



TBCA NEW

Wide Diameter Boring system



C	AL	0	631	
Coolant System	Material	MIN Range	MAX Range	Boring



Features

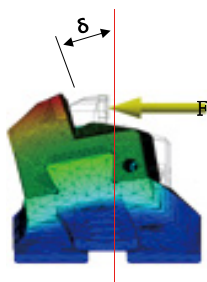
- Convenience in use simultaneously (available both inside and outside)
- Broad boring diameter and range
- Rough / Finishing boring with replaceable cartridge and common rail
- Boring range for outer diameter: $\varnothing 0\text{--}\varnothing 395$
- Boring range for inner diameter: $\varnothing 130\text{--}\varnothing 631$

NAMING	BODY			HEAD SET		
	BT50	FMC40	85	TBC	130	A
	Spindle	Facemill arbor	length	Balance cut tool	Minimum Boring Range	Advance

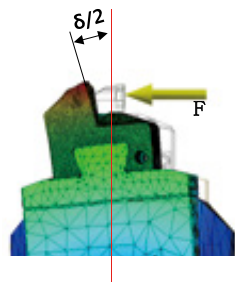
Main Features

Reinforced rigidity

- 50% less moment strain (versus the conventional product of DINE)



TBC460 (old type)



TBC460A (new type)

Lightweight design (HEADSET)

- BCC(Cartridge)+DBR(Bridge)+DBB(Rail)



TBC130A	TBC175A	TBC220A	TBC265A
4.2Kg	5.6Kg	6.6Kg	7.5Kg
TBC310A	TBC385A	TBC460A	TBC535A
9.5Kg	11.6Kg	14Kg	16Kg

APPLICATION



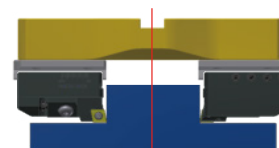
Twin edge boring



Single edge boring



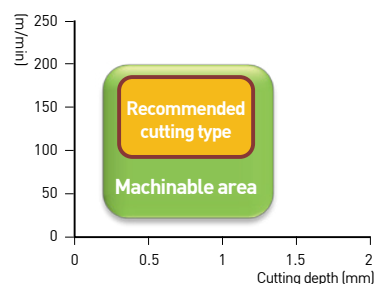
Step boring



Outside boring

Performance test

Product	Workpiece		Boring diameter (Depth of cutting)	Results
	Product name	Material	mm	Machining
Conventional tool of DINE	Housing	Cast iron	$\varnothing 465$ (Rd=7)	<ul style="list-style-type: none"> · Vibration occurred · Insert damaged in the machining process · Scratched surface of workpieces
TBC460A Applicable insert CNMG19	Housing	QT400	$\varnothing 508\text{--}527$ (Rd=10)	<ul style="list-style-type: none"> · No chattering · No vibration found · Goal of accuracy achieved · Normal chip discharged





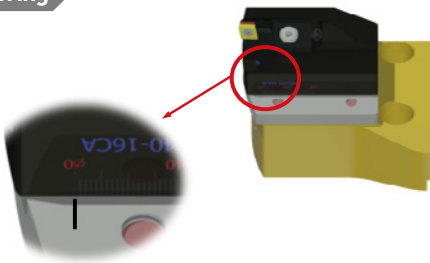
TBCA NEW

Wide Diameter Boring system

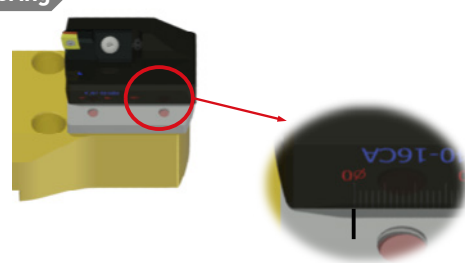


Convenience

Inner boring

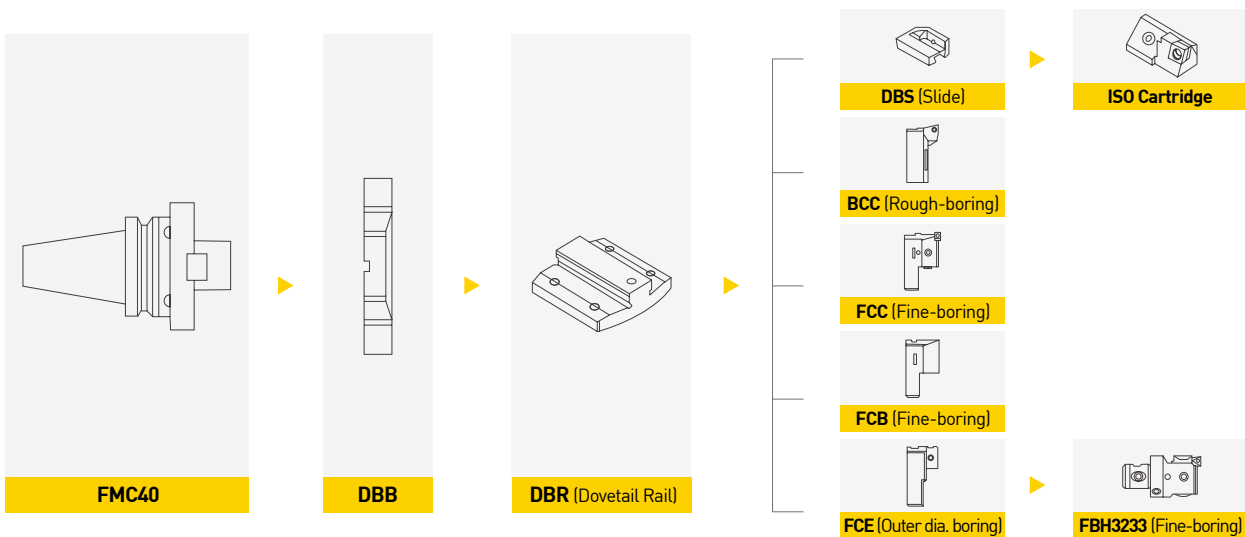


Outer boring

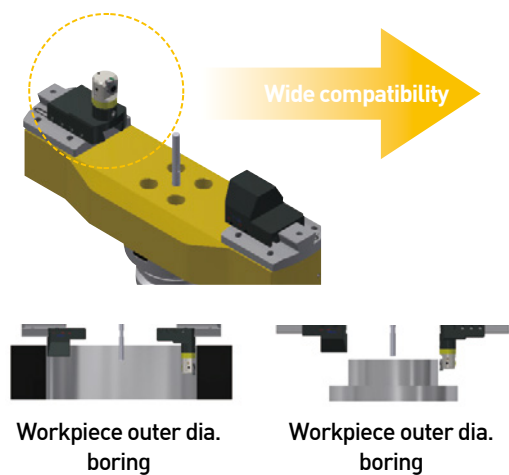


- Inner boring and outer boring can be performed by easily changing the cartridge direction
- With the scale marking on the rail, the boring diameter can be set easily.

