Content · Inhaltsangabe

WSP = Wendeschneidplatte *VHM = Vollhartmetall*

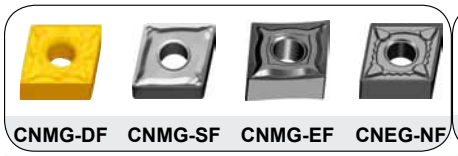
Turning · Drehen

A

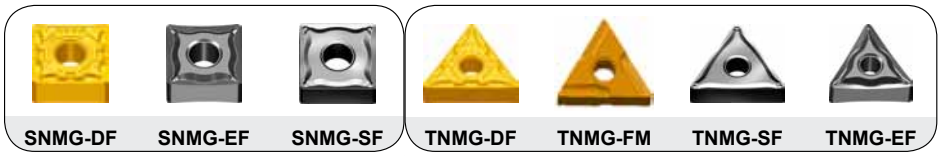
Double Side Negative Inserts
Doppelseitige negative Platten

Carbide and Cermet Inserts - Hartmetall- und Cermet-WSP

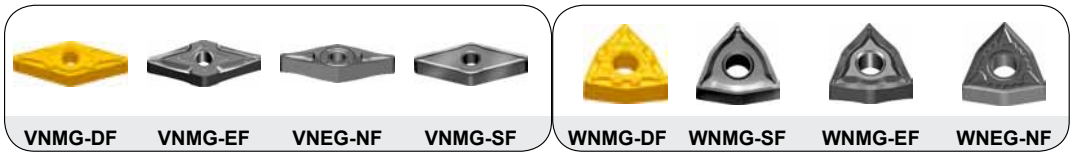
Finishing · Schlichten



CNMG-DF	CNMG-SF	CNMG-EF	CNEG-NF	DNMG-DF	DNMG-FM	DNMG-SF	DNMG-EF	DNEG-NF	Edge length · Kantenlänge
09,12	09,12	09,12	12	11,15	15	11,15	11,15	15	
A46	A46	A46	A47	A53	A54	A53	A54	A54	Page · Seite



SNMG-DF	SNMG-EF	SNMG-SF	TNMG-DF	TNMG-FM	TNMG-SF	TNMG-EF	Edge length · Kantenlänge
09,12	09,12,15	09,12,15	16,22	16	11,16,22	11,16,22	
A59	A59	A60	A68	A69	A68	A68	Page · Seite

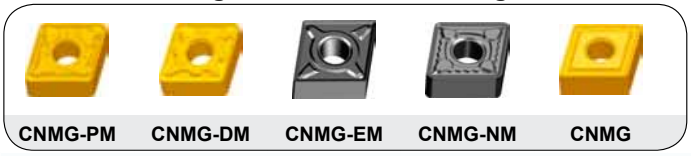


VNMG-DF	VNMG-EF	VNEG-NF	VNMG-SF	WNMG-DF	WNMG-SF	WNMG-EF	WNEG-NF	Edge length · Kantenlänge
16	16	16	16	06,08	06,08	06,08	08	
A74	A74	A74	A74	A76	A77	A77	A77	Page · Seite

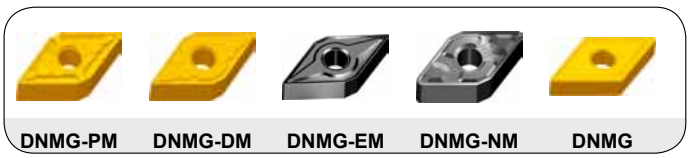
Wiper

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

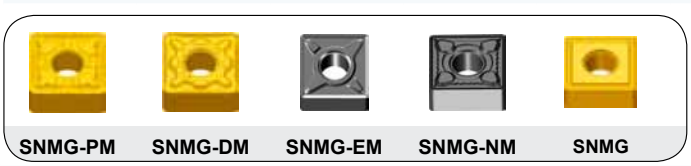
Medium Cutting · Mittlere Bearbeitung



CNMG-PM	CNMG-DM	CNMG-EM	CNMG-NM	CNMG	Edge length · Kantenlänge
09,12,16,19	09,12,16,19	12,16	12	12,16,19	
A47	A48	A48	A49	A51	Page · Seite



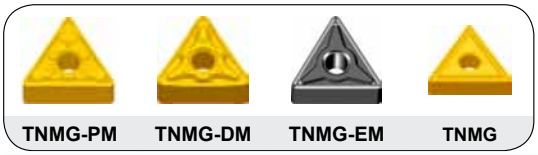
DNMG-PM	DNMG-DM	DNMG-EM	DNMG-NM	DNMG	Edge length · Kantenlänge
11,15	11,15	11,15	15	15,19	
A54-A55	A55	A56	A56	A58	Page · Seite



SNMG-PM	SNMG-DM	SNMG-EM	SNMG-NM	SNMG	Edge length · Kantenlänge
09,12,15,19	09,12,15,19	12,15	12	09,12,15,19,25	
A60	A61	A61	A62	A65	Page · Seite

Double Side Negative Inserts
Doppelseitige negative Platten

Medium Cutting · Mittlere Bearbeitung

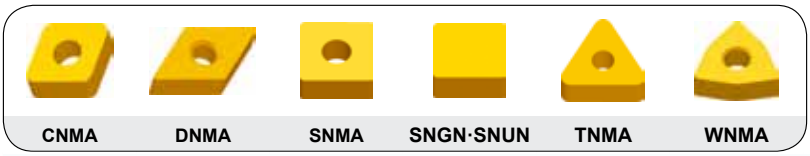


TNMG-PM	TNMG-DM	TNMG-EM	TNMG	
11,16,22	11,16,22	16,22	11,16,22,27,33	Edge length · Kantenlänge
A69	A69	A70	A72	Page · Seite

VNMG-PM	VNMG-DM	VNMG-EM	VNMG-NM	VNMG	
16	16	16	16	16	Edge length · Kantenlänge
A75	A75	A75	A75	A75	Page · Seite

WNMG-PM	WNMG-DM	WNMG-EM	WNMG-NM	RNMG	
06,08	06,08	06,08	08	12	Edge length · Kantenlänge
A78	A78	A78	A79	A80	Page · Seite

Medium to Rough Cutting · Mittlere bis Schruppbearbeitung



CNMA	DNMA	SNMA	SNGN·SNUN	TNMA	WNMA	
12,16,19	11,15	09,12,15,19	09,12,15,19,25	16,22,27	06,08	Edge length · Kantenlänge
A51	A57	A66	A67	A73	A79	Page · Seite

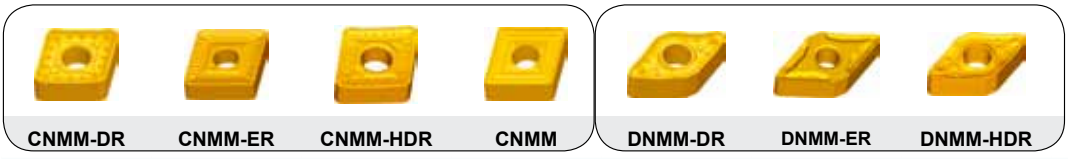
Roughing · Schruppen

CNMG-DR	CNMG-ER	DNMG-DR	DNMG-ER	SNMG-DR	SNMG-ER	TNMG-DR	TNMG-ER	
12,16,19	12,16,19	15	15	12,15,19	12,15,19	16,22,27	16,22	Edge length · Kantenlänge
A49	A50	A56	A58	A62	A63	A70	A71	Page · Seite

WNMG-DR	
06,08	Edge length · Kantenlänge
A79	Page · Seite

Single
Side Negative Inserts
Einseitige
Negative Platten

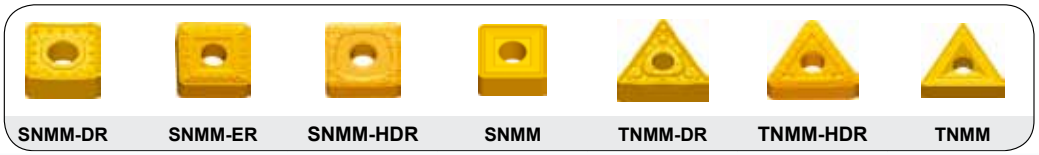
Roughing · Schruppen



CNMM-DR	CNMM-ER	CNMM-HDR	CNMM	DNMM-DR	DNMM-ER	DNMM-HDR	
12,16,19,25	25	12,16,19	12,19	15	15	15	Edge length · Kantenlänge
A50	A50	A50	A52	A58	A58	A58	Page · Seite

Single Side Negative Inserts · Einseitige Negative Platten

Roughing · Schruppen



SNMM-DR	SNMM-ER	SNMM-HDR	SNMM	TNMM-DR	TNMM-HDR	TNMM	
12,15,19,25	25	12,15,19,25	09,12,19,25	16,22,27	16,22,27	16,22,27	Edge length · Kantelänge
A62-A63	A63	A64	A65-66	A71	A72	A73	Page · Seite

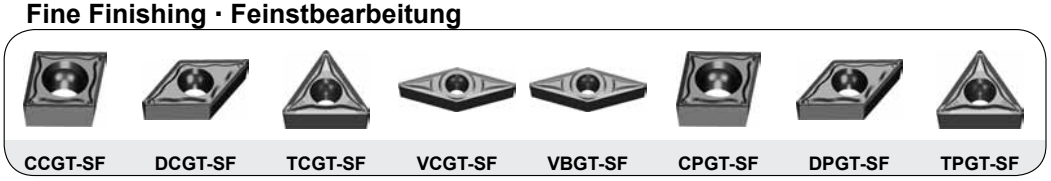
Special Inserts · Spezielle Drehplatten

Roughing · Schruppen

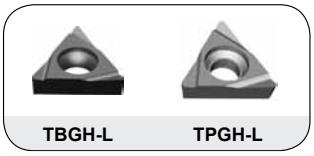
175.32-28	175.32-22·227	175.32-24	175.32-25	KNUX	TNMX	YNMX·YNUX	
19	19	19,30	19	16	11,15	18,25	Edge length · Kantelänge
A82	A82	A82	A82	A81	A83	A83	Page · Seite

Single Side Positive Inserts · Einseitige positive Wendeschneidplatten

Fine Finishing · Feinstbearbeitung



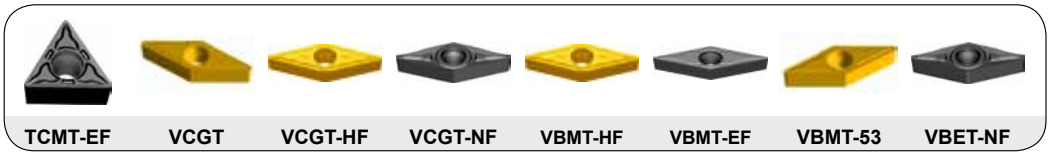
CCGT-SF	DCGT-SF	TCGT-SF	VCGT-SF	VBGT-SF	CPGT-SF	DPGT-SF	TPGT-SF	
06,09	07,11	06,09,11	11,16	11	06,09	07,11	09,11	Edge length · Kantelänge
A84	A88	A98	A106	A108	A87	A91	A103	Page · Seite



TBGH-L	TPGH-L							
06	09,11							Edge length · Kantelänge
A97	A103							Page · Seite

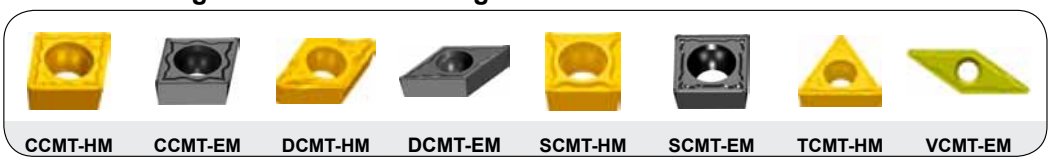
Finishing · Schlichten

CCMT-HF	CCMT-EF	CPGT	DCMT-HF	DCMT-EF	SCMT-HF	SCMT-EF	TCMT-HF	
06,09,12	06,09,12	05	07,11	07,11	09	09	06,09,11,16	Edge length · Kantelänge
A84	A85	A84	A88	A89	A94	A94	A99	Page · Seite



TCMT-EF	VCGT	VCGT-HF	VCGT-NF	VBMT-HF	VBMT-EF	VBMT-53	VBET-NF	
09,11,16	13	11	16	11	11,16	16	16	Edge length · Kantelänge
A100	A106	A106	A106	A108	A108	A108	A108	Page · Seite

Medium Cutting · Mittlere Bearbeitung



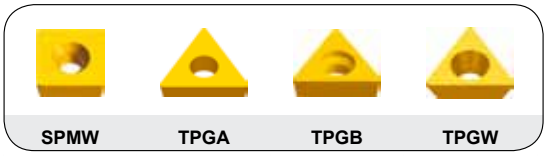
CCMT-HM	CCMT-EM	DCMT-HM	DCMT-EM	SCMT-HM	SCMT-EM	TCMT-HM	VCMT-EM	
06,09,12	06,09,12	07,11	07, 11	09,12	09,12	09,11,16	16	Edge length · Kantelänge
A85	A85	A89	A89	A94	A94	A101	A110	Page · Seite

Roughing · Schruppen

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

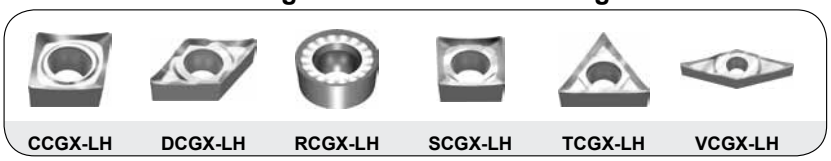
Flat Inserts · WSP ohne Spanbrecher

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



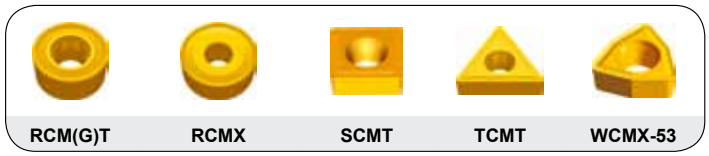
SPMW	TPGA	TPGB	TPGW	
09,12	09,11,16	09,27	09,11,16,22	Edge length · Kantenlänge
A96	A104	A105	A105	Page · Seite

Aluminium machining · Aluminiumbearbeitung



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

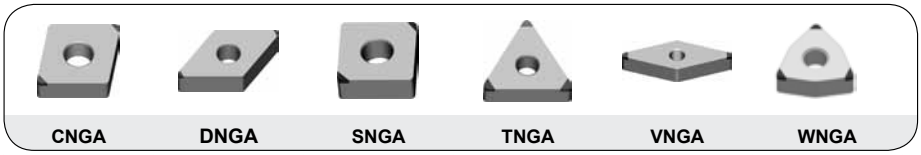
Special Inserts · Spezielle Wendeschneidplatten



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

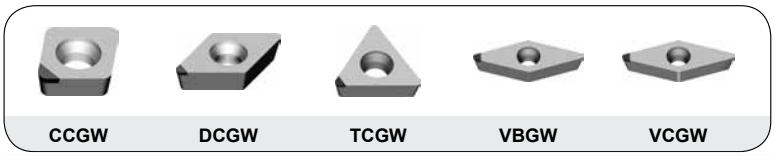
PCBN & PCD

Negative Inserts Negative WSP



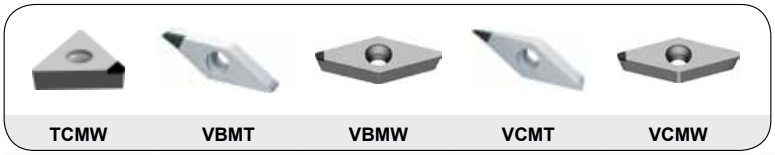
CNGA	DNGA	SNGA	TNGA	VNGA	WNGA	
12	15	12	16	16	08 16	Edge length · Kantelänge
A118	A119	A120	A121	A122	A122	Page · Seite

Positive Inserts Positive WSP



CCGW	DCGW	TCGW	VBGW	VCGW	
06,09,12	07,11	11,16	16	16	Edge length · Kantelänge
A123	A124	A125	A126	A126	Page · Seite

CCMT	CCMW	DCMT	DCMW	TCMT	
06,09,12	06,09,12	07,11	07,11	11,16	Edge length · Kantelänge
A127	A128	A129	A130	A131	Page · Seite



TCMW	VBMT	VBMW	VCMT	VCMW	
11,16	16	16	16	16	Edge length · Kantelänge
A132	A133	A133	A134	A134	Page · Seite

Ceramic Inserts · Keramik Wendeschneidplatten

Negative Inserts Negative WSP

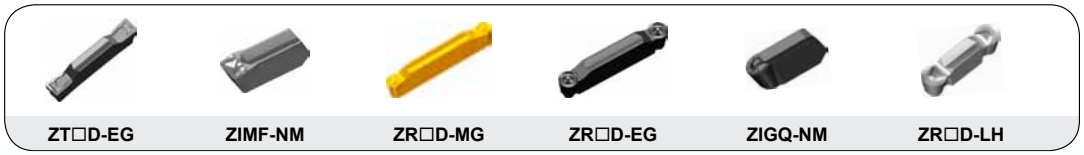
CNGA	CNGN	CNGX	DNGA	DNGN	DNGX	SNGA	SNGX	
12,16	12,16	12	15	15	15	12	12	Edge length · Kantelänge
A138	A139	A140	A140	A141	A141	A142	A142	Page · Seite

SNGN	TNGA	TNGN	WNGA	RNGN	
09,12,15,19,25	16,22	16,22	08	09,12,15,19,25	Edge length · Kantelänge
A143	A144	A145	A146	A146	Page · Seite

Parting and grooving · Ab- und Einstechen

Little Squirrel Series · zusätzliche Wendeschneidplatten

ZPD-MG	ZP□D-MG	ZP□S-MG	ZT□D-MG	ZTBD-MG	ZT□S-MG	ZT□D-EG	
2.5,3,4,5,6	2.5,3	2.5,3,4,5,6	2.5,3,4,5,6	2	5,6	1-2.4	Width · Breite
A261	A262	A261	A263	A262	A263	A263	Page · Seite

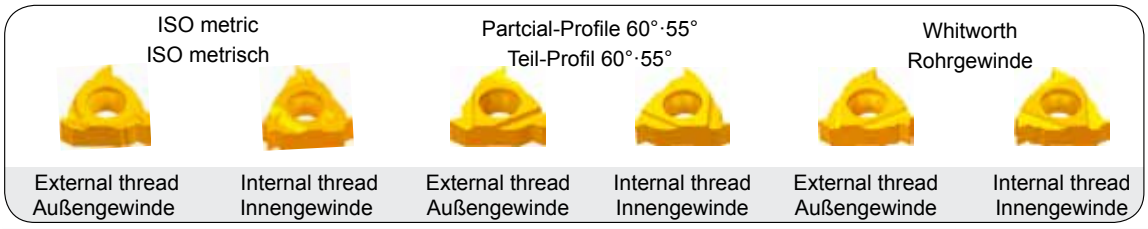


ZT□D-EG	ZIMF-NM	ZR□D-MG	ZR□D-EG	ZIGQ-NM	ZR□D-LH	
2.4-6.5	3,4,5,6	2.5,3,4,5,6	3,4,5,6	3,4,5,6	6,8	Width · Breite
A263	A265	A264	A264	A266	A266	Page · Seite

Complementary Inserts · ergänzende Stechplatten

154.3	ZQMX-1E	ZSM□R/L	
1.1,1.3,1.6,1.85,2.15,3.15	3.125,4.125,5.125,6.4,7.05	1.1,1.3,1.6,1.85,2.15,2.65,5,5.15	Width · Breite
A267	A267	A268	Page · Seite

Threading Insert · Gewindeplatten



ISO metric ISO metrisch		Partcial-Profile 60°·55° Teil-Profil 60°·55°		Whitworth Rohrgewinde		
External thread Außengewinde	Internal thread Innengewinde	External thread Außengewinde	Internal thread Innengewinde	External thread Außengewinde	Internal thread Innengewinde	
1~6	1~6	0.5~5	0.5~5	8~16	8~16	Pitch· Steigung
A296	A297	A298	A298	A299	A299	Page· Seite

UN Unified Conventional Thread Gewindeform UN 60°amerikanisch		BSPT Britain Standard Taper Pipe Thread Rohrgewinde für Dampf-, Gas-, & Wasserleitungen		NPT American Standard Amerikanisches kegeliges Rohrgewinde		
External Threads Außengewinde	Internal Threads Innengewinde	External Threads Außengewinde	Internal Threads Innengewinde	External Threads Außengewinde	Internal Threads Innengewinde	
8~20	8~20	11~28	11~28	8~27	8~27	Pitch· Steigung
A300	A300	A301	A301	A302	A302	Page· Seite

Illustration Shows the right hand type· Die Illustration zeigt die Rechtsausführung.

External Turning Holder · Halter zur Außenbearbeitung

P-type Clamping (lever) · P Halter (Kniehebel)

	PCBNR/L	PCLNR/L	PDJNR/L	PDNNR/L	PSBNR/L	PSDNN	PSKNR/L
Angle · Winkel	**75°**	**95°**	**93°**	**63°**	**75°**	**45°**	**75°**
Page · Seite	A158	A159	A160	A161	A162	A163	A164

	PSSNR/L	PTFNR/L	PTTNR/L	PTGNR/L	PWLNR/L
Angle · Winkel	**45°**	**90°**	**60°**	**90°**	**95°**
Page · Seite	A165	A166	A167	A168	A169

M-type Clamping (clamping finger) · M Halter (Pratze)

	MCBNR/L	MCLNR/L	MDJNR/L	MDPNN	MSBNR/L	MSRNR/L	MSKNR/L
Angle · Winkel	**75°**	**95°**	**93°**	**62°30'**	**75°**	**75°**	**75°**
Page · Seite	A170	A171	A172	A173	A174	A175	A176

	MSDNN	MTGNR/L	MTJNR/L	MTFNR/L	MVVNN	MVJNR/L	MWLNR/L
Angle · Winkel	**45°**	**90°**	**93°**	**90°**	**72°30'**	**93°**	**95°**
Page · Seite	A177	A178	A179	A180	A181	A182	A183

	MRGNR/L	MRDNN
Angle · Winkel		
Page · Seite	A184	A184

S-type Clamping (screw) · S Halter (Schraube)

	SCACR/L	SCLCR/L	SDACR/L	SDJCR/L	SDNCN	SVJBR/L	SVABR/L
Angle · Winkel	**90°**	**95°**	**90°**	**93°**	**62°30'**	**93°**	**90°**
Page · Seite	A185	A186	A187	A188	A189	A190	A191

	SVVBN	SVVCN	SVJCR/L	SSBCR/L	SSDCN	SSKCR/L	SSSCR/L
Angle · Winkel	**72°30'**	**72°30'**	**93°**	**75°**	**45°**	**75°**	**45°**
Page · Seite	A192	A193	A194	A195	A195	A196	A196

S-type Clamping (screw) · S Halter (Schraube)

STACR/L	STFCR/L	STGCR/L	STTCR/L	SWACR/L	SRDCN	SRGCR/L
						
Angle· Winkel: **90°**	**91°**	**91°**	**60°**	**90°**		
Page· Seite: A197	A197	A198	A199	A200	A201	A202

C-type Clamping (clamping finger) · M Halter (Pratze)

CKJNR/L	CKNNR/L
	
Angle· Winkel: **93°**	**63°**
Page· Seite: A203	A203

Tool holder for ceramic inserts · Halter für Keramikplatten

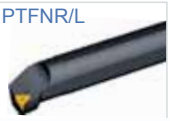
CCLNR/L	CTJNR/L	CTUNR/L	CDJNR/L	CSRNR/L	CSKNR/L	CSDNN
						
Angle· Winkel: **95°**	**93°**	**93°**	**93°**	**75°**	**75°**	**45°**
Page· Seite: A204	A204	A205	A205	A206	A206	A207

CRDNN	JCLNR/L	JDJNR/L	JSDNN
			
Angle· Winkel: **45°**	**95°**	**93°**	**45°**
Page· Seite: A207	A208	A208	A209

A

Tool holder for Interal Machining · Halter zur Innenbearbeitung

P-type Clamping (lever) · P Halter (Kniehebel)

PCLNR/L	PDSNR/L	PDUNR/L	PSKNR/L	PTFNR/L	PWLNR/L
					
Angle· Winkel **95°**	**62°30'**	**93°**	**75°**	**90°**	**95°**
Page· Seite A216	A218	A219	A221	A222	A223

S-type Clamping (screw) · S Halter (Schraube)

SCLCR/L	SDQCR/L	SDUCR/L	SDZCR/L	SSKCR/L	STFCR/L	SVQCR/L
						
Angle· Winkel **95°**	**107°30'**	**93°**	**85°**	**75°**	**90°**	**107°30**
Page· Seite A224	A226	A227	A228	A229	A230	A231

SVUCR/L	SVQBR/L	SVUBR/L	SCLPR/L	SDQPR/L	SDUPR/L	STUPR/L
						
Angle· Winkel **93°**	**107°30'**	**93°**	**95°**	**107°30'**	**93°**	**93°**
Page· Seite A232	A233	A234	A235	A236	A237	A238

SCFCR	SCLCR
	
Angle· Winkel **90°**	**95°**
Page· Seite A239	A240

Carbide boring bars · Hartmetallbohrstangen

SCLPR/L	SDQPR/L	SDUPR/L	STUPR/L	SVQCR/L	SVUCR/L
					
Angle· Winkel **95°**	**107°30'**	**93°**	**93°**	**107°30'**	**93°**
Page· Seite A242	A243	A244	A245	A247	A248

Tool Holder for Parting & Grooving · Halter zum Ab- und Einstechen

A272

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A273

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A275

A278-A281

A282-A283

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A284

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A287

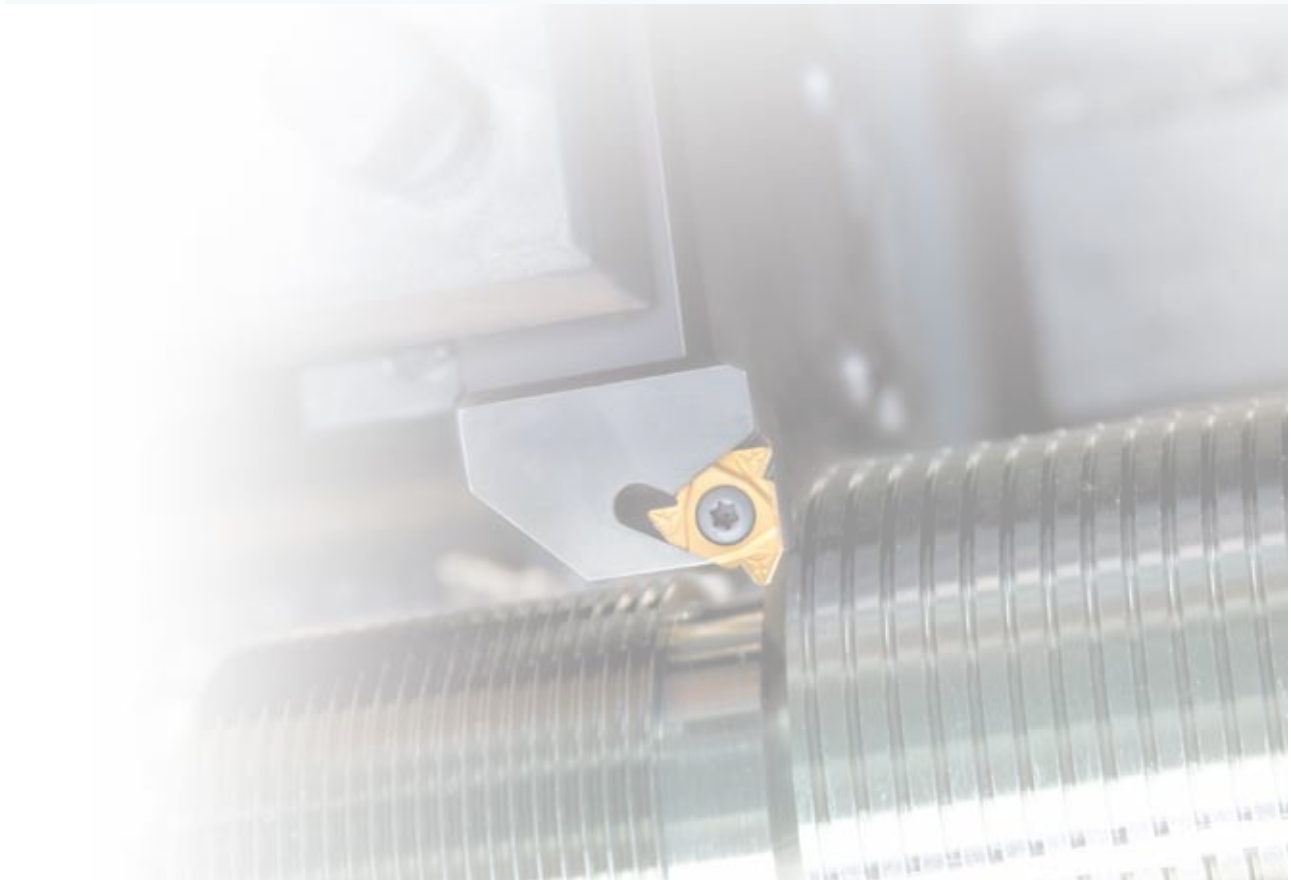
A287

A288

Tool Holder for Threading · Halter für Gewindebearbeitung

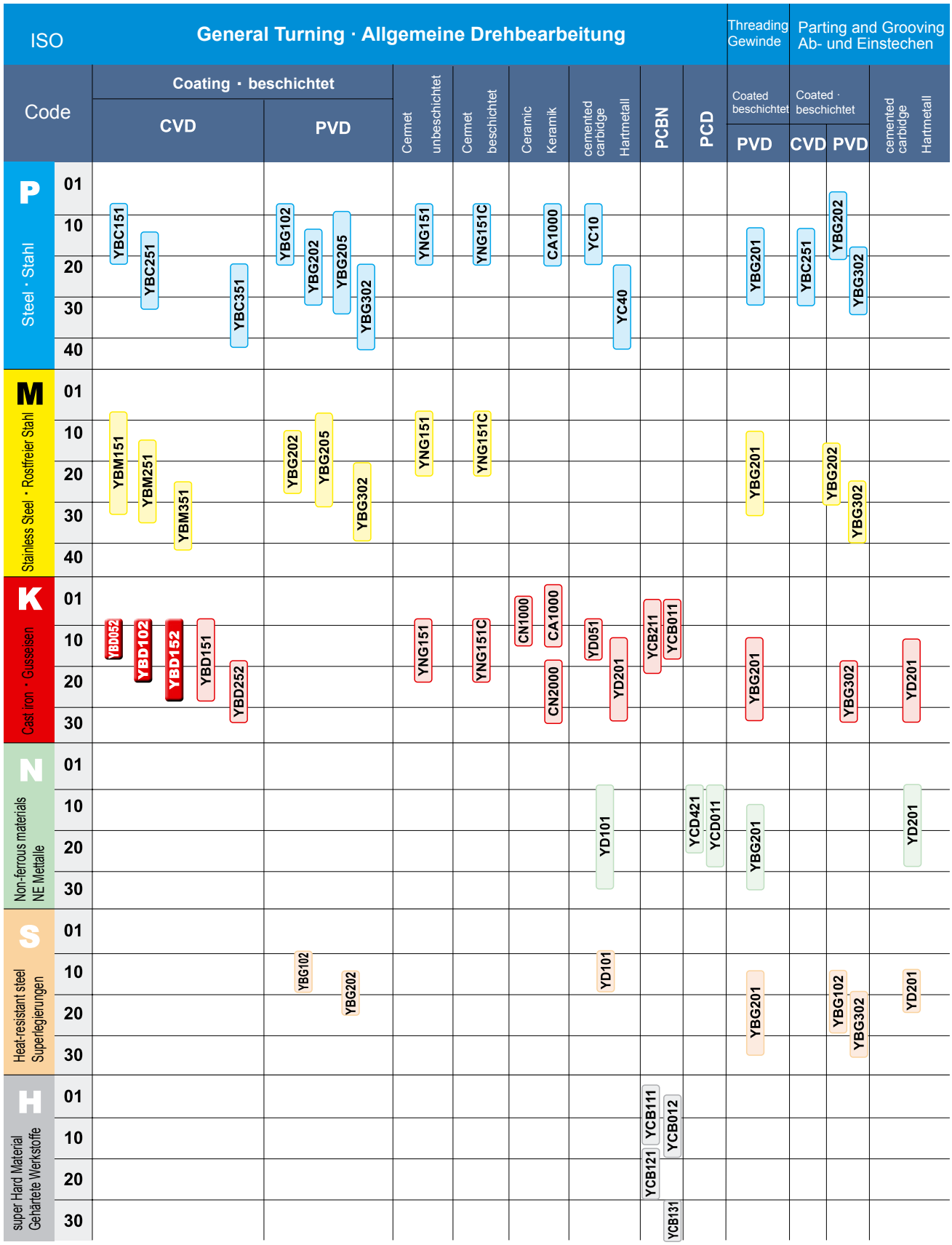
A304

A305



Turning · Drehen

Recommended Grade Overview (Inserts) · Empfohlene Sorten Übersicht (WSP)



General Turning Inserts · Allgemeine Drehschneidplatten

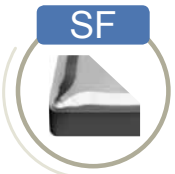
Chip breaker Overview · Spanbrecher Übersicht

Negative Inserts
Negative Wendeschneidplatten

NEU

P M K
ap·d.o.c. =0.05~1,5(mm)
f=0.05~0.35(mm/r)

NEW



Special chip breaker in combination with cermets grades. Sharp cutting edge with excellent chip control at small depth of cut and small feed rate. Enable high surface finishing.

Spezieller Spanbrecher in Kombination mit Cermetsorten. Mit scharfer Schneide für exzellenten Spanbruch bei kleinen Schnitttiefen und Vorschüben und sehr guter Oberflächengüte.

P M
ap·d.o.c. =0.3~2,5 (mm)
f=0.05~0.35(mm/r)

Chip breaker for finishing and semi-finishing of steel and stainless steel.

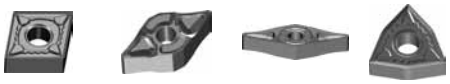
Spanbrecher für die Schlicht- bis mittlere Bearbeitung von Stahl und rostfreiem Stahl.

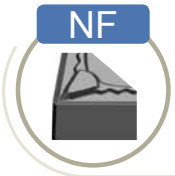
M S
ap·d.o.c. =0.05~2,5(mm)
f=0.05~0.3 (mm/r)

Sharp, positive cutting edge for finishing and semi-finishing of austenitic stainless steel, soft steel, low carbon steel and heat resistant super alloy. Suitable for continuous to light interrupted cut.

Sehr scharfe und positive Schneidkante für die Schlicht- bis mittlere Bearbeitung von austenitschem, rostfreien Stahl, weichem Baustahl und Stahl mit niedrigem Kohlenstoffgehalt und warmfesten Superlegierungen.

S M
ap· d.o.c. =0.1~1,5(mm)
f=0.05~0.3(mm/r)





Ground inserts with sharp and positive cutting edge. NF with grade YBG102 is best combination for finishing of heat resistant super alloys (Ni-based, Fe-based and Co-based alloys) Vc=40-100m/min

Geschliffene Wendeschneidplatte mit einer scharfen, positiven Schneidkante. NF in Kombination mit der Sorte YBG102 ist die beste Lösung für die Schlichtbearbeitung von warmfesten Superlegierungen und exotischen Materialien (Ni-basiert, Fe-basiert, Co-basiert) Vc=40-100m/min

Chip breaker Overview · Spanbrecher Übersicht

Wiper

WG

P M K

ap· d.o.c. =0.3~2(mm)
f= 0.1~0.4(mm/r)

Excellent surface finishing and high feed rate due to wiper technology. For finishing and semi-finishing of steel, stainless steel or cast iron.

Exzellente Oberflächengüte und hohe Vorschübe durch Wipertechnologie. Geeignet zum Schlichten bis mittlere Bearbeitung von Stahl, rostfreiem Stahl und Guss.

Mittlere Bearbeitung · Semi-Finishing

DM

P M

ap· d.o.c. =1.5~5(mm)
f= 0.15~0.5(mm/r)

Main chip breaker for medium machining with continuous or interrupted cut of steel and stainless steel.

Hauptspanbrecher für die mittlere Bearbeitung mit und ohne Schnittunterbrechung von Stahl und rostfreiem Stahl.

PM

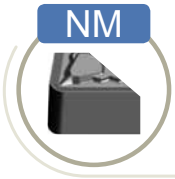
P K

ap· d.o.c. =1.5~5(mm)
f= 0.15~0.5(mm/r)

Unisversal chip breaker with stable cutting edge. Suitable for medium machining also with interrupted cut especially for cast iron and steel.

Universelle Spanbrecherform mit stabiler Schneidkante. Besonders geeignet für die mittlere Bearbeitung von Guss und Stahl auch mit Schnittunterbrechung.

NM



S M

ap· d.o.c. = 1.5~5(mm)
f= 0.15~0.5(mm/r)

Sharp cutting edge with positive multi-rakes. Special for the semifinishing of heat resistant super alloys.

Scharfe Schneidkante mit positivem Multi-Spanwinkel. Besonders geeignet für die Bearbeitung von warmfesten Superlegierungen.

EM

M P S

ap· d.o.c. =0.5~4.0(mm)
f=0.1~0.5(mm/r)

Sharp and stable cutting edge for semifinishing of adhesive material and austenitic stainless steel. Suitable also for interrupted cut.

Spanbrecher mit scharfer, stabiler Scheidkante für die mittlere Bearbeitung von adhäsiven Materialien und austenitischem rostfreiem Stahl. Auch für Schnittunterbrechungen geeignet.

Chip breaker Overview · Spanbrecher Übersicht

Negative Inserts
Negative Wendeschneidplatten

Mittlere Bearbeitung · Semi-Finishing

Basic

P K

ap· d.o.c. = 1.5~5(mm)
f= 0.2~0.5(mm/r)

Stable flat cutting egde with standard chip breaker for semifinishing of steel and cast iron.

Stabile gerade Schneidkante mit umlaufender Spanleitstufe für die mittlere Bearbeitung von Stahl und Gusswerkstoffen.

Schruppen · Roughing

DR

P K

double side: ap· d.o.c. = 2.0~6.5(mm), f= 0.2~0.5(mm/r)

single side: ap· d.o.c. =3~15(mm), f= 0.4~1.0 (mm/r)

Double side type · Doppelseitige Ausführung

Positive chip breaker with strong cutting edge for light to medium rough machining of steel and cast iron.

Positiver Spanbrecher mit stabiler Schneidkantenausführung für die leichte bis mittlere Schruppbearbeitung von Stahl und Gusswerkstoffen.

Single side type · Einseitige Ausführung

Positive chip breaker with strong cutting edge for light to medium rough machining of steel and cast iron.

Positiver Spanbrecher mit stabiler Schneidkantenausführung für die leichte bis mittlere Schruppbearbeitung von Stahl und Gusswerkstoffen.

ER

M P

double side: ap· d.o.c.=2.5~8(mm), f=0.2~0.6(mm/r)

single side: ap· d.o.c. =2.5~20(mm), f= 0.2~1.2(mm/r)

NEW

NEU

Double side type · Doppelseitige Ausführung

New developed chip breaker with positive geometry for low cutting force. Suitable for roughing operation of stainless steel and steel.
Neu entwickelter positiver Spanbrecher für niedrige Schnittkräfte. Besonders geeignet für die Schruppbearbeitung von rostfreiem Stahl und Stahl.

Single side type · Einseitige Ausführung

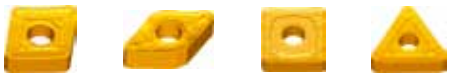
New developed chip breaker with positive geometry for low cutting force. Suitable for roughing operation of stainless steel and steel.
Neu entwickelter positiver Spanbrecher für niedrige Schnittkräfte. Besonders geeignet für die Schruppbearbeitung von rostfreiem Stahl und Stahl.

Chip breaker Overview · Spanbrecher Übersicht

Schruppen · Roughing

P M

ap· d.o.c.= 5~15(mm)
f= 0.5~1.2(mm/r)



HDR

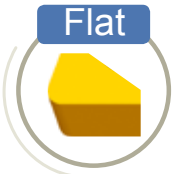
Chip breaker with strong cutting edge and resistent to plastic deformation for single side inserts. Suitable for rough machining with high metal cutting rate for steel and stainless steel application.

Spanbrecher mit stabiler Schneidkantenausführung mit hoher Deformationsbeständigkeit für einseitige Wendeschneidplatten. Anwendnung für die Schruppbearbeitung von Stahl und rostfreiem Stahl.

K

ap· d.o.c.= 0.3~12(mm)
f= 0.1~0.6(mm/r)

Flat



Flat insert without chip breaker. Stable insert with high edge strength for roughing operation in cast iron materials.

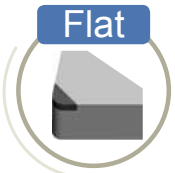
Glatte Platte ohne Spanbrecher. Mit einer stabilen Schneidkante für die Schruppbearbeitung von Gusswerkstoffen.

CBN & PCD

PCBN H PKD N

ap· d.o.c.=0.05~0.5(mm)
f=0.05~0.3(mm/r)

Flat



Special grades: for machining of hardened materials and cast iron (CBN). for machining of non-ferrous metals (e.g. Aluminium) and non-metal materials (PCD)

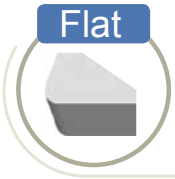
Spezielle Sorten: Für die Bearbeitung von gehärteten Stählen, Gusswerkstoffen (CBN). Für die Beabeitung von NE-Metallen (z.B. Aluminium) und nicht-metallischen Werkstoffen (PCD)

Ceramic Insert

K H P

ap· d.o.c.= 0.1~3(mm)
f= 0.05~0.4(mm/r)

Flat



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

Keramikwendeschneidplatten für die Bearbeitung von gehärtetem Stahl, Gusswerkstoffen und Stahl.

Chip breaker Overview · Spanbrecher Übersicht

Positive Inserts
Positive Wendeschneidplatten

Feinstbearbeitung · Finishing

P M

ap· d.o.c. =0.05~2.5(mm)
f= 0.03~0.25(mm/r)

R/L

Special grinded chip breaker groove for precision machining and high surface quality. This G-class inserts with a sharp cutting edge and small corner radius for fine finishing operation without vibration.

Exakt geschliffene einseitige Spanleitstufe für die Hochpräzisionsbearbeitung mit hoher Oberflächengüte. Diese G-Toleranz Platten besitzen scharfe Schneiden und kleine Eckenradien. Für die Feinstbearbeitung ohne Vibrationen.

P M K

ap· d.o.c. =0.05~1(mm)
f=0.05 ~0.3(mm/r)

SF

Special chip breaker in combination with cermets grades. Sharp cutting edge with excellent chip control. For high surface finishing and precision machining.

Spezieller Spanbrecher in Kombination mit Cermetsorten. Mit scharfer Schneide für die Präzisionsbearbeitung mit hervorragendem Spanbruch und sehr guter Oberflächengüte.

Schlichten · Finishing

P M K

ap· d.o.c. =0.1~2(mm)
f=0.05~0.3 (mm/r)

HF

Chip breaker for finishing and semi-finishing of steel and cast iron. Especially for internal machining.

Spanbrecher für die Schlicht- bis mittlere Bearbeitung von Stahl und Gusswerkstoffen. Besonders geeignet auch für die Innenbearbeitung.

NEU

M S

ap· d.o.c. = 0.1~2(mm)
f= 0.05~0.3 (mm/r)

NEW

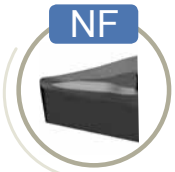
EF

Sharp, positive cutting edge for finishing and semi-finishing of austenitic stainless steel, soft steel and low carbon steel. Suitable for continuous to light interrupted cut.

Sehr scharfe und positive Schneidkante für die Schlicht- bis mittlere Bearbeitung von austenitschem, rostfreiem Stahl, weichem Baustahl und Stahl mit niedrigem Kohlenstoffgehalt.

Chip breaker Overview · Spanbrecher Übersicht

NF



S M

ap· d.o.c.= 0.05~1(mm)
f=0.05~0.2 (mm/r)

Chip breaker with sharp and positive cutting edge. NF combined with Grade YBG102 is best solution for finishing of heat resistance super alloys (Ni-based, Fe-based and Co based material).

Geschliffene Wendeschneidplatte mit einer scharfen, positiven Schneidkante. In Kombination mit der Sorte YBG102 ist dieser Spanbrecher besonders für die Schlichtbearbeitung von warmfesten Materialien geeignet (z.B. Ni- basiert, Fe-basiert und Co-basiert).

HM

P M K

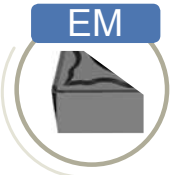
ap·d.o.c. =1~4(mm)
f=0.2~0.5(mm/r)

Chip breaker for medium machining of steel or cast iron. Suitable for internal and external turning.

Spanbrecher für die mittlere Bearbeitung von Stahl und Gusswerkstoffen. Einsetzbar bei der Innen- und Außenbearbeitung.

NEU

EM



M S

ap· d.o.c. = 1~4(mm)
f= 0.2~0.5(mm/r)

NEW

Upgrade sharp and strong cutting edge for semifinishing of adhesive steel and austentic stainless steel.

Scharfe und stabile Schneidkante für die mittlere Bearbeitung von rostfreien adhäsiven Stählen und austenitischen Werkstoffen.

Chip breaker Overview · Spanbrecher Übersicht

Positive Insert
Positive Wendeschneidplatten

Mittlere Bearbeitung · Semi-Finishing

P K

ap· d.o.c.= 1~8(mm)
f= 0.2~0.6(mm/r)

Basic

Chip breaker for round inserts. Suitable for semi precision machining and profile modelling machining of steel and cast iron.

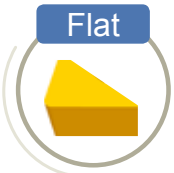
Umlaufende Spanleitstufe für runde WSP. Für die mittlere Bearbeitung und Profildrehen von Stahl- und Gusswerkstoffen.

Schruppen · Roughing

K

ap· d.o.c.= 0.05~1(mm)
f =0.05~0.2 (mm/r)

Flat



Flat insert without chip breaker. Stable insert with high edge strength for roughing operation in cast iron materials.

Glatte Platte ohne Spanbrecher. Mit einer stabilen Schneidkante für die Schruppbearbeitung von Gusswerkstoffen.

Schruppen · Roughing

P M K

ap· d.o.c. =2~5(mm)
f=0.2~0.4(mm/r)

HR

Chip breaker with strong cutting edge for light to medium rough machining of steel stainless steel and cast iron. Suitable for internal and external machining.

Spanbrecher mit stabiler Schneidkantenausführung für die leichte bis mittlere Schruppbearbeitung von Stahl und Gusswerkstoffen. Einsetzbar bei der Innen- und Außenbearbeitung.

P

ap· d.o.c. =3~10(mm)
f=0.3~1.2(mm/r)

Basic

Recommended chip breaker for rough machining steel materials. Single chip breaker with strong cutting edge. First choice for profile modelling machining.

Spezieller Spanbrecher mit einer verstärkten Schneidkantenausführung für die Schruppbearbeitung. Besonders geeignet für die Konturbearbeitung bei höherer Produktionssicherheit von Stahlwerkstoffen unter ungünstigen Bedingungen.

Chip breaker Overview · Spanbrecher Übersicht

N

ap· d.o.c.=0.1~5(mm)
f=0.05~0.4(mm/r)

LH

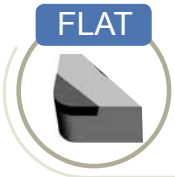
Special chip breaker for aluminum alloy and non ferrous metal machining
G tolerance insert with large rake angle, surface polishing treatment, effectively preventing build up edge and getting high quality machining surface and long tool life.

Speziell geschliffener Spanbrecher für die Bearbeitung von Aluminium, Aluminiumlegierungen (NE-Metallen). G-Toleranz WSP mit großem Spanwinkel und polierter Oberfläche zur Vermeidung von Aufbauschneiden. Hervorragender Spanabfluss, gute Oberflächengüten und lange Standzeiten.

PCBN H **PKD** N

ap· d.o.c.=0.05~0.5(mm)
f=0.05~0.3(mm/r)

FLAT



Special inserts G tolerance with brazed CBN or PCD Tip. CBN suitable for finishing of hardened component and cast iron. PCD suitable for finishing of non ferrous metal and non-metal meterials.

Spezielle G Toleranz WSP mit gelöteter CBN oder PKD Schneidecke. CBN ist besonders für die Schlichtbearbeitung von gehärtetem Stahl oder Grauguss geeignet, PKD für die Schlichtbearbeitung von NE-Metallen und nicht metallischen Werkstoffen (Glasfiber, Keramik, glasfaserverstärkte Kunststoffe).

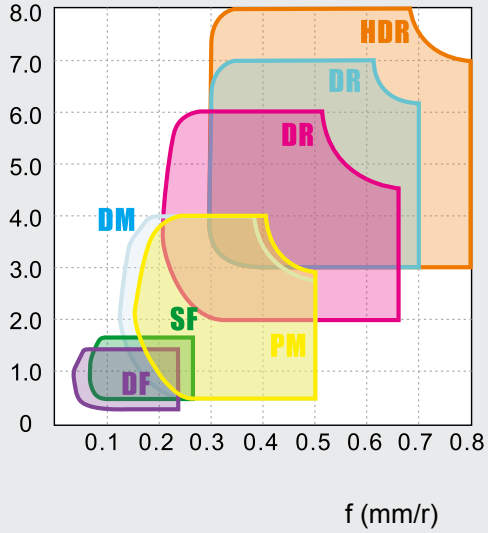
A

Chip breaker Cutting Condition · Spanbrecher Schnittdatenempfehlung

Main Chip breaker for general Turning · Hauptspanbrecher für allgemeine Drehbearbeitung

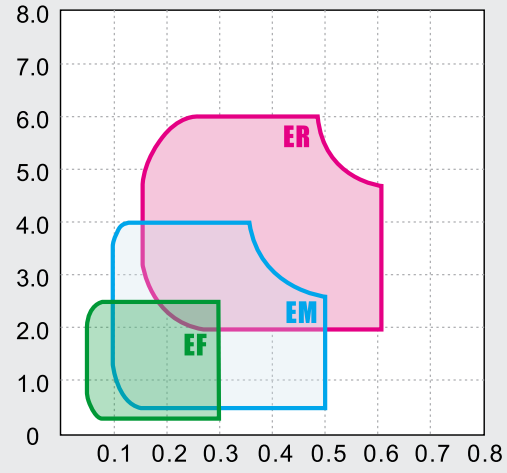
Negative Insert· Negative Wendeschneidplatten

ap· d.o.c.(mm)



Material: Steel · Stahl C 45

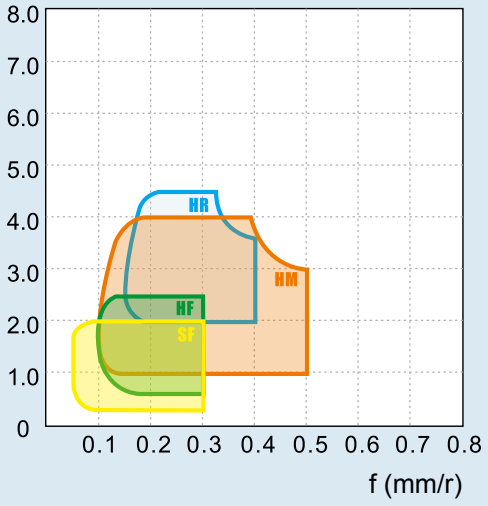
ap· d.o.c.(mm)



Material: Stainless Steel · Rostfreier Stahl (1Cr18Ni9Ti)

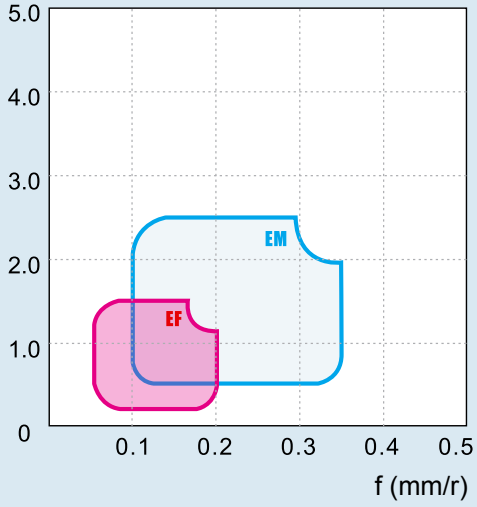
Positive Inserts· Positive Wendeschneidplatten

ap· d.o.c.(mm)



Material: Steel · Stahl C 45

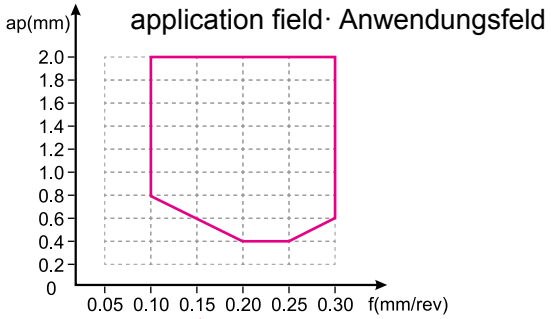
ap· d.o.c.(mm)

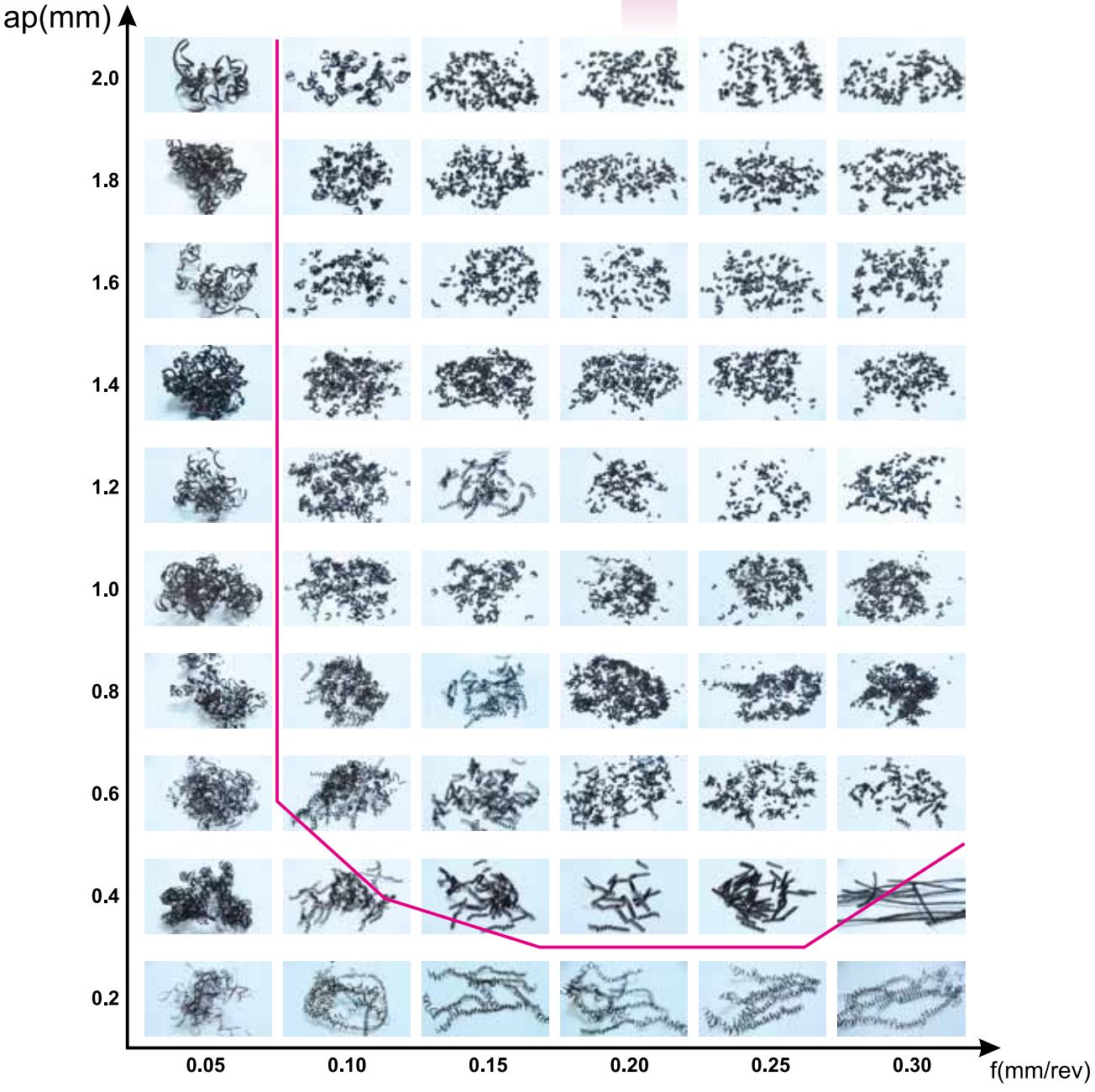


Material: Stainless Steel · Rostfreier Stahl (1Cr18Ni9Ti)

Chip breaker application field · Spanbrecher Anwendungsfeld

Example· Beispiel:
Insert· WSP: CNMG120408-DF
Cutter· Halter: PCLNL2525M12
Material: C 45 steel
V_c: 200(m/min)





WG

chip breaker series
WG Spanbrecher Serie

Turning Insert with **WIPER**-Technology
Drehplatten mit **WIPER**-Technologie

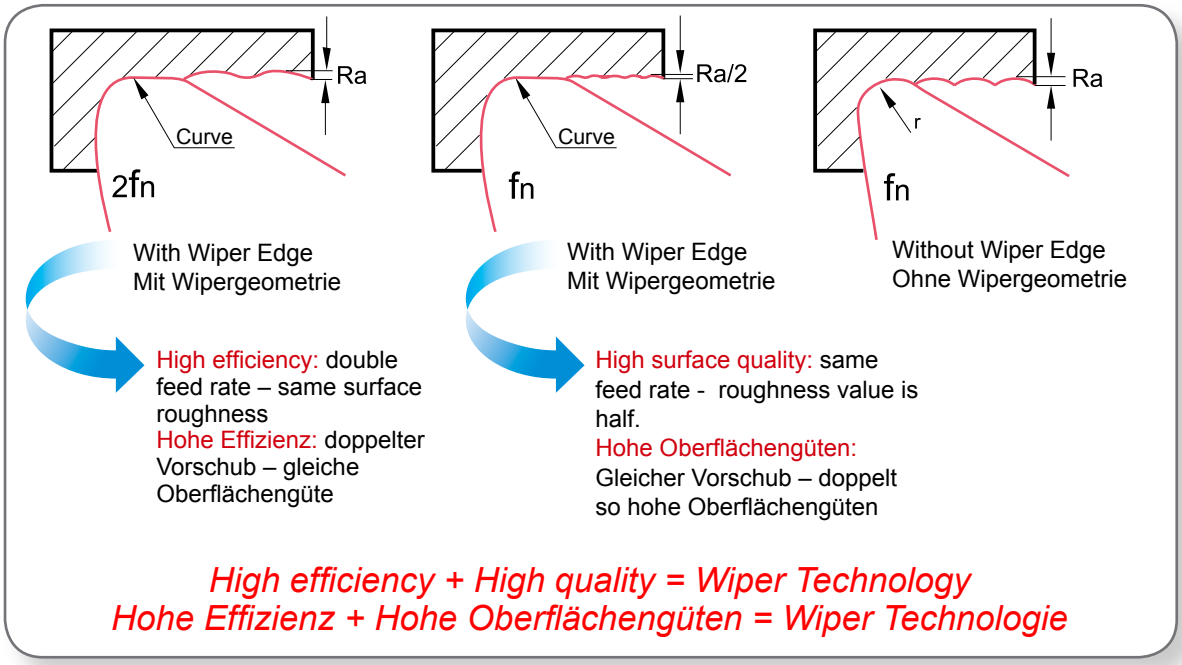
WIPER

Machining a good surface finish on turned components has become a demand for semi-finishing and finishing operations. The Wiper technology has provided turning with a new means to achieve improved production performance where the key is to being able to raise the feed rate.

Bei der Schlicht- bis mittleren Bearbeitung von Drehteilen nimmt die Realisierung von hohen Oberflächengüten an Bedeutung zu. Dank der Wiper-Technologie kann diese Anforderung auch bei höheren Vorschüben realisiert werden. Ein weiterer Vorteil ist die Steigerung der Produktivität.

A Wiper insert has a special design of nose configuration. It has been developed to provide a high capability of generating a better surface finish. On the other hand, is capable of machining the same finish at a much higher feed.

Eine Wiperplatte zeichnet sich durch eine spezielle Modifikation des Eckenradius aus. Dadurch ist bei gleichem Vorschub, verglichen mit einer herkömmlichen Drehplatte, eine deutliche Verbesserung der Oberflächengüte zu erzielen. Eine weitere Möglichkeit ist die Verdoppelung des Vorschubes für eine höhere Produktivität, wobei die Oberflächengüten gleich bleiben.



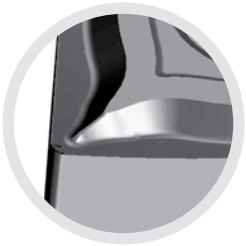
Feature·Merkmale:

By using a Wiper inserts you can get excellent surface quality and eliminate many grinding operations. You also get better component quality and roundness compared to grinding.

Durch die Verwendung von Wendeschneidplatten mit Wipertechnologie lassen sich hohe Oberflächengüten erzielen und somit viele Schleifoperationen ersetzen. Die Werkstückqualitäten z.B. in Bezug auf Rundheit kann im Vergleich zum Schleifen ebenfalls gesteigert werden.

EF EM ER

Special chip breaker series for soft steel, stainless steel and heat resistance Superalloy
Spezielle Spanbrecherserien besonders für die Zerspanung von weichem Stahl, rostfreien (M) Stählen und warmfesten Superlegierungen.



-EF

Sharp positive cutting edge for finishing and semifinishing of austenitic stainless steel, soft steel and low carbon steel. Suitable for continuous to light interrupted cut.

Scharfer, positiver Spanbrecher für die Schlichtbearbeitung von rostfreien Stählen, weichem Stahl, Automatenstahl und für Stähle mit niedrigem Kohlenstoffgehalt. Für glatte bis leicht unterbrochene Schnitte.

-EM

Sharp cutting edge with stronger edge line for medium cut even in interrupted cut.

Scharfe, stabile Schneidkante für die mittlere Bearbeitung von Werkstoffen auch im unterbrochenen Schnitt.

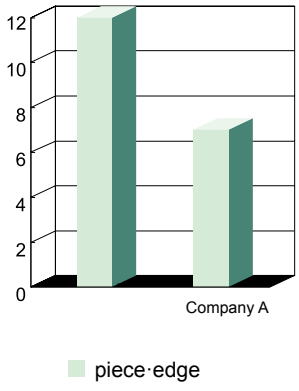
-ER

Special edge design with exellent balance between egde strength and sharpness. Suitable for roughing operation.

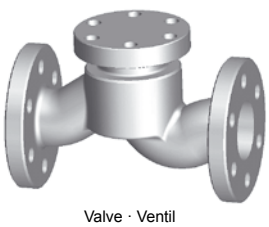
Speziell entwickelter Spanbrecher mit exzellenter Kantenstabilität bei gleichzeitiger Schneidenschärfe, für die Schruppbearbeitung.

Example· Beispiel:

CNMG120408-**EM**
YBG202



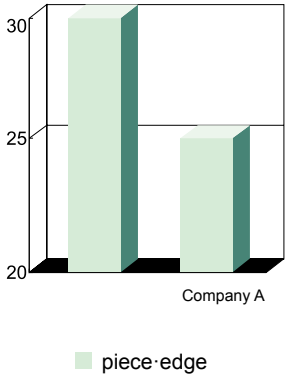
Parameter:	
D	135mm
V_c	150 m/min
f	0.25mm/rev
ap	2.5 mm



Valve · Ventil

Example· Beispiel:

CNMG120408-**EF**
YBG202

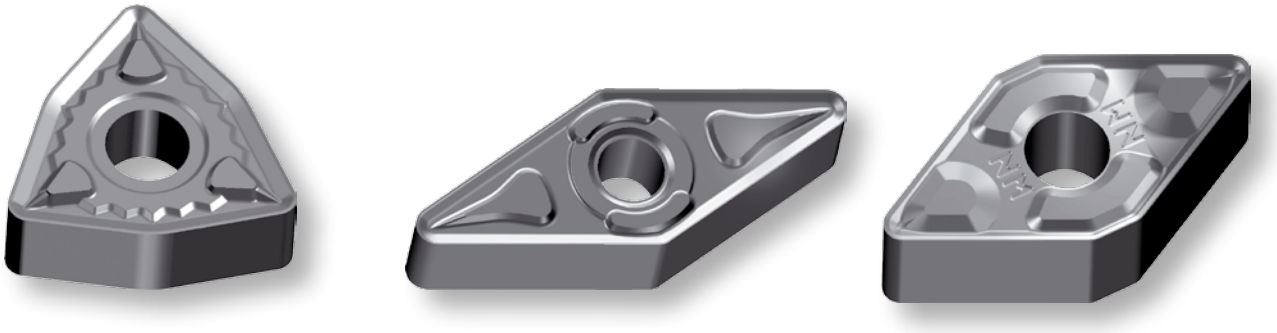


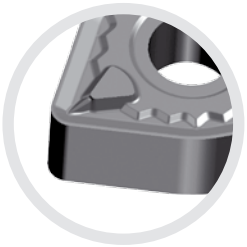
Parameter:	
D	89 mm
V_c	180 m/min
f	0.15mm/rev
ap	1.0 mm

NF NM

NEW

Special chip breaker series for machining heat resistance and super alloy material.
Neue Spanbrecherserie für die Bearbeitung von hochlegierten, warmfesten Materialien.





-NF

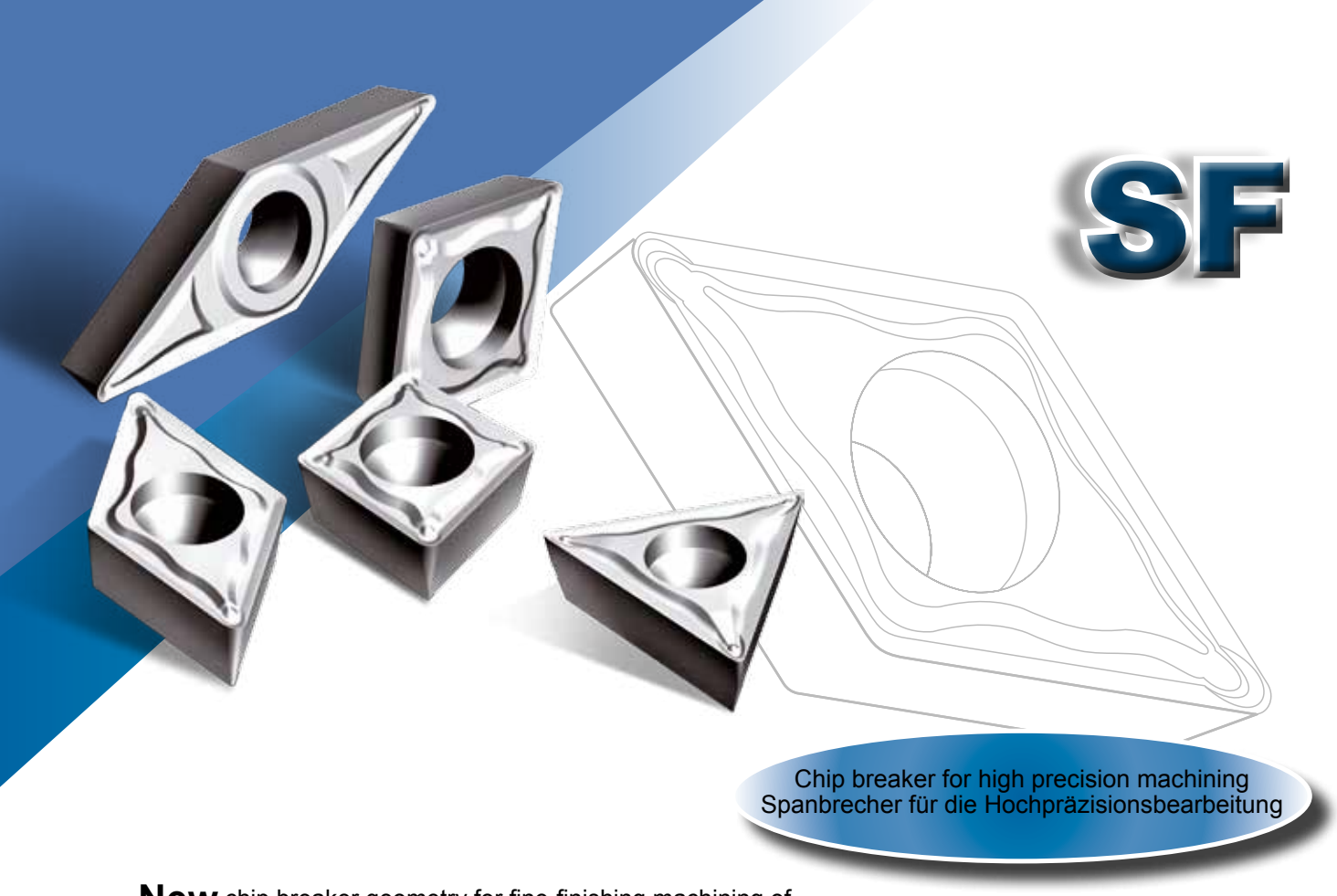
Ground inserts with sharp and positive cutting edge. NF combined with grade YBG102 is a good solution for the finishing of heat resistant super alloys (nickel-based such as Inconel 700,718, iron-based and cobalt-based alloys). ap=0.2~1.0mm,Vc=40~100m/min.

