

DUALMILL DGC SERIES

DualMill DGC Series

Double-sided 45° Lead Face Mill



■ Features & Benefits

Improved reliability and quality

Improved coating and insert runout provides stability of life for production. An excellent lineup of Inserts with optimized chamfers to prevent burrs improves surface finish.

Superior economy

With the same sharpness at 3mm or less of similar one-sided inserts, you get twice the corners. Also, the cutter body holds both the ONMT & SNMT inserts, allowing up to 16 corners.

Extensive Lineup

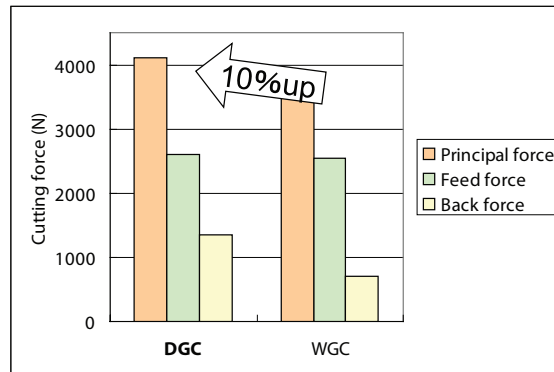
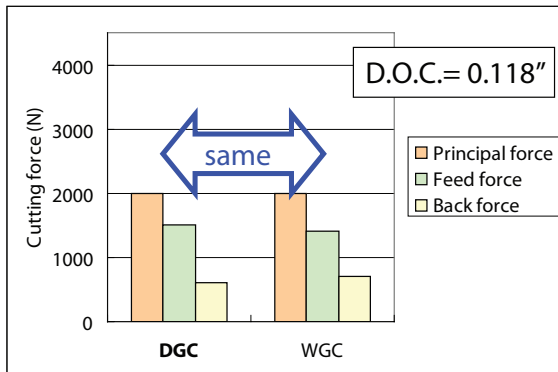
A wide range of diameters (2.000" to 10.000") and pitches (Normal, Fine, Extra Fine), inch and metric sizes, allows you to choose what you need for your application.

WGX + DGC Comparison

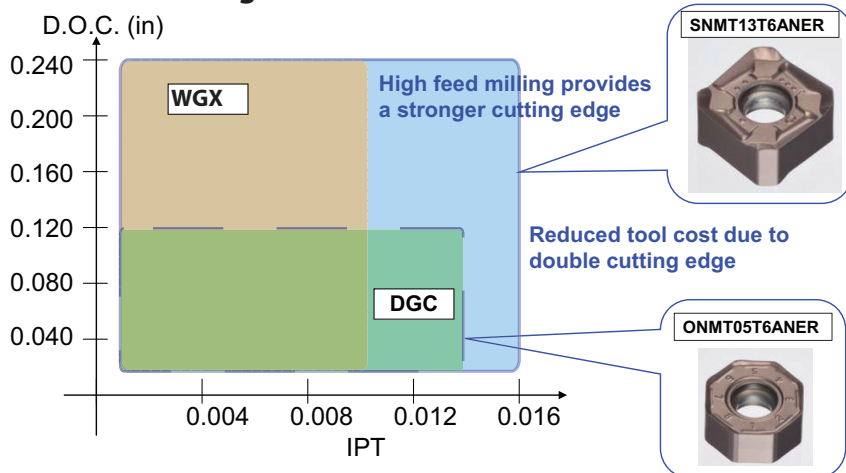
Needs	Surface Finish	Cutting Force	High Feed Rate	Insert Strength	Chip Evacuation	Cost Per Edge	General Versatility
Recommend	WGX	WGX	DGC	DGC	WGX	DGC	WGX

Cutting performance: DGC vs. WGC

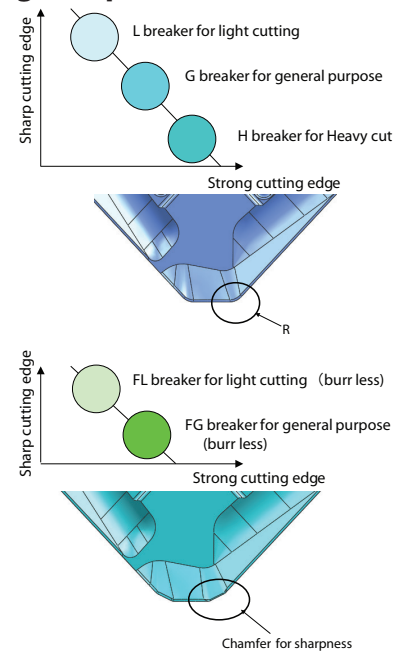
Work material : Cr-Mo Steel(SCM435)
Cutting conditions : vc= 500 SFM fz=.012 IPT
Tool dia: 4.00"



