

























# Turning · Drehen

## Turning Inserts Overview · WSP Übersicht

### Carbide and Cermet Inserts - Hartmetall- und Cermet-WSP
















#### Finishing · Schlichten

									Edge length · Kantenlänge Page · Seite
<b>CNMG-DF</b>	<b>CNMG-SF</b>	<b>CNMG-EF</b>	<b>CNEG-NF</b>	<b>DNMG-DF</b>	<b>DNMG-FM</b>	<b>DNMG-SF</b>	<b>DNMG-EF</b>	<b>DNEG-NF</b>	
09,12	09,12	09,12	12	11,15	15	11,15	11,15	15	
A46	A46	A46	A47	A53	A54	A53	A54	A54	
									Edge length · Kantenlänge Page · Seite
<b>SNMG-DF</b>	<b>SNMG-EF</b>	<b>SNMG-SF</b>	<b>TNMG-DF</b>	<b>TNMG-FM</b>	<b>TNMG-SF</b>	<b>TNMG-EF</b>			
09,12	09,12,15	09,12,15	16,22	16	11,16,22	11,16,22			
A59	A59	A60	A68	A69	A68	A68			
									Edge length · Kantenlänge Page · Seite
<b>VNMG-DF</b>	<b>VNMG-EF</b>	<b>VNEG-NF</b>	<b>VNMG-SF</b>	<b>WNMG-DF</b>	<b>WNMG-SF</b>	<b>WNMG-EF</b>	<b>WNEG-NF</b>		
16	16	16	16	06,08	06,08	06,08	08		
A74	A74	A74	A74	A76	A77	A77	A77		

#### Wiper

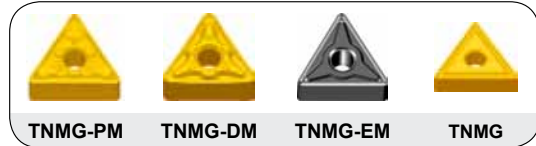
				Edge length · Kantenlänge Page · Seite
<b>CNMG-WG</b>	<b>DNMX-WG</b>	<b>TNMX-WG</b>	<b>WNMG-WG</b>	
12,16	11,15	16	06,08	
A46	A53	A68	A76	

#### Medium Cutting · Mittlere Bearbeitung

					Edge length · Kantenlänge Page · Seite
<b>CNMG-PM</b>	<b>CNMG-DM</b>	<b>CNMG-EM</b>	<b>CNMG-NM</b>	<b>CNMG</b>	
09,12,16,19	09,12,16,19	12,16	12	12,16,19	
A47	A48	A48	A49	A51	
					Edge length · Kantenlänge Page · Seite
<b>DNMG-PM</b>	<b>DNMG-DM</b>	<b>DNMG-EM</b>	<b>DNMG-NM</b>	<b>DNMG</b>	
11,15	11,15	11,15	15	15,19	
A54-A55	A55	A56	A56	A58	
					Edge length · Kantenlänge Page · Seite
<b>SNMG-PM</b>	<b>SNMG-DM</b>	<b>SNMG-EM</b>	<b>SNMG-NM</b>	<b>SNMG</b>	
09,12,15,19	09,12,15,19	12,15	12	09,12,15,19,25	
A60	A61	A61	A62	A65	

Double Side Negative Inserts  
Doppelseitige negative Platten

### Medium Cutting · Mittlere Bearbeitung



<b>TNMG-PM</b>	<b>TNMG-DM</b>	<b>TNMG-EM</b>	<b>TNMG</b>
11,16,22	11,16,22	16,22	11,16,22,27,33
A69	A69	A70	A72

Edge length ·  
Kantenlänge  
Page ·  
Seite



<b>VNMG-PM</b>	<b>VNMG-DM</b>	<b>VNMG-EM</b>	<b>VNMG-NM</b>	<b>VNMG</b>
16	16	16	16	16
A75	A75	A75	A75	A75

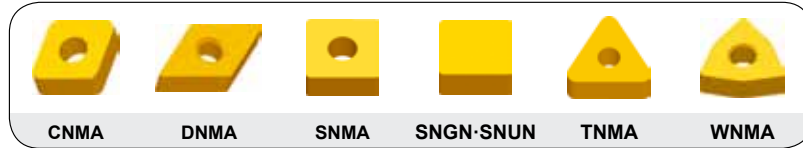
Edge length ·  
Kantenlänge  
Page ·  
Seite



<b>WNMG-PM</b>	<b>WNMG-DM</b>	<b>WNMG-EM</b>	<b>WNMG-NM</b>	<b>RNMG</b>
06,08	06,08	06,08	08	12
A78	A78	A78	A79	A80

Edge length ·  
Kantenlänge  
Page ·  
Seite

### Medium to Rough Cutting · Mittlere bis Schruppbearbeitung



<b>CNMA</b>	<b>DNMA</b>	<b>SNMA</b>	<b>SNGN-SNUN</b>	<b>TNMA</b>	<b>WNMA</b>
12,16,19	11,15	09,12,15,19	09,12,15,19,25	16,22,27	06,08
A51	A57	A66	A67	A73	A79

Edge length ·  
Kantenlänge  
Page ·  
Seite

### Roughing · Schruppen



<b>CNMG-DR</b>	<b>CNMG-ER</b>	<b>DNMG-DR</b>	<b>DNMG-ER</b>	<b>SNMG-DR</b>	<b>SNMG-ER</b>	<b>TNMG-DR</b>	<b>TNMG-ER</b>
12,16,19	12,16,19	15	15	12,15,19	12,15,19	16,22,27	16,22
A49	A50	A56	A58	A62	A63	A70	A71



<b>WNMG-DR</b>
06,08
A79

Edge length ·  
Kantenlänge  
Page ·  
Seite

### Roughing · Schruppen



<b>CNMM-DR</b>	<b>CNMM-ER</b>	<b>CNMM-HDR</b>	<b>CNMM</b>	<b>DNMM-DR</b>	<b>DNMM-ER</b>	<b>DNMM-HDR</b>
12,16,19,25	25	12,16,19	12,19	15	15	15
A50	A50	A50	A52	A58	A58	A58

Edge length ·  
Kantenlänge  
Page ·  
Seite

Double Side Negative Inserts  
Doppelseitige negative Platten

Single Side Negative Inserts  
Einseitige Negative Platten








General Turning · Allgemeine Drehbearbeitung

# Turning · Drehen

## Turning Inserts Overview · WSP Übersicht

Single Side Negative Inserts  
Einseitige Negative Platten








### Roughing · Schruppen

						
<b>SNMM-DR</b>	<b>SNMM-ER</b>	<b>SNMM-HDR</b>	<b>SNMM</b>	<b>TNMM-DR</b>	<b>TNMM-HDR</b>	<b>TNMM</b>
12,15,19,25	25	12,15,19,25	09,12,19,25	16,22,27	16,22,27	16,22,27
A62-A63	A63	A64	A65-66	A71	A72	A73

Edge length ·  
Kantelänge  
Page ·  
Seite

Special Inserts  
Spezielle Drehplatten









### Roughing · Schruppen

						
<b>175.32-28</b>	<b>175.32-22-227</b>	<b>175.32-24</b>	<b>175.32-25</b>	<b>KNUX</b>	<b>TNMX</b>	<b>YNMX-YNUX</b>
19	19	19,30	19	16	11,15	18,25
A82	A82	A82	A82	A81	A83	A83



Edge length ·  
Kantelänge  
Page ·  
Seite

Single Side Positive Inserts  
Einseitige positive Wendeschneidplatten

### Fine Finishing · Feinstbearbeitung









							
<b>CCGT-SF</b>	<b>DCGT-SF</b>	<b>TCGT-SF</b>	<b>VCGT-SF</b>	<b>VBGT-SF</b>	<b>CPGT-SF</b>	<b>DPGT-SF</b>	<b>TPGT-SF</b>
06,09	07,11	06,09,11	11,16	11	06,09	07,11	09,11
A84	A88	A98	A106	A108	A87	A91	A103

Edge length ·  
Kantelänge  
Page ·  
Seite









	
<b>TBGH-L</b>	<b>TPGH-L</b>
06	09,11
A97	A103

Edge length ·  
Kantelänge  
Page ·  
Seite

### Finishing · Schlichten









							
<b>CCMT-HF</b>	<b>CCMT-EF</b>	<b>CPGT</b>	<b>DCMT-HF</b>	<b>DCMT-EF</b>	<b>SCMT-HF</b>	<b>SCMT-EF</b>	<b>TCMT-HF</b>
06,09,12	06,09,12	05	07,11	07,11	09	09	06,09,11,16
A84	A85	A84	A88	A89	A94	A94	A99

Edge length ·  
Kantelänge  
Page ·  
Seite

							
<b>TCMT-EF</b>	<b>VCGT</b>	<b>VCGT-HF</b>	<b>VCGT-NF</b>	<b>VBMT-HF</b>	<b>VBMT-EF</b>	<b>VBMT-53</b>	<b>VBET-NF</b>
09,11,16	13	11	16	11	11,16	16	16
A100	A106	A106	A106	A108	A108	A108	A108






Edge length ·  
Kantelänge  
Page ·  
Seite

### Medium Cutting · Mittlere Bearbeitung








							
<b>CCMT-HM</b>	<b>CCMT-EM</b>	<b>DCMT-HM</b>	<b>DCMT-EM</b>	<b>SCMT-HM</b>	<b>SCMT-EM</b>	<b>TCMT-HM</b>	<b>VCMT-EM</b>
06,09,12	06,09,12	07,11	07, 11	09,12	09,12	09,11,16	16
A85	A85	A89	A89	A94	A94	A101	A110


Edge length ·  
Kantelänge  
Page ·  
Seite

### Roughing · Schruppen







				
<b>CCMT-HR</b>	<b>DCMT-HR</b>	<b>SCMT-HR</b>	<b>TCMT-HR</b>	<b>VBMT-HR</b>
06,09,12	11	09,12	09,11,16,22	16
A86	A90	A95	A101	A109
Edge length · Kantenlänge				
Page · Seite				

### Flat Inserts · WSP ohne Spanbrecher






						
<b>CCMW</b>	<b>DCMW</b>	<b>SCMW</b>	<b>TCMW</b>	<b>VBMW</b>	<b>CPGW</b>	<b>DPMW</b>
06,09,12	07,11	06,09,12	11,16,22	16	06	11
A86	A90	A95	A102	A109	A87	A91
Edge length · Kantenlänge						
Page · Seite						

			
<b>SPMW</b>	<b>TPGA</b>	<b>TPGB</b>	<b>TPGW</b>
09,12	09,11,16	09,27	09,11,16,22
A96	A104	A105	A105
Edge length · Kantenlänge			
Page · Seite			

### Aluminium machining · Aluminiumbearbeitung

					
<b>CCGX-LH</b>	<b>DCGX-LH</b>	<b>RCGX-LH</b>	<b>SCGX-LH</b>	<b>TCGX-LH</b>	<b>VCGX-LH</b>
06,09,12	07,11	08	09,12	09,11,16	11,16,22
A86	A90	A92	A95	A101	A107
Edge length · Kantenlänge					
Page · Seite					

### Special Inserts · Spezielle Wendeschneidplatten


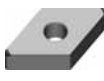


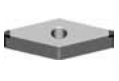

				
<b>RCM(GT)</b>	<b>RCMX</b>	<b>SCMT</b>	<b>TCMT</b>	<b>WCMX-53</b>
08,10,12,16,19	08,10,12,16,20,25,32	09,12	22	04,06,08
A92	A93	A95	A102	A111
Edge length · Kantenlänge				
Page · Seite				

# Turning · Drehen

## Turning Inserts Overview · WSP Übersicht


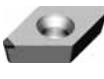



Negative Inserts  
Negative WSP

### PCBN & PCD



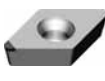

					
<b>CNGA</b>	<b>DNGA</b>	<b>SNGA</b>	<b>TNGA</b>	<b>VNGA</b>	<b>WNGA</b>
12	15	12	16	16	08 16
A118	A119	A120	A121	A122	A122

Edge length ·  
Kantelänge  
Page ·  
Seite





Positive Inserts  
Positive WSP

				
<b>CCGW</b>	<b>DCGW</b>	<b>TCGW</b>	<b>VBGW</b>	<b>VCGW</b>
06,09,12	07,11	11,16	16	16
A123	A124	A125	A126	A126

Edge length ·  
Kantelänge  
Page ·  
Seite

				
<b>CCMT</b>	<b>CCMW</b>	<b>DCMT</b>	<b>DCMW</b>	<b>TCMT</b>
06,09,12	06,09,12	07,11	07,11	11,16
A127	A128	A129	A130	A131









Edge length ·  
Kantelänge  
Page ·  
Seite

				
<b>TCMW</b>	<b>VBMT</b>	<b>VBMW</b>	<b>VCMT</b>	<b>VCMW</b>
11,16	16	16	16	16
A132	A133	A133	A134	A134






Edge length ·  
Kantelänge  
Page ·  
Seite

### Ceramic Inserts · Keramik Wendeschneidplatten

Negative Inserts  
Negative WSP

							
<b>CNGA</b>	<b>CNGN</b>	<b>CNGX</b>	<b>DNGA</b>	<b>DNGN</b>	<b>DNGX</b>	<b>SNGA</b>	<b>SNGX</b>
12,16	12,16	12	15	15	15	12	12
A138	A139	A140	A140	A141	A141	A142	A142


















Edge length ·  
Kantelänge  
Page ·  
Seite

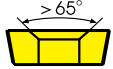

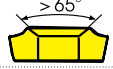

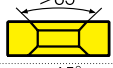

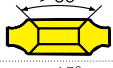
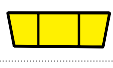
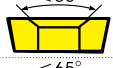
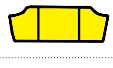

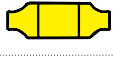


				
<b>SNGN</b>	<b>TNGA</b>	<b>TNGN</b>	<b>WNGA</b>	<b>RNGN</b>
09,12,15,19,25	16,22	16,22	08	09,12,15,19,25
A143	A144	A145	A146	A146

Edge length ·  
Kantelänge  
Page ·  
Seite










# Turning · Drehen

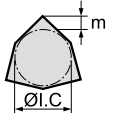
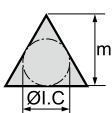

## Turning Inserts Code Key · WSP ISO Kennzeichnung

Insert Shape / Schneidplattenform		
 A	 B	 C
 D	 E	 H
 K	 L	 M
 O	 P	 R
 S	 T	 T
 V	 W	Others Z
Insert Shape / Schneidplattenform		

Metric / Metrisch							
Code	Hole/Bohrung	Chipbreaker/ Spanleitstufe	Insert Section/ Plattenform	Code	Hole/Bohrung	Chipbreaker/ Spanleitstufe	Insert Section/ Plattenform
B	✓	---		N	---	---	
H	✓	Single side/ einseitig		R	---	Single side/ einseitig	
C	✓	---		F	---	Double side/ doppelseitig	
J	✓	Double side/ doppelseitig		A	✓	---	
W	✓	---		M	✓	Single side/ einseitig	
T	✓	Single side/ einseitig		G	✓	Double side/ doppelseitig	
Q	✓	---		X	---	---	Special
U	✓	Double side/ doppelseitig				---	
Insert Type / Plattentyp							



Clearance angle of main cutting edge Freiwinkel der Hauptschneide			
Code	angle / Winkel	Code	angle / Winkel
A	 3°	B	 5°
C	 7°	D	 15°
E	 20°	F	 25°
G	 30°	N	 0°
P	 11°	O	Others

Tolerances / Toleranzklasse										
					(Reference) M class precision (according to shape and size) (mm)					
Code	Tolerance	Incircling Tolerance ØI.C	Tolerance S	incircle	regular triangle	square	80° rhomboid	55° rhomboid	35° rhomboid	round runde
A	±0.005	±0.025	±0.025	6.35	±0.08	±0.08	±0.08	±0.11	±0.16	---
F	±0.005	±0.013	±0.025	9.525	±0.08	±0.08	±0.08	±0.11	±0.16	---
C	±0.013	±0.025	±0.025	12.7	±0.13	±0.13	±0.13	±0.15	---	---
H	±0.013	±0.013	±0.025	15.875	±0.15	±0.15	±0.15	±0.18	---	---
E	±0.025	±0.025	±0.025	19.05	±0.15	±0.15	±0.15	±0.18	---	---
G	±0.025	±0.025	±0.13	25.4	---	±0.18	---	---	---	---
J	±0.005	±0.05±0.13	±0.025	ØI.C (mm) Incircling tolerance						
K	±0.013	±0.05±0.13	±0.025	incircle	regular triangle	square	80° rhomboid	55° rhomboid	35° rhomboid	round runde
L	±0.025	±0.05±0.13	±0.025	6.35	±0.05	±0.05	±0.05	±0.05	±0.05	---
M	±0.08±0.18	±0.05±0.13	±0.13	9.525	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
N	±0.08±0.18	±0.05±0.13	±0.025	12.7	±0.08	±0.08	±0.08	±0.08	---	±0.08
U	±0.13±0.38	±0.08±0.25	±0.13	15.875	±0.10	±0.10	±0.10	±0.10	---	±0.10
				19.05	±0.10	±0.10	±0.10	±0.10	---	±0.10
				25.4	---	±0.13	---	---	---	±0.13

Cutting edge length / Schneidenlänge (mm)								
Ø of IC (mm)	Insert Shape/ Plattenform							
	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	25				
31.75			31					
32			32					

Insert thickness / Dicke (mm)	
Code	Insert thickness (mm)
00	0.79
T0	0.99
01	1.59
T1	1.98
02	2.38
T2	2.58
03	3.18
T3	3.97
04	4.76
T4	4.96
05	5.96
T5	5.95
06	6.35
T6	6.75
07	7.94
09	9.52
T9	9.72
11	11.11
12	12.70

**22 04 08 - DM (ISO)**

**4 3 2 (inch)**

Incircle Innenkreis	
code	diameter (mm)
2	6.35
3	9.525
4	12.7
5	15.875
6	19.05
8	25.4

Thickness Dicke	
code	thickness (mm)
2	3.18
3	4.76
4	6.35
5	7.94
6	9.52

Nose radius Eckenradius	
code	Nose radius (mm)
0	0.2
1	0.4
2	0.8
3	1.2
4	1.6
5	2.0
6	2.4

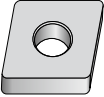
Nose radius Eckenradius	
code	Radius (mm)
00	no Radius
02	0.2
04	0.4
08	0.8
12	1.2
16	1.6
20	2.0
24	2.4
32	3.2
X	Others
MO	Round Inserts Runde Platten

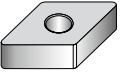
Code Chipbreakers Spanleitstufen		
DF	DM	DR


# Turning · Drehen


## Turning Insert Comparison List · WSP Vergleichstabelle


Metric and britain system comparison list of general turning insert/  
Vergleichstabelle für allgemeine Drehwendeschneidplatten (Metrisch / Britain System)

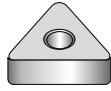
C Type Negative angle/ WSP	(ISO)	(Inch)	Chipbreaker/ Spanleitstufe
Insert shape 	090304	321	-DF -WG -SF -EF -NF -PM -DM -EM -NM -DR -ER -HDR
	090308	322	
	120404	431	
	120408	432	
	120412	433	
	120416	434	
	160608	542	
	160612	543	
	160616	544	
	190608	642	
	190612	643	
	190616	644	
	190624	646	
	250724	856	
	250732	858	
250924	866		
250932	868		


D Type Negative angle/ WSP	(ISO)	(Inch)	Chipbreaker/ Spanleitstufe
Insert shape 	110404	331	-DF -WG -SF -NF -PM -DM -EM -NM -DR -ER -HDR
	110408	332	
	110412	333	
	150404	431	
	150408	432	
	150412	433	
	150604	441	
	150608	442	
	150612	443	
	150616	444	
	190608	542	
	190612	543	

V Type Negative angle/ WSP	(ISO)	(Inch)	Chipbreaker/ Spanleitstufe
Insert shape 	160404	331	-DF -EF -SF -NF -PM -DM -EM -NM
	160408	332	
	160412	333	


R Type Negative angle/ WSP	(ISO)	(Inch)	Chipbreaker/ Spanleitstufe
Insert shape 	0903MO	32	
	1204MO	43	

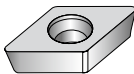
W Type Negative angle/ WSP	(ISO)	(Inch)	Chipbreaker/ Spanleitstufe
Insert shape 	06T304	3(2.5)1	-DF -WG -SF -EF -NF -PM -DM -EM -NM -DR
	06T308	3(2.5)2	
	06T312	3(2.5)3	
	060404	331	
	060408	332	
	060412	333	
	080404	431	
	080408	432	
	080412	433	


T Type Negative angle/ WSP	(ISO)	(Inch)	Chipbreaker/ Spanleitstufe
Insert shape 	113304	221	-DF -WG -SF -EF -PM -DM -EM -DR -ER -HDR
	110308	222	
	160404	331	
	160408	332	
	160412	333	
	220404	431	
	220408	432	
	220412	433	
	220416	434	
	270608	542	
	270612	543	
	270616	544	


S Type Negative angle/ WSP	(ISO)	(Inch)	Chipbreaker/ Spanleitstufe
Insert shape 	090304	321	-DF -SF -EF -PM -DM -EM -NM -DR -ER -HDR
	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	


Metric and Britain system comparison list of general turning insert/  
Vergleichstabelle für allgemeine Drehwendeschneidplatten (Metrisch / Britain System)

C Type Positive angle/ WSP	(ISO)	(Inch)	Chipbreaker/ Spanleitstufe
Insert shape 	060202	2(1.5)0	-SF -HF -EF -HM -EM -HR -LH
	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	

D Type Positive angle/ WSP	(ISO)	(Inch)	Chipbreaker/ Spanleitstufe
Insert shape 	070202	2(1.5)0	-SF -HF -EF -HM -EM -HR -LH
	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	

T Type Positive angle/ WSP	(ISO)	(Inch)	Chipbreaker/ Spanleitstufe
Insert shape 	06T102	1.2(1.2)0	-SF -HF -EF -HM -EM -HR -LH
	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	

S Type Positive angle/ WSP	(ISO)	(Inch)	Chipbreaker/ Spanleitstufe
Insert shape 	060204	2(1.5)1	-HF -EF -HM -EM -HR -LH
	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	

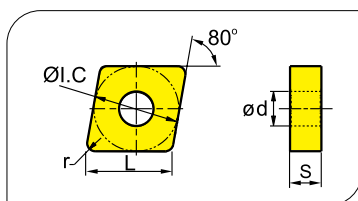
V Type Positive angle/ WSP	(ISO)	(Inch)	Chipbreaker/ Spanleitstufe
Insert shape 	110202	2(1.5)0	-SF -HF -NF -LH
	110204	2(1.5)1	
	110208	2(1.5)2	
	110302	220	
	110304	221	
	110308	222	
	160402	330	
	160404	331	
	160408	332	
	160412	333	



