

Tubings and Fittings

Precision Liquid Handling Solutions



**Tubing
Assemblies**
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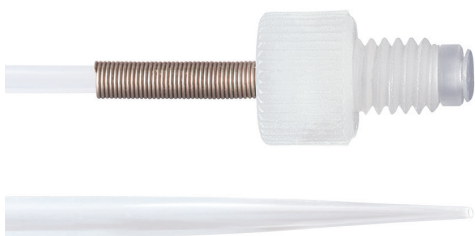
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Tubing Assemblies

1/4"-28



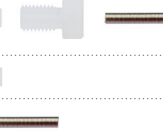
Hamilton offers a wide variety of chemically inert tubing assemblies for specific fluid applications. Standard or customer specified gauges, lengths, hub assemblies, and fittings are available.

To build your own assemblies, Hamilton offers fitting kits and tubings (see page 6). Hamilton's finger tight fittings and adapters provide a 0.6 MPa leak-free seal.

USE FOR

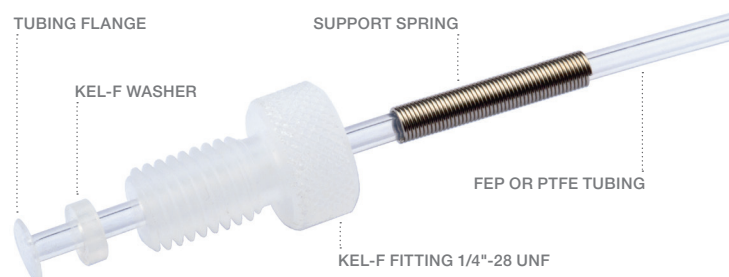
- > Fluidic System
- > Microlab 600 Valves
- > PSD Valves
- > Hamilton HV Valves

Ordering Information

1/4"-28 Tubing assemblies	Description	Tubing Material	Length [mm]	12 Gauge	18 Gauge	11-30 Gauge
 Single Hub Assemblies	Tapered End					
	TUB FEP 1372mm TAP	FEP	1372	240133	240134	
	TUB FEP **mm TAP	FEP	**	1171-02	1173-02	
	TUB ** **X**X**	**	**	240084	240084	240084 ³
	Blunt End					
	TUB FEP 1219mm	FEP	1219	61614-01	61615-01	
	TUB FEP 600mm	FEP	600	88988 ¹	88987 ²	88986 ^{3,5}
 Dual Hub Assemblies	TUB FEP **mm	FEP	**	1172-02	1174-02	
	TUB ** **X**X**	**	**	240084	240084	240084 ³
	TUB 300mm	FEP	300	88918 ¹	88917	
	TUB ** **X**X**	**	**	240083	240083	240083 ³
 Kit Fitting + Kel-F Washer 5pcs ⁴	TUB ** M6 **X**X**	**	**	240081	240081	240081 ³
	TUB ** Luer Lock **X**X**	FEP PTFE		210255 210256	210255 210256	
	Kit Fitting + Metal Washer 10pcs ⁴			249985 ³	249989 ³	249986 ^{3,8} 249987 ^{3,6} 249988 ^{3,7}
	Kit Fitting + Kel-F Washer + Support Spring 10pcs ⁴			88807	88806	
 Washer KEL-F TUB 100pcs Support Spring 100pcs				209721	209722	
				209689	209690	
				209655	209656	
Reference Pictures (not to scale)	¹ PTFE gauge 13 (2.54 x 1.945 mm) / ² PTFE / ³ No Support Spring / ⁴ Find raw tubings with 30 to 7 gauge on page 6 / ⁵ PTFE 22 gauge / ⁶ 20 and 22 gauge / ⁷ 24 gauge / ⁸ 13s gauge. TUB ** **X**X**: specify tubing material, gauge, length, and whether tapered (available only for 12-22 Gauge) and/or coiled. Maximum length: 5 meters					

M6

Tubing assemblies are available with a support spring which protects the tubing from kinking at the interface between the tubing and the fitting. The assemblies are made of FEP or PTFE tubing and Kel-F (PCTFE) threaded fittings (unless otherwise specified). The flanged tubing assemblies provide the perfect seal including minimized dead volume for 1/4"-28 UNF or M6 flat bottom valve ports.



Hamilton's finger tight fittings and adapters provide a 0.6 MPa leak-free seal.

