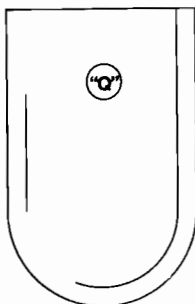


QJ-1000 BELL JAR

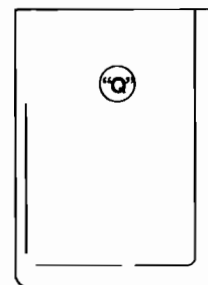
Sturdy, round bottom jars with the rim ground flat for a tight seal.



OD x Length MM	OD x Length Inches	Code
140 x 305	5 1/2 x 12	-110
150 x 305	6 x 12	-111
150 x 457	6 x 18	-112
150 x 610	6 x 24	-113
260 x 305	10 1/4 x 12	-114
260 x 457	10 1/4 x 18	-115
260 x 610	10 1/4 x 24	-116
260 x 762	10 1/4 x 30	-117
318 x 305	12 1/2 x 12	-118
318 x 457	12 1/2 x 18	-119
318 x 610	12 1/2 x 24	-120
318 x 762	12 1/2 x 30	-121
390 x 305	15 3/8 x 12	-122
390 x 457	15 3/8 x 18	-123
390 x 762	15 3/8 x 30	-124
457 x 305	18 x 12	-125
457 x 457	18 x 18	-126
457 x 762	18 x 30	-127

QJ-1020 JAR CYLINDRICAL, FLAT

Sturdy, flat bottom jars with flat rim. 150MM OD rims are fire polished. All other sizes are ground.

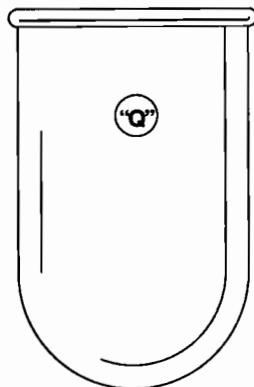


OD x Length MM	OD x Length Inches	Code
150 x 150	6 x 6	-110
150 x 305	6 x 12	-111
150 x 457	6 x 18	-112
222 x 254	8 3/4 x 10	-113
222 x 457	8 3/4 x 18	-114
257 x 254	10 1/8 x 10	-115
305 x 305	12 x 12	-116
305 x 457	12 x 18	-117
305 x 610	12 x 24	-118
406 x 305	16 x 12	-119

Note: All jars are available in other sizes through "Q" Glass. Please call with your requirements.

QJ-1010 BELL JAR

Sturdy, round bottom jars with tooled flanges ground flat for a tight seal.



OD x Length, MM	Code
140 x 230	-110
165 x 280	-111
222 x 380	-112
318 x 405	-113
390 x 505	-114
457 x 660	-115

REMEMBER

"Q" Glass has been working with customers to design and build custom glass apparatus and component parts since 1946. We can do the same for you. Please write or call us with your special requirements.

QJ-1025 JOINT INNER

Ground, standard taper, full length.

Joint size	Tubing OD	Code	Joint size	Tubing OD	Code
7/25	7	-110	40/50	38	-218
10/30	8	-111	45/50	41	-219
12/30	10	-112	50/50	48	-220
14/35	12	-113	55/50	51	-221
19/38	17	-114	60/50	57	-222
24/40	22	-115	71/60	64	-223
29/42	28	-116	103/60	100	-224
34/45	32	-117			

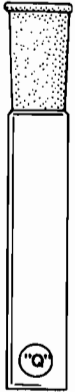


JOINTS

QJ-1030 JOINT, OUTER

Ground, standard taper, full length.

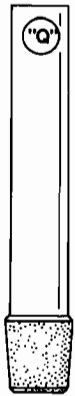
Joint size	Tubing OD	Code	Joint size	Tubing OD	Code
7/25	10	-110	40/50	45	-218
10/30	14	-111	45/50	48	-219
12/30	16	-112	50/50	54	-220
14/35	18	-113	55/50	60	-221
19/38	22	-114	60/50	64	-222
24/40	28	-115	71/60	75	-223
29/42	32	-116	103/60	110	-224
34/45	38	-117			



QJ-1035 JOINT, INNER

Ground, standard taper, medium length.

