

Stellram® tooling systems
for all your turning
requirements.

The tooling.
New 3J geometry.

The material.
Stainless steel, high temperature alloys
and high tensile steels.

The application.
Medium to light roughing machining.

THE ADVANTAGES

- Positive geometry for smooth cutting action reducing cutting force by up to 30% and increasing machine profitability.
- Clearly defined edge hone to reduce built-up edge and increase tool life.
- Improved surface finish for higher quality components.
- New CVD and PVD grades for all cutting conditions.

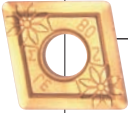







3J GEOMETRY



3J GEOMETRY

3J Inserts stock availability

	ISO Part Number	ANSI Part Number	CVD Coated		PVD Coated				
			NL30	NL40	SP3036	SP4036			
	CNMG	CNMG120404E-3J	CNMG431A-3J	●	●	●	●		
		CNMG120408E-3J	CNMG432A-3J	●	●	●	●		
		CNMG120412E-3J	CNMG433A-3J	●	●	●	●		
		CNMG120416E-3J	CNMG434A-3J	●	●	●	●		
		CNMG160608E-3J	CNMG542A-3J	●	●	●	●		
		CNMG160612E-3J	CNMG543A-3J	●	●	●	●		
		CNMG160616E-3J	CNMG544A-3J	●	●	●	●		
		CNMG190608E-3J	CNMG642A-3J	●	●	●	●		
		CNMG190612E-3J	CNMG643A-3J	●	●	●	●		
		CNMG190616E-3J	CNMG644A-3J	●	●	●	●		
			DNMG	DNMG110404E-3J	DNMG331A-3J	●	●	●	●
				DNMG110408E-3J	DNMG332A-3J	●	●	●	●
DNMG150404E-3J	DNMG431A-3J			●	●	●	●		
DNMG150408E-3J	DNMG432A-3J			●	●	●	●		
DNMG150412E-3J	DNMG433A-3J			●	●	●	●		
DNMG150604E-3J	DNMG441A-3J			●	●	●	●		
DNMG150608E-3J	DNMG442A-3J			●	●	●	●		
DNMG150612E-3J	DNMG443A-3J			●	●	●	●		
	SNMG	SNMG120404E-3J	SNMG431A-3J	▲	▲	▲	▲		
		SNMG120408E-3J	SNMG432A-3J	▲	▲	▲	▲		
		SNMG120412E-3J	SNMG433A-3J	▲	▲	▲	▲		
		SNMG120416E-3J	SNMG434A-3J	▲	▲	▲	▲		
		SNMG150608E-3J	SNMG542A-3J	▲	▲	▲	▲		
		SNMG150612E-3J	SNMG543A-3J	▲	▲	▲	▲		
		SNMG150616E-3J	SNMG544A-3J	▲	▲	▲	▲		
		SNMG190612E-3J	SNMG643A-3J	▲	▲	▲	▲		
		SNMG190616E-3J	SNMG644A-3J	▲	▲	▲	▲		
	TNMG	TNMG160304E-3J	TNMG321A-3J	●	●	●	●		
		TNMG160308E-3J	TNMG322A-3J	●	●	●	●		
		TNMG160312E-3J	TNMG323A-3J	●	●	●	●		
		TNMG160404E-3J	TNMG331A-3J	●	●	●	●		
		TNMG160408E-3J	TNMG332A-3J	●	●	●	●		
		TNMG160412E-3J	TNMG333A-3J	●	●	●	●		
		TNMG220408E-3J	TNMG432A-3J	▲	▲	▲	▲		
		TNMG220412E-3J	TNMG433A-3J	▲	▲	▲	▲		
		TNMG220416E-3J	TNMG434A-3J	▲	▲	▲	▲		
		TNMG270612E-3J	TNMG543A-3J	▲	▲	▲	▲		
		TNMG270616E-3J	TNMG544A-3J	▲	▲	▲	▲		
		TNMG330924E-3J	TNMG666A-3J	▲	▲				
			VNMG	VNMG160404E-3J	VNMG331A-3J	▲	▲	▲	▲
				VNMG160408E-3J	VNMG332A-3J	▲	▲	▲	▲
	WNMG	WNMG060404E-3J	WNMG331A-3J	●	●	●	●		
		WNMG060408E-3J	WNMG332A-3J	●	●	●	●		
		WNMG080404E-3J	WNMG431A-3J	●	●	●	●		
		WNMG080408E-3J	WNMG432A-3J	●	●	●	●		
		WNMG080412E-3J	WNMG433A-3J	●	●	●	●		

