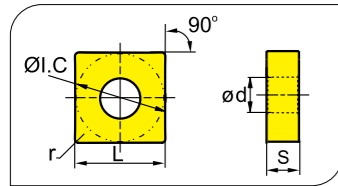


Turning Insert

SN□□ (Negative)



Type	L	Φ I.C	S	Φ d
SN**0903**	9.525	9.525	3.18	3.81
SN**1204**	12.7	12.7	4.76	5.16
SN**1506**	15.875	15.875	6.35	6.35

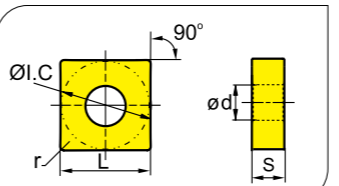
Type	L	Φ I.C	S	Φ d
SN**1906**	19.05	19.05	6.35	7.94
SN**2507**	25.4	25.4	7.94	9.12
SN**2509**	25.4	25.4	9.525	9.12

★Recommended grade for stock ●Optional grade for stock ○Make-to-order

Shape	Type	Size (mm) r	Coated cemented carbide														Cemented carbide								
			P							M			K				JP302	JP402	JP002	JP102	JP202				
			JT4015	JT4115	JT4215	JT4025	JT4125	JT4225	JT4035	JT4135	JT4235	JT1215	JT1225	JT1235	JT3105	JT3205	JT3115	JT3215	JT3125	JT3225					
GR 	SNMG120408-GR	0.8				○	☆	★	☆					○											
	SNMG120412-GR	1.2				○	☆	★	☆					○											
	SNMG120416-GR	1.6				○	☆	★	☆					○											
Roughing	SNMG150608-GR	0.8				○	☆	★	☆					○											
GR 	SNMG150612-GR	1.2				○	☆	★	☆					○											
	SNMG150616-GR	1.6				○	☆	★	☆					○											
	SNMG150624-GR	2.4				○	☆	★	☆					○											
	SNMG190612-GR	1.2				○	☆	★	☆					○											
	SNMG190616-GR	1.6				○	☆	★	☆					○											
	SNMG190624-GR	2.4				○	☆	★	☆					○											
GR 	SNMM120408-GR	0.8				○	☆	★	☆					○											
	SNMM120412-GR	1.2				○	☆	★	☆					○											
	SNMM120416-GR	1.6				○	☆	★	☆					○											
	SNMM150608-GR	0.8				○	☆	★	☆					○											
	SNMM150612-GR	1.2				○	☆	★	☆					○											
	SNMM150616-GR	1.6				○	☆	★	☆					○											
	SNMM190608-GR	0.8				○	☆	★	☆					○											
	SNMM190612-GR	1.2				○	☆	★	☆					○											
	SNMM190616-GR	1.6				○	☆	★	☆					○											
	SNMM190624-GR	2.4				○	☆	★	☆					○											
Roughing	SNMM250724-GR	2.4				○	☆	★	☆					○											
	SNMM250924-GR	2.4				○	☆	★	☆					○											
BR 	SNMG120408-BR	0.8												○	★										
	SNMG120412-BR	1.2												○	★										
	SNMG150608-BR	0.8												○	★										
	SNMG150612-BR	1.2												○	★										
	SNMG190612-BR	1.2												○	★										
	SNMG190616-BR	1.6												○	★										
KR 	SNMG120412-KR	1.2												○	★	☆									
	SNMG150608-KR	0.8												○	★	☆									
	SNMG150612-KR	1.2												○	★	☆									
	SNMG190612-KR	1.2												○	★	☆									

Turning Insert

SN□□ (Negative)



Type	L	Φ I.C	S	Φ d
SN**0903**	9.525	9.525	3.18	3.81
SN**1204**	12.7	12.7	4.76	5.16
SN**1506**	15.875	15.875	6.35	6.35

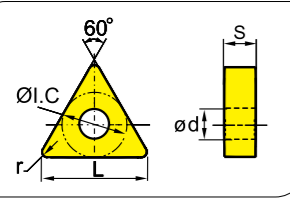
Type	L	Φ I.C	S	Φ d
SN**1906**	19.05	19.05	6.35	7.94
SN**2507**	25.4	25.4	7.94	9.12
SN**2509**	25.4	25.4	9.525	9.12

★Recommended grade for stock ●Optional grade for stock ○Make-to-order

Shape	Type	Size (mm) r	Coated cemented carbide														Cemented carbide									
			P							M			K				JP302	JP402	JP002	JP102	JP202					
			JT4015	JT4115	JT4215	JT4025	JT4125	JT4225	JT4035	JT4135	JT4235	JT1215	JT1225	JT1235	JT3105	JT3205	JT3115	JT3215	JT3125	JT3225						
Straight Slot 	SNMG090304	0.4	○	○		☆	★											★	☆							
	SNMG090308	0.8	○	○		☆	★											★	☆							
	SNMG120404	0.4	○	○		☆	★											★	☆							
	SNMG120408	0.8	○	○		☆	★											★	☆							
	SNMG120412	1.2	○	○		☆	★											★	☆							
	SNMG120416	1.6	○	○		☆	★											★	☆							
	SNMG150608	0.8	○	○		☆	★											★	☆							
	SNMG150612	1.2				☆	★											★	☆							
	SNMG190612	1.2				☆	★												★	☆				★	☆	
	SNMG190616	1.6				☆	★		○										★	☆				★	☆	
SNMG250724	2.4				☆	★		○										★	☆				★	☆		
SNMG250924	2.4				☆	★		○										★	☆				★	☆		
Slotless 	SNMA090304	0.4																○	★	☆					○	
	SNMA090308	0.8																○	★	☆					○	
	SNMA120404	0.4																○	★	☆					○	
	SNMA120408	0.8																○	★	☆		○			○	
	SNMA120416	1.6																○	★	☆					○	
	SNMA150608	0.8																	○	★	☆				○	
	SNMA190612	1.2																	○	★	☆				○	
	SNMA190616	1.6																	○	★	☆				○	
GM 	SNMG090304-GM	0.4	○			☆	★		○											○						
	SNMG090308-GM	0.8	○			☆	★		○												○					
	SNMG120404-GM	0.4	○			☆	★		○												○					
	SNMG120408-GM	0.8				☆	★		○												○					
	SNMG120412-GM	1.2	○			☆	★		○												○					
	SNMG120416-GM	1.6				☆	★		○												○					
	SNMG150608-GM	0.8				☆	★		○												○					
	SNMG150612-GM	1.2				☆	★		○												○					
	SNMG150616-GM	1.6				☆	★		○												○					
	SNMG190612-GM	1.2				☆	★		○												○					
Semi-Finishing	SNMG190616-GM	1.6				☆	★		○											○						

Turning Insert




TN□□ (Negative)



Type	L	Φ I.C	S	Φd
TN**1103**	11	6.35	3.18	2.26
TN**1604**	16.5	9.525	4.76	3.81
TN**2204**	22	12.7	4.76	5.16

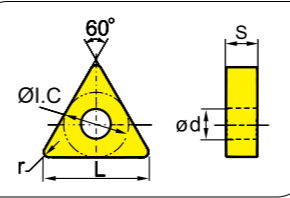
Type	L	Φ I.C	S	Φd
TN**2706**	27.52	15.875	6.35	6.35
TN**3309**	33	19.05	9.53	7.94

★Recommended grade for stock ●Optional grade for stock ○Make-to-order

Shape	Type	Size (mm) r	Coated cemented carbide														Cemented carbide										
			P				M				K						JP302	JP402	JP002	JP102	JP202						
			JT4015	JT4115	JT4215	JT4025	JT4125	JT4225	JT4035	JT4135	JT4235	JT1215	JT1225	JT1235	JT3105	JT3205	JT3115	JT3215	JT3125	JT3225							
Straight Slot 	TNMG110308	0.8	○	○	☆	★											★	☆									
	TNMG160404	0.4	○	○	☆	★											★	☆									
	TNMG160408	0.8	○	○	☆	★											★	☆									
	TNMG160412	1.2	○	○	☆	★											★	☆									
	TNMG220404	0.4	○	○	☆	★											★	☆									
	TNMG220408	0.8	○	○	☆	★											★	☆									
	TNMG220412	1.2	○	○	☆	★											★	☆									
	TNMG220416	1.6			☆	★											★	☆									
	TNMG270612	1.2			☆	★														★	☆						
	TNMG270616	1.6			☆	★														★	☆						
	TNMG330916	1.6			☆	★														★	☆						
	TNMG330924	2.4			☆	★														★	☆						
GM 	TNMG110304-GM	0.4		☆	☆	★											☆										
	TNMG110308-GM	0.8		☆	☆	★											☆										
	TNMG160404-GM	0.4		☆	☆	★											☆										
	TNMG160408-GM	0.8		☆	☆	★											☆										
	TNMG160412-GM	1.2		☆	☆	★											☆										
	TNMG220408-GM	0.8		☆	☆	★											☆										
Semi-Finishing	TNMG220412-GM	1.2		☆	☆	★										☆											
	TNMG220416-GM	1.6		☆	☆	★										☆											
GS 	TNMG160404-GS	0.4	○	☆	☆	★																					
	TNMG160408-GS	0.8	○	☆	☆	★																					
	TNMG160412-GS	1.2	○	☆	☆	★																					
	TNMG220408-GS	0.8	○	☆	☆	★																					
	TNMG220412-GS	1.2	○	☆	☆	★																					
Semi-Finishing	TNMG220416-GS	1.6	○	☆	☆	★																					

Turning Insert




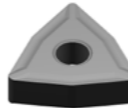
TN□□ (Negative)



Type	L	Φ I.C	S	Φd
TN**1103**	11	6.35	3.18	2.26
TN**1604**	16.5	9.525	4.76	3.81
TN**2204**	22	12.7	4.76	5.16

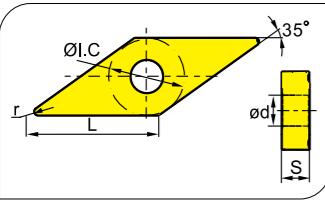
Type	L	Φ I.C	S	Φd
TN**2706**	27.52	15.875	6.35	6.35
TN**3309**	33	19.05	9.53	7.94
TN**1106**	11.17	15.875	6.41	6.35
TN**1509**	15.784	22	9.73	7.94

★Recommended grade for stock ●Optional grade for stock ○Make-to-order

Shape	Type	Size (mm) r	Coated cemented carbide														Cemented carbide									
			P				M				K						JP302	JP402	JP002	JP102	JP202					
			JT4015	JT4115	JT4215	JT4025	JT4125	JT4225	JT4035	JT4135	JT4235	JT1215	JT1225	JT1235	JT3105	JT3205	JT3115	JT3215	JT3125	JT3225	JP302	JP402	JP002	JP102	JP202	
BM 	TNMG110304-BM	0.4																			○	★				
	TNMG110308-BM	0.8																				○	★			
	TNMG160404-BM	0.4																				○	★			
	TNMG160408-BM	0.8																				○	★			
	TNMG160412-BM	1.2																				○	★			
	TNMG220408-BM	0.8																				○	★			
Semi-Finishing	TNMG220412-BM	1.2																				○	★			
	TNMG220416-BM	1.6																				○	★			
GF 	TNMG160404-GF	0.4	☆	★		○	☆																			
	TNMG160408-GF	0.8	☆	★		○	☆																			
	TNMG160412-GF	1.2	☆	★		○	☆																			
	TNMG220408-GF	0.8	☆	★		○	☆																			
Finishing	TNMG220412-GF	1.2	☆	★		○	☆																			
BF 	TNMG110304-BF	0.4																								★
	TNMG110308-BF	0.8																								★
	TNMG160404-BF	0.4																								★
	TNMG160408-BF	0.8																								★
	TNMG160412-BF	1.2																								★
	TNMG220404-BF	0.8																								★
Finishing	TNMG220408-BF	1.2																								★
	TNMG220412-BF	1.6																								★
	TNMX150916R	1.6																								★
	TNMX150916L	1.6																								★
	TNMX110616R	1.6																								★
	TNMX110616L	1.6																								★

