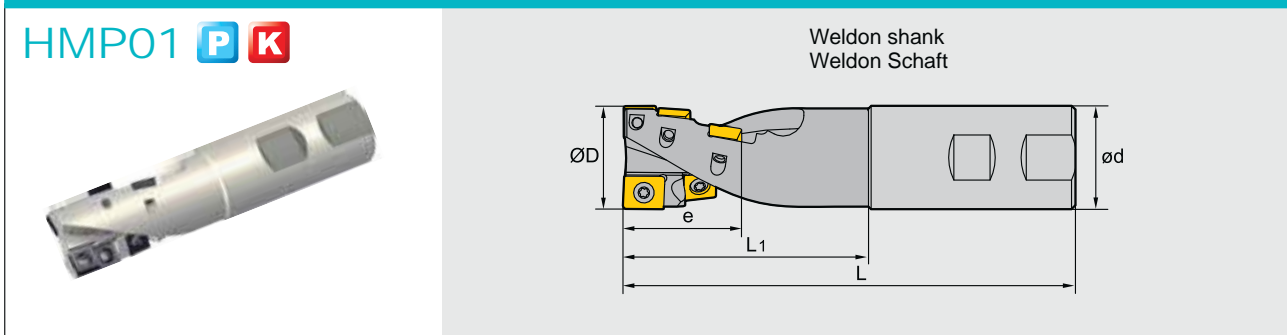


Helical end mill · Walzenstirnräser

Kr:90°

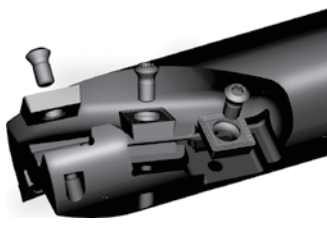


Specification of tools · Werkzeug-Beschreibung

Type Typ	Stock Lager	Dimensions (mm) Abmessungen						Number of flute Anzahl Zahnreihen Z	Number of insert Anzahl WSP		Shank type Schaft	
		R	L	Ø D	ø d	e	L ₁		L	APKT 150412-**		SPMT 120408-**
HMP01	-040x55-XP40-SP12-02	●	○	40	40	55	95	175	2	1	5	Weld on Weld on
	-050x55-XP40-SP12-04	●	○	50	40	55	95	175	4	2	10	Weld on Weld on

Spare parts · Ersatzteile

Diameter Durchmesser Ø D	Screw Schraube	Wrench Schlüssel
Ø40	I60M5×10	WT20IS
Ø50	I60M5×13	WT20IS



Applicable tool
Werkzeug

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Tools code key
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Grade selection guide
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Technical data
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Helical end mill · Walzenstirnfräser

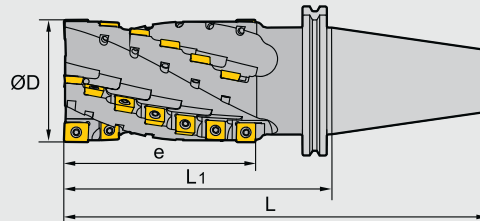
Kr:90°



HMP01 **P** **K**



JT shank/BT shank (figure is JT shank)
JT Schaft/BT Schaft (Abb. is JT shank)



