

Product Catalog

Carbide End Mill **GT** Series

Point 1 Flute shape corresponding to work Materials !!

Point 2 Coating excellent in durability !!

Point 3 Possible change order of specification !!



GT Ball Light

GT Ball Light BEL-2-TA



For Pre-Hardened steel use

The GT Ball Light can be used for various work materials with the rake angle set to **positive**. It employs a **TiAlN** original coat and is excellent in **cost effectiveness**.

Item Code	Model	Ball Radius	Flute Length	Effective length	Overall Length	Shank Diameter	Number of Flutes
120111A	GT Ball Light BEL-2-TA R0.5	R0.5	1.5	6	50	4	2
120112A	GT Ball Light BEL-2-TA R1.0	R1.0	3.0	8	60	4	2
120113A	GT Ball Light BEL-2-TA R1.5	R1.5	4.5	10	60	4	2
120114A	GT Ball Light BEL-2-TA R2.0	R2.0	6.0	-	70	4	2
120115A	GT Ball Light BEL-2-TA R3.0	R3.0	9.0	-	80	6	2
120116A	GT Ball Light BEL-2-TA R4.0	R4.0	12.0	-	80	8	2
120117A	GT Ball Light BEL-2-TA R5.0	R5.0	15.0	-	100	10	2
120118A	GT Ball Light BEL-2-TA R6.0	R6.0	18.0	-	100	12	2

Radius Tolerance $\pm 5 \mu\text{m}$

GT Ball Heavy

GT Ball Heavy BEH-2-GTS



For Hardened steel use

The GT ball Heavy can also be used for a **Si** original coat with the rake angle set to **negative**. It employs a **Si coat** excellent in heat resistance and actualizes excellent durability.

Item Code	Model	Ball Radius	Flute Length	Effective length	Overall Length	Shank Diameter	Number of Flutes
121111A	GT Ball Heaby BEH-2-GTS R0.5	R0.5	1.5	6	50	4	2
121112A	GT Ball Heaby BEH-2-GTS R1.0	R1.0	3.0	8	60	4	2
121113A	GT Ball Heaby BEH-2-GTS R1.5	R1.5	4.5	10	60	4	2
121114A	GT Ball Heaby BEH-2-GTS R2.0	R2.0	6.0	-	70	4	2
121115A	GT Ball Heaby BEH-2-GTS R3.0	R3.0	9.0	-	80	6	2
121116A	GT Ball Heaby BEH-2-GTS R4.0	R4.0	12.0	-	80	8	2
121117A	GT Ball Heaby BEH-2-GTS R5.0	R5.0	15.0	-	100	10	2
121118A	GT Ball Heaby BEH-2-GTS R6.0	R6.0	18.0	-	100	12	2

Radius Tolerance $\pm 5 \mu\text{m}$

GT Triple Ball Light

GT Triple Ball Light BEL-3-TA



For Pre-Hardened steel use

The GT Triple Ball Light can be used for various work materials with the rake angle set to **positive**. It employs a **TiAlN original coat**. The GT Triple Ball Light can obtain **excellent cutting efficiency** by using three flutes.

Item Code	Model	Ball Radius	Flute Length	Effective length	Overall Length	Shank Diameter	Number of Flutes
123111A	GT Triple Ball Light BEL-3-TA R0.5	R0.5	1.5	6	50	4	3
123112A	GT Triple Ball Light BEL-3-TA R1.0	R1.0	3.0	8	60	4	3
123113A	GT Triple Ball Light BEL-3-TA R1.5	R1.5	4.5	10	60	4	3
123114A	GT Triple Ball Light BEL-3-TA R2.0	R2.0	6.0	-	70	4	3
123115A	GT Triple Ball Light BEL-3-TA R3.0	R3.0	9.0	-	80	6	3
123116A	GT Triple Ball Light BEL-3-TA R4.0	R4.0	12.0	-	80	8	3
123117A	GT Triple Ball Light BEL-3-TA R5.0	R5.0	15.0	-	100	10	3
123118A	GT Triple Ball Light BEL-3-TA R6.0	R6.0	18.0	-	100	12	3

GT Triple Ball Heavy

GT Triple Ball Heavy BEH-3-GTS



For Hardened steel use

The GT Triple Ball Heavy can also be used for HRC60 or more with the rake angle set to **negative**. It employs a **Si coat** excellent in heat resistance and actualized excellent durability. The GT Triple Ball Heavy is high-end products whose **cutting efficiency** was pursued by using three flutes.

