

Negative ISO Inserts:

- CNGA
- DNGA
- TNGA
- VNGA

Positive ISO Inserts:

- CCGW
- DCGW
- TCGW
- VBGW
- VCGW

T-Clamp Ultra+ Turn/Groove Inserts:

- TSA 6mm (Full Radius)
- TSA 8mm (Full Radius)

Insert I.C. Sizes

- .250"
- .375"
- .500"



PCD Grade TD810 Hybrid Grade for Aluminum & Non-Ferrous Materials

This update addresses a nomenclature change within our line of PCD grade TD810 which provides optimal machining performance on aluminum and non-ferrous materials. Negative ISO inserts will change from CNMA, DNMA and TNMA to CNGA, DNGA and TNGA.

Compared to existing grade KP300, TD810 has a higher hardness that provides 30% more wear resistance while increasing performance at higher cutting speeds. At the same time, a multi-modal micro structure allows this grade to retain its toughness. The result is an optimal combination of high speed capability with a strong cutting edge that provides a consistent, high quality surface finish in high speed machining applications.

Features

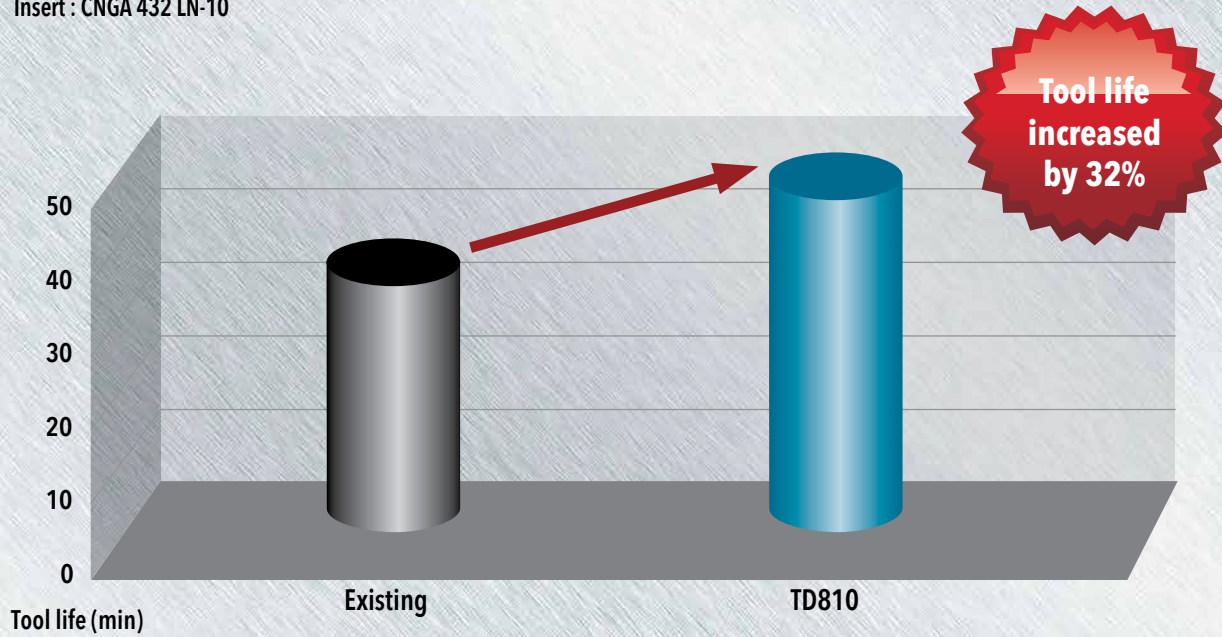
- Complex structure consisting of fine and course diamonds provides the optimal combination of high wear resistance and superior toughness. This makes this grade suitable for both roughing and finishing.
- Designed for non-ferrous materials including aluminum, copper, graphite, etc... as well as non-metals such as plastic and wood
- Ability to run at higher cutting speeds while producing an excellent surface finish

TEST RESULTS

Cutting test

Work piece : AC9B-Aluminum(HB 140-160)

Insert : CNGA 432 LN-10



Cutting conditions

Speed : 1640 sfm (500m/min)

Feed : .004 ipr (0.1mm/rev)

DOC : .020" (0.5mm)

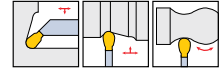
Machining : External turning, continuous, wet



INSERTS

Insert	Designation		Dimension (mm)					Stock
	ASA	ISO	l	d	t	r	D1	TD810
	CCGW 21.50.5 LN-7	CCGW 060202 LN-7	0.122	0.250	0.094	0.008	0.110	*
	CCGW 21.51 LN-7	CCGW 060204 LN-7	0.122	0.250	0.094	0.016	0.110	*
	CCGW 32.51 LN-7	CCGW 09T304 LN-7	0.157	0.375	0.156	0.016	0.173	*
	CCGW 32.52 LN-7	CCGW 09T308 LN-7	0.154	0.375	0.156	0.031	0.173	*
	CCGW 431 LN-7	CCGW 120404 LN-7	0.157	0.500	0.187	0.016	0.217	*
	CCGW 432 LN-7	CCGW 120408 LN-7	0.154	0.500	0.187	0.031	0.217	*
	CNGA 431 LN-10	CNGA 120404 LN-10	0.157	0.500	0.187	0.016	0.203	*
	CNGA 432 LN-10	CNGA 120408 LN-10	0.154	0.500	0.187	0.031	0.203	*
	DCGW 21.50.5 LN-7	DCGW 070202 LN-7	0.134	0.250	0.094	0.008	0.110	*
	DCGW 21.51 LN-7	DCGW 070204 LN-7	0.130	0.250	0.094	0.016	0.110	*
	DCGW 32.50.5 LN-7	DCGW 11T302 LN-7	0.154	0.375	0.156	0.008	0.173	*
	DCGW 32.51 LN-7	DCGW 11T304 LN-7	0.146	0.375	0.156	0.016	0.173	*
	DCGW 32.52 LN-7	DCGW 11T308 LN-7	0.130	0.375	0.156	0.031	0.173	*
	DNGA 431 LN-10	DNGA 150404 LN-10	0.157	0.500	0.187	0.016	0.203	*
	DNGA 441 LN-10	DNGA 150604 LN-10	0.157	0.500	0.250	0.016	0.203	
	DNGA 432 LN-10	DNGA 150408 LN-10	0.146	0.500	0.187	0.031	0.203	*
	DNGA 442 LN-10	DNGA 150608 LN-10	0.146	0.500	0.250	0.031	0.203	
	TCGW 731 LN-7	TCGW 090204 LN-7	0.130	0.219	0.094	0.016	0.098	*
	TCGW 732 LN-7	TCGW 090208 LN-7	0.118	0.219	0.094	0.031	0.098	*
	TCGW 21.51 LN-7	TCGW 110204 LN-7	0.150	0.250	0.094	0.016	0.110	*
	TCGW 32.51 LN-7	TCGW 16T304 LN-7	0.150	0.375	0.156	0.016	0.173	*
	TCGW 32.52 LN-7	TCGW 16T308 LN-7	0.138	0.375	0.156	0.031	0.173	*
	TNGA 331 LN-10	TNGA 160404 LN-10	0.169	0.375	0.187	0.016	0.150	*
	VBGW 330.5 LN-7	VBGW 160402 LN-7	0.205	0.375	0.187	0.008	0.173	*
	VBGW 331 LN-7	VBGW 160404 LN-7	0.197	0.375	0.187	0.016	0.173	*
	VBGW 332 LN-7	VBGW 160408 LN-7	0.165	0.375	0.187	0.031	0.173	*
	VCGW 221 LN-7	VCGW 110304 LN-7	0.197	0.250	0.125	0.016	0.110	*
	VCGW 222 LN-7	VCGW 110308 LN-7	0.161	0.250	0.125	0.031	0.110	*
	VCGW 331 LN-7	VCGW 160404 LN-7	0.197	0.375	0.187	0.016	0.173	*
	VCGW 332 LN-7	VCGW 160408 LN-7	0.157	0.375	0.187	0.031	0.173	*
	VNGA 331 LN-10	VNGA 160404 LN-10	0.197	0.375	0.187	0.016	0.150	*
	VNGA 332 LN-10	VNGA 160408 LN-10	0.161	0.375	0.187	0.031	0.125	*

TSA INSERTS For Aluminum Wheel Machining



Insert	Designation		Dimension (inch)						
	ASA	ISO	W +/- .0008	R +/- .002	B	L	H	A	Stock
	TSA6.00-3.00	TSA6.00-3.00	0.236	0.118	0.197	0.984	0.205	0.276	*
	TSA8.00-4.00	TSA8.00-4.00	0.315	0.157	0.236	1.181	0.252	0.394	*

