

Tubing

PEEK Tubing



PEEK tubing can be used with either SS nuts and ferrules, flangeless fittings, or any universal fingertight fittings. This tubing is extremely flexible and can be cut to your desired length using the A-327 cutter or a straight edge razor.

PEEK is inert to almost all organic solvents; methylene chloride, THF, concentrated nitric or concentrated sulfuric acids will affect PEEK. For continuous use of the PEEK tubing, we recommend temperatures below 100° C. Above 100° C, the tubing will hold to lower pressure.

PEEK Tubing, 1/16" OD x 5'

Cat. No.	Description	Color	Max psi*
1560	.0025" (65µm) ID	natural	7,000
1561	.004" (100µm) ID	black	7,000
1535	.005" (125µm) ID	red	7,000
1562	.006" (150µm) ID	purple	7,000
1536	.007" (175µm) ID	yellow	7,000
1531	.010" (.25mm) ID	natural	7,000
1531B	.010" (.25mm) ID	blue	7,000
1565	.015" (.40mm) ID	gray	7,000
1532	.020" (.50mm) ID	orange	7,000
1533	.030" (.75mm) ID	green	7,000
1538	.040" (1.0mm) ID	natural	5,000
1537	.055" (1.40mm) ID	natural	500

PEEK Tubing, 1/8" OD x 5'

1534	.062" (1.60mm) ID	natural	4,000
1544	.080" (2.00mm) ID	natural	3,000

PEEK Tubing, 1.8mm OD x 5' (for Pharmacia)

1545	.010" (.25mm) ID	natural	7,000
1546	.020" (.50mm) ID	natural	7,000
1547	.030" (.75mm) ID	natural	7,000
1540	.042" (1.05mm) ID	natural	5,000
1539	.055" (1.40mm) ID	natural	500

Capillary PEEK Tubing, 360µm (.0145") OD x 5'

1570	.002" (50µm) ID	natural	2,000
1573	.003" (75µm) ID	black	2,000
1571	.004" (100µm) ID	red	2,000
1572	.006" (150µm) ID	yellow	2,000

Capillary PEEK Tubing, 510µm (.020") OD x 5'

1543	.0025" (65µm) ID	natural	2,000
1541	.005" (125µm) ID	natural	2,000
1542	.010" (255µm) ID	natural	2,000

PEEK Tubing, 1/32" OD x 5'

1579	.0025" (65µm) ID	natural	5,000
1578	.0035" (90µm) ID	black	5,000
1576	.005" (125µm) ID	red	5,000
1577	.007" (175µm) ID	yellow	5,000
1575	.008" (200µm) ID	natural	5,000
1580	.009" (230µm) ID	gray	5,000
1581	.010" (.25mm) ID	blue	5,000
1568	.015" (.40mm) ID	natural	5,000
1569	.020" (.50mm) ID	orange	3,000

*Testing conducted with water at room temperature.

PEEK Burst Pressure:

PEEK tubing will burst at a lower pressure when you:

- Increase the inside diameter
- Increase the time of exposure
- Increase the temperature
- Increase the conc. of organic solvent

The table below shows the pressure at which various 1/16" OD tubes burst during a three-week test while exposed to different solvents at room temperature. At 500 psi below these pressures the tubing did not burst during the test. **Warning! The tubing failed at the pressures listed in the table. Operate routinely at much lower pressure.**

Tubing ID	.007"	.010"	.020"	.030"
H ₂ O	>7,000	>7,000	>6,000	>6,000
ACN:H ₂ O	>5,500	5,500	4,500	3,500
ACN	4,000	3,500	3,000	3,000
IPA	>5,000	5,000	4,000	4,000
THF	2,500	2,500	1,500	1,500

Spiral-Link PEEK Tubing



Our spiral-link tubing expands and contracts and is made of PEEK polymer, a biocompatible, chemically inert material.

