



The best solution for heavy-duty turning

NC500H

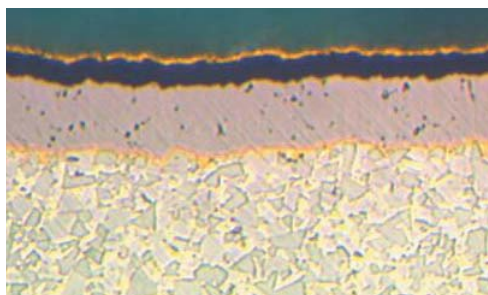
CVD
Brand-new



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NC500H

Features of NC500H CVD coating film and substrate

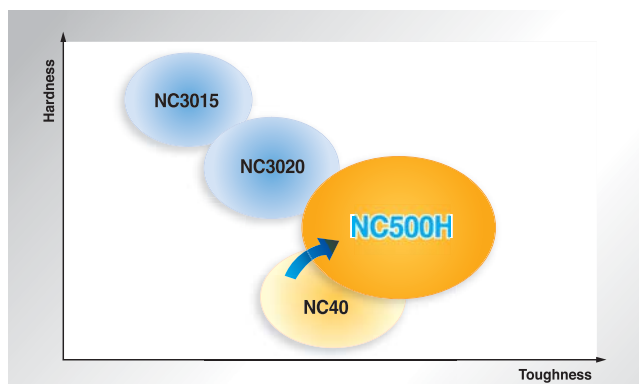


Al₂O₃ Suitability for operation with high temperature

MT-TiCN Wear resistance and less chipping coating layer

Exclusive substrate High toughness with good mechanical shock resistance, plastic deformation resistance and heat resistance

NC500H Application range



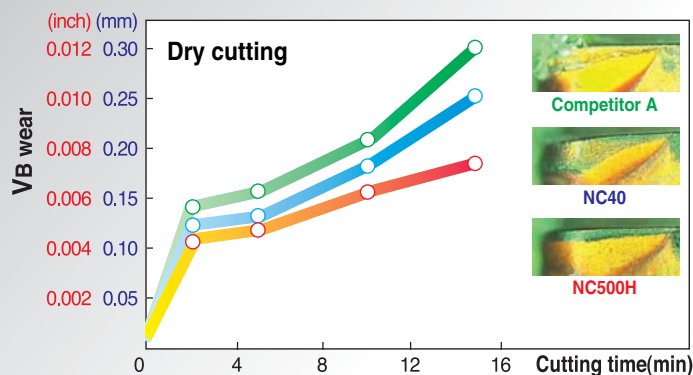
■ NC500H is designed to reduce plastic deformation thanks to improved hardness & heat resistance. It guarantees better performance than conventional NC40.

■ Great performance is guaranteed in high speed & severe intermittent cutting thanks to the comprehensive substrate with high toughness.

NC500H test examples

Wear resistance

	Metric	Inch
designation	CNMG120408-HR	CNMG432-HR
workpiece	42CrMo4	AISI4140
V	180m/min	590sfm
f	0.25mm/rev	0.001ipr
D.O.C	2.0mm	0.08inch



Shock resistance

	Metric	Inch
designation	CNMG120408-HR	CNMG432-HR
workpiece	42CrMo4	AISI4140(4 grooves)
V	100m/min	590sfm
f	variable	variable
D.O.C	2.0mm	0.08inch



Heat resistance

	Metric	Inch
designation	CNMG120408-HR	CNMG432-HR
workpiece	42CrMo4	AISI4140(4 grooves)
V	180m/min	590sfm
f	0.5mm/rev	f=0.026ipr
D.O.C	2.0mm	0.08inch



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NC500H Recommended cutting condition

1. Cutting speed (V)

Condition		m/min	30 ~ 50	50 ~ 150	150 ~ 300	300 ~ 500	500 ~
		sfm	100 ~ 165	165 ~ 495	495 ~ 990	990 ~ 1650	1650 ~
NC500H	Heavy						