Specification of tools · Werkzeug-Beschreibung

Type Typ	Stock Lager	Dimensions (mm) Abmessungen					Number of flute Anzahl Zahnreihen Z	Number of insert Anzahl WSP		Shank type Schaft	
		R	L	Ø D	e	L ₁		L	APKT 150412-**		SPMT 120408-**
HMP01	-050x84-JT50-SP12-04	○	○	50	84	145	246.75	4	2	16	JT
	-063x74-JT50-SP12-04	○	○	63	74	135	236.75	4	2	14	JT
	-063x104-JT50-SP12-04	●	○	63	104	165	266.75	4	2	20	JT
	-063x134-JT50-SP12-04	○	○	63	134	195	296.75	4	2	26	JT
	-080x104-JT50-SP12-04	○	○	80	104	165	266.75	4	2	20	JT
	-080x144-JT50-SP12-04	○	○	80	144	205	306.75	4	2	28	JT
	-050x84-BT50-SP12-04	○	○	50	84	145	246.8	4	2	16	BT
	-063x74-BT50-SP12-04	○	○	63	74	135	236.8	4	2	14	BT
	-063x104-BT50-SP12-04	○	○	63	104	165	266.8	4	2	20	BT
	-063x134-BT50-SP12-04	○	○	63	134	195	296.8	4	2	26	BT
	-080x104-BT50-SP12-04	○	○	80	104	165	266.8	4	2	20	BT
	-080x144-BT50-SP12-04	○	○	80	144	205	306.8	4	2	28	BT

Spare parts · Ersatzteile

Diameter Durchmesser Ø D	Screw Schraube	Wrench Schlüssel	
Ø50	I60M5x13	WT20IS	
Ø63	I60M5x13	WT20IS	
Ø80	I60M5x13	WT20IS	

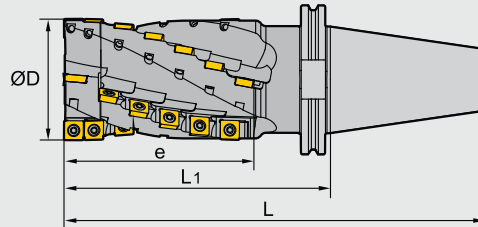
● Ex Stock / ab Lager ○ On demand / auf Anfrage

Helical endmills with interchangeable heads
Walzenstirnfräser mit austauschbarem Kopf

Kr: 90°



HMP01 EC P K



B

Milling Tools
Fräser

Specification of tools · Werkzeug-Beschreibung

Type Typ	Stock Lager	Dimensions (mm) Abmessungen					Number of flute Anzahl Zahnreihen Z	Number of insert Anzahl WSP		Shank type Schaft	
		R	L	Ø D	e	L ₁		L	APKT 150412-**		SPMT 120408-**
HMP01	-050×84EC-JT50-SP12-04	●	○	50	84	145	246.75	4	2	16	JT
	-063×74EC-JT50-SP12-04	○	○	63	74	135	236.75	4	2	14	JT
	-063×104EC-JT50-SP12-04	○	○	63	104	165	266.75	4	2	20	JT
	-063×134EC-JT50-SP12-04	●	○	63	134	195	296.75	4	2	26	JT
	-080×104EC-JT50-SP12-04	○	○	80	104	165	266.75	4	2	20	JT
	-080×144EC-JT50-SP12-04	○	○	80	144	205	306.75	4	2	28	JT
	-050×84EC-BT50-SP12-04	○	○	50	84	145	246.8	4	2	16	BT
	-063×74EC-BT50-SP12-04	○	○	63	74	135	236.8	4	2	14	BT
	-063×104EC-BT50-SP12-04	○	○	63	104	165	266.8	4	2	20	BT
	-063×134EC-BT50-SP12-04	○	○	63	134	195	296.8	4	2	26	BT
	-080×104EC-BT50-SP12-04	○	○	80	104	165	266.8	4	2	20	BT
	-080×144EC-BT50-SP12-04	○	○	80	144	205	306.8	4	2	28	BT

Spare parts · Ersatzteile

Diameter Durchmesser Ø D	Insert Screw WSP Schraube	Screw of head Schraube für Kopf	Wrench of insert Screw Schlüssel f. WSP	Wrench of head Schlüssel für Kopf	Interchangeable head Austauschbarer Kopf	
Ø50	I60M5×13	M10×50	WT20IS	WH80L	050EC	
Ø63	I60M5×13	M10×50	WT20IS	WH80L	063EC	
Ø80	I60M5×13	M12×55	WT20IS	WH100L	080EC	

