ADVANCED MATERIALS - ValEDGE

VPD720

ValEDGE™

Engineered for your most demanding Non-Ferrous applications

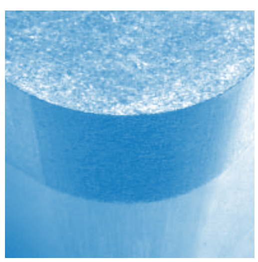
- High speed machining with improved resistance to wear
- Increased resistances to chips and pull out
- Consistent fine surface finishes and tool life

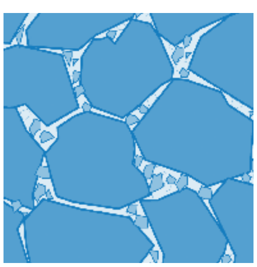
Complete Product Offering Including:

- Milling Inserts
- Pos/Neg styles for ANSI toolholders
- Tipped and Full Edge Inserts

Integrated Diamond Matrix (IDM)

Insert Edges:
Valenite's IDM is a proprietary process which provides a more durable PCD insert with sharper cutting edges that last longer than most other PCD inserts.

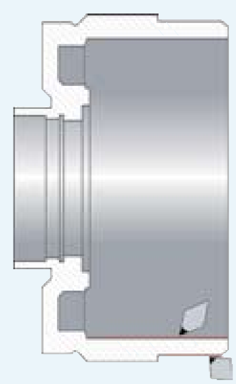




Method of Construction:
Controlled sintering of a blended mix of proprietary diamond particles forms a highly durable microstructure. Concentrating the diamond packing and then increasing diamond diamond bonding produces the backbone of IDM.

Proven in High Volume Production Applications

67% IMPROVEMENT IN TOOL LIFE



ValEDGE™

VPD720 APPLICATION GUIDE

Material	Typical Parts	Speed *sfm	Feed ipr/ipt
ALUMINUM - WROUGHT AND CAST < 12% SILICON	Sporting goods, cylinder heads, engine blocks, transmission cases, passenger car wheels, marine hardware, valve bodies, aircraft wheels	6000 +	0.004 - 0.024
ALUMINUM CASTINGS Grade A356 06.5% - 7.5% SILICON	High strength components - air frame castings, air craft and missile components, truck chassis components, structural parts	3000 - 7000	0.006 - 0.024
HIGH SILICON ALUMINUM CASTINGS > 12% SILICON	Engine pistons, cylinder bodies for compressors, pumps, and brakes	1500 - 3000	0.004 - 0.018
NON - FERROUS MATERIALS	Graphite composites, fiberglass, copper, and brass	600 - 1500	0.003 - 0.016

* Always follow machine and rotating tools recommended maximum speed

VPD720 INSERT NOMENCLATURE

S P E W 3 1.5 1 R H

INSERT SHAPE
- C = 80° Diamond
- D = 55° Diamond
- V = 35° Diamond
- S = Square
- T = Triangle

RELIEF ANGLE
- N = 0°
- B = 5°
- C = 7°
- P = 11°
- E = 20°

TOLERANCE CLASS
- C = Precision Ground, I.C. +/- .0005 Thickness +/- .001
- E = Precision Ground, I.C. +/- .001 Thickness +/- .001
- G = Precision Ground, I.C. +/- .001 Thickness +/- .005
- M = Ground, I.C.+/- .002 Thickness +/- .005

TYPE
- N = No Hole
- A = Hole
- W = ISO Style Hole
- M = Pos./Neg.
- X = Special Feature

I C
- 1.5 = 0.187
- 1.8 = 0.219
- 2 = 0.250
- 3 = 0.375
- 4 = 0.500
- 5 = 0.625
- 6 = 0.750
- 8 = 1.000

THICKNESS
- 1.5 = 0.094
- 2 = 0.125
- 2.5 = 0.156
- 3 = 0.187
- 4 = 0.250
- 5 = 0.313

CORNER RADIUS
- 0 = .004 +/- .001
- 0.5 = .008 +/- .001
- 1 = .015 +/- .001
- 2 = .031 +/- .001
- 3 = .046 +/- .001
- 4 = .063 +/- .001
- 6 = .094 +/- .001

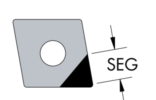
HAND/SPECIAL FEATURE
- L = L Hand
- R = R Hand
- HVA = Milling Insert
- 2K = Tapered Hole

TIP CONFIGURATION
- F = Tipped
- H = Full Edge

PRODUCT TABLE GUIDE

Heading	Description
IC	Incribed circle
R	Nose radius
SEG	Diamond segment length
MAX DOC	Maximum depth of cut at 0 degree lead
VPD720	Grade
EDP	Order Number

CPEX

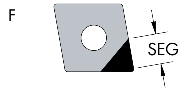


Part Number	IC	R	SEG	MAX DOC	VP D720EDP
CPEX 32.52 HVA F	3/8	.031	.150	.110	41112

VPD720 INSERTS

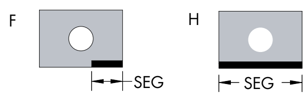
ValEDGE™

CCGW
TURNING/BORING



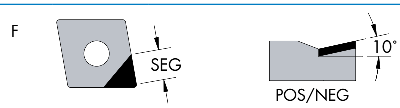
Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
CCGW 21.51 F *CCGW 06 02 04 F*	1/4	.015	.130	.100	**41097**
CCGW 21.52 F *CCGW 06 02 08 F*	1/4	.031	.130	.100	**41098**
CCGW 431 F *CCGW 12 04 04 F*	1/2	.015	.170	.130	**41099**
CCGW 432 F *CCGW 12 04 08 F*	1/2	.031	.170	.130	**41100**
CCGW 433 F *CCGW 12 04 12 F*	1/2	.046	.170	.130	**41101**

CDEW
MILLING



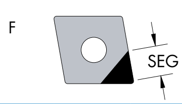
Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
CDEW 32242L F	3/8	.031	.160	.120	**41102**
CDEW 32242L H	3/8	.031	.500	.380	**41103**
CDEW 32242R F	3/8	.031	.160	.120	**41104**
CDEW 32242R H	3/8	.031	.500	.380	**41105**

CNGM
MILLING



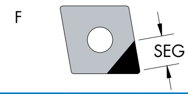
Part Number	IC	R	SEG	MAX DOC	VP D720EDP
CNGM 431 F *CNGM 12 04 04 F*	1/2	.015	.170	.130	**41106**
CNGM 432 F *CNGM 12 04 08 F*	1/2	.031	.170	.130	**41107**
CNGM 433 F *CNGM 12 04 12 F*	1/2	.046	.160	.120	**41108**

CPEW
MILLING



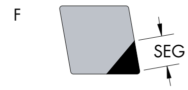
Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
CPEW 32.52 F *CPEW 09 T3 08 F*	3/8	.031	.170	.130	**41109**
CPEW 32.52 PDFL F *CPEW 09 T3 08 PDFL F*	3/8	.031	.170	.130	**41110**
CPEW 32.52 PDFR F *CPEW 09 T3 08 PDFR F*	3/8	.031	.170	.130	**41111**

CPEX
HVA MILLING



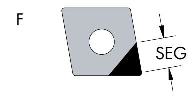
Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
CPEX 32.52 HVA F	3/8	.031	.150	.110	**41112**

CPG
TURNING



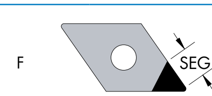
Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
CPG 421 F *CPGN 12 03 04 F*	1/2	.015	.170	.130	**41124**
CPG 422 F *CPGN 12 03 08 F*	1/2	.031	.170	.130	**41125**

CPGW
TURNING/BORING



Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
CPGW 1.81.51F *CPGW 05 02 04 F*	7/32	.015	.110	.080	**41113**
CPGW 1.81.52F *CPGW 05 02 08 F*	7/32	.031	.110	.080	**41114**
CPGW 21.51 F *CPGW 06 02 04 F*	1/4	.015	.130	.100	**41115**
CPGW 21.52 F *CPGW 06 02 08 F*	1/4	.031	.120	.090	**41116**
CPGW 21.53 F *CPGW 06 02 12 F*	1/4	.046	.130	.100	**41117**
CPGW 32.51 F *CPGW 09 T3 04 F*	3/8	.015	.170	.130	**41118**
CPGW 32.52 F *CPGW 09 T3 08 F*	3/8	.031	.170	.130	**41119**
CPGW 32.53 F *CPGW 09 T3 12 F*	3/8	.046	.170	.130	**41120**
CPGW 431 F *CPGW 12 04 04 F*	1/2	.015	.170	.130	**41121**
CPGW 432 F *CPGW 12 04 08 F*	1/2	.031	.170	.130	**41122**
CPGW 433 F *CPGW 12 04 12 F*	1/2	.046	.170	.130	**41123**

DCGW
TURNING

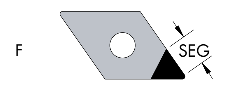


Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
DCGW 21.51 F *DCGW 07 02 04 F*	1/4	.015	.160	.120	**41126**
DCGW 21.52 F *DCGW 07 02 08 F*	1/4	.031	.140	.110	**41127**

ValEDGE™

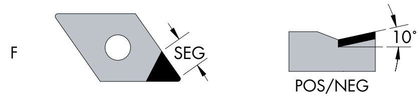
VPD720 INSERTS

DCGW
TURNING



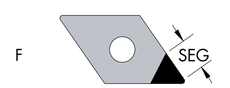
Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
DCGW 21.53 F *DCGW 07 02 12 F*	1/4	.046	.130	.100	**41128**