Geschliffene Wendeschneidplatte mit einer scharfen positiven Schneidkante. NF in Kombination mit der Sorte YBG102 ist eine gute Lösung für Schlichtbearbeitungen von warmfesten Superlegierungen (Ni-basiert wie Inconel 700,718, Fe-basiert und Co-basiert) ap=0.2~1.0mm,Vc=40~100m/min.

-NM

Sharp cutting edge with positive multi-rakes. Special for the semifinishing of heat resistant super alloys.

Scharfe Schneidkante mit positivem Multi-Spanwinkel. Besonders geeignet für die Bearbeitung von warmfesten Superlegierungen.



SF

Chip breaker for high precision machining
Spanbrecher für die Hochpräzisionsbearbeitung

New chip breaker geometry for fine-finishing machining of steel, stainless steel and cast iron. In combination with our cermet grades a good solution for high precision production.

Neue Spanbrecher für die Feinstbearbeitung von Sathl, rostfreiem Stahl und Gusswerkstoffen. In Kombination mit unseren Cermetsorten die beste Wahl für die Hochpräzisionsbearbeitung.

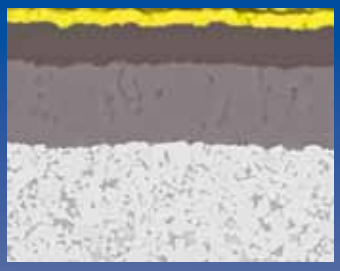
1. High precision
   Hohe Genauigkeit

2. Sharp cutting edge to reduce cutting force and vibration
   Scharfe Schneidkante zur Reduktion von Schnittkraft und Vibrationen.

3. Excellent chip control
   Ausgezeichnete Spankontrolle

4. Excellent surface quality
   Ausgezeichnete Oberflächengüte

Best result in combination with our carbide anti-vibration boring bars.
Beste Ergebnisse in Kombination mit unseren Antivibrations Hartmetallbohrstangen.



YBC251 coating

Application field CVD, turning grade of steel
Anwendungsbereich CVD, Drehsorten für Stahl

YBC 151

CVD coated grade with good wear resistance in combination with MT-Ti(CN), thick layer AL2O3, TiN coating. Good for finishing of steel and dry machining.

CVD-beschichtete Premiumsorte mit ausgezeichneter Verschleißfestigkeit. Die Kombination von MT-TiCN und einer dicken AL2O3 TiN Auflage eignet sich zum Schlichten von Stahl und zur Trockenbearbeitung.

YBC 251

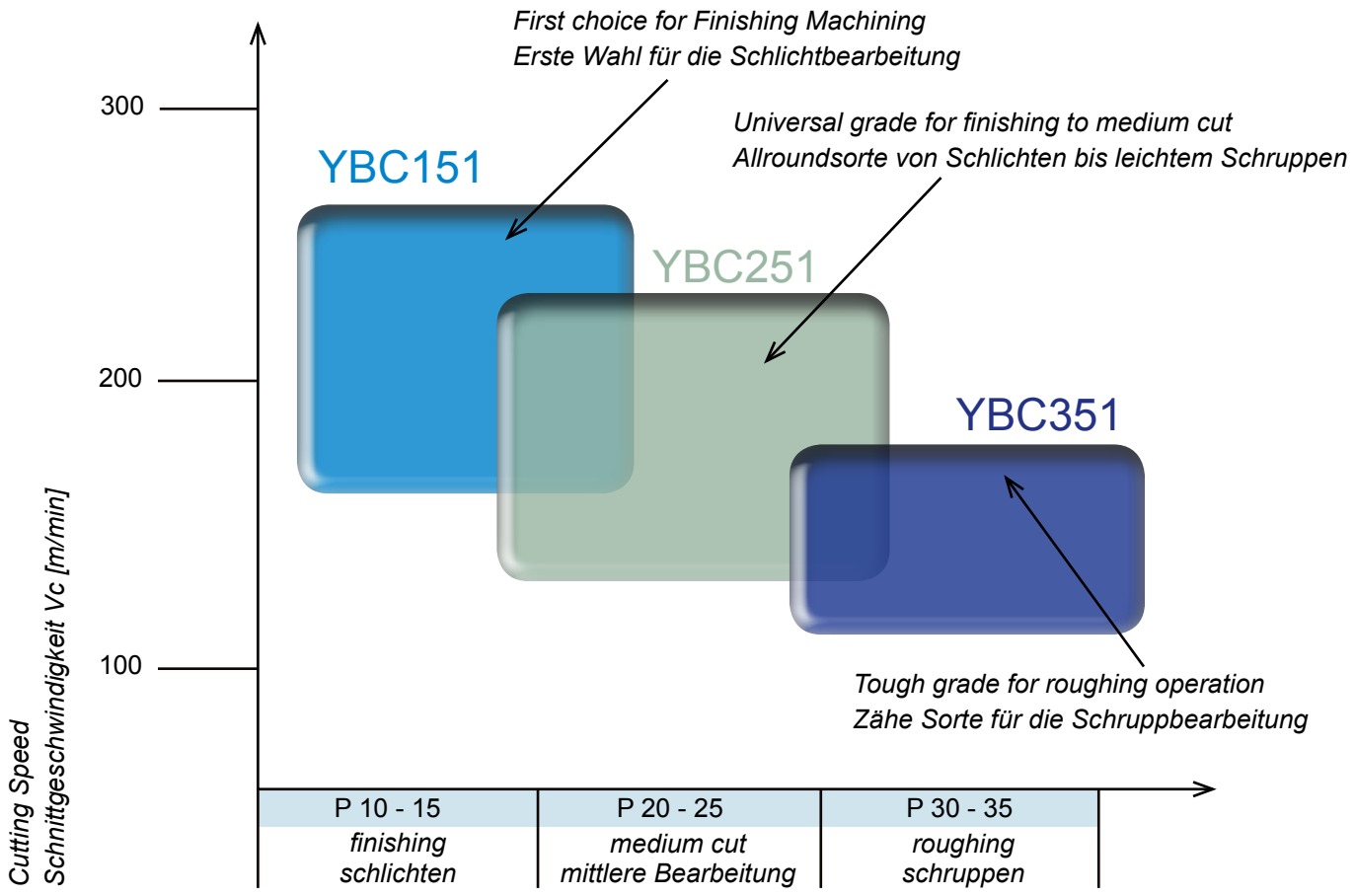
CVD premium universal grade with excellent combination of toughness and wear resistance. In combination with MT-Ti(CN), thick layer AL2O3, TiN coating this grade is first choice for medium to light interrupted cutting of steel.

CVD-beschichtete Hochleistungs-Allroundsorte mit guter Schneidkantensicherheit und Verschleißfestigkeit. In Verbindung mit der MT-TiCN und einer dicken AL2O3 TiN Beschichtung eignet sich diese Sorte für die mittlere Bearbeitung bis zu leichtem Schruppen von Stahl.

YBC 351

CVD coated premium grade with high toughness and wear resistance. In combination with MT-Ti(CN), thick layer AL2O3, TiN coating this grade is suitable for rough machining of steel under unstable condition.

CVD-beschichtete Premiumsorte mit hoher Zähigkeit und Verschleißfestigkeit. Die Kombination von MT-TiCN und einer dicken AL2O3 TiN Auflage eignet sich besonders für die leichte bis schwere Schruppbearbeitung von Stahl.



Application field CVD, turning grade of stainless Steel

Anwendungs-bereich CVD, Drehsorten für rostfreien Stahl

YBM 151

Substrate with special structure, in combination with TiCN, thin layer AL_2O_3, TIN coating. With resistance against diffusion wear and plastic deformation it is good for finishing and semi-finishing of stainless steel.

CVD-beschichtetes Hartmetall. Die besonders strukturierte Kombination mit TiCN und Al2O3, TiN Auflage hat eine ausgezeichnete Schichthaftung und Widerstandsfähigkeit gegen plastische Verformung. Gut geeignet für die Schlicht- bis mittlere Bearbeitung von rostfreiem Stahl.

YBM 251

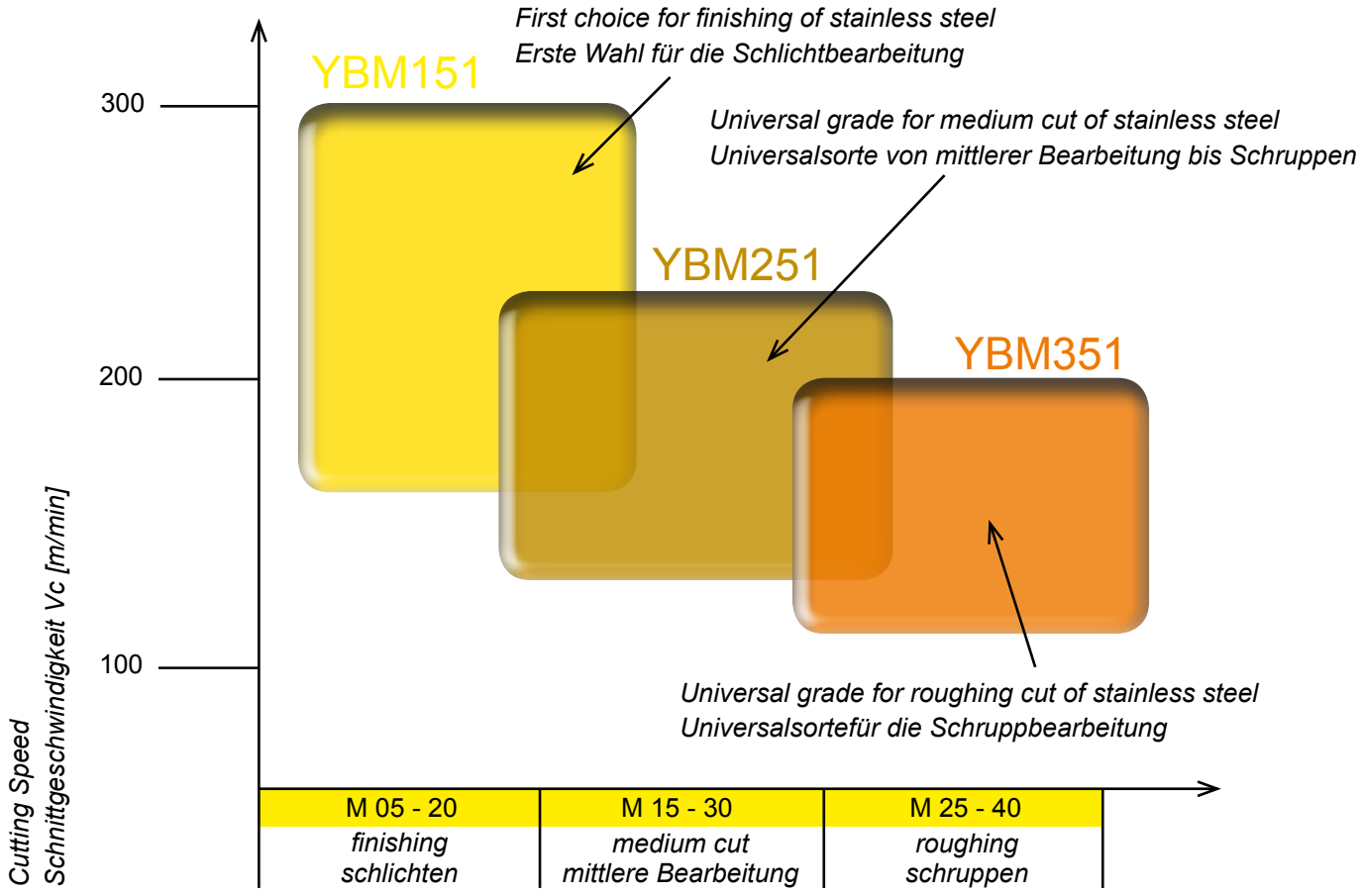
Substrate with good toughness and strength, in combination with Ti(CN), thin layer AL_2O_3, TiN coating. It is a premium grade for semi-finishing to light roughing of stainless steel at continuous and intermittent machining conditions.

Universal einsetzbares CVD-beschichtetes Hartmetall aus TiCN, Al2O3 und TiN mit guter Zähigkeit und Verschleißfestigkeit. Optimiert für mittlere Drehbearbeitung von rostfreiem Stahl mit und ohne Schnittunterbrechung.

YBM 351

Coated carbide grade with very good strength and impact resistance. It is suitable for rough turning of stainless steel at low to moderate cutting speed or interrupted cutting,

Beschichtete Hartmetallsorte mit ausgezeichneter Widerstandsfähigkeit und Schneidkanten-sicherheit. Ideal für schwere Schruppbearbeitung von rostfreiem Stahl und Stahl bei mittleren Schnittgeschwindigkeiten oder bei Schnittunterbrechung.



YBD

Application field CVD, turning grade of Cast Iron

Anwendungsbereich CVD, Drehsorten für Guss

YBD 052

CVD coated grade with excellent wear resistance in combination with MT-Ti(CN), thick layer AL2O3. Best grade for machining of gray cast iron (GG) under high speed and dry machining.

CVD-beschichtete Premiumsorte mit ausgezeichneter Verschleißfestigkeit. Die Kombination von MT-TiCN und einer dicken AL2O3 Auflage eignet sich besonders zum Bearbeiten von Grauguss (GG) bei hohen Schnittgeschwindigkeiten und Trockenbearbeitung.

YBD 102

Modified CVD coating the hard fine grain carbide substrate. It is optimized for machining of cast iron, swpecial nodular cast iron and hard steel at high speeds.

Modifizierte CVD Beschichtung auf einem hartem feinkörnigen Hartmetall. Es optimiert für die Bearbeitung von Guss, besonders Kugelgraphitguss und hoch vergütetem Stahl bei hohen Geschwindigkeiten.

YBD 152

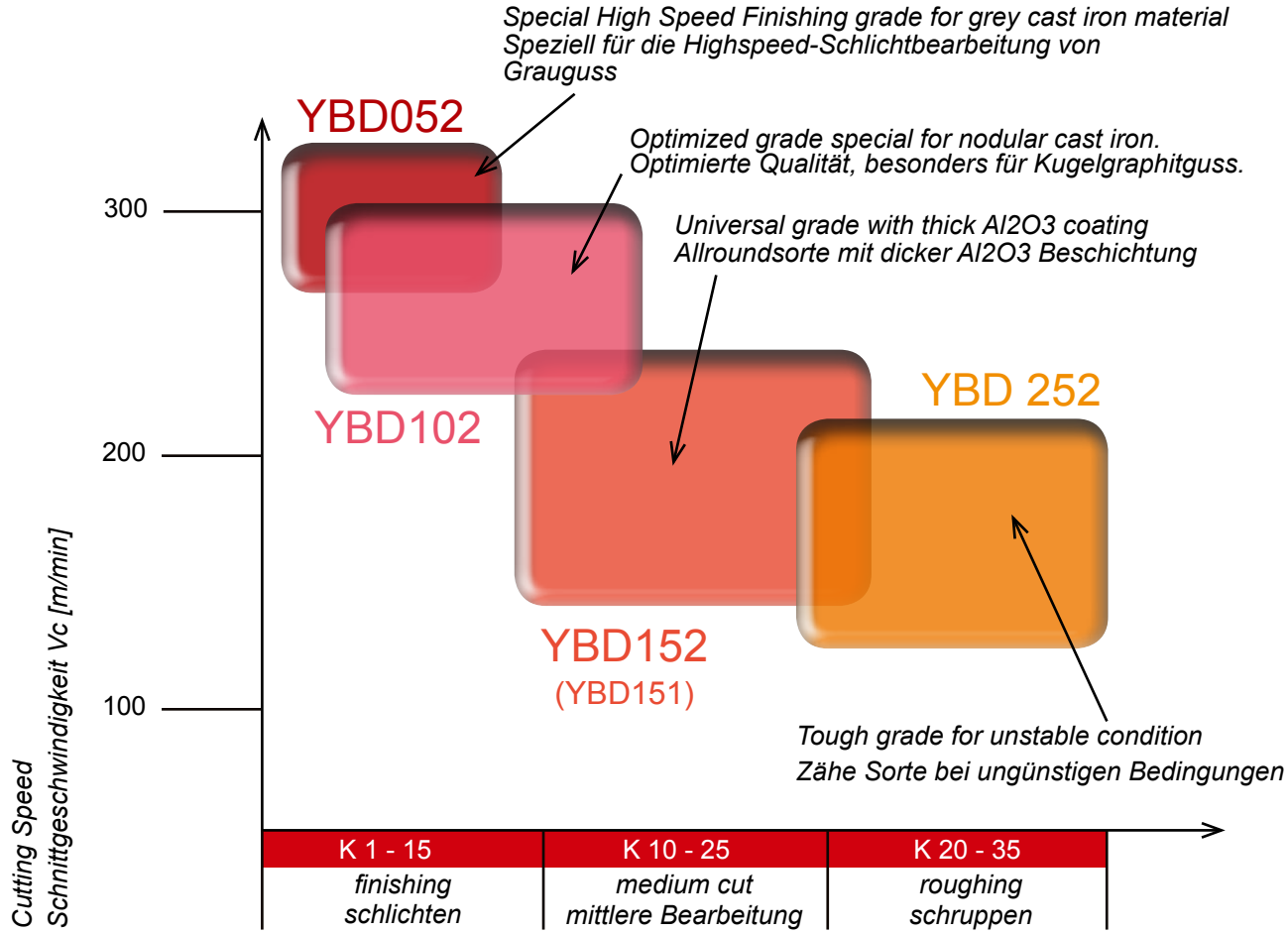
Hard medium fine corn substrate in combination of TiCN, thick AL_2O_3, coating. It is suitable for machining of gray cast iron and nodular cast iron under normal cutting conditions from low to moderate cutting speeds.

Hartes mittel-feinkörniges Substrat mit TiCN, dicker AL_2O_3 Auflagen. Es ist geeignet für die Bearbeitung von Grauguss und Kugelgraphitguss mit niedrigen bis mittleren Schnittgeschwindigkeiten.

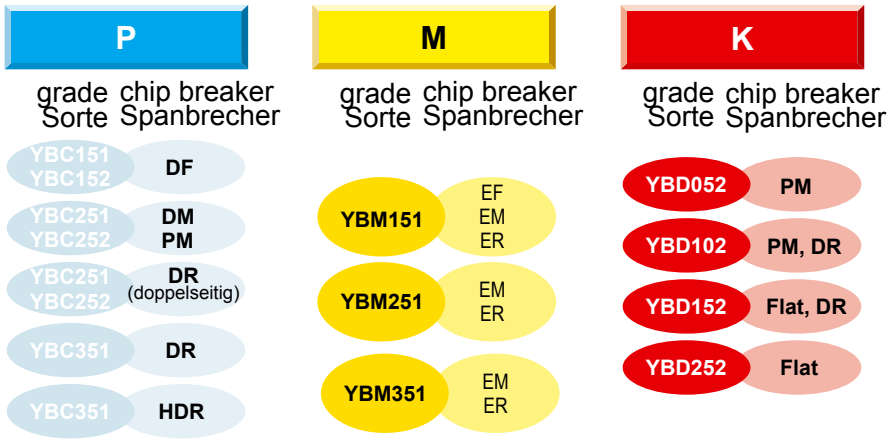
YBD 252

Tough substrate in combination with TiN,TiCN, thick AL_2O_3 coating. it is good for turning of cast irons under favoable conditions. And for milling of cast iron and ally steel.

Zähes Substrat mit TiN, TiCN, dicke AL_2O_3 Auflagen. Zum Drehen von Guss bei ungünstigen Bedingungen. Zum Fräsen von Guss und legierten Stahl.



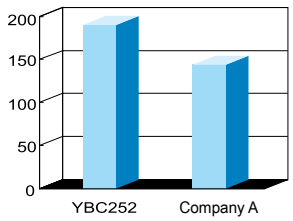
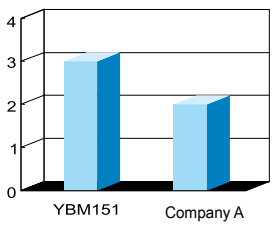
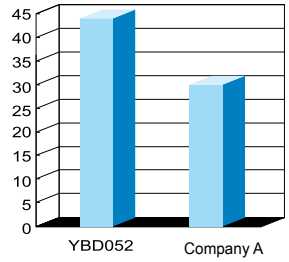
Recommended combination of grades, chip breaker and cutting data.
Empfohlene Kombination von Sorten, Spanbrechern und Schnittdaten.

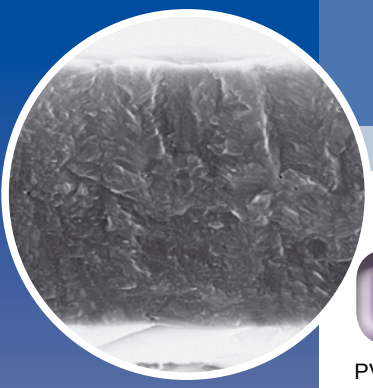


Recommended cutting condition· Empfohlene Schnittdaten

Workpiece Material Werkstück Material		application · Anwendung	grade · Sorte	Recommended Cutting Speed m/min Schnittgeschwindigkeit m/min
P	Steel Stahl	Finishing Schlichten	YBC151	180-460
			YBC152	220-500
		Semi-finishing Mittlere Bearbeitung	YBC251	160-440
			YBC252	180-480
		Roughing	YBC351	130-380
M	Stainless Steel Rostfreier Stahl	Semi-finishing Mittlere Bearbeitung	YBM151 YBM251 YBM 351	110-280
K	Cast Iron Gusseisen	Roughing Schruppen	YBD052	200-500
			YBD102	200-480
		Semi-finishing Mittlere Bearbeitung	YBD151	180-450
			YBD152	190-450
		Roughing	YBD252	150-380

Machining example · Bearbeitungsbeispiele

Application Anwendung	Typ	WNMG060408 PM	CNMG190616-ER	TNMA220412
	Grade Sorte	YBC252	YBM151	YBD052
Workpiece Werkstück				
Workpiece Material & Hardness		45 steel HB220	Duplex Stainless Steel HB260	Grey cast iron HB280
Cutting Condition Schnitt-bedingungen	Parameters Schnittdaten	V=220m/min ap=1.5~2mm f=0.25mm/r	V=103m/min ap=1.5mm f=0.3mm/r	V_{max}=400m/min ap=1.3~2.5mm f=0.4~1.1mm/r
	Cutting Liquid Kühlmittel	Dry Cutting · Trockenbearbeitung	Dry Cutting · Trockenbearbeitung	Dry Cutting · Trockenbearbeitung
Machining result Ergebnis Werkstücke pro Schneide Workpiece Per Edge				



COATED Cemented Carbide PVD
Beschichtestes Hartmetall PVD

Makes it easy to machine materials which hard to be machined...

Die Lösung für die Bearbeitung von schwer zu zerspanenden Materialien...

YBG 102
N10 (N01-N10)
S10 (S01-S20)

PVD nano-TiAlN coated fine grain cardide grade. It is suitable for finishing and semi-finishing turning of high-temperature alloys, nonferrous metal(Aluminium with Si>=12%) and finishing of stainless steel.

Nano-TiAlN PVD-beschichtete, fein körnige Hartmetallsorte. Gut geeignet zum Drehen von warmfesten Superlegierungen, NE-Metallen (Aluminium mit Si>=12%) und zum Schlichten von rostfreiem Stahl.

YBG 202
P20 (P10-P25)
M20 (M10-M25)

PVD nano-TiAlN (2~4um) coated fine grain carbide grade. Good performance in combination of toughness and wear resistance, suitable for turning, parting, grooving of steel, stainless steel, cast iron and high-temperature alloys in finishing and semi-finishing machining.

Nano-TiAlN (2~4um) PVD beschichtete, feinkörnige Hartmetallsorte. Hervorragende Kombination von Zähigkeit und Verschleißfestigkeit. Zum Drehen, Ab- und Einstechen von Stahl, rostfreiem Stahl, Guss und warmfesten Superlegierungen bei leichter und mittlerer Bearbeitung.

YBG 205
P20 (P10-P30)
M20 (M10-M30)

New nano structure coating process ensures higher toughness but also hardness. This coating grade results in smooth surface finish on the insert, which reduce friction and improved chip flows. Excellent thermal and chemical resistance. This grade is suitable to machine stainless steel and high temperature alloy.

Neue Nano-Beschichtungsstruktur mit gleichzeitiger Härte und Verschleißfestigkeit bzw. Zähigkeit. Eine ultra glatte Schichtoberfläche vermindert die Reibung und garantiert einen optimierten Spanabfluß. Die exzellente thermische und chemische Widerstandsfähigkeit zeigt diese Sorte besonders bei der Bearbeitung von rostfreien Stählen und warmfesten Legierungen.

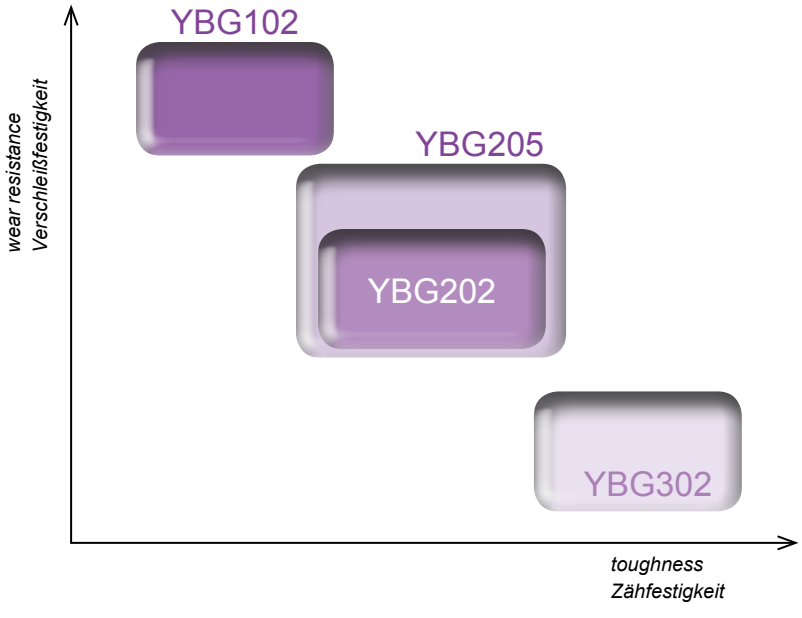
YBG 302
P30 (P20-P35)
M10 (M20-M35)

Substrate with good toughness and strength. PVD nano-TiAlN caoted. It is a universial PVD grade for steel, stainless steel in turning, parting off, and grooving operation.

Universial einsetzbares PVD-beschichtetes Hartmetall mit guter Zähigkeit und Verschleißfähigkeit. Zum Drehen, Ab- und Einstechen von Stahl und rostfreiem Stahl sowie Guss.

Special Coating process for smooth insert surface
Reduce friction - best chip evacuation
combination of wear resistance and toughness
best thermal and chemical stability

Spezieller Beschichtungsprozeß mit sehr glatter Oberflächenstruktur
Reduzierte Reibung - exzellenter Spanfluß
Kombination aus Verschleißfestigkeit und Zähigkeit.
Beste thermische und chemische Stabilität.



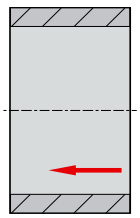
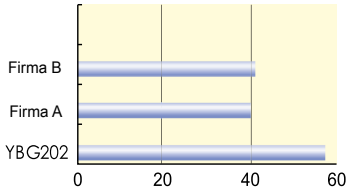
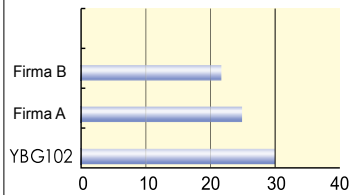
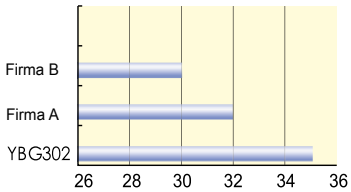
■ Recommended combination of grades, chip breaker and cutting data.
Empfohlene Kombination von Sorten, Spanbrechern und Schnittdaten.

P		M		S	
grade Sorte	chip breaker Spanbrecher	grade Sorte	chip breaker Spanbrecher	grade Sorte	chip breaker Spanbrecher
YBG202	DM	YBG202	EF	YBG102	NF
		YBG202	EM	YBG102	NM
		YBG205	EM		

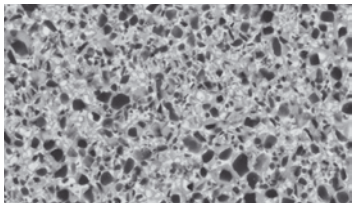
■ Recommended cutting condition· Empfohlene Schnittdaten

Workpiece Material Werkstück Material		application · Anwendung	grade · Sorte	Recommended Cutting Speed m/min Schnittgeschwindigkeit m/min
P	Steel Stahl	Finishing Schlichten	YBG102	180-460
		Semi-finishing Mittlere Bearbeitung	YBG202	150-380
		Roughing Schruppen	YBG302	130-360
M	Stainless Steel Rostfreier Stahl	Finishing· Semi-Finishing Schlichten· Mittlere Bearbeitung	YBG202	170-300
		Roughing Schruppen	YBG302	120-250
S	Heat-Resistant Steel Warmfester Stahl	Finishing Schlichten	YBG102	30-90
		Roughing	YBG202	150-380

Machining example · Bearbeitungsbeispiele

Application Anwendung	Typ	CNMG120404-EF	DNEG150404-NF	CMM160612-DR
	Grade Sorte	YBG 202	YBG102	YBG302
Workpiece Werkstück				
Workpiece Material & Hardness		0Cr18Ni9 HB240	Inconel 718 HRC≥39	30Cr1Mo1V HB220-260
Cutting Condition Schnitt-bedingungen	Parameters Schnittdaten	V=200m/min ap=1mm f=0.15mm/r	Vc=80m/min ap=0.3mm f=0.15mm/r	V=100m/min ap=6mm f=0.5mm/r
	Cutting Liquid Kühlmittel	Dry Cutting· Trockenbearbeitung	Dry Cutting· Trockenbearbeitung	Dry Cutting· Trockenbearbeitung
Machining Effect Ergebnis Workpiece per Edge Werkstücke pro Schneide				

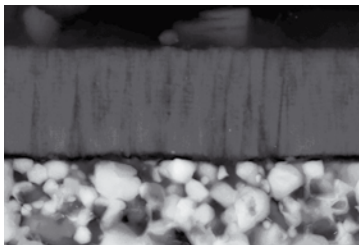
Cermet
Cermet



The cermet has higher hardness and oxygen-resistant under high temperature. The further advantage of cerments is to get the excellent surface quality and tolerance under higher speed.

Die Vorteile von Cermets zeigen sich in großer Härte, Oxidationsbeständigkeit und Hochtemperaturbeständigkeit. Die weiteren Vorteile von Cermets sind exzellente Oberflächen bei hohen Schnittgeschwindigkeiten und konstanter Maßhaltigkeit.

Coated-Cermet
Beschichtetes Cermet



YNG151 TiCN based cermet, with the combination of hardness, excellent toughness, excellent, resistence thermoplastic. It is suitable for super-finishing and finishing of steel, stainless steel and cast iron.

YNG151C TiCN based cermet, through special pretreatment, plus PVD Nano-TiAIN coating. Optimal combination of high wear resistance and good edge toughness, suitable for the superfishing and finishing of steel, stainless steel and cast iron for high surface finishing.

YNG 151 auf der Basis von Ti(cn)Cermet verbunden mit Härte, Zähigkeit und Widerstandsfähigheit gegen plastische Verformung und Aufbauschneidenbildung. Geeignet zum Schlichten und Feinschlichten von Stahl, rostfreiem Stahl und Guss für eine höhere Oberflächengüte.

YNG151C TicN Cermet. Plus PVD NaNO-TiAIN Beschichtung: Optimale Kombination von sehr hoher Verschleißfestigkeit und Schneidkantenzähigkeit. Zum Feinschlichten und Schlichten von Stahl, rostfreiem Stahl und Guss für eine hohe Oberflächengüte.

■ Recommended Cutting Conditions · Empfohlene Schnittdaten

Workpiece Material Werkstückstoff		application · Anwendung	Grade · Sorte	Recommended Cutting Speed m/min Schnittgeschwindigkeit m/min
P	Steel/ Stahl	Finishing machining Schlichten	YNG151	260-550
			YNG151C	260-580
M	Stainless Steel/ Rostfreier Stahl		YNG151	170-330
			YNG151C	160-350
K	Cast Iron/ Gusseisen		YNG151	250-400
			YNG151C	270-420

Machining example · Bearbeitungsbeispiele

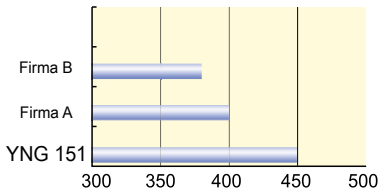
Application/ Anwendung: YNG151·CNMG120404-SF

Workpiece material and hardness: Werkstückhärte 20CrMnTi HB180-223

Machining parameters v=220m/min

ap=0.5~1.0mm

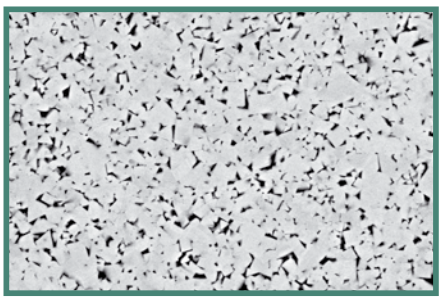
f=0.14mm/r



good chip control and surface · gute Spankontrolle und Oberfläche

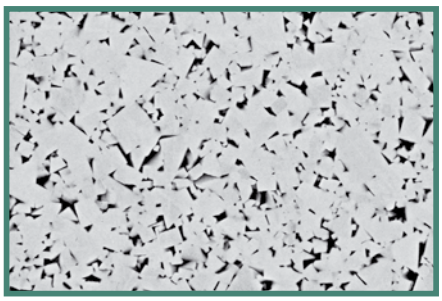
UNCOATED CARBIDE grade is widely used for non-ferrous and heat resistent material.

UNBESCHICHTETES HARTMETALL wird überwiegend für die Bearbeitung von NE-Metallen und warmfesten Legierungen eingesetzt.



Substrate of YD101 - the combination of cemented carbide phase WC of fine grain and bonding phase Co.

YD101 ist ein unbeschichtetes Hartmetall mit feiner Körnung, einer Hardphase aus WC Carbide und eine Bindephase aus Cobald (Kombination).



Substrate of YD 201 - the combination of cemented carbide phase WC of middle grain and bonding phase Co.

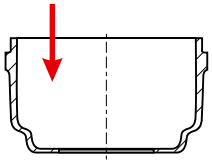
YD 201 ist ein unbeschichtetes Hartmetall mit mittlerer Korngröße, einer Hartphase aus WC Carbide und eine Bindephase aus Cobald.

Recommended Cutting Conditions · Empfohlene Schnittdaten

Workpiece Material Werkstückstoff		Application · Anwendung	Grade · Sorte	Recommended Cutting Speed m/min Schnittgeschwindigkeit m/min
P	Steel Stahl	Finishing Schlichten	YC10	130 - 360
		Roughing Schruppen	YC40	80 - 300
K	Cast Iron Gusseisen	Finishing Schlichten	YD051	100 - 170
		Semi-Finishing - Roughing Mittlere Bearbeitung -Schruppen	YD201	60 - 130
N	None-ferrite materials NE Metalle	Finishing· Semi-Finishing Schlichten· Mittlere Bearbeitung	YD101	110 -...
S	Heat-Resistant Steel Warmfester Stahl	Finishing Schlichten	YD101	20 - 50

Machining example · Bearbeitungsbeispiele

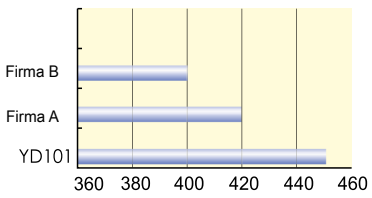
Example of Use
Bearbeitungsbeispiel



Insert· WSP: YD101·CCGX09T304-LH

Workpiece material and hardness·Werkstückstoff und Härte: ZL105 HB70

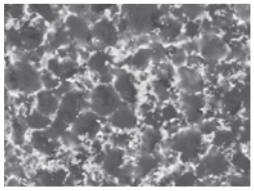
Machining parameters· Schnittdaten:
v=400m/min
ap=1mm
f=0.3mm/r

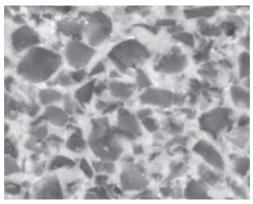


good shipcontroll and surface · gute Spankontrolle und Oberfläche

PCBN / PCD

Super-hard Cutting Material
Superharter Schneidstoff



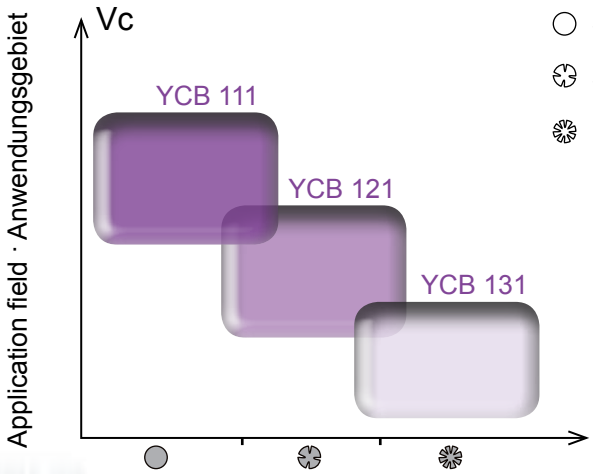


PCBN PCBN cubic boron nitride

PCBN with high hardness and good heat resistance for cutting of hardend steel (could be 1300°C), carbon steel, ball bearing steel, mould steel and high speed steel, grey cast iron, nodular graphite cast iron, chilled cast iron and Ni-based, Co-based, Cr-based and Fe-based high temperature alloy.

PCBN mit hoher Härte und Warmfestigkeit für die Bearbeitung bei hohen Temperaturen, z.B. 1300°C, bei der Bearbeitung von gehärtetem Stahl mit HRC von 50-60. Zur Bearbeitung von Stahl, Kugellagerstahl, Gussstahl, HSS, Grauguss, Kugelgraphitguss, Hartguss, Ni-, Fe-, Co-,Cr2- basis Superlegierungen.

Type · Typ	Grade Sorten	Application Anwendung	Characteristic Merkmale
Uncoted CBN Unbeschichtete CBN	**YCB111**	High speed continuous cutting vollschnitt bei hoher schnittgeschwindigkeit	Best wear resistance grade and suitable for high speed continuous cutting Verschleißfeste Sorte besonders geeignet für die Hochgeschwindigkeisbearbeitung im Vollschnitt
	YCB121	conitiuous and interrupted cutting (Light-Medium) Voll- und leicht unterbrochener Schnitt	Most suited for continuous and light interrupted high speed finishing due to heat resistant substrate. Durch sein bruchfestes Substrat die Universalsorte von niedriger bis hoher Schnittgeschnwindigkeit mit exzellenter Standzeit.
	YCB131	Interrupted cutting (Heavy) Stark unterbrochener Schnitt	CBN with higher fracture toughness, for interrupted cutting CBN mit exzellenter Bruchzähigkeit im stark unterbrochenen Schnitt.
	YCB211	Cast iron machining, Sintered matrials Gussbearbeitung,Sinkterwerkstoffe	First choice for high speed finishing of grey cast iron and sintered parts Erste Wahl zum Schlichten mit hohen Schnittgeschwindigkeiten im Guss und Sinterwerkstoffe.

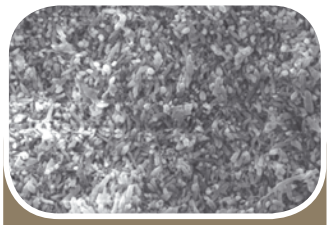


- Continuous cutting
  Vollschnitt
- Continuous and interrupted cutting
  Voll- und leicht unterbrochener Schnitt
- Interrupted cutting
  Stark unterbrochener Schnitt

PCD PCD polycrystalline diamond
PCD polycrystaliner Diamand

PCD with high hardness, good wear resistance, low friction coefficient and good heat conductivity, which is appropriate for cutting of non-ferrous metal (such as Cu, Al, Mg and Ti high silicon alloy etc.) and nonmetal materials (such as glass fiber, cermet and enforced plastic etc.)

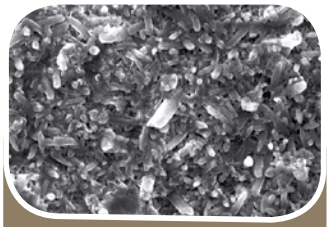
PCD mit hoher Härte guter Verschleißfähigkeit, und geringer Neugang zur Aufbauschneide, ist besonders geeignet für die Bearbeitung von NE-Metallen und (z.B. Cu, Al, Mg and Ti hochsilicium legierte Werkstoffen und Material wie Fiberglas, Cermets und verstärktes Plastik ect.



CN1000

CN1000 is Si3N4 ceramics grade. Optimal performance against cracking of cutting edge and thermal shocking. Suitable for finishing and semi-finishing of gray cast iron.

CN1000 ist eine Keramik von Si3N4. Optimale Eigenschaften gegen Schneidkantenbruch und dynamische Wärmebelastung. Geeignet zum Schlichten und zur mittleren Bearbeitung von Grauguss.



CN2000

CN2000 is Si3N4 ceramics grade with good wear-resistance and excellent toughness. Suitable for intermittent and continuous machining of grey cast iron, and Ni-based alloys.

CN2000 is Si3N4 Keramiksorte mit hoher Verschleißfestigkeit und ausgezeichneter Zähigkeit. Geeignet für die Bearbeitung von Grauguss mit und ohne Schnittunterbrechungen, sowie Ni-Superlegierungen.

CA1000

CA1000 is the mixed ceramics of Al203+TiCN. Good performance of wear resistance and safety cutting edge. Suitable for continuous machining of hardened steel and nodular cast iron.

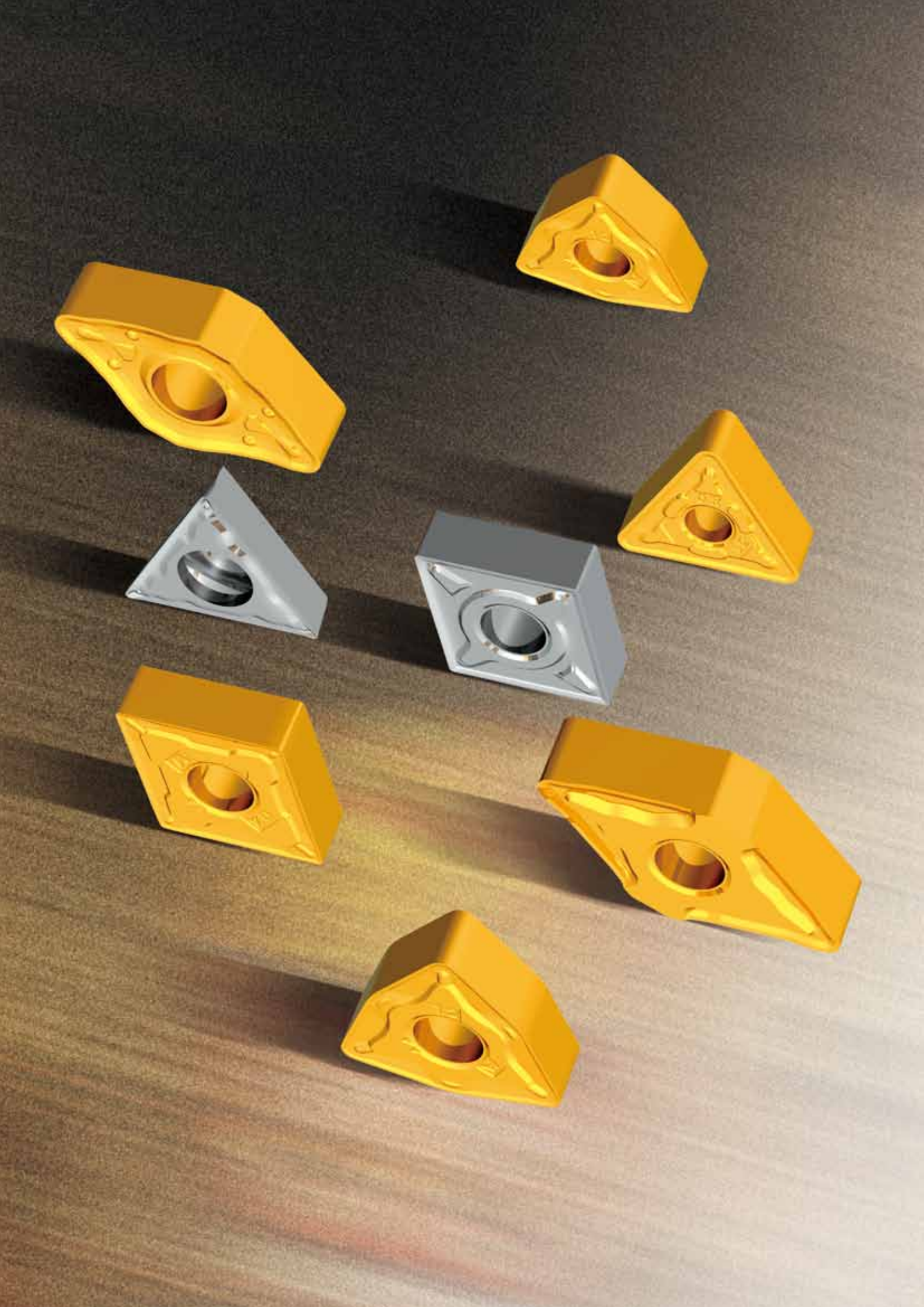
CA1000 ist die Mischkeramik von Al203+TiCN. Gute Verschleißfestigkeit und Bearbeitungssicherheit oder Zähigkeit. Es ist geeignet zur Bearbeitung von Kugelgraphitguss und gehärtetem Stahl.

Psychical properties · Physikalische Daten

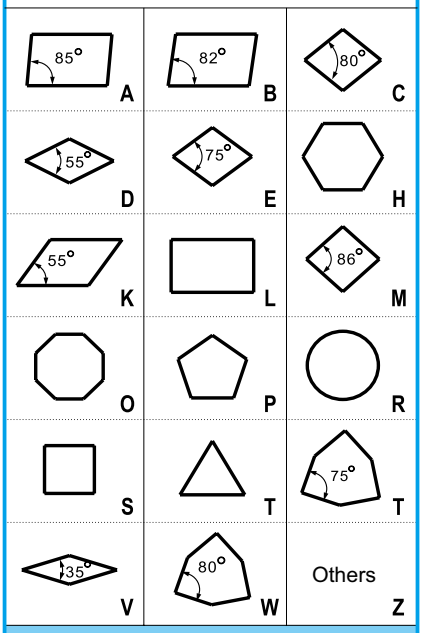
Grade Sorte	Density·Dichte (g/cm^3)	Hardness · Härte Hv(GPa)	Bending strength/ Biegebruchfestigkeit (MPa)	Fracture toughness Bruchzähigkeit ($MPa \cdot m^{1/2}$)
CA1000（Al_2O_3+TiCN）	4.2	19	⩾700	4.5
CN1000（Si_3N_4）	3.25	16	⩾900	7.5
CN2000（Si_3N_4）	3.25	16	⩾900	8

Recommended cutting condition · Empfohlene Schnittdaten

	Workpiece material Werkstückstoff	Application Anwendung	Cutting Speed Schnittgeschw. (m/min)	Feed rate Vorschub (mm/r)	Cutting depth Schnitttiefe (mm)
CA1000	Grey cast iron Malleable cast iron Grauguss	Roughing Schruppen	150-800	0.2-0.5	3.0-6.0
		Finishing Schlichten	200-1200	0.3-0.5	0.1-0.5
	Chilled cast iron Kokillenhartguss	Roughing Schruppen	30-100	0.1-0.2	0.5-1.5
		Finishing Schlichten	50-200	0.05-0.15	0.1-0.5
	Carbon steel, Alloy steel Ball bearing steel unlegierter Stahl, legierter Stahl, Kugellagerstahl	Roughing Schruppen	150-400	0.2-0.5	2.0-5.0
		Finishing Schlichten	200-800	0.05-0.20	0.1-0.5
	Hardened Steel Gehärteter Stahl	Roughing Schruppen	20-100	0.1-0.2	0.5-1.5
		Semi-finishing Mittlere Bearbeitung	40-200	0.05-0.50	0.1-0.5
		Finishing Schlichten	300-1200	0.05-0.30	0.1-0.5
CN1000	Grey cast iron Grauguss	Finishing Schlichten	150-1100	0.3-0.8	<5
		Finishing Schlichten	250-1200	0.15-0.4	<1
	Chilled cast iron Kokillenhartguss	Finishing Schlichten	20-250	0.2-0.8	<5
		Finishing Schlichten	60-450	0.1-0.6	<1
CN2000	Ni-based alloys, Ni-Superlegierungen	Finishing Schlichten	150-250	0.2-0.4	<5
		Finishing Schlichten	150-450	0.1-0.2	<1



Insert Shape / Schneidplattenform



Insert Shape / Schneidplattenform

Insert Type / *Plattentyp*

Metric / Metrisch

Code	Hole/ Bohrung	Chipbreaker/ Spanleitstufe	Insert Section/ Plattenform	Code	Hole/ Bohrung	Chipbreaker/ Spanleitstufe	Insert Section/ Plattenform
B	✔	----	> 65°	N	----	----	
H	✔	Single side/ einseitig	> 65°	R	----	Single side/ einseitig	
C	✔	----	> 65°	F	----	Double side/ doppelseitig	
J	✔	Double side/ doppelseitig	> 65°	A	✔	----	
W	✔	----	≤65°	M	✔	Single side/ einseitig	
T	✔	Single side/ einseitig	≤65°	G	✔	Double side/ doppelseitig	
Q	✔	----	≤65°	X	----	----	Special
U	✔	Double side/ doppelseitig	≤65°			----	

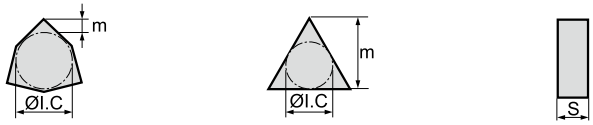
Insert Type /*Plattentyp*

T N M G

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*



Code	Tolerance	Incircle Tolerance ØI.C	Tolerance S
A	±0.005	±0.025	±0.025
F	±0.005	±0.013	±0.025
C	±0.013	±0.025	±0.025
H	±0.013	±0.013	±0.025
E	±0.025	±0.025	±0.025
G	±0.025	±0.025	±0.13
J	±0.005	±0.05-±0.13	±0.025
K	±0.013	±0.05-±0.13	±0.025
L	±0.025	±0.05-±0.13	±0.025
M	±0.08-±0.18	±0.05-±0.13	±0.13
N	±0.08-±0.18	±0.05-±0.13	±0.025
U	±0.13-±0.38	±0.08-±0.25	±0.13

(Reference) M class precision (according to shape and size) (mm)

incircle	regular triangle	square	80° rhomboid	55° rhomboid	35° rhomboid	round runde
6.35	±0.08	±0.08	±0.08	±0.11	±0.16	---
9.525	±0.08	±0.08	±0.08	±0.11	±0.16	---
12.7	±0.13	±0.13	±0.13	±0.15	---	---
15.875	±0.15	±0.15	±0.15	±0.18	---	---
19.05	±0.15	±0.15	±0.15	±0.18	---	---
25.4	---	±0.18	---	---	---	---

ØI.C (mm) Incircle tolerance

incircle	regular triangle	square	80° rhomboid	55° rhomboid	35° rhomboid	round runde
6.35	±0.05	±0.05	±0.05	±0.05	±0.05	---
9.525	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
12.7	±0.08	±0.08	±0.08	±0.08	---	±0.08
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*

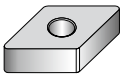
code	Radius (mm)
00	no Radius
02	0.2
04	0.4
08	0.8
12	1.2
16	1.6
20	2.0
24	2.4
32	3.2
X	Others
MO	Round Inserts Runde Platten

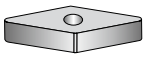
Code Chipbreakers *Spanleitstufen*

DF	**DM**	**DR**
		
HF	**HM**	**HR**
		
EF	**EM**	**ER**
		
NF	**NM**	**SF**
		
PM	**HR**	**WG**
		

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

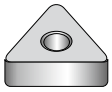
C Type Negative angle/ WSP	(ISO)	(Inch)	Chipbreaker/ Spanleitstufe
Insert shape 	090304	321	-DF -WG -SF -EF -NF -PM -DM -EM -NM -DR -ER -HDR
	090308	322	
	120404	431	
	120408	432	
	120412	433	
	120416	434	
	160608	542	
	160612	543	
	160616	544	
	190608	642	
	190612	643	
	190616	644	
	190624	646	
	250724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

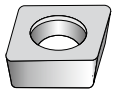
R Type Negative angle/ WSP	(ISO)	(Inch)	Chipbreaker/ Spanleitstufe
Insert shape 	0903MO	32	
	1204MO	43	

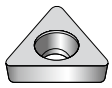
W Type Negative angle/ WSP	(ISO)	(Inch)	Chipbreaker/ Spanleitstufe
Insert shape 	06T304	3(2.5)1	-DF -WG -SF -EF -NF -PM -DM -EM -NM -DR
	06T308	3(2.5)2	
	06T312	3(2.5)3	
	060404	331	
	060408	332	
	060412	333	
	080404	431	
	080408	432	
	080412	433	

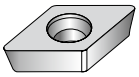
T Type Negative angle/ WSP	(ISO)	(Inch)	Chipbreaker/ Spanleitstufe
Insert shape 	113304	221	-DF -WG -SF -EF -PM -DM -EM -DR -ER -HDR
	110308	222	
	160404	331	
	160408	332	
	160412	333	
	220404	431	
	220408	432	
	220412	433	
	220416	434	
	270608	542	
	270612	543	
	270616	544	

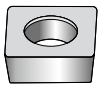
S Type Negative angle/ WSP	(ISO)	(Inch)	Chipbreaker/ Spanleitstufe
Insert shape 	090304	321	-DF -SF -EF -PM -DM -EM -NM -DR -ER -HDR
	090308	322	
	090312	323	
	120404	431	
	120408	432	
	120412	433	
	120416	434	
	150608	542	
	150612	543	
	150616	544	
	190412	633	
	190424	636	
	190612	643	
	190616	644	
	250724	856	
	250732	858	
	250924	866	
	250932	868	

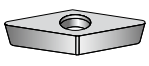
Metric and britain system comparison list of general turning insert/
Vergleichstabelle für allgemeine Drehwendeschneidplatten (Metrisch / Britain System)

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	

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	

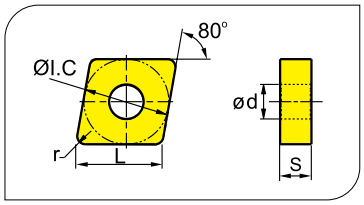
D Type Positive angle/ WSP	(ISO)	(Inch)	Chipbreaker/ Spanleitstufe
Insert shape 	070202	2(1.5)0	-SF -HF -EF -HM -EM -HR -LH
	070204	2(1.5)1	
	070208	2(1.5)2	
	11T302	3(2.5)0	
	11T304	3(2.5)1	
	11T308	3(2.5)2	
	11T312	3(2.5)3	

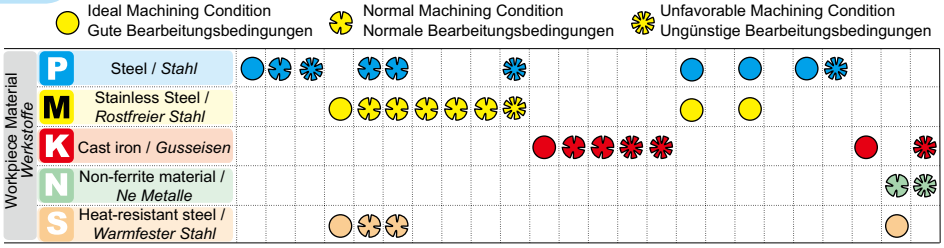
S Type Positive angle/ WSP	(ISO)	(Inch)	Chipbreaker/ Spanleitstufe
Insert shape 	060204	2(1.5)1	-HF -EF -HM -EM -HR -LH
	09T302	3(2.5)0	
	09T304	3(2.5)1	
	09T308	3(2.5) 2	
	120404	431	
	120408	432	
	120412	433	
	150404	531	
	150408	532	
	150412	533	
	190408	632	
	190412	633	
	190416	634	

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	

A

CN** Negative Insert · Negative WSP





Insert Shape Schneid-plattenform	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	YD101	YD201
DF  Finishing Schlichten	**CNMG090304-DF**	9.7	9.525	3.18	3.81	0.4	●				○											○						
	CNMG090308-DF	9.7	9.525	3.18	3.81	0.8	●															○						
	CNMG120404-DF	12.9	12.7	4.76	5.16	0.4	●	●	○		○		○	○	○				○			●	●					
	CNMG120408-DF	12.9	12.7	4.76	5.16	0.8	●	●	○				○	○	○		○					●						
	CNMG120412-DF	12.9	12.7	4.76	5.16	1.2	●	○							○													
WG  Wiper	**CNMG120404-WG**	12.9	12.7	4.76	5.16	0.4	●	○																				
	CNMG120408-WG	12.9	12.7	4.76	5.16	0.8	●	●			○			○			○			●								
	CNMG120412-WG	12.9	12.7	4.76	5.16	1.2	●	●			○			○														
	CNMG160608-WG	16.1	15.875	6.35	6.35	0.8		○																				
	CNMG160612-WG	16.1	15.875	6.35	6.35	1.2		○																				
SF  Finishing Schlichten	**CNMG090304-SF**	9.7	9.525	3.18	3.81	0.4																○	●					
	CNMG090308-SF	9.7	9.525	3.18	3.81	0.8																○	●					
	CNMG120404-SF	12.9	12.7	4.76	5.16	0.4																○	●					
	CNMG120408-SF	12.9	12.7	4.76	5.16	0.8																○	●					
	CNMG120412-SF	12.9	12.7	4.76	5.16	1.2																	●					
EF  Finishing Schlichten	**CNMG090304-EF**	9.7	9.525	3.18	3.81	0.4					●	○																
	CNMG090308-EF	9.7	9.525	3.18	3.81	0.8					●	○																
	CNMG120404-EF	12.9	12.7	4.76	5.16	0.4		●			●	○		●	●													
	CNMG120408-EF	12.9	12.7	4.76	5.16	0.8	○	●			●	●	○	●	●													
	CNMG120412-EF	12.9	12.7	4.76	5.16	1.2					●	○	○	●	●													

Tool holder / Klemmhalter


PCBNR/L
Kr:75°


PCLNR/L
Kr:95°


MCBNR/L
Kr:75°


MCLNR/L
Kr:95°


PCLNR/L
Kr:95°

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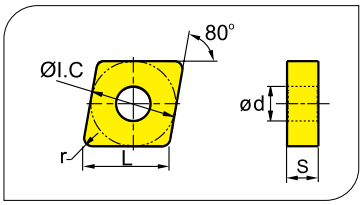
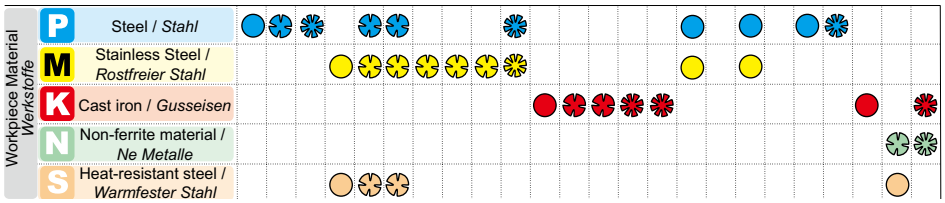
● Ex Stock / ab Lager ○ On demand / auf Anfrage

A

CN** Negative Insert·Negative WSP

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





Insert Shape Schneid-plattenform	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	YD101	YD201
NF	CNEG120404-NF	12.9	12.7	4.76	5.16	0.4				●																○	
	CNEG120408-NF	12.9	12.7	4.76	5.16	0.8				●																○	
	CNEG120412-NF	12.9	12.7	4.76	5.16	1.2				○																○	
Finishing Schlichten																											
PM	CNMG090304-PM	9.7	9.525	3.18	3.81	0.4		●																			
	CNMG090308-PM	9.7	9.525	3.18	3.81	0.8		●																			
	CNMG120404-PM	12.9	12.7	4.76	5.16	0.4	●	●							○			●		●							
	CNMG120408-PM	12.9	12.7	4.76	5.16	0.8	●	●							○		●	●	●	●	○						○
	CNMG120412-PM	12.9	12.7	4.76	5.16	1.2	●	●							○		●	●		●	●						
	CNMG120416-PM	12.9	12.7	4.76	5.16	1.6	○	●									●	●		●	○						
	CNMG160608-PM	16.1	15.875	6.35	6.35	0.8		●									○	○		○							
	CNMG160612-PM	16.1	15.875	6.35	6.35	1.2	○	●									○	●	○	●	○						
	CNMG160616-PM	16.1	15.875	6.35	6.35	1.6	○	●									○	○		○							
	CNMG190608-PM	19.3	19.05	6.35	7.94	0.8		●									○										
	CNMG190612-PM	19.3	19.05	6.35	7.94	1.2		●									○	○		●							
	CNMG190616-PM	19.3	19.05	6.35	7.94	1.6		●									○	○		○							

Medium Cut/ Mittl. Bearb.