General Cutting Conditions

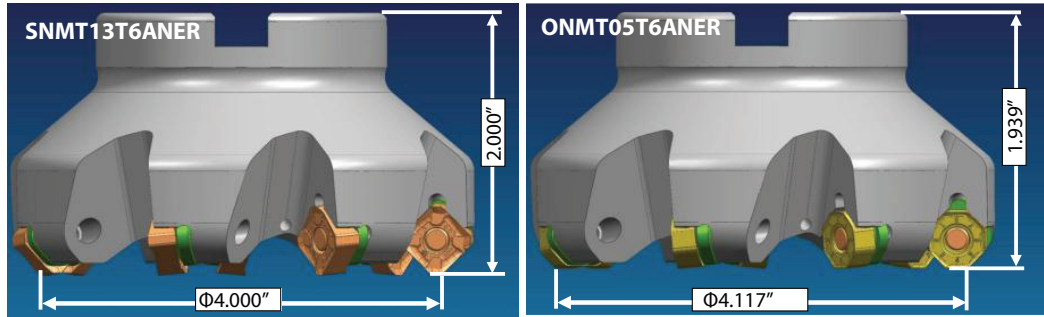


Edge Preparations



DGC Variation of Diameter of Insert

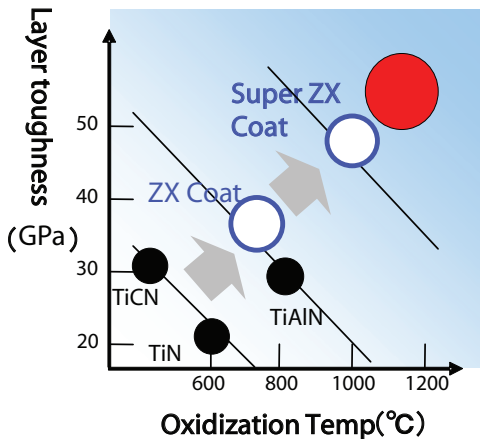
Both SNMT and ONMT inserts can be used on the same cutter body



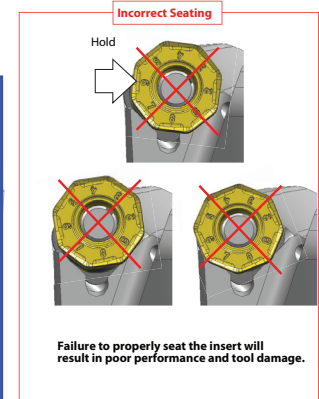
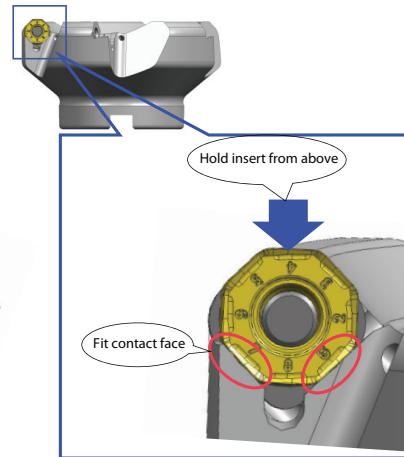
EX. ϕ 4.000"	# of cutting edges	Tool dia.	Cutter height	Max D.O.C
SNMT	8	4"	2"	6mm 0.236"
ONMT	16	4.117"	1.939"	3mm 0.118"

Machining stability with new Super ZX coating

Super multi-layered new super ZX coating improves wear resistance, toughness, and anti-adhesion.



Proper Seating of the ONMT Insert



Parts

Seat	Seat Screw	L Type Wrench	Insert Screw	Spanner	Anti-seizure Cream
DGCS13R	BW0609F	LH040	BFTX0412IP	TRDR15IP	SUMI-P

(Optional)

Insert Screw(*)
BFTX0418IP

*Corners can be changed simply by loosening the screw. (Only applies to DGC / DGCM types with body size ϕ 80 or above.)