Turning Insert

VN□□ (Negative)



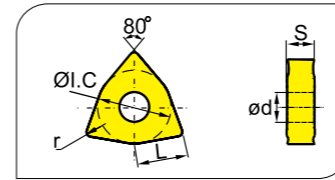
Type	L	Φ I.C	S	Φd
VN**1604**	16.6	9.525	4.76	3.81

★Recommended grade for stock ●Optional grade for stock ○Make-to-order

Shape	Type	Size (mm) r	Coated cemented carbide													Cemented carbide									
			P			M			K							JP302	JP402	JP002	JP102	JP202					
			JT4015	JT4115	JT4215	JT4025	JT4125	JT4225	JT4035	JT4135	JT4235	JT1215	JT1225	JT1235	JT3105	JT3205	JT3115	JT3215	JT3125	JT3225					
Straight Slot 	VNMG160404	0.4	○	☆	☆	★									○	★									
	VNMG160408	0.8	○	☆	☆	★									○	★									
GM 	VNMG160408-GM	0.8	○	☆	☆	★																			
	VNMG160412-GM	1.2	○	☆	☆	★																			
Semi-Finishing																									
BM 	VNMG160404-BM	0.4										○	★												
	VNMG160408-BM	0.8									○	★													
Semi-Finishing																									
GF 	VNMG160404-GF	0.4	○	☆	☆	★																			
	VNMG160408-GF	0.8	○	☆	☆	★		○																	
Finishing																									
BF 	VNMG160404-BF	0.4									○	★													
	VNMG160408-BF	0.8									○	★													
	VNMG160412-BF	1.2									○	★													
Finishing																									

Turning Insert

WN□□ (Negative)



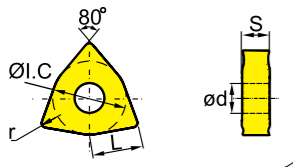
Type	L	Φ I.C	S	Φd
WN**06T3**	6.5	9.525	3.97	3.81
WN**0604**	6.5	9.525	4.76	3.81
WN**0804**	8.7	12.7	4.76	5.16

★Recommended grade for stock ●Optional grade for stock ○Make-to-order

Shape	Type	Size (mm) r	Coated cemented carbide													Cemented carbide									
			P			M			K							JP302	JP402	JP002	JP102	JP202					
			JT4015	JT4115	JT4215	JT4025	JT4125	JT4225	JT4035	JT4135	JT4235	JT1215	JT1225	JT1235	JT3105	JT3205	JT3115	JT3215	JT3125	JT3225					
GR 	WNMG060408-GR	0.8				○	☆		☆	★															
	WNMG060412-GR	0.8				○	☆		☆	★															
	WNMG080408-GR	0.8				○	☆		☆	★															
	WNMG080412-GR	1.2				○	☆		☆	★															
	WNMG080416-GR	1.6				○	☆		☆	★															
Roughing																									
BR 	WNMG060408-BR	0.8										○	★												
	WNMG060412-BR	0.8										○	★												
	WNMG080408-BR	0.8										○	★												
	WNMG080412-BR	1.2										○	★												
Roughing																									
KR 	WNMG060412-KR	0.8															★	☆	○						
	WNMG080408-KR	0.8															★	☆	○						
	WNMG080412-KR	1.2															★	☆	○						
Roughing																	★	☆							
Slotless 	WNMA06T308	0.8															★	☆	○						☆
	WNMA060404	0.4															★	☆							☆
	WNMA060408	0.8															★	☆							☆
	WNMA060412	1.2															★	☆							☆
	WNMA080404	0.4															★	☆							☆
	WNMA080408	0.8															★	☆							☆
	WNMA080412	1.2															★	☆							☆
	WNMA080416	1.6															★	☆	○						☆
Straight Slot 	WNMG060408	0.8	○			☆	★										☆	★							
	WNMG060412	1.2	○			☆	★		○								☆	★							
	WNMG080408	0.8				☆	★										☆	★							
	WNMG080412	1.2				☆	★		○								☆	★		○					
	WNMG080416	1.6				☆	★		○								☆	★		○					





Turning Insert

WN □ □ (Negative)



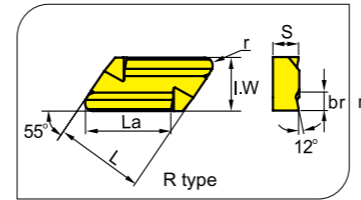
Type	L	Φ I.C	S	Φd
WN**06T3**	6.5	9.525	3.97	3.81
WN**0604**	6.5	9.525	4.76	3.81
WN**0804**	8.7	12.7	4.76	5.16

★ Recommended grade for stock ● Optional grade for stock ○ Make-to-order

Shape	Type	Size (mm) r	Coated cemented carbide													Cemented carbide										
			P					M				K				JP302	JP402	JP002	JP102	JP202						
			JT4015	JT4115	JT4215	JT4025	JT4125	JT4225	JT4035	JT4135	JT4235	JT1215	JT1225	JT1235	JT3105	JT3205	JT3115	JT3215	JT3225							
GM 	WNMG060408-GM	0.8	○			☆	★								○	☆								☆		
	WNMG060412-GM	1.2	○			☆	★								○	☆								☆		
	WNMG080404-GM	0.4	○			☆	★								○	☆								☆		
	WNMG080408-GM	0.8	○			☆	★								○	☆								☆		
	WNMG080412-GM	1.2				☆	★								○	☆								☆		
	WNMG080416-GM	1.6				☆	★								○	☆								☆		
	WNMG080616-GM	1.6				☆	★								○	☆								☆		
BM 	WNMG06T304-BM	0.4												○	★											
	WNMG06T308-BM	0.8												○	★											
	WNMG06T312-BM	1.2												○	★											
	WNMG060404-BM	0.4													○	★										
	WNMG060408-BM	0.8													○	★										
	WNMG080404-BM	0.4													○	★										
	WNMG080408-BM	0.8													○	★										
WNMG080412-BM	1.2													○	★											
GF 	WNMG06T304-GF	0.4	☆	★		○	☆																			
	WNMG06T308-GF	0.8	☆	★		○	☆																			
	WNMG06T312-GF	1.2	☆	★		○	☆																			
	WNMG060404-GF	0.8	☆	★		○	☆																			
	WNMG060408-GF	1.2	☆	★		○	☆																			
	WNMG060412-GF	1.2	☆	★		○	☆																			
	WNMG080404-GF	0.4	☆	★		○	☆																			
	WNMG080408-GF	0.8	☆	★		○	☆																			
WNMG080412-GF	1.2													○	★											
BF 	WNMG06T304-BF	0.4												○	★											
	WNMG06T308-BF	0.8												○	★											
	WNMG06T312-BF	1.2												○	★											
	WNMG060404-BF	0.8													○	★										
	WNMG060408-BF	1.2													○	★										
	WNMG060412-BF	1.2													○	★										
	WNMG080408-BF	0.8													○	★										


Turning Insert

KN □ □ (Negative)



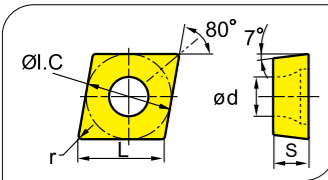
Type	L	Φ I.C	S	Φd
KN**1604**	16	16.15	9.525	4.76

★ Recommended grade for stock ● Optional grade for stock ○ Make-to-order

Shape	Type	Size (mm) r	Coated cemented carbide													Cemented carbide										
			P					M				K				JP302	JP402	JP002	JP102	JP202						
			JT4015	JT4115	JT4215	JT4025	JT4125	JT4225	JT4035	JT4135	JT4235	JT1215	JT1225	JT1235	JT3105	JT3205	JT3115	JT3215	JT3225							
Profiling 	KNUX160405L12	0.5				☆																				
	KNUX160405R12	0.5				☆																				
	KNUX160410L12	1.0				☆																				
	KNUX160410R12	1.0				☆																				
	KNUX160405L11	0.5				☆																				
	KNUX160405R11	0.5				☆																				

Turning Insert

CC□□ (Positive)



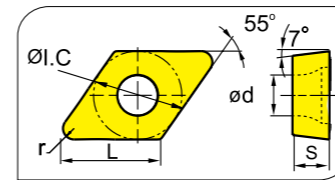
Type	L	Φ I.C	S	Φd
CC**0602**	6.4	6.35	2.38	2.8
CC**09T3**	9.7	9.525	3.97	4.4
CC**1204**	12.9	12.7	4.76	5.56

★Recommended grade for stock ●Optional grade for stock ○Make-to-order

Shape	Type	Size (mm) r	Coated cemented carbide													Cemented carbide											
			P			M				K						JP302	JP402	JP002	JP102	JP202							
			JT4015	JT4115	JT4215	JT4025	JT4125	JT4225	JT4035	JT4135	JT4235	JT1215	JT1225	JT1235	JT3105	JT3205	JT3115	JT3215	JT3125	JT3225							
HR 	CCMT09T308-HR	0.8	○	○	☆	★												☆									
	CCMT09T312-HR	1.2	○	○	☆	★												☆									
	CCMT120408-HR	0.8	○	○	☆	★												☆									
	CCMT120408-HR	1.2	○	○	☆	★												☆									
HM 	CCMT060204-HM	0.4	○	○	☆	★							○					☆									
	CCMT060208-HM	0.8	○	○	☆	★							○					☆									
	CCMT09T304-HM	0.4	○	○	☆	★							○					☆									
	CCMT09T308-HM	0.8	○	○	☆	★							○					☆									
	CCMT120404-HM	0.4	○	○	☆	★							○					☆									
	CCMT120408-HM	0.8	○	○	☆	★							○					☆									
Semi-Finishing	CCMT120412-HM	1.2	○	○	☆	★							○				☆										
	CCGT060202-HF	0.2	☆	★	☆																						
HF 	CCGT060204-HF	0.4	☆	★	☆																						
	CCGT060208-HF	0.8	☆	★	☆																						
	CCGT09T302-HF	0.2	☆	★	☆																						
	CCGT09T304-HF	0.4	☆	★	☆																						
	CCGT09T308-HF	0.8	☆	★	☆																						
	CCGT120404-HF	0.4	☆	★	☆																						
	CCGT120408-HF	0.8	☆	★	☆																						
AC 	CCGX060202-AC	0.2																					☆	★			
	CCGX060204-AC	0.4																					☆	★			
	CCGX060208-AC	0.8																					☆	★			
	CCGX09T302-AC	0.2																					☆	★			
	CCGX09T304-AC	0.4																					☆	★			
	CCGX09T308-AC	0.8																					☆	★			
	CCGX120402-AC	0.2																					☆	★			
	CCGX120404-AC	0.4																					☆	★			
	CCGX120408-AC	0.8																					☆	★			
AI machining	CCGX120412-AC	1.2																					☆	★			
	Slotless 	CCGW060204	0.4	○	○														★	☆						☆	
		CCGW09T304	0.4	○	○															★	☆						☆
		CCGW09T308	0.8	○	○																★	☆					☆
		CCGW120404	0.4	○	○																	★	☆				☆
CCGW120408		0.8	○	○																		★	☆			☆	

Turning Insert

DC□□ (Positive)



