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G34 : (ASME II Part D) For ASME section I, use is limited to PEB-5.3 . See PG-5.5 for cautionary note.

[**PG-5.5** The use of austenitic alloy steel is permitted for boiler pressure parts that are steam touched in normal operation. Except as specifically provided in PG-9.1.1, PG-12 and PEB-5.3, the use of such austenitic alloys for boiler pressure parts that are water wetted in normal service is prohibited ¹]

[¹ Austenitic alloys are susceptible to intergranular corrosion and stress corrosion cracking when used in boiler applications in water wetted service. Factors that affect the sensitivity to these metallurgical phenomena are applied or residual stress and water chemistry. Susceptibility to attack is usually enhanced by using the material in a stressed condition with a concentration of corrosive agents – chlorides, caustic or reduced sulfur species. For successful operation in water environments, residual and applied stresses must be minimized and careful attention must be paid to continuous control of water chemistry.]

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