

MANUFACTURING STANDARD FOR STAINLESS STEEL GAUGE PIPING

Material

All pipes and fittings are manufactured from stainless steel sheet or plate to ASTM A-240 standards. Material 10 gauge (3.6 mm) and lighter will have No. 2D or better finish; material 3/16" (4.8 mm) and heavier will have No. 1 finish. Type of stainless steel shall be specified by the customer.

ASTM Standards

Pipe and fittings to ASTM standards A-778, A-774, A-358 HT-O and A-409 HT-O can be supplied on request.

ANSI-B31.1 and B31.3 Codes

Whenever pipes, fittings or piping assemblies are required to meet these Codes, the purchase order must indicate the applicable code, the complete design data, the type of service and the status of registration with Provincial Authorities.

In such cases, design, fabrication, examination and inspection of piping assemblies and sub-assemblies will meet the requirements of ANSI-B31.1 or B31.3 as applicable. All welding will comply with ASME Code Sec. IX.

Some of the fittings illustrated in this catalogue have been designed for Non-Code applications. For complete information on the pressure rating of fittings for Code application and the provinces in which they are registered, please contact our representative.

Whenever specified in the purchase order, piping assemblies will be hydrostatically tested. Such test will be witnessed by the Authorized Provincial Inspector.

The quality control system used during fabrication of straight pipes, fittings and piping assemblies to the above Codes has been approved by the Provincial Authorities having jurisdiction.

Pressure Rating

Pressure ratings of pipe and fittings are shown on pages 17 and 18.

Welding

Welding procedures, welders and welding operators meet the requirements of ASME Code Sec. IX. Welding procedures are carefully established and tested to achieve full penetration welding.

The longitudinal welds in pipes and fittings are made either by the automatic GTAW with or without filler metal, the automatic GMAW (spray transfer) or the automatic plasma arc welding process. Gas backup protection is provided in all cases.

The circumferential welds in fittings and assemblies are made by GTAW and/or SMAW processes. Where the internal surface is not accessible for welding, the root pass is welded from outside using GTAW while the internal surface is protected with flux.

The consumables are of a grade similar to the base material and always of the extra low carbon grade. Weld reinforcement does not exceed 0.063" (1.5 mm) at the inside surface and 0.094" (2.4 mm) at the outside surface. Surface finish of welds is left as welded. However, grinding and polishing can be done upon request.

Cleaning

All pipes and fittings are pickled in an acid solution and rinsed thoroughly with clean water. Piping assemblies can be acid washed upon request.

Inspection

Our aim is to produce a good quality product. To this end, tools, dies, jigs and fixtures used throughout the manufacturing process are periodically inspected in order to ensure that dimensional tolerances are observed. All pipes, fittings and assemblies are visually inspected and random radiographic examination of welds is undertaken to the extent necessary to ensure good quality welding.

Piping assemblies are inspected for dimensional accuracy. Tolerance will conform to spooling manufacturing tolerance as shown on page 4.

Facilities are available for more extensive testing, inspection and quality control.