

Advanced
Engineering

Hitachi Tool

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Inspire the Next

Indexable
Milling
+Modular Series










No. 326

BCF Roughing Ball Shank & Modular Types

Indexable End Mill \varnothing 20 ~ 50

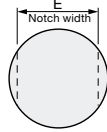
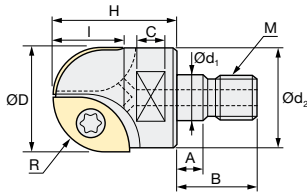
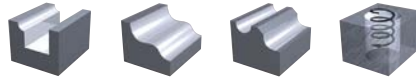


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TYPE	Description	Ø	Page
BCFM	Roughing Ball - Modular Type	20 – 32 mm	3
			
BCF-S	Roughing Ball - Short	20 – 32 mm	3
			
BCF-TE	Roughing Ball - Taper Necked Long Shank	20 – 32 mm	3
			
BCF-L	Roughing Ball - Long	20 – 40 mm	4
			
BCF-E	Roughing Ball - Extra Long	20 – 32 mm	4
			
BCF-ST	Roughing Ball - Straight Neck Long Shank	20 – 32 mm	4
			
BCF-MT	Roughing Ball - MT Shank	20 – 40 mm	5
			
BCU	Roughing Ball - Heavy Roughing MT Shank	50 mm	5
			
INSERTS	Roughing Ball		6
			

BCFM Roughing Ball - Modular Type

Q max High Efficient	▽ Roughing	▽▽ Semi-Finishing	HRC 50	No. of Teeth 2
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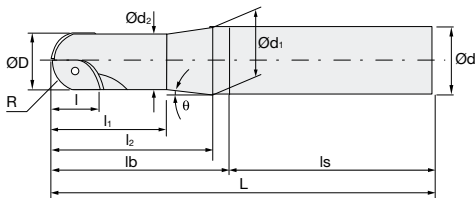


R	± 0.05
ØD	0/-0.15

ID Code	Item Code	Flutes	ØD	R	H	I	Ød ₁	Ød ₂	A	B	C	E	M	Inserts x1	Inserts x1
FH522	BCFM-20	2	20	10	38	18	10.5	17.8	5.5	19	10	15	M10	ZCEW100CE*	ZCEW100SE*
FH523	BCFM-25		25	12.5		23	12.5	20.8		22		17	M12	ZCEW125CE*	ZCEW125SE*
FH524	BCFM-32		32	16	43	28	17	28.8	6	23	12	22	M16	ZCET160CE	ZCET160SE

* or ZCET

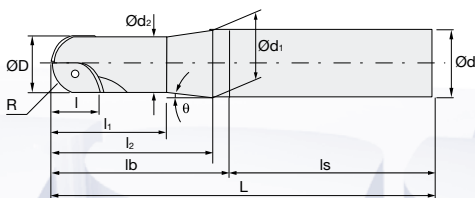
BCF-S Roughing Ball - Short



ID Code	Item Code	Flutes	ØD	R	L	Ød	I	I ₁	I ₂	lb	ls	θ°	Ød ₁	Ød ₂	Inserts x1	Inserts x1
FH034	BCF-2018S25S	2	20	10	140	25	18	30	52	60	80	5.7°	23.4	19	ZCEW100CE*	ZCEW100SE*
FH040	BCF-2523S32S		25	12.5	150	23	35	62	70	6.5°		30.1	24	ZCEW125CE*	ZCEW125SE*	
FH044	BCF-3028S32S		30	15	160	32	28	50	72	80		3.1°	31.2	28.8	ZCEW150CE*	ZCEW150SE*
FH383	BCF-3228S32S		32	16					-	-		30.6	ZCET160CE	ZCET160SE		

* or ZCET

BCF-TE Roughing Ball - Taper Necked Long Shank



ID Code	Item Code	Flutes	ØD	R	L	Ød	I	I ₁	I ₂	lb	ls	θ°	Ød ₁	Ød ₂	Inserts x1	Inserts x1			
FH035	BCF-2018S25TE	2	20	10	250	25	18	30	72	80	170	3°	23.4	19	ZCEW100CE*	ZCEW100SE*			
FH036	BCF-2018S32TE				300				107	115	185	4°9'	31.2	18	ZCEW100CE*	ZCEW100SE*			
FH041	BCF-2523S32TE		25	12.5	350		32	23	35	97	105	195	2°8'	30.1	24	ZCEW125CE*	ZCEW125SE*		
FH045	BCF-3028S32TE		30	15						28	40	92	100	250	1°3'	31.2	28.8	ZCEW150CE*	ZCEW150SE*
FH386	BCF-3228S32TE		32	16						-	-	30.6	ZCET160CE	ZCET160SE					

