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Molybdenum alloyed stainless steel in mineral processing

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The processing and refining of minerals need molybdenum alloyed stainless steels. In hydrometallurgical processes of primary or secondary resources of e.g., lithium, nickel, cobalt, copper and manganese involves typically highly corrosive conditions due to the use of reagents such as sulphuric acid, chlorides, and in some cases high temperatures and pressures, so the optimum selection of materials of construction for items such as pressure vessels, thickeners, process tanks, and other process items is a key issue. Molybdenum alloying of stainless steel increases their resistance in chloride containing media and in most acids and have shown to be useful in these applications. The combination of corrosion resistance, erosion resistance and mechanical strength are the cornerstones in a sustainable material selection. This presentation will showcase reference cases of applications within mineral processing where molybdenum alloyed stainless steels are being used.

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