



**CJT Koolcarb, Inc.**

Since 1969

**Solid Carbide, Carbide Tipped & Diamond  
DRILLS / REAMERS / END MILLS  
& Coolant Fed Cutting Tools**

**2015 Product Selection Guide**

**Looking for the correct Tool?**

Try our easy-to-use End Mill Selection Guide. Just follow the instructions to find the right tool that's right for the job.

How to select tools based on work piece material being used:

- Choose work piece material from the [chart A](#) on page 2, then, across chart, see tools with SFM listed as 1st or 2nd choice, above that column choose viable tool types.
- Locate the Selected letter(s) in [chart B](#) on page 3 and [chart C](#) on page 4. Above or below style number in the Tool Group Row (A-R)
- Then locate the CJT Style number on Website to see what sizes are available as standard.

**Durapoint® Koolcarb® Kooltwist® Koolream® GenHam®**

ISO 9001:2008  
CERTIFIED

Tool Group

Tool Group

SOLID CARBIDE NON-COOLANT FED

CARBIDE TIP NON-COOLANT FED

SOLID CARBIDE COOLANT FED

CARBIDE TIP COOLANT FED

Material Workpiece	Chip Class	High Penetration Spiral Flute	High Penetration Spiral Flute	Standard Helix	3 Flute High Helix	Str. Flute Heavy Duty	Bore Drill Straight Flute	Standard Helix	Str. Flute Heavy Duty	High Penetration Spiral Flute	Straight Flute	High Penetration Spiral Flute	Spiral Flute Heavy Duty	Straight Flute
		TIN TAIN	TIAICN							TIN TAIN		TIN		
Tool Group		A	B	D	C	E	F	G	J	M	N	P	Q	R
Aluminum Alloys [ $<5\% \text{ Si}$ ]	(	250-450	○	150-350	200-400	○	○	○	○	500-650	200-400	250-425	200-400	200-400
Aluminum [ $>5\% \text{ Si}$ ]	))	350-600	○	200-400	300-500	○	200-400	150-350	○	500-650	350-550	300-500	200-400	300-500
Copper - Zinc (Brass)	))	200-400	○	150-300	175-350	150-300	150-300	150-300	150-300	400-550	225-300	250-450	225-425	200-400
Copper Alloys (Bronze)	))	200-400	○	150-250	200-300	150-250	150-300	150-300	150-200	500-650	175-250	200-400	200-300	200-300
Cast (Grey) Iron	))	150-350	○	150-300	175-325	○	200-350	150-225	○	300-400	200-300	225-325	200-260	225-300
Ductile (Nodular) Iron Powder Metal	))	150-300	150-300	150-250	150-250	○	150-250	125-275	○	275-350	150-250	225-275	200-260	190-250
Carbon Steels [ $<35\text{C}$ ]	(	150-250	200-350	○	○	○	○	○	○	290-390	○	180-250	○	○
Medium Carbon Steels [ $>35 \text{ to } 50\text{C}$ ]	))	150-250	130-220	○	○	○	○	○	○	150-250	110-150	150-200	100-150	100-150
High Carbon & Tool Steels [ $>50\text{C}$ ]	))	80-140	65-120	○	○	60-125	○	○	60-125	120-225	80-135	135-185	70-100	100-150
Hardened Steel (48 to 65Rc)	))	40-80	○	○	○	25-60	○	○	25-60	50-100	○	45-90	60-90	○
Free Machining Stainless Steel	))	100-200	○	80-180	80-180	80-180	○	80-160	○	130-200	120-180	120-170	100-160	70-125
Stainless Steel	))	90-150	90-150	60-140	60-140	60-140	○	○	○	100-150	80-120	80-120	60-100	○
High Nickel Stainless Steel	(	30-70	30-70	○	○	○	○	○	○	90-150	○	40-60	○	○
Titanium	))	60-120	55-110	50-90	50-90	50-100	○	40-80	○	90-150	60-100	50-110	50-100	60-120
Moderate Temperature Alloys	))	50-100	○	○	○	50-100	○	○	○	70-130	○	60-90	60-90	○
High Temperature Alloys	))	25-80	○	○	○	25-80	○	○	25-80	40-80	○	40-80	40-80	○
Hard Plastics, Resin, Fiberglass, Graphite and Carbon	))	○	○	100-200	125-225	○	○	100-200	○	○	150-225	○	○	125-200

