

- Different tool holders in carbide and steel are available for the QCH-SERIES
- Carbide tool holder reduces vibrations and performs very well in high feed operations and in operations where a big overhang is required.
- All exchangeable heads are available with inner coolant hole (except QCH-ZOHX)
- Different connection are available (M8,M10,M12,M16)

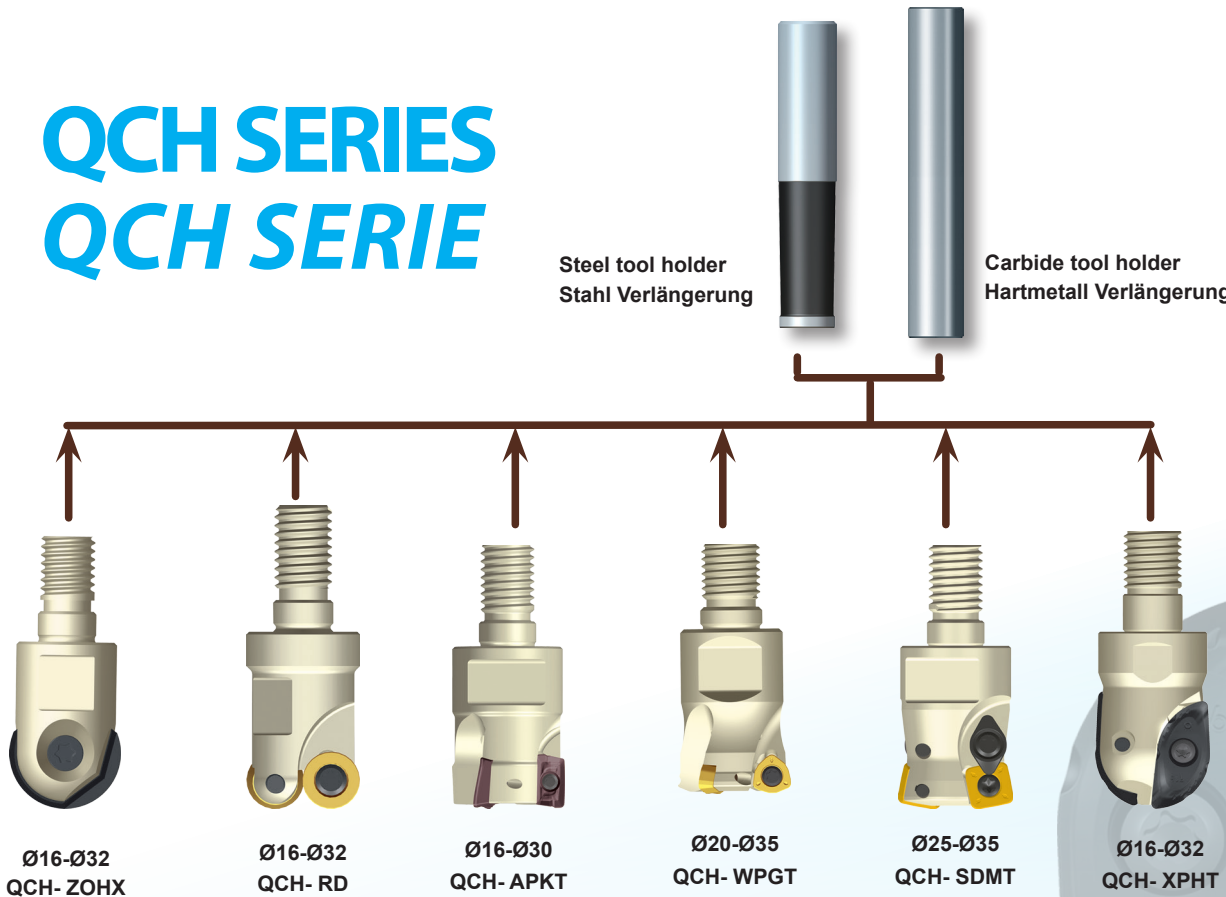
- *Verschiede Verlängerungen in Stahl oder Hartmetall sind für die QCH-SERIE verfügbar.*
- *HM- Verlängerung reduziert Vibrationen und steigert die Performance bei hohen Vorschüben und Anwendungen in denen große Auskraglängen benötigt werden.*
- *Alle Austauschköpfe sind für die Anwendung mit Innenkühlung ausgelegt (ausgenommen QCH-ZOHX)*
- *Verschiedene Gewindeanschlüsse sind verfügbar (M8,M10,M12,M16)*

QCH SERIES

QCH SERIE

Steel tool holder
Stahl Verlängerung

Carbide tool holder
Hartmetall Verlängerung



Advantages Vorteile

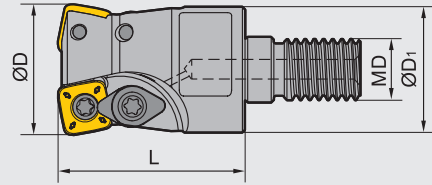
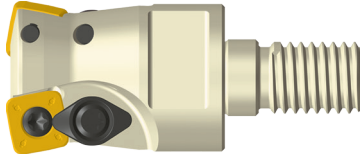
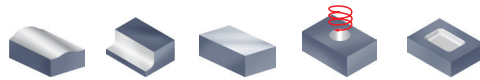
- Fast tool change reduces setup times
 - Stable force type connection
 - Reduces storage costs
 - Increases flexibility in your machining shop
- *Schneller Werkzeugwechsel reduziert Rüstzeit und somit Maschinenstillstand.*
 - *Stabile Kraftschlussverbindung*
 - *Verringerung der Lagerkosten*
 - *Erhöht die Flexibilität in der Fertigung*



Milling · Fräsen

Indexable Milling Tools · Wendepplattenfräser

QCH - SDMT



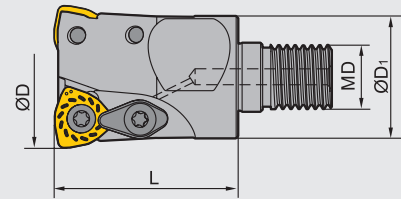
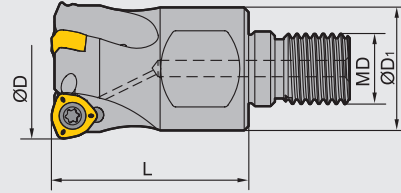
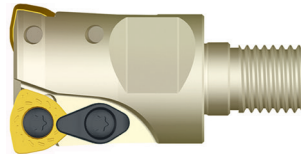
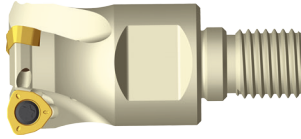
Type Typ	Type Lager	Dimensions (mm) Abmessungen				Insert WSP	No. of teeth Zähne (Z)	Weight Gewicht (kg)	
		ØD	ØD ₁	L	MD				
QCH	●	-25-SDMT09-M12-02	25	24	35	12	SDMT09T312-DM	2	0.088
	●	-30-SDMT09-M16-03	30	29	45	16		3	0.176
	●	-32-SDMT12-M16-02	32	30	45	16	SDMT120412-DM	2	0.175
	●	-35-SDMT12-M16-02	35	30	45	16		2	0.200
	●	-35-SDMT09-M16-03	35	30	45	16	SDMT09T312-DM	3	0.216

Spare parts · Ersatzteile

Diameter Durchmesser Ø D	No. of teeth Zähne (Z)	Clamp screw Schraube	Clamp Pratze	Insert Screw WSPSchraube	Wrench Schlüssel	
Ø25	2	I60M3.5×08TT	WD-204	I60M4×8.4	WT10IP	
Ø30	3					
Ø32	2	I60M4×8.4	WD-204	I60M4×8.4	WT15IP	
Ø35	2					
Ø35	3	I60M3.5×08TT	WD-204	I60M4×8.4	WT10IP	








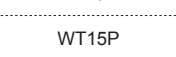






● Ex Stock / ab Lager ○ On demand / auf Anfrage

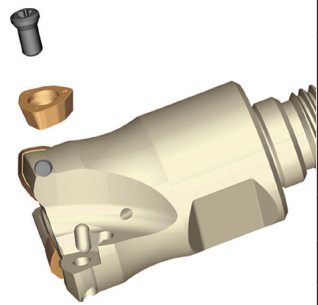
QCH - WPGT



	Type Typ	Type Lager	Dimensions (mm) Abmessungen				Insert WSP	No. of teeth Zähne (Z)	Weight Gewicht (kg)
			ØD	ØD ₁	L	MD			
QCH	-20-WPGT05-M10-02	●	20	18	30	10	WPGT050315ZSR	2	0.056
	-25-WPGT06-M12-02	●	25	21	35	12	WPGT060415ZSR	2	0.097
	-32-WPGT06-M16-03	●	32	29	43	16	WPGT060415ZSR	3	0.185
	-35-WPGT08-M16-02	●	35	30	45	16	WPGT080615ZSR	2	0.196
	-35-WPGT08-M16-03	●	35	30	45	16	WPGT080615ZSR	3	0.201
	-42-WPGT06-M16-04	●	42	29	43	16	WPGT060415ZSR	4	-

Spare parts · Ersatzteile

Diameter Durchmesser Ø D	No. of teeth Zähne (Z)	Clamp screw Schraube	Clamp Pratze	Wrench Schlüssel
Ø20	2	 I60M3.5×7	 --	 WT15
Ø25	2	 I60M4×8.4	 --	 WT15P
Ø32	3	 I60M4×8.4	 --	 WT15P
Ø35	2	 I60M5×13	 WD-208	 WT20IT
Ø35	3	 I60M4×8.4	 --	 WT15P



Applicable tool
Werkzeug **B11-B18**

Tools code key
Werkzeug ISO **B26-B27**

Grade selection guide
Sortenauswahl **B19-B23**

Technical data
Technische Daten **B215-B220**

Milling · Fräsen

Indexable Milling Tools · Wendepplattenfräser

B

Milling Tools
Fräser

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

■ Applicable inserts · Wendeschneidplatten

Insert WSP	Type Typ	Dimensions (mm) Abmessungen						CVD Coating CVD Beschicht.						PVD Coating PVD Beschicht.				Cermet Cermet	Carbide uncoat. unbe. Hartmetall								
		ØI.C	L	ød	S	r	α	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202		YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
	SDMT09T312-DM	9.525	9.525	4.0	3.97	1.2	15°	●					●	○		●	●										
	SDMT120412-DM	12.7	12.7	4.4	4.76	2.0	15°						●	○		●	●										
	SDMT09T312-PM	9.525	9.525	1.2	3.97	4.0	15°	○				●				●		○									
	SDMT120412-PM	12.7	12.7	2.0	4.76	4.4	15°	○				●				●		○									

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

■ Applicable inserts · Wendeschneidplatten

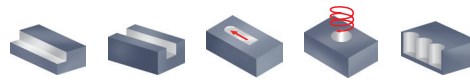
Insert WSP	Type Typ	Dimensions (mm) Abmessungen						CVD Coating CVD Beschicht.						PVD Coating PVD Beschicht.				Cermet Cermet	Carbide uncoat. unbe. Hartmetall								
		ØI.C	r	S	ød	α	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205		YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201	
	WPGT050315ZSR	7.94	1.5	3.5	4.0	11°	●					●															
	WPGT060415ZSR	9.525	1.5	4.2	4.4	11°	●					●					●										
	WPGT080615ZSR	12.85	1.5	6.35	5.5	11°	●					●					●										
	WPGT090725ZSR	15	2.5	7	5.5	11°	●					●						●									
	WPGT050315ZSR-PM	7.94	1.5	3.5	4.0	11°	●					○					●										
	WPGT060415ZSR-PM	9.525	1.5	4.2	4.4	11°	●					○					●										
	WPGT080615ZSR-PM	12.85	1.5	6.35	5.5	11°	●					○					●										
	WPGT090725ZSR-PM	15.00	2.5	7.00	5.5	11°	●					○					●										

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

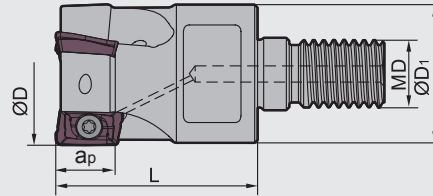
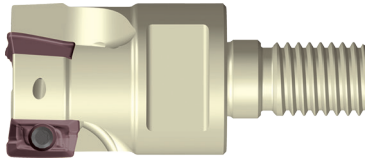
Milling · Fräsen

Indexable Milling Tools · Wendeplattenfräser

QCH - APKT



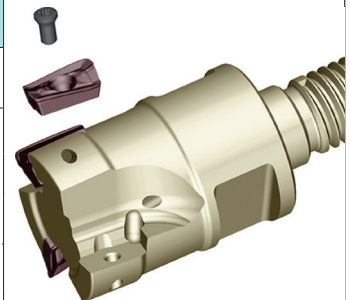
P M K N



Type Typ	Stock Lager	Dimensions (mm) Abmessungen					Insert WSP	No. of teeth Zähne (Z)	Weight Gewicht (kg)
		ØD	ØD ₁	L	a _p	MD			
QCH -16-APKT11-M8-02	●	16	12.5	25	10.5	8	APKT11T3**	2	0.028
-20-APKT11-M10-03	●	20	18	30	10.5	10		3	0.059
-25-APKT11-M12-04	●	25	21	35	10.5	12		4	0.104
-32-APKT11-M16-05	●	32	29	43	10.5	16		5	-
-40-APKT11-M16-06	●	40	29	43	10.5	16		6	-
-25-APKT16-M12-02	●	25	21	38	10.5	12		APKT1604**	2
-32-APKT16-M16-03	●	32	29	46	10.5	16	3		-
-40-APKT16-M16-04	●	40	29	46	10.5	16	4		-

