



American Welding Society Welding Symbol Chart

A2.1:1998
Second Printing

Basic Welding Symbols and Their Location Significance								
Location Significance	Fillet	Plug or Slot	Spot or Projection	Stud	Seam	Back or Backing	Surfacing	Edge
Arrow Side								
Other Side				Not Used			Not Used	
Both Sides		Not Used	Not Used	Not Used	Not Used	Not Used	Not Used	
No Arrow Side or Other Side Significance	Not Used	Not Used		Not Used		Not Used	Not Used	Not Used
Location Significance	Groove							Scarf for Brazed Joint
	Square	V	Bevel	U	J	Flare-V	Flare-Bevel	
Arrow Side								
Other Side								
Both Sides								
No Arrow Side or Other Side Significance		Not Used	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used

Supplementary Symbols				Location of Elements of a Welding Symbol			
Weld-All-Around	Field Weld	Melt-Thru	Consumable Insert		<p>F Finishing Symbol</p> <p>C Contour Symbol</p> <p>G Groove Weld Size</p> <p>GA Groove Angle; Included Angle of Countersink for Plug Welds</p> <p>RO Root Opening; Depth of Filling for Plug and Slot Welds</p> <p>L Length of Weld Segment</p> <p>P Pitch (Center-to-Center Spacing) of Weld Segments</p> <p>FS Field Weld Symbol</p> <p>WAS Weld-All-Around Symbol</p> <p>AR Arrow Connecting Reference Line to Arrow Side Member of Joint or Arrow Side of Joint</p> <p>RL Reference Line</p> <p>T Tail (May Be Omitted When Reference is Not Used)</p> <p>S(E) Specification, Process, or Other Reference</p> <p>N Number of Spot, Seam, Stud, Plug, Slot, or Projection Welds</p> <p>Both Sides (N)</p> <p>Arrow Side (N)</p> <p>Other Side (N)</p>		
Backing/Spacer (Rectangular)	Contour						
Backing	Flush or Flat	Convex	Concave				
Spacer							
Basic Joints				Letter Designations			
Identification of Arrow Side and Other Side Joint				Where letter designations are to be included in the tail of the welding symbol, reference is made to Table 1, Letter Designations of Welding and Allied Processes and Their Variations, of AWS A2.4-98.			
Butt Joint		Corner Joint		Edge Joint		Letter Designations	
						<p>American Welding Society 550 N.W. LeJeune Road Miami, Florida 33126</p>	
T-Joint		Lap Joint					

Typical Welding Symbols		
Double-Fillet Welding Symbol 	Chain Intermittent Fillet Welding Symbol 	Staggered Intermittent Fillet Welding Symbol
Plug Welding Symbol 	Back Welding Symbol 	Backing Welding Symbol
Spot Welding Symbol 	Stud Welding Symbol 	Seam Welding Symbol
Square-Groove Welding Symbol 	V-Groove Welding Symbol 	Double-Bevel-Groove Welding Symbol
Symbol with Backgouging 	Flare-V-Groove Welding Symbol 	Flare-Bevel-Groove Welding Symbol
Multiple Reference Lines 	Complete Joint Penetration 	Edge Welding Symbol
Flash or Upset Welding Symbol 	Melt-Thru Symbol 	Joint with Backing
Joint with Spacer 	Flush Contour Symbol 	Convex Contour Symbol
Double-Bevel Groove 		

It should be understood that these charts are intended only as shop aids. The only complete and official presentation of the standard welding symbols is in AWS A2.4, *Standard Symbols for Welding, Brazing, and Nondestructive Examination*.