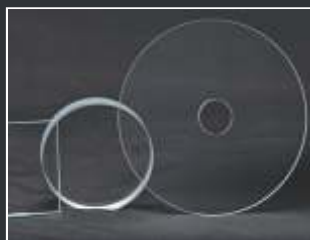
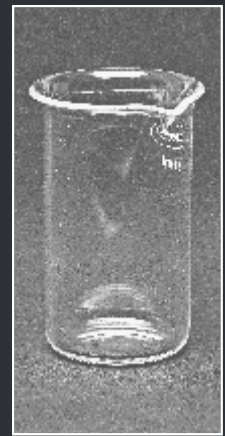
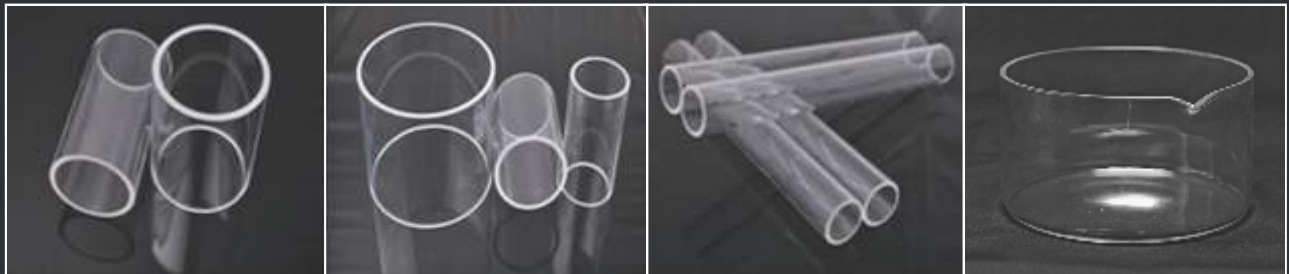




APEX QUARTZ

Providing Customized Quartz Products



www.apexquartz.com

QUARTZ GLASS

APEX QUARTZ is specialized in Industrial Quartz Glass Products & Quartz Accessories. Quartz Glass tubes both transparent clear tube & translucent milky tubes.

Glass tube have purity, good spectral transmission, well controlled dimension and lower OH. Quartz has a nominal purity of 99.99%.

These are highly resistive to thermal shock due to extremely low co-efficient of thermal expansion.

These Quartz tubes have excellent electrical strength that remain highly stable with temperature variation.

We have regular stock of Transparent Clear Quartz Tube, Translucent Milky tubes, Quartz Rod, Quartz Plate, One End Closed Quartz Tube, Quartz Crucibles etc.

We also have Quartz fabrication unit where we can fabricate infrared heaters, Quartz tubes of any shape and other Quartz items according to requirement.



CLEAR QUARTZ TUBE

- The clear quartz glass tubes are obtained through the use of different types of raw materials like natural or synthetic quartz sand. Quartz glass tube have ultra high purity, good spectral transmission, well controlled dimensions and lower (OH) Hydroxyl.
- These are highly resistance to thermal shock due to extremely Low Co-efficient of thermal expansion.
- These Quartz Tubes have excellent electrical strength that remains highly stable with temperature variation.
- These Quartz tubes are available from 2mm inside diameter to 200mm outside diameter up to 3000mm length.

