



# MILLING INSERTS



# General Milling Insert Naming Rules

## Shape

**A** P M T II 35 PD E R - GM

<b>A</b> 	<b>B</b> 	<b>C</b> 
<b>D</b> 	<b>E</b> 	<b>H</b> 
<b>K</b> 	<b>L</b> 	<b>M</b> 
<b>O</b> 	<b>P</b> 	<b>R</b> 
<b>S</b> 	<b>T</b> 	<b>T</b> 
<b>V</b> 	<b>W</b> 	Other

## Chip Breaker and Hole

A P M **T** II 35 PD E R - GM

Symbol	Center Hole	Chip Breaker	Insert Profile	Symbol	Center Hole	Chip Breaker	Insert Profile
<b>B</b>	(Y)	(N)		<b>N</b>	(N)	(N)	
<b>H</b>	(Y)	(S)		<b>R</b>	(N)	(S)	
<b>C</b>	(Y)	(N)		<b>F</b>	(N)	(D)	
<b>J</b>	(Y)	(D)		<b>A</b>	(Y)	(N)	
<b>W</b>	(Y)	(N)		<b>M</b>	(Y)	(S)	
<b>T</b>	(Y)	(S)		<b>G</b>	(Y)	(D)	
<b>Q</b>	(Y)	(N)		<b>X</b>			
<b>U</b>	(Y)	(D)					

## Clearance Angle

A P M T II 35 PD E R - GM

<b>A</b> 	<b>B</b> 
<b>C</b> 	<b>D</b> 
<b>E</b> 	<b>F</b> 
<b>G</b> 	<b>N</b> 
<b>P</b> 	Other

## Tolerance

A P M T II 35 PD E R - GM

Symbol	Center Hole Ød (mm)	Inscribed Circle ØI.C. (mm)	Thickness T (mm)	(reference) M grade tolerance detail (According to Shape, Size) Tolerance of Insert nose height (mm)							
				ØI.C. (mm)	Regular Triangle	Square	80° Rhombus	55° Rhombus	35° Rhombus	Round	
				6.35	±0.08	±0.08	±0.08	±0.11	±0.16	...	
				9.525	±0.08	±0.08	±0.08	±0.11	±0.16	...	
				12.7	±0.13	±0.13	±0.13	±0.15	...	...	
<b>A</b>	±0.005	±0.025	±0.025	15.875	±0.15	±0.15	±0.15	±0.18	...	...	
<b>F</b>	±0.005	±0.013	±0.025	19.05	±0.15	±0.15	±0.15	±0.18	...	...	
<b>C</b>	±0.013	±0.025	±0.025	25.4	...	±0.18	...	...	...	...	
<b>H</b>	±0.013	±0.013	±0.013	Tolerance of Inscribed Circle (mm)							
<b>E</b>	±0.025	±0.025	±0.025	ØI.C. (mm)	Regular Triangle	Square	80° Rhombus	55° Rhombus	35° Rhombus	Round	
<b>G</b>	±0.025	±0.025	±0.13								
<b>J</b>	±0.005	±0.05-±0.13	±0.025	6.35	±0.05	±0.05	±0.05	±0.05	±0.05		
<b>K</b>	±0.013	±0.05-±0.13	±0.025	9.525	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	
<b>L</b>	±0.025	±0.05-±0.13	±0.025	12.7	±0.08	±0.08	±0.08	±0.08	...	±0.08	
<b>M</b>	±0.08-±0.18	±0.05-±0.13	±0.13	15.875	±0.1	±0.1	±0.10	±0.10	...	±0.1	
<b>N</b>	±0.08-±0.18	±0.05-±0.13	±0.025	19.05	±0.1	±0.1	±0.10	±0.10	...	±0.1	
<b>U</b>	±0.13-±0.38	±0.08-±0.25	±0.13	25.4	...	...	±0.13	...	...	±0.13	

# General Milling Insert Naming Rules

## Cutting Edge Length

**A P M T II 35 PD E R - GM**

Inscribed Circle Ø.I.C. (mm)	Insert Shape							
	C	D	R	S	T	V	W	K
3.97					06			
5			05					
5.56					09			
6			06					
6.35	06	07			11	11		
8			08					
9.525	09	11	09	09	16	16	06	16
10			10					
12			12					
12.7	12	15	12	12	22	22	08	
15.875	16		15	15	27			
16			16	16				
19.05	19		19	19	33			
20			20					
25	25	25	25					
25.4			25	25				
31.75			31					
32			32					