Tool holder / Klemmhalter


PCBNR/L Kr:75°


PCLNR/L Kr:95°


MCBNR/L Kr:75°


MCLNR/L Kr:95°


PCLNR/L Kr:95°

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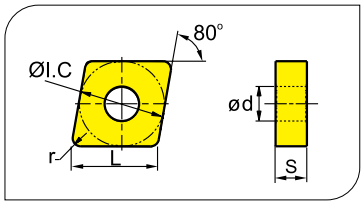
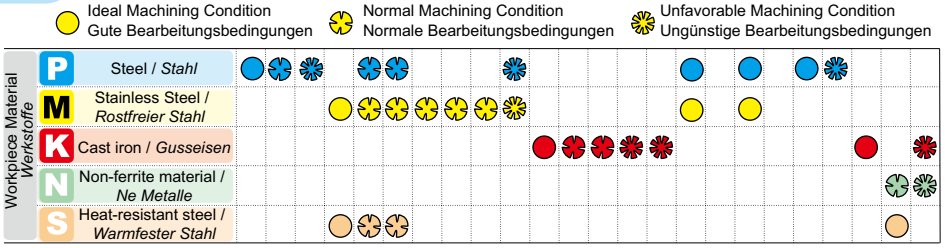
Insert code key ISO Code A42-A43
Grade selection reference Sortenauswahl A14/A31-A40
chip breaker selection reference Spanbrecherauswahl A24-A30
Recommended cutting parameters Empfohlene Schnittparameter A249-A253

A

CN** Negative Insert·Negative WSP





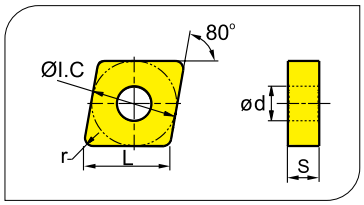
Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Coated Carbide Beschichtetes Hartmetall														Cermet unbeschichtet	Cermet Coated beschicht. Cerm.	Uncoated Carbide unbeschicht. Hartmetall				
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
DM	**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	●	●	●						●				○									
Medium Cut/ Mittl. Bearb.	**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		●	○						●													
EM	**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							●															
Medium Cut/ Mittl. Bearb.	**CNMG160612-EM**	16.1	15.875	6.35	6.35	1.2					●		○															
	CNMG160616-EM	16.1	15.875	6.35	6.35	1.6							○															

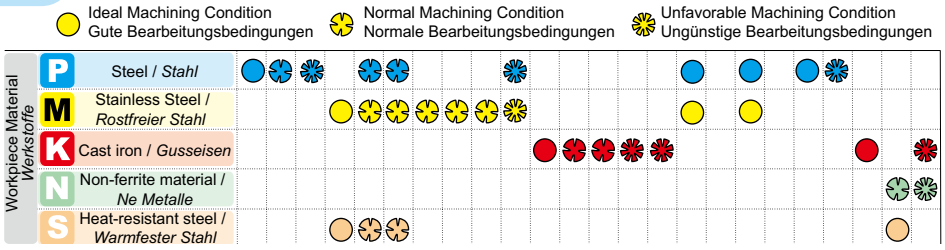
Tool holder / Klemmhalter

Page/Seite A158 A159 A170 A171 A216

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

CN** Negative Insert·Negative WSP





Insert Shape Schneid-plattenform	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	YD101	YD201
NM	CNMG120404-NM	12.9	12.7	4.76	5.16	0.4																					
	CNMG120408-NM	12.9	12.7	4.76	5.16	0.8				●																○	
	CNMG120412-NM	12.9	12.7	4.76	5.16	1.2				●																	
Medium Cut/ Mittl. Bearb.																											
DR	CNMG120408-DR	12.9	12.7	4.76	5.16	0.8	●	●	●						○			●		●							
	CNMG120412-DR	12.9	12.7	4.76	5.16	1.2	●	●	●								●	●		●							
	CNMG120416-DR	12.9	12.7	4.76	5.16	1.6	●	●	●									●		●							
	CNMG160608-DR	16.1	15.875	6.35	6.35	0.8		●										●		○							
	CNMG160612-DR	16.1	15.875	6.35	6.35	1.2	●	●	●									○		●							
	CNMG160616-DR	16.1	15.875	6.35	6.35	1.6	●	●	●									○		○							
	CNMG190608-DR	19.3	15.875	6.35	7.94	0.8		●										●		●							
	CNMG190612-DR	19.3	19.05	6.35	7.94	1.2	●	●	●									○		●							
	CNMG190616-DR	19.3	19.05	6.35	7.94	1.6	●	●	●									●		●							
	CNMG190624-DR	19.3	19.05	6.35	7.94	2.4	●	●	●									○		○							

Tool holder / Klemmhalter

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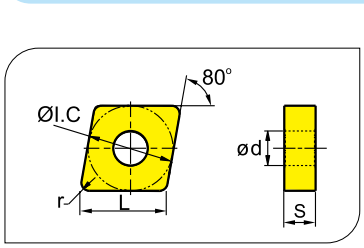
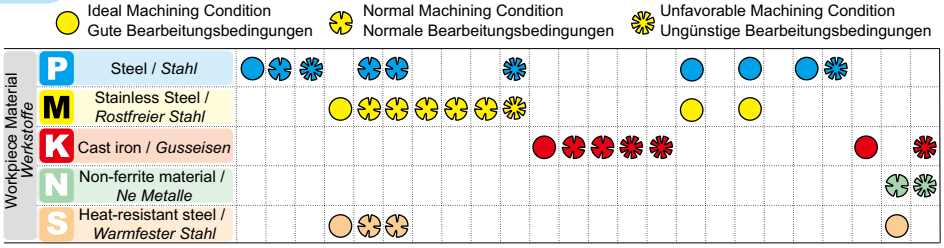
Insert code key ISO Code A42-A43
Grade selection reference Sortenauswahl A14/A31-A40
chip breaker selection reference Spanbrecherauswahl A24-A30
Recommended cutting parameters Empfohlene Schnittparameter A249-A253

A

CN** Negative Insert · Negative WSP





Insert Shape Schneid-plattenform	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	YD101	YD201
DR	**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	○	●	○																		
ER	**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								●													
ER	**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		○						○		○											
HDR	**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	●	●																			

Roughing / Schruppen

Tool holder / Klemmhalter


PCBNR/L Kr:75°


PCLNR/L Kr:95°


MCBNR/L Kr:75°


MCLNR/L Kr:95°

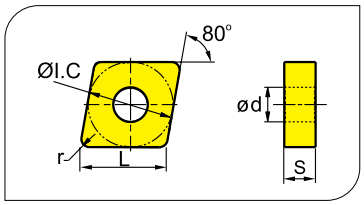

PCLNR/L Kr:95°

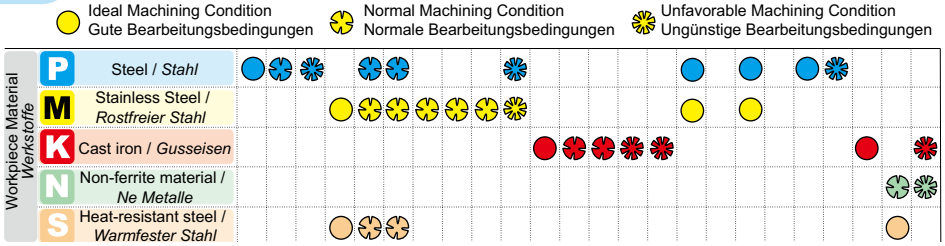
Page/Seite A158 A159 A170 A171 A216

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

A

CN** Negative Insert·Negative WSP





Insert Shape Schneid-plattenform	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	YD101	YD201
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		○											○									

Tool holder / Klemmhalter


PCBNR/L
Kr:75°


PCLNR/L
Kr:95°


MCBNR/L
Kr:75°

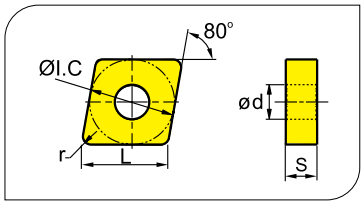

MCLNR/L
Kr:95°

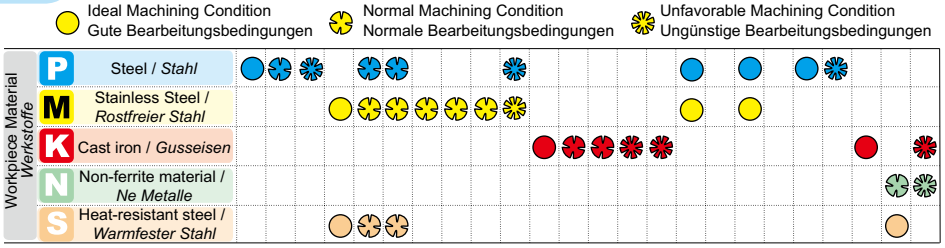

PCLNR/L
Kr:95°

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

CN** Negative Insert·Negative WSP





Insert Shape Schneid-plattenform	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	YD101	YD201
Basic	**CNMM120404**	12.9	12.7	4.76	5.16	0.4	○	○																			
	CNMM120408	12.9	12.7	4.76	5.16	0.8	○	○																			
	CNMM120412	12.9	12.7	4.76	5.16	1.2																					
	CNMM190608	19.3	19.05	6.35	7.94	0.8																					
	CNMM190612	19.3	19.05	6.35	7.94	1.2		○	○																		
	CNMM190616	19.3	19.05	6.35	7.94	1.6		○	○																		
	CNMM190624	19.3	19.05	6.35	7.94	2.4			○																		

Tool holder / Klemmhalter


PCBNR/L
Kr:75°


PCLNR/L
Kr:95°


MCBNR/L
Kr:75°


MCLNR/L
Kr:95°

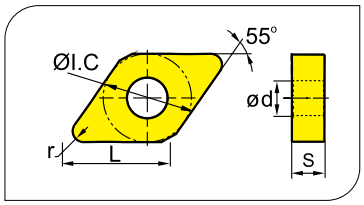

PCLNR/L
Kr:95°

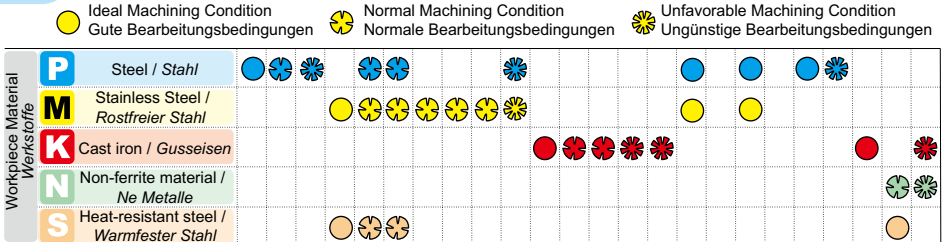
Page/Seite A158 A159 A170 A171 A216

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

A

VN** Negative Insert·Negative WSP





Insert Shape Schneid-plattenform	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	YD101	YD201
DF Finishing Schlichten	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	●																					
Wiper	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	●	●			○			○														
	DNMX150612-WG	15.5	12.7	6.35	5.16	1.2	●	○										○										
SF Finishing Schlichten	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

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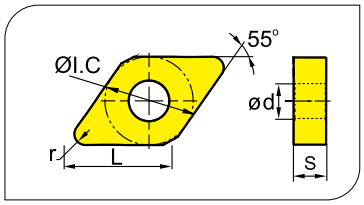
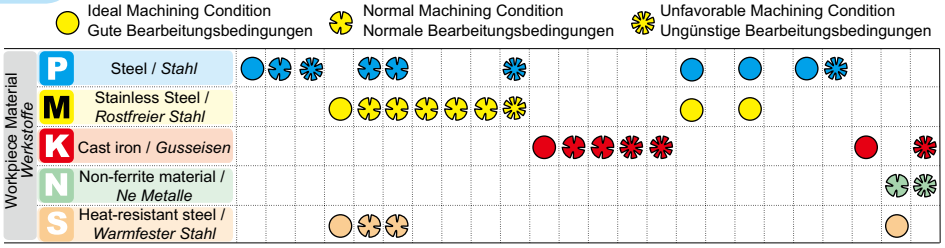
Insert code key ISO Code A42-A43
Grade selection reference Sortenauswahl A14/A31-A40
chip breaker selection reference Spanbrecherauswahl A24-A30
Recommended cutting parameters Empfohlene Schnittparameter A249-A253

A

DN** Negative Insert·Negative WSP





Insert Shape Schneid-plattenform	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	YD101	YD201
EF 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					●																
NF 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				●																	○
FM 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	○	●				●		○													
PM 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


PDJNR/L
Kr:93°


PDNNR/L
Kr:63°


MDJNR/L
Kr:93°


MDPNN
Kr:62°30'


PDSNR/L
Kr:62°30'


PDUNR/L
Kr:93°

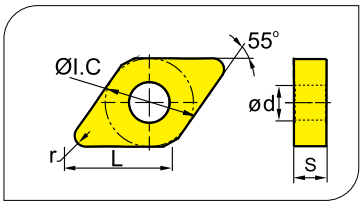
Page/Seite A160 A161 A172 A173 A218 A219

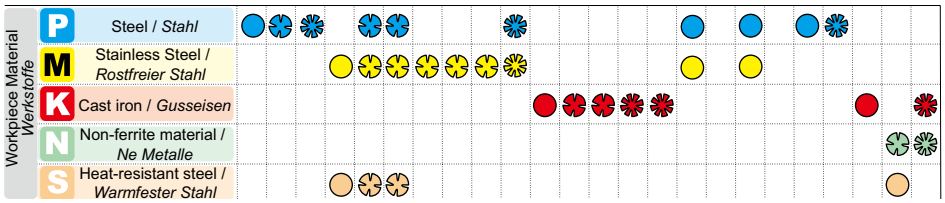
● Ex Stock / ab Lager ○ On demand / auf Anfrage

A

DN** Negative Insert·Negative WSP

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





Insert Shape Schneid-plattenform	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	YD101	YD201
PM	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		●									●											
DM	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		●	●																			

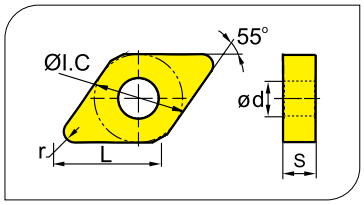
Tool holder / Klemmhalter

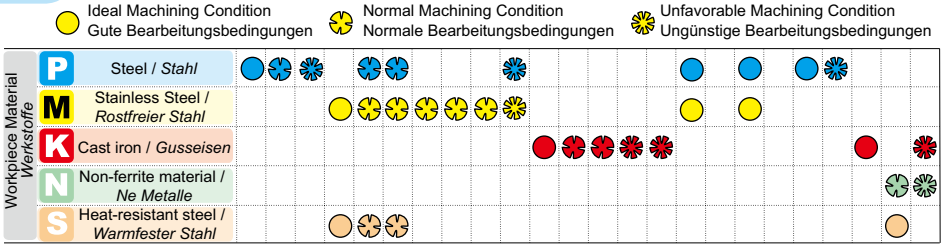
PDJNR/L	PDNNR/L	MDJNR/L	MDPNN	PDSNR/L	PDUNR/L
Kr:93°	Kr:63°	Kr:93°	Kr:62°30'	Kr:62°30'	Kr:93°
Page/Seite A160	A161	A172	A173	A218	A219

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

A

CN** Negative Insert·Negative WSP





Insert Shape Schneid-plattenform	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	YD101	YD201
EM  Medium Cut/ Mittl. Bearb.	**DNMG110404-EM**	11.6	9.525	4.76	3.81	0.4					●	○															
	DNMG110408-EM	11.6	9.525	4.76	3.81	0.8					●	○			●												
	DNMG110412-EM	11.6	9.525	4.76	3.81	1.2						○															
	DNMG150404-EM	15.5	12.7	4.76	5.16	0.4					●	○															
	DNMG150408-EM	15.5	12.7	4.76	5.16	0.8					●	○															
	DNMG150412-EM	15.5	12.7	4.76	5.16	1.2						○															
	DNMG150604-EM	15.5	12.7	6.35	5.16	0.4					●	●			●												
	DNMG150608-EM	15.5	12.7	6.35	5.16	0.8					●	●	○	●	●												
	DNMG150612-EM	15.5	12.7	6.35	5.16	1.2					●	○			●												
NM  Medium Cut/ Mittl. Bearb.	**DNMG150412-NM**	15.5	12.7	4.76	5.16	1.2																					
	DNMG150612-NM	15.5	12.7	6.35	5.16	1.2				○					○												○
DR  Roughing/ Schruppen	**DNMG150408-DR**	15.5	12.7	4.76	5.16	0.8																					
	DNMG150412-DR	15.5	12.7	4.76	5.16	1.2		○										○		○							
	DNMG150416-DR	15.5	12.7	4.76	5.16	1.6																					
	DNMG150608-DR	15.5	12.7	6.35	5.16	0.8	●	●	●									●		●							
	DNMG150612-DR	15.5	12.7	6.35	5.16	1.2	●	●	●									●		●							
	DNMG150616-DR	15.5	12.7	6.35	5.16	1.6		●	○									●		●							

Tool holder / Klemmhalter

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

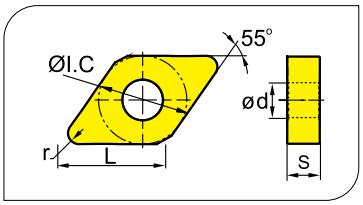
● Ex Stock / ab Lager ○ On demand / auf Anfrage

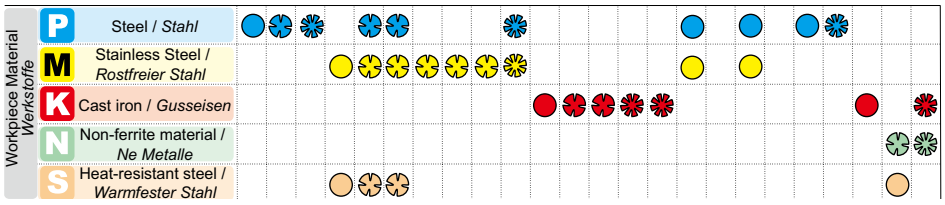
A

General Turning · Allgemeine Drehbearbeitung

DN** Negative Insert·Negative WSP

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





Insert Shape Schneid-plattenform	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	YD101	YD201
Flat 	**DNMA110416**	11.6	9.525	4.76	3.81	1.6																					
	DNMA110424	11.6	9.525	4.76	3.81	2.4																					
	DNMA150404	15.5	12.7	4.76	5.16	0.4													○								
	DNMA150408	15.5	12.7	4.76	5.16	0.8											○	●	○								
	DNMA150604	15.5	12.7	6.35	5.16	0.4											○	●		●							
	DNMA150608	15.5	12.7	6.35	5.16	0.8	○										●	●	○	●							
	DNMA150612	15.5	12.7	6.35	5.16	1.2											●	●	○	●							
	DNMA150616	15.5	12.7	6.35	5.16	1.6											○	○		●							

Tool holder / Klemmhalter


PDJNR/L
Kr:93°
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PDNNR/L
Kr:63°
A161


MDJNR/L
Kr:93°
A172


MDPNN
Kr:62°30'
A173

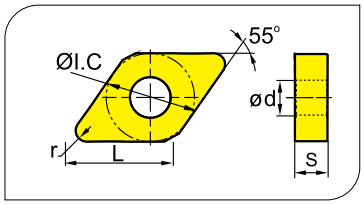

PDSNR/L
Kr:62°30'
A218

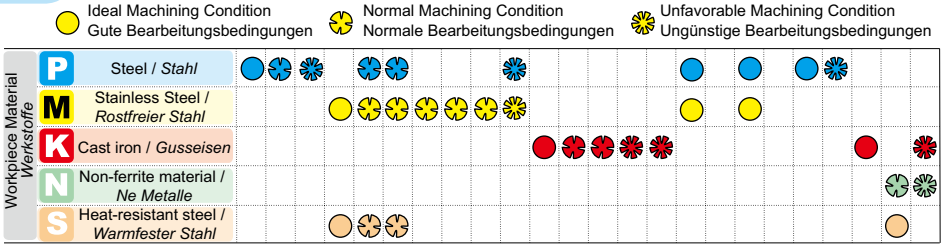

PDUNR/L
Kr:93°
A219

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

A

DN** Negative Insert·Negative WSP





Insert Shape Schneid-plattenform	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	YD101	YD201
DR	DNMM150608-DR	15.5	12.7	6.35	5.16	0.8	●	●	○						○												
	DNMM150612-DR	15.5	12.7	6.35	5.16	1.2	●	●																			
	DNMM150616-DR	15.5	12.7	6.35	5.16	1.6		●	○										○								
Roughing/ Schruppen																											
ER	DNMG150608-ER	15.5	12.7	6.35	5.16	0.8								●													
	DNMG150612-ER	15.5	12.7	6.35	5.16	1.2								●													
Roughing/ Schruppen																											
ER	DNMM150608-ER	15.5	12.7	6.35	5.16	0.8								○													
	DNMM150612-ER	15.5	12.7	6.35	5.16	1.2								○													
Roughing/ Schruppen																											
HDR	DNMM150608-HDR	15.5	12.7	6.35	5.16	0.8	○	●	●																		
	DNMM150612-HDR	15.5	12.7	6.35	5.16	1.2	○	●	○																		
	DNMM150616-HDR	15.5	12.7	6.35	5.16	1.6		○	○																		
Roughing/ Schruppen																											
Basic	DNMG150604	15.5	12.7	6.35	5.16	0.4																					
	DNMG150608	15.5	12.7	6.35	5.16	0.8		○																			
	DNMG150612	15.5	12.7	6.35	5.16	1.2																					
	DNMG150616	15.5	12.7	6.35	5.16	1.6																					
	DNMG190608	19.3	15.875	6.35	7.94	0.8																					
	DNMG190612	19.3	15.875	6.35	7.94	1.2																					

Tool holder / Klemmhalter

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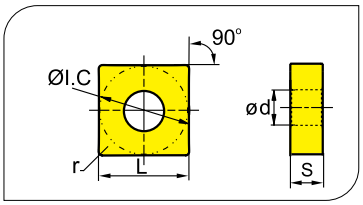
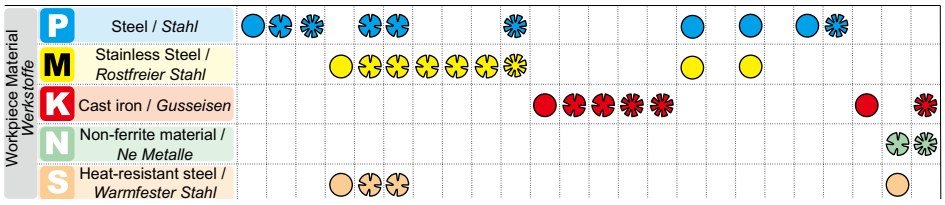
● Ex Stock / ab Lager ○ On demand / auf Anfrage

SN** Negative Insert·Negative WSP

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





Insert Shape Schneid-plattenform	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	YD101	YD201
DF	SNMG090304-DF	9.525	9.525	3.18	3.81	0.4																							
	SNMG090308-DF	9.525	9.525	3.18	3.81	0.8																							
	SNMG120404-DF	12.7	12.7	4.76	5.16	0.4																							
	SNMG120408-DF	12.7	12.7	4.76	5.16	0.8	●	●																					
Finishing Schlichten	SNMG120412-DF	12.7	12.7	4.76	5.16	1.2	●	●																					
EF	SNMG090304-EF	9.525	9.525	3.18	3.81	0.4					●	○																	
	SNMG090308-EF	9.525	9.525	3.18	3.81	0.8					●	○																	
	SNMG090312-EF	9.525	9.525	3.18	3.81	1.2						○																	
	SNMG120404-EF	12.7	12.7	4.76	5.16	0.4					○	●																	
	SNMG120408-EF	12.7	12.7	4.76	5.16	0.8					●	○																	
Finishing Schlichten	SNMG120412-EF	12.7	12.7	4.76	5.16	1.2					●	○		●															
	SNMG150608-EF	15.875	15.875	6.35	6.35	0.8					○	○																	
	SNMG150612-EF	15.875	15.875	6.35	6.35	1.2						○																	

Tool holder / Klemmhalter


PSBNR/L Kr:75°


PSDNN Kr:45°


PSKNR/L Kr:75°


PSSNR/L Kr:45°


MSBNR/L Kr:75°


MSRNR/L Kr:75°


MSKNR/L Kr:75°

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MSDNN Kr:45°


PSKNR/L Kr:75°

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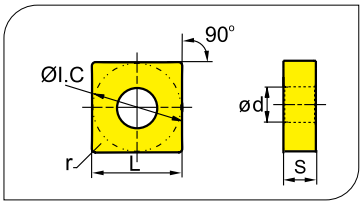
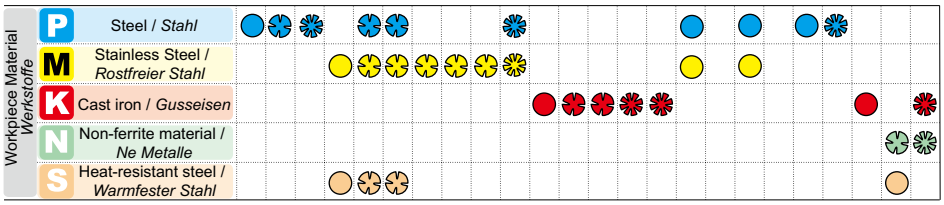
Insert code key ISO Code A42-A43
Grade selection reference Sortenauswahl A14/A31-A40
chip breaker selection reference Spanbrecherauswahl A24-A30
Recommended cutting parameters Empfohlene Schnittparameter A249-A253

SN** Negative Insert·Negative WSP

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





Insert Shape Schneid-plattenform	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	YD101	YD201
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


PSBNR/L Kr:75°
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PSDNN Kr:45°
A163


PSKNR/L Kr:75°
A164


PSSNR/L Kr:45°
A165


MSBNR/L Kr:75°
A174


MSRNR/L Kr:75°
A175


MSKNR/L Kr:75°
A176

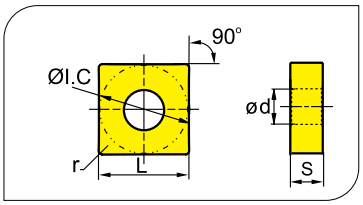

MSDNN Kr:45°
Page/Seite A177

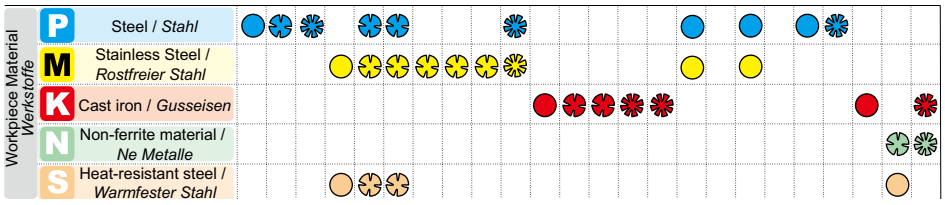

PSKNR/L Kr:75°
A221

● 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





Insert Shape Schneid-plattenform	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	YD101	YD201
DM  Medium Cut/ Mittl. Bearb.	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		●	●						○	○												
EM  Medium Cut/ Mittl. Bearb.	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°
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PSDNN Kr:45°
A163


PSKNR/L Kr:75°
A164


PSSNR/L Kr:45°
A165


MSBNR/L Kr:75°
A174


MSRNR/L Kr:75°
A175


MSKNR/L Kr:75°
A176


MSDNN Kr:45°
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PSKNR/L Kr:75°
A221

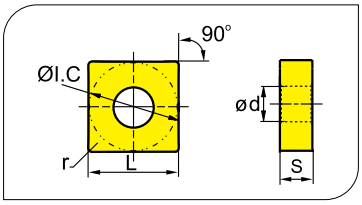
Insert code key ISO Code A42-A43
Grade selection reference Sortenauswahl A14/A31-A40
chip breaker selection reference Spanbrecherauswahl A24-A30
Recommended cutting parameters Empfohlene Schnittparameter A249-A253

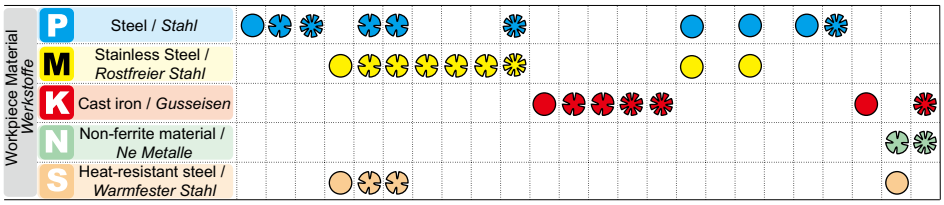
A

General Turning · Allgemeine Drehbearbeitung

SN** Negative Insert·Negative WSP

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





Insert Shape Schneid-plattenform	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	YD101	YD201
NM  Medium Cut/ Mittl. Bearb.	**SNMG120408-NM**	12.7	12.7	4.76	5.16	0.8				●																	
	SNMG120412-NM	12.7	12.7	4.76	5.16	1.2																					
DR  Roughing/ Schruppen	**SNMG120408-DR**	12.7	12.7	4.76	5.16	0.8	●	●	●									●		●								
	SNMG120412-DR	12.7	12.7	4.76	5.16	1.2	●	●	●									●		●	○							
	SNMG120416-DR	12.7	12.7	4.76	5.16	1.6	○	●	○									●		●								
	SNMG150608-DR	15.875	15.875	6.35	6.35	0.8		○												○								
	SNMG150612-DR	15.875	15.875	6.35	6.35	1.2	●	●	●									●		●								
	SNMG150616-DR	15.875	15.875	6.35	6.35	1.6		●	●									●		○								
	SNMG150624-DR	15.875	15.875	6.35	6.35	2.4		○																				
	SNMG190612-DR	19.05	19.05	6.35	7.94	1.2	○	●	●											●								
	SNMG190616-DR	19.05	19.05	6.35	7.94	1.6	●	●	●									○		●								
	SNMG190624-DR	19.05	19.05	6.35	7.94	2.4	○	●	●																			
DR  Roughing/ Schruppen	**SNMM120408-DR**	12.7	12.7	4.76	5.16	0.8																					
	SNMM120412-DR	12.7	12.7	4.76	5.16	1.2																					
	SNMM120416-DR	12.7	12.7	4.76	5.16	1.6																					
	SNMM150608-DR	15.875	15.875	6.35	6.35	0.8																					
	SNMM150612-DR	15.875	15.875	6.35	6.35	1.2		○																			
	SNMM150616-DR	15.875	15.875	6.35	6.35	1.6		●																			
	SNMM190608-DR	19.05	19.05	6.35	7.94	0.8		○																			

Tool holder / Klemmhalter


PSBNR/L Kr:75°


PSDNN Kr:45°


PSKNR/L Kr:75°


PSSNR/L Kr:45°


MSBNR/L Kr:75°


MSRNR/L Kr:75°


MSKNR/L Kr:75°

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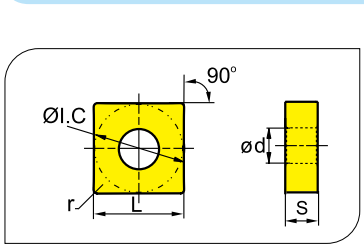
MSDNN Kr:45°

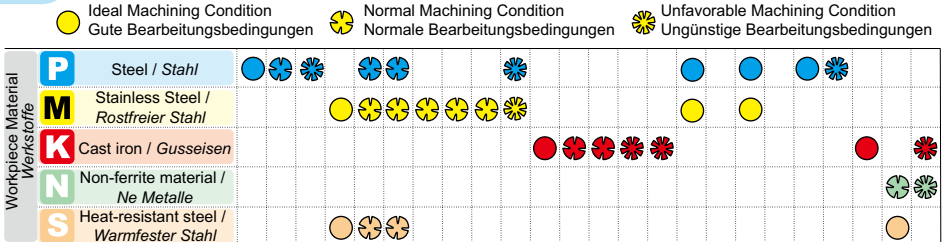

PSKNR/L Kr:75°

Page/Seite A177 A221

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

SN** Negative Insert·Negative WSP





Insert Shape Schneid-plattenform	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	YD101	YD201
DR	SNMM190612-DR	19.05	19.05	6.35	7.94	1.2	○	●	○																		
	SNMM190616-DR	19.05	19.05	6.35	7.94	1.6	●	●	○																		
	SNMM190624-DR	19.05	19.05	6.35	7.94	2.4	●	●	●																		
	SNMM250724-DR	25.4	25.4	7.94	9.12	2.4		●	●																		
Roughing/ Schruppen	SNMM250924-DR	25.4	25.4	9.525	9.12	2.4		●	●																		
ER	SNMG120408-ER	12.7	12.7	4.76	5.16	0.8																					
	SNMG120412-ER	12.7	12.7	4.76	5.16	1.2																					
	SNMG150608-ER	15.875	15.875	6.35	6.35	0.8																					
	SNMG150612-ER	15.875	15.875	6.35	6.35	1.2								●													
Roughing/ Schruppen	SNMG190612-ER	19.05	19.05	6.35	7.94	1.2								●													
	SNMG190616-ER	19.05	19.05	6.35	7.94	1.6								●													
ER	SNMM250724-ER	25.4	25.4	7.94	9.12	2.4								●													
	SNMM250732-ER	25.4	25.4	7.94	9.12	3.2		○																			
	SNMM250924-ER	25.4	25.4	9.525	9.12	2.4		○						○		●											
Roughing/ Schruppen	SNMM250932-ER	25.4	25.4	9.525	9.12	3.2		○								●											

Tool holder / Klemmhalter


PSBNR/L Kr:75°


PSDNN Kr:45°


PSKNR/L Kr:75°


PSSNR/L Kr:45°


MSBNR/L Kr:75°


MSRNR/L Kr:75°


MSKNR/L Kr:75°

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MSDNN Kr:45°


PSKNR/L Kr:75°

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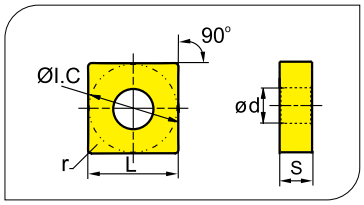
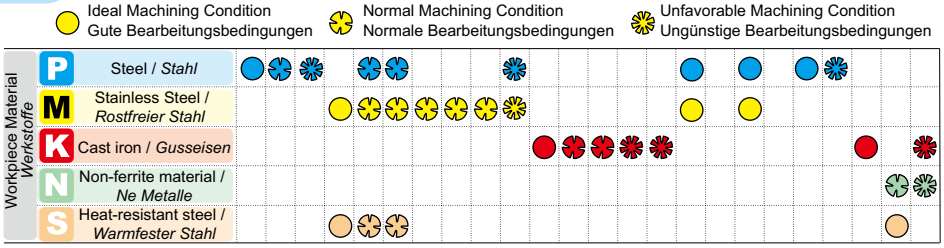
Insert code key ISO Code A42-A43
Grade selection reference Sortenauswahl A14/A31-A40
chip breaker selection reference Spanbrecherauswahl A24-A30
Recommended cutting parameters Empfohlene Schnittparameter A249-A253

A

SN** Negative Insert·Negative WSP





Insert Shape Schneid-plattenform	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	YD101	YD201
HDR  Roughing/ Schruppen	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


PSBNR/L Kr:75°
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PSDNN Kr:45°
A163


PSKNR/L Kr:75°
A164


PSSNR/L Kr:45°
A165


MSBNR/L Kr:75°
A174


MSRNR/L Kr:75°
A175

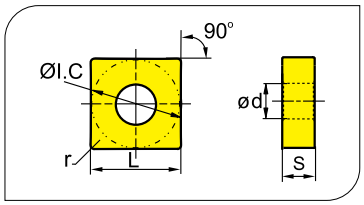

MSKNR/L Kr:75°
A176

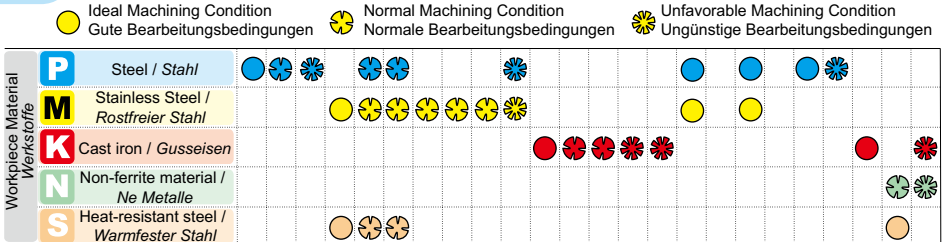

MSDNN Kr:45°
Page/Seite A177


PSKNR/L Kr:75°
A221

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

SN** Negative Insert·Negative WSP





Insert Shape Schneid-plattenform	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	YD101	YD201
Basic	**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			●																		
Basic	**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


PSBNR/L Kr:75°
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PSDNN Kr:45°
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PSKNR/L Kr:75°
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PSSNR/L Kr:45°
A165


MSBNR/L Kr:75°
A174


MSRNR/L Kr:75°
A175


MSKNR/L Kr:75°
A176


MSDNN Kr:45°
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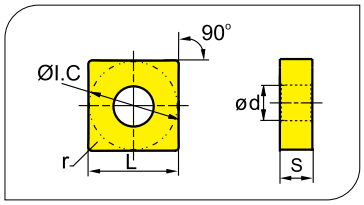
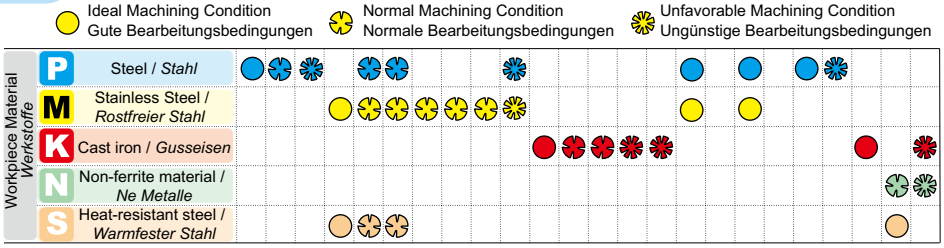
PSKNR/L Kr:75°
A221

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

A

SN** Negative Insert·Negative WSP





Insert Shape Schneid-plattenform	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	YD101	YD201
Basic	SNMM190608	19.05	19.05	6.35	7.94	0.8																							
	SNMM190612	19.05	19.05	6.35	7.94	1.2	○	●	○																				
	SNMM190616	19.05	19.05	6.35	7.94	1.6		○																					
	SNMM250724	25.4	25.4	7.94	9.12	2.4		○	○										○										
	SNMM250924	25.4	25.4	9.525	9.12	2.4		○	●																				
Flat	SNMA090304	9.525	9.525	3.18	3.81	0.4																							
	SNMA090308	9.525	9.525	3.18	3.81	0.8											○												
	SNMA120404	12.7	12.7	4.76	5.16	0.4											○		○										
	SNMA120408	12.7	12.7	4.76	5.16	0.8	○										●	●	○	●	○								●
	SNMA120416	12.7	12.7	4.76	5.16	1.6											●	●	○	●									
	SNMA150608	15.875	15.875	6.35	6.35	0.8	○												○										
	SNMA150612	15.875	15.875	6.35	6.35	1.2													○	●									
	SNMA190612	19.05	19.05	6.35	7.94	1.2											○	●	○	●									
	SNMA190616	19.05	19.05	6.35	7.94	1.6											○	○	○	●									

Tool holder / Klemmhalter


PSBNR/L Kr:75°
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PSDNN Kr:45°
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PSKNR/L Kr:75°
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PSSNR/L Kr:45°
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MSBNR/L Kr:75°
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MSRNR/L Kr:75°
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MSKNR/L Kr:75°
A176


MSDNN Kr:45°
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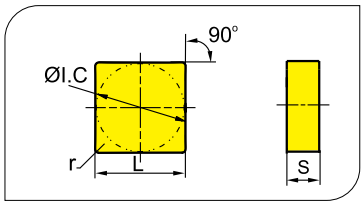
PSKNR/L Kr:75°
A221

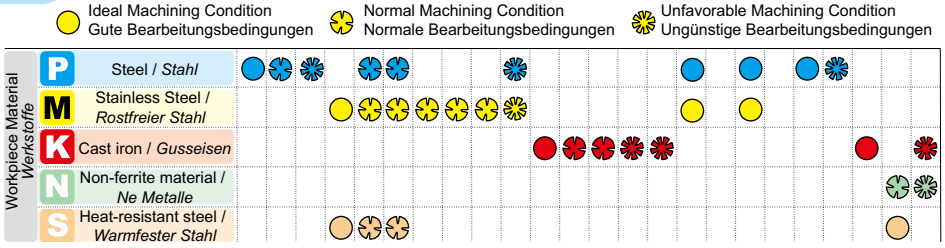
● Ex Stock / ab Lager ○ On demand / auf Anfrage

A

General Turning · Allgemeine Drehbearbeitung

SN** Negative Insert·Negative WSP



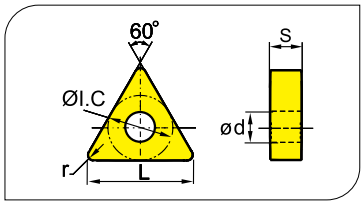


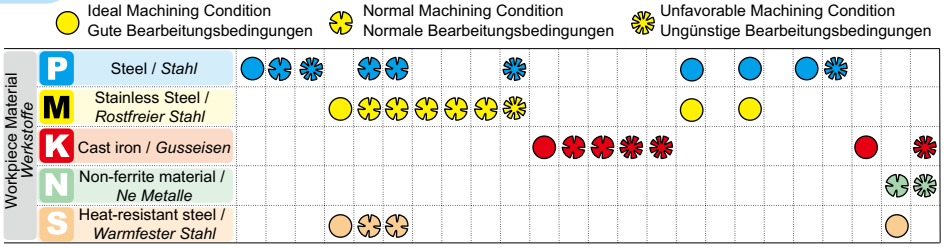
Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Coated Carbide Beschichtetes Hartmetall													Cermet unbeschichtet		Cermet Coated beschicht. Cerm.		Uncoated Carbide unbeschicht. Hartmetall				
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151		YNG151C		YC10	YC40	YD051	YD101	YD201
Flat	**SNGN090308**	9.525	9.525	3.18	-	0.8																							
	SNGN120408	12.7	12.7	4.76	-	0.8																							
	SNGN150408	15.875	15.875	4.76	-	0.8																							
	SNGN190412	19.05	19.05	4.76	-	1.2																							
	SNUN090304	9.525	9.525	3.18	-	0.4	○	○											○										
	SNUN090308	9.525	9.525	3.18	-	0.8																							
	SNUN120408	12.7	12.7	4.76	-	0.8													○	○						●			
	SNUN120412	12.7	12.7	4.76	-	1.2	○	●	○									○	○							○			○
	SNUN150408	15.875	15.875	4.76	-	0.8																							
	SNUN150412	15.875	15.875	4.76	-	1.2																							
	SNUN190408	19.05	19.05	4.76	-	0.8																							
	SNUN190412	19.05	19.05	4.76	-	1.2																							
	SNUN190424	19.05	19.05	4.76	-	2.4																							
	SNUN250724	25.4	25.4	7.94	-	2.4																							
	SNUN250924	25.4	25.4	9.525	-	2.4																							

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

A

TN** Negative Insert·Negative WSP





Insert Shape Schneid-plattenform	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	YD101	YD201
DF	**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	●	○						○														
Finishing Schlichten	**TNMG220412-DF**	22	12.7	4.76	5.16	0.8	●	●						○														
WG	**TNMX160404-WG**	16.5	9.525	4.76	3.81	0.4	●																					
	TNMX160408-WG	16.5	9.525	4.76	3.81	0.8	●	●																				
Wiper	**TNMX160412-WG**	16.5	9.525	4.76	3.81	1.2	●	●																				
SF	**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																	○					
Finishing Schlichten	**TNMG220412-SF**	22	12.7	4.76	5.16	1.2																	○					
EF	**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					●	○																
Finishing Schlichten	**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

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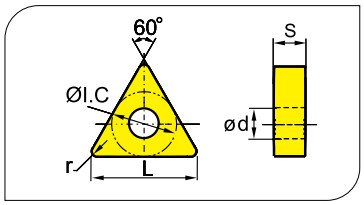
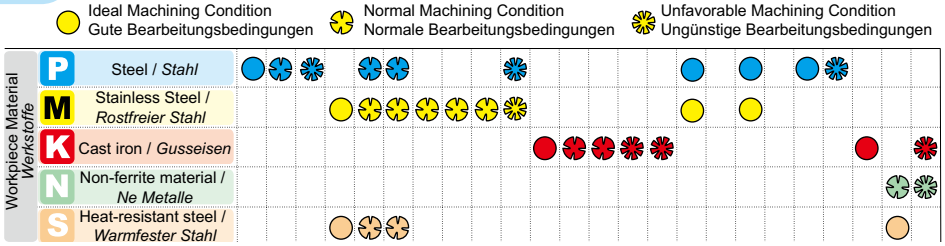
● Ex Stock / ab Lager ○ On demand / auf Anfrage

A

General Turning · Allgemeine Drehbearbeitung

TN** Negative Insert·Negative WSP





Insert Shape Schneid-plattenform	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	YD101	YD201
FM	**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		●				●															
Finishing Schlichten	**TNMG160408L-FM**	16.5	9.525	4.76	3.81	0.8		●				●															
PM	**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	○	●							○		●	●	○	●	○						
Medium Cut/ Mittl. Bearb.	**TNMG220408-PM**	22	12.7	4.76	5.16	0.8	●	●	●						○		○	●		●							
	TNMG220412-PM	22	12.7	4.76	5.16	1.2	○	●	●								○	●		●							
	TNMG220416-PM	22	12.7	4.76	5.16	1.6		●	○								○	●		○							
DM	**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	●	●	●						●							○					
Medium Cut/ Mittlere Bear	**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

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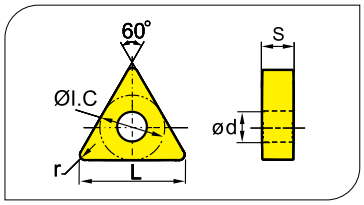
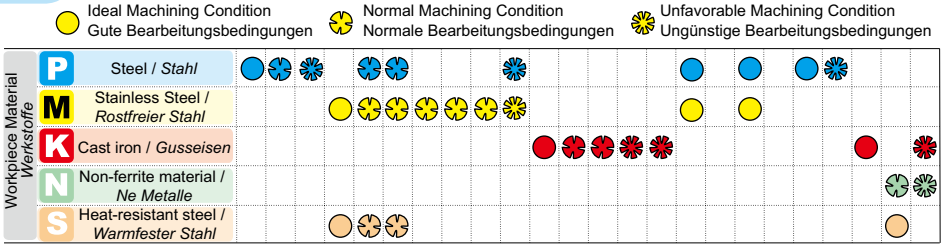
Insert code key ISO Code A42-A43
Grade selection reference Sortenauswahl A14/A31-A40
chip breaker selection reference Spanbrecherauswahl A24-A30
Recommended cutting parameters Empfohlene Schnittparameter A249-A253

A

TN** Negative Insert·Negative WSP





Insert Shape Schneid-plattenform	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	YD101	YD201
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

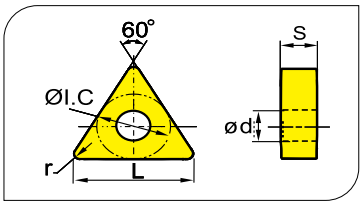
PTFNR/L Kr:90°	**PTTNR/L** Kr:60°	**PTGNR/L** Kr:90°	**MTGNR/L** Kr:90°	**MTJNR/L** Kr:93°	**MTFNR/L** Kr:90°	**PTFNR/L** Kr:90°
						
Page/Seite A166	A167	A168	A178	A179	A180	A222

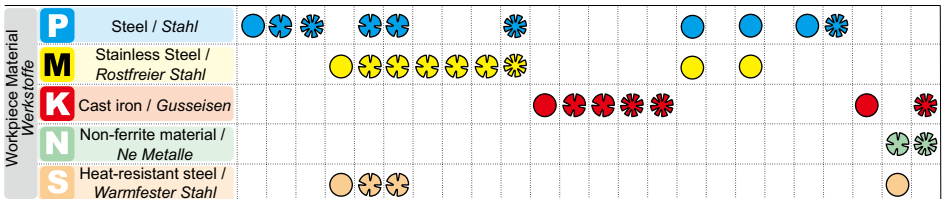
● Ex Stock / ab Lager ○ On demand / auf Anfrage

A

TN** Negative Insert·Negative WSP

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





Insert Shape Schneid-plattenform	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	YD101	YD201
DR	**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		○	●																		
Roughing/ Schruppen	**TNMM270612-DR**	27.5	15.875	4.76	5.16	1.2																					
	TNMM270616-DR	27.5	15.875	4.76	5.16	1.6																					
ER	**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								○													
Roughing/ Schruppen	**TNMG220412-ER**	22	12.7	4.76	5.16	1.2								●													

Tool holder / Klemmhalter

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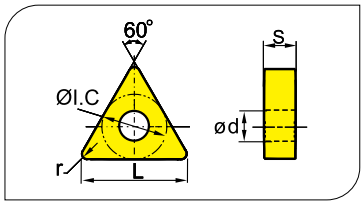
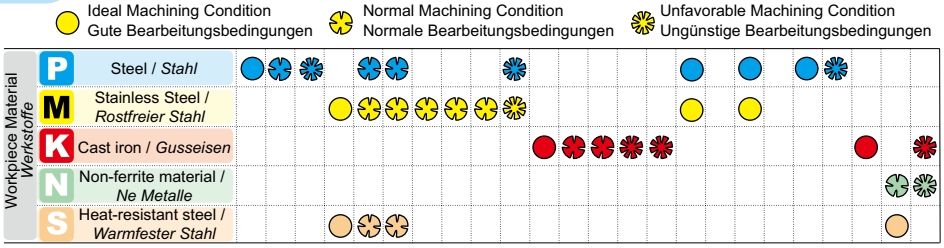
Insert code key ISO Code A42-A43
Grade selection reference Sortenauswahl A14/A31-A40
chip breaker selection reference Spanbrecherauswahl A24-A30
Recommended cutting parameters Empfohlene Schnittparameter A249-A253

A

TN** Negative Insert·Negative WSP





Insert Shape Schneid-plattenform	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	YD101	YD201
HDR  Heavy Turning Schwer Zerspan-nung	**TNMM160408-HDR**	16.5	9.525	4.76	3.81	0.8																					
	TNMM160412-HDR	16.5	9.525	4.76	3.81	1.2																					
	TNMM220408-HDR	22	12.7	4.76	5.16	0.8																					
	TNMM220412-HDR	22	12.7	4.76	5.16	1.2																					
	TNMM220416-HDR	22	12.7	4.76	5.16	1.6		○																			
	TNMM270612-HDR	27.5	15.875	6.35	6.35	1.2																					
	TNMM270616-HDR	27.5	15.875	6.35	6.35	1.6		○																			
	TNMM270624-HDR	27.5	15.875	6.35	6.35	2.4		○																			
Basic 	**TNMG110308**	11	6.35	3.18	2.26	0.8																					
	TNMG160404	16.5	9.525	4.76	3.81	0.4		○											○								
	TNMG160408	16.5	9.525	4.76	3.81	0.8	○	●	○																○		
	TNMG160412	16.5	9.525	4.76	3.81	1.2	○	○																			
	TNMG220404	22	12.7	4.76	5.16	0.4		○																			
	TNMG220408	22	12.7	4.76	5.16	0.8	○	●	○										○								
	TNMG220412	22	12.7	4.76	5.16	1.2	○	○	○										○								
	TNMG220416	22	12.7	4.76	5.16	1.6		○																			
	TNMG270612	27.5	15.875	6.35	6.35	1.2			●																		
	TNMG270616	27.5	15.875	6.35	6.35	1.6			●																		
	TNMG330916	33	19.05	9.525	7.94	1.6			○																		
	TNMG330924	33	19.05	9.525	7.94	2.4			○																		

Tool holder / Klemmhalter


PTFNR/L Kr:90°


PTTNR/L Kr:60°


PTGNR/L Kr:90°


MTGNR/L Kr:90°


MTJNR/L Kr:93°


MTFNR/L Kr:90°

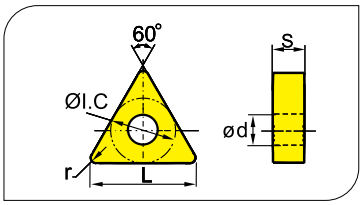

PTFNR/L Kr:90°

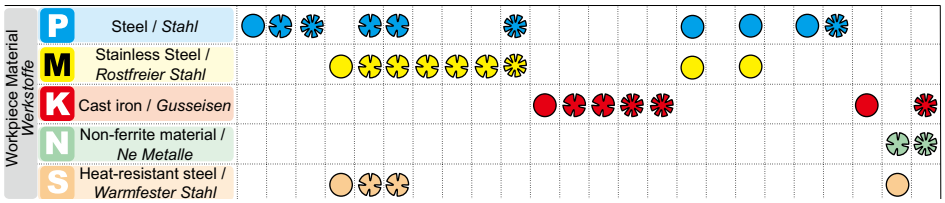
Page/Seite A166 A167 A168 A178 A179 A180 A222

● 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





Insert Shape Schneid-plattenform	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	YD101	YD201
Basic	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		○	●																		
Flat	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


PTFNR/L Kr:90°


PTTNR/L Kr:60°


PTGNR/L Kr:90°


MTGNR/L Kr:90°


MTJNR/L Kr:93°


MTFNR/L Kr:90°

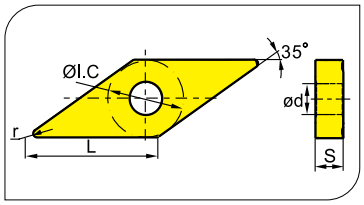

PTFNR/L Kr:90°

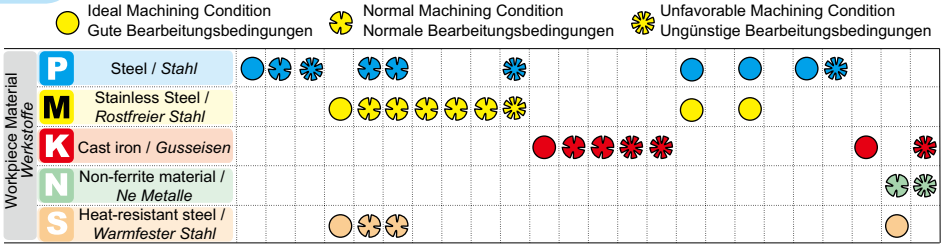
Page/Seite	A166	A167	A168	A178	A179	A180	A222

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

A

VN** Negative Insert·Negative WSP





Insert Shape Schneid-plattenform	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	YD101	YD201
DF	**VNMG160404-DF**	16.6	9.525	4.76	3.81	0.4	●	●						●													
	VNMG160408-DF	16.6	9.525	4.76	3.81	0.8	●	●						●	●												
Finishing Schlichten																											
EF	**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						○															
Finishing Schlichten																											
NF	**VNEG160404-NF**	16.6	9.525	4.76	3.81	0.4				●																○	
	VNEG160408-NF	16.6	9.525	4.76	3.81	0.8				●																○	
Finishing Schlichten																											
SF	**VNMG160404-SF**	16.6	9.525	4.76	3.81	0.4																					
	VNMG160408-SF	16.6	9.525	4.76	3.81	0.8																					
Finishing Schlichten																											

Tool holder / Klemmhalter


MVVNN
Kr:72°30'

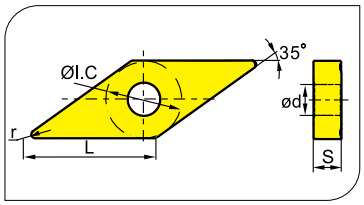

MVJNR/L
Kr:93°

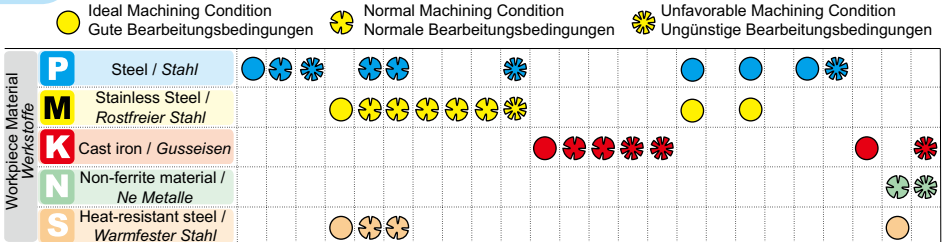
Page/Seite A181 A182

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

A

VN** Negative Insert·Negative WSP





Insert Shape Schneid-plattenform	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	YD101	YD201
PM	**VNMG160404-PM**	16.6	9.525	4.76	3.81	0.4	●	●	●									●										○
	VNMG160408-PM	16.6	9.525	4.76	3.81	0.8	●	●	●								●	●		●								○
Medium Cut/ Mittl. Bearb.	**VNMG160412-PM**	16.6	9.525	4.76	3.81	1.2		●	●								●	●	○									
DM	**VNMG160408-DM**	16.6	9.525	4.76	3.81	0.8	●	●	●						●													
	VNMG160412-DM	16.6	9.525	4.76	3.81	1.2		●																				
Medium Cut/ Mittl. Bearb.																												
EM	**VNMG160404-EM**	16.6	9.525	4.76	3.81	0.4					●	●																
	VNMG160408-EM	16.6	9.525	4.76	3.81	0.8					●	●																
Medium Cut/ Mittl. Bearb.																												
NM	**VNMG160412-NM**	16.6	9.525	4.76	3.81	1.2																						
Medium Cut/ Mittl. Bearb.																												
Basic	**VNMG160404**	16.6	9.525	4.76	3.81	0.4	○	○																				
	VNMG160408	16.6	9.525	4.76	3.81	0.8	○	○											○									

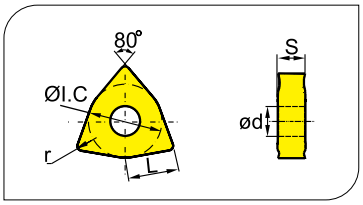
Tool holder / Klemmhalter

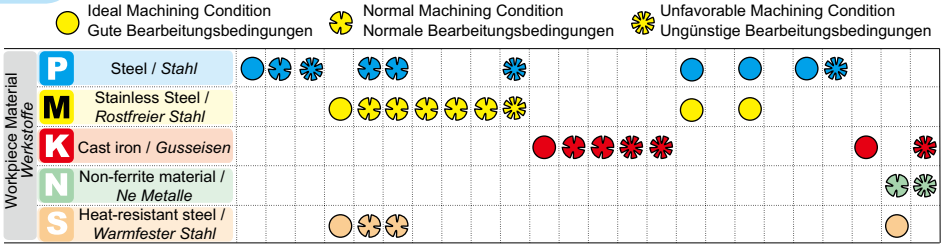
Page/Seite A181 A182

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

A

WN** Negative Insert·Negative WSP





Insert Shape Schneid-plattenform	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	YD101	YD201
DF	WNMG06T304-DF	6.5	9.525	3.97	3.81	0.4																					
	WNMG06T308-DF	6.5	9.525	3.97	3.81	0.8																					
	WNMG06T312-DF	6.5	9.525	3.97	3.81	1.2																					
	WNMG060404-DF	6.5	9.525	4.76	3.81	0.4	●	●						●	○													
	WNMG060408-DF	6.5	9.525	4.76	3.81	0.8	●	●					○	●	○													
	WNMG060412-DF	6.5	9.525	4.76	3.81	1.2	●																				
Finishing Schlichten	WNMG080404-DF	8.7	12.7	4.76	5.16	0.4	●	●					○	●													
	WNMG080408-DF	8.7	12.7	4.76	5.16	0.8	●	●			○		○	●	○												
	WNMG080412-DF	8.7	12.7	4.76	5.16	1.2	●	●																			
WG	WNMG060404-WG	6.5	9.525	4.76	3.81	0.4	○																				
	WNMG060408-WG	6.5	9.525	4.76	3.81	0.8	○																				
	WNMG060412-WG	6.5	9.525	4.76	3.81	1.2																					
	WNMG080404-WG	8.7	12.7	4.76	5.16	0.4	○																				
	WNMG080408-WG	8.7	12.7	4.76	5.16	0.8	●	●			●			●													
Wiper	WNMG080412-WG	8.7	12.7	4.76	5.16	1.2	●	●																			

Tool holder / Klemmhalter


PWLNR/L
Kr:95°


MWLNR/L
Kr:95°

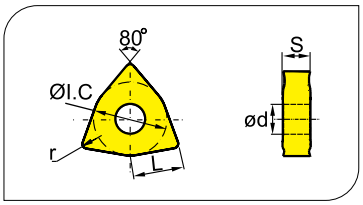

PWLNR/L
Kr:95°

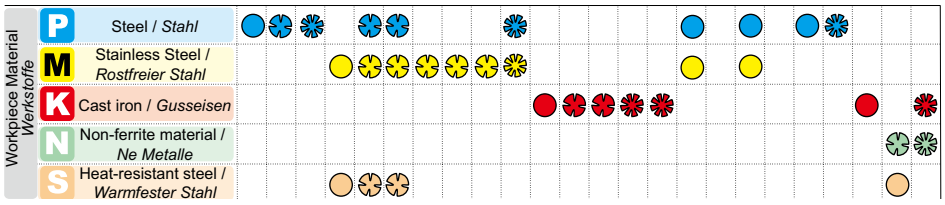
Page/Seite A169 A183 A223

● 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





Insert Shape Schneid-plattenform	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	YD101	YD201
SF	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																					
EF	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	●			●	●	●	○	●	●												
NF	WNEG080404-NF	8.7	12.7	4.76	5.16	0.4				●																	
	WNEG080408-NF	8.7	12.7	4.76	5.16	0.8																					

Finishing / Schlichten

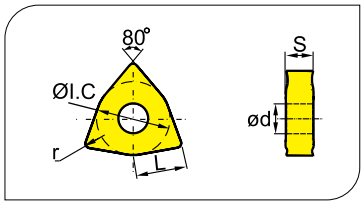
Tool holder / Klemmhalter

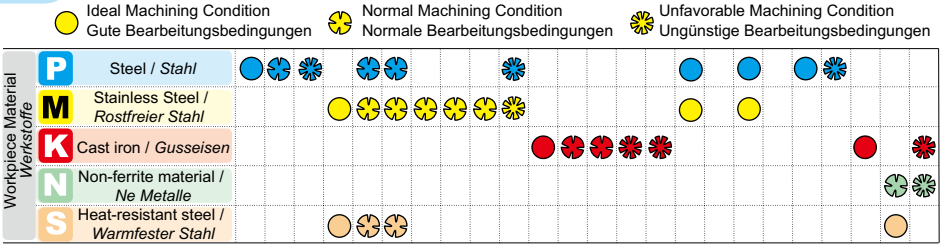
Page/Seite A169 A183 A223

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

A

WN** Negative Insert·Negative WSP





Insert Shape Schneid-plattenform	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	YD101	YD201
PM	**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		●	○								○	○		●								
DM	**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	●	●	●					○	●	○												
	WNMG080416-DM	8.7	12.7	4.76	5.16	1.6		○																				
EM	**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


PWLNR/L
Kr:95°


MWLNR/L
Kr:95°


PWLNR/L
Kr:95°

Page/Seite A169 A183 A223

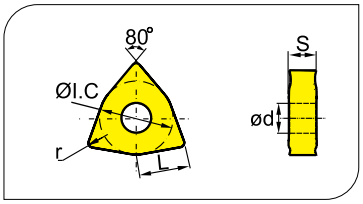
● Ex Stock / ab Lager ○ On demand / auf Anfrage

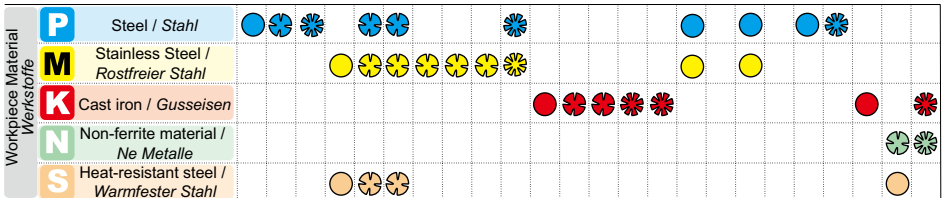
A

General Turning · Allgemeine Drehbearbeitung

WN** Negative Insert·Negative WSP

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





Insert Shape Schneid-plattenform	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	YD101	YD201
NM	**WNMG080408-NM**	8.7	12.7	4.76	5.16	0.8				●		○															
	**WNMG080412-NM**	8.7	12.7	4.76	5.16	1.2				●		○															
Medium Cut/ Mittl. Bearb.																											
DR	**WNMG060408-DR**	6.5	9.525	4.76	3.81	0.8	●	●	○									●		●							
	**WNMG060412-DR**	6.5	9.525	4.76	3.81	1.2	●	●	○									●		●							
	WNMG080408-DR	8.7	12.7	4.76	5.16	0.8	●	●	●									●		●							
Roughing/ Schruppen	**WNMG080412-DR**	8.7	12.7	4.76	5.16	1.2	●	●	●									●		●							
	WNMG080416-DR	8.7	12.7	4.76	5.16	1.6	●	●										●		○							
Flat	**WNMA06T308**	6.5	9.525	3.97	3.81	0.8																					
	WNMA060404	6.5	9.525	4.76	3.81	0.4																					
	WNMA060408	6.5	9.525	4.76	3.81	0.8									●			●		●							
	WNMA060412	6.5	9.525	4.76	3.81	1.2																					
	**WNMA080404**	8.7	12.7	4.76	5.16	0.4									○			○									
	WNMA080408	8.7	12.7	4.76	5.16	0.8									●			●		●							
	WNMA080412	8.7	12.7	4.76	5.16	1.2									●			●		●							
	WNMA080416	8.7	12.7	4.76	5.16	1.6									○			○		○							

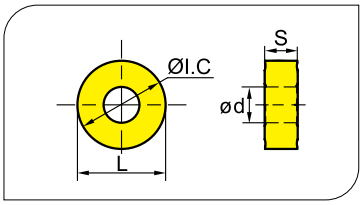
Tool holder / Klemmhalter

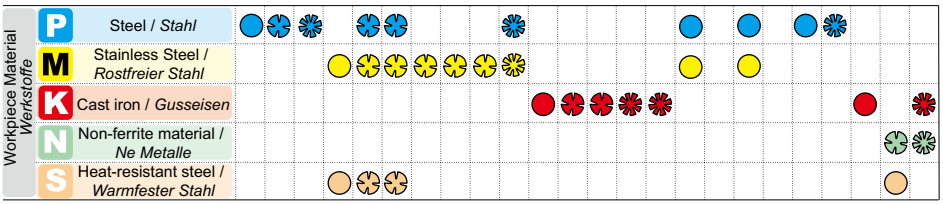
Page/Seite A169 A183 A223

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

RN** Negative Insert·Negative WSP

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





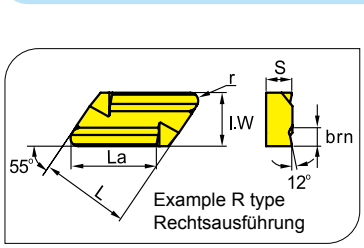
Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Coated Carbide Beschichtetes Hartmetall												Cermet unbeschichtet		Cermet Coated beschicht. Cerm.	Uncoated Carbide unbeschicht. Hartmetall				
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151		YNG151C	YC10	YC40	YD051	YD101	YD201
Basic 	**RNMG120400**	12.7	12.7	4.76	5.16		●	●																				

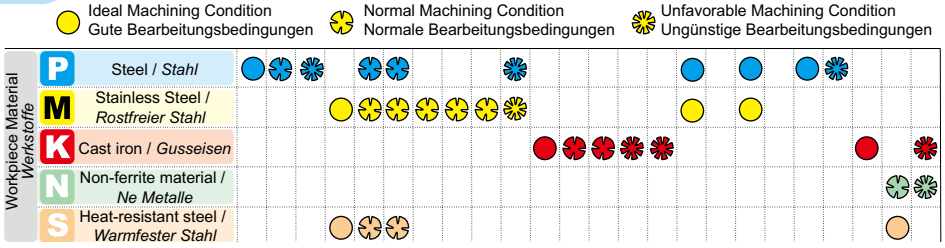
Tool holder / Klemmhalter

Page/Seite A184 A184

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

KN** Negative insert/ Negative Inserts





Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung						Coated Carbide Beschichtetes Hartmetall													Cermet unbeschichtet		Cermet Coated beschicht. Cerm.		Uncoated Carbide unbeschicht. Hartmetall				
		La	L	l.W	S	brn	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151		YNG151C		YC10	YC40	YD051	YD101	YD201
KNUX  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


CKJNR/L
Kr:93°


CKNNR/L
Kr:63°

Page/Seite A203 A203

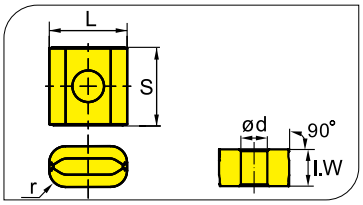
Insert code key ISO Code A42-A43
Grade selection reference Sortenauswahl A14/A31-A40
chip breaker selection reference Spanbrecherauswahl A24-A30
Recommended cutting parameters Empfohlene Schnittparameter A249-A253

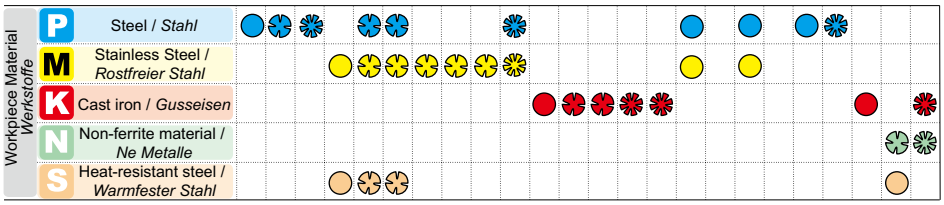
A

General Turning · Allgemeine Drehbearbeitung

Railway Wheel Machining/ Radsatz Bearbeitung

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



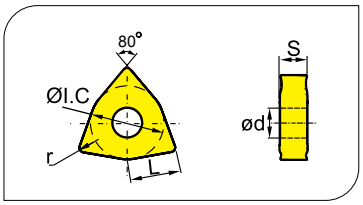


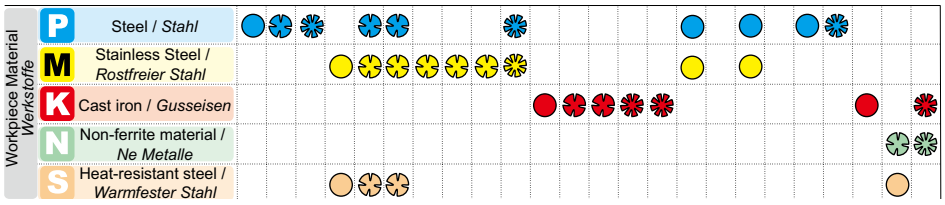
Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Coated Carbide Beschichtetes Hartmetall													Cermet unbeschichtet	Cermet Coated beschicht. Cerm.	Uncoated Carbide unbeschicht. Hartmetall				
		L	l.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
 Railway Wheel Machining/ Radsatz Bearb.	**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		●																			
 Railway Wheel Machining/ Radsatz Bearb.	**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	○	●																			
 Railway Wheel Machining/ Radsatz Bearb.	**175.32-191940-25**	19.05	10	19.05	6.35	4.0		●																			
 Railway Wheel Machining/ Radsatz Bearb.	**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

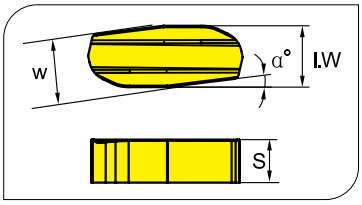
Ideal Machining Condition / Gute Bearbeitungsbedingungen
Normal Machining Condition / Normale Bearbeitungsbedingungen
Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

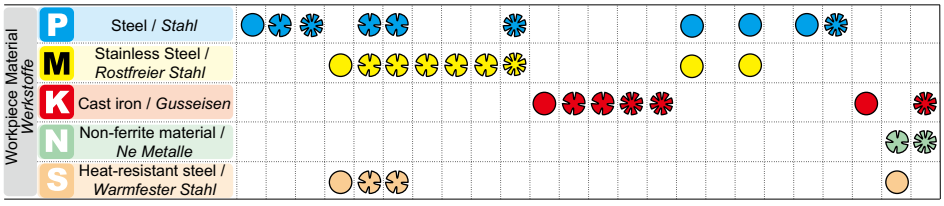




Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Coated Carbide Beschichtetes Hartmetall													Cermet unbeschichtet	Cermet Coated beschicht. Cerm.	Uncoated Carbide unbeschicht. Hartmetall				
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
Basic	**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





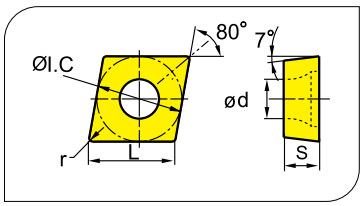
Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Coated Carbide Beschichtetes Hartmetall													Cermet	Coated Beschicht.	Uncoated Carbide unbeschicht. Hartmetall				
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBD052	YBD102	YBD151	YBD152	YBD252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

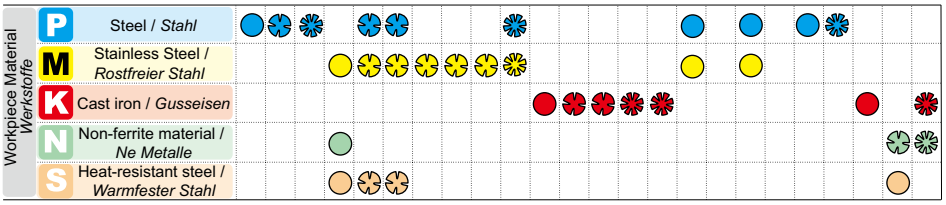
Insert code key ISO Code A42-A43
Grade selection reference Sortenauswahl A14/A31-A40
chip breaker selection reference Spanbrecherauswahl A24-A30
Recommended cutting parameters Empfohlene Schnittparameter A249-A253