Boring system map



Wide compatibility



	IMAGES	List of clamping parts	Cutting type
Outer dia. boring		FBH3233B+FCE310+FCB310	Finishing boring
		DBCA3235S + FCE310 + FCB310	Rough boring
Inner dia. boring		DBS□□ - □□CA+SCGCL16C-1A2	Rough boring
		FCC310	Finishing boring
		BCC1354	Rough boring

※ TBC310A in case

Chuck

Arbor / Modular

Boring tool

Angular head

cBN/PCD

Smart factory

TAUMAX

OTHER



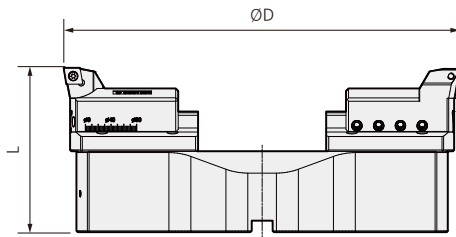
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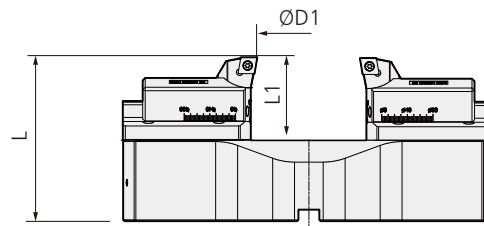


MAS 403-BT	C	AL	130	615	
Shank	Coolant System	Material	MIN Range	MAX Range	Boring

Inside Boring



Outside Boring



C Internal coolant system is optional.

※ Red : Main component Blue : For separate purchase

※ The FMC Arbor are sold individually.

• For more information on the product features, see 160p.

• For more information on FMC arbor, see 122p.

FMC Arbor (Individual order)	Kg	Twin Edge Boring for Roughing							Kg
		TBC Head set (Rail+Cartridge (Main))	L	Boring range					
				Inside Boring		Outside Boring		L1	
Min.	Max.	Min.	Max.	L1					
BT50-FMC40-50	4.6	TBC130A(DBR130+BCC1348+BCC1348)	108	130	180	0	35	65	3.8
BT50-FMC40-50	4.6	TBC175A(DBR175+BCC1348+BCC1348)	113	175	225	0	75	65	5.2
BT50-FMC40-50	4.6	TBC220A(DBR07015+BCC1348+BCC1348)	118	220	270	60	124	65	7.3
BT50-FMC40-50	4.6	TBC265A(DBR07015+BCC1348+BCC1348)	123	265	315	64	174	65	7.3
BT50-FMC40-50	4.6	TBC310A(DBR10015+BCC1345+BCC1345)	128	310	390	79	159	65	9.7
BT50-FMC40-50	4.6	TBC385A(DBR10015+BCC1354+BCC1345)	133	385	465	153	233	65	11.8
BT50-FMC40-50	4.6	TBC460A(DBR10015+BCC1354+BCC1345)	138	460	540	229	309	65	14.3
BT50-FMC40-50	4.6	TBC535A(DBR10015+BCC1354+BCC1345)	143	535	615	303	383	65	16.4

Head set	Bridge	Rail	For separate purchase		
			Cartridge	Arbor	Pin
TBC130A	DBB130	DBR130	BCC1348S	BT50-FMC40-50	PN1080
TBC175A	DBB175	DBR175	BCC1348S	BT50-FMC40-50	PN1080
TBC220A	DBB220	DBR07015	BCC1348S	BT50-FMC40-50	PN1080
TBC265A	DBB265	DBR07015	BCC1348S	BT50-FMC40-50	PN1080
TBC310A	DBB310	DBR10015	BCC1354S	BT50-FMC40-50	PN1080
TBC385A	DBB385	DBR10015	BCC1354S	BT50-FMC40-50	PN1080
TBC460A	DBB460	DBR10015	BCC1354S	BT50-FMC40-50	PN1080
TBC535A	DBB535	DBR10015	BCC1354S	BT50-FMC40-50	PN1080



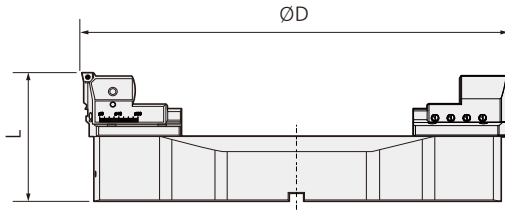
TBCA NEW

Wide Diameter Boring system

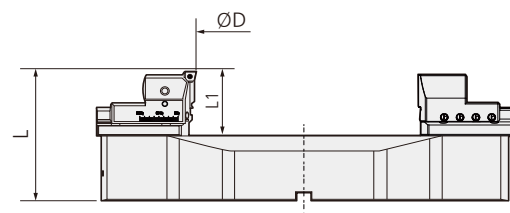


MAS 403-BT	C	AL	130	615	Boring
Shank	Coolant System	Material	MIN Range	MAX Range	Boring

Inside Boring



Outside Boring



C Internal coolant system is optional.

- ※ Red, Green : Main component Blue : For separate purchase
- ※ The FMC Arbor and head set are products for an individual order.

- For more information on the product features, see **160p**
- For more information on FMC arbor, see **122p**

FMC Arbor (Individual order)	Kg	Single Edge Boring for Roughing							Kg
		TBC Head set (Rail+Cartridge (Separate sale))	L	Boring range					
				Inside Boring		Outside Boring		L1	
Min.	Max.	Min.	Max.	L1					
BT50-FMC40-50	4.6	TBC130A(DBR130+FCC130+FCB130+FBB33N)	101	130	180	37	37	72	4.4
BT50-FMC40-50	4.6	TBC175A(DBR175+FCC130+FCB130+FBB33N)	106	175	225	80	80	72	5.7
BT50-FMC40-50	4.6	TBC220A(DBR07015+FCC130+FCB130+FBB33N)	111	220	270	173	173	72	7.8
BT50-FMC40-50	4.6	TBC265A(DBR07015+FCC130+FCB130+FBB33N)	116	265	315	176	176	72	7.9
BT50-FMC40-50	4.6	TBC310A(DBR10015+FCC310+FCB310+BB33N)	121	310	390	155.5	155.5	72	10.1
BT50-FMC40-50	4.6	TBC385A(DBR10015+FCC310+FCB310+FBB33N)	126	385	465	229.5	229.5	72	12.2
BT50-FMC40-50	4.6	TBC460A(DBR10015+FCC310+FCB310+FBB33N)	131	460	540	305.5	305.5	72	14.7
BT50-FMC40-50	4.6	TBC535A(DBR10015+FCC310+FCB310+FBB33N)	136	535	615	379.5	379.5	72	16.7

