

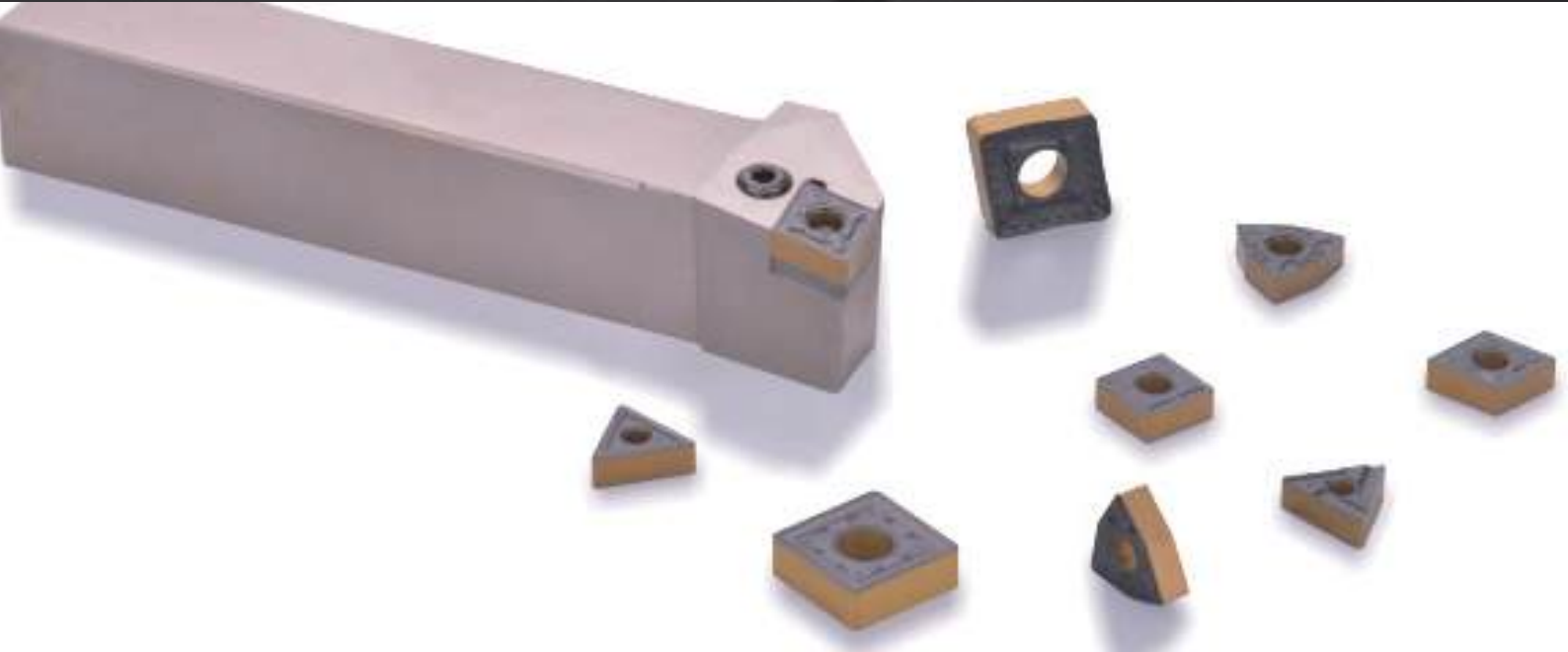
EASycut

December 2024

EC265H EC565H

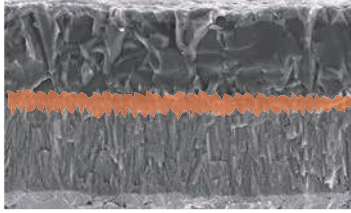
**NEW
PRODUCT!**

New upgrade grade for steel



Technical features for EC265H

Recommended for steel and cast steel, from finishing to roughing, the grade is suitable for continuous and light interrupted turning. High metal removal rate and long tool life. Upgrade of EC261H.



New nano-coating

- Special Al_2O_3 coating with directional crystal growth technology enhances crater wear resistance.
- The coating has more even wear, and improved wear resistance.
- Special transitional layer design greatly improves coating combination to avoid the coating peeling.



Preferable substrate

- Special crystal grain arranged substrate + new gradient sintering technology for better rigidity.
- Thermal stability and wear resistance.



Technical features for EC565H

Recommended for steel, cast steel and ferritic / martensitic stainless steel, from finishing to roughing, the grade is suitable for continuous and interrupted turning, the first choice of general turning. Upgrade of EC561H.



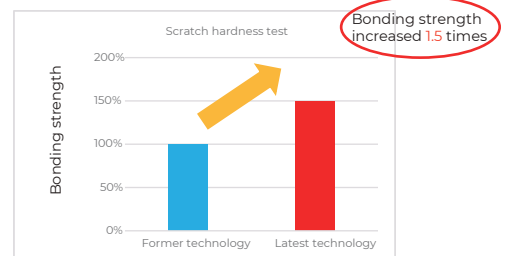
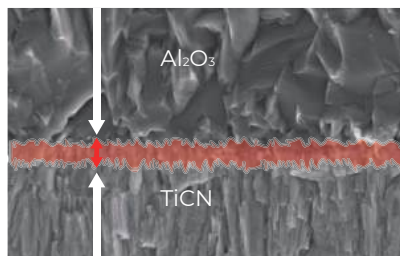
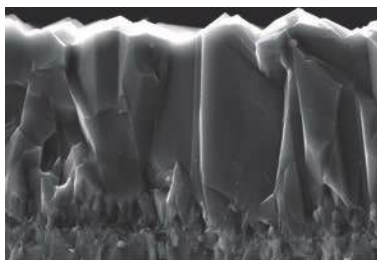
New nano-coating and preferable substrate

- Special Al_2O_3 coating with directional crystal growth technology enhances crater wear and wear resistance.
- With new gradient sintering technology, the new substrate has high toughness and wear resistance.
- Stable and high-efficiency machining in the wide cutting range.



Brand-new coating technology and reinforced coating adhesion technology

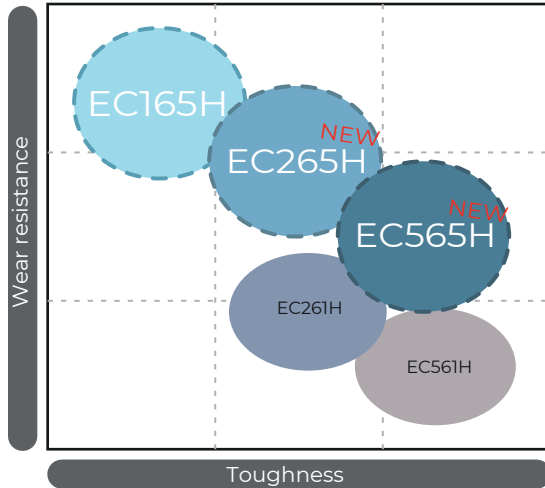
- Using new coating technology to control the growth direction of Al_2O_3 coating crystal makes it more consistent which greatly improve wear resistance, and extend for tool life.
- Using transition layer with acicular structure refined adhesion structure and gave coating good adhesion to prevent coating peeling, and improve wear resistance greatly.



New coating technology

Crystal of Al_2O_3 coating grow in one direction and form a strong barrier facing the cutting area.

Application range for EC265H / EC565H



EC165H

Suitable for steel, continuous turning in high speed.

EC265H

Suitable for steel, continuous and light interrupted turning.

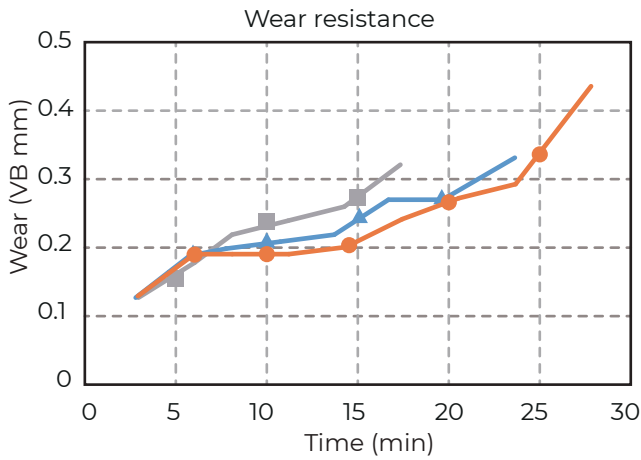
EC565H

Suitable for steel, interrupted medium turning, good fracture resistance.

