

WELDING POSITIONS AND SYMBOLS

PLATE AND PIPE POSITIONS TO ISO AND AS/AWS STANDARDS:

- ▲ ISO STANDARD 6947
- ▲ AUSTRALIAN STANDARD AS 3545
- ▲ AMERICAN WELDING SOCIETY AWS A3.0

PLATE AND PIPE WELDING POSITIONS TO ISO:

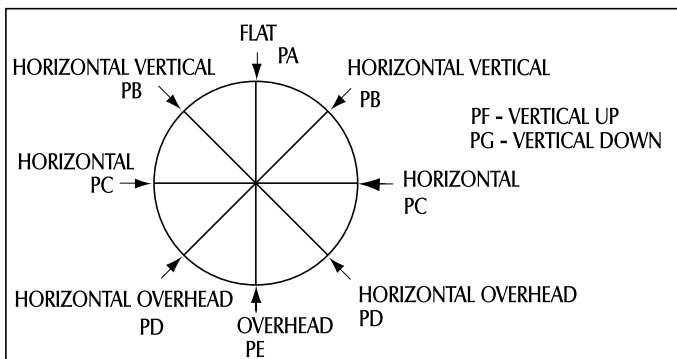
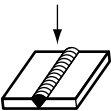
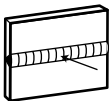
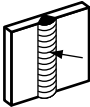
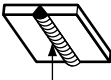
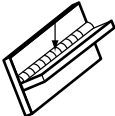
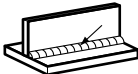
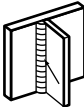
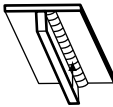
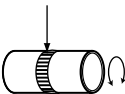
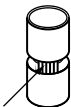
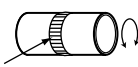
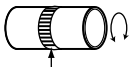
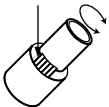
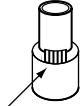
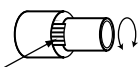



PLATE POSITIONS:

WELD	FLAT	HORIZONTAL	VERTICAL	OVERHEAD
BUTT	 1G / PA	 2G / PC	 3G / PF PG	 4G / PE
FILLET	 1F / PA	 2F / PB	 3F / PF PG	 4F / PE


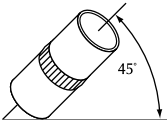
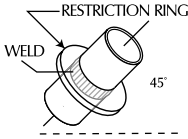

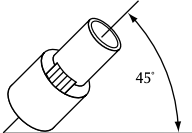
WELDING POSITIONS AND SYMBOLS cont.

PIPE POSITIONS - ROTATED OR ROLLED:

	FLAT	HORIZONTAL	VERTICAL	OVERHEAD
BUTT	 1G / PA	 2G / PC	 3G / PF	 4G / PE
FILLET	 1F / PA	 2F / PC	 *3F/PF (AWS 2F,R)	 *4F/PE (AWS 4F,F)

* ONLY APPLIES TO AS 3545 and ISO 6947

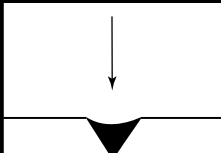
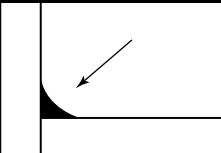
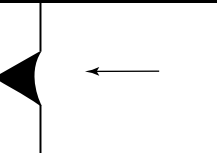
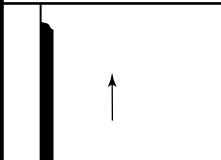
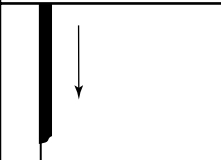
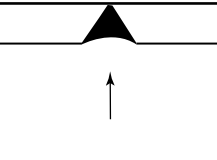
PIPE POSITIONS - FIXED POSITION:

BUTT	 5G / PF PG	 6G / H -L045	 6GR
FILLET	 5F / PF PG	 * 6F / L45 PA	

* NOTE: ONLY APPLIES TO AS 3545 and ISO 6947

WELDING POSITIONS AND SYMBOLS cont.









