

BORING TOOLS

Rough Boring Tool

DBC



TBC



Semi/Finishing Boring Tool

FBC



SMB



KMB



Fine Boring Tool

SMH



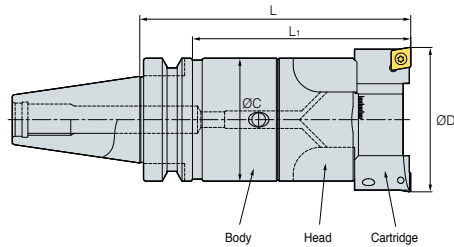
FBH





DBC

BT-DBC



(mm)

Designation				Boring range ØD		L	Max. Boring depth
Micro boring head		Body (Basic holder)		Min	Max		
DBC2528S	0.3	BT30-MD25F-90R	0.4	28	35	140	93
DBC3235S	0.4	BT30-MD32F-80R	0.4	35	46	145	114
DBC4046S	0.6	BT30-MD40F-80R	0.5	46	58	150	119
DBC5058S	1.1	BT30-MD50F-70	0.8	58	74	150	128
DBC2528S	0.3	BT40-MD25F-105R	1.9	28	35	165	100
DBC3235S	0.4	BT40-MD32F-115R	2.4	35	46	180	110
DBC4046S	0.6	BT40-MD40F-110R	2.7	46	58	180	130
DBC5058S	1.1	BT40-MD50F-100R	2.7	58	74	180	130
DBC6374S	2.0	BT40-MD63F-90	3.6	74	94	180	150
DBC8094S	3.5	BT40-MD80F-100	4.8	94	120	200	173
DBC2528S	0.3	BT50-MD25F-120R	4.7	28	35	180	100
DBC3235S	0.4	BT50-MD32F-235R	5.3	35	46	300	180
DBC4046S	0.6	BT50-MD40F-230R	5.6	46	58	300	250
DBC5058S	1.1	BT50-MD50F-250R	6.5	58	74	330	280
DBC6374S	2.0	BT50-MD63F-240R	8.4	74	94	330	280
DBC8094S	3.5	BT50-MD80F-175	9.5	94	120	275	225
DBC120S	5.3	BT50-MD80F-175	9.5	120	175	275	235

Parts

Division	Spare parts								
	Basic								
	Head	Spring pin	Wrench bolt	Wrench	Cartridge	Set screw	Wrench	Clamp screw	Torx wrench
Type									
DBC2528S	DBC2528	SP0308	BX0415	LW-3	BCC28	BT0306	LW-1.5	FTKA02565	TRX7
DBC3235S	DBC3235	SP0410	BX0515	LW-4	BCC35	BT0308			
DBC4046S	DBC4046	SP0516	BX0620	LW-5	BCC46	BT0410	LW-2	FTNA0408	TRX15
DBC5058S	DBC5058	SP0616			BCC58	BT0412			
DBC6374S	DBC6374	SP1018	BX0830	LW-6	BCC74	BT0516	LW-2.5	BFTX0511N	TRX20
DBC8094S	DBC8094	SP1020	BX1035	LW-8	BCC94	BT0620	LW-3		
DBC120S	DBC120N	SP1020	BX0830	LW-6.0	BCC120	BT0830	LW-4.0	BFTX0511N	TRX20

TBC

· Balance cut tool for Rough boring

- Wide boring range for big diameters: $\varnothing 130\sim\varnothing 540\text{mm}$
- Stable structure against for cutting load - Assembly by dove-tail structure
- Interconvert with FBC
 - Common boring head and rail adopted, different cartridge
- Light-weight (5%~20% reduced)
- Various cartridge approach angle: $15^\circ, 45^\circ$



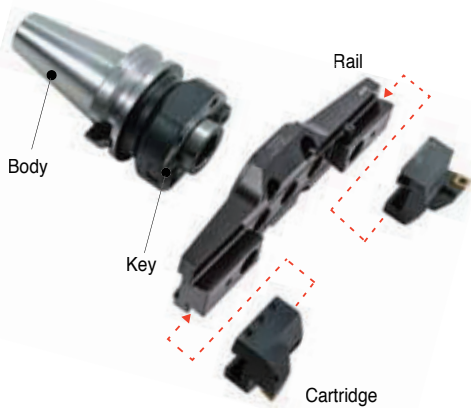
Code system

BT50 - FMD50 - 85 + TBC 130S

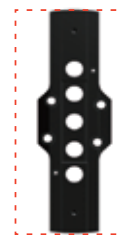
Body

Head set

TBC boring tool structure & features



Cartridge: BCC1348
Incert: CCMT1204□□
 CNMG1204□□



Less weight and more margin for chip evacuation



Enhanced strength and weight



TBC

➔ TBC boring tool cutting condition

Workpiece	Grade (HRC)	Cutting condition		
		Tip (Grade)	Cutting speed (m/min)	Feed per revolution f (mm/rev)
ALL	ADC12	"N"Material	"N"Material	0.1
Mild steel	SS41 (HB160)	P Material	P Material	0.1
Steel	S45C (H250)	P Material	P Material	0.1
Stainless steel	SUS304	M Material	M Material	0.1
Cast-iron	FC25 (HB250)	K Material	K Material	0.1

➔ Boring range

Grade	Dia (Ø)		Body	Head set	Insert
	min	max			
TBC130	130	180	FMD50	TBC130S	CCMT1204□□
TBC175	175	225	FMD50	TBC175S	CCMT1204□□
TBC220	220	270	FMD50	TBC220S	CCMT1204□□
TBC265	265	315	FMD50	TBC265S	CCMT1204□□
TBC310	310	390	FMD50	TBC310S	CCMT1204□□
TBC385	385	465	FMD50	TBC385S	CCMT1204□□
TBC460	460	540	FMD50	TBC460S	CCMT1204□□