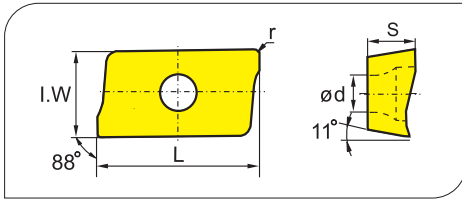
■ Spare parts · Ersatzteile

Diameter Durchmesser Ø D	No. of teeth Zähne (Z)	Insert Screw Schraube	Wrench Schlüssel
Ø16	2	I60M2.5×6.5T	WT08IP
Ø20	3		
Ø25	3		
Ø25	2	I60M4×8.4	WT15IP
Ø30	3		



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

Applicable inserts · Wendeschneidplatten



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

Insert shape / Plattenform	Type / Typ	Dimensions (mm) / Abmessungen					CVD Coating / CVD Beschicht.						PVD Coating / PVD Beschicht.				Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall									
		L	I.W	S	d	r	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202		YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201	
	APKT11T304-PF	12.24	6.5	3.6	2.8	0.4	○		●						●	●		●									
	APKT11T308-PF	12.24	6.5	3.6	2.8	0.8				○						●											
	APKT11T312-PF	12.24	6.5	3.6	2.8	1.2										○											
	APKT11T316-PF	12.24	6.5	3.6	2.8	1.6										○											
	APKT160408-PF	17.877	9.33	5.76	4.4	0.8	●			○	●					●		●									
	APKT11T304-PM	12.24	6.5	3.6	2.8	0.4	●	●	●	●	●				●	●		●									
	APKT11T308-PM	12.24	6.5	3.6	2.8	0.8	●	●		●	●	●	●	●	●	●	●	●									
	APKT11T312-PM	12.24	6.5	3.6	2.8	1.2				○						○	●										
	APKT11T316-PM	12.24	6.5	3.6	2.8	1.6				●						○	●										
	APKT160408-PM	17.877	9.33	5.76	4.4	0.8	●	●	●	●	●	●	●	●	●	●	●	●	●								
	APKT11T304-PR	12.24	6.5	3.6	2.8	0.4			●		○							○									
	APKT11T308-PR	12.24	6.5	3.6	2.8	0.4												○									
	APKT11T312-PR	12.24	6.5	3.6	2.8	0.4												○									
	APKT11T316-PR	12.24	6.5	3.6	2.8	0.4												○									
	APKT160408-PR	17.877	9.33	5.76	4.4	0.8												○									
	APKT11T304-LH	12.24	6.5	3.6	2.8	0.4																		●	●		
	APKT11T308-LH	12.24	6.5	3.6	2.8	0.8																		●	●		
	APKT160408-LH	17.877	9.33	5.76	4.4	0.8																		●	●		

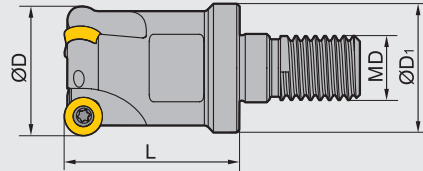
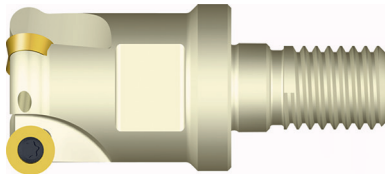
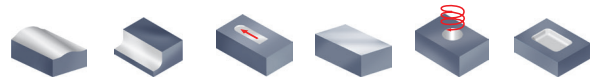
Applicable tool / Werkzeug **B11-B18**

Tools code key / Werkzeug ISO **B26-B27**

Grade selection guide / Sortenauswahl **B19-B23**

Technical data / Technische Daten **B215-B220**

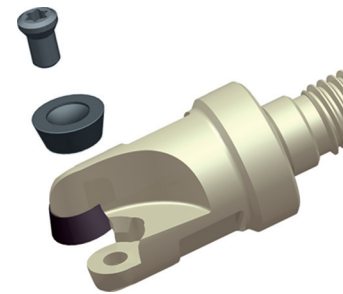
QCH - RD



Type Typ	Stock Lager	Dimensions (mm) Abmessungen				Insert WSP	No. of teeth Zähne (Z)	Weight Gewicht (kg)	Coolant Kühlung	
		ØD	ØD ₁	L	MD					
QCH	-16-RDKW0702-M8-02	●	16	15	25	8	RDKW0702MO	2	0.027	-
	-16-RDKW0702-M8-03	●	16	15	25	8		3	0.030	
	-20-RDKW0702-M10-03	●	20	19	30	10		3	0.058	
	-25-RDKW0702-M12-03	●	25	24	35	12		3	0.093	
	-20-RDKW10T3-M10-02	●	20	19	30	10	RDKW10T3MO	2	0.054	
	-25-RDKW10T3-M12-02	●	25	24	35	12		2	0.097	
	-32-RDKW10T3-M16-03	●	32	30	45	16		3	0.183	
	-32-RDKW1605-M16-02	●	32	30	45	16		RDKW1605MO	2	
-15-RDKW0702-M8-02	○	15	12.5	23	8	RDKW0702MO	2	-	Internal cooling Innen Kühlung	
-15-RDKW0702-M8-03	○	15	12.5	23	8		3	-		
-20-RDKW0702-M10-04	○	20	18	30	10		4	-		
-25-RDKW0702-M12-05	○	25	21	35	12		5	-		
-20-RDKW1003-M10-02	○	20	18	30	10	RDKW1003MO	2	-		
-25-RDKW1003-M12-02	○	25	21	35	12		2	-		
-25-RDKW1003-M12-03	○	25	21	35	12		3	-		
-30-RDKW1003-M16-04	○	30	29	43	16		4	-		
-35-RDKW1003-M16-04	○	35	29	43	16	4	-			
-42-RDKW1003-M16-05	○	42	29	43	16	5	-			
-24-RDKW12T3-M12-02	○	24	21	35	12	RDKW12T3MO	2	-		
-35-RDKW12T3-M16-03	○	35	29	43	16		3	-		
-42-RDKW12T3-M16-04	○	42	29	43	16		4	-		
-32-RDKW1604-M16-02	○	32	29	43	16		RDKW1604MO	2		-

■ Spare parts · Ersatzteile

Insert Durchmesser Ø D	Insert Screw Schraube	Wrench Schlüssel	
RDKW0702MO	I60M2.5x5	WT07IP	--
RDKW10T3MO	I60M4x8	WT15IP	--
RDKW1003MO	I60M3.5x7.7	WT15	--
RDKW12T3MO	I60M3.5x7.7	WT15	--
RDKW1604MO	I60M4.5x10	WT20	--
RDKW1605MO	I60M5x13	--	WT20IT



Applicable tool
Werkzeug **B11-B18**

Tools code key
Werkzeug ISO **B26-B27**

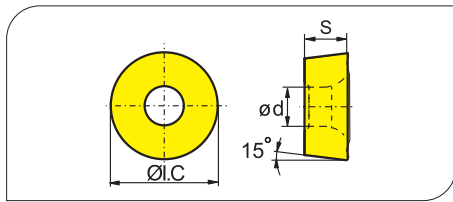
Grade selection guide
Sortenauswahl **B19-B23**

Technical data
Technische Daten **B215-B220**

Milling · Fräsen

Indexable Milling Tools · Wendepplattenfräser

Applicable inserts · Wendeschneidplatten



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

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

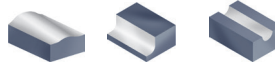
Insert shape / Plattenform	Type / Typ	Dimension (mm) / Abmessung			CVD Coating / CVD Beschicht.				PVD Coating / PVD Beschicht.				Cermets / Cermet	Carbide uncoat. / unbe. Hartmetall										
		I.C.	S	d	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252		YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
	RDKW0702MO	7.0	2.38	2.7								●	●											
	RDKW0803MO	8.0	3.18	3.4									●											
	RDKW1003MO	10.0	3.18	3.9				●					●	●										
	RDKW10T3MO	10.0	3.97	4.4	○	●							●	●										
	RDKW1204MO	12.0	4.76	4.4	○	●		●					●	●	●	○								
	RDKW12T3MO	12.0	3.97	3.9			○	●					●	●									○	
	RDKW1604MO	16.0	4.76	5.2									●	●										
	RDKW1605MO	16.0	5.56	5.5									●	●	●									
RDKW2006MO	20.0	6.35	6.5		●							●		○										

Recommended cutting data · Empfohlene Schnittdaten

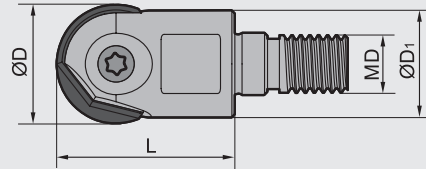
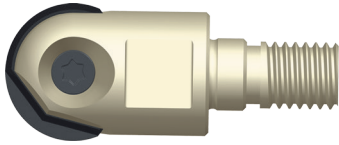
Workpiece material / Werkstück Material	Hardness HB / Härte	Grade / Sorte	V(m/min)	f(mm/z)	a _{max} (mm)							
					RDKW07**		RDKW10**		RDKW12**		RDKW16**	
					a _z	a _p	a _z	a _p	a _z	a _p	a _z	a _p
P Low-carbon steel / Soft steel / Niedrig legierter Kohlenstoffstahl / Baustahl	≤180	YBM351	220 (180-300)	0.25 (0.15-0.3)	1.6	3.5	2.3	5	3.3	6	3.9	8
		YBG302										
	180-280	YBM351	200 (160-280)	0.25 (0.15-0.3)	1.6	3.5	2.3	5	3.3	6	3.9	8
		YBG202										
280-350	YBM351	180 (150-250)	0.25 (0.15-0.3)	1.6	3.5	2.3	5	3.3	6	3.9	8	
	YBG202											
M	≤270	YBM351	150 (100-220)	0.25 (0.1~0.3)	1.6	3.5	2.3	5	3.3	6	3.9	8
		YBG302										
K	180-250	YBM351	210 (120-300)	0.2 (0.1-0.3)	1.6	3.5	2.3	5	3.3	6	3.9	8
		YBG202										

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

QCH - ZOHX



P M K N S



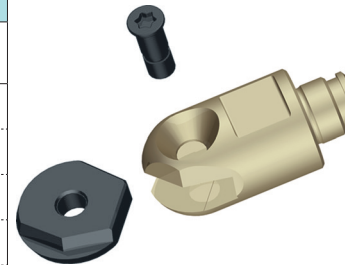
Type Typ	Stock Lager	Dimensions (mm) Abmessungen				Insert WSP	Weight Gewicht (kg)
		ØD	ØD ₁	L	MD		
QCH -16-ZOHX16-M8	●	16	15	28	8	ZOHX1604- **	0.029
-20-ZOHX20-M10	●	20	19	30	10	ZOHX2005- **	0.048
-25-ZOHX25-M12	●	25	24	35	12	ZOHX2506- **	0.087
-30-ZOHX30-M16	●	30	29	45	16	ZOHX3007- **	0.170
-32-ZOHX32-M16	●	32	30	45	16	ZOHX3207- **	0.180

B

Milling Tools
Fräser

■ Spare parts · Ersatzteile

Diameter Durchmesser Ø D	Insert Screw Schraube	Wrench Schlüssel	
Ø16	I70M5×12TT	WT20IP	--
Ø20	I70M5×16TT	WT20IP	--
Ø25	I70M6×20TT	WT20IP	--
Ø30	I70M8×25TT	--	WT30IT
Ø32	I70M8×25TT	--	WT30IT



Applicable tool
Werkzeug **B11-B18**

Tools code key
Werkzeug ISO **B26-B27**

Grade selection guide
Sortenauswahl **B19-B23**

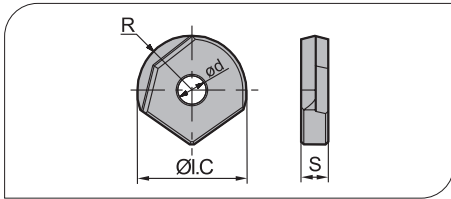
Technical data
Technische Daten **B215-B220**

Milling · Fräsen

Indexable Milling Tools · Wendepplattenfräser

■ Applicable inserts · Wendeschneidplatten

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



Workpiece Material Werkstoffe	P	M	K	N	S
Steel Stahl	●	●	●	●	●
Stainless Steel Rostfreier Stahl	●	●	●	●	●
Cast iron Gusseisen	●	●	●	●	●
Non-ferrous material Nichtmetalle	●	●	●	●	●
Heat-resistant steel Wärmefester Stahl	●	●	●	●	●

Insert WSP	Type Typ	Dimensions (mm) Abmessungen				CVD Coating CVD Beschicht.						PVD Coating PVD Beschicht.					Cermets Cermet	Carbides uncoat. unbe. Hartmetall						
		ØI.C	Ød	S	R	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205		YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101
	ZOHX1604-GF	16	5	4	8														●					
	ZOHX2005-GF	20	5	5	10														●					
	ZOHX2506-GF	25	6	6	12.5														○					
	ZOHX3007-GF	30	8	7	15														●					
	ZOHX3207-GF	32	8	7	16														●					
	ZOHX1604-GM	16	5	4	8														●					
	ZOHX2005-GM	20	5	5	10														●					
	ZOHX2506-GM	25	6	6	12.5														○					
	ZOHX3007-GM	30	8	7	15														●					
	ZOHX3207-GM	32	8	7	16														●					

