HPR	1.6	2.0-10.5	0.5-1.0									○															
	CNMM190624-HPR	2.4	2.0-10.5	0.7-1.4							●	○																
	CNMM250924-HPR	2.4	2.0-12.5	0.7-1.4								●	●															

● Ex stock    ○ On demand  
YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder					
DCLNR/L	PCBNR/L	PCLNR/L	MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 95°	Kr: 75°	Kr: 95°	Kr: 75°	Kr: 95°	Kr: 95°
					
A230	A237	A238	A252	A253	A324

System code > A48    Grade selection > A42    Technical info > A501    Cutting data > A366

CN**	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16
16 06	16.1	15.875	6.35	6.35
19 06	19.3	19.05	6.35	7.94

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

**Turning inserts**

CN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW									
ISO	r	a <sub>p</sub>	f	P	M	K	N	S	H																	
				YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101
Flat 	CNMA120404	0.4	0.2-5.0	0.05-0.40																						
	CNMA120408	0.8	0.2-5.0	0.05-0.50																						
	CNMA120412	1.2	0.2-5.0	0.1-0.6																						
	CNMA120416	1.6	0.2-5.0	0.10-0.65																						
	CNMA160608	0.8	0.2-7.0	0.1-0.5																						
	CNMA160612	1.2	0.2-7.0	0.1-0.6																						
	CNMA160616	1.6	0.2-7.0	0.15-0.65																						
	CNMA190612	1.2	0.2-8.0	0.15-0.70																						
	CNMA190616	1.6	0.2-8.0	0.15-0.70																						
Basic 	CNMG120404	0.4	0.1-5.0	0.05-0.50																						
	CNMG120408	0.8	0.1-5.0	0.1-0.6																						
	CNMG120412	1.2	0.1-5.0	0.1-0.7																						
	CNMG160612	1.2	0.1-7.0	0.1-0.7																						
	CNMG190608	0.8	0.1-8.0	0.1-0.7																						
	CNMG190612	1.2	0.1-8.0	0.1-0.8																						
	CNMG190616	1.6	0.1-8.0	0.1-1.0																						

● Ex stock ○ On demand  
YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder					
DCLNR/L	PCBNR/L	PCLNR/L	MCBNR/L	MCLNR/L	S***-PCLNR/L
Kr: 95°	Kr: 75°	Kr: 95°	Kr: 75°	Kr: 95°	Kr: 95°
A230	A237	A238	A252	A253	A324

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- Ideal machining conditions
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DN**	L	I.C	S	d
11 04	11.6	9.525	4.76	3.81
15 04	15.5	12.7	4.76	5.16
15 06	15.5	12.7	6.35	5.16

## Turning inserts

DN** negative insert	HC <sup>1</sup> (CVD)					HC <sup>1</sup> (PVD)					HT		HC <sup>2</sup>		HW				
	P	M	K	N	S	H	P	M	K	N	S	H	P	M	K	N	S	H	
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

	ISO	r	a <sub>p</sub>	f	Machining conditions																					
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C
WG 	<b>DNMX110404-WG</b>	0.4	0.2-1.5	0.08-0.30	○																					
	<b>DNMX110408-WG</b>	0.8	0.5-3.5	0.15-0.50	●	●																				
	<b>DNMX150408-WG</b>	0.8	0.5-5.0	0.15-0.70	○																					
	<b>DNMX150608-WG</b>	0.8	0.5-5.0	0.15-0.70	○	○																				
Wiper	<b>DNMX150612-WG</b>	1.2	0.8-6.0	0.20-0.75	○																					
ADF 	<b>DNMG150604-ADF</b>	0.4	0.5-6.0	0.15-0.50	○												●					○				
	<b>DNMG150608-ADF</b>	0.8	0.1-4.0	0.08-0.50	○												●	●					○			
	<b>DNMG150612-ADF</b>	1.2	0.5-4.0	0.15-0.50	○													●								
Finishing	<b>DNMG110404-DF</b>	0.4	0.15-2.00	0.08-0.25		●	●																			
	<b>DNMG110408-DF</b>	0.8	0.15-2.00	0.1-0.3		●	●																			
	<b>DNMG110412-DF</b>	1.2	0.35-1.50	0.15-0.50		○																				
	<b>DNMG150404-DF</b>	0.4	0.15-2.00	0.08-0.25		●	●																			
	<b>DNMG150408-DF</b>	0.8	0.15-2.00	0.1-0.3		●	●																			
	<b>DNMG150412-DF</b>	1.2	0.35-1.50	0.15-0.50				○																		
	<b>DNMG150604-DF</b>	0.4	0.8-6.0	0.18-0.60		●	●																			
	<b>DNMG150608-DF</b>	0.8	0.15-2.00	0.1-0.3		●	●																			
	<b>DNMG150612-DF</b>	1.2	0.2-2.5	0.10-0.35		●																				
	SF 	<b>DNMG110404-SF</b>	0.4	0.05-0.50	0.05-0.25																				●	
<b>DNMG150404-SF</b>		0.4	0.05-0.50	0.05-0.25																				●		
<b>DNMG150408-SF</b>		0.8	0.05-0.50	0.10-0.35																				●		
<b>DNMG150604-SF</b>		0.4	0.05-0.50	0.05-0.25																				●		
<b>DNMG150608-SF</b>		0.8	0.05-0.50	0.10-0.35																				●		

● Ex stock ○ On demand  
YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder						
DDJNR/L	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L	A***-PDUNR/L
Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'	Kr: 93°
A231	A240	A241	A254	A255	A326	A327

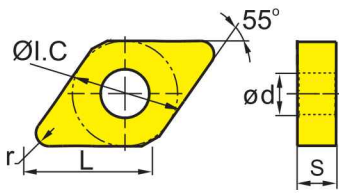
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- Ideal machining conditions
- Normal machining conditions
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DNMG	L	I.C	S	d
11 04	11.6	9.525	4.76	3.81
15 06	15.5	12.7	6.35	5.16

**Turning inserts**



DN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW			
				P	M	K	N	S	H											
ISO				r	a <sub>p</sub>	f														
XF 	DNMG110404-XF	0.4	0.5-2.0	0.1-0.25	●															
	DNMG110408-XF	0.8	0.5-2.0	0.1-0.30	○															
	DNMG150604-XF	0.4	0.5-2.5	0.1-0.25	●	●														
	DNMG150608-XF	0.8	0.5-2.5	0.1-0.30	●	●														
	DNMG150612-XF	1.2	0.5-2.5	0.1-0.35	●	●														
XM 	DNMG110404-XM	0.4	1-3.85	0.2-0.4	●	○														
	DNMG110408-XM	0.8	1-3.85	0.2-0.4	●	○														
	DNMG110412-XM	1.2	1-3.85	0.2-0.6	●	○														
	DNMG150604-XM	0.4	1-5.25	0.2-0.4	●	●														
	DNMG150608-XM	0.8	1-5.25	0.2-0.4	●	●														
	DNMG150612-XM	1.2	1-5.25	0.2-0.6	●	●														
	DNMG150616-XM	1.6	1-5.25	0.2-0.65	●	●														

● Ex stock ○ On demand

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

**Tool holder**

DDJNR/L	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L	A***-PDUNR/L
Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'	Kr: 93°
A231	A240	A241	A254	A255	A326	A327

System code > A48

Grade selection > A42

Technical info > A501

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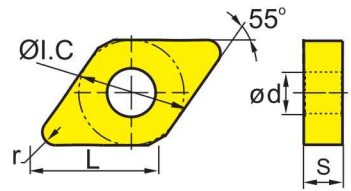
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DNMG	L	I.C	S	d
11 04	11.6	9.525	4.76	3.81
15 04	15.5	12.7	4.76	5.16
15 06	15.5	12.7	6.35	5.16

### Turning inserts



DN** negative insert				HC <sup>1</sup> (CVD)										HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW																		
ISO	r	a <sub>p</sub>	f	P	M	K	N	S	H	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201				
DM Medium Cut	DNMG110404-DM	0.4	0.4-5.0	0.1-0.3	●	●							●	●																							
	DNMG110408-DM	0.8	0.5-5.0	0.15-0.50		●	●																														
	DNMG110412-DM	1.2	0.8-5.0	0.18-0.50		●	●																														
	DNMG150404-DM	0.4	0.4-6.0	0.1-0.3		●	●																														
	DNMG150408-DM	0.8	0.5-6.0	0.15-0.50		●	●																														
	DNMG150412-DM	1.2	0.8-6.0	0.18-0.60		○	●																														
	DNMG150604-DM	0.4	1-6	0.23-0.65		●	●																														
	DNMG150608-DM	0.8	0.5-6.0	0.15-0.50		○	●	●										●																			
	DNMG150612-DM	1.2	0.8-6.0	0.18-0.60		○	●	●																													
	DNMG150616-DM	1.6	1-6	0.23-0.65		○	●	●																													
PM Medium Cut	DNMG110404-PM	0.4	0.4-5.0	0.1-0.3											●				○																		
	DNMG110408-PM	0.8	0.5-5.0	0.15-0.50								○	●						●																		
	DNMG110412-PM	1.2	0.8-5.0	0.18-0.50										○					●																		
	DNMG150404-PM	0.4	0.4-6.0	0.1-0.3									○																								
	DNMG150408-PM	0.8	0.5-6.0	0.15-0.50									●	●					●	●																	
	DNMG150412-PM	1.2	0.8-6.0	0.18-0.60											○																						
	DNMG150416-PM	1.6	1-6	0.23-0.65												○																					
	DNMG150604-PM	0.4	0.4-6.0	0.1-0.3									●	●					●	○																	
	DNMG150608-PM	0.8	0.5-6.0	0.15-0.50									●	●	●				●	●																	
	DNMG150612-PM	1.2	0.8-6.0	0.18-0.60									●	●					●	●																	
DNMG150616-PM	1.6	1-6	0.23-0.65											●																							

● Ex stock   ○ On demand  
YBC152F, YBC252F, YBM153F, YBM253F available

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

### Tool holder

DDJNR/L	PDJNR/L	PDNRR/L	MDJNR/L	MDPNN	S***-PDSNR/L	A***-PDUNR/L
Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'	Kr: 93°
A231	A240	A241	A254	A255	A326	A327





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

DNMG	L	I.C	S	d
15 06	15.5	12.7	6.35	5.16

**Turning inserts**

DN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW											
				<b>P</b>	●●●●●●●●●●										●●●●	●●●●												
				<b>M</b>			●●●●●●●●									●●●●●●●●	●●●●●●●●											
				<b>K</b>								●●●●●●●●																
				<b>N</b>										●●●●					●●●●	●●●●								
				<b>S</b>												●●●●●●●●			●●●●	●●●●								
				<b>H</b>																								
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
ZM	<b>DNMG150612-ZM</b>	1.2	1.0-5.5	0.15-0.60	○	●																						
Medium Cut																												

● Ex stock ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder						
DDJNR/L	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L	S***-PDUNR/L
Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'	Kr: 93°
A231	A240	A241	A254	A255	A326	A327

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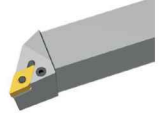
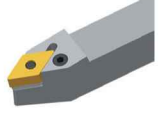
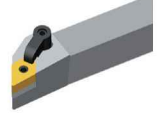



DN**	L	I.C	S	d
11 04	11.6	9.525	4.76	3.81
15 04	15.5	12.7	4.76	5.16
15 06	15.5	12.7	6.35	5.16

### Turning inserts

DN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)		HT	HC <sup>2</sup>	HW											
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
 EF Finishing	<b>DNMG110404-EF</b>	0.4	0.1-1.5	0.05-0.20						○									●								
	<b>DNMG110408-EF</b>	0.8	0.1-1.5	0.1-0.4						○									●								
	<b>DNMG150404-EF</b>	0.4	0.1-1.5	0.05-0.30															●								
	<b>DNMG150408-EF</b>	0.8	0.1-1.5	0.1-0.4															●								
	<b>DNMG150604-EF</b>	0.4	0.1-1.5	0.05-0.30							●								●								
	<b>DNMG150608-EF</b>	0.8	0.1-1.5	0.1-0.4							●								●								
	<b>DNMG150612-EF</b>	1.2	0.1-1.5	0.15-0.50															●								
 FM Finishing	<b>DNMG150604L-FM</b>	0.4	0.5-3.0	0.05-0.30						●								●									
	<b>DNMG150604R-FM</b>	0.4	0.5-3.0	0.05-0.30			●		●									●									
	<b>DNMG150608L-FM</b>	0.8	0.5-3.0	0.1-0.5			○		●									●									
	<b>DNMG150608R-FM</b>	0.8	0.5-3.0	0.1-0.5			●		●									●									
 NF Finishing	<b>DNEG150404-NF</b>	0.4	0.2-3.0	0.05-0.30														○									
	<b>DNEG150408-NF</b>	0.8	0.2-3.0	0.1-0.4														○									
	<b>DNEG150604-NF</b>	0.4	0.2-3.0	0.05-0.30														○	●							○	
	<b>DNEG150608-NF</b>	0.8	0.2-3.0	0.1-0.4														○	●							○	
 NGF Finishing	<b>DNEG150608-NGF</b>	0.8	0.2-3.0	0.05-0.40														●									
	<b>DNEG150612-NGF</b>	1.2	0.2-3.0	0.1-0.5														●									

● Ex stock   ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

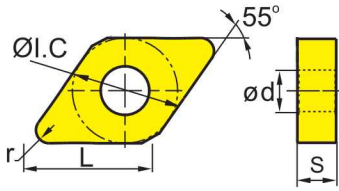
Tool holder						
DDJNR/L	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L	A***-PDUNR/L
Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'	Kr: 93°
						
A231	A240	A241	A254	A255	A326	A327



DNMG	L	I.C	S	d
11 04	11.6	9.525	4.76	3.81
15 04	15.5	12.7	4.76	5.16
15 06	15.5	12.7	6.35	5.16

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

**Turning inserts**



DN** negative insert					HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW															
					P	M	K	N	S	H																							
ISO					r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YBD315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201		
EG	<b>DNMG150604-EG</b>	0.4	1-3	0.05-0.30										●																			
	<b>DNMG150608-EG</b>	0.8	1-3	0.1-0.4										●	○																		
	<b>DNMG150612-EG</b>	1.2	1-3	0.2-0.6										●	●																		
EM	<b>DNMG110404-EM</b>	0.4	0.5-4.4	0.05-0.30										●																			
	<b>DNMG110408-EM</b>	0.8	0.5-4.4	0.10-0.45										●																			
	<b>DNMG150404-EM</b>	0.4	0.5-6.4	0.05-0.30										○																			
	<b>DNMG150408-EM</b>	0.8	0.5-6.4	0.10-0.45										○																			
	<b>DNMG150412-EM</b>	1.2	0.5-6.4	0.1-0.6										○																			
	<b>DNMG150604-EM</b>	0.4	0.2-6.4	0.05-0.30											●	●																	
	<b>DNMG150608-EM</b>	0.8	0.5-6.4	0.10-0.45											●	●																	
NM	<b>DNMG150412-NM</b>	1.2	0.2-4.0	0.2-0.6																													
	<b>DNMG150608-NM</b>	0.8	0.2-4.0	0.1-0.4																													
	<b>DNMG150612-NM</b>	1.2	0.2-4.0	0.2-0.6																													
TC	<b>DNMG150608-TC</b>	0.8	0.5-5.0	0.15-0.40												●	●																
	<b>DNMG150612-TC</b>	1.2	0.5-5.0	0.2-0.6												●	○																

● Ex stock ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder						
DDJNR/L	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L	A***-PDUNR/L
Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'	Kr: 93°
A231	A240	A241	A254	A255	A326	A327

**A**

Turning

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

DNMG	L	I.C	S	d
15 06	15.5	12.7	6.35	5.16

## Turning inserts

DN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW										
				P	M	K	N	S	H																		
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
TK	DNMG150608-TK	0.8	0.2-0.4	0.2-0.4																							
	DNMG150612-TK	1.2	0.2-0.4	0.2-0.45																							
Medium Cut																											
DR	DNMG150608-DR	0.8	1-6	0.2-0.5																							
	DNMG150612-DR	1.2	1-6	0.25-0.70																							
	DNMG150616-DR	1.6	1-6	0.32-0.75																							
Roughing																											
SNR	DNMG150608-SNR	0.8	0.2-6.0	0.1-0.5																							
	DNMG150612-SNR	1.2	0.2-6.0	0.2-0.6																							
Roughing																											

● Ex stock    ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

**B**

Milling

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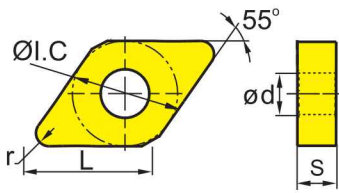
Tool holder						
DDJNR/L	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L	S***-PDUNR/L
Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'	Kr: 93°
A231	A240	A241	A254	A255	A326	A327



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

DN**	L	I.C	S	d
15 06	15.5	12.7	6.35	5.16

**Turning inserts**



DN** negative insert				HC <sup>1</sup> (CVD)						HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW													
				P	M	K	N	S	H																			
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
Flat 	<b>DNMA150604</b>	0.4	0.2-6.0	0.1-0.3																								
	<b>DNMA150608</b>	0.8	0.2-6.0	0.1-0.6																								
	<b>DNMA150612</b>	1.2	0.2-6.0	0.15-0.70																								
	<b>DNMA150616</b>	1.6	0.2-6.0	0.2-0.8																								
Medium Cut 																												
ER 	<b>DNMG150608-ER</b>	0.8	2-6	0.15-0.55																								
	<b>DNMG150612-ER</b>	1.2	2-6	0.25-0.80																								
Roughing 																												

● Ex stock ○ On demand  
YBC152F, YBC252F, YBM153F, YBM253F available

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

**Tool holder**

DDJNR/L	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L	S***-PDUNR/L
Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'	Kr: 93°
A231	A240	A241	A254	A255	A326	A327

System code > A48

Grade selection > A42

Technical info > A501

Cutting data > A366



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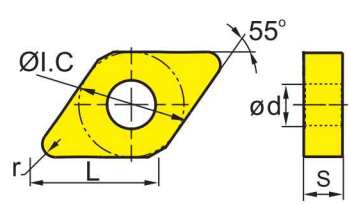
A

Turning

- Ideal machining conditions
- ⊗ Normal machining conditions
- ⊙ Unfavourable machining conditions

DNMM	L	I.C	S	d
15 06	15.5	12.7	6.35	5.16

### Turning inserts

DN** negative insert					HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW										
					P	M	K	N	S	H																		
																												
ISO	r	a <sub>p</sub>	f		YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
DR	<b>DNMM150608-DR</b>	0.8	0.7-6.0	0.20-0.55	●	●	●	●	●	●																		
	<b>DNMM150612-DR</b>	1.2	1-6	0.25-0.70	●	●	●	●	●	●																		
	<b>DNMM150616-DR</b>	1.6	1.5-6.0	0.32-0.90	●	●	●	●	●	●																		
Roughing																												
ER	<b>DNMM150608-ER</b>	0.8	0.7-6.0	0.20-0.55								○																
	<b>DNMM150612-ER</b>	1.2	1-6	0.25-0.70								○																
Roughing																												
HDR	<b>DNMM150608-HDR</b>	0.8	1-7	0.25-0.60	●	○																						
	<b>DNMM150612-HDR</b>	1.2	1-7	0.3-0.8	○																							
	<b>DNMM150616-HDR</b>	1.6	1.5-7.0	0.4-1.0	○																							
Roughing																												
LR	<b>DNMM150608-LR</b>	0.8	2-6	0.1-0.6	●	●					●																	
	<b>DNMM150612-LR</b>	1.2	2-6	0.2-0.8			●				○																	
	<b>DNMM150616-LR</b>	1.6	2-6	0.25-1.00	●	●																						
Roughing																												