Recommended cutting speed

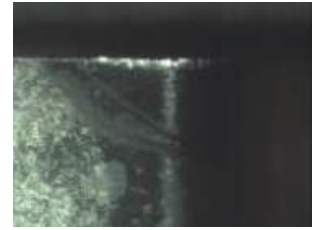
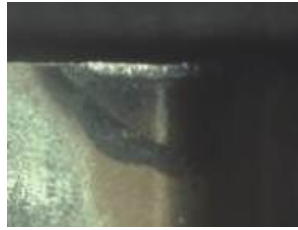
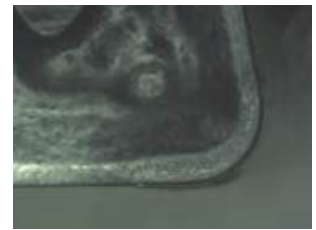
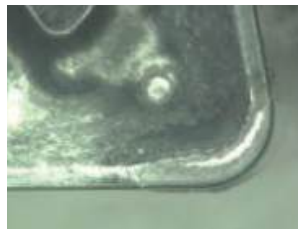
Material		Brinell hardness (HB)	Tensile strength (H/mm ²)	EC265H			EC565H			
				f (mm/rev)			f (mm/rev)			
ISO	Classification			0.1	0.4	0.6	0.1	0.4	0.6	
P	Non-alloyed steel	C≤0.25% Annealed	125	428	485	360	270	380	260	210
		0.25<C≤0.55% Annealed	190	639	370	270	210	280	200	150
		0.25<C≤0.55% Heat-treated	210	708	260	220	170	200	160	135
		C>0.55% Annealed	190	639	270	220	160	240	160	125
		C>0.55% Heat-treated	300	1013	210	180	150	160	120	110
		Free cutting steel (Short-chipping) Annealed	220	745	440	310	250	340	220	175
	Low-alloyed steel	Annealed	175	591	350	260	220	240	175	135
		Heat-treated	285	1013	220	170	150	140	100	85
		Heat-treated	380	1282	160	120	100	100	70	55
		Heat-treated	430	1477	90	70				
	High-alloyed steel and high-alloyed tool steel	Annealed	200	675	330	230	150	210	145	85
		Hardened and tempered	300	1013	230	140	110	130	85	65
		Hardened and tempered	380	1361	80	70				
	Stainless steel	Ferritic/martensitic, annealed	200	675				180	150	120
Martensitic, heat-treated		330	1114				140	100	70	

Wear resistance comparison



Equipment: NLX4000/750
 Material: 4340 Alloy Steel
 Insert: WNMG 080408E
 Parameter: $V_c = 350$ m/min $f = 0.25$ mm/rev $a_p = 1.5$ mm
 Coolant: Wet

■ Competitor ▲ Old grade ● EC265H

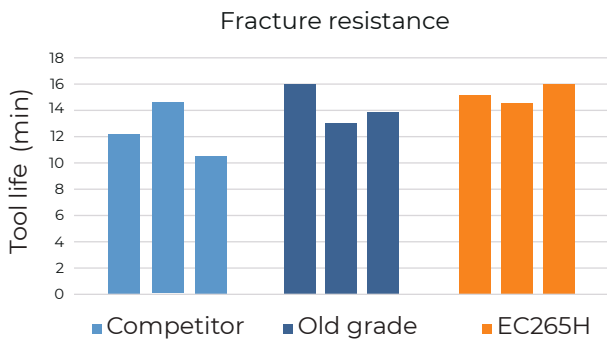


Competitor

Old grade

EC265H

Fracture resistance comparison



Equipment: NLX4000 / 750
 Material: 4340 Alloy Steel
 Insert: WNMG 080408E
 Parameter: $V_c = 350$ m/min $f = 0.25$ mm/rev $a_p = 1.0$ mm
 Coolant: Wet

■ Competitor ■ Old grade ■ EC265H

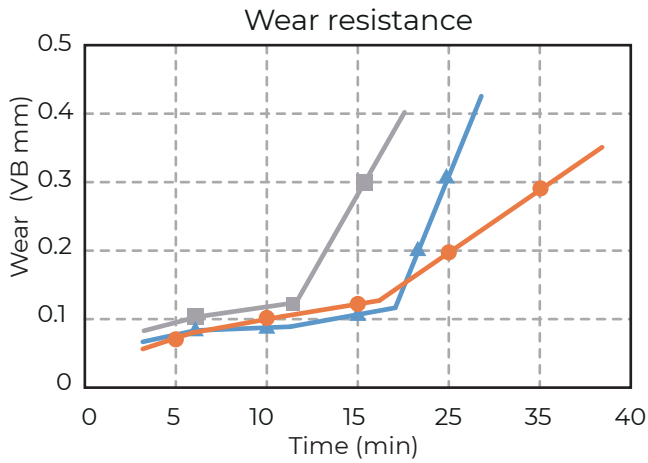


Competitor

Old grade

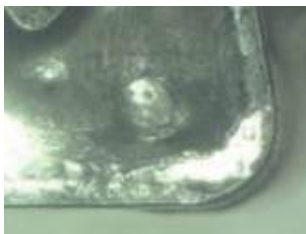
EC265H

Wear resistance comparison



Equipment: NLX4000/750
 Material: 4340 Alloy Steel
 Insert: WNMG 080408E
 Parameter: $V_c = 280$ m/min $f = 0.3$ mm/rev $a_p = 1.5$ mm
 Coolant: Wet

■ Competitor ▲ Old grade ● EC565H

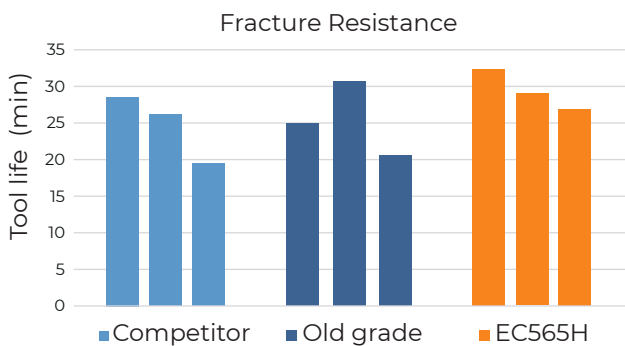


Competitor

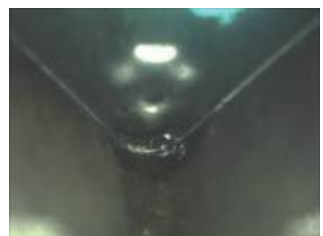
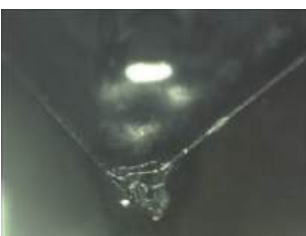
Old grade

EC565H

Fracture resistance comparison



Equipment: NLX4000/750
 Material: 4340 Alloy Steel
 Insert: WNMG 080408E
 Parameter: $V_c = 200$ m/min $f = 0.25$ mm/rev $a_p = 1.0$ mm
 Coolant: Wet

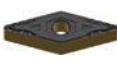

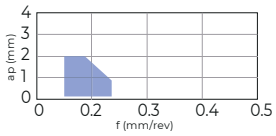
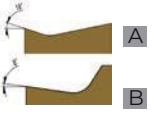
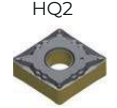

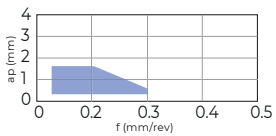
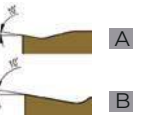


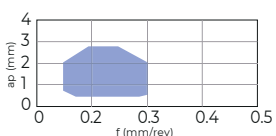
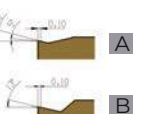


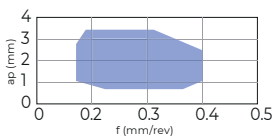
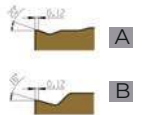


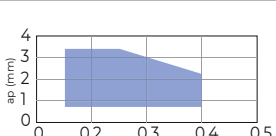
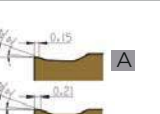


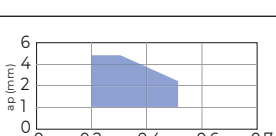
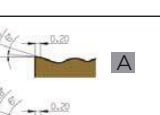


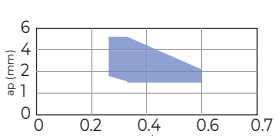
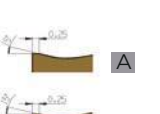


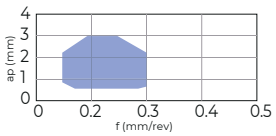
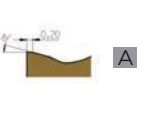


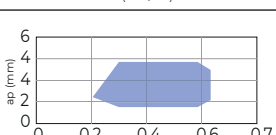
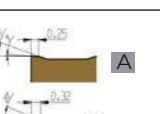


Competitor


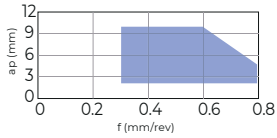
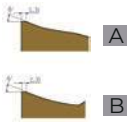

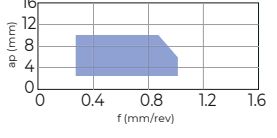
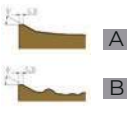

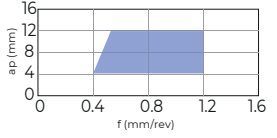
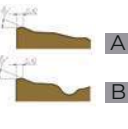

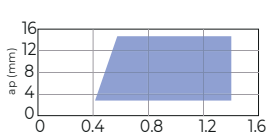
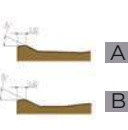
Old grade

