

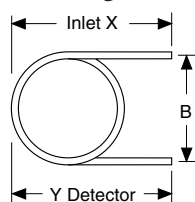
Glass Columns (All Glass Columns are Silane Treated)

To simplify ordering a packed column use the empty column catalog number and describe the packing.

Unless otherwise specified, all columns are ¼" O.D. borosilicate glass and silane treated.

All packed columns are supplied with ¼" brass swagelok nuts and high temperature flexible graphite ferrules.

- Stock — immediate shipment.
- Each column packaged in individual boxes for easy and safe storage.
- One piece construction (lengths 6 feet & under)
- Made to exact tolerances. Constant I.D. and length insure reproducible chromatograms from column to column.
- DMCS silane treated.
- Packed columns supplied with high temperature graphite ferrules.



Key to Dimensions for Glass Columns
Measure "B"
(center to center)

At right you will find the "Key to Dimensions for Glass Columns." Please make measurements on the column you are replacing and choose a comparably sized column from the table.

Special Surcharges Apply For:

Carbopack/Graphpac
Chromosorb Century Series
Deactigel
Dexsil packing
Durapaks, Ultrabond
Granular Carbon Mole Sieves
OV®-275, OV®-330, OV®-1701, packing
Pennwalt Amine packing
Poly, Poly MPE, Polyser
Porapaks, Porasils, HayeSep
Silar packings
Tenax
Double Coated packings
Stainless Steel nuts
Graphite/Polyimide Ferrules
Preconditioning

Precise column length and precise I.D. guarantees improved reproducibility

Variation in column length and I.D. can cause substantial variation in retention times for the same analysis. Different instrument manufacturer specifications for a typical 6 foot column may actually yield a column length that is longer or shorter than 6 feet. In addition, I.D. tolerances for glass tubing may also vary from lot to lot and from one manufacturer to

another. Metric Columns are a solution to this problem. Produced to a precise column length ($\pm 1.5\%$) with an I.D. variation of ($\pm 0.0025"$) for 2 mm I.D. and ($\pm .005"$) for 4 mm I.D. columns, these columns are guaranteed to improve column to column reproducibility.

Configuration	X Y B	Instrument	Dimensions			Catalog Number
			L	O.D.	I.D.	
	X=11.02"	Agilent, Hewlett-Packard 5880, 5890, 5987, 6890, Configuration "A"	2'	¼"	2mm	220-022
			2'	¼"	4mm	220-024
			4'	¼"	4mm	220-044
	Y=9.05"		6'	¼"	2mm	220-062
			6'	¼"	4mm	220-064
			8'	¼"	2mm	220-082
			10'	¼"	2mm	220-102
			2.0m	¼"	2mm	220-2M2
			2.0m	¼"	4mm	220-2M4
			2.4m	¼"	2mm	220-2.4M2
	X=11.02"	Agilent, Hewlett-Packard 5880 Configuration "B" TCD only	2'	¼"	2mm	221-022
			6'	¼"	2mm	221-062
	Y=7.09"		6'	¼"	4mm	221-064
			B=9"			

* For column lengths that are not listed refer to page 15, Custom-made Glass Columns

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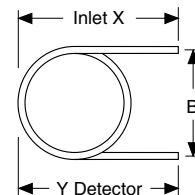
Glass Columns (All Glass Columns are Silane Treated)

