










Zamus Thunder Series



Zamus Thunder Series

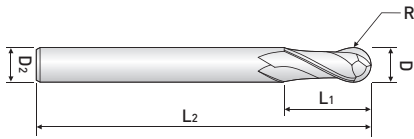


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Zamus Thunder Series



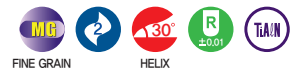
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2 FLUTE, LONG LENGTH, BALL NOSE

- Designed to machine tool steel, alloy steel, mold steel and other high hardened materials.
- Suitable for copy milling.

DB312 ...series

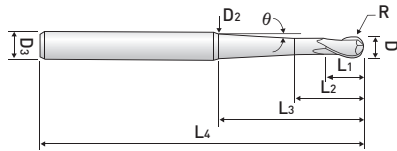


EDP. No.	Dia.	R	L ₁	L ₂	D ₂	STOCK
DB312010S4	1	0.5	2.5	50	4	•
DB312010					6	•
DB312012	1.2	0.6	3	50	6	•
DB312015	1.5	0.75	4	50	6	•
DB312020S4	2	1	5	50	4	•
DB312020					6	•
DB312025	2.5	1.25	6	60	6	•
DB312030S3	3	1.5	8	60	3	•
DB312030S4					4	•
DB312030					6	•
DB312035	3.5	1.75	8	70	6	•
DB312040S4	4	2	8	70	4	•
DB312040					6	•
DB312045	4.5	2.25	8	70	6	•
DB312050	5	2.5	10	80	6	•
DB312055	5.5	2.75	10	80	6	•
DB312060S	6	3	12	60	6	•
DB312060				90		•
DB312065	6.5	3.25	12	90	8	•
DB312070	7	3.5	14	90	8	•
DB312080S	8	4	14	60	8	•
DB312080				100		•
DB312090	9	4.5	18	100	10	•
DB312100S	10	5	18	60	10	•
DB312100				100		•
DB312120	12	6	22	110	12	•
DB312140	14	7	26	110	14	•
DB312160	16	8	30	140	16	•
DB312180	18	9	34	140	18	•
DB312200	20	10	38	160	20	•

■ Tolerance

Mill Dia, (mm)	Shank Dia,
0 ~ -0,02	h6

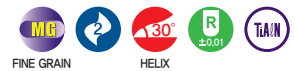
※ Items can be changed for quality improvement without notice.



2 FLUTE, BALL NOSE with TAPER NECK

- Suitable for deep slotting machining performance as long size shape with taper neck.

DB342series

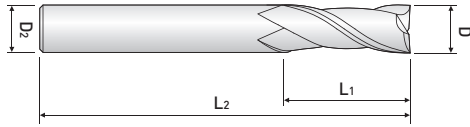


EDP. No.	D	R	L ₁	L ₂	L ₃	L ₄	D ₂	D ₃	θ	STOCK
DB34201015	1	0.5	2	4	23	60	2	6	1°30'	•
4.3							5°		•	
5							3°		•	
DB34202015	2	1	4	6	23	60	2.9	6	1°30'	•
5							5°		•	
5.7							3°		•	
DB34202030	3	1.5	6	8	32	70	5.6	6	3°	•
5.3							1°30'		•	
6							3°		•	
DB34204030	4	2	8	10	28	70	6	6	3°	•
49					90	1°30'			•	
DB34205030	5	2.5	10	12	41	90	8	8	3°	•
61					110	1°30'			•	
DB34206030	6	3	12	15	34	90	8	8	3°	•
53					110	1°30'			•	
DB34208030	8	4	14	17	36	100	10	10	3°	•
55					120	1°30'			•	
DB34210030	10	5	18	21	40	110	12	12	3°	•
59					130	1°30'			•	
DB34212030	12	6	22	25	63	140	16	16	3°	•
83					160	1°30'			•	

■ Tolerance

Mill Dia. (mm)	Shank Dia.
0 ~ -0.02	h6

※Items can be changed for quality improvement without notice.



2 FLUTE, REGULAR LENGTH

- Designed to machine tool steel, alloy steel, mold steel and other high hardened materials.