FBC

· Balance cut tool for Fine boring

- Wide boring range for big diameters: Ø130 ~ Ø540 mm
- Interconvert with TBC
 - Common boring head and rail adopted, different cartridge [micro cartridge+balancing block]
- Various Insert according to bite
 - Applicable insert: CCMT09T3/1204, TPMT1103 (Cermet, cBN, PCD)



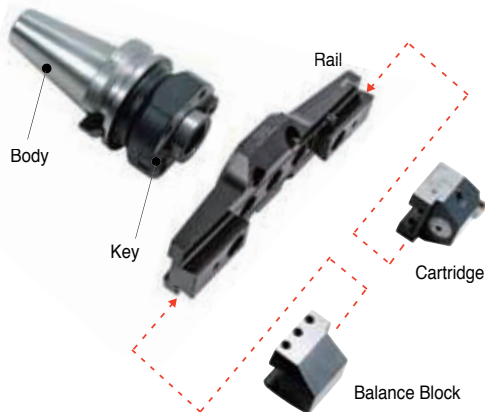
Code system

BT50 - FMD50 - 85 + FBC 130S

Body

Head set

FBC boring tool structure & features



Cartridge
FCC130



Balance Block
FCB130



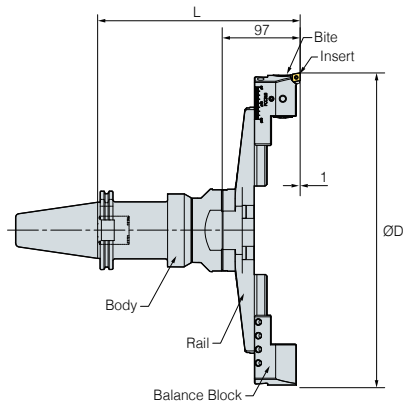
Insert
CCGT09T3□□
CCMT1204□□
TPGT1103□□

➡ FBC boring tool cutting condition

Grade	Dia (Ø)		Head set	Insert
	min	max		
FBC130	130	180	FBC130S (TBR130+FCC130+FCB130)	FBB130-C09 (CCMT09T3□□, CCGT09T3□□) FBB130-C12 (CCMT1204□□) FBB130-T11 (TPMT1103□□,TPGT1103□□L)
FBC175	175	225	FBC175S (TBR175+FCC130+FCB130)	
FBC220	220	270	FBC220S (TBR220+FCC130+FCB130)	
FBC265	265	315	FBC265S (TBR265+FCC130+FCB130)	
FBC310	310	390	FBC310S (TBR310+FCC310+FCB310)	
FBC385	385	465	FBC385S (TBR385+FCC310+FCB310)	
FBC460	460	540	FBC460S (TBR460+FCC310+FCB310)	



TBC, FBC



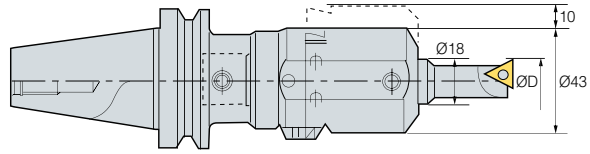
(mm)

		Designation								Boring range	
Body	kg	Rough boring (TBC)				Finish boring (FBC)				Min	Max
		TBC HEAD SET (Rail+Cartridge)	L	kg	FBC HEAD SET (Rail+Cartridge+Balance block)	L	kg				
BT50 - FMD50 -	85	5.9	TBC130S (TBR130+BCC1348)	175	3.5	FBC130S (TBR130+FCC130+FCB130)	182	3.8	130	180	
	155	7.9	TBC130S (TBR130+BCC1348)	245	3.5	FBC130S (TBR130+FCC130+FCB130)	252	3.8	130	180	
	205	9.7	TBC130S (TBR130+BCC1348)	295	3.5	FBC130S (TBR130+FCC130+FCB130)	302	3.8	130	180	
	255	10.4	TBC130S (TBR130+BCC1348)	345	3.5	FBC130S (TBR130+FCC130+FCB130)	352	3.8	130	180	
	85	5.9	TBC175S (TBR175+BCC1348)	175	3.9	FBC175S (TBR175+FCC130+FCB130)	182	4.1	175	225	
	155	7.9	TBC175S (TBR175+BCC1348)	245	3.9	FBC175S (TBR175+FCC130+FCB130)	252	4.1	175	225	
	205	9.7	TBC175S (TBR175+BCC1348)	295	3.9	FBC175S (TBR175+FCC130+FCB130)	302	4.1	175	225	
	255	10.4	TBC175S (TBR175+BCC1348)	345	3.9	FBC175S (TBR175+FCC130+FCB130)	352	4.1	175	225	
	85	5.9	TBC220S (TBR220+BCC1348)	175	4.3	FBC220S (TBR220+FCC130+FCB130)	182	4.5	220	270	
	155	7.9	TBC220S (TBR220+BCC1348)	245	4.3	FBC220S (TBR220+FCC130+FCB130)	252	4.5	220	270	
	205	9.7	TBC220S (TBR220+BCC1348)	295	4.3	FBC220S (TBR220+FCC130+FCB130)	302	4.5	220	270	
	255	10.4	TBC220S (TBR220+BCC1348)	345	4.3	FBC220S (TBR220+FCC130+FCB130)	352	4.5	220	270	
	85	5.9	TBC265S (TBR265+BCC1348)	175	4.5	FBC265S (TBR265+FCC130+FCB130)	182	4.6	265	315	
	155	7.9	TBC265S (TBR265+BCC1348)	245	4.5	FBC265S (TBR265+FCC130+FCB130)	252	4.6	265	315	
	205	9.7	TBC265S (TBR265+BCC1348)	295	4.5	FBC265S (TBR265+FCC130+FCB130)	302	4.6	265	315	
	255	10.4	TBC265S (TBR265+BCC1348)	345	4.5	FBC265S (TBR265+FCC310+FCB310)	352	4.6	265	315	
	85	5.9	TBC310S (TBR310+BCC1354)	175	5.5	FBC310S (TBR310+FCC310+FCB310)	182	5.5	310	390	
	155	7.9	TBC310S (TBR310+BCC1354)	245	5.5	FBC310S (TBR310+FCC310+FCB310)	252	5.5	310	390	
	205	9.7	TBC310S (TBR310+BCC1354)	295	5.5	FBC310S (TBR310+FCC310+FCB310)	302	5.5	310	390	
	255	10.4	TBC310S (TBR310+BCC1354)	345	5.5	FBC310S (TBR310+FCC310+FCB310)	352	5.5	310	390	
	85	5.9	TBC385S (TBR385+BCC1354)	175	5.8	FBC385S (TBR385+FCC310+FCB310)	182	5.8	385	465	
	155	7.9	TBC385S (TBR385+BCC1354)	245	5.8	FBC385S (TBR385+FCC310+FCB310)	252	5.8	385	465	
	205	9.7	TBC385S (TBR385+BCC1354)	295	5.8	FBC385S (TBR385+FCC310+FCB310)	302	5.8	385	465	
	255	10.4	TBC385S (TBR385+BCC1354)	345	5.8	FBC385S (TBR385+FCC310+FCB310)	352	5.8	385	465	
85	5.9	TBC460S (TBR460+BCC1354)	175	12.8	FBC460S (TBR460+FCC310+FCB310)	182	12.8	460	540		
155	7.9	TBC460S (TBR460+BCC1354)	245	12.8	FBC460S (TBR460+FCC310+FCB310)	252	12.8	460	540		
205	9.7	TBC460S (TBR460+BCC1354)	295	12.8	FBC460S (TBR460+FCC310+FCB310)	302	12.8	460	540		
255	10.4	TBC460S (TBR460+BCC1354)	345	12.8	FBC460S (TBR460+FCC310+FCB310)	352	12.8	460	540		

