Allowable working pressure

Allowable stress equals to 19,500 PSI at -28°C(-20°F) to 93°C (200°F°)

Safety Factor= 4(Considering tensile strength to be 75,000psi at room temperature

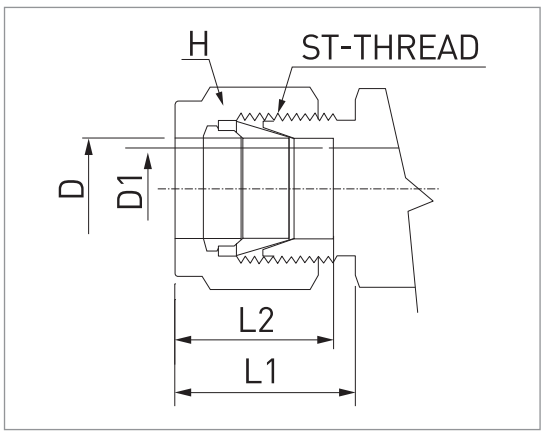
Table 1:
Allowable stress factor at temperatures above 93°C(200°F)

°F	°C	Copper	304SS	316SS	Monel
200	93	0.80	1.00	1.00	0.88
400	204	0.50	0.93	0.96	0.79
600	316	-	0.82	0.85	0.79
800	427	-	0.76	0.79	0.76
1000	538	-	0.69	0.76	-
1200	649	-	0.30	0.37	-

To calculate the maximum allowable pressure utilise the stress factor for the relevant temperature from the table 1 above and multiply by the allowable pressure listed in table 2 for the relevant tube.

Table 2, Allowable working pressure (PSI)

Tube O.D. (millimeters)	TUBE WALL THICKNESS (inches)												
	.010	.012	.014	.016	.020	.028	.035	.049	.065	.083	.095	.109	.120
3	5600	6800	8100	9400	12000								
4						8500	10900			For Seamless Tubing			
6						8400	7000	10200					
8						4000	5100	7500	10200				
10							4000	5800	8000				
12							3300	4800	6500				
16							2400	3500	4700	6200			
18								2900	4000	5200	6000		
20								2400	3300	4200	4900	5800	
22								2000	2800	3600	4200	4800	
25									2400	3100	3600	4200	4700

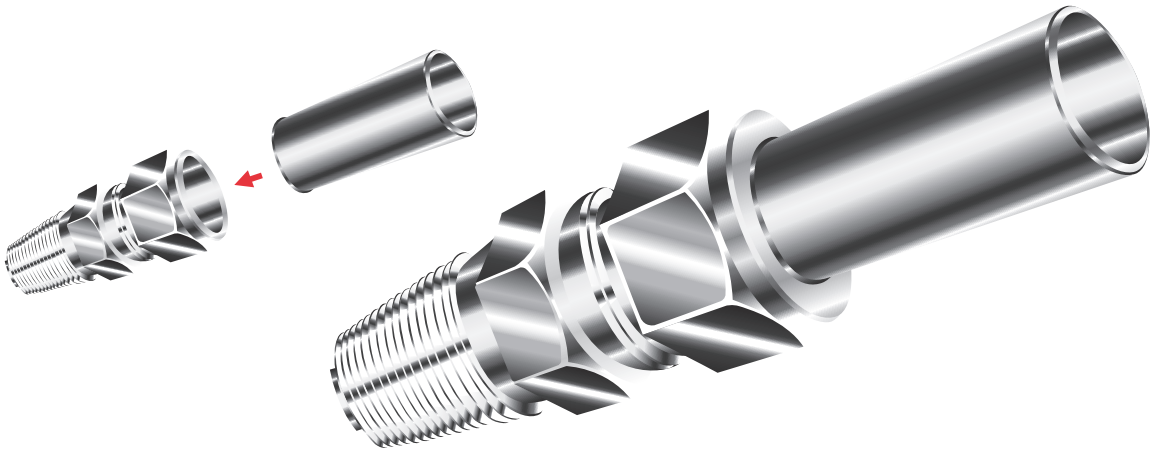


Tube End Dimensional Data						
Size	Tube O.D.	Staright Thread	Minimum Opening	Tube Insertion Depth	Finger-Tight	Hexagonal
NO	D	ST	D1	L1	L2	H
1	1/16	10-321	0.05	0.34	0.43	5/16
2	1/8	5/16-20	0.09	0.50	0.60	7/16
3	3/16	3/8-20	0.12	0.54	0.63	1/2
4	1/4	7/16-20	0.19	0.60	0.70	9/16
5	5/16	1/2-20	0.25	0.64	0.73	5/8
6	3/8	9/16-20	0.28	0.66	0.76	11/16
8	1/2	3/4-20	0.41	0.90	0.86	7/8
10	5/8	7/8-20	0.50	0.96	0.86	1
12	3/4	1-20	0.62	0.96	0.86	1.1/8
14	7/8	1.1/8-20	0.72	1.02	0.86	1.1/4
16	1	1.5/16-20	0.88	1.23	1.04	1.2/2

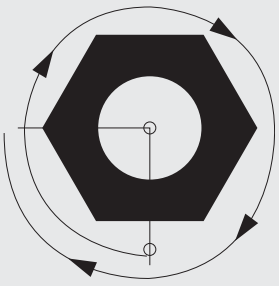
INSTALLATION

Assembly Instructions

1- Completely insert the tube into the fitting against the shoulder to finger-tight the nut.
2- Hold the fitting steady and rotate the nut for one and a quarter turns



Size: 1/4" to 1"



1-1/4 turn from finger tight position