

L SHAPED WELD (ORIGINAL)

LENGTH OF WELD  $10''$

$$\text{THROAT THICKNESS OF WELD} = \text{LEG LENGTH} \times 0.707$$

$$'' '' '' '' = 0.5'' \times 0.707$$

$$= 0.3535''$$

$$\text{Now AREA OF WELD} = \text{THROAT THICKNESS} \times \text{LENGTH}$$

$$= 0.3535'' \times 10'' = 3.535'' \text{ SQ}$$

U SHAPED WELD (NEW)

TO ACHIEVE SAME WELD AREA

$$\text{WELD LENGTH} = 22''$$

$$\text{WELD AREA} = 3.535''$$

$$\therefore \text{WELD AREA} = \text{WELD LENGTH} \times \text{THROAT THICKNESS}$$

$$\frac{3.535''}{22''} = \text{THROAT THICKNESS} = 0.16068''$$

$$\frac{\text{THROAT THICKNESS}}{0.707} = \text{WELD LEG LENGTH}$$

$$0.16068$$

\*

\*

USE  $0.25''$

FILLET WELD

$$\frac{0.16068}{0.707}$$

$$= 0.227''$$