



Fluid Dispensing

Precision Nozzles and Needles for Fluid Dispensing Equipment

Crafts Technology produces nozzles and needles for fluid dispensing equipment to meet exacting specifications measuring in microns for orifice size, roundness, surface finish, positioning, and aspect ratio.

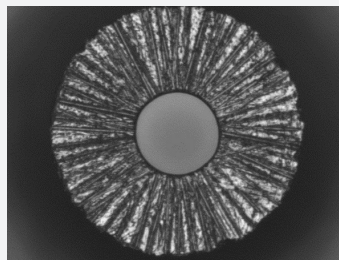
Innovative Solutions

Our company continues to push the boundaries of what is possible for fluid dispensing equipment to address issues involving a variety of adhesives, coatings, sealants, and biomaterials in fluid management. We look at every component as a fresh start, to see what features can be improved and what needs to stay the same.

Our engineering team can work with your team to determine how to leverage our capabilities to develop products that are truly **state of the art**.

Progressive Applications

- ♦ **State of the art capability in producing orifice 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.**
- ♦ **Over-molding with Advanced Polymers**
- ♦ **Advanced Materials – Alloyed Diamond**



PRECISION SEAL INTERFACE

STATE OF THE ART ORIFICE DESIGN & PRODUCTION

SEALING VERIFICATION

OPTIMIZED SUPPLY CHAIN – KANBAN SYSTEM



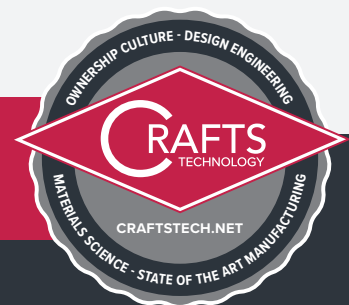
Application Experience

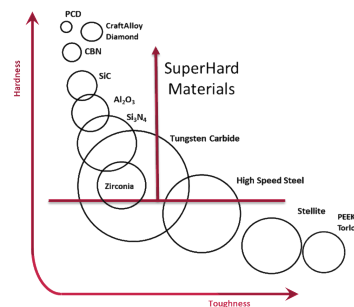
Crafts Technology has been designing and producing critical fluid dispensing components for more than 30 years, working as a partner with our customers to develop solutions to a wide variety of problems, including both extreme conditions as well as nuance failure modes.

- ♦ **Meniscus Build-Up**
- ♦ **Fluid Volume After Sealing Point**
- ♦ **Sealing Performance**
- ♦ **Fluid Volume After Sealing Point**
- ♦ **Sealing Performance**
- ♦ **Inconsistent Dot Size**
- ♦ **Critical Component Life**
- ♦ **Increased Processing**

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

800-323-6802
engineering@craftstech.net





SuperHard Material Properties Guide

MATERIAL FAMILY	HIGH SPEED STEEL	CraftAlloy™ TUNGSTEN CARBIDE					CraftAlloy™ ZIRCONIA CERAMIC			CraftAlloy™ SILICON NITRIDE	CraftAlloy™ ALUMINA CERAMIC		CraftAlloy™ SILICON CARBIDE	CraftAlloy™ DIAMOND	
		M	6C	10C	15C	10N	9.6N	MG-PSZ	3Y-TZP	8Y-FSZ	SSN	ZTA	Al2O3	SSC	D20
WEAR LIFE + : Longer - : Shorter	-	=	=	=	=	=	=	=	=	+	+	+	+	+	+
TOUGHNESS + : Strong - : Brittle	+	+	+	+	+	+	+	+	+	=	=	=	-	=	-
CORROSION RESISTANCE + : More Resistant - : Less Resistant	-	=	=	=	+	+	+	+	+	+	+	+	+	+	+
HEAT TRANSFER + : Conductive - : Insulator	=	=	=	=	=	=	-	-	-	=	-	-	+	=	=
ELECTRICAL CONDUCTIVITY + : Conductive - : Insulator	+	+	+	+	+	+	-	-	-	-	-	-	=	+	+
THERMAL STABILITY + : Conductive - : Insulator	-	-	-	-	-	-	=	=	=	+	+	+	+	-	-
RAW MATERIAL COST + : More - : Less	+	+	+	+	+	+	=	=	=	-	=	=	-	-	-
MANUFACTURING COST + : More - : Less	+	+	+	+	+	+	-	-	-	-	-	-	-	-	-
MASS (DENSITY) + : Lighter - : Heavier	=	-	-	-	-	-	+	+	+	+	=	+	+	=	=

PLEASE NOTE: TABLE IS TO BE USED AS A ENGINEERING GUIDE ONLY. SPECIFIC ENGINEERING VALUES ARE AVAILABLE UPON REQUEST.

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