## Thickness

**A P M T II 35 PD E R - GM**

Symbol	Thickness (mm)
00	0.79
T0	0.99
01	1.59
T1	1.98
02	2.38
T2	2.58
03	3.18
T3	3.97
04	4.76
T4	4.96
05	5.56
T5	5.95
06	6.35
T6	6.75
07	7.94
09	9.52
T9	9.72
11	11.11
12	12.7

The Height Between Insert Bottom And Nose

## Wiper Code

**A P M T II 35 PD E R - GM**

	$Kr^\circ$		$\alpha n^\circ$
A	45°	A	3°
D	60°	B	5°
E	75°	C	7°
F	85°	D	15°
P	90°	E	20°
Z	Other	F	25°
		G	30°
		N	0°
		P	11°
		Z	Other

## Cutting Edge Chamfering

**A P M T II 35 PD E R - GM**

F							K
E		0	5°	0	0.1		P
		1	10°	1	0.15		
T		2	15°	2	0.2		W
		3	20°	3	0.25		
		4	25°	4	0.3		
S		5	30°	5	0.35		Non Standard
				6	0.4		
				7	0.45		

## Cutting Direction

**A P M T II 35 PD E R - GM**

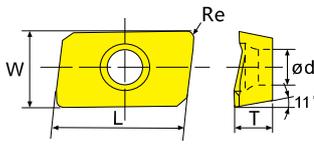
R	Right
L	Left
N	Neutral

## Chip Breaker Code

**A P M T II 35 PD E R - GM**

H2	M2	G2
GM	HK	JP

√ - Good Working Conditions    ○ - General Working Conditions    × - Unstable Working Conditions



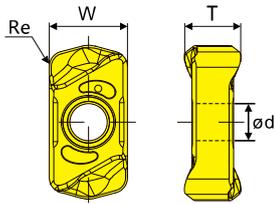
Workpiece Material	P	Steel																		
	M	Stainless Steel																		
	K	Cast Iron																		
	N	Non-Ferrous Metal																		
	S	Heat Resistant Alloy Titanium Alloy																		
	H	Hardened Steel																		

Insert Shape	Type	Dimensions (mm)					P		M		K	N		S	H	Cermet			
		L	W	T	Ød	R	MC7098		MC8090			MN7007	MN7007	MC8090					
	APGT113504	10.83	6.2	3.5	2.8	0.4						●	●						
	APGT113508	10.83	6.2	3.5	2.8	0.8						●	●						
	APGT160404	16.26	9.3	4.76	4.4	0.4						●	●						
	APGT160408	16.26	9.3	4.76	4.4	0.8						●	●						
	APGT113504-G2	10.83	6.2	3.5	2.8	0.4						●							
	APGT113508-G2	10.83	6.2	3.5	2.8	0.8						●							
	APGT160404-G2	16.26	9.3	4.76	4.4	0.4						●							
	APGT160408-G2	16.26	9.3	4.76	4.4	0.8						●							
	APKT160404-MA	16.26	9.3	4.76	4.4	0.4						●							
	APKT160408-MA	16.26	9.3	4.76	4.4	0.8						●							
	APMT1135PDER	10.83	6.2	3.5	2.8	0.8	●		○										
	APMT1604DPER-M	16.26	9.3	4.76	4.4	0.8	●		○										
	APMT1135PDER-H2	10.83	6.2	3.5	2.8	0.8	●		●					●					
	APMT1604PDER-H2	16.26	9.3	4.76	4.4	0.8	●		●					●					
	APMT1135PDER-M2	10.83	6.2	3.5	2.8	0.8	●		●					●					
	APMT1604PDER-M2	16.26	9.3	4.76	4.4	0.8	●		●					●					
	APMT1135PDTR-M2	10.83	6.2	3.5	2.8	0.8	○		●										
	APMT1604PDTR-M2	16.26	9.3	4.76	4.4	0.8	○		●										
	APMT160420-GW	16.26	9.3	4.76	4.4	2.0	●		●										
	APMT160430-GW	16.26	9.3	4.76	4.4	3.0	○		○										