Spiral Link Tubing, 1/16" OD

ID	Length	Coil Span	Volume	Color	Cat. No.
.005"	10cm	na	1µL	red	17101
	20cm	0.47"	3µL	red	17102
	40cm	2.4"	5µL	red	17104
	50cm	3.0"	6µL	red	17105
	100cm	7.0"	13µL	red	17110
	200cm	13.0"	25µL	red	17120
.010"	10cm	na	5µL	blue	17201
	20cm	0.47"	10µL	blue	17202
	40cm	2.4"	20µL	blue	17204
	50cm	3.0"	25µL	blue	17205
	100cm	7.0"	51µL	blue	17210
	200cm	13.0"	101µL	blue	17220
.020"	10cm	na	20µL	orange	17301
	20cm	0.47"	40µL	orange	17302
	40cm	2.4"	81µL	orange	17304
	50cm	3.0"	101µL	orange	17305
	100cm	7.0"	203µL	orange	17310
	200cm	13.0"	405µL	orange	17320
.030"	10cm	n/a	46µL	green	17401
	20cm	0.47"	91µL	green	17402
	40cm	2.4"	182µL	green	17404
	50cm	3.0"	228µL	green	17405
	100cm	7.0"	456µL	green	17410
	200cm	13.0"	912µL	green	17420

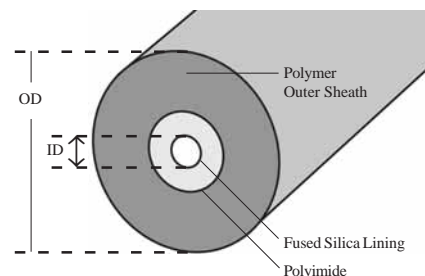
Fused Silica Tubing

Cat. No.	OD	ID	Length	Qty.
FS-120	360µm	20µm	2m	1
FS-150	360µm	50µm	2m	1
FS-175	360µm	75µm	2m	1
FS-110	360µm	100µm	2m	1
FS-115	360µm	150µm	2m	1

PEEKsil™ Tubing



PEEKsil™ tubing is ideal for LC systems where conventional 1/16" OD fittings are used and small bore tubing capable of withstanding high pressures is required.



PEEKsil tubing is constructed from a core of smooth precision bore fused silica tubing bonded to a 1/16" or 1/32" OD PEEK™ outer sheath. All PEEKsil tubing is pressure rated to 8,500 psi. PEEKsil is compatible with most organic solvents. PEEKsil is resistant to strong acids and has an effective pH range of 0-10. PEEKsil is not compatible with hydrofluoric acid.

PEEKsil tubing showing the ground and square cut end enabling a zero dead volume connection.



Smooth Wall Surface

The fused silica internal wall of PEEKsil provides an exceptionally smooth surface, free of imperfections, which ensures excellent flow characteristics. Stainless steel, in contrast, has a very rough and pitted inner wall surface, which has several detrimental effects on the performance of a liquid chromatography system.

- PEEKsil's smooth wall allows lower carry over or cross contamination between samples that can lead to improved reproducibility.
- The smooth wall of PEEKsil, particularly for smaller inside diameter LC column systems, gives lower band broadening and therefore higher efficiency and resolution.
- Small inside diameters of stainless steel tubing are prone to blockage. The smooth wall of fused silica tubing means that it is far less likely to block.

PEEKsil™ Tubing, 1/32" OD

ID	Length	Color	Qty.	Cat. No.
25µm	50mm	orange	2	0624241
	100mm	orange	2	0624242
	150mm	orange	2	0624243
	250mm	orange	2	0624245
	500mm	orange	2	0624249
50µm	50mm	natural	2	0624261
	100mm	natural	2	0624262
	150mm	natural	2	0624263
	250mm	natural	2	0624265
	500mm	natural	2	0624269
75µm	50mm	black	2	0624271
	100mm	black	2	0624272
	150mm	black	2	0624273
	250mm	black	2	0624275
	500mm	black	2	0624279
100µm	50mm	red	2	0624311
	100mm	red	2	0624312
	150mm	red	2	0624313
	250mm	red	2	0624315
	500mm	red	2	0624319
150µm	50mm	purple	2	0624341
	100mm	purple	2	0624342
	150mm	purple	2	0624343
	250mm	purple	2	0624345
	500mm	purple	2	0624349