• Bites for FBC are sold separately

BT-SMB

Small Micro Boring Bar



1 DIV = Ø0.02mm

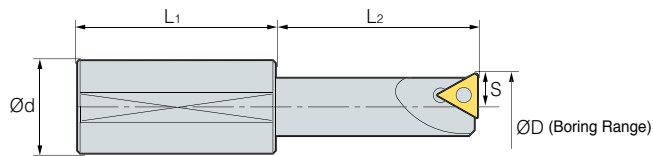
(mm)

Designation	Head (Modular)	Boring bite	L	L ₁	kg
BT40 - MD40F - 60	SMB4022	BB18-O(S)	122.5	60	2.8
BT50 - MD40F - 60	SMB4022	BB18-O(S)	122.5	60	5.4

Boring head	Bite	MD NO.	L	kg
SMB4022	BB18-O(S)	BTOO-MD40T	62.5	0.6

• Through coolant system not available

Boring bite: BBtype (For SMB)



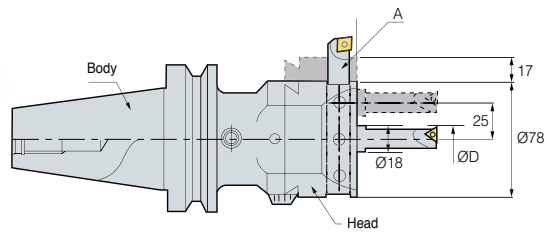
(mm)

Designation	Boring range		S	L ₁	L ₂	Insert	Insert screw
	Min	Max					
BB 18-7(S)	7	27	3.5	30	30	TBGT0601□□L	BFTX0204A
18-9(S)	9	29	4.5	30	40	TPGT0802□□L	BFTX0204A
18-11(S)	11	31	5.5	30	45	TPGT1103□□L	BFTX0307A
18-13(S)	13	33	6.5	40	45	TPGT1103□□L	BFTX0307A
18-15(S)	15	35	7.5	40	50	TPGT1103□□L	BFTX0307A
18-17(S)	17	37	8.5	40	50	TPGT1103□□L	BFTX0307A

Parts


Division	Spare parts				
	Basic			Option	
	Boring head	Taper screw	Wrench	Boring bite	Basic holder
Type					
SMB	SMB4022	BTT1013F	LW-5	BB18	MD40F


BT-KMB Micro Boring



1DIV = Ø0.02mm

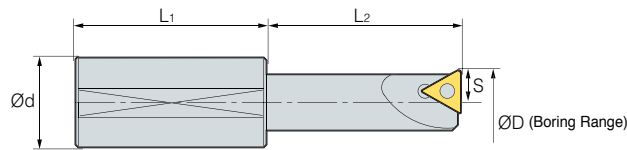
(mm)

Designation	Head (Modular)	Boring bite	L	L ₁	
BT40 - MD63F - 64	KMB6336	BB18-□(S)	141	64	5.5
BT50 - MD63F - 75	KMB6336	BB18-□(S)	152	75	7.0

Boring head	Bite	MD NO.	L	
KMB6336	BB18-□(S)	BT□□-MD63F	77	2.2

• Through coolant system is optional






Boring bite: BBtype (For KMB)



(mm)