Joint size	Tubing OD	Code	Joint size	Tubing OD	Code
5/12	5	-110	19/22	17	-215
7/15	7	-111	24/25	22	-216
10/18	8	-112	29/26	28	-217
12/18	10	-113	34/28	32	-218
14/20	12	-114	40/35	38	-219



QJ-1040 JOINT, OUTER

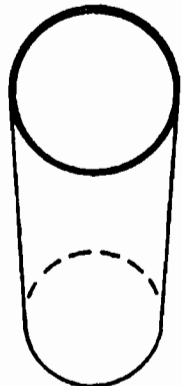
Ground, standard taper, medium length.

Joint size	Tubing OD	Code	Joint size	Tubing OD	Code
5/12	8	-110	19/22	22	-215
7/15	10	-111	24/25	28	-216
10/18	14	-112	29/26	32	-217
12/18	16	-113	34/28	38	-218
14/20	18	-114	40/35	45	-219



QJ-1045 TEFLON SLEEVE For use with ground joints on greaseless connections to prevent sticking. Sleeves are 5 mil thick. Available for medium and full length joints.

Full Length				Medium Length			
Joint size	Code	Joint size	Code	Joint size	Code	Joint size	Code
7/25	-110	40/50	-218	7/15	-325	24/25	-430
10/30	-111	45/50	-219	10/18	-326	29/26	-431
12/30	-112	50/50	-220	12/18	-327	34/28	-432
14/35	-113	55/50	-221	14/20	-328	40/35	-433
19/38	-114	60/50	-222	19/22	-329		
24/40	-115	71/60	-223				
29/42	-116	103/60	-224				
34/45	-117						



JOINTS

QJ-1050 JOINT, INNER

Joint is tooled with two O ring grooves on the tapered portion to form a grease free high vacuum connection. Supplied complete with two Viton O rings. Use with QJ-1060 only, not interchangeable with ground outer joints.

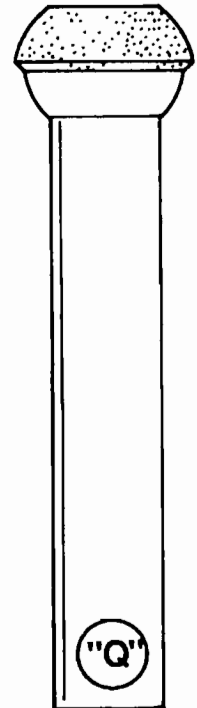
Joint size	Tubing OD	O Ring Size		Code
		Top	Bottom	
14/35	12	109	108	-110
24/40	22	116	115	-111
29/42	28	118	117	-112



QJ-1080 JOINT, SPHERICAL

Ball joint, offers flexibility in apparatus assemblies, but still provides a vacuum tight connection. For clamps see QC-2001.

Joint size	Tubing OD	Clamp Size	Code
12/1	7	12	-110
12/2	8	12	-111
12/5	8	12	-112
18/7	10	18	-113
18/9	12	18	-114
28/12	16	28	-115
28/15	19	28	-116
35/20	22	35	-117
35/25	28	35	-118
40/25	28	40	-119
50/30	35	50	-120
65/40	45	65	-121
75/50	58	75	-122
102/75	80	102	-123



QJ-1060 JOINT, OUTER

For use with QJ-1050, double O ring joints only, to provide a grease free high vacuum connection. Not interchangeable with ground inner joints.

Joint size	Tubing OD	Code
14/35	18	-110
24/40	28	-111
29/42	32	-112



QJ-1070 JOINT, INNER, DRIP TIP

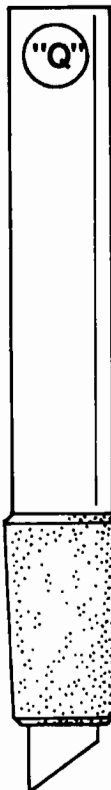
Medium or full length drip tip.

