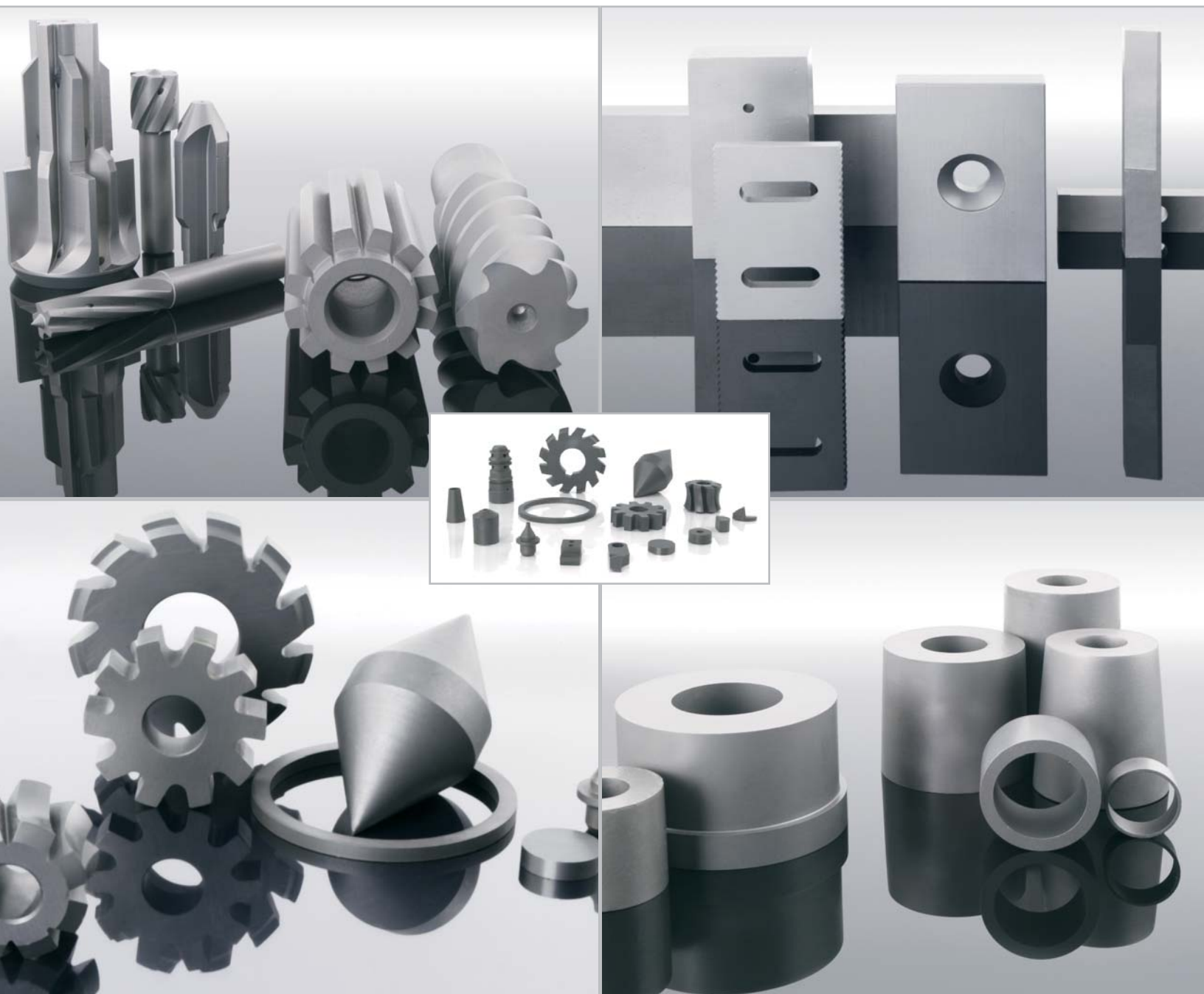


Star SU CARBIDE PREFORMS



Cemented carbide preforms blanks for cutting tools, EDM blanks, die and bushings, knives, punches, wear parts and special forms



Established in 1983 and located in Lewiston, Michigan, H.B. Carbide is owned and operated by Star Cutter Company. We manufacture tungsten carbide preforms using extrusion, isopressing, preforming and sintering operations.



SPECIAL TOOLING

H.B. Carbide can provide straight or helical flutes, straight or angled cross holes, multi-diameters, centers, flats, keyways and chamfers.

