



Factory Brochure

Professional Factory Specializing in Ceramic to Metal Brazings and fittings, seals, feedthroughs, high and ultrahigh vacuum components

AGS-TECH Inc.

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2021 version

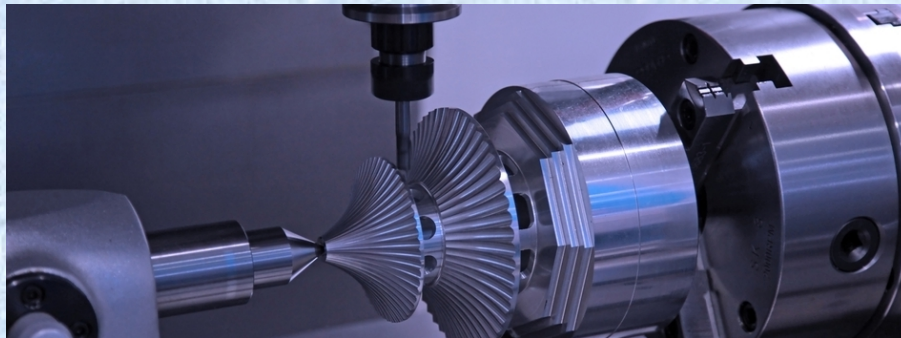
Factory Highlights

Established in 2004 and exporting from Shanghai.

Specialized in custom precision machined alloy parts for ceramic sealing from prototype to mass production.

Professional solutions for components in vacuum equipment, meeting tight hermetic sealing standards.

Used in Connectors, Plugs, Terminals, Feedthroughs , Thermocouples and HV or UHV equipment around the World.

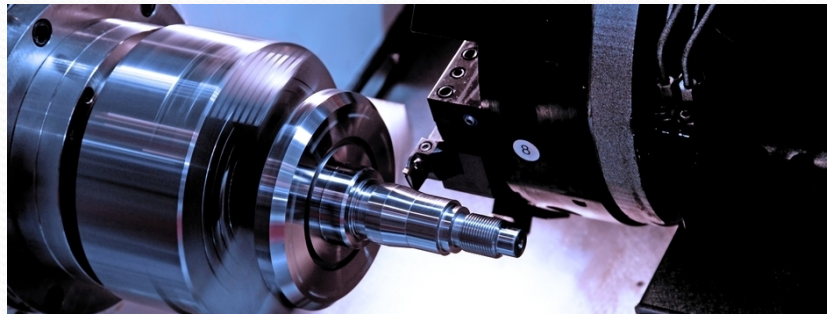


Main Alloys Used

Stainless Steel	304 SS	316 SS	316L SS	316LN SS
ESR Steel	ESR 304 SS		ESR316 SS	
Kovar, Nilo K	Fe-Ni-Co	Fe-Ni	Invar	
Copper	Beryllium Copper		Constantan Copper	
	OFHC Copper		Bronze	Brass
Aluminum	6061 T6	5052,5083	5A02	7075, 7A04
Alumel	Chromel	Cu90Ni10, C70600	Cu70Ni30, C17500	Permalloys, Alloy 52
Molybdenum	TZM	Pure Mo		
High Performance Nickel Alloys	Nickel 200, Nickel 201	Monel Series	Inconel Series, Incoloy Series	Nimonic Series,

*** Most materials are in our own stock to ensure short delivery time**

Company View



CNC Machining Workshops



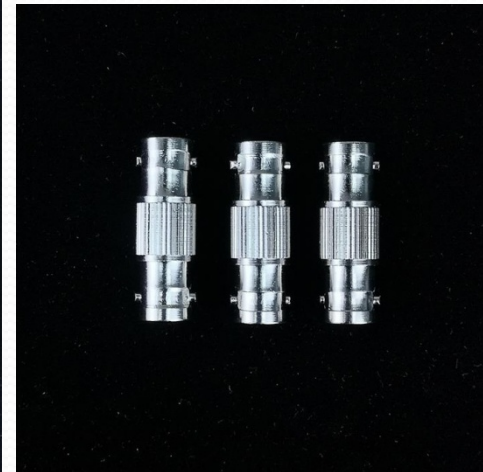
Workshops for Manual and Automated Machining Production

CNC Machining Equipment



CNC Machining Centers and Lathes

Products for Connectors - BNC or SHV Adapters



BNC or SHV Adapters for Connectorization

Specially made from ESR 316 stainless steel for UHV applications are available.