# Turning · Drehen

Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP

## CN\*\* Negative Insert·Negative WSP



● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
● Normal Machining Condition / Normale Bearbeitungsbedingungen  
● Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

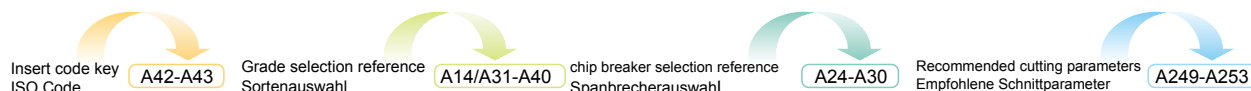
Workpiece Material / Werkstoffe	P	M	K	N	S
<b>P</b> Steel / Stahl	●●●	●●●	●●●	●●●	●●●
<b>M</b> Stainless Steel / Rostfreier Stahl	●●●	●●●	●●●	●●●	●●●
<b>K</b> Cast iron / Gusseisen	●●●	●●●	●●●	●●●	●●●
<b>N</b> Non-ferrite material / Ne Metalle	●●●	●●●	●●●	●●●	●●●
<b>S</b> Heat-resistant steel / Warmfester Stahl	●●●	●●●	●●●	●●●	●●●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated / beschicht. Cermet	Uncoated Carbide / unbeschicht. Hartmetall													
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201		
<b>NF</b>  Finishing / Schlichten	<b>CNEG120404-NF</b>	12.9	12.7	4.76	5.16	0.4			●																							
	<b>CNEG120408-NF</b>	12.9	12.7	4.76	5.16	0.8			●																							
	<b>CNEG120412-NF</b>	12.9	12.7	4.76	5.16	1.2			○																							
<b>PM</b>  Medium Cut / Mittl. Bearb.	<b>CNMG090304-PM</b>	9.7	9.525	3.18	3.81	0.4	●																									
	<b>CNMG090308-PM</b>	9.7	9.525	3.18	3.81	0.8	●																									
	<b>CNMG120404-PM</b>	12.9	12.7	4.76	5.16	0.4	●	●						○		●		●														
	<b>CNMG120408-PM</b>	12.9	12.7	4.76	5.16	0.8	●	●						○		●	●	●	●	○												
	<b>CNMG120412-PM</b>	12.9	12.7	4.76	5.16	1.2	●	●						○		●	●	●	●	●												
	<b>CNMG120416-PM</b>	12.9	12.7	4.76	5.16	1.6	○	●								●	●	●	●	○												
	<b>CNMG160608-PM</b>	16.1	15.875	6.35	6.35	0.8	○	●								○	○	○														
	<b>CNMG160612-PM</b>	16.1	15.875	6.35	6.35	1.2	○	●								○	●	○	●	○												
	<b>CNMG160616-PM</b>	16.1	15.875	6.35	6.35	1.6	○	●								○	○	○														
	<b>CNMG190608-PM</b>	19.3	19.05	6.35	7.94	0.8	○	●								○																
	<b>CNMG190612-PM</b>	19.3	19.05	6.35	7.94	1.2	○	●								○	○	○	●													
	<b>CNMG190616-PM</b>	19.3	19.05	6.35	7.94	1.6	○	●								○	○	○														

## Tool holder / Klemmhalter



Page / Seite: A158      A159      A170      A171      A216



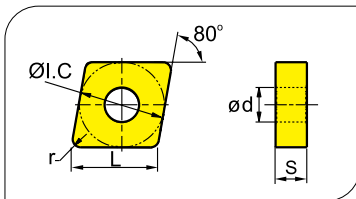
# Turning · Drehen

Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP

A

General Turning · Allgemeine Drehbearbeitung

## CN\*\* Negative Insert · Negative WSP



Workpiece Material / Werkstoffe	Ideal Machining Condition / Gute Bearbeitungsbedingungen			Normal Machining Condition / Normale Bearbeitungsbedingungen			Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen		
	P	M	K	P	M	K	P	M	K
<b>P</b> Steel / Stahl	●	●	●	●	●	●	●	●	●
<b>M</b> Stainless Steel / Rostfreier Stahl		●	●	●	●	●	●	●	●
<b>K</b> Cast iron / Gusseisen				●	●	●	●	●	●
<b>N</b> Non-ferrite material / Ne Metalle									●
<b>S</b> Heat-resistant steel / Warmfester Stahl				●	●	●			●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall												Cermet unbeschichtet	Cermet Coated / beschicht. Cermet	Uncoated Carbide / unbeschicht. Hartmetall								
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052	YBD102			YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101
<b>DM</b> 	CNMG090304-DM	9.7	9.525	3.18	3.81	0.4	●	●							○							●							
	CNMG090308-DM	9.7	9.525	3.18	3.81	0.8		●							○														
	CNMG120404-DM	12.9	12.7	4.76	5.16	0.4	●	●	●		○	○	●	●								●							
	CNMG120408-DM	12.9	12.7	4.76	5.16	0.8	●	●	●		●	○	●	●					○			○						●	
	CNMG120412-DM	12.9	12.7	4.76	5.16	1.2	●	●	●				○	●					○			●							
	CNMG120416-DM	12.9	12.7	4.76	5.16	1.6		●	○						○				○										
	CNMG160608-DM	16.1	15.875	6.35	6.35	0.8	●	●	●					●					○										
	CNMG160612-DM	16.1	15.875	6.35	6.35	1.2	●	●	○					○															
	CNMG160616-DM	16.1	15.875	6.35	6.35	1.6	●	●	●					○															
	CNMG190608-DM	19.3	19.05	6.35	7.94	0.8		●						●															
	CNMG190612-DM	19.3	19.05	6.35	7.94	1.2		●	●					●															
	CNMG190616-DM	19.3	19.05	6.35	7.94	1.6		●	○					●															
<b>EM</b> 	CNMG120404-EM	12.9	12.7	4.76	5.16	0.4					●	●	●		●														
	CNMG120408-EM	12.9	12.7	4.76	5.16	0.8					●	●	●	●	●														
	CNMG120412-EM	12.9	12.7	4.76	5.16	1.2					●	○	●																
	CNMG160608-EM	16.1	15.875	6.35	6.35	0.8							●																
	CNMG160612-EM	16.1	15.875	6.35	6.35	1.2					●		○																
	CNMG160616-EM	16.1	15.875	6.35	6.35	1.6							○																

### Tool holder / Klemmhalter

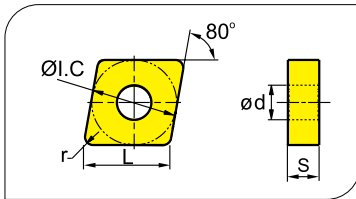


Page/Seite A158      A159      A170      A171      A216

● Ex Stock / ab Lager    ○ On demand / auf Anfrage

### CN\*\* Negative Insert-Negative WSP

● Ideal Machining Condition / Gute Bearbeitungsbedingungen    
 ⊙ Normal Machining Condition / Normale Bearbeitungsbedingungen    
 ⊛ Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



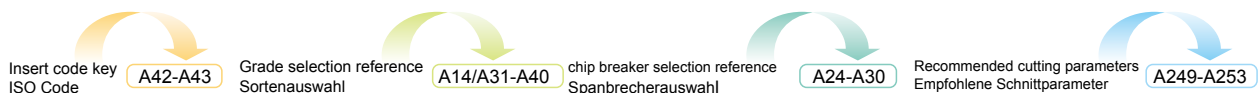
Workpiece Material / Werkstoffe	P	M	K	N	S
Steel / Stahl	●	●	●	●	●
Stainless Steel / Rostfreier Stahl	●	●	●	●	●
Cast iron / Gusseisen	●	●	●	●	●
Non-ferrous material / Ne Metalle	●	●	●	●	●
Heat-resistant steel / Warmfester Stahl	●	●	●	●	●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated / beschicht. Cermet	Uncoated Carbide / unbeschicht. Hartmetall									
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051
<b>NM</b>  Medium Cut / Mittl. Bearb.	<b>CNMG120404-NM</b>	12.9	12.7	4.76	5.16	0.4																						
	<b>CNMG120408-NM</b>	12.9	12.7	4.76	5.16	0.8				●																	○	
	<b>CNMG120412-NM</b>	12.9	12.7	4.76	5.16	1.2				●																		
<b>DR</b>  Roughing / Schruppen	<b>CNMG120408-DR</b>	12.9	12.7	4.76	5.16	0.8	●	●	●					○		●		●										
	<b>CNMG120412-DR</b>	12.9	12.7	4.76	5.16	1.2	●	●	●							●	●	●										
	<b>CNMG120416-DR</b>	12.9	12.7	4.76	5.16	1.6	●	●	●							●	●	●										
	<b>CNMG160608-DR</b>	16.1	15.875	6.35	6.35	0.8			●							●		○										
	<b>CNMG160612-DR</b>	16.1	15.875	6.35	6.35	1.2	●	●	●								○	●	●									
	<b>CNMG160616-DR</b>	16.1	15.875	6.35	6.35	1.6	●	●	●								○	○	●									
	<b>CNMG190608-DR</b>	19.3	15.875	6.35	7.94	0.8			●							●		●										
	<b>CNMG190612-DR</b>	19.3	19.05	6.35	7.94	1.2	●	●	●								○	●	●									
	<b>CNMG190616-DR</b>	19.3	19.05	6.35	7.94	1.6	●	●	●								○	○	●									
<b>CNMG190624-DR</b>	19.3	19.05	6.35	7.94	2.4	●	●	●								○	○	●										

### Tool holder / Klemmhalter



Page/Seite A158                      A159                      A170                      A171                      A216



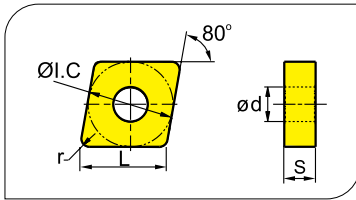
# Turning · Drehen

Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP

A

## CN\*\* Negative Insert · Negative WSP

● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
⊙ Normal Machining Condition / Normale Bearbeitungsbedingungen  
⊘ Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



Workpiece Material / Werkstoffe	Steel / Stahl	Stainless Steel / Rostfreier Stahl	Cast iron / Gusseisen	Non-ferrite material / Ne Metalle	Heat-resistant steel / Warmfester Stahl
P	●	●	●	●	●
M		●	●	●	●
K			●		
N				●	
S					●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall											Cermet unbeschichtet	Cermet Coated / Beschicht. Cermet	Uncoated Carbide / unbeschicht. Hartmetall																
		L	I.C.	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052			YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201						
 Roughing / Schruppen	CNMM120412-DR	12.9	12.7	4.76	5.16	1.2	● ●																													
	CNMM160612-DR	16.1	15.875	6.35	6.35	1.2	○ ● ○																													
	CNMM160616-DR	16.1	15.875	6.35	6.35	1.6	● ● ●						●																							
	CNMM190612-DR	19.3	19.05	6.35	7.94	1.2	● ● ●																													
	CNMM190616-DR	19.3	19.05	6.35	7.94	1.6	○ ● ●																													
	CNMM190624-DR	19.3	19.05	6.35	7.94	2.4	● ● ○																													
	CNMM250924-DR	25.79	25.4	9.525	9.12	2.4	○ ● ○																													
 Roughing / Schruppen	CNMG120408-ER	12.9	12.7	4.76	5.16	0.8							●																							
	CNMG120412-ER	12.9	12.7	4.76	5.16	1.2							●																							
	CNMG160612-ER	16.1	15.875	6.35	6.35	1.2							●																							
	CNMG160616-ER	16.1	15.875	6.35	6.35	1.6							●																							
	CNMG190612-ER	19.3	19.05	6.35	7.94	1.2					○		●																							
	CNMG190616-ER	19.3	19.05	6.35	7.94	1.6							●																							
 Roughing / Schruppen	CNMM250724-ER	25.79	25.4	7.94	9.12	2.4	○					○	○																							
	CNMM250732-ER	25.79	25.4	7.94	9.12	3.2	○					○	○																							
	CNMM250924-ER	25.79	25.4	9.525	9.12	2.4	○					○	○																							
	CNMM250932-ER	25.79	25.4	9.525	9.12	3.2	○					○	○																							
 Roughing / Schruppen	CNMM120408-HDR	12.9	12.7	4.76	5.16	0.8	● ● ●						●			○																				
	CNMM120412-HDR	12.9	12.7	4.76	5.16	1.2	○ ● ●						○																							
	CNMM120416-HDR	12.9	12.7	4.76	5.16	1.6	● ●																													
	CNMM160612-HDR	16.1	15.875	6.35	6.35	1.2	● ● ○						○																							
	CNMM160616-HDR	16.1	15.875	6.35	6.35	1.6	○ ● ●																													
	CNMM190616-HDR	19.3	19.05	6.35	7.94	1.6	● ● ●																													
	CNMM190624-HDR	19.3	19.05	6.35	7.94	2.4	● ●																													

### Tool holder / Klemmhalter



Page/Seite A158 A159 A170 A171 A216

● Ex Stock / ab Lager ○ On demand / auf Anfrage

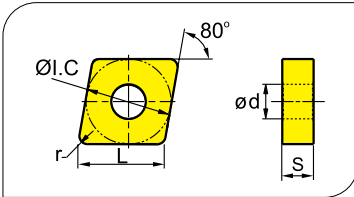
# Turning · Drehen

Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP

**A**

## CN\*\* Negative Insert-Negative WSP

● Ideal Machining Condition / Gute Bearbeitungsbedingungen    
 ● Normal Machining Condition / Normale Bearbeitungsbedingungen    
 ☼ Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



Workpiece Material / Werkstoffe	Steel / Stahl	Stainless Steel / Rostfreier Stahl	Cast iron / Gusseisen	Non-ferrite material / Ne Metalle	Heat-resistant steel / Warmfester Stahl
P	●●●●●●●●●●●●●●	●●●●●●●●●●●●●●	●●●●●●●●●●●●●●	●●●●●●●●●●●●●●	●●●●●●●●●●●●●●
M	●●●●●●●●●●●●●●	●●●●●●●●●●●●●●	●●●●●●●●●●●●●●	●●●●●●●●●●●●●●	●●●●●●●●●●●●●●
K	●●●●●●●●●●●●●●	●●●●●●●●●●●●●●	●●●●●●●●●●●●●●	●●●●●●●●●●●●●●	●●●●●●●●●●●●●●
N	●●●●●●●●●●●●●●	●●●●●●●●●●●●●●	●●●●●●●●●●●●●●	●●●●●●●●●●●●●●	●●●●●●●●●●●●●●
S	●●●●●●●●●●●●●●	●●●●●●●●●●●●●●	●●●●●●●●●●●●●●	●●●●●●●●●●●●●●	●●●●●●●●●●●●●●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated / beschicht. Cermet	Uncoated Carbide unbeschicht. Hartmetall										
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101
Flat	CNMA120404	12.9	12.7	4.76	5.16	0.4	○										●	○	○										●
	CNMA120408	12.9	12.7	4.76	5.16	0.8	○										●	●	○	●								○	●
	CNMA120412	12.9	12.7	4.76	5.16	1.2	○										●	●	○	●									●
	CNMA120416	12.9	12.7	4.76	5.16	1.6											●	●	○	●									
	CNMA160608	16.1	15.875	6.35	6.35	0.8											○		○	○									
	CNMA160612	16.1	15.875	6.35	6.35	1.2											○	●	○	○									
	CNMA160616	16.1	15.875	6.35	6.35	1.6											●	●	○	●									
	CNMA160620	16.1	15.875	6.35	6.35	2.0													○	○									
	CNMA160630	16.1	15.875	6.35	6.35	3.0													○	○									
	CNMA190612	19.3	19.05	6.35	7.94	1.2	○										●	●	●	●							○		
CNMA190616	19.3	19.05	6.35	7.94	1.6											○	●	●	●										
Basic	CNMG120404	12.9	12.7	4.76	5.16	0.4	○	●																					
	CNMG120408	12.9	12.7	4.76	5.16	0.8	○	●		○															●	○		○	
	CNMG120412	12.9	12.7	4.76	5.16	1.2	○	●	○																			○	
	CNMG160608	16.1	15.875	6.35	6.35	0.8	○	○																					
	CNMG160612	16.1	15.875	6.35	6.35	1.2		○																					
	CNMG160616	16.1	15.875	6.35	6.35	1.6																							
	CNMG190608	19.3	19.05	6.35	7.94	0.8		○																					
	CNMG190612	19.3	19.05	6.35	7.94	1.2	○	○																					
	CNMG190616	19.3	19.05	6.35	7.94	1.6		○																					

General Turning · Allgemeine Drehbearbeitung

### Tool holder / Klemmhalter



Page/Seite A158

A159

A170

A171

A216

Insert code key ISO Code

A42-A43

Grade selection reference Sortenauswahl

A14/A31-A40

chip breaker selection reference Spanbrecherauswahl

A24-A30

Recommended cutting parameters Empfohlene Schnittparameter

A249-A253



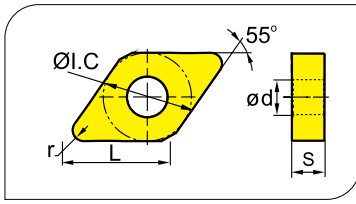
# Turning · Drehen

Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP

**A**

### VN\*\* Negative Insert·Negative WSP

● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
 ● Normal Machining Condition / Normale Bearbeitungsbedingungen  
 ● Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



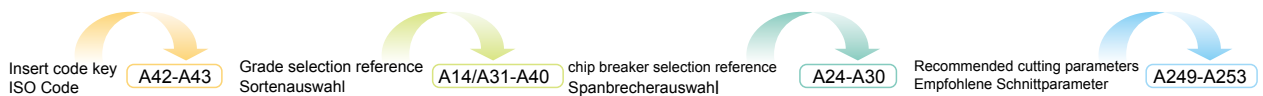
Workpiece Material / Werkstoffe	Steel / Stahl		Stainless Steel / Rostfreier Stahl		Cast iron / Gusseisen		Non-ferrite material / Ne Metalle		Heat-resistant steel / Warmfester Stahl	
	P	M	M	M	K	K	N	N	S	S
Condition	●	●	●	●	●	●	●	●	●	●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated beschicht. Cermet	Uncoated Carbide / unbeschicht. Hartmetall									
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051
	DNMG110404-DF	11.6	9.525	4.76	3.81	0.4	●	●	●				○	○								●						
	DNMG110408-DF	11.6	9.525	4.76	3.81	0.8	●	●					○	○														
	DNMG110412-DF	11.6	9.525	4.76	3.81	1.2	○	○																				
	DNMG150404-DF	15.5	12.7	4.76	5.16	0.4	●	○						○					○			○						
	DNMG150408-DF	15.5	12.7	4.76	5.16	0.8	●	○					○															
	DNMG150412-DF	15.5	12.7	4.76	5.16	1.2	○																					
	DNMG150604-DF	15.5	12.7	6.35	5.16	0.4	●	●		○		○	●									●						
	DNMG150608-DF	15.5	12.7	6.35	5.16	0.8	●	●				○																
	DNMG150612-DF	15.5	12.7	6.35	5.16	1.2	●																					
	DNMX110404-WG	11.6	9.525	4.76	3.81	0.4	●																					
	DNMX110408-WG	11.6	9.525	4.76	3.81	0.8	○	○		○		○																
	DNMX150408-WG	15.5	12.7	4.76	5.16	0.8	●	○					○															
	DNMX150412-WG	15.5	12.7	4.76	5.16	1.2																						
	DNMX150608-WG	15.5	12.7	6.35	5.16	0.8	●	●		○		○																
	DNMG110404-SF	11.6	9.525	4.76	3.81	0.4																●						
	DNMG150404-SF	15.5	12.7	4.76	5.16	0.4																	●					
	DNMG150408-SF	15.5	12.7	4.76	5.16	0.8																	●					
	DNMG150604-SF	15.5	12.7	6.35	5.16	0.4																	●					
	DNMG150608-SF	15.5	12.7	6.35	5.16	0.8																	●					

### Tool holder / Klemmhalter



Page/Seite A160      A161      A172      A173      A218      A219



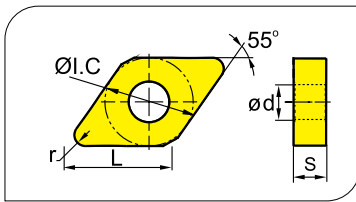
# Turning · Drehen

Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP

A

## DN\*\* Negative Insert-Negative WSP

● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
 ● Normal Machining Condition / Normale Bearbeitungsbedingungen  
 ● Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



Workpiece Material / Werkstoffe	P	M	K	N	S
Steel / Stahl	●	●	●	●	●
Stainless Steel / Rostfreier Stahl	●	●	●	●	●
Cast iron / Gusseisen	●	●	●	●	●
Non-ferrous material / Ne Metalle	●	●	●	●	●
Heat-resistant steel / Warmfester Stahl	●	●	●	●	●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall												Cermet unbeschichtet	Cermet Coated / beschicht. Cermet	Uncoated Carbide / unbeschicht. Hartmetall									
		L	I.C.	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052	YBD102			YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
<b>EF</b> Finishing Schlichten	DNMG110404-EF	11.6	9.525	4.76	3.81	0.4																								
	DNMG110408-EF	11.6	9.525	4.76	3.81	0.8																								
	DNMG110412-EF	11.6	9.525	4.76	3.81	1.2																								
	DNMG150404-EF	15.5	12.7	4.76	5.16	0.4																								
	DNMG150408-EF	15.5	12.7	4.76	5.16	0.8																								
	DNMG150412-EF	15.5	12.7	4.76	5.16	1.2																								
	DNMG150604-EF	15.5	12.7	6.35	5.16	0.4	●			●	●		●	●																
	DNMG150608-EF	15.5	12.7	6.35	5.16	0.8	●			●	●		●	●																
	DNMG150612-EF	15.5	12.7	6.35	5.16	1.2				●																				
<b>NF</b> finishing Schlichten	DNEG150404-NF	15.5	12.7	4.76	5.16	0.4																								
	DNEG150408-NF	15.5	12.7	4.76	5.16	0.8																								
	DNEG150604-NF	15.5	12.7	6.35	5.16	0.4				●																			○	
	DNEG150608-NF	15.5	12.7	6.35	5.16	0.8				●																			○	
<b>FM</b> finishing Schlichten	DNMG150604R-FM	15.5	12.7	6.35	5.16	0.4	○	●			●		○																	
	DNMG150608R-FM	15.5	12.7	6.35	5.16	0.8	○	●			●		○																	
	DNMG150604L-FM	15.5	12.7	6.35	5.16	0.4	○	●			●		○																	
	DNMG150608L-FM	15.5	12.7	6.35	5.16	0.8	○	●			●		○																	
<b>PM</b> Medium Cut / Mittl. Bearb.	DNMG110404-PM	11.6	9.525	4.76	3.81	0.4	●	●	○																					
	DNMG110408-PM	11.6	9.525	4.76	3.81	0.8	●	●	○																					
	DNMG110412-PM	11.6	9.525	4.76	3.81	1.2	●	●																						
	DNMG150404-PM	15.5	12.7	4.76	5.16	0.4	○	●											○	●										
	DNMG150408-PM	15.5	12.7	4.76	5.16	0.8	○	●											○	●	●									

