

## 66°-68° LEAD FACE MILL WITH 10 CUTTING EDGES

### Diameter Range:

1.50-12.00"

16.00-160.00mm

### Depth of Cut:

DiPosDeka 05 - .15", 3.8mm

DiPosDeka 08 - .23", 5.8mm

DiPosDeka 17 - .47", 12mm

### Lead Angle:

66°-68°

### Cutter Series:

DM5E / DM6E / 1DM1E /

DM5G / DM6G / DM2Q /

DM6Q / 4W2A

### Insert Series:

PNCQ, PNCU, PNMU

### Materials:

Aluminum, Iron, Steel, Stainless Steel, Hi-Temps & Titanium



Fixed Pocket



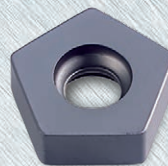
Seat Pocket Protection



Cartridge Pocket Protection w/Axial Adjustment



Multi-Purpose



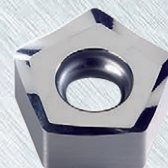
Flat Top



SiN



SS/Hi Temp/Ti



Non-Ferrous



Wiper

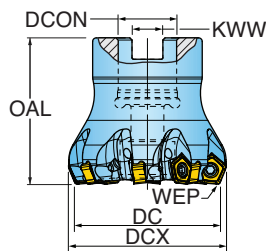


### Features and Benefits

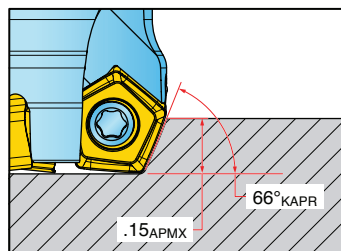
- 2-Side-Technology applied to penta shaped inserts for a cost-per-edge economy benefit
- Cutters offered with and without pocket protection
- Carbide and SiN insert grade options for iron applications
- 32-63 Ra surface finishes when using integrated wiper of multi-purpose inserts
- 20-40 Ra surface finishes when using wiper insert in one or two pockets
- Cutter bodies ported with coolant

## SERIES DM5E, DM6E

66° FACE MILL  
.15 DEPTH OF CUT



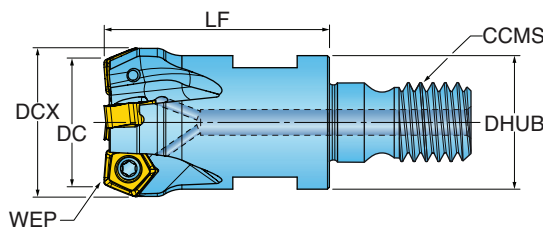
WEP - See insert drawing for wiper options.



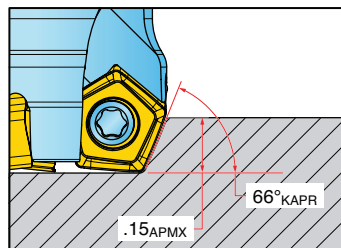
Part Number	DC Cutting Dia.	DCX Cutting Dia. Max.	OAL Overall Length	ZEFF Effective Teeth	DHUB Hub Diameter	DCON Bore Diameter	KWW Keyway
DM5E032R00	32.00	35.90	40.00	6	30.00	16.00	8.4
DM6E032R00	32.00	35.90	40.00	4	30.00	16.00	8.4
DM5E040R00	40.00	43.90	40.00	8	30.00	16.00	8.4
DM6E040R00	40.00	43.90	40.00	5	30.00	16.00	8.4
DM5E050R00	50.00	53.90	40.00	9	45.00	22.00	10.4
DM6E050R00	50.00	53.90	40.00	6	45.00	22.00	10.4
DM5E063R00	63.00	66.90	40.00	11	55.00	22.00	10.4
DM6E063R00	63.00	66.90	40.00	7	55.00	22.00	10.4
DM5E080R00	80.00	83.90	50.00	13	70.00	27.00	12.4
DM6E080R00	80.00	83.90	50.00	9	70.00	27.00	12.4

## SERIES 1DM1E

66° ENDMILL, TOP-ON  
.15 DEPTH OF CUT

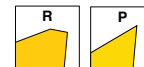


WEP - See insert drawing for wiper options.

