MID IOWA TOOLS

VOLUME 2 ISSUE 1

INDUSTRIAL PARTNER

JANUARY, 2006

Mid Iowa Tools, Inc.
Metro Tool & Abrasives
McNeal Tool Company

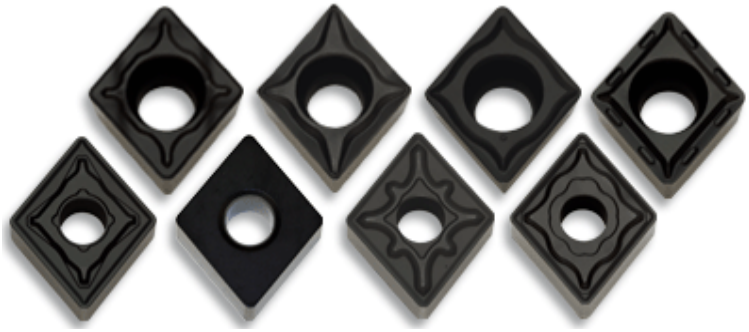
INSIDE THIS ISSUE:

VALENITE

IRONORCA™
TWO-TONE TOUGH FOR KILLER TURNING

VP1505

FOR HIGH SPEED TURNING



An excellent choice for roughing to finishing applications of

Gray and Ductile Cast Iron

50% productivity improvement compared to other K05-K10 products

TWO-TONE COATING

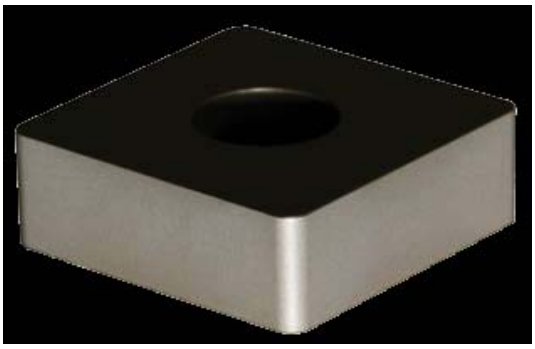
FOR

WEAR

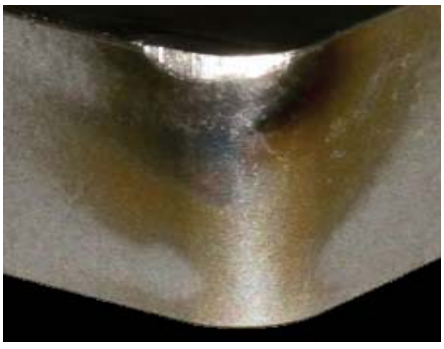
RECOGNITION

&

INDEXABILITY



VP1505 Flat-Top insert before use



VP1505 Flat-Top insert after use

VP1505

FEATURES

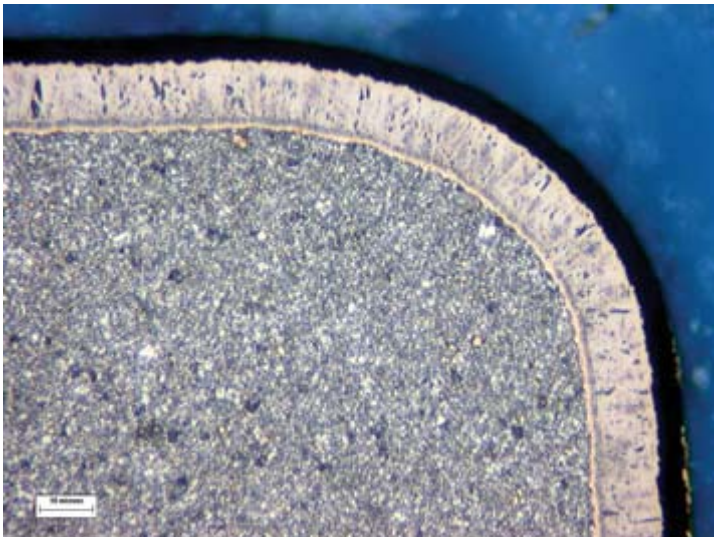
- Thick 18 micron MT-CVD TiCN/ Al2O3/TiC coating
- Unique gray/black coating used only by Valenite
- Predictable tool life and edge line strength
- Smooth surface coating, polished on the rake surface
- Micrograin substrate
- Compliments VP1510 on continuous high-speed K05 finishing applications