● Ex stock ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

B

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Tool holder						
DDJNR/L	PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	S***-PDSNR/L	S***-PDUNR/L
Kr: 93°	Kr: 93°	Kr: 63°	Kr: 93°	Kr: 62°30'	Kr: 62°30'	Kr: 93°
						
A231	A240	A241	A254	A255	A326	A327

System code > A48

Grade selection > A42

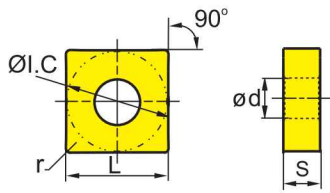
Technical info > A501

Cutting data > A366

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

SNMG	L	I.C	S	d
09 03	9.525	9.525	3.18	3.81
12 04	12.7	12.7	4.76	5.16

**Turning inserts**



SN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)				HT	HC <sup>2</sup>	HW									
				P	M	K	N	S	H																		
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
ADF	<b>SNMG120404-ADF</b>	0.4	0.5-5.0	0.1-0.3	●															●							
	<b>SNMG120408-ADF</b>	0.8	0.5-5.0	0.12-0.50	●															●							
	<b>SNMG120412-ADF</b>	1.2	1-5	0.2-0.6	●															●							
Finishing																											
DF	<b>SNMG120408-DF</b>	0.8	0.3-1.5	0.1-0.4		●	●																				
	<b>SNMG120412-DF</b>	1.2	0.35-1.50	0.15-0.50		●	●																				
Finishing																											
SF	<b>SNMG090304-SF</b>	0.4	0.05-0.50	0.05-0.20																					●		
	<b>SNMG090308-SF</b>	0.8	0.05-0.50	0.10-0.35																					○		
	<b>SNMG120404-SF</b>	0.4	0.05-0.50	0.05-0.20																					○		
	<b>SNMG120408-SF</b>	0.8	0.05-0.50	0.10-0.35																					○		
Finishing																											

● Ex stock ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder						
DSBNR/L	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L	MSRNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 75°
A232	A242	A244	A245	A246	A256	A257
MSKNR/L	MSDNN	S***-PSKNR/L				
Kr: 75°	Kr: 45°	Kr: 75°				
A258	A259	A329				

System code > A48

Grade selection > A42

Technical info > A501

Cutting data > A366



**A**

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

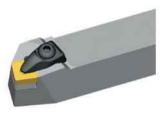


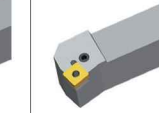
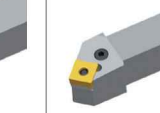
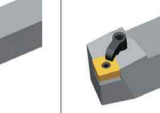
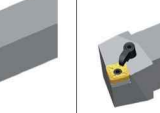



SNMG	L	I.C	S	d
<b>09 03</b>	9.525	9.525	3.18	3.81
<b>12 04</b>	12.7	12.7	4.76	5.16
<b>15 06</b>	15.875	15.875	6.35	6.35

## Turning inserts

SN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW																	
ISO	r	a <sub>p</sub>	f	P	M	K	N	S	H	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
				EF	0.4	0.5-2.0	0.05-0.30	●	●	●	●	●	●							●														
EF	0.8	0.5-2.0	0.05-0.40													●																		
EF	1.2	0.5-2.0	0.05-0.45													○																		
Finishing	0.4	0.8-3.0	0.05-0.30																															
Finishing	0.8	0.8-3.0	0.1-0.4																															
Finishing	1.2	0.8-3.0	0.15-0.45													○																		
Finishing	0.8	1-4	0.1-0.4													○																		
Finishing	1.2	1-4	0.15-0.45													○																		

● Ex stock    ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder						
DSBNR/L	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L	MSRNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 75°
						
A232	A242	A244	A245	A246	A256	A257
MSKNR/L	MSDNN	S***-PSKNR/L				
Kr: 75°	Kr: 45°	Kr: 75°				
						
A258	A259	A329				

System code > A48

Grade selection > A42

Technical info > A501

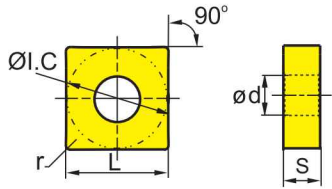
Cutting data > A366



SNMG	L	I.C	S	d
12 04	12.7	12.7	4.76	5.16
15 06	15.875	15.875	6.35	6.35
19 06	19.05	19.05	6.35	7.94

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

**Turning inserts**



					HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW											
					P	M	K	N	S	H																			
ISO					r	a <sub>p</sub>	f																						
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
XF	<b>SNMG120404-XF</b>	0.4	0.5-2.5	0.1-0.25	●	●																							
	<b>SNMG120408-XF</b>	0.8	0.5-2.5	0.1-0.30	●	●																							
XM	<b>SNMG120404-XM</b>	0.4	1-4.2	0.2-0.4	○	○																							
	<b>SNMG120408-XM</b>	0.8	1-4.2	0.2-0.4	●	●																							
	<b>SNMG120412-XM</b>	1.2	1-4.2	0.2-0.6	●	●																							
	<b>SNMG120416-XM</b>	1.6	1-4.2	0.2-0.65	○	○																							
	<b>SNMG150608-XM</b>	0.8	1-5.25	0.2-0.4	●	●																							
	<b>SNMG150612-XM</b>	1.2	1-5.25	0.2-0.6	●	●																							
	<b>SNMG150616-XM</b>	1.6	1-5.25	0.2-0.65	○	●																							
	<b>SNMG190608-XM</b>	0.8	1-6.65	0.2-0.4	○	○																							
	<b>SNMG190612-XM</b>	1.2	1-6.65	0.2-0.6	○	○																							
	<b>SNMG190616-XM</b>	1.6	1-6.65	0.2-0.65	○	○																							
<b>SNMG190624-XM</b>	2.4	1-6.65	0.2-1.2	○	○																								

● Ex stock ○ On demand

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

**Tool holder**

DSBNR/L	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L	MSRNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 75°
A232	A242	A244	A245	A246	A256	A257
MSKNR/L	MSDNN	S***-PSKNR/L				
Kr: 75°	Kr: 45°	Kr: 75°				
A258	A259	A329				

System code > A48

Grade selection > A42

Technical info > A501

Cutting data > A366



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SNMG	L	I.C	S	d
09 03	9.525	9.525	3.18	3.81
12 04	12.7	12.7	4.76	5.16
15 06	15.875	15.875	6.35	6.35
19 06	19.05	19.05	6.35	7.94

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


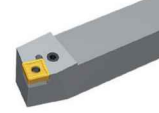
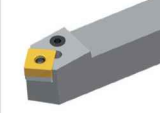



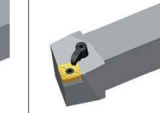

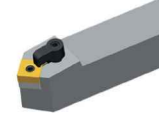

## Turning inserts

SN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW												
ISO	r	a <sub>p</sub>	f	P	M	K	N	S	H																				
				YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201		
PM  Medium Cut	SNMG090304-PM	0.4	0.4-4.5	0.1-0.3																									
	SNMG090308-PM	0.8	0.5-4.5	0.15-0.50																									
	SNMG090312-PM	1.2	0.6-4.5	0.2-0.6																									
	SNMG120404-PM	0.4	0.4-6.0	0.1-0.3																									
	SNMG120408-PM	0.8	0.5-6.0	0.15-0.50																									
	SNMG120412-PM	1.2	0.8-6.0	0.18-0.60																									
	SNMG120416-PM	1.6	1-6	0.23-0.65																									
	SNMG150608-PM	0.8	0.7-7.5	0.14-0.50																									
	SNMG150612-PM	1.2	0.8-7.5	0.18-0.60																									
	SNMG190612-PM	1.2	1.0-7.5	0.20-0.65																									

● Ex stock    ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

### Tool holder

DSBNR/L	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L	MSRNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 75°
						
A232	A242	A244	A245	A246	A256	A257
MSKNR/L	MSDNN	S***-PSKNR/L				
Kr: 75°	Kr: 45°	Kr: 75°				
						
A258	A259	A329				

System code > A48

Grade selection > A42

Technical info > A501



Cutting data > A366



SNMG	L	I.C	S	d
09 03	9.525	9.525	3.18	3.81
12 04	12.7	12.7	4.76	5.16
15 06	15.875	15.875	6.35	6.35
19 06	19.05	19.05	6.35	7.94











- Ideal machining conditions
- ⊗ Normal machining conditions
- ⊘ Unfavourable machining conditions

**Turning inserts**

SN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW											
ISO	r	a <sub>p</sub>	f	P	M	K	N	S	H																			
				YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
DM  Medium Cut	SNMG090304-DM	0.4	0.4-4.5	0.1-0.3	●	●																						
	SNMG090308-DM	0.8	0.5-4.5	0.15-0.50	●	●																						
	SNMG120404-DM	0.4	0.4-6.0	0.1-0.3	●	●																						
	SNMG120408-DM	0.8	0.5-6.0	0.15-0.50	●	●	○																					
	SNMG120412-DM	1.2	0.8-6.0	0.18-0.60	●	●																						
	SNMG120416-DM	1.6	1-6	0.23-0.65	○	●																						
	SNMG150608-DM	0.8	0.8-7.5	0.1-0.5	●	●																						
	SNMG150612-DM	1.2	0.8-7.5	0.18-0.60	●	●																						
	SNMG190612-DM	1.2	1-9	0.18-0.60	●	●																						
	SNMG190616-DM	1.6	1-9	0.23-0.65	○	●																						
EG  Medium Cut	SNMG120408-EG	0.8	0.5-4.0	0.1-0.5							●				●	●												
	SNMG120412-EG	1.2	0.5-4.0	0.2-0.6							●					●												

● Ex stock ○ On demand  
YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder						
DSBNN/L	PSBNN/L	PSDNN	PSKNR/L	PSSNR/L	MSBNN/L	MSRNN/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 75°
						
A232	A242	A244	A245	A246	A256	A257
MSKNR/L	MSDNN	S***-PSKNR/L				
Kr: 75°	Kr: 45°	Kr: 75°				
						
A258	A259	A329				

System code > A48

Grade selection > A42

Technical info > A501

Cutting data > A366



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# General turning Negative inserts

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Turning

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

SNMG	L	I.C	S	d
12 04	12.7	12.7	4.76	5.16
15 06	15.875	15.875	6.35	6.35

## Turning inserts

SN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW											
				P	M	K	N	S	H																			
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
<b>EM</b>  Medium Cut	<b>SNMG120404-EM</b>	0.4	0.50-6.35	0.05-0.30																								
	<b>SNMG120408-EM</b>	0.8	0.50-6.35	0.20-0.45						●	●								●									
	<b>SNMG120412-EM</b>	1.2	0.50-6.35	0.25-0.60						●	●								●									
	<b>SNMG120416-EM</b>	1.6	0.50-6.35	0.30-0.75																								
	<b>SNMG150612-EM</b>	1.2	0.5-8.0	0.25-0.60							○	●								●								
	<b>SNMG150616-EM</b>	1.6	0.5-8.0	0.30-0.75																●								
<b>TC</b>  Medium Cut	<b>SNMG120404-TC</b>	0.4	0.5-5.0	0.08-0.25								●																
	<b>SNMG120408-TC</b>	0.8	0.5-5.0	0.15-0.40								●			●													
	<b>SNMG120412-TC</b>	1.2	0.5-5.0	0.2-0.5								●			●													
	<b>SNMG150616-TC</b>	1.6	1-7	0.2-0.7								●																
<b>TK</b>  Medium Cut	<b>SNMG120412-TK</b>	1.2	0.2-0.4	0.2-0.45								●																

● Ex stock   ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

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Tool holder						
DSBNR/L	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L	MSRNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 75°
A232	A242	A244	A245	A246	A256	A257
MSKNR/L	MSDNN	S***-PSKNR/L				
Kr: 75°	Kr: 45°	Kr: 75°				
A258	A259	A329				



SNMG	L	I.C	S	d
12 04	12.7	12.7	4.76	5.16
15 06	15.875	15.875	6.35	6.35
19 06	19.05	19.05	6.35	7.94
25 09	25.4	25.4	9.525	9.12

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

**Turning inserts**

SN** negative insert				HC <sup>1</sup> (CVD)							HC <sup>1</sup> (PVD)		HT	HC <sup>2</sup>	HW														
				P	M	K	N	S	H																				
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201		
<b>NM</b>  Medium Cut	<b>SNMG120408-NM</b>	0.8	0.5-5.0	0.1-0.4												○	●										○		
	<b>SNMG120412-NM</b>	1.2	0.5-5.0	0.15-0.50														○											
<b>DR</b>  Roughing	<b>SNMG120408-DR</b>	0.8	0.7-7.0	0.2-0.5		○	●			●	●																		
	<b>SNMG120412-DR</b>	1.2	1-7	0.25-0.70		●	●	●			○	●																	
	<b>SNMG120416-DR</b>	1.6	1.5-7.0	0.32-0.75		○	●				●	●																	
	<b>SNMG150612-DR</b>	1.2	1-8	0.25-0.70						●			○	●															
	<b>SNMG150616-DR</b>	1.6	1.5-8.0	0.3-0.8		○	●						○	○															
	<b>SNMG190612-DR</b>	1.2	1-10	0.25-0.70		●	●	●			●	●			●														
	<b>SNMG190616-DR</b>	1.6	1.5-10.0	0.3-0.8	○	●	●	●					○	●															
<b>SNMG190624-DR</b>	2.4	2-10	0.32-0.90						●	○																			
<b>SNMG250924-DR</b>	2.4	2-15	0.4-1.2						●	○																			

● Ex stock ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder						
<b>DSBNR/L</b> Kr: 75°	<b>PSBNR/L</b> Kr: 75°	<b>PSDNN</b> Kr: 45°	<b>PSKNR/L</b> Kr: 75°	<b>PSSNR/L</b> Kr: 45°	<b>MSBNR/L</b> Kr: 75°	<b>MSRNR/L</b> Kr: 75°
A232	A242	A244	A245	A246	A256	A257
<b>MSKNR/L</b> Kr: 75°	<b>MSDNN</b> Kr: 45°	<b>S***-PSKNR/L</b> Kr: 75°				
A258	A259	A329				

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

SNMG	L	I.C	S	d
12 04	12.7	12.7	4.76	5.16
15 06	15.875	15.875	6.35	6.35
19 06	19.05	19.05	6.35	7.94

## Turning inserts

SN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW										
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
<b>P</b>				●	●	●	●	●	●	●								●	●				●	●	●		
<b>M</b>										●	●					●		●	●	●				●	●		
<b>K</b>												●	●	●	●												
<b>N</b>												●	●													●	●
<b>S</b>																●		●	●	●						●	●
<b>H</b>																											
<b>ER</b>	<b>SNMG120408-ER</b>	0.8	2.0-7.6	0.20-0.55						○	○																
	<b>SNMG120412-ER</b>	1.2	2.0-7.6	0.3-0.6						○	○																
	<b>SNMG150612-ER</b>	1.2	2.0-9.6	0.3-0.6						○	○																
<b>Roughing</b>	<b>SNMG190612-ER</b>	1.2	2.0-11.4	0.3-0.6						○	○																
	<b>SNMG190616-ER</b>	1.6	2.0-11.4	0.35-0.80						○	○																
<b>SNR</b>	<b>SNMG120408-SNR</b>	0.8	1-4	0.2-0.6														●				●					

● Ex stock   ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

### Tool holder

DSBNR/L	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L	MSRNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 75°
A232	A242	A244	A245	A246	A256	A257
MSKNR/L	MSDNN	S***-PSKNR/L				
Kr: 75°	Kr: 45°	Kr: 75°				
A258	A259	A329				

System code > A48

Grade selection > A42

Technical info > A501

Cutting data > A366

SNMM	L	I.C	S	d
15 06	15.875	15.875	6.35	6.35
19 06	19.05	19.05	6.35	7.94
25 07	25.4	25.4	7.94	9.12
25 09	25.4	25.4	9.525	9.12

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

**Turning inserts**

SN** negative insert					HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW										
					P	M	K	N	S	H																		
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
<b>DR</b>  Roughing	<b>SNMM150612-DR</b>	1.2	1-7	0.25-0.60					●																			
	<b>SNMM150616-DR</b>	1.6	1.5-9.0	0.32-0.90		○			● ●																			
	<b>SNMM190608-DR</b>	0.8	2.0-10.5	0.25-0.50					○																			
	<b>SNMM190612-DR</b>	1.2	2.0-10.5	0.25-0.60			●			● ●																		
	<b>SNMM190616-DR</b>	1.6	2.0-10.5	0.35-0.90			●			● ●																		
	<b>SNMM190624-DR</b>	2.4	2.0-10.5	0.4-1.1			● ●			● ●																		
	<b>SNMM250716-DR</b>	1.6	2.5-12.5	0.4-1.0						●																		
	<b>SNMM250724-DR</b>	2.4	2.5-12.5	0.5-1.2			○			●																		
<b>SNMM250924-DR</b>	2.4	2.5-12.5	0.5-1.2						● ●																			
<b>ER</b>  Roughing	<b>SNMM250724-ER</b>	2.4	2.8-18.0	0.45-1.40					●	○	●																	
	<b>SNMM250732-ER</b>	3.2	2.8-18.0	0.32-1.40					●																			
	<b>SNMM250924-ER</b>	2.4	2.8-18.0	0.45-1.40					●	○	○																	
	<b>SNMM250932-ER</b>	3.2	2.8-18.0	0.55-1.80					●																			

● Ex stock ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder						
DSBNR/L	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L	MSRNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 75°
A232	A242	A244	A245	A246	A256	A257
MSKNR/L	MSDNN					
Kr: 75°	Kr: 45°					
A258	A259					



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SNMM	L	I.C	S	d
12 04	12.7	12.7	4.76	5.16
15 06	15.875	15.875	6.35	6.35
19 06	19.05	19.05	6.35	7.94
25 09	25.4	25.4	9.525	9.12

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











## Turning inserts

SN** negative insert					HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW														
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201					
																												P	M	K	N	S
LR  Roughing	SNMM120408-LR	0.8	1-6	0.1-0.5	○	●																										
	SNMM120412-LR	1.2	1-6	0.2-0.6	○	●																										
	SNMM120416-LR	1.6	1-6	0.25-0.70				○																								
	SNMM150612-LR	1.2	1.5-7.0	0.1-0.5					●																							
	SNMM150616-LR	1.6	1.5-7.0	0.1-0.5	○	○																										
	SNMM190612-LR	1.2	2-10	0.25-0.70	○	●																										
	SNMM190616-LR	1.6	2-10	0.3-1.0	○	●																										
	SNMM190624-LR	2.4	2-10	0.3-1.1	○	●																										
	SNMM250924-LR	2.4	3.0-12.5	0.3-1.2	○	●	○																									

● Ex stock    ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

### Tool holder

DSB NR/L	PSB NR/L	PSD NN	PSK NR/L	PSS NR/L	MSB NR/L	MSR NR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 75°
						
A232	A242	A244	A245	A246	A256	A257
MSK NR/L	MSD NN	S***-PSK NR/L				
Kr: 75°	Kr: 45°	Kr: 75°				
						
A258	A259	A329				

System code > A48

Grade selection > A42

Technical info > A501


Cutting data > A366



SNMM	L	I.C	S	d
12 04	12.7	12.7	4.76	5.16
15 06	15.875	15.875	6.35	6.35
19 06	19.05	19.05	6.35	7.94
25 07	25.4	25.4	7.94	9.12
25 09	25.4	25.4	9.525	9.12