DNGM
TURNING



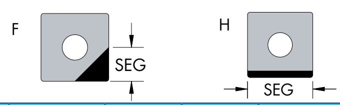
Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
DNGM 431 F *DNGM 15 04 04 F*	1/2	.015	.150	.110	**41129**
DNGM 432 F *DNGM 15 04 08 F*	1/2	.031	.140	.110	**41130**
DNGM 433 F *DNGM 15 04 12 F*	1/2	.046	.120	.090	**41131**

DPGW
TURNING



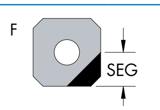
Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
DPGW 21.51 F DPGW 07 02 04 F	1/4	.015	.150	.110	**41132**
DPGW 21.52 F *DPGW 07 02 08 F*	1/4	.031	.140	.110	**41133**
DPGW 32.51 F *DPGW 11 T3 04 F*	3/8	.015	.160	.120	**41134**
DPGW 32.52 F *DPGW 11 T3 08 F*	3/8	.031	.140	.110	**41135**
DPGW 32.53 F *DPGW 11 T3 12 F*	3/8	.046	.130	.100	**41136**

SD P
CENTRE DEX MILL



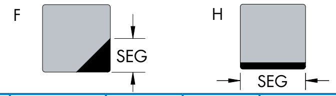
Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
SD 322P F	3/8	.031	.170	.130	**40999**
SD 422P F	1/2	.031	.170	.130	**41000**
SD 422P H	1/2	.031	.500	.380	**41001**

SD SEE
ECON-O-MIZER® MILL



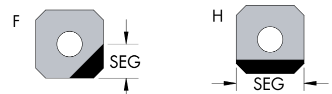
Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
SD SEE 42AR7 F	1/2	.031	.270	.200	**40998**

SEC
MILLING



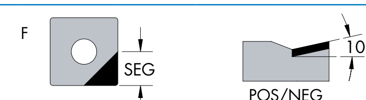
Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
SEC 322 F *SECN 09 03 08 F*	3/8	.031	.170	.130	**41002**
SEC 322 H *SECN 09 03 08 H*	3/8	.031	.380	.280	**41003**
SEC 421 F *SECN 12 03 04 F*	1/2	.015	.170	.130	**41004**
SEC 422 F *SECN 12 03 08 F*	1/2	.031	.170	.130	**41005**
SEC 422 H *SECN 12 03 08 H*	1/2	.031	.500	.380	**41006**
SEC 423 F *SECN 12 03 12 F*	1/2	.046	.170	.130	**41007**
SEC 424 H *SECN 12 03 16 H*	1/2	.062	.500	.380	**41008**
SEC 632 F *SECN 19 04 08 F*	3/4	.031	.270	.200	**41009**
SEC 633 F *SECN 19 04 12 F*	3/4	.046	.270	.200	**41010**

SEEW
MILLING



Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
SEEW 43 AEJR F *SEEW 12 04 AEJR F*	1/2	.046	.260	.200	**41011**
SEEW 43 AFFN F *SEEW 12 04 AFFN F*	1/2	.046	.140	.110	**41012**
SEEW 43 AFFN H *SEEW 12 04 AFFN H*	1/2	.046	.500	.380	**41013**

SNGM
TURNING



Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
SNGM 322 F *SNGM 09 03 08 F*	3/8	.031	.170	.130	**41014**
SNGM 431 F *SNGM 12 04 04 F*	1/2	.015	.170	.130	**41015**
SNGM 432 F *SNGM 12 04 08 F*	1/2	.031	.170	.130	**41016**
SNGM 433 F *SNGM 12 04 12 F*	1/2	.046	.170	.130	**41017**

SPC
MILLING

Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
SPC 1.81.51 F *SPHN 05 02 04 F*	7/32	.015	.160	.120	**41018**
SPC 1.81.52 F *SPHN 05 02 08 F*	7/32	.031	.160	.120	**41019**

VPD720 INSERTS

ValEDGE™

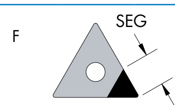
SPEW
MILLING

Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
SPEW 32.51 F *SPEW 09 T3 04 F*	3/8	.015	.170	.130	**41020**
SPEW 32.52 F *SPEW 09 T3 08 F*	3/8	.031	.170	.130	**41021**
SPEW 32.52 H *SPEW 09 T3 08 H*	3/8	.031	.380	.290	**41022**
SPEW 432 F *SPEW 12 04 08 F*	1/2	.031	.170	.130	**41023**
SPEW 433 F *SPEW 12 04 12 F*	1/2	.046	.170	.130	**41024**
SPEW 434 H *SPEW 12 04 16 H*	1/2	.062	.500	.380	**41025**

SPG
TURNING/MILLING

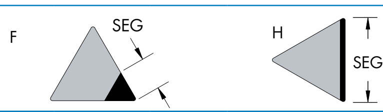
Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
SPG 322 F *SPGN 09 03 08 F*	3/8	.031	.170	.130	**41028**
SPG 322 H *SPGN 09 03 08 H*	3/8	.031	.380	.290	**41029**
SPG 323 F *SPGN 09 03 12 F*	3/8	.046	.170	.130	**41030**
SPG 421 F *SPGN 12 03 04 F*	1/2	.015	.170	.130	**41031**
SPG 422 F *SPGN 12 03 08 F*	1/2	.031	.170	.130	**41032**
SPG 422 H *SPGN 12 03 08 H*	1/2	.031	.500	.380	**41033**

TCGW
TURNING



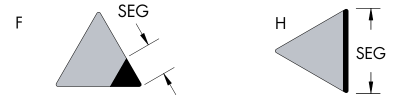
Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
TCGW 21.51 F *TCGW 11 02 04 F*	1/4	.015	.160	.120	**41034**
TCGW 21.52 F *TCGW 11 02 08 F*	1/4	.031	.160	.120	**41035**

TEC
TURNING/MILLING



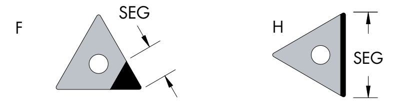
Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
TEC 2.521 F *TEHN 13 03 04 F*	5/16	.015	.140	.110	**41036**
TEC 2.521 H *TEHN 13 03 04 H*	5/16	.015	.310	.230	**41037**
TEC 2.522 F *TEHN 13 03 08 F*	5/16	.031	.150	.110	**41038**

TEC
TURNING/MILLING



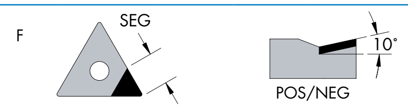
Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
TEC 2.522 H *TEHN 13 03 08 H*	5/16	.031	.310	.230	**41039**
TEC 321 F *TEHN 16 03 04 F*	3/8	.015	.120	.090	**41040**
TEC 322 F *TEHN 16 03 08 F*	3/8	.031	.120	.090	**41041**
TEC 322 H *TEHN 16 03 08 F*	3/8	.031	.630	.470	**41042**

TEGW
TURNING/MILLING



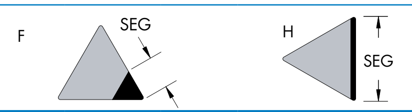
Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
TEGW 2.521 F *TEGW 13 03 04 F*	5/16	.015	.160	.120	**41043**
TEGW 2.521 H *TEGW 13 03 04 H*	5/16	.015	.510	.380	**41044**
TEGW 2.522 F *TEGW 13 03 08 F*	5/16	.031	.160	.120	**41045**

TNGM
TURNING



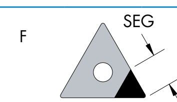
Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
TNGM 322 F *TNGM 16 03 08 F*	3/8	.031	.150	.110	**41046**
TNGM 332 F *TNGM 16 04 08 F*	3/8	.031	.140	.110	**41047**
TNGM 432 F *TNGM 22 03 08 F*	1/2	.031	.150	.110	**41048**

TPE
TURNING



Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
TPE 1.81.51 F *TPEN 09 02 04 F*	7/32	.015	.160	.120	**41054**
TPE 1.81.51 H *TPEN 09 02 04 H*	7/32	.015	.150	.260	**41055**
TPE 1.81.52 F *TPEN 09 02 08 F*	7/32	.031	.150	.110	**41056**

TPEW
MILLING

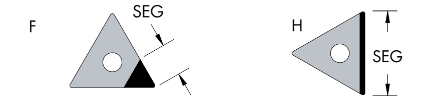


Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
TPEW 332 PDJR F *TPEW 16 04 08 PDJR F*	3/8	.031	.150	.110	**41052**

ValEDGE™

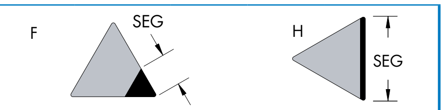
VPD720 INSERTS

TPGA
TURNING



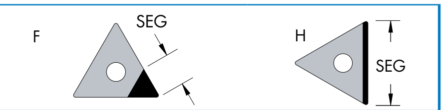
Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
TPGA 090202 2K F	7/32	.007	.130	.100	**41057**
TPGA 090204 2K F	7/32	.015	.130	.100	**41058**
TPGA 090204 2K H	7/32	.015	.350	.260	**41059**
TPGA 090208 2K F	7/32	.031	.130	.100	**41060**
TPGA 090212 2K F	7/32	.046	.110	.080	**41061**
TPGA 090216 2K F	7/32	.062	.100	.080	**41062**

TPG
TURNING



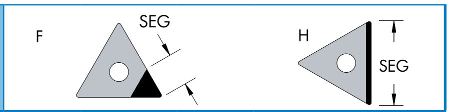
Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
TPG 221 F *TPGN 11 03 04 F*	1/4	.015	.120	.090	**41072**
TPG221 H *TPGN 11 03 04 H*	1/4	.015	.320	.240	**41073**
TPG 222 F *TPGN 11 03 08 F*	1/4	.031	.110	.080	**41074**
TPG 222 H *TPGN 11 03 08 H*	1/4	.031	.320	.240	**41075**
TPG 2.521 F *TPGN 13 03 04 F*	5/16	.015	.110	.080	**41076**
TPG 2.522 F *TPGN 13 03 08 F*	5/16	.031	.140	.110	**41077**
TPG 2.522 H *TPGN 13 03 08 H*	5/16	.031	.510	.380	**41078**
TPG 321 F *TPGN 16 03 04 F*	3/8	.015	.160	.120	**41079**
TPG 322 F *TPGN 16 03 08 F*	3/8	.031	.160	.120	**41080**
TPG 322 H *TPGN 16 03 08 H*	3/8	.031	.630	.470	**41081**
TPG 323 F *TPGN 16 03 12 F*	3/8	.046	.150	.110	**41082**
TPG 431 F *TPGN 22 04 04 F*	1/2	.015	.160	.120	**41083**
TPG 432 F *TPGN 22 04 08 F*	1/2	.031	.150	.110	**41084**

TPGW
TURNING



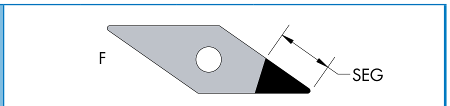
Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
TPGW 21.51 F *TPGW 11 02 04 F*	1/4	.015	.160	.120	**41063**

TPGW
TURNING



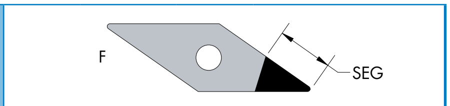
Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
TPGW 21.51 H *TPGW 11 02 04 H*	1/4	.015	.430	.320	**41064**
TPGW 21.52 F *TPGW 11 02 08 F*	1/4	.031	.150	.110	**41065**
TPGW 2.521 F *TPGW 13 03 04 F*	5/16	.015	.160	.120	**41066**
TPGW 2.522 F *TPGW 13 03 08 F*	5/16	.031	.150	.110	**41067**
TPGW 32.51 F *TPGW 16 T3 04 F*	3/8	.015	.160	.120	**41068**
TPGW 32.51 H *TPGW 16 T3 04 H*	3/8	.015	.620	.470	**41069**
TPGW 32.52 F *TPGW 16 T3 08 F*	3/8	.031	.150	.110	**41070**
TPGW 32.52 H *TPGW 16 T3 08 H*	3/8	.031	.630	.470	**41071**

VBGW
TURNING



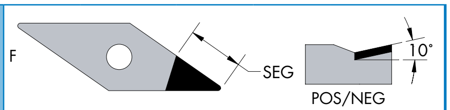
Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
VBGW 331 F *VBGW 16 04 04 F*	3/8	.015	.210	.160	**41085**
VBGW 332 F *VBGW 16 04 08 F*	3/8	.031	.180	.140	**41086**
VBGW 333 F *VBGW 16 04 12 F*	3/8	.046	.140	.110	**41087**

VCGW
TURNING



Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
VCGW 32.51 F *VCGW 16 T3 04 F*	3/8	.015	.210	.160	**41088**
VCGW 32.52 F *VCGW 16 T3 08 F*	3/8	.031	.170	.130	**41089**
VCGW 32.53 F *VCGW 16 T3 12 F*	3/8	.046	.130	.100	**41091**

VNGM
TURNING



Part Number	IC	R	SEG	MAX DOC	VPD720 EDP#
VNGM 331 F *VNGM 16 04 04 F*	3/8	.015	.210	.160	**41092**
VNGM 332 F *VNGM 16 04 08 F*	3/8	.031	.170	.130	**41093**
VNGM 333 F *VNGM 16 04 12 F*	3/8	.046	.140	.110	**41094**
VNGM 432 F *VNGM 22 04 08 F*	1/2	.031	.170	.130	**41095**

ValEDGE™

A Complete System Approach To Machining Hardened Steels

VPC225 - Multi-cornered Coated CBN
VPZ205 - Coated Micro Grain Ceramic
VPZ215 - Coated Ceramic

- ValEDGE system is designed to provide premium high performance cutting tools for the most demanding applications.
- A system approach provides the necessary options to produce both an economic production solution and exceed critical finish and tolerance specifications.
    - Versatile PCBN offers a wide speed range and continuous to interrupted cutting.
    - Two ceramic grades for continuous to mild interruption.
    - Wiper geometries in both ANSI negative and ISO positive screw down styles.
- ProGrip tool holding provides the security and stability to reduce unexpected failures. Quick and simple insert changing reduce tool changing times up to 40%.
- Valenite's mission is dedicated to produce cutting tools to the highest quality standards in the industry.
- Performance is **Guaranteed**

Toolholders

Common Hardware

- Can be used with our full Line of Holders and Components

ProGrip Toolholders Offer

- Clamp for Enhanced Security
- Shim Seat for Increased Stability and tool holder protection
- Simple conversion of most ProGrip holders
- ProGrip holders eliminate the need for Lock Pin

ValEDGE™

INSERT NOMENCLATURE

C	N	G	A	4	3	2	W	M2	S5
C	N	G	A	12	04	08	W	M2	S5

RELIEF ANGLE

N	0°
B	5°
C	7°
P	11°

TYPE

N	No Hole
A	Hole
W	ISO Style Hole

THICKNESS

	Inch	Metric
1.5	3/32	02
2.0	1/8	03
2.5	5/32	T3
3.0	3/16	04
4.0	1/4	06
5.0	5/16	07

HAND/SPECIAL FEATURE

W	Wiper Radii

TIP CONFIGURATION

	Cutting Edges
M2	2
M3	3
M4	4
M6	6
M8	8

INSERT SHAPE

C	80˚ Diamond
D	55˚ Diamond
V	35˚ Diamond
S	Square
T	Triangle

TOLERANCE CLASS

	IC	T	M
M	± 0.005	± 0.005	± 0.008
G	± 0.001	± 0.005	± 0.001
E	± 0.005	± 0.001	± 0.001
C	± 0.0005	± 0.001	± 0.0005

NOSE RADIUS

	Inch	Metric
0	0.004	01
0.5	0.008	02
1	0.015	04
2	0.031	08
3	0.046	12
4	0.063	16
6	0.094	24

SIZE

Inch		Metric Cutting Length						
Symbol	IC	C	D	R	S	T	V	W
1.2	5/32	S4	04	03	03	06		
1.5	3/16	04	05	04	04	08	08	S3
1.8	7/32	05	06	05	05	09	09	03
2	1/4	06	07	06	06	11	11	04
2.5	5/16	08	09	07	07	13	13	05
3	3/8	09	11	09	09	16	16	06
3.5	7/16	11	13	11	11	19	19	07
4	1/2	12	15	12	12	22	22	08
5	5/8	16	19	15	15	27	27	10
6	3/4	19	23	19	19	33	33	13
8	1	25	31	25	25	44	44	17

LAND AND HONE DESIGNATION & SIZE

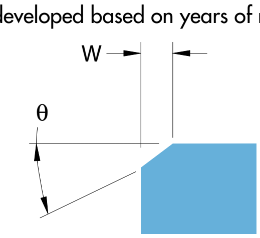
	Inch		Metric	
	Land	Hone	Land	Hone
E	N/A	0.0005 - 0.0015	N/A	0.012
S1	0.005 x 15	0.0005 - 0.0015	0.13 x 15	0.012
S5	0.005 x 25	0.0005 - 0.0015	0.13 x 25	0.012
S7	0.008 x 20	0.0005 - 0.0015	0.13 x 20	0.012

T-LAND DESCRIPTION

The standard T-Lands and Hones incorporated into each insert was developed based on years of metal cutting experience.

