



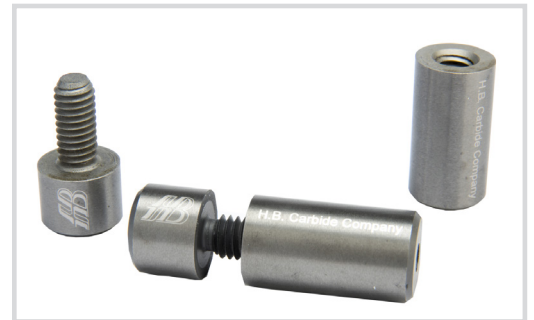
# Carbide Blanks and Preforms



HB Carbide is an industry leader providing customers throughout the world with high quality “special” tungsten carbide preforms. All preforms are sinter-hipped. These special preforms serve many industries including automotive, aerospace, energy, firearms, medical, construction and agriculture.

## Save time and increase productivity

- Increased machine capacity
- Increased grinding wheel and coolant life
- Minimal grind stock
- Shorter finish grind cycle times



Threaded Preform Blanks

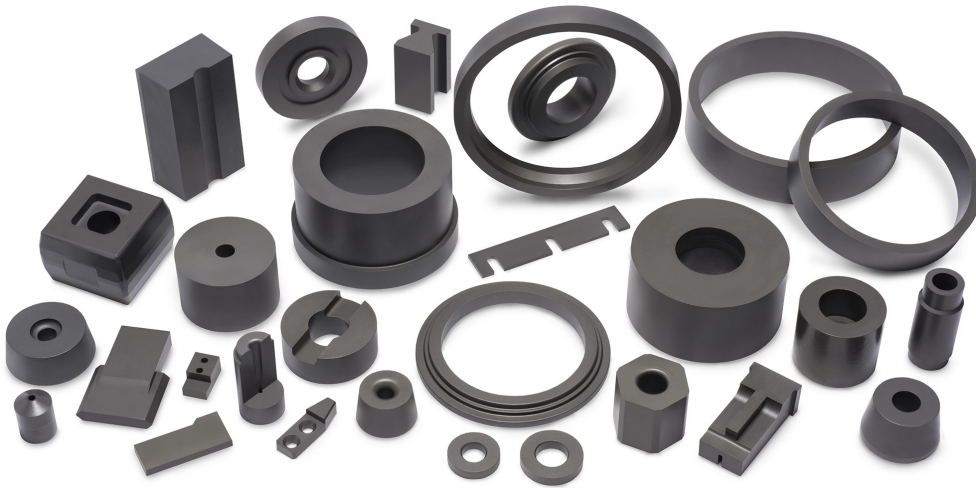
## Drill & Reamer Blanks

Drill & reamer blank include; straight & spiral flutes, coolant holes, stepped diameters, centers, flats, chamfers, keyways, PCD Pockets and threads.



## Specialty Blanks

H. B. Carbide's specialty blanks can be manufactured for your specific requirements using any of the grades we offer. Our carbide blank specialists will assist you with everything from grade selection to preform design.



## Die & Bushing Blanks

Carbide die and bushing blanks save time, increase productivity, and are manufactured for a variety of applications including wire drawing dies, cold heading dies, stamping dies, wear parts, seal rings, and bushings.

## Standard/Special Extrusion Preforms

Using high quality materials and state of the art technology allows us to produce standard and special extrusions.

### Preform features available:

- Straight flutes
- Spiral flutes
- Crossholes
- Steps
- Centers
- Flats
- Keyways
- Chamfers
- Threads



**NEW**

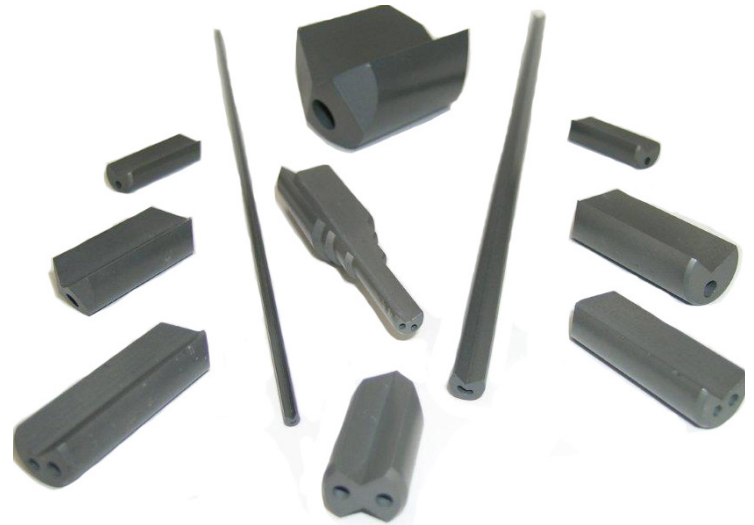
## Helical Coolant Rods and Preforms

H.B. Carbide now offers two-hole helical 30 degree spiral coolant-fed product. Standard 330mm length rods, special cut to length rods, and preforms are available on request.