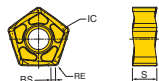


Part Number	DC Cutting Dia.	DCX Cutting Dia. Max.	LF Functional Length	OAL Overall Length	ZEFF Effective Teeth	DHUB Hub Diameter	CCMS Connection Code Machine Side
1DM1E016030X6R00	16.00	19.90	30.00	49.80	3	18.00	TopOn M10
1DM1E020035X7R00	20.00	23.90	35.00	57.00	4	21.00	TopOn M12
1DM1E025035X7R00	25.00	28.90	35.00	57.00	5	21.00	TopOn M12
1DM1E032043X8R00	32.00	35.90	43.00	67.00	6	29.00	TopOnM16
1DM1E040043X8R00	40.00	43.90	43.00	67.00	8	29.00	TopOnM16

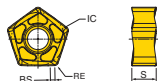
## 5MM INSERTS



### PNMU05\_GNTR










### PNCU05\_GNFR-P



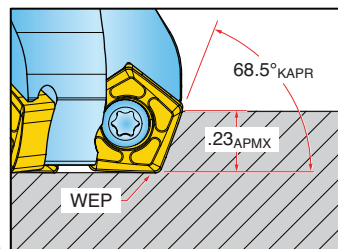
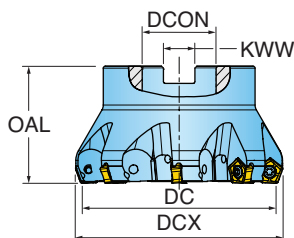
Part Number	Application	RE/BCH Corner Radius/ Chamfer	IC Inscribed Circle Dia.	S Thickness (To Cutting Edge)	NOI Number of Indexes	IH Insert Hand	Grade	IN2035	IN2505	IN2530	IN10K
PNMU0503GNTR	Multi-Purpose	0.500 R	7.3	3.55	10	Right		•	•	•	
PNCU0503GNFR-P	Non-Ferrous	0.500 R	7.3	3.55	10	Right					•

## 5MM HARDWARE

								
	Screw	Driver Handle	Torx Driver Blade	Retention Bolt	**OPTIONAL**	**OPTIONAL**	**OPTIONAL**	**OPTIONAL**
DM6E032R00	SM25-064-00	DS-A00T	DS-T08B	DIN912M8X25-12.9	DS-A00-.25-S	DT-11-.25	-	DS-T08W
DM5E032R00	SM25-064-00	DS-A00T	DS-T08B	DIN912M8X25-12.9	DS-A00-.25-S	DT-11-.25	-	DS-T08W
DM6E040R00	SM25-064-00	DS-A00T	DS-T08B	DIN912M8X25-12.9	DS-A00-.25-S	DT-11-.25	-	DS-T08W
DM5E040R00	SM25-064-00	DS-A00T	DS-T08B	DIN912M8X25-12.9	DS-A00-.25-S	DT-11-.25	-	DS-T08W
DM6E050R00	SM25-064-00	DS-A00T	DS-T08B	DIN912M10X25-12.9	DS-A00-.25-S	DT-11-.25	-	DS-T08W
DM5E050R00	SM25-064-00	DS-A00T	DS-T08B	DIN912M10X25-12.9	DS-A00-.25-S	DT-11-.25	-	DS-T08W
DM6E063R00	SM25-064-00	DS-A00T	DS-T08B	DIN912M10X25-12.9	DS-A00-.25-S	DT-11-.25	-	DS-T08W
DM5E063R00	SM25-064-00	DS-A00T	DS-T08B	DIN912M10X25-12.9	DS-A00-.25-S	DT-11-.25	-	DS-T08W
DM6E080R00	SM25-064-00	DS-A00T	DS-T08B	DIN912M12X35-12.9	DS-A00-.25-S	DT-11-.25	-	DS-T08W
DM5E080R00	SM25-064-00	DS-A00T	DS-T08B	DIN912M12X35-12.9	DS-A00-.25-S	DT-11-.25	-	DS-T08W
1DM1E016030X6R00	SM25-064-00	DS-A00T	DS-T08B	-	DS-A00-.25-S	DT-11-.25	615MM	DS-T08W
1DM1E020035X7R00	SM25-064-00	DS-A00T	DS-T08B	-	DS-A00-.25-S	DT-11-.25	617MM	DS-T08W
1DM1E025035X7R00	SM25-064-00	DS-A00T	DS-T08B	-	DS-A00-.25-S	DT-11-.25	617MM	DS-T08W
1DM1E032043X8R00	SM25-064-00	DS-A00T	DS-T08B	-	DS-A00-.25-S	DT-11-.25	622MM	DS-T08W
1DM1E040043X8R00	SM25-064-00	DS-A00T	DS-T08B	-	DS-A00-.25-S	DT-11-.25	622MM	DS-T08W

## SERIES DM5G, DM6G

68° FACE MILL  
.23 DEPTH OF CUT



WEP - See insert drawing for wiper options.