Head set	Bridge	Rail	For separate purchase					Pin
			Cartridge	Bite	Balance block	Arbor		
TBC130A	DBB130	DBR130	FCC130	FBB130△□□	FCB130	BT50-FMC40-50	PN1080	
TBC175A	DBB175	DBR175	FCC130	FBB130△□□	FCB130	BT50-FMC40-50	PN1080	
TBC220A	DBB220	DBR07015	FCC130	FBB130△□□	FCB130	BT50-FMC40-50	PN1080	
TBC265A	DBB265	DBR07015	FCC130	FBB130△□□	FCB130	BT50-FMC40-50	PN1080	
TBC310A	DBB310	DBR10015	FCC310	FBB130△□□	FCB310	BT50-FMC40-50	PN1080	
TBC385A	DBB385	DBR10015	FCC310	FBB130△□□	FCB310	BT50-FMC40-50	PN1080	
TBC460A	DBB460	DBR10015	FCC310	FBB130△□□	FCB310	BT50-FMC40-50	PN1080	
TBC535A	DBB535	DBR10015	FCC310	FBB130△□□	FCB310	BT50-FMC40-50	PN1080	



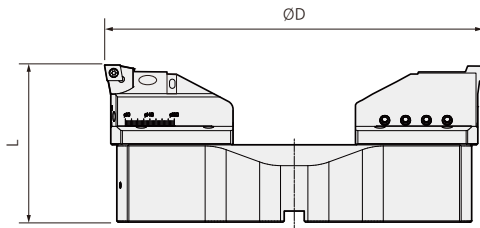
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Wide Diameter Boring system

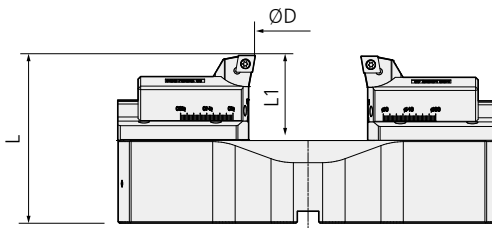


MAS 403-BT	C	AL	130	615	
Shank	Coolant System	Material	MIN Range	MAX Range	Boring

Inside Boring



Outside Boring



C Internal coolant system is optional.

※ Red, Green : Main component Blue : For separate purchase

※ The FMC Arbor and head set are products for an individual order.

• For more information on the product features, see **160p**.

• For more information on FMC arbor, see **122p**.

FMC Arbor (Individual order)	Kg	Step Boring for Roughing							Kg
		TBC Head set (Rail+Cartridge (Separate sale))	L	Boring range					
				Inside Boring		Outside Boring		L1	
Min.	Max.	Min.	Max.	L1					
BT50-FMC40-50	4.6	TBC130A(DBR130+DBS25-□□CA+SCGCL16CA-12)	108	130	180	0	13.5	65	4.3
BT50-FMC40-50	4.6	TBC175A(DBR175+DBS25-□□CA+SCGCL16CA-12)	113	175	225	0	55	65	5.7
BT50-FMC40-50	4.6	TBC220A(DBR07015+DBS25-□□CA+SCGCL16CA-12)	118	220	270	64	128	65	7.8
BT50-FMC40-50	4.6	TBC265A(DBR07015+DBS25-□□CA+SCGCL16CA-12)	123	265	315	68	118	65	7.9
BT50-FMC40-50	4.6	TBC310A(DBR10015+DBS40-□□CA+SCGCL16CA-12)	128	310	390	109	159	65	10.2
BT50-FMC40-50	4.6	TBC385A(DBR10015+DBS40-□□CA+SCGCL16CA-12)	133	385	465	183	233	65	12.3
BT50-FMC40-50	4.6	TBC460A(DBR10015+DBS40-□□CA+SCGCL16CA-12)	138	460	540	259	309	65	14.8
BT50-FMC40-50	4.6	TBC535A(DBR10015+DBS40-□□CA+SCGCL16CA-12)	143	535	615	33	383	65	16.9

Head set	Bridge	Rail	Cartridge	For separate purchase				
				Arbor	Slide	Cartridge	Plate	Pin
TBC130A	DBB130	DBR130	BCC1348S	BT50-FMC40-50	DBS25-16CA DBS25-20CA DBS25-25CA	ISO Cartridge	ISO Cartridge Plates	PN1080
TBC175A	DBB175	DBR175	BCC1348S					
TBC220A	DBB220	DBR07015	BCC1348S					
TBC265A	DBB265	DBR07015	BCC1348S					
TBC310A	DBB310	DBR10015	BCC1354S					
TBC385A	DBB385	DBR10015	BCC1354S					
TBC460A	DBB460	DBR10015	BCC1354S					
TBC535A	DBB535	DBR10015	BCC1354S					
					DBS40-16CA DBS40-20CA DBS40-25CA			



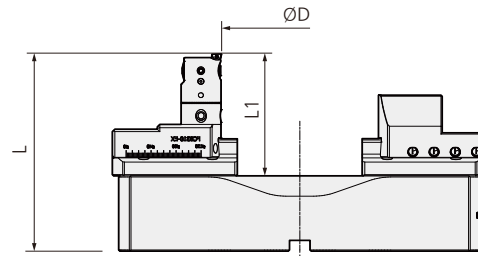
TBCA NEW

Wide Diameter Boring system



MAS 403-BT	C	AL	130	535	Boring
Shank	Coolant System	Material	MIN Range	MAX Range	Boring

Outside Boring



C Internal coolant system is optional.

- ※ Red, Green : Main component Blue : For separate purchase
- ※ The FMC Arbor and head set are products for an individual order.