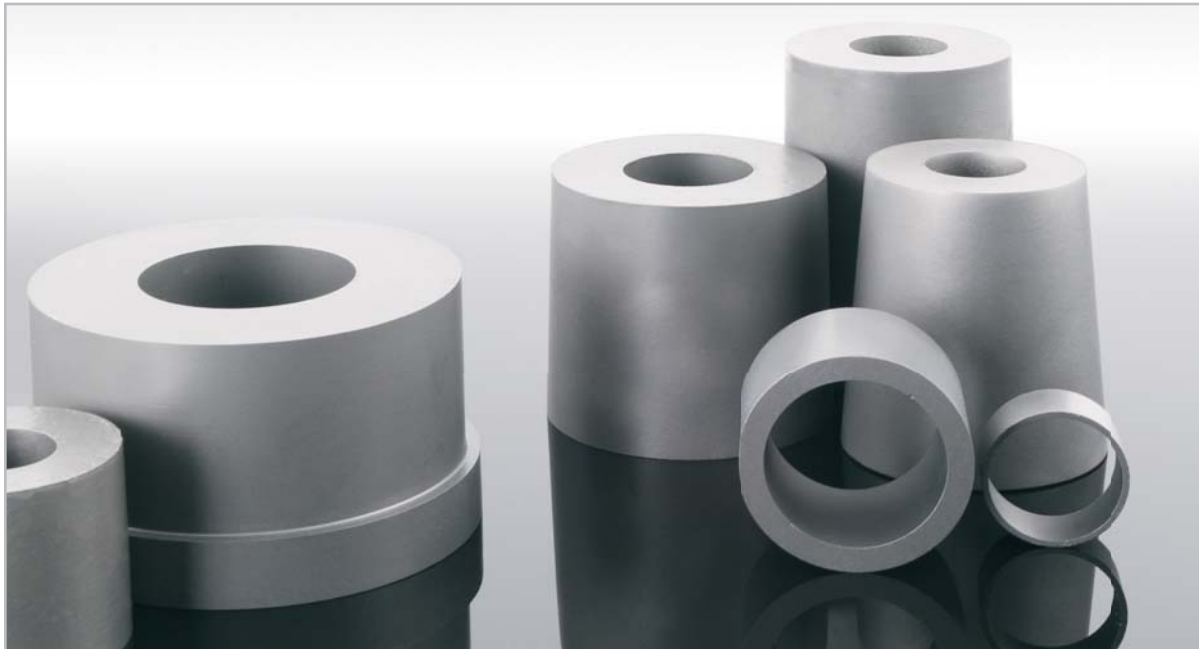


H.B. Carbide Company is a leading source of high-quality cemented carbide preforms for cutting tools, dies and wear parts used in a variety of specialized applications throughout the world.

H.B. Carbide uses only the highest quality raw materials and employs state-of-the-art computer controlled vacuum furnaces and vacuum Sinter-Hipping furnaces for complete control of sintering conditions.



FLAT BLANKS manufactured for wire EDM, knife blanks, form tools and brazed inserts. H.B. Carbide EDM blanks are guaranteed not to crack.



DIE AND BUSHING BLANKS manufactured for wear parts, cold header dies, wire drawing dies and bushings.





GROUND ROUND ROD popular sizes of cut-to-length ground round rod available for immediate shipment.



ROUND, SQUARE OR RECTANGULAR EXTRUSIONS in varied shapes with constant cross section can be extruded and cut to specified lengths. Round or other shaped coolant holes can be manufactured.





H.B. Carbide can manufacture all types of round extruded rods with or without coolant holes. Twelve-inch lengths are standard. Lengths up to 37" are available.