USE FOR

- > Fluidic System
- > Microlab 500 Valves

Ordering Information

M6 Tubing assemblies		Description	Material	Length [mm]	12 Gauge	13s Gauge	18 Gauge	11-30 Gauge
Single Hub Assemblies 	Tapered End	TUB FEP 900mm tap.	FEP	900	240360		240130	
		TUB ** **X**X**	**	**	240082	240082 ²	240082	240082 ²
	Blunt End	TUB FEP 650mm	FEP	650	240000		240010	
		TUB FEP 900mm	FEP	900	240320 ²		240310	
		TUB FEP 1300mm	FEP	1300	240260			
		TUB FEP 500mm	FEP	500		240440 ²		
		TUB PTFE 1000mm	PTFE	1000				240710 ^{1,2,4}
	TUB ** **X**X**	**	**	240082	240082 ²	240082	240082 ²	
Dual Hub Assemblies 		TUB ** **X**X**	**	**	240085	240085 ²	240085	240085 ²
		Kit Fitting + Washer 5pcs ³			249981 ²	249984 ²	249980 ²	249982 ^{2,5}
		Washer KEL-F TUB 100pcs			209689		209690	
		Support Spring 100pcs			209655		209656	
Reference Pictures (not to scale)		¹ PTFE / ² No Support Spring / ³ Find raw tubings with 30 to 7 gauge on page 6 / ⁴ 22 Gauge / ⁵ 20 and 22 Gauge TUB ** **X**X**: specify tubing material, gauge, length, and whether tapered (available only for 12-22 Gauge) and/or coiled. Maximum length: 5 meters						

Colored PEEK Fittings and Tubing Assemblies

1/4"-28









 Use color coded PEEK Fittings with Tubing assemblies to increase productivity by improving identification. Standard or customer specified gauges, lengths, hub assemblies, and fittings are available.

To build your own assemblies, Hamilton offers fitting kits and tubings (see page 6). Hamilton fittings and adapters are installed finger tight and provide leak tight seal rated to 0.6 MPa.

USE FOR

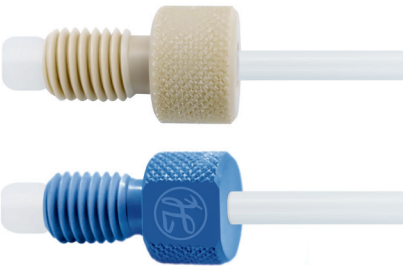
- > Fluidic System
- > Microlab 600 Valves
- > PSD Valves
- > Hamilton HV Valves

Ordering Information

1/4"-28 Tubing assemblies	Description	Material	Length [mm]	12 Gauge	18 Gauge	11-20 Gauge	Color
Single Hub Assemblies 	Tapered End						
	TUB FEP 1/4" Red 1372 mm TAP	FEP	1372	10106149			
	TUB FEP 1/4" Blue 1372 mm TAP	FEP	1372		10106147		
	TUB ** 1x1/4" **X**X**	**	**			10106177 ^{2,3}	     
	Blunt End						
	TUB FEP 1/4" Red 1219 mm	FEP	1219	10106148			
Dual Hub Assemblies 	TUB FEP 1/4" Blue 1219 mm	FEP	1219		10106145		
	TUB ** 1x1/4" **X**X**	**	**			10106177 ^{2,3}	     
	TUB ** 2x1/4" **X**X**	**	**			10106178 ^{1,2}	     
	Kit Fitting + Kel-F Washer 5pcs					10106179	     
	Kit Fitting + Kel-F Washer + Support Spring 10pcs			10106186	10106182		 
Reference Pictures (not to scale)	¹ No Support Spring / ² Find raw tubings with 20 to 11 gauge on page 6 / ³ Support spring available only for 12 Gauge red and 18 Gauge blue TUB ** *x1/4" **X**X**: specify fitting color, tubing material, gauge, length, and whether tapered (available only for 12-20 Gauge) and/or coiled. Maximum length: 5 meters						

Flangeless Fitting Kits

The Flangeless Fittings are reusable and easy to use, since there is no need to make the flange at the tubing side. Simply slip the Fitting and Ferrule over the tubing and hand tighten the assembly to the desired port.

