

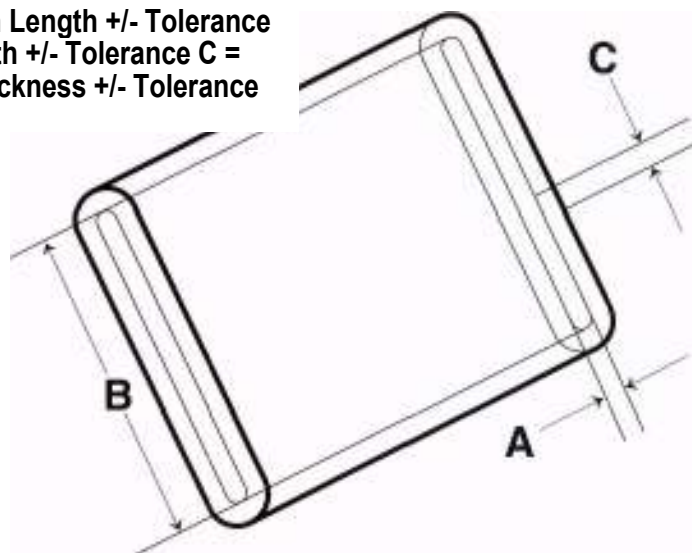
# VITROTUBES

## HOLLOW RECTANGLE CAPILLARIES

VitroCom fabricates a complete line of high quality Vitrotubes (Hollow Rectangle Capillaries) in Borosilicate and Synthetic Fused Silica glasses that can be drawn to various sizes. Vitrotubes provide the fastest, cleanest, most convenient method for collecting, viewing, and storing liquid samples. Capillary action instantly collects the sample and retains a precision optical path length while viewing at any angle, minimizing reflections and eliminating the need of a cover glass. Samples can be permanently retained for reference by fusing or cementing the open ends. Tolerances of +/-10% of inner dimensions are standard, but custom sizes with tighter tolerances are also available. With over 30 years experience in glass fabrication, state-of-the-art equipment, and a highly qualified staff of Engineers and Technicians, VitroCom is ready to meet your most demanding requirements or simply ship from our stock catalog items.



**A = Path Length +/- Tolerance**  
**B = Width +/- Tolerance**  
**C = Wall Thickness +/- Tolerance**



### VITROTUBES BOROSILICATE GLASS

CATALOG NUMBER	Inside Dimension In mm Path Length x Width	PIECES Per Vial
<b>50mm</b>		
5002	0.02 x 0.2	30
5003	0.03 x 0.3	33
5004	0.04 X 0.4	36
5005	0.05 X 0.5	44
5010	0.10x1.0	40
3520	0.20 X 2.0	36
3530	0.30 x 3.0	31
2540	0.40 X 4.0	28
<b>100mm</b>		
5002-100	0.02 x 0.2	30
5003-100	0.03 x 0.3	33
5004-100	0.04 x 0.4	36
5005-100	0.05x0.5	44
5010-100	0.10x1.0	40
3520-100	0.20 x 2.0	36
3530-100	0.30x3.0	31
2540-100	0.40 x 4.0	28
• Packed in Screw Cap Vials		
<b>100mm Long Only</b>		
4905-100	0.5x5.0	14
4806-100	0.6x6.0	12
4707-100	0.7x7.0	9
4608-100	0.8 X 8.0	7
4509-100	0.9x9.0	6
4410-100	1.0x10.0	4
• Open Ends Flame Polished • Packed in Screw Cap Vials		

### VITROTUBES BOROSILICATE GLASS EXTRA WIDE

CATALOG NUMBER	Inside Dimension In mm Path Length x Width	PIECES Per Vial
<b>50mm Extra Wide</b>		
W5005	0.05 x 1.0	50
W5010	0.10x2.0	45
W3520	0.20x4.0	36
W3530	0.30 x 6.0	24
W2540	0.40 X 8.0	18
<b>100mm Extra Wide</b>		
W5005-100	0.05 x 1.0	50
W5010-100	0.10x2.0	45
W3520-100	0.20 x 4.0	36
W3530-100	0.30x6.0	24
W2540-100	0.40 x 8.0	18
• Packed in Screw Cap Vials		