- For more information on the product features, see **160p**
- For more information on FMC arbor, see **122p**

FMC Arbor (Individual order)	Kg	Outside Boring for Finishing					Kg
		TBC Head set (Rail+Cartridge (Separate sale))	L	Boring range Outside Boring			
				Min.	Max.	L1	
BT50-FMC40-50	4.6	TBC130A(DBR130+FCB130+FCE130+FBH3233B+FBB33N)	145	0	39	102	5.2
BT50-FMC40-50	4.6	TBC175A(DBR175+FCB130+FCE130+FBH3233B+FBB33N)	150	0	84	102	6.5
BT50-FMC40-50	4.6	TBC220A(DBR07015+FCB130+FCE130+FBH3233B+FBB33N)	155	26	180	102	8.7
BT50-FMC40-50	4.6	TBC265A(DBR07015+FCB130+FCE130+FBH3233B+FBB33N)	160	26	180	102	8.7
BT50-FMC40-50	4.6	TBC310A(DBR10015+FCB310+FCE310+FBH3233B+FBB33N)	165	16	170	102	11
BT50-FMC40-50	4.6	TBC385A(DBR10015+FCB310+FCE310+FBH3233B+FBB33N)	170	90	244	102	13.1
BT50-FMC40-50	4.6	TBC460A(DBR10015+FCB310+FCE310+FBH3233B+FBB33N)	175	166	318	102	15.6
BT50-FMC40-50	4.6	TBC535A(DBR10015+FCB310+FCE310+FBH3233B+FBB33N)	180	240	394	102	17.7

Head set	Bridge	Rail	For separate purchase				
			Arbor	Slide	B/B	Head	Pin
TBC130A	DBB130	DBR130	BT50-FMC40-50	FCE130	FCB130	FBH3233B	PN1080
TBC175A	DBB175	DBR175					
TBC220A	DBB220	DBR07015					
TBC265A	DBB265	DBR07015					
TBC310A	DBB310	DBR10015					
TBC385A	DBB385	DBR10015					
TBC460A	DBB460	DBR10015					
TBC535A	DBB535	DBR10015	FCE310	FCB310			

※ B/B : Balance Block



TBC

Balance cut tool for Rough boring



C
130
540

Coolant System MIN Range MAX Range Boring



Features

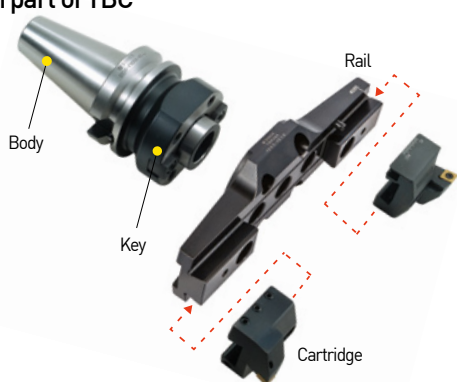
- Broad boring diameter and range
 - Wide Boring Range : Ø130 ~ Ø540mm
- Structurally stable enough to resist cutting load
 - Provides strong cutting performance based on the precision grinding dovetail method
- Can perform fine boring operation by changing boring head cartridges
 - Compatible boring head and rail as they are in the same structure
- Various cartridge tip angles - cartridge fore end angles 15° and 45° selectable
- Internal coolant pin installation - easy to install/remove and 6-way injection coolant pin part available

NAMING

BT50	-	FMD50	-	85	+	TBC	130S
Spindle		Wide dia. holder		Depth		Wide dia.(Rough boring) Min. boring dia.	Head set
		Holder(option)					

Structure and main features of TBC Boring Tool

Names of each part of TBC



Cartridge : BCC1348
 Insert : CCMT1204□□
 CNMG1204□□



Rail : TBR□□
 Weight reduced and space for chip discharge secured by removing the side part

Boring Range of TBC Boring Tool

Model No.	Dia(Ø) Boring diameter		Head set	Insert
	min	max		
TBC130	130	180	TBC130S(TBR130+BCC1348+BCC1348)	CCMT1204□□
TBC175	175	225	TBC175S(TBR175+BCC1348+BCC1348)	CCMT1204□□
TBC220	220	270	TBC220S(TBR220+BCC1348+BCC1348)	CCMT1204□□
TBC265	265	315	TBC265S(TBR265+BCC1348+BCC1348)	CCMT1204□□
TBC310	310	390	TBC310S(TBR310+BCC1348+BCC1348)	CCMT1204□□
TBC385	385	465	TBC385S(TBR310+BCC1348+BCC1348)	CCMT1204□□
TBC460	460	540	TBC460S(TBR460+BCC1348+BCC1348)	CCMT1204□□



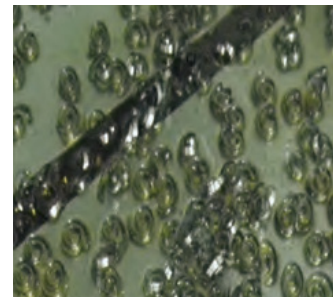
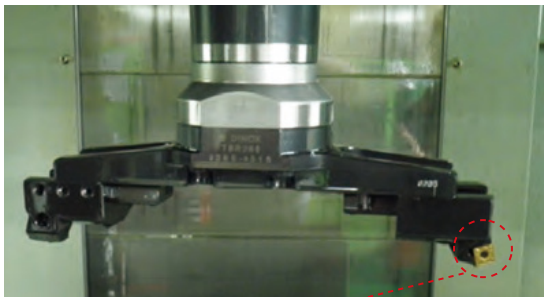
TBC

Balance cut tool for Rough boring



Application example 1 of TBC Boring Tool

Chip shapes by cartridge tip angle diversification



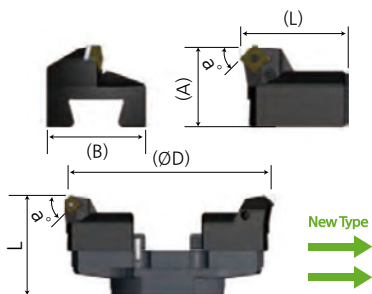
Conventional type

Angle adjustment type



- In the case of conventional type products : thick chips and change by heat
- In the case of "angle adjustment cartridge" : thin chips and no color change

Various cartridges selectable(15°, 45°)



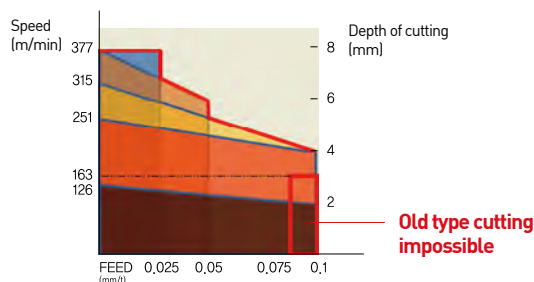
CARTRIDGE	(A)	(B)	(L)	(α°)	Applicable insert
BCC1348	50	60	64.5	1°	CCMT0602□□
BCC1348-SN15				15°	SNMG1204□□
BCC1348-SN45				45°	SNMG1204□□
BCC1354	50	60	89.5	0°	CCMT0602□□
BCC1354-SN15				15°	SNMG1204□□
BCC1354-SN45				45°	SNMG1204□□