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

**Turning inserts**

SN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW											
ISO	r	a <sub>p</sub>	f	P	M	K	N	S	H																			
				YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
 HDR Roughing	<b>SNMM120408-HDR</b>	0.8	1-6	0.1-0.6																								
	<b>SNMM120412-HDR</b>	1.2	1.5-6.0	0.2-0.7																								
	<b>SNMM150608-HDR</b>	0.8	1-7	0.2-0.6																								
	<b>SNMM150612-HDR</b>	1.2	1-7	0.25-0.70																								
	<b>SNMM150616-HDR</b>	1.6	1.5-9.0	0.32-1.00																								
	<b>SNMM190612-HDR</b>	1.2	2.0-10.5	0.25-0.70																								
	<b>SNMM190616-HDR</b>	1.6	2.0-10.5	0.35-1.00																								
	<b>SNMM190624-HDR</b>	2.4	2.0-10.5	0.4-1.2																								
	<b>SNMM250724-HDR</b>	2.4	2.5-12.5	0.5-1.4																								
	<b>SNMM250924-HDR</b>	2.4	2.5-12.5	0.5-1.4																								

● Ex stock   ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder						
DSBNR/L	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L	MSRNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 75°
						
A232	A242	A244	A245	A246	A256	A257
MSKNR/L	MSDNN	S***-PSKNR/L				
Kr: 75°	Kr: 45°	Kr: 75°				
						
A258	A259	A329				

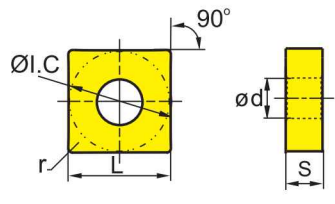
**A**


Turning

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

SNMM	L	I.C	S	d
19 06	19.05	19.05	6.35	7.94
25 09	25.4	25.4	9.525	9.12

## Turning inserts



SN** negative insert				HC <sup>1</sup> (CVD)										HC <sup>1</sup> (PVD)		HT	HC <sup>2</sup>	HW													
				P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●										
				M	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●										
				K	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●										
				N	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●										
				S	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●										
				H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●										
ISO				r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
HPR	<b>SNMM190616-HPR</b>	1.6	2.0-10.5	0.35-1.00							●																				
	<b>SNMM190624-HPR</b>	2.4	2.0-10.5	0.4-1.2			○				●																				
	<b>SNMM250924-HPR</b>	2.4	2.0-12.5	0.5-1.4			○				●	●																			
Roughing																															

● Ex stock   ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

**B**

Milling

**C**

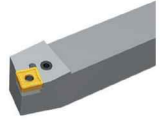

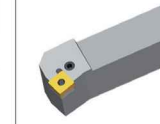
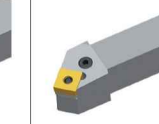
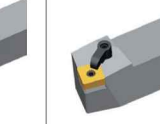
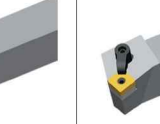
Drilling

**D**

Technical Information

**E**

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Tool holder						
PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L	MSRNR/L	MSKNR/L
Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 75°	Kr: 75°
						
A242	A244	A245	A246	A256	A257	A258



SNMG	L	I.C	S	d
<b>12 04</b>	12.7	12.7	4.76	5.16
<b>25 07</b>	25.4	25.4	7.94	9.12
<b>25 09</b>	25.4	25.4	9.525	9.12

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

**Turning inserts**

SN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW														
				P	●	●	●	●	●	●	●	●	●	●	●	●	●														
				M	●	●	●	●	●	●	●	●	●	●	●	●	●	●													
				K	●	●	●	●	●	●	●	●	●	●	●	●															
				N	●	●	●	●	●	●	●	●	●	●	●	●															
				S	●	●	●	●	●	●	●	●	●	●	●	●															
				H	●	●	●	●	●	●	●	●	●	●	●	●															
ISO				r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
Basic	<b>SNMG120408</b>	0.8	0.5-6.0	0.1-0.6	●	●																									
	<b>SNMG120412</b>	1.2	0.5-6.0	0.1-0.7	○	○																									
Medium Cut	<b>SNMG250724</b>	2.4	1-9	0.1-1.1																											
	<b>SNMG250924</b>	2.4	1-9	0.1-1.1																											

● Ex stock ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder						
DSBNR/L	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L	MSRNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 75°
A232	A242	A244	A245	A246	A256	A257
MSKNR/L	MSDNN	S***-PSKNR/L				
Kr: 75°	Kr: 45°	Kr: 75°				
A258	A259	A329				

**A**

Turning

**B**

Milling

**C**

Drilling

**D**

Technical Information

**E**

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SN**	L	I.C	S	d
12 04	12.7	12.7	4.76	5.16
15 06	15.875	15.875	6.35	6.35
19 06	19.05	19.05	6.35	7.94
25 07	25.4	25.4	7.94	9.12

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

## Turning inserts

SN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)		HT	HC <sup>2</sup>	HW													
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201		
				Flat	SNMA120408	0.8	0.5-5.0	0.1-0.5								●	●	●											
	SNMA120412	1.2	0.5-5.0	0.2-0.7								○	○	○	○														
	SNMA120416	1.6	0.5-5.0	0.2-1.0								○	●	○															
	SNMA150608	0.8	0.8-7.0	0.1-0.5																									
	SNMA150612	1.2	0.8-7.0	0.2-0.7																									
	SNMA190612	1.2	0.8-7.0	0.2-0.7								○		●															
	SNMA190616	1.6	0.8-7.0	0.3-0.8								○		●															
Basic	SNMM250724-1	2.4	2.0-12.5	0.3-1.2				●	●				○	●															

● Ex stock   ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

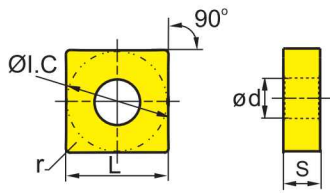
Tool holder						
DSBNR/L	PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L	MSRNR/L
Kr: 75°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 75°
A232	A242	A244	A245	A246	A256	A257
MSKNR/L	MSDNN	S***-PSKNR/L				
Kr: 75°	Kr: 45°	Kr: 75°				
A258	A259	A329				



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

SNMM	L	I.C	S	d
<b>19 06</b>	19.05	19.05	6.35	7.94
<b>25 09</b>	25.4	25.4	9.525	9.12

**Turning inserts**



SN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW														
				P	M	K	N	S	H																						
ISO				r	a <sub>p</sub>	f																									
Basic 	<b>SNMM190612</b>			1.2	1.5-10.5	0.2-0.7	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
	<b>SNMM190616</b>			1.6	0.5-10.5	0.2-1.0																									
	<b>SNMM250924</b>			2.4	2.0-12.5	0.3-1.2																									

● Ex stock    ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

**Tool holder**

PSBNR/L	PSDNN	PSKNR/L	PSSNR/L	MSBNR/L	MSRNR/L	MSKNR/L
Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°	Kr: 75°	Kr: 75°
A242	A244	A245	A246	A256	A257	A258

System code > A48

Grade selection > A42

Technical info > A501

Cutting data > A366



**A**

Turning

**B**

Milling

**C**

Drilling

**D**

Technical Information

**E**

Index

**A**

Turning

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

SNUN	L	I.C	S
<b>12 04</b>	12.7	12.7	4.76
<b>19 04</b>	19.05	19.05	4.76

## Turning inserts

SN** negative insert				HC <sup>1</sup> (CVD)										HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW											
	P	M	K	N	S	H	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
	ISO	r	a <sub>p</sub>	f																										
		<b>SNUN120408</b>	0.8	0.7-6.0	0.2-0.5																									
		<b>SNUN120412</b>	1.2	0.7-6.0	0.25-0.60																									
		<b>SNUN190412</b>	1.2	0.9-6.0	0.25-0.60																									

● Ex stock    ○ On demand

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

**B**

Milling

**C**

Drilling

Tool holder		
CSKNR/L	CSNR/L	CSDNN
Kr: 75°	Kr: 75°	Kr: 45°
A296	A297	A299

**D**

Technical Information

**E**

Index



**Turning inserts**

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

TN**	L	I.C	S	d
16 04	16.5	9.525	4.76	3.81
22 04	22	12.7	4.76	5.16

TN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)				HT	HC <sup>2</sup>	HW										
				P	M	K	N	S	H																			
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
WG	<b>TNMX160408-WG</b>	0.8	0.5-5.0	0.15-0.70	●																							
	<b>TNMX160412-WG</b>	1.2	0.8-6.0	0.20-0.75	○																							
ADF	<b>TNMG160404-ADF</b>	0.4	0.5-5.0	0.05-0.30	●																							
	<b>TNMG160408-ADF</b>	0.8	0.5-5.0	0.1-0.4	●														○									
	<b>TNMG160412-ADF</b>	1.2	0.5-5.0	0.2-0.5	●																							
DF	<b>TNMG160404-DF</b>	0.4	0.15-2.00	0.08-0.25	●	●																						
	<b>TNMG160408-DF</b>	0.8	0.15-2.00	0.1-0.3	●	●																						
	<b>TNMG160412-DF</b>	1.2	0.35-1.50	0.15-0.50	●	●																						
	<b>TNMG220408-DF</b>	0.8	0.3-1.5	0.1-0.4	●	●																						
	<b>TNMG220412-DF</b>	1.2	0.35-1.50	0.15-0.50	●																							

● Ex stock ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder						
<b>DTGNR/L</b> Kr: 91°	<b>PTFNR/L</b> Kr: 91°	<b>PTTNR/L</b> Kr: 60°	<b>PTGNR/L</b> Kr: 90°	<b>MTGNR/L</b> Kr: 90°	<b>MTJNR/L</b> Kr: 93°	<b>MTJNR/L</b> Kr: 93°
A233	A247	A248	A249	A260	A261	A262
<b>MTFNR/L</b> Kr: 91°	<b>S***-PTFNR/L</b> Kr: 90°					
A263	A330					

A

Turning

B

Milling

C

Drilling

D

Technical Information

E

Index

**A**

Turning

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

TNMG	L	I.C	S	d
16 04	16.5	9.525	4.76	3.81

## Turning inserts

TN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)		HT	HC <sup>2</sup>	HW											
	<b>P</b>	●●●●●	⊗⊗⊗									●●	⊗	●													
	<b>M</b>			●	⊗							●●	⊗	●													
	<b>K</b>								●●●●																		
	<b>N</b>									●●						●●											
	<b>S</b>										●●	⊗	●			●●											
	<b>H</b>																										
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
SF	<b>TNMG160404-SF</b>	0.4	0.05-1.00	0.05-0.30																			○	●			
Finishing	<b>TNMG160408-SF</b>	0.8	0.05-1.00	0.05-0.40																					●		

● Ex stock    ○ On demand

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

**B**

Milling

**C**

Drilling

**D**

Technical Information

**E**

Index

Tool holder						
<b>DTGNR/L</b> Kr: 91°	<b>PTFNR/L</b> Kr: 91°	<b>PTTNR/L</b> Kr: 60°	<b>PTGNR/L</b> Kr: 90°	<b>MTGNR/L</b> Kr: 90°	<b>MTJNR/L</b> Kr: 93°	<b>MTJNR/L</b> Kr: 93°
A233	A247	A248	A249	A260	A261	A262
<b>MTFNR/L</b> Kr: 91°	<b>S***-PTFNR/L</b> Kr: 90°					
A263	A330					

System code > A48

Grade selection > A42

Technical info > A501

Cutting data > A366



TNMG	L	I.C	S	d
11 03	11	6.35	3.18	2.26
16 04	16.5	9.525	4.76	3.81
22 04	22	12.7	4.76	5.16

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

**Turning inserts**

TN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW											
				P	M	K	N	S	H																			
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
 EF Finishing	<b>TNMG110304-EF</b>	0.4	0.1-1.0	0.05-0.20															●									
	<b>TNMG110308-EF</b>	0.8	0.1-1.0	0.05-0.40																●								
	<b>TNMG160404-EF</b>	0.4	0.1-1.5	0.05-0.30							●									●								
	<b>TNMG160408-EF</b>	0.8	0.1-1.5	0.1-0.4							●									●								
	<b>TNMG160412-EF</b>	1.2	0.2-2.5	0.15-0.40							○									●								
	<b>TNMG220404-EF</b>	0.4	0.5-2.5	0.05-0.25							○									●								
	<b>TNMG220408-EF</b>	0.8	0.5-2.5	0.1-0.4							○									●								

● Ex stock ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder						
DTGNR/L	PTFNR/L	PTTNR/L	PTGNR/L	MTGNR/L	MTJNR/L	MTJNR/L
Kr: 91°	Kr: 91°	Kr: 60°	Kr: 90°	Kr: 90°	Kr: 93°	Kr: 93°
A233	A247	A248	A249	A260	A261	A262
MTFNR/L	S***-PTFNR/L					
Kr: 91°	Kr: 90°					
A263	A330					

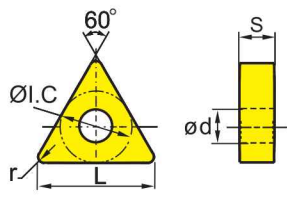
**A**

Turning

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

TNMG	L	I.C	S	d
16 04	16.5	9.525	4.76	3.81
22 04	22	12.7	4.76	5.16

## Turning inserts



TN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW													
				P	M	K	N	S	H																					
	ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201		
<b>FM</b>  Finishing	<b>TNMG160404L-FM</b>	0.4	0.5-3.0	0.1-0.3																										
	<b>TNMG160404R-FM</b>	0.4	0.5-3.0	0.1-0.3																										
	<b>TNMG160408L-FM</b>	0.8	0.5-3.0	0.15-0.50																										
	<b>TNMG160408R-FM</b>	0.8	0.5-3.0	0.15-0.50																										
<b>XM</b>  Medium Cut	<b>TNMG160404-XM</b>	0.4	1-5.6	0.2-0.4	●		○																							
	<b>TNMG160408-XM</b>	0.8	1-5.6	0.2-0.4	●		●																							
	<b>TNMG160412-XM</b>	1.2	1-5.6	0.2-0.6	●		●																							
	<b>TNMG160416-XM</b>	1.6	1-5.6	0.2-0.65	○		●																							
	<b>TNMG220408-XM</b>	0.8	1-7.7	0.2-0.4	●		●																							
	<b>TNMG220412-XM</b>	1.2	1-7.7	0.2-0.6	●		●																							

● Ex stock    ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

**B**

Milling

**C**

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Tool holder						
DTGNR/L	PTFNR/L	PTTNR/L	PTGNR/L	MTGNR/L	MTJNR/L	MTJNR/L
Kr: 91°	Kr: 91°	Kr: 60°	Kr: 90°	Kr: 90°	Kr: 93°	Kr: 93°
A233	A247	A248	A249	A260	A261	A262
MTFNR/L	S***-PTFNR/L					
Kr: 91°	Kr: 90°					
A263	A330					



TNMG	L	I.C	S	d
11 03	11	6.35	3.18	2.26
16 04	16.5	9.525	4.76	3.81
22 04	22	12.7	4.76	5.16




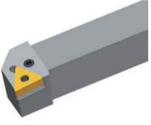

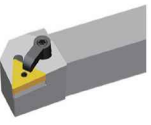
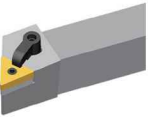

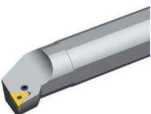
- Ideal machining conditions
- ⊗ Normal machining conditions
- ⊗ Unfavourable machining conditions

**Turning inserts**

TN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)		HT	HC <sup>2</sup>	HW												
ISO	r	a <sub>p</sub>	f	P	M	K	N	S	H																			
				YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
 DM Medium Cut	TNMG110308-DM	0.8	0.3-3.0	0.1-0.4	○	●																						
	TNMG160404-DM	0.4	0.4-5.0	0.1-0.3	●	●	●																					
	TNMG160408-DM	0.8	0.5-5.0	0.15-0.50	●	●	○																					
	TNMG160412-DM	1.2	0.8-5.0	0.18-0.60	●	●																						
	TNMG220404-DM	0.4	0.4-6.6	0.1-0.3	●	●																						
	TNMG220408-DM	0.8	0.5-6.6	0.15-0.50	●	●																						
	TNMG220412-DM	1.2	0.8-6.6	0.18-0.60	●	●																						
	TNMG220416-DM	1.6	1.0-6.6	0.23-0.65	●	●																						
 PM Medium Cut	TNMG110304-PM	0.4	0.4-3.0	0.1-0.3		●																						
	TNMG110308-PM	0.8	0.4-3.0	0.15-0.40		●																						
	TNMG160404-PM	0.4	0.4-5.0	0.1-0.3	●	●					●	●																
	TNMG160408-PM	0.8	0.5-5.0	0.15-0.50	●	●					●	●																
	TNMG160412-PM	1.2	0.8-5.0	0.18-0.60	●	●					○	○																
	TNMG220408-PM	0.8	0.5-6.6	0.15-0.50	○	●					●	●																
	TNMG220412-PM	1.2	0.8-6.6	0.18-0.60	○	●					●	●																
	TNMG220416-PM	1.6	1.0-6.6	0.23-0.65		○					○																	

● Ex stock ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder						
DTGNR/L Kr: 91°	PTFNR/L Kr: 91°	PTTNR/L Kr: 60°	PTGNR/L Kr: 90°	MTGNR/L Kr: 90°	MTJNR/L Kr: 93°	MTJNR/L Kr: 93°
						
A233	A247	A248	A249	A260	A261	A262
MTFNR/L Kr: 91°	S***-PTFNR/L Kr: 90°					
						
A263	A330					

System code > A48    Grade selection > A42    Technical info > A501    Cutting data > A366



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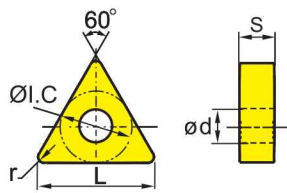
**A**

Turning

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

TNMG	L	I.C	S	d
16 04	16.5	9.525	4.76	3.81

## Turning inserts



TN** negative insert				HC <sup>1</sup> (CVD)							HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW			
ISO	r	a <sub>p</sub>	f	P	M	K	N	S	H										
				ZM	TNMG160404-ZM	0.4	0.5-5.0	0.08-0.30	●	●	●	●	●	●	●	●	●	●	
					TNMG160408-ZM	0.8	0.5-5.0	0.1-0.4	●	●	●	●	●	●	●	●	●	●	
					TNMG160412-ZM	1.2	0.5-5.0	0.1-0.6	●										
				Medium Cut															
				SNR	TNMG160408-SNR	0.8	1-5.6	0.1-0.5									●		
Roughing																			

● Ex stock ○ On demand

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

**B**

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Tool holder						
DTG NR/L	PTF NR/L	PTT NR/L	PTG NR/L	MTG NR/L	MTJ NR/L	MTJ NR/L
Kr: 91°	Kr: 91°	Kr: 60°	Kr: 90°	Kr: 90°	Kr: 93°	Kr: 93°
A233	A247	A248	A249	A260	A261	A262
MTF NR/L	S***-PTF NR/L					
Kr: 91°	Kr: 90°					
A263	A330					

System code > A48

Grade selection > A42

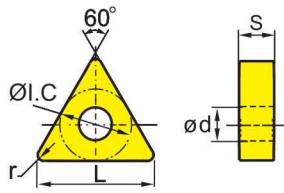
Technical info > A501

Cutting data > A366

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

TNMG	L	I.C	S	d
16 04	16.5	9.525	4.76	3.81
22 04	22	12.7	4.76	5.16

**Turning inserts**



TN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW													
				P	M	K	N	S	H																					
ISO				r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
EG 	<b>TNMG160404-EG</b>	0.4	0.5-4.0	0.1-0.3																										
	<b>TNMG160408-EG</b>	0.8	0.5-4.0	0.1-0.4									●	○																
	<b>TNMG160412-EG</b>	1.2	0.5-4.0	0.15-0.50									●																	
Medium Cut																														
EM 	<b>TNMG160404-EM</b>	0.4	0.5-4.8	0.05-0.30									●	○																
	<b>TNMG160408-EM</b>	0.8	0.5-4.8	0.10-0.45									●	●																
	<b>TNMG160412-EM</b>	1.2	0.5-4.8	0.1-0.6									●	●																
	<b>TNMG220408-EM</b>	0.8	0.5-6.6	0.10-0.45									●	●																
	<b>TNMG220412-EM</b>	1.2	0.5-6.6	0.1-0.6									○	●																
Medium Cut																														
TC 	<b>TNMG160404-TC</b>	0.4	0.5-3.0	0.05-0.20											●		●													
	<b>TNMG160408-TC</b>	0.8	0.5-3.0	0.08-0.25											●		●													
	<b>TNMG160412-TC</b>	1.2	1-3	0.1-0.3											●		●													
	<b>TNMG220412-TC</b>	1.2	1-6	0.15-0.40											●		●													
	<b>TNMG220416-TC</b>	1.6	1-6	0.2-0.5											●															
Medium Cut																														