Full Length

Joint size	Tubing OD	Code
10/30	8	-110
12/30	10	-111
14/35	12	-112
19/38	17	-113
24/40	22	-114
29/42	28	-115
34/45	32	-116
45/50	41	-117
50/50	48	-118
55/50	51	-119
71/60	64	-120

Medium Length

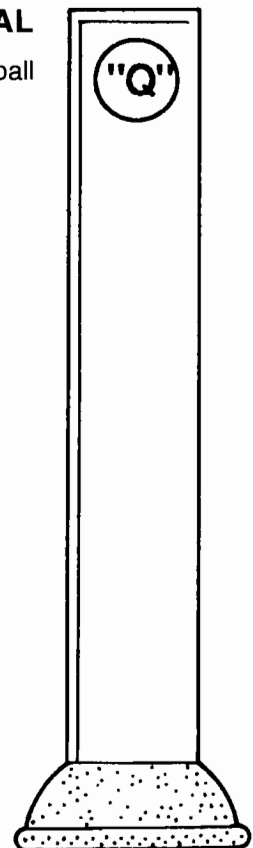
Joint size	Tubing OD	Code
14/20	12	-221
19/22	17	-222



QJ-1090 JOINT, SPHERICAL

Socket joint to use with QJ-1080 ball joints. For clamps see QC-2001.

Joint size	Tubing OD	Clamp Size	Code
12/1	7	12	-110
12/2	8	12	-111
12/5	8	12	-112
18/7	10	18	-113
18/9	12	18	-114
28/12	16	28	-115
28/15	19	28	-116
35/20	22	35	-117
35/25	28	35	-118
40/25	28	40	-119
50/30	35	50	-120
65/40	45	65	-121
75/50	58	75	-122
102/75	80	102	-123

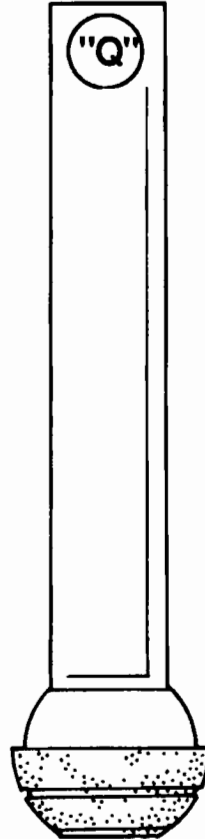


JOINTS

QJ-2000 JOINT SPHERICAL, O RING

Ball joint with O ring at the middle of ground section to allow a flexible, grease free connection when used with QJ-2005 polished socket joints. For clamps see QC-2001.

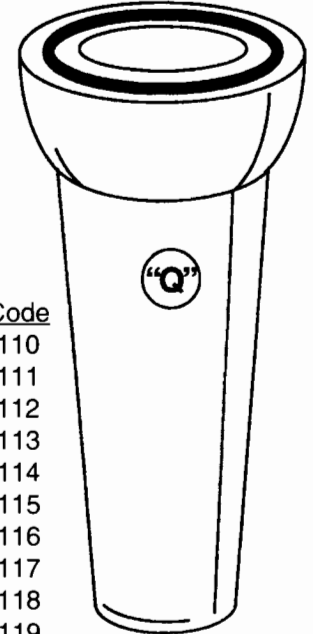
Joint Size	Tubing OD	Clamp Size	Code
12/5	8	12	-110
18/7	10	18	-111
18/9	12	18	-112
28/12	19	28	-113
28/15	22	28	-114
35/20	22	35	-115
35/25	28	35	-116
50/30	35	50	-117
65/40	45	65	-118
75/50	58	75	-119
102/75	80	102	-120



QJ-2010 JOINT O RING SEAL

Tooled with a groove to accept an O ring and provide a greaseless high vacuum connection. For clamps see QC-2001.

