



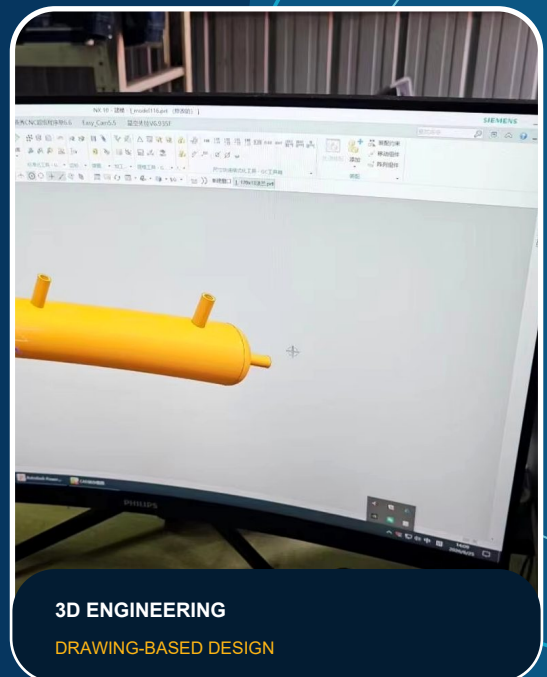
**CHINA QUARTZ-GLASS
MANUFACTURER**
Precision Glass & Quartz Components

CUSTOM QUARTZ GLASS

COMPANY PROFILE

PRECISION GLASS & QUARTZ COMPONENTS

MATERIALS · PROCESSING · CUSTOM COMPONENTS



3D ENGINEERING

DRAWING-BASED DESIGN

CONTACT

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www.quartz-glass.net

BUILT FOR PRECISION. BUILT TO SPECIFICATION.

We manufacture and process quartz glass materials and components for industrial, optical, semiconductor, laboratory and high-temperature applications. Standard tubing, rods, plates and capillaries can be supplied together with cut, ground, polished, drilled, bent, welded and hot-formed quartz parts.

OUR OPERATING PRINCIPLE

- ONE SOURCE
- DRAWING-BASED
- INSPECTION-READY



ONE CONNECTED MANUFACTURING WORKFLOW

MATERIALS · FABRICATION · INSPECTION

01

INTEGRATED PRODUCTION

Machining, hot work, inspection and packing are coordinated in one workflow.

02

DRAWING-BASED REVIEW

Material, geometry, tolerances and service conditions are checked before production.

03

CONTROLLED DELIVERY

Cleaning, inspection records and protective packing are matched to the order.

PROCESS CONTROL FROM INQUIRY TO SHIPMENT

01

MATERIAL

02

BLANK PREP

03

FABRICATION

04

CLEANING

05

INSPECTION

06

PACKING

OUR MISSION

Make quartz glass sourcing easier by connecting materials, dimensions, process and inspection.

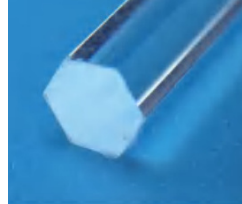
AUDITED EXAMPLES OF MATERIALS, SEMI-FINISHED BLANKS AND FINISHED COMPONENTS

Each photograph below shows a specific product family. Detailed dimensional capability follows in the next sections.



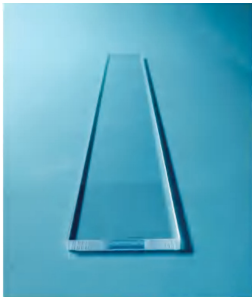
DOPED QUARTZ TUBE

Tinted quartz tube for wavelength-selective or application-specific transmission.



HEXAGONAL QUARTZ ROD

Special-profile rod manufactured for alignment, support or instrument interfaces.



DOPED GLASS WINDOW

Trapezoidal optical window with material and geometry customized to the system.



QUARTZ RING & LID

Machined circular component for support, sealing and process-chamber assemblies.



LASER CAVITY ELEMENT

Multi-bore doped cavity material for lamp and laser-rod configurations.



QUARTZ WAFER BOAT

High-purity carrier for thermal processing and semiconductor handling.