Item Code	Model	Ball Radius	Flute Length	Effective length	Overall Length	Shank Diameter	Number of Flutes
124111A	GT Triple Ball Heaby BEH-3-GTS R0.5	R0.5	1.5	6	50	4	3
124112A	GT Triple Ball Heaby BEH-3-GTS R1.0	R1.0	3.0	8	60	4	3
124113A	GT Triple Ball Heaby BEH-3-GTS R1.5	R1.5	4.5	10	60	4	3
124114A	GT Triple Ball Heaby BEH-3-GTS R2.0	R2.0	6.0	-	70	4	3
124115A	GT Triple Ball Heaby BEH-3-GTS R3.0	R3.0	9.0	-	80	6	3
124116A	GT Triple Ball Heaby BEH-3-GTS R4.0	R4.0	12.0	-	80	8	3
124117A	GT Triple Ball Heaby BEH-3-GTS R5.0	R5.0	15.0	-	100	10	3
124118A	GT Triple Ball Heaby BEH-3-GTS R6.0	R6.0	18.0	-	100	12	3

GT Radius Fly

GT Radius Fly REF-3-N



For aluminum and nonferrous use

The GT Radius Fly gives **sharp edge** to soft materials with the rake angle set to strong **positive**. A standard product is a non-coated one. However, **durability** can be **further** improved by coating **DLC** using an **option**.

Item Code	Model	Tool Diameter	Corner Radius	Overall Length	Flute Length	Shank Diameter	Number of Flutes
111111A	GT Radius Fly REF-3-N φ 4 R0.5	4	R0.5	70	8	6	3
111112A	GT Radius Fly REF-3-N φ 4 R1.0	4	R1.0	70	8	6	3
111113A	GT Radius Fly REF-3-N φ 6 R0.5	6	R0.5	80	12	6	3
111114A	GT Radius Fly REF-3-N φ 6 R1.0	6	R1.0	80	12	6	3
111115A	GT Radius Fly REF-3-N φ 6 R1.5	6	R1.5	80	12	6	3
111116A	GT Radius Fly REF-3-N φ 8 R0.5	8	R0.5	90	16	8	3
111117A	GT Radius Fly REF-3-N φ 8 R1.0	8	R1.0	90	16	8	3
111118A	GT Radius Fly REF-3-N φ 8 R2.0	8	R2.0	90	16	8	3
111119A	GT Radius Fly REF-3-N φ 10 R0.5	10	R0.5	100	20	10	3
111120A	GT Radius Fly REF-3-N φ 10 R1.0	10	R1.0	100	20	10	3
111121A	GT Radius Fly REF-3-N φ 10 R2.0	10	R2.0	100	20	10	3
111122A	GT Radius Fly REF-3-N φ 12 R0.5	12	R0.5	110	24	12	3
111123A	GT Radius Fly REF-3-N φ 12 R1.0	12	R1.0	110	24	12	3
111124A	GT Radius Fly REF-3-N φ 12 R2.0	12	R2.0	110	24	12	3
111125A	GT Radius Fly REF-3-N φ 12 R3.0	12	R3.0	110	24	12	3
111126A	GT Radius Fly REF-3-N φ 16 R0.5	16	R0.5	140	32	16	3
111127A	GT Radius Fly REF-3-N φ 16 R1.0	16	R1.0	140	32	16	3
111128A	GT Radius Fly REF-3-N φ 16 R2.0	16	R2.0	140	32	16	3
111129A	GT Radius Fly REF-3-N φ 16 R3.0	16	R3.0	140	32	16	3

GT Radius Light

GT Radius Light REL-3-TA



For pre-hardened steel use

The GT Radius Light is used for various materials such as SC an NAK materials with the rake angle set to **positive**. It actualizes a long life by using the **TA coat developed exclusively by our company**.