A

CC** Positive Insert/ Positive WSP

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





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	YD101	YD201
SF	CCGT060202-SF	6.4	6.35	2.38	2.8	0.2																●	●					
	CCGT060204-SF	6.4	6.35	2.38	2.8	0.4																●	●					
	CCGT09T304-SF	9.7	9.525	3.97	4.4	0.4																●	●					
Finishing Schlichten																												
HF	CCMT060202-HF	6.4	6.35	2.38	2.8	0.2	●	●			●											●						○
	CCMT060204-HF	6.4	6.35	2.38	2.8	0.4	●	●	●		●			○						○		●						
	CCMT060208-HF	6.4	6.35	2.38	2.8	0.8	○	●														●	●					
	CCMT09T302-HF	9.7	9.525	3.97	4.4	0.2		●			●											●	●					
	CCMT09T304-HF	9.7	9.525	3.97	4.4	0.4	●	●	●		●			●				●		●		●	●					○
	CCMT09T308-HF	9.7	9.525	3.97	4.4	0.8	●	●	○					●				○		●		○						○
Finishing Schlichten	CCMT120404-HF	12.9	12.7	4.76	5.56	0.4	●	●						○					●			●						
	CCMT120408-HF	12.9	12.7	4.76	5.56	0.8	○	○																				
	CPGT050204	5.6	5.56	2.38	2.8	0.4																						

Tool holder / Klemmhalter

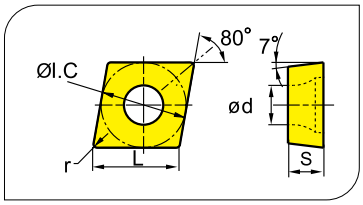
Page/Seite A185 A186 A224 A239 A240

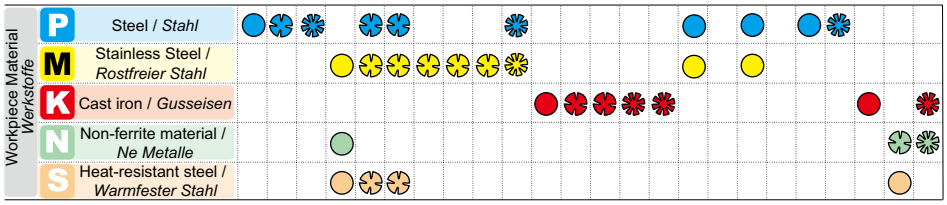
● Ex Stock / ab Lager ○ On demand / auf Anfrage

A

CC** Positive Insert/ Positive WSP

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





Insert Shape Schneid-plattenform	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	YD101	YD201
EF  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						●															
HM  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		●										○										
EM  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

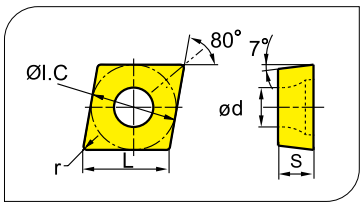
SCACR/L Kr:90°	SCLCR/L Kr:95°	SCLCR/L Kr:95°	SCFCR Kr:90°	SCLCR Kr:95°
				
Page/Seite A185	A186	A224	A239	A240

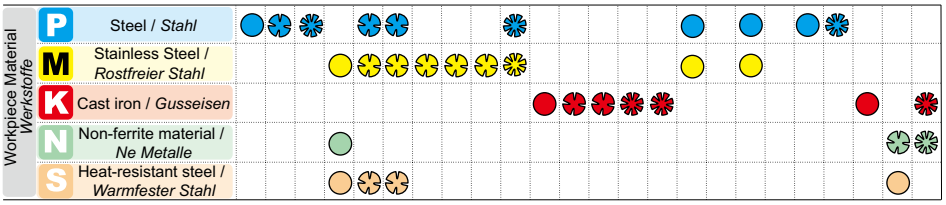
Insert code key ISO Code A42-A43 · Grade selection reference Sortenauswahl A14/A31-A40 · chip breaker selection reference Spanbrecherauswahl A24-A30 · Recommended cutting parameters Empfohlene Schnittparameter A249-A253

A

CC** Positive Insert/ Positive WSP

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





Insert Shape Schneid-plattenform	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	YD101	YD201
HR	CCMT060204-HR	6.4	6.35	2.38	2.8	0.4	●	○	○																		○
	CCMT060208-HR	6.4	6.35	2.38	2.8	0.8	○	●	○											○								
	CCMT09T304-HR	9.7	9.525	3.97	4.4	0.4	●	●	●																			
	CCMT09T308-HR	9.7	9.525	3.97	4.4	0.8	●	●	●					●	●		●	●	○	●								●
Roughing/ Schruppen	CCMT120408-HR	12.9	12.7	4.76	5.56	0.8	●	●	●					●	●		●	●	●	●		○						●
	CCMT120412-HR	12.9	12.7	4.76	5.56	1.2	○	●	○					○	○		○	●	○									
LH	CCGX060202-LH	6.4	6.35	2.38	2.8	0.2				●																	●	
	CCGX060204-LH	6.4	6.35	2.38	2.8	0.4				●																	●	
	CCGX060208-LH	6.4	6.35	2.38	2.8	0.8																					●	
	CCGX09T302-LH	9.7	9.525	3.97	4.4	0.2				●																	●	
	CCGX09T304-LH	9.7	9.525	3.97	4.4	0.4				●																	●	
Aluminium Machining/ Aluminium-bearbeitung	CCGX09T308-LH	9.7	9.525	3.97	4.4	0.8				●																	●	
	CCGX120402-LH	12.9	12.7	4.76	5.56	0.2				●																	●	
	CCGX120404-LH	12.9	12.7	4.76	5.56	0.4				●																	●	
	CCGX120408-LH	12.9	12.7	4.76	5.56	0.8				●	○																●	
	CCGX120412-LH	12.9	12.7	4.76	5.56	1.2				●																	●	
Basic	CCMW060204	6.4	6.35	2.38	2.8	0.4	○																			○	●	
	CCMW09T304	9.7	9.525	3.97	4.4	0.4	○												○								●	○
	CCMW09T308	9.7	9.525	3.97	4.4	0.8	○												○								●	
	CCMW120404	12.9	12.7	4.76	5.56	0.4	○												○								●	
	CCMW120408	12.9	12.7	4.76	5.56	0.8	○																				○	

Tool holder / Klemmhalter


SCACR/L Kr:90°


SCLCR/L Kr:95°


SCLCR/L Kr:95°


SCFCR Kr:90°


SCLCR Kr:95°

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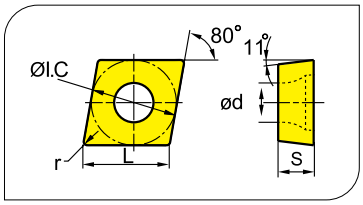
● Ex Stock / ab Lager ○ On demand / auf Anfrage

A

General Turning · Allgemeine Drehbearbeitung

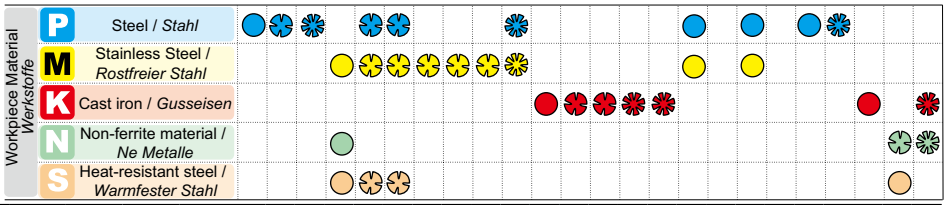
CP** Positive Insert/ Positive WSP



Ideal Machining Condition
Gute Bearbeitungsbedingungen

Normal Machining Condition
Normale Bearbeitungsbedingungen

Unfavorable Machining Condition
Ungünstige Bearbeitungsbedingungen



Insert Shape Schneid-plattenform	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	YD101	YD201
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

SCLPR/L
Kr:95°

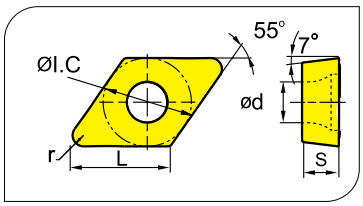
Page/Seite A235

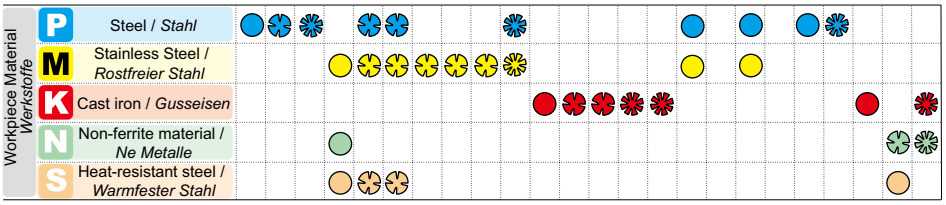
Insert code key ISO Code A42-A43
Grade selection reference Sortenauswahl A14/A31-A40
chip breaker selection reference Spanbrecherauswahl A24-A30
Recommended cutting parameters Empfohlene Schnittparameter A249-A253

A

DC** Positive Insert/ Positive WSP

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





Insert Shape Schneid-plattenform	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	YD101	YD201
SF	**DCGT070202-SF**	7.8	6.35	2.38	2.8	0.2																●	●					
	DCGT070204-SF	7.8	6.35	2.38	2.8	0.4																●	●					
	DCGT070208-SF	7.8	6.35	2.38	2.8	0.8																○	●					
	DCGT11T302-SF	11.6	9.525	3.97	4.4	0.2																○	●					
	DCGT11T304-SF	11.6	9.525	3.97	4.4	0.4																●	●					
Finishing Schlichten	**DCGT11T308-SF**	11.6	9.525	3.97	4.4	0.8																●	●					
HF	**DCMT070202-HF**	7.8	6.35	2.38	2.8	0.2	●	●			●											●	○					
	DCMT070204-HF	7.8	6.35	2.38	2.8	0.4	●	●	●		●			●								●	○					
	DCMT070208-HF	7.8	6.35	2.38	2.8	0.8	○	○														●	○					
	DCMT11T302-HF	11.6	9.525	3.97	4.4	0.2		●			●											●	●					●
Finishing Schlichten	**DCMT11T304-HF**	11.6	9.525	3.97	4.4	0.4	●	●	○		●			○	●			○		○		●	●					●
	DCMT11T308-HF	11.6	9.525	3.97	4.4	0.8	●	●						○				●				●	●					

Tool holder / Klemmhalter


SDACR/L
Kr:90°


SDJCR/L
Kr:93°


SDNCN
Kr:45°


SDQCR/L
Kr:107°30'


SDUCR/L
Kr:93°

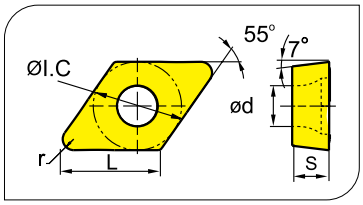

SDZCR/L
Kr:85°

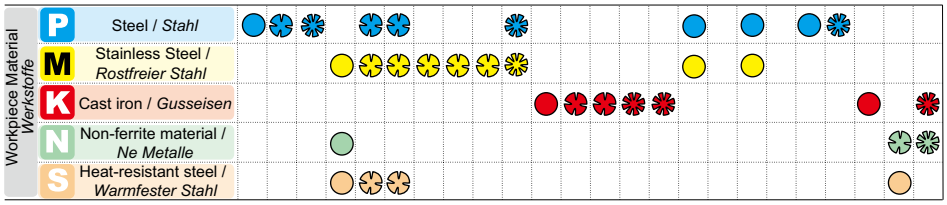
Page/Seit A187 A188 A189 A226 A227 A228

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

DC** Positive Insert/ Positive WSP

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





Insert Shape Schneid-plattenform	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	YD101	YD201
EF	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						●																	
Finishing Schlichten	DCMT11T304-EF	11.6	9.525	3.97	4.4	0.4					○	●																	
	DCMT11T308-EF	11.6	9.525	3.97	4.4	0.8						●																	
HM	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	●	●	●		●			●	●	○		●		●									○
Medium Cut/ Mittl. Bearb.	DCMT11T308-HM	11.6	9.525	3.97	4.4	0.8	●	●	●		●			●	●	○		●		●									○
	DCMT11T312-HM	11.6	9.525	3.97	4.4	1.2	○	●	○						○			○											
EM	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					○	●		○	○														
Medium Cut/ Mittl. Bearb.	DCMT11T308-EM	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

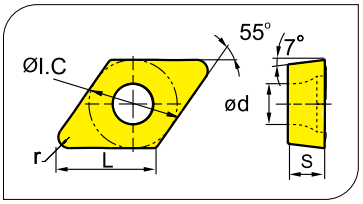

SDZCR/L
Kr:85°
A228

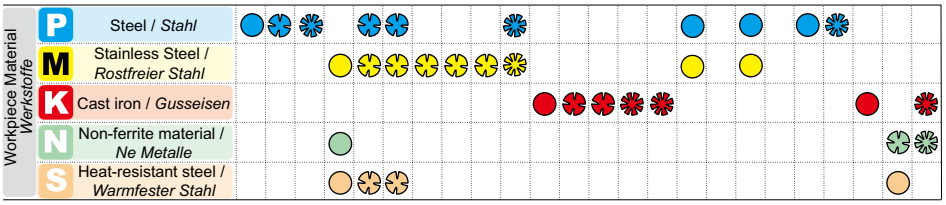
Insert code key ISO Code A42-A43
Grade selection reference Sortenauswahl A14/A31-A40
chip breaker selection reference Spanbrecherauswahl A24-A30
Recommended cutting parameters Empfohlene Schnittparameter A249-A253

A

DC** Positive Insert/ Positive WSP

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





Insert Shape Schneid-plattenform	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	YD101	YD201
HR	**DCMT11T304-HR**	11.6	9.525	3.97	4.4	0.4	●	●	○						●			●		○								
	DCMT11T308-HR	11.6	9.525	3.97	4.4	0.8	○	●	●					○	●	○	●	●	○									○
	DCMT11T312-HR	11.6	9.525	3.97	4.4	1.2		○							○		○	○										
Roughing/ Schruppen																												
LH	**DCGX070202-LH**	7.8	6.35	2.38	2.8	0.2				●	●																●	
	DCGX070204-LH	7.8	6.35	2.38	2.8	0.4				●	●																●	
	DCGX11T302-LH	11.6	9.525	3.97	4.4	0.2				●	●																●	
	DCGX11T304-LH	11.6	9.525	3.97	4.4	0.4				●	●																●	
	DCGX11T308-LH	11.6	9.525	3.97	4.4	0.8				●	●																●	
Aluminium Machining/ Aluminium-bearbeitung																												
Flat	**DCMW070204**	7.8	6.35	2.38	2.8	0.4																						
	DCMW11T304	11.6	9.525	3.97	4.4	0.4	○											●	○			○						○
	DCMW11T308	11.6	9.525	3.97	4.4	0.8	○										●	○	○									○

Tool holder / Klemmhalter


SDACR/L
Kr:90°


SDJCR/L
Kr:93°


SDNCN
Kr:45°


SDQCR/L
Kr:107°30'


SDUCR/L
Kr:93°

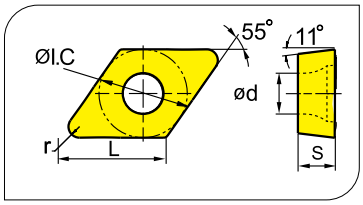

SDZCR/L
Kr:85°

Page/Seite A187 A188 A189 A226 A227 A228

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

A

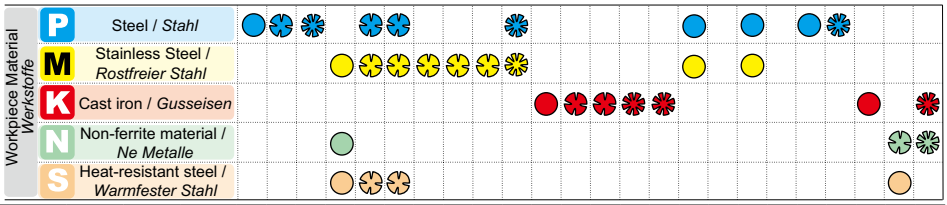
DP** Positive Insert/ Positive WSP



Ideal Machining Condition
Gute Bearbeitungsbedingungen

Normal Machining Condition
Normale Bearbeitungsbedingungen

Unfavorable Machining Condition
Ungünstige Bearbeitungsbedingungen



insert shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Coated Carbide Beschichte Hartmetal												Cermet unbeschichtet	Cermet Coated beschicht. Cerm.	carbide Hartmetal				
		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
SF  Finishing Schlichten	**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

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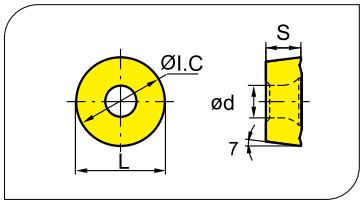
Insert code key ISO Code A42-A43
Grade selection reference Sortenauswahl A14/A31-A40
chip breaker selection reference Spanbrecherauswahl A24-A30
Recommended cutting parameters Empfohlene Schnittparameter A249-A253

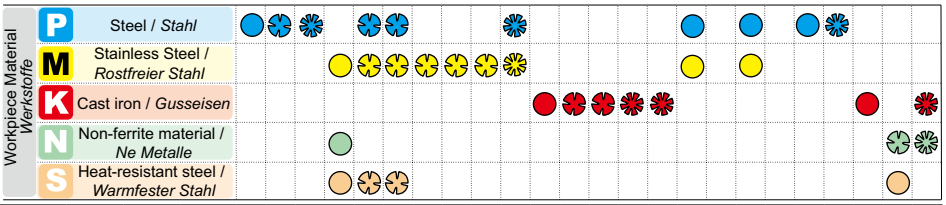
A

General Turning · Allgemeine Drehbearbeitung

RC** Positive Insert/ Positive WSP

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



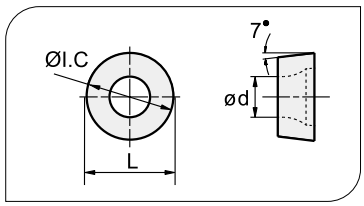


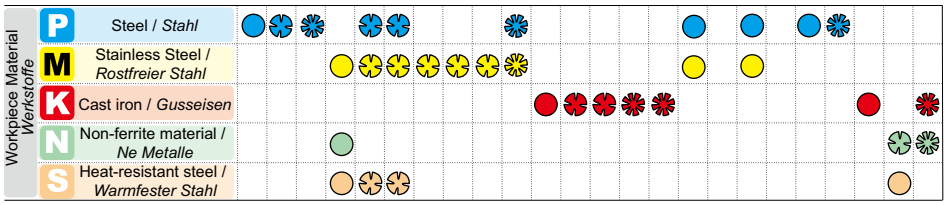
Insert Shape/ Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Coated Carbide Beschichtetes Hartmetall												Cermet unbeschichtet	Cermet Coated beschicht. Cerm.	Uncoated Carbide unbeschicht. Hartmetall				
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
Basic	**RCGT1204MO**	12	12	4.76	4.4	\																					
	RCGT190600	19.05	19.05	6.35	6.55	\																					
	RCMT0803MO	8.0	8.0	3.18	3.36	\		●										●									
	RCMT10T3MO	10	10	3.97	3.6	\		●																			
	RCMT1204MO	12	12	4.76	4.4	\	●	●							●			●		●							
	RCMT1606MO	16	16	6.35	5.5	\	●	●	●							●		●									
	RCMT2006MO	20	20	6.35	6.5	\		●																			
	RCMT2507MO	25	25	7.94	7.7	\		●																			

Medium cut.
Mittl. Bearb.

RC** positive insert

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





Insert Shape Schneid-plattenform	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
LH	**RCGX0803MO-LH**	8.0	8.0	3.18	3.36	\																				●	

Aluminium Machining/ Aluminium-bearbeitung

Tool holder / Klemmhalter

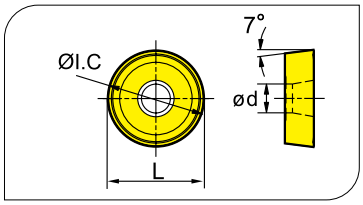
SRDCN

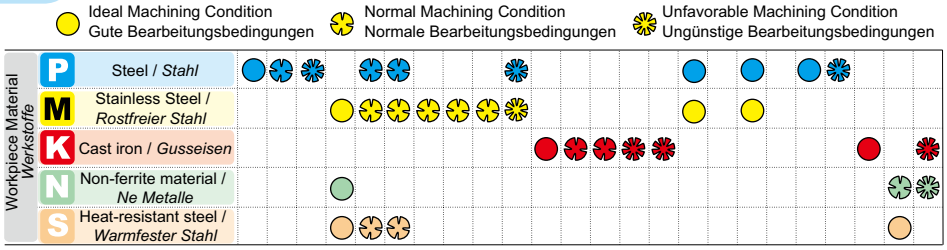
SRGCR/L

Page/Seite A201 A202

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

RC** Positive Insert/ Positive WSP





Insert Shape Schneid-plattenform	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	YD101	YD201
Basic	**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	\		●																				

Light roughing
Leicht Schruppen

Tool holder / Klemmhalter

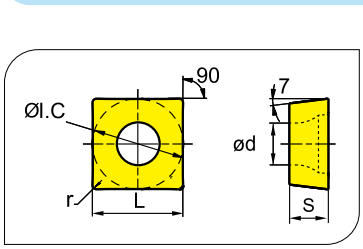
SRGCR/L

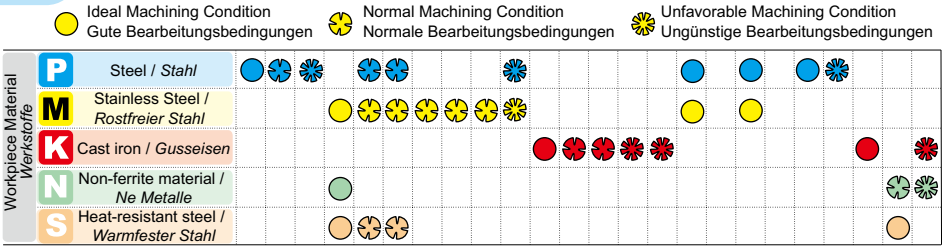
Page/Seite A202

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

A

CC** Positive Insert/ Positive WSP





Insert Shape Schneid-plattenform	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	YD101	YD201
HF	**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	●	●			●			●													
Finishing Schlichten																											
EF	**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						●															
Finishing Schlichten																											
HM	**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	●	●	●		○				●			●		●							●
Medium Cut/ Mittl. Bearb.	**SCMT120412-HM**	12.7	12.7	4.76	5.56	1.2	○	●																			
EM	**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						●															
Finishing Schlichten	**SCMT120412-EM**	12.7	12.7	4.76	5.56	1.2						○															

Tool holder / Klemmhalter


SSBCR/L Kr:75°


SSDCN Kr:45°


SSKCR/L Kr:75°

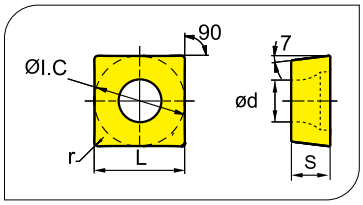

SSSCR/L Kr:45°


SSKCR/L Kr:75°

Page/Seite A195 A195 A196 A196 A229

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

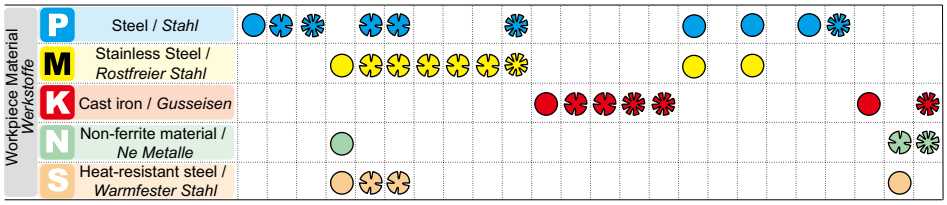
SC** Positive Insert/ Positive WSP



Ideal Machining Condition
Gute Bearbeitungsbedingungen

Normal Machining Condition
Normale Bearbeitungsbedingungen

Unfavorable Machining Condition
Ungünstige Bearbeitungsbedingungen



insert shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Coated Carbide Beschichte Hartmetal														Cermet unbeschichtet	Cermet Coated beschicht. Cerm.	carbide Hartmetal				
		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
LH  Aluminium Machining/ Aluminium-bearbeitung	**SCGX09T302-LH**	9.525	9.525	3.97	4.4	0.2																				●	
	SCGX09T304-LH	9.525	9.525	3.97	4.4	0.4																				●	
	SCGX09T308-LH	9.525	9.525	3.97	4.4	0.8																				●	
	SCGX120404-LH	12.7	12.7	4.76	5.56	0.4																					
	SCGX120408-LH	12.7	12.7	4.76	5.56	0.8																				●	
HR  Roughing/ Schruppen	**SCMT09T304-HR**	9.525	9.525	3.97	4.4	0.4		○												○							
	SCMT09T308-HR	9.525	9.525	3.97	4.4	0.8	○	●										●		●							
	SCMT09T312-HR	9.525	9.525	3.97	4.4	1.2	○	○																			
	SCMT120404-HR	12.7	12.7	4.76	5.56	0.4	●	●																			
	SCMT120408-HR	12.7	12.7	4.76	5.56	0.8	○	●	●								○	●									
	SCMT120412-HR	12.7	12.7	4.76	5.56	1.2		●	○								○	●		●							
Basic 	**SCMT09T304**	9.525	9.525	3.97	4.4	0.4	○	○																			○
	SCMT120404	12.7	12.7	4.76	5.56	0.4	○	○	○																		
	SCMT120408	12.7	12.7	4.76	5.56	0.8																					
Flat 	**SCMW060204**	6.35	6.35	2.38	2.8	0.4													○			○					●
	SCMW09T304	9.525	9.525	3.97	4.4	0.4																		○	○		
	SCMW09T308	9.525	9.525	3.97	4.4	0.8													○								
	SCMW120408	12.7	12.7	4.76	5.56	0.8													○			○					○

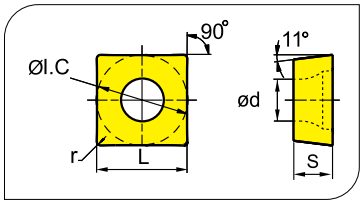
Tool holder / Klemmhalter

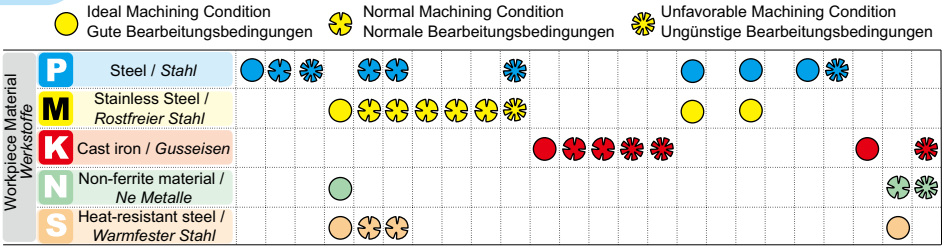
SSBCR/L Kr:75° 	**SSDCN** Kr:45° 	**SSKCR/L** Kr:75° 	**SSSCR/L** Kr:45° 	**SSKCR/L** Kr:75° 
Page/Seite A195	A195	A196	A196	A229

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

A

SP** Positive Insert/ Positive WSP



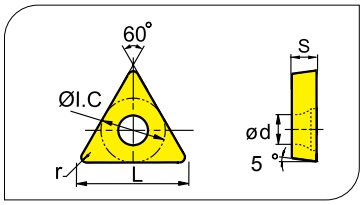


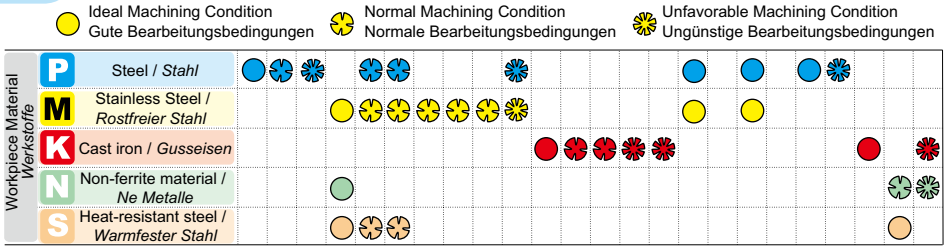
Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Coated Carbide Beschichtetes Hartmetall												Cermet unbeschichtet	Cermet Coated beschicht. Cerm.	Uncoated Carbide unbeschicht. Hartmetall				
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
Flat	**SPMW09T304**	9.525	9.525	3.97	4.4	0.4																					
	SPMW09T308	9.525	9.525	3.97	4.4	0.8																					
	SPMW120408	12.7	12.7	4.76	5.56	0.8													○								

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

A

TB** Positive Insert/ Positive WSP





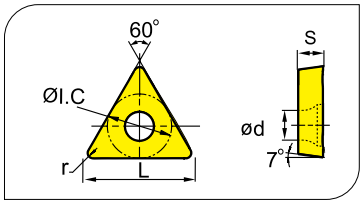
Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Coated Carbide Beschichtetes Hartmetall												Cermet unbeschichtet	Cermet Coated beschicht. Cerm.	Uncoated Carbide unbeschicht. Hartmetall				
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
	**TBGH060102L**	6.4	3.97	1.59	2.2	0.2				○											○						
	TBGH060104L	6.4	3.97	1.59	2.2	0.4				○											○						

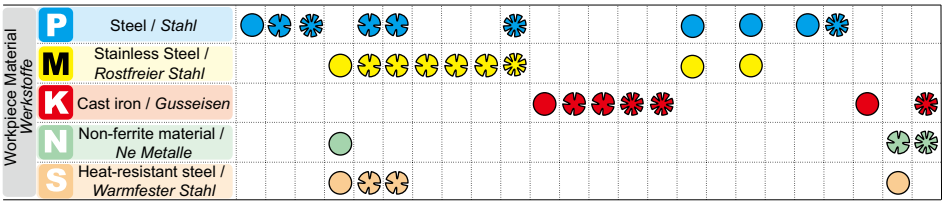
Insert code key ISO Code A42-A43
Grade selection reference Sortenauswahl A14/A31-A40
chip breaker selection reference Spanbrecherauswahl A24-A30
Recommended cutting parameters Empfohlene Schnittparameter A249-A253

A

TC** Positive Insert/ Positive WSP

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





Insert Shape Schneid-plattenform	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	YD101	YD201
SF  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


STACR/L Kr:90°


STFCR/L Kr:90°


STGCR/L Kr:90°


STTCR/L Kr:60°

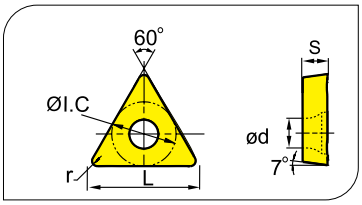

STFCR/L Kr:90°

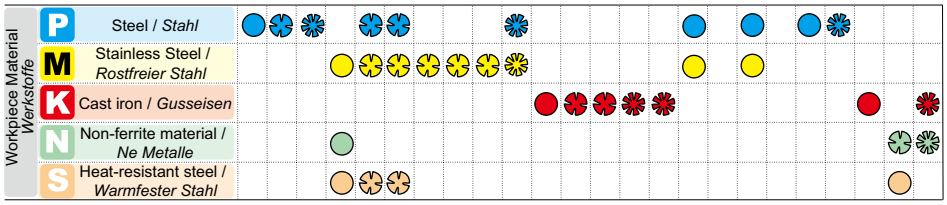
Page/Seite	A197	A197	A198	A199	A230

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

TC** Positive Insert/ Positive WSP

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





Insert Shape Schneid-plattenform	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	YD101	YD201
HF  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


STACR/L Kr:90°


STFCR/L Kr:90°


STGCR/L Kr:90°


STTCR/L Kr:60°


STFCR/L Kr:90°

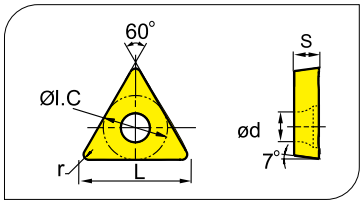
Page/Seite A197 A197 A198 A199 A230

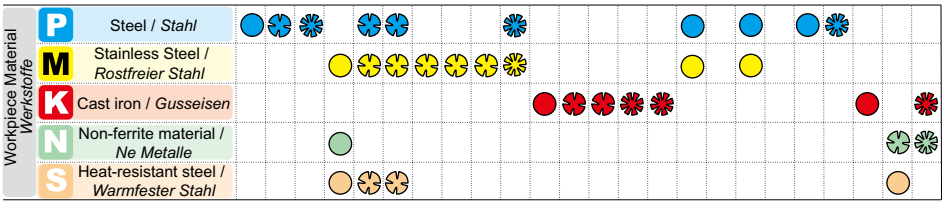
Insert code key ISO Code A42-A43
Grade selection reference Sortenauswahl A14/A31-A40
chip breaker selection reference Spanbrecherauswahl A24-A30
Recommended cutting parameters Empfohlene Schnittparameter A249-A253

A

TC** Positive Insert/ Positive WSP

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





Insert Shape Schneid-plattenform	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	YD101	YD201
EF	**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						●															
Finishing Schlichten	**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	**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																					
Medium Cut/ Mittl. Bearb.	**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


STACR/L Kr:90°


STFCR/L Kr:90°


STGCR/L Kr:90°


STTCR/L Kr:60°


STFCR/L Kr:90°

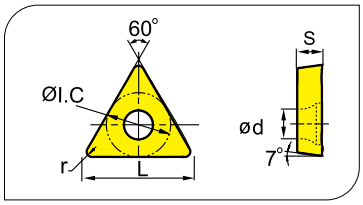
Page/Seite	A197	A197	A198	A199	A230

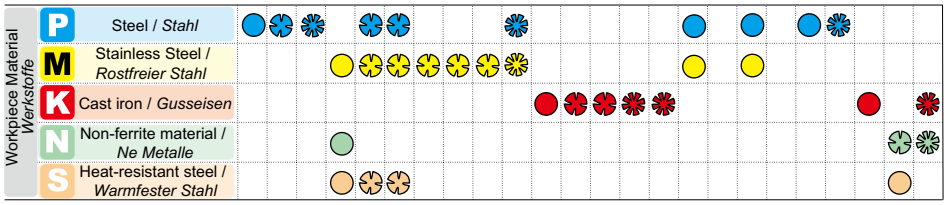
● Ex Stock / ab Lager ○ On demand / auf Anfrage

A

TC** Positive Insert/ Positive WSP

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





Insert Shape Schneid-plattenform	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	YD101	YD201
HM	TCMT090204-HM	9.6	5.56	2.38	2.5	0.4	○	●	○											●							○
	TCMT090208-HM	9.6	5.56	2.38	2.5	0.8	○	●	○											●							
	TCMT110204-HM	11	6.35	2.38	2.8	0.4	●	●	●		●				●			●		●							
	TCMT110208-HM	11	6.35	2.38	2.8	0.8		●										●	○								
Medium Cut/ Mittl. Bearb.	TCMT16T304-HM	16.5	9.525	3.97	4.4	0.4	●	●	●		●				●			●									
	TCMT16T308-HM	16.5	9.525	3.97	4.4	0.8	●	●	●		●			●	●			●		●	○						○
	TCMT16T312-HM	16.5	9.525	3.97	4.4	1.2		●	●						○												
HR	TCMT090204-HR	9.6	5.56	2.38	2.5	0.4		○																			
	TCMT090208-HR	9.6	5.56	2.38	2.5	0.8		○																			
	TCMT110204-HR	11	6.35	2.38	2.8	0.4		○																			
	TCMT110208-HR	11	6.35	2.38	2.8	0.8		●																			
Roughing/ Schruppen	TCMT16T304-HR	16.5	9.525	3.97	4.4	0.4		●																			
	TCMT16T308-HR	16.5	9.525	3.97	4.4	0.8	●	●	●					●	○			●		●							
	TCMT16T312-HR	16.5	9.525	3.97	4.4	1.2	●	●	○									○									
	TCMT220408-HR	22	12.7	4.76	5.5	0.8		●	●																		
LH	TCGX090202-LH	9.6	5.56	2.38	2.5	0.2				●																	●
	TCGX090204-LH	9.6	5.56	2.38	2.5	0.4				●																	●
	TCGX110202-LH	11	6.35	2.38	2.8	0.2				●																	●
	TCGX110204-LH	11	6.35	2.38	2.8	0.4				●																	●
Aluminium Machining/ Aluminium-bearbeitung	TCGX110208-LH	11	6.35	2.38	2.8	0.8																					
	TCGX16T302-LH	16.5	9.525	3.97	4.4	0.2				○																	●
	TCGX16T304-LH	16.5	9.525	3.97	4.4	0.4				●																	●
	TCGX16T308-LH	16.5	9.525	3.97	4.4	0.8				●																	●

Tool holder / Klemmhalter


STACR/L Kr:90°


STFCR/L Kr:90°


STGCR/L Kr:90°


STTCR/L Kr:60°


STFCR/L Kr:90°

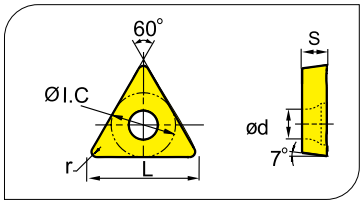
Page/Seite A197 A197 A198 A199 A230

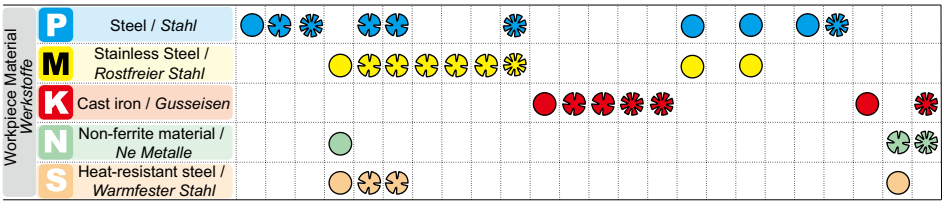
Insert code key ISO Code A42-A43
Grade selection reference Sortenauswahl A14/A31-A40
chip breaker selection reference Spanbrecherauswahl A24-A30
Recommended cutting parameters Empfohlene Schnittparameter A249-A253

A

TC** Positive Insert/ Positive WSP

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





Insert Shape Schneid-plattenform	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	YD101	YD201
Basic	**TCMT220408**	22	12.7	4.76	5.5	0.8		●										○										
Flat	**TCMW110204**	11	6.35	2.38	2.8	0.4	○												○									
	TCMW16T304	16.5	9.525	3.97	4.4	0.4	○												○			○						
	TCMW16T308	16.5	9.525	3.97	4.4	0.8	○												○			●						
	TCMW16T312	16.5	9.525	3.97	4.4	1.2	○												○									
	TCMW220408	22	12.7	4.76	5.5	0.8													○								○	

Tool holder / Klemmhalter


STACR/L
Kr:90°
Page/Seite A197


STFCR/L
Kr:90°
A197


STGCR/L
Kr:90°
A198

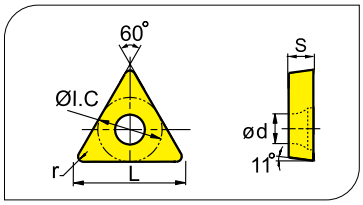

STTCR/L
Kr:60°
A199

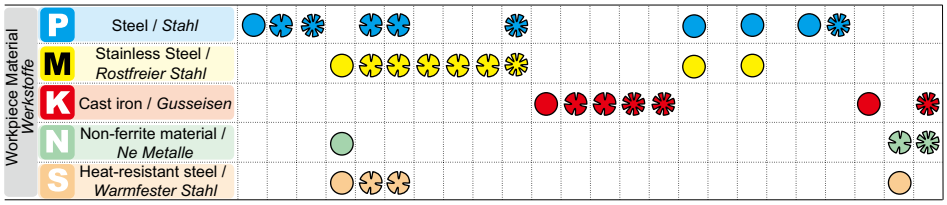

STFCR/L
Kr:90°
A230

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

TP** Positive Insert/ Positive WSP

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





Insert Shape Schneid-plattenform	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	YD101	YD201
SF  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

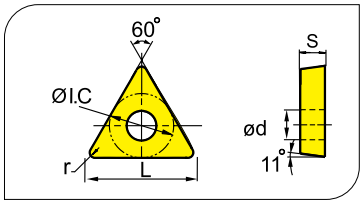
STUPR/L
Kr:93°

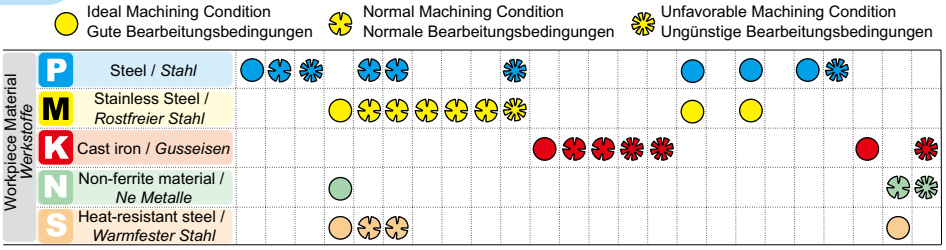
Page/Seite A238

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

A

TP** Positive Insert/ Positive WSP





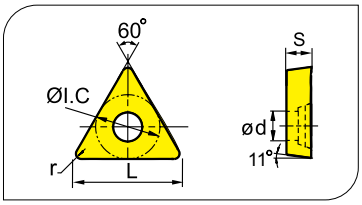
Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Coated Carbide Beschichtetes Hartmetall												Cermet	Coated Beschicht.	Uncoated Carbide unbeschicht. Hartmetall				
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
Flat	**TPGA090204**	9.6	5.56	2.38	2.5	0.4																					
	TPGA090208	9.6	5.56	2.38	2.5	0.8																					
	TPGA110204	11	6.35	2.38	2.8	0.4																					
	TPGA110212	11	6.35	2.38	2.8	1.2																					
	TPGA160304	16.5	9.525	3.18	4.4	0.4																					
	TPGA160308	16.5	9.525	3.18	4.4	0.8																					

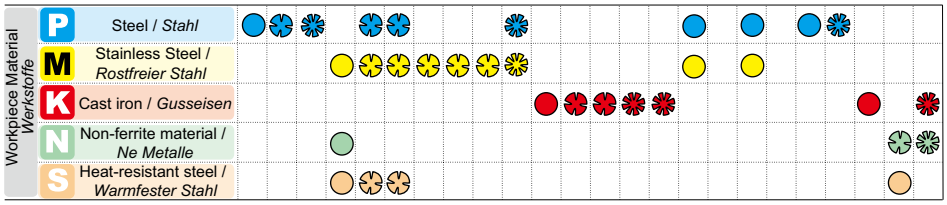
● Ex Stock / ab Lager ○ On demand / auf Anfrage

A

TP** Positive Insert/ Positive WSP

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





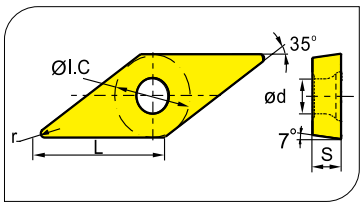
Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Coated Carbide Beschichtetes Hartmetall												Cermet unbeschichtet	Cermet Coated beschicht. Cerm.	Uncoated Carbide unbeschicht. Hartmetall				
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
Flat	**TPGB090204**	9.6	5.56	2.38	2.5	0.4																					
	TPGB090208	9.6	5.56	2.38	2.5	0.8																					
	TPGB270416	27.5	15.875	4.76	5.16	1.6																					
Flat	**TPGW090204**	9.6	5.56	2.38	2.5	0.4																					
	TPGW090208	9.6	5.56	2.38	2.5	0.8																					
	TPGW110304	11	6.35	3.18	2.8	0.4																				○	
	TPGW110308	11	6.35	3.18	2.9	0.8																					
	TPGW160308	16.5	9.525	3.18	4.4	0.8																				○	○
	TPGW16T302	16.5	9.525	3.97	4.4	0.2																					
	TPGW220408	22	12.7	4.76	5.5	0.8																					

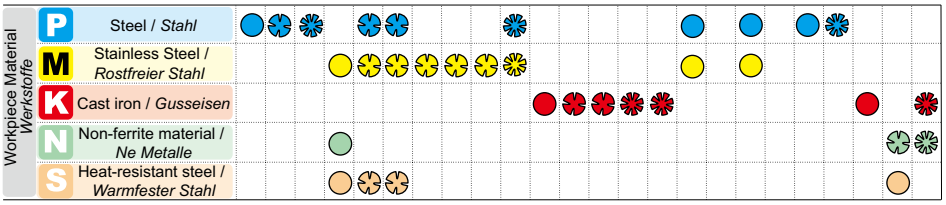
Insert code key ISO Code A42-A43
Grade selection reference Sortenauswahl A14/A31-A40
chip breaker selection reference Spanbrecherauswahl A24-A30
Recommended cutting parameters Empfohlene Schnittparameter A249-A253

A

VC** Positive Insert/ Positive WSP

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





Insert Shape Schneid-plattenform	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	YD101	YD201
SF Finishing Schlichten	**VCGT110302-SF**	11	6.35	3.18	2.8	0.2																●	●					
	VCGT110304-SF	11	6.35	3.18	2.8	0.4																●	●					
	VCGT160404-SF	16.5	9.525	4.8	4.4	0.4																	○					
HF Finishing Schlichten	**VCGT110304-HF**	11	6.35	3.18	2.8	0.4		●																				
	VCGT130304	13.8	7.94	3.3	3.4	0.4		●																				
NF Finishing Schlichten	**VCGT160408-NF**	16.5	9.525	4.76	4.4	0.8				●																		

Tool holder / Klemmhalter


SVQCR/L
Kr:107°30'


SVUCR/L
Kr:93°


SVVCN
Kr:72°30'

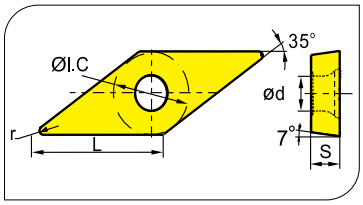

SVJCR/L
Kr:93°

Page/Seite A231 A232 A193 A194

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

A

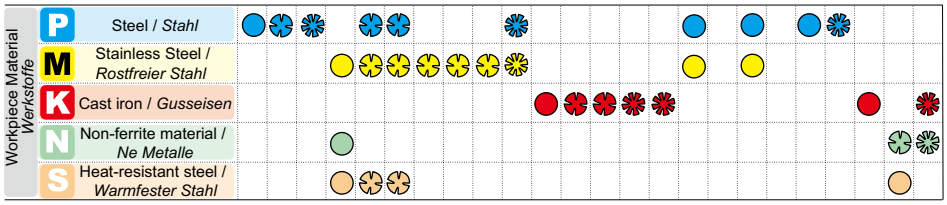
VC** Positive Insert/ Positive WSP



Ideal Machining Condition
Gute Bearbeitungsbedingungen

Normal Machining Condition
Normale Bearbeitungsbedingungen

Unfavorable Machining Condition
Ungünstige Bearbeitungsbedingungen



Insert Shape Schneid-plattenform	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	YD101	YD201
LH	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																						
Aluminium Machining/ Aluminium-bearbeitung	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

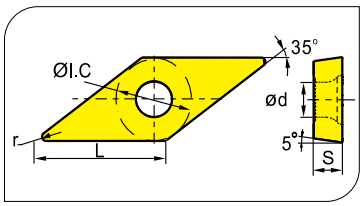
Page/Seite A231 A232 A193 A194

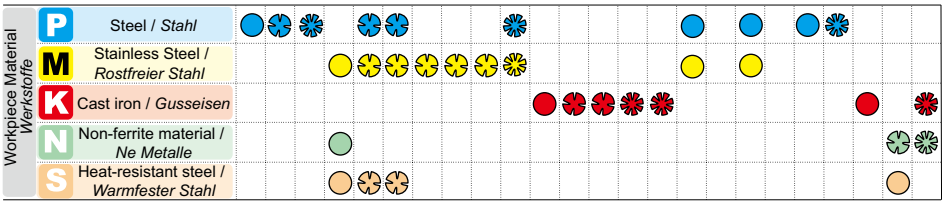
Insert code key ISO Code A42-A43
Grade selection reference Sortenauswahl A14/A31-A40
chip breaker selection reference Spanbrecherauswahl A24-A30
Recommended cutting parameters Empfohlene Schnittparameter A249-A253

A

VB** Positive Insert/ Positive WSP

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





Insert Shape Schneid-plattenform	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	YD101	YD201
SF	**VBGT110302-SF**	11	6.35	3.18	2.8	0.2																	●				
	VBGT110304-SF	11	6.35	3.18	2.8	0.4																	●				
Finishing Schlichten																											
EF	**VBMT110302-EF**	11	6.35	3.18	2.8	0.2						●															
	VBMT110304-EF	11	6.35	3.18	2.8	0.4						●															
	VBMT110308-EF	11	6.35	3.18	2.8	0.8						○															
	VBMT160404-EF	16.5	9.525	4.76	4.4	0.4						●															
Finishing Schlichten	**VBMT160408-EF**	16.5	9.525	4.76	4.4	0.8						●															
53	**VBMT160404-53**	16.6	9.525	4.76	4.4	0.4	●	●	○		●											●	○				
	VBMT160408-53	16.6	9.525	4.76	4.4	0.4	●	●	○		●											●	○				
Finishing Schlichten																											
HF	**VBMT110202-HF**	11	6.35	2.38	2.8	0.2		●	○		●																
	VBMT110204-HF	11	6.35	2.38	2.8	0.4		●			●			●								●					
Finishing Schlichten	**VBMT110208-HF**	11	6.35	2.38	2.8	0.8	●	●			●												○				
NF	**VBET160404-NF**	16.5	9.525	4.76	4.4	0.4				●																	
	VBET160408-NF	16.5	9.525	4.76	4.4	0.8				●																	
Finishing Schlichten																											

Tool holder / Klemmhalter


SVJBR/L
Kr:93°


SVABR/L
Kr:90°


SVVBN
Kr:72°30'


SVQBR/L
Kr:107°30'

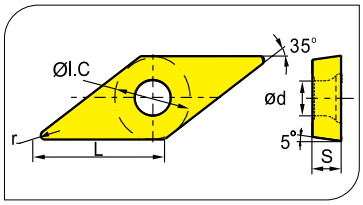

SVUBR/L
Kr:93°

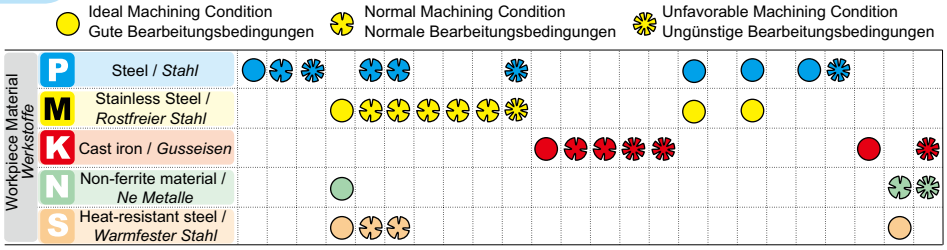
Page/Seite A190 A191 A192 A233 A234

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

A

VB** Positive Insert/ Positive WSP





Insert Shape Schneid-plattenform	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	YD101	YD201
EM	**VBMT110304-EM**	11	6.35	3.18	2.8	0.4						●															
	VBMT110308-EM	11	6.35	3.18	2.8	0.8						●															
Medium Cut/ Mittl. Bearb.																											
HM	**VBMT160404-HM**	16.5	9.525	4.76	4.4	0.4	●	●	○	●	●			●	●			●									○
	VBMT160408-HM	16.5	9.525	4.76	4.4	0.8	●	●	●		●			●	●			●		○							○
Medium Cut/ Mittl. Bearb.	**VBMT160412-HM**	16.5	9.525	4.76	4.4	1.2	●	●	○																		
HR	**VBMT160404-HR**	16.5	9.525	4.76	4.4	0.4																					
	VBMT160408-HR	16.5	9.525	4.76	4.4	0.8	○	●	○					○	●												
Roughing / Schruppen	**VBMT160412-HR**	16.5	9.525	4.76	4.4	1.2											○										
	VBGT160408-HR	16.5	9.525	4.76	4.4	0.8		○																			
Flat	**VBMW160404**	16.5	9.525	4.76	4.4	0.4	○												○							●	
	VBMW160408	16.5	9.525	4.76	4.4	0.8																					

Tool holder / Klemmhalter


SVJBR/L
Kr:93°
Page/Seite A190


SVABR/L
Kr:90°
A191


SVVBN
Kr:72°30'
A192

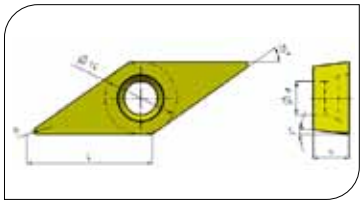

SVQBR/L
Kr:107°30'
A233


SVUBR/L
Kr:93°
A234

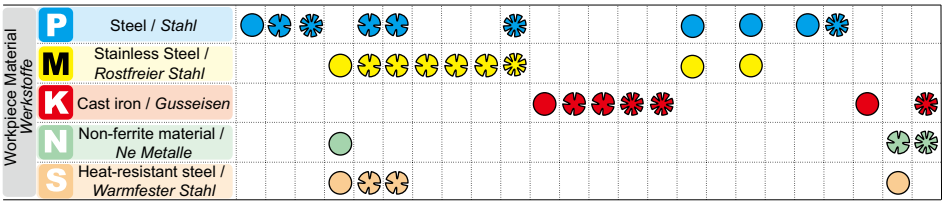
Insert code key ISO Code A42-A43
Grade selection reference Sortenauswahl A14/A31-A40
chip breaker selection reference Spanbrecherauswahl A24-A30
Recommended cutting parameters Empfohlene Schnittparameter A249-A253

A

VC** Positive Insert/ Positive WSP



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

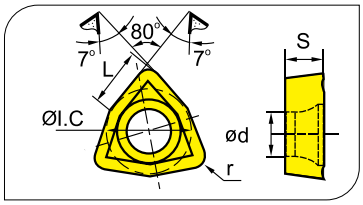


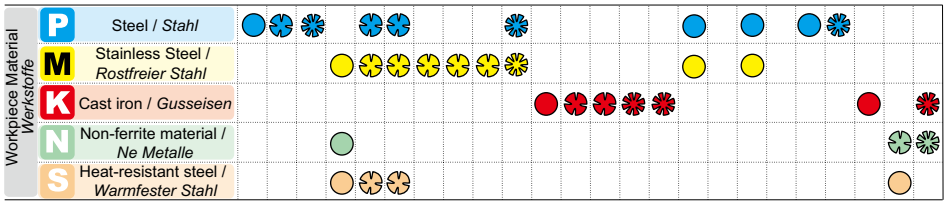
Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Coated Carbide Beschichtetes Hartmetall												Cermet unbeschichtet	Cermet Coated beschicht. Cerm.	Uncoated Carbide unbeschicht. Hartmetall				
		L	I.C	S	d	r	YBC151	YBC251	YBC351	YBG102	YBG202	YBG205	YBG302	YBM151	YBM251	YBM351	YBD052	YBD102	YBD151	YBD152	YBD252	YNG151	YNG151C	YC10	YC40	YD051	YD101	YD201
EM	**VCMT160404-EM**	16	9.525	4.76	4.4	0.4						●															
	VCMT160408-EM	16	9.525	4.76	4.4	0.8						●															
Finishing Schlichten																											

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

WC** Positive Insert/ Positive WSP

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





insert shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Coated Carbide Beschichte Hartmetal												Cermet unbeschichtet	Cermet Coated beschicht. Cerm.	carbide Hartmetal				
		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
Basic 	**WCMX040208R-53**	4.3	6.35	2.38	3.1	0.8																					
	WCMX06T308R-53	6.5	9.525	3.97	3.7	0.8																					
	WCMX080412R-53	8.7	12.7	4.76	4.3	1.2																					

Tool holder / Klemmhalter

SWACR/L
Kr:90°

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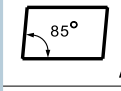
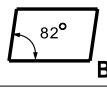
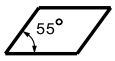
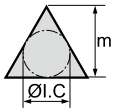
Insert code key ISO Code A42-A43
Grade selection reference Sortenauswahl A14/A31-A40
chip breaker selection reference Spanbrecherauswahl A24-A30
Recommended cutting parameters Empfohlene Schnittparameter A249-A253

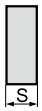
NOTIZEN:

Insert shape / Schneidplattenform

 A	 B	 C
 D	 E	 H
 K	 L	 M
 P	 S	 T
 V	 W	Others Z

Tolerance / Toleranzklasse

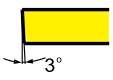
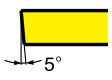
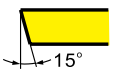
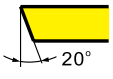
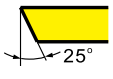
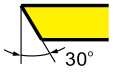
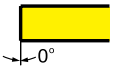




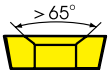
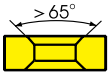
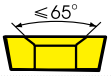
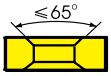
Code	Tolerance Toleranzklasse	Tolerance ØI.C	Thickness S Dicke	Code	Tolerance	Tolerance ØI.C	Thickness S Dicke
A	±0.005	±0.025	±0.025	J	±0.005	±0.05-±0.13	±0.025
F	±0.005	±0.013	±0.025	K	±0.013	±0.05-±0.13	±0.025
C	±0.013	±0.025	±0.025	L	±0.025	±0.05-±0.13	±0.025
H	±0.013	±0.013	±0.025	M	±0.08-±0.18	±0.05-±0.13	±0.13
E	±0.025	±0.025	±0.025	N	±0.08-±0.18	±0.05-±0.13	±0.025
G	±0.025	±0.025	±0.13	U	±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*
A	 3°	B	 5°
C	 7°	D	 15°
E	 20°	F	 25°
G	 30°	N	 0°
P	 11°	O	Others

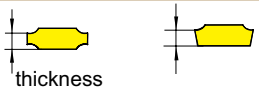
Insert type / *Plattentyp*

Code	Hole	Insert Section
N	----	
B	✔	
C	✔	
A	✔	
W	✔	
Q	✔	
X	----	Special

Cutting edge length / *Schneidenlänge (mm)*

ØI.C (mm)	Insert Shape/ Plattenform C	D	S	T	V	W
3.97				06		
5.0						
5.56				09		
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)



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*

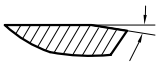
Code	Radius (mm)
00	–
02	0.2
04	0.4
08	0.8
12	1.2
16	1.6
20	2.0
24	2.4
32	3.2
X	Others Andere
Mo	Round Insert Runde Platten

12 04 08 T 3 1 -2 W

Profile of cutting edges *Schneidkantenausführung*

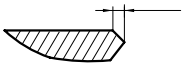
Code	Cutting Edge Schneidkante	Shape Form Plattenform
F	Sharp edges *Scharfe Kante*	
E	Honing *Verrundung*	
T	Chamfering *Fase*	
S	Chamfering *Fase* + Honing *Verrundung*	

Angle of Chamfer *Winkel der Fase*



0	5°
1	10°
2	15°
3	20°
4	25°
5	30°

Width of Chamfer *Breite der Fase*



0	0.1
1	0.15
2	0.2
3	0.25
4	0.3
5	0.35
6	0.4
7	0.45

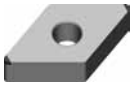
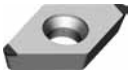
Number of cutting edges *Anzahl der Schneidkanten*

Code	Number of edges *Anzahl der Schneidkanten*	
1	1	
2	2	
3	3	
4	4	

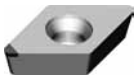
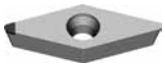
Wiper edge Wiperfase

W

PCBN

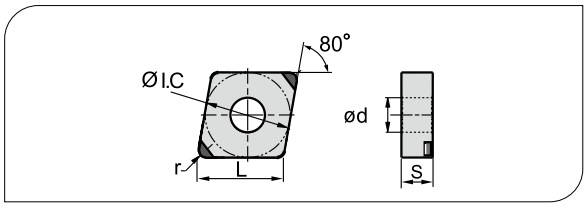
	Insert Shape *Schneidplattenform*	Type · *Typ*	Grade · *Sorte*			
			YCB111	YCB121	YCB131	YCB211
Negative Inserts · WSP	 A118	CNGA120404-2	●	●	●	○
		CNGA120408-2	●	●	●	●
		CNGA120412-2	●	●	●	●
		CNGA120408-2W	●	●		
		CNGA120412-2W	●	●		
	 A119	DNGA150604-2	●	●		○
		DNGA150608-2	●	●	○	●
		DNGA150612-2	●	●	○	○
	 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	●

A

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 / *Ne 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°

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MCLNR/L
Kr:95°

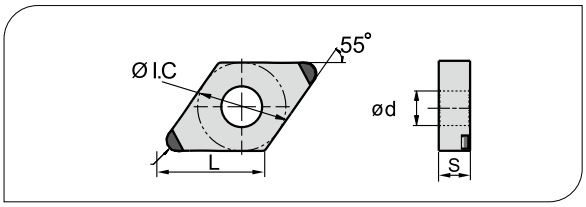
A171

PCLNR/L
Kr:95°

A216

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

DN**



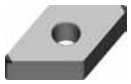
Continuous cutting
Vollschnitt

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-ferrite material / *Ne Metalle*			

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

Tool Holder · Klemmhalter


PDJNR/L
Kr:93°


PDNNR/L
Kr:63°


MDJNR/L
Kr:93°


MDPNN
Kr:62°30'


PDSNR/L
Kr:62°30'


PDUNR/L
Kr:93°

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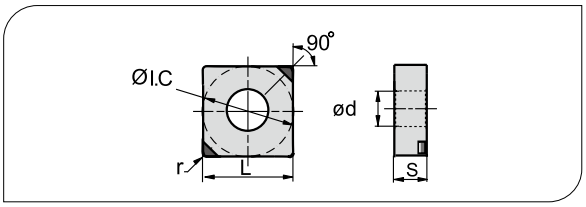
● Ex Stock / ab Lager ○ On demand / auf Anfrage

A

SN**



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
	**SNGA120408-2**	12.7	12.7	4.76	5.16	0.8	○	●	○	○
	SNGA120412-2	12.7	12.7	4.76	5.16	1.2	○	●	○	○

Tool Holder · Klemmhalter


PSBNR/L Kr:75°
Page ·Seite A162


PSDNN Kr:45°
A163


PSKNR/L Kr:75°
A164


PSSNR/L Kr:45°
A165


MSBNR/L Kr:75°
A162


MSRNR/L Kr:75°
A175


MSKNR/L Kr:75°
A176

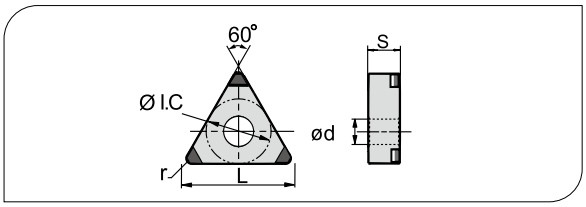

MSDNN Kr:45°
Page ·Seite A177


PSKNR/L Kr:75°
A221

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

A

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-ferrite material / *Ne Metalle*			

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

Tool Holder · Klemmhalter


PTFNR/L Kr:90°


PTTNR/L Kr:60°


PTGNR/L Kr:90°


MTGNR/L Kr:90°


MTJNR/L Kr:93°


MTFNR/L Kr:90°


PTFNR/L Kr:90°

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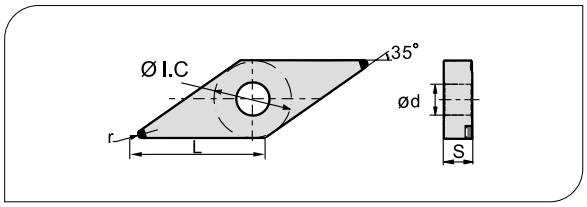
● Ex Stock / ab Lager ○ On demand / auf Anfrage

VN**



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 Schneidplattenform	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


MVVNN
Kr:72°30'


MVJNR/L
Kr:93°

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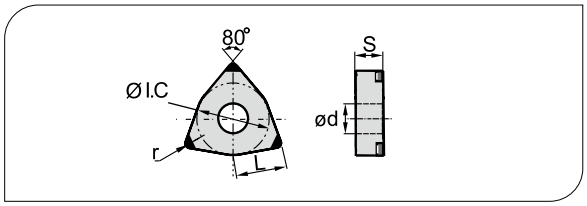
WN**



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 Schneidplattenform	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	04		●				
	WNGA160408-3	8.69	12.7	4.76	5.16	0.8						

Tool Holder · Klemmhalter


PWLNR/L
Kr:95°

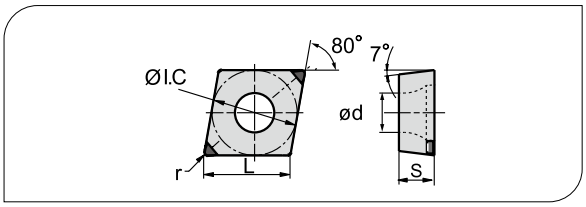

MWLNR/L
Kr:95°


PWLNR/L
Kr:95°

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											
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		
	**CCGW060204-1**	6.4	6.35	2.38	2.8	0.4	●	●				
	CCGW060208-1	6.4	6.35	2.38	2.8	0.8	●	●				
	CCGW09T304-2	9.7	9.525	3.97	4.4	0.4	●	●	○	●		
	CCGW09T308-2	9.7	9.525	3.97	4.4	0.8	●	●	○	●		
	CCGW120404-2	12.9	12.7	4.76	5.5	0.4	○	●	○	●		
	CCGW120408-2	12.9	12.7	4.76	5.5	0.8	○	●	○	●		

Tool Holder · Klemmhalter


SCACR/L
Kr:90°
Page ·Seite A185


SCLCR/L
Kr:95°
A186


SCLCR/L
Kr:95°
A224

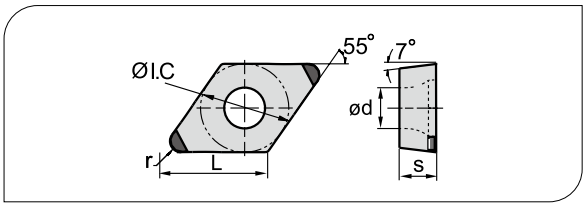

SCFCR
Kr:90°
A239


SCLCR
Kr:95°
A240

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

A

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

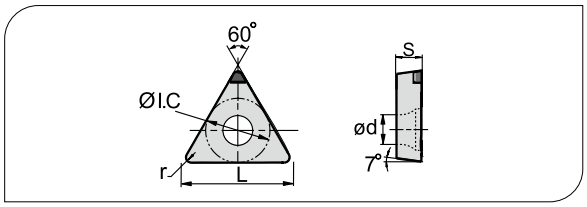

SDQCR/L
Kr:107°30'
A226


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

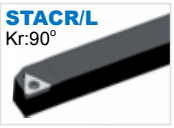
Interrupted cutting
Stark unterbrochener Schnitt

Workpiece Material
Werkstoffe

H	Hardened material / *Gehärtete Werkstoff*	●	◔	✱
K	Cast iron / *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
	**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°

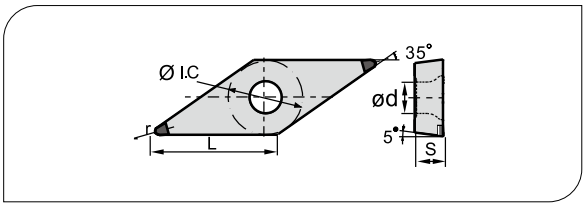

STTCR/L
Kr:60°


STFCR/L
Kr:90°

Page ·Seite A197 A197 A198 A199 A230

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

VB**



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		
	**VBGW160404-2**	16.6	9.525	4.76	4.4	0.4	●	●		●		
	VBGW160408-2	16.6	9.525	4.76	4.4	0.8	●	●		●		

Tool Holder · Klemmhalter


SVJBR/L Kr:93°


SVABR/L Kr:90°

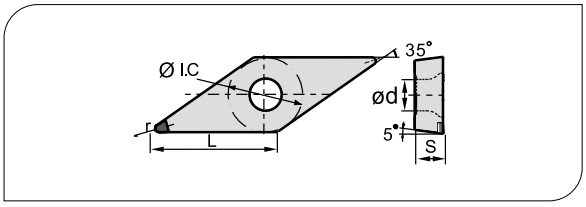

SVVBN Kr:72°30'


