



FBH/B

FBH Back boring & balanced type



G6.3 **C**  

G value Coolant System Boring

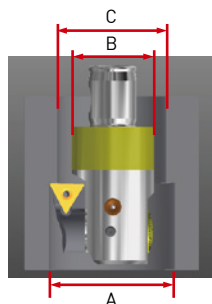
Features

- High-speed boring and back boring applicable
- High-precision balanced boring: G6.3
- Minimum adjustment range: 2 μ m

NAMING	FBH	32	33	B
	Fine boring head	MD Arbor Size	Boring Range(Min)	Balance type



Back boring range calculation



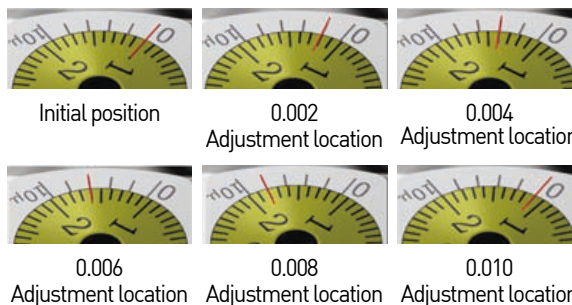
Model No.	Min. diameter for pass(\emptyset)'C'
FBH1920B	$\geq \emptyset 24$
FBH2526B	$\geq \emptyset 30.5$
FBH3233B	$\geq \emptyset 35$
FBH4042B	$\geq \emptyset 44$
FBH5053B	$\geq \emptyset 54$
FBH6368B	$\geq \emptyset 71.5$
FBH6398B	$\geq \emptyset 100$
FBH8098B	$\geq \emptyset 100$

A	Max. range of back boring (\emptyset)	A Max. value = $(2 \times C) - B$
B	Max. FBH body size (\emptyset)	B Max. value = $(2 \times C) - A$
C	Min. diameter for pass (\emptyset)	C Min. value = $(A + B) / 2$

Dial adjustment

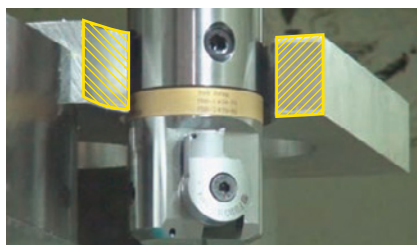
Fine adjustment : 2 μ m boring range

Can be adjusted at a rate of 2 μ m by using the main scale and vernier scale

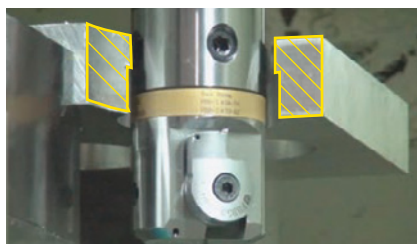


Back boring machining

Before machining



After machining



Convertible for machining direction

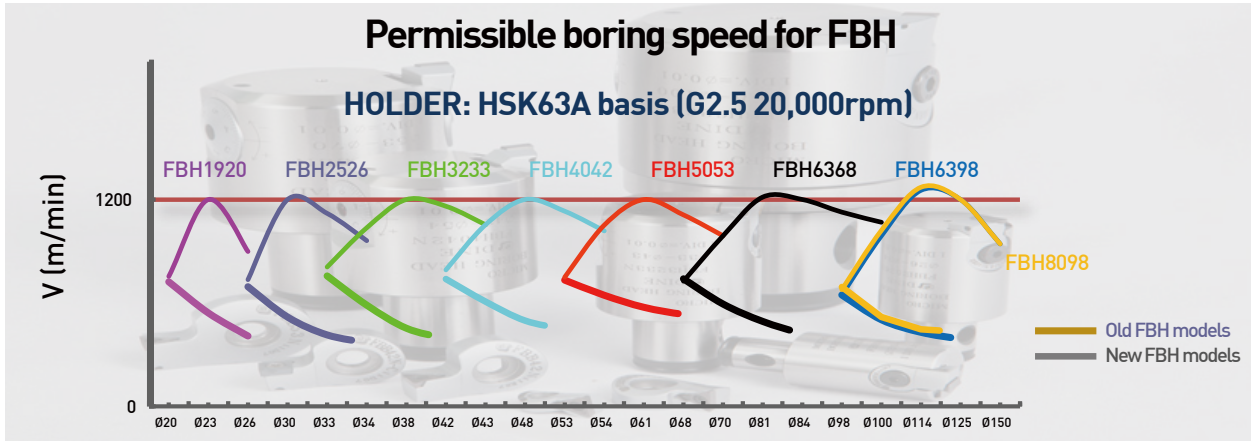


In case of boring machining

In case of back boring machining

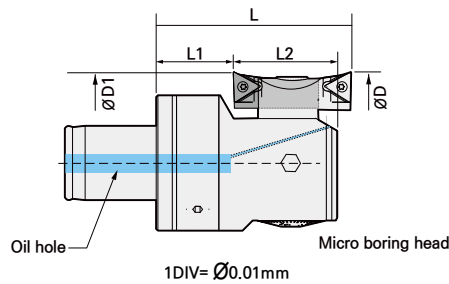
* Boring direction can be easily shifted simply by changing the bite direction