● - Always Stock Available    ○ - Make to Order



## High Feed Milling Insert LNMU



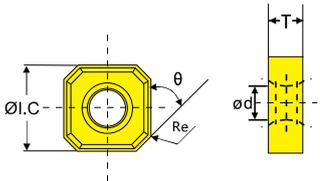
√ - Good Working Conditions    ○ - General Working Conditions    × - Unstable Working Conditions

Workpiece Material	P	M	K	N	S	H	Cermet						
	Steel	Stainless Steel	Cast Iron	Non-Ferrous Metal	Heat Resistant Alloy Titanium Alloy	Hardened Steel							

Insert Shape	Type	Dimensions (mm)				P		M		K	N		S	H	Cermet	
		W	T	ød	R	MC7098		MC8090			MN7007	MN7007	MC8090			
	LNMU0303ZER	6	4.3	2.9	1.2	●		●					●			

● - Always Stock Available    ○ - Make to Order

## Face & Shoulder Milling Insert SNMX



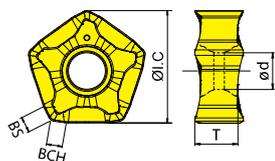
√ - Good Working Conditions    ○ - General Working Conditions    × - Unstable Working Conditions

Workpiece Material	P	M	K	N	S	H	Cermet						
	Steel	Stainless Steel	Cast Iron	Non-Ferrous Metal	Heat Resistant Alloy Titanium Alloy	Hardened Steel							

Insert Shape	Type	Dimensions (mm)					P		M		K	N		S	H	Cermet	
		øI.C.	T	ød	ø	R	MC7098		MC8090			MN7007	MN7007	MC8090			
	SNMX1206A45-W	12.7	6.2	6	45°	0.8	○		○								
	SNMX1206Q88-W	12.7	6.2	6	88°	0.8	●		●								

● - Always Stock Available    ○ - Make to Order

## High Feed Milling Insert PNMU



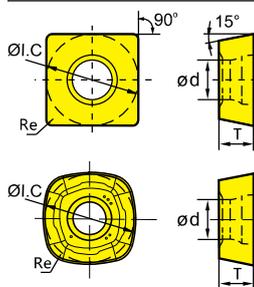
√ - Good Working Conditions    ○ - General Working Conditions    × - Unstable Working Conditions

Workpiece Material	P	M	K	N	S	H							
	Steel	Stainless Steel	Cast Iron	Non-Ferrous Metal	Heat Resistant Alloy Titanium Alloy	Hardened Steel							

Insert Shape	Type	Dimensions (mm)					P		M		K	N		S	H	Cermet
		ØI.C.	T	Ød	BCH	BS	MC7098		MC8090			MN7007	MN7007	MC8090		
	PNMU0905XNER-MG	14.6	5.56	4.7	2	2	●									

● - Always Stock Available    ○ - Make to Order

## High Feed Milling Insert SDMT



√ - Good Working Conditions    ○ - General Working Conditions    × - Unstable Working Conditions

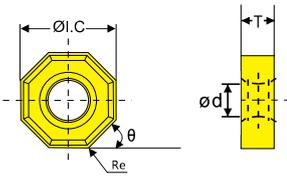
Workpiece Material	P	M	K	N	S	H						
	Steel	Stainless Steel	Cast Iron	Non-Ferrous Metal	Heat Resistant Alloy Titanium Alloy	Hardened Steel						

Insert Shape	Type	Dimensions (mm)				P		M		K	N		S	H	Cermet
		ØI.C.	T	Ød	R	MC7098		MC8090			MN7007	MN7007	MC8090		
	SDMT120412-PR	12.7	4.76	4.3	1.2	●									
	SDMT120512-HP	12.7	5.65	4.3	1.2	●									

● - Always Stock Available    ○ - Make to Order

## Face Milling Insert ONMU

√ - Good Working Conditions    ○ - General Working Conditions    × - Unstable Working Conditions



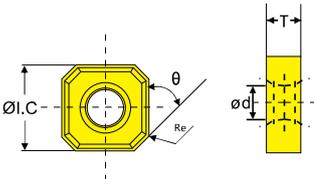
Workpiece Material	P	M	K	N	S	H															
	Steel	Stainless Steel	Cast Iron	Non-Ferrous Metal	Heat Resistant Alloy Titanium Alloy	Hardened Steel															

