

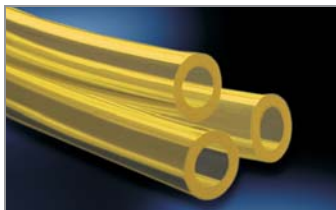
Tubing • Clamps • Kits

Eldon James

Eldon James

Tubing, Clamps and Accessories

New Additions:



Automotive fuel and oil resistant tubing: Page 130



Flexelene™ MX Soft Tubing - Manufactured from USP Class VI polymers • MX (MFXAG) Medical Tubing with antimicrobial protection: Page 126



Heat Forming • Thermal Bonding • Custom Formed Coils
Flexelene™ FX, FXAG, CFX, CFXAG Tubing
Please request quotes for custom fabrication

Featured Products:



Antimicrobial (protected) Flexelene™
FXAG and CFXAG tubing: Pages 124-125



Expanded selection of Oetiker stainless steel clamps:
Page 132



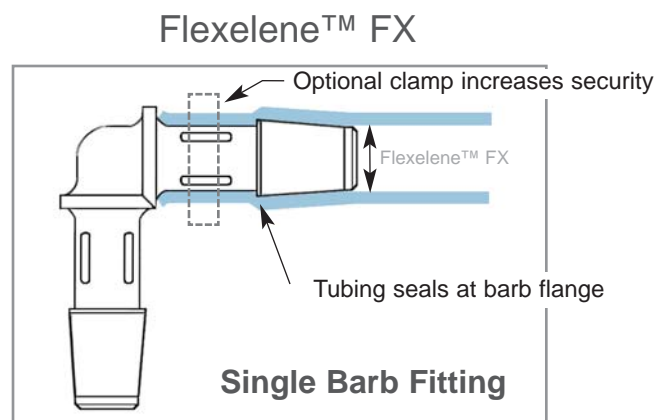
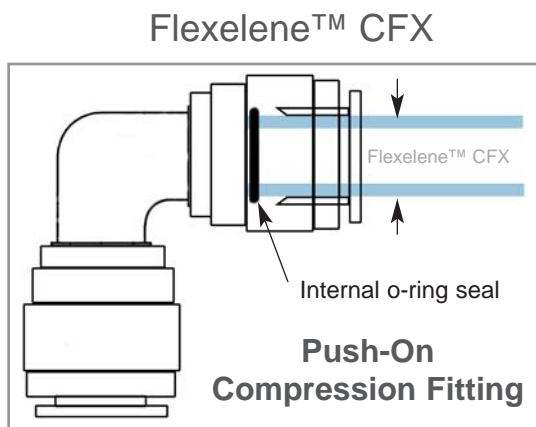
Choose from 38 Hose Connector Kits designed to facilitate maintenance projects and prototype construction: Page 136

Flexelene™ FX and CFX Tubing

Tubing and Fittings Compatibility

Flexelene™ FX tubing is designed for use with barbed fittings and is compatible with most standard barb sizes. The inside diameter of the tubing is sized so that Eldon James fittings fit easily into the tubing. FX tubing and FXAG anti-microbial (protected) tubing are recommended for use with barbed fittings only.

Flexelene™ CFX tubing is designed for use with compression or push-on style fittings. CFX and CFXAG antimicrobial (protected) tubing is sized so that the outside dimension (OD) of the tubing is compatible with push-on fittings. This type of fitting seals with an O-Ring against the tubing's outer wall. Eldon James single barb fittings can be used with Flexelene™ CFX tubing; however, use of a lubricant (glycerine, water, soap, alcohol etc.) may be necessary to facilitate insertion.



System Design Using Flexelene™ CFX and Push-On Compression Fittings


Flexelene™ CFX & CFXAG tubing offer the following advantages when used with push-on fittings:

1. The tubing's inherent flexibility alleviates lateral stress; a primary cause of leaks with push-on connections.
2. Flexelene™ tubing dampens vibration and shut-off hammer in a system.
3. Since it is much more flexible than standard polyethylene tubing, the number of connectors required for an installation is generally reduced when compared with a system designed with rigid tubing.



Beverage • Food • Water • Bioscience • Pneumatics

Flexelene™ FX and CFX Flexible Tubing

- Economical
 - Ultra-low extractables
 - Chemical and abrasion resistant
 - UV stable with good ozone resistance
 - Significantly more flexible than standard polyethylene tubing
 - Working temperature range – 40°F to + 170°F (– 40°C to 76°C) • Maintains flexibility to – 40°F
 - Polyethylene based polymer - a standard class of material used in the water industry
 - Pressure ratings similar to, or higher than, those of comparable polyurethane and PVC tubing
 - Suitable for use with deionized water
- Available in clear and 8 standard colors  brown and pink



Flexelene™ Silver FXAG and CFXAG Antimicrobial (Protected) Tubing

Antimicrobial Protection

Inorganic silver ion protection is built in to Flexelene™ Silver to inhibit colonization by bacteria, mold, and fungi and prevent the formation of bio-film and polymer slime on the interior surface of the tubing.