SVQBR/L Kr:107°30'


SVUBR/L Kr:93°

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	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		
	**VCGW160404-2**	16.6	9.525	4.76	4.4	0.4	●	●		●		
	VCGW160408-2	16.6	9.525	4.76	4.4	0.8	●	●		●		

Tool Holder · Klemmhalter


SVQCR/L Kr:107°30'


SVUCR/L Kr:93°

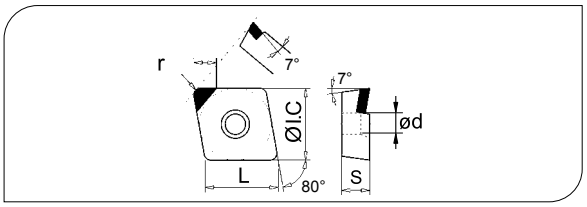

SVVCN Kr:72°30'


SVJCR/L Kr:93°

Page ·Seite A231 A232 A193 A194

● 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

H	Hardened material / *Gehärtete Werkstoff*
K	Cast iron / *Gusseisen*
N	Non-ferrite material / *Ne Metalle*

Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					PCD
		L	I.C	S	d	r	YCD421
	**CCMT060202**	6.4	6.35	2.38	2.8	0.2	○
	CCMT060204	6.4	6.35	2.38	2.8	0.4	○
	CCMT09T304	9.7	9.525	3.97	4.4	0.4	○
	CCMT09T308	9.7	9.525	3.97	4.4	0.8	○
	CCMT120404	12.9	12.7	4.76	5.56	0.4	○
	CCMT120408	12.9	12.7	4.76	5.56	0.8	○

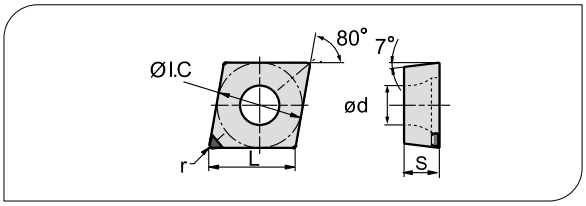
Applicable tools

SCACR/L Kr:90°	**SCLCR/L** Kr:95°	**SCLCR/L** Kr:95°	**SCFCR** Kr:90°	**SCLCR** Kr:95°
				
Page A185	A186	A224	A239	A240

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

A

CC**



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*

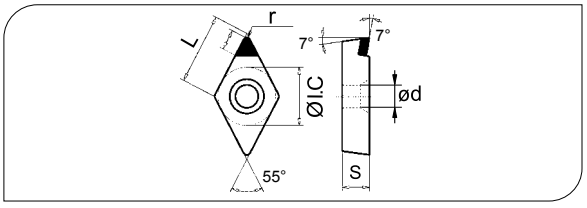
Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					PCD
		L	I.C	S	d	r	YCD421
	**CCMW060202**	6.4	6.35	2.38	2.8	0.2	●
	CCMW060204	6.4	6.35	2.38	2.8	0.4	●
	CCMW09T304	9.7	9.525	3.97	4.4	0.4	●
	CCMW09T308	9.7	9.525	3.97	4.4	0.8	●
	CCMW120404	12.9	12.7	4.76	5.56	0.4	●
	CCMW120408	12.9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

Applicable tools

SCACR/L Kr:90°	SCLCR/L Kr:95°	SCLCR/L Kr:95°	SCFCR Kr:90°	SCLCR Kr:95°
				
Page A185	A186	A224	A239	A240

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

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*	●

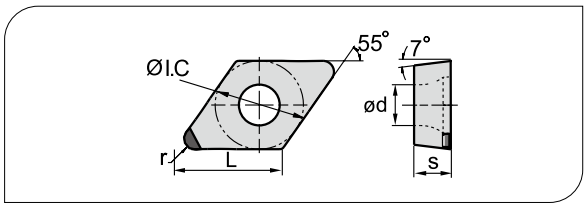
Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					PCD
		L	I.C	S	d	r	YCD421
	**DCMT070202**	7.8	6.35	2.38	2.8	0.2	○
	DCMT070204	7.8	6.35	2.38	2.8	0.4	○
	DCMT11T302	11.6	9.525	3.97	4.4	0.2	○
	DCMT11T304	11.6	9.525	3.97	4.4	0.4	○
	DCMT11T308	11.6	9.525	3.97	4.4	0.8	○

Applicable tools

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

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

DC**



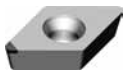
Continuous cutting
Vollschnitt

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					PCD
		L	I.C	S	d	r	YCD421
	**DCMW070202**	7.8	6.35	2.38	2.8	0.2	●
	DCMW070204	7.8	6.35	2.38	2.8	0.4	●
	DCMW070208	7.8	6.35	2.38	2.8	0.8	●
	DCMW11T302	11.6	9.525	3.97	4.4	0.2	●
	DCMW11T304	11.6	9.525	3.97	4.4	0.4	●
	DCMW11T308	11.6	9.525	3.97	4.4	0.8	●

Applicable tools

SDACR/L Kr:90°	**SDJCR/L** Kr:93°	**SDNCN** Kr:62°30'	**SDQCR/L** Kr:107°30'	**SDUCR/L** Kr:93°	**SDZCR/L** Kr:85°
					
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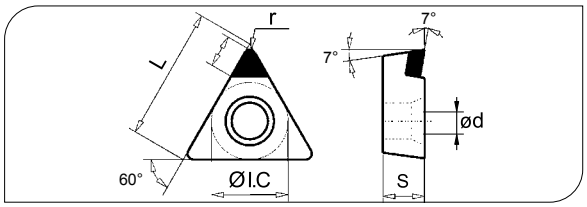
● Ex Stock / ab Lager ○ On demand / auf Anfrage

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 / *Gusseisen*
N	Non-ferrite material / *Ne Metalle*

Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					PCD
		L	I.C	S	d	r	YCD421
	**TCMT110204**	11	6.35	2.38	2.8	0.4	○
	TCMT16T304	16.5	9.525	3.97	4.4	0.4	○
	TCMT16T308	16.5	9.525	3.97	4.4	0.8	○

Applicable tools

STACR/L Kr:90°	**STFCR/L** Kr:91°	**STGCR/L** Kr:91°	**STTCR/L** Kr:60°	**STFCR/L** Kr:90°
				
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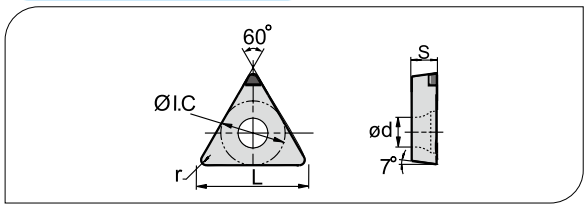
● Ex Stock / ab Lager ○ On demand / auf Anfrage

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 / *Gusseisen*	
N	Non-ferrite material / *Ne Metalle*	●

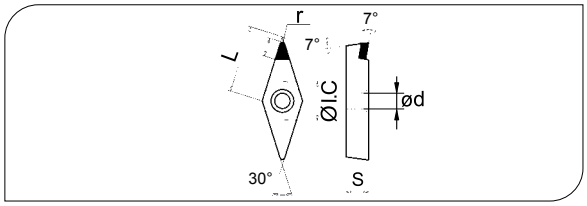
Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					PCD
		L	I.C	S	d	r	YCD421
	**TCMW110208**	11	6.35	2.38	2.8	0.8	●
	TCMW16T304	16.5	9.525	3.97	4.4	0.4	●
	TCMW16T308	16.5	9.525	3.97	4.4	0.8	●

Applicable tools

STACR/L Kr:90°	**STFCR/L** Kr:91°	**STGCR/L** Kr:91°	**STTCR/L** Kr:60°	**STFCR/L** Kr:90°
				
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

H	Hardened material / *Gehärtete Werkstoff*
K	Cast iron / *Gusseisen*
N	Non-ferrite material / *Ne Metalle*

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

Applicable tools


SVJBR/L
Kr:93°


SVABR/L
Kr:90°


SVVBN
Kr:72°30'


SVQBR/L
Kr:107°30'


SVUBR/L
Kr:93°

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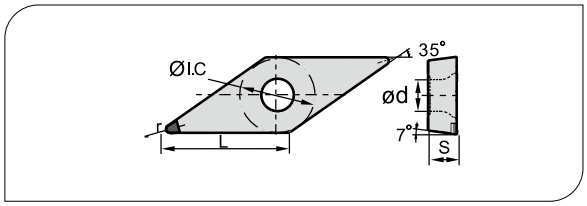
VB**



● 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					PCD
		L	I.C	S	d	r	YCD421
	**VBMW160404**	16.6	9.525	4.76	4.4	0.4	●
	VBMW160408	16.6	9.525	4.76	4.4	0.8	●

Applicable tools


SVJBR/L
Kr:93°


SVABR/L
Kr:90°


SVVBN
Kr:72°30'


SVQBR/L
Kr:107°30'


SVUBR/L
Kr:93°

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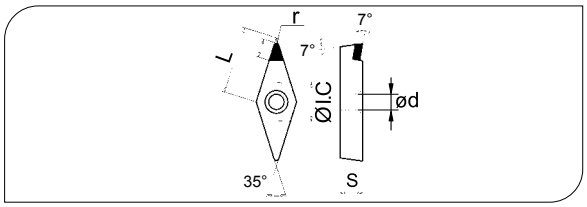
● Ex Stock / ab Lager ○ On demand / auf Anfrage

VC**



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					PCD
		L	I.C	S	d	r	YCD421
	**VCMT160404**	16.6	9.525	4.76	4.4	0.4	●
	VCMT160408	16.6	9.525	4.76	4.4	0.8	●

Applicable tools


SVJBR/L
Kr:93°


SVABR/L
Kr:90°


SVVBN
Kr:72°30'


SVQBR/L
Kr:107°30'


SVUBR/L
Kr:93°

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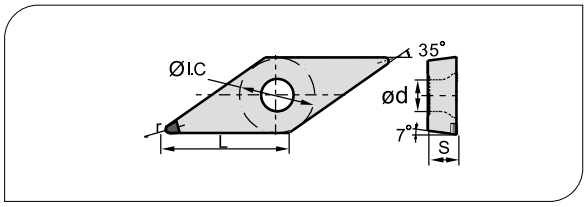
VC**



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					PCD
		L	I.C	S	d	r	YCD421
	**VCMW160404**	16.6	9.525	4.76	4.4	0.4	●
	VCMW160408	16.6	9.525	4.76	4.4	0.8	●

Applicable tools


SVJBR/L
Kr:93°


SVABR/L
Kr:90°


SVVBN
Kr:72°30'


SVQBR/L
Kr:107°30'


SVUBR/L
Kr:93°

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

Troubleshooting - PCBN Cutting Materials
Problembehandlung - PCBN Schneidstoffe

For inverstigation please send us used inserts. If breakage is problem please use inserts only 80-90% of expected tool life because broken inserts almost have no information.

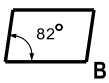
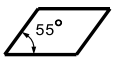
Für eine genaue Untersuchung schicken Sie uns bitte die gebrauchten WSP zu. Sollte Bruch das Problem sein, setzen Sie die Platte nur 80-90% der eigentlichen Standzeit ein, denn eine gebrochene Platte enthält keine Informationen mehr.

Wear phenomenon	Solution	
	Geometry	Cutting condition
Flank wear	Sharp cutting edge to reduce cutting force - smaller negative lend - change to positiv inserts	Reduce cutting speed - increase feed rate to minimise contact time
Notch wear	Bigger nose radius	Use method of altering feed rate
Crater wear/ Breakage due to crater wear	Crater wear · Breakage due to crater wear	Reduce cutting spped - increase feed rate to minimise contact time and increase distance between cutting edge and crater
Chipping due to rough condition or vibration	Bigger negative lend; angle and ·or honing	Increase feed rate to reduce number of hits
Fraking	Sharp cutting edge to reduce cutting force - smaller negative lend - change to positiv inserts	Increase feed rate to reduce cutting time
Thermal crack	Sharp cutting edge to reduce cutting force - smaller negative lend - change to positiv inserts	Reduce cutting speed, feed rate and depth of cut. Use dry machining.
Chipping	Bigger negative lend	Increase cutting speed to reduce cutting force

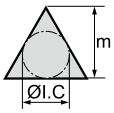
Verschleißbild	Gegenmaßnahmen	
	Geometrie	Schnittbedingungen
Freiflächenverschleiß	Schärfere Schneidkante für weniger Schnittkraft - kleinere Negativfase - positive Platten verwenden	Schnittgeschwindigkeit reduzieren - Vorschubes erhöhen um Eingriffszeit zu reduzieren
Kerbverschleiß	Größerer Radius	“Methode des varierenden Vorschub`s” verwenden
Kolkverschließ/ Kolkbruch		- Schnittgeschwindigkeit reduzieren - Vorschubes erhöhen um Kontakzeit zu verringern und den Abstand zwischen Schneidkante und Kolktasche zu vergrößern.
Ausbrüche durch Schlagwirkung oder Vibrationen	Größere Negativfase Winkel und · oder gehonte Fase	- Vorschub erhöhen, um die Anzahl der Schläge zu reduzieren
Schalenförmige Ausplatzungen	Schärfere Schneidkante für weniger Schnittkraft - kleinere Negativfase - positive Platten verwenden	- Vorschub erhöhen, um Eingriffszeit zu reduzieren
Thermische Risse · Bruch	Schärfere Schneidkante für weniger Schnittkraft - kleinere Negativfase - positive Platten verwenden	Schnittgeschwindigkeit, Vorschub und Schnittiefe reduzieren. Trockenbearbeitung
Ausbrüche	Größere Negativfase	Schnittgeschwindigkeit erhöhen um Schnittkraft zu reduzieren

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

Insert Shape / Schneidplattenform

 A	 B	 C
 D	 E	 H
 K	 L	 M
 P	 S	 T
 V	 W	Others Z

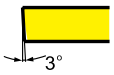
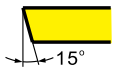
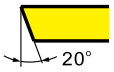
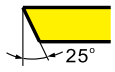
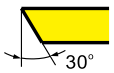
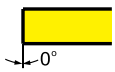
Tolerance / Toleranzklasse



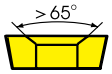
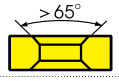
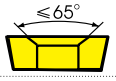
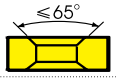
Code	Tolerance	Incircle Tolerence ØI.C	Thickness S	Code	Tolerence	Tolerence ØI.C	Thickness S
A	±0.005	±0.025	±0.025	J	±0.005	±0.05-±0.13	±0.025
F	±0.005	±0.013	±0.025	K	±0.013	±0.05-±0.13	±0.025
C	±0.013	±0.025	±0.025	L	±0.025	±0.05-±0.13	±0.025
H	±0.013	±0.013	±0.025	M	±0.08-±0.18	±0.05-±0.13	±0.13
E	±0.025	±0.025	±0.025	N	±0.08-±0.18	±0.05-±0.13	±0.025
G	±0.025	±0.025	±0.13	U	±0.13-±0.38	±0.08-±0.25	±0.13

T N G A

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

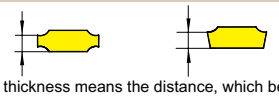
Insert type / *Plattentyp*

Code	hole	Insert Section
N	No	
B	Yes	
C	Yes	
A	Yes	
W	Yes	
Q	Yes	
X	----	Special

Cutting edge length / *Schneidenlänge (mm)*

Diameter of incircle (mm)	insert shape					
	C	D	S	T	V	W
3.97				06		
5.0						
5.56				09		
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)



the thickness means the distance, which between the highest part of cutting edge and insert bottom

code	Insert thickness	code	Insert thickness
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*

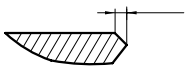
code	Radius (mm)
00	no Radius
02	0.2
04	0.4
08	0.8
12	1.2
16	1.6
20	2.0
24	2.4
32	3.2
X	Others
Insert diameter Mo (metric)	Runde insert

12 04 08 T 020 20

Profile of cutting edges *Schneidkantenausführung*

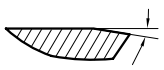
code		diagram
E	Honing *Verrundung*	
T	Chamfering *Fase*	
S	Chamfering *Fase* + Honing *Verrundung*	
F	Sharp edges *Scharfe Kante*	

width of chamfer *Breite der Fase*

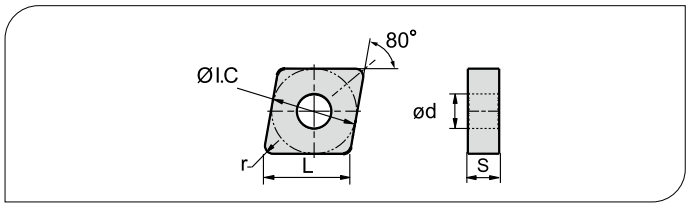


010	0.10	040	0.40
015	0.15	045	0.45
020	0.20	050	0.50
025	0.25	100	1.00
030	0.30	200	2.00
035	0.35		

angle of chamfer *Winkel der Fase*



05	5°
10	10°
15	15°
20	20°
25	25°
30	30°



Unfavorable Machining Condition
Ungünstige Bearbeitungsbedingungen

Ideal Machining Condition
Gute Bearbeitungsbedingungen

Normal Machining Condition
Normale Bearbeitungsbedingungen

Workpiece Material Werkstoffe				
P	Steel / *Stahl*	●		
K	Cast iron / *Gusseisen*	●	● ✱	✱

Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Grade · Sorte		
		L	I.C	S	d	r	CA1000	CN1000	CN2000
	**CNGA120404T02020**	12.9	12.7	4.76	5.16	0.4		●	
	CNGA120408T02020	12.9	12.7	4.76	5.16	0.8		●	
	CNGA120412T02020	12.9	12.7	4.76	5.16	1.2		●	
	CNGA120412T03020	12.9	12.7	4.76	5.16	1.2		○	
	CNGA160608T02020	16.1	15.875	6.35	6.35	0.8		○	
	CNGA160612T02020	16.1	15.875	6.35	6.35	1.2		●	
	CNGA160616T02020	16.1	15.875	6.35	6.35	1.6		●	

Tool Holder · Klemmhalter


PCBNR/L
Kr:75°


PCLNR/L
Kr:95°

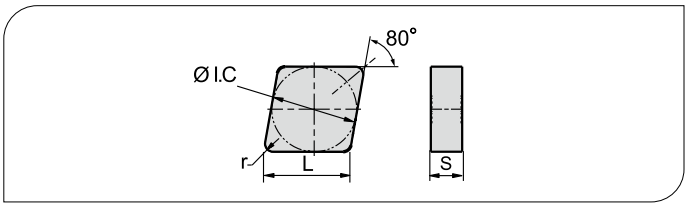

MCBNR/L
Kr:75°


MCLNR/L
Kr:95°


PCLNR/L
Kr:95°

Page ·Seite A158 A159 A170 A171 A216

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



Unfavorable Machining Condition
Ungünstige Bearbeitungsbedingungen

Ideal Machining Condition
Gute Bearbeitungsbedingungen

Normal Machining Condition
Normale Bearbeitungsbedingungen

Workpiece Material Werkstoffe				
P	Steel / *Stahl*	●		
K	Cast iron / *Gusseisen*	●	● ✱	✱

Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Grade · Sorte		
		L	I.C	S	d	r	CA1000	CN1000	CN2000
	**CNGN120404T02020**	12.9	12.7	4.76	-	0.4	○	○	○
	CNGN120408T02020	12.9	12.7	4.76	-	0.8	●	●	●
	CNGN120412T02020	12.9	12.7	4.76	-	1.2	●	○	○
	CNGN120708T02020	12.9	12.7	7.94	-	0.8	○	○	●
	CNGN120712T02020	12.9	12.7	7.94	-	1.2	●	○	○
	CNGN120716T02020	12.9	12.7	7.94	-	1.6	○	○	○
	CNGN160408T02020	16.1	15.875	4.76	-	0.8	○		
	CNGN160412T02020	16.1	15.875	4.76	-	1.2	○	○	○
	CNGN160416T02020	16.1	15.875	4.76	-	1.6	○	○	○
	CNGN160612T02020	16.1	15.875	6.35	-	1.2	○	○	
	CNGN160616T02020	16.1	15.875	6.35	-	1.6	○	○	○

Tool Holder · Klemmhalter

CCLNR/L
Kr:95°

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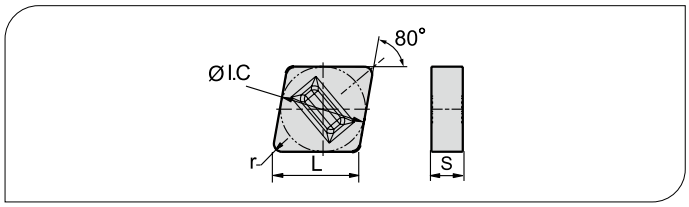
● Ex Stock / ab Lager ○ On demand / auf Anfrage



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

Workpiece Material *Werkstoffe*

P	Steel / *Stahl*	●		
K	Cast iron / *Gusseisen*	●	● ✱	✱

Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Grade · Sorte		
		L	I.C	S	d	r	CA1000	CN1000	CN2000
	**CNGX120712T02020**	12.9	12.7	7.94	-	1.2		●	
	CNGX120716T02020	12.9	12.7	7.94	-	1.6		●	

Tool Holder · Klemmhalter

JCLNR/L
Kr:95°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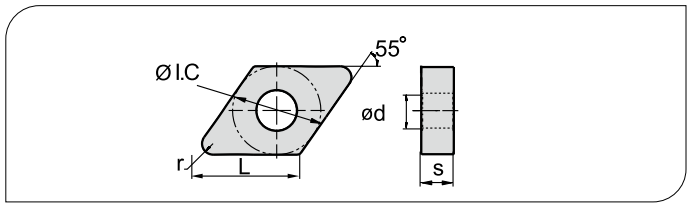
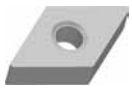
Unfavorable Machining Condition
Ungünstige Bearbeitungsbedingungen
Ideal Machining Condition
Gute Bearbeitungsbedingungen
Normal Machining Condition
Normale Bearbeitungsbedingungen



Workpiece Material *Werkstoffe*

P	Steel / *Stahl*	●		
K	Cast iron / *Gusseisen*	●	● ✱	✱

Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Grade · Sorte		
		L	I.C	S	d	r	CA1000	CN1000	CN2000
	**DNGA150604T02020**	15.5	12.7	6.35	5.16	0.4		●	
	DNGA150608T02020	15.5	12.7	6.35	5.16	0.8		●	
	DNGA150612T02020	15.5	12.7	6.35	5.16	1.2		○	
	DNGA150616T02020	15.5	12.7	6.35	5.16	1.6		○	

Tool Holder · Klemmhalter

PDJNR/L
Kr:93°


PDNNR/L
Kr:63°


MDJNR/L
Kr:93°


MDPNN
Kr:62°30'


PDSNR/L
Kr:62°30'


PDUNR/L
Kr:93°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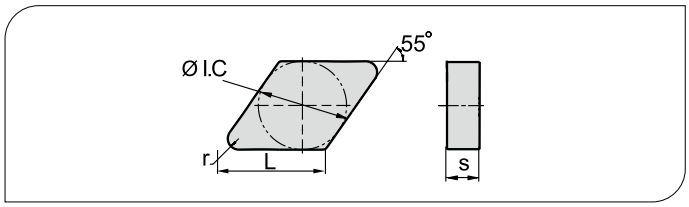
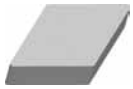
● Ex Stock / ab Lager ○ On demand / auf Anfrage



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

Workpiece Material / Werkstoffe
P Steel / *Stahl*
K Cast iron / *Gusseisen*

Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Grade · Sorte		
		L	I.C	S	d	r	CA1000	CN1000	CN2000
	**DNGN150408T02020**	15.5	12.7	4.76	-	0.8	○		
	DNGN150412T02020	15.5	12.7	4.76	-	1.2	○		
	DNGN150704T02020	15.5	12.7	7.94	-	0.4	○	○	○
	DNGN150708T02020	15.5	12.7	7.94	-	0.8	●	○	○
	DNGN150712T02020	15.5	12.7	7.94	-	1.2	○	○	○
	DNGN150716T02020	15.5	12.7	7.94	-	1.6	○		

Tool Holder · Klemmhalter

CDJNR/L
Kr:93°

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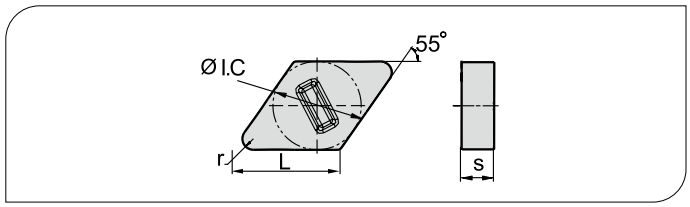

Unfavorable Machining Condition
Ungünstige Bearbeitungsbedingungen
Ideal Machining Condition
Gute Bearbeitungsbedingungen
Normal Machining Condition
Normale Bearbeitungsbedingungen

Workpiece Material / Werkstoffe
P Steel / *Stahl*
K Cast iron / *Gusseisen*

Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Grade · Sorte		
		L	I.C	S	d	r	CA1000	CN1000	CN2000
	**DNGX150712T02020**	15.5	12.7	7.94	-	1.2		●	
	DNGX150716T02020	15.5	12.7	7.94	-	1.6		●	

Tool Holder · Klemmhalter

JDJNR/L
Kr:93°

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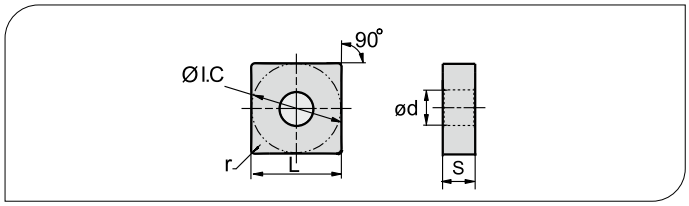
● Ex Stock / ab Lager ○ On demand / auf Anfrage



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

Workpiece Material Werkstoffe				
P	Steel / *Stahl*	●		
K	Cast iron / *Gusseisen*	●	● ✱	✱

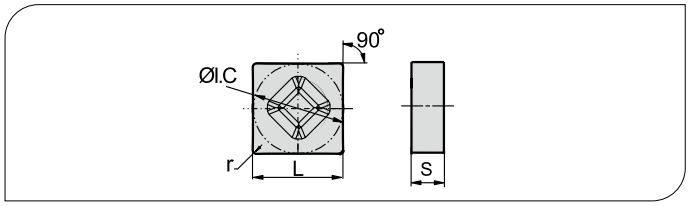
Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Grade · Sorte		
		L	I.C	S	d	r	CA1000	CN1000	CN2000
	**SNGA120404T02020**	12.7	12.7	4.76	5.16	0.4		○	
	SNGA120408T02020	12.7	12.7	4.76	5.16	0.8		●	
	SNGA120412T02020	12.7	12.7	4.76	5.16	1.2		●	
	SNGA120412T03020	12.7	12.7	4.76	5.16	1.2		○	
	SNGA120416T02020	12.7	12.7	4.76	5.16	1.6		○	
	SNGA120416T03020	12.7	12.7	4.76	5.16	1.6		○	

Tool Holder · Klemmhalter

PSBNR/L Kr:75°	**PSDNN** Kr:45°	**PSKNR/L** Kr:75°	**PSSNR/L** Kr:45°	**MSBNR/L** Kr:75°	**MSRNR/L** Kr:75°	**MSKNR/L** Kr:75°
						
Page ·Seite A162	A163	A164	A165	A174	A175	A176

MSDNN Kr:45°	**PSKNR/L** Kr:75°
	
Page ·Seite A177	A221

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



Workpiece Material Werkstoffe				
P	Steel / *Stahl*	●		
K	Cast iron / *Gusseisen*	●	● ✱	✱

Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Grade · Sorte		
		L	I.C	S	d	r	CA1000	CN1000	CN2000
	**SNGX120708T02020**	12.7	12.7	7.94	-	0.8		○	
	SNGX120712T02020	12.7	12.7	7.94	-	1.2		○	
	SNGX120716T02020	12.7	12.7	7.94	-	1.6		●	

Tool Holder · Klemmhalter

JSDNN Kr:45°

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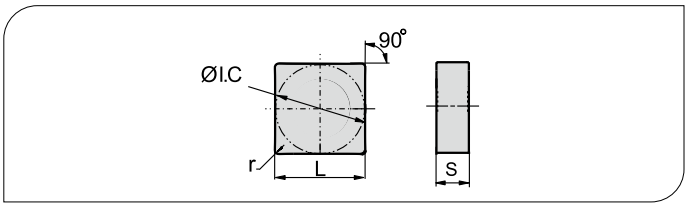
● Ex Stock / ab Lager ○ On demand / auf Anfrage



Unfavorable Machining Condition
Ungünstige Bearbeitungsbedingungen

Ideal Machining Condition
Gute Bearbeitungsbedingungen

Normal Machining Condition
Normale Bearbeitungsbedingungen

Workpiece Material Werkstoffe				
P	Steel / *Stahl*	●		
K	Cast iron / *Gusseisen*	●	● ✱	✱

Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Grade · Sorte		
		L	I.C	S	d	r	CA1000	CN1000	CN2000
	**SNGN090308T01020**	9.525	9.525	3.18	-	0.8	○		
	SNGN090312T01020	9.525	9.525	3.18	-	1.2	○		
	SNGN120404T02020	12.7	12.7	4.76	-	0.4	○		
	SNGN120408T02020	12.7	12.7	4.76	-	0.8	●	●	○
	SNGN120412T02020	12.7	12.7	4.76	-	1.2	●	●	●
	SNGN120412T03020	12.7	12.7	4.76	-	1.2		○	
	SNGN120416T02020	12.7	12.7	4.76	-	1.6	○	○	○
	SNGN120704T02020	12.7	12.7	7.94	-	0.4	●		
	SNGN120708T02020	12.7	12.7	7.94	-	0.8	○	○	●
	SNGN120712T02020	12.7	12.7	7.94	-	1.2	●	●	○
	SNGN120716T02020	12.7	12.7	7.94	-	1.6	●		●
	SNGN150708T02020	15.875	15.875	7.94	-	0.8	○		
	SNGN150712T02020	15.875	15.875	7.94	-	1.2	●	○	○
	SNGN150716T02020	15.875	15.875	7.94	-	1.6	●	○	○
	SNGN190708T03020	19.05	19.05	7.94	-	0.8	○		
	SNGN190712T03020	19.05	19.05	7.94	-	1.2	○		
	SNGN190716T03020	19.05	19.05	7.94	-	1.6	○		
	SNGN190724T03020	19.05	19.05	7.94	-	2.4	○		
	SNGN191024T04020	19.05	19.05	10.05	-	2.4	○		
	SNGN251024T10015	25.4	25.4	10.05	-	2.4	○		

Tool Holder · Klemmhalter

CSRNR/L
Kr:75°

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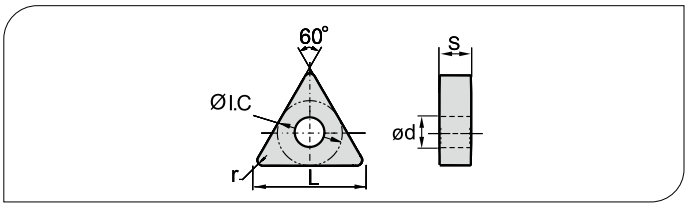
● Ex Stock / ab Lager ○ On demand / auf Anfrage

A



Unfavorable Machining Condition
Ungünstige Bearbeitungsbedingungen

Ideal Machining Condition
Gute Bearbeitungsbedingungen

Normal Machining Condition
Normale Bearbeitungsbedingungen

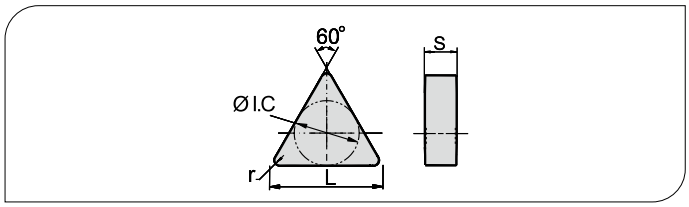
Workpiece Material *Werkstoffe*				
P	Steel / *Stahl*	●		
K	Cast iron / *Gusseisen*	●	● ✱	✱

Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Grade · Sorte		
		L	I.C	S	d	r	CA1000	CN1000	CN2000
	**TNGA160404T01020**	16.50	9.525	4.76	3.86	0.4		●	
	TNGA160408T02020	16.50	9.525	4.76	3.86	0.8		●	
	TNGA160412T02020	16.50	9.525	4.76	3.86	1.2		●	
	TNGA220408T02020	22.00	12.7	4.76	5.16	0.8		○	
	TNGA220412T02020	22.00	12.7	4.76	5.16	1.2		○	
	TNGA220416T02020	22.00	12.7	4.76	5.16	1.6		○	
	TNGA220416T03020	22.00	12.7	4.76	5.16	1.6		○	

Tool Holder · Klemmhalter

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

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



Unfavorable Machining Condition
Ungünstige Bearbeitungsbedingungen

Ideal Machining Condition
Gute Bearbeitungsbedingungen

Normal Machining Condition
Normale Bearbeitungsbedingungen

Workpiece Material / Werkstoffe				
P	Steel / *Stahl*	●		
K	Cast iron / *Gusseisen*	●	● ✱	✱

Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Grade · Sorte		
		L	I.C	S	d	r	CA1000	CN1000	CN2000
	**TNGN160404T02020**	16.50	9.525	4.76	-	0.4	○	○	○
	TNGN160408T02020	16.50	9.525	4.76	-	0.8	●	○	○
	TNGN160412T02020	16.50	9.525	4.76	-	1.2	●	○	●
	TNGN160708T02020	16.50	9.525	7.94	-	0.8	●	○	●
	TNGN160712T02020	16.50	9.525	7.94	-	1.2	○	○	○
	TNGN160716T02020	16.50	9.525	7.94	-	1.6	○		
	TNGN220408T02020	22.00	12.7	4.76	-	0.8	○	○	○
	TNGN220412T02020	22.00	12.7	4.76	-	1.2	○	○	○
	TNGN220416T02020	22.00	12.7	4.76	-	1.6	○	○	○
	TNGN220712T02020	22.00	12.7	7.94	-	1.2	○		
	TNGN220716T02020	22.00	12.7	7.94	-	1.6	○		

Tool Holder · Klemmhalter

CTJNR/L
Kr:93°

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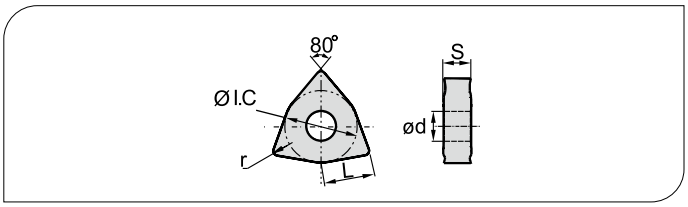
● Ex Stock / ab Lager ○ On demand / auf Anfrage



Unfavorable Machining Condition
Ungünstige Bearbeitungsbedingungen

Ideal Machining Condition
Gute Bearbeitungsbedingungen

Normal Machining Condition
Normale Bearbeitungsbedingungen

Workpiece Material
Werkstoffe

P Steel / *Stahl*

K Cast iron / *Gusseisen*

Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Grade · Sorte		
		L	I.C	S	d	r	CA1000	CN1000	CN2000
	**WNGA080408T02020**	8.69	12.7	4.76	5.16	0.8		●	
	WNGA080412T02020	8.69	12.7	4.76	5.16	1.2		●	
	WNGA080416T02020	8.69	12.7	4.76	5.16	1.6		●	

Tool Holder · Klemmhalter

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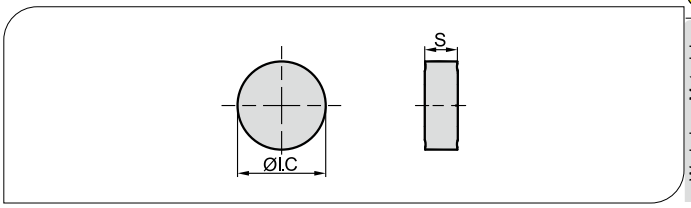

Unfavorable Machining Condition
Ungünstige Bearbeitungsbedingungen

Ideal Machining Condition
Gute Bearbeitungsbedingungen

Normal Machining Condition
Normale Bearbeitungsbedingungen

Workpiece Material
Werkstoffe

P Steel / *Stahl*

K Cast iron / *Gusseisen*

Insert Shape Schneid-plattenform	Type · Typ	Dimension (mm) Abmessung					Grade · Sorte		
		L	I.C	S	d	r	CA1000	CN1000	CN2000
	**RNGN090400T02020**	---	9.53	4.76	---	---	○		
	RNGN120400T02020	---	12.7	4.76	---	---	○	○	●
	RNGN120700T02020	---	12.7	7.94	---	---	●	○	●
	RNGN150700T02020	---	15.875	7.94	---	---	●	○	
	RNGN190700T03020	---	19.05	7.94	---	---	○	○	○
	RNGN251000T05020	---	25.40	10.05	---	---	○	○	

Tool Holder · Klemmhalter

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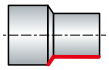
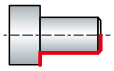
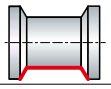
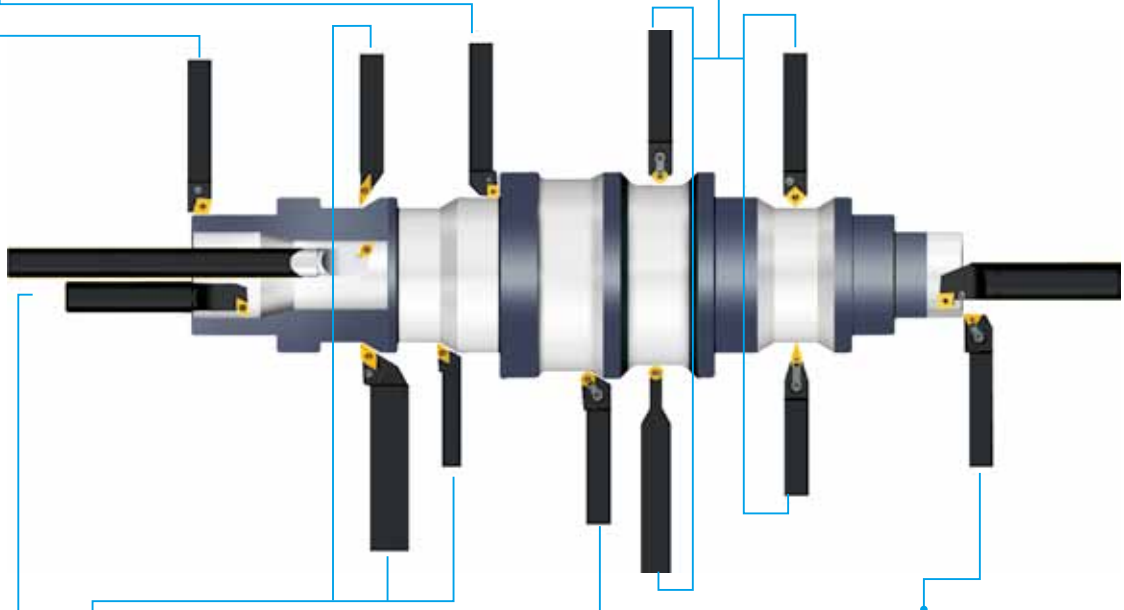
A

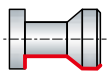
External and internal turning · Außen- und Innenbearbeitung

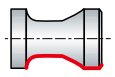
External Turning · Außenbearbeitung	Type · Typ					
	PCBNR/ L**	PSBNR/ L**	PSSN *	PTGNR/ L**	PTTNR/ L**	MCBNR/ L**
	MSBNR/ L**	MSRNR/ L**	MTGNR/ L**	MTJNR/ L**	SCACR/ L**	SSBCR/ L**
	SSSCR/ L**	STACR/ L**	STGCR/ L**	STTCR/ L**	SWACR/ L**	

External facing & turning · Außen- & Planbearbeitung	Type · Typ	
	PCLNR/ L**	PWLNR/ L**
	MCLNR/ L**	MWLNR/ L**
	SCLCR/ L**	

Profiling · Profilbearbeitung	Type · Typ			
	PDNNR/ L**	PSDNN**	MDPNN**	MSDNN**
	MVVNN**	MRDNN**	SDNCN**	SVVBN**
	SVVCN**	SSDCN**	SRDCN**	CKNNR/ L**



Profiling · Profilbearbeit.	Type · Typ		
	PDJNR/ L**	MDJNR/ L**	MVJNR/ L**
	SDACR/ L**	SDJCR/ L**	SVABR/ L**
	SVJBR/ L**	SVJCR/ L**	CKJNR/ L**

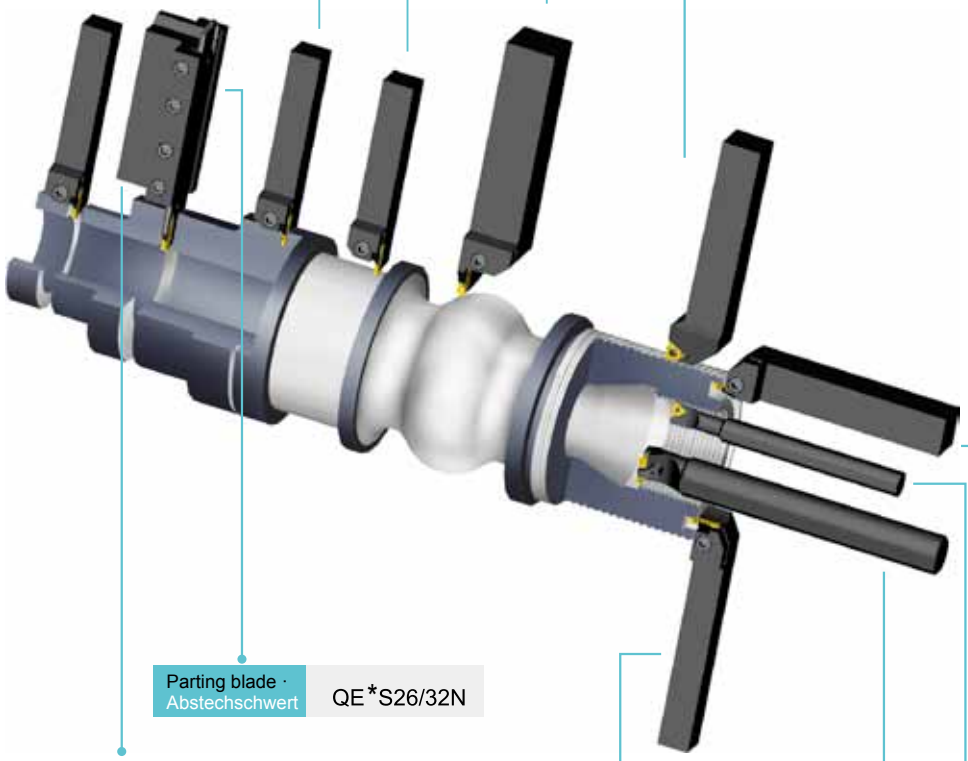
Profiling · Profilbearbeit.	Type · Typ
	MRGNR/ L**
	SRGCR/ L**

Facing · Planbearbeitung	Type · Typ	
	PSKNR/ L**	PTFNR/ L**
	MSKNR/ L**	MTFNR/ L**
	SSKCR/ L**	STFCR/ L**

Toolholders for internal turning (Steel toolholder) Klemmhalter Innenbearbeitung (Stahlausführung)						
						
	S*-PSKNR/ L*	S*-PCLNR/ L*	S*-PDSNR/ L*	S*-PDUNR/ L*	S*-SDQCR/ L*	S*-SDZCR/ L*
	S*-PTFNR/ L*	S*-PWLNR/ L*		S*-SDUCR/ L*	S*-SDQPR/ L*	
	S*-SCFCR*	S*-SCLCR/ L*		S*-SDUNR/ L*	S*-SVQBR/ L*	
	S*-SSKCR/ L*	S*-SCLPR/ L*		S*-SDUPR/ L*	S*-SVQCR/ L*	
	S*-STFCR/ L*			S*-SVUBR/ L*		
	S*-STUPR/ L*			S*-SVUCR/ L*		

Toolholders for internal turning (Cemented carbide) Klemmhalter Innenbearbeitung (Hartmetall)				
			
C*-STUPR/ L*	C*-SCLPR/ L*	C*-SDUPR/ L*	C*-SDQPR/ L*
		C*-SVUCR/ L*	C*-SVQCR/ L*

Parting, Grooving and Threading Tools · **Abstech-, Einstech-, und Gewindewerkzeug**



External threading tools · Gewindedrehwerkzeuge (Außen) — SWR/ L*

Axial grooving tools · Axial Stechwerkzeuge — QF*D**R/ L*-*H

Parting blade · Abstechschwert — QE*S26/32N

Parting blade holder · Abstechschwert Halter — QZS *26/32

Internal threading tools · Gewindedrehwerkzeug (Innen) — SNR/ L*

External parting, grooving, turning and profile · Aussenbearbeitung, Abstechen-, Einstechen, Profilbearbeitung	QE*D*R/L
	QZQ*R/L
	ZQS*R/L
	QT*R
Presicion grooving and turning · Präzision Stechen & Drehen	QECD*R/L025
External profiling Profilbearbeitung (Außen)	QX*D*R/L*-45
Grooving (difficult material) Stechbearbeitung (schwier. Mat.)	QE*S*R/L*-* N

Internal grooving tools · Einstechwerkzeug (Innen) — C*Q*DR/ L*, C*-QZSR/ L*

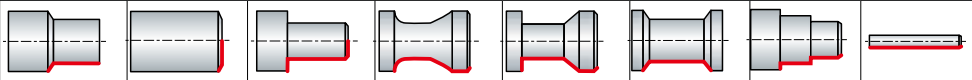
Axial grooving tools · Axial Stechwerkzeuge — QF*D*R/ L*-*L

NOTIZEN:

Turning · Drehen

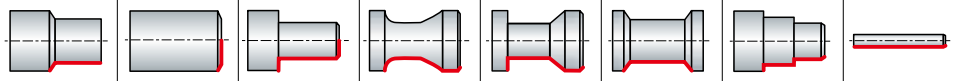
External Turning Tools · Drehwerkzeuge zur Außenbearbeitung

External truning tools Overview · Drehwerkzeugen zur Außenbearbeitung Übersicht

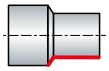
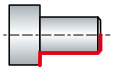
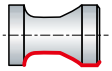
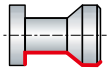
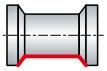
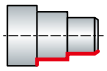
Clamping system Klemmsystem	Tool Type Werkzeug Typ	Approach angle Einstellwinkel	Turning Application · Anwendung						Workpiece · Werkstück		Page · Seite
			External turning Außenbearbeit.	Facing Planbearbeit.	Ext., turning & facing · Außen, & Planbearbeit.	Profiling Profilbearbeit.	Profiling Profilbearbeit.	Profiling Profilbearbeit..	Stable Stabil	Unstable Instabil	
											
P	PCBNR/ L 	75	✓						✓		A158
	PCLNR/ L 	95			✓				✓		A159
	PDJNR/ L 	93					✓		✓	✓	A160
	PDNNR/ L 	63						✓	✓		A161
	PSBNR/ L 	75	✓						✓		A162
	PSDNN 	45						✓	✓		A163
	PSKNR/ L 	75		✓					✓		A164
	PSSNR/ L 	45	✓						✓		A165
	PTFNR/ L 	90		✓					✓	✓	A166
	PTTNR/ L 	60	✓						✓		A167
	PTGNR/ L 	90	✓						✓	✓	A168
	PWLNR/ L 	95			✓				✓		A169

✓ Recommended · Empfehlung

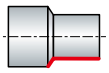
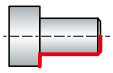
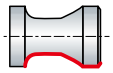
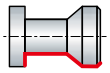
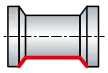
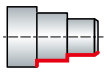
External truning tools Overview · Drehwerkzeugen zur Außenbearbeitung Übersicht

Clamping system Klemmsystem	Tool Type Werkzeug Typ	Approach angle Einstellwinkel	Turning Application · Anwendung						Workpiece · Werkstück		Page · Seite
			External turning Außenbearbeit.	Facing Planbearbeit.	Ext., turning & facing · Außen, & Planbearbeit.	Profiling Profilbearbeit.	Profiling Profilbearbeit.	Profiling Profilbearbeit.	Stable Stabil	Unstable Instabil	
											
M	MCBNR/ L 	75	✓						✓		A170
	MCLNR/ L 	95			✓				✓		A171
	MDJNR/ L 	93					✓		✓	✓	A172
	MDPNN 	62.5						✓	✓		A173
	MSBNR/ L 	75	✓						✓		A174
	MSRNR/ L 	75	✓						✓		A175
	MSKNR/ L 	75		✓					✓		A176
	MSDNN 	45						✓	✓		A177
	MTGNR/ L 	90	✓						✓	✓	A178
	MTJNR/ L 	93	✓						✓		A179
	MTFNR/ L 	90		✓					✓		A180
	MVVNN 	72.5						✓	✓		A181
	MVJNR/ L 	93					✓		✓	✓	A182

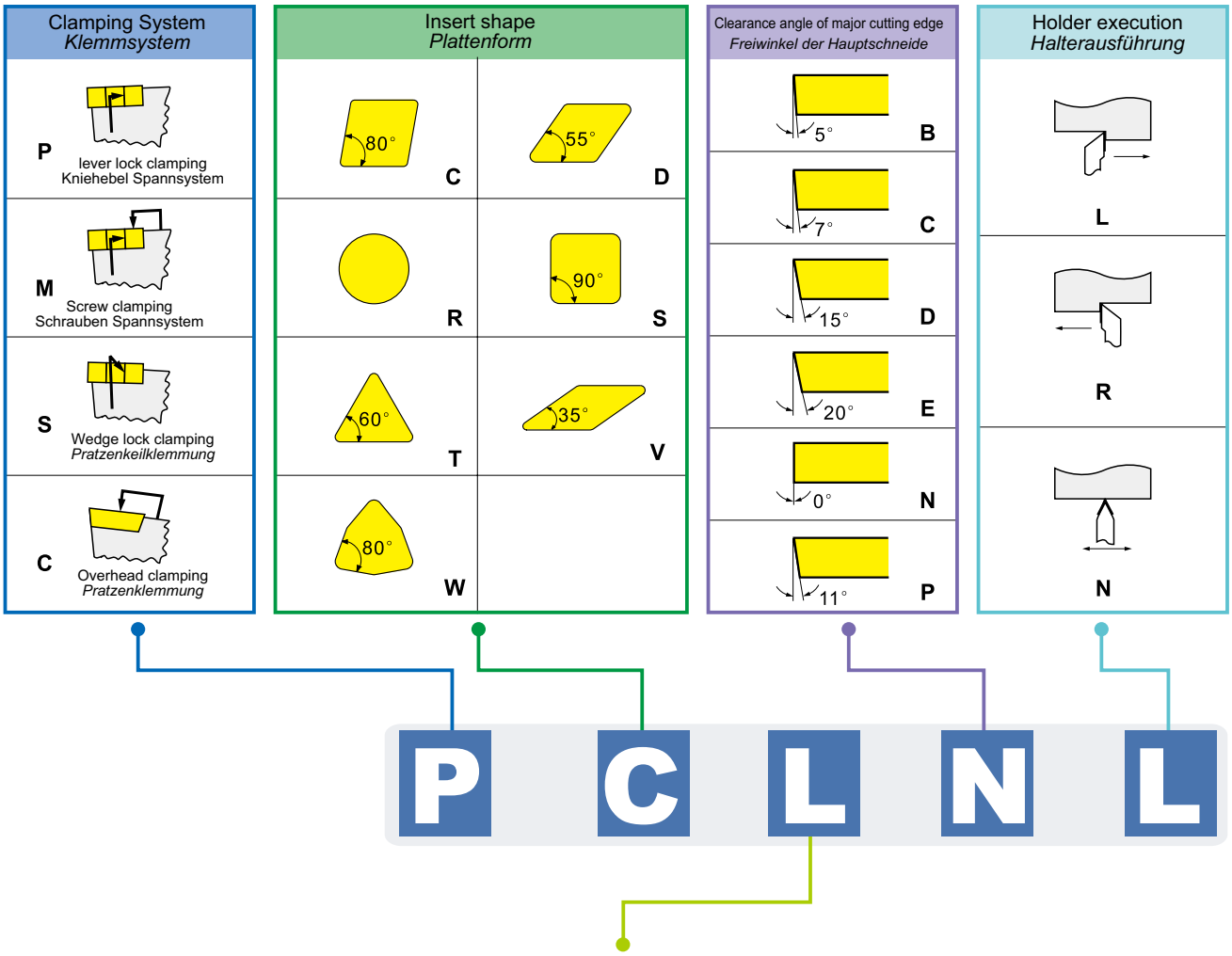
✓ Recommended · Empfehlung

Clamping system Klemmsystem	Tool Type Werkzeug Typ	Approach angle Einstellwinkel	Turning Application · Anwendung						Workpiece · Werkstück		Page · Seite
			External turning Außenbearbeit.	Facing Planbearbeit.	Ext., turning & facing · Außen, & Planbearbeit.	Profiling Profilbearbeit.	Profiling Profilbearbeit.	Profiling Profilbearbeit..	Stable Stabil	Unstable Instabil	
											
M	MWLNR/ L 	95			✓				✓		A183
	MRGNR/ L 					✓			✓		A184
	MRDNN 							✓	✓		A184
S	SCACR/ L 	90	✓						✓	✓	A185
	SCLCR/ L 	95			✓				✓	✓	A186
	SDACR/ L 	90					✓		✓	✓	A187
	SDJCR/ L 	93					✓		✓	✓	A188
	SDNCN 	63						✓	✓	✓	A189
	SVJBR/ L 	93					✓		✓	✓	A190
	SVABR/ L 	90					✓		✓	✓	A191
	SVVBN 	72.5						✓	✓	✓	A192
	SVVCN 	72.5						✓	✓	✓	A193
	SVJCR/ L 	93					✓		✓	✓	A194

✓ Recommended · Empfehlung

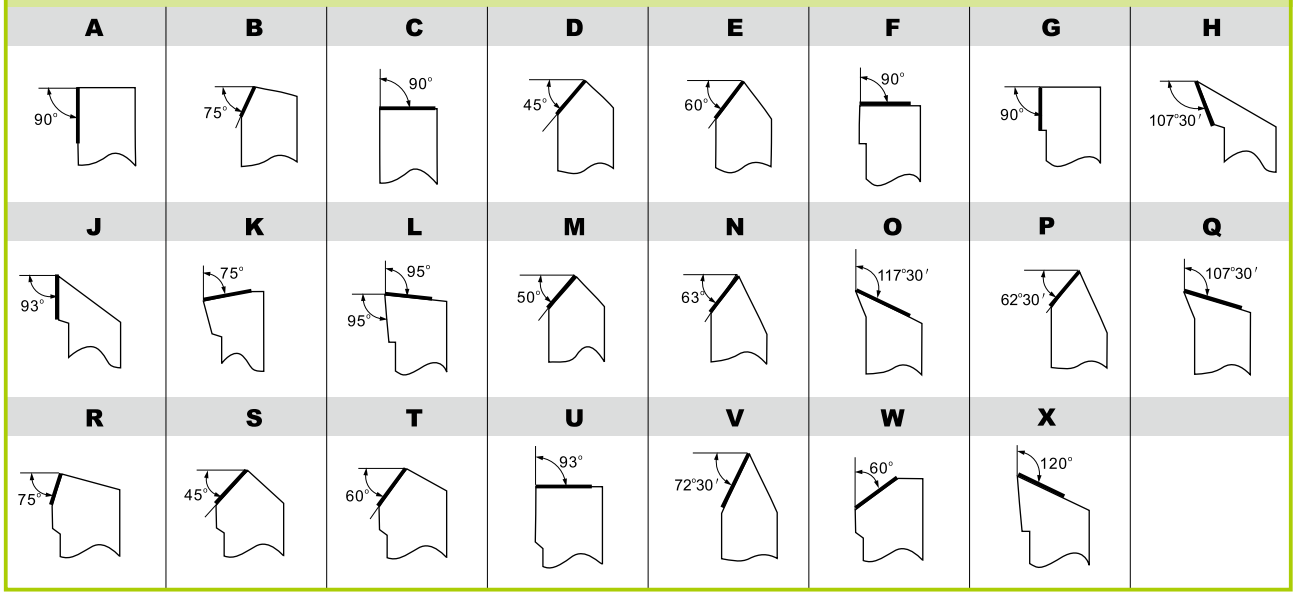
Clamping system Klemmsystem	Tool Type Werkzeug Typ	Approach angle Einstellwinkel	Turning Application · Anwendung						Workpiece · Werkstück		Page · Seite
			External turning Außenbearbeit.	Facing Planbearbeit.	Ext., turning & facing · Außen, & Planbearbeit.	Profiling Profilbearbeit.	Profiling Profilbearbeit.	Profiling Profilbearbeit..	Stable · Stabil	Unstable · Instabil	
											
S	SSBCR/ L 	75	✓						✓		A195
	SSDCN 	45						✓	✓		A195
	SSKCR/ L 	75		✓					✓		A196
	SSSCR/ L 	45	✓						✓		A196
	STACR/ L 	90	✓						✓	✓	A197
	STFCR/ L 	90		✓					✓		A197
	STGCR/ L 	91	✓						✓	✓	A198
	STTCR/ L 	60	✓						✓		A199
	SWACR/ L 	90	✓						✓	✓	A200
	SRDCN 							✓	✓		A201
	SRGCR/ L 					✓			✓		A202
C	CKJNR/ L 	93					✓		✓		A203
	CKNNR/ L 	63						✓	✓		A203

✓ Recommended · Empfehlung

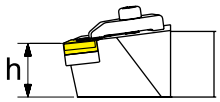


P C L N L

Holder style and lead angle
Halterform und Anstellwinkel

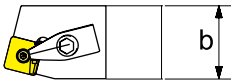


Height
Schafthöhe



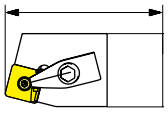
code	Height / Höhe
12	12
16	16
20	20
25	25
32	32
40	40
50	50

Shank width
Schaftbreite



code	Width / Breite
12	12
16	16
20	20
25	25
32	32
40	40
50	50

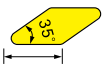
Tool length
Halterlänge



code	Length / Länge
H	100
K	125
M	150
P	170
Q	180
R	200
S	250
T	300

25 25 M 12

Cutting edge length
Schneidkantenlänge

insert shape Plattenform	C	D	R	S	T	V	W
							
Diameter of incircle Durchmesser (mm)	Cutting edge length / Schneidkantenlänge						
5.556	---	---	---	---	09	---	---
6.350	06	07	---	---	11	---	---
9.525	09	11	09	09	16	16	06
12.700	12	15	12	12	22	22	08
15.875	16	19	15	15	27	---	---
19.050	19	---	19	19	33	---	---
25.400	25	---	25	25	44	---	---
32.000	---	---	32	---	---	---	---

A

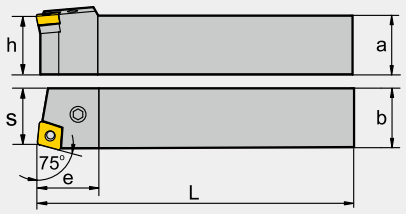
CN** Toolholder · Halter

P-Clamping · P-Halter

PCBNR/ L

Kr:75°

R type
Rechtsausführung



Type · Typ		Stock Lager Lager		Dimension (mm) Abmessung						Screw Schraube	Shim Unterlage	Wrench Schlüssel	Lever Kniehebel	Shim pin Rohrstift
		R	L	a	b	L	h	s	e					
PCBNR/ L	**2020K12**	●	●	20	20	125	20	17	27	LEM8×21	C12AP	WH30L	L4	SP4
	2525M12	●	●	25	25	150	25	22	27					
	3232P12	●	●	32	32	170	32	27	27					
	2525M16	●	●	25	25	150	25	22	33	LEM8×25	C16AP	WH30L	L5	SP5
	3232P16	●	●	32	32	170	32	27	33					
	3232P19	●	●	32	32	170	32	27	38	LEM10×27	C19AP	WH40L	L6	SP6
	4040S19	●	●	40	40	250	40	35	38					
	4040S2507	●	●	40	40	250	40	35	50	LEM12×36A	C25AP-07	WH50L	L8	SP8
	4040S2509	●	●	40	40	250	40	35	50		C25AP			

Applicable inserts
Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Rough machining Schruppen	Heavy Duty Schwerzerspanung	Cast iron Grauguss Bearbeit.
Inserts WSP	**DF**  A46	**PM**  A47	**DR**  A49	**HDR**  A50	 A51
	SF  A46	**DM**  A48	**DR**  A50		
	EF  A46	**EM**  A48	**ER**  A50		
	NF  A47	**NM**  A49	**ER**  A50		

Type · Typ					
	PCBNR/LK / M / P12**	CN**1204**	CN**1204**	CN**1204**	CN**1204**	CN**1204**
	PCBNR/LM / P16**	CN**1606**	CN**1606**	CN**1606**	CN**1606**	CN**1606**
	PCBNR/LP / S19**		CN**1906**	CN**1906**	CN**1906**	CN**1906**
	PCBNR/LS2507**			CN**2507**		
	PCBNR/LS2509**			CN**2509**		

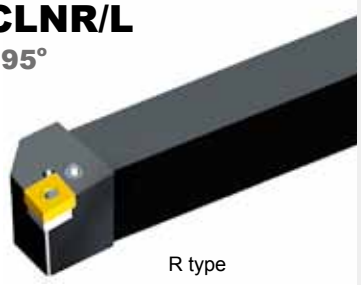
● ex stock · ab Lager ○ on demand · Anfrage

CN** Toolholder · Halter

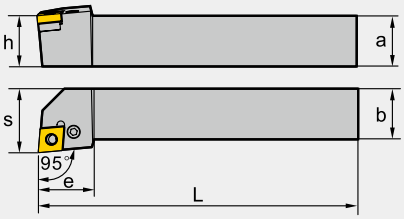
P-Clamping · P-Halter

PCLNR/L

Kr:95°



R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Screw Schraube	Shim Unterlage	Wrench Schlüssel	Lever Kniehebel	Shim pin Rohrstift
		R	L	a	b	L	h	s	e					
PCLNR/ L	**1616H09**	●	●	16	16	100	16	20	20	LEM6×13.4A	C09AP	WH25L	L3	SP10
	2020K09	●	●	20	20	125	20	25	22					
	2525M09	●	●	25	25	150	25	32	22					
	2020K12	●	●	20	20	125	20	25	28	LEM8×21	C12AP	WH30L	L4	SP4
	2525M12	●	●	25	25	150	25	32	28					
	3232P12	●	●	32	32	170	32	40	28					
	2525M16	●	●	25	25	150	25	32	33	LEM8×25	C16AP	WH30L	L5	SP5
	3232P16	●	●	32	32	170	32	40	33					
	3232P19	●	●	32	32	170	32	40	38	LEM10×27	C19AP	WH40L	L6	SP6
	4040S19	●	●	40	40	250	40	50	38					
	4040S2507	●	●	40	40	250	40	50	49	LEM12×36A	C25AP-07	WH50L	L8	SP8
	4040S2509	●	●	40	40	250	40	50	49		C25AP			

Applicable insert
Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Heavy Duty Schwerzerspanung	Cast iron Grauguss Bearbeit.	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**DF**  A46	**PM**  A47	**DR**  A49	**HDR**  A50	 A51	 A118
	WG  A46	**DM**  A48	**DR**  A50			
	SF  A46	**EM**  A48	**ER**  A50			
	EF  A46	**NM**  A49	**ER**  A50			
	NF  A47					

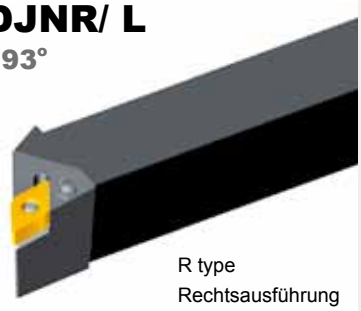
Type · Typ							
	PCLNR/LH / K / M09**	CN**0903**	CN**0903**				
	PCLNR/LK / M / P12**	CN**1204**	CN**1204**	CN**1204**	CN**1204**	CN**1204**	CN**1204**
	PCLNR/LM / P16**	CN**1606**	CN**1606**	CN**1606**	CN**1606**	CN**1606**	
	PCLNR/LP / S19**		CN**1906**	CN**1906**	CN**1906**	CN**1906**	
	PCLNR/LS2507**			CN**2507**			
	PCLNR/LS2509**			CN**2509**			

DN** Toolholder · Halter

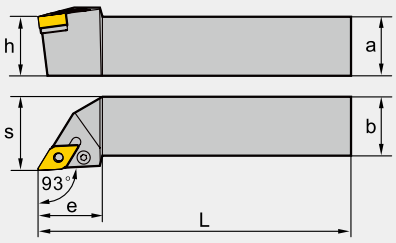
P-Clamping · P-Halter

PDJNR/ L

Kr:93°



R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Screw Schraube	Shim Unterlage	Wrench Schlüssel	Lever Kniehebel	Shim pin Rohrstift
		R	L	a	b	L	h	s	e					
PDJNR/ L	**1616H11**	●	●	16	16	100	16	20	25					
	2020K11	●	●	20	20	125	20	25	25	LEM6×13.4A	D11AP	WH25L	L3	SP3
	2525M11	●	●	25	25	150	25	32	30					
	2020K15	●	●	20	20	125	20	25	35					
	2525M15	●	●	25	25	150	25	32	35	LEM8×21	D15AP	WH30L	L4B	SP4
	3232P15	●	●	32	32	170	32	40	35					
	2020K15-3	●	●	20	20	125	20	25	35					
	2525M15-3	●	●	25	25	150	25	32	35	LEM8×21	D15AP	WH30L	L4	SP4
	3232P15-3	●	●	32	32	170	32	40	35					

Applicable insert
Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Heavy Duty Schwerzerspanung	Cast iron machining Grauguss Bearbeit.	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**DF**  A53	**PM**  A55	**DR** Double -side  A56	**HDR**  A58	 A58	 A119
	WG  A53	**DM**  A55	**DR** Single- side  A58			
	SF  A53	**EM**  A56	**ER** Double -side  A58			
	EF  A54	**NM**  A56	**ER** Single- side  A58			
	NF  A54					

Type · Typ							
	PDJNR/LH / K / M11**	DN**1104**	DN**1104**			DN**1104**	
	PDJNR/LK / M / P15**	DN**1506**	DN**1506**	DN**1506**	DN**1506**	DN**1506**	DN**1506**
	PDJNR/LK / M / P15-3**	DN**1504**	DN**1504**			DN**1504**	DN**1504**

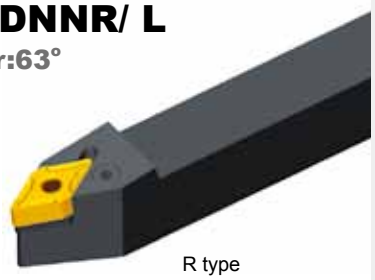
● ex stock · ab Lager ○ on demand · Anfrage

DN** Toolholder · Halter

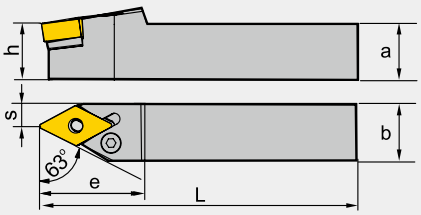
P-Clamping · P-Halter

PDNNR/ L

Kr:63°



R type
Rechtsausführung



Type · Typ		Stock Lager R	Stock Lager L	Dimension (mm) Abmessung a	b	L	h	s	e	Screw Schraube	Shim Unterlage	Wrench Schlüssel	Lever Kniehebel	Shim pin Rohrstift
PDNNR/ L	**2020K15**	●	●	20	20	125	20	8	37	LEM8×21	D15AP	WH30L	L4B	SP4
	2525M15	●	●	25	25	150	25	12.5	37					
	3232P15	●	●	32	32	170	32	16	37					
	2020K15-3	●	●	20	20	125	20	8	37	LEM8×21	D15AP	WH30L	L4	SP4
	2525M15-3	●	●	25	25	150	25	12.5	37					
	3232P15-3	●	●	32	32	170	32	16	37					