ZE302 ...series

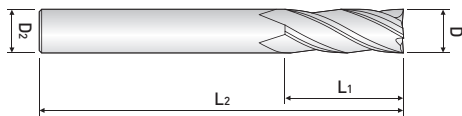


EDP. No.	Dia.	L ₁	L ₂	D ₂	STOCK
ZE302010	1	2.5	40	6	•
ZE302015	1.5	4	40	6	•
ZE302020	2	6	40	6	•
ZE302025	2.5	8	40	6	•
ZE302030	3	8	45	6	•
ZE302035	3.5	10	45	6	•
ZE302040	4	11	45	6	•
ZE302045	4.5	11	45	6	•
ZE302050	5	13	50	6	•
ZE302055	5.5	13	50	6	•
ZE302060	6	13	50	6	•
ZE302065	6.5	16	60	8	•
ZE302070	7	16	60	8	•
ZE302075	7.5	16	60	8	•
ZE302080	8	19	60	8	•
ZE302085	8.5	19	70	10	•
ZE302090	9	19	70	10	•
ZE302095	9.5	19	70	10	•
ZE302100	10	22	70	10	•
ZE302105	10.5	22	75	12	•
ZE302110	11	22	75	12	•
ZE302115	11.5	22	75	12	•
ZE302120	12	26	75	12	•
ZE302130	13	26	80	12	•
ZE302140	14	26	80	14	•
ZE302150	15	32	90	16	•
ZE302160	16	32	90	16	•
ZE302180	18	32	100	18	•
ZE302200	20	38	100	20	•

■ Tolerance

Mill Dia, (mm)	Shank Dia,
0 ~ -0,02	h6

※Items can be changed for quality improvement without notice.



4 FLUTE, REGULAR LENGTH

- Designed to machine tool steel, alloy steel, mold steel and other high hardened materials.

ZE304 ...series

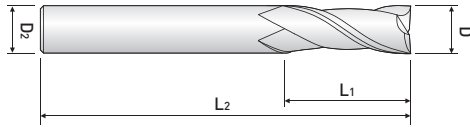


EDP. No.	Dia.	L ₁	L ₂	D ₂	STOCK
ZE304020	2	6	40	6	•
ZE304025	2.5	8	40	6	•
ZE304030	3	8	45	6	•
ZE304035	3.5	10	45	6	•
ZE304040	4	11	45	6	•
ZE304045	4.5	11	45	6	•
ZE304050	5	13	50	6	•
ZE304055	5.5	13	50	6	•
ZE304060	6	13	50	6	•
ZE304065	6.5	16	60	8	•
ZE304070	7	16	60	8	•
ZE304075	7.5	16	60	8	•
ZE304080	8	19	60	8	•
ZE304085	8.5	19	70	10	•
ZE304090	9	19	70	10	•
ZE304095	9.5	19	70	10	•
ZE304100	10	22	70	10	•
ZE304105	10.5	22	75	12	•
ZE304110	11	22	75	12	•
ZE304115	11.5	22	75	12	•
ZE304120	12	26	75	12	•
ZE304130	13	26	80	12	•
ZE304140	14	26	80	14	•
ZE304150	15	32	90	16	•
ZE304160	16	32	90	16	•
ZE304180	18	32	100	18	•
ZE304200	20	38	100	20	•

■ Tolerance

Mill Dia. (mm)	Shank Dia.
0 ~ -0.02	h6

※Items can be changed for quality improvement without notice.



2 FLUTE, LONG & EXTRA LONG LENGTH

- Designed to machine tool steel, alloy steel, mold steel and other high hardened materials.

ZE322 ...series

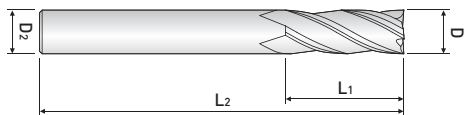


EDP. No.	Dia.	L ₁	L ₂	D ₂	STOCK
ZE322030	3	15	60	6	•
ZE322031		20	70		•
ZE322030S			100	3	•
ZE322040	4	15	60	6	•
ZE322041		20	70		•
ZE322040S			100	4	•
ZE322050	5	20	60	6	•
ZE322051			80		•
ZE322052		25	100		•
ZE322060	6	20	80	6	•
ZE322061		30	100		•
ZE322062		40	150		•
ZE322080	8	30	90	8	•
ZE322081		35	100		•
ZE322082		40	150		•
ZE322100	10	30	90	10	•
ZE322101		35	100		•
ZE322102		45	150		•
ZE322103		55	180		•
ZE322120	12	30	90	12	•
ZE322121		40	110		•
ZE322122		50	150		•
ZE322123		60	200		•
ZE322140	14	40	120	14	•
ZE322141		60	150		•
ZE322160	16	50	140	16	•
ZE322161		70	160		•
ZE322162		80	200		•
ZE322180	18	50	140	18	•
ZE322200	20	60	150	20	•
ZE322201		100	200		•
ZE322202		130	250		•

■ Tolerance

Mill Dia, (mm)	Shank Dia,
0 ~ -0,03	h6

※Items can be changed for quality improvement without notice.



