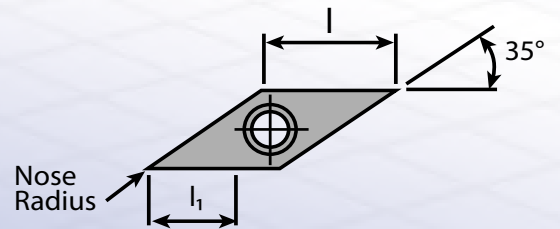
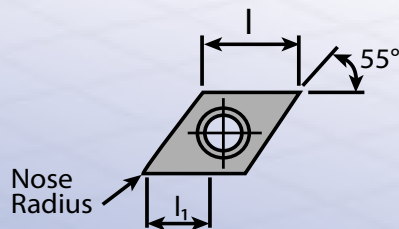
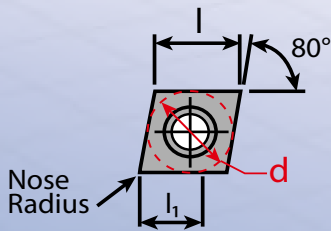


Speeds And Feeds Multidec ISO



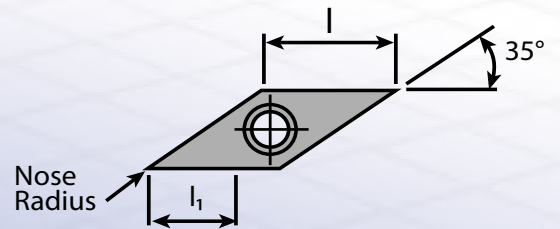
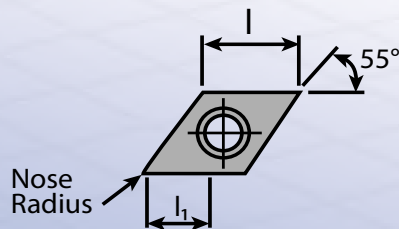
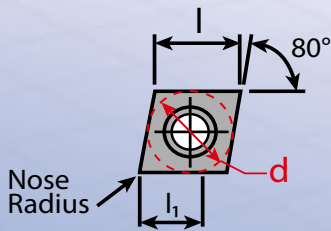
ISO	Steel Unalloyed			Steel Low Alloyed			Steel High Alloyed		
Hardness (HB)-(HRC)	125-300 HB			180-250 HB			200-350 HB		
Category	I			II			III		
Machining Method	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing
Cutting Speeds	vc(ft/min)								
Carbide Grade									
UHM 10	130-360	200-390	200-460	200-320	200-390	200-420	130-290	190-780	190-390
UHM 10 HX	200-590	200-720	200-850	200-560	200-660	200-790	160-520	190-590	190-720
UHM 10 TX+	-	-	-	260-490	330-590	520-720	230-330	290-490	390-590
UHM 10 MZ	590-980	720-1310	820-1640	490-920	650-1050	160-1310	390-920	590-1050	590-1050
UHM 20 HPX	490-660	590-720	650-850	260-490	330-590	520-720	230-330	290-490	390-590
UHM 20 TX+	-	-	-	260-430	330-490	520-620	230-290	290-430	430-490
UHM 20 MZ	430-590	520-720	590-850	330-520	360-590	420-720	230-490	360-520	430-620
UHM 30	100-230	160-260	160-320	100-200	130-260	130-330	100-160	100-230	100-260
UHM 30 HX	160-460	160-590	160-720	160-430	160-520	160-650	130-390	160-490	160-590
UHM 30 TX+	160-390	160-460	160-490	160-330	160-390	160-460	130-260	160-330	160-360
UHM 30 MZ	390-520	490-660	550-780	290-460	330-520	390-660	190-430	290-460	360-520
UHM 30 SX	160-390	160-590	160-650	160-330	330-460	160-190	130-290	160-390	160-520
Cermet Grade									
UCM 10	-	590-980	720-1150	-	460-820	190-980	-	460-590	520-650
UCM 10 HX	-	820-1150	980-1470	-	660-980	720-1240	-	780-980	850-
Diamond Grade									
UCVD 08	-	-	-	-	-	-	-	-	-
UPCD 15	-	-	-	-	-	-	-	-	-
UPCD 20	-	-	-	-	-	-	-	-	-



Speeds And Feeds Multidec ISO



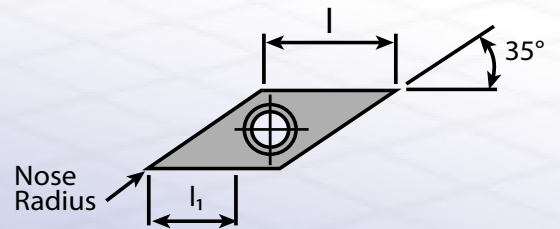
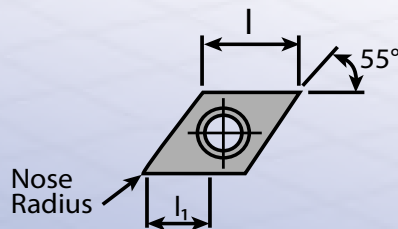
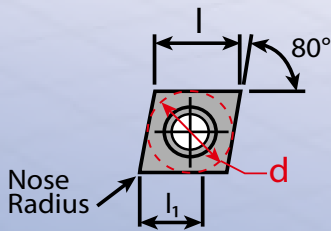
ISO	Stainless Steel			Stainless Steel			Titanium		
Hardness (HB)-(HRC)	180-220 HB			220-330 HB			-		
Category	V			VI			IV		
Machining Method	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing
Cutting Speeds	vc(ft/min)								
Carbide Grade									
UHM 10	130-330	130-360	130-390	100-230	100-260	100-260	130-200	160-230	200-260
UHM 10 HX	160-460	160-590	160-720	130-330	160-360	160-430	130-390	130-430	130-490
UHM 10 TX+	300-490	360-590	520-650	230-300	300-390	360-490	160-330	200-390	200-460
UHM 10 MZ	330-590	590-820	720-980	-	-	-	-	-	-
UHM 20 HPX	290-490	360-590	520-650	230-290	290-390	360-490	160-330	200-390	200-460
UHM 20 TX+	290-430	360-520	520-590	230-290	290-390	360-490	160-330	200-390	200-460
UHM 20 MZ	290-490	360-520	420-590	160-260	100-160	130-230	-	-	-
UHM 30	100-200	100-230	100-260	60-100	60-130	60-130	130-160	80-200	100-230
UHM 30 HX	130-330	130-460	130-520	100-190	130-230	130-290	100-290	130-330	130-390
UHM 30 TX+	-	-	-	-	-	-	-	-	-
UHM 30 MZ	260-430	330-460	360-520	130-260	160-300	300-360	-	-	-
UHM 30 SX	100-300	130-390	130-520	60-160	100-200	100-260	-	-	-
Cermet Grade									
UCM 10	-	460-590	490-720	-	230-300	230-360	-	-	-
UCM 10 HX	-	560-750	750-920	-	260-360	360-460	-	-	-
Diamond Grade									
UCVD 08	-	-	-	-	-	-	-	-	-
UPCD 15	-	-	-	-	-	-	-	-	-
UPCD 20	-	-	-	-	-	-	-	-	-