QUARTZ LABORATORY VESSEL

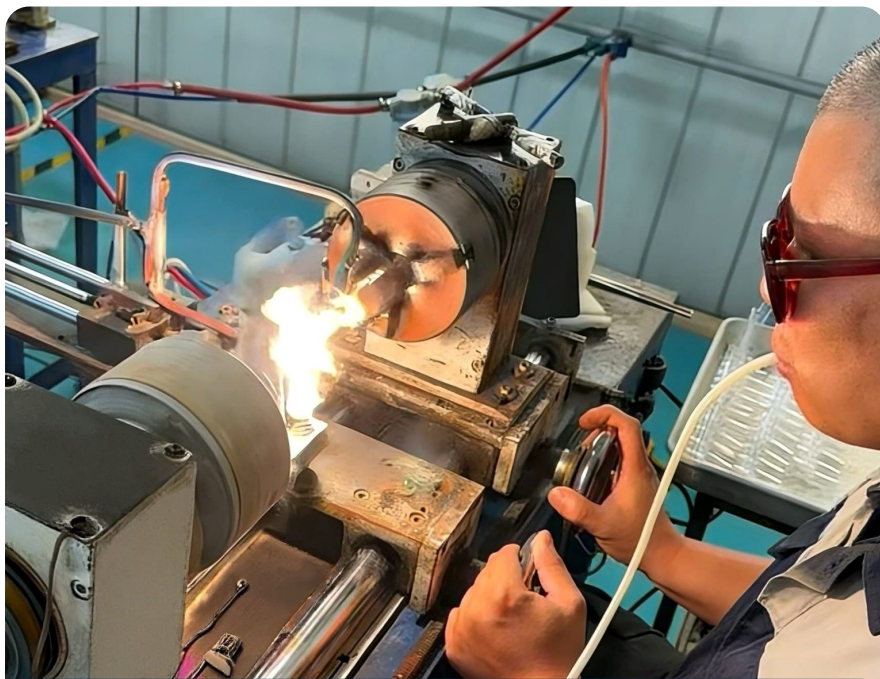
Handled vessel for high-temperature, chemical and laboratory service.



CUSTOM QUARTZ GRILLE

Drawing-based open structure produced by precision fabrication and assembly.

MACHINING AND HOT-WORK PROCESSES SELECTED TO SUIT THE GEOMETRY



QUARTZ GLASSBLOWING & HOT FORMING

Controlled flame work for formed quartz components



QUARTZ JOINT FABRICATION



CLEANROOM MACHINING



GRINDING & POLISHING

PROCESS ROUTES

Processing can include precision cut-to-length, grinding, fire polishing, mechanical and diamond drilling, laser drilling, flame bending, hot forming, quartz-to-quartz welding and end finishing.

01

CUTTING

Length, outline and blank preparation

02

GRINDING

Edges, surfaces and dimensional correction

03

POLISHING

Mechanical, diamond and fire finishing

04

DRILLING

Mechanical, diamond and laser routes

05

CNC

Slots, holes, contours and complex geometry

06

HOT WORK

Bending, forming and quartz welding

INSPECTION METHODS ARE SELECTED FOR THE PART, TOLERANCE AND END USE



INSPECTION LABORATORY



OPTICAL INSPECTION



PROTECTIVE PACKING

Parts move through material selection, blank preparation, machining or hot working, cleaning, dimensional inspection and final packing. The applicable check depends on geometry, tolerance, surface requirement and service conditions.

01

DRAWING REVIEW

Material, geometry, tolerance, finish and application are aligned before production.

02

MATERIAL & BLANK

Starting stock and blank condition are checked against the selected process route.

03

IN-PROCESS CONTROL

Critical dimensions and surfaces are monitored during machining or hot work.

04

FINAL INSPECTION

Dimensions, edge condition, surface defects and specified optical items are verified.