CBN inserts - all have a light hone with the choice of either of the following
- 0.005X15 for light duty cuts, reduced force
- 0.005X25 for general applications

Ceramic inserts - all light hone with either
- 0.005X25 for general applications
- 0.008X20 for increased edge strength

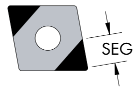


Example:
SI = 0.005 x 15°
W = 0.005
θ = 15°

INSERTS

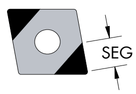
ValEDGE™

CCGW



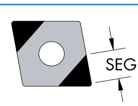
Part Number *ISO Part Number*	Edges	T-Land in/mm	Max DOC in/mm	Grades / EDP# VPC225	VPZ205	VPZ215
CCGW 21.51 M2-S5 *CCGW 06 02 04 M2-S5*	2	0.005 x 25° 0.130 x 25°	0.025 0.635	40014		
CCGW 21.52 M2-S5 *CCGW 06 02 08 M2-S5*	2	0.005 x 25° 0.130 x 25°	0.025 0.635	40015		
CCGW 21.52W M2-S5 *CCGW 06 02 08W M2-S5*	2	0.005 x 25° 0.130 x 25°	0.025 0.635	40151		

CNGA



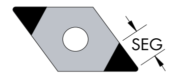
Part Number *ISO Part Number*	Edges	T-Land in/mm	Max DOC in/mm	Grades / EDP# VPC225	VPZ205	VPZ215
CNGA 431 M2-S5 *CNGA 12 04 04 M2-S5*	2	0.005 x 15° 0.130 x 15°	0.025 0.635	40226		
CNGA 431 S5 *CNGA 12 04 04 S5*	4	0.005 x 25° 0.130 x 25°	0.040 1.0		40231	40232
CNGA 432 M2-S1 *CNGA 12 04 08 M2-S1*	2	0.005 x 15° 0.130 x 15°	0.025 0.635	40245		
CNGA 432 M2-S5 *CNGA 12 04 08 M2-S5*	2	0.005 x 25° 0.130 x 25°	0.025 0.635	40263		
CNGA 432 S5 *CNGA 12 04 08 S5*	4	0.008 x 20° 0.200 x 20°	0.040 1.0		40303	40306
CNGA 432 S7 *CNGA 12 04 08 S7*	4	0.005 x 25° 0.130 x 25°	0.040 1.0		40307	40309
CNGA 432W M2-S1 *CNGA 12 04 08W M2-S1*	2	0.005 x 15° 0.130 x 15°	0.025 0.635	40310		
CNGA 432W M2-S5 *CNGA 12 04 08W M2-S5*	2	0.005 x 25° 0.130 x 25°	0.025 0.635	40311		
CNGA 432W S5 *CNGA 12 04 08W S5*	4	0.008 x 20° 0.200 x 20°	0.040 1.0		40312	40314
CNGA 433 M2-S1 *CNGA 12 04 12 M2-S1*	2	0.005 x 15° 0.130 x 15°	0.025 0.635	40315		
CNGA 433 M2-S5 *CNGA 12 04 12 M2-S5*	2	0.005 x 25° 0.130 x 25°	0.025 0.635	40316		
CNGA 433 S5 *CNGA 12 04 12 S5*	4	0.005 x 20° 0.200 x 20°	0.040 1.0		40317	40318
CNGA 433 S7 *CNGA 12 04 12 S7*	4	0.008 x 20° 0.130 x 25°	0.040 1.0		40321	40322

CPGW



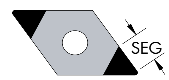
Part Number *ISO Part Number*	Edges	T-Land in/mm	Max DOC in/mm	Grades / EDP# VPC225	VPZ205	VPZ215
CPGW 21.51 M2-S5 *CPGW 06 02 04 M2-S5*	2	0.005 x 25° 0.130 x 25°	0.025 0.635	40323		
CPGW 21.52 M2-S5 *CPGW 06 02 08 M2-S5*	2	0.005 x 25° 0.130 x 25°	0.025 0.635	40324		
CPGW 21.52W M2-S5 *CPGW 06 02 08W M2-S5*	2	0.005 x 25° 0.130 x 25°	0.025 0.635	40357		
CPGW 32.51 M2-S5 *CPGW 09 T3 04 M2-S5*	2	0.005 x 25° 0.130 x 25°	0.025 0.635	40365		
CPGW 32.52 M2-S5 *CPGW 09 T3 08 M2-S5*	2	0.005 x 25° 0.130 x 25°	0.025 0.635	40394		
CPGW 32.52W M2-S5 *CPGW 09 T3 08W M2-S5*	2	0.005 x 25° 0.130 x 25°	0.025 0.635	40515		

DCGW



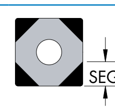
Part Number *ISO Part Number*	Edges	T-Land in/mm	Max DOC in/mm	Grades / EDP# VPC225	VPZ205	VPZ215
DCGW 21.51 M2-S5 *DCGW 07 02 04 M2-S5*	2	0.005 x 25° 0.130 x 25°	0.025 0.635	40723		
DCGW 21.52 M2-S5 *DCGW 07 02 08 M2-S5*	2	0.005 x 25° 0.130 x 25°	0.025 0.635	40731		
DCGW 21.53 M2-S5 *DCGW 07 02 12 M2-S5*	2	0.005 x 25° 0.130 x 25°	0.025 0.635	40745		

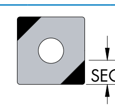
DNGA



Part Number *ISO Part Number*	Edges	T-Land in/mm	Max DOC in/mm	Grades / EDP# VPC225	VPZ205	VPZ215
DNGA 431 M2-S5 *DNGA 15 04 04 M2-S5*	2	0.005 x 15° 0.130 x 15°	0.025 0.635	40762		
DNGA 431 S5 *DNGA 15 04 04 S5*	4	0.005 x 25° 0.130 x 25°	0.040 1.0		40763	40766
DNGA 432 M2-S5 *DNGA 15 04 08 M2-S5*	2	0.005 x 25° 0.130 x 25°	0.025 0.635	40770		
DNGA 432 S5 *DNGA 15 04 08 S5*	4	0.005 x 25° 0.130 x 25°	0.040 1.0		40772	40775
DNGA 432 S7 *DNGA 15 04 08 S7*	4	0.008 x 20° 0.200 x 20°	0.040 1.0		40777	40784
DNGA 433 M2-S5 *DNGA 15 04 12 M2-S5*	2	0.005 x 25° 0.130 x 25°	0.025 0.635	40786		
DNGA 433 S5 *DNGA 15 04 12 S5*	4	0.005 x 15° 0.130 x 15°	0.040 1.0		40808	40809
DNGA 433 S7 *DNGA 15 04 12 S7*	4	0.008 x 20° 0.200 x 20°	0.040 1.0		40811	40813

SNGA





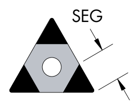
Part Number *ISO Part Number*	Edges	T-Land in/mm	Max DOC in/mm	Grades / EDP# VPC225	VPZ205	VPZ215
SNGA 431 M2 S5 *SNGA 12 04 04 M2 S5*	2	0.005 x 25° 0.130 x 25°	0.025 0.635	40815		
SNGA 431 S5 *SNGA 12 04 04 S5*	8	0.005 x 25° 0.130 x 25°	0.040 1.0		40819	40820
SNGA 432 M2-S5 *SNGA 12 04 08 M2-S5*	2	0.005 x 25° 0.130 x 25°	0.025 0.635	40822		
SNGA 432 S5 *SNGA 12 04 08 S5*	8	0.005 x 25° 0.130 x 25°	0.040 1.0		40869	40875

ValEDGE™

INSERTS

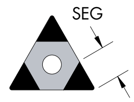
SNGA 432 S7 *SNGA 12 04 08 S1*	8	0.008 x 20° 0.200 x 20°	0.040 1.0		40897	40911
SNGA 433 M2-S5 *SNGA 12 04 12 M2-S5*	2	0.005 x 25° 0.130 x 25°	0.025 0.635	40922		
SNGA 433 S5 *SNGA 12 04 12 S5*	8	0.005 x 25° 0.130 x 25°	0.040 1.0		40926	40927
SNGA 433 S7 *SNGA 12 04 12 S7*	8	0.008 x 20° 0.200 x 20°	0.040 1.0		40928	40929

TCGW



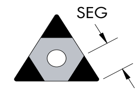
Part Number *ISO Part Number*	**Edges**	**T-Land in/mm**	**Max DOC in/mm**	**Grades / EDP#**		
				VPC225	**VPZ205**	**VPZ215**
TCGW 21.51 M3-S5 *TCGW 11 02 04 M3-S5*	3	0.005 x 25° 0.130 x 25°	0.025 0.635	40930		
TCGW 21.52 M3-S5 *TCGW 11 02 08 M3-S5*	3	0.005 x 25° 0.130 x 25°	0.025 0.635	40933		

TNGA



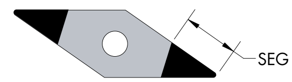
Part Number *ISO Part Number*	**Edges**	**T-Land in/mm**	**Max DOC in/mm**	**Grades / EDP#**		
				VPC225	**VPZ205**	**VPZ215**
TNGA 331 M3-S5 *TNGA 16 04 04 M3-S5*	3	0.005 x 15° 0.130 x 15°	0.025 0.635	40935		
TNGA 331 S5 *TNGA 16 04 04 S5*	6	0.005 x 25° 0.130 x 25°	0.040 1.0		40938	40977
TNGA 332 M3-S5 *TNGA 16 04 08 M3-S5*	3	0.005 x 25° 0.130 x 25°	0.025 0.635	40980		
TNGA 332 M6-S1 *TNGA 16 04 08 M6-S1*	6	0.005 x 15° 0.130 x 15°	0.025 0.635	41175		
TNGA 332 M6-S5 *TNGA 16 04 08 M6-S5*	6	0.005 x 25° 0.130 x 25°	0.025 0.635	41176		
TNGA 332 S5 *TNGA 16 04 08 S5*	6	0.005 x 25° 0.130 x 25°	0.040 1.0		40982	40983
TNGA 332 S7 *TNGA 16 04 08 S7*	6	0.008 x 20° 0.200 x 20°	0.040 1.0		40984	40985
TNGA 333 M3-S5 *TNGA 16 04 12 M3-S5*	3	0.005 x 25° 0.130 x 25°	0.025 0.635	40986		
TNGA 333 M6-S1 *TNGA 16 04 12 M6-S1*	6	0.005 x 15° 0.130 x 15°	0.025 0.635	41177		
TNGA 333 M6-S5 *TNGA 16 04 12 M6-S5*	6	0.005 x 25° 0.130 x 25°	0.025 0.635	41178		
TNGA 333 S5 *TNGA 16 04 12 S5*	6	0.005 x 25° 0.130 x 25°	0.040 1.0		40987	41026
TNGA 333 S7 *TNGA 16 04 12 S7*	6	0.008 x 20° 0.200 x 20°	0.040 1.0		41027	41053
TNGA 432 M3-S5 *TNGA 22 04 08 M3-S5*	3	0.005 x 25° 0.130 x 25°	0.025 0.635	41090		
TNGA 432 S5 *TNGA 22 04 08 S5*	6	0.005 x 25° 0.130 x 25°	0.040 1.0			41138
TNGA 433 M3-S5 *TNGA 22 04 12 M3-S5*	3	0.005 x 25° 0.130 x 25°	0.025 0.635	41139		
TNGA 433 S5 *TNGA 22 04 12 S5*	6	0.005 x 25° 0.130 x 25°	0.040 1.0			41140