PEEKsil™ Tubing, 1/16" OD

ID	Length	Color	Qty.	Cat. No.
25µm	50mm	orange	5	0624225
	100mm	orange	5	0624226
	150mm	orange	5	0624227
	200mm	orange	5	0624228
	500mm	orange	2	0624229
50µm	50mm	natural	5	0624251
	100mm	natural	5	0624252
	150mm	natural	5	0624254
	200mm	natural	5	0624253
	500mm	natural	2	0624250
75µm	50mm	black	5	0624290
	100mm	black	5	0624291
	150mm	black	5	0624292
	200mm	black	5	0624293
	500mm	black	2	0624294
100µm	50mm	red	5	0624301
	100mm	red	5	0624302
	150mm	red	5	0624304
	200mm	red	5	0624303
	500mm	red	2	0624300
150µm	50mm	purple	5	0624230
	100mm	purple	5	0624231
	150mm	purple	5	0624232
	200mm	purple	5	0624233
	500mm	purple	2	0624234
175µm	50mm	yellow	5	0624351
	100mm	yellow	5	0624352
	150mm	yellow	5	0624354
	200mm	yellow	5	0624353
	500mm	yellow	2	0624350
200µm	50mm	blue	5	0624202
	100mm	blue	5	0624203
	150mm	blue	5	0624205
	200mm	blue	5	0624204
	500mm	blue	2	0624201
300µm	50mm	grey	5	0624214
	100mm	grey	5	0624215
	150mm	grey	5	0624216
	200mm	grey	5	0624217
	500mm	grey	2	0624218

Tubing

Teflon® PFA Tubing

- Excellent solvent resistance
- Low gas permeability
- High purity PFA is virtually contaminant free



Our high purity PFA (perfluoroalkoxy alkane) tubing offers all of the benefits of the standard PFA Teflon tubing, and more!

Recommended maximum operating temperature for PFA Teflon is 80° C.

Designed for chemical environments where purity in the parts-per-billion is needed, this tubing is perfect for fluid handling systems in the medical, diagnostic, pharmaceutical, biotechnology and semiconductor industries.

Teflon PFA Tubing, 1/16" OD

ID	Length	Max psi	Cat. No.
.020" (.50mm)	5'	2,000	1500
	10'	2,000	1511
	20'	2,000	1512
	50'	2,000	1512L
.030" (.75mm)	5'	1,000	1502
	10'	1,000	1513
	20'	1,000	1514
	50'	1,000	1514L
.040" (1.00mm)	5'	500	1503
	10'	500	1504
	20'	500	1507
	50'	500	1507L

Teflon PFA Tubing, 1/8" OD

.062" (1.55mm)	10'	500	1508
	20'	500	1509
	50'	500	1509L

High Purity Teflon PFA Tubing, 1/16" OD

.020" (.50mm)	5'	2,000	1620
	10'	2,000	1621
	20'	2,000	1622
	50'	2,000	1622L
.030" (.75mm)	5'	1,000	1630
	10'	1,000	1631
	20'	1,000	1632
	50'	1,000	1632L

High Purity Teflon PFA Tubing, 1/8" OD

.062" (1.55mm)	10'	500	1640
	20'	500	1641
	50'	500	1641L

High Purity Teflon PFA Tubing, 3/16" OD

.125" (3.20mm)	10'	250	1642
	50'	250	1642
	100'	250	1642L

High Purity Teflon PFA Tubing, 1/4" OD

.188" (4.80mm)	10'	250	1645
	50'	250	1645L
	100'	250	1645XL

Teflon Tubing

- Great for general applications



With virtually identical chemical resistance to PFA at a lower price, Teflon FEP tubing is great for general applications. Compared to PTFE, Teflon FEP tubing has lower gas permeability and increased translucence.

Maximum operating temperature for Teflon FEP is 50° C.

1/16" OD FEP Teflon Tubing

ID	Length	Color	Max psi	Cat. No.
.004" (100µm)	10'	black	4,000	1474
.005" (125µm)	10'	red	4,000	1475
.006" (150µm)	10'	violet	4,000	1476
.007" (175µm)	10'	yellow	4,000	1477
.008" (200µm)	10'	natural	4,000	1478
.009" (230µm)	10'	blue	4,000	1479
.010" (.25mm)	10*	natural	3,000	T-1526
	10'	blue	3,000	1526B
	20'	blue	3,000	1527B
	20'	blue	3,000	1527B
.020" (.50mm)	10*	natural	2,000	T-10203
	10'	orange	2,000	1549OR
	20'	orange	2,000	1548OR
	10'	black	2,000	1518
	20'	black	2,000	1519
.030" (.75mm)	10*	natural	1,000	T-10202
	10'	green	1,000	1522G

1/8" OD FEP Teflon Tubing

.062" (1.55mm)	10*	natural	500	T-10201
	50'	blue	500	1521BL

* Lengths > than 10' available. Specify length at time of order.