Item Code	Model	Tool Diameter	Corner Radius	Overall Length	Flute Length	Shank Diameter	Number of Flutes
112111A	GT Radius Light REL-3-TA φ 4 R0.5	4	R0.5	70	8	6	3
112112A	GT Radius Light REL-3-TA φ 4 R1.0	4	R1.0	70	8	6	3
112113A	GT Radius Light REL-3-TA φ 6 R0.5	6	R0.5	80	12	6	3
112114A	GT Radius Light REL-3-TA φ 6 R1.0	6	R1.0	80	12	6	3
112115A	GT Radius Light REL-3-TA φ 6 R1.5	6	R1.5	80	12	6	3
112116A	GT Radius Light REL-3-TA φ 8 R0.5	8	R0.5	90	16	8	3
112117A	GT Radius Light REL-3-TA φ 8 R1.0	8	R1.0	90	16	8	3
112118A	GT Radius Light REL-3-TA φ 8 R2.0	8	R2.0	90	16	8	3
112119A	GT Radius Light REL-3-TA φ 10 R0.5	10	R0.5	100	20	10	3
112120A	GT Radius Light REL-3-TA φ 10 R1.0	10	R1.0	100	20	10	3
112121A	GT Radius Light REL-3-TA φ 10 R2.0	10	R2.0	100	20	10	3
112122A	GT Radius Light REL-3-TA φ 12 R0.5	12	R0.5	110	24	12	3
112123A	GT Radius Light REL-3-TA φ 12 R1.0	12	R1.0	110	24	12	3
112124A	GT Radius Light REL-3-TA φ 12 R2.0	12	R2.0	110	24	12	3
112125A	GT Radius Light REL-3-TA φ 12 R3.0	12	R3.0	110	24	12	3
112126A	GT Radius Light REL-3-TA φ 16 R0.5	16	R0.5	140	32	16	3
112127A	GT Radius Light REL-3-TA φ 16 R1.0	16	R1.0	140	32	16	3
112128A	GT Radius Light REL-3-TA φ 16 R2.0	16	R2.0	140	32	16	3
112129A	GT Radius Light REL-3-TA φ 16 R3.0	16	R3.0	140	32	16	3

GT Radius Middle

GT Radius Middle REM-4-GTL



For nickel based alloys,
SUS use

The GT Radius Middle exerts an effect on the **high-viscosity hard-to-cut materials** such as SUS materials and nickel-based heat-resisting steel with the rake angle set to weak **negative**. It shows an effect under wet milling by using a **chrome GTL coat**.