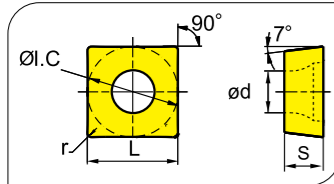
Type	L	Φ I.C	S	Φd
DC**0702**	7.8	6.35	2.38	2.8
DC**11T3**	11.6	9.525	3.97	4.4

★Recommended grade for stock ●Optional grade for stock ○Make-to-order

Shape	Type	Size (mm) r	Coated cemented carbide													Cemented carbide											
			P			M				K						JP302	JP402	JP002	JP102	JP202							
			JT4015	JT4115	JT4215	JT4025	JT4125	JT4225	JT4035	JT4135	JT4235	JT1215	JT1225	JT1235	JT3105	JT3205	JT3115	JT3215	JT3125	JT3225							
HR 	DCMT070208-HR	0.8	○			☆	★												☆								
	DCMT070212-HR	1.2	○			☆	★												☆								
	DCMT11T304-HR	0.4	○			☆	★												☆								
	DCMT11T308-HR	0.8	○			☆	★												☆								
Roughing	DCMT11T312-HR	1.2	○			☆	★												☆								
	HM 	DCMT070204-HM	0.4	○			☆	★																			
DCMT070208-HM		0.8	○			☆	★																				
DCMT11T304-HM		0.4	○			☆	★																				
DCMT11T308-HM		0.8	○			☆	★																				
DCMT11T312-HM		1.2	○			☆	★																				
Semi-Finishing	HF 	DCGT070202-HF	0.2	☆	★	☆																					
		DCGT070204-HF	0.4	☆	★	☆																					
		DCGT070208-HF	0.8	☆	★	☆																					
		DCGT11T302-HF	0.2	☆	★	☆																					
Finishing	CCGT11T304-HF	0.4	☆	★	☆																						
	CCGT11T308-HF	0.8	☆	★	☆																						
	AC 	DCGX070202-AC	0.2																						☆	★	
DCGX070204-AC		0.4																						☆	★		
DCGX11T302-AC		0.2																						☆	★		
DCGX11T304-AC		0.4																						☆	★		
DCGX11T308-AC		0.8																						☆	★		
AI machining	Slotless 	DCGW070204	0.4																						☆		
		DCGW11T304	0.4																					★	○	☆	
		DCGW11T308	0.8																					★	○	☆	

Turning Insert

SC□□ (Positive)



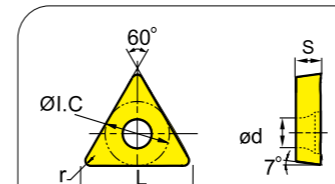
Type	L	Φ I.C	S	Φd
SC**09T3**	27.52	9.525	3.97	4.4
SC**1204**	12.7	12.7	4.76	5.56

★Recommended grade for stock ●Optional grade for stock ○Make-to-order

Shape	Type	Size (mm) r	Coated cemented carbide														Cemented carbide								
			P							M				K			JP302	JP402	JP002	JP102	JP202				
			JT4015	JT4115	JT4215	JT4025	JT4125	JT4225	JT4035	JT4135	JT4235	JT1215	JT1225	JT1235	JT3105	JT3205	JT3115	JT3215	JT3125	JT3225					
HR	SCMT09T308-HR	0.8				☆	★		☆	☆															○
	SCMT09T312-HR	1.2				☆	★		☆	☆															○
	SCMT120408-HR	0.8				☆	★		☆	☆															○
Roughing	SCMT120412-HR	1.2				☆	★		☆	☆														○	
HM	SCMT09T304-HM	0.4	○			☆	★																		○
	SCMT09T308-HM	0.8	○			☆	★																		○
	SCMT120404-HM	0.4	○			☆	★																		○
	SCMT120408-HM	0.8	○			☆	★																		○
Semi-Finishing	SCMT120412-HM	1.2	○			☆	★																	○	
HF	SCGT09T302-HF	0.2	☆	★		☆	☆								○										
	SCGT09T304-HF	0.4	☆	★		☆	☆								○										
	SCGT09T308-HF	0.8	☆	★		☆	☆								○										
AC	SCGX09T302-AC	0.2																						☆	★
	SCGX09T304-AC	0.4																						☆	★
	SCGX09T308-AC	0.8																						☆	★
	SCGX120404-AC	0.4																						☆	★
	SCGX120408-AC	0.8																						☆	★
Al machining	SCGW09T302	0.2														★	○								☆
	SCGW09T304	0.4														★	○								☆
	SCGW09T308	0.8														★	○								☆
	SCGW120404	0.4														★	○								☆
	SCGW120408	0.8														★	○								☆
	SCGW120412	1.2														★	○								☆

Turning Insert

TC□□ (Positive)



Type	L	Φ I.C	S	Φd
TC**06T1**	6.4	3.97	1.98	2.2
TC**0902**	9.6	5.56	2.38	2.5

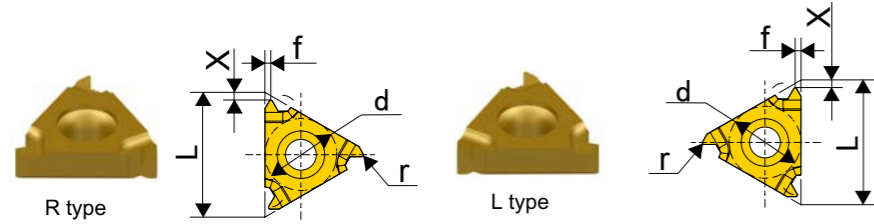
Type	L	Φ I.C	S	Φd
TC**1102**	11	6.35	2.38	2.8
TC**16T3**	16.5	9.525	3.97	4.4

★Recommended grade for stock ●Optional grade for stock ○Make-to-order

Shape	Type	Size (mm) r	Coated cemented carbide														Cemented carbide								
			P							M				K			JP302	JP402	JP002	JP102	JP202				
			JT4015	JT4115	JT4215	JT4025	JT4125	JT4225	JT4035	JT4135	JT4235	JT1215	JT1225	JT1235	JT3105	JT3205	JT3115	JT3215	JT3125	JT3225					
HR	TCMT090208-HR	0.8				○	☆		☆	★															○
	TCMT110208-HR	0.8				○	☆		☆	★															○
	TCMT110212-HR	1.2				○	☆		☆	★															○
Roughing	TCMT16T308-HR	0.8				○	☆		☆	★														○	
	TCMT16T312-HR	1.2				○	☆		☆	★														○	
HM	TCMT090204-HM	0.4	○	☆		☆	★																	○	
	TCMT090208-HM	0.8	○	☆		☆	★																	○	
	TCMT110204-HM	0.4	○	☆		☆	★																	○	
	TCMT110208-HM	0.8	○	☆		☆	★																	○	
	TCMT16T304-HM	0.4	○	☆		☆	★																	○	
Semi-Finishing	TCMT16T308-HM	0.8	○	☆		☆	★																	○	
	TCMT16T312-HM	1.2	○	☆		☆	★																	○	
HF	TCGT06T104-HF	0.4	☆	★		○								○										○	
	TCGT06T108-HF	0.8	☆	★		○								○										○	
	TCGT090202-HF	0.2	☆	★		○								○										○	
	TCGT090204-HF	0.4	☆	★		○								○										○	
	TCGT090208-HF	0.8	☆	★		○								○										○	
Finishing	TCGT110202-HF	0.2	☆	★		○								○										○	
	TCGT110204-HF	0.4	☆	★		○								○										○	
	TCGT110208-HF	0.8	☆	★		○								○										○	
	TCGT16T302-HF	0.2	☆	★		○								○										○	
	TCGT16T304-HF	0.4	☆	★		○								○										○	
Finishing	TCGT16T308-HF	0.8	☆	★		○							○											○	
AC	TCGX090202-AC	0.2																						☆	★
	TCGX090204-AC	0.4																						☆	★
	TCGX110202-AC	0.2																						☆	★
	TCGX110204-AC	0.4																						☆	★
	TCGX110208-AC	0.8																						☆	★
	TCGX16T302-AC	0.2																						☆	★
Al machining	TCGX16T304-AC	0.4																						☆	★
	TCGX16T308-AC	0.8																						☆	★
Slotless	TCGW110204	0.4															★	☆							
	TCGW16T304	0.4															★	☆							
	TCGW16T308	0.8															★	☆							
	TCGW16T312	1.2															★	☆							

Threading Insert

Common Thread



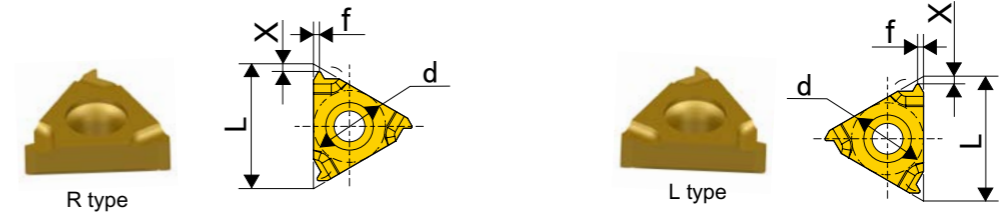
★Recommended grade for stock ●Optional grade for stock ○Make-to-order