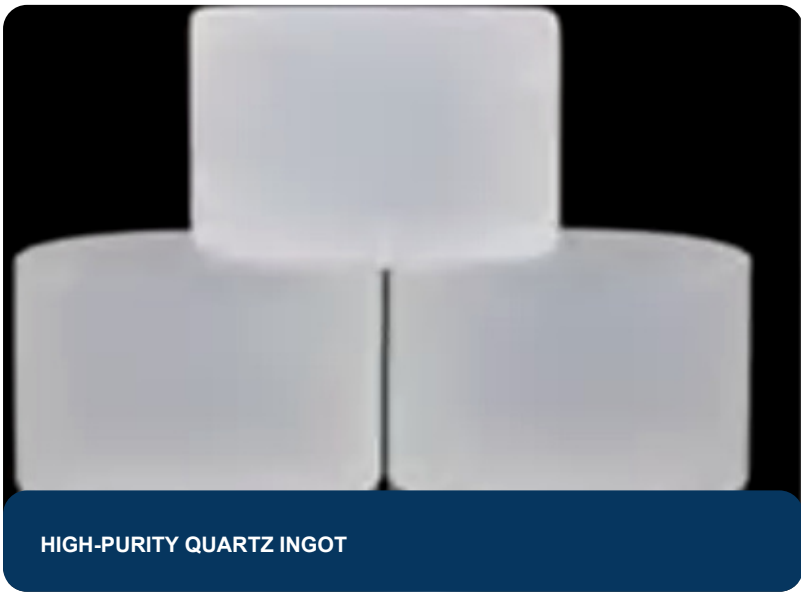
05

CLEANING & PACKING

Clean parts are protected with suitable separators, wrapping and outer packing for shipment.

REQUEST INSPECTION DOCUMENTS OR SPECIAL PACKING REQUIREMENTS WITH YOUR RFQ.

QUARTZ MATERIALS SELECTED FOR PURITY, WAVELENGTH AND TEMPERATURE



SELECTION INPUTS

- Operating wavelength
- Thermal exposure
- Purity and contamination
- Mechanical geometry
- Surface requirement
- Cleaning environment

PREMIUM FUSED SILICA

Corning HPFS 7979 / 7980

For demanding optical programs where a named material specification and supporting datasheet are required.

PURITY-DRIVEN

High-Purity Synthetic Fused Silica

Selected where low contamination and controlled optical or semiconductor performance are central to the design.

APPLICATION GRADES

JGS1 · JGS2 · JGS3

JGS1 is commonly considered for UV service, JGS2 for general optical use and JGS3 for IR-oriented applications.

FUNCTIONAL VARIANTS

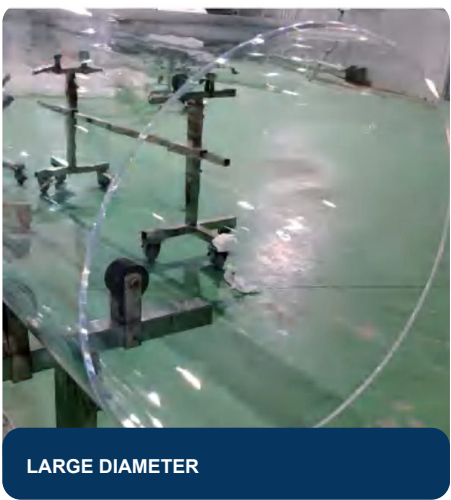
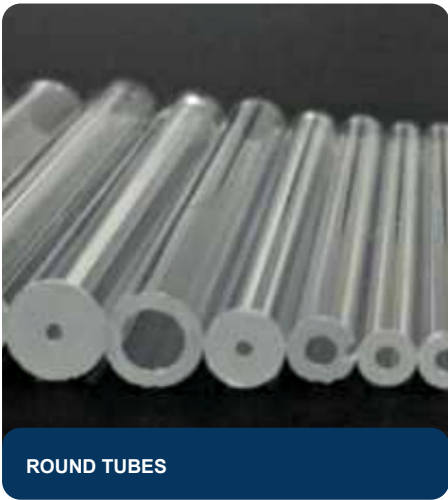
Milky, Opaque & Colored Quartz

Options for diffusion, thermal components, visual screening and application-specific transmission behavior.

GRADE CONFIRMATION

Final material selection and transmission range are confirmed against the application and quotation datasheet.

