

# NEW PRODUCT NEWS

## CHASE<sup>2</sup> MOLD



## Strong And Economical Double Sided Inserts

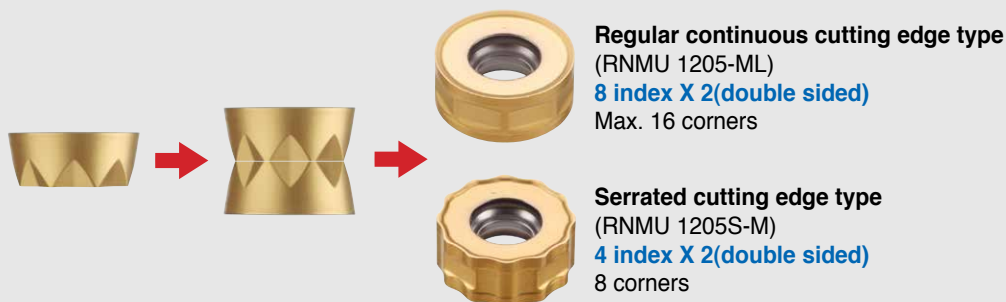


# CHASE<sup>2</sup> MOLD

## Strong and economical double sided inserts

### FEATURES

- Double-sided round inserts now available in both serrated and full radius type



#### ► RNMU 1205-ML

- 8 indexing options with 16 corners, is recommended for machining at less than 1.7mm DOC

#### ► RNMU 1205S-M

- Chips split into small, manageable pieces
- Excellent chip evacuation with minimal chattering even if deep cavity machining with long overhang
- 4 indexing options with 8 corners in maximum 6mm DOC
- Engineered for top productivity by smooth cutting for effective chip split into small, manageable pieces

\* To ensure reduced cutting load when machining with a long overhang cutter, TaeguTec recommends the serrated type insert for best possible results

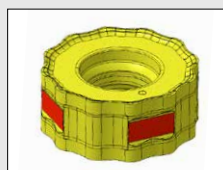
- Inserts and cutter pockets have anti-rotation facets that ensure strong, secure insert clamping and easy indexing



RNMU 1205-ML



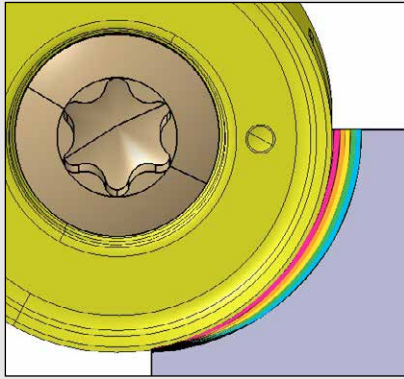
Contact Area



RNMU 1205S-M

■ Every pocket in the cutter body is designed to enable unique insert orientation

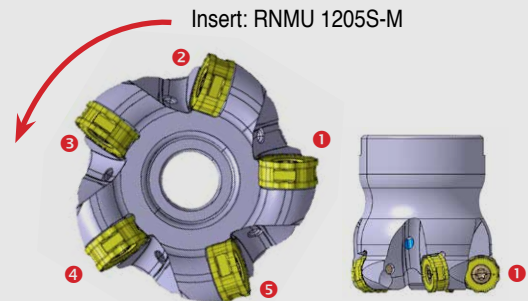
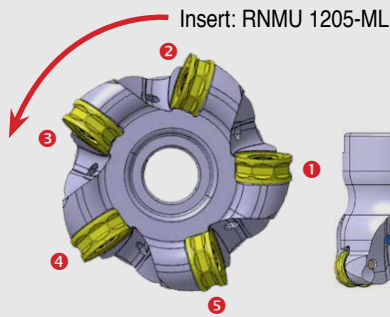
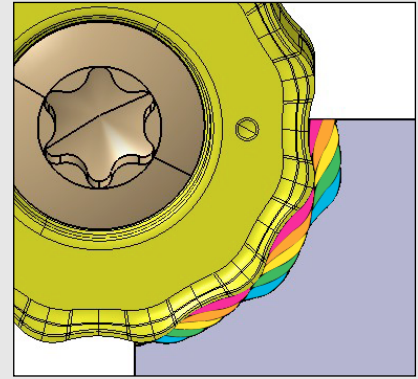
- When using serrated inserts, this unique orientation means better chip splitting resulting in superior surface finish and lower power consumption



- First
- Second
- Third
- Fourth
- Fifth

TFMRNS 550-22R-12

(D50, z=5, DOC=6mm, fz=0.2)