TPGW



Part Number *ISO Part Number*	**Edges**	**T-Land in/mm**	**Max DOC in/mm**	**Grades / EDP#**		
				VPC225	**VPZ205**	**VPZ215**
TPGW 21.51 M3-S5 *TPGW 11 02 04 M3-S5*	3	0.005 x 25° 0.130 x 25°	0.025 0.635	41141		
TPGW 21.52 M3-S5 *TPGW 11 02 08 M3-S5*	3	0.005 x 25° 0.130 x 25°	0.025 0.635	41142		

VNGA



Part Number *ISO Part Number*	**Edges**	**T-Land in/mm**	**Max DOC in/mm**	**Grades / EDP#**		
				VPC225	**VPZ205**	**VPZ215**
VNGA 331 M2 S5 *VNGA 16 04 04 M2 S5*	2	0.005 x 25° 0.130 x 25°	0.040 1.0	41143		
VNGA 331 S5 *VNGA 16 04 04 S5*	4	0.005 x 25° 0.130 x 25°	0.040 1.0		41144	41145
VNGA 332 M2-S5 *VNGA 16 04 08 M2-S5*	2	0.005 x 25° 0.130 x 25°	0.025 0.635	41146		
VNGA 332 S5 *VNGA 16 04 08 S5*	4	0.005 x 25° 0.130 x 25°	0.040 1.0		41147	41148
VNGA 332 S7 *VNGA 16 04 08 S7*	4	0.008 x 20° 0.200 x 20°	0.040 1.0		41149	41150
VNGA 333 M2-S5 *VNGA 16 04 12 M2-S5*	2	0.005 x 25° 0.130 x 25°	0.025 0.635	41151		
VNGA 333 S5 *VNGA 16 04 12 S5*	4	0.005 x 25° 0.130 x 25°	0.040 1.0		41152	41153
VNGA 333 S7 *VNGA 16 04 12 S7*	4	0.008 x 20° 0.200 x 20°	0.040 1.0		41154	41155

New EDP/Order Numbers...

Makes ordering products quick, easy and accurate. An EDP/Order number is assigned to every tool and to every insert, grade combination. To place an order, simply provide the desired quantity and the EDP/Order Number.

TURNING · BORING 1
MILLING 2
GROOVING · THREADING 3
ROTARY · CONNECTION 4
DRILLING 5
ADVANCED MATERIALS 6
MODCO 7
GAGING SYSTEMS 8
VALCOOL® 9
SPARE PARTS 10
MISCELLANEOUS 11

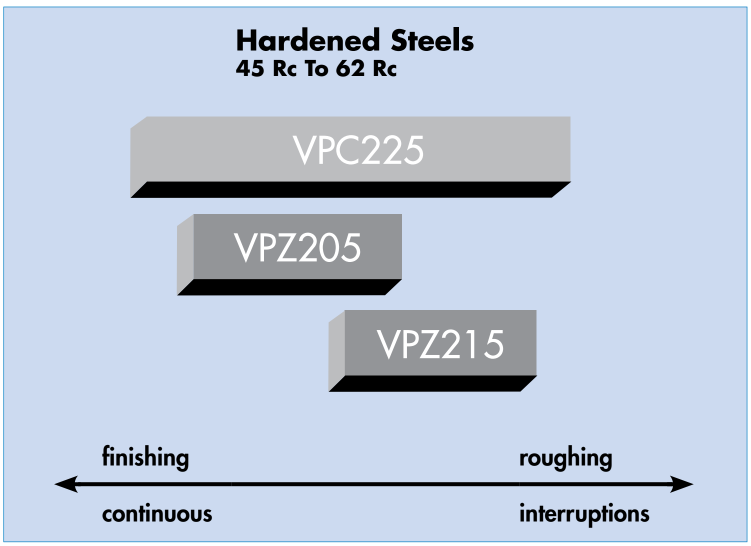
SPEED AND FEED INFORMATION

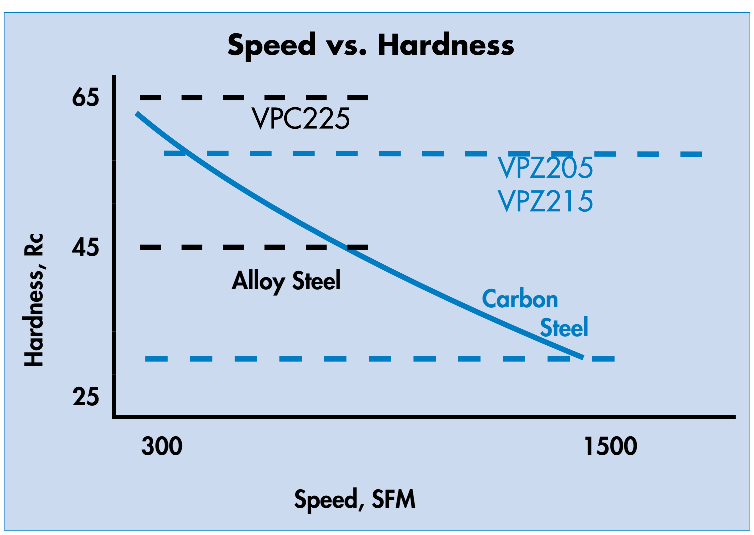
ValEDGE™

Material : Steels 45-62 Rc

Grade	Alloy sfm (m/mm)	Carbon sfm (m/min)	Feed ipr (mm/r)	Feature
VPC225	300 - 500 (90 - 150)	350 - 650 (105 - 200)	0.003 - 0.008 (0.08 - 0.15)	finish, tolerance, interrupted cut, with or without cutting fluid
VPZ205	300 - 500 (90 - 150)	350 - 650 (105 - 200)	0.003 - 0.006 (0.08 - 0.15)	continiuous cut, dry
VPZ215	300 - 450 (90 - 125)	350 - 600 (105 - 185)	0.004 - 0.008 (0.1 - 0.2)	moderate interrupted cut, dry

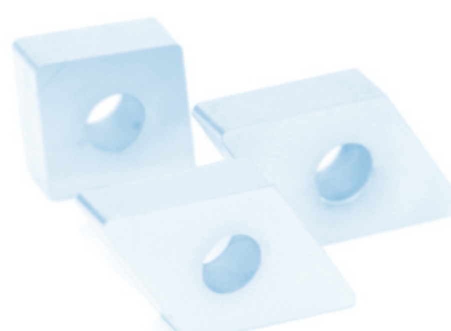
GRADE APPLICATION GUIDES





VPC225 Multi-Cornered CBN Insert

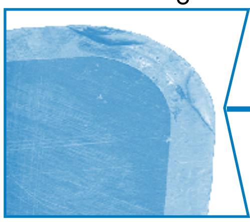
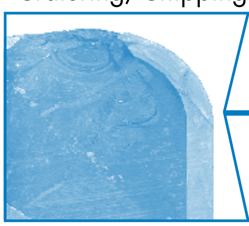
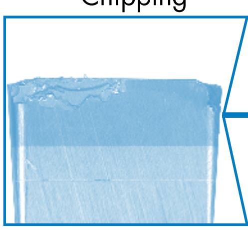
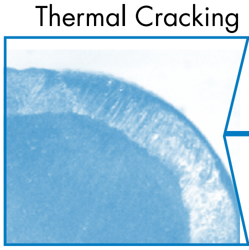
- ANSI 4, 6, 8 corners- imbedded segment design
  Super tough base material coming in 2005.
- ISO/ANSI 2 & 3 corners
  Increase segment size & thickness for improved heat management
- Tough PCBN grade for interrupted cutting
- Extremely crater resistant
- Available in wiper geometries
  (CNGA, CCGW, CPGW)
- Titanium Nitride coated and laser marked to aid in indexing



ValEDGE™

APPLICATION TROUBLESHOOTING GUIDE

The following guidelines are intended for general use. There are many conditions that influence tool life and finish. Each workpiece and machine can be unique. Apply sound engineering practices to solve problems and contact a Valenite representative for assistance.