Speeds And Feeds Multidec ISO

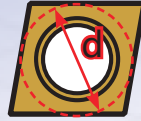


ISO	Aluminum			Brass			Hard Materials		
Hardness (HB)-(HRC)	60-130 HB			-			45-70 HRC		
Category	VII			VIII			X		
Machining Method	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing	▼ Roughing	▼▼ Medium Cut	▼▼▼ Micro Finishing
Cutting Speeds	vc(ft/min)								
Carbide Grade									
UHM 10	330-4920	390-6560	520-8200	260-980	330-1300	390-1640	-	-	-
UHM 10 HX	460-8200	520-9840	650-9840	330-1470	330-1970	330-2460	-	-	-
UHM 10 TX+	-	-	-	-	-	-	50-100	50-130	60-190
UHM 10 MZ	-	-	-	-	-	-	-	-	-
UHM 20 HPX	-	-	-	-	-	-	-	-	-
UHM 20 TX+	-	-	-	-	-	-	-	-	-
UHM 20 MZ	-	-	-	-	-	-	-	-	-
UHM 30	160-3280	190-3940	260-4920	130-330	160-460	160-520	-	-	-
UHM 30 HX	230-4920	260-6560	330-9840	160-490	160-660	160-820	-	-	-
UHM 30 TX+	-	-	-	-	-	-	-	-	-
UHM 30 MZ	-	-	-	-	-	-	-	-	-
UHM 30 SX	200-3940	260-6560	330-9840	160-390	160-590	160-660	-	-	-
Cermet Grade									
UCM 10	-	-	-	-	-	-	-	-	-
UCM 10 HX	-	-	-	-	-	-	-	-	-
Diamond Grade									
UCVD 08	-	980-6560	980-9840	-	820-3280	980-4920	-	-	-
UPCD 15	-	980-6560	980-9840	-	820-3280	980-4920	-	-	-
UPCD 20	-	980-6560	980-9840	-	820-3280	980-4920	-	-	-



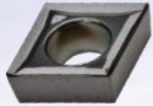
Coatings vs Material Type

Carbide										Cermet	Diamond	Materials		
-	-	■	■	■	□	□	■	□	■	■	-	-	-	Steel
-	■	-	■	□	□	■	■	□	■	-	-	-	-	Stainless Steel
□	■	-	□	-	□	-	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	□	□	-	□	-	■	■	■	Non Ferrous Metals	
UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	



CC...06 inserts: d = .250"
 CC...09 inserts: d = .375"
 CC...12 inserts: d = .500"

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Steel Non-Alloyed	Steel Low-Alloyed	Steel High-Alloyed	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composites

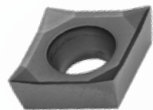
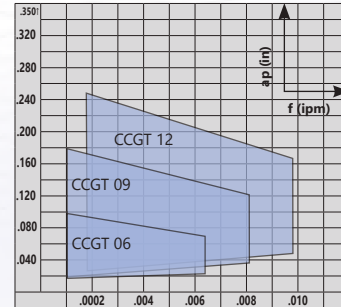


CCGT Carbide PA3

Cut: Neutral

Chip Breaker: PA3, Polished Rake, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	-	□
Finishing	□	□	□	□	□	■	■	-	■
Micro Finishing	■	■	■	■	■	■	■	-	■

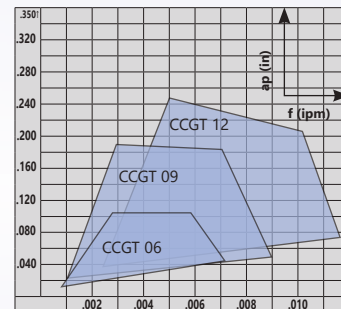


CCGT Carbide PA7

Cut: Neutral

Chip Breaker: PA7, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	-	□
Finishing	□	□	□	□	□	■	■	-	■
Micro Finishing	■	■	■	□	■	■	■	-	■

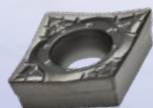
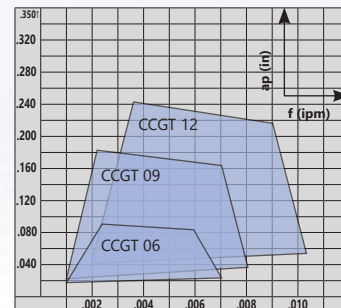


CCGT Carbide PA5

Cut: Neutral

Chip Breaker: PA5, Polished Rake, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	-	□
Finishing	■	■	■	□	■	■	■	-	■
Micro Finishing	■	■	■	□	■	■	■	-	■

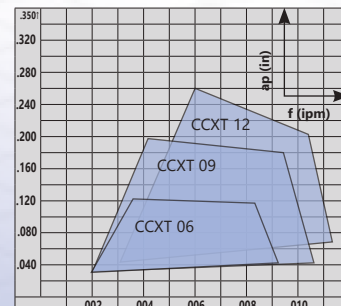


CCXT Carbide PA9

Cut: Neutral

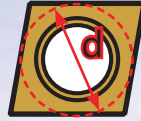
Chip Breaker: PA9, Honed Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	□	□	□	■	-	-
Finishing	■	■	■	■	■	■	□	-	-
Micro Finishing	□	□	□	-	□	□	-	-	-



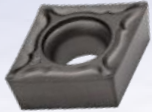
Coatings vs Material Type

		Carbide						Cermets		Diamond		Materials	
		-	-	■	■	■	□	□	■	■	-	-	-
		-	■	-	■	□	□	■	■	□	■	-	-
		□	■	-	□	-	□	■	-	-	-	-	-
		■	□	-	-	-	□	□	-	□	-	■	■
UHM 10													
UHM 10 HX													
UHM 10 MZ													
UHM 20 HPX													
UHM 20 MZ													
UHM 30													
UHM 30 HX													
UHM 30 MZ													
UHM 30 SX													
UCM 10													
UCM 10 HX													
UCVD 08													
UPCD 15													
UPCD 20													



CC...06 inserts: d = .250"
 CC...09 inserts: d = .375"
 CC...12 inserts: d = .500"

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Steel Non-Alloyed	Steel Low-Alloyed	Steel High-Alloyed	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composites

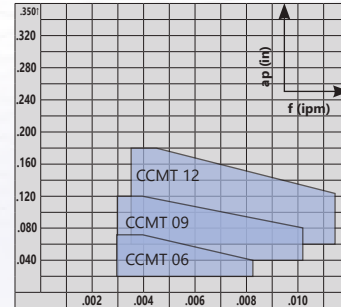


CCMT Cermet PMF

Cut: Neutral

Chip Breaker: PMF, Honed Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

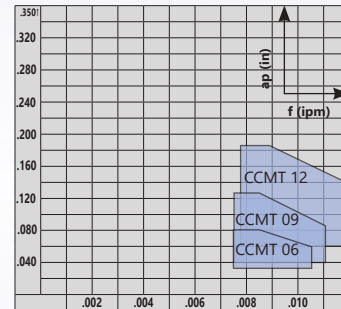


CCMT Carbide PM55

Cut: Neutral

Chip Breaker: PM55, Honed Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	-	■	■	-	-	-
Finishing	-	-	-	-	-	-	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

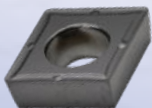
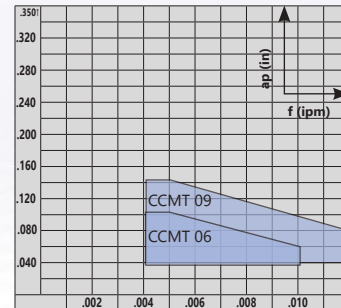


CCMT Carbide PM25

Cut: Neutral

Chip Breaker: PM25, Honed Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	-	■	■	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

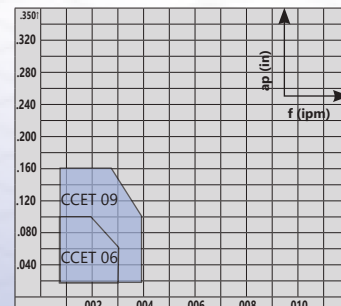


CCET Carbide -U

Cut: Neutral

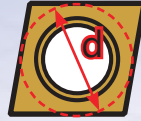
Chip Breaker: -U, Ground Rake, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	-	□	□	-	-	-
Micro Finishing	■	■	■	□	■	■	□	-	□



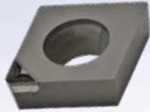
Coatings vs Material Type

		Carbide					Cermets		Diamond		Materials	
		-	-	■	■	■	□	□	■	■	-	-
		-	■	-	■	□	□	■	■	■	-	-
		□	■	-	□	-	□	■	-	-	-	-
		■	□	-	-	□	□	-	■	■	■	■
UHM 10												
UHM 10 HX												
UHM 10 MZ												
UHM 20 HPX												
UHM 20 MZ												
UHM 30												
UHM 30 HX												
UHM 30 MZ												
UHM 30 SX												
UCM 10												
UCM 10 HX												
UCVD 08												
UPCD 15												
UPCD 20												



CC...06 inserts: d = .250"
 CC...09 inserts: d = .375"
 CC...12 inserts: d = .500"

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Steel Non-Alloyed	Steel Low-Alloyed	Steel High-Alloyed	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composites

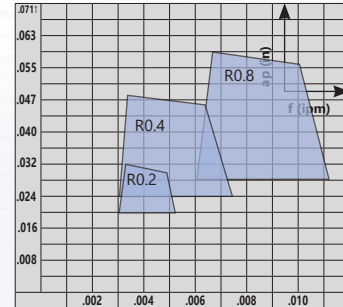


CCGT Diamond -UWN

Cut: Neutral

Chip Breaker: -UWN, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	-	-	-

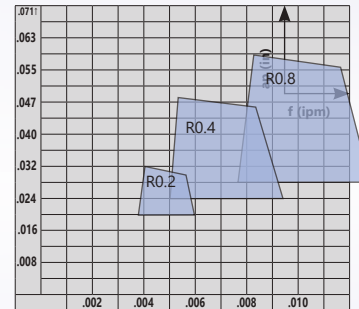


CCGT Diamond -UWN TOP Wiper

Cut: Neutral

Chip Breaker: -UWN, TOP Wiper, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	-	-	-

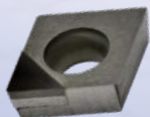
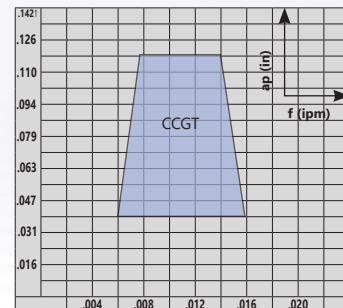


CCGT Diamond -UWR

Cut: Neutral

Chip Breaker: -UWR, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	-	-	-

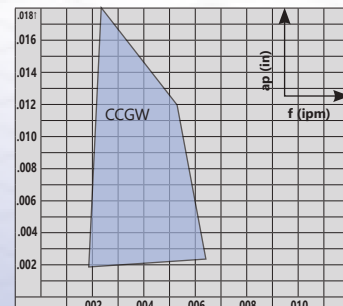


CCGW Diamond

Cut: Neutral

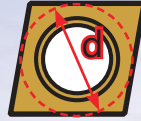
Chip Breaker: Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	-	-	-



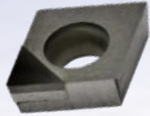
Coatings vs Material Type

Carbide										Cermet	Diamond		Materials		
-	-	■	■	■	□	□	■	□	■	■	-	-	-		
-	■	-	■	□	□	■	■	□	■	-	-	-			
□	■	-	□	-	□	■	-	-	-	-	-	-			
■	□	-	-	-	□	□	-	□	-	■	■	■			
UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20		



CC...06 inserts: d = .250"
 CC...09 inserts: d = .375"
 CC...12 inserts: d = .500"

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Steel Non-Alloyed	Steel Low-Alloyed	Steel High-Alloyed	Titanium	Stainless Steel (HB<220)	Stainless Steel (HB≥220)	Aluminum	Brass	Synthetics / Composites

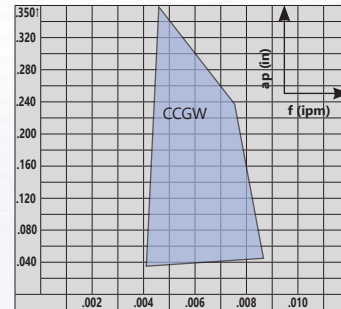


CCGW Diamond TOP Wiper

Cut: Neutral

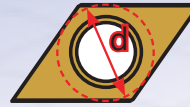
Chip Breaker: TOP Wiper, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	■	■	■