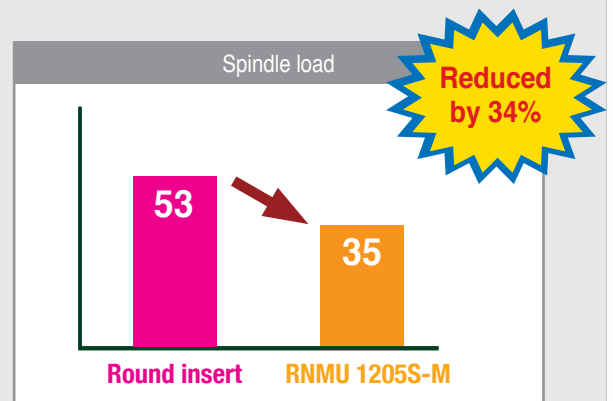
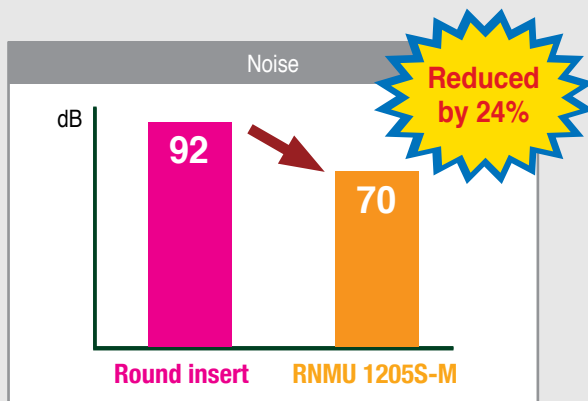
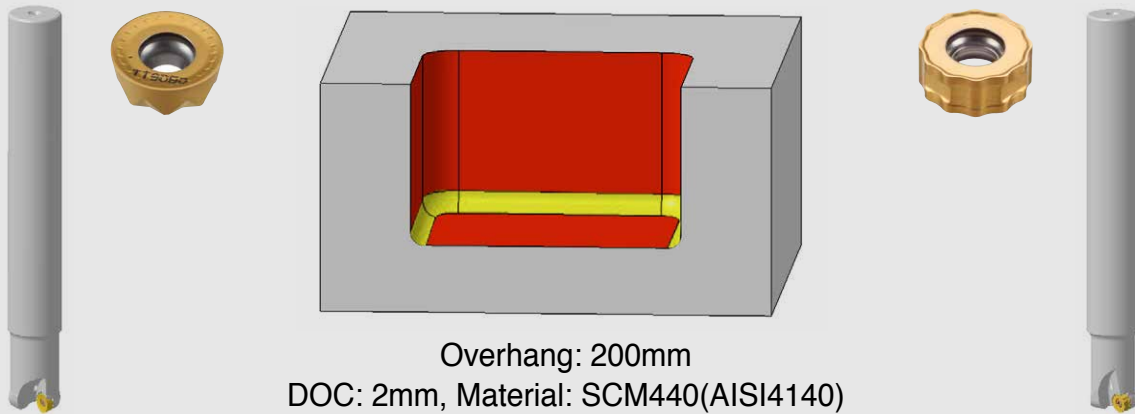


Step	RNMU1205-ML	RNMU1205S-M
1		
2		
3		
4		
5		

- Productivity increase with RNMU 1205S-M(serrated type) credit to chip splitting design enabling reduced spindle load and smooth cutting with minimal noise when deep cavity machining with long overhang.

D33, z=2  
(Regular continuous type-single sided)