Failure Mode		Probable Cause	Recommended Action
Cratering 	**Cratering -** Usually formed due to a "chemical" interaction between CBN and Steel	Hardness below 45 Rc	Apply Ceramic Grade
		Excessive Cutting Speed	Reduce Cutting Speed to Recommended Parameters
Cratering/Chipping 	**Chipping Due to Crater Formation** - often mistaken. Cratering weakens the cutting edge, then the insert usually fractures - the result is an insert that appears to have chipped	Hardness below 45 Rc	Apply Ceramic Grade
		Excessive Cutting Speed	Reduce cutting speed to recommended paramerters.
Chipping 	**Chipping -** Chipping can occur from many different sources. Look for poor fixturing, or other process issues	Chipping due to interruptions or chatter	Change entry-exit angles, apply chamfer to workpiece, reduce feed through interruptions, increase T-land size, reduce overhang, improve fixture rigidity.
Thermal Cracking 	**Thermal Cracking -** Usually forms when cutting tool experiences excessive changes in temperature	Coolant applied during interruptions or not directed into cutting region	Cut dry or flood. In some cases reducing DOC many assist in reducing temperature variations

MACHINING CAST IRONS WITH CBN

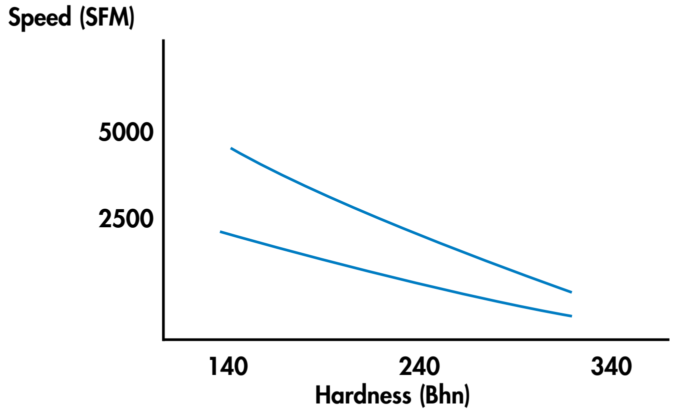
VC722 / VC733 / VC724

VC722

Cast Iron Turning 1500 to 3500 SFM
Cast Iron Milling 1800 to 5000 SFM

VC733 / VC724 - Solid CBN

Cast Iron 1500 to 3500 SFM
Ni Hard 200 to 600 SFM
Tool Steels (Hardened > 50Rc) 200 to 500 SFM



Milling and Interrupted Turning, Cut Dry
Tip Size
4F - 5mm Segment DOC = 0.05
4G - 7.5mm Segment DOC = 0.08
T - 0.005 x 20 plus hone
A - Hone

		Grade / EDP#		
Part Number	**Application**	**VC722**	**VC733**	**VC724**
CNGA4324F	TURNING	40235	-	-
CNGA4324FA	TURNING	40236	-	-
CNGA4334FA	TURNING	40242	-	-
CNGN322A	TURNING	-	40990	-
CNGN322T	TURNING	-	40991	-
CNGN323A	TURNING	-	40165	-
CNGN323T	TURNING	-	40992	-
CNGN324A	TURNING	-	40993	-
CNGN324T	TURNING	-	40168	-
CNGN432A	TURNING	-	-	40169
CNGN432T	TURNING	-	-	40170
CNGN433A	TURNING	-	-	40994
CNGN433T	TURNING	-	-	40172
CNGN434A	TURNING	-	-	40995
CNGN434T	TURNING	-	-	40174
CPEW3252PDFR4FA	HVA MILLING	40249	-	-
CPEX32524FAHVA	HVA MILLING	40250	-	-
CPMW181514F	FINE BORING	40251	-	-
CPMW21514FA	BORING	40252	-	-
CPMW32524FA	BORING	40253	-	-
DNGA4324F		40256	-	-
DNGA4324FA	PROFILING	40257	-	-
DNGA4324G		40258	-	-
DNGA5434G		40265	-	-
DPMW21514FA	BORING	40266	-	-
DPMW32524FA	BORING	40267	-	-
RNGN32A	TURNING	-	40996	-
RNGN32T	TURNING	-	40176	-
RNGN42A	TURNING	-	40997	-
RNGN42T	TURNING	-	40178	-
RNGN43A	TURNING	-	-	40179
RNGN43T	TURNING	-	-	40180
SNCN422A	TURNING	-	40181	-

ValEDGE™

CBN INSERTS
MACHINING CAST IRONS
VC722 / VC733 / VC724

Part Number	Application	Grades / EDP#		
		VC722	VC733	VC724
SNEA3224F	PRECISION FINE TURNING/BORING	**40268**	-	-
SNEA3224FA	PRECISION TURNING/BORING	**40319**	-	-
SNEA4334F	PRECISION FINE TURNING/BORING	**40269**	-	-
SNEA4334FA	PRECISION TURNING/BORING	**40270**	-	-
SNGN322A	TURNING	-	**40182**	-
SNGN322T	TURNING	-	**40183**	-
SNGN323A	TURNING	-	**40184**	-
SNGN323T	TURNING	-	**40186**	**40185**
SNGN324A	TURNING	-	**40187**	-
SNGN324T	TURNING	-	**40188**	-
SNGN422A	TURNING	-	**40189**	-
SNGN423T	TURNING	-	**40190**	-
SNGN424A	TURNING	-	**40191**	-
SNGN424T	TURNING	-	**40192**	-
SNGN432A	TURNING	-	-	**40193**
SNGN432T	TURNING	-	-	**40194**
SNGN433A	TURNING	-	-	**40195**
SNGN433T	TURNING	-	-	**40196**
SNGN434A	TURNING..	-	-	**40197**
SNGN434T	TURNING	-	-	**40198**
SPMW32524F	TURNING	**40279**	-	-
TCMW21514F	TURNING/BORING	**40280**	-	-
TCMW21524F	TURNING/BORING	**40281**	-	-
TNEA2224F	PRECISION FINE TURNING/BORING	**40282**	-	-
TNEA3224F	PRECISION FINE TURNING/BORING	**40283**	-	-
TNEA3324F	PRECISION FINE TURNING/BORING	**40284**	-	-
TNEA4324F	PRECISION FINE TURNING/BORING	**40285**	-	-
TNGN221A	TURNING	-	**40199**	-
TNGN221T	TURNING	-	**40200**	-
TNGN222A	TURNING	-	**40201**	-
TNGN222T	TURNING	-	**40202**	-
TNGN223A	TURNING	-	**40203**	-
TNGN223T	TURNING	-	**40204**	-
TNGN224A	TURNING	-	**40205**	-
TNGN224T	TURNING	-	**40206**	-
TPCE632RFA	BORING	**40291**	-	-
TPG25224FA	BORING	**40292**	-	-
TPMW21514F	FINE BORING	**40293**	-	-
TPMW32524FA	BORING	**40294**	-	-
VNGA3324G	FINE PROFILING	**40296**	-	-

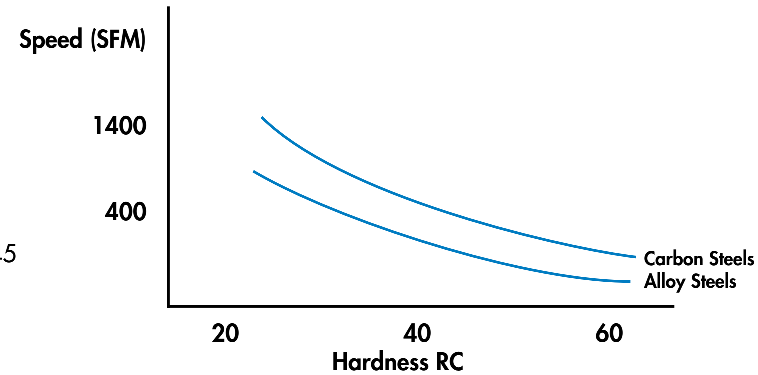
VC720 / VC730 / Q35
HARDENED STEEL MACHINING

ValEDGE™

Machining Hardened Steels Tips
Hardness range between 45Rc and 62 Rc

Maximum DOC 0.035 for 4F segments
Maximum DOC 0.020 for 4M segments
Consider lead angles, 45˚ lead reduces DOC

VP Q203 (Q35) is continuous cut and dry
Small ID boring use steeper T-Land angle
350 - 500 SFM start 450 - VC720, VC730, Q35 for Rc>45
500 - 1400 SFM - Q35 for Rc < 45
Run alloy steels 50 to 100 SFM lower