- Ultra-low extractables
- Chemical and abrasion resistant
- UV stable with good ozone resistance
- Significantly more flexible than standard polyethylene tubing
- Working temperature range – 40°F to + 170°F (– 40°C to 76°C) • Maintains flexibility to – 40°F
- Polyethylene based polymer - a standard class of material used in the water industry
- Pressure ratings similar to, or higher than, those of comparable polyurethane and PVC tubing
- Built-in antimicrobial protection is effective against a broad spectrum of bacteria and other microorganisms



Medical • Pharmaceutical • Life Sciences

Flexelene™ MX Soft Ultra-Flexible Tubing - USP Class VI

- Non-allergenic
 - Ultra-low extractables
 - Extremely soft, pliable and flexible
 - Does not contain plasticizers, latex or vinyl acetate
 - Manufactured from advanced USP Class VI compliant polymers
 - Inert plastic alloy compound specifically designed for medical use
 - Can withstand sterilization by EtO and irradiation
- Tubing materials conform to EC directive 2002/72/EC and comply with FDA 21 CFR 177.2600 (c)
- Working temperature range –70°F to +135°F (– 60°C to 57°C)

USP Class VI



Recyclable

Flexelene™ FX Natural Tubing

ID sized flexible polyethylene

Eldon James

Price Per 100 ft. Roll

Certified to
NSF/ANSI 61
NSF/ANSI 51

Part Number	ID	OD	.	.	.	.
FX .5-1.5N	1/32"	3/32"	.	.	.	.
FX 1-2N	1/16"	1/8"	.	.	.	.
FX 1.5-2.5N	3/32"	5/32"	.	.	.	.
FX 2-3N New	1/8"	3/16"	.	.	.	.
FX 2-4N	1/8"	1/4"	.	.	.	.
FX 3-5N	3/16"	5/16"	.	.	.	.
FX 4-6N	1/4"	3/8"	.	.	.	.
FX 5-7N	5/16"	7/16"	.	.	.	.
FX 6-8N	3/8"	1/2"	.	.	.	.
FX 8-10N	1/2"	5/8"	.	.	.	.
FX 8-12N	1/2"	3/4"	.	.	.	.
FX 10-12N	5/8"	3/4"	.	.	.	.
FX 12-14N	3/4"	7/8"	.	.	.	.
FX 12-16N	3/4"	1"	.	.	.	.
FX 16-20N	1"	1 1/4"	.	.	.	.



Certified to
NSF/ANSI 61
NSF/ANSI 51



RoHS Compliant

Flexelene™ FX Natural & Colored Tubing Specifications

Part Number	ID	OD	Working PSI @70°F	* Burst PSI @70°F	Wall Thickness	Bend Radius in.
FX .5-1.5	1/32"	3/32"	160	500	1/16"	1/16"
FX 1-2	1/16"	1/8"	110	420	1/32"	5/32"
FX 1.5-2.5	3/32"	5/32"	86	260	1/32"	3/16"
FX 2-3	1/8"	3/16"	73	220	1/16"	1/4"
FX 2-4	1/8"	1/4"	150	450	1/16"	1/4"
FX 3-5	3/16"	5/16"	96	320	1/16"	1/2"
FX 4-6	1/4"	3/8"	73	220	1/16"	1"
FX 5-7	5/16"	7/16"	66	200	1/16"	1 1/2"
FX 6-8	3/8"	1/2"	53	160	1/16"	1 3/4"
FX 8-10	1/2"	5/8"	48	145	1/16"	2 1/2"
FX 8-12	1/2"	3/4"	80	240	1/8"	1 1/2"
FX 10-12	5/8"	3/4"	40	120	1/16"	4"
FX 12-14	3/4"	7/8"	30	90	1/16"	8"
FX 12-16	3/4"	1"	33	100	1/8"	8"
FX 16-20	1"	1 1/4"	45	135	1/8"	8"

Flexelene™ FX Colored Tubing

ID sized flexible polyethylene

Eldon James
Price Per 100 ft. Roll

 Certified to
NSF/ANSI 61
NSF/ANSI 51

Part Number	Part Number Example: FX 1-2 <u>R</u>	ID	OD	.	.	.	.
FX 1-2 __ *	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	1/16"	1/8"	.	.	.	.
*Color Suffix	W B X R O V G Y						
FX 1.5-2.5 __ *	<input type="checkbox"/> ** Colors Special Order**	3/32"	5/32"	.	.	.	.
FX 2-4 __ *	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	1/8"	1/4"	.	.	.	.
*Color Suffix	W B X R O V G Y						
FX 3-5 __ *	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Other Colors Special Order	3/16"	5/16"	.	.	.	.
*Color Suffix	B X R						
FX 4-6 __ *	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	1/4"	3/8"	.	.	.	.
	W B X R O V G Y						
FX 5-7 __ *	<input type="checkbox"/> **Colors Special Order Only**	5/16"	7/16"	.	.	.	.
FX 6-8 __ *	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Other Colors Special Order	3/8"	1/2"	.	.	.	.
*Color Suffix	B X R						
FX 8-10 __ *	<input type="checkbox"/> **Colors Special Order Only**	1/2"	5/8"	.	.	.	.
FX 8-12 __ *	<input type="checkbox"/> **Colors Special Order Only**	1/2"	3/4"	.	.	.	.
FX 10-12 __ *	<input type="checkbox"/> **Colors Special Order Only**	5/8"	3/4"	.	.	.	.
FX 12-14 __ *	<input type="checkbox"/> ** Colors Special Order Only**	3/4"	7/8"	.	.	.	.
FX 12-16 __ *	<input type="checkbox"/> ** Colors Special Order Only**	3/4"	1"	.	.	.	.
FX 16-20 __ *	<input type="checkbox"/> **Colors Special Order Only**	1"	1 1/4"	.	.	.	.

Colors can be manufactured in all sizes - Please call for information on quantities required for special orders.

* **ADD COLOR SUFFIX** to FX part numbers:

N Clear W White B Blue X Black R Red O Orange V Violet G Green Y Yellow

Flexelene™ FX Natural and Colors – Material Properties

Hardness	Tensile Yield	Ultimate Tensile Strength	Lower Temp. Range	Maximum Working Temp	Flexural Modulus	Vicat Softening Point
92	5.9	24.5	- 40°F	+ 170°F	59.2	168°F
Shore A	(MPa)	(MPa)	- 40°C	+ 76°C	(MPa)	75.6°C

All Flexelene™ colors are UV stabilized

* **Burst pressures** are approximately 3 times the maximum working pressure. Higher temperatures will reduce the available working pressure. Results are based on tests at our facility under controlled conditions; therefore, Eldon James Corp. makes no warranty or claim as to the performance of Flexelene™ in a specific application. It is strongly recommended that application-specific testing be done, particularly in situations where pressures approach the listed working PSI.