## Gundrill Blanks

H.B. Carbide offers a complete lineup of gundrill blanks. These blanks can be full length sticks, cut to length heads, and can have preformed presharpener angles included. Single, double, or kidney shaped coolant holes are standard.



## Flat Blanks

Custom preform flat blanks include saw blade blanks, form tool blanks, washers, and EDM blanks. EDM blanks are guaranteed against cracking.



### Preform flat blank features

- Chamfers
- Through holes for wire EDM starting
- Holes for arbors in saw blanks and washers
- Angles
- Sharpening angles on saw blanks

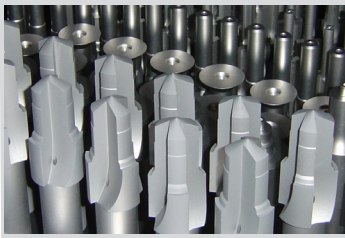
# Cemented Carbide Properties

H.B. Carbide Grade	Applications	US Industry Designation	ISO Code	Average Grain Size (micron)	Density (g/cc)	WC (%)	Co (%)	Hardness Rockwell A	Sinter HIP TRS (psi)
HB -2	Excellent wear properties, abrasion resistant, medium grain size, general purpose grade for cutting tools, drills, endmills, and reamers, for finishing and semi-finishing, and wear parts with little impact, EDM blanks, seal rings, and knives	C-2	K-20-K-30	1.5	14.9	94	6	92.2	530,000
HB -3	Extremely hard material, high abrasion resistance, micro grain size grade, for finish machining cutting tools, drills, endmills, reamers, and wear parts, with very little or no shock, EDM blanks, wire guides, sand blast nozzles	C-3	K-05-K-10	0.8	14.9	94	6	93	520,000
HB -110	Excellent wear properties, micro grain size grade, general purpose cutting tool grade for semi-finishing, drilling, endmills, reamers, and wear parts, with very little or no shock, EDM blanks, wire guides, sand blast nozzles	C-2 C-10	K-30-K-40	0.8	14.5	90	10	91.7	550,000
HB -115	High wear, low to medium impact, micro grain size grade, for cutting tools, dies, knives, punches, roughing tools, will withstand slight shock, EDM blanks, crush rolls, form rolls, coining dies	C-12	K-40	0.8	14	85	15	90	610,000
HB -512	Extremely hard material, high abrasion resistance, ultra-fine size grade, for finish machining cutting tools, drills, endmills, reamers, and wear parts, with very little to no shock, EDM blanks, wire guides, sand blast nozzles	C-2 C-3	K-20-K-40	0.6	14.3	88	12	92.5	640,000
HB -312	Low impact, coarse grain size grade, knives, punches, will withstand slight stock	C-12		4.0	14.3	88	12	88.7	490,000
HB -315	Low impact, coarse grain size grade, rough core nibs for header dies, swaging dies, and forming applications	C-12		4.0	14	85	15	87.4	470,000
HB -320	Medium impact, coarse grain size grade, rough core nibs for header dies, swaging dies, draw dies, crushing hammers, forming applications			4.0	13.6	80	20	85.4	455,000
HB -325	Highest impact, coarse grain size grade, rough core nibs for header dies, swaging dies, draw dies, forming applications	C-14		4.0	13.2	75	25	83.3	430,000
HB -411	Multi grain size grade, impact punches, wear parts, plastic injection molding pins	C-12	K-30-K-40	0.8-4.0	14.4	88.5	11.5	90	530,000

***All grades of powder are manufactured in-house for optimal quality***

# All your carbide needs from one source

H.B. Carbide is dedicated to quality, committed to technology and focused on customer service. We respond to quotation requests within 4 working hours. Orders are typically shipped within 6-9 working days. Expedited delivery is also available. Please call for assistance with grade selection and preform design.



## Finest Raw Materials

H.B. products are produced using the highest quality materials.



## Latest Manufacturing Technology

A state of the art, computer controlled, Ultra Temp Vacuum Sinter Hip furnace produces the ultimate quality.



## Fast & Reliable Delivery

Short manufacturing lead times require reliable transportation to deliver your blanks when you need them

*Quotes and orders to [sales@hbcarbide.com](mailto:sales@hbcarbide.com)*



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*H.B. Carbide is ISO 9000:2008 certified*