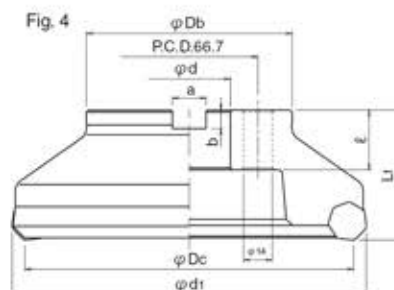
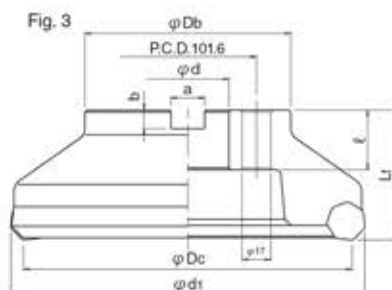


■ BODY / ULTRA FINE PITCH TYPE

Type	Cat. No.	Stock	No. of flutes	Dimensions (mm)								Weight (kg)	Fig.
				φD_c	L_f	φD_b	φd	φd_1	a	b	ℓ		
Metric Bore	NHP-14100R-08-32	<input type="checkbox"/>	14	100	50	70	32	112.4	14.4	8	32	2.1	2
	NHP-18125R-08-40	<input type="checkbox"/>	18	125	63	80	40	137.4	16.4	9	35	3.7	2
	NHP-22160R-08-40	<input type="checkbox"/>	22	160	63	100	40	172.4	16.4	9	29	5.2	4
	NHP-28200R-08-60	<input type="checkbox"/>	28	200	63	140	60	212.4	25.4	14.3	40	7.6	3
	NHP-36250R-08-60	<input type="checkbox"/>	36	250	63	160	60	262.4	25.4	14.3	40	12.9	3

- Note) 1. All cutters are supplied without inserts.
2. Refer page C126 for recommended cutting conditions.

Nega Hepta

NHP_{TYPE}

■ BODY/REGULAR TYPE

Type	Cat. No.	Stock	No. of flutes	Dimensions (mm)								Weight (kg)	Fig.
				φDc	Lf	φDb	φd	φd ₁	a	b	ℓ		
Metric Bore	NHP-5063R-08-22	●	5	63	50	60	22	75.4	10.4	6.3	20	1.2	1
	NHP-6080R-08-27	●	6	80	50	60	27	92.4	12.4	7	22	1.6	1
	NHP-8100R-08-32	●	8	100	50	70	32	112.4	14.4	8	32	2.0	2
	NHP-8125R-08-40	●	8	125	63	80	40	137.4	16.4	9	35	3.2	2
	NHP-10160R-08-40	●	10	160	63	100	40	172.4	16.4	9	29	5.2	4

Note) 1. All cutters are supplied without inserts.
2. Refer page C126 for recommended cutting conditions

■ PARTS

Wedge Screw	Wedge	Wrench
		
Recommended Torque 6.0 N·m LS-110	70710	A-15T

■ INSERT

Fig. 1

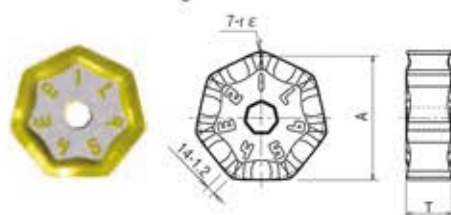


Fig. 2 (Low cutting force)

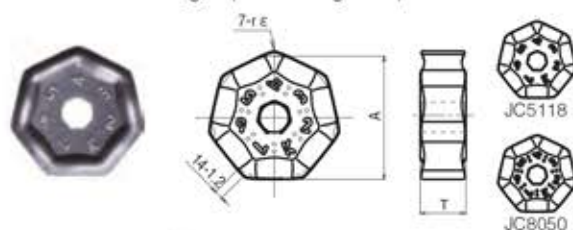


Fig. 3 (Wiper insert)