4 FLUTE, LONG & EXTRA LONG LENGTH

- Designed to machine tool steel, alloy steel, mold steel and other high hardened materials.

ZE324 ...series

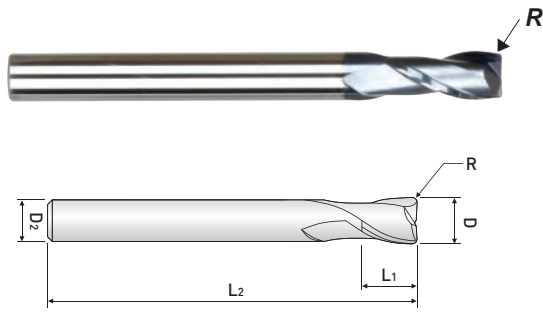


EDP. No.	Dia.	L ₁	L ₂	D ₂	STOCK
ZE324030	3	15	60	6	•
ZE324031		20	70		
ZE324030S			100	3	
ZE324040	4	15	60	6	•
ZE324041		20	70		
ZE324040S			100	4	
ZE324050	5	20	60	6	•
ZE324051			80		
ZE324052		25	100		
ZE324060	6	20	80	6	•
ZE324061		30	100		
ZE324062		40	150		
ZE324080	8	30	90	8	•
ZE324081		35	100		
ZE324082		40	150		
ZE324100	10	30	90	10	•
ZE324101		35	100		
ZE324102		45	150		
ZE324103		55	180		
ZE324120	12	30	90	12	•
ZE324121		40	110		
ZE324122		50	150		
ZE324123		60	200		
ZE324140	14	40	120	14	•
ZE324141		60	150		
ZE324160	16	50	140	16	•
ZE324161		70	160		
ZE324162		80	200		
ZE324180	18	50	140	18	•
ZE324200	20	60	150	20	•
ZE324201		100	200		
ZE324202		130	250		

■ Tolerance

Mill Dia. (mm)	Shank Dia.
0 ~ -0,03	h6

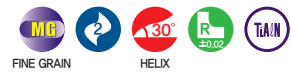
※Items can be changed for quality improvement without notice.



2 FLUTE, CORNER RADIUS LONG LENGTH

- Designed to machine tool steel, alloy steel mold steel and other high hardened materials.
- TiALN coated for high wear resistance.

ZR322series

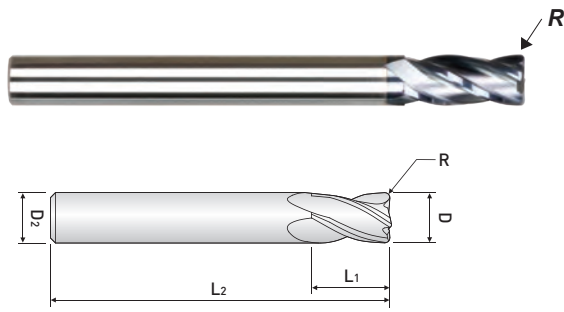


EDP. No.	Dia.	R	L ₁	L ₂	D ₂	STOCK	
ZR3220302	3	0.2	8	60	4	•	
ZR3220302		0.3			6		
ZR3220303					6		
ZR3220305					4		
ZR3220305					6		
ZR3220402	4	0.2	11	70	4	•	
ZR3220402		0.3			6		
ZR3220403					6		
ZR3220405					4		
ZR3220405					6		
ZR3220410					4		
ZR3220410	6						
ZR3220502	5	0.2	13	80	6	•	
ZR3220503		0.3					
ZR3220505							0.5
ZR3220510							1.0
ZR3220602	6	0.2	13	90	6	•	
ZR3220603		0.3					
ZR3220605							0.5
ZR3220610							1.0
ZR3220803	8	0.3	19	100	8	•	
ZR3220805		0.5					
ZR3220810							1.0
ZR3220815							1.5
ZR3220820							2.0
ZR3221003	10	0.3	22	100	10	•	
ZR3221005		0.5					
ZR3221010							1.0
ZR3221015							1.5
ZR3221020							2.0
ZR3221025	2.5						
ZR3221205	12	0.5	26	110	12	•	
ZR3221210		1.0					
ZR3221215							1.5
ZR3221220							2.0
ZR3221225							2.5
ZR3221230							3.0

■ Tolerance

Mill Dia. (mm)	Shank Dia.
0 ~ -0,03	h6

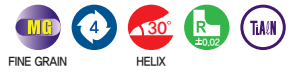
※ Items can be changed for quality improvement without notice.



4 FLUTE, CORNER RADIUS LONG LENGTH

- Designed to machine tool steel, alloy steel mold steel and other high hardened materials.
- TiALN coated for high wear resistance.

ZR324series

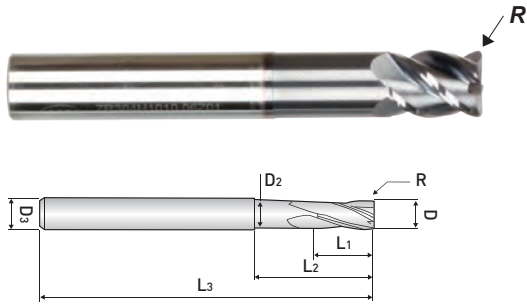


EDP. No.	Dia.	R	L ₁	L ₂	D ₂	STOCK
ZR3240302	3	0.2	8	60	4	•
ZR3240302					6	
ZR3240303					6	
ZR3240305					4	
ZR3240305					6	
ZR3240402	4	0.2	11	70	4	•
ZR3240402					6	
ZR3240403					6	
ZR3240405					4	
ZR3240405					6	
ZR3240410					4	
ZR3240410	6					
ZR3240502	5	0.2	13	80	6	•
ZR3240503		0.3				
ZR3240505		0.5				
ZR3240510		1.0				
ZR3240602	6	0.2	13	90	6	•
ZR3240603		0.3				
ZR3240605		0.5				
ZR3240610		1.0				
ZR3240803	8	0.3	19	100	8	•
ZR3240805		0.5				
ZR3240810		1.0				
ZR3240815		1.5				
ZR3240820		2.0				
ZR3241003	10	0.3	22	100	10	•
ZR3241005		0.5				
ZR3241010		1.0				
ZR3241015		1.5				
ZR3241020		2.0				
ZR3241025	2.5					
ZR3241205	12	0.5	26	110	12	•
ZR3241210		1.0				
ZR3241215		1.5				
ZR3241220		2.0				
ZR3241225		2.5				
ZR3241230		3.0				

■ Tolerance

Mill Dia. (mm)	Shank Dia.
0 ~ -0.03	h6

※Items can be changed for quality improvement without notice.



4 FLUTE, 45° HELIX STUB CUT LENGTH, CORNER RADIUS with EXTENDED NECK

- Designed for high hardened materials up to HRc 45.
- Suitable for high speed machining.

ZR304H ...series



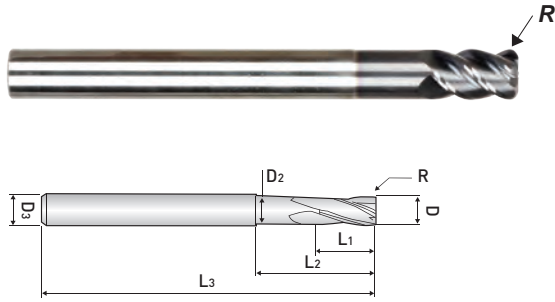
EDP. No.	D	R	L ₁	L ₂	L ₃	D ₂	D ₃	STOCK
ZR304H0303	3	0.3	4	12	55	2.8	6	
ZR304H0305		0.5						
ZR304H0403	4	0.3	5	16	55	3.8	6	
ZR304H0405		0.5						
ZR304H0605	6	0.5	7	20	60	5.8	6	
ZR304H0610		1.0						
ZR304H0805	8	0.5	10	25	65	7.8	8	
ZR304H0810		1.0						
ZR304H1005	10	0.5	12	30	70	9.8	10	
ZR304H1010		1.0						
ZR304H1015		1.5						
ZR304H1020		2.0						
ZR304H1205	12	0.5	15	30	80	11.8	12	
ZR304H1210		1.0						
ZR304H1215		1.5						
ZR304H1220		2.0						

※ These tools are manufactured based on order received.