EC565H



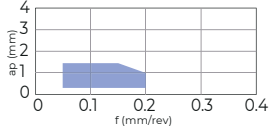



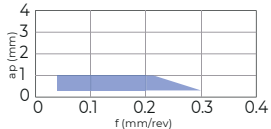



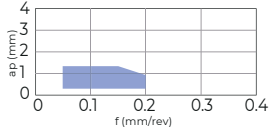



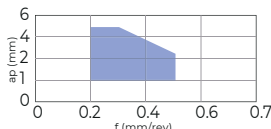



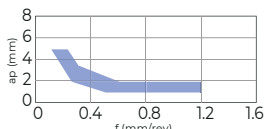



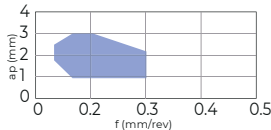

Overview of turning insert geometry-negative

Application		Geometry		Feature	Chip breaking range	Cross Section	
Negative	Profile	WL			Recommended for profile turning Three class chip breaker design for good performance in chip breaking. Sharp tool nose for low cutting force and good surface quality. Edge inclination angle and waved design for smooth chip removal in changeable cutting depth and pulling turning process.		
	Finishing	HQ2			Recommended for steel finish turning Segmented geometry design for good chip breaking in different cutting depths, good sharpness, positive edge inclination angle design reduces cutting resistance, and adjusts the direction of chip removal.		
		HW2			Recommended for steel finish turning Geometry for light cutting, low cutting force, suitable for lathy axis, thin wall and unstable clamping parts, good performance.		
	Semi-finishing	HW4			Recommended for steel semi-finish turning The rake surface has both small flat edge and big rake angle to make sure the strength and sharpness of the cutting edge. The big edge inclination angle design reduces the cutting resistance. The waved side cutting edge design provides good chip breaking in pulling turning process, especially the smooth chip removal in profile turning under changeable cutting depths.		
		HE4			Recommended for steel semi-finish turning Narrow front and wide back chip-breaker design for wide chip breaking. Double rake angle for light and swift cutting. Strengthened tool nose for good crater wear resistance.		
	Medium turning	HR4			Recommended for medium turning Three protrusions beside the tool nose have good chip control in small feed and cutting depth, and strong crater wear resistance. The widened and deepened geometry design for good chip containing, breaking and removing.		
		HE5			Recommended for cast iron medium turning, recommended for carbon steel and alloyed steel medium turning. Flat T-land for strong cutting edge, universal application, suitable for carbon steel and alloyed steel medium turning.		
		HS6			Recommended for steel slender shaft Open geometry design for smooth chip removal and low cutting force, suitable for turning slender shaft.		
	Roughing	HR6			Recommended for steel rough turning The small platform beside the tool nose for good chip breaking in small cutting depth, and strengthened tool nose. Double rake angle reduces the cutting resistance.		


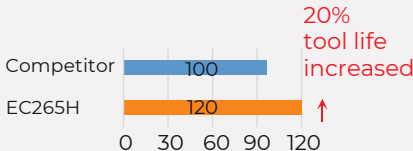
Overview of turning insert geometry-negative

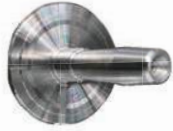
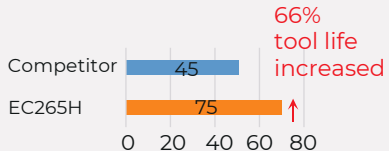
Application		Geometry		Feature	Chip breaking range	Cross Section
Negative	Heavy roughing	HE9		Light cutting geometry for heavy turning The small platform beside the tool nose for good chip breaking in small cutting depth, and strengthened tool nose. Double rake angle reduces the cutting resistance.		
		HR9		Heavy turning geometry for soft steel and stainless steel Edge inclination design for low cutting force, suitable for machine in low power machine, used in steel, stainless steel and cast iron heavy turning.		
		HE0		Recommended for steel heavy rough turning Waved edge design for better chip breaking. The geometry has big space for chip containing and high metal removal rate.		
		HR0		Recommended for steel heavy turning Widened cutting edge and negative chamfer for stronger cutting edge, suitable for stable performance in big cutting depth and high feed.		

Overview of turning insert geometry-negative


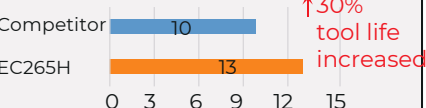
Application		Geometry		Feature	Chip breaking range	Cross Section	
Profile	Profile	WL			Recommended for profile turning Three class chip breaker design for good performance in chip breaking. Sharp tool nose for low cutting force and good surface quality. Edge inclination angle and waved design for smooth chip removal in changeable cutting depth and pulling turning process.		
	Finishing	HQ2			Recommended for steel finish turning Segmented geometry design for good chip breaking in different cutting depths, good sharpness, positive edge inclination angle design reduces cutting resistance, adjusts the direction of chip removal.		
		HW2			Recommended for steel finish turning Positive rake angle design reduces the stickness (caused by built-up edge) for good surface quality and longer tool life. Suitable for steel and stainless steel.		
	Semi-finishing	HE3			Recommended for steel semi-finish turning Suitable for steel and stainless steel. Double rake angle for light cutting, sharp cutting edge for avoiding built-up edge, with wide chip breaking range.		
	Medium turning	No Code			Recommended for steel, cast iron medium turning Negative T-land and big rake angle for strong cutting edge and sharpness in turning.		
		AE3			General geometry for steel, stainless steel and cast iron Suitable for cast iron, steel and stainless steel medium and rough turning, simple and durable geometry for universal application.		

Success stories


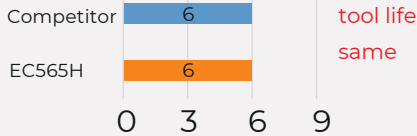
Insert	TNMG 160412E-HW4 EC265H
Workpiece	Bearing 
Material	100Cr6 Bearing steel
Application	Internal and external turning, face turning, chamfering(continuous)
Cutting Speed	197-289 m/min
f (mm/rev)	0.24 mm/rev
ap (mm)	1.0 mm
Coolant	Wet cutting
Result	 <p>20% tool life increased</p> <p>In the same cutting condition, the tool life increased 20%.</p>


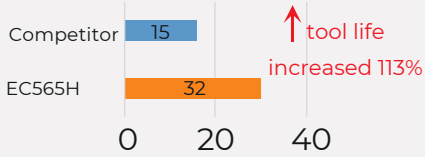
Insert	WNMG 080408E-HR4 EC265H
Workpiece	Crankshaft 
Material	C45 Steel
Application	External face turning
Cutting Speed	220 m/min
f (mm/rev)	0.2-0.25 mm/rev
ap (mm)	1.5-3.0 mm
Coolant	Wet cutting
Result	 <p>66% tool life increased</p> <p>In the same cutting condition, the tool life increased 66%.</p>


Insert	TNMG 160412E-HW4 EC265H
Workpiece	Bearing 
Material	100Cr6 Bearing steel
Application	Face turning, internal rough turning
Cutting Speed	316 m/min
f (mm/rev)	0.14 mm/rev
ap (mm)	1.0 mm
Coolant	Wet cutting
Result	 <p>↑19% tool life increased</p> <p>In the same cutting condition, the tool life increased 19%.</p>


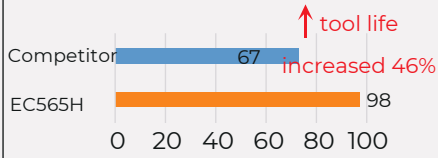
Insert	WNMG 080408E-HR4 EC265H
Workpiece	Axis head 
Material	55Cr3
Application	Face turning and external(continuous)
Cutting Speed	280 m/min
f (mm/rev)	0.15-0.32 mm/rev
ap (mm)	2.0mm
Coolant	Wet cutting
Result	 <p>↑30% tool life increased</p> <p>In the same cutting condition, the tool life increased 30%.</p>

Success stories

Insert	CNMG 120408E-HR4 EC565H
Workpiece	Middle support 
Material	SCSiMn1H Heat-treated, cast steel
Application	Internal turning
Cutting Speed	78 m/min
f(mm/rev)	0.25-0.3 mm/rev
ap(mm)	0.25-1.5-3.5 mm
Coolant	Wet cutting
Result	 <p>In the same cutting condition, the tool life is the same, but the cost is decreased.</p>

Insert	WNMG 080412E-HR4 EC565H
Workpiece	Output wheel 
Material	42Cr4
Application	External turning
Cutting Speed	170-240 m/min
f(mm/rev)	0.45-0.5 mm/rev
ap(mm)	1.0-2.0 mm
Coolant	Wet cutting
Result	 <p>In the same cutting condition, the tool life increased 113%.</p>

Insert	WNMG 080408E-HR4 EC565H
Workpiece	Bevel gear 
Material	20MnCr5
Application	Rough external turning, face turning
Cutting Speed	280 m/min
f (mm/rev)	0.25 mm/rev
ap (mm)	2.0 mm
Coolant	Wet cutting
Result	 <p>In the same cutting condition, the tool life increased 40%.</p>

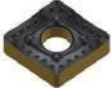

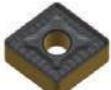
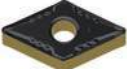
Insert	CNMG 120408E-HR4 EC565H
Workpiece	Universal joint fork 
Material	Casted C45
Application	External turning, rough face turning
Cutting Speed	182-207 m/min
f (mm/rev)	0.28 mm/rev
ap (mm)	2.0 mm
Coolant	Wet cutting
Result	 <p>In the same cutting condition, the tool life increased 46%.</p>