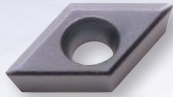
Coatings vs Material Type

Carbide												Cermet	Diamond	Materials
-	-	■	■	■	□	□	■	□	■	■	-	-	-	Steel
-	■	-	■	□	□	■	■	■	□	■	-	-	-	Stainless Steel
□	■	-	□	-	□	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	□	□	-	□	-	■	■	■	-	Non Ferrous Metals
UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	



DC...07 inserts: d = .250"
DC...11 inserts: d = .375"

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Steel Non-Alloyed	Steel Low-Alloyed	Steel High-Alloyed	Titanium	Stainless Steel (HB < 220)	Stainless Steel (HB ≥ 220)	Aluminum	Brass	Synthetics / Composites

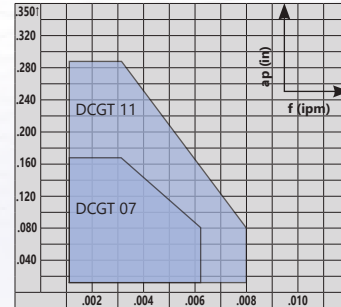


DCGT Carbide A3

Cut: Neutral

Chip Breaker: A3, Polished Rake, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	□	□	□	■	-	■
Micro Finishing	■	■	■	■	■	■	■	-	■

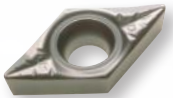
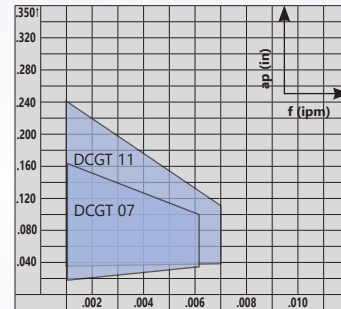


DCGT Carbide PA3

Cut: Neutral

Chip Breaker: PA3, Polished Rake, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	-	□
Finishing	□	□	□	□	□	□	■	-	■
Micro Finishing	■	■	■	■	■	■	■	-	■

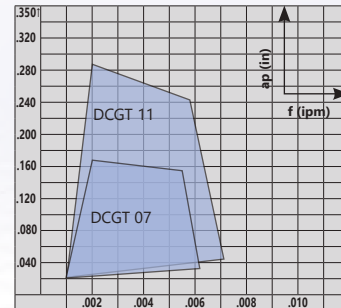


DCGT Carbide PA5

Cut: Neutral

Chip Breaker: PA5, Polished Rake, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	-	□
Finishing	■	■	■	□	■	■	■	-	■
Micro Finishing	■	■	■	□	■	■	■	-	■

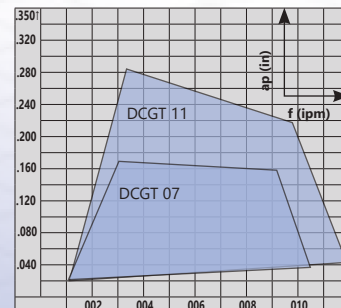


DCGT Carbide TOP5

Cut: Neutral

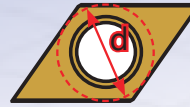
Chip Breaker: TOP5, Polished Rake, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	□	□	□	□	-	□
Finishing	■	■	■	□	■	■	■	-	■
Micro Finishing	□	□	□	□	□	□	□	-	□



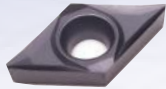
Coatings vs Material Type

Carbide												Cermet	Diamond	Materials
-	-	■	■	■	□	□	■	□	■	■	-	-	-	Steel
-	■	-	■	□	□	■	■	■	□	■	-	-	-	Stainless Steel
□	■	-	□	-	□	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	□	□	-	□	-	■	■	■	-	Non Ferrous Metals
UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	



DC...07 inserts: d = .250"
DC...11 inserts: d = .375"

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Steel Non-Alloyed	Steel Low-Alloyed	Steel High-Alloyed	Titanium	Stainless Steel (HB < 220)	Stainless Steel (HB ≥ 220)	Aluminum	Brass	Synthetics / Composites

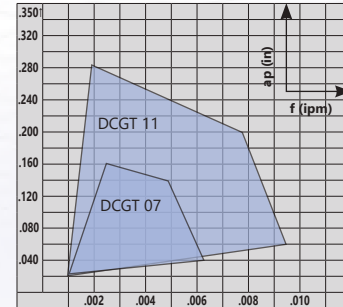


DCGT Carbide PA7

Cut: Neutral

Chip Breaker: PA7, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	-	□
Finishing	□	□	□	□	□	□	■	-	■
Micro Finishing	■	■	■	□	□	■	■	-	■

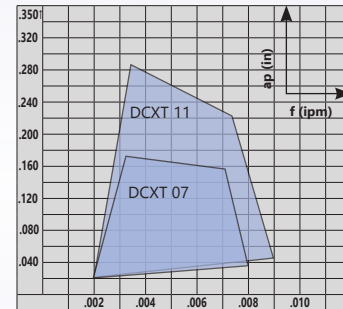


DCXT Carbide PA9

Cut: Neutral

Chip Breaker: PA9, Honed Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	□	□	□	■	-	-
Finishing	■	■	■	■	■	■	□	-	-
Micro Finishing	□	□	□	-	□	□	-	-	-

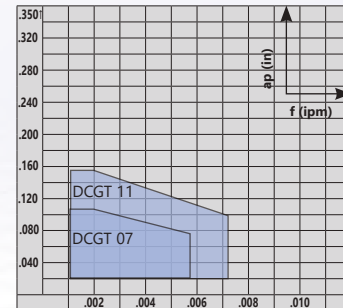


DCGT Carbide/Cermet PF

Cut: Neutral

Chip Breaker: PF, Sharp Or Honed Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	-	□	□	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	■	■	■	-	■	■	-	-	-

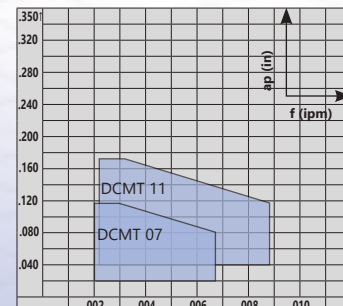


DCMT Carbide PF

Cut: Neutral

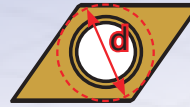
Chip Breaker: PF, Honed Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	□	□	□	-	□	□	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-



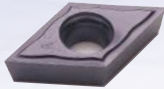
Coatings vs Material Type

Carbide										Cermet	Diamond	Materials		
-	-	■	■	■	□	□	■	□	■	■	-	-	-	Steel
-	■	-	■	□	□	■	■	■	□	■	-	-	-	Stainless Steel
□	■	-	□	-	□	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	□	□	-	□	-	■	■	■	■	Non Ferrous Metals
UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	



DC...07 inserts: d = .250"
DC...11 inserts: d = .375"