Application example 2 of Boring Tool

- **Equipment** : straight type machining center
- **Workpiece material** : S45C
- **Tool used** : BT50-FMD50-155 + TBC310S
- **Insert** : CCMT120408
- **Cutting conditions** : V=200m/min, RPM=163, F=0.1/per knife, d=2mm



Surface roughness effect



Chuck

Arbor / Modular

Boring tool

Angular head

cBN/PCD

Smart factory

TAUMAX

OTHER



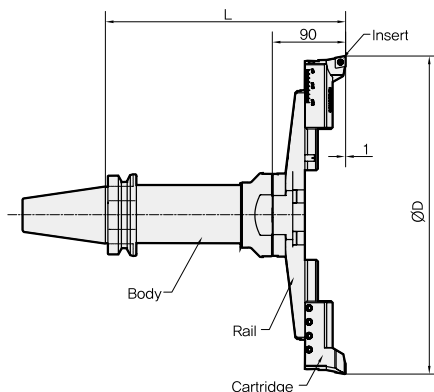
BT-TBC

Balance cut tool for Rough boring



MAS
403-BT
C
130
540
Boring

Shank Coolant System MIN Range MAX Range Boring



C This product does not support the internal coolant system.

※ FMD Arbor and head set are products for an individual order.

※ Red : Main component Blue : For separate purchase

• For more information on the product features, see **166p**

• For more information on FMD arbor, see **175p**

• For more information on the applicable insert, see **166p**

• For more information on the related parts, see **170p**

	FMD Arbor (Individual order)	Kg (Holder weight)	Rough boring(TBC)				
			TBC Head set (Rail+Cartridge)	L	Boring range(ØD)		Kg (Head weight)
					Min.	Max.	
BT50	BT50-FMD50-85	5.9	TBC130S(TBR130+BCC1348)	175	130	180	3.2
	BT50-FMD50-155	7.9	TBC130S(TBR130+BCC1348)	245	130	180	3.2
	BT50-FMD50-205	9.7	TBC130S(TBR130+BCC1348)	295	130	180	3.2
	BT50-FMD50-255	13.4	TBC130S(TBR130+BCC1348)	345	130	180	3.2
	BT50-FMD50-85	5.9	TBC175S(TBR175+BCC1348)	175	175	225	3.6
	BT50-FMD50-155	7.9	TBC175S(TBR175+BCC1348)	245	175	225	3.6
	BT50-FMD50-205	9.7	TBC175S(TBR175+BCC1349)	295	175	225	3.6
	BT50-FMD50-255	13.4	TBC175S(TBR175+BCC1350)	345	175	225	3.6
	BT50-FMD50-85	5.9	TBC220S(TBR220+BCC1348)	175	220	270	4
	BT50-FMD50-155	7.9	TBC220S(TBR220+BCC1348)	245	220	270	4
	BT50-FMD50-205	9.7	TBC220S(TBR220+BCC1348)	295	220	270	4
	BT50-FMD50-255	13.4	TBC220S(TBR220+BCC1348)	345	220	270	4
	BT50-FMD50-85	5.9	TBC265S(TBR265+BCC1348)	175	265	315	4.2
	BT50-FMD50-155	7.9	TBC265S(TBR265+BCC1348)	245	265	315	4.2
	BT50-FMD50-205	9.7	TBC265S(TBR265+BCC1348)	295	265	315	4.2
	BT50-FMD50-255	13.4	TBC265S(TBR265+BCC1348)	345	265	315	4.2
	BT50-FMD50-85	5.9	TBC310S(TBR310+BCC1345)	175	310	390	5.2
	BT50-FMD50-155	7.9	TBC310S(TBR310+BCC1345)	245	310	390	5.2
	BT50-FMD50-205	9.7	TBC310S(TBR310+BCC1345)	295	310	390	5.2
	BT50-FMD50-255	13.4	TBC310S(TBR310+BCC1345)	345	310	390	5.2
	BT50-FMD50-85	5.9	TBC385S(TBR385+BCC1354)	175	385	465	5.5
	BT50-FMD50-155	7.9	TBC385S(TBR385+BCC1354)	245	385	465	5.5
	BT50-FMD50-205	9.7	TBC385S(TBR385+BCC1354)	295	385	465	5.5
	BT50-FMD50-255	13.4	TBC385S(TBR385+BCC1354)	345	385	465	5.5
	BT50-FMD50-85	5.9	TBC460S(TBR460+BCC1354)	175	460	540	12.5
	BT50-FMD50-155	7.9	TBC460S(TBR460+BCC1354)	245	460	540	12.5
	BT50-FMD50-205	9.7	TBC460S(TBR460+BCC1354)	295	460	540	12.5
	BT50-FMD50-255	13.4	TBC460S(TBR460+BCC1354)	345	460	540	12.5



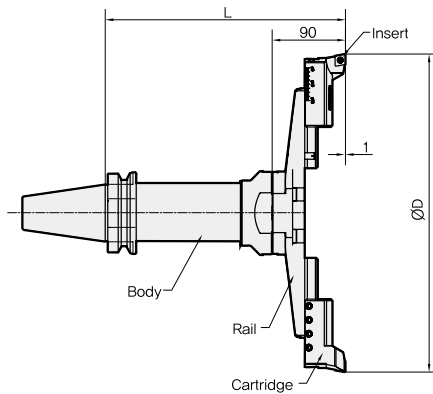
SK-TBC

Balance cut tool for Rough boring



MAS 403-BT
C
130
540

Shank Coolant System MIN Range MAX Range Boring



C This product does not support the internal coolant system.
 ※ FMD Arbor and head set are products for an individual order.
 ※ Red : Main component Blue : For separate purchase

- For more information on the product features, see **166p**
- For more information on FMD arbor, see **175p**
- For more information on the applicable insert, see **166p**
- For more information on the related parts, see **170p**

