

GLENDOWER

QUALITY TOOLING

SUPERTHREAD

PRECISION THREADING TOOLS



英國格藍道 螺紋刀片 鋁用刀片

GLENDOWER

AVAILABLE GRADES

1ST Choice **GC10F (PVD)**
Multi-purpose grade for most materials.
Sub-micron carbide with **PVD coat TiN**

2nd Choice **AC350M (PVD Plus)**
Suitable for machine materials where
GC10F wears too quickly
K-grade carbide with **PVD coating TiCN**

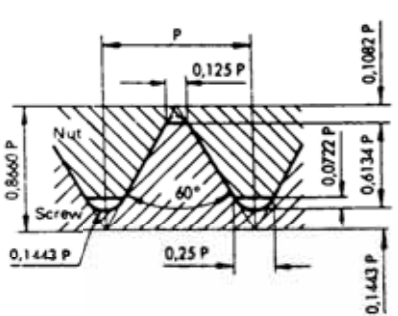
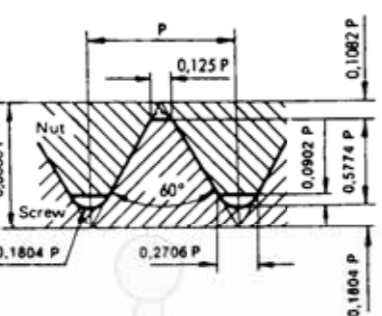
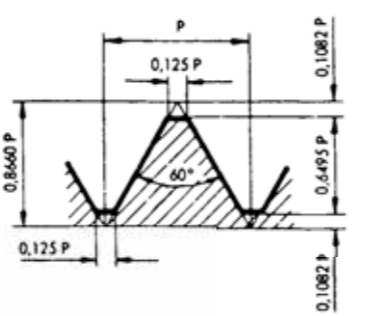
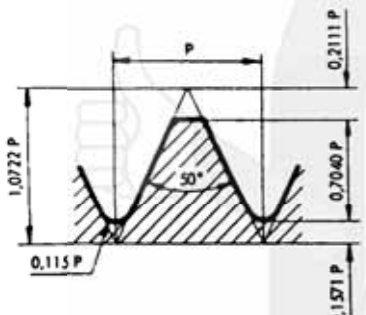
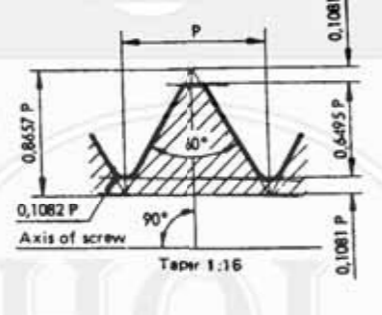
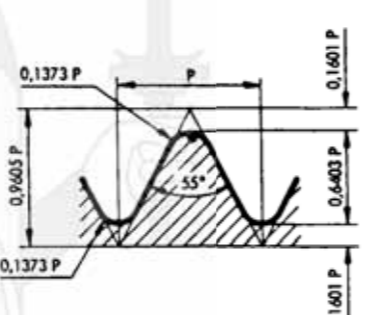
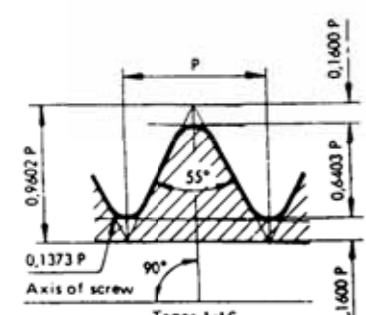
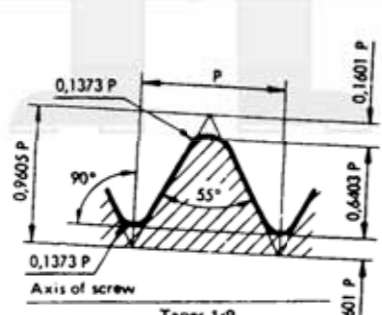
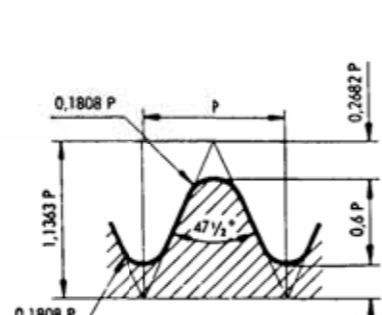
3rd Choice **AC200M (PVD Extra)**
Suitable for machining difficult Stainless Steel
and other exotic materials.
M-grade carbide with **PVD coating TiALN**