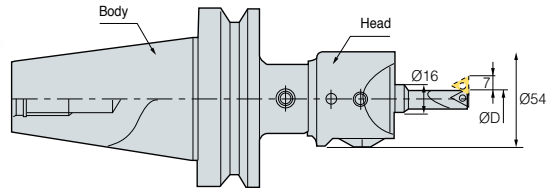
Designation	Boring range (Center)		Boring range (Side)		S	L ₁	L ₂	Insert	Insert Screw	
	Min	Max	Min	Max						
BB	18-7(S)	7	40	43	91	3.5	30	30	TBGT0601□□L	BFTX0204A
	18-9(S)	9	42	45	93	4.5	30	40	TPGT0802□□L	BFTX0204A
	18-11(S)	11	44	47	95	5.5	30	45	TPGT1103□□L	BFTX0307A
	18-13(S)	13	46	49	97	6.5	40	45	TPGT1103□□L	BFTX0307A
	18-15(S)	15	48	51	99	7.5	40	50	TPGT1103□□L	BFTX0307A
	18-17(S)	17	50	53	101	8.5	40	50	TPGT1103□□L	BFTX0307A

Parts


Division	Spare parts				
	Basic			Option	
	Boring head	Taper screw	Wrench	Boring bite	Basic holder
Type					
KMB	KMB6336	BTT1620F	LW-8	BB18	MD63F


BT-SMH

Small Micro Boring Bar (For High Precision)



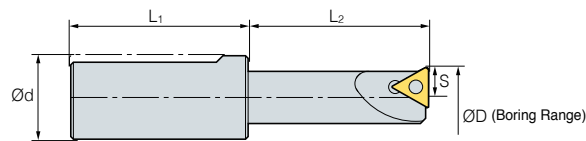
(mm)

Designation	Head (Modular)	Boring bite	L	L ₁	
BT40 - MD40F - 60	SMH4022	BB16-O(S)	109	60	3.0
BT50 - MD40F - 60	SMH4022	BB16-O(S)	109	60	6.0

Boring head	Bite	MD NO.	L	
SMH4022	BB18-O(S)	BTOO-MD40F	49	2.7

• Through coolant system not available






Boring bite: BBtype (For SMH)



(mm)

Designation	Boring range ØD		S	L ₁	L ₂	Insert	Insert screw	Wrench	
	Min	Max							
BB	16-5(S)	5.5	19	2.75	34	20	WBGT0601□□L	BFTX0203A	TRX06
	16-7(S)	7	21	3.5	34	30	TBGT0601□□L	BFTX0204A	TRX06
	16-9(S)	9	23	4.5	34	40	TPGT0802□□L	BFTX0204A	TRX06
	16-11(S)	11	25	5.5	34	45	TPGT1103□□L	BFTX0307A	TRX10
	16-15(S)	15	29	7.5	34	50	TPGT1604□□L	BFTX0307A	TRX10
	16-19(S)	19	33	9.5	34	60	TPGT1103□□L	BFTX0410A	TRX15

 **Parts**

Division	Spare parts				
	Basic			Option	
	Boring head	Taper screw	Wrench	Boring bite	Basic holder
Type					
SMH	SMH4022	BTT1013F	LW-5	BB16	MD40F

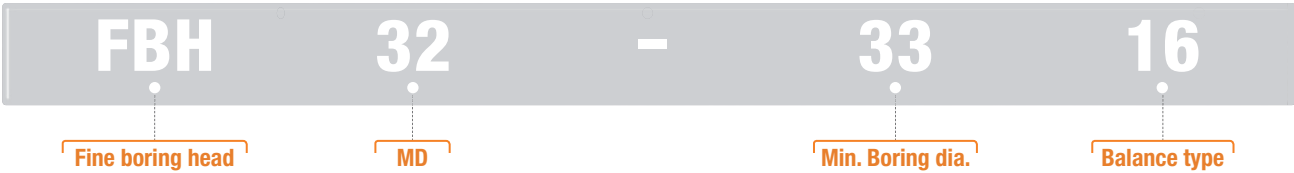
FBH/B

· FBH back boring & balanced type

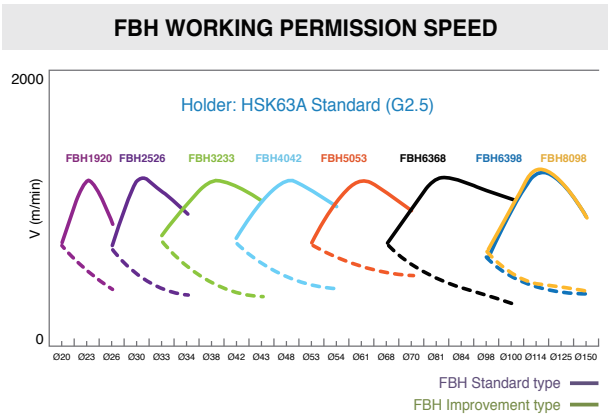
- High speed boring and back boring capability
- High precision balancing: G2.5, Head: G6.3
- Min. adjustment range: 2μm