SFM - Surface Feet per Minute

1st Choice  
2nd Choice  
○ Do Not Use

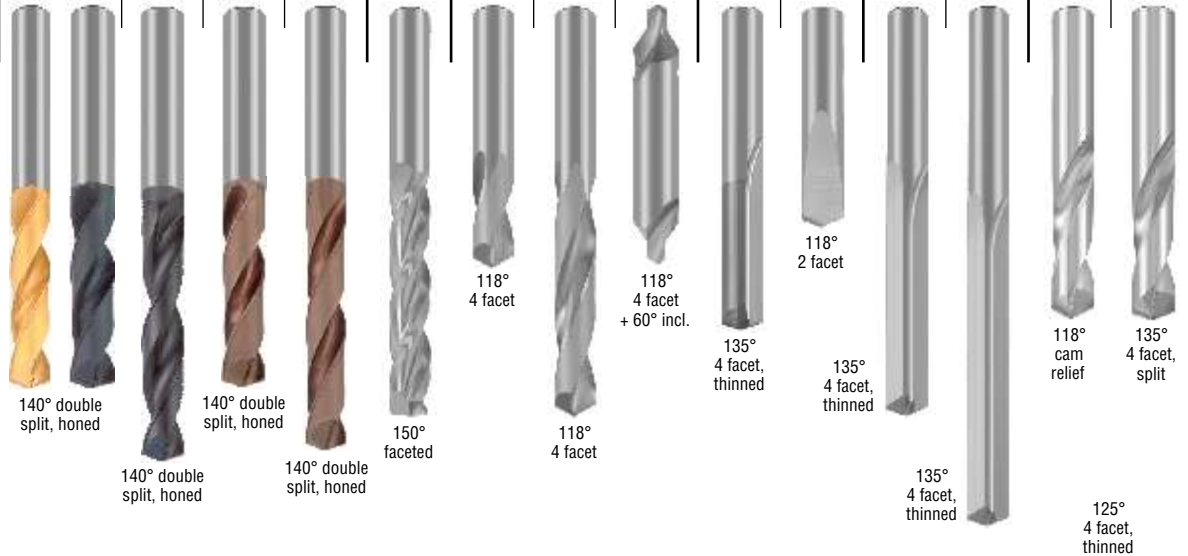
1st Choice  
2nd Choice  
○ Do Not Use

NEXT

		Solid Carbide										Carbide Tipped				
		High Performance				High Helix 3 flute	Standard Helix			Heavy Duty		Bore Drill/Burnisher		Standard Helix		
Inch Stocked	Dia. Max. Dia. Min.	0.75" 0.098"	0.75" 0.125"	0.75" 0.125"	0.75" 0.125"	0.5" 0.0980"	0.500" 0.125"	0.5" 0.040"	0.2188" 0.0469"	0.5" 0.0469"	0.5" 0.0625"	0.6875" 0.0938"	0.6875" 0.0938"	1.25" 0.125"	1.25" 0.125"	
Metric Stocked	Dia. Max. Dia. Min.	19.0 2.5	19.0 3.5	19.0 3.2	19.0 3.5	12.5 2.5	11.0 2.5	12.5 1.5	— —	— —	— —	16.0 2.5	16.0 2.5	14.0 3.5	14.0 3.5	
Max x Dia. Depth		3	4-5	3	4-5	4*	1.5-3.5	4*	—	3	2	4*	6*	4*	4*	
Tool Group		A		A	B	B	C	D	D	D	E	E	F	F	G	G
Style No.		114	114A	118A	113	116	121	111	124	144	155	151	153	154	110	115