* or ZCET

Parts	Clamp Screw		Wrench	
Body	ID-Code	Item-Code	ID-Code	Item-Code
Ø 20	ET034	261-141	ET011	104-T10
Ø 25	ET035	262-141	ET012	104-T15
Ø 30 + Ø 32	ET036	263-141	ET014	105-T20

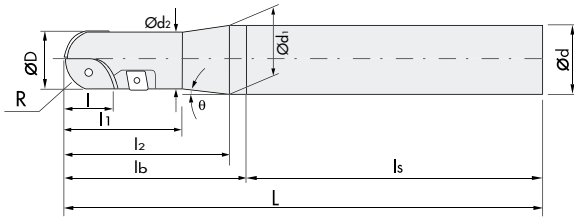
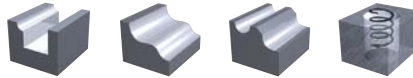
For further information about Modular Chucks please see our AMC brochure No. 705.2

Weitere Informationen über Modulare Werkzeugaufnahmen finden Sie in unserem AMC Prospekt No. 705.2



BCF-L Roughing Ball - Long

Q max High Efficient	▽ Roughing	▽▽ Semi-Finishing	HRC 50	No. of Teeth 2
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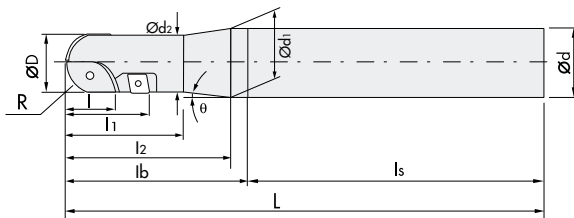


R	±0.05
ØD	0/-0.15

ID Code	Item Code	Flutes	ØD	R	L	Ød	l	l ₁	l ₂	l _b	l _s	θ°	Ød ₁	Ød ₂	Inserts x1	Inserts x1	Inserts x2
FH038	BCF-2030S25L	2	20	10	150	25	30	35	62	70	80	5.3°	24	18.5	ZCEW100CE*	ZCEW100SE*	CPMT080204
FH043	BCF-2539S32L		25	12.5	180	39	50	72	80	100	9.7°	31	23.5	ZCEW125CE*	ZCEW125SE*	CPMT090308	
FH047	BCF-3043S32L		30	15	200	32	43	60	92	100	2.7°	-	28	ZCEW150CE*	ZCEW150SE*	CPMT090308	
FH384	BCF-3243S32L		32	16	-	-	-	-	-	-	-	30.3	-	ZCET160CE	ZCET160SE	CPMT090308	
FH363	BCF-4050S42L		40	20	250	42	50	-	-	150	-	38.6	-	ZCEW200CE	ZCEW200SE	CPMT090308	

* or ZCET

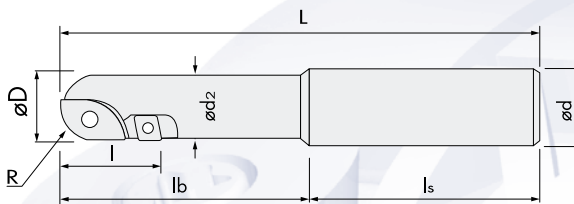
BCF-E Roughing Ball - Extra Long



ID Code	Item Code	Flutes	ØD	R	L	Ød	l	l ₁	l ₂	l _b	l _s	θ°	Ød ₁	Ød ₂	Inserts x1	Inserts x1	Inserts x2
FH037	BCF-2030S25E	2	20	10	250	25	30	35	62	70	180	5.2°	24	18.5	ZCEW100CE*	ZCEW100SE*	CPMT080204
FH039	BCF-2539S32E		25	12.5	300	39	50	72	80	220	12.4°	30.4	18.5	ZCEW100CE*	ZCEW100SE*	CPMT080204	
FH042	BCF-2539S32E		25	12.5	300	32	43	60	92	100	9.7°	31	23.5	ZCEW125CE*	ZCEW125SE*	CPMT090308	
FH046	BCF-3043S32E		30	15	350	43	-	-	100	250	2.7°	-	28	ZCEW150CE*	ZCEW150SE*	CPMT090308	
FH385	BCF-3243S32E		32	16	-	-	-	-	-	-	-	30.3	-	ZCET160CE	ZCET160SE	CPMT090308	

