

Bohrsystem KSB/KBH Drilling system KSB/KBH

8 x D

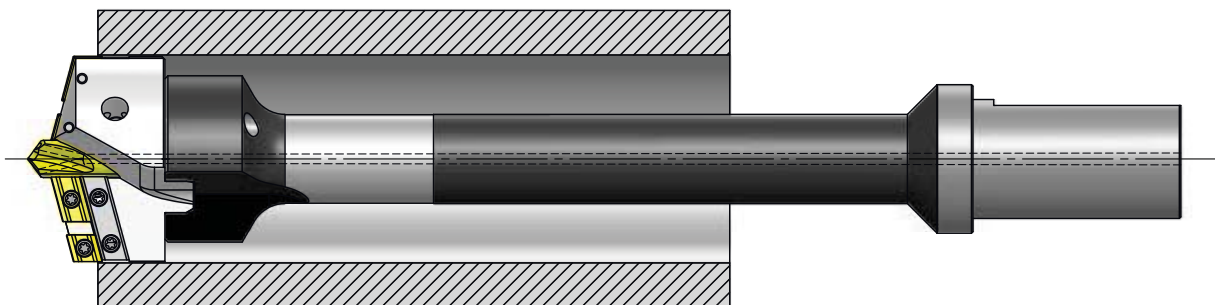


GJL / GJS

ALU

ST(AHL)

NE



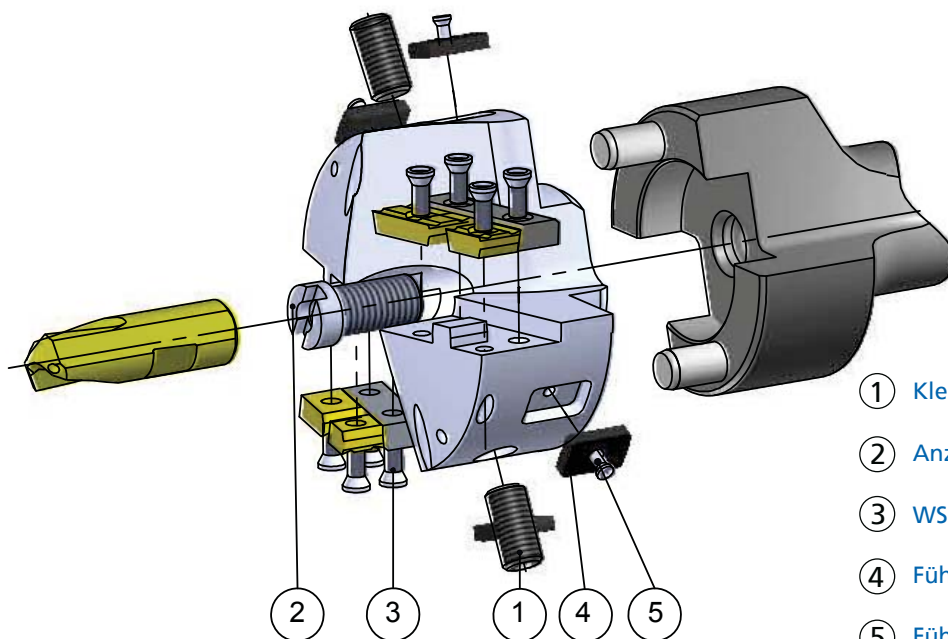
Vorteile:

- Hochpositive Schneidengeometrie für geringe Antriebsleistung
- Hoher Vorschub durch maximale Schneidenüberdeckung
- Hohe Leistungsfähigkeit und übertragbare Schnittmomente durch ungeteilte Halter
- Enge Bohrungstoleranzen (H11)
- Geradliniger Bohrungsverlauf durch Führungsfasen der äußeren WSP
- Führungsplatten für schrägen Austritt und Schnittunterbrechung (KSB03)
- Universell mit HM- und HSSE-WSP einsetzbar
- Auch für labile Einsatzbedingungen geeignet
- Paketbearbeitung möglich

Advantages:

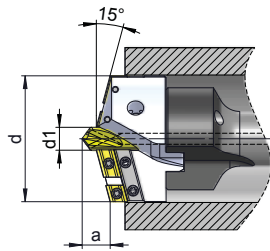
- Very positive rake angle for low machine power requirement
- High feed rate due to maximum overlap of inserts
- High performance by rigid and undivided holder
- Close drilling tolerances (H11)
- Straight bores due to guiding chamfers on the external inserts
- Guide plates for inclined bore outlets and cut interruptions (KSB03)
- Universally usable with carbide and HSS-inserts
- Also usable in unstable conditions
- Machining of stacked bores possible

Schneidkopf KSB03 / Cutter head KSB03

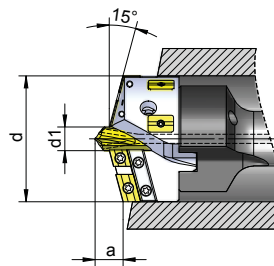


- ① Klemmschraube / Fixing screw
- ② Anzugsschraube / Cutter head screw
- ③ WSP-Schraube / Insert screw
- ④ Führungsplatte / Guide plate
- ⑤ Führungsplatten-Schraube / Guide plate screw

Powerbore-Schneidköpfe / Cutter heads





KSB01 ohne HM-Führungsplatten / without carbide guide plates



KSB03 mit HM-Führungsplatten / with carbide guide plates

Ersatzteile für KSB03 / Spare parts for KSB03

d	d ₁	a*	Anzahl WSP / No. of inserts	Größe / Size BZS	Best.-Nr.*/ Ord.-No
					KSB01
39	11	10	3	08	KSB01 039
40	11	10	3	08	KSB01 040
45	11	10	3	08	KSB01 045
48	11	11	4	08	KSB01 048
50	11	11	4	09	KSB01 050
57	11	12	4	09	KSB01 057
60	13	14	4	1	KSB01 060
67	13	15	4	1	KSB01 067
70	13	16	4	1	KSB01 070
77	13	17	4	1	KSB01 077
80	13	17	5	2	KSB01 080
87	13	18	5	2	KSB01 087
90	13	18	5	2	KSB01 090
97	13	19	6	2	KSB01 097
100	13	20	6	3	KSB01 107
107	13	21	6	3	KSB01 107
110	13	21	6	3	KSB01 110
117	13	22	6	3	KSB01 117
120	16	23	6	4	KSB01 120
127	16	24	8	4	KSB01 127
130	16	24	8	4	KSB01 130
137	16	25	8	4	KSB01 137
140	16	26	8	4	KSB01 140
147	16	27	10	4	KSB01 147
150	16	27	10	4	KSB01 150
157	16	28	10	4	KSB01 157
160	16	28	10	4	KSB01 160

Best.-Nr.*/ Ord.-No	Stk./ Pcs.	 ④	 ⑤
		Führungsplatten / guide plates	
KSB03 039	4	Z7S 0400	TX 25050S
KSB03 040	4	Z7S 0400	TX 25050S
KSB03 045	4	Z7S 0400	TX 25050S
KSB03 048	4	Z7S 0400	TX 25050S
KSB03 050	4	Z7S 0500	TX 25050S
KSB03 057	4	Z7S 0500	TX 25050S
KSB03 060	4	Z7S 0600	TX 35095S
KSB03 067	4	Z7S 0600	TX 35095S
KSB03 070	4	Z7S 0700	TX 35095S
KSB03 077	4	Z7S 0700	TX 35095S
KSB03 080	6	Z7S 0800	TX 35095S
KSB03 087	6	Z7S 0800	TX 35095S
KSB03 090	6	Z7S 0800	TX 35095S
KSB03 097	6	Z7S 0900	TX 35095S
KSB03 107	6	Z7S 0900	TX 35095S
KSB03 107	6	Z7S 0900	TX 35095S
KSB03 110	6	Z7S 1200	TX 35095S
KSB03 117	6	Z7S 1200	TX 35095S
KSB03 120	6	Z7S 1200	TX 35095S
KSB03 127	6	Z7S 1200	TX 35095S
KSB03 130	6	Z7S 1200	TX 35095S
KSB03 137	6	Z7S 1400	TX 35095S
KSB03 140	6	Z7S 1400	TX 35095S
KSB03 147	6	Z7S 1400	TX 35095S
KSB03 150	6	Z7S 1400	TX 35095S
KSB03 157	6	Z7S 1400	TX 35095S
KSB03 160	6	Z7S 1400	TX 35095S

* Bei Verwendung von ZB02... / When using ZB02...