Configuration	X Y B	Instrument	Dimensions			Catalog Number
			L	O.D.	I.D.	
	X=8 $\frac{5}{8}$ " Y=8 $\frac{5}{8}$ " B=8 $\frac{3}{4}$ "	Perkin-Elmer 115, 900, 990, F-30, 2000, 2100, 3920, Sigma Series Not On-Column Injection	2'	$\frac{1}{4}$ "	2mm	222-022
			3'	$\frac{1}{4}$ "	2mm	222-032
			3'	$\frac{1}{4}$ "	4mm	222-034
			6'	$\frac{1}{4}$ "	2mm	222-062
			6'	$\frac{1}{4}$ "	4mm	222-064
			8'	$\frac{1}{4}$ "	2mm	222-082
10'	$\frac{1}{4}$ "	2mm	222-102			
2.0m	$\frac{1}{4}$ "	2mm	222-2M2			
2.0m	$\frac{1}{4}$ "	4mm	222-2M4			
	X=12 $\frac{5}{8}$ " Y=7 $\frac{1}{8}$ " B=8 $\frac{3}{4}$ "	Perkin-Elmer Sigma Series Heated On-Column Injection Position "A" Only	3'	$\frac{1}{4}$ "	2mm	223-032
			6'	$\frac{1}{4}$ "	2mm	223-062
			6'	$\frac{1}{4}$ "	4mm	223-064
			2.0m	$\frac{1}{4}$ "	2mm	223-2M2
			2.0m	$\frac{1}{4}$ "	4mm	223-2M4
2.4m	$\frac{1}{4}$ "	2mm	223-2.4M2			
	X=6 $\frac{13}{16}$ " Y=6 $\frac{13}{16}$ " B=6 $\frac{1}{2}$ "	Perkin-Elmer 8300, 8400, 8500, 8600, 8700 Series, Autosystem Not On-Column Injection	6'	$\frac{1}{4}$ "	2mm	226-062
			6'	$\frac{1}{4}$ "	4mm	226-064
			10'	$\frac{1}{4}$ "	2mm	226-102
			10'	$\frac{1}{4}$ "	4mm	226-104
			2.0m	$\frac{1}{4}$ "	2mm	226-2M2
2.0m	$\frac{1}{4}$ "	4mm	226-2M4			
	X=12" Y=6 $\frac{3}{16}$ " B=6 $\frac{1}{2}$ "	Perkin-Elmer Autosystem 8300, 8400, 8500, 8600, 8700 Series On-Column Injection	6'	$\frac{1}{4}$ "	2mm	227-062
			6'	$\frac{1}{4}$ "	4mm	227-064
			10'	$\frac{1}{4}$ "	2mm	227-102
			10'	$\frac{1}{4}$ "	4mm	227-104
			2.0m	$\frac{1}{4}$ "	2mm	227-2M2
2.0m	$\frac{1}{4}$ "	4mm	227-2M4			
	X=355mm Y=282mm B=40mm	Shimadzu GC-4BM, 4CM, 4MG, GC-6A, 6AM, GC-7AG, 7A, 9A, GC-R1A, 14A, 15A, 16A	1.7m	5mm	3mm	284-1.7M3
			2.5m	5mm	3mm	284-2.5M3
	X=190mm Y=142mm B=120mm	Shimadzu Mini-GC	3'	5mm	3mm	285-033
			6'	5mm	3mm	285-063
	X=229mm Y=229mm B=152mm	Shimadzu GC-8A 81F	1.5m	5mm	3mm	286-1.5M3
			2.0m	5mm	3mm	286-2.0M3
			3.0m	5mm	3mm	286-3.0M3
	X=8" Y=8" B=6"	Tracor 540, 560, 565, 570	3'	$\frac{1}{4}$ "	2mm	233-032
			6'	$\frac{1}{4}$ "	2mm	233-062
			6'	$\frac{1}{4}$ "	4mm	233-064
			8'	$\frac{1}{4}$ "	2mm	233-082
			10'	$\frac{1}{4}$ "	2mm	233-102
			2.0m	$\frac{1}{4}$ "	2mm	233-2M2
			2.0m	$\frac{1}{4}$ "	4mm	233-2M4
			2.4m	$\frac{1}{4}$ "	2mm	233-2.4M2

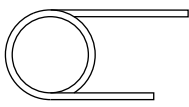
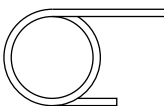
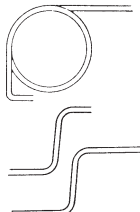
* For column lengths that are not listed refer to page 15, Custom-made Glass Columns

At right you will find the "Key to Dimensions for Glass Columns." Please make measurements on the column you are replacing and choose a comparably sized column from the table.

**Key to Dimensions
for Glass Columns**
Measure "B"
(center to center)



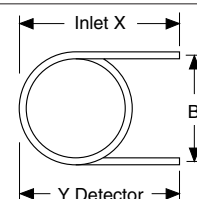
Glass Columns (All Glass Columns are Silane Treated)

Configuration	X Y B	Instrument	Dimensions			Catalog Number	
			L	O.D.	I.D.		
	X=9 $\frac{9}{16}$ "	Varian 3700, 4400, 4600, 6000 Vista Series FID, ECD, TSD	2'	¼"	2mm	248-022	
			3'	¼"	2mm	248-032	
			3'	¼"	4mm	248-034	
			4'	¼"	2mm	248-042	
			6'	¼"	2mm	248-062	
			6'	¼"	4mm	248-064	
	Y=8"	B=5½"		8'	¼"	2mm	248-082
				10'	¼"	2mm	248-102
				10'	¼"	4mm	248-104
				2.0m	¼"	2mm	248-2M2
				2.0m	¼"	4mm	248-2M4
				2.4m	¼"	2mm	248-2.4M2
	X=9½"	Varian 3800	6'	¼"	2mm	250-062	
	Y=5½"		6'	¼"	4mm	250-064	
	B=5½"						
	X=9¼"	Varian Universal 3000, 3300, 3400, 3600, 3700, 4400, 4600, 6000, Vista Series	6'	¼"	2mm	252-062	
	Y=5 $\frac{7}{8}$ "		6'	¼"	4mm	252-064	
	B=9"		Two adapters, one long and one short, are supplied with the column. A special bored-through union is required to join the column and the adapter. This union is not supplied with the column. For this union, order part number B-6BT (each).				

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Measure "B"
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Custom-made Glass Columns

If you cannot find the column you need listed in our Glass Column section (pages 13-15), please call our Sales Department at **1-800-729-6872**.