### INCH

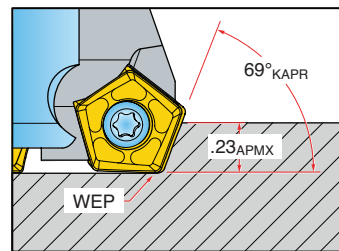
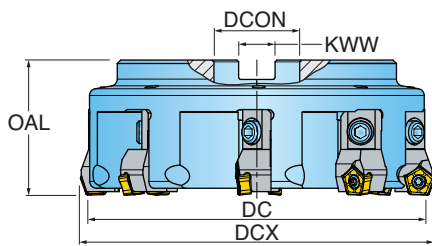
Part Number	DC Cutting Dia.	DCX Cutting Dia. Max.	OAL Overall Length	ZEFF Effective Teeth	DCON Bore Diameter	KWW Keyway	DBC Bolt Circle	CSP Coolant
DM6G-15R01	1.500	1.71	1.570	4	0.500	0.250	NA	Yes
DM5G-20R01	2.000	2.21	1.570	6	0.750	0.312	NA	Yes
DM6G-20R01	2.000	2.21	1.570	4	0.750	0.312	NA	Yes
DM5G-25R01	2.500	2.71	1.570	8	0.750	0.312	NA	Yes
DM6G-25R01	2.500	2.71	1.570	6	0.750	0.312	NA	Yes
DM5G-30R01	3.000	3.21	1.750	10	1.000	0.375	NA	Yes
DM6G-30R01	3.000	3.21	1.750	7	1.000	0.375	NA	Yes
DM5G-40R01	4.000	4.21	2.375	12	1.500	0.625	NA	Yes
DM6G-40R01	4.000	4.21	2.375	8	1.500	0.625	NA	Yes
DM6G-50R01	5.000	5.21	2.375	10	1.500	0.625	NA	Yes
DM6G-60R01	6.000	6.21	2.375	12	1.500	0.625	NA	Yes
DM6G-80R10	8.000	8.21	2.375	16	2.500	1.000	4.00	No

### METRIC

Part Number	DC Cutting Dia.	DCX Cutting Dia. Max.	OAL Overall Length	ZEFF Effective Teeth	DHUB Hub Diameter	DCON Bore Diameter	KWW Keyway	DBC Bolt Circle	CSP Coolant
DM6G040R00	40.00	45.40	40.00	4	30	16.00	8.4	-	Yes
DM5G050R00	50.00	55.40	40.00	6	45	22.00	10.4	-	Yes
DM6G050R00	50.00	55.40	40.00	4	45	22.00	10.4	-	Yes
DM5G063R00	63.00	68.40	40.00	8	55	22.00	10.4	-	Yes
DM6G063R00	63.00	68.40	40.00	6	55	22.00	10.4	-	Yes
DM5G080R00	80.00	85.40	50.00	10	70	27.00	12.4	-	Yes
DM6G080R00	80.00	85.40	50.00	7	70	27.00	12.4	-	Yes
DM5G100R00	100.00	105.40	50.00	12	85	32.00	14.4	-	Yes
DM6G100R00	100.00	105.40	50.00	8	85	32.00	14.4	-	Yes
DM5G125R00	125.00	130.40	63.00	16	100	40.00	16.4	-	Yes
DM6G125R00	125.00	130.40	63.00	10	100	40.00	16.4	-	Yes
DM5G160R00	160.00	165.50	63.00	20	110	40.00	16.4	66.7	No
DM6G160R00	160.00	165.50	63.00	12	110	40.00	16.4	66.7	No

## SERIES 4W2A

68° MULTI-CARTRIDGE FACE MILL  
.23 DEPTH OF CUT

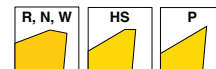


WEP - See insert drawing for wiper options.

\*\* SERIES 4W2A ACCEPTS DIFFERENT CARTRIDGE AND INSERT STYLES. 55H-11R07 DEKA CARTRIDGES SOLD SEPARATELY.