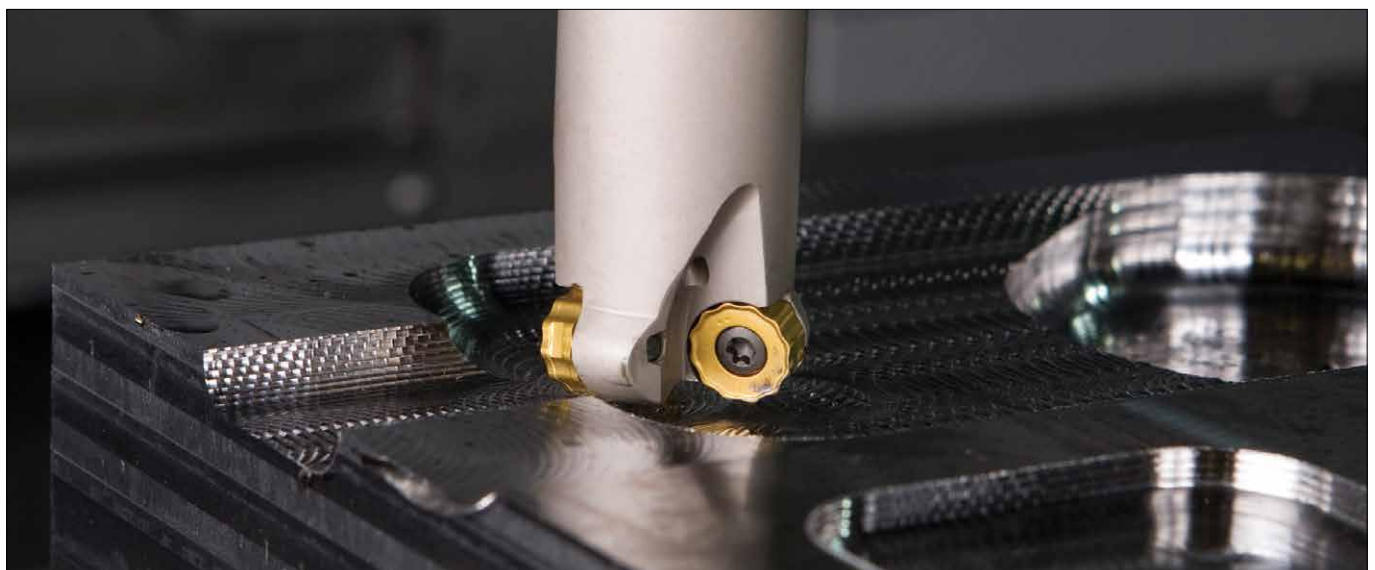
D33, z=2  
RNMU 1205S-M  
(Serrated type-double sided)



TaeguTec is proud to introduce CHASE2MOLD, a new concept product line ideally suited for machining applications in the Mold & Die, Power Generation, Aerospace and General Engineering industries. This new product line offers double sided positive geometry round inserts for profiling applications, thus offering maximum economy compared to the prevalent single sided inserts widely used in the aforementioned industries. Moreover enormous cost savings can be achieved due to the strong insert and cutter design combined with positive geometries that make it possible to significantly enhance productivity even in difficult machining applications.

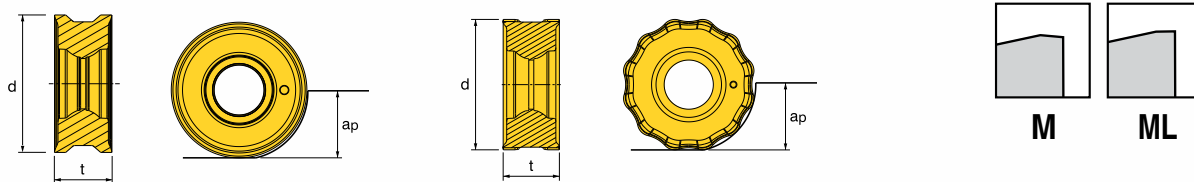
The double sided CHASE2MOLD round inserts are available in 2 geometries - a regular continuous cutting edge (-ML) & a serrated cutting edge (-M). The serrated (-M) geometry insert in combination with cutter design that gives unique insert orientation in each pocket, makes effective chip splitting thereby reducing cutting forces and power requirement. This makes it an ideal geometry for reducing vibrations in machining applications with long overhang.



The CHASE2MOLD inserts and cutter pockets have anti-rotation facets that ensure strong, secure insert clamping and easy indexing. Machining costs can be effectively reduced by using the continuous (-ML) geometry that offers 16 indexes – double that of conventional single sided round inserts. The (-M) geometry offers 8 indexes with capability of working at higher depths of cut due to the advantages of the serrated cutting edge. All the CHASE2MOLD cutters have internal coolant holes to provide coolant directly to the cutting edge for effective chip evacuation and extended tool life.