Product list-negative

Insert	Product Code	ap (mm)	f (mm/rev)	Size(mm)				Grade		
				d	l	s	r	EC165H	EC265H	EC565H
	CNMG 120402E-HQ2	0.10-1.50	0.04-0.25	12.70	12.89	4.76	0.20	○	●	
	CNMG 120404E-HQ2	0.20-1.50	0.04-0.28	12.70	12.89	4.76	0.40	●	●	
	CNMG 120408E-HQ2	0.40-1.50	0.05-0.35	12.70	12.89	4.76	0.80	●	●	
	CNMG 120412E-HQ2	0.60-1.50	0.05-0.42	12.70	12.89	4.76	1.20		○	
	CNMG 120404E-HW2	0.26-3.20	0.05-0.15	12.70	12.89	4.76	0.40	●	●	○
	CNMG 120408E-HW2	0.52-3.20	0.10-0.30	12.70	12.89	4.76	0.80	○	●	○
	CNMG 120412E-HW2	0.78-3.20	0.15-0.45	12.70	12.89	4.76	1.20			
	CNMG 120404E-HW4	0.30-3.50	0.06-0.18	12.70	12.89	4.76	0.40	●	●	○
	CNMG 120408E-HW4	0.60-3.50	0.12-0.36	12.70	12.89	4.76	0.80	●	●	○
	CNMG 120412E-HW4	0.90-3.50	0.18-0.54	12.70	12.89	4.76	1.20	○	●	○
	CNMG 120404E-HE4	0.34-3.90	0.07-0.20	12.70	12.89	4.76	0.40		○	
	CNMG 120408E-HE4	0.68-3.90	0.14-0.40	12.70	12.89	4.76	0.80	●	●	
	CNMG 120412E-HE4	1.02-3.90	0.20-0.60	12.70	12.89	4.76	1.20		○	○
	CNMG 120404E-HR4	0.40-4.30	0.08-0.22	12.70	12.89	4.76	0.40		●	●
	CNMG 120408E-HR4	0.80-4.30	0.15-0.44	12.70	12.89	4.76	0.80	●	●	●
	CNMG 120412E-HR4	1.20-4.30	0.23-0.66	12.70	12.89	4.76	1.20	●	●	○
	CNMG 160608E-HR4	0.80-5.30	0.15-0.44	15.88	16.11	6.35	0.80	○	○	●
	CNMG 160612E-HR4	1.20-5.30	0.23-0.66	15.88	16.11	6.35	1.20	●	●	○
	CNMG 190608E-HR4	0.80-6.40	0.15-0.44	19.05	19.34	6.35	0.80	●	○	○
	CNMG 190612E-HR4	1.20-6.40	0.23-0.66	19.05	19.34	6.35	1.20	○	●	●
	CNMG 190616E-HR4	1.60-6.40	0.30-0.66	19.05	19.34	6.35	1.60	●	○	●
	CNMG 120404E-HE5	0.40-4.30	0.08-0.22	12.70	12.89	4.76	0.40		●	○
	CNMG 120408E-HE5	0.80-4.30	0.15-0.44	12.70	12.89	4.76	0.80	○	○	●
	CNMG 120412E-HE5	1.20-4.30	0.23-0.66	12.70	12.89	4.76	1.20	○	●	○
	CNMG 160612E-HE5	1.20-5.30	0.23-0.66	15.88	16.11	6.35	1.20	○	●	
	CNMG 160616E-HE5	1.60-5.30	0.30-0.88	15.88	16.11	6.35	1.60	○	○	
	CNMG 190612E-HE5	1.20-6.40	0.23-0.66	19.05	19.34	6.35	1.20	○	○	
	CNMG 120408E-HR6	1.20-6.40	0.20-0.60	12.70	12.89	4.76	0.80	●	●	●
	CNMG 120412E-HR6	1.80-6.40	0.30-0.90	12.70	12.89	4.76	1.20	○	●	●
	CNMG 160608E-HR6	1.20-8.10	0.20-0.60	15.88	16.11	6.35	0.80	●	○	
	CNMG 160612E-HR6	1.80-8.10	0.30-0.90	15.88	16.11	6.35	1.20	●	●	●
	CNMG 160616E-HR6	2.40-8.10	0.40-1.20	15.88	16.11	6.35	1.60	○	○	○
	CNMG 160624E-HR6	3.60-8.10	0.60-1.80	15.88	16.11	6.35	2.40	○	●	○
	CNMG 190612E-HR6	1.80-9.70	0.30-0.90	19.05	19.34	6.35	1.20	●	●	●
	CNMG 190616E-HR6	2.40-9.70	0.40-1.20	19.05	19.34	6.35	1.60	○	●	●

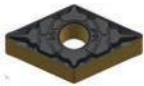

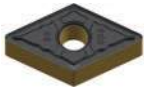

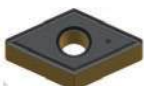
● Stocked ○ Non-stocked

Product list-negative

Insert	Product Code	ap (mm)	f (mm/rev)	Size(mm)				Grade		
				d	l	s	r	EC165H	EC265H	EC565H
	CNMM 190616E-HE9	2.88-7.70	0.32-0.64	19.05	19.34	6.35	1.60		○	○
	CNMM 190624E-HE9	4.32-7.70	0.48-0.96	19.05	19.34	6.35	2.40		○	○
	CNMM 120408E-HR9	1.44-5.20	0.16-0.32	12.70	12.89	4.76	0.80		○	○
	CNMM 120412E-HR9	2.16-5.20	0.24-0.48	12.70	12.89	4.76	1.20		○	○
	CNMM 160612E-HR9	2.16-6.40	0.24-0.48	15.88	16.11	6.35	1.20		○	●
	CNMM 160616E-HR9	2.88-6.40	0.32-0.64	15.88	16.11	6.35	1.60		○	●
	CNMM 160624E-HR9	4.32-6.40	0.48-0.96	15.88	16.11	6.35	2.40		○	○
	CNMM 190612E-HR9	2.16-7.70	0.24-0.48	19.05	19.34	6.35	1.20	○	○	●
	CNMM 190616E-HR9	2.88-7.70	0.32-0.64	19.05	19.34	6.35	1.60	○	○	●
	CNMM 190624E-HR9	4.32-7.70	0.48-0.96	19.05	19.34	6.35	2.40	○	○	○
	CNMM 250724E-HR9	4.32-10.30	0.48-0.96	25.40	25.78	7.94	2.40		○	○
	CNMM 250924E-HR9	4.32-10.30	0.48-0.96	25.40	25.78	9.53	2.40		○	○
	CNMM 190612S-HE0	2.40-9.70	0.26-0.60	19.05	19.34	6.35	1.20		○	●
	CNMM 190616S-HE0	3.20-9.70	0.35-0.80	19.05	19.34	6.35	1.60	●	●	●
	CNMM 190624S-HE0	4.80-9.70	0.53-1.20	19.05	19.34	6.35	2.40		●	○
	CNMM 250724S-HE0	4.80-12.90	0.53-1.20	25.40	25.78	7.94	2.40		○	○
	CNMM 250924S-HE0	4.80-12.90	0.53-1.20	25.40	25.78	9.53	2.40		●	●
	CNMM 190612S-HR0	2.64-11.60	0.30-0.72	19.05	19.34	6.35	1.20		○	○
	CNMM 190616S-HR0	3.52-11.60	0.40-0.96	19.05	19.34	6.35	1.60		○	○
	CNMM 190624S-HR0	5.28-11.60	0.60-1.44	19.05	19.34	6.35	2.40		●	○
	CNMM 250724S-HR0	5.28-15.50	0.60-1.44	25.40	25.78	7.94	2.40		○	○
	CNMM 250924S-HR0	5.28-15.50	0.60-1.44	25.40	25.78	9.53	2.40		○	○
	DNMG 110408E-WL	0.70-2.00	0.10-0.25	9.53	11.62	4.76	0.80	●	○	
	DNMG 150402E-HQ2	0.10-1.50	0.04-0.25	12.70	15.49	4.76	0.20		○	
	DNMG 150404E-HQ2	0.20-1.50	0.04-0.28	12.70	15.49	4.76	0.40	●	●	
	DNMG 150408E-HQ2	0.40-1.50	0.05-0.35	12.70	15.49	4.76	0.80	●	●	
	DNMG 150412E-HQ2	0.60-1.50	0.05-0.42	12.70	15.49	4.76	1.20	○	○	
	DNMG 150602E-HQ2	0.10-1.50	0.04-0.25	12.70	15.49	6.35	0.20		○	
	DNMG 150604E-HQ2	0.20-1.50	0.04-0.28	12.70	15.49	6.35	0.40	○	○	
	DNMG 150608E-HQ2	0.40-1.50	0.05-0.35	12.70	15.49	6.35	0.80	●	●	

