


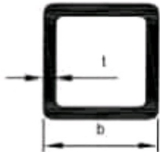
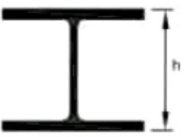
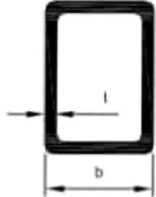

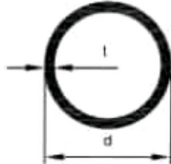













## Symbolic representation of bars and profile sections

①		RECTANGULAR BARS	⑥		UNEQUAL ANGLE
②		I SECTION	⑦		SQUARE TUBES
③		H SECTION	⑧		RECTANGULAR TUBES
④		CHANNEL	⑨		CIRCULAR TUBES
⑤		EQUAL ANGLE	⑩		U SECTIONS

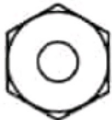



### Rivet Symbol





- In case of large drawings where no. of rivets are used, it is not necessary to draw all rivets.
- For this, gauge lines are drawn and location of rivets are shown by line symbol as per I.S.I.






Sl.No	Object	Symbol
1	Shop SNAP Headed rivets	
2	Shop CSK (Near side) rivets	
3	Shop CSK (Far side) rivets	
4	Shop CSK (Both side) rivets	
5	Site SNAP Headed rivets	

Sl.No	Object	Symbol
6	Site CSK (Near side) rivets	
7	Site CSK (Far side) rivets	
8	Site CSK (Both side) rivets	
9	Open Hole	

## Fasteners (bolts, nuts and rivets)

Grade Identification Marking	Material
	Carbon Steel Carbon Steel Carbon Steel
	Carbon Steel Quenched & Tempered
	Atmospheric Corrosion Resistant Steel, Quenched & Tempered
	Carbon Steel, Quenched & Tempered

Grade Identification Marking	Material
	Carbon Steel Quenched & Tempered
	Atmospheric Corrosion Resistant Steel, Quenched & Tempered
	Carbon Steel
	Medium Carbon Steel

Grade Identification Marking	Material
	<p>Medium Carbon Steel Quenched &amp; Tempered</p>
	<p>Medium Carbon Steel Quenched &amp; Tempered</p>
	<p>Medium Carbon Steel Quenched &amp; Tempered</p>
	<p>Medium Carbon Steel Quenched &amp; Tempered</p>
	<p>Medium Carbon Steel Quenched &amp; Tempered</p>

# Symbolic representation of weld, brazed and soldered joints

## Convention used for Welded joints

S.no	Designation	Illustration	Symbol
1	Fillet		
2	Square butt		
3	Single V-butt		
4	Double V-butt		
5	Single U-butt		
6	Double U-butt		
7	Single bevel butt		
8	Double bevel butt		
9	Single J-butt		
10	Double J-butt		
11	Stud		
12	Bead edge or seal		
13	Sealing run		
14	Spot		
15	Seam		
16	Stitch		
17	Plug weld		

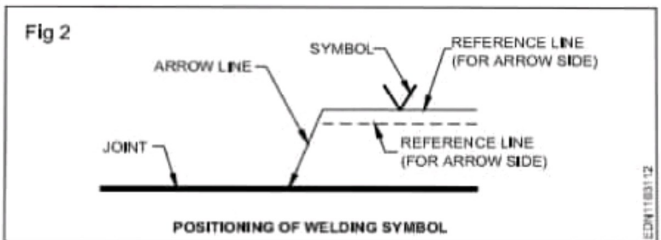
## 1 Symbolic representation of supplementary welding symbols

Fig 1

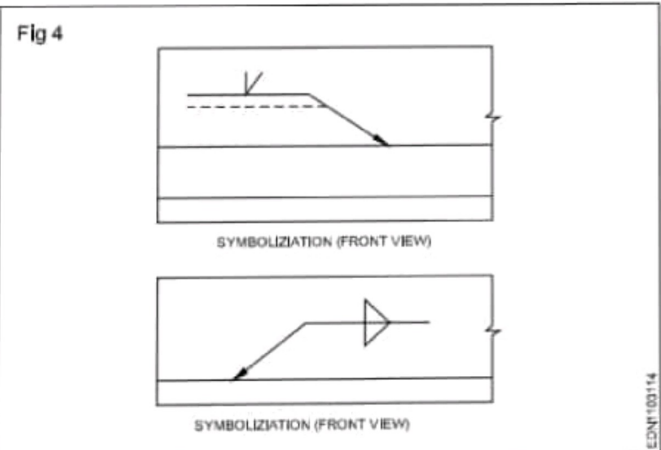
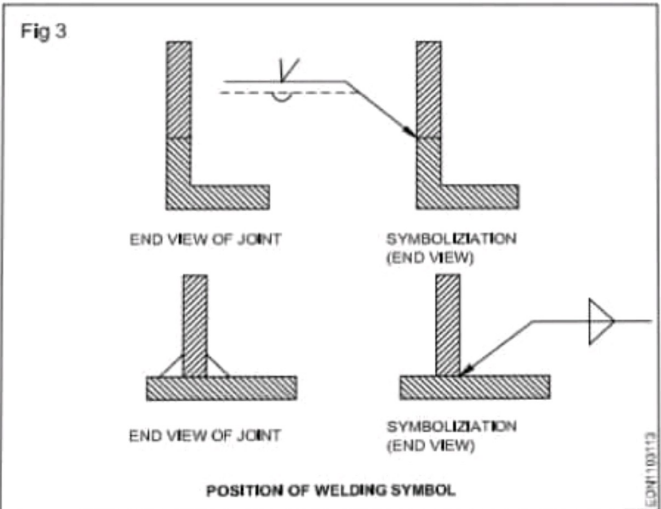
SHAPE OF WELD SURFACE	SYMBOL
1) FLUSH SURFACE	
2) CONVEX SURFACE	
3) CONCAVE SURFACE	