3/16" OD FEP Teflon Tubing

.125" (3.20mm)	10'	natural	500	1525
	20'	natural	500	1524
	50'	natural	500	1524L
	100'	natural	500	1524XL

1/4" OD FEP Teflon Tubing

.188" (4.80mm)	10'	natural	250	1650
	50'	natural	250	1650L
	100'	natural	250	1650XL

5/16" OD FEP Teflon Tubing

.250" (6.35mm)	10'	natural	250	1652
	50'	natural	250	1652L
	100'	natural	250	1652XL

1mm OD FEP Teflon Tubing

.5mm (.020")	15m	natural	500	1671L
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2mm OD FEP Teflon Tubing

1mm (.040")	15m	natural	500	1673L
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3mm OD FEP Teflon Tubing

1mm (.040")	15m	natural	500	1675L
2mm (.080")	15m	natural	500	1677L

4mm OD FEP Teflon Tubing

3mm (.120")	15m	natural	500	1675L
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Tefzel® (ETFE) Tubing



Tefzel is an inert fluoropolymer that can withstand higher pressures* than Teflon. The burst pressure of Tefzel tubing depends on the dimensions, solvent, temperature, and duration of exposure.

Users should exercise caution, especially when using organic solvents and aqueous-organic mixtures, which cause rupture sooner than aqueous solutions.

*4,000 psi with aqueous mobile phases. 1,200 psi with organic solvents due to a swelling affect.

Tefzel (ETFE) Tubing, 1/16" OD

ID	Length	Max psi	Cat. No.
.010" (.25mm)	5'	4,000	1529
	50'	4,000	1529L
	100'	4,000	1529XL
.020" (.50mm)	5'	3,000	1516
	50'	3,000	1516L
	100'	3,000	1516XL
.030" (.50mm)	5'	2,000	1528
	50'	2,000	1528L
	100'	2,000	1528XL
.040" (.50mm)	5'	500	1517
	50'	500	1517L
	100'	500	1517XL

Tefzel (ETFE) Tubing, 1/8" OD

.062" (1.55mm)	5'	1,000	1530
	50'	1,000	1530L
	100'	1,000	1530XL
.093" (2.40mm)	5'	500	1648
	50'	500	1648L
	100'	500	1648XL

Tefzel (ETFE) Tubing, 1/4" OD

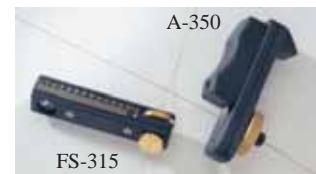
.188" (4.80mm)	10'	250	1647
	50'	250	1647L
	100'	250	1647XL

Tygon® Tubing

Tygon tubing is ideal for general laboratory uses. The applications for this tubing range from peristaltic tubing, to liquid transfer lines for recirculating pumps, chillers, and heaters. The tubing can be used in temperatures from: -58° F to 165° F (-50° C to 74° C). This type of tubing has been found to be nonaging and nonoxidizing. It is compatible with most inorganic chemicals and has low gas permeability. This tubing is clear to allow easy monitoring of the fluids being transported.

Cat. No.	Tubing ID	Tubing OD	Length
1550	2.54mm (0.100")	3.5mm (0.137")	3 meter
1551	2.06mm (0.080")	3.3mm (0.130")	3 meter
1552	1.52mm (0.060")	3.3mm (0.130")	3 meter
1553	1.02mm (0.040")	2.5mm (0.980")	3 meter

Tubing Accessories for Polymer Tubing



Tubing Cutters

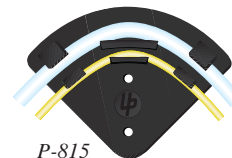
Cat. No.	Description
A-327	Polymer tubing cutter, for 1/16" and 1/8" OD
A-329	Polymer tubing cutter, for 1/4" and 5/16" OD
A-350	Polymer tubing cutter, for 360µm - 1/32" OD <i>Includes: (1) F-262X, 10 pack of sleeves</i>
FS-315	Fused silica tubing cutter

Tubing Cutters, Replacement Parts

Cat. No.	Description	Qty.
A-328	Blades (for A-327,A-329,A-350)	5
F-262X	Sleeves, green, for 360µm OD	10
F-264X	Sleeves, natural, for 510µm OD	10
F-267BX	Sleeves, blue, for 1/32" OD	10
FS-315-02	Repair kit, cutting wheel for FS-315	1

Tech Tip:

The **A-350** Capillary Polymer Tubing Cutter can be used to cut tubing OD sizes other than 360µm, 510µm, and 1/32". Simply use the proper Silica SealTight sleeve. Please note, however, that these sleeves are somewhat shorter than those listed on this page, and therefore will last through fewer cuts.



Tubing Holders

Cat. No.	Description
P-740	90° Elbow for 1/16" OD
P-815	90° Elbow for 1/8" OD
P-741	180° Elbow for 1/16" OD
88990	Tubing clips, 5/pk

Safety Wrap

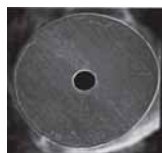


Our safety wrap is a specially designed polyethylene covering for bundling tubing, wires, and other types of conductors. This wrap adds to the safety, appearance, and durability of your products.

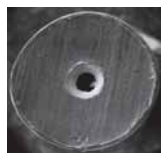
Cat. No.	Description
P-820	For 1/8" OD, 10' natural
P-821	For 1/4" OD, 10' natural

Tubing

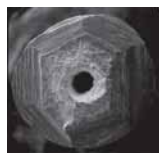
The Beauty of Pre-Cut Tubing:



Pre-Cut Tubing



Tubing cut by a commercially available tubing cutter



File Cut Tubing

We machine cut and polish each end, deburr the inside and outside edges and passivate the tubing. Finally we flow reagent-grade methanol through each piece of tubing.

All this is done to provide you with tubing that has flat, burr-free ends. This allows you to make connections with zero dead volume.

Pre-Cut Stainless Steel Tubing

- Precision cut 316 SS tubing
- Square, burr-free ends

.005" x 1/16" (red)

Cat. No.	Length
U-152	5cm
U-153	10cm
U-154	20cm
U-155	30cm
U-156	1/2 m
U-157	1m
U-158	5 feet
U-160	25 feet

.007" x 1/16" (black)

U-126	5cm
U-127	10cm
U-128	20cm
U-129	30cm
U-130	1/2m
U-131	1m
U-108	5 feet
U-161	25 feet

.010" x 1/16" (blue)

U-111	5cm
U-112	10cm
U-113	20cm
U-114	30cm
U-132	1/2m
U-133	1m
U-106	5 feet
U-162	25 feet

.020" x 1/16" (yellow)

U-101	5cm
U-102	10cm
U-103	20cm
U-104	30cm
U-134	1/2m
U-135	1m
U-105	5 feet
U-163	25 feet

.030" x 1/16" (white)

Cat. No.	Length
U-115	5cm
U-116	10cm
U-117	20cm
U-118	30cm
U-136	1/2m
U-137	1m
U-107	5 feet
U-164	25 feet

.040" x 1/16"

U-138	5cm
U-139	10cm
U-140	20cm
U-141	30cm
U-142	1/2m
U-143	1m
U-144	5 feet
U-165	25 feet

.046" ID x 1/16"

U-145	5cm
U-146	10cm
U-147	20cm
U-148	30cm
U-149	1/2m
U-150	1m
U-151	5 feet

.080" ID x 1/8"

U-815	15cm
U-825	25cm
U-800	1cm
U-803	3cm
U-805	5m



SS Tubing Kits



1320 Kit Includes:

- (10) U-101, .020" ID, 5cm
- (10) U-102, .020" ID, 10cm
- (5) U-103, .020" ID, 20cm
- (10) U-111, .010" ID, 5cm
- (10) U-112, .010" ID, 10cm
- (5) U-113, .010" ID, 20cm

These Upchurch tubing kits contain 20 pieces of 1/16" OD tubing (10 pieces – 5cm long, and 10 pieces – 10cm long).

Cat. No.	Description
1321	Tubing kit .010" ID
1322	Tubing kit .007" ID
1323	Tubing kit .005" ID
1324	Tubing kit .020" ID
1320	Assorted 1/16" OD tubing kit (listed above)

1/8" OD SS Tubing

Cat.No.	Description
TSS240	1/8" x .040" ID, 10 feet
TSS260	1/8" x .060" ID, 10 feet
TSS285	1/8" x .085" ID, 10 feet

Custom lengths are available. Call for a quotation.

Titanium Tubing

In certain high-pressure applications, stainless steel must be avoided and titanium tubing is an excellent alternative. Our titanium tubing is carefully cut to ensure a square, burr-free end. Since titanium is brittle, care should be used in bending or tightening titanium tubing. In addition, it is not recommended for use with strong acid because of potential cracking.