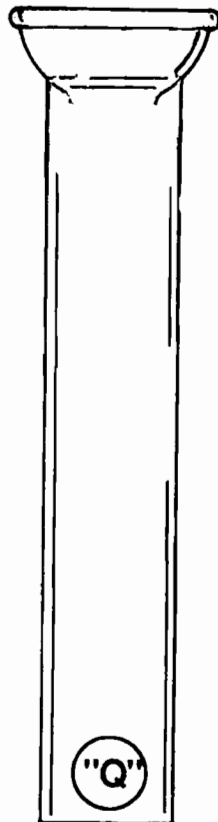
ID MM	OD MM	Clamp Size	O Ring Size	Code
5	8	12	110	-110
7	10	18	111	-111
9	12	18	112	-112
12	16	28	116	-113
15	20	28	116	-114
20	25	35	214	-115
25	30	35	217	-116
30	35	50	223	-117
40	45	65	226	-118
50	58	75	229	-119
75	80	102	341	-120



QJ-2005 JOINT SPHERICAL, POLISHED

Socket joint for use with QJ-2000 ball joints under high vacuum conditions. But Not interchangeable with standard ball joints. For clamps see QC-2001.

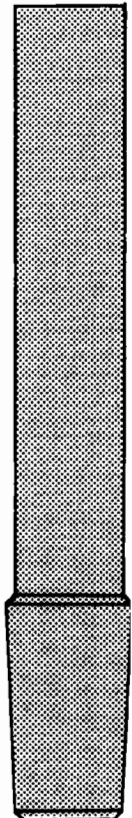
Joint Size	Tubing OD	Clamp Size	Code
12/5	8	12	-110
18/9	12	18	-111
28/12	16	28	-112
28/15	19	28	-113
35/20	22	35	-114
35/25	28	35	-115
50/30	35	50	-116
65/40	45	65	-117
75/50	58	75	-118
102/75	80	102	-119



QJ-2030 JOINT INNER, STAINLESS STEEL

Full length, standard taper joint available in type 303 and 316 stainless. For clamps see QC-2002.

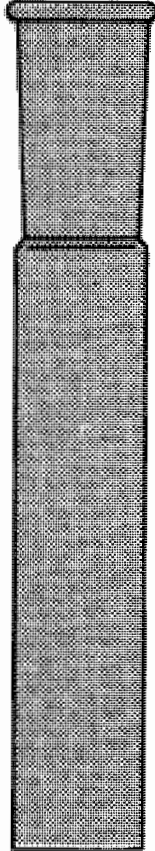
Joint Size	Stainless Type	
	303 Code	316 Code
10/30	-110	-218
12/30	-111	-219
14/35	-112	-220
19/38	-113	-221
24/40	-114	-222
29/42	-115	-223
34/45	-116	-224
45/50	-117	-225



QJ-2040 JOINT OUTER, STAINLESS STEEL

Full length, standard taper joint available in type 303 and 316 stainless. For clamps see QC-2002.

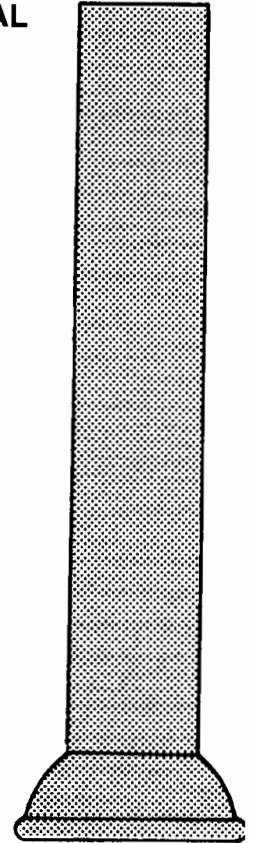
Joint Size	Stainless Type	
	303 Code	316 Code
10/30	-110	-218
12/30	-111	-219
14/35	-112	-220
19/38	-113	-221
24/40	-114	-222
29/42	-115	-223
34/45	-116	-224
45/50	-117	-225



QJ-2060 JOINT, SPHERICAL STAINLESS STEEL

Socket joint available in type 303 and 316 stainless steel. For clamps see QC-2001.