### VITROTUBES SYNTHETIC FUSED SILICA

CATALOG NUMBER	Inside Dimension In mm Path Length x Width
<b>50mm</b>	
5002S	0.02x0.2
5005S	0.05 x 0.5
5010S	0.10x1.0
3520S	0.20x2.0
3530S	0.30 X 3.0
<b>100mm</b>	
5002S-100	0.02 x 0.2
5005S-100	0.05x0.5
5010S-100	0.10x1.0
3520S-100	0.20x2.0
3530S-100	0.30x3.0
• Packed in Screw Cap Vials • Sold Individually, Not Per Vial	

# MICROCELLS

## HOLLOW SQUARE CAPILLARIES

VitroCom fabricates a complete line of high quality Microcells (Hollow Square Capillaries) in Borosilicate glass that can be drawn to various sizes. Microcells are precision square glass capillary tubes with flat, thin, parallel walls for viewing microscopic objects in two optical planes at right angles. Samples can be permanently retained for reference by fusing or cementing the open ends.

Tolerances of +/-10% of inner dimensions are standard, but custom sizes with tighter tolerances are also available. With over 30 years experience in glass fabrication, state-of-the-art equipment, and a highly qualified staff of Engineers and Technicians, VitroCom is ready to meet your most demanding requirements or simply ship from our stock catalog items.



## MICROCELLS BOROSILICATE GLASS

CATALOG NUMBER	SQUARE I.D. in mm	WALL THICKNESS	PIECES Per Vial
<b>50mm Long</b>			
8505	0.05	0.025	35
8508	0.08	0.040	35
8510	0.10	0.050	30
8320	0.20	0.100	30
8330	0.30	0.150	30
8240	0.40	0.200	27
8250	0.50	0.100	25
8260	0.60	0.120	25
8270	0.70	0.140	25
8280	0.80	0.160	23
8290	0.90	0.180	23
8100	1.00	0.200	22

• Packed in Screw Cap Vials • Stocked in 1,2, 3 and 4 foot lengths

<b>100mm Long</b>			
8505-100	0.05	0.025	35
8508-100	0.08	0.040	35
8510-100	0.10	0.050	30
8320-100	0.20	0.100	30
8330-100	0.30	0.150	30
8240-100	0.40	0.200	27
8250-100	0.50	0.100	25
8260-100	0.60	0.120	25
8270-100	0.70	0.140	25
8280-100	0.80	0.160	23
8290-100	0.90	0.180	23
8100-100	1.00	0.200	22

• Packed in Screw Cap Vials • Stocked in 1,2, 3 and 4 foot lengths

## RECTANGLE TUBING

VitroCom fabricates a complete line of high quality Rectangle Tubing in Borosilicate and Clear Fused Quartz glasses that can be drawn into various shapes and sizes per a customers' specification. Wall tolerances are typically +1-20% while inner dimension (ID) tolerances are held to much tighter specifications:

- 1mm +/-10%
- 1-3mm +/-6%
- 3-5mm +1-4%
- 5-20mm +1-2%
- 20mm+/-1%

Cells can also be fabricated from Rectangle Tubing by adding a flat bottom if sample type containers are required.

With over 30 years experience in glass fabrication, state-of-the-art equipment, and a highly qualified staff of Engineers and Technicians, VitroCom is ready to meet your most demanding requirements or simply ship from our stock catalog items.



## BOROSILICATE GLASS

CATALOG NUMBER	RECTANGLE I.D. mm	WALL mm
R0204	2x4	0.7
R0206	2x6	0.8
R0307	3x7	1.0
R0309	3x9	1.0
R0406	4x6	1.0
R0410	4 x 10	1.0
R0412	4 x 12	1.2
R0610	6 x 10	1.2
R0615	6 x 15	1.2
R0714	7 x 14	1.2
R0721	7x21	1.3
R0816	8 x 16	1.3
R0824	8 x 24	1.5
R1015	10x15	1.3
R1022	10x22	1.5
R1030	10x30	1.5
R1035	10x35	1.8
R1040	10x40	1.8
R1224	12x24	1.5
R1326	13x26	1.5
R1525	15x25	1.5
R1535	15x35	1.8
R1545	15x45	2.0
R2030	20x30	1.8