2. Feed rate (f)

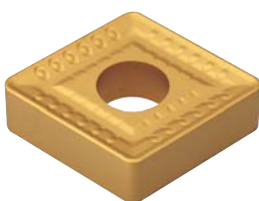
Condition		mm/rev	0.1 ~ 0.2	0.2 ~ 0.4	0.4 ~ 0.7	0.7 ~ 1.0	1.0 ~
		ipr	0.004 ~ 0.008	0.008 ~ 0.016	0.016 ~ 0.028	0.028 ~ 0.04	0.04 ~
NC500H	Heavy						

3. Depth of cut (d)

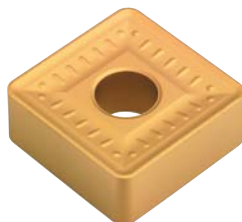
Condition		mm	1 ~ 2	2 ~ 4	4 ~ 7	7 ~ 10	10 ~
		inch	0.04 ~ 0.08	0.08 ~ 0.16	0.16 ~ 0.28	0.28 ~ 0.4	0.4 ~
NC500H	Heavy						

Chip breaker for NC500H

1. Chip breaker match



HH(Heavy duty)



GH(Heavy duty)



HR(Roughing)



B25(General)

2. Various geometry application(heavy duty)



RCMX



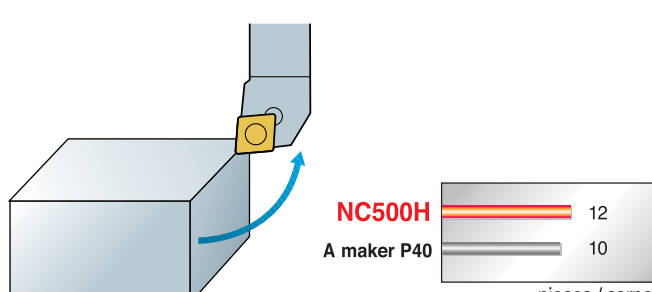
KNUX

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NC500H

NC500H Machining examples

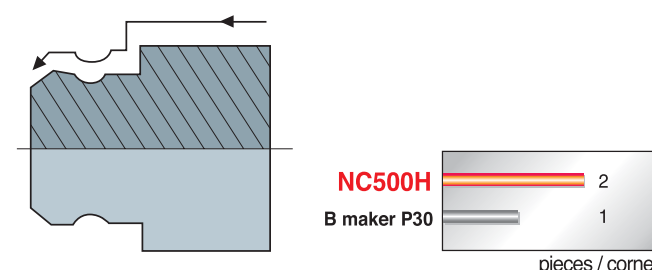
Designation	CNMG190612-HR	CNMG 643-HR
Workpiece	Block (bridge building)	
	Low carbon steel	
V	10 ~ 106 m/min	33 ~ 350 sfm
f	0.28 mm/rev	0.0112 ipr
D.O.C	10 mm	0.4 inch
Coolant	Wet	



NC500H
A maker P40

12
10
pieces / corner

Designation	SNMM250724-GH	SNMM 056-GH
Workpiece	Crank shaft	
	HRS1 (forge)	
V	47 ~ 87 m/min	155 ~ 290 sfm
f	0.42 ~ 0.6 mm/rev	0.0168 ~ 0.024 ipr
D.O.C	10.0 ~ 22.0 mm	0.4 ~ 0.88 inch
Coolant	Wet	



NC500H
B maker P30

2
1
pieces / corner

Stock management item for NC500H

Shape	ISO	ASA	C/B	Stock
CNMG	120408	432	B25	●
	120412	433	HR	●
	190612	643	B25	●
	190612	643	HR	●
CNMM	190612	643	GH	●
	250924	866	GH	●
SNMG	190612	643	B25	●
	190612	643	HR	●
SNMM	250724	856	GH	●
	250924	866	GH	●
TNMG	220408	432	B25	●
	220412	433	HR	●
KNUX	160405	—	R11	●
RCMX	2507M0	—	—	●
SP500	—	—	—	●
SPMR	120308	—	M	●

● : Stock item ○ : Under preparing for stock
Order-made items are available.



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