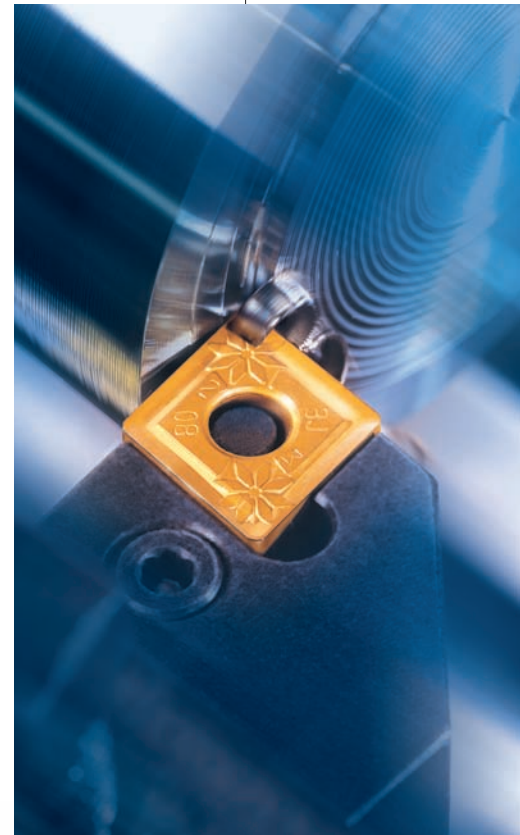
● Available as standard stock.

▲ Available 3rd quarter 2001.

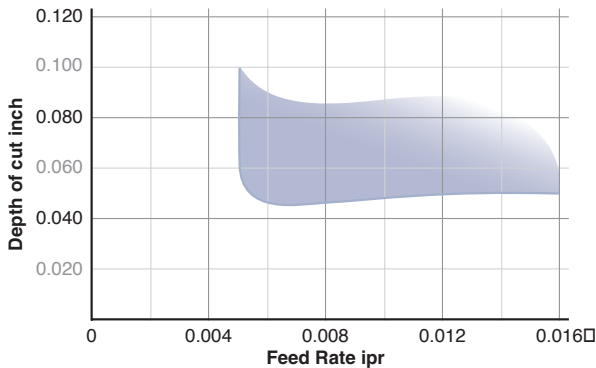
Grade Classification

Materials	Code ISO	Grade Performance Range			
		NL30	NL40	SP3036	SP4036
Low carbon steels, medium carbon steels, tools steels, cast steels, stainless steels with the exception of those with an austenitic structure.	C8	P01			
		P05			
		P10			
	C7	P15			
		P20			
		P25			
	C6	P30			
		P35			
	C5	P40			
		P50			
Stainless steel: stainless austenitic/ferritic, steels and cast steels		M05			
		M10			
		M15			
		M20			
		M30			
		M40			

◀ Optimum Grade Performance



Chip fragmentation for CNMG432A-3J



CVD Coated

- Multi layer coating
- Wear resistance

PVD Coated

- Thin layer TiAlN
- Low friction coefficient
- Retains sharp edge

NL30	New! NL40
CVD coated grade, First choice for general purpose machining.	CVD coated grade. Excellent resistance to mechanical and thermal shocks in stainless steel and high temperature alloys.
Primary materials: Tool Steel Stainless Steel	Primary materials: Tool Steel Stainless Steel High temperature alloys
Application guide: Stable condition at higher cutting speeds.	Application guide: Unstable condition at lower cutting speeds.

New! SP3036	New! SP4036
PVD coated grade. Sharp edge treatment for reduced built-up edge and cutting forces.	PVD coated grade. Excellent for finishing.
Primary materials: Stainless Steel High temperature alloys Titanium	Primary materials: Stainless Steel High temperature alloys
Application guide: Stable condition at higher cutting speeds and lower feeds.	Application guide: Stable condition, light interruption and higher feeds.

3J Insert Cutting Conditions

Cutting Speeds SFM

Material Group	RM & Hardness	NL30		NL40		SP3036		SP4036	
		max	min	max	min	max	min	max	min
Unalloyed Steel	<600 N/mm ² <180 HBN	1250	520	1185	445	1405	665	1450	680
	<950 N/mm ² <280 HBN	800	335	770	290	910	430	940	440
Alloyed Steel	700-950 N/mm ² 200-280 HBN	750	310	705	265	835	395	860	405
	950-1200 N/mm ² <280-355 HBN	660	280	640	240	760	360	-	-
	1200-1400 N/mm ² 355-415 HBN	440	190	435	165	520	245	-	-
Tool Steel	>1400N/mm ² >415 HBN	330	155	350	130	420	200	-	-
Stainless Steel	Austenitic + Ferritic 300 series	750	350	800	300	950	450	980	460
	Martensitic 400 series	780	365	830	310	990	470	1020	480
	Refractory PH	400	185	425	160	505	240	520	245
High Temperature Alloys	Iron Based	160	75	170	65	205	95	210	100
	Cobalt Based	130	60	140	50	165	80	170	80
	Nickel Based	140	65	150	55	175	85	185	85
	Titanium Based	220	105	235	90	280	130	290	135

CVD Coated

- Multi layer coating
- Wear resistance

PVD Coated

- Thin layer TiAlN
- Low friction coefficient
- Retains sharp edge

NL30

NL40

Application guide:

Stable condition at higher cutting speeds.

Application guide:

Unstable condition at lower cutting speeds.

SP3036

SP4036

Application guide:

Stable condition at higher cutting speeds and lower feeds.

Application guide:

Stable condition, light interruption and higher feeds.

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