■ Recommended cutting data · Empfohlene Schnittdaten

Workpiece material Werkstück Material	Hardness HB Härte	Cutting data Sorte	Diameter (mm) Durchmesser ØD			Grade Sorte
			Ø16, Ø20	Ø25	Ø30, Ø32	
P Carbon steel Niedrig legierter Kohlenstoffstahl Baustahl	HB≤180	V _c (m/min)	100~200	100~200	100~200	YBG252
		f _z (mm/z)	0.15~0.25	0.2~0.3	0.2~0.3	
		a _{pmax} (mm)	0.8	1	1.25	
		a _{emax} (mm)	0.8	1	1.25	
	HB180~280	V _c (m/min)	80~180	80~180	80~180	
		f _z (mm/z)	0.15~0.25	0.2~0.3	0.2~0.3	
		a _{pmax} (mm)	0.8	1	1.25	
		a _{emax} (mm)	0.8	1	1.25	
HRC55~65 Leg. Stahl	V _c (m/min)	60~100	60~100	60~100		
	f _z (mm/z)	0.15~0.25	0.2~0.3	0.2~0.3		
	a _{pmax} (mm)	0.4	0.5	0.6		
	a _{emax} (mm)	0.4	0.5	0.6		
M Stainless steel Rostfreier Stahl	HB≤270	V _c (m/min)	70~150	70~150	70~150	
		f _z (mm/z)	0.1~0.2	0.1~0.25	0.1~0.25	
		a _{pmax} (mm)	0.6	0.8	1	
		a _{emax} (mm)	0.6	0.8	1	
K Cast iron Gusseisen	HB180-250	V _c (m/min)	160~300	160~300	160~300	
		f _z (mm/z)	0.2~0.3	0.25~0.35	0.25~0.35	
		a _{pmax} (mm)	1	1.5	1.8	
		a _{emax} (mm)	1	1.5	1.8	

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

Hard alloy toolholder · Hartmetal Verlängerung

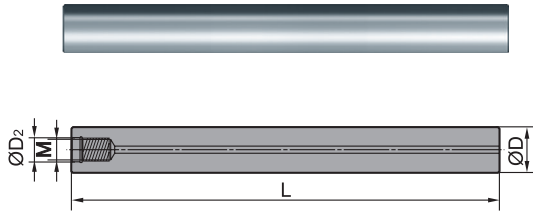


Fig 1

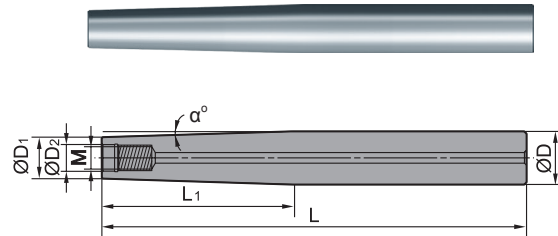


Fig 2

Type Typ	Stock Large	Flg	Dimensions (mm) Abmessungen						
			L	M	ØD ₂	ØD	ØD ₁	L ₁	α°
G16-QCH-M8-100C	○	1	100	M8	8.5	16	--	--	--
G16-QCH-M8-150C	○		150			16	--	--	--
G20-QCH-M8-200C-ZJ90	○	2	200	M8	8.5	20	15.5	90	1.3°
G20-QCH-M8-250C-ZJ115	○		250			20	15.5	115	1°
G20-QCH-M8-300C-ZJ135	○		300			20	15.5	135	0.85°
G20-QCH-M10-100C	○	1	100	M10	10.5	20	--	--	--
G20-QCH-M10-150C	○		150			20	--	--	--
G20-QCH-M10-200C	○	2	200	M10	10.5	20	20	--	--
G25-QCH-M10-200C-ZJ90	○		200			25	19.8	90	1.6°
G25-QCH-M10-250C-ZJ115	○		250			25	19.8	115	1.25°
G25-QCH-M10-300C-ZJ135	○	300	25	19.8	135	1.1°			
G25-QCH-M12-100C	○	1	100	M12	12.5	25	--	--	--
G25-QCH-M12-150C	○		150			25	--	--	--
G25-QCH-M12-200C	○	2	200	M12	12.5	25	--	--	--
G25-QCH-M12-200C-ZJ90	○		200			32	24.5	90	2.3°
G25-QCH-M12-250C-ZJ115	○		250			32	24.5	115	1.75°
G25-QCH-M12-300C-ZJ135	○	300	32	24.5	135	1.5°			
G32-QCH-M16-150C	○	1	150	M16	17	32	--	--	--
G32-QCH-M16-200C	○		200			32	--	--	--
G32-QCH-M16-250C	○	2	250	M16	17	32	--	--	--
G32-QCH-M16-300C	○		300			32	--	--	--
G32-QCH-M16-200C-ZJ90	○		200			32	30	90	0.64°
G32-QCH-M16-250C-ZJ115	○	250	32	30	115	0.5°			
G32-QCH-M16-300C-ZJ135	○	300	32	30	135	0.4°			

Applicable tool
Werkzeug

Tools code key
Werkzeug ISO

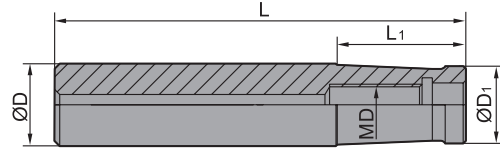
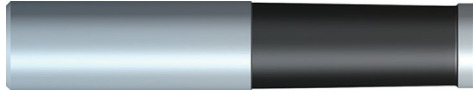
Grade selection guide
Sortenauswahl

Technical data
Technische Daten

Milling · Fräsen

Indexable Milling Tools · Wendeplattenfräser

Steel toolholder · Stahl Verlängerung











Type Typ	Stock Large	Dimensions (mm) Abmessungen				
		ØD	L	L ₁	ØD ₁	MD
G16-QCH-M8-80	○	16	80	25	15	M8
G16-QCH-M8-100	○	16	100	45	15	M8
G20-QCH-M10-90	○	20	90	35	18.5	M10
G20-QCH-M10-105	○	20	105	50	18.5	M10
G25-QCH-M12-90	○	25	90	30	24	M12
G25-QCH-M12-110	○	25	110	50	24	M12
G32-QCH-M16-100	○	32	100	35	28.5	M16
G32-QCH-M16-120	○	32	120	55	28.5	M16
G32-QCH-M16-115	○	32	115	40	30	M16
G32-QCH-M16-135	○	32	135	60	30	M16









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

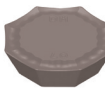







Milling · Fräsen


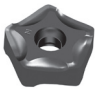







Indexable Milling Tools · Wendeplattenfräser









Inserts - face milling · WSP - Planfräsen









							
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Page Seite	B199	B199	B199	B199	B199	B199	B199

							
SEET-LH	SEET-W	SEKN/SEEN	SEKR	OFKT-DF	OFKT-DM	OFKT-LH	OFKR-DF / DM
Page Seite	B199	B199	B201	B201	B192	B192	B192



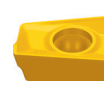
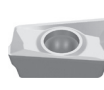
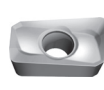
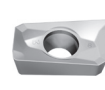
							
OFKR-LH	ONHU-PF	ONHU-PM	ONHU-W	SNEG-GM/GR	HNEX-DF	HNEX-DM	HNEX-DR
Page Seite	B192	B193	B193	B193	B202	B189	B189

								
PNEG-CF/CM/CR	PNEG-PF/PM/PR	LNKT-ZR	LNE32.534 / 32.302	LNCX	SPKW	SPKT	SPAN/SPCN	SPKN
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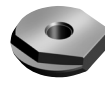
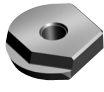
							
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Page Seite	B205	B206	B207	B208	B209	B210	B211

							
SEET*PER-PF	SEET*PER-PM	SEET*PER-PR	SEET-LH	RCKT-DM	RCKT-DR	RCKT-ER	RDKW
Page Seite	B200	B200	B200	B200	B197	B197	B197




Inserts - square shoulder milling · WSP - Eckfräsen

					
APKT-PF	APKT-PM	APKT-PR	APKT-LH	APMT-PDR	APMT-PDER
Page Seite	B186	B186	B186	B187	B187






Inserts for profile milling · WSP - Formfräsen

							
ZDET	ZPNT	SPMT	ROHX	XPHT-GM	ZOHX-GF	ZOHX-GM	
Page Seite	B213	B214	B207	B198	B212	B214	B214


Inserts - side and face milling WSP - Seiten- und Stirnfräsen

			
XSEQ	MPHT	QC**L	
Page Seite	B213	B191	B195 / 196

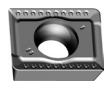

Inserts - high feed milling WSP - Hochvorschubfräsen

					
SDMT	SDMT-DM	SDMT-PM	WPGT	WPGT-PM	
Page Seite	B198	B198	B199	B212	B212


Inserts - T-slot milling WSP - T-Nuten - Fräsen

	
MPHT	
Page Seite	B191



Inserts - helical milling WSP - Zirkularfräsen

		
APKT-PM/KM	SPMT-PM/KM	
Page Seite	B188	B207

Inserts - chamfer milling WSP - Fasenfräsen

	
SPMT SPMT-KT SPMT-HT	
Page Seite	B207

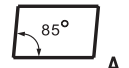
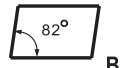



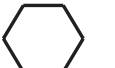
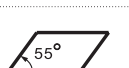
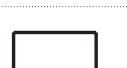








Inserts - face milling - square shoulder milling WSP - Planfräsen - Eckfräsen

		
CNE-A	CNE-B	
Page Seite	B188	B188

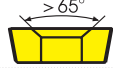

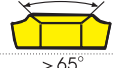

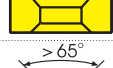



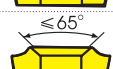
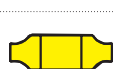
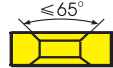

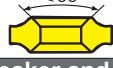

Milling - Fräsen

Indexable Milling Tools - Wendepplattenfräser

Indexable milling inserts code key · Wendepplattenfräser ISO Kode










Insert Code · WSP Code		
 A	 B	 C
 D	 E	 H
 K	 L	 M
 O	 P	 R
 S	 T	 V
 W	Others Ander Z	


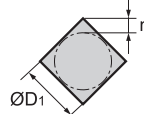
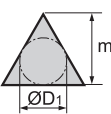
Insert · WSP

Metric System · Metrisches System							
Code	Hole Loch	Chipbreaker Spanbrecher	Section Form	Code	Hole Loch	Chipbreaker Spanbrecher	Section Form
B	✓	-		N	-	-	
H	✓	Single-side Einseitig		R	-	Single-side Einseitig	
C	✓	-		F	-	Double-side Doppelseitig	
J	✓	Double-side Doppelseitig		A	✓	-	
W	✓	-		M	✓	Single-side Einseitig	
T	✓	Single-side Einseitig		G	✓	Double-side Doppelseitig	
Q	✓	-		X	---	---	Special Spezial
U	✓	Double-side Doppelseitig					

Chipbreaker and clamping system
Spanbrecher und Klemmsystem

S P K N

Clearance angle of main cutting edge Freiwinkel der Hauptschneid			
Code	Clearance angle Freiwinkel	Code	Clearance angle Freiwinkel
A	 3°	B	 5°
C	 7°	D	 15°
E	 20°	F	 25°
G	 30°	N	 0°
P	 11°	O	Other clearance angle Andere Freiwinkel

Tolerance · Toleranz												
  												
(Reference) details of M-class tolerance (identified by shape and size) (Referenz) Detail Toleranz M-Klasse (definiert durch Form und Größe)												
● Nose height tolerance(mm) / Toleranz M												
Code	Nose height Tolerance Toleranzhöhe (mm)	M	Inscribed circle Ø D1 Tolerance Toleranzinnenkreis Ø D1 (mm)	Thickness Tolerance Toleranz Dicke S (mm)	S	Inscribed circle Innenkreis	Regular Dreieckig	Square Viereckig	Diamond with 80° Raute mit 80°	Diamond with 55° Raute mit 55°	Diamond with 35° Raute mit 35°	Round Rund
A	±0.005		±0.025	±0.025		6.35	±0.08	±0.08	±0.08	±0.11	±0.16	---
F	±0.005		±0.013	±0.025		9.525	±0.08	±0.08	±0.08	±0.11	±0.16	---
C	±0.013		±0.025	±0.025		12.7	±0.13	±0.13	±0.13	±0.15	---	---
H	±0.013		±0.013	±0.025		15.875	±0.15	±0.15	±0.15	±0.18	---	---
E	±0.025		±0.025	±0.025		19.05	±0.15	±0.15	±0.15	±0.18	---	---
G	±0.025		±0.025	±0.13		25.4	---	±0.18	---	---	---	---
J	±0.005		±0.05 - ±0.13	±0.025		● Tolerance of Inscribed Circle ØD1(mm) / Toleranzinnenkreis ØD1						
K	±0.013		±0.05 - ±0.13	±0.025		Inscribed circle Innenkreis	Regular Dreieckig	Square Viereckig	Diamond with 80° Raute mit 80°	Diamond with 55° Raute mit 55°	Diamond with 35° Raute mit 35°	Round Rund
L	±0.025		±0.05 - ±0.13	±0.025		6.35	±0.05	±0.05	±0.05	±0.05	±0.05	---
M	±0.08 - ±0.18		±0.05 - ±0.13	±0.13		9.525	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
N	±0.08 - ±0.18		±0.05 - ±0.13	±0.025		12.7	±0.08	±0.08	±0.08	±0.08	---	±0.58
U	±0.13 - ±0.38		±0.08 - ±0.25	±0.13		15.875	±0.10	±0.10	±0.10	±0.10	---	±0.10
						19.05	±0.10	±0.10	±0.10	±0.10	---	±0.10
						25.4	---	±0.13	---	---	---	±0.13

Diameter of IC Durchmesser von IC	Insert / WSP						
	C	D	R	S	T	V	W
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
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				

Length of cutting edge · Schneidkantenlänge

Code		Insert thickness (mm) Plattendicke
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