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Steel Non-Alloyed	Steel Low-Alloyed	Steel High-Alloyed	Titanium	Stainless Steel (HB < 220)	Stainless Steel (HB ≥ 220)	Aluminum	Brass	Synthetics / Composites

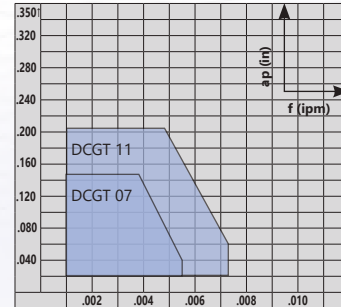


DCGT Carbide PF23

Cut: Neutral

Chip Breaker: PF23, Polished Rake, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	□	□	□	□	□	□
Micro Finishing	■	■	■	□	■	■	□	-	□

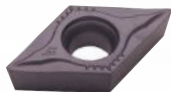
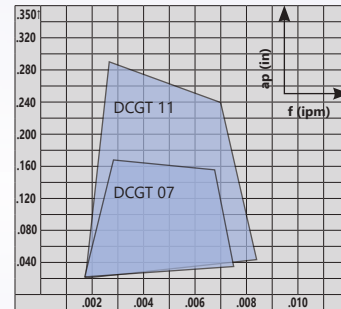


DCGT Carbide PF33

Cut: Neutral

Chip Breaker: PF33, Polished Rake, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	-	□	□	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	■	■	■	-	■	■	-	-	-

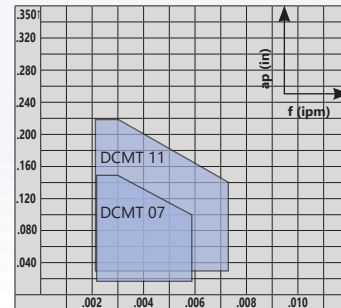


DCMT Carbide PF43

Cut: Neutral

Chip Breaker: PF43, Honed Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

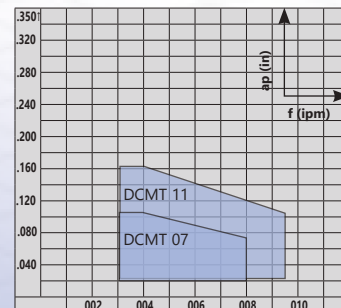


DCMT Carbide PM Roughing

Cut: Neutral

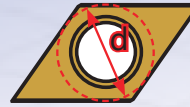
Chip Breaker: PM, Honed Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	□	□	□	-	□	□	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-



Coatings vs Material Type

Carbide												Cermet	Diamond	Materials
-	-	■	■	■	□	□	■	□	■	■	-	-	-	Steel
-	■	-	■	□	□	■	■	■	□	■	-	-	-	Stainless Steel
□	■	-	□	-	□	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	□	□	-	□	-	■	■	■	-	Non Ferrous Metals
UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	



DC...07 inserts: d = .250"
DC...11 inserts: d = .375"

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Steel Non-Alloyed	Steel Low-Alloyed	Steel High-Alloyed	Titanium	Stainless Steel (HB < 220)	Stainless Steel (HB ≥ 220)	Aluminum	Brass	Synthetics / Composites

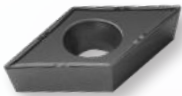
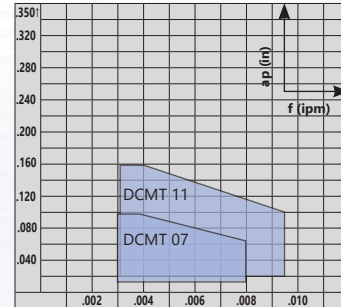


DCMT Cermet PMF

Cut: Neutral

Chip Breaker: PMF, Honed Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

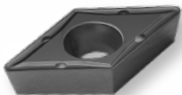
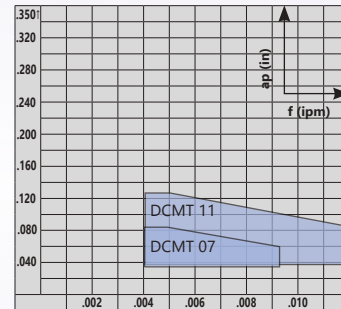


DCMT Carbide PM25

Cut: Neutral

Chip Breaker: PM25, Honed Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	-	■	■	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

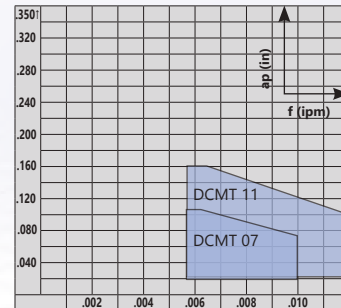


DCMT Carbide PM55

Cut: Neutral

Chip Breaker: PM55, Honed Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	-	■	■	-	-	-
Finishing	-	-	-	-	-	-	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-

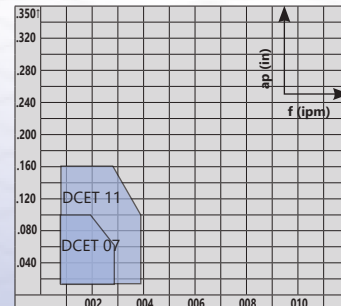


DCET Carbide/Cermet U

Cut: Neutral

Chip Breaker: U, Ground Rake, Sharp Cutting Edge

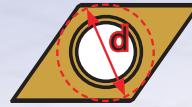
Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	-	□	□	-	-	-
Micro Finishing	■	■	■	□	■	■	□	-	□



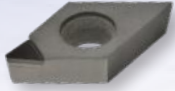
Coatings vs Material Type

Carbide										Cermet	Diamond	Materials		
-	-	■	■	■	□	□	■	□	■	■	-	-	-	Steel
-	■	-	■	□	□	■	■	■	□	■	-	-	-	Stainless Steel
□	■	-	□	-	□	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	□	□	-	□	-	■	■	■	■	Non Ferrous Metals
UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Steel Non-Alloyed	Steel Low-Alloyed	Steel High-Alloyed	Titanium	Stainless Steel (HB < 220)	Stainless Steel (HB ≥ 220)	Aluminum	Brass	Synthetics / Composites



DC...07 inserts: d = .250"
DC...11 inserts: d = .375"

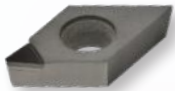
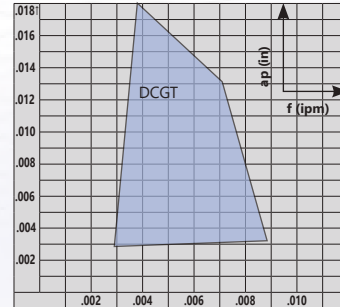