Flexelene™ CFX Natural Tubing

OD sized flexible polyethylene

Eldon James

Price Per 100 ft. Roll

Certified to
NSF/ANSI 61
NSF/ANSI 51

Part Number	OD	ID	.	.	.	.
CFX 2-4N	1/4"	.125"	.	.	.	.
CFX 170-4N	1/4"	.170"	.	.	.	.
CFX 3-5N	5/16"	.188"	.	.	.	.
CFX 4-6N	3/8"	.265"	.	.	.	.
CFX 5-7N	7/16"	.323"	.	.	.	.
CFX 6-8N	1/2"	.385"	.	.	.	.
CFX 8-10N	5/8"	.510"	.	.	.	.



Certified to
NSF/ANSI 61
NSF/ANSI 51

OD Sized Tubing



RoHS Compliant

Flexelene™ CFX Natural & Colored Tubing Specifications

Part Number	OD	ID	Working PSI @70°F	Burst PSI @70°F	Wall Thickness	Bend Radius in.
CFX 2-4	1/4"	.125"	150	450	1/16"	1/4"
CFX 170-4	1/4"	.170"	84	250	0.08"	1/4"
CFX 3-5	5/16"	.188"	96	320	1/16"	1/2"
CFX 4-6	3/8"	.265"	73	220	1/16"	1"
CFX 5-7	7/16"	.323"	66	200	1/16"	1 1/2"
CFX 6-8	1/2"	.385"	53	160	1/16"	1 3/4"
CFX 8-10	5/8"	.510"	48	145	1/16"	2 1/2"

Burst pressures are approximately 3 times the maximum working pressure. Higher temperatures will reduce the available working pressure. Results are based on tests at our facility under controlled conditions; therefore, Eldon James Corp. makes no warranty or claim as to the performance of Flexelene™ in a specific application. It is strongly recommended that application-specific testing be done, particularly in situations where pressures approach the listed working PSI.

Compatible With Push-on Compression Fittings

Eldon James

Flexelene™ CFX Colored Tubing

OD sized flexible polyethylene

Eldon James

Price Per 100 ft. Roll

Certified to
NSF/ANSI 61
NSF/ANSI 51

Flexelene™ CFX - Colored Tubing

Part Number	Part Number Example: CFX 3-4 <u>B</u>	OD	ID	.	.	.	.
CFX 2-4 __*	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	1/4"	.125"	.	.	.	.
*Color Suffix	W B X R O V G Y						
CFX 170-4 __*	<input type="checkbox"/> **All Colors Special Order Only**	1/4"	.170"	.	.	.	.
CFX 3-5 __*	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Other Colors Special Order	5/16"	.188"	.	.	.	.
*Color Suffix	B X R						
CFX 4-6 __*	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	3/8"	.265"	.	.	.	.
	W B X R O V G Y						
CFX 5-7 __*	<input type="checkbox"/> **All Colors Special Order Only**	7/16"	.323"	.	.	.	.
CFX 6-8 __*	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Other Colors Special Order	1/2"	.385"	.	.	.	.
*Color Suffix	B X R						
CFX 8-10 __*	<input type="checkbox"/> **All Colors Special Order Only**	5/8"	.510"	.	.	.	.

Colors can be manufactured in all sizes - Please call for information on quantities required for special orders.

* **ADD COLOR SUFFIX** to colored Flexelene™ CFX part numbers:

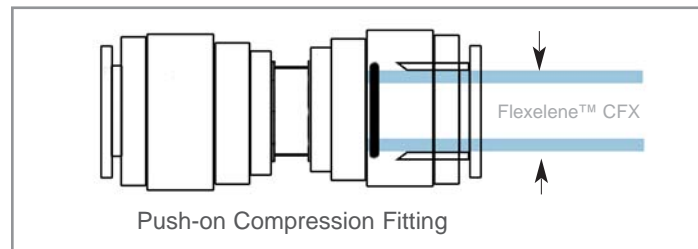
N Clear **W** White **B** Blue **X** Black **R** Red **O** Orange **V** Violet **G** Green **Y** Yellow

Flexelene™ CFX Natural and Colors – Material Properties

Hardness	Tensile Yield	Ultimate Tensile Strength	Lower Temp. Range	Maximum Working Temp	Flexural Modulus	Vicat Softening Point
92	5.9	24.5	- 40°F	+ 170°F	59.2	168°F
Shore A	(MPa)	(MPa)	- 40°C	+ 76°C	(MPa)	75.6°C

*All Flexelene™ colors are UV stabilized

Data presented for properties of materials and chemical resistance is for reference only. Customer applications and conditions of use are beyond our control; therefore, it is imperative that customers test Eldon James products in their specific application to determine suitability. All information is provided without implied or expressed warranty or guarantee, and none of the information provided constitutes a recommendation or endorsement of any kind by Eldon James Corporation.



Eldon James

Flexelene™ FXAG Antimicrobial (Protected) ID sized flexible polyethylene

Certified to
NSF/ANSI 61
NSF/ANSI 51

Eldon James

Price Per 100 ft. Roll

Part Number	ID	OD	•	•	•	•
FXAG 1-2	1/16"	1/8"	•	•	•	•
FXAG 1.5-2.5	3/32"	5/32"	•	•	•	•
FXAG 2-4	1/8"	1/4"	•	•	•	•
FXAG 3-5	3/16"	5/16"	•	•	•	•
FXAG 4-6	1/4"	3/8"	•	•	•	•
FXAG 5-7	5/16"	7/16"	•	•	•	•
FXAG 6-8	3/8"	1/2"	•	•	•	•
FXAG 6-10	3/8"	5/8"	•	•	•	•
FXAG 8-10	1/2"	5/8"	•	•	•	•



ID Sized Tubing
Material - Polyethylene
Color - Sky Blue

For maximum flow path protection, use with Eldon James AG antimicrobial (protected) fittings.

