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HYPERION
MATERIALS &
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COMPANY

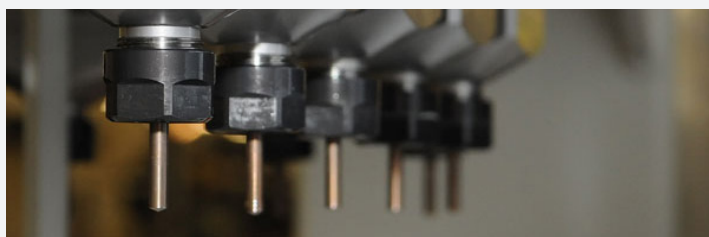
Micromanufacturing

Advanced Micromanufacturing with Superhard Materials

Crafts Technology is the industry leader in micro-level manufacturing with superhard materials, employing production capabilities that easily produce features below .002".

Our unique methods of fabrication allow for features that are thought to be impossible.

DISCOVER THE POSSIBILITIES



Microns Are Just the Beginning

Crafts Technology has established the largest collection of micro-EDM [Electrical Discharge Machining] machines in the world in order to meet your micro-production demands.

We have ample experience from prototype to full production of micro-scaled components and sub-assemblies.

Work with our engineering team to invent new levels of performance and capability.

- ♦ **State of the art capability in producing features below 25 microns (.001")**
- ♦ **Surface finish values below .05 microns (2 microinches)**
- ♦ **Roundness specifications below 3 microns (.0001")**
- ♦ **Proven production level output, with 6 Sigma Cpk levels above 3.0 at micron tolerances**



Micro - CMM (Coordinate Measurement Machine)

Crafts Technology offers proprietary capabilities to inspect features in ways that others cannot.

Traditional methods may require destructive testing to validate a particular feature.

Our capabilities allow for the fabrication of micron scale probes on the CMM itself in order to establish a high-precision point cloud of microfeatures. The precision of this inspection tool cannot be matched.

Zero Force Manufacturing

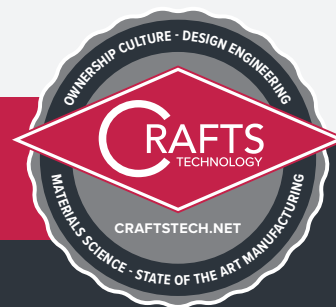
High-precision manufacturing of the finest features requires the use of techniques with near zero force on the tooling and part.

Without these techniques, forces will act in a multitude of ways that can mar the precision of the component and sub-assemblies.

Work with Crafts Technology to determine how these innovative techniques can help you achieve a new level of precision for your application.

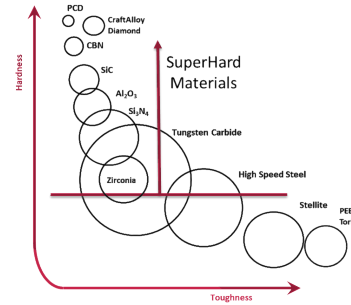
Our engineering team is ready to discuss your application and offer solutions.

800-323-6802
engineering@craftstech.net





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SuperHard Material Properties Guide

Material Family	High Speed Steel	Tungsten Carbide						Zirconia Ceramic			Silicon Nitride	Alumina Ceramic		Silicon Carbide	Diamond		
	Material Grade	M Series	C6-F	C6-SM	C10-SM	C15-SM	N10C-SM	N9.6C0UF	MG-PSZ	3Y-TZP	8Y-FSZ	SSN	ZTA	99.9% Al2O3	SSC	CraftAlloy	PCD
Wear Life	-	=	=	=	=	=	=	=	=	=	=	+	+	+	+	+	+
Toughness	+	+	+	+	+	+	+	+	+	+	+	=	=	=	-	=	-
Corrosion Resistance	-	=	=	=	=	+	+	+	+	+	+	+	+	+	+	+	+
Heat Transfer +: Conductive - : Insulator	=	=	=	=	=	=	=	-	-	-	=	-	-	+	=	=	
Electrical Conductivity +: Conductive - : Insulator	+	+	+	+	+	+	+	-	-	-	-	-	-	=	+	+	
Thermal Stability +: Conductive - : Insulator	-	-	-	-	-	-	-	=	=	=	+	+	+	+	-	-	
Raw Material Cost +: Conductive - : Insulator	+	+	+	+	+	+	+	=	=	=	-	=	=	-	-	-	
Manufacturing Cost +: Conductive - : Insulator	+	+	+	+	+	+	+	-	-	-	-	-	-	-	-	-	
Mass (Density) +: Conductive - : Insulator	=	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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