• Stocked in 1, 2, 3 and 4 foot lengths \* H= Heavier Wall

## BOROSILICATE GLASS

CATALOG NUMBER	RECTANGLE I.D. mm	WALL mm
R2040	20x40	2.0
R2050	20x50	2.0
R2652	26x52	2.0
R2675	26x75	2.2
R2675H	26x75	2.8
R3050	30x50	2.0
R3050H	30x50	2.5
R3575	35x75	2.5
R3575H	35x75	3.0
R4080	40x80	2.5
R4080H	40x80	3.0
R5075	50x75	2.5
R5075H	50x75	3.0

• Stocked in 1, 2, 3 and 4 foot lengths • H- Heavier Wall

## CLEAR FUSED QUARTZ

CATALOG NUMBER	SIZE I.D. mm
QR0204	2x4
QR0305	3x5
QR0307	3x7
QR0309	3x9
QR0406	4x6
QR0408	4x8
QR0507	5x7
QR0509	5x9
QR0608	6x8
QR0610	6 x 10
QR0709	7x9
QR071 1	7x11
QR0713	7x13
QR0812	8 x 12

• Standard wall thickness 1.3mm  
 • Available in .9mm wall • 1000°C continuous use • Non-Stock Items; Subject to Material Availability

## LARGE RATIO RECTANGLE TUBING

VitroCom fabricates a complete line of high quality Large Ratio Rectangle Tubing in Borosilicate glass with greater height to width ratio and tolerances of +/-10% of inner dimensions. With ratios greater than 1 to 10 you can achieve higher aspect ratios for microscopy analytical techniques. Smaller sizes of this tubing (see Vitrotubes) are ideal for microscopic work and are available in standard lengths of 50mm and 100mm. Cells can also be fabricated by adding a bottom to the existing Large Ratio Rectangle Tubing if sample type containers are required. With over 30 years experience in glass fabrication, state-of-the-art equipment, and a highly qualified staff of Engineers and Technicians, VitroCom is ready to meet your most demanding requirements or simply ship from our stock catalog items.



## BOROSILICATE GLASS

CATALOG NUMBER	RECTANGLE I.D. mm	WALL mm
RT5002	0.02 X 0.2	0.02
RT5003	0.03 x 0.3	0.03
RT5004	0.04 x 0.4	0.04
RT5005	0.05 x 0.5	0.05
RT5015	0.05x1.0	0.05
RT5010	0.10x1.0	0.10
RT5012	0.10x2.0	0.10
RT3520	0.2x2.0	0.20
RT3524	0.2x4.0	0.20
RT3530	0.3x3.0	0.30
RT3536	0.3x6.0	0.30
RT2540	0.4x4.0	0.40
RT2548	0.4x8.0	0.40
RT4905	0.5x5.0	0.30
RT4806	0.6x6.0	0.40
RT4707	0.7x7.0	0.46
RT4608	0.8x8.0	0.54
RT4509	0.9 x 9.0	0.60
RT4410	1.0x10	0.67
RT4410H	1.0x10	1.00
RT0115	1 x 15	1.10

• Stocked in 1, 2, 3 and 4 foot lengths • H= Heavier Wall

## BOROSILICATE GLASS

CATALOG NUMBER	RECTANGLE I.D. mm	WALL mm
RT0212	2x12	1.20
RT0220	2x20	1.30
RT0330	3x30	1.50
RT0350	3x50	2.00
RT0440	4x40	1.70
RT0550	5x50	2.00
RT0575	5x75	2.50