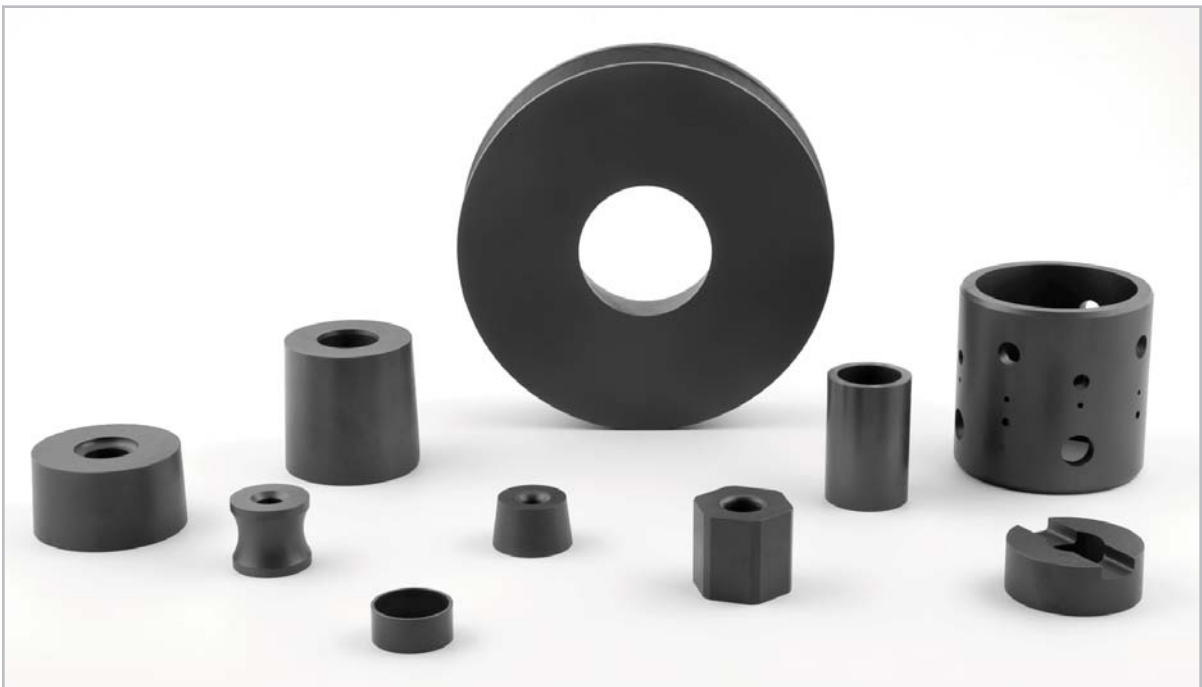


We can also supply these same rods cut to specific lengths to meet your requirements.





SPECIAL WEAR BLANKS provided by H.B. Carbide can be custom detailed to your specifications.



SPECIAL TOOLING blanks for wear parts, punches, rings, nozzles, centers, washers and many other field applications are available.





Cemented Carbides

PHYSICAL PROPERTIES

HB 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 grade, medium grain size, general purpose grade for all cutting tools, drills, endmills, and reamers, for finishing and semi-finishing, and wear parts with little impact, EDM blanks, seal rings, knives	C-2	K20 - K30	1.5	14.9	94	6	92.2	480,000
HB-3	Extremely hard material, highly abrasion resistant, micro grain grade, for finish machining cutting tools, drills, endmills, and reamers, and wear parts, with very little or no shock, EDM Blanks, wire guides, sand blast nozzles	C-3	K05 - K10	0.8	14.9	94	6	93.0	470,000
HB-110	Excellent wear properties, micro grain grade, general purpose cutting tool grade for semi-finishing and finishing, drills, endmills, reamers, stamping dies, punches, knives and all types of cutting tools, will withstand slight shock, EDM blanks	C-2 C-10	K30 - K40	0.8	14.5	90	10	91.7	500,000
HB-115	High wear, low to medium impact, micro grain grade, for cutting tools, dies, knives, punches, roughing tools, will withstand slight shock, EDM blanks, crush rolls, form rolls, coining dies	C-12	K40	0.8	14.0	85	15	90.0	610,000
HB-411	Multi grained grade, impact punches, wear parts, plastic injection molding pins	C-12		0.8 to 3.0 (mixed grain)	14.4	88.5	11.5	90.0	530,000
HB-312	Low impact, coarse grain grade, knives, punches, will withstand slight shock	C-12		2.5	14.3	88	12	89.8	570,000
HB-315	Low impact, coarse grain grade, rough core ribs for header dies, swaging dies, and forming applications	C-13		2.5	14.1	85	15	88.4	560,000
HB-320	Medium impact, coarse grain grade, rough core ribs for header dies, swaging dies, draw dies, crushing hammers, forming applications	C-14		2.5	13.2	80	20	86.4	550,000
HB-325	Highest impact, coarse grain grade, rough core ribs for header dies, swaging dies, draw dies, forming applications	C-14		2.5	14.4	75	25	85.1	510,000

Please ask about the availability of other grades you may require.

ALL YOUR CARBIDE NEEDS FROM ONE SOURCE

H.B. Carbide is dedicated to quality, committed to technology and focused on personal customer service. We respond to quotation requests within 4 working hours. Orders are typically shipped within 4-7 working days. Expedited delivery is also available. Please call for assistance with grade selection and preform design.



BEST RAW MATERIALS

The highest quality products are produced using the highest quality raw materials



LATEST MANUFACTURING TECHNOLOGY

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



FAST AND RELIABLE DELIVERY

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



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