# Inserts

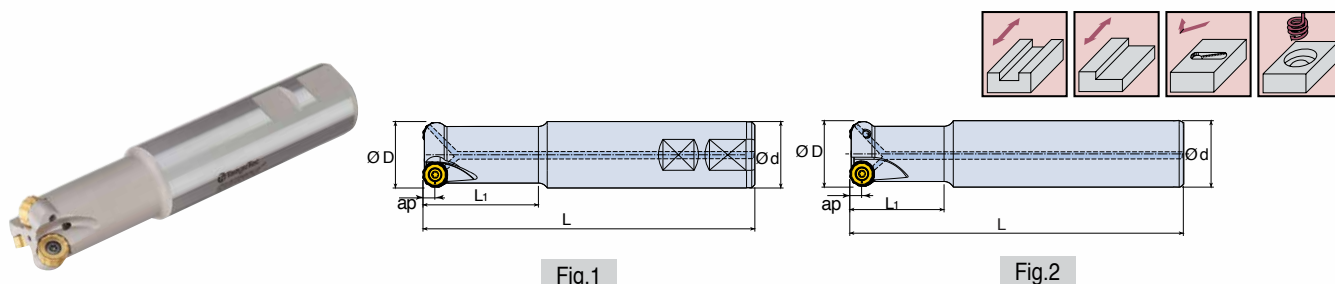
## RNMU




	Designation	Dimension (mm)			Grade				Application End Mill & Cutter
		d	t	ap	TT9080	TT8080	TT8020	TT7800	
 RNMU1205-ML  RNMU1205S-M	<b>RNMU 1205-ML</b>	12	5	6	•	•	•	•	TERNs □□□-□□-12 TERNs □□□-M□□-12 TFMRS □□□-□□R-12
	<b>RNMU 1205S-M</b>	12	5	6	•	•	•	•	

# End Mill Type

## TERNs □□□-□□□-12

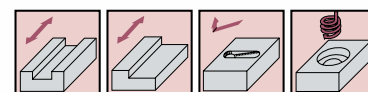
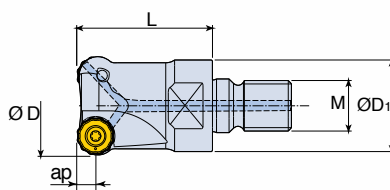


Designation	Insert		Dimension (mm)					Fig.
			D	d	L	L1	ap	
TERNs 232-32-12-L150	RNMU 1205-ML RNMU 1205S-M	2	32	32	150	50	6	2
TERNs 232-32-12-L200		2	32	32	200	60	6	2
TERNs 232-32-12-L		2	32	32	250	50	6	2
TERNs 332-W32-12		3	32	32	160	60	6	1
TERNs 332-32-12-L200		3	32	32	200	70	6	2
TERNs 332-32-12-L250		3	32	32	250	60	6	2
TERNs 233-32-12-L200		2	33	32	200	50	6	2
TERNs 233-32-12-L250		2	33	32	250	50	6	2
TERNs 333-32-12-L200		3	33	32	200	70	6	2
TERNs 333-32-12-L250		3	33	32	250	60	6	2
TERNs 340-W32-12		3	40	32	160	50	6	1
TERNs 340-32-12-L250		3	40	32	250	60	6	2
TERNs 440-W32-12		4	40	32	160	50	6	1
TERNs 440-32-12-L250		4	40	32	250	60	6	2
TERNs 450-32-12-L200		4	50	32	200	70	6	2
TERNs 550-32-12-L250		5	50	32	250	60	6	2

• Coolant through type

## Modular Type

TERNS □□□-M□□-12

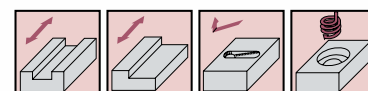
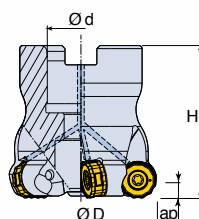


Designation	Insert		Dimension (mm)					
			D	D <sub>1</sub>	L	M	ap	
<b>TERNS 232-M16-12</b>	RNMU 1205-ML RNMU 1205S-M		2	32	29	43	16	6
<b>TERNS 332-M16-12</b>			3	32	29	43	16	6
<b>TERNS 233-M16-12</b>			2	33	29	43	16	6
<b>TERNS 333-M16-12</b>			3	33	29	43	16	6
<b>TERNS 340-M16-12</b>			3	40	29	43	16	6
<b>TERNS 440-M16-12</b>			4	40	29	43	16	6