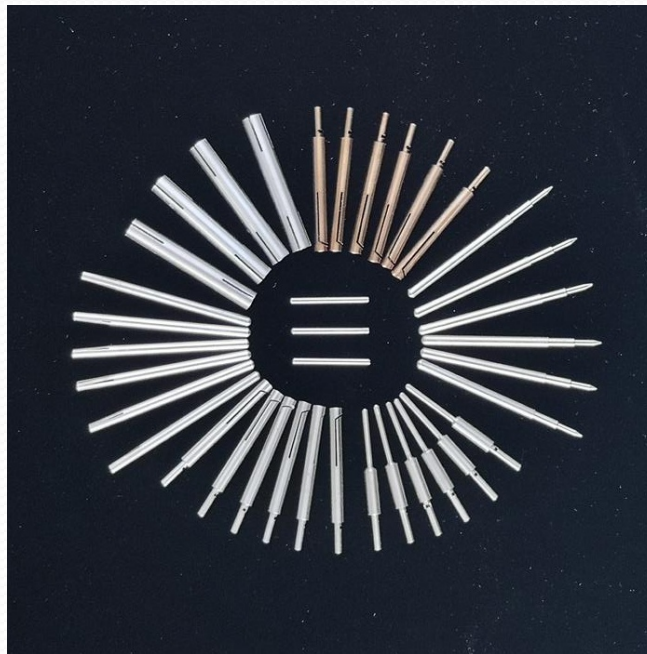
Products for Connectors - BNC and SHV Adapters



Various threaded BNC & SHV Adapters

**Specially made versions from ESR 316 stainless steel for UHV are available
Types: Threaded and/or BNC connecting**

Products for Connectors -Conducting Contacts



Material: High performance nickel alloys, Copper alloys, TZM alloy
Types: Crimped or no-crimped, female, weldable.

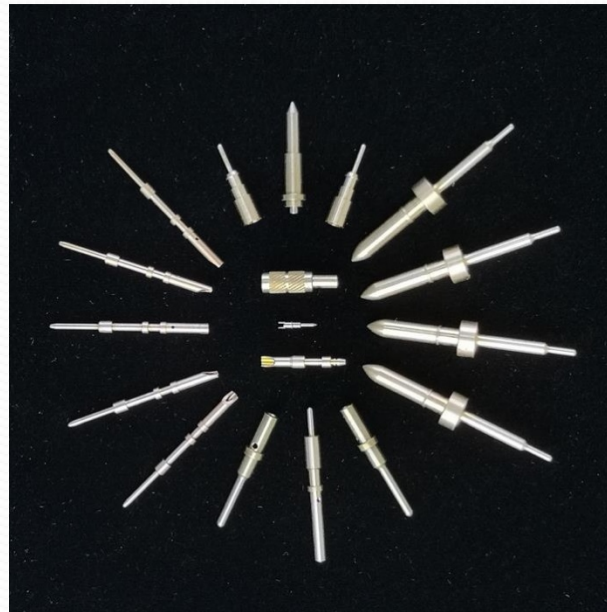
Products for Connectors -Conductor and Pins



Material: Kovar, Invar, Nickel 200, Alumel, Chromel, Molybdenum
Beryllium copper, Constantan copper, OFHC copper

Types: Male, weldable

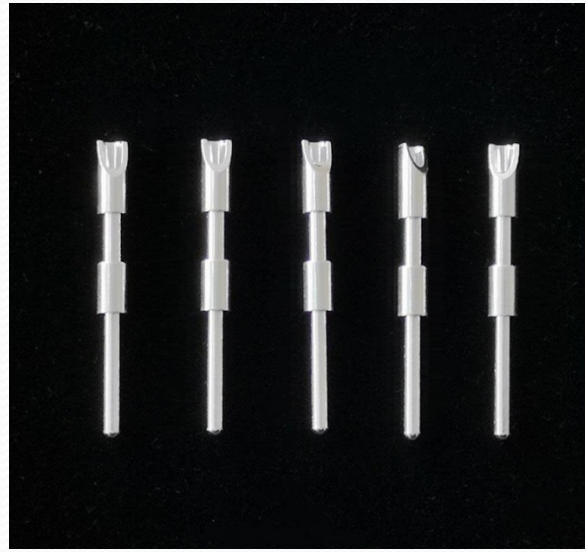
Products for Connectors -Conductor and Pins



