

Advanced  
Engineering

Hitachi Tool

**HITACHI**  
Inspire the Next

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

No. 325.2

# AHR Mini - Advanced Heavy Roughing

For High Performance Feed & Depth

Available Grades:

JX-Coating

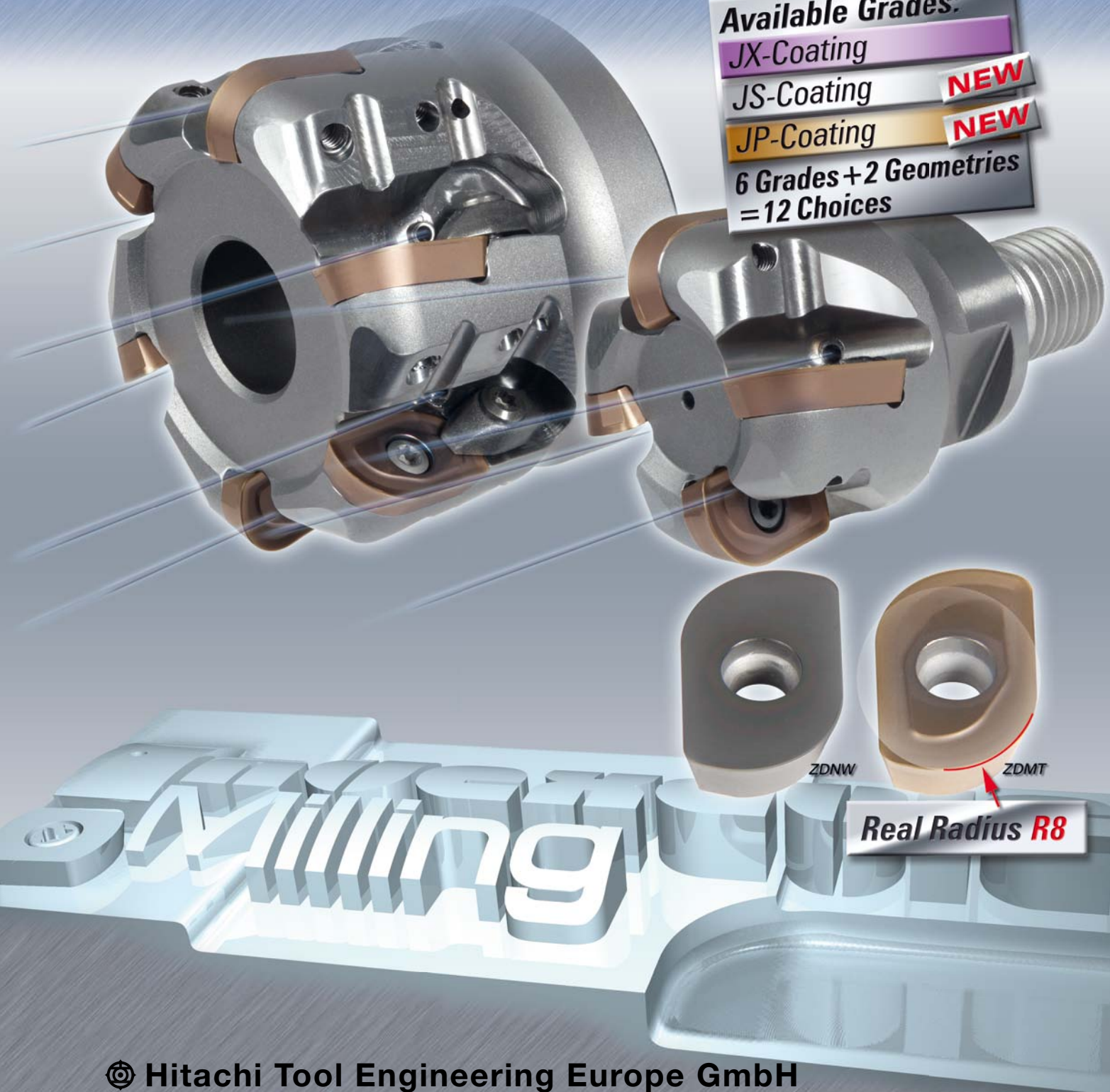
JS-Coating

JP-Coating

6 Grades + 2 Geometries  
= 12 Choices

**NEW**

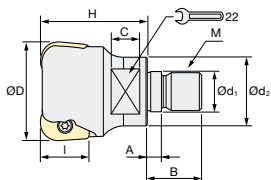
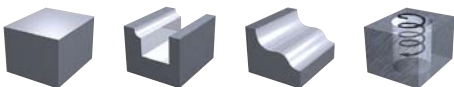
**NEW**