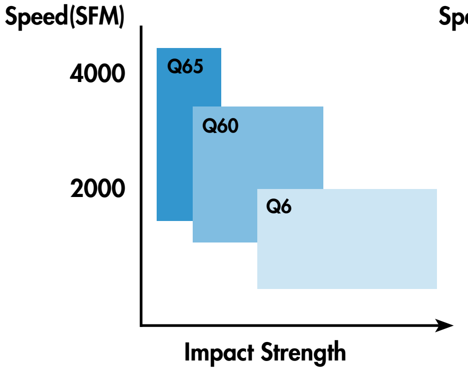


Part Number	T-Land	Primary Cutting Edges	Grades / EDP# VC720 General Purpose Finishing	VC730 General Purpose Roughing	Q35 Ceramic
CNGA431TA4F	0.005X25	1	40234	-	-
CNGA432T00525A	0.005X25	4	-	-	40340
CNGA432T00820A	0.008X20	4	-	-	40342
CNGA432TA4F	0.005X25	1	40237	40239	-
CNGA432TA4M	0.004X12	2	40240	-	-
CNGA4334MT00425A	0.004X25	2	40243	-	-
CNGA433T00525A	0.005X25	4	-	-	40344
CNGA433T00820A	0.008X20	4	-	-	40346
CNGA433TA4F	0.005X25	1	40244	40245	-
CNGA433TA4G	0.005X25	1	-	40246	-
CNGA433TA4M	0.004X12	2	40247	-	-
CPMW32524MT00420	0.004X20	2	40254	-	-
DNGA431TA4F	0.005X25	1	40255	-	-
DNGA432T00525A	0.005X25	4	-	-	40348
DNGA432T00820A	0.008X20	4	-	-	40349
DNGA432TA4F	0.005X25	1	40259	40260	-
DNGA432TA4M	0.004X12	2	40261	-	-
DNGA433T00525A	0.005X25	4	-	-	40350
DNGA433T00820A	0.008X20	4	-	-	40351
DNGA433TA4F	0.005X25	1	40262	40263	-
DNGA433TA4M	0.004X12	2	40264	-	-
SNGA432TA4F	0.005X25	1	40271	40273	-
SNGA432TA4M	0.004X12	2	40274	-	-
SNGA433TA4F	0.005X25	1	40275	40276	-
SNGA433TA4M	0.005X25	2	40277	-	-
TNGA332T00525A	0.005X25	6	-	-	40398
TNGA332TA4F	0.005X25	1	40286	40288	-
TNGA332TA4M	0.004X12	3	40289	-	-
VNGA331TA4F	0.005X25	1	-	40295	-
VNGA3324MT00425A	0.004X25	2	40297	40298	-
VNGA332T00525A	0.005X25	4	-	-	40411
VNGA332T00820A	0.008X20	4	-	-	40412
VNGA332TA4F	0.005X25	1	40299	40300	-
VNGA332TA4M	0.004X12	2	40301	-	-
VNGA333TA4G	0.005X25	1	40302	-	-

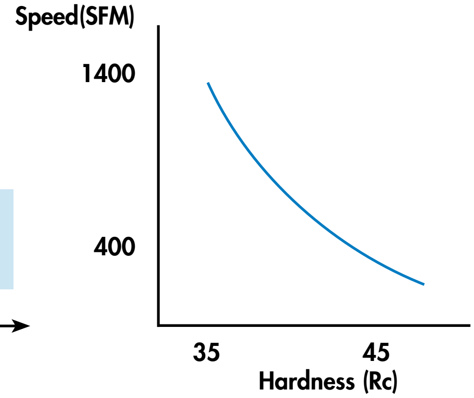
ValEDGE™

CERAMICS INSERTS
Q6, Q60, Q65 - CAST IRON
Q32 - CAST IRON AND STEEL
Q8 - Ni BASED HIGH TEMP ALLOYS

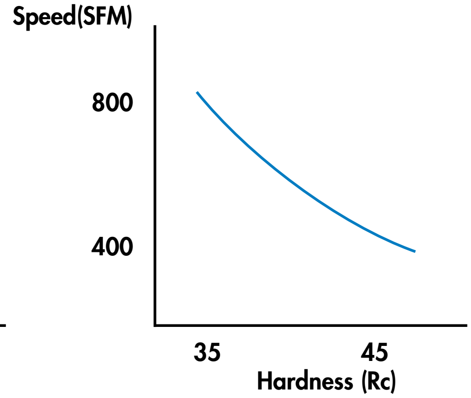
Q6, Q60, Q65



Q32



Q8



Hone & T-Land Reference:
T = 0.008 x 20
A = 0.001 - 0.002 hone
W = Wiper Nose Radius

		Grades / EDP#				
Part Number	Feature	Q32 PRIMARY STEEL CAST IRON	Q6 IRON MILLING ROUGH TURNING	Q60 IRON GENERAL PURPOSE TURNING	Q65 IRON HIGH SPEED TURNING	Q8 Ni BASED HIGH TEMP ALLOYS
CNG431		40326	-	-	-	-
CNG431T00630		40327	-	-	-	-
CNG432		40328	-	-	-	-
CNG432A		-	-	-	40459	-
CNG432T		-	-	-	40460	-
CNG432T00320		-	-	-	-	40593
CNG432T00325		40329	-	-	-	-
CNG432T00630		40330	-	-	-	-
CNG432T00820		40331	-	-	-	-
CNG432WA	WIPER INSERT	-	-	-	40461	-
CNG433		40332	-	-	-	-
CNG433T		-	-	40462	40463	-
CNG433T00320		-	-	-	-	40594
CNG433T00630		40333	-	-	-	-
CNG433T00820		40334	40647	-	-	-
CNG434T		-	-	-	40464	-
CNG434T00320		-	-	-	-	40595
CNG434T00630		40335	-	-	-	-
CNG442		40336	-	-	-	-
CNG452T00320		-	-	-	-	40596
CNG453T		-	-	-	40465	-
CNG453T00320		-	-	-	-	40597
CNG454T00320		-	-	-	-	40598
CNG543		40337	-	-	-	-
CNG543T00320		-	-	-	-	40599
CNG543T00630		40338	-	-	-	-
CNG643T00320		-	-	-	-	40600
CNG643T00620		-	-	-	-	40601
CNGA432		40339	40691	-	-	-
CNGA432A		-	-	-	40466	-

CERAMIC INSERTS

Q6, Q60, Q65 - CAST IRON
Q32 - CAST IRON AND STEEL
Q8 - Ni BASED HIGH TEMP ALLOYS

ValEDGE™

Part Number	Feature	Grades / EDP#				
		Q32 Primary Steel Cast Iron	Q6 Iron Milling Rough Turning	Q60 Iron General Purpose Turning	Q65 Iron High Speed Turning	Q8 Ni-Based High Temp Alloys
CNGA432T		-	-	40467	40468	-
CNGA432T00820		40341	40648	-	-	-
CNGA432WA	WIPER INSERT	-	-	40469	-	-
CNGA433		40343	-	-	-	-
CNGA433A		-	-	-	40470	-
CNGA433T		-	-	40471	-	-
CNGA433T00820		40345	40649	-	-	-
CNGA434A		-	-	-	40472	-
CNGA434T		-	-	40473	-	-
CNGA434T00820		-	40650	-	-	-
CNGA543T		-	-	40474	40475	-
CNGA543T00820		-	40651	-	-	-
CNGA544A		-	-	-	40476	-
CNGA643T		-	-	40477	40478	-
CNGA643T00820		40347	40652	-	-	-
CNGA644A		-	-	-	40479	-
CNGA644T		-	-	40480	-	-
CNGA644T00820		-	40653	-	-	-
CNGX452WA	WIPER INSERT, DIMPLE	-	-	40481	40482	-
CNGX452WT	WIPER INSERT, DIMPLE	-	-	40483	40484	-
CNGX453A	DIMPLE	-	-	40485	40486	-
CNGX453T	DIMPLE	-	-	40487	40488	-
CNGX454A	DIMPLE	-	-	40489	40490	-
CNGX454T	DIMPLE	-	-	40491	40492	-
DNGA432A		-	-	-	40493	-
DNGA432T		-	-	40494	40495	-
DNGA432T00820		-	40654	-	-	-
DNGA433A		-	-	-	40496	-
DNGA433T		-	-	-	40497	-
DNGA543		-	40692	-	-	-
DNGN432		40352	-	-	-	-
DNGN432T00630		40353	-	-	-	-
DNGN433T00320		-	-	-	-	40602
DNGN452T00320		-	-	-	-	40603
DNGN453T00320		-	-	-	-	40604
DNGN454T00320		-	-	-	-	40605
DNGX353A	DIMPLE	-	-	40498	-	-
DNGX354A	DIMPLE	-	-	40499	-	-
DNGX453A	DIMPLE	-	-	40500	-	-
DNGX454A		-	-	40501	-	-
HNEX0905ZZS	M057 MILLING INSERT	-	40655	40502	40503	-
LNE32530345		-	40693	-	-	-
LNE32530345T		-	40656	-	-	-
LNE45340345T		-	40657	-	-	-
RBMA1012T		40354	-	-	-	-
RBMA106T		40355	-	-	-	-
RBMA68T		40356	-	-	-	-
RBMA88T		40357	-	-	-	-

ValEDGE™

CERAMIC INSERTS

Q6, Q60, Q65 - CAST IRON
Q32 - CAST IRON AND STEEL
Q8 - Ni BASED HIGH TEMP ALLOYS

		Grades /EDP#				
Part Number	Feature	Q32 Primary Steel Cast Iron	Q6 Iron Milling Rough Turning	Q60 Iron General Purpose Turning	Q65 Iron High Speed Turning	Q8 Ni-Based High Temp Alloys
RCGX35T00320	V BOTTOM	-	-	-	-	40606
RCGX35T06020B	V BOTTOM	40358	-	-	-	-
RCGX43T00320	V BOTTOM	-	-	-	-	40607
RCGX45T00320	V BOTTOM	-	-	-	-	40608
RCGX45T06020B	V BOTTOM	40359	-	-	-	-
RCGX55T00320	V BOTTOM	-	-	-	-	40609
RCGX66T00320	V BOTTOM	-	-	-	-	40610
RNG32		40360	-	-	-	-
RNG32T00630		40361	-	-	-	-
RNG33T00320		-	-	-	-	40611
RNG35T00320		-	-	-	-	40612
RNG43		40362	40694	-	-	-
RNG43A		-	-	40504	-	-
RNG43T		-	-	40505	40506	-
RNG43T00320		-	-	-	-	40613
RNG43T00630		40363	-	-	-	-
RNG43T00820		40364	40658	-	-	-
RNG45		40366	-	-	-	-
RNG45T		-	-	-	40507	-
RNG45T00320		-	-	-	-	40614
RNG45T01230		40367	-	-	-	-
RNG55T00320		-	-	-	-	40615
RNG55T00620		-	-	-	-	40616
RNG64T00620		-	-	-	-	40617
RNG65T00620		-	-	-	-	40618
RNG86T00620		-	-	-	-	40619
RNGX43T00320	V BOTTOM	-	-	-	-	40620
RNGX45T00320	V BOTTOM	-	-	-	-	40621
RPGX35T00320	V BOTTOM	-	-	-	-	40622
RPGX45T00320	V BOTTOM	-	-	-	-	40623
RPGX55T00320	V BOTTOM	-	-	-	-	40624
SEHN43AFSN	MILLING INSERT	-	-	40508	-	-
SNE632		-	40695	-	-	-
SNE632T00830		-	40659	40509	-	-
SNE63A	MILLING INSERT	-	40696	40510	-	-
SNE63AT00830	MILLING INSERT	-	40660	40511	-	-
SNE63K	MILLING INSERT	-	40697	40512	-	-
SNE63KT00830	MILLING INSERT	-	40661	40513	-	-
SNG322		40368	-	-	-	-
SNG322A		-	-	-	40514	-
SNG322T		-	-	-	40515	-
SNG322T00325		40369	-	-	-	-
SNG323A		-	-	-	40516	-
SNG332A		-	-	-	40517	-
SNG432		40370	40698	-	-	-