DUALMILL DGC4000 - INCH

DualMill DGC Series

Double-sided 45° Lead Face Mill

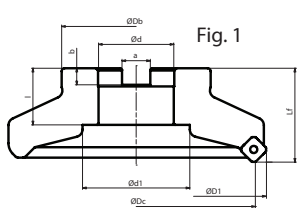


Fig. 1

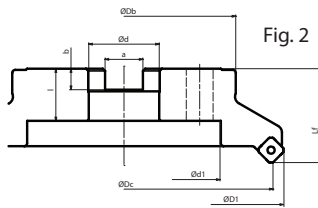


Fig. 2

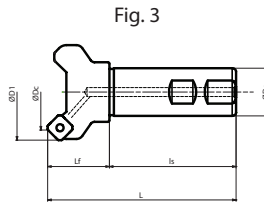


Fig. 3

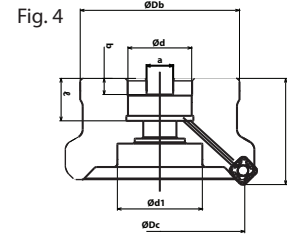


Fig. 4

Rake Angle: Radial: -10° Axial: -5°

DGC Cutter Bodies - Coarse Pitch - INCH

Catalog Number	Stock	ϕD_c	ϕD_1	ϕD_b	L_f	ϕD	ϕd_1	a	b	ℓ	Teeth	Fig.
DGC42000R	●	2.000	2.567	1.500	1.750	0.750	0.609	0.312	0.190	0.750	3	1
DGC42500R	●	2.500	3.067	1.750	1.750	1.000	0.797	0.375	0.220	0.750	4	1
DGC43000R	●	3.000	3.567	2.250	1.750	1.000	0.787	0.375	0.220	0.750	4	1
DGC44000R	●	4.000	4.567	2.870	2.000	1.250	1.000	0.500	0.280	0.750	5	1
DGC44000R-1.50	●	4.000	4.000	3.750	2.500	1.500	2.000	0.625	0.380	1.000	5	4
DGC45000R	●	5.000	5.567	3.750	2.500	1.500	2.000	0.625	0.380	1.000	6	1
DGC46000R	●	6.000	6.567	4.380	2.500	1.500	2.000	0.625	0.380	1.060	7	2
DGC48000R	●	8.000	8.567	5.906	2.500	2.500	5.118	1.000	0.560	1.594	8	2
DGC410000R	●	10.000	10.567	7.480	2.756	2.500	6.299	1.000	0.531	1.575	10	2

DGC Cutter Bodies - Fine Pitch - INCH

Catalog Number	Stock	ϕD_c	ϕD_1	ϕD_b	L_f	ϕD	ϕd_1	a	b	ℓ	Teeth	Fig.
DGCM42000R	●	2.000	2.567	1.500	1.750	0.750	0.609	0.312	0.190	0.750	4	1
DGCM42500R	●	2.500	3.067	1.750	1.750	1.000	0.797	0.375	0.220	0.750	5	1
DGCM43000R	●	3.000	3.567	2.250	1.750	1.000	0.787	0.375	0.220	0.750	6	1
DGCM44000R	●	4.000	4.567	2.870	2.000	1.250	1.000	0.500	0.280	0.750	7	1
DGCM44000R-1.50	●	4.000	4.000	3.750	2.500	1.500	2.000	0.625	0.380	1.000	7	4
DGCM45000R	●	5.000	5.567	3.750	2.500	1.500	2.000	0.625	0.380	1.000	8	1
DGCM46000R	●	6.000	6.567	4.380	2.500	1.500	2.000	0.625	0.380	1.060	10	2
DGCM48000R	●	8.000	8.567	5.906	2.500	2.500	5.118	1.000	0.560	1.594	12	2

DGC Cutter Bodies - Extra Fine Pitch - INCH

Catalog Number	Stock	ϕD_c	ϕD_1	ϕD_b	L_f	ϕD	ϕd_1	a	b	ℓ	Teeth	Fig.
DGCF42000R	●	2.000	2.567	1.500	1.750	0.750	0.609	0.312	0.190	0.750	5	1
DGCF42500R	●	2.500	3.067	1.750	1.750	1.000	0.797	0.375	0.220	0.750	6	1
DGCF43000R	●	3.000	3.567	2.250	1.750	1.000	0.787	0.375	0.220	0.750	8	1
DGCF44000R	●	4.000	4.567	2.870	2.000	1.250	1.000	0.500	0.280	0.750	10	1
DGCF44000R-1.50	●	4.000	4.000	3.750	2.500	1.500	2.000	0.625	0.380	1.000	10	4
DGCF45000R	●	5.000	5.567	3.750	2.500	1.500	2.000	0.625	0.380	1.000	12	1
DGCF46000R	●	6.000	6.567	4.380	2.500	1.500	2.000	0.625	0.380	1.060	14	2
DGCF48000R	●	8.000	8.567	5.906	2.500	2.500	5.118	1.000	0.560	1.594	16	2