• Coolant through type

## Face Mill Type

TFMRNS □□□-□□R-12



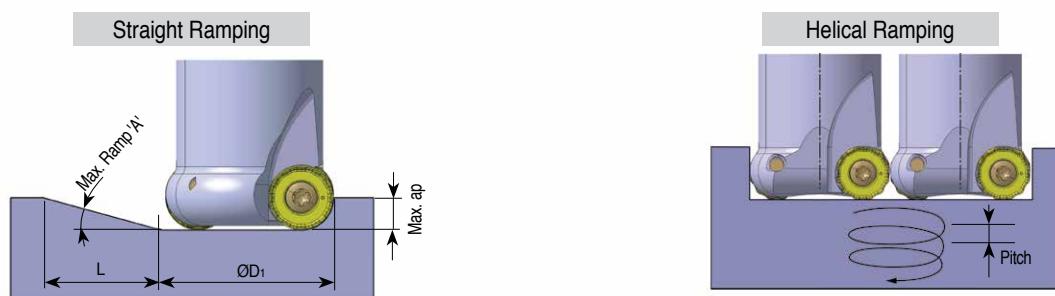
Designation	Insert		Dimension (mm)				Weight (kg)	Mounting Bolt	
			D	d	H	ap			
<b>TFMRNS 440-16R-12</b>	RNMU 1205-ML RNMU 1205S-M		4	40	16	40	6	0.2	SH M8x1.25x30
<b>TFMRNS 450-22R-12</b>			4	50	22	50	6	0.33	SH M10x1.5x30
<b>TFMRNS 550-22R-12</b>			5	50	22	50	6	0.32	SH M10x1.5x30
<b>TFMRNS 552-22R-12</b>			5	52	22	50	6	0.38	SH M10x1.5x30
<b>TFMRNS 563-22R-12</b>			5	63	22	50	6	0.62	SH M10x1.5x30
<b>TFMRNS 663-22R-12</b>			6	63	22	50	6	0.63	SH M10x1.5x30
<b>TFMRNS 666-27R-12</b>			6	66	27	50	6	0.63	SH M12x1.75x35
<b>TFMRNS 680-27R-12</b>			6	80	27	50	6	1.01	SH M12x1.75x35
<b>TFMRNS 780-27R-12</b>			7	80	27	50	6	1.0	SH M12x1.75x35
<b>TFMRNS 7100-32R-12</b>			7	100	32	50	6	1.58	LH M16x2x35
<b>TFMRNS 8100-32R-12</b>			8	100	32	50	6	1.56	LH M16x2x35

• Coolant through type

## Components

Designation	Screw	Wrench
<b>TERNS □□□-□□□-12</b>	TS 40G110I	T-T15
<b>TERNS □□□-M□□-12</b>		
<b>TFMRNS □□□-□□R-12</b>		

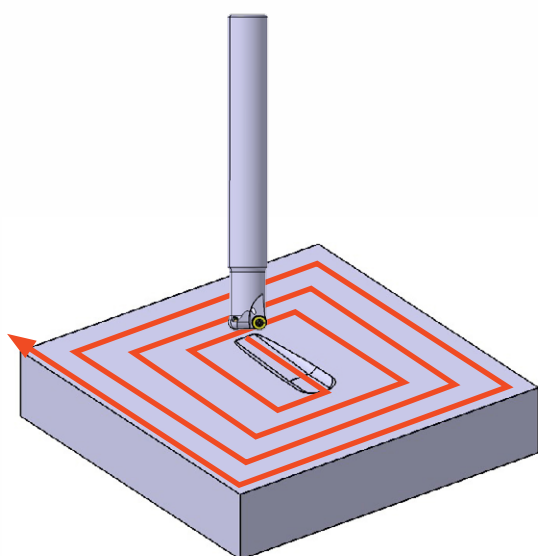
# Ramping Data



## DOC 6mm - (RNMU 1205S-M, RNMU 1205-ML)

Cutter Dia. (D1)	Straight Ramp Down			Helical Ramp Down		
	Max. Ramp (A°)	Max. ap (mm)	Min. Length (L)	Min. Dia.	Max. Dia.	Max. Pitch/Rev.
Ø32	1.4	6	246	42	64	0.7 2.1
Ø33	1.4	6	246	44	66	0.7 2.2
Ø40	1.3	6	265	58	80	1.1 2.4
Ø50	1	6	344	78	100	1.3 2.3
Ø52	1	6	344	82	104	1.4 2.4
Ø63	1	6	344	104	126	1.9 2.9
Ø66	1	6	344	110	132	2.0 3.1
Ø80	0.9	6	382	138	160	2.4 3.4
Ø100	0.7	6	491	178	200	2.5 3.3