### Tool holder / Klemmhalter



Page/Seite A160      A161      A172      A173      A218      A219

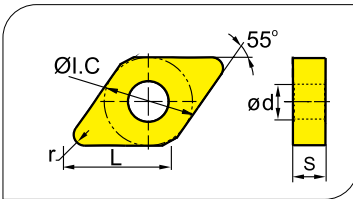
● Ex Stock / ab Lager    ○ On demand / auf Anfrage

# Turning · Drehen



Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP

## DN\*\* Negative Insert-Negative WSP

● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
 ● Normal Machining Condition / Normale Bearbeitungsbedingungen  
 ● Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



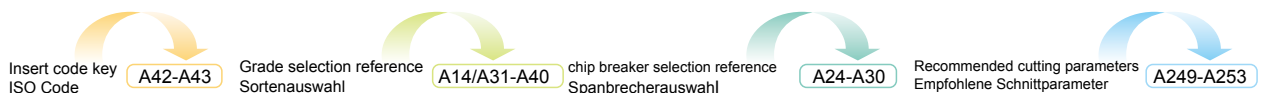
Workpiece Material / Werkstoffe	Steel / Stahl	Stainless Steel / Rostfreier Stahl	Cast iron / Gusseisen	Non-ferrous material / Ne Metalle	Heat-resistant steel / Warmfester Stahl
P	●	●	●	●	●
M	●	●	●	●	●
K	●	●	●	●	●
N	●	●	●	●	●
S	●	●	●	●	●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated / Beschicht. Cermet	Uncoated Carbide / unbeschicht. Hartmetall										
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101
<b>PM</b>  Medium Cut / Mittl. Bearb.	DNMG150412-PM	15.5	12.7	4.76	5.16	1.2	●										●												
	DNMG150416-PM	15.5	12.7	4.76	5.16	1.6	○																						
	DNMG150604-PM	15.5	12.7	6.35	5.16	0.4	●	●	○						○	●	●		○										
	DNMG150608-PM	15.5	12.7	6.35	5.16	0.8	●	●	●						○	●	●		●										
	DNMG150612-PM	15.5	12.7	6.35	5.16	1.2	●	●	●						●	○	●		●										
	DNMG150616-PM	15.5	12.7	6.35	5.16	1.6	●										●												
<b>DM</b>  Medium Cut / Mittl. Bearb.	DNMG110404-DM	11.6	9.525	4.76	3.81	0.4	●	●	○					●						○									
	DNMG110408-DM	11.6	9.525	4.76	3.81	0.8	●	●	●					○															
	DNMG110412-DM	11.6	9.525	4.76	3.81	1.2			○																				
	DNMG150404-DM	15.5	12.7	4.76	5.16	0.4	●	●													○								
	DNMG150408-DM	15.5	12.7	4.76	5.16	0.8	●	●							○						●						○		
	DNMG150412-DM	15.5	12.7	4.76	5.16	1.2	○	○							○														
	DNMG150416-DM	15.5	12.7	4.76	5.16	1.6																							
	DNMG150604-DM	15.5	12.7	6.35	5.16	0.4	●	●	○			○	●	●							○								
	DNMG150608-DM	15.5	12.7	6.35	5.16	0.8	●	●	●			○	○	●							●								
	DNMG150612-DM	15.5	12.7	6.35	5.16	1.2	●	●	○						○														
DNMG150616-DM	15.5	12.7	6.35	5.16	1.6	●	●																						

### Tool holder / Klemmhalter



Page/Seite A160      A161      A172      A173      A218      A219

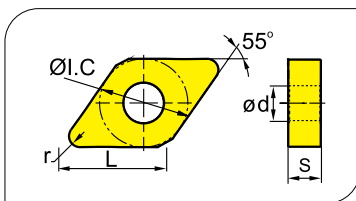


A

General Turning · Allgemeine Drehbearbeitung



### DN\*\* Negative Insert · Negative WSP

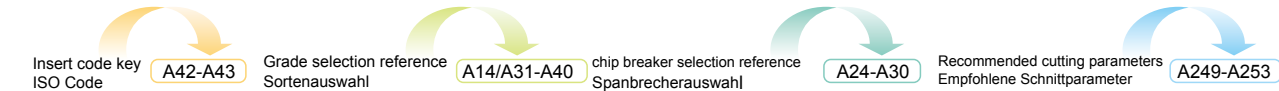


Workpiece Material Werkstoff	Ideal Machining Condition Gute Bearbeitungsbedingungen			Normal Machining Condition Normale Bearbeitungsbedingungen			Unfavorable Machining Condition Ungünstige Bearbeitungsbedingungen								
	P	M	K	N	S	P	M	K	N	S	P	M	K	N	S
<b>P</b> Steel / Stahl	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>M</b> Stainless Steel / Rostfreier Stahl	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>K</b> Cast iron / Gusseisen	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>N</b> Non-ferrite material / Ne Metalle	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>S</b> Heat-resistant steel / Warmfester Stahl	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Insert Shape Schneidplattenform	Type · Typ	Dimension (mm) Abmessung					Coated Carbide Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated beschicht. Cermet	Uncoated Carbide unbeschicht. Hartmetall										
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101
<b>Flat</b> 	<b>DNMA110416</b>	11.6	9.525	4.76	3.81	1.6																							
	<b>DNMA110424</b>	11.6	9.525	4.76	3.81	2.4																							
	<b>DNMA150404</b>	15.5	12.7	4.76	5.16	0.4																							
	<b>DNMA150408</b>	15.5	12.7	4.76	5.16	0.8																							
	<b>DNMA150604</b>	15.5	12.7	6.35	5.16	0.4																							
	<b>DNMA150608</b>	15.5	12.7	6.35	5.16	0.8																							
	<b>DNMA150612</b>	15.5	12.7	6.35	5.16	1.2																							
	<b>DNMA150616</b>	15.5	12.7	6.35	5.16	1.6																							

### Tool holder / Klemmhalter

<b>PDJNR/L</b> Kr:93° 	<b>PDNNR/L</b> Kr:63° 	<b>MDJNR/L</b> Kr:93° 	<b>MDPNN</b> Kr:62°30' 	<b>PDSNR/L</b> Kr:62°30' 	<b>PDUNR/L</b> Kr:93° 
Page/Seite A160	A161	A172	A173	A218	A219

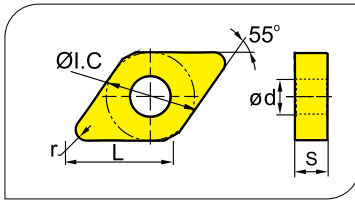


# Turning · Drehen






Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP

## DN\*\* Negative Insert · Negative WSP

● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
 ● Normal Machining Condition / Normale Bearbeitungsbedingungen  
 ● Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



Workpiece Material / Werkstoffe	P	M	K	N	S
Steel / Stahl	●	●	●	●	●
Stainless Steel / Rostfreier Stahl	●	●	●	●	●
Cast iron / Gusseisen	●	●	●	●	●
Non-ferrous material / Ne Metalle	●	●	●	●	●
Heat-resistant steel / Warmfester Stahl	●	●	●	●	●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated / beschicht. Cermet	Uncoated Carbide unbeschicht. Hartmetall									
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051
 Roughing / Schruppen	<b>DNMM150608-DR</b>	15.5	12.7	6.35	5.16	0.8	●	●	○						○													
	<b>DNMM150612-DR</b>	15.5	12.7	6.35	5.16	1.2	●	●																				
	<b>DNMM150616-DR</b>	15.5	12.7	6.35	5.16	1.6	●	○												○								
 Roughing / Schruppen	<b>DNMG150608-ER</b>	15.5	12.7	6.35	5.16	0.8								●														
	<b>DNMG150612-ER</b>	15.5	12.7	6.35	5.16	1.2								●														
 Roughing / Schruppen	<b>DNMM150608-ER</b>	15.5	12.7	6.35	5.16	0.8									○													
	<b>DNMM150612-ER</b>	15.5	12.7	6.35	5.16	1.2									○													
 Roughing / Schruppen	<b>DNMM150608-HDR</b>	15.5	12.7	6.35	5.16	0.8	○	●	●																			
	<b>DNMM150612-HDR</b>	15.5	12.7	6.35	5.16	1.2	○	●	○																			
	<b>DNMM150616-HDR</b>	15.5	12.7	6.35	5.16	1.6		○	○																			
 Basic	<b>DNMG150604</b>	15.5	12.7	6.35	5.16	0.4																						
	<b>DNMG150608</b>	15.5	12.7	6.35	5.16	0.8			○																			
	<b>DNMG150612</b>	15.5	12.7	6.35	5.16	1.2																						
	<b>DNMG150616</b>	15.5	12.7	6.35	5.16	1.6																						
	<b>DNMG190608</b>	19.3	15.875	6.35	7.94	0.8																						
	<b>DNMG190612</b>	19.3	15.875	6.35	7.94	1.2																						

Tool holder / Klemmhalter

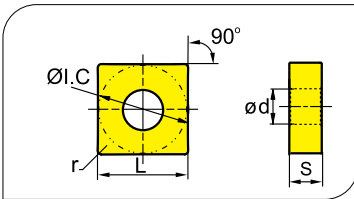


Page/Seite A160 A161 A172 A173 A218 A219

● Ex Stock / ab Lager ○ On demand / auf Anfrage

### SN\*\* Negative Insert · Negative WSP

● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
● Normal Machining Condition / Normale Bearbeitungsbedingungen  
● Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

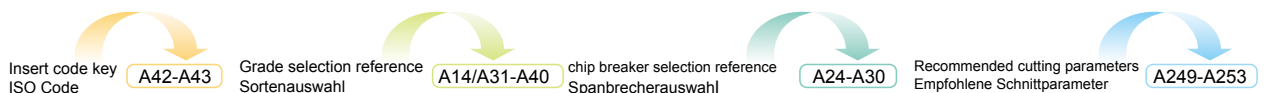


Workpiece Material / Werkstoffe	P	M	K	N	S
Steel / Stahl	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
Stainless Steel / Rostfreier Stahl	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
Cast iron / Gusseisen	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
Non-ferrite material / Ne Metalle	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
Heat-resistant steel / Warmfester Stahl	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated / beschicht. Cermet	Uncoated Carbide / unbeschicht. Hartmetall										
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101
<b>DF</b>  Finishing Schlichten	<b>SNMG090304-DF</b>	9.525	9.525	3.18	3.81	0.4																							
	<b>SNMG090308-DF</b>	9.525	9.525	3.18	3.81	0.8																							
	<b>SNMG120404-DF</b>	12.7	12.7	4.76	5.16	0.4																							
	<b>SNMG120408-DF</b>	12.7	12.7	4.76	5.16	0.8	●	●																					
	<b>SNMG120412-DF</b>	12.7	12.7	4.76	5.16	1.2	●	●																					
<b>EF</b>  Finishing Schlichten	<b>SNMG090304-EF</b>	9.525	9.525	3.18	3.81	0.4				●	○																		
	<b>SNMG090308-EF</b>	9.525	9.525	3.18	3.81	0.8				●	○																		
	<b>SNMG090312-EF</b>	9.525	9.525	3.18	3.81	1.2						○																	
	<b>SNMG120404-EF</b>	12.7	12.7	4.76	5.16	0.4						○	●																
	<b>SNMG120408-EF</b>	12.7	12.7	4.76	5.16	0.8						●	○																
	<b>SNMG120412-EF</b>	12.7	12.7	4.76	5.16	1.2						●	○	●															
	<b>SNMG150608-EF</b>	15.875	15.875	6.35	6.35	0.8						○	○																
<b>SNMG150612-EF</b>	15.875	15.875	6.35	6.35	1.2								○																

### Tool holder / Klemmhalter

<b>PSBNR/L</b> Kr:75°  Page/Seite A162	<b>PSDNN</b> Kr:45°  A163	<b>PSKNR/L</b> Kr:75°  A164	<b>PSSNR/L</b> Kr:45°  A165	<b>MSBNR/L</b> Kr:75°  A174	<b>MSRNR/L</b> Kr:75°  A175	<b>MSKNR/L</b> Kr:75°  A176
<b>MSDNN</b> Kr:45°  Page/Seite A177	<b>PSKNR/L</b> Kr:75°  A221					



# Turning · Drehen

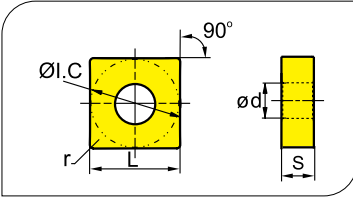
Cemented carbide and cermet inserts · Hartmetall und Cermet WSP

A



General Turning · Allgemeine Drehbearbeitung

## SN\*\* Negative Insert · Negative WSP

● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
 ◐ Normal Machining Condition / Normale Bearbeitungsbedingungen  
 ✖ Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



Workpiece Material / Werkstoffe	Steel / Stahl (P)	Stainless Steel / Rostfreier Stahl (M)	Cast iron / Gusseisen (K)	Non-ferrite material / Ne Metalle (N)	Heat-resistant steel / Warmfester Stahl (S)
Steel / Stahl (P)	●	●	●	●	●
Stainless Steel / Rostfreier Stahl (M)	◐	◐	◐	◐	◐
Cast iron / Gusseisen (K)	✖	✖	✖	✖	✖
Non-ferrite material / Ne Metalle (N)	◐	◐	◐	◐	◐
Heat-resistant steel / Warmfester Stahl (S)	◐	◐	◐	◐	◐

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated beschicht. Cerm.	Uncoated Carbide unbeschicht. Hartmetall									
		L	I.C.	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051
SF  Finishing Schlichten	SNMG090304-SF	9.525	9.525	3.18	3.81	0.4																						
	SNMG090308-SF	9.525	9.525	3.18	3.81	0.8																						
	SNMG120404-SF	12.7	12.7	4.76	5.16	0.4																						
	SNMG120408-SF	12.7	12.7	4.76	5.16	0.8																						
	SNMG120412-SF	12.7	12.7	4.76	5.16	1.2																						
	SNMG150608-SF	15.875	15.875	6.35	6.35	0.8																						
PM  Medium Cut / Mittl. Bearb.	SNMG090304-PM	9.525	9.525	3.18	3.81	0.4		●																				
	SNMG090308-PM	9.525	9.525	3.18	3.81	0.8	○	●	●							●			●									
	SNMG090312-PM	9.525	9.525	3.18	3.81	1.2	○	○																				
	SNMG120404-PM	12.7	12.7	4.76	5.16	0.4	●	●										○		○								
	SNMG120408-PM	12.7	12.7	4.76	5.16	0.8	○	●	●							●	●	●	●									
	SNMG120412-PM	12.7	12.7	4.76	5.16	1.2	●	●	●								○	○	●									
	SNMG120416-PM	12.7	12.7	4.76	5.16	1.6		○	○							●	●	●										
	SNMG150608-PM	15.875	15.875	6.35	6.35	0.8																						
	SNMG150612-PM	15.875	15.875	6.35	6.35	1.2		●	○								○	●	○									
	SNMG190612-PM	19.05	19.05	6.35	7.94	1.2		○									○		○									
SNMG190616-PM	19.05	19.05	6.35	7.94	1.6		○																					

Tool holder / Klemmhalter



Page/Seite A162      A163      A164      A165      A174      A175      A176



Page/Seite A177      A221

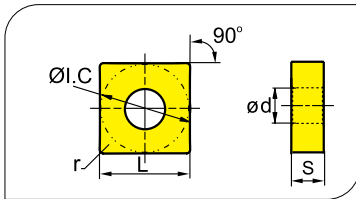
● Ex Stock / ab Lager    ○ On demand / auf Anfrage

# Turning · Drehen

Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP

## SN\*\* Negative Insert-Negative WSP

Ideal Machining Condition / Gute Bearbeitungsbedingungen 
 Normal Machining Condition / Normale Bearbeitungsbedingungen 
 Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



Workpiece Material / Werkstoffe	P	M	K	N	S	Steel / Stahl	Stainless Steel / Rostfreier Stahl	Cast iron / Gusseisen	Non-ferrite material / Ne Metalle	Heat-resistant steel / Warmfester Stahl
P	●	●	●	●	●	●	●	●	●	●
M	●	●	●	●	●	●	●	●	●	●
K	●	●	●	●	●	●	●	●	●	●
N	●	●	●	●	●	●	●	●	●	●
S	●	●	●	●	●	●	●	●	●	●

Insert Shape Schneidplattenform	Type · Typ	Dimension (mm) Abmessung					Coated Carbide Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated beschicht. Cermet	Uncoated Carbide unbeschicht. Hartmetall									
		L	IC	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051
	SNMG090304-DM	9.525	9.525	3.18	3.81	0.4	○																					
	SNMG090308-DM	9.525	9.525	3.18	3.81	0.8	●	●	○																			
	SNMG120404-DM	12.7	12.7	4.76	5.16	0.4	●	●					●	○			○				●							
	SNMG120408-DM	12.7	12.7	4.76	5.16	0.8	●	●	●				●	●	○		○											
	SNMG120412-DM	12.7	12.7	4.76	5.16	1.2	●	●	●	○			○	●	○						○							
	SNMG120416-DM	12.7	12.7	4.76	5.16	1.6	○	●	○																			
	SNMG150608-DM	15.875	15.875	6.35	6.35	0.8	○	●																				
	SNMG150612-DM	15.875	15.875	6.35	6.35	1.2	●	●	○																			
	SNMG150616-DM	15.875	15.875	6.35	6.35	1.6		○																				
	SNMG190612-DM	19.05	19.05	6.35	7.94	1.2	●	●	○					●	○													
SNMG190616-DM	19.05	19.05	6.35	7.94	1.6		●	●						○	○													
	SNMG120404-EM	12.7	12.7	4.76	5.16	0.4				○	●																	
	SNMG120408-EM	12.7	12.7	4.76	5.16	0.8				●	●		●	○														
	SNMG120412-EM	12.7	12.7	4.76	5.16	1.2				●	○		●	○														
	SNMG120416-EM	12.7	12.7	4.76	5.16	1.6						○																
	SNMG150612-EM	15.875	15.875	6.35	6.35	1.2						○																
	SNMG150616-EM	15.875	15.875	6.35	6.35	1.6						○																

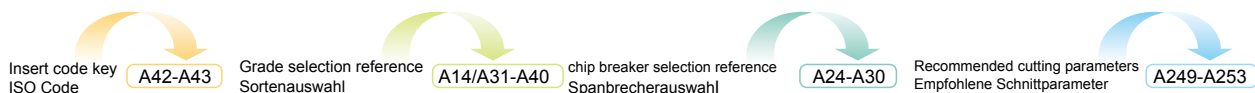
### Tool holder / Klemmhalter



PSBNR/L Kr:75°    PSDNN Kr:45°    PSKNR/L Kr:75°    PSSNR/L Kr:45°    MSBNR/L Kr:75°    MSNRN/L Kr:75°    MSKNR/L Kr:75°



MSDNN Kr:45°    PSKNR/L Kr:75°





# Turning · Drehen

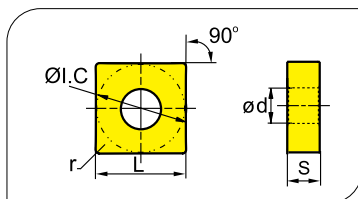
## Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP

A

General Turning · Allgemeine Drehbearbeitung

### SN\*\* Negative Insert · Negative WSP

● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
● Normal Machining Condition / Normale Bearbeitungsbedingungen  
● Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

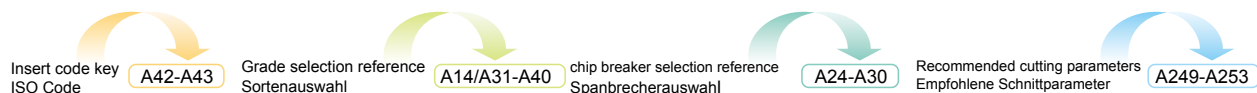


Workpiece Material / Werkstoffe	P	M	K	N	S	Steel / Stahl	Stainless Steel / Rostfreier Stahl	Cast iron / Gusseisen	Non-ferrite material / Ne Metalle	Heat-resistant steel / Warmfester Stahl
P	●	●	●	●	●	●	●	●	●	●
M	●	●	●	●	●	●	●	●	●	●
K	●	●	●	●	●	●	●	●	●	●
N	●	●	●	●	●	●	●	●	●	●
S	●	●	●	●	●	●	●	●	●	●

Insert Shape Schneid- plattenform	Type · Typ	Dimension (mm) Abmessung					Coated Carbide Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated beschicht. Cermet	Uncoated Carbide unbeschicht. Hartmetall																	
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201						
 Roughing/ Schruppen	<b>SNMM190612-DR</b>	19.05	19.05	6.35	7.94	1.2	○ ● ○																													
	<b>SNMM190616-DR</b>	19.05	19.05	6.35	7.94	1.6	● ● ○																													
	<b>SNMM190624-DR</b>	19.05	19.05	6.35	7.94	2.4	● ● ●																													
	<b>SNMM250724-DR</b>	25.4	25.4	7.94	9.12	2.4	● ●																													
	<b>SNMM250924-DR</b>	25.4	25.4	9.525	9.12	2.4	● ●																													
 Roughing/ Schruppen	<b>SNMG120408-ER</b>	12.7	12.7	4.76	5.16	0.8																														
	<b>SNMG120412-ER</b>	12.7	12.7	4.76	5.16	1.2																														
	<b>SNMG150608-ER</b>	15.875	15.875	6.35	6.35	0.8																														
	<b>SNMG150612-ER</b>	15.875	15.875	6.35	6.35	1.2							●																							
	<b>SNMG190612-ER</b>	19.05	19.05	6.35	7.94	1.2							●																							
<b>SNMG190616-ER</b>	19.05	19.05	6.35	7.94	1.6							●																								
 Roughing/ Schruppen	<b>SNMM250724-ER</b>	25.4	25.4	7.94	9.12	2.4						●																								
	<b>SNMM250732-ER</b>	25.4	25.4	7.94	9.12	3.2	○																													
	<b>SNMM250924-ER</b>	25.4	25.4	9.525	9.12	2.4	○					○	●																							
	<b>SNMM250932-ER</b>	25.4	25.4	9.525	9.12	3.2	○						●																							

### Tool holder / Klemmhalter

<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°	<b>MSKNR/L</b> Kr:75°
Page/Seite A162	A163	A164	A165	A174	A175	A176
<b>MSDNN</b> Kr:45°	<b>PSKNR/L</b> Kr:75°					
Page/Seite A177	A221					