● Ex stock ○ On demand  
YBC152F, YBC252F, YBM153F, YBM253F available

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

**Tool holder**

DTGNR/L	PTFNR/L	PTTNR/L	PTGNR/L	MTGNR/L	MTJNR/L	MTJNR/L
Kr: 91°	Kr: 91°	Kr: 60°	Kr: 90°	Kr: 90°	Kr: 93°	Kr: 93°
A233	A247	A248	A249	A260	A261	A262
MTFNR/L	S***-PTFNR/L					
Kr: 91°	Kr: 90°					
A263	A330					

System code > A48

Grade selection > A42

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

TNMG	L	I.C	S	d
16 04	16.5	9.525	4.76	3.81
22 04	22	12.7	4.76	5.16
27 06	27.5	15.875	6.35	6.35

## Turning inserts

TN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW															
	P	M	K	N	S	H	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201		
	ISO	r	a <sub>p</sub>	f																												
		TNMG160408-DR	0.8	0.7-6.0	0.20-0.55	●	●									●	●															
		TNMG160412-DR	1.2	1-6	0.25-0.65	●	●									○	●															
		TNMG220408-DR	0.8	0.7-7.0	0.20-0.55																											
		TNMG220412-DR	1.2	1-7	0.25-0.65																											
TNMG220416-DR		1.6	1.5-7.0	0.32-0.75																												
TNMG270608-DR		0.8	1.5-12.0	0.35-0.55																												
TNMG270612-DR		1.2	2-12	0.35-0.75																												

● Ex stock   ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder						
DTGNR/L	PTFNR/L	PTTNR/L	PTGNR/L	MTGNR/L	MTJNR/L	MTJNR/L
Kr: 91°	Kr: 91°	Kr: 60°	Kr: 90°	Kr: 90°	Kr: 93°	Kr: 93°
A233	A247	A248	A249	A260	A261	A262
MTFNR/L	S***-PTFNR/L					
Kr: 91°	Kr: 90°					
A263	A330					



TN**	L	I.C	S	d
16 04	16.5	9.525	4.76	3.81
22 04	22	12.7	4.76	5.16
27 06	27.5	15.875	6.35	5.16

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

**Turning inserts**

TN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW											
				P	●	●	●	●	●	●	●	●	●	●	●	●	●											
				M	●	●	●	●	●	●	●	●	●	●	●	●												
				K	●	●	●	●	●	●	●	●	●	●	●	●												
				N	●	●	●	●	●	●	●	●	●	●	●	●												
				S	●	●	●	●	●	●	●	●	●	●	●	●												
				H	●	●	●	●	●	●	●	●	●	●	●	●												
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
<b>DR</b>  Roughing	<b>TNMM160408-DR</b>	0.8	0.7-6.0	0.20-0.55	○	●																						
	<b>TNMM160412-DR</b>	1.2	1-6	0.25-0.70	○	●																						
	<b>TNMM220408-DR</b>	0.8	0.7-8.0	0.20-0.55	○	○																						
	<b>TNMM220412-DR</b>	1.2	1-8	0.25-0.70			●																					
	<b>TNMM220416-DR</b>	1.6	1.5-8.0	0.32-0.90			○																					
	<b>TNMM270612-DR</b>	1.2	2.5-11.0	0.25-0.70			○																					
	<b>TNMM270616-DR</b>	1.6	2.5-11.0	0.3-0.9			○																					
<b>ER</b>  Roughing	<b>TNMG160408-ER</b>	0.8	2.0-5.6	0.15-0.55							○																	
	<b>TNMG160412-ER</b>	1.2	2.0-5.6	0.15-0.60							○																	
	<b>TNMG220408-ER</b>	0.8	2.0-7.7	0.15-0.55							○																	
	<b>TNMG220412-ER</b>	1.2	2.0-7.7	0.15-0.60							○																	
<b>LR</b>  Roughing	<b>TNMM160408-LR</b>	0.8	1-5	0.1-0.5	●	●	●																					
	<b>TNMM160412-LR</b>	1.2	1.5-6.0	0.1-0.6	○	○	○																					

● Ex stock ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available



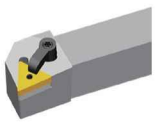
HC<sup>1</sup> Coated carbide  
 HT Uncoated cermet  
 HC<sup>2</sup> Coated cermet  
 HW Uncoated carbide



**A** Turning  
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**A**

Turning

Tool holder						
DTGNR/L Kr: 91°	PTFNR/L Kr: 91°	PTTNR/L Kr: 60°	PTGNR/L Kr: 90°	MTGNR/L Kr: 90°	MTJNR/L Kr: 93°	MTJNR/L Kr: 93°
						
A233	A247	A248	A249	A260	A261	A262

**B**

Milling

MTFNR/L Kr: 91°	S***-PTFNR/L Kr: 90°
	
A263	A330

**C**

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

TNMM	L	I.C	S	d
22 04	22	12.7	4.76	5.16
27 06	27.5	15.875	6.35	6.35

**Turning inserts**

TN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW														
				P	M	K	N	S	H																						
				●	●	●	●	●	●	●	●	●	●	●	●	●	●	●													
ISO				r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201		
<p>HDR</p> <p>Heavy Turning</p>	<b>TNMM220412-HDR</b>			1.2	2-9	0.25-0.80	○																								
	<b>TNMM220416-HDR</b>			1.6	2-9	0.35-1.00		○																							
	<b>TNMM270616-HDR</b>			1.6	2-6	0.35-1.00		●																							
	<b>TNMM270624-HDR</b>			2.4	2-7	0.4-1.2		●		○																					

● Ex stock ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder						
PTFNR/L	PTTNR/L	PTGNR/L	MTGNR/L	MTJNR/L	MTJNR/L	MTFNR/L
Kr: 91°	Kr: 60°	Kr: 90°	Kr: 90°	Kr: 93°	Kr: 93°	Kr: 91°
A247	A248	A249	A260	A261	A262	A263

**A**

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TNMG	L	I.C	S	d
16 04	16.5	9.525	4.76	3.81
22 04	22	12.7	4.76	5.16
27 06	27.5	15.875	6.35	6.35
33 09	33	19.05	9.525	7.94

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

### Turning inserts

TN** negative insert					HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)		HT	HC <sup>2</sup>	HW														
	P	M	K	N	S	H	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
	ISO	r	a <sub>p</sub>	f																											
	 Basic  Medium Cut	TNMG160404	0.4	0.2-4.0	0.05-0.20								○																		
		TNMG160408	0.8	0.2-4.0	0.08-0.30			●	●																						
		TNMG160412	1.2	0.2-4.0	0.1-0.4			●																							
		TNMG220404	0.4	0.2-6.0	0.05-0.20									○																	
TNMG220408		0.8	0.2-6.0	0.1-0.3																											
TNMG220416		1.6	0.2-6.0	0.1-0.5									○																		
TNMG270612		1.2	0.2-9.0	0.1-0.5									○																		
TNMG270616		1.6	0.2-9.0	0.1-0.5									○																		
TNMG330916		1.6	0.2-11.0	0.1-0.5									○																		
TNMG330924		2.4	0.2-11.0	0.1-0.7									○																		

● Ex stock    ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder						
DTGNR/L	PTFNR/L	PTTNR/L	PTGNR/L	MTGNR/L	MTJNR/L	MTJNR/L
Kr: 91°	Kr: 91°	Kr: 60°	Kr: 90°	Kr: 90°	Kr: 93°	Kr: 93°
A233	A247	A248	A249	A260	A261	A262
MTFNR/L	S***-PTFNR/L					
Kr: 91°	Kr: 90°					
A263	A330					



TN**	L	I.C	S	d
16 04	16.5	9.525	4.76	3.81
22 04	22	12.7	4.76	5.16
27 06	27.5	15.875	6.35	6.35

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

**Turning inserts**

TN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW											
	<b>P</b>	●●●●●●	●●●●●●										●●●●	●●●●	●●													
	<b>M</b>			●●●●									●●●●	●●●●	●●													
	<b>K</b>				●●●●																							
	<b>N</b>											●●				●●												
	<b>S</b>												●●●●			●●												
	<b>H</b>																											
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
	<b>TNMA160404</b>	0.4	0.2-4.0	0.05-0.20								○	●															
	<b>TNMA160408</b>	0.8	0.2-4.0	0.08-0.30								●	●	●														
	<b>TNMA160412</b>	1.2	0.2-4.0	0.1-0.4								○	●															
	<b>TNMA160416</b>	1.6	0.5-4.0	0.05-0.50								○	○															
	<b>TNMA220404</b>	0.4	0.2-6.0	0.05-0.20									●	●														
	<b>TNMA220408</b>	0.8	0.2-6.0	0.1-0.3								●	●	●														
	<b>TNMA220412</b>	1.2	0.2-6.0	0.1-0.4									●	●	●													
	<b>TNMA220416</b>	1.6	0.2-6.0	0.1-0.5											○													
	<b>TNMM160404</b>	0.4	0.2-7.0	0.05-0.60				○																				
	<b>TNMM160408</b>	0.8	0.5-7.0	0.05-0.60				○																				
	<b>TNMM220408</b>	0.8	0.5-7.0	0.05-0.60				○																				
	<b>TNMM220412</b>	1.2	1-7	0.1-0.6																								
	<b>TNMM220416</b>	1.6	0.5-7.0	0.05-0.60					○																			
	<b>TNMM270616</b>	1.6	0.5-6.5	0.05-0.70					○																			

● Ex stock ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder						
<b>DTGNR/L</b> Kr: 91°	<b>PTFNR/L</b> Kr: 91°	<b>PTTNR/L</b> Kr: 60°	<b>PTGNR/L</b> Kr: 90°	<b>MTGNR/L</b> Kr: 90°	<b>MTJNR/L</b> Kr: 93°	<b>MTJNR/L</b> Kr: 93°
A233	A247	A248	A249	A260	A261	A262
<b>MTFNR/L</b> Kr: 91°	<b>S***-PTFNR/L</b> Kr: 90°					
A263	A330					



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

VN**	L	I.C	S	d
16 04	16.6	9.525	4.76	3.81

**Turning inserts**

VN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW										
				<b>P</b>	●	●	●	●	●	●	●	●	●	●	●	●	●										
				<b>M</b>					●	●			●	●	●	●	●	●									
				<b>K</b>								●	●	●	●												
				<b>N</b>									●	●					●	●							
				<b>S</b>										●	●	●	●	●		●	●						
				<b>H</b>																							
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
NGF	<b>VNEG160408-NGF</b>	0.8	0.2-3.0	0.1-0.3														●									
	<b>VNEG160412-NGF</b>	1.2	0.2-3.0	0.1-0.5														○									
Finishing																											
SF	<b>VNMG160404-SF</b>	0.4	0.05-3.00	0.05-0.20																					●		
	<b>VNMG160408-SF</b>	0.8	0.05-3.00	0.05-0.35																					○		
Finishing																											

● Ex stock ○ On demand

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

Tool holder			
<b>DVVNN</b> Kr: 72°30'	<b>DVJNR/L</b> Kr: 93°	<b>MVVNN</b> Kr: 72°30'	<b>MVJNR/L</b> Kr: 93°
A234	A235	A264	A265

System code > A48

Grade selection > A42

Technical info > A501

Cutting data > A366



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

VNMG	L	I.C	S	d
16 04	16.6	9.525	4.76	3.81

## Turning inserts

VN** negative insert				HC <sup>1</sup> (CVD)										HC <sup>1</sup> (PVD)		HT	HC <sup>2</sup>	HW									
				P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●								
				M	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●							
				K	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●						
				N	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●						
				S	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●						
				H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●						
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
XF 	<b>VNMG160404-XF</b>	0.4	0.5-2.5	0.1-0.25	●																						
	<b>VNMG160408-XF</b>	0.8	0.5-2.5	0.1-0.30	●																						
	<b>VNMG160412-XF</b>	1.2	0.5-2.5	0.1-0.35	●																						
Finishing																											
XM 	<b>VNMG160404-XM</b>	0.4	1-5.6	0.2-0.4	●					○																	
	<b>VNMG160408-XM</b>	0.8	1-5.6	0.2-0.4	●					●																	
	<b>VNMG160412-XM</b>	1.2	1-5.6	0.2-0.6	●					●																	
	<b>VNMG160416-XM</b>	1.6	1-5.6	0.2-0.65	○					○																	

● Ex stock    ○ On demand

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

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Tool holder			
DVNN	DVJNR/L	MVNN	MVJNR/L
Kr: 72°30'	Kr: 93°	Kr: 72°30'	Kr: 93°
A234	A235	A264	A265

System code > A48

Grade selection > A42

Technical info > A501

Cutting data > A366



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

VNMG	L	I.C	S	d
16 04	16.6	9.525	4.76	3.81

**Turning inserts**

VN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW																																																			
				P	M	K	N	S	H																																																											
				<table border="1"> <tr> <td>YBC103</td><td>YB6315</td><td>YBC152</td><td>YBC203</td><td>YBC252</td><td>YBC352</td><td>YBM153</td><td>YBM253</td><td>YBD102</td><td>YB7315</td><td>YBD152</td><td>YBD152C</td><td>YBG101</td><td>YBG102</td><td>YBG105</td><td>YBG205</td><td>YB9320</td><td>YPD201</td><td>YBS103</td><td>YNG151</td><td>YNT251</td><td>YNG151C</td><td>YD101</td><td>YD201</td> </tr> <tr> <td>○</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td> </tr> </table>																YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201																																													
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○																																												
ISO	r	a <sub>p</sub>	f																																																																	
Basic	<b>VNMG160404</b>	0.4	0.2-6.0	0.05-0.60																																																																
	<b>VNMG160408</b>	0.8	0.2-6.0	0.08-0.60																																																																
Medium Cut																																																																				
DM	<b>VNMG160408-DM</b>	0.8	0.5-4.0	0.15-0.50																																																																
	<b>VNMG160412-DM</b>	1.2	0.8-4.0	0.18-0.60																																																																
Medium Cut																																																																				
EM	<b>VNMG160404-EM</b>	0.4	0.2-3.0	0.05-0.30																																																																
	<b>VNMG160408-EM</b>	0.8	0.5-4.0	0.10-0.45																																																																
Medium Cut																																																																				
NM	<b>VNMG160412-NM</b>	1.2	0.2-4.0	0.05-0.40																																																																
Medium Cut																																																																				

● Ex stock ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder			
DVVNN	DVJNR/L	MVVNN	MVJNR/L
Kr: 72°30'	Kr: 93°	Kr: 72°30'	Kr: 93°
A234	A235	A264	A265

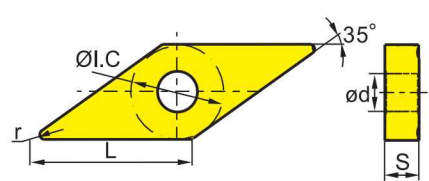
**A**

Turning

- Ideal machining conditions
- ⊗ Normal machining conditions
- ⊛ Unfavourable machining conditions

VNMG	L	I.C	S	d
16 04	16.6	9.525	4.76	3.81

## Turning inserts



VN** negative insert					HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW												
					P	M	K	N	S	H																				
	ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201		
PM	<b>VNMG160404-PM</b>	0.4	0.4-4.0	0.13-0.40		●	●						●	○																
	<b>VNMG160408-PM</b>	0.8	0.5-4.0	0.15-0.50		●	●						●	●																
	<b>VNMG160412-PM</b>	1.2	0.8-4.0	0.18-0.60			●						●																	
Medium Cut																														
TC	<b>VNMG160404-TC</b>	0.4	0.5-2.0	0.05-0.20																										
	<b>VNMG160408-TC</b>	0.8	0.5-2.0	0.08-0.25																										
	<b>VNMG160412-TC</b>	1.2	0.5-3.0	0.08-0.30																										
Medium Cut																														
ZM	<b>VNMG160404-ZM</b>	0.4	0.5-3.0	0.08-0.30																										
	<b>VNMG160408-ZM</b>	0.8	0.5-3.0	0.1-0.4																										
Medium Cut																														
SNR	<b>VNMG160408-SNR</b>	0.8	0.2-2.0	0.1-0.4																										
	<b>VNMG160412-SNR</b>	1.2	0.2-2.0	0.1-0.5																										
Roughing																														

● Ex stock ○ On demand  
YBC152F, YBC252F, YBM153F, YBM253F available

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

**B**

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Tool holder			
DVVNN	DVJNR/L	MVVNN	MVJNR/L
Kr: 72°30'	Kr: 93°	Kr: 72°30'	Kr: 93°
A234	A235	A264	A265





WNMG	L	I.C	S	d
06 T3	6.5	9.525	3.97	3.81
06 04	6.5	9.525	4.76	3.81
08 04	8.7	12.7	4.76	5.16

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

**Turning inserts**

WN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW										
				P	M	K	N	S	H																		
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
ADF 	WNMG080404-ADF	0.4	0.2-2.5	0.05-0.30	●															●			●				
	WNMG080408-ADF	0.8	0.5-2.5	0.05-0.40	●														○	●			●				
	WNMG080412-ADF	1.2	0.5-2.5	0.05-0.50	●															●							
DF 	WNMG060404-DF	0.4	0.15-2.00	0.08-0.25		●	●																				
	WNMG060408-DF	0.8	0.15-2.00	0.1-0.3		●	●																				
	WNMG080404-DF	0.4	0.15-2.00	0.08-0.25		●	●																				
	WNMG080408-DF	0.8	0.15-2.00	0.1-0.3		●	○																				
	WNMG080412-DF	1.2	0.2-2.5	0.10-0.35		●	●																				
SF 	WNMG060404-SF	0.4	0.05-0.50	0.05-0.20																					●		
	WNMG060408-SF	0.8	0.05-0.50	0.05-0.35																					●		
	WNMG06T304-SF	0.4	0.05-0.50	0.05-0.20																					●		
	WNMG06T308-SF	0.8	0.05-0.50	0.05-0.35																					●		
	WNMG080404-SF	0.4	0.05-0.50	0.05-0.20																					●		
	WNMG080408-SF	0.8	0.05-0.50	0.05-0.35																					●		

● Ex stock ○ On demand  
YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder			
DWLNLR/L	PWLNLR/L	MWLNLR/L	S***-PWLNLR/L
Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°
A236	A251	A266	A332

System code > A48

Grade selection > A42

Technical info > A501

Cutting data > A366



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

WN**	L	I.C	S	d
06 T3	6.5	9.525	3.97	3.81
06 04	6.5	9.525	4.76	3.81
08 04	8.7	12.7	4.76	5.16

## Turning inserts

WN** negative insert				HC <sup>1</sup> (CVD)										HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW									
				P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●							
				M	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●						
				K	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●								
				N	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●								
				S	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●								
				H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●								
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
WG  Wiper	<b>WNMG080408-WG</b>	0.8	0.5-5.0	0.15-0.70	●	●																						
	<b>WNMG080412-WG</b>	1.2	0.8-6.0	0.20-0.75	●	○																						
EF  Finishing	<b>WNMG060404-EF</b>	0.4	0.1-1.5	0.05-0.30						○								●										
	<b>WNMG060408-EF</b>	0.8	0.1-1.5	0.1-0.4						○								●										
	<b>WNMG06T308-EF</b>	0.8	0.1-1.5	0.1-0.4														●										
	<b>WNMG080404-EF</b>	0.4	0.1-1.5	0.05-0.30						●								○	●									
	<b>WNMG080408-EF</b>	0.8	0.1-1.5	0.1-0.4						●								○	●									
NF  Finishing	<b>WNEG080404-NF</b>	0.4	0.2-3.0	0.05-0.30													○	●										
	<b>WNEG080408-NF</b>	0.8	0.2-2.5	0.05-0.30														●										
NF  Finishing	<b>WNMG060408-NF</b>	0.8	0.2-2.5	0.05-0.30														●										

