

Indexable
Milling
+Modular Series

No. 321

ASRF/M Turbo⁴

Super Radius Mill Four Corners
for High Performance Cutting



Indexable Milling Tools

 **ASRF TURBO4**

The new ASRF with economical 4-corner specification for increased processing efficiency ensures stable high-performance machining with constant load – even for deep cutting operations.

 **ASRF TURBO4**

Der neue ASRF mit wirtschaftlicher 4-seitiger Schneidplattengeometrie für höchste Effizienz ermöglicht Hochleistungs-Bearbeitungen mit konstantem Vorschub – auch bei großen Schnitttiefen.

 **ASRF TURBO4**

Il nuovo ASRF, nella conveniente versione a 4 angoli per una migliore efficienza di lavoro, assicura una lavorazione stabile di elevate prestazioni con un carico costante, anche per operazioni di taglio profondo.

 **ASRF TURBO4**

El nuevo ASRF con especificación económica de 4 esquinas para aumento de eficiencia de procesamiento, asegura un estable funcionamiento de máquina con constante carga – aún para operaciones de corte profundas.

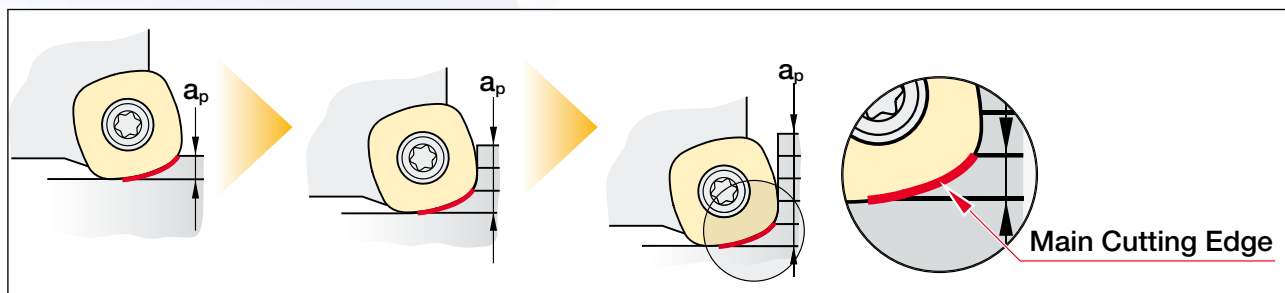
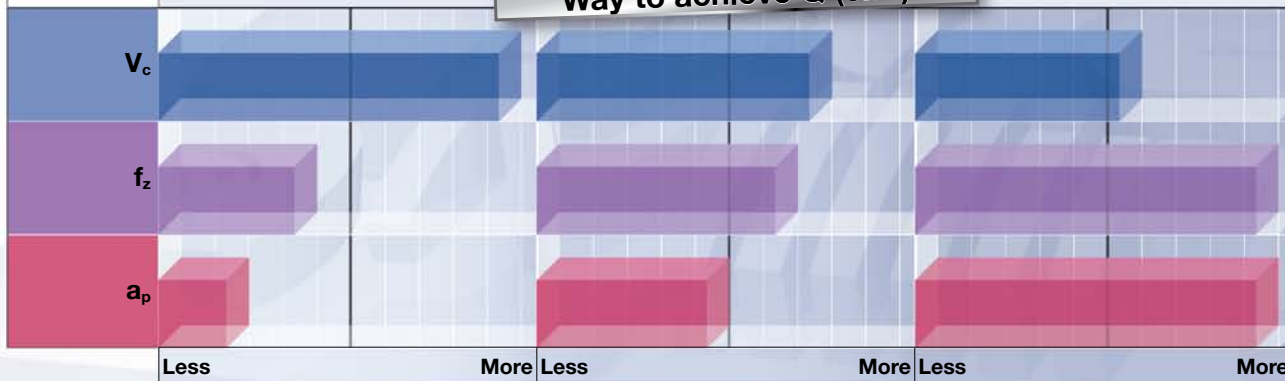
 **ASRF TURBO4**

Le nouvel ASRF, avec ses plaquettes spécifiques dotées de quatre arrêtes de coupe, permet des usinages hautes performances grâce à sa stabilité et la constance de la charge requise. Ceci même lors d'usinages avec de forts porte-à-faux.