Type	Designation Right	Designation Left	Pitch (mm)	TPI	Dimensions (mm)				Recommended grade		Recommended grade	
					d	L	X	f	JT1020	JT1220	JT1020	JT1220
External Thread (Common Thread)	11ER-A60	11EL-A60	0.5-1.5	48-61	6.35	11	0.8	0.9	★	★	★	★
	11ER-G60	11EL-G60	1.75-3.0	14-8	9.525	11	1.2	1.7	★	★	★	★
	11ER-AG60	11EL-AG60	0.5-3.0	48-8	9.525	11	1.2	1.7	★	★	★	★
	22ER-N60	22EL-N60	3.5-5.0	7-5	12.7	22	1.7	2.5	★	★	★	★
	27ER-Q60	27EL-Q60	5.5-6.0	4.5-4	15.875	27	2.1	3.1	★	★	★	★
Internal Thread (Common Thread)	11NR-A60	11NL-A60	0.5-1.5	48-61	6.35	11	0.8	0.9	★	★	★	★
	11NR-G60	11NL-G60	1.75-3.0	14-8	9.525	11	1.2	1.7	★	★	★	★
	11NR-AG60	11NL-AG60	0.5-3.0	48-8	9.525	11	1.2	1.7	★	★	★	★
	22NR-N60	22NL-N60	3.5-5.0	7-5	12.7	22	1.7	2.5	★	★	★	★
	27NR-Q60	27NL-Q60	5.5-6.0	4.5-4	15.875	27	1.8	2.7	★	★	★	★
External Thread (Common Thread)	11ER-A55	11EL-A55	0.5-1.5	48-61	6.35	11	0.8	0.9	★	★	★	★
	11ER-G55	11EL-G55	1.75-3.0	14-8	9.525	11	1.2	1.7	★	★	★	★
	11ER-AG55	11EL-AG55	0.5-3.0	48-8	9.525	11	1.2	1.7	★	★	★	★
	22ER-N55	22EL-N55	3.5-5.0	7-5	12.7	22	1.7	2.5	★	★	★	★
	27ER-Q55	27EL-Q55	5.5-6.0	4.5-4	15.875	27	2	2.9	★	★	★	★
Internal Thread (Common Thread)	11NR-A55	11NL-A55	0.5-1.5	48-61	6.35	11	0.8	0.9	★	★	★	★
	11NR-G55	11NL-G55	1.75-3.0	14-8	9.525	11	1.2	1.7	★	★	★	★
	11NR-AG55	11NL-AG55	0.5-3.0	48-8	9.525	11	1.2	1.7	★	★	★	★
	22NR-N55	22NL-N55	3.5-5.0	7-5	12.7	22	1.7	2.5	★	★	★	★
	27NR-Q55	27NL-Q55	5.5-6.0	4.5-4	15.875	27	2	2.9	★	★	★	★
External Thread (ISO Metric Thread)	11ER-0.35ISO	11EL-0.35ISO		0.35	6.35	11	0.8	0.4	★	★	★	★
	11ER-0.4ISO	11EL-0.4ISO		0.4	6.35	11	0.7	0.4	★	★	★	★
	11ER-0.45ISO	11EL-0.45ISO		0.45	6.35	11	0.7	0.4	★	★	★	★
	11ER-0.5ISO	11EL-0.5ISO		0.5	6.35	11	0.6	0.4	★	★	★	★
	11ER-0.6ISO	11EL-0.6ISO		0.6	6.35	11	0.6	0.6	★	★	★	★
	11ER-0.7ISO	11EL-0.7ISO		0.7	6.35	11	0.6	0.6	★	★	★	★
	11ER-0.75ISO	11EL-0.75ISO		0.75	6.35	11	0.6	0.6	★	★	★	★
	11ER-0.8ISO	11EL-0.8ISO		0.8	6.35	11	0.6	0.6	★	★	★	★
	11ER-1.0ISO	11EL-1.0ISO		1	6.35	11	0.7	0.7	★	★	★	★
	11ER-1.25ISO	11EL-1.25ISO		1.25	6.35	11	0.8	0.9	★	★	★	★
	11ER-1.5ISO	11EL-1.5ISO		1.5	6.35	11	0.8	1	★	★	★	★
	11ER-1.75ISO	11EL-1.75ISO		1.75	6.35	11	0.8	1.1	★	★	★	★
	16ER-0.35ISO	16EL-0.35ISO		0.35	9.525	16	0.8	0.4	★	★	★	★
	16ER-0.4ISO	16EL-0.4ISO		0.4	9.525	16	0.7	0.4	★	★	★	★
	16ER-0.45ISO	16EL-0.45ISO		0.45	9.525	16	0.7	0.4	★	★	★	★
	16ER-0.5ISO	16EL-0.5ISO		0.5	9.525	16	0.6	0.4	★	★	★	★
	16ER-0.6ISO	16EL-0.6ISO		0.6	9.525	16	0.6	0.6	★	★	★	★
	16ER-0.7ISO	16EL-0.7ISO		0.7	9.525	16	0.6	0.6	★	★	★	★
	16ER-0.75ISO	16EL-0.75ISO		0.75	9.525	16	0.6	0.6	★	★	★	★
	16ER-0.8ISO	16EL-0.8ISO		0.8	9.525	16	0.6	0.6	★	★	★	★
Internal Thread (ISO Metric Thread)	11NR-0.35ISO	11NL-0.35ISO		0.35	6.35	11	0.8	0.3	★	★	★	★
	11NR-0.4ISO	11NL-0.4ISO		0.4	6.35	11	0.8	0.4	★	★	★	★
	11NR-0.45ISO	11NL-0.45ISO		0.45	6.35	11	0.8	0.4	★	★	★	★
	11NR-0.5ISO	11NL-0.5ISO		0.5	6.35	11	0.6	0.4	★	★	★	★
	11NR-0.6ISO	11NL-0.6ISO		0.6	6.35	11	0.6	0.6	★	★	★	★
	11NR-0.7ISO	11NL-0.7ISO		0.7	6.35	11	0.6	0.6	★	★	★	★
	11NR-0.75ISO	11NL-0.75ISO		0.75	6.35	11	0.6	0.6	★	★	★	★
	11NR-0.8ISO	11NL-0.8ISO		0.8	6.35	11	0.6	0.6	★	★	★	★
	11NR-1.0ISO	11NL-1.0ISO		1	6.35	11	0.6	0.7	★	★	★	★
	11NR-1.25ISO	11NL-1.25ISO		1.25	6.35	11	0.8	0.9	★	★	★	★
	11NR-1.5ISO	11NL-1.5ISO		1.5	6.35	11	0.8	1	★	★	★	★
	11NR-1.75ISO	11NL-1.75ISO		1.75	6.35	11	0.9	1.1	★	★	★	★
	11NR-2.0ISO	11NL-2.0ISO		2	6.35	11	0.9	1.1	★	★	★	★
	16NR-0.35ISO	16NL-0.35ISO		0.35	9.525	16	0.8	0.3	★	★	★	★
	16NR-0.4ISO	16NL-0.4ISO		0.4	9.525	16	0.8	0.4	★	★	★	★
16NR-0.45ISO	16NL-0.45ISO		0.45	9.525	16	0.8	0.4	★	★	★	★	
16NR-0.5ISO	16NL-0.5ISO		0.5	9.525	16	0.6	0.4	★	★	★	★	
16NR-0.6ISO	16NL-0.6ISO		0.6	9.525	16	0.6	0.6	★	★	★	★	
16NR-0.7ISO	16NL-0.7ISO		0.7	9.525	16	0.6	0.6	★	★	★	★	

Threading Insert

ISO Metric Thread

ISO 965-1980 DIN 13
GB/T 197-2003 Tolerance Class: 6g/6H

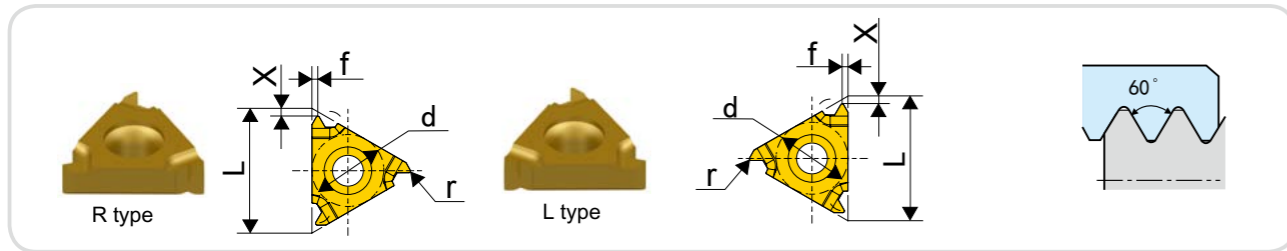


★Recommended grade for stock ●Optional grade for stock ○Make-to-order

Type	Designation Right	Designation Left	Pitch (mm)	TPI	Dimensions (mm)				Recommended grade		Recommended grade	
					d	L	X	f	JT1020	JT1220	JT1020	JT1220
External Thread (ISO Metric Thread)	16ER-1.0ISO	16EL-1.0ISO		1	9.525	16	0.7	0.7	★	★	★	★
	16ER-1.25ISO	16EL-1.25ISO		1.25	9.525	16	0.8	0.9	★	★	★	★
	16ER-1.5ISO	16EL-1.5ISO		1.5	9.525	16	0.8	1	★	★	★	★
	16ER-1.75ISO	16EL-1.75ISO		1.75	9.525	16	0.9	1.2	★	★	★	★
	16ER-2.0ISO	16EL-2.0ISO		2	9.525	16	1	1.3	★	★	★	★
	16ER-2.5ISO	16EL-2.5ISO		2.5	9.525	16	1.1	1.5	★	★	★	★
	16ER-3.0ISO	16EL-3.0ISO		3	9.525	16	1.2	1.6	★	★	★	★
	22ER-3.5ISO	22EL-3.5ISO		3.5	12.7	22	1.6	2.3	★	★	★	★
	22ER-4.0ISO	22EL-4.0ISO		4	12.7	22	1.6	2.3	★	★	★	★
	22ER-4.5ISO	22EL-4.5ISO		4.5	12.7	22	1.7	2.4	★	★	★	★
	22ER-5.0ISO	22EL-5.0ISO		5	12.7	22	1.7	2.5	★	★	★	★
	27ER-5.5ISO	27EL-5.5ISO		5.5	15.875	27	1.9	2.7	★	★	★	★
27ER-6.0ISO	27EL-6.0ISO		6	15.875	27	2	2.9	★	★	★	★	
Internal Thread (ISO Metric Thread)	11NR-0.35ISO	11NL-0.35ISO		0.35	6.35	11	0.8	0.3	★	★	★	★
	11NR-0.4ISO	11NL-0.4ISO		0.4	6.35	11	0.8	0.4	★	★	★	★
	11NR-0.45ISO	11NL-0.45ISO		0.45	6.35	11	0.8	0.4	★	★	★	★
	11NR-0.5ISO	11NL-0.5ISO		0.5	6.35	11	0.6	0.4	★	★	★	★
	11NR-0.6ISO	11NL-0.6ISO		0.6	6.35	11	0.6	0.6	★	★	★	★
	11NR-0.7ISO	11NL-0.7ISO		0.7	6.35	11	0.6	0.6	★	★	★	★
	11NR-0.75ISO	11NL-0.75ISO		0.75	6.35	11	0.6	0.6	★	★	★	★
	11NR-0.8ISO	11NL-0.8ISO		0.8	6.35	11	0.6	0.6	★	★	★	★
	11NR-1.0ISO	11NL-1.0ISO		1	6.35	11	0.6	0.7	★	★	★	★
	11NR-1.25ISO	11NL-1.25ISO		1.25	6.35	11	0.8	0.9	★	★	★	★
	11NR-1.5ISO	11NL-1.5ISO		1.5	6.35	11	0.8	1	★	★	★	★
	11NR-1.75ISO	11NL-1.75ISO		1.75	6.35	11	0.9	1.1	★	★	★	★
	11NR-2.0ISO	11NL-2.0ISO		2	6.35	11	0.9	1.1	★	★	★	★
	16NR-0.35ISO	16NL-0.35ISO		0.35	9.525	16	0.8	0.3	★	★	★	★
	16NR-0.4ISO	16NL-0.4ISO		0.4	9.525	16	0.8	0.4	★	★	★	★
16NR-0.45ISO	16NL-0.45ISO		0.45	9.525	16	0.8	0.4	★	★	★	★	
16NR-0.5ISO	16NL-0.5ISO		0.5	9.525	16	0.6	0.4	★	★	★	★	
16NR-0.6ISO	16NL-0.6ISO		0.6	9.525	16	0.6	0.6	★	★	★	★	
16NR-0.7ISO	16NL-0.7ISO		0.7	9.525	16	0.6	0.6	★	★	★	★	