RoHS Compliant

Flexelene™ Silver FXAG Tubing Specifications

Part Number	ID	OD	Working PSI @72°F	Burst PSI @72°F	Wall Thickness	Bend Radius in.
FXAG 1-2	1/16"	1/8"	110	420	1/32"	5/32"
FXAG 1.5-2.5	3/32"	5/32"	86	260	1/32"	3/16"
FXAG 2-4	1/8"	1/4"	150	450	1/16"	1/4"
FXAG 3-5	3/16"	5/16"	96	320	1/16"	1/2"
FXAG 4-6	1/4"	3/8"	73	220	1/16"	1"
FXAG 5-7	5/16"	7/16"	66	200	1/16"	1 1/2"
FXAG 6-8	3/8"	1/2"	53	160	1/16"	1 3/4"
FXAG 6-10	3/8"	5/8"	Please call for availability			
FXAG 8-10	1/2"	5/8"	48	145	1/16"	2 1/2"

Burst pressures are approximately 3 times the maximum working pressure. Higher temperatures will reduce the available working pressure. Results are based on tests at our facility under controlled conditions; therefore, Eldon James Corp. makes no warranty or claim as to the performance of Flexelene™ in a specific application. It is strongly recommended that application-specific testing be done, particularly in situations where pressures approach the listed working PSI.

Eldon James antimicrobially protected components are designed with EPA recognized silver ion technology built into the product. Flow path areas within the tubing and all fittings' surfaces are protected against buildup of bacteria, mold, mildew, fungi and bio-film that can: degrade product quality, affect taste and cause odors. Eldon James products are not designed to protect the consumer through sanitization, disinfection or elimination of bacteria in the products that flow through them.

Flexelene™ CFXAG Antimicrobial (Protected)
OD sized flexible polyethylene

Eldon James

Certified to
NSF/ANSI 61
NSF/ANSI 51

Price Per 100 ft. Roll

Part Number	OD	ID	.	.	.	.
CFXAG 2-4	1/4"	.125"	.	.	.	.
CFXAG 170-4	1/4"	.170"	.	.	.	.
CFXAG 3-5	5/16"	.188"	.	.	.	.
CFXAG 4-6	3/8"	.265"	.	.	.	.
CFXAG 5-7	7/16"	.323"	.	.	.	.
CFXAG 6-8	1/2"	.385"	.	.	.	.
CFXAG 8-10	5/8"	.510"	.	.	.	.

Compression Fitting Compatible Tubing

OD Sized Tubing
Material - Polyethylene
Color - Sky Blue



RoHS Compliant

Flexelene™ Silver CFXAG Tubing Specifications

Part Number	OD	ID	Working PSI @72°F	Burst PSI @72°F	Wall Thickness	Bend Radius in.
CFXAG 2-4	1/4"	.125"	150	450	1/16"	1/4"
CFXAG 170-4	1/4"	.170"	84	250	0.08"	1/4"
CFXAG 3-5	5/16"	.188"	96	320	1/16"	1/2"
CFXAG 4-6	3/8"	.265"	73	220	1/16"	1"
CFXAG 5-7	7/16"	.323"	66	200	1/16"	1 1/2"
CFXAG 6-8	1/2"	.385"	53	160	1/16"	1 3/4"
CFXAG 8-10	5/8"	.510"	48	145	1/16"	2 1/2"

Burst pressures are approximately 3 times the maximum working pressure. Higher temperatures will reduce the available working pressure. Results are based on tests at our facility under controlled conditions; therefore, Eldon James Corp. makes no warranty or claim as to the performance of Flexelene™ Silver in a specific application. It is strongly recommended that application-specific testing be done, particularly in situations where pressures approach the listed working PSI.

Flexelene™ Silver FXAG and CFXAG Material Properties

Hardness	Tensile Yield	Ultimate Tensile Strength	Lower Temp. Range	Maximum Working Temp	Flexural Modulus	Vicat Softening Point
92	5.9	24.5	- 40°F	+ 170°F	59.2	168°F
Shore A	(MPa)	(MPa)	- 40°C	+ 76°C	(MPa)	75.6°C

Data presented for properties of materials and chemical resistance is for reference only. Customer applications and conditions of use are beyond our control; therefore, it is imperative that customers test Eldon James products in their specific application to determine suitability. All information is provided without implied or expressed warranty or guarantee, and none of the information provided constitutes a recommendation or endorsement of any kind by Eldon James Corporation.

Flexelene™ Silver AG Tubing - Bio Efficacy Evaluation:

Flexelene™ Silver FXAG and CFXAG tubing incorporate AgION™ antimicrobial technology to protect against the build up of bio-film. Microbial bio-films often form on surfaces, creating a continuous layer of undesirable polymer slime. The most effective way to prevent bio-film formation is to inhibit the initial colonization and proliferation of bacteria. AgION™ Antimicrobial combats bio-films by releasing silver ions that interfere with respiratory and metabolic functions of bacteria and other microbes.

Bio efficacy – Testing of Eldon James Flexelene™ Silver tubing shows that after a flow through of 40,000 liters of tap water, the tubing still provides up to a 6 log reduction of bacteria on the contact surface area of the tubing, after inoculation with test bacteria (99.74% - 99.9999% reduction over a series of 9 test intervals).

Safety – The average silver content in tap water that has run through Flexelene™ Silver tubing is well below $1\mu\text{g/liter}$. This means that a person would have to consume nearly 1,000 liters of this water in one day to approach the EPA reference dose (adult) of $5\mu\text{g/kg}$ of body weight per day.