■ Tolerance

Mill Dia, (mm)	Shank Dia,
0 ~ -0,03	h6

※ Items can be changed for quality improvement without notice.



4 FLUTE, 45° HELIX STUB CUT LENGTH, CORNER RADIUS LONG SHANK

- Designed for high hardened materials up to HRc 45.
- Suitable for high speed machining.

ZR324H ...series



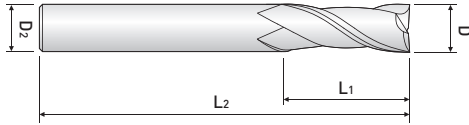
EDP. No.	D	R	L ₁	L ₂	L ₃	D ₂	D ₃	STOCK
ZR324H0605	6	0.5	9	20	90	5.8	6	
ZR324H0610		1.0						
ZR324H0805	8	0.5	12	25	100	7.8	8	
ZR324H0810		1.0						
ZR324H1005	10	0.5	15	32	100	9.8	10	
ZR324H1010		1.0						
ZR324H1015		1.5						
ZR324H1020		2.0						
ZR324H1205	12	0.5	18	38	110	11.8	12	
ZR324H1210		1.0						
ZR324H1215		1.5						
ZR324H1220		2.0						

※ These tools are manufactured based on order received.

■ Tolerance

Mill Dia. (mm)	Shank Dia.
0 ~ -0.03	h6

※ Items can be changed for quality improvement without notice.



2 FLUTE, REGULAR LENGTH

- Designed to machine tool steel, alloy steel, mold steel and other high hardened materials.
- Excellent high-performance Endmills.

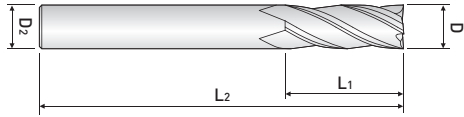
TX302...series



EDP. No.	Dia.	L ₁	L ₂	D ₂	STOCK
TX302010	1	3	50	4	•
TX302015	1.5	4	50	4	•
TX302020	2	6	50	4	•
TX302025	2.5	8	50	4	•
TX302030	3	9	50	4	•
TX302040	4	11	50	4	•
TX302050	5	13	50	6	•
TX302060	6	16	50	6	•
TX302070	7	16	60	8	•
TX302080	8	19	60	8	•
TX302090	9	19	60	10	•
TX302100	10	25	75	10	•
TX302120	12	30	75	12	•
TX302140	14	32	75	14	•
TX302160	16	32	100	16	•
TX302180	18	32	100	18	•
TX302200	20	38	100	20	•

■ Tolerance μm = 1/1000mm

Tolerance \ Dia.	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
Cutting Edge(d11)	-14 -28	-20 -38	-25 -47	-32 -59	-40 -73
Shank(h6)	0 -6	0 -8	0 -9	0 -11	0 -13



4 FLUTE, REGULAR LENGTH

- Designed to machine tool steel, alloy steel, mold steel and other high hardened materials.
- Excellent high-performance Endmills.

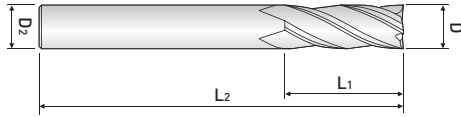
TX304...series



EDP. No.	Dia.	L ₁	L ₂	D ₂	STOCK
TX304010	1	3	50	4	•
TX304015	1.5	4	50	4	•
TX304020	2	6	50	4	•
TX304025	2.5	8	50	4	•
TX304030	3	9	50	4	•
TX304040	4	11	50	4	•
TX304050	5	13	50	6	•
TX304060	6	16	50	6	•
TX304070	7	16	60	8	•
TX304080	8	19	60	8	•
TX304090	9	19	60	10	•
TX304100	10	25	75	10	•
TX304120	12	30	75	12	•
TX304140	14	32	75	14	•
TX304160	16	32	100	16	•
TX304180	18	32	100	18	•
TX304200	20	38	100	20	•

■ Tolerance

Tolerance	Dia.	μm = 1/1000mm				
		from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
Cutting Edge(d11)		-14	-20	-25	-32	-40
		-28	-38	-47	-59	-73
Shank(h6)		0	0	0	0	0
		-6	-8	-9	-11	-13



4 FLUTE, 45° HELIX, REGULAR LENGTH

- Designed to machine tool steel, alloy steel, mold steel and other high hardened materials.
- Excellent high-performance Endmills.