SUPPLEMENTARY WELDING SYMBOLS










## 2 Symbolic representation of Positioning of welding symbols



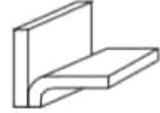
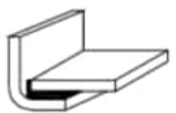

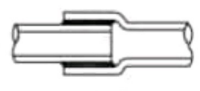


## 3 Symbolic representation of End view of joint, its symbolization and front view of its symbolization



#### 4 Brazed and soldered joints

SHEET METAL	SOLID JOINTS	TUBE JOINTS
 STRAPPED LAP		 FLANGED T
 SIMPLE LAP		 END CAP
 JOGGLE LAP		
 CORNER		
 FLANGED T		
 BUTTED FLANGE		


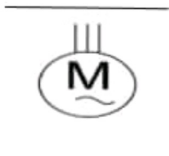


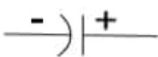
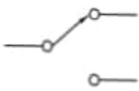

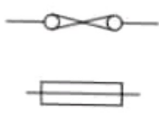


DESIGN OF SOLDERED JOINTS	
 FLANGED BUTT	 FLUSH LAP
 FLANGED EDGE	 FLANGED BOTTOM
 INTERLOCK	 PIPE JOINT
	EDN11031T3










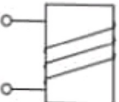
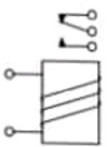
# Symbolic representation of electrical and electronic elements

## Conventions used for electrical and electronic elements

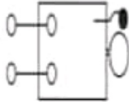


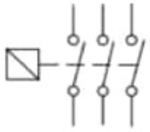

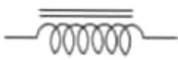


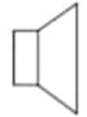

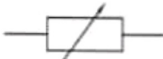
S.No.	Particulars	Symbols
1	D.C.	
2	A.C.	
3	Positive	
4	Negative	
5	Single Phase A.C. 50 Hz	
6	Three Phase A.C., 50 Hz	
7	A.C. / D.C.	
8	3-Phase line	
9	Neutral line	
10	Earth	



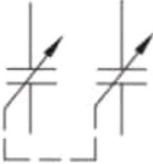
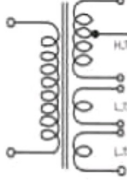
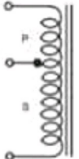
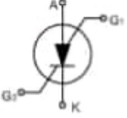



S.No.	Particulars	Symbols
11	Cell	
12	Battery	
13	Single pole single throw switch	
14	Push-button switch	
15	Energy meter	
16	Alternator	
17	Generator	
18	D.C. Motor	

S.No.	Particulars	Symbols
19	A.C.Motor Single phase	
20	3-phase squirrel cage motor	
21	3-phase slip ring motor	
22	Capacitor: Fixed, variable	
23	Electrolytic Capacitor	
24	Two-way switch	
25	D.P.D.T. Switch	
26	Fuse: ordinary cartridge	
27	Link	
28	Socket 2 pin, 3 pin	

S.No.	Particulars	Symbols
29	Ceiling Rose 2-pin, 3-pin	
30	Over head line	
31	Aerial	
32	Voltmeter	
33	Ammeter	
34	Ohm Meter	
35	Watt Meter	
36	Lamp	
37	Fan regulator	
38	Electro Magnet	
39	Relay	



S.No.	Particulars	Symbols
40	Electric bell	
41	Buzzer	
42	Contacts - NO, NC	
43	3-phase contactor	
44	Connections: star, Delta	
45	Choke	
46	Transformers	
47	Carbon microphone	
48	Loudspeaker	
49	Resistor : Fixed	
50	Resistor: variable	

S.No.	Particulars	Symbols
51	Rectifier	
52	Trimmer: Padder	
53	Ganged Capacitor	
54	Main transformer with multiple secondary winding	
55	Auto transformer	
56	Silicon Bilateral switch (SBS)	
57	S.C.R.	
58	U.J.T	
59	F.E.T. N-Channel	

S.No.	Particulars	Symbols
60	F.E.T. P-Channel	
61	TRIAC	
62	DIAC	
63	NPN Transistor	
64	PNP transistor	
65	NOT gate	
66	OR gate	
67	NOR gate	

S.No.	Particulars	Symbols
68	AND gate	
69	NAND gate	
70	Ex-OR gate	
71	Operational amplifier	
72	Ex-NOR gate	
73	Flip - flop	
74	Differential Amplifier	
75	Light emitting diode	
76	Photo diode	