

ASD: $0.928 \text{ kip} \times D / \text{length of } 1''$

LRFD: $1.390 \text{ kip} \times D / \text{length of } 1''$

The following table lists the values of t_w for ASTM A36 ($F_u = 58 \text{ ksi}$) and A992 ($F_u = 65 \text{ ksi}$) steels for varying values of D :

min plate thickness $t = 6.18 \times D / F_u$ for two sided welds:

D	t_w for A36	t_w for A992
3	0.32	0.29
4	0.43	0.38
5	0.53	0.48
6	0.64	0.57
7	0.75	0.67
8	0.85	0.76

F_{EXX} = classification strength of the weld metal, ksi

D = number of sixteenths of an inch of weld size

F_u = specified minimum tensile strength of the type of steel being used, ksi

t_w = thickness of web plate, in.

AISC

Table 3-2. Minimum Permissible Fillet Weld Sizes

Material Thickness of Thinner Part Joined, in. (mm)	Minimum Size of Fillet Weld ¹ , in. (mm)
To $\frac{1}{4}$ (6) inclusive	$\frac{1}{8}$ (3)
Over $\frac{1}{4}$ (6) to $\frac{1}{2}$ (13)	$\frac{3}{16}$ (5)
Over $\frac{1}{2}$ (13) to $\frac{3}{4}$ (19)	$\frac{1}{4}$ (6)
Over $\frac{3}{4}$ (19)	$\frac{5}{16}$ (8)

¹Leg dimension of fillet welds. Single pass welds must be used.
Note: See Section J2.2b for maximum size of fillet welds.