Test Results



Chuck	Model No. V(m/min)	FBH2526B	FBH2526N
HSK63A-MD25F-60	Difference in surface roughness	732 (6,861rpm)	
		- Constant and regular cycles are shown on the graph - Indicates stable boring work at high cutting speed	- Irregular cycles shown on the graph - Indicates unstable boring work at high cutting speed

Boring range



Model No.	Boring Range(Ø)			Backboring Range(Ø)			
	Min.	Max.	L	Min.	Max.	L1	L2
FBH1920B	20	26(30)	35.3	29	30	13.1	18.6
FBH2526B	26	34(40)	40.9	36	40	15.1	21.9
FBH3233B	33	43(50)	40.9	38	43(50)	13.1	24.9
FBH4042B	42	54(62)	50.4	48	54(62)	15.2	31.4
FBH5053B	53	70(82)	58.4	58	70(82)	15.7	38.4
FBH6368B	68	100(122)	80.6	78	100(122)	27.4	48.6
FBH6398B	98	150(172)	100.6	106	150(172)	47.4	48.6
FBH8098B	98	150(172)	100.6	106	150(172)	47.4	48.6



BT-FBH/B

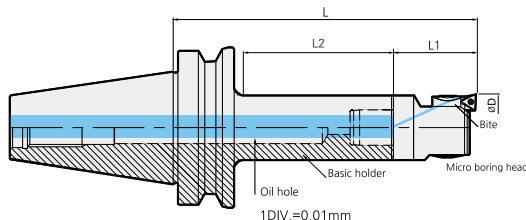
Micro boring bar (balanced type)



MAS 403-BT
G6.3
C
20
172

Shank G value Coolant System MIN Range MAX Range Boring

Fig.1



Head.1

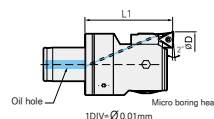
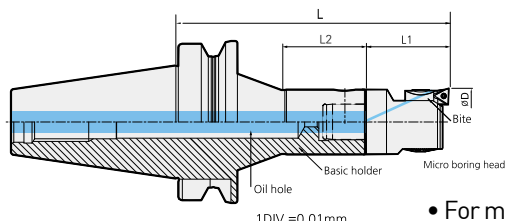


Fig.2



C Internal coolant system installed.

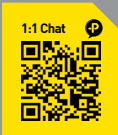
※ Red : Main component Blue : For separate purchase

- For more information on the product features, see **134p**.
- For more information on MD arbor, see **126p**.
- For more information on FBB bite, see **143p**.
- For more information on the related parts, see **142p**.

	Model No.			Boring range(ØD)		L	L1	L2	ØD	ØD1	kg (Head weight)	kg (Head package weight)	Fig
	Head model no.	Bite model no.	Arbor Model No.	Min.	Max.								
BT30	FBH1920B	FBB20N-□-□□	BT30-MD19F-70	20(24)	26(30)	105.2	35.2	45	19	11	0.2	0.2	1
	FBH2526B	FBB26N-□-□□	BT30-MD25F-90	26(32)	34(40)	131	41	63	25	14	0.2	0.2	1
	FBH3233B	FBB33N-□-□□	BT30-MD32F-80	33(40)	43(50)	121	41	55	32	18	0.3	0.3	1
	FBH4042B	FBB42N-□-□□	BT30-MD40F-45	42(50)	54(62)	95.5	50.5	22	40	22	0.5	0.5	1
	FBH4042B	FBB42N-□-□□	BT30-MD40F-60	42(50)	54(62)	110.5	50.5	36	40	22	0.5	0.5	1
	FBH4042B	FBB42N-□-□□	BT30-MD40F-80	42(50)	54(62)	130.5	50.5	56	40	22	0.5	0.5	1
	FBH5053B	FBB53N-□-□□	BT30-MD50F-70	53(65)	70(82)	128.4	58.5	48	50	28	0.8	0.9	1
BT40	FBH1920B	FBB20N-□-□□	BT40-MD19F-70	20(24)	26(30)	105.4	35.2	40	19	11	0.2	0.2	1
	FBH2526B	FBB26N-□-□□	BT40-MD25F-95	26(32)	34(40)	135.9	41	63	25	14	0.2	0.2	1
	FBH2526B	FBB26N-□-□□	BT40-MD25F-105R	26(32)	34(40)	146	41	40	25	14	0.2	0.2	2
	FBH3233B	FBB33N-□-□□	BT40-MD32F-100	33(40)	43(50)	140.9	41	70	32	18	0.3	0.3	1
	FBH3233B	FBB33N-□-□□	BT40-MD32F-115R	33(40)	43(50)	156	41	45	32	18	0.3	0.3	2
	FBH4042B	FBB42N-□-□□	BT40-MD40F-60	42(50)	54(62)	165.5	50.5	31	40	22	0.5	0.5	1
	FBH4042B	FBB42N-□-□□	BT40-MD40F-110R	42(50)	54(62)	160.5	50.5	60	40	22	0.5	0.5	2
	FBH4042B	FBB42N-□-□□	BT40-MD40F-115	42(50)	54(62)	165.5	50.5	83	40	22	0.5	0.5	1
	FBH5053B	FBB53N-□-□□	BT40-MD50F-105	53(65)	70(82)	163.4	58.5	73	50	28	0.8	0.9	1
	FBH5053B	FBB53N-□-□□	BT40-MD63F-64	53(65)	70(82)	122.5	58.5	37	50	28	0.8	0.9	1
	FBH6368B	FBB68N-□-□□	BT40-MD63F-110	68(90)	100(122)	190.6	80.6	83	63	36	2.1	2.3	1
	FBH6398B	FBB68N-□-□□	BT40-MD63F-135	98(120)	150(172)	235.6	100.6	108	63	36	3.6	3.8	1
	FBH8098B	FBB68N-□-□□	BT40-MD80F-100	98(120)	150(172)	200.6	100.6	73	80	45	4.8	5.1	1

