

Taper neck to improve tool rigidity.  
Option of same taper angle as inclined working angle



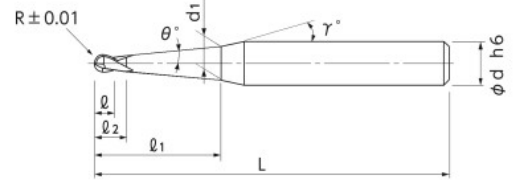
Prehardened Steel **P**

Hardened Steel ~55 HRC **H**

Hardened Steel ~65 HRC **H**

Stainless Steel **M**

Titanium Alloy Heat Resistant Alloy **S**



- Taper neck type ball end mill improves accuracy for deep milling.
- Optimized taper neck design and MUGEN COATING PREMIUM realized to show its higher ability for hardened steels.
- Lineup of total 209 size with high versatility 2-flute end mills.

※Please select the tool with the same neck angle as the inclined angle of the milling surface.

**(Neck Shape)**  
( $\gamma$ ) is reference value. Tool measurement required in order to avoid interference to the work material.

Unit : mm

Code No.	Radius (R)	Neck ※ Taper Angle ( $\theta$ )	Under Neck Length ( $l_1$ )	Neck Dia. ( $d_1$ )	Length of Cut ( $l$ )	Under Neck Length 2 ( $l_2$ )	Neck Taper Angle 2 ( $\gamma$ )	Effective Inclined Angle ( $\alpha$ )	Shank Dia. (d)	Overall Length (L)	
08-00588-00571	R0.05	3°	0.5	0.14	0.07	0.2	12°	2°59'	4	50	
08-00588-00573			0.75	0.17	0.07	0.2	12°	2°59'	4	50	
08-00588-00771	R0.075	3°	1	0.24	0.1	0.3	12°	2°59'	4	50	
08-00588-00773			1.5	0.29	0.1	0.3	12°	2°59'	4	50	
08-00588-01021	R0.1	30'	1.5	0.21	0.15	0.3	12°	0°29'	4	50	
08-00588-01023			2	0.22	0.15	0.3	12°	0°28'	4	50	
08-00588-01031		1°	1.5	0.24	0.15	0.3	12°	0°58'	4	50	
08-00588-01033			2	0.25	0.15	0.3	12°	0°58'	4	50	
08-00588-01041		1°30'	1.5	0.26	0.15	0.3	12°	1°29'	4	50	
08-00588-01043			2	0.29	0.15	0.3	12°	1°28'	4	50	
08-00588-01051		2°	1.5	0.29	0.15	0.3	12°	1°59'	4	50	
08-00588-01053			2	0.32	0.15	0.3	12°	1°59'	4	50	
08-00588-01073		3°	3	0.49	0.15	0.3	12°	2°59'	4	50	
08-00588-01075			5	0.7	0.15	0.3	12°	2°59'	4	50	
08-00588-01093		5°	3	0.7	0.15	0.3	12°	4°59'	4	50	
08-00588-01095			5	1.05	0.15	0.3	12°	4°59'	4	50	
08-00588-01521		R0.15	30'	2	0.32	0.2	0.45	12°	0°28'	4	50
08-00588-01523				3	0.34	0.2	0.45	12°	0°29'	4	50
08-00588-01531			1°	2	0.35	0.2	0.45	12°	0°59'	4	50
08-00588-01533				3	0.39	0.2	0.45	12°	0°59'	4	50
08-00588-01541	1°30'		2	0.38	0.2	0.45	12°	1°29'	4	50	
08-00588-01543			3	0.44	0.2	0.45	12°	1°29'	4	50	
08-00588-01551	2°		2	0.42	0.2	0.45	12°	1°58'	4	50	
08-00588-01553			3	0.49	0.2	0.45	12°	1°59'	4	50	
08-00588-01572	3°		2	0.48	0.2	0.45	12°	2°59'	4	50	
08-00588-01573			3	0.59	0.2	0.45	12°	2°59'	4	50	
08-00588-01575	5°		5	0.8	0.2	0.45	12°	2°59'	4	50	
08-00588-01577			7	1.01	0.2	0.45	12°	2°59'	4	50	
08-00588-01593	3°		3	0.79	0.2	0.45	12°	4°59'	4	50	
08-00588-01595			5	1.14	0.2	0.45	12°	4°59'	4	50	
08-00588-01597	7		1.49	0.2	0.45	12°	4°59'	4	50		
08-00588-02021	R0.2		30'	3	0.43	0.3	0.6	12°	0°29'	4	50
08-00588-02023		4		0.45	0.3	0.6	12°	0°29'	4	50	
08-00588-02025		6		0.48	0.3	0.6	12°	0°29'	4	50	
08-00588-02031		1°	3	0.48	0.3	0.6	12°	0°59'	4	50	
08-00588-02033			4	0.51	0.3	0.6	12°	0°59'	4	50	
08-00588-02035			6	0.58	0.3	0.6	12°	0°59'	4	50	
08-00588-02041		1°30'	3	0.53	0.3	0.6	12°	1°29'	4	50	
08-00588-02043			4	0.58	0.3	0.6	12°	1°29'	4	50	
08-00588-02045			6	0.68	0.3	0.6	12°	1°29'	4	50	
08-00588-02051		2°	3	0.58	0.3	0.6	12°	1°59'	4	50	
08-00588-02053			4	0.65	0.3	0.6	12°	1°59'	4	50	
08-00588-02055			6	0.79	0.3	0.6	12°	1°59'	4	50	

How to Order

When you order, indicate MRBTN230 (R)×( $\theta$ )×( $l_1$ ). ※( $\gamma$ ) is reference value.

Machining case

S-022

■ Semi-standard products, please inquire for price and delivery.