● Stocked ○ Non-stocked

Product list-negative

Insert	Product Code	ap (mm)	f (mm/rev)	Size(mm)				Grade		
				d	l	s	r	EC165H	EC265H	EC565H
	DNMG 110404E-HW2	0.26-2.30	0.05-0.15	9.53	11.62	4.76	0.40	○	●	○
	DNMG 150404E-HW2	0.26-3.10	0.05-0.15	12.70	15.49	4.76	0.40	○	●	○
	DNMG 150408E-HW2	0.52-3.10	0.10-0.30	12.70	15.49	4.76	0.80	○	●	●
	DNMG 150604E-HW2	0.26-3.10	0.05-0.15	12.70	15.49	6.35	0.40		●	●
	DNMG 150608E-HW2	0.52-3.10	0.10-0.30	12.70	15.49	6.35	0.80	○	●	○
	DNMG 150612E-HW2	0.78-3.10	0.15-0.45	12.70	15.49	6.35	1.20		●	○
	DNMG 150404E-HW4	0.30-3.10	0.06-0.18	12.70	15.49	4.76	0.40	●	●	○
	DNMG 150408E-HW4	0.60-3.10	0.12-0.36	12.70	15.49	4.76	0.80	●	●	○
	DNMG 150412E-HW4	0.90-3.10	0.18-0.54	12.70	15.49	4.76	1.20	○	●	○
	DNMG 150604E-HW4	0.30-3.10	0.06-0.18	12.70	15.49	6.35	0.40		●	●
	DNMG 150608E-HW4	0.60-3.10	0.12-0.36	12.70	15.49	6.35	0.80	●	●	○
	DNMG 150612E-HW4	0.90-3.10	0.18-0.54	12.70	15.49	6.35	1.20	○	●	●
	DNMG 110408E-HE4	0.68-2.60	0.14-0.40	9.53	11.62	4.76	0.80		○	
	DNMG 110412E-HE4	1.02-2.60	0.20-0.60	9.53	11.62	4.76	1.20		●	
	DNMG 150404E-HE4	0.34-3.50	0.07-0.20	12.70	15.49	4.76	0.40		○	
	DNMG 150408E-HE4	0.68-3.50	0.14-0.40	12.70	15.49	4.76	0.80	○	○	
	DNMG 150412E-HE4	1.02-3.50	0.20-0.60	12.70	15.49	4.76	1.20		○	
	DNMG 150604E-HE4	0.34-3.50	0.07-0.20	12.70	15.49	6.35	0.40		○	
	DNMG 150608E-HE4	0.68-3.50	0.14-0.40	12.70	15.49	6.35	0.80		●	○
	DNMG 150612E-HE4	1.02-3.50	0.20-0.60	12.70	15.49	6.35	1.20		●	
	DNMG 110404E-HR4	0.40-2.90	0.08-0.22	9.53	11.62	4.76	0.40		●	○
	DNMG 110408E-HR4	0.80-2.90	0.15-0.44	9.53	11.62	4.76	0.80	●	●	●
	DNMG 110412E-HR4	1.20-2.90	0.23-0.66	9.53	11.62	4.76	1.20		○	
	DNMG 150404E-HR4	0.40-3.90	0.08-0.22	12.70	15.49	4.76	0.40		●	○
	DNMG 150408E-HR4	0.80-3.90	0.15-0.44	12.70	15.49	4.76	0.80	○	●	○
	DNMG 150412E-HR4	1.20-3.90	0.23-0.66	12.70	15.49	4.76	1.20	○	●	●
	DNMG 150604E-HR4	0.40-3.90	0.08-0.22	12.70	15.49	6.35	0.40		●	●
	DNMG 150608E-HR4	0.80-3.90	0.15-0.44	12.70	15.49	6.35	0.80	●	●	●
	DNMG 150612E-HR4	1.20-3.90	0.23-0.66	12.70	15.49	6.35	1.20	●	●	●
	DNMG 150404E-HE5	0.40-3.90	0.08-0.22	12.70	15.49	4.76	0.40		○	○
	DNMG 150408E-HE5	0.80-3.90	0.15-0.44	12.70	15.49	4.76	0.80	○	○	○
	DNMG 150412E-HE5	1.20-3.90	0.23-0.66	12.70	15.49	4.76	1.20	○	○	○
	DNMG 150604E-HE5	0.40-3.90	0.08-0.22	12.70	15.49	6.35	0.40		○	○
	DNMG 150608E-HE5	0.80-3.90	0.15-0.44	12.70	15.49	6.35	0.80	●	●	●
	DNMG 150612E-HE5	1.20-3.90	0.23-0.66	12.70	15.49	6.35	1.20	●	●	○









● Stocked ○ Non-stocked

Product list-negative

Insert	Product Code	ap (mm)	f (mm/rev)	Size(mm)				Grade		
				d	l	s	r	EC165H	EC265H	EC565H
	DNMG 150408E-HR6	1.20-5.40	0.20-0.60	12.70	15.49	4.76	0.80	○	○	○
	DNMG 150412E-HR6	1.80-5.40	0.30-0.90	12.70	15.49	4.76	1.20	●	○	○
	DNMG 150416E-HR6	2.40-5.40	0.40-1.20	12.70	15.49	4.76	1.60	○	○	●
	DNMG 150608E-HR6	1.20-5.40	0.20-0.60	12.70	15.49	6.35	0.80	○	○	●
	DNMG 150612E-HR6	1.80-5.40	0.30-0.90	12.70	15.49	6.35	1.20	○	●	●
	DNMG 150616E-HR6	2.40-5.40	0.40-1.20	12.70	15.49	6.35	1.60	●	●	○
	SNMG 120404E-HW2	0.26-3.20	0.05-0.15	12.70	12.70	4.76	0.40	●	○	○
	SNMG 120408E-HW2	0.52-3.20	0.10-0.30	12.70	12.70	4.76	0.80	○	●	○
	SNMG 120404E-HE4	0.34-3.80	0.07-0.20	12.70	12.70	4.76	0.40		○	
	SNMG 120408E-HE4	0.68-3.80	0.14-0.40	12.70	12.70	4.76	0.80		●	
	SNMG 120412E-HE4	1.02-3.80	0.20-0.60	12.70	12.70	4.76	1.20		○	
	SNMG 120404E-HR4	0.40-4.20	0.08-0.22	12.70	12.70	4.76	0.40		●	○
	SNMG 120408E-HR4	0.80-4.20	0.15-0.44	12.70	12.70	4.76	0.80	○	●	○
	SNMG 120412E-HR4	1.20-4.20	0.23-0.66	12.70	12.70	4.76	1.20	○	○	○
	SNMG 190608E-HR4	0.80-6.30	0.15-0.44	19.05	19.05	6.35	0.80	○	○	○
	SNMG 190616E-HR4	1.60-6.30	0.30-0.66	19.05	19.05	6.35	1.60	○	○	○
	SNMG 120404E-HE5	0.40-4.20	0.08-0.22	12.70	12.70	4.76	0.40		○	
	SNMG 120408E-HE5	0.80-4.20	0.15-0.44	12.70	12.70	4.76	0.80	○	○	○
	SNMG 120412E-HE5	1.20-4.20	0.23-0.66	12.70	12.70	4.76	1.20	○	○	●
	SNMG 120412E-HR6	1.80-6.40	0.30-0.90	12.70	12.70	4.76	1.20	○	○	●
	SNMG 150608E-HR6	1.20-7.90	0.20-0.60	15.88	15.88	6.35	0.80	●	●	○
	SNMG 150612E-HR6	1.80-7.90	0.30-0.90	15.88	15.88	6.35	1.20	○	○	●
	SNMG 150616E-HR6	2.40-7.90	0.40-1.20	15.88	15.88	6.35	1.60	○	○	○
	SNMG 190612E-HR6	1.80-9.50	0.30-0.90	19.05	19.05	6.35	1.20	○	●	●
	SNMG 190616E-HR6	2.40-9.50	0.40-1.20	19.05	19.05	6.35	1.60	●	●	○
	SNMM 120408E-HR9	1.44-5.10	0.16-0.32	12.70	12.70	4.76	0.80	○	○	○
	SNMM 120412E-HR9	2.16-5.10	0.24-0.48	12.70	12.70	4.76	1.20	○	○	○
	SNMM 150612E-HR9	2.16-6.40	0.24-0.48	15.88	15.88	6.35	1.20	○	○	○
	SNMM 150616E-HR9	2.88-6.40	0.32-0.64	15.88	15.88	6.35	1.60	○	○	○
	SNMM 190612E-HR9	2.16-7.60	0.24-0.48	19.05	19.05	6.35	1.20	○	○	●
	SNMM 190616E-HR9	2.88-7.60	0.32-0.64	19.05	19.05	6.35	1.60	●	●	●
	SNMM 190624E-HR9	4.32-7.60	0.48-0.96	19.05	19.05	6.35	2.40	○	●	○
	SNMM 250724E-HR9	4.32-10.20	0.48-0.96	25.40	25.40	7.94	2.40	○	○	○
	SNMM 250924E-HR9	4.32-10.20	0.48-0.96	25.40	25.40	9.52	2.40	○	●	●

