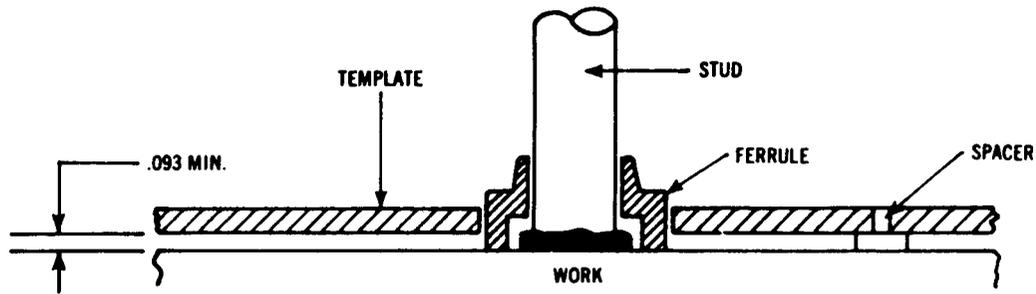
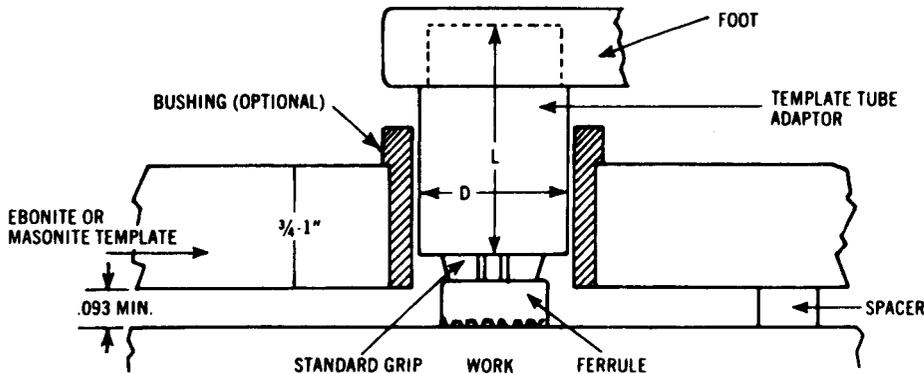


# TEMPLATE DESIGN FOR STUD LOCATING



This method of templating is recommended for use with all ferrules. The template is usually a steel plate  $\frac{3}{32}$ " to  $\frac{3}{16}$ " thick. Spacers are required to allow the gases to escape during the welding cycle. The ferrule can be held by a standard ferrule grip or where clearance is prohibitive, a

tube type set-up can be used. The recommended hole sizes on the template to locate the ferrules should equal the maximum outside diameter of the ferrule plus  $\frac{1}{32}$ ". Holes may be drilled or bored at required locations. See stud specification sheets for ferrule detail.



STUD SIZE	D	L
1/2" and under	1.250	2.000
5/8" and under	1.562	2.500
7/8" and larger	2.125	2.500

This method of templating is recommended for use with all stud styles. The design makes it possible to accurately hold angular alignment of the studs as well as stud location. The template should be made of ebonite or masonite of a thickness sufficient to afford good alignment. Bushings may be used to insure greater accuracy and extend the life of the template.

Standard copper ferrule grips are used with the tube adapter. This permits standardization of templates since it is only necessary to change the copper ferrule grip to weld studs of different diameters. The hole diameter of the bushing or template should be approximately .010 larger than the maximum outside diameter of the template tub adaptor.

## RECOMMENDED MINIMUM PLATE THICKNESS OF STEEL AND ALUMINUM FOR ELECTRIC-ARC STUD WELDING

Base Dia. of Stud (in)	STEEL WITHOUT BACKUP		ALUMINUM	
	(in.)	(gage)	WITHOUT BACKUP (in.)	WITH BACKUP (in.)
0.187	0.0359	20	0.125	0.125
0.250	0.0478	18	0.125	0.125
0.312	0.0598	16	0.187	0.125
0.375	0.0747	14	0.187	0.187
0.437	0.0897	13	0.250	0.187
0.500	0.1196	11	0.250	0.250
0.625	0.148	9	0.250	
0.750	0.187			
0.875	0.250			
1.000	0.375			

