

TUBING REFERENCE CHART

GAUGE

For swivels, needles, connectors, ports and cannulae

Gauge	OD (in)	OD (mm)	ID (in)	ID (mm)	Volume (µl/cm)
15TW	0.072	1.83	0.061	1.55	18.9
15	0.072	1.83	0.054	1.37	14.8
16TW	0.065	1.65	0.054	1.37	14.8
16	0.065	1.65	0.047	1.19	11.1
17TW	0.058	1.47	0.048	1.22	11.7
17	0.058	1.47	0.042	1.07	8.99
18TW	0.050	1.27	0.039	0.99	7.70
18	0.050	1.27	0.033	0.84	5.54
19TW	0.042	1.07	0.033	0.84	5.54
19	0.042	1.07	0.027	0.69	3.74
20TW	0.036	0.91	0.026	0.66	3.42
20	0.036	0.91	0.024	0.61	2.92
21TW	0.032	0.81	0.023	0.58	2.64
21	0.032	0.81	0.020	0.51	2.04
22TW	0.028	0.71	0.020	0.51	2.04
22	0.028	0.71	0.016	0.41	1.32
22Q	0.028	0.71	0.006	0.15	0.18
23TW	0.025	0.64	0.017	0.43	1.45
23	0.025	0.64	0.013	0.33	0.86
24TW	0.022	0.56	0.015	0.38	1.13
24	0.022	0.56	0.012	0.30	0.71
25TW	0.020	0.51	0.012	0.30	0.71
25	0.020	0.51	0.010	0.25	0.49
26	0.018	0.46	0.010	0.25	0.49
27	0.016	0.41	0.008	0.20	0.31
28	0.014	0.36	0.007	0.18	0.25
29	0.013	0.33	0.007	0.18	0.25
30	0.012	0.30	0.006	0.15	0.18
31	0.010	0.26	0.005	0.13	0.12
32	0.009	0.24	0.004	0.10	0.08

TW=thin wall, Q=quartz-lined swivel channel

FRENCH

French scale defines catheter OD (3Fr = 1mm)

French	OD (in)	OD (mm)
1Fr	0.013	0.33
2Fr	0.026	0.67
3Fr	0.039	1.00
4Fr	0.053	1.33
5Fr	0.066	1.67
6Fr	0.079	2.00
7Fr	0.092	2.33

POLYURETHANE (PU)

pages 21-23, 48-49

	OD (in)	OD (mm)	ID (in)	ID (mm)	Volume (µl/cm)
BTPU-010 (32ga)	0.010	0.25	0.005	0.13	0.13
BTPU-014 (1Fr)	0.014	0.36	0.007	0.18	0.3
BTPU-027 (2Fr)	0.027	0.69	0.017	0.43	1.5
BTPU-040 (3Fr)	0.040	1.01	0.025	0.64	3.2
VAHBPU-T25	0.037	0.94	0.017	0.43	1.5
VAHBPU-T22	0.055	1.40	0.024	0.61	2.9

SILICONE (SIL)

page 49

	OD (in)	OD (mm)	ID (in)	ID (mm)	Volume (µl/cm)
BTSIL-025 (2Fr)	0.025	0.64	0.012	0.30	0.7
BTSIL-037 (3Fr)	0.037	0.94	0.020	0.51	2.0
BTSIL-047 (3.5Fr)	0.047	1.19	0.025	0.64	3.2
BTSIL-065 (5Fr)	0.065	1.65	0.030	0.76	4.5
BTSIL-085 (7Fr)	0.085	2.16	0.040	1.02	8.2

POLYETHYLENE (PE)

page 48

	OD (in)	OD (mm)	ID (in)	ID (mm)	Volume (µl/cm)
BTPE-10	0.024	0.61	0.011	0.28	0.6
BTPE-20	0.043	1.09	0.015	0.38	1.1
BTPE-25	0.036	0.91	0.018	0.46	1.7
BTPE-50	0.038	0.97	0.023	0.58	2.6
BTPE-60	0.048	1.22	0.030	0.76	4.5
BTPE-90	0.050	1.27	0.034	0.86	5.8

CO-EXTRUDED PE/PVC

page 49

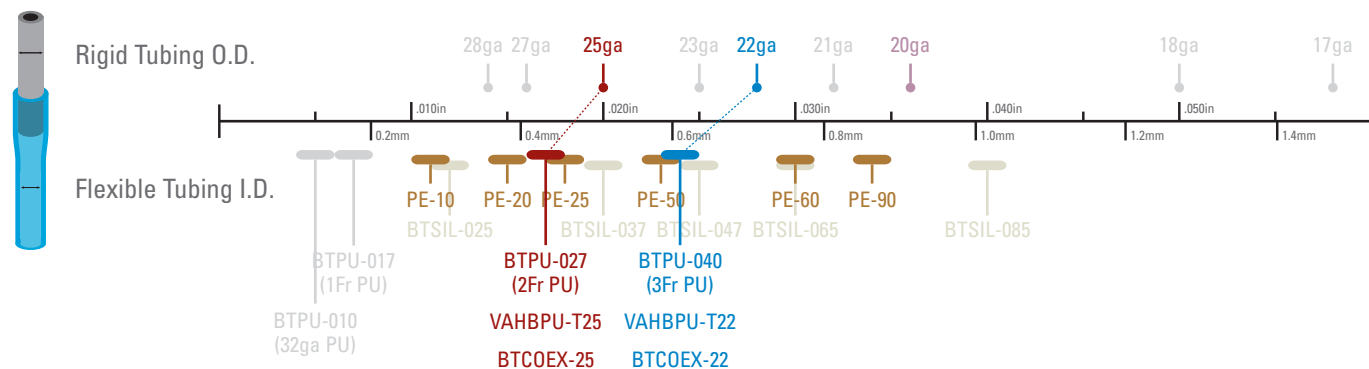
	OD (in)	OD (mm)	ID (in)	ID (mm)	Volume (µl/cm)
BTCOEX-25	0.051	1.30	0.017	0.43	1.5
BTCOEX-22	0.064	1.60	0.024	0.61	2.9

FEP

page 49

	OD (in)	OD (mm)	ID (in)	ID (mm)	Volume (µl/cm)
BFEP-T22Q	0.028	0.71	0.006	0.15	0.18

GUIDE TO TUBING FIT



Values are approximate; in particular IDs and ODs of extruded tubing can vary by ±.002in (.05mm) from nominal values. If dead volume is critical measure it directly by comparing weights of filled and empty samples.