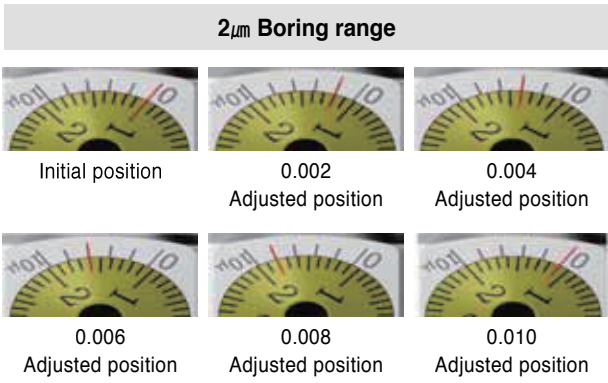
Code system



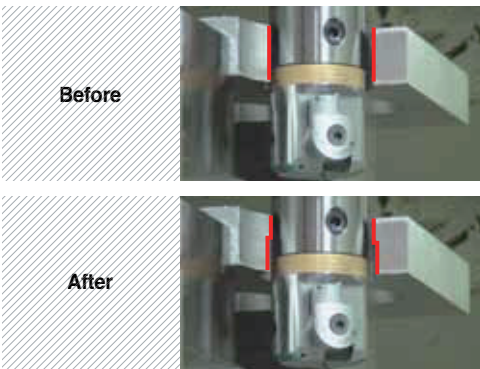
Working permission speed



Boring range adjustment method



Back boring

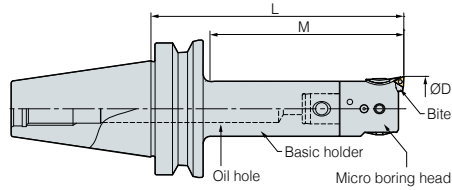


Adjusting machining direction available



BT-FBH/B

Micro Boring Balance type



(mm)

Designation			Boring range ØD		L	Max. Boring depth	kg		
Head	Bite	Body (Basic holder)	Min	Max					
FBH1920B	FBB20N-□-□□	BT30 -	MD19F - 70R	20 (24)	26 (30)	103	60	0.5	
FBH2526B	FBB26N-□-□□		MD25F - 90R	26 (32)	34 (40)	127	80	0.7	
FBH3233B	FBB33N-□-□□		MD32F - 80R	33 (40)	43 (50)	121	80	0.8	
FBH4042B	FBB42N-□-□□		MD40F - 80R	42 (50)	54 (62)	127	96	1.1	
FBH5053B	FBB53N-□-□□		MD50F - 70	53 (65)	70 (82)	127	97	1.7	
FBH1920B	FBB20N-□-□□	BT40 -	MD19F - 70R	20 (24)	26 (30)	103	45	1.9	
FBH2526B	FBB26N-□-□□		MD25F - 95R	26 (32)	34 (40)	133	59	2	
FBH3233B	FBB33N-□-□□		MD32F - 100R	33 (40)	43 (50)	141	77	2.5	
FBH4042B	FBB42N-□-□□		MD40F - 115R	42 (50)	54 (62)	162	107	3.1	
FBH5053B	FBB53N-□-□□		MD50F - 105	53 (65)	70 (82)	162	135	3.5	
FBH6368B	FBB68N-□-□□		MD63F - 110	68 (90)	100 (122)	181	154	6.3	
FBH6398B	FBB68N-□-□□		MD63F - 135	98 (120)	150 (172)	206	179	7.1	
FBH8098B	FBB68N-□-□□		MD80F - 100	98 (120)	150 (172)	171	144	8.3	
FBH1920B	FBB20N-□-□□		BT50 -	MD19F - 85	20 (24)	26 (30)	118	80	5.2
FBH2526B	FBB26N-□-□□			MD25F - 105R	26 (32)	34 (40)	142	59	5.8
FBH3233B	FBB33N-□-□□	MD32F - 110R		33 (40)	43 (50)	151	77	6	
FBH4042B	FBB42N-□-□□	MD40F - 195R		42 (50)	54 (62)	242	130	6.3	
FBH5053B	FBB53N-□-□□	MD50F - 225R		53 (65)	70 (82)	282	182	6.6	
FBH6368B	FBB68N-□-□□	MD63F - 230R		68 (90)	100 (122)	301	220	7.2	
FBH6398B	FBB68N-□-□□	MD63F - 195R		98 (120)	150 (172)	266	191	8.5	
FBH8098B	FBB68N-□-□□	MD80F - 175		98 (120)	150 (172)	246	208	12.8	

- FBB bites are divided into two sorts Normal type: FBB□□N, Scalable type: FBB□□N-1
- There are also the other options for your insert type: FBB□□N-□-C09 or T11
- 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

• Through coolant system available

FBH

Micro Boring Head

FBH1920 B — New Type

(mm)

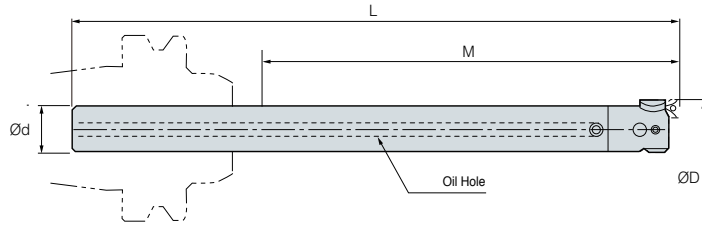
Designation	Boring range ØD		L	Scale ring 1rev. adjustable range	MD No.	kg
	Min	Max				
FBH - 1920B	20	26 (30)	33	Ø0.4 mm	MD1911	0.06
2526B	26	34 (40)	37	Ø0.4 mm	MD2514	0.12
3233B	33	43 (50)	41	Ø0.5 mm	MD3218	0.24
4042B	42	54 (62)	47	Ø0.5 mm	MD4022	0.41
5053B	53	70 (82)	57	Ø0.6 mm	MD5028	0.8
6368B	68	100 (122)	71	Ø0.8 mm	MD6336	1.7
6398B	98	150 (172)	71	Ø0.8 mm	MD6336	2.35

- Stock of basic holders, heads and bites are separately managed
- (): Max. boring diameter of extension type