* or ZCET

BCF-ST Roughing Ball - Straight Neck Long Shank



ID Code	Item Code	Flutes	ØD	R	L	Ød	l	l _b	l _s	Ød ₂	Inserts x1	Inserts x1	Inserts x2
FH439	BCF-2030S20ST080	2	20	10	180	20	30	80	100	18.5	ZCEW100CE*	ZCEW100SE*	CPMT080204
FH440	BCF-2030S20ST150				150								
FH441	BCF-2539S32ST100		25	12.5	200	39	100	23.5		ZCEW125CE*	ZCEW125SE*	CPMT090308	
FH442	BCF-2539S32ST150				150								
FH487	BCF-3243S32ST100		32	16	200	43	100	30		ZCET160CE	ZCET160SE	CPMT090308	
FH488	BCF-3243S32ST200				200								

* or ZCET

Parts	Clamp Screw R Insert	Clamp Screw Peripheral Insert	Wrench R Insert	Wrench Peripheral Insert
Body	ID-Code	Item-Code	ID-Code	Item-Code
Ø 20	ET034	261-141	ET033	251-141
Ø 25	ET035	262-141	ET035	262-141
Ø 30	ET036	263-141	ET035	262-141
Ø 32	ET036	263-141	ET035	262-141
Ø 40	ET150	571-141A	ET035	262-141

BCF-MT Roughing Ball - MT Shank

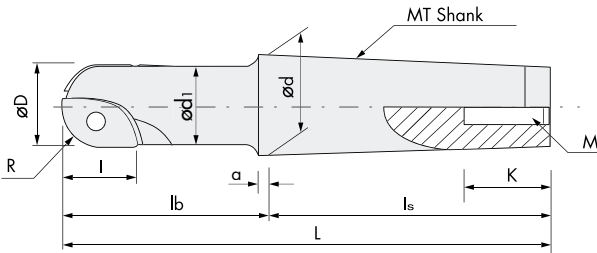
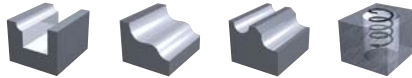
Q max
High Efficient

▽
Roughing

▽▽
Semi-Finishing

HRC
50

No. of Teeth
2



Inserts: p. 6



R	±0.05
ØD	0/-0.15

ID Code	Item Code	Flutes	ØD	R	l	MT	L	l _b	l _s	Ød	Ød1	a	K	M	Inserts x1	Inserts x1	Inserts x2
FH443	BCF-20MT2	2	20	10	18	MT2	129	65	64	17.78	19	5	24	M10	ZCEW100CE*	ZCEW100SE*	
FH444	BCF-25MT3		25	12.5	23	MT3	166	85	81	23.825	24		28	M12	ZCEW125CE*	ZCEW125SE*	
FH445	BCF-32MT4		32	16	28	MT4	217.5	115	102.5	31.267	30.6	6.5	32	M16	ZCET160CE	ZCET160SE	
FH446	BCF-40MT5		40	20	50	MT5	226	96.5	129.5	44.399	38.6		40	M20	ZCEW200CE	ZCEW200SE	CPMT090308

* or ZCET

Parts BCF	Clamp Screw		Clamp Screw		Wrench		Wrench	
	R Insert		Peripheral Insert		R Insert		Peripheral Insert	
Body	ID-Code	Item-Code	ID-Code	Item-Code	ID-Code	Item-Code	ID-Code	Item-Code
BCF-20MT2	ET034	261-141			ET011	104-T10		
BCF-25MT3	ET035	262-141			ET012	104-T15		
BCF-32MT4	ET036	263-141			ET014	105-T20		
BCF-40MT5	ET150	571-141A	ET035	262-141	ET167	105-T30A	ET012	104-T15