Recommended Selection of Hitachi's Roughing Series

	ASR Pico ØD 16–66 mm	ASRF ØD 35–100 mm	ASF ØD 63–315 mm
Application Field	HFM High Feed Machining	HPC High Performance Cutting	HVC High Volume Cutting
Machine-spindle	ISO40/HSK63 ASR Pico	ASRF	ISO50/HSK100 ASF
f_z mm	0.5 ~ 1.5	0.5 ~ 2.5	0.5 ~ 3.5
V_f mm/min	2,000 ~ 20,000	1,000 ~ 10,000	500 ~ 5,000
a_p mm	0.35 ~ 0.75 (max. 1)	0.5 ~ 1.5 (max. 2)	0.75 ~ 2 (max. 3)
CAM R	R2	R4.5	R5

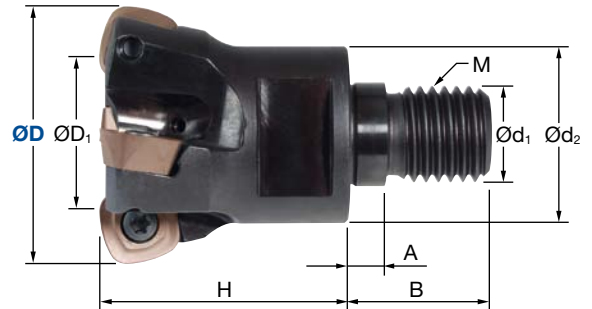
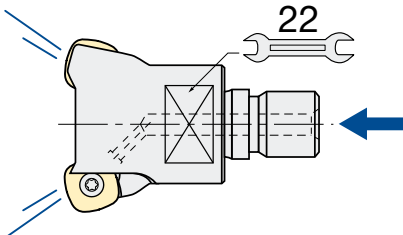
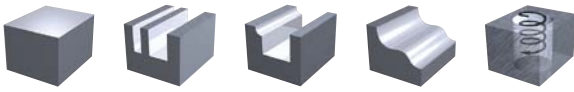
Way to achieve Q (cm³)



Indexable Milling Tools

ASRFM | Turbo4 Modular

Q max High Efficient	Jet Air Hole	▽ Roughing	▽▽ Semi-Finishing	HRC 50 (60)	No. of Teeth 3 ~ 4
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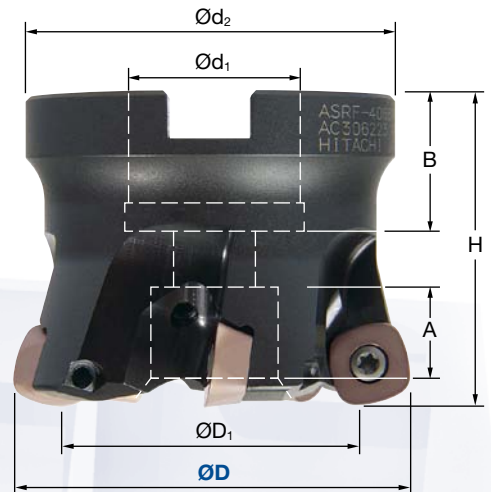
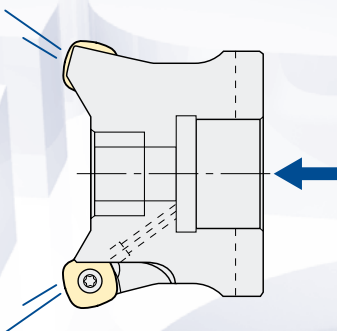
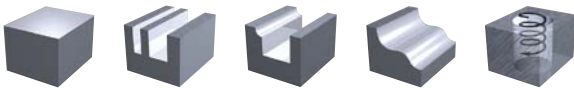


