



TOQUARTZ
Tech Specifications

TOQUARTZ® Quartz Flanges Product Catalog

Integrated Engineering & Agile Production
for Demanded Specifications



TOQUARTZ® QUARTZ FLANGES

TOQUARTZ® is a specialized manufacturer of high-purity quartz products based in China, serving global B2B clients in laboratory instrumentation, biomedical research, and environmental monitoring. With in-house engineering support and flexible production capabilities, we offer both standard and custom TOQUARTZ® Quartz Flanges with fast delivery and consistent quality.



Product Overview

TOQUARTZ® Industrial-grade quartz flanges with up to 99.995% purity for vacuum systems, chemical reactors, and semiconductor applications. Featuring exceptional corrosion resistance, thermal stability up to 1200°C, and precise dimensional accuracy to meet critical connection requirements.

TOQUARTZ® QUARTZ FLANGES



Key Features

- **Superior Chemical Resistance:** Exceptional stability against acids, bases, molten salts, and fluorinated gases
- **Outstanding Thermal Properties:** High thermal stability and low coefficient of thermal expansion ($5.5 \times 10^{-7}/\text{K}$)
- **High Material Purity:** Available in purity ranges from 99.9% to 99.995% SiO_2
- **Precision Machining & Customization:** Standard dimensional tolerance of $\pm 0.1\text{mm}$ with custom geometries available

TOQUARTZ® QUARTZ FLANGES



Applications

- Semiconductor Equipment
- Laboratory Instruments
- Vacuum Chambers
- Chemical Reactors
- Optical Equipment
- High Temperature Systems



TECHNICAL SPECIFICATIONS

Physical Properties

- Density: 2.2 g/cm³
- Thermal Expansion Coefficient: $5.5 \times 10^{-7}/K$
- Thermal Conductivity: 1.4 W/m·K
- Maximum Working Temperature: 1200°C
- Thermal Shock Resistance: Excellent

Chemical Properties

- SiO₂ Content: 99.9% to 99.995%
- Acid Resistance: Excellent (except for HF)
- Alkali Resistance: Good up to 300°C
- Water Absorption: Nil
- Gas Permeability: Very low



SIZE CHART

Model	Outer Diameter (mm)	Inner Diameter (mm)	Height (mm)	SiO ₂ Purity (%)
AT-SY-FL001	10	5	4	99.9-99.99
AT-SY-FL002	20	12	3	99.9-99.99
AT-SY-FL003	80	52.8	5	99.9-99.99
AT-SY-FL004	105	82.5	8	99.9-99.99
AT-SY-FL005	115	92.5	5	99.9-99.99
AT-SY-FL006	152	102.8	7	99.9-99.99
AT-SY-FL007	195	154	6	99.9-99.99
AT-SY-FL008	275	165	10	99.9-99.99
AT-SY-FL009	300	230	7.5	99.9-99.99
AT-SY-FL010	300	230	15	99.9-99.99
AT-SY-FL011	335	265	7.5	99.9-99.99
AT-SY-FL012	335	265	15	99.9-99.99



CUSTOMIZATION OPTIONS

TOQUARTZ offers comprehensive customization services for quartz flanges:

- Non-standard dimensions with outer diameters from 5mm to 500mm
- Special geometries including multi-port flanges and asymmetrical designs
- Integration with other quartz components
- Surface treatments including fire polishing, grinding, and acid etching
- Material grade selection based on application requirements



INSTALLATION GUIDELINES

- Use appropriate gasket materials based on temperature requirements
- Apply uniform torque when tightening bolts in a star pattern
- Avoid over-tightening to prevent cracking
- Consider thermal expansion for high-temperature applications



ABOUT TOQUARTZ®

TOQUARTZ® is a specialized manufacturer of high-quality quartz glass products for industrial, laboratory, and optical applications. Our factory-direct approach eliminates intermediaries, providing cost-effective solutions with responsive technical support. We welcome small batch orders and offer 24-hour shipping for standard items.

Contact Information

Email: info@toquartz.com

Website: www.toquartz.com

TOQUARTZ® - Precision Quartz Solutions for Industry and Research

For technical specifications, custom requirements, or pricing information, please contact our sales team.