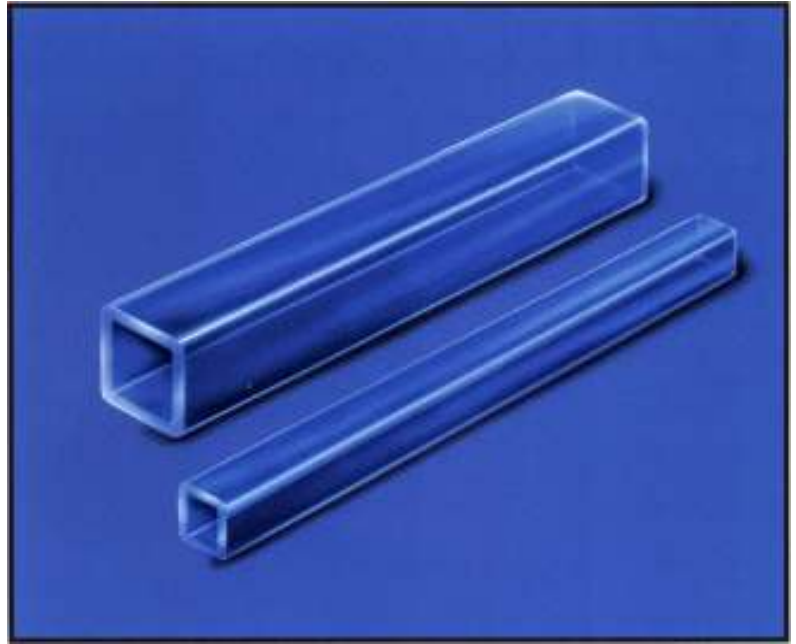
• Stocked in 1, 2, 3 and 4 foot lengths • H= Heavier Wall

## SQUARE TUBING

VitroCom fabricates a complete line of high quality Square Tubing in Borosilicate and Clear Fused Quartz glasses that can be drawn to various sizes. Wall tolerances are typically +1-20%, while inner dimension (ID) tolerances are held to much tighter specifications:

- 1mm +/-10%
- 1-3mm +/-6%
- 3-5mm +/-1%
- 5-20mm +1-2%
- 20mm +/-1 %

Cells can be fabricated from Square Tubing by adding a flat bottom if sample type containers are required. With over 30 years experience in glass fabrication, state-of-the-art equipment, and a highly qualified staff of Engineers and Technicians, VitroCom is ready to meet your most demanding requirements or simply ship from stock.



## BOROSILICATE GLASS

CATALOG NUMBER	SQUARE I.D. mm	WALL mm
ST8505	0.05	0.025
ST8508	0.08	0.040
ST8510	0.10	0.050
ST8320	0.20	0.100
ST8330	0.30	0.150
ST8240	0.40	0.200
ST8250	0.50	0.100
ST8260	0.60	0.120
ST8270	0.70	0.140
ST8280	0.80	0.160
ST8290	0.90	0.180
ST8100	1.00	0.200
S102	2.00	0.400
S103	3.00	0.500
S105	5.00	0.700
S106	6.00	0.800
S108	8.00	0.800
S108H	8.00	1.200
S110	10.00	0.900
S110H	10.00	1.500
S112	12.00	1.000
S112H	12.00	1.500
S113	13.00	1.000
S113H	13.00	1.500
S114	14.00	1.000
S114H	14.00	1.600
S116	16.00	1.100
S116H	16.00	1.600

• Stocked in 1, 2, 3 and 4 foot lengths • H= Heavier Wall

## BOROSILICATE GLASS

CATALOG NUMBER	SQUARE I.D. mm	WALL mm
S118	18.00	1.500
S120	20.00	1.500
S122	22.00	1.800
S125	25.00	1.800
S128	28.00	1.800
S130	30.00	1.800
S135	35.00	1.800
S140	40.00	2.000
S145	45.00	2.000
S151	51.00	2.200
S151H	51.00	2.800
S160	60.00	2.500
S160H	60.00	3.000
S170	70.00	2.500
S170H	70.00	3.000

• Stocked in 1, 2, 3 and 4 foot lengths • H= Heavier Wall

## CLEAR FUSED QUARTZ

CATALOG NUMBER	SQUARE I.D. mm	WALL mm
QS1005	0.5	0.25
QS101	1.0	0.50
QS102	2.0	0.75
QS103	3.0	0.75
QS104	4.0	1.30
QS105	5.0	1.30
QS106	6.0	1.30
QS107	7.0	1.30
QS108	8.0	1.30
QS109	9.0	1.30
QS110	10.0	1.30
QS112	12.0	1.30
QS113	13.0	1.30
QS114	14.0	1.30