S-FBH/B

Small Micro Boring



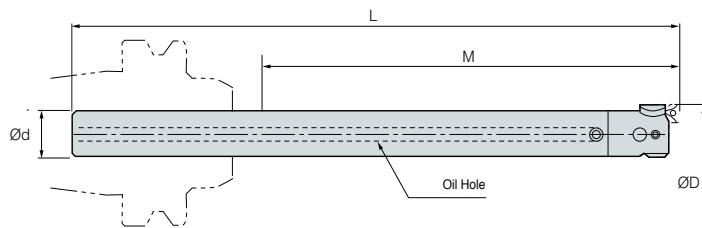
(mm)

Designation	Shank dia ϕd	Boring range ϕD		L	M	Designation			kg
		Min	Max			Basic shank	Boring head	Bite	
S19W - FBH20B - 120	19	20	26	190	120	S19W-MD19F-157	FBH1920B	FBB20N	0.6
	19	20	26	210	140	S19W-MD19F-177	FBH1920B	FBB20N	0.7
	19	20	26	230	160	S19W-MD19F-197	FBH1920B	FBB20N	0.8
S25W - FBH26B - 150	25	26	34	235	150	S25W-MD25F-197.5	FBH2526B	FBB26N	1.4
	25	26	34	260	175	S25W-MD25F-222.5	FBH2526B	FBB26N	1.6
	25	26	34	285	200	S25W-MD25F-247.5	FBH2526B	FBB26N	2
S32W - FBH33B - 180	32	33	43	280	180	S32W-MD32F-239	FBH3233B	FBB33N	2.8
	32	33	43	340	240	S32W-MD32F-299	FBH3233B	FBB33N	3.5
S19 - FBH20B - 40	19	20	26	110	40	S19-MD19F-77	FBH1920B	FBB20N	0.1
	19	20	26	150	80	S19-MD19F-117	FBH1920B	FBB20N	0.2
S25 - FBH26B - 50	25	26	34	135	50	S25-MD25F-97.5	FBH2526B	FBB26N	0.4
	25	26	34	185	100	S25-MD25F-147.5	FBH2526B	FBB26N	0.6
S32 - FBH33B - 90	32	33	43	190	90	S32-MD32F-149	FBH3233B	FBB33N	1.1
	32	33	43	220	120	S32-MD32F-179	FBH3233B	FBB33N	1.2

• Through coolant system available

S-FBH

Mini Small Micro Boring



(mm)

Designation	Shank dia ϕd	Boring range ϕD		L	M	Designation			kg
		Min	Max			Basic shank	Boring head	Bite	
S14W FBH15 85	14	15	18	155	85	S14W-M6-123	FBH15	FBB15-C	0.2
	14	15	18	180	110	S14W-M6-148	FBH15	FBB15-C	0.3
S16W FBH18 95	16	18	22	165	95	S16W-M8-128	FBH18	FBB15-C	0.3
	16	18	22	195	120	S16W-M8-158	FBH18	FBB15-C	0.4
S14 FBH15 40	14	15	18	110	40	S14-M6-78	FBH15	FBB15-C	0.1
S16 FBH18 45	16	18	22	115	45	S16-M8-78	FBH18	FBB15-C	0.1

• Through coolant system available

S-FBH

Parts

Spare parts		
Type (FBH)	Lock screw	Clamp screw
FBH1920B	BTF0404	BXC0304
FBH2526B	BTF0505	BXC0405
FBH3233B	BTF0606	BXC0506
FBH4042B	BTF0808	BXC0610
FBH5053B	BTF0812	BXC0610
FBH6368B	BTF1016	BXC0810
FBH6398B	BTF1012	BXC0810
FBH8098B	BTF1014	BXC0810

FBB

Bite (New type)

Designation	Boring range	Insert	Insert screw	Clamp bolt
FBB15C	Ø15~Ø18 mm	CCET0301-□□L	FTNA01633	BFTX02506N
	Ø18~Ø22 mm			
FBB20N	Ø20~Ø26 mm	TPGT0802□□L/TPGW0802□□	BFTX0204A	BXC0304
FBB20N-C		CCET0401□□L	BFTX0204N	
FBB20N-1	Ø24~Ø30 mm	TPGT0802□□L/TPGW0802□□	BFTX0204A	
FBB20N-1-C		CCET0401□□L	BFTX0204N	
FBB26N	Ø26~Ø34 mm	TPGT0802□□L/TPGW0802□□	BFTX0204A	BXC0405
FBB26N-C		CCET0401□□L	BFTX0204N	
FBB26N-1	Ø32~Ø40 mm	TPGT0802□□L/TPGW0802□□	BFTX0204A	
FBB26N-1-C		CCET0401□□L	BFTX0204N	
FBB33N	Ø33~Ø43 mm	TPGT0802□□L/TPGW0802□□	BFTX0204A	BXC0506
FBB33N-C		CCMT0602□□/CCGT0602□□	BFTX02506N	
FBB33N-1	Ø41~Ø50 mm	TPGT0802□□L/TPGW0802□□	BFTX0204A	
FBB33N-1-C		CCMT0602□□/CCGT0602□□L	BFTX02506N	
FBB42N	Ø42~Ø54 mm	TPGT0802□□L/TPGW0802□□	BFTX0204A	BXC0610
FBB42N-		CCMT0602□□/CCGT0602□□L	BFTX02506N	
FBB42N-11	Ø50~Ø62 mm	TPGT1103□□L	BFTX0307A	
FBB42N-1		TPGT0802□□L/TPGW0802□□	BFTX0204A	
FBB42N-1-C		CCMT0602□□/CCGT0602□□L	BFTX02506N	
FBB42N-1-T11		TPGT1103□□L	BFTX0307A	
FBB53N	Ø53~Ø70 mm	TPGT0802□□L/TPGW0802□□	BFTX0204A	BXC0610
FBB53N-C		CCMT0602□□/CCGT0602□□L	BFTX02506N	
FBB53N-11	Ø65~Ø82 mm	TPGT1103□□L	BFTX0307A	
FBB53N-1		TPGT0802□□L/TPGW0802□□	BFTX0204A	
FBB53N-1-C		CCMT0602□□/CCGT0602□□L	BFTX02506N	
FBB53N-1-C09		CCMT09T3□□/CCGT09T3□□L	BFTX0409N	
FBB53N-1-T11	TPGT1103□□L	BFTX0307A		
FBB68N	Ø68~Ø100 mm	TPGT0802□□L/TPGW0802□□	BFTX0204A	BXC0810
FBB68N-C		CCMT09T3□□/CCGT09T3□□L	BFTX0409N	
FBB68N-11	Ø90~Ø122 mm	TPGT1103□□L	BFTX0307A	
FBB68N-1		TPGT0802□□L/TPGW0802□□	BFTX0204A	
FBB68N-1-C09		CCMT09T3□□/CCGT09T3□□L	BFTX0409N	
FBB68N-1-T11		TPGT1103□□L	BFTX0307A	
	Ø120~Ø172 mm			

