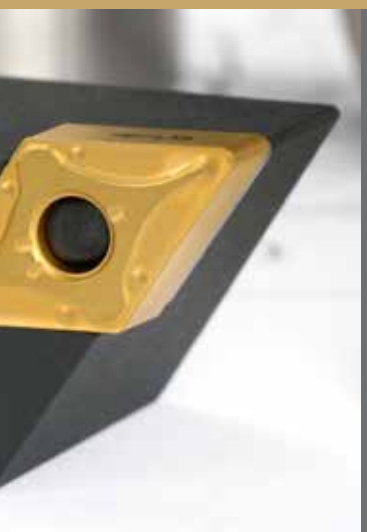


Alloys



Indexable Inserts

XKALIBUR
CARBIDE INSERTS





Interstitial Alloys is a subsidiary of the Asia Tech Group, a global holding company with six manufacturing locations and over twenty independent companies worldwide. iAlloys, based in Houston, Texas, is responsible for the logistics and distribution of cemented carbide products manufactured by Asia Tech and their affiliates.

iALLOYS PROVIDES

- Unique inventory programs that provide our customers with just-in-time deliveries
- Experienced sales and technical staff with extensive product knowledge of materials and logistics
- Manufacturing facilities that are ISO certified to ASTM standards; ISO controlled testing, evaluation and certification
- Online information system providing our customers with real-time access to inventory, shipping information, documentation, product certificates, pricing, etc.

iAlloys is dedicated to the growth and success of our customers by providing the highest quality materials, professional customer service and experienced sales support. We appreciate your interest in iAlloys and we look forward to serving your cemented carbide needs.

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ANSI Decimal Conversions

ANSI	IC	S	D	R
221	0.250	0.125	0.089	0.015
222	0.250	0.125	0.089	0.031
321	0.375	0.125	0.150	0.015
322	0.375	0.125	0.150	0.031
32.51	0.375	0.156	0.150	0.015
32.52	0.375	0.156	0.150	0.031
32.53	0.375	0.156	0.150	0.047
331	0.375	0.187	0.150	0.015
332	0.375	0.187	0.150	0.031
333	0.375	0.187	0.150	0.047
334	0.375	0.187	0.150	0.062
336	0.375	0.187	0.150	0.094
431	0.500	0.187	0.203	0.015
432	0.500	0.187	0.203	0.031
433	0.500	0.187	0.203	0.047
434	0.500	0.187	0.203	0.062
441	0.500	0.250	0.203	0.015
442	0.500	0.250	0.203	0.031
443	0.500	0.250	0.203	0.047
444	0.500	0.250	0.203	0.062
542	0.625	0.250	0.250	0.031
543	0.625	0.250	0.250	0.047
544	0.625	0.250	0.250	0.062
545	0.625	0.250	0.250	0.079
546	0.625	0.250	0.250	0.094
548	0.625	0.250	0.250	0.118
642	0.750	0.250	0.313	0.031
643	0.750	0.250	0.313	0.047
644	0.750	0.250	0.313	0.062
645	0.750	0.250	0.313	0.079
646	0.750	0.250	0.313	0.094
856	1.000	0.313	0.359	0.094
866	1.000	0.375	0.359	0.094
43	0.500	0.187	0.203	
1.21.21	0.156	0.078	0.087	0.015
1.21.22	0.156	0.078	0.087	0.031
1.81.50.5	0.219	0.094	0.098	0.008
1.81.51	0.219	0.094	0.098	0.015
1.81.51	0.219	0.094	0.098	0.031
21.50.5	0.250	0.094	0.110	0.008
21.51	0.250	0.094	0.110	0.015
21.52	0.250	0.094	0.110	0.031
220.5	0.250	0.125	0.111	0.008
221	0.250	0.125	0.110	0.015
222	0.250	0.125	0.110	0.031

ANSI	IC	S	D	R	IW
32.50.5	0.375	0.156	0.173	0.008	
32.51	0.375	0.156	0.173	0.015	
32.52	0.375	0.156	0.173	0.031	
32.53	0.375	0.156	0.173	0.047	
330.5	0.375	0.187	0.173	0.008	
331	0.375	0.187	0.173	0.015	
332	0.375	0.187	0.173	0.031	
333	0.375	0.187	0.173	0.047	
430.5	0.500	0.187	0.219	0.008	
431	0.500	0.187	0.219	0.015	
432	0.500	0.187	0.219	0.031	
433	0.500	0.187	0.219	0.047	
43.575	0.500	0.219	0.217	0.118	
124005N-A	0.658	0.488	0.476	0.217	0.020
124005R-B	0.658	0.488	0.476	0.217	0.016
30003	0.433	0.122	0.012	0.173	
40003	0.433	0.162	0.012	0.195	
50003	0.433	0.201	0.012	0.197	
64003	0.433	0.252	0.012	0.208	
100005	0.638	0.388	0.020	0.329	
040004N	1.004	0.158	0.016	0.186	0.236
050000N	0.990	0.199	0.234	0.266	
220.5	0.250	0.094	0.110	0.008	
221	0.250	0.094	0.110	0.015	
222	0.250	0.094	0.110	0.031	
11T304	0.482	0.142	0.110	0.015	0.256
11T308	0.482	0.142	0.110	0.031	0.256
11T312	0.482	0.142	0.110	0.047	0.256
11T316	0.482	0.142	0.110	0.063	0.256
11T408	0.704	0.227	0.173	0.031	0.366
10T3	0.394	0.156	0.173	0.197	
1204	0.472	0.187	0.173	0.236	
2507	0.984	0.312	0.291	0.492	
3209	1.260	0.375	0.374	0.630	
803	0.315	0.125	0.134	0.157	
10T3	0.394	0.156	0.173	0.197	
1204	0.472	0.187	0.173	0.236	
1605	0.630	0.218	0.217	0.315	
2006	0.787	0.250	0.256	0.393	

Turning Inserts

Negative Angle
Rough Machining

						
	CNMG-GR	CNMM-GR	CNMG-BR	CNMG-ZR	DNMG-GR	DNMM-GR
Cutting Edge	12, 16, 19	12, 16, 19, 25	12, 16, 19	25	15	15
SS / DS	SS	DS	SS	DS	SS	DS
Page	1	1	1	1	1	1

							
	DNMG-BR	DNMG-ZR	SNMG-GR	SNMM-BR	SNMG-BR	SNMG-ZR	TNMG-GR
Cutting Edge	15	15	12, 15, 19	12, 15, 19, 25	12, 15, 19	25	16, 22, 27
SS / DS	SS	DS	SS	DS	SS	DS	DS
Page	1	1	1	1	1	1	1

						
	TNMM-GR	TNMG-BR	TNMG-ZR	WNMG-GR	WNMG-BR	WNMG-ZR
Cutting Edge	16, 22, 27	16, 22	06, 08	06, 08	06, 08	
SS / DS	SS	DS	SS	DS	SS	DS
Page	1	1	1	1	1	1

General Chip Breaker

					
	CNMG	DNMG	SNMG	TNMG	VNMG
Cutting Edge	12, 16, 19	12, 19	15, 19	09, 12, 15	09, 12, 15, 25
SS / DS	SS	DS	SS	DS	SS
Page	1	1	1	1	1

Turning Inserts

Negative Angle
Finish Machining

						
	CNMG-GF	CNMG-BF	DNMG-GF	DNMG-BF	SNMG-GF	SNMG-BF
Cutting Edge	09, 12	12, 16	09, 12	09, 12	11, 15	11, 15
SS / DS	SS	DS	SS	DS	SS	DS
Page	1	1	1	1	1	1

						
	TNMG-GF	TNMG-BF	VNMG-GF	VNMG-BF	WNMG-GF	WNMG-BF
Cutting Edge	11, 15	11, 15	16	16	09, 12, 15	09, 12, 15
SS / DS	SS	DS	SS	DS	SS	DS
Page	1	1	1	1	1	1

Semi-Finish Machining

						
	CNMG-GM	CNMG-BM	DNMG-GM	DNMG-BM	SNMG-GM	SNMG-BM
Cutting Edge	09, 12, 16	09, 12, 15, 19	12, 16	09, 12	11, 15	11, 15
SS / DS	SS	DS	SS	DS	SS	DS
Page	1	1	1	1	1	1

						
	TNMG-GM	TNMG-BM	VNMG-GM	VNMG-BB	WNMG-GM	WNMG-BM
Cutting Edge	09, 12, 15	09, 12, 15, 19	12, 16	16	11, 16, 22	16
SS / DS	SS	DS	SS	DS	SS	DS
Page	1	1	1	1	1	1

Turning Inserts

Negative Angle
Rough Machining

						
	CNMG-GR	CNMM-GR	CNMG-BR	CNMG-ZR	DNMG-GR	DNMM-GR
Cutting Edge	12, 16, 19	12, 16, 19, 25	12, 16, 19	25	15	15
SS / DS	SS	DS	SS	DS	SS	DS
Page	1	1	1	1	1	1

							
	DNMG-BR	DNMG-ZR	SNMG-GR	SNMM-BR	SNMG-BR	SNMG-ZR	TNMG-GR
Cutting Edge	15	15	12, 15, 19	12, 15, 19, 25	12, 15, 19	25	16, 22, 27
SS / DS	SS	DS	SS	DS	SS	DS	DS
Page	1	1	1	1	1	1	1

						
	TNMM-GR	TNMG-BR	TNMG-ZR	WNMG-GR	WNMG-BR	WNMG-ZR
Cutting Edge	16, 22, 27	16, 22	06, 08	06, 08	06, 08	
SS / DS	SS	DS	SS	DS	SS	DS
Page	1	1	1	1	1	1

General Chip Breaker

					
	CNMG	DNMG	SNMG	TNMG	VNMG
Cutting Edge	12, 16, 19	12, 19	15, 19	09, 12, 15	09, 12, 15, 25
SS / DS	SS	DS	SS	DS	SS
Page	1	1	1	1	1

Turning Inserts

Negative Angle
Without Chip Breaker

						
	CNMA	DNMA	SNMA	TNMA	WNMA	RNMA
Cutting Edge	12, 16, 19	11, 15	09, 12, 15, 19	09, 12, 16	16, 22, 27	11, 16, 22
SS / DS	SS	DS	SS	DS	SS	DS
Page	1	1	1	1	1	1

Positive Angle
Finish Machining

					
	CCGT-GF	DCGT-GF	SCGT-GF	TCGT-GF	VCGT-GF
Cutting Edge	06, 09, 12	06, 09, 12	07, 11	07, 11	09
SS / DS	SS	DS	SS	DS	SS
Page	1	1	1	1	1

					
	CPGT-GF	DPGT-GF	SPGT-GF	TPGT-GF	VBGT-GF
Cutting Edge	09	06, 09, 11, 16	06, 09, 11, 16	09, 11	11
SS / DS	SS	DS	SS	DS	SS
Page	1	1	1	1	1

Semi-Finish Machining

					
	CCMT-GM	DCMT-GM	SCMT-GM	TCMT-GM	VCMT-GM
Cutting Edge	06, 09, 12	06, 09, 12	07, 11	07, 11	09, 12
SS / DS	SS	DS	SS	DS	SS
Page	1	1	1	1	1

Turning Inserts

Positive Angle
Semi-Finish Machining

					
	CPMT-GM	DPMT-GM	SPMT-GM	TPMT-GM	VBMT-GM
Cutting Edge	09, 12	09, 11, 16	09, 11, 16, 22	09, 11	16
SS / DS	SS	DS	SS	DS	SS
Page	1	1	1	1	1