NON-COOLANT FED PRODUCTS

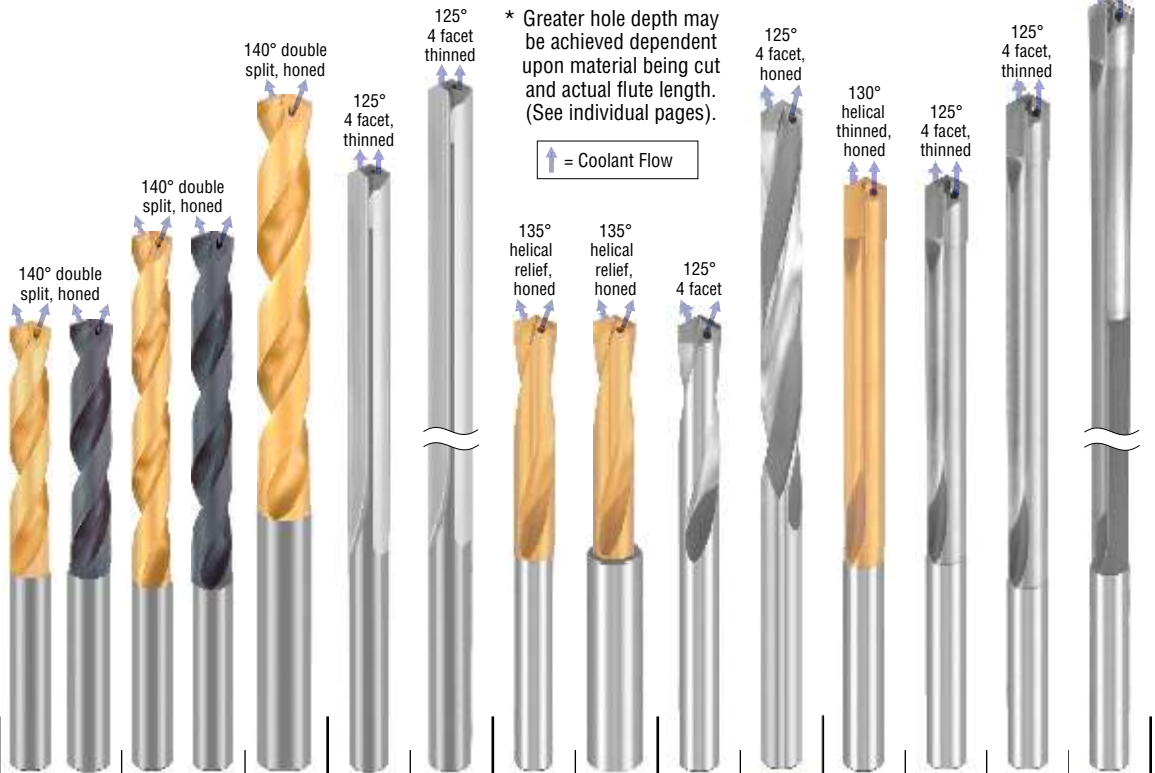


NEXT

BACK



COOLANT FED PRODUCTS



Style No.		294	294A	293	293A	292A	174	175	296	297	295	290	176	171	170	172
Tool Group		M		M	M	M	N	N	P	P	Q	Q	R	R	R	R
Inch Stocked	Dia. Max. Dia. Min.	0.7500" 0.125"	0.5938" 0.125"	0.75" 0.6094"	0.75" 0.125"	0.25" 0.125"	1.125" 0.246"	1.125" 0.25"	1.125" 0.25"	0.75" 0.25"	1" 0.1875"	1" 0.1875"	1" 0.1875"	1" 0.1875"	1" 0.25"	
Metric Stocked	Dia. Max. Dia. Min.	19.279 3.2	15.0 3.2	19.0 15.5	6.0 3.5	6.0 3.5	26.0 6.5	26.0 6.5	26.0 6.5	— —	— —	25.0 5.0	25.0 5.0	— —	— —	
Max x Dia. Depth		4	6	6	10.5*	17.5*	4*	4*	4*	7-12	5.5-8	5.5-8	7-15	12-28		