	FMD Arbor (Individual order)	Kg	Boring range(ØD)			Boring range(ØD)	
			TBC Head set(Rail+Cartridge)	L	Kg	Min.	Max.
SK50	SK50-FMD50-155	7.9	TBC130S(TBR130+BCC1348)	252	3.2	130	180
	SK50-FMD50-255	13.4	TBC130S(TBR130+BCC1348)	352	3.2	130	180
	SK50-FMD50-155	7.9	TBC175S(TBR175+BCC1348)	252	3.6	175	225
	SK50-FMD50-255	13.4	TBC175S(TBR175+BCC1350)	352	3.6	175	225
	SK50-FMD50-155	7.9	TBC220S(TBR220+BCC1348)	252	4	220	270
	SK50-FMD50-255	13.4	TBC220S(TBR220+BCC1348)	352	4	220	270
	SK50-FMD50-155	7.9	TBC265S(TBR265+BCC1348)	252	4.2	265	315
	SK50-FMD50-255	13.4	TBC265S(TBR265+BCC1348)	352	4.2	265	315
	SK50-FMD50-155	7.9	TBC310S(TBR310+BCC1345)	252	5.2	310	390
	SK50-FMD50-255	13.4	TBC310S(TBR310+BCC1345)	352	5.2	310	390
	SK50-FMD50-155	7.9	TBC385S(TBR385+BCC1354)	252	5.5	385	465
	SK50-FMD50-255	13.4	TBC385S(TBR385+BCC1354)	352	5.5	385	465
	SK50-FMD50-155	7.9	TBC460S(TBR460+BCC1354)	252	12.5	460	540
	SK50-FMD50-255	13.4	TBC460S(TBR460+BCC1354)	352	12.5	460	540

Chuck

Arbor / Modular

Boring tool

Angular head

cBN/PCD

Smart factory

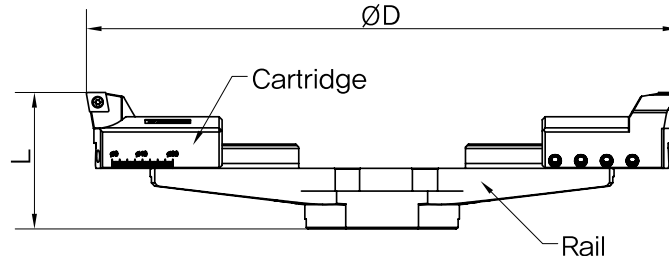
TAUMAX

OTHER



TBC HEAD SET

Balance cut tool for Rough boring



Head set(Main component)			Boring range(ØD)		L	Kg	For separate purchase Insert
Model No.	Rail	Cartridge	Min.	Max.			
TBC130S	TBR130	BCC1348	130	180	90	3.5	CCMT1204□□
TBC175S	TBR175	BCC1348	175	225	90	3.9	CCMT1204□□
TBC220S	TBR220	BCC1348	220	270	90	4.3	CCMT1204□□
TBC265S	TBR265	BCC1348	265	315	90	4.5	CCMT1204□□
TBC310S	TBR310	BCC1345	310	390	90	5.5	CCMT1204□□
TBC385S	TBR385	BCC1345	385	465	90	5.8	CCMT1204□□
TBC460S	TBR460	BCC1345	460	540	90	12.8	CCMT1204□□

※ If CNMG1204○○ insert is used, BCN1348, BCN1354 cartridges can be ordered.



TBC SPARE PART

Balance cut tool for rough boring related parts

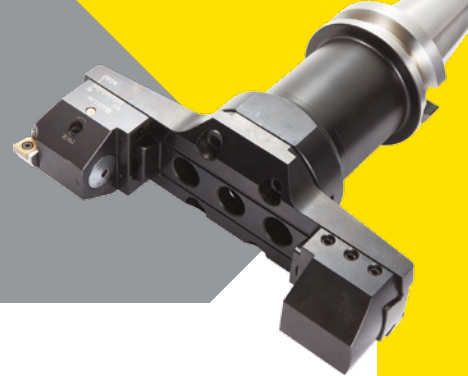
Spare Part

TYPE	Main component						
	Rail	Cartridge	Clamp bolt	Clamp bolt	Hexagonal wrench	Clamp screw	Torx wrench
Head Set							
TBC130S	TBR130	BCC1348 (BCN1348)	BX0820	BT0645	LW-3 LW-4 LW-6	BFTX0511N	TRX20
TBC175S	TBR175						
TBC220S	TBR220						
TBC265S	TBR265	BCC1354 (BCN1354)	BT0660				
TBC310S	TBR310						
TBC385S	TBR385						
TBC460S	TBR460						



FBC

Balance cut tool for fine boring



C
130
540
Boring

Coolant System MIN Range MAX Range Boring



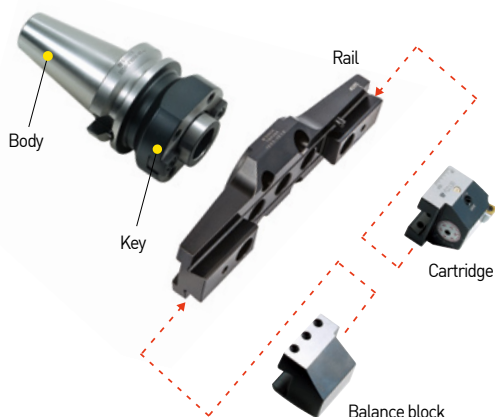
Features

- Broad boring diameter and range
 - Wide Boring Range : Ø130 ~ Ø540mm
- Structurally stable enough to resist cutting load
 - Provides strong cutting performance based on the precision grinding dovetail method
- Can perform fine boring operation by changing boring head cartridges
 - Compatible boring head and rail as they are in the same structure
- Various cartridge tip angles
 - cartridge fore end angles 15° and 45° selectable

NAMING	BT50	-	FMD50	-	85	+	FBC	130S
	Spindle		Wide dia. holder		Depth		Wide dia.(fine-boring)	Min. boring dia.
			Holder(option)					Head set

Structure and main features of FBC Boring Tool

Names of each part of FBC



Cartridge : FCC130
 Insert : CCGT09T3□□
 CCMT1204□□
 TPGT1103□□

Balance block :
 FCB130

Boring range of FBC Boring Tool

Model No.	Dia(Ø) boring diameter		Head set	Insert
	min	max		
FBC130	130	180	FBC130S(TBR130+FCC130+FCB130)	FBB130-C09(CCMT09T3□□, CCGT09T3□□) FBB130-C12(CCMT1204□□) FBB130-T11(TPMT1103□□, TPGT1103□□□)
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)	

Application example of Special FBC Boring Tool

Material	Cutting speed V	RPM	FEED		Cutting depth Ø (mm)	Boring diameter Ø (mm)
			(mm/min)	(mm/rev)		
Aluminium	200	48	5	0.1	0.5	Ø1300
	200	48	10	0.1	2	Ø1300
	500	120	12	0.1	2	Ø1300