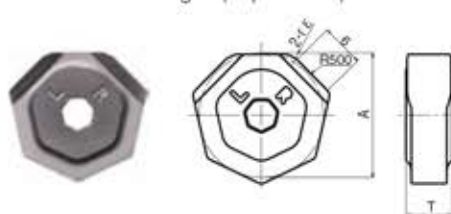
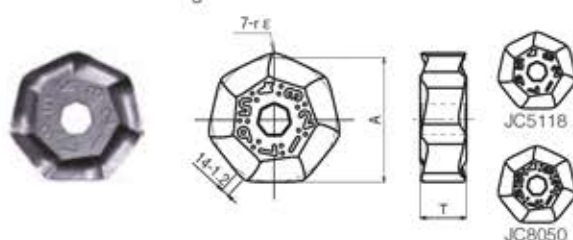


Fig. 4



■ BODY

Cat. No.	Tolerance	Dimensions (mm)			PVD coated			CVD coated	Fig.
		A	T	rε	JC5118	JC8003	JC8050	JC608X	
XNMMU080610AEN	M	17.5	6.5	1				●	1
XNMMU080610AEN-KL					●		●		2
XNMMU080610AER-PM					●		●		4
XNHU0806AEN-W	H				●				3

■ HOW TO USE OF CORNER CHANGE



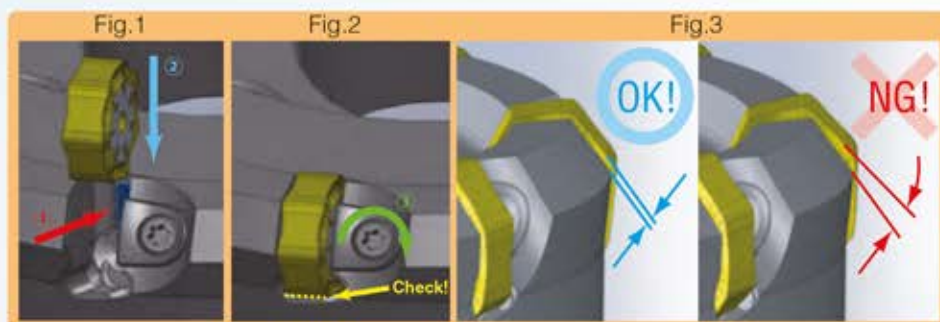
Recommend to rotate the insert counter-clockwise for corner change

■ ATTENTION TO USING WIPER INSERT

- In case of feed per rev. $f > 1.2\text{mm/rev}$ and required surface roughness $Rz \approx 12.5\mu\text{m}$, we recommend to use wiper insert.
- Feed per tooth $f_z < 6\text{mm/rev}$ is recommended.
- Please put insert as "R" mark is shown to the front.

★ 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 downward 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)



■ 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 P_c was calculated as $Q/P_c = 34$ (cm³/kW) from test data at below cutting condition.

Work Material: FC250
 $a_p = 3$ (mm) $f_z = 0.3$ (mm/t)
 $a_e = 0.8D_c$ (mm) $V_c = 200$ (m/min)

Power consumption calculating formula:
 P_c (kW) = $(a_e \times a_p \times V_f) / \{1000 \times (Q/P_c)\}$

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

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 XNMU080610AEN-KL	Below 3.0	200 (150-250)	0.3 (0.1-1.0)	Vc ≥ 200: JC608X (XNMU080610AEN) ※ Vc ≤ 200: JC5118 (XNMU080610AEN-KL)
		3-6		0.3 (0.1-0.5)	
Nodular cast iron FCD400 (GGG40) Below 300HB	XNMU080610AEN XNMU080610AEN-KL	Below 3.0	150 (120-180)	0.2 (0.1-0.8)	Vc ≥ 150: JC608X (XNMU080610AEN) ※ Vc ≤ 150: JC5118 (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.