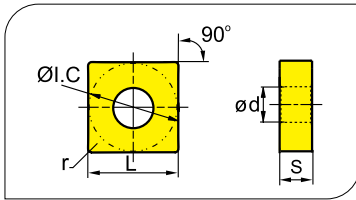
# Turning · Drehen

Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP

A

## SN\*\* Negative Insert-Negative WSP

● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
 ● Normal Machining Condition / Normale Bearbeitungsbedingungen  
 ● Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



Workpiece Material / Werkstoffe	P	M	K	N	S
Steel / Stahl	●	●	●	●	●
Stainless Steel / Rostfreier Stahl	●	●	●	●	●
Cast iron / Gusseisen	●	●	●	●	●
Non-ferrite material / Ne Metalle	●	●	●	●	●
Heat-resistant steel / Warmfester Stahl	●	●	●	●	●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated / beschicht. Cermet	Uncoated Carbide / unbeschicht. Hartmetall										
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101
HDR 	SNMM120408-HDR	12.7	12.7	4.76	5.16	0.8	○	●	●																				
	SNMM120412-HDR	12.7	12.7	4.76	5.16	1.2	●	●	●					●															
	SNMM120416-HDR	12.7	12.7	4.76	5.16	1.6			○																				
	SNMM150608-HDR	15.875	15.875	6.35	6.35	0.8		●	○																				
	SNMM150612-HDR	15.875	15.875	6.35	6.35	1.2	●	●	●																				
	SNMM150616-HDR	15.875	15.875	6.35	6.35	1.6		●	○																				
	SNMM150624-HDR	15.875	15.875	6.35	6.35	2.4																							
	SNMM190608-HDR	19.05	19.05	6.35	7.94	0.8																							
	SNMM190612-HDR	19.05	19.05	6.35	7.94	1.2		●																					
	SNMM190616-HDR	19.05	19.05	6.35	7.94	1.6	●	●	○																				
	SNMM190624-HDR	19.05	19.05	6.35	7.94	2.4		○																					
	SNMM250724-HDR	25.4	25.4	7.94	9.12	2.4		○	●																				
SNMM250924-HDR	25.4	25.4	9.525	9.12	2.4		○																						

### Tool holder / Klemmhalter

<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° 	<b>MSKNR/L</b> Kr:75° 
Page/Seite A162	A163	A164	A165	A174	A175	A176
<b>MSDNN</b> Kr:45° 	<b>PSKNR/L</b> Kr:75° 					
Page/Seite A177	A221					

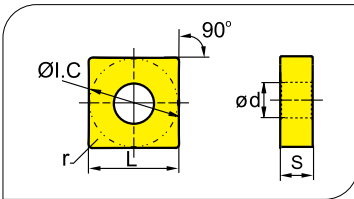
● Ex Stock / ab Lager ○ On demand / auf Anfrage

# Turning · Drehen

Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP

## SN\*\* Negative Insert-Negative WSP

● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
● Normal Machining Condition / Normale Bearbeitungsbedingungen  
● Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



Workpiece Material / Werkstoffe	P	M	K	N	S
Steel / Stahl	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●
Stainless Steel / Rostfreier Stahl	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●
Cast iron / Gusseisen	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●
Non-ferrous material / Ne Metalle	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●
Heat-resistant steel / Warmfester Stahl	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated / Beschicht. Cermet	Uncoated Carbide / unbeschicht. Hartmetall									
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051
	SNMG090304	9.525	9.525	3.18	3.81	0.4	○	○																				
	SNMG090308	9.525	9.525	3.18	3.81	0.8	○	○																				
	SNMG120404	12.7	12.7	4.76	5.16	0.4	○																					
	SNMG120408	12.7	12.7	4.76	5.16	0.8	○	●																	○			
	SNMG120412	12.7	12.7	4.76	5.16	1.2	○	○	○																			
	SNMG120416	12.7	12.7	4.76	5.16	1.6		○																				
	SNMG150608	15.875	15.875	6.35	6.35	0.8																						
	SNMG150612	15.875	15.875	6.35	6.35	1.2	○	○																				
	SNMG190612	19.05	19.05	6.35	7.94	1.2		○																				
	SNMG190616	19.05	19.05	6.35	7.94	1.6		○																				
	SNMG250724	25.4	25.4	7.94	9.12	2.4			●																			
SNMG250924	25.4	25.4	9.525	9.12	2.4			●																				
	SNMM090304	9.525	9.525	3.18	3.81	0.4																						
	SNMM090308	9.525	9.525	3.18	3.81	0.8																						
	SNMM120408	12.7	12.7	4.76	5.16	0.8		○																				
	SNMM120412	12.7	12.7	4.76	5.16	1.2																						
	SNMM120416	12.7	12.7	4.76	5.16	1.6																						

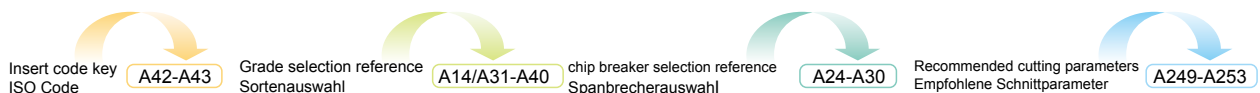
### Tool holder / Klemmhalter



Page/Seite A162      A163      A164      A165      A174      A175      A176



Page/Seite A177      A221





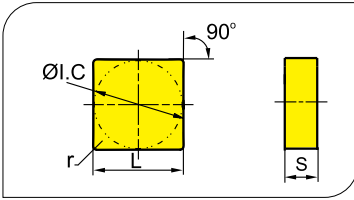
# Turning · Drehen

Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP

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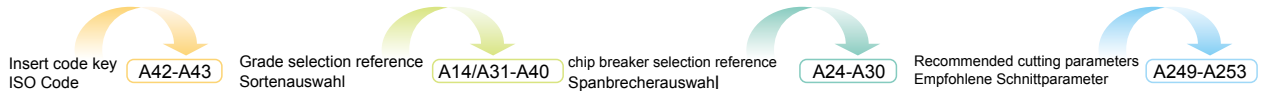
## SN\*\* Negative Insert-Negative WSP

● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
⊙ Normal Machining Condition / Normale Bearbeitungsbedingungen  
⊛ Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



Workpiece Material / Werkstoffe	P	M	K	N	S	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
P Steel / Stahl	●	●	●	●	●																	●	●	●	●		
M Stainless Steel / Rostfreier Stahl		●					●	●	●	●	●	●	●	●	●							●	●				
K Cast iron / Gusseisen			●														●	●	●	●	●					●	●
N Non-ferrite material / Ne Metalle				●																					●	●	
S Heat-resistant steel / Warmfester Stahl					●	●	●																				●

Insert Shape Schneidplattenform	Type · Typ	Dimension (mm) Abmessung					Coated Carbide Beschichtetes Hartmetall															Cermet unbeschichtet	Cermet Coated beschicht. Cermet	Uncoated Carbide unbeschicht. Hartmetall				
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052	YBD102	YBD151	YBD152	YBD252			YNG151	YNG151C	YC10	YC40	YD051
<b>Flat</b> 	<b>SNGN090308</b>	9.525	9.525	3.18	-	0.8																						
	<b>SNGN120408</b>	12.7	12.7	4.76	-	0.8																						
	<b>SNGN150408</b>	15.875	15.875	4.76	-	0.8																						
	<b>SNGN190412</b>	19.05	19.05	4.76	-	1.2																						
	<b>SNUN090304</b>	9.525	9.525	3.18	-	0.4	○	○											○									
	<b>SNUN090308</b>	9.525	9.525	3.18	-	0.8																						
	<b>SNUN120408</b>	12.7	12.7	4.76	-	0.8													○	○					●			
	<b>SNUN120412</b>	12.7	12.7	4.76	-	1.2	○	●	○										○	○					○		○	
	<b>SNUN150408</b>	15.875	15.875	4.76	-	0.8																						
	<b>SNUN150412</b>	15.875	15.875	4.76	-	1.2																						
	<b>SNUN190408</b>	19.05	19.05	4.76	-	0.8																						
	<b>SNUN190412</b>	19.05	19.05	4.76	-	1.2																						
	<b>SNUN190424</b>	19.05	19.05	4.76	-	2.4																						
	<b>SNUN250724</b>	25.4	25.4	7.94	-	2.4																						
	<b>SNUN250924</b>	25.4	25.4	9.525	-	2.4																						



General Turning · Allgemeine Drehbearbeitung

# Turning · Drehen

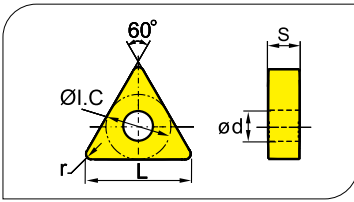
Cemented carbide and cermet inserts · Hartmetall und Cermet WSP

**A**

General Turning · Allgemeine Drehbearbeitung

## TN\*\* Negative Insert · Negative WSP

● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
● Normal Machining Condition / Normale Bearbeitungsbedingungen  
● Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



Workpiece Material / Werkstoffe	Steel / Stahl	Stainless Steel / Rostfreier Stahl	Cast iron / Gusseisen	Non-ferrite material / Ne Metalle	Heat-resistant steel / Warmfester Stahl
P	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
M	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
K	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
N	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
S	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall												Cermet unbeschichtet	Cermet Coated / beschicht. Cermet	Uncoated Carbide / unbeschicht. Hartmetall							
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052	YBD102				YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40
<b>DF</b>  Finishing / Schlichten	TNMG160404-DF	16.5	9.525	4.76	3.81	0.4	●	●					●									●						
	TNMG160408-DF	16.5	9.525	4.76	3.81	0.8	●	●					●									●						
	TNMG160412-DF	16.5	9.525	4.76	3.81	1.2	●	●					○	○														
	TNMG220408-DF	22	12.7	4.76	5.16	0.8	●	○					○															
	TNMG220412-DF	22	12.7	4.76	5.16	0.8	●	●					○															
<b>WG</b>  Wiper	TNMX160404-WG	16.5	9.525	4.76	3.81	0.4	●																					
	TNMX160408-WG	16.5	9.525	4.76	3.81	0.8	●	●																				
	TNMX160412-WG	16.5	9.525	4.76	3.81	1.2	●	●																				
<b>SF</b>  Finishing / Schlichten	TNMG110304-SF	11	6.35	3.18	2.26	0.4																●						
	TNMG160404-SF	16.5	9.525	4.76	3.81	0.4																	●					
	TNMG160408-SF	16.5	9.525	4.76	3.81	0.8																	●					
	TNMG220408-SF	22	12.7	4.76	5.16	0.8																	○					
	TNMG220412-SF	22	12.7	4.76	5.16	1.2																		○				
<b>EF</b>  Finishing / Schlichten	TNMG110304-EF	11	6.35	3.18	2.26	0.4						○																
	TNMG110308-EF	11	6.35	3.18	2.26	0.8						●																
	TNMG160404-EF	16.5	9.525	4.76	3.81	0.4						●	●	●														
	TNMG160408-EF	16.5	9.525	4.76	3.81	0.8						●	●	●	○													
	TNMG160412-EF	16.5	9.525	4.76	3.81	1.2						●	○															
	TNMG220404-EF	22	12.7	4.76	5.16	0.4						●	●															
	TNMG220408-EF	22	12.7	4.76	5.16	0.8						●	●															
	TNMG220412-EF	22	12.7	4.76	5.16	1.2						●	○															

### Tool holder / Klemmhalter



Page/Seite A166

A167

A168

A178




A179

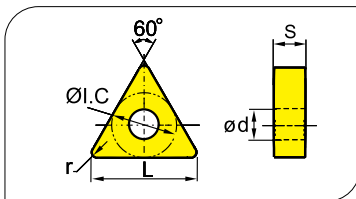
A180

A222




● Ex Stock / ab Lager   ○ On demand / auf Anfrage

### TN\*\* Negative Insert · Negative WSP

 Ideal Machining Condition / Gute Bearbeitungsbedingungen
  Normal Machining Condition / Normale Bearbeitungsbedingungen
  Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



Workpiece Material / Werkstoffe	Steel / Stahl	Stainless Steel / Rostfreier Stahl	Cast iron / Gusseisen	Non-ferrite material / Ne Metalle	Heat-resistant steel / Warmfester Stahl
P	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●
M	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●
K	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●
N	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●
S	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●	●●●●●●●●●●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated / Beschicht. Cermet	Uncoated Carbide unbeschicht. Hartmetall									
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
<b>FM</b>  Finishing Schlichten	TNMG160404R-FM	16.5	9.525	4.76	3.81	0.4	●				●																	
	TNMG160408R-FM	16.5	9.525	4.76	3.81	0.8	●				●																	
	TNMG160404L-FM	16.5	9.525	4.76	3.81	0.4	●				●																	
	TNMG160408L-FM	16.5	9.525	4.76	3.81	0.8	●				●																	
<b>PM</b>  Medium Cut / Mittl. Bearb.	TNMG110304-PM	11	6.35	3.18	2.26	0.4	●	●																				
	TNMG110308-PM	11	6.35	3.18	2.26	0.8	●	●																				
	TNMG160404-PM	16.5	9.525	4.76	3.81	0.4	●	●	●					○		●	●		●									
	TNMG160408-PM	16.5	9.525	4.76	3.81	0.8	●	●	●					○		●	●		●									
	TNMG160412-PM	16.5	9.525	4.76	3.81	1.2	○	●						○		●	●	○	●	○								
	TNMG220408-PM	22	12.7	4.76	5.16	0.8	●	●	●					○		○	●		●									
	TNMG220412-PM	22	12.7	4.76	5.16	1.2	○	●	●							○	●		●									
<b>DM</b>  Medium Cut / Mittlere Bear	TNMG110308-DM	11	6.35	3.18	2.26	0.8	●																					
	TNMG160404-DM	16.5	9.525	4.76	3.81	0.4	●	●	●					●								●						
	TNMG160408-DM	16.5	9.525	4.76	3.81	0.8	●	●	●					●		●						●						
	TNMG160412-DM	16.5	9.525	4.76	3.81	1.2	●	●	●					○														
	TNMG220404-DM	22	12.7	4.76	5.16	0.4		●	○					○														
	TNMG220408-DM	22	12.7	4.76	5.16	0.8	●	●	●					○								○						
	TNMG220412-DM	22	12.7	4.76	5.16	1.2	●	●	●					○					○									
TNMG220416-DM	22	12.7	4.76	5.16	1.6		●	●						●							○							

### Tool holder / Klemmhalter



Page/Seite A166

A167

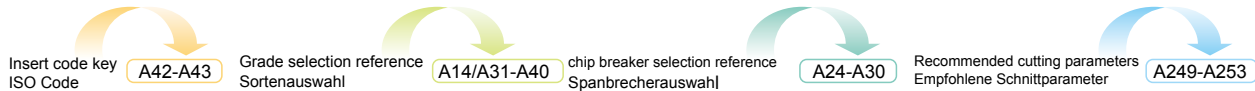
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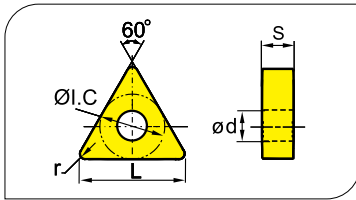
# Turning · Drehen

Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP

A

## TN\*\* Negative Insert · Negative WSP

● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
 ● Normal Machining Condition / Normale Bearbeitungsbedingungen  
 ● Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



Workpiece Material / Werkstoffe	P	M	K	N	S
Steel / Stahl	●	●	●	●	●
Stainless Steel / Rostfreier Stahl		●	●	●	●
Cast iron / Gusseisen			●	●	●
Non-ferrite material / Ne Metalle				●	●
Heat-resistant steel / Warmfester Stahl					●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated beschicht. Cermet	Uncoated Carbide unbeschicht. Hartmetall									
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051
EM  Medium Cut / Mittl. Bearb.	TNMG160404-EM	16.5	9.525	4.76	3.81	0.4					●	●																
	TNMG160408-EM	16.5	9.525	4.76	3.81	0.8					●	●		●														
	TNMG160412-EM	16.5	9.525	4.76	3.81	1.2					●	○																
	TNMG220408-EM	22	12.7	4.76	5.16	0.8					●	●		●														
	TNMG220412-EM	22	12.7	4.76	5.16	1.2					●	●		●														
	TNMG220416-EM	22	12.7	4.76	5.16	1.6					●	●		●														
DR  Roughing / Schruppen	TNMG160408-DR	16.5	9.525	4.76	3.81	0.8		●										●		●								
	TNMG160412-DR	16.5	9.525	4.76	3.81	1.2	●	●	●									●		●								
	TNMG220408-DR	22	12.7	4.76	5.16	0.8		●										○		○								
	TNMG220412-DR	22	12.7	4.76	5.16	1.2	○	●	●										○		●							
	TNMG220416-DR	22	12.7	4.76	5.16	1.6	●	●	○									○		●								
	TNMG270608-DR	27.5	15.875	6.35	6.35	0.8			○																			
	TNMG270612-DR	27.5	15.875	6.35	6.35	1.2			○																			
	TNMG270616-DR	27.5	15.875	6.35	6.35	1.6	○																					

### Tool holder / Klemmhalter



Page/Seite A166      A167      A168      A178      A179      A180      A222

● Ex Stock / ab Lager    ○ On demand / auf Anfrage

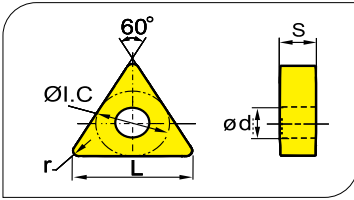
# Turning · Drehen

Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP

A

## TN\*\* Negative Insert-Negative WSP

● Ideal Machining Condition / Gute Bearbeitungsbedingungen    
 ⊗ Normal Machining Condition / Normale Bearbeitungsbedingungen    
 ⊗ Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



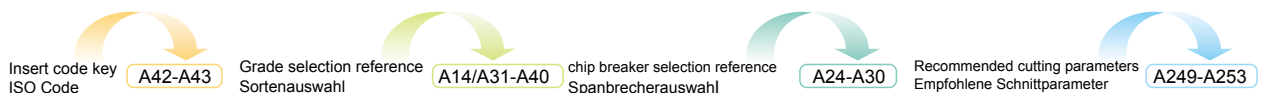
Workpiece Material / Werkstoffe	P	M	K	N	S
Steel / Stahl	●	●	●	●	●
Stainless Steel / Rostfreier Stahl	●	●	●	●	●
Cast iron / Gusseisen	●	●	●	●	●
Non-ferrite material / Ne Metalle	●	●	●	●	●
Heat-resistant steel / Warmfester Stahl	●	●	●	●	●

Insert Shape Schneidplattenform	Type · Typ	Dimension (mm) Abmessung					Coated Carbide Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated beschicht. Cermet	Uncoated Carbide unbeschicht. Hartmetall										
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101
<b>DR</b>  Roughing/ Schruppen	TNMM160408-DR	16.5	9.525	4.76	3.81	0.8	●	●	●																				
	TNMM160412-DR	16.5	9.525	4.76	3.81	1.2		●																					
	TNMM220408-DR	22	12.7	4.76	5.16	0.8		●	●																				
	TNMM220412-DR	22	12.7	4.76	5.16	1.2		●	●																				
	TNMM220416-DR	22	12.7	4.76	5.16	1.6		○	●																				
	TNMM270612-DR	27.5	15.875	4.76	5.16	1.2																							
	TNMM270616-DR	27.5	15.875	4.76	5.16	1.6																							
<b>ER</b>  Roughing/ Schruppen	TNMG160408-ER	16.5	9.525	4.76	3.81	0.8																							
	TNMG160412-ER	16.5	9.525	4.76	3.81	1.2																							
	TNMG220408-ER	22	12.7	4.76	5.16	0.8																							
	TNMG220412-ER	22	12.7	4.76	5.16	1.2									●														

### Tool holder / Klemmhalter

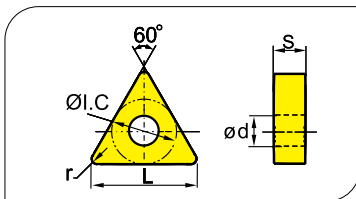
<b>PTFNR/L</b> Kr:90° 	<b>PTTNR/L</b> Kr:60° 	<b>PTGNR/L</b> Kr:90° 	<b>MTGNR/L</b> Kr:90° 	<b>MTJNR/L</b> Kr:93° 	<b>MTFNR/L</b> Kr:90° 	<b>PTFNR/L</b> Kr:90° 
Page/Seite A166	A167	A168	A178	A179	A180	A222

General Turning · Allgemeine Drehbearbeitung





### TN\*\* Negative Insert-Negative WSP

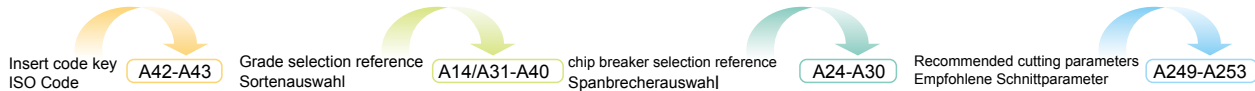


Workpiece Material / Werkstoffe	Ideal Machining Condition / Gute Bearbeitungsbedingungen			Normal Machining Condition / Normale Bearbeitungsbedingungen			Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen								
	P	M	K	N	S	P	M	K	N	S	P	M	K	N	S
<b>P</b> Steel / Stahl	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>M</b> Stainless Steel / Rostfreier Stahl		●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>K</b> Cast iron / Gusseisen						●	●	●	●	●	●	●	●	●	●
<b>N</b> Non-ferrous material / Ne Metalle															
<b>S</b> Heat-resistant steel / Warmfester Stahl						●	●	●	●	●	●	●	●	●	●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated / Beschichtet, Cermet	Uncoated Carbide / unbeschichtet, Hartmetall									
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051
<b>Basic</b> 	TNMM160404	16.5	9.525	4.76	3.81	0.4	○	●																				
	TNMM160408	16.5	9.525	4.76	3.81	0.8	○	○																				
	TNMM160412	16.5	9.525	4.76	3.81	1.2	●	●																				
	TNMM220408	22	12.7	4.76	5.16	0.8	●	●																				
	TNMM220412	22	12.7	4.76	5.16	1.2	●	○																				
	TNMM220416	22	12.7	4.76	5.16	1.6		○																				
	TNMM270616	27.5	15.875	6.35	6.35	1.6	○	●																				
<b>Flat</b> 	TNMA160404	16.5	9.525	4.76	3.81	0.4										○	○	●	●									
	TNMA160408	16.5	9.525	4.76	3.81	0.8										●	●	●	●									
	TNMA160412	16.5	9.525	4.76	3.81	1.2										●	●	○	●									
	TNMA160416	16.5	9.525	4.76	3.81	1.6										●	○	○										
	TNMA220404	22	12.7	4.76	5.16	0.4										○	○											
	TNMA220408	22	12.7	4.76	5.16	0.8										●	●	○	●							○	○	
	TNMA270616	27.5	15.875	6.35	6.35	1.6													○									