Chuck

Arbor / Modular

Boring tool

Angular head

cBN/PCD

Smart factory

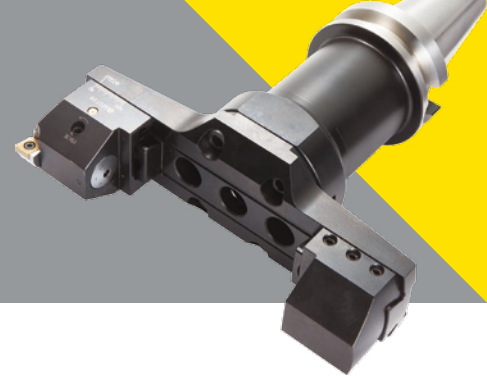
TAUMAX

OTHER



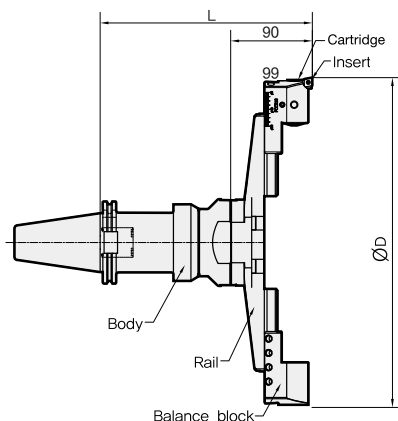
BT-FBC

Balance cut tool for fine boring



MAS 403-BT
C
130
540
Boring

Shank Coolant System MIN Range MAX Range Boring



C This product does not support the internal coolant system.

※ Red : Main component Blue : For separate purchase

※ FMD Arbor and head set are products for an individual order.

※ If BB130-C12bite is used, the minimum boring diameter increases by $\phi 6.7$ mm.

• For more information on the product features, see **171p**

• For more information on FMD arbor, see **175p**

• For more information on FBB bite, see **175p**

• For more information on the related parts, see **174p**

	FMD Arbor (Individual order)	Kg (Holder weight)	Rough boring(TBC)					
			TBC Head set (Rail+Cartridge+Balance block)		L	Kg	Boring range(ØD)	
							Min.	Max.
BT50	BT50-FMD50-85	5.9	FBC130S(TBR130+FCC130+FCB130)		182	3.7	130	180
	BT50-FMD50-155	7.9	FBC130S(TBR130+FCC130+FCB130)		252	3.7	130	180
	BT50-FMD50-205	9.7	FBC130S(TBR130+FCC130+FCB130)		302	3.7	130	180
	BT50-FMD50-255	13.4	FBC130S(TBR130+FCC130+FCB130)		352	3.7	130	180
	BT50-FMD50-85	5.9	FBC175S(TBR175+FCC130+FCB130)		182	4.1	175	225
	BT50-FMD50-155	7.9	FBC175S(TBR175+FCC130+FCB130)		252	4.1	175	225
	BT50-FMD50-205	9.7	FBC175S(TBR175+FCC130+FCB130)		302	4.1	175	225
	BT50-FMD50-255	13.4	FBC175S(TBR175+FCC130+FCB130)		352	4.1	175	225
	BT50-FMD50-85	5.9	FBC220S(TBR220+FCC130+FCB130)		182	4.5	220	270
	BT50-FMD50-155	7.9	FBC220S(TBR220+FCC130+FCB130)		252	4.5	220	270
	BT50-FMD50-205	9.7	FBC220S(TBR220+FCC130+FCB130)		302	4.5	220	270
	BT50-FMD50-255	13.4	FBC220S(TBR220+FCC130+FCB130)		352	4.5	220	270
	BT50-FMD50-85	5.9	FBC265S(TBR265+FCC130+FCB130)		182	4.7	265	315
	BT50-FMD50-155	7.9	FBC265S(TBR265+FCC130+FCB130)		252	4.7	265	315
	BT50-FMD50-205	9.7	FBC265S(TBR265+FCC130+FCB130)		302	4.7	265	315
	BT50-FMD50-255	13.4	FBC265S(TBR265+FCC130+FCB130)		352	4.7	265	315
	BT50-FMD50-85	5.9	FBC310S(TBR310+FCC310+FCB310)		182	5.5	310	390
	BT50-FMD50-155	7.9	FBC310S(TBR310+FCC310+FCB310)		252	5.5	310	390
	BT50-FMD50-205	9.7	FBC310S(TBR310+FCC310+FCB310)		302	5.5	310	390
	BT50-FMD50-255	13.4	FBC310S(TBR310+FCC310+FCB310)		352	5.5	310	390
	BT50-FMD50-85	5.9	FBC385S(TBR385+FCC310+FCB310)		182	5.8	385	465
	BT50-FMD50-155	7.9	FBC385S(TBR385+FCC310+FCB310)		252	5.8	385	465
	BT50-FMD50-205	9.7	FBC385S(TBR385+FCC310+FCB310)		302	5.8	385	465
	BT50-FMD50-255	13.4	FBC385S(TBR385+FCC310+FCB310)		352	5.8	385	465
	BT50-FMD50-85	5.9	FBC460S(TBR460+FCC310+FCB310)		182	12.8	460	540
	BT50-FMD50-155	7.9	FBC460S(TBR460+FCC310+FCB310)		252	12.8	460	540
	BT50-FMD50-205	9.7	FBC460S(TBR460+FCC310+FCB310)		302	12.8	460	540
	BT50-FMD50-255	13.4	FBC460S(TBR460+FCC310+FCB310)		352	12.8	460	540

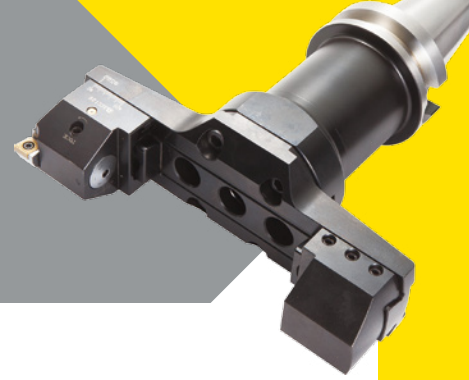
※ Bite (Insert)

FBB130-CC09 (CCMT09T3□□, CCGT09T3□□) / FBB130-C12 (CCMT1204□□) / FBB130-T11 (TPMT1103□□, TPGT1103□□L)



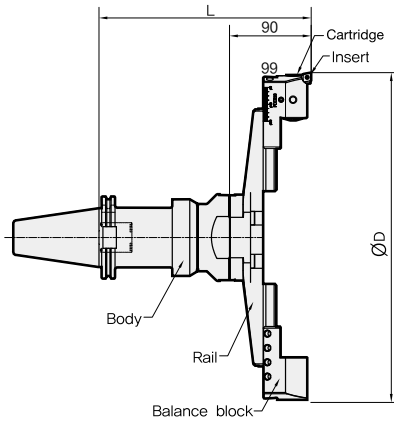
SK-FBC

Balance cut tool for fine boring



DIN69871
-1A/B
C
130
540

Shank Coolant System MIN Range MAX Range Boring



C This product does not support the internal coolant system.