Material: Kovar, Invar, Nickel 200, Alumel, Chromel, Molybdenum
Beryllium copper, Constantan copper, OFHC copper

Types: Female or Male, weldable

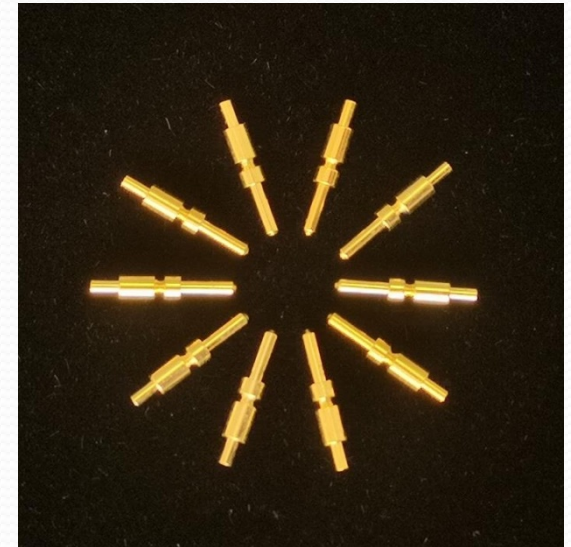
Products for Contact Pins



**Both threaded and solder types are available for connectorization use
Made with nickel based alloys**

Products for Terminals

Gold Plating



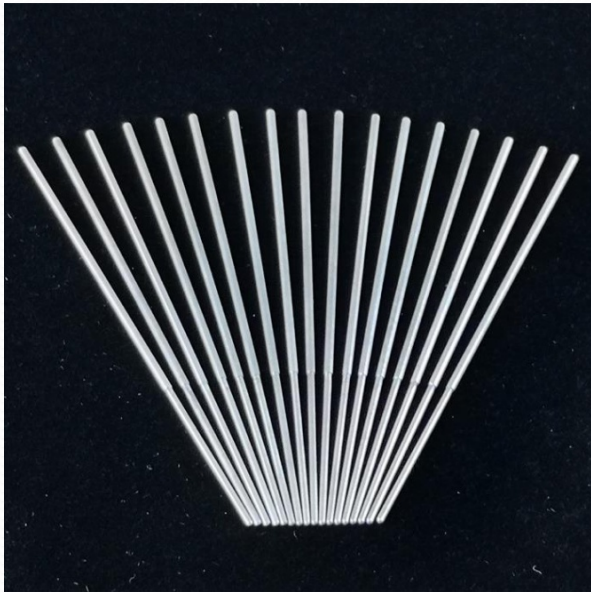
Both threaded and crimped types are available for connector applications
Material: Beryllium copper, phosphorus copper, nickel alloys

Products for Terminals



High Speed CNC Automatic Pressed Parts for Terminals and Contacts
Surface Plating is available (Gold, Silver, Tin, Zinc.etc)

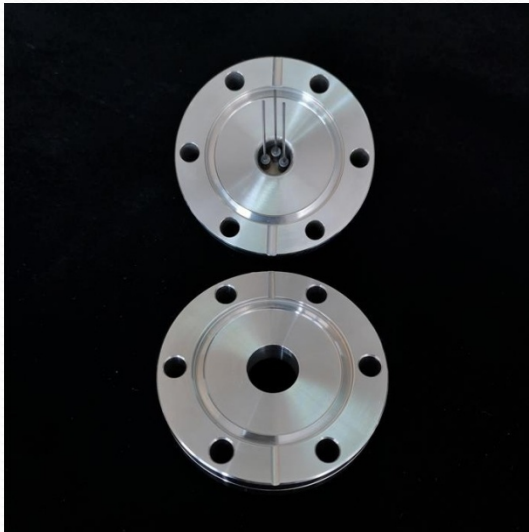
Products for Connectors -Conductors and Terminals