● Ex stock   ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder			
DWLNLR/L	PWLNLR/L	MWLNLR/L	S***-PWLNLR/L
Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°
A236	A251	A266	A332



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

WNMG	L	I.C	S	d
06 04	6.5	9.525	4.76	3.81
08 04	8.7	12.7	4.76	5.16

**Turning inserts**

WN** negative insert					HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW										
					P	M	K	N	S	H																		
					●	●	●	●	●	●	●	●	●	●	●	●	●	●	●									
ISO					r	a <sub>p</sub>	f																					
					YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
XF  Finishing	WNMG060404-XF				0.4	0.5-2.0	0.1-0.25	●																				
	WNMG060408-XF				0.8	0.5-2.0	0.1-0.30	●																				
	WNMG080408-XF				0.8	0.5-2.5	0.1-0.30	●																				
	WNMG080412-XF				1.2	0.5-2.5	0.1-0.35	●																				
XM  Medium Cut	WNMG060404-XM				0.4	1-2.1	0.2-0.4	●	○																			
	WNMG060408-XM				0.8	1-2.1	0.2-0.4	●	●																			
	WNMG060412-XM				1.2	1-2.1	0.2-0.6	●	●																			
	WNMG080404-XM				0.4	1-2.8	0.2-0.4	●	●																			
	WNMG080408-XM				0.8	1-2.8	0.2-0.4	●	●																			
	WNMG080412-XM				1.2	1-2.8	0.2-0.6	●	●																			
WNMG080416-XM				1.6	1-2.8	0.2-0.65	○	○																				

● Ex stock ○ On demand

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

Tool holder			
DWLNR/L	PWLNR/L	MWLNR/L	S***-PWLNR/L
Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°
A236	A251	A266	A332

System code > A48

Grade selection > A42

Technical info > A501

Cutting data > A366



**A**

Turning

**B**

Milling

**C**

Drilling

**D**

Technical Information

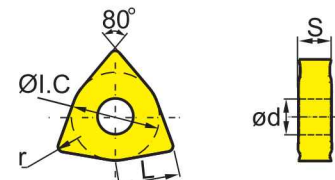


**E**

Index

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


WNMG	L	I.C	S	d
<b>06 T3</b>	6.5	9.525	3.97	3.81
<b>06 04</b>	6.5	9.525	4.76	3.81
<b>08 04</b>	8.7	12.7	4.76	5.16

## Turning inserts

WN** negative insert				HC <sup>1</sup> (CVD)										HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW															
ISO	r	a <sub>p</sub>	f	P	M	K	N	S	H	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
					<b>WNMG060408-DM</b>	0.8	0.5-3.0	0.15-0.50	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	<b>WNMG060412-DM</b>	1.2	0.8-3.0	0.18-0.60	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	<b>WNMG06T308-DM</b>	0.8	0.5-3.0	0.15-0.15	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	<b>WNMG080404-DM</b>	0.4	0.5-4.0	0.1-0.4	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	<b>WNMG080408-DM</b>	0.8	0.5-4.0	0.15-0.50	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	<b>WNMG080412-DM</b>	1.2	0.8-4.0	0.18-0.60	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	<b>WNMG080416-DM</b>	1.6	1-4	0.23-0.65	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	<b>WNMG080408-EG</b>	0.8	0.5-4.0	0.05-0.40	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	<b>WNMG080412-EG</b>	1.2	0.5-4.0	0.05-0.60	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	<b>WNMG060404-EM</b>	0.4	0.5-3.0	0.05-0.30	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	<b>WNMG060408-EM</b>	0.8	0.5-3.0	0.1-0.5	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	<b>WNMG06T304-EM</b>	0.4	0.5-3.0	0.05-0.30	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	<b>WNMG06T308-EM</b>	0.8	0.5-3.0	0.1-0.5	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	<b>WNMG06T312-EM</b>	1.2	0.5-3.0	0.1-0.7	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	<b>WNMG080404-EM</b>	0.4	1-4	0.05-0.30	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	<b>WNMG080408-EM</b>	0.8	1-4	0.1-0.5	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	<b>WNMG080412-EM</b>	1.2	1-4	0.1-0.7	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

● Ex stock   ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder			
DWLNLR/L	PWLNLR/L	MWLNLR/L	S***-PWLNLR/L
Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°
			
A236	A251	A266	A332





# General turning Negative inserts

**A**

Turning

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

WNMG	L	I.C	S	d
08 04	8.7	12.7	4.76	5.16

## Turning inserts

WN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)				HT	HC <sup>2</sup>	HW										
				P	M	K	N	S	H																			
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
NM	0.4	0.2-3.0	0.05-0.30															●										
 Medium Cut	0.8	0.2-3.0	0.1-0.3														●	●	○									
	1.2	0.2-4.0	0.1-0.4														●	●										
TC	0.4	0.5-3.0	0.08-0.25									●			○													
 Medium Cut	0.8	0.5-4.0	0.15-0.40									●			●													
	1.2	0.5-4.0	0.2-0.6									●			●													
TK	0.8	0.2-0.4	0.2-0.4									●																
 Medium Cut	1.2	0.2-0.4	0.2-0.45									○																
	1.6	0.2-0.4	0.2-0.5									○																

● Ex stock    ○ On demand

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

**B**

Milling

**C**

Drilling

**D**

Technical Information

**E**

Index

Tool holder			
DWLNLR/L	PWLNLR/L	MWLNLR/L	S***-PWLNLR/L
Kr: 95°	Kr: 95°	Kr: 95°	Kr: 95°
A236	A251	A266	A332



WN**	L	I.C	S	d
06 T3	6.5	9.525	3.97	3.81
06 04	6.5	9.525	4.76	3.81
08 04	8.7	12.7	4.76	5.16

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

**Turning inserts**

WN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW											
				<b>P</b>	●	●	●	●	●	●	●	●	●	●	●	●	●											
				<b>M</b>					●	⊗			●	●	●	●	●	●										
				<b>K</b>								●	●	●														
				<b>N</b>										●	●				●	●								
				<b>S</b>											●	●	●	●		●	●							
				<b>H</b>																								
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
<b>DR</b>  Roughing	<b>WNMG060408-DR</b>	0.8	0.7-3.5	0.20-0.45		●	●				●	●																
	<b>WNMG060412-DR</b>	1.2	0.8-3.5	0.25-0.55		●	●				○	○																
	<b>WNMG080408-DR</b>	0.8	0.7-5.0	0.20-0.55		●	●	●				●	●															
	<b>WNMG080412-DR</b>	1.2	1-5	0.25-0.70		○	●	●	●			●	●															
	<b>WNMG080416-DR</b>	1.6	1.5-5.0	0.32-0.75			○	●				●	○															
<b>Flat</b> 	<b>WNMA060408</b>	0.8	0.5-3.0	0.1-0.3							●	●																
	<b>WNMA060412</b>	1.2	0.5-3.0	0.15-0.30									●															
	<b>WNMA06T308</b>	0.8	0.5-3.0	0.1-0.3																								
	<b>WNMA080404</b>	0.4	0.5-4.0	0.08-0.25								○	●	○														
	<b>WNMA080408</b>	0.8	0.5-4.0	0.15-0.30								●	●	●														
	<b>WNMA080412</b>	1.2	0.5-5.0	0.15-0.30								●	○	●	●													
<b>WNMA080416</b>	1.6	0.5-5.0	0.2-0.5								○	○	○															

● Ex stock ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder			
<b>DWLNR/L</b> Kr: 95°	<b>PWLNR/L</b> Kr: 95°	<b>MWLNR/L</b> Kr: 95°	<b>S***-PWLNR/L</b> Kr: 95°
A236	A251	A266	A332

# General turning Negative inserts

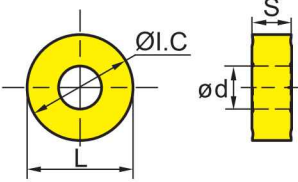
**A**

Turning

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

RNMG	L	I.C	S	d
12 04	12.7	12.7	4.76	5.16

## Turning inserts

RN** negative insert			HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW											
	<b>P</b>		●	●	●	●	●	●				●	●	●													
	<b>M</b>						●	●			●	●	●	●	●												
	<b>K</b>								●	●	●	●															
	<b>N</b>										●	●				●	●										
	<b>S</b>											●	●	●	●		●	●									
	<b>H</b>																										
ISO	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
Basic	<b>RNMG120400</b>	0.5-7.0	0.1-1.8										○	○													
Medium Cut																											

● Ex stock    ○ On demand

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

**B**

Milling

**C**


Drilling

**D**

Technical Information

**E**

Index

Tool holder	
MRDNN	MRGNR/L
	
A267	A268

System code > A48

Grade selection > A42

Technical info > A501

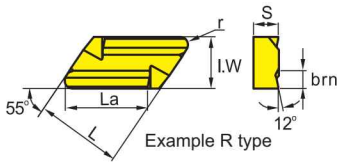
Cutting data > A366



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

KNUX	L	I.W	S
16 04		9.525	4.76

**Turning inserts**



KN** negative insert							HC <sup>1</sup> (CVD)					HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW																
							P	M	K	N	S	H																					
KNUX  Finishing	ISO	La	brn	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201			
	KNUX160405L11	16	2.2	0.5	0.2-6.0	0.05-0.70						●																			○		
	KNUX160405L12	16	2.2	0.5	0.2-6.0	0.05-0.70																											
	KNUX160405R11	16	2.2	0.5	0.2-6.0	0.05-0.70							●																			○	
	KNUX160405R12	16	2.2	0.5	0.2-6.0	0.05-0.70																											
	KNUX160410L11	16	2.2	1	0.2-6.0	0.05-0.70																											
	KNUX160410L12	16	2.2	1	0.2-6.0	0.05-0.70				○																							
	KNUX160410R11	16	2.2	1	0.2-6.0	0.05-0.70							●																				
KNUX160410R12	16	2.2	1	0.2-6.0	0.05-0.70																												

● Ex stock ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder	
CKJNR/L	CKNNR/L
Kr: 93°	Kr: 63°
A290	A291




**A**

Turning

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

CN**	L	I.C	S	d
19 07	19.3	19.05	7.94	7.93
19 11	19.3	19.05	11	7.8

## Turning inserts

CN** negative insert				HC <sup>1</sup> (CVD)										HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW									
				P	●	●	●	⊗	⊗	⊗						●	⊗	●										
				M	● ⊗					● ⊗					●	⊗	●											
				K											● ⊗													
				N											●													
				S											● ⊗													
				H																								
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
RF 	<b>CNMG191140-RF</b>	4	1.0-5.5	0.20-0.60			●																					
Finishing																												
RF 	<b>CNMM190740-RF</b>	4	1.0-5.5	0.20-0.60			●																					
Finishing	<b>CNMM191140-RF</b>	4	1.0-5.5	0.20-0.60			●																					
RH 	<b>CNMM190740-RH</b>	4	1.5-7.0	0.35-1.20			●	●																				
Roughing	<b>CNMM191140-RH</b>	4	1.5-7.0	0.35-1.20			●	●																				

● Ex stock    ○ On demand

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

**B**

Milling

**C**

Drilling

**D**

Technical Information

**E**

Index

Tool holder  
**PCLNR/L**  
 Kr: 95°



A318

System code > A48

Grade selection > A42

Technical info > A501

Cutting data > A366

**Turning inserts**

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

LNUX	L	I.C	S	d
19 19	19.05	10	19.05	6.35
30 19	30	10	19.05	6.35

LN** negative insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)				HT	HC <sup>2</sup>	HW									
				P	M	K	N	S	H																		
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
RF  Heavy Turning	<b>LNUX191940-RF</b>	4	1,0-5,5	0,20-0,60	●	●																					
	<b>LNUX301940-RF</b>	4	1,0-6,0	0,20-0,70	●	○																					
RH  Heavy Turning	<b>LNUX191940-RH</b>	4	1,5-7,0	0,35-1,20	●	●																					
	<b>LNUX301940-RH</b>	4	1,5-8,0	0,35-1,40	●	●																					

● Ex stock    ○ On demand

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

Tool holder	
<b>PLANR/L</b> Kr: 90° 	<b>PLFNR/L</b> Kr: 90° 
A316	A317

System code > A48

Grade selection > A42

Technical info > A501

Cutting data > A366



# General turning Positive inserts

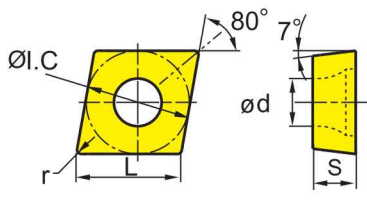
A

Turning

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

CCGT	L	I.C	S	d
06 02	6.4	6.35	2.38	2.8
09 T3	9.7	9.525	3.97	4.4

## Turning inserts



CC** positive insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)		HT	HC <sup>2</sup>	HW								
	P	M	K	N	S	H																		
ISO																								
r																								
a <sub>p</sub>																								
f																								
	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
SF	<b>CCGT060202-SF</b>	0.2	0.05-2.00	0.05-0.18																	●	●		
	<b>CCGT060204-SF</b>	0.4	0.05-2.00	0.05-0.35																	●	●	●	
	<b>CCGT09T304-SF</b>	0.4	0.05-2.00	0.05-0.35																	●	●	●	
Finishing																								
USF	<b>CCGT060202L-USF</b>	0.2	0.05-2.00	0.05-0.18											○									
	<b>CCGT060204L-USF</b>	0.4	0.05-2.00	0.05-0.35											○									
	<b>CCGT09T301L-USF</b>	0.1	0.2-2.0	0.01-0.08													●							
Finishing	<b>CCGT09T302L-USF</b>	0.2	0.2-2.0	0.05-0.18												●								
	<b>CCGT09T304L-USF</b>	0.4	0.2-2.0	0.05-0.20											○									
USF	<b>CCGT09T304R-USF</b>	0.4	0.2-2.0	0.05-0.20											○									
Finishing																								

● Ex stock ○ On demand

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

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Tool holder						
SCACR/L	SCLCR/L	SCACR/L-SC	SCLCR/L-SC	S***-SCLCR/L	S***-SCFCR/L	S***-SCLCR
Kr: 90°	Kr: 95°	Kr: 90°	Kr: 95°	Kr: 95°	Kr: 90°	Kr: 95°
A269	A270	A306	A307	A334	A352	A353

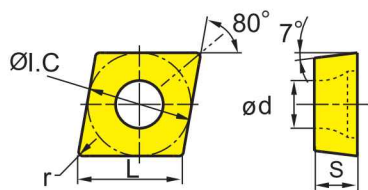
E\*\*\*-SCLCR/L  
Kr: 95°





CCMT	L	I.C	S	d
06 02	6.4	6.35	2.38	2.8
09 T3	9.7	9.525	3.97	4.4
12 04	12.9	12.7	4.76	5.56

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

**Turning inserts**



CC** positive insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW																			
				P	M	K	N	S	H																											
ISO				r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201						
AHF  Finishing	CCMT060204-AHF	0.4	0.2-2.5	0.05-0.20	●																															
	CCMT060208-AHF	0.8	0.3-2.5	0.05-0.30	○																															
	CCMT09T302-AHF	0.2	0.08-2.00	0.04-0.15																																
	CCMT09T304-AHF	0.4	0.2-3.0	0.05-0.30	●																		○	●	○											
	CCMT09T308-AHF	0.8	0.3-3.0	0.05-0.40	●																		○	●												
	CCMT120404-AHF	0.4	0.5-4.0	0.05-0.30	○																		○	●												
	CCMT120408-AHF	0.8	0.8-4.0	0.08-0.40	●																			●												
HF  Finishing	CCMT060202-HF	0.2	0.06-1.70	0.03-0.11		●	●																													
	CCMT060204-HF	0.4	0.1-1.7	0.05-0.17		●	●																													
	CCMT060208-HF	0.8	0.1-1.7	0.05-0.30		○	●																													
	CCMT09T302-HF	0.2	0.08-2.00	0.04-0.15		●	●																					○								
	CCMT09T304-HF	0.4	0.11-2.00	0.06-0.23		●	●									○	●																			
	CCMT09T308-HF	0.8	0.15-2.00	0.08-0.30		●	●									○	●																			
	CCMT120404-HF	0.4	0.14-2.40	0.07-0.27		●	●																													
CCMT120408-HF	0.8	0.2-3.0	0.08-0.30		●	○																														

● Ex stock ○ On demand  
YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder						
SCACR/L	SCLCR/L	SCACR/L-SC	SCLCR/L-SC	A***-SCLCR/L	S***-SCFCR/L	S***-SCLCR
Kr: 90°	Kr: 95°	Kr: 90°	Kr: 95°	Kr: 95°	Kr: 90°	Kr: 95°
						
A269	A270	A306	A307	A334	A352	A353
E***-SCLCR/L						
Kr: 95°						
						
A355						

System code > A48

Grade selection > A42

Technical info > A501

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CCMT	L	I.C	S	d
06 02	6.4	6.35	2.38	2.8
09 T3	9.7	9.525	3.97	4.4
12 04	12.9	12.7	4.76	5.56

## Turning inserts

CC** positive insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)		HT	HC <sup>2</sup>	HW																
	P	M	K	N	S	H	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201		
	ISO	r	a <sub>p</sub>	f																												
	 Finishing	CCMT060202-EF	0.2	0.06-1.70	0.03-0.11									●									●									
		CCMT060204-EF	0.4	0.1-1.7	0.05-0.17									●										●								
		CCMT09T302-EF	0.2	0.08-2.00	0.04-0.15									○										●								
		CCMT09T304-EF	0.4	0.11-2.00	0.06-0.23									●										○	●							
CCMT09T308-EF		0.8	0.15-2.00	0.08-0.30									●										○	●								
CCMT120404-EF		0.4	0.14-2.40	0.07-0.27									●										●									
CCMT120408-EF		0.8	0.2-3.0	0.1-0.3									●										●									
 Finishing	CCMT060202-XF	0.2	0.5-1.5	0.08-0.15									●																			
	CCMT060208-XF	0.8	0.5-1.5	0.08-0.20	●																											
	CCMT09T302-XF	0.2	0.5-2.0	0.08-0.15	●								●																			
	CCMT09T308-XF	0.8	0.5-2.0	0.08-0.25	●								○																			

● Ex stock   ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder						
SCACR/L	SCLCR/L	SCACR/L-SC	SCLCR/L-SC	A***-SCLCR/L	S***-SCFCR/L	S***-SCLCR
Kr: 90°	Kr: 95°	Kr: 90°	Kr: 95°	Kr: 95°	Kr: 90°	Kr: 95°
A269	A270	A306	A307	A334	A352	A353