• Non-Stock Items; Subject to Material Availability

## SQUARE AND RECTANGLE CELLS

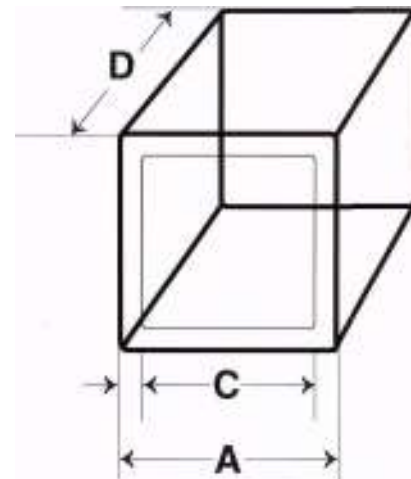
VitroCom fabricates a complete line of high quality Square and Rectangle Cells in Borosilicate and Clear Fused Quartz glasses from our high quality Square and Rectangle Tubing. The same exacting tolerances that are used in the manufacture of these tubings are inherent in Square and Rectangle Cells. These clear glass sample containers have a fused flat bottom and a fire polished open end and are used where high temperature, high purity work, and transmission of U.V. are required. With over 30 years experience in glass fabrication, state-of-the-art equipment, and a highly qualified staff of Engineers and Technicians, VitroCom is ready to meet your most demanding requirements or simply ship from our stock catalog items.



## BOROSILICATE GLASS

CATALOG NUMBER	SIZE I.D. mm	HEIGHT mm
<b>SQUARE CELLS</b>		
CS103	3x3	48
CS105	5x5	48
CS108	8x8	48
CS110	10x10	48
CS112	12x12	48
CS118	18x18	60
CS120	20x20	60
CS125	25x25	60
CS130	30x30	60
CS135	35x35	60
CS140	40x40	60
<b>RECTANGLE CELLS</b>		
CRT4410	1 x 10	48
CRT0220	2 x 20	48
CR0204	2x4	48
CR0206	2x6	48
CR0307	3x7	48
CR0309	3x9	48
CR0406	4x6	48
CR0410	4x10	48
CR0412	4 x 12	48
CR0610	6 x 10	48
CR0714	7 x 14	48
CR0721	7x21	48
CR1022	10x22	60
CR1030	10x30	60
CR1040	10x40	60
CR1326	13x26	60
CR2040	20x40	60
CR2652	26x52	60

• Flat Bottom Fused • Open Top Fire Polished



## CLEAR FUSED QUARTZ

CATALOG NUMBER	SIZE I.D. mm	HEIGHT mm
<b>SQUARE CELLS</b>		
CQS103	3x3	48
CQS105	5x5	48
CQS108	8x8	48
CQS110	10x10	48
CQS112	12x12	48
CQS114	14x14	60
<b>RECTANGLE CELLS</b>		
CQR0307	3x7	48
CQR0610	6x10	48
CQR0713	7x13	48

• Non-Stock Items; Subject to Material Availability

## ROUND CAPILLARY TUBING

VitroCom fabricates a complete line of high quality Round Capillary Tubing in Borosilicate, Clear Fused Quartz, and Synthetic Fused Silica glasses. These tubings are available in 100mm lengths, with both ends open and polished, and packed in convenient plastic vials for easy handling and storage. Tolerances of +/-10% of inner diameters (ID) are standard, but custom sizes with tighter tolerances are also available. With over 30 years experience in glass fabrication, state-of-the-art equipment, and a highly qualified staff of Engineers and Technicians, VitroCom is ready to meet your most demanding requirements or simply ship from our stock catalog items.



## BOROSILICATE GLASS

CATALOG NUMBER	I.D. mm	O.D. mm	PIECES Per Vial
CV0508	0.05	0.08	100
CV1017	0.10	0.17	100
CV1525	0.15	0.25	100
CV2033	0.20	0.33	100
CV3040	0.30	0.40	75
CV4055	0.40	0.55	75
CV5070	0.50	0.70	75
CV6084	0.60	0.84	75
CV7087	0.70	0.87	50
CV8010	0.80	1.00	50
CV9011	0.90	1.10	50
CV1012	1.00	1.20	25
CV1518	1.50	1.80	25
CV2024	2.00	2.40	25

