



















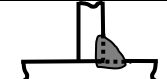













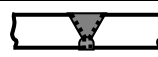









ANNEX C TYPICAL WELDING SYMBOLS

This annex contains typical welding symbols used.

1. ELEMENTARY SYMBOLS		
Type of weld	Illustration	Symbol
Butt weld between plates with raised edges which are melted down completely		
Square butt weld		
Single-V butt weld		
Single bevel butt weld		
Single-U butt weld		
Single-J butt weld		
Backing run		
Double-V butt weld		
Double bevel butt weld		
Double-U butt weld		
Fillet weld		
Plug weld (Plug or slot weld – USA)		
Surfacing		

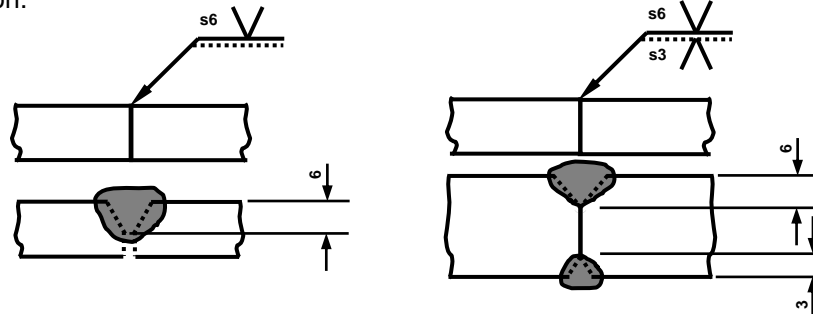
2. SUPPLEMENTARY SYMBOLS		
Shape of weld surface or weld	Supplementary symbol	
Flat (usually finished flush by grinding and machining)		
Convex		
Concave		
Toes shall be blended smoothly – may require dressing		
Permanent backing strip used		
Removable backing strip used		
Examples of the use of supplementary symbols		
Designation	Illustration	Symbol
Flat (flush) single-V butt weld with permanent strip		
Flat (flush) single-V butt weld with flat (flush) backing run		
Convex double-v weld		
Concave fillet weld		
Fillet weld with * smoothly blended		

3. REFERENCE LINES AND OTHER INFORMATION		
Method of representation		
The arrow may be used to indicate a welded joint on an elevation or cross section		
Location of welding symbol on reference line		
<p>It is recommended that the arrow line is placed on the side of joint to be welded unless there is not enough space.</p> <p>It is recommended that the welding symbol is placed on reference line but this is not mandatory.</p>		
Special rules for butt welds		
<p>For symmetrical welds the identification line (dashed) is omitted.</p>		<p>For single J and bevel butt welds, the arrow points to the prepared edge.</p>
Other information		
Welding all round		
Site welding	Welding process	Specific instructions
	<p>e.g. 111=MIG, 131=MMA (in accordance with BS EN 24063)</p>	<p>e.g. procedure sheet A1</p>

4. WELD DIMENSIONS

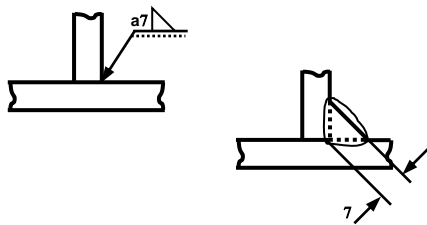
Butt welds

's' = minimum specified throat (penetration) thickness. If no dimension is shown, the weld is full penetration.

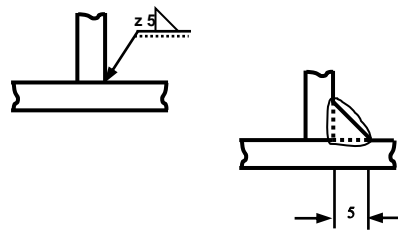


Fillet welds

'a' = throat thickness

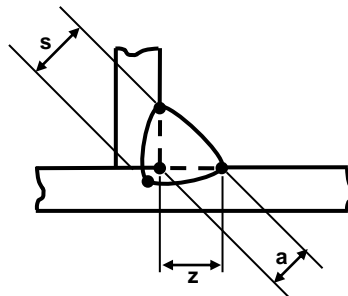


'z' = leg length



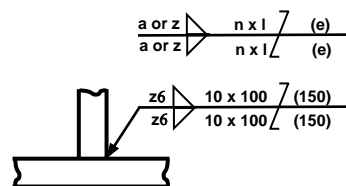
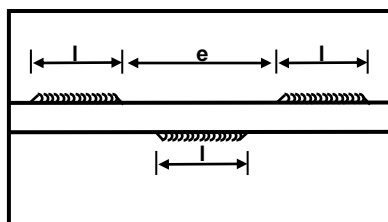
Deep penetration fillet welds

The throat thickness is designated by 's' and dimensions are given for example 's8a6'.



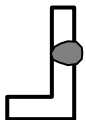
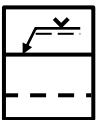
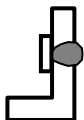
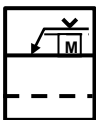
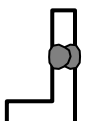
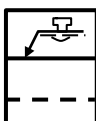
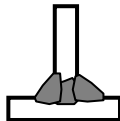
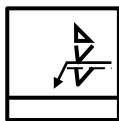
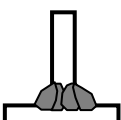
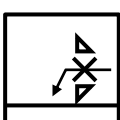
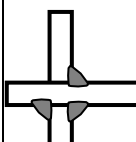
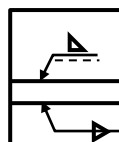
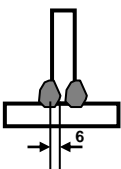
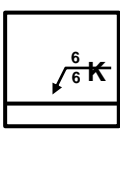
Weld length

For continuous welds the length of weld is given to the right of the welding symbol
For intermittent welds, l=weld length, e=distance between welds, n=number of welds



e.g. 10 staggered welds per side, leg length 6 mm, 100 mm long and 150 mm apart

5. EXAMPLES SHOWING THE USE OF SYMBOLS

Description	Illustration	Symbol	Description	Illustration	Symbol
Single V-butt weld			Single V-butt weld with permanent backing strip		
Single V-butt weld with backing run			Single bevel T-butt weld with reinforcing fillets		
Description	Illustration	Symbol	Description	Illustration	Symbol
Double bevel T-butt weld with reinforcing fillets			Cruciform joint fillet welded on three sides		
Partial penetration T-butt weld (6mm penetration both sides)			Cruciform joint fillet welded on opposite sides	