E\*\*\*-SCLCR/L  
 Kr: 95°



CCMT	L	I.C	S	d
06 02	6.4	6.35	2.38	2.8
09 T3	9.7	9.525	3.97	4.4
12 04	12.9	12.7	4.76	5.56

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

**Turning inserts**

CC** positive insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)		HT	HC <sup>2</sup>	HW											
				P	M	K	N	S	H																		
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
EM  Medium Cut	CCMT060204-EM	0.4	0.2-2.4	0.06-0.17						●	●								●								
	CCMT060208-EM	0.8	0.4-2.4	0.08-0.23						●	○								●								
	CCMT09T304-EM	0.4	0.25-3.00	0.08-0.23						●	●								●								
	CCMT09T308-EM	0.8	0.5-3.0	0.1-0.3						●	●								●								
	CCMT120404-EM	0.4	0.3-3.6	0.09-0.27							●								●								
	CCMT120408-EM	0.8	0.6-3.6	0.12-0.36							●	●							●								
	CCMT120412-EM	1.2	0.72-3.60	0.14-0.43								○															
XM  Medium Cut	CCMT09T304-XM	0.4	1-2.5	0.15-0.3	●	○																					
	CCMT09T308-XM	0.8	1-2.5	0.15-0.35	●	●																					
	CCMT09T312-XM	1.2	1-2.5	0.15-0.4	●	●																					
	CCMT120404-XM	0.4	1-3.0	0.15-0.3	○	○																					
	CCMT120408-XM	0.8	1-3.0	0.15-0.35	○	○																					
CCMT120412-XM	1.2	1-3.0	0.15-0.4	○	○																						

● Ex stock ○ On demand  
YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder						
SCACR/L	SCLCR/L	SCACR/L-SC	SCLCR/L-SC	A***-SCLCR/L	S***-SCFCR/L	S***-SCLCR
Kr: 90°	Kr: 95°	Kr: 90°	Kr: 95°	Kr: 95°	Kr: 90°	Kr: 95°
A269	A270	A306	A307	A334	A352	A353

E***-SCLCR/L
Kr: 95°
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CCMT	L	I.C	S	d
06 02	6.4	6.35	2.38	2.8
09 T3	9.7	9.525	3.97	4.4
12 04	12.9	12.7	4.76	5.56

## Turning inserts

CC** positive insert					HC <sup>1</sup> (CVD)										HC <sup>1</sup> (PVD)			HT		HC <sup>2</sup>	HW											
					P	●	●	●	⊗	⊗	⊗						●	⊗	●													
					M	●	●	●	⊗	⊗						●	⊗	●														
					K						●	⊗	●																			
					N						●	●					●	⊗														
					S						●	⊗	●	⊗	●			●	⊗													
					H																											
ISO					r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
 Medium Cut	CCMT060204-HM	0.4	0.2-2.4	0.06-0.17	●	●	●	●	●	●	●	●	●	●	●	●	●	●														
	CCMT060208-HM	0.8	0.2-3.0	0.08-0.20	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●													
	CCMT09T304-HM	0.4	0.25-3.00	0.08-0.23	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●													
	CCMT09T308-HM	0.8	0.5-3.0	0.1-0.3	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●													
	CCMT120404-HM	0.4	0.3-3.6	0.09-0.27	●	●	●	●	●	●	●	●	●	●	●	○	●	●	●													
	CCMT120408-HM	0.8	0.6-3.6	0.12-0.36	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●													
	CCMT120412-HM	1.2	0.72-3.60	0.14-0.43	●	○	●	●	●	●	●	●	●	●	●	○	●	●	●													

● Ex stock   ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder						
SCACR/L	SCLCR/L	SCACR/L-SC	SCLCR/L-SC	A***-SCLCR/L	S***-SCFCR/L	S***-SCLCR
Kr: 90°	Kr: 95°	Kr: 90°	Kr: 95°	Kr: 95°	Kr: 90°	Kr: 95°
A269	A270	A306	A307	A334	A352	A353

E***-SCLCR/L
Kr: 95°
A355

System code > A48

Grade selection > A42

Technical info > A501

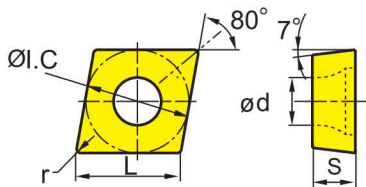
Cutting data > A366



CC**	L	I.C	S	d
06 02	6.4	6.35	2.38	2.8
09 T3	9.7	9.525	3.97	4.4
12 04	12.9	12.7	4.76	5.56

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

**Turning inserts**



CC** positive insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW															
				P	M	K	N	S	H																							
ISO				r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201		
Basic 	CCMW09T304	0.4	0.1-5.0	0.05-0.50																												
	CCMW120404	0.4	0.2-5.0	0.05-0.50																												
	CCMW120408	0.8	0.5-5.0	0.08-0.50																												
Medium Cut  TC 	CCMT060204-TC	0.4	0.5-3.0	0.1-0.3																												
	CCMT09T304-TC	0.4	0.5-3.0	0.1-0.3																												
	CCMT09T308-TC	0.8	0.5-3.0	0.1-0.4																												
	CCMT120404-TC	0.4	1-4	0.1-0.3																												
	CCMT120408-TC	0.8	1-4	0.1-0.4																												
HR 	CCMT060204-HR	0.4	0.5-3.0	0.05-0.24																												
	CCMT060208-HR	0.8	0.8-3.2	0.09-0.26																												
	CCMT09T304-HR	0.4	0.2-4.0	0.05-0.30																												
	CCMT09T308-HR	0.8	1-4	0.12-0.35																												
	CCMT120408-HR	0.8	1.2-4.8	0.14-0.42																												
CCMT120412-HR	1.2	1.44-4.80	0.17-0.50																													

● Ex stock ○ On demand  
YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder						
SCACR/L	SCLCR/L	SCACR/L-SC	SCLCR/L-SC	A***-SCLCR/L	S***-SCFCR/L	S***-SCLCR
Kr: 90°	Kr: 95°	Kr: 90°	Kr: 95°	Kr: 95°	Kr: 90°	Kr: 95°
A269	A270	A306	A307	A334	A352	A353
<b>E***-SCLCR/L</b>						
Kr: 95°						
A355						

System code > A48    Grade selection > A42    Technical info > A501    Cutting data > A366



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CCGX	L	I.C	S	d
<b>06 02</b>	6.4	6.35	2.38	2.8
<b>09 T3</b>	9.7	9.525	3.97	4.4
<b>12 04</b>	12.9	12.7	4.76	5.56

## Turning inserts

CC** positive insert				HC <sup>1</sup> (CVD)										HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW									
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
<b>LC</b>  Alum Machining	<b>CCGX060202-LC</b>	0.2	0.3-3.0	0.05-0.15	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	<b>CCGX060204-LC</b>	0.4	0.5-3.0	0.1-0.3												●	●	●	●	●	●	●	●	●	●	●	●	
	<b>CCGX09T302-LC</b>	0.2	0.5-4.0	0.1-0.2													●	●	●	●	●	●	●	●	●	●	●	
	<b>CCGX09T304-LC</b>	0.4	0.5-5.0	0.1-0.3													●	●	●	●	●	●	●	●	●	●	●	●
	<b>CCGX09T308-LC</b>	0.8	0.5-5.0	0.15-0.60													●	●	●	●	●	●	●	●	●	●	●	●
	<b>CCGX120404-LC</b>	0.4	0.5-7.0	0.1-0.3													●	●	●	●	●	●	●	●	●	●	●	●
	<b>CCGX120408-LC</b>	0.8	0.5-7.0	0.15-0.60													●	●	●	●	●	●	●	●	●	●	●	●
	<b>LH</b>  Alum Machining	<b>CCGX060202-LH</b>	0.2	0.3-3.0	0.05-0.15													●	●	●	●	●	●	●	●	●	●	●
<b>CCGX060204-LH</b>		0.4	0.5-3.0	0.1-0.3													●	●	●	●	●	●	●	●	●	●	●	●
<b>CCGX060208-LH</b>		0.8	0.6-3.0	0.15-0.40													●	●	●	●	●	●	●	●	●	●	●	●
<b>CCGX09T302-LH</b>		0.2	0.4-5.0	0.05-0.15														●	●	●	●	●	●	●	●	●	●	●
<b>CCGX09T304-LH</b>		0.4	0.5-5.0	0.1-0.3														●	●	●	●	●	●	●	●	●	●	●
<b>CCGX09T308-LH</b>		0.8	0.5-5.0	0.15-0.60														●	●	●	●	●	●	●	●	●	●	●
<b>CCGX120402-LH</b>		0.2	0.4-7.0	0.05-0.15													○	○	○	○	○	○	○	○	○	○	○	○
<b>CCGX120404-LH</b>		0.4	0.5-7.0	0.1-0.3														●	●	●	●	●	●	●	●	●	●	●
<b>CCGX120408-LH</b>	0.8	0.5-7.0	0.15-0.60														●	●	●	●	●	●	●	●	●	●	●	
<b>CCGX120412-LH</b>	1.2	0.5-7.0	0.15-0.80														○	○	○	○	○	○	○	○	○	○	○	

● Ex stock    ○ On demand

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

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Grade selection > A42

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Tool holder						
SCACR/L	SCLCR/L	SCACR/L-SC	SCLCR/L-SC	A***-SCLCR/L	S***-SCFCR/L	S***-SCLCR
Kr: 90°	Kr: 95°	Kr: 90°	Kr: 95°	Kr: 95°	Kr: 90°	Kr: 95°
						
A269	A270	A306	A307	A334	A352	A353

**E\*\*\*-SCLCR/L**  
Kr: 95°



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Cutting data > A366

# General turning Positive inserts

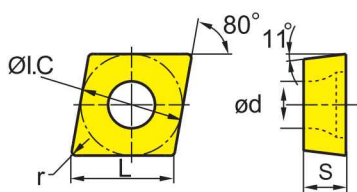
A

Turning

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

CP**	L	I.C	S	d
06 02	6.4	6.35	2.38	2.8
09 T3	9.7	9.525	3.97	4.4

## Turning inserts



CP** positive insert					HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)		HT	HC <sup>2</sup>	HW												
	P	M	K	N	S	H																							
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201		
HF	<b>CPMT060204-HF</b>	0.4	0.1-1.5	0.04-0.18																									
	<b>CPMT060208-HF</b>	0.8	0.1-1.5	0.05-0.25																									
Finishing																													
SF	<b>CPGT060202-SF</b>	0.2	0.05-2.00	0.05-0.25																									
	<b>CPGT060204-SF</b>	0.4	0.05-2.00	0.05-0.35																									
Finishing	<b>CPGT09T304-SF</b>	0.4	0.05-2.00	0.05-0.35																									
Flat	<b>CPGW060204</b>	0.4	0.5-1.5	0.05-0.40																									
Medium Cut																													
HM	<b>CPMT09T304-HM</b>	0.4	0.2-3.5	0.05-0.35																									
	<b>CPMT09T308-HM</b>	0.8	0.2-3.5	0.10-0.55																									
Medium Cut																													

● Ex stock ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

B

Milling

C

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Tool holder	
<b>S***-SCLPR/L</b>	<b>C***-SCLPR/L</b>
Kr: 95°	Kr: 95°
A348	A354

System code > A48

Grade selection > A42

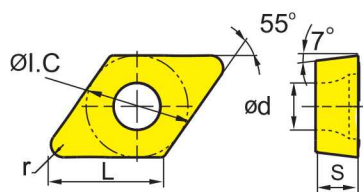
Technical info > A501

Cutting data > A366

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

DC**	L	I.C	S	d
07 02	7.8	6.35	2.38	2.8
11 T3	11.6	9.525	3.97	4.4

**Turning inserts**



DC** positive insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW										
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
AHF 	<b>DCMT070204-AHF</b>	0.4	0.2-2.5	0.05-0.20	○														○ ●				●				
	<b>DCMT11T302-AHF</b>	0.2	0.5-3.0	0.05-0.15	○														● ●				● ●				
	<b>DCMT11T304-AHF</b>	0.4	0.5-3.0	0.05-0.30	●														● ●				● ●				
	<b>DCMT11T308-AHF</b>	0.8	0.5-3.0	0.05-0.40	●														●				● ●				
SF 	<b>DCGT070202-SF</b>	0.2	0.05-1.50	0.05-0.15																			● ● ○				
	<b>DCGT070204-SF</b>	0.4	0.05-1.50	0.05-0.20																			○	●			
	<b>DCGT070208-SF</b>	0.8	0.05-1.50	0.05-0.30																					●		
	<b>DCGT11T302-SF</b>	0.2	0.05-2.00	0.05-0.15													○							○ ● ●			
	<b>DCGT11T304-SF</b>	0.4	0.05-2.00	0.05-0.20																				● ● ●			
	<b>DCGT11T308-SF</b>	0.8	0.05-2.00	0.05-0.30																				● ●	●		

● Ex stock ○ On demand  
YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder						
SDACR/L	SDJCR/L	SDNCN	SDACR/L-SC	SDHCR/L-SC	SDJCR/L-SC	SDNCN-SC
Kr: 90°	Kr: 93°	Kr: 62°30'	Kr: 90°	Kr: 107°30'	Kr: 93°	Kr: 62°30'
A271	A272	A273	A308	A309	A310	A311
S***-SDQCR/L	A***-SDUCR/L	S***-SDZCR/L	E***-SDQCR/L			
Kr: 107°30'	Kr: 93°	Kr: 85°	Kr: 107°30'			
A336	A337	A338	A357			

System code > A48

Grade selection > A42

Technical info > A501

Cutting data > A366



**A**

Turning

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

DCMT	L	I.C	S	d
07 02	7.8	6.35	2.38	2.8
11 T3	11.6	9.525	3.97	4.4

## Turning inserts

DC** positive insert					HC <sup>1</sup> (CVD)							HC <sup>1</sup> (PVD)		HT	HC <sup>2</sup>	HW														
					P	●	●	●	●	●	●	●	●	●	●	●	●													
					M					●	●	●	●	●	●	●	●	●												
					K									●	●	●	●	●	●											
					N										●	●				●	●									
					S											●	●	●	●	●	●									
					H																									
	ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201		
EF	DCMT070202-EF	0.2	0.06-1.50	0.03-0.11							○									○										
	DCMT070204-EF	0.4	0.08-1.50	0.05-0.17							●									●										
	DCMT11T302-EF	0.2	0.08-2.00	0.04-0.15								○								●										
	DCMT11T304-EF	0.4	0.11-2.00	0.06-0.23								●								●										
Finishing	DCMT11T308-EF	0.8	0.15-2.00	0.08-0.30							●								●	●										
HF	DCMT070202-HF	0.2	0.06-1.50	0.03-0.11		○	●																							
	DCMT070204-HF	0.4	0.08-1.50	0.05-0.17		●	●																							
	DCMT070208-HF	0.8	0.08-1.50	0.05-0.30		●	○																							
	DCMT11T302-HF	0.2	0.08-2.00	0.04-0.15		○	●														○									
	DCMT11T304-HF	0.4	0.11-2.00	0.06-0.23		●	●							○	●															
Finishing	DCMT11T308-HF	0.8	0.15-2.00	0.08-0.30		●	●						●																	
XF	DCMT070202-XF	0.2	0.5-1.5	0.08-0.15				○																						
	DCMT070204-XF	0.4	0.5-1.5	0.08-0.15	○																									
	DCMT070208-XF	0.8	0.5-1.5	0.08-0.25	○																									
	DCMT11T304-XF	0.4	0.5-2.0	0.08-0.15	○																									
	Finishing	DCMT11T308-XF	0.8	0.5-2.0	0.08-0.25	○																								

● Ex stock   ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

**B**

Milling

**C**

Drilling

**D**

Technical Information

**E**

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Tool holder						
SDACR/L	SDJCR/L	SDNCN	SDACR/L-SC	SDHCR/L-SC	SDJCR/L-SC	SDNCN-SC
Kr: 90°	Kr: 93°	Kr: 62°30'	Kr: 90°	Kr: 107°30'	Kr: 93°	Kr: 62°30'
A271	A272	A273	A308	A309	A310	A311
S***-SDQCR/L	A***-SDUCR/L	S***-SDZCR/L	E***-SDQCR/L			
Kr: 107°30'	Kr: 93°	Kr: 85°	Kr: 107°30'			
A336	A337	A338	A357			

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

DCMT	L	I.C	S	d
07 02	7.8	6.35	2.38	2.8
11 T3	11.6	9.525	3.97	4.4

**Turning inserts**

DC** positive insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)		HT	HC <sup>2</sup>	HW												
				P	M	K	N	S	H																			
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
EM  Medium Cut	DCMT070204-EM	0.4	0.19-2.25	0.06-0.17						●	●									●								
	DCMT070208-EM	0.8	0.38-2.25	0.08-0.23						●	○									●								
	DCMT11T304-EM	0.4	0.25-3.00	0.08-0.23						●	●									●								
	DCMT11T308-EM	0.8	0.5-3.0	0.1-0.3						●	●									●								
XM  Medium Cut	DCMT11T304-XM	0.4	1-2.5	0.15-0.3	●	○																						
	DCMT11T308-XM	0.8	1-2.5	0.15-0.35	●		●																					
	DCMT11T312-XM	1.2	1-2.5	0.15-0.4	●		●																					

● Ex stock ○ On demand  
YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder						
SDACR/L	SDJCR/L	SDNCN	SDACR/L-SC	SDHCR/L-SC	SDJCR/L-SC	SDNCN-SC
Kr: 90°	Kr: 93°	Kr: 62°30'	Kr: 90°	Kr: 107°30'	Kr: 93°	Kr: 62°30'
A271	A272	A273	A308	A309	A310	A311
S***-SDQCR/L	A***-SDUCR/L	S***-SDZCR/L	E***-SDQCR/L			
Kr: 107°30'	Kr: 93°	Kr: 85°	Kr: 107°30'			
A336	A337	A338	A357			

**A**

Turning

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

DCMT	L	I.C	S	d
07 02	7.8	6.35	2.38	2.8
11 T3	11.6	9.525	3.97	4.4

## Turning inserts

DC** positive insert				HC <sup>1</sup> (CVD)										HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW												
				P	●	●	●	⊗	⊗	⊗																					
				M																											
				K																											
				N																											
				S																											
				H																											
ISO				r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
HM	DCMT070204-HM	0.4	0.19-2.25	0.06-0.17	○	●	●								●	●															
	DCMT070208-HM	0.8	0.38-2.25	0.08-0.23		●	●								●	●															
Medium Cut	DCMT11T304-HM	0.4	0.25-3.00	0.08-0.23	○	●	●								●	●															
	DCMT11T308-HM	0.8	0.5-3.0	0.1-0.3		●	●								●	●															
	DCMT11T312-HM	1.2	0.6-3.0	0.12-0.36				○						○	○																

● Ex stock ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

**B**

Milling

**C**

Drilling

**D**

Technical Information

**E**

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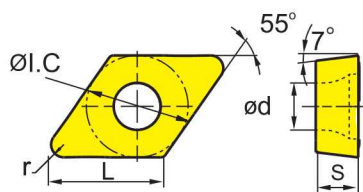
Tool holder						
SDACR/L	SDJCR/L	SDNCN	SDACR/L-SC	SDHCR/L-SC	SDJCR/L-SC	SDNCN-SC
Kr: 90°	Kr: 93°	Kr: 62°30'	Kr: 90°	Kr: 107°30'	Kr: 93°	Kr: 62°30'
A271	A272	A273	A308	A309	A310	A311
S***-SDQCR/L	A***-SDUCR/L	S***-SDZCR/L	E***-SDQCR/L			
Kr: 107°30'	Kr: 93°	Kr: 85°	Kr: 107°30'			
A336	A337	A338	A357			