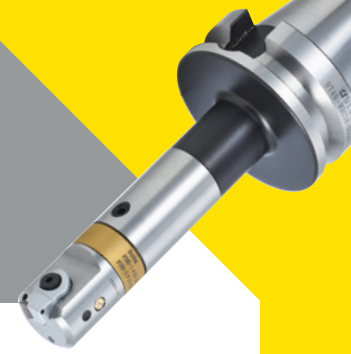
- In the above table, the Arbor Model No. is an example model no. and able to adjust the depth of boring with a combination of MD arbors and extension bars. For more details, see the MD arbor page.
- FBB bite is largely divided into general-type FBB□□N and extended-type (back boring) FBB□□N-1 and is available as FBB□□N-□-C09, FBB□□N-□-T11 depending on the insert.

Bite	Applicable insert
FBB□□N, FBB□□N-1	TPGT TPGW0802□□L
FBB□□N-□-C	CCMT, CCGT0602□□L
FBB□□N-□-C09	CCMT, CCGT09T3□□L
FBB□□N-□-T11	TPGT1103□□L



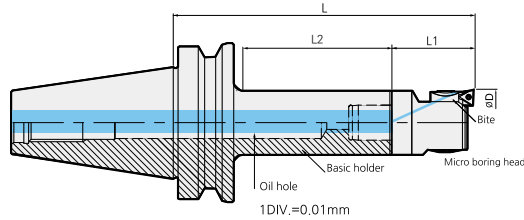
BT-FBH/B

Micro boring bar (balanced type)



MAS 403-BT	G6.3	C	20	172	
Shank	G value	Coolant System	MIN Range	MAX Range	Boring

Fig.1



Head.1

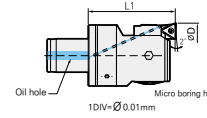
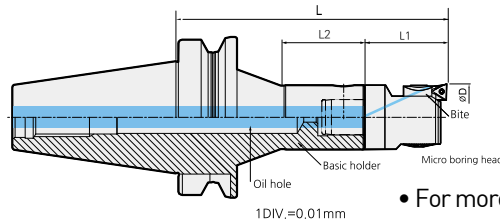


Fig.2



- For more information on the product features, see **134p**
- For more information on MD arbor, see **126p**
- For more information on FBB bite, see **143p**
- For more information on the related parts, see **142p**

C Internal coolant system installed.