Item Code	Model		Tool Diameter	Corner Radius	Overall Length	Flute Length	Shank Diameter	Number of Flutes
114111A	GT Radius Middle	REM-4-GTL φ 4 R0.5	4	R0.5	70	8	6	4
114112A	GT Radius Middle	REM-4-GTL φ 4 R1.0	4	R1.0	70	8	6	4
114113A	GT Radius Middle	REM-4-GTL φ 6 R0.5	6	R0.5	80	12	6	4
114114A	GT Radius Middle	REM-4-GTL φ 6 R1.0	6	R1.0	80	12	6	4
114115A	GT Radius Middle	REM-4-GTL φ 6 R1.5	6	R1.5	80	12	6	4
114116A	GT Radius Middle	REM-4-GTL φ 8 R0.5	8	R0.5	90	16	8	4
114117A	GT Radius Middle	REM-4-GTL φ 8 R1.0	8	R1.0	90	16	8	4
114118A	GT Radius Middle	REM-4-GTL φ 8 R2.0	8	R2.0	90	16	8	4
114119A	GT Radius Middle	REM-4-GTL φ 10 R0.5	10	R0.5	100	20	10	4
114120A	GT Radius Middle	REM-4-GTL φ 10 R1.0	10	R1.0	100	20	10	4
114121A	GT Radius Middle	REM-4-GTL φ 10 R2.0	10	R2.0	100	20	10	4
114122A	GT Radius Middle	REM-4-GTL φ 12 R0.5	12	R0.5	110	24	12	4
114123A	GT Radius Middle	REM-4-GTL φ 12 R1.0	12	R1.0	110	24	12	4
114124A	GT Radius Middle	REM-4-GTL φ 12 R2.0	12	R2.0	110	24	12	4
114125A	GT Radius Middle	REM-4-GTL φ 12 R3.0	12	R3.0	110	24	12	4
114126A	GT Radius Middle	REM-4-GTL φ 16 R0.5	16	R0.5	140	32	16	4
114127A	GT Radius Middle	REM-4-GTL φ 16 R1.0	16	R1.0	140	32	16	4
114128A	GT Radius Middle	REM-4-GTL φ 16 R2.0	16	R2.0	140	32	16	4
114129A	GT Radius Middle	REM-4-GTL φ 16 R3.0	16	R3.0	140	32	16	4

GT Radius Heavy

GT Radius Heavy REH-4-GTS



For Hardened steel use

The GT Radius Heavy exerts an effect on the die steel and high-rigidity materials such as quenched SKD with the rake angle set to **strong negative**. It can cut even materials with rigidity of HRC 60 or more by using a **silicon GTS coat**.

Item Code	Model		Tool Diameter	Corner Radius	Overall Length	Flute Length	Shank Diameter	Number of Flutes
116111A	GT Radius Heavy	REH-4-GTS φ 4 R0.5	4	R0.5	70	8	6	4
116112A	GT Radius Heavy	REH-4-GTS φ 4 R1.0	4	R1.0	70	8	6	4
116113A	GT Radius Heavy	REH-4-GTS φ 6 R0.5	6	R0.5	80	12	6	4
116114A	GT Radius Heavy	REH-4-GTS φ 6 R1.0	6	R1.0	80	12	6	4
116115A	GT Radius Heavy	REH-4-GTS φ 6 R1.5	6	R1.5	80	12	6	4
116116A	GT Radius Heavy	REH-4-GTS φ 8 R0.5	8	R0.5	90	16	8	4
116117A	GT Radius Heavy	REH-4-GTS φ 8 R1.0	8	R1.0	90	16	8	4
116118A	GT Radius Heavy	REH-4-GTS φ 8 R2.0	8	R2.0	90	16	8	4
116119A	GT Radius Heavy	REH-4-GTS φ 10 R0.5	10	R0.5	100	20	10	4
116120A	GT Radius Heavy	REH-4-GTS φ 10 R1.0	10	R1.0	100	20	10	4
116121A	GT Radius Heavy	REH-4-GTS φ 10 R2.0	10	R2.0	100	20	10	4
116122A	GT Radius Heavy	REH-4-GTS φ 12 R0.5	12	R0.5	110	24	12	4
116123A	GT Radius Heavy	REH-4-GTS φ 12 R1.0	12	R1.0	110	24	12	4
116124A	GT Radius Heavy	REH-4-GTS φ 12 R2.0	12	R2.0	110	24	12	4
116125A	GT Radius Heavy	REH-4-GTS φ 12 R3.0	12	R3.0	110	24	12	4
116126A	GT Radius Heavy	REH-4-GTS φ 16 R0.5	16	R0.5	140	32	16	4
116127A	GT Radius Heavy	REH-4-GTS φ 16 R1.0	16	R1.0	140	32	16	4
116128A	GT Radius Heavy	REH-4-GTS φ 16 R2.0	16	R2.0	140	32	16	4
116129A	GT Radius Heavy	REH-4-GTS φ 16 R3.0	16	R3.0	140	32	16	4

GT Radius Super Heavy

GT Radius Super Heavy RESH-6-GTS

For welding bead use



The GT Radius Super Heavy exerts an effect on the **very hard materials** such as a welding bead with the rake angle set to very strong **negative**. It makes the web thickness large to improve the **rigidity** as well as improving the cutting efficiency by using **six flutes**.

