Advanced Engineering

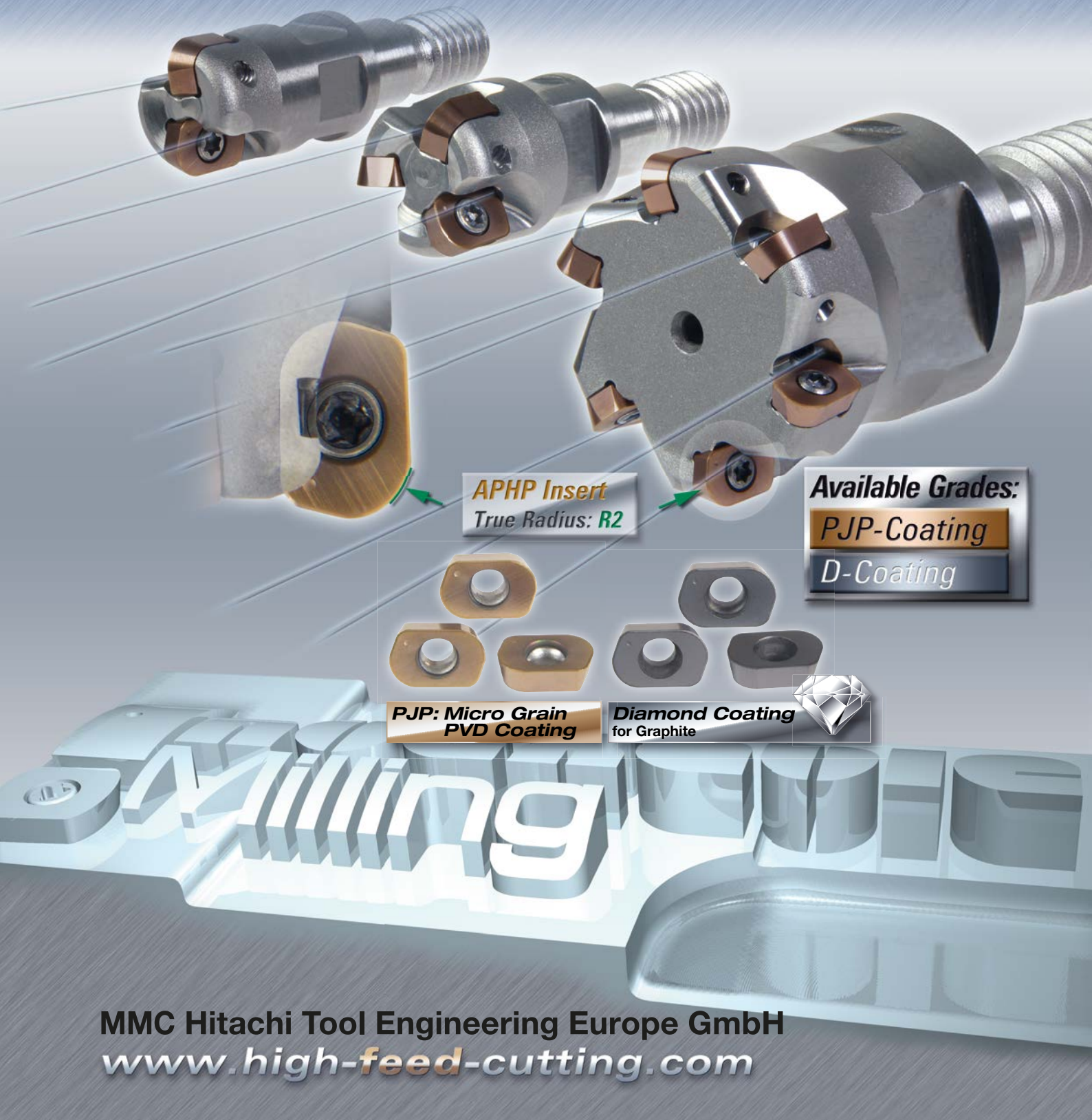
MMC Hitachi Tool

No. 330.2

Indexable Milling +Modular Series

APHP Advanced Pico Hard Precision

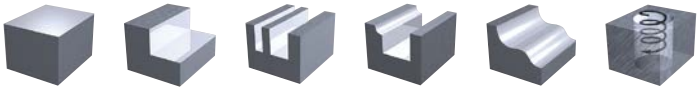
D 8 ~ D 32 · High Hardness Cutting (HHC) HRC 62
High Feed Cutting (HFC)

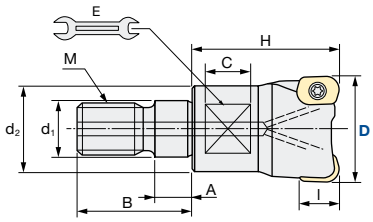


MMC Hitachi Tool Engineering Europe GmbH
www.high-feed-cutting.com

APHP | Advanced Pico Hard Precision – Modular Type

Q max	Jet	∇	∇∇	HRC	No. of Teeth
High Efficient	Air Hole	Roughing	Semi-Finishing	62	1–8





