

# NEW PRODUCT NEWS

# TRIOBALL



## High Feed Rough Copy Milling



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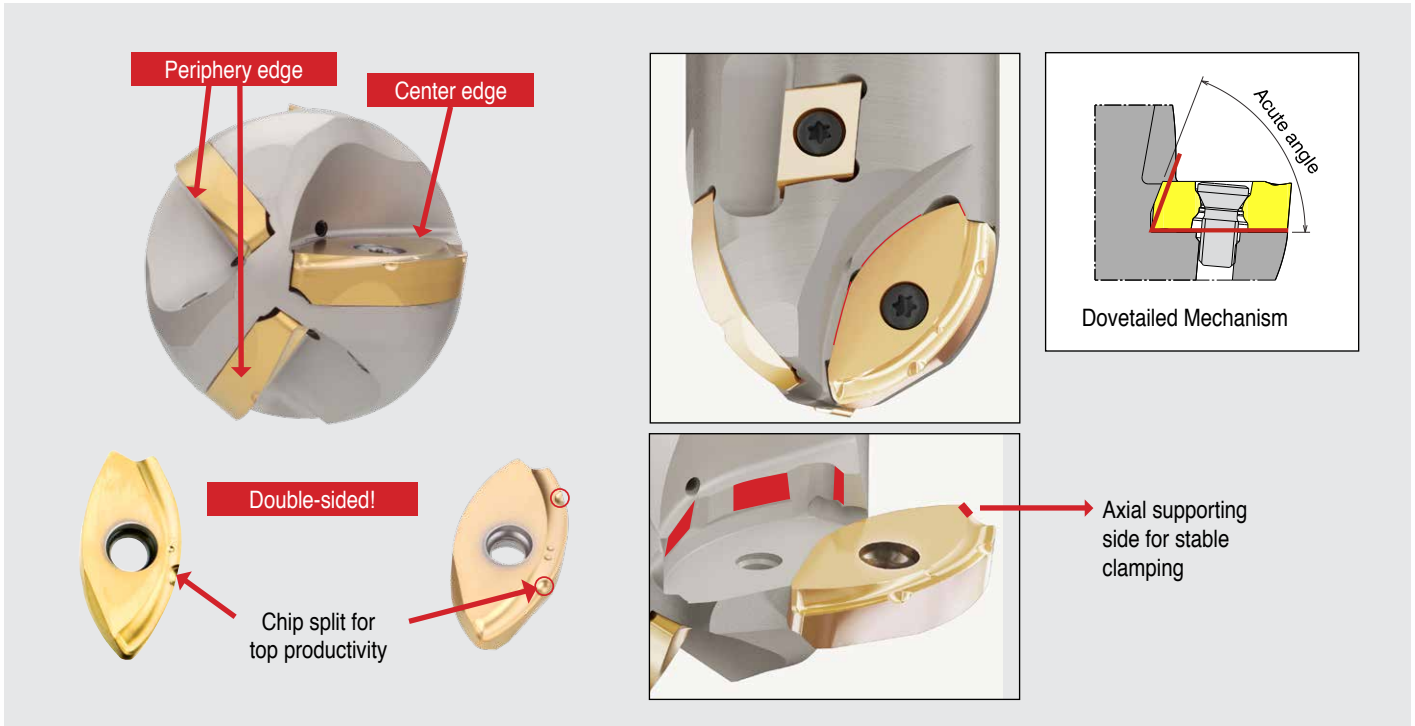
### FEATURES

- **Effective 3 flute design enables high feed machining to enhance productivity**
- **Unique double-sided insert with 2 cutting edges**
- **A highly stable cutting performance with thick cutting edges**
- **Excellent chip evacuation with a coolant hole**
- **Dovetail mechanism clamping provides increased security and insert clamping**

TaeguTec is pleased to add the new TRIOBALL line following the success of the existing low resistance CHASEBALL line. The TRIOBALL line with its 3 flute design and dove-tail mechanism promoting rigid clamping permits high feed copy milling, groove machining and deep cavity machining with superior stability. Double-sided inserts improve economy and make the TRIOBALL a cost effective solution for customers.

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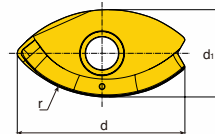
### 3FB Inserts



C-M

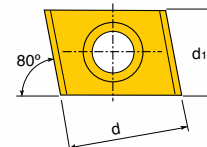


P-M



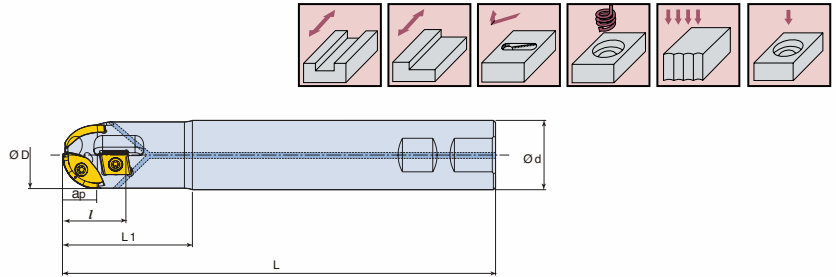
Designation	Dimension (mm)					Grade			Application Ball end mill
	d	d1	t	r	ap	TT9080	TT8080	TT7800	
<b>3FB320C-M</b>	23	12	5.2	16	16	•	•	•	3F 32-□-W□-□□□ 3F 50-□-W□-□□□ 3F 50-□-CN50.8-□□□
<b>3FB320P-M</b>	21	9.9	5.2	16	16	•	•	•	
<b>3FB500C-M</b>	36	18.6	7	25	25	•	•	•	
<b>3FB500P-M</b>	32.9	15.3	7	25	25	•	•	•	