Aluminum Machining

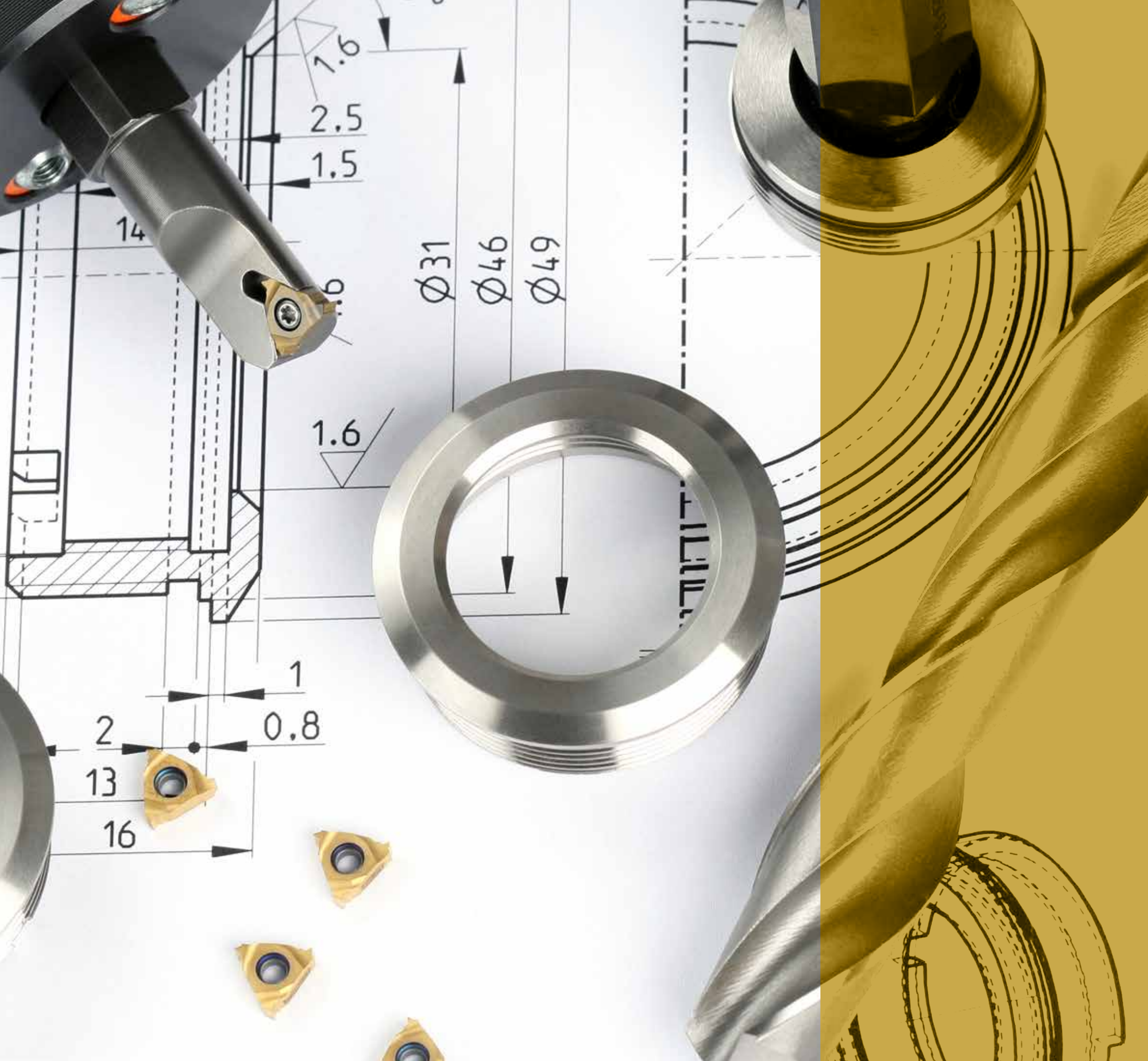
					
	CCGX-AL	DCGX-AL	SCGX-AL	TCGX-AL	VCGX-AL
Cutting Edge	06, 09, 12	07, 11	09, 12	09, 11, 16	16, 22
SS / DS	SS	DS	SS	DS	SS
Page	1	1	1	1	1

General Chip Breaker

				
	CCGW	DCGW	TCGW	CPGW
Cutting Edge	09, 12	07, 11	06, 09, 12	09, 11
SS / DS	SS	DS	SS	DS
Page	1	1	1	1

Without Chip Breaker

				
	CPGW	SPGW	TPGW	VBGW
Cutting Edge	16	09, 12	09, 11, 16, 22	16
SS / DS	SS	DS	SS	DS
Page	1	1	1	1



Turning Inserts

CN	CNMG, CNMM, CNMA	12 - 14
DN	DNMG, DNMM, DNMA	14 - 17
RN	RNMA	17
SN	SNMG, SNMM, SNMA	18 - 21
TN	TNMG, TNMM, TNMA	22 - 24
VN	VNMG	25
WN	WNMG, WNMA	25 - 27

Turning Inserts

Turning Inserts Code System

Code	Insert Shape										
H											
O											
P											
R											
S											
T											
C											
D											
E											
M											
V											
L											
A											
B											
K											
W											
Z	Others										
1. Shape Code		3. Tolerance									

Tolerance					Details of Accuracy (M Class)						
Code	Tolerance on m	Tolerance on I.C	Tolerance on S		Inscribed Circle I.C	Triangle	Square	Rhombus 80	Rhombus 55	Rhombus 35	Round
A	±0.005	±0.025	±0.025	Tolerance on m	6.35	±0.08	±0.08	±0.08	±0.11	±0.16	—
	±0.000	±0.000	±0.000		0	±0.000	±0.00	±0.00	±0.00	±0.00	—
F	±0.005	±0.013	±0.025		9.525	±0.08	±0.08	±0.08	±0.11	±0.16	—
	±0.000	±0.000	±0.000		0	±0.000	±0.00	±0.00	±0.00	±0.00	—
C	±0.013	±0.025	±0.025		12.7	±0.13	±0.13	±0.13	±0.15	—	—
	±0.000	±0.000	±0.000		0	±0.000	±0.00	±0.00	±0.00	—	—
H	±0.013	±0.013	±0.025		15.875	±0.15	±0.15	±0.15	±0.18	—	—
	±0.000	±0.000	±0.000		0	±0.000	±0.00	±0.00	±0.00	—	—
E	±0.025	±0.025	±0.025		19.05	±0.15	±0.15	±0.15	±0.18	—	—
	±0.000	±0.000	±0.000		0	±0.000	±0.00	±0.00	±0.00	—	—
G	±0.025	±0.025	±0.013		25.4	—	±0.18	—	—	—	—
	±0.000	±0.000	±0.000		0	—	±0.00	—	—	—	—
J	±0.005	±0.05 - ±0.13	±0.025	Tolerance on I.C	6.35	±0.05	±0.05	±0.05	±0.05	±0.05	—
	±0.000	±0.000	±0.000		0	±0.000	±0.00	±0.00	±0.00	±0.00	—
K	±0.013	±0.05 - ±0.13	±0.025		9.525	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
	±0.000	±0.000	±0.000		0	±0.000	±0.00	±0.00	±0.00	±0.00	±0.00
L	±0.25	±0.05 - ±0.13	±0.025		12.7	±0.08	±0.08	±0.08	±0.08	—	±0.08
	±0.000	±0.000	±0.000		0	±0.000	±0.00	±0.00	±0.00	—	±0.00
M	±0.08 - ±0.18	±0.05 - ±0.13	±0.013		15.875	±0.10	±0.10	±0.10	±0.10	—	±0.10
	±0.000	±0.000	±0.000		0	±0.000	±0.00	±0.00	±0.00	—	±0.00
N	±0.08 - ±0.18	±0.05 - ±0.13	±0.025		19.05	±0.10	±0.10	±0.10	±0.10	—	±0.10
	±0.000	±0.000	±0.000		0	±0.000	±0.00	±0.00	±0.00	—	±0.00
U	±0.13 - ±0.38	±0.08 - ±0.25	±0.013		25.4	—	±0.13	—	—	—	±0.13
	±0.000	±0.000	±0.000		0	—	±0.00	—	—	—	±0.00

1. 2. 3. 4.
C N M G

2. Back Angle		
Code	Back Angle	
A		3
B		5
C		7
D		15
E		20
F		25
G		30
N		0
P		11
O	Others	

4. Cross Section Type									
Code	Hole	Hole Shape	Chip Breaker	Insert Section	Code	Hole	Hole Shape	Chip Breaker	Insert Section
B	Yes	Cylindrical One Side Chamber (>65°)	No		N	No	—	No	
H	Yes		One Side		R	No	—	One Side	
C	Yes	Cylindrical Two Sides Chamber (>65°)	No		F	No	—	Two Sides	
J	Yes		Two Sides		A	Yes	Cylindrical	No	
W	Yes	Cylindrical One Side Chamber (<65°)	No		M	Yes	Cylindrical	One Side	
T	Yes		One Side		G	Yes	Cylindrical	Two Sides	
Q	Yes	Cylindrical Two Sides Chamber (<65°)	No		X	—	—	—	Special
U	Yes		Two Sides						

Turning Inserts

Turning Inserts Code System

Insert Shape								Inscribed Circle (d) (mm)
C	D	R	S	T	V	W	K	
				06				3.97
		05						5.0
				09				5.56
		06						6.0
06	07			11	11			6.35
		08						8.0
09	11	09	09	16	16	06	16	9.525
		10						10.0
		12						12.0
12	15	12	12	22	22	08		12.7
16		15	15	27				15.875
	19	16						16.0
19		19	19	33				19.05
		20						20.0
25	25	25						25.0
		25	25					25.4
		31						31.75
		32						32
5. Cutting Edge								

Code	Thickness t (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	5.96
T5	5.95
06	6.35
T6	6.75
07	7.94
09	9.52
T9	9.72
11	11.11
12	12.70
6. Thickness	

4 3 2 (inch) 5. 6. 7. 8. 12 04 08 — GM (ISO)

Inscribed Circle Diameter	
Code (in)	Inscribed Circle Diameter (mm)
2	6.35
3	9.525
4	12.7
5	15.875
6	19.05
8	25.4

Thickness	
Code (in)	Thickness (mm)
2	3.18
3	4.76
4	6.35
5	7.94
6	9.52

Nose Radius	
Code (in)	Nose Radius (mm)
0	0.2
1	0.4
2	0.8
3	1.2
4	1.6
5	2.0
6	2.4

7. Nose Radius Code	
Code	Nose Radius (mm)
00	0.0
02	0.2
04	0.4
08	0.8
12	1.2
16	1.6
20	2.0
24	2.4
32	3.2
X	Others
Diameter Mo (Metric)	Round Inserts

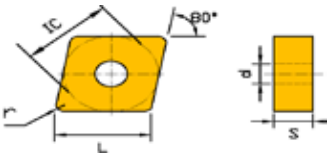
8. Chip Breaker for Turning		
GF	GM	GR
GF	GM	ZR
BF	BM	BR