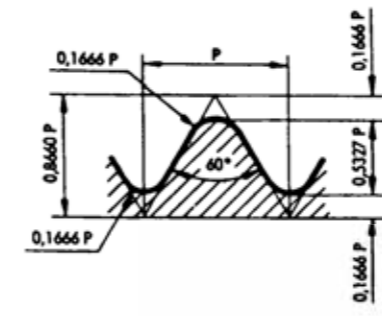
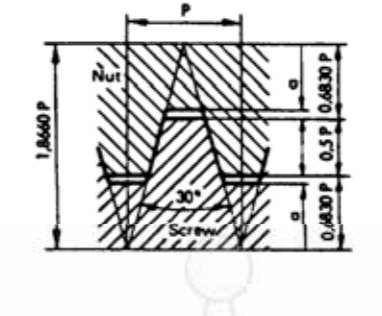
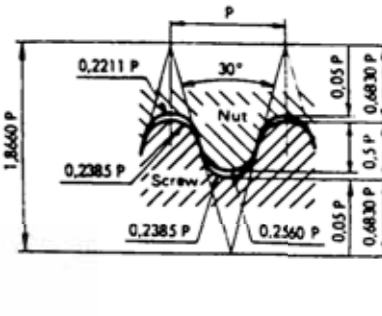
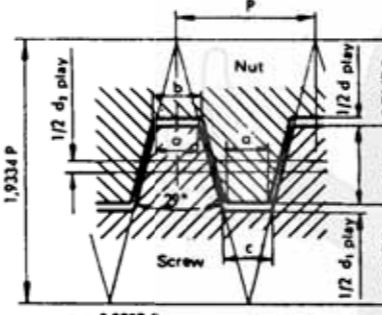
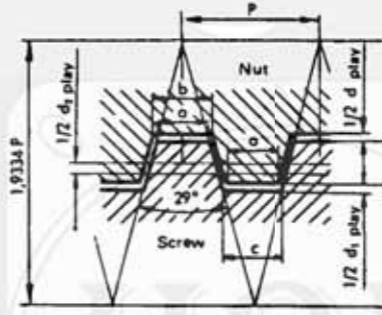
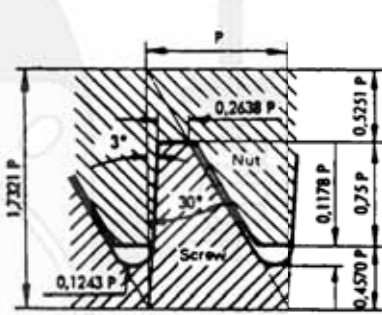
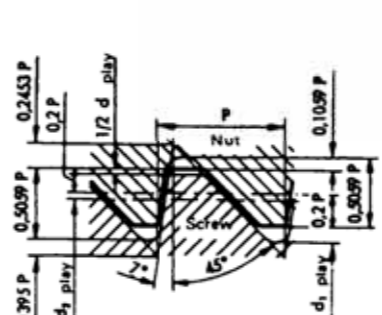
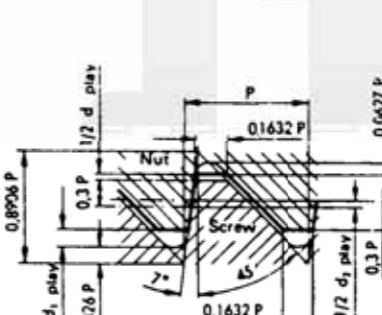
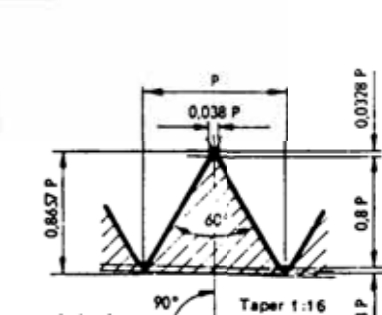
K15
Suitable for machining Cast Iron, Brass, Copper
& Aluminium.
K-grade uncoated carbide + **Polished finish**