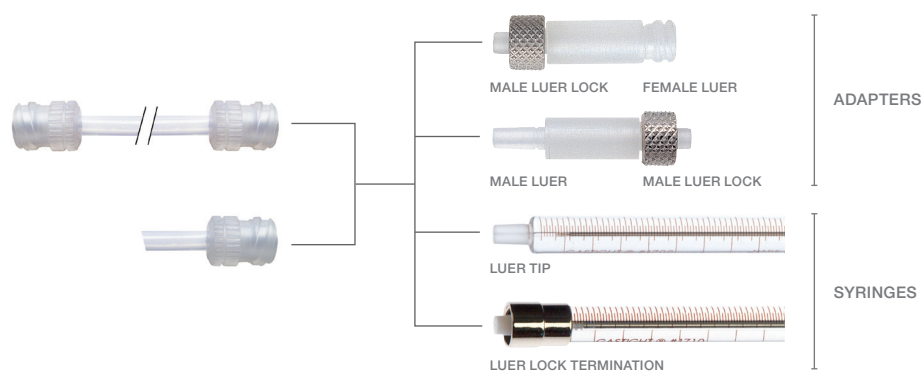


Ordering Information

1/4"-28 Flangeless products	Description	Material	Product Number	For Tubing Dimension	Color
Flangeless fittings 	GA11 Fittings 1/4"-28 5/pk	PEEK	10103536	GA11 FEP/PTFE, 1/8" FEP	
	GA12 Fittings 1/4"-28 5/pk	PEEK	10103537	GA12 FEP/PTFE	
	GA13 Fittings 1/4"-28 5/pk	PEEK	10103538	GA13 PTFE, 13S FEP	
	GA14 Fittings 1/4"-28 5/pk	PEEK	10103539	GA14 PTFE	
	GA15/16 Fittings 1/4"-28 5/pk	PEEK	10103540	GA15 PTFE, GA16 PTFE	
	GA17 Fittings 1/4"-28 5/pk	PEEK	10103561	GA17 PTFE	
	GA18 Fittings 1/4"-28 5/pk	PEEK	10103564	GA18 PTFE	
	GA19/20 Fittings 1/4"-28 5/pk	PEEK	10103562	GA19 PTFE, GA20 PTFE	
Engraved Color Flangeless fittings 	GA11 ** Flangeless Fittings 1/4"-28 5/pk	PEEK	10118954	GA11 FEP/PTFE, 1/8" FEP	
	GA12 ** Flangeless Fittings 1/4"-28 5/pk	PEEK	10118955	GA12 FEP/PTFE	
	GA13 ** Flangeless Fittings 1/4"-28 5/pk	PEEK	10118957	GA13 PTFE, 13S FEP	
	GA15/GA16 ** Flangeless Fittings 1/4"-28 5/pk	PEEK	10118958	GA15 PTFE, GA16 PTFE	
	GA18 ** Flangeless Fittings 1/4"-28 5/pk	PEEK	10118959	GA18 PTFE	
Ferrules for Flangeless Fittings 	GA11 Ferrules 5/pk	KEL-F	10103568	GA11 FEP/PTFE, 1/8" FEP	
	GA12 Ferrules for FEP 5/pk	KEL-F	10103569	GA12 FEP	
	GA12 Ferrules for PTFE 5/pk	KEL-F	10105440	GA12 PTFE	
	GA13 Ferrules 5/pk	KEL-F	10103570	GA13 PTFE, 13S FEP	
	GA14 Ferrules 5/pk	KEL-F	10105435	GA14 PTFE	
	GA15/16 Ferrules 5/pk	KEL-F	10105583	GA15 PTFE, GA16 PTFE	
	GA17/18 Ferrules 5/pk	KEL-F	10103574	GA17 PTFE, GA18 PTFE	
	GA19/20 Ferrules 5/pk	KEL-F	10103575	GA19 PTFE, GA20 PTFE	
Flangeless small Fittings 	GA** S Fittings 1/4"-28 5/pk	PEEK	10105888	GA11 - GA20	
Reference Pictures (not to scale)	Diameter dimensions for each gauge can be found on page 6 GA** Flangeless S Fittings 1/4"-28 5/pk : Specify tubing gauge that will be used together with the Fittings				

Luer Lock Hub Tubing Assemblies and Tubings

Hamilton Luer Lock tubing assemblies are ideal for quickly connecting and disconnecting components with male luer locks.



