

Advanced Engineering

**Indexable**  
**Milling**  
+Modular Series

MMC Hitachi Tool

No. 325.2

**AHR** Mini - Advanced Heavy Roughing  
For High Performance Feed & Depth

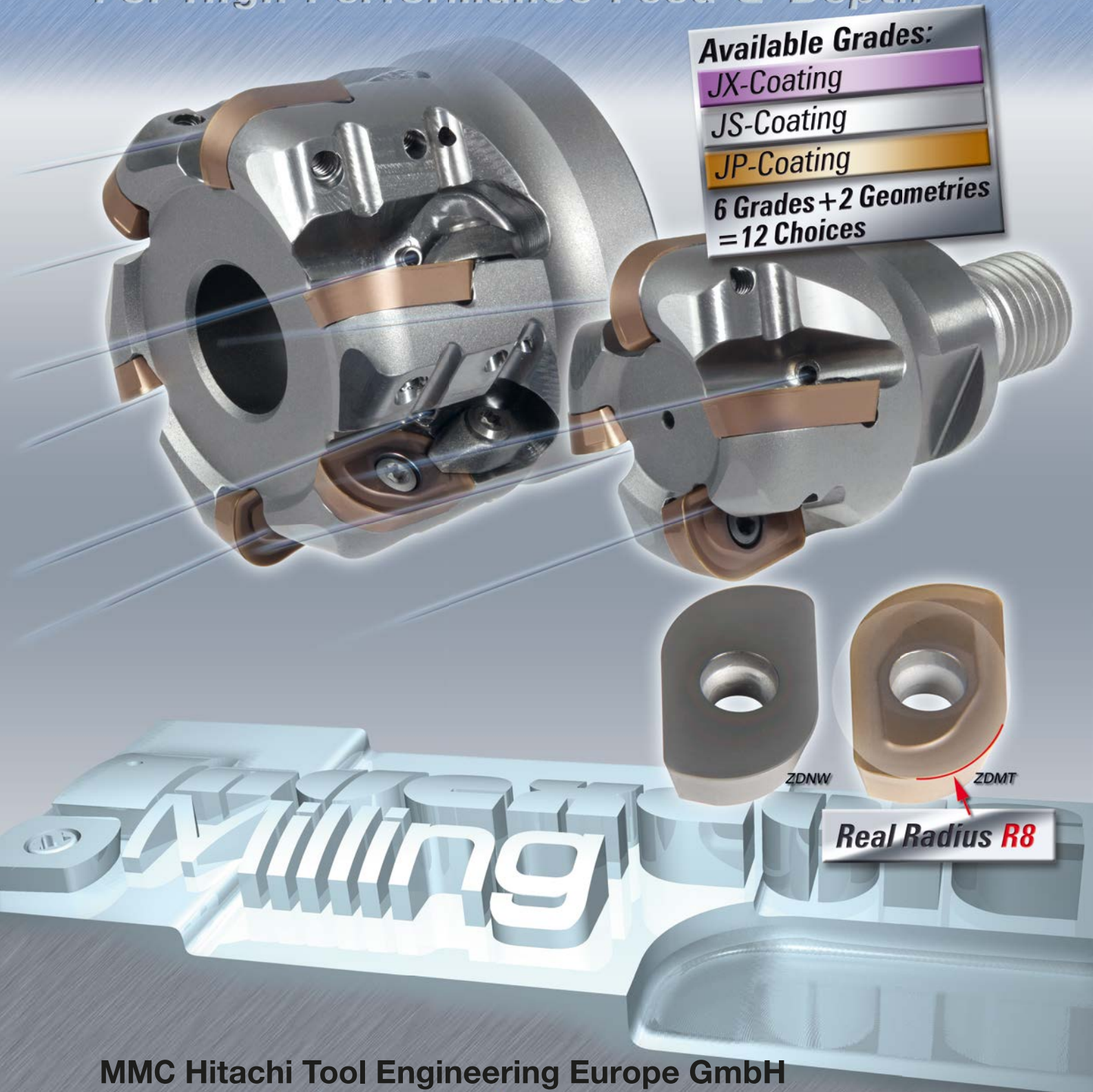
Available Grades:

JX-Coating

JS-Coating

JP-Coating

6 Grades + 2 Geometries  
= 12 Choices

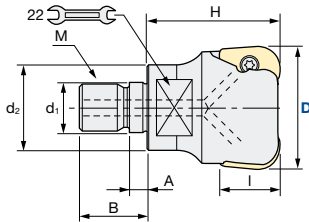
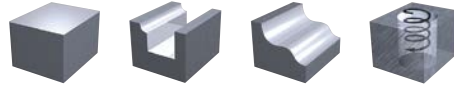


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## Indexable Milling Tools

### AHRM | Mini – Advanced Heavy Roughing – Modular

<b>Q max</b> High Efficient	<b>Jet</b> Air Hole	<b>▽</b> Roughing	<b>HRC</b> 62	<b>No. of Teeth</b> 3~4
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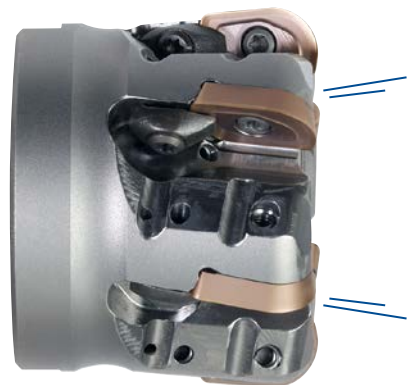
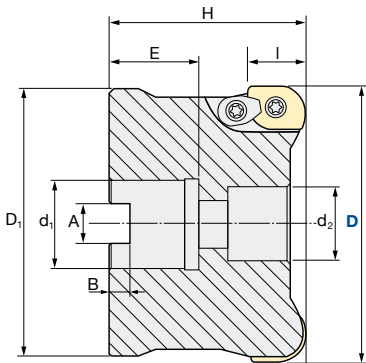
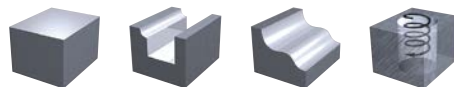
Tolerance Dia.:	Torque on screw:
<b>-0.1/-0.2mm</b>	<b>3.0 Nm</b>

Modular Type		Flutes	D	H	d <sub>1</sub>	M	d <sub>2</sub>	A	B	C	E	I	Inserts
FH149	<b>AHRM-4035R-3-M16</b>	3	<b>35</b>	45	17	M16	29	6	23	12	22	18	ZDNW...
FH150	<b>AHRM-4042R-4-M16</b>	4	<b>42</b>										ZDMT...

Wrench Size

### AHRB | Mini – Advanced Heavy Roughing – Bore Type

<b>Q max</b> High Efficient	<b>Jet</b> Air Hole	<b>▽</b> Roughing	<b>HRC</b> 62	<b>No. of Teeth</b> 5~9
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Tolerance Dia.:	Torque on screw:
<b>-0.1/-0.2mm</b>	<b>3.0 Nm</b>

Bore Type		Flutes	D	H	d <sub>1</sub>	d <sub>2</sub>	M	D <sub>1</sub>	A	B	E	I	Inserts
FH151	<b>AHRB-4052RM-5-22</b>	5	<b>52</b>	50	22	15	10*	40	10.4	6.3	20	18	ZDNW... ZDMT...
FH152	<b>AHRB-4052RM-5-27</b>		63	17		12*	45						
FH153	<b>AHRB-4066RM-6-27</b>	6	<b>66</b>	50	27	20	12	60	12.4	7			
FH154	<b>AHRB-4080RM-7-27</b>	7	<b>80</b>	63									
FH155	<b>AHRB-4100RM-8-32</b>	8	<b>100</b>	63	32	26	16	70	14.4	8	25.5		
FH156	<b>AHRB-4125RM-9-40</b>	9	<b>125</b>		40	32	20	105	16.4	9	30		