Turning Inserts

CN

Stocked Standard / Non-stocked

Shape	ANSI	ISO	Dimensions (mm)				Coating																					
			IC	S	d	r	CVD										PVD			Uncoated								
							XK4015	XK4115	XK4025	XK4125	XK4035	XK4135	XK4135	XK3005	XK3105	XK3015	XK3115	XK3025	XK3125	XK2015	XK2025	XK1025	XK1025A	XK1125	XK1225	XK-P101	XK-P401	XK-K001
	CNMG-321-GR	CNMG090304-GR	9.525	3.18	3.81	0.4																						
	CNMG-322-GR	CNMG090308-GR	9.525	3.18	3.81	0.8																						
	CNMG-431-GR	CNMG120404-GR	12.7	4.76	5.16	0.4																						
	CNMG-432-GR	CNMG120408-GR	12.7	4.76	5.16	0.8																						
	CNMG-433-GR	CNMG120412-GR	12.7	4.76	5.16	1.2																						
	CNMM-433-GR	CNMM120412-GR	12.7	4.76	5.16	1.2																						
	CNMM-543-GR	CNMM160612-GR	15.875	6.35	6.35	1.2																						
	CNMM-544-GR	CNMM160616-GR	15.875	6.35	6.35	1.6																						
	CNMM-643-GR	CNMM190612-GR	19.05	6.35	7.94	1.2																						
	CNMM-644-GR	CNMM190616-GR	19.05	6.35	7.94	1.6																						
	CNMM-646-GR	CNMM190624-GR	19.05	6.35	7.94	2.4																						
	CNMM-866-GR	CNMM250924-GR	25.4	9.525	9.12	2.4																						
	CNMG-432-BR	CNMG120408-BR	12.7	4.76	5.16	0.8																						
	CNMG-433-BR	CNMG120412-BR	12.7	4.76	5.16	1.2																						
	CNMG-434-BR	CNMG120416-BR	12.7	4.76	5.16	1.6																						
	CNMG-542-BR	CNMG160608-BR	15.875	6.35	6.35	0.8																						
	CNMG-543-BR	CNMG160612-BR	15.875	6.35	6.35	1.2																						
	CNMG-544-BR	CNMG160616-BR	15.875	6.35	6.35	1.6																						
	CNMG-642-BR	CNMG190608-BR	19.05	6.35	7.94	0.8																						
	CNMG-643-BR	CNMG190612-BR	19.05	6.35	7.94	1.2																						
	CNMG-644-BR	CNMG190616-BR	19.05	6.35	7.94	1.6																						
	CNMG-646-BR	CNMG190624-BR	19.05	6.35	7.94	2.4																						
	CNMG-431-ZR	CNMG120404-ZR	12.7	4.76	5.16	0.4																						
	CNMG-432-ZR	CNMG120408-ZR	12.7	4.76	5.16	0.8																						
	CNMG-433-ZR	CNMG120412-ZR	12.7	4.76	5.16	1.2																						
	CNMG-434-ZR	CNMG120416-ZR	12.7	4.76	5.16	1.6																						
	CNMG-542-ZR	CNMG160608-ZR	0	0	0	0																						
	CNMG-543-ZR	CNMG160612-ZR	15.875	6.35	6.35	1.2																						
	CNMG-544-ZR	CNMG160616-ZR	15.875	6.35	6.35	1.6																						
	CNMG-642-ZR	CNMG190608-ZR	19.05	6.35	7.94	0.8																						
	CNMG-643-ZR	CNMG190612-ZR	19.05	6.35	7.94	1.2																						
	CNMG-644-ZR	CNMG190616-ZR	19.05	6.35	7.94	1.6																						



Material	P	Steel																											
	M	Stainless Steel																											
	K	Cast Iron																											
	N	Non-ferrous Metal																											
	S	Titanium Alloy																											

+ Recommended / General Purpose

Turning Inserts

CN

Stocked Standard / Non-stocked

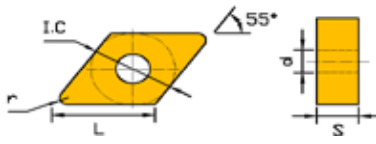
Shape	ANSI	ISO	Dimensions (mm)				Coating																					
			IC	S	d	r	CVD										PVD				Uncoated							
							XK4015	XK4115	XK4025	XK4125	XK4035	XK4135	XK4135	XK3005	XK3105	XK3015	XK3115	XK3025	XK3125	XK2015	XK2025	XK1025	XK1025A	XK1125	XK1225	XK-P101	XK-P401	XK-K001
	CNMG-431	CNMG120404	12.7	4.76	5.16	0.4																						
	CNMG-432	CNMG120408	12.7	4.76	5.16	0.8																						
	CNMG-433	CNMG120412	12.7	4.76	5.16	1.2																						
	CNMG-542	CNMG160608	15.875	6.35	6.35	0.8																						
	CNMG-543	CNMG160612	15.875	6.35	6.35	1.2																						
	CNMG-544	CNMG160616	15.875	6.35	6.35	1.6																						
	CNMG-642	CNMG190608	19.05	6.35	7.94	0.8																						
	CNMG-643	CNMG190612	19.05	6.35	7.94	1.2																						
	CNMG-644	CNMG190616	19.05	6.35	7.94	1.6																						
	CNMA-431	CNMA120404	12.7	4.76	5.16	0.4																						
	CNMA-432	CNMA120408	12.7	4.76	5.16	0.8																						
	CNMA-433	CNMA120412	12.7	4.76	5.16	1.2																						
	CNMA-434	CNMA120416	12.7	4.76	5.16	1.6																						
	CNMA-542	CNMA160608	15.875	6.35	6.35	0.8																						
	CNMA-543	CNMA160612	15.875	6.35	6.35	1.2																						
	CNMA-544	CNMA160616	15.875	6.35	6.35	1.6																						
	CNMA-545	CNMA160620	15.875	6.35	6.35	2.0																						
	CNMA-548	CNMA160630	15.875	6.35	6.35	3.0																						
	CNMA-644	CNMA190612	19.05	6.35	7.94	1.2																						
	CNMA-645	CNMA190616	19.05	6.35	7.94	1.6																						
	CNMG-321-GM	CNMG090304-GM	9.525	3.18	3.81	0.4	●	●					○								●							
	CNMG-322-GM	CNMG090308-GM	9.525	3.18	3.81	0.8	○	●		○			●								●							
	CNMG-431-GM	CNMG120404-GM	12.7	4.76	5.16	0.4	●	●		●			○								●							
	CNMG-432-GM	CNMG120408-GM	12.7	4.76	5.16	0.8	●	●		●			●								●	○						
	CNMG-433-GM	CNMG120412-GM	12.7	4.76	5.16	1.2	○	●		○			○								●							
	CNMG-321-GS	CNMG090304-GS	9.525	3.18	3.81	0.4																						
	CNMG-322-GS	CNMG090308-GS	9.525	3.18	3.81	0.8																						
	CNMG-431-GS	CNMG120404-GS	12.7	4.76	5.16	0.4																						
	CNMG-432-GS	CNMG120408-GS	12.7	4.76	5.16	0.8																						
	CNMG-433-GS	CNMG120412-GS	12.7	4.76	5.16	1.2																						

Turning Inserts

DN

● Stocked Standard
● Non-stocked

Shape	ANSI	ISO	Dimensions (mm)				Coated Carbide																Uncoated		
			IC	S	d	r	CVD												PVD				Uncoated		
							XK4015	XK4115	XK4025	XK4125	XK4035	XK4135	XK4135	XK3005	XK3105	XK3015	XK3115	XK3025	XK3125	XK2015	XK2025	XK1025	XK1025A	XK1125	XK1225
	DNMG-331-GM	DNMG110404-GM	9.525	4.76	3.81	0.4																			
	DNMG-332-GM	DNMG110408-GM	9.525	4.76	3.81	0.8																			
	DNMG-333-GM	DNMG110412-GM	9.525	4.76	3.81	1.2																			
	DNMG-431-GM	DNMG150404-GM	12.7	4.76	5.16	0.4																			
	DNMG-432-GM	DNMG150408-GM	12.7	4.76	5.16	0.8																			
	DNMG-433-GM	DNMG150412-GM	12.7	4.76	5.16	1.2																			
	DNMG-434-GM	DNMG150416-GM	12.7	4.76	5.16	1.6																			
	DNMG-441-GM	DNMG150604-GM	12.7	6.35	5.16	0.4																			
	DNMG-442-GM	DNMG150608-GM	12.7	6.35	5.16	0.8																			
	DNMG-443-GM	DNMG150612-GM	12.7	6.35	5.16	1.2																			
	DNMG-444-GM	DNMG150616-GM	12.7	6.35	5.16	1.6																			
	DNMG-333-BM	DNMG110412-BM	9.525	4.76	3.81	1.2																			
	DNMG-431-BM	DNMG150404-BM	12.7	4.76	5.16	0.4																			
	DNMG-432-BM	DNMG150408-BM	12.7	4.76	5.16	0.8																			
	DNMG-433-BM	DNMG150412-BM	12.7	4.76	5.16	1.2																			
	DNMG-434-BM	DNMG150416-BM	12.7	4.76	5.16	1.6																			
	DNMG-441-BM	DNMG150604-BM	12.7	6.35	5.16	0.4																			
	DNMG-442-BM	DNMG150608-BM	12.7	6.35	5.16	0.8																			
	DNMG-443-BM	DNMG150612-BM	12.7	6.35	5.16	1.2																			
	DNMG-444-BM	DNMG150616-BM	12.7	6.35	5.16	1.6																			
	DNMG-331-GF	DNMG110404-GF	9.525	4.76	3.81	0.4																			
	DNMG-332-GF	DNMG110408-GF	9.525	4.76	3.81	0.8																			
	DNMG-333-GF	DNMG110412-GF	9.525	4.76	3.81	1.2																			
	DNMG-431-GF	DNMG150404-GF	12.7	4.76	5.16	0.4																			
	DNMG-432-GF	DNMG150408-GF	12.7	4.76	5.16	0.8																			
	DNMG-433-GF	DNMG150412-GF	12.7	4.76	5.16	1.2																			
	DNMG-441-GF	DNMG150604-GF	12.7	6.35	5.16	0.4																			
	DNMG-442-GF	DNMG150608-GF	12.7	6.35	5.16	0.8																			
DNMG-443-GF	DNMG150612-GF	12.7	6.35	5.16	1.2																				



Material	P	Steel																					
	M	Stainless Steel																					
	K	Cast Iron																					
	N	Non-ferrous Metal																					
	S	Titanium Alloy																					

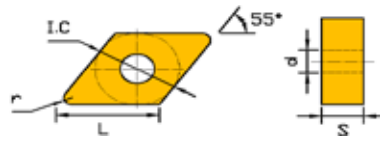
➤ Recommended / ➤ General Purpose

Turning Inserts

DN

● Stocked Standard / ● Non-stocked

Shape	ANSI	ISO	Dimensions (mm)				Coating																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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							XK4015	XK4115	XK4025	XK4125	XK4035	XK4135	XK4135	XK3005	XK3105	XK3015	XK3115	XK3025	XK3125	XK2015	XK2025	XK1025	XK1025A	XK1125	XK1225	XK-P101	XK-P401	XK-K001	XK-K101																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
	DNMG-331-BF	DNMG110404-BF	9.525	4.76	3.81	0.4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								



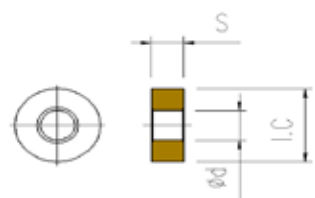
Material	P	Steel																					
	M	Stainless Steel																					
	K	Cast Iron																					
	N	Non-ferrous Metal																					
	S	Titanium Alloy																					

➤ Recommended / ➤ General Purpose

RN

Stocked Standard / Non-stocked

Shape	ANSI	ISO	Dimensions (mm)				Coating																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
			IC	S	d	r	CVD												PVD				Uncoated																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
							XK4015	XK4115	XK4025	XK4125	XK4035	XK4135	XK3005	XK3105	XK3015	XK3115	XK3025	XK3125	XK2015	XK2025	XK1025	XK1025A	XK1125	XK1225	XK-P101	XK-P401	XK-K001	XK-K101																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	RNMA-43	RNMA120400	12.7	4.76	5.16																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												</



Material	P	Steel																					
	M	Stainless Steel																					
	K	Cast Iron																					
	N	Non-ferrous Metal																					
	S	Titanium Alloy																					

➤ Recommended / ➤ General Purpose

Turning Inserts

SN

● Stocked Standard / ● Non-stocked

[illegible]

+ Recommended / ~ General Purpose

Turning Inserts

SN

● Stocked Standard / ● Non-stocked

[illegible]