### CNHX Inserts



Designation	Dimension (mm)			Grade TT7800	Application Ball end mill
	d	d1	t		
<b>CNHX 131108T</b>	12.7	11	5.4	•	3F 32-□-W□-□□□ 3F 50-□-W□-□□□ 3F 50-□-CN50.8-□□□
<b>CNHX 160608T</b>	16	12	6.4	•	

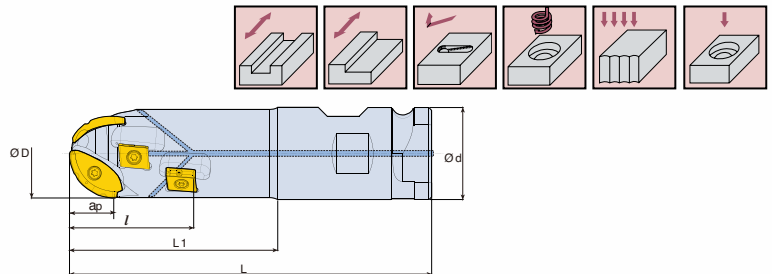
### 3F □□-□□-W□□-□□ Weldon shank type



Designation	Inserts						Dimension (mm)					
	Ball 1		Ball 2		Periphery		D	d	L	L1	l	ap
	Designation		Designation		Designation							
<b>3F 32-39-W32-150</b>	3FB320C-M	1	3FB320P-M	2	CNHX 131108T	2	32	32	150	60	39	16
<b>3F 32-39-W32-200</b>	3FB320C-M	1	3FB320P-M	2	CNHX 131108T	2	32	32	200	60	39	16
<b>3F 32-39-W32-250</b>	3FB320C-M	1	3FB320P-M	2	CNHX 131108T	2	32	32	250	60	39	16
<b>3F 50-54-W40-150</b>	3FB500C-M	1	3FB500P-M	2	CNHX 160608T	2	50	40	150	70	54	25
<b>3F 50-80-W50-200</b>	3FB500C-M	1	3FB500P-M	2	CNHX 160608T	4	50	50	200	110	80	25
<b>3F 50-80-W50-250</b>	3FB500C-M	1	3FB500P-M	2	CNHX 160608T	4	50	50	250	110	80	25

- Coolant through type
- When machining over 'ap', please calculate Z=1

### 3F 50-□□-CN50.8-□□□ Combination shank type



Designation	Inserts						Dimension (mm)					
	Ball 1		Ball 2		Periphery		D	d	L	L1	l	ap
	Designation		Designation		Designation							
<b>3F 50-68-CN50.8-200</b>	3FB500C-M	1	3FB500P-M	2	CNHX 160608T	3	50	50.8	200	115	68	25
<b>3F 50-94-CN50.8-250</b>	3FB500C-M	1	3FB500P-M	2	CNHX 160608T	5	50	50.8	250	165	94	25

- Coolant through type
- When machining over 'ap', please calculate Z=1

### Components

Designation	Screw	Wrench
3F 32 (D32) 3F 50 (D50)	TS 40093I TS 50115I	TD 15 T-T20



## Recommended cutting conditions

Operating guidelines for **TRIOBALL** - 3F using 3FB P-M, 3FB C-M inserts

Material	Brinell	Speed (m/min)	Grades***	Feed (mm/tooth)		
				Side deep cutting	Side cutting	Grooving
Low Carbon Steel	85-175	200-350	TT9080, TT7800	0.15 - 0.45	0.2 - 0.5	0.1 - 0.3
High Carbon Steel	175-225	180-320	TT9080, TT7800	0.1 - 0.35	0.15 - 0.4	0.05 - 0.2
Alloyed Steel	275-325	120-250	TT9080, TT7800, TT8080	0.1 - 0.3	0.15 - 0.35	0.05 - 0.25
Tool Steel	200-250	100-200	TT9080, TT7800, TT8080	0.15 - 0.35	0.2 - 0.4	0.1 - 0.3
Stainless 300 Series	-	180-280	TT8080, TT9080	0.08 - 0.25	0.12 - 0.35	0.05 - 0.25
Stainless 400 Series	-	200-300	TT8080, TT9080	0.1 - 0.3	0.15 - 0.45	0.05 - 0.25
High-Temp Alloy Inconel	-	20-80	TT8080, TT9080	0.05 - 0.2	0.1 - 0.3	0.08 - 0.15
Titanium Alloy	-	40-110	TT9080, TT8080	0.05 - 0.2	0.1 - 0.3	0.08 - 0.15
Gray Cast Iron	-	240-380	TT9080, TT7800	0.15 - 0.4	0.2 - 0.5	0.1 - 0.3
Ductile / Nodular Cast Iron	-	180-280	TT9080, TT7800	0.1 - 0.35	0.2 - 0.5	0.1 - 0.15

