

Material applications

Unalloyed Steels

Alloyed Steels

Hard Materials

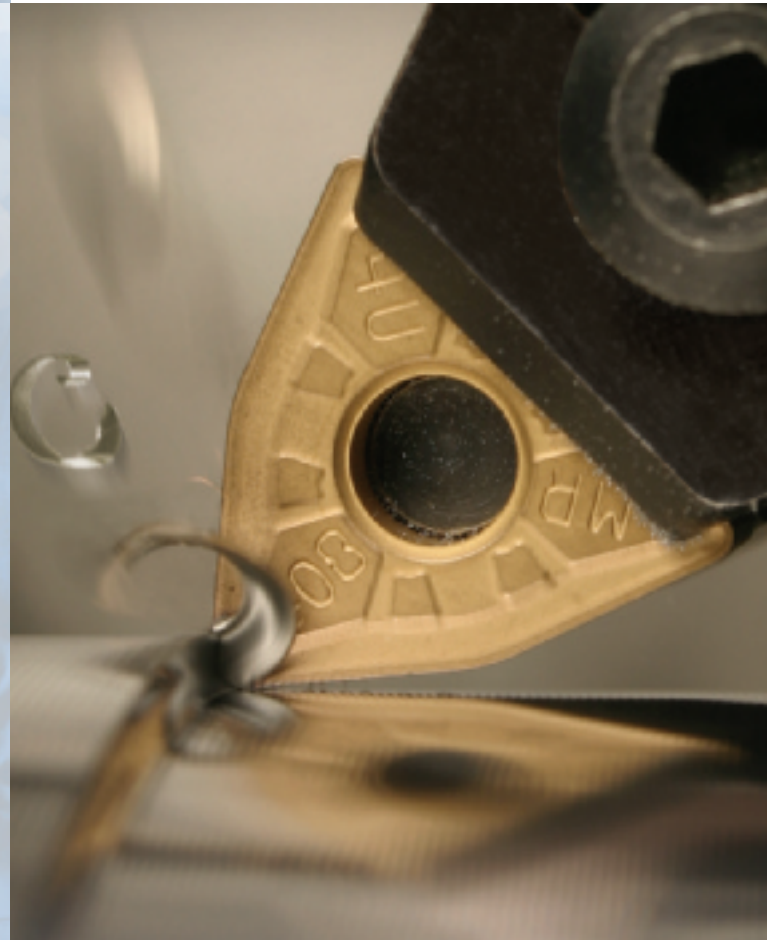


NL37

Nitro-Lok™ Ultra

New grade for an unmatched performance when machining steels and alloyed steels.

Increase your
cutting speeds
by up to 30%



Stellram® tooling systems for
all your tooling requirements.

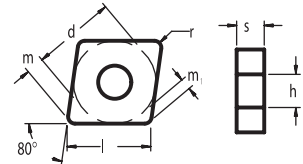


PERFORMANCE BENEFITS

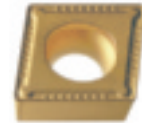
- **Improved Tool Life** – NL37’s capability to resist heat and abrasion can increase tool life by as much as 200%.
- **Reduced Component Costs** – Cutting speeds can be increased by up to 30% to reduce cycle times.
- **Better Machine Productivity** – NL37 requires less frequent tool changes providing up to 100% improvement in machine run time.
- **Higher Quality, Lower Scrap** – NL37 resists edge breakdown, providing consistent surface finishes and maintaining dimensional tolerances.
- **Lower Environmental Cost** – NL37 can be used without coolant reducing disposal costs.
- **Reduced Processing** – NL37 can be used (under stable conditions) to machine hardened steels from 52 HRC to 56 HRC and at cutting speeds up to 65 meters per minute, eliminating the need for further costly material processes.

Insert Styles Available

Part Number	Coating	EDP #	Dimensions							
			d (mm)	l (mm)	s (mm)	r (mm)	m (mm)	m ₁ (mm)	h (mm)	



CCMT09T308E-3G	NL37	029647		9,52	9,57	3,97	0,80	2,20	1,21	4,40
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CNMG120404E-2N	NL37	029702	NEW	12,70	12,90	4,76	0,40	3,30	1,81	5,16
CNMG120404E-3G	NL37	029701	NEW	12,70	12,90	4,76	0,40	3,30	1,81	5,16
CNMG120404E-4T	NL37	029703	NEW	12,70	12,90	4,76	0,40	3,30	1,81	5,16
CNMG120408E-2N	NL37	029648		12,70	12,90	4,76	0,80	3,08	1,69	5,16
CNMG120408E-3G	NL37	029649		12,70	12,90	4,76	0,80	3,08	1,69	5,16
CNMG120408E-3M	NL37	029650		12,70	12,90	4,76	0,80	3,08	1,69	5,16
CNMG120408E-4T	NL37	029651		12,70	12,90	4,76	0,80	3,08	1,69	5,16
CNMG120408E-4U	NL37	029652		12,70	12,90	4,76	0,80	3,08	1,69	5,16
CNMG120412E-2N	NL37	029704	NEW	12,70	12,90	4,76	1,20	2,86	1,57	5,16
CNMG120412E-3G	NL37	029654		12,70	12,90	4,76	1,20	2,86	1,57	5,16
CNMG120412E-3M	NL37	029653		12,70	12,90	4,76	1,20	2,86	1,57	5,16
CNMG120412E-4T	NL37	029655		12,70	12,90	4,76	1,20	2,86	1,57	5,16
CNMG120412E-4U	NL37	029656		12,70	12,90	4,76	1,20	2,86	1,57	5,16
CNMG120412E-5V	NL37	029705	NEW	12,70	12,90	4,76	1,20	2,86	1,57	5,16
CNMG120416E-4T	NL37	029706	NEW	12,70	12,90	4,76	1,60	2,64	1,45	5,16
CNMG160612E-2N	NL37	029708	NEW	15,88	16,10	6,35	1,20	3,74	2,06	6,35
CNMG160612E-4T	NL37	029707	NEW	15,88	16,10	6,35	1,20	3,74	2,06	6,35
CNMG160612E-5V	NL37	029709	NEW	15,88	16,10	6,35	1,20	3,74	2,06	6,35
CNMG160616E-4T	NL37	029710	NEW	15,88	16,10	6,35	1,60	3,52	1,94	6,35

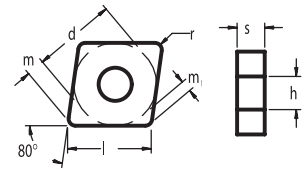


DCMT070204E-3G	NL37	029657		6,35	7,70	2,38	0,40	3,24	-	2,79
DCMT11T304E-3G	NL37	029658		9,52	11,60	3,97	0,40	5,09	-	4,39
DCMT11T308E-3G	NL37	029659		9,52	11,60	3,97	0,80	4,62	-	4,39



Insert Styles Available

Part Number	Coating	EDP #		Dimensions						
				d (mm)	l (mm)	s (mm)	r (mm)	m (mm)	m ₁ (mm)	h (mm)



DNMG110408E-2N	NL37	029711	NEW	9,52	11,00	4,76	0,80	4,62	-	4,39
DNMG150404E-3G	NL37	029660		12,70	15,50	4,76	0,40	6,93	-	5,16
DNMG150408E-2N	NL37	029716	NEW	12,70	15,50	4,76	0,80	6,47	-	5,16
DNMG150408E-3G	NL37	029715	NEW	12,70	15,50	4,76	0,80	6,47	-	5,16
DNMG150408E-3G	NL37	029661		12,70	15,50	4,76	0,80	6,47	-	5,16
DNMG150408E-4T	NL37	029717	NEW	12,70	15,50	4,76	0,80	6,47	-	5,16
DNMG150412E-3G	NL37	029662		12,70	15,50	4,76	1,20	6,01	-	5,16
DNMG150412E-4T	NL37	029718	NEW	12,70	15,50	4,76	1,20	6,01	-	5,16
DNMG150608E-2N	NL37	029663		12,70	15,50	6,35	0,80	6,47	-	5,16
DNMG150608E-4T	NL37	029712	NEW	12,70	15,50	6,35	0,80	6,47	-	5,16
DNMG150612E-2N	NL37	029664		12,70	15,50	6,35	1,20	6,01	-	5,16
DNMG150612E-3G	NL37	029714	NEW	12,70	15,50	6,35	1,20	6,01	-	5,16
DNMG150612E-4T	NL37	029713	NEW	12,70	15,50	6,35	1,20	6,01	-	5,16



SCMT09T308E-3G	NL37	029665		9,52	9,52	3,97	0,80	1,64	-	4,40
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SNMG120408E-2N	NL37	029722	NEW	12,70	12,70	4,76	0,80	2,30	-	5,16
SNMG120408E-4T	NL37	029720	NEW	12,70	12,70	4,76	0,80	2,30	-	5,16
SNMG120412E-2N	NL37	029721	NEW	12,70	12,70	4,76	1,20	2,14	-	5,16
SNMG120412E-4T	NL37	029719	NEW	12,70	12,70	4,76	1,20	2,14	-	5,16
SNMG150612E-2N	NL37	029724	NEW	15,88	15,88	6,35	1,20	2,80	-	6,35
SNMG150612E-4T	NL37	029723	NEW	15,88	15,88	6,35	1,20	2,80	-	6,35