Insert thickness · WSP Dicke

12 04 ED T21K R - DM

Angel · Winkel			
A	45°	A	3°
D	60°	B	5°
E	75°	C	7°
F	85°	D	15°
P	90°	E	20°
Z	Others Andere	F	25°
		G	30°
		N	0°
		P	11°
		Z	Others Andere

Chamfer · Fase (mm)			
F			
	0-5°	0-0.10	
E		1-10°	1-0.15
	2-15°	2-0.20	
T		3-20°	3-0.25
	4-25°	4-0.30	
	5-30°	5-0.35	
S		6-0.40	
	7-0.45		No mark

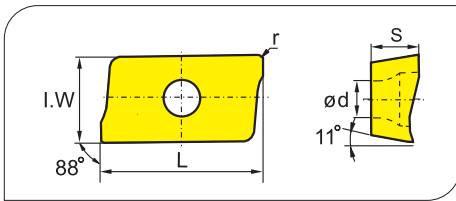
Chipbreaker code
Spanbrecher

Cutting direction Schnitttrichtung	
R	Right hand Rechts
L	Left hand Links
N	Neutral Neutral

Milling - Fräsen

Indexable Milling Tools - Wendepplattenfräser

AP**



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

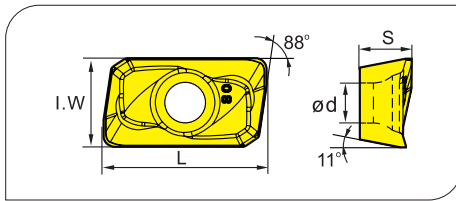
Workpiece Material / Werkstoffe	P	M	K	N	S
P Steel / Stahl	●	●	●	●	●
M Stainless Steel / Rostfreier Stahl	●	●	●	●	●
K Cast iron / Gusseisen	●	●	●	●	●
N Non-ferrite material / Ne Metalle	●	●	●	●	●
S Heat-resistant steel / Warmfester Stahl	●	●	●	●	●

Insert shape / Plattenform	Type / Typ	Dimensions (mm) / Abmessungen					CVD Coating / CVD Beschicht.						PVD Coating / PVD Beschicht.					Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall							
		L	I.W	S	d	r	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205		YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
	APKT11T304-PF	12.24	6.5	3.6	2.8	0.4	○		●						●	●		●								
	APKT11T308-PF	12.24	6.5	3.6	2.8	0.8			○							●										
	APKT11T312-PF	12.24	6.5	3.6	2.8	1.2										○										
	APKT11T316-PF	12.24	6.5	3.6	2.8	1.6										○										
	APKT160408-PF	17.877	9.33	5.76	4.4	0.8	●			○	●				●	●										
	APKT11T304-PM	12.24	6.5	3.6	2.8	0.4	●	●	●	●	●				●	●		●								
	APKT11T308-PM	12.24	6.5	3.6	2.8	0.8	●	●		●	●	●	●	●	●	●	●	●								
	APKT11T312-PM	12.24	6.5	3.6	2.8	1.2				○						○	●									
	APKT11T316-PM	12.24	6.5	3.6	2.8	1.6				●						○	●									
	APKT160408-PM	17.877	9.33	5.76	4.4	0.8	●	●	●	●	●	●	●	●	●	●	●	●								
	APKT11T304-PR	12.24	6.5	3.6	2.8	0.4			●			○						○								
	APKT11T308-PR	12.24	6.5	3.6	2.8	0.8												○								
	APKT11T312-PR	12.24	6.5	3.6	2.8	1.2												○								
	APKT11T316-PR	12.24	6.5	3.6	2.8	1.6												○								
	APKT160408-PR	17.877	9.33	5.76	4.4	0.8												○								
	APKT11T304-LH	12.24	6.5	3.6	2.8	0.4																		●	●	
	APKT11T308-LH	12.24	6.5	3.6	2.8	0.8																		●	●	
	APET160402-LH	17.877	9.33	5.76	4.4	0.2																		○		
	APKT160408-LH	17.877	9.33	5.76	4.4	0.8																		●	●	
	APET160408PDFR-LH	17.877	9.33	5.76	4.4	0.8																		○		

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

Milling Tools / Fräser

AP**



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

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

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen					CVD Coating / CVD Beschicht.						PVD Coating / PVD Beschicht.				Cermets / Cermet		Carbide uncoat. / unbe. Hartmetall							
		L	I.W	S	d	r	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201	
	APMT1135PDR	11.25	6.2	3.5	2.8	0.8				○					○	○	●									
	APMT160408PDER	17.25	9.25	4.76	4.4	0.8				○	○				○	●										
	APMT160432PDER	17.25	9.25	4.76	4.4	3.2					○				●											

B

Milling Tools
Fräser

Applicable tool / Werkzeug **B11-B18**

Tools code key / WSP ISO **B184-B185**

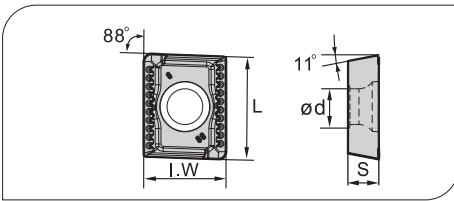
Grade selection guide / Sortenauswahl **B19-B23**

Technical data / Technische Daten **B215-B220**

Milling - Fräsen

Indexable Milling Tools - Wendepplattenfräser

AP**

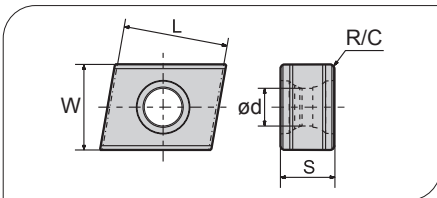


- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- Normal Machining Condition / Normale Bearbeitungsbedingungen
- Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

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

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen					CVD Coating / CVD Beschicht.					PVD Coating / PVD Beschicht.					Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall									
		L	I.W	S	d	r	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202		YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201	
	APKT150412-PM	16.33	12.7	4.76	5.4	1.2				●								○	●								
	APKT150412-KM	16.33	12.7	4.76	5.4	1.2																					

CN



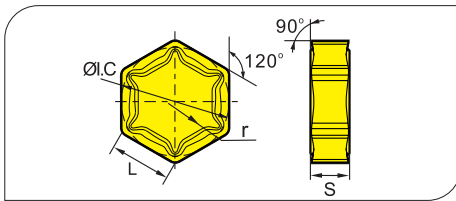
- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- Normal Machining Condition / Normale Bearbeitungsbedingungen
- Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

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

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen					CVD Coating / CVD Beschicht.					PVD Coating / PVD Beschicht.					Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall									
		L	W	S	R/C	ød	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202		YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201	
	CNE121006A	12.8	10.0	6.35	0.4	4.4					●		○														
	CNE121006B	12.0	10.0	6.35	0.6	4.4					○		●														

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

HN**



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

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

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen				CVD Coating / CVD Beschicht.				PVD Coating / PVD Beschicht.				Cermets / Cermet	Carbide uncoat. / unbe. Hartmetall											
		L	I.C.	S	R	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252		YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201	
	HNEX090512-DF	9.16	15.875	5.56	1.2							○														
	HNEX090512-DM	9.16	15.875	5.56	1.2							○														
	HNEX090512-DR	9.16	15.875	5.56	1.2							● ●														
	HNGX090516-MR	9.16	15.875	5.56	1.6							●														
	HNGX090520-MR	9.16	15.875	5.56	2.0							●						○								

B

Milling Tools
Fräser

Applicable tool / Werkzeug **B11-B18**

Tools code key / WSP ISO **B184-B185**

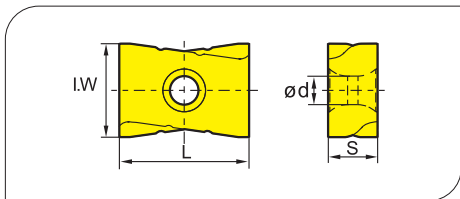
Grade selection guide / Sortenauswahl **B19-B23**

Technical data / Technische Daten **B215-B220**

Milling - Fräsen

Indexable Milling Tools - Wendepplattenfräser

LN**

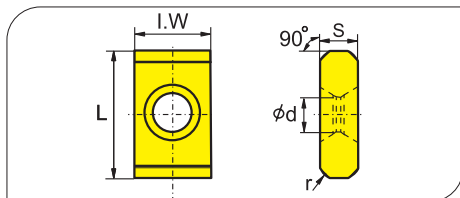


- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- Normal Machining Condition / Normale Bearbeitungsbedingungen
- Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

Workpiece Material / Werkstoffe	P	M	K	N	S	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
P Steel / Stahl	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M Stainless Steel / Rostfreier Stahl		●	●	●	●				●	●	●				●	●	●	●	●	●	●	●	●	●
K Cast iron / Gusseisen			●	●	●						●	●	●				●	●	●	●	●	●	●	●
N Non-ferrite material / Ne Metalle																						●	●	●
S Heat-resistant steel / Warmfester Stahl									●	●				●	●	●	●	●	●					

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen				CVD Coating / CVD Beschicht.						PVD Coating / PVD Beschicht.				Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall								
		L	I.W	S	d	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202		YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
	LNKT1506EN-ZR	15.875	14	6.35	4.6	●			●	●	●	●					●								
	LNKT2007DN-ZR	20	17	7.94	4.6						●	●					●								
	LNKT2510-ZR	25	18	9.525	5.5						●	●					●								

LN**



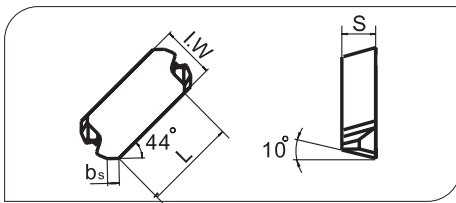
- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- Normal Machining Condition / Normale Bearbeitungsbedingungen
- Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

Workpiece Material / Werkstoffe	P	M	K	N	S	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
P Steel / Stahl	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M Stainless Steel / Rostfreier Stahl		●	●	●	●				●	●	●				●	●	●	●	●	●	●	●	●	●
K Cast iron / Gusseisen			●	●	●						●	●	●				●	●	●	●	●	●	●	●
N Non-ferrite material / Ne Metalle																						●	●	●
S Heat-resistant steel / Warmfester Stahl									●	●				●	●	●	●	●	●					

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen					CVD Coating / CVD Beschicht.						PVD Coating / PVD Beschicht.				Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall							
		L	I.W	S	d	r	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202		YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101
	LNE32.534	15.875	9.525	4.76	4.4	1.6					●	○													
	LNE32.302	15.875	9.525	4.76	4.2	45 Fase				●			●												

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

LNCX

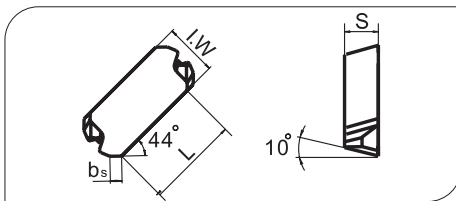


- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- Normal Machining Condition / Normale Bearbeitungsbedingungen
- Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

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

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen				CVD Coating / CVD Beschicht.				PVD Coating / PVD Beschicht.				Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall										
		L	I.W	S	bs	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252		YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
	LNCX1806AZR	18.77	10.0	6.4	2.0	●									○										○
	LNCX1806AZL	18.77	10.0	6.4	2.0																				

LNCX

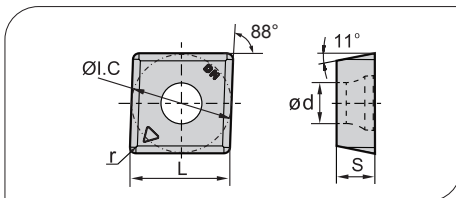


- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- Normal Machining Condition / Normale Bearbeitungsbedingungen
- Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

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

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen					CVD Coating / CVD Beschicht.				PVD Coating / PVD Beschicht.				Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall									
		L	I.W	S	bs	T-land	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252		YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101
	LNCX1806AZT11R	18.77	10.0	6.4	2.0	0.1									○										
	LNCX1806AZT11L	18.77	10.0	6.4	2.0	0.1									○										

MP**



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

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

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen					CVD Coating / CVD Beschicht.				PVD Coating / PVD Beschicht.				Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall									
		I.C	L	S	d	r	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252		YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101
	MPHT060304-DM	6.35	6.35	3.18	2.8	0.4	●		○									●							
	MPHT080305-DM	8.3	8.3	3.18	3.4	0.5	●		○									●							
	MPHT120408-DM	12.7	12.7	4.76	5.56	0.8	●		○									●							

Applicable tool / Werkzeug **B11-B18**

Tools code key / WSP ISO **B184-B185**

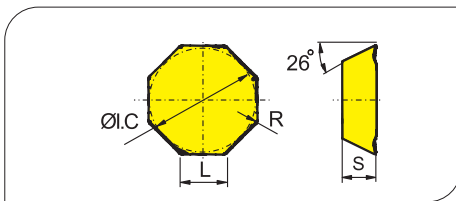
Grade selection guide / Sortenauswahl **B19-B23**

Technical data / Technische Daten **B215-B220**

Milling · Fräsen

Indexable Milling Tools · Wendepplattenfräser

OF**

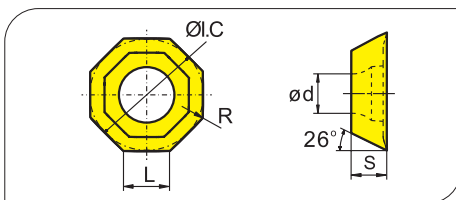


- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- Normal Machining Condition / Normale Bearbeitungsbedingungen
- Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