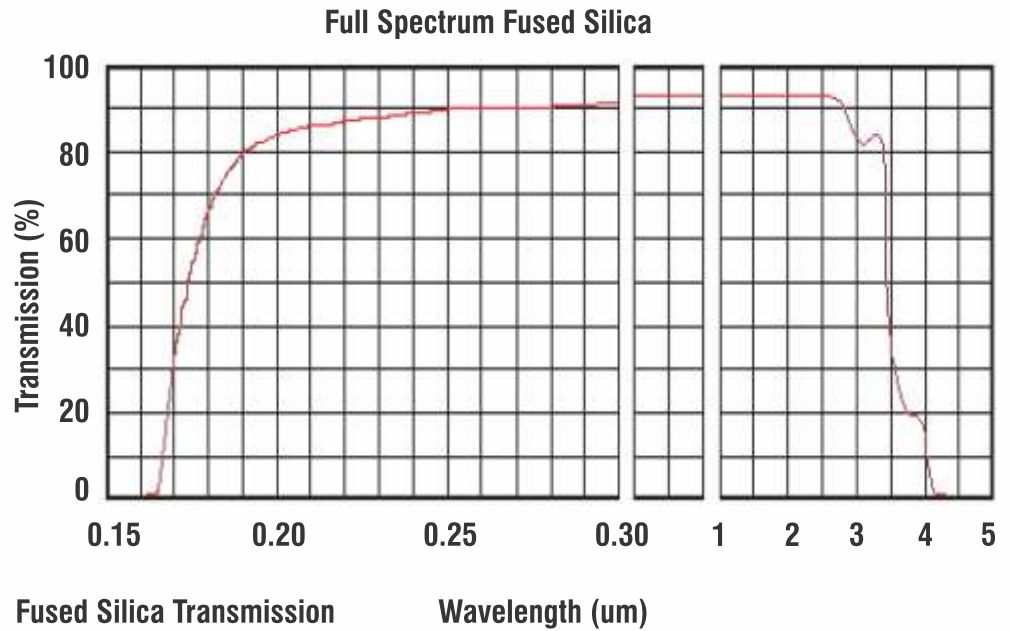


TRANSMISSION VS WAVELENGTH GRAPH

Fused Quartz's optical properties depend on its transparency level and on the production method and they are far better than the standard glass because quartz glass has a much higher purity level.

Our Transparent quartz material has excellence in transmission especially ultra red zone and visible areas compared with ordinary glass. Transmission of UV is related with metal impurities 2730nm wave indicate OH content absorption and volume

The graph below shows the transmission spectrum according to the wavelength.

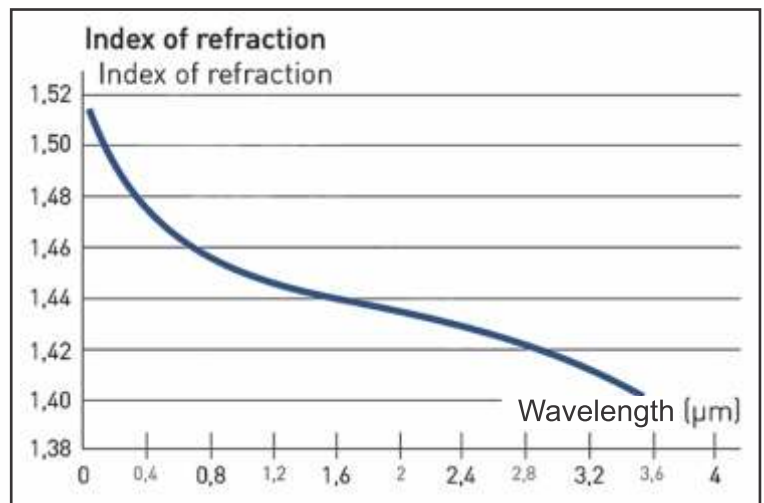
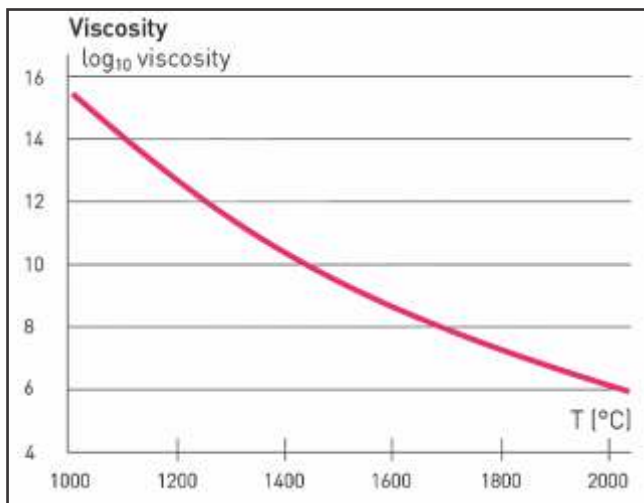


VISCOSITY AND DEVITRIFICATION

Viscosity is greatly influenced by the presence of impurities inside the material.

The process of devitrification happens after the material has been exposed for a long time to very high temperatures and the presence of impurities makes the process faster. Devitrification process starts on the surface and this is the reason why it is better to accurately clean the outside part before the heat process starts.

The graph shows the logarithmic trend of viscosity according to temperature.



