

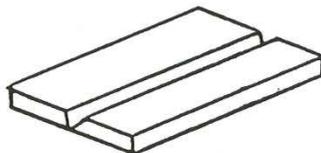
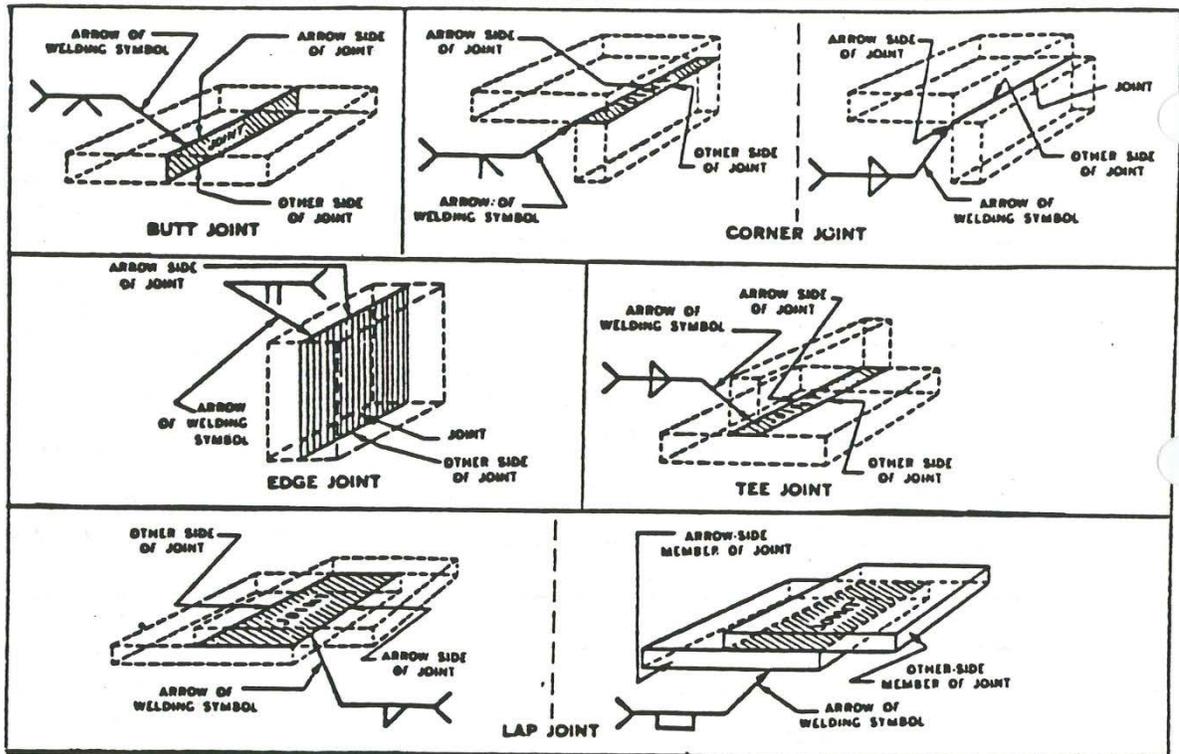
# WELDED JOINTS – STANDARD SYMBOLS

## WELDED JOINTS Standard symbols

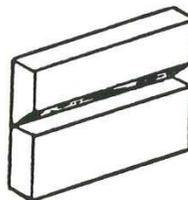
| BASIC WELD SYMBOLS  |        |                 |                |         |        |   |   |         |             |
|---|--------|-----------------|----------------|---------|--------|---|---|---------|-------------|
| BACK  | FILLET | PLUG OR SLOT    | GROOVE OR BUTT |         |        |   |   |         |             |
|   |        |                 | SQUARE         | V       | BEVEL  | U   | J | FLARE V | FLARE BEVEL |
|   |        |                 |                |         |        |   |   |         |             |
| SUPPLEMENTARY WELD SYMBOLS  |        |                 |                |         |        |   |   |         |             |
| BACKING   | SPACER | WELD ALL AROUND | FIELD WELD     | CONTOUR |        | For other basic and supplementary weld symbols, see AWS A2.4-79 |   |         |             |
|   |        |                 |                | FLUSH   | CONVEX |   |   |         |             |
|   |        |                 |                |         |        |   |   |         |             |
| STANDARD LOCATION OF ELEMENTS OF A WELDING SYMBOL   |        |                 |                |         |        |   |   |         |             |
| <p>Finish symbol</p> <p>Contour symbol</p> <p>Root opening, depth of filling for plug and slot welds</p> <p>Effective throat</p> <p>Depth of preparation or size in inches</p> <p>Reference line</p> <p>Specification, process or other reference</p> <p>Tail (omitted when reference is not used)</p> <p>Basic weld symbol or detail reference</p> <p>Groove angle or included angle of countersink for plug welds</p> <p>Length of weld in inches</p> <p>Pitch (c. to c. spacing) of welds in inches</p> <p>Field weld symbol</p> <p>Weld-all-around symbol</p> <p>Arrow connects reference line to arrow side of joint. Use break as at A or B to signify that arrow is pointing to the grooved member in bevel or J-grooved joints.</p>   |        |                 |                |         |        |   |   |         |             |
| <p><b>Note:</b></p> <p>Size, weld symbol, length of weld and spacing must read in that order from left to right along the reference line. Neither orientation of reference line nor location of the arrow alter this rule.</p> <p>The perpendicular leg of <math>\Delta</math>, <math>V</math>, <math>P</math>, <math>\nabla</math> weld symbols must be at left.</p> <p>Arrow and Other Side welds are of the same size unless otherwise shown. Dimensions of fillet welds must be shown on both the Arrow Side and the Other Side Symbol.</p> <p>The point of the field weld symbol must point toward the tail.</p> <p>Symbols apply between abrupt changes in direction of welding unless governed by the "all around" symbol or otherwise dimensioned.</p> <p>These symbols do not explicitly provide for the case that frequently occurs in structural work, where duplicate material (such as stiffeners) occurs on the far side of a web or gusset plate. The fabricating industry has adopted this convention: that when the billing of the detail material discloses the existence of a member on the far side as well as on the near side, the welding shown for the near side shall be duplicated on the far side.</p> |        |                 |                |         |        |   |   |         |             |

# IDENTIFICATION OF ARROW SIDE AND OTHER SIDE OF JOINT

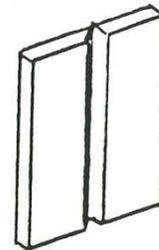
## Identification of Arrow Side and Other Side of Joint



FLAT GROOVE WELD



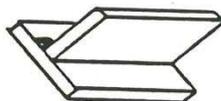
HORIZONTAL GROOVE WELD



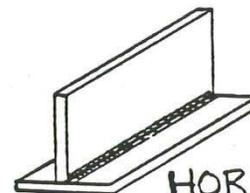
VERTICAL GROOVE WELD



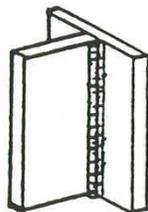
OVERHEAD GROOVE WELD



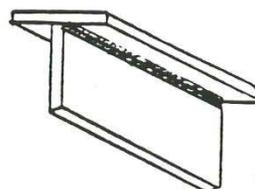
FLAT FILLET WELD



HORIZONTAL FILLET WELD



VERTICAL FILLET WELD



OVERHEAD FILLET WELD