Material: Kovar, Invar, Nickel 200, Alumel, Chromel, Molybdenum
Beryllium copper, Constantan copper, OFHC copper
Types: Female or Male, crimped or no-crimped, weldable

Products for Vacuum Sealing

-CF Flanges

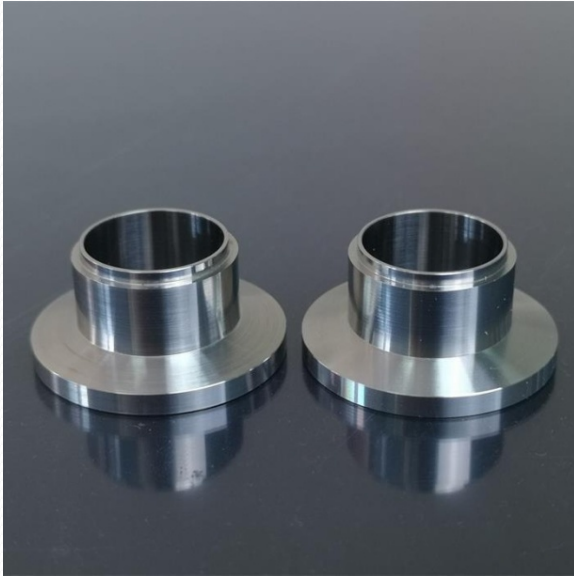


**OFHC Copper Gaskets for
CF Flanges Seals**

Standard CF Flanges made with 304SS or 316SS
Also special ESR 316 SS for UHV is optional.

Products for Vacuum Sealing

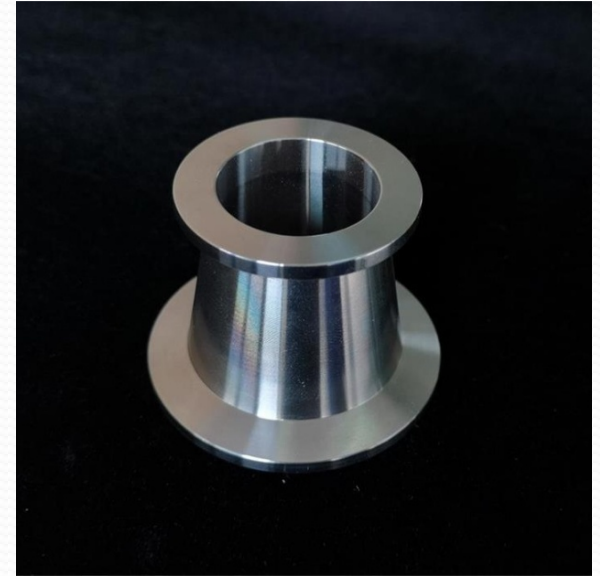
-KF Flanges & Reducer



Standard KF(QF) Flanges



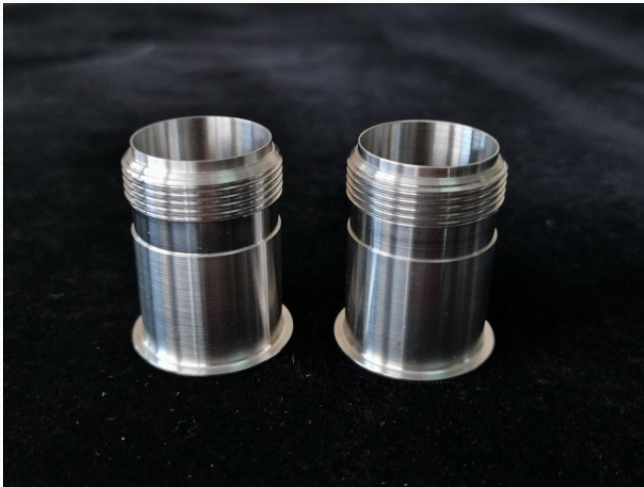
Standard KF(QF) Flanges



Standard KF Reducers



Components for Vacuum Sealing



Both Precision Machining and Press Forming are available in house.
Used in Ceramic to Metal Brazed Assemblies
Tight hermetic sealing performance, no leakage with UHV