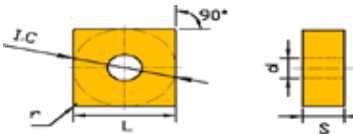
+ Recommended / ~ General Purpose

Turning Inserts

SN

● Stocked Standard / ● Non-stocked

Shape	ANSI	ISO	Dimensions (mm)				Coating																			
			IC	S	d	r	CVD										PVD				Uncoated					
							XK4015	XK4115	XK4025	XK4125	XK4035	XK4135	XK4135	XK3005	XK3105	XK3015	XK3115	XK3025	XK3125	XK2015	XK2025	XK1025	XK1025A	XK1125	XK1225	XK-P101
	SNMG-321	SNMG090304	9.525	3.18	3.81	0.4																				
	SNMG-322	SNMG090308	9.525	3.18	3.81	0.8																				
	SNMG-431	SNMG120404	12.7	4.76	5.16	0.4																				
	SNMG-432	SNMG120408	12.7	4.76	5.16	0.8																				
	SNMG-433	SNMG120412	12.7	4.76	5.16	1.2																				
	SNMG-434	SNMG120416	12.7	4.76	5.16	1.6																				
	SNMG-542	SNMG150608	15.875	6.35	6.35	0.8																				
	SNMG-543	SNMG150612	15.875	6.35	6.35	1.2																				
	SNMG-643	SNMG190612	19.05	6.35	7.94	1.2																				
	SNMG-644	SNMG190616	19.05	6.35	7.94	1.6																				
	SNMG-856	SNMG250724	25.4	7.94	9.12	2.4																				
	SNMG-866	SNMG250924	25.4	7.94	9.12	2.4																				
	SNMA-321	SNMA090304	9.525	3.18	3.81	0.4																				
	SNMA-322	SNMA090308	9.525	3.18	3.81	0.8																				
	SNMA-431	SNMA120404	12.7	4.76	5.16	0.4																				
	SNMA-432	SNMA120408	12.7	4.76	5.16	0.8																				
	SNMA-434	SNMA120416	12.7	4.76	5.16	1.6																				
	SNMA-542	SNMA150608	15.875	6.35	6.35	0.8																				
	SNMA-643	SNMA190612	19.05	6.35	7.94	1.2																				
	SNMA-644	SNMA190616	19.05	6.35	7.94	1.6																				
	SNMG-321-GM	SNMG090304-GM	9.525	3.18	3.81	0.4																				
	SNMG-322-GM	SNMG090308-GM	9.525	3.18	3.81	0.8																				
	SNMG-431-GM	SNMG120404-GM	12.7	4.76	5.16	0.4																				
	SNMG-432-GM	SNMG120408-GM	12.7	4.76	5.16	0.8																				
	SNMG-433-GM	SNMG120412-GM	12.7	4.76	5.16	1.2																				
	SNMG-434-GM	SNMG120416-GM	12.7	4.76	5.16	1.6																				
	SNMG-542-GM	SNMG150608-GM	15.875	6.35	6.35	0.8																				
	SNMG-543-GM	SNMG150612-GM	15.875	6.35	6.35	1.2																				
	SNMG-544-GM	SNMG150616-GM	15.875	6.35	6.35	1.6																				
	SNMG-643-GM	SNMG190612-GM	19.05	6.35	7.94	1.2																				
	SNMG-644-GM	SNMG190616-GM	19.05	6.35	7.94	1.6																				

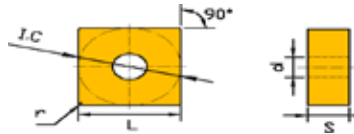
[illegible]

+ Recommended / ~ General Purpose

Turning Inserts

SN

● Stocked Standard / ● Non-stocked

[illegible][illegible]

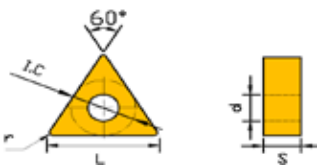
+ Recommended / ~ General Purpose

Turning Inserts

TN

● Stocked Standard / ● Non-stocked

Shape	ANSI	ISO	Dimensions (mm)				Coating																					
			IC	S	d	r	CVD												PVD		Uncoated							
							XK4015	XK4115	XK4025	XK4125	XK4035	XK4135	XK4135	XK3005	XK3105	XK3015	XK3115	XK3025	XK3125	XK2015	XK2025	XK1025	XK1025A	XK1125	XK1225	XK-P101	XK-P401	XK-K001
	TNMG-332-GR	TNMG160408-GR	9.525	4.76	3.81	0.8																						
	TNMG-333-GR	TNMG160412-GR	9.525	4.76	3.81	1.2																						
	TNMG-432-GR	TNMG220408-GR	12.7	4.76	5.16	0.8																						
	TNMG-433-GR	TNMG220412-GR	12.7	4.76	5.16	1.2																						
	TNMG-434-GR	TNMG220416-GR	12.7	4.76	5.16	1.6																						
	TNMG-542-GR	TNMG270608-GR	15.875	6.35	6.35	0.8																						
	TNMG-543-GR	TNMG270612-GR	15.875	6.35	6.35	1.2																						
	TNMG-544-GR	TNMG270616-GR	15.875	6.35	6.35	1.6																						
	TNMM-332-GR	TNMM160408-GR	9.525	4.76	3.81	0.8																						
	TNMM-333-GR	TNMM160412-GR	9.525	4.76	3.81	1.2																						
	TNMM-432-GR	TNMM220408-GR	12.7	4.76	5.16	0.8																						
	TNMM-433-GR	TNMM220412-GR	12.7	4.76	5.16	1.2																						
	TNMM-434-GR	TNMM220416-GR	12.7	4.76	5.16	1.6																						
	TNMM-533-GR	TNMM270412-GR	15.875	4.76	6.35	1.2																						
	TNMM-534-GR	TNMM270416-GR	15.875	4.76	6.35	1.6																						
	TNMM-543-GR	TNMM270612-GR	15.875	6.35	6.35	1.2																						
	TNMM-544-GR	TNMM270616-GR	15.875	6.35	6.35	1.6																						
	TNMM-332-BR	TNMM160408-BR	9.525	4.76	3.81	0.8																						
TNMM-333-BR	TNMM160412-BR	9.525	4.76	3.81	1.2																							
	TNMG-332-ZR	TNMG160408-ZR	9.525	4.76	3.81	0.8																						
	TNMG-333-ZR	TNMG160412-ZR	9.525	4.76	3.81	1.2																						
	TNMG-432-ZR	TNMG220408-ZR	12.7	4.76	5.16	0.8																						
	TNMG-433-ZR	TNMG220412-ZR	12.7	4.76	5.16	1.2																						
	TNMG-434-ZR	TNMG220416-ZR	12.7	4.76	5.16	1.6																						



Material	P	Steel																										
	M	Stainless Steel																										
	K	Cast Iron																										
	N	Non-ferrous Metal																										
	S	Titanium Alloy																										

+ Recommended / - General Purpose

Turning Inserts

TN

● Stocked Standard / ● Non-stocked

Shape	ANSI	ISO	Dimensions (mm)				Coating																					
			IC	S	d	r	CVD												PVD		Uncoated							
							XK4015	XK4115	XK4025	XK4125	XK4035	XK4135	XK4135	XK3005	XK3105	XK3015	XK3115	XK3025	XK3125	XK2015	XK2025	XK1025	XK1025A	XK1125	XK1225	XK-P101	XK-P401	XK-K001
	TNMA-331	TNMA160404	9.525	4.76	3.81	0.4																						
	TNMA-332	TNMA160408	9.525	4.76	3.81	0.8																						
	TNMA-333	TNMA160412	9.525	4.76	3.81	1.2																						
	TNMA-334	TNMA160416	9.525	4.76	3.81	1.6																						
	TNMA-431	TNMA220404	12.7	4.76	5.16	0.4																						
	TNMA-432	TNMA220408	12.7	4.76	5.16	0.8																						
	TNMA-544	TNMA270616	15.875	6.35	6.35	1.6																						
	TNMG-222	TNMG110308	6.35	3.18	2.26	0.8																						
	TNMG-331	TNMG160404	9.525	4.76	3.81	0.4																						
	TNMG-332	TNMG160408	9.525	4.76	3.81	0.8																						
	TNMG-333	TNMG160412	9.525	4.76	3.81	1.2																						
	TNMG-431	TNMG220404	12.7	4.76	5.16	0.4																						
	TNMG-432	TNMG220408	12.7	4.76	5.16	0.8																						
	TNMG-433	TNMG220412	12.7	4.76	5.16	1.2																						
	TNMG-434	TNMG220416	12.7	4.76	5.16	1.6																						
	TNMG-543	TNMG270612	15.875	6.35	6.35	1.2																						
	TNMG-544	TNMG270616	15.875	6.35	6.35	1.6																						
	TNMG-654	TNMG330916	19.05	9.525	7.94	1.6																						
	TNMG-656	TNMG330924	19.05	9.525	7.94	2.4																						
	TNMG-221-GM	TNMG110304-GM	6.35	3.18	2.26	0.4																						
	TNMG-222-GM	TNMG110308-GM	6.35	3.18	2.26	0.8																						
	TNMG-331-GM	TNMG160404-GM	9.525	4.76	3.81	0.4																						
	TNMG-332-GM	TNMG160408-GM	9.525	4.76	3.81	0.8																						
	TNMG-333-GM	TNMG160412-GM	9.525	4.76	3.81	1.2																						
	TNMG-432-GM	TNMG220408-GM	12.7	4.76	5.16	0.8																						
	TNMG-433-GM	TNMG220412-GM	12.7	4.76	5.16	1.2																						
	TNMG-434-GM	TNMG220416-GM	12.7	4.76	5.16	1.6																						



Material	P	Steel																										
	M	Stainless Steel																										
	K	Cast Iron																										
	N	Non-ferrous Metal																										
	S	Titanium Alloy																										

+ Recommended / - General Purpose

Turning Inserts

TN

● Stocked Standard / ● Non-stocked

Shape	ANSI	ISO	Dimensions (mm)				Coating																			
			IC	S	d	r	CVD										PVD			Uncoated						
							XK4015	XK4115	XK4025	XK4125	XK4035	XK4135	XK4135	XK3005	XK3105	XK3015	XK3115	XK3025	XK3125	XK2015	XK2025	XK1025	XK1025A	XK1125	XK1225	XK-P101
	TNMG-331-GS	TNMG160404-GS	9.525	4.76	3.81	0.4																				
	TNMG-332-GS	TNMG160408-GS	9.525	4.76	3.81	0.8																				
	TNMG-333-GS	TNMG160412-GS	9.525	4.76	3.81	1.2																				
	TNMG-432-GS	TNMG220408-GS	12.7	4.76	5.16	0.8																				
	TNMG-433-GS	TNMG220412-GS	12.7	4.76	5.16	1.2																				
	TNMG-434-GS	TNMG220416-GS	12.7	4.76	5.16	1.6																				
	TNMG-221-BM	TNMG110304-BM	6.35	3.18	2.26	0.4																				
	TNMG-222-BM	TNMG110308-BM	6.35	3.18	2.26	0.8																				
	TNMG-331-BM	TNMG160404-BM	9.525	4.76	3.81	0.4																				
	TNMG-332-BM	TNMG160408-BM	9.525	4.76	3.81	0.8																				
	TNMG-333-BM	TNMG160412-BM	9.525	4.76	3.81	1.2																				
	TNMG-432-BM	TNMG220408-BM	12.7	4.76	5.16	0.8																				
	TNMG-433-BM	TNMG220412-BM	12.7	4.76	5.16	1.2																				
	TNMG-434-BM	TNMG220416-BM	12.7	4.76	5.16	1.6																				
	TNMG-331-GF	TNMG160404-GF	9.525	4.76	3.81	0.4																				
	TNMG-332-GF	TNMG160408-GF	9.525	4.76	3.81	0.8																				
	TNMG-333-GF	TNMG160412-GF	9.525	4.76	3.81	1.2																				
	TNMG-432-GF	TNMG220408-GF	12.7	4.76	5.16	0.8																				
	TNMG-433-GF	TNMG220412-GF	12.7	4.76	5.16	1.2																				
	TNMG-221-BF	TNMG110304-BF	6.35	3.18	2.26	0.4																				
	TNMG-222-BF	TNMG110308-BF	6.35	3.18	2.26	0.8																				
	TNMG-331-BF	TNMG160404-BF	9.525	4.76	3.81	0.4																				
	TNMG-332-BF	TNMG160408-BF	9.525	4.76	3.81	0.8																				
	TNMG-333-BF	TNMG160412-BF	9.525	4.76	3.81	1.2																				
	TNMG-431-BF	TNMG220404-BF	12.7	4.76	5.16	0.4																				
	TNMG-432-BF	TNMG220408-BF	12.7	4.76	5.16	0.8																				
	TNMG-433-BF	TNMG220412-BF	12.7	4.76	5.16	1.2																				