QUARTZ TUBE MILKY / TRANSPARENT

Silicon dioxide occurs naturally as sand or rock, and when melted, the resulting product is called Fused Quartz. If the silicon dioxide is synthetically derived, the material is often called Fused Silica. Fused Quartz is very pure, has a high chemical resistance, good thermal shock resistance and is very strong in compression. The low thermal expansion coefficient makes it ideal for mirrors and optical flats. It is used for viewing windows, being transparent to wavelengths from around 0.2 to 3.5 μm , insulators for electronic applications and for semi-conductor manufacturing.

Material Key properties of Quartz Tube:

- Near zero thermal expansion
- Exceptionally good thermal shock resistance
- Very good chemical inertness
- Can be lapped and polished to fine finishes
- Low dielectric constant
- Low dielectric loss
- Good UV transparency

Type	Ai	Ca	Mg	Cr	Cu	Fe	Ni	Mn	Li	Na	K	Ti	B
FD-5	14	0.5	<0.1	<0.03	<0.03	0.3	<0.03	<0.2	0.4	0.8	0.6	1.2	<0.1
FD-9	14	0.5	<0.1	<0.01	<0.01	0.1	<0.01	<0.05	0.4	0.05	0.15	1.2	<0.1

Property	Reference Data	Remarks
Density	$2.2 \times 10^3 \text{kg/m}^3$	<ul style="list-style-type: none"> ➤ Themostability: keep under 1000 C then put into 20 C, no crack after 3 times ➤ Heating one hour under 1100 C will be not change color
Hardness	500KHN ₁₀₀	
Strength of Pulling Resistance	$3.7 \times 10^7 \text{Pa} (\text{N/m}^2)$	
Strength of pressure resistance	$> 1.1 \times 10^9 \text{Pa}$	
Coefficient of thermal expansion (20-200 °C)	$4.5 \times 10^{-7} \text{cm/cm}^\circ\text{C}$	
Thermal conductivity (20 °C)	1.4W/m °C	
Specific heat (20 °C)	660J/Kg °C	
Softening Point	1530 °C	
Annealing Point	1150 °C	

QUARTZ TUBE DIMENSIONS IN MILKY AND TRANSPARENT

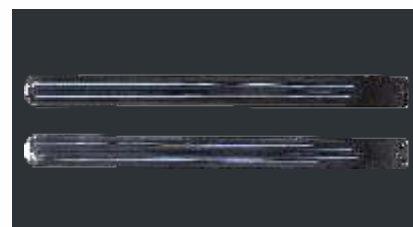
Sr No	ID	OD	Length (mm)	Thickness (mm)	Tolerance
1	2	4	1240	1	± 0.3
2	4	6	1240	1	± 0.3
3	5	7	1240	1.5	± 0.3
--	--	--	--	--	
--	--	--	--	--	
--	--	--	--	--	
68	8	12	1240	2	± 0.3
67	95	100	1240	2.5	± 1.0
68	100	105	1240	2.5	± 1.5
69	105	110	1240	2.5	± 1.5
70	122	130	1240	4	± 2.0