Applicable tool B11-B18
Werkzeug

Tools code key B26-B27
Werkzeug ISO

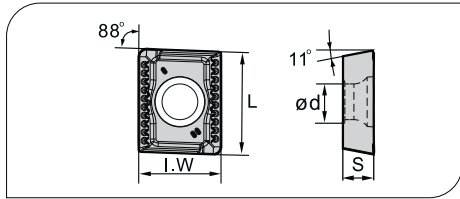
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Milling - Fräsen

Indexable Milling Tools - Wendeschneidplattenfräser

Applicable inserts - Wendeschneidplatten

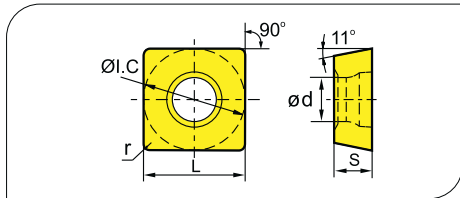


- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- Normal Machining Condition / Normale Bearbeitungsbedingungen
- Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

Workpiece Material / Werkstoffe	P	M	K	N	S	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	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												○	●							

Applicable inserts - Wendeschneidplatten



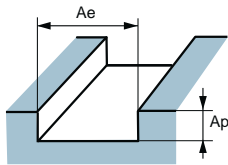
- Ideal Machining Condition / Gute Bearbeitungsbedingungen
- Normal Machining Condition / Normale Bearbeitungsbedingungen
- Unfavorable Machining Condition / Ungünstige Bearbeitungsbedingungen

Workpiece Material / Werkstoffe	P	M	K	N	S	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	YD201
	SPMT120408-PM	12.7	12.7	4.76	5.5	0.8					●							●								
	SPMT120408-KM	12.7	12.7	4.76	5.5	0.8												○	●							

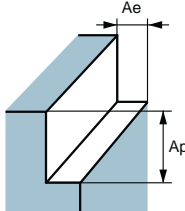
● Ex Stock / ab Lager ○ On demand / auf Anfrage

A Slot milling
Nutenfräsen



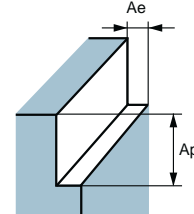
$Ae=D$
 $Ap=0.5D$ (cast iron/Guss)
Maximum 12mm (steel/Stahl)

B Square shoulder milling
breites Eckfräsen



$Ae=0.5D$
 $Ap=1.5D$ (cast iron/Guss)
1.0D (steel/Stahl)

C Narrow shoulder milling
schmales Eckfräsen



$Ae=0.1D$
 $Ap \leq$ Maximum cutting length
Maximale Schnittlänge

Recommended Cutting data · Schnittdaten

Workpiece material Werkstückstoff	Hardness HB Härte	Grade Sorte	Cutting data Schnittdaten		Operation (figure/Abb.) Operation (figure/Abb.)	
			Cutting speed Schnittgeschw. (m/min)	Feed speed Vorschub (mm/z)		
P Low-carbon steel Soft steel niedriglegierter Kohlenstoffstahl Baustahl	≤180	YBG302	80(60-90)	0.25(0.1-0.35)	A	
			90(70-120)	0.3(0.15-0.4)	B	
			90(70-120)	0.3(0.15-0.4)	C	
	High-carbon steel hochlegierter Kohlenstoffstahl Alloysteel Leg. Stahl	180-280	YBG302	70(60-100)	0.2(0.1-0.35)	A
				80(60-120)	0.25(0.15-0.35)	B
				90(70-120)	0.25(0.15-0.35)	C
	Alloy tool steel Leg. Werkzeugstahl	280-350	YBG302	50(40-80)	0.15(0.08-0.25)	A
				60(50-100)	0.2(0.1-0.35)	B
				70(50-100)	0.2(0.1-0.35)	C
K cast Iron Gusseisen	180-250	YBG152 YBG302	70(50-100)	0.2(0.1-0.35)	A	
			80(60-120)	0.25(0.15-0.35)	B	
			90(80-120)	0.25(0.15-0.35)	C	

B

Milling Tools
Fräser

Applicable tool
Werkzeug **B11-B18**

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