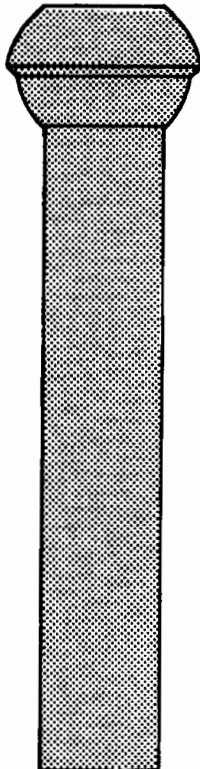
Joint Size	Clamp Size	Stainless Type	
		303 Code	316 Code
12/5	12	-110	-219
18/7	18	-111	-220
18/9	18	-112	-221
28/12	28	-113	-222
28/15	28	-114	-223
35/20	35	-115	-224
35/25	35	-116	-225
50/30	50	-117	-226
65/40	65	-118	-227



QJ-2050 JOINT, SPHERICAL STAINLESS STEEL

Ball joint available in type 303 and 316 stainless steel. For clamps see QC-2001.

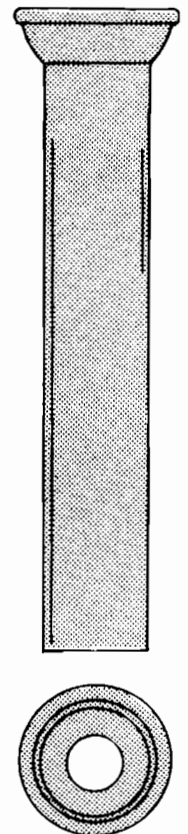
Joint Size	Clamp Size	Stainless Type	
		303 Code	316 Code
12/5	12	-110	-219
18/7	18	-111	-220
18/9	18	-112	-221
28/12	28	-113	-222
28/15	28	-114	-223
35/20	35	-115	-224
35/25	35	-116	-225
50/30	50	-117	-226
65/40	65	-118	-227



QJ-2070 JOINT, O RING STAINLESS STEEL

Available in type 303 and 316 stainless steel. For clamps see QC-2001.

ID MM	Clamp Size	O Ring Size	Stainless Type	
			303 Code	316 Code
5	12	110	-110	-220
7	18	111	-111	-221
9	18	112	-112	-222
15	28	116	-113	-223
20	35	214	-114	-224
25	35	217	-115	-225
30	50	223	-116	-226
40	65	226	-117	-227
50	75	229	-118	-228
75	102	341	-119	-229

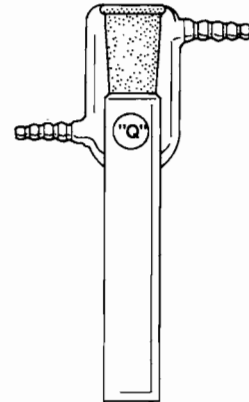


JOINTS

QJ-2080 JOINT, OUTER, JACKETED

Standard taper outer joint fully jacketed with inlet and outlet hose connections.

Joint Size	Code
10/30	-110
12/30	-111
14/35	-112
19/38	-113
24/40	-114
29/42	-115
34/45	-116
45/50	-117



QJ-2090 O RINGS

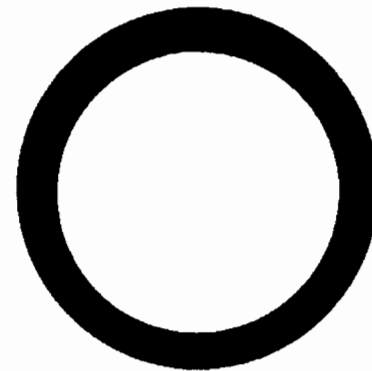
Available in Buna-N and Viton.

Buna-N (Acrylonitrile-Butadiene Copolymer) Buna-N O rings are stocked in black 75 durometer. Suitable for use with aromatic hydrocarbons, dilute acids and bases. Has an excellent compression set, tear and abrasion resistance. Buna-N has a useful temperature range of -50 to 120° C.

Viton (Vinylidene Fluoride-Hexafluoropropylene) Viton O rings are stocked brown 75 durometer. Suitable for acids, aliphatic hydrocarbons, oxidizing agents and all petroleum products. Viton has a low compression set and high temperature resistance. Viton is especially good for vacuum service and low gas permeability. Viton has a useful temperature range of -30 to 200° C.