Reg. No Q5112

Common thread profiles

 <p>ISO M and UN branches in mechanical industry</p> <p>1</p>	 <p>UNJ Use : Aircraft & Space industry</p> <p>2</p>	 <p>Original Sellers & SI Successively replaced by ISO</p> <p>3</p>
 <p>SF (Système Français) cessively replaced by ISO</p> <p>4</p>	 <p>Metric Taper Use : Grease fittings & pipe couplings</p> <p>5</p>	 <p>Whitworth Use : Fittings & pipe couplings. Used in most branches, also for gas, water and sewer. As general machine thread now successively replaced by ISO.</p> <p>6</p>
 <p>7</p>	 <p>8</p>	 <p>9</p>

 <p>BSC (CEI) Use : Bicycle industry</p> <p>10</p>	 <p>TR DIN 103 Use : Mechanical industry for motion transmission screws</p> <p>11</p>	 <p>RD DIN 405 Use : Pipe coupling fire prote industry</p> <p>2</p>
 <p>Acme Use : Acme-General is used in mechanical industry for motion transmission screws</p> <p>13</p>	 <p>Acme, truncated When normal Acme is too deep Use : Control valves and in cases when it is important to combine a large lead with a shallow thread, e.g. because of poor material thickness</p> <p>14</p>	 <p>Saw-tooth thread 3 DIN 513 Use : Mechanical industry for mo transmission screw when the loa form one direction, e.g. in presse etc.</p> <p>5</p>
 <p>10</p>	 <p>11</p>	 <p>12</p>

螺紋刀片編號說明

THREADING INSERTS CODE KEY

- Top Chipbreaker
- Secured by Coned Screw or Top Clamp
- Located Flat in Tool Holder

16 E R 10 UN

Cutting edge length mm

11	IC=6.35 mm dia
16	IC=9.52 mm dia
22	IC=12.70 mm dia
27	IC=15.87 mm dia

External / Internal

E = External
N = Internal

Hand of Tool

R = Right - hand
L = Left - hand

Pitch / Groove Width

Full-profile

mm	0.5	1.5
	0.7	1.75
	0.75	2.0
	0.8	2.5
	1.0	3.0
	1.25	3.5
TPI	24	13
	20	12
	18	11
	16	10
	14	9
		8

Partial profile





























A = 0.5 - 1.5mm
48 - 16tpi
AG = 0.5 - 3.0mm
48 - 8tpi
G = 1.75 - 3.0mm
14 - 8tpi
N = 3.5 - 5.0mm
7 - 5tpi

Thread / Groove Standard

ISO = ISO, Metric
W = Whitworth
BSPT = Whitworth, cone
UN = Am. Un
NPT = ISO, cone

