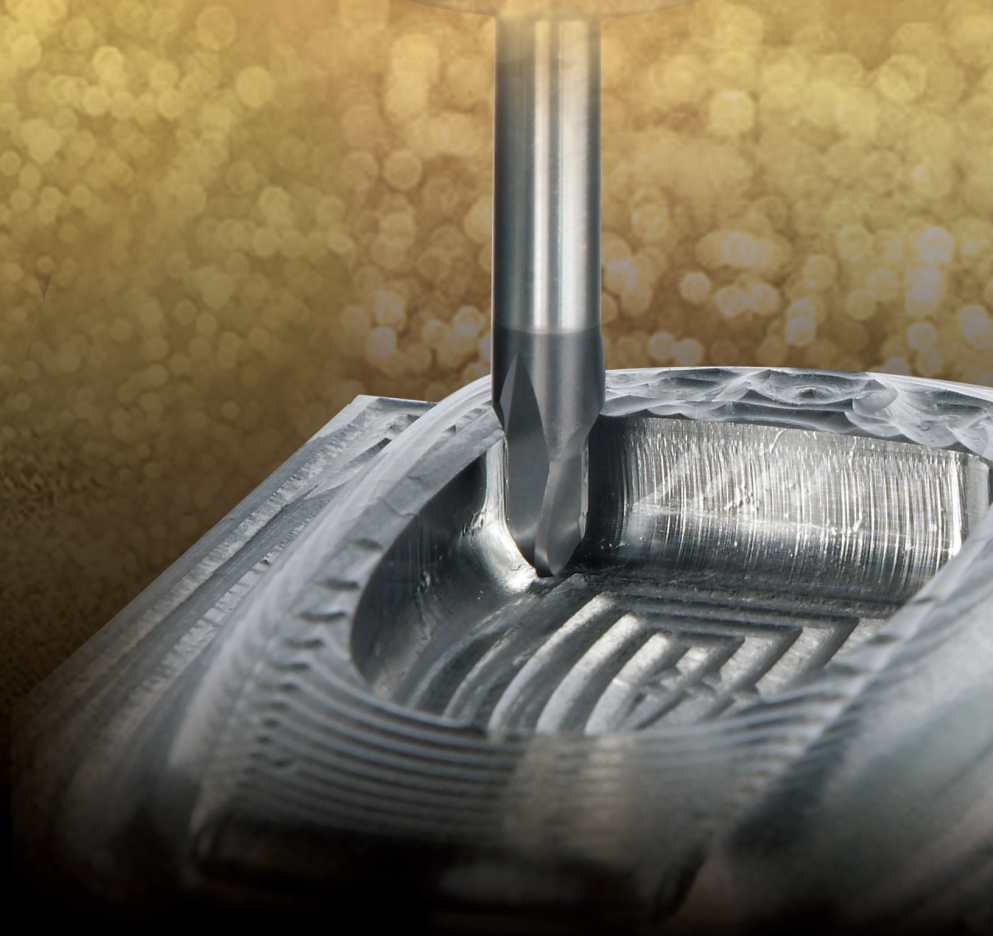


Taegu Solid Mill



Taegu Solid Mill CONTENTS

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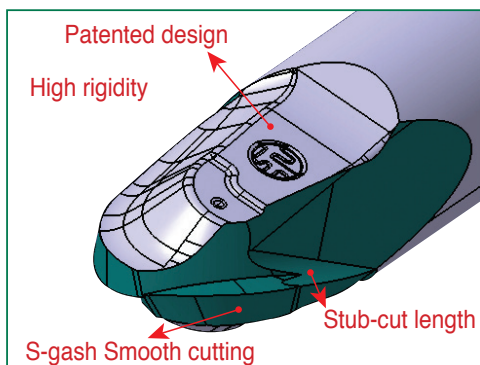
SOLIDBALL

A brand new concept and the world's first press type end mill

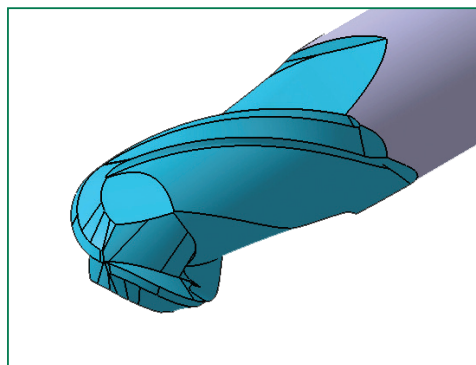
Features

- Excellent rigidity that promotes improved surface finishes
- Adequate length of cutting edge (stub-cut length)
- Improved quality with ultra fine grain carbide created by a press type manufacturing process
- The best solution for high speed machining & hardened materials (profiling)

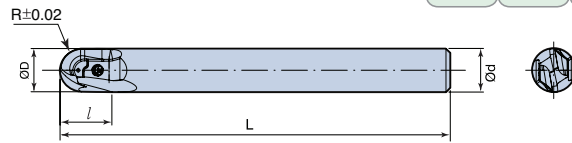
SOLIDBALL



Typical Ball end mill



EBA 2□□□L - **SOLIDBALL**



- Adequate length of cutting edge (stub-cut length)
- Improved quality with fine grain carbide created by a press type manufacturing process

