



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

OUR PASSION IS PROVIDING OPTIMIZED SOLUTIONS FOR YOUR MOST CHALLENGING APPLICATIONS.

AMERICAN MADE. AMERICAN PRIDE.

H.B. Carbide Company delivers custom and altered standard carbide blanks that provide consistency, reliability and advanced capabilities for your most demanding applications

- **Manufactured in the USA** from raw material to finished ground blank
- Providing consistent quality and reliable service for nearly 40 years
- Comprehensive grade/capability offering specialized to provide solutions to all your business and application challenges

CUSTOM, STANDARD AND ALTERED DESIGN

H.B. Carbide's experienced specialists are prepared and committed to support and assist you in your decision making process to achieve optimized solutions, from grade selection to preform blank design.

- Advanced near net shape preform solutions
- Solid and coolant-through capabilities
- Pre-fluted blanks
- Large diameter and extended overall length
- Die and bushing blanks
- Centerless and between centers OD grinding
- Flow control products
- Program file sharing



H.B. CARBIDE GRADE SELECTION

METAL CUTTING **WEAR & DIE**

ENERGY **DEFENSE**

Ultrafine Submicron Medium Coarse Bimodal

SUCCESSFUL RESULTS START FROM THE GRADE

- Grade selection is crucial to meeting today's strict quality requirements and technical challenges, while maximizing productivity
- H.B. Carbide has a comprehensive grade offering specialized to provide solutions for all your business and application challenges
- We provide the optimum combination of high quality, consistency and performance reliability with industry-leading product/feature capabilities
- Committed service and focused support

NOT ALL MATERIALS ARE PRODUCED THE SAME

- H.B. Carbide is a fully-integrated manufacturer, from raw materials to finished ground blanks
- We partner with high-quality suppliers, ensuring quality/consistency from the start
- Integrated quality systems ensure product performance and traceability
- Process control from raw materials to shipping ensure product quality, consistency and performance.



HB-110	Co	10%
	WC	90%
	Density	14.5 g/cm ³
	Hardness	91.7 HRA
	Grain Structure	Submicron
	TRS	550,000psi

Cutting & Wear Resistance Impact & Toughness

- Heat-resistant steels
- Corrosion-resistant steels
- Stainless steels
- Non-ferrous metal alloys
- Titanium



HB-2	Co	6%
	WC	94%
	Density	14.9 g/cm ³
	Hardness	92.2 HRA
	Grain Structure	Medium
	TRS	530,000psi

Cutting & Wear Resistance Impact & Toughness

- Diamond coating
- Machining of graphite
- Cast iron
- Non-ferrous metal alloys
- Nozzles and wear applications



HB-3	Co	6%
	WC	94%
	Density	14.9 g/cm ³
	Hardness	93 HRA
	Grain Structure	Submicron
	TRS	520,000psi

Cutting & Wear Resistance Impact & Toughness

- Stainless steels
- Plastics
- Diamond coating
- Non-ferrous metal alloys
- Wear applications, flow control



HB-512	Co	12%
	WC	88%
	Density	14.11 g/cm ³
	Hardness	92.5 HRA
	Grain Structure	Ultrafine
	TRS	640,000psi

Cutting & Wear Resistance Impact & Toughness

- Stainless steels
- Titanium alloys
- Heat-resistant steels
- Interrupted cutting



HB-115	Co	15%
	WC	85%
	Density	14.0 g/cm ³
	Hardness	90 HRA
	Grain Structure	Submicron
	TRS	610,000 psi

Cutting & Wear Resistance Impact & Toughness

- Diverse wear applications
- Shock-resistance applications
- Impact punches
- Punches and ejector pins
- Roughing, shearing applications



HB-411	Co	11.5%
	WC	88.5%
	Density	14.39 g/cm ³
	Hardness	90 HRA
	Grain Structure	Bimodal
	TRS	530,000psi

Cutting & Wear Resistance Impact & Toughness

- Exceptional performance in punch applications
- Heat-resistant steels
- Stainless steels
- Non-ferrous metal alloys



HB-320	Co	20%
	WC	80%
	Density	13.56 g/cm ³
	Hardness	85.4 HRA
	Grain Structure	Coarse
	TRS	455,000 psi

Cutting & Wear Resistance Impact & Toughness

- Med-/High-impact forming applications
- Header dies, draw dies, stamping die details
- Fastener forming dies
- Ammunition dies



HB-325	Co	25%
	WC	75%
	Density	13.18 g/cm ³
	Hardness	83.3 HRA
	Grain Structure	Coarse
	TRS	430,000 psi

Cutting & Wear Resistance Impact & Toughness

- High Impact forming applications
- Header dies, draw dies, stamping die details
- Thread rolling
- Ammunition dies



HB-312	Co	12%
	WC	88%
	Density	14.33 g/cm ³
	Hardness	88.7 HRA
	Grain Structure	Coarse
	TRS	490,000 psi

Cutting & Wear Resistance Impact & Toughness

- Low impact/light shock resistance
- Capability for wide variety of forming applications
- Ammunition dies
- Light stamping



HB-315	Co	15%
	WC	85%
	Density	14.03 g/cm ³
	Hardness	87.4 HRA
	Grain Structure	Coarse
	TRS	470,000 psi

Cutting & Wear Resistance Impact & Toughness

- Steels, SS, non-ferrous varieties forming applications
- Light stamping carbide die and nib deep draw
- Fine blanking stamping dies
- Ammunition dies



HB-406	Co	6%
	WC	94%
	Density	14.9 g/cm ³
	Hardness	92.3 HRA
	Grain Structure	Bimodal
	TRS	334,000psi

Cutting & Wear Resistance Impact & Toughness

- Ideal for deep hole drilling
- Bimodal grain structure offering excellent wear properties
- Gundrill



HB-212	Co	12%
	WC	88%
	Density	14.28 g/cm ³
	Hardness	90.2 HRA
	Grain Structure	Medium
	TRS	377,000psi

Cutting & Wear Resistance Impact & Toughness

- Excellent thermal cycling properties
- Optimal braze adhesion
- Non-cutting grade
- Good toughness characteristics



HB-410	Co	10%
	WC	90.0%
	Density	14.5 g/cm ³
	Hardness	91 HRA
	Grain Structure	Bimodal
	TRS	553,000 psi

Cutting & Wear Resistance Impact & Toughness

- Ideal for deep hole drilling
- Exceptional toughness/wear properties
- Gundrill

H.B. CARBIDE COMPANY

4210 Doyle Drive | Lewiston, MI 49756, USA
(800) 459-8521 | hbcarbide.com

