



## PLANT SOLUTION FOR PROCESSING AGGREGATES

QUARRY MINING LLC (QM) design, manufacture and install Crushing & Screening plants in compliance with European standards, while adhering to the same safety standards and features that you would expect of equipment produced in Europe. QM is certified for quality management by ISO Certificate 9001:2008 and for environmental management by ISO Certificate 14001:2004 from the German Technical Inspection Association TÜV Rhineland/Germany, and include the continuous integration of all upgrades. QM is founded and managed by German Nationals but located in the United Arab Emirates. QM can supply high-quality plants with very competitive prices.

Considering the very competitive market for aggregates, it is one key factor to have the production costs as low as possible. This can be achieved only with high efficient plants with a economical throughput. Size of the plant always matters for production costs. In general, the production costs per ton are lower the bigger the plant. But this applies only up to the critical point on which the investment and operation costs crossed and exceeds the curve of corresponded production costs per ton. To find the right plant size in order to meet the required throughput as well as the required quality and quantity of final products is a very critical matter and differs for each plant. Secondly there are secondary boundary conditions to be considered, namely such as the available space for the plant, available truck size, operation hours per day / week / month. This shall be only a small listing of factors influencing such plant concept and design. Taking all these data into consideration the most efficient plant size can be developed.

Quarry Mining has many years of experiences in the field of design and manufacturing of turn-key production plants for aggregates. Shortly before Quarry Mining has developed, designed and partly manufactured one of the biggest plants for lime stone aggregates in Middle East with capacity of 4.500t/h total. One of the biggest challenges was the available space on site with only 175m x 65m. Therefore, the plant had to be designed in a way to be very compact but having high throughput at the same time. The solution of Quarry Mining was to use double decker conveyors and a linear material flow concept with integrated cycle throughout the complete plant. Stockpiles are beside the plant and equipped with movable stacker conveyors. Six KLEEMANN impact crushers, each 2000mm wide, below a massive big silo ensure a continuous flow of crushed material. Complete plant is operated fully automated with continuous monitoring of power, maintenance intervals, flow rates, filling levels and energy consumption. All these key factors have to be considered to ensure low operation costs, low maintenance costs and minimum down time, which all will last in optimal efficiency of the plant and low production cost per ton.

Designing such plant requires a strict concept and to keep always an eye on the broader context. Each item is linked with the other one and flow of material is very critical regarding vibration feeder, conveyors, chutes and transfer points. With successful commission QM has proved it strength in this field of large plant design, as well as manufacturing and installation of the conveyors within shortest time. The satisfaction of the client is the confirmation for a well-done job.