ONE END CLOSED CLEAR QUARTZ TUBE

SR. NO.	ID (mm)	OD (mm)	LENGTH (mm)
1	21	24	890
2	22	25	890
3	22	25	900

All above items will be customised as per requirement



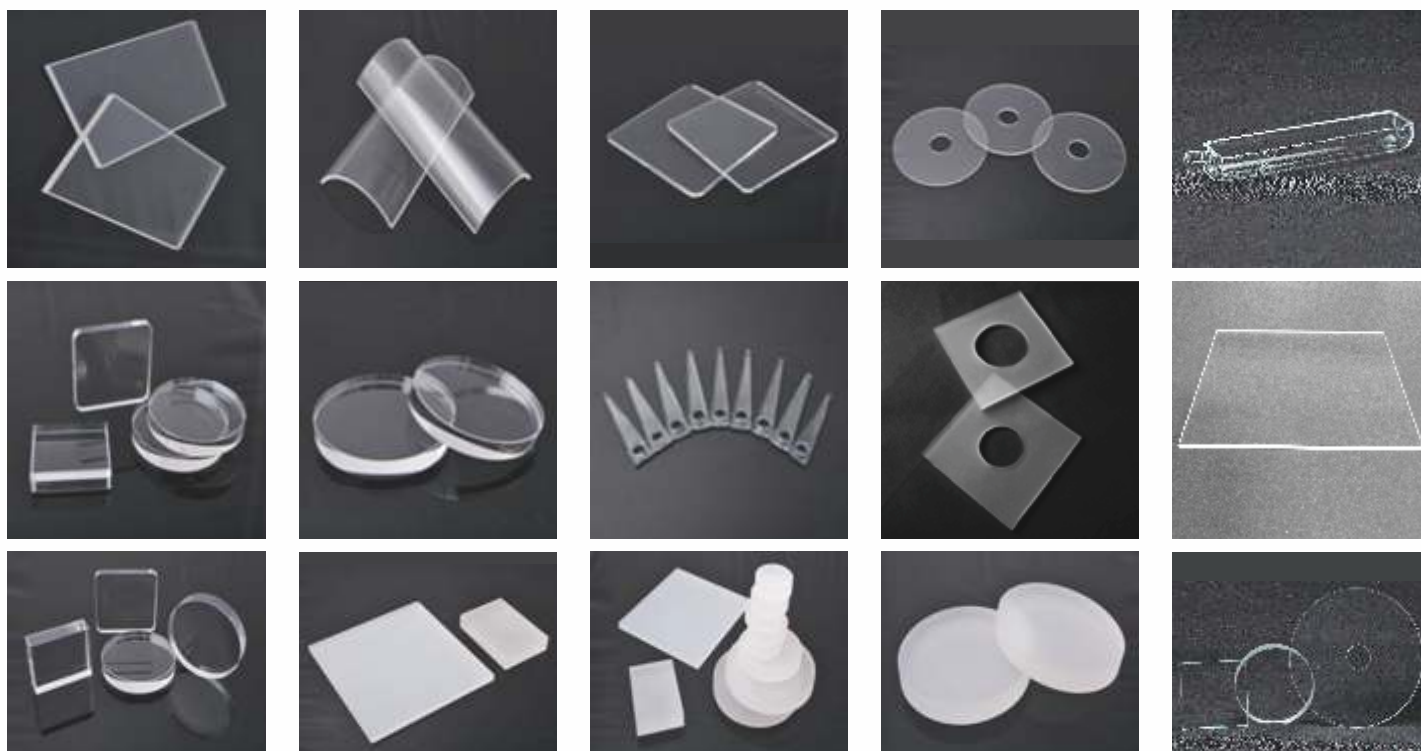
ONE END CLOSED MILKY QUARTZ TUBE

SR. NO.	ID (mm)	OD (mm)	LENGTH (mm)
1	38	45	305
2	38	45	458
3	38	45	676

All above items will be customised as per requirement



CLEAR / MILKY QUARTZ PLATE



CLEAR QUARTZ PLATE

SR. NO.	ID (mm)	OD (mm)	THINCKNESS (mm)
1	300	300	1
2	300	300	1.5
3	400	400	2
4	400	400	3
5	400	400	4
6	400	400	5

CLEAR QUARTZ ROD DIMENSIONS

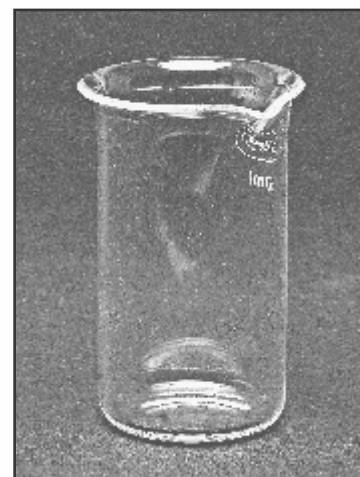
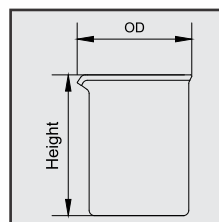
	Ai	Ca	Mg	Co	Cu	Fe	Ni	Mn	Li	Na	K	Ti	B
	8.92	1.17	0.17	0.01	0.07	0.78	0.06	0.24	0.91	3.06	1.17	0.7	0.1

QUARTZ ROD		
SR. NO.	OUTER DIAMETER	LENGTH (mm)
1	2	1240
2	3	1240
3	6	1240
4	8	1240
5	10	1240
6	12	1240
7	25	1240



QUARTZ BEAKERS

Quartz Beakers are generally cylindrical in shape; with a flat bottom most also have a small spout to aid pouring. Beakers are available with pour out and with no pour out in a wide range of sizes, from one milliliter up to several liters. Quartz Beakers are designed to hold, pour, and measure chemical substances, usually in their liquid state. Quartz Crucible can be available in two forms i.e. Milky and translucent. Milky quartz is crystalline quartz that is white and translucent to almost opaque due to numerous evenly distributed gas and/or fluid inclusions.