CERAMIC INSERTS

Q6, Q60, Q65 - CAST IRON
Q32 - CAST IRON AND STEEL
Q8 - Ni BASED HIGH TEMP ALLOYS

ValEDGE™

		Grades / EDP#				
Part Number	Feature	Q32 Primary Steel Cast Iron	Q6 Iron Milling Rough Turning	Q60 Iron General Purpose Turning	Q65 Iron High Speed Turning	Q8 Ni-Based High Temp Alloys
SNG432A		-	40662	-	40518	-
SNG432T		-	-	40519	40520	-
SNG434T00320		-	-	-	-	40625
SNG432T00630		40371	-	-	-	-
SNG432T00820		40372	40663	-	-	-
SNG432WA		-	-	40521	-	-
SNG433T		-	-	40522	40523	-
SNG433T00320		-	-	-	-	40626
SNG433T00630		40373	-	-	-	-
SNG433T00820		40374	40664	-	-	-
SNG434A		-	-	-	40524	-
SNG434T		-	-	40525	40526	-
SNG434T00320		-	-	-	-	40627
SNG434T00630		40375	-	-	-	-
SNG434T00820		40376	40665	-	-	-
SNG436A		-	-	-	40527	-
SNG436T		-	-	-	40528	-
SNG454A		-	-	-	40529	-
SNG454T		-	-	40530	40531	-
SNG454T00630		40377	-	-	-	-
SNG454T00820		-	40666	-	-	-
SNG543T		-	-	40532	40533	-
SNG543T00320		-	-	-	-	40628
SNG543T00820		-	40667	-	-	-
SNG544T00320		-	-	-	-	40629
SNG632A		-	-	-	40534	-
SNG634T		-	-	40535	40536	-
SNG634T00630		40378	-	-	-	-
SNG634T00820		-	40668	-	-	-
SNG643T00320		-	-	-	-	40630
SNG643T00620		-	-	-	-	40631
SNG643T00630		40379	-	-	-	-
SNG644T		-	-	-	40537	-
SNG644T00320		-	-	-	-	40632
SNG644T00630		40380	-	-	-	-
SNG652T00320		-	-	-	-	40633
SNG653T00320		-	-	-	-	40634
SNG653T00620		-	-	-	-	40635
SNG654T00320		-	-	-	-	40636
SNG654T00620		-	-	-	-	40637
SNGA432		-	40699	-	-	-
SNGA432A		-	-	-	40538	-
SNGA432T		-	-	-	40539	-
SNGA432WA	WIPER INSERT	-	-	40540	-	-
SNGA433A		-	-	-	40542	-
SNGA433T		-	-	40543	-	-
SNGA433T00820		-	40669	-	-	-

ValEDGE™

CERAMIC INSERTS
Q6, Q60, Q65 - CAST IRON
Q32 - CAST IRON AND STEEL
Q8 - Ni BASED HIGH TEMP ALLOYS

Part Number	Feature	Grades / EDP# Q32 Primary Steel Cast Iron	Q6 Iron Milling Rough Turning	Q60 Iron General Purpose Turning	Q65 Iron High Speed Turning	Q8 Ni-Based High Temp Alloys
SNGA434A			-	-	40544	-
SNGA434T		-	-	40545	-	-
SNGA434T00820		-	40670	-	-	-
SNGX452WA	WIPER INSERT, DIMPLE	-	-	40546	40547	-
SNGX452WT	WIPER INSERT, DIMPLE	-	-	40548	40549	-
SNGX453A	DIMPLE	-	-	40550	40551	-
SNGX453T	DIMPLE	-	-	40552	40553	-
SNGX454A	DIMPLE	-	-	40554	40555	-
SNGX454T	DIMPLE	-	-	40556	40557	-
SPE424	MILLING INSERT	-	40701	-	-	-
SPE424A	MILLING INSERT	-	-	40558	-	-
SPE433	MILLING INSERT	-	40702	-	-	-
SPE433A	MILLING INSERT	-	-	40559	-	-
SPE634	MILLING INSERT	-	40703	-	-	-
SPE634A	MILLING INSERT	-	-	40560	-	-
SPE634T00830		-	40671	40561	-	-
SPG422T		-	-	40562	-	-
SPG422T00820		-	40672	-	-	-
SPG424		-	40704	-	-	-
SPG424A		-	-	40563	-	-
SPG424T		-	-	40564	-	-
SPG424T00820		-	40673	-	-	-
SPG42ET		-	-	40565	-	-
SPG42ET00820		-	40707	-	-	-
SPG432T		-	-	40566	-	-
SPG432T00820		-	40674	-	-	-
SPG433T		-	-	40567	-	-
SPG433T00820		-	40675	-	-	-
SPG434T		-	-	40568	-	-
SPG434T00820		-	40676	-	-	-
SPG634		-	40705	-	-	-
SPG634A		-	-	40569	-	-
SPG634T		-	-	40570	-	-
SPG634T00820		-	40677	-	-	-
TNG222T00325		40571	-	-	-	-
TNG223A		-	40678	40572	40573	-
TNG322		40381	-	-	-	-
TNG332		40382	-	-	-	-
TNG332A		-	-	-	40574	-
TNG332T		-	-	40575	40576	-
TNG332T00630		40383	-	-	-	-
TNG332T00820		40384	40679	-	-	-
TNG332WA		-	-	40577	-	-
TNG333	WIPER INSERT	40385	-	-	-	-
TNG333T		-	-	40578	-	-
TNG333T00630		40386	-	-	-	-

CERAMIC INSERTS

Q6, Q60, Q65 - CAST IRON
Q32 - CAST IRON AND STEEL
Q8 - Ni BASED HIGH TEMP ALLOYS

ValEDGE™

		Grade / EDP#				
Part Number	**Feature**	**Q32 Primary Steel Cast Iron**	**Q6 Iron Milling Rough Turning**	**Q60 Iron General Purpose Turning**	**Q65 Iron High Speed Turning**	**Q8 Ni-Based High Temp Alloys**
TNG333T00820		-	40680	-	-	-
TNG334T00630		40387	-	-	-	-
TNG432		40388	-	-	-	-
TNG432T		-	-	-	40579	-
TNG432T00320		-	-	-	-	40638
TNG432T00630		40389	-	-	-	-
TNG432T00820		40390	-	-	-	-
TNG433		40391	-	-	-	-
TNG433T00320		-	-	-	-	40639
TNG433T00630		40392	-	-	-	-
TNG434T		-	-	-	40580	-
TNG434T00320		-	-	-	-	40640
TNG434T00630		40393	-	-	-	-
TNG443		40394	-	-	-	-
TNG443T00630		40395	-	-	-	-
TNG543T00630		40396	-	-	-	-
TNG544T00630		40397	-	-	-	-
TNGA432T		-	-	40581	-	-
TNGA432T00820		-	40681	-	-	-
TNGA433T		-	-	40582	-	-
TNGA433T00820		-	40682	-	-	-
TNGN332T00320		-	-	-	-	40641
TNGN333T00320		-	-	-	-	40642
TNGN334T00320		-	-	-	-	40643
TPEE731		40399	-	-	-	-
TPEE732		40400	-	-	-	-
TPG221		40401	-	-	-	-
TPG222T00630		40402	-	-	-	-
TPG321		40403	-	-	-	-
TPG321T00320		-	-	-	-	40644
TPG322		40404	40706	40583	-	-
TPG322A		-	40683	40584	-	-
TPG322T		-	-	40585	-	-
TPG322T00320		-	-	-	-	40645
TPG322T00515		40405	40684	-	-	-
TPG322T00630		40406	-	-	-	-
TPG322T00820		40407	40685	-	-	-
TPG323T00320		-	-	-	-	40646
TPG432		40408	-	-	-	-
TPG432T		-	-	40586	-	-
TPG432T00515		40409	-	-	-	-
TPG432T00820		40410	40686	-	-	-
WNGA432A		-	-	-	40588	-
WNGA432T00325		-	40687	40589	-	-
WNGA433A		-	-	-	40590	-
WNGA433T00325		-	40688	40591	-	-
WNGA434T00325		-	40689	40592	-	-