MODULAR SYSTEM

Part 5

Arbors BT/HSK-MD	151
Extension Bar EXT	154
Reducer Bar RDC	155

MODULAR SYSTEM

Arbors

BT/HSK-MD



Extension Bar

EXT



Reducer Bar

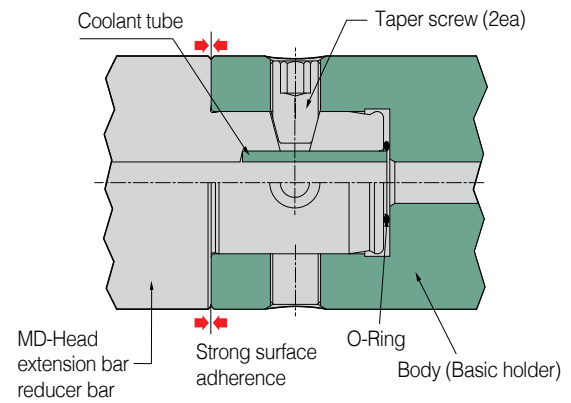
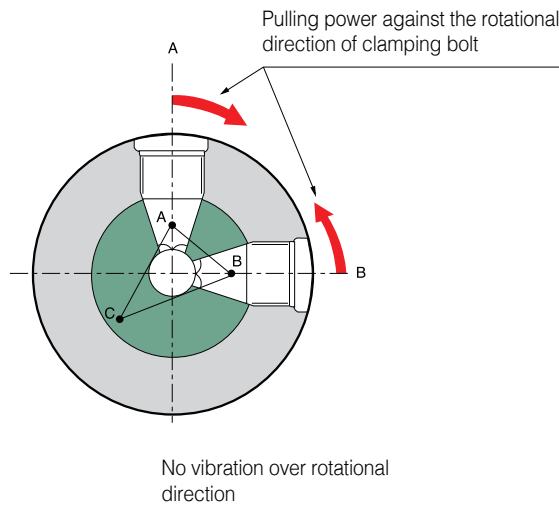
RDC



Modular System Series

· Versatile tooling system that can flexibly react to FMS

- Versatile tooling system conforming to FMS specification
- Flexible combination of tool units according to conditions of subject
- Joining with a specially designed screw provides high accuracy (error less than 5µm) and ease of detach for one step setting
- Cutting edge of boring system aligned with the groove of drive key
- Corresponding accuracy and stiffness compared to uni-body type



BT-MD

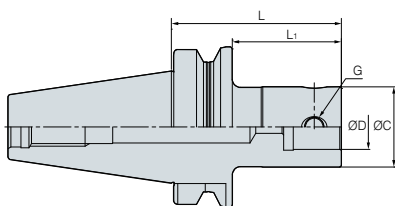


Fig. 1

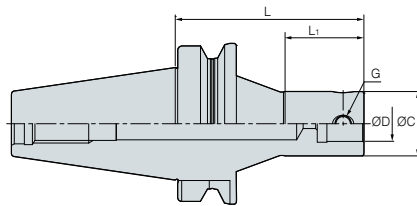


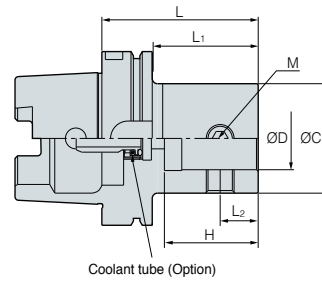
Fig. 2

(mm)