Zwischenabmessungen kurzfristig lieferbar / Intermediate dimensions available on short term

Andere Abmessungen und Ausführungen auf Anfrage / Other dimensions and designs upon request

Schneiden, Halter, Ersatzteile und Zubehör s. S. 18-19 / Inserts, holder and spare parts s. p. 18-19

Schnittdatenempfehlung / Cutting data recommendation:



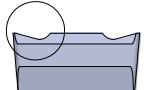

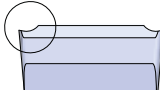
Ø d	V _c	Niedrigleg. Stahl Low alloy Steel		Hochleg. Stahl High alloy steel		Gusseisen Cast iron	Aluminium
		z.B./e.g. C45E		z.B./e.g. 42CrMo4		z.B./e.g. GJL, GJS	z.B./e.g. AISi10Mg
		HM (P)	HSSE (S6)	HM (P)	HSSE (S6)	HM (P)	HM (P)
39 - 58	f	0,20 - 0,25	0,20 - 0,30	0,20 - 0,25	0,20 - 0,30	0,20 - 0,35	0,20 - 0,35
59 - 99	f	0,20 - 0,30	0,25 - 0,40	0,20 - 0,30	0,25 - 0,40	0,25 - 0,40	0,20 - 0,40
>= 100	f	0,25 - 0,35	0,30 - 0,60	0,25 - 0,35	0,30 - 0,50	0,30 - 0,50	0,25 - 0,50

Schnittgeschwindigkeit / Cutting speed
V_c (m/min)

Vorschub / Infeed
f (mm/U) / (mm/rev)

Ausreichende Kühlschmierstoff-Zufuhr erforderlich / Sufficient coolant supply needed