TX304H ...series

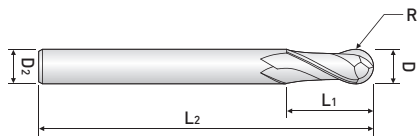


EDP. No.	Dia.	L ₁	L ₂	D ₂	STOCK
TX304H030	3	8	50	6	
TX304H040	4	11	50	6	
TX304H050	5	13	50	6	
TX304H060	6	13	50	6	
TX304H080	8	19	60	8	
TX304H100	10	22	70	10	
TX304H120	12	26	75	12	
TX304H130	13	26	80	12	
TX304H140	14	26	80	14	
TX304H160	16	32	90	16	
TX304H180	18	32	100	18	
TX304H200	20	38	100	20	

※ These tools are manufactured based on order received.

■ Tolerance μm = 1/1000mm

Tolerance \ Dia.	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
Cutting Edge(d11)	-14 -28	-20 -38	-25 -47	-32 -59	-40 -73
Shank(h6)	0 -6	0 -8	0 -9	0 -11	0 -13



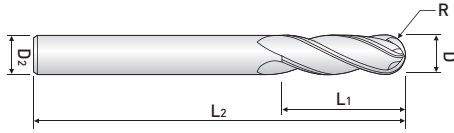
2FLUTE, REGULAR LENGTH, BALL NOSE

- Designed to machine tool steel, alloy, mold steel and other high hardened material.
- Suitable to profile processing.

TXB302...series



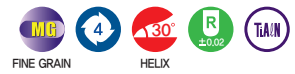
EDP. No.	Dia.	R	L ₁	L ₂	D ₂	STOCK
TXB302010	1	0.5	2	50	4	•
TXB302015	1.5	0.75	3	50	4	•
TXB302020	2	1	4	50	4	•
TXB302025	2.5	1.25	6	50	4	•
TXB302030	3	1.5	6	50	4	•
TXB302040	4	2	8	50	4	•
TXB302050	5	2.5	10	50	6	•
TXB302060	6	3	12	50	6	•
TXB302080	8	4	14	60	8	•
TXB302100	10	5	18	75	10	•
TXB302120	12	6	22	75	12	•
TXB302140	14	7	32	75	14	•
TXB302160	16	8	32	100	16	•
TXB302180	18	9	32	100	18	•
TXB302200	20	10	38	100	20	•



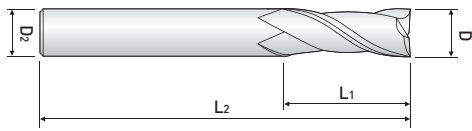
4 FLUTE, REGULAR LENGTH, BALL NOSE

- Designed to machine tool steel, alloy steel, mold steel and other high hardened materials.
- Excellent workpiece finishes.

TXB304...series



EDP. No.	Dia.	R	L ₁	L ₂	D ₂	STOCK
TXB304010	1	0.5	2	50	4	•
TXB304015	1.5	0.75	3	50	4	•
TXB304020	2	1	4	50	4	•
TXB304030	3	1.5	6	50	4	•
TXB304040	4	2	8	50	4	•
TXB304050	5	2.5	10	50	6	•
TXB304060	6	3	12	50	6	•
TXB304080	8	4	14	60	8	•
TXB304100	10	5	18	75	10	•
TXB304120	12	6	22	75	12	•
TXB304140	14	7	32	75	14	•
TXB304160	16	8	32	100	16	•
TXB304180	18	9	32	100	18	•
TXB304200	20	10	38	100	20	•



2 FLUTE, SHORT LENGTH

- Designed to machine tool steel, alloy steel, mold steel and other high hardened materials.
- Excellent workpiece finishes.

