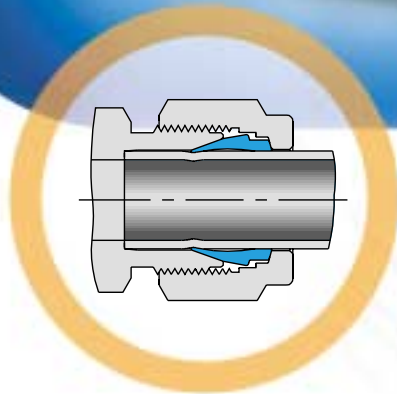




# ONE-LOK

TUBE FITTINGS 1/16 Through 1 in.



## THE PRINCIPLE

ONE-LOK is designed to give you leak-proof, secure connections that can withstand high pressure, vibration and vacuum applications. To this end, ONE-LOK tube fittings are made up of three parts that are precision engineered and machined: body, ferrule and nut.

## APPLICATIONS

Ham-Let's ONE-LOK tube fitting is designed for use in control systems, process and instrumentation devices and in industrial

equipment used in various industries such as:

- Pulp & paper mills
- Petroleum process plants
- Chemical process plants
- Chromatography
- Power generation plants

ONE-LOK offers you a simple, high quality tube fitting with excellent performance and reliability.

## MATERIALS

Ham-Let's ONE-LOK standard single ferrule fittings are offered

in 316 Stainless Steel. Cold drawn finished bar stock is machined to produce the straight fittings. Close grain forgings are used for the machining of the shaped bodies. For other material options, please contact your Ham-Let distributor or

Ham-Let On-line : [www.ham-let.com](http://www.ham-let.com)

## REMAKEABILITY

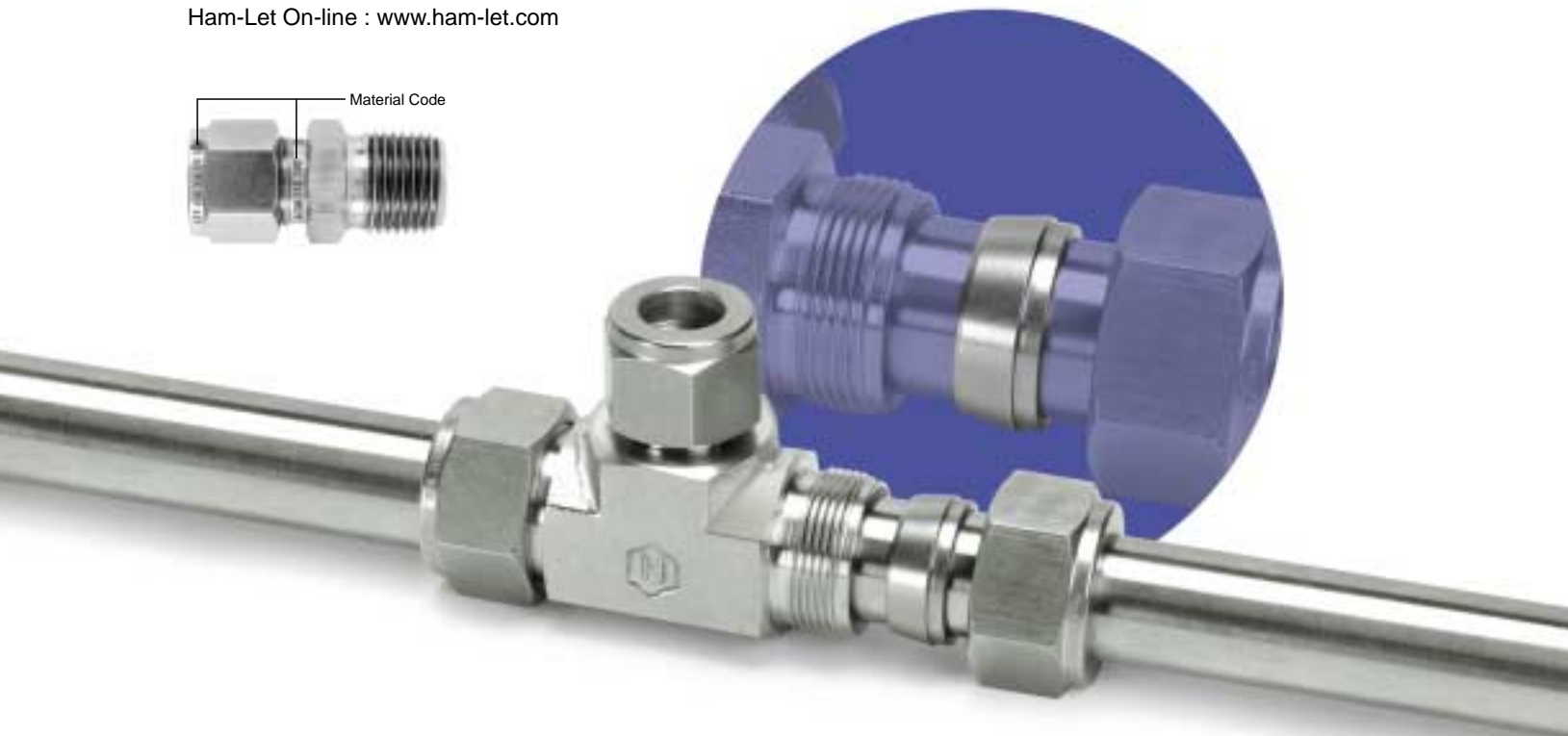
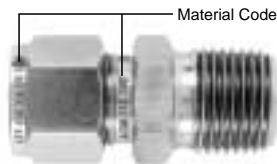
Thanks to the single ferrule design, Ham-Let's ONE-LOK tube fitting continues to perform through repeated remakes; the ONE-LOK single ferrule seal is leak tight - remake after remake.