Flexelene™ MX Soft Tubing

Manufactured with USP Class VI
Compliant Polymers

Soft tubing for medical
and life sciences applications

RoHS Compliant



Flexelene™ MX
Antimicrobial (Protected) Tubing

Flexelene™ MX soft medical tubing:

MFX

An advanced medical alloy that can be sterilized by EtO and irradiation

- USP Class VI compliant polymers - non-allergenic materials
- Contains no plasticizers, latex or vinyl acetate
- Materials conform with FDA regulation 21 CFR 177.2600(c) and conform to 2002/72/EC directive for monomers and additives - contains only additives approved and listed in accordance with European Pharmacopoeia 4th Edition, monograph 3.1.3
- Good clarity and chemical resistance • Extremely soft, pliable and flexible

Flexelene™ MX (antimicrobial protected) tubing:

MFXAG

Flexelene™ MFXAG is manufactured with a self-protective core that inhibits colonization by bacteria.

- USP Class VI compliant polymers
- Exhibits the same physical properties as standard Flexelene™ MX Soft tubing
- Self protects against the formation of bio-film by releasing small quantities of silver ions, which disrupt the metabolic functions of microbes, inhibiting their growth and reproduction

Eldon James

Flexelene™ MX Soft Medical Tubing - **MFX**
ID sized non-allergenic medical polymer

Eldon James

Price Per **50 ft. Roll**

Part Number	ID	OD	.	.	.	.
MFX .5-2	1/32"	.125	.	.	.	.
MFX 1-2	1/16"	.125	.	.	.	.
MFX 1.5-2.5	3/32"	.156	.	.	.	.
MFX 2-4	1/8"	.250	.	.	.	.
MFX 3-4	3/16"	.250	.	.	.	.
MFX 3-5	3/16"	.312	.	.	.	.
MFX 4-6	1/4"	.375	.	.	.	.
MFX 5-7	5/16"	.438	.	.	.	.
MFX 6-8	3/8"	.500	.	.	.	.
MFX 8-10	1/2"	.655	.	.	.	.
MFX 10-12	5/8"	.775	.	.	.	.
MFX 12-14	3/4"	.905	.	.	.	.
MFX 16-20	1"	1.260	.	.	.	.

Flexelene™ MFXAG Series antimicrobial (protected)-MX Tubing
ID sized **antimicrobial (protected)** medical polymer (Additional sizes available)

Part Number	ID	OD	.	.	.	.
MFXAG 2-4	1/8"	.250	.	.	.	.
MFXAG 4-6	1/4"	.375	.	.	.	.
MFXAG 6-8	3/8"	.500	.	.	.	.

Price per **50 ft. roll**

Flexelene™ MFX & MFXAG Soft Medical Tubing Specifications

Part Number	ID	OD	Working PSI @70°F <30 psi	Wall Thickness	Bend Radius in.	Antimicrobial (protected)
MFX .5-2	.040"	.125	<30 psi	.043	1/8"	
MFX 1-2	1/16"	.125	<30 psi	.032	1/8"	
MFX 1.5-2.5	3/32"	.156	<30 psi	.031	5/32"	
MFX 2-4	1/8"	.250	<30 psi	.063	3/16"	✓ MFXAG 2-4
MFX 3-4	3/16"	.250	<30 psi	.031	3/8"	
MFX 3-5	3/16"	.312	<30 psi	.062	1/2"	
MFX 4-6	1/4"	.375	<30 psi	.063	5/8"	✓ MFXAG 4-6
MFX 5-7	5/16"	.438	<30 psi	.063	1"	
MFX 6-8	3/8"	.500	<30 psi	.063	1 1/4"	✓ MFXAG 6-8
MFX 8-10	1/2"	.655	<30 psi	.072	n/a	
MFX 10-12	5/8"	.775	<30 psi	.072	n/a	
MFX 12-14	3/4"	.905	<30 psi	.072	n/a	
MFX 16-20	1"	1.260	<30 psi	.125	n/a	

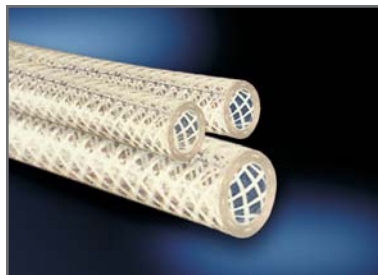
Flexelene™ Soft Medical Tubing - Material Properties

Hardness Shore A	Tensile Strength(MPa)	Lower Temperature Range	Maximum Working Temp	Vicat Softening Point
58	3 MPa	- 70°F	+ 135°F	147°F
ISO 1183	ISO 527	- 60°C	+ 57°C	63°C

High Pressure - Braid Reinforced Polyurethane Tubing

RoHS Compliant

Part Number	ID	OD	Working PSI @70°F	Burst PSI @70°F	Wall Thickness	
220 0072-100	1/4"	0.470"	250	1000	0.1100	•
220 0149-100	3/8"	0.630"	190	760	0.1275	•
220 0226-100	1/2"	0.750"	150	600	0.1250	•
220 0303-100	5/8"	0.905"	130	520	0.1400	•
220 0380-100	3/4"	1.025"	100	400	0.1375	•
220 0457-100	1"	1.300"	80	320	0.1500	•

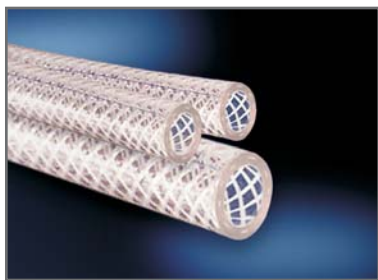


- Hardness, Shore A 85 ± 5
- Polyester braid reinforcement
- Brittle temperature – 90°F • Max operating temperature 175°F
- Resistant to most oils, fuels and greases (*testing is recommended)
- Ether formulation resists attack from moisture, fungus and radiation
- UV stable good for outdoor use • Excellent resistance to weathering, impact, abrasion and repeated flexing
- Ether-based material is listed by National Sanitation Foundation NSF 61