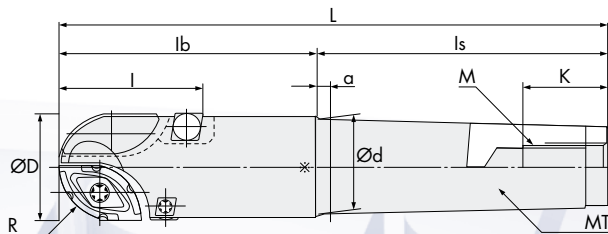
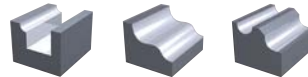
BCU Roughing Ball - Heavy Roughing MT Shank

Q max
High Efficient

▽
Roughing

HRC
50

No. of Teeth
2



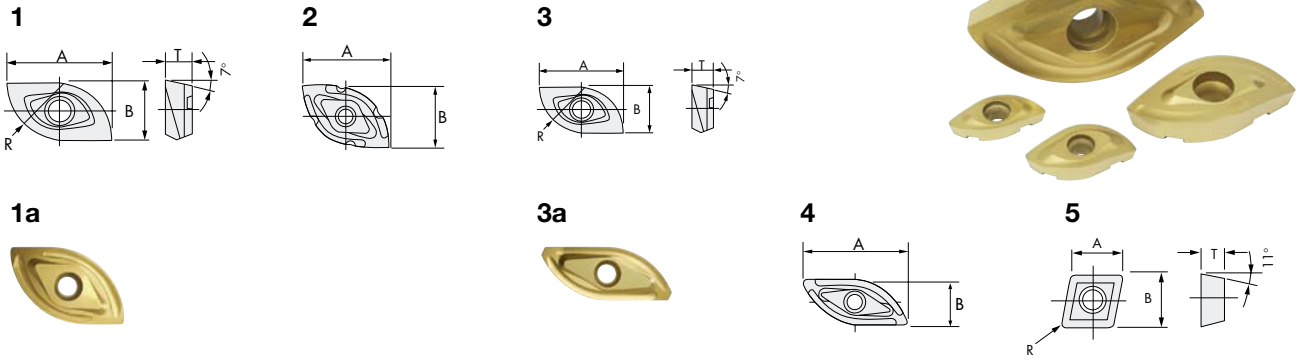
R	±0.05
ØD	±0.1

ID Code	Item Code	Flutes	ØD	R	l	MT	L	l _b	l _s	Ød	a	K	M	Inserts x1	Inserts x1	Inserts x2
FH362	BCU-5063SMT5	2	50	25	63	MT5	236	100	136	44.741	6.5	52.5	M20	ZCET250CE	ZCET250SK	CPMT120408
FH364	BCU-5063LMT5						286	150						ZCET250CE	ZCET250SK	CPMT120408