● Stocked ○ Non-stocked

Product list-negative

Insert	Product Code	ap (mm)	f (mm/rev)	Size(mm)				Grade		
				d	l	s	r	EC165H	EC265H	EC565H
	SNMH 310924S-HE0	4.80-15.90	0.53-1.20	31.75	31.75	9.52	2.40		○	
	SNMM 190612S-HE0	2.40-9.50	0.26-0.60	19.05	19.05	6.35	1.20	○	○	●
	SNMM 190616S-HE0	3.20-9.50	0.35-0.80	19.05	19.05	6.35	1.60	○	●	○
	SNMM 190624S-HE0	4.80-9.50	0.53-1.20	19.05	19.05	6.35	2.40	○	●	●
	SNMM 250724S-HE0	4.80-12.70	0.53-1.20	25.40	25.40	7.94	2.40	○	○	○
	SNMM 250924S-HE0	4.80-12.70	0.53-1.20	25.40	25.40	9.52	2.40	○	●	●
	SNMM 190612S-HR0	2.64-11.40	0.30-0.72	19.05	19.05	6.35	1.20	○	○	○
	SNMM 190616S-HR0	3.52-11.40	0.40-0.96	19.05	19.05	6.35	1.60	○	○	○
	SNMM 190624S-HR0	5.28-11.40	0.60-1.44	19.05	19.05	6.35	2.40	○	○	○
	SNMM 250724S-HR0	5.28-15.20	0.60-1.44	25.40	25.40	7.94	2.40	○	●	○
	SNMM 250924S-HR0	5.28-15.20	0.60-1.44	25.40	25.40	9.52	2.40	○	●	●
	SNMX 310924S-HR0	5.28-19.10	0.60-1.44	31.75	31.75	9.52	2.40		○	
	TNMG 160402E-HQ2	0.10-1.50	0.04-0.25	9.53	16.50	4.76	0.20	○	○	
	TNMG 160404E-HQ2	0.20-1.50	0.04-0.28	9.53	16.50	4.76	0.40	●	●	
	TNMG 160408E-HQ2	0.40-1.50	0.05-0.35	9.53	16.50	4.76	0.80	●	○	
	TNMG 160412E-HQ2	0.60-1.50	0.05-0.42	9.53	16.50	4.76	1.20		○	
	TNMG 160404E-HW2	0.26-3.10	0.05-0.15	9.53	16.50	4.76	0.40	○	●	○
	TNMG 160408E-HW2	0.52-3.10	0.10-0.30	9.53	16.50	4.76	0.80	○	●	○
	TNMG 160412E-HW2	0.78-3.10	0.15-0.45	9.53	16.50	4.76	1.20	○	○	○
	TNMG 160404E-HW4	0.30-3.30	0.06-0.18	9.53	16.50	4.76	0.40		●	●
	TNMG 160408E-HW4	0.60-3.30	0.12-0.36	9.53	16.50	4.76	0.80	○	○	○
	TNMG 160412E-HW4	0.90-3.30	0.18-0.54	9.53	16.50	4.76	1.20	○	○	○
	TNMG 160404E-HE4	0.34-3.70	0.07-0.20	9.53	16.50	4.76	0.40		●	○
	TNMG 160408E-HE4	0.68-3.70	0.14-0.40	9.53	16.50	4.76	0.80		○	○
	TNMG 160412E-HE4	1.02-3.70	0.20-0.60	9.53	16.50	4.76	1.20		●	
	TNMG 160404E-HR4	0.40-4.10	0.08-0.22	9.53	16.50	4.76	0.40	●	●	●
	TNMG 160408E-HR4	0.80-4.10	0.15-0.44	9.53	16.50	4.76	0.80	●	●	○
	TNMG 160412E-HR4	1.20-4.10	0.23-0.66	9.53	16.50	4.76	1.20	○	●	●
	TNMG 160404E-HE5	0.40-4.10	0.08-0.22	9.53	16.50	4.76	0.40		○	
	TNMG 160408E-HE5	0.80-4.10	0.15-0.44	9.53	16.50	4.76	0.80	○	●	
	TNMG 160412E-HE5	1.20-4.10	0.23-0.66	9.53	16.50	4.76	1.20	●	●	
	TNMG 220412E-HE5	1.20-4.90	0.23-0.66	12.70	22.00	4.76	1.20		○	●










● Stocked ○ Non-stocked

Product list-negative

Insert	Product Code	ap (mm)	f (mm/rev)	Size(mm)				Grade		
				d	l	s	r	EC165H	EC265H	EC565H
	TNMG 160404L-HS6	0.40-4.10	0.08-0.22	9.53	16.50	4.76	0.40		●	●
	TNMG 160404R-HS6	0.40-4.10	0.08-0.22	9.53	16.50	4.76	0.40	○	○	●
	TNMG 160408L-HS6	0.80-4.10	0.15-0.44	9.53	16.50	4.76	0.80	○	●	○
	TNMG 160408R-HS6	0.80-4.10	0.15-0.44	9.53	16.50	4.76	0.80	●	○	●
	TNMG 160408E-HR6	1.20-5.80	0.20-0.60	9.53	16.50	4.76	0.80	○	○	○
	TNMG 160412E-HR6	1.80-5.80	0.30-0.90	9.53	16.50	4.76	1.20	○	○	○
	TNMG 220408E-HR6	1.20-7.70	0.20-0.60	12.70	22.00	4.76	0.80	○	●	○
	TNMG 220412E-HR6	1.80-7.70	0.30-0.90	12.70	22.00	4.76	1.20	○	○	●
	TNMG 220416E-HR6	2.40-7.70	0.40-1.20	12.70	22.00	4.76	1.60	○	●	●
	TNMM 160408E-HR9	1.44-4.90	0.16-0.32	9.53	16.50	4.76	0.80	○	○	○
	TNMM 160412E-HR9	2.16-4.90	0.24-0.48	9.53	16.50	4.76	1.20	○	○	○
	TNMM 220408E-HR9	1.44-6.00	0.16-0.32	12.70	22.00	4.76	0.80	○	○	○
	TNMM 220412E-HR9	2.16-6.00	0.24-0.48	12.70	22.00	4.76	1.20	○	○	○
	TNMM 220416E-HR9	2.88-6.00	0.32-0.64	12.70	22.00	4.76	1.60	○	○	○
	VNMG 160404E-WL	0.30-2.00	0.07-0.16	9.53	16.61	4.76	0.40	●	●	○
	VNMG 160408E-WL	0.60-2.00	0.08-0.20	9.53	16.61	4.76	0.80	●	●	●
	VNMG 160412E-WL	0.90-2.00	0.09-0.22	9.53	16.61	4.76	1.20	○	●	
	VNMG 160402E-HQ2	0.10-1.50	0.04-0.25	9.53	16.61	4.76	0.20	●	○	
	VNMG 160404E-HQ2	0.20-1.50	0.04-0.28	9.53	16.61	4.76	0.40	●	●	
	VNMG 160408E-HQ2	0.40-1.50	0.05-0.35	9.53	16.61	4.76	0.80	●	●	
	VNMG 160404E-HW2	0.26-2.10	0.05-0.15	9.53	16.61	4.76	0.40	●	●	○
	VNMG 160408E-HW2	0.52-2.10	0.10-0.30	9.53	16.61	4.76	0.80	●	●	●
	VNMG 160404E-HW4	0.30-3.10	0.06-0.18	9.53	16.61	4.76	0.40	●	●	○
	VNMG 160408E-HW4	0.60-3.10	0.12-0.36	9.53	16.61	4.76	0.80	●	●	●
	VNMG 160412E-HW4	0.90-3.10	0.18-0.54	9.53	16.61	4.76	1.20	○	●	○
	VNMG 160404E-HE4	0.34-3.30	0.07-0.20	9.53	16.61	4.76	0.40		●	
	VNMG 160408E-HE4	0.68-3.30	0.14-0.40	9.53	16.61	4.76	0.80		●	○
	VNMG 160412E-HE4	1.02-3.30	0.20-0.60	9.53	16.61	4.76	1.20		○	
	VNMG 12T304E-HR4	0.40-2.50	0.08-0.22	7.15	12.47	3.97	0.40		○	○
	VNMG 12T308E-HR4	0.80-2.50	0.15-0.44	7.15	12.47	3.97	0.80		○	○
	VNMG 160404E-HR4	0.40-3.30	0.08-0.22	9.53	16.61	4.76	0.40		●	○
	VNMG 160408E-HR4	0.80-3.30	0.15-0.44	9.53	16.61	4.76	0.80	○	●	○
	VNMG 160412E-HR4	1.20-3.30	0.23-0.66	9.53	16.61	4.76	1.20	●	●	○

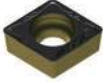
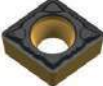
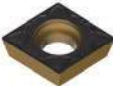

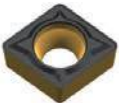
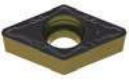
● Stocked ○ Non-stocked

Product list-negative

Insert	Product Code	ap (mm)	f (mm/rev)	Size(mm)				Grade		
				d	l	s	r	EC165H	EC265H	EC565H
	VNMG 160404E-HE5	0.40-3.30	0.08-0.22	9.53	16.61	4.76	0.40		○	
	VNMG 160408E-HE5	0.80-3.30	0.15-0.44	9.53	16.61	4.76	0.80	○	○	
	VNMG 160412E-HE5	1.20-3.30	0.23-0.66	9.53	16.61	4.76	1.20	○	○	
	WNMG 080402E-HQ2	0.10-1.50	0.04-0.25	12.70	8.69	4.76	0.20	○	○	
	WNMG 080404E-HQ2	0.20-1.50	0.04-0.28	12.70	8.69	4.76	0.40	●	●	
	WNMG 080408E-HQ2	0.40-1.50	0.05-0.35	12.70	8.69	4.76	0.80	●	●	
	WNMG 080412E-HQ2	0.60-1.50	0.05-0.42	12.70	8.69	4.76	1.20		○	
	WNMG 060404E-HW2	0.26-1.63	0.05-0.15	9.53	6.52	4.76	0.40			○
	WNMG 080404E-HW2	0.26-2.20	0.05-0.15	12.70	8.69	4.76	0.40	●	●	●
	WNMG 080408E-HW2	0.52-2.20	0.10-0.30	12.70	8.69	4.76	0.80	●	●	○
	WNMG 080412E-HW2	0.78-2.20	0.15-0.45	12.70	8.69	4.76	1.20	○	●	○
	WNMG 060404E-HW4	0.30-1.80	0.06-0.18	9.53	6.52	4.76	0.40			○
	WNMG 080404E-HW4	0.30-2.30	0.06-0.18	12.70	8.69	4.76	0.40		●	○
	WNMG 080408E-HW4	0.60-2.30	0.12-0.36	12.70	8.69	4.76	0.80	●	●	●
	WNMG 080412E-HW4	0.90-2.30	0.18-0.54	12.70	8.69	4.76	1.20	●	○	●
	WNMG 080404E-HE4	0.34-2.60	0.07-0.2	12.70	8.69	4.76	0.40		○	
	WNMG 080408E-HE4	0.68-2.60	0.14-0.4	12.70	8.69	4.76	0.80	●	●	○
	WNMG 080412E-HE4	1.02-2.60	0.20-0.60	12.70	8.69	4.76	1.20	○	●	
	WNMG 060408E-HR4	0.80-2.10	0.15-0.44	9.53	6.52	4.76	0.80	●	●	●
	WNMG 080404E-HR4	0.40-2.90	0.08-0.22	12.70	8.69	4.76	0.40	●	●	●
	WNMG 080408E-HR4	0.80-2.90	0.15-0.44	12.70	8.69	4.76	0.80	●	●	●
	WNMG 080412E-HR4	1.20-2.90	0.23-0.66	12.70	8.69	4.76	1.20	●	●	●
	WNMG 080404E-HE5	0.40-2.90	0.08-0.22	12.70	8.69	4.76	0.40		○	
	WNMG 080408E-HE5	0.80-2.90	0.15-0.44	12.70	8.69	4.76	0.80	○	●	
	WNMG 080412E-HE5	1.20-2.90	0.23-0.66	12.70	8.69	4.76	1.20	●	●	○
	WNMG 080404L-HS6	0.40-4.00	0.20-0.50	12.70	8.69	4.76	0.40			
	WNMG 080404R-HS6	0.40-4.00	0.20-0.50	12.70	8.69	4.76	0.40			
	WNMG 080408L-HS6	0.80-4.00	0.20-0.50	12.70	8.69	4.76	0.80			
	WNMG 080408R-HS6	0.80-4.00	0.20-0.50	12.70	8.69	4.76	0.80		○	●
	WNMG 080408E-HR6	1.20-4.30	0.20-0.60	12.70	8.69	4.76	0.80	○	●	○
	WNMG 080412E-HR6	1.80-4.30	0.30-0.90	12.70	8.69	4.76	1.20	●	●	●