※ Red : Main component Blue : For separate purchase

	Model No.			Boring range(ØD)		L	L1	L2	ØD	ØD1	kg (Head weight)	kg (Head package weight)	Fig
	Head model no.	Bite model no.	Arbor Model No.	Min.	Max.								
BT50	FBH1920B	FBB20N-□-□□	BT50-MD19F-85	20(24)	26(30)	120.2	35.2	44	19	11	0.2	0.2	1
	FBH2526B	FBB26N-□-□□	BT50-MD25F-105	26(32)	34(40)	146	41	62	25	14	0.2	0.2	1
	FBH2526B	FBB26N-□-□□	BT50-MD25F-120R	26(32)	34(40)	161	41	40	25	14	0.2	0.2	2
	FBH3233B	FBB33N-□-□□	BT50-MD32F-110	33(40)	43(50)	151	41	67	32	18	0.3	0.3	1
	FBH3233B	FBB33N-□-□□	BT50-MD32F-115R	33(40)	43(50)	156	41	45	32	18	0.3	0.3	2
	FBH3233B	FBB33N-□-□□	BT50-MD32F-235R	33(40)	43(50)	276	41	115	32	18	0.3	0.3	2
	FBH4042B	FBB42N-□-□□	BT50-MD40F-60	42(50)	54(62)	110.5	50.5	22	32	18	0.5	0.5	1
	FBH4042B	FBB42N-□-□□	BT50-MD40F-195	42(50)	54(62)	245.5	50.5	152	40	22	0.5	0.5	1
	FBH4042B	FBB42N-□-□□	BT50-MD40F-230R	42(50)	54(62)	280.5	50.5	180	40	22	0.5	0.5	2
	FBH5053B	FBB53N-□-□□	BT50-MD50F-125	53(65)	70(82)	183.5	58.5	82	40	22	0.8	0.9	1
	FBH5053B	FBB53N-□-□□	BT50-MD50F-225	53(65)	70(82)	283.5	58.5	182	50	28	0.8	0.9	1
	FBH5053B	FBB53N-□-□□	BT50-MD50F-205R	53(65)	70(82)	263.5	58.5	81	50	28	0.8	0.9	2
	FBH6368B	FBB68N-□-□□	BT50-MD63F-75	68(90)	100(122)	145.6	80.6	35	63	36	2.1	2.3	1
	FBH6368B	FBB68N-□-□□	BT50-MD63F-130	68(90)	100(122)	200.6	80.6	87	63	36	2.1	2.3	1
	FBH6368B	FBB68N-□-□□	BT50-MD63F-195	68(90)	100(122)	310.6	80.6	152	63	36	2.1	2.3	1
	FBH6368B	FBB68N-□-□□	BT50-MD63F-230	68(90)	100(122)	265.6	265.6	187	63	36	2.1	2.3	1
	FBH6398B	FBB68N-□-□□	BT50-MD63F-75	98(120)	150(172)	175.6	100.6	35	63	36	3.6	3.8	1
	FBH6398B	FBB68N-□-□□	BT50-MD63F-130	98(120)	150(172)	230.6	100.6	87	63	36	3.6	3.8	1
	FBH6398B	FBB68N-□-□□	BT50-MD63F-195	98(120)	150(172)	295.6	100.6	152	63	36	3.6	3.8	1
	FBH6398B	FBB68N-□-□□	BT50-MD63F-230	98(120)	150(172)	330.6	100.6	187	63	36	3.6	3.8	1
FBH8098B	FBB68N-□-□□	BT50-MD80F-75	98(120)	150(172)	175.6	100.6	36	80	45	4.8	5.1	1	
FBH8098B	FBB68N-□-□□	BT50-MD80F-110	98(120)	150(172)	215.6	100.6	69	80	45	4.8	5.1	1	
FBH8098B	FBB68N-□-□□	BT50-MD80F-175	98(120)	150(172)	275.6	100.6	134	80	45	4.8	5.1	1	

- In the above table, the Arbor Model No. is an example model no. and able to adjust the depth of boring with a combination of MD arbors and extension bars. For more details, see the MD arbor page.
- FBB bite is largely divided into general-type FBB□□N and extended-type (back boring) FBB□□N-1 and is available as FBB□□N-□-C09, FBB□□N-□-T11 depending on the insert.

Bite	Applicable insert
FBB□□N, FBB□□N-1	TPGT TPGW0802□□L
FBB□□N-□-C	CCMT, CCGT0602□□L
FBB□□N-□-C09	CCMT, CCGT09T3□□L
FBB□□N-□-T11	TPGT1103□□L

Chuck

Arbor / Modular

Boring tool

Angular head

cBN/PCD

Smart factory

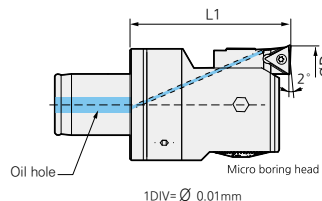
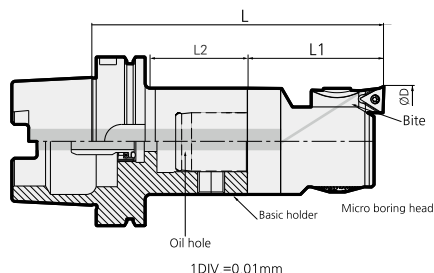
TAUMAX

OTHER



HSK-FBH/B

Micro boring bar (balanced type)



- For more information on the product features, see **134p**
- For more information on MD arbor, see **126p**
- For more information on FBB bite, see **143p**
- For more information on the related parts, see **142p**

C Internal coolant system is optional.