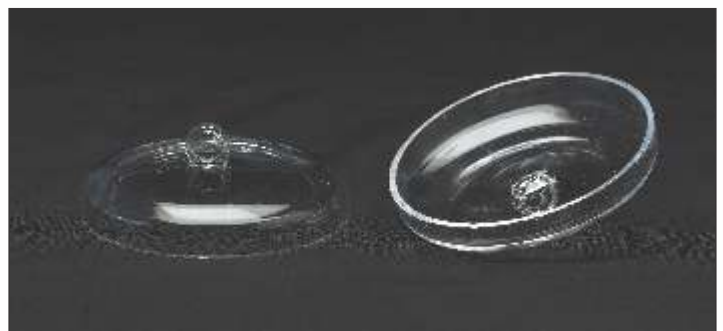
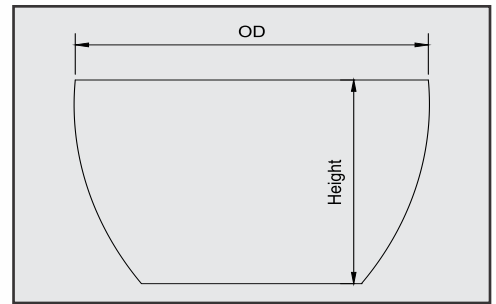
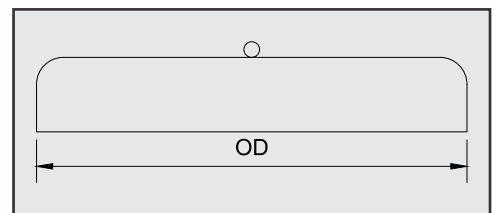


QUARTZ BEAKERS			
SR.NO	PRODUCT CODE	CAPACITY (ml)	APPROX O.D × HEIGHT (mm)
1	QB25	25	35 × 45
2	QB50	50	40 × 58
3	QB100	100	50 × 75
4	QB150	150	55 × 88
5	QB250	250	70 × 95
6	QB500	500	85 × 115
7	QB1000	1000	105 × 145

All above items will be customised as per requirement

QUARTZ CRUCIBLE

Quartz Crucible is a noncrystalline form of silicon dioxide (SiO_2). Its highly cross linked three dimensional structure gives rise to its high use temperature and low thermal expansion coefficient. Quartz Crucible can be available in two forms i.e. Milky and translucent. Milky quartz is crystalline quartz that is white and translucent to almost opaque due to numerous evenly distributed gas and/or fluid inclusions. Quartz crucibles can also be used in other industrial applications such as glass melting, chemical processing and powder calcinations because of their high purity and excellent chemical resistance.



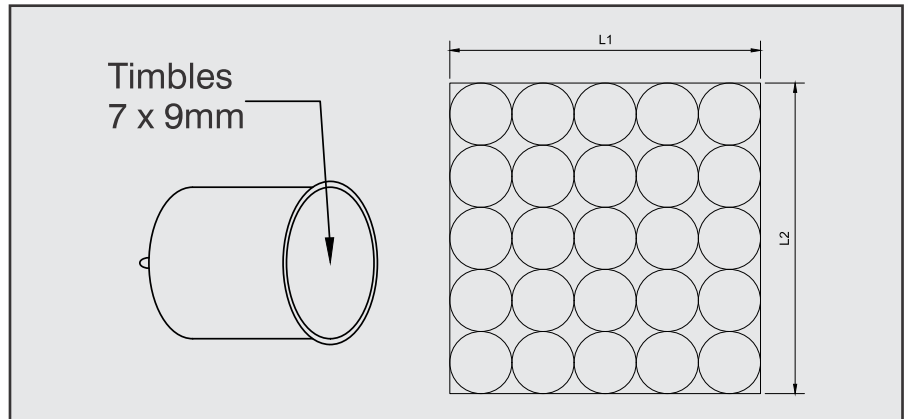
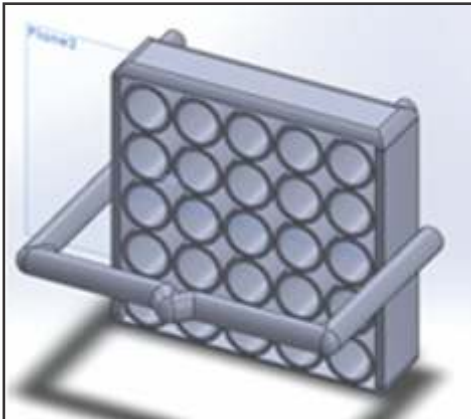
QUARTZ CRUCIBLES