DGC Cutter Bodies - Shank - INCH

Catalog Number	Stock	ϕD_c	ϕD_1	ϕD_b	L_f	ℓ_s	L	Teeth	Fig.
DGC42000EW	●	2.000	2.567	1.250	1.591	2.379	3.970	4	3
DGC42500EW	●	2.000	2.567	1.250	1.591	2.379	3.970	5	3

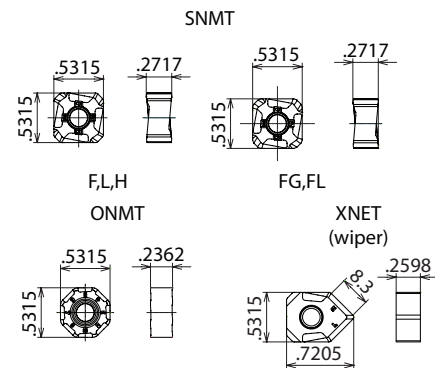
PLEASE NOTE: For 40, 50 and 63mm, arbor hole is standard in metric sizes, not inch sizes.

Catalog Number	P				K		M		H	
	ACP100	ACP200	ACP300	T4500A	ACK200	ACK300	ACM200	ACM300	H1	DL1000
SNMT13T6ANER-L	●	●	●	●	●	●				
SNMT13T6ANER-G	●	●	●	●	●	●				
SNMT13T6ANER-H	●	●	●	●	●	●				
SNMT13T6ANER-FL	●	●	●	●	●	●				
SNMT13T6ANER-FG	●	●	●	●	●	●				
SNET13T6ANER-L							●	●		
SNET13T6ANER-G							●	●		
SNET13T6ANER-FL							●	●		
SNET13T6ANER-FG							●	●		
SNET13T6ANFR-S									●	●
ONMT05T6ANER-L	●	●	●	●	●	●				
ONMT05T6ANER-G	●	●	●	●	●	●				
ONET05T6ANER-L							●	●		
ONET05T6ANER-G							●	●		
XNEU13T6ANEN-W	●		●		●					

●: USA Stocked Item

See pages 613-615
for recommended
running parameters

Max. Depth of Cut
SNMT: 6mm (.236")
ONMT: 3mm (.188")

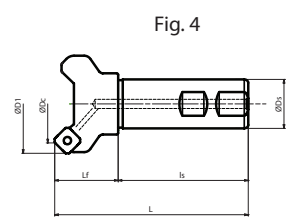
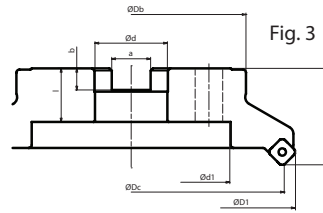
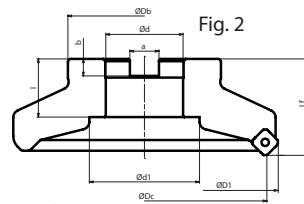
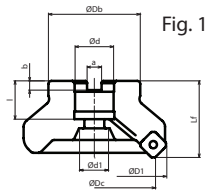


Rake Angle	Radial	-10°
	Axial	-5°



(SNMT Type) (ONMT Type)

DUALMILL DGC13000 - METRIC



Rake Angle: Radial: -10° Axial: -5°

DGC Cutter Bodies - Coarse Pitch - METRIC

Catalog Number	Stock	φDc	φD1	φDb	Lf	φD	φD1	a	b	ℓ	Teeth	Fig.
DGC13040RS	●	40	54	36	40	16	13.5	8.4	5.6	18	3	1
DGC13050RS	●	50	64	40	40	22	18	10.4	6.3	20	3	1
DGC13063RS	●	63	77	50	40	22	18	10.4	6.3	20	4	1
DGC13080R	●	80	94	60	50	25.4	20	9.5	7	25	4	1
DGC13100R	●	100	114	70	63	31.75	28	12.7	8.5	32.5	5	1
DGC13125R	●	125	139	80	63	38.1	55	15.9	9.5	35.5	6	1
DGC13160R	●	160	174	100	63	50.8	72	19	9.5	38	7	2
DGC13200R	●	200	214	150	63	47.625	130	25.4	14	35	8	3
DGC13250R	●	250	264	190	63	47.625	150	25.4	14	35	10	3