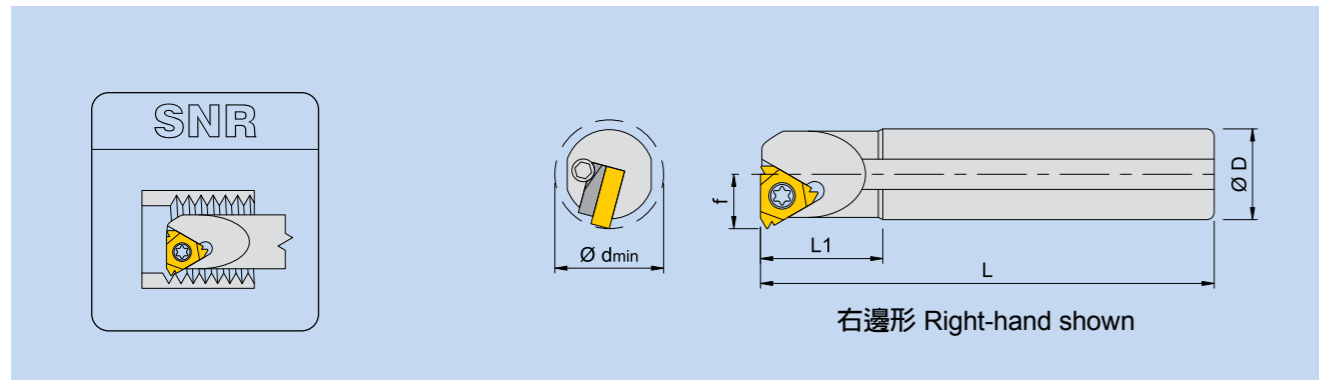
Recommended Threading Passes

Pitch	0.5	1	1.25	1.5	2	3	4	5	6	8
T.P.I	48	24	20	16	12	8	6	5	4	3
No. of Prasses	4-6	4-8	5-9	6-10	7-12	9-14	11-18	12-20	12-20	15-24

Partial Profile ISO	K15	GC10F	AC200M	Whitworth/NPT/BSPT	K15	GC10F	AC200M	Whitworth/NPT/BSPT	K15	GC10F	AC200M
16 ER A55 16 ER AG55 16 ER G55 	12.70	13.95	15.35	16 ER 28W 16 ER 26W 16 ER 20W 16 ER 19W 16 ER 18W 16 ER 16W 16 ER 14W 16 ER 12W 16 ER 11W 16 ER 10W 16 ER 9W 16 ER 8W 	12.70	13.95	15.35	16 ER 24UN 16 ER 20UN 16 ER 18UN 16 ER 16UN 16 ER 14UN 16 ER 13UN 16 ER 12UN 16 ER 11UN 16 ER 10UN 16 ER 9UN 16 ER 8UN 	12.70	13.95	15.35
22 ER N55 22 ER N55-U 	22.05	24.55	26.65	22 ER 7W 22 ER 6W 22 ER 5W 	22.05	24.55	26.65	22 ER 7UN 22 ER 6UN 22 ER 5UN 	22.05	24.55	26.65
27 ER Q55 	31.60	34.75	38.20	22 ER 4-1/2W-U 22 ER 4W-U 22 ER 3-1/2W-U 22 ER 3W-U 	31.60	34.75	38.20	27 ER 4UN 	31.60	34.75	38.20
16 NR A60 16 ER AG60 16 ER G60 	12.70	13.95	15.35	16 NR 28W 16 NR 26W 16 NR 20W 16 NR 19W 16 NR 18W 16 NR 16W 16 NR 14W 16 NR 12W 16 NR 11W 16 NR 10W 16 NR 9W 16 NR 8W 	12.70	13.95	15.35	16 NR 24UN 16 NR 20UN 16 NR 18UN 16 NR 16UN 16 NR 14UN 16 NR 13UN 16 NR 12UN 16 NR 11UN 16 NR 10UN 16 NR 9UN 16 NR 8UN 	12.70	13.95	15.35
22 NR N60 22 NR N60-U 	22.05	24.55	26.65	22 NR 4-1/2W-U 22 NR 4W-U 22 NR 3-1/2W-U 22 NR 3W-U 	22.05	24.55	26.65	22 NR 7UN 22 NR 6UN 22 NR 5UN 	22.05	24.55	26.65
27 NR Q60 	31.60	34.75	38.20	27 NR 4W 27 NR 3W 	31.60	34.75	38.20	27 NR 4UN 	31.60	34.75	38.20
16 ER 0.75 ISO 16 ER 1.0 ISO 16 ER 1.25 ISO 16 ER 1.5 ISO 16 ER 1.75 ISO 16 ER 2.0 ISO 16 ER 2.5 ISO 16 ER 3.0 ISO 	12.70	13.95	15.35	BSPT 16 ER 14 BSPT 16 ER 11 BSPT 	12.70	13.95	15.35				
22 ER 3.5 ISO 22 ER 4.05 ISO 22 ER 4.55 ISO 22 ER 5.05 ISO 	22.05	24.55	26.65	16 NR 14 BSPT 16 NR 11 BSPT 	12.70	13.95	15.35				
27 ER 5.5 ISO 27 ER 6.05 ISO 27 ER 8.0 ISO 	31.60	34.75	38.20	NPT LINE PIPE 16 ER 18 NPT 16 ER 14 NPT 16 ER 11.5 NPT 16 ER 8 NPT 	12.70	13.95	15.35				
16 NR 0.75 ISO 16 NR 1.0 ISO 16 NR 1.25 ISO 16 NR 1.5 ISO 16 NR 1.75 ISO 16 NR 2.0 ISO 16 NR 2.5 ISO 16 NR 3.0 ISO 	12.70	13.95	15.35	16 NR 18 NPT 16 NR 14 NPT 16 NR 8 NPT 	12.70	13.95	15.35				
22 NR 3.5 ISO 22 NR 4.05 ISO 22 NR 4.55 ISO 22 NR 5.05 ISO 	22.05	24.55	26.65								
27 NR 5.5 ISO 27 NR 6.05 ISO 27 NR 8.0 ISO 	31.60	34.75	38.20								

