

Company Overview

KSM Co., Ltd.

Welded Bellows | Heaters | Seals | SiC Fine Ceramics





Since 1979, KSM has supplied critical components & assemblies for UHV sealing & heating applications to OEMs, R&D Laboratories, and Vacuum Industry Distributors across the globe.





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WHO WE ARE - KSM

KSM is a global leader in the custom design, manufacture, and supply of edge-welded metal bellows, semiconductor process heaters, ceramics, seals, and other precision engineering components to OEMs and R&D Labs for high-tech industries, worldwide.

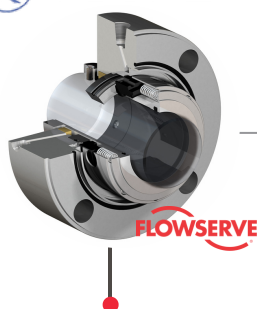
Over the years (Founded 1979, Korea Seal Master, Ltd.), KSM has expanded its expertise to include higher-level assemblies, obtaining top-level quality certifications & has become an international key strategic supplier, especially known in the UHV OEM space and Semiconductor Wafer Fab Equipment (WFE) Market.

Proudly Operating
the World's Largest ISO 6 Clean Room dedicated to the
Welding and Assembly of Metal Bellows.

A Glance at our Corporate History:



韓國셀마스타株式会社



'79~'90
FOUNDATION
of "Seal Master"

- 1979: KSM Founded
- 1987: Localization of "SEAL"
- 1990: JV with FLOWSERVE



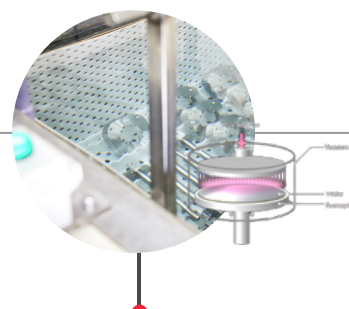
'90~'00
ACCUMULATION
Sealing Knowhow

- 1990: IP Bellows 3D Modeling Software Dev.
- 1993: SiC Development
- 1997: Bellows for WFE Market



'01~'10
APPLICATION
Engineering Expertise

- 2002: RCP Mech. Seal Dev.
- 2005: Metal Heaters Dev.
- 2010: Medical Mkt. Bellows



'11~'22
INTEGRATION
& Global Market Leader

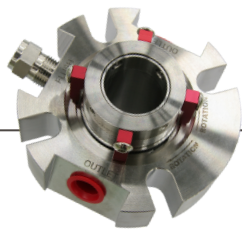
- 2011: Ceramic Heaters Developed
- 2016: Fully Automated Cleaning Systems Upgrade
- 2021: Nxt Gen Heater + Dry Gas Seal Dev.

OUR PRODUCTS LINE-UP

A trusted strategic partner and valued supplier (in many cases a soul-source approved) to major High-Vacuum tool manufacturers & laboratories.



WELDED BELLOWS



MECHANICAL SEAL

(Flowserve)



HEATERS

(Metal & Ceramic)



FINE CERAMICS

(SiC Technology)

Our members carefully consider your needs, continuously working to wholly understand your requirements and special application. Designing & considering for your environment conditions.

KSM's customers have purchased tens of thousands of UHV and Semi-specific assemblies. Years of applications experience has provided the training and knowledge to optimize our process & expand our product line-up to cater best to the market's exact needs.

With engineering expertise woven into our process at every step - we deliver the highest standard Custom Vacuum Components & Assemblies.

**Precision-Engineered
Critical
High-Vacuum
Components and
Assemblies that
exceed the bounds of
Welded Bellows and
Heaters**

INDUSTRIES SERVED

We have made it a priority to approach 'CIP' as a Continuous Improvement Culture. This mindset has fueled expansion to a modern campus including dedicated buildings for key products, validation testing and HQ supported by over 1,200 employees; equipped with a large staff of minimum 4-Yr degreed engineers; resulting in higher quality, shorter production times and lower cost.

