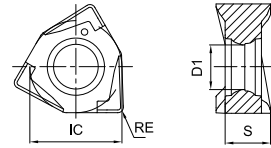





Shoulder Milling

WNGU







Double Face Six Edge Shoulder Milling



Ordering Code	Dimension(mm)				Coating Grade										Uncoated	Cermet				
	IC	D1	S	RE	GA4225	GA4230	GA4325	GA4330	GP4225	GP2115	GM4135	GM2140	GK4125	GK2115			GS4130	GH4115	GN9125	GP01TM
 WNGU080608-GL	12.48	4.7	6.45	0.8																
 WNGU040304-GM	6.7	3.25	3.3	0.4	●				●	●		●	●	●	●					
	WNGU040308-GM	6.7	3.25	3.3	0.8	●				●	●		●	●	●	●				
	WNGU080608-GM	12.48	4.6	6.45	0.8	●				●	●		●	●	●	●				
	WNGU080616-GM	12.48	4.6	6.45	1.6	○					○		○	○	○	○				
 WNGU080608-GH	12.48	4.6	6.45	0.8	●				●				●	●						

● Stock ○ Available Upon Order

WNGU Series Geometry

Light Cutting for General Material	Medium Cutting for General Material	Heavy Cutting for General Material
		
GL	GM	GH
		
Light cutting of low cutting force, good processing quality.	High stability in most cases.	Suitable on roughing, good edge strength.

Shoulder Milling

MEE190

Arbor

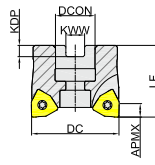


Fig1

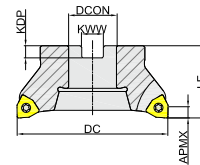


Fig2

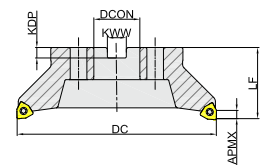


Fig3

Ordering Code	Dia-meter	Teeth	Dimension(mm)					APMX	Coolant	Suitable for	Shape	Stock
			DC	DCON	LF	KWW	KDP					
MEE190040R06A16WN04	40	6	40	16	40	8.4	5.6	4	✓	WNGU0403	Fig1	●
MEE190050R04A22WN08	50	4	50	22	40	10.4	6.3	7.5	✓	WNGU0806	Fig1	●
MEE190050R05A22WN08	50	5	50	22	40	10.4	6.3	7.5	✓	WNGU0806	Fig1	●
MEE190063R06A22WN08	63	6	63	22	40	10.4	6.3	7.5	✓	WNGU0806	Fig1	●
MEE190080R07A27WN08	80	7	80	27	50	12.4	7	7.5	✓	WNGU0806	Fig1	●
MEE190100R08B32WN08	100	8	100	32	50	14.4	8	7.5	×	WNGU0806	Fig2	●
MEE190125R07B40WN08	125	7	125	40	63	16.4	9	7.5	×	WNGU0806	Fig2	●
MEE190125R11B40WN08	125	11	125	40	63	16.4	9	7.5	×	WNGU0806	Fig2	●
MEE190160R08C40WN08	160	8	160	40	63	16.4	9	7.5	×	WNGU0806	Fig3	●
MEE190160R12C40WN08	160	12	160	40	63	16.4	9	7.5	×	WNGU0806	Fig3	●
MEE190200R08C60WN08	200	8	200	60	63	25.7	14	7.5	×	WNGU0806	Fig3	●
MEE190200R16C60WN08	200	16	200	60	63	25.7	14	7.5	×	WNGU0806	Fig3	●

● Stock ○ Available Upon Order

MEE190

Cylindrical Straight Type

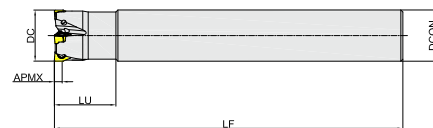

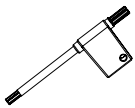
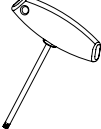