DCGT Diamond

Cut: Neutral

Chip Breaker: Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	■	■	■

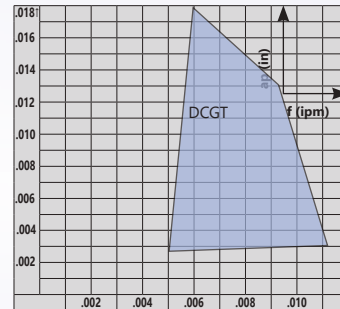


DCGT Diamond TOP

Cut: Neutral

Chip Breaker: TOP, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	■	■	■

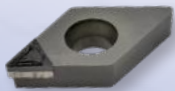
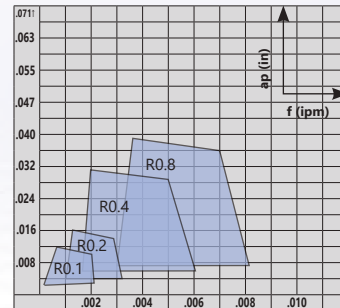


DCGT Diamond UWS Micro Finishing

Cut: Neutral

Chip Breaker: UWS, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	-	-	-	-	-	-	□	□	□
Micro Finishing	-	-	-	-	-	-	■	■	■

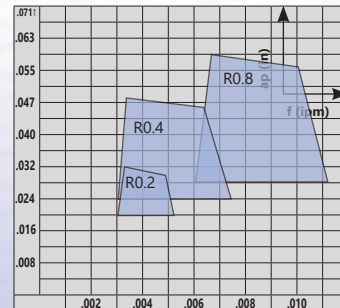


DCGT Diamond UWN Micro Finishing

Cut: Neutral

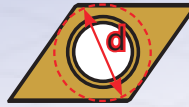
Chip Breaker: UWN, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	-	-	-



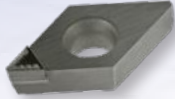
Coatings vs Material Type

Carbide										Cermet	Diamond	Materials		
-	-	■	■	■	□	□	■	□	■	■	-	-	-	Steel
-	■	-	■	□	□	■	■	■	□	■	-	-	-	Stainless Steel
□	■	-	□	-	□	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	□	□	-	□	-	■	■	■	Non Ferrous Metals	
UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	



DC...07 inserts: d = .250"
DC...11 inserts: d = .375"

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Steel Non-Alloyed	Steel Low-Alloyed	Steel High-Alloyed	Titanium	Stainless Steel (HB < 220)	Stainless Steel (HB ≥ 220)	Aluminum	Brass	Synthetics / Composites

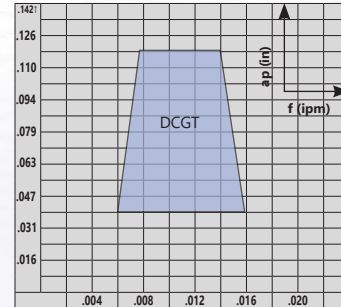


DCGT Diamond UWR

Cut: Neutral

Chip Breaker: UWR, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	-	-	-

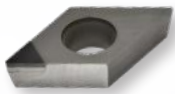
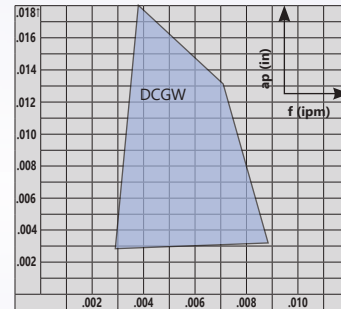


DCGW Diamond

Cut: Neutral

Chip Breaker: Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	■	■	■

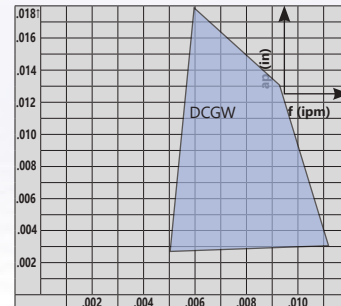


DCGW Diamond TOP Wiper

Cut: Neutral

Chip Breaker: TOP Wiper, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	■	■	■



Coatings vs Material Type

Carbide												Cermets		Diamond		Materials	
-	-	■	■	■	□	□	■	□	■	■	-	-	-	-	-	Steel	
-	■	-	■	□	□	■	■	■	□	■	-	-	-	-	-	Stainless Steel	
□	■	-	□	-	□	■	-	-	-	-	-	-	-	-	-	Titanium & Ti-Alloys	
■	□	-	-	-	□	□	-	-	-	■	■	■	-	-	-	Non Ferrous Metals	
UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20				



VC...07 inserts: d = .1562"
 VC...10 inserts: d = .250"
 VC...11 inserts: d = .250"
 VC...16 inserts: d = .375"

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Steel Non-Alloyed	Steel Low-Alloyed	Steel High-Alloyed	Titanium	Stainless Steel (HB < 220)	Stainless Steel (HB ≥ 220)	Aluminum	Brass	Synthetics / Composites

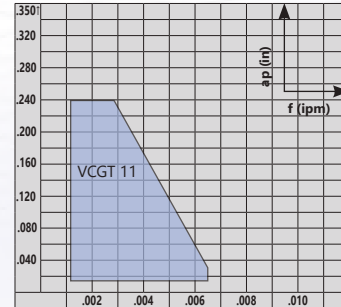


VCGT Carbide A3

Cut: Neutral

Chip Breaker: A3, Polished Rake, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	□	□	□	■	-	■
Micro Finishing	■	■	■	■	■	■	■	-	■

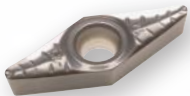
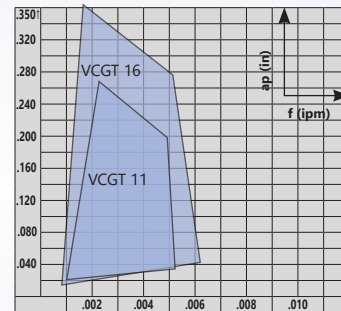


VCGT Carbide PA5

Cut: Neutral

Chip Breaker: PA5, Polished Rake, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	-	□
Finishing	■	■	■	□	■	■	■	-	■
Micro Finishing	■	■	■	□	■	■	■	-	■

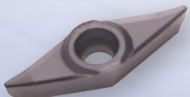
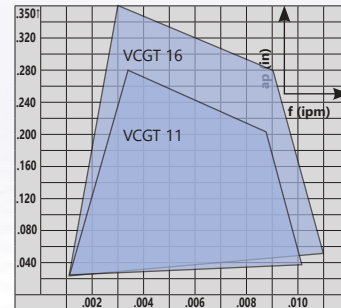


VCGT Carbide TOP5 Wiper

Cut: Right Hand, Left Hand

Chip Breaker: TOP5, Polished Rake, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	□	□	□	□	-	□
Finishing	■	■	■	□	■	■	■	-	■
Micro Finishing	□	□	□	□	□	□	□	-	□