DGC Cutter Bodies - Fine Pitch - METRIC

Catalog Number	Stock	φDc	φD1	φDb	Lf	φD	φD1	a	b	ℓ	Teeth	Fig.
DGCM13050RS	●	50	64	40	40	22	18	10.4	6.3	20	4	1
DGCM13063RS	●	63	77	50	40	22	18	10.4	6.3	20	5	1
DGCM13080R	●	80	94	60	50	25.4	20	9.5	7	25	6	1
DGCM13100R	●	100	114	70	63	31.75	28	12.7	8.5	32.5	7	1
DGCM13125R	●	125	139	80	63	38.1	55	15.9	9.5	35.5	8	1
DGCM13160R	●	160	174	100	63	50.8	72	19	9.5	38	10	2
DGCM13200R	●	200	214	150	63	47.625	130	25.4	14	35	12	3
DGCM13250R	●	250	264	190	63	47.625	150	25.4	14	35	14	3

DGC Cutter Bodies - Extra Fine Pitch - METRIC

Catalog Number	Stock	φDc	φD1	φDb	Lf	φD	φD1	a	b	ℓ	Teeth	Fig.
DGCF13050RS	●	50	64	40	40	22	18	10.4	6.3	20	5	1
DGCF13063RS	●	63	77	50	40	22	18	10.4	6.3	20	6	1
DGCF13080R	●	80	94	60	50	25.4	20	9.5	7	25	8	1
DGCF13100R	●	100	114	70	63	31.75	28	12.7	8.5	32.5	10	1
DGCF13125R	●	125	139	80	63	38.1	55	15.9	9.5	35.5	12	1
DGCF13160R	●	160	174	100	63	50.8	72	19	9.5	38	14	2
DGCF13200R	●	200	214	150	63	47.625	130	25.4	14	35	16	3
DGCF13250R	●	250	264	190	63	47.625	150	25.4	14	35	18	3

DGC Cutter Bodies - Shank - METRIC

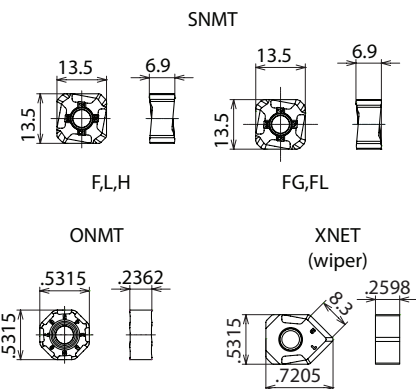
Catalog Number	Stock	φDc	φD1	φDb	Lf	ℓs	L	Teeth	Fig.
DGC13040EW	●	40	54	32	40	85	125	3	4
DGC13050EW	●	50	64	32	40	85	125	3	
DGC13063EW	●	63	77	32	40	85	125	4	

See pages 613-615
for recommended
running parameters

PLEASE NOTE: For 40, 50 and 63mm, arbor hole is standard in metric sizes, not inch sizes.

Inserts	P		K		M		H	
	ACP100	ACP200	ACP300	T4500A	ACK200	ACK300	ACM200	ACM300
Catalog Number								
SNMT13T6ANER-L	●	●	●	●	●	●		
SNMT13T6ANER-G	●	●	●	●	●	●		
SNMT13T6ANER-H	●	●	●	●	●	●		
SNMT13T6ANER-FL	●	●	●	●	●	●		
SNMT13T6ANER-FG	●	●	●	●	●	●		
SNET13T6ANER-L							●	●
SNET13T6ANER-G							●	●
SNET13T6ANER-FL							●	●
SNET13T6ANER-FG							●	●
SNET13T6ANFR-S								●
ONMT05T6ANER-L	●	●	●	●	●	●		
ONMT05T6ANER-G	●	●	●	●	●	●		
ONET05T6ANER-L							●	●
ONET05T6ANER-G							●	●
XNEU13T6ANEN-W	●	●	●	●	●	●		

Max. Depth of Cut
SNMT: 6mm (.236")
ONMT: 3mm (.188")



● USA Stocked Item

