Threaded fittings may be used where joints must be disconnected such as plugs in vents, drains and clean outs connections to equipment and instruments and for the first block valve downstream of instrument taps. Threaded joints on the pressure side of the first block valve shall be seal welded.

Full length couplings with threaded or socket in one end only may be used wherever necessary for vents and drains.

Material for elbows, reducers, and tees shall conform to ASTM A 182/A 182M Type 316. Wall thickness shall be same as the connecting pipe wall thickness.

Material for threaded and socket welded fittings shall conform to ASTM A 182/A 182M Type 316 with a pressure rating of 3000 lbs.

Elbowlets shall not be used for branch connections, instrument taps or vent and drain connections unless space considerations dictate. Drain and vent connections shall not be installed in elbows.

Reducing tees and reducers shall be supplied with butt weld end with schedules to match the pipe. The allowable size combinations are as shown in ASME B16.9.

Branch connections shall be made from equal tees, reducing tees, integral reinforced branch fittings as approved by Engineer. In case reducing tee of required combinations is not available a combination of reducing tee and reducer shall be used.

## 23.2.4 Flanges

Flanges shall be welding neck raised face type and the dimensions conforming to BS 1092 unless otherwise specified in the data sheet. The rating of the flanges shall be as per the data sheet.

The gasket contact surface shall be formed by continuous spiral groove with a surface roughness between Ra 6.3 and 12.5 µm.

## 23.2.5 Gaskets and Bolting

Material of gaskets shall be EPDM rubber, having 3mm thickness, suiting flange dimensions of the applicable standards. The gasket shall extend from the inside diameter of the flange to at least the inside edge of the bolt holes or may laid beyond the bolt circle to the outside diameter of the flange.