Part Number	DC Cutting Dia.	DCX Cutting Dia. Max.	OAL Overall Length	ZEFF Effective Teeth	DCON Bore Diameter	KWW Keyway	DBC Bolt Circle
4W2A-06R01	6.030	6.25	2.370	8	1.500	0.625	NA
4W2A-08R01	8.030	8.25	2.370	10	2.500	1.000	4.00
4W2A-10R01	10.030	10.25	2.370	12	2.500	1.000	4.00
4W2A-12R01	12.030	12.25	2.370	14	2.500	1.000	4.00, 7.00









## 8MM INSERTS



PNCU08_GNTN	PNCU08_HS	PNCU08_P

Part Number	Application	RE/BCH Corner Radius/ Chamfer	BS Wiper Length	IC Inscribed Circle Dia.	S Thickness (To Cutting Edge)	NOI Number of Indexes	IH Insert Hand	Grade	IN055	IN2505	IN4005	IN4015	IN4030	IN4035	IN6537	IN70N
PNCQ0804GNTN	Flat Top	0.031 R	0.076	0.450	0.165	10	Right			•						
PNCU0805GNFR-HS	SS/Hi-Temp/Ti	0.030 R	0.062	0.450	0.217	10	Right			•					•	
PNCU0805GNFR-P	Sharp & Polished	0.030 R	0.062	0.450	0.217	10	Right		•							
PNCU0805GNR	SiN for Iron	0.031 R	0.076	0.450	0.190	10	Right									•
PNCU0805GNTR	Multi-Purpose	0.031 R	0.076	0.450	0.206	10	Right				•	•	•		•	
PNCU0805GNTR-W	Wiper	0.030 R	0.162	0.450	0.190	2	Right			•		•			•	

## 8MM HARDWARE

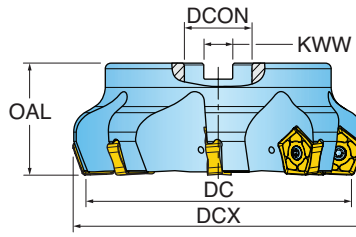
									
	Insert Screw	Driver Handle	Torx Driver Blade	Retention Bolt	**OPTIONAL** Coolant Retention Bolt	**OPTIONAL** Torque Driver Handle	**OPTIONAL** Preset Torque Bit	**OPTIONAL** Torque Driver Bit	
INCH	DM6G-15R01	SM40-100-10	DS-A00T	DS-T156B	SD-04-48		DS-A00-.25-T	DT-35-.25	DS-T15B1
	DM5G-20R01	SM40-100-10	DS-A00T	DS-T156B	SD-06-46	SD-06-89	DS-A00-.25-T	DT-35-.25	DS-T15B1
	DM6G-20R01	SM40-100-10	DS-A00T	DS-T156B	SD-06-46	SD-06-89	DS-A00-.25-T	DT-35-.25	DS-T15B1
	DM5G-25R01	SM40-100-10	DS-A00T	DS-T156B	SD-06-46	SD-06-89	DS-A00-.25-T	DT-35-.25	DS-T15B1
	DM6G-25R01	SM40-100-10	DS-A00T	DS-T156B	SD-06-46	SD-06-89	DS-A00-.25-T	DT-35-.25	DS-T15B1
	DM5G-30R01	SM40-100-10	DS-A00T	DS-T156B	SD-08-46	SD-08-92	DS-A00-.25-T	DT-35-.25	DS-T15B1
	DM6G-30R01	SM40-100-10	DS-A00T	DS-T156B	SD-08-46	SD-08-92	DS-A00-.25-T	DT-35-.25	DS-T15B1
	DM5G-40R01	SM40-100-10	DS-A00T	DS-T156B	SD-12-82	SD-12-99	DS-A00-.25-T	DT-35-.25	DS-T15B1
	DM6G-40R01	SM40-100-10	DS-A00T	DS-T156B	SD-12-82	SD-12-99	DS-A00-.25-T	DT-35-.25	DS-T15B1
	DM5G-50R01	SM40-100-10	DS-A00T	DS-T156B	SD-12-82	SD-12-99	DS-A00-.25-T	DT-35-.25	DS-T15B1
	DM6G-50R01	SM40-100-10	DS-A00T	DS-T156B	SD-12-82	SD-12-99	DS-A00-.25-T	DT-35-.25	DS-T15B1
	DM5G-60R01	SM40-100-10	DS-A00T	DS-T156B	SD-12-82	SD-12-99	DS-A00-.25-T	DT-35-.25	DS-T15B1
	DM6G-60R01	SM40-100-10	DS-A00T	DS-T156B	SD-12-82	SD-12-99	DS-A00-.25-T	DT-35-.25	DS-T15B1
	DM6G-80R10	SM40-100-10	DS-A00T	DS-T156B	-	-	DS-A00-.25-T	DT-35-.25	DS-T15B1
	DM6G040R00	SM40-100-10	DS-A00T	DS-T156B	-	DIN912M8X25-12.9	DS-A00-.25-T	DT-35-.25	DS-T15B1
	DM5G050R00	SM40-100-10	DS-A00T	DS-T156B	-	DIN912M10X25-12.9	DS-A00-.25-T	DT-35-.25	DS-T15B1
DM6G050R00	SM40-100-10	DS-A00T	DS-T156B	-	DIN912M10X25-12.9	DS-A00-.25-T	DT-35-.25	DS-T15B1	
DM5G063R00	SM40-100-10	DS-A00T	DS-T156B	-	DIN912M10X25-12.9	DS-A00-.25-T	DT-35-.25	DS-T15B1	
DM6G063R00	SM40-100-10	DS-A00T	DS-T156B	-	DIN912M10X25-12.9	DS-A00-.25-T	DT-35-.25	DS-T15B1	
DM5G080R00	SM40-100-10	DS-A00T	DS-T156B	-	DIN912M12X35-12.9	DS-A00-.25-T	DT-35-.25	DS-T15B1	
DM6G080R00	SM40-100-10	DS-A00T	DS-T156B	-	DIN912M12X35-12.9	DS-A00-.25-T	DT-35-.25	DS-T15B1	
DM5G100R00	SM40-100-10	DS-A00T	DS-T156B	-	DIN912M16X30-12.9	DS-A00-.25-T	DT-35-.25	DS-T15B1	
DM6G100R00	SM40-100-10	DS-A00T	DS-T156B	-	DIN912M16X30-12.9	DS-A00-.25-T	DT-35-.25	DS-T15B1	
DM5G125R00	SM40-100-10	DS-A00T	DS-T156B	DIN912M20X40-12.9	-	DS-A00-.25-T	DT-35-.25	DS-T15B1	
DM6G125R00	SM40-100-10	DS-A00T	DS-T156B	DIN912M20X40-12.9	-	DS-A00-.25-T	DT-35-.25	DS-T15B1	
DM5G160R00	SM40-100-10	DS-A00T	DS-T156B	DIN912M20X40-12.9	-	DS-A00-.25-T	DT-35-.25	DS-T15B1	
DM6G160R00	SM40-100-10	DS-A00T	DS-T156B	DIN912M20X40-12.9	-	DS-A00-.25-T	DT-35-.25	DS-T15B1	