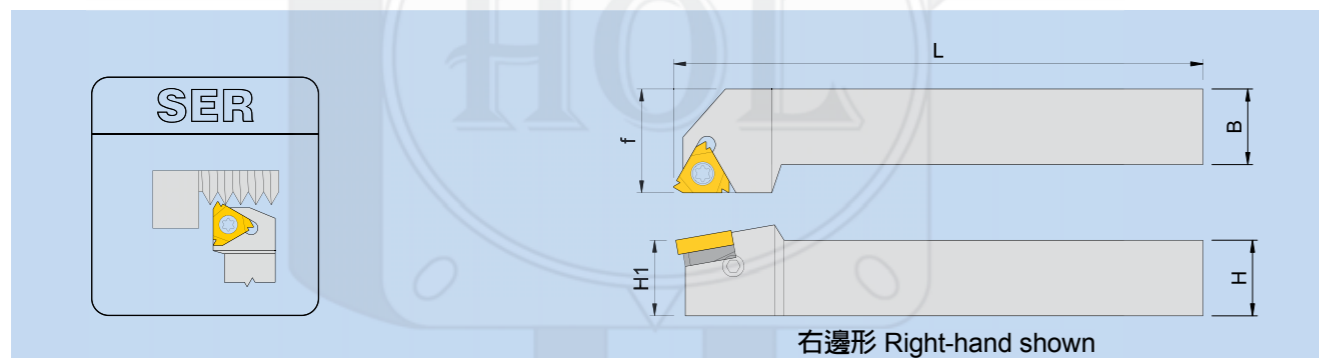


捨棄式刀刃內徑牙刀柄 Internal Threading Boring Bars(W) Throw-Away Inserts



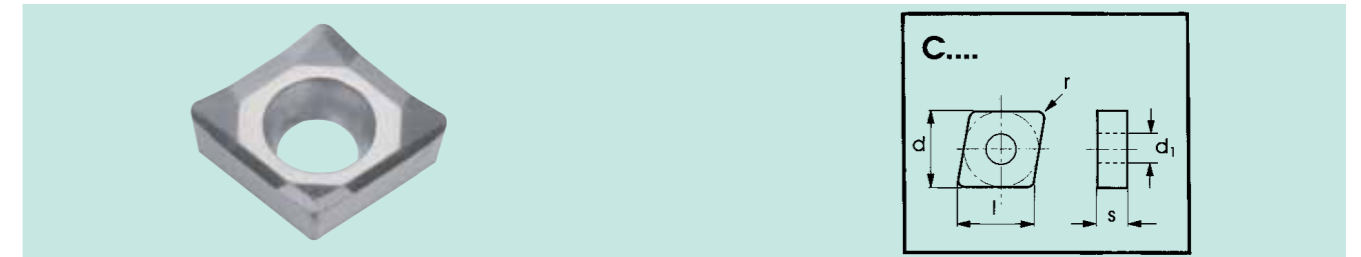
型號 EDP NO.	刀刃 Insert	尺寸 Dimensions (mm)					螺絲 Screw	扳手 Wrench	墊片 Shin	螺絲 Screw	扳手 Wrench
		D	L	L1	f	dmin					
SNR-0008K-08-S08	08NR..	8	125	20	5.5	11	MS2206A	TF7			
SNR-0010K-11-S10	11NR/L..	10	125	25	6.5	13	MS2508B	TF9	---	---	---
SNR-0012M-11-S11		12	150	32	8.0	16					
SNR/L-0016Q-16	16NR/L..	16	180	36	10	19	MS3509A	TF15			
SNR/L-0020R-16		20	200	40	12	24	MS3512A	TF15	DXN/E16	HTM3	PL25
SNR/L-0025R-16		25	200	45	14.5	29					
SNR/L-0032S-16		32	250	45	18.5	36					