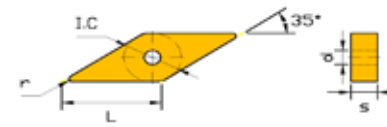
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+ Recommended / ~ General Purpose

Turning Inserts

VN

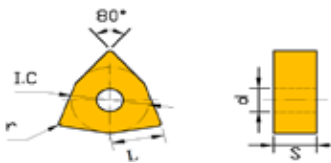
● Stocked Standard / ● Non-stocked

[illegible][illegible]

+ Recommended / ~ General Purpose

WN

● Stocked Standard / ● Non-stocked

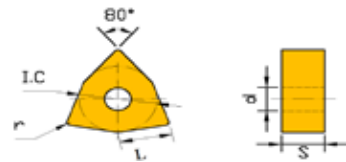
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+ Recommended / ~ General Purpose

Turning Inserts

WN

● Stocked Standard / ● Non-stocked

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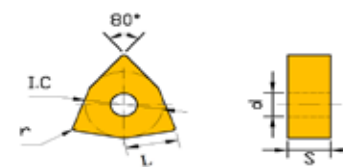
+ Recommended / ~ General Purpose

Turning Inserts

WN

● Stocked Standard / ● Non-stocked

Shape	ANSI	ISO	Dimensions (mm)				Coating																			
			IC	S	d	r	CVD												PVD			Uncoated				
							XK4015	XK4115	XK4025	XK4125	XK4035	XK4135	XK4135	XK3005	XK3105	XK3015	XK3115	XK3025	XK3125	XK2015	XK2025	XK1025	XK1025A	XK1125	XK1225	XK-P101
	WNMG-332-GM	WNMG060408-GM	9.525	4.76	3.81	0.8																				
	WNMG-333-GM	WNMG060412-GM	9.525	4.76	3.81	1.2																				
	WNMG-431-GM	WNMG080404-GM	12.7	4.76	5.16	0.4																				
	WNMG-432-GM	WNMG080408-GM	12.7	4.76	5.16	0.8																				
	WNMG-433-GM	WNMG080412-GM	12.7	4.76	5.16	1.2																				
	WNMG-434-GM	WNMG080416-GM	12.7	4.76	5.16	1.6																				
	WNMG-442-GM	WNMG080608-GM	12.7	6.35	5.16	0.8																				
	WNMG-32.51-BM	WNMG06T304-BM	9.525	3.97	3.81	0.4																				
	WNMG-32.52-BM	WNMG06T308-BM	9.525	3.97	3.81	0.8																				
	WNMG-32.53-BM	WNMG06T312-BM	9.525	3.97	3.81	1.2																				
	WNMG-331-BM	WNMG060404-BM	9.525	4.76	3.81	0.4																				
	WNMG-332-BM	WNMG060408-BM	9.525	4.76	3.81	0.8																				
	WNMG-431-BM	WNMG080404-BM	12.7	4.76	5.16	0.4																				
	WNMG-432-BM	WNMG080408-BM	12.7	4.76	5.16	0.8																				
	WNMG-433-BM	WNMG080412-BM	12.7	4.76	5.16	1.2																				
		WNMG-32.51-GF	WNMG06T304-GF	9.525	3.97	3.81	0.4																			
WNMG-32.52-GF		WNMG06T308-GF	9.525	3.97	3.81	0.8																				
WNMG-32.53-GF		WNMG06T312-GF	9.525	3.97	3.81	1.2																				
WNMG-331-GF		WNMG060404-GF	9.525	4.76	3.81	0.4																				
WNMG-332-GF		WNMG060408-GF	9.525	4.76	3.81	0.8																				
WNMG-333-GF		WNMG060412-GF	9.525	4.76	3.81	1.2																				
WNMG-431-GF		WNMG080404-GF	12.7	4.76	5.16	0.4																				
WNMG-432-GF		WNMG080408-GF	12.7	4.76	5.16	0.8																				
WNMG-433-GF		WNMG080412-GF	12.7	4.76	5.16	1.2																				
	WNMG-32.51-BF	WNMG06T304-BF	9.525	3.97	3.81	0.4																				
	WNMG-32.52-BF	WNMG06T308-BF	9.525	3.97	3.81	0.8																				
	WNMG-32.53-BF	WNMG06T312-BF	9.525	3.97	3.81	1.2																				
	WNMG-331-BF	WNMG060404-BF	9.525	4.76	3.81	0.4																				
	WNMG-332-BF	WNMG060408-BF	9.525	4.76	3.81	0.8																				
	WNMG-431-BF	WNMG080404-BF	12.7	4.76	5.16	0.4																				
	WNMG-432-BF	WNMG080408-BF	12.7	4.76	5.16	0.8																				

[illegible]

+ Recommended / ~ General Purpose

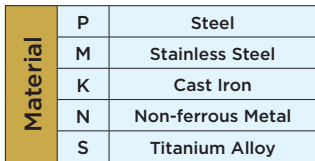


Positive Angle Inserts

CC	CCGT, CCMT, CCGX, CCMW	32 - 33
DC	DCGT, DCMT, DCGX, DCGW	33 - 34
SC	SCGT, SCMT, SCGX, SCGW	34 - 35
TC	TCGT, TCMT, TCGX, TCGW	36 - 37
VC	VCGT, VCMT, VCGX, VCGW	37
CP	CPGT, CPMT, CPGW	38
DP	DPGT, DPMT, DPGW	38
SP	SPGT, SPMT, SPGW	39
TP	TPGT, TPMT	39
VB	VBGT, VBMT, VBGW	40

Positive Angle Inserts

● Stocked Standard / ● Non-stocked

[illegible]

+ Recommended / ~ General Purpose

- Stocked Standard / ● Non-stocked

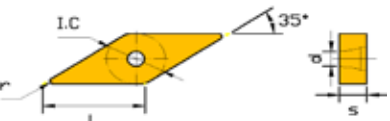


+ Recommended / ~ General Purpose

Positive Angle Inserts

VB

● Stocked Standard / ● Non-stocked

Shape	ANSI	ISO	Dimensions (mm)				Coating																						
			IC	S	d	r	CVD										PVD		Uncoated										
							XK4015	XK4115	XK4025	XK4125	XK4035	XK4135	XK4135	XK3005	XK3105	XK3015	XK3115	XK3025	XK3125	XK2015	XK2025	XK1025	XK1025A	XK1125	XK1225	XK-P101	XK-P401	XK-K001	XK-K101
	VBGT-21.50.5-GF	VBGT110202-GF	6.35	2.38	2.8	0.2																							
	VBGT-21.51-GF	VBGT110204-GF	6.35	2.38	2.8	0.4																							
	VBGT-21.52-GF	VBGT110208-GF	6.35	2.38	2.8	0.8																							
	VCMT-331-GM	VCMT160404-GM	9.525	4.76	4.4	0.4																							
	VCMT-332-GM	VCMT160408-GM	9.525	4.76	4.4	0.8																							
	VCMT-333-GM	VCMT160412-GM	9.525	4.76	4.4	1.2																							
	VBGW-331	VBGW160404	9.525	4.76	4.4	0.4																							
	VBGW-332	VBGW160408	9.525	4.76	4.4	0.8																							
			Material	P	Steel																								
				M	Stainless Steel																								
				K	Cast Iron																								
				N	Non-ferrous Metal																								
				S	Titanium Alloy																								

+ Recommended / - General Purpose



Threading Inserts

CC	CCGT, CCMT, CCGX, CCMW	32 - 33
DC	DCGT, DCMT, DCGX, DCGW	33 - 34
SC	SCGT, SCMT, SCGX, SCGW	34 - 35
TC	TCGT, TCMT, TCGX, TCGW	36 - 37
VC	VCGT, VCMT, VCGX, VCGW	37
CP	CPGT, CPMT, CPGW	38
DP	DPGT, DPMT, DPGW	38
SP	SPGT, SPMT, SPGW	39
TP	TPGT, TPMT	39
VB	VBGT, VBMT, VBGW	40

Turning Inserts Code System



Hand of Tools	
R	Right Hand
L	Left Hand

Insert Shape	
 T	Others Z

Insert Size	
22	diameter = 12.7
16	diameter = 9.525
11	diameter = 6.35

Number of Cutting Edge Teeth	
01	Number of Teeth per Cutting Edge

Cutting Type	
W	External
N	Internal

Pitch		
Full Profile		
mm		TPI
0.35 - 9.0		72 - 2
Partial Profile		
	mm	TPI
A	0.5 - 1.5	48 - 16
AG	0.5 - 3.0	48 - 8
G	1.75 - 3.0	14 - 8
N	3.5 - 5.0	7 - 5
Q	5.5 - 6.0	41 / 2 - 4
Standard		
GM		
60		
55		
W		
UN		
BSPT		
NPT		

ISO METRIC THREAD INSERT WITH A SHOULDER

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

● Stocked Standard / ● Non-stocked

Type			Dimensions (mm)				Grade JT 1020	
External Threading	Right Hand Type	Left Hand Type	Pitch	S	I.C	d	R	L
	RT16.01W-1.00GM	LT16.01W-1.00GM	1.00	3.97	9.525	4.4	●	●
	RT16.01W-1.25GM	LT16.01W-1.25GM	1.25	3.97	9.525	4.4	●	●
	RT16.01W-1.50GM	LT16.01W-1.50GM	1.50	3.97	9.525	4.4	●	●
	RT16.01W-1.75GM	LT16.01W-1.75GM	1.75	3.97	9.525	4.4	●	●
	RT16.01W-2.00GM	LT16.01W-2.00GM	2.00	3.97	9.525	4.4	●	●
	RT16.01W-2.50GM	LT16.01W-2.50GM	2.50	3.97	9.525	4.4	●	●
	RT16.01W-3.00GM	LT16.01W-3.00GM	3.00	3.97	9.525	4.4	●	●
	RT22.01W-3.50GM	LT22.01W-3.50GM	3.50	5.56	12.7	5.5	●	●
	RT22.01W-4.00GM	LT22.01W-4.00GM	4.00	5.56	12.7	5.5	●	●
	RT22.01W-4.50GM	LT22.01W-4.50GM	4.50	5.56	12.7	5.5	●	●
	RT22.01W-5.00GM	LT22.01W-5.00GM	5.00	5.56	12.7	5.5	●	●
	RT22.01W-5.50GM	LT22.01W-5.50GM	5.50	5.56	12.7	5.5	●	●
	RT22.01W-6.00GM	LT22.01W-6.00GM	6.00	5.56	12.7	5.5	●	●

ISO METRIC THREAD INSERT WITH A SHOULDER

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

● Stocked Standard
 / ● Non-stocked

Type			Dimensions (mm)				Grade JT 1020	
Internal Threading	Right Hand Type	Left Hand Type	Pitch	S	I.C	d	R	L
	RT11.01N-1.00GM	LT11.01N-1.00GM	1.00	3.18	6.35	2.8	●	●
	RT11.01N-1.25GM	LT11.01N-1.25GM	1.25	3.18	6.35	2.8	●	●
	RT11.01N-1.50GM	LT11.01N-1.50GM	1.50	3.18	6.35	2.8	●	●
	RT11.01N-1.75GM	LT11.01N-1.75GM	1.75	3.18	6.35	2.8	●	●
	RT11.01N-2.00GM	LT11.01N-2.00GM	2.00	3.18	6.35	2.8	●	●
	RT16.01N-1.00GM	LT16.01N-1.00GM	1.00	3.97	9.525	4.4	●	●
	RT16.01N-1.25GM	LT16.01N-1.25GM	1.25	3.97	9.525	4.4	●	●
	RT16.01N-1.50GM	LT16.01N-1.50GM	1.50	3.97	9.525	4.4	●	●
	RT16.01N-1.75GM	LT16.01N-1.75GM	1.75	3.97	9.525	4.4	●	●
	RT16.01N-2.00GM	LT16.01N-2.00GM	2.00	3.97	9.525	4.4	●	●
	RT16.01N-2.50GM	LT16.01N-2.50GM	2.50	3.97	9.525	4.4	●	●
	RT16.01N-3.00GM	LT16.01N-3.00GM	3.00	3.97	9.525	4.4	●	●
	RT22.01N-3.50GM	LT22.01N-3.50GM	3.50	5.56	12.7	5.5	●	●
	RT22.01N-4.00GM	LT22.01N-4.00GM	4.00	5.56	12.7	5.5	●	●
	RT22.01N-4.50GM	LT22.01N-4.50GM	4.50	5.56	12.7	5.5	●	●
	RT22.01N-5.00GM	LT22.01N-5.00GM	5.00	5.56	12.7	5.5	●	●
	RT22.01N-5.50GM	LT22.01N-5.50GM	5.50	5.56	12.7	5.5	●	●
	RT22.01N-6.00GM	LT22.01N-6.00GM	6.00	5.56	12.7	5.5	●	●