High Pressure - Braid Reinforced PVC Tubing

RoHS Compliant

Part Number	ID	OD	Working PSI @70°F	Burst PSI @70°F	Wall Thickness	
100 0076-100	1/8"	0.315	465	1395	0.095	•
100 0230-100	3/16"	0.394	315	945	0.103	•
100 0307-100	1/4"	0.453	300	900	0.102	•
102 0061-100	1/4"	0.500	400	1200	0.125	•
100 0461-100	5/16"	0.531	280	840	0.109	•
100 0538-100	3/8"	0.600	230	690	0.113	•
102 0075-100	3/8"	0.625	265	795	0.125	•
100 0692-100	1/2"	0.728	215	645	0.114	•
102 0096-100	1/2"	0.850	258	774	0.175	•
100 0846-100	5/8"	0.906	200	600	0.141	•
100 0923-100	3/4"	1.024	150	450	0.137	•
102 0117-100	3/4"	1.125	233	699	0.188	•
100 1154-100	1"	1.299	130	390	0.150	•



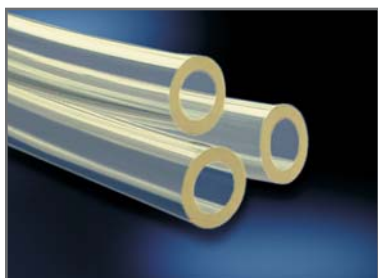
- Hardness, Shore A 80 ± 5
- Materials conform to USP Class VI
- Brittle temperature – 50°F • Max operating temperature 175°F
- Generally unaffected by most oxidizing and reducing agents, if diluted
- Oils and gasoline will harden PVC over periods of intermittent use
- Corrosion and abrasion resistant - mirror smooth interior surface
- Polyester braid reinforcement - flexibility similar to rubber

Transparent Polyurethane Tubing

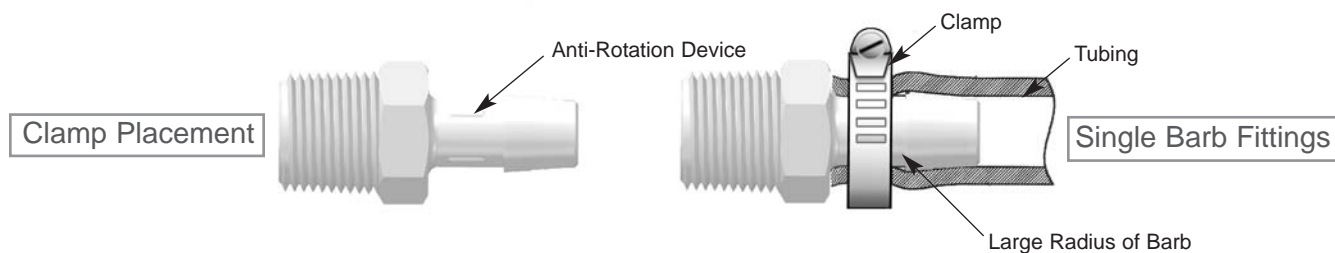
Ether Formula Polyurethane

RoHS Compliant

Part Number	ID	OD	Working PSI @70°F	Burst PSI @70°F	Wall Thickness	
210 0070-100	1/16"	1/8"	134	402	1/32"	•
210 0147-100	1/8"	3/16"	72	216	1/32"	•
210 0224-100	1/8"	1/4"	130	390	1/16"	•
210 0455-100	3/16"	5/16"	74	222	1/16"	•
210 0686-100	1/4"	3/8"	67	201	1/16"	•
210 0840-100	1/4"	1/2"	131	393	1/8"	•
210 0917-100	5/16"	7/16"	65	195	1/16"	•
210 1148-100	3/8"	1/2"	59	177	1/16"	•
210 1225-100	3/8"	9/16"	84	252	3/32"	•
210 1302-100	3/8"	5/8"	100	300	1/8"	•
210 1533-100	1/2"	5/8"	36	108	1/16"	•
210 1610-100	1/2"	11/16"	48	144	3/32"	•
210 1687-100	1/2"	3/4"	60	180	1/8"	•
210 1764-100	5/8"	3/4"	40	120	1/16"	•
210 1841-100	5/8"	13/16"	54	162	3/32"	•
210 1918-100	5/8"	7/8"	60	180	1/8"	•
210 2072-100	3/4"	1"	51	153	1/8"	•
210 2380-100	1"	1 1/4"	40	120	1/8"	•



- Hardness, Shore A 85 ± 5
- Contains no plasticizers
- Brittle temperature – 90°F • Max operating temperature 175°F
- Resistant to most oils, fuels and greases (*testing is recommended)
- Ether formulation resists attack from moisture, fungus and radiation
- UV stable – good for outdoor use • Excellent resistance to weathering, impact, abrasion and repeated flexing
- Ether-based material is listed by National Sanitation Foundation NSF 61



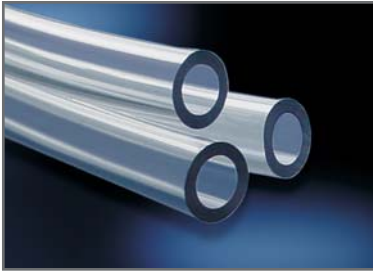
Placing the clamp behind a fitting's barb achieves the most secure and leak resistant seal with the tubing. This is only possible when using fittings designed with a single barb.

