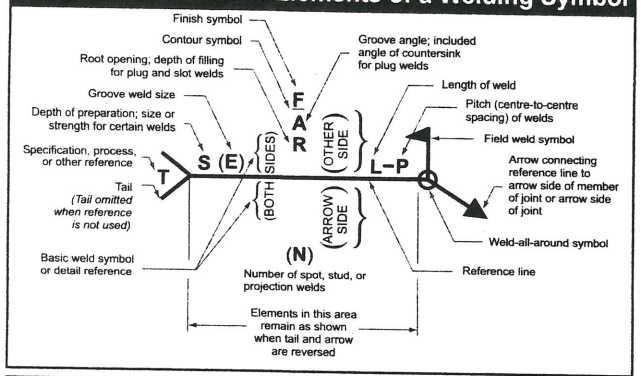
# WELDING SYMBOLS

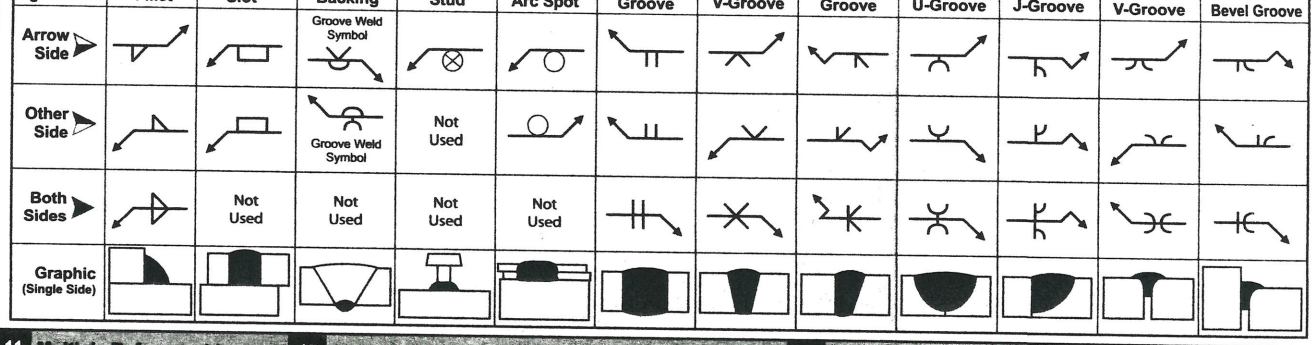
American Welding Society Standard Welding Symbols (based on AWS A2.4 - 1998). Adapted to Scope of CSA W59 Standard

Canadian Welding Bureau
1-800-844-6790 www.cwbgroup.org

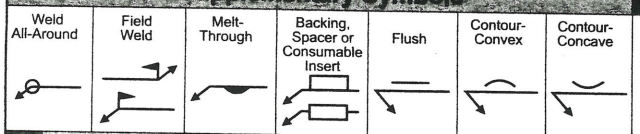
## Standard Location of Elements of a Welding Symbol



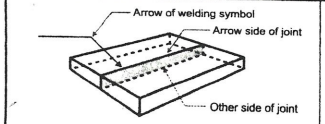

## Basic Welding Symbols and Their Location Significance



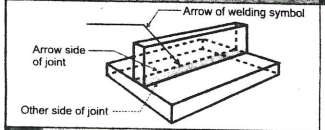

## Supplementary Symbols



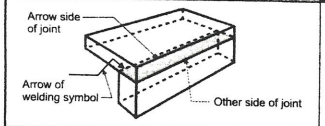

### 1 Basic Joints - Butt Joint



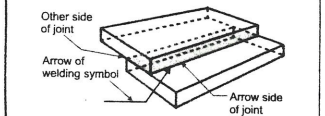

### 2 Basic Joints - T-Joint



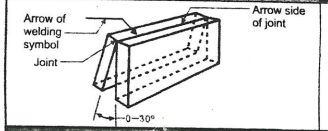

### 3 Basic Joints - Corner Joint



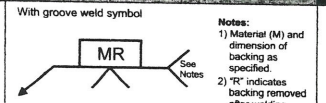

### 4 Basic Joints - Lap Joint




### 5 Basic Joints - Edge Joint

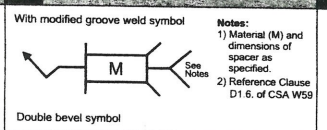



### 6 Joint with Backing



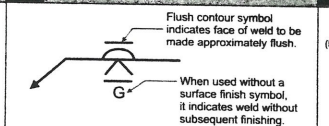

**Notes:**
1) Material (M) and dimension of backing as specified.
2) "R" indicates backing removed after welding.

### 7 Joint with Spacer

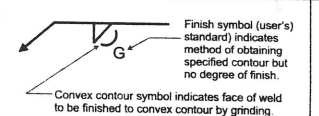



**Notes:**
1) Material (M) and dimensions of spacer as specified.
2) Reference Clause D1.6. of CSA W59

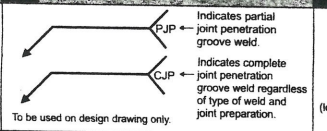
### 8 Flush Contour Symbol



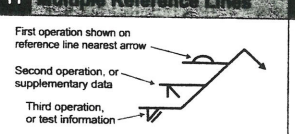

### 9 Convex Contour Symbol




### 10 Joint Penetration




### 11 Multiple Reference Lines




### 12 Finishing of Welds

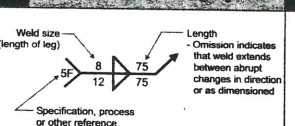
C - Chipping
G - Grinding
M - Machining
R - Rolling
H - Hammering

Finishing of welds other than cleaning is indicated by suitable contour and finish symbols. These finishing symbols indicate the method, not the degree, of finish.