※ Red : Main component Blue : For separate purchase

HSK63	Model No.			Boring range(ØD)		L	L1	L2	ØD	ØD1	kg (Head weight)	kg (Head package weight)	Fig
	Head model no.	Bite model no.	Arbor Model No.	Min.	Max.								
	FBH1920B	FBB20N-□-□□	HSK63A-MD19F-60	20(24)	26(30)								
FBH2526B	FBB26N-□-□□	HSK63A-MD25F-60	26(32)	34(40)	101	41	31	25	14	0.2	0.2	1	
FBH3233B	FBB33N-□-□□	HSK63A-MD32F-65	33(40)	43(50)	106	41	36	32	18	0.3	0.3	1	
FBH4042B	FBB42N-□-□□	HSK63A-MD40F-70	42(50)	54(62)	120.5	50.5	41	40	22	0.5	0.5	1	
FBH5053B	FBB53N-□-□□	HSK63A-MD50F-85	53(65)	70(82)	143.5	58.5	58	50	28	0.8	0.9	1	
FBH6368B	FBB68N-□-□□	HSK63A-MD63F-95	68(90)	100(122)	175.6	80.6	69	63	36	2.1	2.3	1	
FBH6398B	FBB68N-□-□□	HSK63A-MD63F-95	98(120)	150(172)	195.6	100.6	69	63	36	3.6	3.8	1	

- In the above table, the Arbor Model No. is an example model no. and able to adjust the depth of boring with a combination of MD arbors and extension bars. For more details, see the MD arbor page.
- FBB bite is largely divided into general-type FBB□□N and extended-type (back boring) FBB□□N-1 and is available as FBB□□N-□-C09, FBB□□N-□-T11 depending on the insert.

Bite	Applicable insert
FBB□□N, FBB□□N-1	TPGT TPGW0802□□L
FBB□□N-□-C	CCMT, CCGT0602□□L
FBB□□N-□-C09	CCMT, CCGT09T3□□L
FBB□□N-□-T11	TPGT1103□□L

For separate purchase

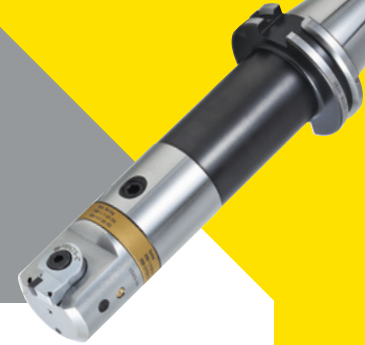


Classification by shank	
HSK50	HSK50A-CNS
HSK63	HSK63A-CNS
HSK100	HSK100A-CNS



SK-FBH/B

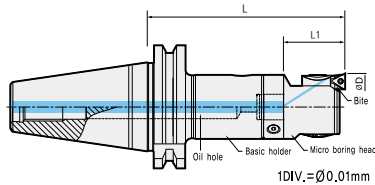
Micro boring bar (balanced type)



DIN69871 -1A/B G6.3 C 26 172

Shank G value Coolant System MIN Range MAX Range Boring

Fig.1



Head.1

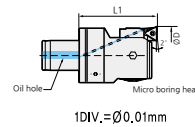


Fig.2

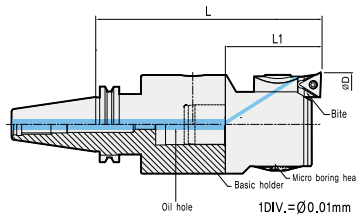
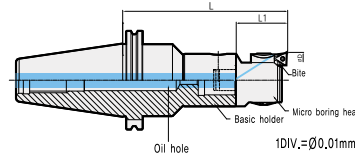


Fig.3



C Internal coolant system installed.

※ Red : Main component Blue : For separate purchase

- For more information on the product features, see **134p**
- For more information on MD arbor, see **126p**
- For more information on FBB bite, see **143p**
- For more information on the related parts, see **142p**