High Performance Kooltwist®

Koolcarb®

High Performance Kooltwist®

Heavy Duty Kooltwist®

Koolcarb®

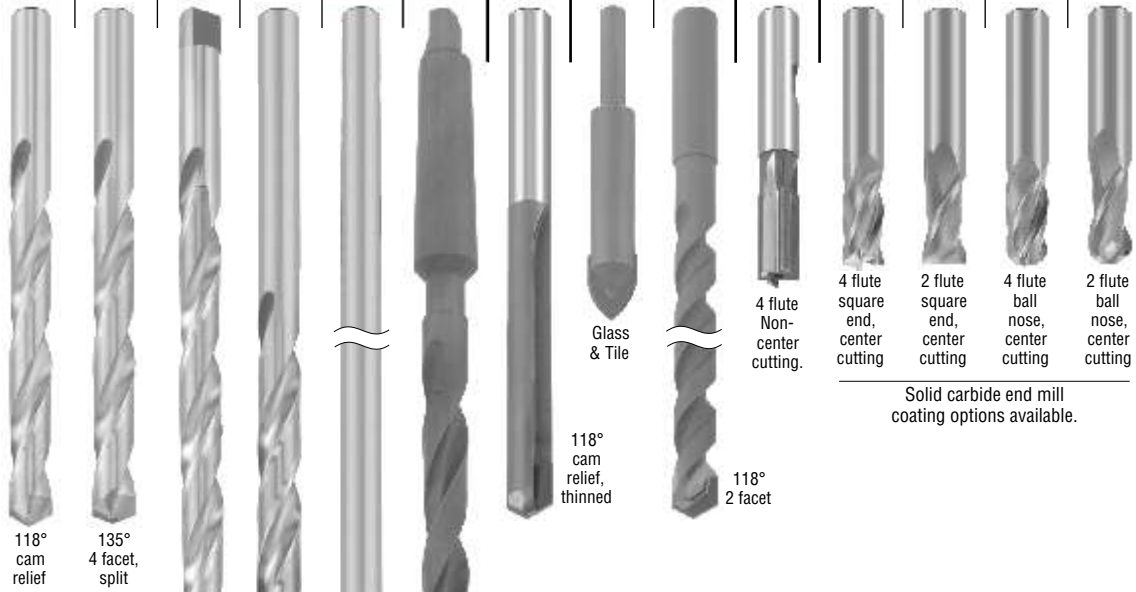
Solid Carbide

Carbide Tipped

# Carbide Tipped

# Solid Carbide

Standard Helix						Heavy Duty	Special Purpose	End Mill	End Mills				Dia. Max. } Inch Dia. Min. } Stocked	
0.6875" 0.098"	0.6875" 0.116"	1" 0.125"		1.250" 0.500"	0.5" 0.116"	1" 0.1719"	0.625" 0.125"	1.375" 0.5"	1.25" 0.25"	1" 0.125"	1" 0.125"	1" 0.125"		1" 0.125"
13.0 3.0	— —	19.0 5.0		— —	— —	14.0 5.0	— —	— —	— —	25.0 3.0	— —	— —	— —	Dia. Max. } Metric Dia. Min. } Stocked
4*	4*	4*		4*	4*	3*	—	—	—	—	—	—	—	Max x Dia. Depth
G	G	G	New	G	G	J	—	—	—	—	—	—	—	Tool Group
120	125	130	126	129	140	150	162	163	320	304	302	314	312	Style No.



118° cam relief  
135° 4 facet, split  
118° cam relief  
135° split (NASP3)

118° cam relief, thinned  
118° 2 facet

Solid carbide end mill coating options available.

All reamers have 90° included chamfer point.



452	452A	453	453A	450	470	480	490	Style No.
—	—	—	—	—	—	—	—	Tool Group
1.125" 0.2344"	1.125" 0.2344"	0.75" 0.25"	0.75" 0.25"	1.5" 0.1855"	0.75" 0.25"	0.75" 0.25"	1.375" 0.375"	Dia. Max. } Inch Dia. Min. } Stocked
—	—	—	—	9.5 4.75	—	—	—	Dia. Max. } Metric Dia. Min. } Stocked
—	—	—	—	—	—	—	—	Max x Dia. Depth

\* Greater hole depth may be achieved dependent upon material being cut and actual flute length. (See individual pages).

↑ = Coolant Flow

BACK

Koolream® Carbide				Reamers Carbide			
Tipped				Tipped			