Ordering Information

Luer Hub Tubing Assemblies							
Gauge	OD [mm]	ID [mm]	Material	Tubing only ¹	One hub 300mm ²	One hub ¹	Two hubs ¹
30	0.75	0.35	PTFE	20930	90630	90680	86510 240008 ⁴
28	0.86	0.40	PTFE	20928	90628	90678	86510
26	0.99	0.51	PTFE	20926	–	90676	86510
24	1.10	0.59	PTFE	20924	90624	90674	86510
22	1.23	0.71	PTFE	20922	90622	90672	86510
22	1.52	0.72	FEP	10119920	–	–	–
20	1.50	0.91	PTFE	20920	90620	90670	86510
19	1.62	1.02	PTFE	20919	90619	90669	86510
18	2.00	1.00	FEP	20942	–	210254	86510
18	1.73	1.13	PTFE	20918	90618	90668	86510 240018 ³
17	1.86	1.26	PTFE	20917	90617	90667	86510
16	2.02	1.42	PTFE	20916	90616	90666	86510
15	2.17	1.57	PTFE	20915	90615	90665	86510
14	2.35	1.75	PTFE	20914	90614	90664	86510
13	2.54	1.95	PTFE	20913	90613	90663	86510
13s	2.50	1.50	FEP	10108002	–	–	–
12	2.85	2.00	FEP	20943	–	210253	86510
12	2.77	2.18	PTFE	20912	90612	90662	86510
11	3.05	2.44	FEP	10108001	–	–	–
11	3.04	2.44	PTFE	20911	90611	90661	86510
10	3.33	2.72	PTFE	20910	90610	90660	86510
9	3.76	3.02	PTFE	20909	90609	90659	86510
8	4.19	3.43	PTFE	20908	90608	90658	86510
7	4.60	3.84	PTFE	20907	90607	90657	86510
1/8"	3.18	1.59	PTFE	20941	–	90691	86510
1/8"	3.18	1.59	FEP	10107999	–	–	–

Reference Pictures (not to scale)

¹ Specify tubing length at the time of the order. Maximum length: 5 meters / ² The tubing is 300 mm in length but can be trimmed shorter to a desired length / ³ 500mm / ⁴ 400mm • OD: Outer diameter, ID: Inner diameter

General Laboratory Fittings and Adapters

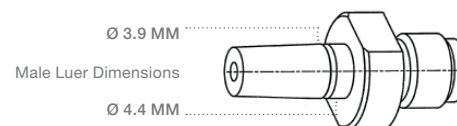
Use female luer, male luer, luer lock and barbed fittings to connect syringes, equipment or other devices to valves.

Ordering Information

Valve Fittings Port Diameter	¼"-28 UNF Threads		M6 Threads		Compatible with Thread depth	
	1.5mm	3mm	1.5mm	2mm	≤ 6mm	≤ 8mm
 Female Luer	35031	35071			✓	
	32834		32874	230223		✓
 Male Luer	35030	35070			✓	
	32835			230222		✓
 Male Luer Lock ¹	35033	35073	32876		✓	
	32836					✓
 Female M6	R32821					✓
 ⅛" Barb	35032 ²	35072			✓	
 ¼"-NPT	32823					✓
	32822					✓
 Plug (10pcs)	88802		88852			✓
 Union (10pcs)	88800					✓
 Swivel Union ¹	35037				✓	
 SS ⅛" Tube Adapters ¹	32805					
3 Way Threaded Junctions						
 3 Way "T"	32810				✓	
 3 Way "Y"	32814	165736 ²	32864		✓	
Needle Bushings and Needles						
 Bushing for "small RN" type needles	35035				✓	
 Bushing for "HAT" type needles	35056				✓	
 Needles SS 304 "HAT" type (3pcs) ³	18 Gauge	90818				
	20 Gauge	90820				
	23 Gauge	90823				
Reference Pictures (not to scale) ¹ Kel-F and Metal / ² 2mm Port Diameter / ³ Use with Bushing p/n 35056 NPT: National Pipe Thread / SS: Stainless Steel						

General Laboratory Fittings and Adapters

Some fittings are offered in two port diameters for fluid optimization. Fittings and adapters are Kel-F (PCTFE) unless otherwise noted. Hamilton fittings and adapters are installed finger tight and provide a leak tight seal rated to 0.6 MPa.



Ordering Information

Valve Fittings Port Diameter		Port Diameter 1.5mm
	Female Luer/Female Luer	86505
	Female Luer/Male Luer	86507
	Female Luer/Male Luer Lock	86513
	Female Luer/1/4"-20 UNC	86542
	Female Luer Cap	16801
	Male Luer/Male Luer	86506
	Male Luer Lock/Male Luer	86512
	Male Luer Lock/Male Luer Lock	86511
	Male Luer Lock/1/8"-NPT	86536 ²
Removable (RN) Adapters for 250µL RN needle syringes and larger		
	Female Luer	35081
	Male Luer	35080
	Male Luer Lock	35083
	Inert Gas Sampling Valve	86580 ¹
Reference Pictures (not to scale)	¹ 1mm Port Diameter. Lever actuated on/off valve. Autoclavable / ² Compatible with thread depth ≤ 8 mm NPT: National Pipe Thread / UNC: United National Course	

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