* or ZCET

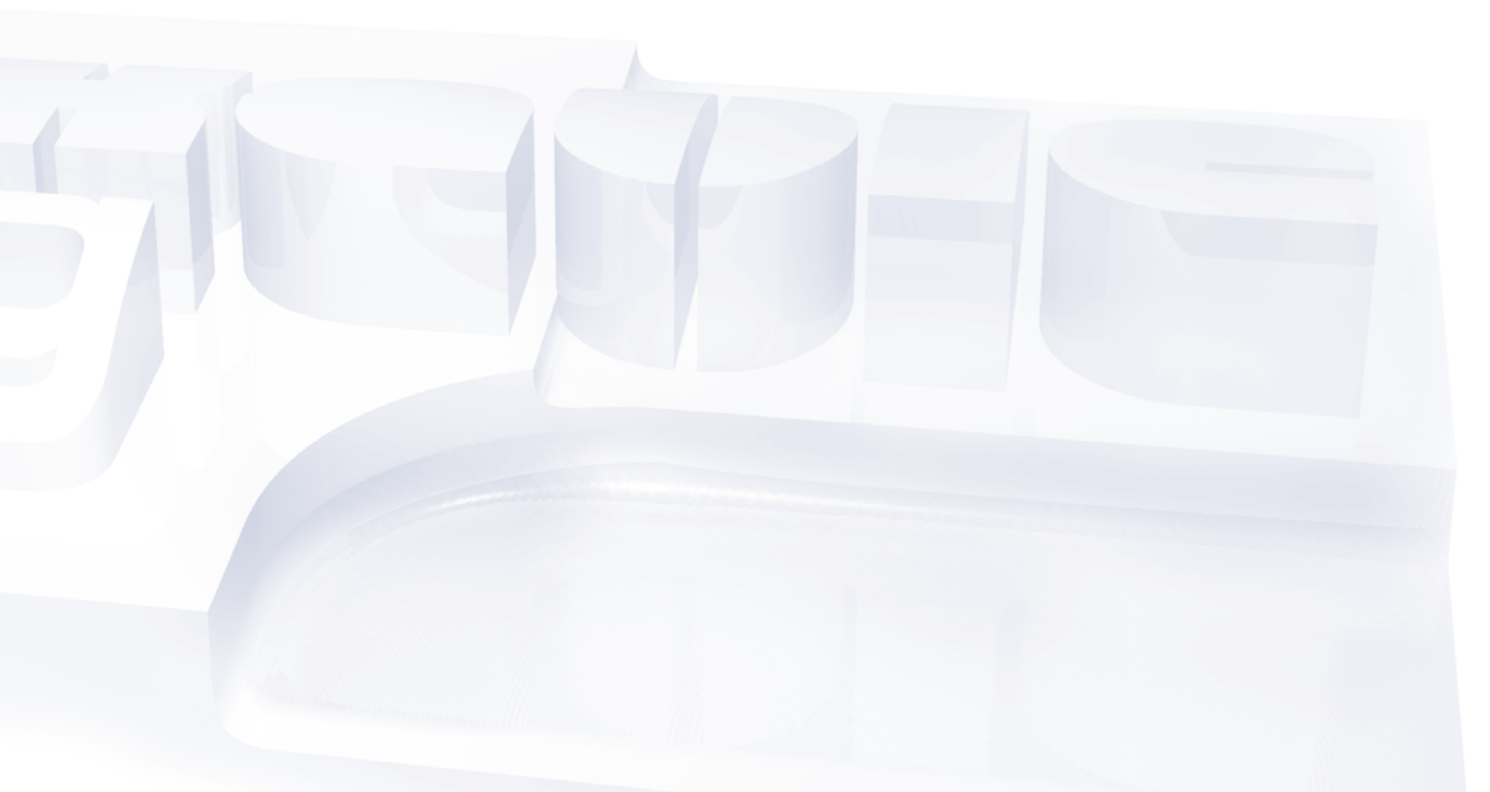
Parts BCU	Clamp Screw		Clamp Screw		Wrench		Wrench	
	R Insert		Peripheral Insert		R Insert		Peripheral Insert	
Body	ID-Code	Item-Code	ID-Code	Item-Code	ID-Code	Item-Code	Item-Code	
BCU-5063S(L)MT5	ET150	571-141A	ET037	263-143	ET167	105-T30A	ET014	105-T20

INSERTS | Roughing Ball



ID Code	Item Code	Grade	C-Coated		G-Coated	R	I(A)	T	W(B)	Figure
			CY250	CY9020	HC844					
WF583	ZCET100CE	CY9020		■		10	18.3	4.74	10	1a
WF132	ZCEW100CE	HC844			■					1
WF588	ZCET100SE	CY9020		■						3a
WF135	ZCEW100SE	HC844			■					3
WF584	ZCET125CE	CY9020		■		12.5	23.1	6.1	12.3	1a
WF138	ZCEW125CE	HC844			■					1
WF589	ZCET125SE	CY9020		■						3a
WF141	ZCEW125SE	HC844			■					3
WF585	ZCET150CE	CY9020		■		15	28.3	7.59	14.9	1a
WF144	ZCEW150CE	HC844			■					1
WF590	ZCET150SE	CY9020		■						3a
WF147	ZCEW150SE	HC844			■					3
WF586	ZCET160CE	CY9020		■		16	28.8	7.45	15.4	1a
WF539	ZCET160CE	HC844			■					1a
WF591	ZCET160SE	CY9020		■						3a
WF540	ZCET160SE	HC844			■					3a
WF514	ZCEW200CE	HC844			■	20	35.4	8	20.1	1
WF515	ZCEW200SE	HC844			■					3
WF587	ZCET250CE	CY250	■			25	38.8		26	2
WF512	ZCET250CE	HC844			■					4
WF592	ZCET250SK	CY250	■							4
WF513	ZCET250SK	HC844			■					4
WF025	CPMT080204	HC844			■	0.4	7.94	2.38	7.94	5
WF034	CPMT090308	HC844			■	0.8	9.525	3.18	9.525	5
WF041	CPMT120408	HC844			■	0.8	12.7	4.76	12.7	5

■ = Available insert and grade combination



Product Range

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