STANDARD SUPPLY AND DRAWING-BASED FABRICATION ACROSS MULTIPLE TUBE FAMILIES



AVAILABLE CONFIGURATIONS

- LARGE-DIAMETER & THICK-WALL
- FURNACE & DIFFUSION
- DOUBLE-BORE & MULTI-BORE
- SQUARE, RECTANGULAR & SHAPED
- SPIRAL, HELICAL & U-SHAPED
- GAUGE, SIGHT & VACUUM
- UV & OZONE-FREE
- OPAQUE, MILKY & COLORED

TYPICAL REFERENCE CAPABILITY

Parameter	Reference range	Tolerance reference
Length	Up to 2000 mm	+/-0.1 to +/-5 mm
Outside diameter	6-200 mm	+/-0.05 to +/-5 mm
Inside diameter	>=0.5 mm	+/-0.05 to +/-5 mm

FABRICATION OPTIONS

Cut-to-length · Ground or polished ends · Drilling · Slots · Forming · Bending · Welding · End geometry · Cleaning

Reference values are not a blanket guarantee. Final capability depends on material, geometry, process route and quantity.

PRECISION ROUND, SQUARE, SHAPED AND MULTI-HOLE PROFILES



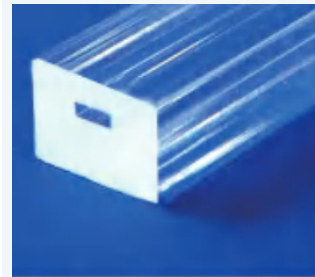
TRIANGULAR PROFILE



U-SHAPED PROFILE



MULTI-HOLE CAPILLARY



RECTANGULAR BORE

Applications include optical communication, fiber alignment, laser assemblies, sensors, analytical instruments, medical systems and precision fluid handling.

CIRCULAR CAPILLARY - REFERENCE DATA

Parameter	Dimension	Tolerance
Length	1-2000 mm	+/-0.01 mm
Outside diameter	0.2-11 mm	+/-0.01 mm
Inside diameter	0.06-10 mm	+/-0.005 mm

SQUARE CAPILLARY - REFERENCE DATA

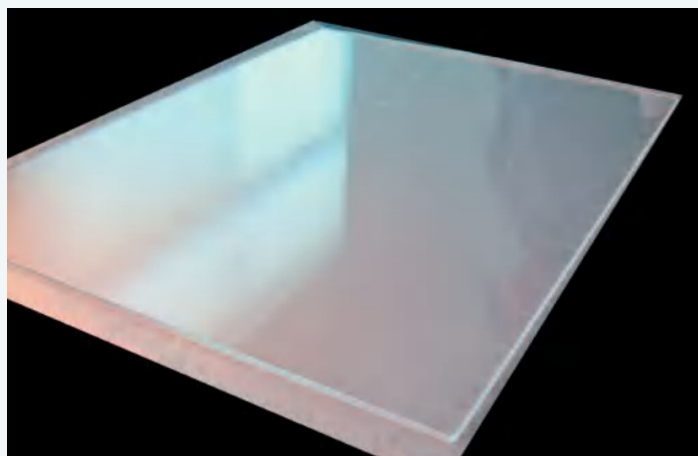
Parameter	Dimension	Tolerance
Length	1-2000 mm	+/-0.01 mm
Outer side	0.3x0.3-8x8 mm	+/-0.01 mm
Inner side	0.1x0.1-6x6 mm	+/-0.005 mm

CUSTOM SHAPES

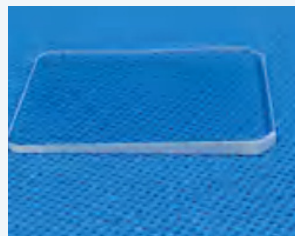
Conical · D-shaped · Elliptical · Trapezoidal · Hexagonal · Triangular · V-shaped · U-shaped · Double-hole · Four-hole · Multi-hole

Typical reference values are adapted from the supplied processing catalogue and require confirmation per drawing.

OPTICAL SURFACES, MOUNTING GEOMETRY AND CLEAR APERTURE ARE SPECIFIED TOGETHER



LARGE QUARTZ PLATE



RECTANGULAR WINDOW



CIRCULAR WINDOWS

QUARTZ WINDOW CAPABILITY

Parameter	Factory standard	Manufacturing limit
Diameter / LxW	5-300 mm	Larger on request
Thickness	0.5-25 mm	Thinner or thicker, confirmed per order
Surface quality	60/40 scratch-dig	Down to 20/10 on request
Flatness	$\lambda/4$ @ 633 nm	Down to $\lambda/10$ on request
Parallelism	≤ 3 arcmin	Tighter, confirmed per order
Surface roughness	Ra < 5 nm, polished	Confirmed by finish route
Clear aperture	Approx. 90%	Confirmed per drawing

DEFINE THE OPTICAL PATH

Specify wavelength, shape, clear aperture, thickness, surface grade, flatness, parallelism, edge finish and coating requirement.