● Stocked ○ Non-stocked

Product list-negative

Insert	Product Code	ap (mm)	f (mm/rev)	Size(mm)				Grade		
				d	l	s	r	EC165H	EC265H	EC565H
	CCMT 060202E-HQ2	0.10-0.80	0.04-0.25	6.35	6.45	2.38	0.20	●	○	
	CCMT 09T308E-HQ2	0.40-0.80	0.05-0.3	9.53	9.67	3.97	0.80	●	●	
	CCMT 060202E-HW2	0.15-1.60	0.02-0.07	6.35	6.45	2.38	0.20		●	●
	CCMT 060204E-HW2	0.30-1.60	0.04-0.14	6.35	6.45	2.38	0.40		●	○
	CCMT 060208E-HW2	0.60-1.60	0.09-0.28	6.35	6.45	2.38	0.80		○	○
	CCMT 09T302E-HW2	0.15-2.40	0.02-0.07	9.53	9.67	3.97	0.20		●	●
	CCMT 09T304E-HW2	0.30-2.40	0.04-0.14	9.53	9.67	3.97	0.40		●	○
	CCMT 09T308E-HW2	0.60-2.40	0.09-0.28	9.53	9.67	3.97	0.80	●	●	○
	CPMT 080202E-HW2	0.15-2.00	0.02-0.07	7.94	8.06	2.38	0.20	○		
	CPMT 080204E-HW2	0.30-2.00	0.04-0.14	7.94	8.06	2.38	0.40	○		
	CPMT 090302E-HW2	0.15-2.40	0.02-0.07	9.53	9.67	3.18	0.20	○		
	CPMT 090304E-HW2	0.30-2.40	0.04-0.14	9.53	9.67	3.18	0.40	○		
	CPMT 090308E-HW2	0.60-2.40	0.09-0.28	9.53	9.67	3.18	0.80	○		
	CCMT 060204E-HE3	0.35-1.90	0.05-0.16	6.35	6.45	2.38	0.40		●	●
	CCMT 060208E-HE3	0.70-1.90	0.1-0.32	6.35	6.45	2.38	0.80		●	●
	CCMT 09T304E-HE3	0.35-2.90	0.05-0.16	9.53	9.67	3.97	0.40	●	●	●
	CCMT 09T308E-HE3	0.70-2.90	0.1-0.32	9.53	9.67	3.97	0.80	○	●	○
	CCMT 09T312E-HE3	1.05-2.90	0.16-0.48	9.53	9.67	3.97	1.20		●	○
	CCMT 120404E-HE3	0.35-3.90	0.05-0.16	12.70	12.89	4.76	0.40		●	●
	CCMT 120408E-HE3	0.70-3.90	0.1-0.32	12.70	12.89	4.76	0.80		●	○
	CCMT 120412E-HE3	1.05-3.90	0.16-0.48	12.70	12.89	4.76	1.20		○	○
	CPMT 090304E-HE3	0.35-2.90	0.05-0.16	9.53	9.67	3.18	0.40	○		
CPMT 090308E-HE3	0.70-2.90	0.1-0.32	9.53	9.67	3.18	0.80	○			
	CCMT 060204E-AE3	0.40-2.10	0.06-0.18	6.35	6.45	2.38	0.40		●	●
	CCMT 060208E-AE3	0.80-2.10	0.12-0.36	6.35	6.45	2.38	0.80		●	●
	CCMT 09T304E-AE3	0.40-3.20	0.06-0.18	9.53	9.67	3.97	0.40	○	○	●
	CCMT 09T308E-AE3	0.80-3.20	0.12-0.36	9.53	9.67	3.97	0.80	○	●	○
	CCMT 120404E-AE3	0.40-4.30	0.06-0.18	12.70	12.89	4.76	0.40	●	○	○
	CCMT 120408E-AE3	0.80-4.30	0.12-0.36	12.70	12.89	4.76	0.80	●	●	●
	CCMT 120412E-AE3	1.20-4.30	0.18-0.54	12.70	12.89	4.76	1.20		○	○
	DCMT 11T302E-HQ2	0.10-1.00	0.04-0.25	9.53	11.62	3.97	0.20	●	○	
	DCMT 11T304E-HQ2	0.20-1.00	0.04-0.25	9.53	11.62	3.97	0.40	●	●	
	DCMT 11T308E-HQ2	0.40-1.00	0.05-0.3	9.53	11.62	3.97	0.80	●	●	




● Stocked ○ Non-stocked

Product list-negative

Insert	Product Code	ap (mm)	f (mm/rev)	Size(mm)				Grade		
				d	l	s	r	EC165H	EC265H	EC565H
	DCMT 070202E-HW2	0.15-1.50	0.02-0.07	6.35	7.75	2.38	0.20		○	●
	DCMT 070204E-HW2	0.30-1.50	0.04-0.14	6.35	7.75	2.38	0.40		●	●
	DCMT 11T302E-HW2	0.15-2.30	0.02-0.07	9.53	11.62	3.97	0.20		○	○
	DCMT 11T304E-HW2	0.30-2.30	0.04-0.14	9.53	11.62	3.97	0.40	●	●	●
	DCMT 11T308E-HW2	0.60-2.30	0.09-0.28	9.53	11.62	3.97	0.80	●	○	●
	DCMT 070204E-HE3	0.35-2.10	0.05-0.16	6.35	7.75	2.38	0.40		●	○
	DCMT 070208E-HE3	0.70-2.10	0.10-0.32	6.35	7.75	2.38	0.80		●	●
	DCMT 11T304E-HE3	0.35-3.10	0.05-0.16	9.53	11.62	3.97	0.40	●	●	●
	DCMT 11T308E-HE3	0.70-3.10	0.10-0.32	9.53	11.62	3.97	0.80	○	●	●
	DCMT 11T312E-HE3	1.05-3.10	0.16-0.48	9.53	11.62	3.97	1.20		●	○
	DCMT 070204E-AE3	0.40-2.30	0.06-0.18	6.35	7.75	2.38	0.40		●	○
	DCMT 070208E-AE3	0.80-2.30	0.12-0.36	6.35	7.75	2.38	0.80		○	○
	DCMT 11T304E-AE3	0.40-3.50	0.06-0.18	9.53	11.62	3.97	0.40		●	●
	DCMT 11T308E-AE3	0.80-3.50	0.12-0.36	9.53	11.62	3.97	0.80	○	●	●
	DCMT 11T312E-AE3	1.20-3.50	0.18-0.54	9.53	11.62	3.97	1.20	○	●	○
	SCMT 09T304E-HW2	0.30-2.40	0.04-0.14	9.53	9.53	3.97	0.40		○	●
	SCMT 09T308E-HW2	0.60-2.40	0.09-0.28	9.53	9.53	3.97	0.80		●	○
	SCMT 09T304E-HE3	0.35-2.90	0.05-0.16	9.53	9.53	3.97	0.40		○	●
	SCMT 09T308E-HE3	0.70-2.90	0.10-0.32	9.53	9.53	3.97	0.80		○	●
	SCMT 120404E-HE3	0.35-3.80	0.05-0.16	12.70	12.70	4.76	0.40		●	○
	SCMT 120408E-HE3	0.70-3.80	0.10-0.32	12.70	12.70	4.76	0.80	○	●	○
	SCMT 120412E-HE3	1.05-3.80	0.16-0.48	12.70	12.70	4.76	1.20	○	○	●
	SCMT 09T304E-AE3	0.40-3.10	0.06-0.18	9.53	9.53	3.97	0.40		○	○
	SCMT 09T308E-AE3	0.80-3.10	0.12-0.36	9.53	9.53	3.97	0.80		●	○
	SCMT 120404E-AE3	0.40-4.20	0.06-0.18	12.70	12.70	4.76	0.40		●	○
	SCMT 120408E-AE3	0.80-4.20	0.12-0.36	12.70	12.70	4.76	0.80		●	○
	SCMT 120412E-AE3	1.20-4.20	0.18-0.54	12.70	12.70	4.76	1.20		○	
	TCMT 090204E-HW2	0.30-1.90	0.04-0.14	5.56	9.63	2.38	0.40		○	●
	TCMT 110202E-HW2	0.15-2.20	0.02-0.07	6.35	11.00	2.38	0.20		○	○
	TCMT 110204E-HW2	0.30-2.20	0.04-0.14	6.35	11.00	2.38	0.40		●	●
	TCMT 110208E-HW2	0.60-2.20	0.09-0.28	6.35	11.00	2.38	0.80		○	○
	TCMT 16T304E-HW2	0.30-3.30	0.04-0.14	9.53	16.50	3.97	0.40		●	●
	TCMT 16T308E-HW2	0.60-3.30	0.09-0.28	9.53	16.50	3.97	0.80		●	○