Through this, KSM has developed a global footprint & today - We Proudly Support the Following Markets:

**VACUUM /
R&D LABS**



SEMICONDUCTOR



**AEROSPACE /
DEFENSE**



**LIFE
SCIENCES**



PETROCHEMICAL



**GROUND
TRANSPORTATION**



ALTERNATIVE ENERGY

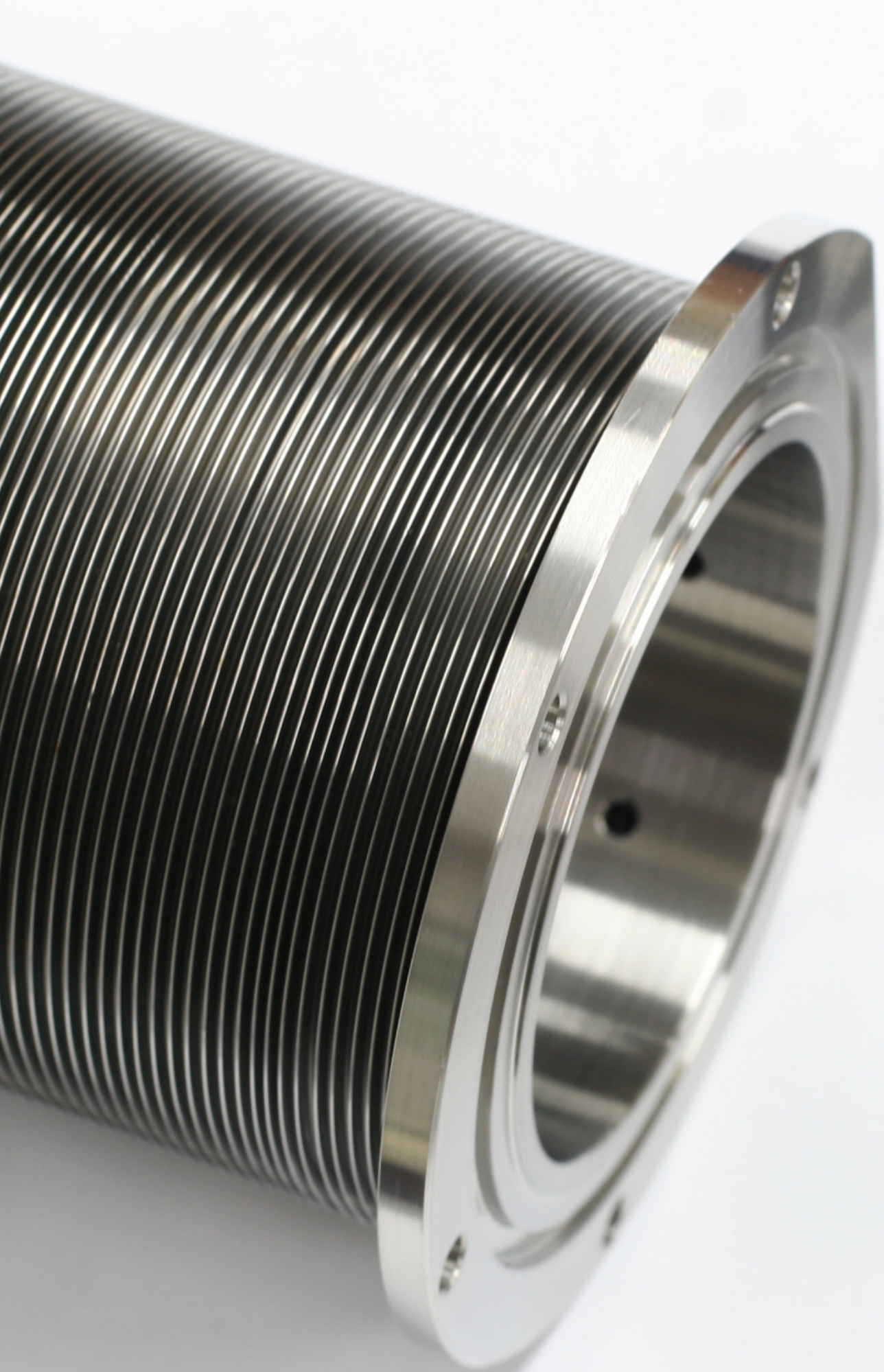


**INDUSTRIAL AND
OTHER**



We are honored to play our part in developing critical components for our customers across a multi-market scene.