Item Code	Model	Tool Diameter	Corner Radius	Overall Length	Flute Length	Shank Diameter	Number of Flutes
113111A	GT Radius Super Heaby RESH-6-GTS φ 8 R1.5	8	R1.5	90	16	8	6
113112A	GT Radius Super Heaby RESH-6-GTS φ 10 R2.0	10	R2.0	100	20	10	6
113113A	GT Radius Super Heaby RESH-6-GTS φ 12 R2.5	12	R2.5	110	24	12	6
113114A	GT Radius Super Heaby RESH-6-GTS φ 16 R3.0	16	R3.0	140	32	16	6

Customize & Recycle

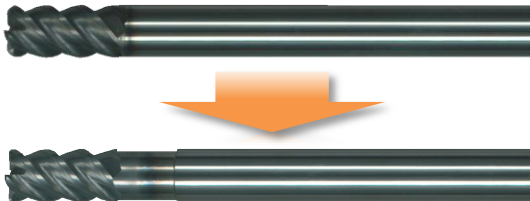
※ Japan domestic only.

Customize & Recycle

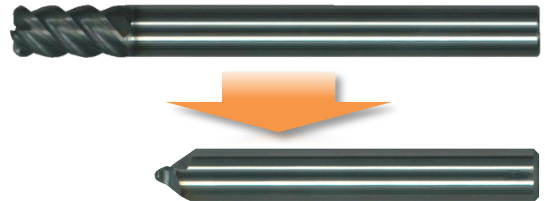
In the GT series, product can be customized according to the needs.

Example

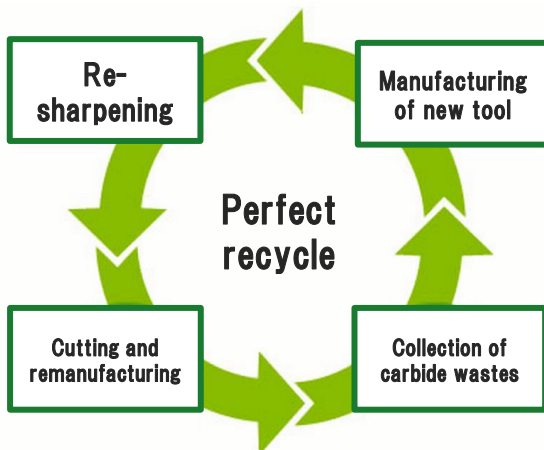
A new tool can be additionally machined under the head.



A tool is renovated to a chamfering mill after it is used.



The used carbide tool is collected and purchased as resources.
The purchase expense can also be balanced out with the price of a new tool and re-sharpening.



The unit cost of purchase fluctuates.
For more details, consult the sales representative.

Re-sharpening Service

Re-Sharpning Service

Provides the re-sharpening / re-coating service of tools below.

- Carbide/HSS Square end mill
- Carbide/HSS Ball end mill
- Carbide/HSS Radius end mill
- Carbide/HSS Drill
- Reamer
- Tap
- Various cutters
- Other cutting tools



Optimum tool manufacturing and re-sharpening environments are improved by introduction of the latest facilities.



This product is used for a variety of coating, and a PVD coating furnace is completely equipped by our company so as to meet short delivery time.



Inspection and measurement environments are improved to ensure high precision and high quality.

Please consult us at any time for cutting tools of special tools other than described in this catalog !!

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2015/08/26

The specification is subject to change without notice