Insert Shape	Type	Dimensions (mm)					P		M		K	N		S	H	Cermet	
		ØI.C.	T	Ød	Ø	R	MC7098		MC8090			MN7007	MN7007	MC8090			
	ONMU060506-HK	12.9	5.5	6	45°	0.6	●		●								
	ONMU080608-HK	20.2	5.95	5.4	45°	0.8	●		●								

● - Always Stock Available    ○ - Make to Order

## Face Milling Insert SNMU

√ - Good Working Conditions    ○ - General Working Conditions    × - Unstable Working Conditions

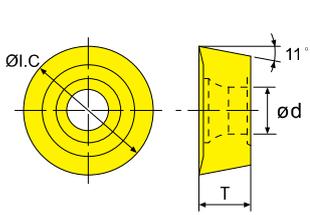


Workpiece Material	P	M	K	N	S	H															
	Steel	Stainless Steel	Cast Iron	Non-Ferrous Metal	Heat Resistant Alloy Titanium Alloy	Hardened Steel															

Insert Shape	Type	Dimensions (mm)					P		M		K	N		S	H	Cermet	
		ØI.C.	T	Ød	Ø	R	MC7098		MC8090			MN7007	MN7007	MC8090			
	SNMU150505-HK	12.9	5.5	6	45°	0.5	●		●								

● - Always Stock Available    ○ - Make to Order

## Face Milling Insert RPMT



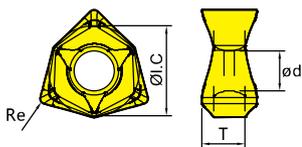
√ - Good Working Conditions    ○ - General Working Conditions    × - Unstable Working Conditions

Workpiece Material	P	M	K	N	S	H										
	Steel	Stainless Steel	Cast Iron	Non-Ferrous Metal	Heat Resistant Alloy Titanium Alloy	Hardened Steel										

Insert Shape	Type	Dimensions (mm)				P		M		K	N		S	H	Cermet
		ØI.C.	T	Ød		MC7098		MC8090			MN7007	MN7007	MC8090		
	RPMT08T2MO-JP	8	3.18	3.35			●								
	RPMT10T3MO-JP	10	3.97	4.4			●								
	RPMT1204MO-JP	12	4.76	4.4			●								
	RPMT1203-BB	12	3.18	4.4										●	

● - Always Stock Available    ○ - Make to Order

## Face Milling Insert WNMU



√ - Good Working Conditions    ○ - General Working Conditions    × - Unstable Working Conditions

Workpiece Material	P	M	K	N	S	H									
	Steel	Stainless Steel	Cast Iron	Non-Ferrous Metal	Heat Resistant Alloy Titanium Alloy	Hardened Steel									

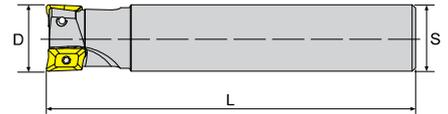
Insert Shape	Type	Dimensions (mm)				P		M		K	N		S	H	Cermet
		ØI.C.	T	Ød	R	MC7098		MC8090			MN7007	MN7007	MC8090		
	WNMU080608-GM	14.02	6.65	6.2	0.8	●		●							

● - Always Stock Available    ○ - Make to Order



# INDEXABLE ENDMILL CUTTER

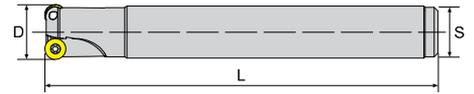




## Indexable Endmill Cutter AP□□ Series

Description	Dimensions (mm)				Insert 	Screw 	Wrench 	Stock
	D	S	L	T				
MC-300R-10-C10-120-1T	10	10	120	1	AP□□ 1135□□	CS25	T-8	●
MC-300R-12-C12-130-1T	12	12	130	1				●
MC-300R-14-C14-150-2T	14	14	150	2				●
MC-300R-16-C16-150-2T	16	16	150	2				●
MC-300R-16-C16-200-2T	16	16	200	2				●
MC-300R-16-C16-250-2T	16	16	250	2				●
MC-300R-16-C16-300-2T	16	16	300	2				●
MC-300R-18-C16-200-2T	18	16	200	2				●
MC-300R-20-C20-150-2T	20	20	150	2				●
MC-300R-20-C20-200-2T	20	20	200	2				●
MC-300R-20-C20-250-2T	20	20	250	2				●
MC-300R-20-C20-300-2T	20	20	300	2				●
MC-300R-25-C25-150-3T	25	25	150	3				●
MC-300R-25-C25-200-3T	25	25	200	3				●
MC-300R-25-C25-250-3T	25	25	250	3				●
MC-300R-32-C32-200-4T	32	32	200	4				●
MC-400R-25-C25-150-2T	25	25	150	2	AP□□ 1604□□	CS40	T-15	●
MC-400R-25-C25-200-2T	25	25	200	2				●
MC-400R-25-C25-250-2T	25	25	250	2				●
MC-400R-25-C25-300-2T	25	25	300	2				●
MC-400R-25-C25-400-2T	25	25	400	2				●
MC-400R-32-C32-150-3T	32	32	150	3				●
MC-400R-32-C32-200-3T	32	32	200	3				●
MC-400R-32-C32-250-3T	32	32	250	3				●
MC-400R-32-C32-300-3T	32	32	300	3				●
MC-400R-32-C32-400-3T	32	32	400	3				●