捨棄式刀刃外徑牙刀柄 External Threading Boring Bars(W) Throw-Away Inserts



型號 EDP NO.	刀刃 Insert	尺寸 Dimensions (mm)					螺絲 Screw	扳手 Wrench	墊片 Shin	螺絲 Screw	扳手 Wrench
		H	B	L	H1	f					
SER/L-1212K-16	16ER/L..	12	12	120	12	12	MS3509A	TF15	---	---	---
SER/L-1216K-16		12	16	120	12	16					
SER/L-1616K-16		16	16	125	16	20	MS3512A	TF15	GXE/N16	HTM309	PL25
SER/L-2020K-16		20	20	125	20	25					
SER/L-2525K-16		25	25	150	25	32					

CCGT 鋁用車刀片(80°菱形) Insert For Aluminum (80° Diamond)



型號 EDP NO.	I	D	S	d ₁	r
CCGT 060202 - AL	6.40	6.35	2.38	2.80	0.2
CCGT 060202 - AL	6.40	6.35	2.38	2.80	0.4
CCGT 060202 - AL	9.70	9.52	3.97	4.40	0.4
CCGT 060202 - AL	9.70	9.52	3.97	4.40	0.8
CCGT 060202 - AL	12.90	12.70	4.76	5.50	0.4
CCGT 060202 - AL	12.90	12.70	4.76	5.50	0.8

TCGT 鋁用車刀片(三角形) Insert For Aluminum (Triangular)



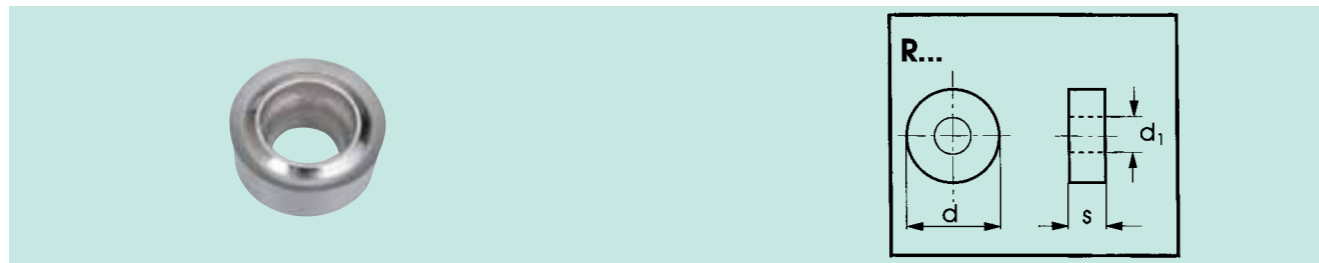
型號 EDP NO.	I	D	S	d ₁	r
TCGT 110202 - AL	11.00	6.35	2.38	2.80	0.2
TCGT 110204 - AL	11.00	6.35	2.38	2.80	0.4
TCGT 16T304 - AL	16.50	9.52	3.97	4.40	0.4
TCGT 16T308 - AL	16.50	9.52	3.97	4.40	0.8

DCGT AL 鋁用車刀片(55°菱形) Insert For Aluminum (55° Diamond)



型號 EDP NO.	I	D	S	d ₁	r
DCGT 070202 - AL	7.75	6.35	2.38	2.80	0.2
DCGT 070204 - AL	7.75	6.35	2.38	2.80	0.4
DCGT 11T302 - AL	11.60	9.52	3.97	4.40	0.2
DCGT 11T304 - AL	11.60	9.52	3.97	4.40	0.4
DCGT 11T308 - AL	11.60	9.52	3.97	4.40	0.8

RCGT AL 鋁用車刀片(圓形) Insert For Aluminum (Circular)



型號 EDP NO.	I	D	S	d ₁	r
RCGT 0602M0 - AL	-	6.00	2.38	2.80	
RCGT 0803M0 - AL	-	8.00	3.18	3.40	
RCGT 1003M0 - AL	-	10.00	3.18	4.00	