Eldon James

Clear PVC Tubing

RoHS Compliant

Part Number	ID	OD	Working PSI @70°F	Burst PSI @70°F	Wall Thickness	•
110 0456-100	1/8"	1/4"	68	212	1/16"	•
110 0918-100	3/16"	5/16"	55	220	1/16"	•
110 0995-100	3/16"	3/8"	70	280	3/32"	•
110 1149-100	1/4"	3/8"	55	220	1/16"	•
110 1226-100	1/4"	7/16"	60	240	3/32"	•
110 1303-100	1/4"	1/2"	70	280	1/8"	•
110 1380-100	5/16"	7/16"	50	200	1/16"	•
110 1457-100	5/16"	1/2"	60	240	3/32"	•
110 1611-100	3/8"	1/2"	40	160	1/16"	•
110 1765-100	3/8"	5/8"	65	260	1/8"	•
110 2227-100	1/2"	5/8"	30	120	1/16"	•
110 2304-100	1/2"	11/16"	40	160	3/32"	•
110 2381-100	1/2"	3/4"	45	180	1/8"	•
110 2920-100	5/8"	3/4"	48	192	1/16"	•
110 3074-100	5/8"	7/8"	40	160	1/8"	•
110 3536-100	3/4"	7/8"	19	76	1/16"	•
110 4152-100	1"	1 1/4"	28	112	1/8"	•

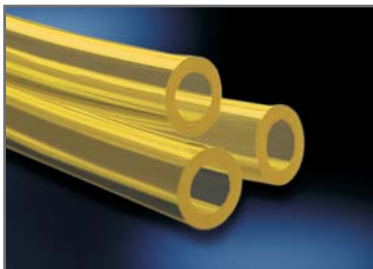


- Hardness, Shore A 68 ± 5
- PVC compound meets USP Class VI requirements
- Brittle temperature – 41°F • Max operating temperature 175°F
- Handles a wide variety of chemicals, gasses and liquids
- Generally unaffected by most oxidizing and reducing agents
- Oils and gasoline will harden PVC over periods of intermittent use
- Listed by the National Sanitation Foundation NSF 51

Fuel and Oil Resistant PVC Tubing

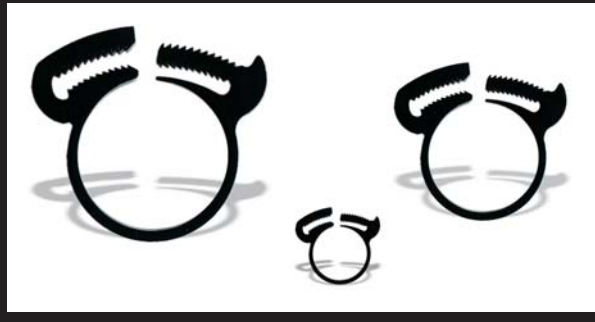
RoHS Compliant

Part Number	ID	OD	Working PSI @70°F	Burst PSI @70°F	Wall Thickness	•
111-0032-50	1/8"	1/4"	68	204	1/16"	•
111-0067-50	3/16"	5/16"	55	165	1/16"	•
111-0102-50	1/4"	3/8"	55	165	1/16"	•
111-0137-50	3/8"	1/2"	40	120	1/16"	•



- Hardness, Shore A 68 ± 5
- Brittle temperature – 41°F (– 41°C)
- Max operating temperature +175°F (+80°C)
- Generally unaffected by most oxidizing and reducing agents
- Specially formulated to remain flexible when used with fuels and oils

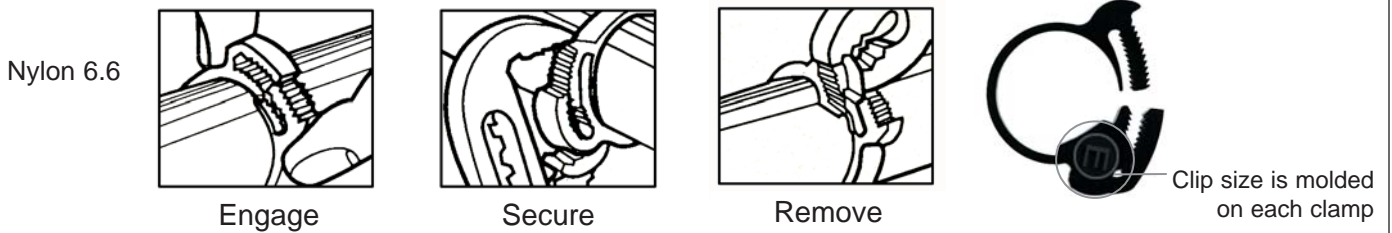
Eldon James



Handy Clamps

Part Number	Max. Diameter	Min. Diameter	3 Teeth Engaged	Sets of Teeth	Fits Flexelene™ FX and Silver FXAG Tubing			
HC-A	.268 [9/32"]	.220 [7/32"]	0.256"	8	FX 2-4*	•	•	•
HC-AA	.319 [5/16"]	.256 [9/32"]	0.311"	8	FX 3-5*	•	•	•
HC-B	.378 [3/8"]	.311 [5/16"]	0.362"	8	—	•	•	•
HC-BB	.425 [7/16"]	.362 [3/8"]	0.406"	9	FX 4-6*	•	•	•
HC-C	.484 [1/2"]	.402 [13/32"]	0.465"	9	FX 5-7*	•	•	•
HC-D	.571 [9/16"]	.472 [15/32"]	0.543"	9	FX 6-8*	•	•	•
HC-F	.701 [23/32"]	.591 [19/32"]	0.673"	11	FX 8-10*	•	•	•
HC-G	.783 [25/32"]	.665 [21/32"]	0.752"	11	FX 8-12*	•	•	•
HC-H	.843 [27/32"]	.713 [23/32"]	0.811"	11	FX 10-12*	•	•	•
HC-J	.933 [31/32"]	.799 [13/16"]	0.906"	11	FX 12-14*	•	•	•
HC-K	1.016 [1 1/32"]	.874 [7/8"]	0.980"	11	FX 12-16*	•	•	•
HC-N	1.299 [1 5/16"]	1.134 [1 1/8"]	1.268"	11	FX 16-20*	•	•	•

* Size tests were made using Eldon James "single barb fittings". The space behind a single barb allows for more compression of the tubing than is allowed by a multiple barb. With a multiple barb fitting, the clamp sits on top of the barb flanges and a larger clamp may be required - If in doubt about size, please ask for samples.