Cat. No.	Description
U-170	.010" ID x 5cm, Titanium tubing
U-171	.010" ID x 10cm, Titanium tubing
U-172	.010" ID x 20cm, Titanium tubing
U-173	.010" ID x 30cm, Titanium tubing
U-177	.010" ID x 60cm, Titanium tubing
U-175	.030" ID x 20cm, Titanium tubing
U-176	.030" ID x 30cm, Titanium tubing
U-178	.030" ID x 60cm, Titanium tubing



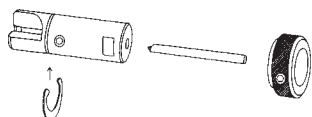
Cuts 1/16", 1/8", and 1/4" outside diameter tubing with inside diameters as small as 0.008" can be smooth-cut and dressed without distortion.

Tube Cut-Off Machine, Model TC-20

A zero dead volume connection is important for maximum chromatographic performance. Unswept volume, caused by a poor fit between tubing and the mating seat, can cause sample dispersion and unsatisfactory chromatographic results. Poor fit of the tubing can be due to a cut edge that is not square, or by improper deburring. Burrs may prevent the tubing from fully seating and may restrict the internal diameter. A shield on the swing arm covers the abrasive wheel, making the operation safe and simple.

Clean, square cuts

The Model TC-20 tube cutter assures a zero dead volume connection. Because tubing is held securely in a clamp vise on the vertical swing arm, a square cut is produced when the swing arm is lowered against the abrasive cutting wheel, which produces a finished end. No lubricant or cutting fluid is required.



Dressing tool included

The precision ground dressing tool for 1/16" OD tubing is included and is attached directly to the swing arm so it cannot be misplaced or lost. Simply place the cut tubing end in the tool and rotate the knurled handle to finish both the internal and external diameters of the tubing in one operation. If desired, the dressing tool can be ordered and used separately from the tube cut-off machine. The tool for 1/8" and 1/4" is optional.

Specifications:

Cutter type	Dry abrasive tool
Dressing tool	Precision ground and aligned hard tool steel
Dimensions	8" x 6.25" x 4.25" (20.3 x 15.8 x 10.8 cm)
Weight	11 lbs (4.9 kg)

Tube Cut-Off Machine

Cat. No.	Description
100200	Model TC-20*, 120 or 240 Volts, 50-60 Hz
10-0124	Replacement cutting wheels, 3/pk
10-0116	Dressing tool for 1/16" tubing
10-1016	Needle insert for 1/16" dressing tool
10-0118	Dressing tool for 1/8" tubing
10-1018	Needle insert for 1/8" tubing
10-1042	Dressing tool for 1/4" tubing

*Includes dressing tool for 1/16" OD tubing

Terry Tool Tubing Cutter

- Inexpensive cutting tool
- Clean, square cuts



The Terry Tool is an inexpensive precision tubing cutter that is ideal for SS tubing. It cuts without deforming the tubing so nuts and ferrules slip on and no additional reaming or deburring is usually required for "zero dead volume" connections.

Operation for Terry Tool Tubing Cutter (1/16" OD Tubing)

- Tubing is placed in 1/16" V groove of Terry Tool locking arm.
- Position locking arm so that tubing is locked against the cutter wheel.
- Rotate Terry Tool about the tubing axis until the noticeable resistance has released and an almost free wheel of the cutter is experienced.
- Remove tubing from the Terry Tool and apply slight pressure at both sides of the cut groove. Tubing should easily snap.
- Your Terry Tool tubing cutter has been adjusted* to cut .020" ID

*For use with smaller ID tubing, turn the allen head adjusting the screw approximately 1/8 to 1/4 turn counter-clockwise. This allows a deeper cut in thicker wall tubing. For use with larger ID tubing, adjust the allen screw 1/8 to 1/4 turn in the clockwise direction.

Terry Tool Tubing Cutters

Cat. No.	Description
TT-1001	Terry tool tubing cutter for 1/16" with 3 replacement wheels
TT-1008	Terry tool tubing cutter for 1/8" with 3 replacement wheels
TT-1003	Replacement cutting wheels, 3/pk

Pliers Tubing Cutter



- Ideal for tight spots
- Cut 1/16" tubing with a minimum of effort
- Will not close the tubing ID

Cat. No. Description

TC-1017	Pliers tubing cutter for 1/16" OD tubing
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