Products for Vacuum Sealing -ESR 304SS Components



High Precision with Tight Tolerances

Ultrasonic Cleaning with Deionized Water

Used in Ceramic to Metal Brazed Assemblies

Tight hermetic sealing performance, no leakage with UHV

Products for Vacuum Sealing -Caps and Flanges



High Precision with Tight Tolerances

Used in Ceramic / Glass to Metal Brazed Assemblies

Tight hermetic sealing performance, no leakage with UHV

Products for Vacuum Sealing -Caps and Flanges



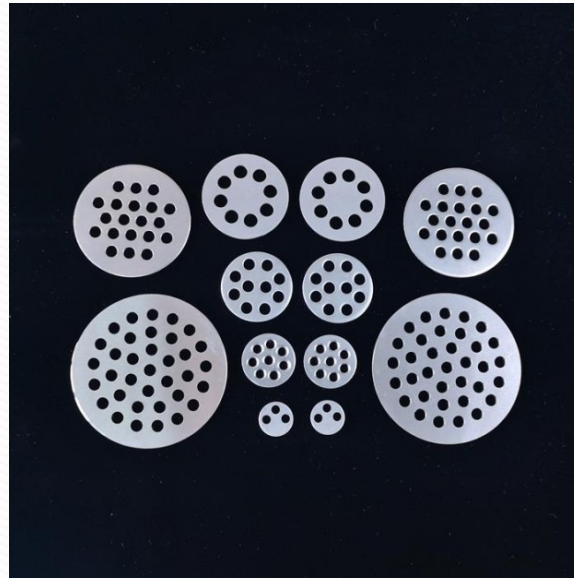
Made with Kovar or other high performance nickel alloys
Both prototype and mass production is acceptable
Short lead time with materials inventory in house

Products for Vacuum Sealing -Welding Flanges



Made with kovar or other high performance nickel alloys
Used in ceramic to metal brazed assemblies
Good intermediate for ceramic and steels due to C.T.E difference

Products for Tight Hermetic Sealing -Baseplate for Brazing



Made with kovar and/or iron-nickel alloy
Brazed with metallized alumina insulators
For instrumental feedthrough or thermocouples with mutiple-pins

Products for Fluid Control -Valve Bodies



Made with 304 or 316 stainless steel.
Fine honing processed inside cavities
For high precision fluid control and measuring equipment

Kovar Machined Parts

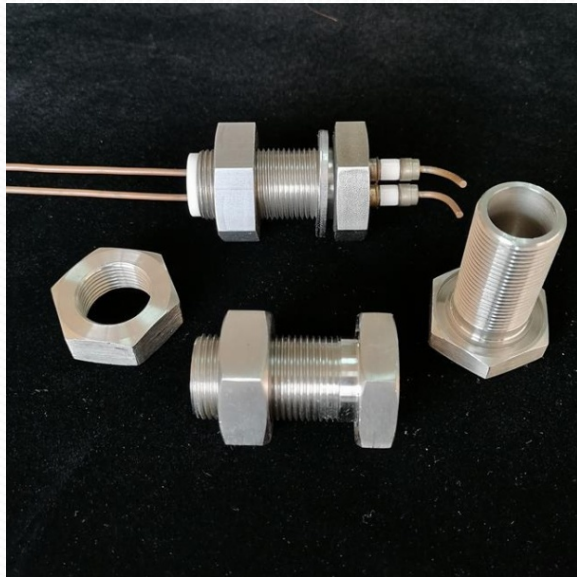


Made with Kovar or Invar alloys
High precision with tight tolerances
Brazed with metallized alumina insulators
For feedthroughs, plugs, connectors or thermocouples use

Components for Ceramic to Metal Sealing

Used in Plugs, Connectors, Feedthroughs, Thermocouples, Vacuum Interrupters and Fuel Cell Units etc.