### Tool holder / Klemmhalter

<b>PTFNR/L</b> Kr:90° 	<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>MTFNR/L</b> Kr:90° 	<b>PTFNR/L</b> Kr:90° 
Page/Seite A166	A167	A168	A178	A179	A180	A222

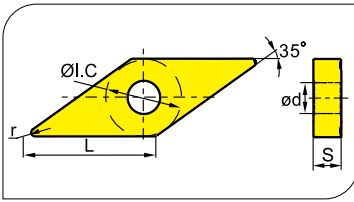


# Turning · Drehen





Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP

## VN\*\* Negative Insert · Negative WSP

● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
 ● Normal Machining Condition / Normale Bearbeitungsbedingungen  
 ● Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



Workpiece Material / Werkstoffe	P	M	K	N	S
Steel / Stahl	●	●	●	●	●
Stainless Steel / Rostfreier Stahl	●	●	●	●	●
Cast iron / Gusseisen	●	●	●	●	●
Non-ferrite material / Ne Metalle	●	●	●	●	●
Heat-resistant steel / Warmfester Stahl	●	●	●	●	●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall													Cermet unbeschichtet	Cermet Coated / beschicht. Cermet	Uncoated Carbide unbeschicht. Hartmetall							
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052	YBD102	YBD151			YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101
DF  Finishing / Schlichten	VNMG160404-DF	16.6	9.525	4.76	3.81	0.4	●	●						●															
	VNMG160408-DF	16.6	9.525	4.76	3.81	0.8	●	●						●	●														
EF  Finishing / Schlichten	VNMG160404-EF	16.6	9.525	4.76	3.81	0.4								●	●														
	VNMG160408-EF	16.6	9.525	4.76	3.81	0.8								●	●														
	VNMG160412-EF	16.6	9.525	4.76	3.81	1.2										○													
NF  Finishing / Schlichten	VNEG160404-NF	16.6	9.525	4.76	3.81	0.4								●															○
	VNEG160408-NF	16.6	9.525	4.76	3.81	0.8								●															○
SF  Finishing / Schlichten	VNMG160404-SF	16.6	9.525	4.76	3.81	0.4																							
	VNMG160408-SF	16.6	9.525	4.76	3.81	0.8																							

Tool holder / Klemmhalter



Page/Seite A181

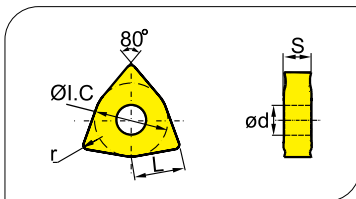
A182

● Ex Stock / ab Lager ○ On demand / auf Anfrage





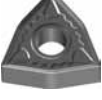


### WN\*\* Negative Insert-Negative WSP



● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
● Normal Machining Condition / Normale Bearbeitungsbedingungen  
● Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

Workpiece Material / Werkstoffe	P	M	K	N	S
Steel / Stahl	●●●●	●●●●	●●●●	●●●●	●●●●
Stainless Steel / Rostfreier Stahl	●●●●	●●●●	●●●●	●●●●	●●●●
Cast iron / Gusseisen	●●●●	●●●●	●●●●	●●●●	●●●●
Non-ferrous material / Ne Metalle	●●●●	●●●●	●●●●	●●●●	●●●●
Heat-resistant steel / Warmfester Stahl	●●●●	●●●●	●●●●	●●●●	●●●●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated beschicht. Cermet	Uncoated Carbide unbeschicht. Hartmetall									
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051
 Finishing / Schlichten	WNMG06T304-SF	6.5	9.525	3.97	3.81	0.4																						
	WNMG06T308-SF	6.5	9.525	3.97	3.81	0.8																						
	WNMG06T312-SF	6.5	9.525	3.97	3.81	1.2																						
	WNMG060404-SF	6.5	9.525	4.76	3.81	0.4																	●					
	WNMG060408-SF	6.5	9.525	4.76	3.81	0.8																	●					
	WNMG080404-SF	8.7	12.7	4.76	5.16	0.4																	●					
	WNMG080408-SF	8.7	12.7	4.76	5.16	0.8																	●					
	WNMG080412-SF	8.7	12.7	4.76	5.16	1.2																	●					
 Finishing / Schlichten	WNMG06T304-EF	6.5	9.525	3.97	3.81	0.4																						
	WNMG06T308-EF	6.5	9.525	3.97	3.81	0.8																						
	WNMG06T312-EF	6.5	9.525	3.97	3.81	1.2																						
	WNMG060404-EF	6.5	9.525	4.76	3.81	0.4					●	○		●														
	WNMG060408-EF	6.5	9.525	4.76	3.81	0.8					●	○		●	○													
	WNMG080404-EF	8.7	12.7	4.76	5.16	0.4					●		●	○		●	●											
WNMG080408-EF	8.7	12.7	4.76	5.16	0.8					●		●	○		●	●												
 Finishing / Schlichten	WNEG080404-NF	8.7	12.7	4.76	5.16	0.4					●																	
	WNEG080408-NF	8.7	12.7	4.76	5.16	0.8					●																	

### Tool holder / Klemmhalter



Page/Seite A169

A183

A223

Insert code key ISO Code

A42-A43

Grade selection reference Sortenauswahl

A14/A31-A40

chip breaker selection reference Spanbrecherauswahl

A24-A30

Recommended cutting parameters Empfohlene Schnittparameter

A249-A253

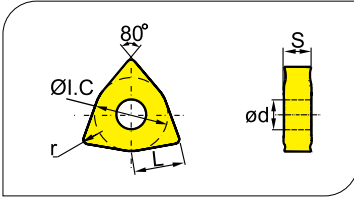
# Turning · Drehen

Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP




A

## WN\*\* Negative Insert · Negative WSP

● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
 ● Normal Machining Condition / Normale Bearbeitungsbedingungen  
 ● Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



Workpiece Material / Werkstoffe	P	M	K	N	S
Steel / Stahl	●	●	●	●	●
Stainless Steel / Rostfreier Stahl	●	●	●	●	●
Cast iron / Gusseisen	●	●	●	●	●
Non-ferrous material / Ne Metalle	●	●	●	●	●
Heat-resistant steel / Warmfester Stahl	●	●	●	●	●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated / beschicht. Cermet	Uncoated Carbide / unbeschicht. Hartmetall									
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051
 Medium Cut / Mittl. Bearb.	WNMG060408-PM	6.5	9.525	4.76	3.81	0.8	●	●									●	●	●									
	WNMG060412-PM	6.5	9.525	4.76	3.81	1.2	●	●									●	●	●									
	WNMG080404-PM	8.7	12.7	4.76	5.16	0.4	●	●	○								●	●	●									
	WNMG080408-PM	8.7	12.7	4.76	5.16	0.8	●	●	●								●	●	●									
	WNMG080412-PM	8.7	12.7	4.76	5.16	1.2	●	●	●								●	●	●									
	WNMG080416-PM	8.7	12.7	4.76	5.16	1.6		●	○								○	○	●									
 Medium Cut / Mittl. Bearb.	WNMG06T304-DM	6.5	9.525	3.97	3.81	0.4																						
	WNMG06T308-DM	6.5	9.525	3.97	3.81	0.8																						
	WNMG06T312-DM	6.5	9.525	3.97	3.81	1.2																						
	WNMG060408-DM	6.5	9.525	4.76	3.81	0.8	●	●	○				●	●	○													
	WNMG060412-DM	6.5	9.525	4.76	3.81	1.2	●	●	○				●	●	○													
	WNMG080404-DM	8.7	12.7	4.76	5.16	0.4	●	●	●					●	○													
	WNMG080408-DM	8.7	12.7	4.76	5.16	0.8	●	●	●				○	●	○													
	WNMG080412-DM	8.7	12.7	4.76	5.16	1.2	●	●	●				○	●	○													
 Medium Cut / Mittl. Bearb.	WNMG06T304-EM	6.5	9.525	3.97	3.81	0.4																						
	WNMG06T308-EM	6.5	9.525	3.97	3.81	0.8																						
	WNMG06T312-EM	6.5	9.525	3.97	3.81	1.2																						
	WNMG060404-EM	6.5	9.525	4.76	3.81	0.4					●				○													
	WNMG060408-EM	6.5	9.525	4.76	3.81	0.8					●				●													
	WNMG080404-EM	8.7	12.7	4.76	5.16	0.4					●	●		●	●													
	WNMG080408-EM	8.7	12.7	4.76	5.16	0.8					●	●		●	●	●												
	WNMG080412-EM	8.7	12.7	4.76	5.16	1.2					●	○																

### Tool holder / Klemmhalter



Page/Seite A169

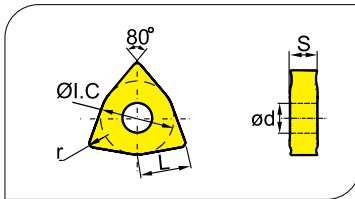
A183

A223

● Ex Stock / ab Lager ○ On demand / auf Anfrage

### WN\*\* Negative Insert-Negative WSP

- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- Normal Machining Condition / Normale Bearbeitungsbedingungen
- Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



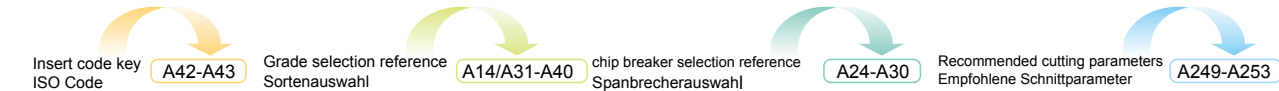
Workpiece Material / Werkstoffe	P Steel / Stahl	M Stainless Steel / Rostfreier Stahl	K Cast iron / Gusseisen	N Non-ferrite material / Ne Metalle	S Heat-resistant steel / Warmfester Stahl
<b>P</b>	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●
<b>M</b>		●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●
<b>K</b>			●●●●●●●●	●●●●●●●●	●●●●●●●●
<b>N</b>				●●●●●●●●	●●●●●●●●
<b>S</b>					●●●●●●●●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated / Beschicht. Cermet	Uncoated Carbide / unbeschicht. Hartmetall									
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051
<b>NM</b> 	<b>WNMG080408-NM</b>	8.7	12.7	4.76	5.16	0.8				●	○																	
	<b>WNMG080412-NM</b>	8.7	12.7	4.76	5.16	1.2				●	○																	
Medium Cut / Mittl. Bearb.																												
<b>DR</b> 	<b>WNMG060408-DR</b>	6.5	9.525	4.76	3.81	0.8	●	●	○								●		●									
	<b>WNMG060412-DR</b>	6.5	9.525	4.76	3.81	1.2	●	●	○								●		●									
	<b>WNMG080408-DR</b>	8.7	12.7	4.76	5.16	0.8	●	●	●								●		●									
	<b>WNMG080412-DR</b>	8.7	12.7	4.76	5.16	1.2	●	●	●								●		●									
	<b>WNMG080416-DR</b>	8.7	12.7	4.76	5.16	1.6	●	●									●		○									
Roughing / Schruppen																												
<b>Flat</b> 	<b>WNMA06T308</b>	6.5	9.525	3.97	3.81	0.8																						
	<b>WNMA060404</b>	6.5	9.525	4.76	3.81	0.4																						
	<b>WNMA060408</b>	6.5	9.525	4.76	3.81	0.8								●			●		●									
	<b>WNMA060412</b>	6.5	9.525	4.76	3.81	1.2																						
	<b>WNMA080404</b>	8.7	12.7	4.76	5.16	0.4									○			○										
	<b>WNMA080408</b>	8.7	12.7	4.76	5.16	0.8									●			●		●								
	<b>WNMA080412</b>	8.7	12.7	4.76	5.16	1.2									●			●		●								
	<b>WNMA080416</b>	8.7	12.7	4.76	5.16	1.6									○			○		○								

#### Tool holder / Klemmhalter

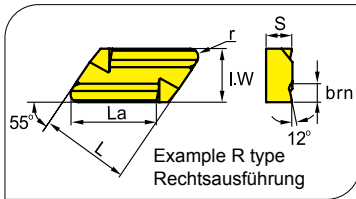


Page/Seite A169      A183      A223





### KN\*\* Negative insert/ Negative Inserts



Workpiece Material Werkstoff	Ideal Machining Condition Gute Bearbeitungsbedingungen			Normal Machining Condition Normale Bearbeitungsbedingungen			Unfavorable Machining Condition Ungünstige Bearbeitungsbedingungen			
	P	M	K	N	S	P	M	K	N	S
<b>P</b> Steel / Stahl	●	●	●	●	●	●	●	●	●	●
<b>M</b> Stainless Steel / Rostfreier Stahl	●	●	●	●	●	●	●	●	●	●
<b>K</b> Cast iron / Gusseisen	●	●	●	●	●	●	●	●	●	●
<b>N</b> Non-ferrite material / Ne Metalle	●	●	●	●	●	●	●	●	●	●
<b>S</b> Heat-resistant steel / Warmfester Stahl	●	●	●	●	●	●	●	●	●	●

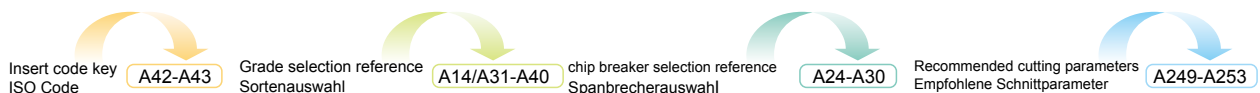
Insert Shape Schneidplattenform	Type · Typ	Dimension (mm) Abmessung						Coated Carbide Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coating beschicht. Cermet	Uncoated Carbide unbeschicht. Hartmetall								
		La	L	I.W	S	brn	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40
<b>KNUX</b>  Finishing/ Schlichten	KNUX160405L11	16	16.15	9.525	4.76	2.2	0.5	●	●	●																		
	KNUX160410L11	16	16.15	9.525	4.76	2.2	1.0	●	●						●										●			
	KNUX160405L12	16	16.15	9.525	4.76	2.2	0.5	●	●						●										○			
	KNUX160410L12	16	16.15	9.525	4.76	2.2	1.0	●	●						●										○			○
	KNUX160405R11	16	16.15	9.525	4.76	2.2	0.5	●	●	●					●	●									●			●
	KNUX160410R11	16	16.15	9.525	4.76	2.2	1.0	●	●						●										●			
	KNUX160405R12	16	16.15	9.525	4.76	2.2	0.5	●	●						●													
	KNUX160410R12	16	16.15	9.525	4.76	2.2	0.5	●	●						●													

### Tool holder / Klemmhalter



Page/Seite A203

A203

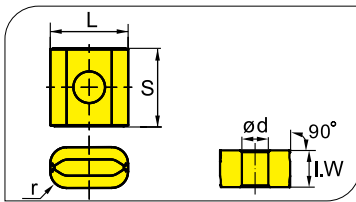


# Turning · Drehen

Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP

## Railway Wheel Machining/ Radsatz Bearbeitung

● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
 ● Normal Machining Condition / Normale Bearbeitungsbedingungen  
 ● Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



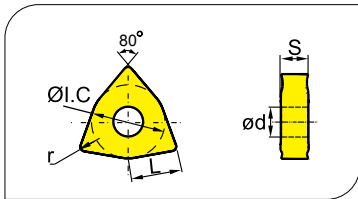
Workpiece Material / Werkstoffe	P	M	K	N	S
Steel / Stahl	●	●	●	●	●
Stainless Steel / Rostfreier Stahl	●	●	●	●	●
Cast iron / Gusseisen	●	●	●	●	●
Non-ferrite material / Ne Metalle	●	●	●	●	●
Heat-resistant steel / Warmfester Stahl	●	●	●	●	●

Insert Shape Schneid- plattenform	Type · Typ	Dimension (mm) Abmessung					Coated Carbide Beschichtetes Hartmetall												Cermet unbeschichtet	Cermet Coated beschicht. Cermet	Uncoated Carbide unbeschicht. Hartmetall							
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052	YBD102			YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051
	175.32-191940-22	19.05	10	19.05	6.35	4.0	●																					
	175.32-191940-227	19.05	10	19.05	7.2	4.0	●																					
	175.32-191940-24	19.05	10	19.05	6.35	4.0	○ ●																					
	175.32-301940-24	30	10	19.05	6.35	4.0	○ ●																					
	175.32-191940-25	19.05	10	19.05	6.35	4.0	●																					
	175.32-191940-28	19.05	10	19.05	6.35	4.0																						
	175.32-30194031	30	10	19.05	6.35	4.0	●																					

● Ex Stock / ab Lager ○ On demand / auf Anfrage

### TN\*\* Negative Insert/ Negative WSP

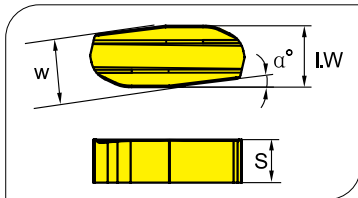
● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
● Normal Machining Condition / Normale Bearbeitungsbedingungen  
● Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



Workpiece Material / Werkstoffe	P Steel / Stahl	M Stainless Steel / Rostfreier Stahl	K Cast iron / Gusseisen	N Non-ferrite material / Ne Metalle	S Heat-resistant steel / Warmfester Stahl	Machining Conditions																								
						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16									
P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
K	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
N	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
S	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

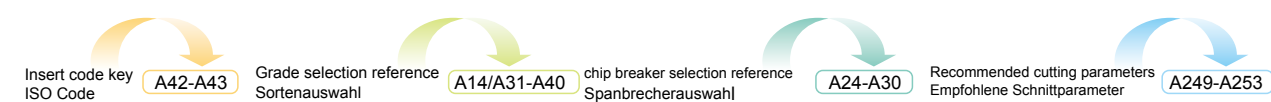
Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall																Cermet unbeschichtet	Cermet Coated / Beschicht. Cermet	Uncoated Carbide / unbeschicht. Hartmetall														
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151			YNG151C	YC10	YC40	YD051	YD101	YD201									
	TNMX1106-2	11.3	15.875	6.35	6.35	1.6	○	●																															
	TNMX1509-2	15.9	22.225	9.52	7.94	1.6																															○	○	
	TNMX15T916-2	15.9	22.225	9.72	7.94	1.6																																	

● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
● Normal Machining Condition / Normale Bearbeitungsbedingungen  
● Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



Workpiece Material / Werkstoffe	P Steel / Stahl	M Stainless Steel / Rostfreier Stahl	K Cast iron / Gusseisen	N Non-ferrite material / Ne Metalle	S Heat-resistant steel / Warmfester Stahl	Machining Conditions																																
						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16																	
P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
M	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
K	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
N	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
S	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall																Cermet	Coated Beschicht.	Uncoated Carbide / unbeschicht. Hartmetall													
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151			YNG151C	YC10	YC40	YD051	YD101	YD201								
	YNMX1812L	18	22	12	20°																																	
	YNMX2518173L	25	25	18	7°																																	
	YNUX1812150L	18	18	12	15°																																	



# Turning - Drehen

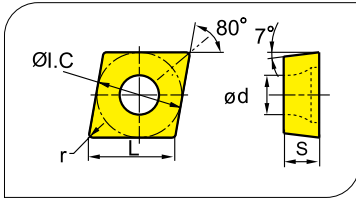
Cemented carbide and cermet Inserts - Hartmetall und Cermet WSP

A

General Turning - Allgemeine Drehbearbeitung

### CC\*\* Positive Insert/ Positive WSP

● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
 ☀ Normal Machining Condition / Normale Bearbeitungsbedingungen  
 ☹ Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



Workpiece Material / Werkstoffe	P Steel / Stahl	M Stainless Steel / Rostfreier Stahl	K Cast iron / Gusseisen	N Non-ferrous material / Ne Metalle	S Heat-resistant steel / Warmfester Stahl
Steel / Stahl (P)	●●●●●	●●●●			
Stainless Steel / Rostfreier Stahl (M)		●●●●●			
Cast iron / Gusseisen (K)			●●●●●		
Non-ferrous material / Ne Metalle (N)				●	
Heat-resistant steel / Warmfester Stahl (S)					●●●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated beschicht. Cermet	Uncoated Carbide unbeschicht. Hartmetall								
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101
<b>SF</b>  Finishing Schlichten	<b>CCGT060202-SF</b>	6.4	6.35	2.38	2.8	0.2																●	●				
	<b>CCGT060204-SF</b>	6.4	6.35	2.38	2.8	0.4																●	●				
	<b>CCGT09T304-SF</b>	9.7	9.525	3.97	4.4	0.4																●	●				
<b>HF</b>  Finishing Schlichten	<b>CCMT060202-HF</b>	6.4	6.35	2.38	2.8	0.2	●	●		●												●					○
	<b>CCMT060204-HF</b>	6.4	6.35	2.38	2.8	0.4	●	●	●	●			○						○			●					
	<b>CCMT060208-HF</b>	6.4	6.35	2.38	2.8	0.8	○	●														●	●				
	<b>CCMT09T302-HF</b>	9.7	9.525	3.97	4.4	0.2		●		●												●	●				
	<b>CCMT09T304-HF</b>	9.7	9.525	3.97	4.4	0.4	●	●	●	●			●				●	●	●			●	●				○
	<b>CCMT09T308-HF</b>	9.7	9.525	3.97	4.4	0.8	●	●	○				○						○	○		○					○
	<b>CCMT120404-HF</b>	12.9	12.7	4.76	5.56	0.4	●	●					○						●			●					
<b>CCMT120408-HF</b>	12.9	12.7	4.76	5.56	0.8	○	○																				
 Finishing Schlichten	<b>CPGT050204</b>	5.6	5.56	2.38	2.8	0.4																					

Tool holder / Klemmhalter



Page/Seite A185                      A186                      A224                      A239                      A240

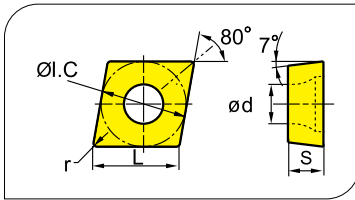
● Ex Stock / ab Lager    ○ On demand / auf Anfrage

# Turning · Drehen

Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP

## CC\*\* Positive Insert/ Positive WSP

● Ideal Machining Condition / Gute Bearbeitungsbedingungen    ● Normal Machining Condition / Normale Bearbeitungsbedingungen    ● Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



Workpiece Material / Werkstoffe	P Steel / Stahl	M Stainless Steel / Rostfreier Stahl	K Cast iron / Gusseisen	N Non-ferrite material / Ne Metalle	S Heat-resistant steel / Warmfester Stahl
P	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
M		●●●●●	●●●●●		
K			●●●●●		
N				●●●●●	
S					●●●●●