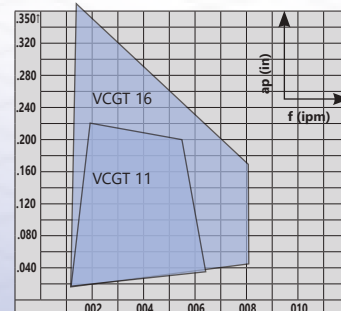


VCGT Carbide PA7

Cut: Neutral

Chip Breaker: PA7, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	-	□
Finishing	□	□	□	□	□	□	■	-	■
Micro Finishing	■	■	■	□	■	■	■	-	■



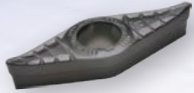
Coatings vs Material Type

Carbide										Cermet		Diamond		Materials
-	-	■	■	■	□	□	■	□	■	■	-	-	-	Steel
-	■	-	■	□	□	■	■	■	■	■	-	-	-	Stainless Steel
□	■	-	□	-	□	■	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	□	□	-	-	■	■	■	-	-	Non Ferrous Metals
UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20	



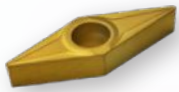
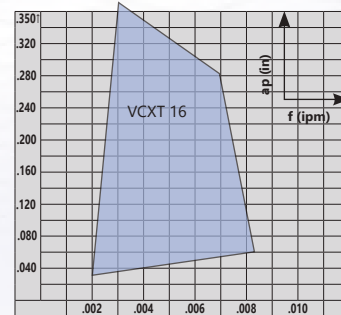
VC...07 inserts: d = .1562"
 VC...10 inserts: d = .250"
 VC...11 inserts: d = .250"
 VC...16 inserts: d = .375"

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Steel Non-Alloyed	Steel Low-Alloyed	Steel High-Alloyed	Titanium	Stainless Steel (HB < 220)	Stainless Steel (HB ≥ 220)	Aluminum	Brass	Synthetics / Composites



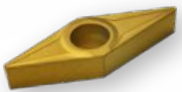
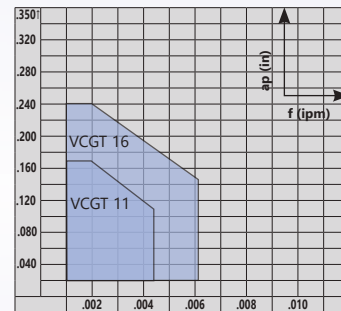
VCXT Carbide PA9
 Cut: Neutral
 Chip Breaker: PA9, Honed Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	□	□	□	■	-	-
Finishing	■	■	■	■	■	■	□	-	-
Micro Finishing	□	□	□	-	□	□	-	-	-



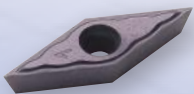
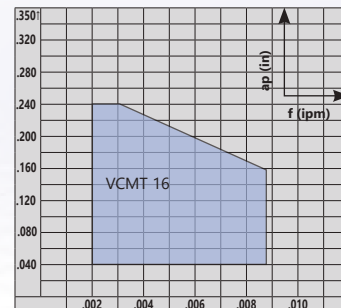
VCGT Carbide/Cermet PF
 Cut: Neutral
 Chip Breaker: PF, Polished Rake, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	-	□	□	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	■	■	■	-	■	■	-	-	-



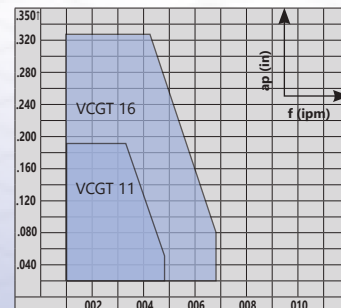
VCMT Carbide PF
 Cut: Neutral
 Chip Breaker: PF, Honed Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	□	□	□	-	□	□	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-



VCMT Carbide PF23
 Cut: Neutral
 Chip Breaker: PF23, Polished Rake, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	□	□	□	□	-	-
Micro Finishing	■	■	■	□	■	■	□	-	□



Coatings vs Material Type

Carbide												Cermet		Diamond		Materials	
-	-	■	■	■	□	□	■	□	■	■	-	-	-	-	-	Steel	
-	■	-	■	□	□	■	■	□	■	-	-	-	-	-	-	Stainless Steel	
□	■	-	□	-	□	■	-	-	-	-	-	-	-	-	-	Titanium & Ti-Alloys	
■	□	-	-	-	□	□	-	□	-	-	■	■	■	-	-	Non Ferrous Metals	

- UHM 10
- UHM 10 HX
- UHM 10 MZ
- UHM 20 HPX
- UHM 20 MZ
- UHM 30
- UHM 30 HX
- UHM 30 MZ
- UHM 30 SX
- UCM 10
- UCM 10 HX
- UCVD 08
- UPCD 15
- UPCD 20



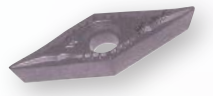
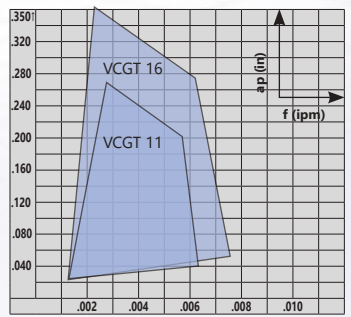
VC...07 inserts: d = .1562"
 VC...10 inserts: d = .250"
 VC...11 inserts: d = .250"
 VC...16 inserts: d = .375"

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Steel Non-Alloyed	Steel Low-Alloyed	Steel High-Alloyed	Titanium	Stainless Steel (HB < 220)	Stainless Steel (HB ≥ 220)	Aluminum	Brass	Synthetics / Composites



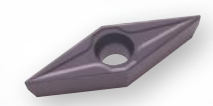
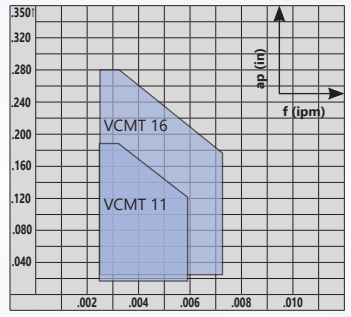
VCGT Carbide PF33
 Cut: Neutral
 Chip Breaker: PF33, Polished Rake, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	-	□	□	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	■	■	■	-	■	■	-	-	-



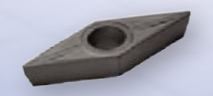
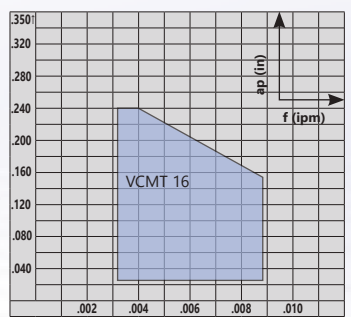
VCMT Carbide PF43
 Cut: Neutral
 Chip Breaker: PF43, Honed Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-