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

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen				CVD Coating / CVD Beschicht.				PVD Coating / PVD Beschicht.				Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall											
		L	I.C	S	R	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252		YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201	
	OFKR0704-DF	7.45	17.94	4.76	0.8				○					●												
	OFKR0704-DM	7.45	17.94	4.76	0.8	●	●	●		●	●	●	●	○		●										
	OFKR0704W-DM Lwiper	7.45	17.94	4.76		○						○		●	●											
	OFKR0704-LH	7.45	17.94	4.76																					○	

OF**



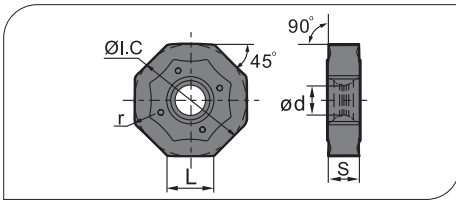
- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- Normal Machining Condition / Normale Bearbeitungsbedingungen
- Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

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

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen					CVD Coating / CVD Beschicht.				PVD Coating / PVD Beschicht.				Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall											
		L	I.C	S	d	R	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252		YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201	
	OFKT05T3-DF	5.26	12.7	3.97	4.4	0.5				○					●	●		○									
	OFKT05T3-DM	5.26	12.7	3.97	4.4	0.5				●		●			●	●		●									
	OFKT05T3-LH	5.26	12.7	3.97	4.4	0.5																			●		

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

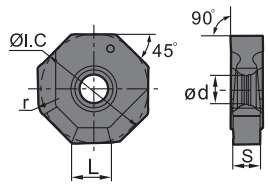
ON**



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

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

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen					CVD Coating / CVD Beschicht.						PVD Coating / PVD Beschicht.					Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall							
		L	ØI.C	S	ød	r	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205			YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101
	ONHU060408-PF	6.58	15.875	4.76	4.4	0.83	●					●			●											
	ONHU08T508-PF	8.37	20.2	5.77	5.3	0.83	●			●		○			●											
	ONHU060408-PM	6.58	15.875	4.76	4.4	0.83	●		●	●	●															
	ONHU08T508-PM	8.37	20.2	5.79	5.3	0.83	●			●	●	●														
	ONHU08T508-W	6.9	20.5	6.00	5.3	0.80						●		○												



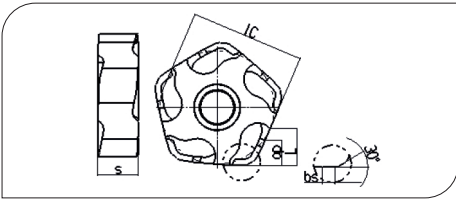
B

Milling Tools
Fräser

Milling - Fräsen

Indexable Milling Tools - Wendepplattenfräser

PN**

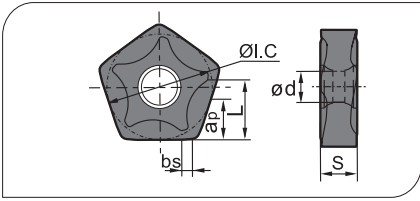


- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- ⊗ Normal Machining Condition / Normale Bearbeitungsbedingungen
- ⊗ Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

Workpiece Material / Werkstoffe	CVD Coating / CVD Beschicht.								PVD Coating / PVD Beschicht.					Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall										
	P	M	K	N	S	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252		YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
P Steel / Stahl	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
M Stainless Steel / Rostfreier Stahl		⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
K Cast iron / Gusseisen											⊗	⊗	⊗					⊗	⊗						⊗
N Non-ferrite material / Ne Metalle																							⊗	⊗	
S Heat-resistant steel / Warmfester Stahl											⊗	⊗	⊗												

Insert WSP	Insert Typ	Dimension (mm) / Abmessung						CVD Coating / CVD Beschicht.						PVD Coating / PVD Beschicht.					Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall						
		L	ØI.C	S	ød	bs	ap	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205		YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101
	PNEG110512R-CF	5.4	15.875	5.56	4.64	1.6	5							○												
	PNEG110512L-CF	5.4	15.875	5.56	4.64	1.6	5							○												
	PNEG110512R-CM	5.4	15.875	5.56	4.64	1.6	5						●													
	PNEG110512L-CM	5.4	15.875	5.56	4.64	1.6	5							○												
	PNEG110512R-CR	5.4	15.875	5.56	4.64	1.6	5						●	●												
	PNEG110512L-CR	5.4	15.875	5.56	4.64	1.6	5							○												

PN**

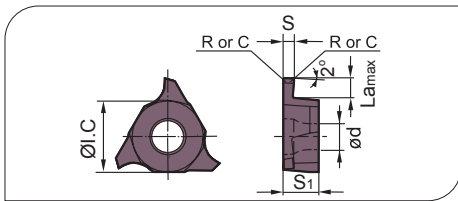


- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- ⊗ Normal Machining Condition / Normale Bearbeitungsbedingungen
- ⊗ Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

Workpiece Material / Werkstoffe	CVD Coating / CVD Beschicht.								PVD Coating / PVD Beschicht.					Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall										
	P	M	K	N	S	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252		YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
P Steel / Stahl	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
M Stainless Steel / Rostfreier Stahl		⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
K Cast iron / Gusseisen											⊗	⊗	⊗					⊗	⊗						⊗
N Non-ferrite material / Ne Metalle																							⊗	⊗	
S Heat-resistant steel / Warmfester Stahl											⊗	⊗	⊗												

Insert WSP	Insert Typ	Dimension (mm) / Abmessung						CVD Coating / CVD Beschicht.						PVD Coating / PVD Beschicht.					Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall						
		L	ØI.C	S	ød	bs	apmax	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205		YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101
	PNEG110512R-PF	7.5	15.875	5.56	4.64	1.4	7.5	●			○															
	PNEG110512L-PF	7.5	15.875	5.56	4.64	1.4	7.5	○			○															
	PNEG110512R-PM	7.5	15.875	5.56	4.64	1.4	7.5	●			●															
	PNEG110512L-PM	7.5	15.875	5.56	4.64	1.4	7.5	○			●															
	PNEG110512R-PR	7.5	15.875	5.56	4.64	1.4	7.5	●			●															
	PNEG110512L-PR	7.5	15.875	5.56	4.64	1.4	7.5	○			○															

QC**L



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

Workpiece Material / Werkstoffe	P	M	K	N	S	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
P Steel / Stahl	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M Stainless Steel / Rostfreier Stahl		●	●	●	●												●	●	●	●				
K Cast iron / Gusseisen			●	●	●																			
N Non-ferrous material / Ne Metalle																								
S Heat-resistant steel / Warmfester Stahl																								

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen						CVD Coating / CVD Beschicht.						PVD Coating / PVD Beschicht.				Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall						
		S±0.025	L _{max}	R/C	ØI.C	S ₁	Ød	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101
	QC16L110-R01	1.10	2.00	R0.1	9.525	3.18	4.4									○	●								
	QC16L125-R02	1.25	2.00	R0.2	9.525	3.18	4.4									○	●								
	QC16L145-R02	1.45	2.00	R0.2	9.525	3.18	4.4									○	●								
	QC16L150-R02	1.50	2.00	R0.2	9.525	3.18	4.4									○	●								
	QC16L175-R02	1.75	2.00	R0.2	9.525	3.18	4.4									○	●								
	QC16L185-R02	1.85	2.50	R0.2	9.525	3.18	4.4									○	●								
	QC16L200-R02	2.00	2.50	R0.2	9.525	3.18	4.4									○	●								
	QC16L250-R02	2.50	2.50	R0.2	9.525	3.18	4.4									○	●								
	QC16L300-R02	3.00	3.00	R0.2	9.525	3.18	4.4									○	●								

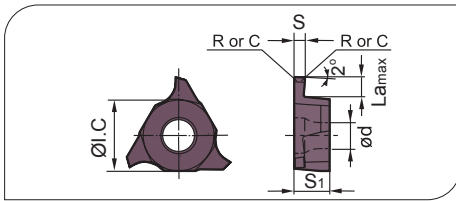
B

Milling Tools
Fräser

Milling - Fräsen

Indexable Milling Tools - Wendepplattenfräser

QC**L



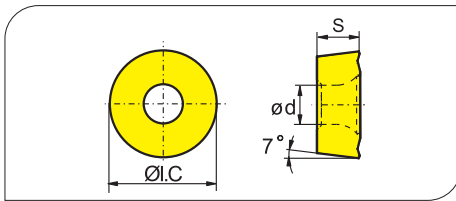
- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- Normal Machining Condition / Normale Bearbeitungsbedingungen
- Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

Workpiece Material / Werkstoffe	P	M	K	N	S	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
P Steel / Stahl	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M Stainless Steel / Rostfreier Stahl		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
K Cast iron / Gusseisen			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
N Non-ferrite material / Ne Metalle				●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
S Heat-resistant steel / Warmfester Stahl					●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen						CVD Coating / CVD Beschicht.						PVD Coating / PVD Beschicht.						Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall			
		S±0.025	L _{max}	R/C	ØI.C	S ₁	ød	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302		YBG152	YBG252	YNG151	YNG151C
	QC22L125-R02	1.25	2.00	R0.2	12.70	4.76	5.5									○	●							
	QC22L145-R02	1.45	2.00	R0.2	12.70	4.76	5.5									○	●							
	QC22L150-R02	1.50	3.50	R0.2	12.70	4.76	5.5									○	●							
	QC22L175-R02	1.75	3.50	R0.2	12.70	4.76	5.5									○	●							
	QC22L185-R02	1.85	3.50	R0.2	12.70	4.76	5.5									○	●							
	QC22L200-R02	2.00	3.50	R0.2	12.70	4.76	5.5									○	●							
	QC22L230-R02	2.30	3.50	R0.2	12.70	4.76	5.5									○	●							
	QC22L250-R03	2.50	4.00	R0.3	12.70	4.76	5.5									○	●							
	QC22L265-R03	2.65	4.00	R0.3	12.70	4.76	5.5									○	●							
	QC22L280-R03	2.80	4.00	R0.3	12.70	4.76	5.5									○	●							
	QC22L300-R03	3.00	4.00	R0.3	12.70	4.76	5.5									○	●							
	QC22L320-R03	3.20	4.00	R0.3	12.70	4.76	5.5									○	●							
	QC22L330-R03	3.30	4.00	R0.3	12.70	4.76	5.5									○	●							
	QC22L350-R03	3.50	5.00	R0.3	12.70	4.76	5.5									○	●							
	QC22L400-R04	4.00	5.00	R0.4	12.70	4.76	5.5									○	○							
	QC22L430-R04	4.30	5.00	R0.4	12.70	4.76	5.5									○	○							
	QC22L450-R04	4.50	5.00	R0.4	12.70	4.76	5.5									○	○							
QC22L480-R04	4.80	5.00	R0.4	12.70	5.06	5.5									○	○								

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

RC**

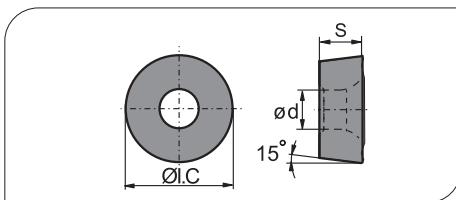


- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- Normal Machining Condition / Normale Bearbeitungsbedingungen
- ⊗ Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

Workpiece Material / Werkstoffe	P	M	K	N	S	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
P Steel Stahl	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M Stainless Steel Rostfreier Stahl		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
K Cast iron Gusseisen			●	●	●							●	●	●	●	●	●	●	●	●	●	●	●	●
N Non-ferrite material Ne Metalle				●	●																		●	●
S Heat-resistant steel Warmfester Stahl					●									●	●	●	●	●	●	●	●	●	●	●

Insert shape WSP	Type Typ	Dimension (mm) Abmessung			CVD Coating CVD Beschicht.								PVD Coating PVD Beschicht.					Cermet Cermet		Carbide uncoat. unbe. Hartmetall				
		I.C	S	d	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201	
	RCKT10T3MO-DM	10.0	3.97	4.4	●	●								●	○									
	RCKT1204MO-DM	12.0	4.76	4.0	●	●	●			●	○			●	○									
	RCKT1606MO-DM	16.0	6.35	5.56	●	●	○								○	●								
	RCKT2006MO-DM	20.0	6.35	6.55	○	○	○																	
	RCKT1204MO-DR	12.0	4.76	4.0	●	●	●			●					○									
	RCKT1606MO-DR	16.0	6.35	5.56	●	●				●		●												
	RCKT2006MO-DR	20.0	6.35	6.55	●	●				●		●												
	RCKT1204MO-ER	12.0	4.76	4.0						●	○													
	RCKT1606MO-ER	16.0	6.35	5.56						●	○													
	RCKT2006MO-ER	20.0	6.35	6.55						●	○													

RD**



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

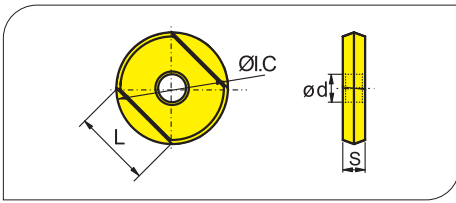
Workpiece Material / Werkstoffe	P	M	K	N	S	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
P Steel Stahl	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M Stainless Steel Rostfreier Stahl		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
K Cast iron Gusseisen			●	●	●							●	●	●	●	●	●	●	●	●	●	●	●	●
N Non-ferrite material Ne Metalle				●	●																		●	●
S Heat-resistant steel Warmfester Stahl					●									●	●	●	●	●	●	●	●	●	●	●