As a key component supplier, our products are integrated into everything from airborne avionics suites and turbine engine seals to wafer positioning systems or whole cassette transport in semiconductor tools. We take pride in the success and reputation our customers enjoy.



VACUUM / R&D MARKET

Although many Vacuum / R&D applications have been around for a long time, requirements have evolved to demand better reliability, higher cycle lifetimes, and far cleaner assemblies.

KSM engineering can work to select optimum material considering [Performance // Magnetic Permeability // Application Temperature Requirements // Corrosion Resistance] Some Material Options Include: 316L SST, 347 SST, AM350® SST, Inconel® 625 & other more corrosion-resistant alloys for Semiconductor & Vacuum tool environments.

The Vacuum Equipment / R&D Laboratory marketplace includes:

Vacuum Valves, Beam Lines, Vacuum Components, Cryogenic Equipment, University Labs, Research Facilities, Vac Chamber MFGs



No. 01 – R&D Laboratories

Both public and private; primarily composed of Physics, Biotech, Pharma, and Med-tech sectors. Those processes requiring: vacuum, cryogenic hermetic separation of environments.



No. 02 – Vacuum Equipment OEMs

Those that supply the valves, pumps, and associated hardware for this market and other industries.



No. 03 – Analytical Equipment OEMs

Those who supply the measurement and related instrumentation for UHV applications.

APPLICATIONS Include:

Beamline Bellows | Gimbal Load Locks | Rotary Feedthroughs | Cryostat Bellows | Linear Feedthroughs | Valve Seals, Linear | Expansion Joints | Manipulators, X-Y-Z | Vibration Dampers | Foreline Connectors | Port Aligners | Wobble Sticks | Crystal Growers | etc. (+)



KSM CORE COMPETENCIES

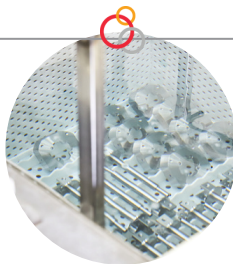
Our first-place position in the global market for UHV Welded Metal Bellows is made possible thanks to our vertically integrated process:



MFG OPERATIONS & CAPACITY



WELDING / JOINING CAPABILITY



CLEANING & PRODUCT CLEANLINESS



QUALITY & RELIABILITY



DESIGN & ENGINEERING EXPERTISE

KSM has the highest capacity in the World for the Build-to-Print manufacture of High-Vacuum Welded Bellows.

Optimized Process & In-House Capabilities

KSM is continually improving internal processes with a focus on VERTICAL INTEGRATION allowing us to control and prioritize operations with reduced dependency on the supply chain.

RAW MATERIALS

Temp & Humidity Controlled

- In-House Inventory
- Dedicated Warehouse Facility
- All Types of Materials
- Bar and Roll Stock

DESIGN

KSM Proprietary Software

- R&D Validated Design
- FEA Analysis & 3D Modeling
- Software Test Simulations
- Based on Client Environments

JOINING

ISO 6 Clean Room Controlled

- Automatic Laser Welding
- E-Beam, GTAW, & PLASMA
- Orbital Welding
- Diffusion Bonding

CLEANING

Automated Process

- Alkaline, Acid & DI Water
- Separate Cleaning Lines
- Passivation & Electro Polish
- Capacity for Volume Orders



KSM LOCATIONS



Contact Our World-Wide Customer Support

SOUTH KOREA:
Office HQ
KSM Co., Ltd.
Sales & Service

NORTH AMERICA:
Silicon Valley
KSM Vacuum Products, Inc.
Sales & Service

SOUTH KOREA:
Mfg Campus
KSM Corporation
MFG / R&D / Engineering

JAPAN:
Tokyo
KSM JAPAN Co., Ltd.
Sales & Service



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