Threading Insert

Common Thread

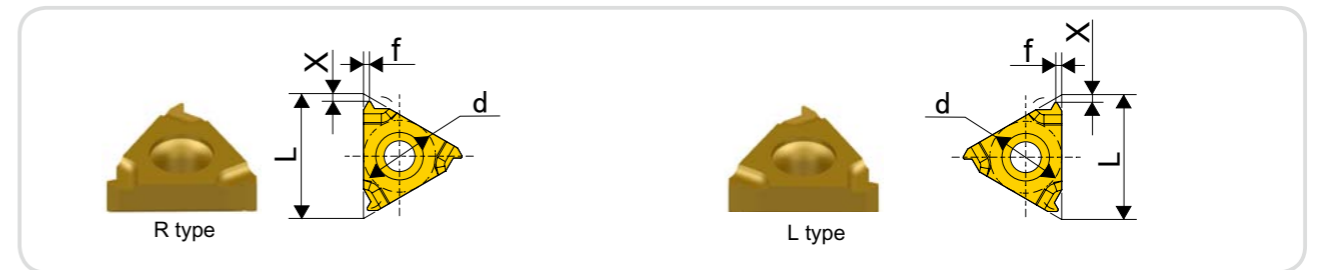


★Recommended grade for stock ●Optional grade for stock ○Make-to-order

Type	Designation Right	Designation Left	Pitch (mm)	TPI	Dimensions (mm)				Recommended grade		Recommended grade	
					d	L	X	f	JT1020		JT1220	
									R	L	R	L
Internal Thread (ISO Metric Thread)	16NR-0.75ISO	16NL-0.75ISO	0.75	9.525	16	0.6	0.6	★	★	★	★	
	16NR-0.8ISO	16NL-0.8ISO	0.8	9.525	16	0.6	0.6	★	★	★	★	
	16NR-1.0ISO	16NL-1.0ISO	1	9.525	16	0.6	0.7	★	★	★	★	
	16NR-1.25ISO	16NL-1.25ISO	1.25	9.525	16	0.8	0.9	★	★	★	★	
	16NR-1.5ISO	16NL-1.5ISO	1.5	9.525	16	0.8	1	★	★	★	★	
	16NR-1.75ISO	16NL-1.75ISO	1.75	9.525	16	0.9	1.2	★	★	★	★	
	16NR-2.0ISO	16NL-2.0ISO	2	9.525	16	1	1.3	★	★	★	★	
	16NR-2.5ISO	16NL-2.5ISO	2.5	9.525	16	1.1	1.5	★	★	★	★	
	16NR-3.0ISO	16NL-3.0ISO	3	9.525	16	1.1	1.5	★	★	★	★	
	22NR-3.5ISO	22NL-3.5ISO	3.5	12.7	22	1.6	2.3	★	★	★	★	
	22NR-4.0ISO	22NL-4.0ISO	4	12.7	22	1.6	2.3	★	★	★	★	
	22NR-4.5ISO	22NL-4.5ISO	4.5	12.7	22	1.6	2.4	★	★	★	★	
	22NR-5.0ISO	22NL-5.0ISO	5	12.7	22	1.6	2.3	★	★	★	★	
	27NR-5.5ISO	27NL-5.5ISO	5.5	15.875	27	1.6	2.3	★	★	★	★	
27NR-6.0ISO	27NL-6.0ISO	6	15.875	27	1.8	2.5	★	★	★	★		
External Thread (American Standard Thread)	11ER-72UN	11EL-72UN	72	6.35	11	0.8	0.4	★	★	★	★	
	11ER-64UN	11EL-64UN	64	6.35	11	0.8	0.4	★	★	★	★	
	11ER-56UN	11EL-56UN	56	6.35	11	0.7	0.4	★	★	★	★	
	11ER-48UN	11EL-48UN	48	6.35	11	0.6	0.6	★	★	★	★	
	11ER-44UN	11EL-44UN	44	6.35	11	0.6	0.6	★	★	★	★	
	11ER-40UN	11EL-40UN	40	6.35	11	0.6	0.6	★	★	★	★	
	11ER-36UN	11EL-36UN	36	6.35	11	0.6	0.6	★	★	★	★	
	11ER-32UN	11EL-32UN	32	6.35	11	0.6	0.6	★	★	★	★	
	11ER-28UN	11EL-28UN	28	6.35	11	0.6	0.7	★	★	★	★	
	11ER-27UN	11EL-27UN	27	6.35	11	0.7	0.8	★	★	★	★	
	11ER-24UN	11EL-24UN	24	6.35	11	0.7	0.8	★	★	★	★	
	11ER-20UN	11EL-20UN	20	6.35	11	0.8	0.9	★	★	★	★	
	11ER-18UN	11EL-18UN	18	6.35	11	0.8	1	★	★	★	★	
	11ER-16UN	11EL-16UN	16	6.35	11	0.9	1.1	★	★	★	★	
	11ER-14UN	11EL-14UN	14	6.35	11	0.9	1.1	★	★	★	★	
	16ER-72UN	16EL-72UN	72	9.525	16	0.8	0.4	★	★	★	★	
	16ER-64UN	16EL-64UN	64	9.525	16	0.8	0.4	★	★	★	★	
	16ER-56UN	16EL-56UN	56	9.525	16	0.7	0.4	★	★	★	★	
16ER-48UN	16EL-48UN	48	9.525	16	0.6	0.6	★	★	★	★		
16ER-44UN	16EL-44UN	44	9.525	16	0.6	0.6	★	★	★	★		
16ER-40UN	16EL-40UN	40	9.525	16	0.6	0.6	★	★	★	★		
External Thread (American Standard Thread)	16ER-36UN	16EL-36UN	36	9.525	16	0.6	0.6	★	★	★	★	
	16ER-32UN	16EL-32UN	32	9.525	16	0.6	0.6	★	★	★	★	
	16ER-28UN	16EL-28UN	28	9.525	16	0.6	0.7	★	★	★	★	
	16ER-27UN	16EL-27UN	27	9.525	16	0.7	0.8	★	★	★	★	
	16ER-24UN	16EL-24UN	24	9.525	16	0.7	0.8	★	★	★	★	

Threading Insert

American Standard Thread

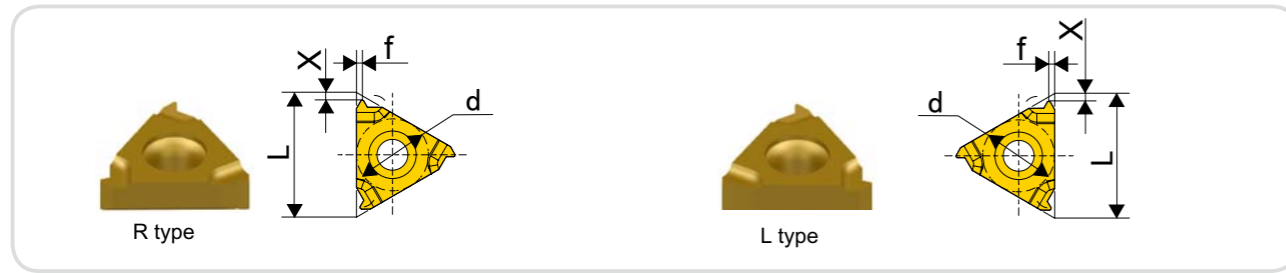


★Recommended grade for stock ●Optional grade for stock ○Make-to-order

Type	Designation Right	Designation Left	Pitch (mm)	TPI	Dimensions (mm)				Recommended grade		Recommended grade	
					d	L	X	f	JT1020		JT1220	
									R	L	R	L
External Thread (American Standard Thread)	16ER-24UN	16EL-24UN		24	9.525	16	0.7	0.8	★	★	★	★
	16ER-20UN	16EL-20UN		20	9.525	16	0.8	0.9	★	★	★	★
	16ER-18UN	16EL-18UN		18	9.525	16	0.8	1	★	★	★	★
	16ER-16UN	16EL-16UN		16	9.525	16	0.9	1.1	★	★	★	★
	16ER-14UN	16EL-14UN		14	9.525	16	1	1.2	★	★	★	★
	16ER-13UN	16EL-13UN		13	9.525	16	1	1.3	★	★	★	★
	16ER-12UN	16EL-12UN		12	9.525	16	1.1	1.4	★	★	★	★
	16ER-11.5UN	16EL-11.5UN		11.5	9.525	16	1.1	1.5	★	★	★	★
	16ER-11UN	16EL-11UN		11	9.525	16	1.1	1.5	★	★	★	★
	16ER-10UN	16EL-10UN		10	9.525	16	1.1	1.5	★	★	★	★
	16ER-9UN	16EL-9UN		9	9.525	16	1.2	1.7	★	★	★	★
	16ER-8UN	16EL-8UN		8	9.525	16	1.2	1.6	★	★	★	★
	22ER-7UN	22EL-7UN		7	12.7	22	1.6	2.3	★	★	★	★
	22ER-6UN	22EL-6UN		6	12.7	22	1.6	2.3	★	★	★	★
	22ER-5UN	22EL-5UN		5	12.7	22	1.7	2.5	★	★	★	★
	27ER-4.5UN	27EL-4.5UN		4.5	15.875	27	1.9	2.7	★	★	★	★
27ER-4UN	27EL-4UN		4	15.875	27	2.1	3	★	★	★	★	
External Thread (American Standard Thread)	11NR-72W	11NL-72W		72	6.35	11	0.7	0.4	★	★	★	★
	11NR-64W	11NL-64W		64	6.35	11	0.7	0.4	★	★	★	★
	11NR-56UN	11NL-56UN		56	6.35	11	0.7	0.4	★	★	★	★
	11NR-48UN	11NL-48UN		48	6.35	11	0.6	0.6	★	★	★	★
	11NR-44UN	11NL-44UN		44	6.35	11	0.6	0.6	★	★	★	★
	11NR-40UN	11NL-40UN		40	6.35	11	0.6	0.6	★	★	★	★
	11NR-36UN	11NL-36UN		36	6.35	11	0.6	0.6	★	★	★	★
	11NR-32UN	11NL-32UN		32	6.35	11	0.6	0.6	★	★	★	★
	11NR-28UN	11NL-28UN		28	6.35	11	0.6	0.7	★	★	★	★
	11NR-27UN	11NL-27UN		27	6.35	11	0.7	0.8	★	★	★	★
	11NR-24UN	11NL-24UN		24	6.35	11	0.7	0.8	★	★	★	★
	11NR-20UN	11NL-20UN		20	6.35	11	0.8	0.9	★	★	★	★
	11NR-18UN	11NL-18UN		18	6.35	11	0.8	1	★	★	★	★
	11NR-16UN	11NL-16UN		16	6.35	11	0.9	1.1	★	★	★	★
	11NR-14UN	11NL-14UN		14	6.35	11	0.9	1.1	★	★	★	★
	11NR-12UN	11NL-12UN		12	6.35	11	0.8	1.1	★	★	★	★
11NR-11UN	11NL-11UN		11	6.35	11	0.8	1.1	★	★	★	★	

