



FLOTATION COLUMNS

The company's Flotation Columns use in-house technology and are locally manufactured for local and international supply. As a result of its research, development and test work capabilities, PrepQuip is in a position to tailor-make both Conventional and Turbo-type Flotation Columns to suit individual applications.

The company operates a number of pilot plants in the field, presently beneficiating various minerals. The advantage of carrying out pilot plant tests should never be underestimated, since a scientific approach is an invaluable tool providing achievable performance and the gathering of sufficient supporting data in order to ensure process flexibility and efficiency.

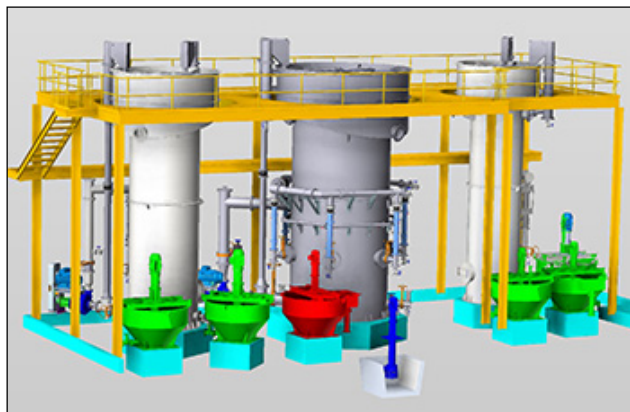


Figure 1: 3D model of flotation columns



Critical design features on PrepQuip Flotation Columns include an internal froth discharge launder system, which prevents dead froth areas and ensures sufficient discharge capacity. Wash water systems are designed for ease of operation and are also height-adjustable, with flushing ports ensuring on-line cleaning when necessary.

Depending on the application, interface level control is achieved through a relative conductivity probe or a float and ultrasonic system. Furthermore, the internal feed distribution ensures equal distribution throughout the cross section of the entire column.

The Flotation Column's feed/tail sump arrangement ensures that volumetric feed fluctuations to the column are eliminated resulting in excellent metallurgical performance should the customer have requirements for this due to excessive feed fluctuations.

PrepQuip offers three different types of Sparger systems, namely an Air-only SpringSparge Sparger, a Water and Air Gas-Sparge Sparger, as well as In-line Spargers. The selection of a sparger system depends on the application and is determined by the results of pilot plant test work.



Figure 2: PrepQuip column flotation pilot plant (600 mm)



Figure 3: Iran Colliery



Figure 4: Northam Platinum

Flotation columns can be applied to a wide variety of minerals. PrepQuip currently has flotation columns on platinum, coal, copper, zinc and lead concentrator plants. Any mineral or material that can be chemically or physically altered to become hydrophobic can be beneficiated using a flotation column.

Please feel free to contact us at process@prepquip.com or visit our website www.prepquip.com for more information.