GENERAL PITCH THREADING INSERT WITHOUT A SHOULDER

● Stocked Standard / ● Non-stocked

Type				Dimensions (mm)					Grade JT 1020	
External Threading	60°	Right Hand Type	Left Hand Type	Pitch	S	I.C	d	a°	R	L
		RT16.01W-A60	LT16.01W-A60	0.5-1.5 (48-16)	3.97	9.525	4.4	60°	●	●
		RT16.01W-G60	LT16.01W-G60	1.75-3.0 (14-8)	3.97	9.525	4.4	60°	●	●
		RT16.01W-G60P*	LT16.01W-G60P*	1.75-3.0 (14-8)	3.97	9.525	4.4	60°	●	●
		RT16.01W-AG60	LT16.01W-AG60	0.5-3.0 (48-8)	3.97	9.525	4.4	60°	●	●
		RT22.01W-N60	LT22.01W-N60	3.5-5.0 (7-5)	5.56	12.7	5.5	60°	●	●
	50°	RT16.01W-A55	LT16.01W-A55	0.5-1.5 (48-16)	3.97	9.525	4.4	50°	●	●
		RT16.01W-G55	LT16.01W-G55	1.75-3.0 (14-8)	3.97	9.525	4.4	50°	●	●
		RT16.01W-G55P*	LT16.01W-G55P*	1.75-3.0 (14-8)	3.97	9.525	4.4	50°	●	●
		RT16.01W-AG55	LT16.01W-AG55	0.5-3.0 (48-8)	3.97	9.525	4.4	50°	●	●
		RT22.01W-N55	LT22.01W-N55	3.5-5.0 (7-5)	5.56	12.7	5.5	50°	●	●

● Stocked Standard / ● Non-stocked

Type				Dimensions (mm)					Grade JT 1020	
Internal Threading	60°	Right Hand Type	Left Hand Type	Pitch	S	I.C	d	a°	R	L
		RT16.01N-A60	LT16.01N-A60	0.5-1.5 (48-16)	3.97	9.525	4.4	60°	●	●
		RT16.01N-G60	LT16.01N-G60	1.75-3.0 (14-8)	3.97	9.525	4.4	60°	●	●
		RT16.01N-G60P*	LT16.01N-G60P*	1.75-3.0 (14-8)	3.97	9.525	4.4	60°	●	●
		RT16.01N-AG60	LT16.01N-AG60	0.5-3.0 (48-8)	3.97	9.525	4.4	60°	●	●
		RT22.01N-N60	LT22.01N-N60	3.5-5.0 (7-5)	5.56	12.7	5.5	60°	●	●
	50°	RT16.01N-A55	LT16.01N-A55	0.5-1.5 (48-16)	3.97	9.525	4.4	50°	●	●
		RT16.01N-G55	LT16.01N-G55	1.75-3.0 (14-8)	3.97	9.525	4.4	50°	●	●
		RT16.01N-G55P*	LT16.01N-G55P*	1.75-3.0 (14-8)	3.97	9.525	4.4	50°	●	●
		RT16.01N-AG55	LT16.01N-AG55	0.5-3.0 (48-8)	3.97	9.525	4.4	50°	●	●
		RT22.01N-N55	LT22.01N-N55	3.5-5.0 (7-5)	5.56	12.7	5.5	50°	●	●

WHITWORTH THREAD INSERT WITH A SHOULDER

ISO 228/1:1982
DIN 259
B.S. 84:1956
Class of Tolerances: Medium Class A

● Stocked Standard / ● Non-stocked

Type			Dimensions (mm)				Grade JT 1020	
External Threading	Right Hand Type	Left Hand Type	Pitch	S	I.C	d	R	L
	RT16.01W-8W	LT16.01W-8W	8	3.97	9.525	4.4	●	●
	RT16.01W-9W	LT16.01W-9W	9	3.97	9.525	4.4	●	●
	RT16.01W-10W	LT16.01W-10W	10	3.97	9.525	4.4	●	●
	RT16.01W-11W	LT16.01W-11W	11	3.97	9.525	4.4	●	●
	RT16.01W-12W	LT16.01W-12W	12	3.97	9.525	4.4	●	●
	RT16.01W-14W	LT16.01W-14W	14	3.97	9.525	4.4	●	●
	RT16.01W-16W	LT16.01W-16W	16	3.97	9.525	4.4	●	●

● Stocked Standard / ● Non-stocked

Type			Dimensions (mm)				Grade JT 1020	
Internal Threading	Right Hand Type	Left Hand Type	Pitch	S	I.C	d	R	L
	RT16.01W-8W	LT16.01W-8W	8	3.97	9.525	4.4	●	●
	RT16.01W-9W	LT16.01W-9W	9	3.97	9.525	4.4	●	●
	RT16.01W-10W	LT16.01W-10W	10	3.97	9.525	4.4	●	●
	RT16.01W-11W	LT16.01W-11W	11	3.97	9.525	4.4	●	●
	RT16.01W-12W	LT16.01W-12W	12	3.97	9.525	4.4	●	●
	RT16.01W-14W	LT16.01W-14W	14	3.97	9.525	4.4	●	●
	RT16.01W-16W	LT16.01W-16W	16	3.97	9.525	4.4	●	●

UNIFIED THREAD INSERT WITH A SHOULDER

ASME B1.1-1989
Class of Tolerances: 2A/2B

● Stocked Standard / ● Non-stocked

Type			Dimensions (mm)				Grade JT 1020	
External Threading	Right Hand Type	Left Hand Type	Pitch	S	I.C	d	R	L
	RT16.01W-8UN	LT16.01W-8UN	8	3.97	9.525	4.4	●	●
	RT16.01W-10UN	LT16.01W-10UN	10	3.97	9.525	4.4	●	●
	RT16.01W-12UN	LT16.01W-12UN	12	3.97	9.525	4.4	●	●
	RT16.01W-14UN	LT16.01W-14UN	14	3.97	9.525	4.4	●	●
	RT16.01W-16UN	LT16.01W-16UN	16	3.97	9.525	4.4	●	●
	RT16.01W-18UN	LT16.01W-18UN	18	3.97	9.525	4.4	●	●
	RT16.01W-20UN	LT16.01W-20UN	20	3.97	9.525	4.4	●	●

● Stocked Standard / ● Non-stocked

Type			Dimensions (mm)				Grade JT 1020	
Internal Threading	Right Hand Type	Left Hand Type	Pitch	S	I.C	d	R	L
	RT16.01N-8UN	LT16.01N-8UN	8	3.97	9.525	4.4	●	●
	RT16.01N-10UN	LT16.01N-10UN	10	3.97	9.525	4.4	●	●
	RT16.01N-12UN	LT16.01N-12UN	12	3.97	9.525	4.4	●	●
	RT16.01N-14UN	LT16.01N-14UN	14	3.97	9.525	4.4	●	●
	RT16.01N-16UN	LT16.01N-16UN	16	3.97	9.525	4.4	●	●
	RT16.01N-18UN	LT16.01N-18UN	18	3.97	9.525	4.4	●	●
	RT16.01N-20UN	LT16.01N-20UN	20	3.97	9.525	4.4	●	●

BRITISH STANDARD TAPER PIPE THREAD INSERT WITH A SHOULDER

ISO 7/1:1994
B.S. 21:1985
Standard BSPT

● Stocked Standard / ● Non-stocked

Type			Dimensions (mm)				Grade JT 1020	
External Threading	Right Hand Type	Left Hand Type	Pitch	S	I.C	d	R	L
	RT16.01W-11BSPT	LT16.01W-11BSPT	11	3.97	9.525	4.4	●	●
	RT16.01W-14BSPT	LT16.01W-14BSPT	14	3.97	9.525	4.4	●	●
	RT16.01W-19BSPT	LT16.01W-19BSPT	19	3.97	9.525	4.4	●	●
	RT16.01W-28BSPT	LT16.01W-28BSPT	28	3.97	9.525	4.4	●	●

● Stocked Standard / ● Non-stocked

Type			Dimensions (mm)				Grade JT 1020	
Internal Threading	Right Hand Type	Left Hand Type	Pitch	S	I.C	d	R	L
	RT16.01N-11BSPT	LT16.01N-11BSPT	11	3.97	9.525	4.4	●	●
	RT16.01N-14BSPT	LT16.01N-14BSPT	14	3.97	9.525	4.4	●	●
	RT16.01N-19BSPT	LT16.01N-19BSPT	19	3.97	9.525	4.4	●	●
	RT16.01N-28BSPT	LT16.01N-28BSPT	28	3.97	9.525	4.4	●	●