BENEFITS

- Allows for high speeds, feeds and enhanced flaking resistance
- Easy identification of used insert edges
- Reliable performance
- Reduces build-up of ferritic nodular iron
- Provides excellent wear and heat resistance at high speeds
- Provides a comprehensive tool line-up for cast iron roughing to finishing of all automotive components

People will accept your ideas much more readily if you tell them Benjamin Franklin said it first.

David H. Comins



1	Wear resistant aluminum oxide coating. Polished on rake to reduce build-up.
2	Thick TiCN layer for abrasive wear resistance.
3	Hard, wear resistant substrate with excellent heat resistance at high speeds.
4	Gray TiC layer on flank for identifying used edges.

VP1505

FOR HIGH SPEED TURNING

The VP1505 grade is available in several chipbreaker geometries and insert styles. The VP1505 consists of 110 items that include various diamond, square, triangle in ISO Positive for finishing and medium machining, as well as negative inserts for medium machining and roughing.

TREAT YOUR FRIENDS AS YOU DO YOUR PICTURES, AND PLACE THEM IN THEIR BEST LIGHT.

MOTHER JENNIE CHURCHILL OF WINSTON CHURCHILL

COMPONENTS		OPERATION	MATERIAL	INSERT STYLE	CUTTING CONDITIONS	IMPROVEMENT OVER COMPETITION
CONTROL ARM		Boring	Ductile Iron 217 BHN	SPMW 32.51	1067 sfm 0.006 ipr 0.015" doc	- Machined 600 parts - 100% increase in tool life - Enhanced indexability
HYDRAULIC PISTON		Facing & Turning	Gray Iron 229 BHN	CNMA 432	1467 sfm 0.007 ipr 0.050" doc	- Machined 56 parts - 200% increase in tool life - Improved surface finish.
HYDRAULIC PISTON		Facing & Turning	4140 Steel 285 BHN	CNMG 432 M5	629 sfm 0.008 ipr 0.125" doc	- Machined 5 parts - 400% increase in tool life - Improved surface finish
DIFFERENTIAL CASE		Boring	Ductile Iron 225 BHN	WNMG 432	950 sfm 0.004 ipr 0.040" doc	- Machined 200 parts - 100% increase in tool life - Enhanced indexability
DIFFERENTIAL CASE		Facing & Turning	Ductile Iron 225 BHN	CNMG 432 M5	800 sfm 0.006 ipr 0.060" doc	- Machined 200 parts - 300% increase in tool life - Improved surface finish
DRIVE LINE FLANGE		Facing & Turning	Ductile Iron 220 BHN	CNMG 432 M5	750 sfm 0.013 ipr 0.030" doc	- Machined 100 parts - 140% increase in tool life - Enhanced reliability
KNUCKLE		Boring	Ductile Iron	SNMA 432	877 sfm 0.013 ipr 0.070" doc	- Machined 211 parts - 6% increase in tool life - Enhanced indexability
TRANSMISSION NUT		Boring, Facing & Turning	Ductile Iron	CNMA 433	900 sfm 0.014 ipr 0.060" doc	- Machined 150 pieces - 88 % increase in tool life - Improved burr resistance

Please contact your MID IOWA TOOLS sales representative for additional application information and test tools.

MID IOWA TOOLS, INC.

3350 SQUARE D DRIVE S.W., CEDAR RAPIDS, IOWA 52404

PHONE 319-366-8363 FAX 319-366-8870

www.midiowatools.com