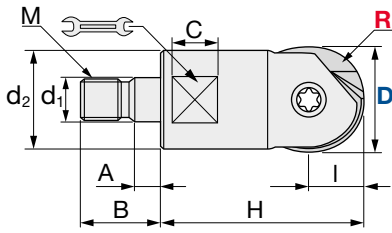
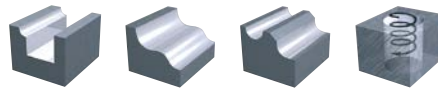


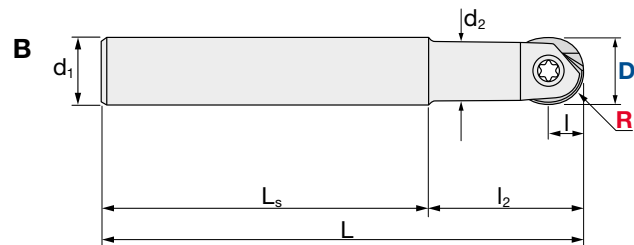
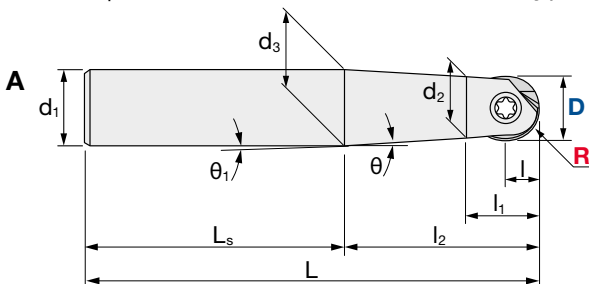
ABPEM | Ball Precision Eco – Modular Type

V max High Speed	▽▽ Semi Finishing	▽▽▽ Semi Finishing	HRC 65	No. of Teeth 2
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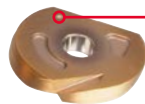
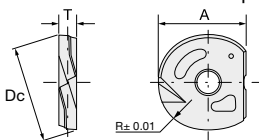


Diameter Holder only [mm]	Insert R Accuracy [mm]
0/-0.02 mm	+/-0.01 mm

ID Code	Item Code	Z	D	R	H	I	M	d ₁	d ₂	A	B	C	Wrench
FH249	ABPEM-10	2	10	5	26	5	M6	6.5	9.8	5.5	14.5	5	7
FH250	ABPEM-12		12	6		6							
FH251	ABPEM-16		16	8	8	M8	8.5	12.8	17		8	10	
FH252	ABPEM-20		20	10	10	M10	10.5	17.8	19		10	15	
FH253	ABPEM-25		25	12.5	12.5	M12	12.5	20.8	22		10	17	

ABPE | Ball Precision Eco – Shank Type


ID Code	Item Code	Z	D	R	L	d ₁	l	l ₂	l ₁	d ₂	d ₃	L _s	θ	θ ₁	Type
FH238	ABPE-08S10-130-30	2	8	4	130	10	4	30	-	7.3	9.5	100	3.15	2.2	A
FH239	ABPE-10S10-130-30		10	5											5
FH240	ABPE-10S12-150-35		10	5	150	12	9	11.5	115	3	1.91	A			
FH241	ABPE-12S12-130-35		12	6	130	6	35	-	95	0	-	B			
FH242	ABPE-12S16-160-60		12	6	160	6	60	13	10.4	15.5	100	3	2.12	A	
FH243	ABPE-16S16-140-40		16	8	140	8	40	-	-	0	-	B			
FH244	ABPE-16S20-200-65		16	8	200	8	65	16	14.3	18.5	135	2.45	2.01	A	
FH245	ABPE-20S20-160-45		20	10	160	20	45	-	-	0	-	B			
FH246	ABPE-20S25-220-80		20	10	220	20	80	20	18	24	140	2.9	2.05	A	
FH247	ABPE-25S25-180-45		25	12.5	180	25	45	-	-	0	-	B			
FH248	ABPE-25S32-250-100		25	12.5	250	32	100	25	22.5	29.5	150	2.7	2.29	A	

ABPE/ABPEM | Ball Precision Eco – Inserts

NOTE:

To keep high-accuracy, please put marked side onto head side of the screw.
 BCHG-Inserts for ABPE cannot be clamped onto ABPF body!

Item Code	Tolerance	Grade		Size			
		JP15E	JP08E	R	A	Dc	T
BCHG080	H class	WF350	WF344	4	9.5	8	2
BCHG100		WF351	WF345	5	11.5	10	2.5
BCHG120		WF352	WF346	6	12	12	2.5
BCHG160		WF353	WF347	8	14	16	3
BCHG200		WF354	WF348	10	16	20	3
BCHG250		WF355	WF349	12.5	21.5	25	4

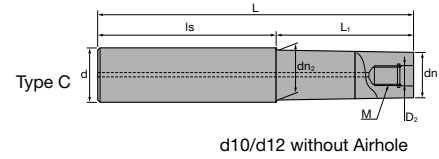
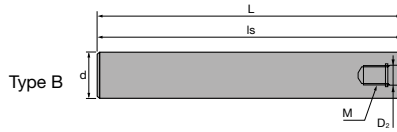
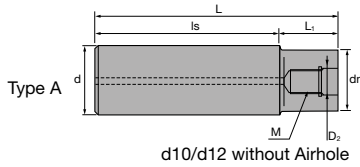
JP08E High adhesion PVD coat + Micro grain substrate
 Target: Tool steel, Hardened steel, Cast iron

JP15E High adhesion PVD coat + Micro grain substrate
 Target: Tool steel, Pre-hardened steel, Cast iron