NPT AMERICAN STANDARD TAPER PIPE THREAD WITH A SHOULDER

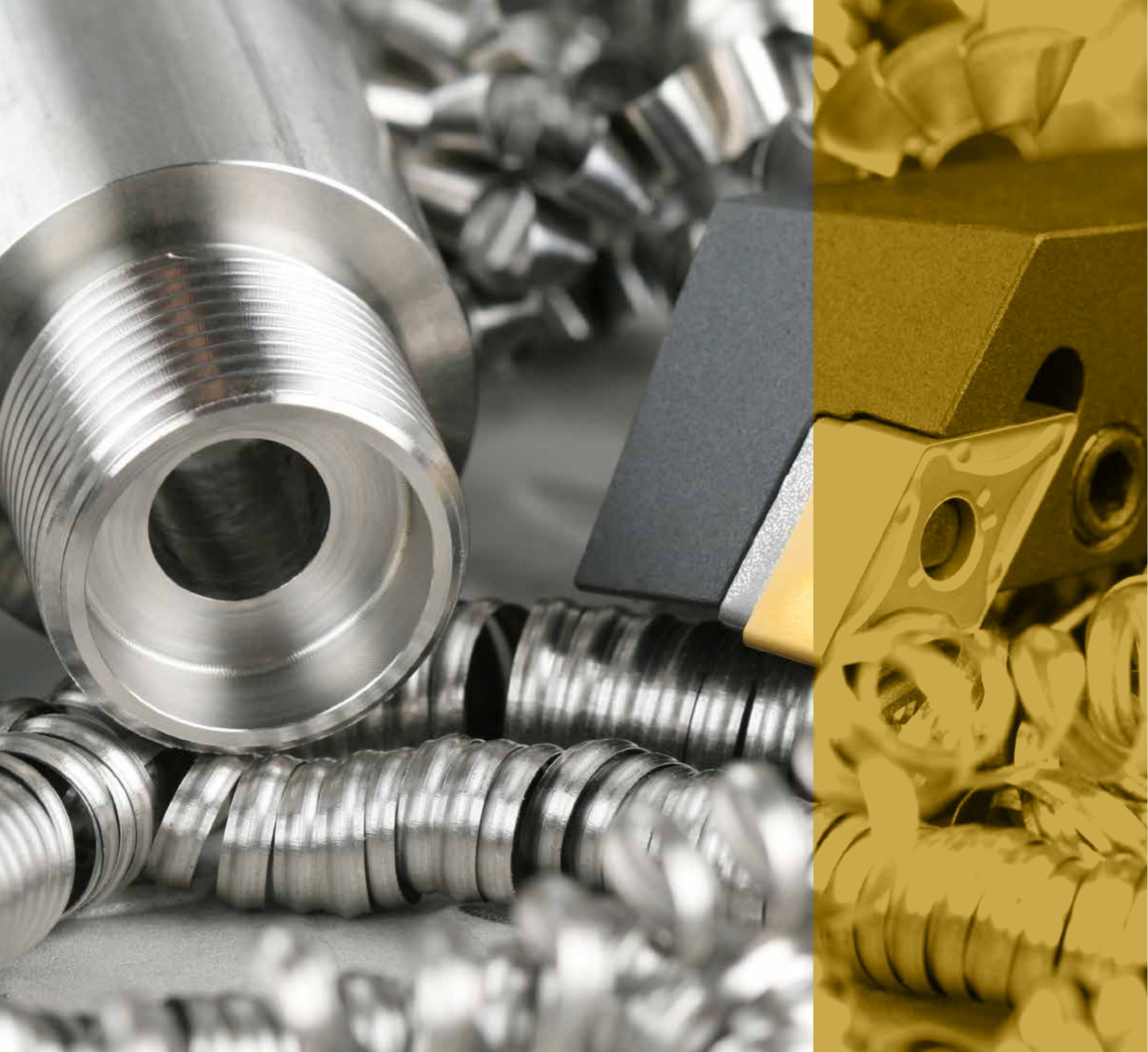
ASME B1.20.1-1983
Standard NPT

● Stocked Standard / ● Non-stocked

Type			Dimensions (mm)				Grade JT 1020	
External Threading	Right Hand Type	Left Hand Type	Pitch	S	I.C	d	R	L
	RT16.01W-8NPT	LT16.01W-8NPT	8	3.97	9.525	4.4	●	●
	RT16.01W-11.5NPT	LT16.01W-11.5NPT	11.5	3.97	9.525	4.4	●	●
	RT16.01W-14NPT	LT16.01W-14NPT	14	3.97	9.525	4.4	●	●
	RT16.01W-18NPT	LT16.01W-18NPT	18	3.97	9.525	4.4	●	●
	RT16.01W-27NPT	LT16.01W-27NPT	27	3.97	9.525	4.4	●	●

● Stocked Standard / ● Non-stocked

Type			Dimensions (mm)				Grade JT 1020	
Internal Threading	Right Hand Type	Left Hand Type	Pitch	S	I.C	d	R	L
	RT16.01N-8NPT	LT16.01N-8NPT	8	3.97	9.525	4.4	●	●
	RT16.01N-11.5NPT	LT16.01N-11.5NPT	11.5	3.97	9.525	4.4	●	●
	RT16.01N-14NPT	LT16.01N-14NPT	14	3.97	9.525	4.4	●	●
	RT16.01N-18NPT	LT16.01N-18NPT	18	3.97	9.525	4.4	●	●
	RT16.01N-27NPT	LT16.01N-27NPT	27	3.97	9.525	4.4	●	●



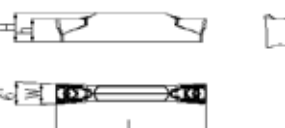
Cutoff & Grooving Inserts

QD	QDMA, QDMB	26 - 27
QC	QCMB	27 - 28
QF	QFMB	28

Cutoff & Grooving Inserts

QC

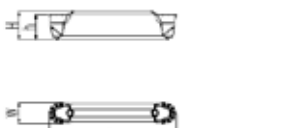
Stocked Standard / Non-stocked

Shape	ISO	Dimensions (mm)					Coating																					
		L	W	r	h	H	CVD										PVD		Uncoated									
							XK4015	XK4115	XK4025	XK4125	XK4035	XK4135	XK4135	XK3005	XK3105	XK3015	XK3115	XK3025	XK3125	XK2015	XK2025	XK1025	XK1025A	XK1125	XK1225	XK-P101	XK-P401	XK-K001
	QCMB040004N-MT	25.5	4.00	0.40	4.71	6																						
		Material	P	Steel																								
			M	Stainless Steel																								
			K	Cast Iron																								
			N	Non-ferrous Metal																								
			S	Titanium Alloy																								

+ Recommended / - General Purpose

QF

Standard / Custom

Shape	ISO	Dimensions (mm)					Coating																						
		L	W	r	h	H	CVD										PVD		Uncoated										
							XK4015	XK4115	XK4025	XK4125	XK4035	XK4135	XK4135	XK3005	XK3105	XK3015	XK3115	XK3025	XK3125	XK2015	XK2025	XK1025	XK1025A	XK1125	XK1225	XK-P101	XK-P401	XK-K001	XK-K101
	QFMB050000N-GM	25.15	5.05	-	5.95	6.75																							
		Material	P	Steel																									
			M	Stainless Steel																									
			K	Cast Iron																									
			N	Non-ferrous Metal																									
			S	Titanium Alloy																									

+ Recommended / - General Purpose



Milling Inserts

AP	APKT, APMT, APGT	44
KN	KNUX	44
RC	RCKT, RCMX	45
RD	RDKW, RDKT, RDMT, RDMX	45
RP	RPMW	46
SD	SDMT	46
SE	SEET	46
SN	SNKN	47
SP	SPEN, SPKN, SPU, SPG, SPEX	47 - 49
TP	TPG	49
SP	SPMR	50
TP	TPU, TMR, TKN	50 - 51
WP	WPGT	51
XP	XPGT	51

Milling Inserts Code System

Code	Insert Shape										
H											
O											
P											
R											
S											
T											
C											
D											
E											
M											
V											
L											
A											
B											
K											
W											
Z	Others										
1. Shape Code		3. Tolerance									

1. 2. 3. 4.
S P K N

2. Back Angle		
Code	Back Angle	
A		3
B		5
C		7
D		15
E		20
F		25
G		30
N		0
P		11
O	Others	

4. Cross Section Type									
Code	Hole	Hole Shape	Chip Breaker	Insert Section	Code	Hole	Hole Shape	Chip Breaker	Insert Section
B	Yes	Cylindrical One Side Chamber (>65°)	No		N	No	—	No	
H	Yes		One Side		R	No	—	One Side	
C	Yes	Cylindrical Two Sides Chamber (>65°)	No		F	No	—	Two Sides	
J	Yes		Two Sides		A	Yes	Cylindrical	No	
W	Yes	Cylindrical One Side Chamber (<65°)	No		M	Yes	Cylindrical	One Side	
T	Yes		One Side		G	Yes	Cylindrical	Two Sides	
Q	Yes	Cylindrical Two Sides Chamber (<65°)	No		X	—	—	—	Special
U	Yes		Two Sides						

Milling Inserts Code System

Insert Shape								Inscribed Circle (d) (mm)
C	D	R	S	T	V	W	K	
				06				3.97
		05						5.0
				09				5.56
		06						6.0
06	07			11	11			6.35
		08						8.0
09	11	09	09	16	16	06	16	9.525
		10						10.0
		12						12.0
12	15	12	12	22	22	08		12.7
16		15	15	27				15.875
	19	16						16.0
19		19	19	33				19.05
		20						20.0
25	25	25						25.0
		25	25					25.4
		31						31.75
		32						32
5. Cutting Edge								

R	Right
L	Left
N	Double

9. Hand of Insert	10. Chip Breaker
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5. 6. 7. 8. 9. 10.
12 04 ED T21 R — GM

6. Thickness			
Code	t (mm)	Code	t (mm)
OOS	0.79	O5S	5.56
TOS	0.99	T5S	5.95
O1S	1.59	O6S	6.35
T1S	1.98	T6S	6.75
O2S	2.38	O7S	7.94
T2S	2.58	O9S	9.52
O3S	3.18	T9S	9.72
T3S	3.97	11S	11.11
O4S	4.76	12S	12.70
T4S	4.96		

7. Smoothing Blade			
A	45°	A	3°
D	60°	B	5°
E	75°	C	7°
F	85°	D	15°
P	90°	E	20°
Z	Others	F	25°
		G	30°
		N	0°
		P	11°
		Z	Others

8. Edge Preparation			
		0-5	0-0.10
		1-10	1-0.15
		2-15	2-0.20
		3-20	3-0.25
		4-25	4-0.30
		5-30	5-0.35
			6-0.40
			7-0.45



Heavy Duty Milling Inserts

LN	LNEC, LNEQ, LNEX	54 - 58
SN	SNEC, SNEQ, SNEX	58 - 62
XN	XNEQ	62

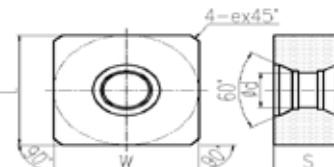


Heavy Duty Milling Inserts

SN

● Stocked Standard / ● Non-stocked

Shape	ANSI	ISO	Dimensions (mm)					Coating																	
			L	W	S	d	R	CVD								PVD			Uncoated						
								XK4015	XK4115	XK4025	XK4125	XK4035	XK4135	XK4135	XK3005	XK3105	XK3115	XK3025	XK3125	XK2015	XK2025	XK1025	XK1025A	XK1125	XK1225
	SNEQ-55-403X-T22	SNEQ11106-403X-T22	15.875	15.875	7.94	5.50																			
	SNEQ-55A-416X	SNEQ171708A-416X	15.875	15.875	7.94	5.50																			



Material	P	Steel																							
	M	Stainless Steel																							
	K	Cast Iron																							
	N	Non-ferrous Metal																							
	S	Titanium Alloy																							

+ Recommended / ~ General Purpose

SN

- Stocked Standard / ● Non-stocked

[illegible]

SN

● Stocked Standard / ● Non-stocked

[illegible]

SN

+ Recommended / ~ General Purpose

XN

+ Recommended / ~ General Purpose

Uncoated Grade

ISO CODE		JTCC	ZCC	SANDVIK	KENNAMETAL	SECO	ISCAR	MITSUBISHI	SUMITOMO	TOSHIBA	KYOCERA	DIJET	HITACHI	TAEGUTEC	
Turning	P	P01	JP051									SRN			
		P10	JP101	YC10	S1P	P10		IC70		ST10P ST15E	TX10S		SRT	WS10	
		P20	JP201	YC25S	SMA	K125M TTM		IC70 IC50M	UTi20T	ST20E	TX20 TX25		SRT DX30	EX35	P20
		P30	JP301	YC30S	SM30	GK K600 TTR		IC50M IC54	UTi20T	A30 A30N	TX30 UX30	PW30	SR30 DX30 DX35	EX35 EX40	P30
		P40	JP401	YC40	S6	G13		IC54		ST40E	TX40		SR30 DX35	EX45	P40A
	M	M10	JP101		H10A	K313	890			EH510 U10E	TU10		UMN UM10	WA10B	M10
		M20	JP201	YD201	H13A	K68 KMF K125M TTM	HX 883	IC08	UTi20T	EH520 U2	TU20		DX25 UM20 UMS	EX35	M20
		M30	JP301	YM30 YC30S	H10F SM30	K600 TTR		IC08 IC28	UTi20T	A30 A30N	UX30		DX25 UM30 UMS	EX40 EX45	
		M40	JP401	YC40	S6	G13		IC28			TU40		UM40	EX45	M40
	K	K01	JK051	YD051	H1P	K605			HTi05T	H1 H2	TH03		KG03	WH05	
		K10	JK051 JK101	YD051 YD101 YD15S	H1P H10 HM	K10 K313 KF1 KM1 K110M THM THM-U	890	IC20	HTi10	EH10 EH510	G1F TH10	KW10	KG10 KT9 CR1	WH10	K10
		K20	JK201	YD201	H13A	K715 KMF K600	890 HX 883	IC20 IC10	UTi20T	G10E EH20 EH520	G2F G2 KS20		KT9 CR1 KG20	WH20	K20
		K30	JK301			THR	883	IC10 IC28	UTi20T	G10E	G3		KG30		K30
	N	N01	JK101 JK201	YD101 YD201	H10 H13A	K605				H1 H2			KG03		
		N10				K10 K313 KF1 KM1 K110M THM THM-U	890 H15		HTi10	EH10 EH510	TH10 H10T KS05F		KG10 KT9		K10
		N20				K715 KMF K600	HX KX 883 H15 H25			G10E EH20 EH520			CR1 KG20		K10
		N30				G13 THR	H25						KG30		
	S	S01							RT9005				KG03		K10
		S10	JK101 JK201	YD101 YM30 YD201	H10 H10A H10F H13A	K10 K313 THM	890		RT9005 RT9010	EH10 EH510	TH10		FZ05 KG10		K10
		S20				K715 KMF	890 883 HX H25		RT9010 TF15	EH20 EH520	KS20		FZ15 KG20		K20
S30					G13 K600 THR			TF15				KG30		K30	
Milling	P	P10	JP101	YC10	S1P							SRT			
		P20				K125		IC50M IC28	UTi20T	A30N	TX25		SRT DX30	EX35	P20
		P30				GX K600		IC50M IC28	UTi20T	A30N	UX30	PW30	SR30 DX30	EX35 EX40	P30
		P40						IC28				PW30	SR30	EX45	P40A
	M	M10				K110M							UMN		M10
		M20				K313			UTi20T	A30N			DX25 UMS	EX35	M20
		M30				KFM K600		IC28	UTi20T	A30N	UX30		DX25 UMS	EX40 EX45	M20
		M40						IC28			TU40			EX45	M40
	K	K01	JK001						HTi05T				KG03		UF10
		K10	JK051	YD051	H1P	K110M K313		IC20	HTi10	G10E	TH10	KW10	KG10	WH10	UF10
		K20				KFM	HX	IC20 IC10	HTi20T	G10E			KT9 CR1 KG20	WH20	K20
		K30						IC10 IC18	HTi20T				KG30		K30