● - Always Stock Available      ○ - Make to Order



Indexable Endmill Cutter  
**RP□□ Series**

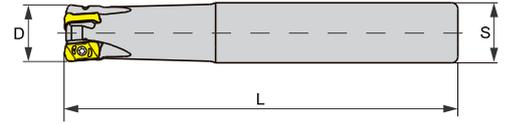
Description	Dimensions (mm)				Insert 	Screw 	Wrench 	Stock
	D	S	L	T				
MC-EMR-4R-16-C16-200-2T	16	16	200	2	RP□□08T2	CS30	T-8	●
MC-EMR-5R-20-C20-200-2T	20	20	200	2	RP□□10T3	CS40	T-15	●
MC-EMR-5R-25-C25-200-2T	25	25	200	2				●
MC-EMR-5R-25-C25-300-2T	25	25	300	2				●
MC-EMR-5R-25-C25-400-2T	25	25	400	2				●
MC-EMR-5R-32-C32-200-3T	32	32	200	3				●
MC-EMR-6R-25-C25-200-2T	25	25	200	2	RP□□1204	CS40	T-15	●
MC-EMR-6R-32-C32-200-2T	32	32	200	2				●
MC-EMR-6R-32-C32-300-2T	32	32	300	2				●
MC-EMR-6R-32-C32-400-2T	32	32	400	2				●

● - Always Stock Available    ○ - Make to Order



# INDEXABLE HI-FEED CUTTER





Indexable Hi-Feed Cutter  
**LN□□ Series**

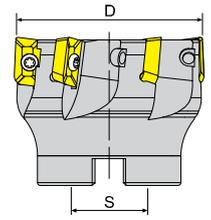
Description	Dimensions (mm)				Insert 	Screw 	Wrench 	Stock
	D	S	L	T				
MC-EXN03R-16-C16-150-2T	16	16	150	2	LNMU 03	CS25	T-8	●
MC-EXN03R-16-C16-200-2T	16	16	200	2				●
MC-EXN03R-20-C20-150-3T	20	20	150	3				●
MC-EXN03R-20-C20-200-3T	20	20	200	3				●
MC-EXN03R-25-C25-150-4T	25	25	150	4				●
MC-EXN03R-25-C25-200-4T	25	25	200	4				●
MC-EXN03R-32-C32-150-5T	32	32	150	5				●
MC-EXN03R-32-C32-200-5T	32	32	200	5				●

● - Always Stock Available    ○ - Make to Order



# FACE MILL CUTTER

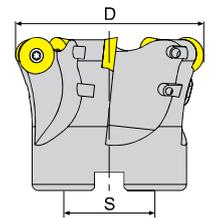




### Face Mill Cutter AP□□ Series

Description	Dimensions (mm)				Insert 	Screw 	Wrench 	Stock
	D	S	T					
MC-400R-040-16-4T	40	16	4		AP□□ 1604□□	CS40	T-15	●
MC-400R-050-22-4T	50	22	4					●
MC-400R-063-22-4T	63	22	4					●
MC-400R-080-27-6T	80	27	6					●
MC-400R-100-32-6T	100	32	6					●
MC-400R-125-40-7T	125	40	7					●

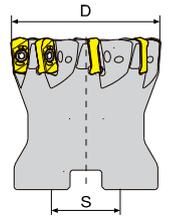
● - Always Stock Available    ○ - Make to Order