Schneiden, Halter und Ersatzteile Inserts, holders and spare parts

		Wendeschneidplatten / Inserts						
								
Schneidkopf / Cutter Head	Zentrums- bohrer / Centre Drill	Stk. / Pcs	Hochpositive Spanleit- stufen / Very positive rake angle	Sorte (s. S. 22) / Grade (s. p. 22)			Spanleitstufen für kurze Späne auch bei geringem Vorschub / Chip breakers for short chips already at low feed rates	
KSB Ø (s. S.17 / s.p.17)								
38,0 - 42,9	ZB021135N	2	XBHX 060304 FR3...	P7	P9	S6	XBHX 060304 FR7 P9	
		1	XBHX 110304 FR3...	P7	P9	S6	XBHX 110304 FR7 P9	
43,0 - 45,9	ZB021135N	1	XBHX 060304 FR3...	P7	P9	S6	XBHX 060304 FR7 P9	
		1	XBHX 080304 FR3...	P7	P9	S6	XBHX 080304 FR7 P9	
		1	XBHX 110304 FR3...	P7	P9	S6	XBHX 110304 FR7 P9	
46,0 - 47,4	ZB021135N	2	XBHX 080304 FR3...	P7	P9	S6	XBHX 080304 FR7 P9	
		1	XBHX 110304 FR3...	P7	P9	S6	XBHX 110304 FR7 P9	
47,5 - 48,9	ZB021135N	1	XBHX 060304 FR3...	P7	P9	S6	XBHX 060304 FR7 P9	
		2	XBHX 080304 FR3...	P7	P9	S6	XBHX 080304 FR7 P9	
		1	XBHX 110304 FR3...	P7	P9	S6	XBHX 110304 FR7 P9	
49,0 - 52,9	ZB021135N	1	XBHX 060304 FR3...	P7	P9	S6	XBHX 060304 FR7 P9	
		2	XBHX 080304 FR3...	P7	P9	S6	XBHX 080304 FR7 P9	
		1	XBHX 110304 FR3...	P7	P9	S6	XBHX 110304 FR7 P9	
53,0 - 57,9	ZB021135N	2	XBHX 080304 FR3...	P7	P9	S6	XBHX 080304 FR7 P9	
		2	XBHX 110304 FR3...	P7	P9	S6	XBHX 110304 FR7 P9	
58,0 - 59,9*	ZB021346N	1	XBHX 090404 FR3...	P7	P9	S6	XBHX 090404 FR7 P9	
		1	XBHX 100404 FR3...	P7	P9	S6	XBHX 100404 FR7 P9	
		1	XBHX 150404 FR3...	P7	P9	S6	XBHX 150404 FR7 P9	
60,0 - 65,9	ZB021346N	2	XBHX 090404 FR3...	P7	P9	S6	XBHX 090404 FR7 P9	
		2	XBHX 120404 FR3...	P7	P9	S6	XBHX 120404 FR7 P9	
66,0 - 69,5	ZB021346N	2	XBHX 090404 FR3...	P7	P9	S6	XBHX 090404 FR7 P9	
		2	XBHX 150404 FR3...	P7	P9	S6	XBHX 150404 FR7 P9	
69,6 - 79,9	ZB021346N	2	XBHX 100404 FR3...	P7	P9	S6	XBHX 100404 FR7 P9	
		2	XBHX 150404 FR3...	P7	P9	S6	XBHX 150404 FR7 P9	
80,0 - 85,5	ZB021356N	3	XBHX 090404 FR3...	P7	P9	S6	XBHX 090404 FR7 P9	
		2	XBHX 150404 FR3...	P7	P9	S6	XBHX 150404 FR7 P9	
85,6 - 90,5	ZB021356N	3	XBHX 100404 FR3...	P7	P9	S6	XBHX 100404 FR7 P9	
		2	XBHX 150404 FR3...	P7	P9	S6	XBHX 150404 FR7 P9	
90,6 - 92,5	ZB021356N	2	XBHX 100404 FR3...	P7	P9	S6	XBHX 100404 FR7 P9	
		1	XBHX 120404 FR3...	P7	P9	S6	XBHX 120404 FR7 P9	
		2	XBHX 150404 FR3...	P7	P9	S6	XBHX 150404 FR7 P9	
92,6 - 96,5	ZB021356N	4	XBHX 090404 FR3...	P7	P9	S6	XBHX 090404 FR7 P9	
		2	XBHX 150404 FR3...	P7	P9	S6	XBHX 150404 FR7 P9	
96,6 - 99,9	ZB021356N	4	XBHX 100404 FR3...	P7	P9	S6	XBHX 100404 FR7 P9	
		2	XBHX 150404 FR3...	P7	P9	S6	XBHX 150404 FR7 P9	
100,0 - 106,5	ZB021356N	4	XBHX 100404 FR3...	P7	P9	S6	XBHX 100404 FR7 P9	
		2	XBHX 150404 FR3...	P7	P9	S6	XBHX 150404 FR7 P9	
106,6 - 119,9	ZB021356N	2	XBHX 090404 FR3...	P7	P9	S6	XBHX 090404 FR7 P9	
		4	XBHX 150404 FR3...	P7	P9	S6	XBHX 150404 FR7 P9	
120,0 - 126,5	ZB021657N	2	XBHX 090404 FR3...	P7	P9	S6	XBHX 090404 FR7 P9	
		4	XBHX 150404 FR3...	P7	P9	S6	XBHX 150404 FR7 P9	
126,6 - 129,5	ZB021657N	6	XBHX 090404 FR3...	P7	P9	S6	XBHX 090404 FR7 P9	
		2	XBHX 150404 FR3...	P7	P9	S6	XBHX 150404 FR7 P9	
129,6 - 145,5	ZB021657N	6	XBHX 100404 FR3...	P7	P9	S6	XBHX 100404 FR7 P9	
		2	XBHX 150404 FR3...	P7	P9	S6	XBHX 150404 FR7 P9	
145,6 - 152,9	ZB021657N	8	XBHX 090404 FR3...	P7	P9	S6	XBHX 090404 FR7 P9	
		2	XBHX 150404 FR3...	P7	P9	S6	XBHX 150404 FR7 P9	
153,0 - 160	ZB021657N	8	XBHX 100404 FR3...	P7	P9	S6	XBHX 100404 FR7 P9	
		2	XBHX 150404 FR3...	P7	P9	S6	XBHX 150404 FR7 P9	