	Face Mill Cartridge							
	Face Mill Cartridge	Insert Screw	Driver Handle	Torx Driver Blade	Set Screw	3mm Hex Screw Driver	SHCS	5mm Hex Screw Driver
4W2A-06R01	55H-11R07*	SM40-100-10	DS-A00T	DS-T156B	SA060-01	DS-H03T	SD060-16	DS-H05T
4W2A-08R01	55H-11R07*	SM40-100-10	DS-A00T	DS-T156B	SA060-01	DS-H03T	SD060-16	DS-H05T
4W2A-10R01	55H-11R07*	SM40-100-10	DS-A00T	DS-T156B	SA060-01	DS-H03T	SD060-16	DS-H05T
4W2A-12R01	55H-11R07*	SM40-100-10	DS-A00T	DS-T156B	SA060-01	DS-H03T	SD060-16	DS-H05T

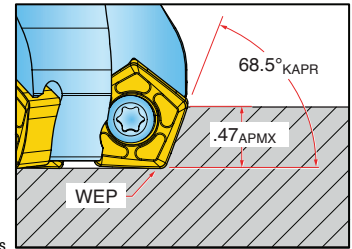
\*55H-11R07 DEKA CARTRIDGES SOLD SEPARATELY.

## SERIES DM6Q

68° HEAVY DUTY FACE MILL  
.47 DEPTH OF CUT



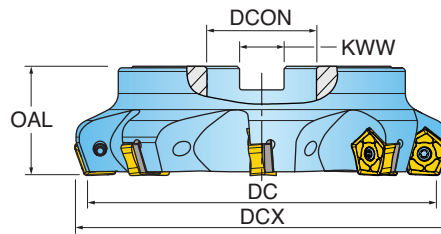
WEP - See insert drawing for wiper options.