	Model No.			Boring range(ØD)		L	L1	L2	ØD	ØD1	kg (Head weight)	kg (Head package weight)	Fig
	Head model no.	Bite model no.	Arbor Model No.	Min.	Max.								
SK40	FBH2526B	FBB26N-□-□□	SK40-MD25F-80R	26(32)	34(40)	121	41	22	25	14	0.2	0.2	3
	FBH3233B	FBB33N-□-□□	SK40-MD32F-115R	33(40)	43(50)	156	41	36	32	18	0.3	0.3	3
	FBH4042B	FBB42N-□-□□	SK40-MD40F-100	42(50)	54(62)	150.5	50.5	80	40	22	0.5	0.5	1
	FBH5053B	FBB53N-□-□□	SK40-MD50F-100	53(65)	70(82)	158.5	58.5	80	50	28	0.8	0.9	1
	FBH6368B	FBB68N-□-□□	SK40-MD63F-70	68(90)	100(122)	150.6	80.6	50	63	36	2.1	2.3	2
	FBH6398B	FBB68N-□-□□	SK40-MD63F-70	98(120)	150(172)	170.6	100.6	50	63	36	3.6	3.8	2
SK50	FBH2526B	FBB26N-□-□□	SK50-MD25F-105R	26(32)	34(40)	146	41	22	25	14	0.2	0.2	3
	FBH3233B	FBB33N-□-□□	SK50-MD32F-110	33(40)	43(50)	151	41	87	32	18	0.3	0.3	1
	FBH4042B	FBB42N-□-□□	SK50-MD40F-145	42(50)	54(62)	195.5	50.5	120	40	22	0.5	0.5	1
	FBH5053B	FBB53N-□-□□	SK50-MD50F-240R	53(65)	70(82)	298.5	58.5	125	50	28	0.8	0.9	3
	FBH6368B	FBB68N-□-□□	SK50-MD63F-130	68(90)	100(122)	210.6	80.6	107	63	36	2.1	2.3	1
	FBH6398B	FBB68N-□-□□	SK50-MD63F-130	98(120)	150(172)	230.6	100.6	107	63	36	3.6	3.8	1
	FBH8098B	FBB68N-□-□□	SK50-MD80F-150	98(120)	150(172)	250.6	100.6	130	80	45	4.8	5.1	1

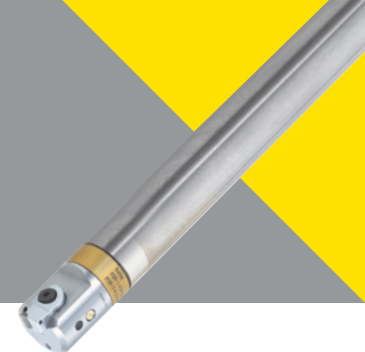
- In the above table, the Arbor Model No. is an example model no. and able to adjust the depth of boring with a combination of MD arbors and extension bars. For more details, see the MD arbor page.
- FBB bite is largely divided into general-type FBB□□N and extended-type (back boring) FBB□□N-1 and is available as FBB□□N-□-C09, FBB□□N-□-T11 depending on the insert.

Bite	Applicable insert
FBB□□N, FBB□□N-1	TPGT TPGW0802□□L
FBB□□N-□-C	CCMT, CCGT0602□□L
FBB□□N-□-C09	CCMT, CCGT09T3□□L
FBB□□N-□-T11	TPGT1103□□L



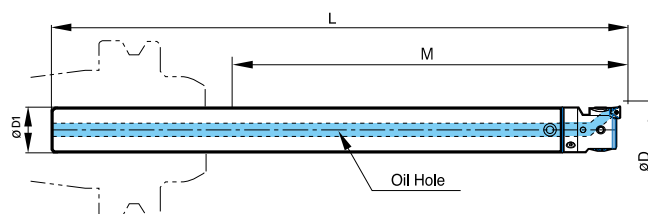
S-FBH/B

Micro boring bar (balanced type)



CARBIDE
C
20
43
 Boring

Shank Coolant System MIN Range MAX Range



C Internal coolant system installed.

*S□□W : Cemented carbide shank

*S□□ : Steel shank

• For more information on the product features, see **134p**

• For more information on FBB bite, see **143p**

• For more information on the related parts, see **142p**

Model No.	Boring range		L	ØD1	M	Main component			kg (Head weight)	kg (Head package weight)
	Min.	Max.				Shank	Boring head	Bite		
S19W-FBH20B-120	20	26	192.35	19	120	S19W-MD19F-157	FBH1920B	FBB20N	0.6	0.7
S19W-FBH20B-140	20	26	212.35	19	140	S19W-MD19F-177	FBH1920B	FBB20N	0.7	0.8
S19W-FBH20B-160	20	26	232.35	19	160	S19W-MD19F-197	FBH1920B	FBB20N	0.8	0.9
S25W-FBH26B-150	26	34	238.35	25	150	S25W-MD25F-197.5	FBH2526B	FBB26N	1.4	1.5
S25W-FBH26B-175	26	34	263.35	25	175	S25W-MD25F-222.5	FBH2526B	FBB26N	1.6	1.7
S25W-FBH26B-200	26	34	288.35	25	200	S25W-MD25F-247.5	FBH2526B	FBB26N	1.8	1.9
S32W-FBH33B-180	33	43	279.9	32	180	S32W-MD32F-239	FBH3233B	FBB33N	2.7	2.8
S32W-FBH33B-240	33	43	339.9	32	240	S32W-MD32F-299	FBH3233B	FBB33N	3.4	3.5
S19-FBH20B-40	20	26	112.35	19	40	S19-MD19F-77	FBH1920B	FBB20N	0.2	0.3
S19-FBH20B-80	20	26	152.35	19	80	S19-MD19F-117	FBH1920B	FBB20N	0.2	0.3
S25-FBH26B-50	26	34	138.35	25	50	S25-MD25F-97.5	FBH2526B	FBB26N	0.4	0.5
S25-FBH26B-100	26	34	188.35	25	100	S25-MD25F-147.5	FBH2526B	FBB26N	0.6	0.7
S32-FBH33B-90	33	43	189.9	32	90	S32-MD32F-149	FBH3233B	FBB33N	1.1	1.2
S32-FBH33B-120	33	43	219.9	32	120	S32-MD32F-179	FBH3233B	FBB33N	1.2	1.3