Larger sizes to 6" diameter are available by special order.

Size Selection Guideline:

With the hose in place on the fitting, select a Handy Clamp that provides a snug fit with one to three teeth engaged. When fully tightened this will produce a strong and reliable closure.



← Line production assembly tool for Handy Clamps HC-ATM \$250.00

Stainless Steel Tubing Clamps

Oetiker Stepless Ear Clamps



- Radial Compression 360° - no steps or gaps on inner circumference
 - Ear design provides spring action during vibration and thermocycling conditions
 - Chromium-nickel stainless steel has a high strength-to-weight ratio
 - Excellent corrosion resistance in both aqueous and atmospheric environments
- Oetiker Stepless Ear Clamps are made of UNS S30400 or DIN 1.4301 stainless steel.

Other sizes are available by special order.

7 mm x 0.6 mm Band dimension except number **16700989 and **16700988, which measure 5 mm x 0.5 mm

Part Number	Clamping Range		* Use with Eldon James Flexelene™ Tubing Size			•	•
	Inches closed • open	mm closed • open	Eldon James Tubing Size	OD Nominal			
**16700988	.347 - .413	8.8 - 10.5 mm	MFX	4 - 6	3/8"	•	•
**16700989	.378 - .445	9.6 - 11.3 mm	FX, FXAG	4 - 6	3/8"	•	•
16700992	.386 - .484	9.8 - 12.3 mm	FX, FXAG	5 - 7	7/16"	•	•
16700993	.425 - .524	10.8 - 13.3 mm	—	—	—	•	•
16700997	.453 - .551	11.5 - 14.0 mm	FX, MFX, FXAG	6 - 8	1/2"	•	•
16701005	.520 - .618	13.2 - 15.7 mm	—	—	—	•	•
16701009	.571 - .669	14.5 - 17.0 mm	—	—	—	•	•
16701015	.602 - .728	15.3 - 18.5 mm	FX, FXAG	8 - 10	5/8"	•	•
16701021	.654 - .780	16.6 - 19.8 mm	FX, FXAG	8 - 12	3/4"	•	•
16701029	.701 - .827	17.8 - 21.0 mm	FX	10 - 12	3/4"	•	•
16701058	.823 - .949	20.9 - 24.1 mm	—	—	—	•	•
16701072	.882 - 1.008	22.4 - 25.6 mm	FX	12 - 14	7/8"	•	•
16701087	.941 - 1.067	23.9 - 27.1 mm	—	—	—	•	•
16701103	1.000 - 1.126	25.4 - 28.6 mm	—	—	—	•	•
16701225	1.236 - 1.362	31.4 - 34.6 mm	FX	16 - 20	1 1/4"	•	•
16701245	1.295 - 1.421	32.9 - 36.1 mm	—	—	—	•	•

SELECTING THE CORRECT SIZE : SELECT THE NOMINAL SIZE NEAREST TO, BUT ALWAYS LARGER THAN THE OUTSIDE DIAMETER OF THE MATERIAL TO BE CLAMPED. THE OUTSIDE DIAMETER SHOULD BE DETERMINED WITH CONNECTION FULLY ASSEMBLED. NOTE: MULTIPLE BARB FITTINGS MAY REQUIRE USING A LARGER CLAMP SIZE THAN SINGLE BARB FITTINGS - TO CONSIDER THE CLAMP CLOSED - THE EAR WIDTH SHOULD BE REDUCED BY AT LEAST 40% WHEN PINCHED.



Standard Jaw Pincers

For closing all regular Oetiker Stepless Clamps



Part Number
1410082
\$18.00

Dual Purpose Side Jaw Pincers

Designed for working in tight areas with pliers held parallel to the hose - can also be used from the front like regular pincers.



Part Number
1410083
\$21.00



Stainless Steel Tubing Clamps

Oetiker



Worm Drive Clamps

Part Number	Clamping Range				
	inches	mm			
17700049	5/16" - 1/2"	8 - 16 mm	•	•	•
17700050	1/2" - 3/4"	12 - 20 mm	•	•	•
17700051	5/8" - 1 1/16"	16 - 27 mm	•	•	•
17700052	3/4" - 1 1/4"	20 - 32 mm	•	•	•

1/4" Hex-Head Screw Clamps

300 Series stainless steel band and housing. Zinc-plated, yellow chromate, carbon steel screw.

Ideal



Part Number	Clamping Range			
	inches	mm		
62606	.312" - .875"	7.97 - 22.2	•	•
62M08	.500" - 1.00"	12.7 - 25.4	•	•
62M12	.625" - 1.25"	15.8 - 31.7	•	•
62M16	.625" - 1.50"	15.8 - 38.1	•	•

Tiny, tough, precision engineered • Seal with only 10 inch-pounds of screw torque • One-piece housing • No spot welds • Easy to install in confined areas

Oetiker clamps illustrated below are available as special order items - Please call for a quote.



Oetiker Miniature Clamps



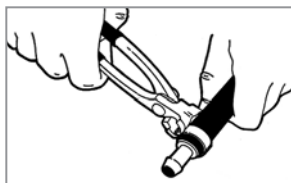
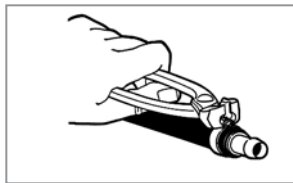
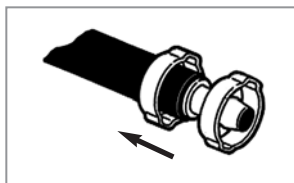
Constant Tension Clamps



2-Ear Clamps



1-Ear Clamps



Removal
(Stepless Ear Clamp)