Insert Shape Schneidplattenform	Type · Typ	Dimension (mm) Abmessung					Coated Carbide Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated beschicht. Cermet	Uncoated Carbide unbeschicht. Hartmetall											
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
<b>EF</b>  Finishing Schlichten	CCMT060202-EF	6.4	6.35	2.38	2.8	0.2																								
	CCMT060204-EF	6.4	6.35	2.38	2.8	0.4				○	●																			
	CCMT09T302-EF	9.7	9.525	3.97	4.4	0.2																								
	CCMT09T304-EF	9.7	9.525	3.97	4.4	0.4					○	●																		
	CCMT09T308-EF	9.7	9.525	3.97	4.4	0.8																								
	CCMT120404-EF	12.9	12.7	4.76	5.56	0.4																								
	CCMT120408-EF	12.9	12.7	4.76	5.56	0.8																								
<b>HM</b>  Medium Cut/ Mittl. Bearb.	CCMT060204-HM	6.4	6.35	2.38	2.8	0.4	●	●	●		●			○	●			●	○	●									●	
	CCMT060208-HM	6.4	6.35	2.38	2.8	0.8	●	●	●					○	●	○			●		●									
	CCMT09T304-HM	9.7	9.525	3.97	4.4	0.4	●	●	●		●			○	●	○			●		●									
	CCMT09T308-HM	9.7	9.525	3.97	4.4	0.8	●	●	●		●			○	●	○			●		●								●	
	CCMT120404-HM	12.9	12.7	4.76	5.56	0.4	●	●	●		●			○	●	○			●		●									
	CCMT120408-HM	12.9	12.7	4.76	5.56	0.8	●	●	●		●			○	●				●		●									
	CCMT120412-HM	12.9	12.7	4.76	5.56	1.2				●										○										
<b>EM</b>  Medium Cut/ Mittl. Bearb.	CCMT060204-EM	6.4	6.35	2.38	2.8	0.4					○	●																		
	CCMT060208-EM	6.4	6.35	2.38	2.8	0.8						○	●																	
	CCMT09T304-EM	9.7	9.525	3.97	4.4	0.4						○	●		○	○														
	CCMT09T308-EM	9.7	9.525	3.97	4.4	0.8						○	●		○															
	CCMT120404-EM	12.9	12.7	4.76	5.56	0.4						○	●																	
	CCMT120408-EM	12.9	12.7	4.76	5.56	0.8						○	●																	
	CCMT120412-EM	12.9	12.7	4.76	5.56	1.2									○	○														

Tool holder / Klemmhalter



Page/Seite A185

A186

A224

A239

A240

Insert code key  
ISO Code

A42-A43

Grade selection reference  
Sortenauswahl

A14/A31-A40

chip breaker selection reference  
Spanbrecherauswahl

A24-A30

Recommended cutting parameters  
Empfohlene Schnittparameter

A249-A253



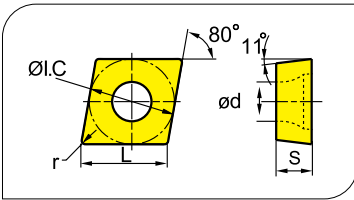
# Turning · Drehen

Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP

**A**

## CP\*\* Positive Insert/ Positive WSP

● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
 ● Normal Machining Condition / Normale Bearbeitungsbedingungen  
 ● Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



Workpiece Material / Werkstoffe	P	M	K	N	S
Steel / Stahl	●	●	●	●	●
Stainless Steel / Rostfreier Stahl		●	●	●	●
Cast iron / Gusseisen			●	●	●
Non-ferrite material / Ne Metalle				●	●
Heat-resistant steel / Warmfester Stahl					●

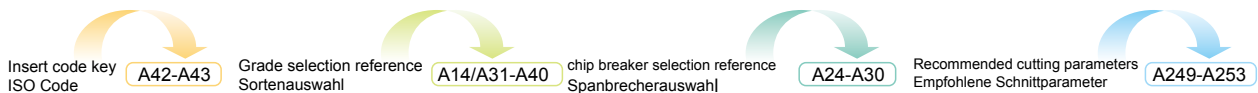
Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated / beschicht. Cermet	Uncoated Carbide / unbeschicht. Hartmetall									
		L	I.C.	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051
 SF Finishing Schlichten	CPGT060202-SF	6.4	6.35	2.38	2.8	0.2																●	●					
	CPGT060204-SF	6.4	6.35	2.38	2.8	0.4																●	●					
	CPGT09T304-SF	9.7	9.525	3.97	4.4	0.4																●	●					
 Flat	CPGW060204	6.4	6.35	2.38	2.8	0.4																				●		

Tool holder / Klemmhalter



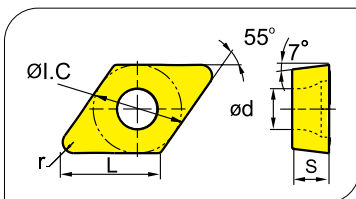
Page/Seite A235

General Turning · Allgemeine Drehbearbeitung





### DC\*\* Positive Insert/ Positive WSP



● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
● Normal Machining Condition / Normale Bearbeitungsbedingungen  
● Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

Workpiece Material / Werkstoffe	P	M	K	N	S
P Steel / Stahl	●●●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●
M Stainless Steel / Rostfreier Stahl	●●●●●●●●	●●●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●
K Cast iron / Gusseisen	●●●●●●●●	●●●●●●●●	●●●●●●●●●●	●●●●●●●●	●●●●●●●●
N Non-ferrite material / Ne Metalle	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●
S Heat-resistant steel / Warmfester Stahl	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●	●●●●●●●●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated beschicht. Cermet	Uncoated Carbide unbeschicht. Hartmetall											
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
 Finishing Schlichten	DCMT070202-EF	7.8	6.35	2.38	2.8	0.2																								
	DCMT070204-EF	7.8	6.35	2.38	2.8	0.4				○	●																			
	DCMT11T302-EF	11.6	9.525	3.97	4.4	0.2						●																		
	DCMT11T304-EF	11.6	9.525	3.97	4.4	0.4					○	●																		
	DCMT11T308-EF	11.6	9.525	3.97	4.4	0.8						●																		
 Medium Cut/ Mittl. Bearb.	DCMT070204-HM	7.8	6.35	2.38	2.8	0.4	●	●	●		●				●	○		●		●									○	
	DCMT070208-HM	7.8	6.35	2.38	2.8	0.8	●	●	●		○				●			●		●									○	
	DCMT11T304-HM	11.6	9.525	3.97	4.4	0.4	●	●	●		●			●	●	○		●		●									○	
	DCMT11T308-HM	11.6	9.525	3.97	4.4	0.8	●	●	●		●			●	●	○		●		●									○	
	DCMT11T312-HM	11.6	9.525	3.97	4.4	1.2	○	●	○							○			○											
 Medium Cut/ Mittl. Bearb.	DCMT070204-EM	7.8	6.35	2.38	2.8	0.4					○	●																		
	DCMT070208-EM	7.8	6.35	2.38	2.8	0.8						○																		
	DCMT11T304-EM	11.6	9.525	3.97	4.4	0.4									○	○														
	DCMT11T308-EM	11.6	9.525	3.97	4.4	0.8																								

### Tool holder / Klemmhalter



Page/Seite A187      A188      A189      A226      A227      A228

Insert code key ISO Code

A42-A43

Grade selection reference Sortenauswahl

A14/A31-A40

chip breaker selection reference Spanbrecherauswahl

A24-A30

Recommended cutting parameters Empfohlene Schnittparameter

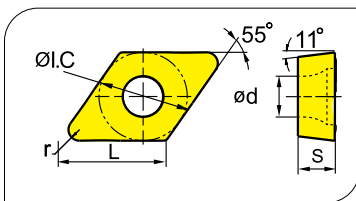
A249-A253



# Turning · Drehen

## Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP

### DP\*\* Positive Insert/ Positive WSP



Workpiece Material / Werkstoffe	Ideal Machining Condition / Gute Bearbeitungsbedingungen			Normal Machining Condition / Normale Bearbeitungsbedingungen			Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen		
	●	●	●	●	●	●	●	●	●
<b>P</b> Steel / Stahl	●	●	●	●	●	●	●	●	●
<b>M</b> Stainless Steel / Rostfreier Stahl	●	●	●	●	●	●	●	●	●
<b>K</b> Cast iron / Gusseisen	●	●	●	●	●	●	●	●	●
<b>N</b> Non-ferrous material / Ne Metalle	●	●	●	●	●	●	●	●	●
<b>S</b> Heat-resistant steel / Warmfester Stahl	●	●	●	●	●	●	●	●	●

insert shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtete Hartmetalle										Cermet unbeschichtet	Cermet Coated / Beschichtet, Cermet	carbide / Hartmetalle									
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051
SF  Finishing / Schlachten	DPGT070202-SF	7.8	6.35	2.38	2.8	0.2																	●	●				
	DPGT070204-SF	7.8	6.35	2.38	2.8	0.4																	●	●				
	DPGT070208-SF	7.8	6.35	2.38	2.8	0.8																						
	DPGT11T304-SF	11.6	9.525	3.97	4.4	0.4																	●	●				
	DPGT11T308-SF	11.6	9.525	3.97	4.4	0.8																	●	●				
Basic 	DPMW11T304	11.6	9.525	3.97	4.4	0.4																						
	DPMW11T308	11.6	9.525	3.97	4.4	0.8																				○		

### Tool holder / Klemmhalter



Page/Seite A236

A237

Insert code key / ISO Code

A42-A43

Grade selection reference / Sortenauswahl

A14/A31-A40

chip breaker selection reference / Spanbrecherauswahl

A24-A30

Recommended cutting parameters / Empfohlene Schnittparameter

A249-A253



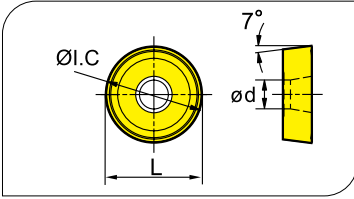
# Turning · Drehen

Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP


A

## RC\*\* Positive Insert/ Positive WSP

● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
⊗ Normal Machining Condition / Normale Bearbeitungsbedingungen  
⊗ Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



Workpiece Material / Werkstoffe	P	M	K	N	S
Steel / Stahl	●	●	●	●	●
Stainless Steel / Rostfreier Stahl	●	●	●	●	●
Cast iron / Gusseisen	●	●	●	●	●
Non-ferite material / Ne Metalle	●	●	●	●	●
Heat-resistant steel / Warmfester Stahl	●	●	●	●	●

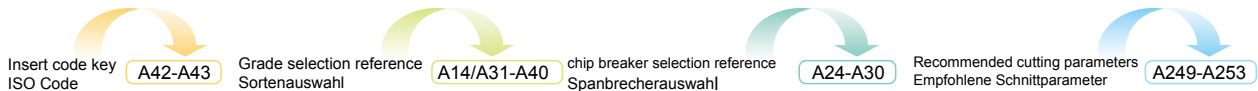
Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated beschicht. Cem.	Uncoated Carbide / unbeschicht. Hartmetall									
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051
 Light roughing / Leicht Schruppen	RCMX0803MO	8.0	8.0	3.18	3.36	\	○	●	○																			
	RCMX1003MO	10	10	3.18	3.6	\	●	●	●																			
	RCMX1204MO	12	12	4.76	4.4	\	●	●	●																○			
	RCMX1606MO	16	16	6.35	5.5	\	●	●	●										○						○			
	RCMX2006MO	20	20	6.35	6.5	\	●	●	●					●						●						○	○	
	RCMX2507MO	25	25	7.94	7.2	\	○	●	●																			
	RCMX3209MO	32	32	9.52	9.5	\	○	●	●											○								
	RCMX3209MO-PV	32	32	9.52	9.5	\	●																					

### Tool holder / Klemmhalter



Page/Seite A202

General Turning · Allgemeine Drehbearbeitung



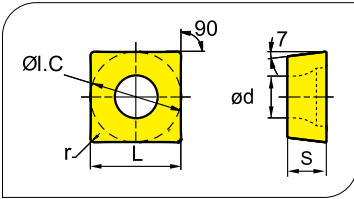
# Turning · Drehen

Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP

A

CC\*\* Positive Insert/ Positive WSP

● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
 ● Normal Machining Condition / Normale Bearbeitungsbedingungen  
 ● Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



Workpiece Material / Werkstoffe	P	M	K	N	S
	Steel / Stahl	Stainless Steel / Rostfreier Stahl	Cast iron / Gusseisen	Non-ferrite material / Ne Metalle	Heat-resistant steel / Warmfester Stahl
Steel / Stahl	●	●	●	●	●
Stainless Steel / Rostfreier Stahl	●	●	●	●	●
Cast iron / Gusseisen	●	●	●	●	●
Non-ferrite material / Ne Metalle				●	
Heat-resistant steel / Warmfester Stahl					●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall											Cermet unbeschichtet / unbeschichtet. Cermet	Uncoated Carbide / unbeschicht. Hartmetall									
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052		YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101
<b>HF</b>  Finishing Schlichten	SCMT09T302-HF	9.525	9.525	3.97	4.4	0.2	●	●																				
	SCMT09T304-HF	9.525	9.525	3.97	4.4	0.4	●	●		●																		
	SCMT09T308-HF	9.525	9.525	3.97	4.4	0.8	●	●		●			●															
<b>EF</b>  Finishing Schlichten	SCMT09T302-EF	9.525	9.525	3.97	4.4	0.2						○																
	SCMT09T304-EF	9.525	9.525	3.97	4.4	0.4							●															
	SCMT09T308-EF	9.525	9.525	3.97	4.4	0.8								●														
<b>HM</b>  Medium Cut/ Mittl. Bearb.	SCMT09T304-HM	9.525	9.525	3.97	4.4	0.4	●	●	●					●			●		●									○
	SCMT09T308-HM	9.525	9.525	3.97	4.4	0.8	●	●	●			●						●		●								●
	SCMT120404-HM	12.7	12.7	4.76	5.56	0.4	●	●													●							
	SCMT120408-HM	12.7	12.7	4.76	5.56	0.8	●	●	●				○		●			●		●								●
	SCMT120412-HM	12.7	12.7	4.76	5.56	1.2	○	●																				
<b>EM</b>  Finishing Schlichten	SCMT09T304-EM	9.525	9.525	3.97	4.4	0.4											●											
	SCMT09T308-EM	9.525	9.525	3.97	4.4	0.8											●											
	SCMT120404-EM	12.7	12.7	4.76	5.56	0.4															●							
	SCMT120408-EM	12.7	12.7	4.76	5.56	0.8															●							
	SCMT120412-EM	12.7	12.7	4.76	5.56	1.2																○						

Tool holder / Klemmhalter



Page/Seite A195

A195

A196

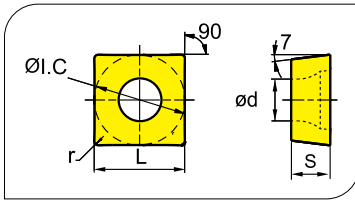
A196

A229

● Ex Stock / ab Lager ○ On demand / auf Anfrage

### SC\*\* Positive Insert/ Positive WSP

● Ideal Machining Condition  
Gute Bearbeitungsbedingungen
● Normal Machining Condition  
Normale Bearbeitungsbedingungen
● Unfavorable Machining Condition  
Ungünstige Bearbeitungsbedingungen



Workpiece Material / Werkstoffe	P	M	K	N	S
<b>P</b> Steel / Stahl	●●●	●●●	●●●	●●●	●●●
<b>M</b> Stainless Steel / Rostfreier Stahl	●●●	●●●	●●●	●●●	●●●
<b>K</b> Cast iron / Gusseisen	●●●	●●●	●●●	●●●	●●●
<b>N</b> Non-ferrous material / Ne Metalle	●●●	●●●	●●●	●●●	●●●
<b>S</b> Heat-resistant steel / Warmfester Stahl	●●●	●●●	●●●	●●●	●●●

insert shape Schneidplattenform	Type · Typ	Dimension (mm) Abmessung					Coated Carbide Beschichtete Hartmetalle												Cermet unbeschichtet	Cermet Coated beschicht. Cermet	carbide Hartmetalle							
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052	YBD102			YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051
	<b>SCGX09T302-LH</b>	9.525	9.525	3.97	4.4	0.2																						
	<b>SCGX09T304-LH</b>	9.525	9.525	3.97	4.4	0.4																						
	<b>SCGX09T308-LH</b>	9.525	9.525	3.97	4.4	0.8																						
	<b>SCGX120404-LH</b>	12.7	12.7	4.76	5.56	0.4																						
	<b>SCGX120408-LH</b>	12.7	12.7	4.76	5.56	0.8																						
	<b>SCMT09T304-HR</b>	9.525	9.525	3.97	4.4	0.4		○												○								
	<b>SCMT09T308-HR</b>	9.525	9.525	3.97	4.4	0.8	○	●										●	●									
	<b>SCMT09T312-HR</b>	9.525	9.525	3.97	4.4	1.2	○	○																				
	<b>SCMT120404-HR</b>	12.7	12.7	4.76	5.56	0.4	●	●																				
	<b>SCMT120408-HR</b>	12.7	12.7	4.76	5.56	0.8	○	●	●							○	●											
<b>Basic</b> 	<b>SCMT09T304</b>	9.525	9.525	3.97	4.4	0.4	○	○																				○
	<b>SCMT120404</b>	12.7	12.7	4.76	5.56	0.4	○	○	○																			
	<b>SCMT120408</b>	12.7	12.7	4.76	5.56	0.8																						
<b>Flat</b> 	<b>SCMW060204</b>	6.35	6.35	2.38	2.8	0.4												○	○									●
	<b>SCMW09T304</b>	9.525	9.525	3.97	4.4	0.4																			○	○		
	<b>SCMW09T308</b>	9.525	9.525	3.97	4.4	0.8												○	○									
	<b>SCMW120408</b>	12.7	12.7	4.76	5.56	0.8												○	○									○

### Tool holder / Klemmhalter



Page/Seite A195          A195          A196          A196          A229

Insert code key / ISO Code [A42-A43](#)
Grade selection reference / Sortenauswahl [A14/A31-A40](#)
chip breaker selection reference / Spanbrecherauswahl [A24-A30](#)
Recommended cutting parameters / Empfohlene Schnittparameter [A249-A253](#)

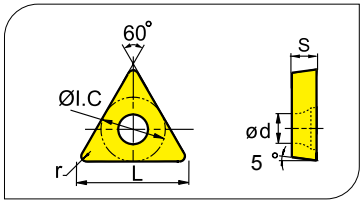


# Turning · Drehen

Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP

# A

## TB\*\* Positive Insert/ Positive WSP

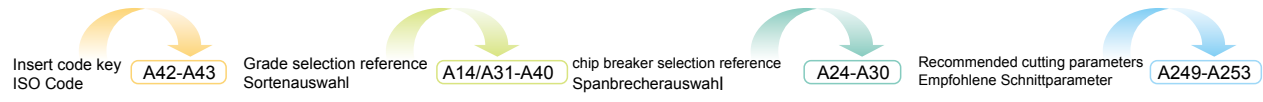


● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
● Normal Machining Condition / Normale Bearbeitungsbedingungen  
● Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

Workpiece Material / Werkstoffe	P Steel / Stahl	M Stainless Steel / Rostfreier Stahl	K Cast iron / Gusseisen	N Non-ferrite material / Ne Metalle	S Heat-resistant steel / Warmfester Stahl
P	●●●●●●●●●●●●				
M		●●●●●●●●●●●●			
K			●●●●●●●●●●●●		
N				●●●●●●●●●●●●	
S					●●●●●●●●●●●●

Insert Shape Schneidplattenform	Type · Typ	Dimension (mm) Abmessung					Coated Carbide Beschichtetes Hartmetall												Cermet unbeschichtet	Cermet Coated beschicht. Cermet	Uncoated Carbide unbeschicht. Hartmetall								
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052	YBD102			YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101
	<b>TBGH060102L</b>	6.4	3.97	1.59	2.2	0.2																							
	<b>TBGH060104L</b>	6.4	3.97	1.59	2.2	0.4																							

General Turning · Allgemeine Drehbearbeitung



# Turning · Drehen

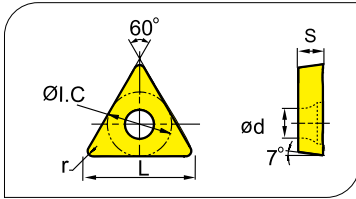
Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP

A


General Turning · Allgemeine Drehbearbeitung

## TC\*\* Positive Insert/ Positive WSP

● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
 ● Normal Machining Condition / Normale Bearbeitungsbedingungen  
 ● Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



Workpiece Material / Werkstoffe	P	M	K	N	S
Steel / Stahl	●	●	●	●	●
Stainless Steel / Rostfreier Stahl		●	●	●	●
Cast iron / Gusseisen			●	●	●
Non-ferrous material / Nf Metalle				●	●
Heat-resistant steel / Warmfester Stahl					●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated / beschicht. Cermet	Uncoated Carbide / unbeschicht. Hartmetall									
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051
 Finishing / Schlichten	TCGT06T102-SF	6.4	3.97	1.98	2.2	0.2																○	●					
	TCGT06T104-SF	6.4	3.97	1.98	2.2	0.4																						
	TCGT090202-SF	9.6	5.56	2.38	2.5	0.2																●	●					
	TCGT090204-SF	9.6	5.56	2.38	2.5	0.4																●	●					
	TCGT090208-SF	9.6	5.56	2.38	2.5	0.8																	●					
	TCGT110302-SF	11	6.35	3.18	2.8	0.2																	●					
	TCGT110304-SF	11	6.35	3.18	2.8	0.4																●	●					
	TCGT110308-SF	11	6.35	3.18	2.8	0.8																	●					

### Tool holder / Klemmhalter



Page/Seite A197

A197

A198

A199

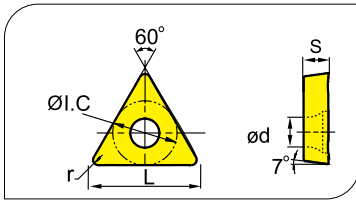
A230

● Ex Stock / ab Lager ○ On demand / auf Anfrage

# Turning · Drehen

Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP

## TC\*\* Positive Insert/ Positive WSP



Workpiece Material Werkstoffe	Ideal Machining Condition Gute Bearbeitungsbedingungen			Normal Machining Condition Normale Bearbeitungsbedingungen			Unfavorable Machining Condition Ungünstige Bearbeitungsbedingungen		
	P	M	K	N	S				
<b>P</b> Steel / Stahl	●	●	●	●	●	●	●	●	●
<b>M</b> Stainless Steel / Rostfreier Stahl		●	●	●	●	●	●	●	●
<b>K</b> Cast iron / Gusseisen						●	●	●	●
<b>N</b> Non-ferrite material / Ne Metalle				●					●
<b>S</b> Heat-resistant steel / Warmfester Stahl					●	●			●