WELDING DIRECTIONS OR POSITIONS:

		
FLAT	HORIZONTAL - VERTICAL	HORIZONTAL
		
VERTICAL - UP	VERTICAL - DOWN	OVERHEAD









COMPARISON OF BASIC DRAWING (PRINTS) WELDING SYMBOLS:

(i) AS 1101.3 /AWS A2.4

AS 1101.3 BUTT WELD / AWS A2.4 GROOVE WELD

BUTT WELD							
SQUARE	SCARF	V	BEVEL	U	J	FLARE- V	FLARE BEVEL
							

(ii) AS 1101.3

FILLET WELD	PLUG WELD OR SLOT WELD	SPOT WELD OR PROJECTION WELD	SEAM WELD	BACKING RUN OR BACKING WELD	SURFACING	FLANGE WELD	
						EDGE	CORNER
							

WELDING POSITIONS AND SYMBOLS cont.

COMPARISON OF BASIC DRAWING (PRINTS) WELDING SYMBOLS cont.:

AWS A2.4

FILLET	PLUG OR SLOT	STUD	SPOT OR PROJECTION	SEAM	BACK OR BACKING	SURFACING	FLANGE	
							EDGE	CORNER

AS 1101.3



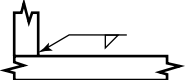







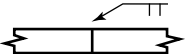


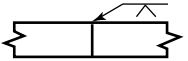
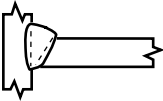

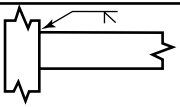


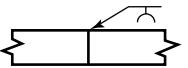
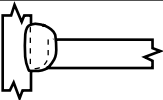

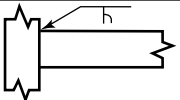
WELD ALL AROUND	SITE WELD	COMPLETE PENETRATION FROM ONE SIDE	BACKING OR SPACER MATERIAL	CONTOUR		
				FLUSH	CONVEX	CONCAVE

AWS A2.4

WELD ALL AROUND	SITE WELD	MELT THROUGH	CONSUM. INSERT (SQUARE)	BACKING OR SPACER (RECTANGLE)	CONTOUR		
					FLUSH OR FLAT	CONVEX	CONCAVE

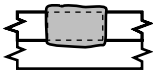

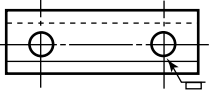
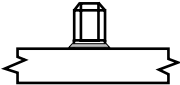

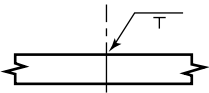
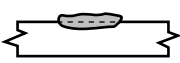

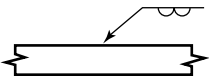
WELDING POSITIONS AND SYMBOLS cont.

HOW WELDING SYMBOLS ARE USED:


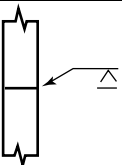


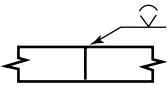

TYPE OF WELD	SKETCH OF WELD	SYMBOL	INDICATION OF DRAWING
FILLET WELD			
BEAD			EDGE WELD SEAL WELD BACKING RUN 
BUTT WELDS			
GENERAL BUTT	FULL PENETRATION BUTT WELD BY A WELDING PROCEDURE TO BE AGREED		
SQUARE BUTT			
SINGLE V BUTT			
SINGLE BEVEL BUTT			
SINGLE U BUTT			
SINGLE J BUTT			

WELDING POSITIONS AND SYMBOLS cont.

HOW WELDING SYMBOLS ARE USED cont.:

TYPE OF WELD	SKETCH OF WELD	SYMBOL	INDICATION OF DRAWING
PLUG OR SLOT			
STUD			
SURFACING			

WELD FINISH

TYPE OF WELD	SYMBOL	INDICATION OF DRAWING	SKETCH OF WELD
FLUSH FINISH			
CONVEX FINISH			

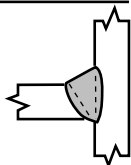
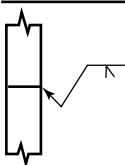
CRANKED ARROW

A. A CRANKED ARROW IS USED WITH A BEVEL OR "J" WELD SYMBOL POINTING TOWARD THE PLATE WHICH IS PREPARED. SEE 1

B. IF PLATE TO BE PREPARED IS OBVIOUS THE CRANK IS OMITTED. SEE 2



1.



2.

