

Over-flanging will result in tube nut interference, as well as thinning of the flange tube end. Under-flanging reduces the contact area for sealing against the O-ring in the fitting.

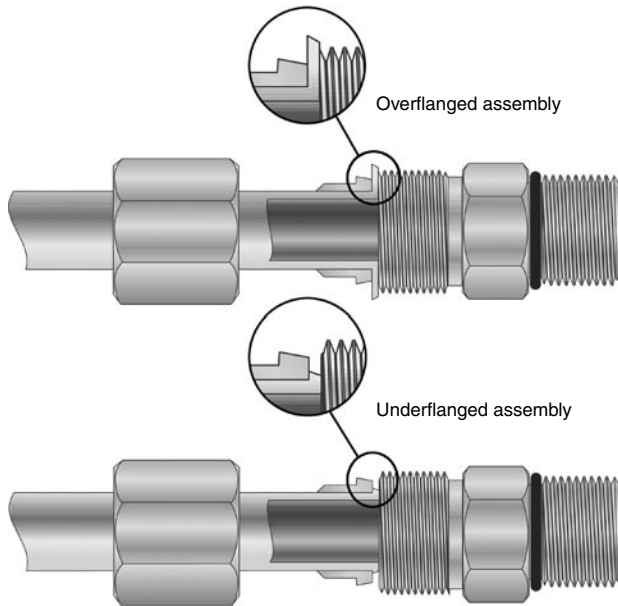


Fig. T20 – Overflanging and Underflanging

Advantages of Parflange process

There are numerous advantages to using the Parflange process over the braze or weld process:

- The Parflange process is several times faster than the brazing or welding methods. For instance, the 1025 and 1040 models produce flanges at a rate of 9 to 12 times the speed of comparable induction brazing.
- The Parflange process does not require any special pre- or post-flange cleaning of the tube and sleeve.
- Unlike brazing, the Parflange process does not require any flux, braze alloy, post braze cleaner or rust inhibitor. An environmentally safe lubricant applied to the flanging pin is the only additive associated with the Parflange.
- The Parflange process is inherently safe. It does not require open flame or any form of heating. Additionally, there is no emission of hazardous fumes, as is typical with welding and brazing.
- The Parflange process uses only a fraction of the energy needed for welding or brazing.
- The Parflange process accommodates the use of plated components (i.e., tube and sleeve), thus eliminating the need to electroplate assemblies after fabrication.
- The Parflange process eliminates the potential for leaks at the braze or weld joint.
- The Parflange process produces a burnished sealing surface, typically much smoother than the 125 micro-inch requirement of SAE J1453.

Brazing

Brazing is the other method of attaching the sleeve to the tube end. This process can be accomplished by using a multi-flame torch, as shown in Fig. T21, or an induction brazing unit. During the heating process, the pre-formed braze ring or wire-fed filler material is melted between the tube O.D. and the sleeve I.D., creating a strong bond between the two.



Fig. T21 – Multi-flame torch brazing

Brazing Steps:

1. Determine the tube length allowance using [Table T13](#).

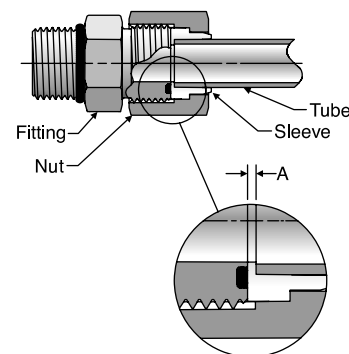


Fig. T22 – Tube length allowance

Nominal Tube O.D.		A (in.)
Inch	Metric	
1/4	6	0.04
3/8	8, 10	0.04
1/2	12	0.04
5/8	14, 15, 16	0.06
3/4	18, 20	0.06
1	22, 25	0.06
1 1/4	28, 30, 32	0.06
1 1/2	35, 38	0.06

Table T13 – Tube length allowance

Dimensions and pressures for reference only, subject to change.