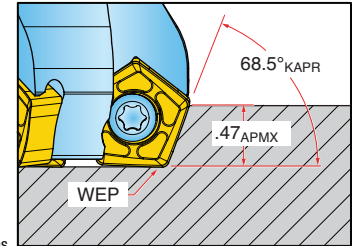
Part Number	DC Cutting Dia.	DCX Cutting Dia. Max.	OAL Overall Length	ZEFF Effective Teeth	DCON Bore Diameter	KWW Keyway	DBC Bolt Circle	CSP Coolant
DM6Q-03R01	3.000	3.44	2.375	4	1.000	0.375	NA	Yes
DM6Q-04R01	4.000	4.44	2.375	5	1.500	0.625	NA	Yes
DM6Q-05R01	5.000	5.44	2.375	6	1.500	0.625	NA	Yes
DM6Q-06R01	6.000	6.44	2.375	8	1.500	0.625	NA	Yes
DM6Q-08R01	8.000	8.44	2.375	10	2.500	1.000	4.00	No

## SERIES DM2Q

68° HEAVY DUTY FACE MILL W/POCKET PROTECTION  
.47 DEPTH OF CUT



WEP - See insert drawing for wiper options.

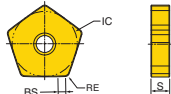


Part Number	DC Cutting Dia.	DCX Cutting Dia. Max.	OAL Overall Length	ZEFF Effective Teeth	DCON Bore Diameter	KWW Keyway	DBC Bolt Circle
DM2Q-06R01	6.000	6.44	2.375	7	1.500	0.625	NA
DM2Q-08R01	8.000	8.44	2.375	8	2.500	1.000	4.00
DM2Q-10R01	10.000	10.44	2.375	10	2.500	1.000	4.00
DM2Q-12R01	12.000	12.44	2.375	12	2.500	1.000	4.00, 7.00

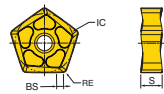
## 17MM INSERTS



### PNCQ17



### PNCU17



Part Number	Application	RE/BCH Corner Radius/ Chamfer	BS Wiper Length	IC Inscribed Circle Dia.	S Thickness (To Cutting Edge)	NOI Number of Indexes	IH Insert Hand	Grade	IN2005	IN2030	IN2040	IN2505	IN2530	IN4030	IN6515
PNCQ1706GNTN	Flat Top	0.060 R	0.157	0.925	0.256	10	Right					•	•		
PNCU1708GNTR	Multi-Purpose	0.060 R	0.157	0.925	0.328	10	Right	•	•	•				•	•

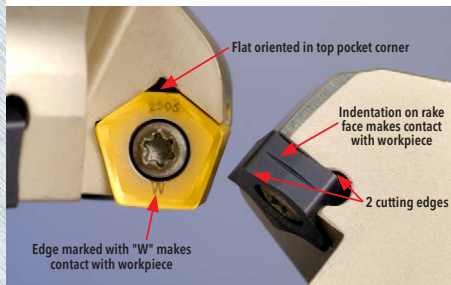
## 17MM HARDWARE

	Insert Screw	Driver Handle	Torx Driver Blade	Seat	Seat Screw	Simm Hex Screw Driver	Retention Bolt	Coolant Retention Bolt	**OPTIONAL**	**OPTIONAL**	**OPTIONAL**
DM6Q-03R01	SM50-130-R0	DS-A00T	DS-T206B	-	-	-	SD-08-48	SD08-C9	DS-A00-.25-T	DT-44-.25	DS-T20T
DM6Q-04R01	SM50-130-R0	DS-A00T	DS-T206B	-	-	-	SD-12-82	SD-12-99	DS-A00-.25-T	DT-44-.25	DS-T20T
DM6Q-05R01	SM50-130-R0	DS-A00T	DS-T206B	-	-	-	SD-12-82	SD-12-99	DS-A00-.25-T	DT-44-.25	DS-T20T
DM6Q-06R01	SM50-130-R0	DS-A00T	DS-T206B	-	-	-	SD-12-82	SD-12-99	DS-A00-.25-T	DT-44-.25	DS-T20T
DM6Q-08R01	SM50-130-R0	DS-A00T	DS-T206B	-	-	-	-	-	DS-A00-.25-T	DT-44-.25	DS-T20T
DM2Q-06R01	SM50-170-R0	DS-A00T	DS-T206B	SJ-5061	SF070R01	DS-H05T	SD-12-82	-	DS-A00-.25-T	DT-44-.25	DS-T20T
DM2Q-08R01	SM50-170-R0	DS-A00T	DS-T206B	SJ-5061	SF070R01	DS-H05T	-	-	DS-A00-.25-T	DT-44-.25	DS-T20T
DM2Q-10R01	SM50-170-R0	DS-A00T	DS-T206B	SJ-5062	SF070R01	DS-H05T	-	-	DS-A00-.25-T	DT-44-.25	DS-T20T
DM2Q-12R01	SM50-170-R0	DS-A00T	DS-T206B	SJ-5062	SF070R01	DS-H05T	-	-	DS-A00-.25-T	DT-44-.25	DS-T20T