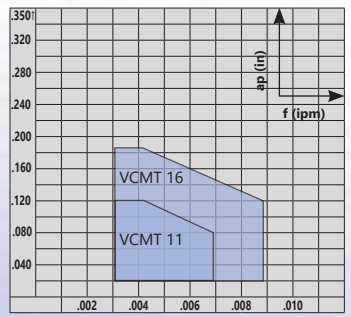
VCMT Carbide PM
 Cut: Neutral
 Chip Breaker: PM, Honed Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	□	□	□	-	□	□	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-



VCMT Cermet PMF
 Cut: Neutral
 Chip Breaker: PMF, Honed Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	■	■	■	-	■	■	-	-	-
Finishing	■	■	■	-	■	■	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-



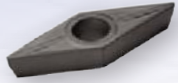
Coatings vs Material Type

Carbide										Cermets		Diamond		Materials	
-	-	■	■	■	□	□	■	□	■	■	■	-	-	-	Steel
-	■	-	■	□	□	■	■	□	■	■	■	-	-	-	Stainless Steel
□	■	-	□	-	□	■	-	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	□	□	-	-	■	■	■	■	■	■	Non Ferrous Metals
UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20		



VC...07 inserts: d = .1562"
 VC...10 inserts: d = .250"
 VC...11 inserts: d = .250"
 VC...16 inserts: d = .375"

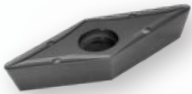
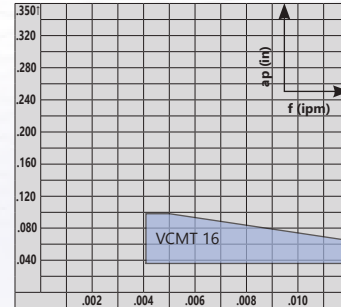
Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Steel Non-Alloyed	Steel Low-Alloyed	Steel High-Alloyed	Titanium	Stainless Steel (HB < 220)	Stainless Steel (HB ≥ 220)	Aluminum	Brass	Synthetics / Composites



VCMT Carbide PM25

Cut: Neutral
 Chip Breaker: PM25, Honed Cutting Edge

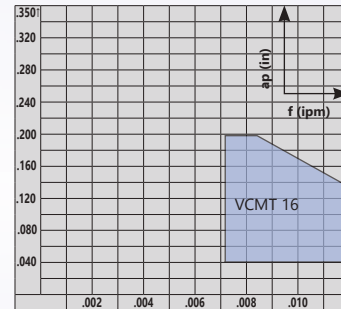
Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	□	□	□	-	■	■	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-



VCMT Carbide PM55

Cut: Neutral
 Chip Breaker: PM55, Honed Cutting Edge

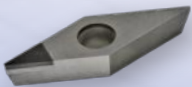
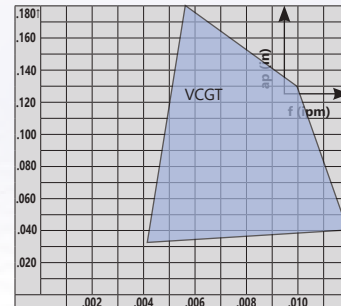
Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	□	□	□	-	■	■	-	-	-
Finishing	-	-	-	-	-	-	-	-	-
Micro Finishing	-	-	-	-	-	-	-	-	-



VCGT Diamond

Cut: Neutral
 Chip Breaker: Sharp Cutting Edge

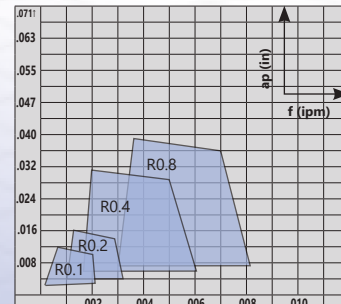
Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	■	■	■



VCGT Diamond UWS

Cut: Neutral
 Chip Breaker: UWS, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	-	-	-
Finishing	-	-	-	-	-	-	□	□	□
Micro Finishing	-	-	-	-	-	-	■	■	■



Coatings vs Material Type

Carbide										Cermet		Diamond		Materials	
-	-	■	■	■	□	□	■	□	■	■	-	-	-	-	Steel
-	■	-	■	□	□	■	■	■	□	■	-	-	-	-	Stainless Steel
□	■	-	□	-	□	■	-	-	-	-	-	-	-	-	Titanium & Ti-Alloys
■	□	-	-	-	□	□	-	-	-	■	■	■	-	-	Non Ferrous Metals
UHM 10	UHM 10 HX	UHM 10 MZ	UHM 20 HPX	UHM 20 MZ	UHM 30	UHM 30 HX	UHM 30 MZ	UHM 30 SX	UCM 10	UCM 10 HX	UCVD 08	UPCD 15	UPCD 20		



VC...07 inserts: d = .1562"
 VC...10 inserts: d = .250"
 VC...11 inserts: d = .250"
 VC...16 inserts: d = .375"

Material Class								
I	II	III	IV	V	VI	VII	VIII	IX
Steel Non-Alloyed	Steel Low-Alloyed	Steel High-Alloyed	Titanium	Stainless Steel (HB < 220)	Stainless Steel (HB ≥ 220)	Aluminum	Brass	Synthetics / Composites

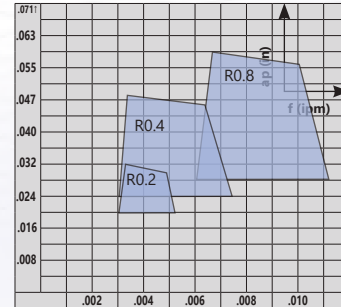


VCGT Diamond UWR

Cut: Neutral

Chip Breaker: UWR, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	-	-	-

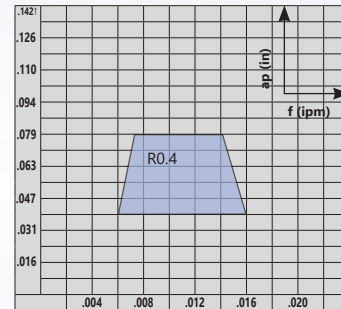


VCGT Diamond UWN

Cut: Neutral

Chip Breaker: UWN, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	-	-	-



VCGW Diamond

Cut: Neutral

Chip Breaker: UWN, Sharp Cutting Edge

Application	Material Class								
	I	II	III	IV	V	VI	VII	VIII	IX
Roughing	-	-	-	-	-	-	□	□	□
Finishing	-	-	-	-	-	-	■	■	■
Micro Finishing	-	-	-	-	-	-	■	■	■

