

Assembly Instructions, Flares for Tubing

1. Select proper tubing for the application, including material compatibility, system fluid, operating pressure, mechanical loading, etc. For single flaring to SAE J533, SAE J524 or J525 tubing is recommended. For double flaring applications, tubing to SAE J 524, J525, J526 or J356 may be used. For applications using stainless steel fittings, fully annealed tubing per ASTM A213, ASTM A249 or ASTM A269 is recommended
2. Prepare tube end by cutting to required length. End should be trimmed square within +/- 1 degree.
3. Deburr O.D. and I.D. of tube. Refer to Fig.A16 and Table A9 for recommended tube chamfers for heavy wall tubing.
4. Clean tube to remove all dirt and grit from both O.D. and I.D. of tube.
5. Assemble tube nut and sleeve on tube. The threaded end of nut and flared end of sleeve must point toward the end of the tube to be flared.
6. Using the correct flaring tool for the tube size and desired flare angle, flare the tube end. Refer to Fig.A15 for thin wall tubing flares and to Fig.A16 for typical hydraulic system pressure line tubing flares.
7. Inspect flare to the dimensions indicated in Fig.A15, Fig.A16 and Table A9. In addition, flare should be checked for concentricity, thin out, cracks, nicks, loose slivers, burrs, pits or other defects which may prevent sealing.

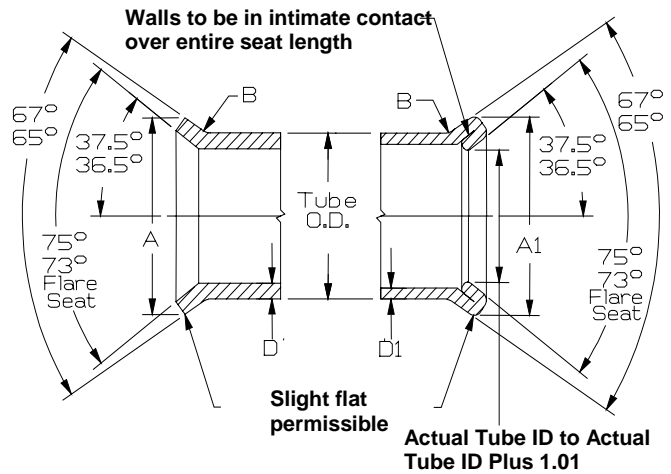


Fig.A15 Single and Double 37 Degree Flares for Tubing
1) Recommended for thin wall tubing flares

Table A9. Dimensions of Single and Double 37 Degree Flares for Tubing (Ref. SAE J533)

Dash Size	Nom. Tube Dia.	A and A1 Single and Double Flare Dia.	B Radius +/- 0.02	D Single Flare Tube Wall Max.	D1 Double Flare Tube Wall Max.	E Optional Tube Chamfer Face Width	F1 Dia. +/- .01
-2	1/8	.200-.180	0.03	0.035	0.025	.02+/--.005	.191
-3	3/16	.280-.260	0.03	0.035	0.028	.02+/--.005	.244
-4	1/4	.360-.340	0.03	0.065	0.035	.03+/--.005	.289
-5	5/16	.430-.400	0.03	0.065	0.035	.03+/--.005	.350
-6	3/8	.490-.460	0.04	0.065	0.049	.03+/--.005	.429
-8	1/2	.660-.630	0.06	0.083	0.049	.05+/--.010	.565
-10	5/8	.790-.760	0.06	0.095	0.049	.05+/--.010	.675
-12	3/4	.950-.920	0.08	0.109	0.049	.05+/--.010	.844
-14	7/8	1.070-1.040	0.08	0.109	0.065	.05+/--.010	.970
-16	1	1.200-1.170	0.09	0.120	0.065	.05+/--.010	1.094
-20	1-1/4	1.510-1.480	0.09	0.120	0.065	.05+/--.010	1.405
-24	1-1/2	1.730-1.700	0.11	0.120	0.065	.05+/--.010	1.620
-32	2	2.360-2.330	0.11	0.134	0.065	.06+/--.010	2.234

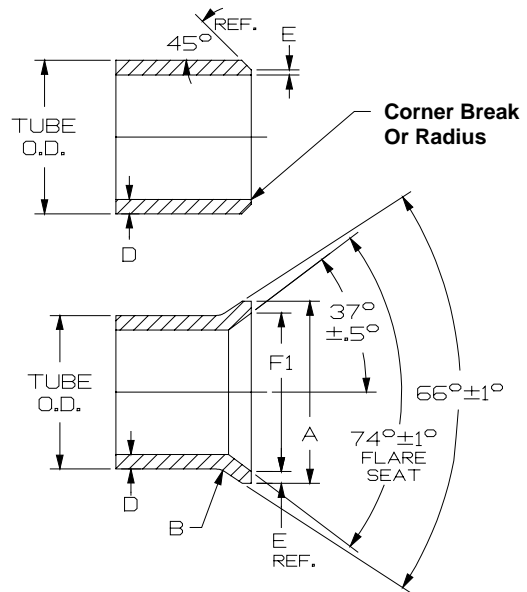


Fig.A16 Optional Tube Preparation and Single 37 Degree Flare for Tubing
1) Recommended for typical hydraulic system pressure line flares.