D	Tolerance
6 < D ≤ 10	-0.025 -0.047
10 < D ≤ 14	-0.032 -0.059

Designation	Dimension (mm)				
	D	R	L	l	d
EBA 2060L	6	3	70	7	6
EBA 2080L	8	4	80	9	8
EBA 2100L	10	5	90	11	10
EBA 2120L	12	6	100	12	12

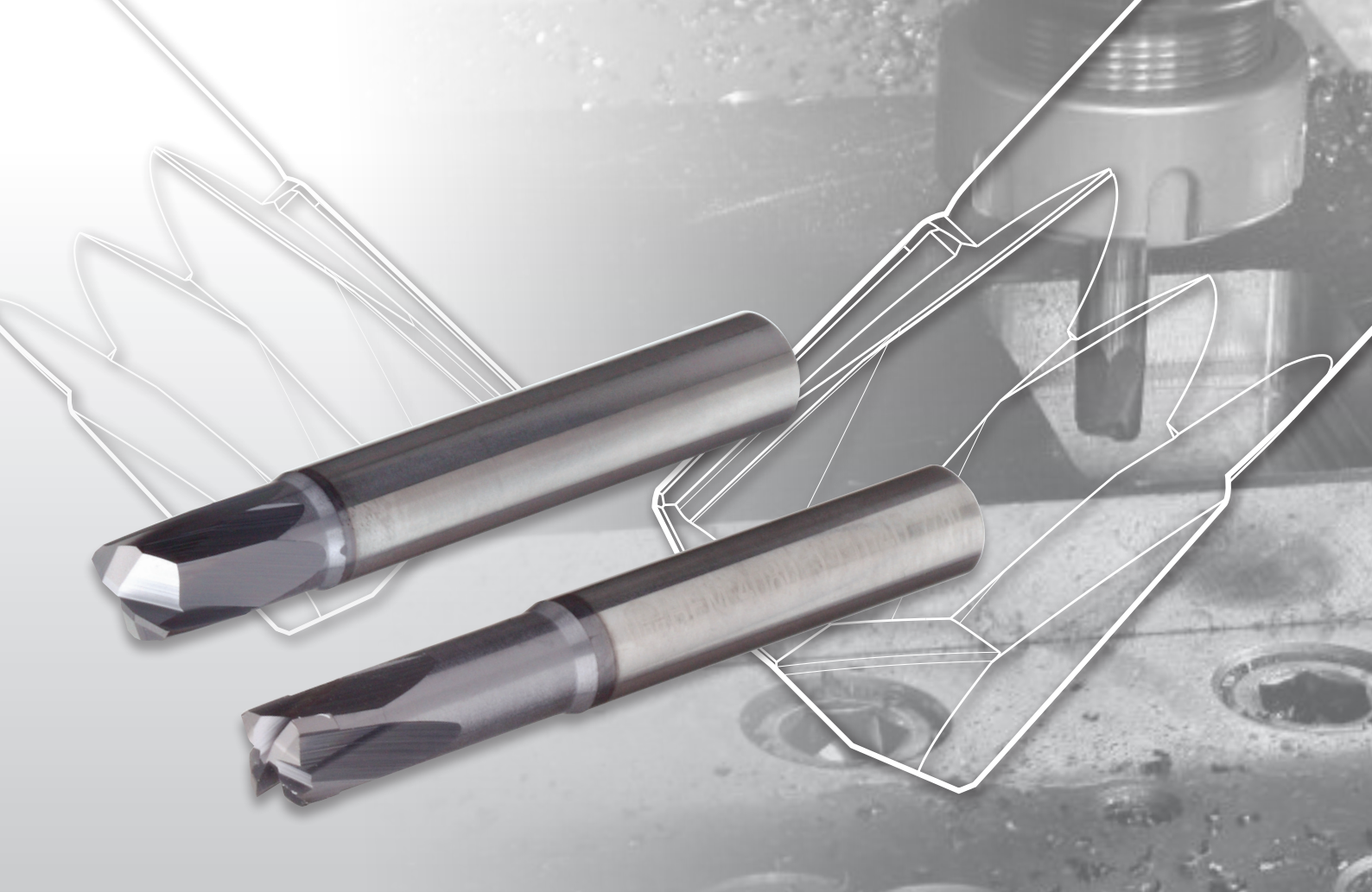
EBA 2□□□L

Material	Alloy Steels Cast Iron				Hardened Steels				Depth of Cut  Ad: 0.3D Pf: 0.7D
Hardness	HRC (30 - 45)		HRC (45 - 55)		HRC (30 - 45)		HRC (45 - 55)		
Strength	Alloy steel, Tool steel		Hardened steel		Alloy Steel, Tool steel		Hardened steel		
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed	
6.0	12,000	800	7,000	400	17,000	1,600	12,000	1,000	
8.0	10,000	1,000	5,000	420	14,000	1,500	8,000	900	
10.0	7,000	900	4,000	500	10,000	1,400	7,000	800	
12.0	6,000	750	3,400	400	8,000	1,300	6,000	750	

Wear comparison

Vc: 300m/min, fz: 0.08mm/t, Ap 0.4mm, Coolant: Air, Workpiece: STAVAX (AISI: 420 mod, HRC50~52)

SOLIDBALL (EBA)	General Type
After machining the same distance the SOLIDBALL has very little wear on the cutting edge!	