## TEMPERATURE CHANGES

During make-up, the ONE-LOK single ferrule is designed to be able to bow. This action introduces a 'live' element, allowing the device to maintain a leak-tight seal despite expansion and contraction due to temperature changes.

## UNIQUE HEAT CODE TRACE NUMBER (MATERIAL CODE)

Ham-Let stamps or etches all ONE-LOK stainless steel body fittings with a unique heat code trace number. This is particularly valuable for critical applications. Full documentation can be made available via this code to trace the SS material back to the original melt or cast.



## ONE-LOK TUBING SELECTION

To ensure the installation of safe, leak free systems, it is important to choose the appropriate ONE-LOK single ferrule for your application. ONE-LOK fittings are engineered to the highest standards.

The table below lists tube sizes, which have been tested to bursting pressure with both maximum and minimum wall thickness. Correctly assembled ONE-LOK fittings were installed and no leaks or other failures were noted at the connection points. If you are planning on using tubing that has different wall thicknesses than those noted in this chart, please contact

the Ham-Let Technical Department for advice regarding the appropriate working pressure.

Note: Use fully annealed high quality stainless steel tubing of ASTM A269 or equivalent standard.

Working pressure: Based on laboratory and field tests using ASTM A269 tubing with a safety factor of 4:1 in a metal temperature range of -20° to +100°c.

However, it is the customer's responsibility to ensure safe product selection that is based upon the total system design and function.

### TUBING DATA:

Annealed 304 or 316 stainless steel tubing meeting ASTM A213, A269 or equivalent specifications, based on ultimate tensile strength of 75,000 psi (5167 bar), for metal temperatures from -20°F - 100°F (-29°C - 37°C).

Suggested ordering information: Fully annealed high quality (Type 304 or 316) stainless steel hydraulic tubing ASTM A269 or A213 or equivalent, seamless or welded and drawn with a hardness of Rb90 or less. Tubing should be without scratches and suitable for flaring and bending.

Tubing O.D.		WALL THICKNESS OF TUBE IN INCH												
MM	Inch	.010	.012	.014	.016	.020	.028	.035	.049	.065	.083	.095	0.109	0.120
	1/16	5600	6860	8150	9480	12.080								
2	1/8						8550	10950						
3	3/16						5500	7100	10300					
6	1/4						4100	5200	7600	10300				
8	5/16							4100	5900	8100				
10	3/8							3350	4850	6550				
12	1/2							2650	3750	5150	6750			
16	5/8								2950	4050	5250	6050		
20	3/4								2450	3350	4250	4950	5850	
22	7/8								2050	2850	3650	4250	4850	
25	1"									2400	3100	3600	4200	4700

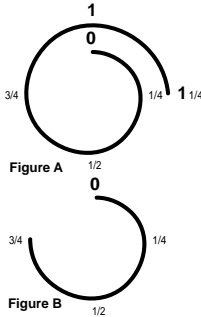
## INSTALLATION INSTRUCTIONS



ONE-LOK fittings are supplied assembled, finger tight.

Disassembly before use can allow the entry of dirt or other particles.

1. Insert the tubing into the ONE-LOK fitting. Check that the tube rests firmly on the fitting shoulder and that the nut is finger tight.



2. Tighten the nut. 1 1/4 turns of the nut is required for 1/4" (6 mm) and higher (See Figure A). 3/4 turns of the nut is required for 1/8" (See Figure B).

### REASSEMBLY INSTRUCTIONS

ONE-LOK connections may be disconnected and remade repeatedly, without loss of leaktight seal.

1. Before disconnecting, mark the position of the nut in relation to the fitting body.
2. To reassemble, use a wrench to tighten nut to original position.
3. Tighten slightly with wrench until a slight rise in torque is felt.

### TUBE CUTTING

Two different methods can be used to cut tubes

1. Tube cutter
2. Hacksaw

### TUBE CUTTER

To attain a leak free connection, the tubing must be cut squarely. A good quality tube cutter with the appropriate blade for the tubing material is recommended.

Do not try to reduce the time of cutting by taking deep cuts with each turn of the cutter. This will work harden the tube.

The end of the tube must be deburred to avoid damage to the fitting and to ensure that the tube reaches the bottom of the fitting.

### HACKSAW CUTTING

In order to cut the tube with a hacksaw and get square ends, the tube must be cut with guide blocks. This method of cutting necessitates deburring of the tube ends.

#### Warning

Do not hold the tube in a vise in the place where it will be inserted into the fitting (the vise will leave a mark on the tube that may cause leaks, and might cause ovality).

### TUBE HANDLING

Scratches on the tube might cause leaks. It is therefore, important to handle the tube carefully to reduce the risk of leaks.

#### Some precautions to be taken:

1. Tubes must not be dragged on the floor.
2. Tubes must not be dragged out of a tubing rack, especially in case of large OD tubes.

## How to Order:

ONE-LOK fitting part numbers are constructed from symbols that identify the type of material and size of the fitting.

EXAMPLE:

768HL

Fitting type  
(male connector)

SS

SS = Stainless Steel

1/4

Tube O.D.

X 1/4

1/4 NPT

The O.D. size is always the first to be described