SR. NO	PRODUCT CODE	CAPACITY (ml)	APPROX O.D × HEIGHT (mm)
1	QC15	15	40 × 26
2	QC25	25	47 × 30
3	QC50	50	57 × 35
4	QC80	80	69 × 45
5	QC150	150	80 × 54

All above items will be customised as per requirement

SAMPLE PARTING TRAY

Quartz Parting Tray is fabricated with timbles and ring. These trays have the capacity to hold the holding items tightly and clear transparent object. These trays are customized as per the needs of users available with 12 holes, 18 holes, 25 holes, 36 holes, etc.



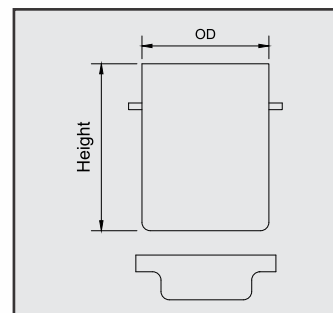
QUARTZ SAMPAL PARTING TRAY WITH DIMENSIONS

SR. NO	PRODUCT CODE	TYPE	L1 x L2 (mm)
1	QPT12	12	42 × 55
2	QPT18	18	40 × 78
3	QPT25	25	65 × 65
4	QPT35	36	78 × 78

All above items will be customised as per requirement

VOLATILE MATTER (VM) QUARTZ CRUCIBLE WITH LID

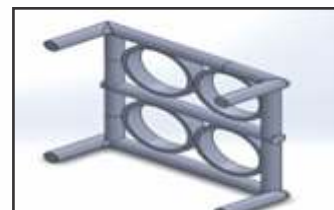
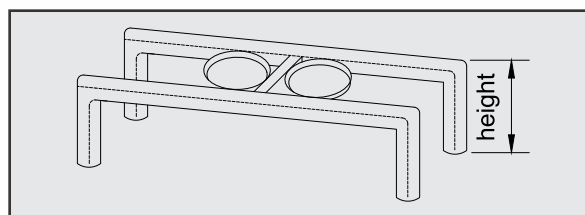
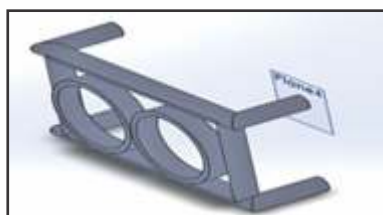
Volatile Matter (VM) Quartz Crucible with Lid are Designed to Determine the Volatile matter content of the substances (Coal/Coke). Quartz crucibles are used for research, experiments, chemical analysis, tests, quality control and education.



QUARTZ CRUCIBLES, PLUNGER, LID			
SR. NO	PRODUCT CODE	ITEMS	APPROX O.D × HEIGHT (mm)
1	QC025038	CRUCIBLE	25 × 38
2	QCP	PLUNGER	12.5
3	QCL	LID	As per design
All above items will be customised as per requirement			

VOLATILE MATTER (VM) QUARTZ HOLE STAND

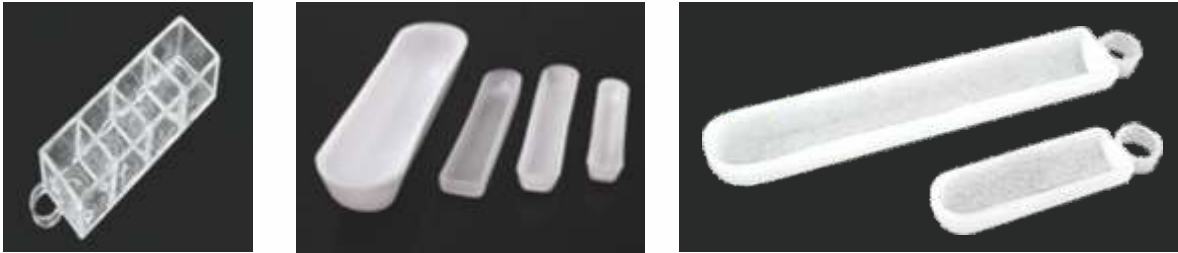
VM Stand are Designed to hold the substance (i.e. tube, Crucible). These Stands can be available in Milky & Translucent Form. VM stand are used in experiments, chemical analysis, tests, etc. VM Stand is Available in 2 hole, 4 hole, etc depending upon user's applications.