• Each Piece 100mm Long, Both Ends Open • Packed In Plastic Vials

## CLEAR FUSED QUARTZ

CATALOG NUMBER	I.D. mm	O.D. mm	PIECES Per Vial
CV0508Q	0.05	0.08	100
CV1017Q	0.10	0.17	100
CV1525Q	0.15	0.25	100
CV2033Q	0.20	0.33	100
CV3040Q	0.30	0.40	75
CV4055Q	0.40	0.55	75
CV5070Q	0.50	0.70	75
CV6084Q	0.60	0.84	75
CV7087Q	0.70	0.87	50
CV8010Q	0.80	1.00	50
CV9011Q	0.90	1.10	50
CV1012Q	1.00	1.20	25
CV1518Q	1.50	1.80	25
CV2024Q	2.00	2.40	25

• Each Piece 100mm Long, Both Ends Open • Packed In Plastic Vials

## SYNTHETIC FUSED SILICA

CATALOG NUMBER	I.D. mm	O.D. mm	PIECES Per Vial
CV0508S	0.05	0.08	100
CV1017S	0.10	0.17	100
CV1525S	0.15	0.25	100
CV2033S	0.20	0.33	100
CV3040S	0.30	0.40	75
CV4055S	0.40	0.55	75
CV5070S	0.50	0.70	75
CV6084S	0.60	0.84	75
CV7087S	0.70	0.87	50
CV8010S	0.80	1.00	50
CV9011S	0.90	1.10	50
CV1012S	1.00	1.20	25
CV1518S	1.50	1.80	25
CV2024S	2.00	2.40	25

• Each Piece 100mm Long, Both Ends Open • Packed In Plastic Vials

## HEAVY WALL CAPILLARY TUBING

VitroCom fabricates a complete line of high quality Heavy Wall Capillary Tubing in Borosilicate glass which has application as a clear, precision instrumentation tubing. A complete range of inner diameters (ID) from 0.025mm(0.001") to 0.508mm(0.20") with outside diameters(OD) of 3,4,5.5, and 6.4mm are available from stock. Custom fabricated sizes are available upon request. With over 30 years experience in glass fabrication, state-of-the-art equipment, and a highly qualified staff of Engineers and Technicians, VitroCom is ready to meet your most demanding requirements or simply ship from our stock catalog items.

## CAPILLARY TUBING HEAVY WALL BOROSILICATE GLASS



CATALOG NUMBER	INSIDE DIAMETER		TOLERANCE Plus or Minus	
	INCHES	mm	INCHES	mm
HWC001-'	0.001	0.025	0.0002	0.0051
HWC002-'	0.002	0.051	0.0002	0.0051
HWC003-'	0.003	0.076	0.0003	0.0076
HWC004-"	0.004	0.102	0.0003	0.0076
HWC005-'	0.005	0.127	0.0005	0.0127
HWC006-'	0.006	0.152	0.0005	0.0127
HWC007-'	0.007	0.178	0.0005	0.0127
HWC008-'	0.008	0.203	0.0005	0.0127
HWC009-'	0.009	0.229	0.0005	0.0127
HWC010-'	0.010	0.254	0.0005	0.0127
HWC011-'	0.011	0.279	0.0007	0.0178
HWC012-'	0.012	0.305	0.0007	0.0178
HWC013-"	0.013	0.330	0.0008	0.0203
HWC014-"	0.014	0.356	0.0008	0.0203
HWC015-'	0.015	0.381	0.0008	0.0203
HWC016-'	0.016	0.406	0.0010	0.0254
HWC017-'	0.017	0.432	0.0010	0.0254
HWC018-'	0.018	0.457	0.0010	0.0254
HWC019-'	0.019	0.483	0.0010	0.0254
HWC020-'	0.020	0.508	0.0010	0.0254

\* Stocked In 1, 2, 3 and 4 Foot Lengths

The ABOVE INSIDE DIAMETERS are available with the following outside diameters as stock sizes.

O.D. mm	O.D. TOLERANCE mm
3.0	+/-0.127
4.0	+/- 0.203
5.5	+/- 0.254
6.4	+ 0.000 - 0.460

\* Indicate Catalog Number-3, -4, -55, or -64 for O.D.