Insert Shape Schneidplattenform	Type · Typ	Dimension (mm) Abmessung					Coated Carbide Beschichtetes Hartmetall												Cermet unbeschichtet	Cermet Coated beschicht. Cermet	Uncoated Carbide unbeschicht. Hartmetall							
		L	l.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052	YBD102			YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051
<b>HF</b>    Finishing Schlichten	TCMT06T104-HF	6.4	3.97	1.98	2.2	0.4																						
	TCMT06T108-HF	6.4	3.97	1.98	2.2	0.8																						
	TCMT090202-HF	9.6	5.56	2.38	2.5	0.2		●														●						
	TCMT090204-HF	9.6	5.56	2.38	2.5	0.4	●							●									●					
	TCMT090208-HF	9.6	5.56	2.38	2.5	0.8	○	●															●					
	TCMT110202-HF	11	6.35	2.38	2.8	0.2		●			●																	
	TCMT110204-HF	11	6.35	2.38	2.8	0.4	●	●	○														●	●				
	TCMT110208-HF	11	6.35	2.38	2.8	0.8	●		○						●								●					
	TCMT16T302-HF	16.5	9.525	3.97	4.4	0.2																						
	TCMT16T304-HF	16.5	9.525	3.97	4.4	0.4	●	●			●		○										●					
	TCMT16T308-HF	16.5	9.525	3.97	4.4	0.8	●	●															●					

### Tool holder / Klemmhalter



Page/Seite A197 A197 A198 A199 A230

Insert code key  
ISO Code

A42-A43

Grade selection reference  
Sortenauswahl

A14/A31-A40

chip breaker selection reference  
Spanbrecherauswahl

A24-A30

Recommended cutting parameters  
Empfohlene Schnittparameter

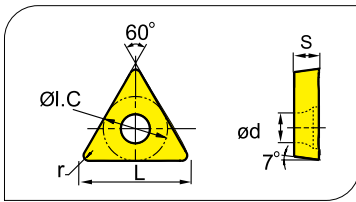
A249-A253

# Turning · Drehen



Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP

## TC\*\* Positive Insert/ Positive WSP

● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
 ● Normal Machining Condition / Normale Bearbeitungsbedingungen  
 ● Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



Workpiece Material / Werkstoffe	P	M	K	N	S
Steel / Stahl	●	●	●	●	●
Stainless Steel / Rostfreier Stahl	●	●	●	●	●
Cast iron / Gusseisen	●	●	●	●	●
Non-ferrous material / Ne Metalle	●	●	●	●	●
Heat-resistant steel / Warmfester Stahl	●	●	●	●	●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated / beschicht. Cermet	Uncoated Carbide / unbeschicht. Hartmetall										
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101
EF  Finishing / Schlichten	TCMT090202-EF	9.6	5.56	2.38	2.5	0.2																							
	TCMT090204-EF	9.6	5.56	2.38	2.5	0.4																							
	TCMT110202-EF	11	6.35	2.38	2.8	0.2																							
	TCMT110204-EF	11	6.35	2.38	2.8	0.4																							
	TCMT110208-EF	11	6.35	2.38	2.8	0.8																							
	TCMT16T304-EF	16.5	9.525	3.97	4.4	0.4																							
	TCMT16T308-EF	16.5	9.525	3.97	4.4	0.8																							
EM  Medium Cut / Mittl. Bearb.	TCMT090204-EM	9.6	5.56	2.38	2.8	0.4																							
	TCMT090208-EM	9.6	5.56	2.38	2.8	0.8																							
	TCMT110204-EM	11	6.35	2.38	2.8	0.4																							
	TCMT110208-EM	11	6.35	2.38	2.8	0.8																							
	TCMT110212-EM	11	6.35	2.38	2.8	1.2																							
	TCMT16T304-EM	16.5	9.525	3.97	4.4	0.4																							
	TCMT16T308-EM	16.5	9.525	3.97	4.4	0.8																							
	TCMT16T312-EM	16.5	9.525	3.97	4.4	1.2																							

### Tool holder / Klemmhalter



Page/Seite A197

A197

A198

A199

A230

● Ex Stock / ab Lager ○ On demand / auf Anfrage





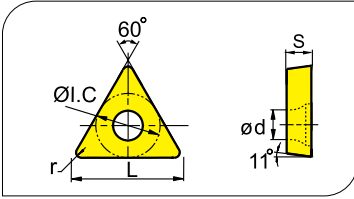
# Turning · Drehen

Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP



A

## TP\*\* Positive Insert/ Positive WSP

● Ideal Machining Condition / Gute Bearbeitungsbedingungen    
 ⊗ Normal Machining Condition / Normale Bearbeitungsbedingungen    
 ⊗ Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



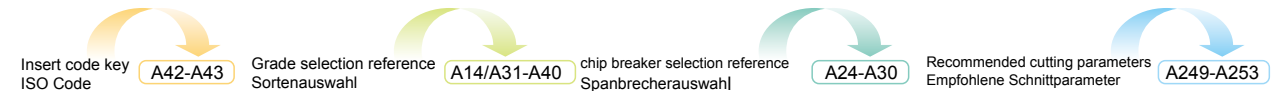
Workpiece Material / Werkstoffe	P	M	K	N	S
Steel / Stahl	●	●	●	●	●
Stainless Steel / Rostfreier Stahl	●	●	●	●	●
Cast iron / Gusseisen	●	●	●	●	●
Non-ferrous material / Ne Metalle	●	●	●	●	●
Heat-resistant steel / Warmfester Stahl	●	●	●	●	●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated / beschicht. Cermet	Uncoated Carbide / unbeschicht. Hartmetall									
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051
 Finishing / Schlichten	TPGT090202-SF	9.6	5.56	2.38	2.5	0.2																○	●					
	TPGT090204-SF	9.6	5.56	2.38	2.5	0.4																●	●					
	TPGT090208-SF	9.6	5.56	2.38	2.5	0.8																○	●					
	TPGT110302-SF	11	6.35	3.18	2.8	0.2																●	●					
	TPGT110304-SF	11	6.35	3.18	2.8	0.4																●	●					
	TPGT110308-SF	11	6.35	3.18	2.8	0.8																○	●					
 Super Finishing / Super Schlichten	TPGH090202L	9.6	5.56	2.38	2.5	0.2															○							
	TPGH090204L	9.6	5.56	2.38	2.5	0.4															○							
	TPGH110302L	11	6.35	3.18	2.8	0.2															○							
	TPGH110304L	11	6.35	3.18	2.8	0.4															○							

### Tool holder / Klemmhalter



Page/Seite A238



General Turning · Allgemeine Drehbearbeitung



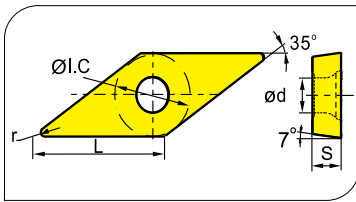


# Turning · Drehen

Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP

## VC\*\* Positive Insert/ Positive WSP

● Ideal Machining Condition / Gute Bearbeitungsbedingungen  
 ● Normal Machining Condition / Normale Bearbeitungsbedingungen  
 ● Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



Workpiece Material / Werkstoffe	P	M	K	N	S
Steel / Stahl	●	●	●	●	●
Stainless Steel / Rostfreier Stahl	●	●	●	●	●
Cast iron / Gusseisen	●	●	●	●	●
Non-ferrite material / Ne Metalle	●	●	●	●	●
Heat-resistant steel / Warmfester Stahl	●	●	●	●	●

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated / beschicht. Cermet	Uncoated Carbide / unbeschicht. Hartmetall								
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40
<b>SF</b>  Finishing Schlichten	<b>VCGT110302-SF</b>	11	6.35	3.18	2.8	0.2																●	●				
	<b>VCGT110304-SF</b>	11	6.35	3.18	2.8	0.4																●	●				
	<b>VCGT160404-SF</b>	16.5	9.525	4.8	4.4	0.4																	○				
<b>HF</b>  Finishing Schlichten	<b>VCGT110304-HF</b>	11	6.35	3.18	2.8	0.4	●																				
	<b>VCGT130304</b>	13.8	7.94	3.3	3.4	0.4	●																				
<b>NF</b>  Finishing Schlichten	<b>VCGT160408-NF</b>	16.5	9.525	4.76	4.4	0.8																					

### Tool holder / Klemmhalter



Page/Seite A231

A232

A193

A194

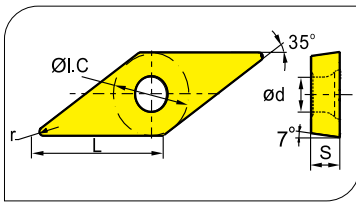
● Ex Stock / ab Lager ○ On demand / auf Anfrage

# Turning · Drehen

Cemented carbide and cermet Inserts · Hartmetall und Cermet WSP

A

## VC\*\* Positive Insert/ Positive WSP



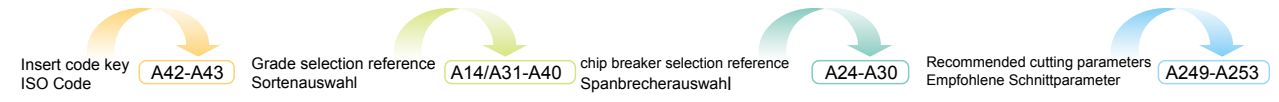
Workpiece Material Werkstoffe	Ideal Machining Condition Gute Bearbeitungsbedingungen			Normal Machining Condition Normale Bearbeitungsbedingungen			Unfavorable Machining Condition Ungünstige Bearbeitungsbedingungen		
	P	M	K	N	S				
<b>P</b> Steel / Stahl	●	●	●	●	●	●	●	●	●
<b>M</b> Stainless Steel / Rostfreier Stahl		●	●	●	●	●	●	●	●
<b>K</b> Cast iron / Gusseisen						●	●	●	●
<b>N</b> Non-ferrous material / Ne Metalle				●					●
<b>S</b> Heat-resistant steel / Warmfester Stahl				●	●				●

Insert Shape Schneidplattenform	Type · Typ	Dimension (mm) Abmessung					Coated Carbide Beschichtetes Hartmetall										Cermet unbeschichtet	Cermet Coated beschicht. Cermet	Uncoated Carbide unbeschicht. Hartmetall									
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351			YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051
<b>LH</b>  Aluminium Machining/ Aluminium- bearbeitung	VCGX110202-LH	11	6.35	2.38	2.8	0.2																						
	VCGX110204-LH	11	6.35	2.38	2.8	0.4				●																	●	
	VCGX110301-LH	11	6.35	3.18	2.8	0.1				○																		○
	VCGX110302-LH	11	6.35	3.18	2.8	0.2				●	●																●	
	VCGX110304-LH	11	6.35	3.18	2.8	0.4				●	●																●	
	VCGX110308-LH	11	6.35	3.18	2.8	0.8																						
	VCGX160402-LH	16.6	9.525	4.76	4.4	0.2				●	●																●	
	VCGX160404-LH	16.6	9.525	4.76	4.4	0.4				●	●																●	
	VCGX160408-LH	16.6	9.525	4.76	4.4	0.8				●	●																●	
	VCGX160412-LH	16.6	9.525	4.76	4.4	1.2					○																●	○
VCGX220530-LH	22	12.7	5.56	5.5	3.0					○																●	○	

### Tool holder / Klemmhalter



Page/Seite A231                      A232                      A193                      A194



General Turning · Allgemeine Drehbearbeitung

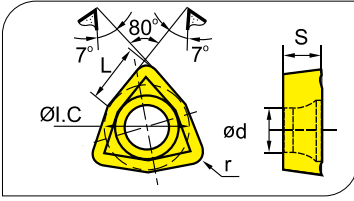






### WC\*\* Positive Insert/ Positive WSP

- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- Normal Machining Condition / Normale Bearbeitungsbedingungen
- Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen



Workpiece Material / Werkstoffe	P	M	K	N	S	Machining Conditions																	
						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
Steel / Stahl	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless Steel / Rostfreier Stahl	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast iron / Gusseisen	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Non-ferrous material / Ne Metalle	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat-resistant steel / Warmfester Stahl	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

insert shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					Coated Carbide / Beschichtete Hartmetalle														Cermet unbeschichtet	Cermet Coated / Beschicht. Cermet	carbide / Hartmetalle					
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052	YBD102	YBD151	YBD152			YBD252	YNG151	YNG151C	YC10	YC40	YD051
	<b>WCMX040208R-53</b>	4.3	6.35	2.38	3.1	0.8																						
	<b>WCMX06T308R-53</b>	6.5	9.525	3.97	3.7	0.8																						
	<b>WCMX080412R-53</b>	8.7	12.7	4.76	4.3	1.2																						

### Tool holder / Klemmhalter



Page/Seite A200

Insert code key / ISO Code

A42-A43

Grade selection reference / Sortenauswahl

A14/A31-A40

chip breaker selection reference / Spanbrecherauswahl

A24-A30







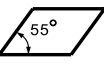







Recommended cutting parameters / Empfohlene Schnittparameter

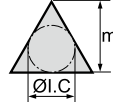

A249-A253



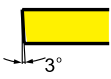
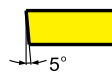
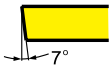
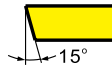

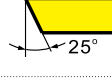
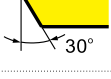
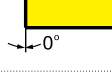

# Turning · Drehen






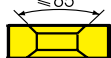
PCBN & PCD Inserts Code Key · PCBN & PCD ISO Kennzeichnung WSP

Insert shape / Schneidplattenform		
 <b>A</b>	 <b>B</b>	 <b>C</b>
 <b>D</b>	 <b>E</b>	 <b>H</b>
 <b>K</b>	 <b>L</b>	 <b>M</b>
 <b>P</b>	 <b>S</b>	 <b>T</b>
 <b>V</b>	 <b>W</b>	<b>Others</b> <b>Z</b>

Tolerance / Toleranzklasse							
							
Code	Tolerance Toleranzklasse	Tolerance ØI.C	Thickness S Dicke	Code	Tolerance	Tolerance ØI.C	Thickness S Dicke
<b>A</b>	±0.005	±0.025	±0.025	<b>J</b>	±0.005	±0.05-±0.13	±0.025
<b>F</b>	±0.005	±0.013	±0.025	<b>K</b>	±0.013	±0.05-±0.13	±0.025
<b>C</b>	±0.013	±0.025	±0.025	<b>L</b>	±0.025	±0.05-±0.13	±0.025
<b>H</b>	±0.013	±0.013	±0.025	<b>M</b>	±0.08-±0.18	±0.05-±0.13	±0.13
<b>E</b>	±0.025	±0.025	±0.025	<b>N</b>	±0.08-±0.18	±0.05-±0.13	±0.025
<b>G</b>	±0.025	±0.025	±0.13	<b>U</b>	±0.13-±0.38	±0.08-±0.25	±0.13

**C N G A**

Clearance angle of main cutting edge Freiwinkel der Hauptschneide			
Code	Angle / Winkel	Code	Angle / Winkel
<b>A</b>	 3°	<b>B</b>	 5°
<b>C</b>	 7°	<b>D</b>	 15°
<b>E</b>	 20°	<b>F</b>	 25°
<b>G</b>	 30°	<b>N</b>	 0°
<b>P</b>	 11°	<b>O</b>	Others

Insert type / Plattentyp		
Code	Hole	Insert Section
<b>N</b>	---	
<b>B</b>	✓	
<b>C</b>	✓	
<b>A</b>	✓	
<b>W</b>	✓	
<b>Q</b>	✓	
<b>X</b>	---	Special

Cutting edge length / Schneidenlänge (mm)		Insert Shape/ Plattenform					
Ø.I.C (mm)	C	D	S	T	V	W	
3.97				06			
5.0				09			
5.56							
6.0							
6.35	06	07		11	11		
8.0							
9.525	09	11	09	16	16	06	
10.0							
12.0							
12.7	12	15	12	22	22	08	
15.875	16		15	27			
16.0		19					
19.05	19		19	33			
20.0							
25.0	25	25					
25.4			25				
31.75							
32							

Insert thickness / Dicke (mm)			
thickness		thickness	
Code	Insert Thickness / Dicke	Code	Insert Thickness / Dicke
02	2.38	06	6.35
T2	2.58	T6	6.75
03	3.18	07	7.94
T3	3.97	09	9.52
04	4.76	T9	9.72
T4	4.96	11	11.11
05	5.56	12	12.70
T5	5.95		

Nose radius Eckenradius	
Code	Radius (mm)
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	Others Andere
Mo	Round Insert Runde Platten

**12 04 08 T 3 1 -2 W**

Profile of cutting edges Schneidkantenausführung		
Code	Cutting Edge Schneidkante	Shape Form Plattenform
F	Sharp edges Scharfe Kante	
E	Honing Verrundung	
T	Chamfering Fase	
S	Chamfering Fase + Honing Verrundung	


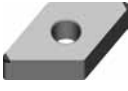





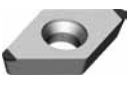



Angle of Chamfer Winkel der Fase	
Code	Angle
0	5°
1	10°
2	15°
3	20°
4	25°
5	30°

Width of Chamfer Breite der Fase	
Code	Width
0	0.1
1	0.15
2	0.2
3	0.25
4	0.3
5	0.35
6	0.4
7	0.45








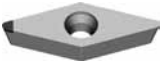

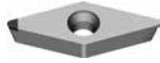
Number of cutting edges Anzahl der Schneidkanten		
Code	Number of edges Anzahl der Schneidkanten	Diagram
1	1	
2	2	
3	3	
4	4	

Wiper edge Wiperfase
<b>W</b>

## PCBN

	Insert Shape Schneidplattenform	Type · Typ	Grade · Sorte			
			YCB111	YCB121	YCB131	YCB211
Negative Inserts · WSP	 A118	CNGA120404-2	●	●	●	○
		CNGA120408-2	●	●	●	●
		CNGA120412-2	●	●	●	●
		CNGA120408-2W	●	●		
		CNGA120412-2W	●	●		
	 A119	DNGA150604-2	●	●		○
		DNGA150608-2	●	●	○	●
		DNGA150612-2	●	●	○	○
	 A120	SNGA120408-2	○	●	●	○
		SNGA120412-2	○	●	●	○
	 A121	TNGA160404-3	●	●		
		TNGA160408-3	●	●	●	●
		TNGA160412-3	●	●	●	●
	 A122	VNGA160404-2	●	○		
		VNGA160408-2	●	○		
	 A122	WNGA160404-3		●		
		WNGA160408-3		●		
	Positive Inserts · WSP	 A123	CCGW060204-1	●	●	
CCGW060208-1			●	●		
CCGW09T304-2			●	●	○	●
CCGW09T308-2			●	●	○	●
CCGW120404-2			○	●	○	●
CCGW120408-2			○	●	○	●
 A124		DCGW070202-1	○	○		
		DCGW070204-1	●	●		
		DCGW070208-1	●	●		
		DCGW11T304-2	●	●	○	●
		DCGW11T308-2	●	●	○	●
 A125		TCGW110204-1	●	●	○	
		TCGW110208-1	●	●	○	
		TCGW16T304-3	●	●	○	○
		TCGW16T308-3	●	●	○	○
 A126		VBGW160404-2	●	●		●
		VBGW160408-2	●	●		●
 A126		VCGW160404-2	●	●		●
	VCGW160408-2	●	●		●	

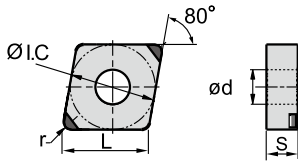
## PCD

Insert Shape Schneidplattenform	Type · Typ	Grade · Sorte
		YCD421
 A127	CCMT060202	•
	CCMT060204	•
	CCMT09T304	•
	CCMT09T308	•
	CCMT120404	•
	CCMT120408	•
 A128	CCMW060202	•
	CCMW060204	•
	CCMW09T304	•
	CCMW09T308	•
	CCMW120404	•
	CCMW120408	•
 A129	DCMT070202	•
	DCMT070204	•
	DCMT11T302	•
	DCMT11T304	•
	DCMT11T308	•
 A130	DCMW070202	•
	DCMW070204	•
	DCMW070208	•
	DCMW11T302	•
	DCMW11T304	•
	DCMW11T308	•
 A131	TCMT110204	•
	TCMT16T304	•
	TCMT16T308	•
 A132	TCMW110208	•
	TCMW160304	•
	TCMW160308	•
 A133	VBMT160404	•
	VBMT160408	•
 A133	VBMW160404	•
	VBMW160408	•
 A134	VCMT160404	•
	VCMT160408	•
 A134	VCMW160404	•
	VCMW160408	•

# Turning · Drehen

PCBN & PCG Inserts · PCBN & PCG WSP

CN\*\*



● Continuous cutting  
Vollschnitt

● Continuous and interrupted cutting  
Voll- und leicht unterbrochener Schnitt

● Interrupted cutting  
Stark unterbrochener Schnitt

Workpiece Material Werkstoffe	H	Hardened material / Gehärtete Werkstoff	●	●	●				
	K	Cast iron / Gusseisen							●
	N	Non-ferrite material / Nichte Metalle							

Insert Shape Schneid- plattenform	Type · Typ	Dimension (mm) Abmessung					CBN			
		L	I.C	S	d	r	YCB111	YCB121	YCB131	YCB211
	CNGA120404-2	12.9	12.7	4.76	5.16	0.4	●	●	●	○
	CNGA120408-2	12.9	12.7	4.76	5.16	0.8	●	●	●	●
	CNGA120412-2	12.9	12.7	4.76	5.16	1.2	●	●	●	●
	CNGA120408-2W	12.9	12.7	4.76	5.16	0.8	●	●		
	CNGA120412-2W	12.9	12.7	4.76	5.16	1.2	●	●		

Tool Holder · Klemmhalter

PCLNR/L

Kr:95°



MCLNR/L

Kr:95°



PCLNR/L

Kr:95°



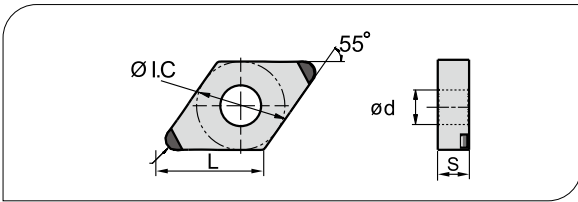
Page -Seite A159

A171

A216

● Ex Stock / ab Lager ○ On demand / auf Anfrage

### DN\*\*



- Continuous cutting  
Vollschnitt
- ⊗ Continuous and interrupted cutting  
Voll- und leicht unterbrochener Schnitt
- ⊛ Interrupted cutting  
Stark unterbrochener Schnitt

Workpiece Material Werkstoffe	H	Hardened material / Gehärtete Werkstoff	●	⊗	⊛				
	K	Cast iron / Gusseisen						●	
	N	Non-ferrous material / Nichte Metalle							

Insert Shape Schneid- plattenform	Type · Typ	Dimension (mm) Abmessung					CBN			
		L	I.C	S	d	r	YCB111	YCB121	YCB131	YCB211
	<b>DNGA150604-2</b>	15.5	12.7	6.35	5.16	0.4	●	●	●	○
	<b>DNGA150608-2</b>	15.5	12.7	6.35	5.16	0.8	●	●	○	●
	<b>DNGA150612-2</b>	15.5	12.7	6.35	5.16	1.2	●	●	○	○