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

DC**	L	I.C	S	d
07 02	7.8	6.35	2.38	2.8
11 T3	11.6	9.525	3.97	4.4

**Turning inserts**



DC** positive insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW											
				P	●	●	●	●	●	●	●	●	●	●	●	●	●											
				M	●	●	●	●	●	●	●	●	●	●	●	●	●											
				K	●	●	●	●	●	●	●	●	●	●	●	●	●											
				N	●	●	●	●	●	●	●	●	●	●	●	●	●											
				S	●	●	●	●	●	●	●	●	●	●	●	●	●											
				H	●	●	●	●	●	●	●	●	●	●	●	●	●											
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
Flat 	<b>DCMW11T304</b>	0.4	0.5-5.0	0.05-0.20								○																
	<b>DCMW11T308</b>	0.8	0.4-5.0	0.1-0.4								○																
Medium Cut																												
HR 	<b>DCMT11T304-HR</b>	0.4	1-4	0.1-0.3		○	●					●	●															
	<b>DCMT11T308-HR</b>	0.8	1-4	0.12-0.35		●	●					●	●															
	<b>DCMT11T312-HR</b>	1.2	1.2-4.0	0.14-0.42		○	●					○																
Roughing																												
LC 	<b>DCGX070201-LC</b>	0.1	0.3-4.0	0.05-0.10																							●	
	<b>DCGX070202-LC</b>	0.2	0.3-4.0	0.05-0.15													●										●	
	<b>DCGX070204-LC</b>	0.4	0.5-4.0	0.1-0.3													●										●	
	<b>DCGX11T302-LC</b>	0.2	0.3-5.5	0.05-0.15													●										●	
	<b>DCGX11T304-LC</b>	0.4	0.5-5.5	0.1-0.3													●										●	
	<b>DCGX11T308-LC</b>	0.8	0.5-5.5	0.15-0.60													●										●	

● Ex stock ○ On demand

YBC152F, YBC252F, YBM153F, YBM253F available

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

**Tool holder**

SDACR/L	SDJCR/L	SDNCN	SDACR/L-SC	SDHCR/L-SC	SDJCR/L-SC	SDNCN-SC
Kr: 90°	Kr: 93°	Kr: 62°30'	Kr: 90°	Kr: 107°30'	Kr: 93°	Kr: 62°30'
A271	A272	A273	A308	A309	A310	A311
S***-SDQCR/L	A***-SDUCR/L	S***-SDZCR/L	E***-SDQCR/L			
Kr: 107°30'	Kr: 93°	Kr: 85°	Kr: 107°30'			
A336	A337	A338	A357			

System code > A48

Grade selection > A42

Technical info > A501

Cutting data > A366



# General turning Positive inserts

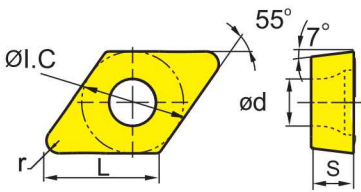
**A**

Turning

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

DCGX	L	I.C	S	d
<b>07 02</b>	7.8	6.35	2.38	2.8
<b>11 T3</b>	11.6	9.525	3.97	4.4

## Turning inserts

DC** positive insert				HC <sup>1</sup> (CVD)							HC <sup>1</sup> (PVD)		HT	HC <sup>2</sup>	HW
	<b>P</b>	●●●●●●●●	●●●●●●●●								●●●●	●●●●			
	<b>M</b>			●●●●	●●●●						●●●●	●●●●	●●●●		
	<b>K</b>					●●●●	●●●●								
	<b>N</b>							●●						●●	●●
	<b>S</b>									●●●●	●●●●				●●
	<b>H</b>														

**B**

Milling

ISO		r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
LH	<b>DCGX070202-LH</b>	0.2	0.3-4.0	0.05-0.15														●										●	
	<b>DCGX070204-LH</b>	0.4	0.5-4.0	0.1-0.3														●										●	
	<b>DCGX070208-LH</b>	0.8	0.5-4.0	0.15-0.60														○										●	
Alum Machining	<b>DCGX11T302-LH</b>	0.2	0.3-5.5	0.05-0.15														●										●	
	<b>DCGX11T304-LH</b>	0.4	0.5-5.5	0.1-0.3														●										●	
	<b>DCGX11T308-LH</b>	0.8	0.5-5.5	0.15-0.60														●										●	

● Ex stock    ○ On demand

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





**C**

Drilling

Tool holder						
SDACR/L	SDJCR/L	SDNCN	SDACR/L-SC	SDHCR/L-SC	SDJCR/L-SC	SDNCN-SC
Kr: 90°	Kr: 93°	Kr: 62°30'	Kr: 90°	Kr: 107°30'	Kr: 93°	Kr: 62°30'
						
A271	A272	A273	A308	A309	A310	A311

**D**

Technical Information

S***-SDQCR/L	A***-SDUCR/L	S***-SDZCR/L	E***-SDQCR/L
Kr: 107°30'	Kr: 93°	Kr: 85°	Kr: 107°30'
			
A336	A337	A338	A357

**E**

Index

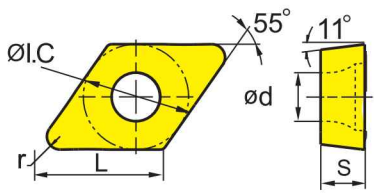


**Turning inserts**

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

DPGT	L	I.C	S	d
07 02	7.8	6.35	2.38	2.8
11 T3	11.6	9.525	3.97	4.4

DP** positive insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW
ISO	r	a <sub>p</sub>	f	P	M	K	N	S	H								
				DPGT070202-SF	0.2	0.05-2.00	0.05-0.15	●	●	●	●	●	●	●	●	●	●
DPGT070204-SF	0.4	0.05-2.00	0.05-0.30					⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗		
DPGT11T304-SF	0.4	0.05-2.00	0.1-0.3							⊗	⊗	⊗	⊗	⊗	⊗		
DPGT11T308-SF	0.8	0.05-2.00	0.1-0.4														



● Ex stock ○ On demand

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

Tool holder		
S***-SDQPR/L	S***-SDUPR/L	C***-SDQPR/L
Kr: 107°30'	Kr: 93°	Kr: 107°30'
A349	A350	A356



**A**

Turning

**B**

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**D**

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**E**

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RC**	L	I.C	S	d
<b>08 03</b>	8	8	3.18	3.36
<b>10 T3</b>	10	10	3.97	3.6
<b>12 04</b>	12	12	4.76	44.4
<b>16 06</b>	16	16	6.35	5.5
<b>20 06</b>	20	20	6.35	6.5
<b>25 07</b>	25	25	7.94	7.7

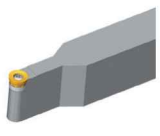
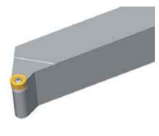
- Ideal machining conditions
- ⊗ Normal machining conditions
- ⊗ Unfavourable machining conditions

## Turning inserts

RC** positive insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW									
ISO	a <sub>p</sub>	f	P								M			K			N			S			H			
			YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
Basic 	<b>RCMT0803MO</b>	0.5-3.0	0.1-0.4				●																			
	<b>RCMT10T3MO</b>	0.5-4.0	0.1-0.5				○																			
	<b>RCMT1204MO</b>	0.8-5.0	0.1-0.6			○	●					●														
	<b>RCMT1606MO</b>	1-6	0.1-0.8			●	●			○	●															
Medium Cut	<b>RCMT2006MO</b>	1.2-8.0	0.1-1.0			○	●																			
	<b>RCMT2507MO</b>	1.4-10.0	0.1-1.2			○	○																			
LH 	<b>RCGX0803MO-LH</b>	1-4	0.2-0.5																						●	
	<b>RCGX1204MO-LH</b>	1.2-5.0	0.2-0.6																						●	
Alum Machining																										

● Ex stock    ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

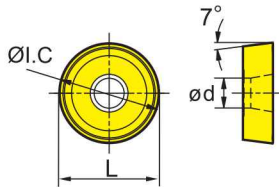
Tool holder	
SRDCN	SRGCR/L
	
A288	A289



RCMX	L	I.C	S	d
08 03	8	8	3.18	3.36
10 03	10	10	3.18	4.4
12 04	12	12	4.76	4.4
16 06	16	16	6.35	5.5
20 06	20	20	6.35	6.5
25 07	25	25	7.94	7.2
32 09	32	32	9.52	10.2

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

**Turning inserts**



RC** positive insert			HC <sup>1</sup> (CVD)										HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW										
			P	M	K	N	S	H																				
ISO	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201		
Basic  Light Roughing	<b>RCMX0803MO</b>	0.5-4.0	0.1-0.5	●	●	●	●	●																				
	<b>RCMX1003MO</b>	0.5-5.0	0.1-0.6					●																				
	<b>RCMX1204MO</b>	1-6	0.1-0.8		○	●																						
	<b>RCMX1606MO</b>	1-7	0.2-0.9		○	●					○								○									
	<b>RCMX2006MO</b>	1-9	0.2-1.0		●	●							●															
	<b>RCMX2507MO</b>	2-10	0.25-1.20			●																						
	<b>RCMX3209MO</b>	2-13	0.25-1.40			○	●																					
Basic  Light Roughing	<b>RCMX2507MO-1</b>	2-9	0.1-0.4		○																							
Basic  Light Roughing	<b>RCMX3209MO-PV</b>	3-12	0.1-0.4		○	●																						

● Ex stock ○ On demand  
YBC152F, YBC252F, YBM153F, YBM253F available

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



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





**A**

Turning

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

SCMT	L	I.C	S	d
09 T3	9.525	9.525	3.97	4.4
12 04	12.7	12.7	4.76	5.56

## Turning inserts

SC** positive insert				HC <sup>1</sup> (CVD)										HC <sup>1</sup> (PVD)		HT	HC <sup>2</sup>	HW											
				P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●										
				M																									
				K																									
				N																									
				S																									
				H																									
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201		
AHF  Finishing	SCMT09T304-AHF	0.4	0.5-3.0	0.05-0.30	●																		○						
	SCMT09T308-AHF	0.8	0.5-3.0	0.05-0.40	●																			●					
EF  Finishing	SCMT09T302-EF	0.2	0.07-2.00	0.05-0.15															●										
	SCMT09T304-EF	0.4	0.11-2.00	0.06-0.23															●										
	SCMT09T308-EF	0.8	0.15-2.00	0.08-0.30															●										
EM  Finishing	SCMT09T304-EM	0.4	0.25-3.00	0.08-0.23															●										
	SCMT09T308-EM	0.8	0.5-3.0	0.1-0.3							●	●							●										
	SCMT120404-EM	0.4	0.3-3.6	0.09-0.27							○	○							●										
	SCMT120408-EM	0.8	0.6-3.6	0.12-0.36							○	○							●										
	SCMT120412-EM	1.2	0.72-3.60	0.14-0.43									○						●										
XF  Finishing	SCMT09T304-XF	0.4	0.5-2.0	0.08-0.25	●																								
	SCMT09T308-XF	0.8	0.5-2.0	0.08-0.30	●								○																

● Ex stock   ○ On demand  
YBC152F, YBC252F, YBM153F, YBM253F available

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

**B**

Milling

**C**

Drilling

**D**

Technical Information

**E**

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Tool holder				
SSBCR/L	SSDCN	SSKCR/L	SSSCR/L	S***-SSKCR/L
Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°
				
A279	A280	A281	A282	A339

System code > A48

Grade selection > A42

Technical info > A501

Cutting data > A366

**Turning inserts**

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

SCMT	L	I.C	S	d
09 T3	9.525	9.525	3.97	4.4
12 04	12.7	12.7	4.76	5.56

SC** positive insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW																														
				P	M	K	N	S	H																																						
				<table border="1"> <thead> <tr> <th>ISO</th> <th>r</th> <th>a<sub>p</sub></th> <th>f</th> <th>YBC103</th> <th>YB6315</th> <th>YBC152</th> <th>YBC203</th> <th>YBC252</th> <th>YBC352</th> <th>YBM153</th> <th>YBM253</th> <th>YBD102</th> <th>YB7315</th> <th>YBD152</th> <th>YBD152C</th> <th>YBG101</th> <th>YBG102</th> <th>YBG105</th> <th>YBG205</th> <th>YB9320</th> <th>YPD201</th> <th>YBS103</th> <th>YNG151</th> <th>YNT251</th> <th>YNG151C</th> <th>YD101</th> <th>YD201</th> </tr> </thead> </table>																ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201																				
 HF Finishing	SCMT09T302-HF	0.2	0.15-2.00	0.05-0.15																																											
	SCMT09T304-HF	0.4	0.11-2.00	0.05-0.23					●																																						
	SCMT09T308-HF	0.8	0.15-2.00	0.05-0.30			●	●																																							
 HM Medium Cut	SCMT09T304-HM	0.4	0.25-3.00	0.08-0.23		●	●				●	●																																			
	SCMT09T308-HM	0.8	0.5-3.0	0.1-0.3		●	●				●	●																																			
	SCMT120404-HM	0.4	0.3-3.6	0.09-0.27		●	●																																								
	SCMT120408-HM	0.8	0.6-3.6	0.12-0.36		○	●					●	●																																		
	SCMT120412-HM	1.2	0.72-3.60	0.14-0.43						●																																					
 XM Medium Cut	SCMT09T304-XM	0.4	1-2.5	0.15-0.3	○	○																																									
	SCMT09T308-XM	0.8	1-2.5	0.15-0.35	○	○																																									
	SCMT09T312-XM	1.2	1-2.5	0.15-0.4	○	○																																									
	SCMT120408-XM	0.8	1-3.0	0.15-0.35	○	○																																									
	SCMT120412-XM	1.2	1-3.0	0.15-0.4	○	○																																									

● Ex stock ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder				
SSBCR/L	SSDCN	SSKCR/L	SSSCR/L	S***-SSKCR/L
Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°
A279	A280	A281	A282	A339

System code > A48

Grade selection > A42

Technical info > A501

Cutting data > A366



A

Turning

B

Milling

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# General turning Positive inserts

**A**

Turning

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

SC**	L	I.C	S	d
09 T3	9.525	9.525	3.97	4.4
12 04	12.7	12.7	4.76	5.55.56

## Turning inserts

SC** positive insert					HC <sup>1</sup> (CVD)										HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW										
					P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●							
					M	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●					
					K	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●				
					N	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●				
					S	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●				
					H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●				
ISO	r	a <sub>p</sub>	f		YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201		
<b>HR</b>  Roughing	<b>SCMT09T304-HR</b>	0.4	0.2-4.0	0.05-0.40		○	●								○															
	<b>SCMT09T308-HR</b>	0.8	1-4	0.12-0.35		●	●						●	●																
	<b>SCMT09T312-HR</b>	1.2	1.2-4.0	0.14-0.42																										
	<b>SCMT120404-HR</b>	0.4	0.5-4.0	0.05-0.50		○	○																							
	<b>SCMT120408-HR</b>	0.8	1.2-4.8	0.14-0.42		●	●							●	●															
	<b>SCMT120412-HR</b>	1.2	1.44-4.80	0.17-0.50		●	●							●	○															
<b>LC</b>  Alum Machining	<b>SCGX09T304-LC</b>	0.4	0.5-5.0	0.1-0.5																									●	
	<b>SCGX09T308-LC</b>	0.8	0.5-5.0	0.15-0.60																									●	
	<b>SCGX120408-LC</b>	0.8	1-7	0.15-0.60														●											●	

● Ex stock   ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

**B**

Milling

**C**

Drilling

**D**

Technical Information

**E**

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Tool holder				
SSBCR/L	SSDCN	SSKCR/L	SSSCR/L	S***-SSKCR/L
Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°
A279	A280	A281	A282	A339

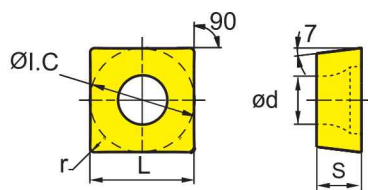




- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

SCGX	L	I.C	S	d
09 T3	9.525	9.525	3.97	4.4
12 04	12.7	12.7	4.76	5.56

**Turning inserts**



SC** positive insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW										
				P	M	K	N	S	H																		
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
LH Alum Machining	SCGX09T302-LH	0.2	0.5-4.0	0.05-0.15												○										●	
	SCGX09T304-LH	0.4	0.5-4.0	0.1-0.3																						●	
	SCGX09T308-LH	0.8	0.5-4.0	0.15-0.60																						●	
	SCGX120408-LH	0.8	0.5-5.0	0.15-0.60																						●	

● Ex stock ○ On demand

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

Tool holder				
SSBCR/L	SDDCN	SSKCR/L	SSSCR/L	S***-SSKCR/L
Kr: 75°	Kr: 45°	Kr: 75°	Kr: 45°	Kr: 75°
A279	A280	A281	A282	A339

System code > A48

Grade selection > A42

Technical info > A501

Cutting data > A366



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


**A**

Turning

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

SPMW	L	I.C	S	d
<b>09 T3</b>	9.525	9.525	3.97	4.4
<b>12 04</b>	12.7	12.7	4.76	5.56

## Turning inserts

SP** positive insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW										
				P	M	K	N	S	H																		
				YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
ISO	r	a <sub>p</sub>	f																								
Flat 	<b>SPMW09T304</b>	0.4	0.5-4.0	0.1-0.4																							
	<b>SPMW09T308</b>	0.8	0.5-4.0	0.2-0.4																							
	<b>SPMW120408</b>	0.8	1-6	0.3-0.6																							

● Ex stock    ○ On demand

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

**B**

Milling

**C**

Drilling

**D**

Technical Information

**E**

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System code > A48

Grade selection > A42


Technical info > A501

Cutting data > A366

- Ideal machining conditions
- ⊗ Normal machining conditions
- ⊛ Unfavourable machining conditions

TBGH	L	I.C	S	d
06 01	6.87	3.97	1.59	2.2

**Turning inserts**

TB** positive insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW						
ISO	r	a <sub>p</sub>	f	P	M	K	N	S	H														
				YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151
																							
	<b>TBGH060102L</b>	0.2	0.5-3.5	0.05-0.40										●		●							
<b>TBGH060104L</b>	0.4	0.5-3.5	0.05-0.40											○		●							

● Ex stock    ○ On demand

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

**A**

Turning

**B**

Milling

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System code > A48

Grade selection > A42

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Cutting data > A366



**A**

Turning

**B**

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Drilling

**D**

Technical Information

**E**

Index

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

TCGT	L	I.C	S	d
<b>06 T1</b>	6.87	3.97	1.98	2.2
<b>09 02</b>	9.63	5.56	2.38	2.5
<b>11 03</b>	11	6.35	3.18	2.8

## Turning inserts

TC** positive insert				HC <sup>1</sup> (CVD)										HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW																
ISO	r	a <sub>p</sub>	f	P	M	K	N	S	H	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201		
				TCGT06T102-SF	0.2	0.05-2.00	0.05-0.15	●	●	●	●	●	●																						
TCGT090202-SF	0.2	0.05-2.00	0.05-0.15																																
TCGT090204-SF	0.4	0.05-2.00	0.1-0.3																																
TCGT090208-SF	0.8	0.05-2.00	0.10-0.35																																
TCGT110302-SF	0.2	0.05-2.00	0.05-0.15																																
TCGT110304-SF	0.4	0.05-2.00	0.1-0.3																																
TCGT110308-SF	0.8	0.05-2.00	0.10-0.35																																

