

GENERAL NOTES :

STRUCTURAL STEEL WORK

- ALL STEEL WORKS SHALL BE IN ACCORDANCE WITH IS:800.
- ALL STRUCTURAL STEEL E350BR CONFIRMING TO IS 2062.
- ALL PLATES SHALL BE IN ACCORDANCE WITH IS 2062 GRADE E350BR.
- WELDING SHALL BE DONE AS PER IS:9595 AND IS:816.
- ALL DESIGN & CONSTRUCTION OF STRUCTURAL STEELWORK SHALL COMPLY WITH THE REQUIREMENTS OF THE SPECIFICATIONS AND ALL RELEVANT INDIAN/INTERNATIONAL STANDARDS.
- ALL THE STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED CONFIRMING TO ASTM A123, REFER TABLE-1 BELOW.

TABLE 1: MINIMUM AVERAGE COATING THICKNESS (µm) & MASS (g/m²)

- ALL DIMENSIONS ARE IN MILLIMETERS.
- ALL ELEVATIONS ARE GIVEN TO TOP OF STEEL (TOS) OR BOTTOM OF STEEL (BOS).
- ALL FILLET WELDS SHALL BE CONTINUOUS AND OF MINIMUM 6mm SIZE.
- ALL BUTT WELDS SHALL BE FULL STRENGTH BUTT WELDS WITH REQUISITE EDGE PREPARATION FOR THICKNESS MORE THAN 8mm.
- WELDING ELECTRODE SHALL BE E70XX TO AWS 5.1 WELDING PROCEDURE SHALL COMPLY WITH AWS D1.1
- ALL STRUCTURAL BOLTED CONNECTION SHALL HAVE A MINIMUM OF TWO 20 DIA BOLTS WHICH SHALL BE LOCATED SYMMETRICALLY ABOUT THE WEB OR VERTICAL LEG OF CONNECTED MEMBER.
- ALL BOLTS SHALL BE GRADE 8.8
- ANCHOR FASTENERS (HILTI) SHALL BE 8.8 GRADE.
- ALL INSERT PLATES SHALL BE GRADE E350 BR CONFORMING TO IS : 2062.
- HOLE DIA FOR STRUCTURAL BOLTS:

NOT EXCEEDING 24mm DIAMETER : 2mm GRATER THAN BOLT DIAMETER.

GREATER THAN 24mm DIAMETER : 2mm GRATER THAN BOLT DIAMETER.
- SHOP AND SITE FIXING BOLTS TO BE SUPPLIED COMPLETE WITH NUTS AND WASHER TO SUIT. UNLESS OTHERWISE SPECIFIED, ALL BRACKETS, CLEATS, BOLTS, NUTS, WASHER AND CHAIN SHALL BE HOT DIP GALVANIZED.
- PARTS INACCESSIBLE AFTER ASSEMBLY OR ERECTION SHALL BE PAINTED BEFORE ASSEMBLY/ERECTION.
- CHEQUERED PLATE SHALL HAVE A MINIMUM BEARING OF 20mm AT EACH SUPPORT.
- DRIP HOLES HAVING 30mm DIA SHALL BE PROVIDED AT EVERY 15M² OF FLOOR AREA.
- 50THK. NON-SHRINK NON-METALLIC CEMENTITIOUS GROUT CHLORIDE FREE.

LEGEND

DIA	DIAMETER
DRG	DRAWING
EQ	EQUAL
EL	ELEVATION
g	GAUGE
M	METER
mm	MILLIMETER
NB	NOMINAL BORE
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
THK	THICK
TYP.	TYPICAL
UND	UNLESS NOTED OTHERWISE

WELD SYMBOL AND NOTES

THIS STANDARD CONFORMS TO INDIAN STANDARD IS:813-1986

- THE VERTICAL LEG OF WELD SYMBOLS MUST BE AT LEFT
- THE HEAD OF THE ARROW INDICATES THE REFERENCE SIDE OF JOINT THE SIDE NEARER THE ARROW HEAD IS CALLED THE 'ARROW SIDE' AND THE REMOTE SIDE THE 'OTHER SIDE'.
- THE REFERENCE LINE IS CONNECTED TO THE ARROW AT AN ANGLE AND THE SIDE ON WHICH THE WELD IS TO BE APPLIED IS INDICATED BY THE POSITION OF THE WELD SYMBOL, WHETHER ON THE CONTINUOUS LINE OF DASHED LINE.

A) WELD ON ARROW SIDE OF JOINT - WELD SYMBOL ON CONTINUOUS LINE.

B) WELD ON OTHER SIDE OF JOINT - WELD SYMBOL ON DASHED LINE.

C) WELD ON BOTH SIDES OF JOINT - DISPOSE SYMBOL ABOUT REFERENCE LINE, 'ARROW' AND 'OTHER SIDE' WELDS ARE OF THE SAME SIZE UNLESS OTHERWISE SHOWN.
- IN JOINTS WHERE ONLY ONE PLATE IS PREPARED THE ARROW ALSO POINTS TO THAT PLATE.
- A STRAIGHT LINE IS ADDED WHERE A WELD IS REQUIRED TO HAVE A FLUSH FINISH WITHOUT RECOURSE TO ANY METHOD OF FINISHING.
- A CIRCLE PLACED AT THE CONNECTION OF THE ARROW TO THE REFERENCE LINE INDICATES THE WELD IS TO BE MADE ALL ROUND THE JOINT.
- A FLAG AT THE CONNECTION OF THE ARROW TO THE REFERENCE LINE INDICATES THE WELD IS TO BE MADE IN THE FIELD.
- A FLAG WITH A CIRCLE AT THE CONNECTION OF THE ARROW TO THE REFERENCE LINE INDICATES THE WELD IS TO BE MADE ALL ROUND THE JOINT IN THE FIELD.
- WELDS ARE CONTINUOUS ALONG THE LENGTH OF THE JOINT UNLESS OTHERWISE NOTED.
- THE LENGTH OF THE WELD IS SHOWN ON THE RIGHT SIDE OF THE SYMBOL IN MILLIMETERS. FOR REGULAR INTERMITTENT WELDING, LENGTH OF WELD IN MILLIMETERS AND UNWELDED LENGTH IN MILLIMETERS ARE GIVEN IN THAT ORDER IMMEDIATELY FOLLOWING THE SYMBOL.
- THE SIZE OF THE WELD IS INDICATED ON THE LEFT OF THE SYMBOL AND IS GIVEN IN MILLIMETERS.
- A BACKING RUN IS SHOWN BY A SEMI-CIRCLE AT BASE OF THE SYMBOL.
- SPECIAL SPECIFICATION REFERENCE AND/OR OTHER NOTES MAY BE ADDED WITHIN TAIL OF SYMBOL AS INDICATED TAIL MAY BE OMITTED WHEN REFERENCE IS NOT ADDED.
- TWO STRAIGHT LINES ARE ADDED AT BASE OF WELD SYMBOL WHEN BACKING BAR IS REQUIRED IN THE MAKING OF THE WELD.
- PLUG WELD SHALL BE SHOWN AS THUS:

