Nega Hepta NHP TYPE

★ Instructions for mounting inserts

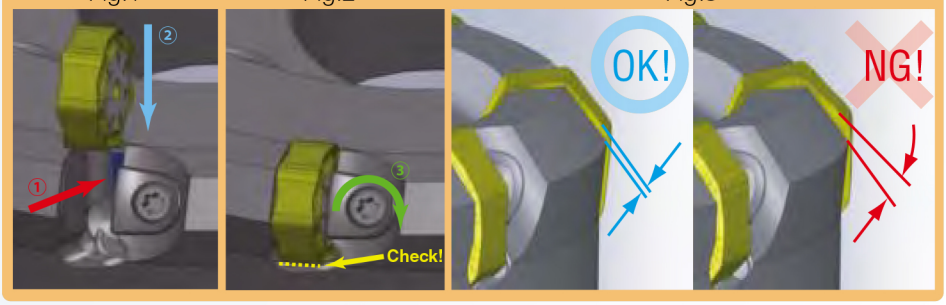
1 Clean
Clean the insert pocket including insert seat carefully

2 Mounting insert
Press insert to inside seat ① and slide down ward ② (Refer Fig. 1)

3 Tightening wedge screw
Tightening wedge screw ③ and confirm there is no gap between insert and insert seat. (Refer Fig. 2)
※ Recommended tightening torque: 6N·m

4 Confirmation
Confirm the insert edge is parallel to insert pocket edge. (Refer Fig. 3)

Fig.1 Fig.2 Fig.3



■ POWER CONSUMPTION

Tool dia. φDc (mm)	Ultra fine pitch type		Regular type	
	No. of Insert	Power Consumption	No. of Insert	Power Consumption
	z (tooth)	Pc (kW)	z (tooth)	Pc (kW)
63			5	6.8
80			6	8.1
100	14	18.9	8	10.8
125	18	24.3	8	10.8
160	22	29.7	10	13.5
200	28	37.8		
250	36	48.6		

Power consumption Pc was calculated as Q/Pc'=34 (cm³/kW) from test data at below cutting condition.

Work Material: FC250
ap=3 (mm) fz=0.3 (mm/t)
ae=0.8Dc (mm) Vc=200 (m/min)

Power consumption calculating formula:
Pc (kW)= (ae×ap×Vf)/ {1000 × (Q/Pc')}

Note) The parameters calculated are based on cutting test of cast iron. Actual Pc (kW) is changed according to work shape and cutting conditions.

Nega Hepta NHP TYPE

■ RECOMMENDED CUTTING CONDITIONS

Cat. No.	Insert	Depth of cut ap (mm)	Cutting speed Vc (m/min)	Feed per tooth fz (mm)	Insert Grades
Grey cast iron FC300 (GG30) Below 300HB	XNMU080610AEN	Below 3.0	200 (150-250)	0.3 (0.1-1.0)	Vc≧200: JC608X (XNMU080610AEN) ※Vc≦200: JC5118 (XNMU080610AEN-KL)
	XNMU080610AEN-KL	3-6		0.3 (0.1-0.5)	
Nodular cast iron FCD400 (GGG40) Below 300HB	XNMU080610AEN	Below 3.0	150 (120-180)	0.2 (0.1-0.8)	Vc≧150: JC608X (XNMU080610AEN) ※Vc≦150: JC5118 (XNMU080610AEN-KL)
	XNMU080610AEN-KL	3-6		0.2 (0.1-0.4)	
Low carbon steel SS400, S10C (17100, C10) Below 180HB	XNMU080610AEN-KL	Below 2.5	180 (140-220)	0.3 (0.1-0.5)	JC5118 (JC8050) (For interrupted cutting)
	XNMU080610AER-PM	2.0-3.5			
Carbon steel S50C, S55C (C50, C55) Below 250HB	XNMU080610AEN-KL	Below 2.5	160 (120-200)	0.3 (0.1-0.5)	JC5118 (JC8050) (For interrupted cutting)
	XNMU080610AER-PM	2.0-3.5			
Tool & Die steel SKD61, SKD11 (1.2344, 1.2379) Below 255HB	XNMU080610AEN-KL	Below 2.5	140 (100-180)	0.3 (0.1-0.5)	JC5118 (JC8050) (For interrupted cutting)
	XNMU080610AER-PM	2.0-3.5			
Mold steel NAK80, HPM1, P21 (1.2311, P21) 30-43HRC	XNMU080610AEN-KL	Below 2.5	80 (60-100)	0.15 (0.1-0.3)	JC5118 (JC8050) (For interrupted cutting)
Stainless steel SUS304 Below 250HB	XNMU080610AEN-KL	Below 2.5	130 (100-160)	0.2 (0.1-0.4)	JC8050
	XNMU080610AER-PM	2.0-3.0			

※ For low power machine

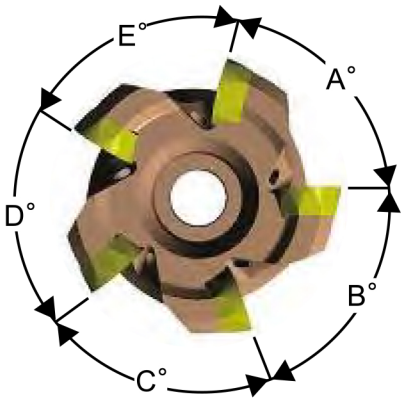
■ NOTE

The cutting parameters to be adjusted according to the machine rigidity or work rigidity.

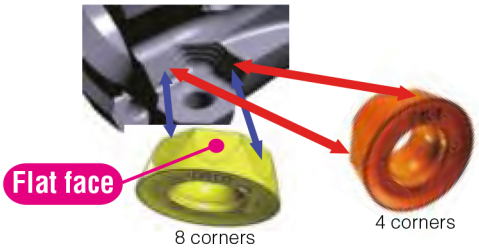
Blade Chipper TDM TYPE

Aerospace Tooling

High speed and high performance at machining stainless steel turbin blade



Unequal pitch design prevents chatter and vibration.



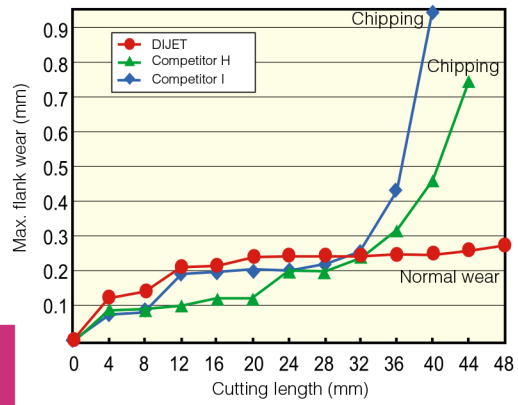
Flat face insert locking seat prevents insert movement

■ CUTTING PERFORMANCE

Tool life comparison

Cutting condition

Insert: RPMT1204MOE-MM8 JC7560
Mat'l: Stainless steel (SUS420J2)
Tool dia.: φ52mm
Vc=260m/min (n=1,952min^{-1}), fz=0.4mm/t
ap=2mm, ae=0~32mm, Dry
*Machined by 1 teeth



TDM type: 48m, normal wear
Competitor: 40m, chipping