

# INCREASING PRODUCTIVITY THROUGH CARBIDE BLANKS & PREFORMS



hbcarbide.com

### **OPTIMIZED SOLUTIONS FOR YOUR MOST CHALLENGING APPLICATIONS**

H.B. Carbide is a manufacturer of tungsten carbide custom, altered standard and standard blanks and preforms. We offer a comprehensive selection of grades to deliver high-performance, reliable near-net shaped blanks that address specialized customer application challenges across diverse industries including energy, defense, metal cutting, wear and die.

Vertically integrated, H.B. Carbide handles everything from powder production through finished ground blanks with inspection and verification built into each step of the process, ensuring the highest quality product. We supply to markets around the world, producing over 3000 pieces per day and shipping 800,000 blanks annually.

#### When you work with HB Carbide, you can count on:

- 24-hour (or less) quote turnaround
- Aggressive lead times
- Personalized attention
- Efficient, courteous personnel
- Technical support with grade and preform design
- Blanket order options
- Dedication to continuous quality improvements





### SUCCESSFUL RESULTS START FROM THE GRADE

We produce a wide variety of grades in differing density, hardness and grain structure to address wide range of materials and applications.

- Super Alloys and Titanium (ISO S)
- Stainless (ISO M)
- Diverse steels (ISO P)

#### Non-ferrous metals (ISO N)

- Cast Iron (ISO K)
- Composite materials



Download a copy of our Grade Selection Chart

### THE GRADE SELECTION PROCESS

Consistency is essential when working with critical metal cutting applications, including aerospace (engine & frame) and medical, as well as high performance segments, such as die and mold, oil and gas, wind power and automotive.

Our fully-integrated capabilities, extensive process knowledge and experienced specialists are committed to helping you in your decision making to achieve optimized solutions – from grade to customized blank specification.

Cutting & Wear Resistance	Impact & Toughness
TRS	550,000psi
Grain Structure	Submicron
Hardness	91.7 HRA
Density	14.5 g/cm <sup>3</sup>
WC	90%
Co	10%



TRS	520,000psi
Grain Structure	Submicron
Hardness	93 HRA
Density	14.9 g/cm <sup>3</sup>
WC	94%
Со	6%



Grain Structure TRS	Ultrafine 640,000psi
Hardness	92.5 HRA
Density	14.11 g/cm <sup>3</sup>
WC	88%
Co	12%

### SHAPING TANGIBLE SOLUTIONS

H.B. Carbide preforms are available in just about any shape you require with minimal grind stock. Blanks are available with a variety of features, enabling us to deliver tangible solutions that provide manufacturing process efficiencies, reduced lead times, and overall productivity improvements.

- Round Rod
- Drill & Reamer Blanks
- Gundrill Blanks

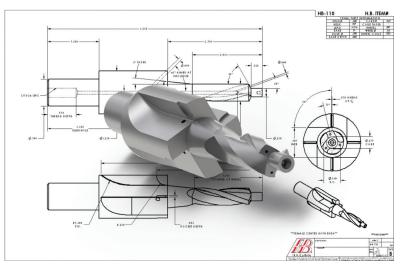
#### **OUR CAPABILITIES**

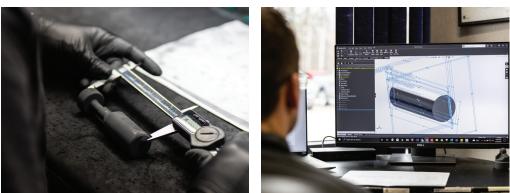
- Straight and Spiral Flutes
- Coolant Holes
- Stepped Diameters Centers and Flats
- Chamfers
- Keyways
- Threads
- PCD Pockets
- Preformed Sharpening Angles
- Saw Blanks

### CENTERLESS GRINDING TO AID YOUR NEEDS

As a value-added service to our customers, H.B. Carbide can offer centerless and between center OD grinding on pre-formed blanks.

- Centerless grinding
- h5 and h6 diameter tolerances
- Multi-diameter grinding
- Lapped centers







## DISCOVER WHAT THE **H.B. CARBIDE ADVANTAGE** CAN DO FOR YOU

- Responsible corporate citizen social, cultural and environmental responsibilities
- **Reliable partner** for global supply & support
- **Sustainability –** Environmentally focused, including recycling of carbide scraps
- **Focus on customer experience –** Service Supply & Technical Support
- Material innovation Optimized application specific grade selection
- Advanced production controls and techniques ensuring quality and consistency



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