• FBB bite is largely divided into general-type FBB□□N and extended-type (back boring) FBB□□N-1 and is available as FBB□□N-□-C09, FBB□□N-□-T11 depending on the insert.

Bite	Applicable insert
FBB□□N, FBB□□N-1	TPGT TPGW0802□□L
FBB□□N-□-C	CCMT, CCGT0602□□L
FBB□□N-□-C09	CCMT, CCGT09T3□□L
FBB□□N-□-T11	TPGT1103□□L



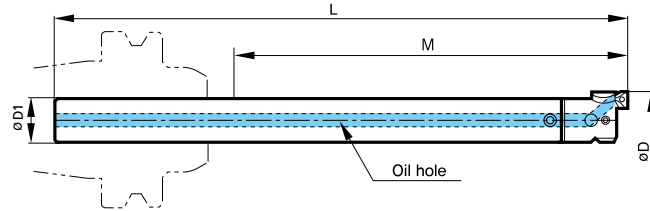
S-FBH

Small micro boring bar with carbide/steel



CARBIDE
C
15
22

Shank Coolant System MIN Range MAX Range Boring



C Internal coolant system installed.

* $\square\square W$: Cemented carbide shank

* $\square\square$: Steel shank

• For more information on the product features, see **134p**

• For more information on FBB bite, see **143p**

• For more information on the related parts, see **142p**

CEMENTED CARBIDE	Model No.	Boring range		L	$\phi D1$	M	Detailed model no. (Main component)			kg (Head weight)	kg (Head package weight)
		Min.	Max.				Shank	Boring head	Bite		
	S14W-FBH15-85	15	18	155	14	85	S14W-M6-123	FBH15	FBB15-C	0.3	0.4
	S14W-FBH15-110	15	18	180	14	110	S14W-M6-148	FBH15	FBB15-C	0.3	0.4
	S16W-FBH18-95	18	22	165	16	95	S16W-M8-128	FBH18	FBB15-C	0.4	0.5
	S16W-FBH18-125	18	22	195	16	125	S16W-M8-158	FBH18	FBB15-C	0.5	0.6
	S14-FBH15-40	15	18	110	14	40	S14-M6-78	FBH15	FBB15-C	0.1	0.2
	S16-FBH18-45	18	22	115	16	45	S16-M8-78	FBH18	FBB15-C	0.1	0.2

• FBB bite is largely divided into general-type FBB $\square\square N$ and extended-type (back boring) FBB $\square\square N-1$ and is available as FBB $\square\square N-\square-C09$ and FBB $\square\square N-\square-T11$ depending on the insert.

Bite	Applicable insert
FBB $\square\square N$, FBB $\square\square N-1$	TPGT TPGW0802 $\square\square L$
FBB $\square\square N-\square-C$	CCMT, CCGT0602 $\square\square L$
FBB $\square\square N-\square-C09$	CCMT, CCGT09T3 $\square\square L$
FBB $\square\square N-\square-T11$	TPGT1103 $\square\square L$







FBH SPARE PART

Micro boring related parts



Spare Part

Main components			
TYPE(FBH)	LOCK SEREW	FBB	CLAMP SCREW
			
FBH15	BT02503	FBB15-C	BFTX02505N
FBH18	BT02503	FBB15-C	BFTX02505N






FBH/B SPARE PART

Micro boring balanced type related parts



Main components

Spare Part	Main components		
TYPE(FBH/B)	LOCK SCREW	CLAMP SCREW	Wrench
			
FBH1920B	BTF0404	BXC0304	LW-2
FBH2526B	BTF0505	BXC0405	LW-2.5
FBH3233B	BTF0606	BXC0506	LW-3
FBH4042B	BTF0808	BXC0610	LW-4
FBH5053B	BTF0812	BXC0610	LW-4
FBH6368B	BTF1016	BXC0810	LW-5
FBH6398B	BTF1012	BXC0810	LW-5
FBH8098B	BTF1014	BXC0810	LW-5