O rings other than those listed here such as teflon, silicone, neoprene, etc. are available. Please call "Q" Glass with any of your O ring requirements.

O Ring Size	Dimensions, MM ID x Width	Quantity Per Pkg.	Buna-N Code	Viton Code
006	2.9 x 1.78	12	-110	-248
007	3.7 x 1.78	12	-111	-249
008	4.5 x 1.78	12	-112	-250
009	5.3 x 1.78	12	-113	-251
010	6.1 x 1.78	12	-114	-252
011	7.6 x 1.78	12	-115	-253
107	5.2 x 2.62	12	-116	-254
108	6.0 x 2.62	12	-117	-255
109	7.6 x 2.62	12	-118	-256
110	9.2 x 2.62	12	-119	-257
111	10.8 x 2.62	12	-120	-258
112	12.4 x 2.62	12	-121	-259
114	15.5 x 2.62	12	-122	-260
115	17.1 x 2.62	12	-123	-261
116	18.7 x 2.62	12	-124	-262
117	20.3 x 2.62	12	-125	-263
118	21.9 x 2.62	12	-126	-264
120	25.1 x 2.62	12	-127	-265
128	37.8 x 2.62	6	-128	-266
137	52.1 x 2.62	6	-129	-267
146	66.3 x 2.62	6	-130	-268
153	88.6 x 2.62	6	-131	-269
206	13.3 x 3.50	6	-132	-270
208	25.5 x 3.50	6	-133	-271
212	21.8 x 3.50	6	-134	-272
214	25.0 x 3.50	6	-135	-273

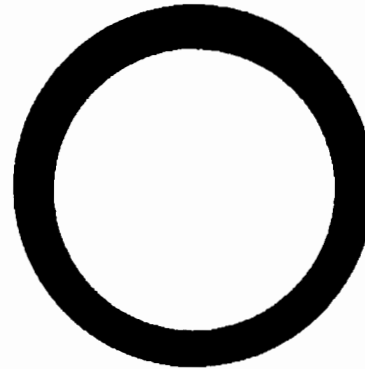


O Ring Size	Dimensions, MM ID x Width	Quantity Per Pkg.	Buna-N Code	Viton Code
215	26.5 x 3.50	6	-136	-274
217	29.7 x 3.50	6	-137	-275
219	32.9 x 3.50	6	-138	-276
222	37.7 x 3.50	6	-139	-277
223	40.9 x 3.50	3	-140	-278
226	50.4 x 3.50	3	-141	-279
229	59.9 x 3.50	3	-142	-280
317	23.6 x 5.33	1	-143	-281
331	56.5 x 5.33	1	-144	-282
339	81.9 x 5.33	1	-145	-283
341	88.3 x 5.33	1	-146	-284
349	113.7 x 5.33	1	-147	-285

QJ-2095 O RINGS, KALREZ 4079

Kalrez perfluoroelastomer combines the elastometric properties of Viton with the chemical resistance of teflon. Kalrez O rings retain their elastic properties in long term service at temperatures to 316° C (600° F) and intermittent temperatures to 343° C (650° F). Kalrez has excellent chemical resistance and should be considered for service in high temperature corrosive environments.

<u>O Ring Size</u>	<u>Quantity Per Pkg.</u>	<u>Code</u>
006	1	-110
007	1	-111
008	1	-112
009	1	-113
010	1	-114
011	1	-115
107	1	-116
108	1	-117
109	1	-118
110	1	-119
111	1	-120
112	1	-121
114	1	-122
115	1	-123
116	1	-124
117	1	-125
118	1	-126
120	1	-127
128	1	-128
137	1	-129
146	1	-130
153	1	-131
206	1	-132
208	1	-133
212	1	-134
214	1	-135
215	1	-136
217	1	-137



<u>O Ring Size</u>	<u>Quantity Per Pkg.</u>	<u>Code</u>
219	1	-138
222	1	-139
223	1	-140
226	1	-141
229	1	-142
331	1	-143
339	1	-144
341	1	-145
349	1	-146

Note: O rings are the same size as QJ-2090

REMEMBER

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