Fig4

Ordering Code	Dia-meter	Teeth	Dimension(mm)				APMX	Suitable for	Coolant	Shape	Stock
			DC	DCON	LF	LU					
MEE190020R03P20WN04	20	3	20	20	150	30	4	WNGU0403	✓	Fig4	●
MEE190025R04P25WN04	25	4	25	25	170	30	4	WNGU0403	✓	Fig4	●
MEE190032R05P32WN04	32	5	32	32	195	30	4	WNGU0403	✓	Fig4	●
MEE190035R05P32WN04	35	5	35	32	195	30	4	WNGU0403	✓	Fig4	●
MEE190040R03P32WN08	40	3	40	32	160	60.2	7.5	WNGU0806	×	Fig4	●
MEE190040R06P32WN04	40	6	40	32	195	30	4	WNGU0403	✓	Fig4	●

● Stock ○ Available Upon Order

Spare Parts

Part Name		Inserts Screw	Insert Screw Wrench	
Inserts	Shape			
	Specification	SI60M2.5X6.5-03610I	TI07P	--
WNGU0403	Ordering Code	SI60M025065-03610IS	TI07PB	--
WNGU0806	Specification	SI60M4.0X10-05510I	TI15P	TI15T
	Ordering Code	SI60M040100-05510IS	TI15PB	TI15TB

Recommended Cutting Data

Workpiece	Hardness	Grade	Specification	Ap (mm)	Cutting Speed Vc(m/min)	Feed Rate/Edges fz(mm)			
						Light Cutting(L)	Medium Cutting(M)	Heavy Cutting(H)	
P	Soft Steel	≤ HB180	GA4225	WNGU0403	1.2	180 (140-220)	0.1 (0.05-0.15)	0.15 (0.1-0.2)	0.2 (0.1-0.25)
			GA4230	WNGU0806			2.3	0.15 (0.1-0.2)	0.25 (0.15-0.35)
	Carbon Steel, Alloy Steel	HB180-350	GA4225	WNGU0403	1.2	150 (110-190)	0.1 (0.05-0.15)	0.15 (0.1-0.2)	0.2 (0.1-0.25)
			GA4230 GP2115	WNGU0806			2.3	0.15 (0.1-0.2)	0.25 (0.15-0.35)
	Pre-harden Steel	HRC35-45	GA4230	WNGU0403	1.2	150 (110-190)	0.08 (0.05-0.15)	0.1 (0.05-0.15)	0.15 (0.1-0.2)
			GA4225 GP2115	WNGU0806			2.3	0.1 (0.05-0.15)	0.15 (0.1-0.2)
M	Stainless (Ferrite, Martensite)	≤ HB270	GM2140	WNGU0403	1.2	140 (100-180)	0.12 (0.1-0.2)	0.15 (0.1-0.2)	0.2 (0.1-0.3)
			GM4135 GA4230	WNGU0806			2.3	0.15 (0.1-0.2)	0.25 (0.15-0.35)
	Stainless (Austenite, Diphasic)	≤ HB270	GM2140	WNGU0403	1.2	120 (80-160)	0.1 (0.05-0.15)	0.12 (0.1-0.2)	0.15 (0.1-0.2)
			GM4135	WNGU0806			2.3	0.12 (0.1-0.2)	0.15 (0.1-0.2)
K	Grey Cast Iron	≤ HB280	GK2115	WNGU0403	1.2	180 (150-220)	0.1 (0.05-0.15)	0.15 (0.1-0.2)	0.2 (0.1-0.25)
			GK4125	WNGU0806			2.3	0.15 (0.1-0.2)	0.25 (0.1-0.4)
	Nodular Cast Iron, Vermicular Graphite Cast Iron	≤ HB350	GK4125	WNGU0403	1.2	120 (100-180)	0.1 (0.05-0.15)	0.1 (0.05-0.15)	0.2 (0.1-0.25)
			GK2115	WNGU0806			2.3	0.15 (0.1-0.2)	0.25 (0.15-0.35)
S	Heat-resistant Alloy and Titanium Alloy	HRC30-45	GS4130	WNGU0403	1.2	40 (30-60)	0.08 (0.05-0.15)	0.08 (0.05-0.15)	0.1 (0.05-0.15)
				WNGU0806			2.3	0.1 (0.05-0.15)	0.1 (0.05-0.15)