VCGT AL 鋁用車刀片(35°菱形) Insert For Aluminum (35° Diamond)



型號 EDP NO.	I	D	S	d ₁	r
VCGT 110302 - AL	11.10	6.35	3.18	2.80	0.2
VCGT 110304 - AL	11.10	6.35	3.18	2.80	0.4
VCGT 160402 - AL	16.60	9.52	4.76	4.40	0.2
VCGT 160404 - AL	16.60	9.52	4.76	4.40	0.4
VCGT 160408 - AL	16.60	9.52	4.76	4.40	0.8
VCGT 160412 - AL	16.60	9.52	4.76	4.40	1.2
VCGT 220530 - AL	22.10	12.70	5.56	5.50	3.0

GLENDOWER

Cutting Speed recommendations : Threading

Materials		HBN	GC10F	AC350M	AC200M	K15
		Cutting Speed Vc = M/min				
Carbon Steel	c = 0.10-0.25%	125	185	220	220	
	c = 0.25-0.55%	150	155	185	185	
	c = 0.55-0.80%	170	145	175	175	
Low Alloy Steel	Non-Hardened	180	125	150	150	
	Hardened & Tempered	275	95	110	110	
	Hardened & Tempered	350	75	90	90	
High Alloy Steel	Annealed HSS	200	110	130	130	
	Hardened Tool Steel	325	80	95	95	
Steel Casting	Unalloyed	180	200	240	240	
	Low-Alloy	200	110	132	132	
	High-Alloy	225	110	132	132	
	Manganese Steel	250	35	40	40	
Stainless Steel Bars / Forged Ferritic / Martensitic	Free Machining	200	170	200	200	115
	Non - Hardened	200	130	150	150	90
	PH Hardened	330	90	110	110	65
	Hardened	330	85	100	100	65
Stainless Steel Bars / Forged Austenitic	Free Machining	200	140	170	170	
	Austenitic	180	130	155	155	
	PH Hardened	330	80	95	95	
	Super Austenitic	200	70	80	80	
Stainless Steel Bars / Forged / Austenitic Ferritic (Duplex)	Non-weldable c > 0.05%	230	95	110	110	80
	Weldable c > 0.05%	260	75	90	90	60
Stainless Steel - Cast Ferritic / Martensitic	Non Hardened	200	90	110	110	65
	Hardened	330	65	80	80	50
Stainless Steel - Cast Austenitic	Austenitic	200	85	110	100	
	PH Hardened	330	60	70	70	
Stainless Steel - Cas Austenitic / Ferritic (Duplex)	Non-weldable c > 0.05%	200	85	100	100	70
	Weldable c > 0.05%	300	65	75	75	50
Heat Resistant Alloy	Annealed Lorn Based	230	45	50	50	
	Aged	260	30	35	35	
	Annealed	250	20	20	20	20
	Aged - Nickel based	350	15	15	15	15
	Cast	320	10	10	10	10
	Annealed	200	20	20	20	
Titanium Alloys	Aged - Cobalt based	300	15	15	15	
	Cast	320	10	10	10	
	Commercially Pure 99.5% TI		140	170	110	12
	Ferritic Short chipping	130	135	160	160	85
	Ferritic long chipping	230	100	20	20	70
Grey Cast Iorn	Low tensile Strength	130	130	155	155	100
	High Tensile Strength	230	110	130	130	50
Nodular SG Iorn	Ferritic	160	125	150	150	100
	Pearlitic	230	90	110	110	50
Aluminium Alloys	Cold Worked, non aging	60	1400	1400	1400	500
	Wrought, Wrought & Aged	100	490	450	450	450
Aluminium Alloys	Cast, non aging	75	455	455	455	455
	Cast or cast & aged	90	280	280	280	250
Aluminium Alloys	Cast Si 13-15%	130	245	295	295	210
	Cast Si 16-22%	130	245	295	295	210
Copper & Copper Alloys	Free Cutting > 1% Pb	110	420	500	500	370
	brass, leaded bronze < 1% Pb	90	245	245	245	210
	Bronze, non-leaded copper	150	175	175	175	150
	Electrolytic Copper					