

AN 18-55-H470  
18-51-H420

Application-note

**Daily storage and extraction-dosing system for rock phosphate, kaolin and silica – Maa'den Phosphoric Acid Plant in AL JUBAIL (UAE)**



3D View of Phosphoric Acid Plant



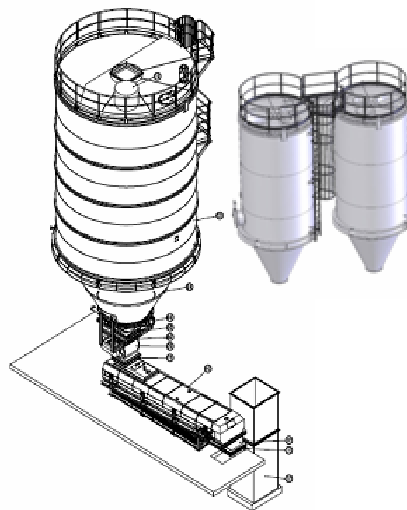
Storage silo in workshop



Belt Weigh Feeder in workshop

SAET SpA supplied for Litwin Italia SpA no. 9 storage silos and related extraction system for rock phosphate, kaolin and silica and no. 3 Belt Weigh Feeders for rock phosphate for the Maa'de Phosphoric Acid Plant, in the municipality of Al Jubail in UAE (United Arab Emirates).

The target of the furniture was the daily storage of raw materials: rock phosphate, kaolin and silica in order to feed the process of phosphoric acid production in the Ras Az Zawr site of Maa'den Saudi Arabian Mining Company. SAET provided the silos that were designed according to the regulation of

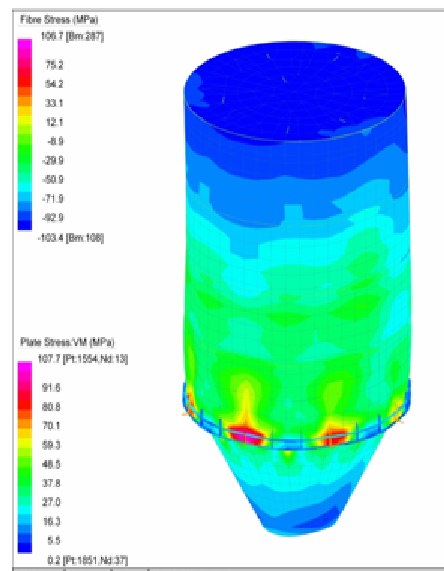


General layout

ASME VIII, with welded construction and internal lining in urethane panels for anti-sticking purpose.

Due to the features of the materials (grain size, abrasion index, moisture, ect..) SAET has installed slide gates, rotary valves, vibrating extractors and fluidization system for the extraction of materials from the silos. Each silos is equipped with bag filter in order to avoid dusts leakages.

SAET has supplied belt weigh feeders for rock phosphate (base material for the process) in order to feed the phosphoric acid production process with the correct flow rate.



Stress Analysis



Rotary valve