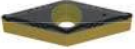



● Stocked ○ Non-stocked

Product list-negative

Insert	Product Code	ap (mm)	f (mm/rev)	Size(mm)				Grade		
				d	l	s	r	EC165H	EC265H	EC565H
	TPMT 090202E-HW2	0.15-1.90	0.02-0.07	5.56	9.63	2.38	0.20	●		
	TPMT 090204E-HW2	0.30-1.90	0.04-0.14	5.56	9.63	2.38	0.40	○		
	TPMT 090208E-HW2	0.60-1.90	0.09-0.28	5.56	9.63	2.38	0.80	○		
	TPMT 110302E-HW2	0.15-2.20	0.02-0.07	6.35	11.00	3.18	0.20	●		
	TPMT 110304E-HW2	0.30-2.20	0.04-0.14	6.35	11.00	3.18	0.40	●		
	TPMT 110308E-HW2	0.60-2.20	0.09-0.28	6.35	11.00	3.18	0.80	○		
	TPMT 160304E-HW2	0.30-3.30	0.04-0.14	9.53	16.50	3.18	0.40	○		
	TPMT 160308E-HW2	0.60-3.30	0.09-0.28	9.53	16.50	3.18	0.80	○		
	TCMT 090204E-HE3	0.35-2.60	0.05-0.16	5.56	9.63	2.38	0.40		●	●
	TCMT 090208E-HE3	0.70-2.60	0.10-0.32	5.56	9.63	2.38	0.80		●	○
	TCMT 110204E-HE3	0.35-3.00	0.05-0.16	6.35	11.00	2.38	0.40		●	●
	TCMT 110208E-HE3	0.70-3.00	0.10-0.32	6.35	11.00	2.38	0.80		●	○
	TCMT 110302E-HE3	0.18-3.00	0.03-0.08	6.35	11.00	3.18	0.20	○	○	○
	TCMT 16T304E-HE3	0.35-4.50	0.05-0.16	9.53	16.50	3.97	0.40	○	○	●
	TCMT 16T308E-HE3	0.70-4.50	0.10-0.32	9.53	16.50	3.97	0.80	●	●	●
	TCMT 16T312E-HE3	1.05-4.50	0.16-0.48	9.53	16.50	3.97	1.20		○	○
	TPMT 090204E-HE3	0.35-2.60	0.05-0.16	5.56	9.63	2.38	0.40	○		
	TPMT 090208E-HE3	0.70-2.60	0.10-0.32	5.56	9.63	2.38	0.80	○		
	TPMT 110304E-HE3	0.35-3.00	0.05-0.16	6.35	11.00	3.18	0.40	○		
	TPMT 110308E-HE3	0.70-3.00	0.10-0.32	6.35	11.00	3.18	0.80	○		
	TPMT 160304E-HE3	0.35-4.50	0.05-0.16	9.53	16.50	3.18	0.40	○		
	TPMT 160308E-HE3	0.70-4.50	0.10-0.32	9.53	16.50	3.18	0.80	○		
	TCMT 090204E-AE3	0.40-2.90	0.06-0.18	5.56	9.63	2.38	0.40		○	●
	TCMT 090208E-AE3	0.80-2.90	0.12-0.36	5.56	9.63	2.38	0.80		○	○
	TCMT 110204E-AE3	0.40-3.30	0.06-0.18	6.35	11.00	2.38	0.40		●	○
	TCMT 110208E-AE3	0.80-3.30	0.12-0.36	6.35	11.00	2.38	0.80		○	○
	TCMT 16T304E-AE3	0.40-4.90	0.06-0.18	9.53	16.50	3.97	0.40	○	○	●
	TCMT 16T308E-AE3	0.80-4.90	0.12-0.36	9.53	16.50	3.97	0.80	○	●	○
	TCMT 16T312E-AE3	1.20-4.90	0.18-0.54	9.53	16.50	3.97	1.20		●	●





● Stocked ○ Non-stocked

Product list-negative

Insert	Product Code	ap (mm)	f (mm/rev)	Size(mm)				Grade		
				d	l	s	r	EC165H	EC265H	EC565H
	VBMT 110302E-WL	0.30-1.30	0.04-0.14	6.35	11.07	3.18	0.20	●	○	
	VBMT 110304E-WL	0.60-1.30	0.04-0.16	6.35	11.07	3.18	0.40	●	○	
	VBMT 110308E-WL	0.90-1.30	0.05-0.20	6.35	11.07	3.18	0.80	●	○	
	VBMT 160402E-WL	0.30-1.50	0.04-0.14	9.53	16.61	4.76	0.20	●	○	
	VBMT 160404E-WL	0.60-1.50	0.04-0.16	9.53	16.61	4.76	0.40	●	○	
	VBMT 160408E-WL	0.90-1.50	0.05-0.20	9.53	16.61	4.76	0.80	●	○	○
	VBMT 160412E-WL	1.20-1.50	0.06-0.22	9.53	16.61	4.76	1.20	●	○	
	VBMT 110302E-HQ2	0.10-1.00	0.04-0.25	6.35	11.07	3.18	0.20	●	○	
	VBMT 160404E-HQ2	0.20-1.00	0.04-0.25	9.53	16.61	4.76	0.40	●	●	
	VBMT 160408E-HQ2	0.40-1.00	0.05-0.30	9.53	16.61	4.76	0.80	●	●	
	VBMT 110304E-HW2	0.30-1.40	0.04-0.14	6.35	11.07	3.18	0.40		●	○
	VBMT 110308E-HW2	0.60-1.40	0.09-0.28	6.35	11.07	3.18	0.80		○	○
	VBMT 160402E-HW2	0.15-2.10	0.02-0.07	9.53	16.61	4.76	0.20		○	●
	VBMT 160404E-HW2	0.30-2.10	0.04-0.14	9.53	16.61	4.76	0.40		○	○
	VBMT 160408E-HW2	0.60-2.10	0.09-0.28	9.53	16.61	4.76	0.80	○	●	●
	VCMT 160404E-HW2	0.30-2.10	0.04-0.14	9.53	16.61	4.76	0.40		●	○
	VCMT 160408E-HW2	0.60-2.10	0.09-0.28	9.53	16.61	4.76	0.80		●	○
	VBMT 110304E-HE3	0.35-2.10	0.05-0.16	6.35	11.07	3.18	0.40		●	○
	VBMT 110308E-HE3	0.70-2.10	0.10-0.32	6.35	11.07	3.18	0.80		●	●
	VBMT 160404E-HE3	0.35-3.10	0.05-0.16	9.53	16.61	4.76	0.40	○	●	○
	VBMT 160408E-HE3	0.70-3.10	0.10-0.32	9.53	16.61	4.76	0.80	●	●	●
	VBMT 160412E-HE3	1.05-3.10	0.16-0.48	9.53	16.61	4.76	1.20	●	●	○
	VCMT 110304E-HE3	0.35-2.10	0.05-0.16	6.35	11.07	3.18	0.40		●	●
	VCMT 110308E-HE3	0.70-2.10	0.10-0.32	6.35	11.07	3.18	0.80		●	○
	VCMT 160404E-HE3	0.35-3.10	0.05-0.16	9.53	16.61	4.76	0.40		●	●
	VCMT 160408E-HE3	0.70-3.10	0.10-0.32	9.53	16.61	4.76	0.80		●	●
	VBMT 160404E-AE3	0.40-3.30	0.06-0.18	9.53	16.61	4.76	0.40		●	○
	VBMT 160408E-AE3	0.80-3.30	0.12-0.36	9.53	16.61	4.76	0.80	●	●	●
	VBMT 160412E-AE3	1.20-3.30	0.18-0.54	9.53	16.61	4.76	1.20	●	●	○

● Stocked ○ Non-stocked

Product list-negative

Insert	Product Code	ap (mm)	f (mm/rev)	Size(mm)				Grade		
				d	l	s	r	EC165H	EC265H	EC565H
	RCMT 0803MOE-HR9	0.80-3.20	0.06-0.31					●		
	RCMT 10T3MOS-HR9	1.00-4.00	0.06-0.31					●		
	RCMT 1204MOS-HR9	1.20-4.80	0.08-0.38					○	○	○
	RCMT 1606MOS-HR9	1.60-6.40	0.10-0.50					●		
	RCMT 2006MOS-HR9	2.00-8.00	0.21-1.26					●		
	RCMT 2507MOS-HR9	2.50-100	0.28-1.53					○		
	RCMX 100300S	1.50-4.00	0.25-0.50							
	RCMX 120400S	2.50-5.00	0.30-0.60					●	●	○
	RCMX 160600S	3.00-7.00	0.40-0.75					●	●	○
	RCMX 200600S	3.50-9.00	0.48-0.90					●	●	○
	RCMX 250700S	4.00-12.00	0.55-1.20					●	○	○
	RCMX 320900S	5.00-15.90	0.65-1.50					○	●	○
	LNMX 191940-AM	2.00-10.00	0.70-1.20					●		○
	LNMX 301940-AM	2.00-20.00	0.70-1.20					●		○
	LNMX 301940-AR	2.00-20.00	0.70-1.20						○	○

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● Stocked ○ Non-stocked