Published capability is for quotation guidance. Final values are confirmed against material stock, size and the requested process route.

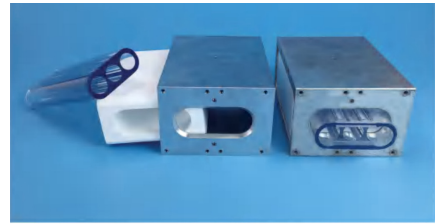
QUARTZ COMPONENTS FOR OPTICAL PATHS, LASER SYSTEMS AND PROCESS EQUIPMENT



OPTICS & LASER

Custom components for controlled transmission, beam delivery and laser assemblies.

- Laser pump cavities
- Fiber laser end caps
- Prisms, lenses & reflectors
- Sputtering targets



PUMP CAVITIES

Single-hole and multi-hole geometries with material and cooling configuration reviewed per design.

- Single or dual lamp layouts
- Reflector and flow-tube options
- Drawing-based cavity geometry
- Assembly interface review



PROCESS RINGS & PARTS

Quartz rings, lids, flanges and precision parts for process, optical and instrument assemblies.

- Rings, lids & flanges
- Sleeves, gaskets & nozzles
- Supports and holders
- Machined custom profiles

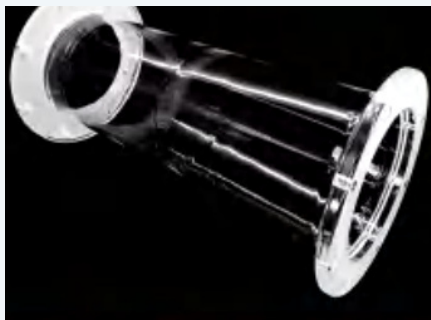


SEMICONDUCTOR HANDLING

High-purity quartz components for thermal processing, wafer handling and wet-process equipment.

- Wafer and combustion boats
- Carriers and cleaning baskets
- Crucibles and cleaning tanks
- Furnace tubes and chambers

FROM STANDARD LABWARE TO ENGINEERED ONE-OFF GEOMETRIES



QUARTZ REACTOR ASSEMBLY



RECTANGULAR QUARTZ VESSEL



MACHINED QUARTZ SUPPORT

LABORATORY RANGE

- Beakers, flasks, bottles & vials
- Cuvettes, cells & reactors
- Funnels and distillation apparatus
- Test and digestion tubes
- Graduated cylinders & measuring cups
- Ground joints and adapters

CUSTOM COMPONENT RANGE

- Rings, flanges, sleeves & sheaths
- Gaskets, nozzles, balls & spheres
- XRD sample holders
- Brackets, supports and lamp parts
- Flow cells and fritted components
- Special drilled, slotted or formed parts

INFORMATION FOR A FAST, ACCURATE QUOTATION

- Material or service environment
- Tolerance and surface finish
- Quantity and repeat-production plan
- Drawing and critical dimensions
- Holes, slots and end geometry
- Operating wavelength / temperature / pressure

QUARTZ GLASS FOR DEMANDING APPLICATIONS

01

MEDICAL TECHNOLOGY

Diagnostic optics · capillary handling · analytical instruments

02

AUTOMOTIVE TECHNOLOGY

Infrared heating · optical sensing · test equipment

03

ELECTRONICS

Substrates · windows · precision components

04

SEMICONDUCTOR

Furnace processing · wafer handling · wet cleaning

05

INFRARED HEATING

Heater tubes · lamp holders · thermal assemblies

06

OPTICS & LASERS

Windows · prisms · UV and laser components

07

OPTICAL COMMUNICATION

Fiber capillaries · alignment parts · profiles

08

LABORATORY & RESEARCH

Cuvettes · labware · custom research parts

START WITH YOUR DRAWING

Send dimensions, tolerances, quantity, material and application conditions for review.

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