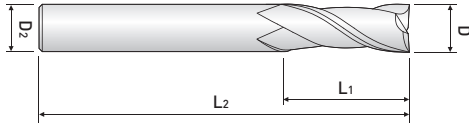
TX202...series



EDP. No.	Dia.	L ₁	L ₂	D ₂	STOCK
TX202010	1	3	39	3	•
TX202015	1.5	5	39	3	•
TX202020	2	7	39	3	•
TX202025	2.5	8	39	3	•
TX202030	3	10	39	3	•
TX202040	4	14	51	4	•
TX202050	5	16	51	5	•
TX202060	6	19	64	6	•
TX202080	8	21	64	8	•
TX202100	10	25	70	10	•
TX202120	12	25	76	12	•
TX202160	16	32	89	16	•
TX202200	20	38	102	20	•

■ Tolerance

Tolerance	Dia.	μm = 1/1000mm				
		from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
Cutting Edge(d11)	-14	-20	-25	-32	-40	
	-28	-38	-47	-59	-73	
Shank(h6)	0	0	0	0	0	
	-6	-8	-9	-11	-13	



2 FLUTE, LONG LENGTH

- Designed to machine tool steel, alloy steel, mold steel and other high hardened materials.
- Excellent workpiece finishes.

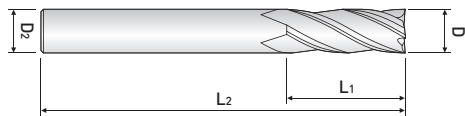
TX222...series



EDP. No.	Dia.	L ₁	L ₂	D ₂	STOCK
TX222030	3	20	60	3	•
TX222040	4	20	60	4	•
TX222050	5	25	75	5	•
TX222060	6	30	75	6	•
TX222080	8	30	75	8	•
TX222100	10	40	100	10	•
TX222120	12	45	100	12	•
TX222140	14	45	100	14	•
TX222160	16	45	100	16	•
TX222180	18	45	100	18	•
TX222200	20	45	100	20	•

■ Tolerance

Tolerance	Dia.	μm = 1/1000mm				
		from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
Cutting Edge(d11)		-14	-20	-25	-32	-40
		-28	-38	-47	-59	-73
Shank(h6)		0	0	0	0	0
		-6	-8	-9	-11	-13



4 FLUTE, SHORT LENGTH

- Designed to machine tool steel, alloy steel, mold steel and other high hardened materials.
- Excellent workpiece finishes.

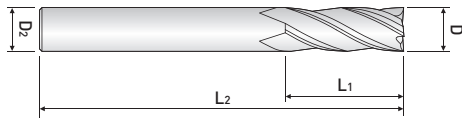
TX204...series



EDP. No.	Dia.	L ₁	L ₂	D ₂	STOCK
TX204010	1	3	39	3	•
TX204015	1.5	5	39	3	•
TX204020	2	7	39	3	•
TX204025	2.5	8	39	3	•
TX204030	3	10	39	3	•
TX204040	4	14	51	4	•
TX204050	5	16	51	5	•
TX204060	6	19	64	6	•
TX204080	8	21	64	8	•
TX204100	10	25	70	10	•
TX204120	12	25	76	12	•
TX204160	16	32	89	16	•
TX204200	20	38	102	20	•

■ Tolerance

Tolerance	Dia.	μm = 1/1000mm				
		from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
Cutting Edge(d11)		-14	-20	-25	-32	-40
		-28	-38	-47	-59	-73
Shank(h6)		0	0	0	0	0
		-6	-8	-9	-11	-13



4 FLUTE, LONG LENGTH

- Designed to machine tool steel, alloy steel, mold steel and other high hardened materials.
- Excellent workpiece finishes.

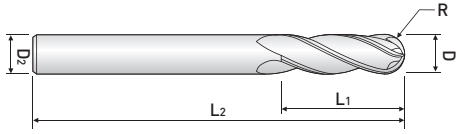
TX224...series



EDP. No.	Dia.	L ₁	L ₂	D ₂	STOCK
TX224030	3	20	60	3	•
TX224040	4	20	60	4	•
TX224050	5	25	75	5	•
TX224060	6	30	75	6	•
TX224080	8	30	75	8	•
TX224100	10	40	100	10	•
TX224120	12	45	100	12	•
TX224140	14	45	100	14	•
TX224160	16	45	100	16	•
TX224180	18	45	100	18	•
TX224200	20	45	100	20	•