Applicable insert Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Heavy Duty Schwerzerspanung	Cast iron machining Grauguss Bearbeit.	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**DF** A53	**PM** A55	**DR** Double -side A56	**HDR** A58	A58	A119
	SF A53	**DM** A55	**DR** Single- side A58			
	EF A54	**EM** A56	**ER** Double -side A58			
	NF A54	**NM** A56	**ER** Single- side A58			

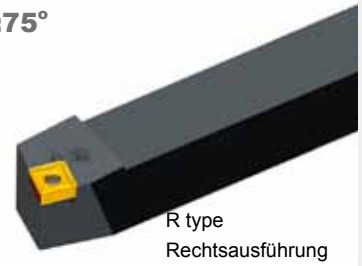
Type · Typ							
	PDNNR/LK /M/ P15**	DN**1506**	DN**1506**	DN**1506**	DN**1506**	DN**1506**	DN**1506**
	PDNNR/LK / M/ P15-3**	DN**1504**	DN**1504**			DN**1504**	DN**1504**

SN** Toolholder · Halter

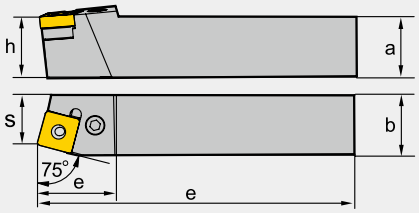
P-Clamping · P-Halter

PSBNR/ L

Kr:75°



R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Screw Schraube	Shim Unterlage	Wrench Schlüssel	Lever Kniehebel	Shim pin Rohrstift
		R	L	a	b	L	h	s	e					
PSBNR/ L	**1616H09**	●	●	16	16	100	16	13	21	LEM6×13.4A	S09AP	WH25L	L3	SP10
	2020K09	●	●	20	20	125	20	17	23					
	2020K12	●	●	20	20	125	20	17	28	LEM8×21	S12AP	WH30L	L4	SP4
	2525M12	●	●	25	25	125	25	22	28					
	3225P12	●	●	32	25	170	32	22	28					
	3232P12	●	●	32	32	170	32	27	28					
	2525M15	●	●	25	25	150	25	22	35	LEM8×25	S15AP	WH30L	L5	SP5
	3232P15	●	●	32	32	170	32	27	35					
	3232P19	●	●	32	32	170	32	27	40	LEM10×27	S19AP	WH40L	L6	SP6
	4040S19	●	●	40	40	250	40	35	40					
	4040S2507	●	●	40	40	250	40	35	48	LEM12×36A	S25AP	WH50L	L8	SP8
	4040S2509	●	●	40	40	250	40	35	48		S25AP-09			

Applicable insert
Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Heavy Duty Schwerzerspanung	Cast iron machining Grauguss Bearbeit.	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**DF**  A59	**PM**  A60	**DR** Double-side  A62	**HDR**  A64	 A65	 A120
	EF  A59	**DM**  A61	**DR** Single-side  A62			
	SF  A60	**EM**  A61	**ER** Double-side  A63			
		NM  A62	**ER** Single-side  A63			

Type · Typ							
	PSBNR/LH / K09**	SN**0903**	SN**0903**			SN**0903**	
	PSBNR/LK / M / P12**	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**
	PSBNR/LM / P15**	SN**1506**	SN**1506**	SN**1506**	SN**1506**	SN**1506**	
	PSBNR/LP / S19**		SN**1906**	SN**1906**	SN**1906**	SN**1906**	
	PSBNR/LS2507**			SN**2507**	SN**2507**		
	PSBNR/LS2509**			SN**2509**	SN**2509**		

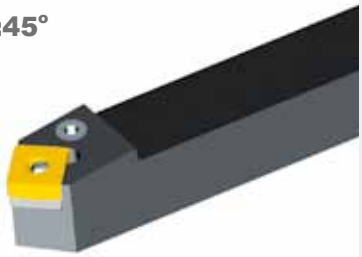
● ex stock · ab Lager ○ on demand · Anfrage

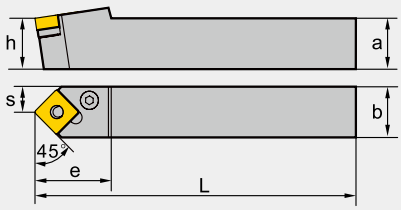
SN** Toolholder · Halter

P-Clamping · P-Halter

PSDNN

Kr:45°





Type · Typ		Stock Lager	Dimension (mm) Abmessung						Screw Schraube	Shim Unterlage	Wrench Schlüssel	Lever Kniehebel	Shim pin Rohrstift
			a	b	L	h	s	e					
PSDNN	**1212F09**		12	12	80	12	6	21	LEM5×12B	—	WH20L	L3B	—
	1616H09	●	16	16	100	16	8	23	LEM6×13.4A	S09AP	WH25L	L3	SP10
	2020K12	●	20	20	125	20	10	30	LEM8×21	S12AP	WH30L	L4	SP4
	2525M12	●	20	20	150	20	12.5	30					
	3232P12	●	32	32	170	32	16	40					
	2525M15	●	25	25	150	25	12.5	40	LEM8×25	S15AP	WH30L	L5	SP5
	3232P15	●	32	32	170	32	16	40					
	3232P19	●	32	32	170	32	16	40	LEM10×27	S19AP	WH40L	L6	SP6
	4040S19	●	40	40	250	40	20	40					

Applicable insert
Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Heavy Duty Schwerzerspanung	Cast iron machining Grauguss Bearbeit.	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**DF** A59	**PM** A60	**DR** Double-side A62	**HDR** A64	A65	A120
	EF A59	**DM** A61	**DR** Single-side A62			
	SF A60	**EM** A61	**ER** Double-side A63			
		NM A62	**ER** Single-side A63			

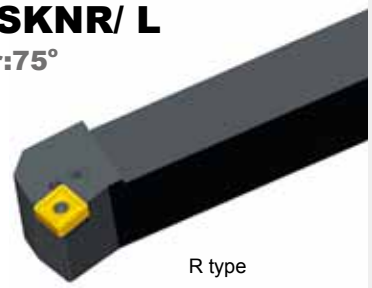
Type · Typ							
	PSDNNF / H09**	SN**0903**	SN**0903**			SN**0903**	
	PSDNNK / M / P12**	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**
	PSDNNM / P15**	SN**1506**	SN**1506**	SN**1506**	SN**1506**	SN**1506**	
	PSDNNP / S19**		SN**1906**	SN**1906**	SN**1906**	SN**1906**	

SN** Toolholder · Halter

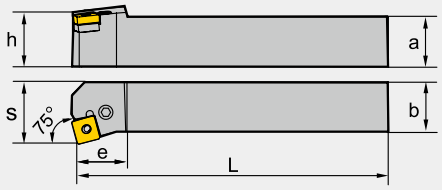
P-Clamping · P-Halter

PSKNR/ L

Kr:75°



R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Screw Schraube	Shim Unterlage	Wrench Schlüssel	Lever Kniehebel	Shim pin Rohrstift
		R	L	a	b	L	h	s	e					
PSKNR/ L	**1616H09**	●	●	16	16	100	16	20	17	LEM6×13.4A	S09AP	WH25L	L3	SP10
	2020K09	●	●	20	20	125	20	25	20					
	2020K12	●	●	20	20	125	20	25	26	LEM8×21	S12AP	WH30L	L4	SP4
	2525M12	●	●	25	25	150	25	32	26					
	3232P12	●	●	32	32	170	32	40	26					
	2525M15	●	●	25	25	150	25	32	32	LEM8×25	S15AP	WH30L	L5	SP5
	3232P15	●	●	32	32	170	32	40	32					
	3232P19	●	●	32	32	170	32	40	36	LEM10×27	S19AP	WH40L	L6	SP6
	4040S19	●	●	40	40	250	40	50	40					

Applicable insert
Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Heavy Duty Schwerzerspanung	Cast iron machining Grauguss Bearbeit.	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**DF** A59	**PM** A60	**DR** A62	**HDR** A64	A65	A120
	EF A59	**DM** A61	**DR** A62			
	SF A60	**EM** A61	**ER** A63			
		NM A62	**ER** A63			

Type · Typ							
	PSKNR/ LH / K09**	SN**0903**	SN**0903**			SN**0903**	
	PSKNR/ LK / M / P12**	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**
	PSKNR/ LM / P15**	SN**1506**	SN**1506**	SN**1506**	SN**1506**	SN**1506**	
	PSKNR/ LP / S19**		SN**1906**	SN**1906**	SN**1906**	SN**1906**	

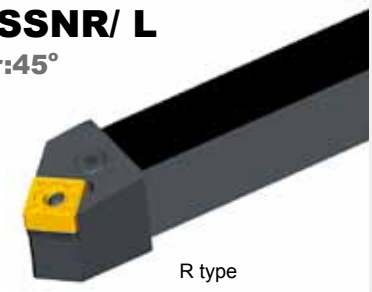
● ex stock · ab Lager ○ on demand · Anfrage

SN** Toolholder · Halter

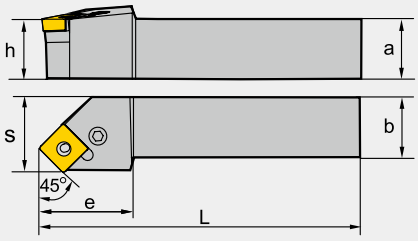
P-Clamping · P-Halter

PSSNR/ L

Kr:45°



R type
Rechtsausführung



Type · Typ		Stock Lager R	Stock Lager L	Dimension (mm) Abmessung a	b	L	h	s	e	Screw Schraube	Shim Unterlage	Wrench Schlüssel	Lever Kniehebel	Shim pin Rohrstift
PSSNR/ L	**1616H09**	●	●	16	16	100	16	20	25	LEM6×13.4A	S09AP	WH25L	L3	SP10
	2020K12	●	●	20	20	125	20	25	30	LEM8×21	S12AP	WH30L	L4	SP4
	2525M12	●	●	25	25	150	25	32	30					
	3232P12	●	●	32	32	170	32	40	40					
	2525M15	●	●	25	25	150	25	32	30	LEM8×25	S15AP	WH30L	L5	SP5
	3232P15	●	●	32	32	170	32	40	40					
	3232P19	●	●	32	32	170	32	40	40	LEM10×27	S19AP	WH40L	L6	SP6
	4040S19	●	●	40	40	250	40	50	50					
	4040S2507	●	●	40	40	250	40	50	50	LEM12×36A	S25AP	WH50L	L8	SP8
	4040S2509	●	●	40	40	250	40	50	50		S25AP-09			

Applicable insert
Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Heavy Duty Schwerzerspanung	Cast iron machining Grauguss Bearbeit.	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**DF** A59	**PM** A60	**DR** Double-side A62	**HDR** A64	A65	A120
	EF A59	**DM** A61	**DR** Single-side A62			
	SF A60	**EM** A61	**ER** Double-side A63			
		NM A62	**ER** Single-side A63			

Type · Typ	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Heavy Duty Schwerzerspanung	Cast iron machining Grauguss Bearbeit.	PCBN · PCD PCBN · PKD
PSSNR/ L****H09**	SN**0903**	SN**0903**	SN**0903**		SN**0903**	
PSSNR/ L****K / M / P12**	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**
PSSNR/ L****M / P15**	SN**1506**	SN**1506**	SN**1506**	SN**1506**	SN**1506**	
PSSNR/ L****P / S19**		SN**1906**	SN**1906**	SN**1906**	SN**1906**	
PSSNR/ L****S2507**			SN**2507**	SN**2507**		
PSSNR/ L****S2509**			SN**2509**	SN**2509**		

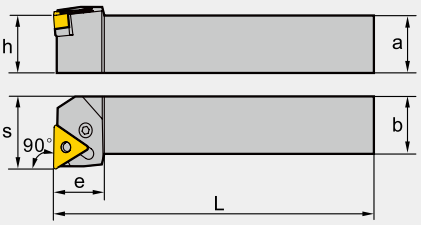
TN** Toolholder · Halter

P-Clamping · P-Halter

PTFNR/ L

Kr:90°

R type
Rechtsausführung



Type · Typ		Stock Lager R	Stock Lager L	Dimension (mm) Abmessung a	b	L	h	s	e	Screw Schraube	Shim Unterlage	Wrench Schlüssel	Lever Kniehebel	Shim pin Rohrstift
PTFNR/ L	**1616H16**	●	●	16	16	100	16	20	20	LEM6×13.4A	T16AP	WH25L	L3	SP3
	2020K16	●	●	20	20	125	20	25	20					
	2525M16	●	●	25	25	150	25	32	20					
	2525M22	●	●	25	25	150	25	32	25	LEM8×21	T22AP	WH30L	L4	SP4
	3232P22	●	●	32	32	170	32	40	25					
	3232P27	●	●	32	32	170	32	40	34	LEM8×25	T27AP	WH30L	L5	SP5
	4040S27	●	●	40	40	250	40	50	34					

Applicable insert
Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Heavy Duty Schwerzerspanung	Cast iron machining Grauguss Bearbeit.	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**DF** A68	**PM** A69	**DR** A70	**HDR** A72	A73	A121
	WG Wiper inserts A68	**DM** A69	**DR** A71			
	SF A68	**EM** A70	**ER** A71			
	EF A68					
Typ · Typ **PTFNR/ L**H / K / M16**	TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**
PTFNR/ LM / P22**	TN**2204**	TN**2204**	TN**2204**	TN**2204**	TN**2204**	
PTFNR/ LP / S27**			TN**2706**	TN**2706**	TN**2706**	

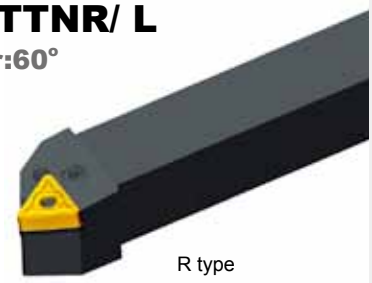
● ex stock · ab Lager ○ on demand · Anfrage

TN** Toolholder · Halter

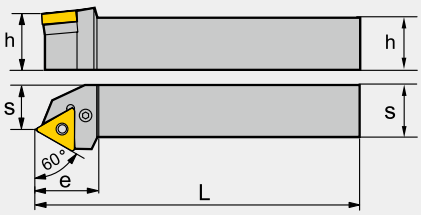
P-Clamping · P-Halter

PTTNR/ L

Kr:60°



R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Screw Schraube	Shim Unterlage	Wrench Schlüssel	Lever Kniehebel	Shim pin Rohrstift
		R	L	a	b	L	h	s	e					
PTTNR/ L	**1616H16**	●	●	16	16	100	16	13	25	LEM6×13.4A	T16AP	WH25L	L3	SP3
	2020K16	●	●	20	20	125	20	17	25					
	2525M22	●	●	25	25	150	20	22	32	LEM8×21	T22AP	WH30L	L4	SP4

Applicable insert
Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Heavy Duty Schwerzerspanung	Cast iron machining Grauguss Bearbeit.	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**DF**  A68	**PM**  A69	**DR**  A70	**HDR**  A72	 A73	 A121
	SF  A68	**DM**  A69	**DR**  A71			
	EF  A68	**EM**  A70	**ER**  A71			
Type Typ **PTTNR / L**H / K16**		TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**
Type Typ **PTTNR / L**M22**		TN**2204**	TN**2204**	TN**2204**	TN**2204**	TN**2204**	

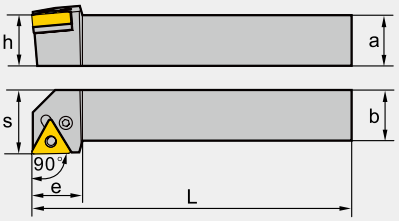
TN** Toolholder · Halter

P-Clamping · P-Halter

PTGNR/ L

Kr:90°

R type
Rechtsausführung



Type · Typ		Stock Lager R	Stock Lager L	Dimension (mm) Abmessung a	b	L	h	s	e	Screw Schraube	Shim Unterlage	Wrench Schlüssel	Lever Kniehebel	Shim pin Rohrstift
PTGNR/ L	**1010E11**			10	10	70	10	14	16	LEM5×9B	—	WH20L	L2	—
	1212F11			12	12	80	12	16	14					
	1616H11	●	●	16	16	100	16	20	18					
	2020K11	●	●	20	20	125	20	25	19					
	2525M11	●	●	25	25	150	25	32	20					
	1616H16	●	●	16	16	100	16	20	20	LEM6×13.4A	T16AP	WH25L	L3	SP3
	2020K16	●	●	20	20	125	20	25	20					
	2525M16	●	●	25	25	150	25	32	20					
	3232P16	●	●	32	32	170	32	40	20					
	2525M22	●	●	25	25	150	25	32	28	LEM8×21	T22AP	WH30L	L4	SP4
	3232P22	●	●	32	32	170	32	40	28					
	3232P27	●	●	32	32	170	32	40	33	LEM8×25	T27AP	WH30L	L5	SP5
	4040S27	●	●	40	40	250	40	50	33					

Applicable insert Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Heavy Duty Schwerzerspanung	Cast iron machining Grauguss Bearbeit.	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**DF** A68	**PM** A69	**DR** Double -side A70	**HDR** A72	Flat A73	Flat A121
	WG Wiper inserts A68	**DM** A69	**DR** A71			
	SF A68	**EM** A70	**ER** A71			
	EF A68					

Type · Typ							
	PTGNR/LE / F / H / K / M11**	TN**1103**	TN**1103**			TN**1103**	
	PTGNR/LH / K / M16**	TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**
	PTGNR /LM / P22**	TN**2204**	TN**2204**	TN**2204**	TN**2204**	TN**2204**	
	PTGNR/LP / S27**			TN**2706**	TN**2706**	TN**2706**	

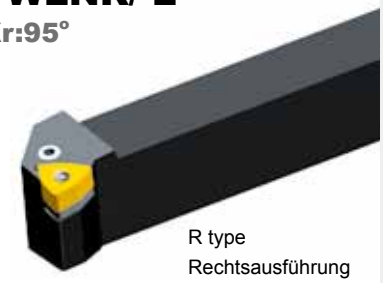
● ex stock · ab Lager ○ on demand · Anfrage

WN** Toolholder · Halter

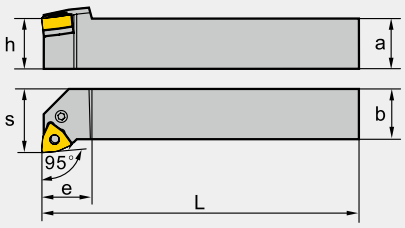
P-Clamping · P-Halter

PWLNR/ L

Kr:95°



R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Screw Schraube	Shim Unterlage	Wrench Schlüssel	Lever Kniehebel	Shim pin Rohrstift
		R	L	a	b	L	h	s	e					
PWLNR/ L	**1616H06**	●	●	16	16	100	16	20	20	LEM6×13.4A	W06AP	WH25L	L3	SP3
	2020K06	●	●	20	20	125	20	25	20					
	2525M06	●	●	25	25	150	25	32	20					
	2020K08	●	●	20	20	125	20	25	26	LEM8×21	W08AP	WH30L	L4	SP4
	2525M08	●	●	25	25	150	25	32	26					

Applicable insert
Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Cast iron machining Grauguss Bearbeit.
insert shape Schneidplattenform	**DF**  A76	**PM**  A78	**DR** Double -side  A79	Flat  A79
	WG Wiper inserts  A76	**DM**  A78		
	SF  A77	**EM**  A78		
	EF  A77	**NM**  A79		
	NF  A77			

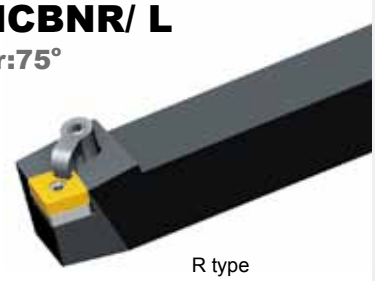
Type · Typ					
	PWLNR/ LH / K / M06**	WN**0604**	WN**0604**	WN**0604**	WN**0604**
	PWLNR/ LK / M08**	WN**0804**	WN**0804**	WN**0804**	WN**0804**

CN** Toolholder · Halter

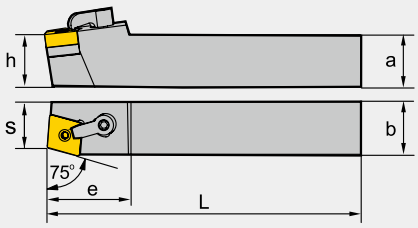
M-Clamping · M-Halter

MCBNR/ L

Kr:75°



R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Clamping screw Schraube	Shim Unterlage	Wrench Schlüssel	Clamp Pratze	Clamping stud Passstift
		R	L	a	b	L	h	s	e					
MCBNR/ L	**2020K12**	●	○	20	20	125	20	17	32	DM6×25	C12BM	WH30L	C1RD	TM6×17
	2525M12	●	●	25	25	150	20	22	32	DM6×30				
	3225P12	●	●	32	25	170	32	22	32					
	2525M16	○	○	25	25	150	25	22	40	DM6×30	C16BM	WH30L	C2RD	TM8×21
	3232P16	●	●	32	32	170	32	27	40					
	3232P19	○	○	32	32	170	32	27	45	DM8×30X	C19BM	WH40L	C5RD	TM10×21
	4040R19	○	○	40	40	200	40	35	45					

Applicable insert
Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Heavy Duty Schwerzerspanung	Cast iron machining Grauguss Bearbeit.
insert shape Schneidplattenform	**DF**  A46	**PM**  A47	**DR**  A49	**HDR**  A50	Flat  A51
	SF  A46	**DM**  A48	**DR**  A50		
	EF  A46	**EM**  A48	**ER**  A50		
	NF  A47	**NM**  A49	**ER**  A50		
Type · Typ **MCBNR/ L**K / M / P12**	CN**1204**	CN**1204**	CN**1204**	CN**1204**	CN**1204**
MCBNR/ LM / P16**	CN**1606**	CN**1606**	CN**1606**	CN**1606**	CN**1606**
MCBNR/ LP / R19**		CN**1906**	CN**1906**	CN**1906**	CN**1906**

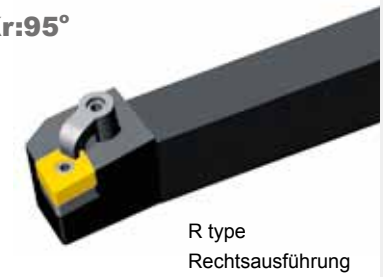
● ex stock · ab Lager ○ on demand · Anfrage

CN** Toolholder · Halter

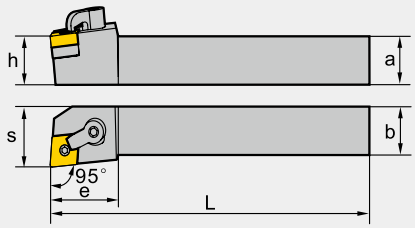
M-Clamping · M-Halter

MCLNR/ L

Kr:95°



R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Clamping screw Schraube	Shim Unterlage	Wrench Schlüssel	Clamp Pratze	Clamping stud Passstift
		R	L	a	b	L	h	s	e					
MCLNR/ L	**2020K12**	●	●	20	20	125	20	25	32	DM6×25	C12BM	WH30L	C1RD	TM6×17
	2525M12	●	●	25	25	150	25	32	32	DM6×30				
	3225P12	●	●	32	25	170	32	32	32					
	2525M16	●	●	25	25	150	25	32	38	DM6×30	C16BM	WH30L	C2RD	TM8×21
	3232P16	●	●	32	32	170	32	40	38					
	3232P19	●	●	32	32	170	32	40	45	DM8×30X	C19BM	WH40L	C5RD	TM10×21
	4040R19	○	○	40	40	200	40	50	45					

Applicable insert
Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Heavy Duty Schwerzerspanung	Cast iron machining Grauguss Bearbeit.	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**DF**  A46	**PM**  A47	**DR**  A49	**HDR**  A50	Flat  A51	Flat  A118
	WG  A46	**DM**  A48	**DR**  A50			
	SF  A46	**EM**  A48	**ER**  A50			
	EF  A46	**NM**  A49	**ER**  A50			
	NF  A47					

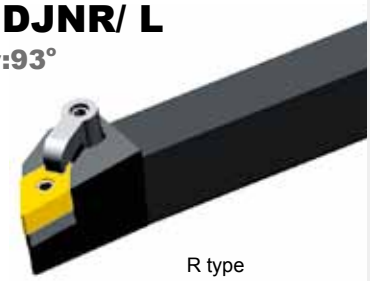
Type · Typ							
	MCLNR/ LK / M / P12**	CN**1204**	CN**1204**	CN**1204**	CN**1204**	CN**1204**	CN**1204**
	MCLNR/ LM / P16**	CN**1606**	CN**1606**	CN**1606**	CN**1606**	CN**1606**	
	MCLNR/ LP / R19**		CN**1906**	CN**1906**	CN**1906**	CN**1906**	

DN** Toolholder · Halter

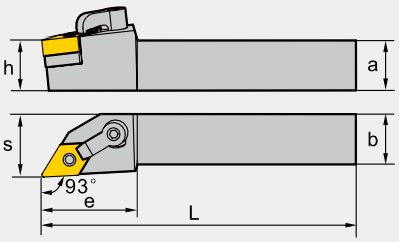
M-Clamping · M-Halter

MDJNR/ L

Kr:93°



R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Clamping screw Schraube	Shim Unterlage	Wrench Schlüssel	Clamp Pratze	Clamping stud Passstift
		R	L	a	b	L	h	s	e					
MDJNR/ L	**2020K11**	●	●	20	20	125	20	25	32	DM6×25	D11BM	WH20L WH30L	C1RD	TM5×13
	2525M11	●	●	25	25	150	25	32	32	DM6×30				
	3225P11	●	○	32	25	170	32	32	32					
	2020K15	●	●	20	20	125	20	25	38	DM6×25	D15BM	WH30L	C2RD	TM6×19
	2525M15	●	●	25	25	150	25	32	38	DM6×30				
	3225P15	●	●	32	25	170	32	32	38					

Applicable insert
Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Heavy Duty Schwerzerspanung	Cast iron machining Grauguss Bearbeit.	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**DF**  A53	**PM**  A55	**DR** Double -side  A56	**HDR**  A58	 A58	 A119
	WG  Wiper A53	**DM**  A55	**DR** Single- side  A58			
	SF  A53	**EM**  A56	**ER** Double -side  A58			
	EF  A54	**NM**  A56	**ER** Single- side  A58			
	NF  A54					

Type · Typ							
	MDJNR / LK / M / P11**	DN**1104**	DN**1104**			DN**1104**	
	MDJNR/ LK / M / P15**	DN**1506**	DN**1506**	DN**1506**	DN**1506**	DN**1506**	DN**1506**

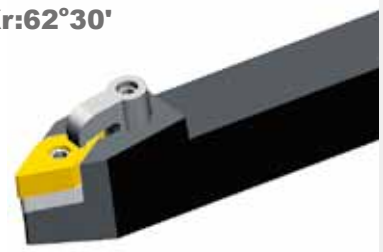
● ex stock · ab Lager ○ on demand · Anfrage

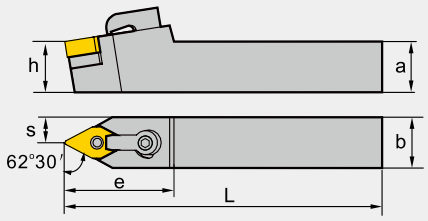
DN** Toolholder · Halter

M-Clamping · M-Halter

MDPNN

Kr:62°30'





Type · Typ		Stock Lager	Dimension (mm) Abmessung						Clamping screw Schraube	Shim Unterlage	Wrench Schlüssel	Clamp Pratze	Clamping stud Passstift
			a	b	L	h	s	e					
MDPNN	**2020K11**	●	20	20	125	20	10	35	DM6×25	D11BM	WH20L WH30L	C1RD	TM5×13
	2525M11	●	25	25	150	25	12.5	35	DM6×30				
	3225P11	●	32	25	170	32	12.5	35					
	2020K15	●	20	20	125	20	10	40	DM6×25	D15BM	WH30L	C2RD	TM6×19
	2525M15	●	25	25	150	25	12.5	40	DM6×30				
	3225P15	●	32	25	170	32	12.5	40					

Applicable insert Wendeschneidplatten

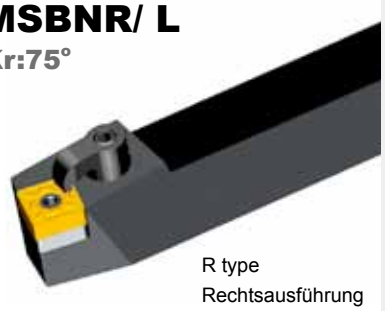
Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Heavy Duty Schwerzerspanung	Cast iron machining Grauguss Bearbeit.	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**DF** A53	**PM** A55	**DR** Double-side A56	**HDR** A58	Flat A58	Flat A119
	SF A53	**DM** A55	**DR** Single-side A58			
	EF A54	**EM** A56	**ER** Double-side A58			
	NF A54	**NM** A56	**ER** Single-side A58			
Type · Typ **MDPNN**K / M / P11**	DN**1104**	DN**1104**				
Type · Typ **MDPNN**K / M / P15**	DN**1506**	DN**1506**	DN**1506**	DN**1506**	DN**1506**	DN**1506**

SN** Toolholder · Halter

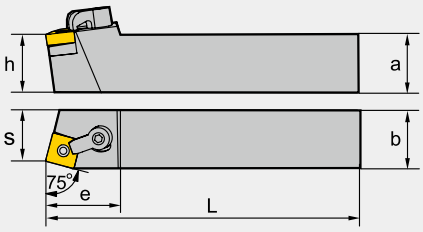
M-Clamping · M-Halter

MSBNR/ L

Kr:75°



R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Clamping screw Schraube	Shim Unterlage	Wrench Schlüssel	Clamp Pratze	Clamping stud Passstift
		R	L	a	b	L	h	s	e					
MSBNR/ L	**2020K12**	●	●	20	20	125	20	17	32	DM6×25	S12BM	WH30L	C1RD	TM6×17
	2525M12	●	○	25	25	150	25	22	32	DM6×30				
	3225P12	●	○	32	25	170	32	22	32					
	2525M15	●	○	25	25	150	25	22	38	DM6×30	S15BM	WH30L	C2RD	TM8×21
	3232P15	●	○	32	32	170	32	29	38					
	4032R15	●	○	40	32	200	40	27	38					
	3232P19	○	○	32	32	170	32	27	45	DM8×30X	S19BM	WH40L	C5RD	TM10×21
	4040R19	●	○	40	40	200	40	35	45					
	4040R25	●	○	40	40	200	40	35	50	DM10×35X	S25BM	WH40L	C6RD	TM12×29
	4040S2509	○	○	40	40	250	40	35	50			WH40L WH50L		

Applicable insert
Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Heavy Duty Schwerzerspanung	Cast iron machining Grauguss Bearbeit.	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**DF**  A59	**PM**  A60	**DR** Double-side  A62	**HDR**  A64	Flat  A65	Flat  A120
	EF  A59	**DM**  A61	**DR** Single-side  A62			
	SF  A60	**EM**  A61	**ER** Double-side  A63			
		NM  A62	**ER** Single-side  A63			

Type · Typ							
	MSBNR / LK / M / P12**	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**
	MSBNR / LM / P / R15**	SN**1506**	SN**1506**	SN**1506**	SN**1506**	SN**1506**	
	MSBNR / LP / R19**		SN**1906**	SN**1906**	SN**1906**	SN**1906**	
	MSBNR / LR / S2509**			SN**2509**	SN**2509**		

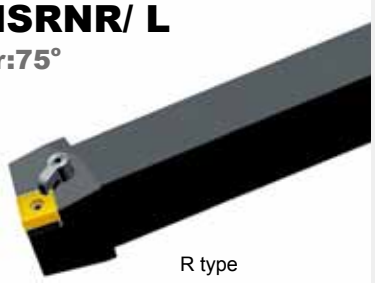
● ex stock · ab Lager ○ on demand · Anfrage

SN** Toolholder · Halter

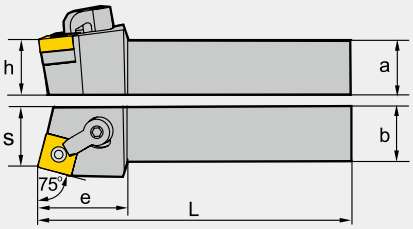
M-Clamping · M-Halter

MSRNR/ L

Kr:75°



R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Clamping screw Schraube	Shim Unterlage	Wrench Schlüssel	Clamp Pratze	Clamping stud Passstift
		R	L	a	b	L	h	s	e					
MSRNR/ L	**2020K12**	●	○	20	20	125	20	22	36	DM6×25	S12BM	WH30L	C1RD	TM6×17
	2525M12	●	○	25	25	150	25	27	36	DM6×30				
	3225P12	●	○	32	25	170	32	27	36					
	2525M15	●	○	25	25	150	25	27	40	DM6×30	S15BM	WH30L	C2RD	TM8×21
	3232P15	●	○	32	32	170	32	35	40					
	4032R15	○	○	40	32	200	40	35	40					
	3232P19	●	○	32	32	170	32	35	45	DM8×30X	S19BM	WH40L	C5RD	TM10×21
	4040R19	○		40	40	200	40	43	45					
	4040R2509	○	○	40	40	200	40	43	50	DM10×35X	S25BM	WH40L WH50L	C6RD	TM12×29
	4040S2509	○	○	40	40	250	40	43	50					

Applicable insert
Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Heavy Duty Schwerzerspanung	Cast iron machining Grauguss Bearbeit.	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**DF**  A59	**PM**  A60	**DR** Double-side  A62	**HDR**  A64	Flat  A65	Flat  A120
	EF  A59	**DM**  A61	**DR** Single-side  A62			
	SF  A60	**EM**  A61	**ER** Double-side  A63			
		NM  A62	**ER** Single-side  A63			

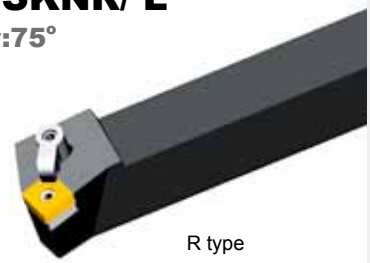
Type · Typ							
	MSRNR / LK / M / P12**	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**
	MSRNR / LM / P / R15**	SN**1506**	SN**1506**	SN**1506**	SN**1506**	SN**1506**	
	MSRNR / LP / R19**		SN**1906**	SN**1906**	SN**1906**	SN**1906**	
	MSRNR / LR / S2509**			SN**2509**	SN**2509**		

SN** Toolholder · Halter

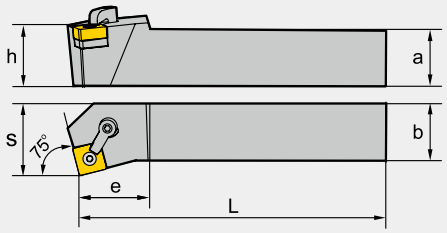
M-Clamping · M-Halter

MSKNR/ L

Kr:75°



R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Clamping screw Schraube	Shim Unterlage	Wrench Schlüssel	Clamp Pratze	Clamping stud Passstift
		R	L	a	b	L	h	s	e					
MSKNR/ L	**2020K12**	●	●	20	20	125	20	25	32	DM6×25	S12BM	WH30L	C1RD	TM6×17
	2525M12	●	○	25	25	150	25	32	32	DM6×30				
	3225P12	●	○	32	25	170	32	32	32					
	2525M15	●	○	25	25	150	25	32	28	DM6×30	S15BM	WH30L	C2RD	TM8×21
	3232P15	●	○	32	32	170	32	40	38					
	4032R15	○	○	40	32	200	40	40	38					
	3232P19	●	○	32	32	170	32	40	45	DM8×30X	S19BM	WH40L	C5RD	TM10×21
	4040R19	○	○	40	40	200	40	50	45					
	4040S2509	○	○	40	40	250	40	50	50	DM10×35X	S25BM	WH40L WH50L	C6RD	TM12×29

Applicable insert Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Heavy Duty Schwerzerspanung	Cast iron machining Grauguss Bearbeit.	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**DF**  A59	**PM**  A60	**DR** Double -side  A62	**HDR**  A64	Flat  A65	Flat  A120
	EF  A59	**DM**  A61	**DR** Single- side  A62			
	SF  A60	**EM**  A61	**ER** Double -side  A63			
		NM  A62	**ER** Single- side  A63			

Type · Typ	
	MSKNR / LK / M / P12** SN**1204** SN**1204** SN**1204** SN**1204** SN**1204** SN**1204**
	MSKNR / LM / P / R15** SN**1506** SN**1506** SN**1506** SN**1506** SN**1506**
	MSKNR / LP / R19** SN**1906** SN**1906** SN**1906** SN**1906**
	MSKNR / LS2509** SN**2509** SN**2509**

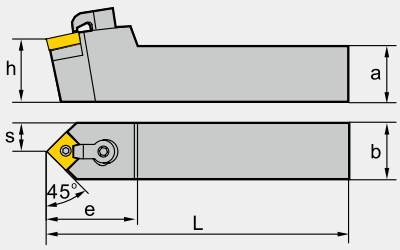
● ex stock · ab Lager ○ on demand · Anfrage

SN** Toolholder · Halter

M-Clamping · M-Halter

MSDNN

Kr:45°



Type · Typ		Stock Lager	Dimension (mm) Abmessung						Clamping screw Schraube	Shim Unterlage	Wrench Schlüssel	Clamp Pratze	Clamping stud Passstift
			a	b	L	h	s	e					
MSDNN	**2020K12**	●	20	20	125	20	10	35	DM6×25	S12BM	WH30L	C1RD	TM6×17
	2525M12	●	25	25	150	25	12.5	35	DM6×30				
	3225P12	●	32	25	170	32	12.5	35					
	2525M15	●	25	25	150	25	12.5	42	DM6×30	S15BM	WH30L	C2RD	TM8×21
	3232P15	○	32	32	170	32	16	42					
	4032R15	○	40	32	200	40	16	42					

Applicable insert Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Heavy Duty Schwerzerspanung	Cast iron machining Grauguss Bearbeit.	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**DF**  A59	**PM**  A60	**DR** Double -side  A62	**HDR**  A64	Flat  A65	Flat  A120
	EF  A59	**DM**  A61	**DR** Single- side  A62			
	SF  A60	**EM**  A61	**ER** Double -side  A63			
		NM  A62	**ER** Single- side  A63			

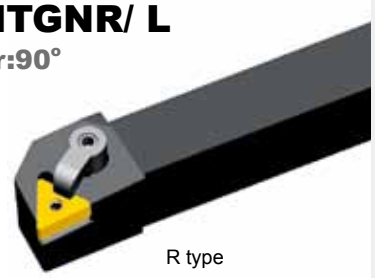
Type · Typ						
	MSDNNK · M · P12**	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**
	MSDNNM · P · R15**	SN**1506**	SN**1506**	SN**1506**	SN**1506**	SN**1506**	

TN** Toolholder · Halter

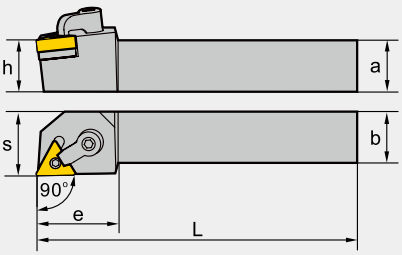
M-Clamping · M-Halter

MTGNR/ L

Kr:90°



R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Clamping screw Schraube	Shim Unterlage	Wrench Schlüssel	Clamp Pratze	Clamping stud Passstift
		R	L	a	b	L	h	s	e					
MTGNR/ L	**2020K16**	●	○	20	20	125	20	25	33	DM6×25	T16BM	WH20L WH30L	C1RD	TM5×13
	2525M16	●	●	25	25	150	25	32	33	DM6×30				
	3225P16	●	○	32	25	170	32	32	33					
	2525M22	●	○	25	25	150	25	32	35	DM6×30	T22BM	WH30L	C2RD	TM6×17
	3225P22	●	○	32	25	170	32	32	35					

Applicable insert Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Heavy Duty Schwerzerspanung	Cast iron machining Grauguss Bearbeit.	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**DF**  A68	**PM**  A69	**DR** Double -side  A70	**HDR**  A72	Flat  A73	Flat  A121
	WG Wiper  A68	**DM**  A69	**DR** Single- side  A71			
	SF  A68	**EM**  A70	**ER** Double -side  A71			
	EF  A68					
Type · Typ **MTGNR / L** K / M / P16**	TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**
MTGNR / LM / P22**	TN**2204**	TN**2204**	TN**2204**	TN**2204**	TN**2204**	

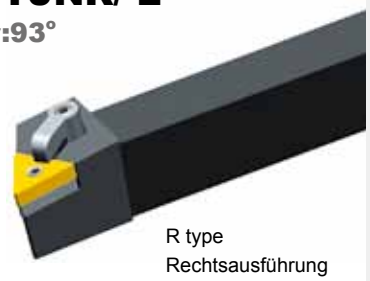
● ex stock · ab Lager ○ on demand · Anfrage

TN** Toolholder · Halter

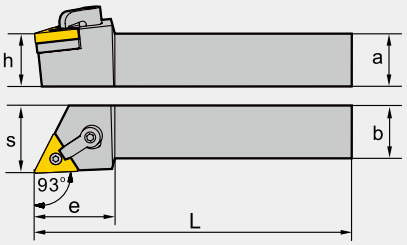
M-Clamping · M-Halter

MTJNR/ L

Kr:93°



R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Clamping screw Schraube	Shim Unterlage	Wrench Schlüssel	Clamp Pratze	Clamping stud Passstift
		R	L	a	b	L	h	s	e					
MTJNR/ L	**2020K16**	●	●	20	20	125	20	25	32	DM6×25	T16BM	WH20L WH30L	C1RD	TM5×13
	2525M16	●	●	25	25	150	25	32	32	DM6×30				
	3225P16	●	●	32	25	170	32	32	32					
	2525M22	●	●	25	25	150	25	32	36	DM6×30	T22BM	WH30L	C2RD	TM6×17
	3225P22	○	○	32	25	170	32	32	36					

Applicable insert Wendeschneidplatten

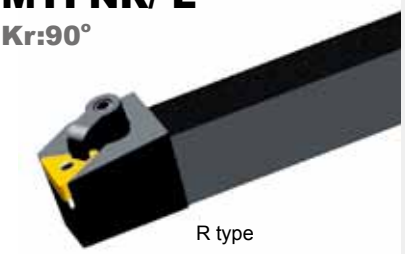
Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Heavy Duty Schwerzerspanung	Cast iron machining Grauguss Bearbeit.	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**DF**  A68	**PM**  A69	**DR** Double-side  A70	**HDR**  A72	Flat  A73	Flat  A121
	WG  A68	**DM**  A69	**DR** Single-side  A71			
	SF  A68	**EM**  A70	**ER** Double-side  A71			
	EF  A68					
Type · Typ **MTJNR / L** K / M / P16**	TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**
MTJNR / LM / P22**	TN**2204**	TN**2204**	TN**2204**	TN**2204**	TN**2204**	

TN** Toolholder · Halter

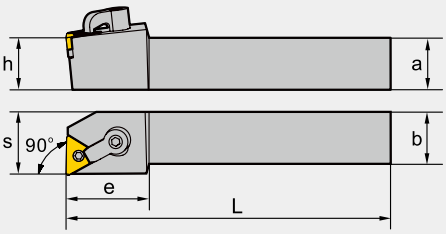
M-Clamping · M-Halter

MTFNR/ L

Kr:90°



R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Clamping screw Schraube	Shim Unterlage	Wrench Schlüssel	Clamp Pratze	Clamping stud Passstift
		R	L	a	b	L	h	s	e					
MTFNR/ L	**2020K16**	●	●	20	20	125	20	25	32	DM6×25	T16BM	WH20L WH30L	C1RD	TM5×13
	2525M16	●	○	25	25	150	25	32	32	DM6×30				
	3225P16	●	○	32	25	170	32	32	32					
	2525M22	●	○	25	25	150	25	32	36	DM6×30	T22BM	WH30L	C2RD	TM6×17
	3225P22	●	○	32	25	170	32	32	36					

Applicable insert Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Heavy Duty Schwerzerspanung	Cast iron machining Grauguss Bearbeit.	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**DF**  A68	**PM**  A69	**DR** Double -side  A70	**HDR**  A72	Flat  A73	Flat  A121
	WG Wiper  A68	**DM**  A69	**DR** Single- side  A71			
	SF  A68	**EM**  A70	**ER** Double -side  A71			
	EF  A68					
Type · Typ **MTFNR / L** K / M / P16**	TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**	TN**1604**
MTFNR / LM / P22**	TN**2204**	TN**2204**	TN**2204**	TN**2204**	TN**2204**	

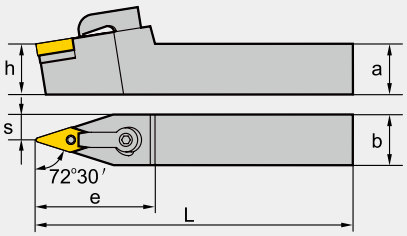
● ex stock · ab Lager ○ on demand · Anfrage

VN** Toolholder · Halter

M-Clamping · M-Halter

MVVNN

Kr:72°30'



Type · Typ		Stock Lager	Dimension (mm) Abmessung						Clamping screw Schraube	Shim Unterlage	Wrench Schlüssel	Clamp Pratze	Clamping stud Passstift
			a	b	L	h	s	e					
MVVNN	**2020K16**	●	20	20	125	20	10	45	DM6×25	V16BM	WH20L WH30L	C3RD	TM5×13
	2525M16	●	25	25	150	25	12.5	45	DM6×30				
	3225P16	○	32	25	170	32	12.5	45					
	3232P16	○	32	32	170	32	16	45					

Applicable insert
Wendeschneidplatten

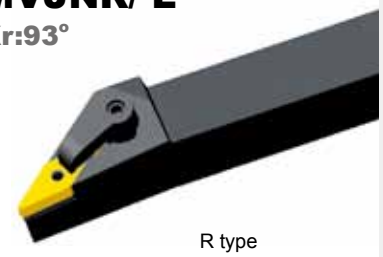
Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**DF** A74	**PM** A75	Flat A122
	EF A74	**DM** A75	
	SF A74	**EM** A75	
	NF A74	**NM** A75	
Type · Typ **MVVNN** K / M / P16**	VN**1604**	VN**1604**	VN**1604**

VN** Toolholder · Halter

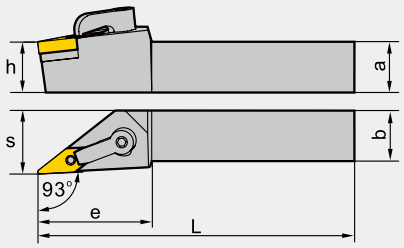
M-Clamping · M-Halter

MVJNR/ L

Kr:93°



R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Clamping screw Schraube	Shim Unterlage	Wrench Schlüssel	Clamp Pratze	Clamping stud Passstift
		R	L	a	b	L	h	s	e					
MVJNR/ L	**2020K16**	●	●	20	20	125	20	25	45	DM6×25	V16BM	WH20L WH30L	C3RD	TM5×13
	2525M16	●	●	25	25	150	25	32	45	DM6×30				
	3225P16	○	○	32	25	170	32	32	45					
	3232P16	○	●	32	32	170	32	40	45					

Applicable insert
Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**DF**  A74	**PM**  A75	Flat  A122
	EF  A74	**DM**  A75	
	SF  A74	**EM**  A75	
	NF  A74	**NM**  A75	
Type · Typ **MVJNR / L** ** **K / M / P16**	VN**1604**	VN**1604**	VN**1604**

● ex stock · ab Lager ○ on demand · Anfrage

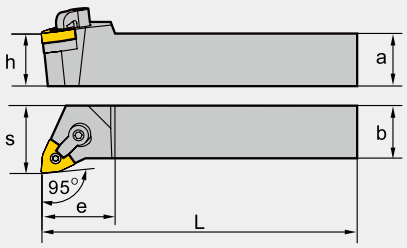
WN** Toolholder · Halter

M-Clamping · M-Halter

MWLNR/ L

Kr:95°

R type
Rechtsausführung



Type · Typ		Stock Lager R	Stock Lager L	Dimension (mm) Abmessung a	b	L	h	s	e	Clamping screw Schraube	Shim Unterlage	Wrench Schlüssel	Clamp Pratze	Clamping stud Passstift
MWLNR/ L	**2020K06**	●	●	20	20	125	20	25	30	DM6×25	W06BM	WH20L WH30L	C1RD	TM5×13
	2525M06	●	●	25	25	150	25	32	30	DM6×30				
	2020K08	●	●	20	20	125	20	25	30	DM6×25	W08BM	WH30L	C1RD	TM6×17
	2525M08	●	●	25	25	150	25	32	35	DM6×30				
	3525P08	○	○	32	25	170	32	32	35					
	3232P08	●	●	32	32	170	32	40	35					

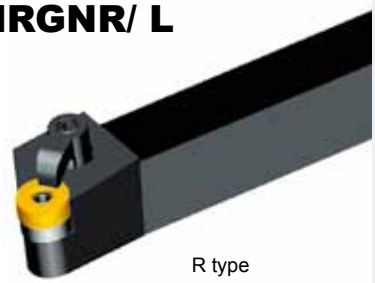
Applicable insert Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Cast iron machining Grauguss Bearbeit.
insert shape Schneidplattenform	**DF**  A76	**PM**  A78	**DR** Double -side  A79	Flat  A79
	WG Wiper  A76	**DM**  A78		
	SF  A77	**EM**  A78		
	EF  A77	**NM**  A79		
	NF  A77			
Type · Typ **MWLNR / L**K / M06**	WN**0604**	WN**0604**	WN**0604**	WN**0604**
MWLNR / LK / M / P08**	WN**0804**	WN**0804**	WN**0804**	WN**0804**

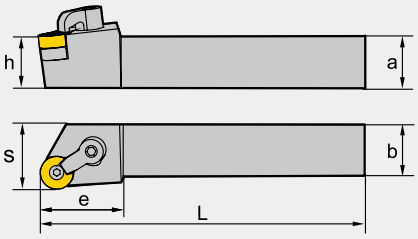
RN** Toolholder · Halter

M-Clamping · M-Halter

MRGNR/ L



R type
Rechtsausführung

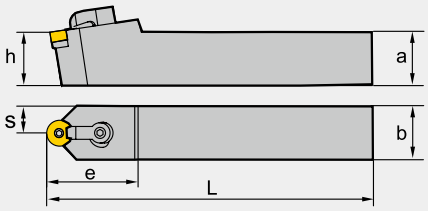


Type · Typ		Stock Lager		Dimension (mm) Abmessung						Application inserts Wendeschneid-platten	Clamping Screw Schraube	Shim Unterlage	Wrench Schlüssel	Clamp Pratze	Clamping stud Passstift
		R	L	a	b	L	h	s	e						
MRGNR/ L	**2020K12**	○	○	20	20	125	20	25	32	RN**1204** A80	DM6×25	R12BM	WH30L	C1RD	TM6×17
	2525M12	○	○	25	25	150	25	32	32		DM6×30				
	3225P12	○	○	32	25	170	32	32	32						
	3232P12	○	○	32	32	170	32	40	32						

RN** Toolholder · Halter

M-Clamping · M-Halter

MRDNN



Type · Typ		Stock Lager	Dimension (mm) Abmessung						Application inserts Wendeschneid-platten	Clamping screw Schraube	Shim Unterlage	Wrench Schlüssel	Clamp Pratze	Clamping stud Passstift
			a	b	L	h	s	e						
MRDNN	**2020K12**	○	20	20	125	20	10	35	RN**1204** A80	DM6×25	R12BM	WH30L	C1RD	TM6×17
	2525M 12	○	25	25	150	25	12.5	35		DM6×30				
	3225P12	○	32	25	170	32	12.5	35						
	3232P12	○	32	32	170	32	16	35						

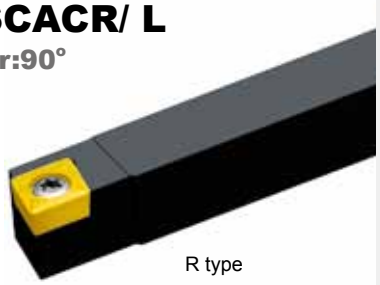
● ex stock · ab Lager ○ on demand · Anfrage

CC** Toolholder · Halter

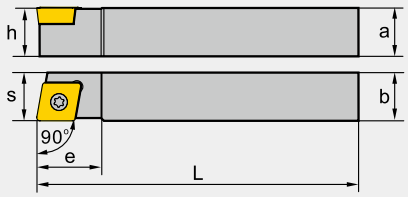
S-Clamping · S-Halter

SCACR/ L

Kr:90°



R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Screw Schraube	Wrench Schlüssel		
		R	L	a	b	L	h	s	e				
SCACR/ L	**1010E06**	●	●	10	10	70	10	10.5	10	I60M2.5×6.5	WT07IP		
	1212F09	●	●	12	12	80	12	12.7	16	I60M3.5×8	WT15IP		

Applicable insert
Wendeschneidplatten

Application Anwendung	Extra Finishing Feinbearbeitung	Finishing Schlichten	Semi-finishing Mittlere Bearbeit.	Roughing Schruppen	Al machining Alu Bearbeitung	Cast iron machining Grauguss Bearbeit.	PCBN/PCD inserts/WSP
insert shape Schneidplattenform	**SF**  A84	**HF**  A84	**HM**  A85	**HR**  A86	**LH**  A86	 A86	 A123
		EF  A85	**EM**  A85				
Type · Typ **SCACR/ L**E06**	CC**0602**	CC**0602**	CC**0602**	CC**0602**	CCGX 0602**	CC** 0602**	CC** 0602**
SCACR/ LF09**	CC**09T3**	CC**09T3**	CC**09T3**	CC**09T3**	CCGX 09T3**	CC** 09T3**	CC** 09T3**

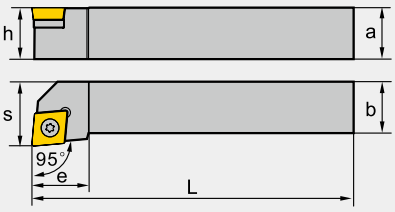
CC** Toolholder · Halter

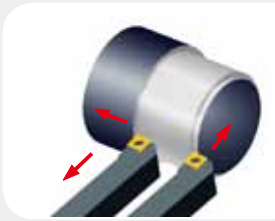
S-Clamping · S-Halter

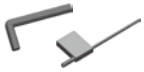
SCLCR/ L

Kr:95°

R type
Rechtsausführung





Type · Typ		Stock Lager		Dimension (mm) Abmessung						Screw Schraube	Shim Unterlage	Shim Screw, Unterlage Schraube	Wrench Schlüssel
		R	L	a	b	L	h	s	e				
SCLCR/ L	**0808D06**	●	●	08	08	60	08	10	10	I60M2.5×6.5	—	—	WT07IP
	1010E06	●	●	10	10	70	10	12	10				
	1212F09	●	●	12	12	80	12	16	16	I60M3.5×8	—	—	WT15IP
	1616H09	●	●	16	16	100	16	20	16				
	2020K12	●	●	20	20	125	20	25	25	I60M4×11X	C12BS	SM6×10XA	WT15IP WH40L
	2525M12	●	●	25	25	150	25	32	26				
	3225P12	●	●	32	25	170	32	32	26				

Applicable insert Wendeschneidplatten

Application Anwendung	Extra Finishing Feinbearbeitung	Finishing Schlichten	Semi-finishing Mittlere Bearbeit.	Roughing Schruppen	Al machining Alu Bearbeitung	Cast iron mach. Gusseis. Bearb.	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**SF**  A84	**HF**  A84	**HM**  A85	**HR**  A86	**LH**  A86	Flat  A86	Flat  A123
		EF  A85	**EM**  A85				
Type · Typ **SCLCR/ L**D / E06**	CC** 0602**	CC** 0602**	CC** 0602**	CC** 0602**	CCGX 0602**	CC** 0602**	CC** 0602**
SCLCR / L*F / H09	CC** 09T3**	CC** 09T3**	CC** 09T3**	CC** 09T3**	CCGX 09T3**	CC** 09T3**	CC** 09T3**
SCLCR / LK / M / P12**		CC** 1204**	CC** 1204**	CC** 1204**	CCGX 1204**	CC** 1204**	CC** 1204**

● ex stock · ab Lager ○ on demand · Anfrage

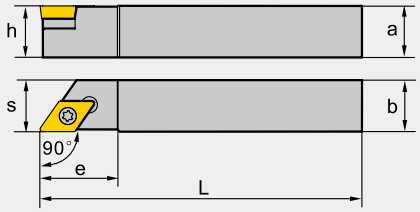
DC** Toolholder · Halter

S-Clamping · S-Halter

SDACR/ L

Kr:90°

R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Screw Schraube	Shim Unterlage	Shim Screw, Unterlage Schraube	Wrench Schlüssel
		R	L	a	b	L	h	s	e				
SDACR/ L	**1010E07**	●	●	10	10	70	10	10.5	15	I60M2.5×6.5	—	—	WT07IP
	1212F11	●	●	12	12	80	12	12.5	15	I60M3.5×8	—	—	WT15IP
	1616H11	●	●	16	16	100	16	16.7	24	I60M3.5×12	D11BS	SM5×8.65XA	WT15IP WH35L

Applicable insert Wendeschneidplatten

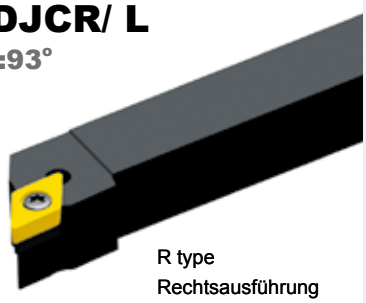
Application Anwendung	Extra Finishing Feinbearbeitung	Finishing Schlichten	Semi-finishing Mittlere Bearbeit.	Roughing Schruppen	Al machining Alu Bearbeitung	Cast iron mach. Gusseis. Bearb.	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**SF** A88	**HF** A88	**HM** A89	**HR** A90	**LH** A90	Flat A90	Flat A124
		EF A89	**EM** A89				
Type · Typ **SDACR / L**E07**	DC** 0702**	DC** 0702**	DC** 0702**		DCGX 0702**	DC**0702**	DC**0702**
SDACR / LF / H11**	DC** 11T3**	DC** 11T3**	DC** 11T3**	DC** 11T3**	DCGX 11T3**	DC** 11T3**	DC** 11T3**

DC** Toolholder · Halter

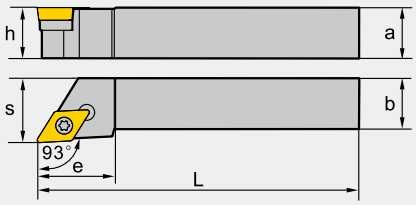
S-Clamping · S-Halter

SDJCR/ L

Kr:93°



R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Screw Schraube	Shim Unterlage	Shim Screw, Unterlage Schraube	Wrench Schlüssel
		R	L	a	b	L	h	s	e				
SDJCR/ L	**1010E07**	●	●	10	10	70	10	12	15	I60M2.5×6.5	—	—	WT07IP
	1212F07	●	●	12	12	80	12	16	15				
	1616H07	●	●	16	16	100	16	20	18				
	1616H11	●	●	16	16	100	16	20	24	I60M3.5×12	D11BS	SM5×8.65XA	WT15IP WH35L
	2020K11	●	●	20	20	125	20	25	24				
	2525M11	●	●	25	25	150	25	32	29				
	3225P11	●	●	32	25	170	32	32	29				

Applicable insert
Wendeschneidplatten

Application Anwendung	Extra Finishing Feinbearbeitung	Finishing Schlichten	Semi-finishing Mittlere Bearbeit.	Roughing Schruppen	Al machining Alu Bearbeitung	Cast iron mach. Gusseis. Bearb.	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**SF** A88	**HF** A88	**HM** A89	**HR** A90	**LH** A90	Flat A90	Flat A124
		EF A89	**EM** A89				
Type · Typ **SDJCR / L**E / F / H07**	DC**0702**	DC** 0702**	DC**0702**		DCGX 0702**	DC** 0702**	DC** 0702**
SDJCR / LH / K / M / P11**	DC** 11T3**	DC** 11T3**	DC**11T3**	DC**11T3**	DCGX 11T3**	DC** 11T3**	DC** 11T3**

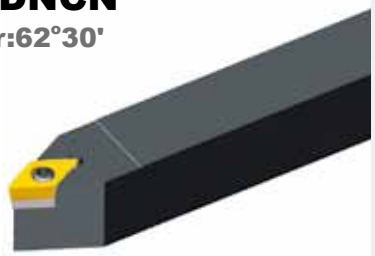
● ex stock · ab Lager ○ on demand · Anfrage

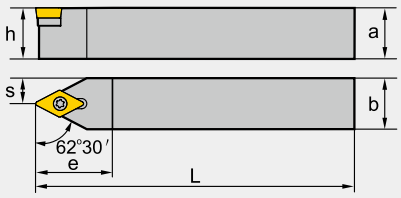
DC** Toolholder · Halter

S-Clamping · S-Halter

SDNCN

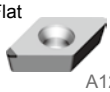
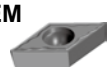
Kr:62°30'





Type · Typ		Stock Lager	Dimension (mm) Abmessung						Screw Schraube	Shim Unterlage	Shim Screw, Unterlage Schraube	Wrench Schlüssel
			a	b	L	h	s	e				
SDNCN	**1010E07**	●	10	10	70	10	5	20	I60M2.5×6.5	—	—	WT07IP
	1212F07	●	12	12	80	12	6	20				
	1212H11	●	12	12	100	12	6	30	I60M3.5×8	—	—	WT15IP
	1616H11	●	16	16	100	16	8	30	I60M3.5×12	D11BS	SM5×8.65XA	WT15IP WH35L
	2020K11	●	20	20	125	20	10	30				
	2525M11	●	25	25	150	25	12.5	30				

Applicable insert Wendeschneidplatten

Application Anwendung	Extra Finishing Feinbearbeitung	Finishing Schlichten	Semi-finishing Mittlere Bearbeit.	Roughing Schruppen	Al machining Alu Bearbeitung	Cast iron mach. Gusseis. Bearb.	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**SF**  A88	**HF**  A88	**HM**  A89	**HR**  A90	**LH**  A90	Flat  A90	Flat  A124
		EF  A89	**EM**  A89				

Type · Typ								
	SDNCNE / F07**	DC**0702**	DC** 0702**	DC**0702**		DCGX 0702**	DC** 0702**	DC** 0702**
	SDNCNH / K / M11**	DC** 11T3**	DC** 11T3**	DC**11T3**	DC**11T3**	DCGX 11T3**	DC** 11T3**	DC** 11T3**

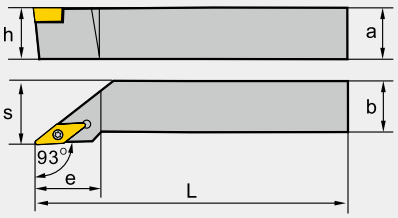
VB** Toolholder · Halter

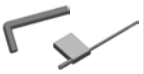
S-Clamping · S-Halter

SVJBR/ L

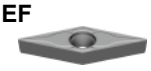
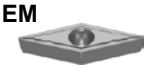
Kr:93°

R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Screw Schraube	Shim Unterlage	Shim Screw, Unterlage Schraube	Wrench Schlüssel
		R	L	a	b	L	h	s	e				
SVJBR/ L	**1212F11**	●	●	12	12	80	12	16	27	I60M2.5×6.5	—	—	WT07IP
	1616H11	●	●	16	16	100	16	20	27				
	2020K11	●	●	20	20	125	20	25	27				
	2525M11	●	●	25	25	150	25	32	27				
	1616H16	●	●	16	16	100	16	20	36	I60M3.5×12	V16BS	SM5×8.65XA	WT15IP WH35L
	2020K16	●	●	20	20	125	20	25	41				
	2525M16	●	●	25	25	150	25	32	41				
	3225P16	●	●	32	25	170	32	32	41				

Applicable insert
Wendeschneidplatten

Application Anwendung	Extra Finishing Feinbearbeitung	Finishing Schlichten	Semi-finishing Mittlere Bearbeit.	Roughing Schruppen	Cast iron mach. Gusseis. Bearb.	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**SF**  A108	**EF**  A108	**HM**  A109	**HR**  A109	Flat  A109	Flat  A126
		HF  A108	**EM**  A109			
		NF  A108				

Type · Typ							
	SVJBR / LF / H / K / M11**	VB**1102**	VB**1102**	VB**1102**			
	SVJBR / LH / K / M / P16**		VB**1604**	VB**1604**	VB**1604**	VB**1604**	VB**1604**

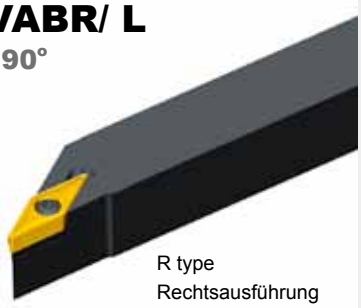
● ex stock · ab Lager ○ on demand · Anfrage

VB** Toolholder · Halter

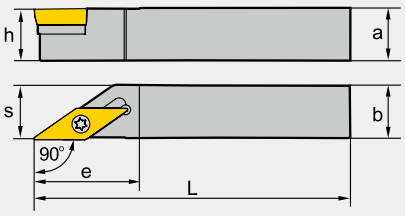
S-Clamping · S-Halter

SVABR/ L

Kr:90°



R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Screw Schraube	Shim Unterlage	Shim Screw, Unterlage Schraube	Wrench Schlüssel
		R	L	a	b	L	h	s	e				
SVABR/ L	**1010F11**			10	10	80	10			I60M2.5×6.5	—	—	WT07IP
	1616H16	●	●	16	16	100	16	16.5	28	I60M3.5×12	V16BS	SM5×8.65XA	WT15IP WH35L
	2020K16	●	●	20	20	125	20	20.5	28				
	2525M16	●	●	25	25	150	25	25.5	28				

Applicable insert
Wendeschneidplatten

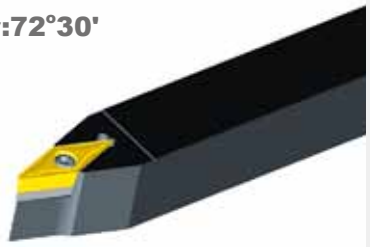
Application Anwendung	Extra Finishing Feinbearbeitung	Finishing Schlichten	Semi-finishing Mittlere Bearbeit.	Roughing Schruppen	Cast iron mach. Gusseis. Bearb.	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**SF** A108	**EF** A108	**HM** A109	**HR** A109	Flat A109	Flat A126
		HF A108	**EM** A109			
		NF A108				
Type · Typ **SVABR / L**F11**	VB**1102**	VB**1102**	VB**1102**			
Type · Typ **SVABR / L**H / K / M16**		VB**1604**	VB**1604**	VB**1604**	VB**1604**	VB**1604**

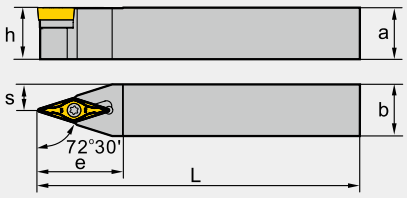
VB** Toolholder · Halter

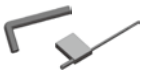
S-Clamping · S-Halter

SVVBN

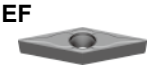
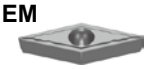
Kr:72°30'





Type · Typ		Stock Lager	Dimension (mm) Abmessung						Screw Schraube	Shim Unterlage	Shim Screw, Unterlage Schraube	Wrench Schlüssel
			a	b	L	h	s	e				
SVVBN	**1212F11**	●	12	12	80	12	6	27	I60M2.5×6.5	—	—	WT07IP
	1616H11	●	16	16	100	16	8	27				
	2020K11	●	20	20	125	20	10	30				
	1616H16	●	16	16	100	16	8	33	I60M3.5×12	V16BS	SM5×8.65XA	WT15IP WH35L
	2020K16	●	20	20	125	20	10	33				
	2525M16	●	25	25	150	25	12.5	38				

Applicable insert
Wendeschneidplatten

Application Anwendung	Extra Finishing Feinbearbeitung	Finishing Schlichten	Semi-finishing Mittlere Bearbeit.	Roughing Schruppen	Cast iron mach. Gusseis. Bearb.	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**SF**  A108	**EF**  A108	**HM**  A109	**HR**  A109	Flat  A109	Flat  A126
		HF  A108	**EM**  A109			
		NF  A108				