**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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Torque on screw:  
**3 Nm**

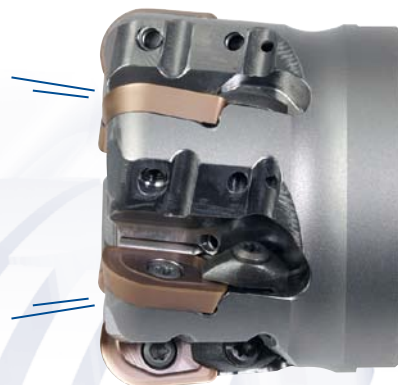
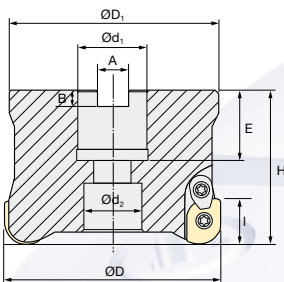
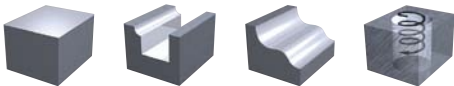
ØD -0.1/-0.2

Modular Type													Inserts
ID Code	Item Code	Flutes	ØD	H	Ød <sub>1</sub>	M	Ød <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... ZDMT...
FH150	<b>AHRM-4042R-4-M16</b>	4	<b>42</b>										

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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Torque on screw:  
**3 Nm**

ØD -0.1/-0.2

Bore Type													Inserts
ID Code	Item Code	Flutes	ØD	H	Ød <sub>1</sub>	Ød <sub>2</sub>	M	ØD <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	22		
FH154	<b>AHRB-4080RM-7-27</b>	7	<b>80</b>										
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**

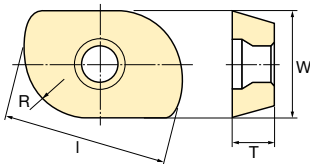


Fig.1: ZDNW Standard Shape

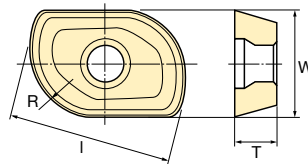


Fig.2: ZDMT with Breaker



**PVD Main grade**  
**PVD Thick layer for soft materials + Wet Cutting and Stainless Steels**  
**PVD Tough grade for pre-hardened steels**

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

Parts		Clamp Screw		Clamp Piece Set		Wrench	
Type	Cutter body	ID-Code	Item-Code	ID-Code	Item-Code	ID-Code	Item-Code
Modular	AHRM-40 ...	ET048	262-142	-	-	ET049	105-T15
Bore Type	AHRB-4 ...			ET054	CM4-141		
		<b>Special Screw</b>					
		<b>ID-Code</b>		<b>Item Code</b>			
Bore Type	Ø52 M10 (Ød <sub>1</sub> =22)	ET051		100-902			
Bore Type	Ø52 M12 (Ød <sub>1</sub> =27)	ET055		100-903			

**AHR-Mini: Helical Bore Formula**

Input data	Outside Diameter	Ø 35	Ø 42	Ø 52	Ø 66	Ø 80	Ø 100	Ø 125
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

## Product Range

Solid Carbide End Mills

micro**EndMill**  
Available Grades:  
JX-Coating  
JS-Coating  
JP-Coating  
6 Grades of Geometries  
= 12 Choices

**ESN**  
Cubic Boron Nitride

**HP COATING**

**Epoch21**

**MINIATURE**

**3D-Cut**

Indexable Milling Tools

**Indexable  
Milling**

ESM Speed End Mills  
EMC Power Drills

**ESM SPEED**

Milling Chucks

**Milling  
Chucks**

**Distributed by:**

**Milling**

ZDNW ZDMT  
**Real Radius R8**

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