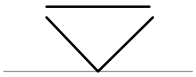
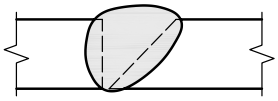
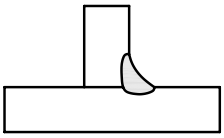
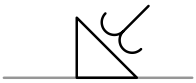
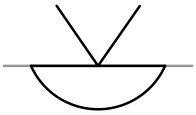
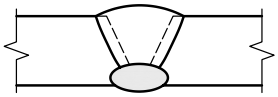
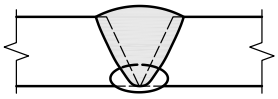
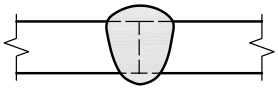
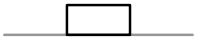
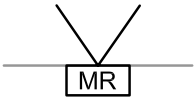
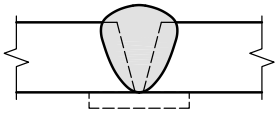
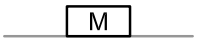
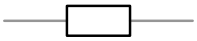
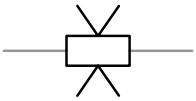
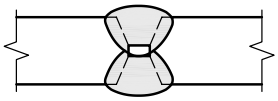
Table 3 — Supplementary symbols

No.	Designation	Symbol[a]	Application example[a]	Illustration of weld
1	Flat-finished flush[b]			
2	Convex[b]			
3	Concave[b]			
4	Toes blended smoothly[c]			No example
5	a) Back run[d] (made after the single-V butt weld)			
	b) Backing weld[d] (made before the single-V butt weld)			
6	Specified root reinforcement (butt welds)[e]			
7a	Backing (unspecified)			
7b	Permanent backing [f]			
7c	Removable/temporary backing[f]			
8	Spacer			

[a] The grey line is not part of the symbol and is included to show the position of symbol on reference line and/or the arrow line only.

[b] Welds that require approximately flush or convex faces without post weld finishing are specified by use of the flush or convex contour symbol.

Welds to be finished flush or convex by post weld finishing or that require a flat but not flush surface require additional information, e.g. addition of a note in the tail of the welding symbol

Other symbols in accordance with ISO 1302 may be used to specify surface finish.

[c] The toes shall be blended smoothly by welding or finishing. Processing details may be specified in the work instructions or WPS.

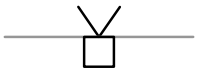
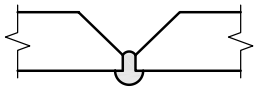
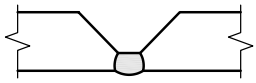
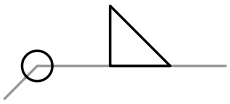
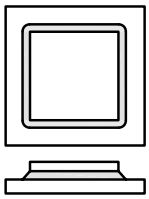
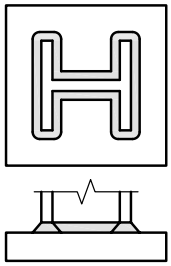
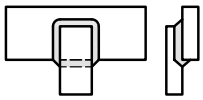
[d] The weld run sequence may be indicated on the drawing e.g. by use of multiple reference lines, a note in the tail or by reference to a weld procedure specification.

[e] In system B, also used to designate flanged butt/corner welds (see 4.5.5.6)

[f] M = material to be part of the final welded joint, MR = material to be removed after welding. Further information on the material can be included in the tail or elsewhere.

[g] Explanations of *a*, *z*, *n*, *l* and *(e)* are given in Clause 5.

Table 3 *(continued)*

No.	Designation	Symbol[a]	Application example[a]	Illustration of weld
9	Consumable insert			 a) Joint showing insert in place  b) Welded joint showing root bead (insert incorporated into root). Single V but weld not shown
10	Weld all-around			 Example A  Example B  Example C

[a] The grey line is not part of the symbol and is included to show the position of symbol on reference line and/or the arrow line only.