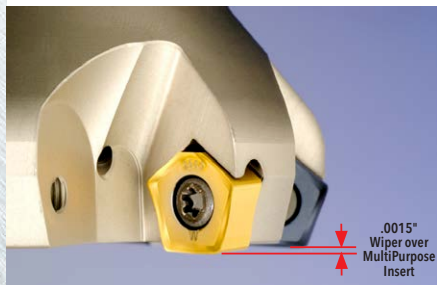
**TECHNICAL INFORMATION**

**PNCU08-W Wiper Orientation**



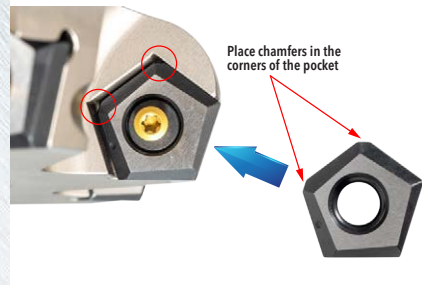
Wiper inserts have 2 indexes and should be oriented as shown above.

**PNCU08-W Wiper Position**



When placing one wiper insert (in one pocket), the long wiper flat is .0015" higher than the other inserts (in other pockets).

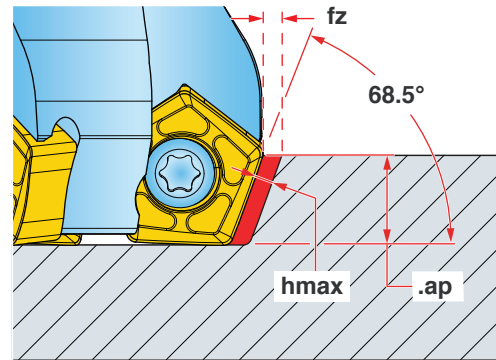
**DM2Q Seat Orientation**



Seats offer pocket protection. They are to be placed in the pocket (under the insert) as shown above.

## OPERATING GUIDELINES - 5MM INSERT (DM5E, DM6E, 1DM1E)

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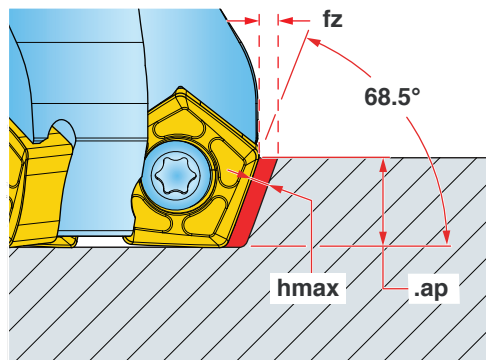
\* Chip Thinning Calculator is recommended to ensure hmax is greater than .003"

ISO	Mat'l Group	Materials		Vc Cutting Speed SFM	fz Feed/Tooth (inch)	Harder ← → Tougher				Coolant
		Type	Examples			IN10K	IN2505	IN2530	IN2035	
P	1-5	Non-alloy Steel	1018, A36, 1045, A572, 1070	400-800	.003-.010					No
	6-9	Low-alloy Steel	4140, 4340, P20, 8620, 300M	350-700	.003-.008		1	2		
	10-11	High-alloy Steel	H13, A2, D2, M2, T1	300-600	.0003					
M	12-13	Stainless Steel (Ferritic & Martensitic)	410, 416, 440	350-600	.003-.008				1	Yes
	14	Stainless Steel (Austenitic)	303, 304, 316, 15-5, 17-4	300-550					1	May not be required at high speeds
K	15-16	Gray Cast Iron	CLS. 20, 30, 45	500-1000	.003-.010		1			No
	17-20	Nodular Cast Iron	60-40-18, 100-70-03	400-800	.003-.008		1			
N	21-30	Aluminum	7075, 6061	1000-2500	.002-.012	1				Yes
S	31-35	High-Temp Alloys	Inconel, Hastelloy, Nimonic, Monel	65-200	.003-.005		2	3	1	Yes
	36-37	Titanium Alloys	6Al-4V, 5Al-5Mo-5V-3Cr	85-200			3	2	1	

Note: Feed and speed recommendations are starting operating parameters. They are only guidelines from which further optimization should take place. Operating parameters are influenced by many machining variables. These variables may cause for reductions in feeds and speed or dramatic increases. Additionally, DOC and WOC may need to be revised to optimize the tools performance.