\* Special Screw

**Indexable Milling Tools**

**INSERTS AHR | Mini – Advanced Heavy Roughing – Modular**

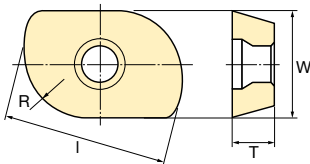


Fig.1: ZDNW Standard Shape

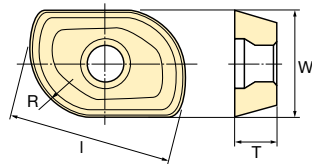


Fig.2: ZDMT with Breaker



Inserts	Tolerance Class	Grade						Size (mm)				Shape
		JX1060	JS4060	JX1045	JP4020	JX1015	JX1005	R	I	T	W	
Item Code		ID Code										
ZDNW1204080TR JX1005	N						WF674	8	21.5	4.76	12.7	Fig.1
ZDNW1204080TR JX1015						WF675						
ZDNW1204080TR JX1045				WF677	×							
ZDNW1204080TR JX1060		WF678										
ZDNW1204080TR JS4060			WF679									
ZDNW1204080TR JP4020					WF680							
ZDMT1204080TR JX1005	M						WF681	8	21.5	4.76	12.7	Fig.2
ZDMT1204080TR JX1015						WF682						
ZDMT1204080TR JX1045				WF684	×							
ZDMT1204080TR JX1060		WF685										
ZDMT1204080TR JS4060			WF686									
ZDMT1204080TR JP4020					WF687							

- JX1060** PVD · For carbon steels < 35HRC
- JS4060** PVD · General grade for 30–40 HRC | Recommended for dry cutting
- JX1045** × to be replaced by JS4045
- JP4020** PVD · For pre-hardened steels 40–55 HRC
- JX1015 – JX1005** PVD · Main Grade

Parts	Shape	Clamp Screw		Clamp Piece Set		Wrench	
		ID-Code	Item-Code	ID-Code	Item-Code	ID-Code	Item-Code
Type	Cutter body						
Modular	<b>AHRM-40 ...</b>	ET048	<b>262-142</b>	-	-	ET049	<b>105-T15</b>
Bore Type	<b>AHRB-4 ...</b>			ET054	<b>CM4-141</b>		
		<b>Special Screw</b>					
		<b>ID-Code</b>		<b>Item Code</b>			
Bore Type	<b>D52 M10 (d<sub>i</sub> = 22)</b>	ET051		<b>100-902</b>			
Bore Type	<b>D52 M12 (d<sub>i</sub> = 27)</b>	ET055		<b>100-903</b>			

**AHR-Mini: Helical Bore Formula**

Input data	Outside Diameter	D35	D42	D52	D66	D80	D100	D125
Radius of insert	R8	R8	R8	R8	R8	R8	R8	R8
Width of insert: W <sub>i</sub>	12	12	12	12	12	12	12	12
<b>Ramping angle</b>		10°	5°	3.5°	2.5°	2°	1.5°	1°
<b>Flat bottom</b>	<b>Minimum Diameter</b>	53	67	87	115	143	183	233
	<b>Best for flat bottom</b>	54	68	88	116	144	184	234
	<b>Maximum Diameter</b>	55	69	89	117	146	185	235
<b>Through hole</b>	<b>Minimum Diameter</b>	47	61	81	109	137	177	227
	<b>Maximum Diameter</b>	68	82	102	130	158	198	248

Always up to date: Please check our P50 QuickFinder



**Product Range**

Solid Carbide End Mills



Indexable Milling Tools



WHNSB Drills



Milling Chucks



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