SOLIDFEED High feed S/C end mill

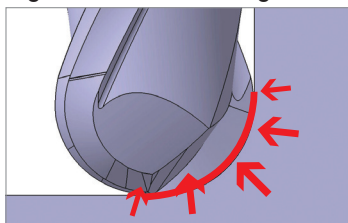
New solid carbide end mill for high feed milling

Features

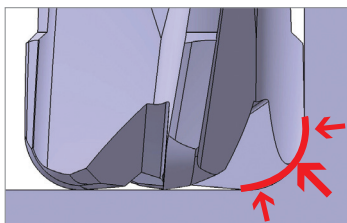
- Improves productivity and reduces cycle time with extremely high feed machining capability
- Lowers cutting forces with unique corner geometry
- Enables users to conduct rough machining applications such as slotting, shouldering, pocketing and helical ramping.
- Excellent wear resistance when machining general steel and hardened steel (submicron base + AlTiN coating)
- High feed machining is possible even when using a long overhang operation due to cutter rigidity
- Maximum feed per tooth 1.0 mm/tooth

Cutting force mechanism comparison

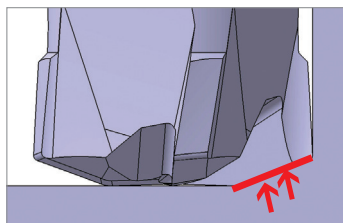
Lowers cutting forces when compared to conventional type ball end mills and competitor high feed radius milling cutters.



Conventional type ball end mill



Competitors' Corner R high feed mill



TaeguTec HighFeedMill(HFM)

Solid Carbide Type

HFM 2□□□ / HFM 4□□□ - **SOLIDFEED** for HFM

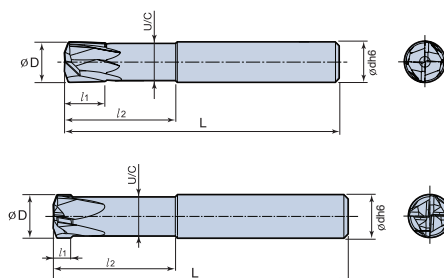


HFM 2□□□



HFM 4□□□

- High Feed Machining
- Unique geometry with low cutting forces
- Grade: TT1040



D	Tolerance
D ≤ 6	-0.015 - -0.030
6 < D ≤ 10	-0.015 - -0.035
10 < D ≤ 20	-0.015 - -0.040
Runout	0.01

HFM 2□□□

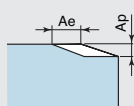
Designation	Dimension (mm)					
	D	I 1	I 2	L	U/C	d
HFM 2060	6	6	16	52	5.5	6
HFM 2080	8	8	22	60	7.3	8
HFM 2100	10	10	28	68	9.2	10
HFM 2120	12	12	33	76	11	12

HFM 4□□□

Designation	Dimension (mm)					
	D	I 1	I 2	L	U/C	d
HFM 4060	6	2.5	16	52	5.4	6
HFM 4080	8	3.5	24	60	7.2	8
HFM 4100	10	4.0	28	68	9.2	10
HFM 4120	12	5.0	33	76	11	12

HFM 2□□□ / HFM 4□□□

Material	Carbon steel, Alloy steel, Cast iron				Alloy steel, Tool steel				Stainless steel			
	S55C, SCM4				SKD61, SKT, NAK				SUS 304			
Hardness	- HRC30				HRC30 - HRC45							
Diameter	RPM	Feed	Ae(mm)	Ap(mm)	RPM	Feed	Ae(mm)	Ap(mm)	RPM	Feed	Ae(mm)	Ap(mm)
6	11000	13000	2.7	0.3	9000	11000	2.7	0.2	7500	9000	2.7	0.2
8	8500	13000	3.6	0.4	7500	11000	3.6	0.3	5600	9000	3.6	0.3
10	6500	13000	4.5	0.5	5500	11000	4.5	0.4	4500	9000	4.5	0.4
12	5500	11000	5.4	0.6	4500	9500	5.4	0.4	3800	8000	5.4	0.4



- Above feed rates of conditions based on 4 flutes, reduced by 50% of feed rates in case of 2 flutes.
- Overhang of endmill is over 5D, reduced by 20~30% of each cutting conditions (RPM, Feed, Ap).

Program Tip

Un-machined material thickness(W)				Un-machined material thickness(W)		
Designation	R _{theo}	W		Designation	R _{theo}	W
HFM 2060	0.35	0.4		HFM 4060	0.7	0.35
HFM 2080	0.5	0.5		HFM 4080	0.9	0.45
HFM 2100	0.65	0.7		HFM 4100	1	0.5
HFM 2120	1.2	0.8		HFM 4120	1.4	0.7