Special for high pressure, HV and UHV applications and assembly



Power Feedthroughs with Threaded Baseplates

Instrumental Feedthroughs with CF Flanges

Instrumental BNC Feedthrough with weldable KF Flange

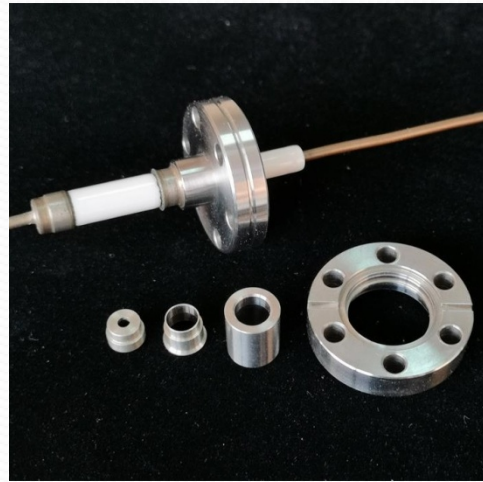
Components for Glass to Metal Brazed Assemblies

Similar C.T.E for ceramic/glass brazing

Robust bonding strength

Tight hermetic sealing

One stop professional service



All individually machined alloy parts and metallized alumina parts for power feedthrough brazing

All individually machined alloy parts for power feedthrough brazing

Machined 304 SS frame for above lens and windows use

Ceramic Component for Ceramic to Metal Brazed Assemblies

Separated advanced ceramic insulator
Mo-Mn metalization with nickel plating



Metalized alumina parts for metal brazing

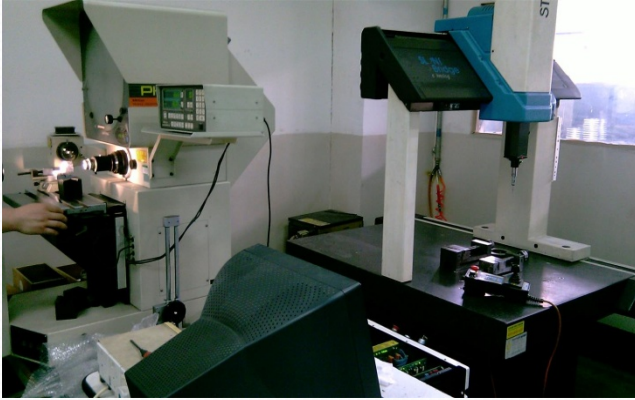


95% Metalized alumina parts for feedthrough brazing

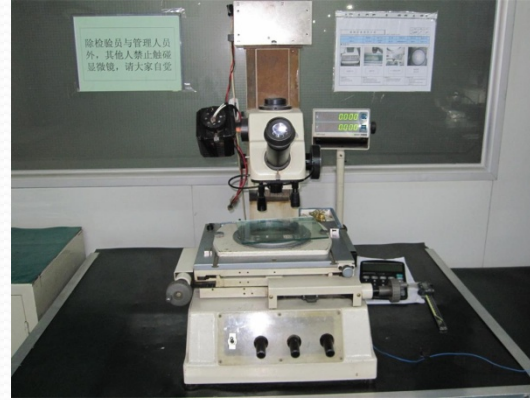


99.5% metalized alumina parts for SOFC brazing

Factory Quality Control



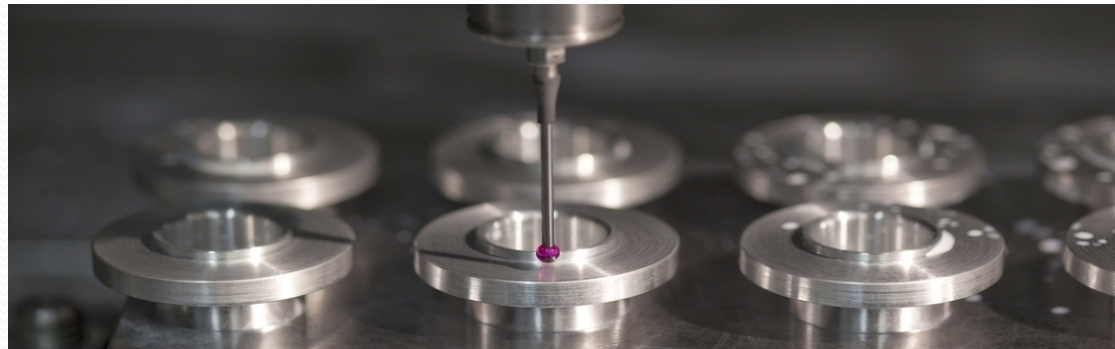
CMM and Projector



Metallurgical Microscope



Height Vernier Calipers



CONTACT US

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