Programming radius	4.5 mm
Tolerance	ØD 0/-0.2
Torque on screw	3.0 Nm
Runout	0.02 mm

Modular Type		Flutes	ØD	ØD ₁	H	Ød ₁	M	Ød ₂	A	B	Inserts
FH114	ASRFM-4035R-3-M16	3	35	17	40	17	16	29	6	23	SD..1205ZDTN-R15
FH115	ASRFM-4042R-4-M16	4	42	24							

ASRF | Turbo4

Q max High Efficient	Jet Air Hole	▽ Roughing	▽▽ Semi-Finishing	HRC 50 (60)	No. of Teeth 4 ~ 8
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Programming radius	4.5 mm
Tolerance	ØD 0/-0.2
Torque on screw	3.0 Nm
Runout	0.02 mm

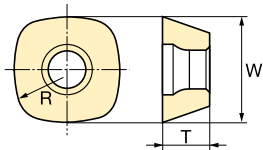
Face Mill		Flutes	ØD	ØD ₁	H	Ød ₁	M	Ød ₂	A	B	Inserts
FH108	ASRF-4042RM-4-16	4	42	24	40	16	8*	35	3	18	SD..1205ZDTN-R15
FH109	ASRF-4052RM-5-22	5	52	34	50	22	10	40	16.5	20	
FH113	ASRF-4052RM-5-27		66	48		27	12	45	15.5	13	
FH110	ASRF-4066RM-5-27	6	80	62	70	32	16	70	25	25.5	
FH111	ASRF-4080RM-6-27	6	80	62							
FH112	ASRF-4100RM-8-32	8	100	82							

* Special Screw

Indexable Milling Tools

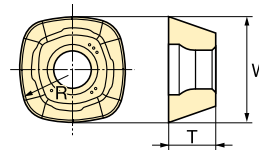
ASRF/M | Turbo4/Turbo4 Modular

Type A





Standard type

Type B









Low-resistance breaker type

ID Code	Item Code	Grade	R	T	W	Chipbreaker	Type
WF172	SDNW1205ZDTN-R15	JX1005	15	5.56	12.7	no	A 
WF173		JX1020					
WF174		JX1045					
WF175		JX1060					
WF176		GX2030					
WF177	SDMT1205ZDTN-R15	JX1005				yes	B 
WF178		JX1020					
WF179		JX1045					
WF180		JX1060					
WF181		GX2030					

JX1005 - 1060	PVD Coating/Dry Cutting
GX2030	CVD Coating/Wet Cutting

Grade Overview														
ISO														
P01	P10	P20	P30	P40	M01	M10	M20	M30	M40	K01	K10	K20	K30	K40
	JX1005									JX1005				
	JX1020					JX1020					JX1020			
		JX1045					JX1045						JX1045	
			JX1060					JX1060						
			GX2030											GX2030
N01	N10	N20	N30	N40	S01	S10	S20	S30	S40	H01	H10	H20	H30	H40
										JX1005				
											JX1020			
			GX2030											
														GX2030

Parts	Clamp Screw 		Wrench 	
	ID-Code	Item-Code	ID-Code	Item-Code
ASRFM 	ET048	262-142	ET049	105-T15
ASRF 				
ASRF-4042RM-4-16 	Special screw			
	ID-Code	Item-Code		
	ET050	K06-676		

Product Range

Solid Carbide End Mills

micro**EndMill**

CBN
Cubic Boron Nitride

HD
COATING

Epoch21

MINIATURE

3D-Cut

Indexable Milling Tools

Indexable
Milling

ESM Speed End Mills

EMC Power Drills

ESM
SPEED

Milling Chucks

Milling
Chucks

CAM Radius:
R 4.5 mm

Distributed by:

Hitachi Tool Engineering Europe GmbH

Itterpark 12 · 40724 Hilden · Germany · Phone +49 (0) 21 03 – 24 82-0 · Fax +49 (0) 21 03 – 24 82-30

e-Mail info@hitachitool-eu.com · Internet www.hitachitool-eu.com

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