**OPERATING GUIDELINES - 8MM INSERT (DM5G, DM6G, 4W2A)**

Chip Thinning



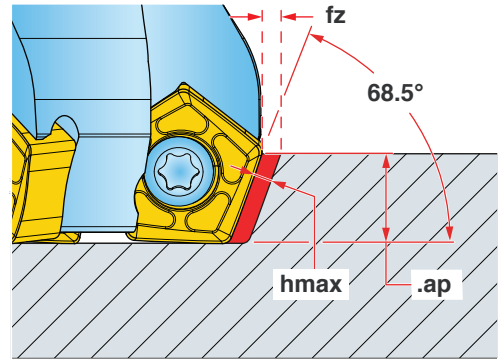
\* Chip Thinning Calculator is recommended to ensure hmax is greater than .003"

ISO	Mat'l Group	Materials		Vc Cutting Speed SFM	fz Feed/Tooth (inch)	Harder ← → Tougher							Coolant	
		Type	Examples			IN70N	IN4015 IN6515	IN05S	IN2505 IN4005	IN4030	IN4035	IN6537		
P	1-5	Non-alloy Steel	1018, A36, 1045, A572, 1070	400-800	.003-.018									
	6-9	Low-alloy Steel	4140, 4340, P20, 8620, 300M	350-700	.003-.015				3	2		1	No	
	10-11	High-alloy Steel	H13, A2, D2, M2, T1	300-600	.003-.015									
M	12-13	Stainless Steel (Ferritic & Martensitic)	410, 416, 440	350-600	.003-.010				2	1			Yes	
	14	Stainless Steel (Austenitic)	303, 304, 316, 15-5, 17-4	300-550					3	2	1		May not be required at high speeds	
K	15-16	Gray Cast Iron	CLS. 20, 30, 45	500-1000	.003-.018		1		2			3	No	
				1800-3000	.003-.008	1								
	17-20	Nodular Cast Iron	60-40-18, 100-70-03	400-800	.003-.015		1		2			3		
				1500-2500	.003-.007	1								
N	21-30	Aluminum	7075, 6061	1000-2500	.002-.012		2	1					Yes	
S	31-35	High-Temp Alloys	Inconel, Hastelloy, Nimonic, Monel	65-200	.003-.010				2	3	1		Yes	
	36-37	Titanium Alloys	6Al-4V, 5Al-5Mo-5V-3Cr	85-200					3	2	1			

Note: Feed and speed recommendations are starting operating parameters. They are only guidelines from which further optimization should take place. Operating parameters are influenced by many machining variables. These variables may cause for reductions in feeds and speed or dramatic increases. Additionally, DOC and WOC may need to be revised to optimize the tools performance.

**OPERATING GUIDELINES - 17MM INSERT (DM6Q, DM2Q)**

**Chip Thinning**



\* Chip Thinning Calculator is recommended to ensure  $h_{max}$  is greater than .003"

Materials				Vc Cutting Speed SFM	fz Feed/Tooth (inch)	Harder ← → Tougher				Coolant
ISO	Mat'l Group	Type	Examples			IN2040	IN6515	IN2505 IN2005	IN4030 IN2530 IN2030	
<b>P</b>	1-5	Non-alloy Steel	1018, A36, 1045, A572, 1070	400-800	.004-.025					
	6-9	Low-alloy Steel	4140, 4340, P20, 8620, 300M	350-700	.004-.020	3		2	1	No
	10-11	High-alloy Steel	H13, A2, D2, M2, T1	300-600	.004-.020					
<b>K</b>	15-16	Gray Cast Iron	CLS. 20, 30, 45	500-1000	.004-.025		1	2	3	No
	17-20	Nodular Cast Iron	60-40-18, 100-70-03	400-800	.004-.020		1	2	3	

Note: Feed and speed recommendations are starting operating parameters. They are only guidelines from which further optimization should take place. Operating parameters are influenced by many machining variables. These variables may cause for reductions in feeds and speed or dramatic increases. Additionally, DOC and WOC may need to be revised to optimize the tools performance.