### Face Mill Cutter RP□□ Series

Description	Dimensions (mm)				Insert 	Screw 	Wrench 	Stock
	D	S	T					
MC-EMR-5R-050-22-4T	50	22	4		RP□□10T3□□	CS40	T-15	●
MC-EMR-6R-050-22-4T	50	22	4		RP□□ 1204□□	CS40	T-15	●
MC-EMR-6R-052-22-4T	52	22	4					●
MC-EMR-6R-063-22-5T	63	22	5					●
MC-EMR-6R-068-22-5T	68	22	5					●
MC-EMR-6R-080-27-6T	80	27	6					●
MC-EMR-6R-100-32-6T	100	32	6					●

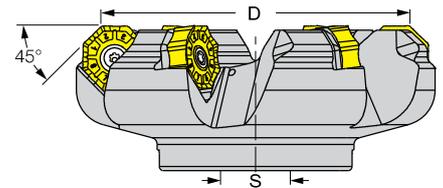
● - Always Stock Available    ○ - Make to Order



### Hi-Feed Face Mill Cutter LN□□ Series

Description	Dimensions (mm)				Insert 	Screw 	Wrench 	Stock
	D	S	T					
MC-EXN03-040-22-6T	40	22	6		LNMU 03	CS25	T-8	●
MC-EXN03-050-22-8T	50	22	8					●
MC-EXN03-063-22-10T	63	22	10					●

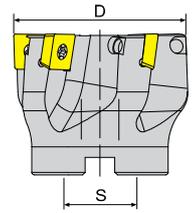
● - Always Stock Available    ○ - Make to Order



### Hi-Feed Face Mill Cutter ON□□ Series

Description	Dimensions (mm)				Insert 	Screw 	Wrench 	Stock
	D	S	T					
ON08-MC-063-22-5T	63	22	5		ONMU 08	CS50	T-20	●
ON08-MC-080-27-6T	80	27	6					●
ON08-MC-100-32-7T	100	32	7					●
ON08-MC-125-40-12T	125	40	12					●
ON08-MC-160-40-14T	160	40	14					●

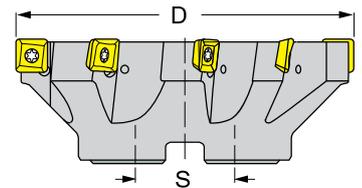
● - Always Stock Available    ○ - Make to Order



### Hi-Feed Face Mill Cutter SD□□1204 Series

Description	Dimensions (mm)				Insert 	Screw 	Wrench 	Stock
	D	S	T					
SD1204-MC-050-22-4T	50	22	4		SDMT 1204	CS40	T-15	●
SD1204-MC-063-22-5T	63	22	5					●
SD1204-MC-080-27-6T	80	27	6					●
SD1204-MC-100-32-7T	100	32	7					●

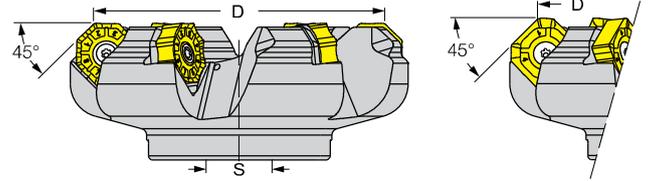
● - Always Stock Available    ○ - Make to Order



### Hi-Feed Face Mill Cutter SD□□1205 Series

Description	Dimensions (mm)				Insert 	Screw 	Wrench 	Stock
	D	S	T					
SD1205-MC-050-22-4T	50	22	4		SDMT 1205	CS40	T-15	●
SD1205-MC-063-22-5T	63	22	5					●
SD1205-MC-080-27-6T	80	27	6					●
SD1205-MC-100-32-7T	100	32	7					●

● - Always Stock Available    ○ - Make to Order



## Hi-Feed Face Mill Cutter ON□□/SN□□ Series

Description	Dimensions (mm)				Insert 	Screw 	Wrench 	Stock
	D	S	T					
45-MC-050-22-4T	50	22	4		ONMU 06 SNMU 15	CS50	T-20	●
45-MC-063-22-6T	63	22	6					●
45-MC-080-27-6T	80	27	6					●
45-MC-100-32-8T	100	32	8					●
45-MC-125-40-10T	125	40	10					●
45-MC-160-40-12T	160	40	12					●
45-MC-200-60-14T	200	60	14					●

● - Always Stock Available      ○ - Make to Order