Insert shape Plattenform	Type Typ	Dimension (mm) Abmessung			CVD Coating CVD Beschicht.								PVD Coating PVD Beschicht.					Cermet Cermet		Carbide uncoat. unbe. Hartmetall				
		I.C	S	d	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201	
	RDKW0702MO	7.0	2.38	2.7						●				●	●									
	RDKW0803MO	8.0	3.18	3.4						●					●									
	RDKW1003MO	10.0	3.18	3.9				●		●				●	●									
	RDKW10T3MO	10.0	3.97	4.4	○	●				●				●	●									
	RDKW1204MO	12.0	4.76	4.4	○	●		●		●				●	●	●	○							
	RDKW12T3MO	12.0	3.97	3.9			○	●		●				●	●								○	
	RDKT12T3MO-EM	12.0	3.97	3.9						●														
	RDKW1604MO	16.0	4.76	5.2						●				●	●									
	RDKW1605MO	16.0	5.56	5.5						●					●	●								
	RDKW2006MO	20.0	6.35	6.5	●					●		○												

Milling - Fräsen

Indexable Milling Tools - Wendepplattenfräser

RO**

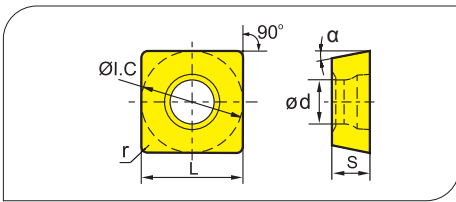


- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- ⊛ Normal Machining Condition / Normale Bearbeitungsbedingungen
- ⊛ Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

Workpiece Material / Werkstoffe	P	M	K	N	S	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
P Steel Stahl	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M Stainless Steel Rostfreier Stahl		●	●	●	●				●	●	●					●	●	●		●	●	●	●	
K Cast iron Gusseisen			●									●	●	●					●	●				●
N Non-ferrite material Ne Metalle				●																			●	●
S Heat-resistant steel Warmfester Stahl					●				●	●				●										

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen				CVD Coating / CVD Beschicht.						PVD Coating / PVD Beschicht.				Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall							
		I.C	L	S	d	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
	ROHX1203	12	8.5	3	4							○		○	●				●					
	ROHX1604	16	11.3	4	5							○			●				●					
	ROHX2005	20	14.1	5	5							●			●				●					

SD**

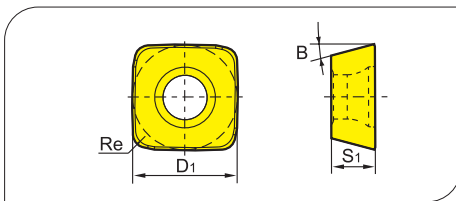


- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- ⊛ Normal Machining Condition / Normale Bearbeitungsbedingungen
- ⊛ Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

Workpiece Material / Werkstoffe	P	M	K	N	S	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
P Steel Stahl	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M Stainless Steel Rostfreier Stahl		●	●	●	●				●	●	●					●	●	●		●	●	●	●	
K Cast iron Gusseisen			●									●	●	●					●	●				●
N Non-ferrite material Ne Metalle				●																			●	●
S Heat-resistant steel Warmfester Stahl					●				●	●				●										

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen						CVD Coating / CVD Beschicht.						PVD Coating / PVD Beschicht.				Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall					
		r	L	I.C	S	d	α	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S
	SDMT090308	0.8	9.525	9.525	3.18	4.4	15°				●		○											

SD**



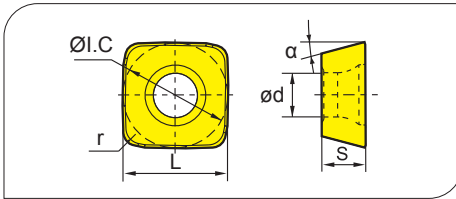
- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- ⊛ Normal Machining Condition / Normale Bearbeitungsbedingungen
- ⊛ Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

Workpiece Material / Werkstoffe	P	M	K	N	S	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
P Steel Stahl	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M Stainless Steel Rostfreier Stahl		●	●	●	●				●	●	●					●	●	●		●	●	●	●	
K Cast iron Gusseisen			●									●	●	●					●	●				●
N Non-ferrite material Ne Metalle				●																			●	●
S Heat-resistant steel Warmfester Stahl					●				●	●				●										

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen				CVD Coating / CVD Beschicht.						PVD Coating / PVD Beschicht.				Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall							
		B	Re	S1	D1	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
	SDMT09T312-DM	15°	1.2	3.97	9.525		●				●		○											
	SDMT120412-DM	15°	1.2	4.76	12.7						●		○					●	●					


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

SD**

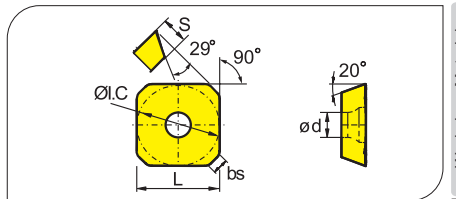


- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- Normal Machining Condition / Normale Bearbeitungsbedingungen
- Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

Workpiece Material / Werkstoffe	P	M	K	N	S	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
P Steel / Stahl	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M Stainless Steel / Rostfreier Stahl		●	●	●	●				●	●	●				●	●	●			●	●	●		
K Cast iron / Gusseisen			●									●	●						●	●				●
N Non-ferrite material / Ne Metalle				●																		●	●	
S Heat-resistant steel / Warmfester Stahl					●				●	●				●	●									






Insert WSP	Type Typ	Dimensions (mm) / Abmessungen						CVD Coating / CVD Beschicht.						PVD Coating / PVD Beschicht.						Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall				
		ØI.C	L	r	S	ød	α	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302			YBG152	YBG252	YNG151	YNG151C
	SDMT09T312-PM	9.525	9.525	1.2	3.97	4.0	15°				●							●							
	SDMT120412-PM	12.7	12.7	2.0	4.76	4.4	15°				●							●							

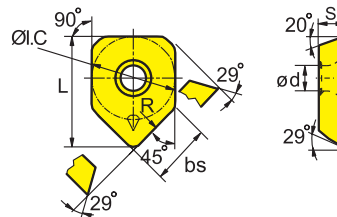
SE**



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

Workpiece Material / Werkstoffe	P	M	K	N	S	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
P Steel / Stahl	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M Stainless Steel / Rostfreier Stahl		●	●	●	●				●	●	●				●	●	●			●	●	●		
K Cast iron / Gusseisen			●									●	●						●	●				●
N Non-ferrite material / Ne Metalle				●																		●	●	
S Heat-resistant steel / Warmfester Stahl					●				●	●				●	●									

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen						CVD Coating / CVD Beschicht.						PVD Coating / PVD Beschicht.						Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall			
		L	I.C	S	d	bs	R	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302			YBG152	YBG252	YNG151
	SEET12T3-DF	13.40	13.40	3.97	4.1	2.55		●	●		●	●						●						
	SEET12T3-CF	13.40	13.40	3.97	4.1	2.55								●				●						●
	SEET12T3-EF	13.40	13.40	3.97	4.1	2.55										●		●						
	SEET12T3-DM	13.40	13.40	3.97	4.1	2.55		●	●	●	●	●						●						
	SEET12T3-CM	13.40	13.40	3.97	4.1	2.55								●				●						○
	SEET12T3-EM	13.40	13.40	3.97	4.1	2.55					●	○	●			●		●						
	SEET12T3-DR	13.40	13.40	3.97	4.1	2.55		●	●			●		●			○	○						
	SEET12T3-CR	13.40	13.40	3.97	4.1	2.55								●	●		○	○						
	SEET12T3-LH	13.40	13.40	3.97	4.1	2.55																	●	●
	SEET12T3-W	17.82	13.40	3.97	4.1	9.46	500				○		○			●		○		○				



Applicable tool / Werkzeug **B11-B18**

Tools code key / WSP ISO **B184-B185**

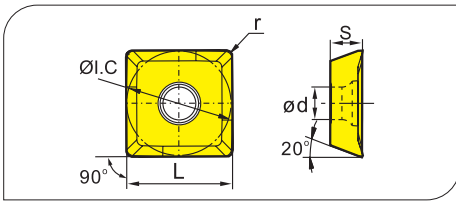
Grade selection guide / Sortenauswahl **B19-B23**

Technical data / Technische Daten **B215-B220**

Milling · Fräsen

Indexable Milling Tools · Wendepplattenfräser

SE**



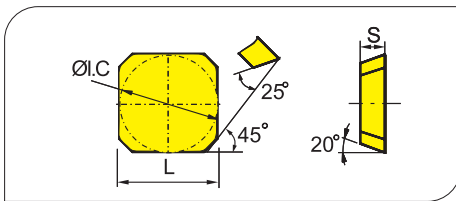
- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- Normal Machining Condition / Normale Bearbeitungsbedingungen
- Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

Workpiece Material / Werkstoffe	P	M	K	N	S	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
P Steel / Stahl	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M Stainless Steel / Rostfreier Stahl		●	●	●	●				●	●	●				●	●	●	●	●	●	●	●	●	●
K Cast iron / Gusseisen			●	●	●						●	●	●					●	●	●	●	●	●	●
N Non-ferrite material / Ne Metalle				●	●																●	●	●	●
S Heat-resistant steel / Warmfester Stahl					●				●	●		●	●											

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen					CVD Coating / CVD Beschicht.						PVD Coating / PVD Beschicht.				Cermets / Cermet		Carbide uncoat. / unbe. Hartmetall					
		L	I.C	S	d	r	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101
	SEET09T308PER-PF	9.525	9.525	4.01	3.3	0.8									●									
	SEET09T308PER-PM	9.525	9.525	4.01	3.3	0.8							●		●									
	SEET09T308PER-PR	9.525	9.525	4.01	3.3	0.8							●											
	SEET120308PER-PF	13.308	13.308	4.04	4.1	0.8	●	●				○			●									
	SEET120308PER-PM	13.308	13.308	4.04	4.1	0.8	●	●	●	●	●	●	●	●	●	●	●	●						
	SEET120308PER-PR	13.308	13.308	4.04	4.1	0.8	●	●	●	●	●	●	●	○	○	○								
	SEET120308-LH	13.308	13.308	4.04	4.1	0.8									○								●	

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

SE**

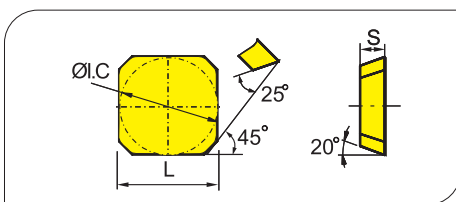


- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- Normal Machining Condition / Normale Bearbeitungsbedingungen
- Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

Workpiece Material / Werkstoffe	P	M	K	N	S	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
Steel / Stahl	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless Steel / Rostfreier Stahl		●	●	●	●				●	●	●				●	●	●			●	●	●		
Cast iron / Gusseisen			●									●	●						●	●				●
Non-ferrous material / Nichte Metalle				●																		●	●	
Heat-resistant steel / Warmfester Stahl					●				●	●				●	●	●								

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen			CVD Coating / CVD Beschicht.								PVD Coating / PVD Beschicht.				Cermet	Carbide uncoat. / unbe. Hartmetall							
		L	I.C	S	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201		
	SEEN1203AFTN	12.7	12.7	3.18																●					
	SEKN1203AFFN	12.7	12.7	3.18																					
	SEKN1203AFN	12.7	12.7	3.18	○																		●	○	
	SEKN1203AFTN	12.7	12.7	3.18	●			●	●												●	○	●		○
	SEKN1203AFS13N	12.7	12.7	3.18	○																				
	SEKN1204AFN	12.7	12.7	4.76	●																				○
	SEKN1204AFTN	12.7	12.7	4.76	●																				○
	SEKN1204AFS13N	12.7	12.7	4.76	○																				
	SEKN1504AFN	15.875	15.875	4.76	○																			○	○
	SEKN1504AFTN	15.875	15.875	4.76	●		●	●		●													○		
	SEKN1504AFZN	15.875	15.875	4.76																					
	SEKN1204AZ	15.875	15.875	4.76	●	○																			○
	SEKN1504AZ	15.875	15.875	4.76	●	○																			○

SE**



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

Workpiece Material / Werkstoffe	P	M	K	N	S	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
Steel / Stahl	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless Steel / Rostfreier Stahl		●	●	●	●				●	●	●				●	●	●			●	●	●		
Cast iron / Gusseisen			●									●	●						●	●				●
Non-ferrous material / Nichte Metalle				●																		●	●	
Heat-resistant steel / Warmfester Stahl					●				●	●				●	●	●								

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen			CVD Coating / CVD Beschicht.								PVD Coating / PVD Beschicht.				Cermet	Carbide uncoat. / unbe. Hartmetall						
		L	I.C	S	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201	
	SEKR1203AFN	12.7	12.7	3.18	●	○																		
	SEKR1504AFN	15.875	15.875	4.76																				

Applicable tool / Werkzeug: **B11-B18**

Tools code key / WSP ISO: **B184-B185**

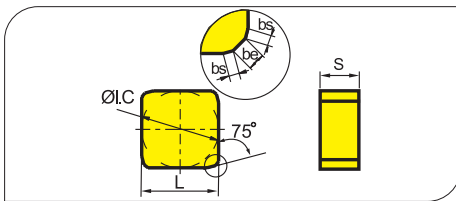
Grade selection guide / Sortenauswahl: **B19-B23**

Technical data / Technische Daten: **B215-B220**

Milling · Fräsen

Indexable Milling Tools · Wendepplattenfräser

SN**

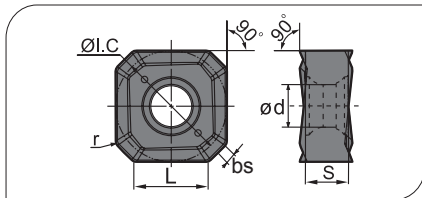


- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- ⊙ Normal Machining Condition / Normale Bearbeitungsbedingungen
- ⊗ Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