Threading Insert

American Standard Thread

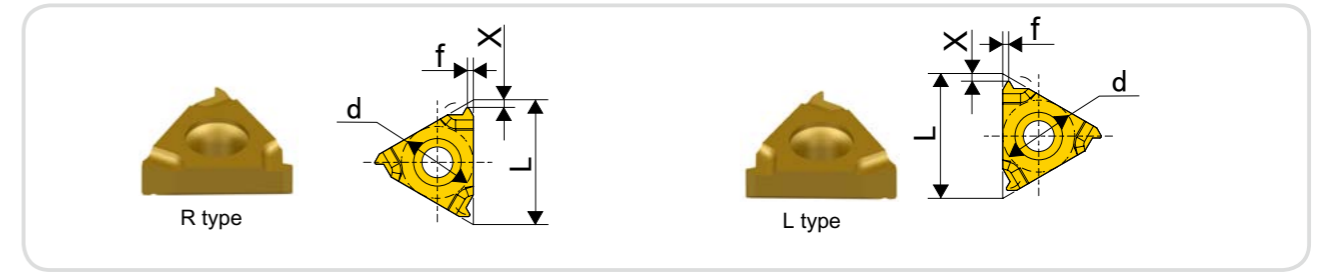


★Recommended grade for stock ●Optional grade for stock ○Make-to-order

Type	Designation Right	Designation Left	Pitch (mm)	TPI	Dimensions (mm)				Recommended grade		Recommended grade	
					d	L	X	f	JT1020		JT1220	
									R	L	R	L
Internal Thread (American Standard Thread)	11NR-11UN	11NL-11UN	11	6.35	11	0.8	1.1	★	★	★	★	
	16NR-72UN	16NL-72UN	72	9.525	16	0.8	0.4	★	★	★	★	
	16NR-64UN	16NL-64UN	64	9.525	16	0.8	0.4	★	★	★	★	
	16NR-56NU	16NL-56NU	56	9.525	16	0.7	0.4	★	★	★	★	
	16NR-48NU	16NL-48NU	48	9.525	16	0.6	0.6	★	★	★	★	
	16NR-44UN	16NL-44UN	44	9.525	16	0.6	0.6	★	★	★	★	
	16NR-40UN	16NL-40UN	40	9.525	16	0.6	0.6	★	★	★	★	
	16NR-36NU	16NL-36NU	36	9.525	16	0.6	0.6	★	★	★	★	
	16NR-32UN	16NL-32UN	32	9.525	16	0.6	0.6	★	★	★	★	
	16NR-28UN	16NL-28UN	28	9.525	16	0.6	0.7	★	★	★	★	
	16NR-27UN	16NL-27UN	27	9.525	16	0.7	0.8	★	★	★	★	
	16NR-24UN	16NL-24UN	24	9.525	16	0.7	0.8	★	★	★	★	
	16NR-20UN	16NL-20UN	20	9.525	16	0.8	0.9	★	★	★	★	
	16NR-18UN	16NL-18UN	18	9.525	16	0.8	1	★	★	★	★	
	16NR-16UN	16NL-16UN	16	9.525	16	0.9	1.1	★	★	★	★	
	16NR-14UN	16NL-14UN	14	9.525	16	1	1.2	★	★	★	★	
	16NR-13UN	16NL-13UN	13	9.525	16	1	1.3	★	★	★	★	
	16NR-12UN	16NL-12UN	12	9.525	16	1.1	1.4	★	★	★	★	
	16NR-11.5UN	16NL-11.5UN	11.5	9.525	16	1.1	1.5	★	★	★	★	
	16NR-11UN	16NL-11UN	11	9.525	16	1.1	1.5	★	★	★	★	
	16NR-10UN	16NL-10UN	10	9.525	16	1.1	1.5	★	★	★	★	
	16NR-9UN	16NL-9UN	9	9.525	16	1.2	1.7	★	★	★	★	
	16NR-8UN	16NL-8UN	8	9.525	16	1.2	1.5	★	★	★	★	
	16NR-7UN	16NL-7UN	7	12.7	22	1.6	2.3	★	★	★	★	
	22NR-6UN	22NL-6UN	6	12.7	22	1.6	2.3	★	★	★	★	
	22NR-5UN	22NL-5UN	5	12.7	22	1.7	2.3	★	★	★	★	
	27NR-4.5UN	27NL-4.5UN	4.5	15.875	27	1.9	2.4	★	★	★	★	
27NR-4UN	27NL-4UN	4	15.875	27	2.1	2.7	★	★	★	★		

Threading Insert

Whitworth Thread



★Recommended grade for stock ●Optional grade for stock ○Make-to-order

Type	Designation Right	Designation Left	Pitch (mm)	TPI	Dimensions (mm)				Recommended grade		Recommended grade	
					d	L	X	f	JT1020		JT1220	
									R	L	R	L
External Thread (Whitworth Thread)	11ER-72W	11EL-72W		72	6.35	11	0.7	0.4	★	★	★	★
	11ER-64W	11EL-64W		64	6.35	11	0.7	0.4	★	★	★	★
	11ER-56W	11EL-56W		56	6.35	11	0.7	0.4	★	★	★	★
	11ER-48W	11EL-48W		48	6.35	11	0.6	0.6	★	★	★	★
	11ER-44W	11EL-44W		44	6.35	11	0.6	0.6	★	★	★	★
	11ER-40W	11EL-40W		40	6.35	11	0.6	0.6	★	★	★	★
	11ER-36W	11EL-36W		36	6.35	11	0.6	0.6	★	★	★	★
	11ER-32W	11EL-32W		32	6.35	11	0.6	0.6	★	★	★	★
	11ER-28W	11EL-28W		28	6.35	11	0.6	0.7	★	★	★	★
	11ER-26W	11EL-26W		27	6.35	11	0.7	0.8	★	★	★	★
	11ER-24W	11EL-24W		24	6.35	11	0.7	0.8	★	★	★	★
	11ER-22W	11EL-22W		24	6.35	11	0.8	0.9	★	★	★	★
	11ER-20W	11EL-20W		20	6.35	11	0.8	0.9	★	★	★	★
	11ER-19W	11EL-19W		19	6.35	11	0.8	1	★	★	★	★
	11ER-18W	11EL-18W		18	6.35	11	0.8	1	★	★	★	★
	11ER-16W	11EL-16W		16	6.35	11	0.9	1.1	★	★	★	★
	11ER-14W	11EL-14W		14	6.35	11	1	1.2	★	★	★	★
	16ER-72W	16EL-72W		72	9.525	16	0.7	0.4	★	★	★	★
	16ER-60W	16EL-60W		60	9.525	16	0.7	0.4	★	★	★	★
	16ER-56W	16EL-56W		56	9.525	16	0.7	0.4	★	★	★	★
16ER-48W	16EL-48W		48	9.525	16	0.6	0.6	★	★	★	★	
16ER-44W	16EL-44W		44	9.525	16	0.6	0.6	★	★	★	★	
External Thread (Whitworth Thread)	16ER-40W	16EL-40W		40	9.525	16	0.6	0.6	★	★	★	★
	16ER-36W	16EL-36W		36	9.525	16	0.6	0.6	★	★	★	★
	16ER-32W	16EL-32W		32	9.525	16	0.6	0.6	★	★	★	★
	16ER-28W	16EL-28W		28	9.525	16	0.6	0.7	★	★	★	★
	16ER-26W	16EL-26W		26	9.525	16	0.7	0.8	★	★	★	★
	16ER-24W	16EL-24W		24	9.525	16	0.7	0.8	★	★	★	★
	16ER-22W	16EL-22W		22	9.525	16	0.7	0.8	★	★	★	★
	16ER-20W	16EL-20W		20	9.525	16	0.8	0.9	★	★	★	★
	16ER-18W	16EL-18W		18	9.525	16	0.8	1	★	★	★	★
	16ER-16W	16EL-16W		16	9.525	16	0.9	1.1	★	★	★	★
	16ER-14W	16EL-14W		14	9.525	16	1	1.2	★	★	★	★
	16ER-12W	16EL-12W		12	9.525	16	1.1	1.4	★	★	★	★

Threading Insert

Whitworth Thread



★Recommended grade for stock ●Optional grade for stock ○Make-to-order

Type	Designation Right	Designation Left	Pitch (mm)	TPI	Dimensions (mm)				Recommended grade			
					d	L	X	f	JT1020		JT1220	
									R	L	R	L
External Thread (Whitworth Thread)	16ER-11W	16EL-11W		11	9.525	16	1.1	1.5	★	★	★	★
	16ER-10W	16EL-10W		10	9.525	16	1.1	1.5	★	★	★	★
	16ER-9W	16EL-9W		9	9.525	16	1.2	1.7	★	★	★	★
	16ER-8W	16EL-8W		8	9.525	16	1.2	1.5	★	★	★	★
	22ER-7W	22EL-7W		7	12.7	22	1.6	2.3	★	★	★	★
	22ER-6W	22EL-6W		6	12.7	22	1.6	2.3	★	★	★	★
	22ER-5W	22EL-5W		5	12.7	22	1.7	2.4	★	★	★	★
	27ER-4.5W	27EL-4.5W		4.5	15.875	27	1.8	2.6	★	★	★	★
	27ER-4UN	27EL-4UN		4	15.875	27	2.1	2.9	★	★	★	★
Internal Thread (Whitworth Thread)	11NR-72W	11NL-72W		72	6.35	11	0.7	0.4	★	★	★	★
	11NR-64W	11NL-64W		64	6.35	11	0.7	0.4	★	★	★	★
	11NR-56W	11NL-56W		56	6.35	11	0.7	0.4	★	★	★	★
	11NR-48W	11NL-48W		48	6.35	11	0.6	0.6	★	★	★	★
	11NR-40W	11NL-40W		40	6.35	11	0.6	0.6	★	★	★	★
	11NR-36W	11NL-36W		36	6.35	11	0.6	0.6	★	★	★	★
	11NR-32W	11NL-32W		32	6.35	11	0.6	0.6	★	★	★	★
	11NR-28W	11NL-28W		28	6.35	11	0.6	0.7	★	★	★	★
	11NR-26W	11NL-26W		27	6.35	11	0.7	0.8	★	★	★	★
	11NR-24W	11NL-24W		24	6.35	11	0.7	0.8	★	★	★	★
	11NR-22W	11NL-22W		24	6.35	11	0.8	0.9	★	★	★	★
	11NR-20W	11NL-20W		20	6.35	11	0.8	0.9	★	★	★	★
	11NR-19W	11NL-19W		19	6.35	11	0.8	1	★	★	★	★
	11NR-18W	11NL-18W		18	6.35	11	0.8	1	★	★	★	★
	11NR-16W	11NL-16W		16	6.35	11	0.9	1.1	★	★	★	★
	11NR-14W	11NL-14W		14	6.35	11	0.9	1.1	★	★	★	★
	11NR-12W	11NL-12W		12	6.35	11	0.9	1.2	★	★	★	★
	16NR-72W	16NL-72W		72	9.525	16	0.7	0.4	★	★	★	★
	16NR-60W	16NL-60W		60	9.525	16	0.7	0.4	★	★	★	★
	16NR-56W	16NL-56W		56	9.525	16	0.7	0.4	★	★	★	★
16NR-48W	16NL-48W		48	9.525	16	0.6	0.6	★	★	★	★	
16NR-40W	16NL-40W		40	9.525	16	0.6	0.6	★	★	★	★	
Internal Thread (Whitworth Thread)	16NR-36W	16NL-36W		36	9.525	16	0.6	0.6	★	★	★	★
	16NR-32W	16NL-32W		32	9.525	16	0.6	0.6	★	★	★	★
	16NR-30W	16NL-30W		30	9.525	16	0.6	0.7	★	★	★	★
	16NR-28W	16NL-28W		28	9.525	16	0.6	0.7	★	★	★	★
	16NR-24W	16NL-24W		24	9.525	16	0.7	0.8	★	★	★	★

Threading Insert

Whitworth Thread



★Recommended grade for stock ●Optional grade for stock ○Make-to-order

Type	Designation Right	Designation Left	Pitch (mm)	TPI	Dimensions (mm)				Recommended grade			
					d	L	X	f	JT1020		JT1220	
									R	L	R	L
Internal Thread (Whitworth Thread)	16NR-22W	16NL-22W		22	9.525	16	0.8	0.9	★	★	★	★
	16NR-20W	16NL-20W		20	9.525	16	0.8	0.9	★	★	★	★
	16NR-19W	16NL-19W		20	9.525	16	0.8	1	★	★	★	★
	16NR-18W	16NL-18W		18	9.525	16	0.8	1	★	★	★	★
	16NR-16W	16NL-16W		16	9.525	16	0.9	1.1	★	★	★	★
	16NR-14W	16NL-14W		14	9.525	16	1	1.2	★	★	★	★
	16NR-12W	16NL-12W		12	9.525	16	1.1	1.4	★	★	★	★
	16NR-11W	16NL-11W		11	9.525	16	1.1	1.5	★	★	★	★
	16NR-10W	16NL-10W		10	9.525	16	1.1	1.5	★	★	★	★
	16NR-9W	16NL-9W		9	9.525	16	1.2	1.7	★	★	★	★
	16NR-8W	16NL-8W		8	9.525	16	1.2	1.5	★	★	★	★
	22NR-7W	22NL-7W		7	12.7	22	1.6	2.3	★	★	★	★
	22NR-6W	22NL-6W		6	12.7	22	1.6	2.3	★	★	★	★
	22NR-5W	22NL-5W		5	12.7	22	1.7	2.4	★	★	★	★
	27NR-4.5W	27NL-4.5W		4.5	15.875	27	1.8	2.6	★	★	★	★
	27NR-4W	27NL-4W		4	15.875	27	2.1	2.9	★	★	★	★