Designation	ØC	ØD	L	L ₁	G	Fig.
BT30 -	MD19F - 70	19	11	70	45	M5 0.4 1
	MD25F - 90	25	14	90	63	M6 0.3 1
	MD32F - 80	32	18	80	55	M8 0.4 1
	MD40F - 45	40	22	45	22	M8 0.4 1
	MD40F - 60	40	22	60	36	M10 0.5 1
	MD40F - 80	40	22	80	56	M10 0.5 1
	MD50F- 70	50	28	70	48	M12 0.8 3
BT40 -	MD19F- 70	19	11	70	40	M5 1.8 1
	MD25F- 95	25	14	95	63	M6 1.9 1
	MD25F- 105R	25	14	105	40	M6 1.9 2
	MD32F- 100	32	18	100	70	M8 2.3 1
	MD32F- 115R	32	18	115	45	M8 2.4 2
	MD40F- 60	40	22	60	31	M10 2.7 1
	MD40F- 110R	40	22	110	60	M10 2.7 2
	MD40F- 115	40	22	115	83	M10 2.7 1
	MD50F- 105	50	28	105	73	M12 2.7 1
	MD63F- 64	63	36	64	37	M16 3.3 1
	MD63F- 110	63	36	110	83	M16 3.6 1
	MD63F- 135	63	36	135	108	M16 4.6 1
	MD80F- 100	80	45	100	73	M16 4.8 3
BT50 -	MD19F- 85	19	11	85	44	M5 4.3 1
	MD25F- 105	25	14	105	62	M6 4.5 1
	MD25F- 120R	25	14	120	40	M6 4.7 2
	MD32F- 110	32	18	110	67	M8 5.1 1
	MD32F- 115R	32	18	115	45	M8 5.1 2
	MD32F- 235R	32	18	235	115	M8 5.3 2
	MD40F- 60	40	22	60	22	M10 5.0 1
	MD40F- 195	40	22	195	152	M10 5.4 1
	MD40F- 230R	40	22	230	180	M10 5.6 2
	MD50F- 125	50	28	125	82	M12 6.0 1
	MD50F- 225	50	28	225	182	M12 6.4 1
	MD50F- 250R	50	28	250	81	M12 6.5 2
	MD63F- 75	63	36	75	35	M16 6.0 1
	MD63F- 130	63	36	130	87	M16 6.8 1
	MD63F- 195	63	36	195	152	M16 8.0 1
	MD63F- 230	63	36	230	187	M16 8.4 1
	MD80F- 75	80	45	75	36	M16 9.1 1
	MD80F- 110	80	45	110	69	M16 9.4 1
	MD80F- 175	80	45	175	134	M16 9.5 1
	MD90F- 75	90	45	75	34	M16 9.3 1
MD90F- 145	90	45	145	104	M16 9.9 1	
MD90F- 195	90	45	195	154	M16 10.2 1	



HSK-MD





(mm)

Designation	ØC	ØD	L	L ₁	L ₂	H	M	
HSK 63A -	MD19F - 60	19	11	60	34	6.5	15.5	M5
	MD25F - 60	25	14	60	31	8	18.5	M6
	MD32F - 65	32	18	65	31	11	23.5	M8
	MD40F - 70	40	22	70	41	13	29	M10
	MD50F - 85	50	28	85	58	17	36	M12
	MD63F - 95	63	36	95	69	22	54	M16

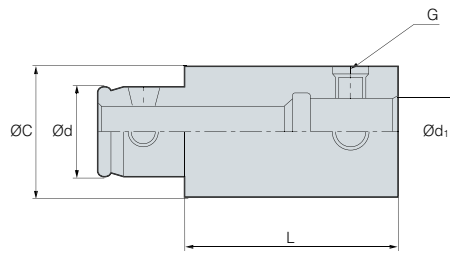
• Through coolant system available

Parts

Division	Spare parts	
	Basic	Option
	Taper screw	Wrench
Type		
MD19F	BTT0506F	LW-2.5
MD25F	BTT0608F	LW-3
MD32F	BTT0810F	LW-4
MD40F	BTT1013F	LW-5
MD50F	BTT1215F	LW-6
MD63F	BTT1620F	LW-8
MD80F	BTT1626F	LW-8
MD90F	BTT1631F	LW-8

EXT

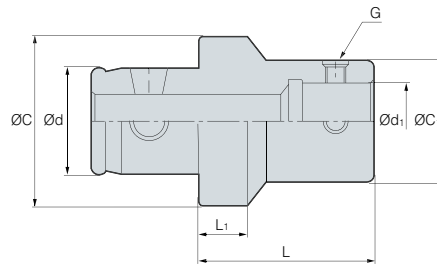
Extension Bar



(mm)

Designation	ØC	Ød	L	Ød ₁	G	
EXT -	1930F	19	11	30	11	M5
	1950F	19	11	50	11	M5
	2530F	25	14	30	14	M6
	2550F	25	14	50	14	M6
	3235F	32	18	35	18	M8
	3260F	32	18	60	18	M8
	4040F	40	22	40	22	M10
	4090F	40	22	90	22	M12
	5050F	50	28	50	28	M12
	50100F	50	28	100	28	M12
	6360F	63	36	60	36	M16
	63120F	63	36	120	36	M16
	8070F	80	45	70	45	M16
	80120F	80	45	120	45	M16
	9080F	90	45	80	45	M16
90130F	90	45	130	45	M16	




• Through coolant system available



(mm)

Designation	Ød	ØC1	Ød1	ØC	L	L1	G
RDC - 3225F	18	25	14	32	30	9	M6
4025F	22	25	14	40	30	9	M6
4032F	22	32	18	40	30	9	M8
5025F	28	25	14	50	30	9	M6
5032F	28	32	18	50	30	9	M8
5040F	28	40	22	50	40	10	M10
6325F	36	25	14	63	30	9	M6
6332F	36	32	18	63	30	9	M8
6340F	36	40	22	63	40	10	M10
6350F	36	50	28	63	45	10	M12
8032F	45	32	18	80	30	9	M6
8040F	45	40	22	80	40	10	M10
8050F	45	50	28	80	45	10	M12
8063F	45	63	36	80	50	13	M16

Parts

Division	Spare parts		
	Basic		Option
	Taper screw	Spring pin	Wrench
Type			
MD19F	BTT0506F	-	LW-2.5
MD25F	BTT0608F	SP0308	LW-3
MD32F	BTT0810F	SP0410	LW-4
MD40F	BTT1013F	SP0516	LW-5
MD50F	BTT1215F	SP0616	LW-6
MD63F	BTT1620F	SP0818	LW-8
MD80F	BTT1626F	SP1020	LW-8
MD90F	BTT1631F	SP1020	LW-8