General Turning · Allgemeine Drehbearbeitung

#### Tool Holder · Klemmhalter



Page · Seite A160

A161

A172

A173

A218

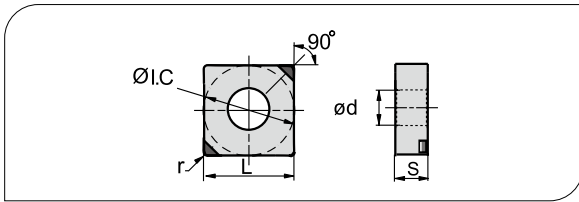
A219

● Ex Stock / ab Lager ○ On demand / auf Anfrage

# Turning · Drehen

PCBN & PCG Inserts · PCBN & PCG WSP

**SN\*\***



- Continuous cutting  
Vollschnitt
- Continuous and interrupted cutting  
Voll- und leicht unterbrochener Schnitt
- Interrupted cutting  
Stark unterbrochener Schnitt

Workpiece Material Werkstoffe	<b>H</b> Hardened material / Gehärtete Werkstoff								
	<b>K</b> Cast iron / Gusseisen								
	<b>N</b> Non-ferrite material / Nichte Metalle								

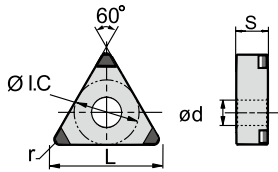
Insert Shape Schneid- plattenform	Type · Typ	Dimension (mm) Abmessung					CBN			
		L	I.C	S	d	r	YCB111	YCB121	YCB131	YCB211
	<b>SNGA120408-2</b>	12.7	12.7	4.76	5.16	0.8				
	<b>SNGA120412-2</b>	12.7	12.7	4.76	5.16	1.2				

## Tool Holder · Klemmhalter

<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° 	<b>MSKNR/L</b> Kr:75° 
Page · Seite A162	A163	A164	A165	A162	A175	A176
<b>MSDNN</b> Kr:45° 	<b>PSKNR/L</b> Kr:75° 					
Page · Seite A177	A221					

● Ex Stock / ab Lager ○ On demand / auf Anfrage

## TN\*\*



● Continuous cutting  
Vollschnitt

● Continuous and interrupted cutting  
Voll- und leicht unterbrochener Schnitt

☼ Interrupted cutting  
Stark unterbrochener Schnitt

Workpiece Material Werkstoffe	H	Hardened material / Gehärtete Werkstoff	●	☼	☼					
	K	Cast iron / Gusseisen							●	
	N	Non-ferrous material / Nichte Metalle								

Insert Shape Schneid- plattenform	Type · Typ	Dimension (mm) Abmessung					CBN			
		L	I.C	S	d	r	YCB111	YCB121	YCB131	YCB211
	<b>TNGA160404-3</b>	16.5	9.525	4.76	3.81	0.4	●	●		
	<b>TNGA160408-3</b>	16.5	9.525	4.76	3.81	0.8	●	●	●	●
	<b>TNGA160412-3</b>	16.5	9.525	4.76	3.81	1.2	●	●	●	●

### Tool Holder · Klemmhalter



Page · Seite A166

A167

A168

A178

A179

A180

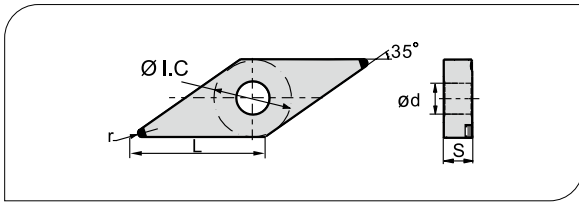
A222

● Ex Stock / ab Lager ○ On demand / auf Anfrage

# Turning · Drehen

PCBN & PCG Inserts · PCBN & PCG WSP

## VN\*\*



- Continuous cutting  
Vollschnitt
- ⊗ Continuous and interrupted cutting  
Voll- und leicht unterbrochener Schnitt
- ⊗ Intermittent cutting  
Stark unterbrochener Schnitt

Workpiece Material Werkstoffe	Material			
	H	K	N	
H	Hardened material / Gehärtete Werkstoff			
K	Cast iron / Gusseisen			●
N	Non-ferrous material / Nichte Metalle			

Insert Shape Schneid- plattenform	Type · Typ	Dimension (mm) Abmessung					CBN			
		L	I.C	S	d	r	YCB111	YCB121	YCB131	YCB211
	VNGA160404-2	16.6	9.525	4.76	3.81	0.4	●	○		
	VNGA160408-2	16.6	9.525	4.76	3.81	0.8	●	○		

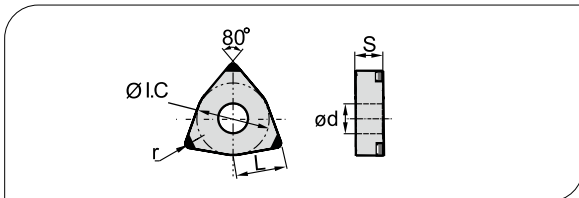
Tool Holder · Klemmhalter



Page · Seite A181

A182

## WN\*\*



- Continuous cutting  
Vollschnitt
- ⊗ Continuous and interrupted cutting  
Voll- und leicht unterbrochener Schnitt
- ⊗ Intermittent cutting  
Stark unterbrochener Schnitt

Workpiece Material Werkstoffe	Material			
	H	K	N	
H	Hardened material / Gehärtete Werkstoff			
K	Cast iron / Gusseisen			●
N	Non-ferrous material / Nichte Metalle			

Insert Shape Schneid- plattenform	Type · Typ	Dimension (mm) Abmessung					CBN			
		L	I.C	S	d	r	YCB111	YCB121	YCB131	YCB211
	WNGA080408-3	8.69	12.7	4.76	5.16	0.8		●		
	WNGA160404-3	8.69	12.7	4.76	5.16	0.4		●		
	WNGA160408-3	8.69	12.7	4.76	5.16	0.8				

Tool Holder · Klemmhalter



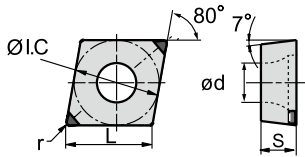
Page · Seite A169

A183

A223

● Ex Stock / ab Lager ○ On demand / auf Anfrage

### CC\*\*



- Continuous cutting  
Vollschnitt
- ⊗ Continuous and interrupted cutting  
Voll- und leicht unterbrochener Schnitt
- ⊙ Interrupted cutting  
Stark unterbrochener Schnitt

Workpiece Material Werkstoffe	Workpiece Material / Werkstoffe			
	<b>H</b> Hardened material / Gehärtete Werkstoff	●	⊗	⊙
<b>K</b> Cast iron / Gusseisen				●
<b>N</b> Non-ferrite material / Ne Metalle				

Insert Shape Schneid- plattenform	Type · Typ	Dimension (mm) Abmessung					CBN			
		L	I.C	S	d	r	YCB111	YCB121	YCB131	YCB211
	<b>CCGW060204-1</b>	6.4	6.35	2.38	2.8	0.4	●	●		
	<b>CCGW060208-1</b>	6.4	6.35	2.38	2.8	0.8	●	●		
	<b>CCGW09T304-2</b>	9.7	9.525	3.97	4.4	0.4	●	●	○	●
	<b>CCGW09T308-2</b>	9.7	9.525	3.97	4.4	0.8	●	●	○	●
	<b>CCGW120404-2</b>	12.9	12.7	4.76	5.5	0.4	○	●	○	●
	<b>CCGW120408-2</b>	12.9	12.7	4.76	5.5	0.8	○	●	○	●

### Tool Holder · Klemmhalter



Page · Seite A185

A186

A224

A239

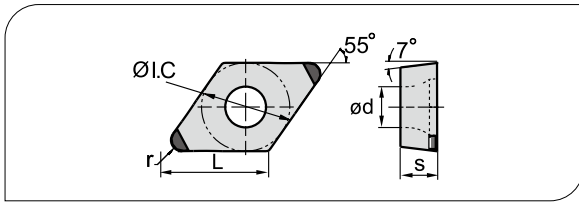
A240

● Ex Stock / ab Lager ○ On demand / auf Anfrage

# Turning · Drehen

PCBN & PCG Inserts · PCBN & PCG WSP

**DC\*\***



● Continuous cutting  
Vollschnitt

⊗ Continuous and interrupted cutting  
Voll- und leicht unterbrochener Schnitt

⊙ Interrupted cutting  
Stark unterbrochener Schnitt

Workpiece Material Werkstoffe	H	Hardened material / Gehärtete Werkstoff	●	⊗	⊙				
	K	Cast iron / Gusseisen						●	
	N	Non-ferrite material / Ne Metalle							

Insert Shape Schneid- plattenform	Type · Typ	Dimension (mm) Abmessung					CBN			
		L	I.C	S	d	r	YCB111	YCB121	YCB131	YCB211
	DCGW070204-1	7.8	6.35	2.38	2.8	0.4	●	●		
	DCGW070208-1	7.8	6.35	2.38	2.8	0.8	●	●		
	DCGW11T304-2	11.6	9.525	3.97	4.4	0.4	●	●	○	●
	DCGW11T308-2	11.6	9.525	3.97	4.4	0.8	●	●	○	●

Tool Holder · Klemmhalter

**SDACR/L**  
Kr:90°



Page-Seite A187

**SDJCR/L**  
Kr:93°



A188

**SDNCN**  
Kr:45°



A189

**SDQCR/L**  
Kr:107°30'



A226

**SDUCR/L**  
Kr:93°



A227

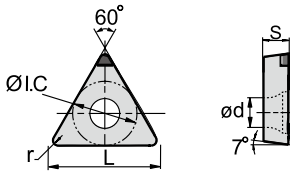
**SDZCR/L**  
Kr:85°



A228

● Ex Stock / ab Lager ○ On demand / auf Anfrage

### TC\*\*



● Continuous cutting  
Vollschnitt

⊗ Continuous and interrupted cutting  
Voll- und leicht unterbrochener Schnitt

⊗ Interrupted cutting  
Stark unterbrochener Schnitt

Workpiece Material Werkstoffe	H	Hardened material / Gehärtete Werkstoff	●	⊗	⊗					
	K	Cast iron / Gussseisen							●	
	N	Non-ferrite material / Nichte Metalle								

Insert Shape Schneid- plattenform	Type · Typ	Dimension (mm) Abmessung					CBN			
		L	I.C	S	d	r	YCB111	YCB121	YCB131	YCB211
	TCGW110204-1	9.6	5.56	2.38	2.5	0.4	●	●	○	
	TCGW110208-1	9.6	5.56	2.38	2.5	0.8	●	●	○	
	TCGW16T304-3	16.5	9.525	3.97	4.4	0.4	●	●	○	○
	TCGW16T308-3	16.5	9.525	3.97	4.4	0.8	●	●	○	○

### Tool Holder · Klemmhalter

**STACR/L**  
Kr:90°



**STFCR/L**  
Kr:91°



**STGCR/L**  
Kr:91°



**STTCR/L**  
Kr:60°



**STFCR/L**  
Kr:90°



Page · Seite A197

A197

A198

A199

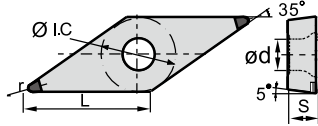
A230

● Ex Stock / ab Lager ○ On demand / auf Anfrage

# Turning · Drehen

PCBN & PCG Inserts · PCBN & PCG WSP

## VB\*\*



- Continuous cutting / Vollschnitt
- Continuous and interrupted cutting / Voll- und leicht unterbrochener Schnitt
- ☼ Interrupted cutting / Stark unterbrochener Schnitt

Workpiece Material / Werkstoffe	H	●			☼		
	K				●		
	N						
H	Hardened material / Gehärtete Werkstoff	●	●	●			
K	Cast iron / Gusseisen						●
N	Non-ferrite material / Ne Metalle						

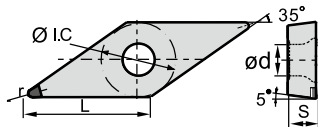
Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					CBN			
		L	I.C.	S	d	r	YCB111	YCB121	YCB131	YCB211
	<b>VBGW160404-2</b>	16.6	9.525	4.76	4.4	0.4	●	●		●
	<b>VBGW160408-2</b>	16.6	9.525	4.76	4.4	0.8	●	●		●

### Tool Holder · Klemmhalter



Page · Seite A190      A191      A192      A233      A234

## VC\*\*



- Continuous cutting / Vollschnitt
- Continuous and interrupted cutting / Voll- und leicht unterbrochener Schnitt
- ☼ Interrupted cutting / Stark unterbrochener Schnitt

Workpiece Material / Werkstoffe	H	●			☼		
	K				●		
	N						
H	Hardened material / Gehärtete Werkstoff	●	●	●			
K	Cast iron / Gusseisen						●
N	Non-ferrite material / Ne Metalle						

Insert Shape / Schneidplattenform	Type · Typ	Dimension (mm) / Abmessung					CBN			
		L	I.C.	S	d	r	YCB111	YCB121	YCB131	YCB211
	<b>VCGW160404-2</b>	16.6	9.525	4.76	4.4	0.4	●	●		●
	<b>VCGW160408-2</b>	16.6	9.525	4.76	4.4	0.8	●	●		●

### Tool Holder · Klemmhalter



Page · Seite A231      A232      A193      A194

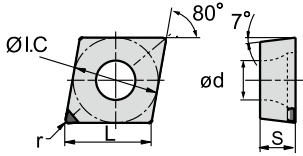
● Ex Stock / ab Lager    ○ On demand / auf Anfrage



# Turning · Drehen

PCBN & PCG Inserts · PCBN & PCG WSP

**CC\*\***



- Continuous cutting  
Vollschnitt
- Continuous and interrupted cutting  
Voll- und leicht unterbrochener Schnitt
- ⊗ Interrupted cutting  
Stark unterbrochener Schnitt

Workpiece Material Werkstoffe	<b>H</b> Hardened material / Gehärtete Werkstoff								
	<b>K</b> Cast iron / Gusseisen								
	<b>N</b> Non-ferrous material / Nichtmetalle	●							

Insert Shape Schneid- plattenform	Type · Typ	Dimension (mm) Abmessung					PCD				
		L	I.C	S	d	r	YCD421				
	<b>CCMW060202</b>	6.4	6.35	2.38	2.8	0.2	●				
	<b>CCMW060204</b>	6.4	6.35	2.38	2.8	0.4	●				
	<b>CCMW09T304</b>	9.7	9.525	3.97	4.4	0.4	●				
	<b>CCMW09T308</b>	9.7	9.525	3.97	4.4	0.8	●				
	<b>CCMW120404</b>	12.9	12.7	4.76	5.56	0.4	●				
	<b>CCMW120408</b>	12.9	12.7	4.76	5.56	0.8	●				

Applicable tools



Page A185      A186      A224      A239      A240

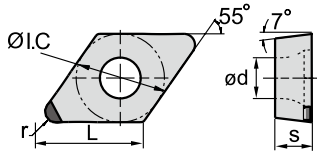
● Ex Stock / ab Lager    ○ On demand / auf Anfrage



# Turning · Drehen

PCBN & PCG Inserts · PCBN & PCG WSP

DC\*\*



- Continuous cutting / Vollschnitt
- ✶ Continuous and interrupted cutting / Voll- und leicht unterbrochener Schnitt
- ✶ Intermittent cutting / Stark unterbrochener Schnitt

Workpiece Material / Werkstoffe	<b>H</b> Hardened material / Gehärtete Werkstoff						
	<b>K</b> Cast iron / Gusseisen						
	<b>N</b> Non-ferrous material / Ne Metalle	●					

Insert Shape Schneid- plattenform	Type · Typ	Dimension (mm) Abmessung					PCD				
		L	I.C.	S	d	r	YCD421				
	<b>DCMW070202</b>	7.8	6.35	2.38	2.8	0.2	●				
	<b>DCMW070204</b>	7.8	6.35	2.38	2.8	0.4	●				
	<b>DCMW070208</b>	7.8	6.35	2.38	2.8	0.8	●				
	<b>DCMW11T302</b>	11.6	9.525	3.97	4.4	0.2	●				
	<b>DCMW11T304</b>	11.6	9.525	3.97	4.4	0.4	●				
	<b>DCMW11T308</b>	11.6	9.525	3.97	4.4	0.8	●				

Applicable tools

<b>SDACR/L</b> Kr:90° 	<b>SDJCR/L</b> Kr:93° 	<b>SDNCN</b> Kr:62°30' 	<b>SDQCR/L</b> Kr:107°30' 	<b>SDUCR/L</b> Kr:93° 	<b>SDZCR/L</b> Kr:85° 
Page A187	A188	A189	A226	A227	A228

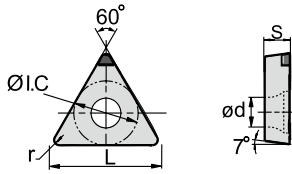
● Ex Stock / ab Lager ○ On demand / auf Anfrage



# Turning · Drehen

PCBN & PCG Inserts · PCBN & PCG WSP

## TC\*\*



- Continuous cutting  
Vollschnitt
- Continuous and interrupted cutting  
Voll- und leicht unterbrochener Schnitt
- Interrupted cutting  
Stark unterbrochener Schnitt

Workpiece Material Werkstoffe	<b>H</b>	Hardened material / Gehärtete Werkstoff							
	<b>K</b>	Cast iron / Gusseisen							
	<b>N</b>	Non-ferrous material / Nichtmetalle	●						

Insert Shape Schneid- plattenform	Type · Typ	Dimension (mm) Abmessung					PCD				
		L	I.C	S	d	r	YCD421				
	<b>TCMW110208</b>	11	6.35	2.38	2.8	0.8	●				
	<b>TCMW16T304</b>	16.5	9.525	3.97	4.4	0.4	●				
	<b>TCMW16T308</b>	16.5	9.525	3.97	4.4	0.8	●				

### Applicable tools

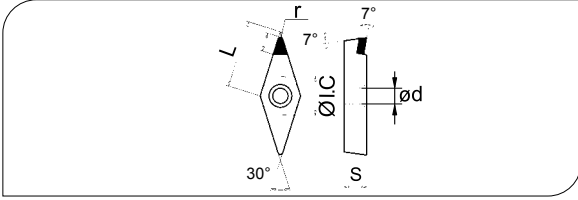


Page A197      A197      A198      A199      A230

● Ex Stock / ab Lager    ○ On demand / auf Anfrage

### VB\*\*

- Continuous cutting  
Vollschnitt
- Continuous and interrupted cutting  
Voll- und leicht unterbrochener Schnitt
- Interrupted cutting  
Stark unterbrochener Schnitt



Workpiece Material Werkstoffe	PCD						
	H	K	N				
H Hardened material / Gehärtete Werkstoff							
K Cast iron / Gusseisen							
N Non-ferrous material / Nichte Metalle			●				

Insert Shape Schneid- plattenform	Type · Typ	Dimension (mm) Abmessung					PCD	
		L	I.C	S	d	r	YCD421	
	<b>VBMT160404</b>	16.6	9.525	4.76	4.4	0.4	○	
	<b>VBMT160408</b>	16.6	9.525	4.76	4.4	0.8	○	

#### Applicable tools

**SVJBR/L**  
Kr:93°



Page A190

**SVABR/L**  
Kr:90°



A191

**SVVBN**  
Kr:72°30'



A192

**SVQBR/L**  
Kr:107°30'



A233

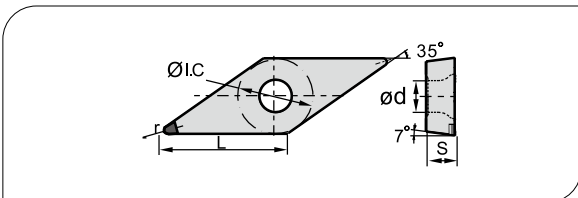
**SVUBR/L**  
Kr:93°



A234

### VB\*\*

- Continuous cutting  
Vollschnitt
- Continuous and interrupted cutting  
Voll- und leicht unterbrochener Schnitt
- Interrupted cutting  
Stark unterbrochener Schnitt



Workpiece Material Werkstoffe	PCD						
	H	K	N				
H Hardened material / Gehärtete Werkstoff							
K Cast iron / Gusseisen							
N Non-ferrous material / Nichte Metalle			●				

Insert shape Schneid- plattenform	Type · Typ	Dimension (mm) Abmessung					PCD	
		L	I.C	S	d	r	YCD421	
	<b>VBMW160404</b>	16.6	9.525	4.76	4.4	0.4	●	
	<b>VBMW160408</b>	16.6	9.525	4.76	4.4	0.8	●	

#### Applicable tools

**SVJBR/L**  
Kr:93°



Page A190

**SVABR/L**  
Kr:90°



A191

**SVVBN**  
Kr:72°30'



A192

**SVQBR/L**  
Kr:107°30'



A233

**SVUBR/L**  
Kr:93°



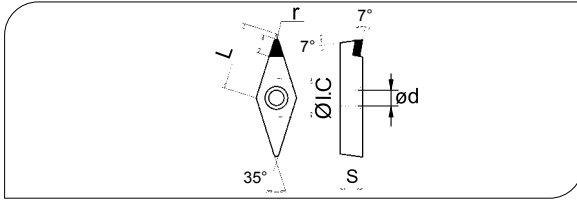
A234

● Ex Stock / ab Lager ○ On demand / auf Anfrage

# Turning · Drehen

PCBN & PCG Inserts · PCBN & PCG WSP

## VC\*\*



- Continuous cutting / Vollschnitt
- Continuous and interrupted cutting / Voll- und leicht unterbrochener Schnitt
- ☼ Interrupted cutting / Stark unterbrochener Schnitt

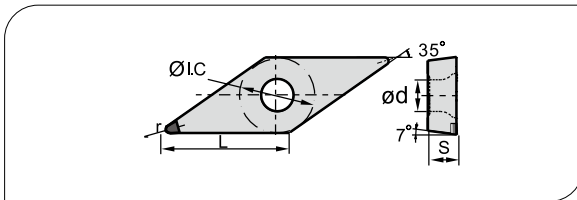
Insert Shape Schneid- plattenform	Type · Typ	Dimension (mm) Abmessung					PCD				
		L	I.C	S	d	r	YCD421				
	<b>VCMT160404</b>	16.6	9.525	4.76	4.4	0.4	●				
	<b>VCMT160408</b>	16.6	9.525	4.76	4.4	0.8	●				

### Applicable tools



Page A190      A191      A192      A233      A234

## VC\*\*



- Continuous cutting / Vollschnitt
- Continuous and interrupted cutting / Voll- und leicht unterbrochener Schnitt
- ☼ Interrupted cutting / Stark unterbrochener Schnitt

Insert Shape Schneid- plattenform	Type · Typ	Dimension (mm) Abmessung					PCD				
		L	I.C	S	d	r	YCD421				
	<b>VCMW160404</b>	16.6	9.525	4.76	4.4	0.4	●				
	<b>VCMW160408</b>	16.6	9.525	4.76	4.4	0.8	●				

### Applicable tools



Page A190      A191      A192      A233      A234

● Ex Stock / ab Lager    ○ On demand / auf Anfrage