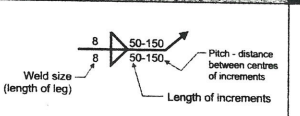
### 13 Abbreviations

GTSM - Gouge To Sound Metal
CJP - Complete Joint Penetration
PJP - Partial Joint Penetration

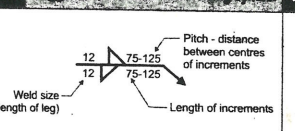
### 14 Double-Fillet Welding Symbol



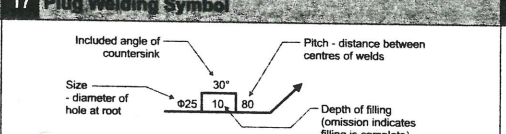

### 15 Chain Intermittent Fillet Welding Symbol



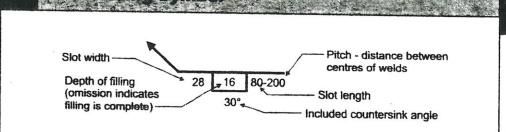

### 16 Staggered Intermittent Fillet Welding Symbol



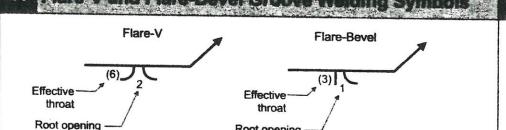

### 17 Plug Welding Symbol



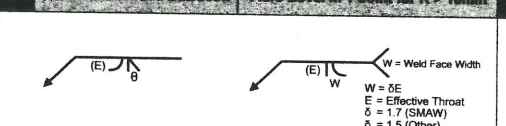

### 18 Slot Welding Symbol



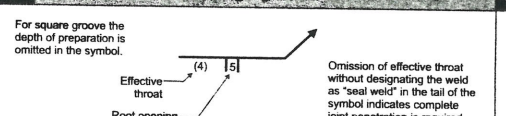

### 19 Flare-V and Flare-Bevel Groove Welding Symbols



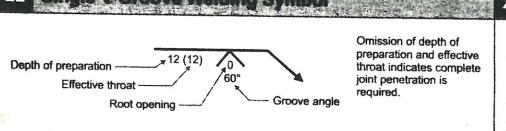

### 20 Flare V-Groove in a Butt Joint / Flare Bevel in T-Joint for R > 10mm



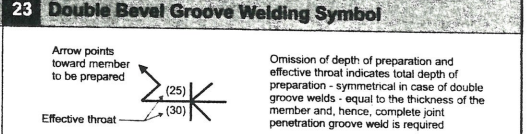

### 21 Square Groove Welding Symbols



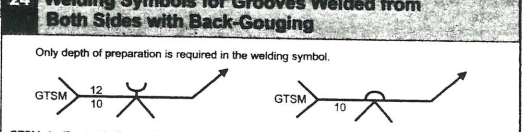

### 22 Single V-Groove Welding Symbol



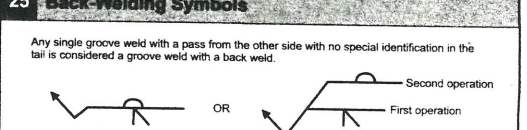

### 23 Double Bevel Groove Welding Symbol



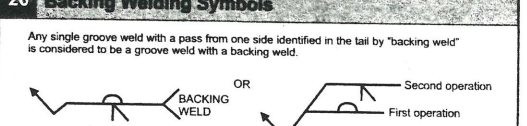

### 24 Welding Symbols for Grooves Welded from Both Sides with Back-Gouging



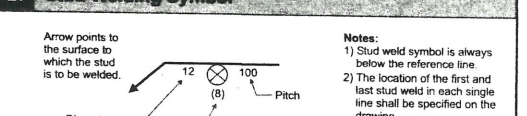

### 25 Back-Welding Symbols




### 26 Backing Welding Symbols

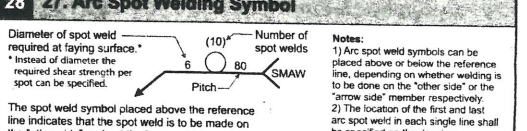



### 27 Stud Welding Symbol




**Notes:**
1) Stud weld symbol is always below the reference line.
2) The location of the first and last stud weld in each single line shall be specified on the drawing.

### 28 27. Arc Spot Welding Symbol




**Notes:**
1) Arc spot weld symbols can be placed above or below the reference line, depending on whether welding is to be done on the "other side" or the "arrow side" member respectively.
2) The location of the first and last arc spot weld in each single line shall be specified on the drawing.

CERTIFICATION TRAINING ISO REGISTRATION