● Ex stock    ○ On demand

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

Tool holder	
<b>STGCR/L</b> Kr: 91°	<b>E***-STFCR/L</b> Kr: 90°
	
A285	A361



TCMT	L	I.C	S	d
09 02	9.63	5.56	2.38	2.5
11 02	11	6.35	2.38	2.8
16 T3	16.5	9.525	3.97	4.4

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

**Turning inserts**

TC** positive insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW										
				P	M	K	N	S	H																		
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
<b>AHF</b>  Finishing	<b>TCMT110204-AHF</b>	0.4	0.2-2.5	0.05-0.30	●																●						
	<b>TCMT110208-AHF</b>	0.8	0.2-2.5	0.1-0.4	●																	●					
	<b>TCMT16T304-AHF</b>	0.4	0.5-3.0	0.05-0.30	●																	●					
	<b>TCMT16T308-AHF</b>	0.8	0.5-3.5	0.1-0.4	●																	●					
<b>HF</b>  Finishing	<b>TCMT090202-HF</b>	0.2	0.06-1.70	0.03-0.13		○	●																○				
	<b>TCMT090204-HF</b>	0.4	0.1-1.7	0.05-0.19		○	●																				
	<b>TCMT090208-HF</b>	0.8	0.15-1.70	0.10-0.25					○																		
	<b>TCMT110202-HF</b>	0.2	0.08-2.00	0.05-0.20						●																	
	<b>TCMT110204-HF</b>	0.4	0.1-2.0	0.05-0.30		○	●							○													
	<b>TCMT110208-HF</b>	0.8	0.1-2.0	0.05-0.35		●	●					●															
	<b>TCMT16T304-HF</b>	0.4	0.11-2.00	0.05-0.23		○	●																				
<b>XF</b>  Finishing	<b>TCMT090202-XF</b>	0.2	0.5-1.5	0.08-0.15				○																			
	<b>TCMT090204-XF</b>	0.4	0.5-1.5	0.08-0.20	●																						
	<b>TCMT110202-XF</b>	0.2	0.5-2.0	0.08-0.15				○																			
	<b>TCMT110204-XF</b>	0.4	0.5-2.0	0.08-0.20	●																						
	<b>TCMT110208-XF</b>	0.8	0.5-2.5	0.08-0.25	●																						
	<b>TCMT16T304-XF</b>	0.4	0.5-2.5	0.08-0.20	●																						
<b>TCMT16T308-XF</b>	0.8	0.5-2.5	0.08-0.25	●																							

● Ex stock ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder					
STACR/L	STFCR/L	STGCR/L	STTCR/L	S***-STFCR/L	E***-STFCR/L
Kr: 90°	Kr: 91°	Kr: 91°	Kr: 60°	Kr: 91°	Kr: 90°
A283	A284	A285	A286	A341	A361

System code > A48

Grade selection > A42

Technical info > A501

Cutting data > A366



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

TCMT	L	I.C	S	d
09 02	9.63	5.56	2.38	2.5
11 02	11	6.35	2.38	2.8
16 T3	16.5	9.525	3.97	4.4

### Turning inserts

TC** positive insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW													
	P	M	K	N	S	H	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
	ISO	r	a <sub>p</sub>	f																										
	 Finishing	TCMT090202-EF	0.2	0.06-1.70	0.03-0.13																									
		TCMT090204-EF	0.4	0.1-1.7	0.05-0.19																									
		TCMT110202-EF	0.2	0.2-2.0	0.05-0.13																									
		TCMT110204-EF	0.4	0.2-2.0	0.05-0.20																									
TCMT16T304-EF		0.4	0.3-3.0	0.05-0.23																										
TCMT16T308-EF		0.8	0.3-3.0	0.1-0.4																										
 Medium Cut	TCMT090204-EM	0.4	0.19-2.25	0.06-0.17																										
	TCMT110204-EM	0.4	0.2-2.7	0.05-0.30																										
	TCMT110208-EM	0.8	0.8-2.7	0.08-0.30																										
	TCMT16T304-EM	0.4	0.25-3.00	0.08-0.23																										
	TCMT16T308-EM	0.8	0.5-3.0	0.1-0.3																										
 Medium Cut	TCMT16T304-XM	0.4	1-3.0	0.15-0.3	○	○																								
	TCMT16T308-XM	0.8	1-3.0	0.15-0.35	○	○																								
	TCMT16T312-XM	1.2	1-3.0	0.15-0.4	○	○																								

● Ex stock   ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

### Tool holder

STACR/L	STFCR/L	STGCR/L	STTCR/L	S***-STFCR/L	E***-STFCR/L
Kr: 90°	Kr: 91°	Kr: 91°	Kr: 60°	Kr: 91°	Kr: 90°
A283	A284	A285	A286	A341	A361

System code > A48

Grade selection > A42

Technical info > A501

Cutting data > A366





**A**

Turning

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

TCMT	L	I.C	S	d
22 04	22	12.7	4.76	5.5

## Turning inserts

TC** positive insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW												
	P	M	K	N	S	H																							
	ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
	<b>TCMT220408</b>	0.8	1.2-4.8	0.14-0.42										●															
	Basic																												

● Ex stock    ○ On demand

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

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TCGX	L	I.C	S	d
09 02	9.63	5.56	2.38	2.5
11 02	11	6.35	2.38	2.8
16 T3	16.5	9.525	3.97	4.4

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

**Turning inserts**

TC** positive insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)		HT	HC <sup>2</sup>	HW												
				P	●	●	●	●	●	●	●	●	●	●	●													
				M					●	●	●	●	●	●														
				K																								
				N					●	●				●	●													
				S						●	●	●	●	●	●													
				H																								
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
LC  Alum Machining	TCGX090202-LC	0.2	0.3-4.0	0.05-0.15												●												●
	TCGX090204-LC	0.4	0.5-4.0	0.1-0.3													●											●
	TCGX110202-LC	0.2	0.3-5.0	0.05-0.15													●											●
	TCGX110204-LC	0.4	0.5-5.0	0.1-0.3													●											●
	TCGX110208-LC	0.8	0.5-5.0	0.15-0.60													●											●
	TCGX16T304-LC	0.4	0.5-7.0	0.1-0.3																								●
	TCGX16T308-LC	0.8	0.5-7.0	0.15-0.60													●											●
LH  Alum Machining	TCGX090202-LH	0.2	0.3-4.0	0.05-0.15													○										●	
	TCGX090204-LH	0.4	0.5-4.0	0.1-0.3														○										●
	TCGX110202-LH	0.2	0.3-5.0	0.05-0.15														○										●
	TCGX110204-LH	0.4	0.5-5.0	0.1-0.3														●										●
	TCGX110208-LH	0.8	0.5-5.0	0.15-0.60																								●
	TCGX16T302-LH	0.2	0.5-7.0	0.05-0.15														○										●
	TCGX16T304-LH	0.4	0.5-7.0	0.1-0.3														○										●
TCGX16T308-LH	0.8	0.5-7.0	0.15-0.60														○										●	

● Ex stock ○ On demand

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

Tool holder					
STACR/L	STFCR/L	STGCR/L	STTCR/L	S***-STFCR/L	E***-STFCR/L
Kr: 90°	Kr: 91°	Kr: 91°	Kr: 60°	Kr: 91°	Kr: 90°
A283	A284	A285	A286	A341	A361

System code > A48

Grade selection > A42

Technical info > A501

Cutting data > A366



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**A**

Turning

- Ideal machining conditions
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- ⊗ Unfavourable machining conditions

TPGH	L	I.C	S	d
09 02	9.63	5.56	2.38	2.8
11 03	11	6.35	3.18	3.18

## Turning inserts

TP** positive insert				HC <sup>1</sup> (CVD)										HC <sup>1</sup> (PVD)		HT	HC <sup>2</sup>	HW												
	<b>P</b>	<b>M</b>	<b>K</b>	<b>N</b>	<b>S</b>	<b>H</b>	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
	ISO	r	a <sub>p</sub>	f																										
	 Super Finishing	<b>TPGH090202L</b>	0.2	0.2-3.0	0.05-0.15																									
		<b>TPGH090204L</b>	0.4	0.2-3.0	0.05-0.30																									
		<b>TPGH110302L</b>	0.2	0.2-3.5	0.05-0.15																									
		<b>TPGH110304L</b>	0.4	0.2-3.5	0.05-0.30																									

● Ex stock    ○ On demand

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

**B**

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

TPGT	L	I.C	S	d
09 02	9.63	5.56	2.38	2.5
11 03	11	6.35	3.18	2.8

**Turning inserts**

TP** positive insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW													
	<b>P</b>	●●●●●●●●●●											●●●●●●●●	●●●●●●																
	<b>M</b>					●●●●●●							●●●●●●●●●●	●●●●●●																
	<b>K</b>								●●●●●●																					
	<b>N</b>										●●●●●●					●●●●●●														
	<b>S</b>												●●●●●●●●●●			●●●●●●														
	<b>H</b>																													
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201			
 SF Finishing	<b>TPGT090202-SF</b>	0.2	0.05-2.00	0.05-0.15																										
	<b>TPGT090204-SF</b>	0.4	0.05-2.00	0.05-0.25													○							●	●					
	<b>TPGT090208-SF</b>	0.8	0.05-2.00	0.05-0.35																				●	●					
	<b>TPGT110302-SF</b>	0.2	0.05-2.00	0.05-0.15																				●	●					
	<b>TPGT110304-SF</b>	0.4	0.05-2.00	0.05-0.25																				○	●	●				
	<b>TPGT110308-SF</b>	0.8	0.05-2.00	0.05-0.35																					●	●				

● Ex stock ○ On demand

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

Tool holder		
S***-STUPR/L	C***-STUPR/L	E***-STFPR/L
Kr: 93°	Kr: 93°	Kr: 90°
A351	A360	A362

System code > A48

Grade selection > A42

Technical info > A501

Cutting data > A366



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- ● ● Unfavourable machining conditions

VBMT	L	I.C	S	d
11 02	11	6.35	2.38	2.8
11 03	11	6.35	3.18	2.8
16 04	16.5	9.525	4.76	4.4

### Turning inserts

VB** positive insert					HC <sup>1</sup> (CVD)										HC <sup>1</sup> (PVD)			HT		HC <sup>2</sup>	HW								
					P	M	K	N	S	H																			
ISO		r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
AHF	VBMT160404-AHF	0.4	0.2-3.0	0.05-0.30	●																	●							
	VBMT160408-AHF	0.8	0.8-3.5	0.08-0.40	●																		●						
EF	VBMT110302-EF	0.2	0.06-1.70	0.03-0.13																									
	VBMT110304-EF	0.4	0.1-1.7	0.05-0.19							●																		
	VBMT110308-EF	0.8	0.13-1.70	0.07-0.26							●																		
	VBMT160404-EF	0.4	0.1-1.8	0.05-0.20							●																		
	VBMT160408-EF	0.8	0.14-1.80	0.07-0.27							●																		
XF	VBMT110202-XF	0.2	0.5-2.0	0.08-0.20				○																					
	VBMT110204-XF	0.4	0.5-2.0	0.08-0.20	●																								
	VBMT110302-XF	0.2	0.5-2.0	0.08-0.20				○																					
	VBMT110304-XF	0.4	0.5-2.0	0.08-0.20	●																								
	VBMT160404-XF	0.4	0.5-2.5	0.08-0.20	●																								
VBMT160408-XF	0.8	0.5-2.5	0.08-0.25	●																									

● Ex stock   ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder					
SVJBR/L	SVABR/L	SVVBN	S***-SVQBR/L	S***-SVUBR/L	S***-SVXBR/L
Kr: 93°	Kr: 90°	Kr: 72°30'	Kr: 107°30'	Kr: 93°	Kr: 93°
A274	A275	A276	A345	A346	A347



**Turning inserts**

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

VB**	L	I.C	S	d
11 02	11	6.35	2.38	2.8
16 04	16.5	9.525	4.76	4.4

VB** positive insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW											
				<b>P</b>	●●●●●●●●●●									●●●●●●●●	●●●●●●													
				<b>M</b>			●●●●●●●●								●●●●●●●●	●●●●●●												
				<b>K</b>				●●●●●●●●																				
				<b>N</b>										●●●●●●					●●●●●●									
				<b>S</b>												●●●●●●●●			●●●●●●									
				<b>H</b>																								
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
HF	<b>VBMT110202-HF</b>	0.2	0.2-2.0	0.05-0.15																								
	<b>VBMT110204-HF</b>	0.4	0.2-2.0	0.05-0.35																						○		
	<b>VBMT110208-HF</b>	0.8	0.2-2.0	0.05-0.40																								
Finishing																												
NF	<b>VBET160404-NF</b>	0.4	0.2-3.0	0.05-0.30													○ ●											
	<b>VBET160408-NF</b>	0.8	0.2-3.0	0.08-0.40													○ ●											
Finishing																												

● Ex stock ○ On demand

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

Tool holder					
SVJBR/L	SVABR/L	SVVBN	S***-SVQBR/L	S***-SVUBR/L	S***-SVXBR/L
Kr: 93°	Kr: 90°	Kr: 72°30'	Kr: 107°30'	Kr: 93°	Kr: 93°
A274	A275	A276	A345	A346	A347

System code > A48

Grade selection > A42

Technical info > A501

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**Turning inserts**

- Ideal machining conditions
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VB**	L	I.C	S	d
11 03	11	6.35	3.18	2.8
16 04	16.5	9.525	4.76	4.4

VB** positive insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW										
				P	M	K	N	S	H																		
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201
NGF	<b>VBET160408-NGF</b>	0.8	0.2-3.0	0.08-0.30														●									
	<b>VBET160412-NGF</b>	1.2	0.2-3.0	0.1-0.4														●									
Finishing																											
EM	<b>VBMT110304-EM</b>	0.4	0.15-2.00	0.07-0.20						●								●									
	<b>VBMT110308-EM</b>	0.8	0.2-2.0	0.09-0.27	○					●								●									
	<b>VBMT160404-EM</b>	0.4	0.23-2.70	0.07-0.20						●								●									
	<b>VBMT160408-EM</b>	0.8	0.45-2.70	0.09-0.27						●								●									
Medium Cut																											
HM	<b>VBMT160404-HM</b>	0.4	0.23-2.70	0.07-0.20	●	●	●	●																			
	<b>VBMT160408-HM</b>	0.8	0.45-2.70	0.09-0.27	●	●	●	●	●																		○
	<b>VBMT160412-HM</b>	1.2	0.54-2.70	0.11-0.32	●	●																					
Medium Cut																											
XM	<b>VBMT160404-XM</b>	0.4	1-2.5	0.15-0.25	●	○																					
	<b>VBMT160408-XM</b>	0.8	1-2.5	0.15-0.3	●	○																					
	<b>VBMT160412-XM</b>	1.2	1-2.5	0.15-0.35	●	○																					
Medium Cut																											

● Ex stock ○ On demand  
 YBC152F, YBC252F, YBM153F, YBM253F available

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

Tool holder					
SVJBR/L	SVABR/L	SVVBN	S***-SVQBR/L	S***-SVUBR/L	S***-SVXBR/L
Kr: 93°	Kr: 90°	Kr: 72°30'	Kr: 107°30'	Kr: 93°	Kr: 93°
A274	A275	A276	A345	A346	A347

System code > A48

Grade selection > A42

Technical info > A501

Cutting data > A366







**Turning inserts**

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

VCGT	L	I.C	S	d
11 03	11	6.35	3.18	2.8
16 04	16.5	9.525	4.76	4.4

VC** positive insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW											
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
HF	<b>VCGT110304-HF</b>	0.4	0.2-2.0	0.05-0.30	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Finishing																												
NF	<b>VCGT160408-NF</b>	0.8	0.2-2.0	0.1-0.4														●										
Finishing																												
SF	<b>VCGT110302-SF</b>	0.2	0.05-1.00	0.05-0.15																				●	●	●		
Finishing	<b>VCGT110304-SF</b>	0.4	0.05-1.00	0.05-0.25													○		●					●	○	●		
	<b>VCGT160404-SF</b>	0.4	0.05-1.50	0.05-0.25																						●		

● Ex stock ○ On demand

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

Tool holder						
SVVCN	SVJCR/L	SVACR/L-SC	SVJCR/L-SC	S***-SVQCR/L	S***-SVUCR/L	C***-SVQCR/L
Kr: 72°30'	Kr: 93°	Kr: 90°	Kr: 93°	Kr: 107°30'	Kr: 93°	Kr: 107°30'
						
A277	A278	A312	A313	A343	A344	A363

C***-SVUCR/L
Kr: 93°

A364

System code > A48

Grade selection > A42

Technical info > A501

Cutting data > A366



**A**

Turning

**B**

Milling

**C**

Drilling

**D**

Technical Information

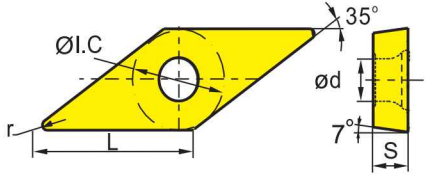
**E**

Index

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

VCGX	L	I.C	S	d
11 03	11	6.35	3.18	2.8
16 04	16.6	9.525	4.76	4.4
22 05	22	12.7	5.56	5.5

## Turning/Milling inserts

VC** turning/milling insert				HC <sup>1</sup> (CVD)							HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW												
ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
 LC Alum Machining	VCGX110301-LC	0.1	0.3-3.0	0.05-0.10	●	●	●	●	●	●								●	●	●	●					●		
	VCGX110302-LC	0.2	0.3-3.0	0.05-0.15						●	●								○								●	
	VCGX110304-LC	0.4	0.5-3.0	0.1-0.3																							●	
	VCGX110308-LC	0.8	1-3	0.1-0.5																							●	
	VCGX160404-LC	0.4	0.5-5.0	0.1-0.3																							●	
	VCGX160408-LC	0.8	0.5-5.0	0.15-0.60																							●	
	VCGX160412-LC	1.2	0.5-5.0	0.15-0.80																							●	
	VCGX220530-LC	3	0.5-7.0	0.25-1.00																							○	●

● Ex stock    ○ On demand

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

### Tool holder

SVVCN	SVJCR/L	SVACR/L-SC	SVJCR/L-SC	S***-SVQCR/L	S***-SVUCR/L	C***-SVQCR/L
Kr: 72°30'	Kr: 93°	Kr: 90°	Kr: 93°	Kr: 107°30'	Kr: 93°	Kr: 107°30'
						
A277	A278	A312	A313	A343	A344	A363

### C\*\*\*-SVUCR/L

Kr: 93°



A364

System code > A48

Grade selection > A42

Technical info > A501

Cutting data > A366

VCGX	L	I.C	S	d
11 02	11	6.35	2.38	2.8
11 03	11	6.35	3.18	2.8
16 04	16.6	9.525	4.76	4.4
22 05	22	12.7	5.56	5.5

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

**Turning/Milling inserts**

VC** turning/milling insert				HC <sup>1</sup> (CVD)								HC <sup>1</sup> (PVD)			HT	HC <sup>2</sup>	HW												
				P	M	K	N	S	H																				
	ISO	r	a <sub>p</sub>	f	YBC103	YB6315	YBC152	YBC203	YBC252	YBC352	YBM153	YBM253	YBD102	YB7315	YBD152	YBD152C	YBG101	YBG102	YBG105	YBG205	YB9320	YPD201	YBS103	YNG151	YNT251	YNG151C	YD101	YD201	
	VCGX110204-LH	0.4	0.5-3.0	0.1-0.3														●											●
	VCGX110301-LH	0.1	0.5-3.0	0.05-0.10																									● ●
	VCGX110302-LH	0.2	0.3-3.0	0.05-0.15															●										● ○
	VCGX110304-LH	0.4	0.5-3.0	0.1-0.3															●										● ○
	VCGX110308-LH	0.8	0.5-3.0	0.15-0.60															○										●
	VCGX160402-LH	0.2	0.5-5.0	0.05-0.10															●										●
	VCGX160404-LH	0.4	0.5-5.0	0.1-0.3															●										●
	VCGX160408-LH	0.8	0.5-5.0	0.15-0.60															●										●
	VCGX160412-LH	1.2	0.5-5.0	0.15-0.80															○										●
VCGX220530-LH	3	0.5-7.0	0.25-1.00															○										● ○	

● Ex stock ○ On demand

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

Tool holder						
SVVCN	SVJCR/L	SVACR/L-SC	SVJCR/L-SC	S***-SVQCR/L	S***-SVUCR/L	C***-SVQCR/L
Kr: 72°30'	Kr: 93°	Kr: 90°	Kr: 93°	Kr: 107°30'	Kr: 93°	Kr: 107°30'
A277	A278	A312	A313	A343	A344	A363
<b>C***-SVUCR/L</b>						
Kr: 93°						
A364						

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