Type · Typ						
SVVBNF / H / K11**	VB**1102**	VB**1102**	VB**1102**			
SVVBNH / K / M16**		VB**1604**	VB**1604**	VB**1604**	VB**1604**	VB**1604**

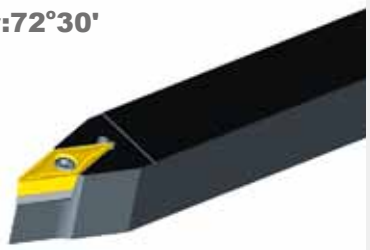
● ex stock · ab Lager ○ on demand · Anfrage

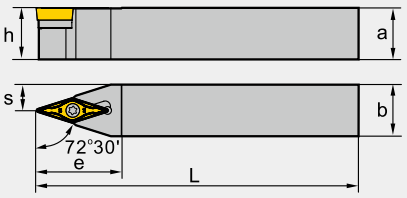
VC** Toolholder · Halter

S-Clamping · S-Halter

SVVCN

Kr:72°30'





Type · Typ		Stock Lager	Dimension (mm) Abmessung						Screw Schraube	Shim Unterlage	Shim Screw, Unterlage Schraube	Wrench Schlüssel
			a	b	L	h	s	e				
SVVCN	**1212F11**	●	12	12	80	12	6	27	I60M2.5×6.5	—	—	WT07IP
	1212M11	●	12	12	150	12	6	27				
	1616H11	●	16	16	100	16	8	27				
	2020K11	●	20	20	125	20	10	30				
	2525M11	●	25	25	150	25	12.5	38				
	1616H16	●	16	16	100	16	8	33	I60M3.5×12	V16BSC	SM5×8.65XA	WT15IP WH35L
	2020K16	●	20	20	125	20	10	33				
	2525M16	●	25	25	150	25	12.5	38				

Applicable insert
Wendeschneidplatten

Application Anwendung	Extra Finishing Feinbearbeitung	Finishing Schlichten	Al machining Alu Bearbeitung	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**SF**  A106	**HF**  A106	**LH**  A107	Flat  A126
		NF  A106		

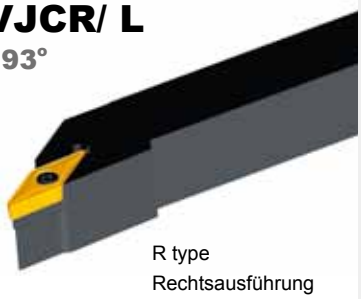
Type · Typ				
SVVCNF / H / K / M11**	VC**1103**	VC**1103**	VCGX1103**	
SVVCNH / K / M16**		VC**1604**	VCGX1604**	VC**1604**

VC** Toolholder · Halter

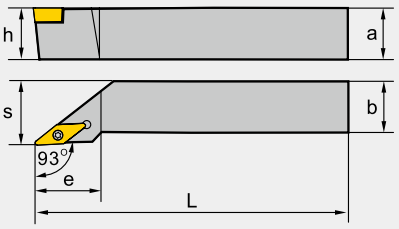
S-Clamping · S-Halter

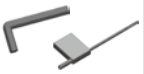
SVJCR/ L

Kr:93°



R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Screw Schraube	Shim Unterlage	Shim Screw, Unterlage Schraube	Wrench Schlüssel
		R	L	a	b	L	h	s	e				
SVJCR/ L	**1010E11**			10	10	70	10	12	22				
	1212F11	●	●	12	12	80	12	16	27				
	1616H11	●	●	16	16	100	16	20	27	I60M2.5×6.5	—	—	WT07IP
	2020K11	●	●	20	20	125	20	25	27				
	2525M11	●	●	25	25	150	25	32	27				
	1616H16	●	●	16	16	100	16	20	36				
	2020K16	●	●	20	20	125	20	25	41				
	2020M16	●	●	20	20	150	20	25	41	I60M3.5×12	V16BSC	SM5×8.65XA	WT15IP WH35L
	2525M16	●	●	25	25	150	20	32	41				
	3225P16			32	25	170	32	32	41				

Applicable insert
Wendeschneidplatten

Application Anwendung	Extra Finishing Feinbearbeitung	Finishing Schlichten	Al machining Alu Bearbeitung	PCBN · PCD PCBN · PKD
insert shape Schneidplattenform	**SF**  A106	**HF**  A106	**LH**  A107	Flat  A126
		NF  A106		

Type · Typ				
SVJCR / LE / F / H / K / M11**	VC**1103**	VC**1103**	VCGX1103**	
SVJCR / LH / K / M / P16**		VC**1604**	VCGX1604**	VC**1604**

● ex stock · ab Lager ○ on demand · Anfrage

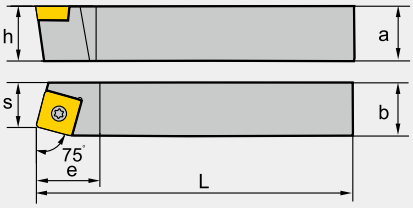
SC** Toolholder · Halter

S-Clamping · S-Halter

SSBCR/ L

Kr:75°

R type
Rechtsausführung



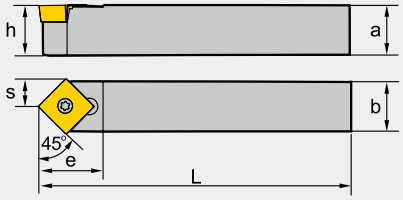
Type · Typ		Stock Lager		Dimension (mm) Abmessung						Screw Schraube	Shim Unterlage	Shim Screw, Unterlage Schraube	Wrench Schlüssel
		R	L	a	b	L	h	s	e				
SSBCR/ L	**1212F09**	●	●	12	12	80	12	11	16	I60M3.5×8	—	—	WT15IP
	1616H09	●	●	16	16	100	16	13	16	I60M3.5×8	S09BS	SM5×8.65XA	WT15IP WH35L
	2020K12	●	●	20	20	125	20	17	25	I60M4×11X	S12BS	SM6×10XA	WT15IP WH40L

SC** Toolholder · Halter

S-Clamping · S-Halter

SSDCN

Kr:45°



Type · Typ		Stock Lager	Dimension (mm) Abmessung						Screw Schraube	Shim Unterlage	Shim Screw, Unterlage Schraube	Wrench Schlüssel
			a	b	L	h	s	e				
SSDCN	**1212F09**	●	12	12	80	12	6	15.5	I60M3.5×8	—	—	WT15IP
	1616H09	●	16	16	100	16	8	15.5	I60M3.5×12	S09BS	SM5×8.65XA	WT15IP WH35L

Applicable insert
Wendeschneidplatten

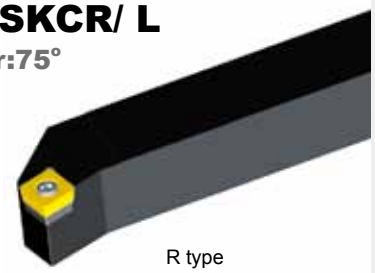
Application Anwendung		Extra Finishing Feinbearbeitung	Finishing Schlichten	Semi-finishing Mittlere Bearbeit.	Al machining Alu Bearbeitung	Cast iron machining Gusseisen Bearbeit.
insert shape Schneidplattenform		**HF**  A94	**HM**  A94	**HR**  A95	**LH**  A95	Flat  A95
		EF  A94	**EM**  A94			
Type · Typ	**SSBCR / L**F / H09**	SC**09T3**	SC**09T3**	SC**09T3**	SCGX09T3**	SC**09T3**
	SSBCR / LK12**		SC**1204**	SC**1204**	SCGX1204**	SC**1204**
	SSDCNF / H09**	SC**09T3**	SC**09T3**	SC**09T3**	SCGX09T3**	SC**09T3**

SC** Toolholder · Halter

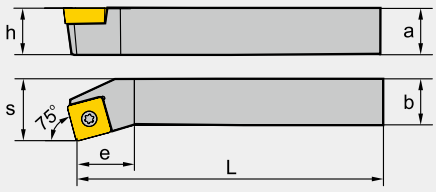
S-Clamping · S-Halter

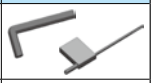
SSKCR/ L

Kr:75°



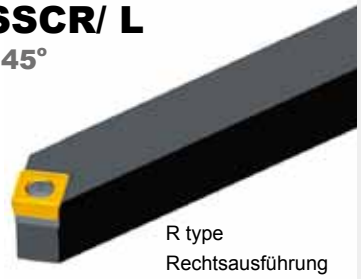
R type
Rechtsausführung



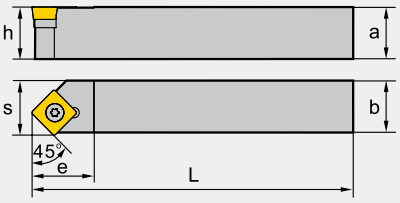
Type · Typ		Stock Lager		Dimension (mm) Abmessung						Screw Schraube	Shim Unterlage	Shim Screw, Unterlage Schraube	Wrench Schlüssel
		R	L	a	b	L	h	s	e				
SSKCR/ L	**1616H09**	●	●	16	16	100	16	20	13	I60M3.5×12	S09BS	SM5×8.65XA	WT15IP WH35L

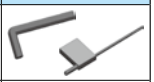
SSSCR/ L

Kr:45°



R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Screw Schraube	Shim Unterlage	Shim Screw, Unterlage Schraube	Wrench Schlüssel
		R	L	a	b	L	h	s	e				
SSSCR/ L	**1616H09**	●	●	16	16	100	16	17	16	I60M3.5×12	—	—	WT15IP
	2020K12	●	●	20	20	125	20	21	24	I60M4×11X	S12BS	SM6×10XA	WT15IP WH40L

Applicable insert
Wendeschneidplatten

Application Anwendung	Extra Finishing Feinbearbeitung	Finishing Schlichten	Semi-finishing Mittlere Bearbeit.	Al machining Alu Bearbeitung	Cast iron machining Gusseisen Bearbeit.
insert shape Schneidplattenform	**HF**  A94	**HM**  A94	**HR**  A95	**LH**  A95	Flat  A95
	EF  A94	**EM**  A94			

Type · Typ					
SSKCR / L**H09**	SC**09T3**	SC**09T3**	SC**09T3**	SCGX09T3**	SC**09T3**
SSSCR / L**H09**	SC**09T3**	SC**09T3**	SC**09T3**	SCGX09T3**	SC**09T3**
SSSCR / L**K12**		SC**1204**	SC**1204**	SCGX1204**	SC**1204**

● ex stock · ab Lager ○ on demand · Anfrage

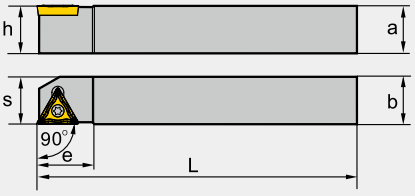
TC** Toolholder · Halter

S-Clamping · S-Halter

STACR/ L

Kr:90°

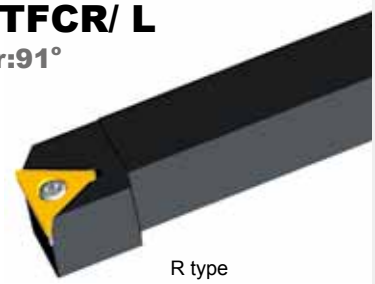
R type
Rechtsausführung



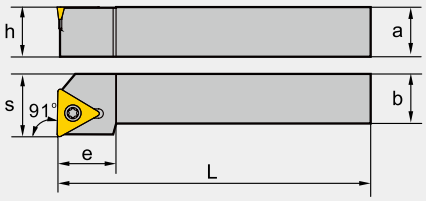
Type · Typ		Stock Lager R	Stock Lager L	Dimension (mm) Abmessung a	b	L	h	s	e	Screw Schraube	Wrench Schlüssel		
STACR/ L	**1212F11**	●	●	12	12	80	12	12.5	14	I60M2.5×6.5	WT07IP		

STFCR/ L

Kr:91°



R type
Rechtsausführung



Type · Typ		Stock Lager R	Stock Lager L	Dimension (mm) Abmessung a	b	L	h	s	e	Screw Schraube	Shim Unterlage	Shim Screw, Unterlage Schraube	Wrench Schlüssel
STFCR/ L	**1212F11**	●	●	12	12	80	12	16	14	I60M2.5×6.5	—	—	WT07IP
	1616H11	●	●	16	16	100	16	20	14				
	1616H16	●	●	16	16	100	16	20	19	I60M3.5×12	T16BS	SM5×8.65XA	WT15IP WH35L
	2020K16	●	●	20	20	125	20	25	19				

Applicable insert Wendeschneidplatten

Application Anwendung	Extra Finishing Feinbearbeitung	Finishing Schlichten	Semi-finishing Mittlere Bearbeit.	Roughing Schruppen	Al machining Alu Bearbeitung	Cast iron machining	PCBN/PCD inserts/WSP
insert shape Schneidplattenform	**SF** A98	**HF** A99	**HM** A101	**HR** A101	**LH** A101	Flat A102	Flat A125
		EF A100	**EM** A100				

Type · Typ								
	STACR / LF11**	TC**1102**	TC**1102**	TC**1102**	TC**1102**	TCGX1102**	TC**1102**	TC**1102**
	STFCR / LF / H11**	TC**1102**	TC**1102**	TC**1102**	TC**1102**	TCGX1102**	TC**1102**	TC**1102**
	STFCR / LH / K16**		TC**16T3**	TC**16T3**	TC**16T3**	TCGX16T3**	TC**16T3**	TC**16T3**

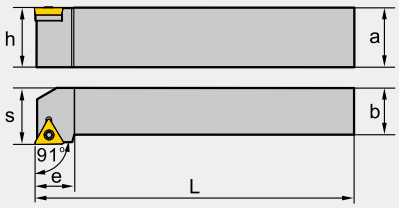
TC** Toolholder · Halter

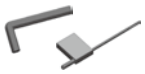
S-Clamping · S-Halter

STGCR/ L

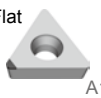
Kr:91°

R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Screw Schraube	Shim Unterlage	Shim Screw, Unterlage Schraube	Wrench Schlüssel
		R	L	a	b	L	h	s	e				
STGCR/ L	**0808D09**	●	●	08	08	60	8	10	11	I60M2.2×5.5	—	—	WT06IP
	1010E09	●	●	10	10	70	10	12	11				
	1212F11	●	●	12	12	80	12	16	14	I60M2.5×6.5	—	—	WT07IP
	1616H11	●	●	16	16	100	16	20	16				
	2020K16	●	●	20	20	125	20	25	21	I60M3.5×12	T16BS	SM5×8.65XA	WT15IP WH35L
	2525M16	●	●	25	25	150	25	32	21				

Applicable insert
Wendeschneidplatten

Application Anwendung	Extra Finishing Feinbearbeitung	Finishing Schlichten	Semi-finishing Mittlere Bearbeit.	Roughing Schruppen	Al machining Alu Bearbeitung	Cast iron machining	PCBN/PCD inserts/WSP
insert shape Schneidplattenform	**SF**  A98	**HF**  A99	**HM**  A101	**HR**  A101	**LH**  A101	Flat  A102	Flat  A125
		EF  A100	**EM**  A100				
Type · Typ **STGCR / L**D / E09**	TC**0902**	TC**0902**	TC**0902**	TC**0902**	TCGX0902**	TC**0902**	TC**0902**
STGCR / LF / H11**	TC**1102**	TC**1102**	TC**1102**	TC**1102**	TCGX1102**	TC**1102**	TC**1102**
STGCR / LK / M16**		TC**16T3**	TC**16T3**	TC**16T3**	TCGX16T3**	TC**16T3**	TC**16T3**

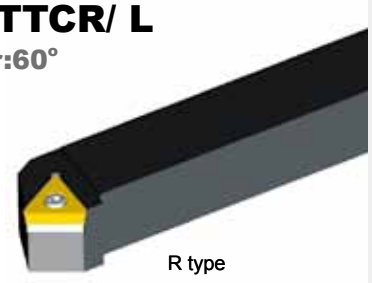
● ex stock · ab Lager ○ on demand · Anfrage

TC** Toolholder · Halter

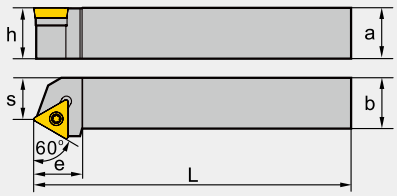
S-Clamping · S-Halter

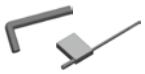
STTCR/ L

Kr:60°



R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Screw Schraube	Shim Unterlage	Shim Screw, Unterlage Schraube	Wrench Schlüssel
		R	L	a	b	L	h	s	e				
STTCR/ L	**1616H11**	●	●	16	16	100	16	13	14	I60M2.5×6.5	—	—	WT07IP
	1616H16	●	●	16	16	100	16	13	19	I60M3.5×12	T16BS	SM5×8.65XA	WT15IP WH35L
	2020K16	●	●	20	20	125	20	17	19				

Applicable insert
Wendeschneidplatten

Application Anwendung	Extra Finishing Feinbearbeitung	Finishing Schlichten	Semi-finishing Mittlere Bearbeit.	Roughing Schruppen	Al machining Alu Bearbeitung	Cast iron machining	PCBN/PCD inserts/WSP
insert shape Schneidplattenform	**SF**  A98	**HF**  A99 **EF**  A100	**HM**  A101 **EM**  A100	**HF**  A101	**LH**  A101	Flat  A102	Flat  A125
Type · Typ **STTCR / L**H11**	TC**1102**	TC**1102**	TC**1102**	TC**1102**	TCGX1102**	TC**1102**	TC**1102**
Type · Typ **STTCR / L**H / K16**		TC**16T3**	TC**16T3**	TC**16T3**	TCGX16T3**	TC**16T3**	TC**16T3**

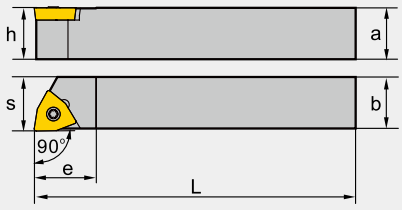
WC** Toolholder · Halter

S-Clamping · S-Halter

SWACR/ L

Kr:90°

R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Screw Schraube	Wrench Schlüssel		
		R	L	a	b	L	h	s	e				
SWACR/ L	**1010E04**	●	●	10	10	70	10	10.5	10	I60M2.5×6.5	WT07IP		
	1212F04	●	●	12	12	80	12	12.○	14				
	1616H06	●	●	16	16	100	16	16.5	20	I60M3×7	WT10IP		
	2020K08	●	●	20	20	125	20	20.5	24	I60M3.5×12	WT15IP		

Applicable insert
Wendeschneidplatten

Application Anwendung	Finishing Schlichten
insert shape Schneidplattenform	**53**  A111

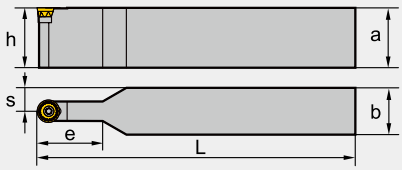
Type · Typ	
SWACR / LE / F04**	WC*X0402**
SWACR / LH06**	WC*X06T3**
SWACR / LK08**	WC*X0804**

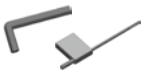
● ex stock · ab Lager ○ on demand · Anfrage

RC** Toolholder · Halter

S-Clamping · S-Halter

SRDCN



Type · Typ		Stock Lager	Dimension (mm) Abmessung						Screw Schraube	Shim Unterlage	Shim Screw, Unterlage Schraube	Wrench Schlüssel
			a	b	L	h	s	e				
SRDCN	**1616H08**	●	16	16	100	16	8	16	I60M3×7	—	—	WT10IP
	1616H10		16	16	100	16	8	25	I60M3.5×10	—	—	WT15IP
	2020K10		20	20	125	20	10	25				
	2525M10	●	25	25	150	25	12.5	25				
	2020K12	●	20	20	125	20	10	35	I60M3.5×12	R12BS	SM5×8.65XA	WT15IP WH35L
	2525M12	●	25	25	150	25	12.5	35				
	3225P12	●	32	25	170	32	12.5	35				
	3225P16	●	32	25	170	32	12.5	35	I60M4×15X	R16BS	SM6×10XA	WT15IP WH40L
	3232P16	●	32	32	170	32	16	40				
	4040S16	●	40	40	250	40	20	50				

Applicable insert
Wendeschneidplatten

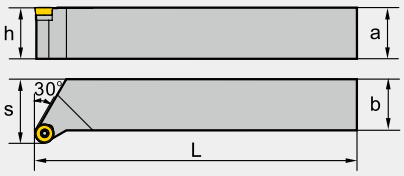
Application Anwendung		Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Al machining Alu Bearbeitung	Roughing Schruppen
insert shape Schneidplattenform		 A92	 A92	LH  A92	Basic  A93
Type · Typ	**SRDCN**H08**	RCMT0803MO	RCMT0803MO	RCGX0803MO-LH	RCMT0803MO
	SRDCNH / K / M10**	RCMT10T3 MO	RCMT10T3 MO		RCMT10T3 MO
	SRDCNK / M / P12**	RCMT1204 MO	RCMT1204 MO		RCMT1204 MO
	SRDCNP / S16**	RCMT1606 MO	RCMT1606 MO		RCMT1606 MO

RC** Toolholder · Halter

S-Clamping · S-Halter

SRGCR/ L

R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Screw Schraube	Shim Unterlage	Shim Screw, Unterlage Schraube	Wrench Schlüssel
		R	L	a	b	L	h	s					
SRGCR/ L	**1616H08**			16	16	100	16	20		I60M3×7	—	—	WT10IP
	1616H10			16	16	100	16	20		I60M3.5×10	—	—	WT15IP
	2020K10	●	●	20	20	125	20	25					
	2525M10	●	●	25	25	100	25	32					
	2020K12	●	●	20	20	125	20	27		I60M3.5×12	R12BS	SM5×8.65XA	WT15IP WH35L
	2525M12	●	●	25	25	150	25	32					

Applicable insert
Wendeschneidplatten

Application Anwendung	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Al machining Alu Bearbeitung	Roughing Schruppen
insert shape Schneidplattenform	 A92	 A92	LH  A92	Basic  A93
Type · Typ **SRGCR / L**H08**	RCMT0803MO	RCMT0803MO	RCGX0803MO-LH	RCMT0803MO
SRGCR / LH / K / M10**	RCMT10T3 MO	RCMT10T3 MO		RCMT10T3 MO
SRGCR / LK / M12**	RCMT1204 MO	RCMT1204 MO		RCMT1204 MO

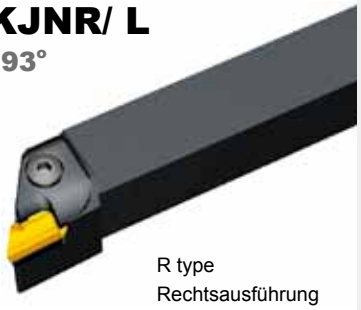
● ex stock · ab Lager ○ on demand · Anfrage

KNUX** Toolholder · Halter

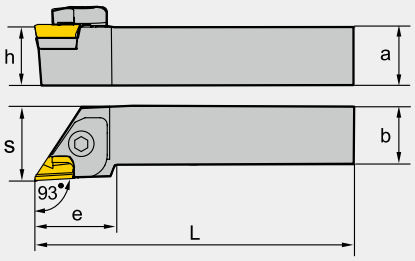
C-Clamping · C-Halter

CKJNR/ L

Kr:93°



R type
Rechtsausführung

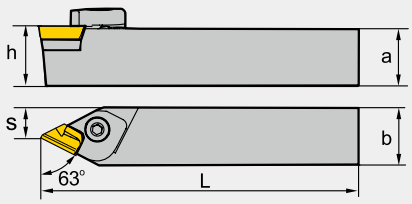


Type · Typ		Stock Lager	Dimension (mm) Abmessung						Application inserts Wendeschneid -platten	Clamp Pratze	Clamp PratzeScrew Schraube	Spring Feder	Clamping stud Passstift	Shim Unterlage	Shim Screw, Unterlage Schraube	Wrench Schlüssel
			a	b	L	h	s	e								
CKJNR	**2525M16**	●	25	25	150	25	32	32	KNUX1604**R A81	C6R1T	CM6×25A	SPR1 SPR2	P0515	K16CC	SM3×10B	WH20L WH40L
	3232P16	●	32	32	170	32	40	3○								
	4040R16	●	40	40	200	40	50	32○								
CKJNL	**2525M16**	●	25	25	150	25	32	32	KNUX1604**L A81	C6L1T				K16CCL		
	3232P16	●	32	32	170	32	40	32								
	4040R16	●	40	40	200	40	50	32								

CKNNR/ L

Kr:63°

R type
Rechtsausführung



Type · Typ		Stock Lager	Dimension (mm) Abmessung					Application inserts Wendeschneid-platten	Clamp Pratze	Clamp PratzeScrew Schraube	Spring Feder	Clamping stud Passstift	Shim Unterlage	Shim Screw, Unterlage Schraube	Wrench Schlüssel
			a	b	L	h	s								
CKNNR	**2525M16**	○	25	25	150	25	14.3	KNUX1604**R A81	C6R1T	CM6×25A	SPR1 SPR2	P0515	K16CC	SM3×10B	WH20L WH40L
	3232P16	○	32	32	170	32	16.8								
CKNNL	**2525M16**	○	25	25	150	25	14.3	KNUX1604**L A81	C6L1T	CM6×25A	SPR1 SPR2	P0515	K16CCL	SM3×10B	
	3232P16	○	32	32	170	32	16.8								

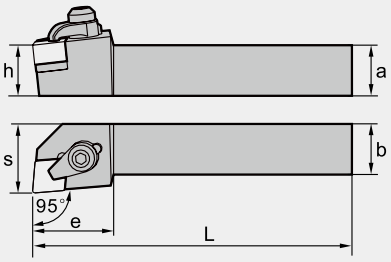
CN** Toolholder · Halter

C-Clamping · C-Halter

CCLNR/ L

Kr:95°

R type
Rechtsausführung



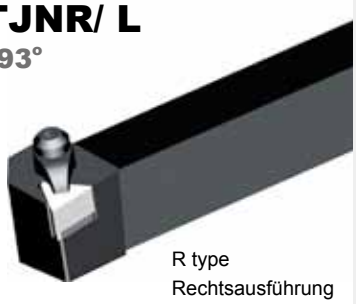
Type · Typ		Stock Lager		Dimension (mm) Abmessung						Application inserts Wendeschneid-platten	Clamp Pratze	Clamp screw Schraube	Wrench Schlüssel	Shim Unterlage	Shim screw Schraube	Spring Feder
		R	L	a	b	L	h	s	e							
CCLNR/ L	**2020K12**	●	○	20	20	125	20	27	32	CNGN1207** (1204**) A139	C1RC	CM6×30B	WH20L WH40L	C12CC-07 (C12CC-04)	SM3×10B	SPR1
	2525M12	●	●	25	20	100	25	27	36							
	2525M16	○	○	25	25	150	25	32	36	CNGN1606** (1604**) A139	C2RC	CM8×30B	WH30L WH50L	C16CC-06 (16CC-04)	SM4×12B	SPR3
	3225P16	○	○	32	25	170	32	32	36							

TN** Toolholder · Halter

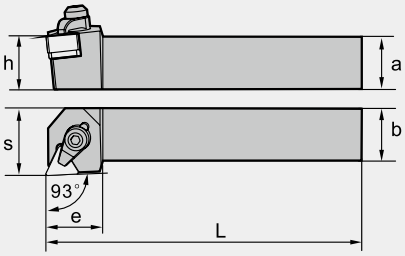
C-Clamping · C-Halter

CTJNR/ L

Kr:93°



R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Application inserts Wendeschneid-platten	Clamp Pratze	Clamp screw Schraube	Wrench Schlüssel	Shim Unterlage	Shim screw Schraube	Spring Feder
		R	L	a	b	L	h	s	e							
CTJNR/ L	**2020K16**	○	○	20	20	125	20	25	30	TNGN1607** (1604**) A145	C1RC	CM6×30B	WH20L WH40L	T16CC-07 (T16CC-04)	SM3×10B	SPR1
	2525M16	○	○	25	25	150	25	32	30							

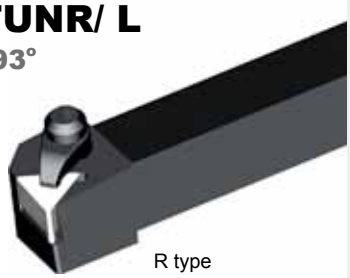
● ex stock · ab Lager ○ on demand · Anfrage

TN** Toolholder · Halter

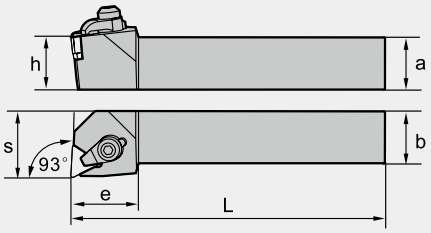
C-Clamping · C-Halter

CTUNR/ L

Kr:93°



R type
Rechtsausführung



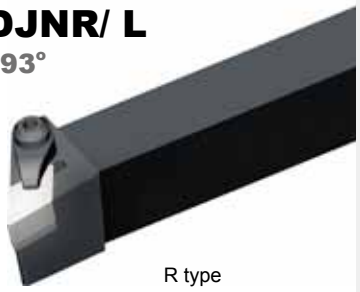
Type · Typ		Stock Lager		Dimension (mm) Abmessung						Application inserts Wendeschneid-platten	Clamp Pratze	Clamp screw Schraube	Wrench Schlüssel	Shim Unterlage	Shim screw Schraube	Spring Feder
		R	L	a	b	L	h	s	e							
CTUNR/ L	**2020K12**			20	20	125	20	25	27	TNGN1607** (1604**) A145	C1RC	CM6×30B	WH20L WH40L	T16CC-07 (T16CC-04)	SM3×10B	SPR1
	2525M16	○	○	25	25	150	25	32	27							

DN** Toolholder · Halter

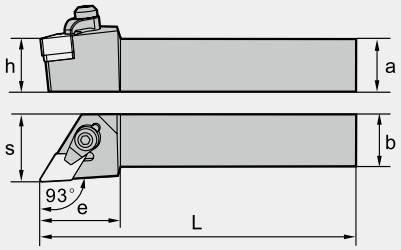
C-Clamping · C-Halter

CDJNR/ L

Kr:93°



R type
Rechtsausführung



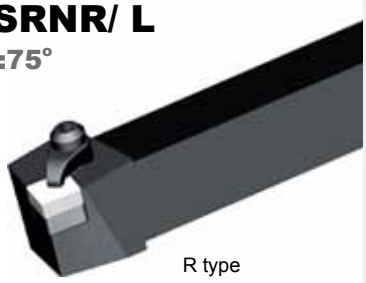
Type · Typ		Stock Lager		Dimension (mm) Abmessung						Application inserts Wendeschneid-platten	Clamp Pratze	Clamp screw Schraube	Wrench Schlüssel	Shim Unterlage	Shim screw Schraube	Spring Feder
		R	L	a	b	L	h	s	e							
CDJNR/ L	**2525M15**	●	●	25	25	150	25	32	32	DNGN1507** (1504**) A141	C1RC	CM6×30B	WH20L WH40L	D15CC-07 (D15CC-04)	SM3×10B	SPR1
	3225P15	○	○	32	25	170	32	32	32							

SN** Toolholder · Halter

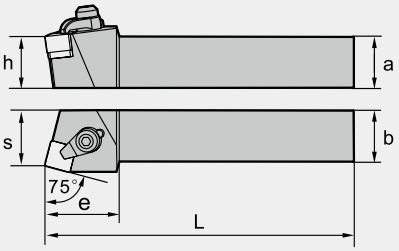
C-Clamping · C-Halter

CSRNR/ L

Kr:75°



R type
Rechtsausführung



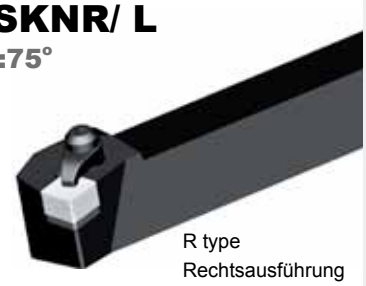
Type · Typ		Stock Lager		Dimension (mm) Abmessung						Application inserts Wendeschneid-platten	Clamp Pratze	Clamp screw Schraube	Wrench Schlüssel	Shim Unterlage	Shim screw Schraube	Spring Feder
		R	L	a	b	L	h	s	e							
CSRNR/ L	**2020K12**	○	○	20	20	125	20	22	32	SNGN1207** (1204**) A143	C1RC	CM6×30B	WH20L WH40L	S12CC-07 (S12CC-04)	SM3×10B	SPR1
	2525M12	○	○	25	20	100	25	27	32							
	3225P12	○	○	32	25	170	32	27	32							
	3225P15	○	○	32	25	170	32	32	40	SNGN1507** A143	C2RC	CM8×30B	W○30L WH50L	S15CC-07	SM4×12B	SPR3
	4040R15	○	○	40	40	200	40	43	40							

SN** Toolholder · Halter

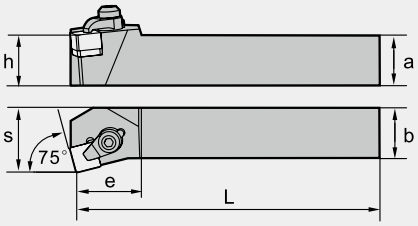
C-Clamping · C-Halter

CSKNR/ L

Kr:75°



R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Application inserts Wendeschneid-platten	Clamp Pratze	Clamp screw Schraube	Wrench Schlüssel	Shim Unterlage	Shim screw Schraube	Spring Feder
		R	L	a	b	L	h	s	e							
CSKNR/ L	**2020K12**	○	○	20	20	125	20	25	25	SNGN1207** (1204**) A143	C1RC	CM6×30B	WH20L WH40L	S12CC-07 (S12CC-04)	SM3×10B	SPR1
	2525M12	○	○	25	25	170	25	32	25							
	3225P12	○	○	32	25	170	32	32	25							
	3225P15	○	○	32	25	170	32	32	30	SNGN1507** A143	C2RC	CM8×30B	WH30L WH50L	S15CC-07	SM4×12B	SPR3

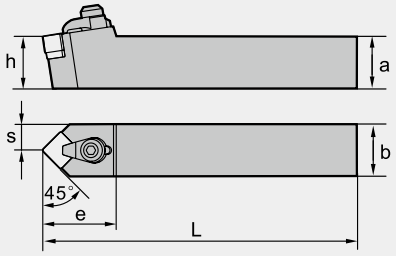
● ex stock · ab Lager ○ on demand · Anfrage

SN** Toolholder · Halter

C-Clamping · C-Halter

CSDNN

Kr:45°

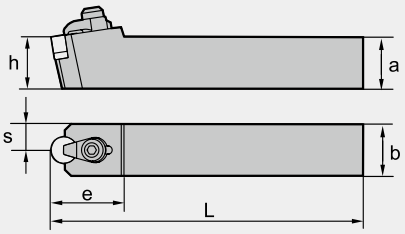


Type · Typ		Stock Lager	Dimension (mm) Abmessung						Application inserts Wendeschneid-platten	Clamp Pratze	Clamp screw Schraube	Wrench Schlüssel	Shim Unterlage	Shim screw Schraube	Spring Feder
			a	b	L	h	s	e							
CSDNN	**2020K12**	○	20	20	125	20	10	35	SNGN1207** (1204**) A143	C1RC	CM6×30B	WH20L WH40L	S12CC-07 (S12CC-04)	SM3×10B	SPR1
	2525M12	○	25	25	150	25	12.5	3○							
	3225P12	○	32	25	170	32	12.5	35							

RN** Toolholder · Halter

C-Clamping · C-Halter

CRDNN



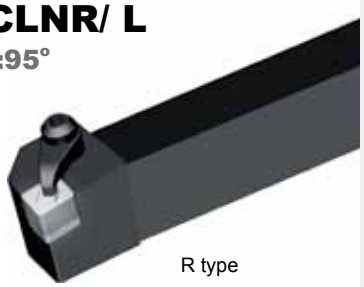
Type · Typ		Stock Lager	Dimension (mm) Abmessung						Application inserts Wendeschneid-platten	Clamp Pratze	Clamp screw Schraube	Wrench Schlüssel	Shim Unterlage	Shim screw Schraube	Spring Feder
			a	b	L	h	s	e							
CRDNN	**2020K12**	○	20	20	125	20	10	32	RNGN1207** (1204**) A146	C1RC	CM6×30B	WH20L WH40L	R12CC-07 (R12CC-04)	SM3×10B	SPR1
	2525M12	○	25	25	150	25	12.5	32							
	3225P12	○	32	25	170	32	12.5	32							
	3232P15	○	32	32	170	32	17.5	40	RNGN1507** A146	C2RC	CM8×30B	WH20L WH50L	R15CC-07	SM3×10B	SPR3
	4040R15	○	40	40	200	40	20	40							

CN** Toolholder · Halter

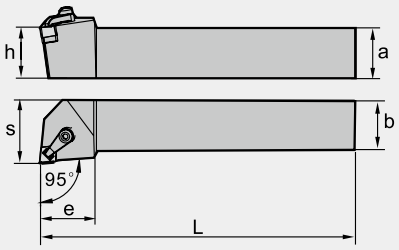
J-Clamping · J-Halter

JCLNR/ L

Kr:95°



R type
Rechtsausführung



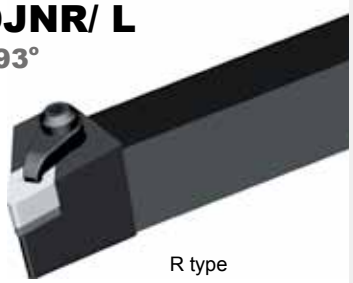
Type · Typ		Stock Lager		Dimension (mm) Abmessung						Application inserts Wendeschneid-platten	Clamp Pratze	Clamp screw Schraube	Wrench Schlüssel	Shim Unterlage	Shim screw Schraube	Spring Feder
		R	L	a	b	L	h	s	e							
JCLNR/ L	**2020K12**	○	○	20	20	125	20	29	32	CNGX1207** A140	C1RJ	CM6×30B	WH20L WH40L	C12CC-07	SM3×10B	SPR1
	2525M12	○	○	25	25	150	25	32	32							

DN** Toolholder · Halter

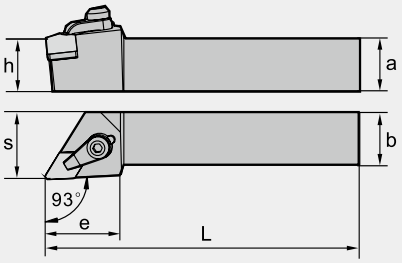
J-Clamping · J-Halter

JDJNR/ L

Kr:93°



R type
Rechtsausführung



Type · Typ		Stock Lager		Dimension (mm) Abmessung						Application inserts Wendeschneid-platten	Clamp Pratze	Clamp screw Schraube	Wrench Schlüssel	Shim Unterlage	Shim screw Schraube	Spring Feder
		R	L	a	b	L	h	s	e							
JDJNR/ L	**2525M15**	○	○	25	25	150	25	32	38	DNGX1507** A141	C1RJ	CM6×30B	WH20L WH40L	D15CC-07	SM3×10B	SPR1
	3225P15	○	○	32	25	170	32	32	38							

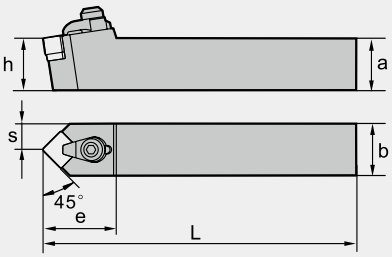
● ex stock · ab Lager ○ on demand · Anfrage

SN** Toolholder · Halter

J-Clamping · J-Halter

JSDNN

Kr:45°



Type · Typ		Stock Lager	Dimension (mm) Abmessung						Application inserts Wendeschneid-platten	Clamp Pratze	Clamp screw Schraube	Wrench Schlüssel	Shim Unterlage	Shim screw Schraube	Spring Feder
			a	b	L	h	s	e							
JSDNN	**2020K12**	○	20	20	125	20	10	40	SNGX1207** A142	C1RJ	CM6×30B	WH20L WH40L	S12CC-07	SM3×10B	SPR1
	2525M12	○	25	25	150	25	12.5	40							
	3225P12	○	32	25	170	32	12.5	40							

NOTIZEN:

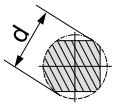
Turning · Drehen

Internal Turning Tools · Drehwerkzeuge zur Innenbearbeitung

Clamping system Klemmsystem	Feature Merkmale	62°30′	75°	85°	90°	91°	93°	93°	95°	107°30′
										
P	• min. Ø to be machined = 20mm • min. Bearbeitungs Ø = 20mm • neg. inserts with good stability and Economy • Neg. WSP mit guter Stabilität & Wirtschaftlichkeit	**PDSN**  A218	**PSKN**  A221		**PTFN**  A222			**PDUN**  A219	**PCLN**  A216	
									PWLN  A223	
S	• min. Ø to be machined = 8,5mm (Screw Clamping) • min. Bearbeitungs Ø = 8,5mm (Schraubenklemm.) • Inserts with 5°/7°/11° • Pos.-WSP mit 5°/7°/11°		**SSKC**  A229	**SDZC**  A228	**SCFC**  A239	**STFC**  A230	**STUP**  A238	**SDUC**  A227		**SDQC**  A226
								SDUP  A237	**SCLC**  A224	**SDQP**  A236
								SVUC  A232	**SCLC**  A240	**SVQB**  A233
								SVUB  A234	**SCLP**  A235	**SVQC**  A231
Antivibration	• Antivibrations toolholder (Cemented Carbide) • min. Ø to be machined = 8,5mm • Inserts with 5°/7°/11° • Antivibrations-Klemmhalter (Hartmetall) • min. Bearbeitungs Ø = 8,5mm • WSP mit 5°/7°/11°						**STUP**  A245	**SDUP**  A244	**SCLP**  A242	**SDQP**  A243
								SVUC  A248		**SVQC**  A247

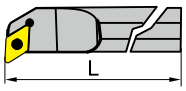
Type of Shank *Schaftausführung*	
code	Type/Typ
A	Steel shank+Oil hole Stahlschaft mit Kühlbohrung
C	Carbide shank Hartmetallschaft
E	Carbide shank+Oil hole Hartmetallschaft mit Kühlbohrung
S	Steel shank Stahlschaft
X	Special insert application Besondere Anwendung

Shank diameter *Schaftdurchmesser*



code	diameter
16	16
20	20
25	25
32	32
40	40
50	50

Tool length *Halterlänge*



code	length
H	100
K	125
M	150
N	160
Q	180
R	200
S	250
T	300
U	350
V	400

Clamping System *Klemmsystem*

P

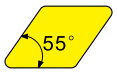
M Screw clamping
Schraub Spannsystem

S Wedge lock clamping
Pratzenkeilklemmung

C Overhead clamping
Pratzenklemmung

Insert shape *Plattenform*

C



D

R

S

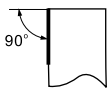
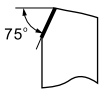
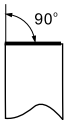
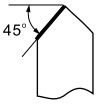
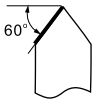
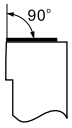
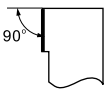
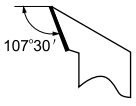
T

V

W

S 16 R - S D U

Holder style and lead angle
Halterform und Anstellwinkel

A	B	C	D	E	F	G	H
							

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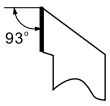
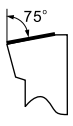
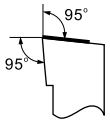
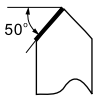
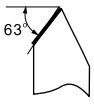
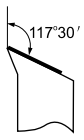
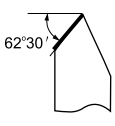
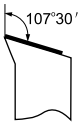
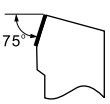
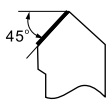
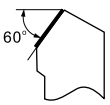
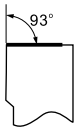
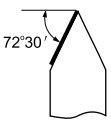
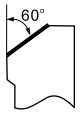
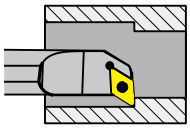
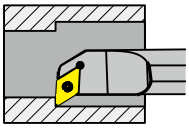
							

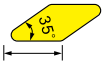
R	S	T	U	V	W	X	
							

Clearance angle of major cutting edge *Freiwinkel von Hauptschneide*	
5°	B
7°	C
15°	D
20°	E
0°	N
11°	P

Holder execution Halterausführung	
	L
	R

Manufacture option Herstellungsoptionen	
D	Increase offset f size+1.0mm Aufmaß von F +1mm erhöhen
E	Increase offset f size+2.0mm Aufmaß von F +2mm erhöhen
R	Round shank Rundschaft
W	Wedge clamping Keil Klemmung
X	Back boring Rückwärts drehen

C R 07 ■

Cutting edge length Schneidkantenlänge							
insert shape	C	D	R	S	T	V	W
							
Diameter of incircle (mm)	Cutting edge length Schneidkantenlänge						
5.556	---	---	---	---	09	---	---
6.350	06	07	---	---	11	---	---
9.525	09	11	09	09	16	16	06
12.700	12	15	12	12	22	22	08
15.875	16	19	15	15	27	---	---
19.050	19	---	19	19	33	---	---
25.400	25	---	25	25	44	---	---

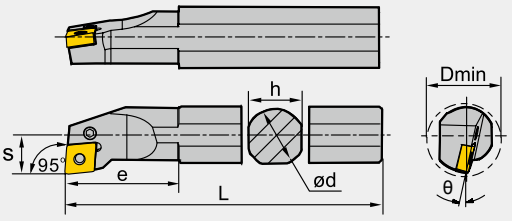
CN** Toolholder · Halter

P-Clamping / P-Halter

PCLNR/L

Kr:95°

R type
Rechtsausführung



Type · Typ	Stock Lager		Dimension (mm) Abmessung							Screw Schraube	Wrench Schlüssel	Lever Kniehebel	Shim Unterlage	Shim pin Rohrstift
	R	L	Dmin	ød	h	L	S	θ	e					
S16M-PCLNR/L09	●	●	20	16	15	150	11	-12°	28	LEM5×9B	WH20L	L3C	——	——
S16R-PCLNR/L09	●	●	20	16	15	200	11	-12°	28					
S20Q-PCLNR/L09	●	●	25	20	18	180	13	-11°	31					
S20S-PCLNR/L09	●	●	25	20	18	250	13	-11°	31					
S25Q-PCLNR/L09	●	●	32	25	23	180	17	-10°	35					
S25T- PCLNR/L09	●	●	32	25	23	300	17	-10°	35					
S25Q-PCLNR/L12	●	●	32	25	23	180	17	-12°	40	LEM6×13.4A	WH25L	L4A	——	——
S25T- PCLNR/L12	●	●	32	25	23	300	17	-12°	40					
S32R-PCLNR/L12	●	●	44	32	30	200	22	-10°	50	LEM8×21	WH30L	L4	C12APB	SP4
S32U-PCLNR/L12	●	●	44	32	30	350	22	-10°	50					
S40S-PCLNR/L12	●	●	54	40	37	250	27	-10°	55					
S40V-PCLNR/L12	●	●	54	40	37	400	27	-10°	55					
S50S-PCLNR/L12	●	●	63	50	47	250	35	-10°	56					
S50W-PCLNR/L12	●	●	63	50	47	450	35	-10°	56					
S50S-PCLNR/L19	●	●	63	50	47	250	35	-10°	63	LEM10×27	WH40L	L6	C19AP	SP6
S50W-PCLNR/L19	●	●	63	50	47	450	35	-10°	63					
♦ A25R-PCLNR/L12	●	●	32	25	24	200	17	-12°	40	LEM6×13.4A	WH25L	L4A	——	——
♦ A32S-PCLNR/L12	●	●	44	32	31	250	22	-10°	50	LEM8×21	WH30L	L4	C12APB	SP4

● ex stock · ab Lager ○ on demand · auf Anfrage ♦ Toolholder with holes for coolant · Klemmhalter mit Kühlmittelbohrung

Applicable insert
Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Cast iron machining Grauguss Bearbeitung
insert shape Schneidplattenform	**DF**  A46	**PM**  A47	**DR** Double -side  A49	Flat  A51
	WG Wiper inserts  A46	**DM**  A48	**DR** Single-side  A50	
	SF  A46	**EM**  A48	**ER** Double -side  A50	
	EF  A46	**NM**  A49	**ER** Single-side  A50	
	NF  A47			

Type · Typ					
	****-PCLNR/L09**	CN**0903**	CN**0903**		CN**0903**
	****-PCLNR/L12**	CN**1204**	CN**1204**	CN**1204**	CN**1204**
	****-PCLNR/L19**			CN**1906**	CN**1906**

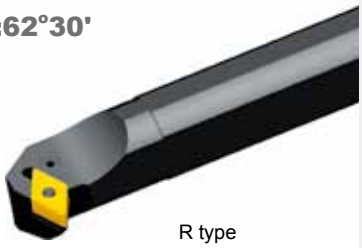
♦ Toolholder with holes for Coolant · Klemmhalter mit Kühlmittelbohrung ● ex stock · ab Lager ○ on demand · auf Anfrage

CN** Toolholder · Halter

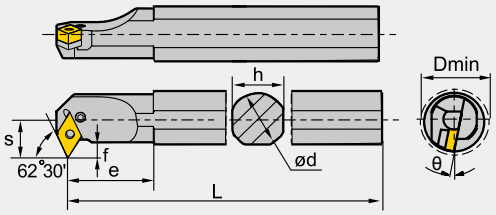
P-Clamping / P-Halter

PDSNR/L

Kr:62°30'

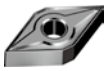


R type
Rechtsausführung



Type · Typ	Stock Lager		Dimension (mm) Abmessung								Screw Schraube	Wrench Schlüssel	Lever Kniehebel	Shim Unterlage	Shim pin Rohrstift
	R	L	Dmin	ød	h	L	S	θ	e	f					
S32R-PDSNR/L15	●	●	40	32	30	200	22	-11°	45	8.5	LEM8×21	WH30L	L4B	D15AP	SP4
S32U-PDSNR/L15	●	●	40	32	30	350	22	-11°	45	8.5					
S32R-PDSNR/L15-3	●	●	40	32	30	200	22	-11°	45	8.5	LEM8×21	WH30L	L4	D15AP	SP4
S32U-PDSNR/L15-3	●	●	40	32	30	350	22	-11°	45	8.5					
S40S-PDSNR/L15	●	●	50	40	37	250	27	-11°	43	9.4	LEM8×21	WH30L	L4B	D15AP	SP4
S40V-PDSNR/L15	●	●	50	40	37	400	27	-11°	43	9.4					
S40S-PDSNR/L15-3	●	●	50	40	37	250	27	-11°	43	9.4	LEM8×21	WH30L	L4	D15AP	SP4
S40V-PDSNR/L15-3	●	●	50	40	37	400	27	-11°	43	9.4					
♦ A32S- PDSNR/L15	●	●	40	32	31	250	22	-11°	45	8.5	LEM8×21	WH30L	L4B	D15AP	SP4
♦ A32S- PDSNR/L15-3	●	●	40	32	31	250	22	-11°	45	8.5	LEM8×21	WH30L	L4	D15AP	SP4

Applicable insert
Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Cast iron machining Grauguss Bearbeitung
insert shape Schneidplattenform	**DF**  A53	**PM**  A55	**DR** Double -side  A56	Flat  A58
	SF  A53	**DM**  A55	**DR** Single- side  A58	
	EF  A54	**EM**  A56	**ER** Double -side  A58	
	NF  A54	**NM**  A56	**ER** Single- side  A58	

Type · Typ				
	****-PDSNR/L-15-3**	DN**1504**	DN**1504**	DN**1504**
	****-PDSNR/L-15**	DN**1506**	DN**1506**	DN**1506** DN**1506**

● ex stock · ab Lager ○ on demand · auf Anfrage ♦ Toolholder with holes for coolant · Klemmhalter mit Kühlmittelbohrung

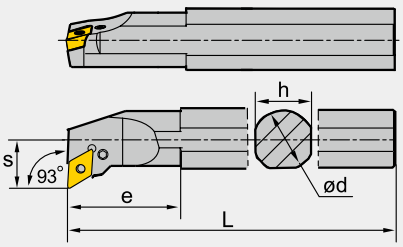
DN** Toolholder · Halter

P-Clamping / P-Halter

PDUNR/L

Kr:93°

R type
Rechtsausführung



Type · Typ	Stock Lager		Dimension (mm) Abmessung							Screw Schraube	Wrench Schlüssel	Lever Kniehebel	Shim Unterlage	Shim pin Rohrstift
	R	L	Dmin	ød	h	L	S	θ	e					
S20Q-PDUNR/L11	●	●	25	20	18	180	13	-16°	30	LEM5×12B	WH20L	L3D	——	——
S20S-PDUNR/L11	●	●	25	20	18	250	13	-16°	30					
S25Q-PDUNR/L11	●	●	32	25	23	180	17	-13°	35					
S25T-PDUNR/L11	●	●	32	25	23	300	17	-13°	35					
S32R-PDUNR/L11	●	●	40	32	30	200	22	-16°	40	LEM6×17	WH25L	L3	D11AP	SP3
S32U-PDUNR/L11	●	●	40	32	30	350	22	-16°	40					
S32R-PDUNR/L15	●	●	40	32	30	200	22	-16°	50	LEM8×21	WH30L	L4B	D15AP	SP4
S32U-PDUNR/L15	●	●	40	32	30	350	22	-16°	50					
S32R-PDUNR/L15-3	●	●	40	32	30	200	22	-16°	50	LEM8×21	WH30L	L4	D15AP	SP4
S32U-PDUNR/L15-3	●	●	40	32	30	350	22	-16°	50					
S40S-PDUNR/L15	●	●	50	40	37	250	27	-11°	50	LEM8×21	WH30L	L4B	D15AP	SP4
S40V-PDUNR/L15	●	●	50	40	37	400	27	-11°	50					
S40S-PDUNR/L15-3	●	●	50	40	37	250	27	-11°	50	LEM8×21	WH30L	L4	D15AP	SP4
S40V-PDUNR/L15-3	●	●	50	40	37	400	27	-11°	50					
♦ A32S- PDUNR/L15	●	●	40	32	31	250	22	-16°	50	LEM8×21	WH30L	L4B	D15AP	SP4
♦ A32S- PDUNR/L15-3	●	●	40	32	31	250	22	-16°	50	LEM8×21	WH30L	L4	D15AP	SP4

♦ Toolholder with holes for Coolant · Klemmhalter mit Kühlmittelbohrung ● ex stock · ab Lager ○ on demand · auf Anfrage

A

Applicable insert
Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Cast iron machining Grauguss Bearbeitung
insert shape Schneidplattenform	**DF**  A53	**PM**  A55	**DR** Double -side  A56	Flat  A58
	WG Wiper inserts  A53	**DM**  A55	**DR** Single- side  A58	
	SF  A53	**EM**  A56	**ER** Double -side  A58	
	EF  A54	**NM**  A56	**ER** Single- side  A58	
	NF  A54			

Type · Typ				
****-PDUNR/L11**	DN**1104**	DN**1104**		
****-PDUNR/L15-3**	DN**1504**	DN**1504**		DN**1504**
****-PDUNR/L15**	DN**1506**	DN**1506**	DN**1506**	DN**1506**

● ex stock · ab Lager ○ on demand · auf Anfrage ♦ Toolholder with holes for coolant · Klemmhalter mit Kühlmittelbohrung

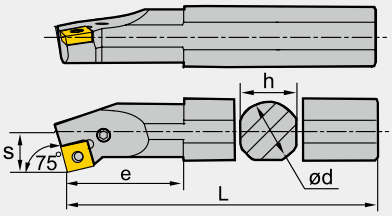
SN** Toolholder · Halter

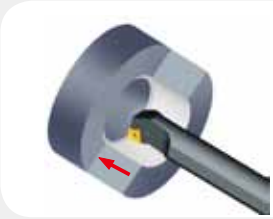
P-Clamping / P-Halter

PSKNR/L

Kr:75°

R type
Rechtsausführung





Type · Typ	Stock Lager		Dimension (mm) Abmessung							Screw Schraube	Wrench Schlüssel	Lever Kniehebel	Shim Unterlage	Shim pin Rohrstift
	R	L	Dmin	ød	h	L	S	θ	e					
S25Q-PSKNR/L12			32	25	23	180	17	-12°	42	LEM6×13.4A	WH25L	L4A	——	——
S25T-PSKNR/L12	●	●	32	25	23	300	17	-12°	42					
S32R-PSKNR/L12	●	●	44	32	30	200	22	-10°	45	LEM8×21	WH30L	L4	S12APB	SP4
S32U-PSKNR/L12	●	●	44	32	30	350	22	-10°	45					
S40S-PSKNR/L12	●	●	54	40	37	250	27	-10°	50					
S40V-PSKNR/L12	●	●	54	40	37	400	27	-10°	50					
♦ A25R-PSKNR/L12	●	●	32	25	24	200	17	-12°	42	LEM6×13.4A	WH25L	L4A	——	——
♦ A32S-PSKNR/L12	●	●	44	32	31	250	22	-12°	50	LEM8×21	WH30L	L4	S12APB	SP4

Applicable insert Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Heavy Duty Schwerzerspanung	Cast iron machining Grauguss Bearbeit.
insert shape Schneidplattenform	**SF**  A60	**DF**  A59	**PM**  A60	**DR** Double-side  A62	Flat  A65
		EF  A59	**DM**  A61	**DR** Single-side  A62	
			EM  A61	**ER** Double-side  A63	
			NM  A62	**ER** Single-side  A63	
Type · Typ **-PSKNR/L12	SN**1204**	SN**1204**	SN**1204**	SN**1204**	SN**1204**

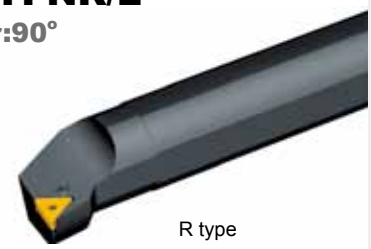
♦ Toolholder with holes for Coolant · Klemmhalter mit Kühlmittelbohrung ● ex stock · ab Lager ○ on demand · auf Anfrage

TN** Toolholder · Halter

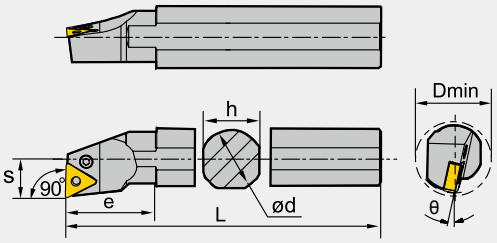
P-Clamping / P-Halter

PTFNR/L

Kr:90°



R type
Rechtsausführung



Type · Typ	Stock Lager		Dimension (mm) Abmessung							Screw Schraube	Wrench Schlüssel	Lever Kniehebel	Shim Unterlage	Shim pin Rohrstift
	R	L	Dmin	ød	h	L	S	θ	e					
S16M-PTFNR/L11	●	●	20	16	15	150	11	-14°	28	LEM5×9B	WH20L	L2	——	——
S16R-PTFNR/L11	●	●	20	16	15	200	11	-14°	28					
S20Q-PTFNR/L11			25	20	18	180	13	-12°	31					
S20S-PTFNR/L11	●	●	25	20	18	250	13	-12°	31					
S25Q-PTFNR/L11			32	25	23	180	17	-10°	35					
S25T-PTFNR/L11	●	●	32	25	23	300	17	-10°	35					
S25Q-PTFNR/L16			32	25	23	180	17	-12°	42	LEM5×12B	WH20L	L3B	——	——
S25T-PTFNR/L16	●	●	32	25	23	300	17	-12°	42					
S32R-PTFNR/L16			44	32	30	200	22	-10°	50	LEM6×17	WH25L	L3	T16APB	SP3
S32U-PTFNR/L16	●	●	44	32	30	350	22	-10°	50					
S40S-PTFNR/L16			54	40	37	250	27	-10°	55					
S40V-PTFNR/L16	●	●	54	40	37	400	27	-10°	55					
♦ A25R-PTFNR/L16			32	25	24	200	17	-12°	40					
♦ A32S-PTFNR/L16	●	●	44	32	31	250	22	-10°	50					

Applicable insert Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Cast iron machining Grauguss Bearbeitung
insert shape Schneidplattenform	**DF**  A68	**PM**  A69	**DR** Double -side  A70	Flat  A73
	WG Wiper inserts  A68	**DM**  A69	**DR** Single-side  A71	
	SF  A68	**EM**  A70	**ER** Double -side  A71	
	EF  A68			

Type · Typ					
**PTFNR/L11	TN**1103**	TN**1103**		TN**1103**
**PTFNR/L16	TN**1604**	TN**1604**	TN**1604**	TN**1604**

● ex stock · ab Lager ○ on demand · auf Anfrage ♦ Toolholder with holes for coolant · Klemmhalter mit Kühlmittelbohrung

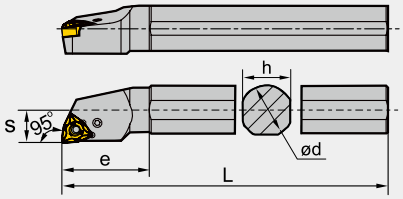
WN** Toolholder · Halter

P-Clamping / P-Halter

PWLNR/L

Kr:95°

R type
Rechtsausführung



Type · Typ	Stock Lager		Dimension (mm) Abmessung							Screw Schraube	Wrench Schlüssel	Lever Kniehebel	Shim Unterlage	Shim pin Rohrstift
	R	L	Dmin	ød	h	L	S	θ	e					
S16M-PWLNR/L06	●	●	20	16	15	150	11	-13°	25	LEM5X12B	WH20L	L3B	—	—
S16R-PWLNR/L06			20	16	15	200	11	-13°	25					
S20Q-PWLNR/L06	●	●	25	20	18	180	13	-13°	35	LEM5X12B	WH20L	L3B	—	—
S20S-PWLNR/L06			25	20	18	250	13	-13°	35					
S25Q-PWLNR/L06	●	●	32	25	23	180	17	-13°	35					
S25T-PWLNR/L06			32	25	23	300	17	-13°	35					
S20Q-PWLNR/L08	●	●	25	20	18	180	13	-13°	32	LEM6X13.4A	WH25L	L4A	—	—
S20S-PWLNR/L08			25	20	18	250	13	-13°	32					
S25Q-PWLNR/L08		●	32	25	23	180	17	-13°	45					
S25T-PWLNR/L08			32	25	23	300	17	-13°	45					
S32R-PWLNR/L08	●	●	40	32	30	200	22	-15°	50	LEM8X21	WH30L	L4	W08AP	SP4
S32U-PWLNR/L08	●	●	40	32	30	350	22	-15°	50					
♦ A25T-PWLNR/L08			32	25	23	300	17	-13°	45	LEM6X13.4A	WH25L	L4A	—	—
♦ A32R-PWLNR/L08			40	32	30	200	22	-15°	50	LEM8X21	WH30L	L4	W08AP	SP4

Applicable insert
Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Cast iron machining Grauguss Bearbeitung
insert shape Schneidplattenform	**DF**  A76	**PM**  A78	**DR** Double -side  A79	Flat  A79
	WG Wiper inserts  A76	**DM**  A78		
	SF  A77	**EM**  A78		
	EF  A77	**NM**  A79		
	NF  A77			

Type · Typ	Roughing Schruppen	Cast iron machining Grauguss Bearbeitung
****-PWLNR/L06**	WN**0604**	WN**0604**	WN**0604**	WN**0604**
****-PWLNR/L08**	WN**0804**	WN**0804**	WN**0804**	WN**0804**

♦ Toolholder with holes for Coolant · Klemmhalter mit Kühlmittelbohrung ● ex stock · ab Lager ○ on demand · auf Anfrage

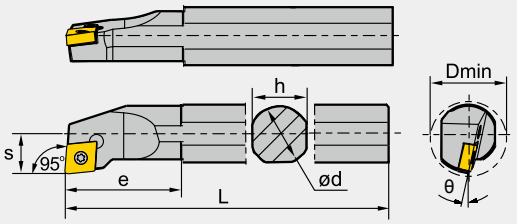
CC** Toolholder · Halter

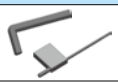
S-Clamping / S-Halter

SCLCR/L

Kr:95°

R type
Rechtsausführung



Type · Typ	Stock Lager		Dimension (mm) Abmessung							Screw Schraube	Wrench Schlüssel	Shim Unterlage	Shim Screw, Unterlage Schraube
	R	L	Dmin	ød	h	L	S	θ	e				
S08K-SCLCR/L06	●	●	10	8	7	125	5	-15°	14	I60M2.5×5.5	WT07IP	——	——
S10M-SCLCR/L06	●	●	12	10	9	150	6	-13°	14				
S12M-SCLCR/L06	●	●	16	12	11	150	9	-10°	25				
S12M-SCLCR/L09	●	●	16	12	11	150	9	-10°	25	I60M3.5×8	WT15IP	——	——
S16M-SCLCR/L09	●	●	20	16	15	150	11	-12°	32.5				
S16R-SCLCR/L09	●	●	20	16	15	200	11	-12°	32.5				
S20Q-SCLCR/L09	●	●	25	20	18	180	13	-8°	38				
S20S-SCLCR/L09	●	●	25	20	18	250	13	-8°	38				
S25Q-SCLCR/L09	●	●	32	25	23	180	17	-6°	45	I60M3.5×10	WT15IP	——	——
S25T-SCLCR/L09	●	●	32	25	23	300	17	-6°	45				
S25Q-SCLCR/L12	●	●	32	25	23	180	17	-6°	45	I60M4×11X	WT15IP	——	——
S25T-SCLCR/L12	●	●	32	25	23	300	17	-6°	45	I60M4×11X	WT15IP	——	——
S32R-SCLCR/L12	●	●	40	32	30	200	22	-10°	50	I60M4×11X	WH40L WT15IP	C12BS	SM6×10XA
S32U-SCLCR/L12	●	●	40	32	30	350	22	-10°	50				
S40S-SCLCR/L12	●	●	50	40	37	250	27	-8°	60				
S40V-SCLCR/L12	●	●	50	40	37	400	27	-8°	60				
♦ A08F-SCLCR/L06	●	●	10	8	7.5	80	5	-15°	14	I60M2.5×5.5	WT07IP	——	——
♦ A10H-SCLCR/L06	●	●	12	10	9.5	100	6	-13°	14				
♦ A12K-SCLCR/L06	●	●	16	12	11.5	125	9	-10°	25				
♦ A12K-SCLCR/L09	●	●	16	12	11.5	125	9	-10°	25	I60M3.5×8	WT15IP	——	——
♦ A16M-SCLCR/L09	●	●	20	16	15.5	150	11	-12°	32.5				
♦ A20Q-SCLCR/L09	●	●	25	20	19	180	13	-8°	38				
♦ A25R-SCLCR/L09	●	●	32	25	24	200	17	-6°	45	I60M3.5×10			
♦ A25R-SCLCR/L12	●	●	32	25	24	200	17	-6°	45	I60M4×11X	WT15IP	——	——
♦ A32S-SCLCR/L12	●	●	40	32	31	250	22	-10°	50		WH40L,WT15IP	C12BS	SM6×10XA
AH08K-SCLCR/L06	○	○	10	8	7	125	5	13	20	I60M2.5×5.5	WT07IP	——	——
AH10K-SCLCR/L06	○	○	12	10	9	125	6	12	20				
AH12M-SCLCR/L06	○	○	14	12	11	150	7	12	20				
AH16Q-SCLCR/L09	○	○	18	16	14	180	11	8	27	I60M3.5×8	WT15IP		
AH20R-SCLCR/L09	○	○	23	20	18	200	13	7	27				
AH25R-SCLCR/L12	○	○	28	25	23	200	15.5	7	40	I60M4×11X		C12BS	SM6×10XA

● ex stock · ab Lager ○ on demand · auf Anfrage ♦ Toolholder with holes for coolant · Klemmhalter mit Kühlmittelbohrung

