

- (L/360) for deflection due to live loads only, for horizontal main elements.
- (H/200) for vertical elements (blockwork higher than 2.4meters).
- (H/100) for vertical elements in buildings with steel facades.

1.5 Minimum thicknesses for steel plate shall be (6mm) in case of built-up sections.

2. Quality Control

2.1 welding

- Welding procedures shall be as per the requirements of AWS D1.1 / Di.1M: 2015/ BS EN ISO 15614
- All welding teams shall be qualified as per the requirements of
- AWS D1.1 / D1.1M: 25/ BS EN ISO 1473, BS EN ISO 9606-1; and shall have certificates approved by independent inspection authorities.
- It is prohibited to perform welding works on site; in case there is a necessity for it, detailed method of execution shall be submitted in addition to the required tests and certificates. The work shall be done by certified welders

2.2 System for tests and checks

Tests and checks during the process of assembling the elements by welding at the factory or on site shall be conducted as follows:

- Testing and approval of welders shall be as per the requirements of the municipality. Locations and types of errors, and corrective measures shall be documented.
- Conduct eye inspection for all welding works
- Perform all necessary welding tests as per the following tests:
 1. Liquid penetration test (ASTM E 165)
 2. Magnetic particles test BS 4397
 3. Radiation test (BS – 2600), and minimum quality (-2T2)
 4. Ultrasound test BS 3923

2.2.2 Welding Inspection

- The contractor shall obtain the approval of the consultant on the proposed quality control system to be used during the works, as well as his approval on doing the welding on site.
- The workers shall be approved and sufficiently trained to document all the procedures agreed by the qualified welders, eye inspection, and document the results and verify the [dimensions/ distances](#).

2.2.3 Scope of test