CVD Grade

ISO CODE		JTCC	ZCC	SANDVIK	KENNAMETAL	SECO	ISCAR	MITSUBISHI	SUMITOMO	TOSHIBA	KYOCERA	DIJET	HITACHI	TAEGUTEC		
Turning	P	P01			GC4005	KC9110 TN7005	TP1000		UE6005	AC700G	T9005	CR7015	JC110V	GM8015H C5000		
		P10	JT4015 JT4115	YBC151	GC4005 GC4015 GC3115	KC9110 TN7005 TN7010	TP1000 TP2000 TP200 TX150	IC9015	UE6005 UE6010 UE6020 UC6010	AC700G AC2000	T9015	CA5515 CR7015	JC110V JC215V	GM8015 GM8020 GM10	TT8115	
		P20	JT4025 JT4125	YBC251	GC4015 GC4025 GC2015 GC3025	KC9125 TN7015	TP2000 TP200	IC9025	UE6010 UE6020 UC6010	AC2000	T9015 T9025	CA5515 CA5525 CA5025 CR9025	JC110V JC215V	GM8020 GM25	TT5100 TT8125	
		P30	JT4035 JT4135	YBC351	GC4025 GC4035 GC2025 GC2135	KC8050 KC850 TN7025	TP3000 TP300 TP400	IC656 IC9054	UE6035 UH6400 US735	AC3000	T9025 T9035	CA5525 CA5025 CA9025	JC215V JC325V	GM8035 GM25	TT5100 TT8135	
		P40	JT4135	YBC351 YB235	GC4035 GC235	KC9040	TP400 TP40	IC9054 IC635	UE6035 UH6400 US735	AC3000	T9035		JC325V JC450V	GM8035 GX30 GF30	TT8135	
	M	M10	JT2015	YBM151	GC2015	TN7010	TP200		US7020	AC2000	T9015	CA6015	JC110V	GM10	TT9215	
		M20	JT2025	YBM251	GC2025	KC9225 TN7015 TN7525	TP200 TP300	IC9025	US7020	AC2000	T6020	CA6015	JC110V	GM8020 GM25	TT9215 TT9225	
		M30	JT2025	YB235	GC2135 GC235	KC9040 KC8050 TN7025 TN8025	TP300 TP400 TP40	IC9025	US735	AC3000 AC304	T6030			GM25 GX30 GF30	TT9225 TT9235	
		M40	JT2025	YB235	GC235	KC9240 KC9245	TP400 TP40		US735	AC304				GX30 GF30	TT9235	
	K	K01	JT3015 JT3115	YBD052 YBD102	GC3205 GC3210		TX100	IC9007	UC5105 UC5005	AC300G	T5010	CA4010	JC105V	GM3005 GM8015	TT7005	
		K10	JT3015 JT3115	YBD102 YBD151 YBD152	GC3005 GC3015 GC3115 GC3205 GC3210	KC9315 TN5015 TN7010	TX100 TX150	IC418 IC428	UC5115 UC5015 UE6010 UC6010	AC700G	T5010 T5020	CA4010 CA4115	JC105V JC110V	GM8015 GM8020	TT7005 TT7015	
		K20	JT3025 JT3125	YBD252	GC3215 GC3025	KC9325 TN5020 TN7015	TP200 TX150	IC9015	UE6010 UC6010	AC700G	T5020	CA4120	JC100V JC215V	GM8020 GM25	TT7015	
		K30	JT3025 JT3125	YBD252		KC8050 KC9040 TN7025	TP200						JC215V	GM25	TT7015	
	Milling	P	P10				T200M T250M									TT6800
			P20	JT4030	YBC201 YBM251	GC4020		T200M T250M T350M T25M	IC520M	F7030				JC730U		TT6800
			P30	JT4030	YBC301	GC4030	KC930M	T250M T350M T25M	IC4050 IC450	F7030	AC230	T3030			GX30	TT6800 TT7800
P40			JT4030	YBC401 YBM351 YB235	GC4030		T350M	IC4050 IC635							TT7800	
M		M10	JT4030													
		M20	JT4030	YB235		KC925M	T250M T25M		F7030				JC730U			
		M30	JT4040 JT4240	YBM351 YBC401	GC2040	KC930M	T350M T25M		F7030		T3030			GX30	TT7800	
		M40													TT7800	
K		K01														
		K10				KC915M		IC4010 IC418	F5010	AC211	T1015		JC600		TT6800	
		K20			GC3020	KC925M	T150M T200M	IC520M	F5020		T1020		JC610		TT6800	
		K30	JT4030	YBG40	GC3040	KC930M	T200M	IC4050 IC450							TT6800	

PVD Grade

ISO CODE		JTCC	ZCC	SANDVIK	KENNAMETAL	SECO	ISCAR	MITSUBISHI	SUMITOMO	TOSHIBA	KYOCERA	DIJET	TAEGUTEC
Turning	P	P01									PR951	JC5003	
		P10	JT1050	YBG102		KC5010 KC5510	CP200	IC507	VP10MF		PR630 PR91 5PR930	JC5003	
		P20	JT1025 JT1225	YBG202 YBM252 YBG201	GC1020G C4125 GC1025		CP250	IC507 IC570 IC308 IC908	VP15TF VP20MF		PR630 PR930	JC5015	TT9020
		P30	JT1035	YBG302			CP500	IC308 IC908 IC328 IC3028 IC354	VP15TF VP20MF		PR660	JC5015	TT8020 TT9020
		P40			GC1020 GC2145		CP500	IC328 IC3028 IC354					TT8020 TT9020
		M01								EH51Z			
	M	M10	JT1015	YBG102	GC1005G C1025	KC5010 KC5510	CP200	IC507 IC907	VP10MF	EH51Z	PR630 PR915	JC5003	TT5080
		M20	JT1025 JT1225	YBG202 YBM252 YBG201	GC1020G C1025 GC4125		CP200 CP500	IC507 IC908 IC1028	VP15TF VP20MF	EH52Z	GH330	PR630 PR915	TT5080 TT9020 TT9080
		M30	JT1035	YBG302	GC1020 GC2035	KC5025 KC5525 KC710	CP500	IC328 IC3028 IC1028	VP15TF VP20MF		AH120	PR660	TT8020 TT9020 TT9080
		M40			GC2145			IC328 IC3028					TT8020 TT9020 TT9080
	K	K01								EH10Z	AH110	JC5003	
		K10	JT1015	YBG102		KC5010 KC5510	CP200	IC507 IC907		EH10Z EH20Z	GH110 AH110	JC5003 JC5015	
		K20	JT1025 JT1225	YBG202 YBM252 YBG201	GC1020		CP200 CP250	IC308 IC908	VP15TF	EH20Z	AH120	JC5015	
		K30			GC4125		CP500	IC328 IC3028 IC1028	VP15TF				
	S	S01							VP05RT		AH110	JC5003	
		S10	JT1015 JT1025	YBG102 YBG202	GC1005 GC1025	KC5410 KC5014 KC5510	CP200 CP250 CP500		VP05RT VP10RT	EH51Z	AH120	JC5015	
		S20	JT1025 JT1225	YBG202	GC4125	KC5025 KC5525	CP250 CP500		VP10RT VP15TF	EH20Z EH520Z			
		S30							VP15TF				TT8020 TT9080

PVD Grade

ISO CODE		JTCC	ZCC	SANDVIK	KENNAMETAL	SECO	ISCAR	MITSUBISHI	SUMITOMO	TOSHIBA	KYOCERA	DIJET	TAEGUTEC	
Milling	P	P01										JC5003		
		P10	JT1015	YBG102		KC792M KC715M			ACZ310		PR630 PR730 PR830	JC5003 JC5030	TT7080	
		P20	JT1025 JT1225	YBG202 YBM252	GC1025	KC522M KC525M	F25M	IC950 IC908	VP15TF	ACZ310 ACZ330		PR630 PR730 PR830	JC5015 JC5030 JC5040	TT7080 TT9030 TT9080
		P30	JT1025 JT1035	YBG202 YBG302		KC725M	F25M F30M	IC250	VP15TF VP30RT	ACZ330 ACZ350	GH330 AH330 AH120 AH740	PR660	JC5015 JC5040	TT7080 TT9080 TT9030 TT8080 TT8020
		P40		YBG302 YBG402		KC735M	F40M T60M	IC328 IC928	VP30RT	ACZ350	AH120		JC5040	TT8020 TT9080 TT8080
	M	M10				KC715M						PR630 PR730 PR830	JC5003	
		M20	JT1025 JT1225	YBG202 YBM252	GC1025	KC522M KC525M	F25M	IC908	VP15TF	ACZ310	GH330	PR630 PR730 PR830	JC5015 JC5030 JC5040	TT9030 TT9080
		M30	JT1035	YBG302	GC2030	KC725M KC7355M	F30M F40M	IC928	VP15TF VP30RT	ACZ330 ACZ350	AH120	PR660	JC5015 JC5030 JC5040	TT8020 TT9030 TT8080 TT9080
		M40	JT1035	YBG302 YBG402				IC328	VP30RT	ACZ350	AH140			TT8020 TT9030 TT8080 TT9080
	K	K01									AH110	PR510	JC5003	
		K10	JT1015	YBG102		KC510M				ACZ310	AH110 GH110	PR510 PR905	JC5003 JC5015	TT6080 TT7080
		K20	JT1025 JT1225	YBG202		KC520MM KC522N KC525M		IC910 IC950	VP15TF	ACZ310	AH120	PR905	JC5015	TT6080 TT7080
		K30	JT1035	YBG302		KC725M		IC328 IC908 IC928	VP15TF					
	S	S01											JC5003	
		S10	JT1025	YBG202	GC1025	KC510M		IC908	VP15TF		AH120		JC5015	
		S20	JT1025	YBG202		KC522M KC525M		IC908	VP15TF					TT9030 TT9080
		S30	JT1035	YBG302		KC725M	F40M	IC328 IC928						TT7080 TT8080 TT9080
	H	H01											JC5003	TT9030
		H10	JT1015 JT1025	YBG102 YBG202			F15M		VP15TF				JC5015	TT6080
		H20	JT1025	YBG202			F15M		VP15TF					TT6080
		H30					F30M							



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