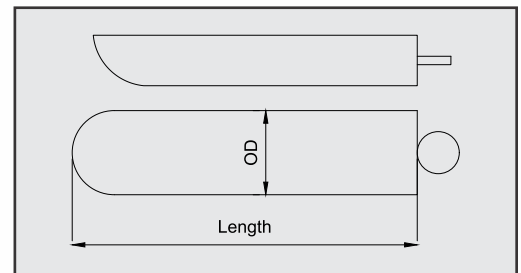
QUARTZ VOLATILE MATTER (VM) STAND			
SR.NO	PRODUCT CODE	TYPE	NOMINAL LENGTH (mm)
1	QVMS2	2 Holes	39
2	QVMS4	4 Holes	76
All above items will be customised as per requirement			

QUARTZ BOAT

Quartz Boat are Designed to hold the substance (i.e. tube, Crucible). These Stands can be available in Milky and Translucent Form. Quartz Boat are used in experiments, chemical analysis, tests, etc. Boats are Available in size 72mm, 88mm, etc depending upon user's applications.

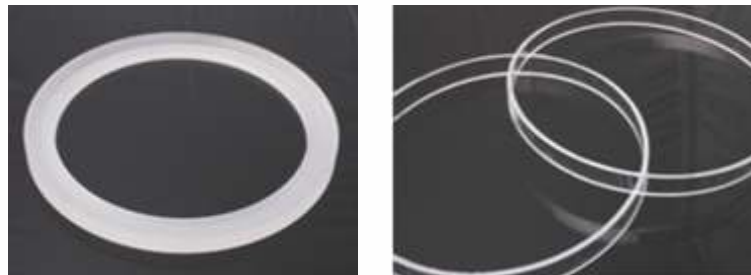


QUARTZ BOATS WITH HANDLE		
SR. NO	PRODUCT CODE	APPROX. O.D × LENGTH (mm)
1	QBT	12 × 77
2	QBT	12 × 120
All above items will be customised as per requirement		



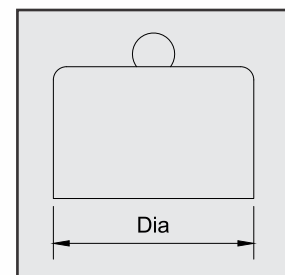
QUARTZ FLANGE

Quartz Flange are designed in such manner which will fix two end points of the tube. These flanges can be available in Milky and Translucent Form. Quartz flange is used in experiments, chemical analysis, tests, etc.



QUARTZ PLUNGER

Quartz Plunger are available in two forms Milky and transparent. These plunger are placed in sample parting tray and can be customized as per the needs of user's requirement.



QUARTZ ACCESSORIES FOR EXPERIMENTAL USE IN REACTOR & CONDENSER

Our quartz products which are produced in dust-free plant have typical characteristics of high purity, good temperature resistance, and long lifespan and so on. We offer Quartz products, such as quartz tube, quartz rod, quartz plate, quartz ground joints, quartz banger nail, quartz ball head, quartz boat, quartz flange, quartz crucible and quartz vertical furnaces, quartz tank etc. are essential to make silicon slice in the semiconductor

Description:

- It's made from natural quartz after the process of melting and fine grinding.
- It has high purity, heat resistance and corrosion resistance, also be low coefficient of thermal expansion.
- It contains no air bubble and controlled to the grade of PPM, has the great performance, such as high temperature proof, chemical stability, perfect insulation and transmittance, etc

GROUND FLANGE LIDS MADE OF QUARTZ GLASS



FUSED QUARTZ GLASS TUBE WITH FLANGE



QUARTZ GLASS FLANGES & QUARTZ TUBE WITH COLLAR



Material Key properties of Quartz Tube:

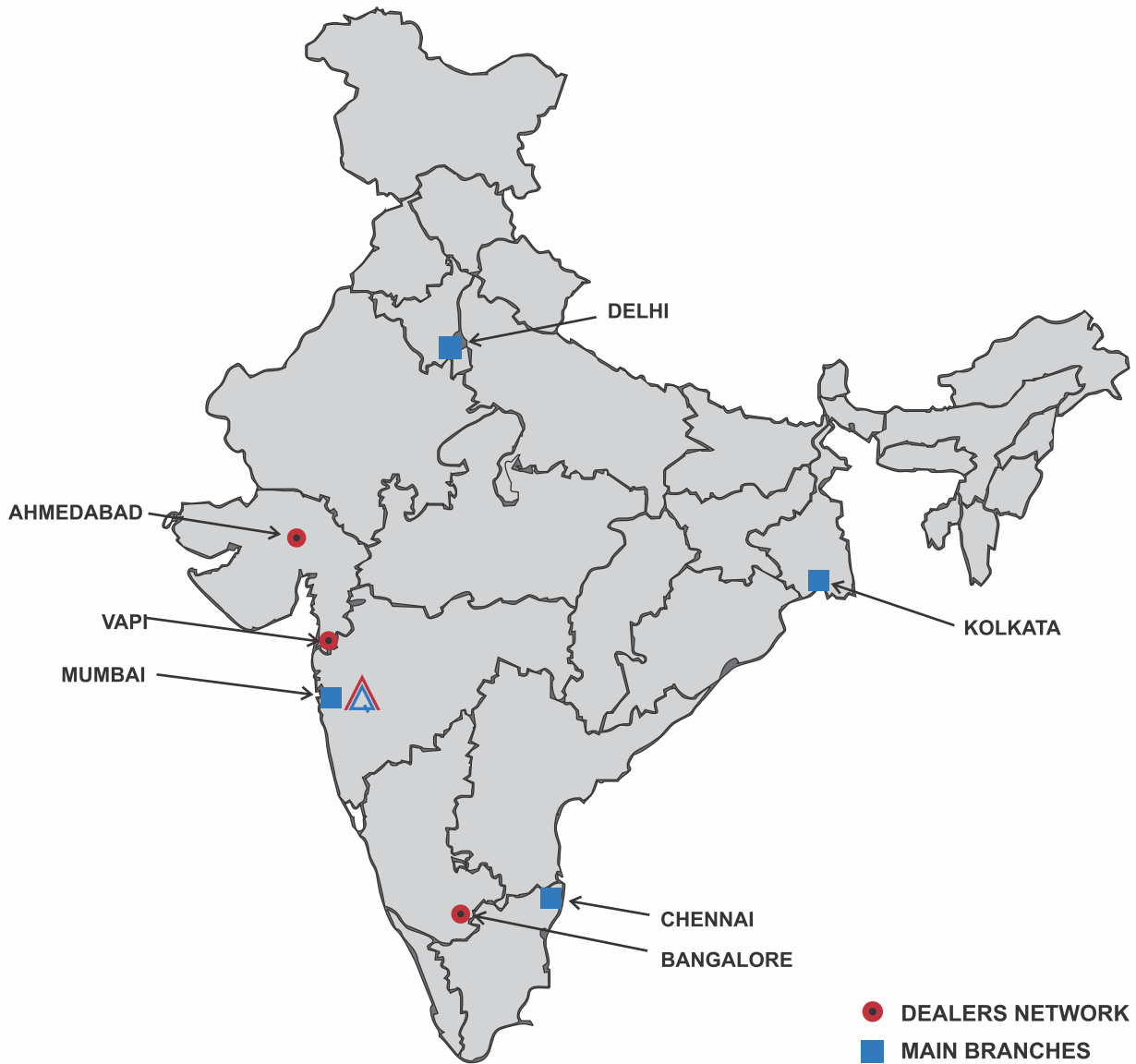
- Quartz materials: high purify quartz powder
- Purity: 99.99% SiO₂
- High Corrosion Resistance
- Transmission of visible light > 93%
- Working temperature: 1100°C in long time, 1450°C in short time

CLEAR QUARTZ BALL JOINT TUBE WITH BLASTING MOUTH



CORE REACTOR QUARTZ BANGER EVAN SHORE DOMELESS NAILS FEMALE MALE





APEX QUARTZ

Providing Customized Quartz Products

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