Workpiece Material / Werkstoffe	CVD Coating / CVD Beschicht.							PVD Coating / PVD Beschicht.					Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall											
	P	M	K	N	S	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152		YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
P Steel / Stahl	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M Stainless Steel / Rostfreier Stahl		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
K Cast iron / Gusseisen											●	●	●					●	●					●	
N Non-ferrous material / Ne Metalle																						●	●		
S Heat-resistant steel / Warmfester Stahl											●	●	●												

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen					CVD Coating / CVD Beschicht.							PVD Coating / PVD Beschicht.					Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall					
		L	I.C	S	be	bs	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302		YBG152	YBG252	YNG151	YNG151C	YC30S	YD101
	SNKN1204ENN	12.7	12.7	4.76	0.9	1.5	●					○	●										●		○
	SNKN1504ENN	15.875	15.875	4.76	0.9	1.5	○					○											●		○
	SNKN1904ENN	19.05	19.05	4.76	1.0	1.5																			

SN**



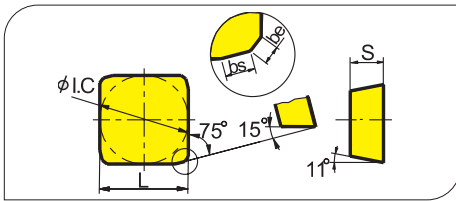
- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- ⊙ Normal Machining Condition / Normale Bearbeitungsbedingungen
- ⊗ Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

Workpiece Material / Werkstoffe	CVD Coating / CVD Beschicht.								PVD Coating / PVD Beschicht.							Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall								
	P	M	K	N	S	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202		YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
P Steel / Stahl	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M Stainless Steel / Rostfreier Stahl		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
K Cast iron / Gusseisen												●	●	●					●	●					●
N Non-ferrous material / Ne Metalle																						●	●		
S Heat-resistant steel / Warmfester Stahl												●	●	●											

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen						CVD Coating / CVD Beschicht.								PVD Coating / PVD Beschicht.							Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall		
		L	ØI.C	S	bs	ød	r	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151		YNG151C	YC30S	YD101
	SNEG1205ANR-GM	7.6	12.0	4.76	1.05	4.6	0.8	●																		
	SNEG1506ANR-GM	7.6	15.0	5.54	1.30	5.5	0.9	●																		
	SNEG1506ANR-GR	9.4	15.0	5.54	1.30	5.5	0.9							●	●											
	SNEG1907ANR-GR	12.1	19.0	7.0	1.67	7.2	1.0							○												

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

SP*N



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

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

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen					CVD Coating / CVD Beschicht.						PVD Coating / PVD Beschicht.					Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall								
		L	I.C	S	be	bs	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205		YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201	
	SPAN1203EDEL	12.7	12.7	1.4	1	3.18	●																				
	SPAN1203EDER	12.7	12.7	1.4	1	3.18	●																				
	SPAN1203EDFL	12.7	12.7	1.4	1	3.18																				○	
	SPAN1203EDFR	12.7	12.7	1.4	1	3.18																					●
	SPAN1203EDL	12.7	12.7	1.4	1	3.18																					○
	SPAN1203EDR	12.7	12.7	1.4	1	3.18																					○
	SPAN1504EDFR	15.875	15.875	1.4	1	4.76																					○
	SPAN1504EDFL	15.875	15.875	1.4	1	4.76																					○
	SPCN1203EDSKR	12.7	12.7	1.4	1	3.18	●																			○	
	SPCN1504EDSKR	15.875	15.875	1.4	1	4.76	●																			○	

B

Milling Tools
Fräser

Applicable tool / Werkzeug **B11-B18**

Tools code key / WSP ISO **B184-B185**

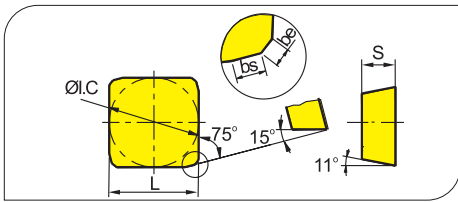
Grade selection guide / Sortenauswahl **B19-B23**

Technical data / Technische Daten **B215-B220**

Milling - Fräsen

Indexable Milling Tools - Wendepplattenfräser

SP*N



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

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

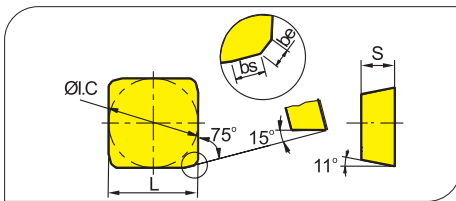
Insert WSP	Type Typ	Dimensions (mm) / Abmessungen					CVD Coating / CVD Beschicht.						PVD Coating / PVD Beschicht.			Cermet Cermet	Carbide uncoat. / unbe. Hartmetall										
		L	I.C	S	be	bs	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102		YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201	
	SPKN1203EDER	12.7	12.7	3.18	1	1.4																					
	SPKN1203EDEL	12.7	12.7	3.18	1	1.4																					
	SPKN1203EDFR	12.7	12.7	3.18	1	1.4	○								○									○	●		
	SPKN1203EDFL (SPKN1203EDL)	12.7	12.7	3.18	1	1.4																				●	
	SPKN1203EDSKR (SPKN1203EDR)	12.7	12.7	3.18	1	1.4	●		●						●		●		●					○			
	SPKN1203EDSKL (SPKN1203EDL)	12.7	12.7	3.18	1	1.4	●										●								●		
	SPKN1203EDTKR	12.7	12.7	3.18	1	1.4						○							○						●		
	SPKN1203EDTKL	12.7	12.7	3.18	1	1.4																					
	SPKN1203EDS31PR (SPKN1203EDT31R)	12.7	12.7	3.18	1	1.4												○									
	SPKN1203EDS31PL (SPKN1203EDT31L)	12.7	12.7	3.18	1	1.4																					
	SPKN1203EDT31R	12.7	12.7	3.18	1	1.4																					
SPKN1203EDT31L	12.7	12.7	3.18	1	1.4																						
	SPKN1204EDFL (SPKN1204EDL)	12.7	12.7	4.76	1	1.4																					
	SPKN1204EDER (SPKN1204EDR)	12.7	12.7	4.76	1	1.4	●		●															●			
	SPKN1204EDFR	12.7	12.7	4.76	1	1.4																					
	SPKN1204EDSKR	12.7	12.7	4.76	1	1.4									●												
	SPKN1504EDER	15.875	15.875	4.76	1	1.4																					
	SPKN1504EDEL	15.875	15.875	4.76	1	1.4																					
	SPKN1504EDFR	15.875	15.875	4.76	1	1.4																					
	SPKN1504EDFL (SPKN1504EDL)	15.875	15.875	4.76	1	1.4																					
	SPKN1504EDSKR (SPKN1504EDR)	15.875	15.875	4.76	1	1.4	●								●			●		●				●			
	SPKN1504EDSKL (SPKN1504EDL)	15.875	15.875	4.76	1	1.4													○					●			
	SPKN1504EDTKR (SPKN1504EDR)	15.875	15.875	4.76	1	1.4																					
	SPKN1504EDTKL	15.875	15.875	4.76	1	1.4																					
	SPKN1504EDS32PR (SPKN1504EDT32R)	15.875	15.875	4.76	1	1.4	○																				
	SPKN1504EDS32PL (SPKN1504EDTL)	15.875	15.875	4.76	1	1.4																					
SPKN1504EDT32PR (SPKN1504EDTR)	15.875	15.875	4.76	1	1.4	●												○									
SPKN1504EDT32PL (SPKN1504EDTL)	15.875	15.875	4.76	1	1.4																						

SPKN1203EDT31R chamfer · Fase 20° X 0.15 mm

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

Milling Tools / Fräser

SP*R

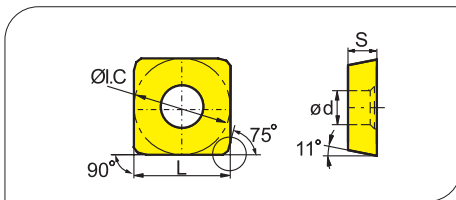


- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- Normal Machining Condition / Normale Bearbeitungsbedingungen
- Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

Workpiece Material / Werkstoffe	P	M	K	N	S	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201	
Steel / Stahl	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless Steel / Rostfreier Stahl		●	●	●	●				●	●	●				●	●	●			●	●	●			
Cast iron / Gusseisen			●									●	●	●						●	●			●	
Non-ferrous material / Ne Metalle				●																		●	●		
Heat-resistant steel / Warmfester Stahl					●				●	●			●		●	●									

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen					CVD Coating / CVD Beschicht.						PVD Coating / PVD Beschicht.					Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall					
		L	I.C	S	be	bs	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205		YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S
	SPKR1203EDR-GM	12.7	12.7	3.18	1	1.4				●						○								
	SPKR1203EDL-GM	12.7	12.7	3.18	1	1.4				●						○								
	SPKR1504EDR-GM	15.875	15.875	4.76	1	1.4				○						○								
	SPKR1504EDL-GM	15.875	15.875	4.76	1	1.4				○						○								
	SPKR1904EDFL	19.05	19.05	4.76	1	1.4																		
	SPKR1904EDFR	19.05	19.05	4.76	1	1.4																		

SP*W



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

Workpiece Material / Werkstoffe	P	M	K	N	S	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
Steel / Stahl	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless Steel / Rostfreier Stahl		●	●	●	●				●	●	●				●	●	●			●	●	●		
Cast iron / Gusseisen			●									●	●	●						●	●			●
Non-ferrous material / Ne Metalle				●																		●	●	
Heat-resistant steel / Warmfester Stahl					●				●	●			●		●	●								

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen						CVD Coating / CVD Beschicht.						PVD Coating / PVD Beschicht.					Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall				
		r	L	I.C	S	d	α	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205		YBG302	YBG152	YBG252	YNG151	YNG151C
	SPKW1204EDFR	---	12.7	12.7	4.76	5.56	11°																	
	SPKW1204EDSR	---	12.7	12.7	4.76	5.56	11°																	

Applicable tool / Werkzeug **B11-B18**

Tools code key / WSP ISO **B184-B185**

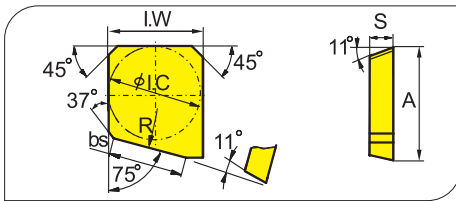
Grade selection guide / Sortenauswahl **B19-B23**

Technical data / Technische Daten **B215-B220**

Milling · Fräsen

Indexable Milling Tools · Wendepplattenfräser

SP*X



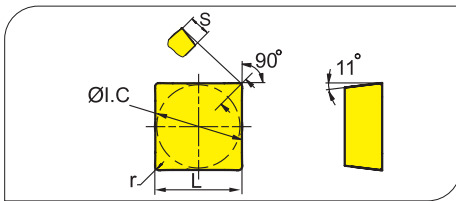
- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- Normal Machining Condition / Normale Bearbeitungsbedingungen
- Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

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

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen						CVD Coating / CVD Beschicht.						PVD Coating / PVD Beschicht.		Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall										
		A	I.C	I.W	S	bs	R	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201	
	SPEX1203EDL-1	15	12.7	12.7	3.18	10	500																				○
	SPEX1203EDR-1	15	12.7	12.7	3.18	10	500																				●
	SPEX1504EDL-1	18.2	15.875	15.875	4.76	10	500																				●
	SPEX1504EDR-1	18.2	15.875	15.875	4.76	10	500																				●

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

SP**

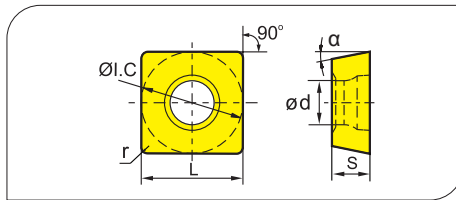


- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- Normal Machining Condition / Normale Bearbeitungsbedingungen
- Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

Workpiece Material / Werkstoffe	CVD Coating / CVD Beschicht.										PVD Coating / PVD Beschicht.		Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall											
	P	M	K	N	S	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152		YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
P Steel / Stahl	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M Stainless Steel / Rostfreier Stahl		●	●	●	●										●	●	●	●	●	●	●	●	●	●	
K Cast iron / Gusseisen			●	●	●																				
N Non-ferrite material / Ne Metalle																									
S Heat-resistant steel / Warmfester Stahl														●											

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen				CVD Coating / CVD Beschicht.								PVD Coating / PVD Beschicht.				Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall					
		L	I.C	s	r	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302		YBG152	YBG252	YNG151	YNG151C	YC30S	YD101
	SPMR090304	9.525	9.525	3.18	0.4				●															
	SPMR09T304	9.525	9.525	3.97	0.4																			
	SPMR090308	9.525	9.525	3.18	0.8				○															
	SPMR120304	12.7	12.7	3.18	0.4				●															
	SPMR120308	12.7	12.7	3.18	0.8				●		●													
	SPMR120312	12.7	12.7	3.18	1.2				○		○													

SP**



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

Workpiece Material / Werkstoffe	CVD Coating / CVD Beschicht.										PVD Coating / PVD Beschicht.		Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall										
	P	M	K	N	S	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152		YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101
P Steel / Stahl	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
M Stainless Steel / Rostfreier Stahl		●	●	●	●										●	●	●	●	●	●	●	●	●	●
K Cast iron / Gusseisen			●	●	●																			
N Non-ferrite material / Ne Metalle																								
S Heat-resistant steel / Warmfester Stahl														●										