※ Red : Main component Blue : For separate purchase

※ FMD Arbor and head set are products for an individual order.

※ If BB130-C12bite is used, the minimum boring diameter increases by $\varnothing 6.7$ mm.

• For more information on the product features, see **171p**

• For more information on FMD arbor, see **175p**

• For more information on FBB bite, see **175p**

• For more information on the related parts, see **174p**

SK50	FMD Arbor (Individual order)	Holder(Kg)	Boring range(ØD)			Boring range(ØD)	
			TBC Head set(Rail+Cartridge+Balance block)	L	Kg	Min.	Max.
	BT50-FMD50-155	8	FBC130S(TBR130+FCC130+FCB130)	252	3.8	130	180
	BT50-FMD50-255	11.2	FBC130S(TBR130+FCC130+FCB130)	352	3.8	130	180
	BT50-FMD50-155	8	FBC175S(TBR175+FCC130+FCB130)	252	4.1	175	225
	BT50-FMD50-255	11.2	FBC175S(TBR175+FCC130+FCB130)	352	4.1	175	225
	BT50-FMD50-155	8	FBC220S(TBR220+FCC130+FCB130)	252	4.5	220	270
	BT50-FMD50-255	11.2	FBC220S(TBR220+FCC130+FCB130)	352	4.5	220	270
	BT50-FMD50-155	8	FBC265S(TBR265+FCC130+FCB130)	252	4.7	265	315
	BT50-FMD50-255	11.2	FBC265S(TBR265+FCC130+FCB130)	352	4.7	265	315
	BT50-FMD50-155	8	FBC310S(TBR310+FCC310+FCB310)	252	5.5	310	390
	BT50-FMD50-255	11.2	FBC310S(TBR310+FCC310+FCB310)	352	5.5	310	390
	BT50-FMD50-155	8	FBC385S(TBR385+FCC310+FCB310)	252	5.8	385	465
	BT50-FMD50-255	11.2	FBC385S(TBR385+FCC310+FCB310)	352	5.8	385	465
	BT50-FMD50-155	8	FBC460S(TBR460+FCC310+FCB310)	252	12.8	460	540
	BT50-FMD50-255	11.2	FBC460S(TBR460+FCC310+FCB310)	352	12.8	460	540

※ Bite (Insert)

FBB130-CC09 (CCMT09T3□□, CCGT09T3□□) / FBB130-C12 (CCMT1204□□) / FBB130-T11 (TPMT1103□□, TPGT1103□□L)

Chuck

Arbor / Modular

Boring tool

Angular head

cBN/PCD

Smart factory

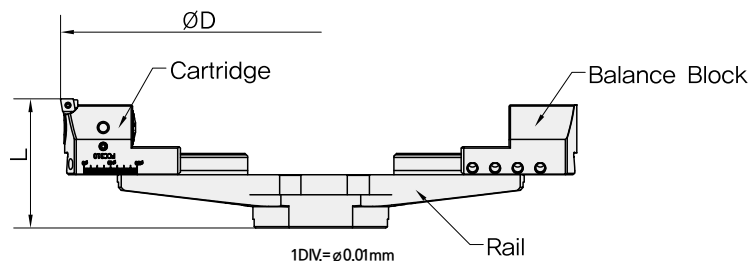
TAUMAX

OTHER



FBC HEAD SET

Balance cut tool for fine boring



Head set(Main component)				Boring range(ØD)		L	Kg	For separate purchase Bite
Model No.	Rail	Cartridge	Balance block	Min.	Max.			
FBC130S	TBR130	FCC130	FCB130	130	180	97	3.8	FBB130-C09 FBB130-C12 FBB130-T11
FBC175S	TBR175	FCC130	FCB130	175	225	97	4.1	
FBC220S	TBR220	FCC130	FCB130	220	270	97	4.5	
FBC265S	TBR26	FCC130	FCB130	265	315	97	4.6	
FBC310S	TBR310	FCC310	FCB310	310	390	97	5.5	
FBC385S	TBR385	FCC310	FCB310	385	465	97	5.8	
FBC460S	TBR460	FCC310	FCB310	460	540	97	12.8	



FBC SPARE PART

Balance cut tool for fine boring related parts

Spare Part							
TYPE	Main component						For separate purchase
	Rail	Cartridge	Clamp bolt	Clamp bolt	Clamp bolt	Hexagonal wrench	Bite
Head Set							
FBC130S	TBR130	FCC130	FCB130	BTF0810 BTF0814	BT0645	LW-3 LW-4	FBB130-C09 FBB130-C12 FBB130-T11
FBC175S	TBR175						
FBC220S	TBR220						
FBC265S	TBR265	FCC310	FCB310	BT0660			
FBC310S	TBR310						
FBC385S	TBR385						
FBC460S	TBR460						



FBB BITE

Balance cut tool for fine boring



Model No.	Insert
FBB130-C09	CCMT09T3□□, CCGT09T3□□
FBB130-C12	CCMT1204□□
FBB130-T11	TPMT1103□□, TPGT1103□□

Chuck

Arbor / Modular

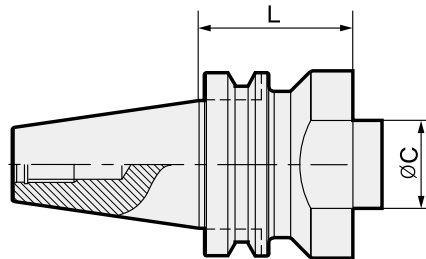
Boring tool

Angular head



BT - FMD

Arbor(Basic Holder)



SK50, BT50	Model No.	L	ØC	Kg
	BT50-FMD50-85	85	50	5.9
	BT50-FMD50-155	155	50	7.9
	BT50-FMD50-205	205	50	9.7
	BT50-FMD50-255	255	50	10.4
	SK50-FMD50-155	155	50	7.9
	SK50-FMD50-255	255	50	10.4

cBN/PCD

Smart factory

TAUMAX

OTHER