[b] Welds that require approximately flush or convex faces without post weld finishing are specified by use of the flush or convex contour symbol.

Welds to be finished flush or convex by post weld finishing or that require a flat but not flush surface require additional information, e.g. addition of a note in the tail of the welding symbol

Other symbols in accordance with ISO 1302 may be used to specify surface finish.

[c] The toes shall be blended smoothly by welding or finishing. Processing details may be specified in the work instructions or WPS.

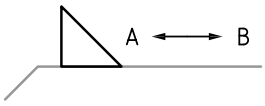
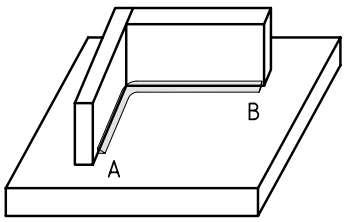
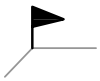
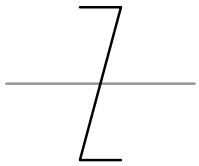
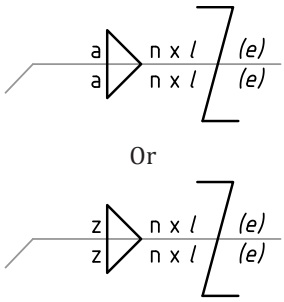
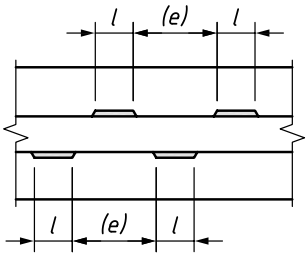
[d] The weld run sequence may be indicated on the drawing e.g. by use of multiple reference lines, a note in the tail or by reference to a weld procedure specification.

[e] In system B, also used to designate flanged butt/corner welds (see 4.5.5.6)

[f] M = material to be part of the final welded joint, MR = material to be removed after welding. Further information on the material can be included in the tail or elsewhere.

[g] Explanations of *a*, *z*, *n*, *l* and *(e)* are given in Clause 5.

Table 3 *(continued)*

No.	Designation	Symbol[a]	Application example[a]	Illustration of weld
11	Weld between two points			
12	Field weld			No example
13	Staggered intermittent welds[g]			

[a] The grey line is not part of the symbol and is included to show the position of symbol on reference line and/or the arrow line only.

[b] Welds that require approximately flush or convex faces without post weld finishing are specified by use of the flush or convex contour symbol.

Welds to be finished flush or convex by post weld finishing or that require a flat but not flush surface require additional information, e.g. addition of a note in the tail of the welding symbol

Other symbols in accordance with ISO 1302 may be used to specify surface finish.

[c] The toes shall be blended smoothly by welding or finishing. Processing details may be specified in the work instructions or WPS.

[d] The weld run sequence may be indicated on the drawing e.g. by use of multiple reference lines, a note in the tail or by reference to a weld procedure specification.

[e] In system B, also used to designate flanged butt/corner welds (see 4.5.5.6)

[f] M = material to be part of the final welded joint, MR = material to be removed after welding. Further information on the material can be included in the tail or elsewhere.

[g] Explanations of *a*, *z*, *n*, *l* and *(e)* are given in Clause 5.

4.5.2 Weld all-around symbol

The weld all-around symbol, added at the junction of the arrow and reference lines, may be used to designate a continuous weld, single or double-sided, extending around a series of connected joints (see Table 3).

The series of joints may involve different directions and may lie in more than one plane but the weld shall always be of the same type and dimensions.

The weld all-around symbol shall not be used if:

a) the weld does not start and end at the same point, i.e. it is not continuous;

b) the weld type changes, for example from a fillet weld to a butt weld;

c) the dimensions change, for example the nominal throat thickness of a fillet weld. In this case, each weld shall be identified using a separate welding symbol;

NOTE The weld all-around symbol is not used to indicate that welds are to be made everywhere.