## DOC 1.7mm - 16 Corner Inserts (RNMU 1205-ML) - Straight Ramping Down For Facing



Cutter Dia. (D1)	Straight Ramp Down		
	Max. Ramp (A°)	Max. ap (mm)	Min. Length (L)
Ø32	1.4	1.7	70
Ø33	1.4	1.7	70
Ø40	1.3	1.7	75
Ø50	1	1.7	97
Ø52	1	1.7	97
Ø63	1	1.7	97
Ø66	1	1.7	97
Ø80	0.9	1.7	108
Ø100	0.7	1.7	139



## Recommended Cutting Conditions

### Operating guidelines for CHASE<sup>2</sup>MOLD series RNMU 1205-ML inserts

Workpiece material	Hardness(HB)	Speed(m/min)	Best Grades	Feed(mm/tooth)
Low Carbon Steel	85~175	180-300	TT7800, TT9080	0.13 - 0.60
High Carbon Steel	175~225	130-280	TT7800, TT9080	0.13 - 0.55
Alloy Steel	275~375	120-250	TT9080, TT8080, TT8020, TT7800	0.13 - 0.50
Alloy Steel	375~480	60-140	TT9080, TT8080	0.13 - 0.40
Tool Steel	250~470	50-200	TT9080, TT7800, TT8080	0.10 - 0.35
Tool Steel	480~	50-110	TT9080, TT7800, TT8080	0.10 - 0.30
Stainless 300 Series	-	80-170	TT8080, TT8020, TT9080	0.13 - 0.50
Stainless 400 Series	-	100-210	TT9080, TT8080, TT8020	0.13 - 0.50
High Temp. Alloy	-	30-100	TT8080, TT8020, TT9080	0.10 - 0.35
Inconel	-	20-60	TT8080, TT8020, TT9080	0.10 - 0.30
Titanium Alloy	-	30-80	TT8080, TT8020, TT9080	0.10 - 0.40
Cast Iron	140~220	150-400	TT9080, TT7800	0.13 - 0.50

### Operating guidelines for CHASE<sup>2</sup>MOLD series RNMU 1205S-M Inserts

Workpiece	Hardness (HB)	Speed (m/min)	Best Grades	Feed(mm/tooth)				
				Ap 2mm	Ap 3mm	Ap 4mm	Ap 5mm	Ap 6mm
Low Carbon Steel	85~175	180-300	TT7800, TT9080	0.13 - 0.60	0.13 - 0.55	0.13 - 0.50	0.13 - 0.40	0.13 - 0.25
High Carbon Steel	175~225	130-280	TT7800, TT9080	0.13 - 0.55	0.13 - 0.50	0.13 - 0.45	0.13 - 0.30	0.13 - 0.25
Alloy Steel	275~375	120-250	TT9080, TT8080, TT8020, TT7800	0.13 - 0.50	0.13 - 0.45	0.13 - 0.35	0.13 - 0.30	0.13 - 0.25
Alloy Steel	375~480	60-140	TT9080, TT8080	0.13 - 0.40	0.13 - 0.40	0.13 - 0.35	0.13 - 0.30	0.13 - 0.25
Tool Steel	250~470	50-200	TT9080, TT7800, TT8080	0.10 - 0.35	0.10 - 0.35	0.10 - 0.30	0.10 - 0.30	0.10 - 0.25
Tool Steel	480~	50-110	TT9080, TT7800, TT8080	0.10 - 0.30	0.10 - 0.30	0.10 - 0.25	0.10 - 0.25	0.10 - 0.25
Stainless 300 Series	-	80-170	TT8080, TT8020, TT9080	0.13 - 0.50	0.13 - 0.50	0.13 - 0.40	0.13 - 0.30	0.13 - 0.25
Stainless 400 Series	-	100-210	TT9080, TT8080, TT8020	0.13 - 0.50	0.13 - 0.50	0.13 - 0.40	0.13 - 0.30	0.13 - 0.25
High Temp. Alloy	-	30-100	TT8080, TT8020, TT9080	0.10 - 0.35	0.10 - 0.30	0.10 - 0.30	0.10 - 0.25	0.10 - 0.25
Inconel	-	20-60	TT8080, TT8020, TT9080	0.10 - 0.30	0.10 - 0.30	0.10 - 0.30	0.10 - 0.25	0.10 - 0.25
Titanium Alloy	-	30-80	TT8080, TT8020, TT9080	0.10 - 0.40	0.10 - 0.40	0.10 - 0.35	0.10 - 0.30	0.10 - 0.25
Cast Iron	140~220	150-400	TT9080, TT7800	0.13 - 0.50	0.13 - 0.50	0.13 - 0.45	0.13 - 0.35	0.13 - 0.25