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen						CVD Coating / CVD Beschicht.								PVD Coating / PVD Beschicht.				Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall				
		r	L	I.C	S	d	α	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302		YBG152	YBG252	YNG151	YNG151C	YC30S
	SPMT060304-KT	0.4	6.35	6.35	3.18	2.8	11°	●																	
	SPMT060304	0.4	6.35	6.35	3.18	2.8	11°				●														
	SPMT09T308-HT	0.8	9.525	9.525	3.97	4.4	11°			●	●					●									
	SPMT09T308	0.8	9.525	9.525	3.97	4.4	11°	●		○															
	SPMT120408	0.8	12.7	12.70	4.76	5.5	11°	●		○	●								●						
	SPMT120408-PM	0.8	12.7	12.70	4.76	5.5	11°					●						●							
	SPMT120408-KM	0.8	12.7	12.70	4.76	5.5	11°											○	●						
	SPKT1204EDR	--	12.7	12.7	4.76	5.56	11°									●									

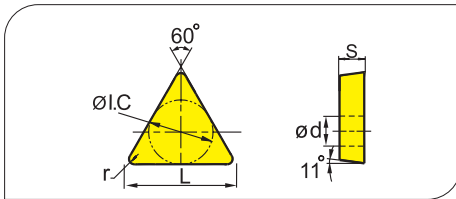
Applicable tool / Werkzeug **B11-B18**

Tools code key / WSP ISO **B184-B185**

Grade selection guide / Sortenauswahl **B19-B23**

Technical data / Technische Daten **B215-B220**

TP**



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

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

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen						CVD Coating / CVD Beschicht.						PVD Coating / PVD Beschicht.						Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall						
		L	I.C	bs	be	an	S	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302		YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
	TPCN1103PPS22PN (TPCN1103PP)	11	6.35	0.7	0.7	11°	3.18																				
	TPCN1603PPS42PN (TPCN1603PP)	16.5	9.525	1.2	1.2	11°	3.18	○									○								○		
	TPCN2204PDR	22	12.7	1.4	1.4	15°	4.76																			○	
	TPCN2204PDR (TPCN2204PDR)	22	12.7	1.4	1.4	15°	4.76	●																	●		
	TPCN2204PPN (TPCN2204PPN)	22	12.7	1.4	1.4	11°	4.76	○																			
	TPAN1103PPS22PN (TPAN1103PP)	11	6.35	0.7	0.7	11°	3.18	○									○								○		
	TPAN1603PPS42PN (TPAN1603PP)	16.5	9.525	1.2	1.2	11°	3.18	○									○								○		
	TPAN2204PDR (TPAN2204PDR)	22	12.7	1.4	1.4	15°	4.76																		○		
	TPAN2204PDR	22	12.7	1.4	1.4	11°	4.76																				○

B

Milling Tools
Fräser

Applicable tool / Werkzeug **B11-B18**

Tools code key / WSP ISO **B184-B185**

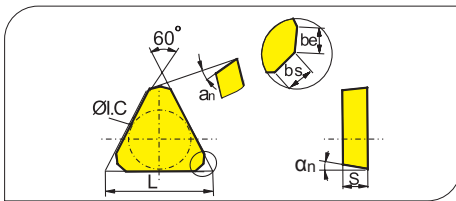
Grade selection guide / Sortenauswahl **B19-B23**

Technical data / Technische Daten **B215-B220**

Milling - Fräsen

Indexable Milling Tools - Wendepplattenfräser

TP**



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

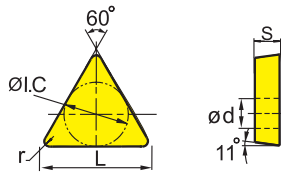
Workpiece Material / Werkstoffe	P	M	K	N	S
P Steel / Stahl	●	●	●	●	●
M Stainless Steel / Rostfreier Stahl	●	●	●	●	●
K Cast iron / Gusseisen	●	●	●	●	●
N Non-ferrous material / Ne Metalle	●	●	●	●	●
S Heat-resistant steel / Warmfester Stahl	●	●	●	●	●

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen						CVD Coating / CVD Beschicht.						PVD Coating / PVD Beschicht.						Cermet Cermet	Carbide uncoat. / unbe. Hartmetall					
		L	I.C	S	be	bs	an	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302		YBG152	YBG252	YNG151	YNG151C	YC30S	YD101
	TPKN1603PDSKR (TPKN1603PDR)	16.5	9.525	3.18	1.2	1	15°	●	○							○	●	○						●	○	
	TPKN1603PDSKL (TPKN1603PDL)	16.5	9.525	3.18	1.2	1	11°																			
	TPKN1603PPER (TPKN1603PPR)	16.5	9.525	3.18	1.2	1	11°	●	○															●		
	TPKN1603PPFR (TPKN1603PPR)	22	12.7	4.76	1.4	0.7	11°										○									●
	TPKN2204PDTKR	22	12.7	4.76	1.4	0.7	11°										●									
	TPKN2204PDFR	22	12.7	4.76	1.4	0.7	11°																			●
	TPKN2204PDFL	22	12.7	4.76	1.4	0.7	11°																			○
	TPKN2204PDSKR (TPKN2204PDR)	22	12.7	4.76	1.4	0.7	11°	●	●			●					●	●	●					○		
	TPKN2204PDL	22	12.7	4.76	1.4	0.7	11°	●																●		●
	TPKN2204PDTR	22	12.7	4.76	1.4	0.7	11°	○									○							●		

(old Materialnr. / alte Artikelnr.)

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

TP**



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

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

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen				CVD Coating / CVD Beschicht.				PVD Coating / PVD Beschicht.				Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall										
		L	I.C	s	r	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252		YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
	TPUN110208	11	6.35	2.38	0.8																				
	TPUN110304	11	6.35	3.18	0.4				●														●		
	TPUN110308	11	6.35	3.18	0.8				●														●		
	TPUN160304	16.5	9.525	3.18	0.4				●														●		●
	TPUN160308	16.5	9.525	3.18	0.8				●		○												●		○
	TPUN160312	16.5	9.525	3.18	1.2				●														●		○
	TPUN160408	16.5	9.525	4.76	0.8																				
	TPUN160412	16.5	9.525	4.76	1.2																				
	TPUN220404	22	12.7	4.76	0.4																			●	
	TPUN220408	22	12.7	4.76	0.8					●													●		
	TPUN220412	22	12.7	4.76	1.2							○											○		●
	TPUN220416	22	12.7	4.76	1.6																				○
	TPMR090204	9.6	5.56	2.38	0.4				●																
	TPMR110304	11	6.35	3.18	0.4				●													●			
	TPMR110308	11	6.35	3.18	0.8				●													○			
	TPMR160304	16.5	9.525	3.18	0.4				●		○											○	●		
	TPMR160308	16.5	9.525	3.18	0.8				●		●											○	●		
	TPMR160312	16.5	9.525	3.18	1.2				●		●											○			
	TPMR220412	22	12.7	4.76	1.2					○															
	TPMR330916	33	19.05	9.52	1.6																				

B

Milling Tools
Fräser

Applicable tool / Werkzeug **B11-B18**

Tools code key / WSP ISO **B184-B185**

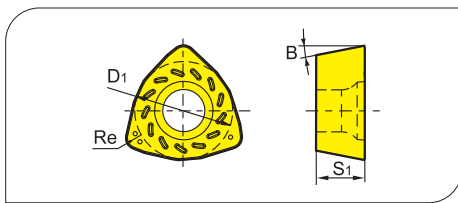
Grade selection guide / Sortenauswahl **B19-B23**

Technical data / Technische Daten **B215-B220**

Milling - Fräsen

Indexable Milling Tools - Wendepplattenfräser

WP**

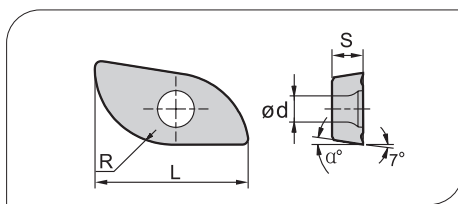


- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- Normal Machining Condition / Normale Bearbeitungsbedingungen
- Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

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

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen				CVD Coating / CVD Beschicht.				PVD Coating / PVD Beschicht.				Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall										
		B	Re	S ₁	D ₁	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252		YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
	WPGT050315ZSR	11°	1.5	3.5	7.94	●				●															
	WPGT060415ZSR	11°	1.5	4.2	9.525	●				●															
	WPGT080615ZSR	11°	1.5	6.35	12.85	●				●															
	WPGT090725ZSR	11°	2.5	7	15	●				●															
	WPGT050315ZSR-PM	11°	1.5	3.5	7.94	●				○															
	WPGT060415ZSR-PM	11°	1.5	4.2	9.525	●				○															
	WPGT080615ZSR-PM	11°	1.5	6.35	12.85	●				○															
	WPGT090725ZSR-PM	11°	2.5	7	15	●				○															

XP**



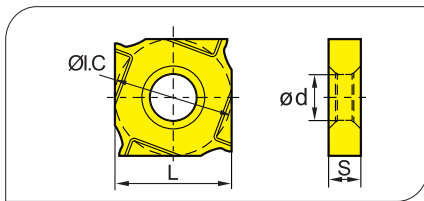
- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- Normal Machining Condition / Normale Bearbeitungsbedingungen
- Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

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

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen					CVD Coating / CVD Beschicht.				PVD Coating / PVD Beschicht.				Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall										
		R	d	S	α°	L	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252		YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201
	XPHT16R0803-GM	8	3.1	3.18	9	16																				
	XPHT20R10T3-GM	10	4.0	3.97	9	20																				
	XPHT25R1204-GM	12.5	4.7	4.76	9	25																				
	XPHT30R1506-GM	15	5.8	6.35	11	30																				
	XPHT32R1606-GM	16	5.8	6.35	9	32																				
	XPHT40R2007-GM	20	6.8	7.94	9	40																				
	XPHT50R2507-GM	25	9.2	7.94	9	50																				

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

XS**

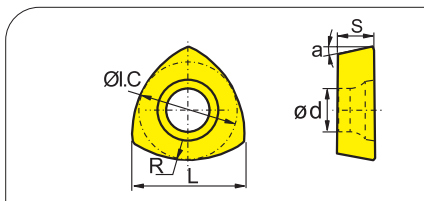


- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- Normal Machining Condition / Normale Bearbeitungsbedingungen
- Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

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

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen				CVD Coating / CVD Beschicht.				PVD Coating / PVD Beschicht.				Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall												
		I.C	L	S	d	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252		YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201		
	XSEQ1202	12.7	12.7	2.3	5.0																						
	XSEQ1203	12.7	12.7	3.0	5.0		●			●								●									
	XSEQ12T3	12.7	12.7	3.5	5.0		●											●								○	
	XSEQ1204	12.7	12.7	4.0	5.0														●								
	XSEQ12T4	12.7	12.7	4.5	5.0														●								

ZD**



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

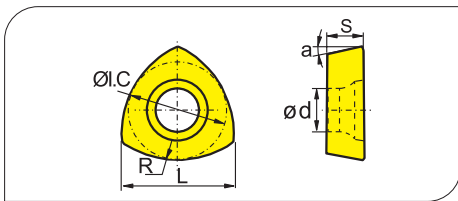
Workpiece Material / Werkstoffe	P	M	K	N	S
Steel / Stahl	●	●	●	●	●
Stainless Steel / Rostfreier Stahl		●	●	●	●
Cast iron / Gusseisen			●	●	●
Non-ferrite material / Ne Metalle				●	●
Heat-resistant steel / Warmfester Stahl					●

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen						CVD Coating / CVD Beschicht.				PVD Coating / PVD Beschicht.				Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall												
		I.C	L	S	R	d	α	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252		YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201		
	ZDET08T2CYR10	6.75	8.4	2.78	10	2.8	14°																						
	ZDET1103CYR12.5	8.5	10.6	3.18	12.5	2.8	14°																						
	ZDET13T3CYR16	10.5	13.2	3.97	16	4.4	14°																						
	ZDET13T3CYR16-PM	10.5	13.2	3.97	16	4.4	14°																						

Milling - Fräsen

Indexable Milling Tools - Wendepplattenfräser

ZP**

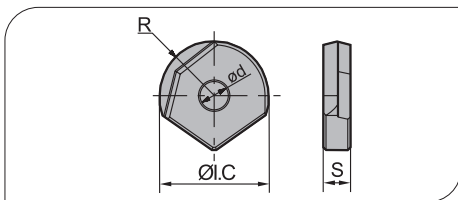


- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- Normal Machining Condition / Normale Bearbeitungsbedingungen
- Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

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

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen						CVD Coating / CVD Beschicht.						PVD Coating / PVD Beschicht.		Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall										
		I.C	L	S	R	d	α	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201	
	ZPNT2204CY(R20)	12.7	16.1	4.76	20	5.56	11°			○																	
	ZPNT2204CY(R25)	12.7	16.9	4.76	25	5.56	11°			●																	
	ZPNT2204CY(R31)	12.7	17.6	4.76	31.5	5.56	11°			●																	

ZO**



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

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

Insert WSP	Type Typ	Dimensions (mm) / Abmessungen				CVD Coating / CVD Beschicht.						PVD Coating / PVD Beschicht.		Cermet / Cermet	Carbide uncoat. / unbe. Hartmetall											
		R	I.C	S	d	YBC301	YBC302	YBC401	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD101	YD201		
	ZOHX1203-GF	6	12	3	4															●						
	ZOHX1604-GF	8	16	4	5																●					
	ZOHX2005-GF	10	20	5	5																●					
	ZOHX2506-GF	12.5	25	6	6																○					
	ZOHX3007-GF	15	30	7	8																●					
	ZOHX3207-GF	16	32	7	8																●					
	ZOHX1203-GM	6	12	3	4																●					
	ZOHX1604-GM	8	16	4	5																●					
	ZOHX2005-GM	10	20	5	5																●					
	ZOHX2506-GM	12.5	25	6	6																○					
	ZOHX3007-GM	15	30	7	8																●					
	ZOHX3207-GM	16	32	7	8																●					

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