

| Basic Welding Symbols and Their Location Significance | | | | | | | | |
|---|--------|----------|----------|----------|----------|----------|-------------|--|
| Flange | Groove | | | | | | | Location Significance |
| Corner | Square | V | Bevel | U | J | Flare-V | Flare-Bevel | |
| | | | | | | | | Arrow Side |
| | | | | | | | | Other Side |
| Not used | | | | | | | | Both Sides |
| Not used | | Not used | Not used | Not used | Not used | Not used | Not used | No Arrow Side or Other Side Significance |

| Typical Welding Symbols | | |
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| Slot Welding Symbol Depth of filling in inches (omission indicates filling is complete) | Square-Groove Welding Symbol Omission of size indicates complete joint penetration | Flare-V and Flare-Bevel-Groove Welding Symbols Root opening Size is considered as extending only to tangent points Root opening |
| Plug Welding Symbol Included angle of countersink Pitch (distance between centers) of welds Depth of filling in inches (omission indicates filling is complete) Size (diameter of hole at root) | Chain Intermittent Fillet Welding Symbol Size (length of leg) Pitch (distance between centers) of increments Length of increments | Edge- and Corner- Flange Welding Symbols Radius Size of weld Height above point of tangency |
| Backgouging Welding Symbol Back gouge Second reference line used for back gouging and welding as a second operation Total effective throat not to exceed thickness of member | Back or Backing Welding Symbol Any applicable angle groove weld symbol | Surfacing Welding Symbol Indicating Built-up Surface Size (height of deposit) Omission indicates no specific height desired Orientation, location and all dimensions other than size are shown on the drawing |
| Flash or Upset Welding Symbol No arrow side or other side significance Process reference must be used to indicate process desired | Staggered Intermittent Fillet Welding Symbol Pitch (distance between centers) of increments Size (length of leg) Length of increments | Single-V Groove Welding Symbol Indicating Root Penetration Size Depth of preparation Effective throat Root opening Groove angle |
| Spot Welding Symbol Size (diameter of weld) Strength (in lb per weld) may be used instead Process reference must be used to indicate process desired Number of welds Pitch (distance between centers) of weld | Double-Bevel-Groove Welding Symbol Arrow points toward member to be prepared Omission of size dimension indicates a total depth of preparation equal to thickness of members Root opening Groove angle | |
| Seam Welding Symbol Length of welds or increments Omission indicates that weld extends between abrupt changes in direction or as dimensioned Size (width of weld) Strength (in lb per linear inch) may be used instead Pitch (distance between centers) of increments Process reference must be used to indicate process desired | Projection Welding Symbol Projection welding reference must be used Size (strength in lb per weld) Diameter of weld may be used instead for circular projection welds Pitch (distance between centers) of welds Number of welds | |
| Welding Symbols for Combined Welds Size (length of leg) Specification, process, or other reference | Double-Fillet Welding Symbol Length Omission indicates that weld extends between abrupt changes in direction or as dimensioned | |

| Basic Joints—Identification of Arrow Side and Other Side of Joint | | Process Abbreviations |
|---|--|---|
| Lap Joint Other side member of joint Arrow of welding symbol Arrow side member of joint | Edge Joint Arrow side of joint Arrow of welding symbol Joint | Where process abbreviations are to be included in the tail of the welding symbol, reference is made to Table A, Designation of Welding and Allied Processes by Letters, of AWS 2.4-79, 71. AMERICAN WELDING SOCIETY, INC. 2501 N.W. 7th Street, Miami, Florida 33125 |

Fig 3.1 (cont.)—AWS Standard welding symbols