Threading Insert

BSP Metric Thread

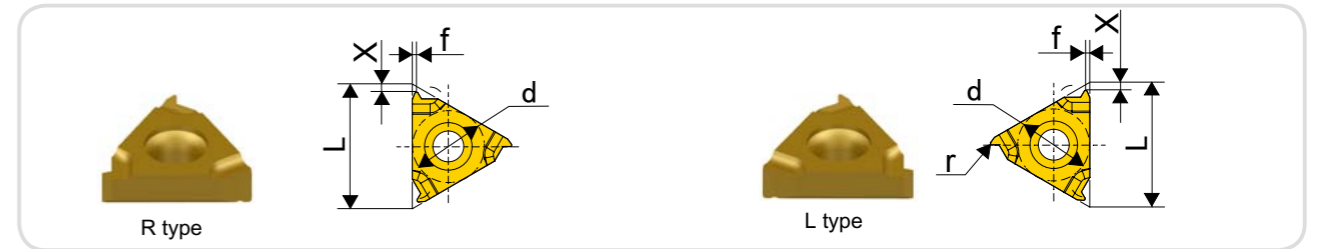


★Recommended grade for stock ●Optional grade for stock ○Make-to-order

Type	Designation Right	Designation Left	Pitch (mm)	TPI	Dimensions (mm)				Recommended grade		Recommended grade	
					d	L	X	f	JT1020		JT1220	
									R	L	R	L
External Thread (BSP Metric Thread)	11NR-28BSPT	11NL-28BSPT		28	6.35	11	0.6	0.6	★	★	★	★
	11NR-19BSPT	11NL-19BSPT		19	6.35	11	0.8	0.9	★	★	★	★
	11NR-14BSPT	11NL-14BSPT		14	6.35	11	0.9	1	★	★	★	★
	16NR-28BSPT	16NL-28BSPT		28	9.525	16	0.6	0.6	★	★	★	★
	16NR-19BSPT	16NL-19BSPT		19	9.525	16	0.8	0.9	★	★	★	★
	16NR-14BSPT	16NL-14BSPT		14	9.525	16	1	1.2	★	★	★	★
	16NR-11BSPT	16NL-11BSPT		11	9.525	16	1.1	1.5	★	★	★	★
	External Thread (BSP Metric Thread)	11ER-28BSPT	11EL-28BSPT		28	6.35	11	0.6	0.6	★	★	★
11ER-19BSPT		11EL-19BSPT		19	6.35	11	0.8	0.9	★	★	★	★
11ER-14BSPT		11EL-14BSPT		14	6.35	11	0.9	1	★	★	★	★
16ER-28BSPT		16EL-28BSPT		28	9.525	16	0.6	0.6	★	★	★	★
16ER-19BSPT		16EL-19BSPT		19	9.525	16	0.8	0.9	★	★	★	★
16ER-14BSPT		16EL-14BSPT		14	9.525	16	1	1.2	★	★	★	★
16ER-11BSPT		16EL-11BSPT		11	9.525	16	1.1	1.5	★	★	★	★

Threading Insert

American 60 Taper Piper Thread NPT

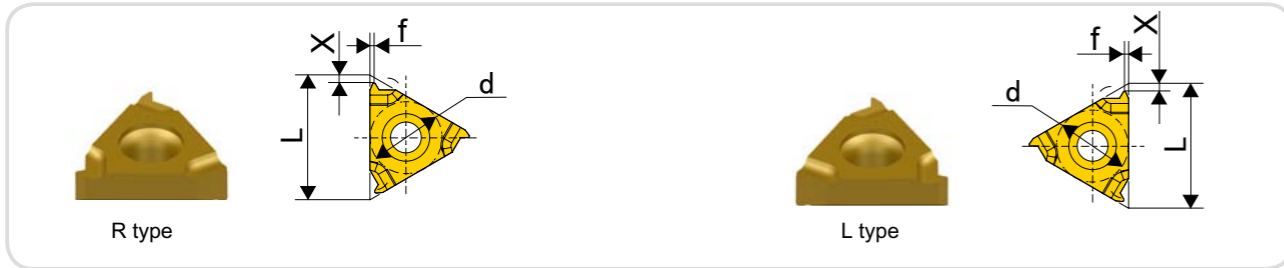


★Recommended grade for stock ●Optional grade for stock ○Make-to-order

Type	Designation Right	Designation Left	Pitch (mm)	TPI	Dimensions (mm)				Recommended grade		Recommended grade	
					d	L	X	f	JT1020		JT1220	
									R	L	R	L
External Thread (American 60 Taper Piper Thread NPT)	11ER-27NPT	11EL-27NPT		27	6.35	11	0.7	0.8	★	★	★	★
	11ER-18NPT	11EL-18NPT		18	6.35	11	0.8	1	★	★	★	★
	11ER-14NPT	11EL-14NPT		14	6.35	11	0.8	1	★	★	★	★
	16ER-28NPT	16EL-28NPT		28	9.525	16	0.7	0.8	★	★	★	★
	16ER-18NPT	16EL-18NPT		18	9.525	16	0.8	1	★	★	★	★
	16ER-14NPT	16EL-14NPT		14	9.525	16	0.9	1.2	★	★	★	★
	16ER-11.5NPT	16EL-11.5NPT		11.5	9.525	16	1.1	1.5	★	★	★	★
	16ER-8NPT	16EL-8NPT		8	9.525	16	1.3	1.8	★	★	★	★
Internal Thread (American 60 Taper Piper Thread NPT)	11NR-27NPT	11NL-27NPT		27	6.35	11	0.7	0.8	★	★	★	★
	11NR-18NPT	11NL-18NPT		18	6.35	11	0.8	1	★	★	★	★
	11NR-14NPT	11NL-14NPT		14	6.35	11	0.8	1	★	★	★	★
	16NR-28NPT	16NL-28NPT		28	9.525	16	0.7	0.8	★	★	★	★
	16NR-18NPT	16NL-18NPT		18	9.525	16	0.8	1	★	★	★	★
	16NR-14NPT	16NL-14NPT		14	9.525	16	0.9	1.2	★	★	★	★
	16NR-11.5NPT	16NL-11.5NPT		11.5	9.525	16	1.1	1.5	★	★	★	★
	16NR-8NPT	16NL-8NPT		8	9.525	16	1.3	1.8	★	★	★	★

Threading Insert

American Dry Seal Straight Pipe Thread NPTF

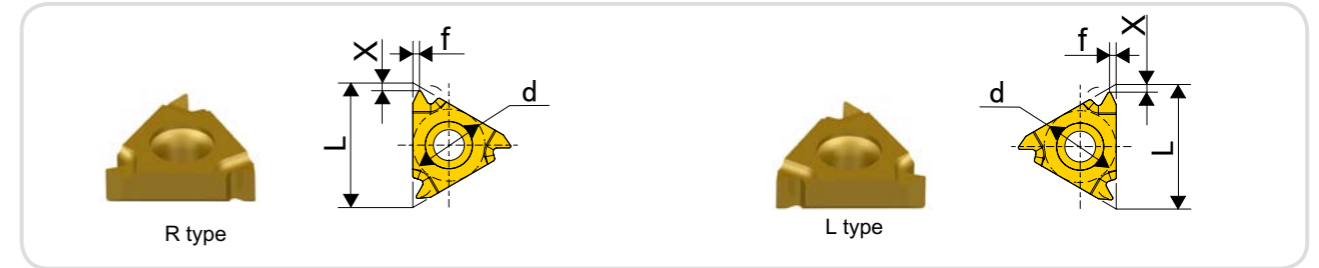


★Recommended grade for stock ●Optional grade for stock ○Make-to-order

Type	Designation Right	Designation Left	Pitch (mm)	TPI	Dimensions (mm)				Recommended grade		Recommended grade	
					d	L	X	f	JT1020		JT1220	
									R	L	R	L
External Thread (American Dry Seal Straight Pipe Thread NPTF)	11ER-27NPTF	11EL-27NPTF		27	6.35	11	0.7	0.8	★	★	★	★
	11ER-18NPTF	11EL-18NPTF		18	6.35	11	0.8	1	★	★	★	★
	11ER-14NPTF	11EL-14NPTF		14	6.35	11	0.8	1	★	★	★	★
	16ER-28NPTF	16EL-28NPTF		28	9.525	16	0.7	0.8	★	★	★	★
	16ER-18NPTF	16EL-18NPTF		18	9.525	16	0.8	1	★	★	★	★
	16ER-14NPTF	16EL-14NPTF		14	9.525	16	0.9	1.2	★	★	★	★
	16ER-11.5NPTF	16EL-11.5NPTF		11.5	9.525	16	1.1	1.5	★	★	★	★
	16ER-8NPTF	16EL-8NPTF		8	9.525	16	1.3	1.8	★	★	★	★
Internal Thread (American Dry Seal Straight Pipe Thread NPTF)	11ER-27NPTF	11EL-27NPTF		27	6.35	11	0.7	0.8	★	★	★	★
	11ER-18NPTF	11EL-18NPTF		18	6.35	11	0.8	1	★	★	★	★
	11ER-14NPTF	11EL-14NPTF		14	6.35	11	0.8	1	★	★	★	★
	16ER-28NPTF	16EL-28NPTF		28	9.525	16	0.7	0.8	★	★	★	★
	16ER-18NPTF	16EL-18NPTF		18	9.525	16	0.8	1	★	★	★	★
	16ER-14NPTF	16EL-14NPTF		14	9.525	16	0.9	1.2	★	★	★	★
	16ER-11.5NPTF	16EL-11.5NPTF		11.5	9.525	16	1.1	1.5	★	★	★	★
	16ER-8NPTF	16EL-8NPTF		8	9.525	16	1.3	1.8	★	★	★	★

Threading Insert

DIN405 Round Thread

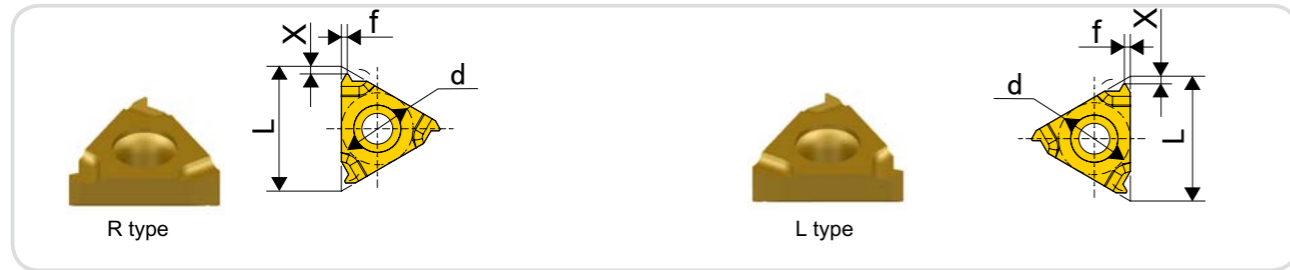


★Recommended grade for stock ●Optional grade for stock ○Make-to-order

Type	Designation Right	Designation Left	Pitch (mm)	TPI	Dimensions (mm)				Recommended grade		Recommended grade	
					d	L	X	f	JT1020		JT1220	
									R	L	R	L
External Thread (DIN405 Round Thread)	16ER-10RD	16EL-10RD		10	9.525	16	1.1	1.2	★	★	★	★
	16ER-8RD	16EL-8RD		8	9.525	16	1.4	1.3	★	★	★	★
	16ER-6RD	16EL-6RD		6	9.525	16	1.5	1.7	★	★	★	★
	22ER-6RD	22EL-6RD		6	12.7	22	1.5	1.7	★	★	★	★
	22ER-4RD	22EL-4RD		4	12.7	22	2.2	2.3	★	★	★	★
	27ER-4RD	27EL-4RD		4	15.875	27	2.2	2.3	★	★	★	★
	Internal Thread (American Dry Seal Straight Pipe Thread NPTF)	16NR-10RD	16NL-10RD		10	9.525	16	1.1	1.2	★	★	★
16NR-8RD		16NL-8RD		8	9.525	16	1.4	1.3	★	★	★	★
16NR-6RD		16NL-6RD		6	9.525	16	1.5	1.7	★	★	★	★
22NR-6RD		22NL-6RD		6	12.7	22	1.5	1.7	★	★	★	★
27NR-4RD		27NL-4RD		4	15.875	27	2.2	2.3	★	★	★	★

Threading Insert

DIN103 Trapezoidal Thread



★Recommended grade for stock ●Optional grade for stock ○Make-to-order

Type	Designation Right	Designation Left	Pitch (mm)	TPI	Dimensions (mm)				Recommended grade		Recommended grade	
					d	L	X	f	JT1020		JT1220	
									R	L	R	L
External Thread (DIN103 Trapezoidal Thread)	11ER-1.5TR	11EL-1.5TR		1.5	6.35	11	0.8	0.9	★	★	★	★
	16ER-1.5TR	16EL-1.5TR		1.5	9.525	16	1	1.1	★	★	★	★
	16ER-2.0TR	16EL-2.0TR		2	9.525	16	1.1	1.3	★	★	★	★
	16ER-3.0TR	16EL-3.0TR		3	9.525	16	1.3	1.5	★	★	★	★
	22ER-4.0TR	22EL-4.0TR		4	12.7	22	1.7	1.9	★	★	★	★
	22ER-5.0TR	22EL-5.0TR		5	12.7	22	2.1	2.5	★	★	★	★
	27ER-6.0TR	27EL-6.0TR		6	15.875	27	2.3	2.7	★	★	★	★
Internal Thread (DIN103 Trapezoidal Thread)	11NR-1.5TR	11NL-1.5TR		1.5	6.35	11	0.8	0.9	★	★	★	★
	16NR-1.5TR	16NL-1.5TR		1.5	9.525	16	1	1.1	★	★	★	★
	16NR-2.0TR	16NL-2.0TR		2	9.525	16	1.1	1.3	★	★	★	★
	16NR-3.0TR	16NL-3.0TR		3	9.525	16	1.3	1.5	★	★	★	★
	22NR-4.0TR	22NL-4.0TR		4	12.7	22	1.7	1.9	★	★	★	★
	22NR-5.0TR	22NL-5.0TR		5	12.7	22	2.1	2.5	★	★	★	★
	27NR-6.0TR	27NL-6.0TR		6	15.875	27	2.3	2.7	★	★	★	★

Threading Insert

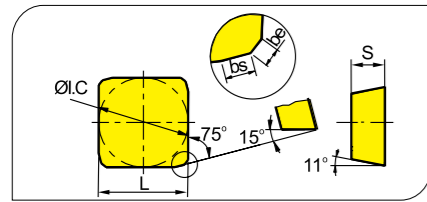
ACME(American Trapezoidal 29 Thread)



★Recommended grade for stock ●Optional grade for stock ○Make-to-order

Type	Designation Right	Designation Left	Pitch (mm)	TPI	Dimensions (mm)				Recommended grade		Recommended grade	
					d	L	X	f	JT1020		JT1220	
									R	L	R	L
External Thread (American Trapezoidal 29 Thread)	11ER-16ACME	11EL-16ACME		16	6.35	11	1	1.1	★	★	★	★
	16ER-16ACME	16EL-16ACME		16	9.525	16	1	1.1	★	★	★	★
	16ER-14ACME	16EL-14ACME		14	9.525	16	1	1.2	★	★	★	★
	16ER-12ACME	16EL-12ACME		12	9.525	16	1.1	1.2	★	★	★	★
	16ER-10ACME	16EL-10ACME		10	9.525	16	1.3	1.4	★	★	★	★
	16ER-8ACME	16EL-8ACME		8	9.525	16	1.4	1.5	★	★	★	★
	16ER-6ACME	16EL-6ACME		6	9.525	16	1.7	1.9	★	★	★	★
	22ER-6ACME	22EL-6ACME		6	12.7	22	1.8	2.1	★	★	★	★
	22ER-5ACME	22EL-5ACME		5	12.7	22	2	2.3	★	★	★	★
	22ER-4ACME	22EL-4ACME		4	15.875	27	2.3	2.7	★	★	★	★
External Thread (American Trapezoidal 29 Thread)	11NR-16ACME	11NL-16ACME		16	6.35	11	1	1.1	★	★	★	★
	16NR-16ACME	16NL-16ACME		16	9.525	16	1	1.1	★	★	★	★
	16NR-14ACME	16NL-14ACME		14	9.525	16	1	1.2	★	★	★	★
	16NR-12ACME	16NL-12ACME		12	9.525	16	1.1	1.2	★	★	★	★
	16NR-10ACME	16NL-10ACME		10	9.525	16	1.3	1.4	★	★	★	★
	16NR-8ACME	16NL-8ACME		8	9.525	16	1.4	1.5	★	★	★	★
	16NR-6ACME	16NL-6ACME		6	9.525	16	1.7	1.9	★	★	★	★
	22NR-6ACME	22NL-6ACME		6	12.7	22	1.8	2.1	★	★	★	★
	22NR-5ACME	22NL-5ACME		5	12.7	22	2	2.3	★	★	★	★
	22NR-4ACME	22NL-4ACME		4	15.875	27	2.3	2.7	★	★	★	★

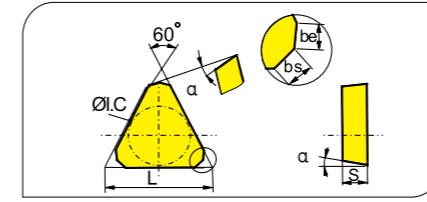
Insert selection




★Recommended grade for stock ●Optional grade for stock ○Make-to-order

Shape	Type	Dimension (mm)					CVD coating						PVD coating				Cermet		Cemented carbide				
		L	φ I.C	S	be	bs	JT4330	JT4340	JT4350	JPP302	JPP402	JT1015	JT1025	JT1035	JT1215	JT1225	JT1235			JP302	JK001	JK101	JK202
	SPKN1504EDER	15.875	15.875	4.76	1.00	1.4	★									☆			○				☆
	SPKN1504EDEL	15.875	15.875	4.76	1.00	1.4	★									☆			○				☆
	SPKN1504EDFR	15.875	15.875	4.76	1.00	1.4	★									☆			○				☆
	SPKN1504EDFL	15.875	15.875	4.76	1.00	1.4	★									☆			○				☆
	SPKN1504EDSKR	15.875	15.875	4.76	1.00	1.4	★								○	☆			○				☆
	SPKN1504EDSKL	15.875	15.875	4.76	1.00	1.4	★								○	☆			○				☆
	SPKN1504EDTKR	15.875	15.875	4.76	1.00	1.4	★								○	☆			○				☆
	SPKN1504EDTKL	15.875	15.875	4.76	1.00	1.4	★								○	☆			○				☆
	SPKN1504EDS32R	15.875	15.875	4.76	1.00	1.4	★								○	☆			○				☆
	SPKN1504EDS32L	15.875	15.875	4.76	1.00	1.4	★								○	☆			○				☆
	SPKN1504EDT32R	15.875	15.875	4.76	1.00	1.4	★								○	☆			○				☆
	SPKN1504EDT32L	15.875	15.875	4.76	1.00	1.4	★								○	☆			○				☆
	SPKN1203EDER	12.7	12.7	3.18	1.00	1.4	★									☆			○				☆
	SPKN1203EDEL	12.7	12.7	3.18	1.00	1.4	★									☆			○				☆
	SPKN1203EDFR	12.7	12.7	3.18	1.00	1.4	★									☆			○				☆
	SPKN1203EDFL	12.7	12.7	3.18	1.00	1.4	★									☆			○				☆
	SPKN1203EDSKR	12.7	12.7	3.18	1.00	1.4	★									☆			○				☆
	SPKN1203EDSKL	12.7	12.7	3.18	1.00	1.4	★									☆			○				☆
	SPKN1203EDTKR	12.7	12.7	3.18	1.00	1.4	★									☆			○				☆
	SPKN1203EDTKL	12.7	12.7	3.18	1.00	1.4	★									☆			○				☆
SPKN1203EDS31R	12.7	12.7	3.18	1.00	1.4	★									☆			○				☆	
SPKN1203EDS31L	12.7	12.7	3.18	1.00	1.4	★									☆			○				☆	
SPKN1203EDT31R	12.7	12.7	3.18	1.00	1.4	★									☆			○				☆	
SPKN1203EDT31L	12.7	12.7	3.18	1.00	1.4	★									☆			○				☆	

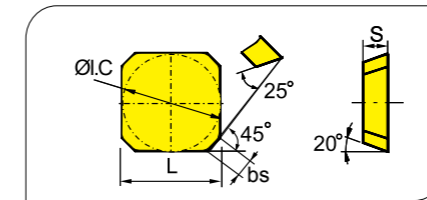
Insert selection





★Recommended grade for stock ●Optional grade for stock ○Make-to-order

Shape	Type	Dimension (mm)					CVD coating			PVD coating						Cermet		Cemented carbide					
		L	φ I.C	S	be	bs	JT4330	JT4340	JT4350	JPP302	JPP402	JT1015	JT1025	JT1035	JT1215	JT1225	JT1235			JP302	JK001	JK101	JK202
	TPKN1603PDFR	16.5	9.525	3.175	1.4	0.7	★									★	○			○			★
	TPKN1603PDFL	16.5	9.525	3.175	1.4	0.7	★									★	○			○			★
	TPKN1603PDR	16.5	9.525	3.175	1.4	0.7	★									★	○			○			★
	TPKN1603PDL	16.5	9.525	3.175	1.4	0.7	★									★	○			○			★
	TPKN2204PDFR	22	12.7	4.76	1.4	0.7	★									★	○			○			★
	TPKN2204PDFL	22	12.7	4.76	1.4	0.7	★									★	○			○			★
	TPKN2204PDR	22	12.7	4.76	1.4	0.7	★									★	○			○			★
	TPKN2204PDL	22	12.7	4.76	1.4	0.7	★									★	○			○			★
	TPKN2204PDTR	22	12.7	4.76	1.4	0.7	★									★	○			○			★
	TPKN2204PDTL	22	12.7	4.76	1.4	0.7	★									★	○			○			★

Insert selection



★Recommended grade for stock ●Optional grade for stock ○Make-to-order

Shape	Type	Dimension (mm)					CVD coating			PVD coating						Cermet		Cemented carbide						
		L	φ I.C	S	be	bs	JT4330	JT4340	JT4350	JPP302	JPP402	JT1015	JT1025	JT1035	JT1215	JT1225	JT1235			JP302	JK001	JK101	JK202	
	SEE (K) N1203AFTN	12.7	12.7	3.18		1.8	☆						☆		★								☆	
	SEE (K) N1203AFFN	12.7	12.7	3.18		1.8	☆																	☆
	SEE (K) N1203AFN	12.7	12.7	3.18		1.8	☆						☆		★									☆
	SEE (K) N1203AFTN	12.7	12.7	3.18		1.8	☆						☆		★									☆
	SEE (K) N1504AFTN	15.875	15.875	4.76		1.6	☆						☆		★								☆	
	SEE (K) N1504AFFN	15.875	15.875	4.76		1.6	☆																☆	
	SEE (K) N1504AFN	15.875	15.875	4.76		1.6	☆						☆		★								☆	
	SEE (K) N1504AFTN	15.875	15.875	4.76		1.6	☆						☆		★								☆	