Applicable insert
Wendeschneidplatten

Application Anwendung		Extra Finishing Feinbearbeitung	Finishing Schlichten	Semi-finishing Mittlere Bearbeit.	Roughing Schruppen	Al machining Alu Bearbeitung	Cast iron machining Grauguss Bearbeit.
insert shape Schneidplattenform		SF  A84	HF  A84 EF  A85	HM  A85 EM  A85	HR  A86	LH  A86	Flat  A86
Type · Typ	**-SCLCR/L06	CC**0602**	CC**0602**	CC**0602**	CC**0602**	CCGX0602**	CC**0602**
	**-SCLCR/L09	CC**09T3**	CC**09T3**	CC**09T3**	CC**09T3**	CCGX09T3**	CC**09T3**
	**-SCLCR/L12	CC**1204**	CC**1204**	CC**1204**	CC**1204**	CCGX1204**	CC**1204**

♦ Toolholder with holes for Coolant · Klemmhalter mit Kühlmittelbohrung ● ex stock · ab Lager ○ on demand · auf Anfrage

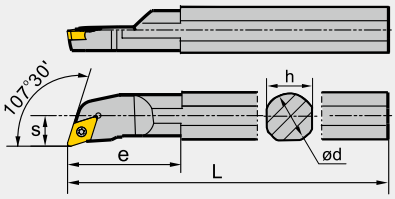
DC** Toolholder · Halter

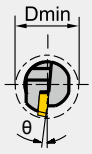
S-Clamping / S-Halter

SDQCR/L

Kr:107°30'

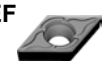
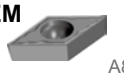
R type
Rechtsausführung





Type · Typ	Stock Lager		Dimension (mm) Abmessung							Screw Schraube	Wrench Schlüssel		
	R	L	Dmin	ød	h	L	S	θ	e				
S10M-SDQCR/L07	●	●	13	10	9	150	7	-8°	20	I60M2.5×5.5	WT07IP		
S12M-SDQCR/L07	●	●	16	12	11	150	9	-8°	22	I60M2.5×6.5			
S16M-SDQCR/L07	●	●	20	16	15	150	11	-6°	27				
S16R-SDQCR/L07	●	●	20	16	15	200	11	-6°	27				
S20Q-SDQCR/L11	●	●	25	20	18	180	13	-6°	32	I60M3.5×8	WT15IP		
S20S-SDQCR/L11	●	●	25	20	18	250	13	-6°	32				
S25Q-SDQCR/L11	●	●	32	25	23	180	17	-6°	32	I60M3.5×10			
S25T-SDQCR/L11	●	●	32	25	23	300	17	-6°	32				
♦ A10H-SDQCR/L07	●	●	13	10	9.5	100	7	-8°	20	I60M2.5×5.5	WT07IP		
♦ A12K-SDQCR/L07	●	●	16	12	11.5	125	9	-8°	22	I60M2.5×6.5			
♦ A16M-SDQCR/L11	●	●	20	16	15.5	150	11	-6°	27	I60M3.5×8	WT15IP		
♦ A20Q-SDQCR/L11	●	●	25	20	19	180	13	-6°	32				
♦ A25R-SDQCR/L11	●	●	32	25	24	200	17	-6°	32	I60M3.5×10			
AH10K-SDQCR/L07	○	○	13	10	9	125	8	10	20	I60M2.5×6.5	WT07IP		
AH12M-SDQCR/L07	○	○	16	12	11	150	9.5	8	20				
AH16Q-SDQCR/L07	○	○	20	16	14	180	12	6	30				
AH20R-SDQCR/L11	○	○	25	20	18	200	14.5	6	40	I60M3.5×8	WT15IP		
AH25R-SDQCR/L11	○	○	32	25	23	200	17	6	40				

Applicable insert Wendeschneidplatten

Application Anwendung	Extra Finishing Feinbearbeitung	Finishing Schlichten	Semi-finishing Mittlere Bearbeit.	Roughing Schruppen	Al machining Alu Bearbeitung	Cast iron machining Grauguss Bearbeit.
insert shape Schneidplattenform	**SF**  A88	**HF**  A88	**HM**  A89	**HR**  A90	**LH**  A90	Flat  A90
		EF  A89	**EM**  A89			
Type · Typ **-SDQCR/L07	DC**0702**	DC**0702**	DC**0702**		DCGX0702**	DC**0702**
Type · Typ **-SDQCR/L11	DC**11T3**	DC**11T3**	DC**11T3**	DC**11T3**	DCGX11T3**	DC**11T3**

● ex stock · ab Lager ○ on demand · auf Anfrage ♦ Toolholder with holes for coolant · Klemmhalter mit Kühlmittelbohrung

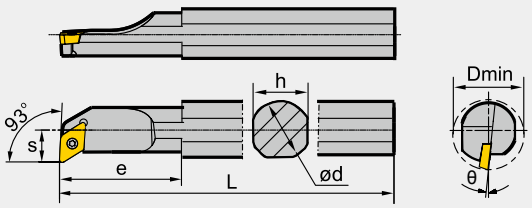
DC** Toolholder · Halter

S-Clamping / S-Halter

SDUCR/L

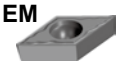
Kr:93°

R type
Rechtsausführung



Type · Typ	Stock Lager		Dimension (mm) Abmessung							Screw Schraube	Wrench Schlüssel		
	R	L	Dmin	ød	h	L	S	θ	e				
S10M-SDUCR/L07	●	●	13	10	9	150	7	-8°	0	I60M2.5×5.5	WT07IP		
S12M-SDUCR/L07	●	●	16	12	11	150	9	-8°	22	I60M2.5×6.5			
S16M-SDUCR/L07	●	●	20	16	15	150	11	-6°	27				
S16R-SDUCR/L07	●	●	20	16	15	200	11	-6°	27				
S20Q-SDUCR/L11	●	●	25	20	18	180	13	-6°	40	I60M3.5×8	WT15IP		
S20S-SDUCR/L11	●	●	25	20	18	250	13	-6°	40				
S25Q-SDUCR/L11	●	●	32	25	23	180	17	-6°	46	I60M3.5×10			
S25T-SDUCR/L11	●	●	32	25	23	300	17	-6°	46				
♦ A10H-SDUCR/L07	●	●	13	10	9.5	100	7	-8°	0	I60M2.5×5.5	WT07IP		
♦ A12K-SDUCR/L07	●	●	16	12	11.5	125	9	-8°	22	I60M2.5×6.5			
♦ A16M-SDUCR/L07	●	●	20	16	15.5	150	11	-6°	27				
♦ A20Q-SDUCR/L11	●	●	25	20	19	180	13	-6°	40	I60M3.5×8	WT15IP		
♦ A25R-SDUCR/L11	●	●	32	25	24	200	17	-6°	46	I60M3.5×10			
AH10K-SDUCR/L07	○	○	14	10	9	125	8.3	-8	20	I60M2.5×6.5	WT07IP		
AH12M-SDUCR/L07	○	○	16	12	11	150	9.3	-8	25				
AH16Q-SDUCR/L07	○	○	20	16	14	180	11.3	-6	25				
AH20R-SDUCR/L11	○	○	26	20	18	200	16.1	-6	30	I60M3.5×8	WT15IP		
AH25R-SDUCR/L11	○	○	32	25	23	200	18.6	5	40				

Applicable insert
Wendeschneidplatten

Application Anwendung	Extra Finishing Feinbearbeitung	Finishing Schlichten	Semi-finishing Mittlere Bearbeit.	Roughing Schruppen	Al machining Alu Bearbeitung	Cast iron machining Grauguss Bearbeit.
insert shape Schneidplattenform	**SF**  A88	**HF**  A88	**HM**  A89	**HR**  A90	**LH**  A90	Flat  A90
		EF  A89	**EM**  A89			

Type · Typ						
****-SDUCR/L07**	DC**0702**	DC**0702**	DC**0702**		DCGX0702**	DC**0702**
****-SDUCR/L11**	DC**11T3**	DC**11T3**	DC**11T3**	DC**11T3**	DCGX11T3**	DC**11T3**

♦ Toolholder with holes for Coolant · Klemmhalter mit Kühlmittelbohrung

● ex stock · ab Lager ○ on demand · auf Anfrage

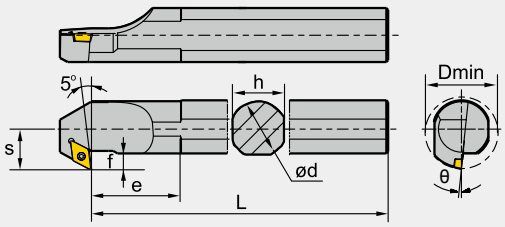
DC** Toolholder · Halter

S-Clamping / S-Halter

SDZCR/L

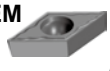
Kr:85°

R type
Rechtsausführung



Type · Typ	Stock Lager		Dimension (mm) Abmessung								Screw Schraube	Wrench Schlüssel	Shim Unterlage	Shim/ Screw Schraube Unterlage
	R	L	Dmin	ød	h	L	S	θ	e	f				
S25Q-SDZCR/L11	●	●	32	25	23	180	17	-6°	30	6.9	I60M3.5×10	WT15IP		
S25T-SDZCR/L11	●	●	32	25	23	300	17	-6°	30	6.9				
S32R-SDZCR/L11	●	●	40	32	30	200	22	-6°	.39	8.4	I60M3.5×12	WT15IP WH35L	D11BS	SM5×8.65XA
S32U-SDZCR/L11	●	●	40	32	30	350	22	-6°	.39	8.4				
S40S-SDZCR/L11	●	●	50	40	37	250	27	-4°	47	9.4				
S40V-SDZCR/L11	●	●	50	40	37	400	27	-4°	47	9.4				
♦ A25R-SDZCR/L11	●	●	32	25	24	200	17	-6°	30	4.5	I60M3.5×10	WT15IP		
♦ A32S-SDZCR/L11	●	●	40	32	31	250	22	-6°	39	6.0	I60M3.5×12	WT15IP WH35L	D11BS	SM5×8.65XA

Applicable insert
Wendeschneidplatten

Application Anwendung	Extra Finishing Feinbearbeitung	Finishing Schlichten	Semi-finishing Mittlere Bearbeit.	Roughing Schruppen	Al machining Alu Bearbeitung	Cast iron machining Grauguss Bearbeit.
insert shape Schneidplattenform	**SF**  A88	**HF**  A88	**HM**  A89	**HR**  A90	**LH**  A90	 A90
		EF  A89	**EM**  A89			
Type · Typ **-SDZCR/L11	DC**11T3**	DC**11T3**	DC**11T3**	DC**11T3**	DCGX11T3**	DC**11T3**

● ex stock · ab Lager ○ on demand · auf Anfrage ♦ Toolholder with holes for coolant · Klemmhalter mit Kühlmittelbohrung

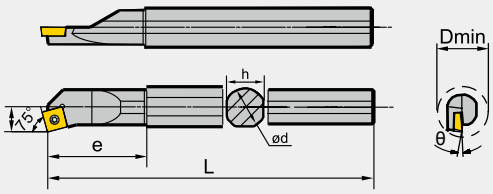
SC** Toolholder · Halter

S-Clamping / S-Halter

SSKCR/L

Kr:75°

R type
Rechtsausführung



Type · Typ	Stock Lager		Dimension (mm) Abmessung							Screw Schraube	Wrench Schlüssel	Shim Unterlage	Shim/ Screw Schraube Unterlage
	R	L	Dmin	ød	h	L	S	θ	e				
S12M- SSKCR/L09	●	●	16	12	11	150	9	-10	26	I60M3.5×8	WT15IP		
S16M- SSKCR/L09	●	●	20	16	15	150	11	-11	32.5				
S16R- SSKCR/L09	●	●	20	16	15	200	11	-11	32.5				
S20Q- SSKCR/L09	●	●	25	20	18	180	13	-6	34.5				
S20S- SSKCR/L09	●		25	20	18	250	13	-6	34.5				
S25Q- SSKCR/L12	●	●	32	25	23	180	17	-8	36.3	I60M4×11X	WT15IP		
S25T- SSKCR/L12	●	●	32	25	23	300	17	-8	36.3				
S32R- SSKCR/L12	●	●	40	32	30	200	22	-10	43.5		WT15IP WH40L	S12BS	SM6×10XA
S32U- SSKCR/L12	●		40	32	30	350	22	-10	43.5				
♦ A12K- SSKCR/L09	●		16	12	11	125	9	-10	26	I60M3.5×8	WT15IP		
♦ A16M- SSKCR/L09	●		20	16	15	150	11	-11	32.5				
♦ A20Q- SSKCR/L09	●		25	20	19	180	13	-6	34.5				
♦ A25R- SSKCR/L12	●	●	32	25	24	200	17	-8	41.3	I60M4×11X	WT15IP		
♦ A32S- SSKCR/L12	●		40	32	31	250	22	-10	42.8		WT15IP WH40L	S12BS	SM6×10XA

Applicable insert
Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-finishing Mittlere Bearbeit.	Roughing Schruppen	Al machining Alu Bearbeitung	Cast iron machining Grauguss Bearbeit.
insert shape Schneidplattenform	**HF**  A94	**HM**  A94	**HR**  A95	**LH**  A95	Flat  A95
	EF  A94	**EM**  A94			
Type · Typ **-SSKCR/L09	SC**09T3**	SC**09T3**	SC**09T3**	SCGX09T3**	SC**09T3**
**-SSKCR/L12		SC**1204**	SC**1204**	SCGX1204**	SC**1204**

♦ Toolholder with holes for Coolant · Klemmhalter mit Kühlmittelbohrung ● ex stock · ab Lager ○ on demand · auf Anfrage

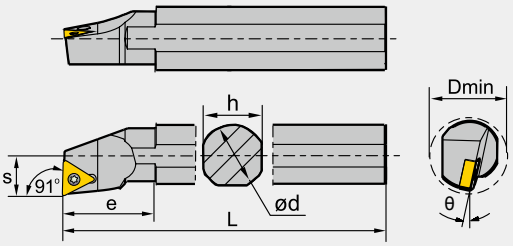
TC** Toolholder · Halter

S-Clamping / S-Halter

STFCR/L

Kr:91°/*Kr:90°

R type
Rechtsausführung



Type · Typ	Stock Lager R	Stock Lager L	Dimension (mm) Abmessung Dmin	ød	h	L	S	θ	e	Screw Schraube	Wrench Schlüssel	Shim Unterlage	Shim/ Screw Schraube Unterlage
S12M-STFCR/L11	●	●	16	12	11	150	9	-10°	30	I60M2.5×6.5	WT07IP		
S16M-STFCR/L11	●	●	20	16	15	150	11	-6°	35				
S16R-STFCR/L11	●	●	20	16	15	200	11	-6°	35				
S20Q-STFCR/L11	●	●	25	20	18	180	13	-3°	36				
S20S-STFCR/L11	●	●	25	20	18	250	13	-3°	36				
S25Q-STFCR/L16	●	●	32	25	23	180	17	-6°	49	I60M3.5×10	WT15IP		
S25T-STFCR/L16	●	●	32	25	23	300	17	-6°	49				
S32R-STFCR/L16	●	●	40	32	30	200	22	-10°	50	I60M3.5×12	WT15IP WH35L	T16BS	SM5×8.65XA
S32U-STFCR/L16	●	●	40	32	30	350	22	-10°	50				
S40S-STFCR/L16	●	●	50	40	37	250	27	-8°	60				
S40V-STFCR/L16	●	●	50	40	37	400	27	-8°	60				
♦ A12K-STFCR/L11	●	●	16	12	11.5	125	9	-10°	26	I60M2.5×6.5	WT07IP		
♦ A16M-STFCR/L11	●	●	20	16	15.5	150	11	-6°	30				
♦ A20Q-STFCR/L11	●	●	25	20	19	180	13	-3°	36				
♦ A25R-STFCR/L16	●	●	32	25	24	200	17	-6°	45	I60M3.5×10	WT15IP		
♦ A32S-STFCR/L16	●	●	40	32	31	250	22	-10°	49	I60M3.5×12	WT15IP	T16BS	SM5×8.65XA
***AH10K-STFCR/L11**	○	○	12	10	9	125	7	12	16	I60M2.5×6.5	WT07IP		
***AH12M-STFCR/L11**	○	○	14	12	11	150	9	10	20				
***AH16Q-STFCR/L11**	○	○	18	16	14	180	11	8	25				
***AH20R-STFCR/L11**	○	○	23	20	18	200	13	7	32				
***AH25R-STFCR/L16**	○	○	28	25	23	200	17	5	40	I60M3.5×12	WT15IP		

Applicable insert
Wendeschneidplatten

Application Anwendung	Extra Finishing Feinbearbeitung	Finishing Schlichten	Semi-finishing Mittlere Bearbeit.	Roughing Schruppen	Al machining Alu Bearbeitung	Cast iron machining Grauguss Bearbeit.
insert shape Schneidplattenform	**SF**  A98	**HF**  A99	**HM**  A101	**HR**  A101	**LH**  A101	 A102
		EF  A100	**EM**  A100			
Type · Typ **-STFCR/L11	TC**1102**	TC**1102**	TC**1102**	TC**1102**	TCGX1102**	TC**1102**
**-STFCR/L16	TC**16T3**	TC**16T3**	TC**16T3**	TC**16T3**	TCGX16T3**	TC**16T3**

● ex stock · ab Lager ○ on demand · auf Anfrage ♦ Toolholder with holes for coolant · Klemmhalter mit Kühlmittelbohrung

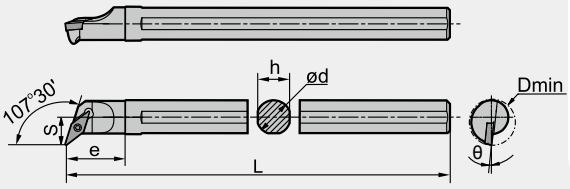
VC** Toolholder · Halter

S-Clamping / S-Halter

SVQCR/L

Kr:107°30'

R type
Rechtsausführung



Type · Typ	Stock Lager		Dimension (mm) Abmessung							Screw Schraube	Wrench Schlüssel		
	R	L	Dmin	ød	h	L	S	θ	e				
S16Q-SVQCR/L11	●	●	22	16	15	180	13	-6°	28	I60M2.5×6.5	WT07IP		
S20R-SVQCR/L11	●	●	26	20	18	200	15	-4°	32				

Applicable insert
Wendeschneidplatten

Application Anwendung	Extra Finishing Feinbearbeitung	Finishing Schlichten	Al machining Alu Bearbeitung
insert shape Schneidplattenform	**SF**  A106	**HF**  A106	**LH**  A107
Type · Typ ****-SVQCR/L11**	VC**1103**	VC**1103**	VCGX1103**

♦ Toolholder with holes for Coolant · Klemmhalter mit Kühlmittelbohrung ● ex stock · ab Lager ○ on demand · auf Anfrage

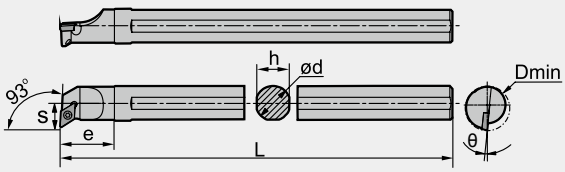
VC** Toolholder · Halter

S-Clamping / S-Halter

SVUCR/L

Kr:93°

R type
Rechtsausführung



Type · Typ	Stock Lager		Dimension (mm) Abmessung							Screw Schraube	Wrench Schlüssel		
	R	L	Dmin	ød	h	L	S	θ	e				
S16Q-SVUCR/L11	●	●	24	16	15	180	15	-6°	25	I60M2.5×6.5	WT07IP		
S20R-SVUCR/L11	●	●	28	20	18	200	17	-4°	30				

Applicable insert
Wendeschneidplatten

Application Anwendung	Extra Finishing Feinbearbeitung	Finishing Schlichten	Al machining Alu Bearbeitung
insert shape Schneidplattenform	**SF**  A106	**HF**  A106	**LH**  A107
Type · Typ **-SVUCR/L11	VC**1103**	VC**1103**	VCGX1103**

● ex stock · ab Lager ○ on demand · auf Anfrage ♦ Toolholder with holes for coolant · Klemmhalter mit Kühlmittelbohrung

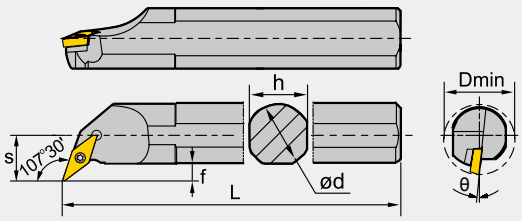
VB** Toolholder · Halter

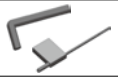
S-Clamping / S-Halter

SVQBR/L

Kr:107°30'

R type
Rechtsausführung



Type · Typ	Stock Lager		Dimension (mm) Abmessung								Screw Schraube	Wrench Schlüssel	Shim Unterlage	Shim/ Screw Schraube Unterlage
	R	L	Dmin	ød	h	L	S	θ	e	f				
S32R-SVQBR/L16			40	32	30	200	22	-8°	56	8.4	I60M3.5×12	WT15IP WH35L	V16BS	SM5×8.65XA
S32U-SVQBR/L16	●	●	40	32	30	350	22	-8°	56	8.4				
S40S-SVQBR/L16			50	40	37	250	27	-8°	64	9.4				
S40V-SVQBR/L16	●	●	50	40	37	400	27	-8°	64	9.4				
♦ A32S- SVQBR/L16	●	●	40	32	31	250	22	-8°	56	8.4				

Applicable insert Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Cast iron machining Grauguss Bearbeitung
insert shape Schneidplattenform	**EF**  A108	**HM**  A109	**HR**  A109	Flat  A109
	NF  A108			
Type · Typ **-SVQBR/L16	VB**1604**	VB**1604**	VB**1604**	VB**1604**

♦ Toolholder with holes for Coolant · Klemmhalter mit Kühlmittelbohrung

● ex stock · ab Lager ○ on demand · auf Anfrage

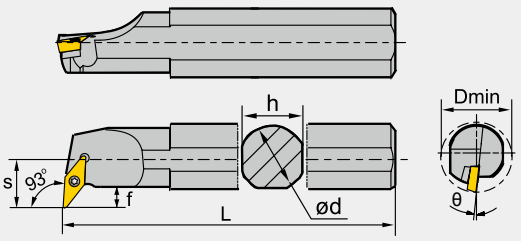
VB** Toolholder · Halter

S-Clamping / S-Halter

SVUBR/L

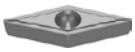
Kr:93°

R type
Rechtsausführung



Type · Typ	Stock Lager		Dimension (mm) Abmessung								Screw Schraube	Wrench Schlüssel	Shim Unterlage	Shim/ Screw Schraube Unterlage
	R	L	Dmin	ød	h	L	S	θ	e	f				
S32R-SVUBR/L16	●	●	40	32	30	200	22	-8°	49	8.4	I60M3.5×12	WT15IP WH35L	V16BS	SM5×8.65XA
S32U-SVUBR/L16	●	●	40	32	30	350	22	-8°	49	8.4				
S40S- SVUBR/L16	●	●	50	40	37	250	27	-8°	56.5	9.4				
S40V- SVUBR/L16	●	●	50	40	37	400	27	-8°	56.5	9.4				
♦ A32S- SVUBR/L16	●	●	40	32	31	250	22	-8°	49	8.4				

Applicable insert
Wendeschneidplatten

Application Anwendung	Finishing Schlichten	Semi-Finishing Mittlere Bearbeitung	Roughing Schruppen	Cast iron machining Grauguss Bearbeitung
insert shape Schneidplattenform	**HF**  A108	**HM**  A109	**HR**  A109	Flat  A109
	EF  A108	**EM**  A109		
	NF  A108			
Type · Typ ****-SVUBR/L16**	VB**1604**	VB**1604**	VB**1604**	VB**1604**

● ex stock · ab Lager ○ on demand · auf Anfrage ♦ Toolholder with holes for coolant · Klemmhalter mit Kühlmittelbohrung

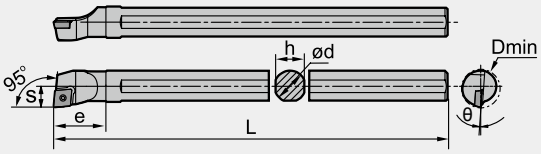
CP** Toolholder · Halter

S-Clamping / S-Halter

SCLPR/L

Kr:95°

R type
Rechtsausführung



Type · Typ	Stock Lager		Dimension (mm) Abmessung							Screw Schraube	Wrench Schlüssel		
	R	L	Dmin	ød	h	L	S	θ	e				
S10K-SCLPR/L06	●	●	12	10	9	125	6	-7°	17	I60M2.5×5.5	WT07IP		
S12M-SCLPR/L06	●	●	16	12	11	150	8	-4°	20				
S16Q-SCLPR/L09	●	●	20	16	15	180	10	-4°	29	I60M3.5×8	WT15IP		
S20R-SCLPR/L09	●	●	25	20	18	200	13	-4°	35				

Applicable insert
Wendeschneidplatten

Type · Typ	Application Anwendung	Extra Finishing Feinbearbeitung
	insert shape Schneidplattenform	**SF**  A87
	****-SCLPR/L06**	CP**0602**
	****-SCLPR/L09**	CP**09T3**

♦ Toolholder with holes for Coolant · Klemmhalter mit Kühlmittelbohrung ● ex stock · ab Lager ○ on demand · auf Anfrage

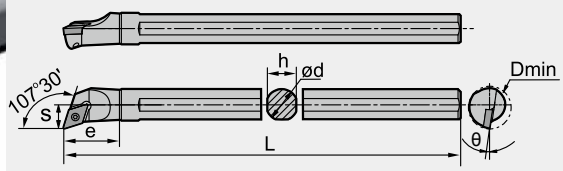
DP** Toolholder · Halter

S-Clamping / S-Halter

SDQPR/L

Kr:107°30'

R type
Rechtsausführung



Type · Typ	Stock Lager		Dimension (mm) Abmessung							Screw Schraube	Wrench Schlüssel		
	R	L	Dmin	ød	h	L	S	θ	e				
S10K-SDQPR/L07	●	●	13	10	9	125	7	-8°	20	I60M2.5×5.5	WT07IP		
S12M-SDQPR/L07	●	●	16	12	11	150	9	-8°	22				
S16Q-SDQPR/L07	●	●	20	16	15	180	11	-6°	27	I60M2.5×6.5			
S16Q-SDQPR/L11	●	●	20	16	15	180	11	-6°	32	I60M3.5×8	WT15IP		
S20R-SDQPR/L11	●	●	25	20	18	200	13	-6°	33				

Applicable insert
Wendeschneidplatten

Application Anwendung	Extra Finishing Feinbearbeitung
insert shape Schneidplattenform	**SF**  A91
Type · Typ ****-SDQPR/L07**	DP**0702**
Type · Typ ****-SDQPR/L11**	DP**11T3**

● ex stock · ab Lager ○ on demand · auf Anfrage ♦ Toolholder with holes for coolant · Klemmhalter mit Kühlmittelbohrung

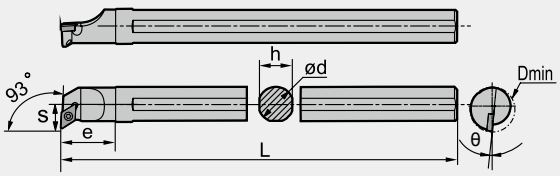
DP** Toolholder · Halter

S-Clamping / S-Halter

SDUPR/L

Kr:93°

R type
Rechtsausführung



Type · Typ	Stock Lager		Dimension (mm) Abmessung							Screw Schraube	Wrench Schlüssel		
	R	L	Dmin	ød	h	L	S	θ	e				
S10K-SDUPR/L07	●	●	15	10	9	125	9	-8°	18	I60M2.5×5.5	WT07IP		
S12M-SDUPR/L07	●	●	16	12	11	150	9	-8°	19				
S16Q-SDUPR/L07	●	●	20	16	15	180	11	-6°	25	I60M2.5×6.5			

Applicable insert
Wendeschneidplatten

Application Anwendung	Extra Finishing Feinbearbeitung
insert shape Schneidplattenform	**SF**  A91
Type · Typ **-SDUPR/L07	DP**0702**

♦ Toolholder with holes for Coolant · Klemmhalter mit Kühlmittelbohrung ● ex stock · ab Lager ○ on demand · auf Anfrage

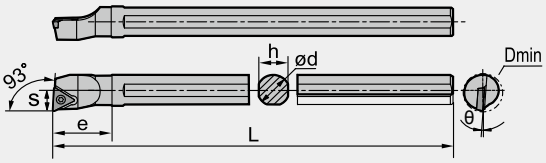
TP** Toolholder · Halter

S-Clamping / S-Halter

STUPR/L

Kr:93°

R type
Rechtsausführung



Type · Typ	Stock Lager		Dimension (mm) Abmessung							Screw Schraube	Wrench Schlüssel		
	R	L	Dmin	ød	h	L	S	θ	e				
S10K-STUPR/L09	●	●	12	10	9	125	6	-6°	20	I60M2.5×5.5	WT07IP		
S12M-STUPR/L09	●	●	16	12	11	150	8	-4°	22				
S12M-STUPR/L11	●	●	16	12	11	150	8	-4°	25	I60M2.5×6.5	WT07IP		
S16Q-STUPR/L11	●	●	20	16	15	180	10	-3°	27				

Applicable insert
Wendeschneidplatten

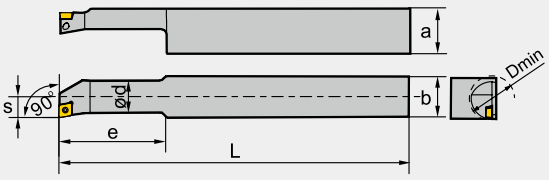
Type · Typ	Application Anwendung	Extra Finishing Feinbearbeitung
	insert shape Schneidplattenform	**SF**  A103
**-STUPR/L09		TP**0902**
**-STUPR/L11		TP**1103**

● ex stock · ab Lager ○ on demand · auf Anfrage ♦ Toolholder with holes for coolant · Klemmhalter mit Kühlmittelbohrung

CC** Toolholder · Halter

S-Clamping / S-Halter

SCFCR
Kr:90°



Type · Typ	Stock Lager		Dimension (mm) Abmessung							Screw Schraube	Wrench Schlüssel		
	R	L	Dmin	ød	L	s	a	b	e				
S10M-SCFCR/L06S25	●	●	13	10	150	7	27	25	30	I60M2.5×5.5	WT07IP		
S12P-SCFCR/L06S25	●		16	12	170	9	27	25	35	I60M2.5×6.5			
S16Q-SCFCR/L09S25	●	●	20	16	180	11	27	25	40	I60M3.5×8	WT15IP		
S20R-SCFCR/L09S25	●		25	20	200	13	27	25	45				
S25R-SCFCR/L12S25	●		32	25	200	17	27	25	50	I60M5×13	WT20IP		

Applicable insert
Wendeschneidplatten

Application Anwendung	Extra Finishing Feinbearbeitung	Finishing Schlichten	Semi-finishing Mittlere Bearbeit.	Roughing Schruppen	Al machining Alu Bearbeitung	Cast iron ma. Grauguss Bear.
insert shape Schneidplattenform	**SF**  A84	**HF**  A84	**HM**  A85	**HR**  A86	**LH**  A86	 A86
		EF  A85	**EM**  A85			
Type · Typ **-SCFCR06	CC**0602**	CC**0602**	CC**0602**	CC**0602**	CCGX0602**	CC**0602**
**-SCFCR09	CC**09T3**	CC**09T3**	CC**09T3**	CC**09T3**	CCGX09T3**	CC**09T3**
**-SCFCR12	CC**1204**	CC**1204**	CC**1204**	CC**1204**	CCGX1204**	CC**1204**

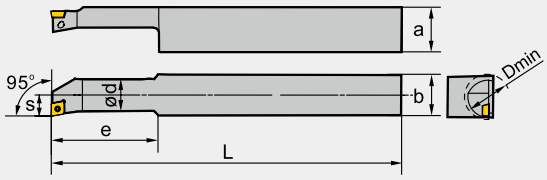
♦ Toolholder with holes for Coolant · Klemmhalter mit Kühlmittelbohrung ● ex stock · ab Lager ○ on demand · auf Anfrage

CC** Toolholder · Halter

S-Clamping / S-Halter

SCLCR

Kr:95°



Type · Typ	Stock Lager		Dimension (mm) Abmessung							Screw Schraube	Wrench Schlüssel		
	R	L	Dmin	ød	L	s	a	b	e				
S10M-SCLCR06S20	●		13	10	150	7	22	20	30	I60M2.5×5.5	WT07IP		
S12P-SCLCR06S20	●		16	12	170	9	22	20	35				
S16Q-SCLCR09S20	●		20	16	180	11	22	20	40	I60M3.5×8	WT15IP		
S20R-SCLCR09S20	●		25	20	200	13	22	20	60				

Applicable insert
Wendeschneidplatten

Application Anwendung	Extra Finishing Feinbearbeitung	Finishing Schlichten	Semi-finishing Mittlere Bearbeit.	Roughing Schruppen	Al machining Alu Bearbeitung	Cast iron machining Grauguss Bearbeit.
insert shape Schneidplattenform	**SF**  A84	**HF**  A84	**HM**  A85	**HR**  A86	**LH**  A86	 A86
		EF  A85	**EM**  A85			
Type · Typ ****-SCLCR06S20**	CC**0602**	CC**0602**	CC**0602**	CC**0602**	CCGX0602**	CC**0602**
****-SCLCR09S20**	CC**09T3**	CC**09T3**	CC**09T3**	CC**09T3**	CCGX09T3**	CC**09T3**

● ex stock · ab Lager ○ on demand · auf Anfrage ♦ Toolholder with holes for coolant · Klemmhalter mit Kühlmittelbohrung

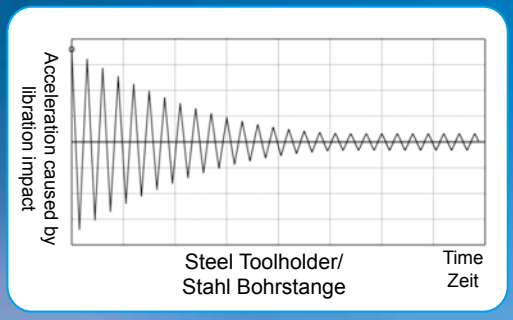
Anti Vibration Boring Bar
Anti Vibration Bohrstange

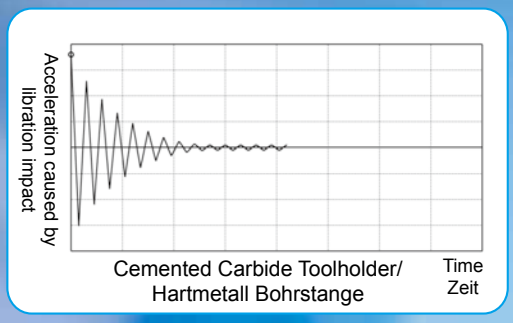
Technical features · Technische Merkmale

By increasing the rigidity of the tool materials the vibration will be reduced. The carbide toolholder performs much better than steel toolholder. The cutting data can be increased and the shank overhang extended. Therefore you achieve better surface and higher workpiece precision.

Durch den Einsatz von Hartmetall als Werkzeugmaterial wird die Stabilität des Werkzeuges verbessert, und Vibrationen werden reduziert.
Die Hartmetall-Bohrstange erlaubt durch die Stabilität höhere Schnittleistungen und eine größere Auskragung. Darüberhinaus wird eine höhere Werkstückpräzision und eine exzellente Oberflächenqualität erzielt.

Vibration amplitude · Schwingungsausschlag





Under same machining conditions:
Bei gleichen Bearbeitungsbedingungen:

The maximum overhang of carbide toolholder is ca. L≤6D

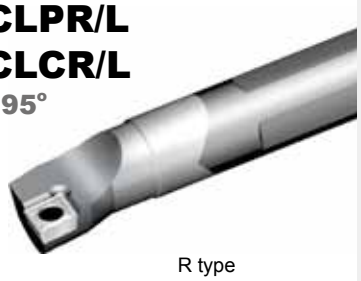
Die maximale Auskragung beim Einsatz von Hartmetall-Bohrstangen beträgt ca. L≤6D

The maximum overhang of steel toolholder is suggested to be ca. L≤3D

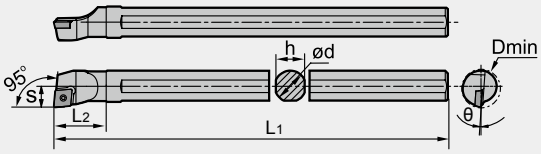
Die maximale Auskragung beim Einsatz von Stahl-Bohrstangen beträgt ca. L≤3D

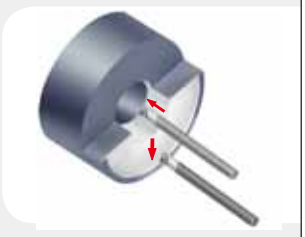
CP** / CC** Toolholder · Halter S-Clamping / S-Halter

SCLPR/L
SCLCR/L
Kr:95°



R type
Rechtsausführung





Type · Typ	Stock Lager		Dimension (mm) Abmessung							Screw Schraube	Wrench Schlüssel	Shim Unterlage	Shim/ Screw Schraube Unterlage
	R	L	ØD	ød	s	L_1	L_2	h	θ				
C10M-SCLPR/L06	●	●	12	10	6	150	17	9	7°	I60M2.5×5.5	WT07IP		
C12Q-SCLPR/L06	●		16	12	8	180	20	11	4°				
C16R-SCLPR/L09	●	●	20	16	10	200	29	15	4°	I60M3.5×8	WT15IP		
C20S-SCLPR/L09	●	●	25	20	13	250	35	18	4°				
♦ E16R-SCLPR/L09	○	○	19	16	10	200		15.5	-2°	I60M3.5×10	WT15IP		
♦ E20S-SCLPR/L09	○	○	24	20	13	250		19.5	-2°				
♦ E08K-SCLCR/L06-9	●	○	9	8	5	125		7.5	-12°	I60M2.5×5.5	WT07IP		
♦ E08K-SCLCR/L06-10	●	○	10	8	6	125		7.5	-12°				
♦ E10M-SCLCR/L06	●	○	12	10	7	150		9.5	-10°				
♦ E12Q-SCLCR/L06	●	○	15	12	9	180		11.5	-10°				
♦ E12Q-SCLCR/L09	●	●	15	12	9	180		11.5	-9°	I60M3.5×8	WT15IP		
♦ E16R-SCLCR/L06	●	○	18	16	10	200		15.5	-8°	I60M2.5×5.5	WT07IP		
♦ E16R-SCLCR/L09	●	●	18	16	10	200		15.5	-10°	I60M3.5×10	WT15IP		
♦ E20S-SCLCR/L09	●	●	24	20	13	250		19.5	-8°				
♦ E25T-SCLCR/L09	●	○	31	25	17	300		24	-6°				

Weitere Durchmesser auf Anfrage / more diameter on demand

Applicable insert
Wendeschneidplatten

Type · Typ	Application Anwendung	Extra Finishing Feinbearbeitung
	insert shape Schneidplattenform	**SF**  A87
	C*-SCLPR/L06	CP**0602**
	C*--SCLPR/L09	CP**09T3**
	E*-SCLCR/L06	CC**0602**
	E*--SCLCR/L09	CC**09T3**

● ex stock · ab Lager ○ on demand · auf Anfrage ♦ Toolholder with holes for coolant · Klemmhalter mit Kühlmittelbohrung

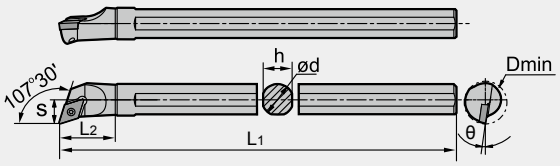
DP** / DC** Toolholder · Halter

S-Clamping / S-Halter

SDQPR/L
SDQCR/L

Kr:107°30'

R type
Rechtsausführung



Type · Typ	Stock Lager		Dimension (mm) Abmessung							Screw Schraube	Wrench Schlüssel		
	R	L	ØD	ød	s	L_1	L_2	h	θ				
C10M-SDQPR/L07	●	●	13	10	7	150	20	9	8°	I60M2.5×5.5	WT07IP		
C12Q-SDQPR/L07		●	16	12	9	180	22	11	8°				
C16R-SDQPR/L07	●		20	16	11	200	27	15	6°	I60M2.5×6.5			
C16R-SDQPR/L11	●	●	20	16	11	200	32	15	6°	I60M3.5×8	WT15IP		
C20S-SDQPR/L11	●		25	20	13	250	33	18	6°				
♦ E08K-SDQCR/L07	●	○	11	8	6.5	140		7.5	-12°	I60M2.5×5.5	WT07IP		
♦ E10M-SDQCR/L07	●	○	12	10	7	150		9.5	-10°				
♦ E12Q-SDQCR/L07	●	○	15	12	9	180		11.5	-10°				
♦ E16R-SDQCR/L07	●	○	18	16	10	200		15.5	-6°				
♦ E16R-SDQCR/L11	●	○	18	16	10	200		15.5	-8°	I60M3.5×10	WT15IP		
♦ E20S-SDQCR/L07	●	○	24	20	13	250		19.5	-4°	I60M2.5×5.5	WT07IP		
♦ E20S-SDQCR/L11	●	○	24	20	13	250		19.5	-8°	I60M3.5×10	WT15IP		
♦ E25T-SDQCR/L11	○	○	31	25	17	300		24	-6°				

Weitere Durchmesser auf Anfrage / more diameter on demand

Applicable insert
Wendeschneidplatten

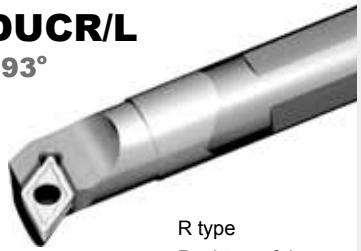
Type · Typ	Application Anwendung	Extra Finishing Feinbearbeitung
	insert shape Schneidplattenform	**SF**  A93
	C*-SDQPR/L07	DP**0702**
	C*-SDQPR/L11	DP**11T3**
	E*-SDQCR/L07	DC**0702**
	E*--SDQCR/L11	DC**11T3**

♦ Toolholder with holes for Coolant · Klemmhalter mit Kühlmittelbohrung ● ex stock · ab Lager ○ on demand · auf Anfrage

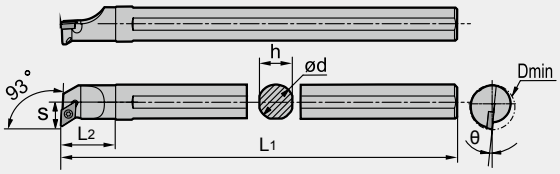
DP** / DC** Toolholder · Halter

S-Clamping / S-Halter

SDUPR/L
SDUCR/L
Kr:93°



R type
Rechtsausführung



Type · Typ	Stock Lager		Dimension (mm) Abmessung							Screw Schraube	Wrench Schlüssel		
	R	L	ØD	ød	s	L_1	L_2	h	θ				
C10M-SDUPR/L07	●	●	15	10	9	150	18	9	8°	I60M2.5×5.5	WT07IP		
C12Q-SDUPR/L07	●	●	16	12	9	180	19	11	8°	I60M2.5×6.5			
C16R-SDUPR/L07	●	●	20	16	11	200	25	15	6°				
♦ E10M-SDUCR/L 07	●	○	12	10	7	150		9.5	-10°	I60M2.5×5.5	WT07IP		
♦ E12Q-SDUCR/L 07	●	○	15	12	9	180		11.5	-10°				
♦ E16R-SDUCR/L 07	●	○	18	16	10	200		15.5	-6°				
♦ E16R-SDUCR/L 11	●	○	18	16	10	200		15.5	-8°	I60M3.5×10	WT15IP		
♦ E20S-SDUCR/L 07	○	○	24	20	13	250		19.5	-4°	I60M2.5×5.5	WT07IP		
♦ E20S-SDUCR/L 11	○	○	24	20	13	250		19.5	-8°	I60M3.5×10	WT15IP		
♦ E25T-SDUCR/L 11	○	○	31	25	17	300		24	-6°				

Weitere Durchmesser auf Anfrage / more diameter on demand

Applicable insert Wendeschneidplatten		
Application Anwendung		Extra Finishing Feinbearbeitung
insert shape Schneidplattenform		**SF**  A93
Type · Typ	**C*-SDUPR/L07**	DP**0702**
	E*-SDUCR/L07	DC**0702**
	E*-SDUCR/L11	DC**11T3**

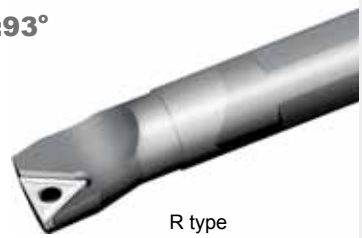
● ex stock · ab Lager ○ on demand · auf Anfrage ♦ Toolholder with holes for coolant · Klemmhalter mit Kühlmittelbohrung

TP** Toolholder · Halter

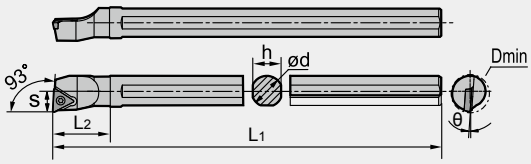
S-Clamping / S-Halter

STUPR/L

Kr:93°



R type
Rechtsausführung



Type · Typ	Stock Lager		Dimension (mm) Abmessung							Screw Schraube	Wrench Schlüssel		
	R	L	ØD	ød	s	L_1	L_2	h	θ				
C10M-STUPR/L09	●	●	12	10	6	150	20	9	6°	I60M2.2×5.5	WT07IP		
C12Q-STUPR/L09	●		16	12	8	180	22	11	4°				
C12Q-STUPR/L11	●		16	12	8	180	25	11	4°	I60M2.5×6.5	WT07IP		
C16R-STUPR/L11	●		20	16	10	250	27	15	3°				

Applicable insert
Wendeschneidplatten

Application Anwendung	Extra Finishing Feinbearbeitung
insert shape Schneidplattenform	**SF**  A103
Type Typ **C*-STUPR/L09**	TP**0902**
Type Typ **C*-STUPR/L11**	TP**1103**

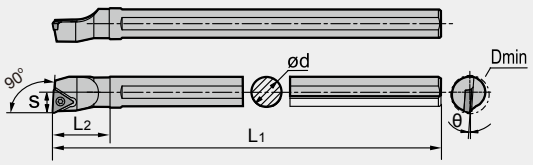
♦ Toolholder with holes for Coolant · Klemmhalter mit Kühlmittelbohrung ● ex stock · ab Lager ○ on demand · auf Anfrage

TC** Toolholder · Halter

S-Clamping / S-Halter

STFCR/L

Kr:90°



Type · Typ	Stock Lager		Dimension (mm) Abmessung							Screw Schraube	Wrench Schlüssel		
	R	L	ØD	ød	s	L_1	L_2	h	θ				
♦ **E08K-STFCR/L 09**	○	○	11	8	6	125		7.5	-12	I60M2.2×5.5	WT07IP		
♦ **E10M-STFCR/L 09**	○	○	12	10	7	150		9.5	-10				
♦ **E12Q-STFCR/L 11**	○	○	15	12	9	180		11.5	-10	I60M2.5×5.5	WT07IP		
♦ **E16R-STFCR/L 11**	○	○	18	16	10	200		15.5	-8				
♦ **E20S-STFCR/L 11**	○	○	24	20	13	250		19.5	-8				
♦ **E20S-STFCR/L 16**	○	○	24	20	13	250		19.5	-8	I60M3.5×10	WT15IP		
♦ **E25T-STFCR/L 16**	○	○	31	25	17	300		24	-6				
♦ **E10M-STFPR/L 11**	○	○	12	10	6	150		9.5	-5	I60M3.0×7.0	WT08IP		
♦ **E12Q-STFPR/L 11**	○	○	15	12	8	180		11.5	-4				
♦ **E16R-STFPR/L 11**	○	○	19	16	10	200		15.5	-2				
♦ **E20S-STFPR/L 11**	○	○	24	20	13	250		19	-2				

Weitere Durchmesser auf Anfrage / more diameter on demand

Applicable insert
Wendeschneidplatten

Type Typ	Application Anwendung	Extra Finishing Feinbearbeitung
	insert shape Schneidplattenform	**SF**  A98
	E*-STFCR/L09	TC**0902**
	E*-STFCR/L11	TC**1103**
	E*-STFCR/L16	TC**16T3**
	E*-STFPR/L11	TP**1103**

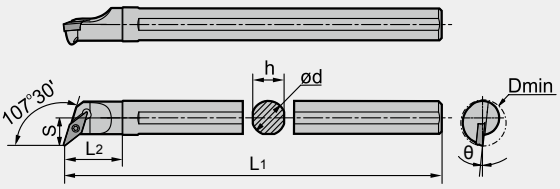
VC** Toolholder · Halter

S-Clamping / S-Halter

SVQCR/L

Kr:107°30'

R type
Rechtsausführung



Type · Typ	Stock Lager		Dimension (mm) Abmessung							Screw Schraube	Wrench Schlüssel		
	R	L	ØD	ød	s	L_1	L_2	h	θ				
C16R-SVQCR/L11	●	●	22	16	13	200	28	15	-6°	I60M2.5×6.5	WT07IP		
C20S-SVQCR/L11	●	●	26	20	15	250	32	18	-4°				

Applicable insert
Wendeschneidplatten

Application Anwendung	Extra Finishing Feinbearbeitung	Finishing Schlichten	Al machining Alu Bearbeitung
insert shape Schneidplattenform	**SF**  A106	**HF**  A106	**LH**  A107
Type · Typ **C*-SVQCR/L11**	VC**1103**	VC**1103**	VCGX1103**
Type · Typ **C*-SVUCR/L11**	VC**1103**	VC**1103**	VCGX1103**

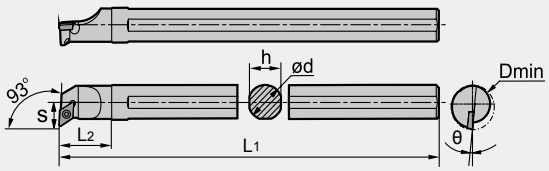
VC** Toolholder · Halter

S-Clamping / S-Halter

SVUCR/L

Kr:93°

R type
Rechtsausführung



Type · Typ	Stock Lager		Dimension (mm) Abmessung							Screw Schraube	Wrench Schlüssel		
	R	L	ØD	ød	s	L_1	L_2	h	θ				
C16R-SVUCR/L11	●	●	24	16	15	200	25	15	6°	I60M2.5×6.5	WT07IP		
C20S-SVUCR/L11	●	●	28	20	17	250	30	18	4°				
♦ E16R-SVUCR/L 11	○	○	22	16	13	200		15	-6.5°	I60M2.5×6.5	WT07IP		
♦ E20S-SVUCR/L 11	○	○	27	20	13	250		18	-6.5°				
♦ E25T-SVUCR/L 16	○	○	35	25	20.5	300		23	-6.5°	I60M3.5×10	WT15IP		

Weitere Durchmesser auf Anfrage / more diameter on demand

Applicable insert
Wendeschneidplatten

Application Anwendung	Extra Finishing Feinbearbeitung	Finishing Schlichten	Al machining Alu Bearbeitung
insert shape Schneidplattenform	**SF**  A106	**HF**  A106	**LH**  A107
Type · Typ **C*-SVUCR/L11**	VC**1103**	VC**1103**	VCGX1103**
Type · Typ **E*-SVUCR/L11**	VC**1103**	VC**1103**	VCGX1103**

● ex Stock Lager · ab Lager ○ on demand · auf Anfrage

♦ Toolholder with wholes for Coolant · Klemmhalter mit Kühlmittelbohrung

■ Recommended cutting data · Empfohlene Schnittdaten

ISO	Workpiece Materials Werk-stückstoff		Hardness · Härte HB	CVD Coating · Beschichtung					PVD Coating · Beschicht.			Cermet	Coated cermet	Cemented carbide/ unbe. Hartmetall		Ceramic Keramik	
				YBC151	YBC251	YBC152	YBC252	YBC351	YBG102	YBG202	YBG302	YNG151	YNG151C	YC10	YC40	CA1000	CN2000
				Feed rate · Vorschub (mm/rev)													
				0.1-0.6	0.1-0.8	0.1-0.6	0.1-0.8	0.2-1.0	0.2-0.4	0.1-0.6	0.05-0.8	0.05-0.2	0.05-0.2	0.1-0.4	0.1-0.5	0.1-1.5	0.1-1.5
				Cutting speed · Schnittgeschwindigkeit (m/min)													
P	Carbon steel Kohlenstoffstahl	C=0.15%	125	430-200	430-190	500-270	480-240	380-165	460-220	380-180	360-165	550-350	580-350	360-165	300-145	800-300	
		C=0.35%	150	380-180	410-180	460-250	460-230	300-150	440-210	300-170	280-150	500-300	520-300	280-150	220-130	600-200	
		C=0.60%	200	330-150	350-150	400-220	400-200	260-130	380-180	260-150	240-130	460-260	480-260	240-130	180-80	400-150	
	Alloy steel legierter Stahl	low alloy, annealed geglüht	180	350-170	350-150	400-180	400-200	200-100	380-180	200-120	180-100	410-240	430-240	180-100	160-80	150-180	400-150
		low alloy, tempered vergütet	275	230-100	210-100	280-150	260-140	140-70	240-120	140-90	120-70	300-180	320-180	120-70	120-50	350-120	300-100
		low alloy, tempered vergütet	300	210-100	190-70	260-150	240-120	125-60	220-100	125-80	100-60	250-170	270-170	100-60	80-40	300-100	250-80
		low alloy, tempered vergütet	350	180-80	170-70	230-120	220-120	110-55	200-100	110-75	90-55	230-150	250-150	90-55	70-45	300-80	
	High alloy steel Hochlegierter	high alloy, annealed geglüht	200	320-150	260-120	360-190	310-170	175-80	290-150	175-100	155-80	350-200	370-200	155-80	135-60	400-150	350-120
		high alloy, tempered vergütet	325	140-90	100-50	190-130	150-100	85-40	130-80	85-60	65-40	170-110	190-110	65-40	45-30	300-100	280-80
	Cast steel Stahlguss	Non-Alloy unlegiert	180	240-120	200-100	280-160	250-140	135-75	230-125	135-95	115-75	260-170	280-170	115-75	95-55	600-220	
		Low alloy niedrig legiert	200	230-70	170-60	280-110	220-110	120-80	200-90	120-100	100-80	260-170	280-170	100-80	80-60	400-150	
		High alloy hoch legiert	225	160-70	140-50	210-110	190-100	95-55	170-80	95-55	95-55	260-100	280-100	95-55	75-35	350-120	

ISO	Workpiece Materials Werk-stückstoff		Hardness · Härte HB	CVD Coating · Beschichtung					PVD Coating · Beschicht.			Cermet	Coated cermet				
				YBM151	YBM251				YBG202	YBG302		YNG151	YNG151C				
				Feed rate · Vorschub (mm/rev)													
				0.2-0.6	0.2-0.6				0.1-0.4	0.2-0.6		0.1-0.3	0.1-0.3				
				Cutting speed · Schnittgeschwindigkeit (m/min)													
M	Stainless steel Rostfreier Stahl	Ferrite	180	280-180	250-140				300-190	250-150		330-220	350-210				
		Austenite	260	250-150	200-110				250-160	220-120		250-150	270-140				
		Martensite	330	200-140	210-130				260-170	210-120		270-170	290-160				

Recommended table of cutting parameters for general turning
Empfohlene Schnittparameter für allgemeine Drehbearbeitung

ISO	Workpiece Materials Werk-stückstoff		Hardness · Härte HB	CVD Coating · Beschichtung					Cermet	Coated cermet	Ceramic Keramik			Cemented carbide/ unbe. Hartmetall	
				YBD052	YBD151	YBD102	YBD152	YBD252	YNG151	YNG151C	CA1000	CN1000	CN2000	YC10	YC40
				Feed rate · Vorschub (mm/rev)											
				0.1-0.4	0.1-0.6	0.1-0.4	0.1-0.5	0.1-0.8	0.1-0.4	0.1-0.4	0.1-1.5	0.1-1.5	0.1-1.5	0.1-0.3	0.1-0.4
				Cutting speed · Schnittgeschwindigkeit (m/min)											
K	Malleable cast iron Temperguss	Ferrite	130	350-230	315-210	330-220	320-105	250-170	280-160	300-180	1200-200	800-600	800-600	150-90	105-45
		Pearlite	230	250-105	225-95	230-100	230-100	180-75	220-120	240-150	1000-200	700-500	700-500	120-70	80-30
	Low cast iron Grauguss		180	520-200	450-180	480-200	480-190	380-150	400-250	420-270	1200-200	800-600	700-500	170-100	130-60
	High cast iron Grauguss		260	230-120	210-110	220-115	210-100	170-90	360-240	380-260	1000-200	750-500	800-600	130-70	95-40
	Nodular cast iron	Ferrite	160	310-150	285-140	300-150	290-140	220-110	330-190	350-210	800-200	600-450	600-450	140-80	115-45
		Pearlite	250	230-110	210-100	220-105	210-100	170-90	310-200	330-220	700-200	500-350	500-350	110-70	80-30

ISO	Workpiece Materials Werk-stückstoff		Hardness · Härte HB	PVD Coating · Beschichtung		Cemented carbide Hartmetall	CBN		PCD PKD						
				YBG102		YD101	YCB011	YCB012	YCD011						
				Feed rate · Vorschub (mm/rev)											
				0.05-0.15		0.05-0.35	0.05-0.5	0.05-0.2	0.05-0.5						
				Cutting speed · Schnittgeschwindigkeit (m/min)											
N	Al alloy Al Legierung	No heat treatment keine Wärmebeh.	60			1750-800			2500-						
		Heat treatment	100			510-250			2500-						
	Cast aluminum alloy Alu. leg.	No heat treatment keine Wärmebeh.	75			460-175			2500-						
		Heat treatment keine Wärmebeh.	90			300-110			2500-						
	Copper alloy Kupfer leg.	Lead alloy keine Wärmebeh.	110			610-205			630-65						
		Copper, pure copper	90			310-195			630-65						
		Copper, nonleaded Copper, electrolytic copper	100			225-115			375-30						
S	Ni-base alloy	Ni-base alloy	40	90-30		70-20									
H	Other materials Andere Materialien	Hard steel	45 HRC					350-225							
		Super hard steel	50~60 HRC					250-135							
		Chilled cast iron	500				180-120								

■ Correctional cutting parameters table of internal turning
Schnittparameter Übersicht zur Drehinnenbearbeitung

Internal turning tools by P type clamping · Drehwerkzeuge (Innen) P Typ Klemmung

Workpiece material Werkstück Material		Hardness HB Härte	Machining category Anwendung	L/D≤3		L/D=3-4 (Diameter of shank≥Φ16mm)	
				Feed rate Vorschub (mm/rev)	Cutting depth Schnitttiefe (mm)	Feed rate Vorschub (mm/rev)	Cutting depth Schnitttiefe (mm)
P	Carbon steel, Alloy steel Kohlenstoff Stahl, Stahlleg. 45#, 42CrMo	HB180—280	Semi-finishing Mittlere Bear.	0.1-**0.25**-0.4	<5.0	0.1-**0.2**-0.3	<4.0
M	Stainless steel Rostfreier Stahl 1Cr18Ni9Ti 0Cr18Ni9	≤HB220	Semi-finishing Mittlere Bear.	0.1-**0.2**-0.3	<4.0	0.1-**0.15**-0.25	<3.0
K	Cast iron HT250 Gusseisen	HB170—230	Semi-finishing Mittlere Bear.	0.1-**0.25**-0.4	<5.0	0.1-**0.2**-0.3	<4.0

Internal turning tools by S type clamping · Drehwerkzeuge (Innen) S Typ Klemmung

Workpiece material Werkstück Material		Hardness HB Härte	Machining category Anwedung	L/D≤3		L/D=4		L/D=5		L/D=6	
				Feed rate Vorschub (mm/rev)	Cutting depth (mm)	Feed rate Vorschub (mm/rev)	Cutting depth (mm)	Feed rate Vorschub (mm/rev)	Cutting depth (mm)	Feed rate Vorschub (mm/rev)	Cutting depth (mm)
P	Carbon steel, Alloy steel Kohlenst. Stahl, leg. Stahl 45#, 42CrMo	HB180-280	For finishing Schlichten	0.05-**0.1**-0.15	<0.2	0.05-**0.1**-0.15	<0.2	-	-	-	-
			For semi-finishing Mittlere Bear.	0.15-**0.25**-0.35	<3.0	0.1-**0.15**-0.2	<1.5	-	-	-	-
M	Stainless steel Rostfreier Stahl 1Cr18Ni9Ti 0Cr18Ni9	≤HB220	For finishing Schlichten	0.05-**0.1**-0.15	<0.2	0.05-**0.1**-0.15	<0.2	-	-	-	-
			For semi-finishing Mittlere Bear.	0.15-**0.2**-0.25	<2.0	0.1-**0.15**-0.2	<1.0	-	-	-	-
N	Al Alloy	---	For finishing Schlichten	0.05-**0.1**-0.15	<0.2	0.05-**0.1**-0.15	<0.2	0.05-**0.1**-0.15	-0.15	0.05-**0.1**-0.15	<0.1
			For semi-finishing Mittlere Bear.	0.05-**0.1**-0.15	<2.0	0.05-**0.1**-0.15	<1.5	0.05-**0.1**-0.15	-1.0	0.05-**0.1**-0.15	<1.0

Antivibration internal turning tools · Antivibrations Drehwerkzeuge (Innen)

Workpiece material		Machining conditions Anwendung	Chipbreaker Spanbrecher	Grade Sorte	Feed rate Vorschub (mm/rev)	Cutting depth Schnitttiefe (mm)
P	Steel HB180—280 Stahl	Finishing Schlichten	SF	YNG151 YNG151C	0.05-**0.2**-0.35	0.05-**0.1-0.3**-0.5
M	Stainless steel ≤HB220 Rostfreier Stahl				0.05-**0.2**-0.35	0.05-**0.1-0.3**-0.5
K	Cast iron HB170—230 Gusseisen				0.05-**0.2**-0.35	0.05-**0.1-0.3**-0.5

Letters in blue color are recommended cutting parameters

No.	Tool wear type	Situation	Reason	Countermeasures
1+2	Flank wear	Poor surface quality and inconsistent measurement. Increase in cutting force.	Grade is too soft Cutting speed is too high. Flank angle is too small. Feed rate is too low	Select grade with higher wear resistance Reduce cutting speed Increase flank angle. Increase feed rate
3	Crater wear	Bad surface and chip control	Grade is too soft. Cutting speed is too high. Feed rate is too high.	Select grade with higher wear resistance Reduce cutting speed Reduce feed rate
4	Chipping	Tool life not stable Sudden breakage of cutting edge	Grade is too hard. Feed rate is too high. Cutting edge strength not strong enough The rigidity of holder in insuffiecient (vibration)	Select grade with higher toughness Reduce feed rate Change honing of cutting edge Use holder with bigger shank size
5	Fracturing	Cutting force increasing Surface roughness and measure becomes bad	Grade is too hard. Feed rate is too high. Cutting edge strength not strong enough The rigidity of holder in insufficient	Select grade with higher toughness Reduce feed rate Change honing of cutting edge Use holder with bigger shank size
6	Plastic deformation	Inconsistent measure meet. Damage to the cutting edge	Grade is too soft. Cutting speed is too high. Depth of cut and feed rate too high Cutting temperature is high	Grade with high wear resistance. Reduce cutting speed Decrease depth of cut and feed rate. Grade with high thermal conductivity.
7	Welding	Poor surface quality and inconsistent measurement. Increase in cutting force.	Cutting speed is low. Cutting edge not sharp enough Grade not suitable	Increase cutting speed Increase rake angle. Select grade with lower affinity
8	Thermal Cracks	Break due to thermal variation effect often caused when cutting is interrupted.	Expansion or shrinkage due to cutting heat Grade is too hard.	Use dry cutting Select grade with higher toughness
9	Notch wear	Burr increase of Cutting force information	Unstable cutting condition (uncut surface,chilled parts, machining hardened layer) Friction caused by jagged shape chips. Feed rate and cutting speed too high	Grade with high wear resistance. Increase rake angle to improve sharpness Decrease cutting speed
10	Flaking	Mostly happnes during machining of high hard materials or vibration	Cutting edge welding and adhesion. Bad chip removing	Increase rake angle to improve sharpness Use chip breaker with wider chip pocket

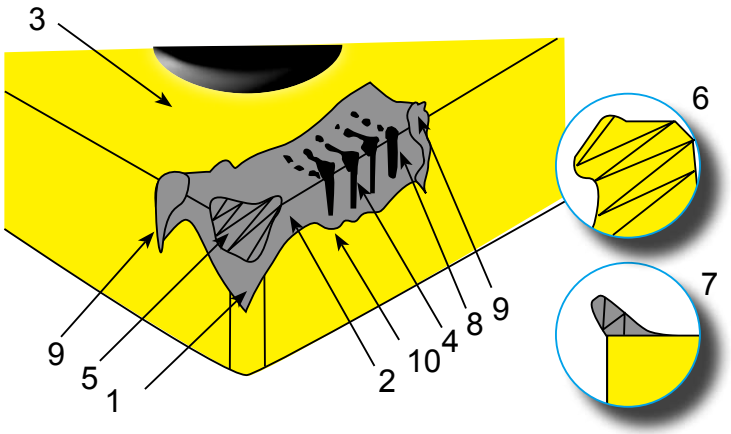


Bild	Art des Verschleißes	Auswirkungen	Grund	Gegenmaßnahmen
1+2	Freiflächen-verschleiß	Schlechte Oberflächengüte und Maßhaltigkeit Anstieg der Schnittkraft	Sorte nicht verschleißfest genug Schnittgeschwindigkeit zu hoch Freiwinkel zu klein Vorschub zu gering	Sorte mit höherer Verschleißfestigkeit Schnittgeschwindigkeit reduzieren Freiwinkel vergrößern Vorschub reduzieren
3	Kolkverschleiß	Schlechte Oberflächengüte und Spankontrolle	Sorte nicht verschleißfest genug Schnittgeschwindigkeit zu hoch Vorschub zu hoch	Sorte mit höherer Verschleißfestigkeit Schnittgeschwindigkeit reduzieren Vorschub reduzieren
4	Ausbröckelung	Standzeit nicht stabil Plötzlicher Bruch der Schneidkante	Sorte ist zu hart Vorschub zu hoch Schneidkantenstabilität nicht ausreichend Stabilität des Werkzeughalter oder Spannung nicht ausreichend	Sorte mit höherer Zähigkeit Vorschub reduzieren Schneidkanten-verrundung ändern Stabileren Halter verwenden
5	Bruch	Anstieg der Schnittkraft Schlechte Oberflächengüte und Maßhaltigkeit	Sorte ist zu hart Vorschub zu hoch Schneidkantenstabilität nicht ausreichend Stabilität des Werkzeughalter oder Spannung nicht ausreichend	Sorte mit höherer Zähigkeit Vorschub reduzieren Schneidkanten-verrundung ändern Stabileren Halter verwenden
6	Plastische Deformation	Schlechte Maßhaltigkeit Beschädigung der Schneidkante	Sorte nicht verschleißfest genug. Schnittgeschwindigkeit zu hoch Schnitttiefe und/oder Vorschub zu hoch Temperatur an der Schneide zu hoch	Sorte mit höherer Verschleißfestigkeit Schnitt-geschwindigkeit reduzieren Schnitttiefe und Vorschub reduzieren Sorte mit höherer Wärmebeständigkeit
7	Aufbauschneide	Anstieg der Schnittkraft Schlechte Oberflächengüte	Schnittgeschwindigkeit zu niedrig Schneidkante nicht scharf genug Sorte nicht geeignet	Schnittgeschwindigkeit erhöhen Spanwinkel erhöhen Sorte mit geringer Affinität
8	Thermischer Verschleiß	Bruch durch thermische Wechselwirkung Oft bei unterbrochenem Schnitt (Fräsen)	Durch die Bearbeitungs-Temperatur-schwankungen Sorte ist zu hart	Trockenbearbeitung Sorte mit höherer Zähigkeit
9	Kerbverschleiß	Gratbildung Anstieg der Schnittkraft	Beschädigung durch Späne (ausgefranste Spankante) Vorschub und Schnittgeschwindigkeit zu hoch	Sorte mit höherer Verschleißfestigkeit Spanwinkel vergrößern um eine schärfere Schneide zu bekommen Schnittgeschwindig-keit verringern
10	Abplatzung (Beschichtung)	Oft bei der Bearbeitung härterer Werkstoffe oder wenn Vibrationen auftauchen	Verklebungen an der Schneidkante sowie Ausbrüche. Schlechte Spanabfuhr	Spanwinkel vergrößern um eine schärfere Schneide zu bekommen Spanbrecher mit größerer Spankammer