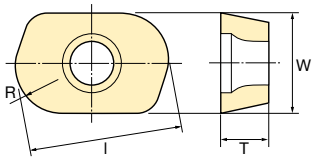
True radius	2.0 mm
Tolerance	D -0.046/-0.096
Torque on screw	0.5 Nm

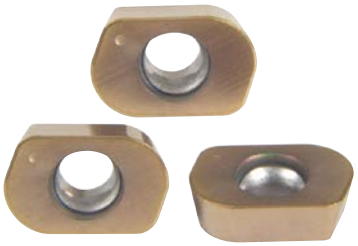
Modular Type

ID Code	Item Code	Flutes	D	H	d_1	M	d_2	A	B	C	E	l	Inserts
FH182	**APHP-1008R-1-M6**	1	8	19	6.5	M6	9.4	5.5	14.5	5	7	6.215	EPHW0402TN-2
FH183	**APHP-1010R-2-M6**	2	10	17	6.5								
FH184	**APHP-1012R-3-M6**	3	12	17	6.5		9.8						
FH185	**APHP-1016R-4-M8**	4	16	22	8.5	M8	12.8		17	8	10		
FH186	**APHP-1020R-5-M10**	5	20	25	10.5	M10	17.8		19	10	15		
FH187	**APHP-1025R-6-M12**	6	25	25	12.5	M12	20.8		22		17		
FH188	**APHP-1032R-8-M16**	8	32	27	17	M16	28.8	6	23	12	22		

Wrench Size

INSERTS APHP | Advanced Pico Hard Precision – Modular Type

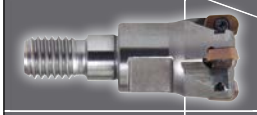




Micro Grain PVD Coating
Hard Tough

Diamond Coating
for Graphite

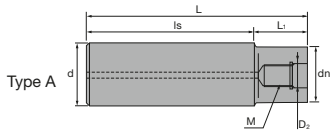
ID Code	Item Code	Tolerance Class	PJP Coated PJP08M	PJP Coated PJP15M	D Coated D08M	Size (mm) R	l	T	W
WF210	**EPHW0402TN-2 PJP08M**	H	•			2	6.215	2	4.2
WF211	**EPHW0402TN-2 PJP15M**			•					
WF212	**EPHW0402TN-2 D08M**				•				



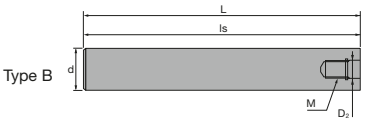
Parts / Shape	Clamp Screw		Wrench	
				
Type	**Cutter body**	**ID-Code**	**Item-Code**	**ID-Code**	**Item-Code**
Modular	**APHP-10…**	ET052	**240-140**	ET056	**104-T6**

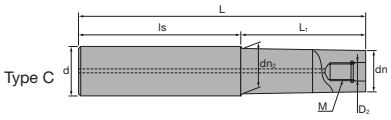
Indexable Milling Tools

ASC | Carbide Shanks for Modular Mills



d10/d12 without Airhole





d10/d12 without Airhole

	Carbide Shank										
	ID Code	Item Code	D_2	M	L	L_1	ls	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**				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**				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**				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**				120	100	18.5	19.5		C
	FH263	**ASC20-10.5-270-150Z**			270	150	120				
	FH264	**ASC20-10.5-270-50Z**				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	ls	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	C
	FH134	**AS20-10.5-100-20**	10.5	M10	100	20		18	–	20	A
	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.
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Aptos para amarrar en portapinzas SUPER Lock.
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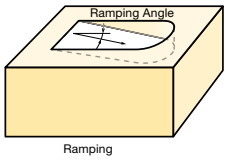
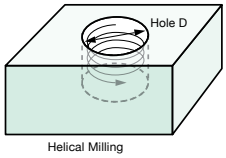
For further information about modular chucks please see our brochure *Indexable Modular Series No. 328.2*
Weitere Informationen über modulare Werkzeugaufnahmen finden Sie in unserem Prospekt: *Indexable Modular Series No. 328.2*
Para obtener más información sobre conos modulares consulte nuestro folleto *Indexable Modular Series No. 328.2*
Per maggiori informazioni riguardanti la gamma dei mandrini avvitabili consultate il catalogo *Indexable Modular Series No. 328.2*
Pour de plus amples informations concernant les attachements modulaires, voyez SVP notre brochure *Indexable Modular Series No. 328.2*
Para mais informações sobre Cones Modulares consulte o nosso folheto *Indexable Modular Series No. 328.2*

Ramping / Helical Milling





Tool diameter D mm	D 8	D 10	D 12	D 16	D 20	D 25	D 32
Max. ramp angle °	less than 0.5° (max. 1.0°)						
Helical Milling / Hole Dia. (mm)	10–15	13–19	17–23	25–31	33–39	43–49	57–63

Advanced Engineering

MMC Hitachi Tool

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Indexable Milling Tools

Indexable Milling

WHNSB Drills

WHNSB NON STEP BOREA

Milling Chucks

Milling Chucks

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HTT410 1101 APHP Pico Hard-5.0 BW-DS