Andere Abmessungen und Ausführungen auf Anfrage /
Other dimensions and designs upon request

* Für Bohrdurchmesser 58-59,9 muss der Halterdurchmesser reduziert werden.
Bei Bestellung bitte angeben! / Diameter of holders must be reduced for
cutter head from diameter 58 to 59.9. Please indicate when ordering!

Halter / Holder											
			(incl.)								
MK DIN 228				SK 50 DIN69871 AD+B				ABS (Lizenz Komet)		Zylinder-Schaft / Cylinder shank D=40	
Größe/ Size	BT	Best.-Nr./ Ord.-No	MK		BT	Best.-Nr./ Ord.-No	BT	Best.-Nr./ Ord.-No	ABS	BT	Best.-Nr./ Ord.-No
Size			MT								
08	105	KBH0 0804 A	4	EAL014			105	KBH2 0850 A	50	105	KBH4 0840 A
	205	KBH0 0804 B			205	KBH2 0850 B	205	KBH4 0840 B			
	300	KBH0 0804 C			300	KBH4 0840 C					
09	130	KBH0 0904 A	4	EAL014			130	KBH2 0963 A	63	130	KBH4 0940 A
	250	KBH0 0904 B			250	KBH2 0963 B	250	KBH4 0940 B			
	390	KBH0 0904 C			390	KBH4 0940 C					
1	120	KBH0 104 A	4	EAL014			120	KBH2 163 A	63	120	KBH4 1040 A
	245	KBH0 104 B			245	KBH1 150 B	245	KBH4 1040 B			
	365	KBH0 104 C			365	KBH1 150 C	365	KBH4 1040 C			
	480	KBH0 104 D			480	KBH1 150 D	480	KBH4 1040 D			
2	185	KBH0 205 A	5	EAL015							
	335	KBH0 205 B			335	KBH1 250 B					
	475	KBH0 205 C			475	KBH1 250 C					
	640	KBH0 205 D			640	KBH1 250 D					
3	185	KBH0 305 A	5	EAL015			210	KBH1 350 A			
	335	KBH0 305 B			365	KBH1 350 B					
	485	KBH0 305 C			510	KBH1 350 C					
	700	KBH0 305 D			700	KBH1 350 D					
4	185	KBH0 405 A	5	EAL015							
	335	KBH0 405 B			365	KBH1 450 B					
	485	KBH0 405 C			510	KBH1 450 C					
	700	KBH0 405 D			700	KBH1 450 D					

Bestellbeispiel / Order example:

- ➔ 1 Stück/piece Schneidkopf/Drilling head KSB01 050
KSB01 Ø 50 (s. S./s. p. 15)
- ➔ 5 Stück/pieces Zentrumsbohrer/Centre Drill ZBO 021135N
- ➔ WSP/Indexable Inserts:
20 Stück/pieces XBHX080304FR3P7
20 Stück/pieces XBHX110304FR3P7
20 Stück/pieces XBHX060304FR3P7
- ➔ 2 Stück/pieces Halter für/Holder for BT 130 KBH2 0963 A

Ersatzteile, Zubehör / Spare parts				
	①		②	
Für Schneidkopf/ For cutter head KSB Ø		Klemmschraube für Zentr. Bohrer / Fixing screw	Anzugsschraube für Schneidkopf / Cutter head screw	Mittens- schraube / Centre screw
38,0 - 57,9		KLS01 0612	ANS01 0820	TX 25050
58,0 - 119,0		KLS01 0816	ANS01 1025	TX 35095
120,0 - 160,0		KLS01 0816	ANS01 1225	TX 35095
				Schraub- dreher / Screwdriver
				TX 208
				TX 215
				TX 215

Kühlmittelzufuhr durch Schaft oder Ring / Coolant supply through shank or ring