■ Tolerance μm = 1/1000mm

Tolerance \ Dia.	from 1 to 3	over 3 to 6	over 6 to 10	over 10 to 18	over 18 to 30
Cutting Edge(d11)	-14 -28	-20 -38	-25 -47	-32 -59	-40 -73
Shank(h6)	0 -6	0 -8	0 -9	0 -11	0 -13



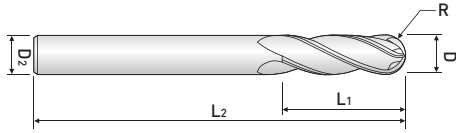
2 FLUTE, REGULAR LENGTH, BALL NOSE

- Designed to machine tool steel, alloy steel, mold steel and other high hardened materials.
- For copy-milling machines.

TXB202...series



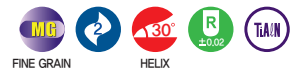
EDP. No.	Dia.	R	L ₁	L ₂	D ₂	STOCK
TXB202010	1	0.5	3	39	3	•
TXB202015	1.5	0.75	5	39	3	•
TXB202020	2	1	7	39	3	•
TXB202025	2.5	1.25	8	39	3	•
TXB202030	3	1.5	10	39	3	•
TXB202040	4	2	14	51	4	•
TXB202050	5	2.5	16	51	5	•
TXB202060	6	3	19	64	6	•
TXB202080	8	4	21	64	8	•
TXB202100	10	5	25	70	10	•
TXB202120	12	6	25	76	12	•
TXB202160	16	8	32	89	16	•
TXB202200	20	10	38	100	20	•



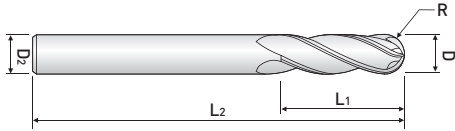
2 FLUTE, LONG LENGTH, BALL NOSE

- Designed to machine tool steel, alloy steel, mold steel and other high hardened materials.
- Excellent workpiece finishes.

TXB222...series



EDP. No.	Dia.	R	L ₁	L ₂	D ₂	STOCK
TXB222030	3	1.5	20	60	3	•
TXB222040	4	2	20	60	4	•
TXB222050	5	2.5	25	75	5	•
TXB222060	6	3	30	75	6	•
TXB222080	8	4	30	100	8	•
TXB222100	10	5	40	100	10	•
TXB222120	12	6	45	100	12	•
TXB222140	14	7	45	100	14	•
TXB222160	16	8	45	100	16	•
TXB222180	18	9	45	100	18	•
TXB222200	20	10	45	100	20	•



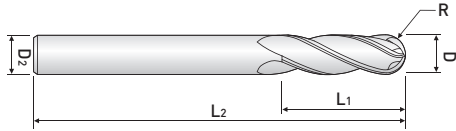
2 FLUTE, LONG REACH, BALL NOSE

- Designed to machine tool steel, alloy steel, mold steel and other high hardened materials.
- For copy-milling machines.

TXB232...series



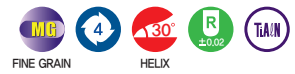
EDP. No.	Dia.	R	L ₁	L ₂	D ₂	STOCK
TXB232030	3	1.5	5	75	3	•
TXB232040	4	2	8	75	4	•
TXB232050	5	2.5	9	75	5	•
TXB232060	6	3	10	100	6	•
TXB232080	8	4	12	100	8	•
TXB232100	10	5	14	100	10	•
TXB232120	12	6	16	100	12	•
TXB232140	14	7	18	100	14	•
TXB232160	16	8	22	150	16	•
TXB232200	20	10	26	150	20	•



4 FLUTE, REGULAR LENGTH, BALL NOSE

- Designed to machine tool steel, alloy steel, mold steel and other high hardened materials.
- Excellent workpiece finishes.

TXB204...series



EDP. No.	Dia.	R	L ₁	L ₂	D ₂	STOCK
TXB204020	2	1	7	39	3	•
TXB204030	3	1.5	10	39	3	•
TXB204040	4	2	14	51	4	•
TXB204050	5	2.5	16	51	5	•
TXB204060	6	3	19	64	6	•
TXB204080	8	4	21	64	8	•
TXB204100	10	5	25	70	10	•
TXB204120	12	6	25	76	12	•
TXB204160	16	8	32	89	16	•
TXB204200	20	10	38	100	20	•