FBB BITE

Boring bite



NAMING

FBB	-	20	N	-	1
FBH Bite		Head No.	New Type		Non : General type 1 : Expansion type

Spare Part

Model No.	Boring range	Insert	Insert screw	Clamp bolt
FBB15-C	Ø15 ~ Ø18mm	CCET0301-□□L	BFTX01604N	BFTX02506N
	Ø18 ~ Ø22mm	CCET0301-□□L	BFTX01604N	BFTX02506N
FBB20N	Ø20 ~ Ø26mm	TPGT0802□□L,TPGW0802□□	BFTX0204A	BXC0304
FBB20N-C	Ø20 ~ Ø26mm	CCET0401□□L	FTNA0238	BXC0304
FBB20N-1	Ø24 ~ Ø30mm	TPGT0802□□L,TPGW0802□□	BFTX0204A	BXC0304
FBB20N-1-C	Ø24 ~ Ø30mm	CCET0401□□L	FTNA0238	BXC0304
FBB26N	Ø26 ~ Ø34mm	TPGT0802□□L,TPGW0802□□	BFTX0204A	BXC0405
FBB26N-C	Ø26 ~ Ø34mm	CCET0401□□L	FTNA0238	BXC0405
FBB26N-1	Ø32 ~ Ø40mm	TPGT0802□□L,TPGW0802□□	BFTX0204A	BXC0405
FBB26N-1-C	Ø32 ~ Ø40mm	CCET0401□□L	FTNA0238	BXC0405
FBB33N	Ø33 ~ Ø43mm	TPGT0802□□L,TPGW0802□□	BFTX0204A	BXC0506
FBB33N-C	Ø33 ~ Ø43mm	CCMT0602□□,CCGT0602□□	BFTX02506N	BXC0506
FBB33N-1	Ø41~ Ø50mm	TPGT0802□□L,TPGW0802□□	BFTX0204A	BXC0506
FBB33N-1-C	Ø41~ Ø50mm	CCMT0602□□,CCGT0602□□L	BFTX02506N	BXC0506
FBB42N	Ø42~ Ø54mm	TPGT0802□□L,TPGW0802□□	BFTX0204A	BXC0610
FBB42N-C	Ø42~ Ø54mm	CCMT0602□□,CCGT0602□□L	BFTX02506N	BXC0610
FBB42N-11	Ø42~ Ø54mm	TPGT1103□□L	BFTX0307A	BXC0610
FBB42N-1	Ø50~ Ø62mm	TPGT0802□□L,TPGW0802□□	BFTX0204A	BXC0610
FBB42N-1-C	Ø50~ Ø62mm	CCMT0602□□,CCGT0602□□L	BFTX02506N	BXC0610
FBB42N-1-T11	Ø50~ Ø62mm	TPGT1103□□L	BFTX0307A	BXC0610
FBB53N	Ø53~ Ø70mm	TPGT0802□□L,TPGW0802□□	BFTX0204A	BXC0610
FBB53N-C	Ø53~ Ø70mm	CCMT0602□□,CCGT0602□□	BFTX02506N	BXC0610
FBB53N-11	Ø53~ Ø70mm	TPGT1103□□L	BFTX0307A	BXC0610
FBB53N-1	Ø65~ Ø82mm	TPGT0802□□L,TPGW0802□□	BFTX0204A	BXC0610
FBB53N-1-C	Ø65~ Ø82mm	CCMT0602□□,CCGT0602□□L	BFTX02506N	BXC0610
FBB53N-1-C09	Ø65~ Ø82mm	CCMT09T3□□,CCGT09T3□□L	BFTX0409N	BXC0610
FBB53N-1-T11	Ø65~ Ø82mm	TPGT1103□□L	BFTX0307A	BXC0610
FBB68N	Ø68~ Ø100mm / Ø98~ Ø150mm	TPGT0802□□L,TPGW0802□□	BFTX0204A	BXC0810
FBB68N-C	Ø68~ Ø100mm / Ø98~ Ø150mm	CCMT09T3□□,CCGT09T3□□L	BFTX0409N	BXC0810
FBB68N-11	Ø68~ Ø100mm / Ø98~ Ø150mm	TPGT1103□□L	BFTX0307A	BXC0810
FBB68N-1	Ø90~ Ø122mm / Ø120~ Ø172mm	TPGT0802□□L,TPGW0802□□	BFTX0204A	BXC0810
FBB68N-1-C09	Ø90~ Ø122mm / Ø120~ Ø172mm	CCMT09T3□□,CCGT09T3□□L	BFTX0409N	BXC0810
FBB68N-1-T11	Ø90~ Ø122mm / Ø120~ Ø172mm	TPGT1103□□L	BFTX0307A	BXC0810

Chuck

Arbor / Modular

Boring tool

Angular head

cBN/PCD

Smart factory

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