TNMG160408E-2N	NL37	029725	NEW	9,52	16,50	4,76	0,80	13,49	-	3,81
TNMG160408E-3G	NL37	029666		9,52	16,50	4,76	0,80	13,49	-	3,81
TNMG160408E-4T	NL37	029726	NEW	9,52	16,50	4,76	0,80	13,49	-	3,81



VBMT160404E-3G	NL37	029667		9,52	16,60	4,76	0,40	10,14	-	4,40
VBMT160408E-3G	NL37	029668		9,52	16,60	4,76	0,80	9,22	-	4,40








VNMG160404E-3G	NL37	029677		9,52	16,60	4,76	0,40	10,14	-	3,81
VNMG160408E-3G	NL37	029678		9,52	16,60	4,76	0,80	9,22	-	3,81
VNMG160412E-3	NL37	029679		9,52	16,60	4,76	1,20	8,31	-	3,81



WNMG060408E-2N	NL37	029728	NEW	9,52	6,52	4,76	0,80	2,21	-	3,81
WNMG060412E-4T	NL37	029727	NEW	9,52	6,52	4,76	1,20	2,21	-	3,81
WNMG080408E-2N	NL37	029670		12,70	8,69	4,76	0,80	3,09	-	5,16
WNMG080408E-3G	NL37	029669		12,70	8,69	4,76	0,80	3,09	-	5,16
WNMG080408E-3M	NL37	029671		12,70	8,69	4,76	0,80	3,09	-	5,16
WNMG080408E-4T	NL37	029672		12,70	8,69	4,76	0,80	3,09	-	5,16
WNMG080408E-4U	NL37	029673		12,70	8,69	4,76	0,80	3,09	-	5,16
WNMG080412E-3G	NL37	029674		12,70	8,69	4,76	1,20	2,87	-	5,16
WNMG080412E-3M	NL37	029675		12,70	8,69	4,76	1,20	2,87	-	5,16
WNMG080412E-4T	NL37	029729	NEW	12,70	8,69	4,76	1,20	2,87	-	5,16
WNMG080412E-4U	NL37	029676		12,70	8,69	4,76	1,20	2,87	-	5,16
WNMG080416E-4T	NL37	029730	NEW	12,70	8,69	4,76	1,60	2,64	-	5,16







NL37 Primary Grade application with suggested starting point cutting data

ISO	Materials	R _m and Hardness	Cutting Data	Finishing 	Medium 	Roughing 
			Geometry	3M (New)	2N	4T
	Unalloyed Steels	<600 N/mm ² <180HBN	D.O.C. (mm) Feed f _n (mm/rev) V _c (M/min)	0,76 - 4,00 0,12 - 0,40 105 - 425	0,76 - 3,90 0,12 - 0,45 105 - 255	1,20 - 6,35 0,22 - 0,50 105 - 170
		<950 N/mm ² <280HBN	Geometry	3M (New)	2N	4T
	Alloyed Steels	700 - 950 N/mm ² 200 - 280 HBN	D.O.C. (mm) Feed f _n (mm/rev) V _c (M/min)	0,76 - 4,00 0,12 - 0,40 60 - 250	0,76 - 3,90 0,12 - 0,45 60 - 150	1,20 - 6,35 0,22 - 0,50 60 - 100
		950 - 1200 N/mm ² 280 - 355 HBN 1200 - 1400 N/mm ² 355 - 415 HBN	Geometry	2N	4U	4T
	Hard Steels	>1400 N/mm ² >415 HBN	D.O.C. (mm) Feed f _n (mm/rev) V _c (M/min)	0,76 - 3,90 0,12 - 0,45 45 - 70	1,25 - 4,60 0,18 - 0,45 45 - 60	1,20 - 6,35 0,20 - 0,40 45 - 55
	Chilled Cast Irons	1400 N/mm ² 400 HBN				

Note: D.O.C. (mm) & Feed f_n (mm/rev) data based on CNMG120408.

NL37 Secondary Grade application with suggested starting point cutting data

ISO	Materials	R _m and Hardness	Cutting Data	Finishing 	Medium 	Roughing 
			Geometry	4U	4U	4T
	Cast Irons	Grey GG-Ft	D.O.C. (mm) Feed f _n (mm/rev) V _c (M/min)	0,50 - 4,00 0,10 - 0,40 95 - 420	0,50 - 4,00 0,10 - 0,40 95 - 255	1,20 - 6,35 0,22 - 0,50 95 - 170
		Spheroidal-Ductile GGG-FGS				
		Malleable GTS - MN/MP				

Note: D.O.C. (mm) & Feed f_n (mm/rev) data based on CNMG120408.

For more technical information see the 2006 Tooling Catalogue or contact your local Sales Engineer.

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