Parts	Clamp Screw			Wrench	
	Diameter	ID Code	Item Code	Fastening Torque [Nm]	ID Code
8	ET153	581-141	1.1Nm	ET13	104-T8
10	ET154	581-142	2.2Nm	ET11	104-T10
12	ET155	581-143	4.9Nm	ET14	105-T20
16 & 20	ET156	581-144	4.9Nm	ET14	105-T20
25	ET168	581-146	9.8Nm	ET167	105-T30A



ASC | Carbide Shanks for Modular Mills



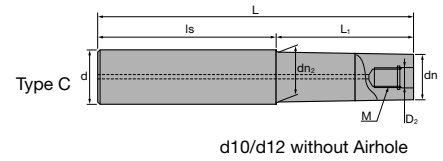
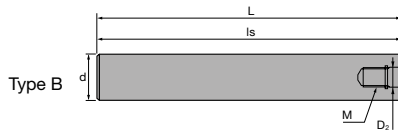
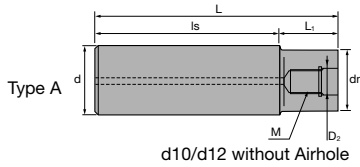
Carbide Shank																
	ID Code	Item Code	D ₂	M	L	L ₁	Is	dn	dn ₂	d	Type					
Without Airhole	FH137	ASC10-6.5-74-24	6.5	M6	74	24	50	9.3	-	10	A					
	FH254	ASC10-6.5-84-34			84	34										
	FH255	ASC10-6.5-114-24			114	24						90				
	FH138	ASC10-6.5-114-49			114	49	65									
	FH139	ASC12-6.5-74-24			74	24	50					11	11.5	12	C	
	FH256	ASC12-6.5-94-44			94	44										
	FH257	ASC12-6.5-129-24			129	24										105
	FH140	ASC12-6.5-129-64			129	64										65
With Airhole	FH141	ASC16-8.5-95-30	8.5	M8	95	30	65	14.5	15.5	16	C					
	FH258	ASC16-8.5-120-55			120	55										
	FH142	ASC16-8.5-140-75			140	75										
	FH260	ASC16-8.5-160-30			160	30						130				
	FH259	ASC16-8.5-160-95			160	95						65				
	FH143	ASC20-10.5-120-50	10.5	M10	120	50	70	18	-	20	A					
	FH261	ASC20-10.5-170-90Z			170	90	80	18.5	19.5		C					
	FH144	ASC20-10.5-220-50			220	50	170	18	-		A					
	FH262	ASC20-10.5-220-120Z			220	120	100	18.5	19.5		20	C				
	FH263	ASC20-10.5-270-150Z			270	150	120									
	FH264	ASC20-10.5-270-50Z			270	50	220									
	FH145	ASC25-12.5-145-65			12.5	M12	145	65	80		23	-	25	A		
	FH146	ASC25-12.5-265-65	265	200												
	FH265	ASC25-12.5-215-115	215	115			100									
	FH266	ASC25-12.5-265-145	265	145			120									
	FH268	ASC25-12.5-315-65	315	65			250									
	FH267	ASC25-12.5-315-195		195			120									
	FH147	ASC32-17-160-80	17	M16			160	80	80	28					-	32
	FH269	ASC32-17-260-140			260	140	120									
	FH148	ASC32-17-310-80			310	80	230									
FH270	ASC32-17-360-240	360			240	120										

- SUPER Lock milling chucks or shrink-fit holders can be used.
- SUPER Lock Aufnahmen oder Schrumpffutter können verwendet werden.
- Possono essere utilizzati mandrini a forte serraggio SUPER Lock.

- Aptos para amarrar en portapinzas SUPER Lock.
- Les attachements SUPER Lock peuvent être utilisés.
- Cones hidráulicos de grande aperto e aperto térmico podem ser usados.



AS | Steel Shanks for Modular Mills



Steel Shank

	ID Code	Item Code	D ₂	M	L	L ₁	L _s	dn	dn ₂	d	Type
Without Airhole	FH131	AS10-6.5-74-0	6.5	M6	74	-	74	-	-	10	B
	FH132	AS12-6.5-84-4			84	4	80	11		12	A
With Airhole	FH133	AS16-8.5-95-15	8.5	M8	95	15	80	14.5	15.5	16	A
	FH134	AS20-10.5-100-20	10.5	M10	100	20		18	-	20	
	FH271	AS25-12.5-115-35	12.5	M12	115	35		23	23	25	
	FH272	AS32-17-110-30	17	M16	110	30		28	28	32	

🇬🇧 SUPER Lock milling chucks can be used.

🇩🇪 SUPER Lock Aufnahmen können verwendet werden.

🇮🇹 Possono essere utilizzati mandrini a forte serraggio SUPER Lock.

🇪🇸 Aptos para amarrar en portapinzas SUPER Lock.

🇫🇷 Les attachements SUPER Lock peuvent être utilisés.

🇵🇹 Cones hidráulicos de grande aperto e aperto térmico podem ser usados.

🇬🇧 For further information about modular chucks please see our brochure *Indexable Modular Series No. 328*

🇩🇪 Weitere Informationen über modulare Werkzeugaufnahmen finden Sie in unserem Prospekt: *Indexable Modular Series No. 328*

🇪🇸 Para obtener más información sobre conos modulares consulte nuestro folleto *Indexable Modular Series No. 328*

🇮🇹 Per maggiori informazioni riguardanti la gamma dei mandrini avvitabili consultate il catalogo *Indexable Modular Series No. 328*

🇫🇷 Pour de plus amples informations concernant les attachements modulaires, consultez SVP notre brochure *Indexable Modular Series No. 328*

🇵🇹 Para mais informações sobre Cones Modulares consulte o nosso folheto *Indexable Modular Series No. 328*

